Table of Contents

SPECIAL PROVISIONS- SECTION "A"

GENERAL CONDITIONS

1. LOCATION

APN 057-020-056, along North Kelly Road and directly across from Camino Dorado in Napa, CA.

2. DESCRIPTION OF WORK

The project consists of earthwork including grading and filling to build a gravel parking lot, approximately 0.75 acres in total, including two ADA accessible parking spots, a turnaround bulb and four dedicated parking spots for horse trailers, twenty-two standard parking stalls including concrete wheel stops for all standard and accessible parking spaces. The project shall include 330 linear feet of subdrain, swales, and dissipators along the uphill side of parking lot fill, and two bioretention areas of 500 sq ft and 250 sq ft. The project also includes a paved drive entrance including deceleration taper, and three automated entrance gates per Napa County Standard D-11. The project includes construction of approximately 2300 linear feet of four-strand barbed wire fencing on T-posts along the edge of the parking lot and along the existing dirt road. There are 30 WORKING DAYS for the construction.

Per the project specifications, the Contractor will be responsible to notify all adjoining property owners of the work schedule and make accommodation where deemed necessary.

3. DEFINITIONS AND TERMS

The following terms when used in these Special Provisions or in the Standard Specifications shall have the following meanings when used in this Contract:

Contractor. The person or entity described as "Contractor" in the preamble to this Contract.

District. Napa County Regional Park and Open Space District, a Special District of the State of California.

Days. As used in these special provisions, days shall mean working days.

General Manager. The District's General Manager, acting either directly or through properly authorized agents, such agents acting within the scope of the particular duties entrusted to them.

Engineer. The District General Manager or his/her designee.

Project Manager. The District General Manager or his/her designee.

Owner. Napa County Regional Park and Open Space District

Standard Specifications. The 2024 edition of the Standard Specifications of the State of California, Department of Transportation. Any reference therein to the State of California or a State agency,

office or officer shall be interpreted to refer to the District or its corresponding agency, office or officer acting under this contract.

4. CONTRACT DOCUMENTS

The Contract Documents shall include the Notice to Contractors, Proposal Form, bonds, these special provisions, the Standard Specifications of the State of California and the Standard Plans of the State of California, Department of Transportation, dated 2024 insofar as same may apply, and pertinent portions of other documents included by reference thereto in the Special Provisions or the Contract pages.

5. FEDERAL LOBBYING RESTRICTIONS

RESERVED

6. DISADVANTAGED BUSINESS ENTERPRISE (DBE)

RESERVED

7. BID OPENING

The District will publicly open and read the bids at the time and place shown on the Notice to Contractors or as altered by District issued addendums.

8. BID RIGGING

The U.S. Department of Transportation (DOT) provides a toll-free hotline to report bid rigging activities. Use the hotline to report bid rigging, bidder collusion, and other fraudulent activities. The hotline number is (800) 424-9071. The service is available 24 hours 7 days a week and is confidential and anonymous. The hotline is part of the DOT's effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General.

9. CONTRACT AWARD

If the District awards the contract, the award is made to the lowest responsive and responsible bidder. Additional details are set forth in the proposal form.

10. CONTRACTOR LICENSE

The Contractor must be properly licensed as a Contractor in California from contract award through Contract acceptance carrying a Class "A" General Engineering, class "C12" Earthwork and Paving or other license class appropriate to the work outlined in the bid. (Public Contract Code § 210103.5).

11. DIFFERING SITE CONDITIONS

23 CFR 635.109 is made a part of this contract and incorporated herein by reference.

a. Contractor's Notification

Promptly notify the Engineer if you find either of the following conditions:

1. Physical conditions differing materially from either of the following:

- Contract documents
- Job site examination

2. Physical conditions of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the work provided for in the Contract

Include details explaining the information you relied on and the material differences you discovered.

If you fail to promptly notify the Engineer, you waive the differing site condition claim for the period between your discovery of the differing site condition and your notification to the Engineer.

If you disturb the site after discovery and before the Engineer's investigation, you waive the differing site condition claim.

b. Engineer's Investigation and Decision (Standard Specifications 4-1.06C)
Upon your notification, the Engineer investigates job site conditions and:

1. Notifies you whether to resume affected work
2. Decides whether the condition differs materially and is cause for an adjustment of time, payment, or both.

12. BEGINNING OF WORK, TIME OF COMPLETION AND LIQUIDATED DAMAGES

Attention is directed to all of the provisions of Section 8, "Prosecution and Progress," of the Standard Specifications and these Special Provisions.

The Contractor shall begin work within ten (10) calendar days after District's issuance of the Notice To Proceed.

This work shall be diligently prosecuted to completion before the expiration of thirty (30) WORKING DAYS beginning the day of issuance of Notice To Proceed. These thirty (30) contract working days exclude the submittal review and approval process.

Attention is directed to the provisions of Section 8-1.10, "Liquidated Damages," of the Standard Specifications and these Special Provisions. The Contractor shall pay to District the sum of **$2500** per day for each and every calendar day delay in finishing the work in excess of the number of working days prescribed above and any extension of time granted.

13. BUY AMERICA (Standard Specifications 6-1.04C)

RESERVED

14. QUALITY ASSURANCE

The Contractor is responsible for Quality Control. The Contractor is responsible for the quality of the Work including materials and workmanship performed by the subcontractors. The Contractor will cooperate and coordinate with the County for Quality Assurance testing performed by the County. The County performing Quality Assurance inspections and testing

does not relieve the Contractor from the responsibility of performing all Quality Control testing required to deliver a quality project. Quality Control includes all tasks required to deliver a coordinated and complete project that is in compliance with the intent of the Contract Documents.

15. PROMPT PAYMENT OF FUNDS TO SUBCONTRACTORS

The prime Contractor or subcontractor shall pay to any subcontractor the respective amounts allowed the Contractor on account of the work performed by the subcontractors, to the extent of each subcontractor's interest therein, not later than seven (7) days after receipt of each progress payment pursuant to California business and professions Code Section 7108.5. The District shall hold retainage from the prime Contractor and shall make prompt and regular incremental acceptances of portions, as determined by the District, of the contract work, and pay retainage to the prime Contractor based on these acceptances. The prime Contractor, or subcontractor, shall release all monies withheld in retention from a subcontractor within seven (7) days after receiving payment of retention from the District to the extent of each subcontractor's interest therein, pursuant to Public Contract Code section 7107(d). These requirements shall not be construed to limit or impair any contractual, administrative, or judicial remedies otherwise available to the prime Contractor or subcontractor in the event of a dispute involving late payment or nonpayment by the prime Contractor, deficient subcontract performance, or noncompliance by a subcontractor.

16. FORM FHWA-1273 REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONTRACTS

RESERVED

17. FEMALE AND MINORITY GOALS

RESERVED

18. FEDERAL TRAINEE PROGRAM

RESERVED

19. TITLE VI ASSURANCES

RESERVED

20. SUBCONTRACTING

Attention is directed to Section 5-1.13, "Subcontracting," of the Standard Specifications.

21. PREVAILING WAGES

The Project is a "public works" as defined in the California Labor Code. The Contractor shall comply with all State prevailing wage requirements, including but not limited to, those set forth in Exhibit "B", California Prevailing Wage Requirements.

22. CERTIFIED PAYROLL RECORDS

Special Attention is directed to the provisions of Section 7-1.02K(3), "Certified Payroll Records," of the Standard Specifications. A copy of all payrolls shall be submitted weekly to the Engineer. Payrolls shall contain the full name, address and social security number of each employee, his employee's correct classification, rate of pay, daily and weekly number of hours worked, itemized deductions made and actual wages paid. Submitted payroll shall also indicate apprentices and ratio of apprentices to journeymen. The employee's address and social security number need only appear on the first payroll on which his name appears. The payroll shall be accompanied by a "Statement of Compliance" signed by the employer or his agent indicating that the payrolls are correct and complete and that the wage rates contained therein are not less than those required by the contract. The "Statement of Compliance" shall be on forms furnished by the Department or on any form with identical wording. The Contractor shall be responsible for the submission of copies of payrolls of all subcontractors. Failure to submit will delay processing of progress payments.

23. BIDDING REQUIREMENTS AND CONDITIONS

Attention is directed to Section 2, "Bidding," of the Standard Specifications and these Special Provisions.

(a) Examination of Site. Each bidder shall have examined the site of the work before bidding so he shall have full knowledge of all facilities and difficulties affecting the work which may not be particularly described herein. No variation or allowance from the contract sum will be made because of lack of such examination or knowledge.

(b) State Contract Act. The State Contract Act is not applicable to contracts involving political subdivisions of the State of California. Pre-qualification of bidders will not be required.

(c) Joint Venture. If two or more Bidders desire to bid jointly on a single project or desire to combine their assets for so doing, they must file an affidavit of joint venture with the District Engineer, and such affidavit of joint venture will be valid only for the specific project for which it is filed. If such affidavit of joint venture is not filed as aforesaid and approved by the Engineer prior to the time for opening bids on the specific projects for which it is submitted, a joint bid submitted by the said Bidders will be disregarded.

(d) Registered and Qualified – California Labor Code § 1771.1. A Contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in this chapter, unless currently registered and qualified to perform public work pursuant to Section 1725.5. It is not a violation of this section for an unregistered Contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or by Section 10164 or 20103.5 of the Public Contract Code, provided the Contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded.

24. CONTRACT AWARD AND EXECUTION (Bonds)

Attention is directed to Section 3, "Contract Award and Execution," of the Standard Specifications, contract bonds. In-lieu of the bonds specified under Section 3-1.05 of the Standard

Specifications, the successful bidder shall furnish a faithful Performance Bond as required by Public Contract Code section 20129(b) in an amount equal to one hundred percent (100%) of the contract price of the work contemplated and a laborer and material (payment) bond as required by Civil Code section 8182 in an amount equal to one hundred percent (100%) of the contract price of the work contemplated.

The award will be based on the Total Bid.

25. SCOPE OF WORK

Attention is directed to Section 4, "Scope of Work," of the Standard Specifications.

The intent of the plans and specifications is to cover the entire project ready for use when completed. The Contractor shall accomplish complete installation of facilities, and any other required items to make the unit complete. All units, facilities, etc., shall be in operating condition to the approval of the Engineer. The quantities and items listed in the proposal form and contract form are given as a basis for the comparison of bid and the Board of Directors does not, expressly or by implication, agree that the actual amount of work will correspond therewith, but reserves the right to increase or decrease the amount of any class or portion of the work, or to omit portions of the work as may be deemed necessary or expedient by the Engineer.

26. CHANGE ORDERS

(a) Limitations Where Contract Price Changes are Involved.

i. Overhead and Profit for the Contractor. The Contractor's overhead and profit on the cost of subcontracts shall be a sum not exceeding ten percent (10%) of such costs. The Contractor's overhead and profit on the costs of work performed by the Contractor shall be a sum not exceeding fifteen percent (15%) of such costs. Overhead and profit shall not be applied to the cost of taxes and insurance by Contractor or subcontractors or to credits. No processing or similar fees may be charged by the Contractor in connection with the Modification.

ii. Bond Premiums. The actual rate of bond premiums as paid on the total cost (including taxes) will be allowed, but with no markup for profit and overhead.

iii. Taxes. State and city sales taxes should be indicated.

(b) Procedure. Attention is directed to Section 4-1.05 of the Standard Specifications.

(c) Authorized Representative / Limits. No Change Order shall be valid or binding against DISTRICT unless such Change Order has been executed in writing by (1) DISTRICT's General Manager, or (2) by the Board of Directors.

27. CONTROL OF THE WORK

Attention is directed to Section 5 of the Standard Specifications and these Special provisions. After contract approval, submit documents and direct questions in writing to the Engineer.

(a) Contract Components. A component in one contract part applies as if appearing in each. The parts are complementary and describe and provide for a complete work.

If a discrepancy is found or confusion arises, request correction or clarification in writing. Any deviations from the approved Plans and Specifications shall be approved by the Engineer and all changes shall be by written permission only.

(b) Acceptance of Contract. Attention is directed to Section 5-1.46, "Final Inspection and Contract Acceptance," of the Standard Specifications and these Special provisions. Acceptance will consist of the execution and filing with the County Recorder of a Notice of Completion as defined in Civil Code Section 8182. Should it become necessary due to developed conditions to occupy any portion of the work before the contract is fully completed, such occupancy shall not constitute acceptance.

28. LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

Attention is directed to Section 7 of the Standard Specifications and these Special Provisions.

Comply with laws, regulations, orders, and decrees applicable to the project. Immediately report to the Engineer in writing any discrepancy or inconsistency between the contract and a law, regulation, order, and decree.

(a) Prevailing Wages. See Sections 21 and 22 and Exhibit "B" California Prevailing Wage Requirements of these Special Provisions.

(b) Public Convenience and Public Safety.
Attention is directed to Section 7-1.03 and Section 7.1.04 of the Standard Specifications and these Special Provisions.

(1) Safety Devices. Furnishing and maintenance of safety devices shall be the responsibility of the Contractor at all times. The Contractor shall respond promptly to correct improper conditions or inoperative devices. Failure to inspect and maintain all necessary safety devices in proper operating condition when in use, or failure to respond promptly to notification of improperly operating equipment, will be sufficient cause for suspension of the contract until such defects are corrected or termination as otherwise provided in this Contract.

(2) Safety Data Sheets (SDS) – The Contractor shall provide SDS for each product used on site upon request by the Engineer.

(3) Safety Standards; Suspension of Contract for Unsafe Equipment. The Contractor shall comply with all the applicable provisions of the United States Department of Labor Occupational Safety and Health Act (OSHA), State of California Division of Industrial Safety, Title 8, Safety Orders (Cal-OSHA), the Federal Aviation Administration (FAA) and any other applicable codes and regulations. If, in the opinion of the Engineer, any operation or piece of equipment that is observed by the Engineer appears to be unsafe, the Engineer may immediately halt that portion of the work until the hazard is corrected to the satisfaction of the Engineer and no time extension or additional compensation shall be granted for the time lost due to said halting of the work.

(c) Hold Harmless/Indemnification. To the full extent permitted by law, Contractor shall hold harmless, defend at its own expense, and indemnify DISTRICT and the officers, agents, employees and volunteers of District from any and all liability, claims, losses, damages or

expenses, including reasonable attorney's fees, for personal injury (including death) or damage to property, arising from all acts or omissions to act of Contractor or its officers, agents, employees, volunteers, Contractors and subcontractors in rendering services under this contract, excluding, however, such liability, claims, losses, damages or expenses arising from the active or sole negligence or willful misconduct of District or its officers, agents, employees or volunteers. Each party shall notify the other party immediately in writing of any claim or damage related to activities performed under this contract. The parties shall cooperate with each other in the investigation and disposition of any claim arising out of the activities under this contract, providing that nothing shall require either party to disclose any documents, records or communications that are protected under peer review privilege, attorney-client privilege, or attorney work product privilege.

(d) Insurance. Contractor shall obtain and maintain in full force and effect throughout the term of this contract, and thereafter as to matters occurring during the term of this contract, the following insurance coverage:

(1) Workers' Compensation insurance. To the extent required by law during the term of this contract, CONTRACTOR shall provide workers' compensation insurance for the performance of any of CONTRACTOR's duties under this contract, including but not limited to, coverage for workers' compensation and employer's liability **and a waiver of subrogation**, and shall provide DISTRICT with certification of all such coverages upon request by DISTRICT Risk Management.

(2) Liability insurance. Contractor shall obtain and maintain in full force and effect during the term of this contract the following liability insurance coverages, issued by a company admitted to transact business in the State of California and having a A.M. Best rating of A VII or better:

(i) General Liability. Commercial or comprehensive general liability [CGL] insurance coverage (personal injury and property damage) of not less than TWO MILLION DOLLARS ($2,000,000) per occurrence and FIVE MILLION DOLLARS ($5,000,000) aggregate, covering liability or claims for any personal injury, including death, to any person and/or damage to the property of any person arising from the acts or omissions of Contractor or any officer, agent, or employee of Contractor under this contract. If the coverage includes an aggregate limit, the aggregate limit shall be no less than twice the per occurrence limit.

(ii) Comprehensive Automobile Liability Insurance. Comprehensive automobile liability insurance (Bodily Injury and Property Damage) on owned, hired, leased and non-owned vehicles used in conjunction with Contractor's business of not less than ONE MILLION DOLLARS ($1,000,000) combined single limit per occurrence.

(3) Certificates. All insurance coverages referenced in (2), above, shall be evidenced by one or more certificates of coverage or, with the consent of DISTRICT General Manager demonstrated by other evidence of coverage acceptable to DISTRICT General Manager, which shall be filed by CONTRACTOR with the GENERAL MANAGER prior to commencement of performance of any of Contractor's duties; shall reference this contract by its DISTRICT number or title and department; shall be kept current during the term of this contract; shall provide that DISTRICT shall be given no less than thirty (30) days prior written notice of any non-renewal, cancellation, other termination, or material change,

except that only ten (10) days prior written notice shall be required where the cause of non-renewal or cancellation is non-payment of premium; and shall provide that the inclusion of more than one insured shall not operate to impair the rights of one insured against another insured, the coverage afforded applying as though separate policies had been issued to each insured, but the inclusion of more than one insured shall not operate to increase the limits of the company's liability.

For the commercial general liability insurance coverage referenced in (2)(i), and, where the vehicles area covered by a commercial policy rather than a personal policy, for the comprehensive automobile liability insurance coverage referenced in (2)(ii) CONTRACTOR shall also file with the evidence of coverage and endorsement from the insurance provider naming DISTRICT, its officers employees, agents and volunteers as additional insureds and waiving subrogation, and the certificate or other evidence of coverage shall provide that if the same policy applies to activities of CONTRACTOR not covered by this contract then the limits in the applicable certificate relating to the additional insured coverage of DISTRICT shall pertain only to liability for activities of CONTRACTOR under this contract, and that the insurance provided is primary coverage to DISTRICT with respect to any insurance or self-insurance programs maintained by DISTRICT. The additional insured endorsements for the general liability coverage shall use Insurance Services Office (ISO) Form No. CG 20 09 11 85 or CG 20 10 11 85, or equivalent including (if used together) CG 2010 10 01 and CG 2037 10 01; but shall not use the following forms: CG 20 10 10 93 or 03 94. Upon request of DISTRICT General Manager, CONTRACTOR shall provide or arrange for the insured to provide within thirty (30) days of the request, certified copies of the actual insurance policies or relevant portions thereof.

(4) Additional Insured. The general liability and automobile liability policies listed above are to contain, or be endorsed to contain, the following provisions:

DISTRICT, its officers, agents, employees, and volunteers are to be covered as insureds with respect to liability arising out of automobiles owned, leased, hired or borrowed by or on behalf of the grantee; and with respect to liability arising out of work or operations performed by or on behalf of the grantee including materials, parts or equipment furnished in connection with the work or operations.

(5) Deductibles/Retentions. Any deductibles or self-insured retentions shall be declared to, and be approved by, DISTRICT General Manager, which approval shall not be denied unless the DISTRICT General Manager determines that the deductibles or self-insured retentions are unreasonably large in relation to compensation payable under this contract and the risks of liability associated with the activities required of Contractor by this contract. At the option of and upon request by DISTRICT General Manager, either the insurer shall reduce or eliminate such deductibles or self-insurance retentions or Contractor shall procure a bond guaranteeing payment of losses and related investigations, claims administration and defense expenses.

29. PROSECUTION AND PROGRESS

Attention is directed to Section 8, "Prosecution and Progress," of the Standard Specifications, and these Special Provisions.

(a) Preconstruction Meeting

After award of the Contract and prior to the commencement of work at the site, a Preconstruction meeting will be held at a mutually agreed time and place which shall be attended by the Contractor, its Superintendent, and its subcontractors as appropriate.

The conference is required to familiarize all authorized persons involved with policies, regulations and procedures and to discuss construction operations and methods in order to avoid any misunderstanding or conflicts during construction.

Unless previously submitted to the Engineer, the Contractor shall bring to the preconstruction meeting six (6) copies each of the following:

1. Draft Construction Schedule.
2. Procurement schedule of major equipment and materials and items requiring long lead time.
3. Shop Drawing/Sample/submittal schedule.
4. Schedule of values (lump sum price breakdown) for progress payment purposes.
5. Substitution Requests
6. Letter of Responsibility designating emergency contacts for the Contractor after business hours.

(b) Progress Meetings

The Contractor shall schedule and hold regular on site progress meetings at least weekly and at other times as requested by Engineer. The Contractor, Engineer, Inspector, and all subcontractors active on the site shall be represented at each meeting. The Contractor or Engineer may at their discretion request attendance by the Contractor's suppliers, manufacturers, and other subcontractors.

The District shall provide for keeping and distribution of the minutes. The purpose of the meetings will be to review the progress of the Work, maintain coordination of efforts, discuss changes in scheduling, and resolve other problems which may develop.

(c) Construction Schedule and Progress Schedule

Attention is directed to Section 8-1.02B of the Standard Specifications and of these special provisions.

The Contractor, promptly after being awarded the contract or upon receiving notice of intent to award, shall prepare and submit a baseline construction schedule for the work. The baseline schedule shall not exceed the number of contract working days. The baseline schedule must include the entire scope of work and demonstrate how the Contractor plans to complete all work contemplated and shall provide for expeditious and practicable execution of the work.

The Contractor shall also incorporate all required permit conditions and other coordination into the schedule.

Progress schedules shall be updated and submitted on a weekly basis thereafter. The progress schedule shall be revised at appropriate intervals as required by the conditions of the work and project or when requested in writing by the Engineer. The Contractor shall perform the work in general accordance with the most recent schedules submitted to the Engineer.

(d) Schedule of Submittals
A schedule of submittals shall be provided to the Engineer at the preconstruction meeting. The Contractor shall keep the submittal schedule up to date and ensure that it coordinates with the construction schedule, with adequate time for the Engineer to review the submittals.

(e) Termination of Contract. Attention is directed Section 8-1.13 of the Standard Specifications and these Special provisions.

Whenever, in the opinion of the Board of Directors the said work is neglected by the Contractor, or the same is not prosecuted with the diligence and force specified, meant and intended in and by the terms of this contract, it shall be lawful for the Board of Directors to make a requisition upon the Contractor for such additional specific force or such additional specific material to be brought into the work under this contract or to remove improper material from the grounds, and its due and faithful fulfillment requires; of which action of the Board of Directors due notice in writing of not less than five days shall be served upon the Contractor or his agent having charge of the work; and if the Contractor fails to comply with such requisition within five days, it shall be lawful for the Board of Directors to employ upon such work the additional force or supply the materials as specifically required as aforesaid; and the amount paid for such additional force or material shall be charged against the Contractor and be deducted from his next or subsequent estimate and payment, or the same or any part thereof not so deducted may be recovered from the Contractor or his sureties.

Moreover, if the Contractor fails to comply with such requisition within five days, the Board of Directors may declare the contract terminated and may itself proceed to complete the work herein specified or may engage any other person or persons to do the same. Upon the completion of such work, the said Board of Directors through its proper office or officers shall cause a statement to be made of the default of the Contractor as aforesaid, and in completing the work itself or by any other person or persons. Should the amount in such statement be more than the amount would have been due the Contractor upon the completion of the work by him, the difference shall be paid by the Contractor to District.

30. TERMINATION FOR CONVENIENCE OF THE DISTRICT

Notwithstanding any other provision of this contract, District may, at any time, and without cause, terminate this contract in whole or in part, upon not less than seven (7) days' written notice to CONTRACTOR. Such termination shall be affected by delivery to Contractor of a notice of termination specifying the effective date of the termination and the extent of the work to be terminated. Contractor shall immediately stop work in accordance with the notice and comply with any other direction as may be specified in the notice or as provided subsequently

by District. District shall pay Contractor for the work completed prior to the effective date of the termination, and such payment shall be Contractor's sole remedy under this contract. Under no circumstances will Contractor be entitled to anticipatory or unearned profits, consequential damages, or other damages of any sort as a result of a termination or partial termination under this paragraph. Contractor shall insert in all subcontracts that the subcontractor shall stop work on the date of and to the extent specified in a notice of termination, and shall require subcontractors to insert the same condition in any lower tier subcontracts.

31. MEASUREMENT AND PAYMENT

Attention is directed to Section 9, "Payment," of the Standard Specifications and these Special Provisions:

Payment for the various items of the Bid Schedule, as further specified herein, shall include all compensation to be received by the Contractor for furnishing all tools, equipment, supplies, and manufactured articles, and for all labor, operations, and incidentals appurtenant to the items of work being described, as necessary to complete the various items of work as specified and shown on the Drawings, including all appurtenances thereto, and including all costs of compliance with the regulations of public agencies having jurisdiction, including Safety and Health Requirements of the California Division of Industrial Safety. No separate payment will be made for any item that is not specifically set forth in the Bid Schedule, and all costs therefore shall be included in the prices named in the Bid Schedule for the various appurtenant items of work.

All pay line items will be paid for at the unit prices named in the Bid Schedule for the respective items of work. The quantities of work or material stated as unit price items on the Bid Schedule are supplied only to give an indication of the general scope of the Work; the District does not expressly nor by implication agree that the actual amount of work or material will correspond therewith, and reserves the right after award to increase or decrease the quantity of any unit price of any major item of work by an amount up to and including 25 percent of any major bid item, without a change in the unit price, and shall have the right to delete any bid item in its entirety, or to add additional bid items up to and including an aggregate total amount not to exceed 25 percent of the contract price.

Section 9-1.07 "Payment adjustments for price index fluctuations," is deleted.

(a) Force Account. Attention is directed Section 9-1.04 of the Standard Specifications and these Special Provisions.

Equipment rental rates shall be those rental rates applicable on contracts advertised by the State of California, Department of Transportation on the date of call for bids on this contract.

(b) Progress Payments. Attention is directed Section 9-1.16 of the Standard Specifications and these Special Provisions.

In lieu of Section 9-1.16F Retentions, the District will retain 5 percent (5%) of the value of all work done and 5 percent (5%) of the value of the materials so estimated to have been furnished and delivered and unused or furnished and stored as aforesaid as part security for the fulfillment

of the contract by the Contractor to the extent not inconsistent with Public Contract Code Section 20104.50; all such retentions being subject to the statutory requirements summarized below:

Public Contract Code Section 7107. Retention proceeds; withholding disbursement

The retention proceeds withheld by the District from the Contractor, or by the Contractor from any subcontractor are subject to PCC 7107 which generally provides that the District shall release retention within 60 days after the date of completion of the work of improvement and the Contractor shall release any retention withheld to its subcontractors within 10 days of receiving retention payment from the District.

Public Contract Code Section 22300. Performance retentions; provision for substitute security; escrow agreement

Except where prohibited by federal regulations, the Contractor may, at its own expense, substitute security for any money withheld by the District to ensure performance under the Contract in accordance with the provisions of PCC 22300. An escrow agreement used by the Contractor must be in substantially the form set forth under PCC 22300(f).

Public Contract Code Section 20104.50. Timely progress payments; legislative intent; interest; payment requests

This Contract is further subject to the provisions of Article 1.7 (commencing at Section 20104.50) of Division 2, Part 3 of the California Public Contract Code regarding prompt payment of Contractors by local governments. Article 1.7 mandates certain procedures for the payment of undisputed and properly submitted payment requests within 30 days after receipt, for the review of payment requests, for notice to the Contractor of improper payment requests, and provides for the payment of interest on progress payment requests which are not timely made in accordance with this Article. Should the District fail to make progress payments within 30 days after receipt of an undisputed and properly submitted payment request from the Contractor, the District shall pay interest to the Contractor equivalent to the legal rate set forth in CCP 685.010(a). This Contract hereby incorporates the provisions of Article 1.7 as though fully set forth herein.

(c) Claims. All claims under this contract shall be subject to the following statutory requirements reproduced and/or summarized below:

Public Contract Code Section 9204 Claim resolution process for claim by Contractor in connection with public works project.

(a) The Legislature finds and declares that it is in the best interests of the state and its citizens to ensure that all construction business performed on a public works project in the state that is complete and not in dispute is paid in full and in a timely manner.

(b) Notwithstanding any other law, including, but not limited to, Article 7.1 (commencing with Section 10240) of Chapter 1 of Part 2, Chapter 10 (commencing with Section 19100) of Part 2, and Article 1.5 (commencing with Section 20104) of Chapter 1 of

Part 3, this section shall apply to any claim by a Contractor in connection with a public works project.

(c) For purposes of this section:

(1) "Claim" means a separate demand by a Contractor sent by registered mail or certified mail with return receipt requested, for one or more of the following:

(A) A time extension, including, without limitation, for relief from damages or penalties for delay assessed by a public entity under a contract for a public works project.

(B) Payment by the public entity of money or damages arising from work done by, or on behalf of, the Contractor pursuant to the contract for a public works project and payment for which is not otherwise expressly provided or to which the claimant is not otherwise entitled.

(C) Payment of an amount that is disputed by the public entity.

(2) "Contractor" means any type of Contractor within the meaning of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code who has entered into a direct contract with a public entity for a public works project.

(3) (A) "Public entity" means, without limitation, except as provided in subparagraph (B), a state agency, department, office, division, bureau, board, or commission, the California State University, the University of California, a city, including a charter city, county, including a charter county, city and county, including a charter city and county, district, special district, public authority, political subdivision, public corporation, or nonprofit transit corporation wholly owned by a public agency and formed to carry out the purposes of the public agency.

(B) "Public entity" shall not include the following:

(i) The Department of Water Resources as to any project under the jurisdiction of that department.

(ii) The Department of Transportation as to any project under the jurisdiction of that department.

(iii) The Department of Parks and Recreation as to any project under the jurisdiction of that department.

(iv) The Department of Corrections and Rehabilitation with respect to any project under its jurisdiction pursuant to Chapter 11 (commencing with Section 7000) of Title 7 of Part 3 of the Penal Code.

(v) The Military Department as to any project under the jurisdiction of that department.

(vi) The Department of General Services as to all other projects.

(vii) The High-Speed Rail Authority.

(4) "Public works project" means the erection, construction, alteration, repair, or improvement of any public structure, building, road, or other public improvement of any kind.

(5) "Subcontractor" means any type of Contractor within the meaning of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code who either is in direct contract with a Contractor or is a lower tier subcontractor.

(d) (1)(A) Upon receipt of a claim pursuant to this section, the public entity to which the claim applies shall conduct a reasonable review of the claim and, within a period not to exceed 45 days, shall provide the claimant a written statement identifying what portion of the claim is disputed and what portion is undisputed. Upon receipt of a claim, a public entity and a Contractor may, by mutual agreement, extend the time period provided in this subdivision.

(B) The claimant shall furnish reasonable documentation to support the claim.

(C) If the public entity needs approval from its governing body to provide the claimant a written statement identifying the disputed portion and the undisputed portion of the claim, and the governing body does not meet within the 45 days or within the mutually agreed to extension of time following receipt of a claim sent by registered mail or certified mail, return receipt requested, the public entity shall have up to three days following the next duly publicly noticed meeting of the governing body after the 45-day period, or extension, expires to provide the claimant a written statement identifying the disputed portion and the undisputed portion.

(D) Any payment due on an undisputed portion of the claim shall be processed and made within 60 days after the public entity issues its written statement. If the public entity fails to issue a written statement, paragraph (3) shall apply.

(2)(A) If the claimant disputes the public entity's written response, or if the public entity fails to respond to a claim issued pursuant to this section within the time prescribed, the claimant 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 public entity shall schedule a meet and confer conference within 30 days for settlement of the dispute.

(B) 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 public entity shall provide the claimant 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 public entity 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 public entity and the claimant sharing the associated costs equally. The public entity and claimant shall mutually agree to a mediator within 10 business days after the disputed portion of the claim has been identified in writing. If the parties 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.

(C) 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.

(D) Unless otherwise agreed to by the public entity and the Contractor in writing, the mediation conducted pursuant to this section shall excuse any further obligation under Section 20104.4 to mediate after litigation has been commenced.

(E) This section does not preclude a public entity from requiring arbitration of disputes under private arbitration or the Public Works Contract Arbitration Program, if mediation under this section does not resolve the parties' dispute.

(3) Failure by the public entity to respond to a claim from a Contractor within the time periods described in this subdivision or to otherwise meet the time requirements of this section shall result in the claim being deemed rejected in its entirety. A claim that is denied by reason of the public entity's failure to have responded to a claim, or its failure to otherwise meet the time requirements of this section, shall not constitute an adverse finding with regard to the merits of the claim or the responsibility or qualifications of the claimant.

(4) Amounts not paid in a timely manner as required by this section shall bear interest at 7 percent per annum.

(5) If a subcontractor or a lower tier subcontractor lacks legal standing to assert a claim against a public entity because privity of contract does not exist, the Contractor may present to the public entity a claim on behalf of a subcontractor or lower tier subcontractor. A subcontractor may request in writing, either on their own behalf or on behalf of a lower tier subcontractor, that the Contractor present a claim for work which was performed by the subcontractor or by a lower tier subcontractor on behalf of the subcontractor. The subcontractor requesting that the claim be presented to the public entity shall furnish reasonable documentation to support the claim. Within 45 days of receipt of this written request, the Contractor shall notify the subcontractor in writing as to whether the Contractor presented the claim to the public entity and, if the original Contractor did not present the claim, provide the subcontractor with a statement of the reasons for not having done so.

(e) The text of this section or a summary of it shall be set forth in the plans or specifications for any public works project that may give rise to a claim under this section.

(f) A waiver of the rights granted by this section is void and contrary to public policy, provided, however, that (1) upon receipt of a claim, the parties may mutually agree to waive, in writing, mediation and proceed directly to the commencement of a civil action or binding arbitration, as applicable; and (2) a public entity may prescribe reasonable change order, claim, and dispute resolution procedures and requirements in addition to the provisions of this section, so long as the contractual provisions do not conflict with or otherwise impair the timeframes and procedures set forth in this section.

(g) This section applies to contracts entered into on or after January 1, 2017.

(h) Nothing in this section shall impose liability upon a public entity that makes loans or grants available through a competitive application process, for the failure of an awardee to meet its contractual obligations.

(i) This section shall remain in effect only until January 1, 2027, and as of that date is repealed, unless a later enacted statute that is enacted before January 1, 2027, deletes or extends that date.

Public Contract Code Section 20104 et seq. Resolution of Construction Claims.

This Contract is further subject to the provisions of Article 1.5 (commencing at Section 20104) of Division 2, Part 3 of the California Public Contract Code regarding the resolution of public works claims of less than $375,000. Article 1.5 mandates certain procedures for the filing of claims and supporting documentation by the Contractor, for the response to such claims by the District, for a mandatory meet and confer conference upon the request of the Contractor, for mandatory nonbinding mediation in the event litigation is commenced, and for mandatory judicial arbitration upon the failure to resolve the dispute through mediation. This Contract hereby incorporates the provisions of Article 1.5 as though fully set forth herein.

(d) Final Payment. Payment will be made in accordance with the provisions of Section 9-1.17 of the Standard Specifications provided however that in no event will the final payment be made within 35 calendar days after the filing of Notice of Completion.

32. MISCELLANEOUS PROVISIONS

(a) Licenses and Permits. Any and all licenses and permits required shall be provided by the Contractor and he shall abide by any and all Federal, State and County laws and rules affecting the work and shall maintain all required protection for property, employees and the public and insurance in connection with same, for all of which he shall bear necessary expense.

(b) Building Laws, etc. The Contractor shall conform to and abide by all County and State Building, Labor, Sanitary and Electrical Codes, Ordinances, Laws, Rules and Regulations. Such laws and regulations shall be considered a part of this Exhibit "A" as if set forth herein in full and the work and materials shall be in accordance therewith.

(c) Guarantees. All work performed and equipment or material furnished shall be guaranteed for one (1) year from date of acceptance against any inherent or developed defects of materials or

workmanship in manufacture or installations. All guarantees normally provided by manufacturers of equipment or material installed under this project shall be furnished to District and shall remain in force for their normal life.

(d) Ownership of Plans and Specifications. All drawings, specifications and copies thereof provided to Contractor by the District shall remain the property of the District and they shall not be used by the Contractor or its subcontractors on other work.

(e) Addenda. Any addenda or notices issued during the time of bidding and forming a part of the documents provided to the Bidder for the preparation of the Contractor's bid, shall be covered in the bid and shall be made a part of the contract. The Bidder shall acknowledge receipt of addenda in the space provided in the Proposal.

Should a bidder find apparent discrepancies in the drawings or documents, or should he be in doubts to their meaning, he should at once notify the District, which will send a written instruction to all bidders. District will not be responsible for oral instructions.

33. OWNER'S RIGHT TO DO WORK

District as Owner reserves the right to let other contracts in connection with this work. The Contractor shall afford other Contractors on the job site reasonable opportunity for introduction and storage of their materials and execution of their work and shall properly connect and coordinate his work with theirs.

If any part of the Contractor's work depends for proper execution or results upon work of any other Contractor, the Contractor shall inspect and promptly report to the Engineer any defects in such work that render it unsuitable for proper execution and results. His failure to so inspect and report shall constitute his acceptance of other Contractors' work as fit and proper for reception of his work, except as to defects which may develop in other Contractors' work after execution of his work.

To ensure proper execution of his subsequent work, the Contractor shall measure and inspect work already in place and shall at once report to the Engineer any discrepancy between executed work and contract documents.

The Contractor shall ascertain to his own satisfaction the scope of the project and nature of any other contracts that have been or may be awarded by owner in prosecution of the project to the end that the Contractor may perform this contract in the light of such other contracts, if any. Nothing herein contained shall be interpreted as granting to the Contractor exclusive occupancy at the site of project. The Contractor shall not cause any unnecessary hindrance or delay to any other Contractors working on project. If simultaneous execution of any contract for the project is likely to cause interference with performance of some other contract or contracts, the owner shall decide which Contractor shall cease work temporarily and which Contractor then shall continue or whether work can be coordinated so that the Contractors may proceed simultaneously.

34. EQUAL OPPORTUNITY EMPLOYMENT

During the performance of the Contract, the Contractor shall comply with all applicable laws, ordinances, regulations, and codes, including but not limited to, the following:

(a) Non-Discrimination. During the performance of the work required by the Contract, the Contractor and its subcontractors shall not deny the benefits thereof to any person on the basis of race, color, sex, sexual orientation, religion, age, ancestry or national origin, physical disability, medical condition, marital status, political affiliation, family and medical care leave, pregnancy leave, or disability leave. Contractor and its subcontractors will take affirmative action to ensure that employees are treated during employment without regard to their race, sex, sexual orientation, color, religion, ancestry, or national origin, physical disability, medical condition, marital status, political affiliation, family and medical care leave, pregnancy leave, or disability leave. Such action shall include, but not be limited to, the following: employment; upgrading; demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. Contractor and its subcontractors shall post in conspicuous places, available to employees for employment, notices provided by the State of California setting forth the provisions of this Fair Employment section. The Contractor shall ensure that the evaluation and treatment of employees and applicants for employment are free of such discrimination or harassment. In addition to the foregoing general obligations, the Contractor shall comply with the provisions of the Fair Employment and Housing Act (Government Code section 12900, et seq.), the regulations promulgated thereunder (Title 2, California Code of Regulations, section 7285.0, et seq.), the provisions of Article 9.5, Chapter 1, Part 1, Division 3, Title 2 of the Government Code (sections 11135-11139.5) and any state or local regulations adopted to implement any of the foregoing, as such statutes and regulations may be amended from time to time. To the extent this Contract subcontracts to the Contractor work required of the District by the State of California pursuant to agreement between the County and the State, the applicable regulations of the Fair Employment and Housing Commission implementing Government Code section 12990 (a) through (f), set forth in Chapter 5 of Division 4 of Title 2 of the California Code of regulations are expressly incorporated into this contract by reference and made a part hereof as if set forth in full, and the Contractor and any of its subcontractors shall give written notice of their obligations thereunder to labor organizations with which they have collective bargaining or other agreements.

(b) Documentation of Right to Work. The Contractor shall abide by the requirements of the Immigration and Control Reform Act pertaining to assuring that all newly-hired employees of the Contractor performing any of the work under the Contract have a legal right to work in the United States of America, that all required documentation of such right to work is inspected, and that INS Form 1-9 (as it may be amended from time to time) is completed and on file for each employee. The Contractor shall make the required documentation available upon request to the District for inspection.

(c) Inclusion in Subcontracts. To the extent any of the work to be performed by Contractor under the Contract is subcontracted to a third party, the Contractor shall include the provisions of (a) and (b), above, in all such subcontracts as obligations of the subcontractor.

35. RESERVED.

36. REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS BY CONTRACTOR.

Before starting each portion of the work, the Contractor shall carefully study and compare the Contract Documents relative to that portion of the work, shall take field measurements of any existing conditions related to that portion of the work and shall observe any conditions at the site affecting it. These obligations are for the purpose of facilitating construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents; however, any errors, inconsistencies, or omissions discovered by the Contractor shall be reported promptly to the Engineer as a request for information in such form as the Engineer may require.

Any design errors or omissions noted by the Contractor during this review shall be reported promptly to the Engineer, but it is recognized that the Contractor's review is made in the Contractor's capacity as a Contractor and not as a licensed design professional unless otherwise specifically provided in the Contract Documents. The Contractor is not required to ascertain that the contract Documents are in accordance with applicable laws, statutes, ordinances, building codes, and rules and regulations, but any nonconformity discovered by or made known to the Contractor shall be reported promptly to the Engineer.

37. SUPERVISION AND CONSTRUCTION PROCEDURES

(a) Supervision and Direction of Work. The Contractor shall supervise and direct the work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences and procedures and for coordinating all portions of the work under the contract, unless the Contract Documents give other specific instructions concerning these matters. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences or procedures, the Contractor shall evaluate the jobsite safety thereof and, except as stated below, shall be fully and solely responsible for the jobsite safety of such means, methods, techniques, sequences or procedures. If the Contractor determines that such means, methods, techniques, sequences or procedures may not be safe, the Contractor shall give timely written notice to the Engineer and shall not proceed with that portion of the work without further written instructions from the Engineer. If the Contractor is then instructed to proceed with the required means, methods, techniques, sequences or procedures without acceptance of changes proposed by the Contractor, the Owner shall be solely responsible for any resulting loss or damage.

(b) Responsibility of Work. The Contractor shall be responsible to the Owner for acts and omissions of the Contractor's employees, subcontractors, and their agents and employees, and other persons or entities performing portions of the work for or on behalf of the Contractor or any of its subcontractors.

(c) Subsequent Work. The Contractor shall be responsible for inspection of portions of work already performed to determine that such portions are in proper condition to receive subsequent work.

(d) Superintendent. The Contractor shall employ a competent superintendent and necessary assistants who shall be in attendance at the Project site during performance of the work. The superintendent shall represent the Contractor, and communications given to the superintendent shall be as binding as if given to the Contractor. Important communications shall be confirmed in writing. Other communications shall be similarly confirmed on written request in each case.

38. AUDITS/ACCOUNTING/RECORDS

The Contractor shall maintain financial accounts, documents, and records (collectively, "records") relating to this contract, in accordance with the guidelines of "Generally Accepted Accounting Principles" ("GAAP") published by the American Institute of Certified Public Accountants. The records shall include, without limitation, evidence sufficient to reflect properly the amount, receipt, deposit, and disbursement of all funds related to the construction of the project, and the use, management, operation and maintenance of the real property. Time and effort reports are also required. The Contractor shall maintain adequate supporting records in a manner that permits tracing from the request for disbursement forms to the accounting records and to the supporting documentation.

Additionally, the District or its agents may review, obtain, and copy all records relating to performance of the contract. The grantee shall provide the District or their agents with any relevant information requested and shall permit the District or their agents access to the Contractor's premises upon reasonable notice, during normal business hours, to interview employees and inspect and copy books, papers, accounting records, and other evidence that may be relevant to a matter under investigation for the purpose of determining compliance with this contract and any applicable laws and regulations.

The Contractor shall retain the required records for a minimum of three years following the later of final disbursement by the District, and the final year to which the particular records pertain. The records shall be subject to examination and audit by the District and the Bureau of State Audits during the retention periods.

If the Contractor retains any subcontractors to accomplish any of the work of this contract, the Contractor shall first enter into an agreement with each subcontractor requiring the subcontractor to meet the terms of this section and to make the terms applicable to all subcontractors.

39. INTERPRETATION; VENUE.

(a) Interpretation. The headings used herein are for reference only. The terms of the contract are set out in the text under the headings. This contract shall be governed by the laws of the State of California without regard to the choice of law or conflicts.

(b) Venue. This contract is made in Napa County, California. The venue for any legal action in state court filed by either party to this contract for the purpose of interpreting or enforcing any provision of this contract shall be in the Superior Court of California, County of Napa, a unified

court. The venue for any legal action in federal court filed by either party to this contract for the purpose of interpreting or enforcing any provision of this contract lying within the jurisdiction of the federal courts shall be the Northern District of California. The appropriate venue for arbitration, mediation or similar legal proceedings under this contract shall be Napa County, California; however, nothing in this sentence shall obligate either party to submit to mediation or arbitration any dispute arising under this contract.

40. SECTION OF THE 2023 SPECIAL PROVISIONS NOT APPLICABLE.

Section 5-1.09 "Partnering" and all of its subparts and Section 5-1.43 "Alternative Dispute Resolution" and all its subparts are hereby removed in their entirety and shall have no application apply to this contract.

41. FORCE MAJEURE

In the event the work is delayed due to causes which are outside the control of both parties and their subcontractors, consultants and employees, and could not be avoided by the exercise of due care, which may include, but is not limited to, delays by regulating agencies, wars, floods, adverse weather conditions, labor disputes, unusual delay in transportation, epidemics abroad, earthquakes, fires, terrorism, incidence of disease or illness that reaches outbreak, epidemic and/or pandemic proportions or otherwise affects the area in which the Project is located and the Contractor's labor or supply chain, unusual delay in deliveries, riots, civil commotion or other unavoidable casualties, and other acts of God, both parties will be entitled to an extension in their time for performance equivalent to the length of delay. Neither party will be entitled to compensation from the other for force majeure events.

EXHIBIT "B"

CALIFORNIA PREVAILING WAGE REQUIREMENTS

Pursuant to California Labor Code sections 1720 and 1771, construction, alteration, demolition, installation, repair and maintenance work performed under this contract is subject to State prevailing wage laws. State prevailing wage laws require certain provisions be included in all contracts for public works. The Contractor and any subcontractors shall comply with State prevailing wage laws including, but not limited to the requirements listed below.

1. Compliance with Prevailing Wage Requirements.

Pursuant to California Labor Code sections 1720 through 1861, the Contractor and all subcontractors shall ensure that all workers who perform work under this contract are paid not less than the prevailing rate of per diem wages as determined by the Director of the California Department of Industrial Relations (DIR). This includes work performed during the design, site assessment, feasibility study, and other preconstruction phases of construction, including but not limited to inspection and land surveying work, regardless of whether any further construction work is conducted, and work performed during the post-construction phases of construction, including but not limited to all cleanup work at the jobsite.

1.1. Copies of such prevailing rate of per diem wages are on file at the District and are available for inspection to any interested party on request. Copies of the prevailing rate of per diem wages also may be found at http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm. The Contractor and all subcontractors shall post a copy of the prevailing rate of per diem wages determination at each job site and shall make them available to any interested party upon request.

1.2. The wage rates determined by the DIR refer to expiration dates. If the published wage rate does not refer to a predetermined wage rate to be paid after the expiration date, then the published rate of wage shall be in effect for the life of this contract. If the published wage rate refers to a predetermined wage rate to become effective upon expiration of the published wage rate and the predetermined wage rate is on file with the DIR, such predetermined wage rate shall become effective on the date following the expiration date and shall apply to this contract in the same manner as if it had been published in said publication. If the predetermined wage rate refers to one or more additional expiration dates with additional predetermined wage rates, which expiration dates occur during the life of this contract, each successive predetermined wage rate shall apply to this contract on the date following the expiration date of the previous wage rate. If the last of such predetermined wage rates expires during the life of this contract, such wage rate shall apply to the balance of the contract.

2. Penalties for Violations.

The Contractor and all subcontractors shall comply with California Labor Code section 1775 in the event a worker is paid less than the prevailing wage rate for the work or craft in which the worker is employed. This shall be in addition to any other applicable penalties allowed under California Labor Code sections 1720 through 1861.

3. Payroll Records.

The Contractor and all subcontractors shall comply with California Labor Code section 1776, which generally requires keeping accurate payroll records, verifying and certifying payroll records, and making them available for inspection. The Contractor shall require all subcontractors to also comply with section 1776. The Contractor and all subcontractors shall furnish records specified in section 1776 on a monthly basis, both to the District and directly to the Labor Commissioner in the manner required by California Labor Code section 1771.4. The Contractor shall ensure its subcontractors prepare and submit payroll records to the District and the DIR as required by this section.

3.1. If the Contractor or a subcontractor is exempt from the DIR registration requirement pursuant to section 9.4 below, then the Contractor or such subcontractor is not required to furnish payroll records directly to the Labor Commissioner but shall retain the records for at least three years after completion of the work, pursuant to California Labor Code section 1771.4(a)(4).

3.2. The District may require the Contractor and its subcontractors to prepare and submit records specified in section 1776 to the District and the Labor Commissioner on a weekly basis, at no additional cost to the District.

4. Apprentices.

The Contractor and all subcontractors shall comply with California Labor Code sections 1777.5, 1777.6 and 1777.7 concerning the employment and wages of apprentices. The Contractor is responsible for compliance with this section for all apprenticeable occupations pursuant to California Labor Code section 1777.5(n).

5. Working Hours.

The Contractor and all subcontractors shall comply with California Labor Code sections 1810 through 1815, including but not limited to: (i) restrict working hours on public works contracts to eight hours a day and forty hours a week, unless all hours worked in excess of 8 hours per day are compensated at not less than 1½ times the basic rate of pay; and (ii) specify penalties to be imposed on Contractors and subcontractors of $25 per worker per day for each day the worker works more than 8 hours per day and 40 hours per week in violation of California Labor Code sections 1810 through 1815.

6. Required Provisions for Subcontracts.

The Contractor shall include, at a minimum, a copy of the following provisions in any contract they enter into with a subcontractor: California Labor Code sections 1771, 1771.1, 1775, 1776, 1777.5, 1810, 1813, 1815, 1860 and 1861.

7. Labor Code Section 1861 Certification.

In accordance with California Labor Code section 3700, the Contractor is required to secure the payment of compensation of its employees. By signing the contract, to which this is an exhibit, the Contractor certifies that:

"I am aware of the provisions of Section 3700 of the California 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."

8. Compliance Monitoring and Enforcement.

This project is subject to compliance monitoring and enforcement by the DIR. The District must withhold contract payments from the Contractor as directed by the DIR, pursuant to California Labor Code section 1727.

9. Contractor and Subcontractor Registration Requirements.

The Contractor and all subcontractors shall not be qualified to bid on, be listed in a bid or proposal, subject to the requirements of California Public Contract Code section 4104, or engage in the performance of any contract for public work, unless currently registered and qualified to perform public work pursuant to California Labor Code section 1725.5 It is not a violation of this section for an unregistered Contractor to submit a bid that is authorized by California Business and Professions Code section 7029.1 or California Public Contract Code sections 10164 or 20103.5, provided the Contractor is registered to perform public work pursuant to section 1725.5 at the time the contract is awarded.

9.1. A Contractor's inadvertent error in listing a subcontractor who is not registered pursuant to California Labor Code section 1725.5 in response to a solicitation shall not be grounds for filing a protest or grounds for considering the bid or proposal non-responsive provided that any of the following apply: (1) the subcontractor is registered prior to the proposal due date; (2) within 24 hours after the proposal due date, the subcontractor is registered and has paid the penalty registration fee specified in California Labor Code section 1725.5; or (3) the subcontractor is replaced by another registered subcontractor pursuant to California Public Contract Code section 4107

9.2. By submitting a bid or proposal to the District, the Contractor is certifying that the Contractor has verified that all subcontractors used on this project are registered with the DIR in compliance with California Labor Code sections 1771.1 and 1725.5. The Contractor shall provide proof of registration for themselves and all listed subcontractors to the District at the time of the bid or proposal due date or upon request.

9.3. The District may ask the Contractor for the most current list of subcontractors (regardless of tier), along with their DIR registration numbers, utilized on this project at any time during performance of this contract, and the Contractor shall provide the list within ten (10) working days of the District's request.

9.4. This section shall not apply to work performed on a public works project of twenty-five thousand dollars ($25,000) or less when the project is for construction, alteration, demolition, installation, or repair work or to work performed on a public works project of fifteen thousand dollars ($15,000) or less when the project is for maintenance work, pursuant to California Labor Code sections 1725.5(f) and 1771.1(n).

10. Stop Order.

Where a Contractor or subcontractor engages in the performance of any public work contract without having been registered in violation of California Labor Code sections 1725.5 or 1771.1, the Labor Commissioner must issue and serve a stop order prohibiting the use of the unregistered Contractor or subcontractor on ALL public works until the unregistered Contractor or subcontractor is registered. Failure to observe a stop order is a misdemeanor.

SPECIAL PROVISIONS - SECTION 'B'

GENERAL REQUIREMENTS

1. GENERAL

The Contractor shall take all reasonable precautions to restrict operations to the least area of work possible and to minimize interference with traffic along the County roads, and shall not disturb private property beyond the areas of work.

The Contractor shall provide access to private properties at all times.

The Contractor shall maintain continuous access to the United States Postal Service and emergency services. The Contractor shall notify the local postmaster and emergency services at least 48 hours before work will commence.

Personal vehicles of the Contractor's employees shall not be parked on the traveled way or shoulders, including any section closed to public traffic. Temporary "NO-STOPPING," "NO PARKING," and "TOW-AWAY" signs shall be posted by the Contractor upon authorization of the District.

Weekend work shall be approved in advance in writing by the Engineer.

The Contractor shall provide to the Engineer the names, address and telephone numbers of at least two emergency contacts for the duration of the contract.

2. GENERAL REQUIREMENTS

(a) LAYOUT OF WORK – The Contractor shall lay out the work as directed by the Project Manager in the field.

(b) TRAFFIC CONTROL PLAN – The Contractor shall prepare the Temporary Traffic Control Plan (TCP) for Engineers review and approval. The TCP shall be submitted to the Engineers at the preconstruction meeting and at the minimum shall include number and location of all Construction Area Signs, Temporary Traffic Control Signs including Portable Changeable Message Signs, number of flaggers, pilot cars, etc.

(c) SAFETY DATA SHEETS (SDS) – The Contractor shall provide SDS for each product used on site.

(d) PROTECTION OF EXISTING FACILITIES AND PROPERTY – Protection of existing facilities shall conform to Section 5-1.36, "Property and Facility Preservation," of the Standard Specifications and these Special Provisions.

The Contractor shall notify Underground Service Alert (USA) for marking the locations of existing underground facilities at least 2 working days, but not more than 14 calendar days, prior to performing any excavation or other work close to any underground pipeline, conduit, duct, wire or other structure.

Regional notification centers include but are not limited to the following:

Notification Center	Telephone Number
Underground Service Alert- Northern California (USA)	1-800-642-2444 or 811

The Contractor shall immediately notify the Project Manager of any facilities found that may interfere with work to be performed. The Contractor shall take all necessary measures to avoid injury to existing surface and underground utility facilities in and near the site of the work. If damage should occur to the existing facilities, the utility company and the District shall be notified immediately and repairs acceptable to the utility company shall be made at the Contractor's expense.

Existing trees, shrubs, and other plants, that are injured or damaged by reason of the Contractor's operations, shall be replaced by the Contractor.

(e) DAMAGES – The Contractor shall be responsible for any damages to existing facilities, utilities and roads due to causes attributable to the work, and all such damaged facilities, utilities and roads shall be repaired when directed by the Engineer and as required to place them in as good as condition as existed before commencement of the work.

(f) OWNER NOTIFICATION – The Contractor shall notify all property owners and business affected by the project's work at least 48 hours before work is to begin. The notice shall be in writing, placed on doors, and shall indicate the Contractor's name and phone number, type of work, day(s) and time when work will occur. Notice shall be reviewed and approved by the Engineer prior to being sent.

(g) EMERGENCY SERVICE PROVIDERS NOTIFICATIONS – The Contractor shall furnish the name and phone number of a representative that can be contacted in the event of an emergency. Said information shall be reported to the County Sheriff dispatcher, and updated as required to provide 24-hour phone access.

(h) PUBLIC SAFETY –The Contractor shall at all times conduct his work in accordance with Construction Safety Orders of the Division of Industrial Safety, State of California, to insure the least possible obstruction to traffic and inconvenience to the general public, and adequate protection of persons and property in the vicinity of the work.

No access way shall be closed to the public without first obtaining permission from the Engineer.

The Contractor shall furnish, erect and maintain all lights, signs, barricades and barriers necessary to give adequate warning to the public at all times and shall provide such guards as may be necessary to prevent accidents and avoid damage and injury.

Should the Contractor fail to provide public safety as specified or if, in the opinion of the Engineer, the warning devices furnished by the Contractor are not adequate, the District may

place any warning lights or barricades or take any necessary action to protect or warn the public of any dangerous condition connected with the Contractor's operations and the Contractor shall be liable to the District for all costs incurred plus 100%.

Nothing in this section shall be construed to impose tort liability on the District or Engineer. Full compensation for conforming to the requirements of this section shall be considered as included in the contract prices paid for the various contract items of work and no additional compensation will be allowed.

(i) WATER FOR CONSTRUCTION – Construction water shall conform to Section 10-6, "Watering," of the Standard Specifications and these Special Provisions.

Water for construction activities shall be provided by the Contractor. The Contractor shall contain all water within the limits of the project and prevent discharge to adjacent wetland, ditches, creeks and other facilities.

(j) EXISTING UTILITIES – The Contractor shall notify all utility companies and request field location markings of existing facilities prior to commencing construction. Where potential conflict with existing underground utilities may constitute a safety hazard or interfere with the progress of work, such facilities shall be hand-excavated to determine their precise location. Contractor shall be liable for damages to all utilities whether so located and marked or not.

It is not the intent of the Plans to show the exact location or extent of existing underground utilities or structures, and the Engineer assumes no responsibility therefor. It is the Contractor's responsibility to verify all existing utility locations and notify the Engineer in case of conflict.

(k) COOPERATION – The Contractor shall cooperate with the occupants of the existing facilities adjacent to the project and coordinate the work in such a manner as to minimize the disruption to the existing facilities.

(l) SAFETY – The Contractor shall comply with all the applicable provisions of the United States Department of Labor Occupational Safety and Health Act (OSHA), State of California Division of Industrial Safety, Title 8, Safety Orders (Cal-OSHA) and any other applicable codes and regulations.

If, in the opinion of the Engineer, any operation or piece of equipment that is observed by the Engineer appears to be unsafe, the Engineer may immediately halt that portion of the work until the hazard is corrected to the satisfaction of the Engineer and no time extension or additional compensation shall be granted for the time lost due to said halting of the work.

(m) DISPOSITION OF REMOVED MATERIALS – Attention is directed to Section 15 "Existing Facilities" of the standard specifications, Section 30 "Reclaimed Asphalt Pavement" of these special provisions, and other relevant sections of these special provisions. The Contractor shall be responsible for the disposal of all surplus excavation materials off the site. The Contractor shall not dispose of any materials from demolition or removal by sale, gift or

in any manner whatsoever, to the general public at the site. Disposal operations shall comply with all applicable laws and ordinances and must be approved by the Engineer.

(n) CONSTRUCTION LIMITATIONS – The Contractor will be expected to conduct his operations in a manner which creates minimum damage to the natural vegetation and landscaping, paving and gravel areas. Care shall be exercised to avoid hazards that may cause injury to persons, animals or property either during working hours or after work hours, which will include dust control, backfilling trenches or placement of steel plates and temporary fencing as required. Equipment will be restricted to the immediate area of construction and trenches will be backfilled as soon as possible.

Receptacles for construction residue, including oil, cleaning fluids and litter, will be covered. Such residues will be disposed of in a proper manner.

Mufflers and/or baffles will be required on all construction equipment.

Construction activity within the existing right-of-way will be scheduled to minimize traffic inconvenience and safety hazards to motorists, pedestrians and cyclists

(o) CLEAN UP – Clean up shall be performed to prevent accidents to personnel, protect all work in place, and to effect completion of the project in an orderly manner. Excess debris shall be removed from the work area immediately so as not to clutter the existing facilities. Access to all other properties within the project area shall be unobstructed and passable between the hours of 5:00 p.m. and 7:00 a.m. weekdays, on weekends and holidays, and whenever work is not actively in progress.

(p) EQUIPMENT – Standard construction equipment shall be used and shall be maintained in a safe and satisfactory condition at all times and in compliance with the latest provisions of the CAL/OSHA regulations. All trucks and other heavy equipment shall be well maintained and in proper working order and in compliance with all applicable laws and regulations.

(q) WORKING HOURS REQUIREMENTS – Normal work week shall be **Monday through Friday 7:00 am to 5:00 pm** unless otherwise approved by the Project Manager.

(r) SCOPE – Contractor shall take into account all costs associated with the improvements as discussed in the technical specifications, when preparing the bid and shall take into account the working hour restrictions.

(s) Full compensation for conforming to the requirements of this section shall be considered as included in the contract prices paid for the various contract items of work and no additional compensation will be allowed.

3. ORDER OF WORK

Order of work shall conform to these Special Provisions.

The Contractor shall prepare and submit a work plan and schedule in accordance with Section 8, "Prosecution and Progress," of the Standard Specifications and in a form provided by, or acceptable to, the Engineer and submit information describing the Contractor's proposed procedures and methods of operation.

No work may begin under the contract until the schedule and description of proposed procedures and methods of operation material have been approved by the Engineer. Time required for review and approval of these items shall not constitute a basis for time extension.

The Contractor shall verify the location of all existing utilities.

No work may begin under the contract until traffic control and construction signage is implemented. Attention is directed to the time requirements of Section 7 "Construction Area Signs" and Section 8 "Maintaining Traffic" of these Special Provisions.

The Contractor shall order work to minimize obstruction to adjacent property owners and inconvenience to the traveling public. The Contractor will coordinate with the District and establish traffic control and implement work in a manner which provides the greatest possible access to the property owners adjacent to the work area.

Full compensation for complying with the above provisions shall be considered as included in the contract price for the various bid items, and no separate payment will be made.

4. MOBILIZATION

Mobilization shall conform to the Special Provisions and shall include but not limited to securing bonds, insurance, construction fencing, office trailers, temporary sheds, temporary utilities, temporary facilities, equipment and supplies, mobilization and demobilization, and all preparatory work prior to the commencement of productive work at the site required under this contract.

Full compensation for conforming to the provisions of this section shall be considered as included in the contract lump sum price under "Mobilization" and no additional compensation will be allowed therefore.

5. SUBMITTALS

Attention is directed to Section 5-1.23 "Submittals," of the Standard Specifications and these Special Provisions. The Contractor shall submit products or materials list, specifications and schedule at the pre-construction meeting. The Contractor shall submit for the Engineer's approval, six cut sheets for all of the products and materials to be used for all work on the project. The cut sheets submitted by the Contractor shall clearly describe how the proposed products or materials meet the specifications of the products and materials requested in the project specifications.

Submit at Contractor's expense, in six (6) sets, Schedule of Shop Drawing and Sample Submittals, Safety Plans, Progress Schedule, Product Data, Shop Drawings, Samples, Substitution Requests, Quality Control Plan, Temporary Traffic Control Plan, Operations and Maintenance Manuals,

Warranties, and Project Record Documents, and all other submittals required by the Contract Documents.

Submit these submittals to Engineer, for review and approval in accordance with accepted schedule of Shop Drawings and Samples submittals. All Shop Drawing, Samples and product data submittals shall be submitted to and approved by the Engineer prior to ordering of material or commencement of work. The Engineer shall be given adequate time for review of submittals.

6. SUBSTITUTION OF MATERIALS AND PRODUCTS

All substitution requests and submittals must be made in writing and be submitted to and approved by the Engineer prior to ordering of material or commencement of work. Submittals shall be made in accordance with the above section.

7. CONSTRUCTION AREA SIGNS

Construction area signs will be provided by the Contractor. Contractor shall coordinate with the Project Manager on construction area signs and submit for Project Manager's review and approval at the pre-construction meeting.

No traffic control or construction area sign shall obstruct bicycle lanes.

Full Compensation for Construction Area Signs will be included in the Contract Lump Sum paid for Temporary Traffic Control and no additional compensation will be allowed therefore.

8. MAINTAINING TRAFFIC

Traffic on the Napa Sanitation Access Road shall be maintained at all times except as necessary to perform the Work within the Road area; closures are subject to the Work Plan and as approved by the Engineer.

9. TRAFFIC CONTROL SYSTEMS FOR LANE CLOSURES

RESERVED

10. STORM WATER POLLUTION PREVENTION MEASURES

Contractor shall comply with all Storm Water Pollution Prevention requirements as required by the Regional Water Quality Control Board and Napa County. The Contractor shall implement water quality control measures to effectively handle storm water run-off both during and after construction. The Contractor shall utilize best management practices as directed by the Engineer and as specified in these Special Provisions.

Full compensation for complying with the above provisions shall be considered as included in the contract price for the various bid items, and no separate payment will be made.

11. PRESERVATION OF PROPERTY

Preservation of property shall conform to the provisions of Section 5-1.36, "Property and Facility Preservation," of the Standard Specifications and of these Special Provisions.

The Contractor shall examine the site and have full knowledge of the conditions and difficulties to be met. No variations or allowance from the contract sum will be made because of lack of knowledge or investigation.

The Contractor shall provide the necessary safeguards, shall exercise caution against injury or defacement of existing improvements and plantings and shall be responsible for the damage resulting from operations. Repair or replacement of such damage shall be at no cost to the District.

No vehicles, construction equipment, materials or facilities shall be parked, stockpiled or located within the protected perimeter of the trees. No storage or dumping of oil, gasoline, chemicals or other substances potentially harmful to trees shall occur within the protection perimeter of trees.

When it is necessary to excavate adjacent to existing trees, shrubs or hedges, the Contractor shall use all possible care to avoid injury to the trees, shrubs or hedges and their roots. Roots two (2) inches or larger in diameter shall not be cut without the express approval of the District. All roots two (2) inches in diameter and larger left in place shall be wrapped with burlap to prevent scarring and excessive drying. Significant roots that are encountered during the excavation process must be cleanly cut to remove them from the tree and not ripped from the ground with excavation equipment. Cut roots should be covered with a 2- inch layer of mulch, soil or wet burlap bags to preserve future growth integrity. No significant roots are to remain exposed.

The Contractor shall take all necessary measures to avoid injury to existing surface and underground utility facilities in and near the site of the work. No error or omission of utility markouts shall be construed to relieve the Contractor from his responsibility to protect all underground pipes, conduits, cables or other structures. The Contractor shall indemnify the District and hold it harmless from any and all claims, demands, or liability made or asserted by any person or entity on account of or in connection with any damage to such surface or underground facilities caused by the Contractor or any of his agents or subcontractors.
The existing underground facilities in the area of work may include telephone, television and electrical cables, gas mains, water mains, sewer mains and drainage conduits. The various utility companies shall be notified before trenching begins and at such other times as required to protect their facilities. Underground facilities shall be located and exposed ahead of trenching to prevent damage to the facilities, and to determine the depth and character of all facilities that cross or infringe on the trench prism. The Contractor shall immediately notify the Engineer of any facilities found. If damage should occur to the existing facilities, the utility company and the Engineer shall be notified immediately and repairs acceptable to the utility company shall be made at the Contractor's expense.

Existing trees, shrubs, and other plants, that are injured or damaged by reason of the Contractor's operations, shall be replaced by the Contractor at their own expense.

Full compensation for conforming to the requirements of this section shall be considered as included in the contract prices paid for the various contract items of work and no additional compensation will be allowed.

12. DUST CONTROL

Dust control shall conform to the provisions in Section 14-11.04, "Dust Control," of the Standard Specifications and these Special Provisions.

During the performance of the work called for under these Specifications, or any operations appurtenant thereto, the Contractor shall furnish all labor, equipment and means required, and as often as necessary, to prevent his operations from producing dust in amounts damaging to property or causing a nuisance to persons living nearby or occupying buildings in the vicinity.

Full compensation for conforming to the requirements of this section shall be considered as included in the contract prices paid for the various contract items of work and no separate payment will be made for work performed or material used to control dust resulting from the Contractor's performance of the work, either inside or outside the right of way.

13. DISPOSAL OF SURPLUS MATERIAL

Attention is directed to Section 17-2, "Clearing and Grubbing" and "Section 19, "Earthwork", of the Standard Specifications and the various sections of these Special Provisions. The Contractor shall load, haul from the site of work and properly dispose of all surplus excavated material including, but not limited to, rock, concrete and soil prior to the beginning of any earthwork, the Contractor shall make all arrangements for disposal of the surplus material at offsite locations and shall file with the owner the written consent of the owner of the property upon which disposal of surplus material is intended.

Full compensation for conforming to the requirements of this section shall include the removal and disposal of all material required to accomplish the work and shall be considered as included in the contract prices paid for the various contract items of work and no additional compensation will be allowed.

14. EXECUTION

(a) Soil - Soil can be excavated with dozers and excavators as need be.

(b) Removal Of Asbestos And Hazardous Substances

When the presence of asbestos or hazardous substances are not shown on the plans or indicated in the specifications and the Contractor encounters materials which the Contractor reasonably believes to be asbestos or a hazardous substance as defined in Section 25914.1 of the Health and Safety Code, and the asbestos or hazardous substance has not been rendered harmless, the Contractor may continue work in unaffected areas reasonably believed to be safe. The Contractor shall immediately cease work in the affected area and report the condition to the Engineer in writing.

In conformance with Section 25914.1 et seq. of the Health and Safety Code, removal of asbestos or hazardous substances including exploratory work to identify and determine the extent of the asbestos or hazardous substance will be performed by separate contract.

If delay of work in the area delays the current controlling operation, the delay will be considered a right of way delay and the Contractor will be compensated for the delay in conformance with the provisions in Section 8-1.07, "Delays," of the Standard Specifications.

(c) Subcontracting

No subcontract releases the Contractor from the contract or relieves the Contractor of their responsibility for a subcontractor's work.

If the Contractor violates Public Contract Code § 4100 et seq., DISTRICT may exercise the remedies provided under Public Contract Code § 4110. DISTRICT may refer the violation to the Contractors State License Board as provided under Public Contract Code § 4111.

The Contractor shall perform work equaling at least 30 percent of the value of the original total bid with the Contractor's own employees and equipment, owned or rented, with or without operators.

Each subcontract must comply with the contract.

Each subcontractor must have an active and valid State Contractor's license with a classification appropriate for the work to be performed (Bus & Prof Code, § 7000 et seq.).

Submit copies of subcontracts upon request by the Project Manager.

Before subcontracted work starts, submit a Subcontracting Request form.

Do not use a debarred Contractor; a current list of debarred Contractors is available at the Department of Industrial Relations' Web site.

Upon request by the Project Manager, immediately remove and not again use a subcontractor who fails to prosecute the work satisfactorily.

Each subcontract and any lower tier subcontract that may in turn be made shall include the "Required Contract Provisions Federal-Aid Construction Contracts" in Section 14 of these special provisions. Noncompliance shall be corrected. Payment for subcontracted work involved will be withheld from progress payments due, or to become due, until correction is made. Failure to comply may result in termination of the contract.

(d) Prompt Payment of Funds to Subcontractors

The prime Contractor or subcontractor shall pay to any subcontractor the respective amounts allowed the Contractor on account of the work performed by the subcontractors, to the extent of each subcontractor's interest therein, not later than seven (7) days after receipt of each progress payment pursuant to California business and professions Code Section 7108.5. The

District shall hold retainage from the prime Contractor and shall make prompt and regular incremental acceptances of portions, as determined by the District, of the contract work, and pay retainage to the prime Contractor based on these acceptances. The prime Contractor, or subcontractor, shall release all monies withheld in retention from a subcontractor within seven (7) days after receiving payment of retention from the District to the extent of each subcontractor's interest therein, pursuant to Public Contract Code section 7107(d). These requirements shall not be construed to limit or impair any contractual, administrative, or judicial remedies otherwise available to the prime Contractor or subcontractor in the event of a dispute involving late payment or nonpayment by the prime Contractor, deficient subcontract performance, or noncompliance by a subcontractor.

15. REDUCE WILDLAND FIRE HAZARDS DURING CONSTRUCTION

Prior to construction, the Contractor(s) shall remove and/or clear away dry, combustible vegetation from the construction site and staging areas. Grass and other vegetation less than 18 inches in height above the ground may be maintained where necessary to stabilize the soil and prevent erosion outside the active construction zone. Vehicles shall not be parked in areas where exhaust systems contact combustible materials. Fire extinguishers shall be available on the construction site to assist in quickly extinguishing any small fires, and the Contractors shall have on site the phone number for the local fire department.

SPECIAL PROVISIONS - SECTION 'C'

TECHNICAL SPECIFICATIONS

1. MOBILIZATION [10]

PART 1 – GENERAL

1.01 DESCRIPTION

A. Mobilization shall conform to Section 10 "General" of the Standard Specifications and these Special Provisions.

B. Paving work is expected to occur during favorable weather conditions.

C. Mobilization shall consist of the following work:

1. Bonds and Insurance.
2. Mobilization of materials and equipment to the site.
3. Provide all temporary facilities and construction utilities.
4. Obtaining any necessary permits
5. Coordination and any other items required to complete the construction not otherwise measured and paid for.
6. Demobilization of all of materials and equipment from the site.
7. As-Built Drawings – Redline Standard
8. On-going and final site clean-up.

PART 2 – PRODUCTS – NOT USED

PART 3 – EXECUTION

3.01 MOBILIZATION AND DEMOBILIZATION

A. The Contractor shall inspect the site to observe actual field conditions prior to bidding the project.

B. Mobilization shall also include finish work and operations, (demobilization) including, but not limited to, removal of personnel, equipment, supplies and incidentals from the project site and clean-up of the project site. The Contractor shall not demobilize equipment from the site until the project is accepted as complete, unless directed otherwise in writing by the Engineer.

C. Mobilization shall also include preparation of all necessary permits, submittals, notifications and other documentation necessary for the performance and completion of the work.

3.02 PERMITS AND REGULATIONS

A. The Contractor shall obtain all other permits required for the performance of the

work.

B. The Contractor shall comply with all dust control requirements in Section 10-5, "Dust Control," of the Standard Specifications and comply with Bay Area Air Quality Management District (BAAQMD) guidelines.
C. The contractor shall comply with County of Napa's and Regional Water Quality Control Boards Erosion and Sediment Control Best Management Practices (BMP)
D. Cultural and Prehistoric Resources - The Contractor shall (1) suspend work in the area and (2) notify the Engineer immediately, if evidence of any of the following are items encountered during performance of the Work:

    1. Archaeological artifacts
    2. Fossils
    3. Human remains

3.03 PROTECTION OF EXISTING PROPERTY AND CONDITIONS

A. Protection of Work and Property:

    1. Confine the storage of materials and workmen's operations to the limits established on the Contract Documents and by law, permits, and/or directions of the Engineer. Do not unreasonably encumber the premises with materials.
    2. Contractor is responsible for the protection and preservation of all materials and equipment located on the construction site.
    3. Provide watchman services as may be deemed necessary to safeguard properly all materials, tools, appliances, and work. The DISTRICT will not assume any responsibility for the loss of or damage to materials, tools, appliances, or work arising from acts of theft, vandalism, malicious mischief, or other causes which may occur during or after working hours.
    4. Contractor shall promptly comply with all reasonable requests of the Engineer to protect the site.
    5. Repair or replace all work performed or materials, supplies, or equipment furnished which may be damaged or lost by any cause, during the construction of the project, other than acts of God, to the satisfaction of the Engineer. Costs for such repairs or replacement shall be considered as part of the unit cost for all working being performed and is not eligible for additional reimbursement.

B. Contractor shall be responsible for all damage to all roads, existing vegetation, existing buildings, utilities and other property and improvements resulting from the contractor's use and shall repair all damage resulting from such use to the satisfaction of the Engineer and at no cost to District.
C. Contractor's Staging Area: Store construction materials and equipment within boundaries of designated staging and storage areas approved by the Engineer.
D. Tree and Plant Protection:

    1. Do not store materials or equipment or operate or park equipment under the branches of any existing plant to remain except as actually required for

construction in those areas.

2. Provide barricades, fences, or other barriers as necessary at the drip line to protect existing plants and trees from damage during construction.
3. Notify Engineer where Contractor feels grading or other construction called for by Contract Documents may damage existing plants/trees to remain.
4. If existing plants to remain are damaged during construction, Contractor shall replace such plants with others of the same species and size as those damaged or as directed by Engineer, at no cost to the DISTRICT.

3.04 EXISTING UTILITIES

A. The Contractor shall identify, locate, and protect all existing utilities within the limits of work, including onsite and offsite access routes.
B. The location of existing utilities and underground facilities known to the DISTRICT are shown or mentioned in plan notes in their approximate location based on information available at the time of preparing the Contract Documents. The actual location, size, type and number of utilities and underground facilities may differ from that shown, and utilities or underground facilities present may be present that are not shown.
C. Obtain from the respective agencies the best available current information on location, identification and marking of existing utilities, piping and conduits and other underground facilities before beginning any excavation. Call Underground Service Alert at 800-642-2444 for information at least 48 hours in advance of beginning work.
D. The Contractor will have to coordinate location, connection points for construction power, water, communication etc., with respective utility.

3.05 ACCESS TO THE PROJECT SITE

A. Access to the site is over public roads. Exercise care in the use of such roads and repair any damage to the satisfaction of the DISTRICT or agency having jurisdiction over the road.
B. Under no circumstances shall the Contractor use any other private roads that are not designated for access.
C. Do not track mud onto private or public roads. The Contractor shall employ a street sweeper as needed to keep all paved surfaces free of tracked mud or dirt.

PART 4 – MEASUREMENT AND PAYMENT

A. The contract lump sum price paid under “Mobilization” shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in mobilization/demobilization as specified herein and conforming to the provisions of this section and no additional compensation will be allowed, therefore.

2. TEMPORARY TRAFFIC CONTROL [12]

PART 1 - GENERAL

1.01 SUMMARY OF WORK

A. This section includes specifications for all Temporary Traffic Control required for the project and shall include and not be limited to: temporary traffic signal and lighting system, construction area signs, flagging, placing and installing temporary traffic-handling equipment and devices, maintaining traffic, placing and installing temporary traffic control systems, and placing temporary pavement delineation, etc..

B. Temporary Traffic Control shall conform to Section 12, “Temporary Traffic Control” of the Standard Specifications and these Special Provisions. Temporary Traffic Control must also comply with Part 6, "Temporary Traffic Control," of the *California MUTCD*.

C. The Contractor shall inspect the site to observe actual field conditions prior to bidding the project.

D. The Contractor is responsible shall coordinate with the DISTRICT in obtaining any required encroachment permits from other agencies including associated fees and preparation of plans at no cost to the DISTRICT.

E. The Contractor shall furnish all labor, materials and equipment necessary to complete the work as shown on the Plans and to maintain the temporary traffic control and signal system in full time operation for the duration of the construction work requiring single lane traffic control, as specified in these Special Provisions of the Specifications, and in strict accordance with the conditions of the Contract. All incidental work not shown on the Plans or specified herein which is necessary to complete the work necessary to provide and maintain the system described, or shown, shall be furnished and installed as part of this contract at no additional cost.

F. Construction Area Signs shall conform to Section 12-3.11, “Construction Area Signs” of the Standard Specifications and these Special Provisions.

1.02 SUBMITTALS

A. The traffic control plan shall be submitted for approval at or before the preconstruction meeting.

1.03 WARRANTIES, GUARANTEES, AND INSTRUCTION SHEETS

A. The Contractor shall be responsible for all work and materials and/or equipment installed under these Plans and Specifications.

PART 2 – PRODUCTS

2.01 MATERIALS

A. All temporary traffic control shall conform to Section 12-3.01B, "Materials" of the Standard Specifications.

PART 3 – EXECUTION

3.01 INTERRUPTION OF EXISTING UTILITIES

A. The Contractor shall not cause any utility interruption. Plan and coordinate any utility interruption with the utility provider and the Engineer.

3.02 REGULATIONS AND CODE

A. All work and materials shall conform to the latest codes, rules and regulations of the following:

(a) State codes and ordinances
(b) Local City and/or County ordinances
(c) National Electrical Code
(d) Uniform Building Code

B. Nothing in these Specifications is to be construed to permit work not conforming to the above; expense for compliance with the above shall be paid for by the Contractor. Whenever the Plans and Specifications require higher standards or larger sizes than those required by the Ordinances and Statutes, the Plans and Specifications shall take priority.

C. The Contractor shall have Special Dispensation from the California Occupational Safety and Health Administration to conduct operations no closer than 6 feet, but within 10 feet, of a high voltage line prior to any work in these areas.

3.03 TEMPORARY PAVEMENT DELINEATIONS

A. Whenever work activities obliterate pavement delineation, place temporary or permanent pavement delineation before opening the traveled way to traffic. Place centerline pavement delineation for traveled ways open to traffic.

B. Establish the alignment for temporary pavement delineation, including required lines or markers. Surfaces to receive an application of paint or removable traffic tape must be dry and free of dirt and loose material. Do not apply temporary pavement delineation over existing pavement delineation or other temporary pavement delineation. Maintain temporary pavement delineation until it is superseded or you replace it with a new striping detail of temporary pavement delineation or permanent pavement delineation.

C. Place temporary pavement delineation on or adjacent to lanes open to traffic for a maximum of 14 days. Before the end of the 14 days, place the permanent pavement delineation. If the permanent pavement delineation is not placed within the 14 days, replace the temporary pavement markers with additional temporary pavement delineation equivalent to the striping detail specified for the permanent pavement

delineation for the area. The DISTRICT does not pay for the additional temporary pavement delineation.

D. When the Engineer determines the temporary pavement delineation is no longer required for the direction of traffic, remove the markers, underlying adhesive and removable traffic tape from the final layer of surfacing and from the existing pavement to remain in place. Remove temporary pavement delineation that conflicts with any subsequent or new traffic pattern for the area.

E. Temporary Lane Line and Centerline Delineation

1. Whenever lane lines or centerlines are obliterated, the minimum lane line and centerline delineation must consist of temporary pavement markers placed longitudinally at intervals not exceeding 24 feet. The temporary pavement markers must be temporary pavement markers on the Authorized Material List for short-term day or night use, 14 days or less, or long-term day or night use, 180 days or less. Place temporary pavement markers under the manufacturer's instructions. Cement the markers to the surfacing with the adhesive recommended by the manufacturer, except do not use epoxy adhesive to place pavement markers in areas where removal of the markers will be required.

2. For temporary lane line or centerline delineation consisting entirely of temporary pavement markers, place the markers longitudinally at intervals not exceeding 24 feet.

F. Temporary Edge Line Delineation

1. Whenever edge lines are obliterated on multilane roadways, freeways, and expressways, place edge line delineation for that area adjacent to lanes open to traffic consisting of (1) solid, 4-inch wide traffic stripe tape of the same color as the stripe being replaced, (2) traffic cones, (3) portable delineators or channelizers placed longitudinally at intervals not exceeding 100 feet. You may apply temporary painted traffic stripe where removal of the 4-inch wide traffic stripe will not be required.

2. The Engineer determines the lateral offset for traffic cones, portable delineators, and channelizers used for temporary edge line delineation. If traffic cones or portable delineators are used for temporary pavement delineation for edge lines, maintain the cones or delineators during hours of the day when the cones or delineators are being used for temporary edge line delineation.

3. Channelizers used for temporary edge line delineation must be an orange surface-mounted type. Cement channelizer bases to the pavement as specified in section 85 for cementing pavement markers to pavement except do not use epoxy adhesive to place channelizers on the top layer of the pavement. Channelizers must be one of the 36-inch, surface-mounted types on the Authorized Material List.

4. Remove the temporary edge line delineation when the Engineer determines it is no longer required for the direction of traffic.

3.04 CONSTRUCTION AREA SIGNS

A. Construction Area Signs shall conform to Section 12-3.11C, "Construction" of the Standard Specifications.

3.05 MAINTENANCE OF ACCESS

A. One lane shall be kept open to public traffic at all times, except where full closures are expressly allowed by the County in the Encroachment Permit. Full lane closures will require a five (5) working day notice to the County and 72 hour notice to affected properties. Partial lane closures will require a 72 hour notice to the County and affected properties.
B. The full width of the usable roadway shall be available to public traffic when work is not actively in progress.
C. Contractor shall provide reasonable accommodations to residents impacted by Work. The Engineer will maintain strict conformance to the working hours. The Contractor shall not start road resurfacing activities within one (1) hour of the end of the working day, or as otherwise directed by the Engineer. The last truck hauling HMA shall not leave the asphalt plant less than two (2) hours before the end of the working hours. The Engineer has the authority to reject any trucks arriving within one (1) hour of the end of the working hours.

PART 4 – MEASUREMENT AND PAYMENT

A. The contract lump sum price for "Temporary Traffic Control" shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for performing all the work involved, including flagging, as shown on the plans and as specified in these Special Provisions, the Standard Specifications, and as directed by the Engineer and no additional compensation will be allowed.

3. EXISTING FACILITIES [15]

PART 1 - GENERAL

1.01 SUMMARY OF WORK

A. Removal of asphalt concrete pavement and cold planing shall conform to the Standard Specifications and these Special Provisions.

B. Performing work on and protection of existing facilities, shall conform to Section 15 “Existing Facilities” of the Standard Specifications and these Special Provisions.

C. Preparation of exposed material under removed asphalt shall be per the recommendations of the project Geotechnical Study prepared by RGH Consultants, attached to these special provisions.

PART 2 – PRODUCTS – NOT USED

PART 3 – EXECUTION

A. Cold Planing Asphalt Concrete Pavement shall comply with the requirements of Section 39-3.04 “Cold Planning Asphalt Concrete Pavement" of the Standard Specifications and these Plans and Special Provisions.

1. Once cold planning begins all areas cold planed must be filled by the end of the working day. Traffic will not be allowed to drive on cold planed areas until they have been filled.
2. If a situation arises where the paving cannot be completed during the shift, get concurrence and authorization from the engineer. In this case you must:
    a. Construct a temporary HMA taper to the level of the existing pavement. Use the same quality of HMA for temporary tapers that is used for the HMA overlay or comply with the specifications for HMA in Section 39 of the Standard Specifications.
    b. Place HMA during the next work shift
    c. Signage provided per plan.
3. Do not use a heating device to soften the pavement.
4. The cold planing machine must be:
    a. Equipped with a cutter head width that matches the planing width. If the cutter head width is wider than the cold plane area shown, submit to the Engineer a request for using a wider cutter head. Do not cold plane unless the Engineer approves your request.

b. Equipped with automatic controls for the longitudinal grade and transverse slope of the cutter head and:

c. 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.

d. 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.

e. Equipped to effectively control dust generated by the planing operation

f. Operated so that no fumes or smoke is produced.

g. Replace broken, missing, or worn machine teeth.

5. Grade Control and Surface Smoothness

a. Furnish, install, and maintain grade and transverse slope references.
b. The depth, length, width, and shape of the cut must be as shown or as ordered. The final cut must result in a neat and uniform surface. Do not damage the remaining surface
c. The depth of Cold Planing shall be 2" minimum.
d. The completed surface of the planed asphalt concrete 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.
e. Where lanes are open to traffic, the drop-off of between adjacent lanes must not be more than 0.15 foot.

6. 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. The HMA temporary taper must be:

a. Placed to the level of the existing pavement and tapered on a slope of 30:1 (horizontal: vertical) or flatter to the level of the planed area. Compacted by any method that will produce a smooth riding surface. Completely remove temporary tapers before placing permanent surfacing.

7. Remove Planed Material

a. Remove cold planed material concurrent with planing activities so that removal does not lag more than 50 feet behind the planer.

B. When Asphalt is removed the resulting baserock surface (if exposed) should be

evaluated by wheel-rolling with heavy, rubber-tired construction equipment. Baserock exposed near irrigated areas or in the earlier months of a calendar year has greater potential for soft and yielding conditions due to high moisture contents. With the exception of this "proof-rolling" to determine condition of the baserock, heavily loaded construction equipment should generally avoid the baserock areas to the extent possible to reduce the potential for damaging the baserock integrity and enlarging any potential soft soil "repair" areas.

If the exposed baserock is firm and unyielding, it should be moisture conditioned and loose, surficial materials recompacted to at least 95% (ASTM D1557) prior to placing the new asphalt. Due to the age and potential variance in baserock throughout project paving limits, the Geotechnical Engineer will likely confirm satisfactory compaction of baserock through visual observation. If the baserock is yielding under rubber-tire loads due to high moisture contents, careful removal of additional baserock and placement of a deeper asphalt section will be required. For bidding/planning purposes, replacement of 6 inches of existing baserock with "deep lift" asphalt should be adequate to bridge over soft subgrade soils and yielding baserock upon completion of the entire planned paving section. Careful excavation (i.e. do not use a skip-load or "bobcat" within the excavation, but rather use of an excavator or backhoe operating from adjacent pavements) will be a significant factor in the ultimate depth of digouts, the Geotechnical Engineer will observe conditions and provide supplemental recommendation as appropriate during construction.

If existing asphalt remains at the bottom of digout or milled areas, the milled surface should be broomed and loose particles removed prior to application of a tack coat and asphalt.

PART 4 – MEASUREMENT AND PAYMENT

A. Full compensation for conforming to the requirements of this section including off-haul, shall be paid as the type and depth shown on the project plans, Cold Plane Asphalt Concrete Pavement, and no other compensation will be made.

B. Payments for off-haul, disposal, etc., shall be included in the various bid items and no additional compensation will be allowed therefore.

C. If exposed baserock or pavement is yielding and placement of a deeper asphalt section is required, this work will be handled under a contract change order and should not be included in the base bid price for the asphalt removal

4. CLEARING AND GRUBBING (17)

PART 1 – GENERAL

1.01 SUMMARY OF WORK

A. Clearing and Grubbing shall conform to the provisions in Section 17-2, "Clearing and Grubbing", of the latest version of the Standard Specifications and these Special Provisions.

B. The Work includes the following:

1. Cleaning the road from edge of asphalt to edge of asphalt. Haul off anything on the roadway, do not push into ditches.

2. Removal of debris and minor demolition within the limits of work.

3. Specific non-native vegetation removal practices within the project area.

4. Select trimming of tree limbs as needed for equipment access.

5. Legal disposal of removed vegetation and debris off-site.

C. The Contractor shall protect all native trees and all other native vegetation not slated for demolition.

D. The Contractor shall remove debris including timber, rock, concrete, rubble, trash, and other items which may exist within the limits of Work for this contract. Rocks and boulders may be reused in the Work as directed by the Engineer. The Contractor shall verify potential for reuse of these materials with the Engineer and prior to off-haul and disposal activities.

E. Unless shown to be removed or altered, existing improvements and facilities, utilities, adjacent property, trees, and plants are not to be removed and shall be protected from injury or damage.

PART 2 – PRODUCTS – NOT USED

PART 3 – EXECUTION

A. All vegetation shall be throughout the project and to a depth of 1” below existing ground surface where shoulder backing is to be placed, in areas where shoulder backing will not be replaced remove or trim vegetation only to match existing ground surface. Contractor shall also remove all debris including timber, rock, concrete, rubble, trash, and other items which may exist to a minimum of 24” from the edge of pavements.

B. All existing vegetation, outside the areas to be cleared and grubbed, shall be protected from the Contractor's operations unless specifically shown on the plans to be removed.

C. Nothing herein shall be construed as relieving the Contractor of his responsibility for final cleanup.

PART 4 – MEASUREMENT AND PAYMENT

A. Full compensation for conforming to the other requirements of this section shall be paid as lump sum (LS) “Clearing and Grubbing” and no other compensation will be made.

5. EARTHWORK [19]

PART 1 – GENERAL

1.01 SUMMARY OF WORK

A. Work shall conform to Section 19 “Earthwork” of the Standard Specifications and these Special Provisions.

B. Section 15 “Existing Facilities” of these Special Provisions shall apply for material removal.

C. The scope of work shall include and not be limited to:

1. Excavation and Fill of In-situ soils
2. Placement of Select Fill
3. Asphalt and concrete grindings accumulated from construction activities shall not be used for select fill. All excess grindings shall be disposed of according to Section B of the General Requirements, Section 13 "Disposal of Surplus Material".

D. This section applies to all earthwork required for the Work (embankment, ditch, structure, etc.) and shall include but may not be limited to:

1. Excavation.
2. Excavation and Replacing Unsuitable Material.
3. Excavation, Stockpiling, Sampling.
4. Rough Grading.
5. Roadway Excavation.
6. Grading, Spreading, and Compaction.
7. Export: Off-haul of Excess or Unsuitable Material.

E. Roadway Excavation shall conform to Section 19-2 “Roadway Excavation” of the Standard Specifications, unless otherwise specified in these Special Provisions.

F. Surplus Material shall conform to Section 19-2.03B “Surplus Material” of the Standard Specifications, unless otherwise specified in these Special Provisions.

G. The Class 2 Aggregate Base shall comply with Section 26 “Aggregate Bases” of the Standard Specifications.

1.02 SUBMITTALS

A. Refer to Section 4 “Submittal Procedures” of these Special Provisions.

B. The Contractor shall not deviate from the approved Work Plan unless a revised Plan has been approved in writing by the DISTRICT. Failure to adhere to an approved Plan shall be cause for rejection of Contractor’s request for payment for Excavation bid items, until the Plan has been brought into conformance.

C. Offsite Disposal Location(s): Prior to transporting any excavated material offsite,

the Contractor shall submit the proposed offsite disposal locations for approval by the Engineer.

1.03 PROTECTION

A. In accordance with generally accepted construction practices, the Contractor shall be solely and completely responsible for working conditions at the job site, including safety of all persons and property during performance of the work. This requirement shall apply continuously and shall not be limited to normal working hours.

B. Adequate protection measures shall be provided at the site to protect workers. The site and the public shall be fully protected throughout job site operations.

C. Guardrails and other existing facilities located near Work shall be preserved and remain undamaged throughout the duration of the project.

D. Any construction review of the Contractor's performance conducted by the Engineer, or the Geotechnical Engineer, is not intended to include review of the adequacy of the Contractor's safety measures, in, on, or near the construction site.

E. Adjacent streets and sidewalks shall be kept free of mud, dirt, or similar nuisances resulting from earthwork operations.

F. The site and adjacent influenced areas shall be watered as required to suppress dust nuisance.

PART 2 – PRODUCTS

2.01 MATERIALS

A. Materials for Select Fill shall conform to Section 19-9.02 "Materials" of the Standard Specifications unless otherwise specified in these Special Provisions.

PART 3 – EXECUTION

3.01 SEQUENCE OF WORK

A. Remove existing vegetation and any other unsuitable material as determined by the Engineer from the area.

B. Excavation and Placement of In-situ soils and Select Fill shall be per the project Geotechnical Study's requirements.

PART 4 - MEASUREMENT AND PAYMENT

A. The contract unit price per cubic yard (CY) for Cut/Fill In-Situ Soils, and Imported Select Fill shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work, as shown on the Plans, as specified in the Standard Specifications, these Special Provisions, and as directed by the Engineer and no additional compensation will be allowed.

6. AGGREGATE BASES [26]

PART 1 - GENERAL

1.01 SUMMARY OF WORK

A. This section covers the permeable and non-permeable aggregate base for roadway sections, structure backfill, etc., unless modified by the Technical Specifications in the various items of work.

B. Aggregate bases shall conform to Section 26 "Aggregate Bases" of the Standard Specifications and these Special Provisions.

C. The work to be performed includes the preparation of the aggregate base course, and the production, stockpiling, transportation, placing, compacting, and other incidental work.

1.02 SUBMITTALS

A. Contractor shall submit aggregate base source and certified laboratory test results to the Engineer for approval.

B. Contractor shall submit tickets for each load of aggregate.

PART 2 – MATERIALS

2.01 MATERIALS

A. Aggregate shall be Class 2 Aggregate Base with 3/4 inch maximum aggregate and shall conform to Section 26-1.02 "Materials" of the Standard Specifications.

PART 3 – EXECUTION

2.01 CONSTRUCTION

A. Construction shall conform to Section 26-1.03 "Construction" of the Standard Specifications and these Special Provisions.

2.02 DELIVERY, STORAGE, AND HANDLING

A. On-Site Storage: Store aggregate-base material on-site covered or in a location where material will not be contaminated. Stockpiles of aggregate base shall be covered with plastic or geotextile or protected with a linear sediment barrier at all times during the rainy season, and when precipitation is forecast during the non-rainy season.

2.03 EXAMINATION

A. Contractor shall call for an inspection by the Engineer and obtain written acceptance of the prepared subgrade before proceeding with the placement of the aggregate base course.

2.04 PLACEMENT AND COMPACTION

A. Subgrade and aggregate base shall be prepared, spread, and compacted per

Section 19 “Earthwork”, Section 25 “Aggregate Subbases”, and Section 26 “Aggregate Bases” of the Standard Specifications and these Special Provisions.

B. Compact each layer to at least 95% relative compaction under ASTM D1557.

PART 4 - MEASUREMENT AND PAYMENT

A. The contract unit price per cubic yard for “Aggregate Base” shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work, as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer and no additional compensation will be allowed therefore.

7. HOT MIX ASPHALT [39]

PART 1 - GENERAL

1.01 SUMMARY OF WORK

A. This section applies to all hot mix asphalt (HMA) for the driveway (road) pavement section.

B. HMA Type A shall be designed, tested, and accepted in accordance with Section 39 of the 2010 State Standard Specifications, but HMA shall be placed in accordance with Section 39-2 of the 2024 Standard Specifications, except as modified below.

C. The scope of work includes all site preparation work for the placement of the HMA.

D. Asphalt Concrete (AC) and Hot Mix Asphalt (HMA) may be used interchangeably on the Plans and Specifications.

E. The work to be performed includes the preparation of the road surface, tack coat, and the production, transportation, placement, and compaction of the HMA, and all other required incidental work.

F. All driveway shall be paved on the same day such that no cold joints are created.

1.02 SUBMITTALS

A. The Contractor shall submit HMA source(s) and mix design(s) prepared by a certified laboratory to the Engineer for review and approval. Mix design submittal shall comply with Section 39-1.03 “Hot Mix Asphalt Mix Design Requirements” of the 2010 Standard Specifications. Accompanying mix designs, submit material certificates signed by the material producer and Contractor, certifying that each material item complies with or exceeds specified requirements. Material certificates shall also be provided for the tack coat and liquid anti-stripping agent (LAS). Submit certificate of compliance and safety data sheets (SDS) for tack coat per Section 92 “Asphalt Binders” or Section 94 “Asphaltic Emulsions” of the 2025 Standard Specifications, as appropriate.

B. Mix designs shall be accompanied by current test results that indicate compliance with the Standard Specifications as well as a Certificate of Compliance for liquid asphalt from the manufacturer stating that the material used complies with the requirement of the Standard Specifications.

C. The job mix formula shall establish a single percentage of aggregate passing each required sieve size and a percentage of asphalt binder to be added to the aggregate. The asphalt concrete binder content shall be based on 4.0% air voids.

D. Said job-mix formula shall be determined using the Specifications set forth herein. If the Contractor elects to use any material, including blending material, other than those materials utilized in the mix design, he/she shall so inform the Engineer in advance of the production of asphaltic concrete and shall document the request through an approved testing laboratory. Engineer shall make approval decisions regarding such material.

E. Contractor shall submit their Quality Assurance and Quality Control (QA/QC) Plan for approval, including testing requirements. The QA/QC Plan submittal shall comply with Section 39-2.01A(3)(c) “Quality Control Plan” of the 2025 Standard Specifications. Quality Assurance for sampling shall conform to California Test 125. Contractor shall provide an independent testing firm to test compaction of the HMA. Testing frequency shall be in accordance with Section 39 of the 2010 Standard Specifications. Contractor

shall submit a written report of the compaction results for each day. The Engineer will not accept the installed material until after written compaction reports have been reviewed and approved by the Engineer. The DISTRICT will retain a separate testing firm to monitor in-place compaction. Density will be determined using a nuclear gauge.

PART 2 – PRODUCTS

2.01 GENERAL

A. The grade of asphalt binder mixed with aggregate for HMA Type A must be PG 64-16 per Section 92 of the Standard Specifications.

B. The aggregate for HMA Type A must comply with the 1/2-inch aggregate gradation.

C. The minimum compacted thickness of asphalt concrete shall be the thickness shown on the Plans. The maximum compacted lift thickness shall be 0.20 feet. The tolerance for minimum thickness for all operations shall be 0.01 feet. The tolerance for maximum thickness for asphalt concrete structural sections less than 0.35 feet thick shall be 0.02 feet, and for sections more than 0.35 feet thick shall be 0.03 feet.

D. HMA shall be placed in lifts not exceeding three (3) inches thick. The HMA shall be placed and compacted to ninety-two to ninety-seven percent (92% to 97%) of theoretical maximum density and shall meet the elevation of the existing pavement contour. Areas inaccessible to rollers shall be compacted by use of a power compactor of the high impact, vibra-plate type, capable of attaining the same compaction as the rolled areas.

E. Subsequent lifts of HMA beyond the first lift shall not be placed until the underlying layer is 160°F or less, unless otherwise directed by the Engineer. Failure to meet these requirements shall be cause for rejection of the work.

F. The Contractor shall apply a tack coat to all surfaces receiving HMA and between HMA lifts according to Section 39-2.01C(3)(f), “Tack Coat”, of the Standard Specifications and at the residual rates specified. The application rate for various surfaces shall be as specified for SS-1h. Before opening the lane to public traffic, the Contractor shall pave shoulders and median borders adjacent to the lane being paved.

G. Paving work shall be a continuous non-stop operation with delivery trucks arriving in a uniform manner or such that delivered material temperatures meet Specifications when placed into paver.

H. The asphalt concrete shall be delivered to the site in a thoroughly blended condition and shall be spread by a self-propelled asphalt paving machine in such a manner as to avoid particle and thermal segregation during the placing operations. Joint and edge raking that leaves a segregated surface and/or low areas surrounding paving joints is prohibited.

I. No asphalt concrete shall be placed when the atmospheric temperature is below 60°F.

J. No paving work whatsoever shall be allowed when the roadway or subgrade is moist or damp or when it is raining. For the purpose of this provision, "raining" shall mean any weather condition that causes the roadway to become moist or damp. In the case of sudden precipitation, all paving work must stop immediately. All asphalt concrete on site not yet placed and all asphalt concrete in transit from the plant shall be rejected, and no payment will be allowed.

K. The Contractor shall be responsible for removal of vegetation from the edge of pavement, edge and crack cleaning, crack sealing, sweeping, washing and/or any special cleaning to leave a clean surface ready to receive a tack coat and asphalt concrete. A power wash shall

be used in the deceleration zones of intersections for the complete removal of dust that may cause overlay slippage. Excess water shall be removed prior to application of tack coat.

L. HMA shall not be supplied from more than one (1) mixing plant, unless otherwise approved by the Engineer.

M. Liquid anti-stripping agent (LAS) shall be added to the asphalt binder at a rate of 0.5% by weight of asphalt binder. The LAS shall be AD-here LOF 65-00 or equivalent, and shall be stored, measured, and blended with the asphalt binder in accordance with the anti-stripping agent manufacturer's recommended practice. The LAS can be added at the asphalt plant or at the refinery. When added at the asphalt plant, the equipment shall indicate and record the amount of LAS added. If added at the refinery, the shipping ticket from the refinery shall certify the type and amount of LAS added.

N. The completed asphalt surface shall resemble pre-existing slope conditions, except for previous conditions which allowed for ponding. Where previous conditions or existing grades are not maintained, the standard cross-section slope shall be 2% to 5%. Cross slope, at a minimum, shall provide positive drainage. The finished surface shall not allow ponding and the smoothness requirement of these Special Provisions shall be adhered to. At the Engineer's discretion, the Contractor shall provide a water test for an area of pavement exhibiting questionable smoothness and/or drainage. Ponding shall not exceed a depth of 0.01 foot 10 minutes after the water application is completed.

2.02 GRINDING

A. Grinding shall occur from the edge of the pavement.

B. All existing utilities and facilities shall be protected in place during grinding operations, any damages and costs of repairs shall be borne by the Contractor.

C. Dimensions and details provided on the Plans shall be confirmed in the field with the Engineer before Work. Typical details are for reference only and stationing, locations, and dimensions are approximate and shall be verified in the field by the Contractor.

D. Ground areas shall be swept prior to placing tack coat and HMA. If existing asphalt remains at the bottom of the digout or milled areas, the milled surface shall be broomed and loose particles removed prior to the application of tack coat and asphalt.

E. HMA placed within ground areas shall conform to existing facilities that are to remain in place. Otherwise, utilities designated to be raised, shall conform to the new elevation of the HMA.

F. Sawcutting, when required, at existing driveways shall be per field directive of the Engineer and new asphalt shall conform with the elevation of the driveway.

G. Asphalt driveways: Additional HMA shall be placed along the pavement's edge to conform to existing asphalt concrete road connections and driveways. Hand raking shall be performed as necessary, to compact the additional HMA and form a smooth conform taper.

2.03 EXPOSED BASEROCK

A. When asphalt is removed and if the baserock surface is exposed, the Contractor and Engineer shall evaluate the baserock by wheel-rolling with heavy, rubber-tired construction equipment. Baserock exposed near irrigated areas or in the earlier months of a calendar year have greater potential for soft and yielding conditions due

to high moisture contents. With the exception of this "proof-rolling", to determine condition of the baserock, heavily loaded construction equipment should generally avoid the baserock areas to the extent possible, to reduce the potential for damaging the baserock integrity and enlarging any potential soft soil "repair" areas.

B. If the exposed baserock is firm and unyielding, it should be moisture conditioned and loose surficial materials shall be recompacted to at least 95% (ASTM D1557) prior to placing the new asphalt. Due to the age and potential variance in baserock throughout project paving limits, the Geotechnical Engineer will confirm satisfactory compaction of baserock by visual observation.

C. If the baserock is yielding under rubber-tire loads, careful removal of additional baserock and placement of a deeper asphalt section will be required. This will be change order work.

1. For bidding/planning purposes, replacement of six (6) inches of existing baserock with "deep lift" asphalt should be adequate to bridge over soft subgrade soils and yielding baserock, upon completion of the entire planned paving section.

2. Careful excavation will be a significant factor in the ultimate depth of the asphalt section, the Geotechnical Engineer will observe conditions and provide supplemental recommendation as appropriate during construction.

a. Contractor shall not use a skip-loader or "bobcat" within the excavation, but shall operate the excavator from adjacent pavements.

This section is based on the 2010 Caltrans Standard Specifications with amendments.

39-1 GENERAL

39-1.01 GENERAL

39-1.01A Summary

A. Section 39-1 includes general specifications for producing and placing HMA by mixing aggregate and asphalt binder at a mixing plant and spreading and compacting the HMA mixture.

B. The HMA construction process includes one or more of the following:

1. Standard

2. Method

C. Unless total pavement thickness is less than 0.15 foot or it is otherwise indicated on the Plans or in these Special Provisions, the Standard Process shall apply. The Engineer, at their sole discretion, may allow the Method Process only in areas the Engineer deems inaccessible to conventional paving equipment and procedures.

D. Unless otherwise indicated on the plans or in these specifications, all HMA shall be Type A.

39-1.01B Definitions

A. **Coarse aggregate:** Aggregate retained on a no. 4 sieve.

B. **Fine aggregate:** Aggregate passing the no. 4 sieve.

C. **Supplemental fine aggregate:** Aggregate passing the no. 30 sieve, including hydrated lime, Portland cement, and fines from dust collectors.

39-1.02 MATERIALS

39-1.02A Geosynthetic Pavement Interlayer – Not Used

39-1.02B Tack Coat

A. Tack coat must comply with the Specifications for asphaltic emulsion or asphalts.

B. 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.

C. Measure added water either by weight or volume in compliance with Section 9-1.02. If you measure water by volume, apply a conversion factor to determine the correct weight.

D. With each dilution, submit:

Weight ratio of water to bituminous material in the original asphaltic emulsion

1. Weight of asphaltic emulsion before diluting
2. Weight of added water
3. Final dilution weight ratio of water to asphaltic emulsion

39-1.02C Asphalt Binder

A. Asphalt binder in HMA shall be PG 64-16 unless otherwise specified in the Plans or Specifications. Asphalt binder in HMA must comply with the Specifications for asphalts or Section 39-1.02D.

B. WARM MIX TECHNOLOGY SHALL NOT BE USED. No product listed on the Caltrans Warm Mix Asphalt Technologies Authorized Material List may be used in any product produced under these Specifications.

39-1.02D Asphalt Rubber Binder 39-1.02D(1) General

A. Asphalt rubber binder and type RHMA asphalts will not be permitted for this work.

39-1.02E Aggregate

A. Aggregate must be clean and free from deleterious substances. The specified aggregate gradation must be determined before the addition of asphalt binder and includes supplemental fine aggregate. The Department tests for aggregate grading under California Test 202, modified by California Test 105 if there is a difference in specific gravity of 0.2 or more between the coarse and fine parts of different aggregate blends.

B. If an absorption of a coarse aggregate sample is greater than four percent (4.0%) when tested in accordance with CT 206 or the LA Rattler is greater than forty percent (40%) at 500 revolutions when tested in accordance with CT 211, the asphalt placed on that day shall be rejected, and removed and replaced at no cost to the DISTRICT. Contractor shall ensure its subcontractors and material suppliers will allow the DISTRICT to enter the facilities and obtain samples in accordance with this paragraph.

C. Choose sieve size TV within each TV limit presented in the aggregate gradation tables. The proposed aggregate gradation must be within the TV limits for the specified sieve sizes shown in the following tables:

Aggregate Gradation (Percentage Passing) HMA Types A and B

3/4-inch HMA Types A and B

Sieve sizes	TV limits	Allowable tolerance
1"	100	--
3/4"	90–100	TV ± 5
1/2"	70–90	TV ± 6
No. 4	45–55	TV ± 7
No. 8	32–40	TV ± 5
No. 30	12–21	TV ± 4
No. 200	2.0–7.0	TV ± 2

1/2-inch HMA Types A and B

Sieve sizes	TV limits	Allowable tolerance
3/4"	100	—
1/2"	95–99	TV ± 6
3/8"	75–95	TV ± 6
No. 4	55–66	TV ± 7
No. 8	38–49	TV ± 5
No. 30	15–27	TV ± 4
No. 200	2.0–8.0	TV ± 2

3/8-inch HMA Types A and B

Sieve sizes	TV limits	Allowable tolerance
1/2"	100	--
3/8"	95–100	TV ± 6
No. 4	58–72	TV ± 7
No. 8	34–48	TV ± 6
No. 30	18–32	TV ± 5
No. 200	2.0–9.0	TV ± 2

No. 4 HMA Types A and B

Sieve sizes	TV limits	Allowable tolerance
3/8"	100	--
No. 4	95–100	TV ± 7
No. 8	72–77	TV ± 7
No. 30	37–43	TV ± 7
No. 200	2.0–12.0	TV ± 4

D. Before the addition of asphalt binder and lime treatment, aggregate must have the values for the quality characteristics shown in the following table:

Aggregate Quality

Quality characteristic	Test method	HMA Type A
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	California Test 205	 90 75 70
Los Angeles Rattler (% max.) Loss at 100 rev. Loss at 500 rev.	California Test 211	 12 40
Sand equivalent (min.) [a]	California Test 217	47
Fine aggregate angularity (% min.) [b]	California Test 234	45
Flat and elongated particles (% max. by weight @ 5:1)	California Test 235	10
Coarse Durability Index, D_c (min)	California Test 229	65
Fine Durability Index, D_f (min)	California Test 229	50
Sodium Sulfate Soundness (max loss @ 5 cycles, %)	California Test 214	12

[a] Reported value must be the average of 3 tests from a single sample.

[b] The Engineer waives this specification if HMA contains less than 10 percent of nonmanufactured sand by weight of total aggregate. Manufactured sand is fine aggregate produced by crushing rock or gravel.

39-1.02E(1) Soft Aggregate

A. Unacceptable Asphalt Concrete Containing Soft or Highly Absorptive Material; Liquidated Damages:

1. "Soft or highly absorptive" material is defined as material that is generally whitish or light in color (color can vary) and breaks into a powder easily when routed in a dry state with hand tools such as a screwdriver and may exhibit clay-like characteristics when wet.

2. An unacceptable concentration of material is defined as any location larger than 100 square feet (or locations) where greater than a .096% concentration by area of soft or highly absorptive material occurs.

b. Measurement of the concentration of soft or highly absorptive material may be taken by the Engineer at any time and within any area of the work at Engineer's sole discretion.

c. Discovery of any area of paving work that exceeds the limit of soft or highly absorptive material, described in this Section 39-1.02E(1)(2), is defective work which shall be addressed by the Contractor in accordance with Section 39-1.02E(1)(3). If DISTRICT notifies the Contractor at any time prior to one (1) year from the date of recording the project's Notice of Completion, or one (1) year from the date the road is open for public use (if no Notice of

Completion is recorded), the area of paving work will be considered defective work.

3. Soft or highly absorptive material can substantially reduce the useful life of the roadway, the extent of which is difficult to determine accurately. For each area, as determined by the DISTRICT pursuant to Section 39-1.02E(1)(2), that exceeds the maximum allowable amount of soft or highly absorptive material, the Contractor shall pay as liquidated damages, and not as a penalty, the amount calculated at one-half of the Contractor's bid item prices to replace that specified area. Contractor shall pay the DISTRICT the liquidated damages determined in accordance with this section within sixty (60) days of written demand by the DISTRICT. If a court determines this calculation of liquidated damages is unenforceable for any reason, the Contractor shall pay the DISTRICT the actual cost incurred by the agency to remove and repave the section of the roadway that exceeds the maximum allowable amount of soft or highly absorptive material.
   a. This Section 39-1.02E(1)(3) shall not apply to any area, as determined by the DISTRICT pursuant to Section 39-1.02E(1)(2), where a concentration of more than .096% by area of soft or highly absorptive material resides in an area of less than 100 square feet, or to any work, other than an area determined by the DISTRICT pursuant to Section 39-1.02E(1)(2), that contains .096% or less of soft or highly absorptive material.
4. Nothing in this paragraph shall preclude the DISTRICT or City from seeking any or all legal and/or equitable remedies upon discovery of soft or highly absorptive material after the one (1) year period specified in Section 39-1.02E(1)(2), or in the event that Contractor fails to tender the liquidated damages specified in Section 39-1.02E(1)(3).

39-1.02F Reclaimed Asphalt Pavement

A. RAP Stockpiles:

3. If RAP is from multiple sources, blend the RAP thoroughly and completely before fractionating. Provide enough space at your plant for complying with a clean, graded base, and well drained area for stockpiles.
4. You may use the coarse fractionated stockpile, the fine fractionated stockpile, or a combination of the coarse and fine fractionated stockpiles.
5. 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.
6. The coarse RAP stockpile shall have 100% passing the 1-inch sieve and the fine RAP stockpile shall have 98-100% passing the 3/8-inch sieve.

B. RAP Substitution:

1. You may substitute RAP for part of the virgin aggregate in a quantity up to 25 percent of the aggregate blend.
2. 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.

3. For RAP substitution greater than 15 percent of the aggregate blend, fractionate RAP stockpiles into two (2) sizes, a coarse fraction RAP retained on 3/8-inch sieve and a fine fraction RAP passing 3/8-inch sieve.
4. For RAP substitution of 15 percent of the aggregate blend or less, fractionation is not required. 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.
5. 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.

39-1.03 HOT MIX ASPHALT MIX DESIGN REQUIREMENTS

39-1.03A General

A. The mix design process consists of performing California Test 367 and laboratory procedures on combinations of aggregate gradations and asphalt binder contents to determine the OBC and HMA mixture qualities. The results become the proposed JMF.

B. Use the *Contractor Hot Mix Asphalt Design Data* form to record aggregate quality and mix design data. Use the *Contractor Job Mix Formula Proposal* form to present the JMF.

C. Laboratories testing aggregate qualities and preparing the mix design and JMF must be qualified under the Department's Independent Assurance Program. Take samples under California Test 125.

D. The Engineer reviews the aggregate qualities, mix design, and JMF and verifies and authorizes the JMF.

E. You may change the JMF during production. Do not use the changed JMF until it is authorized. Except if adjusting the JMF as specified in Section 39-1.03E, perform a new mix design and submit a new JMF submittal if you change any of the following:

1. Target asphalt binder percentage
2. Asphalt binder supplier
3. Asphalt rubber binder supplier
4. Component materials used in asphalt rubber binder or percentage of any component materials
5. Combined aggregate gradation
6. Aggregate sources
7. Substitution rate for RAP aggregate of more than 5 percent
8. Any material in the JMF

39-1.03B Hot Mix Asphalt Mix Design

A. Provide a mix design with the values for the quality characteristics shown in the following table:

HMA Mix Design Requirements

Quality Characteristic	Test Method	HMA Type A
Air void content (%)	California Test 367	4.0
Voids in mineral aggregate (% min.)	California Test 367	
No. 4 grading		17.0
3/8" grading		15.0
1/2" grading		14.0
3/4" grading		13.0
Voids filled with asphalt (%)	California Test 367	
No. 4 grading		76.0–80.0
3/8" grading		73.0–76.0
1/2" grading		65.0–75.0
3/4" grading		65.0–75.0
Dust proportion	California Test 367	
No. 4 and 3/8" gradings		0.9–2.0
1/2" and 3/4" gradings		0.6–1.3
Stabilometer value (min.) [b]	California Test 366	
No. 4 and 3/8" gradings		30
1/2" and 3/4" gradings		37
Hamburg wheel track (min number of passes at 0.5-inch rut depth) Specified Binder grade:	California Test 389[d,e]	
PG 58		10,000
PG 64		15,000
PG 70		20,000
PG 76 or higher		25,000
Tensile Strength Ratio (% min.) [f]	California Test 371	70[g]

[a] Voids in mineral aggregate for RHMA-G must be within this range.
[b] California Test 304, Part 2.13.
[c] Report this value in the JMF submittal.
[d] Test plant-produced Type A HMA or Type G RHMA.
[e] Stripping inflection point is report only.
[f] Prepare specimens by California Test 304.
[g] This requirement is waved if a minimum of 0.5% Liquid Antistrip is present in the mix and daily plant reports are submitted that demonstrate it is present.

B. Report the average of three (3) tests. If the range of stability for three (3) briquettes is more than 8 points, prepare new briquettes and test again. The average air void content may vary from the specified air void content by ±0.5 percent.

39-1.03C Job Mix Formula Submittal

A. Each JMF submittal must consist of:

1. Proposed JMF on a *Contractor Job Mix Formula Proposal* form
2. Mix design records on a *Contractor Hot Mix Asphalt Design Data* form dated within 12 months of submittal
3. JMF verification on a *Caltrans Hot Mix Asphalt Verification* form, if applicable
4. JMF renewal on a *Caltrans Production Start-Up Evaluation* form, if applicable

5. MSDS for the following:

a. Asphalt binder

b. Supplemental fine aggregate except fines from dust collectors

c. Antistrip additives

B. If the Engineer requests, sample the following materials in the presence of the Engineer and place in labeled containers weighing no more than 50 lb each:

1. Coarse, fine, and supplemental fine aggregate from stockpiles, cold feed belts, or hot bins. 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. The Department combines these aggregate samples to comply with the JMF TVs submitted on a *Contractor Job Mix Formula Proposal* form.

2. RAP from stockpiles or RAP system. Samples must be at least 60 lb.

3. Asphalt binder from the binder supplier. Samples must be in two 1-quart cylindrical-shaped cans with open top and friction lids.

4. Asphalt rubber binder with the components blended in the proportions to be used. Samples must be in four 1-quart cylindrical-shaped cans with open top and friction lids.

C. Notify the Engineer at least two (2) business days before sampling materials. For aggregate and RAP, split the samples into at least four (4) parts. Submit three (3) parts to the Engineer and use one (1) part for your testing.

39-1.03D Job Mix Formula Review

A. The Engineer reviews each mix design and proposed JMF within five (5) business days from the complete JMF submittal. The review consists of reviewing the mix design procedures and comparing the proposed JMF with the Specifications.

B. The Engineer may verify aggregate quality characteristics during this review period.

39-1.03E Job Mix Formula Verification

A. Each JMF must undergo the Job Mix Formula Prequalification Program and have the mix design verified by Caltrans prior to submitting the mix design to the Engineer for approval.

39-1.03F Job Mix Formula Acceptance

A. You may start HMA production once the Engineer approves the Hot Mix Asphalt JMF submittal and confirms that it complies with these Special Provisions.

39-1.04 CONTRACTOR QUALITY CONTROL

39-1.04A General

A. Establish and maintain a quality control system to ensure materials and work comply with the Specifications. Submit quality control test results within three (3) days of a request.

B. Identify the HMA sampling location in your QC plan. During production, take samples under California Test 125, except if you request and if authorized, sample HMA from any of the following locations:

1. Plant
2. Truck
3. Windrow
4. Paver hopper
5. Mat behind the paver

39-1.04B Prepaving Conference

A. Hold a prepaving conference with the Engineer at a mutually agreed time and place. Discuss methods of performing the production and paving work.

39-1.04C Asphalt Rubber Binder – Not Used

39-1.04D Aggregate

A. Determine the aggregate moisture content and RAP moisture content in continuous mixing plants at least twice a day during production and adjust the plant controller. Determine the RAP moisture content in batch mixing plants at least twice a day during production and adjust the plant controller.

39-1.04E Reclaimed Asphalt Pavement

A. Perform RAP quality control testing each day.

B. Sample RAP once daily and determine the RAP aggregate gradation under California Test 367, appendix B, and submit the results with the combined aggregate gradation.

39-1.04F Density Cores

A. Only when required by the Engineer, density cores should be taken once every five (5) business days. Core should be 4-inches or 6-inches in diameter. Take one (1) density core for every 250 tons of HMA from random locations the Engineer designates. 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.

B. If a density core is damaged, replace it with a density core taken within one (1) foot longitudinally from the original density core.

39-1.04G Briquettes

A. Only when required by the Engineer, prepare three (3) briquettes for each stability and air void content determination. Report the average of three (3) tests. Prepare new briquettes and test again when the range of stability for the three (3) briquettes is more than 8 points.

B. You may use the same briquettes used for stability testing to determine bulk specific gravity under California Test 308. If you use these briquettes and tests using bulk specific gravity fail, you may prepare three (3) new briquettes and determine a new bulk specific gravity.

39-1.05 ACCEPTANCE CRITERIA

A. HMA acceptance is specified in the sections for each HMA construction process.

B. The Department samples materials for testing under California Test 125 and the applicable test method, except samples may be taken:

1. At the plant from a truck or an automatic sampling device
2. From the mat behind the paver

C. Sampling must be independent of Contractor quality control, statistically based, and random. If you request, the Engineer splits samples and provides you with a part.

D. HMA acceptance is based on:

1. Authorized JMF
2. Accepted QC plan for Standard construction process projects
3. Compliance with the HMA acceptance tables
4. Visual inspection

E. The Engineer may prepare three (3) briquettes for each stability and air void content determination. The average of three (3) tests is reported. If the range of stability for three (3) briquettes is more than 8 points, new briquettes are prepared and tested.

F. The Engineer may use the briquettes used for stability testing to determine bulk specific gravity under California Test 308. If the Engineer uses the same briquettes and the tests using that bulk specific gravity fail, the Engineer prepares three (3) new briquettes and determines a new bulk specific gravity.

39-1.06 DISPUTE RESOLUTION

A. Work with the Engineer to avoid potential conflicts and to resolve disputes regarding test result discrepancies. Notify the Engineer within five (5) days of receiving a test result if you dispute the test result.

B. If you or the Engineer dispute each other's test results, submit quality control test results and copies of paperwork including worksheets used to determine the disputed test results. An independent third party performs referee testing. Before the independent third party participates in a dispute resolution, the party must be accredited under the Department's Independent Assurance Program. The independent third party must be independent of the project. By mutual agreement, the independent third party is chosen from:

1. Department laboratory
2. Department laboratory in a district or region not in the district or region the project is located
3. Transportation Laboratory
4. Laboratory not currently employed by you or your HMA producer

C. If split quality control or acceptance samples are not available, the independent third party uses any available material representing the disputed HMA for evaluation.

39-1.07 PRODUCTION START-UP EVALUATION

A. The Engineer evaluates HMA production and placement at production start-up.

B. 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. Aggregate
2. Asphalt binder

3. RAP
4. HMA

C. Sample aggregate from cold feed belts or hot bins. Take RAP samples from the RAP system. Sample HMA under California Test 125, except if you request and if authorized, you may sample HMA from any of the following locations:

1. Plant
2. Truck
3. Windrow
4. Paver hopper

D. For aggregate, RAP, and HMA, split the samples into at least four (4) parts and label their containers. Submit three (3) split parts and keep one (1) part.

E. For Standard construction process projects, test the samples and report test results within three (3) business 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.

F. For Standard construction process projects, and at the Engineer's discretion, take 4-inch or 6-inch diameter density cores within the first 750 tons on the 1st day of HMA production. For each density core, reports the bulk specific gravity determined under California Test 308, Method A, in addition to the percent of maximum theoretical density. You may test for in-place density at the density core locations and include them in your production tests for percent of maximum theoretical density.

39-1.08 PRODUCTION

39-1.08A General

A. Produce HMA in a batch mixing plant or a continuous mixing plant. Proportion aggregate by hot or cold feed control.

B. HMA plants must be Caltrans qualified. Before production, the HMA plant must have current qualification under the Department's Materials Plant Quality Program.

C. During production, you may adjust:

1. Hot or cold feed proportion controls for virgin aggregate and RAP
2. Set point for asphalt binder content

39-1.08B Mixing

A. Mix HMA ingredients into a homogeneous mixture of coated aggregates. Asphalt binder must be from 275 to 350 degrees F when mixed with aggregate.

B. When mixed with asphalt binder, aggregate must not be more than 325 degrees F. These aggregate temperature specifications do not apply if you use RAP.

C. HMA with or without RAP must not be more than 325 degrees F.

39-1.08C Asphalt Rubber Binder – Not Used

39-1.09 SUBGRADE, TACK COAT, AND GEOSYNTHETIC PAVEMENT INTERLAYER

39-1.09A General

A. Prepare subgrade or apply tack coat to surfaces receiving HMA. If specified, place geosynthetic pavement interlayer over a coat of asphalt binder.

B. The work shall consist of preparing the existing street surfaces prior to the commencement of paving. Such work shall include removing raised pavement markers, removing thermoplastic traffic markings and legends, controlling nuisance water, sweeping, watering, and removing loose and broken pavement and foreign material as specified in the Standard Specifications and these Technical Provisions, and as directed by the Engineer.

39-1.09B Subgrade

A. Subgrade to receive HMA must comply with the compaction and elevation tolerance Specifications in the sections for the material involved. Subgrade must be free of loose and extraneous material. If HMA is paved on existing base or pavement, remove loose paving particles, dirt, and other extraneous material by any means including flushing and sweeping.

39-1.09C Tack Coat

A. Apply tack coat:

1. To existing pavement, including cold planed surfaces
2. Between HMA layers
3. To vertical surfaces of:
   a. Curbs
   b. Gutters
   c. Construction joints

B. Before placing HMA, apply tack coat in one (1) uniform application. The application rate must be the minimum residual rate specified for the underlying surface conditions shown in the following table. The tack coat application rate may be adjusted by the Engineer at any time during construction. Application of asphalt binder shall depend upon the oxidation and/or presence of alligator cracked pavement. Unless the Engineer opts to apply tack coat at a rate between 0.08 to 0.10 gallons per square yard of surface covered, the application should be the following:

Tack Coat Application Rates for HMA Type A

HMA overlay over:	Minimum residual rates (gal/sq yd)
	CSS1/CSS1h, SS1/SS1h, and QS1h/CQS1h asphaltic emulsion
New HMA (between layers)	0.02
PCC and existing HMA (AC) surfaces	0.03
Planed PCC and HMA (AC) surfaces	0.05

C. If you dilute asphaltic emulsion, mix until homogeneous before application.

D. For vertical surfaces, apply a residual tack coat rate that will thoroughly coat the vertical face without running off.

E. Immediately in advance of placing HMA, apply additional tack coat to damaged areas or where loose or extraneous material is removed.

F. Close areas receiving tack coat to traffic. Do not track tack coat onto pavement surfaces beyond the job site.

G. Asphalt binder tack coat must be from 285 to 350 degrees F when applied.

39-1.09D Geosynthetic Pavement Interlayer – Not Used

39-1.09E Vegetation Removal

A. Prior to placing asphalt paving over an existing surface, the surface must be cleaned by vacuum sweeping, or other means necessary to remove all surface contaminates, to the satisfaction of the Engineer, including:

1. Loose particles of paving
2. Dirt
3. Grease
4. Oil spots
5. Other extraneous material

B. Remove vegetation in pavement from the following locations prior to cleaning and placing HMA.

1. Cracks
2. Between pavement and gutter
3. Between pavement and curb

39-1.10 SPREADING AND COMPACTING EQUIPMENT

A. 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

B. Install and maintain grade and slope references.

C. The screed must produce a uniform HMA surface texture without tearing, shoving, or gouging.

D. Unless approved otherwise, ski-type devices with a minimum length of 30 feet shall be used to provide a reference for the grade sensor. Skis shall be constructed and installed in such a manner that a reference to the average elevation of the existing pavement, along the length of the ski, is maintained at the sensor point. When placing surfacing adjacent to surfacing previously placed in conformance with these provisions, a joint matching shoe of adequate size and type to properly sense the grade of the previously placed mat may be used in lieu of the 30-foot ski.

E. The ski shall be mounted at a location which will provide an accurate reference for the surfacing being placed. This may require the ski to be mounted ahead of and inside the outer limits of the screed. Automatic cross slope control may be accomplished by use of a ski and grade sensor on each side of the paving machine.

F. Automatic screed controls shall be installed in such a manner that the occasional manual adjustments necessary to maintain the attitude of the screed parallel to the underlying pavement are readily accomplished. Automatic screed controls shall be installed so that with little or no delay, use of the automatic controls can be discontinued and the screed controlled by manual methods.

G. If it is determined by the Engineer that the existing grade and cross slope are too irregular for the automatic controls to provide the quality of work required, the use of the automatic controls shall be discontinued and the spreading equipment adjusted by manual methods. Use of automatic controls shall resume when the Engineer has determined that it is again practical and so orders.

H. The paver must not leave marks such as ridges and indentations, unless you can eliminate them by rolling.

I. 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.

J. The number of rollers required for each paving operation shall be such that all rolling for density can be completed before the temperature of the hot mix asphalt mixture drops below 240 degrees Fahrenheit.

K. Breakdown rolling shall commence when the hot mix asphalt is placed. Rolling shall be accomplished with the drive wheel forward and with the advance and return passes in the same line.

L. Intermediate rolling shall be performed by an 8 to 12 ton pneumatic tire roller.

M. The Contractor shall have hand-compaction equipment immediately available for compacting all areas inaccessible to rollers. Hand-compaction shall be performed concurrently with breakdown rolling. If for any reason hand-compaction falls behind breakdown rolling, further placement of hot mix asphalt shall be suspended until hand-compaction is completed. Hand-compaction includes vibraplates and hand tampers.

N. After compaction, the surface texture of all hand work areas shall match the surface texture of the machine placed mat. Any coarse or segregated areas shall be corrected immediately upon discovery. Failure to immediately address these areas shall cause suspension of hot mix asphalt placement until the areas are satisfactorily addressed, unless otherwise allowed by the Engineer.

O. 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.

39-1.11 TRANSPORTING, SPREADING, AND COMPACTING

A. Do not pave HMA on wet pavement or a frozen surface.

B. **The Contractor shall cover loads of asphalt concrete with tarpaulins.** The tarpaulins shall completely cover the exposed asphalt concrete until the asphalt concrete has been completely transferred into the asphalt concrete paver hopper or deposited on the road bed.

C. 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 deposit, pickup, loading, and paving are continuous
4. HMA temperature in the windrow does not fall below 260 degrees F

D. You may pave HMA in one (1) or more layers on areas less than five (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.

E. HMA handled, spread, or windrowed must not stain the finished surface of any improvement, including pavement.

F. Do not use petroleum products such as kerosene or diesel fuel to release HMA from trucks, spreaders, or compactors.

G. HMA must be free of:

1. Segregation
2. Coarse or fine aggregate pockets
3. Hardened lumps

H. Longitudinal joints in the top layer must match specified lane edges. Alternate the longitudinal joint offsets in the lower layers at least 0.5 foot from each side of the specified lane edges. You may request other longitudinal joint placement patterns.

I. 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

J. 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.

K. If leveling with HMA is specified, 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 HMA (leveling) and shall be considered change order work, unless there is a bid item for such work.

L. A leveling course of variable thickness shall be placed and compacted prior to placing the surface course at locations where directed by the Engineer. The leveling course will be used to correct pavement irregularities such as rutting, variable cross slope, or variable longitudinal slope. Where two overlays of different thickness abut at a longitudinal joint, the Contractor shall add to the thinner section to match the thicker lift and provide a smooth transition and uniform cross-fall. Cold-planing ridges or other rises in the pavement surface may be required by the Engineer. The Engineer will determine the exact limits and thickness of the leveling courses, hot mix asphalt fills, and transitions.

M. If placing HMA against the edge of existing pavement, sawcut or grind the pavement straight and vertical along the joint and remove extraneous material.

N. Rolling must leave the completed surface compacted and smooth without tearing, cracking, or shoving. 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

O. If a vibratory roller is used as a finish roller, turn the vibrator off.

P. For Standard construction processes, if 3/4-inch aggregate grading is specified, you may use 1/2-inch aggregate grading if the total layer thickness is from 0.125 to 0.20 foot thick.

Q. Spread and compact HMA under Sections 39-3.03 and 39-3.04 if any of the following applies:

1. Specified paved thickness is less than 0.15 foot.
2. Specified paved thickness is less than 0.20 foot and 3/4-inch aggregate grading is specified and used.
3. Spread and compact at:
    a. Asphalt concrete surfacing replacement areas
    b. Leveling courses
    c. Areas for which the Engineer determines conventional compaction and compaction measurement methods are impeded

R. Do not allow traffic on new HMA pavement until its mid-depth temperature is below 160 degrees F.

S. If you request and if authorized, you may cool HMA Type A with water when rolling activities are complete. Apply water under Section 17-3.

T. The Contractor shall construct temporary pavement transitions at all transverse paving

joints greater than one (1) inch prior to allowing traffic onto the paved surface. Temporary pavement transitions shall have a maximum slope of 20:1 or as approved by the Engineer and be constructed on Kraft paper or other suitable bond breaker such that upon removal of the temporary pavement transition, a clean notch remains. The temporary transitions may be constructed of either cold mix or hot mix.

U. The Contractor shall continuously maintain the temporary pavement until final paving. Each temporary transition shall be inspected by the Contractor and repaired as necessary to comply with these Provisions at the end of each day including weekends and holidays.

V. Failure to comply with these Provisions will result in a Liquidated Damage of $250 per day per transition and/or the cost of DISTRICT crews making the repairs necessary to correct for public safety.

W. The Contractor shall layout and mark the location of the edges of the paving passes of the surface course to match the new layout of the lane lines. The layout shall be made at least 24 hours prior to paving. The layout shall be approved by the Engineer prior to paving.

X. If the striping is to remain unchanged, the edges of the paving passes shall conform to existing lane edges.

Y. In all cases where practical, each lane shall be paved in a single pass. In tapered transition areas, the shoulder areas shall be paved first, then the through lane shall be paved immediately after the shoulder paving.

Z. The finished hot mix asphalt surface shall be flush with, to 1/4 inch (0.20 feet or 6 mm) above, the gutter lips. The finished pavement surface shall not be lower than the gutter lips.

AA. The average pavement thickness shall be equal to the specified thickness for the project.

BB. For total pavement thicknesses of less than four inches, the minimum allowable thickness will be 1/4 inch less than that specified. For total pavement thicknesses of four inches or more, the minimum allowable thickness will be 1/2 inch less than that specified.

39-1.12 SMOOTHNESS

39-1.12A General

A. Determine HMA smoothness with a straightedge.

39-1.12B Straightedge

A. The top layer of HMA pavement must not vary from the lower edge of a 12-foot straightedge:

1. More than 0.01 foot when the straightedge is laid parallel with the centerline
2. More than 0.02 foot when the straightedge is laid perpendicular to the centerline and extends from edge to edge of a traffic lane
3. More than 0.02 foot when the straightedge is laid within 24 feet of a pavement conform

39-1.12C Inertial Profiling – Not Used

39-1.12D Smoothness Correction

A. If the top layer of HMA Type A pavement does not comply with the smoothness specifications, grind the pavement to within specified tolerances, remove and replace it, or place an overlay of HMA. Do not start corrective work until your choice of methods is authorized.

B. Corrected HMA pavement areas must be uniform rectangles with edges:

1. Parallel to the nearest HMA pavement edge or lane line
2. Perpendicular to the pavement centerline

C. Measure the corrected HMA pavement surface with a 12-foot straightedge and correct the pavement to within specified tolerances. If a must-grind area or straightedged pavement cannot be corrected to within specified tolerances, remove and replace the pavement.

D. On areas ground but not overlaid, apply fog seal coat under section 37-2.

39-1.13 HOT MIX ASPHALT ON BRIDGE DECKS – Not Used

39-1.14 MISCELLANEOUS AREAS AND DIKES

A. The following specifications in Section 39 DO NOT apply to miscellaneous areas and dikes:

1. HMA construction process
2. HMA mix design requirements
3. Contractor quality control
4. Production start-up evaluation

B. Miscellaneous areas are outside the traveled way and include:

1. Median areas not including inside shoulders
2. Island areas
3. Sidewalks
4. Gutters
5. Gutter flares
6. Ditches
7. Overside drains
8. Aprons at the ends of drainage structures

C. Spread miscellaneous areas in one (1) layer and compact to the specified lines and grades. For miscellaneous areas and dikes:

1. Do not submit a JMF.
2. Choose the 3/8-inch or 1/2-inch HMA Type A aggregate gradations.
3. Minimum asphalt binder content must be 6.8 percent for 3/8-inch aggregate and 6.0 percent for 1/2- inch aggregate. If you request and if authorized, you may reduce the minimum asphalt binder content.

39-1.15 MINOR HOT MIX ASPHALT

39-1.15A GENERAL - Reserved

39-1.15B MATERIALS - Reserved

39-1.15C CONSTRUCTION

A. Produce HMA at a central mixing plant.

B. Choose any method and equipment to spread and compact. The surface must be:

1. Textured uniformly
2. Compacted firmly
3. Without depressions, humps, and irregularities Smoothness specifications do not apply.

39-2 STANDARD CONSTRUCTION PROCESS

39-2.01 GENERAL

A. Section 39-2 includes specifications for HMA produced and constructed under the Standard construction process.

39-2.02 CONTRACTOR QUALITY CONTROL

39-2.02A Quality Control Plan

A. Establish, implement, and maintain a QC plan for HMA. The QC plan must describe the organization and procedures you will use to:

1. Control the quality characteristics
2. Determine when corrective actions are needed (action limits)
3. Implement corrective actions

B. When you submit the proposed JMF, submit the proposed QC plan. Discuss the QC plan during the prepaving conference. The QC plan must address the following elements affecting HMA quality:

1. Aggregate
2. Asphalt binder
3. Additives
4. Production
5. Paving

C. The Engineer reviews each QC plan within five (5) business days from the submittal. Do not produce HMA until the Engineer authorizes the QC plan.

39-2.02B Quality Control Testing

A. HMA shall be verified by the Engineer prior to placement on the jobsite. If agreed to by the Contractor and the Engineer, the production start-up may be used for verification. If the production start-up is used for verification the Engineer may require removal and replacement of the HMA, at his/her discretion, in the event of verification failure.

B. Contractor shall have a quality control inspector present with a nuclear gauge actively monitoring compaction throughout the shift for all paving operations where

compaction is an acceptance criterion; the quality control inspector shall be devoted to that purpose and shall not have another role on the paving crew. Failure to have a quality control inspector present with a nuclear gauge will result in Liquidated Damages of $1,000 per day.

C. Contractor quality control materials testing is mandatory. Specific conditions may warrant a waiver of this requirement and will require a written request and authorization from the Engineer.

D. If the Contractor fails to submit quality control results to the Engineer within 72 hours of HMA placement, the Contractor waves all rights to dispute the Engineer's results. In the event of asphalt binder or Hamburg wheel track testing by the Engineer, the Contractor has five (5) days to submit their test results from the time the Engineer informs the Contractor that he/she is performing testing or the Contractor waves the right to dispute the Engineer's results.

E. The Engineer shall test for conformance with aggregate quality characteristics at the beginning of the project.

F. The Engineer shall test air void content and Hveem stability at least once per day, additional testing is at the discretion of the Engineer.

G. The Engineer may sample the hot mix asphalt from the windrow or the mat behind the paver at the discretion of the Engineer. The Contractor shall facilitate the sampling process.

H. Perform sampling and testing at the specified frequency for the quality characteristics shown in the following table:

Minimum Quality Control—Standard Construction Process

Quality Characteristic	Test Method	Minimum sampling and testing frequency	HMA Type A
Aggregate gradation[a]	California Test 202	1 per 750 tons and any remaining part	JMF ± Tolerance[b]
Sand equivalent (min)[c]	California Test 217		47
Asphalt binder content (%)	California Test 379 or 382		JMF ± 0.45
HMA moisture content (%, max)	California Test 226 or 370	1 per 2,500 tons but not less than 1 per paving day	1.0
Percent of maximum theoretical density (%)[d, e]	QC plan	2 per business day (min.)	92–97
Stabilometer value (min)[c, f] No. 4 and 3/8" gradings 1/2" and 3/4" gradings	California Test 366	1 per business day (min.)	 30 37
Air void content (%)[c, g]	California Test 367		TV ± 1.5
Aggregate moisture content at continuous mixing plants and RAP moisture content at continuous mixing plants and batch mixing plants[h]	California Test 226 or 370	2 per day during production	--

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	California Test 205	As designated in the QC plan. At least once per project	 90 75 70
Los Angeles Rattler (%, max) Loss at 100 rev. Loss at 500 rev.	California Test 211		 12 40
Flat and elongated particles (%, max by weight @ 5:1)	California Test 235		Report only
Fine aggregate angularity (%, min)	California Test 234		45
Coarse durability index, ($D_{c,}$ min)	California Test 229		65
Fine durability index, ($D_{f,}$ min)	California Test 229		50
Sodium Sulfate Soundness (%, max loss @ 5 cycles)	California Test 214		12
Voids filled with asphalt (%)[i] No. 4 grading 3/8" grading 1/2" grading 3/4" grading	California Test 367	As designated in the QC plan. At least once per project	 76.0–80.0 73.0–76.0 65.0–75.0 65.0–75.0
Voids in mineral aggregate (% min)[i] No. 4 grading 3/8" grading 1/2" grading 3/4" grading	California Test 367		 17.0 15.0 14.0 13.0
Dust proportion [1] No. 4 and 3/8" gradings 1/2" and 3/4" gradings	California Test 367		 0.9–2.0 0.6–1.3
Smoothness	Section 39-1.12	--	12-ft straight-edge, must grind, and PI_0
Asphalt rubber binder viscosity @ 350 °F, centipoises	Section 39-1.02D	Section 39-1.04C	--
Asphalt modifier	Section 39-1.02D	Section 39-1.04C	--
CRM	Section 39-1.02D	Section 39-1.04C	--
Hamburg wheel track (min number of passes at 0.5-inch rut depth) Specified Binder grade:	California Test 389[k,l]	1 per 10,000 tons. At least once per project	10,000 15,000 20,000 25,000

PG 58 PG 64 PG 70 PG 76 or higher			
Tensile Strength Ratio (% min.) [m]	California Test 371	1 per 10,000 tons. At least once per project	70[n]

[a] Determine combined aggregate gradation containing RAP under California Test 367.
[b] The tolerances must comply with the allowable tolerances in section 39-1.02E.
[c] Report the average of three (3) tests from a single split sample.
[d] Required for HMA Type A, Type B, and RHMA-G if the specified paved thickness is at least 0.15 foot.
[e] Determine maximum theoretical density (California Test 309) at the frequency specified for Test Maximum Density under California Test 375, Part 5.D.
[f] California Test 304, Part 2.13.
[g] Determine the bulk specific gravity of each lab-compacted briquette under California Test 308, Method A, and theoretical maximum specific gravity under California Test 309.
[h] For adjusting the plant controller at the HMA plant.
[i] Report only if the adjustment for the asphalt binder content TV is less than or equal to ±0.3 percent from OBC value submitted on a *Contractor Hot Mix Asphalt Design Data* form.
[j] Voids in mineral aggregate for RHMA-G must be within this range.
[k] Test plant-produced Type A HMA or Type G RHMA.
[l] Stripping inflection point is report only.
[m] Prepare specimens by California Test 304.
[n] This requirement is waved if a minimum of 0.5% Liquid Antistrip is present in the mix and daily plant reports are submitted that demonstrate it is present.

I. For any single quality characteristic except smoothness, if two (2) consecutive quality control test results do not comply with the action limits or Specifications:

1. Stop production.
2. Notify the Engineer.
3. Take corrective action.
4. Demonstrate compliance with the Specifications before resuming production and placement.

39-2.03 ACCEPTANCE CRITERIA

39-2.03A Testing

A. The Department samples for acceptance testing and tests for the quality characteristics shown in the following table:

HMA Acceptance—Standard Construction Process

Quality characteristic				Test Method	HMA Type A
Aggregate gradation [a]				California Test 202	JMF ± tolerance [c]
Sieve	3/4"	1/2"	3/8"		
1/2"	X [b]				
3/8"		X			
No. 4			X		
No. 8	X	X	X		
No. 200	X	X	X		
Sand equivalent (min) [d]				California Test 217	47

Asphalt binder content (%)	California Test 379 or 382	JMF ± 0.45
HMA moisture content (%, max)	California Test 226 or 370	1.0
Percent of maximum theoretical density (%) [e, f]	California Test 375	92–97
Stabilometer value (min)[d,g] No. 4 and 3/8" gradings 1/2" and 3/4" gradings	California Test 366	 30 37
Air void content (%) [d, h]	California Test 367	TV ± 1.5
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	California Test 205	 90 75 70
Los Angeles Rattler (%, max) Loss at 100 rev. Loss at 500 rev.	California Test 211	 12 40
Fine aggregate angularity (%, min)	California Test 234	45
Flat and elongated particles (%, max by weight @ 5:1)	California Test 235	Report only
Coarse durability index, (D_c, min)	California Test 229	65
Fine durability index, (D_f, min)	California Test 229	50
Sodium Sulfate Soundness (%, max loss @ 5 cycles)	California Test 214	12
Voids filled with asphalt (%) [i] No. 4 grading 3/8" grading 1/2" grading 3/4" grading	California Test 367	 76.0–80.0 73.0–76.0 65.0–75.0 65.0–75.0
Voids in mineral aggregate (% min) [i] No. 4 grading 3/8" grading 1/2" grading 3/4" grading	California Test 367	 17.0 15.0 14.0 13.0
Dust proportion [i] No. 4 and 3/8" gradings 1/2" and 3/4" gradings	California Test 367	 0.9–2.0 0.6–1.3
Smoothness	Section 39-1.12	12-ft straight-edge, must grind, and PI_0
Asphalt binder	Various	Section 92
Asphalt rubber binder	Various	--
Asphalt modifier	Various	--
CRM	Various	--

Hamburg wheel track (min number of passes at 0.5-inch rut depth) Specified Binder grade: PG 58 PG 64 PG 70 PG 76 or higher	California Test 389[k,l]	 10,000 15,000 20,000 25,000
Tensile Strength Ratio (% min.) [m]	California Test 371	70[n]

[a] The Engineer determines combined aggregate gradations containing RAP under California Test 367.

[b] "X" denotes the sieves the Engineer tests for the specified aggregate gradation.

[c] The tolerances must comply with the allowable tolerances in section 39-1.02E.

[d] The Engineer reports the average of 3 tests from a single split sample.

[e] The Engineer determines percent of maximum theoretical density if the specified paved thickness is at least 0.15 foot under California Test 375, except the Engineer uses:

1. California Test 308, Method A, to determine in-place density of each density core instead of using the nuclear gauge in Part 4, "Determining In-Place Density By The Nuclear Density Device."
2. California Test 309 to determine maximum theoretical density instead of calculating test maximum density in Part 5, "Determining Test Maximum Density."

[f] The Engineer determines maximum theoretical density (California Test 309) at the frequency specified for Test Maximum Density under California Test 375, Part 5.D.

[g] California Test 304, Part 2.13.

[h] The Engineer determines the bulk specific gravity of each lab-compacted briquette under California Test 308, Method A, and theoretical maximum specific gravity under California Test 309.

[i] Report only if the adjustment for the asphalt binder content TV is less than or equal to ±0.3 percent from the OBC value submitted on a *Contractor Hot Mix Asphalt Design Data* form.

[j] Voids in mineral aggregate for RHMA-G must be within this range.

[k] Test plant-produced Type A HMA or Type G RHMA.

[l] Stripping inflection point is report only.

[m] Prepare specimens by California Test 304.

[n] This requirement is waved if a minimum of 0.5% Liquid Antistrip is present in the mix and daily plant reports are submitted that demonstrate it is present.

B. No single test result may represent more than 750 tons, one street, or one (1) day of production, whichever is less.

C. For any single quality characteristic except smoothness, if two (2) consecutive acceptance test results do not comply with the Specifications:

1. Stop production.

2. Take corrective action.

3. Take samples and split each sample into 4 parts in the Engineer's presence. Test 1 part for compliance with the specifications and submit 3 parts to the Engineer. The Department tests 1 part for compliance with the specifications and reserves and stores 2 parts.

4. Demonstrate compliance with the specifications before resuming production and

placement.

D. The Engineer may withhold acceptance in the event of any failing test result until the Contractor has addressed the failing material to the Engineer's satisfaction.

E. Lots to determine compaction testing shall be based on the following:

1. Each 750 tons, or part thereof, placed on an individual street in a paving day. If over 750 tons are placed in a single paving day on an individual street, up to 150 tons over 750 tons can be moved into the previous 750 ton lot.

2. If multiple streets are paved in a day, each street will be considered its own lot with multiple lot on streets where greater than 750 tons are placed.

F. Density testing shall be required on all layers that are at least 1.75 inches in thickness unless the Engineer determines area is not suitable for traditional compaction methods.

G. The in-place density shall be between 92.0 percent and 97.0 percent of maximum theoretical specific (Rice) gravity using a nuclear gauge. At the Engineer's discretion, compaction testing may be performed using a nuclear gauge. Final compaction is based on the average nuclear gauge results for the lot. The nuclear gauge will be core correlated the first day of paving using as many cores as the Engineer deems appropriate.

H. If nuclear gauge compaction testing results are failing, the Contractor can request coring to verify the results. Three (3) cores will be sampled for each lot and the average of the three cores for each lot will determine the in-place density. The core locations will be determined using random sampling charts in CTM 375. The Engineer will mark the core locations.

I. Cores may be taken up to five (5) calendar days after placement and may be 4 or 6 inches in diameter. The Engineer will provide results within three (3) working days of receiving the cores.

J. Passing cores shall be paid for by the Owner. Failing cores will be paid for by the Contractor. If the core testing produces both passing and failing cores, the cost will be prorated between the Contractor and the Owner.

K. For the percent of maximum theoretical density, the following table shall apply to deductions for average compaction of a lot:

Reduced Payment Factors for Percent of Maximum Theoretical Density

HMA Type A percent of maximum theoretical density	Reduced payment factor	HMA Type A percent of maximum theoretical density	Reduced payment factor
92.0	0.0000	97.0	0.0000
91.9	0.0125	97.1	0.0125
91.8	0.0250	97.2	0.0250
91.7	0.0375	97.3	0.0375
91.6	0.0500	97.4	0.0500
91.5	0.0625	97.5	0.0625
91.4	0.0750	97.6	0.0750
91.3	0.0875	97.7	0.0875
91.2	0.1000	97.8	0.1000

91.1	0.1125	97.9	0.1125
91.0	0.1250	98.0	0.1250
90.9	0.1375	98.1	0.1375
90.8	0.1500	98.2	0.1500
90.7	0.1625	98.3	0.1625
90.6	0.1750	98.4	0.1750
90.5	0.1875	98.5	0.1875
90.4	0.2000	98.6	0.2000
90.3	0.2125	98.7	0.2125
90.2	0.2250	98.8	0.2250
90.1	0.2375	98.9	0.2375
90.0	0.2500	99.0	0.2500
< 90.0	Remove and replace	> 99.0	Remove and replace

39-2.04 TRANSPORTING, SPREADING, AND COMPACTING

A. Determine the number of rollers needed to obtain the specified density and surface finish.

39-3 METHOD CONSTRUCTION PROCESS

39-3.01 GENERAL

A. Section 39-3 includes specifications for HMA produced and constructed under the Method construction process.

39-3.02 ACCEPTANCE CRITERIA

39-3.02A Testing

A. The Department samples for acceptance testing and tests for the quality characteristics shown in the following table:

HMA Acceptance—Method Construction Process

Quality characteristic	Test Method	HMA Type A
Aggregate gradation [a]	California Test 202	JMF ± tolerance [b]
Sand equivalent (min) [c]	California Test 217	47
Asphalt binder content (%)	California Test 379 or 382	JMF ± 0.45
HMA moisture content (%, max)	California Test 226 or 370	1.0
Stabilometer value (min) [c, d] No. 4 and 3/8" gradings 1/2" and 3/4" gradings	California Test 366	 30 37
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	California Test 205	 90 75 70
Los Angeles Rattler (% max) Loss at 100 rev. Loss at 500 rev.	California Test 211	 12 40
Air void content (%) [c, e]	California Test 367	TV ± 1.5

Fine aggregate angularity (% min)	California Test 234	45
Flat and elongated particles (% max by weight @ 5:1)	California Test 235	Report only
Coarse durability index, (D_c, min)	California Test 229	65
Fine durability index, (D_f, min)	California Test 229	50
Sodium Sulfate Soundness (%, max loss @ 5 cycles)	California Test 214	12
Voids filled with asphalt (%) [f] No. 4 grading 3/8" grading 1/2" grading 3/4" grading	California Test 367	 76.0–80.0 73.0–76.0 65.0–75.0 65.0–75.0
Voids in mineral aggregate (% min) [f] No. 4 grading 3/8" grading 1/2" grading 3/4" grading	California Test 367	 17.0 15.0 14.0 13.0
Dust proportion [f] No. 4 and 3/8" gradings 1/2" and 3/4" gradings	California Test 367	 0.9–2.0 0.6–1.3
Smoothness	Section 39-1.12	12-ft straight-edge, must grind, and PI_0
Asphalt binder	Various	Section 92
Asphalt rubber binder	Various	--
Asphalt modifier	Various	--
CRM	Various	--
Hamburg wheel track (min number of passes at 0.5-inch rut depth) Specified Binder grade: PG 58 PG 64 PG 70 PG 76 or higher	California Test 389[h,i]	 10,000 15,000 20,000 25,000
Tensile Strength Ratio (% min.) [j]	California Test 371	70[k]

[a] The Engineer determines combined aggregate gradations containing RAP under California Test 367.

[b] The tolerances must comply with the allowable tolerances in section 39-1.02E.

[c] The Engineer reports the average of three (3) tests from a single split sample.

[d] California Test 304, Part 2.13.

[e] The Engineer determines the bulk specific gravity of each lab-compacted briquette under California Test 308, Method A, and theoretical maximum specific gravity under California Test 309.

[f] Report only if the adjustment for the asphalt binder content TV is less than or equal to ±0.3 percent from the OBC value submitted on a *Contractor Hot Mix Asphalt Design Data* form.

[g] Voids in mineral aggregate for RHMA-G must be within this range.
[h] Test plant-produced Type A HMA or Type G RHMA.
[i] Stripping inflection point is report only.
[j] Prepare specimens by California Test 304.
[k] This requirement is waved if a minimum of 0.5% Liquid Antistrip is present in the mix and daily plant reports are submitted that demonstrate it is present.

B. No single test result may represent more than 750 tons or one (1) day of production, whichever is less.

C. For any single quality characteristic except smoothness, if two (2) consecutive acceptance test results do not comply with the Specifications:

1. Stop production.

2. Take corrective action.

3. Take samples and split each sample into 4 parts in the Engineer's presence. Test 1 part for compliance with the specifications and submit 3 parts to the Engineer. The Department tests 1 part for compliance with the specifications and reserves and stores 2 parts.

4. Demonstrate compliance with the Specifications before resuming production and placement.

39-3.03 SPREADING AND COMPACTING EQUIPMENT

A. Each paver spreading HMA Type A must be followed by three (3) rollers as follows:

1. One 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. One 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. One steel-tired, 2-axle tandem roller. The roller's gross static weight must be at least 7.5 tons.

B. Each roller must have a separate operator. Rollers must be self-propelled and reversible.

39-3.04 TRANSPORTING, SPREADING, AND COMPACTING

A. Pave HMA in maximum 0.25-foot thick compacted layers.

B. If the surface to be paved is both in sunlight and shade, pavement surface temperatures must be taken in the shade.

C. Spread HMA Type A at the atmospheric and surface temperatures shown in the following table:

Minimum Atmospheric and Surface Temperatures

Compacted layer	Atmospheric, °F	Surface, °F

thickness, feet	Unmodified asphalt binder	Modified asphalt binder[a]	Unmodified asphalt binder	Modified asphalt binder [a]
< 0.15	55	50	60	55
0.15–0.25	45	45	50	50

[a] Except asphalt rubber binder.

D. If the asphalt binder for HMA Type A is unmodified asphalt binder, complete:

1. First coverage of breakdown compaction before the surface temperature drops below 250 degrees F.

2. Breakdown and intermediate compaction before the surface temperature drops below 200 degrees F.

3. Finish compaction before the surface temperature drops below 150 degrees F.

E. If the asphalt binder for HMA Type A is modified asphalt binder, complete:

1. First coverage of breakdown compaction before the surface temperature drops below 240 degrees F.

2. Breakdown and intermediate compaction before the surface temperature drops below 180 degrees F.

3. Finish compaction before the surface temperature drops below 140 degrees F.

F. HMA compaction coverage is the number of passes needed to cover the paving width. A pass is one (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.

G. Start rolling at the lower edge and progress toward the highest part.

H. Perform breakdown compaction of each layer of HMA Type A with three (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 thickness of the HMA layer is less than 0.08 foot, turn the vibrator off. Engineer may order fewer coverages if HMA thickness is less than 0.15 foot.

I. Perform intermediate compaction of each layer of HMA Type A with three (3) coverages using a pneumatic-tired roller at a speed not exceeding 5 mph.

J. Perform finish compaction of HMA Type A with one (1) coverage using a steel-tired roller.

PART 4- MEASUREMENT AND PAYMENT

A. The contract unit price for ton of "Hot Mix Asphalt (Type A - 1/2-inch Maximum)" shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for performing all the work involved (including applying tack coat) as shown on the Plans and as specified in these Technical Specifications, the Standard Specifications, and as directed by the Engineer and no additional compensation will be allowed.

B. The weight of each HMA mixture designated in the Bid Item List must be the combined

mixture weight.

C. Contractor shall include in the unit price all costs relating to submitting the JMF including all testing and production costs for JMF verification and quality control testing. The unit price includes the cost of providing the Contractor's Quality Control Plan.

D. Section 9-1.07 "Payment Adjustments for Price Index Fluctuations" of the Standard Specifications are not applicable to this project and no adjustments will be made.

8. FENCES AND GATES [80]

PART 1. GENERAL

1.01 SCOPE

The work required under this Section shall include but is not limited to all labor, tools, materials, equipment, and incidentals required to install fencing and three gates at the project site as shown on the Drawings, contained in these Specifications, and directed by the Engineer and may include, but is not necessarily limited to, the following:

Contractor shall supply gates in three locations as shown on the plans.

Gates for positions (A) and (C), Napa San Access Road Gates

- Gates shall be a minimum of six feet in height, 14' clear width when gate is open, and shall be sufficiently secure as to prevent vehicle travel onto the Napa San service road. See Napa County gate standard D-11.
- Gates shall be made of aluminum, sufficiently durable for daily use, and lockable in case of emergency or other need.
- Gates shall swing out away from the parking lot access road.
- Gate structure to include vertical bars spaced no more than 4" apart.
- Gates shall be remote operable both by remote and by keypad for vehicles approaching by way of service road either from North or South, with adequate optical & proximity safety sensors to prevent gates from closing on vehicles within gate swing radius.
- Power to be provided by solar panel and deep cycle battery, all electronics for gate operator secured in a lockable, weatherproof enclosure.

Parking lot entrance gate

- Gate shall be of sufficient height and width to prevent ingress by vehicle to parking lot when closed: 22' clear width when gates are open split between two panels. See Napa County gate standard D-11.
- Gate shall be made of metal, sufficiently durable for daily use, and lockable in case of emergency or other need.
- Gate panels shall swing out away from the parking lot towards the street.
- Gate structure to include vertical bars spaced no more than 4" apart.
- Gate shall be operable by keypad from outside (street side), and should be openable by vehicle proximity sensor from inside parking lot to provide egress to vehicles inside parking lot after park opening hours until 2 hours after park closing.
- Gate controls should include programmable timing controls to operate gate according to schedule, with adequate safety sensors to prevent gates from closing on vehicles within gate swing radius.
- Power to be provided by solar panel and deep cycle battery, all electronics for gate operator secured in a lockable, weatherproof enclosure.

1.02 REFERENCES AND REGULATORY REQUIREMENTS

A. All materials and workmanship shall conform to the County of Napa Public Works Department Engineering Standard Plans and Specifications for Public Improvements, and addenda.

B. All earth, grass and other obstructions that interfere with the proper installation of the fence and gates shall be removed and disposed of off-site in a legal manner. Such work will be considered as part of the fence construction.

1.03 SUBMITTALS

Within 10 days after the award of the contract, CONTRACTOR shall submit to DISTRICT for review and approval before installation, the following items:

1. Shop drawings, including details illustrating layout, sizes and gauges of all fence components, hardware and footings.

1.04 MEASUREMENT

Measurement for fence shall be on a linear foot basis as shown on the Drawings, according to these Specifications, and as approved by the Engineer.

1.04 PAYMENT

Payment for Fence shall be on a linear foot basis, which shall include all costs associated with this task.

Payment for gates shall be on a piece basis, which shall include all costs associated with this task.

PART 2. MATERIALS

2.01 FENCE

1. Wire:
    a. Type: barbed wire, zinc coated, 13 gage or better, minimum breaking strength of 590 lbs.
    b. Spacing: 4- strand, spacing from ground: 14 inches, 10 inches, 10 inches, 10 inches
    c. All wire to be stretched tight.
    d. Splices to be western union splices, wrapped a minimum of five times around the other wire.
2. Line Posts:

a. Standard “Tee” or “U” section galvanized steel posts, weighing not less than 1.29 lbs per foot of length, exclusive of anchor plate.

b. Posts to be studded, embossed or punched for the attachment of wire to the posts.

c. Wire to be attached to the posts by wrapping 16 gage galvanized wire or with clips of equal or better strength.

d. Post to be 6 foot length, set minimum of 2 feet into the ground. There should be less than 1 inch of horizontal movement at the top of the post when a horizontal force of 80 lbs is applied.

e. 12 foot maximum post interval (6 foot maximum for final interval at corners and gates)

f. Approximately every 100 feet the fence post shall be set in concrete.

3. Corner, Gate and Brace Posts:

a. Corner and gate posts to be Galvanized steel posts, 3 inch diameter pipe, located at all corners and gates

b. Corner and gate posts to be set in concrete.

c. Bracing required at all corners, gates and at all definite angles in line fence. Top brace of 2 inch diameter pipe or angle iron, installed not less than 3 feet above ground line and no higher than top wire. A tension member composed to two complete loops of 12 ½ gauge double stranded barbed or smooth wire, shall extend from a point approximately six inches below the top of the brace post to ground level of the post being braced. The brace wire shall be twisted to secure the brace and provide needed rigidity.

2.02 GATES

1. Parking Lot Entrance Gate

a. Gate shall be of sufficient height and width to prevent ingress by vehicle to parking lot when closed: 22’ clear width when gates are open split between two panels. See Napa County gate standard D-11.

b. Gate shall be made of metal, sufficiently durable for daily use, and lockable in case of emergency or other need.

c. Gate shall be operable by keypad from outside (street side), and should be openable by vehicle proximity sensor from inside parking lot to provide egress to vehicles inside parking lot after park opening hours until 2 hours after park closing.

d. Gate controls should include programmable timing controls to operate gate according to schedule, with adequate safety sensors to prevent gates from closing on vehicles within gate swing radius.

e. Power to be provided by solar panel and deep cycle battery, all electronics for gate operator secured in a lockable, weatherproof enclosure.

2. Napa Sanitation Access Road Gates

    a. Gates shall be a minimum of six feet in height, 14' clear width when gate is open, and shall be sufficiently secure as to prevent vehicle travel onto the Napa San service road. See Napa County gate standard D-11.
    b. Gates shall be made of aluminum, sufficiently durable for daily use, and lockable in case of emergency or other need.
    c. Gates shall swing out away from the parking lot access road.
    d. Gate structure to include vertical bars spaced no more than 4" apart.
    e. Gates shall be remote operable both by remote and by keypad for vehicles approaching by way of service road either from North or South, with adequate optical & proximity safety sensors to prevent gates from closing on vehicles within gate swing radius.
    f. Power to be provided by solar panel and deep cycle battery, all electronics for gate operator secured in a lockable, weatherproof enclosure.

PART 3. EXECUTION

3.01 INSTALLATION OF FENCE

A. CONTRACTOR shall prepare the areas for fence accordance with the drawings. All posts to be true and plumb.

B. The exact location of fencing shall be verified by Engineer prior to placement.

C. Installer must be experienced in fence installations and must examine conditions under which fence is to be installed. Notify the Engineer of improper conditions of work. Do not proceed with work until unsatisfactory conditions have been corrected in a manner acceptable to the Engineer.

D. Vertical and horizontal angle points in the fence alignment, where the angle of deflection is 30 degrees or more, shall be considered as corners and corner posts shall be installed.

E. Locate foundations accurately to alignment and grade. Excavated material shall be spread in a uniform manner along the fence line. Place concrete around posts in a continuous pour and rod concrete to eliminate voids. Make posts plumb and true with a vertical tolerance of 3-inch and hold in position during placement and finishing of concrete. Extend foundations to one-inch above grade. Slope the top to shed water away from the posts and finish trowel the exposed surfaces. Keep exposed concrete moist and let set for at least 72 hours after placement.

F. Do not install wires until concrete has set for 72 hours.

3.02 INSPECTION AND ACCEPTANCE

A. Within 5 days after the completion of installing fence, the Engineer shall inspect the fence and method of installation. If, after inspection, the Engineer is satisfied with the fence, the CONTRACTOR shall be notified of stage acceptance.

B. If, after inspection, the Engineer is dissatisfied with the fence and conformance to the Drawings and Specifications, the Engineer will prepare a written punch list of necessary corrective actions on defective work. The corrections must be completed by the CONTRACTOR within 5 days of the initial inspection.

3.03 MEASUREMENT AND PAYMENT

A. The contract unit price paid for "4-Strand Barbed Wire Fencing" shall include full compensation for equipment, materials and vehicles necessary to perform the work specified herein, in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

B. The contract unit prices paid for "Parking Lot Entrance Gate", and "Napa Sanitation Access Road Gates" shall include full compensation for equipment, materials and vehicles necessary to perform the work specified herein, in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

END OF SECTION

9. SIGNS [82]

PART 1 – GENERAL

1.01 DESCRIPTION

A. This section includes specifications for fabricating and furnishing sign panels, posts and foundations. This work shall consist of furnishing and installing roadside sign(s) on telespar metal posts and foundation or approved equal. All work related to signs shall conform to the requirements in Section 82, "Signs and Markers," of the Standard Specifications, and these Technical Specifications.

B. All signs must comply with the California Manual on Uniform Traffic Control Devices, California Sign Specifications and the federal Standard Highway Signs and Markings book. Those publications and related publications are available at the Caltrans Traffic Operations Web site under signs and work zones.

C. All signs shall be mounted upon single steel metal post.

PART 2 – PRODUCTS

2.01 SUBMITTALS

A. Submit a certificate of compliance for the following:

- Aluminum sheeting
- Retroreflective sheeting
- Screened process colors
- Non-reflective, opaque, black film
- Protective-overlay film

Submit quality control plan for sign panels no more than 15 calendar days prior to fabrications per the requirements in Section 82 of the Standard Specifications must comply with the project plans, California Sign Specifications, Federal Standard Highway Signs and Markings Book, and Section 82 of the Standard Specifications.

2.02 MATERIALS

All signs must be manufactured from aluminum sheeting meeting all of the requirements in Section 82-2, "Sign Panels" of the Standard Specifications.

Retroreflective sheeting, mountings, sign panel fastening hardware and process colors and film are per Section 82-2, "Sign Panels" of the Standard Specifications.

Metal posts for roadside signs located within concrete sidewalk and/or behind concrete curb and gutter must meet the requirements of Section 82-3-02B, "Metal Posts" of the Standard Specifications.

PART 3 – EXECUTION

3.01 CONSTRUCTION

A. Construction for signs on metal posts shall be per the County of Napa Standard Plans and Section 82-2.03 "Construction" of the Standard Specifications.

B. Sign panel installation must conform to the County of Napa Standard Plans and Section 82-3.03 "Construction" of the Standard Specifications. Concrete for sign foundations must conform to Section 90-2 "Minor Concrete" of the Standard Specifications.

PART 4- MEASUREMENT AND PAYMENT

A. The contract unit price paid for "Install New Sign on New Metal Post and Foundation" shall be paid for at the contract price per each (EA) which price shall include full compensation for furnishing all labor, materials, tools and equipment, and doing all the work involved in a new sign on a new post and foundation.

10. PAVEMENT MARKINGS [84]

PART 1 – GENERAL

1.01 DESCRIPTION

A. This section shall apply to all pavement markings and striping, and rumble strips including removal of existing markings, where required.

B. Refer to Section 84 "Markings" of the Standard Specifications for all pavement markings.

PART 2 – PRODUCTS

A. All pavement markings and striping shall be paint and must comply with Section 84 of the Standard Specifications

PART 3 – EXECUTION

3.01 PLACEMENT

A. Placement of markings shall be in accordance with Section 84-2.03 of the Standard Specification.

B. The Contractor shall coordinate striping and marking layouts with Engineer and get confirmation of acceptance of striping and marking layouts from Engineer prior to beginning any application of striping or markings.

C. The Contractor shall correct any deficiencies identified by Engineer where such correction work is not eligible for additional charges as such work is considered part of the unit cost for markings

PART 4 - MEASUREMENT AND PAYMENT

A. The contract unit price paid for the various "Pavement Markings" bid items shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for performing all the work involved, including removal of existing markings, as shown on the plans and as specified in these Special Provisions, the Standard Specifications, and as directed by the Engineer and no additional compensation will be allowed therefore.

11. STORM DRAIN

PART 1 - GENERAL

All Storm Drain and Subdrain works shall conform to Section 61, "General" and either Section 64, "Plastic Pipe" of the Standard Specifications and these Technical Specifications.

New pipe installed shall conform to the size listed on the project plans. Pipe shall be the material and class specified on the plans. HDPE shall conform to the provisions of Section 64, "Plastic Pipe" of the Standard Specifications and these Technical Specifications.

PART 2 - MATERIALS

PVC Pipe shall be SDR35 and comply with section 64-2 "Plastic Pipe" of the Standard Specifications.

PART 3 - EXECUTION

If the Contractor encounters solid rock or other unyielding material at the planned elevation of the bottom of the bedding shown, remove the material below the bottom of the bedding to a depth of not less than 3 inches or more than 12 inches. Backfill the resulting trench below the bottom of the bedding controlled density fill.

All pipes, culverts, or similar structures, that are stored at the construction site vertically or horizontally for one or more overnight periods shall be securely capped on both ends prior to storage and thoroughly inspected by an Engineer designated personnel for wildlife prior to placement.

PART 4 - MEASUREMENT AND PAYMENT

A. The contract price paid for various Storm Drain and Subdrain, Cleanouts, Drain Inlets, and associated items shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for performing all the work involved as shown on the plans and as specified in these Technical Specifications, the Standard Specifications, and as directed by the Engineer and no additional compensation will be allowed.

12. QUALITY CONTROL [96]

PART 1 – GENERAL

1.01 DESCRIPTION

A. The Contractor is responsible for Quality Control.

B. The Contractor is responsible for the quality of the work including materials and workmanship performed by the subcontractors.

C. The Contractor will cooperate and coordinate with the DISTRICT for Quality Assurance testing performed by the DISTRICT.

D. The DISTRICT performing Quality Assurance inspections and testing does not relieve the Contractor from the responsibility of performing all Quality Control testing required to deliver a quality product.

E. Quality Control includes all tasks required to deliver a coordinated and complete project that is in compliance with the intent of the Contract Documents.

PART 2 – PRODUCTS – NOT USED

PART 3 – EXECUTION

3.01 SITE INVESTIGATION AND CONTROL

A. The Contractor shall verify all dimensions in the field and shall check all field conditions continuously during construction. The Contractor shall be solely responsible for any inaccuracies built into the Work. The Contractor shall inspect related and appurtenant work and shall report in writing to the Engineer, any conditions which will prevent proper completion of the Work. Any required removal, repair, or replacement caused by unsuitable conditions shall be done by the Contractor at its sole cost and expense.

3.02 INSPECTION OF WORK

A. The Work shall be conducted under the general observation of the Engineer and shall be subject to inspection by the DISTRICT and other agencies having jurisdiction over the project to assure strict compliance with the requirements of the Contract Documents.

B. The authorized representative of the Engineer on the project site shall be acting directly and through various inspectors at the site. The presence of the inspectors, however, shall not relieve the Contractor of their responsibility for the proper execution of the Work in accordance with all requirements of the contract documents. Compliance is a duty of the Contractor and shall not be avoided by any act or omission on the part of an inspector.

C. All materials and articles furnished by the Contractor shall be subject to inspection. No material or articles shall be used in the Work until it has been inspected and accepted by the Engineer.

D. Source Inspection: Some material shall be subject to inspection by the Engineer or their authorized representative at the place of production.

E. The presence of the Engineer at the place of production shall not relieve the Contractor of the responsibility for furnishing products, materials, and equipment that comply with all requirements of the contract documents.

3.03 SAMPLING AND TESTING

A. Unless otherwise specified in these Special Provisions, all sampling and testing shall be in accordance with the methods prescribed in the current standards of Caltrans, ASTM, or other specified published standards, as applicable to the class and nature of the article or materials considered. The DISTRICT reserves the right to use any generally accepted system of sampling and testing which, in the opinion of the Engineer, will assure the DISTRICT that the quality of the workmanship is in full accord with the contract documents.

B. Any waiver by the DISTRICT of any specific testing or other quality assurance measures, whether or not such waiver is accompanied by a guarantee of substantial performance as a relief from the specified testing or other quality assurance requirements as originally specified, and whether or not such guarantee is accompanied by a "performance bond" to assure execution of any necessary corrective or remedial Work, shall not be construed as a waiver of any prescriptive or performance requirements of the contract documents. "Performance bond" as used in this section is a separate bond in addition to the Contract Performance Bond required in the General Conditions.

C. Notwithstanding the existence of waiver, and in addition to any testing and inspection performed by any other inspector on behalf of the DISTRICT or any other public agency having jurisdictions over the project, the Engineer shall have the right to make independent investigations and tests, and failure of any portion of the Work to meet any of the requirements of the contract documents shall be reasonable cause for the Engineer to require the removal or correction and reconstruction of any such work in accordance with the General Conditions.

3.04 TIME OF INSPECTIONS AND TESTS

A. Samples and test specimens required under the contract documents shall be furnished by the Contractor and prepared for testing in time for the completion of the necessary tests and analyses before the subject materials or articles are to be used.

B. The DISTRICT will perform field density testing. The Contractor shall furnish all required test specimens at its own expense. Except as otherwise provided in the contract documents, performance of the required initial test will be by the DISTRICT and all costs will be borne by the DISTRICT except that the cost of any test (retesting) after the initial test shall be borne by the Contractor. The DISTRICT performing Quality Assurance testing does not relieve the Contractor from its responsibility of performing all required Quality Control testing to deliver a quality project.

C. The Contractor at the Contractor's own expense shall perform field testing for utilities that may be affected by the Work. The Contractor shall coordinate and schedule witnessing of field testing with the DISTRICT and any other agency having jurisdiction over the project. The Contractor shall notify the Engineer no less than 48 hours in advance of beginning field testing.

D. Whenever the Contractor is ready to backfill, bury, cast in concrete, hide, or otherwise cover or make inaccessible any work under the Contract, the Contractor shall notify the Engineer no less than 48 hours in advance of beginning any work of backfilling, burying, casting in concrete, hiding, covering, or making inaccessible any portion of the Work to be inspected so that required inspections can be performed.

E. Failure by the Contractor to notify the Engineer at least 48 hours in advance of any inspection or field testing shall be reasonable cause for the Engineer to require sufficient delay in the Contractor's schedule to allow time for such inspections and any remedial or corrective work required. All costs of such delays, including its impact or effect upon the Work, shall be borne by the Contractor.

3.05 DEFECTIVE AND NONCOMPLIANT WORK

A. Attention is directed to Section 5-1.30 "Noncompliant and Unauthorized Work" and Section 5-1.39 "Damage Repair and Restoration" of the Standard Specifications.

B. Per Section 5-1.30 "Noncompliant and Unauthorized Work" of the Standard Specifications, the Contractor shall correct or remove and replace work that does not comply with the Contract at Contractor's cost. DISTRICT will reduce payment for noncompliant work left in place until the work has been corrected. If the Contractor fails to comply promptly with an order under Section 5-1.30, the DISTRICT may correct, remove, or replace noncompliant or unauthorized work. The DISTRICT will deduct the cost of this work from the Contract.

C. Per Section 5-1.39 "Damage Repair and Restoration" of the Standard Specifications, before Contract acceptance, the Contractor shall restore damaged work to the same state of completion as before the damage. The DISTRICT does not adjust payment for repair or restoration that the Engineer determines was caused by the Contractor's failure to construct the work under the Contract or protect the work.

D. The Contractor shall submit a repair or restoration work plan and scheduled for the approval of the Engineer prior to proceeding with work. The submittal must comply with the requirements in Technical Specifications, Section 14 "Submittal Procedures" of these Special Provisions.

PART 4 – MEASUREMENT AND PAYMENT

A. Full compensation for complying with the provisions of this section shall be considered as included in the contract price for the various bid items, and no separate payment will be made.

13. MISCELLANEOUS

PART 1 – GENERAL

1.02 DESCRIPTION

A. Concrete Wheel Stops

B. Boulders

C. Bollards

PART 2 – PRODUCTS – NOT USED

PART 3 – EXECUTION

3.01 CONCRETE WHEEL STOPS
Shall be of materials, sized and located per plan.

3.02 BOULDERS
Shall be minimum 4 ft in their greatest dimension and placed per plan. Submit source documents for Engineer's approval.

3.03 BOLLARDS
Shall be of materials, sized, and located per plan.

PART 4 – MEASUREMENT AND PAYMENT

A. Full compensation for complying with the provisions of this section shall be considered as included in the contract price for the various bid items, and no separate payment will be made.