CONTRACT DOCUMENTS

Schedule I
Runway 8-26 and Taxiway A Pavement Improvements

Schedule II
Pavement Marking Improvements

County of Ventura, Department of Airports Specification No. DOA 23-04
County of Ventura, Department of Airports Project No. CMA-239

Camarillo Airport

COUNTY of VENTURA
Department of Airports

Camarillo, California

Sponsored By:

County of Ventura, California

Issued for 100% Review
October 11, 2023

JVIATION®
A WOOLPERT COMPANY
1300 Eastman Ave, Suite 214, Ventura, CA 93003
JVIATION.COM

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NOTICE INVITING BIDS
(INVITATION FOR BIDS)

Camarillo Airport
Camarillo, CA
Jviation Project No. LOC 21-01
County Specification No. DOA 23-04, County Project No. CMA-239

Sealed bids (proposals), subject to the conditions contained herein, for improvements to the Camarillo Airport, Camarillo, CA, County Specification No. DOA 23-04 and County Project No. CMA-239 will be received by the County of Ventura: Department of Airports, Administration Office Public Counter, bid box, 2nd Floor Lobby, 555 Airport Way, Suite B; Camarillo, CA 93010, until Wednesday, November 30, 2023, at 10:00 A.M. local time, and then publicly opened and read aloud.

The work involved will include the following:

Schedule I – Runway 8-26 and Taxiway A Pavement Improvements
Schedule II – Pavement Marking Improvements

The approximate quantities of major bid items involved in the proposed work are:

Schedule I

P-101a Demolish Asphalt Pavement ..... 5,700 SY
P-101b Cold Mill (3.0 Inches Nominal Depth) ..... 6,000 SY
P-152a Unclassified Excavation..... 2,900 CY
26-1.04a Crushed Aggregate Base Course..... 3,100 CY
26-1.04b Geogrid ..... 11,300 SY
39-3.05Da Asphalt Concrete Surface Course (PG 64-10) ..... 3,100 TON
39-3.05Db Tack Coat ..... 2,300 GAL
P-620a Pavement Markings, Yellow, Initial Application ..... 1,500 SF
P-620b Pavement Markings, Yellow, with Reflective Media, Final Application ..... 1,500 SF
P-620c Pavement Markings, White, Initial Application ..... 11,000 SF
P-620d Pavement Markings, White, with Reflective Media, Final Application..... 18,000 SF
P-620e Pavement Markings, Black, Single Application..... 8,000 SF

Schedule II

P-620a Pavement Markings, Yellow, Initial Application ..... 6,100 SF
P-620b Pavement Markings, Yellow, with Reflective Media, Final Application ..... 18,500 SF
P-620e Pavement Markings, Black, Single Application..... 12,500 SF
P-620f Surface Preparation (Obliteration) ..... 5,400 SF

Construction for this project is expected to take 29 Calendar Day(s). Since this project will be completed at night, a Calendar Day will be considered to begin at 21:00 one day and end at 20:59 the following day.

Contract Documents. The complete set of Specifications and Contract Documents can be downloaded from Jviation, a Woolpert Company's bid site (http://bid.jviation.com) beginning on October 31, 2023. In order to submit a responsive bid as a Prime Contractor and to receive all necessary addendum(s) for this project, you must be on the Planholder's List. To view all planholder documents (contract documents, plans and addendums) you must fill out the online form located at

(https://jviation.com/bid-request/). By filling out and submitting this form, you agree to be publicly listed on the bid site with your contact information as a planholder for all projects requested. **It is the planholder's responsibility to review the site for addendums and changes before submitting their proposal. This includes review for environmental changes. Environmental changes during construction could take up to four weeks for approval.** For additional information, please contact us via email at bid.info@woolpert.com.

*Note that contractors will NOT be automatically added to new projects. You will need to re-submit the online form for access to new projects. Once granted access, additional projects will use your same login credentials. Plan ahead when submitting the online request form and allow up to 2 business days for approval and access to projects.

Pre-Bid Conference. There will be an in-person pre-bid conference for interested contractors and their subcontractors on Wednesday, November 8, 2023 at 10:00 a.m. local time at the County of Ventura: Department of Airports, Administration Office, 2nd Floor, 555 Airport Way, Suite B; Camarillo, CA 93010. It is highly recommended that any prime contractor wishing to bid on this project attend the pre-bid conference and have an opportunity to meet with the County's representatives and address any questions that may arise. A site visit for interested contractors will immediately follow the pre-bid conference.

Bid Conditions. The bidder or proposer is required to provide all information as required within the Contract Documents. The bidder or proposer is required to bid on all items of every schedule or as otherwise detailed in the Instructions to Bidders.

Bids (Proposals) may be held by County of Ventura, California for a period not to exceed 120 Calendar days from the date of the bid opening for the purpose of evaluating bids prior to award of contract. The right is reserved, as County of Ventura, California may require, to reject any and all bids and to waive any informality in the bids received.

All questions regarding the bid are to be directed to Matt Gilbreath, P.E. with Jviation, a Woolpert Company by email at Matt.Gilbreath@woolpert.com.

Contractor Payment. In lieu of retainage, the Contractor may exercise at its option the establishment of an escrow account. See Appendix D of Division 7 County of Ventura Standard Specifications for the escrow agreement form sample.

Bid Bond. Guarantee will be required with each bid (proposal) as a certified check on a solvent bank or a Bid Bond (Bid Guarantee) in the amount of five (5)% of the total amount of the bid, made payable to the County of Ventura, California.

Performance & Payment Bond. The successful bidder will be required to furnish separate performance and payment bonds each in an amount equal to 100% of the contract price.

In accordance with Section 22300 of the Public Contracts Code, securities may be substituted for funds withheld.

Airport and Airway Improvement Act of 1982 as Amended. In accordance with the Davis-Bacon Act, as amended, the Contractor will be required to comply with the wage and labor requirements and to pay minimum wages in accordance with the schedule of wage rates established by the United States Department of Labor.

Prevailing Wage Rates. Contractor will be required to pay employees and keep records in accordance with the general prevailing wage rate determination made by the director of industrial relations pursuant to California Labor Code Part 7, Chapter 1, Article 2, Sections 1770, 1773, and 1773.1 for commercial building, highway, heavy construction and dredging projects. The Contractor must post copies of the prevailing wage schedule at each job site.

The California Prevailing Wage Rates determined by the State for Ventura County may be found here: https:///www.dir.ca.gov/OPRL/DPreWageDetermination.htm

Non-Discrimination. This Project is subject to contract nondiscrimination and compliance requirements (pursuant to California Government Code, Section 12990 and 49 CFR, Part 26 requirements). The County hereby notifies all Bidders that it will affirmatively ensure that in any Agreement entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full opportunity to submit Bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration of an award.

Certification of Offeror/Bidder Regarding Debarment

By submitting a bid/proposal under this solicitation, the bidder or offeror certifies that neither it, its principals, nor its subcontractors are listed by the State Labor Commissioner as ineligible to work on public works projects.

Required Contractors License(s) Proposers or Bidders shall have a **Class A** California Contractors license at the time of award.

Public Works Contractor Registration Law (SB 854)

Per Public Works Contractor Registration Law (SB 854), Contractors and Subcontractors who intend to Propose (Bid) or perform work on this Project must be registered with the Department of Industrial Relations at the time of Contract award. Information is available at https://www.dir.ca.gov/faqslist.html.

- No Contractor or Subcontractor may be listed on a bid proposal for a public works project submitted on or after March 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)].
- No Contractor or Subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.
- This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

County of Ventura Department of Airports
Camarillo, CA

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INSTRUCTIONS TO BIDDERS

Hereinafter in these Contract Documents including these Instructions to Bidders, Sponsor/Owner refers to County of Ventura, California and Engineer refers to Jviation, a Woolpert Company, 1300 Eastman Ave., Suite 214, Ventura, CA 93003.

1. Submission of Bids (Proposals)

a. **Division 2 of the Contract Documents shall be completed and submitted in its entirety, in order for the Bid (Proposal) to be considered responsive.**

b. **Qualifications shall be furnished as described in Division 2-19 with the bid proposal.**

c. Bids (Proposals) are to be submitted in a sealed envelope to the bid box at the County of Ventura: Department of Airports (DOA), Administration Office Public Counter, 2nd Floor Lobby, 555 Airport Way, Suite B; Camarillo, CA 93010. The DOA, Public Counter is located in the DOA Administration Office, which is at the Camarillo Airport.

d. Date/Time: Bids (Proposals) shall be received on or before: Wednesday, November 30, 2023, at 10:00 A.M. local time, County of Ventura: Department of Airports, Administration Office Public Counter, 2nd Floor Lobby, 555 Airport Way, Suite B; Camarillo, CA 93010

e. Bidding Documents: Bidding documents must be downloaded from Jviation, a Woolpert Company's bid site (http://bid.jviation.com). **Note:** Plan ahead when submitting the online request form and allow up to 2 business days for approval and access to projects.

f. **Bid Bond of five (5) % of the amount bid is required if total bid exceeds $20,000.00 or is required elsewhere in this solicitation.**

2. Pre-Bid Conference

A site pre-bid is scheduled for Wednesday, November 8, 2023, at 10:00 a.m., located at the County of Ventura Department of Airports, Administration Office, 2nd Floor, 555 Airport Way, Suite B; Camarillo, CA 93010. Any contractor wishing to bid on this project is highly encouraged to attend the pre-bid conference and will have an opportunity to meet with the County's representatives and address any questions that may arise. All bidders should become familiar with all invitation specifications and plans prior to attending the pre-bid conference.

Site Visit: An escorted, vehicular site visit will be provided immediately following the pre-bid conference on November 8, 2023 at the Camarillo Airport. Each contractor will be allowed 1 vehicle with up to 2 occupants on-site during this time period. Contractors wishing to attend shall meet at 555 Airport Way, Camarillo, CA 93010. Vehicles will be under continuous escort, and no questions will be answered during the escort.

3. Late Bids (Proposals) /Late Modifications of Bids (Proposals)

a. Bids (Proposals) received in the office designated under Item 1 above, after the exact time set for opening are considered "late bids", and will not be accepted by the Bid Opening

Official. Bidders or Proposers are solely responsible for ensuring their bids arrive on time and to the place of bid proposals specified in the Notice Inviting Bids. The time used is local standard time as obtained from Pacific Telephone's Standard Time. The clock on the Public Counter will be set to local standard time and will govern closure of the Bid Box. Bidders or Proposers should note that other clocks in the building may not be set to the correct time and should not be relied upon.

b. The Owner will not consider a late bid (proposal) or late modification of bid (proposal) unless received prior to contract award and -

(1) There is conclusive evidence that the bid proposal was submitted to the office designated in Item 1 above, on time and was mishandled by the Camarillo Airport (i.e., lost or misplaced) staff responsible for handling/receiving bid proposals. Mishandling by other units or offices at the Camarillo Airport does not constitute airport staff.

(2) Or - it was the only bid proposal received.

4. Mistakes in Bids (Proposals) - Confirmation of Bid (Proposal)

When it appears from a review of the bid proposal that a mistake has been made, the bidder or proposer may be requested to confirm their bid proposal. Situations in which the confirmation may be requested include obvious, apparent errors on the face of the bid proposal or a bid proposal unreasonably lower than the other bids submitted. All mistakes in bid proposals will be handled in accordance with the County of Ventura, California policy.

5. Minor Informalities/Irregularities in Bids

a. A minor informality or irregularity is one that is merely a matter of form and not of substance. It also pertains to some immaterial defect in a bid proposal or variation of a bid proposal from the exact requirements of the invitation that can be corrected or waived without being prejudicial to other bidders or proposers. The defect or variation is considered immaterial when the effect on price, quantity, quality, or delivery is negligible when contrasted with the total cost or scope of the services being acquired.

b. If the Owner determines that the bid proposal submitted contains a minor informality or irregularity, then the Director shall give the bidder or proposer an opportunity to cure any deficiency resulting from a minor informality or irregularity in a bid proposal, or waive the deficiency, whichever is to the advantage of the Owner. In no event will the bidder or proposer be allowed to change the bid amount. Examples of minor informalities or irregularities include but are not limited to the following:

(1) Bidder or Proposer fails to sign the Bid (Proposal), but only if the unsigned bid proposal is accompanied by other material evidence, which indicates the bidder's or proposer's intention to be bound by the unsigned bid proposal. (Such as Bid Bond, or signed cover letter which references the bid proposal and amount of bid proposal).

(2) Bidder or Proposer fails to acknowledge an Addendum - this may be considered a minor informality only if the Addendum, which was not acknowledged, involves

only a matter of form or has either no effect or merely a negligible effect on price, quantity, quality, or delivery of the item or services bid upon.

6. Rejection of Bids (Proposals)

Any bid proposal that fails to conform to the essential requirements of the invitation for bids will be rejected. The County of Ventura shall have the right to reject any bids proposals presented in accordance with Section 20150.9 of the California Public Contracts Code.

a. Any bid proposal that does not conform to the applicable specifications shall be rejected unless the invitation authorizes the submission of alternate bid proposals and the items or services offered as alternates meet the requirements specified in the invitation for bids.

b. A bid proposal shall be rejected when the bidder imposes conditions that would modify requirements of the invitation or limit the bidder's or proposer's liability to the Owner, since to allow the bidder or proposer to impose such conditions would be prejudicial to other bidders or proposers. For example, bid proposals shall be rejected in which the bidder or proposer:

(1) Protects against future changes in conditions, such as increased costs, if total possible costs to the Owner cannot be determined.

(2) Fails to state a price and indicates that price shall be "price in effect at time of delivery".

(3) States a price but qualifies it as being subject to "price in effect at time of delivery".

(4) Takes exceptions to the invitation for bids terms and conditions.

(5) Inserts the bidder's or proposer's terms and conditions.

(6) Limits the rights of the Owner under any contract/invitation for bid clause.

7. Estimated Quantities

The quantities listed for each of the items in the bid schedule are only estimated quantities. Contractors are required to bid a firm unit cost for each item specified. The actual quantities ordered may fluctuate up or down. The unit prices proposed by each bidder or proposer will remain firm and will not be re-negotiated if the estimated quantities are not met or are exceeded. For bidding purposes, if there is a conflict between the extended total of an item and the Unit Price, the Unit Price shall prevail and be considered as the amount of the bid (proposal).

8. Number of Copies

Bidder or Proposer shall submit in its sealed and marked envelope, one (1) copy of its bid (proposal), signed in ink, and, if applicable, one (1) original copy of the Bid Bond as defined under Items 1.f. and 10.

9. Identification of Bid (Proposal)

Bids (Proposals) must be returned in a sealed envelope and addressed to the County of Ventura: Department of Airports, Administration Office Public Counter, 2nd Floor Lobby, 555 Airport Way, Suite B; Camarillo, CA 93010 and marked as follows:

Project: Camarillo Airport Runway 8-26 and Taxiway A Pavement Improvements

Bid of _____

(Name of Contractor)

for improvements to the Camarillo Airport, Camarillo, CA, DOA Spec. No. 23-04 and DOA Project No. CMA-239. To be opened Wednesday, November 30, 2023, at 10:00 A.M., local time in the County of Ventura: Department of Airports, Administration Office Public Counter, 2nd Floor Lobby, 555 Airport Way, Suite B; Camarillo, CA 93010.

Any offer (bid/proposal) that is submitted without being properly marked may be opened for identification prior to the deadline for receipt of offers (bids/proposals) and then resealed.

10. Bid Bond Requirements

A Bid Bond is required in the amount of five (5) % of the amount bid when (1) the total amount of your accumulative bid proposal is more than $20,000 or (2) is required elsewhere in this solicitation. This Bid Bond must meet the conditions specified under Item 19 Bond Requirements and shall be submitted using the form in Division 2 of this solicitation.

11. Preparation of Bid Offer (Proposal)

a. Bidders or Proposers are expected to examine the drawings, specifications, bid documents, proposed contract forms, terms and conditions, and all other instructions and solicitation documents. Bidders or Proposers are expected to visit the jobsite to determine all requirements and conditions that will affect the work. Failure to do so will not relieve a bidder or proposer from responsibility to know what is contained in this invitation for bid, or site conditions affecting the work.

b. The bidder or proposer certifies that it has checked all of its figures and understands that the Owner will not be responsible for any errors or omissions on the part of the bidders or proposers in preparing its bid proposal.

c. All items, (unless the invitation specifically states otherwise) including any additive or deductive alternates on the bid schedule, **must** be completely filled out or the bid proposal will be determined non-responsive and ineligible for consideration for award.

d. The bidder or proposer declares that the person or persons signing this bid proposal is/are authorized to sign on behalf of the firm listed and to fully bind the bidder or proposer to all the requirements of the solicitation.

e. The bidder or proposer certifies that no person or firm other than the bidder or proposer or as otherwise indicated has any interest whatsoever in this bid/offer (proposal) or the contract that may be entered into as a result of this bid/offer (proposal) and that in all respects the offer is legal and firm, submitted in good faith without collusion or fraud.

f. By submitting a bid (proposal), the bidder or proposer certifies that it has complied and will comply with all requirements of local, state, and federal laws, and that no legal requirements have been or will be violated in making or accepting this bid.

g. If there is a discrepancy between the unit price and the total price, the unit price shall be used to determine the applicable total.

h. In case of conflict between words and numerals, the words, unless obviously incorrect, shall govern.

12. Basis of Award

The Owner intends to award a contract resulting from this solicitation to the lowest, responsive, responsible bidder, whose offer, conforming to the solicitation, will be most advantageous to, and in the best interest of, the Owner, cost or price and other factors considered.

a. In addition to other factors, bid offers (proposals) will be evaluated on the basis of advantages and disadvantages to the Owner that might result from offers received.

b. The Owner reserves the right to reject any or all bids (proposals) and to waive informalities and/or irregularities in the bid offer (proposal).

c. Total bid will be evaluated and awarded as follows: It is the Owner's intent to award this bid proposal based on the **TOTAL BASE BID FOR AWARDED SCHEDULE(S), split awards will not be made.**

d. The Owner will determine which Schedules will be awarded based on the received total bid amount for the schedules (based on unit prices and estimated quantities) and available funding. The project award will be based on the low bid sum of Schedule I and Schedule II by the Owner. Not all Schedules may be awarded. A combination of Schedules may be awarded, including only a single Schedule. The numbering of the Schedules does not necessarily indicate the order of award. The project award is contingent on the availability of funding.

13. Period of Acceptance

The bidder or proposer agrees that its bid offer (proposal) shall remain open for acceptance by the Owner for a period of 120 Calendar days from and including the date specified in the solicitation for receipt of bids (proposals).

14. Contract Award

The signature of the bidder or proposer indicates that within thirty (30) calendar days from acceptance of its bid offer (proposal) it will execute a contract with the Owner and furnish a project specific Certificate of Insurance, furnish Performance and Payment Bonds and any other documents required by the Contract Documents.

15. Notice to Proceed

Work may not start under any awarded contract until a written Notice to Proceed is issued by the Owner. The Owner may issue the Notice to Proceed any time after the contract is signed and, if required, insurance and bonds have been provided in accordance with Item 19 below.

Although the acceptance period allows for the project to be awarded within 120 Calendar days from the date specified in the solicitation for receipt of bids (proposals), construction for this project is expected to take place during the 2024 Construction Season.

16. Amendments to the Solicitation

a. If this solicitation is amended, then all specifications, terms and conditions, which are not amended, remain unchanged.

b. Bidders or Proposers shall acknowledge receipt of any addendum to this solicitation (1) by signing and returning the amendment, (2) by identifying the amendment number and date in the space provided for this purpose on the form for submitting a bid offer, or (3) by letter or facsimile.

c. Acknowledged addendums must be received prior to bid opening. Bidders or Proposers are encouraged to include signed addenda or initialed acknowledgement with returned bids.

17. Explanations to Prospective Bidders

Any prospective bidder or proposer desiring an explanation or interpretation of the solicitation documents, drawings, specifications, etc., must request it in writing by November 17, 2023 no later than 4:00 p.m. local time to allow a reply to reach all prospective bidders or proposers before the time for submission of bids (proposals). Oral explanations or instructions given before the opening of bids will not be binding. Any information provided to a prospective bidder or proposer during the bid preparation stage will be promptly furnished to all other prospective bidders or proposers as an addendum to the solicitation if that information is necessary in submitting bid offers (proposals) or if the lack of it would be prejudicial to other prospective bidders or proposers.

18. Questions and Other Requests for Information

For all questions or requests, please direct to: Matt Gilbreath, P.E. (Matt.Gilbreath@woolpert.com)

19. Bond Requirements

a. Bid (offer/proposal) Bond

(1) The bidder or proposer is required to furnish a Bid Bond in the form of certified check, cashier's check, irrevocable letter of credit, or surety Bid Bond acceptable to the Contracting Officer in the sum equal to at least 5% of the total amount of the Bid (Proposal) payable without condition to County of Ventura, California, if: (1) the total amount of your accumulative bid is more than $20,000 or (2) is required elsewhere in this solicitation.

(2) The Bid Bond shall guarantee that the bid will not be withdrawn or modified after the time set for the receipt of bid (proposal) offers, and if accepted, that the person, firm or corporation submitting same shall within thirty (30) calendar days after being notified of the acceptance of its bid offer, enter into a contract and shall, within said time, furnish the required bonds and all insurance certificates called for under this invitation for bid.

(3) The Bid Bonds of all bidders or proposers, except for the two lowest bidders, will be returned to the respective bidders only in the event a self-addressed, stamped envelope is provided along with a written request from the contractor that their Bid Bond be returned. However, if a certified check or a cashier's check is submitted in lieu of the Bid Bond, it will be returned as soon as possible after the lowest responsive and responsible bidder is determined and a contract is executed.

(4) In the event the bidder or proposer whose bid offer is accepted fails to enter into the contract and/or furnish the proper bonds, its certified check, cashier's check, irrevocable letter of credit, or surety Bid Bond will be forfeited in full to the Owner.

b. Performance, Labor and Materials Payment, and Maintenance Bonds

Bonds shall:

(1) Be for the full amount of the contract price;

(2) Guarantee the Contractor's faithful performance of the work under this contract, and the prompt and full payment for all labor and materials involved therein;

(3) Guarantee protection to the Owner against liens of any kind;

(4) Be, when a surety bond is furnished, from a surety company operating lawfully in the State of CA and shall be accompanied with an acceptable "Power-of-Attorney" form attached to each bond copy.

(5) Be issued from a surety company that is acceptable to the Owner; and

(6) Be submitted using the forms in County of Ventura Standard Specifications of this solicitation.

20. Specifications and Drawings

Upon award of the contract, the Owner will be responsible for furnishing the selected contractor a minimum of one (1) set of both the specifications and drawings. The Contractor will be required to purchase additional half size sets for $30.00 as desired.

21. Type of Contract

It is the intent of this Invitation for Bids to award a firm fixed unit price contract based on the unit prices and estimated quantities offered by the lowest responsive and responsible bidder. Contract unit prices shall remain firm and fixed throughout the contract performance period.

Actual quantities used in the work will be used to determine contractor payments and final project cost.

22. Bid (Proposal) Results

Once the Sponsor has had the opportunity to thoroughly evaluate the bids, the Bid Tabulation Summary will be posted on our website: bid.jviation.com.

Bid (Proposal) result tabulations will also be emailed upon request. To request a fax or email of the bid tabulation, email Matt.Gilbreath@woolpert.com.

23. Terms, Conditions and Special Provisions

Bidders or Proposers are advised to pay special attention to the General and Special Provisions of the Contract Documents. These sections may contain requirements that will have an impact on all potential bidders or proposers, such as Liquidated Damages, Indemnification, type of contract, and delivery schedule.

24. Bid (Proposal) Protests

Bidders or Proposers are notified, that in accordance with County of Ventura policy, bid protests based on an allegedly defective bid solicitation, shall be in writing and received by the Sponsor prior to the bid (proposal) opening.

For bid (proposal) protests based on an alleged improper evaluation of bid proposals, a protest must be received by the Sponsor in writing within 10 days after the Notice of Award to the winning bidder is issued. It is the responsibility of the protesting bidder or proposer to keep apprised of when the Notice of Award is issued by calling or emailing the Sponsor for updates.

25. Licensing of Bidder

Before submitting a bid proposal, Proposers or Bidders shall be licensed in accordance with the provisions of Sections 7000 through 7145 of the Business and Professions Code of the State of California in the classification required for the work bid on. The Bidder's license number, classification, and expiration date shall be inserted on the last page of the bid proposal document. The Bidder's name shall correspond in all respects with the name shown on the license. License numbers and names are checked with the State.

26. California Registration Requirement

- No Contractor or Subcontractor may be listed on a bid proposal for a public works project submitted on or after March 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)].
- No Contractor or Subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.
- This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

27. Minimum Wage and Certified Payroll

Labor on this Project shall be paid no less than the greater of the minimum Prevailing Rates of Wages established by the State of California, Department of Industrial Relations.

1) The bidder may contact the Director of the Department of Industrial Relations, phone number (415)703-4774 or www.dir.ca.gov/dlsr/PWD (website), to obtain a schedule of the State general prevailing wages applicable to the location and work to be done. The Contractor and the Contractor's subcontractors are responsible for compliance with the requirements of Section 1777.5 and 1777.6 of the Labor Code of the State of California regarding employment of apprentices.
2) The Contractor shall submit two (2) copies of all certified payroll, including subcontractors, to the Engineer and State of California, each month. Failure to submit complete certified payroll in a timely manner may delay progress payments. For certified payroll to be considered for review, the submittal must contain the necessary information in a clear, logical manner. Contractors are responsible for also submitted certified payroll records to the Labor Commissioner using DIR's electronic certified payroll reporting system http://www.dir.ca.gov/Public-Works/Certified-Payroll-Reporting.html.

28. List of Subcontractors

A. Pursuant to the provisions of Section 4100 through 4114 of the Public Contract Code of the State of California, all Bids (Proposals) shall be accompanied by a List of Subcontractors that the Bidder or Proposer proposes to use who will perform work or labor or render service to the Bidder or Proposer in excess of one-half of one percent of the Bidder's or Proposer's total bid or $10,000, whichever is greater. The names, principal business addresses, license number, and portion of work that will be done by each Subcontractor shall be submitted on the form, which is furnished in the Bid (Proposal) Forms of this Contract Documents Book.
B. Bidder or Proposer shall be solely responsible to correct any errors in the listing of the California Contractor's license number.
C. A deadline of 24 hours after Proposal (Bid) opening is established by which a Bidder or Proposer must submit corrected California Contractor's license number information to the Agency.
D. A Bidder's Proposer's failure to submit corrected California Contractor's license numbers will cause the Bid (Proposal) to be non-responsive.
E. If the Bidder or Proposer fails to specify a Subcontractor for a portion of the work to be performed under the Contract in excess of one-half of one percent of the Bidder's or Proposer's total bid, the Bidder or Proposer agrees to perform that portion itself. The successful Bidder or Proposer shall not, without the consent of the Agency, either:
    1) Substitute any person, firm, or corporation as subcontractor in place of the Subcontractor designated in the original Proposal (Bid); or
    2) Permit any Subcontractor to be assigned or transferred or allow it to be performed by anyone other the original Subcontractor listed in the bid.

BIDDER'S CHECKLIST

The undersigned Bidder, by initialing upon each line, below, acknowledges that the following fully completed and executed Bid Documents are attached to, incorporated herein by reference and made a condition of this Bid Proposal:

DIVISION	TITLE	INITIALS
2-3	Contract Proposal (Bid)	_____
2-7	Bid Bond	_____
2-9	Contractor Information	_____
2-11	Subcontractor/Material Supplier Sheet	_____
2-13	Non-Collusion Affidavit	_____
2-15	Public Contract Code Sections 10285.1, 10162, and 10232	_____
2-17	Drug-Free Workplace Certification	_____
2-19	Contractor's Statement of Qualifications	_____
2-21	Bid Proposal	_____

CONTRACT PROPOSAL (BID)

TO: Camarillo Airport
Ventura County, CA

1. The undersigned hereby certifies that they have examined the form of contract, plans and specifications and other associated Contract Documents for the improvement of Camarillo Airport, DOA Specification No. DOA 23-04, and DOA Project No. CMA-239. The undersigned further certifies that he/she has examined the site of the work, has determined for himself/herself the conditions affecting the work and subject to acceptance of the bid proposal, agrees to provide at his or her expense, all labor , insurance, superintendence, machinery, plant, equipment, tools, apparatus, appliances, and means of construction, and all materials and supplies complete the entire work, including work incidental thereto, in conformance with the plans, specifications, and associated Contract Documents. The undersigned certifies that he/she meets the Contractor's license classification "A" requirement.

2. The undersigned acknowledges that the Contract Documents consist of the Notice Inviting Bids (Invitation for Bid), Instruction to Bidders, all issued Addenda, Proposal (Bid), Statement of Qualifications, Anticipated Sub-Contracts, Form of Proposal Guaranty, Notice of Award, Contract Agreement, Performance & Payment Bonds, Notice to Proceed, Release on Contract Form, Wage Rates, General Provisions, Special Provisions, Plans, Technical Specifications, attached appendices and referenced documents.

3. The undersigned, in compliance with your Invitation for Bids dated November 30, 2023, hereby proposes to do the work called for in said contract and specifications and shown on said plans and to furnish all materials, tools, labor, and all appliances and appurtenances necessary for the said work at the following unit rates and prices:

Bid Spreadsheet begins on page 2-21.

TOTAL BID (Base Bid based on unit prices and estimated quantities) _____

_____

TOTAL BID IN WORDS _____

_____

4. The undersigned understands that the above quantities of work to be done are approximate only and are intended principally to serve as a guide in evaluating the bids. Final project payments will be made on actual quantities and unit prices.

5. It is understood that the schedule of minimum wage rates, as established by the Secretary of Labor and included in the Specifications, are to govern on this project, and the undersigned certifies that he/she has examined this schedule of wage rates and that the prices bid are based on such established wage rates.

6. The undersigned agree upon written notice of the acceptance of this bid, that within thirty (30) days after the award, that he/she will execute the contract in accordance with the bid as accepted and give contract (Performance and Payment) bonds on attached forms. (See VCSS-DOA Section 6-7.4). Agency is allowed 120 Calendar Days to award the contract.

7. The undersigned further agrees that if awarded the contract, he/she will commence the work within ten (10) calendar days after the receipt of a Notice to Proceed and that he/she will complete the work within the allotted calendar days associated with the awarded bid schedule(s)/bid alternate(s). An extension of time may be allowed when extra or additional work is ordered by the engineer. Liquidated damages in the amount identified in Section 18 of the Special Provisions Airport Requirements in Division 3-6 and Item SP 100-1.11 of Division 3-27 shall be paid to the Airport for that time which exceeds the number of calendar day(s) allowed in this paragraph.

8. As an evidence of good faith in submitting this proposal, the undersigned encloses a certified check or Bid Bond in the amount of _____dollars ($_____) which, in case the undersigned refuses or fails to accept an award and to enter into a contract and file the required bonds within the prescribed time, shall be forfeited to the Camarillo Airport, Ventura County, CA, as liquidated damages.

9. By entering into this contract, the Contractor certifies that neither it (nor he/she) nor any person or firm who has an interest in the Contractor's firm is a person or firm ineligible to be awarded government contracts by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

10. No part of this contract shall be subcontracted to any person or firm ineligible for award of a government contract by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

11. The undersigned hereby declares that the only parties interested in this proposal are named herein, that this proposal is made without collusion with any other person, or corporation. That no member of the council, officer or agent of County of Ventura, California, is directly or indirectly financially interested in this bid.

12. Liability insurance class L-D is required per VCSS-DOA Section 7-4.2, the VCSS-DOA is located in Division 7.

13. The undersigned acknowledges receipt of the following Addendums:

Addendum No._____ Date Received _____

Addendum No._____ Date Received _____

Addendum No._____ Date Received _____

Addendum No._____ Date Received _____

Addendum No._____ Date Received _____

SIGNATURE OF BIDDER:

By _____

Name and Title of Authorized Agent

_____

Name of Company

_____

Address of Company

_____

License No., Class, and Expiration Date

_____

State Tax ID No.

_____

Federal Tax ID No.

_____

DIR Registration No.

"Contractor's License No., Class & Expiration date are made under penalty of perjury."

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that _____ _____ as Principal, hereinafter called Contractor, and _____, licensed to do business as such in the State of California, as Surety, hereby bind themselves and their respective heirs, executors, administrators, successors, and assigns, unto County of Ventura, California, as Obligee, in the penal sum of _____ Dollars ($_____) for the payment whereof Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, by these presents.

WHEREAS,

The Contractor has submitted to the Obligee, a contract bid dated the _____ day of _____ for the following contract:

_____

_____

_____

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if the Contractor bid is accepted by the Obligee and the Contractor is awarded the contract in whole or in part, the Contractor shall enter into the Contract with the Obligee in accordance with the terms of such bid, give such Payment and Performance Bonds as may be specified in the Contract Documents with good and sufficient surety for the faithful performance of such Contract and for the prompt payment of labor and materials furnished in the prosecution thereof, or in the event of failure of the Contractor to enter such Contract and give such bond or bonds, if the Contractor shall promptly pay the Obligee the amount of this bond as set forth herein above, then the obligation shall be null and void, otherwise this obligation will remain in full force and effect.

IN WITNESS WHEREOF, the above parties have executed this instrument, the _____ day of _____, 20___.

SIGNATURE OF PRINCIPAL (as applicable)

A. Individual, partnership or joint venture _____
(Signature of sole proprietor or general partner)

B. Corporation _____
Name of Corporate Principal

Attest: _____ By _____
Secretary (affix seal)

SIGNATURE OF SURETY

Name and address of Corporate Surety

_____

_____

By _____ (seal)
Attorney in Fact (attach power of attorney)

ACCEPTANCE BY

The foregoing bond is approved.

Date _____ By _____

The foregoing bond is in due form according to law and is approved.

Date _____ By _____

CONTRACTOR INFORMATION

1. Name of Bidder/Contractor: _____

2. Type of Business Entity: _____

   NOTE: If bidder is **partnership** or **joint venture**, give full names of all partners or joint ventures. Bid must be signed by all Joint Ventures. If bidder is a **limited liability company**, bid must be signed by an authorized manager (may be signed by member-manager if LLC is organized to allow management by members).

3. Address of Contractor: _____

   _____

   _____

4. Telephone: _____ Fax: _____

   E-mail: _____

5. Established where and when: _____

6. Contractor's Banking Information: _____

   _____

   _____

7. Principal Officers of Contractor (managers and members if LLC):

   Name: _____ Name: _____

   Title: _____ Title: _____

   Name: _____ Name: _____

   Title: _____ Title: _____

   Name: _____ Name: _____

   Title: _____ Title: _____

8. Bidder's/Contractor's state of incorporation (state of organization if an LLC or Partnership):

_____

9. Bidder's Surety: _____

10. Surety's State of Incorporation: _____

11. Name and Address of person to receive payment _____

_____

_____

12. If the Bidder/Contractor is a Joint Venture, it shall attach a certified copy of the Joint Venture Agreement. The Joint Venture Agreement will not be included as part of the Contract Documents.

13. The Bidder/Contractor shall identify all applicable labor agreements (if any) to be used in the performance of the work:

_____

_____

_____

_____

_____

SUBCONTRACTOR/MATERIAL SUPPLIER LIST

The bidder shall provide information on all subcontractors/material suppliers bidding or quoting on subcontracts for this project. Pursuant to the provisions set forth in Title I, Division 5, Chapter 2 (Section 4100-4113, Inclusive) of the Government Code of the State of California – It is required that the Contractor set forth in his or her Proposal (Bid) the name and principal address of each Subcontractor who will perform work or labor or render service to the Contractor on or about the construction.

If a Contractor fails to specify a Subcontractor for any portion of the work to be performed under the Contract, on or about the construction of the project, in excess of ½ of 1% of the Contractor's total Bid, he or she shall be deemed to have agreed to perform such portion himself or herself, using his or her own resources and employed personnel and he or she shall not be permitted to subcontract that portion of the work, except under the conditions set forth in Section 4107 of the Government Code of the State of California. Subcontractors shall not sublet their work as a whole.

Should the Contractor violate any of the provisions of said Chapter, his or her so doing will be deemed a violation of his or her Contract and the awarding authority shall have the right to terminate the Contractor's control over the work. Upon any such violation, the Contractor may be subject to such penalties as are prescribed by Law. Contractor shall also verify below that each listed subcontractor has registered and paid a fee to the Department of Industrial Relations pursuant to Labor Code 1725.5. [Note: Reproduce page two of this section for additional listings needed beyond the length of this form.]

Name of Firm	Address	Type of Work to be Performed on Contract	Licensed in			Contractors		DIR	Certified DBE		Certification	Bid	Date Firm	*GRS
			Yes	No	State	License #	Class	License #	Yes	No	Number	Amount	Established	

***GRS - Annual Gross Receipts**

Enter 1 for less than $1 million
Enter 2 for more than $1 million but less than $5 million
Enter 3 for more than $5 million but less than $10 million
Enter 4 for more than $10 million but less than $15 million
Enter 5 for more than $15 million

Name of Firm	Address	Type of Work to be Performed on Contract	Licensed in Yes	No	State	Contractors License #	Class	DIR License #	Certified DBE Yes	No	Certification Number	Bid Amount	Date Firm Established	*GRS

Date

Signature

Company Name

Title

NON-COLLUSION AFFIDAVIT

I, the person whose signature is affixed to the last page of this Proposal (Bid), submit this Proposal (Bid) to the Board of Supervisors and hereby declare:

1. That the Proposer or Bidder has read this Proposal (Bid) and has abided by and agrees to the conditions herein and has carefully examined the project Plans and read the Specifications and does hereby propose to furnish all materials and do all the work required to complete the work in accordance with the Plans and Specifications for the Unit Prices or Lump Sum amounts named in the Schedule of Work and Prices.

2. That the Addenda indicated on the last page of this Proposal (Bid) are acknowledged.

3. That the Proposer or Bidder, as Principal, acknowledges himself as being bound by the attached Bid Bond or other acceptable Bid Guarantee.

4. That the Proposal (Bid) is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the Proposal (Bid) is genuine and not collusive or sham; that the Proposer or Bidder has not directly or indirectly colluded, conspired, connived, or agreed with any Proposer or Bidder or anyone else to put in a sham Proposal (Bid), or that anyone shall refrain from bidding; that the Bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the Proposal (Bid) price of the Proposer or Bidder or any other Proposer or Bidder, or to fix any overhead, profit, or cost element of the Proposal (Bid) price, or of that of any other proposer or Bidder, or to secure any advantage against the public body awarding the Contract of anyone interested in the proposed Contract; that all statements contained in the Proposal (Bid) are true; and, further, that the Proposer or Bidder has not, directly or indirectly, submitted a Proposal (bid) price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham Proposal (Bid).

Date	Signature
Company Name	Title

PUBLIC CONTRACT CODE SECTION 10285.1 STATEMENT

In accordance with the Public Contract Code Section 10285.1 (Chapter 376, Stats. 1985), the Proposer or Bidder hereby declares under penalty of perjury under the laws of the State of California that the

Proposer or Bidder has _____; has not _____ been convicted within the preceding three years of any offenses referred to in that Section including any charge of fraud, bribery, collusion, conspiracy, or any other act in violation of an State or Federal Antitrust Law in connection with the bidding upon, award of, or performance of, any public works contract as defined in Public Contract Code Section 1101, with any public entity, as defined in Public Contract Code Section 1100, including the Regents of the University of California or the Trustees of the California State University. The term "Proposer" or "Bidder" is understood to include any partner, member, officer, director, responsible managing officer, or responsible managing employee thereof, as referred to in Section 10285.1.

Note: The Proposer or Bidder must place a check mark after "has" or "has not" in one of the blank spaces provided. The above Statement is part of the Proposal (Bid). Signing this Proposal (Bid) on the signature portion thereof shall also constitute signature of this Statement.

Proposers or Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

PUBLIC CONTRACT CODE SECTION 10162 QUESTIONNAIRE

In accordance with Public Contract Code Section 10162, the Proposer or Bidder shall complete, under penalty of perjury, the following questionnaire:

Has the Proposer or Bidder, any officer of the Proposer or Bidder, or any employee of the Proposer or Bidder who has a proprietary interest in the Proposer or Bidder, ever been disqualified, removed, or otherwise prevented from Proposing (Bidding) on, or completing a federal, state, or local government project because of a violation of law or a safety regulation?

Yes ____ : No _____ If the answer is yes, explain the circumstances in the following space
(Attach additional sheets as necessary)

PUBLIC CONTRACT SECTION 10232 STATEMENT

In accordance with the Public Contract Code Section 10232, the Contractor, hereby states under penalty of perjury, that no more than one final un-appealable finding of contempt of court by a Federal County has been issued against the Contractor within the immediately preceding two-year period because of the Contractor's failure to comply with an order of a Federal Court which orders the Contractor to comply with an order of the National Labor Relations Board.

Note: The above Statement and Questionnaire are part of the Proposal (Bid). Signing this Proposal (Bid) on the signature portion thereof shall also constitute signature of this Statement and Questionnaire.

Proposers or Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

STATE OF CALIFORNIA

DRUG-FREE WORKPLACE CERTIFICATION

STD. 21 (Rev. 10/2019)

CERTIFICATION

I, the official named below, hereby swear that I am duly authorized legally to bind the contractor or grant recipient to the certification described below. I am fully aware that this certification, executed on the date below, is made under penalty of perjury under the laws of the State of California.

CONTRACTOR/BIDDER FIRM NAME	FEDERAL ID NUMBER
BY *(Authorized Signature)*	DATE EXECUTED
PRINTED NAME AND TITLE OF PERSON SIGNING	TELEPHONE NUMBER *(Include Area Code)* ( )
TITLE	
CONTRACTOR/BIDDER FIRM'S MAILING ADDRESS	

The contractor or grant recipient named above hereby certifies compliance with Government Code Section 8355 in matters relating to providing a drug-free workplace. The above named contractor or grant recipient will:

1. Publish a statement notifying employees that unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited and specifying actions to be taken against employees for violations, as required by Government Code Section 8355(a).

2. Establish a Drug-Free Awareness Program as required by Government Code Section 8355(b), to inform employees about all of the following:

   (a) The dangers of drug abuse in the workplace,

   (b) The person's or organization's policy of maintaining a drug-free workplace,

   (c) Any available counseling, rehabilitation and employee assistance programs, and

   (d) Penalties that may be imposed upon employees for drug abuse violations.

3. Provide as required by Government Code Section 8355(c), that every employee who works on the proposed contract or grant:

   (a) Will receive a copy of the company's drug-free workplace policy statement, and

   (b) Will agree to abide by the terms of the company's statement as a condition of employment on the contract or grant.

4. At the election of the contractor or grantee, from and after the "Date Executed" and until _____ (DATE) (NOT TO EXCEED 36 MONTHS), the state will regard this certificate as valid for all contracts or grants entered into between the contractor or grantee and this state agency without requiring the contractor or grantee to provide a new and individual certificate for each contract or grant. If the contractor or grantee elects to fill in the blank date, then the terms and conditions of this certificate shall have the same force, meaning, effect and enforceability as if a certificate were separately, specifically, and individually provided for each contract or grant between the contractor or grantee and this state agency.

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CONTRACTOR'S STATEMENT OF QUALIFICATIONS

All questions must be answered and the data given must be clear and comprehensive. This statement must be notarized. If necessary, questions may be answered on separate attached sheets. The Bidder may submit any additional information he or she desires.

1. Name of Bidder and office where project will be administered: _____

2. Provide evidence of financial responsibility consisting of a confidential statement or report of Contractor's financial resources and liabilities as of the last calendar year or last fiscal year. Such statement or report shall be certified by a public accountant. Unless otherwise specified, a bidder may submit evidence that he or she is prequalified with the State Highway Division and is on the current "bidder's list" of the state in which the proposed work is located. Such evidence of State Highway Division prequalification may be submitted as evidence of financial responsibility in lieu of the certified statements or reports specified above.

3. List two or more construction projects similar in size (at least $2 million total construction cost) and scope to this project that your company has completed within the past 3 years. Provide the following:

a. Project Name: _____
b. Owner Name: _____
c. Owner Contact: _____
d. Beginning Contract Amount: _____
e. Total Cost of Change Orders: _____
f. Project Duration:_____
g. Total Time Extensions: _____
h. Project Superintendent: _____

a. Project Name: _____
b. Owner Name: _____
c. Owner Contact: _____
d. Beginning Contract Amount: _____
e. Total Cost of Change Orders: _____
f. Project Duration:_____
g. Total Time Extensions: _____
h. Project Superintendent: _____

a. Project Name: _____
b. Owner Name: _____
c. Owner Contact: _____
d. Beginning Contract Amount: _____
e. Total Cost of Change Orders: _____
f. Project Duration:_____
g. Total Time Extensions: _____
h. Project Superintendent: _____

BID PROPOSAL SUMMARY

Bidder Name: _____

SCHEDULE I TOTAL $ _____

SCHEDULE II TOTAL $ _____

TOTAL ALL SCHEDULES $ _____

Bidder has examined the proposed site and is familiar with all site conditions.

_____

Signature

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SCHEDULE I						
Item No.	**Description**		**Units**	**Estimated Quantity**	**Unit Price**	**Total**
C-100a	Contractor Quality Control Program (CQCP)	at the unit price of: _____ dollars and _____ cents.	LS	1	$	$
C-105a	Mobilization (10% Maximum)	at the unit price of: _____ dollars and _____ cents.	LS	1	$	$
SP-102a	Compliance with Pollution, Erosion, and Siltation Control	at the unit price of: _____ dollars and _____ cents.	LS	1	$	$
P-101a	Demolish Asphalt Pavement	at the unit price of: _____ dollars and _____ cents.	SY	5,700	$	$
P-101b	Cold Mill (3.0 Inches Nominal Depth)	at the unit price of: _____ dollars and _____ cents.	SY	6,000	$	$
P-152a	Unclassified Excavation	at the unit price of: _____ dollars and _____ cents.	CY	2,900	$	$
26-1.04a	Crushed Aggregate Base Course (1-1/2 Inch Max, Class 2)	at the unit price of: _____ dollars and _____ cents.	CY	3,100	$	$
26-1.04b	Geogrid	at the unit price of: _____ dollars and _____ cents.	SY	11,300	$	$
39-3.05Da	Asphalt Surface Course (PG 64-10)	at the unit price of: _____ dollars and _____ cents.	TON	3,500	$	$
39-3.05Db	Tack Coat	at the unit price of: _____ dollars and _____ cents.	GAL	2,300	$	$
P-620a	Pavement Markings, Yellow, Initial Application	at the unit price of: _____ dollars and _____ cents.	SF	1,500	$	$
P-620b	Pavement Markings, Yellow, with Reflective Media, Final Application	at the unit price of: _____ dollars and _____ cents.	SF	1,500	$	$
P-620c	Pavement Markings, White, Initial Application	at the unit price of: _____ dollars and _____ cents.	SF	11,000	$	$
P-620d	Pavement Markings, White, with Reflective Media, Final Application	at the unit price of: _____ dollars and _____ cents.	SF	18,000	$	$
P-620e	Pavement Markings, Black, Single Application	at the unit price of: _____ dollars and _____ cents.	SF	8,000	$	$
CVSS DOA 9-4	Execution of Release on Contract	at the unit price of: _____ dollars and _____ cents.	LS	1	$	$

SCHEDULE I TOTAL $ _____

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SCHEDULE II						
Item No.	**Description**		**Units**	**Estimated Quantity**	**Unit Price**	**Total**
C-105a	Mobilization (10% Maximum)	at the unit price of: _____ dollars and _____ cents.	LS	1	$	$
P-620a	Pavement Markings, Yellow, Initial Application	at the unit price of: _____ dollars and _____ cents.	SF	6,100	$	$
P-620b	Pavement Markings, Yellow, with Reflective Media, Final Application	at the unit price of: _____ dollars and _____ cents.	SF	18,500	$	$
P-620e	Pavement Markings, Black, Single Application	at the unit price of: _____ dollars and _____ cents.	SF	12,500	$	$
P-620f	Surface Preparation (Obliteration)	at the unit price of: _____ dollars and _____ cents.	SF	5,400	$	$

SCHEDULE II TOTAL $ _____

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SPECIAL PROVISIONS

PART **A** – AIRPORT REQUIREMENTS

1. HAUL ROADS:

The Contractor shall obtain approval from the Engineer prior to establishing haul roads within the airport property. Once established, the haul roads shall be utilized for all equipment traffic, and the equipment shall not be allowed to stray or wander away from the established routes. The haul roads shall be the responsibility of the Contractor and shall be maintained and kept in good order at all times. Water, when required, shall be applied at the locations and in the amounts necessary to minimize dust and dirt in the air operations area. Haul roads across any active runway or taxiway shall be kept clean and in good order at all times. The Contractor shall repair any damage caused by the movement of equipment on any of the haul roads, whether in designated or undesignated areas. After completion of the project, the Contractor shall be required to re-grade any unpaved portions of the haul road and to reseed the area with local native grasses to match the existing conditions of the area. The performance of any work as specified by this provision, including watering, maintenance, seeding, and repair of the haul roads, shall not be measured and paid for directly, but shall be considered as necessary and incidental to the work.

Establishment of haul roads off of Airport property shall be the sole responsibility of the Contractor.

2. AIRPORT SECURITY:

During the course of the construction operations, the Contractor will be allowed to utilize a maximum of one (1) airport access "Security Gates" as entrance to the construction site. This gate and the associated haul roads shall be designated by the Engineer. The Contractor shall be required to keep this gate guarded and closed during construction hours. The gate may be opened only for authorized vehicle traffic flow. At times that a gate guard is not present at a gate, it shall be closed and securely locked. The Contractor's key personnel will be required to obtain an "airport security" gate access card from the Airport Operations Office and must escort all other personnel and vehicles used on the construction project. Said permit/access card shall hold the Contractor responsible for all vehicles and personnel on the airport property other than those that have individual authorization. All authorized vehicles and construction equipment must display a three foot by three foot flag with international orange and white 12 inch squares displayed in full view above the vehicles. Passengers in any authorized vehicles shall be the responsibility of the Contractor. The "gate guard" shall allow no unauthorized vehicle or person to enter the "air operations" side of the airport without the above stipulated "security clearance." The Contractor and the Contractor's "security gate guard" shall be held duly responsible to uphold the above security stipulations at all times during the progress of the construction project. No deviations from these security measures shall be allowed at any time. There shall be a $1,000.00 penalty for each deviation from these security provisions.

3. RADIO COMMUNICATIONS:

The Contractor's superintendent and flagman shall be required to monitor transceiver radios tuned to the 122.95 MHz MHz frequency at all times, except when the tower is closed from the hours of 9:00 p.m. to 7:00 a.m., then the Contractor will monitor and communicate through the CTAF frequency 134.95 MHz. Radios shall be supplied by the Contractor. Such radios shall be used to obtain proper clearance in regard to the movement of equipment, trucks, etc., on the airport. Further, any unusual occurrences in the flight pattern of approaching or departing aircraft shall be acknowledged by all concerned so that operation of the airport and the construction work can be safely carried on at all times.

4. WORK SCHEDULE:

Immediately after the award of contract, the Contractor shall file with the Engineer a time chart or schedule of proposed progress, a plan of construction and proposed detailed methods of carrying out the work, including a full statement of equipment and equipment layout for the job.

The Sponsor reserves the right to request changes in the sequence of project schedules if such change is required in the interest of safety or airport operation.

5. CONTRACTOR'S QUALITY CONTROL PROGRAM:

The contractor and their chosen testing laboratory shall submit a quality control plan submitted and approved prior to the Notice to Proceed (NTP). The quality control plan should contain the following items:

a. Names of testing laboratories and consulting engineer firms with quality control responsibilities on the project, together with a description of the services to be provided.

b. Procedures for the testing laboratories to meet the requirements of the applicable ASTM, AASHTO or other standards referenced in the contract specifications.

c. Qualifications of engineering supervision and construction inspection personnel.

d. A listing of all tests required by the contract specifications, including the type and frequency of tests to be taken, the method of sampling, the applicable test standard, and the acceptance criteria or tolerance permitted for each type of test.

e. Procedures for ensuring that the tests are taken in accordance with the program, that they are documented daily, that the proper corrective actions, where necessary, are undertaken, and that the quantity of materials used is adequate.

6. SEQUENCE OF WORK:

The Contractor will be required to accomplish the work items according to the schedule of construction as submitted to the Engineer following the award of the contract. Prior to closing any taxiways or apron area, they shall be marked in conformance with the FAA Advisory Circular

150/5340-1 latest edition. This shall consist of placing barricades and flashers on each taxiway and closed runway crosses on the effected runways. Flashers must be well anchored so they do not blow over from jet blasts or strong winds. Closed taxiway, apron area, and other airfield markings and maintenance of these items are considered a necessity and an incidental part of the work, and no separate measurement or payment will be made. The Contractor shall consider the costs and distribute them to the various bid items.

The Contractor shall not allow men or equipment within **75** feet of any runway centerline or within **39.5** feet of the centerline of any taxiway, nor shall he permit materials to be stored or stocked within **400** feet of any runway centerline or within **62** feet of the centerline of any taxiway during the entire period of this project without first obtaining approval of the Engineer. When the Contractor's operations require the closing of any runway or taxiway, the Contractor shall mark said runway or taxiway in accordance with the plans and specifications at no additional cost to the Sponsor.

Prior to construction on any taxiway or runway, the Contractor shall, upon approval by the Engineer, close the taxiway or runway and begin work. The Contractor shall be responsible for clearly marking and defining the closed taxiways or runways by use of warning lights, barricades, flags and closed taxiway or runway markings in conformance with FAA Advisory Circular 150/5370-2 latest edition. The Contractor shall be responsible for maintaining these barricades and keeping them clearly visible at all times.

The Sponsor shall meet with the Contractor immediately after the award of the contract to work up the sequence of work for the project.

7. CLOSURE OF AIR OPERATIONS AREAS:

Barricades are considered a necessary and incidental part of the work and no separate measurement or payment will be made therefore. The Contractor shall consider the costs and distribute them to the various bid items.

8. ACCIDENT PREVENTION:

Precautions shall be exercised at all times for the protection of persons (including employees) and property, and that the safety provisions of applicable laws and of applicable building construction codes shall be observed, and that machinery, equipment, and explosives shall be guarded and all hazards shall be eliminated in accordance with the safety provisions of the Manual of Accident Prevention in Construction, published by the Associated General Contractors of America, to the extent that such provisions are not in contravention of applicable law.

9. EXISTING UNDERGROUND CABLES:

The Contractor shall attempt to locate the Sponsor's and all other public underground cables prior to construction. Damage to the underground cables through negligence on the part of the Contractor will require replacement by the Contractor at no cost to the Sponsor.

10. UTILITIES:

Any utilities required by the Contractor for the prosecution of the work shall be paid for by said Contractor.

11. INDEMNIFICATION:

The Contractor agrees to indemnify and save harmless County of Ventura Department of Airports, its officers, agents, and employees, against any and all damages to property or injuries to or death of any person or persons, including property and employees or agents of County of Ventura Department of Airports, and further agrees to defend, indemnify and save harmless, County of Ventura Department of Airports, its officers, agents, and employees from any claims, demands, suits, actions, proceedings of any kind or nature resulting from or arising out of operations in connection herewith, including operations of subcontractors and acts of omissions of employees or agents of the Contractor or his subcontractors.

12. SALES AND USE TAXES:

Construction and building materials sold to the contractors and subcontractors for use on public works owned by County of Ventura, California, are exempt from State Sales and Use Taxes. However, such materials will be subject to any Sales and Use Taxes imposed by local cities and counties. This change in the State Tax Law has no effect of Sales and Use Taxes imposed by other local taxing authorities. Contractor shall provide proof of exemption prior to commencing work.

13. PERMITS AND COMPLIANCE WITH LAWS:

The Contractor shall procure and pay for all permits, licenses, and bonds necessary for the prosecution of his work, and/or required by Local, State, and Federal regulations and laws, as pertains particularly to permits and transportation of materials and equipment, or other operations which are not a specific requirement of these specifications. The Contractor shall give all notices, pay all fees and taxes, and comply with all Federal, State, and Local laws, ordinances, rules, and regulations, and building and construction codes bearing on the conduct of the work.

14. EXECUTED CONTRACTS:

Each contract shall be executed in four original copies and there shall be executed originals of the Contractor's Performance Bond and Payment Bond in equal number to the executed originals of the contract. Two copies of such executed documents will be retained by County of Ventura, California and two copies will be delivered to the Contractor. The cost of executing the Contract, bonds and insurance, including all notary fees and incidental expenses are to be paid by the Contractor to whom the contract is awarded.

15. SUBLETTING OR ASSIGNING OF CONTRACTS:

The Contractor shall perform, with his organization, an amount of work equal to at least 50% of the total contract cost. No assignment by the Contractor of any principal construction contract or any part thereof or of the funds to be received thereunder by the Contractor will be recognized unless such assignment has received the prior written approval of the Sponsor, which shall be at Sponsor's sole discretion, and the Surety has been given due notice of such assignment and has also consented in writing thereto.

Such written approval of the Sponsor shall not relieve the Contractor of any obligation incurred by him, under the contract, unless otherwise expressly stated in the approval.

The following language must appear in any assignment:

"It is agreed that the funds to be paid to the assignee under this assignment are subject to a prior lien for services rendered or materials supplied for the performance of the work called for in said contract in favor of all persons, firms, or corporations rendering such services or supplying such materials."

16. ACCEPTANCE TESTING:

Acceptance testing shall be the responsibility of the Engineer, unless otherwise specified in the technical specifications. All test results from Contractor required testing shall be submitted to the Engineer at the completion of the testing activity.

17. GRADE CONTROL AND SURFACE TOLERANCE:

The Contractor will be required to provide a minimum of one 2-person survey crew on site at all times during the work to assure compliance with Section 100 of the General Provisions and to provide the following at a minimum.

1. Provide all construction staking as required by Section 50 of the General Provisions and Plans.

2. Provide continuous straight edging records on a daily basis to the Engineer and under the direct observation/supervision of the Engineer as required. Submit results on forms provided by the Engineer. These will be accepted on a lot basis by the Engineer.

3. Provide daily grade tolerance surveys for completed courses of pavement to assure grade tolerances are being met. All survey data shall be provided in electronic ASCII format (or equivalent as approved by the engineer) and shall include Point Number, Northing, Easting, Elevation, and Description (PNEZD format). All point descriptions shall be coded in accordance with the naming convention specified in the contractor's "Point Description Key Code" as provided to the engineer prior to the beginning of construction.

4. Assist in other verification surveys during roto-milling operations, field design adjustments, and as-built survey work as required at the direction of the Engineer.

18. LIQUIDATED DAMAGES:

Subject to the provisions of the Contract Documents, the Sponsor shall be entitled to liquidated damages for failure of the Contractor to complete the work within the specified contract time.

The Contractor further agrees to pay liquidated damages for failure to complete the work within the specified contract time and for expenses incurred by the Sponsor for unscheduled employment of the Engineer during the contract time overrun as follows.

As compensation for non-use, the Contractor shall be assessed a liquidated damage of $2,500.00/Calendar Day(s) for each day that the work remains uncompleted beyond the contract period. As compensation for expenses incurred for unscheduled employment of the Engineer, up to $2,050.00/Calendar day for the Project Manager, up to $1,600/Calendar day for the Deputy Project Manager, up to $1,700/Calendar day for the Construction Manager, and up to $1,600/Calendar day for the Resident Engineer, plus any incurred expenses (per diem, lodging, etc.) will be charged to the Contractor for that time which exceeds the number of Calendar Day(s) allowed in this paragraph. As compensation for expenses incurrent for unscheduled employment of the sub-contractor quality assurance testing, up to $2,650/Calendar day for the Materials Technician, up to $2,200/Calendar day for the Project Engineer, and up to $1,250/Calendar day for the Field Technician, plus any incurred expenses (per diem, lodging, etc.) will be charged to the Contractor for that time which exceeds the number of Calendar Day(s) allowed in this paragraph. Further, each phase of work under the project has additional liquidated damage clauses, as outlined in Item SP-100-1.11 Liquidated Damages in Division 3.

The Contractor further agrees to pay compensation for the unscheduled employment of the Engineer (and their Sub-Contractors) necessitated by the Contractor for any of the following: 1) working more than ten (10) hours per day, and 2) furnishing materials or equipment not in conformance with the Contract Documents necessitating redesign, retesting, or additional review time by the Engineer and their Sub-Contractors according to the following hourly rates:

Description	Straight Time
Project Manager	$275/hr
Deputy Project Manager	$160/hr
Construction Manager	$170/hr
Resident Engineer	$160/hr
Out of Pocket Cost, material, equipment, supplies, transportation, subsistence	At Cost

Sub-Contractor (Quality Assurance Testing)	Straight Time
Materials Technician	$265/hr
Project Manager	$220/hr
Field Technician	$125/hr
Out of Pocket Cost, material, equipment, supplies, transportation, subsistence	At Cost

Compensation shall be paid by deduction from the final payment.

The engineering budget will be analyzed at the end of the project to determine whether any unscheduled employment of the Engineer, during the scheduled contract time, resulted in a cost savings to the Sponsor. If, as a result of working more than (10) ten hours per day, the Contractor completes the project within the scheduled contract time, and if the overtime results in a reduced contract time and cost savings to the Sponsor, no liquidated damages will be assessed for the unscheduled employment of the Engineer during the scheduled contract time.

Liquidated damages will be assessed as stipulated above for each day the work remains uncompleted beyond the scheduled contract time.

19. CONSTRUCTION CLOSEOUT

In addition to the items discussed in the County of Ventura Standard Specifications, after the final inspection has been completed, a Notice of Contractor's Final Settlement will be issued for publication in accordance with applicable state, local, and federal requirements. Contractor is required to submit on company letterhead and signed by supervisor or company officer the following:

a) Affidavit that all wages, material purchases, and subcontractors have been paid in full.

b) List of all subcontractors used on the project with final dollar value of subcontracts and DBE subcontractors identified.

c) All test results in format required by the Engineer and County of Ventura. All tests results must be approved and accepted before the Engineer will release any final retainage amounts.

Final payment will not be authorized until these items have been completed.

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SPECIAL PROVISIONS

PART B – STATE REQUIREMENTS

Labor and Employment Law Overview: California

Summary

- California law prohibits an employer from discriminating and retaliating against employees in a variety of protected classes. Employers must also provide pregnancy accommodations, provide equal pay, allow wage discussions, allow employees to access their personnel files and protect whistleblowers. See EEO, Diversity and Employee Relations.
- California permits preemployment drug testing and background checks, but limits salary history inquiries. See Recruiting and Hiring.
- In California, there are requirements relating to the minimum wage, overtime, meal and rest breaks, breastfeeding breaks and child labor. See Wage and Hour.
- California has laws that relate to employee pay and benefits, including temporary disability insurance, health care continuation, pay statements, wage deductions and wage notice requirements. See Pay and Benefits.
- Under California law, employees are entitled to certain leaves or time off, including family and medical leave, paid family leave, paid sick leave, domestic violence leave and emergency responder leave. See Time Off and Leaves of Absence.
- California law requires employers to provide a safe working environment for their employees, including the development of a written Injury and Illness Prevention Program. California also prohibits smoking in the workplace and using a hand-held cell phone while driving. See Health and Safety.
- When employment ends, California employers must comply with applicable final pay, job reference and mass layoff notification requirements. See Organizational Exit.

Introduction to Employment Law in California

Many consider California the state with the most proscriptive variances from federal law, including broader antidiscrimination protections, a higher minimum wage, paid family leave insurance and paid sick leave.

Select California employment requirements are summarized below to help an employer understand the range of employment laws affecting the employer-employee relationship in the state. An employer must comply with both federal and state law.

An employer must also comply with applicable municipal law obligations affecting the employment relationship, in addition to complying with state and federal requirements.

EEO, Diversity and Employee Relations

Key California requirements impacting EEO, diversity and employee relations are:

Fair Employment Practices

The California Fair Employment and Housing Act (FEHA) prohibits employers with five or more employees from discriminating in the terms and conditions of employment. Protected characteristics include:

- Race (including hair texture, protective hairstyles and other traits historically associated with race);
- Religion;
- Color;
- National origin and ancestry;
- Physical or mental disability;
- Medical condition;
- Genetic information;
- Marital status;
- Sex (including breastfeeding and related conditions);
- Sexual orientation;
- Gender identity/gender expression;
- Pregnancy (including childbirth and related medical conditions);
- Age; and
- Military or veteran status.

Harassment is a form of illegal discrimination that is prohibited under the FEHA.

The FEHA also prohibits retaliation against a person who opposes, reports or assists another person in opposing unlawful discrimination.

Pregnancy Accommodation

The FEHA requires an employer to provide reasonable accommodations to an employee because of pregnancy, childbirth or a related medical condition. Examples of reasonable accommodations include modified duties, schedules or equipment.

Religious Accommodation

The FEHA explicitly provides for religious accommodation in employment. The FEHA requires an employer to show significant difficulty or expense to prove undue hardship, versus the de minimus standard under federal law.

Disability Accommodation

An employer is obligated to provide reasonable accommodations to qualified individuals with disabilities. The FEHA makes it a separate violation for an employer to fail to engage in the interactive process.

Equal Pay

California prohibits discrimination on the basis of sex, race and ethnicity in the payment of wages for substantially similar work. As a defense against a wage discrimination claim, an employer must show that the pay differential is based on a bona fide factor other than sex, such as seniority, merit, quality or quantity of production, education, training or experience. Prior salary, on its own, does not justify a wage differential.

Discussion of Wages

An employer may not prohibit employees from disclosing, discussing or inquiring about their own wages or the wages of another employee and may not discriminate or retaliate against employees for engaging in such conduct.

Access to Personnel Files

California employers must provide current and former employees with access to their personnel files. The employer must make the records available for inspection by the requester at reasonable times and intervals, but generally no later than 30 calendar days after receiving a written request. The employer may charge a fee that equals the actual cost of copying the materials.

Whistleblower Protections

A California employer may not make, adopt or enforce any rule, regulation or policy preventing an employee from being a whistleblower. Also, an employer may not retaliate because an employee:

- Is a whistleblower;
- Refuses to participate in an activity that would result in a violation of a state or federal statute or a violation of or noncompliance with a state or federal rule or regulation; or
- Exercises his or her rights as a whistleblower in any former employment.

A whistleblower is an employee who discloses information to a government or law enforcement agency where the employee has reasonable cause to believe that the information discloses:

- A violation of a state or federal statute;
- A violation of or noncompliance with a state or federal rule or regulation; or
- Unsafe working conditions or work practices in the employee's employment or place of employment.

Be aware that where there is overlap between federal, state and/or local law, complying with the law that offers the greatest rights or benefits to the employee will generally apply.

Additional information on EEO, diversity and employee relations practices in California can be found in the California Employee Handbook Table of Contents, Disabilities (ADA): California, EEO - Discrimination: California, EEO - Harassment: California, EEO - Retaliation: California, HR Management: California, Employee Discipline: California, California Workplace Labor and Employment Law Posters and Does This Law Apply to My Organization in California? Federal requirements can be found in Disabilities (ADA): Federal, EEO - Discrimination: Federal, EEO - Harassment: Federal, EEO - Retaliation: Federal, HR Management: Federal and Employee Discipline: Federal.

Recruiting and Hiring

Key California requirements impacting recruiting and hiring are:

Drug Testing

Drug testing of job applicants is allowed in California. An employer must provide applicants with notice of the drug testing requirement.

Credit Checks

Under the Consumer Credit Reporting Agencies Act, an employer may perform credit checks only for certain positions (e.g., a law enforcement position), and it must provide applicants for such positions with notice that a credit check will be performed. Further, the employer must notify applicants of any adverse action taken on the basis of the credit check.

Criminal Checks

An employer must show that any criminal history information sought is job-related and consistent with business necessity. The employer may not consider certain types of criminal history when making hiring decisions, including:

- An arrest that did not result in conviction;
- Participation in a pre-trial or post-trial diversion program;
- Convictions that have been ordered sealed, expunged or eliminated by statute;
- An arrest, detention or court disposition that occurred while a person was subject to a juvenile court; and
- A nonfelony conviction for marijuana possession that is more than two years old.

Consumer Reports

An employer may seek investigative consumer reports for employment purposes. The Investigative Consumer Reporting Agencies Act requires the employer to provide written notice to applicants before the report is procured.

Ban the Box

The California Fair Employment and Housing Act prohibits an employer with five or more employees from including any question on a job application that asks about the applicant's criminal conviction history. This statewide "ban the box" law also prohibits covered employers from inquiring about or considering an applicant's criminal history until the applicant has received a conditional offer.

Salary History Inquiry Restrictions

California prohibits an employer from relying on a job applicant's salary history as a factor in determining whether to offer employment or what salary to offer. The law bans employers from asking applicants about their salary history, including compensation and benefits, orally or in writing.

An employer may consider or rely on salary history information that an applicant discloses voluntarily and without prompting, but may not rely on prior salary, by itself, to justify any disparity in compensation. In addition, an employer must provide a position's pay scale to an applicant who makes a reasonable request for that information.

Be aware that where there is overlap between federal, state and/or local law, complying with the law that offers the greatest rights or benefits to the employee will generally apply.

Additional information on recruiting and hiring practices in California can be found in the California Employee Handbook Table of Contents, Preemployment Screening and Testing: California, Interviewing and Selecting Job Candidates: California and Does This Law Apply to My Organization in

California? Federal requirements can be found in Preemployment Screening and Testing: Federal and Interviewing and Selecting Job Candidates: Federal.

Wage and Hour

Key California requirements impacting wages and hours are:

Minimum Wage

The minimum wage in California varies depending on the size of the employer. Currently, an employer with 25 or fewer employees must pay employees $13.00 per hour and an employer with 26 or more employees must pay employees $14.00 per hour.

Overtime

California law requires an employer to pay employees overtime for all hours worked in excess of 40 hours in a workweek and eight hours in a workday. An employer is also required to pay overtime to employees who work a seventh consecutive day in a workweek.

A California employer must pay overtime to nonexempt employees at the rate of one and one-half times the employee's regular rate of pay for all hours worked in excess of 40 in any workweek; for all hours worked in excess of eight, up to and including 12 hours, in any workday; and for the first eight hours of work on the seventh consecutive day of work in a workweek. An employer is further required to pay double the employee's regular rate of pay for all hours worked in excess of 12 in any workday and for all hours worked in excess of eight on the seventh consecutive day of work in a workweek.

Rest Breaks

A California employer must provide nonexempt employees with a paid 10-minute rest period for each four-hour work period. Rest periods must be given as close to the middle of the work period as is practicable. An employee is entitled to one hour of pay for each workday that the rest period is not authorized or permitted.

Meal Breaks

An employer in California must provide nonexempt employees with no less than a 30-minute meal period if they work more than five hours a day. A second meal period of no less than 30 minutes must be provided when the employee's work period is more than 10 hours. An employee is entitled to one hour of pay for each shift that the meal period is not provided.

Breastfeeding Breaks

A California employer must provide a reasonable amount of break time to accommodate an employee desiring to express breast milk for the employee's infant child each time the employee has need to express milk. When possible, the break time should run concurrently with any break time already provided to the employee. Break time that does not run concurrently with the existing break time does not have to be paid. An employer is not required to provide break time if doing so would seriously disrupt the employer's operations.

An employer must provide an employee with the use of a room or other location for the employee to express milk in private. The room or location may include the place where the employee normally works if it otherwise meets certain legal requirements. Under certain circumstances, an employer may claim undue hardship.

An employer must develop and implement a lactation accommodation policy and include it in the employee handbook or policies provided to employees. The employer must distribute the policy to new employees upon hire and when an employee makes an inquiry about or requests parental leave.

Child Labor

Child labor laws in California restrict the occupations in which minors may be employed and the number of hours and times during which they may work.

For most occupations, California had adopted the federal standards into its own regulations. However, California's regulations also forbid minors under the age of 16 from working in additional occupations, involving, among others, several types of machines, railroads, dangerous acids, scaffolding and tobacco.

California also has a complex set of requirements that govern the times during which minors may work. These requirements differ depending on the age of the minor, with separate working time restrictions set out for 16- and 17-year-olds, for 14- and 15-year-olds and for 12- and 13-year-olds.

California requires almost all minors to have a permit to work.

California also has many additional regulations that are specific to the entertainment industry.

Be aware that where there is overlap between federal, state and/or local law, complying with the law that offers the greatest rights or benefits to the employee will generally apply.

Additional information on wage and hour practices in California can be found in the California Employee Handbook Table of Contents, Minimum Wage: California, Overtime: California, Hours Worked: California, Child Labor: California, California Workplace Labor and Employment Law Posters and Does This Law Apply to My Organization in California? Federal requirements can be found in Minimum Wage: Federal, Overtime: Federal, Hours Worked: Federal and Child Labor: Federal.

Pay and Benefits

Key California requirements impacting pay and benefits are:

Temporary Disability Insurance

California's State Disability Insurance (SDI) program is a state-run plan administered by the Employment Development Department (EDD). SDI provides partial wage replacement to eligible workers who are unable to perform their regular or customary work due to a nonwork-related illness or injury, including pregnancy-related conditions. The program is funded entirely by taxes withheld from employees' wages.

An employer has the option of establishing a voluntary private plan, subject to EDD approval, in lieu of the state-administered plan.

Health Care Continuation

The California Continuation Benefits Replacement Act (Cal-COBRA) requires group health plans issued to employers with two to 19 employees to offer continuation coverage to qualified beneficiaries (employees and eligible dependents). Cal-COBRA mirrors the federal Consolidated Omnibus Budget Reconciliation Act (COBRA) in terms of qualifying events and timelines. Cal-COBRA's notice requirements and premiums differ from COBRA.

Cal-COBRA also requires group health plans to offer an insured who has exhausted continuation coverage under federal COBRA the opportunity to continue coverage for up to 36 months from the date

the insured's continuation coverage began, if the insured is entitled to fewer than 36 months of COBRA coverage.

Payment of Wages

California requires that employees be paid either in cash or by checks that can be cashed in full, without fees or discounts, at an established place of business located within the state.

Direct deposit is permitted if:

- The employee chooses the financial institution;
- The financial institution has a branch in California; and
- The employee voluntarily authorizes the deposit.

Pay Statements

California employers must provide each employee with an accurate, itemized written pay statement in the form of a detachable part of a check or a separate written statement. Statements must be provided each time wages are paid, or at least semimonthly, and must contain the following information:

- Gross wages earned;
- Total hours worked (for nonexempt employees);
- Number of piece-rate units earned and the applicable piece rate (for piece-rate basis employees);
- All deductions;
- Net wages earned;
- Inclusive dates of the pay period;
- Employee's name and last four digits of employee's Social Security Number or employee ID number;
- Employer's name and address;
- All applicable hourly rates in effect during the pay period and the corresponding number of hours worked at each rate by the employee; and
- If paying overtime from a previous pay period, the previous overtime shown as a correction, and the inclusive dates for the pay period the overtime was worked.

Additional requirements exist for piece-rate employees and temporary services employees.

Pay Frequency

Employers must designate paydays in advance.

Nonexempt employees must be paid all wages earned at least twice a month (i.e., semimonthly) on regular paydays designated in advance. Overtime must be paid by the following payday for the next regular payroll period following the payroll period in which the overtime wages were earned.

Exempt employees may be paid once a month on or before the 26th of each month in which the salary is earned, including the amount yet to be earned from the 26th through the end of the month.

Wage Deductions

An employer may make deductions from an employee's wages if required by state or federal law or court order, with the employee's written authorization or for other permissible reasons, including but not limited to child support withholding, creditor garnishments and tax levies.

Wage Notices

The Wage Theft Prevention Act requires an employer to provide notice of certain pay-related information (e.g., the employee's rate of pay and the basis for such rate, the employer's regular pay period, the employer's name) to nonexempt employees at the time of hire and any time the information changes.

Be aware that where there is overlap between federal, state and/or local law, complying with the law that offers the greatest rights or benefits to the employee will generally apply.

Additional information on pay and benefits practices in California can be found in the California Employee Handbook Table of Contents, Insurance and Disability Benefits: California, Health Care Continuation (COBRA): California, Payment of Wages: California, Involuntary and Voluntary Pay Deductions: California, California Workplace Labor and Employment Law Posters and Does This Law Apply to My Organization in California? Federal requirements can be found in Insurance and Disability Benefits: Federal, Health Care Continuation (COBRA): Federal, Payment of Wages: Federal and Involuntary and Voluntary Pay Deductions: Federal.

Time Off and Leaves of Absence

Key California requirements impacting time off and leaves of absence are:

Family and Medical Leave

The California Family Rights Act (CFRA) requires employers with five or more employees to provide eligible employees with up to 12 weeks of job-protected leave in a 12-month period for the employee's or a covered family member's serious health condition, for the birth or placement for adoption or foster care of a child, or for a qualifying exigency related to the covered active duty or call to covered active duty of an employee's spouse, domestic partner, child or parent in the US Armed Forces. While the CFRA and the federal Family and Medical Leave Act (FMLA) parallel each other to a large degree, there are areas in which they differ, such as covered family members and what is considered a serious health condition.

Paid Family Leave

California provides for paid family leave (PFL) benefits under a Family Temporary Disability Insurance program. Eligible employees receive partial wage replacement when taking time off to care for a seriously ill family member (i.e., child, parent, spouse, registered domestic partner, grandparent, grandchild, sibling or parent-in-law), to bond with a child within one year of birth or placement for adoption or foster care, or to participate in a qualifying exigency related to the covered active duty or call to covered active duty of the employee's spouse, domestic partner, or parent who is the US Armed Forces. Employees may take up to eight weeks of PFL in a 12-month period.

Paid Sick Leave

Under the Healthy Workplaces, Healthy Families Act (HWHFA), eligible employees may take paid sick leave for the following reasons:

- Diagnosis, care or treatment of the employee's or a covered family member's existing health condition;
- Preventive care for the employee or a covered family member; and
- For an employee who is a victim of domestic violence, sexual assault or stalking to obtain legal, medical or social services.

Employees may accrue and use up to 24 hours (or three days) of paid sick leave per year. Total accrual, including carryover of unused accrued time, may not exceed 48 hours (or six days) per year.

Other Time Off Requirements Affecting California Employers

In addition to the CFRA and HWHFA, a California employer is also required to comply with more than a dozen other leave and time off laws, such as:

- Pregnancy disability leave (covering employers with five or more employees);
- Kin care leave;
- Family military leave (covering employers with 25 or more employees);
- Bone marrow and organ donor leave (covering employers with 15 or more employees);
- School activities leave (covering employers with 25 or more employees);
- School discipline leave;
- Domestic violence and crime victim leave;
- Leave to attend judicial proceedings;
- Jury duty leave;
- Voting leave;
- Election official leave;
- Military leave;
- Civil Air Patrol leave (covering employers with more than 15 employees);
- Literacy leave (covering employers with 25 or more employees);
- Drug and alcohol rehabilitation leave (covering employers with 25 or more employees);
- Day of rest requirements.

Be aware that where there is overlap between federal, state and/or local law, complying with the law that offers the greatest rights or benefits to the employee will generally apply.

Additional information on time off and leave of absence practices in California can be found in the California Employee Handbook Table of Contents, FMLA: California, Paid Sick Leave: California, Jury Duty: California, Other Leaves: California, USERRA: California, Hours Worked: California, California Workplace Labor and Employment Law Posters and Does This Law Apply to My Organization in California? Federal requirements can be found in FMLA: Federal, Paid Sick Leave: Federal, Jury Duty: Federal, Other Leaves: Federal, USERRA: Federal and Hours Worked: Federal.

Health and Safety

Key California requirements impacting health and safety are:

Occupational Safety and Health

California operates its job safety and health programs covering the private sector under a state plan approved by the federal Occupational Safety and Health Administration (OSHA).

Under the California Occupational Safety and Health Act (Cal/OSH Act), a California employer must provide and maintain a safe and healthful workplace for employees and, to that end, is required to develop and maintain a written, effective Injury and Illness Prevention Program that includes, among other things, instruction on safe workplace practices.

Smoke-Free Workplace

California bans smoking, including the use of e-cigarettes, in enclosed spaces of places of employment. An employer needs to take reasonable steps to prevent smoking in the workplace, such as posting "no smoking" signs.

Safe Driving Practices

Drivers in California are prohibited from holding and operating a hand-held cell phone or electronic wireless communications device, but are permitted to use the voice-operated and hands-free functions on the phone or device. However, a driver may use a single swipe or tap of the finger to operate a hand-held phone or device that is mounted on the windshield, dashboard or center console.

Be aware that where there is overlap between federal, state and/or local law, complying with the law that offers the greatest rights or benefits to the employee will generally apply.

Additional information on health and safety practices in California can be found in the California Employee Handbook Table of Contents, HR and Workplace Safety: California, Drugs, Alcohol and Smoking: California, California Workplace Labor and Employment Law Posters and Does This Law Apply to My Organization in California? Federal requirements can be found in HR and Workplace Safety (OSHA Compliance): Federal and Drugs, Alcohol and Smoking: Federal.

Organizational Exit

Key California requirements impacting organizational exit are:

Final Pay

An employer must pay final wages immediately to an employee who is terminated and upon resignation to an employee who provides at least 72 hours' notice of the intent to resign. If an employee provides fewer than 72 hours' notice of the intent to resign, then an employer may generally mail final wages within 72 hours.

California law does not permit "use it or lose it" vacation policies. Vacation accruals may be capped, but may not be forfeited. Therefore, unused, accrued vacation must be paid out at the end of employment.

Wages owed to a deceased employee must be paid to the surviving spouse or conservator of the estate. Probate of the will need not have occurred before payment is made. The employer must pay up to $15,000 net for wages due for personal services and unused vacation time. The party requesting payment must present to the employer reasonable proof of identity and an affidavit or a declaration under penalty of perjury making certain statements of fact.

References

California law affords a qualified privilege to an employer who communicates about a former employee's job performance or qualifications to a prospective employer. The communication must be made in good faith.

Mass Layoff Notifications

The California Worker Adjustment and Retraining Notification Act (Cal-WARN Act) provides employees and their families time to prepare for a prospective job loss by requiring an employer to provide advance notice of a plant closing or mass layoff. While the state law is modeled after the federal Worker Adjustment and Retraining Notification Act (WARN Act), there are areas in which they differ, such as the definition of covered employer.

Be aware that where there is overlap between federal, state and/or local law, complying with the law that offers the greatest rights or benefits to the employee will generally apply.

Additional information on organizational exit practices in California can be found in the California Employee Handbook Table of Contents, Payment of Wages: California, Performance Appraisals: California, Involuntary Terminations: California and Does This Law Apply to My Organization in California? Federal requirements can be found in Payment of Wages: Federal, Performance Appraisals: Federal and Involuntary Terminations: Federal.

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SPECIAL PROVISIONS

PART C – PROJECT SPECIFIC REQUIREMENTS

SP-100 GENERAL REQUIREMENT FOR AIRPORT CONSTRUCTION

100-1.1 OVERVIEW. This section provides for construction safety in an Airport environment; limitations on construction operations; minimum requirements for construction management and scheduling; and site-specific information pertaining to potential impacts on construction activities. Unless otherwise noted, all costs associated with related work shall be included in the Contract pay item for Airfield Safety and Traffic Control.

100-1.2 CONSTRUCTION AND SAFETY PHASING PLAN (CSPP). A Construction Safety and Phasing Plan has been prepared for this project. Contractor shall comply with the CSPP included in Division 4. Included as part of the requirements of the CSPP is the Safety Plan Compliance Document (SPCD) to be completed by the Contractor. (Notice to Proceed for Construction will not be issued until SPCD is approved.)

100-1.3 SECURITY ACCESS. The Contractor shall be responsible for obtaining security gate badges for supervisory and any other necessary construction personnel from the Airport Administration Office. The security gate badge requirements and any costs shall be included in the mobilization cost.

Refer to the CSPP for specific requirements and training.

100-1.4 SUBMITTALS. All materials and equipment used to construct this work shall be submitted to the RPR for approval prior to ordering the equipment.

The data submitted shall be sufficient, in the opinion of the RPR, to determine compliance with the Drawings and Contract Documents. The RPR reserves the right to reject any and all equipment, materials or procedures, which, in the RPR's opinion, do not meet the system design and the standards and codes specified.

For items listed under 'a.' below – the Contractor shall provide the submittals at least five (5) working days prior to the pre-construction meeting. Issuance of a Notice to Proceed is dependent on the timelines and the proper level of detail of these submittals. Submittals shall be submitted to the RPR electronically.

Submittals shall include items as detailed below, but are not limited to:

a. General Requirements
   Key Personnel, Telephone Numbers, and Emergency Telephone Numbers
   Project Construction Schedule (CPM)
b. Site Work - including but not limited to Contractor's Materials and Equipment

Manufacturer's catalogs (or excerpts thereof) and affidavits of compliance with the Contract Documents shall be submitted for all materials to be used on the project. Alternate products may be approved by the RPR upon submittal of the following information and subject to the acceptance of the County. The Agency will not consider an alternate product that does not have adequate demonstrated experience and meet all performance requirements of this specification.

Contractor shall allow a minimum of ten (10) working days for evaluation of requests for substitution or deviation from the Contract Documents.

100-1.5 SUBMITTAL PROCEDURES.

a. Submit electronic submittals via email as PDF electronic files.
b. Each submittal item shall be individually numbered accordingly to the checklist, so that approved and rejected submittals can be tracked.
c. Edit submittals so that the submittal specifically applies to only the equipment furnished. Neatly cross out all extraneous text, options, models, etc. that do not apply to the equipment being furnished, so that the information remaining is only applicable to the equipment furnished.
d. Present measurements in customary American units (feet, inches, pounds, etc.).
e. After the initial submittal package, a separate transmittal form shall be used for each subsequent submittal, specific item, or class of material or equipment for which a submittal is required. However, transmittal of a submittal of various items using a single transmittal form will be allowed when the items taken together constitute a "package" or are so functionally related that expediency dictates review of the package as a whole. A multiple-page submittal shall be collated into sets, and each set shall be stapled or bound, as appropriate, prior to transmittal to the RPR.
f. Each transmittal shall identify the specification section that relates to item being submitted.
g. After checking and verifying all field measurements, the Contractor shall thoroughly review each shop drawing for compliance and compatibility and stamp "APPROVED" and sign each shop drawing to indicate that a thorough review was made by the Contractor and that the Contractor has approved the shop drawing for the project prior to submission for the RPR's review.
    (1) Submittals shall bear a stamp or specific written indication that Contractor has satisfied its responsibilities under the Contract Documents with respect to the review of the submittal and have a signature by the Contractor.
    (2) Data shown shall be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to enable RPR to review the information.
h. Check the samples and accompany with specific written indication that Contractor has satisfied requirements under the Contact Documents with respect to review of submittals, and identify clearly as to material, supplier, pertinent data such as catalog numbers and the intended use.
i. Before submission of each submittal, determine and verify quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers, and similar data with respect thereto; review and coordinate each submittal with other submittals, requirements of work, and the Contract Documents.
j. Submittals shall specify by checking a box "Yes" or "No" as to whether the submittal contains variations to the Contract. At the time of each submission, give RPR specific written notice of each variation that the submittal may have from the requirements of the Contract Documents; in addition, make specific notation on each shop drawing submitted to RPR for review and approval of each such variation.
k. The RPR will review up to two (2) submittals for each item. It is considered reasonable that the Contractor shall make a complete and acceptable submittal to the RPR by the second submission of a submittal item. All costs to review shop drawings submitted more than twice to receive a "Re-submittal Not Required" or other approval designation, shall be borne by the Contractor. The Agency reserves the right to withhold moneys due the Contractor to cover additional cost of the RPR's review beyond the second submittal.
l. The RPR's review is for general conformance to the Contract Documents and no check will be made to confirm dimensions, compatibility with other elements of the Work, or deviations from the Contract Documents which have not been specifically identified by the Contractor.

Contractor is responsible for the installation of complete, functional improvements in accordance with the Contract Documents.

m. RPR's review will be only for conformance with the design concept of the project and for compliance with the information given in the Contract Documents, not extending to means, methods, techniques, sequences, or procedures of construction (except where a specific means, method, technique, sequence, or procedure of construction is indicated in or required by the Contract Documents) nor to safety precautions or programs incident thereto. The review of a separate item as such will not indicate the review of the assembly in which the item functions.

n. Where a shop drawing or sample is required by the Specifications, related work performed prior to RPR's review and approval of the pertinent submission shall be the sole expense and responsibility of Contractor.

o. Review, acceptance, or approval of substitutions, schedules, shop drawings, list of materials, and procedures submitted or requested by Contractor shall not add to the Contract amount, and additional costs which may result therefrom shall be solely the obligation of Contractor.

p. The Agency is not responsible to provide engineering or other services to protect Contractor from additional costs accruing from submittals.

q. Submittals processed by RPR do not become Contract Documents and are not Change Orders. The purpose of submittal review is to establish a reporting procedure and is intended to allow the RPR to monitor Contractor's progress and understanding of the design.

r. Delays caused by the need for re-submittal shall not constitute a basis for claim.

s. The Agency reserves the right to modify the procedures and requirements for submittals, as necessary to accomplish the specific purpose of each submittal. Direct inquiries regarding the procedure, purpose, or extent of any submittal shall be submitted to the RPR.

100-1.6 LINES, GRADES, AND SURVEY CONTROL. The Contractor shall provide construction and layout staking for the RPR to review and confirm prior to work being started. The use of GPS is allowed. The RPR will be given 48 hours' notice of pavement section layers, pavement marking, and pavement marking layout so it may be checked. Contractor is responsible for verifying the existing and tie-in locations for the improvements shown on the Plans. Any discrepancies shall be reported to the RPR immediately and prior to removal of existing pavement to determine if design modifications need to be addressed. RPR shall be allowed a minimum of 48 hours to render a decision.

Contractor shall notify the RPR immediately regarding any survey monuments, benchmarks, control points, stakes or marks, etc., that are in jeopardy of being disturbed or destroyed by construction, so that they may be relocated and perpetuated.

Subgrade blue tops at 50-foot stations and 50-foot offset distance (maximum) for the following section locations:

a. Runway – minimum five (5) per station
b. Taxiways – minimum three (3) per station
c. Holding apron areas – minimum three (3) per station
d. Roadways – minimum three (3) per station

Base Course blue tops at 50-foot stations and 50-foot offset distance (maximum) for the following section locations:

a. Runway – minimum five (5) per station
b. Taxiways – minimum three (3) per station
c. Holding apron areas – minimum three (3) per station

Pavement areas:

a. Edge of Pavement hubs and tacks (for stringline by Contractor) at 100-foot stations.
b. Between Lifts at 50-foot stations for the following section locations:
    (1) Runways – each paving lane width
    (2) Taxiways – each paving lane width
    (3) Holding areas – each paving lane width
c. After finish paving operations at 50-foot stations:
    (1) All paved areas – Edge of each paving lane prior to next paving lot
    (2) Final survey of runway and taxiways shall include centerline, quarter point, and edge of pavement. Any areas that do not comply for elevation or width from centerline will need to be removed up to the nearest paving lane.
d. Shoulder and safety area blue tops at 50-foot stations and at all break points with maximum of 50-foot offsets.
e. Painting and Striping layout (pinned with 1.5 inch PK nails) marked for paint Contractor. (All nails shall be removed after painting).
f. Final survey of pavement markings at layout locations identified on the plans.
g. Laser, or other automatic control devices, shall be checked with temporary control point or grade hub at a minimum of once per 400 feet per pass (i.e., 400 feet per paving lane).

Surveys shall be performed by a Professional Land Surveyor. AutoCAD (version 2020) files and signed/sealed PDFs shall be provided to RPR for review.

The establishment of Survey Control and/or reestablishment of survey control shall be by a Licensed Land Surveyor in the State of California. Controls and stakes disturbed or suspect of having been disturbed shall be checked and/or reset as directed by the RPR without additional cost to the Owner. The Contractor shall include the associated costs in the Contract item for Construction Staking and Survey Layout.

100-1.7 RECORD DRAWINGS. The Contractor shall maintain Record Drawings of all work continuously as the job progresses. A separate set of prints, for this purpose only, shall be kept at the job site at all times. It shall be required that these Drawings be up to date and be reviewed by the field inspector at the time each progress bill is submitted. All deviations from the Drawings, exact locations and sizes of all utilities, mechanical and electrical lines, equipment details, and all stub outs and connections for future expansion, shall be incorporated. Fees for documentation of Record Drawings shall be included in other items of work and no separate payment will be made.

100-1.8 MATERIAL TESTING AND RETESTING. All Quality Control shall be performed by the Contractor per Item C-100, Contractor Quality Control Program. Contractor shall submit Quality Control reports to the RPR for review of test results and frequency of testing in conformance with Contract Documents. All acceptance testing will be performed by the RPR as necessary.

In the event the acceptance tests do not pass and the RPR is required to retest the area, the cost for each retest shall be borne by the Contractor at the cost of the work plus 25% markup.

100-1.9 SCHEDULE OF VALUES. A schedule of value(s) shall be provided for each lump sum bid item within 5 days of request. The schedule of values shall be in the form of a detailed, itemized cost breakdown of the lump sum amount that includes the profit and overhead costs for each item including a line-by-line breakdown of labor and materials. All work to be performed by subcontractors shall be listed. The schedule of values, once established, will serve as the basis for estimating or evaluating the

percentage of lump sum work completed for progress payments. Progress payments on Unit Price Work will be based on the number of units completed. The schedule of values may also be used to evaluate the impact of unbalanced pricing.

100-1.10 TIME LIMITATIONS. The overall time of completion for this Project is as follows based on project award.

Contract Award	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7	Total
Schedule I	5 Calendar Nights	5 Calendar Nights	8 Calendar Nights					18 Calendar Nights
Schedule II				1 Calendar Nights (Concurrent with Phase 1)	4 Calendar Nights	3 Calendar Nights	4 Calendar Nights	12 Calendar Nights

Should this time schedule not be met, liquidated damages will be assessed. Refer to the CSPP for detailed time limitations for the specific work areas. A summary of contract time is divided as follows:

A. CONSTRUCTION ELEMENT. Notice to Proceed with Construction shall be issued at the Agency's discretion. All work included in the Construction element shall be completed within the working days specified.

100-1.11 LIQUIDATED DAMAGES. Liquidated Damages will be assessed per the following table for each calendar day, as specified in the contract, that any work remains uncompleted after the contract time (including all extensions and adjustments). The sum specified in the contract or proposal as liquidated damages (LD) will be deducted from any money due or to become due to the Contractor or their own surety. Such deducted sums shall not be deducted as a penalty but shall be considered as liquidation of a reasonable portion of damages including but not limited to additional engineering services that will be incurred by the Owner should the Contractor fail to complete the work in the time provided in their contract.

SCHEDULE	PHASE	LIQUIDATED DAMAGES COST	ALLOWED CONSTRUCTION TIME
Schedule I	Phase 1	$5,800/calendar day(s) for days beyond the day count which consists of $2,500/calendar day(s) for non-use, $1,700/calendar day(s) for Construction Manager, and $1,600/calendar day(s) for Resident Engineer. Costs of subconsultants to the Engineer will also be included in the liquidated damages.	8 Calendar Nights
Schedule I	Phase 2	$500.00/15 minutes for runway night closures which consists of time for	5 Calendar Nights

		the Airport Staff, Construction Manager, Resident Engineer, and non-use for the Night Closures. $5,800/calendar day(s) for days beyond the day count which consists of $2,500/calendar day(s) for non-use, $1,700/calendar day(s) for Construction Manager, and $1,600/calendar day(s) for Resident Engineer. Costs of subconsultants to the Engineer will also be included in the liquidated damages.	
Schedule I	Phase 3	$500.00/15 minutes for runway night closures which consists of time for the Airport Staff, Construction Manager, Resident Engineer, and non-use for the Night Closures. $5,800/calendar day(s) for days beyond the day count which consists of $2,500/calendar day(s) for non-use, $1,700/calendar day(s) for Construction Manager, and $1,600/calendar day(s) for Resident Engineer. Costs of subconsultants to the Engineer will also be included in the liquidated damages.	5 Calendar Nights
Schedule I	Phase 4	$5,800/calendar day(s) for days beyond the day count which consists of $2,500/calendar day(s) for non-use, $1,700/calendar day(s) for Construction Manager, and $1,600/calendar day(s) for Resident Engineer. Costs of subconsultants to the Engineer will also be included in the liquidated damages.	1 Calendar Night (Concurrent to Schedule I, Phase 1)
Schedule I	Phase 5	$5,800/calendar day(s) for days beyond the day count which consists of $2,500/calendar day(s) for non-use, $1,700/calendar day(s) for Construction Manager, and $1,600/calendar day(s) for Resident Engineer. Costs of subconsultants to the Engineer will also be included in the liquidated damages.	4 Calendar Nights
Schedule I	Phase 6	$5,800/calendar day(s) for days beyond the day count which consists of $2,500/calendar day(s) for non-use, $1,700/calendar day(s) for	3 Calendar Nights

		Construction Manager, and $1,600/calendar day(s) for Resident Engineer. Costs of subconsultants to the Engineer will also be included in the liquidated damages.	
Schedule I	Phase 7	$5,800/calendar day(s) for days beyond the day count which consists of $2,500/calendar day(s) for non-use, $1,700/calendar day(s) for Construction Manager, and $1,600/calendar day(s) for Resident Engineer. Costs of subconsultants to the Engineer will also be included in the liquidated damages.	4 Calendar Nights

The maximum construction time allowed for Schedule I will be the sum of the time allowed for Schedule I Phases 1, 2, 3, 5, 6 and 7, but not more than **29** days. Permitting the Contractor to continue and finish the work or any part of it after the time fixed for its completion, or after the date to which the time for completion may have been extended, will in no way operate as a waiver on the part of the Owner of any of its rights under the contract. Liquidated damages are further discussed in Section 18 of the Special Provisions Airport Requirements in Division 3-6.

100-1.12 BARRICADES AND DELINEATORS. The Contractor is responsible for providing, placing, and maintaining 8-foot, low-profile barricades, including batteries as needed; and shall provide two solar flashing lights for each of the barricades. Contractor is responsible for additional barricades needed during project.

Additionally, the Contractor shall provide plastic delineators as required to barricade hazardous areas. Unless otherwise approved by the RPR, delineators shall be 42-inch-high molded plastic. Delineators shall be four inches in diameter, florescent orange, supplied with a double-weighted base and reflective stripes. Lighting for delineators will be provided at night as approved by the RPR. All costs associated with this item shall be included in Airfield Safety and Traffic Control.

The Agency shall determine the appropriate locations for the low-profile barricades and the delineators with respect to the proximity to aircraft.

100-1.13 LIGHTED RUNWAY CLOSURE MARKERS. The Contractor shall provide one set of trailer-mounted closure crosses. The Contactor will be responsible for placing, fueling, lubricating, maintaining flashing lights, and removing closure crosses. Runway closure markers will be placed on runways whenever runways are closed. When erected on the runway, the lighted markers shall be a minimum 14 feet on a side, inclined toward the approach end of the runway, and lighted crosses will be on 24/7. During the project, the Contractor shall have, at a minimum, one spare closure cross as a contingency in the event one of the crosses fails to operate. The contractor shall be responsible for checking and replacing bulbs on a daily basis. The lighted markers shall be removed by the contractor prior to opening per the schedule approved by the RPR. All costs associated with this item shall be included in Item C-105.

100-1.14 COVERINGS. The contractor shall provide, install and maintain covers for edge lighting and guidance signs as required by the CSPP and SPCD. All costs associated with this item shall be included in Airfield Safety and Traffic Control.

100-1.15 AVIATION RADIOS. The Contractor is to provide at least two hand-held aviation radios to be used in communications with the Air Traffic Control Tower (ATCT) as specified in the CSPP. Radios shall be ICOM A16 transceivers or an approved alternative, each supplied with battery pack, spare battery pack, whip antenna, desktop charger, and a 12V adaptor/charger. On completion of the Project the radios become the property of the Contractor. Providing the radios shall be included under the Contract price for Airfield Safety and Traffic Control.

100-1.16 ACCESS AND SECURITY.

A. **CONTRACTOR ACCESS.** Contractor access to the various work areas shall be via the closest access routes indicated on the Project Layout Plan. Additional haul routes on Airport property shall be approved by the Airport. All access routes and haul routes shall be kept clean and free of debris. Dust control shall be maintained. Where haul routes cross active runways, taxiways, or aprons, radio-equipped flaggers shall be provided by the Contractor as required to control movement of construction equipment and personnel.

B. **ACCESS SECURITY CONTROL.** The Contractor shall be responsible for maintaining Airport security at all gates designated for his use. Gates must be locked or manned by the Contractor's personnel to ensure no unauthorized access to the air operations area. All access gates shall be kept clear of equipment and material.

100-1.17 WORK HOUR LIMITATIONS. See CSPP for work hours per area.

100-1.18 ADVERSE WEATHER CONDITIONS AS DETERMINED BY THE RPR. If, due to the onset of adverse weather as determined by the RPR, the Project cannot be satisfactorily completed, the Contractor may request the Agency to issue a notice to stop work. At that time, the Contractor shall perform that work necessary to winterize/prepare the Project as directed by the Agency. Contract time will stop on the date the notice is issued. The Contractor shall maintain the construction area as required over the severe weather conditions. When weather improves, another Notice to Proceed shall be issued and the Project shall then be completed. Additional payment will not be made in the event an adverse weather shutdown is necessary. The Contractor shall honor all bid prices when construction resumes.

100-1.19 CONSTRUCTION WATER METER REQUIREMENTS. The Contractor is responsible for contacting the City of Camarillo to apply for a construction water meter. Please contact:

City of Camarillo – Water Service Division
601 Carmen Drive, Camarillo, California 93010
(805) 388-5325

The Contractor shall be responsible for all fees and charges to obtain construction water.

No separate measurement and payment will be made for construction water. All costs shall be included in other items of work.

Airport will specify the water location the contractor can utilize. Any other location will need to be approved in writing by the County.

100-1.20 HEARING PROTECTION. Due to the nearby aircraft operations, the Contractor shall provide all necessary hearing protection for workers.

100-1.21 CULTURAL RESOURCES ASSESSMENT. In the event that archaeological materials are encountered during construction, all construction work shall be halted, and a Ventura Agency certified archaeologist shall be consulted to determine the appropriate treatment of the discovery.

In the event human remains are encountered, State Health and Safety Code – Section 7050.5 states that, no further disturbance shall occur until the Agency Coroner has made a determination of origin and disposition pursuant to Public Resources Code – Section 5097.98. The Agency Coroner must be notified of the find immediately.

If the remains are determined to be Native American, the Agency Coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC. The MLD will have the opportunity to offer recommendations for the disposition of the remains.

100-1.22 APPLICATION FOR PAYMENT AND REQUIRED ITEMS. Applications for payment shall follow the standard County format based on the schedule of items included in the proposal forms. The Contractor shall also supplement the pay application with amounts being paid to subcontractors and the amounts being paid to DBE firms. Subcontractor and DBE amounts shall be delineated by bid items in the proposal forms.

100-1.23 AIRPORT ACCESS AND HAUL ROUTE REPAIR. For repairs to the haul roads required at the end of the construction when hauling operations are complete. Repairs will be a result of construction activities and not by the Contractor's negligence. Contractor shall mill and place 2" of surface course P-401 asphalt in areas defined by the RPR. Field adjustments may need to be made to the scope of work, based on the severity of pavement failure. Nothing in this paragraph waives the Contractor's requirements to maintain haul roads and paved areas throughout the project.

100-1.24 UNDERGROUND UTILITY INVESTIGATION AND POTHOLING. The Plans depict underground utilities derived from record drawings and field investigations. Not all utilities locations or depths are known. Within two weeks prior to the start of construction, the Contractor shall coordinate for location services. As the first part of work in the Construction Element, the Contractor shall pothole utility locations and verify location and depth within the work area. Contractor shall verify electrical pullboxes labeled in the Existing Conditions Plan Sheets are empty. If cables are found, Contractor shall verify/find power source. All work shall be coordinated with and performed under the observation of the RPR or their designated representative. Contractor will document locations, depth, and type of utility and provide information to the RPR prior to full production work.

METHOD OF MEASUREMENT

100-2.1 Airfield Safety and Traffic Control, Construction Safety and Survey Layout, Airport Access and Haul Route, and Underground Utility Investigation and Potholing and all incidentals required to complete work described in this section will be considered incidental to Item C-105.

BASIS OF PAYMENT

100-3.1 Airfield Safety and Traffic Control, Construction Safety and Survey Layout, Airport Access and Haul Route, and Underground Utility Investigation and Potholing and all incidentals required to complete work described in this section will be considered incidental to Item C-105. This price shall include full compensation for all labor, materials, tools, equipment, CSPP compliance, SPCD preparation and compliance, and incidentals necessary to complete the work as specified in this Specification and requirements shown on the Plans.

END OF ITEM SP-100

SP-102 WATER POLLUTION CONTROL, EROSION CONTROL, AND SWPPP

102-1.1 Erosion Control shall conform to the Ventura County Standard Specifications and shall consist of applying Erosion Control materials to the areas shown on the Plans, embankment and excavation slopes and other areas disturbed by construction activities and as directed by the RPR.

The Contractor will be responsible for the fees associated with submitting the Notice of Intent and SWPPP measures.

The Contractor will also be responsible for the MS-4 permit documentation located at the Los Angeles Regional Water Quality Control Board website under Ventura County: Ventura County MS4 Permit | Los Angeles Regional Water Quality Control Board (ca.gov)

102-1.2 WATER POLLUTION CONTROL (FOR PROJECTS WITH OVER 1 ACRE OF DISTURBED AREA). Prior to any construction activity, the Contractor shall prepare, submit, pay Notice of Intent Fee, and obtain approval of a Stormwater Pollution Prevention Plan (SWPPP) in accordance with the NPDES General Construction Permit for stormwater and non-stormwater discharges associated with construction activities, entitled: "National Pollutant Discharge Elimination System (NPDES) Permit – Water Quality Order 2009-0009-DWQ. Approval of the SWPPP shall not relieve the Contractor of any liability for violations of State or Federal law relating to water pollution.

Approval of the NPDES permit that regulates this project, as referenced above, is hereafter collectively referred to as the "Permit."

This project shall conform to the Permit and modifications thereto. The Contractor shall maintain copies of the Permit at the project site and shall make the Permit available during construction.

The Contractor shall know and fully comply with applicable provisions of the Permit and all modifications thereto, and Federal, State, and local regulations and requirements that govern the Contractor's operations and stormwater and non-stormwater discharges from both the project site and areas of disturbance outside the project limits during construction.

The Permit shall apply to stormwater and certain permitted non-stormwater discharges from areas outside the project site which are directly related to construction activities for this contract including, but not limited to, asphalt batch plants, material borrow areas, concrete plants, staging areas, storage yards, and access roads. The Contractor shall comply with the Permit for those areas and shall implement, inspect, and maintain the required water pollution control practices. Installing, inspecting, and maintaining water pollution control practices on areas outside the right-of-way not specifically arranged and provided for by the Ventura County for the execution of this contract, will not be paid for.

The Contractor shall be responsible for penalties assessed or levied on the Contractor or the Ventura County as a result of the Contractor's failure to comply with the provisions in this section "Water Pollution Control" including, but not limited to, compliance with the applicable provisions of the Permit, and Federal, State, and local regulations and requirements as set forth therein.

Penalties as used in this section, "Water Pollution Control," shall include fines, penalties and damages, whether proposed, assessed, or levied against the County of Ventura or the Contractor, including those

levied under the Federal Clean Water Act, State Fish & Wildlife Code, and the State Porter-Cologne Water Quality Control Act, by governmental agencies or as a result of citizen suits. Penalties shall also include payments made or costs incurred due to stop work orders, work suspension, scheduled days, and/or Contractor delays or in settlement for alleged violations of the Permit, or applicable laws, regulations, or requirements. Costs incurred could include sums spent instead of penalties, due to agency or County imposed mitigation or to remediate or correct violations, or damages resulting from stop work orders, work suspension, or scheduled days.

102-1.3 RETENTION OF FUNDS. Notwithstanding any other remedies authorized by law, the Ventura County may retain money due the Contractor under the contract, in an amount determined by Ventura County, up to and including the entire amount of Penalties proposed, assessed, or levied as a result of the Contractor's violation of the Permit, or Federal, State, or local law, regulations or requirements. Funds may be retained by the Ventura County until final disposition has been made as to the Penalties. The Contractor shall remain liable for the full amount of Penalties until such time as they are finally resolved with the entity seeking the Penalties.

Retention of funds for failure to conform to the provisions in this section, "Water Pollution Control," shall be in addition to the other retention amounts required by the contract. The amounts retained for the Contractor's failure to conform to provisions in this section will be released for payment on the next monthly estimate for partial payment following the date when an approved SWPPP has been implemented and maintained, and when water pollution has been adequately controlled, as determined by the RPR.

When the County or a regulatory agency identifies a failure to comply with the Permit and modifications thereto, or other Federal, State, or local requirements, the County will retain money due the Contractor, in the amount of 10 percent of the work done to date or any fine whichever is greater. This amount is in addition to the retention specified in Partial and Final Payment, subject to the following: the County will give the Contractor written notice of the County's intent to retain funds from partial payments which may become due to the Contractor prior to recording of the Notice of Completion.

During the first estimate period that the Contractor fails to conform to the provisions in this section, "Water Pollution Control," the Ventura County may retain an amount equal to 25 percent of the estimated value of the contract work performed.

The Contractor shall notify the RPR immediately upon request from the regulatory agencies to enter, inspect, sample, monitor, or otherwise access the project site or the Contractor's records pertaining to water pollution control work. The Contractor and the Ventura County shall provide copies of correspondence, notices of violation, enforcement actions, or proposed fines by regulatory agencies to the requesting regulatory agency.

102-1.4 STORMWATER POLLUTION PREVENTION PLAN (SWPPP) PREPARATION, APPROVAL, AND AMENDMENTS. As part of the water pollution control work, a SWPPP is required for this contract. The SWPPP shall conform to the provisions in this section, "Water Pollution Control," the requirements of the Permit, and these special provisions. Upon the RPR's approval of the SWPPP, the SWPPP shall be considered to fulfill the provisions of the contract bid item "Prepare Stormwater Pollution Prevention Plan."

Approval shall not constitute a finding that the SWPPP complies with applicable requirements of the Permit, the Manuals and applicable Federal, State, and local laws, regulations, permits, and requirements,

nor does approval supersede the requirements and provisions of these special provisions, the Permit, or any other Federal, State, or local regulations or permit in the event of a conflict.

The SWPPP shall address stormwater run-off and run-on for all disturbed and affected areas of construction, including temporary and permanent measures. The SWPPP submittal shall contain the complete SWPPP document, along with the following information identified separately:

(a) Latitude/longitude of project site
(b) Total project site size (acres)
(c) Total area to be disturbed (acres)
(d) Percent imperviousness before construction
(e) Percent imperviousness after construction
(f) Date construction will begin
(g) Date all grading will be complete
(h) Date project will be complete
(i) Risk Assessment including the R Factor Value, K Factor Value, LS Factor, site sediment risk factor, and Receiving Water Risk Factor.
(j) Name of receiving water and whether project site run-off drains directly, indirectly, or through the storm drain system.
(k) Name of QSD, QSD Certification Number, and QSD SMARTS user ID
(l) Name of QSP Certification Number, and QSP SMARTS user ID
(m) Contractor's site contact person, and their title, phone, and email address
(n) Contractor's designated Data Submitter and their SMARTS user ID

The SWPPP submittal shall be provided to the RPR for review and approval. The Contractor will prepare a Notice of Intent (NOI), pay the fee, and submit the SWPPP electronically to the State Water Resources Control Board (State) website, entitled Stormwater Multi Application Reporting and Tracking System (SMARTS). For the purposes of the Permit, the County is the owner of the Permit and the County is the Legally Responsible Person (LRP). The LRP will retain authority for assigning the Approved Signatories and Data Submitters in SMARTS. The Contractor's QSP and/or QSD will be designated as Data Submitters in SMARTS, including the responsibilities thereof, as required by the Permit. The Contractor will submit to the State and obtain a certified NOI and Waste Discharge Identification Number (WDID) for the project. The Contractor will be responsible for paying the associated fees.

The Contractor shall submit the SWPPP to the RPR within the Mobilization Element. The Contractor shall submit three (3) copies of the draft SWPPP to the RPR. The RPR will have five (5) working days to review the SWPPP. If revisions are required, as determined by the RPR, the Contractor shall revise and resubmit the SWPPP within five (5) working days of receipt of the RPR's comments. The RPR will have five (5) working days to review the revisions. Upon the RPR's approval of the SWPPP, four (4) approved hard copies and one (1) electronic copy of the SWPPP shall be submitted to the RPR. The electronic copy shall contain files no more than 50 megabytes in size. The Contractor will upload the SWPPP to the State SMARTS website. No ground disturbing work shall occur until the NOI is complete and the SWPPP has been uploaded to the State website, and a WDID number is obtained. The RPR will notify the Contractor in writing when the process is complete which will allow ground disturbing work to begin. In the event the RPR fails to complete the reviews within the time allowed, and if, in the opinion of the RPR, completion of the work is delayed or interfered with by reason of the RPR's delay in completing the review, an extension of time will be granted, in the same manner as provided for in the Standard Specifications.

The SWPPP shall apply to the areas within or immediately outside of the right-of-way that are directly related to all construction activities including, but not limited to, material borrow or disposal areas, staging areas, storage yards, and access roads, including those on-site areas developed by the Contractor with third parties for use during the project.
The SWPPP shall incorporate water pollution control practices in the following categories:

(a) Soil stabilization.
(b) Sediment control.
(c) Wind erosion control.
(d) Tracking control.
(e) Non-stormwater management.
(f) Waste management and materials pollution control.

The Contractor shall develop a Water Pollution Control Schedule that describes the timing of grading or other work activities that could affect water pollution. The Water Pollution Control Schedule shall be updated by the Contractor to reflect changes in the Contractor's operations that would affect the necessary implementation of water pollution control practices.

Water pollution control practices include the "Minimum Requirements" and other Contractor-selected water pollution control practices from the "SWPPP" and the "Project-Specific Minimum Requirements."

The Contractor shall incorporate water pollution control practices into the SWPPP as defined in the CASQA or Caltrans handbooks. Water pollution control practices shall include Contractor-selected water pollution control practices and "Project-Specific Minimum Requirements."

The requirements described herein are considered minimum requirements to satisfy the Ventura County erosion control standards. Additional BMPs may be required to meet the requirements set forth in the SWPPP and the Permit. All BMPs shall be designed, installed, maintained, and otherwise managed pursuant to the provisions set forth in the California Department of Transportation (Caltrans) Stormwater Quality Handbook, Construction Site BMP Manual (latest edition) or the California Stormwater Quality Association (CASQA), California Stormwater BMP Handbook for Construction (latest edition). The Contractor and/or his preparer may recommend equivalent erosion control applications that provide equal or better performance for consideration and approval by the RPR. Approval of the SWPPP by the RPR/County shall not relieve the Contractor of any liability for violations of State or Federal water pollution control laws, Clean Water Act, Porter-Cologne Water Quality Control Act, Federal Endangered Species Act, State Fish and Wildlife Code, and other applicable laws and regulations.

The Contractor shall prepare an amendment to the SWPPP as required by the Permit, such as when there is a change in construction activities or operations which may affect the discharge of pollutants to surface waters, ground waters, storm drain systems; when the Contractor's activities or operations violate a condition of the Permit; when there is a change in the schedule that affects the discharge of pollutants; when there is a change in the schedule that affects the Risk Level required by the Permit; or when directed by the RPR. Amendments shall identify additional water pollution control practices or revised operations, including those areas or operations not identified in the initially approved SWPPP. Amendments to the SWPPP shall be prepared and submitted for review and approval within the time required by the Permit and approved by the RPR, but in no case longer than the time specified for the initial submittal and review of the SWPPP. Approved amendments shall be submitted electronically to the RPR within 24 hours of approval. At a minimum, the SWPPP shall be amended annually as required by the Permit, and

an electronic copy submitted to the RPR. The Contractor shall keep one copy of the approved SWPPP and approved amendments at the project site. The SWPPP shall be made available upon request by a representative of the Regional Water Quality Control Board, State Water Resources Control Board, United States Environmental Protection Agency, or the County. Requests by the public shall be directed to the RPR.

The list below includes some of the items that might be required to meet the applicable requirements for water pollution control work required in the SWPPP. Refer to the Plans for specific details.

- Erosion Control (Temporary)
- Potable Water/Irrigation
- Sandbag Barrier
- Straw Mulch
- Vehicle and Equipment Fueling
- Storm Drain Inlet Protection
- Wood Mulching
- Material Delivery and Storage
- Stabilized Construction Entrance/Exit
- Outlet Protection/Velocity Dissipation Devices
- Stockpile Management
- Entrance/Outlet Tire Wash
- Silt Fence
- Solid Waste Management
- Dewatering Operations
- Sediment Trap
- Contaminated Soil Management
- Clear Water Diversion
- Fiber Rolls
- Sanitary/Septic Waste Management
- Liquid Waste Management
- Street Sweeping and Vacuuming
- Erosion Control (Permanent)
- Vehicle and Equipment Cleaning
- Straw Bale Barrier
- Geotextiles, Plastic Covers & Erosion Control Blankets/Mats
- Vehicle and Equipment Maintenance
- Wind Erosion Control
- Earth Dikes/Drainage Swales & Lined Ditches
- Material Use
- Stabilized Construction Roadway
- Slope Drains
- Spill Prevention and Control
- Water Conservation Practices
- Desilting Basin
- Hazardous Waste Management
- Paving and Grinding Operations
- Gravel Check Dam
- Concrete Waste Management
- Illicit Connection/Illegal Discharge Detection and Reporting
- Temporary Stream Crossing

102-1.5 SWPPP IMPLEMENTATION. If there is a discrepancy between the project Permit and these special provisions, the Permit language shall supersede. If there is a discrepancy between the SWPPP and these special provisions, the special provisions shall supersede. Unless otherwise specified, upon approval of the SWPPP, the Contractor shall be responsible throughout the duration of the project for installing, constructing, inspecting, maintaining, replacing, removing, and disposing of temporary water pollution control practices; installing, constructing, inspecting, maintaining, and replacing permanent water pollution control practices specified in the SWPPP and in the amendments; and all reporting and monitoring. The duration of work includes that time period between initial mobilization to the site and acceptance of the work. Unless otherwise directed by the RPR, the Contractor's responsibility for SWPPP implementation shall continue throughout temporary suspensions of work. Requirements for installation, construction, inspection, reporting, monitoring, maintenance, replacement, removal, and disposal of water pollution control practices shall conform to the requirements in these special provisions and to project permits.

Installing, inspecting, and maintaining water-pollution control practices on areas outside the right-of-way (or designated work area) not specifically arranged and provided for by the Ventura County for the execution of this contract, will not be paid for.

If the Contractor or the RPR identifies a deficiency in the implementation of the approved SWPPP or amendments, the deficiency shall be corrected immediately unless requested by the Contractor and approved by the RPR in writing but shall be corrected prior to the onset of precipitation. If the Contractor fails to correct the identified deficiency by the date agreed or prior to the onset of precipitation, the project shall be in nonconformance with this section, "Water Pollution Control."

If the Contractor fails to conform to the provisions of this section, the RPR may order the suspension of construction operations and/or may hire a third party to correct the deficiency. All costs associated with such work will be deducted from the Contractor's retention.

Implementation of water pollution control practices may vary by season. These special provisions shall be followed for control practice selection of year-round, rainy season and non-rainy season water pollution control practices.

102-1.6 YEAR-ROUND IMPLEMENTATION REQUIREMENTS. The Contractor shall have a year-round program for implementing, inspecting and maintaining water pollution control practices for wind erosion control, tracking control, non-stormwater management, and waste management and materials pollution control.

The National Weather Service weather forecast shall be monitored and used by the Contractor on a daily basis. These Specifications require that if 30 percent or greater precipitation is predicted, the necessary water pollution control practices shall be deployed prior to the onset of the precipitation. If there is less than a 30 percent chance of precipitation, the Contractor shall still be responsible for ensuring the project site does not result in a discharge of pollutants off-site. Regardless of the chances of precipitation, the Contractor shall allow adequate time to properly install all required BMPs prior to precipitation.

Disturbed soil areas shall be considered active whenever the soil disturbing activities have occurred, continue to occur or will occur during the ensuing 14 days. Non-active areas shall be stabilized with water pollution control practice within 14 days of cessation of soil disturbing activities or prior to the onset of precipitation, whichever occurs first.

102-1.7 MAINTENANCE. To ensure the proper implementation and functioning of water pollution control practices, the Contractor shall regularly inspect and maintain the construction site for the water pollution control practices identified in the SWPPP and as required by the Permit. The construction site shall be inspected by the Contractor as follows:

a. Prior to a forecast storm.
b. After a precipitation event which causes site runoff.
c. At 24-hour intervals during extended precipitation events.
d. Routinely, a minimum of once every week
e. Quarterly throughout the year

The Contractor shall use a Stormwater Quality Construction Site Inspection Checklist approved by the RPR. One copy of each site inspection record shall be submitted to the RPR within 48 hours of completing the inspection.

102-1.8 REPORTING AND MONITORING REQUIREMENTS. All reporting and monitoring efforts required by the Permit are the responsibility of the Contractor. Such activities include but are not limited to preparation and implementation of the Rain Event Action Plans (REAP), Annual Reports, water sampling, and storm event monitoring and reporting. Reports shall be uploaded to SMARTS as required by the Permit. Annual Reports shall be completed in SMARTS and the RPR notified when complete. The County will review and certify the Annual Report. The County will complete the Notice of Termination (NOT) upon completion of the project and after the project site is stabilized and protected from erosion. All Annual Reports must be completed and approved by the State prior to approval of the NOT.

If the Contractor identifies discharges from the project site, regardless of source, in a manner causing, or potentially causing, a condition of pollution in surface waters or drainage systems, the Contractor shall immediately inform the RPR. In addition, the Contractor shall submit a written Notice of Discharge report to the RPR within 24 hours of the discharge event. The report shall include the following information:

a. The date, time, location, nature of the operation, and type of discharge, including the cause or nature of the notice or order.
b. The water pollution control practices deployed before the discharge event. The date of deployment and type of water pollution control practices deployed after the discharge
c. event, including additional measures installed or planned to remediate and cleanup the discharge, and/or reduce or prevent reoccurrence.
d. An implementation and maintenance schedule for affected water pollution control practices.

102-1.9 REPORT OF FIRST-TIME NON-STORMWATER DISCHARGE. The Contractor shall notify the RPR at least 3 days in advance of first-time non-stormwater discharge events, excluding exempted discharges. The Contractor shall notify the RPR of the operations causing non-stormwater discharges and shall obtain field approval for first-time non-stormwater discharges. Non-stormwater discharges shall be monitored at first-time occurrences and routinely thereafter.

If the Contractor receives a written Notice, Order, or other non-compliance action letter from a regulatory agency as a result of stormwater or other discharges from the project site, the Contractor shall immediately notify the RPR. The Contractor shall be solely responsible for responding to and complying with the Notice, Order, or action letter, unless otherwise directed by the RPR.

The Contractor shall be responsible for submitting complete, accurate, and detailed reporting documents sufficient to satisfy all conditions of the Permit and regulatory agency requirements.

METHOD OF MEASUREMENT

102-2.1 Compliance with Pollution, Erosion, and Siltation Control, and all incidentals required to complete work described in this section will be measured as lump sum, as a percentage of the construction schedule.

BASIS OF PAYMENT

102-3.1 The contract lump sum price paid for "Compliance with Pollution, Erosion, and Siltation Control" shall include full compensation for preparation and implementation of the Stormwater Pollution Prevention Plan.

Preparation of the SWPPP shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals for doing all the work involved in developing, preparing, obtaining approval of, revising and amending the SWPPP as specified herein, and as directed by the RPR, and any fees associated with this item.

No additional payment will be made to correct deficiencies in the approved SWPPP or Amendments. Implementation of the SWPPP shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in implementing the SWPPP, installing, constructing, removing, and disposing of water pollution control practices, including non-stormwater management, and waste management and materials for water pollution control practices as provided for in the approved SWPPP, except those for which there is a contract item of work as specified in the Standard Specifications and these special provisions, and as directed by the RPR.

Full compensation for Permit reporting and compliance, including all monitoring, preparation of inspection reports, and stormwater sampling and analysis, and maintenance costs of Water Pollution Control Practices, Amendments, and Implementation of Amendments as specified in this section, "Water Pollution Control", shall be considered as included in the contract lump sum price and no additional compensation will be allowed therefor.

No additional payment will be made for Water Pollution Control Practices necessary to correct deficiencies in the approved SWPPP or Amendments. Water pollution control practices for which there is a contract item of work, will be measured and paid for as that contract item of work

Payments for "Compliance with Pollution, Erosion, and Siltation Control" will be made as follows:

a. Monthly progress payments for "Compliance with Pollution, Erosion, and Siltation Control" will be paid at the RPR's discretion will be based on the monthly project completion percentage.
b. The proposed final estimate payment will include the final balance of payment for this item of work.

Payment will be made under:

Item SP-102a Compliance with Pollution, Erosion, and Siltation Control – per lump sum

****END OF ITEM SP-102****

ITEM SP-106 KEY PERSONNEL

106-1.1 OVERVIEW. This Project Requirement identifies Key Personnel required for the successful project completion, provides for the minimum qualifications for the Contractor's Key Personnel, and outlines the process for replacing Key Personnel.

If a member of the Key Personnel either resigns or becomes physically or mentally incapable of performing the duties required of the position, the Contractor shall be permitted to propose the résumés of candidates with equal or higher qualifications for review by and approval of the Resident Project Representative (RPR) to maintain continuity of services. Should the services of any Key Personnel no longer become available to the Contractor for the reasons cited above, the Contractor shall submit to the RPR for approval as soon as possible, but in no event later than seven (7) calendar days, prior to the departure of the incumbent Key Personnel. The proposed Key Personnel candidate shall be accepted or rejected based on the sole judgement of the RPR.

If, for any reason other than those cited above (for example, the Contractor removes a Key Personnel member to another project or for its own convenience), the RPR shall have the right to enforce liquidated damages as specified below. Furthermore, the RPR shall retain the sole right to accept or reject the proposed replacement candidate. The RPR approved Key Personnel replacement shall be subject to the same retention requirement of the originally approved Key Personnel and any further removal shall be subject to RPR approval and potential enforcement of liquidated damages.

The RPR shall have the right to request removal of any Key Personnel by providing timely and written notice to the Contractor.

106-1.2 KEY PERSONNEL. The Contractor was selected, in part, on the basis of the qualifications of the Key Personnel submitted by the Contractor during the bid submittal and selection process. Continuity and job familiarity of the Contractor's Key Personnel are considered to be critical factors for the successful and timely completion of the Work. Therefore, the Contractor is required to retain the Key Personnel on a full-time basis throughout the duration of the Project.

The positions listed below are designated as the Contractor's Key Personnel for this contract.

1. Contractor's Representative (Project Manager)
2. Project Superintendent
3. Asphalt Paving Superintendent
4. Quality Control (QC) Manager
5. Project Scheduler
6. Safety Manager

In order to communicate with the RPR, the Contractor's representative, superintendent, or person in charge of specific work shall be able to speak, read, and write fluently in the English language.

The RPR reserves the right to:

1. Disapprove any candidate named as the Contractor's Key Personnel or alternates who fail to meet the provisions set forth herein.
2. Remove, without any right to work on the Project, either the Contractor's Key Personnel or alternate, who in the sole opinion of RPR has demonstrated incompetence, lack of ability, or

other unsuitability to perform supervision of the work; and that individual shall not, without permission of RPR, be re-employed on the Project.

a. CONTRACTOR'S REPRESENTATIVE (PROJECT MANAGER). As part of the bid submittal process, the Contractor, even if a joint venture, shall designate in writing one (1) representative who shall have complete authority to act for it and who shall have experience in the executive management of at least one complete project of similar scope, value and complexity, and using a substantially similar project delivery model. Contractor's Representative (Project Manager) shall be full time employee of the Contractor and have a minimum of ten (10) years construction experience, including at least five (5) years of experience in airport or general construction on projects of comparable size and scope as this contract. Contractor's Representative shall be dedicated to this project and shall be on-site on a full-time basis and may not manage or be responsible for any other construction project.

An alternative representative, meeting the minimum qualifications above, may be designated as well. The representative or alternate shall be present at the Project Site whenever work is in progress or whenever it is necessary to take measures to protect the work, persons, or property. Any order of communication given by the RPR to this representative shall be deemed delivered to the Contractor. In the absence of the Contractor's representative, instruction or directions shall be given by the RPR to the Contractor's Project Superintendent or person in charge of the specific work to which the order applies. Such order shall be complied with promptly and referred to the Contractor or its representative.

Failure to have the Contractor's representative or alternate representative present at the Project Site at all times while work under the Contract is in progress shall, at RPR's sole discretion, constitute suspension of the Work by the Contractor, until such time as said individual(s) is (are) again present at the Project Site.

No payment or any extension of time will be allowed for any work performed in the absence of the Contractor's Representative or alternate.

b. PROJECT SUPERINTENDENT. As part of the bid submittal process, the Contractor shall designate in writing one (1) project superintendent who shall have authority to direct the work in the field for all prime and sub-contractor work. Contractor's Project Superintendent shall be a full-time employee of the Contractor and have a minimum of ten (10) years construction experience including at least five (5) years of experience in airport or general construction projects of comparable size and scope as this contract. Contractor's Project Superintendent shall be dedicated to this project and shall be on-site on a full-time basis and may not manage or be responsible for any other construction projects.

An alternative project superintendent, meeting the minimum qualifications above, may be designated as well. The Project Superintendent or alternate shall be present at the Project Site whenever work is in progress or whenever it is necessary to take measures to protect the work, persons, or property. In the absence of the Contractor's Representative, instructions or direction shall be given by the RPR to the Contractor's Project Superintendent or person in charge of the specific work to which the order applies. Such order shall be complied with promptly and referred to the Contractor or its representative.

Failure to have the Contractor's Project Superintendent or alternate representative present at the

Project Site at all times while work under the Contract is in progress shall, at RPR's sole discretion, constitute suspension of the Work by the Contractor, until such time as said individual(s) is (are) again present at the Project Site.

No payment or any extension of time will be allowed for any work performed in the absence of the Contractor's Project Superintendent or alternate.

c. ASPHALT PAVING SUPERINTENDENT. As part of the bid submittal process, the Contractor shall designate in writing one (1) Asphalt Paving Superintendent who shall have authority to direct and coordinate all paving work. The Contractor's Asphalt Paving Superintendent shall be a full-time employee of the Contractor or sub-contractor and have a minimum of ten (10) years construction experience, including at least five (5) years of experience in airport or general construction on projects of comparable size and scope as this contract. Contractor's Asphalt Paving Superintendent shall be dedicated to this project and shall be on-site on a full-time basis during asphalt paving work.

An alternative Asphalt Paving Superintendent, meeting the minimum qualifications above, may be designated as well. The Asphalt Paving Superintendent or alternate shall be present at the Project Site whenever asphalt paving work is in progress or whenever it is necessary to take measures to protect the asphalt paving work, persons, or property. In the absence of the Project Superintendent, instructions or direction shall be given by the RPR to the Contractor's Asphalt Paving Superintendent or person in charge of the asphalt paving work. Such order shall be complied with promptly and referred to the Contractor or its representative.

Failure to have the Contractor's Asphalt Paving Superintendent or alternate representative present at the Project Site during asphalt paving work under the Contract is in progress shall at RPR's sole discretion constitute suspension of the Work by the Contractor, until such time as said individual(s) is (are) again present at the Project Site.

d. QUALITY CONTROL (QC) MANAGER. As part of the bid submittal process, the Contractor shall designate in writing one (1) QC Manager who shall administer the Construction Quality Control Program and shall be a full-time employee of the Independent Inspection and/or Testing Company. The Contractor's QC Manager shall have a minimum of ten (10) years construction experience, including at least five (5) years of recent experience in airport or general construction on projects of comparable size and scope as this contract. Contractor's QC Manager shall be dedicated to this project and shall be on-site during QC activities.

An alternative QC Manager may be designated as well. The QC Manager or alternate shall be present at the Project Site whenever work is in progress or whenever it is necessary to take measures to protect the work, persons, or property. In the absence of the Project Superintendent, instructions or direction shall be given by the RPR to the Contractor's QC Manager or person in charge of the Quality Control Program. Such order shall be complied with promptly and referred to the Contractor or its representative. Failure to have the Contractor's QC Manager or alternate representative present at the Project Site while work under the Contract is in progress shall at RPR's sole discretion constitute suspension of the Work by the Contractor, until such time as said individual(s) is(are) again present at the Project Site.

e. PROJECT SCHEDULER. As part of the bid submittal process, the Contractor shall designate in writing one (1) Project Scheduler who shall prepare and maintain the Project Construction Schedule

throughout the duration of the Project. Contractor's Project Scheduler shall have a minimum of ten (10) years construction experience, including at least five (5) years of recent experience in airport or general construction on projects of comparable size and scope as this contract. The Contractor's Project Scheduler shall be dedicated to this project. Additional Project Schedulers may be designated as well.

106-1.3 REPLACING KEY PERSONNEL. If the Contractor's representative or alternate leaves the employ of the Contractor, the Contractor will be required to replace the individual(s) within fifteen (15) days and to fulfill the requirements of this Subsection. In the interim, an "Acting Representative" for each key position described above must be named by the Contractor.

Failure of the Contractor to maintain key personnel will result in damages being sustained by Ventura County. The Contractor shall pay to Ventura County for each key personnel removed from the project without RPR approval the amount of Liquidated Damages as listed in the table of Liquidated Damages below:

Key Personnel	Amount (per event)
Project Manager	$10,000
Project Superintendent	$10,000
Asphalt Paving Superintendent	$10,000
Quality Control Manager	$10,000
Project Scheduler	$5,000

METHOD OF MEASUREMENT

106-2.1 No separate payment will be made as part of this Project Requirement. Therefore, no method of measurement is required.

BASIS OF PAYMENT

106-3.1 No separate payment will be made as part of this Project Requirement. The information provided will be used to evaluate the bidder's responsiveness.

****END OF ITEM SP-106****

ITEM SP-107 SCHEDULING OF WORK

107-1.1 OVERVIEW. The scheduling and execution of the work in accordance with the contract documents are the responsibility of the contractor. Schedules shall represent a practical plan to complete the Work within the work completion time and shall convey the contractor's intent in the manner of prosecution and progress of the Work. Schedules shall be created using scheduling software appropriate for the work, subject to acceptance or approval by the Resident Project Representative (RPR) as described herein. The submittal of schedules shall be understood to be the contractor's representation that the schedule meets the requirements of the contract documents and that the work will be executed in the sequence and duration indicated in the schedule.

107-1.2 CONSTRUCTION SCHEDULE AND PRORESS SCHEDULE. A construction schedule and progress schedule shall be submitted to the RPR by the Contractor within five (5) working days prior to the preconstruction meeting. An Agency-approved schedule will be required prior to issuing a Notice to Proceed with the Construction Element.

Schedule shall be a Critical Path Method Baseline type. Schedule shall indicate complete sequence of each construction category, indicating a time bar for each major category or unit of work to be performed. Work shall be properly sequenced and indicate being fully completed within the scheduled time of completion or substantial completion.

Schedule shall be coordinated with all other Contractors, subcontractors, and material suppliers prior to submission. Contractor shall update the schedule for each weekly construction meeting or whenever there is a significant change in progress, whether in a particular phase or total job progress.

Progress schedule shall incorporate submittals, product data, and sample submissions. Schedule shall indicate preparation time, approval time, resubmissions, fabrications, delivery dates and installation time.

Prior to the contractor's Notice to Proceed, the following events need to occur. Anticipated dates for these actions are as follows:

Bid Opening: November 30, 2023
Execution of Construction Contract: TBD (Anticipated January, 2024)
NTP for Construction: TBD (Anticipated February, 2024)

Contractor shall submit a draft Critical Path Method Schedule with their bid for award type using the Project elements identified on the CSPP.

107-1.3 GENERAL SCHEDULE REQUIREMENTS.

1. Schedules shall be consistent with the time and work requirements of the Contract. Contractor shall execute the Work in the sequence indicated on the current approved schedule to permit the RPR to schedule its resources, inspections, consultants, and any other work accordingly. The RPR may, in its discretion, require that schedules and plan construction over the entire Work Completion Time be adhered to and that the Contractor shall have no claims if the RPR disallows the Contractor from finishing early.
2. The Contractor shall involve and coordinate with all subcontractors, third parties, and material suppliers in the development and updating of schedules.

3. Review, acceptance or approval of schedules by RPR shall not waive any contract requirements and shall not relieve the Contractor of any obligation or responsibility for submitting complete and accurate information.
4. If, after a schedule has been accepted or approved by the RPR, either the Contractor or RPR discovers that any aspect of the schedule has an error or omission, Contractor shall correct it on the next progress schedule.
5. Errors or omissions on schedules shall not relieve the Contractor from finishing all work within the Work Completion Time.
6. The Contractor shall adjust, add to, or clarify any portion of a schedule which the RPR determines to be insufficient for monitoring the Work or to be impractical for any reason.
7. Use of float suppression techniques such as preferential sequencing or logic, special lead/lag logic restraints and extended activity durations will be cause for rejection of schedule submittal.
8. The Construction Scheduler is required to be completely familiar with the contract and have first-hand knowledge of the Work from on-site periodic job walks and shall attend all meetings pertaining to scheduling and progress of Work, including weekly jobsite meeting as requested by the County.
9. The scheduling method to be used shall be a Critical Path Method schedule in the form of an activity on node Precedence Diagram Network (PDN) with capabilities of identifying the critical path and controlling operation. The principles and definitions of the terms used herein shall be as set forth in the Associated General Contractors of America (AGC) publication "Construction Planning and Scheduling," latest edition. To the extent there are any conflicts between the AGC publication and the Contract Documents, the Contract Documents shall govern.
10. The Schedule shall include activities, regardless of responsibility, that directly or indirectly relate to or have influence over planning and executing the scope of work in strict accordance with the contract documents, and shall include but not be limited to Engineering, procurement, the Contractor's submittals and their forecast approval dates, fabrication, shipment and deliveries of material and equipment (by the Contractor and by others), and all on-site activities including quality control, testing, training and the turnover of final reports, Operations and Maintenance Manuals, and as-built drawings.
11. It is expressly understood and agreed that the time of the beginning, the rate of progress, the interim Contract Milestones, and the time of the completion of the Work are of the essence to this Contract. The Work shall be executed with such progress as required to prevent any delay to other Contractors working on other contracts at Ventura County Airports and the general completion of the Contract.
    a. The Contractor has a contractual duty to take reasonable remedial action, in the most economical manner, to mitigate any and all delays to any milestone or the completion date.
    b. In all cases, when it is possible for the Contractor to eliminate the time impact of a delay without added cost to itself, the Contractor shall do so and shall not be entitled for a time extension under such circumstances.
    c. The Schedule shall be prepared to include the completion date for the total Contract and the critical path shall be identified, including critical paths for interim milestone dates. Scheduled start or completion dates for activities imposed on the schedule by the Contractor shall be consistent with the Contract milestone dates. Milestone events shall be the schedule dates specified in the Contract and shall be prominently identified and connected to the appropriate element of the Work, denoting its start or completion.

107-1.4 CONTRACTOR'S PROJECT SCHEDULER.

1. The Project Scheduler is required to attend all meetings pertaining to scheduling and progress of the Work, including weekly job meetings. The Project Scheduler shall be available full time and, at the request of RPR, be available for any schedule related meeting. Failure to be available full time will constitute reason for termination of the Project Scheduler. If the Project Scheduler leaves the employ of the Contractor, the Contractor is required to fulfill the requirements of this subsection within thirty (30) days of the departure of the Contractor's Project Scheduler.
2. The number of schedulers required for timely completion of schedule deliverables will be determined by the Contractor. Any additional schedulers needed shall be hired by the Contractor to ensure all scheduled deliverables are submitted on time.

107-1.5 BASELINE SCHEDULE REQUIREMENTS.

1. The Contractor's Baseline Project Schedule shall show all Work and the sequence of all activities needed for the orderly performance and completion of all Work. The schedule shall reflect the Contractor's true plans for performing the Work. The Contractor shall be responsible for the means, methods, and duration. The Contractor's Baseline Project Schedule shall strictly follow all stage and/or phasing requirements as identified in the contract, engineering and construction phasing documents provided for reference. Any schedule showing a project completion duration other than that allowed in the Contract will not be approved.
2. The Contractor shall provide a written narrative accompanying the electronic version of the Contractor's Baseline Project Schedule submission. This narrative shall explain the Contractor's approach for meeting all milestones and project completion dates. It shall also include a clear description of the critical path activities from beginning to end and describe anticipated crew sizes, production rate, equipment requirements and anticipated problems of major activities along the critical path.
3. In the written narrative, the Contractor shall include the basis and assumptions (including activity duration basis), Critical Path analysis, historic project comparisons, and productivity and installation rates used to develop the Project Schedule. The Contractor shall include management staffing, non-manual and manual labor for engineering and construction, construction crew sizes, equipment requirements, and anticipated delivery dates; restraints; critical path activities; activities requiring overtime or additional shifts; activities that contain time contingencies for impacts to be expected from normal rainfall; holidays and other non-work calendar days; potential problem areas; permits; coordination required with Ventura County and third party agencies; and long lead delivery items requiring more than thirty (30) days from order to delivery.
4. A list of activities, showing the early and late start and finishes, duration, total float responsibility code, and predecessor and successor relationship, sorted by early start.
5. Non-manual labor staffing plan by department/position showing start and finish date (month and year) and number of each position per month. Include histograms showing staffing (incremental by month and cumulative) over the life of the Contract in terms of both headcount and job hours.
6. Manual labor staffing plan by craft (including Subcontractors) showing start and finish date (month and year) and number of craft per month. Include histograms showing staffing (incremental by month and cumulative) over the life of the Contract in terms of both headcount and job hours.
7. Activity durations shall be the total number of actual calendar days required to perform that activity including consideration of normal weather impact on completion of that activity. The activities included in the Contractor's Baseline Project Schedule shall be analyzed in detail to determine activity time durations in units of calendar days. Durations shall be based on

anticipated production rates for labor (crafts), equipment and materials required to perform each activity on a normal workday basis.

8. The first activity in the Baseline Schedule shall represent the Notice to Proceed as a milestone and the data date of the Baseline Schedule shall be the Contract "Notice to Proceed" date.
9. Include at least one (1) predecessor and one (1) successor for each activity excluding the project start and finish milestones.
10. Define one calendar to include the Holidays listed under County of Ventura Standard Specifications. No activity impacting Airport Operations shall be performed on these days without written approval by RPR.
11. The Baseline Schedule shall not contain negative total float or negative lag for any activity.
12. The Critical Path and number of critical activities shall be no more than thirty percent (30%) of the total activities in the Contractor's Baseline Project Schedule.
13. The Project's Critical Path, for the purpose of acceptance of all schedule submittals, shall be determined by the longest path analysis.
14. All durations shall be the result of definitive labor and resource planning by the Contractor to perform the Work according to the Contract Documents. The labor to be assigned by craft, definition, equipment, and bid item designation shall be shown for each construction activity for the network on a tabular listing. All crafts necessary to execute an activity must be shown. No more than one (1) subcontractor may be assigned to a specific activity. If more crafts are required, then the activity in question must be broken down into additional activities.
15. Retained Logic shall be the method of calculation and the "Retained Logic" setting shall be used.
16. All Activity Names shall be clearly and uniquely named with a description of work readily identifiable to inspection staff. Each Activity shall have a narrative description consisting at a minimum of one verb or work function (i.e. form, pour, excavate, review, approved, cure, etc.), an object (i.e. slab, footing, wall, shop drawing, submittal, girder, etc.) and a location.
17. The RPR reserves the right to require that the Contractor modify, adjust, add to, or clarify any portion of the Project Baseline or Progress Schedule which may later be discovered to be insufficient or inaccurate for planning, monitoring or prosecuting the Work (Schedule Adjustments). The first of each type of schedule or schedule report submitted by the Contractor will be reviewed for format, as well as content. Once the format has been approved all subsequent Project schedules shall be submitted in the approved format. RPR may request format changes as the Contract progresses. No additional compensation shall be provided for such modifications, adjustments, additions, or clarifications.
18. Lags shall be used at a minimum and shall not exceed ten (10) days in duration. A lag report will identify all lags used in the Baseline Schedule and a specific reason for its use will be provided for each. If it is determined that an activity or activities may take the place of the lag, RPR reserves the right to request the activity be used in its place. Failure to do so may constitute grounds for rejection of the baseline.
19. Early Completion: The Contractor may submit a Baseline or Progress Schedule showing an early scheduled completion date provided that the requirements of the Contract are met.
    a. The difference between the early completion date and the Work Completion Time is considered float. Float time shall not be for the exclusive benefit of either the Owner or the Contractor. Float shall be a resource available to both parties.
    b. Ventura County is not required to accept or approve a schedule with an early completion date.
    c. Contractor shall not be entitled to extra compensation in the event an agreement is reached on an early completion date and Contractor completes the Work, regardless of the reason, beyond the early completion date but within the Work Completion time.

20. A Calendar report shall be included with the Baseline Schedule Submittal. All calendars whether workday, seven-day, six-day, etc. shall have a basis of an eight (8) hour shift unless otherwise needed. Any calendar using more than an eight (8) hour shift shall be called out in the calendar report and a narrative explanation provided. The global calendar shall be seven (7) day / twenty-four (24) hour without any holidays or non-workdays.
21. In the case where construction crews experience adverse weather, the Contractor shall provide the RPR with a written request notice within three (3) days for any request for a time extension associated with adverse weather. Such delays must be clearly indicated by a fifty percent (50%) decrease in the field labor workforce hours on critical path activities on the day in question, as indicated by the Contractor's Daily reports from the day in question and the scheduled work days prior to the day in question.
    a. Inclement weather on non-scheduled work days shall not be granted as weather impact days. If the effects of inclement weather from a non-scheduled work day carry forward to a scheduled work day and impacts the Critical Path as noted above, then the scheduled work day will be considered impacted by adverse weather.
    b. All impacts occurring with regard to RPR approved adverse weather days will be a non-compensable time extension and may be granted pursuant to the contract documents as non-compensable to the Contractor.
22. The detailed breakdown of Project schedule activities may include:
    a. Type of Work to be performed, the sequences, and the labor trades involved and RPR approved WBS.
    b. All purchase, submittal, submittal review and necessary re-review, manufacturing, test, installation activities for all major materials and equipment, and a separate list of all major material items or items of equipment for which the Contractor intends to seek payment prior to installation.
    c. Preparation, submittal, and approval of shop and/or working drawings, and material samples showing the minimum timeframes for RPR's review of all submittals, or longer as identified in the Contract.
    d. Resource loading for cost, labor, material, and equipment. Include craft man-hours that add up to the total number of man-hours in the Contractor's estimate, quantities of materials that reconcile with the "Contract Pricing."
    e. All start up, testing, training, and assistance required under the Contract. (e.g. Punch list and final clean up).
    f. Identification of any labor, material, or equipment restrictions, as well as any activity requiring unusual shift Work.
    g. No activity shall have a duration over fourteen (14) days except non-construction activities such as submittals, submittal reviews, procurement and delivery of materials or equipment, and concrete curing without approval from RPR.
    h. All construction activities shall be shown in their resource-loaded state to reflect labor, materials and equipment. All durations shall be the result of definitive labor and resource planning by the Contractor to perform the Work according to the Contract Documents.
    i. Cost-Loading: Cost loading shall be made to all activities associated with all Contract Items identified in the "Contract Pricing" and sum of the total cost-loaded in the schedule shall equal the Total Contract Amount. The total cost-loading for all activities for a given Lump Sum Contract Item shall equal the bid amount listed in the "Contract Pricing."
    j. All construction activities shall be loaded with all resources required for the prosecution of the activity. These resources shall include labor, materials and equipment.

k. Manpower availability shall not be allowed to drive the critical path at the sole discretion of the Contractor. Manpower limitations must be verifiable in writing by the Union's business agent before such resource-driven logic is incorporated into the Contractor's Baseline Project Schedule.
l. All major equipment valued over $100,000 in capital cost to be used shall be identified in the Contractor's Baseline Project Schedule either as a resource or as a 'Level of Effort' (LOE) activity.
m. Float or slack time is not for the exclusive use or benefit of Ventura County or the Contractor but is an expiring resource available to all parties as needed to meet the Contract Completion Date.
n. Pursuant to the float-sharing requirements of the Contract, use of float suppression techniques such as preferential sequencing, special lead/lag logic restraints, extended activity times or imposed dates (mandatory Constraints) break the CPM rules and shall be cause for rejection of the Contractor's Baseline Project Schedule and any revisions or updates. The use of "Start On or after" or "Start On or before" and "Finish On or after" or "Finish On or before" will be allowed. The use of float time disclosed or implied by the use of alternative float suppression techniques shall be shared as directed by RPR.
o. Contractor shall use base calendars which are appropriate with the work being performed. These should be tied into the requirements and restrictions of airport operations. Multiple calendars are acceptable for the Schedule.
p. The timeframe for third party (e.g. County and Engineer of Record) submittal review should be identified in the Contractor's Baseline Project Schedule. Third party reviews may require additional time beyond the standard review period allowed for RPR Review. If necessary, additional time will be given to County.

23. Submit with the baseline schedule, a statement on subcontractor's letterhead, certifying that subcontractor has reviewed and concurs with the baseline schedule and that subcontractor's related schedule has been reasonably incorporated, including activity duration.

METHOD OF MEASUREMENT

107-2.1 Scheduling of the Work, and all incidentals required to complete work described in this section will not be separately measured, and no payment shall be made.

BASIS OF PAYMENT

107-3.1 Scheduling of the Work shall be considered incidental and no separate payment shall be made.

END OF ITEM SP-107

DIVISION 4

CONSTRUCTION SAFETY AND PHASING PLAN

FAA ADVISORY CIRCULAR 150/5370-2
OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION

Will insert AC prior to bid on
October 30, 2023.

CONSTRUCTION SAFETY AND PHASING PLAN

Schedule I
Runway 8-26 and Taxiway A Pavement Improvements

Schedule II
Pavement Marking Improvements

County of Ventura, Department of Airports Specification No. DOA 23-04
County of Ventura, Department of Airports Project No. CMA-239

Camarillo Airport

COUNTY of VENTURA
Department of Airports

Camarillo, California

Sponsored By:

County of Ventura, California

Issued for 100% Review
October 11, 2023

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1. COORDINATION

During construction, airport operational safety is of paramount importance. Coordination of project information to all individuals involved with the project is essential for ensuring safe operations are maintained at all times. In order to minimize the potential for incidents during construction, it is imperative that all individuals involved with the project and/or airport users be kept informed of any and all changes to operations. Discussions of operational safety will need to take place throughout the entire life of the project, including design, bidding, pre-construction, and construction. Meetings between the Resident Project Representative, Camarillo Airport (Airport), Contractor, sub-contractors, airport tenants and airport users will be required to discuss specific project related impacts to operations. The Airport staff is ultimately responsible for the safety at the airport. Notice to users of operational changes due to construction will be issued via NOTAM's issued by the Airport. No closures will be permitted without the pertinent NOTAM in place for each specific closure. Emergency access for both Airport Rescue and Firefighting (ARFF) and off-airport (Police, Fire, and EMT) based emergency service shall be maintained at all times. Routing for such traffic shall be determined and made known to all supervisor personnel involved in the construction project. Coordination of this access will be proposed by the Contractor and approved by the Resident Project Representative and the Airport Operations Manager.

A pre-construction meeting will be held prior to the Contractor beginning work or staging of major construction material and equipment on-site. The Airport, the Contractor's on-site supervisory staff, and representatives from the Engineer shall be present. Safety, this document, and the Safety Plan Compliance Document (SPCD) prepared by the Contractor, will be a significant topic on the agenda. Additionally, operational safety during construction will be a main topic of discussion at the pre-construction and weekly construction progress meetings.

A. CONTRACTOR PROGRESS MEETINGS

The Contractor is required to have weekly construction progress meetings to discuss all relevant construction topics including safety reminders, scheduling, and general construction issues. Attendance of the Contractor, Resident Project Representative, Airport, and any other pertinent personnel are required at these meetings. The Air Traffic Control Tower Manager and Tech Ops SSC Manager are also invited to the weekly construction progress meetings to address any concerns. Operational safety will be a standing agenda item for discussion during these progress meetings. A review of the Contractor's adherence to the project's Construction Safety and Phasing Plan (CSPP) and Safety Plan Compliance Document (SPCD) will be made at each meeting. Immediate correction of any deficiencies or violations will be required. The location and time of the weekly meetings will be determined during the pre-construction meeting. Where operational safety is concerned, the Contractor shall update the Resident Project Representative overseeing construction on a daily basis or more frequently if needed, of any changes or Contractor concerns.

B. SCOPE OR SCHEDULE CHANGES

In the event of a scope or schedule change, the Contractor shall notify the Resident Project Representative and the CMA Operations Manager immediately. All parties involved will need to evaluate the impact(s) of the change and will determine what measures will need to be taken to maintain a safe construction site. Change in the scope or duration of the project may necessitate revisions to the Construction Safety and Phasing Plan (CSPP).

C. FAA ATO COORDINATION

The FAA Air Traffic Organization (ATO) will need to be notified immediately of any changes that affect aircraft movement within the airport which include airway facility shutdowns and restarts. The

Resident Project Representative will coordinate all associated activities with the Airport Manager and Airport Traffic Control Tower (ATCT) in order to ensure the appropriate local NOTAMs are issued whenever personnel or equipment are adjacent to the runway or other movement areas. The Airport will be responsible for coordinating any changes including the issuance of NOTAMs to the FAA ATO. This includes coordinating shutdowns of FAA owned equipment and NAVAIDS.

FAA owned NAVAIDs at Camarillo Airport will be required to be shut down during nighttime closures of Runway 8-26.

2. PHASING

In order to minimize disruptions to airport operations during construction, construction will be broken up by areas to limit the amount of aircraft operational areas affected at any given time. Maintaining continual access to the runway, terminal building, FBO and tenant hangars is mandatory during all phases of construction to allow the aircraft to operate during construction. The phasing plan proposed was developed with help from the Airport and is considered to be the most effective way of maintaining the required aircraft access, while imposing the least amount of impact on construction operations, and without sacrificing safety. The phasing for this project is presented below and is also visually depicted in the Construction Safety Drawings (Sheets G050 through G054) attached in Appendix A.

This project will be completed in two schedules consisting of seven separate phases. Each of the phases is discussed in further detail in the Construction Safety Drawing plan sheets included at the end of this document.

A. PHASE ELEMENTS

1. Schedule I, Phase 1 –Taxiway A outside RSA Pavement Improvements

The Contractor will be given **8** calendar nights to complete Schedule I, Phase 1. The purpose for Schedule I, Phase 1 is to reconstruct Taxiway A outside the Runway Safety Area (RSA). The Contractor will have nighttime access to these areas. Daytime survey and application of pavement markings outside the Taxiway Safety Area (TSA) may be permitted in these areas given Airport and Engineer approval. The closure will begin no earlier than 2100 and will end no later than 0700 on the following day. Contractor work hours will be from 2100 to 0600 to allow time for cleanup and airport inspection. The proposed construction will include the reconstruction of Taxiway A outside the RSA, consisting of the removal the existing asphalt surface course and subgrade material, placement of 10-20 inches of aggregate base course layered with geotextile fabric, and paving 6-inches of Hot Mix Asphalt (HMA) to match existing grades and the pavement section installed by the previous Taxiway A repair project. The initial application of taxiway pavement markings will be placed upon completion of the asphalt overlay. The second application of taxiway pavement markings will then be placed 30 days after placement of the initial pavement markings.

Prior to beginning work on this phase, the Contractor shall have taxiway closure markers and barricades in place in accordance with the plans and shall coordinate with the Resident Project Representative /Airport to ensure that all pertinent NOTAM's are in place.

2. Schedule I, Phase 2 –Taxiway A within RSA Pavement Improvements

The Contractor will be given **5** calendar nights to complete Schedule I, Phase 2. The purpose for Schedule I, Phase 3 is to reconstruct Taxiway A within the Runway Safety Area (RSA). The Contractor will have nighttime access to this area. The closure will begin no earlier than 2100 and will end no later than 0700 on the following day. Contractor work hours will be from 2100 to 0600 to allow time for cleanup, airport inspection and to ensure that Runway 8-26 is ready for daytime operations and that all Runway 8-26 NAVAIDs are operational. The proposed construction will include the reconstruction of Taxiway A within the RSA, consisting of the removal the existing asphalt surface course and subgrade material, placement of 10-20 inches of aggregate base course layered with geotextile fabric, and paving 6-inches of Hot Mix Asphalt (HMA) to match existing grades and the pavement section installed by the previous Taxiway A repair project. The initial application of taxiway pavement markings will be placed upon completion of the asphalt overlay. The second application of taxiway pavement markings will then be placed 30 days after placement of the initial pavement markings.

Since this work will be completed within the Runway Safety Area, drops of more than 3 inches or slopes greater than 5% will not be permitted within the Schedule I, Phase 3 area while the runway is open.

Coordination with the FAA will be required to implement night closures. No work requiring runway closure will be permitted during the FAA moratorium dates.

Prior to beginning work on this phase, the Contractor shall have runway and taxiway closure markers and barricades in place in accordance with the plans and shall coordinate with the Resident Project Representative /Airport to ensure that all pertinent NOTAM's are in place.

3. Schedule I, Phase 3 – Runway 8-26 Centerline Pavement Improvements

The Contractor will be given **5** calendar nights to complete Schedule I, Phase 3. The purpose for Schedule I, Phase 3 is to rehabilitate the Runway 8-26 centerline and the Contractor will have nighttime access to this area. The closure will begin no earlier than 2100 and will end no later than 0700 on the following day. Contractor work hours will be from 2100 to 0600 to allow time for cleanup, airport inspection and to ensure that Runway 8-26 is ready for daytime operations and that all Runway 8-26 NAVAIDs are operational. The proposed construction will include the rehabilitation of the damaged keel (centerline) portion, approximately 8-feet wide, of the Runway 8-26 asphalt pavement by milling and removing approximately 3-inches of the existing asphalt surface course and overlay with a new Hot Mix Asphalt (HMA) surface course. The initial application of runway pavement markings will be placed upon completion of the asphalt overlay. The second application of runway pavement markings will then be placed 30 days after placement of the initial pavement markings. Because the Runway 8-26 pavement does not include a crown, the asphalt overlay will be designed to match existing grades on both sides, and therefore, a design topographic survey will not be required. The pavement removal, asphalt paving, and placement of pavement markings will need to take place within the same area along the runway centerline each night to ensure Runway 8-26 is fully operational the next morning.

Coordination with the FAA will be required to implement night closures. No work requiring runway closure will be permitted during the FAA moratorium dates.

Prior to beginning work on this phase, the Contractor shall have runway and taxiway closure markers and barricades in place in accordance with the plans and shall coordinate with the Resident Project Representative /Airport to ensure that all pertinent NOTAM's are in place.

4. Schedule II, Phase 4 –Pavement Marking Improvements

The Contractor will be given **1** calendar night to complete Schedule II, Phase 4. The purpose for Schedule II, Phase 4 is to apply new pavement markings along Taxiway A. Application of pavement markings within Taxiway A will be concurrent Schedule I, Phase 1 and will be completed at night time during the Taxiway A closure. The closure will begin no earlier than 2100 and will end no later than 0700 on the following day. Contractor work hours will be from 2100 to 0600 to allow time for cleanup, and airport inspection.

Prior to beginning work on this phase, the Contractor shall have taxiway closure markers and barricades in place in accordance with the plans and shall coordinate with the Resident Project Representative /Airport to ensure that all pertinent NOTAM's are in place.

5. Schedule II, Phase 5 –Pavement Marking Improvements along Taxiway E

The Contractor will be given **4** calendar nights to complete Schedule II, Phase 5. The purpose for Schedule II, Phase 5 is to remove existing and apply new pavement markings along Taxiway E and the western portion of Taxiway F. Removal and application of pavement markings along Taxiway E and F will be completed at nighttime during the Taxiway E and F closure. The closure will begin no earlier than 2100 and will end no later than 0700 on the following day. Contractor work hours will be from 2100 to 0600 to allow time for cleanup, and airport inspection. The obliteration and placement of pavement markings will need to be completed in the same night for each area complete during Schedule II, Phase 5.

Prior to beginning work on this phase, the Contractor shall have taxiway closure markers and barricades in place in accordance with the plans and shall coordinate with the Resident Project Representative /Airport to ensure that all pertinent NOTAM's are in place.

6. Schedule II, Phase 6 –Pavement Marking Improvements along Taxiway F

The Contractor will be given **3** calendar nights to complete Schedule II, Phase 6. The purpose for Schedule II, Phase 6 is to remove existing and apply new pavement markings along the middle and eastern portion of Taxiway F. Removal and application of pavement markings along Taxiway F will be completed at nighttime during the Taxiway F closure. The closure will begin no earlier than 2100 and will end no later than 0700 on the following day. Contractor work hours will be from 2100 to 0600 to allow time for cleanup, and airport inspection. The obliteration and placement of pavement markings will need to be completed in the same night for each area complete during Schedule II, Phase 6.

Prior to beginning work on this phase, the Contractor shall have taxiway closure markers and barricades in place in accordance with the plans and shall coordinate with the Resident Project Representative /Airport to ensure that all pertinent NOTAM's are in place.

7. Schedule II, Phase 7 –Pavement Marking Improvements along Taxiway G1

The Contractor will be given **4** calendar nights to complete Schedule II, Phase 7. The purpose for Schedule II, Phase 7 is to remove existing and apply new pavement markings along the eastern portion of Taxiway F and Taxiway G1. Removal and application of pavement markings along Taxiway F and Taxiway G1 will be completed at nighttime during the Taxiway F and G1 closure. The closure will begin no earlier than 2100 and will end no later than 0700 on the following day. Contractor work hours will be from 2100 to 0600 to allow time for cleanup, and airport inspection. The obliteration and placement of pavement markings will need to be completed in the same night for each area complete during Schedule II, Phase 7.

Prior to beginning work on this phase, the Contractor shall have taxiway closure markers and barricades in place in accordance with the plans and shall coordinate with the Resident Project Representative /Airport to ensure that all pertinent NOTAM's are in place.

B. CONSTRUCTION SAFETY DRAWINGS

The Construction Safety Drawings (Sheets G050 through G058B) are attached in Appendix A to show the phasing requirements for this project. Along with the phasing information, those attached drawings also show Contractor haul routes and contractor operation limits to help assist with airport operations and maintaining safety during this project. The Construction Safety Overall Phasing Plan (Sheet G050) and Construction Safety Notes & Details (Sheet G051) are additional plan sheets containing safety requirements during construction and are also included in Appendix A.

3. AREAS AND OPERATIONS AFFECTED BY THE CONSTRUCTION ACTIVITY

All work within the Airport Operations Area shall be accomplished in conformance to Advisory Circular 150/5370-2G, Operational Safety on Airports During Construction. The contract drawings include information regarding requirements for operational safety on the airport during construction.

The Contractor shall prepare a detailed Safety Plan Compliance Document (SPCD) as stated in the Advisory Circular 150-5370-2G. The Contractor's SPCD shall identify specific methods, sequencing, phasing that he/she intends to use in order to accomplish the project work. The SPCD shall be submitted by the Contractor to the Engineer for approval prior to the pre-construction conference for the project. The Engineer will review the SPCD with the Sponsor/Owner and supply any changes or revisions to the Contractor for incorporation into the plan. The final SPCD shall be the result of a coordinated effort between the Owner/Sponsor, the Engineer, and the Contractor. A CMA Airport approved SPCD is required prior to the issuance of the Notice To Proceed (NTP).

The Contractor shall adhere to the approved SPCD as agreed upon by Airport Staff, Engineer, and Contractor. Modifications or deviations from the approved safety plan shall be submitted to the Engineer and Airport for review and approval prior to implementation.

A. IDENTIFICATION OF AFFECTED AREAS

Areas affected by construction activities associated with this project are identified on the Construction Safety Drawings. Construction activities associated with Schedule I will primarily take place along Runway 8-26 and Taxiway A, while construction activities associated with Schedule II will take place primarily along Taxiway A, Taxiway E, Taxiway F, and Taxiway G1. During construction activities associated with Schedule I, aircraft operations on Taxiway A and Runway 8-26 will be affected, and during construction activities associated with Schedule II, aircraft operations on Taxiway A, Taxiway E, Taxiway F, and Taxiway G1 will be affected, as described in greater detail in the attached project

phasing sheets. Several NOTAM's will be required to be issued during this project, closing Runway 8-26, Taxiway A, Taxiway E, Taxiway F, and Taxiway G1 during the phase work hours. Section 13 – Special Conditions of this document and the attached Construction Safety Drawings describe in detail which areas are affected and for what durations.

B. MITIGATION OF EFFECTS

To mitigate the effects of the construction activities associated with the project; alternative routes have been established for emergency and ARFF vehicles, aircraft taxiway movements have been considered and phasing plans have been created. Because the phasing for this project is critical to maintaining safety and operations at the airport during construction, adhering to the requirements as laid out in the attached phasing sheets is imperative. To help assist all individuals with this process, it is important that all airport personnel, air traffic operation personnel, contractor personnel, and engineering personnel discuss current and upcoming phases during the required weekly construction progress meetings as mentioned in Section 1 of this document.

4. PROTECTION OF NAVIGATION AIDS (NAVAIDS)

The Contractor should be aware of the location of all NAVAID equipment as haul roads are being established in order to ensure that this equipment will be protected for the duration of the project. Should any haul road pass near existing airport NAVAID equipment, the Contractor shall protect these structures from damage. Any damage to any airport NAVAID equipment due to construction activities shall be repaired by the Contractor to the satisfaction of the Engineer at no additional cost to the Sponsor. The FAA NAVAIDs will be turned off by the FAA for the duration of each phase that involves Runway 8-26 closure during the project work hours.

5. CONTRACTOR ACCESS

During the course of the construction operations, the Contractor will be allowed to utilize a maximum of one (1) airport access "Security Gate" as entrance to the airfield and construction site. Only vehicular access is permitted through the access gates into the construction area, pedestrian access through the access gates is not allowed. The airport shall designate this gate and the associated haul roads. The gate may be opened only for authorized vehicle traffic flow. During times of infrequent construction traffic the gate shall be closed, even when a gate guard is present. At times that a gate guard is not present at a gate, it shall be closed and securely locked. Key construction superintendents and any other personnel deemed necessary by the Airport shall be required to complete the driver's construction training and application to obtain an electronic entry card for gate access. The designated construction personnel will be responsible for escorting non-trained construction personnel who will be working within the airfield environment. During daylight hours, all authorized vehicles and construction equipment must display either a three-foot-by-three-foot flag with international orange and white 12-inch squares displayed in full view above the vehicles or lighted rotating beacons. During nighttime operations only lighted rotating beacons are acceptable. Passengers in any authorized vehicles shall be the responsibility of the Contractor. The "gate guard" shall allow no unauthorized vehicle or person to enter the "air operations" side of the airport without the above stipulated "security clearance." The Contractor and the Contractor's "security gate guard" shall be held duly responsible to uphold the above security stipulations at all times during the progress of the construction project. No deviations from these security measures shall be allowed at any time. Penalties associated with deviations from these security provisions are identified in Section 12 of this document.

A. LOCATION OF STOCKPILED CONSTRUCTION MATERIALS

The Contractor's staging area is shown on the Construction Safety Overall Phasing Plan (Sheet G050) and is located outside the AOA adjacent to Convair Street just south of the Airport and south of Gate 10. Any stockpiling activities shall be conducted outside of the all runway/taxiway object free areas as well. Stockpiles shall be identified and lighted in accordance with Section 16. Stockpiles shall be maintained in such manner that they are not a wildlife attractant in accordance with Section 6 and they do not generate FOD that could be tracked onto active pavement surfaces in accordance with Section 7.

B. VEHICLE AND PEDESTRIAN OPERATIONS

1. Construction Site Parking

Construction employee parking will be outside of the airport perimeter fence within the staging area. No vehicles or equipment shall be parked within ten feet of the Airport's security fence.

2. Construction Equipment Parking

Construction equipment parking will be allowed at the contractor's staging area in the location as shown on the Construction Safety Overall Phasing Plan (Sheet G050), or at a location approved by the Resident Project Representative. If the equipment must be parked in an Airport Operations Area (AOA), the equipment must be lighted with a beacon per AC 150/5370-2G. No equipment or material shall be parked or stored in any runway or taxiway safety area or object free area.

3. Access and Haul Roads

The access points to the project are depicted on Sheet G050. The contractor shall keep all access gates closed and locked when not in use. When a gate is open, it shall be appropriately guarded by the contractor to ensure that no unauthorized vehicles or personnel enter airport property.

The Contractor shall obtain approval from the Engineer prior to establishing haul roads within the airport property. Once established, the haul roads shall be utilized for all equipment traffic, and the equipment shall not be allowed to stray or wander away from the established routes. Any modification to haul routes shown in the phasing sheets require environmental clearance prior to establishment of the modification. The haul roads shall be the responsibility of the Contractor and shall always be maintained and kept in good order. When required, water shall be applied at the locations and in the amounts necessary to minimize dust and dirt in the air operations area. Since construction operations will be within active airport operation areas, the airport will require additional dust control measures be used on haul roads and the work area in order not to interfere with airport operations. Haul roads that cross any active taxiway, movement areas, non-movement areas or active areas of the ramp shall be kept clean, free of FOD and in good order at all times. The Contractor shall always be prepared to repair any damage caused by the movement of equipment on any of the haul roads at the direction of the Engineer, whether in designated or undesignated areas. After completion of the project, the Contractor shall be required to regrade any unpaved portions of the haul route and to reseed the area with local native grasses to match the existing conditions of the area. The performance of any work as specified by this provision, including watering, maintenance, seeding and repair of the haul routes and associated pavements, shall not be measured nor paid for directly, but shall be considered as necessary and incidental to the work. Each day prior to beginning hauling operations the Contractor shall notify the Engineer and Airport Operations of their proposed hauling schedule. Therefore, the Contractor is required to give Airport Operations, through the Resident Project Representative, 72 hours' notice prior to beginning hauling operations, so that the Airport can issue the appropriate NOTAM's.

Establishment of haul roads off of Airport property shall be the sole responsibility of the Contractor.

Contractor movement shall be restricted to the pre-determined access routes as shown on the attached Construction Safety Drawings and within the work area. Work areas shall be delineated with barricades as shown on the phasing drawings. The Contractor shall not operate outside of these areas without approval of the Resident Project Representative or Airport Operations Manager. The Resident Project Representative will provide proper coordination and management oversight throughout all phases of the project to address any construction equipment access to the movement area. The Contractor's operators shall be aware the haul route is also utilized as a perimeter road and will be shared with Airport Operation and FAA vehicles.

4. Marking and Lighting of Vehicles

All vehicles operating within the AOA and in the movement/non-movement areas must clearly identify themselves for control purposes. The identification symbols should be a minimum 8-inch block-type characters of a contrasting color and easy to read. They may be applied either by using tape or a water-soluble paint to facilitate removal. Magnetic signs are also acceptable.

To operate within the AOA during daylight hours, the vehicle must have a flag (day only) or yellow flashing light (day or night) attached to it. Any vehicle operation within the AOA during hours of darkness or reduced visibility must be equipped with a yellow flashing light. Flashing lights must be mounted on the uppermost part of the vehicle structure. Flags shall be at least 3-foot by 3-foot square having a checkered pattern of international orange and white squares at least 1 foot on each side. All flashing lights and/or flags shall be kept in good condition and immediately replaced if requested by the Engineer or Airport Operations.

5. Description of Proper Vehicle Operations

Proper vehicle operations are described as confirming to all rules and regulation for driving as directed by the Airport. Access shall be restricted to established haul routes and work areas.

6. Required Escorts

The only vehicle operators allowed to enter the AOA unescorted are ones that have satisfactorily completed Camarillo Airport's Air Operations Area Driver Training Course and are deemed key personnel; all other vehicle operators require an escort. When any vehicle, other than one that has prior approval from the airport operator, must travel over any portion of an aircraft movement area, the vehicle will be escorted and properly identified. To operate in those areas during daylight hours, the vehicle must have a flag (day only) or lighted beacon (day or night) attached to it. Any vehicle operation on the movement areas during hours of darkness or reduced visibility must be equipped with a flashing dome-type light.

7. Training Requirements of Vehicle Drivers

To ensure compliance with Camarillo Airport's vehicle rules and regulations, key construction superintendents and any other personnel deemed necessary by the Contractor/Airport shall be required to complete the driver's construction training and application to obtain an electronic entry card for gate access to the AOA. The Contractor shall designate construction personnel to receive training on movement around the Airport during the construction project. The designated trained personnel will be responsible for escorting non-trained construction personnel who will be working within the airfield environment. The designated construction personnel will attend an airfield orientation/driver training class conducted by Airport Operations as part of the

requirements to obtain authorization to operate on the airfield. The Contractor will contact the RPR or Operations Supervisor, a minimum of 48 hours in advance, to schedule a training class for the select construction personnel. No training classes will be available on Saturdays or Sundays. Training classes will be limited to ten (10) people maximum, per class. The approximate duration of the training class is thirty (30) minutes (Airfield Orientation/Driver). Gate card access will be limited to key personnel only.

8. Situational Awareness

Vehicle drivers must confirm by personal observation that no aircraft is approaching their position (either in the air or on the ground) when given clearance to cross a runway, taxiway, or any other area open to airport operations. In addition, it is the responsibility of the escort vehicle driver to verify movement/position of all escorted vehicles at any given time.

9. Two-way Radio Communication Procedures

The Contractor's superintendent and, if required, flagmen/haul route monitors shall be required to monitor transceiver radios tuned to the Camarillo Airport's Ground frequency 122.95 MHz at all times, except when the tower is closed from the hours of 9:00 p.m. to 7:00 a.m., then the Contractor will monitor and communicate through the CTAF frequency 134.95 MHz. The Contractor shall supply radios. Such radios shall be used to obtain proper clearance regarding the movement of equipment, trucks, etc., within the movement area.

When any construction activities are required on active pavements, a flagman, who is monitoring a radio, shall be positioned within the work area in such a manner that they can clear construction men and equipment across the active pavement. Any use of a flagman must be coordinated with Airport Operations prior to utilization.

Further, any unusual occurrences in the flight pattern of approaching or departing aircraft shall be acknowledged by all concerned so that operation of the airport and the construction work can be safely carried on at all times.

10. Maintenance of the Secured Area of the Airport

Airport operators and contractors must take care to maintain security during construction when access points are created in the security fencing to permit the passage of construction vehicles or personnel. Throughout the duration of construction, it is anticipated that there will only be one access point for construction personnel. This access point will consist of a gate located within the existing perimeter fence as shown in the Construction Layout and Phasing Plans. The gate will be equipped so that it can be securely closed and locked to prevent unauthorized access. During hauling activities, a gate guard will be positioned at the gate. The gate guard shall always be in possession of a current stop list. The stop list can be obtained from the Airport Administration Offices during normal business times. During times of infrequent hauling the gate shall be closed, even when the gate guard is present.

In addition, all personnel must either complete the Airport training or be escorted while working in the AOA. Escorted personnel must stay nearby the designated trained personnel at all times to ensure that security at the Airport is maintained.

Because the Airport is subject to 49 CFR Part 1542, *Airport Security*, even during construction, the Airport must meet standards for access control, movement of ground vehicles, and identification of construction contractor and tenant personnel.

11. Construction Site Safety

All personnel working on the construction site, including gate guards, are recommended to have personal protective equipment on at all times. This includes but is not limited to vests, hard hats, hearing protection, eye protection, and radios.

6. WILDLIFE MANAGEMENT

All wildlife management within the Airport Operations Area shall be accomplished in conformance to Advisory Circular 150/5200-33, *Hazardous Wildlife Attractants On or Near Airports*, and Certalert 98-05, *Grasses Attractive to Hazardous Wildlife*. In general, the Contractor must carefully control and continuously remove waste or loose material that might attract wildlife.

A. TRASH

The Contractor is responsible to complete a daily inspection or more frequently, if deemed necessary by the Resident Project Representative, of the construction site (including the Contractor's Staging Area) for any trash or objects that might attract wildlife.

B. STANDING WATER

Because standing water can attract wildlife, the Contractor is responsible to complete a daily inspection of the construction site for any standing water. With the discretion of the Resident Project Representative, the Contractor shall remove this hazard. Trash receptacles shall include a cover.

C. TALL GRASS AND SEEDS

There is no anticipated seeding or hydromulch on this project.

D. POORLY MAINTAINED FENCING AND GATES

The Contractor shall be required to maintain all fences and gates throughout the duration of the project, to the satisfaction of the Resident Project Representative.

E. DISRUPTION OF EXISTING WILDLIFE HABITAT

The Contractor shall notify the Resident Project Representative when a wildlife sighting has occurred on the project site to mitigate any disruption to the existing wildlife habitat.

7. FOREIGN OBJECT DEBRIS (FOD) MANAGEMENT

The presence of FOD on the apron is a significant safety concern, as debris can be ingested into an aircraft's engine causing extensive damage or can be launched across the apron by jet blast, potentially causing bodily injury or damaging other aircraft. Materials capable of creating FOD must be continuously removed during the construction project. The Contractor is required to keep all taxiways and aprons, open to aircraft free from FOD at all times. The Contractor is required to maintain FOD control continually and to the satisfaction of the Resident Project Representative. FOD Control measures shall include the use of power brooms, FOD boss, and manual removal as well as any other means deemed necessary. Prior to opening any pavement to aircraft, the Contractor shall conduct a sweep of the pavement to verify that it is FOD free. Runway 8-26 and Taxiway F to the east and west of the limits of construction will be a high priority area during this project as aircraft will be in the vicinity of this area on a daily basis throughout most of the construction process. The contractor shall provide dust abatement as necessary to prevent dust from becoming a nuisance due to their activities at and around the airport. The Contractor shall be prepared to provide dust abatement throughout the life of the contract including weekends and holidays. Dust abatement shall be completed at the Contractor's expense**.**

8. HAZARDOUS MATERIAL (HAZMAT) MANAGEMENT

Although hazardous material is not anticipated to be present on this project, if hazardous material is encountered, the Contractor shall inform the Resident Project Representative and ARFF immediately. Additionally, the Contractor shall always have available Material Safety Data Sheets or Product Safety Data Sheets for all Hazardous Materials utilized on-site, such as fuel, and readily available. Immediate notification of ARFF is required for any Hazardous Material Spill.

9. NOTIFICATION OF CONSTRUCTION ACTIVITIES

Prior to commencing any construction activities as well as prior to beginning a new construction phase the Contractor shall notify the Resident Project Representative and Airport Operations 72 hours in advance. During construction activities the Contractor shall immediately notify the Resident Project Representative and Airport Operations of any conditions that may adversely affect the operational safety of the Airport.

A. LIST OF RESPONSIBLE REPRESENTATIVES/POINTS OF CONTACT

Agency Name	Type of Agency	Telephone No.
Airport Operations	Airport Operations	(805) 947-6804
Ventura County Director of Airports, Keith Freitas	Director of Airports	(805) 388-4200
Ventura County Deputy Director of Airports, Dave Nafie	Deputy Director of Airports	(805) 388-4201
Ventura County Projects Manager, Erin Powers	Ventura County Project Management	(805) 388-4205 Office (805) 947-6800 Cell
Ventura County Airport Operations Supervisor, Sean Herder	Ventura County Airport Operations Supervisor	(805) 382-3024 Office (805) 947-6798 Cell
Ventura County Airport Operations, Supervisor, Luis Ortiz	Ventura County Airport Operations	(805) 382-3024 Office (805) 402-9971 Cell
Jviation, a Woolpert Company, Amanda Gross	Deputy Project Manager	(720) 454-2076 Cell
Jviation, a Woolpert Company, Matt Gilbreath	Project Manager	(720) 951-5317 Cell

B. NOTICES TO AIR MISSIONS (NOTAM)

Only Airport Operations may initiate or cancel NOTAMs on airport conditions and is the only entity that can close or open a runway or taxiway. Airport Operations must coordinate the issuance, maintenance, and cancellation of NOTAMs about Airport conditions resulting from construction activities and must provide information on closed or hazardous conditions on Airport movement areas to the FAA Flight Service Station (FSS) so it can issue a NOTAM. The Contractor must notify the Resident Project Representative, or designated representative, when scheduling/scoping for the project has changed or required a pavement closure that would require a modification or addition to the NOTAMs.

C. EMERGENCY NOTIFICATION PROCEDURES

In an event of an emergency, the Contractor shall notify the Resident Project Representative and Airport staff. If necessary, the Contractor shall contact 911 and Airport Emergency.

Agency Name	Type of Agency	Telephone No.
Emergency	Emergency	911
Department of Airports Emergency Line	Aircraft Rescue and Fire Fighting	(805) 947-6804
Los Angeles Air Route Traffic Control Center	Air Route Traffic Control Center	(661) 575-2052
ATCT Radio Emergency	ATCT Radio Emergency	(805) 382-1570 (Emergency use only)
Camarillo Police Department	Police Department	(805) 654-9511 Or 911
Camarillo Fire Department	Fire Department	(805) 389-9710
Ventura County Medical Center	Hospital	(805) 652-6000 Or 911
Community Memorial	Hospital	(805) 278-0511 Or 911
California Poison Center	Poison Center	(800) 222-1222

D. COORDINATION WITH ARFF PERSONNEL

In an event that the Contractor must coordinate construction activities with ARFF Personnel, the Contractor will notify Airport staff or Resident Project Representative. The Airport staff or Resident Project Representative will be responsible to notify the event to ARFF Personnel. There are no planned interruptions to water lines associated with this project.

E. NOTIFICATION TO THE FAA

Any person proposing construction or alteration of objects that affect navigable airspace, as defined in Part 77, must notify the FAA. This includes construction equipment and proposed parking areas for this equipment.

Coordination with the FAA will be required to implement night closures. No work requiring runway closure will be permitted during the FAA moratorium dates. The Resident Project Representative will coordinate all associated activities with the Airport Manager and Airport Traffic Control Tower (ATCT) in order to ensure that the appropriate local NOTAMs are issued whenever personnel or equipment are adjacent to the runway or other movement areas.

Regarding any NAVAID's damage, the Airport shall contact 1-866-432-2622.

The anticipated impacts to Airport or FAA owned NAVAIDS occur during Schedule I of the project when Runway 8-26 will be shut down. The FAA NAVAIDs will be turned off by the FAA for the duration of each phase during the project work hours. The Contractor will be responsible for any damage to any other NAVAIDS. If a shutdown of a NAVAID is required of more than 24 hours or more than 4 hours daily on consecutive days a minimum notice of 45 days must be given to the FAA ATO/Technical Operations prior to the shutdown commencing.

10. INSPECTION REQUIREMENTS

A. DAILY (OR MORE FREQUENT) INSPECTIONS

Inspections shall be conducted daily and more frequently, if necessary, by the Contractor and the Resident Project Representative to ensure conformance with this document. The checklist provided at the end of this report was copied from FAA AC 150/5370-2G Appendix D, *Construction Project Daily Safety Inspection Checklist*. This checklist shall be completed by the Contractor to the Engineer's satisfaction and the Contractor shall submit a copy of all the completed checklists to the Engineer and the Airport Operations Manager. The Contractor should fill out this checklist everyday construction operations occur on this project. Any deficiencies identified during inspection or otherwise shall be remedied immediately.

B. FINAL INSPECTIONS

Final inspections shall be conducted after every construction phase is complete as detailed in Section 2 of this document. The final inspection should be completed with the Contractor, Resident Project Representative, and Airport Operations Manager.

11. UNDERGROUND UTILITIES

Prior to beginning excavation activities, the Contractor shall notify the Resident Project Representative and Airport Operations at least 3 working days prior to the scheduled excavation. The FAA shall attempt to locate all of their underground cables that are located in the vicinity of the work areas, prior to construction in the area. The Contractor shall attempt to locate the Sponsor's underground cables and other sub-surface utilities prior to construction. Damage to the underground cables, whether FAA's or Sponsor's, through negligence on the part of the Contractor will require replacement by the Contractor at no cost to the Sponsor. Any splicing or replacing of damaged cable shall meet current FAA specifications. Damage to other underground utilities through Contractor's negligence shall be repaired according to the relevant utility's standards and at no cost to the Sponsor. Additionally, prior to beginning excavation activities the Contractor shall notify California 811 to coordinate any underground locates of public services. In the event of an accidental utility disruption CMA Airport Operations and/or ARFF will be contacted at the numbers listed in Section 9.A.

12. PENALTIES

All penalties are specified under the Contract Documents for this project. The Contractor is responsible for any penalties that the Airport may distribute.

13. SPECIAL CONDITIONS

The contractor shall provide the necessary dust control to ensure that dust from the haul routes and construction areas is kept to a minimum.

14. RUNWAY AND TAXIWAY VISUAL AIDS

A. GENERAL

Runway 8-26, Taxiway A, Taxiway E, Taxiway F, and Taxiway G1 will be closed at different times throughout this project as detailed in the phasing descriptions and sheets. The Contractor will need to install approved lighted, low-profile barricades and closure "X"s to close off the various construction areas. In addition to the barricades, the Contractor will need to cover the taxiway lights/signs with an approved method along the closed section of taxiway.

B. MARKINGS

The procedure to close off the apron/taxiway for construction shall consist of placing barricades and flashers on the perimeter of the construction. A closed taxiway "X" will be utilized during Schedule I, Phase 2 at the intersection of Runway 8-26 and Taxiway A, as well as during Schedule II, Phase 5 at the intersection of Runway 8-26 and Taxiway E. Low-profile barricades located outside the TSA and RSA will be utilized throughout the project, as shown on the phasing sheets. During Schedule I Phases 2 and 3, a closed lighted runway "X" will be placed on the "8" and "26" runway designations during nighttime closures, for the duration of these phases.

C. LIGHTING AND VISUAL NAVAIDS

The Contractor will need to install approved lighted, low-profile barricades during the various phases of work, as well as closure "X"s as detailed in the section above and in the phasing sheets. In addition to the barricades, the contractor will need to cover the taxiway lights with an approved method along the closed section of the taxiways.

D. SIGNS, TEMPORARY, INCLUDING ORANGE CONSTRUCTION SIGNS, AND PERMANENT SIGNS

In addition to erecting barricades and covering lights, the Contractor will need to cover any taxiway and/or runway directional signs that lead to closed pavements during construction.

15. MARKING AND SIGNS FOR ACCESS ROUTES

All required signs and markings shall conform to Advisory Circular 150/5340-18, *Standard for Airport Sign Systems*, and to the Federal Highway Administration Manual on Uniform Traffic Control Devices (MUTCD), to the extent possible. Signs adjacent to areas used by aircraft must comply with the frangible requirements as stated in Advisory Circular, 150/5220-23 *Frangible Connections*. The location and design of any signs will be directed by the Engineer or Airport Operations Manager and the signs shall be provided and installed by the Contractor.

16. HAZARD MARKINGS AND LIGHTINGS

A. PURPOSE

The hazard marking and lighting prevents pilots from entering areas closed to aircraft and prevents construction personnel from entering areas open to aircraft. Prior to construction on or adjacent to any taxiway or apron, the Contractor shall, upon approval by the Engineer, close the taxiway and/or apron, in accordance with the specific phasing plan associated with that phase, prior to beginning work. The Contractor shall be responsible for clearly marking and defining the closed taxiways by use of warning lights, barricades, flags and closed taxiway or runway markings in conformance with Advisory Circular 150/5370-2G. The Contractor shall be responsible for maintaining these barricades and associated lighting and keeping them clearly visible at all times. The Contractor's individuals responsible, as well as their contact information, for the maintenance of the hazard marking and lighting equipment are listed in Section 9.A of this document.

Specific marking and lighting equipment details, location and other pertinent information regarding hazard marking materials including low-profile barricades are shown on the Construction Safety Drawings, attached in Appendix A. Please note that each phase may have unique details. Additionally, prior to any deviations in location or type of hazard marking materials shall be coordinated with the Resident Project Representative and Airport Operations.

B. EQUIPMENT

Approved low-profile barricades are to identify and define the limits of construction and hazardous areas on airports. Physical requirements and spacing of the barricades are specified in the construction drawings for this project. The barricades must be weighted down per the manufacturer's recommendations to prevent the barricades from moving due to wind or jet blast.

The flashing lights on the approved barricades must meet the luminance requirement of the State Highway Department. The flashing lights must be red or an approved equal. Orange flags shall be utilized on the opposite end of the barricades as well.

17. PROTECTION OF RUNWAY AND TAXIWAY AREAS

A. RUNWAY SAFETY AREA (RSA)

The Airport defines the RSA for Runway 8-26 as the area that is currently within 250 feet from the centerline of Runway 8-26 ends. During the construction process, construction personnel must not enter into any active Runway Safety Areas unless required by the project phasing and approved by the Airport.

B. RUNWAY OBJECT FREE AREA (ROFA)

The Airport defines the ROFA for Runway 8-26 as the area that is within 400-feet from the centerline of Runway 8-26. Construction personnel shall not enter active ROFAs unless required by the project phasing and approved by the Airport. Equipment must be removed from the ROFA when not in use and no material shall be stockpiled inside the ROFA. Any embankments in the ROFA would require submitting the 7460-1 form and justification provided to the appropriate FAA Airports Regional or District Office for approval.

C. TAXIWAY SAFETY AREA (TSA)

The Airport defines the TSA for Taxiways as the area that is within 39.5-feet from the centerline of the Taxiways. During the construction process, construction personnel must not enter into any active Taxiway Safety Areas unless required by the project phasing and approved by the Airport.

Open trenches and excavations are not permitted within the TSA while the taxiway is open. If possible, backfill trenches before the taxiway is opened. If the taxiway must be opened before excavations are backfilled, cover the excavations appropriately. No open trenches within any taxiway safety areas are anticipated during this project.

Soil erosion must be controlled to maintain TSA standards, that is, the TSA must be cleared and graded and have no potentially hazardous ruts, humps, depressions, or other surface variations, and capable, under dry conditions, of supporting aircraft rescue and firefighting equipment, snow removal equipment, and the occasional passage of aircraft without causing structural damage to the aircraft.

D. TAXIWAY OBJECT FREE AREA (TOFA)

The Airport defines the TOFA for the Taxiways as the area that is within 62-feet from the centerline of the Taxiways. Signs/embankments/equipment within the TOFA must comply with the frangibility requirements as stated in Advisory Circular 150/5220-23, *Frangible Connections.*

Construction personnel shall not enter active TOFAs unless required by the project phasing and approved by the Airport. Prior to beginning work with the Taxiway Object Free Area coordination with the Airport will be completed. Coordination will include the issuance of a NOTAM advising taxiing pilots of the hazard and recommending reducing the taxiing speed to a maximum of 10 mph.

A 10-foot clearance will be maintained between equipment and materials and any part of the aircraft. The Contractor will be required to furnish flaggers to direct and control construction equipment and construction personnel. The Contractor will monitor radio communications to predict aircraft movements and all equipment and personnel will be directed to clear the Taxiway Object Free area prior to the arrival of aircraft.

E. OBSTACLE FREE ZONE (OFZ)

The Airport defines the OFZ for Runway 8-26 as the space that is within 200-feet from the centerline of Runway 8-26. Personnel, material, and/or equipment may not penetrate the OFZ while the runway is open for aircraft operations. If it is necessary to enter the OFZ, it would be necessary to coordinate with the FAA. No work for this project will require a penetration of an active OFZ.

F. RUNWAY APPROACH/DEPARTURE SURFACES

All personnel, materials, and/or equipment must remain clear of the applicable threshold siting surfaces, as defined in Appendix 2, "Threshold Siting Requirement," of Advisory Circular 150/5300-13.

18. OTHER LIMITATIONS ON CONSTRUCTION

A. PROHIBITIONS

The use of open flame welding or torches is prohibited unless adequate fire safety precautions are provided, and the Airport Operations Manager has approved their use. The use of flare pots within the AOA is prohibited at all times. The use of electrical blasting caps is prohibited on or within 1,000 feet of the Airport property.

During times of low visibility or as directed by Airport Operations, hauling operations to the staging area will be suspended. If applicable, areas that cannot be worked on simultaneously, work hour restrictions and/or seasonal restrictions are identified on the construction phasing documents.

B. RESTRICTIONS

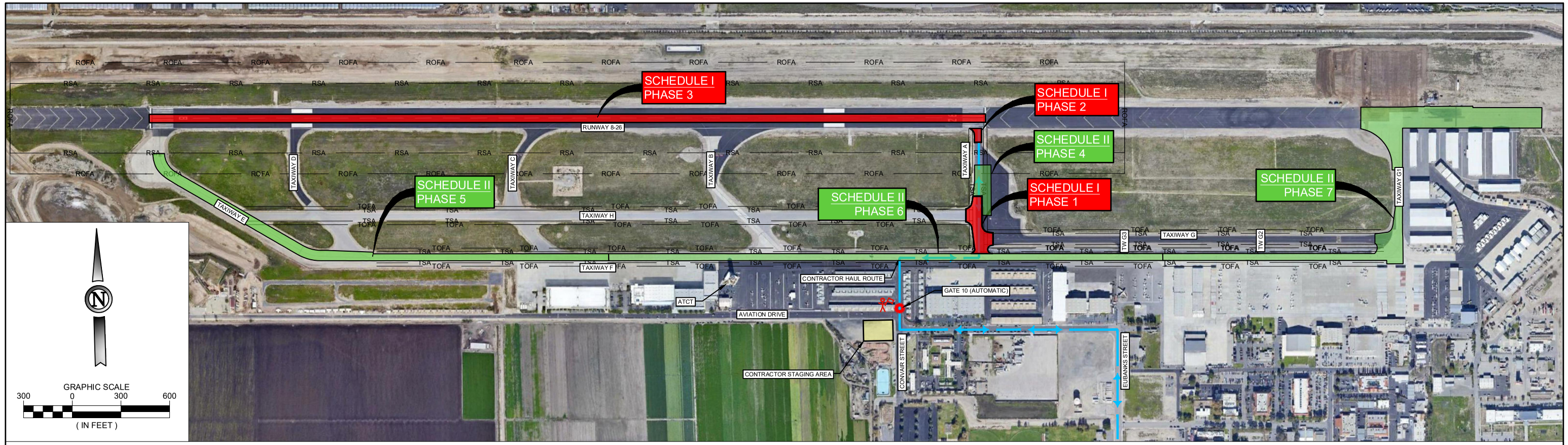
Construction suspension may be required during specific Airport operations. Project areas may be worked on simultaneously only if approved by the Resident Project Representative and Airport Operations Manager. Construction operations shall only be allowed in weather conditions compliant with the project specifications.

19. DUST CONTROL

The Contractor is responsible for controlling dust from the construction site at all times. The Contractor shall have a water truck and operator available 24 hours a day to control dust since the project's locations is near active runways, taxiways, and aprons. It is critical for the contractor to keep dust to an absolute minimum both during construction and after construction until the exposed surfaces contain suitable vegetation. The Contractor shall provide the Resident Project Representative and Airport Operations with a contact for 24-hour dust control.

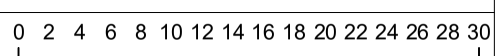
APPENDIX A

CONSTRUCTION SAFETY DRAWINGS



CONSTRUCTION SCHEDULE - 29 CALENDAR DAYS

SCHEDULE / PHASE	DURATION
SCHEDULE I	18 CALENDAR DAYS
SCHEDULE I, PHASE 1	8 CALENDAR DAYS
SCHEDULE I, PHASE 2	5 CALENDAR DAYS
SCHEDULE I, PHASE 3	5 CALENDAR DAYS
SCHEDULE II	11 CALENDAR DAYS
SCHEDULE II, PHASE 4	1 CALENDAR DAYS
SCHEDULE II, PHASE 5	4 CALENDAR DAYS
SCHEDULE II, PHASE 6	3 CALENDAR DAYS
SCHEDULE II, PHASE 7	4 CALENDAR DAYS



NOTE:

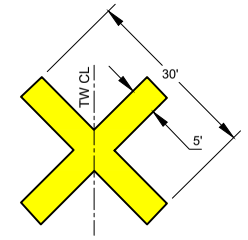
1. SINCE THIS PROJECT WILL BE COMPLETED AT NIGHT, A CALENDAR DAY WILL BE CONSIDERED TO BEGIN AT 21:00 ONE DAY AND END AT 20:59 THE FOLLOWING DAY

PHASING LEGEND

- CONTRACTOR HAUL ROUTE
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- CONTRACTOR GATE ACCESS
- FLAG PERSONNEL / GATE GUARD
- RUNWAY CLOSURE LIGHTED "X"
- TAXIWAY TEMPORARY CLOSURE "X" (MATERIAL PER DETAIL 4/SHEET G050)

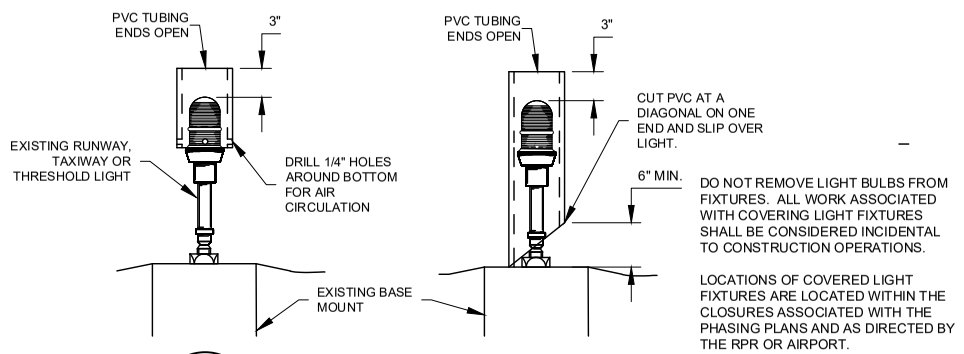
SAFETY & OBJECT FREE AREAS

RUNWAY 8/26 - ADG D-II	
RUNWAY SAFETY AREA (RSA)	250' FROM RW CENTERLINE
RUNWAY OBJECT FREE AREA (ROFA)	400' FROM RW CENTERLINE
TAXIWAYS - ADG II (EXISTING TAXIWAYS)	
TAXIWAY SAFETY AREA (TSA)	39.5' FROM TW CENTERLINE
TAXIWAY OBJECT FREE AREA (TOFA)	65.5' FROM TW CENTERLINE



CONSTRUCT CLOSED TAXIWAY "X" WITH ANY OF THE FOLLOWING: DOUBLE-LAYERED PAINTED SNOW FENCE, COLORED PLASTIC, PAINTED SHEETS OF PLYWOOD OR SIMILAR MATERIALS. CONTRACTOR TO ENSURE THAT MATERIALS ARE PROPERLY CONFIGURED AND SECURED TO PREVENT MOVEMENT FROM JET BLAST OR WIND. CLOSED TAXIWAY "X" SHALL BE LESS THAN 3-INCHES THICK.

4 TAXIWAY CLOSURE "X" DETAIL
NOT TO SCALE

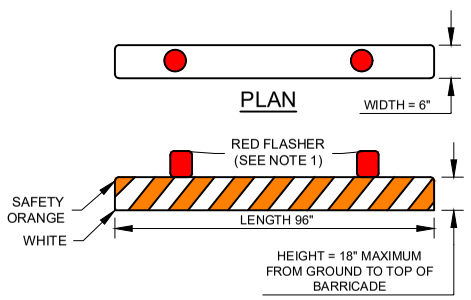


DO NOT REMOVE LIGHT BULBS FROM FIXTURES. ALL WORK ASSOCIATED WITH COVERING LIGHT FIXTURES SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION OPERATIONS.

LOCATIONS OF COVERED LIGHT FIXTURES ARE LOCATED WITHIN THE CLOSURES ASSOCIATED WITH THE PHASING PLANS AND AS DIRECTED BY THE RPR OR AIRPORT.

1 TYPICAL COVERED LIGHT DETAILS
NTS

1. FLASHER BARRICADES WILL BE PROVIDED AND MAINTAINED BY THE CONTRACTOR AT ALL TIMES. CONTRACTOR SHALL ALSO PROVIDE SPARE BARRICADES, BATTERIES, AND LIGHT BULBS FOR MAINTENANCE DURING NIGHTTIME HOURS.
2. LOW-PROFILE BARRICADES TO BE PLACED AT 4' INTERVALS ADJACENT TO CONSTRUCTION, AS DIRECTED BY THE ENGINEER AND AS SHOWN ON THE PHASING SHEETS.
3. BARRICADES ARE TO BE PLACED IN LOCATIONS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER THROUGHOUT ALL PHASES OF THE PROJECT. THE BARRICADE LOCATIONS PROVIDED ON THIS SHEET SHALL REMAIN THROUGHOUT CONSTRUCTION. ADDITIONAL BARRICADES WILL BE REQUIRED ACROSS PHASE SPECIFIC AREAS OF CLOSED PAVEMENT, AND ARE SHOWN ON PHASING SHEETS.
4. FLASHER BARRICADES WILL BE REQUIRED ALONG THE EDGE OF ANY VERTICAL DROP OFF GREATER THAN 3". AIRPORT OPERATIONS WILL ISSUE NOTAM TO ADVISE AIRCRAFT OF THIS CONDITION.
5. FLASHER BARRICADES ARE TO BE ADEQUATELY WEIGHTED SO THEY WILL REMAIN IN PLACE DURING TIMES OF HIGH WINDS OR AS APPROVED BY THE ENGINEER.



ELEVATION

2 FLASHER BARRICADE DETAIL
NOT TO SCALE

1. THE CONTRACTOR SHALL OBTAIN THREE (INCLUDES 1 SPARE) LIGHTED RUNWAY CLOSURE MARKERS (RCM'S). THE RCM'S SHALL BE CERTIFIED TO MEET THE REQUIREMENT TO SCALE OF FAA SPECIFICATION L-893. ACCEPTANCE OF THE RCM'S SHALL BE MADE BY THE ENGINEER UPON DELIVERY TO THE PROJECT. DURING CONSTRUCTION, THE CONTRACTOR SHALL PLACE THE MARKERS OVER RUNWAY DESIGNATION NUMBERS AT ALL TIMES WHEN THE RUNWAYS ARE CLOSED TO AIR TRAFFIC. THE CONTRACTOR SHALL FURNISH ALL ALL DIESEL FUELS, OIL CHANGES, FILTERS, LAMPS MAINTENANCE AND REPAIRS ENCOUNTERED DURING THE PROJECT. ANY DAMAGE WHICH RESULTS FROM THE CONTRACTOR'S NEGLIGENCE, SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE AIRPORT. RCM'S SHALL BE TRANSFERRED AND STORED ON AN IMPROVED SURFACE. ALL COSTS ASSOCIATED WITH THE PROCUREMENT/RENTAL DELIVERY. USE, OPERATION, AND MAINTENANCE OF RCM'S SHALL BE INCIDENTAL TO ITEM C-105.
2. RCM'S SHALL BE PORTABLE, TRAILER MOUNTED, GENERATOR POWERED UNIT, CAPABLE OF PRODUCING A LIGHTED, FLASHING CROSS, MANUFACTURED BY SHERWIN INDUSTRIES, OR AN APPROVED EQUAL.
3. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO THE RCMS CAUSED BY CONTRACTOR OPERATIONS.

3 LIGHTED RUNWAY CLOSURE "X" NOTE
NOT TO SCALE

ISSUED FOR 100% REVIEW

THESE DRAWINGS ARE FOR DESIGN REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES. THEY WERE PREPARED BY OR UNDER THE SUPERVISION OF:

JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY

JVIATION®
A WOOLPERT COMPANY

CAMARILLO AIRPORT
CAMARILLO,CA

COUNTY of VENTURA
Department of Airports

DES: A.G.G.
DR: A.G.G.
CH: C.L.G.
APP: J.D.I.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

RUNWAY 8-26 AND TAXIWAY A PAVEMENT IMPROVEMENTS

CONSTRUCTION SAFETY AND OVERALL PHASING PLAN

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME: G050
SHEET NO.: 7 of 61
DRAWING NO.: 1682-DOA

Plotted October 9, 2023 @ 2:58 PM by Vec Potrick
L:\CMA\LOC 21-01 RW and TW A Rehab\CAD\PLANS\000-CMA-LOC-21-01-G050-CPLN.dwg

1. COORDINATION

ALL COORDINATION WILL TAKE PLACE THROUGH THE RESIDENT ENGINEER, CAMARILLO AIRPORT (CMA) OPERATIONS MANAGER, AND COUNTY OF VENTURA DEPARTMENT OF AIRPORTS PROJECT ADMINISTRATOR. NO CLOSURES WITHIN THE MOVEMENT AREAS WILL BE PERMITTED WITHOUT A NOTAM IN PLACE FOR EACH SPECIFIC CLOSURE. PRIOR TO COMMENCEMENT OF ANY WORK, THE CONTRACTOR SHALL GIVE 72 HOURS ADVANCE NOTICE TO THE RESIDENT ENGINEER AND AIRPORT OPERATIONS FOR FILING OF ALL NOTAMS.

A WEEKLY CONSTRUCTION PROGRESS MEETING WILL BE REQUIRED TO DISCUSS ALL OPERATIONAL SAFETY TOPICS THAT HAVE BEEN AFFECTED OR WILL BE AFFECTED IN THE NEAR FUTURE. IN ATTENDANCE WILL BE THE CONTRACTOR, ENGINEER, AND CMA PERSONNEL.

ANY CHANGES TO SCOPE OR SCHEDULE MUST BE NOTIFIED TO THE ENGINEER, CMA OPERATIONS MANAGER, AND COUNTY OF VENTURA DEPARTMENT OF AIRPORTS PROJECT ADMINISTRATOR. ALL PARTIES WILL EVALUATE THE IMPACT OF THE CHANGE AND WILL DETERMINE THE MEASURES NEEDED TO MAINTAIN A SAFE CONSTRUCTION SITE.

THE FAA AIR TRAFFIC OPERATORS WILL BE NOTIFIED IMMEDIATELY IF ANY CHANGES AFFECT AIRCRAFT MOVEMENT. ALL COMMUNICATIONS WITH THE FAA TOWER WILL BY HANDLED BY AIRPORT OPERATIONS.

AIRPORT RUNWAYS AND TAXIWAYS SHOULD REMAIN IN USE BY AIRCRAFT TO THE MAXIMUM EXTENT POSSIBLE.

AIRCRAFT USE OF AREAS NEAR THE CONTRACTOR'S WORK SHOULD BE CONTROLLED TO MINIMIZE DISTURBANCE TO THE CONTRACTOR'S OPERATION.

CONSTRUCTION THAT IS WITHIN THE SAFETY AREA OF AN ACTIVE RUNWAY, TAXIWAY, OR APRON MUST BE PERFORMED WHEN THE RUNWAY, TAXIWAY, OR APRON IS CLOSED OR USE-RESTRICTED AND INITIATED ONLY WITH PRIOR PERMISSION FROM THE AIRPORT OPERATOR AND WITH PROPER NOTAMS IN PLACE.

THE CONTRACTING OFFICER, AIRPORT OPERATOR, OR OTHER DESIGNATED AIRPORT REPRESENTATIVE MAY ORDER THE CONTRACTOR TO SUSPEND OPERATIONS; MOVE PERSONNEL, EQUIPMENT, AND MATERIALS TO A SAFE LOCATION; BARRICADE ANY OPEN TRENCHES AND STAND BY UNTIL AIRCRAFT USE IS COMPLETED.

2. PHASING

THIS PROJECT CONSISTS OF TWO SCHEDULES OF WORK AND SEVEN PHASES. SEE CONSTRUCTION SAFETY DRAWINGS FOR PHASING REQUIREMENTS.

CONTRACTOR TO NOTIFY ENGINEER, CMA OPERATIONS MANAGER, AND COUNTY OF VENTURA DEPARTMENT OF AIRPORTS PROJECT ADMINISTRATOR IF A CHANGE IN SCHEDULE IS NEEDED.

3. AREAS AND OPERATIONS AFFECTED BY CONSTRUCTION ACTIVITY

ALL WORK WITHIN AIRPORT OPERATIONS AREA (AOA) SHALL CONFORM TO ADVISORY CIRCULAR 150/5370-2G, OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION.

CONTRACTOR SHALL ADHERE TO REQUIREMENTS AS MENTIONED ON THIS SHEET, THE CONSTRUCTION SAFETY AND PHASING PLAN (CSPP), AND CONSTRUCTION SAFETY DRAWINGS. THESE REQUIREMENTS INCLUDE, BUT ARE NOT LIMITED TO, LIFE & SAFETY ACCESS ROUTES, AIRCRAFT ROUTES, PEDESTRIAN ROUTES, CONSTRUCTION ACCESS ROUTES, CONSTRUCTION LIMITS, AND BARRICADE LOCATIONS.

4. PROTECTION OF NAVIGATION AIDS (NAVAIDS)

NAVIGATIONAL AIDS INCLUDE INSTRUMENT LANDING SYSTEM (ILS) COMPONENTS, MEDIUM INTENSITY APPROACH LIGHTING SYSTEM (MALSF), PRECISION APPROACH PATH INDICATORS (PAPI) AND AIRPORT SURVEILLANCE RADAR. DURING CONSTRUCTION, NO NAVAID EQUIPMENT WILL BE RELOCATED. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING NAVAIDS AND WILL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE AIRPORT.

5. CONTRACTOR ACCESS

CONTRACTOR SHALL HAVE UNESCORTED ACCESS TO THE AOA DURING THE PROJECT DURATION AT THE DESIGNATED TIMES IN THE PHASING SHEETS. CONTRACTOR SHALL GIVE AIRPORT OPERATIONS 72 HOUR NOTICE WHEN AN ESCORT IS REQUIRED.

CONTRACTOR HAS ACCESS TO ONE (1) GATE (AUTOMATIC) TO ENTER THE AIRPORT. SEE CONSTRUCTION SAFETY DRAWINGS FOR GATE LOCATION. CONTRACTOR SHALL PROVIDE A GATE GUARD AT THIS GATE AT ALL TIMES WHEN GATE IS NOT CLOSED AND LOCKED. SEE SECTION 15 FOR GATE ACCESS REQUIREMENTS.

CONTRACTOR MOVEMENT SHALL BE RESTRICTED TO THE PRE-DETERMINED ACCESS ROUTES AS SHOWN ON CONSTRUCTION SAFETY DRAWINGS.

ALL VEHICLES AND EQUIPMENT OPERATING IN THE AOA MUST BE IDENTIFIED CLEARLY WITH 8-INCH (MINIMUM) BLOCK-TYPE CHARACTERS OF A CONTRASTING COLOR AND EASY TO READ. IN ADDITION, VEHICLES MUST DISPLAY IDENTIFICATION MEDIA, AS SPECIFIED IN THE APPROVED AIRPORT SECURITY PLAN.

ALL VEHICLES AND EQUIPMENT OPERATING IN THE AOA MUST HAVE FLAG (DAY ONLY) OR BEACON (DAY AND NIGHT) ATTACHED TO THE VEHICLE.

CONTRACTOR IS REQUIRED TO ADHERE TO ALL RULES AND REGULATIONS AS SET BY CMA AND ADVISORY CIRCULAR 150/5370-2G, OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION.

ALL KEY PERSONNEL WHO NEED A GATE ACCESS CARD MUST ATTEND THE AIRPORT DRIVING CLASS. THIS TRAINING IS REQUIRED FOR ALL PERSONNEL THAT ARE REQUIRED TO OPERATE A VEHICLE IN THE AOA WITHOUT AN ESCORT.

VEHICLE TRAFFIC LOCATED IN OR CROSSING AN ACTIVE MOVEMENT AREA MUST BE ESCORTED BY THE RESIDENT PROJECT REPRESENTATIVE OR A KEY CONTRACTOR PERSONNEL WHO HAS ATTENDED THE AIRPORT DRIVER DRAINING WHO WILL BE IN RADIO CONTACT WITH THE TOWER. THE DRIVER, THROUGH PERSONAL OBSERVATION, SHOULD CONFIRM THAT NO AIRCRAFT IS APPROACHING THE VEHICLE POSITION. CONTRACTOR PERSONNEL MAY OPERATE IN THE MOVEMENT AREA WITHOUT TWO-WAY RADIO COMMUNICATION PROVIDED A NOTAM IS ISSUED CLOSING THE AREA AND THE AREA IS PROPERLY MARKED TO PREVENT INCURSIONS.

CONTINUOUS MONITORING IS REQUIRED ONLY WHEN EQUIPMENT MOVEMENT IS NECESSARY IN CERTAIN AREAS.

CONTRACTOR IS REQUIRED TO NOTIFY AND COORDINATE WITH THE RESIDENT ENGINEER AND AIRPORT OPERATIONS PRIOR TO ENTERING ANY ACTIVE SURFACE SAFETY AREAS OR OBJECT FREE AREAS.

CONTRACTOR, SUBCONTRACTOR, AND SUPPLIER EMPLOYEES OR ANY UNAUTHORIZED PERSONS ARE RESTRICTED FROM ENTERING AN AIRPORT AREA THAT WOULD BE HAZARDOUS.

6. WILDLIFE MANAGEMENT

CONTRACTOR SHALL ADHERE TO ALL WILDLIFE MANAGEMENT PRACTICES AS STATED IN ADVISORY CIRCULAR 150/5200-33 (LATEST EDITION), HAZARDOUS WILDLIFE ATTRACTIONS ON OR NEAR AIRPORTS, AND CERTALERT 98-08, GRASSES ATTRACTIVE TO HAZARDOUS WILDLIFE.

CONTRACTOR IS RESPONSIBLE FOR COMPLETING A DAILY INSPECTION FOR TRASH, FOREIGN OBJECTS, AND STANDING WATER ON THE CONSTRUCTION SITE THAT MIGHT ATTRACT WILDLIFE.

CONTRACTOR SHALL MAINTAIN ALL FENCES AND GATES THROUGHOUT THE PROJECT TO THE SATISFACTION OF THE RESIDENT ENGINEER.

CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER WHEN A WILDLIFE SIGHTING HAS OCCURRED ON THE PROJECT SITE.

7. FOREIGN OBJECT DEBRIS (FOD) MANAGEMENT

CONTRACTOR SHALL KEEP ALL PAVEMENTS IN THE AOA INCLUDING APRONS, TAXIWAYS, AND RUNWAYS FREE FROM FOD AT ALL TIMES TO PREVENT ANY DEBRIS FROM BEING INGESTED INTO AN AIRCRAFT'S ENGINE OR ANY DEBRIS FROM BEING LAUNCHED DUE TO JET BLAST.

CONTRACTOR IS REQUIRED TO CONTINUOUSLY MONITOR AND MAINTAIN FOD TO THE SATISFACTION OF THE RESIDENT ENGINEER.

PRIOR TO OPENING ANY PAVEMENT TO AIRCRAFT, THE CONTRACTOR, RESIDENT ENGINEER, AND AIRPORT OPERATIONS SHALL CONDUCT A SWEEP OF THE PAVEMENT TO VERIFY THAT THE PAVEMENT IS FREE FROM FOD.

THE CONTRACTOR IS ADVISED THAT DUST CONTROL, CLEANUP OF ACTIVE PAVEMENTS, TRACKING DEBRIS ONTO ACTIVE PAVEMENT AND GENERAL JOBSITE CLEANLINESS IS A SERIOUS SAFETY CONCERN. FOREIGN OBJECT DEBRIS (FOD) IS CONSIDERED AS ANY ITEM THAT COULD POSSIBLY IMPACT THE OPERATIONS OF AN AIRPORT OR ROADWAY. FOD COULD CAUSE INJURY OR DEATH THROUGH INGESTION IN MOVING AIRCRAFT ENGINES. SPECIFIC ITEMS OF CONCERN INCLUDE, BUT ARE NOT LIMITED TO; ANY PACKAGING FROM MATERIAL INSTALLATION, GRAVEL LEFT ON ACTIVE PAVEMENTS, DUST TRACKED ONTO ACTIVE PAVEMENTS, HAND TOOLS, HARDWARE DROPPED, ETC.

8. HAZARDOUS MATERIAL (HAZMAT) MANAGEMENT

CONTRACTOR SHALL NOTIFY RESIDENT ENGINEER AND AIRPORT EMERGENCY PERSONNEL IF HAZARDOUS MATERIALS ARE ENCOUNTERED ON THIS PROJECT.

9. NOTIFICATION OF CONSTRUCTION ACTIVITIES

AGENCY NAME	AGENCY TYPE	TELEPHONE
AIRPORT EMERGENCY	AIRCRAFT RESCUE AND FIRE FIGHTING	(805) 947-6804 OR 911
CAMARILLO POLICE DEPARTMENT	POLICE DEPARTMENT	(805) 654-9511 OR 911
CAMARILLO FIRE DEPARTMENT	FIRE RESCUE	911
VENTURA COUNTY MEDICAL CENTER	HOSPITAL	(805) 652-6000 OR 911
AIRPORT OPERATIONS	AIRPORT OPERATIONS	(805) 947-6804
JVIATION CONSTRUCTION MANAGER	CONSTRUCTION MANAGEMENT	TBD

BEFORE BEGINNING ANY CONSTRUCTION ACTIVITY, THE CONTRACTOR MUST, THROUGH THE RESIDENT ENGINEER AND AIRPORT OPERATIONS, GIVE NOTICE USING THE NOTICE TO AIR MISSIONS (NOTAM) SYSTEM OF PROPOSED LOCATION, TIME, AND DATE OF COMMENCEMENT OF CONSTRUCTION. THE NOTAM SHOULD STATE THAT, "PERSONNEL AND EQUIPMENT ARE WORKING ADJACENT TO RUNWAY 8/26 AND ASSOCIATED TAXIWAY CONNECTORS." ALL NOTAMS SHALL BE ISSUED BY CMA. UPON COMPLETION OF WORK AND RETURN OF ALL SUCH AREAS TO STANDARD CONDITIONS, THE CONTRACTOR MUST COORDINATE WITH THE RESIDENT ENGINEER AND VERIFY THE CANCELLATION OF ALL NOTICES ISSUED VIA THE NOTAM SYSTEM. THROUGHOUT THE PROJECT DURATION , THE CONTRACTOR MUST:

A. BE AWARE OF AND UNDERSTAND THE SAFETY PROBLEMS AND HAZARDS DESCRIBED IN ADVISORY CIRCULAR 150/5370-2G, OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION.
B. CONDUCT ACTIVITIES SO AS NOT TO VIOLATE ANY SAFETY STANDARDS CONTAINED IN ADVISORY CIRCULAR 150/5370-2G OR ANY OF THE REFERENCES THEREIN.
C. INSPECT ALL CONSTRUCTION AND STORAGE AREAS AS OFTEN AS NECESSARY TO BE AWARE OF CONDITIONS.
D. PROMPTLY TAKE ALL ACTIONS NECESSARY TO PREVENT OR REMEDY ANY UNSAFE OR POTENTIALLY UNSAFE CONDITIONS AS SOON AS THEY ARE DISCOVERED.
E. THE CONTRACTOR SHALL ADHERE TO THE REQUIREMENTS, PROVISIONS, AND PROCEDURES OUTLINED IN CONSTRUCTION SAFETY PHASING PLAN (SEE DIV. 4 OF THE CONTRACT DOCUMENTS).

ANY CHANGES TO SCOPE OR SCHEDULE MUST BE NOTIFIED TO THE RESIDENT ENGINEER AND CMA OPERATIONS MANAGER SO THAT NOTAMS CAN BE ISSUED, MAINTAINED, AND CANCELED. IN AN EVENT OF AN EMERGENCY, CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER, CMA OPERATIONS MANAGER, AND AIRPORT EMERGENCY.

10. INSPECTION REQUIREMENTS

CONTRACTOR SHALL COMPLETE A DAILY INSPECTION FOR SAFETY ON THE PROJECT SITE BY COMPLETING THE CHECKLIST PROVIDED IN ADVISORY CIRCULAR 150/5370-2G, APPENDIX D, CONSTRUCTION PROJECT DAILY SAFETY INSPECTION CHECKLIST.

THE CONTRACTOR, RESIDENT ENGINEER AND AIRPORT OPERATOR MUST PERFORM ONSITE INSPECTIONS THROUGHOUT THE PROJECT, WITH IMMEDIATE REMEDY OF ANY DEFICIENCIES, WHETHER CAUSED BY NEGLIGENCE, OVERSIGHT, OR SCOPE CHANGE.

CONTRACTOR SHALL COMPLETE A FINAL INSPECTION FOR SAFETY ON THE PROJECT SITE AT THE END OF EACH PHASE.

11. RUNWAY AND TAXIWAY VISUAL AIDS

FLASHER BARRICADES, CLOSED 'X' MARKINGS AND RUNWAY CLOSURE MARKERS (RCMS) ARE TO BE PLACED AS DETAILED IN THE PLANS AND IN ALL DESIGNATED AREAS AS SHOWN ON THE CONSTRUCTION SAFETY DRAWINGS.

APPROVED FLASHER BARRICADES SHALL BE PROVIDED AND MAINTAINED BY THE CONTRACTOR.

CLOSED 'X' MARKINGS AND RCMS SHALL BE PROVIDED BY THE CONTRACTOR AND MAINTAINED BY THE CONTRACTOR.

CONTRACTOR TO COVER ALL TAXIWAY EDGE LIGHTS, TAXIWAY SIGNS, RUNWAY SIGNS, AND APRON EDGE LIGHTS FOR AREAS CLOSED BY NOTAM TO THE APPROVAL OF THE RESIDENT ENGINEER.

12. MARKING AND SIGNS FOR ACCESS ROUTES

ALL REQUIRED SIGNS AND MARKINGS SHALL CONFORM TO ADVISORY CIRCULAR 150/5340-18 (LATEST EDITION), STANDARD FOR AIRPORT SIGN SYSTEMS, OR THE FEDERAL HIGHWAY ADMINISTRATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

ALL SIGNS ADJACENT TO AREAS USED BY AIRCRAFT MUST COMPLY WITH THE FRANGIBLE REQUIREMENTS AS STATED IN ADVISORY CIRCULAR 150/5220-23, FRANGIBLE CONNECTIONS.

13. HAZARD MARKINGS AND LIGHTING

PRIOR TO CLOSING ANY AREAS IN THE AOA TO AIRCRAFT OR EMERGENCY TRAFFIC, CONTRACTOR MUST CLEARLY DEFINE CLOSED AREAS WITH WARNING LIGHTS, BARRICADES, CLOSED 'X' MARKINGS, RCMS, AND FLAGS TO THE APPROVAL OF THE RESIDENT ENGINEER. CONTRACTOR TO REFER TO CONSTRUCTION SAFETY DRAWINGS.

HAZARDOUS AREAS ON THE MOVEMENT AREA WILL BE MARKED WITH FLASHER BARRICADES. THESE BARRICADES RESTRICT ACCESS AND MAKE HAZARDS OBVIOUS TO AIRCRAFT, PERSONNEL, AND VEHICLES. DURING PERIODS OF LOW VISIBILITY AND AT NIGHT, IDENTIFY HAZARDOUS AREAS WITH RED FLASHING LIGHTS.

OPEN TRENCHES AND EXCAVATIONS MUST BE PROMINENTLY MARKED WITH RED OR ORANGE FLAGS AND LIGHTS AS APPROVED BY THE RESIDENT ENGINEER.

14. PROTECTION OF RUNWAY AND TAXIWAY AREAS

SAFETY AREAS - CONTRACTOR SHALL NOT IMPEDE ON THE SAFETY AREAS WITHOUT A CLOSURE OF THE RUNWAY/TAXIWAY BY MEANS OF A NOTAM.

OBJECT FREE AREAS - CONTRACTOR SHALL NOT PLACE EQUIPMENT, MATERIAL, OR STOCKPILES IN THIS AREA. ALL OBJECTS OR MATERIALS ADJACENT TO THIS AREA SHALL BE PROPERLY MARKED/LIT PER ADVISORY CIRCULAR 150/5370-2G. CONTRACTOR CANNOT WORK IN ACTIVE TAXIWAY OBJECT FREE AREA WITHOUT WING WALKERS TO MAINTAIN A 5' CLEARANCE FROM THE WINGSPAN OF THE AIRCRAFT TO CONSTRUCTION EQUIPMENT OR MATERIAL.

OBSTACLE FREE ZONE- CONTRACTOR TO PREVENT PERSONNEL, MATERIAL, AND/OR EQUIPMENT FROM PENETRATING THE OBSTACLE FREE ZONE AS DEFINED IN ADVISORY CIRCULAR 150/5300-13B.

15. AIRPORT SECURITY

CONTRACTOR SHALL ADHERE TO AIRPORT SECURITY REQUIREMENTS AT ALL TIMES. KEY CONSTRUCTION SUPERINTENDENTS AND ANY OTHER PERSONNEL DEEMED NECESSARY BY THE AIRPORT/CONTRACTOR SHALL ATTEND THE DRIVER CONSTRUCTION TRAINING TO OBTAIN AN AIRPORT ELECTRONIC ENTRY CARD AT THE EXPENSE OF THE CONTRACTOR PRIOR TO CONSTRUCTION. ALL OTHER CONSTRUCTION PERSONNEL SHALL BE ESCORTED AT ALL TIMES DURING AIRSIDE CONSTRUCTION.

16. OTHER LIMITATIONS ON CONSTRUCTION

PROHIBITING OPEN-FLAME WELDING OR TORCH CUTTING OPERATIONS UNLESS ADEQUATE FIRE SAFETY PRECAUTIONS ARE PROVIDED AND THESE OPERATIONS HAVE BEEN AUTHORIZED BY THE AIRPORT OPERATOR (AS TAILORED TO CONFORM TO LOCAL REQUIREMENTS AND RESTRICTIONS).

PROMINENTLY MARKING OPEN TRENCHES, EXCAVATIONS, AND STOCKPILED MATERIALS AT THE CONSTRUCTION AND LIGHTING THESE OBSTACLES DURING HOURS OF RESTRICTED VISIBILITY AND DARKNESS.

MARKING AND LIGHTING CLOSED, DECEPTIVE, AND HAZARDOUS AREAS ON AIRPORTS, AS APPROPRIATE. CONSTRAINING STOCKPILED MATERIAL TO PREVENT ITS MOVEMENT AS A RESULT OF THE MAXIMUM ANTICIPATED AIRCRAFT BLAST AND FORECAST WIND CONDITIONS.

NO USE OF TALL EQUIPMENTS (CRANES, CONCRETE PUMPS, AND SO ON) UNLESS A FAA 7460-1 DETERMINATION LETTER IS ISSUED FOR SUCH EQUIPMENT.

NO USE OF ELECTRICAL BLASTING CAPS ON OR WITHIN 1,000' OF THE AIRPORT PROPERTY.

NO USE OF FLARE POTS WITHIN THE AOA.

17. DUST CONTROL

CONTRACTOR IS RESPONSIBLE FOR CONTROLLING DUST FROM THE CONSTRUCTION SITE AT ALL TIMES. CONTRACTOR SHALL HAVE A WATER TRUCK AND OPERATOR AVAILABLE 24 HOURS A DAY TO CONTROL DUST. THE PROJECT'S LOCATION IS NEAR ACTIVE RUNWAYS AND HIGHWAYS AND IS IN A LOCATION THAT EXPERIENCES HIGH WIND. IT IS CRITICAL FOR THE CONTRACTOR TO KEEP DUST TO AN ABSOLUTE MINIMUM BOTH DURING CONSTRUCTION, AND AFTER CONSTRUCTION UNTIL THE EXPOSED SURFACES CONTAIN SUSTAINABLE VEGETATION. CONTRACTOR SHALL PROVIDE THE RESIDENT ENGINEER AND AIRPORT OPERATIONS WITH A CONTACT FOR 24 HOUR DUST CONTROL.

ISSUED FOR 100% REVIEW

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JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY

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DES: A.G.G.
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APP: J.D.I.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

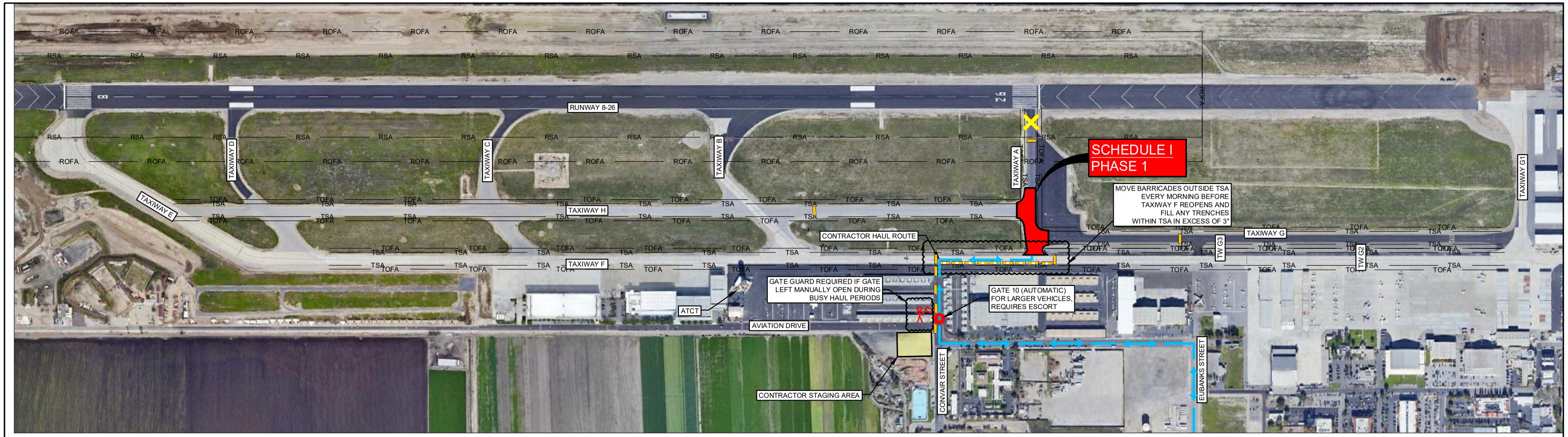
RUNWAY 8-26 AND TAXIWAY A PAVEMENT IMPROVEMENTS

CONSTRUCTION SAFETY NOTES & DETAILS

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME: G051
SHEET NO.: 8 of 61
DRAWING NO.: 1683-DOA

Plotted October 9, 2023 @ 2:58 PM by: Vivi Patrick
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CONSTRUCTION PHASING NOTES

SCHEDULE I / PHASE 1 - NIGHT OPERATIONS

DURATION
8 CALENDAR NIGHTS

CONTRACTOR ACCESS TIMES

- 24 HOUR ACCESS TO STAGING AREAS.
- TAXIWAY A WITHIN THE BARRICADE BOUNDARY SHOWN ON THE DAY OPERATIONS SHEET WILL BE CLOSED THROUGHOUT SCHEDULE I, PHASE 1.
- NIGHTTIME ACCESS TO APPROVED WORK AREAS. THE CLOSURE OF TAXIWAY F BETWEEN TAXIWAY A AND TAXIWAY B WILL BEGIN NO EARLIER THAN 2100 AND WILL END NO LATER THAN 0700 ON THE FOLLOWING DAY. CONTRACTOR WORK HOURS WILL BE FROM 2100 TO 0600 TO ALLOW TIME FOR CLEANUP.
- BARRICADES WILL NEED TO BE MOVED OUTSIDE OF THE RUNWAY SAFETY AREA (RSA) AND TAXIWAY SAFETY AREA (TSA) PRIOR TO END OF WORK AND THE PORTION OF TAXIWAY F EACH MORNING AND ALL TRENCHES IN EXCESS OF 3" DROPS WITHIN THE RSA AND TSA WILL NEED TO BE FILLED. DROPS OF MORE THAN 3 INCHES OR SLOPES GREATER THAN 5% ARE NOT PERMITTED.
- TAXIWAY CONNECTOR BARRICADES SHALL BE REMOVED PRIOR TO END OF WORK EACH MORNING, EXCEPT FOR THE TAXIWAY A BARRICADES.

MAJOR WORK TO BE COMPLETED

SITE PREPARATION

1. EROSION CONTROL MEASURES
2. FULL DEPTH PAVEMENT REMOVALS

PAVEMENT SECTION

1. BASE COURSE PLACEMENT
2. GEOGRID PLACEMENT
3. ASPHALT PAVING
4. PAVEMENT MARKINGS

SITE RECLAMATION

1. EROSION CONTROL MEASURES

IMPACTS ON OPERATIONS

1. THE CONTRACTOR SHALL GIVE RIGHT OF WAY TO ALL AIRCRAFT AND EMERGENCY VEHICLES AT ALL TIMES.
2. THE CONTRACTOR SHALL MAINTAIN EMERGENCY VEHICLE ACCESS TO THE RUNWAY AT ALL TIMES.
3. IF AN EMERGENCY SITUATION ARISES REQUIRING AN AIRCRAFT TO UTILIZE THE RUNWAY AND/OR TAXIWAY DURING CONSTRUCTION, ALL EQUIPMENT AND PERSONNEL SHALL IMMEDIATELY EXIT THE RUNWAY AND/OR TAXIWAY AND STAGE OUTSIDE THE OBJECT FREE AREA.
4. NO WORK, OPEN EXCAVATIONS, EQUIPMENT, STOCKPILES, OR PERSONNEL ARE ALLOWED IN THE SAFETY AREAS OR OBJECT FREE AREAS FOR ANY ACTIVE TAXIWAY OR SAFETY AREAS FOR AN ACTIVE RUNWAY WHEN THE AIRPORT IS OPEN AND OPERATIONAL.
5. PRIOR TO OPENING THE TAXIWAY EACH MORNING TO AIRCRAFT, ALL AIRFIELD PAVEMENT WHERE WORK HAS OCCURRED OR EQUIPMENT HAS TRAVERSED SHALL BE SWEPT OR CLEARED WITH APPROVED EQUIPMENT TO REMOVE ANY FOD. ALL EXCAVATIONS AND TRENCHES IN THE SAFETY AREAS SHALL BE BACKFILLED AND COMPACTED TO P-152 SPECIFICATIONS. GRADING WITHIN THE SAFETY AREA SHALL CONFORM TO AC 150/5300-13 (CURRENT VERSION), CHAPTER 3. NO DROPS GREATER THAN 3-INCHES ARE ALLOWED IN THE RUNWAY SAFETY AREA. IF AREAS ARE FOUND TO BE DEFICIENT, THE CONTRACTOR MUST IMMEDIATELY CORRECT THE DEFICIENCY TO THE SATISFACTION OF THE RPR OR CMA STAFF. APPROVAL TO REOPEN TO AIRCRAFT TRAFFIC WILL BE PROVIDED BY AIRPORT OPERATIONS OR THE RPR.
6. AIRPORT PERIMETER SECURITY SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE QUALIFIED GATE GUARDS ALONG CONSTRUCTION ACCESS POINTS AT AIRPORT PERIMETER GATE LOCATIONS. GATES SHALL BE SECURELY CLOSED OR LOCKED AT ALL TIMES IF GATE GUARD IS NOT PRESENT OR GATES ARE NOT IN USE.
7. CONSTRUCTION MARKERS, BARRICADES, AND TAXIWAY CLOSURE MARKERS SHALL BE INSTALLED PER PHASING PLANS AND AS REQUIRED BY AC 150/5370-2 (CURRENT VERSION) OR AS DIRECTED BY THE RPR.
8. ALL STOCKPILES OR EQUIPMENT ADJACENT TO OBJECT FREE AREAS SHALL BE MARKED AND LIGHTED PER AC 150/5370-2 (CURENT VERSION).
9. THE CONTRACTOR SHALL HAVE A SWEEPER OR VACUUM TRUCK ON SITE AT ALL TIMES TO CLEAN DEBRIS FROM HAUL ROUTES, CONSTRUCTION ACCESS POINTS, OR AREAS ADJACENT TO CONSTRUCTION.
10. THE CONTRACTOR SHALL KEEP ALL CONSTRUCTION TRAFFIC LIMITED TO THE APPROVED HAUL ROUTES AS SHOWN ON THE PLANS OR AS APPROVED BY THE RPR. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED ALONG THE HAUL ROUTES OR CONSTRUCTION ACCESS ROUTES TO THE PROJECT SITE. HAUL ROADS WILL BE MAINTAINED AND RESTORED TO THEIR ORIGINAL CONDITION BY THE CONTRACTOR AT NO EXPENSE TO THE SPONSOR.
11. THE CONTRACTOR SHALL MINIMIZE DISTURBANCE IN AND AROUND FAA NAVIGATIONAL AIDS.
12. CONTRACTOR SHALL PARK ALL EQUIPMENT AND VEHICLES IN THE STAGING AREA AT THE END OF EACH SHIFT AND DURING PERIODS WHEN NO CONSTRUCTION ACTIVITIES ARE TAKING PLACE. NO EQUIPMENT SHALL BE LEFT UNATTENDED WITHIN THE RUNWAY OBJECT FREE AREA (ROFA).

OTHER NOTES

1. AIRPORT MANAGEMENT PERSONNEL WILL ISSUE NOTAM FOR ANY CONTRACTOR SCHEDULED ACTIVITIES AT LEAST 72 HOURS IN ADVANCE OF SAID ACTIVITY.
2. CONSTRUCTION EQUIPMENT THAT MAY DAMAGE AIRFIELD PAVEMENT WHILE CROSSING IT TO ACCESS WORK AREAS, SUCH AS THOSE WITH TRACKS, SHALL PROTECT THE PAVEMENT USING A METHOD APPROVED BY THE RPR.
3. CMA ATCT OPERATION HOURS: 7:00 AM - 9:00 PM LOCAL TIME
   MONITOR CMA GROUND - 122.95 MHZ.

   CMA ATCT CLOSURE HOURS: 9:00 PM TO 7:00 AM LOCAL TIME
   MONITOR CMA CTAF - 134.95 MHZ.
4. CONTRACTOR SHALL PROTECT ALL FAA COMMUNICATION LINES AND ESPECIALLY WHEN WORKING WITHIN EXISTING STORM DRAIN INFRASTRUCTURE. NOTIFY ENGINEER IMMEDIATELY IF DAMAGE OCCURS BY CONTRACTOR OPERATIONS.

PHASING LEGEND

- CONTRACTOR HAUL ROUTE
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- FLASHER BARRICADE
- FLAG PERSONNEL / GATE GUARD
- CONTRACTOR GATE ACCESS
- RUNWAY CLOSURE LIGHTED "X"
- TAXIWAY TEMPORARY CLOSURE "X" (MATERIAL PER DETAIL 4/SHEET G050)

N

GRAPHIC SCALE
300 0 300 600
(IN FEET)

ISSUED FOR 100% REVIEW

THESE DRAWINGS ARE FOR DESIGN REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES. THEY WERE PREPARED BY OR UNDER THE SUPERVISION OF:

JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY

JVIATION®
A WOOLPERT COMPANY

CAMARILLO AIRPORT
CAMARILLO,CA

COUNTY of VENTURA
Department of Airports

DES: A.G.G.
DR: A.G.G.
CH: C.L.G.
APP: J.D.I.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

CONSTRUCTION SAFETY AND PHASING PLAN
SCHEDULE I PHASE 1 (NIGHT)

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME
G052A

SHEET NO.
9 of 61

DRAWING NO.
1684-DOA

Plotted October 9, 2023 @ 2:58 PM by Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Reheb\CADD\PLANS\000-CMA-LOC-21-01-G052-PHAS.dwg



CONSTRUCTION PHASING NOTES

SCHEDULE I / PHASE 1 - DAY OPERATIONS

DURATION
8 CALENDAR NIGHTS

CONTRACTOR ACCESS TIMES

- 24 HOUR ACCESS TO STAGING AREAS.
- TAXIWAY A WITHIN THE BARRICADE BOUNDARY WILL BE CLOSED THROUGHOUT SCHEDULE I, PHASE 1.
- NIGHTTIME ACCESS TO APPROVED WORK AREAS. THE CLOSURE OF TAXIWAY F BETWEEN TAXIWAY A AND TAXIWAY B WILL BEGIN NO EARLIER THAN 2100 AND WILL END NO LATER THAN 0700 ON THE FOLLOWING DAY. CONTRACTOR WORK HOURS WILL BE FROM 2100 TO 0600 TO ALLOW TIME FOR CLEANUP.
- BARRICADES WILL NEED TO BE MOVED OUTSIDE OF THE RUNWAY SAFETY AREA (RSA) AND TAXIWAY SAFETY AREA (TSA) PRIOR TO END OF WORK AND THE PORTION OF TAXIWAY F EACH MORNING AND ALL TRENCHES IN EXCESS OF 3" DROPS WITHIN THE RSA AND TSA WILL NEED TO BE FILLED. DROPS OF MORE THAN 3 INCHES OR SLOPES GREATER THAN 5% ARE NOT PERMITTED.
- TAXIWAY CONNECTOR BARRICADES SHALL BE REMOVED PRIOR TO END OF WORK EACH MORNING, EXCEPT FOR THE TAXIWAY A BARRICADES.

MAJOR WORK TO BE COMPLETED

SITE PREPARATION

1. EROSION CONTROL MEASURES
2. FULL DEPTH PAVEMENT REMOVALS

PAVEMENT SECTION

1. BASE COURSE PLACEMENT
2. GEOGRID PLACEMENT
3. ASPHALT PAVING
4. PAVEMENT MARKINGS

SITE RECLAMATION

1. EROSION CONTROL MEASURES

IMPACTS ON OPERATIONS

1. THE CONTRACTOR SHALL GIVE RIGHT OF WAY TO ALL AIRCRAFT AND EMERGENCY VEHICLES AT ALL TIMES.
2. THE CONTRACTOR SHALL MAINTAIN EMERGENCY VEHICLE ACCESS TO THE RUNWAY AT ALL TIMES.
3. IF AN EMERGENCY SITUATION ARISES REQUIRING AN AIRCRAFT TO UTILIZE THE RUNWAY AND/OR TAXIWAY DURING CONSTRUCTION, ALL EQUIPMENT AND PERSONNEL SHALL IMMEDIATELY EXIT THE RUNWAY AND/OR TAXIWAY AND STAGE OUTSIDE THE OBJECT FREE AREA.
4. NO WORK, OPEN EXCAVATIONS, EQUIPMENT, STOCKPILES, OR PERSONNEL ARE ALLOWED IN THE SAFETY AREAS OR OBJECT FREE AREAS FOR ANY ACTIVE TAXIWAY OR SAFETY AREAS FOR AN ACTIVE RUNWAY WHEN THE AIRPORT IS OPEN AND OPERATIONAL.
5. PRIOR TO OPENING THE TAXIWAY EACH MORNING TO AIRCRAFT, ALL AIRFIELD PAVEMENT WHERE WORK HAS OCCURRED OR EQUIPMENT HAS TRAVERSED SHALL BE SWEPT OR CLEARED WITH APPROVED EQUIPMENT TO REMOVE ANY FOD. ALL EXCAVATIONS AND TRENCHES IN THE SAFETY AREAS SHALL BE BACKFILLED AND COMPACTED TO P-152 SPECIFICATIONS. GRADING WITHIN THE SAFETY AREA SHALL CONFORM TO AC 150/5300-13 (CURRENT VERSION), CHAPTER 3. NO DROPS GREATER THAN 3-INCHES ARE ALLOWED IN THE RUNWAY SAFETY AREA. IF AREAS ARE FOUND TO BE DEFICIENT, THE CONTRACTOR MUST IMMEDIATELY CORRECT THE DEFICIENCY TO THE SATISFACTION OF THE RPR OR CMA STAFF. APPROVAL TO REOPEN TO AIRCRAFT TRAFFIC WILL BE PROVIDED BY AIRPORT OPERATIONS OR THE RPR.
6. AIRPORT PERIMETER SECURITY SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE QUALIFIED GATE GUARDS ALONG CONSTRUCTION ACCESS POINTS AT AIRPORT PERIMETER GATE LOCATIONS. GATES SHALL BE SECURELY CLOSED OR LOCKED AT ALL TIMES IF GATE GUARD IS NOT PRESENT OR GATES ARE NOT IN USE.
7. CONSTRUCTION MARKERS, BARRICADES, AND TAXIWAY CLOSURE MARKERS SHALL BE INSTALLED PER PHASING PLANS AND AS REQUIRED BY AC 150/5370-2 (CURRENT VERSION) OR AS DIRECTED BY THE RPR.
8. ALL STOCKPILES OR EQUIPMENT ADJACENT TO OBJECT FREE AREAS SHALL BE MARKED AND LIGHTED PER AC 150/5370-2 (CURENT VERSION).
9. THE CONTRACTOR SHALL HAVE A SWEEPER OR VACUUM TRUCK ON SITE AT ALL TIMES TO CLEAN DEBRIS FROM HAUL ROUTES, CONSTRUCTION ACCESS POINTS, OR AREAS ADJACENT TO CONSTRUCTION.
10. THE CONTRACTOR SHALL KEEP ALL CONSTRUCTION TRAFFIC LIMITED TO THE APPROVED HAUL ROUTES AS SHOWN ON THE PLANS OR AS APPROVED BY THE RPR. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED ALONG THE HAUL ROUTES OR CONSTRUCTION ACCESS ROUTES TO THE PROJECT SITE. HAUL ROADS WILL BE MAINTAINED AND RESTORED TO THEIR ORIGINAL CONDITION BY THE CONTRACTOR AT NO EXPENSE TO THE SPONSOR.
11. THE CONTRACTOR SHALL MINIMIZE DISTURBANCE IN AND AROUND FAA NAVIGATIONAL AIDS.
12. CONTRACTOR SHALL PARK ALL EQUIPMENT AND VEHICLES IN THE STAGING AREA AT THE END OF EACH SHIFT AND DURING PERIODS WHEN NO CONSTRUCTION ACTIVITIES ARE TAKING PLACE. NO EQUIPMENT SHALL BE LEFT UNATTENDED WITHIN THE RUNWAY OBJECT FREE AREA (ROFA).

OTHER NOTES

1. AIRPORT MANAGEMENT PERSONNEL WILL ISSUE NOTAM FOR ANY CONTRACTOR SCHEDULED ACTIVITIES AT LEAST 72 HOURS IN ADVANCE OF SAID ACTIVITY.
2. CONSTRUCTION EQUIPMENT THAT MAY DAMAGE AIRFIELD PAVEMENT WHILE CROSSING IT TO ACCESS WORK AREAS, SUCH AS THOSE WITH TRACKS, SHALL PROTECT THE PAVEMENT USING A METHOD APPROVED BY THE RPR.
3. CMA ATCT OPERATION HOURS: 7:00 AM - 9:00 PM LOCAL TIME
   MONITOR CMA GROUND - 122.95 MHZ.

   CMA ATCT CLOSURE HOURS: 9:00 PM TO 7:00 AM LOCAL TIME
   MONITOR CMA CTAF - 134.95 MHZ.
4. CONTRACTOR SHALL PROTECT ALL FAA COMMUNICATION LINES AND ESPECIALLY WHEN WORKING WITHIN EXISTING STORM DRAIN INFRASTRUCTURE. NOTIFY ENGINEER IMMEDIATELY IF DAMAGE OCCURS BY CONTRACTOR OPERATIONS.

PHASING LEGEND

- CONTRACTOR HAUL ROUTE
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- FLASHER BARRICADE
- FLAG PERSONNEL / GATE GUARD
- CONTRACTOR GATE ACCESS
- RUNWAY CLOSURE LIGHTED "X"
- TAXIWAY TEMPORARY CLOSURE "X" (MATERIAL PER DETAIL 4/SHEET G050)

N

GRAPHIC SCALE
300 0 300 600
(IN FEET)

ISSUED FOR 100% REVIEW

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JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY

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CAMARILLO AIRPORT
CAMARILLO,CA

COUNTY of VENTURA
Department of Airports

DES: A.G.G.
DR: A.G.G.
CH: C.L.G.
APP: J.D.I.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

CONSTRUCTION SAFETY AND PHASING PLAN
SCHEDULE I, PHASE 1 (DAY)

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME
G052B

SHEET NO.
10 of 61

DRAWING NO.
1685-DOA

Plotted October 9, 2023 @ 2:58 PM by Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Reheb\CADD\LAN5000-CMA-LOC-21-01-G052(Day)-PHAS.dwg



CONSTRUCTION PHASING NOTES

SCHEDULE I / PHASE 2 - NIGHT OPERATIONS

DURATION AND CONTRACTOR ACCESS TIMES

- 5 CALENDAR NIGHTS.
- NIGHTTIME ACCESS TO APPROVED WORK AREAS. THE CLOSURE WILL BEGIN NO EARLIER THAN 2100 AND WILL END NO LATER THAN 0700 ON THE FOLLOWING DAY. CONTRACTOR WORK HOURS WILL BE FROM 2100 TO 0600 TO ALLOW TIME FOR CLEANUP, AIRPORT INSPECTION AND TO ENSURE THAT RUNWAY 8-26 IS READY FOR DAYTIME OPENING AND ALL NAVAIDS ARE OPERATIONAL..
- ALL AIRPORT OPERATION AREAS SHALL BE CLOSED DURING NIGHT TIME CLOSURES.
- RUNWAY 8-26 WILL REOPEN EACH MORNING
- TAXIWAY A WITHIN THE RSA WILL REMAIN CLOSED DURING SCHEDULE I, PHASE 2.
- TAXIWAY CONNECTOR BARRICADES SHALL BE REMOVED PRIOR TO OPENING THE RUNWAY EACH MORNING, EXCEPT FOR THE TAXIWAY A RSA BARRICADES. RUNWAY CLOSURE "X"S SHALL BE REMOVED PRIOR TO OPENING THE RUNWAY EACH MORNING. TAXIWAY CLOSURE "X" SHALL BE PLACED AT THE ENTRANCE TO TAXIWAY A FROM THE RUNWAY EACH MORNING.
- DROPS OF MORE THAN 3 INCHES OR SLOPES GREATER THAN 5% ARE NOT PERMITTED WITHIN SCHEDULE I, PHASE 2 AREA WHILE THE RUNWAY IS OPEN.

MAJOR WORK TO BE COMPLETED

SITE PREPARATION

1. EROSION CONTROL MEASURES
2. FULL DEPTH PAVEMENT REMOVALS

PAVEMENT SECTION

1. BASE COURSE PLACEMENT
2. GEOGRID PLACEMENT
3. ASPHALT PAVING
4. PAVEMENT MARKINGS

SITE RECLAMATION

1. EROSION CONTROL MEASURES

IMPACTS ON OPERATIONS

1. THE CONTRACTOR SHALL GIVE RIGHT OF WAY TO ALL AIRCRAFT AND EMERGENCY VEHICLES AT ALL TIMES.
2. THE CONTRACTOR SHALL MAINTAIN EMERGENCY VEHICLE ACCESS TO THE RUNWAY AT ALL TIMES.
3. IF AN EMERGENCY SITUATION ARISES REQUIRING AN AIRCRAFT TO UTILIZE THE RUNWAY AND/OR TAXIWAY DURING CONSTRUCTION, ALL EQUIPMENT AND PERSONNEL SHALL IMMEDIATELY EXIT THE RUNWAY AND/OR TAXIWAY AND STAGE OUTSIDE THE OBJECT FREE AREA.
4. NO WORK, OPEN EXCAVATIONS, EQUIPMENT, STOCKPILES, OR PERSONNEL ARE ALLOWED IN THE SAFETY AREAS OR OBJECT FREE AREAS FOR ANY ACTIVE TAXIWAY OR SAFETY AREAS FOR AN ACTIVE RUNWAY WHEN THE AIRPORT IS OPEN AND OPERATIONAL.
5. PRIOR TO OPENING THE RUNWAY OR TAXIWAY EACH MORNING TO AIRCRAFT, ALL AIRFIELD PAVEMENT WHERE WORK HAS OCCURRED OR EQUIPMENT HAS TRAVERSED SHALL BE SWEPT OR CLEARED WITH APPROVED EQUIPMENT TO REMOVE ANY FOD. ALL EXCAVATIONS AND TRENCHES IN THE SAFETY AREAS SHALL BE BACKFILLED AND COMPACTED TO P-152 SPECIFICATIONS. GRADING WITHIN THE SAFETY AREA SHALL CONFORM TO AC 150/5300-13 (CURRENT VERSION), CHAPTER 3. NO DROPS GREATER THAN 3-INCHES ARE ALLOWED IN THE RUNWAY SAFETY AREA. IF AREAS ARE FOUND TO BE DEFICIENT, THE CONTRACTOR MUST IMMEDIATELY CORRECT THE DEFICIENCY TO THE SATISFACTION OF THE RPR OR CMA STAFF. APPROVAL TO REOPEN TO AIRCRAFT TRAFFIC WILL BE PROVIDED BY AIRPORT OPERATIONS OR THE RPR.
6. AIRPORT PERIMETER SECURITY SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE QUALIFIED GATE GUARDS ALONG CONSTRUCTION ACCESS POINTS AT AIRPORT PERIMETER GATE LOCATIONS. GATES SHALL BE SECURELY CLOSED OR LOCKED AT ALL TIMES IF GATE GUARD IS NOT PRESENT OR GATES ARE NOT IN USE.
7. CONTRACTOR TO PROVIDE RUNWAY CLOSURE MARKERS (RCM's). CONTRACTOR SHALL INSTALL RUNWAY CLOSURE MARKERS ON THE "8" AND "26" RUNWAY DESIGNATIONS FOR THE DURATION OF EACH SCHEDULED RUNWAY CLOSURE. CONTRACTOR IS RESPONSIBLE FOR FUEL AND MAINTENANCE OF RUNWAY X'S.
8. CONSTRUCTION MARKERS, BARRICADES, AND RUNWAY CLOSURE MARKERS SHALL BE INSTALLED PER PHASING PLANS AND AS REQUIRED BY AC 150/5370-2 (CURRENT VERSION) OR AS DIRECTED BY THE RPR.
9. ALL STOCKPILES OR EQUIPMENT ADJACENT TO OBJECT FREE AREAS SHALL BE MARKED AND LIGHTED PER AC 150/5370-2 (CURENT VERSION).
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OTHER NOTES

1. AIRPORT MANAGEMENT PERSONNEL WILL ISSUE NOTAM FOR ANY CONTRACTOR SCHEDULED ACTIVITIES AT LEAST 72 HOURS IN ADVANCE OF SAID ACTIVITY.
2. CONSTRUCTION EQUIPMENT THAT MAY DAMAGE AIRFIELD PAVEMENT WHILE CROSSING IT TO ACCESS WORK AREAS, SUCH AS THOSE WITH TRACKS, SHALL PROTECT THE PAVEMENT USING A METHOD APPROVED BY THE RPR.
3. CMA ATCT OPERATION HOURS: 7:00 AM - 9:00 PM LOCAL TIME
   MONITOR CMA GROUND - 122.95 MHZ.

   CMA ATCT CLOSURE HOURS: 9:00 PM TO 7:00 AM LOCAL TIME
   MONITOR CMA CTAF - 134.95 MHZ.
4. CONTRACTOR SHALL PROTECT ALL FAA COMMUNICATION LINES AND ESPECIALLY WHEN WORKING WITHIN EXISTING STORM DRAIN INFRASTRUCTURE. NOTIFY ENGINEER IMMEDIATELY IF DAMAGE OCCURS BY CONTRACTOR OPERATIONS.

PHASING LEGEND

- CONTRACTOR HAUL ROUTE
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- FLASHER BARRICADE
- FLAG PERSONNEL / GATE GUARD
- CONTRACTOR GATE ACCESS
- RUNWAY CLOSURE LIGHTED "X"
- TAXIWAY TEMPORARY CLOSURE "X" (MATERIAL PER DETAIL 4/SHEET G050)

N

GRAPHIC SCALE
300 0 300 600
(IN FEET)

ISSUED FOR 100% REVIEW

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JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY

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A WOOLPERT COMPANY

CAMARILLO AIRPORT
CAMARILLO,CA

COUNTY of VENTURA
Department of Airports

DES: A.G.G.
DR: A.G.G.
CH: C.L.G.
APP: J.D.I.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

CONSTRUCTION SAFETY AND PHASING PLAN
SCHEDULE I PHASE 2 (NIGHT)

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME: G053A
SHEET NO.: 11 of 61
DRAWING NO.: 1686-DOA

Plotted October 9, 2023 @ 2:58 PM by Vier, Patrick
L:\CMA\LOC 21-01 RW and TW A Rehab\CADD\PLANS\000-CMA-LOC-21-01-G053-PHAS.dwg



CONSTRUCTION PHASING NOTES

SCHEDULE I / PHASE 2 - DAY OPERATIONS

DURATION AND CONTRACTOR ACCESS TIMES

- 5 CALENDAR NIGHTS.
- NIGHTTIME ACCESS TO APPROVED WORK AREAS. THE CLOSURE WILL BEGIN NO EARLIER THAN 2100 AND WILL END NO LATER THAN 0700 ON THE FOLLOWING DAY. CONTRACTOR WORK HOURS WILL BE FROM 2100 TO 0600 TO ALLOW TIME FOR CLEANUP, AIRPORT INSPECTION AND TO ENSURE THAT RUNWAY 8-26 IS READY FOR DAYTIME OPENING AND ALL NAVAIDS ARE OPERATIONAL.
- ALL AIRPORT OPERATION AREAS SHALL BE CLOSED DURING NIGHT TIME CLOSURES.
- RUNWAY 8-26 WILL REOPEN EACH MORNING
- TAXIWAY A WITHIN THE RSA WILL REMAIN CLOSED DURING SCHEDULE I, PHASE 2.
- TAXIWAY CONNECTOR BARRICADES SHALL BE REMOVED PRIOR TO OPENING THE RUNWAY EACH MORNING, EXCEPT FOR THE TAXIWAY A RSA BARRICADES. RUNWAY CLOSURE "X"S SHALL BE REMOVED PRIOR TO OPENING THE RUNWAY EACH MORNING. TAXIWAY CLOSURE "X" SHALL BE PLACED AT THE ENTRANCE TO TAXIWAY A FROM THE RUNWAY EACH MORNING.
- DROPS OF MORE THAN 3 INCHES OR SLOPES GREATER THAN 5% ARE NOT PERMITTED WITHIN SCHEDULE I, PHASE 2 AREA WHILE THE RUNWAY IS OPEN.

MAJOR WORK TO BE COMPLETED

SITE PREPARATION

1. EROSION CONTROL MEASURES
2. FULL DEPTH PAVEMENT REMOVALS

PAVEMENT SECTION

1. BASE COURSE PLACEMENT
2. GEOGRID PLACEMENT
3. ASPHALT PAVING
4. PAVEMENT MARKINGS

SITE RECLAMATION

1. EROSION CONTROL MEASURES

IMPACTS ON OPERATIONS

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4. NO WORK, OPEN EXCAVATIONS, EQUIPMENT, STOCKPILES, OR PERSONNEL ARE ALLOWED IN THE SAFETY AREAS OR OBJECT FREE AREAS FOR ANY ACTIVE TAXIWAY OR SAFETY AREAS FOR AN ACTIVE RUNWAY WHEN THE AIRPORT IS OPEN AND OPERATIONAL.
5. PRIOR TO OPENING THE RUNWAY OR TAXIWAY EACH MORNING TO AIRCRAFT, ALL AIRFIELD PAVEMENT WHERE WORK HAS OCCURRED OR EQUIPMENT HAS TRAVERSED SHALL BE SWEPT OR CLEARED WITH APPROVED EQUIPMENT TO REMOVE ANY FOD. ALL EXCAVATIONS AND TRENCHES IN THE SAFETY AREAS SHALL BE BACKFILLED AND COMPACTED TO P-152 SPECIFICATIONS. GRADING WITHIN THE SAFETY AREA SHALL CONFORM TO AC 150/5300-13 (CURRENT VERSION), CHAPTER 3. NO DROPS GREATER THAN 3-INCHES ARE ALLOWED IN THE RUNWAY SAFETY AREA. IF AREAS ARE FOUND TO BE DEFICIENT, THE CONTRACTOR MUST IMMEDIATELY CORRECT THE DEFICIENCY TO THE SATISFACTION OF THE RPR OR CMA STAFF. APPROVAL TO REOPEN TO AIRCRAFT TRAFFIC WILL BE PROVIDED BY AIRPORT OPERATIONS OR THE RPR.
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9. ALL STOCKPILES OR EQUIPMENT ADJACENT TO OBJECT FREE AREAS SHALL BE MARKED AND LIGHTED PER AC 150/5370-2 (CURENT VERSION).
10. THE CONTRACTOR SHALL HAVE A SWEEPER OR VACUUM TRUCK ON SITE AT ALL TIMES TO CLEAN DEBRIS FROM HAUL ROUTES, CONSTRUCTION ACCESS POINTS, OR AREAS ADJACENT TO CONSTRUCTION.
11. THE CONTRACTOR SHALL KEEP ALL CONSTRUCTION TRAFFIC LIMITED TO THE APPROVED HAUL ROUTES AS SHOWN ON THE PLANS OR AS APPROVED BY THE RPR. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED ALONG THE HAUL ROUTES OR CONSTRUCTION ACCESS ROUTES TO THE PROJECT SITE. HAUL ROADS WILL BE MAINTAINED AND RESTORED TO THEIR ORIGINAL CONDITION BY THE CONTRACTOR AT NO EXPENSE TO THE SPONSOR.
12. THE CONTRACTOR SHALL MINIMIZE DISTURBANCE IN AND AROUND FAA NAVIGATIONAL AIDS.
13. CONTRACTOR SHALL PARK ALL EQUIPMENT AND VEHICLES IN THE STAGING AREA AT THE END OF EACH WORK SHIFT AND DURING PERIODS WHEN NO CONSTRUCTION ACTIVITIES ARE TAKING PLACE. NO EQUIPMENT SHALL BE LEFT UNATTENDED WITHIN THE RUNWAY OBJECT FREE AREA (ROFA).

OTHER NOTES

1. AIRPORT MANAGEMENT PERSONNEL WILL ISSUE NOTAM FOR ANY CONTRACTOR SCHEDULED ACTIVITIES AT LEAST 72 HOURS IN ADVANCE OF SAID ACTIVITY.
2. CONSTRUCTION EQUIPMENT THAT MAY DAMAGE AIRFIELD PAVEMENT WHILE CROSSING IT TO ACCESS WORK AREAS, SUCH AS THOSE WITH TRACKS, SHALL PROTECT THE PAVEMENT USING A METHOD APPROVED BY THE RPR.
3. CMA ATCT OPERATION HOURS: 7:00 AM - 9:00 PM LOCAL TIME
   MONITOR CMA GROUND - 122.95 MHZ.
   CMA ATCT CLOSURE HOURS: 9:00 PM TO 7:00 AM LOCAL TIME
   MONITOR CMA CTAF - 134.95 MHZ.
4. CONTRACTOR SHALL PROTECT ALL FAA COMMUNICATION LINES AND ESPECIALLY WHEN WORKING WITHIN EXISTING STORM DRAIN INFRASTRUCTURE. NOTIFY ENGINEER IMMEDIATELY IF DAMAGE OCCURS BY CONTRACTOR OPERATIONS.

PHASING LEGEND

- CONTRACTOR HAUL ROUTE
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- FLASHER BARRICADE
- FLAG PERSONNEL / GATE GUARD
- CONTRACTOR GATE ACCESS
- RUNWAY CLOSURE LIGHTED "X"
- TAXIWAY TEMPORARY CLOSURE "X" (MATERIAL PER DETAIL 4/SHEET G050)

N

GRAPHIC SCALE
300 0 300 600
(IN FEET)

ISSUED FOR 100% REVIEW

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JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY

JVIATION®
A WOOLPERT COMPANY

CAMARILLO AIRPORT
CAMARILLO,CA

COUNTY of VENTURA
Department of Airports

DES: A.G.G.
DR: A.G.G.
CH: C.L.G.
APP: J.D.I.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

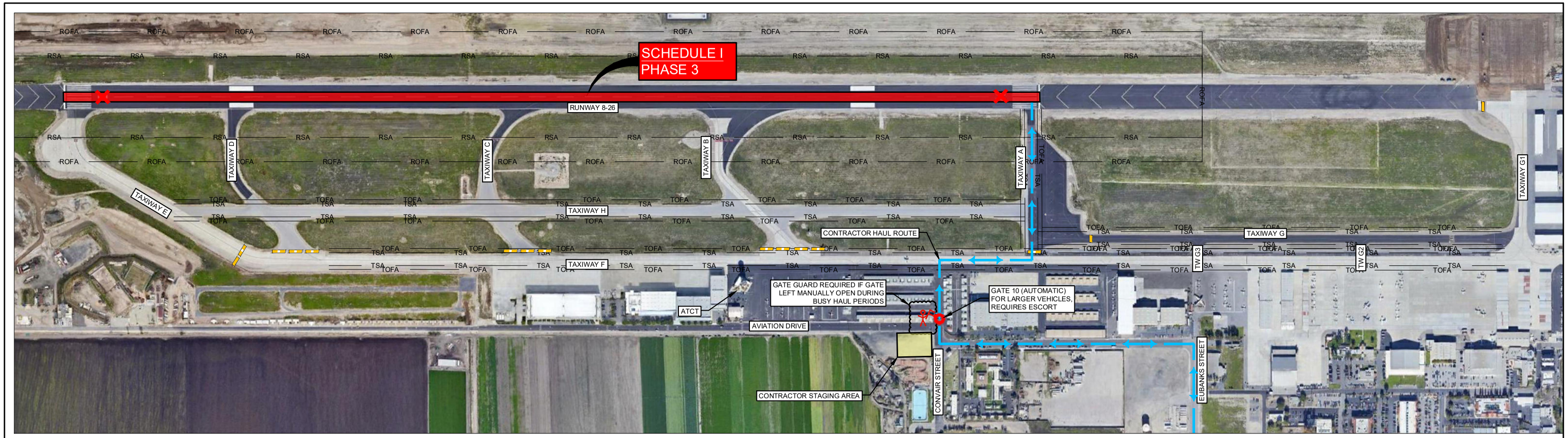
RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

CONSTRUCTION SAFETY AND PHASING PLAN
SCHEDULE I, PHASE 2 (DAY)

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME: G053B
SHEET NO.: 12 of 61
DRAWING NO.: 1687-DOA

Plotted October 9, 2023 @ 2:58 PM by Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Rehab\CADD\PLANS\000-CMA-LOC-21-01-G053(Day)-PHAS.dwg



CONSTRUCTION PHASING NOTES

SCHEDULE I / PHASE 3 - NIGHT OPERATIONS

DURATION AND CONTRACTOR ACCESS TIMES

- 5 CALENDAR NIGHTS
- NIGHTTIME ACCESS TO APPROVED WORK AREAS. THE CLOSURE WILL BEGIN NO EARLIER THAN 2100 AND WILL END NO LATER THAN 0700 ON THE FOLLOWING DAY. CONTRACTOR WORK HOURS WILL BE FROM 2100 TO 0600 TO ALLOW TIME FOR CLEANUP, AIRPORT INSPECTION AND TO ENSURE THAT RUNWAY 8-26 IS READY FOR DAYTIME OPENING AND ALL NAVAIDS ARE OPERATIONAL.
- ALL AIRPORT OPERATION AREAS SHALL BE CLOSED DURING NIGHT TIME CLOSURES.
- RUNWAY 8-26 WILL REOPEN EACH MORNING.
- TAXIWAY CONNECTOR BARRICADES AND RUNWAY CLOSURE "X"S SHALL BE REMOVED PRIOR TO OPENING THE RUNWAY EACH MORNING.
- PAVEMENT REMOVAL, PAVING, AND PAVEMENT MARKING APPLICATION FOR EACH AREA TO BE WORKED ON ALONG THE RUNWAY CENTERLINE MUST BE COMPLETED IN THE SAME NIGHT PRIOR TO OPENING RUNWAY 8/26 EACH MORNING.

MAJOR WORK TO BE COMPLETED

SITE PREPARATION

1. PARTIAL DEPTH PAVEMENT REMOVALS

PAVEMENT SECTION

1. ASPHALT PAVING
2. PAVEMENT MARKINGS

IMPACTS ON OPERATIONS

1. THE CONTRACTOR SHALL GIVE RIGHT OF WAY TO ALL AIRCRAFT AND EMERGENCY VEHICLES AT ALL TIMES.
2. THE CONTRACTOR SHALL MAINTAIN EMERGENCY VEHICLE ACCESS TO THE RUNWAY AT ALL TIMES.
3. IF AN EMERGENCY SITUATION ARISES REQUIRING AN AIRCRAFT TO UTILIZE THE RUNWAY AND/OR TAXIWAY DURING CONSTRUCTION, ALL EQUIPMENT AND PERSONNEL SHALL IMMEDIATELY EXIT THE RUNWAY AND/OR TAXIWAY AND STAGE OUTSIDE THE OBJECT FREE AREA.
4. NO WORK, OPEN EXCAVATIONS, EQUIPMENT, STOCKPILES, OR PERSONNEL ARE ALLOWED IN THE SAFETY AREAS OR OBJECT FREE AREAS FOR ANY ACTIVE TAXIWAY OR SAFETY AREAS FOR AN ACTIVE RUNWAY WHEN THE AIRPORT IS OPEN AND OPERATIONAL.
5. PRIOR TO OPENING THE RUNWAY OR TAXIWAY EACH MORNING TO AIRCRAFT, ALL AIRFIELD PAVEMENT WHERE WORK HAS OCCURRED OR EQUIPMENT HAS TRAVERSED SHALL BE SWEPT OR CLEARED WITH APPROVED EQUIPMENT TO REMOVE ANY FOD. ALL EXCAVATIONS AND TRENCHES IN THE SAFETY AREAS SHALL BE BACKFILLED AND COMPACTED TO P-152 SPECIFICATIONS. GRADING WITHIN THE SAFETY AREA SHALL CONFORM TO AC 150/5300-13 (CURRENT VERSION), CHAPTER 3. NO DROPS GREATER THAN 3-INCHES ARE ALLOWED IN THE RUNWAY SAFETY AREA. IF AREAS ARE FOUND TO BE DEFICIENT, THE CONTRACTOR MUST IMMEDIATELY CORRECT THE DEFICIENCY TO THE SATISFACTION OF THE RESIDENT PROJECT REPRESENTATIVE (RPR) OR CMA STAFF. APPROVAL TO REOPEN TO AIRCRAFT TRAFFIC WILL BE PROVIDED BY AIRPORT OPERATIONS OR THE RPR.
6. AIRPORT PERIMETER SECURITY SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE QUALIFIED GATE GUARDS ALONG CONSTRUCTION ACCESS POINTS AT AIRPORT PERIMETER GATE LOCATIONS. GATES SHALL BE SECURELY CLOSED OR LOCKED AT ALL TIMES IF GATE GUARD IS NOT PRESENT OR GATES ARE NOT IN USE.
7. CONTRACTOR TO PROVIDE RUNWAY CLOSURE MARKERS (RCM's). CONTRACTOR SHALL INSTALL RUNWAY CLOSURE MARKERS ON THE "8" AND "26" RUNWAY DESIGNATIONS FOR THE DURATION OF EACH SCHEDULED RUNWAY CLOSURE. CONTRACTOR IS RESPONSIBLE FOR FUEL AND MAINTENANCE OF RUNWAY X'S.
8. CONSTRUCTION MARKERS, BARRICADES, AND RUNWAY CLOSURE MARKERS SHALL BE INSTALLED PER PHASING PLANS AND AS REQUIRED BY AC 150/5370-2 (CURRENT VERSION) OR AS DIRECTED BY THE RPR.
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OTHER NOTES

1. AIRPORT MANAGEMENT PERSONNEL WILL ISSUE NOTAM FOR ANY CONTRACTOR SCHEDULED ACTIVITIES AT LEAST 72 HOURS IN ADVANCE OF SAID ACTIVITY.
2. CONSTRUCTION EQUIPMENT THAT MAY DAMAGE AIRFIELD PAVEMENT WHILE CROSSING IT TO ACCESS WORK AREAS, SUCH AS THOSE WITH TRACKS, SHALL PROTECT THE PAVEMENT USING A METHOD APPROVED BY THE RPR.
3. CMA ATCT OPERATION HOURS: 7:00 AM - 9:00 PM LOCAL TIME
   MONITOR CMA GROUND - 122.95 MHZ.
   CMA ATCT CLOSURE HOURS: 9:00 PM TO 7:00 AM LOCAL TIME
   MONITOR CMA CTAF - 134.95 MHZ.
4. CONTRACTOR SHALL PROTECT ALL FAA COMMUNICATION LINES AND ESPECIALLY WHEN WORKING WITHIN EXISTING STORM DRAIN INFRASTRUCTURE. NOTIFY ENGINEER IMMEDIATELY IF DAMAGE OCCURS BY CONTRACTOR OPERATIONS.

PHASING LEGEND

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- RSA — RUNWAY SAFETY AREA
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- TOFA — TAXIWAY OBJECT FREE AREA
- FLASHER BARRICADE
- FLAG PERSONNEL / GATE GUARD
- CONTRACTOR GATE ACCESS
- RUNWAY CLOSURE LIGHTED "X"
- TAXIWAY TEMPORARY CLOSURE "X" (MATERIAL PER DETAIL 4/SHEET G050)

N

GRAPHIC SCALE
300 0 300 600
(IN FEET)

ISSUED FOR 100% REVIEW

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JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

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COUNTY of VENTURA
Department of Airports

DES: A.G.G.
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CH: C.L.G.
APP: J.D.I.

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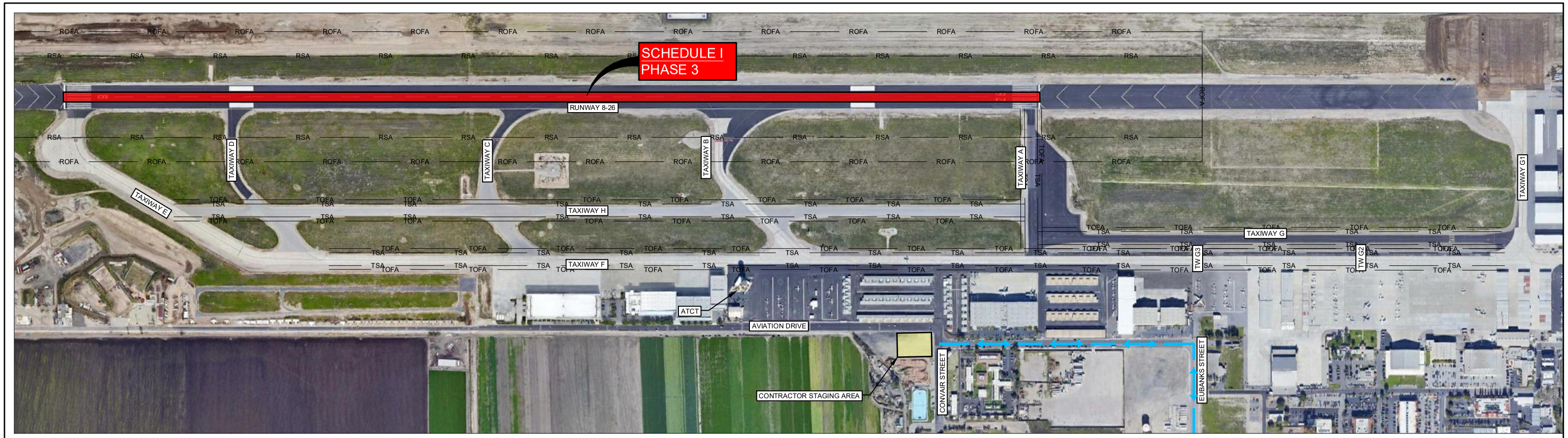
RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

CONSTRUCTION SAFETY AND PHASING PLAN
SCHEDULE I PHASE 3 (NIGHT)

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME: G054A
SHEET NO.: 13 of 61
DRAWING NO.: 1688-DOA

Plotted October 9, 2023 @ 2:58 PM by Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Rehab\CADD\LAYOUTS\000-CMA-LOC-21-01-G054-PHAS.dwg



CONSTRUCTION PHASING NOTES

SCHEDULE I / PHASE 3 - DAY OPERATIONS

DURATION AND CONTRACTOR ACCESS TIMES

- 5 CALENDAR NIGHTS
- NIGHTTIME ACCESS TO APPROVED WORK AREAS. THE CLOSURE WILL BEGIN NO EARLIER THAN 2100 AND WILL END NO LATER THAN 0700 ON THE FOLLOWING DAY. CONTRACTOR WORK HOURS WILL BE FROM 2100 TO 0600 TO ALLOW TIME FOR CLEANUP, AIRPORT INSPECTION AND TO ENSURE THAT RUNWAY 8-26 IS READY FOR DAYTIME OPENING AND ALL NAVAIDS ARE OPERATIONAL.
- ALL AIRPORT OPERATION AREAS SHALL BE CLOSED DURING NIGHT TIME CLOSURES.
- RUNWAY 8-26 WILL REOPEN EACH MORNING.
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- PAVEMENT REMOVAL, PAVING, AND PAVEMENT MARKING APPLICATION FOR EACH AREA TO BE WORKED ON ALONG THE RUNWAY CENTERLINE MUST BE COMPLETED IN THE SAME NIGHT PRIOR TO OPENING RUNWAY 8/26 EACH MORNING.

MAJOR WORK TO BE COMPLETED

SITE PREPARATION

1. PARTIAL DEPTH PAVEMENT REMOVALS

PAVEMENT SECTION

1. ASPHALT PAVING
2. PAVEMENT MARKINGS

IMPACTS ON OPERATIONS

1. THE CONTRACTOR SHALL GIVE RIGHT OF WAY TO ALL AIRCRAFT AND EMERGENCY VEHICLES AT ALL TIMES.
2. THE CONTRACTOR SHALL MAINTAIN EMERGENCY VEHICLE ACCESS TO THE RUNWAY AT ALL TIMES.
3. IF AN EMERGENCY SITUATION ARISES REQUIRING AN AIRCRAFT TO UTILIZE THE RUNWAY AND/OR TAXIWAY DURING CONSTRUCTION, ALL EQUIPMENT AND PERSONNEL SHALL IMMEDIATELY EXIT THE RUNWAY AND/OR TAXIWAY AND STAGE OUTSIDE THE OBJECT FREE AREA.
4. NO WORK, OPEN EXCAVATIONS, EQUIPMENT, STOCKPILES, OR PERSONNEL ARE ALLOWED IN THE SAFETY AREAS OR OBJECT FREE AREAS FOR ANY ACTIVE TAXIWAY OR SAFETY AREAS FOR AN ACTIVE RUNWAY WHEN THE AIRPORT IS OPEN AND OPERATIONAL.
5. PRIOR TO OPENING THE RUNWAY OR TAXIWAY EACH MORNING TO AIRCRAFT, ALL AIRFIELD PAVEMENT WHERE WORK HAS OCCURRED OR EQUIPMENT HAS TRAVERSED SHALL BE SWEPT OR CLEARED WITH APPROVED EQUIPMENT TO REMOVE ANY FOD. ALL EXCAVATIONS AND TRENCHES IN THE SAFETY AREAS SHALL BE BACKFILLED AND COMPACTED TO P-152 SPECIFICATIONS. GRADING WITHIN THE SAFETY AREA SHALL CONFORM TO AC 150/5300-13 (CURRENT VERSION), CHAPTER 3. NO DROPS GREATER THAN 3-INCHES ARE ALLOWED IN THE RUNWAY SAFETY AREA. IF AREAS ARE FOUND TO BE DEFICIENT, THE CONTRACTOR MUST IMMEDIATELY CORRECT THE DEFICIENCY TO THE SATISFACTION OF THE RESIDENT PROJECT REPRESENTATIVE (RPR) OR CMA STAFF. APPROVAL TO REOPEN TO AIRCRAFT TRAFFIC WILL BE PROVIDED BY AIRPORT OPERATIONS OR THE RPR.
6. AIRPORT PERIMETER SECURITY SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE QUALIFIED GATE GUARDS ALONG CONSTRUCTION ACCESS POINTS AT AIRPORT PERIMETER GATE LOCATIONS. GATES SHALL BE SECURELY CLOSED OR LOCKED AT ALL TIMES IF GATE GUARD IS NOT PRESENT OR GATES ARE NOT IN USE.
7. CONTRACTOR TO PROVIDE RUNWAY CLOSURE MARKERS (RCM's). CONTRACTOR SHALL INSTALL RUNWAY CLOSURE MARKERS ON THE "8" AND "26" RUNWAY DESIGNATIONS FOR THE DURATION OF EACH SCHEDULED RUNWAY CLOSURE. CONTRACTOR IS RESPONSIBLE FOR FUEL AND MAINTENANCE OF RUNWAY X'S.
8. CONSTRUCTION MARKERS, BARRICADES, AND RUNWAY CLOSURE MARKERS SHALL BE INSTALLED PER PHASING PLANS AND AS REQUIRED BY AC 150/5370-2 (CURRENT VERSION) OR AS DIRECTED BY THE RPR.
9. ALL STOCKPILES OR EQUIPMENT ADJACENT TO OBJECT FREE AREAS SHALL BE MARKED AND LIGHTED PER AC 150/5370-2 (CURENT VERSION).
10. THE CONTRACTOR SHALL HAVE A SWEEPER OR VACUUM TRUCK ON SITE AT ALL TIMES TO CLEAN DEBRIS FROM HAUL ROUTES, CONSTRUCTION ACCESS POINTS, OR AREAS ADJACENT TO CONSTRUCTION.
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12. THE CONTRACTOR SHALL MINIMIZE DISTURBANCE IN AND AROUND FAA NAVIGATIONAL AIDS.
13. CONTRACTOR SHALL PARK ALL EQUIPMENT AND VEHICLES IN THE STAGING AREA AT THE END OF EACH WORK SHIFT AND DURING PERIODS WHEN NO CONSTRUCTION ACTIVITIES ARE TAKING PLACE. NO EQUIPMENT SHALL BE LEFT UNATTENDED WITHIN THE RUNWAY OBJECT FREE AREA (ROFA).

OTHER NOTES

1. AIRPORT MANAGEMENT PERSONNEL WILL ISSUE NOTAM FOR ANY CONTRACTOR SCHEDULED ACTIVITIES AT LEAST 72 HOURS IN ADVANCE OF SAID ACTIVITY.
2. CONSTRUCTION EQUIPMENT THAT MAY DAMAGE AIRFIELD PAVEMENT WHILE CROSSING IT TO ACCESS WORK AREAS, SUCH AS THOSE WITH TRACKS, SHALL PROTECT THE PAVEMENT USING A METHOD APPROVED BY THE RPR.
3. CMA ATCT OPERATION HOURS: 7:00 AM - 9:00 PM LOCAL TIME
   MONITOR CMA GROUND - 122.95 MHZ.

   CMA ATCT CLOSURE HOURS: 9:00 PM TO 7:00 AM LOCAL TIME
   MONITOR CMA CTAF - 134.95 MHZ.
4. CONTRACTOR SHALL PROTECT ALL FAA COMMUNICATION LINES AND ESPECIALLY WHEN WORKING WITHIN EXISTING STORM DRAIN INFRASTRUCTURE. NOTIFY ENGINEER IMMEDIATELY IF DAMAGE OCCURS BY CONTRACTOR OPERATIONS.

PHASING LEGEND

- CONTRACTOR HAUL ROUTE
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- FLASHER BARRICADE
- FLAG PERSONNEL / GATE GUARD
- CONTRACTOR GATE ACCESS
- RUNWAY CLOSURE LIGHTED "X"
- TAXIWAY TEMPORARY CLOSURE "X" (MATERIAL PER DETAIL 4/SHEET G050)

N

GRAPHIC SCALE
300 0 300 600
(IN FEET)

ISSUED FOR 100% REVIEW

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JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

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CAMARILLO AIRPORT
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DES: A.G.G.
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APP: J.D.I.

ISSUE RECORD

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RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

CONSTRUCTION SAFETY AND PHASING PLAN
SCHEDULE I, PHASE 3 (DAY)

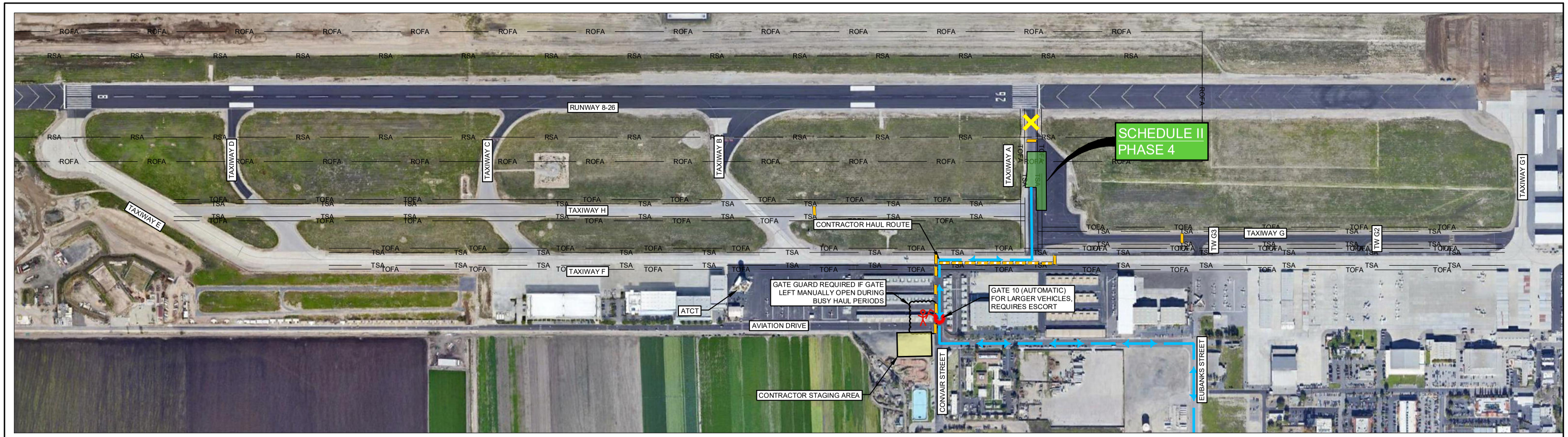
PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME
G054B

SHEET NO.
14 of 61

DRAWING NO.
1689-DOA

Plotted October 9, 2023 @ 2:58 PM by Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Reheb\CADD\LAYOUTS\000-CMA-LOC-21-01-G054(Day)-PHAS.dwg



CONSTRUCTION PHASING NOTES

SCHEDULE II / PHASE 4 - NIGHT OPERATIONS

DURATION AND CONTRACTOR ACCESS TIMES

- 1 CALENDAR NIGHT CONCURRENT TO SCHEDULE I, PHASE 1.
- NIGHTTIME ACCESS TO APPROVED WORK AREAS. THE CLOSURE WILL BEGIN NO EARLIER THAN 2100 AND WILL END NO LATER THAN 0700 ON THE FOLLOWING DAY. CONTRACTOR WORK HOURS WILL BE FROM 2100 TO 0600 TO ALLOW TIME FOR CLEANUP, AIRPORT INSPECTION AND TO ENSURE THAT TAXIWAY A IS READY FOR DAYTIME OPENING AND ALL NAVAIDS ARE OPERATIONAL.
- BARRICADES WILL NEED TO BE MOVED OUTSIDE OF THE RUNWAY SAFETY AREA (RSA) AND TAXIWAY SAFETY AREA (TSA) PRIOR TO END OF WORK AND REOPENING OF THE PORTION OF TAXIWAY A EACH MORNING.

MAJOR WORK TO BE COMPLETED

PAVEMENT SECTION

1. PAVEMENT MARKINGS

IMPACTS ON OPERATIONS

1. THE CONTRACTOR SHALL GIVE RIGHT OF WAY TO ALL AIRCRAFT AND EMERGENCY VEHICLES AT ALL TIMES.
2. THE CONTRACTOR SHALL MAINTAIN EMERGENCY VEHICLE ACCESS TO THE RUNWAY AT ALL TIMES.
3. IF AN EMERGENCY SITUATION ARISES REQUIRING AN AIRCRAFT TO UTILIZE THE RUNWAY AND/OR TAXIWAY DURING CONSTRUCTION, ALL EQUIPMENT AND PERSONNEL SHALL IMMEDIATELY EXIT THE RUNWAY AND/OR TAXIWAY AND STAGE OUTSIDE THE OBJECT FREE AREA.
4. NO WORK, OPEN EXCAVATIONS, EQUIPMENT, STOCKPILES, OR PERSONNEL ARE ALLOWED IN THE SAFETY AREAS OR OBJECT FREE AREAS FOR ANY ACTIVE TAXIWAY OR SAFETY AREAS FOR AN ACTIVE RUNWAY WHEN THE AIRPORT IS OPEN AND OPERATIONAL.
5. PRIOR TO OPENING THE TAXIWAY EACH MORNING TO AIRCRAFT, ALL AIRFIELD PAVEMENT WHERE WORK HAS OCCURRED OR EQUIPMENT HAS TRAVERSED SHALL BE SWEPT OR CLEARED WITH APPROVED EQUIPMENT TO REMOVE ANY FOD. ALL EXCAVATIONS AND TRENCHES IN THE SAFETY AREAS SHALL BE BACKFILLED AND COMPACTED TO P-152 SPECIFICATIONS. GRADING WITHIN THE SAFETY AREA SHALL CONFORM TO AC 150/5300-13 (CURRENT VERSION), CHAPTER 3. NO DROPS GREATER THAN 3-INCHES ARE ALLOWED IN THE RUNWAY SAFETY AREA. IF AREAS ARE FOUND TO BE DEFICIENT, THE CONTRACTOR MUST IMMEDIATELY CORRECT THE DEFICIENCY TO THE SATISFACTION OF THE RPR OR CMA STAFF. APPROVAL TO REOPEN TO AIRCRAFT TRAFFIC WILL BE PROVIDED BY AIRPORT OPERATIONS OR THE RPR.
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7. CONSTRUCTION MARKERS, BARRICADES, AND TAXIWAY CLOSURE MARKERS SHALL BE INSTALLED PER PHASING PLANS AND AS REQUIRED BY AC 150/5370-2 (CURRENT VERSION) OR AS DIRECTED BY THE RPR.
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OTHER NOTES

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3. CMA ATCT OPERATION HOURS: 7:00 AM - 9:00 PM LOCAL TIME MONITOR CMA GROUND - 122.95 MHZ.

   CMA ATCT CLOSURE HOURS: 9:00 PM TO 7:00 AM LOCAL TIME MONITOR CMA CTAF - 134.95 MHZ.
4. CONTRACTOR SHALL PROTECT ALL FAA COMMUNICATION LINES AND ESPECIALLY WHEN WORKING WITHIN EXISTING STORM DRAIN INFRASTRUCTURE. NOTIFY ENGINEER IMMEDIATELY IF DAMAGE OCCURS BY CONTRACTOR OPERATIONS.

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- ROFA — RUNWAY OBJECT FREE AREA
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- RUNWAY CLOSURE LIGHTED "X"
- TAXIWAY TEMPORARY CLOSURE "X" (MATERIAL PER DETAIL 4/SHEET G050)

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ISSUED FOR 100% REVIEW

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JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY

JVIATION®
A WOOLPERT COMPANY

CAMARILLO AIRPORT
CAMARILLO,CA

COUNTY of VENTURA
Department of Airports

DES: A.G.G.
DR: A.G.G.
CH: C.L.G.
APP: J.D.I.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

CONSTRUCTION SAFETY AND PHASING PLAN
SCHEDULE II PHASE 4 (NIGHT)

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME: G055A
SHEET NO.: 15 of 61
DRAWING NO.: 1690-DOA

Plotted October 9, 2023 @ 2:58 PM by Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Reheb\CAD\PLANS\000-CMA-LOC-21-01-G055-PHAS.dwg



CONSTRUCTION PHASING NOTES

SCHEDULE II / PHASE 4 - DAY OPERATIONS

DURATION AND CONTRACTOR ACCESS TIMES

- 1 CALENDAR NIGHT CONCURRENT TO SCHEDULE I, PHASE 1.
- NIGHTTIME ACCESS TO APPROVED WORK AREAS. THE CLOSURE WILL BEGIN NO EARLIER THAN 2100 AND WILL END NO LATER THAN 0700 ON THE FOLLOWING DAY. CONTRACTOR WORK HOURS WILL BE FROM 2100 TO 0600 TO ALLOW TIME FOR CLEANUP, AIRPORT INSPECTION AND TO ENSURE THAT TAXIWAY A IS READY FOR DAYTIME OPENING AND ALL NAVAIDS ARE OPERATIONAL.
- BARRICADES WILL NEED TO BE MOVED OUTSIDE OF THE RUNWAY SAFETY AREA (RSA) AND TAXIWAY SAFETY AREA (TSA) PRIOR TO END OF WORK AND REOPENING OF THE PORTION OF TAXIWAY A EACH MORNING.

MAJOR WORK TO BE COMPLETED

PAVEMENT SECTION

1. PAVEMENT MARKINGS

IMPACTS ON OPERATIONS

1. THE CONTRACTOR SHALL GIVE RIGHT OF WAY TO ALL AIRCRAFT AND EMERGENCY VEHICLES AT ALL TIMES.
2. THE CONTRACTOR SHALL MAINTAIN EMERGENCY VEHICLE ACCESS TO THE RUNWAY AT ALL TIMES.
3. IF AN EMERGENCY SITUATION ARISES REQUIRING AN AIRCRAFT TO UTILIZE THE RUNWAY AND/OR TAXIWAY DURING CONSTRUCTION, ALL EQUIPMENT AND PERSONNEL SHALL IMMEDIATELY EXIT THE RUNWAY AND/OR TAXIWAY AND STAGE OUTSIDE THE OBJECT FREE AREA.
4. NO WORK, OPEN EXCAVATIONS, EQUIPMENT, STOCKPILES, OR PERSONNEL ARE ALLOWED IN THE SAFETY AREAS OR OBJECT FREE AREAS FOR ANY ACTIVE TAXIWAY OR SAFETY AREAS FOR AN ACTIVE RUNWAY WHEN THE AIRPORT IS OPEN AND OPERATIONAL.
5. PRIOR TO OPENING THE TAXIWAY EACH MORNING TO AIRCRAFT, ALL AIRFIELD PAVEMENT WHERE WORK HAS OCCURRED OR EQUIPMENT HAS TRAVERSED SHALL BE SWEPT OR CLEARED WITH APPROVED EQUIPMENT TO REMOVE ANY FOD. ALL EXCAVATIONS AND TRENCHES IN THE SAFETY AREAS SHALL BE BACKFILLED AND COMPACTED TO P-152 SPECIFICATIONS. GRADING WITHIN THE SAFETY AREA SHALL CONFORM TO AC 150/5300-13 (CURRENT VERSION), CHAPTER 3. NO DROPS GREATER THAN 3-INCHES ARE ALLOWED IN THE RUNWAY SAFETY AREA. IF AREAS ARE FOUND TO BE DEFICIENT, THE CONTRACTOR MUST IMMEDIATELY CORRECT THE DEFICIENCY TO THE SATISFACTION OF THE RPR OR CMA STAFF. APPROVAL TO REOPEN TO AIRCRAFT TRAFFIC WILL BE PROVIDED BY AIRPORT OPERATIONS OR THE RPR.
6. AIRPORT PERIMETER SECURITY SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE QUALIFIED GATE GUARDS ALONG CONSTRUCTION ACCESS POINTS AT AIRPORT PERIMETER GATE LOCATIONS. GATES SHALL BE SECURELY CLOSED OR LOCKED AT ALL TIMES IF GATE GUARD IS NOT PRESENT OR GATES ARE NOT IN USE.
7. CONSTRUCTION MARKERS, BARRICADES, AND TAXIWAY CLOSURE MARKERS SHALL BE INSTALLED PER PHASING PLANS AND AS REQUIRED BY AC 150/5370-2 (CURRENT VERSION) OR AS DIRECTED BY THE RPR.
8. ALL STOCKPILES OR EQUIPMENT ADJACENT TO OBJECT FREE AREAS SHALL BE MARKED AND LIGHTED PER AC 150/5370-2 (CURENT VERSION).
9. THE CONTRACTOR SHALL HAVE A SWEEPER OR VACUUM TRUCK ON SITE AT ALL TIMES TO CLEAN DEBRIS FROM HAUL ROUTES, CONSTRUCTION ACCESS POINTS, OR AREAS ADJACENT TO CONSTRUCTION.
10. THE CONTRACTOR SHALL KEEP ALL CONSTRUCTION TRAFFIC LIMITED TO THE APPROVED HAUL ROUTES AS SHOWN ON THE PLANS OR AS APPROVED BY THE RPR. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED ALONG THE HAUL ROUTES OR CONSTRUCTION ACCESS ROUTES TO THE PROJECT SITE. HAUL ROADS WILL BE MAINTAINED AND RESTORED TO THEIR ORIGINAL CONDITION BY THE CONTRACTOR AT NO EXPENSE TO THE SPONSOR.
11. THE CONTRACTOR SHALL MINIMIZE DISTURBANCE IN AND AROUND FAA NAVIGATIONAL AIDS.
12. CONTRACTOR SHALL PARK ALL EQUIPMENT AND VEHICLES IN THE STAGING AREA AT THE END OF EACH SHIFT AND DURING PERIODS WHEN NO CONSTRUCTION ACTIVITIES ARE TAKING PLACE. NO EQUIPMENT SHALL BE LEFT UNATTENDED WITHIN THE RUNWAY OBJECT FREE AREA (ROFA).

OTHER NOTES

1. AIRPORT MANAGEMENT PERSONNEL WILL ISSUE NOTAM FOR ANY CONTRACTOR SCHEDULED ACTIVITIES AT LEAST 72 HOURS IN ADVANCE OF SAID ACTIVITY.
2. CONSTRUCTION EQUIPMENT THAT MAY DAMAGE AIRFIELD PAVEMENT WHILE CROSSING IT TO ACCESS WORK AREAS, SUCH AS THOSE WITH TRACKS, SHALL PROTECT THE PAVEMENT USING A METHOD APPROVED BY THE RPR.
3. CMA ATCT OPERATION HOURS: 7:00 AM - 9:00 PM LOCAL TIME MONITOR CMA GROUND - 122.95 MHZ.

   CMA ATCT CLOSURE HOURS: 9:00 PM TO 7:00 AM LOCAL TIME MONITOR CMA CTAF - 134.95 MHZ.
4. CONTRACTOR SHALL PROTECT ALL FAA COMMUNICATION LINES AND ESPECIALLY WHEN WORKING WITHIN EXISTING STORM DRAIN INFRASTRUCTURE. NOTIFY ENGINEER IMMEDIATELY IF DAMAGE OCCURS BY CONTRACTOR OPERATIONS.

PHASING LEGEND

- CONTRACTOR HAUL ROUTE
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- FLASHER BARRICADE
- FLAG PERSONNEL / GATE GUARD
- CONTRACTOR GATE ACCESS
- RUNWAY CLOSURE LIGHTED "X"
- TAXIWAY TEMPORARY CLOSURE "X" (MATERIAL PER DETAIL 4/SHEET G050)

N

GRAPHIC SCALE
300 0 300 600
(IN FEET)

ISSUED FOR 100% REVIEW

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ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

CONSTRUCTION SAFETY AND PHASING PLAN
SCHEDULE II, PHASE 4 (DAY)

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME: G055B
SHEET NO.: 16 of 61
DRAWING NO.: 1691-DOA

Plotted October 9, 2023 @ 2:58 PM by Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Reheb\CADD\LAN5000-CMA-LOC-21-01-G055(Day)-PHAS.dwg



CONSTRUCTION PHASING NOTES

SCHEDULE II / PHASE 5 - NIGHT OPERATIONS

DURATION AND CONTRACTOR ACCESS TIMES

- 4 CALENDAR NIGHTS.
- NIGHTTIME ACCESS TO APPROVED WORK AREAS. THE CLOSURE WILL BEGIN NO EARLIER THAN 2100 AND WILL END NO LATER THAN 0700 ON THE FOLLOWING DAY. CONTRACTOR WORK HOURS WILL BE FROM 2100 TO 0600 TO ALLOW TIME FOR CLEANUP, AIRPORT INSPECTION AND TO ENSURE THAT TAXIWAY E AND F IS READY FOR DAYTIME OPENING AND ALL NAVAIDS ARE OPERATIONAL.
- TAXIWAY CONNECTOR BARRICADES SHALL BE REMOVED PRIOR TO OPENING TAXIWAY E AND F EACH MORNING.
- PAVEMENT MARKING OBLITERATION AND APPLICATION FOR EACH AREA TO BE WORKED ON WITHIN THE PHASE MUST BE COMPLETED EACH NIGHT PRIOR TO OPENING TAXIWAY E AND F EACH MORNING.

MAJOR WORK TO BE COMPLETED

SITE PREPARATION

1. PAVEMENT MARKING OBLITERATION

PAVEMENT SECTION

1. PAVEMENT MARKINGS

IMPACTS ON OPERATIONS

1. THE CONTRACTOR SHALL GIVE RIGHT OF WAY TO ALL AIRCRAFT AND EMERGENCY VEHICLES AT ALL TIMES.
2. THE CONTRACTOR SHALL MAINTAIN EMERGENCY VEHICLE ACCESS TO THE RUNWAY AT ALL TIMES.
3. IF AN EMERGENCY SITUATION ARISES REQUIRING AN AIRCRAFT TO UTILIZE THE RUNWAY AND/OR TAXIWAY DURING CONSTRUCTION, ALL EQUIPMENT AND PERSONNEL SHALL IMMEDIATELY EXIT THE RUNWAY AND/OR TAXIWAY AND STAGE OUTSIDE THE OBJECT FREE AREA.
4. NO WORK, OPEN EXCAVATIONS, EQUIPMENT, STOCKPILES, OR PERSONNEL ARE ALLOWED IN THE SAFETY AREAS OR OBJECT FREE AREAS FOR ANY ACTIVE TAXIWAY OR SAFETY AREAS FOR AN ACTIVE RUNWAY WHEN THE AIRPORT IS OPEN AND OPERATIONAL.
5. PRIOR TO OPENING THE TAXIWAY EACH MORNING TO AIRCRAFT, ALL AIRFIELD PAVEMENT WHERE WORK HAS OCCURRED OR EQUIPMENT HAS TRAVERSED SHALL BE SWEPT OR CLEARED WITH APPROVED EQUIPMENT TO REMOVE ANY FOD. ALL EXCAVATIONS AND TRENCHES IN THE SAFETY AREAS SHALL BE BACKFILLED AND COMPACTED TO P-152 SPECIFICATIONS. GRADING WITHIN THE SAFETY AREA SHALL CONFORM TO AC 150/5300-13 (CURRENT VERSION), CHAPTER 3. NO DROPS GREATER THAN 3-INCHES ARE ALLOWED IN THE RUNWAY SAFETY AREA. IF AREAS ARE FOUND TO BE DEFICIENT, THE CONTRACTOR MUST IMMEDIATELY CORRECT THE DEFICIENCY TO THE SATISFACTION OF THE RPR OR CMA STAFF. APPROVAL TO REOPEN TO AIRCRAFT TRAFFIC WILL BE PROVIDED BY AIRPORT OPERATIONS OR THE RPR.
6. AIRPORT PERIMETER SECURITY SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE QUALIFIED GATE GUARDS ALONG CONSTRUCTION ACCESS POINTS AT AIRPORT PERIMETER GATE LOCATIONS. GATES SHALL BE SECURELY CLOSED OR LOCKED AT ALL TIMES IF GATE GUARD IS NOT PRESENT OR GATES ARE NOT IN USE.
7. CONSTRUCTION MARKERS, BARRICADES, AND TAXIWAY CLOSURE MARKERS SHALL BE INSTALLED PER PHASING PLANS AND AS REQUIRED BY AC 150/5370-2 (CURRENT VERSION) OR AS DIRECTED BY THE RPR.
8. ALL STOCKPILES OR EQUIPMENT ADJACENT TO OBJECT FREE AREAS SHALL BE MARKED AND LIGHTED PER AC 150/5370-2 (CURENT VERSION).
9. THE CONTRACTOR SHALL HAVE A SWEEPER OR VACUUM TRUCK ON SITE AT ALL TIMES TO CLEAN DEBRIS FROM HAUL ROUTES, CONSTRUCTION ACCESS POINTS, OR AREAS ADJACENT TO CONSTRUCTION.
10. THE CONTRACTOR SHALL KEEP ALL CONSTRUCTION TRAFFIC LIMITED TO THE APPROVED HAUL ROUTES AS SHOWN ON THE PLANS OR AS APPROVED BY THE RPR. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED ALONG THE HAUL ROUTES OR CONSTRUCTION ACCESS ROUTES TO THE PROJECT SITE. HAUL ROADS WILL BE MAINTAINED AND RESTORED TO THEIR ORIGINAL CONDITION BY THE CONTRACTOR AT NO EXPENSE TO THE SPONSOR.
11. THE CONTRACTOR SHALL MINIMIZE DISTURBANCE IN AND AROUND FAA NAVIGATIONAL AIDS.
12. CONTRACTOR SHALL PARK ALL EQUIPMENT AND VEHICLES IN THE STAGING AREA AT THE END OF EACH SHIFT AND DURING PERIODS WHEN NO CONSTRUCTION ACTIVITIES ARE TAKING PLACE. NO EQUIPMENT SHALL BE LEFT UNATTENDED WITHIN THE RUNWAY OBJECT FREE AREA (ROFA).

OTHER NOTES

1. AIRPORT MANAGEMENT PERSONNEL WILL ISSUE NOTAM FOR ANY CONTRACTOR SCHEDULED ACTIVITIES AT LEAST 72 HOURS IN ADVANCE OF SAID ACTIVITY.
2. CONSTRUCTION EQUIPMENT THAT MAY DAMAGE AIRFIELD PAVEMENT WHILE CROSSING IT TO ACCESS WORK AREAS, SUCH AS THOSE WITH TRACKS, SHALL PROTECT THE PAVEMENT USING A METHOD APPROVED BY THE RPR.
3. CMA ATCT OPERATION HOURS: 7:00 AM - 9:00 PM LOCAL TIME
   MONITOR CMA GROUND - 122.95 MHZ.

   CMA ATCT CLOSURE HOURS: 9:00 PM TO 7:00 AM LOCAL TIME
   MONITOR CMA CTAF - 134.95 MHZ.
4. CONTRACTOR SHALL PROTECT ALL FAA COMMUNICATION LINES AND ESPECIALLY WHEN WORKING WITHIN EXISTING STORM DRAIN INFRASTRUCTURE. NOTIFY ENGINEER IMMEDIATELY IF DAMAGE OCCURS BY CONTRACTOR OPERATIONS.

PHASING LEGEND

- CONTRACTOR HAUL ROUTE
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- FLASHER BARRICADE
- FLAG PERSONNEL / GATE GUARD
- CONTRACTOR GATE ACCESS
- RUNWAY CLOSURE LIGHTED "X"
- TAXIWAY TEMPORARY CLOSURE "X" (MATERIAL PER DETAIL 4/SHEET G050)

N

GRAPHIC SCALE
300 0 300 600
(IN FEET)

ISSUED FOR 100% REVIEW

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RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

CONSTRUCTION SAFETY AND PHASING PLAN
SCHEDULE II PHASE 5 (NIGHT)

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME: G056A
SHEET NO.: 17 of 61
DRAWING NO.: 1692-DOA

Plotted October 9, 2023 @ 2:59 PM by Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Reheb\CADD\LAN\5000-CMA-LOC-21-01-G056-PHAS.dwg



CONSTRUCTION PHASING NOTES

SCHEDULE II / PHASE 5 - DAY OPERATIONS

DURATION AND CONTRACTOR ACCESS TIMES

- 4 CALENDAR NIGHTS.
- NIGHTTIME ACCESS TO APPROVED WORK AREAS. THE CLOSURE WILL BEGIN NO EARLIER THAN 2100 AND WILL END NO LATER THAN 0700 ON THE FOLLOWING DAY. CONTRACTOR WORK HOURS WILL BE FROM 2100 TO 0600 TO ALLOW TIME FOR CLEANUP, AIRPORT INSPECTION AND TO ENSURE THAT TAXIWAY E AND F IS READY FOR DAYTIME OPENING AND ALL NAVAIDS ARE OPERATIONAL.
- TAXIWAY CONNECTOR BARRICADES SHALL BE REMOVED PRIOR TO OPENING TAXIWAY E AND F EACH MORNING.
- PAVEMENT MARKING OBLITERATION AND APPLICATION FOR EACH AREA TO BE WORKED ON WITHIN THE PHASE MUST BE COMPLETED EACH NIGHT PRIOR TO OPENING TAXIWAY E AND F EACH MORNING.

MAJOR WORK TO BE COMPLETED

SITE PREPARATION

1. PAVEMENT MARKING OBLITERATION

PAVEMENT SECTION

1. PAVEMENT MARKINGS

IMPACTS ON OPERATIONS

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2. THE CONTRACTOR SHALL MAINTAIN EMERGENCY VEHICLE ACCESS TO THE RUNWAY AT ALL TIMES.
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4. NO WORK, OPEN EXCAVATIONS, EQUIPMENT, STOCKPILES, OR PERSONNEL ARE ALLOWED IN THE SAFETY AREAS OR OBJECT FREE AREAS FOR ANY ACTIVE TAXIWAY OR SAFETY AREAS FOR AN ACTIVE RUNWAY WHEN THE AIRPORT IS OPEN AND OPERATIONAL.
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10. THE CONTRACTOR SHALL KEEP ALL CONSTRUCTION TRAFFIC LIMITED TO THE APPROVED HAUL ROUTES AS SHOWN ON THE PLANS OR AS APPROVED BY THE RPR. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED ALONG THE HAUL ROUTES OR CONSTRUCTION ACCESS ROUTES TO THE PROJECT SITE. HAUL ROADS WILL BE MAINTAINED AND RESTORED TO THEIR ORIGINAL CONDITION BY THE CONTRACTOR AT NO EXPENSE TO THE SPONSOR.
11. THE CONTRACTOR SHALL MINIMIZE DISTURBANCE IN AND AROUND FAA NAVIGATIONAL AIDS.
12. CONTRACTOR SHALL PARK ALL EQUIPMENT AND VEHICLES IN THE STAGING AREA AT THE END OF EACH SHIFT AND DURING PERIODS WHEN NO CONSTRUCTION ACTIVITIES ARE TAKING PLACE. NO EQUIPMENT SHALL BE LEFT UNATTENDED WITHIN THE RUNWAY OBJECT FREE AREA (ROFA).

OTHER NOTES

1. AIRPORT MANAGEMENT PERSONNEL WILL ISSUE NOTAM FOR ANY CONTRACTOR SCHEDULED ACTIVITIES AT LEAST 72 HOURS IN ADVANCE OF SAID ACTIVITY.
2. CONSTRUCTION EQUIPMENT THAT MAY DAMAGE AIRFIELD PAVEMENT WHILE CROSSING IT TO ACCESS WORK AREAS, SUCH AS THOSE WITH TRACKS, SHALL PROTECT THE PAVEMENT USING A METHOD APPROVED BY THE RPR.
3. CMA ATCT OPERATION HOURS: 7:00 AM - 9:00 PM LOCAL TIME
   MONITOR CMA GROUND - 122.95 MHZ.

   CMA ATCT CLOSURE HOURS: 9:00 PM TO 7:00 AM LOCAL TIME
   MONITOR CMA CTAF - 134.95 MHZ.
4. CONTRACTOR SHALL PROTECT ALL FAA COMMUNICATION LINES AND ESPECIALLY WHEN WORKING WITHIN EXISTING STORM DRAIN INFRASTRUCTURE. NOTIFY ENGINEER IMMEDIATELY IF DAMAGE OCCURS BY CONTRACTOR OPERATIONS.

PHASING LEGEND

- CONTRACTOR HAUL ROUTE
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- FLASHER BARRICADE
- FLAG PERSONNEL / GATE GUARD
- CONTRACTOR GATE ACCESS
- RUNWAY CLOSURE LIGHTED "X"
- TAXIWAY TEMPORARY CLOSURE "X" (MATERIAL PER DETAIL 4/SHEET G050)

N

GRAPHIC SCALE
300 0 300 600
(IN FEET)

ISSUED FOR 100% REVIEW

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NAME	REG. NO.	DATE

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COUNTY of VENTURA
Department of Airports

DES: A.G.G.
DR: A.G.G.
CH: C.L.G.
APP: J.D.I.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
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RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

CONSTRUCTION SAFETY AND PHASING PLAN
SCHEDULE II, PHASE 5 (DAY)

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME: G056B
SHEET NO.: 18 of 61
DRAWING NO.: 1693-DOA

Plotted October 9, 2023 @ 2:59 PM by Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Reheb\CADD\LAN5000-CMA-LOC-21-01-G056(Day)-PHAS.dwg



CONSTRUCTION PHASING NOTES

SCHEDULE II / PHASE 6 - NIGHT OPERATIONS

DURATION AND CONTRACTOR ACCESS TIMES

- 3 CALENDAR NIGHTS.
- NIGHTTIME ACCESS TO APPROVED WORK AREAS. THE CLOSURE WILL BEGIN NO EARLIER THAN 2100 AND WILL END NO LATER THAN 0700 ON THE FOLLOWING DAY. CONTRACTOR WORK HOURS WILL BE FROM 2100 TO 0600 TO ALLOW TIME FOR CLEANUP, AIRPORT INSPECTION AND TO ENSURE THAT TAXIWAY F IS READY FOR DAYTIME OPENING AND ALL NAVAIDS ARE OPERATIONAL.
- TAXIWAY CONNECTOR BARRICADES SHALL BE REMOVED PRIOR TO OPENING TAXIWAY F EACH MORNING.
- PAVEMENT MARKING OBLITERATION AND APPLICATION FOR EACH AREA TO BE WORKED ON WITHIN THE PHASE MUST BE COMPLETED EACH NIGHT PRIOR TO OPENING TAXIWAY F EACH MORNING.

MAJOR WORK TO BE COMPLETED

SITE PREPARATION

1. PAVEMENT MARKING OBLITERATION

PAVEMENT SECTION

1. PAVEMENT MARKINGS

IMPACTS ON OPERATIONS

1. THE CONTRACTOR SHALL GIVE RIGHT OF WAY TO ALL AIRCRAFT AND EMERGENCY VEHICLES AT ALL TIMES.
2. THE CONTRACTOR SHALL MAINTAIN EMERGENCY VEHICLE ACCESS TO THE RUNWAY AT ALL TIMES.
3. IF AN EMERGENCY SITUATION ARISES REQUIRING AN AIRCRAFT TO UTILIZE THE RUNWAY AND/OR TAXIWAY DURING CONSTRUCTION, ALL EQUIPMENT AND PERSONNEL SHALL IMMEDIATELY EXIT THE RUNWAY AND/OR TAXIWAY AND STAGE OUTSIDE THE OBJECT FREE AREA.
4. NO WORK, OPEN EXCAVATIONS, EQUIPMENT, STOCKPILES, OR PERSONNEL ARE ALLOWED IN THE SAFETY AREAS OR OBJECT FREE AREAS FOR ANY ACTIVE TAXIWAY OR SAFETY AREAS FOR AN ACTIVE RUNWAY WHEN THE AIRPORT IS OPEN AND OPERATIONAL.
5. PRIOR TO OPENING THE TAXIWAY EACH MORNING TO AIRCRAFT, ALL AIRFIELD PAVEMENT WHERE WORK HAS OCCURRED OR EQUIPMENT HAS TRAVERSED SHALL BE SWEPT OR CLEARED WITH APPROVED EQUIPMENT TO REMOVE ANY FOD. ALL EXCAVATIONS AND TRENCHES IN THE SAFETY AREAS SHALL BE BACKFILLED AND COMPACTED TO P-152 SPECIFICATIONS. GRADING WITHIN THE SAFETY AREA SHALL CONFORM TO AC 150/5300-13 (CURRENT VERSION), CHAPTER 3. NO DROPS GREATER THAN 3-INCHES ARE ALLOWED IN THE RUNWAY SAFETY AREA. IF AREAS ARE FOUND TO BE DEFICIENT, THE CONTRACTOR MUST IMMEDIATELY CORRECT THE DEFICIENCY TO THE SATISFACTION OF THE RPR OR CMA STAFF. APPROVAL TO REOPEN TO AIRCRAFT TRAFFIC WILL BE PROVIDED BY AIRPORT OPERATIONS OR THE RPR.
6. AIRPORT PERIMETER SECURITY SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE QUALIFIED GATE GUARDS ALONG CONSTRUCTION ACCESS POINTS AT AIRPORT PERIMETER GATE LOCATIONS. GATES SHALL BE SECURELY CLOSED OR LOCKED AT ALL TIMES IF GATE GUARD IS NOT PRESENT OR GATES ARE NOT IN USE.
7. CONSTRUCTION MARKERS, AND BARRICADES SHALL BE INSTALLED PER PHASING PLANS AND AS REQUIRED BY AC 150/5370-2 (CURRENT VERSION) OR AS DIRECTED BY THE RPR.
8. ALL STOCKPILES OR EQUIPMENT ADJACENT TO OBJECT FREE AREAS SHALL BE MARKED AND LIGHTED PER AC 150/5370-2 (CURENT VERSION).
9. THE CONTRACTOR SHALL HAVE A SWEEPER OR VACUUM TRUCK ON SITE AT ALL TIMES TO CLEAN DEBRIS FROM HAUL ROUTES, CONSTRUCTION ACCESS POINTS, OR AREAS ADJACENT TO CONSTRUCTION.
10. THE CONTRACTOR SHALL KEEP ALL CONSTRUCTION TRAFFIC LIMITED TO THE APPROVED HAUL ROUTES AS SHOWN ON THE PLANS OR AS APPROVED BY THE RPR. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED ALONG THE HAUL ROUTES OR CONSTRUCTION ACCESS ROUTES TO THE PROJECT SITE. HAUL ROADS WILL BE MAINTAINED AND RESTORED TO THEIR ORIGINAL CONDITION BY THE CONTRACTOR AT NO EXPENSE TO THE SPONSOR.
11. THE CONTRACTOR SHALL MINIMIZE DISTURBANCE IN AND AROUND FAA NAVIGATIONAL AIDS.
12. CONTRACTOR SHALL PARK ALL EQUIPMENT AND VEHICLES IN THE STAGING AREA AT THE END OF EACH SHIFT AND DURING PERIODS WHEN NO CONSTRUCTION ACTIVITIES ARE TAKING PLACE. NO EQUIPMENT SHALL BE LEFT UNATTENDED WITHIN THE RUNWAY OBJECT FREE AREA (ROFA).

OTHER NOTES

1. AIRPORT MANAGEMENT PERSONNEL WILL ISSUE NOTAM FOR ANY CONTRACTOR SCHEDULED ACTIVITIES AT LEAST 72 HOURS IN ADVANCE OF SAID ACTIVITY.
2. CONSTRUCTION EQUIPMENT THAT MAY DAMAGE AIRFIELD PAVEMENT WHILE CROSSING IT TO ACCESS WORK AREAS, SUCH AS THOSE WITH TRACKS, SHALL PROTECT THE PAVEMENT USING A METHOD APPROVED BY THE RPR.
3. CMA ATCT OPERATION HOURS: 7:00 AM - 9:00 PM LOCAL TIME
   MONITOR CMA GROUND - 122.95 MHZ.

   CMA ATCT CLOSURE HOURS: 9:00 PM TO 7:00 AM LOCAL TIME
   MONITOR CMA CTAF - 134.95 MHZ.
4. CONTRACTOR SHALL PROTECT ALL FAA COMMUNICATION LINES AND ESPECIALLY WHEN WORKING WITHIN EXISTING STORM DRAIN INFRASTRUCTURE. NOTIFY ENGINEER IMMEDIATELY IF DAMAGE OCCURS BY CONTRACTOR OPERATIONS.

PHASING LEGEND

- CONTRACTOR HAUL ROUTE
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- FLASHER BARRICADE
- FLAG PERSONNEL / GATE GUARD
- CONTRACTOR GATE ACCESS
- RUNWAY CLOSURE LIGHTED "X"
- TAXIWAY TEMPORARY CLOSURE "X" (MATERIAL PER DETAIL 4/SHEET G050)

N

GRAPHIC SCALE
300 0 300 600
(IN FEET)

ISSUED FOR 100% REVIEW

THESE DRAWINGS ARE FOR DESIGN REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES. THEY WERE PREPARED BY OR UNDER THE SUPERVISION OF:

JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY

JVIATION®
A WOOLPERT COMPANY

CAMARILLO AIRPORT
CAMARILLO,CA

COUNTY of VENTURA
Department of Airports

DES: A.G.G.
DR: A.G.G.
CH: C.L.G.
APP: J.D.I.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

CONSTRUCTION SAFETY AND PHASING PLAN
SCHEDULE II PHASE 6 (NIGHT)

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME: G057A
SHEET NO.: 19 of 61
DRAWING NO.: 1694-DOA

Plotted October 9, 2023 @ 2:59 PM by Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Reheb\CADD\LAN5000-CMA-LOC-21-01-G057-PHAS.dwg



CONSTRUCTION PHASING NOTES

SCHEDULE II / PHASE 6 - DAY OPERATIONS

DURATION AND CONTRACTOR ACCESS TIMES

- 3 CALENDAR NIGHTS.
- NIGHTTIME ACCESS TO APPROVED WORK AREAS. THE CLOSURE WILL BEGIN NO EARLIER THAN 2100 AND WILL END NO LATER THAN 0700 ON THE FOLLOWING DAY. CONTRACTOR WORK HOURS WILL BE FROM 2100 TO 0600 TO ALLOW TIME FOR CLEANUP, AIRPORT INSPECTION AND TO ENSURE THAT TAXIWAY F IS READY FOR DAYTIME OPENING AND ALL NAVAIDS ARE OPERATIONAL.
- TAXIWAY CONNECTOR BARRICADES SHALL BE REMOVED PRIOR TO OPENING TAXIWAY F EACH MORNING.
- PAVEMENT MARKING OBLITERATION AND APPLICATION FOR EACH AREA TO BE WORKED ON WITHIN THE PHASE MUST BE COMPLETED EACH NIGHT PRIOR TO OPENING TAXIWAY F EACH MORNING.

MAJOR WORK TO BE COMPLETED

SITE PREPARATION

1. PAVEMENT MARKING OBLITERATION

PAVEMENT SECTION

1. PAVEMENT MARKINGS

IMPACTS ON OPERATIONS

1. THE CONTRACTOR SHALL GIVE RIGHT OF WAY TO ALL AIRCRAFT AND EMERGENCY VEHICLES AT ALL TIMES.
2. THE CONTRACTOR SHALL MAINTAIN EMERGENCY VEHICLE ACCESS TO THE RUNWAY AT ALL TIMES.
3. IF AN EMERGENCY SITUATION ARISES REQUIRING AN AIRCRAFT TO UTILIZE THE RUNWAY AND/OR TAXIWAY DURING CONSTRUCTION, ALL EQUIPMENT AND PERSONNEL SHALL IMMEDIATELY EXIT THE RUNWAY AND/OR TAXIWAY AND STAGE OUTSIDE THE OBJECT FREE AREA.
4. NO WORK, OPEN EXCAVATIONS, EQUIPMENT, STOCKPILES, OR PERSONNEL ARE ALLOWED IN THE SAFETY AREAS OR OBJECT FREE AREAS FOR ANY ACTIVE TAXIWAY OR SAFETY AREAS FOR AN ACTIVE RUNWAY WHEN THE AIRPORT IS OPEN AND OPERATIONAL.
5. PRIOR TO OPENING THE TAXIWAY EACH MORNING TO AIRCRAFT, ALL AIRFIELD PAVEMENT WHERE WORK HAS OCCURRED OR EQUIPMENT HAS TRAVERSED SHALL BE SWEPT OR CLEARED WITH APPROVED EQUIPMENT TO REMOVE ANY FOD. ALL EXCAVATIONS AND TRENCHES IN THE SAFETY AREAS SHALL BE BACKFILLED AND COMPACTED TO P-152 SPECIFICATIONS. GRADING WITHIN THE SAFETY AREA SHALL CONFORM TO AC 150/5300-13 (CURRENT VERSION), CHAPTER 3. NO DROPS GREATER THAN 3-INCHES ARE ALLOWED IN THE RUNWAY SAFETY AREA. IF AREAS ARE FOUND TO BE DEFICIENT, THE CONTRACTOR MUST IMMEDIATELY CORRECT THE DEFICIENCY TO THE SATISFACTION OF THE RPR OR CMA STAFF. APPROVAL TO REOPEN TO AIRCRAFT TRAFFIC WILL BE PROVIDED BY AIRPORT OPERATIONS OR THE RPR.
6. AIRPORT PERIMETER SECURITY SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE QUALIFIED GATE GUARDS ALONG CONSTRUCTION ACCESS POINTS AT AIRPORT PERIMETER GATE LOCATIONS. GATES SHALL BE SECURELY CLOSED OR LOCKED AT ALL TIMES IF GATE GUARD IS NOT PRESENT OR GATES ARE NOT IN USE.
7. CONSTRUCTION MARKERS, AND BARRICADES SHALL BE INSTALLED PER PHASING PLANS AND AS REQUIRED BY AC 150/5370-2 (CURRENT VERSION) OR AS DIRECTED BY THE RPR.
8. ALL STOCKPILES OR EQUIPMENT ADJACENT TO OBJECT FREE AREAS SHALL BE MARKED AND LIGHTED PER AC 150/5370-2 (CURENT VERSION).
9. THE CONTRACTOR SHALL HAVE A SWEEPER OR VACUUM TRUCK ON SITE AT ALL TIMES TO CLEAN DEBRIS FROM HAUL ROUTES, CONSTRUCTION ACCESS POINTS, OR AREAS ADJACENT TO CONSTRUCTION.
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OTHER NOTES

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   MONITOR CMA GROUND - 122.95 MHZ.

   CMA ATCT CLOSURE HOURS: 9:00 PM TO 7:00 AM LOCAL TIME
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4. CONTRACTOR SHALL PROTECT ALL FAA COMMUNICATION LINES AND ESPECIALLY WHEN WORKING WITHIN EXISTING STORM DRAIN INFRASTRUCTURE. NOTIFY ENGINEER IMMEDIATELY IF DAMAGE OCCURS BY CONTRACTOR OPERATIONS.

PHASING LEGEND

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- ROFA — RUNWAY OBJECT FREE AREA
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- FLASHER BARRICADE
- FLAG PERSONNEL / GATE GUARD
- CONTRACTOR GATE ACCESS
- RUNWAY CLOSURE LIGHTED "X"
- TAXIWAY TEMPORARY CLOSURE "X" (MATERIAL PER DETAIL 4/SHEET G050)

N

GRAPHIC SCALE
300 0 300 600
(IN FEET)

ISSUED FOR 100% REVIEW

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JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY

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CAMARILLO AIRPORT
CAMARILLO,CA

COUNTY of VENTURA
Department of Airports

DES: A.G.G.
DR: A.G.G.
CH: C.L.G.
APP: J.D.I.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

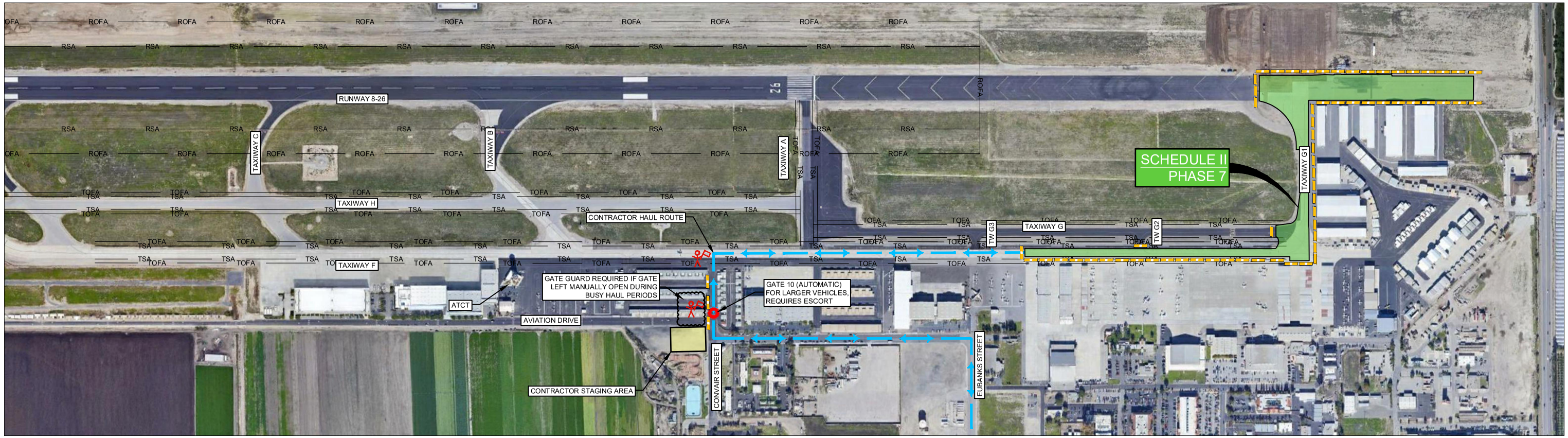
RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

CONSTRUCTION SAFETY AND PHASING PLAN
SCHEDULE II, PHASE 6 (DAY)

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME: G057B
SHEET NO.: 20 of 61
DRAWING NO.: 1695-DOA

Plotted October 9, 2023 @ 2:59 PM by Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Reheb\CADD\LAN5000-CMA-LOC-21-01-G057(Day)-PHAS.dwg



CONSTRUCTION PHASING NOTES

SCHEDULE II / PHASE 7 - NIGHT OPERATIONS

DURATION AND CONTRACTOR ACCESS TIMES

- 4 CALENDAR NIGHTS.
- NIGHTTIME ACCESS TO APPROVED WORK AREAS. THE CLOSURE WILL BEGIN NO EARLIER THAN 2100 AND WILL END NO LATER THAN 0700 ON THE FOLLOWING DAY. CONTRACTOR WORK HOURS WILL BE FROM 2100 TO 0600 TO ALLOW TIME FOR CLEANUP, AIRPORT INSPECTION AND TO ENSURE THAT TAXIWAY F AND G1 IS READY FOR DAYTIME OPENING AND ALL NAVAIDS ARE OPERATIONAL.
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MAJOR WORK TO BE COMPLETED

SITE PREPARATION

1. PAVEMENT MARKING OBLITERATION

PAVEMENT SECTION

1. PAVEMENT MARKINGS

IMPACTS ON OPERATIONS

1. THE CONTRACTOR SHALL GIVE RIGHT OF WAY TO ALL AIRCRAFT AND EMERGENCY VEHICLES AT ALL TIMES.
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3. IF AN EMERGENCY SITUATION ARISES REQUIRING AN AIRCRAFT TO UTILIZE THE RUNWAY AND/OR TAXIWAY DURING CONSTRUCTION, ALL EQUIPMENT AND PERSONNEL SHALL IMMEDIATELY EXIT THE RUNWAY AND/OR TAXIWAY AND STAGE OUTSIDE THE OBJECT FREE AREA.
4. NO WORK, OPEN EXCAVATIONS, EQUIPMENT, STOCKPILES, OR PERSONNEL ARE ALLOWED IN THE SAFETY AREAS OR OBJECT FREE AREAS FOR ANY ACTIVE TAXIWAY OR SAFETY AREAS FOR AN ACTIVE RUNWAY WHEN THE AIRPORT IS OPEN AND OPERATIONAL.
5. PRIOR TO OPENING THE TAXIWAY EACH MORNING TO AIRCRAFT, ALL AIRFIELD PAVEMENT WHERE WORK HAS OCCURRED OR EQUIPMENT HAS TRAVERSED SHALL BE SWEPT OR CLEARED WITH APPROVED EQUIPMENT TO REMOVE ANY FOD. ALL EXCAVATIONS AND TRENCHES IN THE SAFETY AREAS SHALL BE BACKFILLED AND COMPACTED TO P-152 SPECIFICATIONS. GRADING WITHIN THE SAFETY AREA SHALL CONFORM TO AC 150/5300-13 (CURRENT VERSION), CHAPTER 3. NO DROPS GREATER THAN 3-INCHES ARE ALLOWED IN THE RUNWAY SAFETY AREA. IF AREAS ARE FOUND TO BE DEFICIENT, THE CONTRACTOR MUST IMMEDIATELY CORRECT THE DEFICIENCY TO THE SATISFACTION OF THE RPR OR CMA STAFF. APPROVAL TO REOPEN TO AIRCRAFT TRAFFIC WILL BE PROVIDED BY AIRPORT OPERATIONS OR THE RPR.
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8. ALL STOCKPILES OR EQUIPMENT ADJACENT TO OBJECT FREE AREAS SHALL BE MARKED AND LIGHTED PER AC 150/5370-2 (CURENT VERSION).
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OTHER NOTES

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3. CMA ATCT OPERATION HOURS: 7:00 AM - 9:00 PM LOCAL TIME
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   CMA ATCT CLOSURE HOURS: 9:00 PM TO 7:00 AM LOCAL TIME
   MONITOR CMA CTAF - 134.95 MHZ.
4. CONTRACTOR SHALL PROTECT ALL FAA COMMUNICATION LINES AND ESPECIALLY WHEN WORKING WITHIN EXISTING STORM DRAIN INFRASTRUCTURE. NOTIFY ENGINEER IMMEDIATELY IF DAMAGE OCCURS BY CONTRACTOR OPERATIONS.

PHASING LEGEND

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- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
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- FLAG PERSONNEL / GATE GUARD
- CONTRACTOR GATE ACCESS
- RUNWAY CLOSURE LIGHTED "X"
- TAXIWAY TEMPORARY CLOSURE "X" (MATERIAL PER DETAIL 4/SHEET G050)

N

GRAPHIC SCALE
300 0 300 600
(IN FEET)

ISSUED FOR 100% REVIEW

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JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY

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CAMARILLO AIRPORT
CAMARILLO,CA

COUNTY of VENTURA
Department of Airports

DES: A.G.G.
DR: A.G.G.
CH: C.L.G.
APP: J.D.I.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

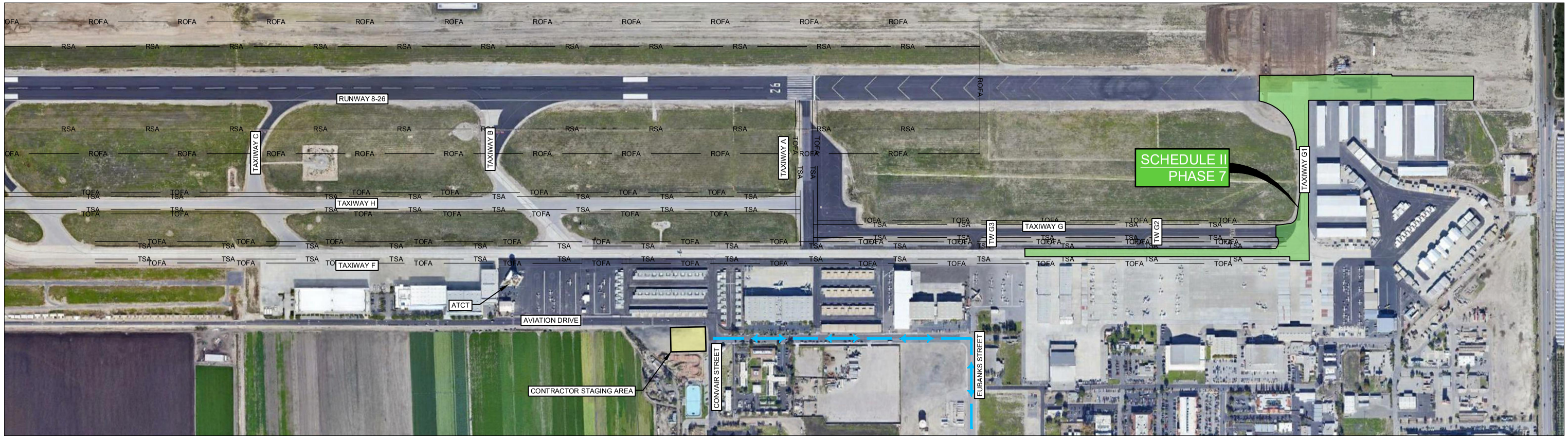
RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

CONSTRUCTION SAFETY AND PHASING PLAN
SCHEDULE II, PHASE 7 (NIGHT)

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME: G058A
SHEET NO.: 21 of 61
DRAWING NO.: 1696-DOA

Plotted October 9, 2023 @ 2:59 PM by Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Reheb\CADD\LAN\5000-CMA-LOC-21-01-G058-PHAS.dwg



CONSTRUCTION PHASING NOTES

SCHEDULE II / PHASE 7 - DAY OPERATIONS

DURATION AND CONTRACTOR ACCESS TIMES

- 4 CALENDAR NIGHTS.
- NIGHTTIME ACCESS TO APPROVED WORK AREAS. THE CLOSURE WILL BEGIN NO EARLIER THAN 2100 AND WILL END NO LATER THAN 0700 ON THE FOLLOWING DAY. CONTRACTOR WORK HOURS WILL BE FROM 2100 TO 0600 TO ALLOW TIME FOR CLEANUP, AIRPORT INSPECTION AND TO ENSURE THAT TAXIWAY F AND G1 IS READY FOR DAYTIME OPENING AND ALL NAVAIDS ARE OPERATIONAL.
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MAJOR WORK TO BE COMPLETED

SITE PREPARATION

1. PAVEMENT MARKING OBLITERATION

PAVEMENT SECTION

1. PAVEMENT MARKINGS

IMPACTS ON OPERATIONS

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4. NO WORK, OPEN EXCAVATIONS, EQUIPMENT, STOCKPILES, OR PERSONNEL ARE ALLOWED IN THE SAFETY AREAS OR OBJECT FREE AREAS FOR ANY ACTIVE TAXIWAY OR SAFETY AREAS FOR AN ACTIVE RUNWAY WHEN THE AIRPORT IS OPEN AND OPERATIONAL.
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- TOFA — TAXIWAY OBJECT FREE AREA
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- FLAG PERSONNEL / GATE GUARD
- CONTRACTOR GATE ACCESS
- RUNWAY CLOSURE LIGHTED "X"
- TAXIWAY TEMPORARY CLOSURE "X" (MATERIAL PER DETAIL 4/SHEET G050)

N

GRAPHIC SCALE
300 0 300 600
(IN FEET)

ISSUED FOR 100% REVIEW

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JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY

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CAMARILLO AIRPORT
CAMARILLO,CA

COUNTY of VENTURA
Department of Airports

DES: A.G.G.
DR: A.G.G.
CH: C.L.G.
APP: J.D.I.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

CONSTRUCTION SAFETY AND PHASING PLAN
SCHEDULE II, PHASE 7 (DAY)

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME: G058B
SHEET NO.: 22 of 61
DRAWING NO.: 1697-DOA

Plotted October 9, 2023 @ 2:59 PM by Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Reheb\CADD\LAN\5000-CMA-LOC-21-01-G058(Day)-PHAS.dwg

APPENDIX B

CONSTRUCTION PROJECT DAILY SAFETY INSPECTION CHECKLIST

NOTE: This Appendix D. Construction Project Daily Safety Inspection Checklist was copied from FAA Advisory Circular 150/5370-2G (dated December 13, 2017) and formatted for use with individual projects.

Airport: **Camarillo Airport**
County Project No.: **CMA-239**
Project Name: **Runway 8-26 and Taxiway A Pavement Improvements**
Date: _____

Appendix D. Construction Project Daily Safety Inspection Checklist

The situations identified below are potentially hazardous conditions that may occur during airport construction projects. Safety area encroachments, unauthorized and improper ground vehicle operations, and unmarked or uncovered holes and trenches near aircraft operating surfaces pose the most prevalent threats to airport operational safety during airport construction projects. The list below is one tool that the airport operator or contractor may use to aid in identifying and correcting potentially hazardous conditions. It should be customized as appropriate for each project including information such as the date, time and name of the person conducting the inspection.

Table D-1. Potentially Hazardous Conditions

Item	Action Required (Describe)	No Action Required (Check)
Excavation adjacent to runways, taxiways, and aprons improperly backfilled.		☐
Mounds of earth, construction materials, temporary structures, and other obstacles near any open runway, taxiway, or taxi lane; in the related Object Free area and aircraft approach or departure areas/zones; or obstructing any sign or marking.		☐
Runway resurfacing projects resulting in lips exceeding 3 inch (7.6 cm) from pavement edges and ends.		☐
Heavy equipment (stationary or mobile) operating or idle near AOA, in runway approaches and departures areas, or in OFZ.		☐
Equipment or material near NAVAIDs that may degrade or impair radiated signals and/or the monitoring of navigation and visual aids. Unauthorized or improper vehicle operations in localizer or glide slope critical areas, resulting in electronic interference and/or facility shutdown.		☐
Tall and especially relatively low visibility units (that is, equipment with slim profiles) — cranes, drills, and similar objects — located in critical areas, such as OFZ and approach zones.		☐

Improperly positioned or malfunctioning lights or unlighted airport hazards, such as holes or excavations, on any apron, open taxiway, or open taxi lane or in a related safety, approach, or departure area.		☐
Obstacles, loose pavement, trash, and other debris on or near AOA. Construction debris (gravel, sand, mud, paving materials) on airport pavements may result in aircraft propeller, turbine engine, or tire damage. Also, loose materials may blow about, potentially causing personal injury or equipment damage.		☐
Inappropriate or poorly maintained fencing during construction intended to deter human and animal intrusions into the AOA. Fencing and other markings that are inadequate to separate construction areas from open AOA create aviation hazards.		☐
Improper or inadequate marking or lighting of runways (especially thresholds that have been displaced or runways that have been closed) and taxiways that could cause pilot confusion and provide a potential for a runway incursion. Inadequate or improper methods of marking, barricading, and lighting of temporarily closed portions of AOA create aviation hazards.		☐
Wildlife attractants — such as trash (food scraps not collected from construction personnel activity), grass seeds, tall grass, or standing water — on or near airports.		☐
Obliterated or faded temporary markings on active operational areas.		☐
Misleading or malfunctioning obstruction lights. Unlighted or unmarked obstructions in the approach to any open runway pose aviation hazards.		☐
Failure to issue, update, or cancel NOTAMs about airport or runway closures or other construction related airport conditions.		☐
Failure to mark and identify utilities or power cables. Damage to utilities and power cables during construction activity can result in the loss of runway / taxiway lighting; loss of navigation, visual, or approach aids; disruption of weather reporting services; and/or loss of communications.		☐
Restrictions on ARFF access from fire stations to the runway / taxiway system or airport buildings.		☐
Lack of radio communications with construction vehicles in airport movement areas.		☐

Objects, regardless of whether they are marked or flagged, or activities anywhere on or near an airport that could be distracting, confusing, or alarming to pilots during aircraft operations.		☐
Water, snow, dirt, debris, or other contaminants that temporarily obscure or derogate the visibility of runway/taxiway marking, lighting, and pavement edges. Any condition or factor that obscures or diminishes the visibility of areas under construction.		☐
Spillage from vehicles (gasoline, diesel fuel, oil) on active pavement areas, such as runways, taxiways, aprons, and airport roadways.		☐
Failure to maintain drainage system integrity during construction (for example, no temporary drainage provided when working on a drainage system).		☐
Failure to provide for proper electrical lockout and tagging procedures. At larger airports with multiple maintenance shifts/workers, construction contractors should make provisions for coordinating work on circuits.		☐
Failure to control dust. Consider limiting the amount of area from which the contractor is allowed to strip turf.		☐
Exposed wiring that creates an electrocution or fire ignition hazard. Identify and secure wiring, and place it in conduit or bury it.		☐
Site burning, which can cause possible obscuration.		☐
Construction work taking place outside of designated work areas and out of phase.		☐

DIVISION 5

CALIFORNIA PREVAILING WAGE RATES

Will insert prior to bid on October 30, 2023.

DIVISION 6

TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATIONS
TABLE OF CONTENTS

SECTION	TITLE
C-100	CONTRACTOR QUALITY CONTROL PROGRAM (CQCP)
C-102	TEMPORARY AIR AND WATER POLLUTION, SOIL EROSION, AND SILTATION CONTROL
C-105	MOBILIZATION
P-101	PREPARATION/REMOVAL OF EXISTING PAVEMENTS
P-152	EXCAVATION, SUBGRADE AND EMBANKMENT
SEC. 26	AGGREGATE BASE COURSE
SEC. 39	ASHALT CONCRETE
P-620	RUNWAY AND TAXIWAY MARKING

ITEM P-101 PREPARATION/REMOVAL OF EXISTING PAVEMENTS

DESCRIPTION

101-1.1 This item shall consist of preparation of existing pavement surfaces for overlay, surface treatments, removal of existing pavement, and other miscellaneous items. The work shall be accomplished in accordance with these specifications and the applicable plans.

EQUIPMENT AND MATERIALS

101-2.1 All equipment and materials shall be specified here and in the following paragraphs or approved by the Resident Project Representative (RPR). The equipment shall not cause damage to the pavement to remain in place.

CONSTRUCTION

101-3.1 REMOVAL OF EXISTING PAVEMENT.

The Contractor's removal operation shall be controlled to not damage adjacent pavement structure, and base material, cables, utility ducts, pipelines, or drainage structures which are to remain under the pavement.

a. Concrete pavement removal. Not used.

b. Asphalt pavement removal. Asphalt pavement to be removed shall be cut to the full depth of the asphalt pavement around the perimeter of the area to be removed. If the material is to be wasted on the airport site and/or incorporated into embankment, it shall be broken to a maximum size of **2** inches.

c. Repair or removal of Base, Subbase, and/or Subgrade. All failed material including surface, base course, subbase course, and subgrade shall be removed and repaired as shown on the plans or as directed by the RPR. Materials and methods of construction shall comply with the applicable sections of these specifications. Any damage caused by Contractor's removal process shall be repaired at the Contractor's expense.

101-3.2 PREPARATION OF JOINTS AND CRACKS PRIOR TO OVERLAY/SURFACE TREATMENT. Not Used.

101-3.3 REMOVAL OF FOREIGN SUBSTANCES/CONTAMINATES PRIOR TO OVERLAY, SEAL-COAT, OR REMARKING. Removal of foreign substances/contaminates from existing pavement that will affect the bond of the new treatment shall consist of removal of rubber, fuel spills, oil, crack sealer, at least 90% of paint, and other foreign substances from the surface of the pavement. Areas that require removal are designated on the plans and as directed by the RPR in the field during construction.

High-pressure water cold milling may be used. If chemicals are used, they shall comply with the state's environmental protection regulations. Removal methods used shall not cause major damage to the pavement, or to any structure or utility within or adjacent to the work area. Major damage is defined as changing the properties of the pavement, removal of asphalt causing the aggregate to ravel, or removing pavement over 1/8

inch deep. If it is deemed by the RPR that damage to the existing pavement is caused by operational error, such as permitting the application method to dwell in one location for too long, the Contractor shall repair the damaged area without compensation and as directed by the RPR.

Removal of foreign substances shall not proceed until approved by the RPR. Water used for high-pressure water equipment shall be provided by the Contractor at the Contractor's expense. No material shall be deposited on the pavement shoulders. All wastes shall be disposed of in areas indicated in this specification or shown on the plans.

101-3.4 CONCRETE SPALL OR FAILED ASPHALTIC CONCRETE PRAVEMENT REPAIR.

a. Repair of concrete spalls in areas to be overlaid with asphalt. Not used

b. Asphalt pavement repair. Not used.

101-3.5 COLD MILLING. Milling shall be performed with a power-operated milling machine or grinder, capable of producing a uniform finished surface. The milling machine or grinder shall operate without tearing or gouging the underlaying surface. The milling machine or grinder shall be equipped with grade and slope controls, and a positive means of dust control. All millings shall be removed and disposed off Airport property and/or in areas designated on the plans. If the Contractor mills or grinds deeper or wider than the plans specify, the Contractor shall replace the material removed with new material at the Contractor's Expense.

a. Patching. The milling machine shall be capable of cutting a vertical edge without chipping or spalling the edges of the remaining pavement and it shall have a positive method of controlling the depth of cut. The RPR shall layout the area to be milled with a straightedge in increments of 1-foot widths. The area to be milled shall cover only the failed area. Any excessive area that is milled because the Contractor doesn't have the appropriate milling machine, or areas that are damaged because of his negligence, shall be repaired by the Contractor at the Contractor's Expense.

b. Profiling, grade correction, or surface correction. The milling machine shall have a minimum width of 7 feet and it shall be equipped with electronic grade control devices that will cut the surface to the grade specified. The tolerances shall be maintained within +0 inch and -1/4 inch of the specified grade. The machine must cut vertical edges and have a positive method of dust control. The machine must have the ability to remove the millings or cuttings from the pavement and load them into a truck. All millings shall be removed and disposed of off the airport.

c. Clean-up. The Contractor shall sweep the milled surface daily and immediately after the milling until all residual materials are removed from the pavement surface. Prior to paving, the Contractor shall wet down the milled pavement and thoroughly sweep and/or blow the surface to remove loose residual material. Waste materials shall be collected and removed from the pavement surface and adjacent areas by sweeping or vacuuming. Waste materials shall be removed and disposed off Airport property.

101-3.6. PREPARATION OF ASPHALT PAVEMENT SURFACES PRIOR TO SURFACE TREATMENT. Not Used.

101-3.7 MAINTENANCE. The Contractor shall perform all maintenance work necessary to keep the pavement in a satisfactory condition until the full section is complete and accepted by the RPR. The surface shall be kept clean and free from foreign material. The pavement shall be properly drained at all times. If cleaning is necessary or if the pavement becomes disturbed, any work repairs necessary shall be performed at the Contractor's expense.

101-3.8 PREPARATION OF JOINTS IN RIGID PAVEMENT PRIOR TO RESEALING. Not used.

101-3.8.1 REMOVAL OF EXISTING JOINT SEALANT. Not used.
101-3.8.2 CLEANING PRIOR TO SEALING. Not used.

101-3.8.3 JOINT SEALANT. Not used.

101-3.9 PREPARATION OF CRACKS IN FLEXIBLE PAVEMENT PRIOR TO SEALING. Not Used.

101-3.9.1 PREPARATION OF CRACK. Not Used.

101-3.9.2 REMOVAL OF EXISTING CRACK SEALANT. Not used.

101-3.9.3 CRACK SEALANT. Not Used.

101-3.9.4 REMOVAL OF PIPE AND OTHER BURIED STRUCTURES.

a. **Removal of Existing Pipe Material.** Not used.

b. **Removal of Inlets/Manholes.** Not used.

METHOD OF MEASUREMENT

101-4.1 PAVEMENT REMOVAL. The unit of measurement for pavement removal shall be the number of square yards (square meters) removed by the Contractor. Any pavement removed outside the limits of removal because the pavement was damaged by negligence on the part of the Contractor shall not be included in the measurement for payment. No direct measurement or payment shall be made for saw cutting. Saw cutting shall be incidental to pavement removal. Dowel bar installation shall be incidental to pavement removal.

101-4.2 JOINT AND CRACK REPAIR. Not Used.

101-4.3 COLD MILLING. The unit of measure for cold milling shall be per square yard. The location and average depth of the cold milling shall be as shown on the plans. If the initial cut does not correct the condition, the Contractor shall re-mill the area and will be paid for the total depth of milling.

BASIS OF PAYMENT

101-5.1 PAYMENT. Payment shall be made at contract unit price for the unit of measurement as specified above. This price shall be full compensation for furnishing all materials and for all preparation, hauling, and placing of the material and for all labor, equipment, tools, and incidentals necessary to complete this item.

Payment will be made under:

Item P 101a	Demolish Asphalt Pavement - per square yard
Item P 101b	Cold Mill (2.5 Inches Nominal Depth)– per square yard

REFERENCES
The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

Advisory Circulars (AC)

AC 150/5380-6	Guidelines and Procedures for Maintenance of Airport Pavements.

ASTM International (ASTM)

ASTM D6690	Standard Specification for Joint and Crack Sealants, Hot Applied, for Concrete and Asphalt Pavements

****END OF ITEM P-101****

ITEM P-152 EXCAVATION, SUBGRADE, AND EMBANKMENT

DESCRIPTION

152-1.1 This item covers excavation, disposal, placement, and compaction of all materials within the limits of the work required to construct safety areas, runways, taxiways, aprons, and intermediate areas as well as other areas for drainage, building construction, parking, or other purposes in accordance with these specifications and in conformity to the dimensions and typical sections shown on the plans.

152-1.2 CLASSIFICATION. All material excavated shall be classified as defined below:

a. Unclassified excavation. Unclassified excavation shall consist of the excavation and disposal of all material, regardless of its nature.

152-1.3 UNSUITABLE EXCAVATION. Unsuitable material shall be disposed offsite. Materials containing vegetable or organic matter, such as muck, peat, organic silt, or sod shall be considered unsuitable for use in embankment construction. Material suitable for topsoil may be used on the embankment slope when approved by the RPR.

CONSTRUCTION METHODS

152-2.1 GENERAL. Before beginning excavation, grading, and embankment operations in any area, the area shall be cleared or cleared and grubbed.

The suitability of material to be placed in embankments shall be subject to approval by the RPR. All unsuitable material shall be disposed of in waste areas as shown on the plans. All waste areas shall be graded to allow positive drainage of the area and adjacent areas. The surface elevation of waste areas shall be specified on the plans or approved by the RPR.

When the Contractor's excavating operations encounter artifacts of historical or archaeological significance, the operations shall be temporarily discontinued and the RPR notified. At the direction of the RPR, the Contractor shall excavate the site in such a manner as to preserve the artifacts encountered and allow for their removal. Such excavation will be paid for as extra work.

Areas outside the limits of the pavement areas where the top layer of soil has become compacted by hauling or other Contractor activities shall be scarified and disked to a depth of 4 inches, to loosen and pulverize the soil. Stones or rock fragments larger than 4 inches in their greatest dimension will not be permitted in the top 6 inches of the subgrade.

If it is necessary to interrupt existing surface drainage, sewers or under-drainage, conduits, utilities, or similar underground structures, the Contractor shall be responsible for and shall take all necessary precautions to preserve them or provide temporary services. When such facilities are encountered, the Contractor shall notify the RPR, who shall arrange for their removal if necessary. The Contractor, at their own expense, shall satisfactorily repair or pay the cost of all damage to such facilities or structures that may result from any of the Contractor's operations during the period of the contract.

a. Blasting. Blasting shall not be allowed.

152-2.2 EXCAVATION. No excavation shall be started until the work has been staked out by the Contractor and the RPR has obtained from the Contractor, the survey notes of the elevations and measurements of the ground surface. The Contractor and RPR shall agree that the original ground lines shown on the original topographic mapping are accurate or agree to any adjustments made to the original ground lines.

Digital terrain model (DTM) files of the existing surfaces, finished surfaces and other various surfaces were used to develop the design plans.

Volumetric quantities were calculated by comparing DTM files of the applicable design surfaces and generating Triangle Volume Reports. Electronic copies of DTM files and a paper copy of the original topographic map will be issued to the successful bidder.

Existing grades on the design cross sections or DTM's, where they do not match the locations of actual spot elevations shown on the topographic map, were developed by computer interpolation from those spot elevations. Prior to disturbing original grade, Contractor shall verify the accuracy of the existing ground surface by verifying spot elevations at the same locations where original field survey data was obtained as indicated on the topographic map. Contractor shall recognize that, due to the interpolation process, the actual ground surface at any particular location may differ somewhat from the interpolated surface shown on the design cross sections or obtained from the DTM's. Contractor's verification of original ground surface, however, shall be limited to verification of spot elevations as indicated herein, and no adjustments will be made to the original ground surface unless the Contractor demonstrates that spot elevations shown are incorrect. For this purpose, spot elevations which are within 0.1 foot of the stated elevations for ground surfaces, or within 0.04 foot for hard surfaces (pavements, buildings, foundations, structures, etc.) shall be considered "no change". Only deviations in excess of these will be considered for adjustment of the original ground surface. If Contractor's verification identifies discrepancies in the topographic map, Contractor shall notify the RPR in writing at least two weeks before disturbance of existing grade to allow sufficient time to verify the submitted information and make adjustments to the design cross sections or DTM's. Disturbance of existing grade in any area shall constitute acceptance by the Contractor of the accuracy of the original elevations shown on the topographic map for that area.

All areas to be excavated shall be stripped of vegetation and topsoil. Topsoil shall be stockpiled for future use in areas designated on the plans or by the RPR. All suitable excavated material shall be used in the formation of embankment, subgrade, or other purposes as shown on the plans. All unsuitable material shall be disposed of as shown on the plans.

The grade shall be maintained so that the surface is well drained at all times.

When the volume of the excavation exceeds that required to construct the embankments to the grades as indicated on the plans, the excess shall be used to grade the areas of ultimate development or disposed as directed by the RPR. When the volume of excavation is not sufficient for constructing the embankments to the grades indicated, the deficiency shall be obtained from borrow areas.

a. **Selective grading.** When selective grading is indicated on the plans, the more suitable material designated by the RPR shall be used in constructing the embankment or in capping the pavement subgrade. If, at the time of excavation, it is not possible to place this material in its final location, it shall be stockpiled in approved areas until it can be placed. The more suitable material shall then be placed and compacted as specified. Selective grading shall be considered incidental to the work involved. The cost of stockpiling and placing the material shall be included in the various pay items of work involved.

b. Undercutting. Rock, shale, hardpan, loose rock, boulders, or other material unsatisfactory for safety areas, subgrades, roads, shoulders, or any areas intended for turf shall be excavated to a minimum depth of 12 inches below the subgrade or to the depth specified by the RPR. Muck, peat, matted roots, or other yielding material, unsatisfactory for subgrade foundation, shall be removed to the depth specified. Unsuitable materials shall be disposed off the airport. The cost is incidental to this item. This excavated material shall be paid for at the contract unit price per cubic yard for **unclassified excavation**. The excavated area shall be backfilled with suitable material obtained from the grading operations or borrow areas and compacted to specified densities. The necessary backfill will constitute a part of the embankment. Where rock cuts are made, backfill with select material. Any pockets created in the rock surface shall be drained in accordance with the details shown on the plans. Undercutting will be paid as unclassified excavation.

c. Over-break. Over-break, including slides, is that portion of any material displaced or loosened beyond the finished work as planned or authorized by the RPR. All over-break shall be graded or removed by the Contractor and disposed of as directed by the RPR. The RPR shall determine if the displacement of such material was unavoidable and their own decision shall be final. Payment will not be made for the removal and disposal of over-break that the RPR determines as avoidable. Unavoidable over-break will be classified as "Unclassified Excavation."

d. Removal of utilities. Not used.

152-2.3 Borrow excavation. Not used.

152-2.4 DRAINAGE EXCAVATION. Not used.

152-2.5 PREPARATION OF CUT AREAS OR AREAS WHERE EXISTING PAVEMENT HAS BEEN REMOVED. In those areas on which a subbase or base course is to be placed, the top 12 inches of subgrade shall be compacted to not less than of maximum density for non-cohesive soils, and 95% of maximum density for cohesive soils as determined by ASTM **1557**. As used in this specification, "non-cohesive" shall mean those soils having a plasticity index (PI) of less than 3 as determined by ASTM D4318.

152-2.6 PREPARATION OF EMBANKMENT AREA. Not needed.

152-2.7 CONTROL STRIP. The first half-day of construction of subgrade and/or embankment shall be considered as a control strip for the Contractor to demonstrate, in the presence of the RPR, that the materials, equipment, and construction processes meet the requirements of this specification. The sequence and manner of rolling necessary to obtain specified density requirements shall be determined. The maximum compacted thickness may be increased to a maximum of 12 inches upon the Contractor's demonstration that approved equipment and operations will uniformly compact the lift to the specified density. The RPR must witness this demonstration and approve the lift thickness prior to full production.

Control strips that do not meet specification requirements shall be reworked, re-compacted, or removed and replaced at the Contractor's expense. Full operations shall not begin until the control strip has been accepted by the RPR. The Contractor shall use the same equipment, materials, and construction methods for the remainder of construction, unless adjustments made by the Contractor are approved in advance by the RPR.

152-2.8 FORMATION OF EMBANKMENTS. Not needed.

152-2.9 PROOF ROLLING. The purpose of proof rolling the subgrade is to identify any weak areas in the subgrade and not for compaction of the subgrade. Before start of embankment and after compaction is completed, the subgrade area shall be proof rolled with a 20 ton Tandem axle Dual Wheel Dump Truck

loaded to the legal limit with tires inflated to 80/100/150 psi in the presence of the RPR. Apply a minimum of **25%** coverage, or as specified by the RPR, under pavement areas. A coverage is defined as the application of one tire print over the designated area. Soft areas of subgrade that deflect more than 1 inch or show permanent deformation greater than 1 inch shall be removed and replaced with suitable material or reworked to conform to the moisture content and compaction requirements in accordance with these specifications. Removal and replacement of soft areas is incidental to this item.

152-2.10 COMPACTION REQUIREMENTS. The subgrade under areas to be paved shall be compacted to a depth of 12 inches and to a density of not less than 100 percent of the maximum dry density as determined by ASTM D1557. The subgrade in areas outside the limits of the pavement areas shall be compacted to a depth of 12 inches and to a density of not less than 95 percent of the maximum density as determined by ASTM D698.

The material to be compacted shall be within ±2% of optimum moisture content before being rolled to obtain the prescribed compaction (except for expansive soils). When the material has greater than 30 percent retained on the ¾ inch sieve, follow the methods in ASTM D1557**.** Tests for moisture content and compaction will be taken at a minimum of 3,000 S.Y. of subgrade. All quality assurance testing shall be done by the Contractor's laboratory in the presence of the RPR, and density test results shall be furnished upon completion to the RPR for acceptance determination.

The in-place field density shall be determined in accordance with ASTM D6938 using Procedure A, the direct transmission method, and ASTM D6938 shall be used to determine the moisture content of the material. The machine shall be calibrated in accordance with ASTM D6938 within 12 months prior to its use on this contract. The gage shall be field standardized daily.

Maximum density refers to maximum dry density at optimum moisture content unless otherwise specified.

If the specified density is not attained, the entire lot shall be reworked and/or re-compacted and additional random tests made. This procedure shall be followed until the specified density is reached.

All cut-and-fill slopes shall be uniformly dressed to the slope, cross-section, and alignment shown on the plans or as directed by the RPR and the finished subgrade shall be maintained.

152-2.11 FINISHING AND PROTECTION OF SUBGRADE. Finishing and protection of the subgrade is incidental to this item. Grading and compacting of the subgrade shall be performed so that it will drain readily. All low areas, holes or depressions in the subgrade shall be brought to grade. Scarifying, blading, rolling and other methods shall be performed to provide a thoroughly compacted subgrade shaped to the lines and grades shown on the plans. All ruts or rough places that develop in the completed subgrade shall be graded, re-compacted, and retested. The Contractor shall protect the subgrade from damage and limit hauling over the finished subgrade to only traffic essential for construction purposes.

The Contractor shall maintain the completed course in satisfactory condition throughout placement of subsequent layers. No subbase, base, or surface course shall be placed on the subgrade until the subgrade has been accepted by the RPR.

152-2.12 HAUL. All hauling will be considered a necessary and incidental part of the work. The Contractor shall include the cost in the contract unit price for the pay of items of work involved. No payment will be made separately or directly for hauling on any part of the work.

The Contractor's equipment shall not cause damage to any excavated surface, compacted lift or to the subgrade as a result of hauling operations. Any damage caused as a result of the Contractor's hauling operations shall be repaired at the Contractor's expense.

The Contractor shall be responsible for providing, maintaining and removing any haul roads or routes within or outside of the work area, and shall return the affected areas to their former condition, unless otherwise authorized in writing by the Owner. No separate payment will be made for any work or materials associated with providing, maintaining and removing haul roads or routes.

152-2.13 SURFACE TOLERANCEs. In those areas on which a subbase or base course is to be placed, the surface shall be tested for smoothness and accuracy of grade and crown. Any portion lacking the required smoothness or failing in accuracy of grade or crown shall be scarified to a depth of at least 3 inches, reshaped and re-compacted to grade until the required smoothness and accuracy are obtained and approved by the RPR. The Contractor shall perform all final smoothness and grade checks in the presence of the RPR. Any deviation in surface tolerances shall be corrected by the Contractor at the Contractor's expense.

a. Smoothness. The finished surface shall not vary more than +/- ½ inch when tested with a 12-foot straightedge applied parallel with and at right angles to the centerline. The straightedge shall be moved continuously forward at half the length of the 12-foot straightedge for the full length of each line on a 50-foot grid.

b. Grade. The grade and crown shall be measured on a 50-foot grid and shall be within +/-0.05 feet of the specified grade.

On safety areas, turfed areas and other designated areas within the grading limits where no subbase or base is to placed, grade shall not vary more than 0.10 feet from specified grade. Any deviation in excess of this amount shall be corrected by loosening, adding or removing materials, and reshaping.

152-2.14 TOPSOIL. Not used.

METHOD OF MEASUREMENT

152-3.1 Measurement for payment specified by the cubic yard shall be computed by the comparison of digital terrain model (DTM) surfaces for computation of neat line design quantities. The end area is that bound by the original ground line established by field cross-sections and the final theoretical pay line established by cross-sections shown on the plans, subject to verification by the RPR.

152-3.1 The quantity of unclassified excavation to be paid for shall be the number of cubic yards (cubic meters) measured in its original position. Measurement shall not include the quantity of materials excavated without authorization beyond normal slope lines, or the quantity of material used for purposes other than those directed.

BASIS OF PAYMENT

152-4.1 Unclassified excavation payment shall be made at the contract unit price per cubic yard. This price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the item.

Payment will be made under:

Item P-152a	Unclassified Excavation - per cubic yard

REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

American Association of State Highway and Transportation Officials (AASHTO)

AASHTO T-180	Standard Method of Test for Moisture-Density Relations of Soils Using a 10-lb Rammer and a 18-in. drop

ASTM International (ASTM)

ASTM D698	Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft^3)
ASTM D1556	Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method
ASTM D1557	Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft^3)
ASTM D6938	Standard Test Methods for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)

Advisory Circulars (AC)

AC 150/5370-2	Operational Safety on Airports During Construction Software

Software

FAARFIELD – FAA Rigid and Flexible Iterative Elastic Layered Design

U.S. Department of Transportation

FAA RD-76-66	Design and Construction of Airport Pavements on Expansive Soils

****END OF ITEM P-152****

26 AGGREGATE BASES

26-1 GENERAL

26-1.01 GENERAL

26-1.01A Summary

Section 26 includes specifications for placing aggregate base.

26-1.01B Definitions

Reserved

26-1.01C Submittals

Submit an aggregate base QC plan.

26-1.01D Quality Assurance

26-1.01D(1) General

Aggregate samples must not be treated with lime, cement, or chemicals before testing for durability index. Aggregate from untreated reclaimed processed AC, PCC, LCB, or CTB is not considered treated.

26-1.01D(2) Quality Control

26-1.01D(2)(a) General

Reserved

26-1.01D(2)(b) Quality Control Plan

Reserved

26-1.01D(2)(c) Qualifications

Reserved

26-1.01D(2)(d) Quality Control Testing

AB quality control must include testing the quality characteristics at the frequencies shown in the following table:

QC Testing Frequencies

Quality characteristic	Test method	Sampling location	Minimum frequency
R-value	California Test 301	Stockpiles, transportation units, windrows, or roadways	1 test before starting work and every 2,000 cu yd thereafter[a]
Aggregate gradation	California Test 202	Stockpiles, transportation units, windrows, or roadways	1 per 500 cu yd but at least one per day of placement
Sand equivalent	California Test 217	Stockpiles, transportation units, windrows, or roadways	
Durability index[b]	California Test 229	Stockpiles, transportation units, windrows, or roadways	1 per project
Relative compaction	California Test 231	Roadway	1 per 500 sq yd on each layer

[a]Additional R-value frequency testing will not be required when the average of 4 consecutive sand equivalent tests is 29 or greater for Class 2 AB or 25 or greater for Class 3 AB.
[b]Applies if section 26-1.02 contains an applicable requirement for durability index.

26-1.01D(3) Department Acceptance

The Department accepts AB based on aggregate gradation, R-value requirements, durability, and sand equivalent requirements specified in section 26-1.02.

The Department accepts AB based on percent relative compaction specified in section 26-1.03E tested under California Test 231.

The Engineer takes aggregate base samples for R-value, aggregate gradation, sand equivalent, and durability index from any of the following locations:

1. Windrow
2. Roadway

If the aggregate gradation test results, sand equivalent test results, or both comply with the Contract compliance requirements but not the operating range requirements, you may continue placing AB for the remainder of the work day. Do not place additional AB until you demonstrate to the Engineer the AB to be placed complies with the operating range requirements.

If the aggregate gradation test results, sand equivalent test results, or both do not comply with Contract compliance requirements, remove the AB or request a payment deduction. If your request is authorized, $2.00/cu yd is deducted. If AB is paid by weight, the Engineer converts tons to cubic yards for the purpose of reducing payment for noncompliant AB left in place.

Each aggregate gradation and a sand equivalent test represents no more than 500 cu yd of AB or 1 day's production, whichever is smaller.

26-1.02 MATERIALS

26-1.02A General

Aggregate must be clean and consist of any combination of the following:

1. Broken stone
2. Crushed gravel
3. Natural rough-surfaced gravel
4. Sand
5. Processed reclaimed asphalt concrete, PCC, LCB, or CTB

Use either 1-1/2-inch or 3/4-inch maximum aggregate gradation unless otherwise specified. Do not change your selected aggregate gradation without authorization.

26-1.02B Class 2 Aggregate Base

Aggregate gradation must be within the percentage passing limits for the sieve sizes shown in the following table:

Aggregate Gradation

Sieve size	Percentage passing			
	1-1/2 inch maximum		3/4 inch maximum	
	Operating range	Contract compliance	Operating range	Contract compliance
2"	100	100	--	--
1-1/2"	90–100	87–100	--	--
1"	--	--	100	100
3/4"	50–85	45–90	90–100	87–100
No. 4	25–45	20–50	35–60	30–65
No. 30	10–25	6–29	10–30	5–35
No. 200	2–9	0–12	2–9	0–12

The aggregate quality characteristics must comply with the requirements shown in the following table:

Aggregate Quality Characteristics

Quality characteristic	Requirement	
	Operating range	Contract compliance
Resistance (R-value, min)	--	78
Sand equivalent (min)	25	22
Durability index (min)	--	35

26-1.02C Class 3 Aggregate Base

Aggregate gradation must be within the percentage passing limits for the sieve sizes shown in the following table:

Aggregate Gradation

Sieve size	Percentage passing			
	1-1/2 inch maximum		3/4 inch maximum	
	Operating range	Contract compliance	Operating range	Contract compliance
2"	100	100	--	--
1-1/2"	90–100	87–100	--	--
1"	--	--	100	100
3/4"	50–90	45–95	90–100	87–100
No. 4	25–60	20–65	40–70	35–75
No. 30	10–35	6–39	12–40	7–45
No. 200	3–15	0–19	3–15	0–19

The aggregate quality characteristics must comply with the requirements shown in the following table:

Aggregate Quality Characteristic

Quality characteristic	Requirement	
	Operating range	Contract compliance
Resistance (R-value) (min)	--	50
Sand equivalent (min)	21	18

26-1.03 CONSTRUCTION

26-1.03A General

Apply water to the AB as needed for compaction.

26-1.03B Subgrade

Immediately before spreading AB, the subgrade must comply with the specified compaction and elevation tolerance for the material involved and be free from loose or extraneous material.

You may use AB to fill areas of the subgrade that are lower than the grade established by the Engineer.

26-1.03C Placing Geosynthetic Materials

Section 26-1.03C applies if geosynthetic materials are shown.

Geosynthetic materials include filter fabric and biaxial geogrid.

If filter fabric is shown, place it on the subgrade.

Before placing geosynthetic materials, remove sharp objects that may come in contact with the material.

Place the material:

1. Under manufacturer's instructions
2. Longitudinally along the roadway alignment
3. Without wrinkles

Overlap adjacent edges of geosynthetic material at least 2 feet. Overlap the ends of the rolls at least 2 feet in the direction AB is spread.

You may fold or cut geosynthetic material to conform to curves. If material is cut, overlap it at least 2 feet. You may hold material in place with mechanical ties, staples, pins, or small piles of AB.

Do not place stockpiles on geosynthetic material or place more material than can be covered in 72 hours.

Do not operate equipment or vehicles directly on filter fabric.

Do not operate equipment or vehicles directly on geogrid unless one of the following conditions is met:

1. Vehicles and equipment are:
   1.1. Equipped with rubber tires

1.2. Operated under 10 mph
1.3. Operated to avoid sudden braking and sharp turns
2. At least 0.35 ft of AB has been placed, spread, and compacted on the material

Repair or replace any damaged geosynthetic material by placing a new piece of material over the damaged area with at least 3 feet of overlap.

26-1.03D Spreading

Deliver uniform mixtures of AB to the roadbed. Deposit AB in layers or windrows. Spread and shape the AB to such thickness that after watering and compacting, the completed AB is within the tolerances specified in section 26-1.03E. When AB is spread and compacted the moisture content must be uniform and sufficient to obtain the required compaction. Avoid material segregation. AB must be free from pockets of coarse or fine material.

If the subgrade is cohesionless sand, you may dump AB in piles and spread it ahead in sufficient quantities to stabilize the subgrade, if authorized.

If the AB thickness shown is 0.50 foot or less, spread and compact the AB in at least1 layer. If the thickness shown is more than 0.50 foot, spread and compact the AB in at least 2 approximately equal layers in thickness. The compacted thickness of any one layer must not exceed 0.50 foot.

At locations inaccessible to spreading equipment, spread and compact AB by any means that will attain the specified requirements.

26-1.03E Compacting

Compact each AB layer to at least 95 percent relative compaction.

If biaxial geogrid is shown, compact AB with either (1) a smooth-wheeled roller or (2) a rubber-tired roller. Do not use vibratory devices during compaction.

The finished AB surface must not vary more than 0.05 foot from the grade established by the Engineer.

Correct areas of AB that do not comply with the described thickness or request a payment deduction if AB is paid for by volume. If your request is authorized, the Engineer calculates the deduction by multiplying:

1. Deficient thickness less allowable tolerance
2. Planned width
3. Longitudinal distance of the deficient thickness
4. $17.00/cu yd or the item bid price adjusted for cubic yards, whichever is higher

26-1.04 PAYMENT

If aggregate base is paid for by volume, the payment quantity is determined from the dimensions shown. The payment quantity does not include the volume of aggregate base used to fill low areas of the subgrade.

If the basement material is imported borrow, aggregate base placed to fill low areas is not measured or paid for as imported borrow.

If aggregate base is paid for by weight, the Engineer deducts the weight of the water at the time of weighing in excess of the optimum moisture content plus 1 percent from the weight of the aggregate base. The Engineer determines the optimum moisture content under California Test 216.

26-2–26-10 RESERVED

39 ASPHALT CONCRETE

39-1 GENERAL

39-1.01 GENERAL

Section 39 includes specifications for performing asphalt concrete work.

39-1.02 MATERIALS

Not Used

39-1.03 CONSTRUCTION

Not Used

39-1.04 PAYMENT

Not Used

39-2 HOT MIX ASPHALT

39-2.01 GENERAL

39-2.01A General

39-2.01A(1) Summary

Section 39-2.01 includes general specifications for producing and placing hot mix asphalt.

HMA includes one or more of the following types:

1. Type A HMA
2. RHMA-G
3. OGFC
4. BWC
5. Minor HMA

WMA technologies must be on the Authorized Material List for WMA authorized technologies.

For HMA that uses asphalt binder containing crumb rubber modifier, submit a Crumb Rubber Usage Report form monthly and at the end of the project.

Wherever reference is made to the following test methods, the year of publication for these test methods is as shown in the following table:

Test method	Year of publication
AASHTO M 17	2011 (2015)
AASHTO M 323	2013
AASHTO R 30	2002 (2015)
AASHTO R 59	2011 (2015)
AASHTO T 27	2014
AASHTO T 49	2014
AASHTO T 59	2013
AASHTO T 96	2002 (2010)
AASHTO T 164	2014
AASHTO T 176	2008
AASHTO T 209	2012
AASHTO T 269	2014
AASHTO T 275	2007 (2012)
AASHTO T 283	2014
AASHTO T 304	2011
AASHTO T 305	2014
AASHTO T 308	2010
AASHTO T 312	2014
AASHTO T 313	2012 (2016)
AASHTO T 315	2012 (2016)
AASHTO T 329	2013
AASHTO T 335	2009
ASTM D36/D36M	2014$^{\varepsilon 1}$
ASTM D92	2012b
ASTM D217	2010
ASTM D297	2013
ASTM D445	2014
ASTM D1856	2009 (Reapproved 2015)
ASTM D2007	2011
ASTM D2074	2007 (Reapproved 2013)
ASTM D2995	1999 (Reapproved 2009)
ASTM D4791	2010
ASTM D5095	2007
ASTM D5329	2009
ASTM D7741/D7741M	2011$^{\varepsilon 1}$
Asphalt Institute MS-2	7th edition (2015)

39-2.01A(2) Definitions

binder replacement: Binder from RAP expressed as a percent of the total binder in the mix.

coarse aggregate: Aggregate retained on a no. 4 sieve.

fine aggregate: Aggregate passing a no. 4 sieve.

leveling course: Thin layer of HMA used to correct minor variations in the longitudinal and transverse profile of the pavement before placement of other pavement layers.

miscellaneous areas: Areas outside the traveled way and shoulders such as:

1. Median areas not including inside shoulders
2. Island areas
3. Sidewalks
4. Gutters
5. Ditches
6. Overside drains
7. Aprons at ends of drainage structures

processed RAP: RAP that has been fractionated.

supplemental fine aggregate: Mineral filler consisting of rock dust, slag dust, hydrated lime, hydraulic cement, or any combination of these and complying with AASHTO M 17.

39-2.01A(3) Submittals

39-2.01A(3)(a) General

Reserved

39-2.01A(3)(b) Job Mix Formula

39-2.01A(3)(b)(i) General

Except for the HMA to be used in miscellaneous areas and dikes, submit your proposed JMF for each type of HMA to be used. The JMF must be submitted on the Contractor Job Mix Formula Proposal form along with:

1. Mix design documentation on a Contractor Hot Mix Asphalt Design Data form dated within 24 months of the submittal for the JMF verification
2. JMF verification on a Caltrans Hot Mix Asphalt Verification form and the Contractor Hot Mix Asphalt Design Data form that was submitted for the JMF verification, if applicable
3. JMF renewal on a Caltrans Job Mix Formula Renewal form, if applicable
4. SDS for:
   4.1. Asphalt binder
   4.2. Supplemental fine aggregate except fines from dust collectors
   4.3. Antistrip additives

The Contractor Hot Mix Asphalt Design Data form must identify the AASHTO resource accredited lab responsible for the mix design and show documentation on aggregate quality.

If you cannot submit a Department-verified JMF on a Caltrans Hot Mix Asphalt Verification form dated within 24 months before HMA production, the Engineer verifies the JMF.

Submit a new JMF if you change any of the following:

1. Target asphalt binder percentage greater than ±0.2 percent
2. Asphalt binder supplier
3. Combined aggregate gradation
4. Aggregate sources
5. Liquid antistrip producer or dosage
6. Average binder content in a new processed RAP stockpile by more than ±2.00 percent from the average RAP binder content reported on page 4 of your Contractor Hot Mix Asphalt Design Data form
7. Average maximum specific gravity in a new processed RAP stockpile by more than ±0.060 from the average maximum specific gravity value reported on page 4 of your Contractor Hot Mix Asphalt Design Data form
8. Any material in the JMF, except lime supplier and source

Allow the Engineer 5 business days from a complete JMF submittal for document review of the aggregate qualities, mix design, and JMF. The Engineer notifies you if the proposed JMF submittal is accepted.

If your JMF fails verification testing, submit an adjusted JMF based on your testing. The adjusted JMF must include a new Contractor Job Mix Formula Proposal form, Contractor Hot Mix Asphalt Design Data form, and the results of the failed verification testing.

You may submit an adjusted aggregate gradation TV on a Contractor Job Mix Formula Proposal form before verification testing. Aggregate gradation TV must be within the TV limits specified.

39-2.01A(3)(b)(ii) Job Mix Formula Renewal

You may request a JMF renewal by submitting:

1. Proposed JMF on a Contractor Job Mix Formula Proposal form

2. Previously verified JMF documented on a Caltrans Hot Mix Asphalt Verification form dated within 24 months
3. Mix design documentation on a Contractor Hot Mix Asphalt Design Data form used for the previously verified JMF

39-2.01A(3)(b)(iii) Job Mix Formula Modification

For an authorized JMF, submit a modified JMF if you change any of the following:

1. Asphalt binder supplier
2. Liquid antistrip producer
3. Liquid antistrip dosage

You may change any of the above items only once during the Contract.

Submit your modified JMF request at least 15 days before production. Each modified JMF submittal must include:

1. Proposed modified JMF on Contractor Job Mix Formula Proposal form, marked *Modified*.
2. Mix design records on Contractor Hot Mix Asphalt Design Data form for the authorized JMF to be modified.
3. JMF verification on Hot Mix Asphalt Verification form for the authorized JMF to be modified.
4. Test results for the modified JMF in compliance with the mix design specifications. Perform tests at the mix design OBC as shown on the Contractor Asphalt Mix Design Data form.

With an accepted modified JMF submittal, the Engineer verifies each modified JMF within 10 days of receiving all verification samples.

39-2.01A(3)(c) Quality Control Plan

At least 5 business days prior to the pre-paving meeting, submit a QC plan for HMA.

The QC plan must describe the organization and procedures for:

1. Controlling HMA quality characteristics
2. Taking samples, including sampling locations
3. Establishing, implementing, and maintaining QC
4. Determining when corrective actions are needed
5. Implementing corrective actions
6. Using methods and materials for backfilling core locations

The QC plan must address the elements affecting HMA quality, including:

1. Aggregates
2. Asphalt binder
3. Additives
4. Production
5. Paving

The QC plan must include aggregate QC sampling and testing during lime treatment.

Allow 5 business days for review of the QC plan.

If you change QC procedures, personnel, or sample testing locations, submit a QC plan supplement before implementing the proposed change. Allow 3 business days for review of the QC plan supplement.

39-2.01A(3)(d) Test Results

If ordered, submit QC test results within 3 business days of a request.

For tests performed under California Test 389, submit test data and 1 tested sample set within 5 business days of sampling.

If coarse and fine durability index tests are required, submit test results within 2 business days of testing.

If a tapered notched wedge is used, submit compaction test result values within 24 hours of testing.

39-2.01A(3)(e) Reserved

39-2.01A(3)(f) Liquid Antistrip Treatment

If liquid antistrip treatment is used, submit the following with your proposed JMF submittal:

1. One 1 pt sample.
2. Infrared analysis, including copy of absorption spectra.
3. Certified copy of test results.
4. Certificate of compliance for each liquid antistrip shipment. On each certificate of compliance, include:
   - 4.1. Your signature and printed name
   - 4.2. Shipment number
   - 4.3. Material type
   - 4.4. Material specific gravity
   - 4.5. Refinery
   - 4.6. Consignee
   - 4.7. Destination
   - 4.8. Quantity
   - 4.9. Contact or purchase order number
   - 4.10. Shipment date
5. Proposed proportions for the liquid antistrip.

For each delivery of liquid antistrip to the HMA production plant, submit a 1 pt sample to METS. Submit shipping documents. Label each liquid antistrip sampling container with:

1. Liquid antistrip type
2. Application rate
3. Sample date
4. Contract number

At the end of each day's production shift, submit production data in electronic and printed media. Present data on electronic media in a tab delimited format. Use line feed carriage return with 1 separate record per line for each production data set. Allow enough fields for the specified data. Include data titles at least once per report. For each HMA mixing plant type, submit the following information in the order specified:

1. For batch plant mixing:
   - 1.1. Production date
   - 1.2. Time of batch completion
   - 1.3. Mix size and type
   - 1.4. Each ingredient's weight
   - 1.5. Asphalt binder content as a percentage of the total weight of mix
   - 1.6. Liquid antistrip content as a percentage of the asphalt binder weight
2. For continuous mixing plant:
   - 2.1. Production date
   - 2.2. Data capture time
   - 2.3. Mix size and type
   - 2.4. Flow rate of wet aggregate collected directly from the aggregate weigh belt
   - 2.5. Aggregate moisture content as a percentage of the dry aggregate weight
   - 2.6. Flow rate of asphalt binder collected from the asphalt binder meter
   - 2.7. Flow rate of liquid antistrip collected from the liquid antistrip meter
   - 2.8. Asphalt binder content as a percentage of the total weight of mix calculated from:
     - 2.8.1. Aggregate weigh belt output
     - 2.8.2. Aggregate moisture input
     - 2.8.3. Asphalt binder meter output
   - 2.9. Liquid antistrip content as a percentage of the asphalt binder weight calculated from:
     - 2.9.1. Asphalt binder meter output
     - 2.9.2. Liquid antistrip meter output

39-2.01A(3)(g) Lime Treatment

If aggregate lime treatment is used, submit the following with your proposed JMF submittal and each time you produce lime-treated aggregate:

1. Exact lime proportions for fine and coarse virgin aggregates
2. If marination is required, the averaged aggregate quality test results within 24 hours of sampling
3. For dry lime aggregate treatment, a treatment data log from the dry lime and aggregate proportioning device in the following order:
   - 3.1. Treatment date
   - 3.2. Time of day the data is captured
   - 3.3. Aggregate size being treated
   - 3.4. HMA type and mix aggregate size
   - 3.5. Wet aggregate flow rate collected directly from the aggregate weigh belt
   - 3.6. Aggregate moisture content, expressed as a percentage of the dry aggregate weight
   - 3.7. Flow rate of dry aggregate calculated from the flow rate of wet aggregate
   - 3.8. Dry lime flow rate
   - 3.9. Lime ratio from the authorized JMF for each aggregate size being treated
   - 3.10. Lime ratio from the authorized JMF for the combined aggregates
   - 3.11. Actual lime ratio calculated from the aggregate weigh belt output, aggregate moisture input, and dry lime meter output, expressed as a percentage of the dry aggregate weight
   - 3.12. Calculated difference between the authorized lime ratio and the actual lime ratio
4. For lime slurry aggregate treatment, a treatment data log from the slurry proportioning device in the following order:
   - 4.1. Treatment date
   - 4.2. Time of day the data is captured
   - 4.3. Aggregate size being treated
   - 4.4. Wet aggregate flow rate collected directly from the aggregate weigh belt
   - 4.5. Moisture content of the aggregate just before treatment, expressed as a percentage of the dry aggregate weight
   - 4.6. Dry aggregate flow rate calculated from the wet aggregate flow rate
   - 4.7. Lime slurry flow rate measured by the slurry meter
   - 4.8. Dry lime flow rate calculated from the slurry meter output
   - 4.9. Authorized lime ratio for each aggregate size being treated
   - 4.10. Actual lime ratio calculated from the aggregate weigh belt and slurry meter output, expressed as a percentage of the dry aggregate weight
   - 4.11. Calculated difference between the authorized lime ratio and actual lime ratio
   - 4.12. Dry lime and water proportions at the slurry treatment time

Each day during lime treatment, submit the treatment data log on electronic media in tab delimited format on a removable CD-ROM storage disk. Each continuous treatment data set must be a separate record using a line feed carriage return to present the specified data on 1 line. The reported data must include data titles at least once per report.

39-2.01A(3)(h) Warm Mix Asphalt Technology

If a WMA technology is used, submit the following with your proposed JMF submittal:

1. SDS for the WMA technology
2. For water injection foam technology:
   - 2.1. Name of technology
   - 2.2. Proposed foaming water content
   - 2.3. Proposed HMA production temperature range
   - 2.4. Certification from binder supplier stating no antifoaming agent is used
3. For additive technology:
   - 3.1. Name of technology
   - 3.2. Percent admixture by weight of binder and percent admixture by total weight of HMA as recommended by the manufacturer
   - 3.3. Methodology for inclusion of admixture in laboratory-produced HMA
   - 3.4. Proposed HMA production temperature range

Collect and hold data for the duration of the Contract and submit the electronic media daily. The snapshot of production data must include the following:

1. Production date
2. Production location
3. Time of day the data is captured
4. HMA mix type being produced and target binder rate
5. HMA additive type, brand, and target rate
6. Temperature of the binder and HMA mixture
7. For a continuous mixing plant, the rate of flow of the dry aggregate calculated from the wet aggregate flow rate as determined by the conveyor scale
8. For a continuous mixing plant, the rate of flow of the asphalt meter
9. For a continuous mixing plant, the rate of flow of HMA additive meter
10. For batch plant mixing, actual batch weights of all ingredients
11. Dry aggregate to binder ratio calculated from metered ingredient output
12. Dry aggregate to HMA additive ratio calculated from metered output

At the end of each day's production shift, submit electronic and printed media from the HMA plant process controller. Present data on electronic media in comma-separated values or tab-separated values format. The captured data for the ingredients represented by the production snapshot must have allowances for sufficient fields to satisfy the amount of data required by these specifications and include data titles at least once per report.

39-2.01A(3)(i) Reserved

39-2.01A(3)(j) Tack Coat

Prior to applying tack coat, submit calculations for the minimum spray rate required to achieve the minimum residual rate.

39-2.01A(3)(k) Reserved

39-2.01A(3)(l) Data Cores

Section 39-2.01A(3)(l) applies if a bid item for a data core is shown on the Bid Item List.

Submit a summary of data cores taken and a photograph of each data core to the Engineer and to:

Coring@dot.ca.gov

For each data core, the summary must include:

1. Project identification number
2. Date cored
3. Core identification number
4. Type of materials recovered
5. Type and approximate thickness of unstabilized material not recovered
6. Total core thickness
7. Thickness of each individual material to within:
   7.1. 1/2 inch for recovered material
   7.2. 1.0 inch for unstabilized material
8. Location, including:
   8.1. County
   8.2. Route
   8.3. Post mile
   8.4. Lane number
   8.5. Lane direction
   8.6. Station

Each data core digital photograph must include a ruler laid adjacent to the data core. Each photograph must include:

1. Core
2. Project identification number

3. Core identification number
4. Date cored
5. County
6. Route
7. Post mile
8. Lane number
9. Lane direction

39-2.01A(3)(m)–39-2.01A(3)(o) Reserved

39-2.01A(4) Quality Assurance

39-2.01A(4)(a) General

Take samples under California Test 125. Reduce samples of HMA to testing size under California Test 306.

If a WMA technology is used, a technical representative for the WMA technology must attend the preconstruction meeting.

39-2.01A(4)(b) Job Mix Formula Verification

The Engineer verifies the JMF from samples taken from HMA produced by the plant to be used. The production set point at the plant must be within ±0.2 from the asphalt binder percentage TV shown in your Contractor Job Mix Formula Proposal form. Notify the Engineer at least 2 business days before sampling materials. Samples may be taken from a different project including a non-Department project if you make arrangements for the Engineer to be present during sampling.

In the Engineer's presence and from the same production run, take samples of:

1. Aggregates. Coarse, fine, and supplemental fine aggregates must be taken from the combined cold-feed belt or the hot bins. If lime treatment is required, samples must be taken from individual stockpiles before lime treatment. Samples must be at least 120 lb for each coarse aggregate, 80 lb for each fine aggregate, and 10 lb for each type of supplemental fine aggregate. For hot-bin samples, the Department combines these aggregate samples to verify the TV submitted on a Contractor Job Mix Formula Proposal form.
2. Asphalt binder. Take at least two 1-qt samples. If the asphalt binder is modified or rubberized, the asphalt binder must be sampled with the components blended in the proportions to be used.
3. RAP. Samples must be at least 50 lb from each fractionated stockpile used or 100 lb from the belt.
4. Plant-produced HMA. The HMA samples must be at least 250 lb.

For aggregate, RAP, and HMA, split the samples into at least 4 parts and label their containers. Submit 3 parts and keep 1 part.

After acceptance of the JMF submittal, the Engineer verifies each proposed JMF within 20 days of receiving all verification samples.

For JMF verification, the Engineer tests the following for compliance with the specifications:

1. Aggregate quality
2. Aggregate gradation
3. HMA quality characteristics for Department acceptance

To verify the HMA for air voids, voids in mineral aggregate, and dust proportion, the Engineer uses an average of 3 briquettes. The Engineer tests plant-produced material.

If the Engineer verifies the JMF, the Engineer furnishes you a Hot Mix Asphalt Verification form.

If the Engineer's test results on plant-produced samples do not show compliance with the specifications, the Engineer notifies you. Submit a JMF adjusted after verification failure based on your testing unless the Engineer authorizes reverification without adjustments. Engineer authorized reverification without adjustment is not JMF adjusted after verification failure. A JMF adjusted after verification failure may include a change in:

1. Asphalt binder content TV up to ±0.20 percent from the OBC value submitted on the Contractor Hot Mix Asphalt Design Data form
2. Aggregate gradation TV within the TV limits specified in the aggregate gradation table

You may adjust the JMF only once due to a failed verification test.

For each HMA type and aggregate size specified, the Engineer verifies up to 2 proposed JMF submittals including a JMF adjusted after verification failure. Do not resubmit any of the 2 proposed submittals including a JMF adjusted after verification failure that failed verification on any other Caltrans projects. If you submit more than 2 JMFs for each type of HMA and aggregate size, the Engineer deducts $3,000 from payments for each verification exceeding this limit. This deduction does not apply to verifications initiated by the Engineer or if a JMF expires while HMA production is stopped longer than 30 days.

A verified JMF is valid for 24 months.

39-2.01A(4)(c) Job Mix Formula Authorization

You may start HMA production if:

1. Engineer's review of the JMF shows compliance with the specifications
2. Department has verified the JMF within 24 months before HMA production
3. Engineer authorizes the verified JMF

39-2.01A(4)(d) Job Mix Formula Renewal

For a JMF renewaland upon request, in the Engineer's presence and from the same production run, take samples of:

1. Aggregates. Coarse, fine, and supplemental fine aggregates must be taken from the combined cold-feed belt or the hot bins. If lime treatment is required, samples must be taken from individual stockpiles before lime treatment. Samples must be at least 120 lb for each coarse aggregate, 80 lb for each fine aggregate, and 10 lb for each type of supplemental fines. For hot-bin samples, the Department combines these aggregate samples to verify the TV submitted on a Contractor Job Mix Formula Proposal form.
2. Asphalt binder. Take at least two 1 qt samples. Each sample must be in a cylindrical-shaped can with an open top and friction lid. If the asphalt binder is modified or rubberized, the asphalt binder must be sampled with the components blended in the proportions to be used.
3. RAP. Samples must be at least 50 lb from each fractionated stockpile.
4. Plant-produced HMA. The HMA samples must be at least 250 lb.

Notify the Engineer at least 2 business days before sampling materials. For aggregate, RAP, and HMA, split samples into at least 4 parts. Submit 3 parts and use 1 part for your testing.

The Engineer verifies the JMF for renewal under section 39-2.01A(4)(b) except:

1. Engineer keeps the samples until you provide test results for your part on a Contractor Job Mix Formula Renewal form
2. Engineer may use the most recent aggregate quality test results within the past one year, or the Engineer may perform aggregate quality tests
3. Engineer may use RAP and binder test results from the project where renewal samples are taken, or the Engineer may perform RAP and binder tests
4. Department tests samples of materials obtained from the HMA production unit after you submit test results that comply with the mix design specifications
5. After completion of the JMF verification renewal document review, the Engineer verifies each proposed JMF within 20 days of receiving the verification renewal samples and the complete Contractor Job Mix Formula Renewal form
6. You may not adjust the JMF due to a failed verification
7. For each HMA type and aggregate gradation specified, the Engineer verifies at no cost to you 1 proposed JMF renewal within a 24-month period

If the Engineer verifies the JMF renewal, the Engineer furnishes you a Hot Mix Asphalt Verification form. The Hot Mix Asphalt Verification form is valid for 24 months.

39-2.01A(4)(e) Job Mix Formula Modification

The Engineer verifies the modified JMF after the modified JMF HMA is placed and verification samples are taken within the first 750 tons. The Engineer tests verification samples for compliance with:

1. Hamburg wheel track mix design specifications
2. Air void content
3. Voids in mineral aggregate on plant-produced HMA mix design specifications
4. Dust proportion mix design specifications

The Engineer may test for moisture susceptibility for compliance with the mix design specifications.

If the modified JMF is verified, the Engineer revises your Hot Mix Asphalt Verification form to include the new asphalt binder source, new liquid antistrip producer, or new liquid antistrip dosage. Your revised form will have the same expiration date as the original form.

If a modified JMF is not verified, stop production and any HMA placed using the modified JMF is rejected.

The Engineer deducts $2,000 from payments for each JMF modification.

39-2.01A(4)(f) Certifications

39-2.01A(4)(f)(i) General

Laboratories testing aggregate and HMA qualities used to prepare the mix design and JMF must be qualified under AASHTO re:source program and the Department's Independent Assurance Program.

39-2.01A(4)(f)(ii) Hot Mix Asphalt Plants

Before production, the HMA plant must have a current qualification under the Department's Material Plant Quality Program.

39-2.01A(4)(f)(iii)–39-2.01A(4)(f)(v) Reserved

39-2.01A(4)(g) Reserved

39-2.01A(4)(h) Quality Control

39-2.01A(4)(h)(i) General

QC test results must comply with the specifications for Department acceptance.

Condition each at-the-plant sample of HMA mixture for testing under AASHTO 283 in compliance with sections 7.1.2, 7.1.3, and 7.1.4 of AASHTO R 30. Condition each at-the-plant sample of HMA mixture when composite aggregate absorption factor is greater than 2.0 percent as indicated by the JMF in compliance with sections 7.1.2, 7.1.3, and 7.1.4 of AASHTO R 30.

Prepare 3 briquettes for air voids content and voids in mineral aggregate determination. Report the average of 3 tests.

Except for smoothness, if 2 consecutive QC test results or any 3 QC test results for 1 day's production do not comply with the materials specifications:

1. Stop HMA production
2. Notify the Engineer
3. Take corrective action
4. Demonstrate compliance with the specifications before resuming production and placement

For QC tests performed under AASHTO T 27, results are considered 1 QC test regardless of number of sieves out of compliance.

Do not resume production and placement until the Engineer authorizes your corrective action proposal.

39-2.01A(4)(h)(ii) Reserved

39-2.01A(4)(h)(iii) Aggregates

39-2.01A(4)(h)(iii)(A) General

Reserved

39-2.01A(4)(h)(iii)(B) Aggregate Lime Treatments

If lime treatment is required, sample coarse and fine aggregates from individual stockpiles before lime treatment. Combine aggregate in the JMF proportions. Test the aggregates under the test methods and frequencies shown in the following table:

Aggregate Quality Control During Lime Treatment

Quality characteristic	Test method	Minimum sampling and testing frequency
Sand equivalent[a,b]	AASHTO T 176	1 per 750 tons of untreated aggregate
Percent of crushed particles	AASHTO T 335	1 per 10,000 tons or 2 per project whichever is greater
Los Angeles Rattler	AASHTO T 96	
Fine aggregate angularity	AASHTO T 304, Method A	
Flat and elongated particles	ASTM D4791	

[a]Report test results as the average of 3 tests from a single sample.
[b]Use of a sand reading indicator is required as shown in AASHTO T 176, Figure 1. Sections 4.7, "Manual Shaker," 7.1.2, "Alternate Method No. 2," and 8.4.3, "Hand Method," do not apply. Prepare the stock solution as specified in section 4.8.1, "Stock solution with formaldehyde," except omit the addition of formaldehyde.

For lime slurry aggregate treatment, determine the aggregate moisture content at least once every 2 hours of treatment. Calculate moisture content under AASHTO T 255 and report it as a percent of dry aggregate weight. Use the moisture content calculations as a set point for the proportioning process controller.

The device controlling lime and aggregate proportioning must produce a treatment data log. The log must consist of a series of data sets captured at 10-minute intervals throughout daily treatment. The data must be a treatment activity register and not a summation. The material represented by a data set is the quantity produced 5 minutes before and 5 minutes after the capture time. Collected data must be stored by the controller for the duration of the Contract.

If 3 consecutive sets of recorded treatment data indicate a deviation of more than 0.2 percent above or below the lime ratio in the authorized JMF, stop treatment and take corrective action.

If a set of recorded treatment data indicates a deviation of more than 0.4 percent above or below the lime ratio in the authorized JMF, stop treatment and do not use the material represented by that set of data in HMA.

If 20 percent or more of the total daily treatment indicates a deviation of more than 0.2 percent above or below the lime ratio in the authorized JMF, stop treatment and do not use that day's treated aggregate in HMA.

The Engineer may order you to stop aggregate treatment activities for any of the following:

1. You fail to submit treatment data log.
2. You fail to submit aggregate QC data for marinated aggregate.
3. You submit incomplete, untimely, or incorrectly formatted data.
4. You do not take corrective actions.
5. You take late or unsuccessful corrective actions.
6. You do not stop treatment when proportioning tolerances are exceeded.
7. You use malfunctioning or failed proportioning devices.

If you stop treatment for noncompliance, notify the Engineer of any corrective actions taken and conduct a successful 20-minute test run before resuming treatment.

39-2.01A(4)(h)(iv) Liquid Antistrip Treatment

For continuous mixing or batch-plant mixing, sample asphalt binder before adding liquid antistrip. For continuous mixing, sample the combined asphalt binder and liquid antistrip after the static mixer.

39-2.01A(4)(h)(v) Production Start-up Evaluation

You and the Engineer evaluate HMA production and placement at production start-up.

Within the first 750 tons produced on the 1st day of HMA production, in the Engineer's presence, and from the same production run, take samples of:

1. Aggregates
2. Asphalt binder
3. RAP
4. HMA

Sample aggregates from the combined cold-feed belt or hot bin. Take RAP samples from the RAP system.

For aggregates, RAP, and HMA, split the samples into at least 4 parts and label their containers. Submit 3 parts and keep 1 part.

You and the Engineer must test the samples and report test results, except for California Test 389 and AASHTO T 283 test results, within 5 business days of sampling. For California Test 389 and AASHTO T 283 test results, report test results within 15 days of sampling. If you proceed before receipt of the test results, the Engineer may consider the HMA placed to be represented by these test results.

Take one 4- or 6-inch diameter density core for each 250 tons or portion thereof of HMA placed. For each density core, the Engineer reports the bulk specific gravity determined under AASHTO T 275, Method A, in addition to the percent of theoretical maximum density.

California Test 389 and AASHTO T 283 are not required if production start-up evaluation is within 45 days of the date the Hot Mix Asphalt Verification form is signed.

If production stops for more than 60 days, perform a production start-up evaluation. If production stops for more than 30 days but less 60 days, perform a reduced production start-up evaluation. Reduced production start-up evaluation is production start-up evaluation without California Test 389 and AASHTO T 283.

If you proceed before receipt of the test results, the Engineer may consider the HMA placed to be represented by these test results. If production start-up evaluation fails, stop production.

39-2.01A(4)(h)(vi) Hot Mix Asphalt Density

During HMA placement determine HMA density using a nuclear gauge. On the 1st day of production, develop a correlation factor between cores and nuclear gauge under California Test 375.

Test for in-place density using cores and a nuclear gauge. Test at random locations you select and include the test results in your QC production tests reports.

39-2.01A(4)(h)(vii) Tapered Notched Wedge

Perform QC testing on the completed tapered notched wedge joint as follows:

1. Perform density tests using a calibrated nuclear gauge at a rate of 1 test for every 750-foot section along the joint. Select random locations for testing within each 750-foot section.
2. Perform density tests at the centerline of the joint, 6 inches from the upper vertical notch, after the adjacent lane is placed and before opening the pavement to traffic.
3. Determine theoretical maximum density.
4. Determine percent compaction of the longitudinal joint as the ratio of the daily average density to the maximum density test results.

Determine percent compaction values each day the tapered notched wedge joint is completed. If the percent compaction of 1 day's production is less than 91 percent, that day's notched wedge joint is rejected. Discontinue placement of the tapered notched wedge and notify the Engineer of changes you will make to your construction process to comply with the specifications.

39-2.01A(4)(h)(viii) Density Cores

Except for HMA pavement placed using method compaction, take 4- or 6-inch diameter density cores at least once every 5 business days. Take 1 density core for every 250 tons of HMA from random locations the Engineer selects. Take density cores in the Engineer's presence, and backfill and compact holes with authorized material. Before submitting a density core, mark it with the density core's location and place it in a protective container.

If a density core is damaged, replace it with a density core taken within 1 foot longitudinally from the original density core location. Relocate any density core located within 1 foot of a rumble strip to 1 foot transversely away from the rumble strip.

For a tapered notched wedge joint, take 4- or 6-inch diameter density cores 6 inches from the upper vertical notch of the completed longitudinal joint for every 3,000 feet at locations selected by the Engineer. Take cores after the adjacent lane is placed and before opening the pavement to traffic. Take cores in the presence of the Engineer, and backfill and compact holes with authorized material. Before submitting a density core, mark it with the core's location, and place it in a protective container.

39-2.01A(4)(h)(ix) Reserved

39-2.01A(4)(i) Department Acceptance

39-2.01A(4)(i)(i) General

The Department tests treated aggregate for acceptance before lime treatment except for gradation.

The Engineer takes HMA samples for AASHTO T 283 and California Test 389 from any of the following locations:

1. Plant
2. Truck
3. Windrow

The Engineer takes HMA samples for all other tests from any of the following locations:

1. Plant
2. Truck
3. Windrow
4. Mat behind the paver

You must assist in collecting Engineer acceptance samples. Sample in the presence of the Engineer. Split the Engineer acceptance samples into at least 4 parts. Engineer retains 3 parts and you keep 1 part.

To obtain workability of the HMA sample for splitting, the Engineer reheats each sample of HMA mixture not more than 2 cycles. Each reheat cycle is performed by placing the loose mixture in a mechanical forced-draft oven for 2 hours or less after the sample reaches 140 degrees F.

The Engineer conditions each at-the-plant sample of HMA mixture for testing under AASHTO 283 in compliance with sections 7.1.2, 7.1.3, and 7.1.4 of AASHTO R 30. The Engineer conditions each at-the-plant sample of HMA mixture when composite aggregate absorption factor is greater than 2.0 percent as indicated by the JMF in compliance with sections 7.1.2, 7.1.3, and 7.1.4 of AASHTO R 30.

No single aggregate or HMA test result may represent more than 750 tons or one day's production, whichever is less, except AASHTO T 283 and California Test 389.

Except for smoothness, if 2 consecutive Department acceptance test results or any 3 Department acceptance test results for 1 day's production, do not comply with the specifications:

1. Stop HMA production
2. Take corrective action
3. Demonstrate compliance with the specifications before resuming production and placement

For Department acceptance tests performed under AASHTO T 27, results are considered 1 Department acceptance test regardless of the number of sieves out of compliance.

The Engineer accepts HMA based on:

1. Authorized JMF
2. Authorized QC plan
3. Asphalt binder compliance
4. Asphalt emulsion compliance
5. Visual inspection
6. Pavement smoothness

39-2.01A(4)(i)(ii) In-Place Density

Except for HMA pavement placed using method compaction, the Engineer tests the density core you take from each 250 tons of HMA. The Engineer determines the percent of theoretical maximum density for each density core by determining the density core's density and dividing by the theoretical maximum density.

Density cores must be taken from the final layer, cored through the entire pavement thickness shown. Where OGFC is required, take the density cores before placing OGFC.

If the percent of theoretical maximum density does not comply with the specifications, the Engineer must accept the HMA and take a payment deduction as shown in the following table:

Reduced Payment Factors for Percent of Maximum Theoretical Density

HMA percent of maximum theoretical density	Reduced payment factor	HMA percent of maximum theoretical density	Reduced payment factor
91.0	0.0000	97.0	0.0000
90.9	0.0125	97.1	0.0125
90.8	0.0250	97.2	0.0250
90.7	0.0375	97.3	0.0375
90.6	0.0500	97.4	0.0500
90.5	0.0625	97.5	0.0625
90.4	0.0750	97.6	0.0750
90.3	0.0875	97.7	0.0875
90.2	0.1000	97.8	0.1000
90.1	0.1125	97.9	0.1125
90.0	0.1250	98.0	0.1250
89.9	0.1375	98.1	0.1375
89.8	0.1500	98.2	0.1500
89.7	0.1625	98.3	0.1625
89.6	0.1750	98.4	0.1750
89.5	0.1875	98.5	0.1875
89.4	0.2000	98.6	0.2000
89.3	0.2125	98.7	0.2125
89.2	0.2250	98.8	0.2250
89.1	0.2375	98.9	0.2375
89.0	0.2500	99.0	0.2500
<89.0	Remove and replace	>99.0	Remove and replace

For acceptance of a completed tapered notched wedge joint, the Engineer determines density from cores you take every 3,000 feet.

39-2.01A(4)(i)(iii) Pavement Smoothness

39-2.01A(4)(i)(iii)(A) General

Schedule smoothness testing with the Engineer. Unless otherwise authorized, all smoothness testing must be performed in the presence of the Engineer.

Measure smoothness of new pavement alignment or pavement realignment with an inertial profiler. The Department determines smoothness pay adjustments using the Pay Adjustment for New Pavement Alignment or Pavement Realignment table in section 39-2.01A(4)(i)(iii)(B).

Measure smoothness of pavement constructed on existing pavement surfaces with an inertial profiler. The Department determines pay adjustments as shown in the applicable Pay Adjustment for Pavement Constructed on Existing Pavement Surfaces table in section 39-2.01A(4)(i)(iii)(C).

Measure smoothness of:

1. Existing asphalt concrete surface before performing any work on the surface and submit the result labeled as the *EXIST* inertial profiler data file. Notify the Engineer if MRI results vary more than 10 percent from the MRI information provided by the Department at the time of advertisement. For projects suspended for more than 30 days, measure the smoothness of the existing surface that has not received an HMA overlay and submit the result labeled as *EXISTR* inertial profiler data file.
2. Existing pavement segments if structural repairs such as remove and replace asphalt concrete or leveling courses are made and submit the result labeled as *BASELINE* inertial profiler data file.
3. Pavement segments, exclusive of OGFC on new HMA, before performing any HMA smoothness corrections and submit the result labeled as *PAVE* inertial profiler data file.
4. Pavement segments, exclusive of OGFC on new HMA, after performing any HMA smoothness corrective work and submit the results labeled as *FINAL* inertial profiler data file. Use the *PAVE* inertial profiler data as the *FINAL* inertial profiler data if there is no corrective work in the segment.
5. Pavement segments of OGFC before performing any OGFC smoothness correction and submit the result labeled as *PAVEO* inertial profiler data file.
6. Pavement segments of OGFC after performing any OGFC smoothness corrective work and submit the result labeled as *FINALO* inertial profiler data file. Use the *PAVEO* inertial profiler data file as the *FINALO* inertial profiler data file when no corrective work in the segment is performed.

MRI_0 is the lower MRI value from the *EXIST* and *BASELINE* profiles for the 0.1-mi segment.

Notify the Engineer 10 days before collecting inertial profiler data. Allow the Engineer 2 days after receipt of your data to complete inertial profiler verification of all data except the *FINAL* inertial profiler data. Allow the Engineer 10 days after receipt of your data to complete verification of *FINAL* inertial profiler data.

The Department uses the accepted inertial profiler data for acceptance and determination of the payment adjustment.

Segments may be correctively ground to improve pay adjustments to full pay. The Department does not allow corrective grinding into positive pay adjustments. The Department determines positive pay adjustment segments before any corrective grinding. Correction of ALR in positive pay adjustment segments cannot improve pay.

Corrective actions may be diamond grinding or remove and replace at your option and must comply with section 39-2.01C(16).

When OGFC is being placed over the surface of HMA, corrective actions apply to the HMA surface on which the OGFC is being placed. Smoothness requirements for OGFC are specified in section 39-2.04A(4)(c)(iii).

39-2.01A(4)(i)(iii)(B) Pay Adjustments for New Pavement Alignment or Pavement Realignment

The Department applies pavement smoothness pay adjustments to 0.1-mi segments based on your verified inertial profiler data as shown in the following table:

Pay Adjustment for New Pavement Alignment or Pavement Realignment

MRI_{SEG} (in/mi)	Pay adjustment per 0.1 mi per lane ≥ 0.3'[a]	Pay adjustment per 0.1 mi per lane < 0.3'[a]	Corrective action
≤ 40.00	+ $900.00	+ $450.00	None
40.01–50.00	+ (50.00 - MRI_{SEG}) x $90.00	+ (50.00 - MRI_{SEG}) x $45.00	None
50.01–60.00	Full pay	Full pay	None
60.01–80.00	- (MRI_{SEG} - 60.00) x $142.50	- (MRI_{SEG} - 60.00) x $101.25	Optional
> 80.00	--	--	Mandatory

[a]Total HMA thickness exclusive of OGFC and HMA leveling courses and structural section repairs.

No ALR over 160 in/mi are allowed.

39-2.01A(4)(i)(iii)(C) Pay Adjustments for Pavement Constructed on Existing Pavement Surfaces

The Department applies pavement smoothness payment adjustments using a pay range of target MRI. The target MRI (MRI_T) is determined based on the *EXIST* or *BASELINE* MRI (MRI_0) exclusive of the OGFC and the number of opportunities as shown in the following table:

Target MRI (MRI_T)

Number of opportunities	Target MRI (MRI_T)[a]
1	= 0.2 x MRI_0 + 45
2	= 0.1 x MRI_0 + 50
3 or more	= 55

[a]If the calculated MRI_T is less than 55, use MRI_T = 55.

Opportunities for improving smoothness include:

1. A single lift of asphalt. Where an HMA layer thickness allows the layer to be placed in more than 1 lift, the number of opportunities will be equal to the maximum number of lifts the layer can be broken into regardless of aggregate size chosen.
2. Micro milling or cold planing not in the same shift as the paving. When you choose to micro mill or cold plane and pave in the same shift but have the option to micro mill or cold plane and pave in different shifts, the micro milling or cold planning will still be considered a separate opportunity.
3. Segment correction.

The Department applies pavement smoothness pay adjustments to 0.1-mi segments based on your verified inertial profiler data as shown in the following table:

Pay Adjustment for Pavement Constructed on Existing Pavement Surfaces

Pay Ranges[b]	Payment adjustment per 0.1 mi per lane ≥ 0.30'[a]	Payment adjustment per 0.1 mi per lane < 0.30'[a]	Corrective action
$MRI_{SEG} \leq MRI_T - 20$	+ $900.00	+ $450.00	May only grind areas to meet ALR thresholds
$MRI_T - 20 < MRI_{SEG} \leq MRI_T - 5$	+ (($MRI_T - 5$) - MRI_{SEG}) x $60.00	+ (($MRI_T - 5$) - MRI_{SEG}) x $30.00	May only grind areas to meet ALR thresholds
$MRI_T - 5 < MRI_{SEG} \leq MRI_T + 5$	Full pay	Full pay	May only grind areas to meet ALR thresholds
$MRI_T + 5 < MRI_{SEG} \leq$ greater of 90 or ($MRI_T + 20$)	- (MRI_{SEG} - (MRI_T + 5)) x $190.00, deduction not to exceed - $2,850	- (MRI_{SEG} - (MRI_T + 5)) x $90.00, deduction not to exceed - $1,350	Corrective actions permitted
MRI_{SEG} > greater of 90 or (MRI_T + 20)	--	--	Mandatory correction

[a]Total HMA thickness exclusive of OGFC and HMA leveling courses and structural section repairs.
[b]MRI_{SEG} = the MRI of each 0.1-mile section of completed lane after all corrections.

No ALR greater than ALR_{MAX} are allowed. ALR_{MAX} is the greater value of 160 in/mi or calculated value using the following equation:

$$ALR_{MAX} = 2.1 \times MRI_T$$

39-2.01A(4)(i)(iii)(D) Verification Testing

The Engineer verifies your inertial profiler data under section 36-3.01D(3)(b)(ii).

39-2.01A(4)(i)(iv) Dispute Resolution

You and the Engineer must work together to avoid potential conflicts and to resolve disputes regarding test result discrepancies. You and the Engineer may only dispute each other's test results if one party's test results pass and the other party's test results fail.

If there is a dispute, submit your test results and copies of paperwork including worksheets used to determine the disputed test results within 3 business day of receiving Engineer's test results. An independent third party performs referee testing. Before the third party participates in a dispute resolution, it must be qualified under AASHTO re:source program and the Department's Independent Assurance Program. The independent third party must have no prior direct involvement with this Contract. By mutual agreement, the independent third party is chosen from:

1. Department laboratory in a district or region not in the district or region the project is located
2. METS
3. Laboratory not currently employed by you or your HMA producer

If the Department's portion of the split acceptance samples are not available, the independent third party uses any available material agreed by you and the Engineer as representing the disputed HMA for evaluation.

For a dispute involving JMF verification, the independent third party performs referee testing as specified in the 5th paragraph of section 39-2.01A(4)(b).

If the independent third party determines the Department's test results are valid, the Engineer deducts the independent third party's testing costs from payments. If the independent third party determines your test results are valid, the Department pays the independent third party's testing costs.

39-2.01B Materials

39-2.01B(1) General

Reserved

39-2.01B(2) Mix Design

39-2.01B(2)(a) General

The HMA mix design must comply with the superpave HMA mix design as described in *MS-2 Asphalt Mix Design Methods* by the Asphalt Institute.

The Contractor Hot Mix Asphalt Design Data form must show documentation on aggregate quality.

39-2.01B(2)(b) Hot Mix Asphalt Treatments

If the proposed JMF indicates that the aggregate is being treated with dry lime or lime slurry with marination, or the HMA with liquid antistrip, then testing the untreated aggregate under AASHTO T 283 and California Test 389 is not required.

If HMA treatment is required or being used by the Contractor, determine the plasticity index of the aggregate blend under California Test 204.

Do not use an aggregate blend with a plasticity index greater than 10.

If the plasticity index is from 4 to 10, treat the aggregate blend with dry lime with marination or lime slurry with marination.

If the plasticity index is less than 4, treat the aggregate blend with dry lime or lime slurry with marination, or treat the HMA with liquid antistrip.

39-2.01B(2)(c) Warm Mix Asphalt Technology

For HMA with WMA additive technology, produce HMA mix samples for your mix design using your methodology for inclusion of WMA admixture in laboratory-produced HMA. Cure the samples in a forced-air draft oven at 275 degrees F for 4 hours ± 10 minutes.

For WMA water injection foam technology, the use of foamed asphalt for mix design is not required.

39-2.01B(3) Asphalt Binder

Asphalt binder must comply with section 92.

For a leveling course, the grade of asphalt binder for the HMA must be PG 64-10 or PG 64-16.

39-2.01B(4) Aggregates

39-2.01B(4)(a) General

Aggregates must be clean and free from deleterious substances.

The aggregates for a leveling course must comply with the gradation specifications for Type A HMA in section 39-2.02B.

39-2.01B(4)(b) Aggregate Gradations

Aggregate gradation must be determined before the addition of asphalt binder and must include supplemental fine aggregates. Test for aggregate gradation under AASHTO T 27. Do not wash the coarse aggregate. Wash the fine aggregate only. Use a mechanical sieve shaker. Aggregate shaking time must not exceed 10 minutes for each coarse and fine aggregate portion.

Choose a TV within the TV limits shown in the tables titled "Aggregate Gradations."

Gradations are based on nominal maximum aggregate size.

39-2.01B(4)(c) Aggregate Lime Treatments

39-2.01B(4)(c)(i) General

If aggregate lime treatment is required as specified in section 39-2.01B(2)(b), the virgin aggregate must comply with the aggregate quality specifications.

Lime for treating aggregate must comply with section 24-2.02.

Water for lime treatment of aggregate with lime slurry must comply with section 24-1.02B.

Notify the Engineer at least 24 hours before the start of aggregate treatment.

Do not treat RAP.

The lime ratio is the pounds of dry lime per 100 lb of dry virgin aggregate expressed as a percentage. Water content of slurry or untreated aggregate must not affect the lime ratio.

Coarse and fine aggregate fractions must have the lime ratio ranges shown in the following table:

Aggregate fractions	Lime ratio percent
Coarse	0.4–1.0
Fine	1.5–2.0
Combined	0.8–1.5

The lime ratio for fine and coarse aggregate must be within ±0.2 percent of the lime ratio in the accepted JMF. The lime ratio must be within ±0.2 percent of the authorized lime ratio when you combine the individual aggregate sizes in the JMF proportions. The lime ratio must be determined before the addition of RAP.

If marination is required, marinate treated aggregate in stockpiles from 24 hours to 60 days before using in HMA. Do not use aggregate marinated longer than 60 days.

Treated aggregate must not have lime balls or clods.

39-2.01B(4)(c)(ii) Dry Lime

If marination is required:

1. Treat and marinate coarse and fine aggregates separately
2. Treat the aggregate and stockpile for marination only once
3. Treat the aggregate separately from HMA production

Proportion dry lime by weight with an automatic continuous proportioning system.

If you use a batch-type proportioning system for HMA production, control proportioning in compliance with the specifications for continuous mixing plants. Use a separate dry lime aggregate treatment system for HMA batch mixing including:

1. Pugmill mixer
2. Controller
3. Weigh belt for the lime
4. Weigh belt for the aggregate

If a continuous mixing plant for HMA production without lime-marinated aggregates is used, use a controller that measures the blended aggregate weight after any additional water is added to the mixture. The controller must determine the quantity of lime added to the aggregate from the aggregate weigh belt input in connection with the manually input total aggregate moisture, the manually input target lime content, and the lime proportioning system output. Use a continuous aggregate weigh belt and pugmill mixer for lime treatment in addition to the weigh belt for the aggregate proportioning to asphalt binder in the HMA plant. If you use a water meter for moisture control for lime treatment, the meter must comply with Department's *MPQP* manual.

When mixing dry lime with aggregate, the aggregate moisture content must ensure complete lime coating. The aggregate moisture content must not cause aggregate to be lost between the point of weighing the combined aggregate continuous stream and the dryer. Add water to the aggregate for mixing and coating before dry lime addition. Immediately before mixing lime with aggregate, water must not visibly separate from the aggregate.

Mix aggregate, water, and dry lime with a continuous pugmill mixer with twin shafts. Immediately before mixing lime with aggregate, water must not visibly separate from the aggregate. Store dry lime in a uniform and free-flowing condition. Introduce dry lime to the pugmill in a continuous process. The introduction must occur after the aggregate cold feed and before the point of proportioning across a weigh belt and the aggregate dryer. Prevent loss of dry lime.

The pugmill must be equipped with paddles arranged to provide sufficient mixing action and mixture movement. The pugmill must produce a homogeneous mixture of uniformly coated aggregates at mixer discharge.

If the aggregate treatment process is stopped longer than 1 hour, clean the equipment of partially treated aggregate and lime.

Aggregate must be completely treated before introduction into the mixing drum.

39-2.01B(4)(c)(iii) Lime Slurry

For lime slurry aggregate treatment, treat aggregate separate from HMA production. Stockpile and marinate the aggregate.

Proportion lime and water with a continuous or batch mixing system.

Add lime to the aggregate as slurry consisting of mixed dry lime and water at a ratio of 1 part lime to from 2 to 3 parts water by weight. The slurry must completely coat the aggregate.

Immediately before mixing lime slurry with the aggregate, water must not visibly separate from the aggregate.

Proportion lime slurry and aggregate by weight in a continuous process.

39-2.01B(5) Liquid Antistrip Treatment

Do not use liquid antistrip as a substitute for asphalt binder.

Total amine value for amine-based liquid antistrip must be a minimum of 325 when tested under ASTM D2074. Dosage for amine-based liquid antistrip must be from 0.25 to 1.00 percent by weight of asphalt.

Nonvolantile content of organosaline-based liquid antistrip must be 40 percent minimum when tested under ASTM D5095. Dosage for organosaline-based liquid antistrip must be from 0.05 to 0.15 percent by weight of asphalt.

Use only 1 liquid antistrip type or brand at a time. Do not mix liquid antistrip types or brands.

Store and mix liquid antistrip under the manufacturer's instructions.

39-2.01B(6)–39-2.01B(7) Reserved

39-2.01B(8) Hot Mix Asphalt Production

39-2.01B(8)(a) General

Do not start HMA production before verification and authorization of JMF.

The HMA plant must have a current qualification under the Department's Material Plant Quality Program.

Weighing and metering devices used for the production of HMA modified with additives must comply with the Department's *MPQP*. If a loss-in-weight meter is used for dry HMA additive, the meter must have an automatic and integral material delivery control system for the refill cycle.

Calibrate the loss-in-weight meter by:

1. Including at least 1 complete system refill cycle during each calibration test run
2. Operating the device in a normal run mode for 10 minutes immediately before starting the calibration process
3. Isolating the scale system within the loss-in-weight feeder from surrounding vibration
4. Checking the scale system within the loss-in-weight feeder for accuracy before and after the calibration process and daily during mix production

5. Using a minimum 15 minute or minimum 250 lb test run size for a dry ingredient delivery rate of less than 1 ton per hour
6. Complying with the limits of Table B, "Conveyor Scale Testing Extremes," in the Department's *MPQP*

Proportion aggregate by hot or cold-feed control.

Aggregate temperature must not be more than 375 degrees F when mixed with the asphalt binder.

Asphalt binder temperature must be from 275 to 375 degrees F when mixed with aggregate.

Mix HMA ingredients into a homogeneous mixture of coated aggregates.

HMA must be produced at the temperatures shown in the following table:

HMA Production Temperatures

HMA compaction	Temperature (°F)
HMA:	
Density based	≤ 325
Method	305–325
HMA with WMA technology:	
Density based	240–325
Method	260–325

If you stop production for longer than 30 days, a production start-up evaluation is required.

39-2.01B(8)(b) Liquid Antistrip

If 3 consecutive sets of recorded production data show that the actual delivered liquid antistrip weight is more than ±1 percent of the authorized mix design liquid antistrip weight, stop production and take corrective action.

If a set of recorded production data shows that the actual delivered liquid antistrip weight is more than ±2 percent of the authorized mix design liquid antistrip weight, stop production. If the liquid antistrip weight exceeds 1.2 percent of the asphalt binder weight, do not use the HMA represented by that data.

The continuous mixing plant controller proportioning the HMA must produce a production data log. The log must consist of a series of data sets captured at 10-minute intervals throughout daily production. The data must be a production activity register and not a summation. The material represented by the data is the quantity produced 5 minutes before and 5 minutes after the capture time. For the duration of the Contract, the collected data must be stored by the plant controller or a computer's memory at the plant.

The Engineer orders proportioning activities stopped for any of the following reasons:

1. You fail to submit data
2. You submit incomplete, untimely, or incorrectly formatted data
3. You fail to take corrective actions
4. You take late or unsuccessful corrective actions
5. You fail to stop production when proportioning tolerances are exceeded
6. You use malfunctioning or failed proportioning devices

If you stop production, notify the Engineer of any corrective actions taken before resuming.

39-2.01B(8)(c) Warm Mix Asphalt Technology

Proportion all ingredients by weight. The HMA plant process controller must be the sole source of ingredient proportioning control and be fully interfaced with all scales and meters used in the production process. The addition of the HMA additive must be controlled by the plant process controller.

Liquid ingredient additive, including a normally dry ingredient made liquid, must be proportioned with a mass flow meter at continuous mixing plants. Use a mass flow meter or a container scale to proportion liquid additives at batch mixing plants.

Continuous mixing plants using HMA additives must comply with the following:

1. Dry ingredient additives for continuous production must be proportioned with a conveyor scale or a loss-in-weight meter.
2. HMA plant process controller and ingredient measuring systems must be capable of varying all ingredient-feed rates proportionate with the dry aggregate delivery at all production rates and rate changes.
3. Liquid HMA additive must enter the production stream with the binder. Dry HMA additive must enter the production stream at or before the mixing area.
4. If dry HMA additives are used at continuous mixing HMA plants, bag-house dust systems must return all captured material to the mix. This requirement is waived for lime-treated aggregates.
5. HMA additive must be proportioned to within ±0.3 percent of the target additive rate.

Batch mixing plants using HMA additives must comply with the following:

1. Metered HMA additive must be placed in an intermediate holding vessel before being added to the stream of asphalt binder as it enters the pugmill.
2. If a container scale is used, weigh additive before combining with asphalt binder. Keep the container scale separate from other ingredient proportioning. The container scale capacity must be no more than twice the volume of the maximum additive batch size. The container scale's graduations must be smaller than the proportioning tolerance or 0.001 times the container scale capacity.
3. Dry HMA additive proportioning devices must be separate from metering devices for the aggregates and asphalt binder. Proportion dry HMA additive directly into the pugmill, or place in an intermediate holding vessel to be added to the pugmill at the appropriate time in the batch cycle. Dry ingredients for batch production must be proportioned with a hopper scale.
4. Zero tolerance for the HMA additive batch scale is ±0.5 percent of the target additive weight. The indicated HMA additive batch scale weight may vary from the preselected weight setting by up to ±1.0 percent of the target additive weight.

39-2.01B(9) Geosynthetic Pavement Interlayer

Geosynthetic pavement interlayer must comply with the specifications for pavement fabric, paving mat, paving grid, paving geocomposite grid, or geocomposite strip membrane as shown.

The asphalt binder for geosynthetic pavement interlayer must be PG 64-10, PG 64-16, or PG 70-10.

39-2.01B(10) Tack Coat

Tack coat must comply with the specifications for asphaltic emulsion or asphalt binder. Choose the type and grade of emulsion or binder.

39-2.01B(11) Miscellaneous Areas and Dikes

For miscellaneous areas and dikes:

1. Choose the aggregate gradation from:
   1.1. 3/8-inch Type A HMA aggregate gradation
   1.2. 1/2-inch Type A HMA aggregate gradation
   1.3. Dike mix aggregate gradation
2. Choose asphalt binder Grade PG 64-10, PG 64-16 or PG 70-10
3. Minimum asphalt binder content must be:
   3.1. 6.40 percent for 3/8-inch Type A HMA aggregate gradation
   3.2. 5.70 percent for 1/2-inch Type A HMA aggregate gradation
   3.3. 6.00 percent for dike mix aggregate gradation

If you request and the Engineer authorizes, you may reduce the minimum asphalt binder content.

Aggregate gradation for dike mix must be within the TV limits for the specified sieve size shown in the following table:

Dike Mix Aggregate Gradation (Percentage Passing)

Sieve size	Target value limit	Allowable tolerance
1/2"	100	--
3/8"	--	95–100
No. 4	73–77	TV ± 10
No. 8	58–63	TV ± 10
No. 30	29–34	TV ± 10
No. 200	--	0–14

For HMA used in miscellaneous areas and dikes, sections 39-2.01A(3), 39-2.01A(4), 39-2.01B(2), 39-2.01B(4)(c), and 39-2.01B(5) through 39-2.01B(10) do not apply.

39-2.01C Construction

39-2.01C(1) General

Do not place HMA on wet pavement or frozen surface.

You may deposit HMA in a windrow and load it in the paver if:

1. Paver is equipped with a hopper that automatically feeds the screed
2. Loading equipment can pick up the windrowed material and deposit it in the paver hopper without damaging base material
3. Activities for depositing, pickup, loading, and paving are continuous
4. For method compaction:
   4.1. The temperature of the HMA and the HMA produced with WMA water injection technology in the windrow does not fall below 260 degrees F
   4.2. The temperature of the HMA produced using WMA additive technology in the windrow does not fall below 250 degrees F

HMA placed in a windrow on the roadway surface must not extend more than 250 feet in front of the loading equipment or material transfer vehicle.

You may place HMA in 1 or more layers on areas less than 5 feet wide and outside the traveled way, including shoulders. You may use mechanical equipment other than a paver for these areas. The equipment must produce uniform smoothness and texture.

HMA handled, spread, or windrowed must not stain the finished surface of any improvement, including pavement.

Do not use petroleum products such as kerosene or diesel fuel to release HMA from trucks, spreaders, or compactors.

HMA must be free of:

1. Segregation
2. Coarse or fine aggregate pockets
3. Hardened lumps
4. Marks
5. Tearing
6. Irregular texture

Complete finish rolling activities before the pavement surface temperature is:

1. Below 150 degrees F for HMA with unmodified binder
2. Below 140 degrees F for HMA with modified binder

39-2.01C(2) Spreading and Compacting Equipment

39-2.01C(2)(a) General

Paving equipment for spreading must be:

1. Self-propelled

2. Mechanical
3. Equipped with a screed or strike-off assembly that can distribute HMA the full width of a traffic lane
4. Equipped with a full-width compacting device
5. Equipped with automatic screed controls and sensing devices that control the thickness, longitudinal grade, and transverse screed slope

Install and maintain grade and slope references.

The screed must be heated and produce a uniform HMA surface texture without tearing, shoving, or gouging.

The paver must not leave marks such as ridges and indentations unless you can eliminate them by rolling.

Rollers must be equipped with a system that prevents HMA from sticking to the wheels. You may use a parting agent that does not damage the HMA or impede the bonding of layers.

In areas inaccessible to spreading and compacting equipment:

1. Spread the HMA by any means to obtain the specified lines, grades, and cross sections
2. Use a pneumatic tamper, plate compactor, or equivalent to achieve thorough compaction

39-2.01C(2)(b) Material Transfer Vehicle

If a material transfer vehicle is specified, the material transfer vehicle must have sufficient capacity to prevent stopping the paver and must be capable of:

1. Either receiving HMA directly from trucks or using a windrow pickup head to load it from a windrow deposited on the roadway surface
2. Remixing the HMA with augers before transferring into the paver's receiving hopper or feed system
3. Transferring HMA directly into the paver's receiving hopper or feed system

39-2.01C(2)(c) Method Compaction Equipment

For method compaction, each paver spreading HMA must be followed by at least one of each of the following 3 types of rollers:

1. Breakdown roller must be a vibratory roller specifically designed to compact HMA. The roller must be capable of at least 2,500 vibrations per minute and must be equipped with amplitude and frequency controls. The roller's gross static weight must be at least 7.5 tons.
2. Intermediate roller must be an oscillating-type pneumatic-tired roller at least 4 feet wide. Pneumatic tires must be of equal size, diameter, type, and ply. The tires must be inflated to 60 psi minimum and maintained so that the air pressure does not vary more than 5 psi.
3. Finishing roller must be a steel-tired, 2-axle tandem roller. The roller's gross static weight must be at least 7.5 tons.

Each roller must have a separate operator. Rollers must be self-propelled and reversible.

39-2.01C(2)(d)–39-2.01C(2)(f) Reserved

39-2.01C(3) Surface Preparation

39-2.01C(3)(a) General

Before placing HMA, remove loose paving particles, dirt, and other extraneous material by any means including flushing and sweeping.

39-2.01C(3)(b) Subgrade

Prepare subgrade to receive HMA under the sections for the material involved. Subgrade must be free of loose and extraneous material.

39-2.01C(3)(c)–39-2.01C(3)(d) Reserved

39-2.01C(3)(e) Prepaving Corrections

39-2.01C(3)(e)(i) General

Section 39-2.01C(3)(e) applies to existing asphalt concrete surfaces if a bid item for segment correction is shown in the Bid Item List.

When micro milling is used, the cold planing equipment and operation must comply with section 39-3.04C. The micro milling drum must have cutting teeth that are:

1. Tungsten-carbide or diamond tipped
2. Spaced no greater than 1/4-inch apart on center
3. Configured such that the deviation in elevation between any 2 teeth does not exceed 1/16 inch

Dispose of grinding or micro milling residue.

Pave within 7 days of prepaving corrections.

The final pavement surface must comply with section 39-2.01A(4)(i)(iii).

39-2.01C(3)(e)(ii) Segment Correction

Section 39-2.01C(3)(e)(ii) applies to existing asphalt concrete segments if a bid item for segment correction number of 0.1-mi sections is shown on the Bid Items List.

Develop a correction plan and submit within 5 days before making segment corrections. Include the maximum removal depth according to the ProVAL smoothness assurance analysis grinding report or other 3D modeling software report. Do not remove more than 15 percent of the existing pavement thickness.

Correction includes one or a combination of the following:

1. Diamond grinding in the wheel paths, the entire surface, or cold planer or paver smoothness referencing locations
2. Micro milling in the wheel paths, the entire surface, or cold planer or paver smoothness referencing locations
3. 3D modeling of the existing roadway and subsequent automatic machine guidance of either cold planer, paver, or both
4. Alternative method of correction authorized by the Engineer that complies with final HMA pavement smoothness requirements

Upon authorization of your correction plan, correct the existing roadway.

Segment correction is considered an opportunity for improvement.

Notify the Engineer of those areas where existing pavement depth limits a 0.1-mi segment correction. The Engineer may order you to:

1. Not perform correction of the 0.1-mi segment. The *EXIST* profile MRI will be the MRI_0. Final pavement surface must comply with section 39-2.01A(4)(i)(iii)(C).
2. Correct to a limited depth and measure smoothness of the corrected areas with an inertial profiler. The profile after making correction will be the *BASELINE* profile. Final pavement surface must comply with section 39-2.01A(4)(i)(iii)(C). Do not consider this correction as an opportunity for the percent improvement MRI_T determination.
3. Correct by a different method and measure smoothness of the corrected 0.1-mi segment with an inertial profiler. Corrective work performed by a different method is change order work. The profile after making correction will be the *BASELINE* profile. Final pavement surface must comply with section 39-2.01A(4)(i)(iii)(C).

39-2.01C(3)(f) Tack Coat

Apply a tack coat:

1. To existing pavement including planed surfaces

2. Between HMA layers
3. To vertical surfaces of:
   3.1. Curbs
   3.2. Gutters
   3.3. Construction joints

Equipment for the application of tack coat must comply with section 37-1.03B.

Before placing HMA, apply a tack coat in 1 application at the minimum residual rate shown in the following table for the condition of the underlying surface:

Tack Coat Application Rates for HMA

HMA over:	Minimum residual rates (gal/sq yd)		
	CSS-1/CSS-1h, SS-1/SS-1h, and QS-1h/CQS-1h asphaltic emulsion	CRS-1/CRS-2 and QS-1/CQS-1 asphaltic emulsion	Asphalt binder and PMCRS-2/PMCRS-2h asphaltic emulsion
New HMA (between layers)	0.02	0.03	0.02
Concrete pavement and existing asphalt concrete surfacing	0.03	0.04	0.03
Planed pavement	0.05	0.06	0.04

If a stress absorbing membrane interlayer as specified in section 37-2.05 is applied, the tack coat application rates for new HMA apply.

Notify the Engineer if you dilute asphaltic emulsion with water. The weight ratio of added water to asphaltic emulsion must not exceed 1 to 1.

Measure added water either by weight or volume under section 9-1.02 or use water meters from water districts, cities, or counties. If you measure water by volume, apply a conversion factor to determine the correct weight.

With each dilution, submit:

1. Weight ratio of water to bituminous material in the original asphaltic emulsion
2. Weight of asphaltic emulsion before diluting
3. Weight of added water
4. Final dilution weight ratio of water to asphaltic emulsion

Apply a tack coat to vertical surfaces with a residual rate that will thoroughly coat the vertical face without running off.

If authorized, you may change the tack coat application rates.

Immediately in advance of placing HMA, apply additional tack coat to damaged areas or where loose or extraneous material is removed.

Close areas receiving tack coat to traffic. Do not allow the tracking of tack coat onto pavement surfaces beyond the job site.

If you use an asphalt binder for tack coat, the asphalt binder temperature must be from 285 to 350 degrees F when applied.

39-2.01C(3)(g) Geosynthetic Pavement Interlayer

Where shown, place geosynthetic pavement interlayer over a coat of asphalt binder and in compliance with the manufacturer's instructions. Do not place the interlayer on a wet or frozen surface. If the interlayer, in compliance with the manufacturer's instructions, does not require asphalt binder, do not apply asphalt binder before placing the interlayer.

Before placing the interlayer or asphalt binder:

1. Repair cracks 1/4 inch and wider, spalls, and holes in the pavement. This repair is change order work.
2. Clean the pavement of loose and extraneous material.

If the interlayer requires asphalt binder, immediately before placing the interlayer, apply asphalt binder at a rate specified by the interlayer manufacturer; at 0.25 ± 0.03 gal per square yard of interlayer; or at a rate that just saturates the interlayer; whichever is greater. Apply asphalt binder the width of the interlayer plus 3 inches on each side. At an interlayer overlap, apply asphalt binder on the lower interlayer the same overlap distance as the upper interlayer.

If asphalt binder tracked onto the interlayer or brought to the surface by construction equipment causes interlayer displacement, cover it with a small quantity of HMA.

If the interlayer placement does not require asphalt binder, apply tack coat prior to placing HMA at the application rates specified under section 39-2.01C(3)(f) based on the condition of the underlying surface on which the interlayer was placed.

Align and place the interlayer with no overlapping wrinkles, except a wrinkle that overlaps may remain if it is less than 1/2 inch thick. If the overlapping wrinkle is more than 1/2 inch thick, cut the wrinkle out and overlap the interlayer no more than 2 inches.

Overlap the interlayer borders between 2 to 4 inches. In the direction of paving, overlap the following roll with the preceding roll at any break.

You may use rolling equipment to correct distortions or wrinkles in the interlayer.

Before placing HMA on the interlayer, do not expose the interlayer to:

1. Traffic, except for crossings under traffic control and only after you place a small HMA quantity
2. Sharp turns from construction equipment
3. Damaging elements

Pave HMA on the interlayer during the same work shift. The minimum HMA thickness over the interlayer must be 0.12 foot including at conform tapers.

39-2.01C(4) Longitudinal Joints

39-2.01C(4)(a) General

Longitudinal joints in the top layer must match lane lines or be offset 0.5 foot, if ordered, to avoid permanent pavement delineation conflicts. Alternate the longitudinal joint offsets in the lower layers at least 0.5 foot from each side of the lane line. Other longitudinal joint placement patterns are allowed if authorized.

A vertical longitudinal joint of more than 0.15 foot is not allowed at any time between adjacent lanes open to traffic.

For an HMA thickness of 0.15 foot or less, the distance between the ends of the adjacent surfaced lanes at the end of each day's work must not be greater than can be completed in the following day of normal paving.

For an HMA thickness greater than 0.15 foot, you must place HMA on adjacent traveled way lanes or shoulder such that at the end of each work shift the distance between the ends of HMA layers on adjacent lanes is from 5 to 10 feet. Place additional HMA along the transverse edge at each lane's end and along the exposed longitudinal edges between adjacent lanes. Hand rake and compact the additional HMA to form temporary conforms. You may place kraft paper or other authorized release agent under the conform tapers to facilitate the taper removal when paving activities resume.

If placing HMA against the edge of existing pavement, saw cut or grind the pavement straight and vertical along the joint and remove extraneous material.

39-2.01C(4)(b) Tapered Notched Wedge

For divided highways with an HMA lift thickness greater than 0.15 foot, you may construct a 1-foot wide tapered notched wedge joint as a longitudinal joint between adjacent lanes open to traffic. A vertical notch of 0.75 inch maximum must be placed at the top and bottom of the tapered wedge.

The tapered notched wedge must keep its shape while exposed to traffic. Pave the adjacent lane within 1 day.

Construct the tapered portion of the tapered notched wedge with an authorized strike-off device. The strike-off device must provide a uniform slope and must not restrict the main screed of the paver.

You may use a device attached to the screed to construct longitudinal joints that will form a tapered notched wedge in a single pass. The tapered notched wedge must be compacted to a minimum of 91 percent compaction.

39-2.01C(5) Pavement Edge Treatments

Construct edge treatment on the HMA pavement as shown.

Where a tapered edge is required, use the same type of HMA used for the adjacent lane or shoulder.

The edge of roadway where the tapered edge is to be placed must have a solid base, free of debris such as loose material, grass, weeds, or mud. Grade the areas to receive the tapered edge as required.

The tapered edge must be placed monolithic with the adjacent lane or shoulder and must be shaped and compacted with a device attached to the paver.

The device must be capable of shaping and compacting HMA to the required cross section as shown. Compaction must be accomplished by constraining the HMA to reduce the cross-sectional area by 10 to 15 percent. The device must produce a uniform surface texture without tearing, shoving, or gouging and must not leave marks such as ridges and indentations. The device must be capable of transitioning to cross roads, driveways, and obstructions.

For the tapered edge, the angle of the slope must not deviate by more than ±5 degrees from the angle shown. Measure the angle from the plane of the adjacent finished pavement surface.

If paving is done in multiple lifts, the tapered edge must be placed with each lift.

Short sections of hand work are allowed to construct tapered edge transitions.

39-2.01C(6) Widening Existing Pavement

If widening existing pavement, construct new pavement structure to match the elevation of the existing pavement's edge before placing HMA over the existing pavement.

39-2.01C(7) Shoulders, Medians, and Other Road Connections

Until the adjoining through lane's top layer has been paved, do not pave the top layer of:

1. Shoulders
2. Tapers
3. Transitions
4. Road connections
5. Driveways
6. Curve widenings
7. Chain control lanes
8. Turnouts
9. Turn pockets

If the number of lanes changes, pave each through lane's top layer before paving a tapering lane's top layer. Simultaneous to paving a through lane's top layer, you may pave an adjoining area's top layer, including shoulders. Do not operate spreading equipment on any area's top layer until completing final compaction.

If shoulders or median borders are shown, pave shoulders and median borders adjacent to the lane before opening a lane to traffic.

If shoulder conform tapers are shown, place conform tapers concurrently with the adjacent lane's paving.

If a driveway or a road connection is shown, place additional HMA along the pavement's edge to conform to road connections and driveways. Hand rake, if necessary, and compact the additional HMA to form a smooth conform taper.

39-2.01C(8) Leveling

Section 39-2.01C(8) applies if a bid item for hot mix asphalt (leveling) is shown on the Bid Item List.

Fill and level irregularities and ruts with HMA before spreading HMA over the base, existing surfaces, or bridge decks. You may use mechanical equipment other than a paver for these areas. The equipment must produce uniform smoothness and texture. HMA used to change an existing surface's cross slope or profile is not paid for as hot mix asphalt (leveling).

39-2.01C(9) Miscellaneous Areas and Dikes

Prepare the area to receive HMA for miscellaneous areas and dikes, including excavation and backfill as needed.

Spread the HMA in miscellaneous areas in 1 layer and compact to the specified lines and grades.

In median areas adjacent to slotted median drains, each layer of HMA must not exceed 0.20 foot maximum compacted thickness.

The finished surface must be:

1. Textured uniformly
2. Compacted firmly
3. Without depressions, humps, and irregularities

39-2.01C(10)–39-2.01C(14) Reserved

39-2.01C(15) Compaction

39-2.01C(15)(a) General

Rolling must leave the completed surface compacted and smooth without tearing, cracking, or shoving.

If a vibratory roller is used as a finish roller, turn the vibrator off.

Do not open new HMA pavement to traffic until its mid depth temperature is below 160 degrees F.

If the surface to be paved is both in sunlight and shade, pavement surface temperatures are taken in the shade.

39-2.01C(15)(b) Method Compaction

Use method compaction for any of the following conditions:

1. HMA pavement thickness shown is less than 0.15 foot
2. Replace asphalt concrete surfacing
3. Leveling courses
4. Areas the Engineer determines conventional compaction and compaction measurement methods are impeded

HMA compaction coverage is the number of passes needed to cover the paving width. A pass is 1 roller's movement parallel to the paving in either direction. Overlapping passes are part of the coverage being made and are not a subsequent coverage. Do not start a coverage until completing the prior coverage.

Method compaction must consist of performing:

1. Breakdown compaction of each layer with 3 coverages using a vibratory roller. The speed of the vibratory roller in miles per hour must not exceed the vibrations per minute divided by 1,000. If the HMA layer thickness is less than 0.08 foot, turn the vibrator off.
2. Intermediate compaction of each layer of HMA with 3 coverages using a pneumatic-tired roller at a speed not to exceed 5 mph.
3. Finish compaction of HMA with 1 coverage using a steel-tired roller.

Start rolling at the lower edge and progress toward the highest part.

The Engineer may order fewer coverages if the layer thickness of HMA is less than 0.15 foot.

The compacted lift thickness must not exceed 0.25 foot.

39-2.01C(15)(c)–39-2.01C(15)(e) Reserved

39-2.01C(16) Smoothness Corrections

If the pavement surface does not comply with section 39-2.01A(4)(i)(iii), grind the pavement to within specified tolerances, remove and replace the pavement, or place an overlay of HMA. Do not start corrective work until your method is authorized.

Do not use equipment with carbide cutting teeth to grind the pavement unless authorized.

Smoothness corrections must leave at least 75 percent of the specified HMA thickness. If ordered, core the pavement at the locations selected by the Engineer. Coring, including traffic control, is change order work. Remove and replace deficient pavement areas where the overlay thickness is less than 75 percent of the thickness specified.

Corrected HMA pavement areas must be uniform rectangles, half the lane width, with edges:

1. Parallel to and along the nearest HMA pavement edge or lane line
2. Perpendicular to the pavement centerline

On ground areas not to be overlaid with OGFC, apply a fog seal under section 37-4.02.

Where corrections are made within areas requiring testing with inertial profiler, reprofile the entire lane length with the inertial profiler.

Where corrections are made within areas requiring testing with a 12-foot straightedge, retest the corrected area with the straightedge.

39-2.01C(17) Data Cores

Section 39-2.01C(17) applies if a bid item for data core is shown on the Bid Item List.

Take data cores of the completed HMA pavement, underlying base, and subbase material. Notify the Engineer 3 business days before coring.

Protect data cores and surrounding pavement from damage.

Take 4-inch or 6-inch diameter data cores:

1. At the beginning, end, and every 1/2 mile within the paving limits of each route on the project
2. After all paving is complete
3. From the center of the specified lane

On a 2-lane roadway, take data cores from either lane. On a 4-lane roadway, take data cores from the outermost lane in each direction. On a roadway with more than 4 lanes, take data cores from the innermost lane and the outermost lane in each direction.

Each core must include the stabilized materials encountered. You may choose not to recover unstabilized material but you must identify the material. Unstabilized material includes any of the following:

1. Granular material
2. Crumbled or cracked stabilized material
3. Sandy or clayey soil

Where data core samples are taken, backfill and compact the holes with an authorized material.

After data core summary and photograph submittal, dispose of cores.

39-2.01D Payment

The payment quantity for geosynthetic pavement interlayer is the area measured from the actual pavement covered.

Except for tack coat used in minor HMA, payment for tack coat is not included in the payment for hot mix asphalt.

The Department does not adjust the unit price for an increase or decrease in the tack coat quantity.

The payment quantity for HMA of the type shown on the Bid Item List is measured based on the combined mixture weight. If recorded batch weights are printed automatically, the bid item for HMA is measured by using the printed batch weights, provided:

1. Total aggregate and supplemental fine aggregate weight per batch is printed. If supplemental fine aggregate is weighed cumulatively with the aggregate, the total aggregate batch weight must include the supplemental fine aggregate weight.
2. Total virgin asphalt binder weight per batch is printed.
3. Each truckload's zero tolerance weight is printed before weighing the first batch and after weighing the last batch.
4. Time, date, mix number, load number and truck identification is correlated with a load slip.
5. Copy of the recorded batch weights is certified by a licensed weigh master and submitted.

The payment quantity for place hot mix asphalt dike of the type shown on the Bid Item List is the length measured from end to end. Payment for the HMA used to construct the dike is not included in the payment for place hot mix asphalt dike.

The payment quantity for place hot mix asphalt (miscellaneous areas) is the area measured for the in-place compacted area. Payment for the HMA used for miscellaneous areas is not included in the payment for place hot mix asphalt (miscellaneous areas).

The Engineer does not adjust the unit price for an increase or decrease in the prepaving grinding day quantity.

39-2.02 TYPE A HOT MIX ASPHALT

39-2.02A General

39-2.02A(1) Summary

Section 39-2.02 includes specifications for producing and placing Type A hot mix asphalt.

You may produce Type A HMA using an authorized WMA technology.

39-2.02A(2) Definitions

Reserved

39-2.02A(3) Submittals

39-2.02A(3)(a) General

Reserved

39-2.02A(3)(b) Job Mix Formula

The JMF must be based on the superpave HMA mix design as described in *MS-2 Asphalt Mix Design Methods* by the Asphalt Institute.

39-2.02A(3)(c) Reclaimed Asphalt Pavement

Submit QC test results for RAP gradation with the combined aggregate gradation within 2 business days of taking RAP samples during Type A HMA production.

39-2.02A(3)(d)–39-2.02A(3)(f) Reserved

39-2.02A(4) Quality Assurance

39-2.02A(4)(a) General

Reserved

39-2.02A(4)(b) Quality Control

39-2.02A(4)(b)(i) General

Reserved

39-2.02A(4)(b)(ii) Aggregates

Test the quality characteristics of aggregates under the test methods and frequencies shown in the following table:

Aggregate Testing Frequencies

Quality characteristic	Test method	Minimum testing frequency
Gradation[a]	AASHTO T 27	1 per 750 tons and any remaining part
Sand equivalent[b,c]	AASHTO T 176	
Moisture content[d]	AASHTO T 255	
Crushed particles	AASHTO T 335	1 per 10,000 tons or 2 per project whichever is greater
Los Angeles Rattler	AASHTO T 96	
Flat and elongated particles	ASTM D4791	
Fine aggregate angularity	AASHTO T 304 Method A	

[a]If RAP is used, test the combined aggregate gradation under California Test 384.
[b]Reported value must be the average of 3 tests from a single sample.
[c]Use of a sand reading indicator is required as shown in AASHTO T 176, Figure 1. Sections 4.7, "Manual Shaker," 7.1.2, "Alternate Method No. 2," and 8.4.3, "Hand Method," do not apply. Prepare the stock solution as specified in section 4.8.1, "Stock solution with formaldehyde," except omit the addition of formaldehyde.
[d]Test at continuous mixing plants only. If RAP is used, test the RAP moisture content at continuous mixing plant and batch mixing plant.

For lime treated aggregate, test aggregate before treatment and test for gradation and moisture content during HMA production.

39-2.02A(4)(b)(iii) Reclaimed Asphalt Pavement

Sample and test mix design RAP stockpile under California Test 384. Report the average AASHTO T 308 uncorrected binder content on page 4 of your Contractor Hot Mix Asphalt Design Data form. When the mix design RAP stockpile is augmented, sample RAP used to augment the stockpile at a minimum frequency of 1 sample per 1,000 tons under California Test 384 before augmenting the stockpile. Test each sample to determine the uncorrected binder content under AASHTO T 308. Average the results of the 3 tests. When tested under AASHTO T 308, the uncorrected binder content of each augmented RAP sample must be within ±2.00 percent of the average uncorrected asphalt binder content reported on page 4 of your Contractor Hot Mix Asphalt Design Data form. You must use the same ignition oven used to determine the uncorrected asphalt binder content reported on page 4 of your Contractor Hot Mix Asphalt Design Data form.

The augmented RAP sample when tested under AASHTO T 209 must be within ±0.06 of the average maximum specific gravity reported on page 4 of your Contractor Hot Mix Asphalt Design Data form.

During Type A HMA production, sample RAP twice daily and perform QC testing for:

1. Aggregate gradation at least once a day under California Test 384
2. Moisture content at least once a day

39-2.02A(4)(b)(iv)–39-2.02A(4)(b)(viii) Reserved

39-2.02A(4)(b)(ix) Type A Hot Mix Asphalt Production

Test the quality characteristics of Type A HMA under the test methods and frequencies shown in the following table:

Type A HMA Production Testing Frequencies

Quality characteristic	Test method	Minimum testing frequency
Asphalt binder content	AASHTO T 308, Method A	1 per 750 tons and any remaining part
HMA moisture content	AASHTO T 329	1 per 2,500 tons but not less than 1 per paving day
Air voids content	AASHTO T 269	1 per 4,000 tons or 2 every 5 paving days, whichever is greater
Voids in mineral aggregate	MS-2 Asphalt Mixture Volumetrics	1 per 10,000 tons or 2 per project whichever is greater
Dust proportion	MS-2 Asphalt Mixture Volumetrics	
Density of core	California Test 375	2 per paving day
Nuclear gauge density	California Test 375	3 per 250 tons or 3 per paving day, whichever is greater
Hamburg wheel track	California Test 389	1 per 10,000 tons or 1 per project, whichever is greater
Moisture susceptibility	AASHTO T 283	

39-2.02A(4)(c)–39-2.02A(4)(d) Reserved

39-2.02A(4)(e) Department Acceptance

The Department accepts Type A HMA based on compliance with:

1. Aggregate quality requirements shown in the following table:

Aggregate Quality

Quality characteristic	Test method	Requirement
Aggregate gradation[a]	AASHTO T 27	JMF ± Tolerance
Percent of crushed particles Coarse aggregate (min, %) One-fractured face Two-fractured faces Fine aggregate (min, %) (Passing no. 4 sieve and retained on no. 8 sieve) One-fractured face	AASHTO T 335	 95 90 70
Los Angeles Rattler (max, %) Loss at 100 rev Loss at 500 rev	AASHTO T 96	 12 40
Sand equivalent (min)[b,c]	AASHTO T 176	47
Flat and elongated particles (max, % by weight at 5:1)	ASTM D4791	10
Fine aggregate angularity (min, %)[d]	AASHTO T 304, Method A	45

[a]The Engineer determines combined aggregate gradations containing RAP under California Test 384. The Engineer uses the correlation factor from Contractor Hot Mix Asphalt Design Data form and mathematically combines the virgin and corrected RAP aggregate gradations at the correct proportions to obtain the combined gradation.

[b]Reported value must be the average of 3 tests from a single sample.

[c]Use of a sand reading indicator is required as shown in AASHTO T 176, Figure 1. Sections 4.7, "Manual Shaker," 7.1.2, "Alternate Method No. 2," and 8.4.3, "Hand Method," do not apply. Prepare the stock solution as specified in section 4.8.1, "Stock solution with formaldehyde," except omit the addition of formaldehyde.

[d]The Engineer waives this specification if HMA contains 10 percent or less of nonmanufactured sand by weight of total aggregate. Manufactured sand is fine aggregate produced by crushing rock or gravel.

2. If RAP is used, RAP quality requirements shown in the following table:

Reclaimed Asphalt Pavement Quality

Quality characteristic	Test method	Requirement
Uncorrected binder content (% within the average value reported[a])	AASHTO T 308	±2.00
Specific gravity (within the average value reported[b])	AASHTO T 209	±0.06

[a]Average uncorrected binder content of three ignition oven tests performed at JMF verification. The Engineer must use the same ignition oven used to determine the average uncorrected binder content at JMF verification.
[b]Average maximum specific gravity reported on page 4 of Contractor Hot Mix Asphalt Design Data form.

3. In place Type A HMA quality requirements shown in the following table:

Type A HMA Acceptance In Place

Quality characteristic	Test method	Requirement
Asphalt binder content (%)	AASHTO T 308 Method A	JMF -0.30, +0.50
HMA moisture content (max, %)	AASHTO T 329	1.00
Air voids content at N_{design} (%)[a,b]	AASHTO T 269	4.0 ± 1.5 (5.0 ± 1.5 for 1-inch aggregate)
Voids in mineral aggregate on laboratory-produced HMA (min, %)[d] Gradation: No. 4 3/8-inch 1/2-inch 3/4-inch 1-inch: with NMAS = 1-inch with NMAS = 3/4-inch	MS-2 Asphalt Mixture Volumetrics	 16.5–19.5 15.5–18.5 14.5–17.5 13.5–16.5 13.5–16.5 14.5–17.5
Voids in mineral aggregate on plant-produced HMA (min, %)[a] Gradation: No. 4 3/8-inch 1/2-inch 3/4-inch 1-inch: with NMAS = 1-inch with NMAS = 3/4-inch	MS-2 Asphalt Mixture Volumetrics[c]	 15.5–18.5 14.5–17.5 13.5–16.5 12.5–15.5 12.5–15.5 13.5–16.5
Dust proportion	MS-2 Asphalt Mixture Volumetrics	0.6–1.3[g]
Density of core (% of max theoretical density)[e,f]	California Test 375	91.0–97.0
Hamburg wheel track (min number of passes at 0.5-inch rut depth) Binder grade: PG 58 PG 64 PG 70 PG 76 or higher	California Test 389	 10,000 15,000 20,000 25,000
Hamburg wheel track (number of passes at inflection point)	California Test 389	Report only
For RAP substitution equal to or less than 15% moisture susceptibility (min, psi, dry strength)	AASHTO T 283	100
For RAP substitution greater than 15% moisture susceptibility (psi, dry strength)	AASHTO T 283	100-300[h]
Moisture susceptibility (min, psi, wet strength)	AASHTO T 283[i]	70

[a]Prepare 3 briquettes. Report the average of 3 tests.
[b]The Engineer determines the bulk specific gravity of each lab-compacted briquette under AASHTO T 275, Method A, and theoretical maximum specific gravity under AASHTO T 209, Method A.
[c]Determine bulk specific gravity under AASHTO T 275, Method A.
[d]The Engineer determines the laboratory-prepared Type A HMA value for only mix design verification.
[e]The Engineer determines percent of theoretical maximum density under California Test 375 except the Engineer uses:

1. AASHTO T 275 to determine in-place density of each density core.
2. AASHTO T 209, Method A to determine theoretical maximum density instead of calculating test maximum density.

[f]The Engineer determines theoretical maximum density under AASHTO T 209, Method A, at the frequency specified in California Test 375, part 5, section D.
[g]For lime-treated aggregates, the dust proportion requirement is 0.6–1.5.
[h]Not required in the following areas:

1. Southern San Luis Obispo or Santa Barbara County in District 5.
2. Kern County in District 6.
3. Kings County in District 6: route 5, post mile 0 to 17; route 33, post mile 0 to 19; route 41, post mile 0 to 16.
4. Tulare County in District 6: route 65, post mile 0 to 10; route 99, post mile 0 to 10; route 43, post mile 0 to 15.

[i]Freeze thaw required.

39-2.02B Materials

39-2.02B(1) General

Reserved

39-2.02B(2) Type A Hot Mix Asphalt Mix Design

The mix design for Type A HMA must comply with the requirements shown in the following table:

Type A HMA Mix Design Requirements

Quality characteristic	Test method	Requirement
Air voids content (%)	AASHTO T 269[a]	$N_{initial}$ > 8.0 N_{design} = 4.0 (N_{design} = 5.0 for 1-inch aggregate) N_{max} > 2.0
Gyration compaction (no. of gyrations)	AASHTO T 312	$N_{initial}$ = 8 N_{design} = 85.0 N_{max} = 130
Voids in mineral aggregate (min, %)[b] Gradation: No. 4 3/8-inch 1/2-inch 3/4-inch 1-inch: with NMAS = 1-inch with NMAS = 3/4-inch	MS-2 Asphalt Mixture Volumetrics	 16.5–19.5 15.5–18.5 14.5–17.5 13.5–16.5 13.5–16.5 14.5–17.5
Dust proportion	MS-2 Asphalt Mixture Volumetrics	0.6–1.3
Hamburg wheel track (min number of passes at 0.5-inch rut depth) Binder grade: PG 58 PG 64 PG 70 PG 76 or higher	California Test 389[c]	 10,000 15,000 20,000 25,000
Hamburg wheel track (number of passes at inflection point)	California Test 389[c]	Report only
For RAP substitution equal to or less than 15% moisture susceptibility (min, psi, dry strength)	AASHTO T 283	100
For RAP substitution greater than 15% moisture susceptibility (psi, dry strength)	AASHTO T 283	100–300[e]
Moisture susceptibility, wet strength (min, psi)	AASHTO T 283[c,d]	70

[a]Calculate the air voids content of each specimen using AASHTO T 275, Method A, to determine bulk specific gravity. Use AASHTO T 209, Method A, to determine theoretical maximum specific gravity. Use a digital manometer and pycnometer when performing AASHTO T 209.
[b]Measure bulk specific gravity using AASHTO T 275, Method A.
[c]Test plant-produced Type A HMA.
[d]Freeze thaw required.
[e]Not required in the following areas:

1. Southern San Luis Obispo or Santa Barbara County in District 5.
2. Kern County in District 6.
3. Kings County in District 6: route 5, post mile 0 to 17; route 33, post mile 0 to 19; route 41, post mile 0 to 16.
4. Tulare County in District 6: route 65, post mile 0 to 10; route 99, post mile 0 to 10; route 43, post mile 0 to 15.

For Type A HMA mixtures using RAP, the maximum allowed binder replacement is 25.0 percent in the upper 0.2 foot exclusive of OGFC and 40.0 percent below. The binder replacement is calculated as a percentage of the approved JMF target asphalt binder content.

For RAP substitution of 15 percent or less, the grade of the virgin binder must be the specified grade of asphalt binder for Type A HMA.

For RAP substitution greater than 15 percent and not exceeding 25 percent, the grade of the virgin binder must be the specified grade of asphalt binder for Type A HMA with the upper and lower temperature classification reduced by 6 degrees C. Hamburg wheel track requirements are based on the grade of asphalt binder specified for Type A HMA.

39-2.02B(3) Asphalt Binder

Reserved

39-2.02B(4) Aggregates

39-2.02B(4)(a) General

Before the addition of asphalt binder and lime treatment, the aggregates must comply with the requirements shown in the following table:

Aggregate Quality

Quality characteristic	Test method	Requirement
Percent of crushed particles:		
Coarse aggregate (min, %)		
One-fractured face	AASHTO T 335	95
Two-fractured faces		90
Fine aggregate (min, %)		
(Passing no. 4 sieve and retained on no. 8 sieve)		
One-fractured face		70
Los Angeles Rattler (max, %)		
Loss at 100 rev	AASHTO T 96	12
Loss at 500 rev		40
Sand equivalent (min)[a]	AASHTO T 176	47
Flat and elongated particles (max, % by weight at 5:1)	ASTM D4791	10
Fine aggregate angularity (min, %)[b]	AASHTO T 304, Method A	45

[a]The reported value must be the average of 3 tests from a single sample. Use of a sand reading indicator is required as shown in AASHTO T 176, Figure 1. Sections 4.7, "Manual Shaker," 7.1.2, "Alternate Method No. 2," and 8.4.3, "Hand Method," do not apply. Prepare the stock solution as specified in section 4.8.1, "Stock solution with formaldehyde," except omit the addition of formaldehyde.

[b]The Engineer waives this specification if the Type A HMA contains 10 percent or less of nonmanufactured sand by weight of total aggregate, except if your JMF fails verification. Manufactured sand is fine aggregate produced by crushing rock or gravel.

39-2.02B(4)(b) Aggregate Gradations

The aggregate gradations for Type A HMA must comply with the requirements shown in the following table:

Aggregate Gradation Requirements

Type A HMA pavement thickness shown	Gradation
0.10 foot	3/8 inch
Greater than 0.10 to less than 0.20 foot	1/2 inch
0.20 to less than 0.25 foot	3/4 inch
0.25 foot or greater	3/4 inch or 1 inch

Aggregate gradation must be within the TV limits for the specified sieve size shown in the following tables:

Aggregate Gradations for Type A HMA (Percentage Passing)

1 inch

Sieve size	Target value limit	Allowable tolerance
1"	100	--
3/4"	88–93	TV ± 5
1/2"	72–85	TV ± 6
3/8"	55–70	TV ± 6
No. 4	35–52	TV ± 7
No. 8	22–40	TV ± 5
No. 30	8–24	TV ± 4
No. 50	5–18	TV ± 4
No. 200	3.0–7.0	TV ± 2.0

3/4 inch

Sieve size	Target value limit	Allowable tolerance
1"	100	--
3/4"	90–98	TV ± 5
1/2"	70–90	TV ± 6
No. 4	42–58	TV ± 5
No. 8	29–43	TV ± 5
No. 30	10–23	TV ± 4
No. 200	2.0–7.0	TV ± 2.0

1/2 inch

Sieve size	Target value limit	Allowable tolerance
3/4"	100	--
1/2"	95–98	TV ± 5
3/8"	72–95	TV ± 5
No. 4	52–69	TV ± 5
No. 8	35–55	TV ± 5
No. 30	15–30	TV ± 4
No. 200	2.0–8.0	TV ± 2.0

3/8 inch

Sieve size	Target value limit	Allowable tolerance
1/2"	100	--
3/8"	95–98	TV ± 5
No. 4	55–75	TV ± 5
No. 8	30–50	TV ± 5
No. 30	15–35	TV ± 5
No. 200	2.0–9.0	TV ± 2.0

No. 4

Sieve size	Target value limit	Allowable tolerance
3/8"	100	--
No. 4	95–98	TV ± 5
No. 8	70–80	TV ± 6
No. 30	34–45	TV ± 5
No. 200	2.0–12.0	TV ± 4.0

39-2.02B(5) Reclaimed Asphalt Pavement

You may substitute RAP for part of the virgin aggregate in a quantity up to 25 percent of the aggregate blend.

Provide enough space at your plant for complying with all RAP handling requirements. Provide a clean, graded base, well drained area for stockpiles.

If RAP is from multiple sources, blend the RAP thoroughly and completely before fractionating.

For RAP substitution greater than 15 percent of the aggregate blend, fractionate RAP stockpiles into 2 sizes, a coarse fraction RAP retained on 3/8-inch sieve and a fine fraction RAP passing 3/8-inch sieve. For RAP substitution of 15 percent of the aggregate blend or less, fractionation is not required.

The RAP fractionation must comply with the requirements shown in the following table:

RAP Stockpile Fractionation Gradation Requirements

Size	Test method	Requirement
Coarse (% passing the 1-inch sieve)	California Test 202[a]	100
Fine (% passing the 3/8-inch sieve)	California Test 202[a]	98–100

[a]Maximum mechanical shaking time is 10 minutes.

You may use the coarse fractionated stockpile, the fine fractionated stockpile, or a combination of the coarse and fine fractionated stockpiles.

Isolate the processed RAP stockpiles from other materials. Store processed RAP in conical or longitudinal stockpiles. Processed RAP must not be agglomerated or be allowed to congeal in large stockpiles.

39-2.02B(6)–39-2.02B(10) Reserved

39-2.02B(11) Type A Hot Mix Asphalt Production

If RAP is used, the asphalt plant must automatically adjust the virgin asphalt binder to account for RAP percentage and RAP binder.

During production, you may adjust hot- or cold-feed proportion controls for virgin aggregate and RAP. For RAP substitution of 15 percent or less, RAP must be within ±3 of RAP percentage shown in your Contractor Job Mix Formula Proposal form without exceeding 15 percent. For RAP substitution of greater than 15 percent, RAP must be within ±3 of RAP percentage shown in your Contractor Job Mix Formula Proposal form without exceeding 25 percent.

39-2.02C Construction

Where the pavement thickness shown is 0.30 foot or greater, you may place Type A HMA in multiple lifts not less than 0.15 foot each. If placing Type A HMA in multiple lifts:

1. Table in section 39-2.02B(4)(b) does not apply
2. Aggregate gradation must comply with the requirements shown in the following table:

Aggregate Gradation Requirements

Type A HMA lift thickness	Gradation
0.15 to less than 0.20 foot	1/2 inch
0.20 foot to less than 0.25 foot	3/4 inch
0.25 foot or greater	3/4 inch or 1 inch

3. Apply a tack coat before placing a subsequent lift
4. The Engineer evaluates each HMA lift individually for compliance

If the ambient air temperature is below 60 degrees F, cover the loads in trucks with tarpaulins. If the time for HMA discharge to truck at the HMA plant until transfer to paver's hopper is 90 minutes or greater and if the ambient air temperature is below 70 degrees F, cover the loads in trucks with tarpaulins, unless the time from discharging to the truck until transfer to the paver's hopper or the pavement surface is less than 30 minutes. The tarpaulins must completely cover the exposed load until you transfer the mixture to the paver's hopper or the pavement surface.

Spread Type A HMA at the ambient air and surface temperatures shown in the following table:

Minimum Ambient Air and Surface Temperatures

Lift thickness (feet)	Ambient air (°F)		Surface (°F)	
	Unmodified asphalt binder	Modified asphalt binder	Unmodified asphalt binder	Modified asphalt binder
Type A HMA and Type A HMA produced with WMA water injection technology				
<0.15	55	50	60	55
≥0.15	45	45	50	50
Type A HMA produced with WMA additive technology				
<0.15	45	45	50	45
≥0.15	40	40	40	40

For Type A HMA and Type A HMA produced with WMA water injection technology placed under method compaction, if the asphalt binder is:

1. Unmodified, complete:
   1.1. 1st coverage of breakdown compaction before the surface temperature drops below 250 degrees F
   1.2. Breakdown and intermediate compaction before the surface temperature drops below 190 degrees F
   1.3. Finish compaction before the surface temperature drops below 150 degrees F
2. Modified, complete:
   2.1. 1st coverage of breakdown compaction before the surface temperature drops below 240 degrees F
   2.2. Breakdown and intermediate compaction before the surface temperature drops below 180 degrees F
   2.3. Finish compaction before the surface temperature drops below 140 degrees F

For Type A HMA produced with WMA additive technology placed under method compaction, if the asphalt binder is:

1. Unmodified, complete:
   1.1. 1st coverage of breakdown compaction before the surface temperature drops below 240 degrees F
   1.2. Breakdown and intermediate compaction before the surface temperature drops below 190 degrees F
   1.3. Finish compaction before the surface temperature drops below 140 degrees F
   1.4. You may continue static rolling below 140 degrees F to remove roller marks
2. Modified, complete:
   2.1. 1st coverage of breakdown compaction before the surface temperature drops below 230 degrees F
   2.2. Breakdown and intermediate compaction before the surface temperature drops below 170 degrees F
   2.3. Finish compaction before the surface temperature drops below 130 degrees F
   2.4. You may continue static rolling below 130 degrees F to remove roller marks

You may cool Type A HMA with water when rolling activities are complete if authorized.

39-2.02D Payment

Not Used

39-2.03 RUBBERIZED HOT MIX ASPHALT–GAP GRADED

39-2.03A General

39-2.03A(1) Summary

Section 39-2.03 includes specifications for producing and placing rubberized hot mix asphalt–gap graded.

You may produce RHMA-G using a WMA technology.

39-2.03A(2) Definitions

Reserved

39-2.03A(3) Submittals

39-2.03A(3)(a) General

At least 5 business days before use, submit the permit issued by the local air district for asphalt rubber binder blending equipment. If an air quality permit is not required by the local air district for producing asphalt rubber binder, submit verification from the local air district that an air quality permit is not required.

At least 10 days before RHMA-G production, submit the name of an authorized laboratory to perform QC testing for asphalt rubber binder. The authorized laboratory must comply with the Caltrans Independent Assurance Program.

39-2.03A(3)(b) Job Mix Formula

With your proposed JMF, include the SDS for:

1. Base asphalt binder
2. CRM and asphalt modifier
3. Blended asphalt rubber binder components

The JMF must be based on the superpave HMA mix design as described in *MS-2 Asphalt Mix Design Methods* by the Asphalt Institute.

39-2.03A(3)(c) Asphalt Rubber Binder

Submit a proposal for asphalt rubber binder design and profile. In the design, include the asphalt binder, asphalt modifier, and CRM and their proportions.

If you change asphalt rubber binder supplier or any component material used in asphalt rubber binder or its percentage, submit a new JMF.

For the asphalt rubber binder used, submit:

1. Log of production daily.
2. Certificate of compliance with test results for CRM and asphalt modifier with each truckload delivered to the HMA plant. The certificate of compliance for asphalt modifier must represent no more than 5,000 lb.
3. Certified weight slips for the CRM and asphalt modifier furnished.
4. QC test results on viscosity within 2 business days after sampling.
5. QC test results on cone penetration, resilience, and softening point within 3 business days after sampling.

Submit a certificate of compliance for the CRM and asphalt modifier. With the certificate of compliance, submit test results for CRM and asphalt modifier with each truckload delivered to the HMA plant.

39-2.03A(4) Quality Assurance

39-2.03A(4)(a) General

Reserved

39-2.03A(4)(b) Job Mix Formula Verification

If you request, the Engineer verifies RHMA-G quality requirements within 7 days of receiving all verification samples and after the JMF document submittal has been accepted.

39-2.03A(4)(c) Quality Control

39-2.03A(4)(c)(i) General

Reserved

39-2.03A(4)(c)(ii) Asphalt Rubber Binder

39-2.03A(4)(c)(ii)(A) General

The asphalt rubber binder blending plant must be authorized under the Department's Material Plant Quality Program.

Take asphalt rubber binder samples from the feed line connecting the asphalt rubber binder tank to the HMA plant.

39-2.03A(4)(c)(ii)(B) Asphalt Modifier

Test asphalt modifier under the test methods and frequencies shown in the following table:

Asphalt Modifier for Asphalt Rubber Binder

Quality characteristic	Test method	Frequency
Viscosity	ASTM D445	1 per shipment
Flash point	ASTM D92	
Molecular analysis: Asphaltenes Aromatics	ASTM D2007	1 per shipment

39-2.03A(4)(c)(ii)(C) Crumb Rubber Modifier

Sample and test scrap tire crumb rubber and high natural crumb rubber separately. Test CRM under the test methods and frequencies shown in the following table:

Crumb Rubber Modifier for Asphalt Rubber Binder

Quality characteristic	Test method	Frequency
Scrap tire crumb rubber gradation	California Test 385	1 per 10,000 lb
High natural crumb rubber gradation	California Test 385	1 per 3,400 lb
Wire in CRM	California Test 385	1 per 10,000 lb
Fabric in CRM	California Test 385	
CRM particle length	--	
CRM specific gravity	California Test 208	
Natural rubber content in high natural crumb rubber	ASTM D297	1 per 3,400 lb

39-2.03A(4)(c)(ii)(D) Asphalt Rubber Binder

Test asphalt rubber binder under the test methods and frequencies shown in the following table:

Quality characteristic	Test method	Frequency
Cone penetration	ASTM D217	1 per lot[a]
Resilience	ASTM D5329	
Softening point	ASTM D36/D36M	
Viscosity	ASTM D7741/D7741M	15 minutes before use per lot[a]

[a]The lot is defined in the Department's *MPQP*.

Retain the sample from each lot. Test for cone penetration, resilience, and softening point for the first 3 lots and, if all 3 lots pass, the testing frequency may be reduced to once for every 3 lots.

If QC test results indicate that the asphalt rubber binder does not comply with the specifications, take corrective action and notify the Engineer.

39-2.03A(4)(c)(iii) Aggregates

Test the quality characteristics of aggregates under the test methods and frequencies shown in the following table:

Aggregate Testing Frequencies

Quality characteristic	Test method	Minimum testing frequency
Gradation	AASHTO T 27	1 per 750 tons and any remaining part
Sand equivalent[a,b]	AASHTO T 176	
Moisture content[c]	AASHTO T 255	
Crushed particles	AASHTO T 335	1 per 10,000 tons or 2 per project, whichever is greater
Los Angeles Rattler	AASHTO T 96	
Flat and elongated particles	ASTM D4791	
Fine aggregate angularity	AASHTO T 304, Method A	

[a]Reported value must be the average of 3 tests from a single sample.
[b]Use of a sand reading indicator is required as shown in AASHTO T 176, Figure 1. Sections 4.7, "Manual Shaker," 7.1.2, "Alternate Method No. 2," and 8.4.3, "Hand Method," do not apply. Prepare the stock solution as specified in section 4.8.1, "Stock solution with formaldehyde," except omit the addition of formaldehyde.
[c]Test at continuous mixing plants only.

For lime treated aggregate, test aggregate before treatment and test for gradation and moisture content during RHMA-G production.

39-2.03A(4)(c)(iv)–39-2.03A(4)(c)(viii) Reserved

39-2.03A(4)(c)(ix) Rubberized Hot Mix Asphalt–Gap Graded Production

Test the quality characteristics of RHMA-G under the test methods and frequencies shown in the following table:

RHMA-G Production Testing Frequencies

Quality characteristic	Test method	Minimum testing frequency
Asphalt binder content	AASHTO T 308, Method A	1 per 750 tons and any remaining part
HMA moisture content	AASHTO T 329	1 per 2,500 tons but not less than 1 per paving day
Air voids content	AASHTO T 269	1 per 4,000 tons or 2 every 5 paving days, whichever is greater
Voids in mineral aggregate	MS-2 Asphalt Mixture Volumetrics	1 per 10,000 tons or 2 per project whichever is greater
Dust proportion	MS-2 Asphalt Mixture Volumetrics	
Density of core	California Test 375	2 per paving day
Nuclear gauge density	California Test 375	3 per 250 tons or 3 per paving day, whichever is greater
Hamburg wheel track	California Test 389	1 per 10,000 tons or 1 per project, whichever is greater
Moisture susceptibility	AASHTO T 283	

39-2.03A(4)(d) Reserved

39-2.03A(4)(e) Department Acceptance

39-2.03A(4)(e)(i) General

The Department accepts RHMA-G based on compliance with:

1. Aggregate quality requirements shown in the following table:

Aggregate Quality

Quality characteristic	Test method	Requirement
Aggregate gradation	AASHTO T 27	JMF ± Tolerance
Percent of crushed particles Coarse aggregate (min, %) One-fractured face Two-fractured faces Fine aggregate (min, %) (Passing no. 4 sieve and retained on no. 8 sieve) One-fractured face	AASHTO T 335	 -- 90 70
Los Angeles Rattler (max, %) Loss at 100 rev Loss at 500 rev	AASHTO T 96	 12 40
Sand equivalent (min)[a,b]	AASHTO T 176	47
Flat and elongated particles (max, % by weight at 5:1)	ASTM D4791	Report only
Fine aggregate angularity (min, %)[c]	AASHTO T 304, Method A	45

[a]Reported value must be the average of 3 tests from a single sample.
[b]Use of a sand reading indicator is required as shown in AASHTO T 176, Figure 1. Sections 4.7, "Manual Shaker," 7.1.2, "Alternate Method No. 2," and 8.4.3, "Hand Method," do not apply. Prepare the stock solution as specified in section 4.8.1, "Stock solution with formaldehyde," except omit the addition of formaldehyde.
[c]The Engineer waives this specification if RHMA-G contains 10 percent or less of nonmanufactured sand by weight of total aggregate. Manufactured sand is fine aggregate produced by crushing rock or gravel.

2. In-place RHMA-G quality requirements shown in the following table:

RHMA-G Acceptance In Place

Quality characteristic	Test method	Requirement
Asphalt binder content (%)	AASHTO T 308 Method A	JMF -0.40, +0.50
HMA moisture content (max, %)	AASHTO T 329	1.00
Air voids content at N_{design} (%)[a,b]	AASHTO T 269	4.0 ± 1.5
Voids in mineral aggregate on laboratory-produced HMA[d] (min, %) Gradation: 1/2-inch and 3/4-inch	MS-2 Asphalt Mixture Volumetrics[c]	 18.0–23.0
Voids in mineral aggregate on plant-produced HMA (min, %)[a] Gradation: 1/2-inch and 3/4-inch	MS-2 Asphalt Mixture Volumetrics[c]	 18.0–23.0
Dust proportion[a]	MS-2 Asphalt Mixture Volumetrics	Report only
Density of core (% of max theoretical density)[e,f]	California Test 375	91.0–97.0
Hamburg wheel track (min number of passes at 0.5-inch rut depth) Base binder grade: PG 64 or lower PG 70	California Test 389	 15,000 20,000
Hamburg wheel track (number of passes at inflection point)	California Test 389	Report only
Moisture susceptibility (min, psi, dry strength)	AASHTO T 283	100
Moisture susceptibility (min, psi, wet strength)	AASHTO T 283[g]	70

[a]Prepare 3 briquettes. Report the average of 3 tests.
[b]The Engineer determines the bulk specific gravity of each lab-compacted briquette under AASHTO T 275, Method A, and theoretical maximum specific gravity under AASHTO T 209, Method A.
[c]Determine bulk specific gravity under AASHTO T 275, Method A.
[d]The Engineer determines the laboratory-prepared RHMA-G value for only mix design verification.
[e]The Engineer determines percent of theoretical maximum density under California Test 375 except the Engineer uses:

1. AASHTO T 275, Method A, to determine in-place density of each density core instead of using the nuclear gauge.
2. AASHTO T 209, Method A to determine theoretical maximum density instead of calculating test maximum density.

[f]The Engineer determines theoretical maximum density under AASHTO T 209, Method A, at the frequency specified in California Test 375, part 5, section D.
[g]Freeze thaw required.

39-2.03A(4)(e)(ii) Asphalt Rubber Binder

39-2.03A(4)(e)(ii)(A) General

The Department does not use asphalt rubber binder design profile for production acceptance.

39-2.03A(4)(e)(ii)(B) Asphalt Modifier

The Department accepts asphalt modifier based on compliance with the requirements shown in the following table:

Asphalt Modifier for Asphalt Rubber Binder

Quality characteristic	Test method	Requirement
Viscosity at 100 °C ($m^2/s \times 10^{-6}$)	ASTM D445	X ± 3[a]
Flash point (min, °C)	ASTM D92	207
Molecular analysis: Asphaltenes (max, % by mass) Aromatics (min, % by mass)	ASTM D2007	 0.1 55

[a]The symbol X is the asphalt modifier viscosity.

39-2.03A(4)(e)(ii)(C) Crumb Rubber Modifier

CRM used must be on the Authorized Materials List for Crumb Rubber Modifier.

CRM must be a ground or granulated combination of scrap tire crumb rubber and high natural scrap tire crumb rubber, CRM must be 75.0 ± 2.0 percent scrap tire crumb rubber and 25.0 ± 2.0 percent high natural scrap tire crumb rubber by total weight of CRM. Scrap tire crumb rubber and high natural scrap tire crumb rubber must be derived from waste tires described in Pub Res Code § 42703.

The Department accepts CRM, scrap tire crumb rubber, and high natural crumb rubber based on compliance with the requirements shown in the following table:

Crumb Rubber Modifier for Asphalt Rubber Binder

Quality characteristic	Test method	Requirement
Scrap tire crumb rubber gradation (% passing no. 8 sieve)	California Test 385	100
High natural crumb rubber gradation (% passing no. 10 sieve)	California Test 385	100
Wire in CRM (max, %)	California Test 385	0.01
Fabric in CRM (max, %)	California Test 385	0.05
CRM particle length (max, in)	--	3/16
CRM specific gravity	California Test 208	1.1–1.2
Natural rubber content in high natural crumb rubber (%)	ASTM D297	40.0–48.0

Scrap tire crumb rubber and high natural crumb rubber are sampled and tested separately.

39-2.03A(4)(e)(ii)(D) Asphalt Rubber Binder

For Department acceptance testing, take samples of asphalt rubber binder in the Engineer's presence every 5 lots or once a day, whichever is greater. Each sample must be placed into six 1-qt cans with open tops and friction lids.

The Department accepts asphalt rubber binder based on compliance with the requirements shown in the following table:

Quality characteristic	Test method	Requirement
Cone penetration at 25 °C (0.10 mm)	ASTM D217	25–70
Resilience at 25 °C (min, % rebound)	ASTM D5329	18
Softening point (°C)	ASTM D36/D36M	52–74
Viscosity at 190 °C (centipoises)[a]	ASTM D7741/D7741M	1,500–4,000

[a]Prepare sample for viscosity test under California Test 388.

39-2.03A(4)(e)(iii)–39-2.03A(4)(e)(v) Reserved

39-2.03B Materials

39-2.03B(1) General

Reserved

39-2.03B(2) Rubberized Hot Mix Asphalt–Gap Graded Mix Design

For RHMA-G, the mix design must comply with the requirements shown in the following table:

RHMA-G Mix Design Requirements

Quality characteristic	Test method	Requirement
Air voids content (%)	AASHTO T 269[a]	N_{design} = 4.0
Gyration compaction (no. of gyrations)	AASHTO T 312	N_{design} = 50–150[b]
Voids in mineral aggregate (min, %)	SP-2 Asphalt Mixture Volumetrics[c]	18.0–23.0
Dust proportion	SP-2 Asphalt Mixture Volumetrics	Report only
Hamburg wheel track (min number of passes at 0.5-inch rut depth) Base binder grade: PG 64 or lower PG 70	California Test 389[d]	 15,000 20,000
Hamburg wheel track (number of passes at inflection point)	California Test 389[d]	Report only
Moisture susceptibility, dry strength (min, psi)	AASHTO T 283[d]	100
Moisture susceptibility, wet strength (min, psi)	AASHTO T 283[d,e]	70

[a]Calculate the air voids content of each specimen using AASHTO T 275, Method A, to determine bulk specific gravity and AASHTO T 209, Method A, to determine theoretical maximum specific gravity. Under AASHTO T 209, use a digital manometer and pycnometer when performing AASHTO T 209.
[b]Superpave gyratory compactor ram pressure may be increased to a maximum of 825 kPa, and specimens may be held at a constant height for a maximum of 90 minutes.
[c]Measure bulk specific gravity using AASHTO T 275, Method A.
[d]Test plant produced RHMA.
[e]Freeze thaw required.

Determine the quantity of asphalt rubber binder to be mixed with the aggregate for RHMA-G as follows:

1. Base the calculations on the average of 3 briquettes produced at each asphalt rubber binder content.
2. Plot asphalt rubber binder content versus average air voids content for each set of 3 specimens and connect adjacent points with a best-fit curve.
3. Calculate voids in mineral aggregate for each specimen, average each set, and plot the average versus asphalt rubber binder content.
4. Calculate the dust proportion and plot versus asphalt rubber binder content.
5. From the curve plotted, select the theoretical asphalt rubber binder content at 4 percent air voids.
6. At the selected asphalt rubber binder content, calculate dust proportion.
7. Record the asphalt rubber binder content in the Contractor Hot Mix Asphalt Design Data Form as the OBC.

The OBC must not fall below 7.5 percent by total weight of the mix.

Laboratory mixing and compaction must comply with superpave HMA mix design as described in *MS-2 Asphalt Mix Design Methods* by the Asphalt Institute, except the mixing temperature of the aggregate must be from 300 to 325 degrees F. The mixing temperature of the asphalt rubber binder must be from 375 to 425 degrees F. The compaction temperature of the combined mixture must be from 290 to 320 degrees F.

39-2.03B(3) Asphalt Rubber Binder

39-2.03B(3)(a) General

Asphalt rubber binder must be a combination of:

1. Asphalt binder
2. Asphalt modifier
3. CRM

The combined asphalt binder and asphalt modifier must be 80.0 ± 2.0 percent by weight of the asphalt rubber binder.

39-2.03B(3)(b) Asphalt Modifier

Asphalt modifier must be a resinous, high-flash-point, aromatic hydrocarbon and must comply with the requirements shown in the following table:

Asphalt Modifier for Asphalt Rubber Binder

Quality characteristic	Test method	Requirement
Viscosity at 100 °C ($m^2/s \times 10^{-6}$)	ASTM D445	X ± 3[a]
Flash point (min, °C)	ASTM D92	207
Molecular analysis: Asphaltenes (max, % by mass) Aromatics (min, % by mass)	ASTM D2007	 0.1 55

[a]The symbol X is the proposed asphalt modifier viscosity. X must be between 19 and 36. A change in X requires a new asphalt rubber binder design.

Asphalt modifier must be from 2.0 to 6.0 percent by weight of the asphalt binder in the asphalt rubber binder.

39-2.03B(3)(c) Crumb Rubber Modifier

CRM must be a ground or granulated combination of scrap tire crumb rubber and high natural scrap tire crumb rubber. CRM must be 75.0 ± 2.0 percent scrap tire crumb rubber and 25.0 ± 2.0 percent high natural scrap tire crumb rubber by total weight of CRM. Scrap tire crumb rubber and high natural scrap tire crumb rubber must be derived from waste tires described in Pub Res Code § 42703.

The CRM must comply with the requirements shown in the following table:

Crumb Rubber Modifier for Asphalt Rubber Binder

Quality characteristic	Test method	Requirement
Scrap tire crumb rubber gradation (% passing no. 8 sieve)	California Test 385	100
High natural crumb rubber gradation (% passing no. 10 sieve)	California Test 385	100
Wire in CRM (max, %)	California Test 385	0.01
Fabric in CRM (max, %)	California Test 385	0.05
CRM particle length (max, in)[a]	--	3/16
CRM specific gravity	California Test 208	1.1–1.2
Natural rubber content in high natural crumb rubber (%)	ASTM D297	40.0–48.0

[a]Test at mix design and for certificate of compliance.

CRM must be ground or granulated at ambient temperature. If steel and fiber are cryogenically separated, separation must occur before grinding or granulating. Cryogenically produced CRM particles must be ground or granulated and not pass through the grinder or granulator.

CRM must be dry, free-flowing particles that do not stick together. CRM must not cause foaming when combined with the asphalt binder and asphalt modifier. You may add calcium carbonate or talc up to 3 percent by weight of CRM.

39-2.03B(3)(d) Design and Profile

Design the asphalt rubber binder from testing you perform for each quality characteristic and for the reaction temperatures expected during production. The profile must include the same component sources for the asphalt rubber binder used. The 24-hour (1,440-minute) interaction period determines the design profile. At a minimum, mix asphalt rubber binder components, take samples, and perform and record the tests shown in the following table:

Asphalt Rubber Binder Reaction Design Profile

Quality characteristic	Test method	Minutes of reaction[a]							Limit
		45	60	90	120	240	360	1440	
Cone penetration at 25 °C (0.10 mm)	ASTM D217	X[b]	--	--	--	X	--	X	25–70
Resilience at 25 °C (min, % rebound)	ASTM D5329	X	--	--	--	X	--	X	18
Field softening point (°C)	ASTM D36/D36M	X	--	--	--	X	--	X	52–74
Viscosity (centipoises)	ASTM D7741/D7741M	X	X	X	X	X	X	X	1,500–4,000

[a]Six hours (360 minutes) after CRM addition, reduce the oven temperature to 275 °F for 16 hours. After the 16-hour (960 minutes) cool down after CRM addition, reheat the binder to the reaction temperature expected during production for sampling and testing at 24 hours (1,440 minutes).
[b]X denotes required testing.

39-2.03B(3)(e) Asphalt Rubber Binder Production

39-2.03B(3)(e)(i) General

Deliver scrap tire crumb rubber and high natural crumb rubber in separate bags.

39-2.03B(3)(e)(ii) Mixing

Proportion and mix asphalt binder, asphalt modifier, and CRM simultaneously or premix the asphalt binder and asphalt modifier before adding CRM. If you premix asphalt binder and asphalt modifier, mix them for at least 20 minutes. When you add CRM, the temperature of the asphalt binder and asphalt modifier must be from 375 to 440 degrees F.

After interacting for at least 45 minutes, the asphalt rubber binder must comply with the requirements shown in the following table:

Quality characteristic	Test method	Requirement
Cone penetration at 25 °C (0.10 mm)	ASTM D217	25–70
Resilience at 25 °C (min, % rebound)	ASTM D5329	18
Softening point (°C)	ASTM D36/36M	52–74
Viscosity at 190 °C (centipoises)[a]	ASTM D7741/D7741M	1,500–4,000

[a]Prepare sample for viscosity test under California Test 388.

Do not use the asphalt rubber binder during the first 45 minutes of the reaction period. During this period, the asphalt rubber binder mixture must be between 375 degrees F and the lower of 425 or 25 degrees F below the asphalt binder's flash point shown in the SDS.

If any asphalt rubber binder is not used within 4 hours after the reaction period, discontinue heating. If the asphalt rubber binder drops below 375 degrees F, reheat before use. If you add more scrap tire crumb rubber to the reheated asphalt rubber binder, the binder must undergo a 45-minute reaction period. The added scrap tire crumb rubber must not exceed 10 percent of the total asphalt rubber binder weight. Reheated and reacted asphalt rubber binder must comply with the viscosity specifications. Do not reheat asphalt rubber binder more than twice.

39-2.03B(4) Aggregates

39-2.03B(4)(a) General

For RHMA-G, before the addition of asphalt binder and lime treatment, the aggregates must comply with the requirements shown in the following table:

Aggregate Quality

Quality characteristic	Test method	Requirement
Percent of crushed particles Coarse aggregate (min, %) One-fractured face Two-fractured faces Fine aggregate (min, %) (Passing no. 4 sieve and retained on no. 8 sieve) One-fractured face	AASHTO T 335	 -- 90 70
Los Angeles Rattler (max, %) Loss at 100 rev Loss at 500 rev	AASHTO T 96	 12 40
Sand equivalent (min)[a]	AASHTO T 176	47
Flat and elongated particles (max, % by weight at 5:1)	ASTM D4791	Report only
Fine aggregate angularity (min, %)[b]	AASHTO T 304, Method A	45

[a]Reported value must be the average of 3 tests from a single sample. The use of a sand reading indicator is required as shown in AASHTO T 176, Figure 1. Sections 4.7, "Manual Shaker," 7.1.2, "Alternate Method No. 2," and 8.4.3, "Hand Method," do not apply. Prepare the stock solution as specified in section 4.8.1, "Stock solution with formaldehyde," except omit the addition of formaldehyde.

[b]The Engineer waives this specification if the HMA contains 10 percent or less of nonmanufactured sand by weight of total aggregate unless your JMF fails verification. Manufactured sand is fine aggregate produced by crushing rock or gravel.

39-2.03B(4)(b) Aggregate Gradations

The aggregate gradations for RHMA-G must comply with the requirements shown in the following table:

Aggregate Gradation Requirements

RHMA-G pavement thickness shown	Gradation
0.10 to less than 0.20 foot	1/2 inch
0.20 foot or greater	3/4 inch

For RHMA-G, the aggregate gradations must be within the TV limits for the specified sieve size shown in the following tables:

Aggregate Gradations for RHMA-G (Percentage Passing)

3/4 inch

Sieve size	Target value limit	Allowable tolerance
1"	100	--
3/4"	95–98	TV ± 5
1/2"	83–87	TV ± 6
3/8"	65–70	TV ± 5
No. 4	28–42	TV ± 6
No. 8	14–22	TV ± 5
No. 200	0.0–6.0	TV ± 2.0

1/2 inch

Sieve size	Target value limit	Allowable tolerance
3/4"	100	--
1/2"	90–98	TV ± 6
3/8"	83–87	TV ± 5
No. 4	28–42	TV ± 6
No. 8	14–22	TV ± 5
No. 200	0.0–6.0	TV ± 2.0

39-2.03B(5) Rubberized Hot Mix Asphalt–Gap Graded Production

Asphalt rubber binder must be from 375 to 425 degrees F when mixed with aggregate.

If the dry and wet moisture susceptibility test result for treated plant-produced RHMA-G is less than the RHMA-G mix design requirement for dry and wet moisture susceptibility strength, the minimum dry and wet strength requirement is waived, but you must use one of the following treatments:

1. Aggregate lime treatment using the slurry method
2. Aggregate lime treatment using the dry lime method
3. Liquid antistrip treatment of RHMA-G

39-2.03C Construction

Use a material transfer vehicle when placing RHMA-G.

Do not use a pneumatic tired roller to compact RHMA-G.

Spread and compact RHMA-G and RHMA-G produced with WMA water injection technology at an ambient air temperature of at least 55 degrees F and a surface temperature of at least 60 degrees F.

Spread and compact RHMA-G produced with WMA additive technology at an ambient air temperature of at least 50 degrees F and a surface temperature of at least 50 degrees F.

If the ambient air temperature is below 70 degrees F, cover loads in trucks with tarps. The tarps must completely cover the exposed load until you transfer the mixture to the paver's hopper or to the pavement surface. Tarps are not required if the time from discharge to truck until transfer to the paver's hopper or the pavement surface is less than 30 minutes.

For RHMA-G and RHMA-G produced with WMA water injection technology placed under method compaction:

1. Complete the 1st coverage of breakdown compaction before the surface temperature drops below 285 degrees F.
2. Complete breakdown and intermediate compaction before the surface temperature drops below 250 degrees F. Use a static steel-tired roller instead of the pneumatic-tired roller for intermediate compaction.
3. Complete finish compaction before the surface temperature drops below 200 degrees F.

For RHMA-G produced with WMA additive technology placed under method compaction:

1. Complete the 1st coverage of breakdown compaction before the surface temperature drops below 260 degrees F
2. Complete breakdown and intermediate compaction before the surface temperature drops below 230 degrees F
3. Complete finish compaction before the surface temperature drops below 180 degrees F
4. You may continue static rolling below 140 degrees F to remove roller marks

Spread sand at a rate between 1 and 2 lb/sq yd on new RHMA-G pavement when finish rolling is complete. Sand must be free of clay or organic matter. Sand must comply with section 90-1.02C(3). Keep traffic off the pavement until spreading of the sand is complete.

39-2.03D Payment

Not Used

39-2.04 OPEN GRADED FRICTION COURSES

39-2.04A General

39-2.04A(1) Summary

Section 39-2.04 includes specifications for producing and placing open graded friction courses. Open graded friction courses include HMA-O, RHMA-O, and RHMA-O-HB.

You may produce OGFC using a WMA technology.

39-2.04A(2) Definitions

Reserved

39-2.04A(3) Submittals

Submit a complete JMF, except do not specify an asphalt binder content.

For RHMA-O and RHMA-O-HB, the JMF submittal must comply with section 39-2.03A(3)(c).

39-2.04A(4) Quality Assurance

39-2.04A(4)(a) General

Reserved

39-2.04A(4)(b) Quality Control

39-2.04A(4)(b)(i) General

Reserved

39-2.04A(4)(b)(ii) Asphalt Rubber Binder

For RHMA-O and RHMA-O-HB, the asphalt rubber binder must comply with the specifications in section 39-2.03A(4)(c)(ii).

39-2.04A(4)(b)(iii) Aggregates

Test the quality characteristics of aggregates under the test methods and frequencies shown in the following table:

Aggregate Testing Frequencies

Quality characteristic	Test method	Minimum testing frequency
Gradation	AASHTO T 27	1 per 750 tons and any remaining part
Moisture content[a]	AASHTO T 255	1 per 1500 tons and any remaining part
Crushed particles	AASHTO T 335	1 per 10,000 tons or 2 per project, whichever is greater
Los Angeles Rattler	AASHTO T 96	
Flat and elongated particles	ASTM D4791	

[a]Test at continuous mixing plants only.

For lime treated aggregate, test aggregate before treatment and test for gradation and moisture content during OGFC production.

39-2.04A(4)(b)(iv) Open Graded Friction Course Production

Test the quality characteristics of OGFC under the test methods and frequencies shown in the following table:

OGFC Testing Frequencies

Quality characteristic	Test method	Minimum testing frequency
Asphalt binder content	AASHTO T 308, Method A	1 per 750 tons and any remaining part
HMA moisture content	AASHTO T 329	1 per 2,500 tons but not less than 1 per paving day

39-2.04A(4)(c) Department Acceptance

39-2.04A(4)(c)(i) General

The Department accepts OGFC based on compliance with:

1. Aggregate quality requirements shown in the following table:

Aggregate Quality

Quality characteristic	Test method	Requirement
Aggregate gradation	AASHTO T 27	JMF ± Tolerance
Percent of crushed particles: Coarse aggregate (min, %) One-fractured face Two-fractured faces Fine aggregate (min, %) (Passing no. 4 sieve and retained on no. 8 sieve) One-fractured face	AASHTO T 335	 90 90 90
Los Angeles Rattler (max, %) Loss at 100 rev Loss at 500 rev	AASHTO T 96	 12 40
Flat and elongated particles (max, % by weight at 5:1)	ASTM D4791	Report only

2. In-place OGFC quality requirements shown in the following table:

OGFC Acceptance In Place

Quality characteristic	Test method	Requirement
Asphalt binder content (%)	AASHTO T 308, Method A	JMF -0.40, +0.50
HMA moisture content (max, %)	AASHTO T 329	1.00

39-2.04A(4)(c)(ii) Asphalt Rubber Binder

The Department accepts asphalt rubber binder in RHMA-O and RHMA-O-HB under section 39-2.03A(4)(e)(ii).

39-2.04A(4)(c)(iii) Pavement Smoothness of OGFC

39-2.04A(4)(c)(iii)(A) General

The pavement smoothness of a 0.1-mi segment of OGFC must comply with the requirements shown in the following table:

OGFC Pavement Smoothness Acceptance Criteria

OGFC placement on	Applicable section
Existing pavement	39-2.04A(4)(c)(iii)(B)
Existing pavement with cold plane	39-2.04A(4)(c)(iii)(C)
HMA overlay or new construction	39-2.04A(4)(c)(iii)(D)

Corrective action is required only to reduce ALR below the maximum allowed. Corrective action must not reduce pavement thickness more than allowed in section 39-2.01C(16). Correction may be diamond

grinding or remove and replace at your option. The maximum pay adjustment for remove and replace areas is full pay.

39-2.04A(4)(c)(iii)(B) OGFC Paved on Existing Pavement

The target MRI for OGFC (MRI_{TO}) is determined using the following equation:

MRI_{TO} = (0.2 x MRI_0 + 45) or 55, whichever is larger

where:
MRI_0 = the lower of the *EXIST* MRI or *BASELINE* MRI
MRI_{SEGO} = MRI of each 0.1-mi segment from *PAVEO* profile for OGFC paving

The Department applies pavement smoothness pay adjustments to 0.1-mi segments based on your verified profiler data as shown in the following table:

Pay Adjustment for OGFC Paved on Existing Pavement

Pay Ranges	Payment adjustment per 0.1 mi per lane	Corrective action
$MRI_{SEGO} \leq MRI_{TO} - 20$	+ $450.00	May only grind to meet ALR thresholds
$MRI_{TO} - 20 < MRI_{SEGO} \leq MRI_{TO} - 5$	+ (($MRI_{TO} - 5$) - MRI_{SEGO}) x $30.00	May only grind to meet ALR thresholds
$MRI_{TO} - 5 < MRI_{SEGO} \leq MRI_{TO} + 5$	Full pay	May only grind to meet ALR thresholds
$MRI_{TO} + 5 < MRI_{SEGO} \leq MRI_{TO} + 20$	- (MRI_{SEGO} - (MRI_{TO} + 5)) x $90.00	May only grind to meet ALR thresholds
$MRI_{SEGO} > MRI_{TO} + 20$	- (MRI_{SEGO} - (MRI_{TO} + 5)) x $90.00	May only grind to meet ALR thresholds

No ALR greater than ALR_{MAX} is allowed. ALR_{MAX} is the greater value of 160 in/mi or calculated value using the following equation:

ALR_{MAX} = 2.1 x MRI_{TO}

39-2.04A(4)(c)(iii)(C) OGFC Paved on Existing Pavement with a Cold Planed Surface

The Department applies pavement smoothness pay adjustments to segments where a bid item for cold plane asphalt concrete applies as shown in the following table:

Pay Adjustment for OGFC Paved on Existing Pavement with a Cold Planed Surface

MRI_{SEG} (in/mi)	Pay adjustment per 0.1 mi per lane	Corrective action
≤ 55.00	+ $450.00	May only grind to meet ALR thresholds
55.01–70.00	+ (70.00 - MRI_{SEGO}) x $30.00	May only grind to meet ALR thresholds
70.01–80.00	Full pay	May only grind to meet ALR thresholds
> 80.00	- (MRI_{SEGO} - 80.00) x $135.00	May only grind to meet ALR thresholds

MRI_{SEGO} = MRI of each 0.1-mi segment from PAVE profile for OGFC paving.

No ALR over 160 in/mi are allowed.

39-2.04A(4)(c)(iii)(D) OGFC Paved on New Construction or HMA Overlay

The Department determines payment adjustments using a percent of targeted MRI (PoT) for the OGFC. The MRI_{TO} of the segment must be less than or equal to $MRI_{FINALHMA}$.

Determine the Percent of Target MRI (PoT) of each completed 0.1-mi segment of lane using the following equations:

(%) PoT = (MRI_{SEGO}/MRI_{TO}) x 100 rounded to the nearest tenth of 1 percent

where:
MRI_{SEGO} = MRI of each 0.1-mi segment from *PAVEO* profile for OGFC paving
$MRI_{FINALHMA}$ = Final MRI of HMA layer where OGFC is placed
MRI_{TO} = $MRI_{FINALHMA}$ or 55, whichever is larger

The Department applies pavement smoothness pay adjustments to 0.1-mi segments based on your verified inertial profiler data as shown in the following table:

Pay Adjustment for OGFC on New Construction or HMA Overlay

PoT	Payment adjustment per 0.1 mi per lane	Corrective action
PoT ≤ 100% of MRITO	Full pay	May only grind to meet ALR thresholds
PoT > 100% of MRITO	- (PoT - 100.00) x $100.00	May only grind to meet ALR thresholds

No ALR over 160 in/mi are allowed.

39-2.04A(4)(c)(iv)–39-2.04A(4)(c)(v) Reserved

39-2.04B Materials

39-2.04B(1) General

When mixed with asphalt binder, aggregate must not be more than 325 degrees F except aggregate for OGFC with unmodified asphalt binder must be not more than 275 degrees F.

39-2.04B(2) Open Graded Friction Course Mix Design

The Department determines the asphalt binder content under California Test 368 within 20 days of your complete JMF submittal and provides you a Caltrans Hot Mix Asphalt Verification form.

For OGFC, the 1st paragraph of section 39-2.01B(2)(a) does not apply.

39-2.04B(3) Asphalt Binder

Asphalt rubber binder in RHMA-O and RHMA-O-HB must comply with section 39-2.03B(3).

39-2.04B(4) Aggregates

39-2.04B(4)(a) General

Aggregates must comply with the requirements shown in the following table:

Aggregate Quality

Quality characteristic	Test method	Requirement
Percent of crushed particles		
Coarse aggregate (min, %)		
One-fractured face	AASHTO T 335	--
Two-fractured faces		90
Fine aggregate (min, %)		
(Passing no. 4 sieve and retained on no. 8 sieve)		
One-fractured face		90
Los Angeles Rattler (max, %)	AASHTO T 96	
Loss at 100 rev		12
Loss at 500 rev		40
Flat and elongated particles (max, % by weight at 5:1)	ASTM D4791	Report only

39-2.04B(4)(b) Aggregate Gradations

The aggregate gradations for HMA-O must comply with the requirements shown in the following table:

Aggregate Gradation Requirements

HMA-O pavement thickness shown	Gradation
0.10 foot or greater to less than 0.15 foot	1/2 inch
0.15 foot or greater	1 inch

The aggregate gradations for RHMA-O and RHMA-O-HB must comply with the requirements shown in the following table:

Aggregate Gradation Requirements

RHMA-O and RHMA-O-HB pavement thickness shown	Gradation
0.10 foot or greater	1/2 inch

For RHMA-O and RHMA-O-HB, the 1-inch aggregate gradation is not allowed.

For OGFC, the aggregate gradations must be within the TV limits for the specified sieve size shown in the following tables:

Aggregate Gradations for OGFC (Percentage Passing)

1 inch

Sieve size	Target value limit	Allowable tolerance
1 1/2"	100	--
1"	99–100	TV ± 5
3/4"	85–96	TV ± 5
1/2"	55–71	TV ± 6
No. 4	10–25	TV ± 7
No. 8	6–16	TV ± 5
No. 200	0.0–6.0	TV ± 2.0

1/2 inch

Sieve size	Target value limit	Allowable tolerance
3/4"	100	--
1/2"	95–100	TV ± 6
3/8"	78–89	TV ± 6
No. 4	28–37	TV ± 7
No. 8	7–18	TV ± 5
No. 30	0–10	TV ± 4
No. 200	0.0–3.0	TV ± 2.0

If lime treatment is required, you may reduce the lime ratio for the combined aggregates from 1.0 to 0.5 percent for OGFC.

39-2.04B(5) Sand

Sand for spreading over RHMA-O and RHMA-O-HB pavement must be free of clay or organic matter. Sand must comply with section 90-1.02C(3).

39-2.04C Construction

Use a material transfer vehicle when placing OGFC.

If the ambient air temperature is below 70 degrees F, cover loads in trucks with tarps. The tarps must completely cover the exposed load until you transfer the mixture to the paver's hopper or to the pavement surface. Tarps are not required if the time from discharge to truck until transfer to the paver's hopper or the pavement surface is less than 30 minutes.

Apply a tack coat before placing OGFC. The tack coat application rate must comply with the requirements of the following table:

Tack Coat Application Rates for OGFC

OGFC over:	Minimum residual rates (gal/sq yd)		
	CSS-1/CSS-1h, SS-1/SS-1h, and QS-1h/CQS-1h asphaltic emulsion	CRS-1/CRS-2 and QS-1/CQS-1 asphaltic emulsion	Asphalt binder and PMCRS-2/PMCRS-2h asphaltic emulsion
New HMA	0.03	0.04	0.03
Concrete pavement and existing asphalt concrete surfacing	0.05	0.06	0.04
Planed pavement	0.06	0.07	0.05

Compact OGFC with steel-tired, 2-axle tandem rollers. If placing over 300 tons of OGFC per hour, use at least 3 rollers for each paver. If placing less than 300 tons of OGFC per hour, use at least 2 rollers for each paver. Each roller must weigh from 126 to 172 lb per linear inch of drum width. Turn the vibrator off.

Compact OGFC with 2 coverages. The Engineer may order fewer coverages if the layer thickness of OGFC is less than 0.20 foot.

For HMA-O and HMA-O produced with WMA water injection technology:

1. With unmodified asphalt binder:
   1.1. Spread and compact only if the atmospheric temperature is at least 55 degrees F and the surface temperature is at least 60 degrees F
   1.2. Complete the 1st coverage using 2 rollers before the surface temperature drops below 240 degrees F
   1.3. Complete all compaction before the surface temperature drops below 200 degrees F
2. With modified asphalt binder, except asphalt rubber binder:
   2.1. Spread and compact only if the atmospheric temperature is at least 50 degrees F and the surface temperature is at least 50 degrees F
   2.2. Complete the 1st coverage using 2 rollers before the surface temperature drops below 240 degrees F
   2.3. Complete all compaction before the surface temperature drops below 180 degrees F

For HMA-O produced with WMA additive technology:

1. With unmodified asphalt binder:
   1.1. Spread and compact only if the atmospheric temperature is at least 45 degrees F and the surface temperature is at least 50 degrees F
   1.2. Complete the 1st coverage using 2 rollers before the surface temperature drops below 230 degrees F
   1.3. Complete all compaction before the surface temperature drops below 190 degrees F
2. With modified asphalt binder, except asphalt rubber binder:
   2.1. Spread and compact only if the atmospheric temperature is at least 40 degrees F and the surface temperature is at least 40 degrees F
   2.2. Complete the 1st coverage using 2 rollers before the surface temperature drops below 230 degrees F
   2.3. Complete all compaction before the surface temperature drops below 170 degrees F

For RHMA-O and RHMA-O produced with WMA water injection technology, and RHMA-O-HB and RHMA-O-HB produced with WMA water injection technology:

1. Spread and compact if the ambient air temperature is at least 55 degrees F and the surface temperature is at least 60 degrees F
2. Complete the 1st coverage using 2 rollers before the surface temperature drops below 280 degrees F
3. Complete compaction before the surface temperature drops below 250 degrees F

For RHMA-O produced with WMA additive technology and RHMA-O-HB produced with WMA additives technology:

1. Spread and compact if the ambient air temperature is at least 45 degrees F and the surface temperature is at least 50 degrees F
2. Complete the 1st coverage using 2 rollers before the surface temperature drops below 270 degrees F
3. Complete compaction before the surface temperature drops below 240 degrees F

Spread sand at a rate from 1 to 2 lb/sq yd on RHMA-O and RHMA-O-HB with or without WMA technology pavement after finish rolling activities are complete. Keep traffic off the pavement until spreading of the sand is complete.

If you choose to correct OGFC for smoothness, the Engineer determines if the corrective method causes raveling. OGFC that is raveling must be removed and replaced.

39-2.04D Payment

Not Used

39-2.05 BONDED WEARING COURSES

39-2.05A General

39-2.05A(1) General

39-2.05A(1)(a) Summary

Section 39-2.05 includes specifications for producing and placing bonded wearing courses.

Placing a BWC consists of applying a bonded wearing course asphaltic emulsion and placing the specified HMA in a single pass with an integrated paving machine.

BWC using RHMA-G, RHMA-O, or HMA-O must comply with the specifications for RHMA-G, RHMA-O, or HMA-O.

39-2.05A(1)(b) Definitions

Reserved

39-2.05A(1)(c) Submittals

With your JMF submittal, include:

1. Asphaltic emulsion target residual rate
2. Weight ratio of water to bituminous material in the original asphaltic emulsion

Within 3 business days following the 1st job site delivery, submit test results for asphaltic emulsion properties performed on a sample taken from the asphaltic emulsion delivered.

Within 1 business day of each job site delivery of asphaltic emulsion, submit to METS a 2-quart sample and a certificate of compliance. Ship each sample so that it is received at METS within 48 hours of sampling.

Each day BWC is placed, submit the residual and application rate for the asphaltic emulsion.

During production, submit certified volume or weight slips for the materials supplied.

39-2.05A(1)(d) Quality Assurance

39-2.05A(1)(d)(i) General

For each job site delivery of asphaltic emulsion, take a 2-qt sample in the presence of the Engineer. Take samples from the delivery truck at mid load from a sampling tap or thief. If the sample is taken from the tap, draw and discard 4 qt before sampling.

If you unload asphalt binder or asphaltic emulsion into a bulk storage tank, do not use material from the tank until you submit test results for a sample taken from the bulk storage tank. Testing must be performed by an AASHTO-accredited laboratory.

39-2.05A(1)(d)(ii) Quality Control

Take two 1-gallon samples of BWC.

Test the asphaltic emulsion under ASTM D2995 at least once per paving day at the job site.

39-2.05A(1)(d)(iii) Department Acceptance

The Department accepts asphaltic emulsion based on compliance with the requirements for bonded wearing course asphaltic emulsion.

The Department accepts the BWC based on the submitted asphaltic emulsion target residual rate ±0.02 gal/sq yd when tested under ASTM D2995.

39-2.05A(2) Materials

39-2.05A(2)(a) General

Reserved

39-2.05A(2)(b) Asphaltic Emulsion

Asphaltic emulsion must be bonded wearing course asphaltic emulsion.

39-2.05A(2)(c) Reserved

39-2.05A(3) Construction

39-2.05A(3)(a) General

Do not dilute the asphaltic emulsion.

Do not place BWC if rain is forecast for the project area within 24 hours by the National Weather Service.

39-2.05A(3)(b) Spreading and Compacting Equipment

Use method compaction for placing the BWC.

Use a material transfer vehicle when placing BWC. The material transfer vehicle must receive HMA directly from the truck.

Use an integrated distributor paver capable of spraying the asphaltic emulsion, spreading the HMA, and leveling the mat surface in 1 pass.

Apply asphaltic emulsion at a uniform rate for the full paving width. The asphaltic emulsion must not be touched by any part of the paver including wheels or tracks.

If the spray bar is adjusted for changing pavement widths, the paver must prevent excess spraying of asphaltic emulsion beyond 2 inches of the HMA edge.

39-2.05A(3)(c) Applying Asphaltic Emulsion

Before spreading HMA, apply asphaltic emulsion on dry or damp pavement with no free water.

Apply emulsion at a temperature from 120 to 180 degrees F and in a single application at the residual rate specified for the condition of the underlying surface. Asphaltic emulsion must have a target residual rate for the surfaces to receive the emulsion as shown in the following table:

Asphaltic Emulsion Target Residual Rate

Surface to receive asphaltic emulsion	Target residual rates
Concrete pavement (gal/sq yd)	0.09–0.11
Dense, compacted, new HMA pavement (gal/sq yd)	0.11–0.14
Open textured, dry, aged or oxidized existing asphalt concrete pavement (gal/sq yd)	0.13–0.17

If you request and your request is authorized, you may change the asphaltic emulsion application rates.

39-2.05A(3)(d) Placing and Compacting Hot Mix Asphalt

Construct a transverse joint if the HMA remains in the paver for more than 30 minutes.

Do not reintroduce HMA spread over asphaltic emulsion into the paving process.

Do not overlap or hot lap HMA. Pave through lanes after paving adjacent:

1. Shoulders
2. Tapers
3. Transitions
4. Road connections
5. Driveways
6. Curve widenings
7. Chain control lanes
8. Turnouts
9. Turn pockets
10. Ramps

For BWC placed on areas adjacent to through lanes that extend into the through lanes, cut the BWC to a neat, straight vertical line at the lane line.

If you spill asphaltic emulsion into the paver hopper, stop paving and remove the contaminated material.

39-2.05A(4) Payment

Payment for asphaltic emulsion is not included in the payment for the type of HMA used in a bonded wearing course.

39-2.05B Bonded Wearing Courses—Gap Graded

39-2.05B(1) General

39-2.05B(1)(a) Summary

Section 39-2.05B includes specifications for producing bonded wearing course—gap graded.

39-2.05B(1)(b) Definitions

Reserved

39-2.05B(1)(c) Submittals

Include film thickness and calculations and AASHTO T 305 results with your JMF submittal.

39-2.05B(1)(d) Quality Assurance

39-2.05B(1)(d)(i) General

Reserved

39-2.05B(1)(d)(ii) Quality Control

39-2.05B(1)(d)(ii)(A) General

Reserved

39-2.05B(1)(d)(ii)(B) Aggregates

Test the quality characteristics of the aggregates under the test methods and frequencies shown in the following table:

Aggregate Testing Frequencies

Quality characteristic	Test method	Minimum testing frequency
Gradation	AASHTO T 27	1 per 750 tons and any remaining part
Sand equivalent[a]	AASHTO T 176	
Moisture content[b]	AASHTO T 255	1 per 1500 tons and any remaining part
Crushed particles	AASHTO T 335	1 per 10,000 tons or 2 per project, whichever is greater
Los Angeles Rattler	AASHTO T 96	
Flat and elongated particles	ASTM D4791	
Fine aggregate angularity	AASHTO T 304, Method A	

[a]Reported value must be the average of 3 tests from a single sample. The use of a sand reading indicator is required as shown in AASHTO T 176, Figure 1. Sections 4.7, "Manual Shaker," 7.1.2, "Alternate Method No. 2," and 8.4.3, "Hand Method," do not apply. Prepare the stock solution as specified in section 4.8.1, "Stock solution with formaldehyde," except omit the addition of formaldehyde.

[b]Test at continuous mixing plants only.

For lime treated aggregate, test the aggregate before treatment and test for gradation and moisture content during BWC-G production.

39-2.05B(1)(d)(ii)(C) Bonded Wearing Course—-Gap Graded Production

Take two 1 gal samples of BWC-G in metal containers.

Test the quality characteristics of BWC-G under the test methods and frequencies shown in the following table:

BWC-G Testing Frequencies

Quality characteristic	Test method	Minimum testing frequency
Asphalt binder content	AASHTO T 308, Method A	1 per 750 tons and any remaining part
HMA moisture content	AASHTO T 329	1 per 2,500 tons but not less than 1 per paving day

39-2.05B(1)(d)(ii)(D)–39-2.05B(1)(d)(ii)(G) Reserved

39-2.05B(1)(d)(iii) Department Acceptance

The Department accepts BWC-G based on compliance with:

1. Asphalt binder content at JMF -0.40, +0.50 percent when tested under AASHTO T 308, Method A.
2. Aggregate quality requirements shown in the following table:

Aggregate Quality

Quality characteristic	Test method	Requirement
Aggregate gradation	AASHTO T 27	JMF ± Tolerance
Percent of crushed particles Coarse aggregate (min, %) One-fractured face Two-fractured faces Fine aggregate (min, %) (Passing no. 4 sieve and retained on no. 8 sieve) One fractured face	AASHTO T 335	 -- 90 85
Los Angeles Rattler (max, %) Loss at 100 rev Loss at 500 rev	AASHTO T 96	 12 35
Sand equivalent (min)[a]	AASHTO T 176	47
Flat and elongated particles (max, % by weight at 5:1)	ASTM D4791	25
Fine aggregate angularity (min, %)	AASHTO T 304, Method A	45

[a]Reported value must be the average of 3 tests from a single sample. The use of a sand reading indicator is required as shown in AASHTO T 176, Figure 1. Sections 4.7, "Manual Shaker," 7.1.2, "Alternate Method No. 2," and 8.4.3, "Hand Method," do not apply. Prepare the stock solution as specified in section 4.8.1, "Stock solution with formaldehyde," except omit the addition of formaldehyde.

39-2.05B(2) Materials

39-2.05B(2)(a) General

Reserved

39-2.05B(2)(b) Bonded Wearing Course—Gap Graded Mix Design

For BWC-G, the 1st paragraph of section 39-2.01B(2)(a) does not apply.

Determine the proposed OBC from a mix design that complies with the requirements shown in the following table:

Hot Mix Asphalt Mix Design Requirements

Quality characteristic	Test method	Requirement
Film thickness (min, µm)	Asphalt Institute MS-2 Table 8.1[a]	12
Drain down (max, %)	AASHTO T 305[b]	0.1

[a]Film thickness is calculated based on the effective asphalt content and determined as follows:

$$FT = \left(\frac{P_{be}}{SA \times G_b \times 1000} \right) 10^6$$

where:

FT = Film thickness in µm
P_{be} = Effective asphalt content by total weight of mix using *MS-2 Asphalt Mix Design Methods*
SA = Estimated surface area of the aggregate blend in m^2/kg from Table 8.1 in the Asphalt Institute *MS-2 Asphalt Mix Design Methods*
G_b = Specific gravity of asphalt binder

[b]Combine aggregate and asphalt at the asphalt binder supplier's instructed mixing temperature. Coated aggregates that fall through the wire basket during loading must be returned to the basket before conditioning at 350 °F for 1 hour.

The OBC must be greater than 4.9 percent by total weight of mix.

39-2.05B(2)(c) Asphalt Binder

Reserved

39-2.05B(2)(d) Aggregates

The aggregates must comply with the requirements shown in the following table:

Aggregate Quality

Quality characteristic	Test method	Requirement
Percent of crushed particles		
Coarse aggregate (min, %)		
One-fractured face	AASHTO T 335	--
Two-fractured faces		90
Fine aggregate (min, %)		
(Passing no. 4 sieve and retained on no. 8 sieve)		
One-fractured face		85
Los Angeles Rattler (max, %)		
Loss at 100 rev	AASHTO T 96	12
Loss at 500 rev		35
Sand equivalent (min)[a]	AASHTO T 176	47
Flat and elongated particles (max, % by weight at 5:1)	ASTM D4791	25
Fine aggregate angularity (min, %)	AASHTO T 304, Method A	45

[a]Reported value must be the average of 3 tests from a single sample. The use of a sand reading indicator is required as shown in AASHTO T 176, Figure 1. Sections 4.7, "Manual Shaker," 7.1.2, "Alternate Method No. 2," and 8.4.3, "Hand Method," do not apply. Prepare the stock solution as specified in section 4.8.1, "Stock solution with formaldehyde," except omit the addition of formaldehyde.

The aggregate gradations for BWC-G must comply with the requirements shown in the following table:

Aggregate Gradation Requirements

BWC-G pavement thickness shown	Gradation
less than 0.08 foot	No. 4 or 3/8 inch
0.08 foot or greater	1/2 inch

The proposed aggregate gradation must be within the TV limits for the specified sieve sizes shown in the following tables:

Aggregate Gradations for BWC-G (Percentage Passing)

1/2 inch

Sieve size	Target value limit	Allowable tolerance
3/4"	100	--
1/2"	80–100	TV ± 6
3/8"	55–80	TV ± 6
No. 4	25–40	TV ± 7
No. 8	19–32	TV ± 5
No. 16	16–22	TV ± 5
No. 30	10–18	TV ± 4
No. 50	8–13	TV ± 4
No. 100	6–10	TV ± 2
No. 200	4.0–7.0	TV ± 2.0

3/8 inch

Sieve size	Target value limit	Allowable tolerance
1/2"	100	--
3/8"	80–100	TV ± 6
No. 4	25–40	TV ± 7
No. 8	19–32	TV ± 5
No. 16	16–22	TV ± 5
No. 30	10–18	TV ± 4
No. 50	8–13	TV ± 4
No. 100	7–11	TV ± 2
No. 200	6.0–10.0	TV ± 2.0

No. 4

Sieve size	Target value limit	Allowable tolerance
1/2"	100	--
3/8"	95–100	TV ± 2
No. 4	42–55	TV ± 7
No. 8	19–32	TV ± 5
No. 16	16–22	TV ± 5
No. 30	10–18	TV ± 4
No. 50	8–13	TV ± 4
No. 100	7–11	TV ± 2
No. 200	6.0–10.0	TV ± 2.0

39-2.05B(3) Construction

Apply asphaltic emulsion when the ambient air and pavement temperatures are above 50 degrees F.

39-2.05B(4) Payment

Not Used

39-2.06 HOT MIX ASPHALT ON BRIDGE DECKS

39-2.06A General

Section 39-2.06 includes specifications for producing and placing hot mix asphalt on bridge decks.

HMA used for bridge decks must comply with the specifications for Type A HMA in section 39-2.02.

39-2.06B Materials

Do not use the 1-inch or 3/4-inch aggregate gradation for HMA on bridge decks.

The grade of asphalt binder for HMA must be PG 64-10 or PG 64-16.

39-2.06C Construction

Spread and compact HMA on bridge decks using method compaction.

If a concrete expansion dam is to be placed at a bridge deck expansion joint, tape oil-resistant construction paper to the deck over the area to be covered by the dam before placing the tack coat and HMA across the joint.

Apply a tack coat at the minimum residual rate specified in section 39-2.01C(3)(f). For HMA placed on a deck seal, use the minimum residual rate specified for concrete pavement.

For HMA placed on a deck seal:

1. Place the HMA within 7 days after installing the deck seal.
2. If a paper mask is placed on the deck under section 54-5.03, place the HMA continuously across the paper mask.
3. Place HMA in at least 2 approximately equal layers.
4. For placement of the 1st HMA layer:
   - 4.1. Comply with the HMA application temperature recommended by the deck seal manufacturer.
   - 4.2. Deliver and place HMA using equipment with pneumatic tires or rubber-faced wheels. Do not operate other vehicles or equipment on the bare deck seal.
   - 4.3. Deposit HMA on the deck seal in such a way that the deck seal is not damaged. Do not use a windrow.
   - 4.4. Place HMA in a downhill direction on bridge decks with grades over 2 percent.
   - 4.5. Self-propelled spreading equipment is not required.

39-2.06D Payment

Not Used

39-2.07 MINOR HOT MIX ASPHALT

39-2.07A General

39-2.07A(1) Summary

Section 39-2.07 includes specifications for producing and placing minor hot mix asphalt.

Minor HMA must comply with section 39-2.02 except as specified in this section 39-2.07.

The inertial profiler requirements in section 36-3 do not apply.

39-2.07A(2) Definitions

Reserved

39-2.07A(3) Submittals

The QC plan and test results in sections 39-2.01A(3)(c) and 39-2.01A(3)(d) do not apply.

39-2.07A(4) Quality Assurance

39-2.07A(4)(a) General

The JMF renewal requirements in section 39-2.01A(4)(d) do not apply.

Test pavement smoothness with a 12-foot straightedge.

39-2.07A(4)(b) Quality Control

Testing for compliance with the following quality characteristics is not required:

1. Flat and elongated particles
2. Fine aggregate angularity
3. Hamburg wheel track
4. Moisture susceptibility

39-2.07A(4)(c) Department Acceptance

The Department accepts minor HMA under section 39-2.02A(4)(e) except for compliance with requirements for the following quality characteristics:

1. Flat and elongated particles
2. Fine aggregate angularity
3. Hamburg wheel track
4. Moisture susceptibility

39-2.07B Materials

39-2.07B(1) General

Reserved

39-2.07B(2) Minor Hot Mix Asphalt Mix Design

The Hamburg wheel track and moisture susceptibility requirements do not apply to the mix design for minor HMA.

39-2.07B(3) Asphalt Binder

Reserved

39-2.07B(4) Liquid Antistrip Treatment

Treat minor HMA with liquid antistrip unless you submit AASHTO T 283 and California Test 389 test results showing compliance with section 39-2.02B and dated within 24 months of the submittal.

39-2.07C Construction

Not Used

39-2.07D Payment

Not Used

39-2.08–39-2.20 RESERVED

39-3 EXISTING ASPHALT CONCRETE

39-3.01 GENERAL

39-3.01A General

Section 39-3.01 includes general specifications for performing work on existing asphalt concrete facilities.

39-3.01B Materials

Not Used

39-3.01C Construction

Before removing a portion of an asphalt concrete facility, make a 2-inch-deep saw cut to a true line along the limits of the removal area.

39-3.01D Payment

Not Used

39-3.02 REPLACE ASPHALT CONCRETE SURFACING

39-3.02A General

Section 39-3.02 includes specifications for replacing asphalt concrete surfacing.

39-3.02B Materials

HMA to be used for replacing asphalt concrete surfacing must comply with Type A HMA as specified in section 39-2.02.

The grade of asphalt binder must be PG 64-10 or PG 64-16.

Tack coat must comply with section 39-2.01B(10).

39-3.02C Construction

Where replace asphalt concrete surfacing is shown, remove the full depth of the existing asphalt concrete surfacing and replace with HMA. The Engineer determines the exact limits of asphalt concrete surfacing to be replaced.

Replace asphalt concrete in a lane before the lane is specified to be opened to traffic.

Before removing asphalt concrete, outline the replacement area and cut neat lines with a saw or grind to full depth of the existing asphalt concrete. Do not damage asphalt concrete and base remaining in place.

If you excavate the base beyond the specified plane, replace it with HMA.

Do not use a material transfer vehicle for replacing asphalt concrete surfacing.

Before placing HMA, apply a tack coat as specified in section 39-2.01C(3)(f).

Place HMA using method compaction as specified in section 39-2.01C(2)(c).

39-3.02D Payment

The payment quantity for replace asphalt concrete surfacing is the volume determined from the dimensions shown.

39-3.03 REMOVE ASPHALT CONCRETE DIKES

39-3.03A General

Section 39-3.03 applies to removing asphalt concrete dikes outside the limits of excavation.

39-3.03B Materials

Not Used

39-3.03C Construction

Not Used

39-3.03D Payment

Not Used

39-3.04 COLD PLANING ASPHALT CONCRETE PAVEMENT

39-3.04A General

Section 39-3.04 includes specifications for cold planning asphalt concrete pavement.

Cold planning asphalt concrete pavement includes the removal of pavement markers, traffic stripes, and pavement markings within the area of cold planning.

Schedule cold planing activities such that the pavement is cold planed, the HMA is placed, and the area is opened to traffic during the same work shift.

39-3.04B Materials

HMA for temporary tapers must be of the same quality that is used for the HMA overlay or comply with the specifications for minor HMA in section 39-2.07.

39-3.04C Construction

39-3.04C(1) General

Do not use a heating device to soften the pavement.

The cold planing machine must be:

1. Equipped with a cutter head width that matches the planing width unless a wider cutter head is authorized.
2. Equipped with automatic controls for the longitudinal grade and transverse slope of the cutter head and:
   2.1. If a ski device is used, it must be at least 30 feet long, rigid, and a 1-piece unit. The entire length must be used in activating the sensor.
   2.2. If referencing from existing pavement, the cold planing machine must be controlled by a self-contained grade reference system. The system must be used at or near the centerline of the roadway. On the adjacent pass with the cold planing machine, a joint-matching shoe may be used.
3. Equipped to effectively control dust generated by the planing operation.
4. Operated such that no fumes or smoke is produced.

Replace broken, missing, or worn machine teeth.

If you do not complete placing the HMA surfacing before opening the area to traffic, you must:

1. Construct a temporary HMA taper to the level of the existing pavement.
2. Place HMA during the next work shift.
3. Submit a corrective action plan that shows you will complete cold planing and placement of HMA in the same work shift. Do not restart cold planing activities until the corrective action plan is authorized.

39-3.04C(2) Grade Control and Surface Smoothness

Install and maintain grade and transverse slope references. You may adjust the planed depth up to ± 0.03 foot from the depth shown to achieve uniform pavement profile, cross slope, and surface smoothness. The average cold planed depth must be equal to or greater than the depth shown.

The final cut must result in a neat and uniform surface.

The completed surface of the planed pavement must not vary more than 0.02 foot when measured with a 12-foot straightedge parallel with the centerline. With the straightedge at right angles to the centerline, the transverse slope of the planed surface must not vary more than 0.03 foot.

If you encounter delaminations during planing operations notify the Engineer immediately. If authorized, adjust the planed depth up to ± 0.05 foot to eliminate delaminations. Authorized work beyond the ± 0.05 foot range or other authorized mitigation work is change order work.

Where lanes are open to traffic, the drop-off of between adjacent lanes must not be more than 0.15 foot.

39-3.04C(3) Planed Material

Remove cold planed material concurrently with planing activities such that the removal does not lag more than 50 feet behind the planer.

39-3.04C(4) Temporary HMA Tapers

If a drop-off between the existing pavement and the planed area at transverse joints cannot be avoided before opening to traffic, construct a temporary HMA taper.

Completely remove temporary tapers before placing permanent surfacing.

39-3.04D Payment

Not Used

39-3.05 REMOVE BASE AND SURFACING

39-3.05A General

Section 39-3.05 includes specifications for removing base and asphalt concrete surfacing.

39-3.05B Materials

Not Used

39-3.05C Construction

Where base and surfacing are described to be removed, remove base and surfacing to a depth of at least 6 inches below the grade of the existing surfacing. Backfill resulting holes and depressions with embankment material under section 19.

39-3.05D Payment

The payment quantity for remove base and surfacing is the volume determined from the dimensions shown.

39-3.06–39-3.08 RESERVED

ITEM P-620 RUNWAY AND TAXIWAY MARKING

DESCRIPTION

620-1.1 This item shall consist of the preparation and painting of numbers, markings, and stripes on the surface of runways, taxiways, and aprons, in accordance with these specifications and at the locations shown on the plans, or as directed by the Resident Project Representative (RPR). The terms "paint" and "marking material" as well as "painting" and "application of markings" are interchangeable throughout this specification.

MATERIALS

620-2.1 MATERIALS ACCEPTANCE. The Contractor shall furnish manufacturer's certified test reports, for materials shipped to the project. The certified test reports shall include a statement that the materials meet the specification requirements. This certification along with a copy of the paint manufacturer's surface preparation; marking materials, including adhesion, flow promoting and/or floatation additive; and application requirements must be submitted and approved by the Resident Project Representative (RPR) prior to the initial application of markings. The reports can be used for material acceptance or the RPR may perform verification testing. The reports shall not be interpreted as a basis for payment. The Contractor shall notify the RPR upon arrival of a shipment of materials to the site. All material shall arrive in sealed containers that are easily quantifiable for inspection by the RPR.

620-2.2 MARKING MATERIALS.

TABLE 1. MARKING MATERIALS

Paint[1]					Glass Beads[2]	
Type	**Color**	**Coat**	**Fed Std. 595 Number**	**Application Rate Maximum**	**Type**	**Application Rate Minimum**
II	White	First	37925	115 ft² / gal	III	10 lb/gal
II	White	Second	37925	115 ft² / gal	III	10 lb/gal
II	Yellow	First	33538 or 33655	115 ft² / gal	III	10 lb/gal
II	Yellow	Second	33538 or 33655	115 ft² / gal	III	10 lb/gal
II	Black	First	37038	115 ft² / gal	N/A	N/A

[1] See paragraph 620-2.2a
[2] See paragraph 620-2.2b

a. Paint. Paint shall be waterborne in accordance with the requirements of this paragraph. Paint colors shall comply with Federal Standard No. 595.

Waterborne. Paint shall meet the requirements of Federal Specification TT-P-1952F, Type II. The non-volatile portion of the vehicle for all paint types shall be composed of a 100% acrylic polymer as determined by infrared spectral analysis.

b. Reflective media. Glass beads for white and yellow paint shall meet the requirements for Federal Specification TT-B-1325D Type III.

i. Glass beads for red and pink paint shall meet the requirements for Type I, Gradation A.
ii. Glass beads shall be treated with all compatible coupling agents recommended by the manufacturers of the paint and reflective media to ensure adhesion and embedment.
iii. Glass beads shall not be used in black and green paint.
iv. Type III glass beads shall not be used in red and pink paint.

CONSTRUCTION METHODS

620-3.1 WEATHER LIMITATIONS. Painting shall only be performed when the surface is dry, and the ambient temperature and the pavement surface temperature meet the manufacturer's recommendations in accordance with paragraph 620-2.1. Painting operations shall be discontinued when the ambient or surface temperatures does not meet the manufacturer's recommendations. Markings shall not be applied when the wind speed exceeds 10 mph unless windscreens are used to shroud the material guns. Markings shall not be applied when weather conditions are forecasts to not be within the manufacturers' recommendations for application and dry time.

620-3.2 EQUIPMENT. Equipment shall include the apparatus necessary to properly clean the existing surface, a mechanical marking machine, a bead dispensing machine, and such auxiliary hand-painting equipment as may be necessary to satisfactorily complete the job.

The mechanical marker shall be an atomizing spray-type or airless type marking machine with automatic glass bead dispensers suitable for application of traffic paint. It shall produce an even and uniform film thickness and appearance of both paint and glass beads at the required coverage and shall apply markings of uniform cross-sections and clear-cut edges without running or spattering and without over spray. The marking equipment for both paint and beads shall be calibrated daily.

620-3.3 PREPARATION OF SURFACES. Immediately before application of the paint, the surface shall be dry and free from dirt, grease, oil, laitance, or other contaminates that would reduce the bond between the paint and the pavement. Use of any chemicals or impact abrasives during surface preparation shall be approved in advance by the RPR. After the cleaning operations, sweeping, blowing, or rinsing with pressurized water shall be performed to ensure the surface is clean and free of grit or other debris left from the cleaning process.

a. Preparation of new pavement surfaces. The area to be painted shall be cleaned by broom, blower, or by other methods approved by the RPR to remove all contaminants, including PCC curing compounds, minimizing damage to the pavement surface.

b. Preparation of pavement to remove existing markings. Existing pavement markings shall be removed by rotary grinding or by other methods approved by the RPR minimizing damage to the

pavement surface. The removal area may need to be larger than the area of the markings to eliminate ghost markings. After removal of markings on asphalt pavements, apply a fog seal or seal coat to 'block out' the removal area to eliminate 'ghost' markings.

c. Preparation of pavement markings prior to remarking. Prior to remarking existing markings, loose existing markings must be removed minimizing damage to the pavement surface, with a method approved by the RPR. After removal, the surface shall be cleaned of all residue or debris.

Prior to the application of markings, the Contractor shall certify in writing that the surface is dry and free from dirt, grease, oil, laitance, or other foreign material that would prevent the bond of the paint to the pavement or existing markings. This certification along with a copy of the paint manufactures application and surface preparation requirements must be submitted to the RPR prior to the initial application of markings.

620-3.4 LAYOUT OF MARKINGS. The proposed markings shall be laid out in advance of the paint application. The locations of markings to receive glass beads shall be shown on the plans.

620-3.5 APPLICATION. A period of **30** days shall elapse between placement of surface course or seal coat and application of the permanent paint markings. Paint shall be applied at the locations and to the dimensions and spacing shown on the plans. Paint shall not be applied until the layout and condition of the surface has been approved by the RPR.

The edges of the markings shall not vary from a straight line more than 1/2 inch in 50 feet, and marking dimensions and spacing shall be within the following tolerances:

MARKING DIMENSIONS AND SPACING TOLERANCE

Dimension and Spacing	Tolerance
36 inch or less	±1/2 inch
greater than 36 inch to 6 feet	±1 inch
greater than 6 feet to 60 feet	±2 inch
greater than 60 feet	±3 inch

The paint shall be mixed in accordance with the manufacturer's instructions and applied to the pavement with a marking machine at the rate shown in Table 1. The addition of thinner will not be permitted.

Glass beads shall be distributed upon the marked areas at the locations shown on the plans to receive glass beads immediately after application of the paint. A dispenser shall be furnished that is properly designed for attachment to the marking machine and suitable for dispensing glass beads. Glass beads shall be applied at the rate shown in Table 1. Glass beads shall not be applied to black paint or green paint. Glass beads shall adhere to the cured paint or all marking operations shall cease until corrections are made. Different bead types shall not be mixed. Regular monitoring of glass bead embedment and distribution should be performed.

620-3.6 APPLICATION--PREFORMED THERMOPLASTIC AIRPORT PAVEMENT MARKINGS.

Preformed thermoplastic pavement markings not used.

620-3.7 CONTROL STRIP. Prior to the full application of airfield markings, the Contractor shall prepare a control strip in the presence of the RPR. The Contractor shall demonstrate the surface preparation method and all striping equipment to be used on the project. The marking equipment must achieve the prescribed application rate of paint and population of glass beads (per Table 1) that are properly embedded and evenly distributed across the full width of the marking. Prior to acceptance of the control strip, markings must be evaluated during darkness to ensure a uniform appearance.

620-3.8 RETRO-REFLECTANCE. Reflectance shall be measured with a portable retro-reflectometer meeting ASTM E1710 (or equivalent). A total of 6 reading shall be taken over a 6 square foot area with 3 readings taken from each direction. The average shall be equal to or above the minimum levels of all readings which are within 30% of each other.

MINIMUM RETRO-REFLECTANCE VALUES

Material	Retro-reflectance mcd/m2/lux		
	White	Yellow	Red
Initial Type I	300	175	35
Initial Type III	600	300	35
Initial Thermoplastic	225	100	35
All materials, remark when less than1	100	75	10

1 'Prior to remarking determine if removal of contaminants on markings will restore retro-reflectance

620-3.9 PROTECTION AND CLEANUP. After application of the markings, all markings shall be protected from damage until dry. All surfaces shall be protected from excess moisture and/or rain and from disfiguration by spatter, splashes, spillage, or drippings. The Contractor shall remove from the work area all debris, waste, loose reflective media, and by-products generated by the surface preparation and application operations to the satisfaction of the RPR. The Contractor shall dispose of these wastes in strict compliance with all applicable state, local, and federal environmental statutes and regulations.

METHOD OF MEASUREMENT

620-4.1a The quantity of surface preparation (obliteration) shall be measured by the number of square feet of existing pavement markings removed as marked on the project plan set. No separate payment will be made for preparation of pavement markings prior to remarking or preparation of new pavement surfaces.

620-4.1b The quantity of pavement markings, initial and final application, shall be paid for shall be measured by the number of square feet of painting**.**

620-4.1c The quantity of reflective media shall be incidental to the measurement of marking and will not be paid separately.

BASIS OF PAYMENT

620-5.1 This price shall be full compensation for furnishing all materials and for all labor, equipment, tools, and incidentals necessary to complete the item complete in place and accepted by the RPR in accordance with these specifications.

620-5.1b Payment for initial application of pavement markings shall be made at the contract price for the number of square feet of painting. This price shall be full compensation for furnishing all materials and for all labor, equipment, tools, and incidentals necessary to complete the item. No separate payment will be made for preparation of pavement markings prior to remarking or preparation of new pavement surfaces.

620-5.1c Payment for final application of pavement markings shall be made at the contract price for the number of square feet (square meters) of painting. This price shall be full compensation for furnishing all materials and for all labor, equipment, tools, and incidentals necessary to complete the item. No separate payment will be made for preparation of pavement markings prior to remarking or preparation of new pavement surfaces.

620-5.1d No separate payment will be made for reflective media.

620-5.1e Payment for surface preparation (obliteration) of existing pavement marking removal shall be made at the contract price for the number of square feet.

Payment will be made under:

Item P-620a	Pavement Markings, Yellow, Initial Application– per Square Foot
Item P-620b	Pavement Markings, Yellow, with Reflective Media, Final Application– per Square Foot
Item P-620c	Pavement Markings, White, Initial Application– per Square Foot
Item P-620d	Pavement Markings, White, with Reflective Media, Final Application– per Square Foot
Item P-620e	Pavement Markings, Black, Single Application– per Square Foot
Item P-620f	Surface Preparation (Obliteration)–per Square Foot

REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM International (ASTM)

ASTM D476	Standard Classification for Dry Pigmentary Titanium Dioxide Products
ASTM D968	Standard Test Methods for Abrasion Resistance of Organic Coatings by Falling Abrasive
ASTM D1652	Standard Test Method for Epoxy Content of Epoxy Resins
ASTM D2074	Standard Test Method for Total, Primary, Secondary, and Tertiary Amine Values of Fatty Amines by Alternative Indicator Method
ASTM D2240	Standard Test Method for Rubber Property - Durometer Hardness
ASTM D7585	Standard Practice for Evaluating Retroreflective Pavement Markings Using Portable Hand-Operated Instruments

ASTM E303	Standard Test Method for Measuring Surface Frictional Properties Using the British Pendulum Tester
ASTM E1710	Standard Test Method for Measurement of Retroreflective Pavement Marking Materials with CEN-Prescribed Geometry Using a Portable Retroreflectometer
ASTM E2302	Standard Test Method for Measurement of the Luminance Coefficient Under Diffuse Illumination of Pavement Marking Materials Using a Portable Reflectometer
ASTM G154	Standard Practice for Operating Fluorescent Ultraviolet (UV) Lamp Apparatus for Exposure of Nonmetallic Materials

Code of Federal Regulations (CFR)

40 CFR Part 60, Appendix A-7, Method 24	Determination of volatile matter content, water content, density, volume solids, and weight solids of surface coatings
29 CFR Part 1910.1200	Hazard Communication

Federal Specifications (FED SPEC)

FED SPEC TT-B-1325D	Beads (Glass Spheres) Retro-Reflective
FED SPEC TT-P-1952F	Paint, Traffic and Airfield Marking, Waterborne
FED STD 595	Colors used in Government Procurement

Commercial Item Description

A-A-2886B	Paint, Traffic, Solvent Based

Advisory Circulars (AC)

AC 150/5340-1	Standards for Airport Markings
AC 150/5320-12	Measurement, Construction, and Maintenance of Skid Resistant Airport Pavement Surfaces

END OF ITEM P-620

ITEM C-100
CONTRACTOR QUALITY CONTROL PROGRAM (CQCP)

100-01 GENERAL. Quality is more than test results. Quality is the combination of proper materials, testing, workmanship, equipment, inspection, and documentation of the project. Establishing and maintaining a culture of quality is key to achieving a quality project. The Contractor shall establish, provide, and maintain an effective Contractor Quality Control Program (CQCP) that details the methods and procedures that will be taken to assure that all materials and completed construction required by this contract conform to contract plans, technical specifications and other requirements, whether manufactured by the Contractor, or procured from subcontractors or vendors. Although guidelines are established and certain minimum requirements are specified here and elsewhere in the contract technical specifications, the Contractor shall assume full responsibility for accomplishing the stated purpose.

The Contractor shall establish a CQCP that will:

a. Provide qualified personnel to develop and implement the CQCP.

b. Provide for the production of acceptable quality materials.

c. Provide sufficient information to assure that the specification requirements can be met.

d. Document the CQCP process.

The Contractor shall not begin any construction or production of materials to be incorporated into the completed work until the CQCP has been reviewed and approved by the Resident Project Representative (RPR). No partial payment will be made for materials subject to specific quality control (QC) requirements until the CQCP has been reviewed and approved.

The QC requirements contained in this section and elsewhere in the contract technical specifications are in addition to and separate from the quality assurance (QA) testing requirements. QA testing requirements are the responsibility of the RPR or Contractor as specified in the specifications.

A Quality Control (QC)/Quality Assurance (QA) workshop with the Engineer, Resident Project Representative (RPR), Contractor, subcontractors, testing laboratories, and Owner's representative must be held prior to start of construction. The QC/QA workshop will be facilitated by the Contractor. The Contractor shall coordinate with the Airport and the RPR on time and location of the QC/QA workshop. Items to be addressed, at a minimum, will include:

a. Review of the CQCP including submittals, QC Testing, Action & Suspension Limits for Production, Corrective Action Plans, Distribution of QC reports, and Control Charts.

b. Discussion of the QA program.

c. Discussion of the QC and QA Organization and authority including coordination and information exchange between QC and QA.

d. Establish regular meetings to discuss control of materials, methods and testing.

e. Establishment of the overall QC culture.

Paving projects over $500,000 shall have a Quality Control (QC)/Quality Assurance (QA) workshop with the Engineer, Contractor, subcontractors, testing laboratories, and Owner's representative at start of construction. The workshop shall address QC and QA requirements of the project specifications. The Contractor shall coordinate with the Airport and the Engineer on time and location of the QC/QA workshop.

100-02 DESCRIPTION OF PROGRAM.

a. General description. The Contractor shall establish a CQCP to perform QC inspection and testing of all items of work required by the technical specifications, including those performed by subcontractors. The CQCP shall ensure conformance to applicable specifications and plans with respect to materials, off-site fabrication, workmanship, construction, finish, and functional performance. The CQCP shall be effective for control of all construction work performed under this Contract and shall specifically include surveillance and tests required by the technical specifications, in addition to other requirements of this section and any other activities deemed necessary by the Contractor to establish an effective level of QC.

b. Contractor Quality Control Program (CQCP). The Contractor shall describe the CQCP in a written document that shall be reviewed and approved by the RPR prior to the start of any production, construction, or off-site fabrication. The written CQCP shall be submitted to the RPR for review and approval at least 10 calendar days before the CQCP Workshop. The Contractor's CQCP and QC testing laboratory must be approved in writing by the RPR prior to the Notice to Proceed (NTP).

The CQCP shall be organized to address, as a minimum, the following:

1. QC organization and resumes of key staff
2. Project progress schedule
3. Submittals schedule
4. Inspection requirements
5. QC testing plan
6. Documentation of QC activities and distribution of QC reports
7. Requirements for corrective action when QC and/or QA acceptance criteria are not met
8. Material quality and construction means and methods. Address all elements applicable to the project that affect the quality of the pavement structure including subgrade, subbase, base, and surface course. Some elements that must be addressed include, but is not limited to mix design, aggregate grading, stockpile management, mixing and transporting, placing and finishing, quality control testing and inspection, smoothness, laydown plan, equipment, and temperature management plan.

The Contractor must add any additional elements to the CQCP that is necessary to adequately control all production and/or construction processes required by this contract

100-03 CQCP ORGANIZATION. The CQCP shall be implemented by the establishment of a QC organization. An organizational chart shall be developed to show all QC personnel, their authority, and how these personnel integrate with other management/production and construction functions and personnel.

The organizational chart shall identify all QC staff by name and function, and shall indicate the total staff required to implement all elements of the CQCP, including inspection and testing for each item of work. If necessary, different technicians can be used for specific inspection and testing functions for different items of work. If an outside organization or independent testing laboratory is used for implementation of all or part of the CQCP, the personnel assigned shall be subject to the qualification requirements of paragraphs 100-03a and 100-03b. The organizational chart shall indicate which personnel are Contractor employees and which are provided by an outside organization.

The QC organization shall, as a minimum, consist of the following personnel:

a. Program Administrator. The Contractor Quality Control Program Administrator (CQCPA) must be a full-time employee of the Contractor, or a consultant engaged by the Contractor. The CQCPA must have a minimum of five (5) years of experience in QC pavement construction with prior QC experience on a project of comparable size and scope as the contract.

Included in the five (5) years of paving/QC experience, the CQCPA must meet at least one of the following requirements:

(1) Professional Engineer with one (1) year of airport paving experience.

(2) Engineer-in-training with two (2) years of airport paving experience.

(3) National Institute for Certification in Engineering Technologies (NICET) Civil Engineering Technology Level IV with three (3) years of airport paving experience.

(4) An individual with four (4) years of airport paving experience, with a Bachelor of Science Degree in Civil Engineering, Civil Engineering Technology or Construction.

The CQCPA must have full authority to institute any and all actions necessary for the successful implementation of the CQCP to ensure compliance with the contract plans and technical specifications. The CQCPA authority must include the ability to immediately stop production until materials and/or processes are in compliance with contract specifications. The CQCPA must report directly to a principal officer of the construction firm. The CQCPA may supervise the Quality Control Program on more than one project provided that person can be at the job site within two (2) hours after being notified of a problem.

b. QC technicians. A sufficient number of QC technicians necessary to adequately implement the CQCP must be provided. These personnel must be either Engineers, engineering technicians, or experienced craftsman with qualifications in the appropriate field equivalent to NICET Level II in Civil Engineering Technology or higher, and shall have a minimum of two (2) years of experience in their area of expertise.

The QC technicians must report directly to the CQCPA and shall perform the following functions:

(1) Inspection of all materials, construction, plant, and equipment for conformance to the technical specifications, and as required by paragraph 100-6.
(2) Performance of all QC tests as required by the technical specifications and paragraph100-8.
(3) Performance of tests for the RPR when required by the technical specifications.

Certification at an equivalent level of qualification and experience by a state or nationally recognized organization will be acceptable in lieu of NICET certification.

c. Staffing levels. The Contractor shall provide sufficient qualified QC personnel to monitor each work activity at all times. Where material is being produced in a plant for incorporation into the work, separate plant and field technicians shall be provided at each plant and field placement location. The scheduling and coordinating of all inspection and testing must match the type and pace of work activity. The CQCP shall state where different technicians will be required for different work elements.

100-04 PROJECT PROGRESS SCHEDULE. Critical QC activities must be shown on the project schedule as required by SP-107.

100-05 SUBMITTALS SCHEDULE. The Contractor shall submit a detailed listing of all submittals (for example, mix designs, material certifications) and shop drawings required by the technical specifications. The listing can be developed in a spreadsheet format and shall include as a minimum:

a. Specification item number

b. Item description

c. Description of submittal

d. Specification paragraph requiring submittal

e. Scheduled date of submittal

100-06 INSPECTION REQUIREMENTS. QC inspection functions shall be organized to provide inspections for all definable features of work, as detailed below. All inspections shall be documented by the Contractor as specified by paragraph 100-9.

Inspections shall be performed as needed to ensure continuing compliance with contract requirements until completion of the particular feature of work. Inspections shall include the following minimum requirements:

a. During plant operation for material production, QC test results and periodic inspections shall be used to ensure the quality of aggregates and other mix components, and to adjust and control mix proportioning to meet the approved mix design and other requirements of the technical specifications. All equipment used in proportioning and mixing shall be inspected to ensure its proper operating condition. The CQCP shall detail how these and other QC functions will be accomplished and used.

b. During field operations, QC test results and periodic inspections shall be used to ensure the quality of all materials and workmanship. All equipment used in placing, finishing, and compacting shall be inspected to ensure its proper operating condition and to ensure that all such operations are in conformance to the technical specifications and are within the plan dimensions, lines, grades, and tolerances specified. The CQCP shall document how these and other QC functions will be accomplished and used.

100-07 CONTRACTOR QC TESTING FACILITY.

a. For projects that include Item P-401, Item P-403, and Item P-404, the Contractor shall ensure facilities, including all necessary equipment, materials, and current reference standards, are provided that meet requirements in the following paragraphs of ASTM D3666, *Standard Specification for Minimum Requirements for Agencies Testing and Inspecting Road and Paving Materials*:

- 8.1.3 Equipment Calibration and Checks;

- 8.1.9 Equipment Calibration, Standardization, and Check Records;

- 8.1.12 Test Methods and Procedures

b. For projects that include P-501, the Contractor shall ensure facilities, including all necessary equipment, materials, and current reference standards, are provided that meet requirements in the following paragraphs of ASTM C1077, *Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation*:

- 7 Test Methods and Procedures

- 8 Facilities, Equipment, and Supplemental Procedures

100-08 QC TESTING PLAN. As a part of the overall CQCP, the Contractor shall implement a QC testing plan, as required by the technical specifications. The testing plan shall include the minimum tests and test frequencies required by each technical specification Item, as well as any additional QC tests that the Contractor deems necessary to adequately control production and/or construction processes.

The QC testing plan can be developed in a spreadsheet fashion and shall, as a minimum, include the following:

a. Specification item number (e.g., P-401)

b. Item description (e.g., Hot Mix Asphalt Pavements)

c. Test type (e.g., gradation, grade, asphalt content)

d. Test standard (e.g., ASTM or American Association of State Highway and Transportation Officials (AASHTO) test number, as applicable)

e. Test frequency (e.g., as required by technical specifications or minimum frequency when requirements are not stated)

f. Responsibility (e.g., plant technician)

g. Control requirements (e.g., target, permissible deviations)

The QC testing plan shall contain a statistically-based procedure of random sampling for acquiring test samples in accordance with ASTM D3665. The RPR shall be provided the opportunity to witness QC sampling and testing.

All QC test results shall be documented by the Contractor as required by paragraph 100-09.

100-09 DOCUMENTATION. The Contractor shall maintain current QC records of all inspections and tests performed. These records shall include factual evidence that the required QC inspections or tests have been performed, including type and number of inspections or tests involved; results of inspections or tests; nature of defects, deviations, causes for rejection, etc.; proposed remedial action; and corrective actions taken.

These records must cover both conforming and defective or deficient features, and must include a statement that all supplies and materials incorporated in the work are in full compliance with the terms of the contract.

Legible copies of these records shall be furnished to the RPR daily. The records shall cover all work placed subsequent to the previously furnished records and shall be verified and signed by the CQCPA.

Contractor QC records required for the contract shall include, but are not necessarily limited to, the following records:

a. Daily inspection reports. Each Contractor QC technician shall maintain a daily log of all inspections performed for both Contractor and subcontractor operations. These technician's daily reports shall provide factual evidence that continuous QC inspections have been performed and shall, as a minimum, include the following:

(1) Technical specification item number and description

(2) Compliance with approved submittals

(3) Proper storage of materials and equipment

(4) Proper operation of all equipment

(5) Adherence to plans and technical specifications
(6) Summary of any necessary corrective actions

(7) Safety inspection.

(8) Photographs and/or video.

The daily inspection reports shall identify all QC inspections and QC tests conducted, results of inspections, location and nature of defects found, causes for rejection, and remedial or corrective actions taken or proposed.

The daily inspection reports shall be signed by the responsible QC technician and the CQCPA. The RPR shall be provided at least one copy of each daily inspection report on the work day following the day of record. When QC inspection and test results are recorded and transmitted electronically, the results must be archived.

b. Daily test reports. The Contractor shall be responsible for establishing a system that will record all QC test results. Daily test reports shall document the following information:

(1) Technical specification item number and description

(2) Test designation

(3) Location

(4) Date of test

(5) Control requirements

(6) Test results

(7) Causes for rejection

(8) Recommended remedial actions

(9) Retests

Test results from each day's work period shall be submitted to the RPR prior to the start of the next day's work period. When required by the technical specifications, the Contractor shall maintain statistical QC charts. When QC daily test results are recorded and transmitted electronically, the results must be archived.

100-10 CORRECTIVE ACTION REQUIREMENTS. The CQCP shall indicate the appropriate action to be taken when a process is deemed, or believed, to be out of control (out of tolerance) and detail what action will be taken to bring the process into control. The requirements for corrective action shall include both general requirements for operation of the CQCP as a whole, and for individual items of work contained in the technical specifications.

The CQCP shall detail how the results of QC inspections and tests will be used for determining the need for corrective action and shall contain clear rules to gauge when a process is out of control and the type of correction to be taken to regain process control.

When applicable or required by the technical specifications, the Contractor shall establish and use statistical QC charts for individual QC tests. The requirements for corrective action shall be linked to the control charts.

100-11 INSPECTION AND/OR OBSERVATIONS BY THE RPR. All items of material and equipment are subject to inspection and/or observation by the RPR at the point of production, manufacture or shipment to determine if the Contractor, producer, manufacturer or shipper maintains an adequate QC system in conformance with the requirements detailed here and the applicable technical specifications and plans. In addition, all items of materials, equipment and work in place shall be subject to inspection and/or observation by the RPR at the site for the same purpose.

Inspection and/or observations by the RPR does not relieve the Contractor of performing QC inspections of either on-site or off-site Contractor's or subcontractor's work.

100-12 NONCOMPLIANCE.

a. The Resident Project Representative (RPR) will provide written notice to the Contractor of any noncompliance with their CQCP. After receipt of such notice, the Contractor must take corrective action.

b. When QC activities do not comply with either the CQCP or the contract provisions or when the Contractor fails to properly operate and maintain an effective CQCP, and no effective corrective actions have been taken after notification of non-compliance, the RPR will recommend the Owner take the following actions:

(1) Order the Contractor to replace ineffective or unqualified QC personnel or subcontractors and/or

(2) Order the Contractor to stop operations until appropriate corrective actions are taken.

METHOD OF MEASUREMENT

100-13 Basis of measurement and payment. Quality Control Program (CQCP) is for the personnel, tests, facilities and documentation required to implement the CQCP. The CQCP will be paid as a lump sum with the following schedule of partial payments:

a. With first pay request, 25% with approval of CQCP and completion of the Quality Control (QC)/Quality Assurance (QA) workshop.
b. When 25% or more of the original contract is earned, an additional 25%.
c. When 50% or more of the original contract is earned, an additional 20%.
d. When 75% or more of the original contract is earned, an additional 20%
e. After final inspection and acceptance of project, the final 10%.

BASIS OF PAYMENT

100-14 Payment will be made under:

Item C-100a Contractor Quality Control Program (CQCP) – Lump Sum

REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

National Institute for Certification in Engineering Technologies (NICET)

ASTM International (ASTM)

ASTM C1077	Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation
ASTM D3665	Standard Practice for Random Sampling of Construction Materials
ASTM D3666	Standard Specification for Minimum Requirements for Agencies Testing and Inspecting Road and Paving Materials

END OF ITEM C-100

ITEM C-102
TEMPORARY AIR AND WATER POLLUTION, SOIL EROSION, AND SILTATION CONTROL

DESCRIPTION

102-1. This item shall consist of temporary control measures as shown on the plans or as ordered by the Resident Project Representative (RPR) during the life of a contract to control pollution of air and water, soil erosion, and siltation through the use of silt fences, berms, dikes, dams, sediment basins, fiber mats, gravel, mulches, grasses, slope drains, and other erosion control devices or methods.

Temporary erosion control shall be in accordance with the approved erosion control plan; the approved Construction Safety and Phasing Plan (CSPP) and AC 150/5370-2, *Operational Safety on Airports During Construction*. The temporary erosion control measures contained herein shall be coordinated with the permanent erosion control measures specified as part of this contract to the extent practical to assure economical, effective, and continuous erosion control throughout the construction period.

Temporary control may include work outside the construction limits such as borrow pit operations, equipment and material storage sites, waste areas, and temporary plant sites.

Temporary control measures shall be designed, installed and maintained to minimize the creation of wildlife attractants that have the potential to attract hazardous wildlife on or near public-use airports.

MATERIALS

102-2.1 Grass. Grass that will not compete with the grasses sown later for permanent cover shall be a quick-growing species (such as ryegrass, Italian ryegrass, or cereal grasses) suitable to the area providing a temporary cover. Selected grass species shall not create a wildlife attractant.

102-2.2 Mulches. Mulches may be hay, straw, fiber mats, netting, bark, wood chips, or other suitable material reasonably clean and free of noxious weeds and deleterious materials. Mulches shall not create a wildlife attractant.

102-2.3 Fertilizer. Fertilizer shall be a standard commercial grade and shall conform to all federal and state regulations and to the standards of the Association of Official Agricultural Chemists.

102-2.4 Slope drains. Slope drains may be constructed of pipe, fiber mats, rubble, concrete, asphalt, or other materials that will adequately control erosion.

102-2.5 Silt fence. Silt fence shall consist of polymeric filaments which are formed into a stable network such that filaments retain their relative positions. Synthetic filter fabric shall contain ultraviolet ray inhibitors and stabilizers to provide a minimum of six months of expected usable construction life. Silt fence shall meet the requirements of ASTM D6461.

102-2.6 Other. All other materials shall meet commercial grade standards and shall be approved by the RPR before being incorporated into the project.

CONSTRUCTION REQUIREMENTS

102-3.1 General. In the event of conflict between these requirements and pollution control laws, rules, or regulations of other federal, state, or local agencies, the more restrictive laws, rules, or regulations shall apply.

The RPR shall be responsible for assuring compliance to the extent that construction practices, construction operations, and construction work are involved.

102-3.2 Schedule. Prior to the start of construction, the Contractor shall submit schedules in accordance with the approved Construction Safety and Phasing Plan (CSPP) and the plans for accomplishment of temporary and permanent erosion control work for clearing and grubbing; grading; construction; paving; and structures at watercourses. The Contractor shall also submit a proposed method of erosion and dust control on haul roads and borrow pits and a plan for disposal of waste materials. Work shall not be started until the erosion control schedules and methods of operation for the applicable construction have been accepted by the RPR.

102-3.3 Construction details. The Contractor will be required to incorporate all permanent erosion control features into the project at the earliest practicable time as outlined in the plans and approved CSPP. Except where future construction operations will damage slopes, the Contractor shall perform the permanent seeding and mulching and other specified slope protection work in stages, as soon as substantial areas of exposed slopes can be made available. Temporary erosion and pollution control measures will be used to correct conditions that develop during construction that were not foreseen during the design stage; that are needed prior to installation of permanent control features; or that are needed temporarily to control erosion that develops during normal construction practices, but are not associated with permanent control features on the project.

Where erosion may be a problem, schedule and perform clearing and grubbing operations so that grading operations and permanent erosion control features can follow immediately if project conditions permit. Temporary erosion control measures are required if permanent measures cannot immediately follow grading operations. The RPR shall limit the area of clearing and grubbing, excavation, borrow, and embankment operations in progress, commensurate with the Contractor's capability and progress in keeping the finish grading, mulching, seeding, and other such permanent control measures current with the accepted schedule. If seasonal limitations make such coordination unrealistic, temporary erosion control measures shall be taken immediately to the extent feasible and justified as directed by the RPR.

The Contractor shall provide immediate permanent or temporary pollution control measures to minimize contamination of adjacent streams or other watercourses, lakes, ponds, or other areas of water impoundment as directed by the RPR. If temporary erosion and pollution control measures are required due to the Contractor's negligence, carelessness, or failure to install permanent controls as a part of the work as scheduled or directed by the RPR, the work shall be performed by the Contractor and the cost shall be incidental to this item.

The RPR may increase or decrease the area of erodible earth material that can be exposed at any time based on an analysis of project conditions.

The erosion control features installed by the Contractor shall be maintained by the Contractor during the construction period.

Provide temporary structures whenever construction equipment must cross watercourses at frequent intervals. Pollutants such as fuels, lubricants, bitumen, raw sewage, wash water from concrete mixing operations, and other harmful materials shall not be discharged into any waterways, impoundments or into natural or manmade channels.

102-3.4 Installation, maintenance and removal of silt fence. Silt fences shall extend a minimum of 16 inches (41 cm) and a maximum of 34 inches (86 cm) above the ground surface. Posts shall be set no more than 10 feet (3 m) on center. Filter fabric shall be cut from a continuous roll to the length required minimizing joints where possible. When joints are necessary, the fabric shall be spliced at a support post with a minimum 12-inch (300-mm) overlap and securely sealed. A trench shall be excavated approximately 4 inches (100 mm) deep by 4 inches (100 mm) wide on the upslope side of the silt fence. The trench shall be backfilled and the soil compacted over the silt fence fabric. The Contractor shall remove and dispose of silt that accumulates during construction and prior to establishment of permanent erosion control. The fence shall be maintained in good

working condition until permanent erosion control is established. Silt fence shall be removed upon approval of the RPR.

METHOD OF MEASUREMENT

102-4. No separate measurement will be made. Temporary Air and Water Pollution, Soil Erosion, and Siltation Control is considered incidental to the project.

BASIS OF PAYMENT

102-5.1 No separate payment will be made. Temporary Air and Water Pollution, Soil Erosion, and Siltation Control is considered incidental to the project.

REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

Advisory Circulars (AC)

AC 150/5200-33	*Hazardous Wildlife Attractants on or Near Airports*
AC 150/5370-2	*Operational Safety on Airports During Construction*

ASTM International (ASTM)

ASTM D6461	*Standard Specification for Silt Fence Materials*

United States Department of Agriculture (USDA)

FAA/USDA	Wildlife Hazard Management at Airports, A Manual for Airport Personnel

END OF ITEM C-102

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ITEM C-105
MOBILIZATION

105-1 DESCRIPTION. This item of work shall consist of, but is not limited to, work and operations necessary for the movement of personnel, equipment, facilities, material and supplies to and from the project site for work on the project except as provided in the contract as separate pay items.

105-2 MOBILIZATION LIMIT. Mobilization shall be limited to 10 percent of the total project cost.

105-3 POSTED NOTICES. Prior to commencement of construction activities, the Contractor must post the following documents in a prominent and accessible place where they may be easily viewed by all employees of the prime Contractor and by all employees of subcontractors engaged by the prime Contractor: Equal Employment Opportunity (EEO) Poster "Equal Employment Opportunity is the Law" in accordance with the Office of Federal Contract Compliance Programs Executive Order 11246, as amended; Davis Bacon Wage Poster (WH 1321) - DOL "Notice to All Employees" Poster; and Applicable Davis-Bacon Wage Rate Determination. These notices must remain posted until final acceptance of the work by the Owner.

105-4 ENGINEER/RPR FIELD OFFICE. Not required.

METHOD OF MEASUREMENT

105-5 Basis of measurement and payment. Based upon the contract lump sum price for "Mobilization" partial payments will be allowed as follows:

a. With first pay request, 25%.

b. When 25% or more of the original contract is earned, an additional 25%.

c. When 50% or more of the original contract is earned, an additional 40%.

d. After Final Inspection, Staging area clean-up and delivery of all Project Closeout materials as required by Section 90, paragraph 90-11, *Contractor Final Project Documentation,* the final 10%.

BASIS OF PAYMENT

105-6 Payment will be made under:

Item C-105a Mobilization (10% Maximum) – Lump Sum

REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

Office of Federal Contract Compliance Programs (OFCCP)
Executive Order 11246, as amended
EEOC-P/E-1 – Equal Employment Opportunity is the Law Poster
United States Department of Labor, Wage and Hour Division (WHD)
WH 1321 – Employee Rights under the Davis-Bacon Act Poster

END OF ITEM C-105

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DIVISION 7

COUNTY OF VENTURA STANDARD SPECIFICATIONS



COUNTY of VENTURA

Department of Airports

STANDARD SPECIFICATIONS

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COUNTY OF VENTURA

PUBLIC WORKS AGENCY

STANDARD SPECIFICATIONS

PART 1 - GENERAL PROVISIONS

SECTION 0 - SSPWC ADOPTION AND MODIFICATIONS

0-1 STANDARD SPECIFICATIONS

Except as hereinafter provided or as modified by the Special Provisions, the provisions of Parts 2 through 5 of the 2015 edition of the Standard Specifications for Public Works Construction (referred to as SSPWC), published by BNi Building News, Los Angeles, are part of these Standard Specifications.

0-2 DELETIONS

The following portions of SSPWC are hereby deleted: Part 1 and Sections 200-1.6.2, and 301-1.4.

0-3 NUMBERING OF SECTIONS

The numbering in these modifications is compatible with the numbering in SSPWC. References to whole sections of SSPWC and these modifications are preceded by the word "Section", references to parts of sections show numbers only, such as "211-5", except at the beginning of a sentence, the word "Section" precedes the number. Standard Special Provisions, if included, are numbered as Sections 901 through 999. The Special Provisions are numbered starting with Section 1000 or higher.

Cross-references contained in SSPWC to sections deleted by 0-2 hereof shall be references to the sections of like number contained herein.

0-4 ADDITIONS

The sections that follow, either, replace sections of like number in SSPWC which were deleted in 0-2 above, modify sections of SSPWC, or add material not in SSPWC.

SECTION 1 - TERMS, DEFINITIONS, ABBREVIATIONS, UNITS OF MEASURE AND SYMBOLS

1-1 GENERAL Unless otherwise stated, the words directed, required, permitted, ordered, instructed, designated, considered necessary, prescribed, approved, acceptable, satisfactory, or words of like meaning, refer to actions, expressions, and prerogatives of the Engineer.

1-2 TERMS AND DEFINITIONS

Acceptance--The formal written acceptance by the Agency of the Work which has been completed in all respects in accordance with the Plans and Specifications and any Modifications thereof.

Addendum--Written or graphic instrument issued prior to the opening of Bids which clarifies, corrects or changes the bidding or Contract Documents. The term "Addendum" shall include bulletins and all other types of written notices issued to potential bidders prior to opening of Bids.

Agency--The legal entity for which the Work is being performed. Agreement--See Contract.

Base--A layer of specified material of planned thickness placed immediately below the pavement or surfacing.

Bid--The offer or proposal of the Bidder submitted on the prescribed form setting forth the prices for the Work.

Bidder--Any individual, firm, partnership, corporation, or combination thereof, submitting a Bid for the Work, acting directly or through a duly authorized representative.

Board--The officer or body constituting the awarding authority of the Agency.

Bond--Bid, performance and payment bond or other instrument of security.

Cash Contract--A contract financed by means other than special assessments.

Certificate of Compliance—A written document signed and submitted by a supplier or manufacturer that certifies that the material or assembled material supplied to the Work site conforms to the requirements of the Contract Documents.

Change Order--A written order to the Contractor signed by the Agency directing an addition, deletion or revision in the Work, or an adjustment in the Contract Price or the Contract time issued after the effective date of the Contract. A Change Order may or may not also be signed by the Contractor.

Code--The terms Government Code, Labor Code, etc. refer to codes of the State of California.

Consultant--A professional engineer, architect, landscape architect or other professional who designed the project or performed other services for the Agency on the project.

Contract--The written agreement between the Agency and the Contractor covering the Work.

Contract Documents--The Contract, Addenda, notice inviting bids, instruction to bidders; Bid (including documentation accompanying the Bid and any post-bid documentation submitted prior to the Notice of Award) when attached as an exhibit to the Contract, the Bonds, permits from jurisdictional regulatory agencies, Special Provisions, Plans, Standard Plans, Standard Specifications, Reference Specifications, Change Orders and Supplemental Agreements.

Contractor--The individual, partnership, corporation, joint venture, or other legal entity having a Contract with the Agency to perform the Work. In the case of work being done under permit issued by the Agency, the Permittee shall be construed to be the Contractor. The term "prime contractor" shall mean Contractor.

Contract Price--The total amount of money for which the Contract is awarded.

Contract Unit Price--The amount shown in the Bid for a single unit of an item of work.

County Sealer--The Sealer of Weights and Measures of the county in which the Contract is let.

Days--Days shall mean consecutive calendar days unless otherwise specified.

Daily Extra Work Reports--Reports on Agency furnished forms as required by 3-3.

Disputed Work--Work in which Agency and Contractor are in disagreement.

Due Notice--A written notification, given in due time, of a proposed action where such notification is required by the Contract to be given a specified interval of time (usually 48 hours or two Working Days) prior to the commencement of the contemplated action. Notification may be from Engineer to Contractor or from Contractor to Engineer.

Electrolier--Street light assembly complete, including foundation, standard, luminaire arm, luminaire, etc.

1-2 DEFINITIONS (Continued)

Engineer-- The Director of Public Works Agency acting either directly or through properly authorized agents, such agents acting within the scope of the particular duties delegated to them.

Field Directive--A written communication from the Engineer to the Contractor that does not make any Modification to the Contract Documents. It is used only to answer Contractor's questions and to provide decisions as specified in the Contract Documents.

Geotextile--Synthetic fiber used in civil engineering applications, serving the primary function of separation and filtration.

House Connection Sewer--A sewer, within a public street or right of way, proposed to connect any parcel, lot, or part of a lot with a main line sewer.

House Sewer--A sewer, wholly within private property, proposed to connect any building to a house connection sewer.

Luminaire--The lamp housing including the optical and socket assemblies (and ballast if so specified).

Major Bid Item--A single Contract item constituting 10% or more of the original Contract Price.

Mast Arm- The structural member or bracket, which, when mounted on a Standard, supports the luminaire.

Modification--Includes Change Orders and Supplemental Agreements. A Modification may only be issued after the effective date of the Contract.

Notice of Award--The written notice by the Agency to the successful Bidder stating that upon compliance by it with the required conditions, the Agency will execute the Contract.

Notice to Proceed--A written notice given by the Agency to the Contractor fixing the date on which the Contract time will start.

Owner--Same meaning as Agency.

Person--Any individual, firm, association, partnership, corporation, trust, joint venture, or other legal entity.

Plans--The drawings, profiles, cross sections, Standard Plans, working drawings, shop drawings, and supplemental drawings, or reproductions thereof, approved by the Engineer, which show the location, character, dimensions, or details of the Work.

Private Contract--Work subject to Agency inspection, control, and approval, involving private funds, not administered by the Agency.

Prompt--The briefest interval of time required for a considered reply, including time required for approval by a governing body.

Proposal--See Bid.

Reference Specifications--Those bulletins, standards, rules, methods of analysis or testing, codes, and specifications of other agencies, engineering societies, or industrial associations referred to in the Contract Documents. These refer to the latest edition, including amendments in effect and published at the time of advertising the project or issuing the permit, unless specifically referred to by edition, volume, or date.

Roadway--The portion of a street reserved for vehicular use.

Service Connection-All or any portion of the conduit cable or duct including meter, between a utility distribution line and an individual consumer

Service Lateral Connection-The interface of the House Connection Sewer with the host pipe. Sewer--Any conduit intended for the reception and transfer of sewage and fluid industrial waste.

Shop Drawings—Drawings showing details of manufactured or assembled products proposed to be incorporated in the Work.

Special Provisions--Any provisions which supplement or modify the Standard Specifications.

Specifications--Standard Specifications, Reference Specifications, Standard Special Provisions, Special Provisions, and specifications in Change Orders or Supplemental Agreements between the Contractor and the Board.

Standard—The shaft or pole used to support street lighting luminaire, traffic signal heads, mast arms, etc.

Standard Plans--Details of standard structures, devices, or instructions referred to on the Plans or in the Specifications by title or number.

Standard Special Provisions-- Special Provisions prepared in standardized form numbered in the series 401 through 499.

1-2 DEFINITIONS (Continued)

Standard Specifications--Parts 1 through 6 of this document. See Section 0. References to whole sections will be preceded by the word "Section", references to parts of sections will show numbers only, such as "3-2", except at the beginning of a sentence, the word "Section" precedes the number.

State--The State of California.

State Standard Plans--Standard Plans prepared by State of California, Business and Transportation Agency, Department of Transportation.

Stipulated Unit Price--Unit prices established by Agency in the Contract Documents.

Storm Drain--Any conduit and appurtenances intended for the reception and transfer of storm water.

Street--Any road, highway, parkway, freeway, alley, walk or way.

Subbase--A layer of specified material of planned thickness between a base and the subgrade.

Subcontractor--An individual, firm or corporation having a direct contract with the Contractor or with any other Subcontractor for the performance of a part of the Work.

Subgrade--For roadways, that portion of the roadbed on which pavement, surfacing, base, subbase, or a layer of other material is placed. For structures, the soil prepared to support a structure.

Supervision--Supervision, where used to indicate supervision by the Engineer, shall mean the performance of obligations, and the exercise of rights, specifically imposed upon and granted to the Agency in becoming a party to the Contract. Except as specifically stated herein, supervision by the Agency shall not mean active and direct superintendence of details of the Work.

Supplemental Agreement--A written amendment of the Contract Documents signed by both parties.

Surety--See 2-4.

Utility--Tracks, overhead or underground wires, pipelines, conduits, ducts, or structures, sewers or storm drains owned, operated or maintained in or across a public right of way or private easement.

Work--That which is proposed to be constructed or done under the Contract or permit, including the furnishing of all labor, materials, equipment, and services.

Working Day--See 6-7.2 and 6.7.2.1.

Working Drawings—Drawings showing details not shown on the Plans which are required to designed by the Contractor

1-3 ABBREVIATIONS

1-3.1 General. The abbreviations herein, together with others in general use, are applicable to these Standard Specifications and to all other Contract Documents.

All abbreviations and symbols used on Plans for structural steel construction shall conform to those given by the "Manual of Steel Construction" published by the American Institute of Steel Construction, Inc.

1-3.2 Common Usage

Abbreviation	Word or Words	Abbreviation	Word or Words
Aban	Abandon	l	Liters
Aband	Abandoned	Lab	Laboratory
ABS	Acrylonitrile-butadiene-styrene	Lat	Lateral
AC	Asphalt Concrete	LD	Local depression
ACP	Asbestos cement pipe	LED	Light Emitting Diode
ADA	Americans with Disabilities Act of 1990 (Public Law 101- 336, 104 Sat. 1990,42 USC 12101-12213 (as amended))	LH	Lamp hole
Alt	Alternate	LL	Live load
AmerStd	American Standard	LOL	Layout line
APC	Air Placed Concrete	Long	Longitudinal
ARAM	Asphalt Rubber Aggregate Membrane	LP	Lamp post
ARHM	Asphalt Rubber Hot Mix	LPS	Low pressure sodium (Light)
AWG	American Wire Gage (non-ferrous wire)	LS	Lump sum
B/W	Back of wall	LTS	Lime treated soil
BC	Beginning of curve	m	Meters
BCR	Beginning of curb return	Maint	Maintenance
Bdry	Boundary	Max	Maximum
BF	Bottom of footing	MC	Medium curing
BM	Bench mark	MCR	Middle of curb return
BMPs	Best Management Practices	Meas	Measure
BVC	Beginning of vertical curve	MH	Manhole, maintenance hole
C&G	Curb & Gutter	Mil Spec	Military specification
C&G	Curb and gutter	Min	Minimum
CAB	Crushed aggregate base	Misc	Miscellaneous

Abbreviation	Word or Words
CALOSHA	California Occupational Safety and Health Administration
CALTRANS	California Department of Transportation
CAP	Corrugated aluminum pipe
CB	Catch Basin
Cb	Curb
CBP	Catch Basin Connection Pipe
CBR	California Bearing Ratio
C-C	Center to center
CCFRPM	Centrifugally Cast Fiberglass Reinforced Plastic Mortar
CCR	California Code of Regulations
CCTV	Closed Circuit TV
CF	Cubic foot
CF	Curb face
CFR	Code of Federal Regulations
CFS	Cubic feet per second
CHDPE	Corrugated High Density Polyethylene
CIP	Cast iron pipe
CIPP	Cast-in-place pipe
CIPPC	Cast-in-place Concrete Pipe
CL	Clearance, center line
CLF	Chain link fence
CLSM	Controlled Low Strength Material
CMB	Crushed miscellaneous base
CMC	Cement mortar-coated
CML	Cement mortar-lined
cms	Cubic meters per second
CO	Cleanout (Sewer)
Col	Column
Conc	Concrete
Conn	Connection
Const	Construct, Construction
Coord	Coordinate
CQS	Cationic Quick-Setting
CRM	Crumb Rubber Modifier
CRS	Cationic Rapid-Setting
CSEP	Confined Space Entry Plan
CSP	Corrugated steel pipe
CSPA	Corrugated steel pipe arch
CSS	Cationic Slow-Setting
CT	California Test
CTB	Cement treated base
CV	Check valve
CY	Cubic yard
D	Depth, Load of pipe
db	Decibels
Dbl	Double
DF	Douglas Fir
Dia	Diameter
DIP	Ductile iron pipe
DL	Dead load
DT	Drain tile
Dwg	Drawing
Dwy Appr	Driveway approach
Dwy	Driveway
Ea	Each
EC	End of curve
ECR	End of curb return
EF	Each face
EG	Edge of gutter
EGL	Energy grade line
El	Elevation
ELC	Electrolier lighting conduit
ELT	Extra long ton of slurry
Eng	Engineer, Engineering
EP	Edge of pavement

Abbreviation	Word or Words
Mon	Monument
MSDS	Material Safety Data Sheet
Mult	Multiple
MUTCD	Manual on Uniform Traffic Control Devices
MVL	Mercury vapor light
N/A	No applicable
NRCP	Nonreinforced concrete pipe
Obs	Obsolete
oc	On center
OD	Outside diameter
OE	Outer edge
Opp	Opposite
Orig	Original
PAV	Pressure Aging Vessel
PB	Pull box
PC	Point of curvature
PCC	Point of compound curvature
PCC	Portland cement concrete
PCVC	Point of compound vertical curve
PE	Polyethylene
PG	Performance Graded
PI	Point of intersection
PL	Property line
PLI	Pounds per linear inch
PMB	Processed miscellaneous base
POC	Point on curve
POT	Point on tangent
PP	Power pole
PRC	Point of reverse curve
PRCB	Precast Reinforced Concrete Box
PRVC	Point of reverse vertical curve
PSI	Pounds per square inch
PT	Point of tangency
PVC	Polyvinyl chloride
Pvmt	Pavement
Pvt R/W	Private right of way
Q	Rate of flow in cms (CFS)
Quad	Quadrangle, Quadrant
R	Radius or Resistance value
R&O	Rock and Oil
R/W	Right of way
RA	Reclaimed Asphalt or Recycling agent
RAC	Recycled asphalt concrete
RAP	Reclaimed asphalt pavement
RBAC	Rubberized asphalt concrete
RC	Reinforced concrete or Rapid Curing
RCB	Reinforced concrete box
RCE	Registered civil engineer
RCP	Reinforced concrete pipe
RCV	Remote control valve
Ref	Reference
Reinf	Reinforced or reinforcement
Res	Reservoir
RGE	Registered geotechnical engineer
RPPCC	Reclaimed Plastic Portland Cement Concrete
RR	Railroad
RSE	Registered structural engineer
RTE	Registered traffic engineer
RTFO	Rolling Thin Film Oven
RW	Reclaimed Water
S	Slope
S/W	Sidewalk
SC	Slow curing
SCCP	Steel cylinder concrete pipe
SCNs	Supplementary Cementitious Materials

Abbreviation	Word or Words
Esmt	Easement
ETB	Emulsion treated base
SD	Storm drain
SDR	Standard dimension ratio

Abbreviation	Word or Words
EVC	End of vertical curve
Exc	Excavation
Exist or Ex	Existing
Exp Jt	Expansion joint
F & C	Frame and cover
F & I	Furnish and install
F/W	Face of wall
Fab	Fabricate
FAS	Flashing arrow sign
FD	Floor drain
Fdn	Foundation
Fed Spec	Federal Specification
FG	Finished grade
FL	Flow line
FS	Finished surface
ft - lb	foot – pound
Ftg	footing
FW	Face of wall
Ga	Gauge
Galv	Galvanized
GG	Gap graded
GIP	Galvanized iron pipe
GL	Ground line or grade line
GM	Gas meter
GP	Guy pole
Gr	Grade
Grtg	Grating
GSP	Galvanized steel pipe
H	High or height
HB	Hose bib
HC	House connection
HDPE	High density Polyethylene
HDWL	Headwall
HGL	Hydraulic grade line
Hor, Horiz	Horizontal
Hp	Horsepower
HPG	High pressure gas
HPS	High pressure sodium (Light)
HRWRA	High Range Water Reducing Admixture
Hyd, Hydr	Hydraulic
ID	Inside diameter
Incl	Include, Including
Insp	Inspection
Inv	Invert
IP	Iron pipe
J	Joules
JC	Junction chamber
Jct	Junction
JS	Junction structure
Jt	Joint
kg	Kilograms
kPa	KiloPascals
L	Length

Abbreviation	Word or Words
SE	Sand Equivalent
Sec	Section
SF	Square foot
SG	Specific gravity
SI	International System of Units (Metric)
SLC	Service Lateral Connection
Spec	Specifications
SR	Standard ratio
SS	Sanitary sewer
SSB	Select sub-base
SSP	Structural steel plate pipe
SSPA	Structural steel plate pipe arch
St Hwy	State highway
Sta	Station
Std	Standard
Str Gr	Straight grade
Str	Straight
Struc	Structural/Structure
SW	Sidewalk
SWD	Sidewalk drain
SWPPP	Storm Water Pollution Prevention Plan
SY	Square Yard
T/W	Top of wall
Tan	Tangent
TC	Top of curb
TCP	Traffic control plan
Tel	Telephone
TF	Top of footing
Topo	Topography
Tr	Tract
Trans	Transition
TRMAC	Tire rubber modified asphalt concrete
TS	Traffic signal or transition structure
TSC	Traffic signal conduit
TSS	Traffic signal standard
TTC	Temporary traffic control
TW	Top of wall
Typ	Typical
U.S.	United States
U.S.C.	United States Code
USA	Underground Service Alert
Var	Varies, Variable
VB	Valve box
VC	Vertical curve
VCP	Vitrified clay pipe
Vert	Vertical
Vol	Volume
VTCSH	Vehicle Traffic Controls Signal Heads
W	Width or Wider
WATCH	Work Area Traffic Control Handbook
WI	Wrought iron
WM	Water meter
WPJ	Weakened plane joint
WTAT	Wet Track Abrasion Test
X Conn	Cross connection
x (as in 2x4)	by
X-Sec	Cross section

Oxnard Airport
Ventura County, California

1-3.3 Institutions.

Abbreviation	Word or Words
AAN	American Association of Nurserymen
AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
AGC	Associated General Contractors of America
AISC	American Institute of Steel Construction
ANSI	American National Standards Institute
API	American Petroleum Institute
APWA	American Public Works Association
AREA	American Railway Engineering Association
ASHRAE	American Society of Heating, Refrigeration and Air-Conditioning Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
AWPA	American Wood Preserver's Association
AWS	American Welding Society
AWWA	American Water Works Association
CBSC	California Building Standards Commission
CRSI	Concrete Reinforcing Steel Institute
EIA	Electronic Industries Association
EPA	Environmental Protection Agency
ETL	Electrical Testing Laboratories
FCC	Federal Communications Commission
IAPMO	International Association of Plumbing and Mechanical Officials
ICC	International Code Council
IEEE	Institute of Electrical and Electronics Engineers
IMSA	International Municipal Signal Association
ITE	Institute of Traffic Engineers
NEMA	National Electrical Manufacturers Association
NFPA	National Fire Protection Association
NOAA	National Oceanic and Atmospheric Administration (Department of Commerce)
RUS	Rural Utility Service
UL	Underwriters' Laboratories, Inc.
USGS	United State Geological Survey
WFCA	Western Fire Chiefs Association

1-3.4 Building Codes. The Ventura County Building Code (VCBC) and Ventura County Fire Code (VCFC) are applicable to the Work. VCBC and VCFC adopt by reference a number of uniform and national codes. Where such codes are referenced directly in the Specifications, such references shall be to the VCBC or VCFC which adopt and modify certain provisions in the referenced codes.

Abbreviation	Code	Publisher
CBC	California Building Code	CBSC
DBC	Uniform Code for Abatement of Dangerous Building	ICC
UBC	Uniform Building Code	ICC
UFC	Uniform Fire Code	ICC and WFCA
UHC	Uniform Housing Code	ICC
UMC	Uniform Mechanical Code	IAPMO
UPC	Uniform Plumbing Code	IAPMO
NEC	National Electrical Code	NFPA

1-3.5 Reference Documents.

Abbreviation	Document
HDM	Highway Design Manual, State of California, Department of Transportation, Latest Edition
MUTCD	Manual on Uniform Traffic Control Devices
SSP	Standard Plans, State of California, Department of Transportation, latest edition
SPPWC	Standard Plans for Public Works Construction, Latest edition, published by BNi Building News, Los Angeles,
SSPWC	Standard Specifications for Public Works Construction, (See Section 0-1)
SSS	Standard Specifications, State of California, Department of Transportation, latest edition
VCSS	Ventura County Standard Specifications (Division 1, Sections 0 through 10, of which this section is a part)

1-4 UNITS OF MEASURE

1-4.1 General. The International System of Units, also referred to as SI or the metric system, is the principal measurement system in these Specifications and shall be used for construction, unless otherwise stated in the Contract Documents. U. S. Standard Measure, also called U. S. Customary System, are included in parenthesis. SI units and U. S. Standard Measure in parenthesis may or may not be exactly equivalent. If U. S. Standard Measures are specified for use in the Contract Documents, then all values used for construction shall be U. S. Standard Measures shown in parentheses. However, certain material Specifications and test requirements contained herein use SI units specifically and conversions to U. S. Measures have not been included in these circumstances. When U. S. Standard Measures are not included in parentheses, the SI units shall control.

Reference is also made to ASTM E 380 for definitions of various units of the SI system and a more extensive set of conversion factors.

1-4.1.1 Units for Work. Where U. S. Standard Measure units are shown on the Plans or are specified, U. S. Standard Measure shall be used for the Work.

1-4.2 Units of Measure, Equivalents and Abbreviations

One U.S. Customary Unit	(abbreviation)	Is Equal To	#	SI Unit
mil (=0.001 in)		25.4	micrometers	(µm)
inch	(in)	25.4	millimeter	(mm)
inch	(in)	2.54	centimeter	(cm)
foot	(ft)	0.3048	meter	(m)
yard	(yd)	0.9144	meter	(m)
mile		1.6093	kilometer	(km)
square foot	(ft^2)	0.0929	square meter	(m^2)
square yard	(yd^2)	0.8361	square meter	(m^2)
cubic foot	(ft^3)	0.0283	cubic meter	(m^3)
cubic yard	(yd^3)	0.7646	cubic meter	(m^3)
acre (=43,560 ft^2)		0.4047	hectare (1ha=10,000m^2)	(ha)
gallon	(gal)	3.7854	Liter	(L)
fluid ounce	(fl. oz.)	29.5735	milliliter	(mL)
pound mass (avoirdupois)	(lbs)	0.4536	kilogram	(kg)
ounce mass	(oz)	0.02835	kilogram	(kg)
ounce mass	(oz)	28.35	grams	(g)
Ton (=2000 lb avoirdupois)		0.9072	Tonne (1 Tonne = 1000 kg)	
Poise		0.10	Pascal-second	(Pa-s)
centistoke	(cs)	1.00	square millimeter/sec.	(mm^2/s)
pound force	(lbf)	4.4482	Newton	(N)
pound per square inch	(psi)	6.8948	Kilopascal	(kPa)
pound force per foot	(lbf/ft)	14.594	Newton per meter	(N/M)
foot-pound force	(ft-lbf)	1.3558	Joules	(J)
foot-pound force per second	([ft-lbf]/s)	1.3558	Watt	(W)
part per million	(ppm)	1.00	milligram/liter	(mg/L)
Degree Fahrenheit	(°F)	0.5555	Degree Celsius	(°C)

Temperature: Celsius to Fahrenheit	Temperature: Fahrenheit to Celsius
Temperature °F = (1.8 x °C) + 32	Temperature °C = (°F - 32) / 1.8

SI Units Used in Both Systems		
Ampere (A)	second (s)	Candela (cd)
Volt (V)	decibel (db)	Lumen (lm)

Common Metric Prefixes					
kilo (k)	10^3	milli (m)	10^{-3}	nano (n)	10^{-9}
centi (c)	10^{-2}	micro (µ)	10^{-6}	pico (p)	10^{-12}

1-5 SYMBOLS

º	Degree	PL	Property line	%	Percent
'	Feet or minutes	SL	Survey line or station line	#	Number
"	Inches or seconds	CL	Center line	/	per or of (between words)
Δ	Delta, the central angle or angle between tangents			∠	Angle

SECTION 2 - SCOPE AND CONTROL OF WORK 2-1

2-1 AWARD AND EXECUTION OF CONTRACT

2-1.1 Award of Contract. The right is reserved to waive minor irregularities in the proposals and to reject any or all proposals. The award of the Contract, if it be awarded, will be to the lowest responsive, responsible Bidder, determined as provided on the Proposal Form, whose Proposal complies with all the requirements prescribed. Such award, if made, will be made within the number of Days stated in the Proposal form. If the lowest responsible Bidder refuses or fails to execute the Contract, the Agency may, within 45 additional Days, consider the next lowest Bidder to be the lowest responsive, responsible Bidder. The periods of time specified above within which the award of Contract may be made shall be subject to extension for such further period as may be agreed upon in writing by the Bidder concerned. If the Bidder's bid guarantee was in the form of a bid bond, the Bidder shall also submit a statement from the Surety that the bond has been extended for the same period.

Proposals not accompanied by a properly executed Noncollusion Affidavit required by Public Contract Code Section 7106 will be considered nonresponsive and will not be considered for award.

All bids will be compared on the basis of the quantities, amounts and unit prices, or lump sums, as shown on the Bid Proposal.

Before award, the Bidder may be required to furnish acceptable evidence of adequate capability, equipment and financial resources to adequately perform the Work. Bidders found not to be so qualified may have their bids rejected. If reasonable cause exists to believe collusion exists among Bidders, or that prices Bid are unbalanced between Bid items, any or all proposals may be rejected.

Award will not be made to a Bidder who is listed by the State Labor Commissioner as ineligible to bid, work on, or be awarded public works projects.

2-1.2 Notice of Award. Within one Day after award of Contract by the Board, the Bidder to whom Contract is awarded will be notified of award by email and telephone, or if no contact is made by telephone, then by mail. Within three business days after award of Contract, a Notice of Award will be sent, transmitting the Contract Documents to such Bidder for execution. If telephone contact is made, the Bidder may request that the Contract Documents be held in Agency's office to be picked up.

2-1.3 Execution of Contract Documents. On receipt of the Contract Documents, the Bidder shall promptly obtain the required insurance coverage, certificates of insurance, power-of-attorney and Contract bonds, execute the Contract, and transmit all required documents to the Agency.

2-1.4 Failure to Execute Documents. Should the Bidder fail to furnish Agency all required documents, properly executed, prior to the starting day of the Contract time computed as provided in 6-7.4 and stated in the Notice of Award, Agency may thereafter declare the Bidder to be in default and its Proposal guarantee forfeited.

2-1.5 Return of Proposal Guarantees. Within 10 Days after the award of the Contract, Agency will return the Proposal guarantees, other than Bidder's bonds, accompanying such of the proposals as are not to be further considered in making the award. The low and second Bidder's Proposal guarantee will be held until the Contract has been executed, after which all Proposal guarantees, except Bidders' bonds and any guarantees which have been forfeited, will be returned to the respective Bidders whose proposals they accompany.

2-2 ASSIGNMENT. No Contract or portion thereof may be assigned without consent of the Board except that the Contractor may assign money due or which will accrue to it under the Contract. If given written notice, such assignment will be recognized by the Board to the extent permitted by law, but any assignment of money shall be subject to all proper withholdings in favor of the Agency and to all deductions provided for in the Contract. All money withheld, whether assigned or not, shall be subject to being used by the Agency for completion of the Work, should the Contractor be in default.

2-3 SUBCONTRACTS.

2-3.1 General. Each Bidder shall comply with the Chapter of the Public Contract Code including Sections 4100 through 4113. The following excerpts or summaries of some of the requirements of that Chapter are included below for information.

The Bidder shall set forth in the Bid, as provided in 4104:

"(a) (1) The name, the location of the place of business, and the California contractor license number of each subcontractor who will perform work or labor or render service to the prime contractor in or about the construction of the work or improvement, or a subcontractor licensed by the State of California who, under subcontract to the prime contractor, specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the plans and specifications, in an amount in excess of one- half of 1 percent of the prime contractor's total bid or, in the case of bids or offers for the construction of streets or highways, including bridges, in excess of one-half of 1 percent of the prime contractor's total bid or ten thousand dollars ($10,000), whichever is greater.

(2) An inadvertent error in listing the California contractor license number provided pursuant to paragraph (1) shall not be grounds for filing a bid protest or grounds for considering the bid nonresponsive if the corrected contractor's license number is submitted to the public entity by the prime contractor within 24 hours after the bid opening and provided the corrected contractor's license number corresponds to the submitted name and location for that subcontractor."

If the Contractor fails to specify a Subcontractor, or specifies more than one Subcontractor for the same portion of the Work to be performed under the Contract (in excess of one-half of 1 percent of the Contractor's total bid), the Contractor shall be qualified to perform that portion itself, and shall perform that portion itself except as otherwise provided in the Code.

Except as provided in Section 4107, no prime contractor, whose Bid is accepted, shall substitute any person or Subcontractor in place of the Subcontractor listed in the original bid other than for causes and by procedures established in Section 4107.5 which provides procedures to correct a clerical error in the listing of a Subcontractor. Section 4110 provides that a Contractor violating any of the provisions of the Chapter violates the Contract and the Board may exercise the option either to cancel the Contract or assess the Contractor a penalty in an amount of not more than 10 percent of the subcontract involved, after a public hearing.

2-3.1.1 Use of Debarred Subcontractors Prohibited. The Contractor is prohibited from performing work using a Subcontractor who is listed by the State Labor Commissioner as ineligible to work on public works projects.

2-3.2 Additional Responsibilities. The Contractor shall give personal attention to the fulfillment of the Contract and shall keep the Work under its control.

Except where the required Contractor's License Class is "B", the Contractor shall perform, with its own organization, Contract work amounting to at least 50 percent of the Contract Price except that any designated "Specialty Items" may be performed by subcontract and the amount of any such "Specialty Items" so performed may be deducted from the Contract Price before computing the amount required to be performed by the Contractor with its own organization. "Specialty Items" will be identified by the Agency in the Bid or Proposal with an "[S]". Where an entire item is subcontracted, the value of work subcontracted will be based on the Contract Unit Price. This will be determined from information submitted by the Contractor, and subject to approval by the Engineer.

Before the work of any Subcontractor is started, the Contractor shall submit to the Engineer for approval a written statement showing the work to be subcontracted giving the name, contractor license number, registration with the Department of Industrial Relations, and business of each Subcontractor and description and value of each portion of work to be subcontracted.

2-3.3 Status of Subcontractors. Subcontractors shall be considered employees of the Contractor, and the Contractor shall be responsible for their work.

2-3.3.1 Subcontracts. The Contractor shall incorporate into all subcontracts, and the Subcontractor shall incorporate into all lower tier subcontracts, all of the Plans and Specifications which are part of the Contract between the Contractor and the Agency.

2-3.3.2 Contractor Responsible. The Contractor is responsible for properly performing and completing all Work required by the Contract whether or not it employs subcontractors for certain portions of the Work. It shall coordinate the sequence and timing of its efforts and that of its subcontractors to insure the proper and timely completion of the Work.

2-3.3.3 Specialty Contractors. Where a specialty Contractor's license is required by law or by the Specifications in order to perform certain portions of the Work, the Contractor may perform such portion with its own forces if it holds the proper license. Otherwise, it shall employ a properly licensed subcontractor to perform that portion of the Work. Such requirement to employ a subcontractor does not modify the other requirements of 2-3.

2-4 CONTRACT BONDS. Before execution of the Contract by the Agency, the Bidder shall file surety bonds with the Agency to be approved by the Board in the amounts and for the purposes noted below. Bonds issued by a Surety who is listed in the latest version of U.S. Department of Treasury Circular 570, who is authorized to issue bonds in California, and whose bonding limitation shown in said circular is sufficient to provide bonds in the amount required by the Contract shall be deemed to be approved unless specifically rejected by the Agency. Bonds from all other sureties shall be accompanied by all of the documents enumerated in Code of Civil Procedure 995.660(a). The Bidder shall pay all bond premiums, costs, and incidentals.

Each bond shall incorporate, by reference, the Contract and be signed by both the Bidder and Surety and the signature of the authorized agent of the Surety shall be notarized.

The Bidder shall provide two good and sufficient surety bonds. The "Payment Bond" (Material and Labor Bond) shall be for not less than 100 percent of the Contract Price, to satisfy claims of material suppliers and mechanics and laborers employed by it on the Work. The bond shall be maintained by the Contractor in full force and effect until the Work is accepted by the Agency, and until all claims for materials and labor are paid, and shall otherwise comply with the Civil Code.

The "Performance Bond" shall be for 100 percent of the Contract Price to guaranty faithful performance of all Work, within the time prescribed, in a manner satisfactory to the Agency, and that all materials and workmanship will be free from original or developed defects. The bond must remain in effect until the end of the warranty period set forth in 6.8-2.

Should any bond become insufficient, the Contractor shall renew the bond within 10 Days after receiving notice from the Agency.

Should any Surety at any time be unsatisfactory to the Board, notice will be given the Contractor to that effect. No further payments shall be deemed due or will be made under the Contract until a new Surety shall qualify and be accepted by the Board.

Changes in the Work, or extensions of time, made pursuant to the Contract, shall in no way release the Contractor or Surety from its obligations. Notice of such changes or extensions shall be waived by the Surety.

2-4.1 Bond Forms. Bonds shall be on forms furnished by Agency.

2-5 PLANS AND SPECIFICATIONS

2-5.1 General. The Contractor shall keep at the work site a copy of the Plans and Specifications, to which the Engineer shall have access at all times.
The Plans, Specifications, and other Contract Documents shall govern the Work. The Contract Documents are intended to be complementary and cooperative. Anything specified in the Specifications and not shown on the Plans, or shown on the Plans and not specified in the Specifications, shall be as though shown or specified in both.

The Plans shall be supplemented by such working drawings and shop drawings as are necessary to adequately control the Work.

The Contractor shall ascertain the existence of any conditions affecting the cost of the Work through reasonable examination of the work site prior to submitting the Bid..

Existing improvements visible at the work site, for which no specific disposition is made on the Plans, but which interfere with the completion of the Work, shall be removed and disposed of by the Contractor.

The Contractor shall, upon discovering any error or omission in the Plans or Specifications, immediately call it to the attention of the Engineer.

2-5.1.1 Specifications Captions. Captions accompanying specification parts, sections and paragraphs are for convenience of reference only and do not limit the content of such part, section or paragraph.

The division of the Plans into parts and the division of the Specifications into divisions and sections are for the ease of reference only and does not imply the division of work between trades or subcontractors.

2-5.2 Precedence of Contract Documents. If there is a conflict between any of the Contract Documents, the document highest in precedence shall control. The precedence shall be as follows:

1) Laws, Governing Regulations, Permits, and Current
2) Prevailing Wage Rates.
3) Change Orders and Supplemental Agreements;
4) Executed Contract.
12) Notice Inviting Bids.
13) Instructions to Bidders.
14) Proposal Forms: All other documents not previously mentioned on this list.

5) Bid Addenda.
6) Proposal Documents: Price Adjustments.
7) Proposal Documents: Bid Schedule.
8) Project Specific Requirements (Division 3, Part C)
9) Construction Safety and Phasing Plan (CSPP) and
10) Technical Specifications
11) Airport Requirements (Division 3, Part A)
15) OXR Drawings (Detail drawings taking Precedence over planimetric drawings).
16) County of Ventura Standard Specifications.
17) All other documents not previously referenced in this list.
18) Reference documents.

For any conflicts between items of equal precedence or within an item, precedence shall be given to the test that appears first in the document.

2-5.3 Shop Drawings, Working Drawings, and Submittals.

2-5.3.1 General. Submittals shall be provided, at the Contractor's expense, as required in 2-5.3.2, 2-5.3.3 and 2-5.3.4, when required by the Plans or Special Provisions, or when requested by the Engineer.

Materials shall neither be furnished nor fabricated, nor shall any work for which submittals are required be performed, before the required submittals have been reviewed and accepted by the Engineer. Neither review nor acceptance of submittals by the Engineer shall relieve the Contractor from responsibility for errors, omissions, or deviations from the Contract Documents, unless such deviations were specifically called to the attention of the Engineer in the letter of transmittal. The Contractor shall be responsible for the correctness of the submittals.

The Contractor shall allow a minimum of 20 working days for review of submittals unless otherwise specified in the Special Provisions. Each submittal shall be accompanied by a letter of transmittal.

2-5.3.2 Working Drawings. Working drawings shall be of a size and scale to clearly show all necessary details. Six copies and one reproducible shall be submitted. If no revisions are required, 3 of the copies will be returned to the Contractor. If revisions are required, the Engineer will return one copy along with the reproducible for resubmission. Upon acceptance, the Engineer will return 2 of the copies to the Contractor and retain the remaining copies and the reproducible.

Working drawings are required in the following subsections:

TABLE 2-5.3.2 (A)

Item	Section Number	Title	Subject
1	7-8.5.2	Sanitary Sewers	Sewage Bypass and Pumping
2	7.8.6.3	Water Pollution Control	Storm Water Pollution Prevention Plan
3	7-8.6.6	Water Pollution Control	Dewatering Plan
4	7-10.2.2	Work Area Traffic Control	Traffic Control Plan
5	7-10.4..2.2	Safety	Trench Shoring
6	207-8.4	Joints	Vitrified Clay Pipe
7	207-10.2.1	General	Fabricated Steel Pipe
8	300-3.2	Cofferdams	Structure Excavation & Backfill
9	303-1.6.1	General	Falsework
10	303-1.7.1	General	Placing Reinforcement
11	303-3.1	General	Prestressed Concrete Construction
12	304-1.1.1	Shop Drawings	Structural Steel
13	304-1.1.2	Falsework Plans	Structural Steel
14	304-2.1	General	Metal Hand Railings
15	306-2.1	General	Jacking Operations
16	306-3.1	General	Tunneling Operations
17	306-3.4	Tunnel Supports	Tunneling Operations
18	306-6	Remodeling Existing Sewer Facilities	Polyethylene Liner Installation
19	306-8	Microtunneling	Microtunneling Operations

Working drawings listed above as Items 4, 5, 8, 9, 11, 12, 13, 15 and 18 shall be prepared by a Civil or Structural Engineer registered by the State of California.

2-5.3.3 Shop Drawings. Shop drawings are drawings showing details of manufactured or assembled products proposed to be incorporated into the Work. Shop drawings required shall be as specified in the Special Provisions.

2-5.3.4 Supporting Information. Supporting information is information required by the Specifications for the purposes of administration of the Contract, analysis for verification of conformance with the Specifications, the operation and maintenance of a manufactured product or system to be constructed as part of the Work, and other information as may be required by the Engineer. Six copies of the supporting information shall be submitted to the Engineer prior to the start of the Work unless otherwise specified in the Special Provisions or directed by the Engineer. Supporting information for systems shall be bound together and include all manufactured items for the system. If resubmittal is not required, three copies will be returned to the Contractor. Supporting information shall consist of the following and is required unless otherwise specified in the Special Provisions:

1) List of Subcontractors per 2-3.2.
2) List of Materials per 4-1.4.
3) Certificates of Compliance per 4-1.5.
4) Construction Schedule per 6-1.
5) Spill Prevention and Emergency Response Plan per 7-8.5.3
6) Confined Space Entry Program per 7-10.4.5.1
7) Lean concrete base mix designs per 200-4
8) Concrete mix designs per 201-1.1.
9) Asphalt concrete mix designs per 203-6.1.
10) Pipeline layout diagrams per 207-2.1
11) Equipment and materials list per 307-1
12) Controller cabinet wiring diagrams per 307-17.2.2
13) Data, including, but not limited to, catalog sheets, manufacturer's brochures, technical bulletins, specifications, diagrams, product samples, and other information necessary to describe a system, product or item. This information is required for irrigation systems, street lighting systems, and traffic signals, and may also be required for any product, manufactured item, or system.

2-5.4 Record Drawings. The Contractor shall prepare and maintain a set of prints in the Engineer's Field Office on which the locations and description of all plumbing, mechanical, and electrical facilities, which were not detailed fully on the Plans, are marked in colored pencil. Such prints shall also indicate any authorized changes from the original Plans. Such prints shall be furnished to the Engineer before final Acceptance of the Work.

2-6 WORK TO BE DONE. The Contractor shall perform all work necessary to complete the Contract in a satisfactory manner. Unless otherwise provided, it shall furnish all materials, equipment, tools, labor and incidentals necessary to complete the Work.

All work under the Contract shall be performed in accordance with the highest standards prevailing in the trades unless otherwise specified on the Plans or in the Special Provisions. Unless otherwise specified, it is the intent that the Contractor will construct a complete facility ready for use.

2-6.1 Manufacturer's Recommendations. Where the manufacturer of any materials or equipment provides written recommendations or instructions for its use or method of installation (including labels, tags, manuals, or trade literature), such recommendations or instructions shall be complied with except where the Contract Documents specifically require deviations.

2-6.2 Testing of Installed Components. Where the specifications provide that any component of the Work is to be tested, calibrated or adjusted during or after installation, such testing shall be performed by a qualified firm, approved by the Engineer. The firm performing the testing or calibration shall be employed by and paid for by the Contractor.

2-6.3 Training of Agency Personnel. Where the specifications provide for training of Agency personnel in the use or maintenance of any component of the Work, the Contractor shall arrange for and pay for competent personnel to perform the training. Contractor shall schedule the training with the Engineer.

SUBSURFACE DATA. All soil and test hole data, groundwater elevations, and soil analyses shown on the Plans or included in the Specifications apply only at the location of the test holes and to the depths shown. Soil test reports for test holes which have been drilled are available for inspection at the office of the Engineer. Additional subsurface exploration may be performed by Bidders or the Contractor at their own expense.

The indicated groundwater elevation is that existing at the date specified in the data. It is the Contractor's responsibility to determine and allow for the groundwater elevation on the date the Work is performed. A difference in groundwater elevation between what is shown in soil boring logs and what is actually encountered during construction will not be considered as a basis for Extra Work per 3-3.

Opinions, recommendations or conclusions contained in any soils report, soil boring logs, subsurface materials investigation, geological report or other similar studies, tests or reports, prepared for the Agency, are not a part of the Contract. Contractor shall be responsible for forming its own opinions and conclusions from the facts set forth in such reports.

2-7 RIGHTS-OF-WAY. Rights-of-way, easements or rights-of-entry for the Work will be provided by the Agency. Unless otherwise provided, the Contractor shall make arrangements, pay for, and assume all responsibility for acquiring, using, and disposing of additional work areas and facilities temporarily required. The Contractor shall indemnify and hold the Agency harmless from all claims for damages caused by such actions.

2-8 SURVEYING

2-9.1 Permanent Survey Markers. The Contractor shall notify the Engineer at least 7 Days before starting work to allow for the preservation of survey monuments, lot stakes (tagged), and bench marks. The Engineer, or the owner at its cost, shall file a Corner Record Form referencing survey monuments subject to disturbance in the Office of the County Surveyor prior to the start of construction and also prior to the completion of construction for the replacement of survey monuments. The Contractor shall not disturb survey monuments, lot stakes (tagged), or bench marks without the consent of the Engineer or the owner on Private Contracts. The Contractor shall bear the expense of replacing any that may be disturbed without permission. Replacement shall be done only under the direction of the Engineer by a Licensed Land Surveyor or a Registered Civil Engineer authorized to practice land surveying within the state.

When a change is made in the finished elevation of the pavement of any roadway in which a permanent survey monument is located, the Contractor shall adjust the monument cover to the new grade within 7 Days of finished paving unless otherwise specified.

2-9.2 Survey Service. The Engineer will set only the horizontal and vertical control survey points shown on the Plans. These will be set prior to the commencement of construction. The Contractor shall preserve these points as well as any other surveys established by the Engineer for use by the Contractor for the duration of their usefulness. If any survey points established by Engineer are lost or disturbed and need to be replaced, such replacement shall be by the Engineer at the expense of the Contractor. The Contractor shall employ engineers or surveyors to perform adequate surveys and staking necessary to construct the Work to the lines, elevations and grades shown on the Plans and for the Engineer's use in checking such work. Copies of the field notes or diagrams used in setting stakes shall be promptly furnished to the Engineer.

2-9.2.1 Open Areas. Where dimensions are not given on the Plans for parking lots, landscaped areas or graded areas, distances shall be scaled. Unless otherwise indicated, straight grades and smooth vertical curves shall be set between indicated elevations. Finished surfaces shall be sloped to drain in order to eliminate ponding of water.

2-9.2.2 Utilities. Section 5-5.1 requires the Contractor's cooperation during the relocation of utilities, which may require the setting of lines and grades when needed by utility owners performing relocations.

2-9.3 Contractor's Surveys. Surveying by private engineers and surveyors on the Work shall conform to the quality and practice required by the Engineer.

2-9.3.1 Errors in Surveys. The Contractor is responsible for the accuracy of all surveys except those performed by the Engineer. To assure that a survey point set by the Engineer has not been disturbed since it was set and that it was accurately set, all surveys by the Contractor shall be based on at least two survey points set by the Engineer or by other governmental surveys, in accordance with good survey practice. Should discrepancies be found between such points, the Engineer shall be notified and construction shall not proceed until the discrepancy has been resolved.

2-9.4 Line and Grade. All Work upon completion shall conform to the lines, elevations, and grades shown on the Plans.

2-9.5 Quantity Surveys. The Engineer will perform all quantity surveys for payment purposes, however, in performing such quantity surveys, it may make use of surveys performed by the Contractor.

2-9.6 Payment for Surveys. Payment for performing all of the surveying and staking as required by the Specifications and such additional surveying and staking as required by the Contractor will be made at the lump sum price set forth in the Proposal and shall be full compensation for furnishing all labor, equipment, instruments and materials necessary to perform the Work. If no bid item for surveying is included in the Proposal, the cost of surveying shall be included in the prices bid for other applicable items of work.

2-9 AUTHORITY OF BOARD AND ENGINEER. The Board has the final authority in all matters affecting the Work. Within the scope of the Contract, the Engineer has the authority to enforce compliance with the Plans and Specifications. The Contractor shall promptly comply with instructions from the Engineer or its authorized representative.

On all questions relating to quantities, the acceptability of material, equipment, or work, the execution, progress or sequence of work, and the interpretation of Specifications or drawings, the decision of the Engineer is final and binding, and shall be precedent to any payment under the Contract, unless otherwise ordered by the Board.

2-10.1 Decisions in Writing. Any and all decisions of the Engineer interpreting Specifications or drawings shall be in writing. Any purported "interpretation" which is not in writing shall not be binding upon the Agency and should not be relied upon by the Contractor.

2-10 INSPECTION

The Work is subject to inspection and approval of the Engineer. The Contractor shall notify the Engineer before noon of the working day before inspection is required. Work shall be done only in the presence of the Engineer, unless otherwise authorized. Any work done without proper inspection will be subject to rejection. The Engineer and any authorized representatives shall at all times have access to the Work during its construction at shops and yards as well as the Work site. The Contractor shall provide every reasonable facility for ascertaining that the materials and workmanship are in accordance with these specifications. Inspection of the Work shall not relieve the Contractor of the obligation to fulfill all conditions of the Contract.

2-11.1 Permit Inspections. The Contractor shall arrange for code compliance inspections by all agencies issuing permits for the Work. The Work shall not continue beyond mandatory inspection points without clearance from the controlling agency. Each agency involved shall be notified in accordance with the code they enforce or in accordance with their standard operating procedures. No extensions of time will be granted for delays occasioned by such inspections except where, through no fault of the Contractor, the inspection is delayed more than one Day beyond normal response time after proper notification has been given.

It shall be the Contractor's responsibility to see that any required inspection record card is signed off before proceeding with the next phase of the Work and completely signed off on completion of the Work.

2-11.2 Structural Observation. When the plans indicate that "Structural Observation" of specific work is required prior to Permit Inspection, Contractor shall notify Engineer, in writing, at least five working days prior to the date Contractor plans to have the work ready for structural observation. If the work is not ready for structural observation on the date indicated, Contractor shall reimburse Agency the cost of structural observer's visit to the Work site. If the work to be observed is substantially complete but is found to need correction before approval by the structural observer, Contractor shall give notice of a new date, as required above.

2-11 SPECIAL NOTICES. When specified in the Specifications or as directed by the Engineer, any notice required to be given in accordance with this subsection shall be in writing, dated, and signed by the Contractor or the Engineer. Such notices shall be served by any of the following methods:

a) Personal delivery with proof of delivery which may be made by declaration under penalty of perjury by any person over the age of 18 years. The proof of delivery shall show that delivery was performed in accordance with these provisions. Service shall be effective on the date of delivery. Notices given to the Contractor by personal delivery may be made to the Contractor's authorized representative at the Work site;or

b) Certified mail addressed to the mailing address of the recipient postage prepaid; return receipt requested. Service shall be effective on the date of the receipt of the mailing.

Simultaneously, the Agency may send the same notice by regular mail. If a notice that is sent by certified mail is returned unsigned, then delivery shall be effective pursuant to regular mail, provided the notice that was sent by regular mail is not returned.

2-12 AGENCY PERSONNEL AND AUTHORITY

2-13.1 General. The Board has complete authority for the project within the limits prescribed by law. Pursuant to resolutions duly adopted by the Board, the authority to perform certain functions has been delegated to the Director of Airports. Agency staff personnel and Consultants delegated thereto by the Director are authorized to perform functions limited as set forth in the following list of personnel and designated duties.

2-13.2 Chief Executive Officer (CEO). The Chief Executive Officer (CEO) of the County of Ventura has general authority to administer the Contract. The CEO has the following specific authority:

(a) To issue Contract Change Orders (CCO) and to settle claims subsequent to Acceptance as follows:

Original Contract Amount	Maximum Amount of any Change Order or Claim Settlement
$50,000 or less……..	$5,000
greater than $50,000 and not over $250,000……..	10% of the original Contract amount
greater than $250,000 and not over $3,950,000……..	$25,000 plus 5% of the original Contract cost in excess of $250,000.
greater than $3,950,000……...	$210,000

CCOs and claim settlements exceeding the amounts set forth above require Board approval.

(b) To suspend the Work for the benefit of the Agency.

(c) To issue extensions of Contract Time in accordance with the Contract Documents in excess of 10% of the Contract Time or 60 Working Days, whichever is greater.

2-13.3 Director of Airports(Director). The Director of Airports is the Engineer and has specific authority as a Deputy Executive Officer to Administer the Contract. The Director has the following authority:

(a) To issue Contract Change Orders (CCO) as follows:

Original Contract Amount	Maximum Amount of any Change Order
Less than $500,000…….....	$5,000
$500,000 to $1,000,000……	1% of Bid Price
Greater than $1,000,000……..	$10,000

(b) To issue extensions of Contract time in accordance with the Contract Documents up to 10% of the Contact Time or 60 Working Days, whichever is greater

(c) To make final adjustment of quantities where the total does not exceed the amounts listed in (a) above.

(d) To approve the substitution of subcontractors, where allowed by law, if the listed Subcontractor does not object when notified.

(e) To determine when the Work has been completed and acknowledge in writing the completion of the Work.

(f) To accept the Work when the Contractor has completed all obligations of the Contract, in accordance with the Plans, Specifications and other Contract Documents. The Engineer also has authority to make and record the Notice of Completion.

(g) To approve progress and final payments under the Contract, including the provisions for withholding funds.

(h) To determine whether performance on the Work is satisfactory. Satisfactory performance includes compliance with all contract requirements.

(i) In the absence of the Agency Director, a Deputy Director of Airports, may exercise the Engineer's authority. Such action will be indicated by "Acting" with the Department Director's signature.

2-13.4 Project manager. The Project manager responsible for the project is designated in the Notice to Proceed. This person may also be referred to as Project Engineer. The Project manager has the following authority:

(a) To interpret the Plans and Specifications.

(b) To make minor changes in the location or features of the Work where no change in cost is involved. Such changes in cost may not be the net of multiple changes.

(c) To approve substitutes for material and equipment specified by proprietary names when such material and equipment meet the Contract requirements.

(d) To approve shop drawings and submittals.

(e) To issue stop work orders when necessary to enforce the provisions of the Contract.

(f) To make determinations of each Working Day to be charged against the Contract time in accordance with 6-7.3.

(g) To take over a portion of the Work for Agency's use in accordance with 6-10.

(h) To receive all correspondence and other documents from the Contractor.

(i) To inspect the Work and perform Final Inspection subject to review by the Department Director and the Engineer.

2-13.5 Inspector. One or more inspectors will be assigned to the project by the Project manager. Substitutes may be used during absence of the assigned inspector. The Inspector has the following authority subject to review by the Project manager, Department Director and the Engineer:

(a) To view and inspect the Work, sample and test components (at the Work site and at offsite manufacturing locations), and to discuss the Work with the Contractor's field representative.

(b) To determine compliance with the Plans, Specifications and other Contract Documents and to issue warnings of noncompliance.

(c) To issue stop work notices in the following two instances only:

1) Where a safety hazard exists that has an immediate potential for serious injury or death.

2) Where the operation in progress, if continued for even a short period of time, could be adverse to the Agency's interests.

2-13.6 Other Agency Personnel and Consultants.

2-13.6.1 Materials Engineer. The Materials Engineer is designated in the Notice to Proceed. The Materials Engineer may assign one or more Materials Inspectors to the project.

Materials Inspectors have authority to sample and test material at the Work site and at offsite manufacturing or storage locations. They may furnish available written test results to the Contractor's field representative. At batch plants, they may issue warnings of noncompliance, but stop notices require the signature of the Materials Engineer or Project manager.

2-13.6.2 Surveyors & Technicians. Surveyors and technicians shall have free access to the site to perform their duties but have no authority related to Contract administration.

2-13.6.3 Other Persons. Other Agency personnel who are not involved in construction administration and the general public may be present at the site because it is their present place of work, as client/customers, as visitors, as future users of the facility, or as persons who will maintain the completed facility. Where the facility is to continue in use during construction, work access for Agency workers and client/customers shall be maintained as provided in the Special Provisions. Where the facility (or portion where construction is being performed) is not in use during construction, admittance to the Work site by Agency personnel not involved in construction administration and visitors may be allowed by the Contractor or by the inspector, subject to compliance with safety regulations. Such persons have no authority under the Contract and the Agency is not responsible for their comments, suggestions or directions.

2-13.6.4 Consultants. Consultants hired by the Agency shall have free access to the site to perform their duties but have no authority related to Contract administration, unless such duties are specifically identified in writing to the Contractor. When so identified, Consultant may perform the duties of certain Agency personnel described above.

SECTION 3 - CHANGES IN WORK

3-1 CHANGES REQUESTED BY THE CONTRACTOR

3-1.1 General. Changes in specified methods of construction may be made at the Contractor's request when approved in writing by the Engineer. Changes in the Plans and Specifications, requested in writing by the Contractor, which do not materially affect the Work and which are not detrimental to the Work or to the interests of the Agency, may be granted by the Board to facilitate the Work, when approved in writing by the Engineer. Nothing herein shall be construed as granting a right to the Contractor to demand acceptance of such changes.

3-1.2 Payment for Changes Requested by the Contractor. If such changes are granted, they shall be made at a reduction in cost or at no additional cost to the Agency. All costs to the Agency in reviewing the proposed change, or testing materials involved therein, shall be paid for by the Contractor, whether or not the change is approved.

3-2 CHANGES INITIATED BY THE AGENCY

3-2.1 General. The Agency may change the Plans, Specifications, character of the Work, or quantity of work, provided the total arithmetic dollar value of all such changes, both additive and deductive, does not exceed 25 percent of the Contract Price. Should it become necessary to exceed this limitation, the change shall be by written Supplemental Agreement between the Contractor and Agency, unless both parties agree to proceed with the change by Change Order.

Change orders shall be in writing and state the dollar value of the change or establish method of payment, any adjustment in Contract time, and, when negotiated prices are involved, shall provide for the Contractor's signature indicating its acceptance.

3-2.2 Payment for Changes Initiated by the Agency.

3-2.2.1 Contract Unit Prices. If a change is ordered in an item of work covered by a Contract unit price, and such change does not involve a substantial change in the character of the Work from that shown on the Plans or included in the Specifications, an adjustment in payment will be made based upon the increase or decrease in quantity and the Contract unit price. In the case of such an increase or decrease in a Major Bid Item, the use of this basis for the adjustment of payment will be limited to that portion of the change which, together with all previous changes to that item, is not in excess of 25% of the total cost of such item based on the original quantity and Contract unit price.

If a change is ordered in an item of work covered by a Contract unit price, and such change does involve a substantial change in the character of the Work from that shown on the Plans or included in the Specifications, an adjustment in payment will be made in accordance with 3-2.2.3.

Should any Contract item be deleted in its entirety, payment will be made only for actual costs incurred prior to notification of such deletion.

3-2.2.2 Stipulated Unit Prices. Stipulated unit prices are those established by the Agency in the Contract Documents, as distinguished from Contract unit prices submitted by the Contractor. Stipulated unit prices may be used for the adjustment of Contract changes.

3-2.2.3 Pricing. Adjustments in payments for changes other than those set forth in 3-2.2.1 and 3-2.2.2 will be determined by agreement between Contractor and Agency. If unable to reach agreement, the Agency may direct the Contractor to proceed on the basis of Extra Work in accordance with 3-3 or as set forth in 3-2.2.4.

3-2.2.4 Non-Agreed Prices. Agency may issue a change order directing the Contractor to proceed at a price set by the Agency or on the basis of Extra Work. If the Agency sets a price for the work covered by the change order, Contractor is entitled to payment for such work in accordance with 3-3 to the extent payment in accordance with 3-3 exceeds the price set by the Agency.

3-3 EXTRA WORK

3-3.1 General. New or unforeseen work will be classed as "Extra Work" when the Engineer determines that it is not covered by Contract Unit Prices or Stipulated Unit Prices.

3-3.2 Payment.

3-3.2.1 General. When the price for the Extra Work cannot be agreed upon, the Agency will pay for the Extra Work based on the accumulation of costs as provided herein.

3-3.2.2 Basis for Establishing Costs

(a) Labor. The cost of labor will be the current cost for wages prevailing for each craft or type of workers performing the Extra Work at the time the Extra Work is done, plus payment of health and welfare, pension, vacation, apprenticeship funds, and other direct costs included in the prevailing rates applicable to the project, as well as assessments or benefits required by lawful collective bargaining agreements. To the total of these labor costs, the labor surcharge set forth in the current CALTRANS Labor Surcharge and Equipment Rental Rates publication shall be applied.

The use of a labor classification which would increase the Extra Work cost will not be permitted unless the Contractor establishes the necessity for such additional costs.

Labor costs for equipment operators and helpers shall be reported only when such costs are not included in the invoice for the equipment rental. The labor cost for foremen shall be proportioned to all of their assigned work and only that applicable to Extra Work shall be paid. A foreman is defined as a lead working journeyman.

Nondirect labor costs including superintendence, payroll taxes, all types of insurance, and all other labor costs, not specifically provided for, shall be considered to be paid for as part of the markup of 3-3.2.3(a)(1).

(b) Materials. The cost of materials reported shall be at invoice or lowest current price at which such materials are locally available and delivered to the Work site in the quantities involved, plus sales tax, freight and delivery.

The Agency reserves the right to approve materials and sources of supply, or to supply materials to the Contractor if necessary for the progress of the Work. No markup shall be applied to any material provided by the Agency.

(c) Tool and Equipment Rental. No payment will be made for the use of tools which have a replacement value of $200 or less.

Regardless of ownership, the rates to be used for determining equipment rental costs shall not exceed the following:

(1) For equipment that is listed in the current CALTRANS Labor Surcharge and Equipment Rental Rates publication, the rates shown therein. The right of way delay and overtime/multiple shift factors contained therein shall be used as applicable.

(2) For equipment not listed in said CALTRANS publication, the listed rates prevailing locally at equipment rental agencies, or distributors, at the time the work is performed.

(3) For equipment rental that includes operators and helpers, the applicable cost from (1) or (2) above, plus the applicable labor costs as determined in accordance with (a) above.

The rental rates paid shall include the cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs and maintenance of any kind, depreciation, storage, insurance, and all incidentals.

Necessary loading and transportation costs for equipment used on the Extra Work shall be added to the other costs.

If equipment is used intermittently and, when not in use, could be returned to its rental source at less expense to the Agency than holding it at the work site, it shall be returned, unless the Contractor elects to keep it at the work site at no expense to the Agency.

All equipment shall be acceptable to the Engineer, in good working condition, and suitable for the purpose for which it is to be used. Manufacturer's ratings and manufacturer's approved modifications shall be used to classify equipment and it shall be powered by a unit of at least the minimum rating recommended by the manufacturer.

The reported rental rates for equipment already at the work site shall be for the duration of its use on the Extra Work, commencing at the time it is first put into actual operation on the Extra Work, plus the time required to move it from its previous site, and move it back to its previous site or to a closer site of next use.

3-3.2.2 Basis for Establishing Costs (Continued)

(d) Other Items. The Agency may authorize other items which may be required on the Extra Work. Such items include labor, service, material and equipment which are different in their nature from those required for the Work specified in the Contract and which are of a type not ordinarily available from the Contractor or any of its subcontractors.

Invoices covering all such items in detail shall be submitted with the request for payment.

(e) Invoices. Vendors' invoices for material, equipment rental, and other expenditures, shall be submitted with the request for payment. If the request for payment is not substantiated by invoices or other documentation, the Agency may establish the cost of the item involved at the lowest price which was current at the time of the report.

3-3.2.3 Markup

(a) Work by Contractor. The following percentage shall be added to the Contractor's costs and shall constitute the markup for all overhead and profits, and all other cost not specifically provided for:

(1) Labor…….....33%
(2) Materials……. 15%
(3) Equipment Rental……. 15%
(4) Other Items and Expenditures ... 15%

To the sum of the cost and markups provided for in this section, 1 percent shall be added as compensation for bonding.

(b) Work by Subcontractor. When all or any part of the Extra Work is performed by a Subcontractor, the markup established in 3-3.2.3(a) shall be applied to the Subcontractor's actual cost of such work. A markup of 10% on the first $5,000 of the subcontracted portion of the Extra Work and a markup of 5% on work in excess of $5,000 of the subcontracted portion of the Extra Work may be added by the Contractor.

3-3.3 Daily Extra Work Reports by Contractor. When the price for the Extra Work cannot be agreed upon, the Contractor shall submit a Daily Extra Work Report to the Engineer on forms furnished by the Agency, together with applicable delivery tickets, listing all labor, materials, and equipment involved for that day, and for other services and expenditures when authorized. Failure to submit the Daily Extra Work Report, showing the labor and equipment hours and the quantity of materials used, by the close of the next Working Day may waive any rights for that day. Failure to submit fully completed Daily Extra Work Reports, with the required supporting documentation, within ten calendar days after the Engineer makes a written request for the such reports shall waive all rights for the work covered by the requested reports. An attempt shall be made to reconcile the Daily Extra Work Report daily, and it shall be signed by the Engineer and the Contractor. In the event of disagreement, pertinent notes shall be entered by each party to explain points which cannot be resolved immediately. Each party shall retain a signed copy of the Daily Extra Work Report. Daily Extra Work Reports by Subcontractors or others shall be submitted through the Contractor.

The Daily Extra Work Report shall:

1) Show names of workers, classifications, and hours worked.
2) Describe and list quantities of materials used.
3) Show type of equipment, size, identification number, and hours of operation, including loading and transportation, if applicable.
4) Describe other services and expenditures in such detail as the Agency may require.

In addition to the Daily Extra Work Reports, the Contractor shall furnish Certified Payroll Records for the labor included in the reports before payment will be made.

3-4 CHANGED CONDITIONS. The Contractor shall notify the Engineer in writing of the following work site conditions, hereinafter called changed conditions, promptly upon their discovery and before they are disturbed:

1) Subsurface or latent physical conditions differing materially from those represented in the Contract;
2) Unknown physical conditions of an unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in Work of the character being performed; and
3) Material differing from that represented in the Contract which the Contractor believes may be hazardous waste, as defined in Section 25117 of the Health and Safety Code that is required to be removed to a Class I, Class II or Class III disposal site in accordance with provisions of existing law.

The Engineer will promptly investigate conditions which appear to be changed conditions. If the Engineer determines that the conditions are changed conditions and that they will materially increase or decrease the costs of any portion of the Work, a Change Order will be issued adjusting the compensation for such portion of the Work in accordance with 3-2.2. If the Engineer determines that conditions are changed conditions and that they will materially affect the performance time, the Contractor, upon submitting a written request, will be granted an extension of time subject to the provisions of 6-6.

If the Engineer determines that the conditions of which it has been notified by the Contractor do not justify an adjustment in compensation, the Contractor will be so notified in writing. This notice will also advise the Contractor of its obligation to notify the Engineer, in writing, if the Contractor disagrees.

Should the Contractor disagree with such determination, it may submit a written notice of potential claim to the Engineer before commencing the disputed work. In the event of such a disagreement, the Contractor shall not be excused on account of that disagreement from any scheduled completion date provided for by the Contract, but shall proceed with all Work to be performed under the Contract. However, the Contractor shall retain any and all rights provided either by Contract or by law which pertain to the resolution of disputes and protests between the contracting parties. The Contractor shall proceed as provided in 3-5.

The Contractor's failure to give notice of changed conditions promptly upon their discovery and before they are disturbed shall constitute a waiver of all claims in connection therewith.

3-5 DISPUTED WORK. If the Contractor and the Agency are unable to reach agreement on disputed work, the Agency may direct the Contractor to proceed with the Work. Payment shall be as later determined by mediation or arbitration, if the Agency and the Contractor agree thereto, or as fixed in a court of law.

Although not to be construed as proceeding under Extra Work provisions, the Contractor shall keep and furnish records of disputed work in accordance with 3-3.

SECTION 4 - CONTROL OF MATERIALS

4-1 MATERIALS AND WORKMANSHIP

4-1.1 General. All materials, parts, and equipment furnished by the Contractor in the Work shall be new, high grade, and free from defects. Quality of work shall be in accordance with the generally accepted standards. Material and work quality shall be subject to the Engineer's approval.

Materials and work quality not conforming to the requirements of the Specifications shall be considered defective and will be subject to rejection. Defective work or material, whether in place or not, shall be removed immediately from the site by the Contractor, at its expense, when so directed by the Engineer.

If the Contractor fails to replace any defective or damaged work or material after reasonable notice, the Engineer may cause such work or materials to be replaced. The replacement expense will be deducted from the amount to be paid to the Contractor.

Used or secondhand materials, parts, and equipment may be used only if permitted by the Specifications.

4-1.1.1 Materials Furnished by Agency. Materials furnished by the Agency will be available at locations designated in the Special Provisions or if not designated in the Special Provisions, they will be delivered to a single location of Agency's choice within the project area. They shall be hauled to the site of installation by the Contractor at its expense, including any necessary loading and unloading that may be involved. The cost of handling and placing materials furnished by the Agency shall be considered as included in the price paid for the Contract item involving such furnished materials.

The Contractor will be held responsible for all materials furnished to it, and it shall pay all demurrage and storage charges. Furnished materials, after delivery to Contractor, lost or damaged from any cause whatsoever shall be replaced by the Contractor. The Contractor will be liable to the Agency for the cost of replacing lost or damaged furnished material and such costs may be deducted from any monies due or to become due the Contractor.

4-1.2 Protection of Work and Materials. The Contractor shall provide and maintain storage facilities and employ such measures as will preserve the specified quality and fitness of materials to be used in the Work. Stored materials shall be reasonably accessible for inspection. The Contractor shall also adequately protect new and existing work and all items of equipment for the duration of the Contract.

The Contractor shall not, without the Agency's consent, assign, sell, mortgage, hypothecate, or remove equipment or materials which have been installed or delivered and which may be necessary for the completion of the Contract.

4-1.3 Inspection Requirements

4-1.3.1 General. Unless otherwise specified, inspection is required at the source for asphalt concrete pavement mixtures, structural concrete, metal fabrication, metal casting, welding, concrete pipe manufacture, protective coating application, and similar shop or plant operations. Steel pipe in sizes less than 450 mm (18 inches), vitrified clay and cast iron pipe in all sizes are acceptable upon certification as to compliance with the Specifications, subject to sampling and testing by the Agency. Standard items of equipment such as electric motors, conveyors, elevators, plumbing fixtures, etc., are subject to inspection at the Work site only. Special items of equipment such as designed electrical panel boards, large pumps, sewage plant equipment, etc., are subject to inspection at the source, normally only for performance testing. The Specifications may require inspection at the source for other items not typical of those listed in this section.

4-1.3.2 Inspection of Materials Not Locally Produced. When the Contractor intends to purchase materials, fabricated products, or equipment from sources located more than 80 km (50 miles) outside the geographical limits of the Agency, an inspector or accredited testing laboratory (approved by the Engineer), shall be engaged by the Contractor at its expense, to inspect the materials, equipment or process. This approval shall be obtained before producing any material or equipment. The inspector or representative of the testing laboratory shall evaluate the materials for conformance with the Plans and Specifications. The Contractor shall forward reports required by the Engineer. No materials or equipment shall be shipped nor shall any processing, fabrication or treatment of such materials be done without proper inspection by the approved agent. Approval by said agent shall not relieve the Contractor of responsibility for complying with the Contract requirements.

4-1.3.3 Inspection by the Agency. The Agency will provide all inspection and testing laboratory services within 80 km (50 miles) of the geographical limits of the Agency.

4-1.3.4 Certificates of Compliance. The Engineer may require certificates of compliance with the Specifications for materials or manufactured items produced outside of the Work site. Such certificates will not relieve the Contractor from the requirements of providing material and manufactured items complying with the Specifications even though they have been incorporated into the Work.

4-1.4 Tests of Materials. Before incorporation in the Work, the Contractor shall submit samples of materials, as the Engineer may require, at no cost to the Agency. The Contractor, at its own expense, shall deliver the materials for testing to the place and at the time designated by the Engineer. Unless otherwise provided, all initial testing and a reasonable amount of retesting shall be performed under the direction of the Engineer, and at no expense to the Contractor. If the Contractor is to provide and pay for testing, the Specifications will so state.

The Contractor shall notify the Engineer in writing, at least 15 Days in advance, of its intention to use materials for which tests are specified, to allow sufficient time to perform the tests. The notice shall name the proposed supplier and source of material.

If the notice of intent to use is sent before the materials are available for testing or inspection, or is sent so far in advance that the materials on hand at the time will not last but will be replaced by a new lot prior to use on the Work, it will be the Contractor's responsibility to re-notify the Engineer when samples which are representative may be obtained.

4-1.5 Certification. The Engineer may waive materials testing requirements of the Specifications and accept the manufacturer's written certification that the materials to be supplied meet those requirements. Materials test data may be required as part of the certification.

4-1.6 Trade Names or Equals. The Contractor may supply any of the materials specified or offer an equivalent. The Engineer shall determine whether the material offered is equivalent to that specified. Adequate time shall be allowed for the Engineer to make this determination.

Whenever any particular material, process, or equipment is indicated by patent, proprietary or brand name, or by name of manufacturer, such wording is used for the purpose of facilitating its description and shall be deemed to be followed by the words **or equal**. A listing of materials is not intended to be comprehensive, or in order of preference. The Contractor may offer any material, process, or equipment considered to be equivalent to that indicated. The substantiation of offers shall be submitted as provided in the Contract Documents.

The Contractor shall, at its expense, furnish data concerning items offered by it as equivalent to those specified. The Contractor shall have the material tested as required by the Engineer to determine that the quality, strength, physical, chemical, or other characteristics, including durability, finish, efficiency, dimensions, service, and suitability are such that the item will fulfill its intended function.

Test methods shall be subject to the approval of the Engineer. Test results shall be reported promptly to the Engineer, who will evaluate the results and determine if the substitute item is equivalent. The Engineer’s findings shall be final. Installation and use of a substitute item shall not be made until approved by the Engineer.

If a substitute offered by the Contractor is not found to be equal to the specified material, the Contractor shall furnish and install the specified material.

The specified Contract completion time shall not be affected by any circumstance developing from the provisions of this section.

4-1.6.1 Compatibility with Design. Where the size, configuration, weight, fastening locations, fastening strength, utility rough-in locations, and utility capacities of equipment or devices offered by the Contractor as equivalents do not conform to those provided for in the Contract Documents or those which are necessary for equipment or devices indicated by brand names, the Contractor shall bear all costs of redesign and changes in construction necessary to adapt the offered equipment or device to the Work.

Equipment or devices will not be considered "equal" where the life cycle cost of operation, utilities and maintenance of the offered alternate is greater than those listed by brand names. Life cycle costs shall mean utility charges (demand and usage charges), maintenance, operating personnel and replacement (equipment, installation and down time expenses) all reduced to an average annual rate using the current interest rate earned on funds invested by the County Treasurer.

4-1.6.2 Trade Names Listed. Where the Agency has listed products by brand or trade name on the Plans or in the Specifications, or both, this shall not be construed as meaning every product may be used without furnishing shop drawings, without redesign of the facility or without a change in utility rough-in requirements.

Where use of products listed on the Plans or in the Specifications, or both, or where use of a substitute proposed as an "equal" product requires shop drawings, redesign of the facility, or revisions in the size and location of rough-in utility connections, or in connecting work, the Contractor shall provide any necessary shop drawings, or shall cause the preparation of any necessary redesign or revisions to the Plans at its own expense and shall bear the full cost of any necessary additional construction or reconstruction work. No work described in shop drawings, a redesign, or a revision to the Plans shall be undertaken until such shop drawings, redesign, or revisions have been approved by the Engineer. Any proposed redesign or revision to the Plans shall be accompanied by complete computations and details prepared by an appropriate licensed design professional.

4-1.7 Weighing Equipment. All scales used for proportioning materials shall be inspected for accuracy and certified within the past 12 months by the State of California Bureau of Weights and Measures, by the County Director or Sealer of Weights and Measures, or by a scale mechanic registered with or licensed by the County.

The accuracy of the work of a scale service agency, except as stated herein, shall meet the standards of the California Business and Professions Code and the California Code of Regulations pertaining to weighing devices. A certificate of compliance shall be presented, prior to operation, to the Engineer for approval and shall be renewed whenever required by the Engineer at no cost to the Agency.

All scales shall be arranged so they may be read easily from the operator's platform or area. They shall indicate the true net weight without the application of any factor. The figures of the scales shall be clearly legible. Scales shall be accurate to within 1 percent when tested with the plant shut down. Weighing equipment shall be so insulated against vibration or moving of other operating equipment in the plant area that the error in weighing with the entire plant running will not exceed 2 percent for any setting nor 1.5 percent for any batch.

4-1.8 Calibration of Testing Equipment. Testing equipment, such as, but not limited to, pressure gages, metering devices, hydraulic systems, force (load) measuring instruments, and strain-measuring devices shall be calibrated by a testing agency acceptable to the Engineer at intervals not to exceed 12 months and following repairs, modification, or relocation of the equipment. Calibration certificates shall be provided when requested by the Engineer.

SECTION 5 - UTILITIES

5-1 LOCATION. The Permittee (in the case of Private Contracts) and the Agency (in the case of Cash or Assessment Act Contracts), will search known substructure records and furnish the Contractor with copies of documents which describe the location of utility substructures, or will indicate on the Plans for the project those substructures (except for service connections) which may affect the Work. Information regarding removal, relocation, abandonment, or installation of new utilities will be furnished to prospective bidders.

Where underground main distribution conduits such as water, gas, sewer, electric power, telephone, or cable television are shown on the Plans, the Contractor shall assume that every property parcel will be served by a service connection for each type of utility.

As provided in Section 4216 of the California Government Code, at least 2 working days prior to commencing any excavation, the Contractor shall contact the regional notification center (Underground Service Alert of Southern California) and obtain an inquiry identification number.

The California Department of Transportation is not required by Section 4216 to become a member of the regional notification center. The Contractor shall contact it for location of its subsurface installations.

The Contractor shall determine the location and depth of all utilities, including service connections, which have been marked by the respective owners and which may affect or be affected by its operations. If no pay item is provided in the Contract for this work, full compensation for such work shall be considered as included in the prices bid for other items of work.

5-2 PROTECTION. The Contractor shall not interrupt the service function or disturb the support of any utility without authority from the owner or order from the Agency. All valves, switches, vaults, and meters shall be maintained readily accessible for emergency shutoff.

Where protection is required to ensure support of utilities located as shown on the Plans or in accordance with 5-1, the Contractor shall, unless otherwise provided, furnish and place the necessary protection at its expense.

Upon learning of the existence and location of any utility omitted from or shown incorrectly on the Plans, the Contractor shall immediately notify the Engineer in writing. When authorized by the Engineer, support or protection of the utility will be paid for as provided in 3-2.2.3 or 3-3.

The Contractor shall immediately notify the Engineer and the utility owner if any utility is disturbed or damaged. The Contractor shall bear the costs of repair or replacement of any utility damaged if located as noted in 5-1.

When placing concrete around or contiguous to any non-metallic utility installation, the Contractor shall at its expense:

1. Furnish and install a 50 mm (2 inch) cushion of expansion joint material or other similar resilient material; or
2. Provide a sleeve or other opening which will result in a 50 mm (2 inch) minimum-clear annular space between the concrete and the utility; or
3. Provide other acceptable means to prevent embedment in or bonding to the concrete.

Where concrete is used for backfill or for structures which would result in embedment, or partial embedment, of a metallic utility installation; or where the coating, bedding or other cathodic protection system is exposed or damaged by the Contractor's operations, the Contractor shall notify the Engineer and arrange to secure the advice of the affected utility owner regarding the procedures required to maintain or restore the integrity of the system.

5-3 REMOVAL. Unless otherwise specified, the Contractor shall remove all interfering portions of utilities shown on the Plans or indicated in the Bid documents as "abandoned" or "to be abandoned in place". Before starting removal operations, the Contractor shall ascertain from the Agency whether the abandonment is complete, and the costs involved in the removal and disposal shall be included in the Bid for the items of work necessitating such removals.

5-4 RELOCATION. When feasible, the owners responsible for utilities within the area affected by the Work will complete their necessary installations, relocations, repairs, or replacements before commencement of work by the Contractor. When the Plans or Specifications indicate that a utility installation is to be relocated, altered, or constructed by others, the Agency will conduct all negotiations with the owners and work will be done at no cost to the Contractor, except as provided in 301-1.6. Utilities which are relocated in order to avoid interference shall be protected in their position and the cost of such protection shall be included in the Bid for the items of work necessitating such relocation.

After award of the Contract, portions of utilities which are found to interfere with the Work will be relocated, altered or reconstructed by the owners, or the Engineer may order changes in the Work to avoid interference. Such changes will be paid for in accordance with 3-2.

When the Plans or Specifications provide for the Contractor to alter, relocate, or reconstruct a utility, all costs for such work shall be included in the Bid for the items of work necessitating such work. Temporary or permanent relocation or alteration of utilities requested by the Contractor for its convenience shall be its responsibility and it shall make all arrangements and bear all costs.

The utility owner will relocate service connections as necessary within the limits of the Work or within temporary construction or slope easements. When directed by the Engineer, the Contractor shall arrange for the relocation of service connections as necessary between the meter and property line, or between a meter and the limits of temporary construction or slope easements. The relocation of such service connections will be paid for in accordance with provisions of 3-3. Payment will include the restoration of all existing improvements which may be affected thereby. The Contractor may agree with the owner of any utility to disconnect and reconnect interfering service connections. The Agency will not be involved in any such agreement.

5-5 DELAYS. The Contractor shall notify the Engineer of its construction schedule insofar as it affects the protection, removal, or relocation of utilities. Said notification shall be included as a part of the construction schedule required in 6-1. The Contractor shall notify the Engineer in writing of any subsequent changes in the construction schedule which will affect the time available for protection, removal, or relocation of utilities.

The Contractor will not be entitled to damages or additional payment for delays attributable to utility relocations or alterations if correctly located, noted, and completed in accordance with 5-1.

The Contractor may be given an extension of time for unforeseen delays attributable to unreasonably protracted interference by utilities in performing work correctly shown on the Plans.

The Agency will assume responsibility for the timely removal, relocation, or protection of existing main or trunkline utility facilities within the area affected by the Work if such utilities are not identified in the Contract Documents. The Contractor will not be assessed liquidated damages for any delay caused by failure of Agency to provide for the timely removal, relocation, or protection of such existing facilities.

If the Contractor sustains loss due to delays attributable to interferences, relocations, or alterations not covered by 5-1, which could not have been avoided by the judicious handling of forces, equipment, or plant, there shall be paid to the Contractor such amount as the Engineer may find to be fair and reasonable compensation for such part of the Contractor's actual loss as was unavoidable and the Contractor may be granted an extension of time.

5-5.1 Cooperation During Utility Relocation. When utilities are to be relocated during construction, the Contractor shall cooperate and coordinate with the respective utility owners so they may relocate their facilities to clear the Work. Delays in relocation of utilities which result from failure to cooperate and coordinate will not be a cause for an extension of time or Non-Working Days.

5-6 COOPERATION. When necessary, the Contractor shall so conduct its operations as to permit access to the Work site and provide time for utility work to be accomplished during the progress of the Work.

SECTION 6 - PROSECUTION, PROGRESS AND ACCEPTANCE OF WORK

6-1 CONSTRUCTION SCHEDULE AND COMMENCEMENT OF WORK. The requirements of this section concerning submission of construction schedules shall not apply to projects where the time allowed to complete the Work is less than 25 Working Days or the total Contract Price bid is less than $75,000 unless required by the special provisions.

The Contractor shall submit a construction schedule concurrently with the submittal of signed Contract, Contract bonds, and certificate of insurance. The Notice to Proceed will be delayed until the schedule is received. See 6-7.4, Starting of Contract Time.

When required by the Special Provisions, a revised schedule shall be submitted monthly prior to each progress payment closure date. Processing of the progress payment will be delayed until such revised schedule complying with this section is received.

The construction schedule shall be in the form of a Construction Element vs. Time Chart as shown in Appendix B-1and a Work Complete vs. Time Chart as shown in Appendix B-2.

The B-1 Chart shall be in sufficient detail to show the chronological relationship of all activities of the project including, but not limited to, estimated starting and completion dates of various activities, submittal of shop drawings to the Engineer for approval, procurement of materials, and scheduling of equipment. The B-1 Chart shall recognize the requirements of 5-5. The B-1 Chart shall reflect obtaining all materials and completing all Work under the Contract within the specified time and in accordance with these Specifications. If the Contractor intends to complete the Work prior to the time for completion, the intended date of completion shall be set forth in the B-1 Chart and the Contractor shall execute a Contract Change Order that changes the number of Working Days allowed for completion to conform with such intended completion date. The Change Order shall not change the Contract Price.

The Contractor may submit a computer generated schedule in lieu of the form in Appendix B-1 and B-2, provided all of the elements shown on that form or specified herein are included.

An updated construction schedule shall be submitted prior to the next progress payment closure date whenever the actual percent Work complete versus percent time elapsed curve falls below and to the right of the dotted line shown on Appendix B-2.

If the Contractor desires to make a major change in its method of operations after commencing construction, or if its schedule fails to reflect the actual progress, it shall submit to the Agency a revised construction schedule in advance of beginning revised operations.

Revised and updated schedules shall show actual completion to the date of the revision in the lower segmented bar for each item.

The construction schedule shall be prepared as follows (see examples in Appendices C-1 and C-2):

1. On theB-1 Chart:
   a. Enter the project name and Specification No. as shown on the notice inviting bids and the Contractors name.
   b. List the items of Work either individually or combined where items are part of the same element of the Work.
   c. Assign a value for each horizontal space plotting interval in Working Days as follows: 1 working day for total Contract time of less than 100 working days, 2 for 100 to 200 working days and 5 for longer projects. Enter the value used in the space provided in the lower part of the form.
   d. At the end of performance time and draw a vertical line and label it "End Performance Time". Enter numbers at 10 times the plotting interval at the top of intermediate vertical lines.
   e. Shade in a bar in the upper segmented section for each work item to indicate the period during which Work will be performed. Move-in time and delivery time for materials shall be shown if significant to the schedule.

2. On the B-2 Chart:
   a. Enter the project name and Specification No. as shown on the notice inviting bids.
   b. At time intervals of 10 or 20 working days:
      (1) Compute the cumulative dollar value of Work which is expected to be completed for each item of Work, including the value of the completed portion of lump-sum items.
      (2) Divide the values computed in "b(1)" by the Total Contract Price to determine the percentage of the entire Contract planned for completion at the end of each time interval.
      (3) Divide the days of performance time at the end of each time interval by the total Contract performance time to obtain the percentage of elapsed performance time.
   c. Plot each percentage of completion value figure computed in "b(2)" against the corresponding percentage of completion time computed in "b(3)" using scales on the bottom and left side of chart.
   d. Connect points plotted in "c" with a line which will show the planned progress for the entire job.

If the proposed percent Work complete versus percent time elapsed line falls below and to the right of the dotted line drawn on the B-2 Chart, the Contractor shall provide sufficient information and backup to show that the Work can be completed on time.

6-1.1 Beginning of Work. The issuance of Notice to Proceed by Agency shall constitute the Contractor's authority to enter upon the site of the Work and to begin operations provided it has also notified Engineer at least 24 hours in advance. Entry upon the site without authority will be treated as trespassing.

6-1.2 Starting Work. The Contractor may start work at any time after the Notice to Proceed is issued but work shall begin within 15 Days after the starting date for the Contract, or at such other time as may be indicated in the Special Provisions. The actual date on which the Contractor starts work will not affect the required time for completion as provided for in 6-7 and 6-7.1.

6-1.3 Work Sequence. If required by the Special Provisions, the Contractor shall start construction operations on that part of the Work designated by the Engineer.

6-1.4 Resources Required. The Work shall be conducted in such a manner and with sufficient materials, equipment, and labor to insure its completion in accordance with the Plans and Specifications within the time set forth in the Contract.

62 2 PROSECUTION OF WORK. To minimize public inconvenience and possible hazard and to restore streets and other Work areas to their original condition and former state of usefulness as soon as practicable, the Contractor shall diligently prosecute the Work to completion. If, in the Engineer's opinion, the Contractor fails to prosecute the Work to the extent that the above purposes are not being accomplished, the Contractor shall, upon orders from the Engineer, immediately take the steps necessary to fully accomplish said purposes. All costs of prosecuting the Work as described herein shall be absorbed in the Contractor's bid. Should the Contractor fail to take the necessary steps to fully accomplish said purposes, after orders of the Engineer to do so, the Engineer may suspend the Work in whole or in part, until the Contractor takes said steps.

As soon as possible under the provisions of these Specifications, the Contractor shall backfill all excavations and restore to usefulness all improvements existing prior to the start of the Work.

If Work is suspended through no fault of the Agency, all expenses and losses incurred by the Contractor during such suspensions shall be borne by the Contractor. If the Contractor fails to properly provide for public safety, traffic, and protection of the Work during periods of suspension, the Agency may elect to do so, and deduct the cost thereof from monies due the Contractor. Such action will not relieve the Contractor from liability.

63 SUSPENSION OF WORK

6-3.1 General. The Work may be suspended in whole or in part when determined by the Engineer that the suspension is necessary in the interest of the Agency. The Contractor shall comply immediately with any written order of the Engineer. Such suspension shall be without liability to the Contractor on the part of the Agency except as otherwise specified in 6-6.3.

6-3.2 Archaeological and Paleontological Discoveries. If discovery is made of items of archaeological or paleontological interest, the Contractor shall immediately cease excavation in the area of discovery and shall not continue until ordered by the Engineer. When resumed, excavation operations within the area of discovery shall be as directed by the Engineer.

Discoveries which may be encountered may include, but not be limited to, dwelling sites, stone implements or other artifacts, animal bones, human bones and fossils.

The Contractor shall be entitled to an extension of time and compensation in accordance with the provisions of 6-6.

6-3.3 Temporary Suspension of Work. Should suspension of Work be ordered by reason of the failure of the Contractor to carry out orders or to perform any provisions of the Contract; or by reason of weather conditions being unsuitable for performing any item or items of Work; the Contractor, at its expense, shall do all the work necessary to provide a safe, smooth, and unobstructed passageway through construction for use by public traffic during the period of such suspension. In the event that the Contractor fails to perform the work above specified, the Agency may perform such work and the cost thereof will be deducted from monies due or to become due the Contractor.

If the Engineer orders a suspension of all of the Work, or a portion of the Work which is the current controlling operation or operations, due to unsuitable weather or to such other conditions as are considered unfavorable to the suitable prosecution of the Work, the days on which the suspension is in effect shall not be considered Working Days.

If a portion of Work at the time of such suspension is not a current controlling operation or operations, but subsequently does become the current controlling operation or operations, the determination of Working Days will be made on the basis of the then current controlling operation or operations.

If a suspension of Work is ordered by the Engineer due to the failure on the part of the Contractor to carry out orders given or to perform any provision of the Contract, the Days on which the suspension order is in effect shall be considered Working Days if such days are Working Days as defined.

64 TERMINATION OF THE CONTRACT FOR DEFAULT..

6.4.1 General. If, prior to the acceptance of the Work, the Contractor:

a) becomes insolvent, assigns its assets for the benefit of its creditors, is unable to pay its debts as they become due, or is otherwise financially unable to complete the Work,
b) abandons the Work by failing to report to the Work site and diligently prosecute the Work to completion,
c) disregards written instructions from the Agency or materially violates provisions of the Contract Documents,
d) fails to prosecute the Work according to the schedule approved by the Engineer,
e) disregards laws or regulations of any public body having jurisdiction, or
f) commits continuous or repeated violations of regulatory or statutory safety requirements, then the Agency will consider the Contractor in default of the Contract.

Notices, and other written communications regarding default between the Contractor, the Agency, and the Surety shall be transmitted in accordance with 2-12.

6-4.2 Notice to Cure. The Agency will issue a written notice to cure the default to the Contractor and its Surety. The Contractor shall commence satisfactory corrective actions within 5 Working Days after receipt.

6-4.3 Notice of Termination for Default. If the Contractor fails to commence satisfactory corrective action within 5 Working Days after receipt of the notice to cure, or to diligently continue satisfactory and timely correction of the default thereafter, then the Agency will consider the Contractor in default of the Contract and:

a) will terminate the Contractor's right to perform under the Contract by issuing a written notice of termination for default to the Contractor and its Surety,
b) may use any materials, equipment, tools or other facilities furnished by the Contractor to secure and maintain the Work site, and
c) may furnish labor, equipment, and materials the Agency deems necessary to secure and maintain the Work site. The provisions of this subsection shall be in addition to all other legal rights and remedies available to the Agency.

6-4.4 Responsibilities of the Surety. Upon receipt of the written notice of termination for default, the Surety shall immediately assume all rights, obligations and liabilities of the Contractor under the Contract. If the Surety fails to protect and maintain the Work site, the Agency may do so, and may recover all costs incurred. The Surety shall notify the Agency that it is assuming all rights, obligations and liabilities of the Contractor under the Contract and all money that is due, or would become due, to the Contractor shall be payable to the Surety as the Work progresses, subject to the terms of the Contract.

Within 15 Working Days of receipt of the written notice of termination for default, the Surety shall submit to the Agency a written plan detailing the course of action it intends to take to remedy the default. The Agency will review the plan and notify the Surety if the plan is satisfactory. If the Surety fails to submit a satisfactory plan, or if the Surety fails to maintain progress according to the plan accepted by the Agency, the Agency may, upon 48 hours written notice, exclude the Surety from the premises, take possession of all material and equipment, and complete the Work in any way the Agency deems to be expedient. The cost of completing the Work by the Agency shall be charged against the Surety and may be deducted from any monies due, or which would become due, the Surety. If the amounts due under the Contract are insufficient for completion, the Surety shall pay to the Agency, within 30 days after the Agency submits an invoice, all costs in excess of the remaining Contract Price.

6-4.5 Payment. The Surety will be paid for completion of the Work in accordance with 9-3 less the value of damages caused to the Agency by acts of the Contractor.

65 TERMINATION OF CONTRACT. The Board may terminate the Contract at its own discretion or when conditions encountered during the Work make it impossible or impracticable to proceed, or when the Agency is prevented from proceeding with the Contract by act of God, by law, or by official action of a public authority.
The Agency will issue a written notice of termination for convenience in accordance with 2-12. Upon receipt, the Contractor shall immediately cease work, except work the Contractor is directed to complete by the Engineer or required to complete for public safety and convenience. The Contractor shall immediately notify Subcontractors and suppliers to immediately cease their work.
The Contractor will be paid without duplication for:

a) work completed in accordance with the Contract Documents prior to the effective date of termination for convenience;
b) reasonable costs incurred in settlement of terminated contracts with Subcontractors, suppliers and others; and
c) reasonable expenses directly attributable to termination.

The Contractor shall submit a final termination settlement proposal to the Agency no later than 90 days from the effective date of termination, unless extended, in writing, by the Agency upon written request by the Contractor.

If the Contractor fails to submit a proposal, the Agency may determine the amount, if any, due the Contractor as a result of the termination. The Agency will pay the Contractor the amount it determines to be reasonable. If the Contractor disagrees with the amount determined by the Agency as being reasonable, the Contractor shall provide notice to the Agency within 30 days of receipt of payment. Any amount due shall be as later determined by arbitration, if the Agency and the Contractor agree thereto, or as fixed in a court of law.

66 DELAYS AND EXTENSIONS OF TIME

6-6.1 General. If delays are caused by unforeseen events beyond the control of the Contractor, such delays will entitle the Contractor to an extension of time as provided herein, but the Contractor will not be entitled to damages or additional payment due to such delays, except as provided in 6-6.3. Such unforeseen events may include war, government regulations, labor disputes, strikes, fires, floods, adverse weather necessitating cessation of work, other similar action of the elements, inability to obtain materials, equipment or labor, required Extra Work, or other specific events as may be further described in the Specifications.

No extension of time will be granted for a delay caused by the Contractor's inability to obtain materials unless the Contractor furnishes to the Engineer documentary proof of the inability to obtain such materials in a timely manner in accordance with the sequence of the Contractor's operations and the approved construction schedule.

If delays beyond the Contractor's control are caused by events other than those mentioned above, but substantially equal in gravity to those enumerated, and an extension of time is deemed by the Engineer to be in the best interests of the Agency, an extension of time may be granted, but the Contractor will not be entitled to damages or additional payment due to such delays, except as provided in 6-6.3.

If delays beyond the Contractor's control are caused solely by action or inaction by the Agency, such delays will entitle the Contractor to an extension of time as provided in 6-6.2.

6-6.2 Extensions of Time. Extensions of time, when granted, will be based upon the effect of delays to the Work as a whole and will not be granted for noncontrolling delays to minor included portions of Work unless it can be shown that such delays did, in fact, delay the progress of the Work as a whole.

6-6.3 Payment for Delays to Contractor. The Contractor will be compensated for damages incurred due to delays for which the Agency is responsible if such delays are unreasonable in the circumstances involved and were not within the contemplation of the parties when the Contract was awarded to the Contractor and delay the Work as a whole. Such actual costs will be determined by the Engineer. The Agency will not be liable for, and in making this determination the Engineer will exclude, all damages which the Engineer determines the Contractor could have avoided by any reasonable means including, without limitation, the judicious handling of forces, equipment, or plant.

6-6.4 Written Notice and Report. If the Contractor desires payment for a delay as specified in 6-6.3 or an extension of time, it shall, within 30 Days after the beginning of the delay, file with the Agency a written request and report as to the cause and extent of the delay. The request for payment or extension must be made at least 15 Days before the specified completion date. Failure by the Contractor to file these items within the time specified will be considered grounds for refusal by the Agency to consider such request.

6-6.4.1 Documentation of Delays. When the Contractor requests an extension of time for delay due to an inability to obtain materials or equipment, the documentary proof required by 6-6.1 shall include the following:

1. Date Engineer was notified of delay.
2. Date the delay began.
3. Exact description of material or equipment causing delay.
4. Documentation showing when and from whom ordered.
5. Documentation of promise to deliver.
6. Documentation of actual delivery date.
7. Description of how late delivery caused delay (include construction schedule).
8. Documentation of measures taken to get prompt delivery.
9. Documentation of attempts to get delivery from other sources.
10. Description of steps taken in project scheduling to minimize effects of late delivery.
11. Description of steps taken to get project back on schedule after actual delivery.
12. Statement of actual time lost as a result of late delivery.

67 TIME OF COMPLETION

6-7.1 General. The Contractor shall complete the Work within the time set forth in the Contract. The Contractor shall complete each portion of the Work within such time as set forth in the Contract for such portion. Unless otherwise specified, the time of completion of the Contract shall be expressed in Working Day

6-7.2 Working Day. A Working Day is any day within the period between the start of the Contract time as defined in 6-1 and the date provided in the Contract for completion or upon field acceptance by the Engineer of all Work provided for in the Contract, whichever occurs first, other than:

1. Saturday,
2. Sunday,
3. any day designated as a holiday by the Agency,
4. any other day designated as a holiday in a Master Labor Agreement entered into by the Contractor or on behalf of the Contractor as an eligible member of a Contractor Association,
5. any day the Contractor is prevented from working at the beginning of the workday for cause as defined in 6-6.1,
6. any day the Contractor is prevented from working during the first 5 hours of the workday with at least 60 percent of the normal work force for cause as defined in 6-6.1.

6-7.2.1 Holidays. Solely for the purposes of paragraph (3) of 6-7.2, the following days are designated as holidays by the Agency.

MONTH	A AGENCY EMPLOYEE HOLIDAYS	B OTHER DESIGNATED HOLIDAYS
January	1st day; 3rd Monday	None
February	3rd Monday	12th day
March	None	31st day
March-April	None	1 Friday between March 21 & April 23 designated as Good Friday
May	Last Monday	None
June	None	None
July	4th day	None
August	None	None
September	1st Monday	9th day
October	None	2nd Monday
November	11th day; 4th Thursday	the Friday following the 4th Thursday
December	25th	23rd day, only if Thursday or Friday; 24th day; 31st day

If any day listed above falls on Saturday, the preceding Friday is the holiday. If any day listed above falls on Sunday, the succeeding Monday is the holiday.

No extra holiday shall result when such Friday or Monday is already designated as a holiday.
A copy of a Working Day calendar incorporating the above-listed holidays and used by the Agency for Contract time accounting purpose will be furnished to the Contractor upon request.

The term "holiday" as used in this section shall not be construed as being the same as "holiday" within the meaning of 7-2.2.

The Contractor may perform work on the holidays designated in Column A above provided it has obtained prior written approval of the Engineer at least two Days in advance of performing the work. The Contractor may perform work on the holidays designated in Column B above provided the Contractor notifies the Engineer two Days in advance of the holiday.

6-7.2.2 Landscape Maintenance Period. Where a landscape maintenance period is specified, the portion of the time in such period that follows the completion of all other Work required by the Contract shall not be Working Days for Contract time accounting.

6-7.3 Contract Time Accounting. The Engineer will make a daily determination of each Working Day to be charged against the Contract time. These determinations will be discussed and the Contractor will be furnished a periodic statement showing the allowable number of Working Days of Contract time, as adjusted, at the beginning of the reporting period. The statement will also indicate the number of Working Days charged during the reporting period and the number of Working Days of Contract time remaining. If the Contractor does not agree with the statement, the Contractor must file a written protest within 15 Days after receipt, setting forth the facts of the protest. Otherwise, the statement will be deemed to have been accepted.

6-7.4 Starting Date for Contract Time and Notice to Proceed. The starting date for Contract time accounting will be determined by adding the number of Days indicated on the Proposal form to the date the Contract is awarded, however the Agency may, at its option, delay the starting date by not more than 120 calendar Days if necessary to obtain grants, permits, rights-of-way, or approval of federal or State authorities, or when prevented from starting the project due to causes beyond its control. Notice to Proceed will be issued within 30 calendar Days after the Contract, bonds, certificates of insurance and other documents have been returned, properly completed by the Contractor, unless the starting date is delayed as herein provided. If the Agency delays the Contract starting date, Notice to Proceed will be issued at least 7 Calendar Days prior to the new starting date. Any delay caused by failure of the Contractor to properly complete or timely return the Contract Documents shall not change the Contract starting date and shall not be a cause for extending the Contract time. The Notice of Award will indicate a probable Contract starting date. The Notice to Proceed will indicate the actual Contract starting date, computed as herein described.

68 COMPLETION, ACCEPTANCE AND WARRANTY.

6-8.1 Completion and Acceptance. Acknowledgment of completion of the Work will occur prior to Acceptance by the Agency. Acceptance will only occur after all Contract requirements have been fulfilled, such as training, submission of warranties, maintenance manuals, record drawings, Release on Contract and the like. Acceptance by the Agency will occur when the Engineer signs the Notice of Completion.

The Work will be inspected by the Engineer promptly upon receipt of the Contractor's written assertion that the Work has been completed. If, in the Engineer's judgment, the Work has been completed in accordance with the Plans and Specifications, the Engineer will acknowledge completion of the Work. Completion of the Work, as used above, shall include the Contractor showing evidence of having received an occupancy clearance from Building and Safety, or other permit issuing agency, when a building, plumbing electrical, grading, or other permit is required for the Work. The Engineer will, in acknowledging completion of the Work, set forth in writing the date when the Work was completed. This will be the date when the Contractor is relieved from responsibility to protect the Work. This will also be the date to which liquidated damages will be computed.

6-8.2 Warranty and Correction

6-8.2.1 Warranty The Contractor warrants to the Agency that materials and equipment furnished under the Contract will be new, unless otherwise specified in the Contract Documents, and of good quality, that the Work will be free from defects in materials and workmanship and that the Work will conform to the requirements of the Contract Documents. Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective by the Agency. This warranty excludes damage or defect caused by abuse (other than by the Contractor or those under the control of the Contractor), modifications not executed by the Contractor, or improper or insufficient maintenance. This warranty excludes normal wear and tear. Nothing in this warranty is intended to limit any manufacturer’s warranty which provides the Agency with greater warranty rights.

6-8.2.2 Correction Period For a period of one (1) year from the date of acceptance of the Work by the Agency, the Contractor shall repair or replace any defective workmanship or materials or Work not in conformance with the Contract Documents after notice to do so from the Engineer, and within the time specified in the notice. If the Contractor fails to make such repair or replacement within the time specified in the notice, the Agency may perform the repair or replacement and the Contractor and the Contractor’s sureties shall be liable for the cost thereof. The one (1) year period referenced in this section 6-8.2.2 applies only to the Contractor’s obligation to repair or replace defective workmanship or materials or Work not in conformance with the Contract Documents and is not intended to constitute a period of limitations for any other rights or remedies the Agency may have regarding the Contractor’s other obligations under the Contract Documents.

6-8.3 No Waiver of Legal Rights. The Agency shall not be precluded or estopped by any measurement, estimate, or certificate made either before or after the completion and Acceptance of the Work and payment therefor from showing the true amount and character of the Work performed and materials furnished by the Contractor, nor from showing that any such measurement, estimate, or certificate is untrue or is incorrectly made, nor that the Work or materials do not in fact conform to the Contract.

The Agency shall not be precluded or estopped, notwithstanding any such measurement, estimate, or certificate and payment in accordance therewith, from recovering from the Contractor or its sureties, or both, such damages as it may sustain by reason of the Contractor's failure to comply with the terms of the Contract.

Neither the Acceptance by the Engineer or by its representative, nor any payment for or Acceptance of the whole or any part of the Work, nor any extension of time, nor any possession taken by the Engineer shall operate as a waiver of any portion of the Contract or of any power herein reserved, or of any right to damages.

A waiver of any breach of the Contract shall not be held to be a waiver of any other or subsequent breach.

6-8.4 Landscape Maintenance Period. Final Acceptance of the Contract shall follow the satisfactory completion of all Contract Work, including the landscape maintenance period if one is specified.

6-8.5 Non-complying Work. Neither the final certificate of payment nor any provision in the Contract Documents, nor partial or entire occupancy of the premises by the Agency, shall constitute an Acceptance of Work not done in accordance with the Contract Documents or relieve the Contractor of liability in respect to any express warranties or responsibility for faulty materials or workmanship.

6-8.6 Written Warranties. The Contractor shall obtain and deliver to the Engineer all written warranties required to be furnished by the Specifications. Each of such warranty shall be underwritten by the Contractor for the full period prescribed therein, and shall bear its endorsement to such effect.

6-9 LIQUIDATED DAMAGES. Failure of the Contractor to complete the Work within the time allowed will result in damages being sustained by the Agency. Such damages are, and will continue to be, impracticable and extremely difficult to determine. For each consecutive calendar day in excess of the time specified, as adjusted in accordance with 6-6, for completion of the Work the Contractor shall pay to the Agency, or have withheld from monies due it, the sum of $250, unless otherwise provided in the Contract Documents.

Execution of the Contract under these Specifications shall constitute agreement by the Agency and Contractor that $250 per day is the minimum value of the costs and actual damage caused by failure of the Contractor to complete the Work within the allotted time, that such sum is liquidated damages and shall not be construed as a penalty, and that such sum may be deducted from payments due the Contractor if such delay occurs.

6-10 USE OF IMPROVEMENT DURING CONSTRUCTION. The Agency reserves the right to take over and utilize all or part of any completed facility or appurtenance. The Contractor will be notified in writing in advance of such action. Such action by the Agency will relieve the Contractor of responsibility for injury or damage to said completed portions of the improvement resulting from use by public traffic or from the action of the elements or from any other cause, except injury or damage resulting from the Contractor's operations or negligence. The Contractor will not be required to reclean such portions of the improvement before field completion, except for cleanup made necessary by its operations. Nothing in this section shall be construed as relieving the Contractor from full responsibility for correcting defective work or materials.

In the event the Agency exercises its right to place into service and utilize all or part of any completed facility or appurtenance, the Agency shall assume the responsibility and liability for injury to persons or property arising out of or resulting from the utilization of the facility or appurtenance so placed into service, except for any willful or negligent act or omission by the Contractor, Subcontractor, their officers, employees or agents.

6-10.1 Use of Improvements - Exceptions. The provisions of 6-10 shall not apply to projects for the repair, modification, enlargement or improvement of existing facilities that are to remain in use during construction except where a portion of the project which is completely independent from the rest of the Work can be completed and put into use by the Agency.

On projects on public roads, after satisfactory completion of an isolated section of the Work involving roadway improvements or repairs, when all temporary signs and other temporary Contractor facilities have been removed, the section is not being used as a detour, the section is no longer under the Contractor's control, and the section is opened to public traffic through the end of the Contract period, that section of the Work shall be taken over by the Agency as provided in 6-10. The Contractor shall indicate to the Engineer in writing when the conditions of this paragraph have been complied with and shall specify the limits of the section involved. Any taking over of the Work by the Agency shall be effective only when formal written notification is issued by the Agency.

6-11 NOTICE OF POTENTIAL CLAIM FOR ADDITIONAL COMPENSATION. Procedures for notice of claims in specific situations and circumstances are provided in the following sections:

3-4 .....Changed Conditions
6-6.4 .....Delay and Extensions of Time
6-7.3 .....Contract Time Accounting

Compliance with this section is not prerequisite to assertion of a claim involving those sections or based on differences in measurements or errors of computation as to Contract quantities.

Compliance with the provisions of this section is required in all other situations and circumstances.

It is the intention of this section that differences arising between the parties under and by virtue of the Contract be brought to the attention of the Engineer at the earliest possible time in order that such matters may be settled, if possible, or other appropriate action taken to resolve such differences.

The Contractor shall give the Engineer written notice of a potential claim, setting forth: (1) the reasons for which the Contractor believes additional compensation will or may be due; (2) the nature of the costs involved; and (3) insofar as possible, the amount of the potential claim.

If the claim is based upon an act or failure to act by the Engineer, the said notice must be given to the Engineer prior to the date when the work giving rise to the potential claim is commenced; in all other cases the said notice must be given to the Engineer within 15 Days after the happening of the event, thing or occurrence giving rise to the potential claim.

The Contractor shall not be entitled to the payment of any additional compensation where the written notice of potential claim has not been given to the Engineer in the manner required by and within the time limitations of this section.

6-12 DISPUTES AND CLAIMS; PROCEDURE.

6-12.1 GENERAL. Any and all decisions made on appeal pursuant to this section shall be in writing. Any "decision" purportedly made pursuant to this section which is not in writing shall not be binding upon the Agency and should not be relied upon by the Contractor.

Filing or giving the notices required under 3-4, 6-6.4, 6-7.3 and 6-11 is prerequisite to recovery under a Contractor's claim for additional compensation; nothing in this section shall excuse the Contractor from its duty to file or give the required notices, or from performing other duties required by the Contract Documents.

6-12.2 ADMINISTRATIVE REVIEW. Prior to proceeding under 6-12.3 or filing a Complaint in Arbitration, the Contractor shall exhaust its administrative remedies by submitting its claim for review and decision by the following Agency staff in the following sequence:

Project Manager, responsible for the project
Department Director (Public Works Agency), responsible for the project.
Director of the Public Works Agency (the Engineer)

If the Contractor disputes the Project Manager's decision on its claim, the Contractor shall submit the claim to the Department Director. If the Contractor disputes the Department Director's decision on its claim, the Contractor shall submit the claim to the Engineer. Agency staff decisions shall state the portion of the claim that is undisputed if any.

The Project Manager may elect to forward a claim submitted by the Contractor directly to the Department Director. The Project Manager must give the Contractor notice of that election and the Contractor may supplement its claim within 7 Days of such notice (unless the parties agree in writing to a different time) and its claim will be deemed submitted on the earlier of the day it supplements its claim, the day it states in writing that it will not supplement its claim or the daytime to supplement expires. The Department Director may forward a claim timely submitted by the Contractor directly to the Engineer instead of making a decision on the claim, in which case no notice or opportunity to supplement the claim is required, and the claim shall be deemed timely submitted to the Engineer.

The Engineer's decision on the claim shall be the Agency's final decision.

Claims submitted to the Department Director and the Engineer shall be submitted in writing and shall include:

a. A copy of the disputed decision.
b. A statement as to why the Contractor believes the decision is in error.
c. All information, argument, documents and evidence (collectively, materials) that the Contractor wishes to have considered in the review. Where the request for review is made to the Engineer, in lieu of resubmitting materials which have already been submitted to the Department Director, the Contractor may include with the request a list of the materials the Contractor wants the Engineer to consider. Any additional materials and evidence not previously submitted to the Department Director shall be included with the request to the Engineer, if the Contractor wishes them to be considered. If relevant evidence is not available at the time the request is made to the Department Director or the Engineer, the Contractor shall identify such evidence and include a statement as to when such evidence will be submitted.

The Project Manager shall issue a decision on a claim within 10 Days of receipt; if the Project Manager does not do so, then the Project manager will be deemed to have decided to reject the claim in its entirety as of the conclusion of the 10th Day after receipt. The Contractor shall submit a claim to the Department Director for review and decision within 7 Days of receipt of the Project Manager's decision or of the time the Project Manager is deemed to have decided to reject the claim, whichever is applicable. The Department Director shall issue a decision on a claim within 10 Days of the timely submission of the claim; if the Department Director does not do so, then the Department Director will be deemed to have decided to reject the claim in its entirety as of the conclusion of the 10th Day after timely submission. The Contractor shall submit a claim to the Engineer for review and decision within 7 Days of receipt of the Department Director's decision or of the time the Department Director is deemed to have decided to reject the claim, whichever is applicable. If a claim is timely submitted to the Engineer and the Engineer fails to issue a decision on that claim within the time limits prescribed for issuing a written statement under Public Contract Code, section 9204, subdivision (d)(1), the Engineer shall be deemed to have decided to reject the claim in its entirety. At any time after the Project Manager receives a claim, the Agency and Contractor may agree in writing to different time limits than those set forth in this paragraph.

6-12.3 MEET AND CONFER; MEDIATION If the Contractor disputes the Agency's final decision, the Contractor may demand in writing an informal conference to meet and confer for settlement of the issues in dispute. Upon receipt of a demand in writing sent by registered mail or certified mail, return receipt requested, the Agency shall schedule a meet and confer conference within 30 Days for settlement of the dispute.

Within 10 business days following the conclusion of the meet and confer conference, if the claim or any portion of the claim remains in dispute, the Agency shall provide the Contractor a written statement identifying the portion of the claim that remains in dispute and the portion that is undisputed. Any payment due on an undisputed portion of the claim shall be processed and made within 60 Days after the Agency issues its written statement. Any disputed portion of the claim, as identified by the Contractor in writing, shall be submitted to nonbinding mediation, with the Agency and the Contractor sharing the associated costs equally. The Agency and Contractor shall agree to a mediator within 10 business days after the disputed portion of the claim has been identified in writing. If the Agency

and Contractor cannot agree upon a mediator, each party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the claim. Each party shall bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator. If mediation is unsuccessful, the parts of the claim remaining in dispute shall be subject to applicable procedures outside this section.

For purposes of this section, mediation includes any nonbinding process, including, but not limited to, neutral evaluation or a dispute review board, in which an independent third party or board assists the parties in dispute resolution through negotiation or by issuance of an evaluation. Any mediation utilized shall conform to the timeframes in this section.

Failure by the Agency to meet the time requirements of this section shall result in the portion of the claim that remains in dispute being deemed rejected in its entirety.

The parties may agree to waive, in writing, mediation under this section.

6-12.4 ARBITRATION. Claims and disputes arising under or related to the performance of the Contract, for which mediation under 6-12.3 was waived or unsuccessful except for claims which have been released by execution of the "Release on Contract" as provided in 9-4, shall be resolved by arbitration unless the Agency and the Contractor agree in writing, after the claim or dispute has arisen, to waive arbitration and to have the claim or dispute litigated in a court of competent jurisdiction. Arbitration shall be pursuant to Article 7.1 (commencing with Section 10240) of Chapter 1 of Part 2 of the Public Contract Code and the regulations promulgated thereto, Chapter 4 (commencing with Section 1300) of Division 2 of Title 1 of the California Code of Regulations. The arbitration decision shall be decided under and in accordance with California law, supported by substantial evidence and, in writing, contain the basis for the decision, findings of fact, and conclusions of law.

Arbitration shall be initiated by a Complaint in Arbitration made in compliance with the requirements of said Chapter 4. A Complaint in Arbitration by the Contractor shall be filed not later than 90 calendar Days after receipt of the final written decision of the Agency on the claim or dispute or within 300 Days after Acceptance of the Work by the Agency if no written decision has been issued. For the purposes of this section, "Acceptance of the Work by the Agency" shall be defined as the date the Notice of Completion is filed.

Where an election is made by either party to use the Simplified Claims Procedure provided under Sections 1340-1346 of said Chapter 4, the parties may mutually agree to waive representation by counsel.

All contracts valued at more than $25,000 between the Contractor and its subcontractors and suppliers shall include a provision that the subcontractors and suppliers shall be bound to the Contractor to the same extent that the Contractor is bound to the Agency by all terms and provisions of the Contract, including this arbitration provision.

6-13 CONTRACTOR'S WORK HOURS

6-13.1 Working Hours Limitations. Except as otherwise specified, no work shall be performed by the Contractor at the Work site between the hours of 7:00 p.m. and 7:00 a.m. the following day, nor shall work be performed on Saturdays, Sundays or holidays listed in 6-7.2.1.

6-13.2 Regular Work Schedule. The Contractor shall furnish a work schedule with the Construction Schedule required by 6-1 and inform the Engineer at least two Days in advance of changing the schedule. The schedule shall include the times for starting and ending work on each day. Such starting and ending times shall not be more than 10 1/2 hours apart.

6-13.3 Exceptions. The limitations on working hours and days shall not apply to emergency work made necessary by unusual conditions where such work is necessary to protect the Work, to protect the property of others, to protect life, or to ensure the orderly flow of traffic.

The limitations of this section shall not apply where work at times other than allowed by 6-13.1 and 6-13.2 is necessary in order to make utility connections or is required by other provisions contained in these Specifications in order to perform the work in the manner specified. In these cases, the Contractor shall obtain prior written approval of the Engineer at least two Days in advance of performing the work.

SECTION 7 - RESPONSIBILITIES OF THE CONTRACTOR

7-1 THE CONTRACTOR'S EQUIPMENT AND FACILITIES.

7-1.1 General. The Contractor shall furnish and maintain in good condition all equipment and facilities as required for the proper execution and inspection of the Work.
The Contractor shall provide and maintain enclosed toilets for the use of employees engaged in the Work. These accommodations shall be maintained in a neat and sanitary condition, and regularly pumped out.

7-1.2 Temporary Utility Services. The Contractor shall, at its own expense, make all arrangements necessary for the provision of temporary utility services necessary for its own use during performance of the Work.
The Contractor shall not draw water from any fire hydrant (except to extinguish a fire), without obtaining permission from the water utility owner.

7-1.3 Crushing and Screening Operations. Unless otherwise specified in the Special Provisions, the establishment and operation of portable screens and crushers will not be allowed on or adjacent to the Work site.

7-2 LABOR

7-2.1 General. The Contractor, its agents, and employees shall be bound by and comply with applicable provisions of the Labor Code and Federal, State, and local laws related to labor.
Any worker found by the Engineer to be incompetent, intemperate, troublesome, disorderly, or otherwise objectionable, or who fails to perform the Work properly and acceptably, shall be immediately removed from the Work site by the Contractor and shall not be reemployed in the performance on the Work.

7-2.1.1 Special Qualifications. Where the Engineer determines certain portions of the Work require experience, training, certification or other special qualifications that may not be possessed by the average journeyperson, such portions of the Work will be specifically identified in the Special Provisions and the special qualifications identified. When work requiring special qualifications is being performed, a person with such qualifications must be in immediate charge of the work. The person may be a lead journeyperson, foreperson or trade superintendent. The general superintendent or a foreperson who is not specifically assigned to the area where the identified work is being performed will not be considered to be in immediate charge of the work.
Written certification of the required qualifications shall be furnished to the Engineer at least one week prior to the time work is commenced on the work requiring such qualifications. Such certification is subject to review and acceptance by the Engineer. If, during performance of work requiring special qualifications, the qualified person becomes temporarily or permanently unavailable to the Contractor, work shall not proceed until a qualified replacement has been accepted by the Engineer. The Engineer will promptly consider the certification of the replacement.
If identified work is performed without a person having the special qualifications in charge, the Engineer may, at its sole discretion, order such work removed and replaced at the Contractor's expense.
If, after certification is accepted, the Engineer finds that the certification was inaccurate, or work on the project indicates a lack of the knowledge and experience to supervise the work, the Engineer may order the work stopped until an acceptable replacement has been certified, accepted and is in charge.

7-2.2 Prevailing Wages. Pursuant to Section 1773.2 of the Labor Code, the current prevailing rate of per diem wages at the time of the Bid as determined by the Director of the Department of Industrial Relations (DIR) are on file at the office of the Engineer. The Contractor shall post a copy of these rates at the Work site. Pursuant to Section 1774 of the Labor Code, the Contractor and any Subcontractors shall pay not less than the specified prevailing rates of wages to workers employed on the Contract. If the Contract is Federally-funded, the Contractor and any Subcontractors shall not pay less than the higher of these rates or the rates determined by the United States Department of Labor. Pursuant to Section 1775 of the Labor Code, the Contractor and any Subcontractors, shall, as a penalty to the Agency, forfeit the prescribed amounts per calendar day, or portion thereof, for each worker paid less than the prevailing wage rates. The project is subject to the compliance monitoring and enforcement by the California Department of Industrial Relations (DIR). The contractor is responsible for posting job site notices as prescribed by regulation pursuant to Labor Code section 1771.4, subdivision (a)(2). The Contractor and each Subcontractor, if any, must be registered with the DIR pursuant to Labor Code section 1725.5 and section 1771.1. The Contractor and each Subcontractor, if any, must submit certified payrolls to the Labor Commissioner pursuant to Labor Code 1771.4.

7-2.2.1 Apprentices. Apprentices shall be employed on the Work in accordance with Labor Code Section 1777.5. The Contractor is responsible for compliance with Labor Code Section 1777.5 for all apprenticeable occupations whether employed directly or through subcontractors.

7-2.2.2 Contractors' Duties Concerning Labor Code Compliance. As required by Labor Code 1775(b)(1), Labor Code Sections 1771, 1775, 1776, 1777.5, 1813 and 1815 are required to be included in the contract between the Contractor and subcontractors. The Contractor agrees to comply with these sections and all remaining provisions of the Labor Code.

7-2.3 Payroll Records. Pursuant to Section 1776 of the Labor Code the Contractor and each Subcontractor, if any, shall keep, make available, and submit to the Engineer within ten (10) days of receipt of a written request,

certified payroll records. Pursuant to Labor Code section 1776, subsection (h), the Contractor and each Subcontractor, if any, shall, as a penalty to the Agency, forfeit the prescribed amount for each calendar day, or portion thereof, for each worker, the Contractor and each Subcontractor, if any, fails to comply with that subsection until strict compliance is effectuated. The Contractor and each Subcontractor, if any, waives any right to any notice or hearing on the forfeiture of such penalties pursuant to Labor Code sections 1726 or 1771.6. The contractor shall include the in its subcontracts as required to make this paragraph effective as to each Subcontractor. Upon written request, the Contractor shall withhold penalties forfeited by a Subcontractor pursuant to Labor Code section 1776,l subsection (h), and this paragraph from payment due to such Subcontractor and remit such penalties withheld to the Agency.

7-2.4 Hours of Labor. Pursuant to Section 1810 of the Labor Code, 8 hours of labor shall constitute a legal day's work. Pursuant to Section 1813 of the Labor Code, the Contractor and any Subcontractors, shall, as a penalty to the Agency, forfeit the prescribed amount per calendar day for each worker required or permitted to work more than 8 hours in any 1 calendar day and 40 hours in any 1 calendar week without being compensated in accordance with Section 1815.

Pursuant to Section 1810 of the Labor Code, 8 hours of labor shall constitute a legal day's work. Pursuant to Section 1813 of the Labor Code, the Contractor and each Subcontractor, if any, shall, as a penalty to the Agency, forfeit the prescribed amount per calendar day for each worker required or permitted to work more than 8 hours in any 1 calendar day and 40 hours in any 1 calendar week without being compensated in accordance with Section 1815. Contractor and each Subcontractor, if any, waives any right to any notice or hearing on the forfeiture of such penalties pursuant to Labor Code sections 1726 and 1771.6. Contractor shall include terms in its subcontracts as required to make this paragraph effective as to each Subcontractor. Upon written request, Contractor shall withhold penalties forfeited by a Subcontractor pursuant to Labor Code section 1813 and this paragraph from payments due to such Subcontractor and remit such penalties withheld to the Agency.

7-3 INDEPENDENCE OF CONTRACTOR, INDEMNIFICATION AND POLLUTION

7-3.1 Independence of Contractor. It is understood and agreed that Contractor is at all times an independent contractor and that no relationship of employer-employee exists between the parties hereto.
Contractor will not be entitled to any benefits payable to employees of County, including but not limited to overtime, retirement benefits, workers' compensation benefits, injury leave or other leave benefits. County is not required to make any tax or benefit deductions from the compensation payable to Contractor under the provisions of this Agreement. As an independent contractor, Contractor hereby holds County harmless from any and all claims that may be made against County based upon any contention by any third party that an employer-employee relationship exists by reason of the Agreement.

If, in the performance of this Agreement, any third persons are employed by Contractor, such persons will be entirely and exclusively under the direction, supervision and control of Contractor. All terms of employment, including hours, wages, working conditions, discipline, hiring and discharging or any other terms of employment or requirements of law, will be determined by Contractor. County will have no right or authority over such persons or the terms of such employment, except as provided in this Agreement.

7-3.2 Indemnification and Hold Harmless Clause. All activities arising out of or relating to the performance of the Work covered by this Contract shall be at the risk of Contractor. To the fullest extent permitted by law, Contractor shall defend (at Agency's request), indemnify and hold harmless Agency, and the County of Ventura if the County of Ventura is not the entity defined as Agency under this Contract, including all of their boards, agencies, departments, officers, employees, agents and volunteers (collectively, "Indemnitee"), against any and all claims, suits, actions, legal or administrative proceedings, judgments, debts, demands, damages, including injury or death to any person or persons, and damage to any property including loss of use resulting therefrom, incidental and consequential damages, liabilities, interest, costs, attorneys' fees and expenses of whatsoever kind of nature, whether arising before, during or after commencement or completion of this Contract, whether against Contractor and Indemnitee or which are in any manner, directly, indirectly, in whole or in part, arising from any act, omission, fault or negligence, whether active or passive, of Contractor, a Subcontractor or anyone directly or indirectly employed by them or anyone for whose acts they may be liable in connection with or incident to the Contract, even though the same may have resulted from the joint, concurring or contributory negligence, or from the passive negligence, of Indemnitee or any other person or persons, unless the same be caused by the sole negligence of Indemnitee, or except to the extent caused by the active negligence or willful misconduct of Indemnitee.

The Agency will notify the Contractor of the receipt of any third-party claims.

7-3.3 Contamination and Pollution. Contractor, solely at its own cost and expense, will provide clean-up of any premises, property or natural resources contaminated or polluted due to Contractor activities. Any fines, penalties, punitive or exemplary damages assigned due to contaminating or polluting activities of the Contractor will be borne entirely by the Contractor.

7-3 INSURANCE REQUIREMENTS

Contractor, at its sole cost and expense, shall obtain and maintain in full force during the term of this Contract the following types of insurance:

7-4.1 Workers' Compensation Insurance.

7-4.1.1 Coverage. Workers' Compensation coverage, in full compliance with Labor Code 3700, for all employees of Contractor and Employer's Liability in the minimum amount of $1,000,000. The Agency, the County of Ventura, its officers, employees or Consultants, will not be responsible for any claims in law or equity occasioned by failure of Contractor to comply with this paragraph.

7-4.1.2 Certification. Before execution of the Contract by Agency, Contractor shall file with the Engineer the following signed certification:
"I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the Work of this Contract."

7-4.2 Commercial General Liability Insurance

7-4.2.1 Minimum Limits and Scope; Insurance Classes. "Occurrence" coverage in the minimum amount of:

Coverage Class	Coverage
L-A	$ 1,000,000 combined single limit (CSL) bodily injury and property damage each occurence and $1,000,000 aggregate
L-B	$ 1,000,000 CSL bodily injury and property damage each occurrence and $2,000,000 aggregate
L-C	$ 5,000,000 CSL bodily injury and property damage each occurrence and $5,000,000 aggregate
L-D	$ 10,000,000 CSL bodily injury and property damage each occurrence and $10,000,000

If no coverage class is specified in "Proposal", coverage class L-B shall apply.
If Contractor maintains higher limits than the minimums shown above, the Agency requires and shall be entitled to coverage for the higher limits maintained by the Contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the Agency.
Coverages shall include premises/operations; products/completed operations; independent contractors; underground, explosion and collapse hazards; personal and advertising injury; broad form property damage; and broad form blanket contractual.

7-4.2.2 Coverage Exceptions. On projects where no explosives will be used and no demolition is involved, the coverage for explosion may be omitted. On projects where no excavation is involved, the coverage for underground hazard may be omitted. The omission of said coverages is at Agency's option, and shall not abrogate Contractor's responsibilities for indemnification as set forth in these Specifications.

7-4.2.3 Excess Liability Policies. All Excess Liability policies, if used, shall be on an "umbrella" or following form of the primary layer of coverage.

7-4.3 Commercial Automobile Liability Insurance

Coverage in the minimum amount of $1,000,000 CSL bodily injury and property damage, including automobile liability, any auto.

7-4.4 Property Insurance

Contractor shall arrange for its own "Course of Construction" insurance on the project to protect its interests, as Agency does not have this coverage.
Contractor is responsible for delivering to Agency Work completed in accordance with the Contract except as provided in 7-18 (Acts of God). Should the Work being constructed be damaged by fire or other causes during construction, it shall be replaced by Contractor in accordance with the requirements of the Plans and Specifications without additional expense to Agency.

7-4.5 Other Insurance Provisions.

7-4.5.1 Insurance Company Qualifications. All insurance required shall be issued by (a) an admitted company or admitted companies authorized to transact business in the State of California which have a BEST rating of B+ or higher and a Financial Size Category (FSC) of VII or larger or (b) a California approved Surplus Line carrier or carriers which have a BEST rating of A or higher and a Financial Size Category (FSC) of VII or larger.
Workers compensation insurance not meeting the above requirements but meeting all other requirements of the specifications, will be accepted.

7-4.5.2 Primary Coverage. All insurance required shall be primary coverage as respects Agency and any insurance or self-insurance maintained by Agency or the County of Ventura shall be in excess of Contractor's insurance coverage and shall not contribute to it.

7-4.5.3 Aggregate Limits Exceeded. Agency shall not be notified immediately if any aggregate insurance limit is exceeded. Contractor shall purchase additional coverage to meet requirements.

7-4.5.4 Liability in Excess of Limits. Insurance coverage in the minimum amounts set forth herein shall not be construed to relieve Contractor for liability in excess of such coverage, nor shall it preclude Agency or the County of Ventura from taking such other actions as is available to it under any other provisions of this Contract or otherwise in law.

7-4.5.5 Additional Insured Endorsements. The Agency, the County of Ventura (if not defined as Agency) and all special Districts governed by the County of Ventura Board of Supervisors, and their officials, employees, and volunteers shall be named as Additional Insured as respects Work done by or on behalf of Contractor under the Contract on all policies required (except workers' compensation). With respect to Contractor's commercial general Liability insurance, Additional Insured coverage shall include both ongoing and completed operations.

7-4.5.6 Waiver of Subrogation Rights. Contractor agrees to waive all rights of subrogation against the Agency, the County of Ventura, including its boards, and all special Districts governed by the Board of Supervisors, for losses arising directly or indirectly from the activities or Work performed by Contractor under the Contract (applies only to Workers' Compensation and Commercial General Liability).

7-4.5.7 Cancellation Notice Required. In the case of policy cancellation, Agency shall be notified by the insurance company or companies as provided for in the policy. Contractor shall notify Agency of any and all policy cancellations within three working days of the cancellation.

7-4.5.8 Documentation Required. Prior to execution of the Contract by Agency, Contractor shall provide Agency with Certificates of Insurance for all required coverages (see Appendix A for example), all required endorsement(s) and a copy of its course of insurance policy.

It is the responsibility of Contractor to confirm that all terms and conditions of Section 7-4 Insurance Requirements are complied with by any and all subcontractors that Contractor may use in the completion of the Contract.

7-4 PERMITS. The Agency will obtain, at no cost to the Contractor, all encroachment and building permits necessary to perform Contract Work in streets, highways, railways or other rights of way, unless the necessity for such permit(s) is created by a method of operation chosen by the Contractor. The Contractor shall obtain and pay for all costs incurred for permits necessitated by its operations such as, but not limited to, those permits required for night Work, overload, blasting and demolition.

The Contractor shall pay all business taxes or license fees that are required for the Work.

7-5.1 Highway and Railroad Permits. The Engineer will obtain the basic State highway and railroad encroachment permits which will include checking of plans. However, the Contractor must also obtain permits from these agencies. Inspection fees charged by these agencies must be paid by the Contractor.

7-5.2 Grading Ordinance

7-5.2.1 General.

All excavation, filling and grading operations in Ventura County are governed by the Ventura County Grading Ordinance or City Ordinances, except within the project right of way shown on the Plans.

7-5.2.2 Permits Required. Work outside the project right of way which involves excavation or filling of soils is subject to all requirements of the applicable grading ordinance. The requirements may include, but are not limited to, submitting of a grading plan prepared by a Civil Engineer, obtaining a grading permit, paying the permit fee, posting a grading bond, hiring professionals for engineering and testing services, compacting fills, constructing drainage facilities and providing erosion protection.

7-5.2.3 Imported and Exported Material. To ensure that neither the Agency nor the Contractor is a party to aiding or abetting any property owner (who is ultimately responsible) to violate the applicable grading ordinance, no material shall be imported from or exported or wasted outside the project right of way until the Contractor has furnished the Engineer a copy of the grading permit covering such operation on land where material is to be deposited or excavated, unless exempt.

7-5.2.4 Exemptions from Permit. No grading permit is required of the Contractor for Work performed within the project right of way shown on the Plans or on borrow or disposal areas shown on the Plans or described in the Special Provisions and which are specifically designated as being exempt from such permit requirements.

7-5.3 Building Permit.

7-5.3.1 Agency Furnished Permits. Except as provided in **7-5.3.2**, Agency will submit the plans for the Work to Department of Building and Safety, and other building related permit issuing agencies, for plan check and make the corrections necessary for the issuance of building and related permits. Agency will Pay plan check and permit fees for the Work. The Contractor may be required to furnish information to the permit issuing agencies, as required for the issuance of permits, and sign the permit.

7-5.3.2 Contractor Furnished Permits. Components or systems, required by the Contract, may require the preparation of plans and calculations to obtain approvals or permits from state or local building, fire prevention, public health, safety, environmental protection and other agencies in addition to the basic permits arranged for by the Agency as provided in **7-5.3.1**. Contractor shall take all actions in a timely manner to obtain such approvals or permits so as not to delay completion of the Work beyond the time provided in **6-7**. Contractor shall include all costs and consider the time required to obtain approvals or permits in the Contract price bid.

7-5.4 Coastal Zone Permits

7-5.4.1 Agency Furnished Permits. Permits required for Work on the project within rights of way furnished by the Agency within the Coastal Zone will be obtained by the Agency.

7-5.4.2 Contractor Furnished Permits. Permits required for the Contractor's operations outside of rights of way furnished by the Agency must be obtained by the Contractor. Such permits are required for brush removal, grading, dredging, disposal of material and many other operations within the Coastal Zone.

7-5 THE CONTRACTOR'S REPRESENTATIVE. Before starting work, the Contractor shall designate in writing a representative who shall have complete authority to act for it. An alternative representative may be designated as well. The representative or alternate shall be present at the Work site whenever work is in progress or whenever actions of the elements necessitate its presence to take measures necessary to protect the Work, persons, or property. Any order or communication given to this representative shall be deemed delivered to the Contractor. A joint venture shall designate only one representative and alternate. In the absence of the Contractor or its representative, instructions or directions may be given by the Engineer to the superintendent or person in charge of the specific work to which the order applies. Such order shall be complied with promptly and referred to the Contractor or its representative.

In order to communicate with the Agency, the Contractor's representative, superintendent, or person in charge of specific work shall be able to speak, read, and write the English language.

7-6 COOPERATION AND COLLATERAL WORK. The Contractor shall be responsible for ascertaining the nature and extent of any simultaneous, collateral, and essential work by others. The Agency, its workers and contractors and others, shall have the right to operate within or adjacent to the Work site during the performance of such work.

The Agency, the Contractor, and each of such workers, contractors and others, shall coordinate their operations and cooperate to minimize interference.

The Contractor shall include in its Bid all costs involved as a result of coordinating its work with others. The Contractor will not be entitled to additional compensation from the Agency for damages resulting from such simultaneous, collateral, and essential work. If necessary to avoid or minimize such damage or delay, the Contractor shall redeploy its work force to other parts of the Work.

Should the Contractor be delayed by the Agency, and such delay could not have been reasonably foreseen or prevented by the Contractor, the Engineer will determine the extent of the delay, the effect on the Work, and any extension of time.

7-7 WORK SITE MAINTENANCE

7-8.1 General Throughout all phases of construction, including suspension of the Work, and until acceptance per 6-8, the Contractor shall keep the Work site clean and free from rubbish and debris. Rubbish and debris collected on the Work site shall only be stored in roll-off, enclosed containers prior to disposal. Stockpiles of such will not be allowed.

When required by the Special Provisions, the Contractor shall provide a self-loading motorized street sweeper equipped with a functional water spray system. The sweeper shall clean all paved areas within the Work site and all paved haul routes at least once each working day.

The Contractor shall ensure there is no spillage along haul routes. Any such spillage shall be removed immediately and the area cleaned.

Should the Contractor fail to keep the Work site free from rubbish and debris, the Engineer may suspend the Work per 6-3 until the condition is corrected.

7-8.2 Air Pollution Control. The Contractor shall not discharge smoke, dust, equipment exhaust, or any other air contaminants into the atmosphere in such quantity as will violate any Federal, State, or local regulations.

The Contractor shall also abate dust nuisance by cleaning, sweeping and spraying with water, or other means as necessary. The use of water shall conform to 7-8.6.

7-8.3 Noise Control. Noise generated from the Contractor's operations shall be controlled as specified in the Special Provisions.

7-8.4 Storage of Equipment and Materials.

7-8.4.1 General Materials and equipment shall be removed from the Work site as soon as they are no longer necessary. Before inspection by the Engineer for acceptance, the Work site shall be cleared of equipment, unused materials, and rubbish so as to present a satisfactory clean and neat appearance.

Excess excavated material shall be removed from the Work site immediately unless otherwise specified in the Special Provisions.

Forms and form lumber shall be removed from the Work site as soon as practicable after stripping.

7-8.4.2 Storage in Public Streets. Construction materials and equipment shall not be stored in streets, roads, or highways for more than 5 days after unloading unless otherwise specified in the Special Provisions or approved by the Engineer. All materials or equipment not installed or used in construction within 5 days after unloading shall be stored at a location approved by the Engineer.

Excavated material, except that which is to be used as backfill in the adjacent trench, shall not be stored in public streets unless otherwise specified in the Special Provisions or approved by the Engineer. Immediately after placing backfill, all excess material shall be removed from the Work site.

7-8.5 Sanitary Sewers.

7-8.5.1 General. The flow of sewage shall not be interrupted. Should the Contractor disrupt the operation of existing sanitary sewer facilities, or should disruption be necessary for performance of the Work, the Contractor shall bypass the sewage flow around the Work. Sewage shall be conveyed in closed conduits and disposed of in a sanitary sewer system. Sewage shall not be permitted to flow in trenches nor be covered by backfill.

Whenever sewage bypass and pumping is required by the Plans or Specifications, or the Contractor so elects to perform, the Contractor shall submit per 2-5.3 a working drawing conforming to 7-8.5.2 detailing its proposed plan of sewage bypass and pumping.

7-8.5.2 Sewage Bypass and Pumping Plan. The plan shall indicate the locations and capacities of all pumps, sumps, suction and discharge lines. Equipment and piping shall be sized to handle the peak flow of the section of sewer line to be bypassed and pumped. Equipment and piping shall conform to 7-10, the Plans, and the Special Provisions. Bypass piping, when crossing areas subject to traffic loads, shall be constructed in trenches with adequate cover and otherwise protected from damage due to traffic. Lay-flat hose or aluminum piping with an adequate casing and/or traffic plates may be allowed if so approved by the Engineer. Bypass pump suction and discharge lines that extend into manholes shall be rigid hose or hard pipe. Lay flat hose will not be allowed to extend into manholes. The Contractor shall provide a backup bypass pumping system in case of malfunction. The backup bypass system shall provide 100 percent standby capability, and be in place and ready for immediate use. Each standby pump shall be a complete unit with its own suction and discharge piping. In addition to the backup system, the Contractor shall furnish and operate vacuum trucks when required by the Plans or Special Provisions.

7-8.5.3 Spill Prevention and Emergency Response Plan. The Contractor shall prepare and submit per 2-5.3 a spill prevention and emergency response plan. The plan shall address implementation of measures to prevent sewage spills, procedures for spill control and containment, notifications, emergency response, cleanup, and spill and damage reporting.

The plan shall account for all storm drain systems and water courses within the vicinity of the Work which could be affected by a sewage spill. Catch basins that could receive spilled sewage shall be identified Unless otherwise specified in the Special Provisions, these catch basins shall be sealed prior to operating the bypass and pumping system. The Contractor shall remove all material used to seal the catch basins when the bypass and pumping system operations are complete.

The Contractor shall be fully responsible for containing any sewage spillage, preventing any sewage from reaching a watercourse, recovery and legal disposal of any spilled sewage, any fines or penalties associated with the sewage spill imposed upon by the Agency and/or the Contractor by jurisdictional regulatory agencies, and any other expenses or liabilities related to the sewage spill.

7-8.6 Water and Pollution Control. The Contractor shall prevent, control, and abate discharges of pollutants from the construction site in order to protect the storm drain system, which includes pipes, channels, streams, waterways, and other bodies of water, by the construction, installation or performance of water pollution control measures as shown on the Stormwater Pollution Control Plan (SWPCP) or Stormwater Pollution Prevention Plan (SWPPP) depending on the land area affected by the construction activity. The Contractor shall ensure compliance with the current State NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activity (General Construction Permit), NPDES No. CAS000002 and current Ventura County NPDES Municipal Separate Storm Sewer System (MS4) Permit No. CAS004002.

7-8.6.1 Compliance with NPDES General Construction Permit 7-

8.6.1.1 Construction Sites

If the Work involves construction activity that results in soil disturbance of one acre or more of total land area, or results in soil disturbances of less than one acre but is a part of a work area larger than one acre, the Contractor shall comply with the requirements of the General Construction Permit NPDES No. CAS000002. Construction activity includes clearing, grading, excavation, stockpiling, and reconstruction of existing facilities involving removal and replacement. Construction activity does not include routine maintenance such as, maintenance of original line and grade, hydraulic capacity, or original purpose of the facility.

The Contractor shall comply with requirements of the General Construction Permit (NPDES No. CAS000002), obtained by the Agency, including a site-specific Storm Water Pollution Prevention Plan (SWPPP) for the Work to be developed by Qualified SWPPP Developer (QSD) and implemented by the Qualified SWPPP Practitioner (QSP). After July 1, 2010, the Agency will electronically file all required Permit Registration Documents (PRDs) through the State Water Board's Stormwater Multi-Application and Report Tracking System (SMARTS) website, as required prior to the commencement of construction activity. PRDs consist of the Notice of Intent (NOI), Risk Assessment, Post-Construction Calculations, a Site Map, the SWPPP, a signed certification statement by the Legally Responsible Party (LRP), and the first annual fee. For the Permit application, the Contractor shall submit to Project Manager the following:

- The completed site-specific Risk Assessment
- Post-construction calculations if applicable for the project, and
- Site-specific SWPPP developed in accordance with applicable Permits.

7-8.6.1.2 Linear Utility Projects; Contractor shall comply with the requirements of the General Construction Permit NPDES No. CAS000002 for Linear Underground/Overhead projects (LUPs) one acre or greater.

7-8.6.2 Compliance with NPDES MS4 Permit

7-8.6.2.1 Construction Sites Less Than One Acre The Contractor shall ensure implementation of an effective combination of erosion and sediment control Best Management Practices (BMPs) listed in **Table 6** of the Ventura County NPDES MS4 Permit. The Contractor shall develop and implement a Storm Water Pollution Control Plan (SWPCP).

7-8.6.2.2 Construction Sites One Acre but Less Than 5 Acres The Contractor shall ensure implementation of an effective combination of appropriate erosion and sediment control BMPs from **Table 7** (BMPs at Construction sites 1 acre or greater but less than 5 acres) of the Ventura County NPDES MS4 Permit in addition to the ones identified in **Table 6** (BMPs at Construction sites less than 1 acre) to prevent erosion and sediment loss, and the discharge of construction wastes. For all construction sites one acre or greater, the Contractor shall submit the SWPPP to the Agency for review and certification as the Local SWPPP.

7-8.6.2.3 Construction Sites 5 Acres and Greater The Contractor shall ensure implementation of an effective combination of the following BMPs in **Tables 8** (BMPs at Construction sites 5 acres or greater) in addition to the ones identified in **Table 6** (BMPs at Construction sites less than 1 acre) and **Table 7** (BMPs at Construction sites 1 acre or greater but less than 5 acres) at all construction sites 5 acres and greater to prevent erosion and sediment loss, and the discharge of construction wastes. For all construction sites one acre or greater, the Contractor shall submit the SWPPP to the Agency for review and certification as the Local SWPPP.

7-8.6.2.4 Enhanced Construction BMP Implementation

Construction sites located on hillsides, adjacent or directly discharging to CWA 303(d) listed waters for siltation or sediment, and directly adjacent to Environmentally Sensitive Areas are termed "high risk sites." Contractor shall implement enhanced practices that preclude impacts to water quality posed by the high risk sites.

Contractor shall ensure that high risk sites are inspected by the Qualified SWPPP Developer, Qualified SWPPP Practitioner, or Certified Professionals in Erosion and Sediment Control (CPESC) at the time of BMP installation, at least weekly during the wet season, and at least once each 24 hour period during a storm event that generates runoff from the site, to identify BMPs that need maintenance to operate effectively, that have failed or could fail to operate as intended.

During the wet season, the area of disturbance shall be limited to the area that can be controlled with an effective combination of erosion and sediment control BMPs. Enhanced sediment controls should be used in combination with erosion controls and should target portions of the site that cannot be effectively controlled by standard erosion controls described above. Effective sediment and erosion control BMPs proposed by the Contractor shall include the BMPs listed in Table 9 (Enhanced Construction BMP Implementation) of the NPDES MS4 Permit. The Contractor shall implement the BMPs listed in Table 9 unless shown unnecessary. Also, the Contractor shall retain records of the inspection and a determination and rationale of the BMPs selected to control runoff.

7-8.6.3 Plan.

7-8.6.3.1 The SWPCP, required for construction projects less than one acre, shall be prepared in accordance with the requirements of current Ventura County NPDES MS4 Permit No. CAS004002 and County Ordinance No. 4142.

7-8.6.3.2 The SWPPP, required for construction projects one acre or greater, shall be prepared in accordance with the requirements of the state's General Construction Permit NPDES Permit CAS000002, Ventura Countywide Stormwater Quality Management Program, NPDES MS4 Permit No. CAS004002, and County Ordinance No. 4142.

7-8.6.3.3 The SWPCP/SWPPP shall identify potential pollutant sources on the construction site that may affect the quality of discharges, whether non-stormwater or stormwater, from the site and design the use and placement of water pollution control measures, BMPs, to effectively prohibit the entry of pollutants from the site into the storm drain system during construction. At a minimum, and depending on the size of the project area, the SWPCP/SWPPP will include all appropriate minimum BMPs as required by the Ventura Countywide Stormwater Quality Management Program, NPDES MS4 Permit No. CAS004002 (Tables 6 through 9). The SWPCP/SWPPP must utilize the measures recommended in the California Stormwater Quality Association (CASQA) Stormwater BMPs Handbook for Construction (January 2003 version until July 1, 2010 and 2009 version after July 1, 2010). Starting July 1, 2010 SWPPP shall be prepared by QSD as defined in the NPDES Permit CAS000002. The Contractor shall complete, sign and submit the SWPCP/SWPPP for review and final approval by the Project Engineer, prior to issuance of the Notice to Proceed as provided in 6-7.4.

7-8.6.3.4 For all construction projects one acre and greater, the Contractor shall submit the SWPPP to the Agency for review and certification as Local SWPPP in accordance with NPDES MS4 Permit No. CAS004002 prior to the Notice to Proceed as provided in 6-7.4.

7-8.6.4 Measures. All water pollution control measures shall conform to the requirements of the submitted SWPCP/SWPPP. If circumstances during the course of construction require changes to the original SWPCP/SWPPP, a revised SWPCP/SWPPP shall be promptly submitted to the Project Manager in each instance. The SWPPP shall be amended or revised by QSD. A copy of the current SWPCP/SWPPP including revisions and amendments shall be kept at the site to ensure that field personnel has access to the current document at all times. If measures being taken are inadequate to control water pollution effectively, the Project Manager may direct the Contractor to revise the operations and no further work shall be performed until adequate water pollution control measures are implemented. Effective September 2, 2011, implementation of the SWPPP shall be overseen by the Contractor's QSP as defined in the General Construction Permit NPDES No. CAS000002. All work installed by the Contractor in connection with the SWPCP/SWPPP but not specified to become a permanent part of the Work shall be removed and the site restored in so far as practical to its original condition prior to completion of the Work.

7-8.6.4.1 Post-Construction Standards; Contractor shall ensure that applicable post-construction standards are implemented to meet applicable project requirements of the Ventura County NPDES MS4 Permit and General Construction Permit NPDES No. CAS000002 (effective September 2, 2012).

7-8.6.4.2 Active Treatment Systems; Contractor shall comply with requirements of the General Construction Permit NPDES No. CAS000002 for active treatment systems as applicable.

7-8.6.5 Monitoring and Reporting

7-8.6.5.1 Monitoring; In accordance with the General Construction Permit NPDES No. CAS000002, the Contractor shall develop and implement monitoring program for Risk Level 2 and 3 sites. In addition at Risk Level 3 sites, contractor shall perform receiving water monitoring to meet Permit requirements.

7-8.6.5.2 Reporting; the Contractor shall ensure that all submittals and reports are prepared and submitted to the RWQCB in accordance with the applicable Permits. At minimum the reports will include Annual Report (for applicable projects due September 1st), Rain Event Action Plan (due 48 hrs prior to the rain event for the applicable projects), Numeric Action Levels (NAL) Exceedance Report (as required), Numeric Effluent Limitations (NELs) Violation Report (within 24 hours after NEL exceedance is identified). Contractor shall submit required reports to the Project Manager for review and approval prior to submittal to the RWQCB.

7-8.6.6 Dewatering Activities. All dewatering activities shall be performed in accordance with applicable regulatory requirements issued by the Los Angeles Regional Water Quality Control Board, including specific requirements contained in the Waste Discharge Requirements (WDR) when issued for the Work.

7-8.6.7 Payment. The Contract lump sum price for water pollution control shall include full compensation for furnishing all labor, materials, tools, equipment, services and incidentals and for doing all work involved in water pollution control as specified herein. Payment for water pollution control will be made as the Work proceeds and is in compliance with the approved Water Pollution Control Plan, on the following basis.

Partial payment estimate (excluding mobilization & water pollution control payments) as a percentage of the original Contract price (excluding the mobilization & water pollution control Bid items).		Cumulative amount of water pollution control pay item earned is the lesser of the amounts as computed by these two columns.	
Equal to or greater than	Less than	Percentage of water pollution control pay item	Percentage of the original Contract total.
5	10	10	1
10	20	20	2
20	50	50	3
50	Completion of Work	75	5
Completion of Work		100	

Where no Bid item is provided for water pollution control, payment for water pollution control shall be considered to be included in the other Bid items.

7-8. Drainage Control. The Contractor shall maintain drainage within and through the Work areas. Earth dams will not be permitted in paved areas. Temporary dams of sandbags, asphaltic concrete or other acceptable material will be permitted when necessary to protect the Work, provided their use does not create a hazard or nuisance to the public. Such dams shall be removed from the site as soon as their use is no longer necessary.

7-8. Final Cleaning. At the completion of the Work, the Contractor shall remove all waste materials and rubbish from and about the project, as well as all tools, construction equipment, temporary facilities, machinery, and surplus materials.

At completion of construction and just prior to final inspection, the Contractor shall thoroughly clean the interior and exterior of the buildings, including hardware, floors, roofs, sills, ledges, glass, or other surfaces where debris, plaster, paint, spots, and dirt or dust may have collected. All glass shall be washed clean and polished. Remove all grease, stains, labels, fingerprints, and other foreign materials from interior and exterior surfaces. Repair, patch, and touch up marred surfaces to match adjacent finishes.

The Contractor shall use only experienced workmen or professional cleaners for final cleaning. It shall use only cleaning materials recommended by the manufacturer of the surface to be cleaned, and use cleaning materials only on surfaces recommended by the cleaning material manufacturer.

It shall broom-clean all paved surfaces and rake-clean other surfaces of grounds.

The Contractor shall replace air conditioning filters if units were operated during construction, and clean all ducts, blowers, and coils if air conditioning units were operated without filters during construction.

After cleaning, the Contractor shall maintain the building in a clean condition until it is accepted by the Agency.

7-9 PROTECTION AND RESTORATION OF EXISTING IMPROVEMENTS. The Contractor shall be responsible for the protection of public and private property adjacent to the Work and shall exercise due caution to avoid damage to such property.

The Contractor shall repair or replace all existing improvements within the right-of-way which are not designated for removal (e.g., curbs, sidewalks, driveways, fences, walls, signs, utility installations, pavement, structures, etc.) which are damaged or removed as a result of its operations. When a portion of a sprinkler system within the right-of-way must be removed, the remaining lines shall be capped. Repairs and replacements shall be at least equal to existing improvements and shall match them in finish and dimension.

Maintenance of street and traffic signal systems that are damaged, temporarily removed or relocated shall be done in conformance with 307-1.5.

Trees, lawns, and shrubbery that are not designated to be removed shall be protected from damage or injury. If damaged or removed because of the Contractor's operations, they shall be restored or replaced in as nearly the original condition and location as is reasonably possible. Lawns shall be reseeded and covered with suitable mulch.

The Contractor shall give reasonable notice to occupants or owners of adjacent property to permit them to salvage or relocate plants, trees, fences, sprinklers and other improvements which are designated for removal and would be destroyed because of the Work.

All costs to the Contractor for protecting, removing, and restoring existing improvements shall be absorbed in its bid.

In existing buildings, all surfaces, equipment, furniture and other property shall be protected from loss or damage by or as result of the Contractor's operations. The Contractor shall replace damaged property or shall repair and restore it to its previous condition. Patching, painting, replacement of wall, ceiling and floor covering and similar Work shall be done in such a manner that the repaired Work will not be readily noticeable.

7-1 PUBLIC CONVENIENCE AND SAFETY

7-10.1 Access.

7-10.1.1 General. The Contractor's operations shall cause no unnecessary inconvenience to the public or businesses in the vicinity of the Work. The Contractor shall have no greater length or quantity of Work under construction than can be properly prosecuted with a minimum of inconvenience to the public and other contractors engaged in adjacent or related work.

The Contractor shall provide continuous and unobstructed access to the adjacent properties unless otherwise specified in the Special Provisions or approved by Engineer. Work requiring traffic lane closures shall only be performed between the hours specified in the Special Provisions or shown on the TCP. Traffic shall be permitted to pass through the Work site, unless otherwise specified in the Special Provisions or shown on the TCP.

7-10.1.1.1 Vehicular Access. Vehicular access to residential driveways shall be maintained to the property line except when necessary construction precludes such access. If backfill has been completed to the extent that safe access may be provided and the street is opened to local traffic, the Contractor shall immediately clear the street and driveways and provide and maintain access.

7-10.1.1.2 Pedestrian Access. Safe, adequate, and ADA compliant pedestrian access shall be maintained unless otherwise approved by the Engineer. 7-10.2 Work Area Traffic Control.

7-10.2 Traffic Control

7-10.2.1 General. Work area traffic control shall conform to the California MUTCD, WATCH, or as specified in the Special Provisions. The total length of the traffic control zone shall include a buffer space, advance signing, striping transitions in advance of the Work site, existing striping, signing, and raised medians.

7-10.2.2 Traffic Control Plan.

7-10.2.2.1 General. If so specified in the Special Provisions or on the permit, the Contractor shall submit a TCP in accordance with 2-5.3. The sheets of the TCP shall display the title, phase identification, name of the firm preparing the TCP, name and stamp of the Registered Traffic or Civil Engineer, approval block for each jurisdictional agency, north arrow, sheet number, and number of sheets comprising the TCP. General notes and symbol definitions shall be included when required. Adequate dimensioning shall be provided to allow for proper field installation. The TCP shall be drawn to a 1 inch = 40 feet scale on common size sheets, either 8-1/2 inches x 11 inches, 8-112 inches x 14 inches, 11 inches x 17 inches, or 2-foot x 3-foot plan sheets as dictated by the length of the Work.

The requirements in the Special Provisions shall govern the design of the proposed TCP.

7-10.2.2.2 Payment. Payment for preparation of the TCP shall be included in the appropriate lump sum Bid items. If no Bid items have been provided, payment shall be included in the various Bid items unless otherwise specified in the Special Provisions.

7-10.3 Haul Routes. Unless otherwise specified in the Special Provisions, the haul route(s) shall be determined by the Contractor.

7-10.4 Safety.

7-10.4.1 Work Site Safety.

7-10.4.1.1 General. The Contractor shall provide safety measures as necessary to protect the public and workers within, or in the vicinity of, the Work site. The Contractor shall ensure that its operations will not create safety hazards. The Contractor shall provide safety equipment, material, and assistance to Agency personnel so that they may properly inspect all phases of the Work. When asbestos is being removed, the requirements of the CCR Title 8, Div. 1, Chapter 4, Subchapter 4 and Subchapter 7 shall be implemented.

7-10.4.1.2 Work Site Safety Official. The Contractor shall designate in writing a "Project Safety Official" who shall be at the Work site at all times, and who shall be thoroughly familiar with the Contractor's Injury and Illness Prevention Program (IIPP) and Code of Safe Practices (CSP). The Project Safety Official shall be available at all times to abate any potential safety hazards and shall have the authority and responsibility to shut down an unsafe operation, if necessary.

7-10.4.2 Safety Orders.

7-10.4.2.1 General. The Contractor shall have at the Work site, copies or suitable extracts of Construction Safety Orders, Tunnel Safety Orders, and General Industry Safety Orders issued by the State Division of Industrial Safety. Prior to beginning any excavation 5 feet in depth or greater, the Contractor shall submit to the Engineer, the name of the "Competent Person" as defined in CCR, Title 8, Section 1504, in accordance with 2-5.3. The "Competent Person" shall be present at the Work site as required by Cal-OSHA.

7-10.4.2.2 Shoring Plan. Before excavating any trench 5 feet (105m) or more in depth, the Contractor shall submit in accordance with 2-5.3 a detailed working drawing (shoring plan) showing the design of the shoring, bracing, sloping, or other provisions used for the workers' protection. If the shoring plan varies from the shoring system standards, the shoring plan shall be prepared by a registered Structural or Civil Engineer. The shoring plan shall accommodate existing underground utilities. No excavation shall start until the Engineer has accepted the shoring plan and the Contractor has obtained a permit from the State Division of Industrial Safety. A copy of the permit shall be submitted to the Engineer in accordance with 2-5.3. If the Contractor fails to submit a shoring plan or fails to comply with an accepted shoring plan, the Contractor shall suspend work at the affected location(s) when directed to do so by the Engineer. Such a directive shall not be the basis of a claim for Extra Work and the Contractor shall not receive additional compensation or Contract time due to the suspension.

7-10.4.2.3 Payment. Payment for shoring shall be included in the Bid item provided therefor. Payment for compliance with the provisions of the safety orders and all other laws, ordinances, and regulations shall be included in the various Bid items.

7-10.4.3 Use of Explosives. Explosives may be used only when authorized in writing by the Engineer, or as otherwise specified in the Special Provisions.
Explosives shall be handled, used, and stored in accordance with all applicable regulations. Prior to blasting, the

Contactor shall comply with the following requirements:

a) The jurisdictional law enforcement agency shall be notified 24 hours in advance of blasting.

b) The jurisdictional fire department shall be notified 24 hours in advance of blasting.

c) Blasting activities and schedule milestones shall be included in the Contractor's construction schedule per 6-1.

For a Private Contract, specific permission shall be obtained from the Agency in writing, prior to any blasting operations in addition to the above requirements.

The Engineer's approval of the use of explosives shall not relieve the Contractor from liability for claims caused by blasting operations.

7-10.4.4 Hazardous Substances. An MSDS as described in CCR, Title 8, Section 5194, shall be maintained at the Work site for all hazardous material used by the Contractor. Material usage shall be accomplished with strict adherence to California Division of Industrial Safety requirements and all manufacturer warnings and application instructions listed on the MSDS and on the product container label. The Contractor shall notify the Engineer if a specified product cannot be used under safe conditions. 7-10.4.5 Confined Spaces. 7-10.4.5.1 Confined Space Entry Program (CSEP). The Contractor shall be responsible for implementing, administering and maintaining a CSEP in accordance with CCR, Title 8, Sections 5156, 5157 and 5158.

Prior to the start of the Work, the Contractor shall prepare and submit a CSEP in accordance with 2-5.3. The CSEP shall address all potential physical and environmental hazards and contain procedures for safe entry into confined spaces such as the following:

a) Training of personnel
b) Purging and cleaning the space of materials and residue
c) Potential isolation and control of energy and material inflow
d) Controlled access to the space
e) Atmospheric testing of the space
f) Ventilation of the space
g) Special hazards consideration
h) Personal protective equipment
i) Rescue plan provisions

The submittal shall include the names of the Contractor's personnel, including each Subcontractor's personnel, assigned to the Work that will have CSEP responsibilities, their CSEP training, and their specific assignment and responsibility in carrying out the CSEP.

7-10.4.5 Confined Spaces.

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a) Training of personnel.
b) Purging and cleaning the space of materials and residue.
c) Potential isolation and control of energy and material inflow.
d) Controlled access to the space.
e) Atmospheric testing of the space.
f) Ventilation of the space.
g) Special hazards consideration.
h) Personal protective equipment.
i) Rescue plan provisions.

The submittal shall include the names of the Contractor's personnel, including each Subcontractor's personnel, assigned to the Work that will have CSEP responsibilities, their CSEP training, and their specific assignment and responsibility in carrying out the CSEP.

7-10.4.5.2 Permit-Required Confined Spaces. Entry into permit-required confined spaces as defined in CCR, Title 8, Section 5157 may be required as a part of the Work. Manholes, tanks, vaults, pipelines, excavations, or other enclosed or partially enclosed spaces shall be considered permit-required confined spaces until the pre-entry procedures demonstrate otherwise. The Contractor shall implement a permit-required CSEP prior to performing any work in a permit-required confined space. A copy of the permit shall be available at all times for review by the Contractor and the Engineer at the Work site.

7-10.4.5.3 Payment. Payment for the CSEP shall be included in the Bid items for which the CSEP is required.

7-10.5 Security and Protective Devices.

7-10.5.1 General. Security and protective devices shall consist of fencing, steel plates, or other devices as specified in the Special Provisions to protect open excavations

7-10.5.2 Security Fencing. The Contractor shall completely fence open excavations. Security fencing shall conform to 304-3.5. Security fencing shall remain in place unless workers are present and construction operations are in progress during which time the Contractor shall provide equivalent security.

7-10.5.3 Steel Plate Covers. The Contractor shall provide steel plate covers as necessary to protect from accidental entry into openings, trenches, and excavations.

7-11 PATENT FEES OR ROYALTIES. The Contractor shall absorb in its Bid, the patent fees or royalties on any patented article or process which may be furnished or used in the Work. The Contractor shall indemnify and hold the Agency harmless from any legal action that may be brought for infringement of patents.

7-12 ADVERTISING. The names of contractors, subcontractors, architects, or engineers, with their addresses and the designation of their particular specialties, may be displayed on removable signs. The size and location of such signs shall be subject to the Engineer's approval.

Commercial advertising matter shall not be attached or painted on the surfaces of buildings, fences, canopies, or barricades.

7-13 LAWS TO BE OBSERVED. The Contractor shall keep fully informed of State and National laws and County and Municipal ordinances and regulations which in any manner affect those employed in the Work or the materials used in the Work or in any way affect the conduct of the Work. It shall at all times observe and comply with all such laws, ordinances and regulations.

7-13.1 Mined Materials. Mined material from California surface mines, used on the Work, shall be from a mine identified in the list published by the California Department of Conservation (referred to as 3098 List), as required by Public Contract Code 20676. This list is available on the Internet at www.conservation.ca.gov/OMR/ab_3098_list/index.htm.

7-14 ANTITRUST CLAIMS. Section 7103.5 of the Public Contract Code provides:
"In entering into a public works contract or a subcontract to supply goods, services, or materials pursuant to a public works contract, the contractor or subcontractor offers and agrees to assign to the awarding body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 [commencing with Section 16700] of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the public works contract or subcontract. This assignment shall be made and become effective at the time the awarding body tenders final payment to the contractor, without further acknowledgement by the parties."

7-15 RECYCLABLE CONSTRUCTION & DEMOLITION WASTES. Ventura County Ordinance Code Section, 4421 et seq, requires that if any recyclable solid wastes or marketable reusable materials will be generated on the site of the Work within the unincorporated areas of Ventura County, the Contractor shall prepare a Construction & Demolition Debris Waste Diversion Plan and submit it to the Ventura County Public Works Agency, Water & Sanitation Department - Integrated Waste Management Division (IWMD). The Contractor shall prepare and file Construction & Demolition Debris Waste Diversion Reporting Forms as required by the IWMD.

For projects within the unincorporated areas of Ventura County, the Contractor shall submit an IWMD Form B-Recycling Plan approved by IWMD prior to issuance of the Notice to Proceed as provided in 6-7.4.

For projects within the unincorporated areas of Ventura County, the Contractor shall submit an IWMD Form C-Reporting Form approved by IWMD prior to the Engineer preparing the final estimate as provided in 9-3.2.

If the site of the Work is within an incorporated city, the Contractor shall comply with all the recycling, solid waste diversion, and hauling requirements of that incorporated city.

7-16 BLANK

7-17 LOSS OR DAMAGE TO THE WORK. The Contractor is responsible for delivering to the Agency Work completed in accordance with the Contract except as provided in 7-18. Should the Work being constructed be damaged by fire or other causes before Acceptance by the Agency, it shall be replaced in accordance with the requirements of the Plans and Specifications without additional expense to the Agency. The Agency does not carry "Course of Construction" insurance on the Work. Contractor should arrange for its own insurance to protect its interests.

7-18 ACTS OF GOD As provided in Section 7105 of the California Public Contract Code, the Contractor shall not be responsible for the cost of repairing or restoring damaged portions of the Work determined to have been proximately caused by an act of God in excess of 5 percent of the contracted amount, provided that the Work damaged was built in accordance with accepted and applicable building standards and the Specifications and Drawings. The Contractor shall obtain insurance to indemnify the Agency for any damage to the Work caused by an act of God if the premium of said insurance coverage is called for as a separate bid item in the bidding schedule for the Work. For purposes of this section, the term "acts of God" shall include only the following occurrences or conditions and effects: earthquakes in excess of a magnitude of 3.5 on the Richter Scale, and tidal waves.

SECTION 8 - FACILITIES FOR AGENCY PERSONNEL

8-1 GENERAL. A field office shall be provided when required by the Plans or Special Provisions. The field office shall be at a suitable location approved by the Engineer.

A field office shall be a weather-tight building of suitable proportions with 16 m^2 (120 sq. ft.) of floor area, at least one door, and a window area of 2 m^2 (22 Sq. Ft.). A field office may be a building or a separate room in a building the Contractor may be required to provide or that it may desire to provide for its own use. In either case, the room shall have a separate exterior door. All doors shall be provided with hasps for padlocks.

The office shall be convenient to the Work. It shall be adequately heated, ventilated, electrically lighted, and provided with telephone service, all at the expense of the Contractor or plant owner. Offices are for the exclusive use of Agency personnel, unless otherwise provided herein.

Field offices at the worksite shall be removed upon completion of the Work.

All costs incurred in furnishing, maintaining, servicing, and removing a field office required at the Work site shall be included in the price bid for such item. If such item is required by the Plans or Specifications and no bid item is provided in the Proposal, the costs shall be absorbed in the other items for which bids are entered. Buildings and equipment furnished by the Contractor at the Work site under the provisions of this section are the property of the Contractor.

The first progress payment will not be approved until all facilities are in place and fully comply with the Specifications.

8-2 EQUIPMENT FOR FIELD OFFICES. Unless otherwise specified, a field office shall be equipped with:

Plan table, 0.75 m x 1.5 m (2 1/2 ft. x 5 ft.) or larger
Plan rack, capacity to hold two sets of project Plans plus all shop drawings
Desk and chair
Two lockers with hasps for padlocks

SECTION 9 - MEASUREMENT AND PAYMENT

9-1 MEASUREMENT OF QUANTITIES FOR UNIT PRICE WORK

9-1.1 General. Unless otherwise specified, quantities of work shall be determined from measurements or dimensions in horizontal planes. However, linear quantities of pipe, piling, fencing, and timber shall be considered as being the true length measured along longitudinal axis.

Unless otherwise provided in Specifications, volumetric quantities shall be the product of the mean area of vertical or horizontal sections and the intervening horizontal or vertical dimension. The planimeter shall be considered an instrument of precision adapted to measurement of all areas.

9-1.2 Methods of Measurement. Materials and items of Work which are to be paid for on the basis of measurement shall be measured in accordance with the methods stipulated in the particular sections involved.

9-1.3 Certified Weights. When payment is to be made on the basis of weight, the weighing shall be done on certified platform scales or, when approved by the Engineer, on a completely automated weighing and recording system. The Contractor shall furnish the Engineer with duplicate licensed weighmaster's certificates showing actual net weights. The Agency will accept the certificate as evidence of weights delivered.

9-1.4 Units of Measurement. Measurements shall be in accordance with 1-4.1 and 1-4.2. A metric ton or “tonne” is equal to 1000 kilograms and the unit of liquid measure is a Liter (in U.S. Standard Measures, a pound is an avoirdupois pound; a ton is 2000 pounds avoirdupois; and the unit of liquid measure is a gallon).

9-2 LUMP SUM BID ITEMS. Items for which quantities are indicated as "Lump Sum", "L.S." or "Job" shall be paid for at the price indicated in the Proposal. Such payment shall be full compensation for the items of Work and all Work appurtenant thereto.

When required by the Specifications or requested by the Engineer, the Contractor shall submit to the Engineer within 15 Days after award of Contract, a detailed schedule in triplicate, to be used only as a basis for determining progress payments on a lump sum contract or any designated lump sum bid item. This schedule should equal in total the lump sum bid and shall be in such form and sufficiently detailed as to satisfy the Engineer that it correctly represents a reasonable apportionment of the lump sum. If Mobilization or Water Pollution Control are included in the detailed schedule, those items will be paid for as provided in 9-3.4.2 and 7-8.6.4, receptively.

9-3 PAYMENT

9-3.1 General. The quantities listed in the Bid schedule will not govern final payment unless identified by Agency on the Proposal as [F]. The symbol "[F]" indicates that the quantities shown on the Proposal form are the final pay quantities. Payment to the Contractor (except those items identified as [F]) will be made only for the actual quantities of Contract items constructed in accordance with the Plans and Specifications. Upon completion of construction, if the actual quantities show either an increase or decrease from the quantities given in the Bid schedule, the Contract Unit Prices will prevail subject to the provisions of 3-2.2.1. Payment for those items identified as [F] will be based on the quantities shown on the Proposal unless changed as provided in 3-2.2.1.

The unit and lump sum prices to be paid shall be full compensation for the items of work and all appurtenant work, including furnishing all materials, labor, equipment, tools and incidentals.

Payment for items shown on the Plans or required by the Specifications, for which no pay item is provided, shall be considered included in the prices named for the other items shown on the Proposal.

Payment will not be made for materials wasted or disposed of in a manner not called for under the Contract. This includes rejected material not unloaded from vehicles, material rejected after it has been placed and material placed outside of the Plan lines. No compensation will be allowed for disposing of rejected or excess material.

Whenever any portion of the Work is performed by the Agency at the Contractor's request, the cost thereof shall be charged against the Contractor, and may be deducted from any amount due or becoming due from the Agency. Whenever immediate action is required to prevent injury, death, or property damage, and precautions which are the Contractor's responsibility have not been taken and are not reasonably expected to be taken, the Agency may, after reasonable attempt to notify the Contractor, cause such precautions to be taken and shall charge the cost thereof against the Contractor, or may deduct such cost from any amount due or becoming due from the Agency. Agency action or inaction under such circumstances shall not be construed as relieving the Contractor or its Surety from liability.

9-3.1 General. (Continued)

Payment shall not relieve the Contractor from its obligations under the Contract; nor shall such payment be construed to be Acceptance of any of the Work. Payment shall not be construed as the transfer of ownership of any equipment or materials to the Agency. Responsibility of ownership shall remain with the Contractor who shall be obligated to store, protect, repair, replace, rebuild, or otherwise restore any fully or partially completed work or structure for which payment has been made; or replace any materials or equipment required to be provided under the Contract which may be damaged, lost, stolen or otherwise degraded in any way prior to completion of the Work under the Contract, except as provided in 6-10.

Warranty periods shall not be affected by any payment but shall commence on the date equipment or material is placed into service at the written direction of the Engineer. In the event such items are not placed into service prior to partial or final completion of the Work, the warranty periods will commence on the date set forth as the date of field completion in the Engineer's acknowledgement of completion.

If, within the time fixed by law, a properly executed notice to stop payment is filed with the Agency, due to the Contractor's failure to pay for labor or materials used in the Work, all money due for such labor or materials will be withheld from payment to the Contractor in accordance with applicable laws.

At the expiration of 35 Days from the date of recording of the Notice of Completion, or as prescribed by law, the amount deducted from the final estimate and retained by the Agency will be paid to the Contractor except such amounts as are required by law to be withheld by properly executed and filed notices to stop payment, or as may be authorized by the Contract to be further retained.

9-3.2 Partial and Final Payment. The Engineer will, after award of Contract, establish a closure date for the purpose of making monthly progress payments. The Contractor may request in writing that such monthly closure date be changed. The Engineer may approve such request when it is compatible with the Agency's payment procedure.

Each month, the Engineer will make an approximate measurement of the Work performed to the closure date and, as a basis for making monthly payments, estimate its value based on the Contract Unit Prices or as provided for in 9-2. When the Work has been satisfactorily completed, the Engineer will determine the quantity of Work performed and prepare the final estimate.

Work not conforming to the Contract Documents shall not be measured for payment.

Conformance with the Contract Documents shall be, in addition to constructing the Work in accordance with the Contract Documents, the Contractor's compliance with those portions of the Contract Documents not directly related to the completed Work, including but not limited to: construction and maintenance of detours; diversion and control of water; protection and repair of existing facilities of the Agency and adjacent owners; site maintenance; coordination with utilities and other contractors on the site; proper survey procedures and records; obtaining required permits and inspections; complying with working hour limitations; providing a Contractor's representative while Work is being performed; complying with environmental requirements; maintaining access and safety for users of facilities that are to remain in service during construction; and obeying all laws affecting the Work.

Payment for Extra Work will be made only on approved Daily Extra Work Reports with supporting documentation as required in 3-3.

From each progress estimate, 5 percent will be deducted and retained by the Agency, and the remainder less the amount of all previous payment will be paid to the Contractor.

No progress payment made to the Contractor or its sureties will constitute a waiver of the liquidated damages under 6-9.

9-3.2 Partial and Final Payment. (Continued)

As provided for in Sections 22300 of the California Public Contract Code, the Contractor may substitute securities for any monies withheld by the Agency to ensure performance under the Contract. In substituting securities, the Contractor may either:

a. Deposit qualifying securities already owned by the Contractor with the Escrow prior to the Contract payment date, or

b. Direct the Agency to send retained funds to the Escrow to be invested by the Escrow in qualifying securities as directed by the Contractor.

9-3.2.1 Release of Withheld Contract Funds. Pursuant to Public Contract Code Section 22300, Contractor has the option to deposit securities with an Escrow Agent as a substitute for retention earnings required to be withheld by Agency pursuant to the construction Contract between the Agency and the Contractor. A form of Escrow Agreement for Security Deposits in Lieu of Retention has been adopted by the Agency as one of the Contract Documents; procedures for implementing the provisions of the Escrow Agreement are contained in Escrow Instructions which shall become effective upon exercise of the option by the Contractor.

The Contractor shall take the following steps if it desires to substitute securities:

a. Execute the Escrow Agreement for Security Deposits in Lieu of Retention.
b. Furnish to the Escrow Agent a power of attorney and other forms necessary to empower the Escrow Agent to convert the securities to cash.
c. Furnish to the Escrow Agent the securities described.
d. Pay the Escrow Agent's fees and costs.

When the Contractor deposits with the Escrow Agent securities in lieu of money required to be withheld from progress payments, a sum of money equivalent to the current cash value of the securities as determined by the Escrow Agent shall be released to the Contractor by, or upon the direction of, the Agency.

If the total of the money plus the current cash conversion value of securities on deposit should fall below the aggregate amount of the sums required to be withheld from progress payments pursuant to 9-3.1 and 9-3.2, an amount equal to the difference shall be withheld from the next regular progress payment in addition to the amount which would ordinarily be withheld pursuant to 9-3.1 and 9-3.2. If the next regular progress payment is less than the total of the amounts to be withheld therefrom, the Contractor shall immediately either deposit with the Agency cash in the amount of the difference or deposit with the Escrow Agent additional securities having a current cash conversion value equal to or greater than the difference.

The Contractor shall be the beneficial owner of any such securities on deposit with the Escrow Agency and shall be entitled to any interest earned thereon prior to conversion. The Agency may direct the Escrow Agency to convert securities with the Escrow Agency into cash, and to deliver the cash to the Agency, in any case where the Contractor is in default, including the following:

a. where the Agency would be entitled to use funds withheld pursuant to 9-3.1 and 9-3.2 to satisfy claims of workers, materials suppliers or subcontractors, or to complete or correct work which the Contractor has failed or refused to complete or correct, or

b. where the Contractor has failed to comply with the requirements of this section respecting the deposit of additional cash or securities to make up for a fall in the value of securities already on deposit with the Escrow Agency.

The Agency may hold and use cash resulting from such a conversion of securities in the same manner as it would be entitled to hold and use funds withheld pursuant to 9-3.1 and 9-3.2.

9-3.2.2 Timely Progress Payments. As required by Public Contract Code Section 20104.50, the Contractor is informed that should a progress payment not be made within 30 Days after receipt of an undisputed and properly submitted payment request from the Contractor, the Agency shall pay interest to the Contractor on the unpaid amount at the rate set forth in the Code of Civil Procedures, Section 685.010(a). Agency shall promptly review payment requests, and if not determined to be proper, document to the Contractor, within 7 Days, the reasons why the request is not proper.

Contractor should refer to the code sections cited for further information.

9-3.3 Delivered Materials. Payment for the cost of materials and equipment delivered to the Work site but not incorporated in the Work will be included in the progress estimate if, prior to the closure date for the monthly progress payment, the material or equipment is listed by the Contractor on the Agency's form together with date of delivery, vendor's or Subcontractor's name and cost; is accompanied by a copy of an invoice showing the cost thereof; has an aggregate cost in excess of $5,000 for each progress payment; is currently on the Work site at an approved location and in good condition; and is one of the following:

1. Precast concrete units weighing more than 100 kilograms (200 pounds) each.
2. Structural steel members weighing more than 100 kilograms (200 pounds) each.
3. Individual pieces of electrical equipment costing over $1,000 each.
4. Individual pieces of mechanical equipment costing over $1,000 each.
5. Reinforced concrete pipe of any size.
6. Storm drainage pipe 900 mm (36") in diameter and larger.
7. Water and sewer pipe 300 mm (12") in diameter and larger.
8. Finish hardware for doors.
9. Other individual items of equipment costing over $1,000 each
10. Materials where the aggregate value of a single type of material exceeds $1,000 and is either:
    a) Fabricated or cut to fit the Work before delivery, or
    b) Of a size or type not available from any manufacturer without a special production run.

On unit price Bid items, the amount paid for materials or equipment delivered but not incorporated in the Work shall not exceed 75% of the amount of the Bid item which includes such material or equipment.

On lump sum Bid items, the amount paid for materials and equipment delivered and not incorporated in the Work shall not exceed 75% of the item in the approved schedule submitted in accordance with 9-2 of which such materials or equipment is a part.

Should materials or equipment previously paid for be damaged, destroyed, stolen or removed from the Work site, the payment previously made therefor will be deducted from the next progress payment, unless such materials or equipment are replaced prior thereto.

On the closure date for progress payments, as provided in 9-3.2, the Contractor shall certify that all materials and equipment not incorporated into the Work, for which payment has previously been made or is being requested, is still at the Work site and in good condition. Failure to provide such certification will be cause for deducting previous payments for materials not incorporated in the Work from the amount due the Contractor in the progress payment.

Payment for materials or equipment, as provided herein, shall not constitute approval or acceptance thereof nor shall such payment modify or abridge any of the rights the Agency has under the Specifications or at law nor relieve the Surety of any of its obligations under the bonds.

9-3.4 Mobilization

9-3.4.1 Scope. Mobilization includes preliminary services, work and operations, including but not limited to, furnishing required bonds, obtaining necessary permits and work areas, providing a specified field office, the movement of labor, supplies, equipment and incidentals to the Work site, and for all other work, services and operations which must be performed or for which costs are incurred prior to performing work of the other Contract items.

9-3.4.2 Payment. The Contract lump sum price bid for mobilization shall include full compensation for furnishing all labor, materials, tools, equipment, services and incidentals and for doing all work involved in mobilization as specified herein. Payment for mobilization will be made as the Work proceeds on the following basis except that where a field office is required by the Specifications, no payment for mobilization will be made until the specified field office has been provided:

Partial payment estimate (excluding mobilization & water pollution control payments) as a percentage of the original Contract price (excluding the mobilization & water pollution control Bid items).		Cumulative amount of mobilization pay item earned is the lesser of the amounts as computed by these two columns.	
Equal to or greater than	Less than	Percentage of mobilization pay item	Percentage of the original Contract total.
5	10	50	5
10	20	75	7.5
20	50	95	9.5
50	Completion of Work	100	10
Completion of Work		100	

Where no Bid item is provided for mobilization, payment for mobilization shall be considered to be included in the other Bid items.

9-4 TERMINATION OF AGENCY LIABILITY. After completion of all work required by the contract, Agency will furnish Contractor a Release on Contract form stating the amount of total authorized payments for the project. Contractor shall execute and return said form within 21 days of receipt. Said form shall release and discharge the Agency from all claims of and liability to the Contractor for all manner of debts, demands, accounts, claims, and causes of action under or by virtue of said Contract except:

a. The claim against the Agency for the remainder, if any, of the amounts retained as provided in 9-3.2, and any amounts retained as required by Stop Notices or Labor Code provisions.

b. Any unsettled claims or disputes listed on the Release on Contract form which has been processed in compliance with the requirements for making claims under the Contract, including given timely notice pursuant to the applicable provisions of the Contract and following the procedure set forth in 6-12.

Acceptance of the Release on Contract by the Agency shall not be deemed a waiver or release of the Agency's right to contest either the substantive or procedural validity of any listed unsettled claims or disputes.

When executing the Release on Contract, the Contractor shall certify that each unsettled claim or dispute listed thereon has been processed in compliance with the requirements for making claims under the Contract, including giving timely notice pursuant to the applicable provisions of the Contract and following the procedures for resolution of disputes or claims set forth in 6-12 and that acceptance of the Release on Contract by the Agency shall not be deemed a waiver or release of the Agency's right to contest either the substantive or procedural validity of any listed unsettled claims or disputes.

If Contractor fails to execute and submit a Release on Contract within the 21-day time period set forth above, the Release on Contract shall be deemed to have been submitted with no unsettled claims or disputes listed on the Release on Contract. A payment of $1.00 will be made to the Contractor for such Release on Contract and waiver.

SECTION 10 - DIVERSION, CONTROL AND REMOVAL OF WATER

10-1 DESCRIPTION. This section covers the diversion, control and removal of all water entering into the construction area or otherwise affecting construction activities.

10-2 REQUIREMENTS. All permanent construction shall be performed in a site free from water unless otherwise provided for in the Special Provisions. The Contractor shall construct, maintain, and operate all necessary cofferdams, pumps, channels, flumes, drains, well points and/or other temporary diversion, protective, and water removal works required for diversion, control and removal of all water, whether surface or groundwater, whatever its source, during construction.

Inundation of partially completed Work due to lack of control during non-working periods will not be permitted, and may be cause for requiring removal and replacement of Work already completed.

The Contractor shall be responsible for obtaining the use of any property in addition to that provided for in the Plans and Specifications, which may be required for the diversion, protective, and water removal works so as not to create a hazard to persons or property or to interfere with the water rights of others.

It shall be understood and agreed that the Contractor shall hold the Agency and the Engineer harmless from legal action taken by any third party with respect to construction and operations of the diversion and protective works.

10-3 DIVERSION AND CONTROL WORKS.

Prior to beginning of work involving diversion, control and removal of water, the Contractor shall submit a water control plan to the Engineer. In the event circumstances during the course of construction require changes to the original water control plan, a revised water control plan shall be promptly submitted to the Engineer in each instance. No responsibility shall accrue to the Engineer or the Agency as a result of the plan or as a result of knowledge of the plan.

Construction and operation of the diversion, control and removal works shall be in accordance with the water control plan submitted, except deviations therefrom may be specifically approved by the Engineer.

All works installed by the Contractor in connection with dewatering, control, and diversion of water but not specified to become a permanent part of the Work, shall be removed and the site restored, insofar as practical, to its original condition prior to completion of construction or when directed by the Engineer.

10-4 PAYMENT. No separate Bid item is included. Payment for this item of Work will be considered to be included in the payments made for other items of Contract Work to which water control is incidental.

PART 2 CONSTRUCTION MATERIALS

SECTION 200 - ROCK MATERIALS

200-1 ROCK PRODUCTS

200-1.6 Stone for Riprap

200-1.6.1A Alternate Stone for Riprap. As an alternate to the requirements of Subsection 200-1.6, the sample may be subject to the following tests:

TESTS	TEST METHOD NO.	REQUIREMENTS
Apparent Specific Gravity	ASTM C 127	2.40 Min.
Resistance to Abrasion	ASTM C 535, Grading 1	35% Max.
Soundness	Section 211-8	10% Max.
Wet and Dry Loss	Section 211-9	5% Max.
Solubility	Section 211-10	No Loss

All rock shall be angular or subangular in shape. Angular shall be defined as having sharp corners and straight planes on all faces, with no evidence of wear caused by wind, water or abrasion. Subangular shall be defined the same as angular except that evidence of wear by wind, water or abrasion may be allowed. Determination of angularity will be made by the Engineer.

200-1.6.2 Riprap Size

The individual classes of rock used for riprap shall conform to the following:

Rock Sizes	RIPRAP CLASSES					
	1-Tonne (1-Ton)	½-Tonne (½-Ton)	¼-Tonne (¼-Ton)	Light	Facing	Cobble
	PERCENTAGE LARGER THAN					
2-Tonne (2-Ton)	0-5					
1-Tonne (1-Ton)	50-100	0-5				
½-Tonne (½-Ton)		50-100	0-5			
¼-Tonne (¼-Ton)	90-100		50-100	0-5		
100-kg (200-lb)		90-100		50-100	0-5	
35-kg (75-lb)			90-100	90-100	50-100	0-5
10-kg (25-lb)					90-100	95-100
0.5-kg (1-lb)	100	100	100	100	100	100

The amount of material smaller than the smallest size listed in the table for any class of riprap shall not exceed the percentage limit listed in the table determined on a weight basis.

Compliance with the percentage limit shown in the table for all other sizes of the individual pieces of any class of riprap shall be determined by the ratio of the number of individual pieces larger than the specified size compared to the total number of individual pieces larger than the smallest size listed in the table for that class.

Flat or needle shapes will not be accepted unless the thickness of individual pieces is greater than 1/3 the length.

Before placing in final location, depositing, or stockpiling within the project limits, each individual load of riprap must meet the size requirements of the class specified.

SECTION 206 - MISCELLANEOUS METAL ITEMS

206-3 GRAY IRON AND DUCTILE IRON CASTINGS

206-3.3.2A Manhole Frame and Cover Sets

Unless otherwise specified, manhole frames and covers shall be in accordance with the following Standard Plans contained in the SPPWC:

Clear Opening Diameter mm (Inches)	SPPWC Plan No.	Catalog Numbers	
		Alhambra Foundry	Long Beach Iron Works
600 (24)	630-1	A-1495	X-162
675 (27)	631-1	A-1496	X-164
750 (30)	632-1	A-1497	X-163
900 (36)	633-1	A-1498	X-106A

206-5 METAL RAILINGS.

206-5.2 Flexible Metal Guard Rail Materials.

206-5.2A Flexible Metal Guard Rail Materials; Modification. The "Construction" grade Douglas Fir for "posts, including blocks" does not have to be "free of heart center".

SECTION 210 - PAINT AND PROTECTIVE COATINGS

210-6 STORM DRAIN HARDWARE. All storm drain hardware, including manhole frames and covers, grates, protection bars, steps, etc., shall be protected from corrosion.

Storm drain hardware made of cast iron shall be protected by painting with, or dipping in, a commercial grade asphalt paint. Storm drain hardware made of steel shall be galvanized.

211-6 SIEVE ANALYSIS. Sieve analysis shall be performed in accordance with ASTM C136.

211-7 Sand Equivalent Test. This test is intended to serve as a field test to indicate the presence or absence of plastic fine material. The test shall be run in accordance with Calif. test 217 or ASTM D2419. When testing material containing asphalt, this test method shall be modified by drying the sample at a temperature not exceeding 38°C (100°F).

211-8 R-VALUE. Resistance (R-value) shall be determined by California Test 301.

211-9 SPECIFIC GRAVITY AND ABSORPTION. Apparent specific gravity, bulk specific gravity and absorption shall be determined by California Test 206, 207, 208, 209, 224, 225, or 308, Method C where zinc stearate may be substituted for paraffin.

211-10 LOS ANGELES RATTLER TEST. Loss in Los Angeles Rattler shall be determined by California Test 211.

211-11 SOUNDNESS. For riprap, the soundness shall be determined in accordance with Calif. Test 214, excluding sections D, E, G.2.b, and H, and adding the following:

a. The test sample shall be prepared by breaking or sawing a representative sampling of riprap into particles passing the 75 mm (three inch) and retained on the 50 mm (two inch) sieve. If there are a variety of rock types or degrees of weathering within a rock type, each unique type or condition must meet the loss requirement.

b. The test sample size shall be 25,000 grams (55 lbs.) ± 1 percent.

c. All particles of test sample which break into three or more pieces during testing shall be discarded. The remaining sample shall be washed on a 4.75 mm (#4) sieve and all particles retained shall be oven dried.

d. The loss in weight shall be determined by subtracting from the original weight of the test sample the final weight of all particles retained on the 4.75 mm (#4) sieve. Divide the loss in weight by the original weight and multiply by 100 to determine the percent loss.

e. Report the following:

   (1) The percent loss.

   (2) The number of pieces affected, classified as to number disintegrating, splitting, crumbling, cracking, flaking, etc.

211-12 WET AND DRY LOSS. Wet and dry loss shall be determined as follows:

A sample of rock shall be crushed, screened, oven dried, and 1,000 g (2.2 lbs.) to 1,500 g (3.3 lbs.) of the 19 mm (3/4 inch) to 9.5 mm (3/8 inch) fraction shall be taken for the test.

The crushed and graded sample shall be submerged in tap water for 8 hours at room temperature, after which the sample shall be drained and oven dried at 78°C (140°F). When dry, the sample shall be cooled to room temperature. This completes one cycle.

After 10 cycles, the percent loss shall be computed as follows:

$$\% \text{ Loss} = \frac{100 \times \text{Weight of Material Passing 4.75 mm (No. 4) Sieve}}{\text{Total Weight of Sample}}$$

211-13 SOLUBILITY. Approximately 0.5 kg (one pound), air dried samples shall be immersed in local tap water and in Pacific Ocean water (or a 3.5% sodium chloride solution) for 8 hours each at 78°C (140°F). After immersion, the samples shall be washed with tap water, air dried and reweighed.

211-14 Permeability Test. Permeability tests for granular soils shall be performed in accordance with ASTM D2434, using samples compacted to the specified field density.

PART 3 CONSTRUCTION METHODS

SECTION 301 - TREATED SOILS, SUBGRADE PREPARATION AND PLACEMENT OF BASE MATERIALS

301-1 SUBGRADE PREPARATION

301-1.3 Relative Compaction

301-1.3.1 Firm, Hard and Unyielding. The term "firm, hard and unyielding" as used in 301-1.3 shall mean that when the heaviest construction and hauling equipment used on the Work drives over the subgrade, no permanent deformation shall occur either before or during pavement construction.

301-1.4 Subgrade Tolerances. Subgrade for pavement, sidewalk, curb and gutter, driveways, or other roadway structures shall not vary more than 15 mm (0.05 feet) from the specified grade and cross section. Subgrade for subbase or base material shall not vary more than 15 mm (0.05 feet) from the specified grade and cross section.

Variations within the above specified tolerances shall be compensating so that the average grade and cross section specified are met.

301-2 UNTREATED BASE

301-2.3 Compacting

301-2.3.1 Tolerances. The tolerance requirement in 301-2.3 is modified from 6 mm (0.02 foot) to 15 mm (0.05 foot).

SECTION 302 - ROADWAYSURFACING

302-5 ASPHALT CONCRETE PAVEMENT

302-5.1 General

302-5.1.1 Asphalt Concrete Berms. Asphalt concrete berms shall be constructed of Class III- D-PG70-10 asphalt concrete by mechanical means to conform to the details and location as shown on the Plans.

A tack coat, as provided in 302-5.4, shall be applied to the existing or new pavement preceding the placement of the asphalt concrete berms.

302-5.4 Tack Coat

302-5.4.1 Fog Seal. When specified, a fog seal consisting of material meeting the requirements of 203-3 shall be applied to the surfaces of all completed asphalt concrete at the rate of 0.36 liter per square meter (0.08 gallon per square yard) of the combined emulsion or such lesser rate ordered by the Engineer. Surface to be sealed shall be free from dust, dirt, and other foreign material. Surface shall be sealed within 7 Days after paving.

302-5.9 Measurement and Payment

302-5.9.1 Measurement and Payment for Asphalt Berm. Asphalt concrete berms will be paid for at the Contract Unit Price per linear meter (feet) of berm in place. No separate measurement or payment will be made for asphalt, aggregate, or tack coat.

302-5.9.2 Measurement and Payment for Fog Seal, Tack Coat, and Prime Coat. Measurement and payment for the specified material shall be by the tonne (ton) in place. Emulsions shall be measured after the specified dilution has been made.

SECTION 303 - CONCRETE AND MASONRY CONSTRUCTION

303-5 CONCRETE CURBS, WALKS, GUTTERS, CROSS GUTTERS, ALLEY INTERSECTIONS, ACCESS RAMPS AND DRIVEWAYS

303-5.1 Requirements

303-5.1.4 Concrete Substitution. Class 280-C-14 (470-C-2000) may be used in lieu of Class 310-C-17 (520-C-2500) and Class 280-D-14 (470-D-2000) in lieu of Class 310-D-17 (520-D-2500) as specified in 201-1.1.2 for street surface improvements, excluding concrete pavement, when no class is specified on the Plans or in the Special Provisions.

SECTION 306 - UNDERGROUND CONDUIT CONSTRUCTION 306-1 OPEN TRENCH OPERATIONS

306-1.2 Installation of Pipe

306-1.2.1 Bedding

306-1.2.1.1 Bedding Material. When native material is allowed for backfill in the bedding zone, no rocks larger than 40 mm (1½") in maximum dimensions shall be included. Material containing ashes, cinders, and types of refuse or other deleterious material shall not be used as bedding.

306-1.2.1.2 Sewer Pipe Bedding. Bedding for sewer pipe from 100 mm (4") below the pipe to the spring line (horizontal diameter) of the pipe shall be free draining, granular material with a maximum size of 15 mm (1/2 inch), unless another bedding method is shown on the Plans.

Densification of the bedding material may be by the application of water or by mechanical means. Unless otherwise specified, all bedding material shall be densified to a relative density of 90%. Acceptability of densification in the bedding zone will be determined by visual inspection and probing to determine that no voids exist in the backfill material. In this paragraph, the word "voids" does not include intergranular voids in the soil structure.

306-1.2.1.3 Flexible Pipe Bedding. Bedding for flexible drainage and sewer pipe shall be granular material having a sand equivalent of at least 50. The bedding material shall be placed and compacted from 150 mm (six inches) below the pipe to the top of the bedding as defined in 306-1.2.1. A 1 m (three foot) long section of low permeability material (50% passing 75 μm (200) sieve) shall be installed and mechanically compacted in lieu of the above specified bedding material at intervals of 60 m (200 feet) or as otherwise indicated on the Plans.

306-9 DISINFECTION. All water mains and appurtenances shall be disinfected before being placed in service in accordance with AWWA C651 except as specified herein:

a. The water mains shall be chlorinated so that a chlorine residual of not less than 20 ppm remains in the water after standing in the pipe for 24 hours.

b. The Agency will perform sampling and testing of bacteriologic samples. Disinfection shall be repeated until two or more consecutive samples are negative for coliform organisms.

The pressure in the line being chlorinated shall be maintained at least 35 kPa (5 psi) lower than that existing in any Agency line to which it is connected.

306-10 WATERWORKS APPURTENANCES

306-10.1 Valves. Valves shall be located as shown on the drawings.

Each valve shall be operated prior to its installation to assure proper functioning. Valves shall be installed plumb and in alignment with the water main. Valves shall be anchored by metal ties to a concrete base. Line valves may be moved to the closest joint upon approval of the Engineer.

306-10.2 Valve Boxes. Each underground valve shall be provided with a valve box. The valve boxes shall be installed plumb and centered over the operating nut of the valve. Valve boxes shall be installed with concrete collars.

Where valve boxes are to be placed in asphaltic type pavement, they shall not be set to grade until after paving has been completed.

Where valve boxes are to be placed in concrete pavement, they shall be set to grade prior to paving operations.

306-10.3 Thrust Devices. A reaction or thrust device shall be provided on all dead ends, tees, elbows, and bends with more than 5 degrees deflection on pressure pipelines.

Thrust devices shall be cast-in-place concrete, poured against undisturbed or compacted earth. Thrust devices shall be sized and constructed in accordance with the Plans.

Thrust devices and anchor blocks shall be constructed of Class 280-C-14 (420-C-2000) concrete. Thrust devices and anchor blocks shall be cured at least 7 Days where Type IP or II cement is used or at least 48 hours where Type III cement is used.

Metal tie-rods or clamps shall be of adequate strength to prevent movement of pipe. All metal shall be coated in accordance with AWWA C110.

306-10.4 Fire Hydrants. Fire Hydrants shall be installed as shown on the Plans.

All hydrants shall stand plumb and shall have their nozzles parallel with or at right angles to the curb, with the pumper nozzle facing the curb, except that hydrants having only two hose nozzles 90 degrees apart shall be set with each nozzle facing the curb at an angle of 45 degrees.

In uncurbed public road rights of way, fire hydrants shall be located as far as possible from the traveled way while providing a 1 m (3-foot) wide clear space between the fire hydrant and the right of way line. In curbed public road rights of way, fire hydrants shall be installed so that there is 300 mm (12 inches) clear between the face of curb and the fire hydrant.

306-10.5 Fire Hydrant Barricades. Fire hydrant barricades shall consist of 100 mm (4-inch) standard steel pipe, schedule 40, filled with concrete, and having a total length of 2 m (72 inches). They shall be embedded in concrete blocks 300 mm (12 inches) in diameter and 1000 mm (40 inches) deep below ground surface with the barricade pipe embedded to 100 mm (4 inches) above the bottom of the concrete so 1 m (36 inches) extends above ground surface. The steel pipe above ground shall be painted chrome yellow in accordance with AWWA C503.

Barricades shall be installed between the fire hydrant and vehicle traffic paths at locations indicated on the Plans or where required by the water purveyor or Fire Department. Barricades shall not be installed within public road rights of way.

Fire hydrant barricades shall not obstruct the hydrant outlets.

310-5 Painting Various Surfaces

310-5.6 Painting Traffic Striping, Pavement Markings, and Curb Markings.

310-5.6.8A Application of Paint - Two Coats All painted traffic striping and markings shall be applied in two coats. The price named in any Bid item for painting traffic striping and markings shall include all costs for both applications, including any delays entailed for the required drying time between applications. If bleeding, curling or discoloration occurs following application of the second coat, unsatisfactory areas shall be given an additional coat, or coats, of paint. No additional payment will be made for work necessary to correct bleeding, curling or discoloration.

PART 4

SECTION 400 - ALTERNATE ROCK PRODUCTS, ASPHALT CONCRETE, PORTLAND CEMENT CONCRETE AND UNTREATED BASE MATERIAL

400-1 Rock Products

400-1.1 Requirements

400-1.1.1 General

Alternate rock material, Type S, as specified in Section 400 may be used on the Work.

400-3 Portland Cement Concrete

Suppliers of portland cement concrete shall file mix designs as required by 400-1.1.2

400-4 Asphalt Concrete

Suppliers of asphaltic cement concrete shall file mix designs as required by 400-1.1.2

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CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:	
	PHONE (A/C, No, Ext):	FAX (A/C, No):
	E-MAIL ADDRESS:	

INSURED	INSURER(S) AFFORDING COVERAGE	NAIC #
	INSURER A :	
	INSURER B :	
	INSURER C :	
	INSURER D :	
	INSURER E :	
	INSURER F :	

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
	GENERAL LIABILITY						EACH OCCURRENCE	$ See VCSS 7-4.2
	[X] COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence)	$
	[ ] CLAIMS-MADE [X] OCCUR						MED EXP (Any one person)	$
							PERSONAL & ADV INJURY	$
							GENERAL AGGREGATE	$ See VCSS 7-4.2
	GEN'L AGGREGATE LIMIT APPLIES PER:						PRODUCTS - COMP/OP AGG	$
	[X] POLICY [ ] PRO-JECT [ ] LOC							$
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
	[X] ANY AUTO						BODILY INJURY (Per person)	$
	[ ] ALL OWNED AUTOS [ ] SCHEDULED AUTOS						BODILY INJURY (Per accident)	$ 1,000,000
	[ ] HIRED AUTOS [ ] NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	$ 1,000,000
								$
	UMBRELLA LIAB [X] OCCUR						EACH OCCURRENCE	$
	EXCESS LIAB [ ] CLAIMS-MADE						AGGREGATE	$
	DED [ ] RETENTION $							$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y / N						WC STATU-TORY LIMITS [ ] OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICE/MEMBER EXCLUDED? [ ] N / A						E.L. EACH ACCIDENT	$
	(Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$
							E.L. DISEASE - POLICY LIMIT	$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

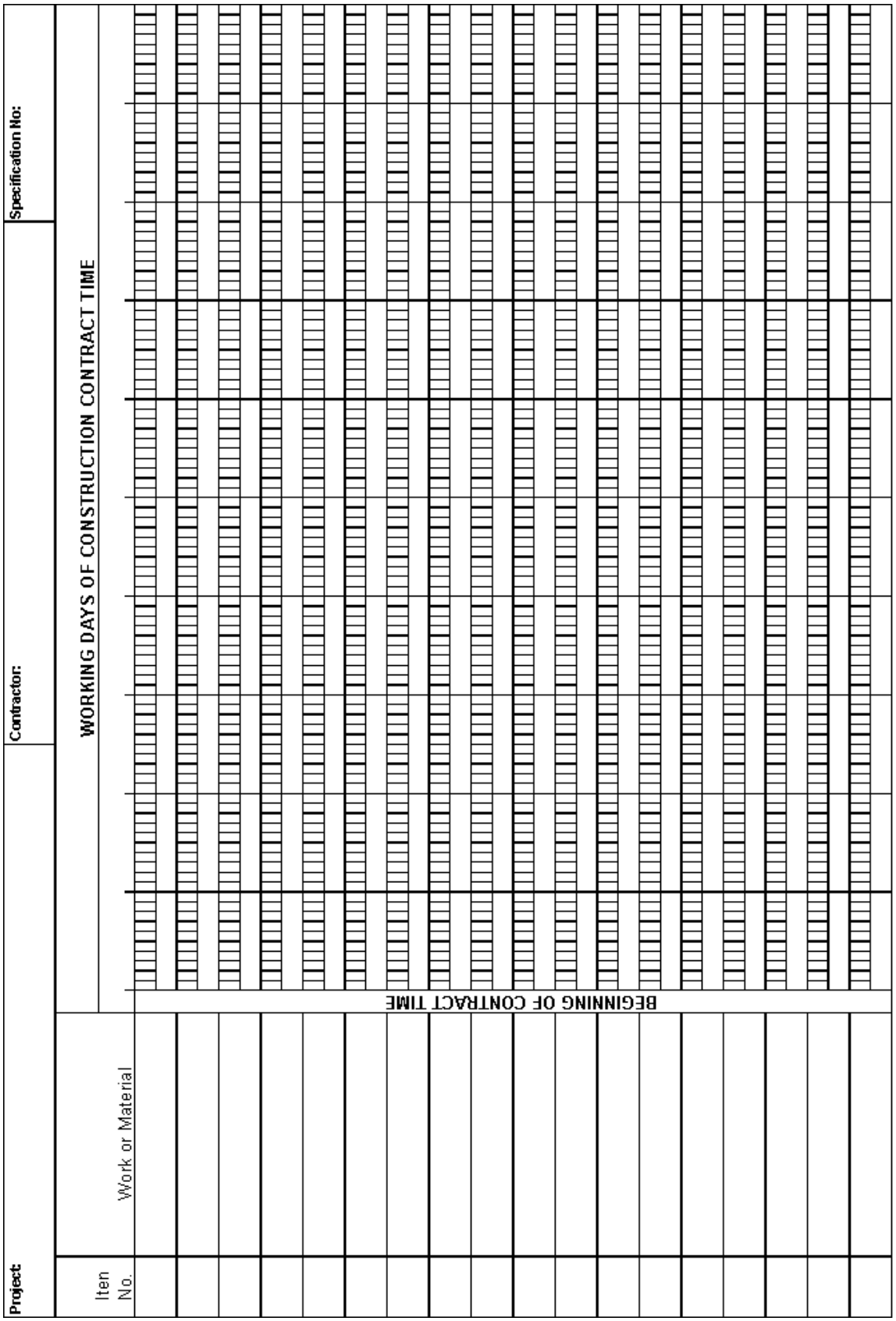
(Agency) - (Project Name) (Project Specification number)

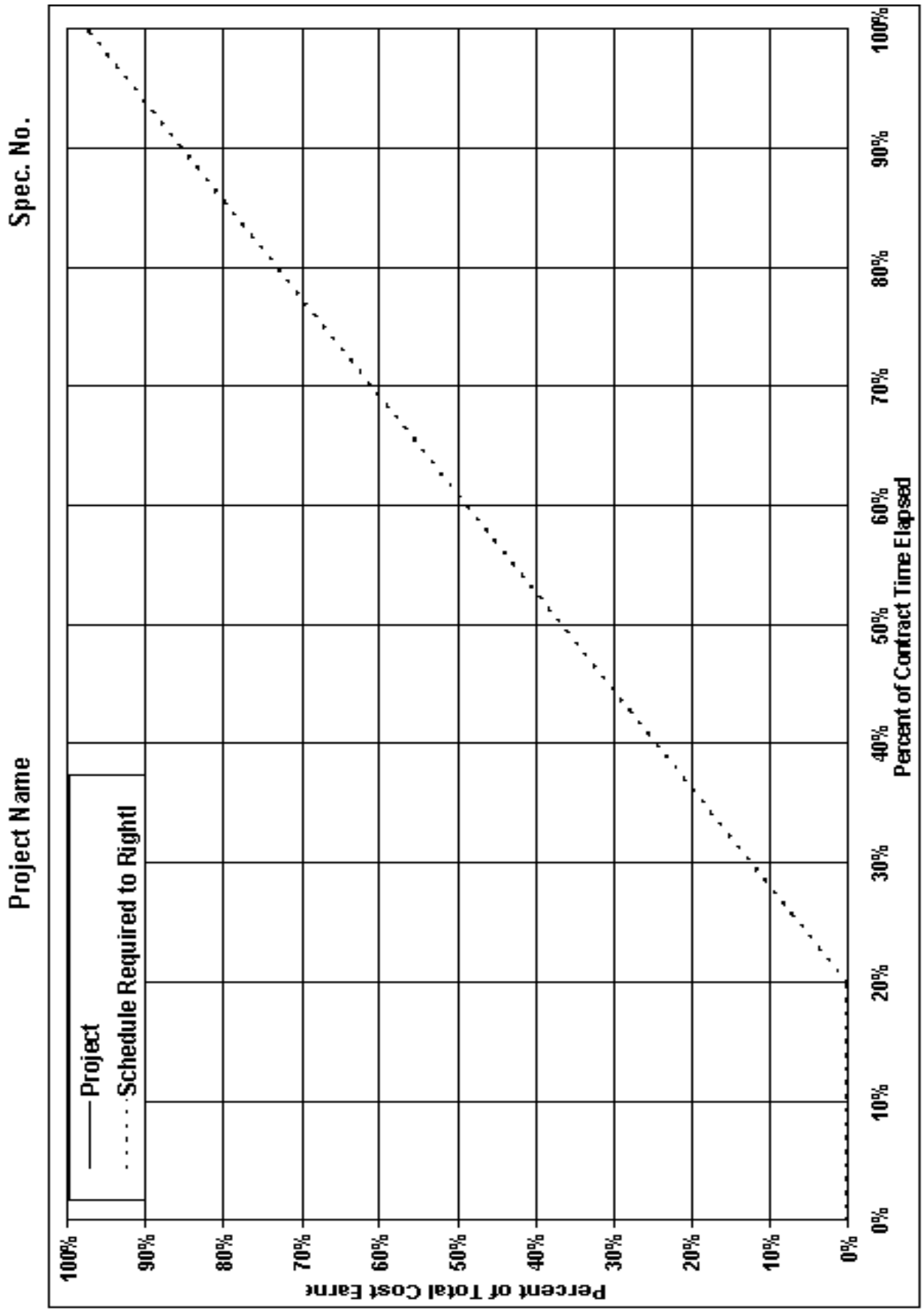
The Agency and the County of Ventura, including its boards, all special Districts governed by the Board of Supervisors, agencies, departments, officers, consultants, employees, agents and volunteers, is named as Additional Insured as respects work done by Contractor under the terms of the contract on General Liability and Auto Liability Policies. Waiver of Subrogation is applicable to the Agency and the County of Ventura, its boards, districts, agencies, departments, officers, employees, agents and volunteers for Work Comp and General Liability. Endorsements required for referenced contract will be issued by the Insurance Company.

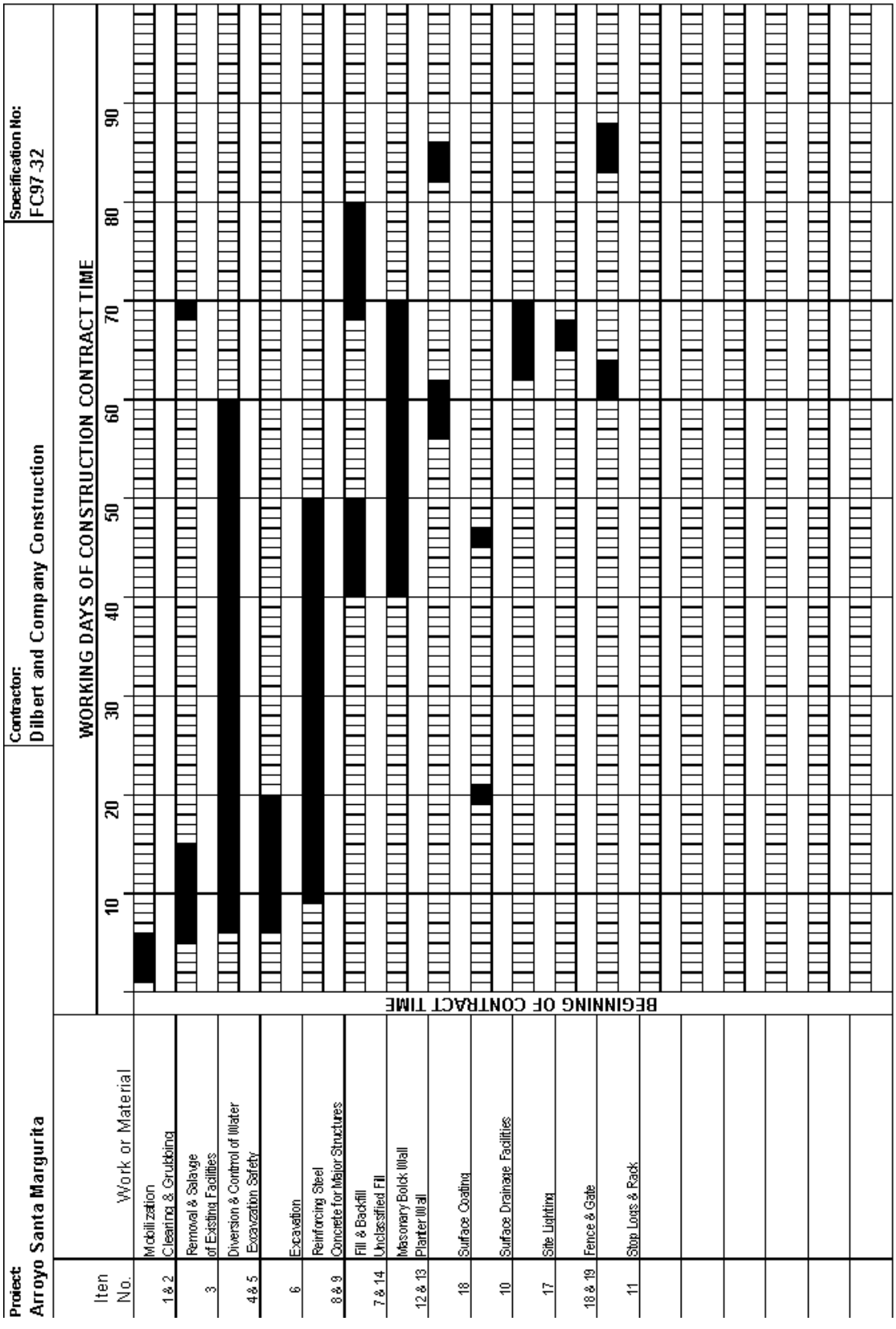
CERTIFICATE HOLDER	CANCELLATION
County of Ventura Public Works Agency L-1670 800 S. Victoria Avenue Ventura, CA 93009-1670	**SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.** AUTHORIZED REPRESENTATIVE

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ACORD 25 (2010/05) **The ACORD name and logo are registered marks of ACORD**


Project:
Contractor:
Specification No:
WORKING DAYS OF CONSTRUCTION CONTRACT TIME
Item No.
Work or Material
BEGINNING OF CONTRACT TIME
EACH HORIZONITAL INTERVAL EQUALS ___ WORKING DAYS OF CONTRACT TIME
Submitted
Contractor
By
Date
Title


Project Name
Spec. No.
Project
Schedule Required to Right!
Percent of Total Cost Earne
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
Percent of Contract Time Elapsed



Project: Arroyo Santa Margurita

Contractor: Dilbert and Company Construction

Specification No: FC97-32

Item No.	Work or Material
1 & 2	Mobilization Clearing & Grubbing
3	Removal & Salvage of Existing Facilities
4 & 5	Diversion & Control of Water Excavation Safety
6	Excavation
8 & 9	Reinforcing Steel Concrete for Major Structures
7 & 14	Fill & Backfill Unclassified Fill
12 & 13	Masonary Bolck Wall Planter Wall
18	Surface Coating
10	Surface Drainage Facilities
17	Site Lighting
18 & 19	Fence & Gate
11	Stop Logs & Rack

WORKING DAYS OF CONSTRUCTION CONTRACT TIME

10 20 30 40 50 60 70 80 90

BEGINNING OF CONTRACT TIME

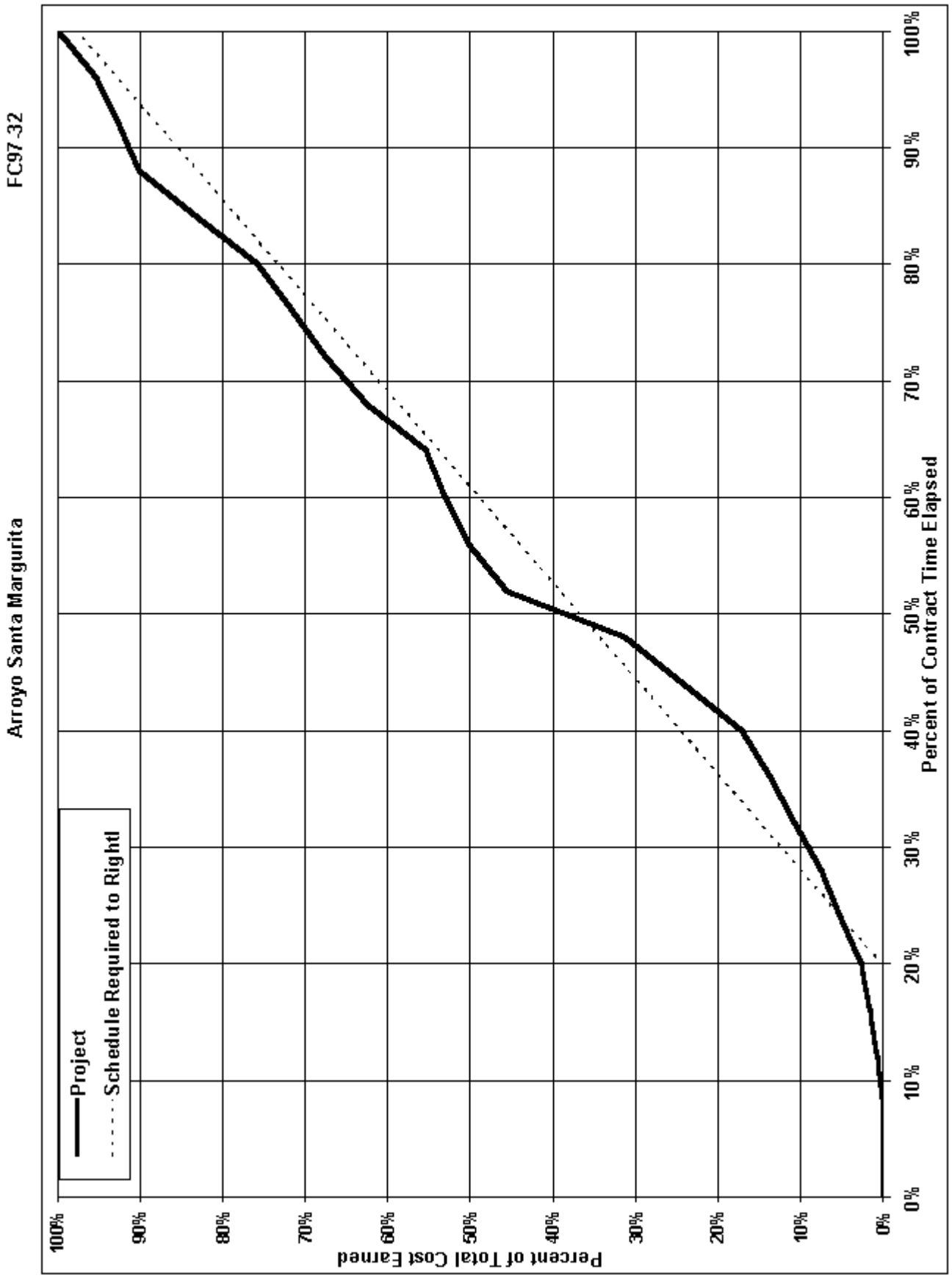
EACH HORIZONITAL INTERVAL EQUALS 1 WORKING DAYS OF CONTRACT TIME

Submitted Dilbert and Company Construction
Contractor

By *Tina Blair*

Title President

5/22/97
Date


FC97-32
Arroyo Santa Margurita
Project
Schedule Required to Right
Percent of Total Cost Earned
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
0 %
10 %
20 %
30 %
40 %
50 %
60 %
70 %
80 %
90 %
100 %
Percent of Contract Time Elapsed

APPENDIX D ESCROW AGREEMENT FORM SAMPLE

ESCROW AGREEMENT FOR
SECURITY DEPOSITS IN LIEU OF RETENTION

This Escrow Agreement is made and entered into by and between
("Agency") whose address is _____ and
("Contractor") whose address is _____ and
("Escrow Agent") whose address is _____.

For the consideration hereinafter set forth, the Agency, Contractor and Escrow Agent agree as follows:

(1) Pursuant to Section 22300 of the Public Contract Code of the State of California, Contractor has the option to deposit securities with Escrow Agent as a substitute for retention earnings required to be withheld by Agency pursuant to the Construction Contract entered into between the Agency and Contractor for _____ in the amount of dated _____, (hereinafter referred to as the "Contract") which Contract is identified by Spec. No._____ and Auditor Controller's Contract No._____. Alternatively , on written request of the Contractor, the Agency shall make payments of the retention earnings directly to the Escrow Agent. When Contractor deposits the securities as a substitute for Contract earnings, the Escrow Agent shall notify the Agency within ten days of the deposit. The market value of the securities at the time of the substitution shall be at least equal to the cash amount then required to be withheld as retention under the terms of the Contract between the Agency and Contractor. Securities shall be held in the name of _____ , and shall designate the Contractor as the beneficial owner.

(2) The Agency shall make progress payments to the Contractor for those funds which otherwise would be withheld from progress payments pursuant to the Contract provisions, provided that the Escrow Agent holds securities in the form and amount specified above.

(3) When the Agency makes payments of retentions earned directly to Escrow Agent, the Escrow Agent shall hold them for the benefit of the Contractor until such time as the escrow created under this contract is terminated. The Contractor may direct the investment of the payments into securities. All terms and conditions of this agreement and the rights and responsibilities of the parties shall be equally applicable and binding when the Agency pays the Escrow Agent directly.

(4) Contractor shall be responsible for paying all fees for the expenses incurred by Escrow Agent in administering the escrow account. These expenses and payment terms shall be determined by the Agency, Contractor and Escrow Agent.

(5) The interest earned on the securities or the money market accounts held in escrow and all interest earned on that interest shall be for the sole account of Contractor and shall be subject to withdrawal by Contractor at any time and from time to time without notice to the Agency.

(6) Contractor shall have the right to withdraw all or any part of the principal in the Escrow Account only by written notice to Escrow Agent accompanied by written authorization from Agency to the Escrow Agent that Agency consents to the withdrawal of the amount sought to be withdrawn by Contractor.

(7) The Agency shall have a right to draw upon the securities in the event of default by the Contractor. Upon seven days' written notice to the Escrow Agent from the Agency of the default, the Escrow Agent shall immediately convert the securities to cash and shall distribute the cash as instructed by the Agency.

(8) Upon receipt of written notification from the Agency certifying that the Contract is final and complete, and that the Contractor has complied with all requirements and procedures applicable to the Contract, the Escrow Agent shall release to the Contractor all securities and interest on deposit less escrow fees and charges of the Escrow Account. The escrow shall be closed immediately upon disbursement of all moneys and securities on deposit and payments of fees and charges.

(9) Escrow Agent shall rely on the written notifications from the Agency and the Contractor pursuant to Sections (1) to (8), inclusive, of this Agreement and the Agency and Contractor shall hold Escrow Agent harmless from Escrow Agent's release and disbursement of the securities and interest as set forth above.

(10) The names of the persons who are authorized to give written notice or to receive written notice on behalf of the Agency and on behalf of Contractor in connection with the foregoing, and exemplars of their respective signatures are as follows:

On behalf of Agency:

_____, Director,
Public Works Agency

_____, Director
Central Services Department

_____, Director
Engineering Services Department

Address for all of the above:
Public Works Agency
800 South Victoria Avenue
Ventura, CA 93009

SAMPLE FORM

Form used for escrow will have names and signatures of persons authorized in accordance with paragraph 10.

On behalf of Contractor:

_____
Title

_____
Name

_____
Signature

_____
Street Address

_____
City & State Zip Code

On behalf of Escrow Agent:

_____
Title

_____
Name

_____
Signature

_____
Street Address

_____
City & State Zip Code

At the time the Escrow Account is opened, the Agency and Contractor shall deliver to the Escrow Agent a fully executed counterpart of this Agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement by their proper officers on the date first set forth above.

Agency:
(Agency name)

_____
Title

_____
Name

_____
Signature

Contractor:
(Contractor company name)

_____
Title

_____
Name

_____
Signature

EXHIBIT "A"
ESCROW INSTRUCTIONS

The parties to this escrow are _____("Agency") and _____ ("Contractor") and _____("Escrow Agent"). Agency and Contractor have entered into a contract for the construction of _____which contract is identified by Spec. No. _____ and Auditor-Controller's Contract No. _____ and was entered into by and between Agency and Contractor ("Construction Contract"). Pursuant to Public Contract Code Section 22300, Contractor may substitute certain securities for an equivalent amount of money required to be withheld from progress payments by Agency to Contractor pursuant to the Construction Contract.

The Escrow Agent is hereby instructed as follows:

1. Contractor may deliver to Escrow Agent:
   (a) Securities of the types specified in Sections 22300 of the Public Contract Code and Section 16430 of the Government Code.
   (b) Such other documents as are necessary to enable Escrow Agent to convert such securities into cash.
2. Upon receipt of such securities and other documents, Escrow Agent shall notify Agency within ten days of the deposit, and shall examine them to determine whether they are in a form sufficient to effect conversion of the securities into cash. Escrow Agent shall thereupon send written notice of its determination to Agency.
3. Escrow Agent shall hold such securities as trustee for Agency. The right of Agency to such securities is superior to any other lien or claim of lien; provided, however, that Contractor shall be entitled to any interest earned by such securities prior to their conversion to cash pursuant to section 5 hereof, and further provided that such interest may be withdrawn by Contractor at any time and from time to time without notice to Agency.

   Securities may be substituted by Contractor, but any securities substituted for securities previously deposited shall not reduce the current cash value of securities held below that last reported to Agency by Escrow Agent.
4. Escrow Agent shall determine the current cash value of such securities held by it as of the close of business on the first business day following the _____ day of each month and, in addition, on any other days which the Agency may from time to time specify in a written notice to Escrow Agent. Current cash value shall be determined as follows:
   (a) For securities traded over-the-counter or on a stock exchange:
      (1) Determine either the current bid price for the securities as of the close of business or the face value of the securities, whichever is less.
      (2) Subtract the cost of sale (broker commission).
      (3) Subtract all unpaid escrow fees and costs associated therewith.
   (b) For certificates of deposit:
      (1) Determine the face amount.
      (2) Subtract the potential interest penalty for immediate conversion.
      (3) Subtract all unpaid escrow fees and costs associated therewith.
   (c) Determine the value of other securities by procedures calculated to determine net realizable value. Promptly upon making each such determination, Escrow Agent shall notify Agency of the securities held and current cash value of such securities.

5. At any time or times that Agency believes it has a right to do so under the provisions of the Construction Contract, Agency may, without the consent of Contractor, deliver to Escrow Agent a written demand that Escrow Agent convert to cash all or any part of such securities. Upon seven days' written notice from Agency of such demand, Escrow Agent shall convert to cash all or part of such securities as demanded and shall distribute the cash as instructed by the Agency.

6. When the Construction Contract has been satisfactorily completed on the part of Contractor and any stop notices filed against the Construction Contract have been released, Agency shall give written notice to Escrow Agent that such securities may be returned to Contractor. Upon receipt of such written notice and payment of all escrow fees and costs, the Escrow Agent shall deliver to Contractor all money, interest, securities and other documents remaining in escrow and the escrow shall terminate.

7. Contractor, and not Agency, shall be liable to Escrow Agent for all of Escrow Agent's fees and costs associated with this escrow.

8. The Director of the Ventura County Public Works Agency, a Department Director of said Agency, or other person authorized in writing by such Director or Department Director is authorized to give written notice and to make written demands on behalf of Agency pursuant to sections 4, 5 and 6 hereof.

9. All written notices and demands pursuant to the escrow agreement and these Instructions shall be addressed as follows:

(a) To Agency:

Director, Ventura County Public Works Agency
800 South Victoria Avenue
Ventura, California 93009

(b) To Contractor:

(c) To Escrow Agent:

DATED: _____

_____	_____	_____
_____	_____	_____
By _____	By _____	By _____
Title _____	Title _____	Title _____
AGENCY	CONTRACTOR	ESCROW AGENT Bank Charter: State [ ] Federal [ ] Escrow Agent's Address:
		_____
		_____

APPENDIX E BLANK

RELEASE ON CONTRACT

CONTRACT NAME: _____

SPEC. NO. _____, PROJECT NO. _____

WHEREAS, by the terms of the contract dated ____ _, 20___ entered into by _____

_____and the undersigned CONTRACTOR,

_____

_____

_____

undersigned CONTRACTOR agreed to perform certain work for the compensation specified in said contract; and

WHEREAS, the CONTRACTOR represents that said work is fully completed and that final payment is due to the CONTRACTOR under terms of said contract,

NOW, THEREFORE, in consideration of the promises and the payment by [AGENCY NAME] to the CONTRACTOR of the amount due under the contract, to wit, the sum of $_____ and the additional consideration of $1.00, receipt of which is hereby acknowledged by the CONTRACTOR, the CONTRACTOR hereby releases and forever discharges _____ of and from all manner of debts, dues, demands, sum or sums of money, accounts, claims and causes of action, in law and in equity, under or by virtue of said contract except the claim against the Agency for the remainder, if any, of the amounts retained as provided in 9-3.2, any amounts retained as required by Stop Notices or Labor Code Provisions, and any unsettled claims or disputes as follows: (If none, leave blank)

Description of Claim or Dispute	Amount	Date of Claim	Date of Notice of Potential Claim

The CONTRACTOR certifies that each unsettled claim or dispute listed hereon has been processed in compliance with the requirements for making claims under the contract, including giving notice pursuant to the applicable provisions of the contract, and following the procedures for resolution of disputes or claims set forth in subsection 6-12 of the contract. Acceptance of this Release on Contract by the [Agency Name] shall not be deemed as a waiver or release of its right to contest either the substantive or procedural validity of any listed unsettled claims or disputes.

IN WITNESS WHEREOF, the hand and seal of the CONTRACTOR have been hereunto set this ___ day of _____, 20___.

THIS FORM MUST BE ACCOMPANIED
by a proper acknowledgement form
(See Civil Code Section 1189)

Contractor

By

Title

Bond No._____

SURETY BONDS
PERFORMANCE BOND

Whereas, the «Agency», hereinafter called "Agency", and «Contr», hereinafter called "principal", have entered into a contract dated «ContrDate» whereby principal agrees to complete certain designated work identified as project «ProjName» (Spec. No.«SpecNo»), and to perform other duties and obligations as described in said contract, which is incorporated herein by this reference and made a part hereof; and

Whereas, principal is required under the terms of said contract to furnish a bond to guarantee principal's faithful performance of the work and all terms and conditions of the contract;

Now, therefore, we the principal and the undersigned, as corporate surety, are held and firmly bound unto Agency in the penal sum of «CostText» ($«OrigCostFmtd») lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, successors, executors and administrators, jointly and severally, firmly by these presents.

The condition of this obligation is such that if the principal, its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions, and provisions in the said contract and any alteration thereof made as therein provided, on principal's part, to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify and save harmless Agency, its officers, agents and employees, as therein stipulated, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect.

The above obligation shall continue after Agency's acceptance of the work for the duration of the warranty period as specified in the contract during which time if principal fails to make full, complete, and satisfactory repair or replacement to the work and/or fails to protect Agency from loss or damage resulting from or caused by defective materials or faulty workmanship, the obligation of surety hereunder shall continue so long as any obligation of principal remains.

PAYMENT BOND

And, whereas, under the terms of said contract, principal is required before entering upon the performance of the work, to file a good and sufficient payment bond with the Agency to secure the claims to which reference is made in Title 3 (commencing with Section 9000) of Part 6 of Division 4 of the Civil Code of the State of California.

Now, therefore, said principal and the undersigned, as corporate surety, are held firmly bound unto the Agency and all contractors, subcontractors, laborers, material suppliers and other persons employed in the performance of the aforesaid contract and referred to in the aforesaid Civil Code in the like sum of «CostText» dollars ($«OrigCostFmtd») for materials furnished or labor thereon of any kind, or for amounts due under the Unemployment Insurance Act with respect to such work or labor, or for any amounts required to be deducted, withheld and paid over to the Franchise Tax Board from the wages of employees of the contractor and the contractor's subcontractors, that said surety will pay the same in an amount not exceeding the amount hereinabove set forth, and also in case suit is brought upon this bond, will pay, in addition to the face amount thereof, costs and reasonable expenses and fees including reasonable attorney's fees incurred in successfully enforcing such obligation, to be awarded and fixed by the court, and to be taxed as costs and to be included in the judgment therein rendered.

It is hereby expressly stipulated and agreed that this bond shall inure to the benefit of any and all persons, companies and corporations entitled to file claims under Title 3 (commencing with Section 9000) of Part 6 of Division 4 of the Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond.

Should this condition of this bond be fully performed, then this obligation shall become null and void; otherwise, it shall be and remain in full force and effect.

GENERAL TERMS

The surety hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of said contract or the plans and specifications accompanying the same shall in any manner affect its obligations on these bonds, and it does hereby waive notice of any such change, extension, alteration or addition.

Nothing herein shall limit the Agency's rights or surety's obligations under the contract or applicable law, including, without limitation, California Code of Civil Procedure section 337.15.

In witness whereof, this instrument has been duly executed by the principal and surety above named

on ,_____, 20 .

«Contr»
Name of Principal

By_____

Title_____

_____
Name of Surety

By_____
Attorney-in-Fact

Address _____

City_____ State___ Zip_____

INDICATE COMPLETE ADDRESS OF SURETY TO WHICH CORRESPONDENCE CONCERNING THIS BOND SHOULD BE DIRECTED.

Telephone No._____

A-467/9-Tmpl

SAMPLE BOND FORM

Agency will prepare the Bond in this format and transmit it to the Contractor along with the Contract and the Notice of Award letter.

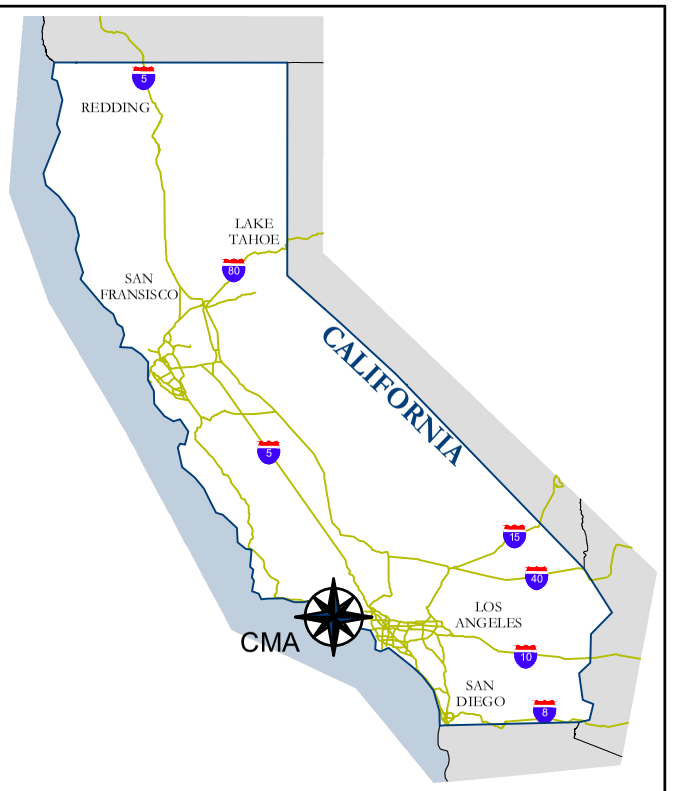
Surety shall fill in the Bond No., date identification and signature of surety in places provided.

Contractor shall sign and indicate title in place provided.

CONSTRUCTION PLANS FOR IMPROVEMENTS TO

COUNTY OF VENTURA DEPARTMENT OF AIRPORTS - CAMARILLO AIRPORT

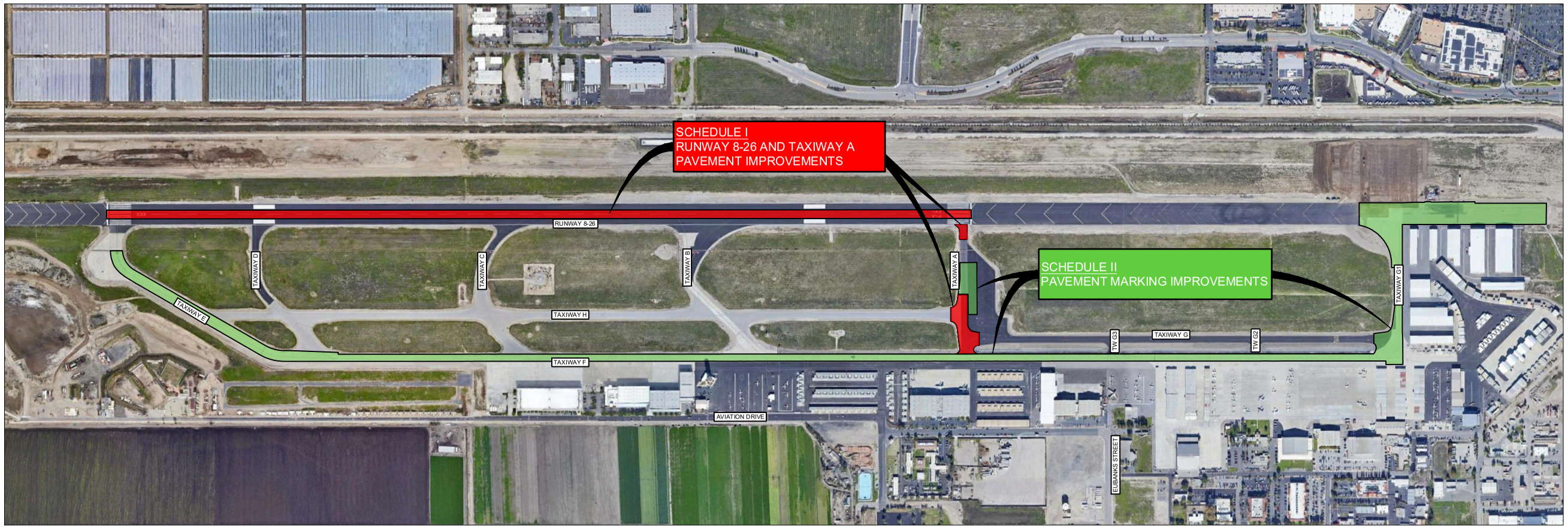
CAMARILLO, CALIFORNIA
SPECIFICATION NO. DOA 23-04
COUNTY OF VENTURA PROJECT NO. CMA-239
JVIATION PROJECT NO. LOC 21-01



GRAPHIC SCALE
400 0 400 800
(IN FEET)

• SCHEDULE I •
RUNWAY 8-26 AND TAXIWAY A PAVEMENT IMPROVEMENTS

• SCHEDULE II •
PAVEMENT MARKING IMPROVEMENTS



JVIATION®
A WOOLPERT COMPANY

1300 Eastman Ave.
Suite 214
Ventura, CA 93003

Phone: 303.524.3030

jviation.com

SPONSORED BY
• COUNTY OF VENTURA CALIFORNIA

PREPARED FOR:
COUNTY OF VENTURA DEPARTMENT OF AIRPORTS - CAMARILLO AIRPORT
555 AIRPORT WAY
CAMARILLO, CA 93010

ISSUED FOR 100% REVIEW

THESE DRAWINGS ARE FOR DESIGN REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES. THEY WERE PREPARED BY OR UNDER THE SUPERVISION OF:

JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY

JVIATION®
A WOOLPERT COMPANY

CAMARILLO AIRPORT
CAMARILLO,CA

COUNTY of VENTURA
Department of Airports

DES: A.G.G.
DR: A.G.G.
CH: C.L.G.
APP: J.D.I.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

RUNWAY 8-26 AND TAXIWAY A PAVEMENT IMPROVEMENTS

COVER SHEET

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME: G001
SHEET NO.: 1 of 61
DRAWING NO.: 1676-DOA

Plotted October 9, 2023 @ 2:57 PM by Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Reheb\CADD\LAN5000-CMA-LOC-21-01-G001-COVR.dwg

SHEET LIST TABLE

SHEET NO.	SHEET NAME	DRAWING NO.	SHEET DESCRIPTION
1	G001	**1676-DOA**	COVER SHEET
2	G002	**1677-DOA**	INDEX OF DRAWINGS & SUMMARY
3	G003A	**1678-DOA**	GENERAL NOTES
4	G003B	**1679-DOA**	GENERAL NOTES
5	G004	**1680-DOA**	MASTER LEGEND & ABBREVIATIONS
6	G005	**1681-DOA**	SURVEY CONTROL PLAN
7	G050	**1682-DOA**	CONSTRUCTION SAFETY AND OVERALL PHASING PLAN
8	G051	**1683-DOA**	CONSTRUCTION SAFETY NOTES & DETAILS
9	G052A	**1684-DOA**	CONSTRUCTION SAFETY AND PHASING PLAN SCHEDULE I, PHASE 1 (NIGHT)
10	G052B	**1685-DOA**	CONSTRUCTION SAFETY AND PHASING PLAN SCHEDULE I, PHASE 1 (DAY)
11	G053A	**1686-DOA**	CONSTRUCTION SAFETY AND PHASING PLAN SCHEDULE I, PHASE 2 (NIGHT)
12	G053B	**1687-DOA**	CONSTRUCTION SAFETY AND PHASING PLAN SCHEDULE I, PHASE 2 (DAY)
13	G054A	**1688-DOA**	CONSTRUCTION SAFETY AND PHASING PLAN SCHEDULE I, PHASE 3 (NIGHT)
14	G054B	**1689-DOA**	CONSTRUCTION SAFETY AND PHASING PLAN SCHEDULE I, PHASE 3 (DAY)
15	G055A	**1690-DOA**	CONSTRUCTION SAFETY AND PHASING PLAN SCHEDULE II, PHASE 4 (NIGHT)
16	G055B	**1691-DOA**	CONSTRUCTION SAFETY AND PHASING PLAN SCHEDULE II, PHASE 4 (DAY)
17	G056A	**1692-DOA**	CONSTRUCTION SAFETY AND PHASING PLAN SCHEDULE II, PHASE 5 (NIGHT)
18	G056B	**1693-DOA**	CONSTRUCTION SAFETY AND PHASING PLAN SCHEDULE II, PHASE 5 (DAY)
19	G057A	**1694-DOA**	CONSTRUCTION SAFETY AND PHASING PLAN SCHEDULE II, PHASE 6 (NIGHT)
20	G057B	**1695-DOA**	CONSTRUCTION SAFETY AND PHASING PLAN SCHEDULE II, PHASE 6 (DAY)
21	G058A	**1696-DOA**	CONSTRUCTION SAFETY AND PHASING PLAN SCHEDULE II, PHASE 7 (NIGHT)
22	G058B	**1697-DOA**	CONSTRUCTION SAFETY AND PHASING PLAN SCHEDULE II, PHASE 7 (DAY)
23	C100	**1698-DOA**	DEMOLITION PLAN STA. 8+00 TO STA. 21+00 RUNWAY 8/26
24	C101	**1699-DOA**	DEMOLITION PLAN STA. 21+00 TO STA. 34+00 RUNWAY 8/26
25	C102	**1700-DOA**	DEMOLITION PLAN STA. 34+00 TO STA. 47+00 RUNWAY 8/26
26	C103	**1701-DOA**	DEMOLITION PLAN STA. 47+00 TO STA. 60+00 RUNWAY 8/26
27	C104	**1702-DOA**	DEMOLITION PLAN STA. 60+00 TO STA. 73+00 RUNWAY 8/26
28	C105	**1703-DOA**	DEMOLITION PLAN STA. 8+00 TO STA. 21+00 RUNWAY 8/26
29	C106	**1704-DOA**	DEMOLITION PLAN STA. 21+00 TO STA. 34+00 RUNWAY 8/26
30	C107	**1705-DOA**	DEMOLITION PLAN STA. 34+00 TO STA. 47+00 RUNWAY 8/26
31	C108	**1706-DOA**	DEMOLITION PLAN STA. 47+00 TO STA. 60+00 RUNWAY 8/26
32	C109	1707-DOA	DEMOLITION PLAN STA. 60+00 TO STA. 73+00 RUNWAY 8/26
33	C110	1708-DOA	DEMOLITION PLAN STA. 73+00 TO STA. 86+00 RUNWAY 8/26
34	C111	1709-DOA	DEMOLITION PLAN STA. 86+00 TO STA. 99+00 RUNWAY 8/26
35	C112	1710-DOA	DEMOLITION PLAN STA. 99+00 TO STA. 112+00 RUNWAY 8/26
36	C113	1711-DOA	DEMOLITION PLAN STA. 99+00 TO STA. 112+00 RUNWAY 8/26
37	C200	1712-DOA	GEOMETRIC LAYOUT PLAN STA. 8+00 TO STA. 21+00 RUNWAY 8/26
38	C201	1713-DOA	GEOMETRIC LAYOUT PLAN STA. 21+00 TO STA. 34+00 RUNWAY 8/26
39	C202	1714-DOA	GEOMETRIC LAYOUT PLAN STA. 34+00 TO STA. 47+00 RUNWAY 8/26
40	C203	1715-DOA	GEOMETRIC LAYOUT PLAN STA. 47+00 TO STA. 60+00 RUNWAY 8/26
41	C204	1716-DOA	GEOMETRIC LAYOUT PLAN STA. 60+00 TO STA. 73+00 RUNWAY 8/26
42	C205	1717-DOA	GEOMETRIC LAYOUT PLAN STA. 60+00 TO STA. 73+00 RUNWAY 8/26
43	C220	1718-DOA	TYPICAL SECTIONS
44	C300	1719-DOA	PAVEMENT MARKING PLAN STA. 8+00 TO STA. 21+00 RUNWAY 8/26
45	C301	1720-DOA	PAVEMENT MARKING PLAN STA. 21+00 TO STA. 34+00 RUNWAY 8/26
46	C302	1721-DOA	PAVEMENT MARKING PLAN STA. 34+00 TO STA. 47+00 RUNWAY 8/26
47	C303	1722-DOA	PAVEMENT MARKING PLAN STA. 47+00 TO STA. 60+00 RUNWAY 8/26
48	C304	1723-DOA	PAVEMENT MARKING PLAN STA. 60+00 TO STA. 73+00 RUNWAY 8/26
49	C305	1724-DOA	PAVEMENT MARKING PLAN STA. 8+00 TO STA. 21+00 RUNWAY 8/26
50	C306	1725-DOA	PAVEMENT MARKING PLAN STA. 21+00 TO STA. 34+00 RUNWAY 8/26
51	C307	1726-DOA	PAVEMENT MARKING PLAN STA. 34+00 TO STA. 47+00 RUNWAY 8/26
52	C308	1727-DOA	PAVEMENT MARKING PLAN STA. 47+00 TO STA. 60+00 RUNWAY 8/26
53	C309	1728-DOA	PAVEMENT MARKING PLAN STA. 60+00 TO STA. 73+00 RUNWAY 8/26
54	C310	1729-DOA	PAVEMENT MARKING PLAN STA. 73+00 TO STA. 86+00 RUNWAY 78/26
55	C311	1730-DOA	PAVEMENT MARKING PLAN STA. 86+00 TO STA. 99+00 RUNWAY 8/26
56	C312	1731-DOA	PAVEMENT MARKING PLAN STA. 99+00 TO STA. 112+00 RUNWAY 8/26
57	C313	1732-DOA	PAVEMENT MARKING PLAN STA. 99+00 TO STA. 112+00 RUNWAY 8/26
58	C350	1733-DOA	PAVEMENT MARKING DETAILS
59	C351	1734-DOA	PAVEMENT MARKING DETAILS
60	C400	1735-DOA	EROSION CONTROL PLAN
61	C450	1736-DOA	EROSION CONTROL DETAILS

SUMMARY OF APPROXIMATE QUANTITIES

ITEM NO.	ITEM DESCRIPTION	UNITS	SCHEDULE I		SCHEDULE II	
			ESTIMATE	AS BUILT	ESTIMATE	AS BUILT
C-100a	Contractor Quality Control Program (CQCP)	LS	1		0	
C-105a	Mobilization (10% Maximum)	LS	1		1	
SP-102a	Compliance with Pollution, Erosion, and Siltation Control	LS	1		0	
P-101a	Demolish Asphalt Pavement	SY	5,700		0	
P-101b	Cold Mill (3.0 Inches Nominal Depth)	SY	6,000		0	
P-152a	Unclassified Excavation	CY	2,900		0	
26-1.04a	Crushed Aggregate Base Course (1-1/2 Inch Max, Class 2)	CY	3,100		0	
26-1.04b	Geogrid	SY	11,300		0	
39-3.05Da	Asphalt Surface Course (PG 64-10)	TON	3,500		0	
39-3.05Db	Tack Coat	GAL	2,300		0	
P-620a	Pavement Markings, Yellow, Initial Application	SF	1,500		6,100	
P-620b	Pavement Markings, Yellow, with Reflective Media, Final Application	SF	1,500		18,500	
P-620c	Pavement Markings, White, Initial Application	SF	11,000		0	
P-620d	Pavement Markings, White, with Reflective Media, Final Application	SF	18,000		0	
P-620e	Pavement Markings, Black, Single Application	SF	8,000		12,500	
P-620f	Surface Preparation (Obliteration)	SF	0		5,400	
CVSS DOA 9-4	Execution of Release on Contract	LS	1		0	

ISSUED FOR 100% REVIEW

THESE DRAWINGS ARE FOR DESIGN REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES. THEY WERE PREPARED BY OR UNDER THE SUPERVISION OF:

JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY

JVIATION®
A WOOLPERT COMPANY

CAMARILLO AIRPORT
CAMARILLO,CA

COUNTY of VENTURA
Department of Airports

DES: A.G.G.
DR: A.G.G.
CH: C.L.G.
APP: J.D.I.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

INDEX OF DRAWINGS & SUMMARY

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME: G002
SHEET NO.: 2 of 61
DRAWING NO.: 1677-DOA

Plotted October 9, 2023 @ 4:04 PM by Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Rehab\CAD\PLANS\000-CMA-LOC-21-01-G002-INDX.dwg

GENERAL NOTES

1. IF DURING THE CONSTRUCTION PROCESS, CONDITIONS ARE ENCOUNTERED WHICH COULD INDICATE A SITUATION THAT IS NOT IDENTIFIED IN THE PLANS OR SPECIFICATIONS, OR REPRESENT A SIGNIFICANT DIFFERENCE BETWEEN THE CONTRACT DOCUMENTS AND FIELD CONDITIONS, THE CONTRACTOR SHALL CONTACT THE ENGINEER IMMEDIATELY.

2. ALL REFERENCES TO ANY PUBLISHED STANDARDS SHALL REFER TO THE LATEST REVISION OF SAID STANDARD, UNLESS SPECIFICALLY STATED OTHERWISE.

3. PROJECT PAY ITEMS PROVIDED ARE TO BE INCLUSIVE OF ALL WORK TO BE PERFORMED AS SHOWN. ALL WORK NOT IDENTIFIED WITH A SPECIFIC PAY ITEM SHALL BE CONSIDERED REQUIRED WORK TO COMPLETE THE PROJECT AND IS TO BE INCIDENTAL TO THE COST OF PROJECT PAY ITEMS PROVIDED.

4. WHENEVER, IN THE CONTRACT DOCUMENTS, THE WORDS "PROVIDE", "FURNISH", "INSTALL", "FURNISH AND INSTALL", OR SIMILAR WORDS ARE USED, IT SHALL BE UNDERSTOOD THAT THE INTENT OF THE CONTRACT DOCUMENTS IS TO PROVIDE FOR THE CONSTRUCTION AND COMPLETION IN EVERY DETAIL THE WORK DESCRIBED. IT IS FURTHER INTENDED THAT THE CONTRACTOR SHALL FURNISH ALL LABOR, SUPERVISION, MATERIALS, EQUIPMENT, TOOLS, TRANSPORTATION, SUPPLIES, TESTING, AND INCIDENTALS REQUIRED TO COMPLETE THE WORK IN ACCORDANCE WITH THE DRAWINGS (PLANS), SPECIFICATIONS, AND TERMS OF THE CONTRACT.

5. CONTRACTOR SHALL KEEP A SET OF AS-BUILT DRAWINGS ON-SITE AND MAKE AVAILABLE TO THE ENGINEER AT ALL TIMES. AS-BUILT SET SHALL BE SUBMITTED TO THE ENGINEER AT THE COMPLETION OF THE JOB. CONTRACTOR SHALL BE RESPONSIBLE FOR RECORDING ALL AS-BUILT INFORMATION DURING THE PROJECT. THE CONTRACTOR SHALL NOTE, AND BRING TO THE ENGINEER'S ATTENTION, ANY DISCREPANCIES BETWEEN THE CONTRACT DOCUMENTS AND ACTUAL FIELD CONDITIONS.

6. ALL DAMAGE TO UTILITIES, PAVEMENT, EQUIPMENT, OR STRUCTURES FROM CONSTRUCTION ACTIVITIES SHALL BE IMMEDIATELY REPORTED TO THE RESIDENT ENGINEER. THE RESIDENT ENGINEER SHALL DETERMINE WHETHER REPAIR OR REPLACEMENT IS NECESSARY. ALL REPAIR METHODS SHALL BE SUBMITTED TO THE RESIDENT ENGINEER FOR REVIEW AND APPROVAL PRIOR TO INITIATING THE WORK. REPAIRS SHALL BE MADE AT NO ADDITIONAL COST TO THE SPONSOR AND TO THE APPROVAL OF THE ENGINEER.

7. THE CONTRACTOR SHALL PROVIDE WORKMANSHIP AND MATERIALS THAT ARE OF GOOD QUALITY AND COMPLY WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.

8. CONTRACTOR SHALL PROVIDE WORK, EQUIPMENT AND MATERIALS THAT COMPLY WITH FAA REQUIREMENTS, NATIONAL ELECTRICAL CODE, NATIONAL ELECTRICAL SAFETY CODE, AND ALL LOCAL CODES.

9. CONTRACTOR SHALL PROVIDE THE NECESSARY NUMBER OF RADIOS FOR HIS/HER WORKFORCE.

10. SWEEPER(S) SHALL BE AVAILABLE AT ALL TIMES TO CLEAN FOREIGN OBJECT DEBRIS (FOD) FROM HAUL ROUTE OR OTHER AREAS ADJACENT TO CONSTRUCTION ACTIVITY. CONTRACTOR SHALL CONSTANTLY MONITOR AIRCRAFT MOVEMENT AREAS FOR FOD AND IMMEDIATELY REMOVE ALL DEBRIS.

11. PRIOR TO OPENING OR CLOSING A RUNWAY OR TAXIWAY, THE CONTRACTOR MUST, THROUGH THE AIRPORT, GIVE NOTICE USING THE NOTICE TO AIRMAN (NOTAM) SYSTEM OF PROPOSED LOCATION, TIME AND DATE OF COMMENCEMENT OF CONSTRUCTION AND THE DURATION OF THE CLOSURE.

12. THIS PROJECT WILL GENERATE QUANTITIES OF ASPHALT MILLINGS. THE CONTRACTOR SHALL HAUL ALL GENERATED MILLINGS OFF-SITE IN ACCORDANCE WITH ITEM P-101. THE HAUL-OFF OF MILLINGS SHALL BE CONSIDERED INCIDENTAL TO ITEM P-101.

13. DESIGNS CONTAINED HEREIN ARE BASED ON SPECIFIED EQUIPMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY REDESIGN FOR EQUIPMENT SUBSTITUTIONS TO THE APPROVED SPECIFICATIONS AT NO ADDITIONAL COST TO THE SPONSOR. THE CONTRACTOR SHALL PROVIDE MATERIAL SUBMITTALS,SAMPLES AND DESIGN DRAWINGS FOR THE ENGINEER'S APPROVAL A MINIMUM OF SEVEN (7) DAYS PRIOR TO ORDERING.

14. THE AIRPORT RESERVES THE RIGHT TO LOAD, HAUL, AND STOCKPILE, WITH THEIR OWN EQUIPMENT, ANY AND/OR ALL ASPHALT MILLINGS GENERATED FROM DEMOLITION OPERATIONS.

15. ALL MATERIALS, WORKMANSHIP, AND CONSTRUCTION OF PUBLIC IMPROVEMENTS SHALL MEET OR EXCEED THE STANDARDS AND SPECIFICATIONS SET FORTH IN THE CALIFORNIA PUBLIC WORKS REGULATIONS, AND APPLICABLE STATE AND FEDERAL REGULATIONS. WHERE THERE IS CONFLICT BETWEEN THESE PLANS AND THE SPECIFICATIONS, OR ANY APPLICABLE STANDARDS, THE HIGHER QUALITY STANDARD SHALL APPLY. ALL WORK SHALL BE INSPECTED AND APPROVED BY THE RESIDENT ENGINEER.

16. DIMENSIONING FOR LAYOUTS AND CONSTRUCTION ARE NOT TO BE SCALED FROM ANY DRAWINGS. IF PERTINENT DIMENSIONS ARE NOT SHOWN, CONTACT THE ENGINEER FOR CLARIFICATION AND RECORD DIMENSIONS ON AS-BUILT DRAWINGS.

17. CONTRACTOR SHALL HAVE A COPY OF THE CURRENT FAA ADVISORY CIRCULAR AC 150/5340-1 (CURRENT VERSION) "STANDARDS FOR AIRPORT MARKINGS" ON SITE AT ALL TIMES. ANY DISCREPANCY BETWEEN INFORMATION SHOWN ON THE PLAN SHEETS AND THE ADVISORY CIRCULAR SHALL BE COORDINATED WITH THE ENGINEER FOR DIRECTION.

QUALITY CONTROL/QUALITY ASSURANCE

1. FOURTEEN (14) DAYS PRIOR TO THE BEGINNING OF WORK, THE CONTRACTOR SHALL SUBMIT A QUALITY CONTROL PLAN WHICH INCLUDES A WORK SCHEDULE AND PROPOSED CONSTRUCTION METHODS CONSISTENT WITH THE PHASING PLAN STATED IN THE DESIGN.

2. THE CONTRACTOR SHALL HAVE A MINIMUM OF ONE (1) CURRENT COPY OF THE APPROVED PLANS (INCLUDING ANY CHANGE ORDERS, SUPPLEMENTAL AGREEMENTS, FIELD DIRECTIVES, ETC.), ONE (1) CURRENT COPY OF THE APPROPRIATE STANDARDS AND SPECIFICATIONS, AND A COPY OF ANY PERMITS AND EXTENSION AGREEMENTS NEEDED FOR THE JOB, ON SITE AT ALL TIMES.

PERMITTING

1. PRELIMINARY PERMITTING INFORMATION WILL BE SUBMITTED BY THE ENGINEER PRIOR TO AWARD OF CONTRACT. SPECIFIC ITEMS THAT WILL NEED TO BE COMPLETED BY THE CONTRACTOR INCLUDE BUT ARE NOT LIMITED TO SUPPLYING NECESSARY BONDING, PAYMENT OF ALL FEES, REVIEW OF ALL CALCULATIONS AND ASSUMPTIONS MADE BY THE ENGINEER PRIOR TO AWARD. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS INCLUDING, BUT NOT LIMITED TO, AN FAA 7460-1 NOTICE OF PROPOSED CONSTRUCTION OR ALTERATION, A NPDES STORMWATER PERMIT, AND A FUGITIVE DUST PERMIT. THE CONTRACTOR SHALL BE RESPONSIBLE TO PAY FOR THE COST TO OBTAIN ALL PERMITS.

2. THE CONTRACTOR SHALL SUBMIT A COPY OF ALL PERMITS REQUIRED FOR THE PROJECT TO THE ENGINEER, FOR HIS REVIEW.

SITE ACCESS AND STAGING

1. THE CONTRACTOR IS REQUIRED TO OBTAIN A WATER METER FROM THE CITY OF CAMARILLO WATER DIVISION FOR ACCESS TO CONSTRUCTION WATER FROM AN ON AIRPORT LOCATION. THE CONTACT PHONE NUMBER IS 805-388-5373. A WATER SOURCE ON AIRPORT PROPERTY AND THE PRICE OF WATER WILL BE COORDINATED AT THE TIME OF BIDDING.

2. DURING CONSTRUCTION, THE CONTRACTOR SHALL MINIMIZE DISTURBANCES TO ALL CONSTRUCTION AREAS AND ACCESS ROUTES. THIS INCLUDES EQUIPMENT AND VEHICULAR RUTS CREATED IN ANY PAVEMENTS, ANY HAUL/ACCESS ROADS, OR ANY INFIELD/SAFETY AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING FACILITIES OR ROADS. REPAIRS SHALL BE MADE AT NO ADDITIONAL COST TO THE SPONSOR AND TO THE SATISFACTION OF THE ENGINEER. HAUL ROUTE BRIDGES SHALL BE CONSTRUCTED AT HAUL ROUTES CROSSING EXISTING AIRFIELD ACCESS GATES. COSTS ASSOCIATED WITH HAUL BRIDGE CONSTRUCTION WILL BE CONSIDERED INCIDENTAL TO MOBILIZATION.

3. BEFORE ESTABLISHING SITE ACCESS AND HAUL ROUTES, THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ENGINEER. WHEN POSSIBLE, ACCESS/HAUL ROUTES SHALL UTILIZE EXISTING ROADS. THE CONTRACTOR SHALL MAINTAIN AIRPORT SECURITY AT ALL TIMES.

4. CONTRACTOR SHALL EXAMINE THE EXISTING PAVEMENTS THAT WILL BE USED FOR HAULING OF MATERIAL AND EQUIPMENT, AND DETERMINE THE PAVEMENTS ABILITY TO WITHSTAND CONTRACTOR OPERATIONS WITHOUT CAUSING DAMAGE TO THE PAVEMENT. ANY DAMAGE CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR TO THE APPROVAL OF THE ENGINEER AND AT NO ADDITIONAL COST TO THE SPONSOR.

5. CONTRACTOR SHALL BE REQUIRED TO PROVIDE NON-POTABLE WATER FOR CONSTRUCTION PURPOSES. CONTRACTOR SHALL BE RESPONSIBLE FOR STORAGE OF NON-POTABLE WATER. ANY STRUCTURES ERECTED IN SUPPORT OF WATERING OPERATIONS SHALL MEET FAA FAR PART 77 CLEARANCES FOR ALL AIRCRAFT AND BE APPROPRIATELY LIT AS A HAZARD TO THE FLYING PUBLIC. NON-POTABLE WATER USED FOR P-152 OR DUST CONTROL SHALL BE INCIDENTAL TO THE PROJECT BID ITEMS.

6. DURING ANY NIGHTTIME OPERATIONS ALL AREA LIGHTING SHALL FACE IN DIRECTIONS AS DIRECTED BY THE ENGINEER. AT NO TIME SHALL LIGHT PLANTS BE LEFT RUNNING WHEN CONSTRUCTION OPERATIONS ARE NOT IN PROCESS.

7. ALL AREAS THAT ARE DISTURBED BY CONTRACTOR OPERATIONS, SHALL BE SEEDED PER THE EXISTING SEEDING AND EROSION CONTROL. ALL SEEDING AND EROSION CONTROL COSTS ARE INCIDENTAL TO CONSTRUCTION AND WILL NOT BE PAID SEPARATELY.

8. ALL CONTRACTOR EMPLOYEES SHALL BE REQUIRED TO PARK IN THE CONTRACTORS DESIGNATED STAGING AREA ONLY AND SHALL BE DRIVEN TO THE PROJECT SITE BY DESIGNATED CONSTRUCTION VEHICLES.

9. CRAWLER TRACKED VEHICLES SHALL NOT BE ALLOWED ON PAVED SURFACES. TRACKED VEHICLES MUST BE MOVED ACROSS PAVED SURFACES ON A WHEELED VEHICLE.

10. WHENEVER CONSTRUCTION TRAFFIC IS REQUIRED TO CROSS AN ACTIVE RUNWAY, TAXIWAY, TAXILANE, OR INTERRUPT NORMAL TRAFFIC FLOW ON APRONS OR RAMPS, THE CONTRACTOR SHALL PROVIDE FLAGGERS AT THE CROSSING(S) AS REQUIRED BY THE CONSTRUCTION PHASING DRAWINGS OR AS DIRECTED BY THE ENGINEER OR THE AIRPORT (INCIDENTAL TO ITEM C-105).

UTILITIES

1. PRIOR TO COMMENCING WORK, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE APPROPRIATE UTILITY AGENCIES, UTILITY NOTIFICATION CENTERS, AND TO FIELD VERIFY THE LOCATIONS AND DEPTHS, THROUGH UTILITY LOCATES AND POTHOLES, OF ALL EXISTING UTILITIES WITHIN THE PROJECT LIMITS, STAGING, AND HAUL ROUTE AREAS.

2. THE EXISTING UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND SHALL NOT BE SCALED FOR EXACT LOCATION. LOCATION OF EXISTING DUCT BANK, CIRCUITING, UTILITIES AND STRUCTURES SHOWN ON THESE DRAWINGS IS BASED ON AVAILABLE INFORMATION AND IS NOT WARRANTED TO BE EXACT, NOR IS IT WARRANTED THAT ALL OF THESE ITEMS ARE SHOWN.

3. CONTRACTOR SHALL CONTACT AND COORDINATE WITH THE APPROPRIATE UTILITY AGENCIES WHEN WORKING ON OR WITHIN THE PROXIMITY OF AN AGENCIES UTILITY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES THAT CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS.

4. ANY INTERRUPTION OF AN EXISTING SYSTEM OR UTILITY SERVICE SHALL BE COORDINATED AND APPROVED BY THE AIRPORT AND THE AUTHORITY, AGENCY, OR UTILITY HAVING JURISDICTION, PRIOR TO STARTING WORK INCLUDING CONTACTING THE AIRPORT AND FAA.

5. CONTRACTOR IS RESPONSIBLE FOR DAMAGES TO EXISTING UTILITIES. REPAIRS DEEMED NECESSARY BY THE ENGINEER WILL BE COMPLETED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE SPONSOR. SEE SECTION SP-100-1.24 "UNDERGROUND UTILITY INVESTIGATION AND POTHOLING" OF THE CONTRACT DOCUMENTS AND THE "CONSTRUCTION STAKING AND LAYOUT" NOTES CONTAINED IN THESE GENERAL NOTES SHEETS FOR ADDITIONAL NOTES REGARDING UTILITY LOCATES.

6. THE CONTRACTOR SHALL COORDINATE AND COOPERATE WITH THE CITY, COUNTY, AND ALL UTILITY COMPANIES INVOLVED, WITH REGARD TO RELOCATIONS OR ADJUSTMENTS OF EXISTING UTILITIES DURING CONSTRUCTION, AND TO ASSURE THAT THE WORK IS ACCOMPLISHED IN A TIMELY FASHION AND WITH A MINIMUM DISRUPTION OF SERVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL PARTIES AFFECTED BY ANY DISRUPTION OF ANY SERVICE.

7. WHERE NEW DUCT BANKS OR OTHER UTILITIES ARE NEAR EXISTING UTILITIES, THE CONTRACTOR SHALL HAND EXCAVATE AROUND THE EXISTING UTILITIES IN ORDER T0 PREVENT DAMAGE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMMEDIATELY REPAIRING ANY UTILITY DAMAGED DURING CONSTRUCTION.

8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING CONSTRUCTION. THE CONTRACTOR MAY UTILIZE THE FOLLOWING TOLL FREE TELEPHONE NUMBER PROVIDED BY UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA: 811.

SUBMITTALS

1. THE CONTRACTOR SHALL SUBMIT A DETAILED LISTING OF ALL SUBMITTALS (E.G., MIX DESIGNS, MATERIAL CERTIFICATION, AND PRODUCT INFORMATION) AND SHOP DRAWINGS REQUIRED BY THE TECHNICAL SPECIFICATIONS.

2. THE CONTRACTOR SHALL REVIEW THE CONTRACT DOCUMENTS SECTION 100-05 FOR SUBMITTAL SCHEDULE REQUIREMENTS.

3. THE CONTRACTOR SHALL PROVIDE MATERIAL SUBMITTALS FOR THE ENGINEER'S APPROVAL AT LEAST SEVEN (7) DAYS PRIOR TO ORDERING.

TRAFFIC CONTROL

1. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING AND PROVIDING ALL REQUIRED TRAFFIC CONTROL FOR THE PROJECT'S ACCESS LOCATIONS, INCLUDING ANY REQUIREMENTS OF CALIFORNIA DEPARTMENT OF TRANSPORTATION OR COUNTY OF VENTURA. ALL ASSOCIATED COSTS ARE INCIDENTAL TO CONSTRUCTION AND WILL NOT BE PAID SEPARATELY.

2. THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN IN ACCORDANCE WITH LOCAL JURISDICTIONAL REQUIREMENTS FOR APPROVAL PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING ANY AND ALL TRAFFIC CONTROL DEVICES.

MATERIAL SUPPLY AND DISPOSAL

1. ALL MATERIALS MUST BE OBTAINED FROM AN UNDESIGNATED SOURCE UNLESS OTHERWISE IDENTIFIED IN THE PLANS OR SPECIFICATIONS.

2. ALL WASTE MATERIALS SHALL BE REMOVED FROM THE AIRPORT PROPERTY AT NO COST TO THE SPONSOR UNLESS OTHERWISE DIRECTED BY THE SPONSOR.

WORKING NEAR STRUCTURES

1. THE STRUCTURES SHOWN OR DEFINED IN THE CONTRACT DOCUMENTS AND PLANS HAS BEEN DESIGNED ONLY FOR LOADS ANTICIPATED ON THE STRUCTURE DURING ITS SERVICE LIFE. CONTRACTOR SHALL PROVIDE ALL REQUIRED ENGINEERING AND OTHER MEASURES TO ACHIEVE THE MEANS, METHODS, AND SEQUENCES OF WORK. REQUIRED ENGINEERING MAY INCLUDE, BUT IS NOT LIMITED TO:

- LAYOUT
- DESIGN FOR FORMWORK, SHORING, AND RESHORING
- DESIGN OF CONCRETE MIXES
- ERECTION PROCEDURES WHICH ADDRESS STABILITY OF THE FRAME DURING CONSTRUCTION
- WELD PROCEDURES
- DESIGN OF TEMPORARY BRACING OF WALLS FOR WIND, SEISMIC, OR SOIL LOADS
- SURVEYING TO VERIFY CONSTRUCTION TOLERANCES
- EVALUATION OF TEMPORARY CONSTRUCTION LOADS ON STRUCTURE DUE TO EQUIPMENT AND MATERIALS
- STRUCTURAL ENGINEERING TO RESIST ANY OTHER LOADS NOT IDENTIFIED ON DESIGN DRAWINGS.

ISSUED FOR 100% REVIEW

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JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY

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CAMARILLO AIRPORT
CAMARILLO,CA

COUNTY of VENTURA
Department of Airports

DES: A.G.G.
DR: A.G.G.
CH: C.L.G.
APP: J.D.I.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

GENERAL NOTES

SHEET NAME: G003A
SHEET NO.: 3 of 61
DRAWING NO.: 1678-DOA

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

Plotted October 9, 2023 @ 2:57 PM by Vec Potrick
L:\CMA\LOC 21-01 RW and TW A Rehab\CAD\PLANS\000-CMA-LOC-21-01-G003-GENR.dwg

SAFETY

1. DURING CONSTRUCTION, THE CONTRACTOR SHALL COMPLY WITH FAA ADVISORY CIRCULAR (AC) 150/5370-2 (CURRENT VERSION), "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION".

2. THE CONTRACTOR SHALL REVIEW THE CONSTRUCTION SAFETY AND PHASING PLAN (CSPP) CONTAINED IN THE CONTRACT DOCUMENTS, AND PREPARE FOR APPROVAL BY THE ENGINEER, A SAFETY PLAN COMPLIANCE DOCUMENT (SPCD) PRIOR TO NOTICE TO PROCEED, AS REQUIRED PER ADVISORY CIRCULAR (AC) 150/5370-2 (CURRENT VERSION), "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION".

3. THE CONTRACTOR SHALL PROCURE THREE LIGHTED RUNWAY CLOSURE MARKERS (RCM). RCM'S ARE PORTABLE, TRAILER MOUNTED, DIESEL GENERATOR POWERED UNITS, CAPABLE OF PRODUCING A LIGHTED, FLASHING CROSS. THE RCM'S SHALL BE CERTIFIED TO MEET THE REQUIREMENTS OF FAA SPECIFICATION L-893. THE CONTRACTOR SHALL PLACE THE MARKERS OVER THE RUNWAY 8/26 DESIGNATION NUMBER AT ALL TIMES WHEN RUNWAY IS CLOSED TO AIR TRAFFIC. THE CONTRACTOR SHALL MAKE SURE THE RCM'S ARE PROPERLY ANCHORED, SO THEY CANNOT MOVE IN HEAVY WINDS. THE CONTRACTOR SHALL FURNISH ALL DIESEL FUELS, OIL CHANGES, FILTERS, LAMPS, MAINTENANCE AND REPAIRS ENCOUNTERED DURING THE PROJECT. SEE RUNWAY CLOSURE MARKING (RCM) NOTES ON SHEET G050 FOR ADDITIONAL INFORMATION. RCM'S SHALL BE TRANSFERRED AND STORED ON AN IMPROVED SURFACE. ALL COSTS ASSOCIATED WITH PROCURING, DELIVERY, USE, OPERATION, AND MAINTENANCE OF RCM'S SHALL BE INCIDENTAL TO ITEM C-105.

4. ALL VEHICLES AND EQUIPMENT WORKING ON THE SITE SHALL BE EQUIPPED WITH STANDARD FAA MARKINGS PER FAA ADVISORY CIRCULAR 150/5210-5 (CURRENT VERSION) OR BE ESCORTED BY A PROPERLY MARKED VEHICLE. ANY VEHICLE OR EQUIPMENT OPERATING WITHIN THE AIRPORT'S PERIMETER FENCE NOT PROPERLY MARKED OR ESCORTED MAY NOT OPERATE ON THE SITE AND MUST BE REMOVED IMMEDIATELY. ANY DELAY OR COST TO CONTRACTOR OPERATIONS FROM UNMARKED OR UNESCORTED VEHICLES OR EQUIPMENT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. STANDARD FAA VEHICLE FLAGS (3 FOOT BY 3 FOOT ORANGE AND WHITE) MAY BE USED DURING DAYTIME HOURS. FLASHING BEACONS MAY BE USED AT ANY TIME. BACKUP ALARMS ARE REQUIRED AND SHALL BE PROXIMITY BASED AND ADJUSTED FROM SURROUNDING NOISE LEVELS. SEE THE CONSTRUCTION SAFETY AND PHASING PLAN (CSPP) FOR MORE DETAILS.

5. CONTRACTOR SHALL MAINTAIN AIRPORT PERIMETER SECURITY FOR THE DURATION OF THE PROJECT. ANY REVISIONS TO FENCE ALIGNMENT SHALL BE COORDINATED WITH ENGINEER FOR APPROVAL AT LEAST ONE WEEK PRIOR TO CONSTRUCTION. ALL COSTS SHALL BE INCIDENTAL TO PROJECT BID ITEMS.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ASPECTS OF SAFETY INCLUDING, BUT NOT LIMITED TO, EXCAVATION, TRENCHING, SHORING, TRAFFIC CONTROL, AND SECURITY.

7. CONTRACTOR SHALL MAINTAIN EMERGENCY ACCESS THROUGH PROJECT SITE AT ALL TIMES. ALL ROADWAYS (TEMPORARY OR PERMANENT) SHALL BE MAINTAINED BY CONTRACTOR.

EROSION CONTROL

1. THE CONTRACTOR SHALL COMPLY WITH ALL TERMS AND CONDITIONS OF THE CALIFORNIA PERMIT FOR STORM WATER DISCHARGE, THE STORM WATER MANAGEMENT PLAN, THE EROSION CONTROL PLAN, AND ALL REQUIREMENTS OF THE LOCAL DRAINAGE AUTHORITY.

2. ALL STRUCTURAL EROSION CONTROL MEASURES SHALL BE INSTALLED, AT THE LIMITS OF CONSTRUCTION, PRIOR TO ANY OTHER GROUND-DISTURBING ACTIVITY. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED IN GOOD REPAIR BY THE CONTRACTOR, UNTIL SUCH TIME AS THE ENTIRE DISTURBED AREA IS STABILIZED WITH HARD SURFACE OR LANDSCAPING.

3. CONTRACTOR SHALL MAINTAIN POSITIVE DUST CONTROL DURING THE ENTIRE PROJECT DURATION. THE METHOD OF DUST CONTROL EMPLOYED DURING ALL PHASES SHALL BE SUBMITTED FOR APPROVAL BY THE ENGINEER. DUST CONTROL SHALL BE EMPLOYED DURING ANY PROJECT SHUTDOWN PERIODS, WINTER OR OTHERWISE. PAYMENT FOR THIS WORK SHALL BE INCIDENTAL TO THE VARIOUS ITEMS OF WORK, AND NO SEPARATE PAYMENT WILL BE MADE.

4. ANY EROSION CONTROL FACILITY DAMAGED OR DESTROYED PREMATURELY, BY ANY MEANS, SHALL BE IMMEDIATELY REPAIRED BY THE CONTRACTOR.

5. A WATER TRUCK SHALL BE KEPT ON SITE AT ALL TIMES DURING EARTHWORK ACTIVITIES FOR DUST ABATEMENT.

6. FIELD CONDITIONS MAY WARRANT MORE, LESS OR DIFFERENT BMP INSTALLATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DEVELOP A STORMWATER AND EROSION CONTROL PLAN THAT MEETS ALL LOCAL, STATE, AND FEDERAL REQUIREMENTS ASSOCIATED WITH THE STORMWATER PERMIT.

7. SILT AND SEDIMENT SHALL BE REMOVED AFTER EACH SUBSTANTIAL RAINFALL.

8. NEGATIVE IMPACTS TO DOWNSTREAM AREAS CAUSED BY GRADING ARE TO BE MONITORED AND CORRECTED BY THE CONTRACTOR. ANY OFF-SITE CLEAN-UP, DIRECTED BY THE PUBLIC WORKS INSPECTOR, (INCLUDING STREET CLEANING), SHALL BE COMPLETED WITHIN 24-HOURS OF WRITTEN INSTRUCTION, OR RISK CONSTRUCTION STOPPAGE.

9. TEMPORARY EROSION CONTROL MEASURES SHALL NOT BE REMOVED UNTIL SUCH TIME AS ALL TRIBUTARY-DISTURBED AREAS ARE SUFFICIENTLY STABILIZED IN THE OPINION OF THE PUBLIC WORKS INSPECTOR OR RESIDENT ENGINEER, TO MINIMIZE EROSION POTENTIAL.

10. WHEN TEMPORARY EROSION CONTROL MEASURES ARE REMOVED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEAN-UP AND REMOVAL OF ALL SEDIMENT AND DEBRIS FROM ALL DRAINAGE AND OTHER PUBLIC FACILITIES.

11. ALL AREAS FOR SEEDING SHALL BE TILLED TO BREAK UP ROOTING RESTRICTIVE LAYERS, HAVE A MINIMUM OF 4" OF TOPSOIL REAPPLIED, AND THEN BE HARROWED, AND ROLLED OR PACKED, TO PREPARE THE REQUIRED FIRM SEED BED.

QUANTITIES

1. ALL STATED QUANTITIES ARE CONSIDERED APPROXIMATE. ACTUAL QUANTITIES WILL BE DETERMINED BY THE ENGINEER FROM WORK IN-PLACE.

2. ACTUAL RATES OF APPLICATION WILL BE DETERMINED BY THE ENGINEER.

3. THE PROJECT PAY ITEMS PROVIDED ARE TO BE INCLUSIVE OF ALL WORK TO BE PERFORMED AS SHOWN IN THE CONTRACT DOCUMENTS. ALL WORK NOT IDENTIFIED WITH A SPECIFIC PAY ITEM IS TO BE CONSIDERED REQUIRED WORK TO COMPLETE THE PROJECT, AND IS TO BE INCIDENTAL TO THE COST OF PROJECT PAY ITEMS PROVIDED.

4. ALL PAVEMENT REMOVAL SHALL BE MEASURED AND PAID TO NEAT LINE DIMENSIONS.

5. IF THE CONTRACTOR CHOOSES TO OVERBUILD PAVEMENT LAYERS BEYOND THE DIMENSIONS SHOWN ON THE PLANS FOR CONSTRUCTABILITY, NO PAYMENT WILL BE MADE FOR THIS ADDITIONAL MATERIAL.

6. THE FOLLOWING RATES WERE USED TO CALCULATE ESTIMATED QUANTITIES:

   6.1. BITUMINOUS PAVEMENT COURSE AT THE RATE OF 150 LBS PER CUBIC FOOT.

   6.2. ASPHALT ROTOMILLING IS BASED ON SQUARE YARD REGARDLESS OF ASPHALT DEPTH.

   6.3. BITUMINOUS TACK COAT AT THE RATE OF 0.10 GAL. PER SQUARE YARD PER LIFT.

SURVEY

1. TWO WEEKS PRIOR TO START OF CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A PRE-CONSTRUCTION SURVEY VERIFYING EXISTING ELEVATIONS OF ALL PAVEMENT AREAS AND OTHER CRITICAL AREAS DETERMINED BY THE ENGINEER. THE SURVEY SHALL BE PERFORMED USING SPECIFIED PROJECT CONTROL AND SHALL PROVIDE SUFFICIENT SHOTS TO ACCURATELY REPRESENT THE EXISTING SURFACE. SURVEY SHALL BE PROVIDED TO THE ENGINEER IN ELECTRONIC FORMAT THAT IS ACCEPTABLE TO THE ENGINEER. THIS SURVEY WILL BE USED TO DETERMINE IF ANY MODIFICATIONS TO DESIGN GRADES ARE REQUIRED. THIS SURVEY WILL BE INCIDENTAL TO C-105. PRE-CONSTRUCTION SURVEY SHALL BE PERFORMED BY A STATE LICENSED LAND SURVEYOR. SEE SECTION SP 100-1.6 "LINES, GRADES, AND SURVERY CONTROL" OF THE CONTRACT DOCUMENTS AND THE "CONSTRUCTION STAKING AND LAYOUT" NOTES CONTAINED IN THESE GENERAL NOTES SHEETS FOR ADDITIONAL SURVEY INFORMATION.

2. BEFORE AND DURING THE PROJECT, ANY DISCREPANCIES IN EXISTING CONDITIONS DISCOVERED BY THE CONTRACTOR SHALL BE IMMEDIATELY IDENTIFIED TO THE ENGINEER.

3. ALL SURVEY PROVIDED TO THE ENGINEER FOR PRE-CONSTRUCTION SURVEYS AND VERIFICATION SURVEYS SHALL BE PROVIDED ELECTRONICALLY AND SHALL INCLUDE POINT NUMBERS, NORTHING, EASTINGS, ELEVATIONS, AND DESCRIPTIONS (PNEZD, COMMA DELINEATED FORMAT).

4. DAILY FIELD SURVEY NOTES SHALL BE GIVEN TO THE ENGINEER SO THAT PERIODIC CHECKS FOR CONFORMANCE WITH PLAN GRADES, ALIGNMENTS, AND GRADE TOLERANCES CAN BE REVIEWED.

5. ALL REQUIRED SURVEY WILL BE INCIDENTAL TO OTHER BID ITEMS.

6. THE HORIZONTAL AND VERTICAL COORDINATES ARE BASED ON THE HORIZONTAL DATUM NAD 83 AND VERTICAL DATUM NAV 88.

CONSTRUCTION STAKING AND LAYOUT

1. BASE COURSE BLUE TOPS AT 50-FOOT STATIONS WITH A 50-FOOT OFFSET DISTANCE (MAXIMUM) AND AT THE EDGE OF PAVEMENT.

2. PAVEMENT AREAS:

   2.1. EDGE OF PAVEMENT HUBS AND TACKS (FOR STRINGLINE BY CONTRACTOR) AT 100-FOOT STATIONS

   2.2. BETWEEN LIFTS AT 25-FOOT STATIONS FOR RUNWAYS (EACH PAVING LANE WIDTH), TAXIWAYS (EACH PAVING LANE WIDTH), AND HOLDING AREAS (EACH PAVING LANE WIDTH)

   2.3. AFTER FINISH PAVING OPERATIONS AT 50-FOOT STATIONS (FOR GRADE ACCEPTANCE VERIFICATION) AT ALL PAVED AREAS AT THE EDGE OF EACH PAVING LANE AND ALL GRADE BREAKS PRIOR TO NEXT PAVING LOT

   2.4. SHOULDER AND SAFETY AREA BLUE TOPS AT 50-FOOT STATIONS AND AT ALL BREAK POINTS WITH MAXIMUM OF 50-FOOT OFFSETS

3. REQUIRED VERIFICATION/AS-BUILT SURVEY SHALL BE PROVIDED ELECTRONICALLY IN AN ENGINEER APPROVED FORMAT AND SHALL INCLUDE POINT NUMBER, NORTHING, EASTING, ELEVATION, AND DESCRIPTION (PNEZD, COMMA DELIMITED FORMAT).

4. THE CONTRACTOR SHALL PROVIDE VERIFICATION SURVEY TO THE ENGINEER FOR ALL LOCATIONS WHERE PROPOSED CONSTRUCTION WILL TIE INTO ANY EXISTING STRUCTURES AND PAVEMENTS. THIS SURVEY SHALL BE USED FOR VERIFICATION OF EXISTING CONDITIONS AND SHALL BE SUBMITTED PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES IN THE AREAS OF THE EXISTING INFRASTRUCTURE. THIS SURVEY SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION OPERATIONS AND SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE SPONSOR. WORK IN THESE AREAS SHALL NOT BE ALLOWED TO COMMENCE UNTIL THIS SURVEY VERIFICATION HAS BEEN SUPPLIED BY THE CONTRACTOR TO THE ENGINEER AND THE ENGINEER HAS PROVIDED ACCEPTANCE, BASED ON A TIMELY REVIEW OF THE VERIFICATION SURVEY.

5. IN ADDITION TO ALL REQUIRED UTILITY LOCATES, THE CONTRACTOR SHALL BE REQUIRED TO VERIFY THE ELEVATIONS OF ALL UTILITY CROSSINGS BEFORE COMMENCING CONSTRUCTION OPERATIONS. FOR EXAMPLE, BEFORE THE CONTRACTOR BEGINS WORK ON A PROPOSED STORM DRAIN, THE ELEVATION, BOTH TOP AND BOTTOM, OF ALL UTILITIES THAT CROSS THE PROPOSED PIPE SHALL BE VERIFIED AND PROVIDED TO THE ENGINEER. THIS VERIFICATION SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION OPERATIONS AND SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE SPONSOR. WORK IN THESE AREAS SHALL NOT BE ALLOWED TO COMMENCE UNTIL THESE UTILITY VERIFICATIONS HAVE BEEN SUPPLIED BY THE CONTRACTOR TO THE ENGINEER AND THE ENGINEER HAS PROVIDED ACCEPTANCE, BASED ON A TIMELY REVIEW OF THE VERIFICATION SURVEY.

6. AREAS WHERE EXCAVATIONS OR EMBANKMENTS ARE TO BE CONSTRUCTED, THE CONTRACTOR SHALL PROVIDE VERIFICATION SURVEY OF THE INITIAL AND FINAL CONDITIONS FOR USE IN THE DETERMINATION OF FINAL EARTHWORK QUANTITIES FOR PAYMENT. THE CONTRACTOR SHALL FURNISH THE INITIAL SURVEY BEFORE CONSTRUCTION OPERATIONS COMMENCE AND THE FINAL SURVEY AFTER CONSTRUCTION OPERATIONS HAVE CONCLUDED TO THE ENGINEER FOR QUANTITY DETERMINATION. IN PAVEMENT AREAS, THE FINAL SURFACE SHALL BE THE TOP OF APPROVED SUBGRADE. SURVEYS SHALL PROVIDE SUFFICIENT SHOTS TO ACCURATELY REPRESENT BOTH INITIAL AND FINAL SURFACES. IF ENGINEER DETERMINES THAT THE SUBMITTED SURVEY IS DEFICIENT IN ACCURATELY DETAILING SURVEYED SURFACES, THE CONTRACTOR SHALL PERFORM ADDITIONAL SURVEY TO THE SATISFACTION OF THE ENGINEER. ALL SURVEY SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION OPERATIONS AND SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE SPONSOR. SHOULD THE CONTRACTOR FAIL TO PROVIDE THESE INITIAL AND FINAL SURVEYS TO THE ENGINEER, THE EXISTING AND PROPOSED DESIGN SURFACES THAT ARE SHOWN IN THE PLANS SHALL BE USED FOR QUANTITY DETERMINATION.

7. ADDITIONAL STAKES OR MARKINGS SHALL BE REQUIRED AT AN INTERVAL TO CLEARLY DEFINE GRADES FOR SUB-GRADE AND ALL MATERIAL LIFTS REQUIRED FOR THE PAVEMENT STRUCTURE INCLUDING ALL SUBBASES, BASES, AND PAVEMENTS. ADDITIONAL STAKING AND CONTROLS SHALL BE PLACED AS NEEDED FOR CONSTRUCTION TO MEET THE DESIGN AS REQUIRED BY THE SPECIFICATIONS OR SHOWN ON THE DRAWINGS. IN ADDITION TO LOCATIONS STATED ABOVE, STAKING FOR LAYOUT AND SURVEY FOR GRADE VERIFICATIONS SHALL BE PROVIDED AT LOCATIONS OF ALL SPOT ELEVATIONS WHEN PROVIDED FOR IN THE PLANS.

8. ON ALL PAVEMENT LIFTS AND MILLED SURFACES, CONTRACTOR SHALL SPRAY PAINT ON THE PAVEMENT SURFACES FILL DEPTHS TO FINAL SURFACE GRADES SO THE ENGINEER CAN VISUALLY VERIFY PAVEMENT GRADES AND THICKNESSES. FILL LOCATIONS SHALL MATCH ALL SPOT ELEVATIONS AND STAKING AND LAYOUT LOCATIONS DISCUSSED IN THIS SECTION.

9. THE ESTABLISHMENT OF SURVEY CONTROL AND/OR REESTABLISHMENT OF SURVEY CONTROL SHALL BE BY A STATE LICENSED LAND SURVEYOR.

10. CONTROLS AND STAKES DISTURBED OR SUSPECT OF HAVING BEEN DISTURBED SHALL BE CHECKED AND/OR RESET AS DIRECTED BY THE ENGINEER WITHOUT ADDITIONAL COST TO THE OWNER.

ISSUED FOR 100% REVIEW

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JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY

JVIATION®
A WOOLPERT COMPANY

CAMARILLO AIRPORT
CAMARILLO,CA

COUNTY of VENTURA
Department of Airports

DES: A.G.G.
DR: A.G.G.
CH: C.L.G.
APP: J.D.I.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

GENERAL NOTES

SHEET NAME: G003B
SHEET NO.: 4 of 61
DRAWING NO.: 1679-DOA

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

Plotted October 9, 2023 @ 2:57 PM by Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Rehab\CAD\PLANS\000-CMA-LOC-21-01-G003-GENR.dwg

MASTER LEGEND

SITE

- EXISTING PAVEMENT
- EXISTING CENTERLINE
- 6590 EXISTING MAJOR CONTOUR
- 6589 EXISTING MINOR CONTOUR
- EXISTING SWALE FLOW LINE
- EXISTING FENCE
- EXISTING FENCE (BARBED WIRE)
- EXISTING FENCE (SPLIT RAIL)
- EXISTING GUARD RAIL
- EXISTING PROPERTY LINE
- ROW EXISTING RIGHT-OF-WAY LINE
- EXISTING EASEMENT LINE
- EXISTING LEASE LINE
- XXXXXX REMOVE ITEM
- ABANDON ITEM
- EXISTING ASPHALT PAVEMENT
- EXISTING BUILDING
- EXISTING WETLAND AREA
- EXISTING PAINT MARKING
- EXISTING WAY FINDING SIGN
- EXISTING SURVEY MONUMENT
- SINGLE GATE
- GC GATE CONTROLER
- AIRCRAFT TIE DOWN
- FENCE POST
- DOUBLE GATE
- CR CARD READER

SAFETY & NAVAIDS

- RSA EXISTING RUNWAY SAFETY AREA
- ROFA EXISTING RUNWAY OBJECT FREE AREA
- TSA EXISTING TAXIWAY SAFETY AREA
- TOFA EXISTING TAXIWAY OBJECT FREE AREA
- RPZ EXISTING RUNWAY PROTECTION ZONE
- NAVAID CRITICAL AREA
- BRL EXISTING BUILDING RESTRICTION LINE
- EXISTING AIRPORT BEACON
- EXISTING MALS LIGHT
- EXISTING MALS STROBE LIGHT
- EXISTING LOCALIZER SYSTEM
- EXISTING WIND CONE
- EXISTING REIL
- EXISTING VOR SYSTEM
- EXISTING TORNADO SIREN
- EXISTING PAPI SYSTEM
- EXISTING MALS LIGHT BAR
- EXISTING MALS STROBE LIGHT BAR
- EXISTING VASI SYSTEM
- EXISTING WIND SOCK
- AWOS EXISTING AWOS SYSTEM
- EXISTING AIRFIELD ANTENNA

STORM SEWER & UNDERDRAIN

- EXISTING STORM SEWER
- EXISTING TRENCH DRAIN
- UD EXISTING UNDERDRAIN
- C EXISTING STORM INLET
- SMH EXISTING STORM MANHOLE
- UCO EXISTING UNDERDRAIN CLEANOUT
- EXISTING UNDERDRAIN INSPECTION PIT
- ADF EXISTING DEICING FLUID INLET
- EXISTING DEICING FLUID VALVE
- EXISTING STORM FLARED END SECTION
- EXISTING STORM HEADWALL
- UMH EXISTING UNDERDRAIN MANHOLE
- ADF EXISTING DEICING FLUID MANHOLE

ABBREVIATIONS

AB	ABANDONED
AC	ACRE
ADG	AIRPORT DESIGN GROUP
ARFF	AIRPORT RESCUE AND FIRE FIGHTING
AOA	AIRPORT OPERATIONS AREA
BMPS	BEST MANAGEMENT PRACTICES
BP	BEGINNING POINT OF ALIGNMENT
C	CURVE
CALTRANS	CALIFORNIA DEPARTMENT OF TRANSPORTATION
CL	CENTERLINE
CMA	CAMARILLO AIRPORT
CY	CUBIC YARD
Δ	DELTA ANGLE
DIP	DUCTILE IRON PIPE
DIW	DIRTY INDUSTRIAL WASTE
DOA	DEPARTMENT OF AIRPORTS
E	EASTING COORDINATE
EA	EACH
EDB	ELECTRICAL DUCT BANK
EF	EACH FACE EL ELEVATION
EL	ELECTRICAL LINES
EOP	EDGE OF PAVEMENT
EP	ENDING POINT OF ALIGNMENT
EW	EACH WAY
FAA	FEDERAL AVIATION ADMINISTRATION
FES	FLARED END SECTION
FID	FLIGHT INFORMATION DUCT (FAA)
FOD	FOREIGN OBJECT DEBRIS
FOMO	FIXED OR MOVEABLE OBJECT
GAL	GALLON
HDPE	HIGH DENSITY POLYETHYLENE PIPE
ID	INSIDE DIAMETER
ILS	INSTRUMENT LANDING SYSTEM
INV	INVERT
INT	INTERSECTION
JFD	JET FUEL DISTRIBUTION
L	LENGTH
LF	LINEAL FEET
LLWAS	LOW LEVEL WIND SHEAR ALERT SYSTEM
LS	LUMP SUM
MGAL	THOUSAND GALLON
MH	MANHOLE
MO	MONTH
N	NORTHING COORDINATE
NGS	NATURAL GAS
NO.	NUMBER
NOAA	NATIONAL OCEANOGRAPHIC & ATMOSPHERIC ADMINISTRATION
NIC	NOT IN THIS CONTRACT
NTP	NOTICE TO PROCEED
NTS	NOT TO SCALE
OC	ON CENTER
OH	OVERHEAD LINES
OS	OFFSET FROM ALIGNMENT
OSHA	OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION
PB	ELECTRICAL PULL BOX
PC	POINT OF CURVATURE
PCR	POINT OF REVERSE CURVATURE
PGL	PROFILE GRADE LINE
PI	POINT OF INTERSECTION
PPVC	PERFORATED UNDERDRAIN PIPE
PT	POINT OF TANGENT
PVC	POINT OF VERTICAL CURVATURE
PVC	POLYVINYL CHLORIDE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENT
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
ROFA	RUNWAY OBJECT FREE AREA
RPZ	RUNWAY PROTECTION ZONE
RSA	RUNWAY SAFETY AREA
RW	RUNWAY
SAF	SANITARY SEWER (FORCE MAIN)
SAG	SANITARY SEWER (GRAVITY)
SDG	STORM WATER DRAINAGE (GRAVITY)
SF	SQUARE FEET
SHT	SHEET
SOI	SAND/OIL INTERCEPTOR
SPA	SPACES
STA	STATION
STL	STEEL
SY	SQUARE YARD
T1F	TYPE 1 DE-ICING FLUID
TW	TAXIWAY
TOFA	TAXIWAY OBJECT FREE AREA
TSA	TAXIWAY SAFETY AREA
TYP	TYPICAL
UG	UNDERGROUND
UMH	UNDERDRAIN MANHOLE
VC	VERTICAL CURVE
VSR	VEHICLE SERVICE ROAD
WMD	WASTE WATER MANAGEMENT
WWF	WELDED WIRE FABRIC

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JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY

JVIATION® A WOOLPERT COMPANY

CAMARILLO AIRPORT
CAMARILLO,CA

COUNTY of VENTURA Department of Airports

DES: A.G.G.
DR: A.G.G.
CH: C.L.G.
APP: J.D.I.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

RUNWAY 8-26 AND TAXIWAY A PAVEMENT IMPROVEMENTS

MASTER LEGEND & ABBREVIATIONS

SHEET NAME G004
SHEET NO. 5 of 61
DRAWING NO. 1680-DOA

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

Plotted October 9, 2023 @ 2:57 PM by Vec Patrick
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RUNWAY END DATA					
RW END	STATION	NORTHING	EASTING	ELEVATION	DESCRIPTION
8	10+00	1902036.01	6227814.38	63.05' (G)	BRASS RUNWAY END MONUMENT
26	70+12.48	1901911.66	6233825.57	76.76' (G)	BRASS RUNWAY END MONUMENT

(BM) ELEVATION BENCHMARK, (G) GPS DERIVED ELEVATION, (P) PUBLISHED ELEVATION

LOCAL CONTROL BENCHMARKS				
⊕	NORTHING	EASTING	ELEV.	DESCRIPTION
37	1900961.484	6233658.990	71.79	SCRIBED X
38	1900822.618	6234363.377	73.40	MAG-NAIL
40	1900803.467	6235152.422	76.30	SCRIBE X

BASIS OF SURVEY:

PROJECT CONTROL - HORIZONTAL

THE BASIS OF BEARINGS AND COORDINATES FOR THIS SURVEY IS CCS83, ZONE V, DEFINED LOCALLY PER TIES TO THE VENTURA COUNTY AIRPORT CONTROL MAP. THE EPOCH OF THE SOURCE CONTROL IS NOT PUBLISHED OR KNOWN.

PROJECT CONTROL - VERTICAL

THE VERTICAL FOR THIS SURVEY IS THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), BASED ON TIES TO SAID AIRPORT CONTROL MAP.

SURVEY NOTES:

1. THE RUNWAY END MONUMENT SURVEY IS FROM THE CAD FILES PROVIDED BY COFFMAN AND ASSOCIATES.
2. THE LOCAL CONTROL BENCHMARKS ARE FROM THE FILES PROVIDED BY MEAD & HUNT FOR THE TAXIWAY A PAVEMENT REPAIR PROJECT. THE BASIS OF BEARINGS AND COORDINATES FOR THIS SURVEY IS CCS83, ZONE 5 BASED ON TIES TO CAMARILLO AIRPORT AERIAL CONTROL POINTS 23, 25 & 30 PER AERO TECH SURVEYS "TOPOGRAPHICAL AERIAL SURVEY" DATED 9-05-07.
3. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR PROVIDING THEIR OWN PROJECT SURVEY AND CONSTRUCTION LAYOUT IN ACCORDANCE WITH THE SPECIFICATIONS.

GENERAL NOTES:

THE MONUMENTS, NAILS, AND OTHER SURVEY TIE-INS SHOWN ON THIS SHEET ARE THE ESTABLISHED HORIZONTAL AND VERTICAL CONTROLS REFERENCED IN GENERAL PROVISIONS SECTION 50-07 CONSTRUCTION LAYOUT AND STAKES. CONTRACTOR SHALL TIE-IN TO THESE POINTS.

GRAPHIC SCALE
300 0 300 600
(IN FEET)

SURVEY LEGEND	
⊕ XX	CONTROL POINT
△	RUNWAY END MONUMENT

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JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY

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CAMARILLO AIRPORT
CAMARILLO,CA

COUNTY of VENTURA
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DES: A.G.G.
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APP: J.D.I.

ISSUE RECORD			
NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

SURVEY CONTROL PLAN

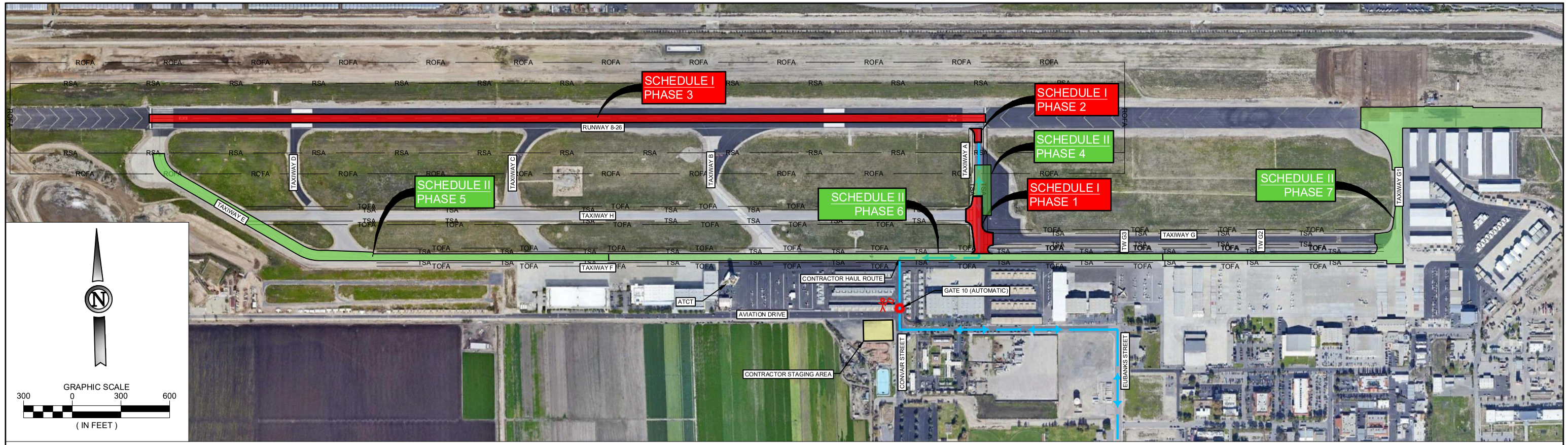
PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME
G005

SHEET NO.
6 of 61

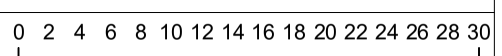
DRAWING NO.
1681-DOA

Plotted: October 9, 2023 @ 2:57 PM by: Ver. Pottick
L:\CMA\LOC 21-01 RW and TW A Rehab\CAD\PLANS\000-CMA-LOC-21-01-G005-SURV.dwg



CONSTRUCTION SCHEDULE - 29 CALENDAR DAYS

SCHEDULE / PHASE	DURATION
SCHEDULE I	18 CALENDAR DAYS
SCHEDULE I, PHASE 1	8 CALENDAR DAYS
SCHEDULE I, PHASE 2	5 CALENDAR DAYS
SCHEDULE I, PHASE 3	5 CALENDAR DAYS
SCHEDULE II	11 CALENDAR DAYS
SCHEDULE II, PHASE 4	1 CALENDAR DAYS
SCHEDULE II, PHASE 5	4 CALENDAR DAYS
SCHEDULE II, PHASE 6	3 CALENDAR DAYS
SCHEDULE II, PHASE 7	4 CALENDAR DAYS



NOTE:

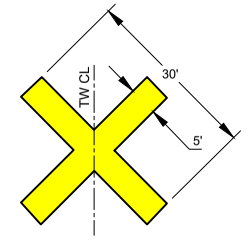
1. SINCE THIS PROJECT WILL BE COMPLETED AT NIGHT, A CALENDAR DAY WILL BE CONSIDERED TO BEGIN AT 21:00 ONE DAY AND END AT 20:59 THE FOLLOWING DAY

PHASING LEGEND

- CONTRACTOR HAUL ROUTE
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- CONTRACTOR GATE ACCESS
- FLAG PERSONNEL / GATE GUARD
- RUNWAY CLOSURE LIGHTED "X"
- TAXIWAY TEMPORARY CLOSURE "X" (MATERIAL PER DETAIL 4/SHEET G050)

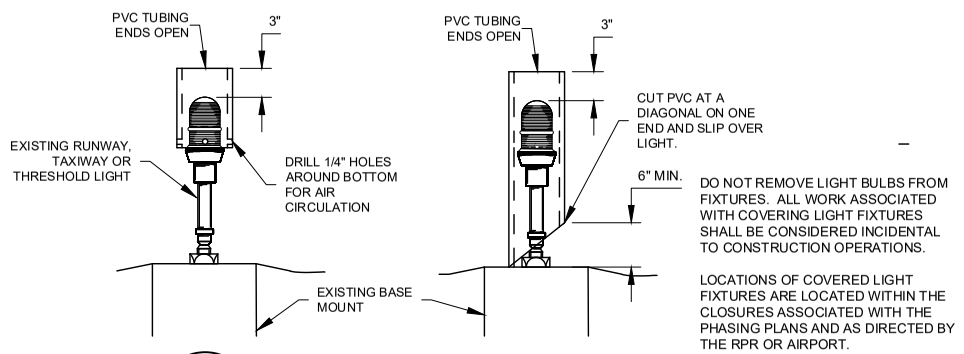
SAFETY & OBJECT FREE AREAS

RUNWAY 8/26 - ADG D-II	
RUNWAY SAFETY AREA (RSA)	250' FROM RW CENTERLINE
RUNWAY OBJECT FREE AREA (ROFA)	400' FROM RW CENTERLINE
TAXIWAYS - ADG II (EXISTING TAXIWAYS)	
TAXIWAY SAFETY AREA (TSA)	39.5' FROM TW CENTERLINE
TAXIWAY OBJECT FREE AREA (TOFA)	65.5' FROM TW CENTERLINE



CONSTRUCT CLOSED TAXIWAY "X" WITH ANY OF THE FOLLOWING: DOUBLE-LAYERED PAINTED SNOW FENCE, COLORED PLASTIC, PAINTED SHEETS OF PLYWOOD OR SIMILAR MATERIALS. CONTRACTOR TO ENSURE THAT MATERIALS ARE PROPERLY CONFIGURED AND SECURED TO PREVENT MOVEMENT FROM JET BLAST OR WIND. CLOSED TAXIWAY "X" SHALL BE LESS THAN 3-INCHES THICK.

4 TAXIWAY CLOSURE "X" DETAIL
NOT TO SCALE

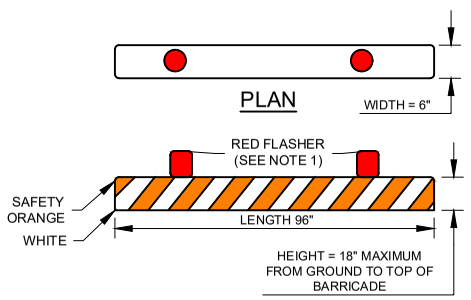


DO NOT REMOVE LIGHT BULBS FROM FIXTURES. ALL WORK ASSOCIATED WITH COVERING LIGHT FIXTURES SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION OPERATIONS.

LOCATIONS OF COVERED LIGHT FIXTURES ARE LOCATED WITHIN THE CLOSURES ASSOCIATED WITH THE PHASING PLANS AND AS DIRECTED BY THE RPR OR AIRPORT.

1 TYPICAL COVERED LIGHT DETAILS
NTS

1. FLASHER BARRICADES WILL BE PROVIDED AND MAINTAINED BY THE CONTRACTOR AT ALL TIMES. CONTRACTOR SHALL ALSO PROVIDE SPARE BARRICADES, BATTERIES, AND LIGHT BULBS FOR MAINTENANCE DURING NIGHTTIME HOURS.
2. LOW-PROFILE BARRICADES TO BE PLACED AT 4' INTERVALS ADJACENT TO CONSTRUCTION, AS DIRECTED BY THE ENGINEER AND AS SHOWN ON THE PHASING SHEETS.
3. BARRICADES ARE TO BE PLACED IN LOCATIONS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER THROUGHOUT ALL PHASES OF THE PROJECT. THE BARRICADE LOCATIONS PROVIDED ON THIS SHEET SHALL REMAIN THROUGHOUT CONSTRUCTION. ADDITIONAL BARRICADES WILL BE REQUIRED ACROSS PHASE SPECIFIC AREAS OF CLOSED PAVEMENT, AND ARE SHOWN ON PHASING SHEETS.
4. FLASHER BARRICADES WILL BE REQUIRED ALONG THE EDGE OF ANY VERTICAL DROP OFF GREATER THAN 3". AIRPORT OPERATIONS WILL ISSUE NOTAM TO ADVISE AIRCRAFT OF THIS CONDITION.
5. FLASHER BARRICADES ARE TO BE ADEQUATELY WEIGHTED SO THEY WILL REMAIN IN PLACE DURING TIMES OF HIGH WINDS OR AS APPROVED BY THE ENGINEER.



ELEVATION

2 FLASHER BARRICADE DETAIL
NOT TO SCALE

1. THE CONTRACTOR SHALL OBTAIN THREE (INCLUDES 1 SPARE) LIGHTED RUNWAY CLOSURE MARKERS (RCM'S). THE RCM'S SHALL BE CERTIFIED TO MEET THE REQUIREMENT TO SCALE OF FAA SPECIFICATION L-893. ACCEPTANCE OF THE RCM'S SHALL BE MADE BY THE ENGINEER UPON DELIVERY TO THE PROJECT. DURING CONSTRUCTION, THE CONTRACTOR SHALL PLACE THE MARKERS OVER RUNWAY DESIGNATION NUMBERS AT ALL TIMES WHEN THE RUNWAYS ARE CLOSED TO AIR TRAFFIC. THE CONTRACTOR SHALL FURNISH ALL ALL DIESEL FUELS, OIL CHANGES, FILTERS, LAMPS MAINTENANCE AND REPAIRS ENCOUNTERED DURING THE PROJECT. ANY DAMAGE WHICH RESULTS FROM THE CONTRACTOR'S NEGLIGENCE, SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE AIRPORT. RCM'S SHALL BE TRANSFERRED AND STORED ON AN IMPROVED SURFACE. ALL COSTS ASSOCIATED WITH THE PROCUREMENT/RENTAL DELIVERY. USE, OPERATION, AND MAINTENANCE OF RCM'S SHALL BE INCIDENTAL TO ITEM C-105.
2. RCM'S SHALL BE PORTABLE, TRAILER MOUNTED, GENERATOR POWERED UNIT, CAPABLE OF PRODUCING A LIGHTED, FLASHING CROSS, MANUFACTURED BY SHERWIN INDUSTRIES, OR AN APPROVED EQUAL.
3. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO THE RCMS CAUSED BY CONTRACTOR OPERATIONS.

3 LIGHTED RUNWAY CLOSURE "X" NOTE
NOT TO SCALE

ISSUED FOR 100% REVIEW

THESE DRAWINGS ARE FOR DESIGN REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES. THEY WERE PREPARED BY OR UNDER THE SUPERVISION OF:

JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY

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A WOOLPERT COMPANY

CAMARILLO AIRPORT
CAMARILLO,CA

COUNTY of VENTURA
Department of Airports

DES: A.G.G.
DR: A.G.G.
CH: C.L.G.
APP: J.D.I.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

RUNWAY 8-26 AND TAXIWAY A PAVEMENT IMPROVEMENTS

CONSTRUCTION SAFETY AND OVERALL PHASING PLAN

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME: G050
SHEET NO.: 7 of 61
DRAWING NO.: 1682-DOA

Plotted October 9, 2023 @ 2:58 PM by Vec Potrick
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1. COORDINATION

ALL COORDINATION WILL TAKE PLACE THROUGH THE RESIDENT ENGINEER, CAMARILLO AIRPORT (CMA) OPERATIONS MANAGER, AND COUNTY OF VENTURA DEPARTMENT OF AIRPORTS PROJECT ADMINISTRATOR. NO CLOSURES WITHIN THE MOVEMENT AREAS WILL BE PERMITTED WITHOUT A NOTAM IN PLACE FOR EACH SPECIFIC CLOSURE. PRIOR TO COMMENCEMENT OF ANY WORK, THE CONTRACTOR SHALL GIVE 72 HOURS ADVANCE NOTICE TO THE RESIDENT ENGINEER AND AIRPORT OPERATIONS FOR FILING OF ALL NOTAMS.

A WEEKLY CONSTRUCTION PROGRESS MEETING WILL BE REQUIRED TO DISCUSS ALL OPERATIONAL SAFETY TOPICS THAT HAVE BEEN AFFECTED OR WILL BE AFFECTED IN THE NEAR FUTURE. IN ATTENDANCE WILL BE THE CONTRACTOR, ENGINEER, AND CMA PERSONNEL.

ANY CHANGES TO SCOPE OR SCHEDULE MUST BE NOTIFIED TO THE ENGINEER, CMA OPERATIONS MANAGER, AND COUNTY OF VENTURA DEPARTMENT OF AIRPORTS PROJECT ADMINISTRATOR. ALL PARTIES WILL EVALUATE THE IMPACT OF THE CHANGE AND WILL DETERMINE THE MEASURES NEEDED TO MAINTAIN A SAFE CONSTRUCTION SITE.

THE FAA AIR TRAFFIC OPERATORS WILL BE NOTIFIED IMMEDIATELY IF ANY CHANGES AFFECT AIRCRAFT MOVEMENT. ALL COMMUNICATIONS WITH THE FAA TOWER WILL BY HANDLED BY AIRPORT OPERATIONS.

AIRPORT RUNWAYS AND TAXIWAYS SHOULD REMAIN IN USE BY AIRCRAFT TO THE MAXIMUM EXTENT POSSIBLE.

AIRCRAFT USE OF AREAS NEAR THE CONTRACTOR'S WORK SHOULD BE CONTROLLED TO MINIMIZE DISTURBANCE TO THE CONTRACTOR'S OPERATION.

CONSTRUCTION THAT IS WITHIN THE SAFETY AREA OF AN ACTIVE RUNWAY, TAXIWAY, OR APRON MUST BE PERFORMED WHEN THE RUNWAY, TAXIWAY, OR APRON IS CLOSED OR USE-RESTRICTED AND INITIATED ONLY WITH PRIOR PERMISSION FROM THE AIRPORT OPERATOR AND WITH PROPER NOTAMS IN PLACE.

THE CONTRACTING OFFICER, AIRPORT OPERATOR, OR OTHER DESIGNATED AIRPORT REPRESENTATIVE MAY ORDER THE CONTRACTOR TO SUSPEND OPERATIONS; MOVE PERSONNEL, EQUIPMENT, AND MATERIALS TO A SAFE LOCATION; BARRICADE ANY OPEN TRENCHES AND STAND BY UNTIL AIRCRAFT USE IS COMPLETED.

2. PHASING

THIS PROJECT CONSISTS OF TWO SCHEDULES OF WORK AND SEVEN PHASES. SEE CONSTRUCTION SAFETY DRAWINGS FOR PHASING REQUIREMENTS.

CONTRACTOR TO NOTIFY ENGINEER, CMA OPERATIONS MANAGER, AND COUNTY OF VENTURA DEPARTMENT OF AIRPORTS PROJECT ADMINISTRATOR IF A CHANGE IN SCHEDULE IS NEEDED.

3. AREAS AND OPERATIONS AFFECTED BY CONSTRUCTION ACTIVITY

ALL WORK WITHIN AIRPORT OPERATIONS AREA (AOA) SHALL CONFORM TO ADVISORY CIRCULAR 150/5370-2G, OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION.

CONTRACTOR SHALL ADHERE TO REQUIREMENTS AS MENTIONED ON THIS SHEET, THE CONSTRUCTION SAFETY AND PHASING PLAN (CSPP), AND CONSTRUCTION SAFETY DRAWINGS. THESE REQUIREMENTS INCLUDE, BUT ARE NOT LIMITED TO, LIFE & SAFETY ACCESS ROUTES, AIRCRAFT ROUTES, PEDESTRIAN ROUTES, CONSTRUCTION ACCESS ROUTES, CONSTRUCTION LIMITS, AND BARRICADE LOCATIONS.

4. PROTECTION OF NAVIGATION AIDS (NAVAIDS)

NAVIGATIONAL AIDS INCLUDE INSTRUMENT LANDING SYSTEM (ILS) COMPONENTS, MEDIUM INTENSITY APPROACH LIGHTING SYSTEM (MALSF), PRECISION APPROACH PATH INDICATORS (PAPI) AND AIRPORT SURVEILLANCE RADAR. DURING CONSTRUCTION, NO NAVAID EQUIPMENT WILL BE RELOCATED. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING NAVAIDS AND WILL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE AIRPORT.

5. CONTRACTOR ACCESS

CONTRACTOR SHALL HAVE UNESCORTED ACCESS TO THE AOA DURING THE PROJECT DURATION AT THE DESIGNATED TIMES IN THE PHASING SHEETS. CONTRACTOR SHALL GIVE AIRPORT OPERATIONS 72 HOUR NOTICE WHEN AN ESCORT IS REQUIRED.

CONTRACTOR HAS ACCESS TO ONE (1) GATE (AUTOMATIC) TO ENTER THE AIRPORT. SEE CONSTRUCTION SAFETY DRAWINGS FOR GATE LOCATION. CONTRACTOR SHALL PROVIDE A GATE GUARD AT THIS GATE AT ALL TIMES WHEN GATE IS NOT CLOSED AND LOCKED. SEE SECTION 15 FOR GATE ACCESS REQUIREMENTS.

CONTRACTOR MOVEMENT SHALL BE RESTRICTED TO THE PRE-DETERMINED ACCESS ROUTES AS SHOWN ON CONSTRUCTION SAFETY DRAWINGS.

ALL VEHICLES AND EQUIPMENT OPERATING IN THE AOA MUST BE IDENTIFIED CLEARLY WITH 8-INCH (MINIMUM) BLOCK-TYPE CHARACTERS OF A CONTRASTING COLOR AND EASY TO READ. IN ADDITION, VEHICLES MUST DISPLAY IDENTIFICATION MEDIA, AS SPECIFIED IN THE APPROVED AIRPORT SECURITY PLAN.

ALL VEHICLES AND EQUIPMENT OPERATING IN THE AOA MUST HAVE FLAG (DAY ONLY) OR BEACON (DAY AND NIGHT) ATTACHED TO THE VEHICLE.

CONTRACTOR IS REQUIRED TO ADHERE TO ALL RULES AND REGULATIONS AS SET BY CMA AND ADVISORY CIRCULAR 150/5370-2G, OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION.

ALL KEY PERSONNEL WHO NEED A GATE ACCESS CARD MUST ATTEND THE AIRPORT DRIVING CLASS. THIS TRAINING IS REQUIRED FOR ALL PERSONNEL THAT ARE REQUIRED TO OPERATE A VEHICLE IN THE AOA WITHOUT AN ESCORT.

VEHICLE TRAFFIC LOCATED IN OR CROSSING AN ACTIVE MOVEMENT AREA MUST BE ESCORTED BY THE RESIDENT PROJECT REPRESENTATIVE OR A KEY CONTRACTOR PERSONNEL WHO HAS ATTENDED THE AIRPORT DRIVER DRAINING WHO WILL BE IN RADIO CONTACT WITH THE TOWER. THE DRIVER, THROUGH PERSONAL OBSERVATION, SHOULD CONFIRM THAT NO AIRCRAFT IS APPROACHING THE VEHICLE POSITION. CONTRACTOR PERSONNEL MAY OPERATE IN THE MOVEMENT AREA WITHOUT TWO-WAY RADIO COMMUNICATION PROVIDED A NOTAM IS ISSUED CLOSING THE AREA AND THE AREA IS PROPERLY MARKED TO PREVENT INCURSIONS.

CONTINUOUS MONITORING IS REQUIRED ONLY WHEN EQUIPMENT MOVEMENT IS NECESSARY IN CERTAIN AREAS.

CONTRACTOR IS REQUIRED TO NOTIFY AND COORDINATE WITH THE RESIDENT ENGINEER AND AIRPORT OPERATIONS PRIOR TO ENTERING ANY ACTIVE SURFACE SAFETY AREAS OR OBJECT FREE AREAS.

CONTRACTOR, SUBCONTRACTOR, AND SUPPLIER EMPLOYEES OR ANY UNAUTHORIZED PERSONS ARE RESTRICTED FROM ENTERING AN AIRPORT AREA THAT WOULD BE HAZARDOUS.

6. WILDLIFE MANAGEMENT

CONTRACTOR SHALL ADHERE TO ALL WILDLIFE MANAGEMENT PRACTICES AS STATED IN ADVISORY CIRCULAR 150/5200-33 (LATEST EDITION), HAZARDOUS WILDLIFE ATTRACTIONS ON OR NEAR AIRPORTS, AND CERTALERT 98-08, GRASSES ATTRACTIVE TO HAZARDOUS WILDLIFE.

CONTRACTOR IS RESPONSIBLE FOR COMPLETING A DAILY INSPECTION FOR TRASH, FOREIGN OBJECTS, AND STANDING WATER ON THE CONSTRUCTION SITE THAT MIGHT ATTRACT WILDLIFE.

CONTRACTOR SHALL MAINTAIN ALL FENCES AND GATES THROUGHOUT THE PROJECT TO THE SATISFACTION OF THE RESIDENT ENGINEER.

CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER WHEN A WILDLIFE SIGHTING HAS OCCURRED ON THE PROJECT SITE.

7. FOREIGN OBJECT DEBRIS (FOD) MANAGEMENT

CONTRACTOR SHALL KEEP ALL PAVEMENTS IN THE AOA INCLUDING APRONS, TAXIWAYS, AND RUNWAYS FREE FROM FOD AT ALL TIMES TO PREVENT ANY DEBRIS FROM BEING INGESTED INTO AN AIRCRAFT'S ENGINE OR ANY DEBRIS FROM BEING LAUNCHED DUE TO JET BLAST.

CONTRACTOR IS REQUIRED TO CONTINUOUSLY MONITOR AND MAINTAIN FOD TO THE SATISFACTION OF THE RESIDENT ENGINEER.

PRIOR TO OPENING ANY PAVEMENT TO AIRCRAFT, THE CONTRACTOR, RESIDENT ENGINEER, AND AIRPORT OPERATIONS SHALL CONDUCT A SWEEP OF THE PAVEMENT TO VERIFY THAT THE PAVEMENT IS FREE FROM FOD.

THE CONTRACTOR IS ADVISED THAT DUST CONTROL, CLEANUP OF ACTIVE PAVEMENTS, TRACKING DEBRIS ONTO ACTIVE PAVEMENT AND GENERAL JOBSITE CLEANLINESS IS A SERIOUS SAFETY CONCERN. FOREIGN OBJECT DEBRIS (FOD) IS CONSIDERED AS ANY ITEM THAT COULD POSSIBLY IMPACT THE OPERATIONS OF AN AIRPORT OR ROADWAY. FOD COULD CAUSE INJURY OR DEATH THROUGH INGESTION IN MOVING AIRCRAFT ENGINES. SPECIFIC ITEMS OF CONCERN INCLUDE, BUT ARE NOT LIMITED TO; ANY PACKAGING FROM MATERIAL INSTALLATION, GRAVEL LEFT ON ACTIVE PAVEMENTS, DUST TRACKED ONTO ACTIVE PAVEMENTS, HAND TOOLS, HARDWARE DROPPED, ETC.

8. HAZARDOUS MATERIAL (HAZMAT) MANAGEMENT

CONTRACTOR SHALL NOTIFY RESIDENT ENGINEER AND AIRPORT EMERGENCY PERSONNEL IF HAZARDOUS MATERIALS ARE ENCOUNTERED ON THIS PROJECT.

9. NOTIFICATION OF CONSTRUCTION ACTIVITIES

AGENCY NAME	AGENCY TYPE	TELEPHONE
AIRPORT EMERGENCY	AIRCRAFT RESCUE AND FIRE FIGHTING	(805) 947-6804 OR 911
CAMARILLO POLICE DEPARTMENT	POLICE DEPARTMENT	(805) 654-9511 OR 911
CAMARILLO FIRE DEPARTMENT	FIRE RESCUE	911
VENTURA COUNTY MEDICAL CENTER	HOSPITAL	(805) 652-6000 OR 911
AIRPORT OPERATIONS	AIRPORT OPERATIONS	(805) 947-6804
JVIATION CONSTRUCTION MANAGER	CONSTRUCTION MANAGEMENT	TBD

BEFORE BEGINNING ANY CONSTRUCTION ACTIVITY, THE CONTRACTOR MUST, THROUGH THE RESIDENT ENGINEER AND AIRPORT OPERATIONS, GIVE NOTICE USING THE NOTICE TO AIR MISSIONS (NOTAM) SYSTEM OF PROPOSED LOCATION, TIME, AND DATE OF COMMENCEMENT OF CONSTRUCTION. THE NOTAM SHOULD STATE THAT, "PERSONNEL AND EQUIPMENT ARE WORKING ADJACENT TO RUNWAY 8/26 AND ASSOCIATED TAXIWAY CONNECTORS." ALL NOTAMS SHALL BE ISSUED BY CMA. UPON COMPLETION OF WORK AND RETURN OF ALL SUCH AREAS TO STANDARD CONDITIONS, THE CONTRACTOR MUST COORDINATE WITH THE RESIDENT ENGINEER AND VERIFY THE CANCELLATION OF ALL NOTICES ISSUED VIA THE NOTAM SYSTEM. THROUGHOUT THE PROJECT DURATION , THE CONTRACTOR MUST:

A. BE AWARE OF AND UNDERSTAND THE SAFETY PROBLEMS AND HAZARDS DESCRIBED IN ADVISORY CIRCULAR 150/5370-2G, OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION.
B. CONDUCT ACTIVITIES SO AS NOT TO VIOLATE ANY SAFETY STANDARDS CONTAINED IN ADVISORY CIRCULAR 150/5370-2G OR ANY OF THE REFERENCES THEREIN.
C. INSPECT ALL CONSTRUCTION AND STORAGE AREAS AS OFTEN AS NECESSARY TO BE AWARE OF CONDITIONS.
D. PROMPTLY TAKE ALL ACTIONS NECESSARY TO PREVENT OR REMEDY ANY UNSAFE OR POTENTIALLY UNSAFE CONDITIONS AS SOON AS THEY ARE DISCOVERED.
E. THE CONTRACTOR SHALL ADHERE TO THE REQUIREMENTS, PROVISIONS, AND PROCEDURES OUTLINED IN CONSTRUCTION SAFETY PHASING PLAN (SEE DIV. 4 OF THE CONTRACT DOCUMENTS).

ANY CHANGES TO SCOPE OR SCHEDULE MUST BE NOTIFIED TO THE RESIDENT ENGINEER AND CMA OPERATIONS MANAGER SO THAT NOTAMS CAN BE ISSUED, MAINTAINED, AND CANCELED. IN AN EVENT OF AN EMERGENCY, CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER, CMA OPERATIONS MANAGER, AND AIRPORT EMERGENCY.

10. INSPECTION REQUIREMENTS

CONTRACTOR SHALL COMPLETE A DAILY INSPECTION FOR SAFETY ON THE PROJECT SITE BY COMPLETING THE CHECKLIST PROVIDED IN ADVISORY CIRCULAR 150/5370-2G, APPENDIX D, CONSTRUCTION PROJECT DAILY SAFETY INSPECTION CHECKLIST.

THE CONTRACTOR, RESIDENT ENGINEER AND AIRPORT OPERATOR MUST PERFORM ONSITE INSPECTIONS THROUGHOUT THE PROJECT, WITH IMMEDIATE REMEDY OF ANY DEFICIENCIES, WHETHER CAUSED BY NEGLIGENCE, OVERSIGHT, OR SCOPE CHANGE.

CONTRACTOR SHALL COMPLETE A FINAL INSPECTION FOR SAFETY ON THE PROJECT SITE AT THE END OF EACH PHASE.

11. RUNWAY AND TAXIWAY VISUAL AIDS

FLASHER BARRICADES, CLOSED 'X' MARKINGS AND RUNWAY CLOSURE MARKERS (RCMS) ARE TO BE PLACED AS DETAILED IN THE PLANS AND IN ALL DESIGNATED AREAS AS SHOWN ON THE CONSTRUCTION SAFETY DRAWINGS.

APPROVED FLASHER BARRICADES SHALL BE PROVIDED AND MAINTAINED BY THE CONTRACTOR.

CLOSED 'X' MARKINGS AND RCMS SHALL BE PROVIDED BY THE CONTRACTOR AND MAINTAINED BY THE CONTRACTOR.

CONTRACTOR TO COVER ALL TAXIWAY EDGE LIGHTS, TAXIWAY SIGNS, RUNWAY SIGNS, AND APRON EDGE LIGHTS FOR AREAS CLOSED BY NOTAM TO THE APPROVAL OF THE RESIDENT ENGINEER.

12. MARKING AND SIGNS FOR ACCESS ROUTES

ALL REQUIRED SIGNS AND MARKINGS SHALL CONFORM TO ADVISORY CIRCULAR 150/5340-18 (LATEST EDITION), STANDARD FOR AIRPORT SIGN SYSTEMS, OR THE FEDERAL HIGHWAY ADMINISTRATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

ALL SIGNS ADJACENT TO AREAS USED BY AIRCRAFT MUST COMPLY WITH THE FRANGIBLE REQUIREMENTS AS STATED IN ADVISORY CIRCULAR 150/5220-23, FRANGIBLE CONNECTIONS.

13. HAZARD MARKINGS AND LIGHTING

PRIOR TO CLOSING ANY AREAS IN THE AOA TO AIRCRAFT OR EMERGENCY TRAFFIC, CONTRACTOR MUST CLEARLY DEFINE CLOSED AREAS WITH WARNING LIGHTS, BARRICADES, CLOSED 'X' MARKINGS, RCMS, AND FLAGS TO THE APPROVAL OF THE RESIDENT ENGINEER. CONTRACTOR TO REFER TO CONSTRUCTION SAFETY DRAWINGS.

HAZARDOUS AREAS ON THE MOVEMENT AREA WILL BE MARKED WITH FLASHER BARRICADES. THESE BARRICADES RESTRICT ACCESS AND MAKE HAZARDS OBVIOUS TO AIRCRAFT, PERSONNEL, AND VEHICLES. DURING PERIODS OF LOW VISIBILITY AND AT NIGHT, IDENTIFY HAZARDOUS AREAS WITH RED FLASHING LIGHTS.

OPEN TRENCHES AND EXCAVATIONS MUST BE PROMINENTLY MARKED WITH RED OR ORANGE FLAGS AND LIGHTS AS APPROVED BY THE RESIDENT ENGINEER.

14. PROTECTION OF RUNWAY AND TAXIWAY AREAS

SAFETY AREAS - CONTRACTOR SHALL NOT IMPEDE ON THE SAFETY AREAS WITHOUT A CLOSURE OF THE RUNWAY/TAXIWAY BY MEANS OF A NOTAM.

OBJECT FREE AREAS - CONTRACTOR SHALL NOT PLACE EQUIPMENT, MATERIAL, OR STOCKPILES IN THIS AREA. ALL OBJECTS OR MATERIALS ADJACENT TO THIS AREA SHALL BE PROPERLY MARKED/LIT PER ADVISORY CIRCULAR 150/5370-2G. CONTRACTOR CANNOT WORK IN ACTIVE TAXIWAY OBJECT FREE AREA WITHOUT WING WALKERS TO MAINTAIN A 5' CLEARANCE FROM THE WINGSPAN OF THE AIRCRAFT TO CONSTRUCTION EQUIPMENT OR MATERIAL.

OBSTACLE FREE ZONE- CONTRACTOR TO PREVENT PERSONNEL, MATERIAL, AND/OR EQUIPMENT FROM PENETRATING THE OBSTACLE FREE ZONE AS DEFINED IN ADVISORY CIRCULAR 150/5300-13B.

15. AIRPORT SECURITY

CONTRACTOR SHALL ADHERE TO AIRPORT SECURITY REQUIREMENTS AT ALL TIMES. KEY CONSTRUCTION SUPERINTENDENTS AND ANY OTHER PERSONNEL DEEMED NECESSARY BY THE AIRPORT/CONTRACTOR SHALL ATTEND THE DRIVER CONSTRUCTION TRAINING TO OBTAIN AN AIRPORT ELECTRONIC ENTRY CARD AT THE EXPENSE OF THE CONTRACTOR PRIOR TO CONSTRUCTION. ALL OTHER CONSTRUCTION PERSONNEL SHALL BE ESCORTED AT ALL TIMES DURING AIRSIDE CONSTRUCTION.

16. OTHER LIMITATIONS ON CONSTRUCTION

PROHIBITING OPEN-FLAME WELDING OR TORCH CUTTING OPERATIONS UNLESS ADEQUATE FIRE SAFETY PRECAUTIONS ARE PROVIDED AND THESE OPERATIONS HAVE BEEN AUTHORIZED BY THE AIRPORT OPERATOR (AS TAILORED TO CONFORM TO LOCAL REQUIREMENTS AND RESTRICTIONS).

PROMINENTLY MARKING OPEN TRENCHES, EXCAVATIONS, AND STOCKPILED MATERIALS AT THE CONSTRUCTION AND LIGHTING THESE OBSTACLES DURING HOURS OF RESTRICTED VISIBILITY AND DARKNESS.

MARKING AND LIGHTING CLOSED, DECEPTIVE, AND HAZARDOUS AREAS ON AIRPORTS, AS APPROPRIATE. CONSTRAINING STOCKPILED MATERIAL TO PREVENT ITS MOVEMENT AS A RESULT OF THE MAXIMUM ANTICIPATED AIRCRAFT BLAST AND FORECAST WIND CONDITIONS.

NO USE OF TALL EQUIPMENTS (CRANES, CONCRETE PUMPS, AND SO ON) UNLESS A FAA 7460-1 DETERMINATION LETTER IS ISSUED FOR SUCH EQUIPMENT.

NO USE OF ELECTRICAL BLASTING CAPS ON OR WITHIN 1,000' OF THE AIRPORT PROPERTY.

NO USE OF FLARE POTS WITHIN THE AOA.

17. DUST CONTROL

CONTRACTOR IS RESPONSIBLE FOR CONTROLLING DUST FROM THE CONSTRUCTION SITE AT ALL TIMES. CONTRACTOR SHALL HAVE A WATER TRUCK AND OPERATOR AVAILABLE 24 HOURS A DAY TO CONTROL DUST. THE PROJECT'S LOCATION IS NEAR ACTIVE RUNWAYS AND HIGHWAYS AND IS IN A LOCATION THAT EXPERIENCES HIGH WIND. IT IS CRITICAL FOR THE CONTRACTOR TO KEEP DUST TO AN ABSOLUTE MINIMUM BOTH DURING CONSTRUCTION, AND AFTER CONSTRUCTION UNTIL THE EXPOSED SURFACES CONTAIN SUSTAINABLE VEGETATION. CONTRACTOR SHALL PROVIDE THE RESIDENT ENGINEER AND AIRPORT OPERATIONS WITH A CONTACT FOR 24 HOUR DUST CONTROL.

ISSUED FOR 100% REVIEW

THESE DRAWINGS ARE FOR DESIGN REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES. THEY WERE PREPARED BY OR UNDER THE SUPERVISION OF:

JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY

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CAMARILLO AIRPORT
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COUNTY of VENTURA
Department of Airports

DES: A.G.G.
DR: A.G.G.
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APP: J.D.I.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

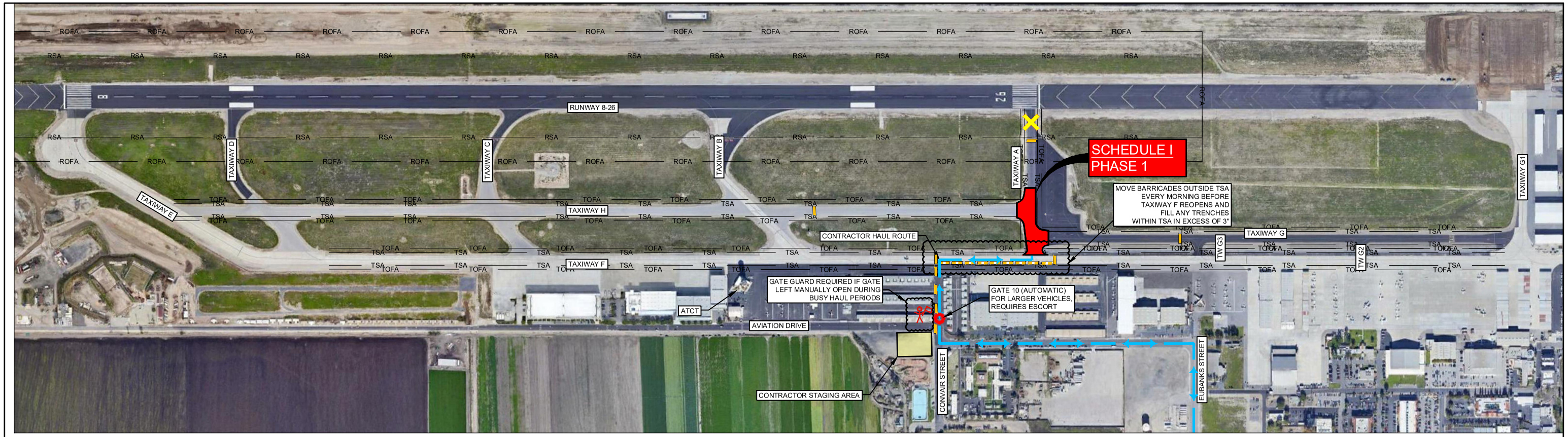
RUNWAY 8-26 AND TAXIWAY A PAVEMENT IMPROVEMENTS

CONSTRUCTION SAFETY NOTES & DETAILS

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME: G051
SHEET NO.: 8 of 61
DRAWING NO.: 1683-DOA

Plotted October 9, 2023 @ 2:58 PM by: Vivi Patrick
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CONSTRUCTION PHASING NOTES

SCHEDULE I / PHASE 1 - NIGHT OPERATIONS

DURATION
8 CALENDAR NIGHTS

CONTRACTOR ACCESS TIMES

- 24 HOUR ACCESS TO STAGING AREAS.
- TAXIWAY A WITHIN THE BARRICADE BOUNDARY SHOWN ON THE DAY OPERATIONS SHEET WILL BE CLOSED THROUGHOUT SCHEDULE I, PHASE 1.
- NIGHTTIME ACCESS TO APPROVED WORK AREAS. THE CLOSURE OF TAXIWAY F BETWEEN TAXIWAY A AND TAXIWAY B WILL BEGIN NO EARLIER THAN 2100 AND WILL END NO LATER THAN 0700 ON THE FOLLOWING DAY. CONTRACTOR WORK HOURS WILL BE FROM 2100 TO 0600 TO ALLOW TIME FOR CLEANUP.
- BARRICADES WILL NEED TO BE MOVED OUTSIDE OF THE RUNWAY SAFETY AREA (RSA) AND TAXIWAY SAFETY AREA (TSA) PRIOR TO END OF WORK AND THE PORTION OF TAXIWAY F EACH MORNING AND ALL TRENCHES IN EXCESS OF 3" DROPS WITHIN THE RSA AND TSA WILL NEED TO BE FILLED. DROPS OF MORE THAN 3 INCHES OR SLOPES GREATER THAN 5% ARE NOT PERMITTED.
- TAXIWAY CONNECTOR BARRICADES SHALL BE REMOVED PRIOR TO END OF WORK EACH MORNING, EXCEPT FOR THE TAXIWAY A BARRICADES.

MAJOR WORK TO BE COMPLETED

SITE PREPARATION

1. EROSION CONTROL MEASURES
2. FULL DEPTH PAVEMENT REMOVALS

PAVEMENT SECTION

1. BASE COURSE PLACEMENT
2. GEOGRID PLACEMENT
3. ASPHALT PAVING
4. PAVEMENT MARKINGS

SITE RECLAMATION

1. EROSION CONTROL MEASURES

IMPACTS ON OPERATIONS

1. THE CONTRACTOR SHALL GIVE RIGHT OF WAY TO ALL AIRCRAFT AND EMERGENCY VEHICLES AT ALL TIMES.
2. THE CONTRACTOR SHALL MAINTAIN EMERGENCY VEHICLE ACCESS TO THE RUNWAY AT ALL TIMES.
3. IF AN EMERGENCY SITUATION ARISES REQUIRING AN AIRCRAFT TO UTILIZE THE RUNWAY AND/OR TAXIWAY DURING CONSTRUCTION, ALL EQUIPMENT AND PERSONNEL SHALL IMMEDIATELY EXIT THE RUNWAY AND/OR TAXIWAY AND STAGE OUTSIDE THE OBJECT FREE AREA.
4. NO WORK, OPEN EXCAVATIONS, EQUIPMENT, STOCKPILES, OR PERSONNEL ARE ALLOWED IN THE SAFETY AREAS OR OBJECT FREE AREAS FOR ANY ACTIVE TAXIWAY OR SAFETY AREAS FOR AN ACTIVE RUNWAY WHEN THE AIRPORT IS OPEN AND OPERATIONAL.
5. PRIOR TO OPENING THE TAXIWAY EACH MORNING TO AIRCRAFT, ALL AIRFIELD PAVEMENT WHERE WORK HAS OCCURRED OR EQUIPMENT HAS TRAVERSED SHALL BE SWEPT OR CLEARED WITH APPROVED EQUIPMENT TO REMOVE ANY FOD. ALL EXCAVATIONS AND TRENCHES IN THE SAFETY AREAS SHALL BE BACKFILLED AND COMPACTED TO P-152 SPECIFICATIONS. GRADING WITHIN THE SAFETY AREA SHALL CONFORM TO AC 150/5300-13 (CURRENT VERSION), CHAPTER 3. NO DROPS GREATER THAN 3-INCHES ARE ALLOWED IN THE RUNWAY SAFETY AREA. IF AREAS ARE FOUND TO BE DEFICIENT, THE CONTRACTOR MUST IMMEDIATELY CORRECT THE DEFICIENCY TO THE SATISFACTION OF THE RPR OR CMA STAFF. APPROVAL TO REOPEN TO AIRCRAFT TRAFFIC WILL BE PROVIDED BY AIRPORT OPERATIONS OR THE RPR.
6. AIRPORT PERIMETER SECURITY SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE QUALIFIED GATE GUARDS ALONG CONSTRUCTION ACCESS POINTS AT AIRPORT PERIMETER GATE LOCATIONS. GATES SHALL BE SECURELY CLOSED OR LOCKED AT ALL TIMES IF GATE GUARD IS NOT PRESENT OR GATES ARE NOT IN USE.
7. CONSTRUCTION MARKERS, BARRICADES, AND TAXIWAY CLOSURE MARKERS SHALL BE INSTALLED PER PHASING PLANS AND AS REQUIRED BY AC 150/5370-2 (CURRENT VERSION) OR AS DIRECTED BY THE RPR.
8. ALL STOCKPILES OR EQUIPMENT ADJACENT TO OBJECT FREE AREAS SHALL BE MARKED AND LIGHTED PER AC 150/5370-2 (CURENT VERSION).
9. THE CONTRACTOR SHALL HAVE A SWEEPER OR VACUUM TRUCK ON SITE AT ALL TIMES TO CLEAN DEBRIS FROM HAUL ROUTES, CONSTRUCTION ACCESS POINTS, OR AREAS ADJACENT TO CONSTRUCTION.
10. THE CONTRACTOR SHALL KEEP ALL CONSTRUCTION TRAFFIC LIMITED TO THE APPROVED HAUL ROUTES AS SHOWN ON THE PLANS OR AS APPROVED BY THE RPR. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED ALONG THE HAUL ROUTES OR CONSTRUCTION ACCESS ROUTES TO THE PROJECT SITE. HAUL ROADS WILL BE MAINTAINED AND RESTORED TO THEIR ORIGINAL CONDITION BY THE CONTRACTOR AT NO EXPENSE TO THE SPONSOR.
11. THE CONTRACTOR SHALL MINIMIZE DISTURBANCE IN AND AROUND FAA NAVIGATIONAL AIDS.
12. CONTRACTOR SHALL PARK ALL EQUIPMENT AND VEHICLES IN THE STAGING AREA AT THE END OF EACH SHIFT AND DURING PERIODS WHEN NO CONSTRUCTION ACTIVITIES ARE TAKING PLACE. NO EQUIPMENT SHALL BE LEFT UNATTENDED WITHIN THE RUNWAY OBJECT FREE AREA (ROFA).

OTHER NOTES

1. AIRPORT MANAGEMENT PERSONNEL WILL ISSUE NOTAM FOR ANY CONTRACTOR SCHEDULED ACTIVITIES AT LEAST 72 HOURS IN ADVANCE OF SAID ACTIVITY.
2. CONSTRUCTION EQUIPMENT THAT MAY DAMAGE AIRFIELD PAVEMENT WHILE CROSSING IT TO ACCESS WORK AREAS, SUCH AS THOSE WITH TRACKS, SHALL PROTECT THE PAVEMENT USING A METHOD APPROVED BY THE RPR.
3. CMA ATCT OPERATION HOURS: 7:00 AM - 9:00 PM LOCAL TIME
   MONITOR CMA GROUND - 122.95 MHZ.

   CMA ATCT CLOSURE HOURS: 9:00 PM TO 7:00 AM LOCAL TIME
   MONITOR CMA CTAF - 134.95 MHZ.
4. CONTRACTOR SHALL PROTECT ALL FAA COMMUNICATION LINES AND ESPECIALLY WHEN WORKING WITHIN EXISTING STORM DRAIN INFRASTRUCTURE. NOTIFY ENGINEER IMMEDIATELY IF DAMAGE OCCURS BY CONTRACTOR OPERATIONS.

PHASING LEGEND

- CONTRACTOR HAUL ROUTE
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- FLASHER BARRICADE
- FLAG PERSONNEL / GATE GUARD
- CONTRACTOR GATE ACCESS
- RUNWAY CLOSURE LIGHTED "X"
- TAXIWAY TEMPORARY CLOSURE "X" (MATERIAL PER DETAIL 4/SHEET G050)

N

GRAPHIC SCALE
300 0 300 600
(IN FEET)

ISSUED FOR 100% REVIEW

THESE DRAWINGS ARE FOR DESIGN REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES. THEY WERE PREPARED BY OR UNDER THE SUPERVISION OF:

JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY

JVIATION®
A WOOLPERT COMPANY

CAMARILLO AIRPORT
CAMARILLO,CA

COUNTY of VENTURA
Department of Airports

DES: A.G.G.
DR: A.G.G.
CH: C.L.G.
APP: J.D.I.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

CONSTRUCTION SAFETY AND PHASING PLAN
SCHEDULE I PHASE 1 (NIGHT)

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME
G052A

SHEET NO.
9 of 61

DRAWING NO.
1684-DOA

Plotted October 9, 2023 @ 2:58 PM by Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Reheb\CADD\PLANS\000-CMA-LOC-21-01-G052-PHAS.dwg



CONSTRUCTION PHASING NOTES

SCHEDULE I / PHASE 1 - DAY OPERATIONS

DURATION
8 CALENDAR NIGHTS

CONTRACTOR ACCESS TIMES

- 24 HOUR ACCESS TO STAGING AREAS.
- TAXIWAY A WITHIN THE BARRICADE BOUNDARY WILL BE CLOSED THROUGHOUT SCHEDULE I, PHASE 1.
- NIGHTTIME ACCESS TO APPROVED WORK AREAS. THE CLOSURE OF TAXIWAY F BETWEEN TAXIWAY A AND TAXIWAY B WILL BEGIN NO EARLIER THAN 2100 AND WILL END NO LATER THAN 0700 ON THE FOLLOWING DAY. CONTRACTOR WORK HOURS WILL BE FROM 2100 TO 0600 TO ALLOW TIME FOR CLEANUP.
- BARRICADES WILL NEED TO BE MOVED OUTSIDE OF THE RUNWAY SAFETY AREA (RSA) AND TAXIWAY SAFETY AREA (TSA) PRIOR TO END OF WORK AND THE PORTION OF TAXIWAY F EACH MORNING AND ALL TRENCHES IN EXCESS OF 3" DROPS WITHIN THE RSA AND TSA WILL NEED TO BE FILLED. DROPS OF MORE THAN 3 INCHES OR SLOPES GREATER THAN 5% ARE NOT PERMITTED.
- TAXIWAY CONNECTOR BARRICADES SHALL BE REMOVED PRIOR TO END OF WORK EACH MORNING, EXCEPT FOR THE TAXIWAY A BARRICADES.

MAJOR WORK TO BE COMPLETED

SITE PREPARATION

1. EROSION CONTROL MEASURES
2. FULL DEPTH PAVEMENT REMOVALS

PAVEMENT SECTION

1. BASE COURSE PLACEMENT
2. GEOGRID PLACEMENT
3. ASPHALT PAVING
4. PAVEMENT MARKINGS

SITE RECLAMATION

1. EROSION CONTROL MEASURES

IMPACTS ON OPERATIONS

1. THE CONTRACTOR SHALL GIVE RIGHT OF WAY TO ALL AIRCRAFT AND EMERGENCY VEHICLES AT ALL TIMES.
2. THE CONTRACTOR SHALL MAINTAIN EMERGENCY VEHICLE ACCESS TO THE RUNWAY AT ALL TIMES.
3. IF AN EMERGENCY SITUATION ARISES REQUIRING AN AIRCRAFT TO UTILIZE THE RUNWAY AND/OR TAXIWAY DURING CONSTRUCTION, ALL EQUIPMENT AND PERSONNEL SHALL IMMEDIATELY EXIT THE RUNWAY AND/OR TAXIWAY AND STAGE OUTSIDE THE OBJECT FREE AREA.
4. NO WORK, OPEN EXCAVATIONS, EQUIPMENT, STOCKPILES, OR PERSONNEL ARE ALLOWED IN THE SAFETY AREAS OR OBJECT FREE AREAS FOR ANY ACTIVE TAXIWAY OR SAFETY AREAS FOR AN ACTIVE RUNWAY WHEN THE AIRPORT IS OPEN AND OPERATIONAL.
5. PRIOR TO OPENING THE TAXIWAY EACH MORNING TO AIRCRAFT, ALL AIRFIELD PAVEMENT WHERE WORK HAS OCCURRED OR EQUIPMENT HAS TRAVERSED SHALL BE SWEPT OR CLEARED WITH APPROVED EQUIPMENT TO REMOVE ANY FOD. ALL EXCAVATIONS AND TRENCHES IN THE SAFETY AREAS SHALL BE BACKFILLED AND COMPACTED TO P-152 SPECIFICATIONS. GRADING WITHIN THE SAFETY AREA SHALL CONFORM TO AC 150/5300-13 (CURRENT VERSION), CHAPTER 3. NO DROPS GREATER THAN 3-INCHES ARE ALLOWED IN THE RUNWAY SAFETY AREA. IF AREAS ARE FOUND TO BE DEFICIENT, THE CONTRACTOR MUST IMMEDIATELY CORRECT THE DEFICIENCY TO THE SATISFACTION OF THE RPR OR CMA STAFF. APPROVAL TO REOPEN TO AIRCRAFT TRAFFIC WILL BE PROVIDED BY AIRPORT OPERATIONS OR THE RPR.
6. AIRPORT PERIMETER SECURITY SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE QUALIFIED GATE GUARDS ALONG CONSTRUCTION ACCESS POINTS AT AIRPORT PERIMETER GATE LOCATIONS. GATES SHALL BE SECURELY CLOSED OR LOCKED AT ALL TIMES IF GATE GUARD IS NOT PRESENT OR GATES ARE NOT IN USE.
7. CONSTRUCTION MARKERS, BARRICADES, AND TAXIWAY CLOSURE MARKERS SHALL BE INSTALLED PER PHASING PLANS AND AS REQUIRED BY AC 150/5370-2 (CURRENT VERSION) OR AS DIRECTED BY THE RPR.
8. ALL STOCKPILES OR EQUIPMENT ADJACENT TO OBJECT FREE AREAS SHALL BE MARKED AND LIGHTED PER AC 150/5370-2 (CURENT VERSION).
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10. THE CONTRACTOR SHALL KEEP ALL CONSTRUCTION TRAFFIC LIMITED TO THE APPROVED HAUL ROUTES AS SHOWN ON THE PLANS OR AS APPROVED BY THE RPR. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED ALONG THE HAUL ROUTES OR CONSTRUCTION ACCESS ROUTES TO THE PROJECT SITE. HAUL ROADS WILL BE MAINTAINED AND RESTORED TO THEIR ORIGINAL CONDITION BY THE CONTRACTOR AT NO EXPENSE TO THE SPONSOR.
11. THE CONTRACTOR SHALL MINIMIZE DISTURBANCE IN AND AROUND FAA NAVIGATIONAL AIDS.
12. CONTRACTOR SHALL PARK ALL EQUIPMENT AND VEHICLES IN THE STAGING AREA AT THE END OF EACH SHIFT AND DURING PERIODS WHEN NO CONSTRUCTION ACTIVITIES ARE TAKING PLACE. NO EQUIPMENT SHALL BE LEFT UNATTENDED WITHIN THE RUNWAY OBJECT FREE AREA (ROFA).

OTHER NOTES

1. AIRPORT MANAGEMENT PERSONNEL WILL ISSUE NOTAM FOR ANY CONTRACTOR SCHEDULED ACTIVITIES AT LEAST 72 HOURS IN ADVANCE OF SAID ACTIVITY.
2. CONSTRUCTION EQUIPMENT THAT MAY DAMAGE AIRFIELD PAVEMENT WHILE CROSSING IT TO ACCESS WORK AREAS, SUCH AS THOSE WITH TRACKS, SHALL PROTECT THE PAVEMENT USING A METHOD APPROVED BY THE RPR.
3. CMA ATCT OPERATION HOURS: 7:00 AM - 9:00 PM LOCAL TIME
   MONITOR CMA GROUND - 122.95 MHZ.

   CMA ATCT CLOSURE HOURS: 9:00 PM TO 7:00 AM LOCAL TIME
   MONITOR CMA CTAF - 134.95 MHZ.
4. CONTRACTOR SHALL PROTECT ALL FAA COMMUNICATION LINES AND ESPECIALLY WHEN WORKING WITHIN EXISTING STORM DRAIN INFRASTRUCTURE. NOTIFY ENGINEER IMMEDIATELY IF DAMAGE OCCURS BY CONTRACTOR OPERATIONS.

PHASING LEGEND

- CONTRACTOR HAUL ROUTE
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- FLASHER BARRICADE
- FLAG PERSONNEL / GATE GUARD
- CONTRACTOR GATE ACCESS
- RUNWAY CLOSURE LIGHTED "X"
- TAXIWAY TEMPORARY CLOSURE "X" (MATERIAL PER DETAIL 4/SHEET G050)

N

GRAPHIC SCALE
300 0 300 600
(IN FEET)

ISSUED FOR 100% REVIEW

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JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY

JVIATION®
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CAMARILLO AIRPORT
CAMARILLO,CA

COUNTY of VENTURA
Department of Airports

DES: A.G.G.
DR: A.G.G.
CH: C.L.G.
APP: J.D.I.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

CONSTRUCTION SAFETY AND PHASING PLAN
SCHEDULE I, PHASE 1 (DAY)

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME
G052B

SHEET NO.
10 of 61

DRAWING NO.
1685-DOA

Plotted October 9, 2023 @ 2:58 PM by Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Reheb\CADD\LAN5000-CMA-LOC-21-01-G052(Day)-PHAS.dwg



CONSTRUCTION PHASING NOTES

SCHEDULE I / PHASE 2 - NIGHT OPERATIONS

DURATION AND CONTRACTOR ACCESS TIMES

- 5 CALENDAR NIGHTS.
- NIGHTTIME ACCESS TO APPROVED WORK AREAS. THE CLOSURE WILL BEGIN NO EARLIER THAN 2100 AND WILL END NO LATER THAN 0700 ON THE FOLLOWING DAY. CONTRACTOR WORK HOURS WILL BE FROM 2100 TO 0600 TO ALLOW TIME FOR CLEANUP, AIRPORT INSPECTION AND TO ENSURE THAT RUNWAY 8-26 IS READY FOR DAYTIME OPENING AND ALL NAVAIDS ARE OPERATIONAL..
- ALL AIRPORT OPERATION AREAS SHALL BE CLOSED DURING NIGHT TIME CLOSURES.
- RUNWAY 8-26 WILL REOPEN EACH MORNING
- TAXIWAY A WITHIN THE RSA WILL REMAIN CLOSED DURING SCHEDULE I, PHASE 2.
- TAXIWAY CONNECTOR BARRICADES SHALL BE REMOVED PRIOR TO OPENING THE RUNWAY EACH MORNING, EXCEPT FOR THE TAXIWAY A RSA BARRICADES. RUNWAY CLOSURE "X"S SHALL BE REMOVED PRIOR TO OPENING THE RUNWAY EACH MORNING. TAXIWAY CLOSURE "X" SHALL BE PLACED AT THE ENTRANCE TO TAXIWAY A FROM THE RUNWAY EACH MORNING.
- DROPS OF MORE THAN 3 INCHES OR SLOPES GREATER THAN 5% ARE NOT PERMITTED WITHIN SCHEDULE I, PHASE 2 AREA WHILE THE RUNWAY IS OPEN.

MAJOR WORK TO BE COMPLETED

SITE PREPARATION

1. EROSION CONTROL MEASURES
2. FULL DEPTH PAVEMENT REMOVALS

PAVEMENT SECTION

1. BASE COURSE PLACEMENT
2. GEOGRID PLACEMENT
3. ASPHALT PAVING
4. PAVEMENT MARKINGS

SITE RECLAMATION

1. EROSION CONTROL MEASURES

IMPACTS ON OPERATIONS

1. THE CONTRACTOR SHALL GIVE RIGHT OF WAY TO ALL AIRCRAFT AND EMERGENCY VEHICLES AT ALL TIMES.
2. THE CONTRACTOR SHALL MAINTAIN EMERGENCY VEHICLE ACCESS TO THE RUNWAY AT ALL TIMES.
3. IF AN EMERGENCY SITUATION ARISES REQUIRING AN AIRCRAFT TO UTILIZE THE RUNWAY AND/OR TAXIWAY DURING CONSTRUCTION, ALL EQUIPMENT AND PERSONNEL SHALL IMMEDIATELY EXIT THE RUNWAY AND/OR TAXIWAY AND STAGE OUTSIDE THE OBJECT FREE AREA.
4. NO WORK, OPEN EXCAVATIONS, EQUIPMENT, STOCKPILES, OR PERSONNEL ARE ALLOWED IN THE SAFETY AREAS OR OBJECT FREE AREAS FOR ANY ACTIVE TAXIWAY OR SAFETY AREAS FOR AN ACTIVE RUNWAY WHEN THE AIRPORT IS OPEN AND OPERATIONAL.
5. PRIOR TO OPENING THE RUNWAY OR TAXIWAY EACH MORNING TO AIRCRAFT, ALL AIRFIELD PAVEMENT WHERE WORK HAS OCCURRED OR EQUIPMENT HAS TRAVERSED SHALL BE SWEPT OR CLEARED WITH APPROVED EQUIPMENT TO REMOVE ANY FOD. ALL EXCAVATIONS AND TRENCHES IN THE SAFETY AREAS SHALL BE BACKFILLED AND COMPACTED TO P-152 SPECIFICATIONS. GRADING WITHIN THE SAFETY AREA SHALL CONFORM TO AC 150/5300-13 (CURRENT VERSION), CHAPTER 3. NO DROPS GREATER THAN 3-INCHES ARE ALLOWED IN THE RUNWAY SAFETY AREA. IF AREAS ARE FOUND TO BE DEFICIENT, THE CONTRACTOR MUST IMMEDIATELY CORRECT THE DEFICIENCY TO THE SATISFACTION OF THE RPR OR CMA STAFF. APPROVAL TO REOPEN TO AIRCRAFT TRAFFIC WILL BE PROVIDED BY AIRPORT OPERATIONS OR THE RPR.
6. AIRPORT PERIMETER SECURITY SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE QUALIFIED GATE GUARDS ALONG CONSTRUCTION ACCESS POINTS AT AIRPORT PERIMETER GATE LOCATIONS. GATES SHALL BE SECURELY CLOSED OR LOCKED AT ALL TIMES IF GATE GUARD IS NOT PRESENT OR GATES ARE NOT IN USE.
7. CONTRACTOR TO PROVIDE RUNWAY CLOSURE MARKERS (RCM's). CONTRACTOR SHALL INSTALL RUNWAY CLOSURE MARKERS ON THE "8" AND "26" RUNWAY DESIGNATIONS FOR THE DURATION OF EACH SCHEDULED RUNWAY CLOSURE. CONTRACTOR IS RESPONSIBLE FOR FUEL AND MAINTENANCE OF RUNWAY X'S.
8. CONSTRUCTION MARKERS, BARRICADES, AND RUNWAY CLOSURE MARKERS SHALL BE INSTALLED PER PHASING PLANS AND AS REQUIRED BY AC 150/5370-2 (CURRENT VERSION) OR AS DIRECTED BY THE RPR.
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OTHER NOTES

1. AIRPORT MANAGEMENT PERSONNEL WILL ISSUE NOTAM FOR ANY CONTRACTOR SCHEDULED ACTIVITIES AT LEAST 72 HOURS IN ADVANCE OF SAID ACTIVITY.
2. CONSTRUCTION EQUIPMENT THAT MAY DAMAGE AIRFIELD PAVEMENT WHILE CROSSING IT TO ACCESS WORK AREAS, SUCH AS THOSE WITH TRACKS, SHALL PROTECT THE PAVEMENT USING A METHOD APPROVED BY THE RPR.
3. CMA ATCT OPERATION HOURS: 7:00 AM - 9:00 PM LOCAL TIME
   MONITOR CMA GROUND - 122.95 MHZ.
   CMA ATCT CLOSURE HOURS: 9:00 PM TO 7:00 AM LOCAL TIME
   MONITOR CMA CTAF - 134.95 MHZ.
4. CONTRACTOR SHALL PROTECT ALL FAA COMMUNICATION LINES AND ESPECIALLY WHEN WORKING WITHIN EXISTING STORM DRAIN INFRASTRUCTURE. NOTIFY ENGINEER IMMEDIATELY IF DAMAGE OCCURS BY CONTRACTOR OPERATIONS.

PHASING LEGEND

- CONTRACTOR HAUL ROUTE
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- FLASHER BARRICADE
- FLAG PERSONNEL / GATE GUARD
- CONTRACTOR GATE ACCESS
- RUNWAY CLOSURE LIGHTED "X"
- TAXIWAY TEMPORARY CLOSURE "X" (MATERIAL PER DETAIL 4/SHEET G050)

N

GRAPHIC SCALE
300 0 300 600
(IN FEET)

ISSUED FOR 100% REVIEW

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JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY

JVIATION®
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CAMARILLO AIRPORT
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COUNTY of VENTURA
Department of Airports

DES: A.G.G.
DR: A.G.G.
CH: C.L.G.
APP: J.D.I.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

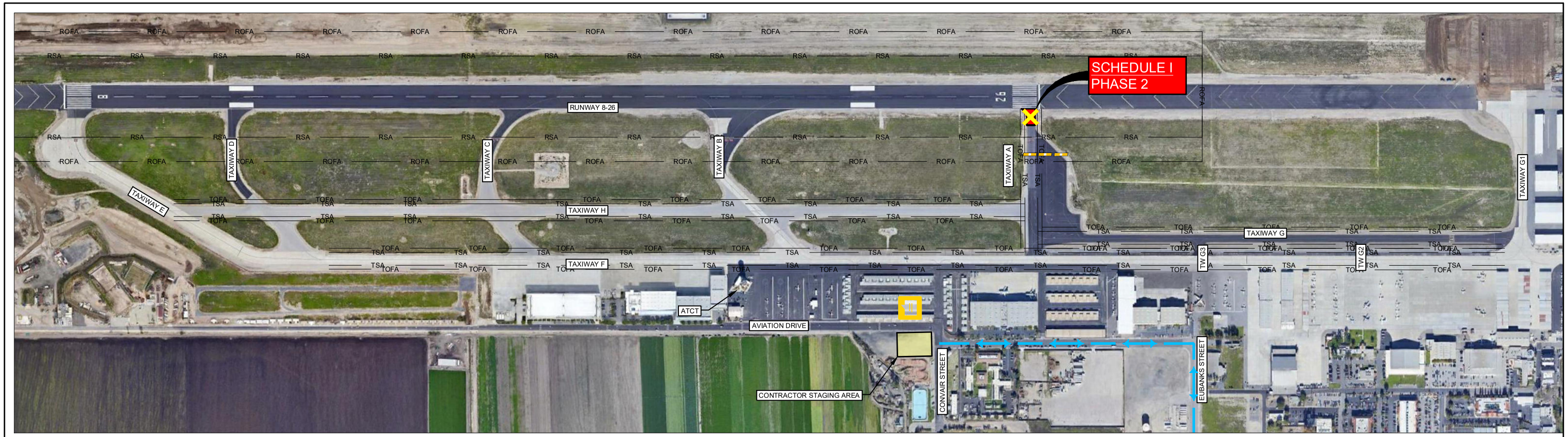
RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

CONSTRUCTION SAFETY AND PHASING PLAN
SCHEDULE I PHASE 2 (NIGHT)

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME: G053A
SHEET NO.: 11 of 61
DRAWING NO.: 1686-DOA

Plotted October 9, 2023 @ 2:58 PM by Vier, Patrick
L:\CMA\LOC 21-01 RW and TW A Rehab\CADD\PLANS\000-CMA-LOC-21-01-G053-PHAS.dwg



CONSTRUCTION PHASING NOTES

SCHEDULE I / PHASE 2 - DAY OPERATIONS

DURATION AND CONTRACTOR ACCESS TIMES

- 5 CALENDAR NIGHTS.
- NIGHTTIME ACCESS TO APPROVED WORK AREAS. THE CLOSURE WILL BEGIN NO EARLIER THAN 2100 AND WILL END NO LATER THAN 0700 ON THE FOLLOWING DAY. CONTRACTOR WORK HOURS WILL BE FROM 2100 TO 0600 TO ALLOW TIME FOR CLEANUP, AIRPORT INSPECTION AND TO ENSURE THAT RUNWAY 8-26 IS READY FOR DAYTIME OPENING AND ALL NAVAIDS ARE OPERATIONAL.
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- RUNWAY 8-26 WILL REOPEN EACH MORNING
- TAXIWAY A WITHIN THE RSA WILL REMAIN CLOSED DURING SCHEDULE I, PHASE 2.
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- DROPS OF MORE THAN 3 INCHES OR SLOPES GREATER THAN 5% ARE NOT PERMITTED WITHIN SCHEDULE I, PHASE 2 AREA WHILE THE RUNWAY IS OPEN.

MAJOR WORK TO BE COMPLETED

SITE PREPARATION

1. EROSION CONTROL MEASURES
2. FULL DEPTH PAVEMENT REMOVALS

PAVEMENT SECTION

1. BASE COURSE PLACEMENT
2. GEOGRID PLACEMENT
3. ASPHALT PAVING
4. PAVEMENT MARKINGS

SITE RECLAMATION

1. EROSION CONTROL MEASURES

IMPACTS ON OPERATIONS

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4. NO WORK, OPEN EXCAVATIONS, EQUIPMENT, STOCKPILES, OR PERSONNEL ARE ALLOWED IN THE SAFETY AREAS OR OBJECT FREE AREAS FOR ANY ACTIVE TAXIWAY OR SAFETY AREAS FOR AN ACTIVE RUNWAY WHEN THE AIRPORT IS OPEN AND OPERATIONAL.
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12. THE CONTRACTOR SHALL MINIMIZE DISTURBANCE IN AND AROUND FAA NAVIGATIONAL AIDS.
13. CONTRACTOR SHALL PARK ALL EQUIPMENT AND VEHICLES IN THE STAGING AREA AT THE END OF EACH WORK SHIFT AND DURING PERIODS WHEN NO CONSTRUCTION ACTIVITIES ARE TAKING PLACE. NO EQUIPMENT SHALL BE LEFT UNATTENDED WITHIN THE RUNWAY OBJECT FREE AREA (ROFA).

OTHER NOTES

1. AIRPORT MANAGEMENT PERSONNEL WILL ISSUE NOTAM FOR ANY CONTRACTOR SCHEDULED ACTIVITIES AT LEAST 72 HOURS IN ADVANCE OF SAID ACTIVITY.
2. CONSTRUCTION EQUIPMENT THAT MAY DAMAGE AIRFIELD PAVEMENT WHILE CROSSING IT TO ACCESS WORK AREAS, SUCH AS THOSE WITH TRACKS, SHALL PROTECT THE PAVEMENT USING A METHOD APPROVED BY THE RPR.
3. CMA ATCT OPERATION HOURS: 7:00 AM - 9:00 PM LOCAL TIME
   MONITOR CMA GROUND - 122.95 MHZ.

   CMA ATCT CLOSURE HOURS: 9:00 PM TO 7:00 AM LOCAL TIME
   MONITOR CMA CTAF - 134.95 MHZ.
4. CONTRACTOR SHALL PROTECT ALL FAA COMMUNICATION LINES AND ESPECIALLY WHEN WORKING WITHIN EXISTING STORM DRAIN INFRASTRUCTURE. NOTIFY ENGINEER IMMEDIATELY IF DAMAGE OCCURS BY CONTRACTOR OPERATIONS.

PHASING LEGEND

- CONTRACTOR HAUL ROUTE
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- FLASHER BARRICADE
- FLAG PERSONNEL / GATE GUARD
- CONTRACTOR GATE ACCESS
- RUNWAY CLOSURE LIGHTED "X"
- TAXIWAY TEMPORARY CLOSURE "X" (MATERIAL PER DETAIL 4/SHEET G050)

N

GRAPHIC SCALE
300 0 300 600
(IN FEET)

ISSUED FOR 100% REVIEW

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JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY

JVIATION®
A WOOLPERT COMPANY

CAMARILLO AIRPORT
CAMARILLO,CA

COUNTY of VENTURA
Department of Airports

DES: A.G.G.
DR: A.G.G.
CH: C.L.G.
APP: J.D.I.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

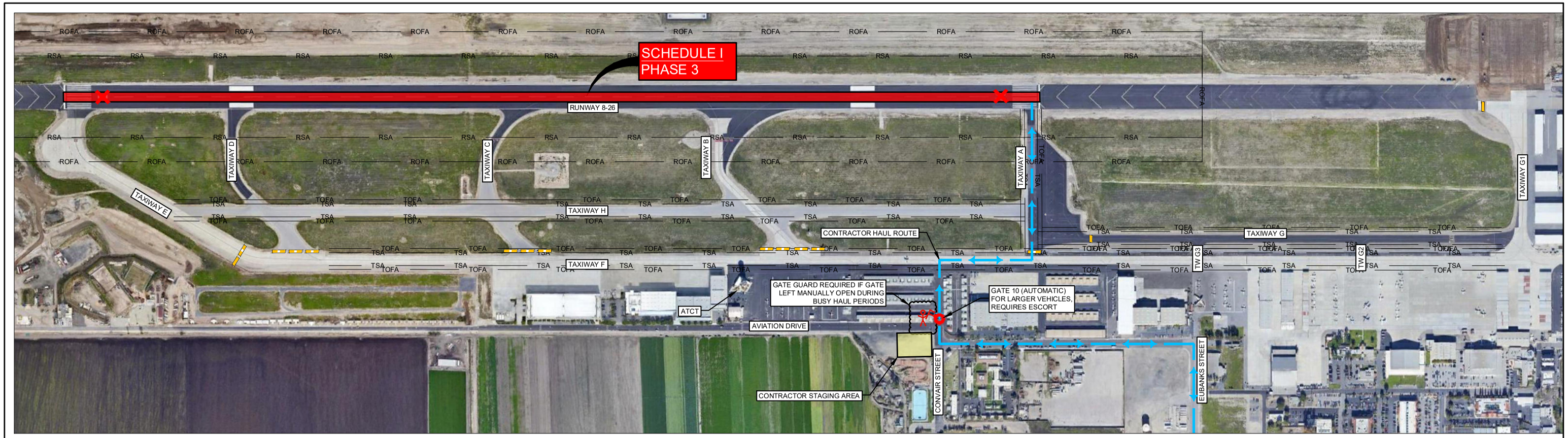
RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

CONSTRUCTION SAFETY AND PHASING PLAN
SCHEDULE I, PHASE 2 (DAY)

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME: G053B
SHEET NO.: 12 of 61
DRAWING NO.: 1687-DOA

Plotted October 9, 2023 @ 2:58 PM by Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Rehab\CADD\PLANS\000-CMA-LOC-21-01-G053(Day)-PHAS.dwg



CONSTRUCTION PHASING NOTES

SCHEDULE I / PHASE 3 - NIGHT OPERATIONS

DURATION AND CONTRACTOR ACCESS TIMES

- 5 CALENDAR NIGHTS
- NIGHTTIME ACCESS TO APPROVED WORK AREAS. THE CLOSURE WILL BEGIN NO EARLIER THAN 2100 AND WILL END NO LATER THAN 0700 ON THE FOLLOWING DAY. CONTRACTOR WORK HOURS WILL BE FROM 2100 TO 0600 TO ALLOW TIME FOR CLEANUP, AIRPORT INSPECTION AND TO ENSURE THAT RUNWAY 8-26 IS READY FOR DAYTIME OPENING AND ALL NAVAIDS ARE OPERATIONAL.
- ALL AIRPORT OPERATION AREAS SHALL BE CLOSED DURING NIGHT TIME CLOSURES.
- RUNWAY 8-26 WILL REOPEN EACH MORNING.
- TAXIWAY CONNECTOR BARRICADES AND RUNWAY CLOSURE "X"S SHALL BE REMOVED PRIOR TO OPENING THE RUNWAY EACH MORNING.
- PAVEMENT REMOVAL, PAVING, AND PAVEMENT MARKING APPLICATION FOR EACH AREA TO BE WORKED ON ALONG THE RUNWAY CENTERLINE MUST BE COMPLETED IN THE SAME NIGHT PRIOR TO OPENING RUNWAY 8/26 EACH MORNING.

MAJOR WORK TO BE COMPLETED

SITE PREPARATION

1. PARTIAL DEPTH PAVEMENT REMOVALS

PAVEMENT SECTION

1. ASPHALT PAVING
2. PAVEMENT MARKINGS

IMPACTS ON OPERATIONS

1. THE CONTRACTOR SHALL GIVE RIGHT OF WAY TO ALL AIRCRAFT AND EMERGENCY VEHICLES AT ALL TIMES.
2. THE CONTRACTOR SHALL MAINTAIN EMERGENCY VEHICLE ACCESS TO THE RUNWAY AT ALL TIMES.
3. IF AN EMERGENCY SITUATION ARISES REQUIRING AN AIRCRAFT TO UTILIZE THE RUNWAY AND/OR TAXIWAY DURING CONSTRUCTION, ALL EQUIPMENT AND PERSONNEL SHALL IMMEDIATELY EXIT THE RUNWAY AND/OR TAXIWAY AND STAGE OUTSIDE THE OBJECT FREE AREA.
4. NO WORK, OPEN EXCAVATIONS, EQUIPMENT, STOCKPILES, OR PERSONNEL ARE ALLOWED IN THE SAFETY AREAS OR OBJECT FREE AREAS FOR ANY ACTIVE TAXIWAY OR SAFETY AREAS FOR AN ACTIVE RUNWAY WHEN THE AIRPORT IS OPEN AND OPERATIONAL.
5. PRIOR TO OPENING THE RUNWAY OR TAXIWAY EACH MORNING TO AIRCRAFT, ALL AIRFIELD PAVEMENT WHERE WORK HAS OCCURRED OR EQUIPMENT HAS TRAVERSED SHALL BE SWEPT OR CLEARED WITH APPROVED EQUIPMENT TO REMOVE ANY FOD. ALL EXCAVATIONS AND TRENCHES IN THE SAFETY AREAS SHALL BE BACKFILLED AND COMPACTED TO P-152 SPECIFICATIONS. GRADING WITHIN THE SAFETY AREA SHALL CONFORM TO AC 150/5300-13 (CURRENT VERSION), CHAPTER 3. NO DROPS GREATER THAN 3-INCHES ARE ALLOWED IN THE RUNWAY SAFETY AREA. IF AREAS ARE FOUND TO BE DEFICIENT, THE CONTRACTOR MUST IMMEDIATELY CORRECT THE DEFICIENCY TO THE SATISFACTION OF THE RESIDENT PROJECT REPRESENTATIVE (RPR) OR CMA STAFF. APPROVAL TO REOPEN TO AIRCRAFT TRAFFIC WILL BE PROVIDED BY AIRPORT OPERATIONS OR THE RPR.
6. AIRPORT PERIMETER SECURITY SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE QUALIFIED GATE GUARDS ALONG CONSTRUCTION ACCESS POINTS AT AIRPORT PERIMETER GATE LOCATIONS. GATES SHALL BE SECURELY CLOSED OR LOCKED AT ALL TIMES IF GATE GUARD IS NOT PRESENT OR GATES ARE NOT IN USE.
7. CONTRACTOR TO PROVIDE RUNWAY CLOSURE MARKERS (RCM's). CONTRACTOR SHALL INSTALL RUNWAY CLOSURE MARKERS ON THE "8" AND "26" RUNWAY DESIGNATIONS FOR THE DURATION OF EACH SCHEDULED RUNWAY CLOSURE. CONTRACTOR IS RESPONSIBLE FOR FUEL AND MAINTENANCE OF RUNWAY X'S.
8. CONSTRUCTION MARKERS, BARRICADES, AND RUNWAY CLOSURE MARKERS SHALL BE INSTALLED PER PHASING PLANS AND AS REQUIRED BY AC 150/5370-2 (CURRENT VERSION) OR AS DIRECTED BY THE RPR.
9. ALL STOCKPILES OR EQUIPMENT ADJACENT TO OBJECT FREE AREAS SHALL BE MARKED AND LIGHTED PER AC 150/5370-2 (CURENT VERSION).
10. THE CONTRACTOR SHALL HAVE A SWEEPER OR VACUUM TRUCK ON SITE AT ALL TIMES TO CLEAN DEBRIS FROM HAUL ROUTES, CONSTRUCTION ACCESS POINTS, OR AREAS ADJACENT TO CONSTRUCTION.
11. THE CONTRACTOR SHALL KEEP ALL CONSTRUCTION TRAFFIC LIMITED TO THE APPROVED HAUL ROUTES AS SHOWN ON THE PLANS OR AS APPROVED BY THE RPR. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED ALONG THE HAUL ROUTES OR CONSTRUCTION ACCESS ROUTES TO THE PROJECT SITE. HAUL ROADS WILL BE MAINTAINED AND RESTORED TO THEIR ORIGINAL CONDITION BY THE CONTRACTOR AT NO EXPENSE TO THE SPONSOR.
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OTHER NOTES

1. AIRPORT MANAGEMENT PERSONNEL WILL ISSUE NOTAM FOR ANY CONTRACTOR SCHEDULED ACTIVITIES AT LEAST 72 HOURS IN ADVANCE OF SAID ACTIVITY.
2. CONSTRUCTION EQUIPMENT THAT MAY DAMAGE AIRFIELD PAVEMENT WHILE CROSSING IT TO ACCESS WORK AREAS, SUCH AS THOSE WITH TRACKS, SHALL PROTECT THE PAVEMENT USING A METHOD APPROVED BY THE RPR.
3. CMA ATCT OPERATION HOURS: 7:00 AM - 9:00 PM LOCAL TIME
   MONITOR CMA GROUND - 122.95 MHZ.
   CMA ATCT CLOSURE HOURS: 9:00 PM TO 7:00 AM LOCAL TIME
   MONITOR CMA CTAF - 134.95 MHZ.
4. CONTRACTOR SHALL PROTECT ALL FAA COMMUNICATION LINES AND ESPECIALLY WHEN WORKING WITHIN EXISTING STORM DRAIN INFRASTRUCTURE. NOTIFY ENGINEER IMMEDIATELY IF DAMAGE OCCURS BY CONTRACTOR OPERATIONS.

PHASING LEGEND

- CONTRACTOR HAUL ROUTE
- RSA — RUNWAY SAFETY AREA
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- TOFA — TAXIWAY OBJECT FREE AREA
- FLASHER BARRICADE
- FLAG PERSONNEL / GATE GUARD
- CONTRACTOR GATE ACCESS
- RUNWAY CLOSURE LIGHTED "X"
- TAXIWAY TEMPORARY CLOSURE "X" (MATERIAL PER DETAIL 4/SHEET G050)

N

GRAPHIC SCALE
300 0 300 600
(IN FEET)

ISSUED FOR 100% REVIEW

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JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

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DES: A.G.G.
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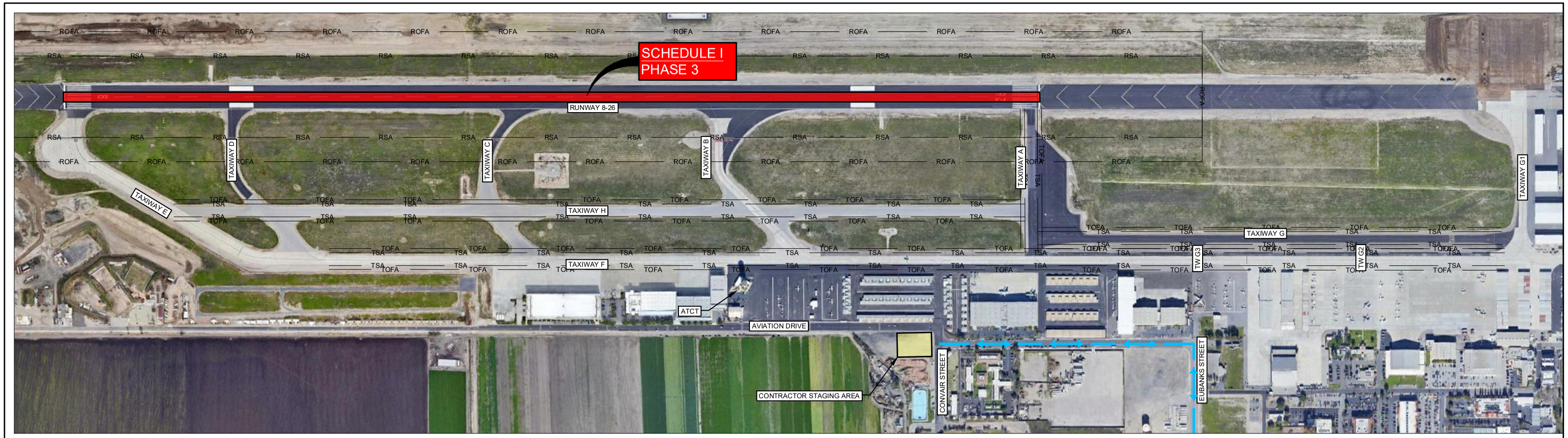
RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

CONSTRUCTION SAFETY AND PHASING PLAN
SCHEDULE I PHASE 3 (NIGHT)

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME: G054A
SHEET NO.: 13 of 61
DRAWING NO.: 1688-DOA

Plotted October 9, 2023 @ 2:58 PM by Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Rehab\CADD\LAYOUTS\000-CMA-LOC-21-01-G054-PHAS.dwg



CONSTRUCTION PHASING NOTES

SCHEDULE I / PHASE 3 - DAY OPERATIONS

DURATION AND CONTRACTOR ACCESS TIMES

- 5 CALENDAR NIGHTS
- NIGHTTIME ACCESS TO APPROVED WORK AREAS. THE CLOSURE WILL BEGIN NO EARLIER THAN 2100 AND WILL END NO LATER THAN 0700 ON THE FOLLOWING DAY. CONTRACTOR WORK HOURS WILL BE FROM 2100 TO 0600 TO ALLOW TIME FOR CLEANUP, AIRPORT INSPECTION AND TO ENSURE THAT RUNWAY 8-26 IS READY FOR DAYTIME OPENING AND ALL NAVAIDS ARE OPERATIONAL.
- ALL AIRPORT OPERATION AREAS SHALL BE CLOSED DURING NIGHT TIME CLOSURES.
- RUNWAY 8-26 WILL REOPEN EACH MORNING.
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- PAVEMENT REMOVAL, PAVING, AND PAVEMENT MARKING APPLICATION FOR EACH AREA TO BE WORKED ON ALONG THE RUNWAY CENTERLINE MUST BE COMPLETED IN THE SAME NIGHT PRIOR TO OPENING RUNWAY 8/26 EACH MORNING.

MAJOR WORK TO BE COMPLETED

SITE PREPARATION

1. PARTIAL DEPTH PAVEMENT REMOVALS

PAVEMENT SECTION

1. ASPHALT PAVING
2. PAVEMENT MARKINGS

IMPACTS ON OPERATIONS

1. THE CONTRACTOR SHALL GIVE RIGHT OF WAY TO ALL AIRCRAFT AND EMERGENCY VEHICLES AT ALL TIMES.
2. THE CONTRACTOR SHALL MAINTAIN EMERGENCY VEHICLE ACCESS TO THE RUNWAY AT ALL TIMES.
3. IF AN EMERGENCY SITUATION ARISES REQUIRING AN AIRCRAFT TO UTILIZE THE RUNWAY AND/OR TAXIWAY DURING CONSTRUCTION, ALL EQUIPMENT AND PERSONNEL SHALL IMMEDIATELY EXIT THE RUNWAY AND/OR TAXIWAY AND STAGE OUTSIDE THE OBJECT FREE AREA.
4. NO WORK, OPEN EXCAVATIONS, EQUIPMENT, STOCKPILES, OR PERSONNEL ARE ALLOWED IN THE SAFETY AREAS OR OBJECT FREE AREAS FOR ANY ACTIVE TAXIWAY OR SAFETY AREAS FOR AN ACTIVE RUNWAY WHEN THE AIRPORT IS OPEN AND OPERATIONAL.
5. PRIOR TO OPENING THE RUNWAY OR TAXIWAY EACH MORNING TO AIRCRAFT, ALL AIRFIELD PAVEMENT WHERE WORK HAS OCCURRED OR EQUIPMENT HAS TRAVERSED SHALL BE SWEPT OR CLEARED WITH APPROVED EQUIPMENT TO REMOVE ANY FOD. ALL EXCAVATIONS AND TRENCHES IN THE SAFETY AREAS SHALL BE BACKFILLED AND COMPACTED TO P-152 SPECIFICATIONS. GRADING WITHIN THE SAFETY AREA SHALL CONFORM TO AC 150/5300-13 (CURRENT VERSION), CHAPTER 3. NO DROPS GREATER THAN 3-INCHES ARE ALLOWED IN THE RUNWAY SAFETY AREA. IF AREAS ARE FOUND TO BE DEFICIENT, THE CONTRACTOR MUST IMMEDIATELY CORRECT THE DEFICIENCY TO THE SATISFACTION OF THE RESIDENT PROJECT REPRESENTATIVE (RPR) OR CMA STAFF. APPROVAL TO REOPEN TO AIRCRAFT TRAFFIC WILL BE PROVIDED BY AIRPORT OPERATIONS OR THE RPR.
6. AIRPORT PERIMETER SECURITY SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE QUALIFIED GATE GUARDS ALONG CONSTRUCTION ACCESS POINTS AT AIRPORT PERIMETER GATE LOCATIONS. GATES SHALL BE SECURELY CLOSED OR LOCKED AT ALL TIMES IF GATE GUARD IS NOT PRESENT OR GATES ARE NOT IN USE.
7. CONTRACTOR TO PROVIDE RUNWAY CLOSURE MARKERS (RCM's). CONTRACTOR SHALL INSTALL RUNWAY CLOSURE MARKERS ON THE "8" AND "26" RUNWAY DESIGNATIONS FOR THE DURATION OF EACH SCHEDULED RUNWAY CLOSURE. CONTRACTOR IS RESPONSIBLE FOR FUEL AND MAINTENANCE OF RUNWAY X'S.
8. CONSTRUCTION MARKERS, BARRICADES, AND RUNWAY CLOSURE MARKERS SHALL BE INSTALLED PER PHASING PLANS AND AS REQUIRED BY AC 150/5370-2 (CURRENT VERSION) OR AS DIRECTED BY THE RPR.
9. ALL STOCKPILES OR EQUIPMENT ADJACENT TO OBJECT FREE AREAS SHALL BE MARKED AND LIGHTED PER AC 150/5370-2 (CURENT VERSION).
10. THE CONTRACTOR SHALL HAVE A SWEEPER OR VACUUM TRUCK ON SITE AT ALL TIMES TO CLEAN DEBRIS FROM HAUL ROUTES, CONSTRUCTION ACCESS POINTS, OR AREAS ADJACENT TO CONSTRUCTION.
11. THE CONTRACTOR SHALL KEEP ALL CONSTRUCTION TRAFFIC LIMITED TO THE APPROVED HAUL ROUTES AS SHOWN ON THE PLANS OR AS APPROVED BY THE RPR. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED ALONG THE HAUL ROUTES OR CONSTRUCTION ACCESS ROUTES TO THE PROJECT SITE. HAUL ROADS WILL BE MAINTAINED AND RESTORED TO THEIR ORIGINAL CONDITION BY THE CONTRACTOR AT NO EXPENSE TO THE SPONSOR.
12. THE CONTRACTOR SHALL MINIMIZE DISTURBANCE IN AND AROUND FAA NAVIGATIONAL AIDS.
13. CONTRACTOR SHALL PARK ALL EQUIPMENT AND VEHICLES IN THE STAGING AREA AT THE END OF EACH WORK SHIFT AND DURING PERIODS WHEN NO CONSTRUCTION ACTIVITIES ARE TAKING PLACE. NO EQUIPMENT SHALL BE LEFT UNATTENDED WITHIN THE RUNWAY OBJECT FREE AREA (ROFA).

OTHER NOTES

1. AIRPORT MANAGEMENT PERSONNEL WILL ISSUE NOTAM FOR ANY CONTRACTOR SCHEDULED ACTIVITIES AT LEAST 72 HOURS IN ADVANCE OF SAID ACTIVITY.
2. CONSTRUCTION EQUIPMENT THAT MAY DAMAGE AIRFIELD PAVEMENT WHILE CROSSING IT TO ACCESS WORK AREAS, SUCH AS THOSE WITH TRACKS, SHALL PROTECT THE PAVEMENT USING A METHOD APPROVED BY THE RPR.
3. CMA ATCT OPERATION HOURS: 7:00 AM - 9:00 PM LOCAL TIME
   MONITOR CMA GROUND - 122.95 MHZ.

   CMA ATCT CLOSURE HOURS: 9:00 PM TO 7:00 AM LOCAL TIME
   MONITOR CMA CTAF - 134.95 MHZ.
4. CONTRACTOR SHALL PROTECT ALL FAA COMMUNICATION LINES AND ESPECIALLY WHEN WORKING WITHIN EXISTING STORM DRAIN INFRASTRUCTURE. NOTIFY ENGINEER IMMEDIATELY IF DAMAGE OCCURS BY CONTRACTOR OPERATIONS.

PHASING LEGEND

- CONTRACTOR HAUL ROUTE
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- FLASHER BARRICADE
- FLAG PERSONNEL / GATE GUARD
- CONTRACTOR GATE ACCESS
- RUNWAY CLOSURE LIGHTED "X"
- TAXIWAY TEMPORARY CLOSURE "X" (MATERIAL PER DETAIL 4/SHEET G050)

N

GRAPHIC SCALE
300 0 300 600
(IN FEET)

ISSUED FOR 100% REVIEW

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JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

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DES: A.G.G.
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APP: J.D.I.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
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RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

CONSTRUCTION SAFETY AND PHASING PLAN
SCHEDULE I, PHASE 3 (DAY)

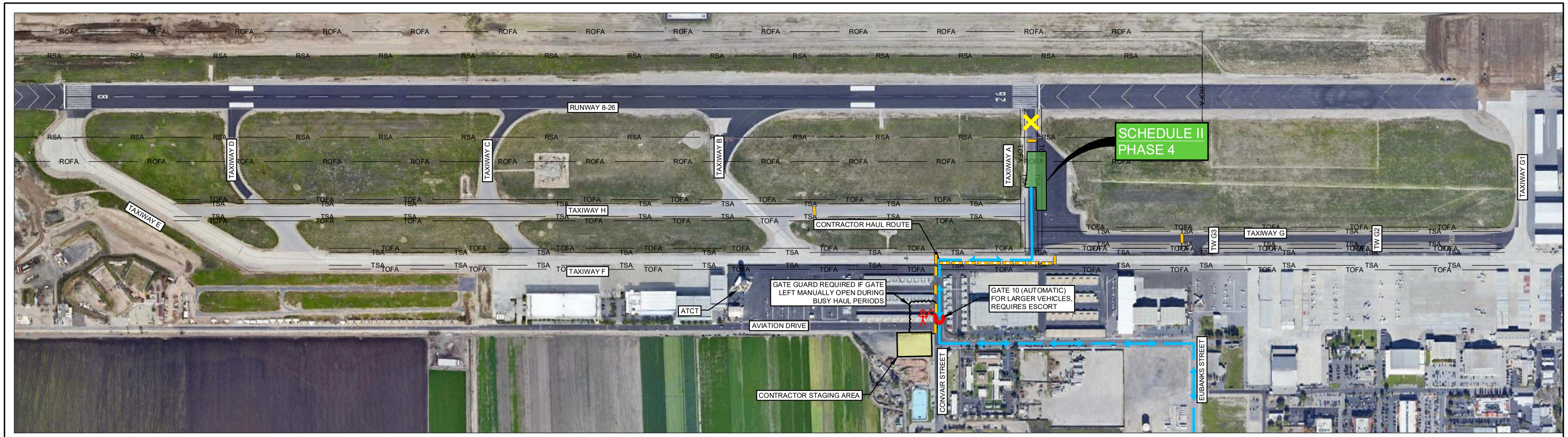
PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME
G054B

SHEET NO.
14 of 61

DRAWING NO.
1689-DOA

Plotted October 9, 2023 @ 2:58 PM by Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Reheb\CADD\LAYOUTS\000-CMA-LOC-21-01-G054(Day)-PHAS.dwg



CONSTRUCTION PHASING NOTES

SCHEDULE II / PHASE 4 - NIGHT OPERATIONS

DURATION AND CONTRACTOR ACCESS TIMES

- 1 CALENDAR NIGHT CONCURRENT TO SCHEDULE I, PHASE 1.
- NIGHTTIME ACCESS TO APPROVED WORK AREAS. THE CLOSURE WILL BEGIN NO EARLIER THAN 2100 AND WILL END NO LATER THAN 0700 ON THE FOLLOWING DAY. CONTRACTOR WORK HOURS WILL BE FROM 2100 TO 0600 TO ALLOW TIME FOR CLEANUP, AIRPORT INSPECTION AND TO ENSURE THAT TAXIWAY A IS READY FOR DAYTIME OPENING AND ALL NAVAIDS ARE OPERATIONAL.
- BARRICADES WILL NEED TO BE MOVED OUTSIDE OF THE RUNWAY SAFETY AREA (RSA) AND TAXIWAY SAFETY AREA (TSA) PRIOR TO END OF WORK AND REOPENING OF THE PORTION OF TAXIWAY A EACH MORNING.

MAJOR WORK TO BE COMPLETED

PAVEMENT SECTION

1. PAVEMENT MARKINGS

IMPACTS ON OPERATIONS

1. THE CONTRACTOR SHALL GIVE RIGHT OF WAY TO ALL AIRCRAFT AND EMERGENCY VEHICLES AT ALL TIMES.
2. THE CONTRACTOR SHALL MAINTAIN EMERGENCY VEHICLE ACCESS TO THE RUNWAY AT ALL TIMES.
3. IF AN EMERGENCY SITUATION ARISES REQUIRING AN AIRCRAFT TO UTILIZE THE RUNWAY AND/OR TAXIWAY DURING CONSTRUCTION, ALL EQUIPMENT AND PERSONNEL SHALL IMMEDIATELY EXIT THE RUNWAY AND/OR TAXIWAY AND STAGE OUTSIDE THE OBJECT FREE AREA.
4. NO WORK, OPEN EXCAVATIONS, EQUIPMENT, STOCKPILES, OR PERSONNEL ARE ALLOWED IN THE SAFETY AREAS OR OBJECT FREE AREAS FOR ANY ACTIVE TAXIWAY OR SAFETY AREAS FOR AN ACTIVE RUNWAY WHEN THE AIRPORT IS OPEN AND OPERATIONAL.
5. PRIOR TO OPENING THE TAXIWAY EACH MORNING TO AIRCRAFT, ALL AIRFIELD PAVEMENT WHERE WORK HAS OCCURRED OR EQUIPMENT HAS TRAVERSED SHALL BE SWEPT OR CLEARED WITH APPROVED EQUIPMENT TO REMOVE ANY FOD. ALL EXCAVATIONS AND TRENCHES IN THE SAFETY AREAS SHALL BE BACKFILLED AND COMPACTED TO P-152 SPECIFICATIONS. GRADING WITHIN THE SAFETY AREA SHALL CONFORM TO AC 150/5300-13 (CURRENT VERSION), CHAPTER 3. NO DROPS GREATER THAN 3-INCHES ARE ALLOWED IN THE RUNWAY SAFETY AREA. IF AREAS ARE FOUND TO BE DEFICIENT, THE CONTRACTOR MUST IMMEDIATELY CORRECT THE DEFICIENCY TO THE SATISFACTION OF THE RPR OR CMA STAFF. APPROVAL TO REOPEN TO AIRCRAFT TRAFFIC WILL BE PROVIDED BY AIRPORT OPERATIONS OR THE RPR.
6. AIRPORT PERIMETER SECURITY SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE QUALIFIED GATE GUARDS ALONG CONSTRUCTION ACCESS POINTS AT AIRPORT PERIMETER GATE LOCATIONS. GATES SHALL BE SECURELY CLOSED OR LOCKED AT ALL TIMES IF GATE GUARD IS NOT PRESENT OR GATES ARE NOT IN USE.
7. CONSTRUCTION MARKERS, BARRICADES, AND TAXIWAY CLOSURE MARKERS SHALL BE INSTALLED PER PHASING PLANS AND AS REQUIRED BY AC 150/5370-2 (CURRENT VERSION) OR AS DIRECTED BY THE RPR.
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9. THE CONTRACTOR SHALL HAVE A SWEEPER OR VACUUM TRUCK ON SITE AT ALL TIMES TO CLEAN DEBRIS FROM HAUL ROUTES, CONSTRUCTION ACCESS POINTS, OR AREAS ADJACENT TO CONSTRUCTION.
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OTHER NOTES

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3. CMA ATCT OPERATION HOURS: 7:00 AM - 9:00 PM LOCAL TIME MONITOR CMA GROUND - 122.95 MHZ.

   CMA ATCT CLOSURE HOURS: 9:00 PM TO 7:00 AM LOCAL TIME MONITOR CMA CTAF - 134.95 MHZ.
4. CONTRACTOR SHALL PROTECT ALL FAA COMMUNICATION LINES AND ESPECIALLY WHEN WORKING WITHIN EXISTING STORM DRAIN INFRASTRUCTURE. NOTIFY ENGINEER IMMEDIATELY IF DAMAGE OCCURS BY CONTRACTOR OPERATIONS.

PHASING LEGEND

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- ROFA — RUNWAY OBJECT FREE AREA
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- RUNWAY CLOSURE LIGHTED "X"
- TAXIWAY TEMPORARY CLOSURE "X" (MATERIAL PER DETAIL 4/SHEET G050)

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NAME	REG. NO.	DATE

FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY

JVIATION®
A WOOLPERT COMPANY

CAMARILLO AIRPORT
CAMARILLO,CA

COUNTY of VENTURA
Department of Airports

DES: A.G.G.
DR: A.G.G.
CH: C.L.G.
APP: J.D.I.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

CONSTRUCTION SAFETY AND PHASING PLAN
SCHEDULE II PHASE 4 (NIGHT)

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME: G055A
SHEET NO.: 15 of 61
DRAWING NO.: 1690-DOA

Plotted October 9, 2023 @ 2:58 PM by Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Reheb\CAD\PLANS\000-CMA-LOC-21-01-G055-PHAS.dwg



CONSTRUCTION PHASING NOTES

SCHEDULE II / PHASE 4 - DAY OPERATIONS

DURATION AND CONTRACTOR ACCESS TIMES

- 1 CALENDAR NIGHT CONCURRENT TO SCHEDULE I, PHASE 1.
- NIGHTTIME ACCESS TO APPROVED WORK AREAS. THE CLOSURE WILL BEGIN NO EARLIER THAN 2100 AND WILL END NO LATER THAN 0700 ON THE FOLLOWING DAY. CONTRACTOR WORK HOURS WILL BE FROM 2100 TO 0600 TO ALLOW TIME FOR CLEANUP, AIRPORT INSPECTION AND TO ENSURE THAT TAXIWAY A IS READY FOR DAYTIME OPENING AND ALL NAVAIDS ARE OPERATIONAL.
- BARRICADES WILL NEED TO BE MOVED OUTSIDE OF THE RUNWAY SAFETY AREA (RSA) AND TAXIWAY SAFETY AREA (TSA) PRIOR TO END OF WORK AND REOPENING OF THE PORTION OF TAXIWAY A EACH MORNING.

MAJOR WORK TO BE COMPLETED

PAVEMENT SECTION

1. PAVEMENT MARKINGS

IMPACTS ON OPERATIONS

1. THE CONTRACTOR SHALL GIVE RIGHT OF WAY TO ALL AIRCRAFT AND EMERGENCY VEHICLES AT ALL TIMES.
2. THE CONTRACTOR SHALL MAINTAIN EMERGENCY VEHICLE ACCESS TO THE RUNWAY AT ALL TIMES.
3. IF AN EMERGENCY SITUATION ARISES REQUIRING AN AIRCRAFT TO UTILIZE THE RUNWAY AND/OR TAXIWAY DURING CONSTRUCTION, ALL EQUIPMENT AND PERSONNEL SHALL IMMEDIATELY EXIT THE RUNWAY AND/OR TAXIWAY AND STAGE OUTSIDE THE OBJECT FREE AREA.
4. NO WORK, OPEN EXCAVATIONS, EQUIPMENT, STOCKPILES, OR PERSONNEL ARE ALLOWED IN THE SAFETY AREAS OR OBJECT FREE AREAS FOR ANY ACTIVE TAXIWAY OR SAFETY AREAS FOR AN ACTIVE RUNWAY WHEN THE AIRPORT IS OPEN AND OPERATIONAL.
5. PRIOR TO OPENING THE TAXIWAY EACH MORNING TO AIRCRAFT, ALL AIRFIELD PAVEMENT WHERE WORK HAS OCCURRED OR EQUIPMENT HAS TRAVERSED SHALL BE SWEPT OR CLEARED WITH APPROVED EQUIPMENT TO REMOVE ANY FOD. ALL EXCAVATIONS AND TRENCHES IN THE SAFETY AREAS SHALL BE BACKFILLED AND COMPACTED TO P-152 SPECIFICATIONS. GRADING WITHIN THE SAFETY AREA SHALL CONFORM TO AC 150/5300-13 (CURRENT VERSION), CHAPTER 3. NO DROPS GREATER THAN 3-INCHES ARE ALLOWED IN THE RUNWAY SAFETY AREA. IF AREAS ARE FOUND TO BE DEFICIENT, THE CONTRACTOR MUST IMMEDIATELY CORRECT THE DEFICIENCY TO THE SATISFACTION OF THE RPR OR CMA STAFF. APPROVAL TO REOPEN TO AIRCRAFT TRAFFIC WILL BE PROVIDED BY AIRPORT OPERATIONS OR THE RPR.
6. AIRPORT PERIMETER SECURITY SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE QUALIFIED GATE GUARDS ALONG CONSTRUCTION ACCESS POINTS AT AIRPORT PERIMETER GATE LOCATIONS. GATES SHALL BE SECURELY CLOSED OR LOCKED AT ALL TIMES IF GATE GUARD IS NOT PRESENT OR GATES ARE NOT IN USE.
7. CONSTRUCTION MARKERS, BARRICADES, AND TAXIWAY CLOSURE MARKERS SHALL BE INSTALLED PER PHASING PLANS AND AS REQUIRED BY AC 150/5370-2 (CURRENT VERSION) OR AS DIRECTED BY THE RPR.
8. ALL STOCKPILES OR EQUIPMENT ADJACENT TO OBJECT FREE AREAS SHALL BE MARKED AND LIGHTED PER AC 150/5370-2 (CURENT VERSION).
9. THE CONTRACTOR SHALL HAVE A SWEEPER OR VACUUM TRUCK ON SITE AT ALL TIMES TO CLEAN DEBRIS FROM HAUL ROUTES, CONSTRUCTION ACCESS POINTS, OR AREAS ADJACENT TO CONSTRUCTION.
10. THE CONTRACTOR SHALL KEEP ALL CONSTRUCTION TRAFFIC LIMITED TO THE APPROVED HAUL ROUTES AS SHOWN ON THE PLANS OR AS APPROVED BY THE RPR. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED ALONG THE HAUL ROUTES OR CONSTRUCTION ACCESS ROUTES TO THE PROJECT SITE. HAUL ROADS WILL BE MAINTAINED AND RESTORED TO THEIR ORIGINAL CONDITION BY THE CONTRACTOR AT NO EXPENSE TO THE SPONSOR.
11. THE CONTRACTOR SHALL MINIMIZE DISTURBANCE IN AND AROUND FAA NAVIGATIONAL AIDS.
12. CONTRACTOR SHALL PARK ALL EQUIPMENT AND VEHICLES IN THE STAGING AREA AT THE END OF EACH SHIFT AND DURING PERIODS WHEN NO CONSTRUCTION ACTIVITIES ARE TAKING PLACE. NO EQUIPMENT SHALL BE LEFT UNATTENDED WITHIN THE RUNWAY OBJECT FREE AREA (ROFA).

OTHER NOTES

1. AIRPORT MANAGEMENT PERSONNEL WILL ISSUE NOTAM FOR ANY CONTRACTOR SCHEDULED ACTIVITIES AT LEAST 72 HOURS IN ADVANCE OF SAID ACTIVITY.
2. CONSTRUCTION EQUIPMENT THAT MAY DAMAGE AIRFIELD PAVEMENT WHILE CROSSING IT TO ACCESS WORK AREAS, SUCH AS THOSE WITH TRACKS, SHALL PROTECT THE PAVEMENT USING A METHOD APPROVED BY THE RPR.
3. CMA ATCT OPERATION HOURS: 7:00 AM - 9:00 PM LOCAL TIME MONITOR CMA GROUND - 122.95 MHZ.

   CMA ATCT CLOSURE HOURS: 9:00 PM TO 7:00 AM LOCAL TIME MONITOR CMA CTAF - 134.95 MHZ.
4. CONTRACTOR SHALL PROTECT ALL FAA COMMUNICATION LINES AND ESPECIALLY WHEN WORKING WITHIN EXISTING STORM DRAIN INFRASTRUCTURE. NOTIFY ENGINEER IMMEDIATELY IF DAMAGE OCCURS BY CONTRACTOR OPERATIONS.

PHASING LEGEND

- CONTRACTOR HAUL ROUTE
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- FLASHER BARRICADE
- FLAG PERSONNEL / GATE GUARD
- CONTRACTOR GATE ACCESS
- RUNWAY CLOSURE LIGHTED "X"
- TAXIWAY TEMPORARY CLOSURE "X" (MATERIAL PER DETAIL 4/SHEET G050)

N

GRAPHIC SCALE
300 0 300 600
(IN FEET)

ISSUED FOR 100% REVIEW

THESE DRAWINGS ARE FOR DESIGN REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES. THEY WERE PREPARED BY OR UNDER THE SUPERVISION OF:

JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

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RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

CONSTRUCTION SAFETY AND PHASING PLAN
SCHEDULE II, PHASE 4 (DAY)

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME
G055B

SHEET NO.
16 of 61

DRAWING NO.
1691-DOA

Plotted October 9, 2023 @ 2:58 PM by Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Reheb\CADD\LAN5000-CMA-LOC-21-01-G055(Day)-PHAS.dwg



CONSTRUCTION PHASING NOTES

SCHEDULE II / PHASE 5 - NIGHT OPERATIONS

DURATION AND CONTRACTOR ACCESS TIMES

- 4 CALENDAR NIGHTS.
- NIGHTTIME ACCESS TO APPROVED WORK AREAS. THE CLOSURE WILL BEGIN NO EARLIER THAN 2100 AND WILL END NO LATER THAN 0700 ON THE FOLLOWING DAY. CONTRACTOR WORK HOURS WILL BE FROM 2100 TO 0600 TO ALLOW TIME FOR CLEANUP, AIRPORT INSPECTION AND TO ENSURE THAT TAXIWAY E AND F IS READY FOR DAYTIME OPENING AND ALL NAVAIDS ARE OPERATIONAL.
- TAXIWAY CONNECTOR BARRICADES SHALL BE REMOVED PRIOR TO OPENING TAXIWAY E AND F EACH MORNING.
- PAVEMENT MARKING OBLITERATION AND APPLICATION FOR EACH AREA TO BE WORKED ON WITHIN THE PHASE MUST BE COMPLETED EACH NIGHT PRIOR TO OPENING TAXIWAY E AND F EACH MORNING.

MAJOR WORK TO BE COMPLETED

SITE PREPARATION

1. PAVEMENT MARKING OBLITERATION

PAVEMENT SECTION

1. PAVEMENT MARKINGS

IMPACTS ON OPERATIONS

1. THE CONTRACTOR SHALL GIVE RIGHT OF WAY TO ALL AIRCRAFT AND EMERGENCY VEHICLES AT ALL TIMES.
2. THE CONTRACTOR SHALL MAINTAIN EMERGENCY VEHICLE ACCESS TO THE RUNWAY AT ALL TIMES.
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4. NO WORK, OPEN EXCAVATIONS, EQUIPMENT, STOCKPILES, OR PERSONNEL ARE ALLOWED IN THE SAFETY AREAS OR OBJECT FREE AREAS FOR ANY ACTIVE TAXIWAY OR SAFETY AREAS FOR AN ACTIVE RUNWAY WHEN THE AIRPORT IS OPEN AND OPERATIONAL.
5. PRIOR TO OPENING THE TAXIWAY EACH MORNING TO AIRCRAFT, ALL AIRFIELD PAVEMENT WHERE WORK HAS OCCURRED OR EQUIPMENT HAS TRAVERSED SHALL BE SWEPT OR CLEARED WITH APPROVED EQUIPMENT TO REMOVE ANY FOD. ALL EXCAVATIONS AND TRENCHES IN THE SAFETY AREAS SHALL BE BACKFILLED AND COMPACTED TO P-152 SPECIFICATIONS. GRADING WITHIN THE SAFETY AREA SHALL CONFORM TO AC 150/5300-13 (CURRENT VERSION), CHAPTER 3. NO DROPS GREATER THAN 3-INCHES ARE ALLOWED IN THE RUNWAY SAFETY AREA. IF AREAS ARE FOUND TO BE DEFICIENT, THE CONTRACTOR MUST IMMEDIATELY CORRECT THE DEFICIENCY TO THE SATISFACTION OF THE RPR OR CMA STAFF. APPROVAL TO REOPEN TO AIRCRAFT TRAFFIC WILL BE PROVIDED BY AIRPORT OPERATIONS OR THE RPR.
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OTHER NOTES

1. AIRPORT MANAGEMENT PERSONNEL WILL ISSUE NOTAM FOR ANY CONTRACTOR SCHEDULED ACTIVITIES AT LEAST 72 HOURS IN ADVANCE OF SAID ACTIVITY.
2. CONSTRUCTION EQUIPMENT THAT MAY DAMAGE AIRFIELD PAVEMENT WHILE CROSSING IT TO ACCESS WORK AREAS, SUCH AS THOSE WITH TRACKS, SHALL PROTECT THE PAVEMENT USING A METHOD APPROVED BY THE RPR.
3. CMA ATCT OPERATION HOURS: 7:00 AM - 9:00 PM LOCAL TIME
   MONITOR CMA GROUND - 122.95 MHZ.

   CMA ATCT CLOSURE HOURS: 9:00 PM TO 7:00 AM LOCAL TIME
   MONITOR CMA CTAF - 134.95 MHZ.
4. CONTRACTOR SHALL PROTECT ALL FAA COMMUNICATION LINES AND ESPECIALLY WHEN WORKING WITHIN EXISTING STORM DRAIN INFRASTRUCTURE. NOTIFY ENGINEER IMMEDIATELY IF DAMAGE OCCURS BY CONTRACTOR OPERATIONS.

PHASING LEGEND

- CONTRACTOR HAUL ROUTE
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- FLASHER BARRICADE
- FLAG PERSONNEL / GATE GUARD
- CONTRACTOR GATE ACCESS
- RUNWAY CLOSURE LIGHTED "X"
- TAXIWAY TEMPORARY CLOSURE "X" (MATERIAL PER DETAIL 4/SHEET G050)

N

GRAPHIC SCALE
300 0 300 600
(IN FEET)

ISSUED FOR 100% REVIEW

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RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

CONSTRUCTION SAFETY AND PHASING PLAN
SCHEDULE II PHASE 5 (NIGHT)

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME: G056A
SHEET NO.: 17 of 61
DRAWING NO.: 1692-DOA

Plotted October 9, 2023 @ 2:59 PM by Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Reheb\CADD\LAN\5000-CMA-LOC-21-01-G056-PHAS.dwg



CONSTRUCTION PHASING NOTES

SCHEDULE II / PHASE 5 - DAY OPERATIONS

DURATION AND CONTRACTOR ACCESS TIMES

- 4 CALENDAR NIGHTS.
- NIGHTTIME ACCESS TO APPROVED WORK AREAS. THE CLOSURE WILL BEGIN NO EARLIER THAN 2100 AND WILL END NO LATER THAN 0700 ON THE FOLLOWING DAY. CONTRACTOR WORK HOURS WILL BE FROM 2100 TO 0600 TO ALLOW TIME FOR CLEANUP, AIRPORT INSPECTION AND TO ENSURE THAT TAXIWAY E AND F IS READY FOR DAYTIME OPENING AND ALL NAVAIDS ARE OPERATIONAL.
- TAXIWAY CONNECTOR BARRICADES SHALL BE REMOVED PRIOR TO OPENING TAXIWAY E AND F EACH MORNING.
- PAVEMENT MARKING OBLITERATION AND APPLICATION FOR EACH AREA TO BE WORKED ON WITHIN THE PHASE MUST BE COMPLETED EACH NIGHT PRIOR TO OPENING TAXIWAY E AND F EACH MORNING.

MAJOR WORK TO BE COMPLETED

SITE PREPARATION

1. PAVEMENT MARKING OBLITERATION

PAVEMENT SECTION

1. PAVEMENT MARKINGS

IMPACTS ON OPERATIONS

1. THE CONTRACTOR SHALL GIVE RIGHT OF WAY TO ALL AIRCRAFT AND EMERGENCY VEHICLES AT ALL TIMES.
2. THE CONTRACTOR SHALL MAINTAIN EMERGENCY VEHICLE ACCESS TO THE RUNWAY AT ALL TIMES.
3. IF AN EMERGENCY SITUATION ARISES REQUIRING AN AIRCRAFT TO UTILIZE THE RUNWAY AND/OR TAXIWAY DURING CONSTRUCTION, ALL EQUIPMENT AND PERSONNEL SHALL IMMEDIATELY EXIT THE RUNWAY AND/OR TAXIWAY AND STAGE OUTSIDE THE OBJECT FREE AREA.
4. NO WORK, OPEN EXCAVATIONS, EQUIPMENT, STOCKPILES, OR PERSONNEL ARE ALLOWED IN THE SAFETY AREAS OR OBJECT FREE AREAS FOR ANY ACTIVE TAXIWAY OR SAFETY AREAS FOR AN ACTIVE RUNWAY WHEN THE AIRPORT IS OPEN AND OPERATIONAL.
5. PRIOR TO OPENING THE TAXIWAY EACH MORNING TO AIRCRAFT, ALL AIRFIELD PAVEMENT WHERE WORK HAS OCCURRED OR EQUIPMENT HAS TRAVERSED SHALL BE SWEPT OR CLEARED WITH APPROVED EQUIPMENT TO REMOVE ANY FOD. ALL EXCAVATIONS AND TRENCHES IN THE SAFETY AREAS SHALL BE BACKFILLED AND COMPACTED TO P-152 SPECIFICATIONS. GRADING WITHIN THE SAFETY AREA SHALL CONFORM TO AC 150/5300-13 (CURRENT VERSION), CHAPTER 3. NO DROPS GREATER THAN 3-INCHES ARE ALLOWED IN THE RUNWAY SAFETY AREA. IF AREAS ARE FOUND TO BE DEFICIENT, THE CONTRACTOR MUST IMMEDIATELY CORRECT THE DEFICIENCY TO THE SATISFACTION OF THE RPR OR CMA STAFF. APPROVAL TO REOPEN TO AIRCRAFT TRAFFIC WILL BE PROVIDED BY AIRPORT OPERATIONS OR THE RPR.
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10. THE CONTRACTOR SHALL KEEP ALL CONSTRUCTION TRAFFIC LIMITED TO THE APPROVED HAUL ROUTES AS SHOWN ON THE PLANS OR AS APPROVED BY THE RPR. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED ALONG THE HAUL ROUTES OR CONSTRUCTION ACCESS ROUTES TO THE PROJECT SITE. HAUL ROADS WILL BE MAINTAINED AND RESTORED TO THEIR ORIGINAL CONDITION BY THE CONTRACTOR AT NO EXPENSE TO THE SPONSOR.
11. THE CONTRACTOR SHALL MINIMIZE DISTURBANCE IN AND AROUND FAA NAVIGATIONAL AIDS.
12. CONTRACTOR SHALL PARK ALL EQUIPMENT AND VEHICLES IN THE STAGING AREA AT THE END OF EACH SHIFT AND DURING PERIODS WHEN NO CONSTRUCTION ACTIVITIES ARE TAKING PLACE. NO EQUIPMENT SHALL BE LEFT UNATTENDED WITHIN THE RUNWAY OBJECT FREE AREA (ROFA).

OTHER NOTES

1. AIRPORT MANAGEMENT PERSONNEL WILL ISSUE NOTAM FOR ANY CONTRACTOR SCHEDULED ACTIVITIES AT LEAST 72 HOURS IN ADVANCE OF SAID ACTIVITY.
2. CONSTRUCTION EQUIPMENT THAT MAY DAMAGE AIRFIELD PAVEMENT WHILE CROSSING IT TO ACCESS WORK AREAS, SUCH AS THOSE WITH TRACKS, SHALL PROTECT THE PAVEMENT USING A METHOD APPROVED BY THE RPR.
3. CMA ATCT OPERATION HOURS: 7:00 AM - 9:00 PM LOCAL TIME
   MONITOR CMA GROUND - 122.95 MHZ.

   CMA ATCT CLOSURE HOURS: 9:00 PM TO 7:00 AM LOCAL TIME
   MONITOR CMA CTAF - 134.95 MHZ.
4. CONTRACTOR SHALL PROTECT ALL FAA COMMUNICATION LINES AND ESPECIALLY WHEN WORKING WITHIN EXISTING STORM DRAIN INFRASTRUCTURE. NOTIFY ENGINEER IMMEDIATELY IF DAMAGE OCCURS BY CONTRACTOR OPERATIONS.

PHASING LEGEND

- CONTRACTOR HAUL ROUTE
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- FLASHER BARRICADE
- FLAG PERSONNEL / GATE GUARD
- CONTRACTOR GATE ACCESS
- RUNWAY CLOSURE LIGHTED "X"
- TAXIWAY TEMPORARY CLOSURE "X" (MATERIAL PER DETAIL 4/SHEET G050)

N

GRAPHIC SCALE
300 0 300 600
(IN FEET)

ISSUED FOR 100% REVIEW

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DES: A.G.G.
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RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

CONSTRUCTION SAFETY AND PHASING PLAN
SCHEDULE II, PHASE 5 (DAY)

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME: G056B
SHEET NO.: 18 of 61
DRAWING NO.: 1693-DOA

Plotted October 9, 2023 @ 2:59 PM by Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Reheb\CADD\LAN5000-CMA-LOC-21-01-G056(Day)-PHAS.dwg



CONSTRUCTION PHASING NOTES

SCHEDULE II / PHASE 6 - NIGHT OPERATIONS

DURATION AND CONTRACTOR ACCESS TIMES

- 3 CALENDAR NIGHTS.
- NIGHTTIME ACCESS TO APPROVED WORK AREAS. THE CLOSURE WILL BEGIN NO EARLIER THAN 2100 AND WILL END NO LATER THAN 0700 ON THE FOLLOWING DAY. CONTRACTOR WORK HOURS WILL BE FROM 2100 TO 0600 TO ALLOW TIME FOR CLEANUP, AIRPORT INSPECTION AND TO ENSURE THAT TAXIWAY F IS READY FOR DAYTIME OPENING AND ALL NAVAIDS ARE OPERATIONAL.
- TAXIWAY CONNECTOR BARRICADES SHALL BE REMOVED PRIOR TO OPENING TAXIWAY F EACH MORNING.
- PAVEMENT MARKING OBLITERATION AND APPLICATION FOR EACH AREA TO BE WORKED ON WITHIN THE PHASE MUST BE COMPLETED EACH NIGHT PRIOR TO OPENING TAXIWAY F EACH MORNING.

MAJOR WORK TO BE COMPLETED

SITE PREPARATION

1. PAVEMENT MARKING OBLITERATION

PAVEMENT SECTION

1. PAVEMENT MARKINGS

IMPACTS ON OPERATIONS

1. THE CONTRACTOR SHALL GIVE RIGHT OF WAY TO ALL AIRCRAFT AND EMERGENCY VEHICLES AT ALL TIMES.
2. THE CONTRACTOR SHALL MAINTAIN EMERGENCY VEHICLE ACCESS TO THE RUNWAY AT ALL TIMES.
3. IF AN EMERGENCY SITUATION ARISES REQUIRING AN AIRCRAFT TO UTILIZE THE RUNWAY AND/OR TAXIWAY DURING CONSTRUCTION, ALL EQUIPMENT AND PERSONNEL SHALL IMMEDIATELY EXIT THE RUNWAY AND/OR TAXIWAY AND STAGE OUTSIDE THE OBJECT FREE AREA.
4. NO WORK, OPEN EXCAVATIONS, EQUIPMENT, STOCKPILES, OR PERSONNEL ARE ALLOWED IN THE SAFETY AREAS OR OBJECT FREE AREAS FOR ANY ACTIVE TAXIWAY OR SAFETY AREAS FOR AN ACTIVE RUNWAY WHEN THE AIRPORT IS OPEN AND OPERATIONAL.
5. PRIOR TO OPENING THE TAXIWAY EACH MORNING TO AIRCRAFT, ALL AIRFIELD PAVEMENT WHERE WORK HAS OCCURRED OR EQUIPMENT HAS TRAVERSED SHALL BE SWEPT OR CLEARED WITH APPROVED EQUIPMENT TO REMOVE ANY FOD. ALL EXCAVATIONS AND TRENCHES IN THE SAFETY AREAS SHALL BE BACKFILLED AND COMPACTED TO P-152 SPECIFICATIONS. GRADING WITHIN THE SAFETY AREA SHALL CONFORM TO AC 150/5300-13 (CURRENT VERSION), CHAPTER 3. NO DROPS GREATER THAN 3-INCHES ARE ALLOWED IN THE RUNWAY SAFETY AREA. IF AREAS ARE FOUND TO BE DEFICIENT, THE CONTRACTOR MUST IMMEDIATELY CORRECT THE DEFICIENCY TO THE SATISFACTION OF THE RPR OR CMA STAFF. APPROVAL TO REOPEN TO AIRCRAFT TRAFFIC WILL BE PROVIDED BY AIRPORT OPERATIONS OR THE RPR.
6. AIRPORT PERIMETER SECURITY SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE QUALIFIED GATE GUARDS ALONG CONSTRUCTION ACCESS POINTS AT AIRPORT PERIMETER GATE LOCATIONS. GATES SHALL BE SECURELY CLOSED OR LOCKED AT ALL TIMES IF GATE GUARD IS NOT PRESENT OR GATES ARE NOT IN USE.
7. CONSTRUCTION MARKERS, AND BARRICADES SHALL BE INSTALLED PER PHASING PLANS AND AS REQUIRED BY AC 150/5370-2 (CURRENT VERSION) OR AS DIRECTED BY THE RPR.
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11. THE CONTRACTOR SHALL MINIMIZE DISTURBANCE IN AND AROUND FAA NAVIGATIONAL AIDS.
12. CONTRACTOR SHALL PARK ALL EQUIPMENT AND VEHICLES IN THE STAGING AREA AT THE END OF EACH SHIFT AND DURING PERIODS WHEN NO CONSTRUCTION ACTIVITIES ARE TAKING PLACE. NO EQUIPMENT SHALL BE LEFT UNATTENDED WITHIN THE RUNWAY OBJECT FREE AREA (ROFA).

OTHER NOTES

1. AIRPORT MANAGEMENT PERSONNEL WILL ISSUE NOTAM FOR ANY CONTRACTOR SCHEDULED ACTIVITIES AT LEAST 72 HOURS IN ADVANCE OF SAID ACTIVITY.
2. CONSTRUCTION EQUIPMENT THAT MAY DAMAGE AIRFIELD PAVEMENT WHILE CROSSING IT TO ACCESS WORK AREAS, SUCH AS THOSE WITH TRACKS, SHALL PROTECT THE PAVEMENT USING A METHOD APPROVED BY THE RPR.
3. CMA ATCT OPERATION HOURS: 7:00 AM - 9:00 PM LOCAL TIME
   MONITOR CMA GROUND - 122.95 MHZ.

   CMA ATCT CLOSURE HOURS: 9:00 PM TO 7:00 AM LOCAL TIME
   MONITOR CMA CTAF - 134.95 MHZ.
4. CONTRACTOR SHALL PROTECT ALL FAA COMMUNICATION LINES AND ESPECIALLY WHEN WORKING WITHIN EXISTING STORM DRAIN INFRASTRUCTURE. NOTIFY ENGINEER IMMEDIATELY IF DAMAGE OCCURS BY CONTRACTOR OPERATIONS.

PHASING LEGEND

- CONTRACTOR HAUL ROUTE
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- FLASHER BARRICADE
- FLAG PERSONNEL / GATE GUARD
- CONTRACTOR GATE ACCESS
- RUNWAY CLOSURE LIGHTED "X"
- TAXIWAY TEMPORARY CLOSURE "X" (MATERIAL PER DETAIL 4/SHEET G050)

N

GRAPHIC SCALE
300 0 300 600
(IN FEET)

ISSUED FOR 100% REVIEW

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JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY

JVIATION®
A WOOLPERT COMPANY

CAMARILLO AIRPORT
CAMARILLO,CA

COUNTY of VENTURA
Department of Airports

DES: A.G.G.
DR: A.G.G.
CH: C.L.G.
APP: J.D.I.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
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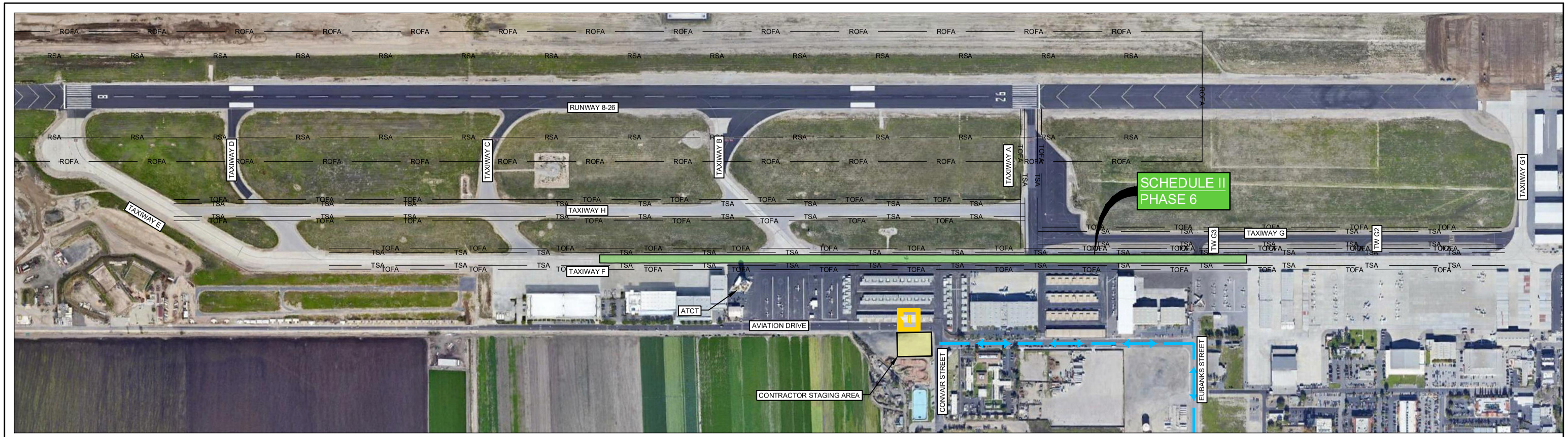
RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

CONSTRUCTION SAFETY AND PHASING PLAN
SCHEDULE II PHASE 6 (NIGHT)

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME: G057A
SHEET NO.: 19 of 61
DRAWING NO.: 1694-DOA

Plotted October 9, 2023 @ 2:59 PM by Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Reheb\CADD\LAN5000-CMA-LOC-21-01-G057-PHAS.dwg



CONSTRUCTION PHASING NOTES

SCHEDULE II / PHASE 6 - DAY OPERATIONS

DURATION AND CONTRACTOR ACCESS TIMES

- 3 CALENDAR NIGHTS.
- NIGHTTIME ACCESS TO APPROVED WORK AREAS. THE CLOSURE WILL BEGIN NO EARLIER THAN 2100 AND WILL END NO LATER THAN 0700 ON THE FOLLOWING DAY. CONTRACTOR WORK HOURS WILL BE FROM 2100 TO 0600 TO ALLOW TIME FOR CLEANUP, AIRPORT INSPECTION AND TO ENSURE THAT TAXIWAY F IS READY FOR DAYTIME OPENING AND ALL NAVAIDS ARE OPERATIONAL.
- TAXIWAY CONNECTOR BARRICADES SHALL BE REMOVED PRIOR TO OPENING TAXIWAY F EACH MORNING.
- PAVEMENT MARKING OBLITERATION AND APPLICATION FOR EACH AREA TO BE WORKED ON WITHIN THE PHASE MUST BE COMPLETED EACH NIGHT PRIOR TO OPENING TAXIWAY F EACH MORNING.

MAJOR WORK TO BE COMPLETED

SITE PREPARATION

1. PAVEMENT MARKING OBLITERATION

PAVEMENT SECTION

1. PAVEMENT MARKINGS

IMPACTS ON OPERATIONS

1. THE CONTRACTOR SHALL GIVE RIGHT OF WAY TO ALL AIRCRAFT AND EMERGENCY VEHICLES AT ALL TIMES.
2. THE CONTRACTOR SHALL MAINTAIN EMERGENCY VEHICLE ACCESS TO THE RUNWAY AT ALL TIMES.
3. IF AN EMERGENCY SITUATION ARISES REQUIRING AN AIRCRAFT TO UTILIZE THE RUNWAY AND/OR TAXIWAY DURING CONSTRUCTION, ALL EQUIPMENT AND PERSONNEL SHALL IMMEDIATELY EXIT THE RUNWAY AND/OR TAXIWAY AND STAGE OUTSIDE THE OBJECT FREE AREA.
4. NO WORK, OPEN EXCAVATIONS, EQUIPMENT, STOCKPILES, OR PERSONNEL ARE ALLOWED IN THE SAFETY AREAS OR OBJECT FREE AREAS FOR ANY ACTIVE TAXIWAY OR SAFETY AREAS FOR AN ACTIVE RUNWAY WHEN THE AIRPORT IS OPEN AND OPERATIONAL.
5. PRIOR TO OPENING THE TAXIWAY EACH MORNING TO AIRCRAFT, ALL AIRFIELD PAVEMENT WHERE WORK HAS OCCURRED OR EQUIPMENT HAS TRAVERSED SHALL BE SWEPT OR CLEARED WITH APPROVED EQUIPMENT TO REMOVE ANY FOD. ALL EXCAVATIONS AND TRENCHES IN THE SAFETY AREAS SHALL BE BACKFILLED AND COMPACTED TO P-152 SPECIFICATIONS. GRADING WITHIN THE SAFETY AREA SHALL CONFORM TO AC 150/5300-13 (CURRENT VERSION), CHAPTER 3. NO DROPS GREATER THAN 3-INCHES ARE ALLOWED IN THE RUNWAY SAFETY AREA. IF AREAS ARE FOUND TO BE DEFICIENT, THE CONTRACTOR MUST IMMEDIATELY CORRECT THE DEFICIENCY TO THE SATISFACTION OF THE RPR OR CMA STAFF. APPROVAL TO REOPEN TO AIRCRAFT TRAFFIC WILL BE PROVIDED BY AIRPORT OPERATIONS OR THE RPR.
6. AIRPORT PERIMETER SECURITY SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE QUALIFIED GATE GUARDS ALONG CONSTRUCTION ACCESS POINTS AT AIRPORT PERIMETER GATE LOCATIONS. GATES SHALL BE SECURELY CLOSED OR LOCKED AT ALL TIMES IF GATE GUARD IS NOT PRESENT OR GATES ARE NOT IN USE.
7. CONSTRUCTION MARKERS, AND BARRICADES SHALL BE INSTALLED PER PHASING PLANS AND AS REQUIRED BY AC 150/5370-2 (CURRENT VERSION) OR AS DIRECTED BY THE RPR.
8. ALL STOCKPILES OR EQUIPMENT ADJACENT TO OBJECT FREE AREAS SHALL BE MARKED AND LIGHTED PER AC 150/5370-2 (CURENT VERSION).
9. THE CONTRACTOR SHALL HAVE A SWEEPER OR VACUUM TRUCK ON SITE AT ALL TIMES TO CLEAN DEBRIS FROM HAUL ROUTES, CONSTRUCTION ACCESS POINTS, OR AREAS ADJACENT TO CONSTRUCTION.
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- CONTRACTOR GATE ACCESS
- RUNWAY CLOSURE LIGHTED "X"
- TAXIWAY TEMPORARY CLOSURE "X" (MATERIAL PER DETAIL 4/SHEET G050)

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GRAPHIC SCALE
300 0 300 600
(IN FEET)

ISSUED FOR 100% REVIEW

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DES: A.G.G.
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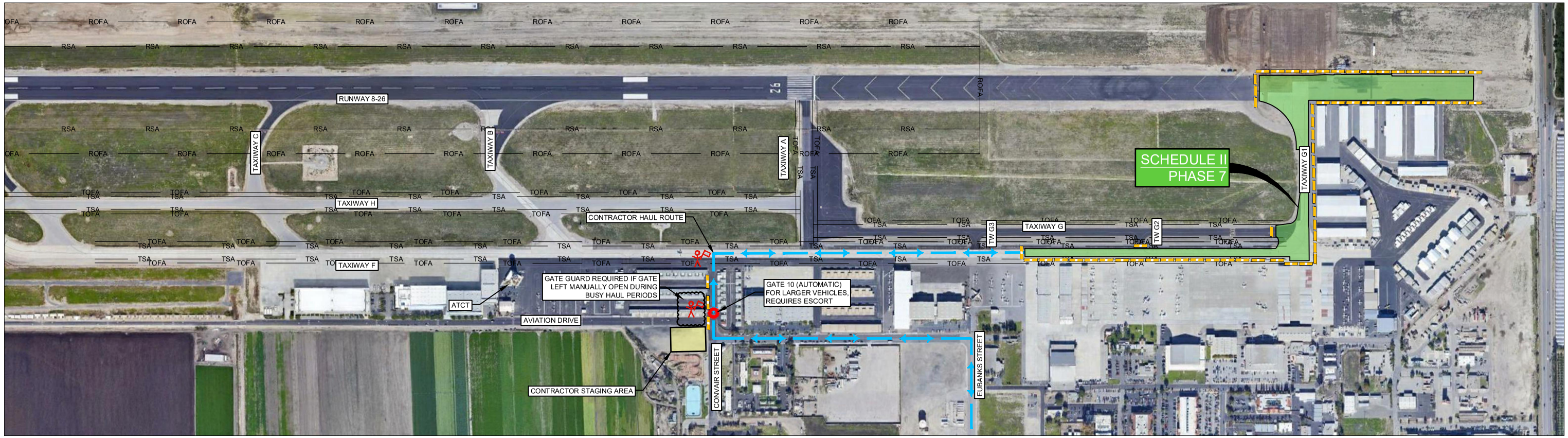
RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

CONSTRUCTION SAFETY AND PHASING PLAN
SCHEDULE II, PHASE 6 (DAY)

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME: G057B
SHEET NO.: 20 of 61
DRAWING NO.: 1695-DOA

Plotted October 9, 2023 @ 2:59 PM by Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Reheb\CADD\LAN\5000-CMA-LOC-21-01-G057(Day)-PHAS.dwg



CONSTRUCTION PHASING NOTES

SCHEDULE II / PHASE 7 - NIGHT OPERATIONS

DURATION AND CONTRACTOR ACCESS TIMES

- 4 CALENDAR NIGHTS.
- NIGHTTIME ACCESS TO APPROVED WORK AREAS. THE CLOSURE WILL BEGIN NO EARLIER THAN 2100 AND WILL END NO LATER THAN 0700 ON THE FOLLOWING DAY. CONTRACTOR WORK HOURS WILL BE FROM 2100 TO 0600 TO ALLOW TIME FOR CLEANUP, AIRPORT INSPECTION AND TO ENSURE THAT TAXIWAY F AND G1 IS READY FOR DAYTIME OPENING AND ALL NAVAIDS ARE OPERATIONAL.
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MAJOR WORK TO BE COMPLETED

SITE PREPARATION

1. PAVEMENT MARKING OBLITERATION

PAVEMENT SECTION

1. PAVEMENT MARKINGS

IMPACTS ON OPERATIONS

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4. NO WORK, OPEN EXCAVATIONS, EQUIPMENT, STOCKPILES, OR PERSONNEL ARE ALLOWED IN THE SAFETY AREAS OR OBJECT FREE AREAS FOR ANY ACTIVE TAXIWAY OR SAFETY AREAS FOR AN ACTIVE RUNWAY WHEN THE AIRPORT IS OPEN AND OPERATIONAL.
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OTHER NOTES

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- CONTRACTOR GATE ACCESS
- RUNWAY CLOSURE LIGHTED "X"
- TAXIWAY TEMPORARY CLOSURE "X" (MATERIAL PER DETAIL 4/SHEET G050)

N

GRAPHIC SCALE
300 0 300 600
(IN FEET)

ISSUED FOR 100% REVIEW

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NAME	REG. NO.	DATE

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DES: A.G.G.
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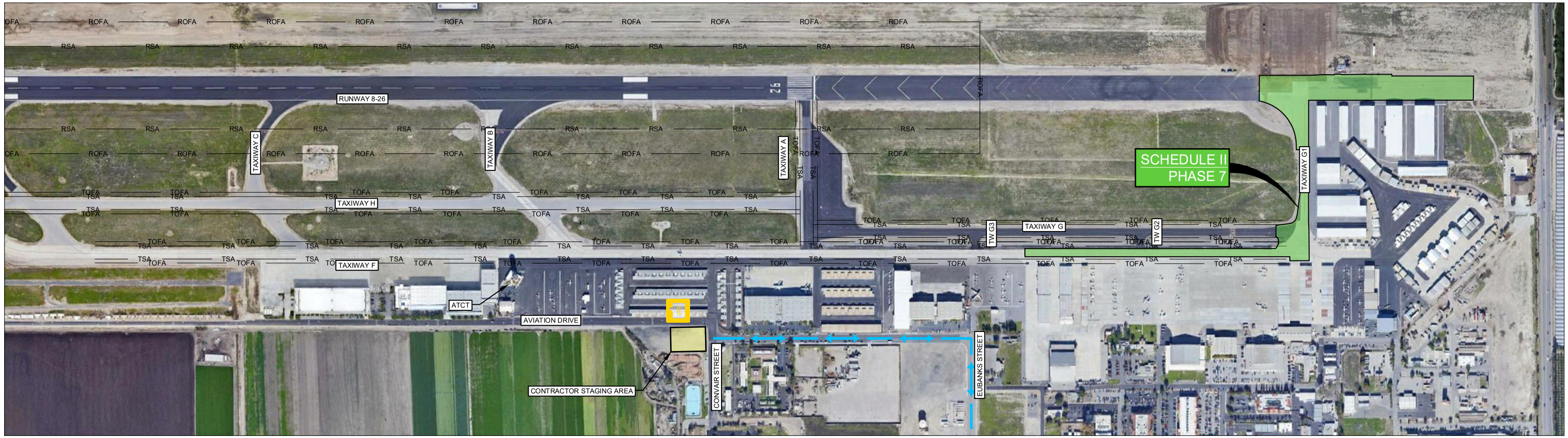
RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

CONSTRUCTION SAFETY AND PHASING PLAN
SCHEDULE II, PHASE 7 (NIGHT)

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME: G058A
SHEET NO.: 21 of 61
DRAWING NO.: 1696-DOA

Plotted October 9, 2023 @ 2:59 PM by Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Reheb\CADD\LAN\5000-CMA-LOC-21-01-G058-PHAS.dwg



CONSTRUCTION PHASING NOTES

SCHEDULE II / PHASE 7 - DAY OPERATIONS

DURATION AND CONTRACTOR ACCESS TIMES

- 4 CALENDAR NIGHTS.
- NIGHTTIME ACCESS TO APPROVED WORK AREAS. THE CLOSURE WILL BEGIN NO EARLIER THAN 2100 AND WILL END NO LATER THAN 0700 ON THE FOLLOWING DAY. CONTRACTOR WORK HOURS WILL BE FROM 2100 TO 0600 TO ALLOW TIME FOR CLEANUP, AIRPORT INSPECTION AND TO ENSURE THAT TAXIWAY F AND G1 IS READY FOR DAYTIME OPENING AND ALL NAVAIDS ARE OPERATIONAL.
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MAJOR WORK TO BE COMPLETED

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PAVEMENT SECTION

1. PAVEMENT MARKINGS

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4. NO WORK, OPEN EXCAVATIONS, EQUIPMENT, STOCKPILES, OR PERSONNEL ARE ALLOWED IN THE SAFETY AREAS OR OBJECT FREE AREAS FOR ANY ACTIVE TAXIWAY OR SAFETY AREAS FOR AN ACTIVE RUNWAY WHEN THE AIRPORT IS OPEN AND OPERATIONAL.
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GRAPHIC SCALE
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(IN FEET)

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Department of Airports

DES: A.G.G.
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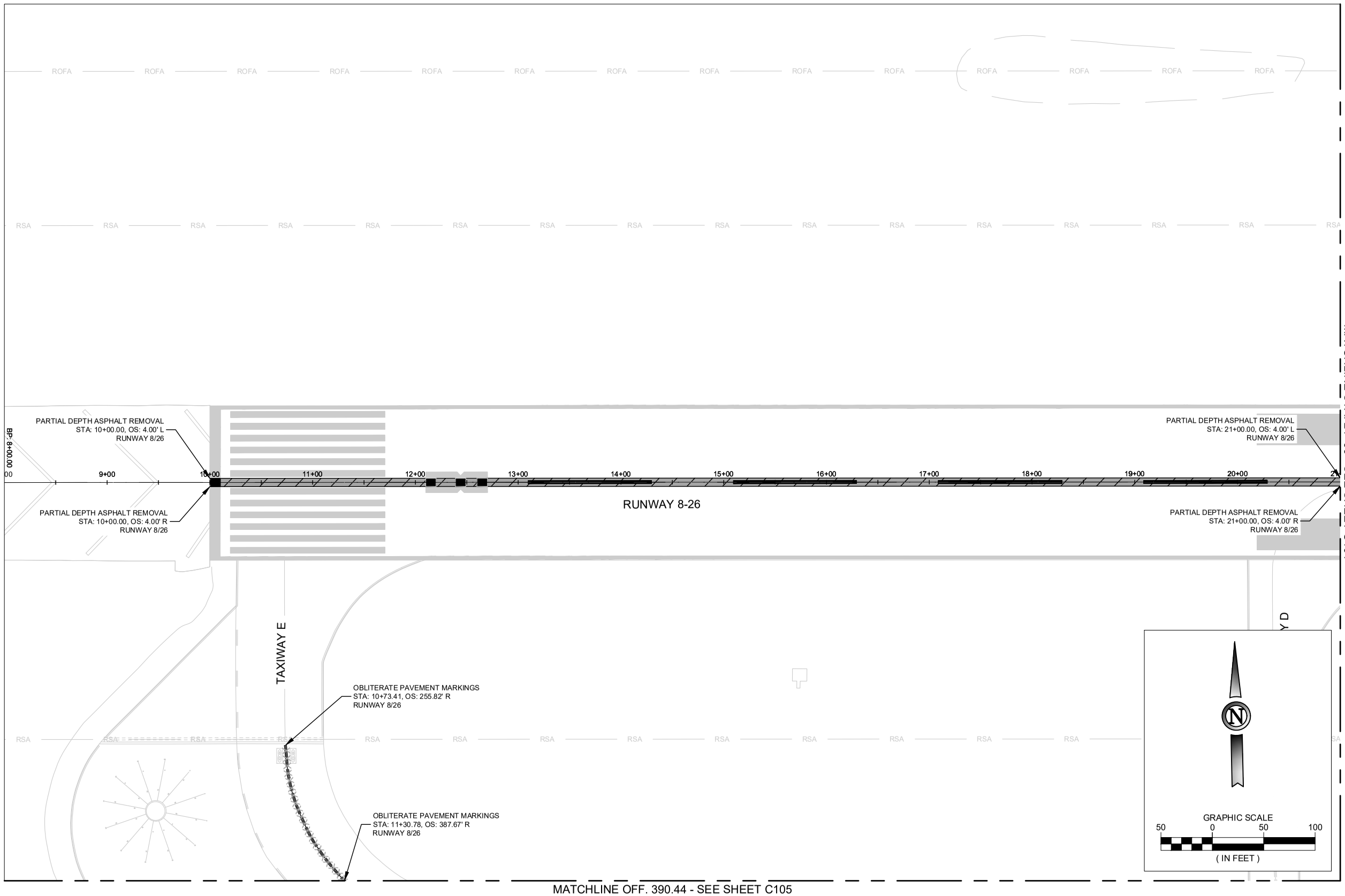
RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

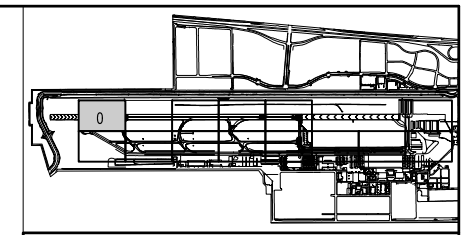
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PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME: G058B
SHEET NO.: 22 of 61
DRAWING NO.: 1697-DOA

Plotted October 9, 2023 @ 2:59 PM by Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Reheb\CADD\LAN5000-CMA-LOC-21-01-G058(Day)-PHAS.dwg





DEMOLITION LEGEND

	FULL DEPTH ASPHALT PAVEMENT REMOVAL
	3" PARTIAL DEPTH ASPHALT PAVEMENT REMOVAL
	10" BASE COURSE SHOULDER REMOVAL
XXXXXX	INDICATED REMOVAL ITEMS

NOTES:

1. DEMOLITION OF EXISTING PAVEMENTS SHALL BE PERFORMED WITHIN THE CONSTRUCTION PHASING PLAN PARAMETERS. SEE PHASING SHEETS.
2. CONTRACTOR SHALL SUBMIT A PROCEDURE FOR REMOVING EXISTING PAVEMENT AT THE CORNERS OF THE PARTIAL REMOVAL AREA TO THE ENGINEER NO LATER THAN SEVEN (7) DAYS PRIOR TO THE START OF THE ROTOMILLING OPERATIONS.
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4. CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES PRIOR TO DEMOLITION ACTIVITIES. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE.
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9. UNCLASSIFIED EXCAVATION INCLUDES THE REMOVAL AND DISPOSAL OF STABILIZED SOILS.
10. ANY PAVEMENT MARKINGS THAT ARE DAMAGED OUTSIDE OF THE PAVEMENT REHABILITATION LIMITS WILL NEED TO BE RE-PAINTED PER P-620. THE EXISTING LIMITS OF THE PAVEMENT MARKINGS WILL NEED TO BE SURVEYED PRIOR TO COMMENCING PAVEMENT REMOVAL OPERATIONS IN CASE OF DAMAGE.

ISSUED FOR 100% REVIEW

THESE DRAWINGS ARE FOR DESIGN REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES. THEY WERE PREPARED BY OR UNDER THE SUPERVISION OF:

JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY

JVIATION®
A WOOLPERT COMPANY

CAMARILLO AIRPORT
CAMARILLO,CA

COUNTY of VENTURA
Department of Airports

DES: A.G.G.
DR: A.G.G.
CH: C.L.G.
APP: J.D.I.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

DEMOLITION PLAN
STA. 8+00 TO STA. 21+00
RUNWAY 8/26

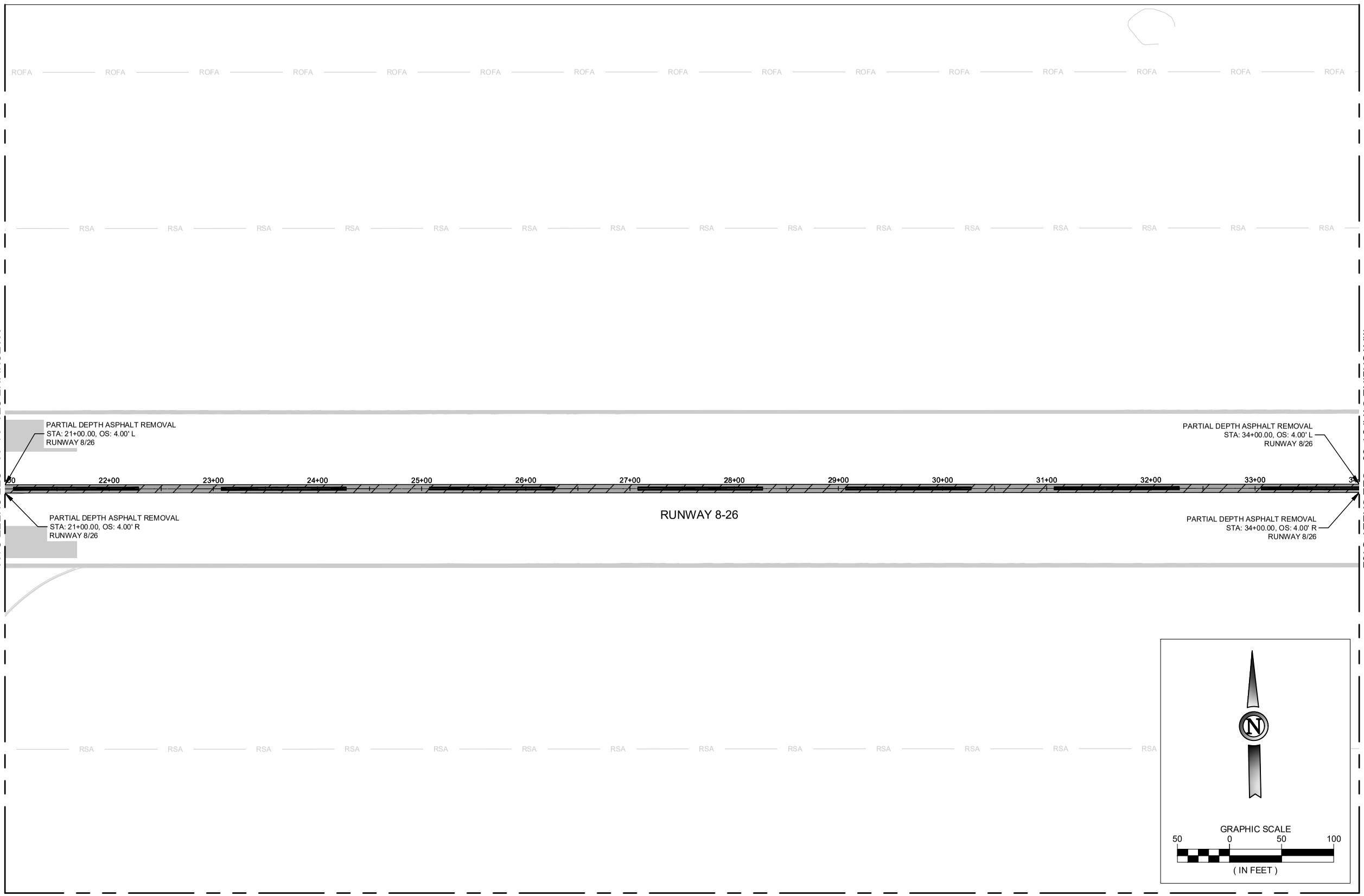
PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

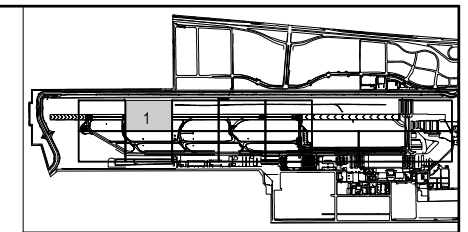
SHEET NAME
C100

SHEET NO.
23 of 61

DRAWING NO.
1698-DOA

Plotted October 9, 2023 @ 3:00 PM by Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Rehab\CAD\PLANS\010-CMA-LOC-21-01-C100-C105-DEMO.dwg





DEMOLITION LEGEND

- FULL DEPTH ASPHALT PAVEMENT REMOVAL
- 3" PARTIAL DEPTH ASPHALT PAVEMENT REMOVAL
- 10" BASE COURSE SHOULDER REMOVAL
- XXXXXX INDICATED REMOVAL ITEMS

NOTES:

1. DEMOLITION OF EXISTING PAVEMENTS SHALL BE PERFORMED WITHIN THE CONSTRUCTION PHASING PLAN PARAMETERS. SEE PHASING SHEETS.
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JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY

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A WOOLPERT COMPANY

CAMARILLO AIRPORT
CAMARILLO,CA

COUNTY of VENTURA
Department of Airports

DES: A.G.G.
DR: A.G.G.
CH: C.L.G.
APP: J.D.I.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

DEMOLITION PLAN
STA. 21+00 TO STA. 34+00
RUNWAY 8/26

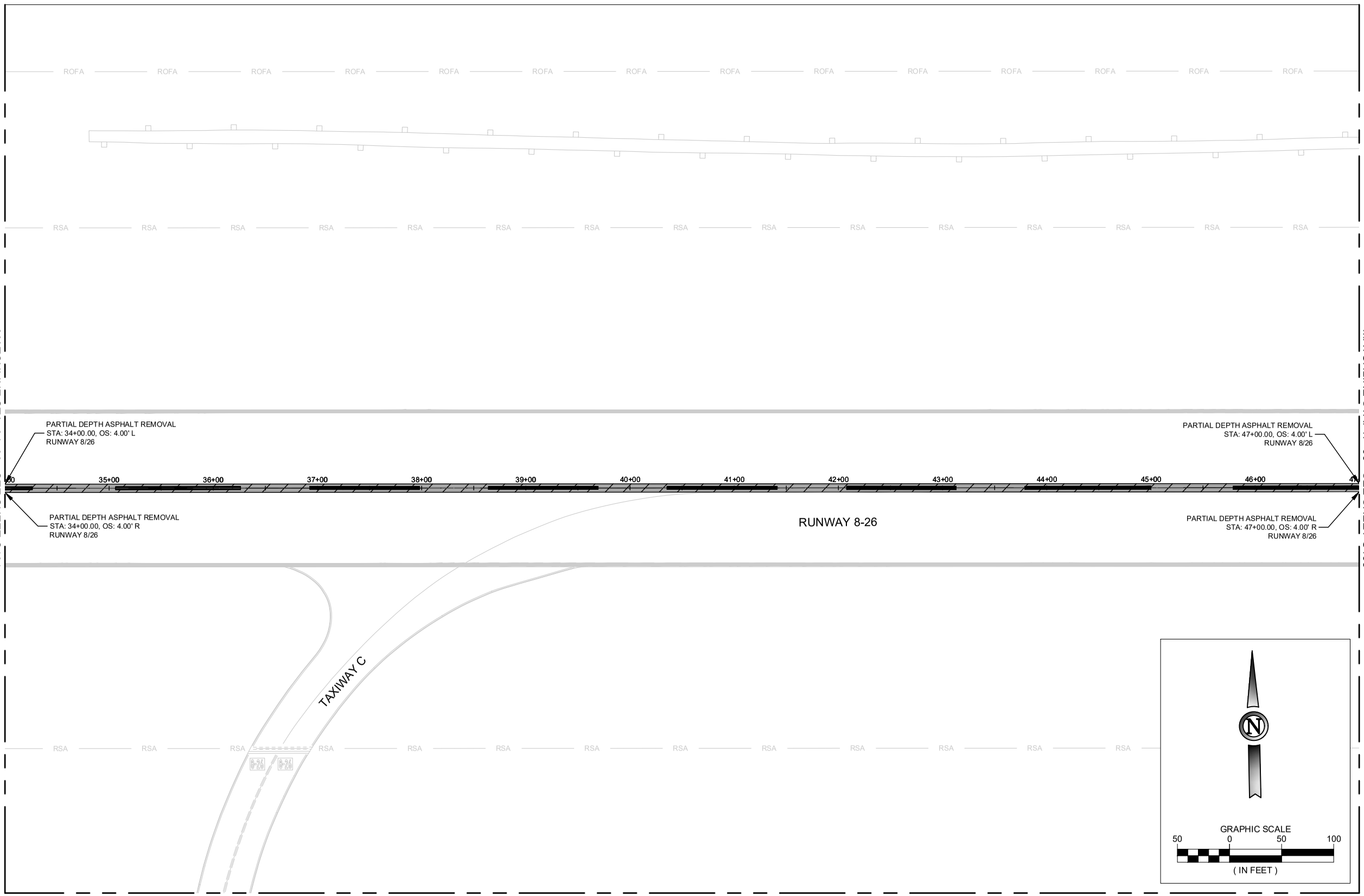
PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

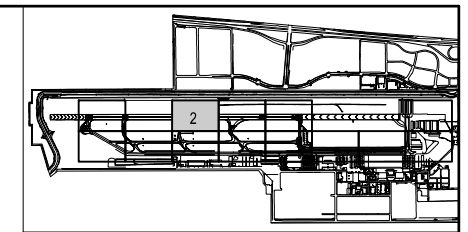
SHEET NAME
C101

SHEET NO.
24 of 61

DRAWING NO.
1699-DOA

Plotted October 9, 2023 @ 3:00 PM by, Ver. Patrick
L:\CMA\LOC 21-01 RW and TW A Rehab\CAD\PLANS\010-CMA-LOC-21-01-C100-C105-DEMO.dwg





DEMOLITION LEGEND

	FULL DEPTH ASPHALT PAVEMENT REMOVAL
	3" PARTIAL DEPTH ASPHALT PAVEMENT REMOVAL
	10" BASE COURSE SHOULDER REMOVAL
XXXXXX	INDICATED REMOVAL ITEMS

NOTES:

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JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY

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CAMARILLO AIRPORT
CAMARILLO,CA

COUNTY of VENTURA
Department of Airports

DES: A.G.G.
DR: A.G.G.
CH: C.L.G.
APP: J.D.I.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

DEMOLITION PLAN
STA. 34+00 TO STA. 47+00
RUNWAY 8/26

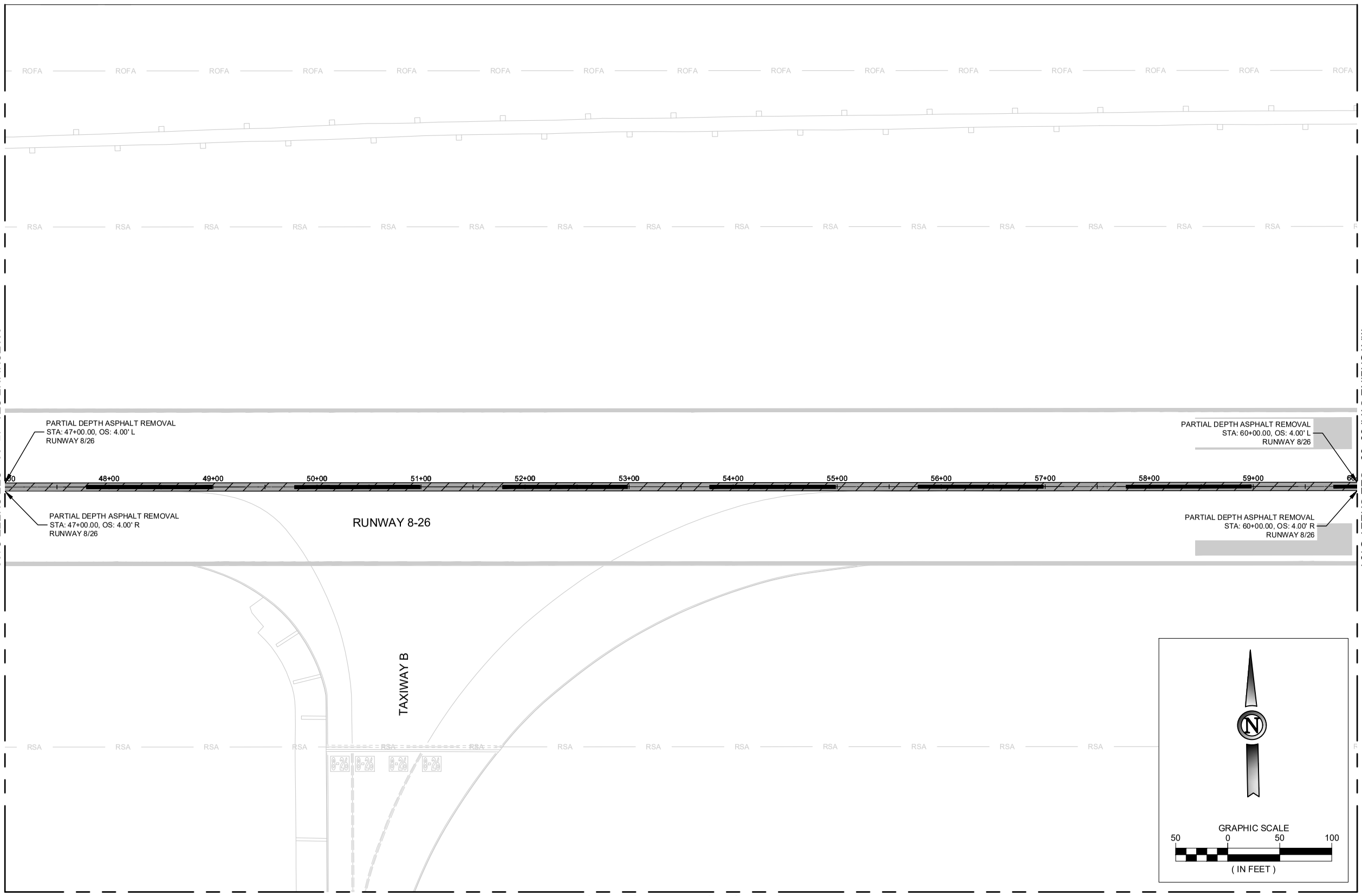
PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

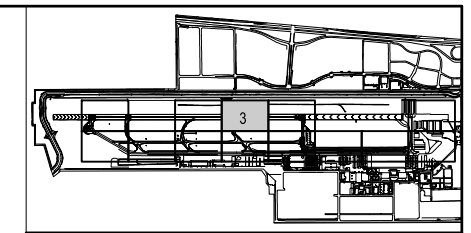
SHEET NAME
C102

SHEET NO.
25 of 61

DRAWING NO.
1700-DOA

Plotted October 9, 2023 @ 3:00 PM by, Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Rehab\CAD\PLANS\010-CMA-LOC-21-01-C100-C105-DEMO.dwg





DEMOLITION LEGEND

	FULL DEPTH ASPHALT PAVEMENT REMOVAL
	3" PARTIAL DEPTH ASPHALT PAVEMENT REMOVAL
	10" BASE COURSE SHOULDER REMOVAL
XXXXXX	INDICATED REMOVAL ITEMS

NOTES:

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JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY

JVIATION®
A WOOLPERT COMPANY

CAMARILLO AIRPORT
CAMARILLO,CA

COUNTY of VENTURA
Department of Airports

DES: A.G.G.
DR: A.G.G.
CH: C.L.G.
APP: J.D.I.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

DEMOLITION PLAN
STA. 47+00 TO STA. 60+00
RUNWAY 8/26

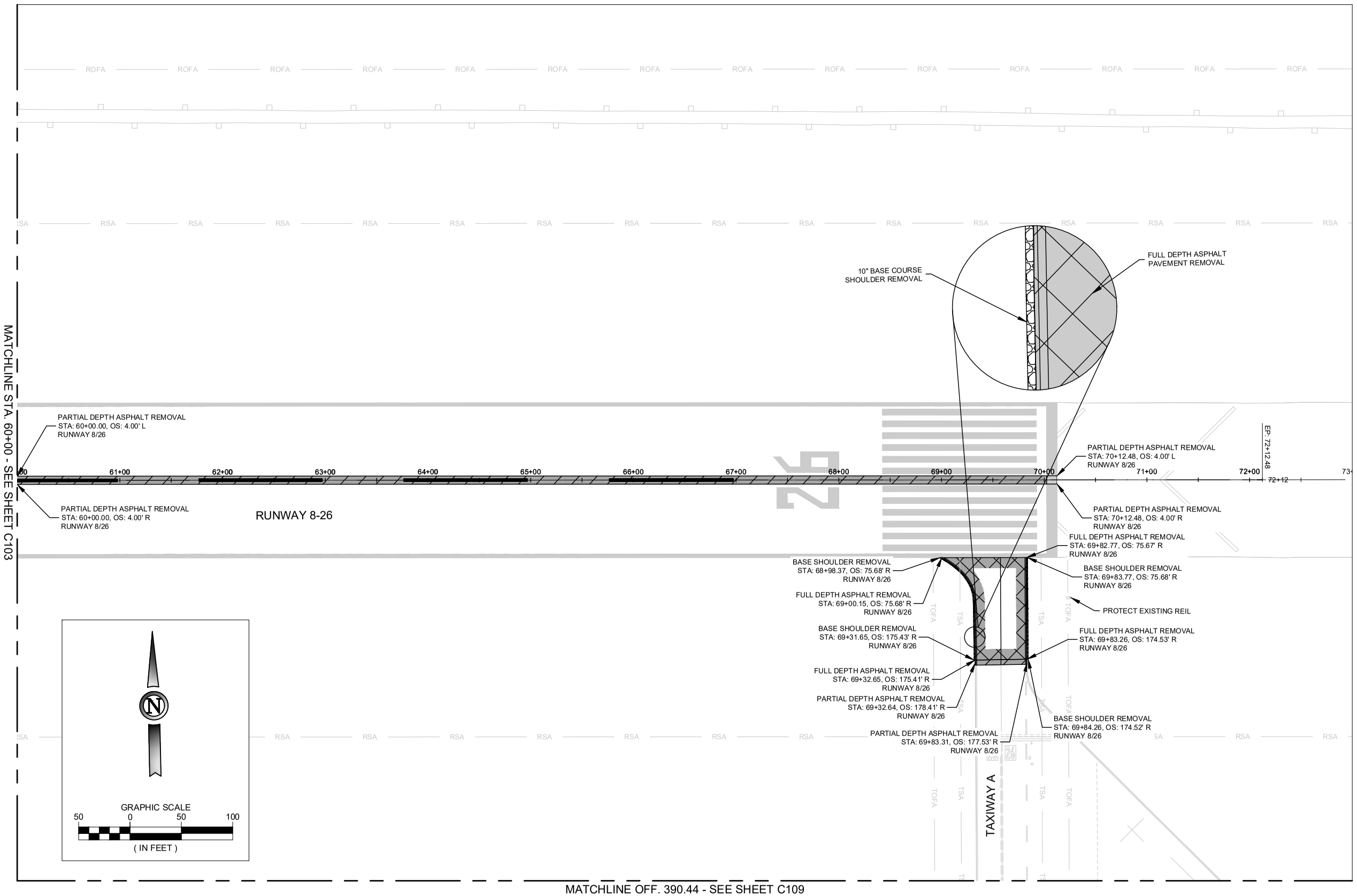
PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

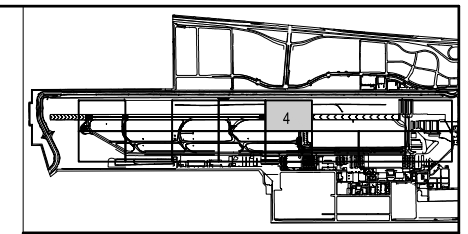
SHEET NAME
C103

SHEET NO.
26 of 61

DRAWING NO.
1701-DOA

Plotted October 9, 2023 @ 3:00 PM by Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Rehab\CAD\PLANS\010-CMA-LOC-21-01-C100-C105-DEMO.dwg





DEMOLITION LEGEND

- FULL DEPTH ASPHALT PAVEMENT REMOVAL
- 3" PARTIAL DEPTH ASPHALT PAVEMENT REMOVAL
- 10" BASE COURSE SHOULDER REMOVAL
- XXXXXX INDICATED REMOVAL ITEMS

NOTES:

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DES: A.G.G.
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APP: J.D.I.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

DEMOLITION PLAN
STA. 60+00 TO STA. 73+00
RUNWAY 8/26

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME
C104

SHEET NO.
27 of 61

DRAWING NO.
1702-DOA

Plotted October 9, 2023 @ 3:00 PM by: Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Rehab\CAD\PLANS\010-CMA-LOC-21-01-C100-C105-DEMO.dwg

MATCHLINE OFF. 390.44 - SEE SHEET C100

OBLITERATE PAVEMENT MARKINGS
STA: 11+30.80, OS: 387.64' R
RUNWAY 8/26

OBLITERATE PAVEMENT MARKINGS
STA: 11+47.69, OS: 402.45' R
RUNWAY 8/26

TAXIWAY D

TAXIWAY E

TAXIWAY H

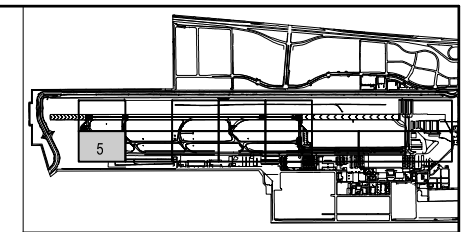
OBLITERATE PAVEMENT MARKINGS
STA: 20+84.69, OS: 946.49' R
RUNWAY 8/26

OBLITERATE PAVEMENT MARKINGS
STA: 20+86.47, OS: 947.76' R
RUNWAY 8/26

OBLITERATE PAVEMENT MARKINGS
STA: 20+99.52, OS: 954.65' R
RUNWAY 8/26

MATCHLINE STA. 21+00 - SEE SHEET C106

GRAPHIC SCALE
50 0 50 100
(IN FEET)



DEMOLITION LEGEND

	FULL DEPTH ASPHALT PAVEMENT REMOVAL
	3" PARTIAL DEPTH ASPHALT PAVEMENT REMOVAL
	10" BASE COURSE SHOULDER REMOVAL
XXXXXX	INDICATED REMOVAL ITEMS

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NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

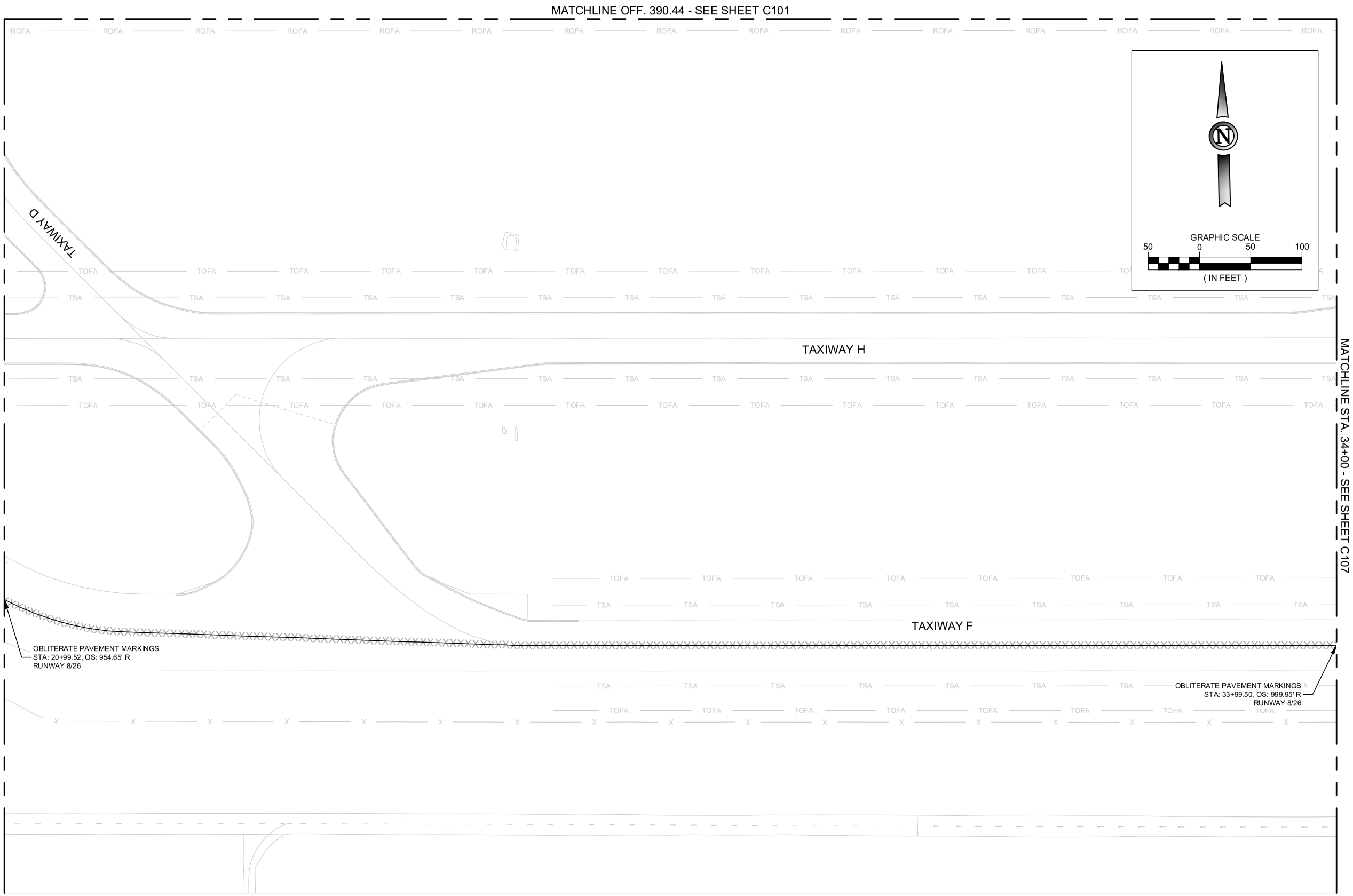
RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

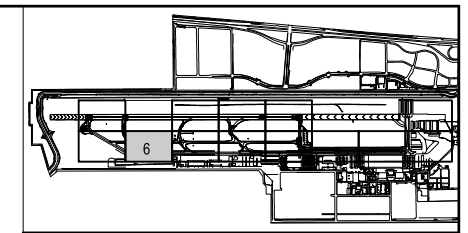
DEMOLITION PLAN
STA. 8+00 TO STA. 21+00
RUNWAY 8/26

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME
C105
SHEET NO.
28 of 61
DRAWING NO.
1703-DOA

Plotted October 9, 2023 @ 3:00 PM by: Vor, Patrick
L:\CMA\LOC 21-01 RW and TW A Rehab\CAD\PLANS\010-CMA-LOC-21-01-C100-C105-DEMO.dwg





DEMOLITION LEGEND

	FULL DEPTH ASPHALT PAVEMENT REMOVAL
	3" PARTIAL DEPTH ASPHALT PAVEMENT REMOVAL
	10" BASE COURSE SHOULDER REMOVAL
XXXXXX	INDICATED REMOVAL ITEMS

NOTES:

1. DEMOLITION OF EXISTING PAVEMENTS SHALL BE PERFORMED WITHIN THE CONSTRUCTION PHASING PLAN PARAMETERS. SEE PHASING SHEETS.
2. CONTRACTOR SHALL SUBMIT A PROCEDURE FOR REMOVING EXISTING PAVEMENT AT THE CORNERS OF THE PARTIAL REMOVAL AREA TO THE ENGINEER NO LATER THAN SEVEN (7) DAYS PRIOR TO THE START OF THE ROTOMILLING OPERATIONS.
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8. PAVEMENT REMOVAL SHALL BE PAID PER SQUARE YARD AND IS INDEPENDENT OF DEPTH AND THICKNESS.
9. UNCLASSIFIED EXCAVATION INCLUDES THE REMOVAL AND DISPOSAL OF STABILIZED SOILS.
10. ANY PAVEMENT MARKINGS THAT ARE DAMAGED OUTSIDE OF THE PAVEMENT REHABILITATION LIMITS WILL NEED TO BE RE-PAINTED PER P-620. THE EXISTING LIMITS OF THE PAVEMENT MARKINGS WILL NEED TO BE SURVEYED PRIOR TO COMMENCING PAVEMENT REMOVAL OPERATIONS IN CASE OF DAMAGE.

ISSUED FOR 100% REVIEW

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JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY

JVIATION®
A WOOLPERT COMPANY

CAMARILLO AIRPORT
CAMARILLO,CA

COUNTY of VENTURA
Department of Airports

DES: A.G.G.
DR: A.G.G.
CH: C.L.G.
APP: J.D.I.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

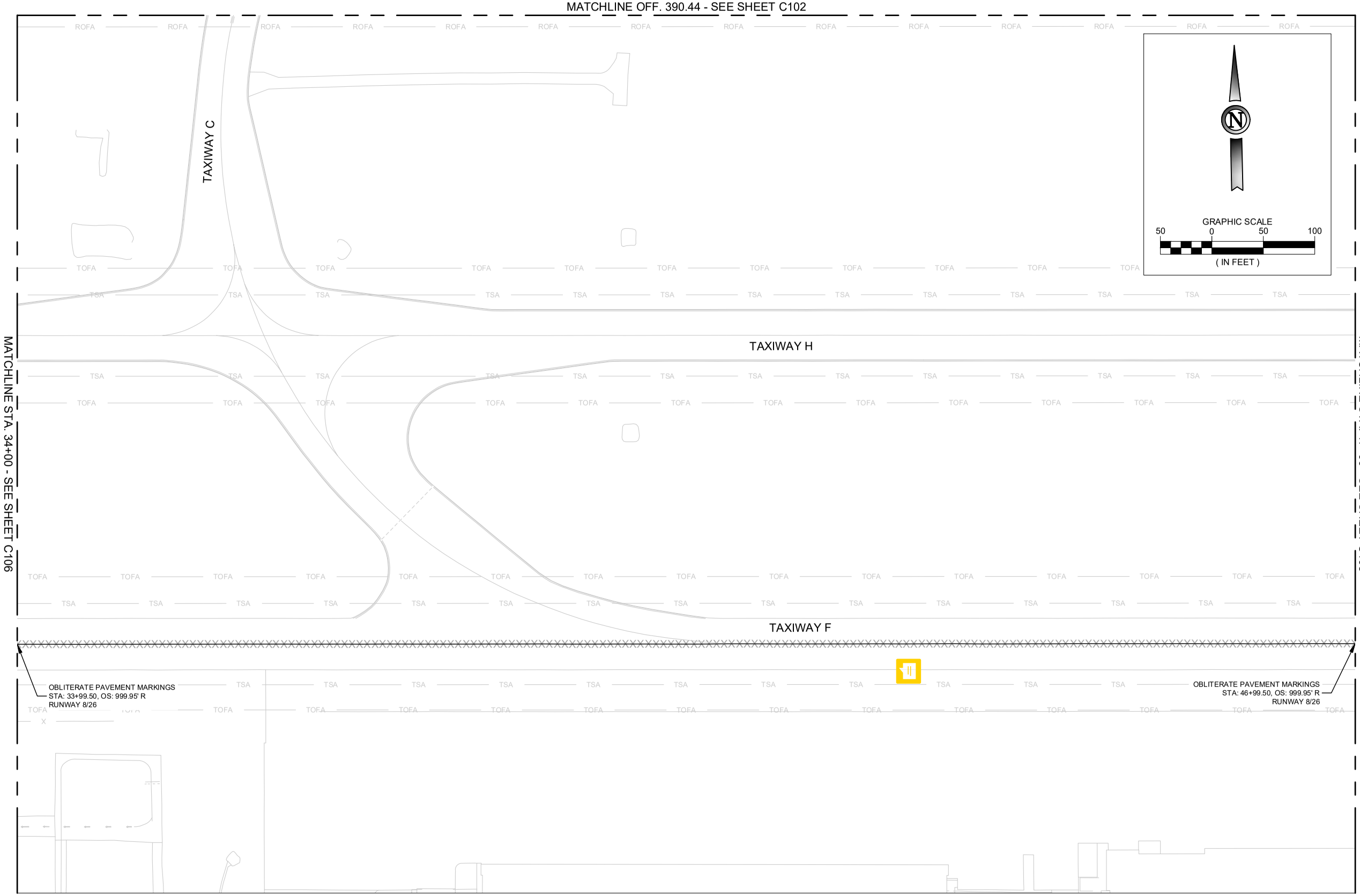
DEMOLITION PLAN
STA. 21+00 TO STA. 34+00
RUNWAY 8/26

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME
C106
SHEET NO.
29 of 61
DRAWING NO.
1704-DOA

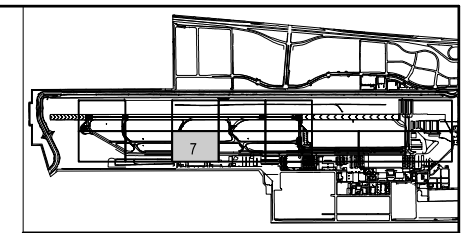
Plotted October 9, 2023 @ 3:01 PM by: Vor, Patrick
L:\CMA\LOC 21-01 RW and TW A Rehab\CAD\PLANS\010-CMA-LOC-21-01-C100-C105-DEMO.dwg

MATCHLINE OFF. 390.44 - SEE SHEET C102



MATCHLINE STA. 34+00 - SEE SHEET C106

MATCHLINE STA. 47+00 - SEE SHEET C108



DEMOLITION LEGEND

	FULL DEPTH ASPHALT PAVEMENT REMOVAL
	3" PARTIAL DEPTH ASPHALT PAVEMENT REMOVAL
	10" BASE COURSE SHOULDER REMOVAL
XXXXXX	INDICATED REMOVAL ITEMS

NOTES:

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JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY

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CAMARILLO AIRPORT
CAMARILLO,CA

COUNTY of VENTURA
Department of Airports

DES: A.G.G.
DR: A.G.G.
CH: C.L.G.
APP: J.D.I.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

DEMOLITION PLAN
STA. 34+00 TO STA. 47+00
RUNWAY 8/26

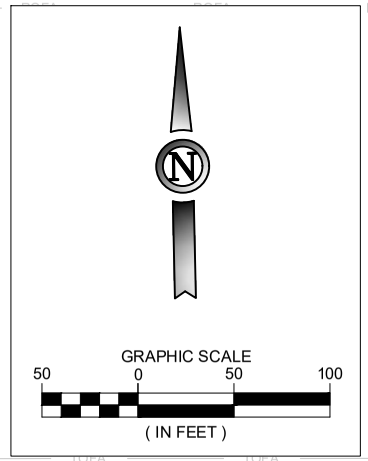
PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME
C107

SHEET NO.
30 of 61

DRAWING NO.
1705-DOA

Plotted October 9, 2023 @ 3:01 PM by: Vor, Patrick
L:\CMA\LOC 21-01 RW and TW A Rehab\CAD\PLANS\010-CMA-LOC-21-01-C100-C105-DEMO.dwg



MATCHLINE OFF. 390.44 - SEE SHEET C103

MATCHLINE STA. 47+00 - SEE SHEET C107

MATCHLINE STA. 60+00 - SEE SHEET C109

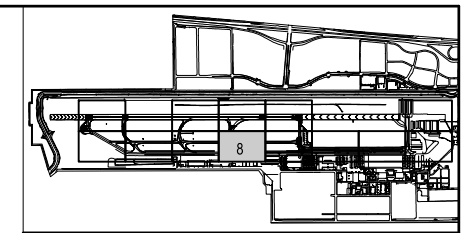
TAXIWAY B

TAXIWAY H

TAXIWAY F

OBLITERATE PAVEMENT MARKINGS
STA: 46+99.50, OS: 999.95' R
RUNWAY 8/26

OBLITERATE PAVEMENT MARKINGS
STA: 59+99.50, OS: 1000.15' R
RUNWAY 8/26



DEMOLITION LEGEND

	FULL DEPTH ASPHALT PAVEMENT REMOVAL
	3" PARTIAL DEPTH ASPHALT PAVEMENT REMOVAL
	10" BASE COURSE SHOULDER REMOVAL
XXXXXX	INDICATED REMOVAL ITEMS

NOTES:

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JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

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CAMARILLO AIRPORT
CAMARILLO,CA

COUNTY of VENTURA
Department of Airports

DES: A.G.G.
DR: A.G.G.
CH: C.L.G.
APP: J.D.I.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

DEMOLITION PLAN
STA. 47+00 TO STA. 60+00
RUNWAY 8/26

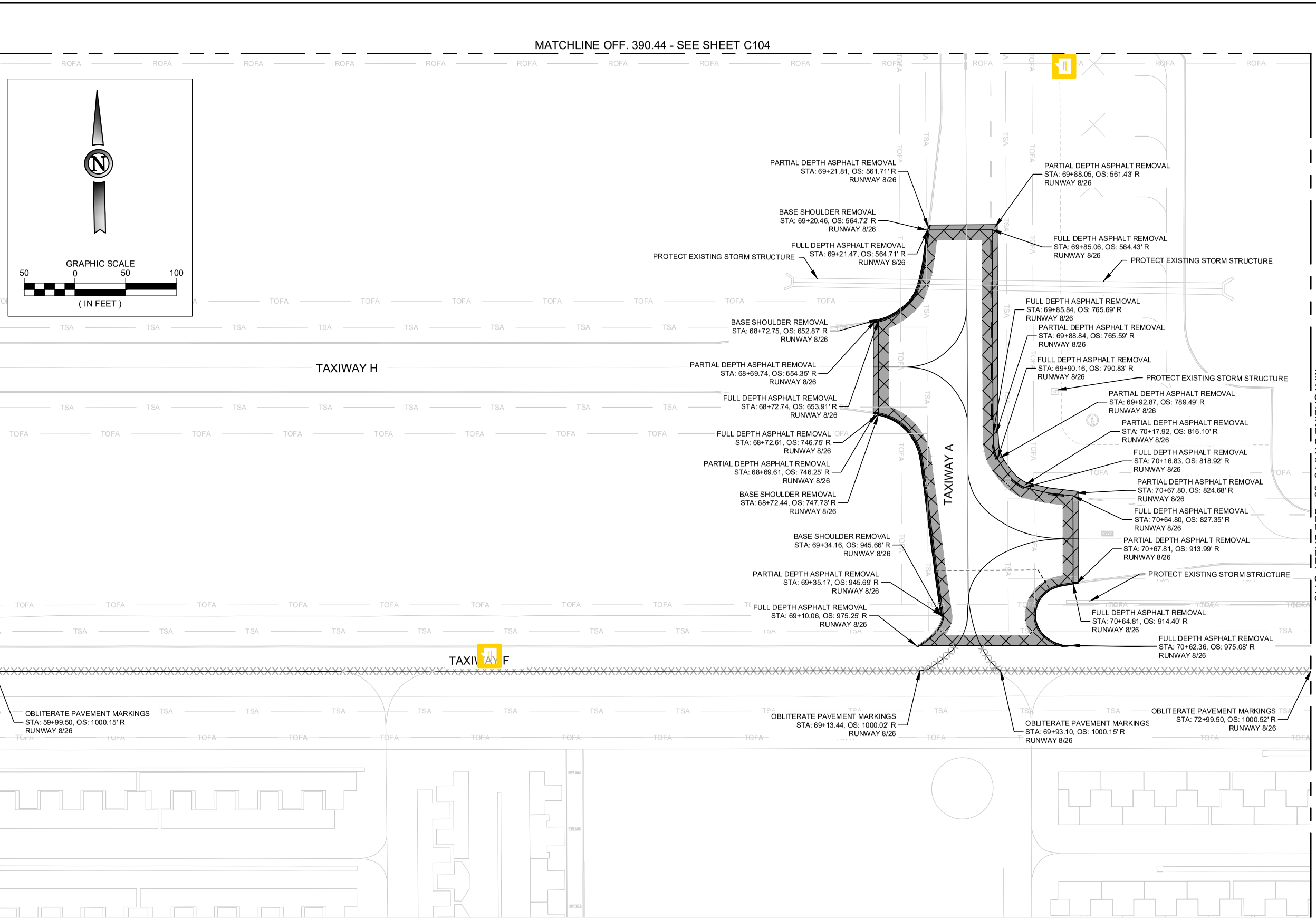
PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

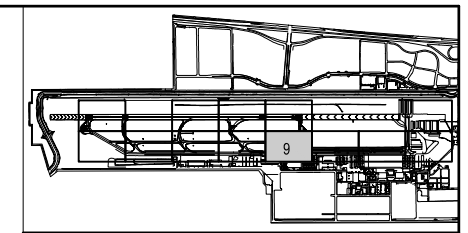
SHEET NAME
C108

SHEET NO.
31 of 61

DRAWING NO.
1706-DOA

Plotted October 9, 2023 @ 3:01 PM by: Vor, Patrick
L:\CMA\LOC 21-01 RW and TW A Rehab\CAD\PLANS\010-CMA-LOC-21-01-C100-C105-DEMO.dwg





DEMOLITION LEGEND

- FULL DEPTH ASPHALT PAVEMENT REMOVAL
- 3" PARTIAL DEPTH ASPHALT PAVEMENT REMOVAL
- 10" BASE COURSE SHOULDER REMOVAL
- XXXXXX INDICATED REMOVAL ITEMS

NOTES:

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NAME	REG. NO.	DATE

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CAMARILLO AIRPORT
CAMARILLO,CA

COUNTY of VENTURA Department of Airports

DES: A.G.G.
DR: A.G.G.
CH: C.L.G.
APP: J.D.I.

ISSUE RECORD

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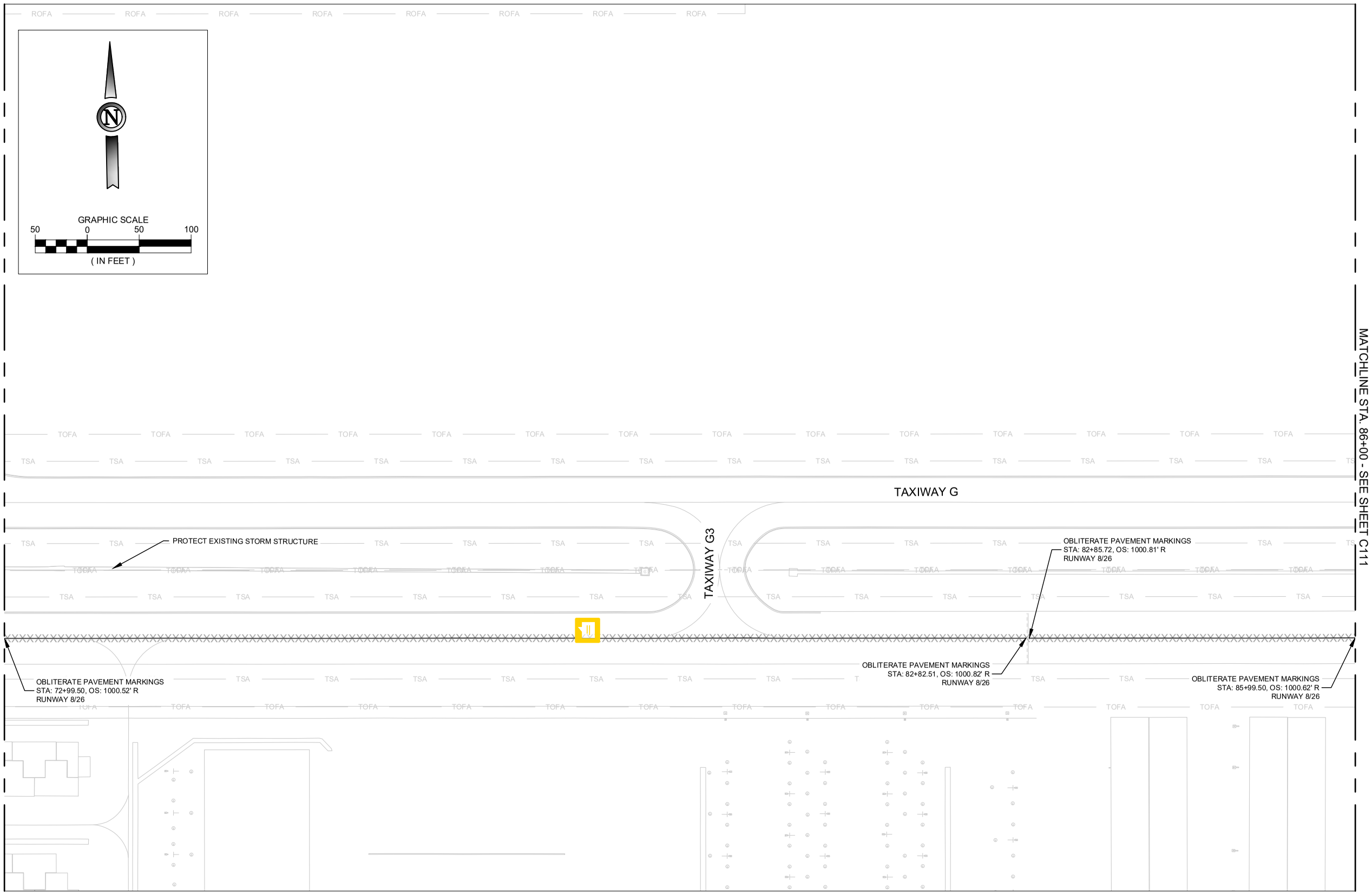
RUNWAY 8-26 AND TAXIWAY A PAVEMENT IMPROVEMENTS

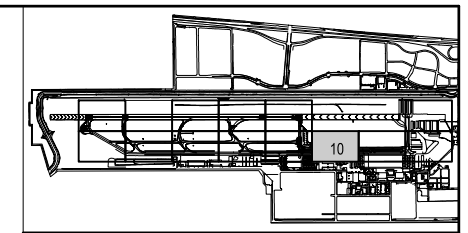
DEMOLITION PLAN
STA. 60+00 TO STA. 73+00
RUNWAY 8/26

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME C109
SHEET NO. 32 of 61
DRAWING NO. 1707-DOA

Plotted October 9, 2023 @ 3:01 PM by: Vor, Patrick
L:\CMA\LOC 21-01 RW and TW A Rehab\CAD\PLANS\010-CMA-LOC-21-01-C100-C105-DEMO.dwg





DEMOLITION LEGEND

	FULL DEPTH ASPHALT PAVEMENT REMOVAL
	3" PARTIAL DEPTH ASPHALT PAVEMENT REMOVAL
	10" BASE COURSE SHOULDER REMOVAL
XXXXXX	INDICATED REMOVAL ITEMS

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DES: A.G.G.
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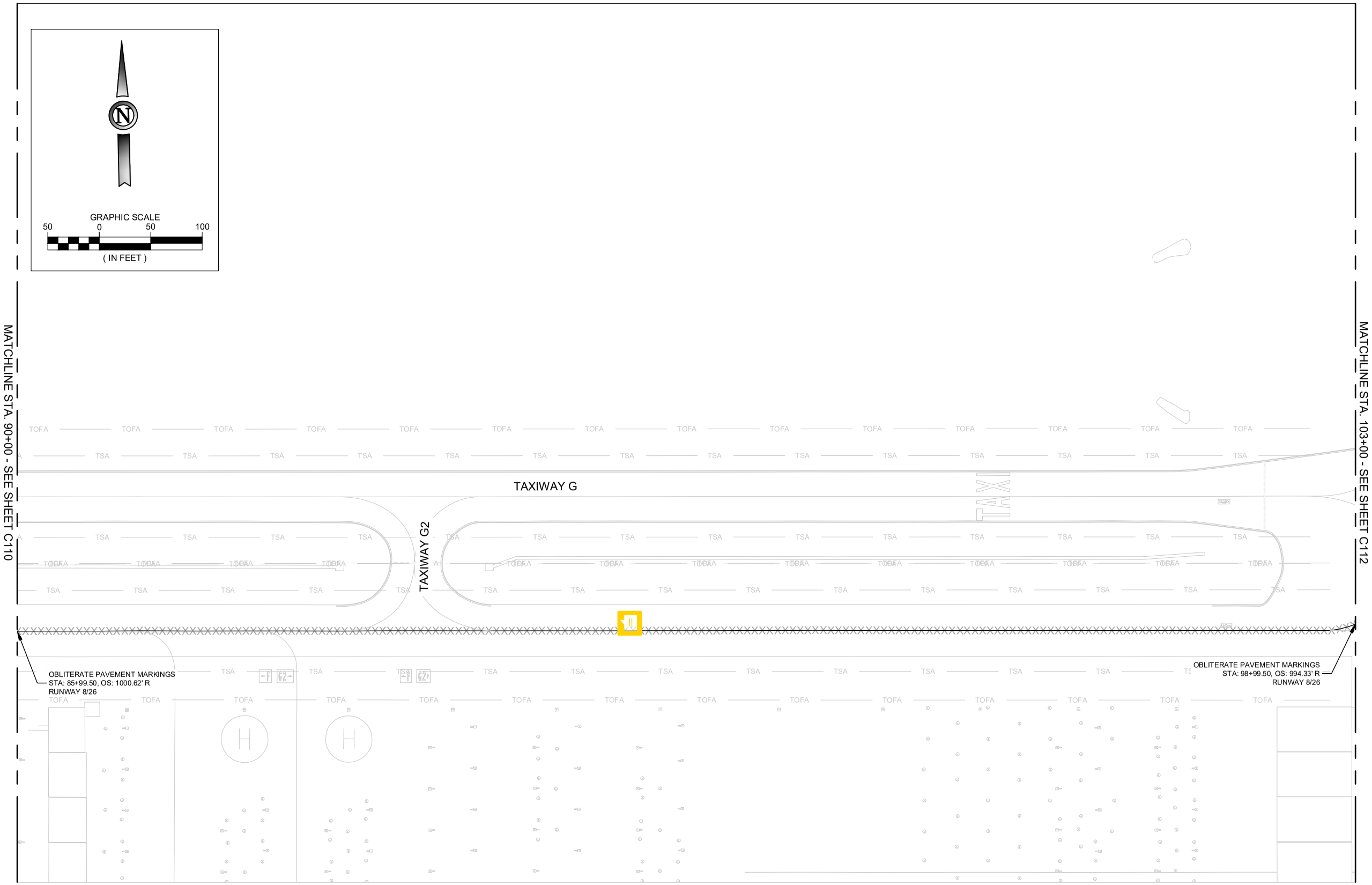
RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

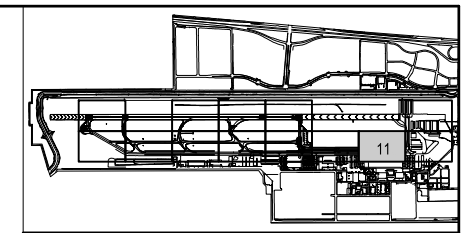
DEMOLITION PLAN
STA. 73+00 TO STA. 86+00
RUNWAY 8/26

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME
C110
SHEET NO.
33 of 61
DRAWING NO.
1708-DOA

Plotted October 9, 2023 @ 3:01 PM by: Vor, Patrick
L:\CMA\LOC 21-01 RW and TW A Rehab\CAD\PLANS\010-GMA-LOC-21-01-C100-C105-DEMO.dwg





DEMOLITION LEGEND

	FULL DEPTH ASPHALT PAVEMENT REMOVAL
	3" PARTIAL DEPTH ASPHALT PAVEMENT REMOVAL
	10" BASE COURSE SHOULDER REMOVAL
XXXXXX	INDICATED REMOVAL ITEMS

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7. FULL DEPTH ASPHALT PAVEMENT REMOVAL INCLUDES THE REMOVAL OF ANY UNDERLYING ASPHALT PAVEMENT AND STABILIZED BASE LAYERS.
8. PAVEMENT REMOVAL SHALL BE PAID PER SQUARE YARD AND IS INDEPENDENT OF DEPTH AND THICKNESS.
9. UNCLASSIFIED EXCAVATION INCLUDES THE REMOVAL AND DISPOSAL OF STABILIZED SOILS.
10. ANY PAVEMENT MARKINGS THAT ARE DAMAGED OUTSIDE OF THE PAVEMENT REHABILITATION LIMITS WILL NEED TO BE RE-PAINTED PER P-620. THE EXISTING LIMITS OF THE PAVEMENT MARKINGS WILL NEED TO BE SURVEYED PRIOR TO COMMENCING PAVEMENT REMOVAL OPERATIONS IN CASE OF DAMAGE.

ISSUED FOR 100% REVIEW

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JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY

JVIATION®
A WOOLPERT COMPANY

CAMARILLO AIRPORT
CAMARILLO,CA

COUNTY of VENTURA
Department of Airports

DES: A.G.G.
DR: A.G.G.
CH: C.L.G.
APP: J.D.I.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

DEMOLITION PLAN
STA. 86+00 TO STA. 99+00
RUNWAY 8/26

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME
C111

SHEET NO.
34 of 61

DRAWING NO.
1709-DOA

Plotted October 9, 2023 @ 3:01 PM by Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Reheb\CADD\LAN5010-CMA-LOC-21-01-C100-C105-DEMO.dwg

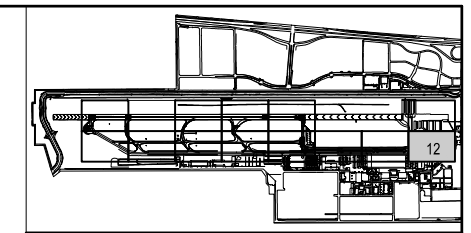
MATCHLINE OFF. 390.44 - SEE SHEET C113

TAXIWAY G1

OBLITERATE PAVEMENT MARKINGS
STA: 99+84.94, OS: 391.72' R
RUNWAY 8/26

MATCHLINE STA. 99+00 - SEE SHEET C111

OBLITERATE PAVEMENT MARKINGS
STA: 98+99.50, OS: 994.33' R
RUNWAY 8/26



DEMOLITION LEGEND

	FULL DEPTH ASPHALT PAVEMENT REMOVAL
	3" PARTIAL DEPTH ASPHALT PAVEMENT REMOVAL
	10" BASE COURSE SHOULDER REMOVAL
XXXXXX	INDICATED REMOVAL ITEMS

NOTES:

1. DEMOLITION OF EXISTING PAVEMENTS SHALL BE PERFORMED WITHIN THE CONSTRUCTION PHASING PLAN PARAMETERS. SEE PHASING SHEETS.
2. CONTRACTOR SHALL SUBMIT A PROCEDURE FOR REMOVING EXISTING PAVEMENT AT THE CORNERS OF THE PARTIAL REMOVAL AREA TO THE ENGINEER NO LATER THAN SEVEN (7) DAYS PRIOR TO THE START OF THE ROTOMILLING OPERATIONS.
3. CONTRACTOR MAY ELECT TO SAW ALTERNATE BUTT JOINT WIDTH TO ACCOMMODATE PAVING EQUIPMENT, SUBJECT TO APPROVAL OF THE RESIDENT ENGINEER. ADDITIONAL MATERIAL WILL NOT BE DIRECTLY PAID FOR, BUT WILL BE INCIDENTAL TO THE CONSTRUCTION OF THE BUTT JOINT.
4. CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES PRIOR TO DEMOLITION ACTIVITIES. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE.
5. SEE SHEET G050 FOR LOCATIONS OF ON-SITE STOCKPILE LOCATIONS FOR THE DURATION OF THE PROJECT ONLY. ALL OTHER MATERIAL SHALL BE DISPOSED OF OFF SITE AT A SITE DETERMINED BY THE CONTRACTOR.
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8. PAVEMENT REMOVAL SHALL BE PAID PER SQUARE YARD AND IS INDEPENDENT OF DEPTH AND THICKNESS.
9. UNCLASSIFIED EXCAVATION INCLUDES THE REMOVAL AND DISPOSAL OF STABILIZED SOILS.
10. ANY PAVEMENT MARKINGS THAT ARE DAMAGED OUTSIDE OF THE PAVEMENT REHABILITATION LIMITS WILL NEED TO BE RE-PAINTED PER P-620. THE EXISTING LIMITS OF THE PAVEMENT MARKINGS WILL NEED TO BE SURVEYED PRIOR TO COMMENCING PAVEMENT REMOVAL OPERATIONS IN CASE OF DAMAGE.

GRAPHIC SCALE
50 0 50 100
(IN FEET)

ISSUED FOR 100% REVIEW

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NAME	REG. NO.	DATE

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A WOOLPERT COMPANY

CAMARILLO AIRPORT
CAMARILLO,CA

COUNTY of VENTURA
Department of Airports

DES: A.G.G.
DR: A.G.G.
CH: C.L.G.
APP: J.D.I.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

DEMOLITION PLAN
STA. 99+00 TO STA. 112+00
RUNWAY 8/26

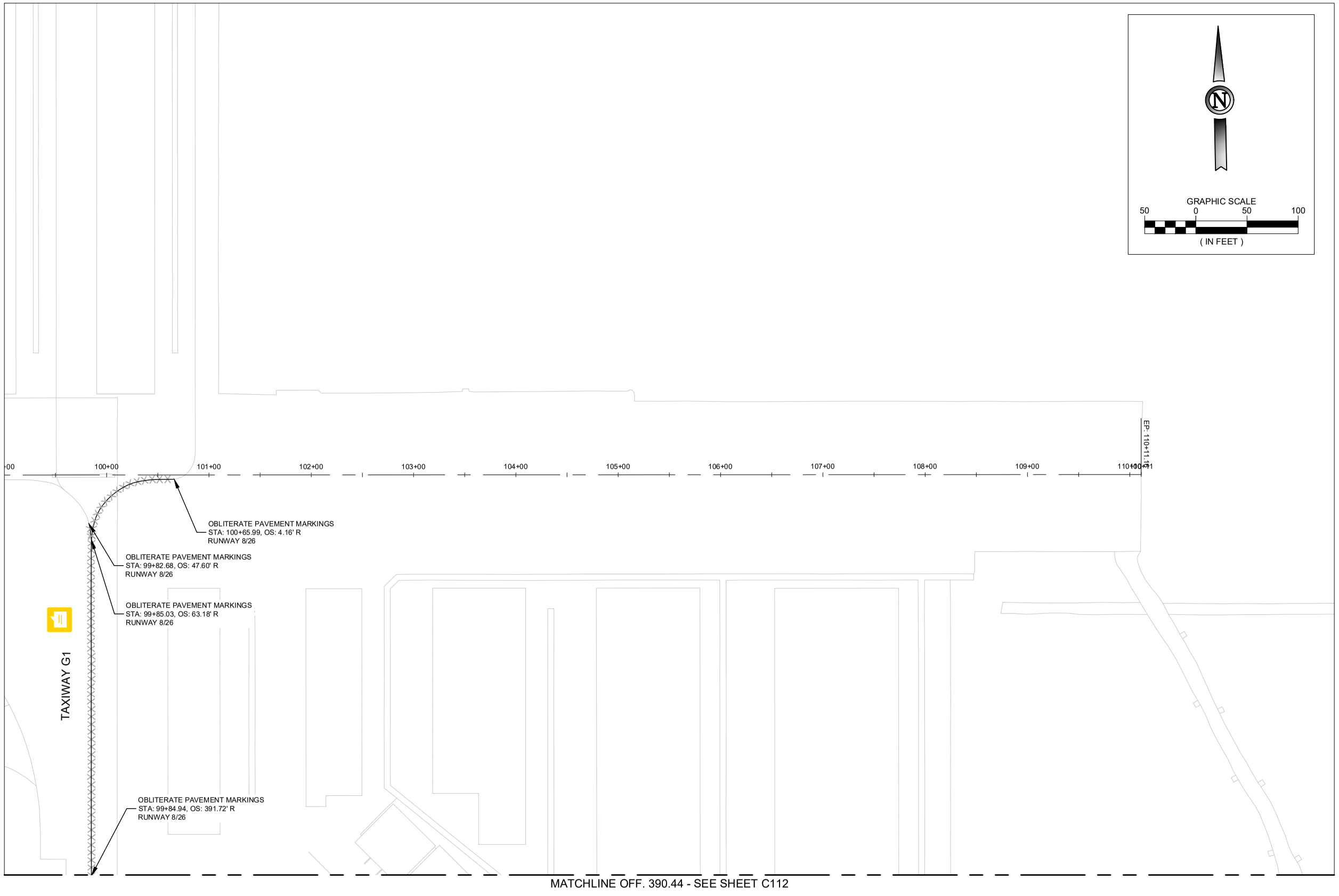
PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

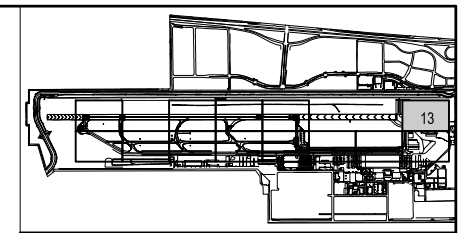
SHEET NAME
C112

SHEET NO.
35 of 61

DRAWING NO.
1710-DOA

Plotted October 9, 2023 @ 3:02 PM by Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Rehab\CADD\PLANS\010-CMA-LOC-21-01-C100-C105-DEMO.dwg





DEMOLITION LEGEND

	FULL DEPTH ASPHALT PAVEMENT REMOVAL
	3" PARTIAL DEPTH ASPHALT PAVEMENT REMOVAL
	10" BASE COURSE SHOULDER REMOVAL
XXXXXX	INDICATED REMOVAL ITEMS

NOTES:

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JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY

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A WOOLPERT COMPANY

CAMARILLO AIRPORT
CAMARILLO,CA

COUNTY of VENTURA
Department of Airports

DES: A.G.G.
DR: A.G.G.
CH: C.L.G.
APP: J.D.I.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

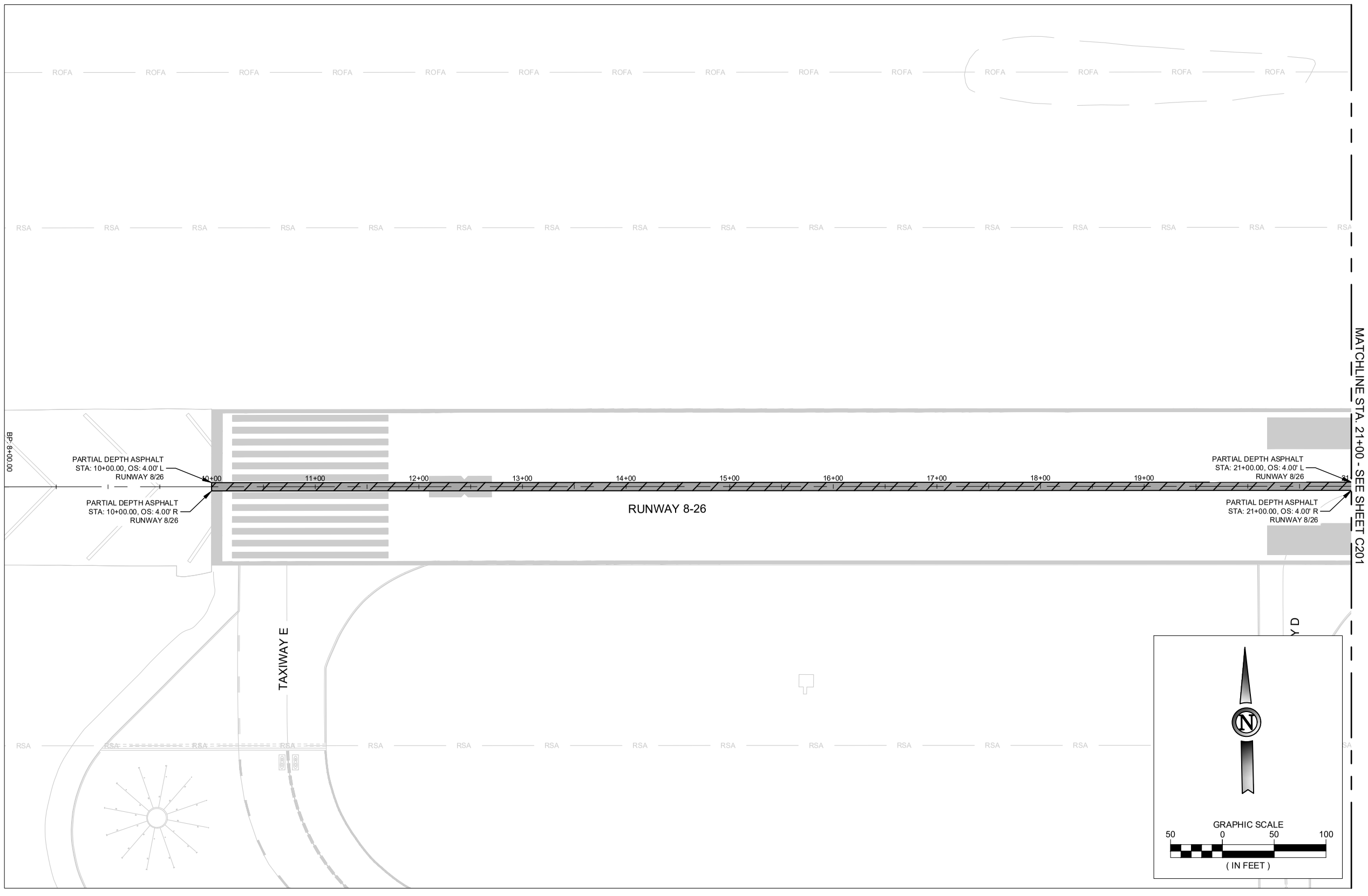
RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

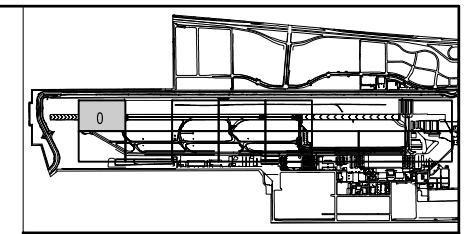
DEMOLITION PLAN
STA. 99+00 TO STA. 112+00
RUNWAY 8/26

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME
C113
SHEET NO.
36 of 61
DRAWING NO.
1711-DOA

Plotted October 9, 2023 @ 3:02 PM by: Ver. Patrick
L:\CMA\LOC 21-01 RW and TW A Rehab\CAD\PLANS\010-CMA-LOC-21-01-C100-C105-DEMO.dwg





GEOMETRY LEGEND

- FULL DEPTH ASPHALT PAVEMENT
- PARTIAL DEPTH ASPHALT PAVEMENT
- BASE COURSE SHOULDERS

NOTES

1. CONTRACTOR TO USE SURVEY CONTROL POINTS AS SHOWN ON SHEET G005 SURVEY CONTROL LAYOUT.
2. ALL LINE AND CURVE CALLOUTS ARE AT EDGE OF ASPHALT UNLESS OTHERWISE NOTED.
3. SEE SHEETS G050 THRU G058 FOR CONSTRUCTION PHASING.
4. SEE SHEET C220 FOR TYPICAL PAVEMENT SECTIONS.
5. SEE SHEETS C300 THRU C313 FOR PAVEMENT MARKING INFORMATION.
6. ANY PAVEMENT DAMAGE DURING CONSTRUCTION OUTSIDE THE PROPOSED PROJECT REMOVAL LIMITS SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER. ALL COSTS ASSOCIATED WITH RECONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
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JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY

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A WOOLPERT COMPANY

CAMARILLO AIRPORT
CAMARILLO,CA

COUNTY of VENTURA
Department of Airports

DES: A.G.G.
DR: A.G.G.
CH: C.L.G.
APP: J.D.I.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

GEOMETRIC LAYOUT PLAN
STA. 8+00 TO STA. 21+00
RUNWAY 8/26

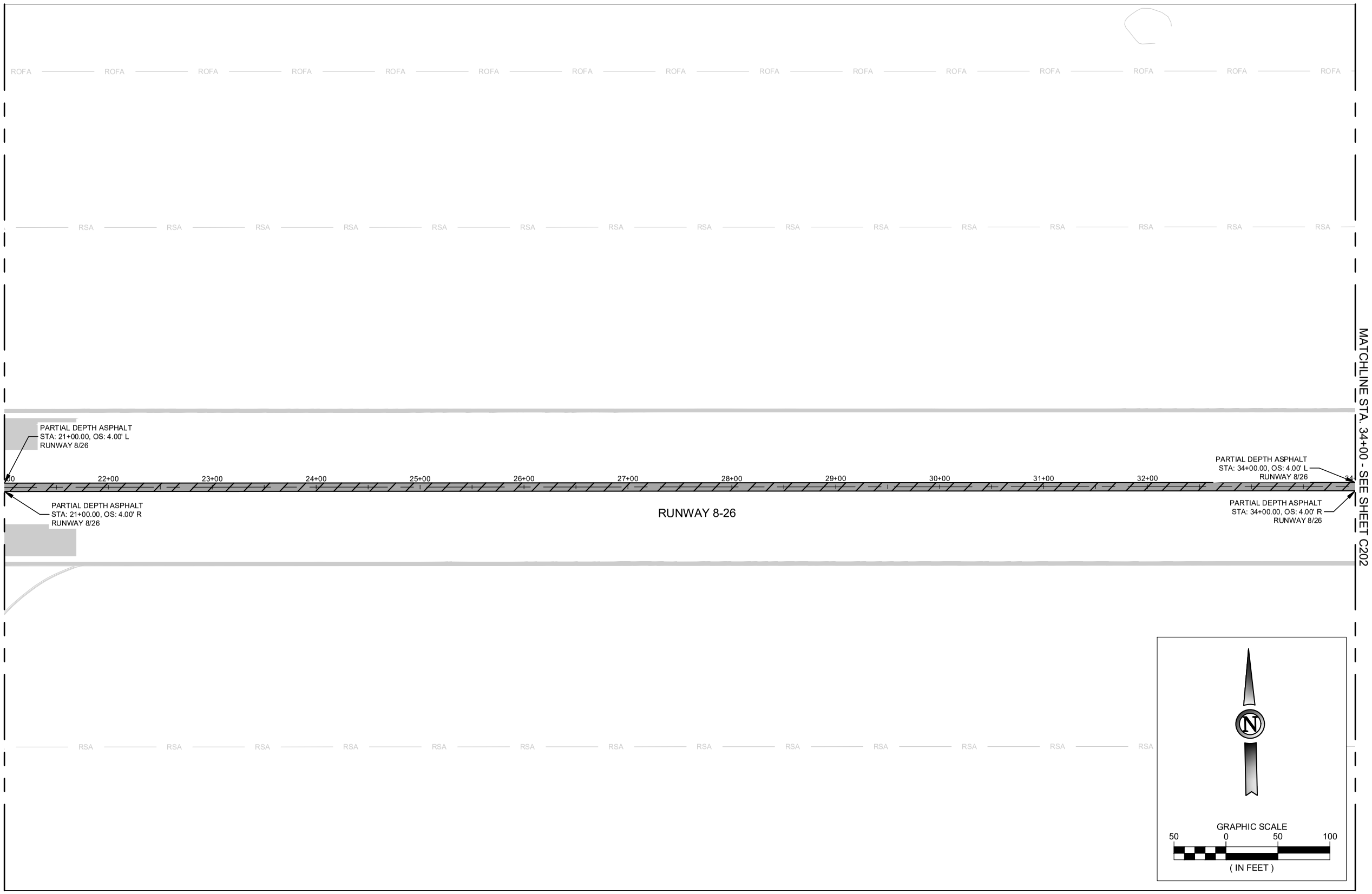
PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

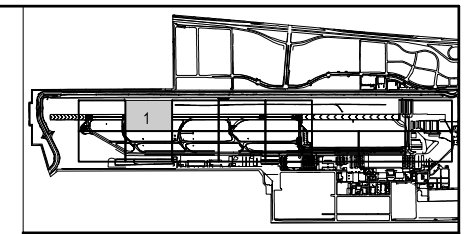
SHEET NAME
C200

SHEET NO.
37 of 61

DRAWING NO.
1712-DOA

Plotted October 9, 2023 @ 3:02 PM by: Ver, Patrick
L:\CIM\LOC 21-01 RW and TW A Rehab\CAD\PLANS\020-CMA-LOC-21-01-C200-C205-GEOM.dwg





GEOMETRY LEGEND

- FULL DEPTH ASPHALT PAVEMENT
- PARTIAL DEPTH ASPHALT PAVEMENT
- BASE COURSE SHOULDERS

NOTES

1. CONTRACTOR TO USE SURVEY CONTROL POINTS AS SHOWN ON SHEET G005 SURVEY CONTROL LAYOUT.
2. ALL LINE AND CURVE CALLOUTS ARE AT EDGE OF ASPHALT UNLESS OTHERWISE NOTED.
3. SEE SHEETS G050 THRU G058 FOR CONSTRUCTION PHASING.
4. SEE SHEET C220 FOR TYPICAL PAVEMENT SECTIONS.
5. SEE SHEETS C300 THRU C313 FOR PAVEMENT MARKING INFORMATION.
6. ANY PAVEMENT DAMAGE DURING CONSTRUCTION OUTSIDE THE PROPOSED PROJECT REMOVAL LIMITS SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER. ALL COSTS ASSOCIATED WITH RECONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
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JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY

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A WOOLPERT COMPANY

CAMARILLO AIRPORT
CAMARILLO,CA

COUNTY of VENTURA
Department of Airports

DES: A.G.G.
DR: A.G.G.
CH: C.L.G.
APP: J.D.I.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

GEOMETRIC LAYOUT PLAN
STA. 21+00 TO STA. 34+00
RUNWAY 8/26

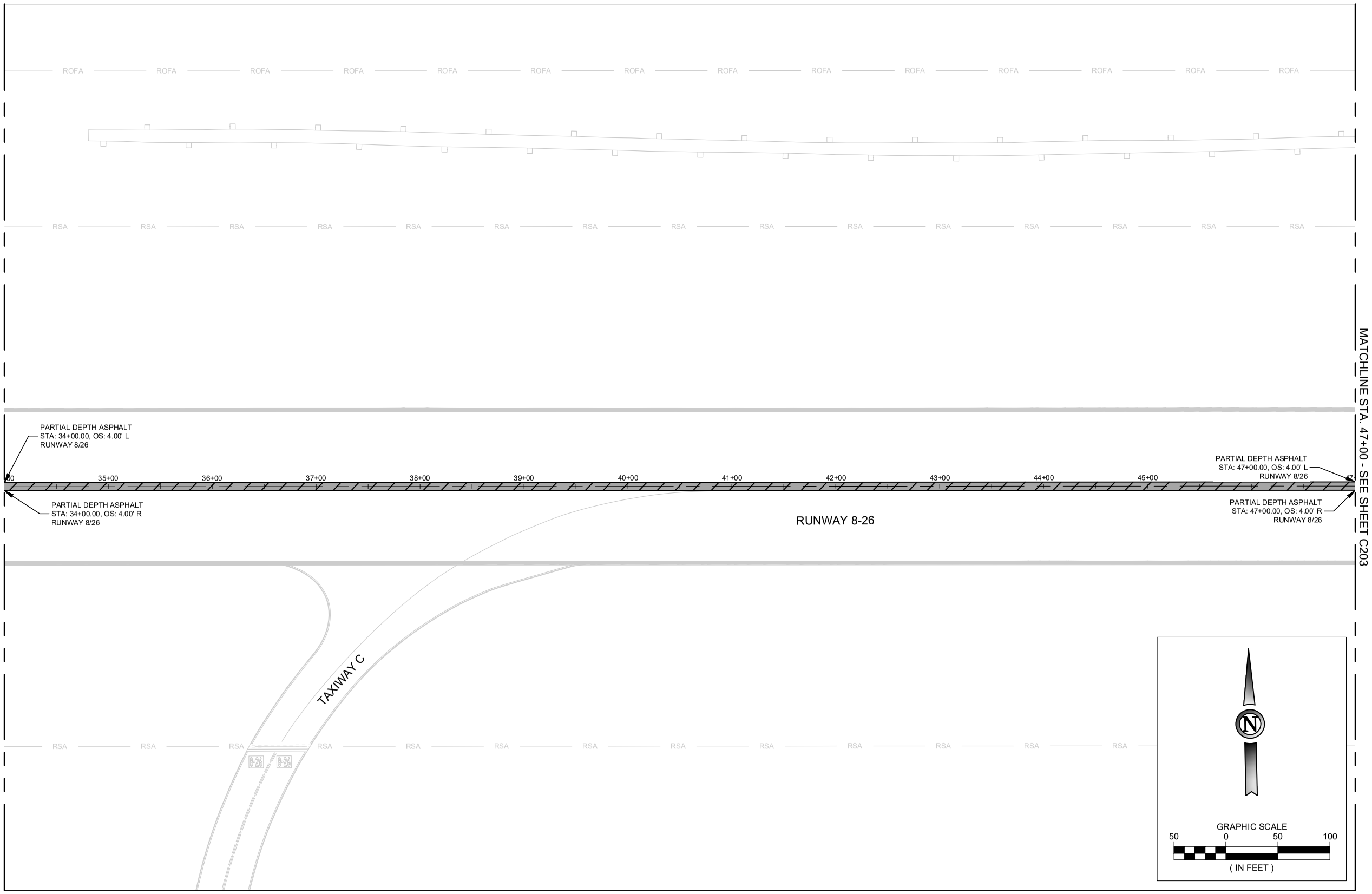
PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

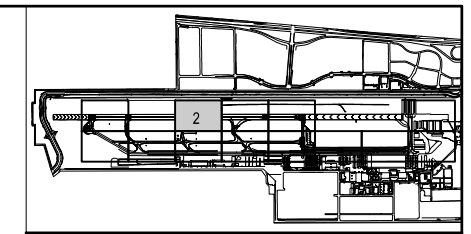
SHEET NAME
C201

SHEET NO.
38 of 61

DRAWING NO.
1713-DOA

Plotted October 9, 2023 @ 3:02 PM by: Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Rehab\CAD\PLANS\020-CMA-LOC-21-01-C200-C205-GEOM.dwg





GEOMETRY LEGEND

- FULL DEPTH ASPHALT PAVEMENT
- PARTIAL DEPTH ASPHALT PAVEMENT
- BASE COURSE SHOULDERS

NOTES

1. CONTRACTOR TO USE SURVEY CONTROL POINTS AS SHOWN ON SHEET G005 SURVEY CONTROL LAYOUT.
2. ALL LINE AND CURVE CALLOUTS ARE AT EDGE OF ASPHALT UNLESS OTHERWISE NOTED.
3. SEE SHEETS G050 THRU G058 FOR CONSTRUCTION PHASING.
4. SEE SHEET C220 FOR TYPICAL PAVEMENT SECTIONS.
5. SEE SHEETS C300 THRU C313 FOR PAVEMENT MARKING INFORMATION.
6. ANY PAVEMENT DAMAGE DURING CONSTRUCTION OUTSIDE THE PROPOSED PROJECT REMOVAL LIMITS SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER. ALL COSTS ASSOCIATED WITH RECONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
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NAME	REG. NO.	DATE

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ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

GEOMETRIC LAYOUT PLAN
STA. 34+00 TO STA. 47+00
RUNWAY 8/26

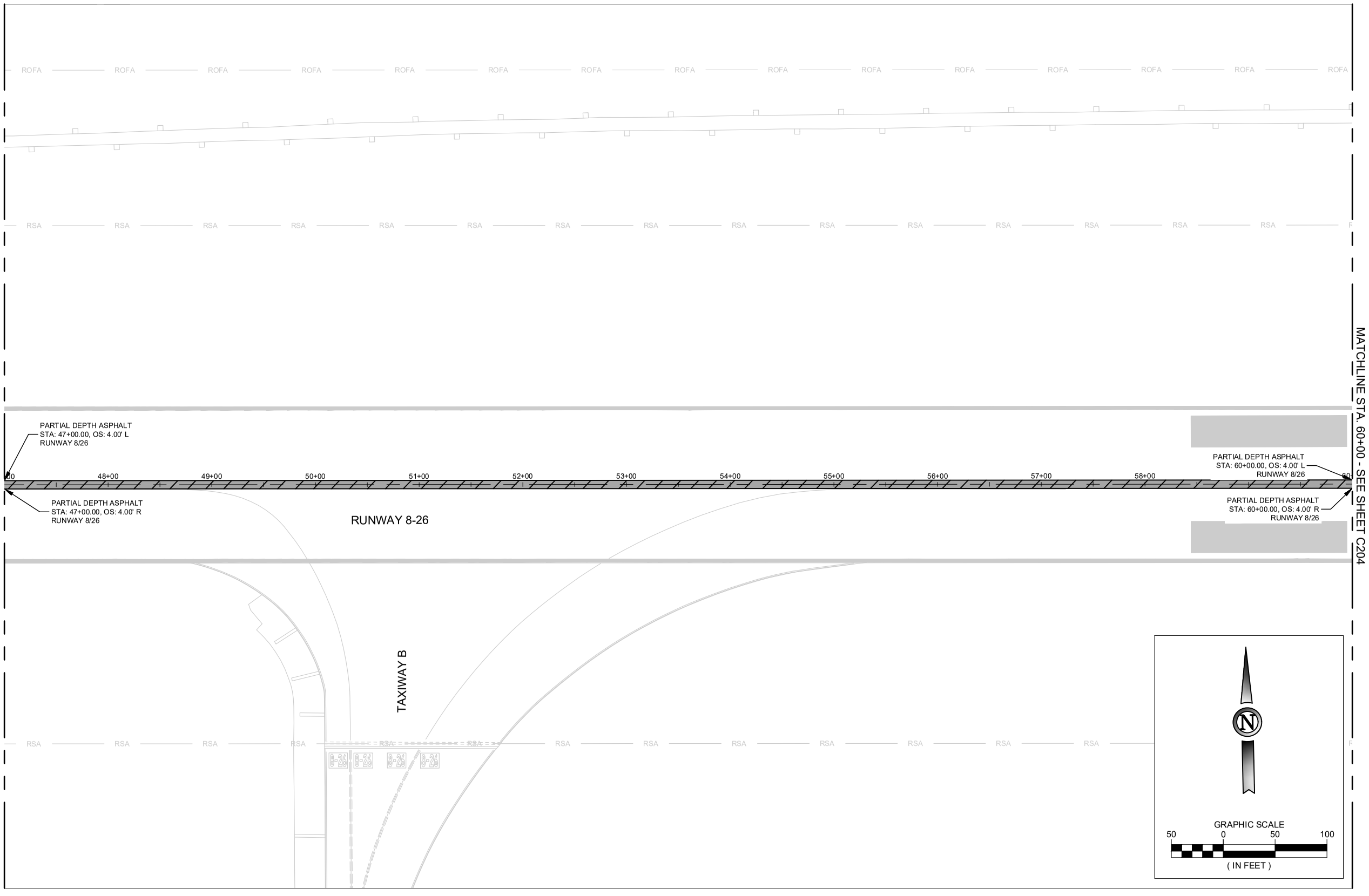
PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

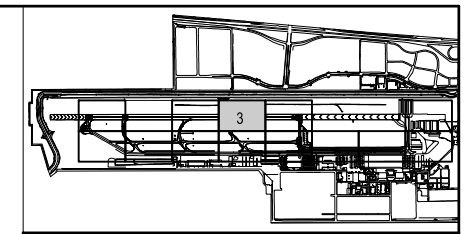
SHEET NAME
C202

SHEET NO.
39 of 61

DRAWING NO.
1714-DOA

Plotted October 9, 2023 @ 3:02 PM by: Ver. Patrick
L:\CMA\LOC 21-01 RW and TW A Rehab\CAD\PLANS\020-CMA-LOC-21-01-C200-C205-GEOM.dwg





GEOMETRY LEGEND

- FULL DEPTH ASPHALT PAVEMENT
- PARTIAL DEPTH ASPHALT PAVEMENT
- BASE COURSE SHOULDERS

NOTES

1. CONTRACTOR TO USE SURVEY CONTROL POINTS AS SHOWN ON SHEET G005 SURVEY CONTROL LAYOUT.
2. ALL LINE AND CURVE CALLOUTS ARE AT EDGE OF ASPHALT UNLESS OTHERWISE NOTED.
3. SEE SHEETS G050 THRU G058 FOR CONSTRUCTION PHASING.
4. SEE SHEET C220 FOR TYPICAL PAVEMENT SECTIONS.
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ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

GEOMETRIC LAYOUT PLAN
STA. 47+00 TO STA. 60+00
RUNWAY 8/26

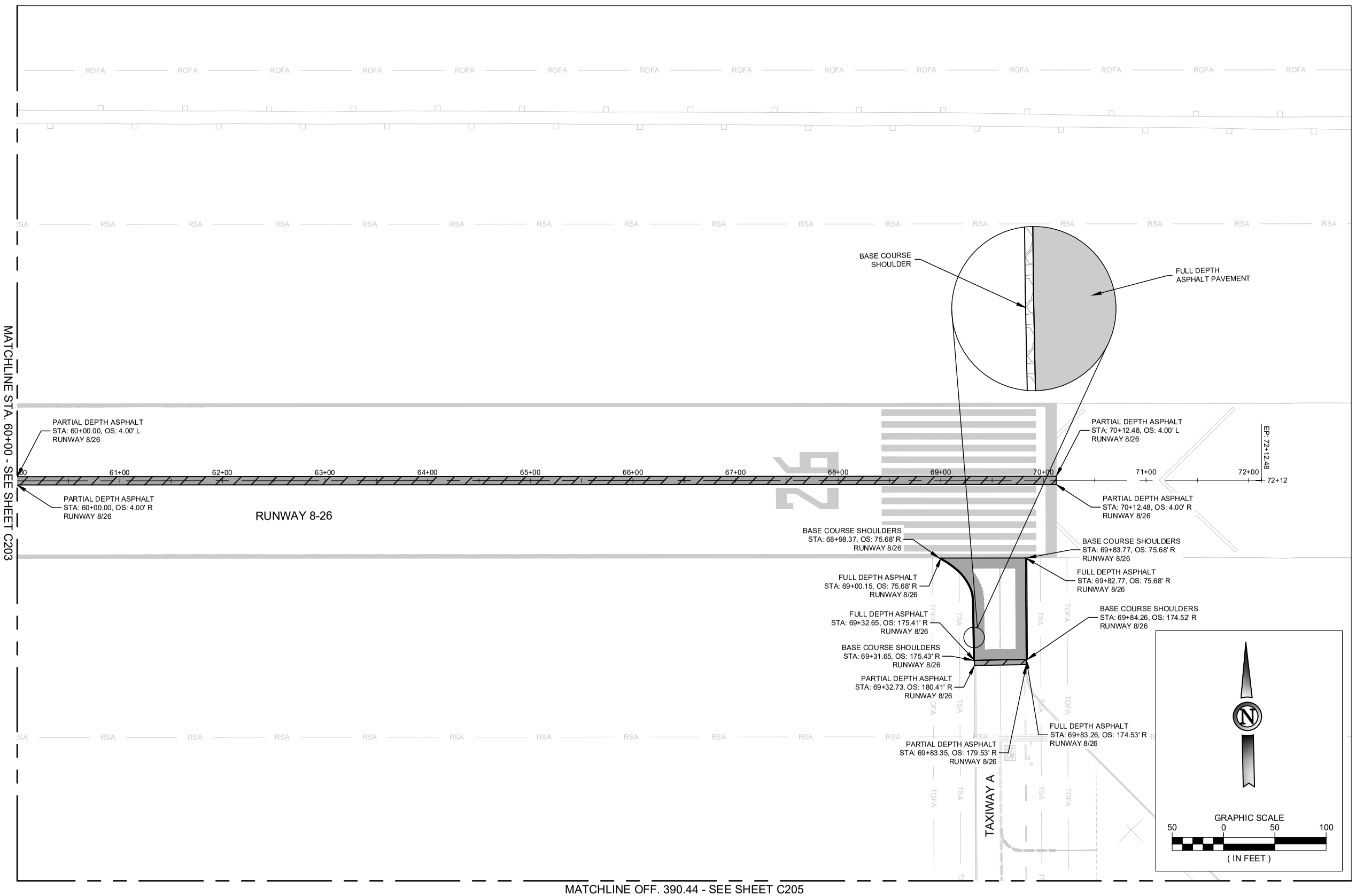
PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

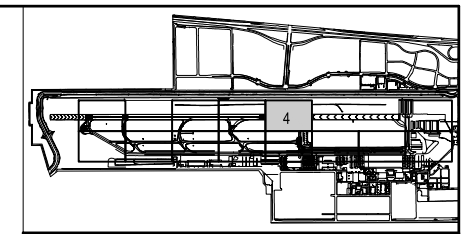
SHEET NAME
C203

SHEET NO.
40 of 61

DRAWING NO.
1715-DOA

Plotted October 9, 2023 @ 3:02 PM by: Ver. Patrick
L:\CMA\LOC 21-01 RW and TW A Rehab\CAD\PLANS\020-CMA-LOC-21-01-C200-C205-GEOM.dwg





GEOMETRY LEGEND

- FULL DEPTH ASPHALT PAVEMENT
- PARTIAL DEPTH ASPHALT PAVEMENT
- BASE COURSE SHOULDERS

NOTES

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4. SEE SHEET C220 FOR TYPICAL PAVEMENT SECTIONS.
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JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY

JVIATION®
A WOOLPERT COMPANY

CAMARILLO AIRPORT
CAMARILLO,CA

COUNTY of VENTURA
Department of Airports

DES: A.G.G.
DR: A.G.G.
CH: C.L.G.
APP: J.D.I.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

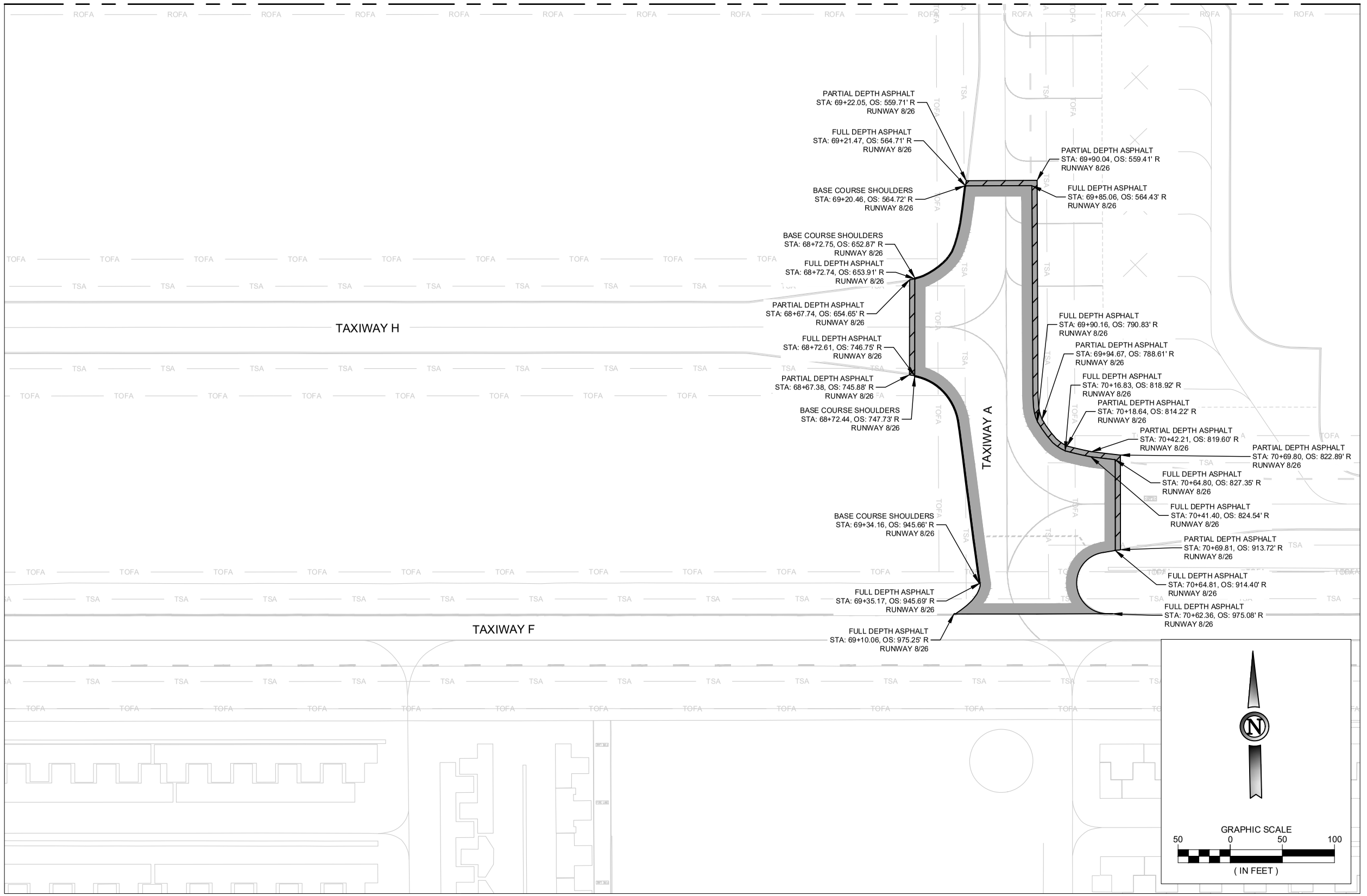
GEOMETRIC LAYOUT PLAN
STA. 60+00 TO STA. 73+00
RUNWAY 8/26

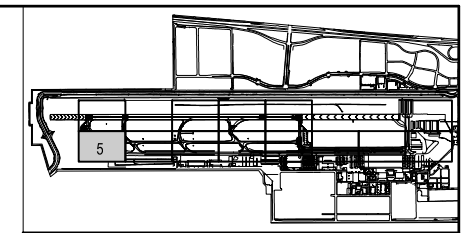
PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME: C204
SHEET NO.: 41 of 61
DRAWING NO.: 1716-DOA

Plotted October 9, 2023 @ 3:03 PM by, Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Rehab\CAD\PLANS\020-CMA-LOC-21-01-C200-C205-GEOM.dwg

MATCHLINE OFF. 390.44 - SEE SHEET C204





GEOMETRY LEGEND

- FULL DEPTH ASPHALT PAVEMENT
- PARTIAL DEPTH ASPHALT PAVEMENT
- BASE COURSE SHOULDERS

NOTES

1. CONTRACTOR TO USE SURVEY CONTROL POINTS AS SHOWN ON SHEET G005 SURVEY CONTROL LAYOUT.
2. ALL LINE AND CURVE CALLOUTS ARE AT EDGE OF ASPHALT UNLESS OTHERWISE NOTED.
3. SEE SHEETS G050 THRU G058 FOR CONSTRUCTION PHASING.
4. SEE SHEET C220 FOR TYPICAL PAVEMENT SECTIONS.
5. SEE SHEETS C300 THRU C313 FOR PAVEMENT MARKING INFORMATION.
6. ANY PAVEMENT DAMAGE DURING CONSTRUCTION OUTSIDE THE PROPOSED PROJECT REMOVAL LIMITS SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER. ALL COSTS ASSOCIATED WITH RECONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
7. CONTRACTOR SHALL LOCATE AND PROTECT ALL EXISTING UTILITIES.

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NAME	REG. NO.	DATE

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APP: J.D.I.

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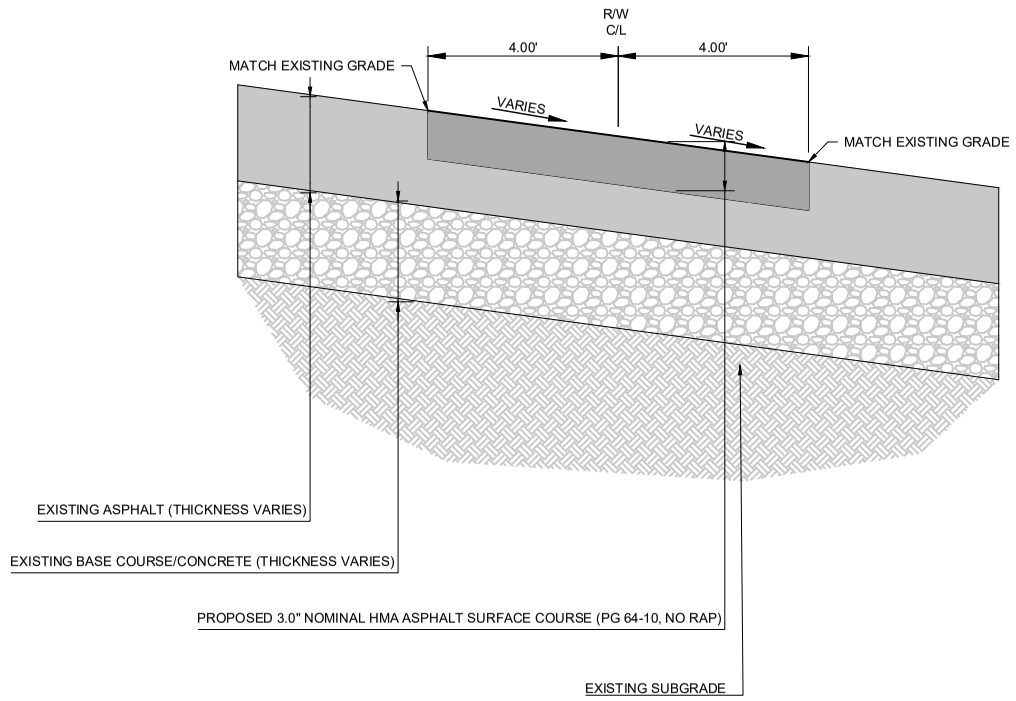
RUNWAY 8-26 AND TAXIWAY A PAVEMENT IMPROVEMENTS

GEOMETRIC LAYOUT PLAN
STA. 60+00 TO STA. 73+00
RUNWAY 8/26

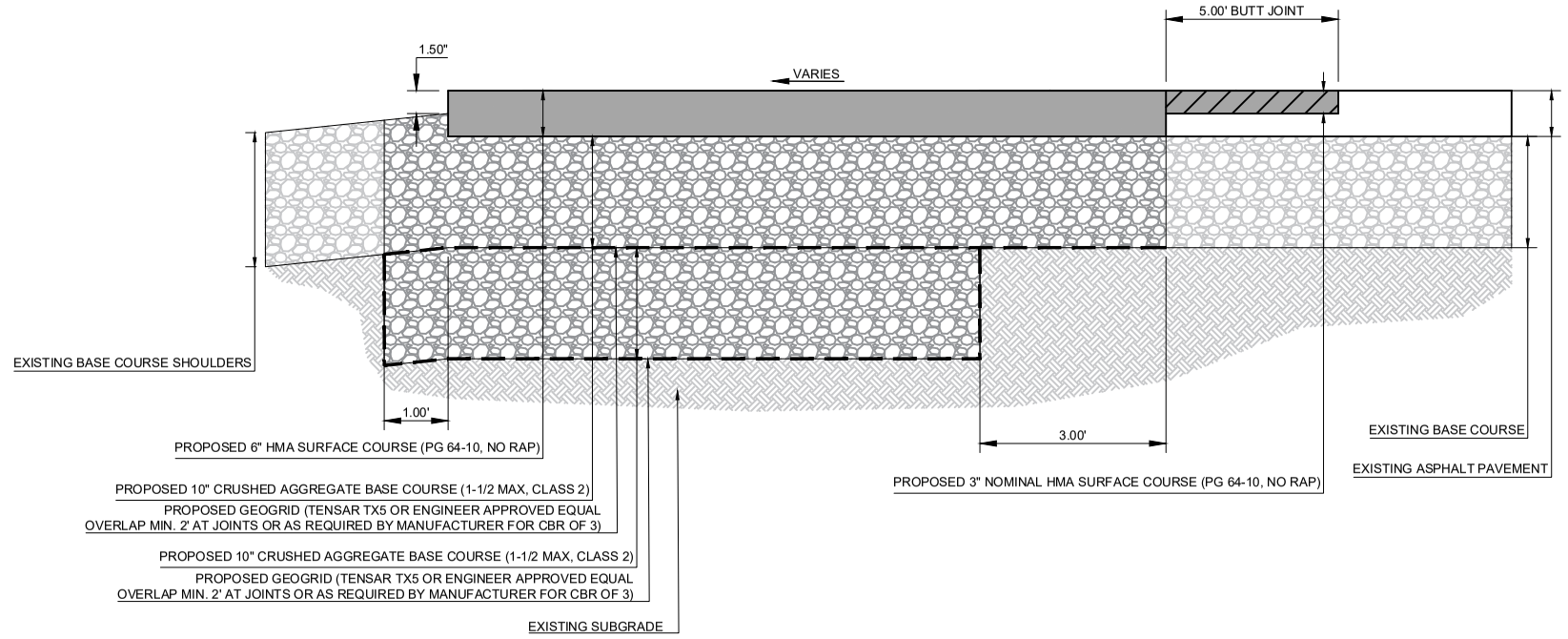
PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME C205
SHEET NO. 42 of 61
DRAWING NO. 1717-DOA

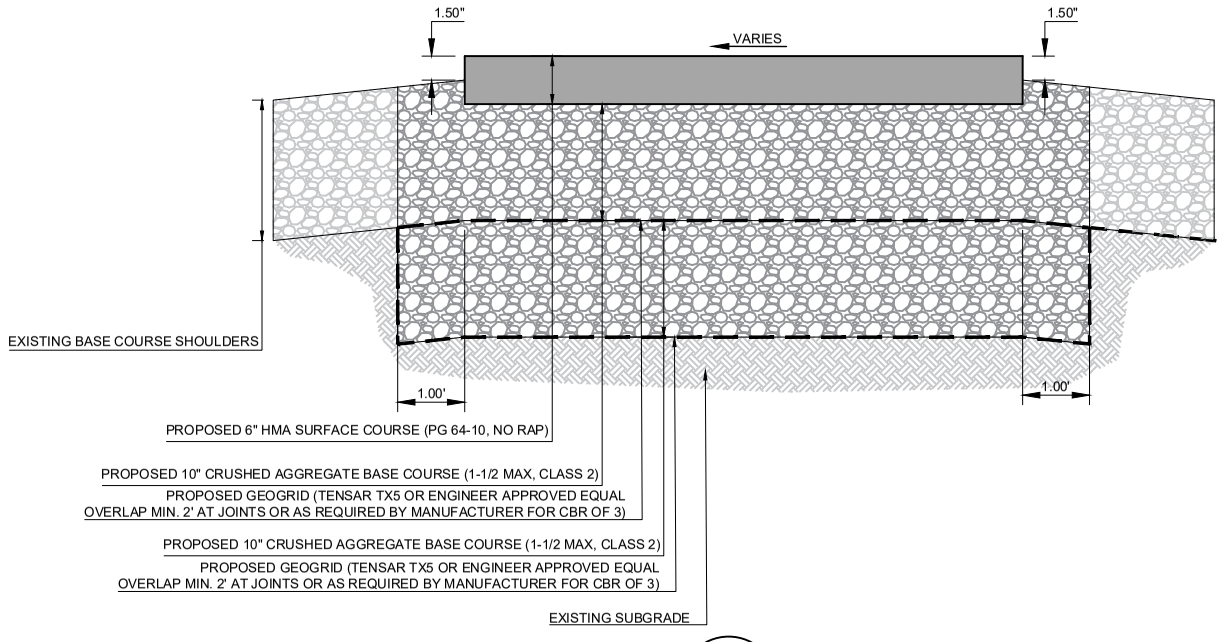
Plotted October 9, 2023 @ 3:03 PM by Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Rehab\CADD\PLANS\020-CMA-LOC-21-01-C200-C205-GEOM.dwg



A — RUNWAY 8-26 CENTERLINE
N.T.S.



B — TAXIWAY A RECONSTRUCTION
N.T.S.



C — TAXIWAY A RECONSTRUCTION
N.T.S.

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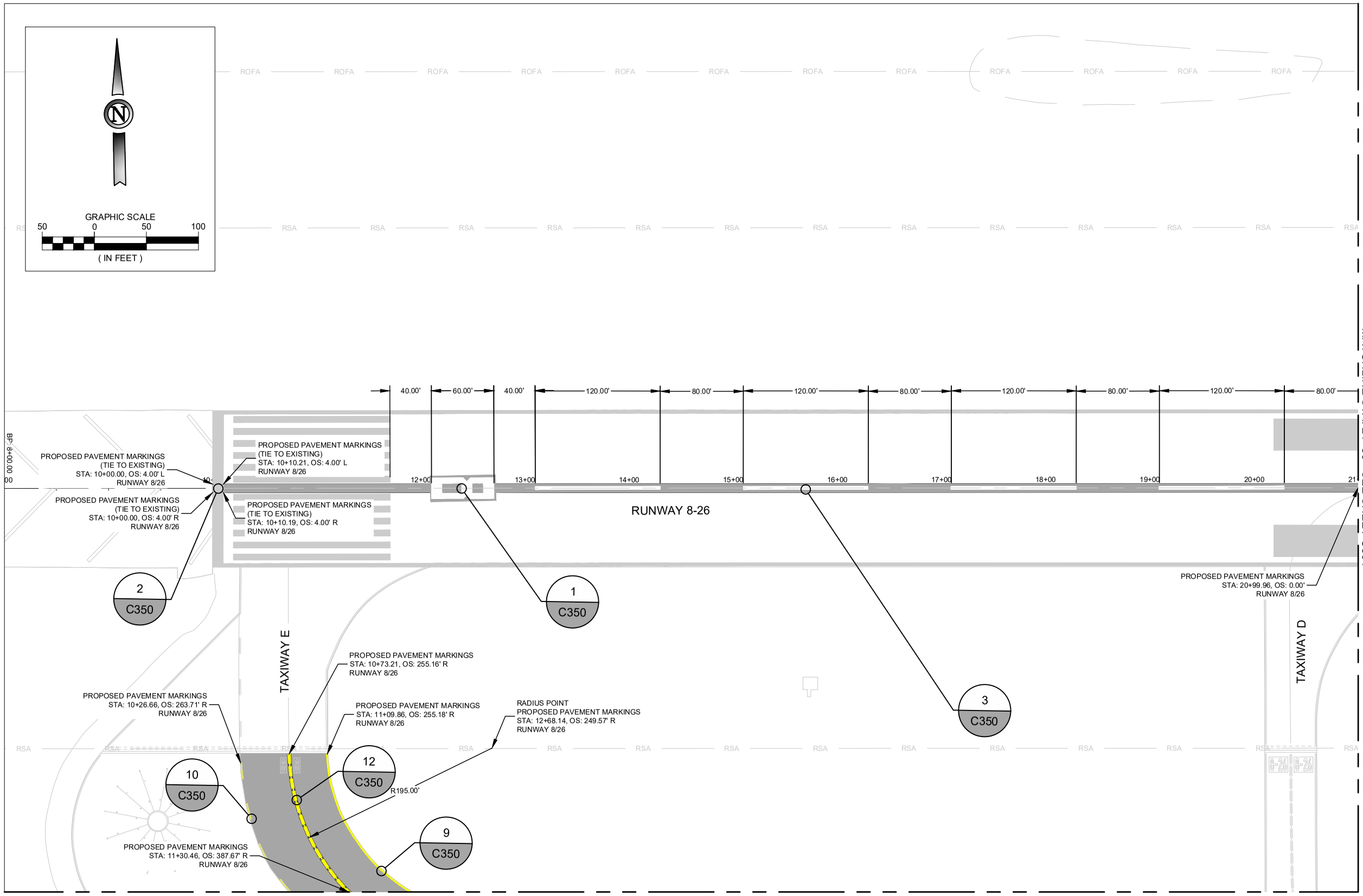
RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

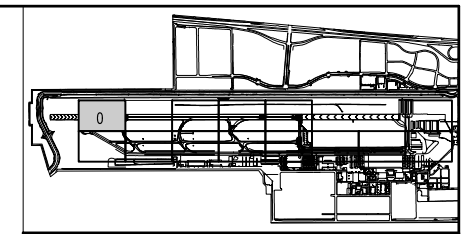
TYPICAL SECTIONS

SHEET NAME: C220
SHEET NO.: 43 of 61
DRAWING NO.: 1718-DOA

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

Plotted October 9, 2023 @ 3:03 PM by: Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Rehab\CAD\PLANS\020-CMA-LOC-21-01-C220-TSEC.dwg





PAVEMENT MARKINGS LEGEND

EXISTING	ASPHALT	EXISTING PAINT
PROPOSED		PROPOSED TAXIWAY PAINT
		PROPOSED RUNWAY PAINT

NOTES:

1. UNLESS OTHERWISE SPECIFIED, ALL TAXIWAY MARKINGS SHALL BE YELLOW AND ALL RUNWAY MARKINGS SHALL BE WHITE IN ACCORDANCE WITH SPECIFICATION P-620. ALL STRIPING WILL HAVE A BLACK BORDER AT THE DIMENSIONS INDICATED ON THE DETAILS UNLESS SHOWN OTHERWISE IN STRIPING DETAILS.
2. CONTRACTOR WILL BE REQUIRED TO REPAINT ANY MARKINGS THAT ARE OUTSIDE THE PROJECT WORK LIMITS WHICH ARE DAMAGED BY THE CONTRACTORS OPERATIONS. REPAINTING OF THESE DAMAGED AREAS WILL BE AT THE CONTRACTORS EXPENSE.
3. PAINT SHOULD BE STORED IN A CLIMATE-CONTROLLED ENVIRONMENT IN ORDER TO MEET MANUFACTURERS RECOMMENDED TEMPERATURES BEFORE IT IS APPLIED. MATERIAL THAT DOES NOT MEET REQUIRED TEMPERATURE REQUIREMENTS WILL BE WARMED TO THE MINIMUM TEMPERATURE FOR 24 HOURS BEFORE IT IS APPLIED OR AS APPROVED BY THE RESIDENT ENGINEER.
4. GLASS BEADS SHALL BE APPLIED TO ALL PERMANENT PAVEMENT MARKINGS. APPLICATION RATES AND GLASS BEAD TYPE SHALL BE AS SPECIFIED IN ITEM P-620. GLASS BEADS SHALL NOT BE APPLIED TO BLACK PAINT. GLASS BEADS SHALL BE INCIDENTAL TO P-620 BID ITEMS.
5. SEE SHEET C350 FOR STRIPING DETAILS AND NOTES.
6. CONTRACTOR SHALL HAVE A COPY OF THE CURRENT FAA ADVISORY CIRCULAR AC 150/5340-1M "STANDARDS FOR AIRPORT MARKINGS" ON SITE AT ALL TIMES. ANY DISCREPANCY BETWEEN INFORMATION SHOWN ON THE PLAN SHEETS AND THE ADVISORY CIRCULAR SHALL BE COORDINATED WITH THE ENGINEER FOR DIRECTION.
7. PRIOR TO REMOVAL OF PAVEMENT MARKINGS, EXISTING PAVEMENT MARKINGS SHALL BE SURVEYED AND PROVIDED TO THE ENGINEER FOR APPROVAL. FINAL PAINT LAYOUT SHALL MATCH THE EXISTING LAYOUT AND WILL BE CONFIRMED BY THE AIRPORT PRIOR TO CONSTRUCTION.
8. ALL AREAS SHALL BE THOROUGHLY CLEANED PRIOR TO PLACING PAINT MARKINGS. ALL SURFACE PREPARATION ASSOCIATED WITH PAVEMENT MARKINGS SHALL BE INCIDENTAL TO P-620 BID ITEMS
9. ANY DISCREPANCIES BETWEEN THESE PLANS AND THE ACTUAL STRIPING PRESENT IN THE FIELD SHALL BE BROUGHT TO THE ATTENTION OF RESIDENT ENGINEER.
10. SECOND APPLICATION OF PAINT WILL BE APPLIED 30 DAYS AFTER THE INITIAL APPLICATION FOR AREAS OF NEW PAVEMENT. IT MAY BE POSSIBLE TO COMPLETE THIS WORK ON A PULL BACK BASIS IF APPROVED BY AIRPORT OPERATIONS AND UNDER THEIR SUPERVISION.

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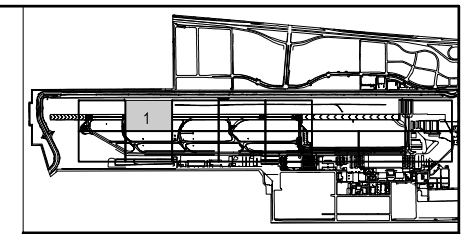
RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

PAVEMENT MARKING PLAN
STA. 8+00 TO STA. 21+00
RUNWAY 8/26

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME: C300
SHEET NO.: 44 of 61
DRAWING NO.: 1719-DOA

Plotted October 9, 2023 @ 3:03 PM by, Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Rehab\CAD\PLANS\030-CMA-LOC-21-01-C300-C305-PANT.dwg



PAVEMENT MARKINGS LEGEND

EXISTING	ASPHALT	EXISTING PAINT
PROPOSED		PROPOSED TAXIWAY PAINT
		PROPOSED RUNWAY PAINT

NOTES:

1. UNLESS OTHERWISE SPECIFIED, ALL TAXIWAY MARKINGS SHALL BE YELLOW AND ALL RUNWAY MARKINGS SHALL BE WHITE IN ACCORDANCE WITH SPECIFICATION P-620. ALL STRIPING WILL HAVE A BLACK BORDER AT THE DIMENSIONS INDICATED ON THE DETAILS UNLESS SHOWN OTHERWISE IN STRIPING DETAILS.
2. CONTRACTOR WILL BE REQUIRED TO REPAINT ANY MARKINGS THAT ARE OUTSIDE THE PROJECT WORK LIMITS WHICH ARE DAMAGED BY THE CONTRACTORS OPERATIONS. REPAINTING OF THESE DAMAGED AREAS WILL BE AT THE CONTRACTORS EXPENSE.
3. PAINT SHOULD BE STORED IN A CLIMATE-CONTROLLED ENVIRONMENT IN ORDER TO MEET MANUFACTURERS RECOMMENDED TEMPERATURES BEFORE IT IS APPLIED. MATERIAL THAT DOES NOT MEET REQUIRED TEMPERATURE REQUIREMENTS WILL BE WARMED TO THE MINIMUM TEMPERATURE FOR 24 HOURS BEFORE IT IS APPLIED OR AS APPROVED BY THE RESIDENT ENGINEER.
4. GLASS BEADS SHALL BE APPLIED TO ALL PERMANENT PAVEMENT MARKINGS. APPLICATION RATES AND GLASS BEAD TYPE SHALL BE AS SPECIFIED IN ITEM P-620. GLASS BEADS SHALL NOT BE APPLIED TO BLACK PAINT. GLASS BEADS SHALL BE INCIDENTAL TO P-620 BID ITEMS.
5. SEE SHEET C350 FOR STRIPING DETAILS AND NOTES.
6. CONTRACTOR SHALL HAVE A COPY OF THE CURRENT FAA ADVISORY CIRCULAR AC 150/5340-1M "STANDARDS FOR AIRPORT MARKINGS" ON SITE AT ALL TIMES. ANY DISCREPANCY BETWEEN INFORMATION SHOWN ON THE PLAN SHEETS AND THE ADVISORY CIRCULAR SHALL BE COORDINATED WITH THE ENGINEER FOR DIRECTION.
7. PRIOR TO REMOVAL OF PAVEMENT MARKINGS, EXISTING PAVEMENT MARKINGS SHALL BE SURVEYED AND PROVIDED TO THE ENGINEER FOR APPROVAL. FINAL PAINT LAYOUT SHALL MATCH THE EXISTING LAYOUT AND WILL BE CONFIRMED BY THE AIRPORT PRIOR TO CONSTRUCTION.
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ROFA

RSA

MATCHLINE STA. 21+00 - SEE SHEET C300

MATCHLINE STA. 34+00 - SEE SHEET C302

120.00' 80.00' 120.00' 80.00' 120.00' 80.00' 120.00' 80.00' 120.00' 80.00' 120.00' 80.00' 120.00'

22+00 23+00 24+00 25+00 26+00 27+00 28+00 29+00 30+00 31+00 32+00 33+00

RUNWAY 8-26

PROPOSED PAVEMENT MARKINGS
STA: 20+99.96, OS: 0.00'
RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS
STA: 33+99.96, OS: 0.00' R
RUNWAY 8/26

4
C350

3
C350

GRAPHIC SCALE
50 0 50 100
(IN FEET)

MATCHLINE OFF. 390.44 - SEE SHEET C306

ISSUED FOR 100% REVIEW

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DES: A.G.G.
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CH: C.L.G.
APP: J.D.I.

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NO.	BY	DATE	DESCRIPTION
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RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

PAVEMENT MARKING PLAN
STA. 21+00 TO STA. 34+00
RUNWAY 8/26

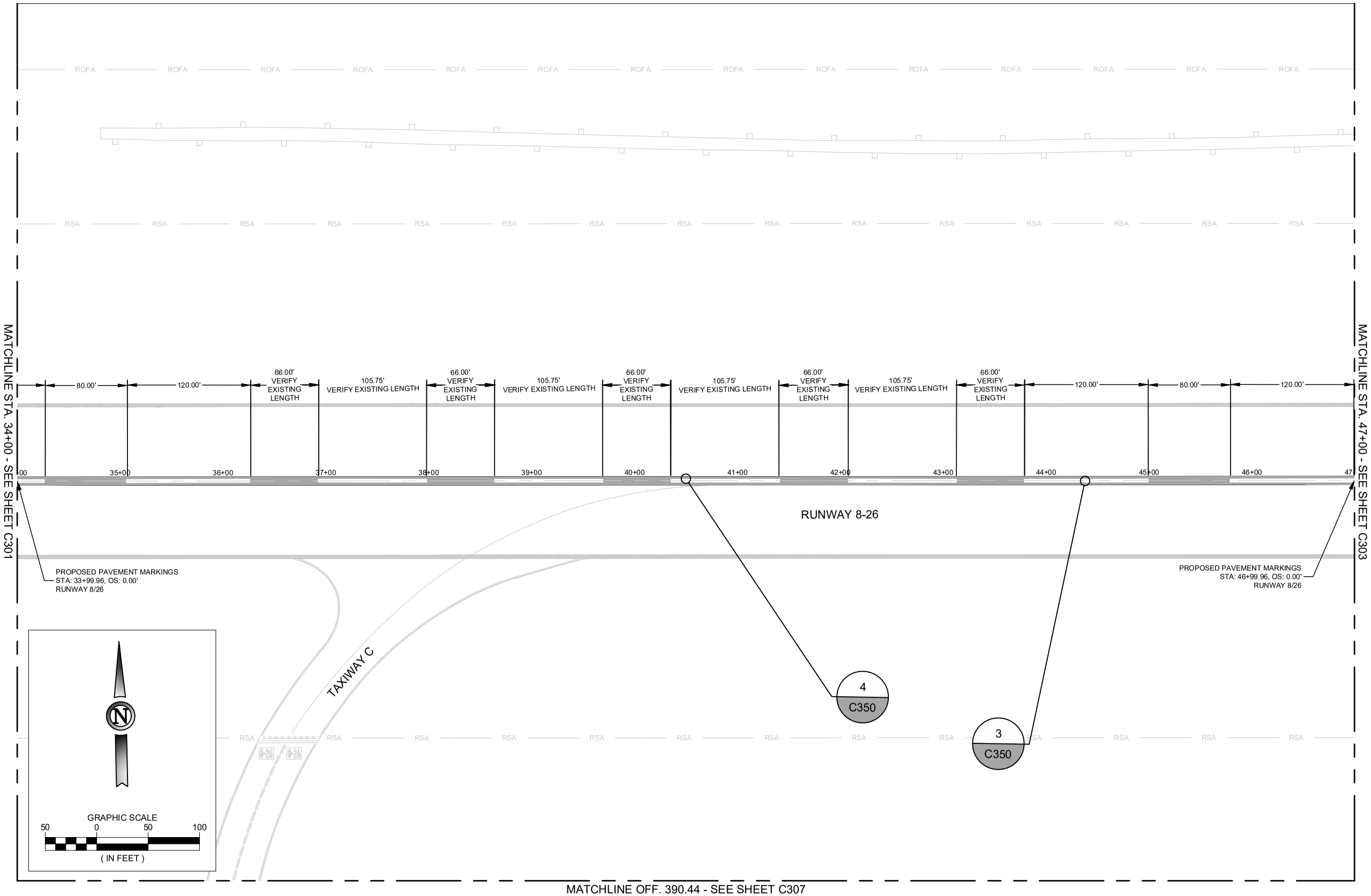
PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

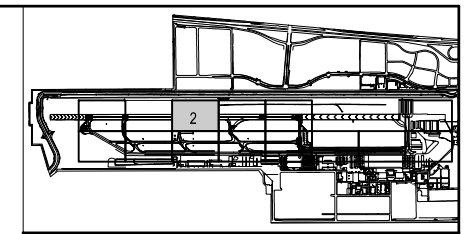
SHEET NAME
C301

SHEET NO.
45 of 61

DRAWING NO.
1720-DOA

Plotted October 9, 2023 @ 3:03 PM by, Ver. Patrick
L:\CMA\LOC 21-01 RW and TW A Rehab\CAD\PLANS\030-CMA-LOC-21-01-C300-C305-PANT.dwg





PAVEMENT MARKINGS LEGEND

EXISTING	ASPHALT	EXISTING PAINT
PROPOSED		PROPOSED TAXIWAY PAINT
		PROPOSED RUNWAY PAINT

NOTES:

1. UNLESS OTHERWISE SPECIFIED, ALL TAXIWAY MARKINGS SHALL BE YELLOW AND ALL RUNWAY MARKINGS SHALL BE WHITE IN ACCORDANCE WITH SPECIFICATION P-620. ALL STRIPING WILL HAVE A BLACK BORDER AT THE DIMENSIONS INDICATED ON THE DETAILS UNLESS SHOWN OTHERWISE IN STRIPING DETAILS.
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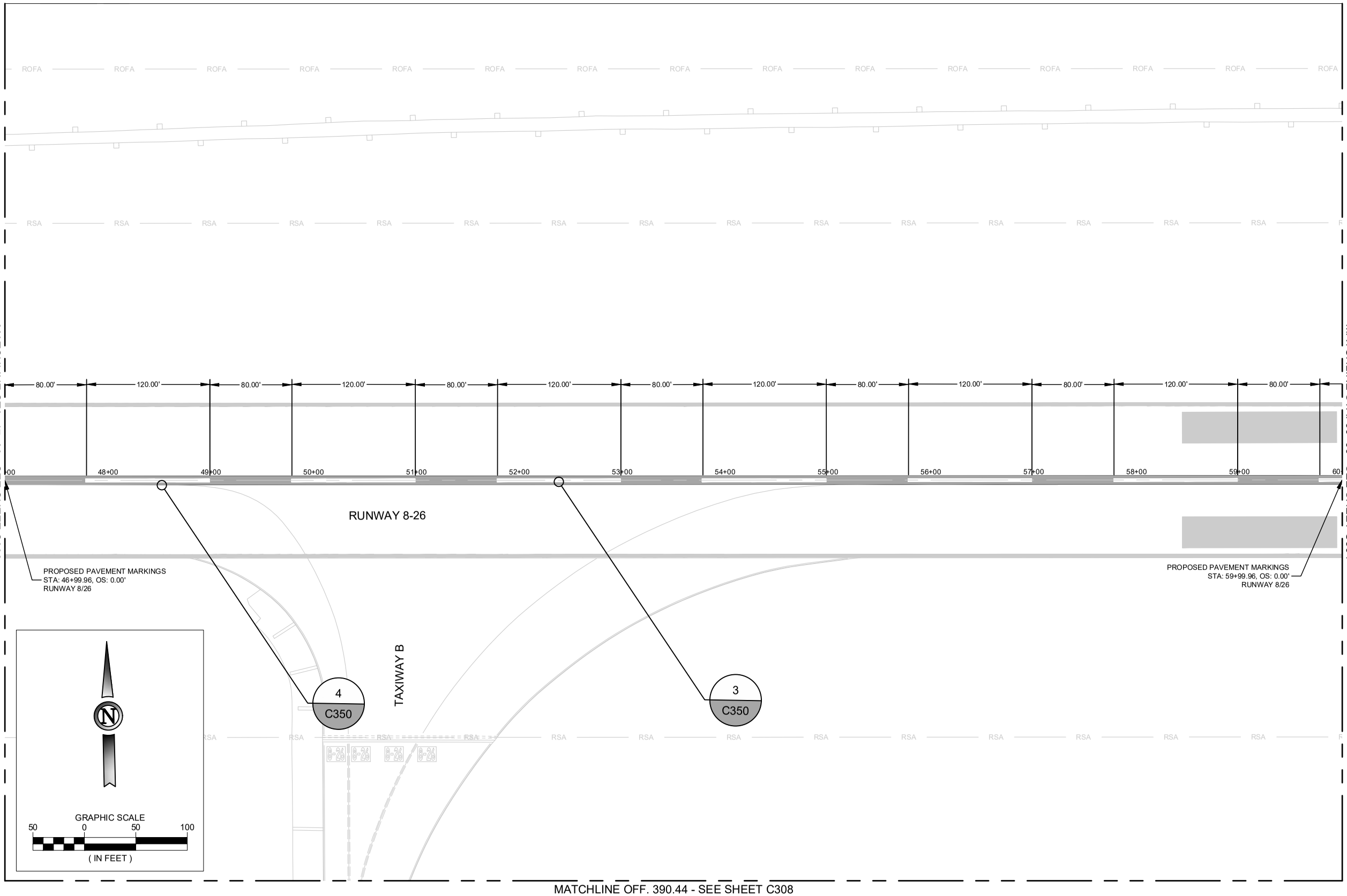
RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

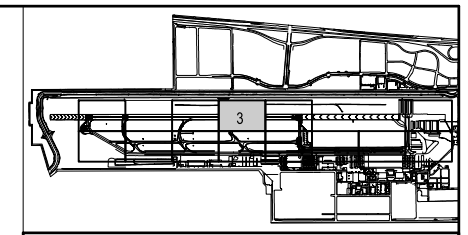
PAVEMENT MARKING PLAN
STA. 34+00 TO STA. 47+00
RUNWAY 8/26

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME: C302
SHEET NO.: 46 of 61
DRAWING NO.: 1721-DOA

Plotted October 9, 2023 @ 3:03 PM by Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Rehab\CADD\LAN5030\CMA-LOC-21-01-C300-C305-PANT.dwg





PAVEMENT MARKINGS LEGEND

EXISTING	ASPHALT	EXISTING PAINT
PROPOSED		PROPOSED TAXIWAY PAINT
		PROPOSED RUNWAY PAINT

NOTES:

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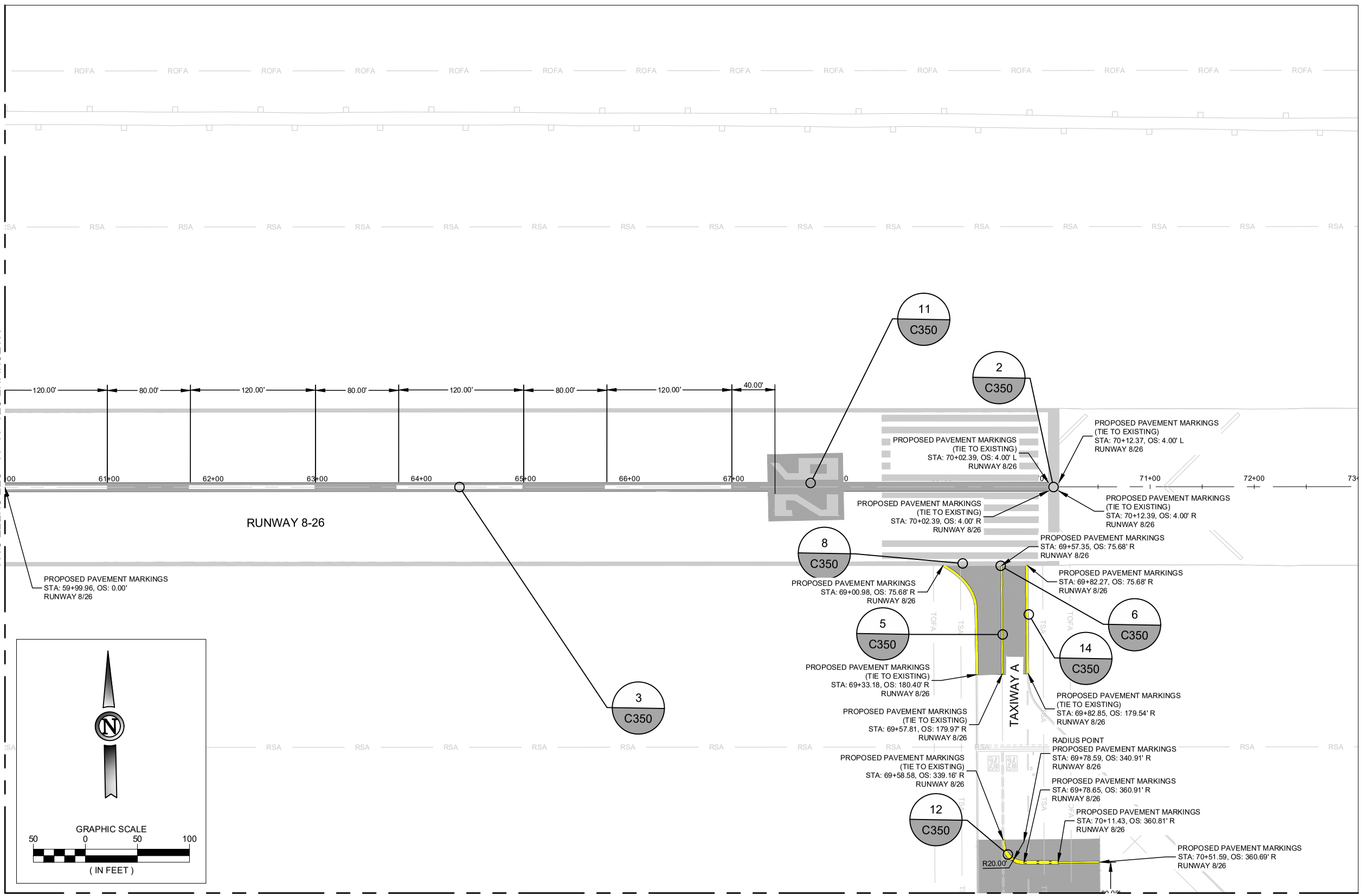
RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

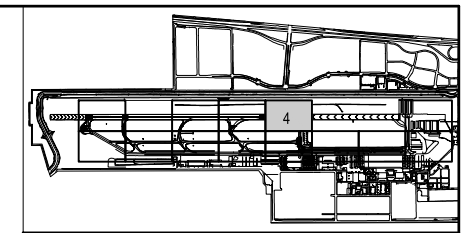
PAVEMENT MARKING PLAN
STA. 47+00 TO STA. 60+00
RUNWAY 8/26

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME: C303
SHEET NO.: 47 of 61
DRAWING NO.: 1722-DOA

Plotted October 9, 2023 @ 3:04 PM by Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Rehab\CADD\LAN5030\CMA-LOC-21-01-C300-C305-PAINT.dwg





PAVEMENT MARKINGS LEGEND

EXISTING	ASPHALT	EXISTING PAINT
PROPOSED		PROPOSED TAXIWAY PAINT
		PROPOSED RUNWAY PAINT

NOTES:

1. UNLESS OTHERWISE SPECIFIED, ALL TAXIWAY MARKINGS SHALL BE YELLOW AND ALL RUNWAY MARKINGS SHALL BE WHITE IN ACCORDANCE WITH SPECIFICATION P-620. ALL STRIPING WILL HAVE A BLACK BORDER AT THE DIMENSIONS INDICATED ON THE DETAILS UNLESS SHOWN OTHERWISE IN STRIPING DETAILS.
2. CONTRACTOR WILL BE REQUIRED TO REPAINT ANY MARKINGS THAT ARE OUTSIDE THE PROJECT WORK LIMITS WHICH ARE DAMAGED BY THE CONTRACTORS OPERATIONS. REPAINTING OF THESE DAMAGED AREAS WILL BE AT THE CONTRACTORS EXPENSE.
3. PAINT SHOULD BE STORED IN A CLIMATE-CONTROLLED ENVIRONMENT IN ORDER TO MEET MANUFACTURERS RECOMMENDED TEMPERATURES BEFORE IT IS APPLIED. MATERIAL THAT DOES NOT MEET REQUIRED TEMPERATURE REQUIREMENTS WILL BE WARMED TO THE MINIMUM TEMPERATURE FOR 24 HOURS BEFORE IT IS APPLIED OR AS APPROVED BY THE RESIDENT ENGINEER.
4. GLASS BEADS SHALL BE APPLIED TO ALL PERMANENT PAVEMENT MARKINGS. APPLICATION RATES AND GLASS BEAD TYPE SHALL BE AS SPECIFIED IN ITEM P-620. GLASS BEADS SHALL NOT BE APPLIED TO BLACK PAINT. GLASS BEADS SHALL BE INCIDENTAL TO P-620 BID ITEMS.
5. SEE SHEET C350 FOR STRIPING DETAILS AND NOTES.
6. CONTRACTOR SHALL HAVE A COPY OF THE CURRENT FAA ADVISORY CIRCULAR AC 150/5340-1M "STANDARDS FOR AIRPORT MARKINGS" ON SITE AT ALL TIMES. ANY DISCREPANCY BETWEEN INFORMATION SHOWN ON THE PLAN SHEETS AND THE ADVISORY CIRCULAR SHALL BE COORDINATED WITH THE ENGINEER FOR DIRECTION.
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8. ALL AREAS SHALL BE THOROUGHLY CLEANED PRIOR TO PLACING PAINT MARKINGS. ALL SURFACE PREPARATION ASSOCIATED WITH PAVEMENT MARKINGS SHALL BE INCIDENTAL TO P-620 BID ITEMS
9. ANY DISCREPANCIES BETWEEN THESE PLANS AND THE ACTUAL STRIPING PRESENT IN THE FIELD SHALL BE BROUGHT TO THE ATTENTION OF RESIDENT ENGINEER.
10. SECOND APPLICATION OF PAINT WILL BE APPLIED 30 DAYS AFTER THE INITIAL APPLICATION FOR AREAS OF NEW PAVEMENT. IT MAY BE POSSIBLE TO COMPLETE THIS WORK ON A PULL BACK BASIS IF APPROVED BY AIRPORT OPERATIONS AND UNDER THEIR SUPERVISION.

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JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY

JVIATION®
A WOOLPERT COMPANY

CAMARILLO AIRPORT
CAMARILLO,CA

COUNTY of VENTURA
Department of Airports

DES: A.G.G.
DR: A.G.G.
CH: C.L.G.
APP: J.D.I.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

PAVEMENT MARKING PLAN
STA. 60+00 TO STA. 73+00
RUNWAY 8/26

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME
C304
SHEET NO.
48 of 61
DRAWING NO.
1723-DOA

Plotted October 9, 2023 @ 3:04 PM by: Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Rehab\CAD\PLANS\030-CMA-LOC-21-01-C300-C305-PANT.dwg

MATCHLINE OFF. 390.44 - SEE SHEET C300

PROPOSED PAVEMENT MARKINGS
STA: 11+30.46, OS: 387.67' R
RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS
STA: 11+32.16, OS: 389.35' R
RUNWAY 8/26

10
C350

PROPOSED PAVEMENT MARKINGS
STA: 11+69.24, OS: 460.30' R
RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS
STA: 11+90.34, OS: 472.99' R
RUNWAY 8/26

9
C350

5
C350

TAXIWAY E

PROPOSED PAVEMENT MARKINGS
(TIE TO EXISTING)
STA: 16+72.36, OS: 665.65' R
RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS
STA: 16+44.02, OS: 692.06' R
RUNWAY 8/26

TAXIWAY H

PROPOSED PAVEMENT MARKINGS
(TIE TO EXISTING)
STA: 18+59.84, OS: 774.35' R
RUNWAY 8/26

9
C350

7
C350

TAXIWAY D

PROPOSED PAVEMENT MARKINGS
STA: 20+66.78, OS: 979.67' R
RUNWAY 8/26

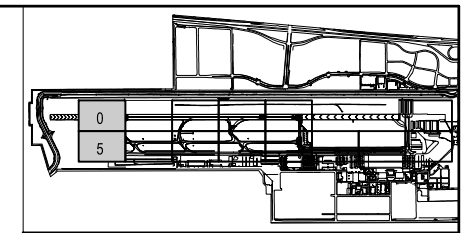
PROPOSED PAVEMENT MARKINGS
STA: 20+99.52, OS: 954.91' R
RUNWAY 8/26

MATCHLINE STA. 21+00 - SEE SHEET C306

ROFA TOFA TSA FA

N

GRAPHIC SCALE
50 0 50 100
(IN FEET)



PAVEMENT MARKINGS LEGEND

	ASPHALT	
EXISTING		EXISTING PAINT
PROPOSED		PROPOSED TAXIWAY PAINT
		PROPOSED RUNWAY PAINT

NOTES:

1. UNLESS OTHERWISE SPECIFIED, ALL TAXIWAY MARKINGS SHALL BE YELLOW AND ALL RUNWAY MARKINGS SHALL BE WHITE IN ACCORDANCE WITH SPECIFICATION P-620. ALL STRIPING WILL HAVE A BLACK BORDER AT THE DIMENSIONS INDICATED ON THE DETAILS UNLESS SHOWN OTHERWISE IN STRIPING DETAILS.
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COUNTY of VENTURA
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DES: A.G.G.
DR: A.G.G.
CH: C.L.G.
APP: J.D.I.

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RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

PAVEMENT MARKING PLAN
STA. 8+00 TO STA. 21+00
RUNWAY 8/26

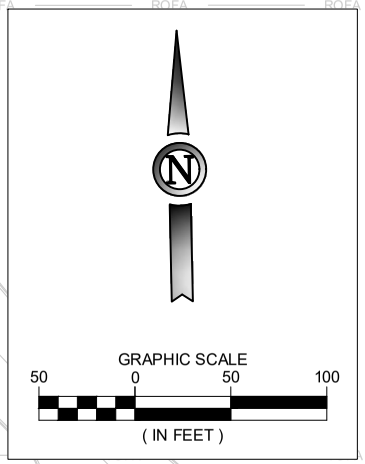
PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME
C305

SHEET NO.
49 of 61

DRAWING NO.
1724-DOA

Plotted October 9, 2023 @ 3:04 PM by: Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Rehab\CAD\PLANS\030-CMA-LOC-21-01-C300-C305-PANT.dwg



MATCHLINE OFF. 390.44 - SEE SHEET C301

MATCHLINE STA. 21+00 - SEE SHEET C305

MATCHLINE STA. 34+00 - SEE SHEET C307

TAXIWAY H

TAXIWAY F

RADIUS POINT
PROPOSED PAVEMENT MARKINGS
STA: 22+30.56, OS: 701.74' R
RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS
STA: 21+04.53, OS: 914.86' R
RUNWAY 8/26

R285.00'

PROPOSED PAVEMENT MARKINGS
STA: 22+32.04, OS: 986.80' R
RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS
(TIE TO EXISTING)
STA: 22+67.09, OS: 949.75' R
RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS
STA: 21+06.77, OS: 958.53' R
RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS
STA: 20+99.52, OS: 954.91' R
RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS
(TIE TO EXISTING)
STA: 26+60.07, OS: 975.60' R
RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS
STA: 25+97.54, OS: 999.73' R
RUNWAY 8/26

9
C350

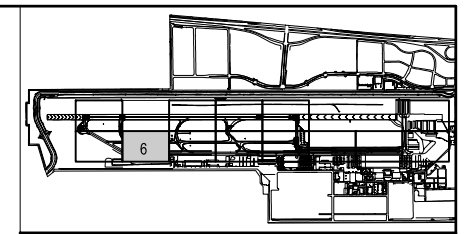
5
C350

9
C350

PROPOSED PAVEMENT MARKINGS
STA: 33+99.51, OS: 975.28' R
RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS
STA: 33+99.50, OS: 999.81' R
RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS
STA: 33+99.50, OS: 1024.48' R
RUNWAY 8/26



PAVEMENT MARKINGS LEGEND

	ASPHALT
EXISTING	EXISTING PAINT
PROPOSED	PROPOSED TAXIWAY PAINT
PROPOSED	PROPOSED RUNWAY PAINT

NOTES:

1. UNLESS OTHERWISE SPECIFIED, ALL TAXIWAY MARKINGS SHALL BE YELLOW AND ALL RUNWAY MARKINGS SHALL BE WHITE IN ACCORDANCE WITH SPECIFICATION P-620. ALL STRIPING WILL HAVE A BLACK BORDER AT THE DIMENSIONS INDICATED ON THE DETAILS UNLESS SHOWN OTHERWISE IN STRIPING DETAILS.
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JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY

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CAMARILLO AIRPORT
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DES: A.G.G.
DR: A.G.G.
CH: C.L.G.
APP: J.D.I.

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RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

PAVEMENT MARKING PLAN
STA. 21+00 TO STA. 34+00
RUNWAY 8/26

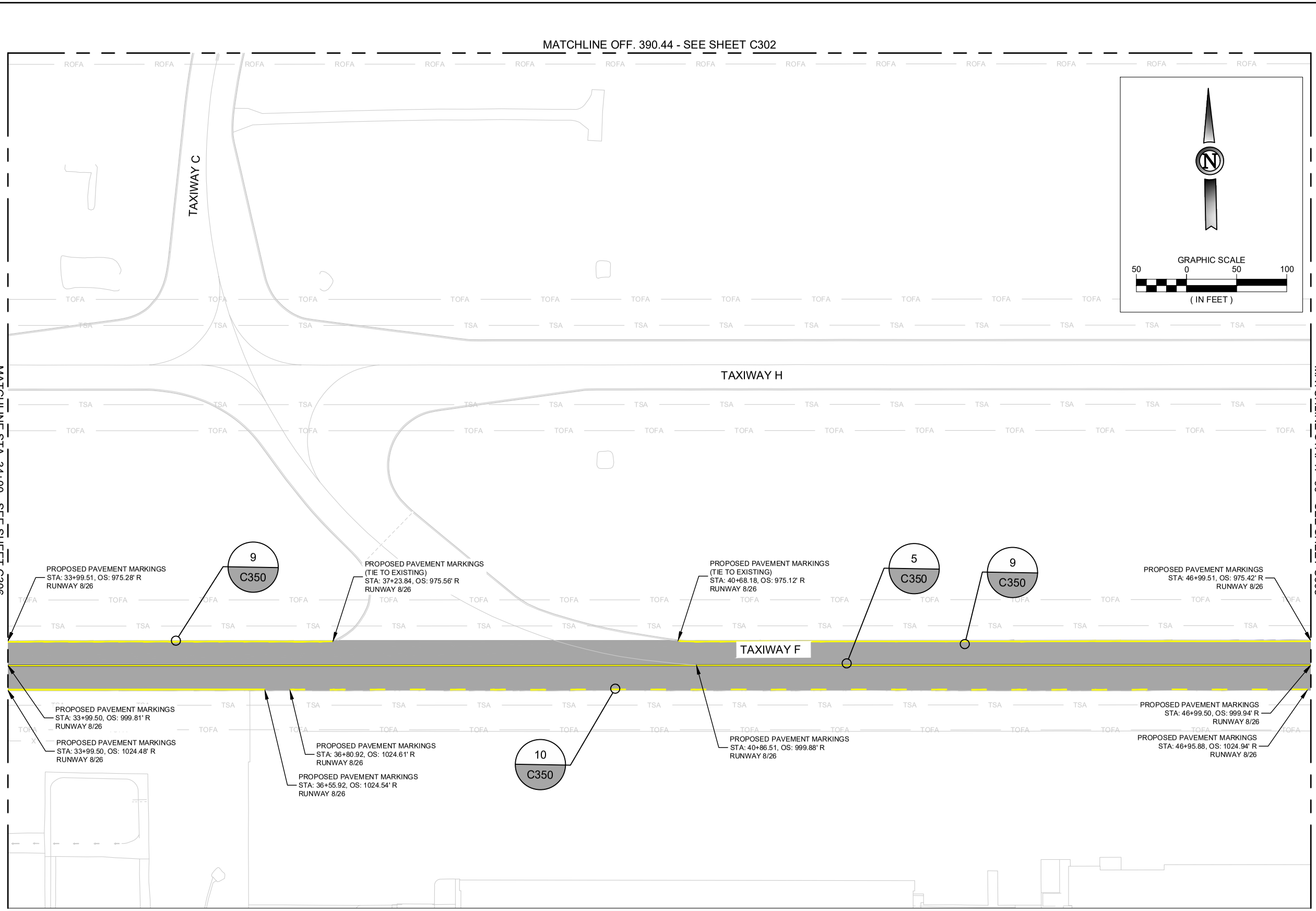
PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

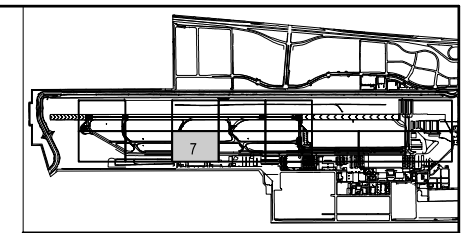
SHEET NAME
C306

SHEET NO.
50 of 61

DRAWING NO.
1725-DOA

Plotted October 9, 2023 @ 3:04 PM by: Vic, Patrick
L:\CMA\LOC 21-01 RW and TW A Rehab\CAD\PLANS\030-CMA-LOC-21-01-C300-C305-PANT.dwg





PAVEMENT MARKINGS LEGEND

	ASPHALT
EXISTING	EXISTING PAINT
PROPOSED	PROPOSED TAXIWAY PAINT
PROPOSED	PROPOSED RUNWAY PAINT

NOTES:

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NAME	REG. NO.	DATE

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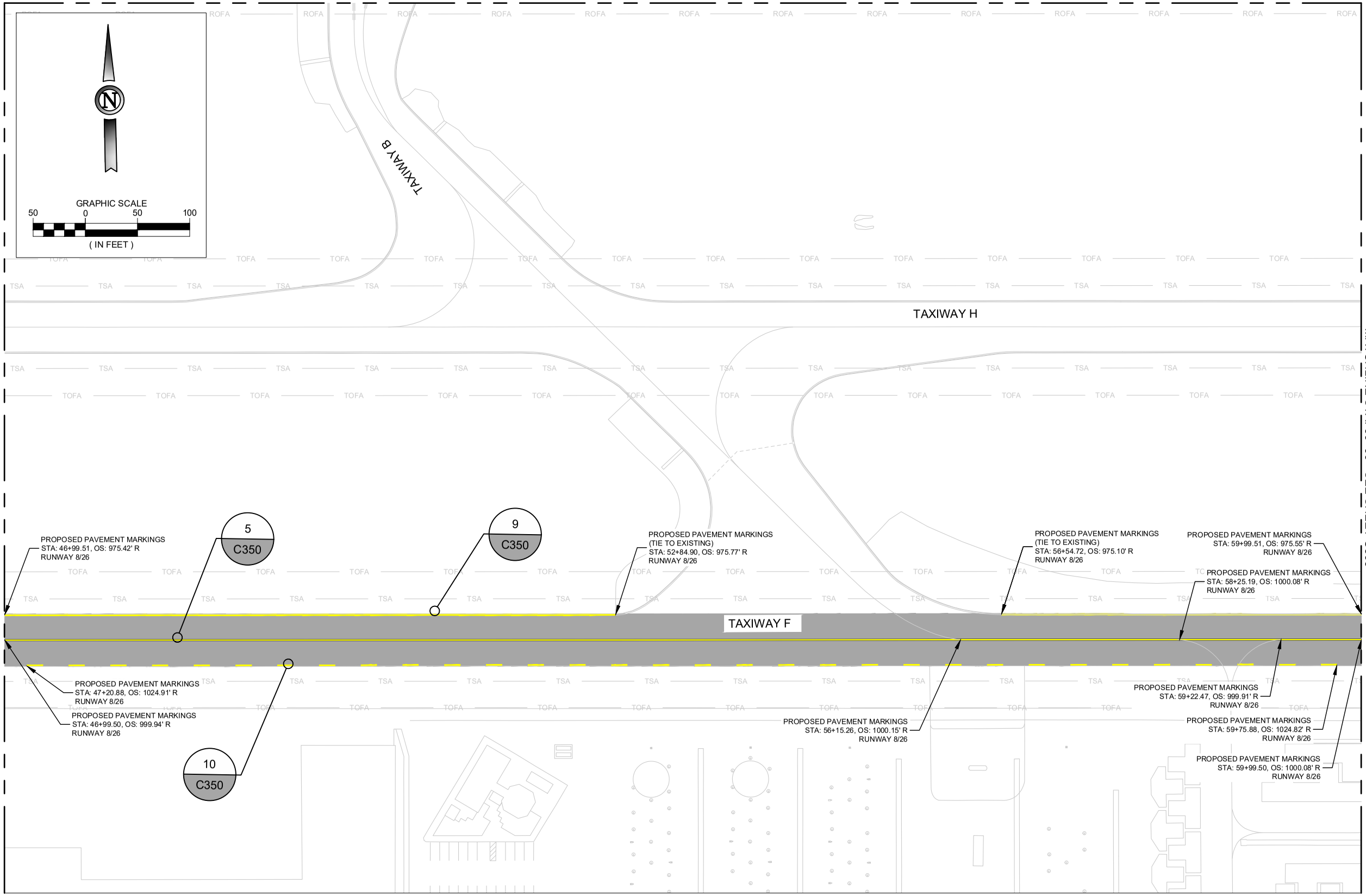
RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

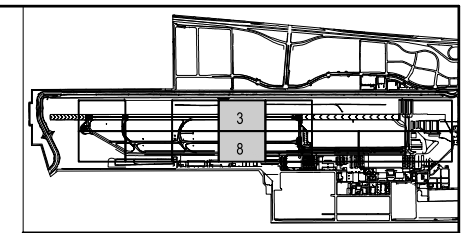
PAVEMENT MARKING PLAN
STA. 34+00 TO STA. 47+00
RUNWAY 8/26

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME
C307
SHEET NO.
51 of 61
DRAWING NO.
1726-DOA

Plotted October 9, 2023 @ 3:04 PM by Vor, Patrick
L:\CMA\LOC 21-01 RW and TW A Rehab\CAD\PLANS\030-GMA-LOC-21-01-C300-C305-PANT.dwg





PAVEMENT MARKINGS LEGEND

	ASPHALT
EXISTING	EXISTING PAINT
PROPOSED	PROPOSED TAXIWAY PAINT
PROPOSED	PROPOSED RUNWAY PAINT

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JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY

JVIATION®
A WOOLPERT COMPANY

CAMARILLO AIRPORT
CAMARILLO,CA

COUNTY of VENTURA
Department of Airports

DES: A.G.G.
DR: A.G.G.
CH: C.L.G.
APP: J.D.I.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

PAVEMENT MARKING PLAN
STA. 47+00 TO STA. 60+00
RUNWAY 8/26

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME
C308

SHEET NO.
52 of 61

DRAWING NO.
1727-DOA

Plotted October 9, 2023 @ 3:04 PM by: Vor, Patrick
L:\CMA\LOC 21-01 RW and TW A Rehab\CAD\PLANS\030-GMA-LOC-21-01-C300-C305-PANT.dwg

MATCHLINE OFF. 390.44 - SEE SHEET C304

MATCHLINE STA. 60+00 - SEE SHEET C308

MATCHLINE STA. 73+00 - SEE SHEET C310

GRAPHIC SCALE
50 0 50 100
(IN FEET)

TAXIWAY H

TAXIWAY A

TAXIWAY F

PROPOSED PAVEMENT MARKINGS (TIE TO EXISTING) STA: 69+58.90, OS: 401.01' R RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS STA: 69+78.95, OS: 420.91' R RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS (TIE TO EXISTING) STA: 69+59.20, OS: 461.01' R RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS (TIE TO EXISTING) STA: 69+59.48, OS: 521.02' R RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS (TIE TO EXISTING) STA: 69+22.53, OS: 559.71' R RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS (TIE TO EXISTING) STA: 69+59.73, OS: 559.54' R RUNWAY 8/26

RADIUS POINT PROPOSED PAVEMENT MARKINGS STA: 69+00.11, OS: 640.11' R RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS (TIE TO EXISTING) STA: 68+67.74, OS: 655.16' R RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS (MATCH EXISTING) STA: 69+60.03, OS: 643.27' R RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS (TIE TO EXISTING) STA: 68+67.67, OS: 700.06' R RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS (MATCH EXISTING) STA: 69+01.51, OS: 700.09' R RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS (TIE TO EXISTING) STA: 68+67.60, OS: 745.41' R RUNWAY 8/26

RADIUS POINT PROPOSED PAVEMENT MARKINGS STA: 69+01.15, OS: 760.09' R RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS STA: 59+99.51, OS: 975.55' R RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS STA: 59+99.50, OS: 1000.08' R RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS STA: 60+00.88, OS: 1024.89' R RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS STA: 63+42.60, OS: 1000.24' R RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS STA: 64+34.88, OS: 1000.22' R RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS STA: 70+51.75, OS: 420.69' R RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS STA: 70+51.92, OS: 480.69' R RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS STA: 70+52.10, OS: 540.69' R RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS STA: 70+52.27, OS: 600.69' R RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS STA: 70+52.45, OS: 660.69' R RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS (MATCH EXISTING) STA: 69+60.65, OS: 752.37' R RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS (MATCH EXISTING) STA: 69+60.92, OS: 804.50' R RUNWAY 8/26

RADIUS POINT PROPOSED PAVEMENT MARKINGS STA: 70+37.53, OS: 774.96' R RUNWAY 8/26

RADIUS POINT PROPOSED PAVEMENT MARKINGS STA: 70+43.78, OS: 785.58' R RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS STA: 70+32.79, OS: 869.87' R RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS (TIE TO EXISTING) STA: 70+69.81, OS: 869.79' R RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS (TIE TO EXISTING) STA: 70+69.81, OS: 913.32' R RUNWAY 8/26

RADIUS POINT PROPOSED PAVEMENT MARKINGS STA: 70+57.20, OS: 945.52' R RUNWAY 8/26

RADIUS POINT PROPOSED PAVEMENT MARKINGS STA: 70+46.22, OS: 933.79' R RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS (TIE TO EXISTING) STA: 70+59.98, OS: 975.33' R RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS STA: 72+99.51, OS: 975.37' R RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS STA: 72+99.50, OS: 1000.21' R RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS STA: 72+95.88, OS: 1025.16' R RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS (TIE TO EXISTING) STA: 69+10.09, OS: 975.59' R RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS STA: 69+61.25, OS: 936.08' R RUNWAY 8/26

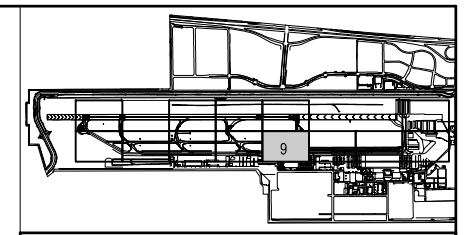
PROPOSED PAVEMENT MARKINGS (TIE TO EXISTING) STA: 69+93.10, OS: 1000.15' R RUNWAY 8/26

RADIUS POINT PROPOSED PAVEMENT MARKINGS STA: 70+44.32, OS: 954.08' R RUNWAY 8/26

R20.00' R60.00' R50.00' R85.00' R30.97'

60.00' 25.00' TO OUTSIDE EDGE OF MARKING

15 C350 5 C350 7 C350 9 C350 10 C350 14 C350



PAVEMENT MARKINGS LEGEND

EXISTING	ASPHALT	
		EXISTING PAINT
PROPOSED		PROPOSED TAXIWAY PAINT
		PROPOSED RUNWAY PAINT

NOTES:

1. UNLESS OTHERWISE SPECIFIED, ALL TAXIWAY MARKINGS SHALL BE YELLOW AND ALL RUNWAY MARKINGS SHALL BE WHITE IN ACCORDANCE WITH SPECIFICATION P-620. ALL STRIPING WILL HAVE A BLACK BORDER AT THE DIMENSIONS INDICATED ON THE DETAILS UNLESS SHOWN OTHERWISE IN STRIPING DETAILS.
2. CONTRACTOR WILL BE REQUIRED TO REPAINT ANY MARKINGS THAT ARE OUTSIDE THE PROJECT WORK LIMITS WHICH ARE DAMAGED BY THE CONTRACTORS OPERATIONS. REPAINTING OF THESE DAMAGED AREAS WILL BE AT THE CONTRACTORS EXPENSE.
3. PAINT SHOULD BE STORED IN A CLIMATE-CONTROLLED ENVIRONMENT IN ORDER TO MEET MANUFACTURERS RECOMMENDED TEMPERATURES BEFORE IT IS APPLIED. MATERIAL THAT DOES NOT MEET REQUIRED TEMPERATURE REQUIREMENTS WILL BE WARMED TO THE MINIMUM TEMPERATURE FOR 24 HOURS BEFORE IT IS APPLIED OR AS APPROVED BY THE RESIDENT ENGINEER.
4. GLASS BEADS SHALL BE APPLIED TO ALL PERMANENT PAVEMENT MARKINGS. APPLICATION RATES AND GLASS BEAD TYPE SHALL BE AS SPECIFIED IN ITEM P-620. GLASS BEADS SHALL NOT BE APPLIED TO BLACK PAINT. GLASS BEADS SHALL BE INCIDENTAL TO P-620 BID ITEMS.
5. SEE SHEET C350 FOR STRIPING DETAILS AND NOTES.
6. CONTRACTOR SHALL HAVE A COPY OF THE CURRENT FAA ADVISORY CIRCULAR AC 150/5340-1M "STANDARDS FOR AIRPORT MARKINGS" ON SITE AT ALL TIMES. ANY DISCREPANCY BETWEEN INFORMATION SHOWN ON THE PLAN SHEETS AND THE ADVISORY CIRCULAR SHALL BE COORDINATED WITH THE ENGINEER FOR DIRECTION.
7. PRIOR TO REMOVAL OF PAVEMENT MARKINGS, EXISTING PAVEMENT MARKINGS SHALL BE SURVEYED AND PROVIDED TO THE ENGINEER FOR APPROVAL. FINAL PAINT LAYOUT SHALL MATCH THE EXISTING LAYOUT AND WILL BE CONFIRMED BY THE AIRPORT PRIOR TO CONSTRUCTION.
8. ALL AREAS SHALL BE THOROUGHLY CLEANED PRIOR TO PLACING PAINT MARKINGS. ALL SURFACE PREPARATION ASSOCIATED WITH PAVEMENT MARKINGS SHALL BE INCIDENTAL TO P-620 BID ITEMS
9. ANY DISCREPANCIES BETWEEN THESE PLANS AND THE ACTUAL STRIPING PRESENT IN THE FIELD SHALL BE BROUGHT TO THE ATTENTION OF RESIDENT ENGINEER.
10. SECOND APPLICATION OF PAINT WILL BE APPLIED 30 DAYS AFTER THE INITIAL APPLICATION FOR AREAS OF NEW PAVEMENT. IT MAY BE POSSIBLE TO COMPLETE THIS WORK ON A PULL BACK BASIS IF APPROVED BY AIRPORT OPERATIONS AND UNDER THEIR SUPERVISION.

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DES: A.G.G.
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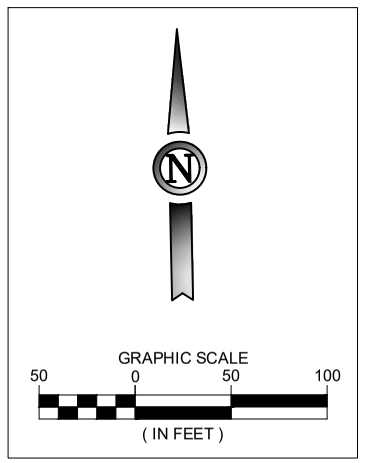
RUNWAY 8-26 AND TAXIWAY A PAVEMENT IMPROVEMENTS

PAVEMENT MARKING PLAN
STA. 60+00 TO STA. 73+00
RUNWAY 8/26

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME C309
SHEET NO. 53 of 61
DRAWING NO. 1728-DOA

Plotted October 9, 2023 @ 3:05 PM by Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Rehab\CAD\PLANS\030-CMA-LOC-21-01-C300-C309-PANT.dwg



ROFA ROFA ROFA ROFA ROFA ROFA ROFA ROFA

TOFA TOFA TOFA TOFA TOFA TOFA TOFA TOFA TOFA TOFA TOFA TOFA TOFA TOFA TOFA TOFA TOFA

TSA TSA TSA TSA TSA TSA TSA TSA TSA TSA TSA TSA TSA TSA TSA TSA TSA

MATCHLINE STA. 73+00 - SEE SHEET C309

MATCHLINE STA. 86+00 - SEE SHEET C311

TAXIWAY G

TAXIWAY G3

PROPOSED PAVEMENT MARKINGS
STA: 72+99.51, OS: 975.37' R
RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS
STA: 72+99.50, OS: 1000.21' R
RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS
STA: 73+20.88, OS: 1025.18' R
RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS
STA: 73+80.18, OS: 1000.22' R
RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS
STA: 74+57.37, OS: 1000.22' R
RUNWAY 8/26

9 C350

PROPOSED PAVEMENT MARKINGS
(TIE TO EXISTING)
STA: 79+20.97, OS: 975.35' R
RUNWAY 8/26

10 C350

PROPOSED PAVEMENT MARKINGS
STA: 79+33.16, OS: 1000.05' R
RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS
(TIE TO EXISTING)
STA: 80+49.07, OS: 975.37' R
RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS
STA: 80+46.69, OS: 1000.11' R
RUNWAY 8/26

9 C350

PROPOSED PAVEMENT MARKINGS
STA: 82+84.67, OS: 974.99' R
RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS
STA: 82+84.84, OS: 1025.49' R
RUNWAY 8/26

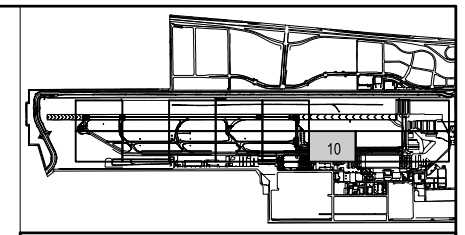
5 C350

13 C350

PROPOSED PAVEMENT MARKINGS
STA: 85+99.51, OS: 975.07' R
RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS
STA: 85+75.88, OS: 1025.18' R
RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS
STA: 85+99.50, OS: 1000.34' R
RUNWAY 8/26



PAVEMENT MARKINGS LEGEND

	ASPHALT
EXISTING	EXISTING PAINT
PROPOSED	PROPOSED TAXIWAY PAINT
PROPOSED	PROPOSED RUNWAY PAINT

NOTES:

1. UNLESS OTHERWISE SPECIFIED, ALL TAXIWAY MARKINGS SHALL BE YELLOW AND ALL RUNWAY MARKINGS SHALL BE WHITE IN ACCORDANCE WITH SPECIFICATION P-620. ALL STRIPING WILL HAVE A BLACK BORDER AT THE DIMENSIONS INDICATED ON THE DETAILS UNLESS SHOWN OTHERWISE IN STRIPING DETAILS.
2. CONTRACTOR WILL BE REQUIRED TO REPAINT ANY MARKINGS THAT ARE OUTSIDE THE PROJECT WORK LIMITS WHICH ARE DAMAGED BY THE CONTRACTORS OPERATIONS. REPAINTING OF THESE DAMAGED AREAS WILL BE AT THE CONTRACTORS EXPENSE.
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4. GLASS BEADS SHALL BE APPLIED TO ALL PERMANENT PAVEMENT MARKINGS. APPLICATION RATES AND GLASS BEAD TYPE SHALL BE AS SPECIFIED IN ITEM P-620. GLASS BEADS SHALL NOT BE APPLIED TO BLACK PAINT. GLASS BEADS SHALL BE INCIDENTAL TO P-620 BID ITEMS.
5. SEE SHEET C350 FOR STRIPING DETAILS AND NOTES.
6. CONTRACTOR SHALL HAVE A COPY OF THE CURRENT FAA ADVISORY CIRCULAR AC 150/5340-1M "STANDARDS FOR AIRPORT MARKINGS" ON SITE AT ALL TIMES. ANY DISCREPANCY BETWEEN INFORMATION SHOWN ON THE PLAN SHEETS AND THE ADVISORY CIRCULAR SHALL BE COORDINATED WITH THE ENGINEER FOR DIRECTION.
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NAME	REG. NO.	DATE

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NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

PAVEMENT MARKING PLAN
STA. 73+00 TO STA. 86+00
RUNWAY 78/26

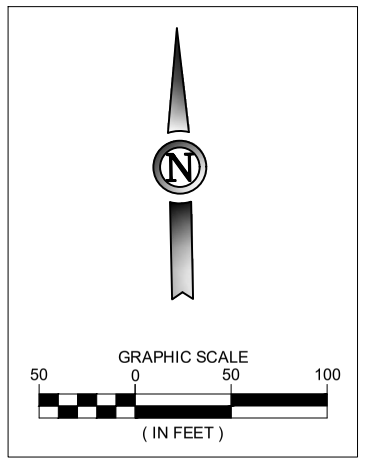
PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME
C310

SHEET NO.
54 of 61

DRAWING NO.
1729-DOA

Plotted October 9, 2023 @ 3:05 PM by: Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Rehab\CADD\LAN5030\CMA-LOC-21-01-C300-C305-PANT.dwg



MATCHLINE STA. 90+00 - SEE SHEET C310

MATCHLINE STA. 103+00 - SEE SHEET C311

TAXIWAY G

TAXIWAY G2

PROPOSED PAVEMENT MARKINGS
STA: 85+99.51, OS: 975.07' R
RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS
(TIE TO EXISTING)
STA: 89+13.82, OS: 975.47' R
RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS
(TIE TO EXISTING)
STA: 90+59.13, OS: 975.22' R
RUNWAY 8/26

5
C350

9
C350

PROPOSED PAVEMENT MARKINGS
(TIE TO EXISTING)
STA: 98+07.06, OS: 975.58' R
RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS
STA: 85+99.50, OS: 1000.34' R
RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS
STA: 86+00.88, OS: 1025.18' R
RUNWAY 8/26

9
C350

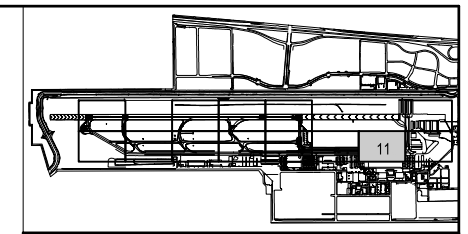
PROPOSED PAVEMENT MARKINGS
STA: 89+19.68, OS: 1000.25' R
RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS
STA: 90+58.01, OS: 1000.31' R
RUNWAY 8/26

10
C350

PROPOSED PAVEMENT MARKINGS
STA: 98+99.50, OS: 1000.50' R
RUNWAY 8/26

PROPOSED PAVEMENT MARKINGS
STA: 98+95.88, OS: 1025.25' R
RUNWAY 8/26



PAVEMENT MARKINGS LEGEND

	ASPHALT
EXISTING	EXISTING PAINT
PROPOSED	PROPOSED TAXIWAY PAINT
PROPOSED	PROPOSED RUNWAY PAINT

NOTES:

1. UNLESS OTHERWISE SPECIFIED, ALL TAXIWAY MARKINGS SHALL BE YELLOW AND ALL RUNWAY MARKINGS SHALL BE WHITE IN ACCORDANCE WITH SPECIFICATION P-620. ALL STRIPING WILL HAVE A BLACK BORDER AT THE DIMENSIONS INDICATED ON THE DETAILS UNLESS SHOWN OTHERWISE IN STRIPING DETAILS.
2. CONTRACTOR WILL BE REQUIRED TO REPAINT ANY MARKINGS THAT ARE OUTSIDE THE PROJECT WORK LIMITS WHICH ARE DAMAGED BY THE CONTRACTORS OPERATIONS. REPAINTING OF THESE DAMAGED AREAS WILL BE AT THE CONTRACTORS EXPENSE.
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RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

PAVEMENT MARKING PLAN
STA. 86+00 TO STA. 99+00
RUNWAY 8/26

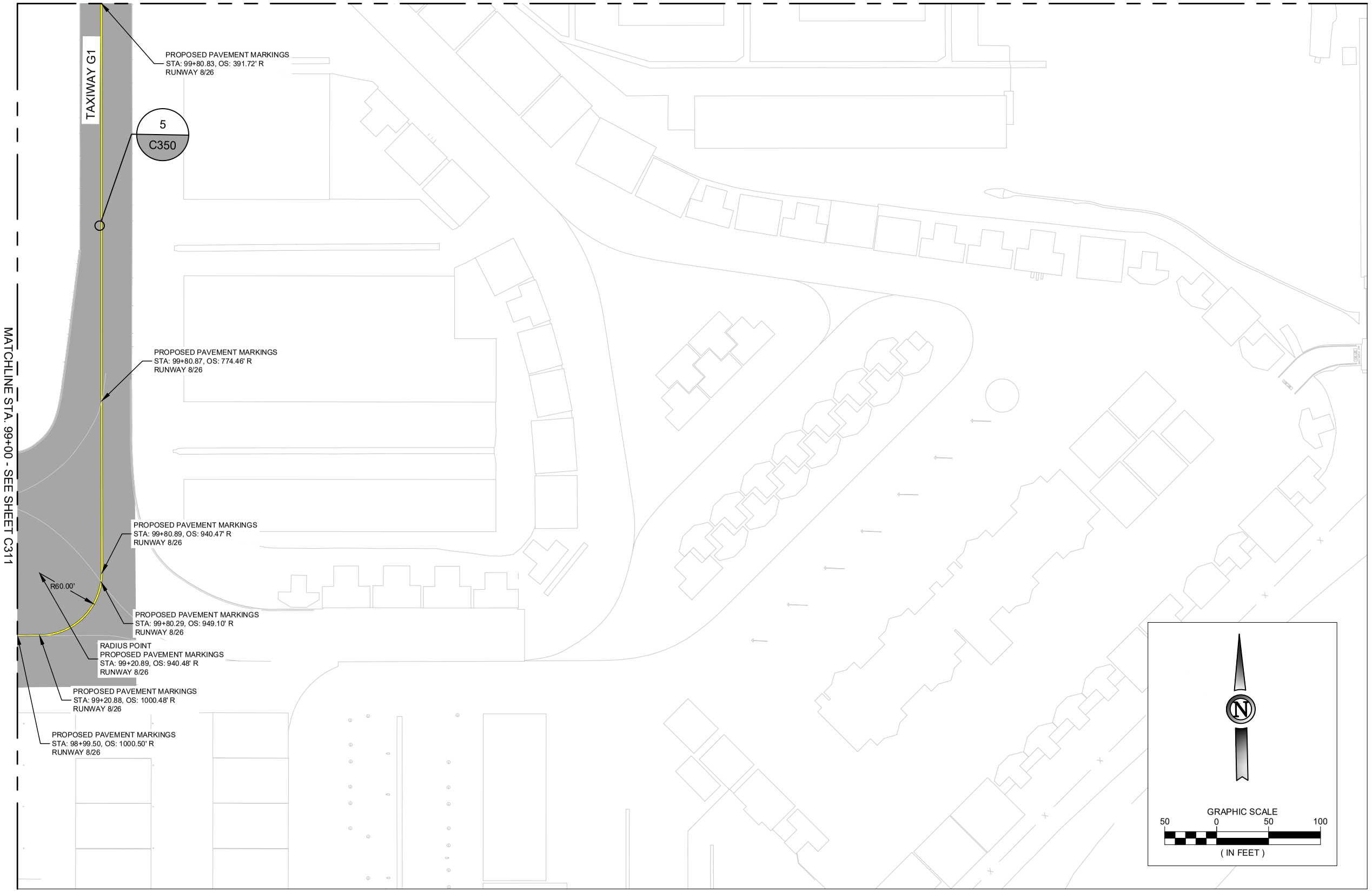
PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

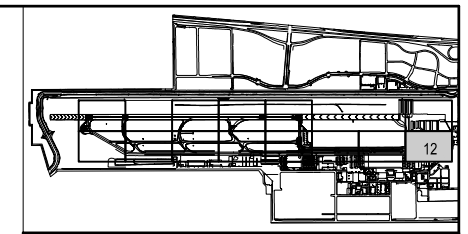
SHEET NAME
C311

SHEET NO.
55 of 61

DRAWING NO.
1730-DOA

Plotted October 9, 2023 @ 3:05 PM by Vec Patrick
L:\CMA\LOC 21-01 RW and TW A Rehab\CAD\PLANS\030-CMA-LOC-21-01-C300-C305-PANT.dwg





PAVEMENT MARKINGS LEGEND

	ASPHALT
EXISTING	EXISTING PAINT
PROPOSED	PROPOSED TAXIWAY PAINT
PROPOSED	PROPOSED RUNWAY PAINT

NOTES:

1. UNLESS OTHERWISE SPECIFIED, ALL TAXIWAY MARKINGS SHALL BE YELLOW AND ALL RUNWAY MARKINGS SHALL BE WHITE IN ACCORDANCE WITH SPECIFICATION P-620. ALL STRIPING WILL HAVE A BLACK BORDER AT THE DIMENSIONS INDICATED ON THE DETAILS UNLESS SHOWN OTHERWISE IN STRIPING DETAILS.
2. CONTRACTOR WILL BE REQUIRED TO REPAINT ANY MARKINGS THAT ARE OUTSIDE THE PROJECT WORK LIMITS WHICH ARE DAMAGED BY THE CONTRACTORS OPERATIONS. REPAINTING OF THESE DAMAGED AREAS WILL BE AT THE CONTRACTORS EXPENSE.
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4. GLASS BEADS SHALL BE APPLIED TO ALL PERMANENT PAVEMENT MARKINGS. APPLICATION RATES AND GLASS BEAD TYPE SHALL BE AS SPECIFIED IN ITEM P-620. GLASS BEADS SHALL NOT BE APPLIED TO BLACK PAINT. GLASS BEADS SHALL BE INCIDENTAL TO P-620 BID ITEMS.
5. SEE SHEET C350 FOR STRIPING DETAILS AND NOTES.
6. CONTRACTOR SHALL HAVE A COPY OF THE CURRENT FAA ADVISORY CIRCULAR AC 150/5340-1M "STANDARDS FOR AIRPORT MARKINGS" ON SITE AT ALL TIMES. ANY DISCREPANCY BETWEEN INFORMATION SHOWN ON THE PLAN SHEETS AND THE ADVISORY CIRCULAR SHALL BE COORDINATED WITH THE ENGINEER FOR DIRECTION.
7. PRIOR TO REMOVAL OF PAVEMENT MARKINGS, EXISTING PAVEMENT MARKINGS SHALL BE SURVEYED AND PROVIDED TO THE ENGINEER FOR APPROVAL. FINAL PAINT LAYOUT SHALL MATCH THE EXISTING LAYOUT AND WILL BE CONFIRMED BY THE AIRPORT PRIOR TO CONSTRUCTION.
8. ALL AREAS SHALL BE THOROUGHLY CLEANED PRIOR TO PLACING PAINT MARKINGS. ALL SURFACE PREPARATION ASSOCIATED WITH PAVEMENT MARKINGS SHALL BE INCIDENTAL TO P-620 BID ITEMS
9. ANY DISCREPANCIES BETWEEN THESE PLANS AND THE ACTUAL STRIPING PRESENT IN THE FIELD SHALL BE BROUGHT TO THE ATTENTION OF RESIDENT ENGINEER.
10. SECOND APPLICATION OF PAINT WILL BE APPLIED 30 DAYS AFTER THE INITIAL APPLICATION FOR AREAS OF NEW PAVEMENT. IT MAY BE POSSIBLE TO COMPLETE THIS WORK ON A PULL BACK BASIS IF APPROVED BY AIRPORT OPERATIONS AND UNDER THEIR SUPERVISION.

ISSUED FOR 100% REVIEW

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JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY

JVIATION®
A WOOLPERT COMPANY

CAMARILLO AIRPORT
CAMARILLO,CA

COUNTY of VENTURA
Department of Airports

DES: A.G.G.
DR: A.G.G.
CH: C.L.G.
APP: J.D.I.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

PAVEMENT MARKING PLAN
STA. 99+00 TO STA. 112+00
RUNWAY 8/26

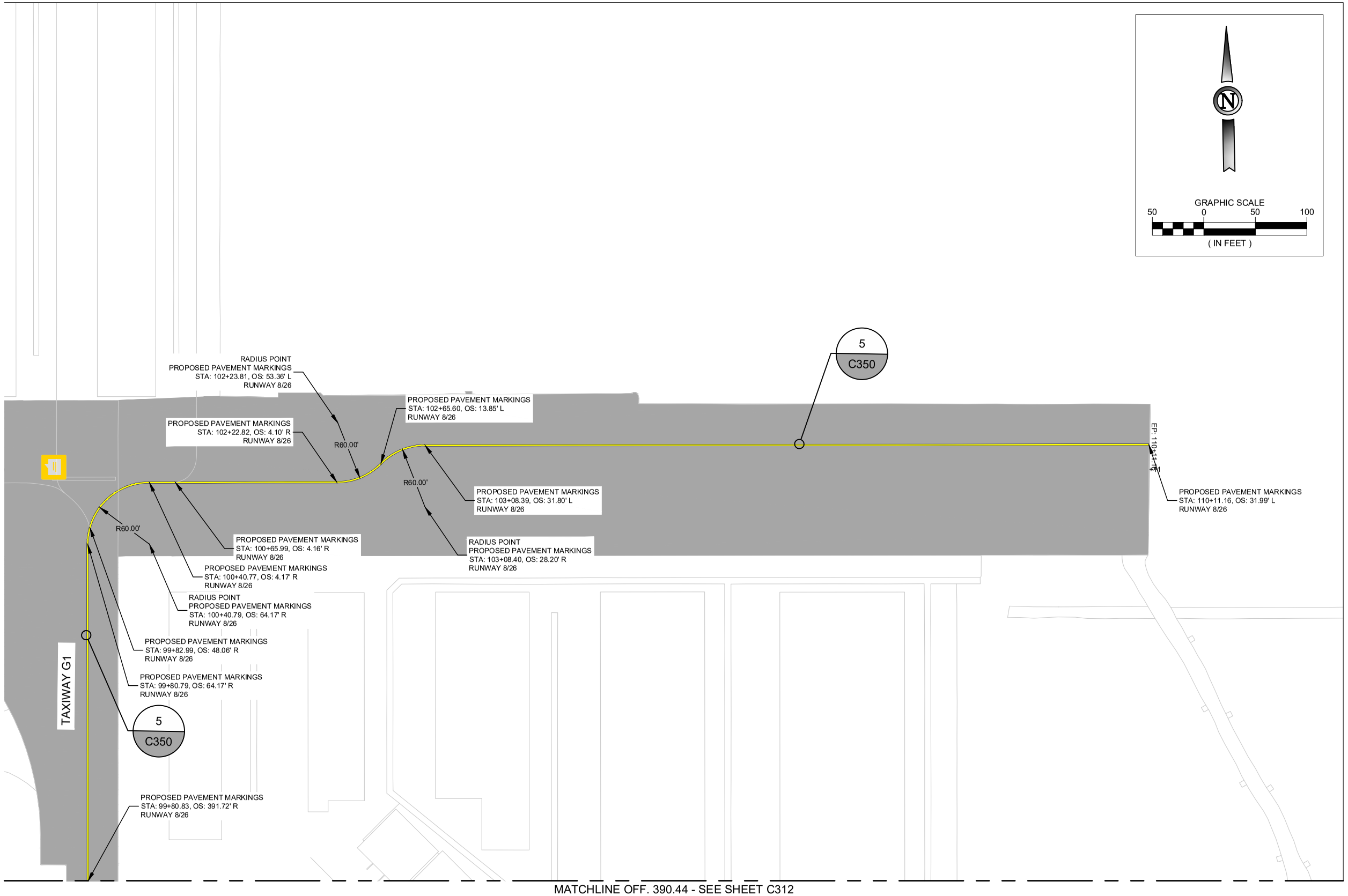
PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

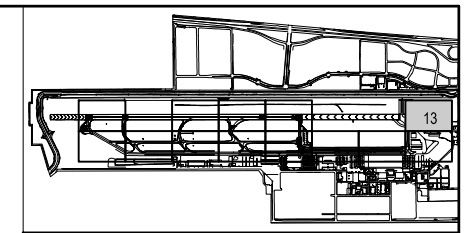
SHEET NAME
C312

SHEET NO.
56 of 61

DRAWING NO.
1731-DOA

Plotted October 9, 2023 @ 3:05 PM by Ver. Patrick
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PAVEMENT MARKINGS LEGEND

EXISTING	ASPHALT	EXISTING PAINT
PROPOSED		PROPOSED TAXIWAY PAINT
		PROPOSED RUNWAY PAINT

NOTES:

1. UNLESS OTHERWISE SPECIFIED, ALL TAXIWAY MARKINGS SHALL BE YELLOW AND ALL RUNWAY MARKINGS SHALL BE WHITE IN ACCORDANCE WITH SPECIFICATION P-620. ALL STRIPING WILL HAVE A BLACK BORDER AT THE DIMENSIONS INDICATED ON THE DETAILS UNLESS SHOWN OTHERWISE IN STRIPING DETAILS.
2. CONTRACTOR WILL BE REQUIRED TO REPAINT ANY MARKINGS THAT ARE OUTSIDE THE PROJECT WORK LIMITS WHICH ARE DAMAGED BY THE CONTRACTORS OPERATIONS. REPAINTING OF THESE DAMAGED AREAS WILL BE AT THE CONTRACTORS EXPENSE.
3. PAINT SHOULD BE STORED IN A CLIMATE-CONTROLLED ENVIRONMENT IN ORDER TO MEET MANUFACTURERS RECOMMENDED TEMPERATURES BEFORE IT IS APPLIED. MATERIAL THAT DOES NOT MEET REQUIRED TEMPERATURE REQUIREMENTS WILL BE WARMED TO THE MINIMUM TEMPERATURE FOR 24 HOURS BEFORE IT IS APPLIED OR AS APPROVED BY THE RESIDENT ENGINEER.
4. GLASS BEADS SHALL BE APPLIED TO ALL PERMANENT PAVEMENT MARKINGS. APPLICATION RATES AND GLASS BEAD TYPE SHALL BE AS SPECIFIED IN ITEM P-620. GLASS BEADS SHALL NOT BE APPLIED TO BLACK PAINT. GLASS BEADS SHALL BE INCIDENTAL TO P-620 BID ITEMS.
5. SEE SHEET C350 FOR STRIPING DETAILS AND NOTES.
6. CONTRACTOR SHALL HAVE A COPY OF THE CURRENT FAA ADVISORY CIRCULAR AC 150/5340-1M "STANDARDS FOR AIRPORT MARKINGS" ON SITE AT ALL TIMES. ANY DISCREPANCY BETWEEN INFORMATION SHOWN ON THE PLAN SHEETS AND THE ADVISORY CIRCULAR SHALL BE COORDINATED WITH THE ENGINEER FOR DIRECTION.
7. PRIOR TO REMOVAL OF PAVEMENT MARKINGS, EXISTING PAVEMENT MARKINGS SHALL BE SURVEYED AND PROVIDED TO THE ENGINEER FOR APPROVAL. FINAL PAINT LAYOUT SHALL MATCH THE EXISTING LAYOUT AND WILL BE CONFIRMED BY THE AIRPORT PRIOR TO CONSTRUCTION.
8. ALL AREAS SHALL BE THOROUGHLY CLEANED PRIOR TO PLACING PAINT MARKINGS. ALL SURFACE PREPARATION ASSOCIATED WITH PAVEMENT MARKINGS SHALL BE INCIDENTAL TO P-620 BID ITEMS
9. ANY DISCREPANCIES BETWEEN THESE PLANS AND THE ACTUAL STRIPING PRESENT IN THE FIELD SHALL BE BROUGHT TO THE ATTENTION OF RESIDENT ENGINEER.
10. SECOND APPLICATION OF PAINT WILL BE APPLIED 30 DAYS AFTER THE INITIAL APPLICATION FOR AREAS OF NEW PAVEMENT. IT MAY BE POSSIBLE TO COMPLETE THIS WORK ON A PULL BACK BASIS IF APPROVED BY AIRPORT OPERATIONS AND UNDER THEIR SUPERVISION.

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DES: A.G.G.
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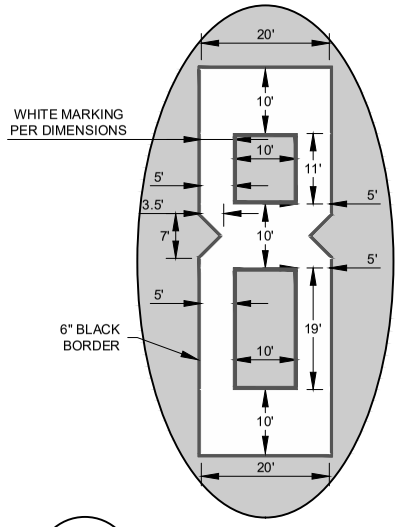
RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

PAVEMENT MARKING PLAN
STA. 99+00 TO STA. 112+00
RUNWAY 8/26

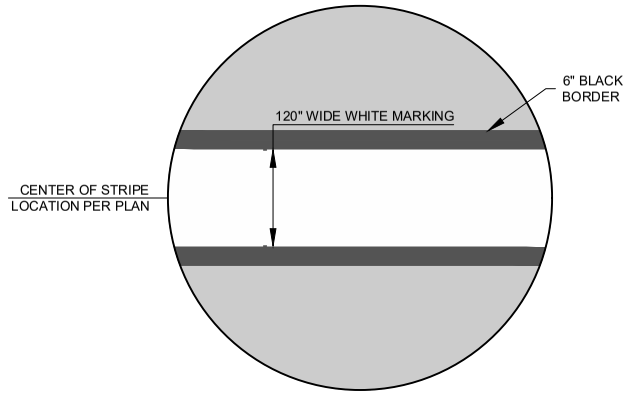
PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME
C313
SHEET NO.
57 of 61
DRAWING NO.
1732-DOA

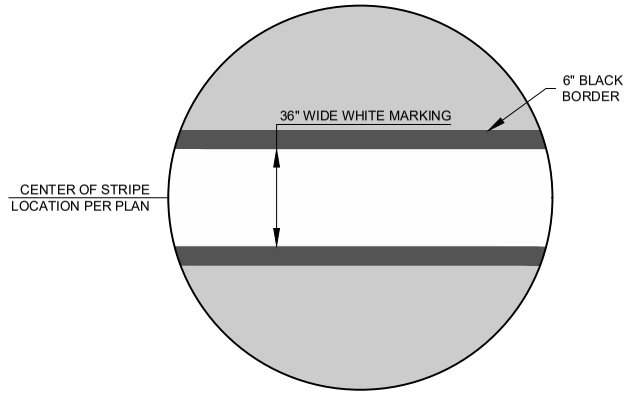
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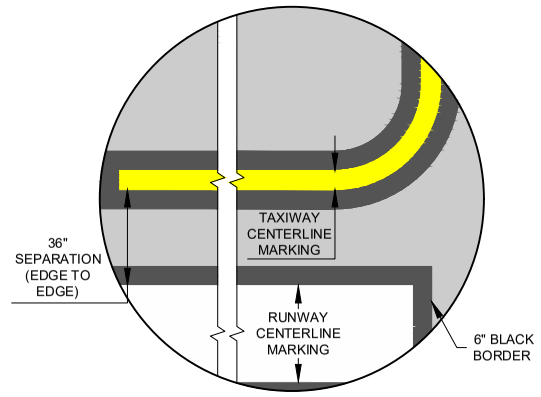
1 DESIGNATION "8" DETAIL
DETAIL SCALE: 1" = 30'



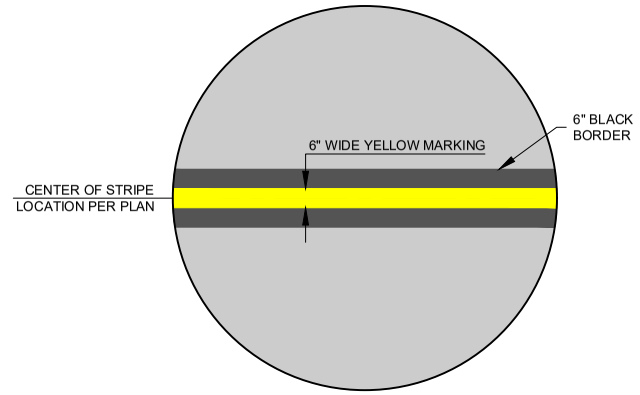
2 THRESHOLD BAR DETAIL
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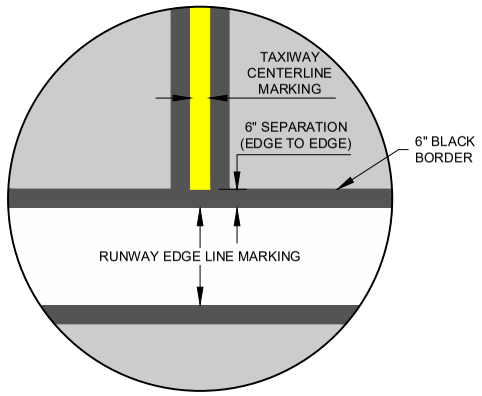
3 RUNWAY CENTERLINE DETAIL
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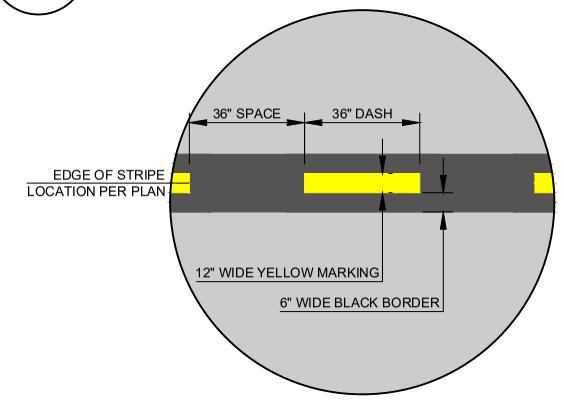
4 TAXIWAY LEAD IN LINE DETAIL
NOT TO SCALE



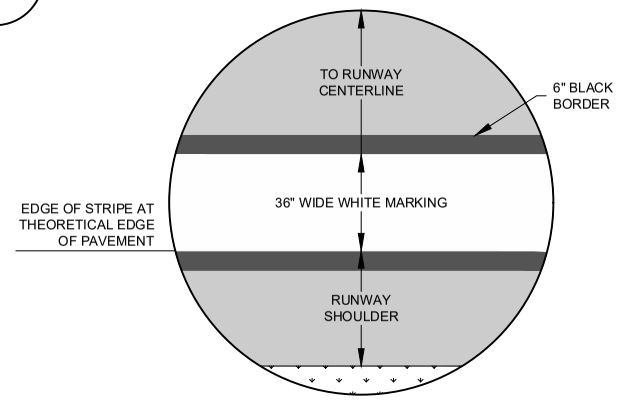
5 TAXIWAY CENTERLINE DETAIL
NOT TO SCALE



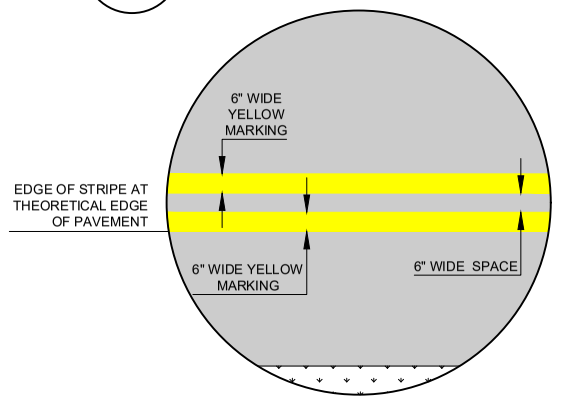
6 TAXIWAY CENTERLINE INTERSECTING RUNWAY EDGE LINE DETAIL
NOT TO SCALE



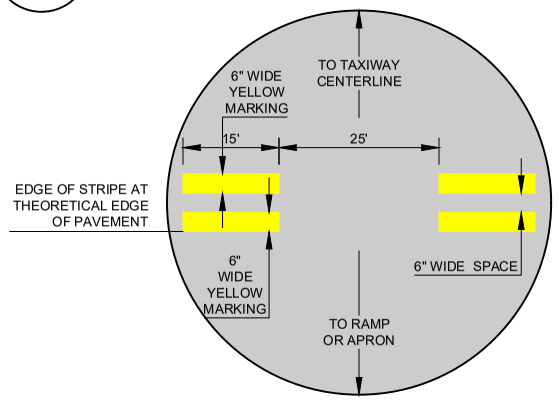
7 INTERMEDIATE HOLDING POSITION MARKING DETAIL
NOT TO SCALE



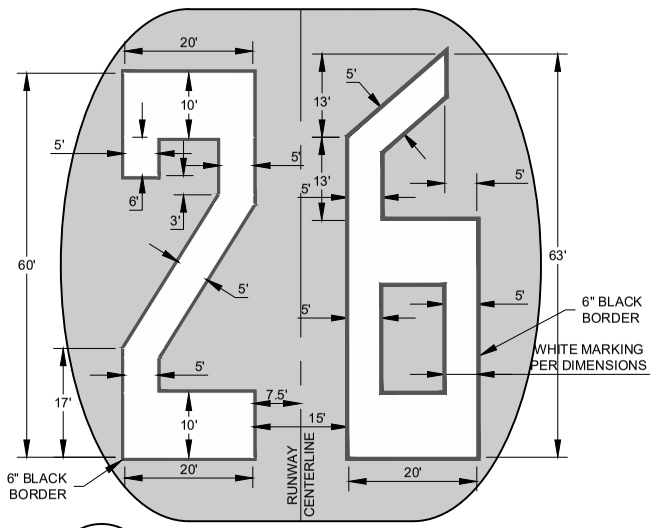
8 RUNWAY EDGE LINE DETAIL
NOT TO SCALE



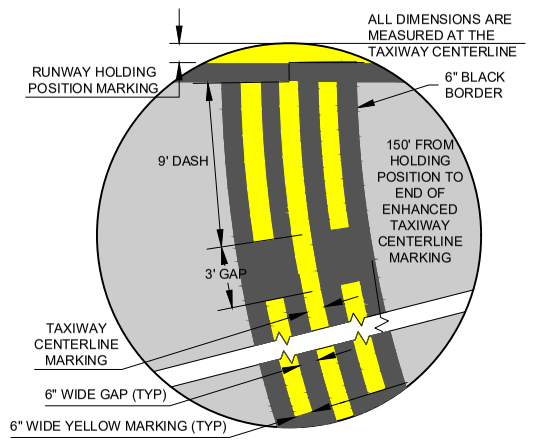
9 TAXIWAY SOLID EDGE LINE DETAIL
NOT TO SCALE



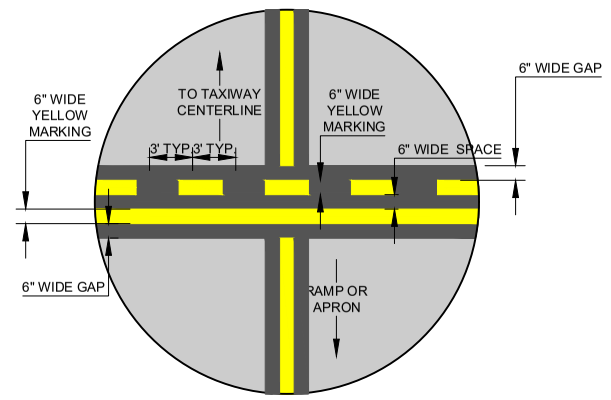
10 TAXIWAY DASHED EDGE LINE DETAIL
NOT TO SCALE



11 DESIGNATION "26" DETAIL
NOT TO SCALE



12 ENHANCED TAXIWAY CENTERLINE DETAIL
NOT TO SCALE



13 NON-MOVEMENT AREA & TAXILANE CROSSING DETAIL
NOT TO SCALE

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CAMARILLO,CA

COUNTY of VENTURA
Department of Airports

DES: A.G.G.
DR: A.G.G.
CH: C.L.G.
APP: J.D.I.

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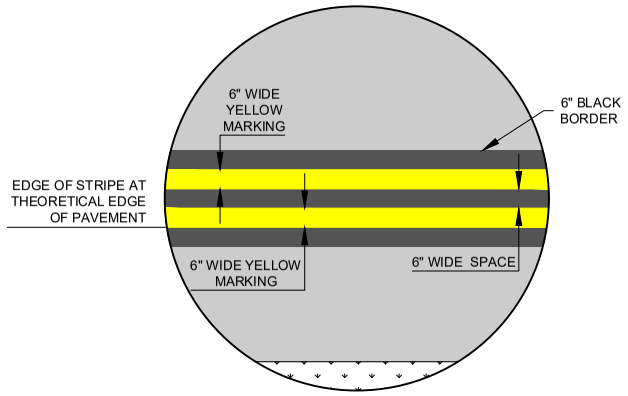
RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

PAVEMENT MARKING DETAILS

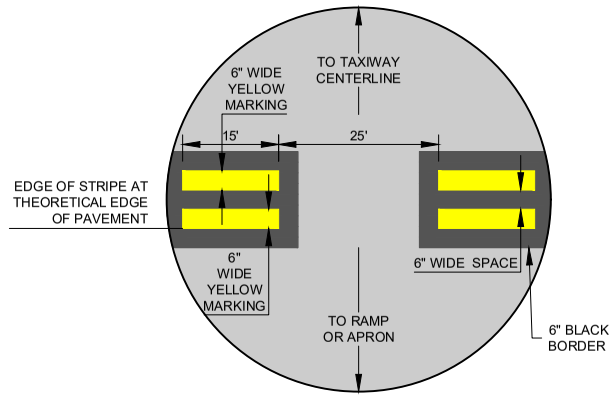
PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME
C350
SHEET NO.
58 of 61
DRAWING NO.
1733-DOA

Plotted October 9, 2023 @ 3:05 PM by: Ver, Patrick
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14 TAXIWAY SOLID EDGE LINE DETAIL
NOT TO SCALE



15 TAXIWAY DASHED EDGE LINE DETAIL
NOT TO SCALE

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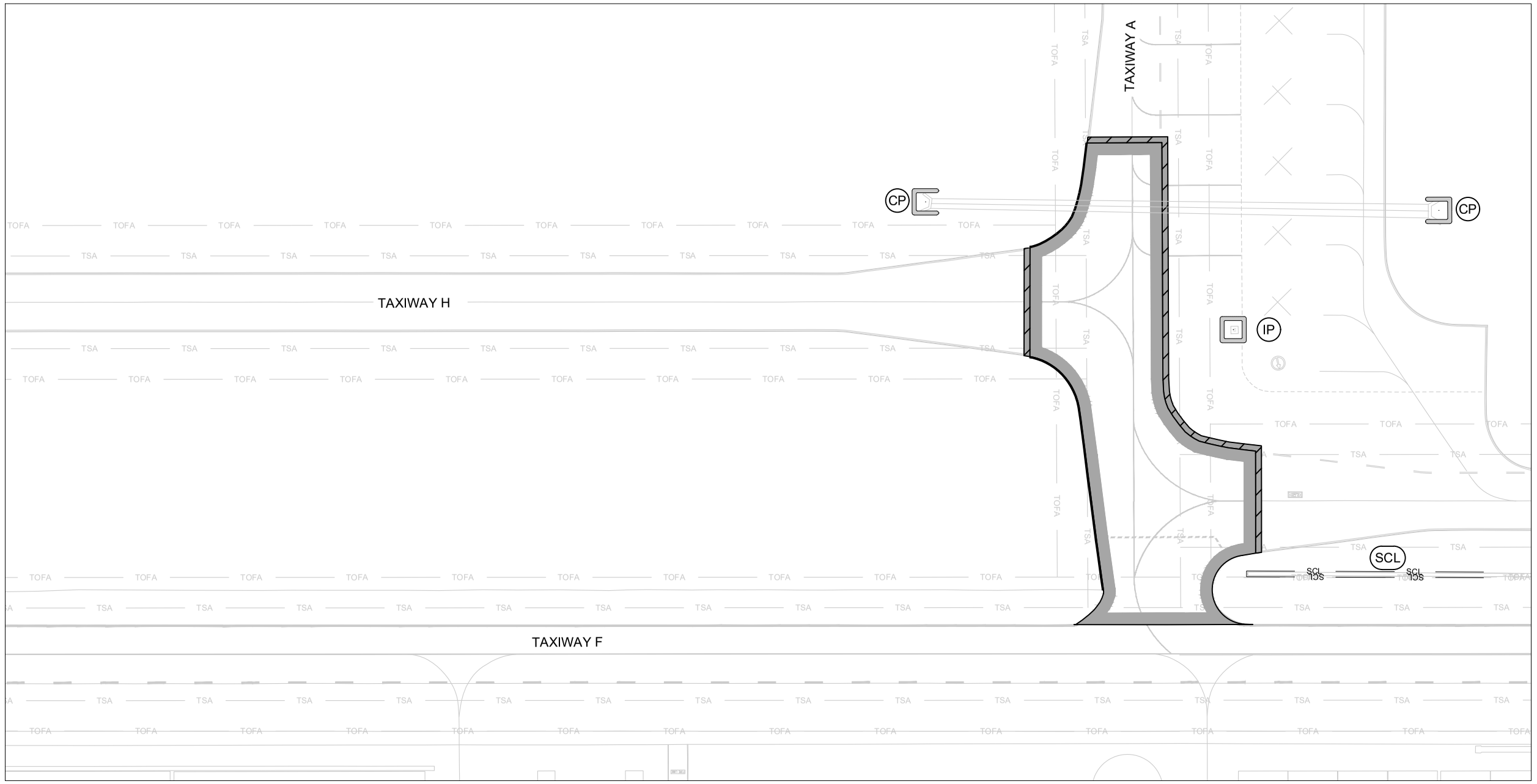
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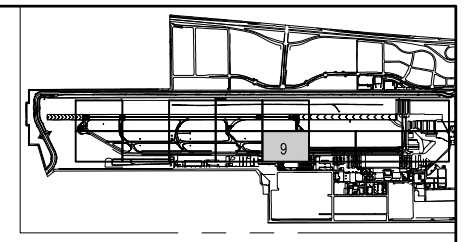
PAVEMENT MARKING DETAILS

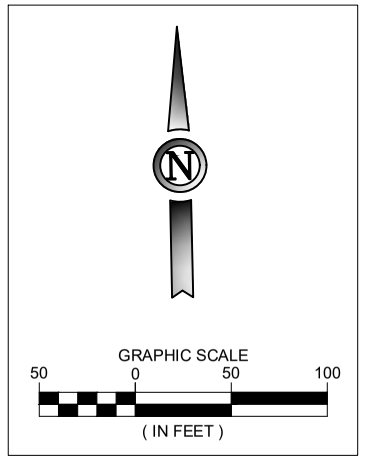
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LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

SHEET NAME C351
SHEET NO. 59 of 61
DRAWING NO. 1734-DOA

Plotted October 9, 2023 @ 3:05 PM by: Ver. Patrick
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EROSION CONTROL LEGEND

SCL — SCL	SEDIMENT CONTROL LOG
IP	INLET PROTECTION
CP	CULVERT PROTECTION

NOTES:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN, IMPLEMENT, MAINTAIN AND CLOSEOUT ANY NECESSARY STATE OR LOCAL PERMITS, LICENSES, ETC. RELATED TO THE PROJECT OR THE WORK DESCRIBED HEREIN AND/OR SHOWN ON THE PLANS. THE PREPARATION OF A "STORMWATER POLLUTION PREVENTION PLAN (SWPPP)" SHALL BE THE CONTRACTOR'S RESPONSIBILITY AS WELL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH ALL REQUIREMENTS UNDER ANY SUCH REQUIRED PERMITS AND/OR LICENSES.
2. SEE SHEET C450 FOR INLET PROTECTION DETAIL.
3. ALL BMP'S SHALL COMPLY WITH THE DETAILS HEREIN AND AS SHOWN IN THE CASQA CALIFORNIA STORMWATER BMP HANDBOOK - CONSTRUCTION - (LATEST EDITION). CONTRACTOR SHALL UTILIZE ALL NON-STORMWATER MANAGEMENT TECHNIQUES LISTED HEREIN, IN COMPLIANCE WITH THE SWPPP.
4. ANY ADDITIONAL ITEMS REQUIRED FOR INSTALLATION OR MAINTENANCE OF TEMPORARY OR PERMANENT EROSION CONTROL MEASURES SHALL NOT BE PAID SEPARATELY BUT SHALL BE INCIDENTAL TO VARIOUS ITEMS.
5. TEMPORARY AND PERMANENT EROSION CONTROL PRACTICES SHALL BE MAINTAINED AND REPAIRED BY THE CONTRACTOR DURING THE CONSTRUCTION PHASES AS NEEDED TO ENSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION.
6. ALL DISTURBED SURFACE AREAS ARE TO BE STABILIZED IN ACCORDANCE WITH THE APPROVED SWMP/EROSION CONTROL PLAN OR APPROVED AMENDMENTS AND SHALL BE REVIEWED ONSITE BY THE SWMP ADMINISTRATOR.
7. ALL CONSTRUCTION TRAFFIC MUST ENTER AND EXIT THE PROJECT SITE AT APPROVED DESIGNATED AREAS. ACCESS INTO OR OUT OF NON-PAVED AREAS WILL ONLY BE ALLOWED WHERE A VEHICLE TRACKING CONTROL (VTC) HAS BEEN PROPERLY INSTALLED.
8. ANY SEDIMENT TRACKED ONTO PAVED SECTIONS, REGARDLESS OF LOCATION OR QUANTITY, SHALL BE IMMEDIATELY CLEANED.

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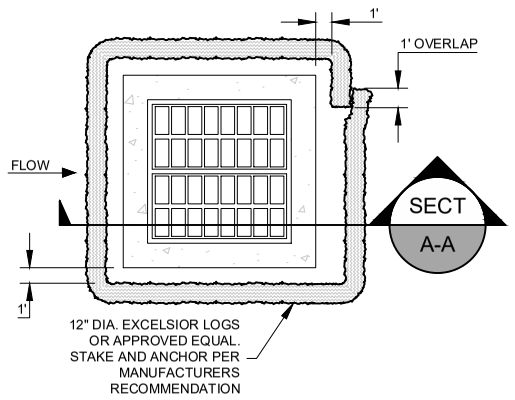
RUNWAY 8-26 AND TAXIWAY A
PAVEMENT IMPROVEMENTS

EROSION CONTROL PLAN

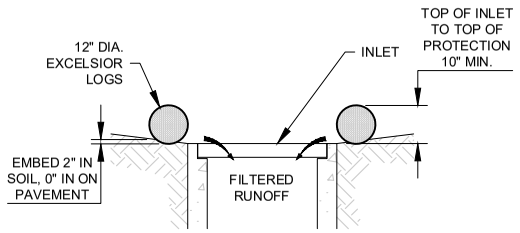
SHEET NAME C400
SHEET NO. 60 of 61
DRAWING NO. 1735-DOA

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

Plotted October 9, 2023 @ 3:06 PM by: Ver, Patrick
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INLET PROTECTION PLAN VIEW

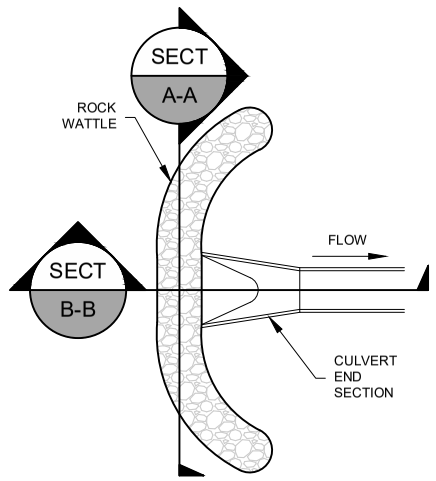


INLET PROTECTION SECTION A-A

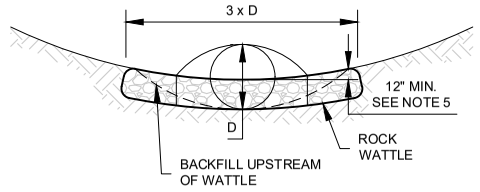
INLET PROTECTION INSTALLATION NOTES

1. INLET PROTECTION SHALL BE INSTALLED WITHIN 48 HOUR AFTER INLET CONSTRUCTION OR PAVING IS COMPLETED.
2. THE SWMP MANAGER SHALL INSPECT INLET PROTECTION WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT AS NECESSARY. INSPECT MORE FREQUENTLY DURING WINTER CONDITIONS DUE TO FREEZE/THAW PROBLEMS. REPAIR AS NECESSARY.
3. SEDIMENT ACCUMULATED UPSTREAM OF INLET PROTECTION SHALL BE REMOVED AT THE END OF EACH DAY DURING CONSTRUCTION OR WHEN THE SEDIMENT DEPTH UPSTREAM OF INLET PROTECTION IS WITHIN 2-1/2 INCHES OF THE CREST.
4. INLET PROTECTION IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS APPROVED, UNLESS THE LOCAL JURISDICTION APPROVES EARLIER REMOVAL OF INLET PROTECTION IN STREETS.
5. WHEN INLET PROTECTION AT AREA INLETS REMOVED, THE DISTURBED AREA SHALL BE COVERED WITH TOP SOIL, DRILL SEEDED AND CRIMP MULCHED, OR IS OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

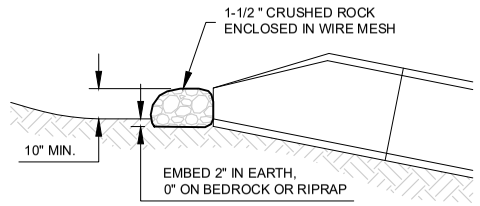
1 INLET PROTECTION DETAIL (IP)
NOT TO SCALE



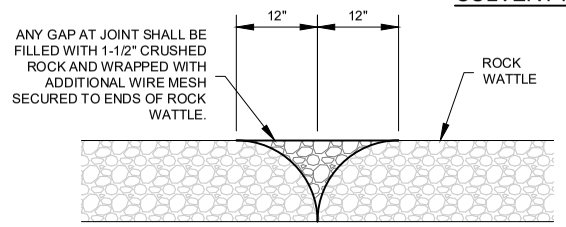
CULVERT PROTECTION PLAN VIEW



CULVERT PROTECTION SECTION A-A



CULVERT PROTECTION SECTION B-B



ROCK WATTLE JOINT DETAIL

CULVERT PROTECTION NOTES

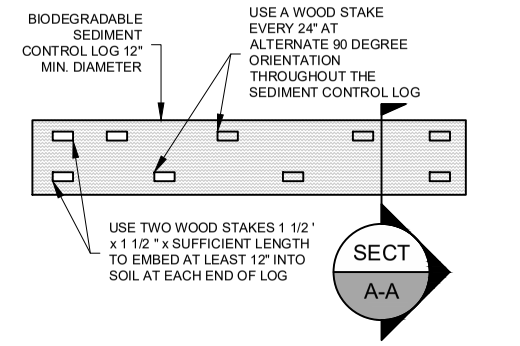
1. SEE PLAN VIEW FOR LOCATIONS OF CULVERT INLET PROTECTION.
2. CRUSHED ROCK SHALL BE FRACTURED FACE (ALL SIDES) AND SHALL COMPLY WITH GRADATION TABLE 1 (1-1/2" MINUS).
3. WIRE MESH SHALL BE FABRICATED OF 10 GAUGE WIRE TWISTED INTO A MESH A MAXIMUM OPENING OF 1/2" (COMMONLY TERMED "CHICKEN WIRE").
4. WIRE MESH SHALL BE SECURED USING "HOG RINGS" OR WIRE TIES AT 6-INCH CENTERS ALONG ALL JOINTS AND AT 2-INCH CENTERS ON ENDS OF WATTLE.
5. THE ENDS OF THE REINFORCED ROCK WATTLE SHALL BE 12" HIGHER THAN THE CENTER OF THE WATTLE.
6. SEDIMENT ACCUMULATED UPSTREAM OF CULVERT INLET FILTER SHALL BE REMOVED AT THE END OF EACH DAY DURING CONSTRUCTION OR WHEN THE SEDIMENT DEPTH UPSTREAM OF FILTER IS 1/2 THE HEIGHT OF THE ROCK WATTLE.
7. CULVERT PROTECTION IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND VEGETATIVE COVER IS APPROVED BY THE ENGINEER.

GRADATION TABLE

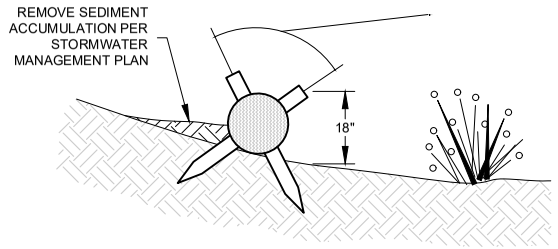
SIEVE SIZE	MASS PERCENT PASSING SQUARE MESH SIEVES
	NO. 4
2"	100
1 1/2"	90 - 100
1"	20 - 55
3/4"	0-15
3/8"	0-5

MATCHES SPECIFICATIONS FOR NO. 4 COARSE AGGREGATE FOR CONCRETE PER AASHTO M43. ALL ROCK SHALL BE FRACTURED FACE, ALL SIDES

2 CULVERT PROTECTION DETAIL (CP)
NOT TO SCALE



SEDIMENT CONTROL LOG PLAN VIEW



SEDIMENT CONTROL LOG SECTION A-A

SEDIMENT CONTROL LOG NOTES

1. SEE PLAN VIEW FOR LOCATION AND LENGTH OF SEDIMENT CONTROL LOGS.
2. SEDIMENT CONTROL LOGS INDICATED ON INITIAL SWMP PLAN SHALL BE INSTALLED PRIOR TO ANY LAND-DISTURBING ACTIVITIES.
3. SEDIMENT CONTROL LOGS SHALL CONSIST OF STRAW, COMPOST, EXCELSIOR, OR COCONUT FIBER.
4. NOT FOR USE IN CONCENTRATED FLOW AREAS.
5. THE SEDIMENT CONTROL LOG SHALL BE TRENCHED INTO THE GROUND A MINIMUM OF 2".
6. METAL OR REBAR IS NOT AN ACCEPTABLE METHOD FOR SECURING SEDIMENT CONTROL LOGS.
7. THE SWMP MANAGER SHALL INSPECT SEDIMENT CONTROL LOGS DAILY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT UPSTREAM SEDIMENT AS NECESSARY.
8. SEDIMENT ACCUMULATED UPSTREAM OF SEDIMENT CONTROL LOG SHALL BE REMOVED WHEN THE UPSTREAM SEDIMENT DEPTH IS WITHIN 1/2 THE HEIGHT OF THE CREST OF LOG.
9. SEDIMENT CONTROL LOG SHALL BE REMOVED AT THE END OF CONSTRUCTION. IF ANY DISTURBED AREA EXIST AFTER REMOVAL, IT SHALL BE COVERED WITH TOP SOIL, DRILL SEEDED AND HYDRO MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

3 SEDIMENT CONTROL LOG DETAIL (SCL)
NOT TO SCALE

ISSUED FOR 100% REVIEW

THESE DRAWINGS ARE FOR DESIGN REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES. THEY WERE PREPARED BY OR UNDER THE SUPERVISION OF:

JOHN DUANE INGRAM	PE - C 058505	10/11/23
NAME	REG. NO.	DATE

FOR AND ON BEHALF OF JVIATION, A WOOLPERT COMPANY

JVIATION®
A WOOLPERT COMPANY

CAMARILLO AIRPORT
CAMARILLO,CA

COUNTY of VENTURA
Department of Airports

DES: A.G.G.
DR: A.G.G.
CH: C.L.G.
APP: J.D.I.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.D.I.	10/11/2023	ISSUED FOR 100% REVIEW

RUNWAY 8-26 AND TAXIWAY A PAVEMENT IMPROVEMENTS

EROSION CONTROL DETAILS

SHEET NAME C450
SHEET NO. 61 of 61
DRAWING NO. 1736-DOA

PROJECT NO.	JVIATION PROJ. NO.	SPEC. NO.	COUNTY PROJ. NO.
LOC 21-01	2021.CMA.03	DOA 23-04	CMA-239

Plotted October 9, 2023 @ 3:06 PM by Ver, Patrick
L:\CMA\LOC 21-01 RW and TW A Reheb\CADD\PLANS\040-CMA-LOC-21-01-C450-EROS-DETL.dwg