



Karuk Tribe
ASIP815 – OWC Parking Facility Project
Technical Specifications
May 2014



**TECHNICAL SPECIFICATIONS FOR:
ASIP815 – OWC PARKING FACILITY PROJECT**

Owner:

Karuk Tribe
64236 Second Ave. · P.O. Box 1016
Happy Camp, California 96039

Engineer:

Joshua A, Wolf, P.E.

GHD
718 Third Street
Eureka, CA 95501
(707) 443-8326



May 8, 2014



**TECHNICAL SPECIFICATIONS
Special Provisions to the
Caltrans Standard Specifications, 2010**

1.0 GENERAL

A. PROJECT DESCRIPTION

The Karuk Tribe ("Tribe") intends to award a contract for the ASIP815 – OWC Parking Facility Project. The project includes all work included in the Plans, General Provisions, Technical Specifications, Standard Plans and Standard Specifications, to produce a complete and functional project, as determined by the Tribe.

B. SCOPE OF WORK

Contractor shall provide all materials, supervision, labor, equipment and supplies for construction of the ASIP815 – OWC Parking Facility Project. The work generally includes, but is not limited to demolition of an existing parking lot and construction of a parking facility including the construction of concrete curbs and sidewalks, asphalt concrete pavement, storm piping and inlets, water/irrigation piping, landscaping/plants, traffic signs, pavement striping, electrical conduit, and parking lot lights.

C. LOCATION OF WORK

The work site is located off Asip Road in Orleans, State of California.

D. CONTRACTOR'S LICENSE REQUIREMENTS

The Contractor's license needed for this project is Class A - General Engineering. Construction staking shall be provided by a California licensed Land Surveyor. Landscaping shall be provided by a California licensed Landscape Contractor (C-27).

E. POINT OF CONTACT

The following Karuk Tribe's Representatives are involved in this project:

- | | | |
|---------------------|---|---------------------------------|
| 1. Project Manager: | Sandi Tripp, Director of Transportation | 530-627-3063
or 530-643-1468 |
| 2. Engineer: | Josh Wolf, GHD Inc. | 707-443-8326 |

F. INQUIRIES

All inquiries for the project shall be made to Sandi Tripp, at 530-627-3063, or stripp@karuk.us.

G. STANDARDS

All work shall adhere to California Department of Transportation (CalTrans) 2010 Standard Specifications and Standard Plans and the Special Provisions contained herein and the latest edition of the California Building Code (CBC), Local, State and Federal regulations, all of which are incorporated into this Contract by reference. If in conflict, the Special Provisions will take precedence. The CalTrans Standard Specifications and Plans (2010) can be found at: http://www.dot.ca.gov/hq/esc/oe/specifications/std_specs/2010_StdSpecs/.

H. CONFLICTS

Whenever a conflict arises between any of the referenced specifications, the plans take precedence with detail drawings having precedence over State Standard Plans in all cases. The



special provisions take precedence over the State Standard Specifications.

I. PERMITS AND LICENSES

The Contractor is responsible for obtaining all permits and licenses needed for this project, and paying associated fees. A Caltrans encroachment permit is required for all work within Caltrans right-of-way.

J. CONTRACTOR'S USE OF PREMISES

1. The Contractor shall take all reasonable precautions to restrict operations to the least area of work possible and shall not disturb private property beyond the areas of work or easements for the project.
2. The Contractor shall post temporary "No Parking" signs with dates and time restrictions described in work areas a minimum of forty-eight (48) hours prior to commencement of work. However, if the intended work does not commence within 24 hours of the scheduled work, all "No Parking" signs shall be removed from the site unless otherwise directed by the Tribe. See "Traffic Control" section regarding coordinating work.
3. The normal working hours shall be no earlier than 8:00 A.M. and no later than 5:30 P.M. weekdays, unless otherwise approved in advance by the Karuk Tribe.
4. The Contractor shall be allowed to stage equipment and materials within the limits of work shown on the plans. Any materials or equipment staged outside the construction limits of work shall be provided by the Contractor at their own expense.
5. The Contractor shall be cognizant of all utilities that cross the work area and take adequate measures to protect the utilities from damage. The Karuk Tribe assumes no liability of the location of utilities marked or otherwise, and the Contractor is encouraged to examine the site and contact the utilities via USA to determine if conflicts exist.
6. The Contractor is responsible for arranging hook-up of temporary power and is responsible for power hookup and power usage costs. It is the Contractor's responsibility to ensure the compatibility of power sources for their equipment.
7. The Contractor is responsible for furnishing and installing all required temporary buildings with sanitary toilets for use of all workmen; comply with all minimum requirements of the Health Department or other public agency having jurisdiction; maintain in a sanitary condition at all times.

K. DIFFERING SITE CONDITIONS

Attention is directed to Section 4-1.06, "Differing Site Conditions," of the Standard Specifications. During the progress of the work, if subsurface or latent conditions are encountered at the site differing materially from those indicated in the "Materials Information," borings, other geotechnical data obtained by the Karuk Tribe's investigation of subsurface conditions, or an examination of the conditions above ground at the site, the party discovering those conditions shall promptly notify the other party in writing of the specific differing conditions before they are disturbed and before the affected work is performed.

The Contractor will be allowed 15 days from the notification of the Owner's Representative's determination of whether or not an adjustment of the contract is warranted, in which to file a notice of potential claim in conformance with the provisions of Section 5-1-43, "Potential Claims



and Dispute Resolution" of the Standard Specifications and as specified herein; otherwise the decision of the Owner's Representative shall be deemed to have been accepted by the Contractor as correct. The notice of potential claim shall set forth in what respects the Contractor's position differs from the Owner's Representative's determination and provide any additional information obtained by the Contractor, including but not limited to additional geotechnical data. The notice of potential claim shall be accompanied by the Contractor's certification that the following were made in preparation of the bid: a review of the contract, a review of the "Technical Data," a review of the borings and other records of geotechnical data to the extent they were made available to bidders prior to the opening of bids, and an examination of the conditions above ground at the site.

L. INCREASED OR DECREASED QUANTITIES

Sections 9-1.06B "Changed Quantity Payment Adjustments" of the Standard Specifications is amended as follows:

Section 9-1.06B "Increases of More than 25%". **Does not apply to this project.**

Section 9-1.06C "Decreases of More than 25%". **Does not apply to this project.**

M. WORK SAFETY

The Contractor shall assume sole and complete responsibility for job site conditions for the duration of the project including, but not limited to, the safety and health conditions on the work site. This requirement shall apply continuously and shall not be limited to normal working hours. Contractor shall comply with all applicable provisions of law including the standards, rules, regulations and orders established by the California Division of Industrial Safety. Contractor shall furnish and use safety devices and safeguards and shall adopt and use practices, means, methods, operations, and processes which are reasonably adequate to render the work site safe and healthful. Contractor shall take all steps necessary to ensure that any hazardous condition is corrected promptly either by the Contractor or by assigning such responsibility to the appropriate subcontractor and ensuring that the corrections are completed. The Karuk Tribe, design Engineer, construction manager and the officers, agents or employees, shall not have charge of or responsibility for construction or safety means, methods, techniques, procedures, as these are solely the responsibility of Contractor.

N. CONFINED SPACES

For any work that is to take place in a confined space, the Contractor shall comply with all CAL/OSHA regulations concerning entry into confined spaces. Confined space for the purpose of this Article shall mean the interior of storm drains, sewers, vaults, utility pipelines, manholes, reservoirs, and any other such structure which is similarly surrounded by confining surfaces so as to permit the accumulation of dangerous gases or vapors. Tests for the presence of combustible or dangerous gases shall be made with an approved device immediately prior to a worker entering a confined space and at intervals frequent enough to ensure a safe atmosphere during the time a worker is in such a structure. A record of such tests shall be kept at the job site. Sources of ignition, including smoking, shall be prohibited in any confined space until after the atmosphere within the confined space has been tested and found safe. No employee shall be permitted to enter or remain within a confined space until such confined space is free of concentrations of harmful gases, and lack of oxygen, unless the employee is wearing suitable and approved respiratory equipment. Confined spaces that contain or that have last been used as containers of toxic gases, light oils, hydrogen sulfide, corrosives, or poisonous substances, shall, in every case, be tested by means of approved devices or chemical analysis before being entered without wearing approved respiratory equipment. Reservoirs, vessels, or other confined spaces



having openings or manholes in the side as well as in the top shall be entered from the side openings or manholes when practicable.

O. ARCHAEOLOGICAL MONITORING

The Contractor shall notify the Tribe a minimum of 72 hours in advance of any excavation, and will not proceed with any excavation work until cleared to do so by the Tribe. A Tribal monitor or archaeologist may be on site during construction activities. The contractor is advised that if any archaeological findings are discovered during construction that the monitor or archaeologist has the authority to slow or stop construction activities as they deem necessary.

In the event that the items with archeological value are discovered during excavation work involving cutting, filling, scarifying, utility demolition or construction, drainage culvert work, etc., the Tribe shall be notified immediately.

All excavation work shall immediately halt in the suspected archeological site discovered until the Tribal monitor or archaeologist gives the approval for resuming construction. The Contractor further agrees to continue construction in the area outside the data recovery site using light to moderate equipment in excavation work subject to the approval of the Tribe, and/or the cultural monitor or archaeologist. The Contractor shall fully cooperate with the cultural monitor or archaeologist.

The Contractor shall take all precautionary measures as directed by the authorized cultural monitor or archaeologist to minimize any contamination of storm water runoff, silt, organic debris, fuels and other harmful materials that may disturb the strata or excavated portions that are being analyzed or recovered. The Contractor shall provide temporary measures to prevent spillage or direct entry into the pit or work area of the roadway necessary to accommodate public traffic at all times, and shall take every precaution against public injury or damage to the surrounding areas within the work site area.

The Contractor and/or Subcontractor shall not claim compensation for any delay of work as a result of any unforeseen archaeological site discovered during construction. Time extensions may be granted to the Contractor for such delays resulting from discovery of historic resources in the project. No construction work shall resume or be continued the suspected archeological site until such time an approval has been issued by the Karuk Tribe, cultural monitor, or archaeologist.

P. RECORD DRAWINGS

Using colored ink, the Contractor shall make changes on a set of clean prints of the contract drawings. Indicate all changes and revisions to the original design that affect the permanent structures/facilities. Reference underground utilities to semi-permanent or permanent physical objects. Reference water, sewer, telephone, and electrical lines to corners of buildings and survey markers. Drawings shall be kept current with all work instructions, change orders and construction adjustments. Drawings shall be subject to the inspection of the Owner's Representative at all times. Progress payments, or portions thereof, may be withheld if drawings are not accurate and current. Project record drawings are the property of the Karuk Tribe. Prior to acceptance of the work, the Contractor shall deliver to the Karuk Tribe one (1) set of neatly marked record drawings, accurately showing all the information required above. Full compensation for furnishing all labor, tools, equipment, material and incidentals and for doing all the work involved with conforming to the requirements of this section shall be considered as included in the contract prices paid for the various items of work.



Q. SUBMITTALS

General

Submit samples, drawings, and data for the Owner's Representative's approval which will demonstrate fully that the construction, and all materials and equipment to be furnished will comply with the provisions and intent of this specification. Submit all samples, drawings and data, unless specified otherwise, in the quantity required for return to the Contractor, plus three, which the Owner's Representative will retain. Label each sample, naming the project, the source of the material, and the proposed location of use on the project. Restrict each submittal to only one Specification Section or portion thereof. Unless otherwise specifically permitted by the Owner's Representative, make all submittals in groups containing all associated items for complete systems. The Owner's Representative may reject partial submittals as not complying with the provisions of the contract documents.

Specific items to be covered by submittals shall include, but not limited to, the following:

Designation of Authorized Representative	Water Pipe and Fittings
Work Plan	Utility Boxes
Traffic Control Plan	Pavement Markings and Stripes
Contractors Materials Tester/Lab	Roadside Signs and Posts
Class 2 Aggregate Base	Turf Reinforcement Mat
Hot Mix Asphalt Mix Design	Rock Slope Protection
Concrete Mix	Pergola
Concrete Reinforcement	Wood Fence and Gate
Detectable Warning Surface	Import Topsoil
Irrigation Sleeve and Utility Boxes	Hydroseed Seed Mix
Concrete Wheelstops	Plants
Filter Fabric	Rock Mulch
Storm Drain Pipe and Fittings	Weed Fabric
Area Drains and Catch Basins	Electrical Conduit & Conductor
Flared End Sections	Electrical Pullbox
	Street Light Standard

Where the specifications indicate that the Contractor must follow manufacturer's instructions for installation of materials or equipment, those instructions shall be submitted to the Karuk Tribe prior to the start of work whether or not instructions are listed specifically as a submittal. When referenced, the manufacturers printed installation instructions shall have the same effect as if printed in the contract documents. Make all shop drawings accurately to a scale sufficiently large to show all pertinent features of the item and its method of connection to the work. Make all shop drawing prints in blue or black line on white background. Reproductions of the Karuk Tribe's drawings are not acceptable. The Contractor shall not use red color marks on submittals. Duplicate all marks on all copies submitted and ensure marks are photocopy reproducible. Include legible scale details, sizes, dimensions, performance characteristics, capacities, test data, anchoring details, installation instructions, storage and handling instructions, color charts, layout drawings, parts catalogs, rough-in diagrams, wiring diagrams, controls, weights, and other



pertinent data. Provide, at a minimum, the detail provided in the Contract Documents. Prior to submittal for Engineer's review, use all means necessary to fully coordinate all materials, including the following procedures:

1. Determine and verify all field dimensions and conditions, materials, catalog numbers, and similar data.
2. Coordinate as required with all trades and with all public agencies involved.
3. Secure all necessary approvals from public agencies and others and signify by stamp, or other means, that they have been secured.

The Contractor shall make all submittals far enough in advance of scheduled dates of installation to provide all required time for reviews, for securing necessary approvals, for possible revision and resubmittal, and for placing orders and securing delivery. In scheduling, allow at least five (5) calendar days for the Engineer's review, plus the transit time to and from the Karuk Tribe's office.

At least one copy of each submittal will be returned to the Contractor marked "No Exceptions Taken", "Make Corrections Noted", "Revise and Resubmit", or "Rejected." Submittals marked "Approved as Noted" need not be resubmitted, but the notes shall be followed. If a submittal is rejected, it will be marked to indicate what is unsatisfactory. Resubmit revised drawings or data as indicated, in number of copies specified above.

Approval of each submittal by the Engineer will be general only and shall not be construed as:

1. Permitting any departure from the contract requirements.
2. Relieving the Contractor of the responsibility for any errors and omissions in details, dimensions, or of other nature that may exist.
3. Approving departures from additional details or instructions previously furnished by the Engineer.
4. Relieving the Contractor from verifying all field conditions and dimensions.

Any submittals which are returned to the contractor for resubmittal due to incompleteness or noncompliance more than once will cause additional review time and expense for the Karuk Tribe. The Contractor shall reimburse the Karuk Tribe for all costs associated with the third and subsequent review of any submittals. The Karuk Tribe reserves the right to deduct resubmittal review costs from amounts due the Contractor.

The contract is based on the materials, equipment, and methods described in the contract documents. Any proposed substitutions by the Contractor are subject to the Tribe's approval. The Tribe will consider proposals for substitution of materials, equipment, and methods only when such proposals are accompanied by full and complete technical data, and all other information required by the Owner's Representative to evaluate the proposed substitution. Requests for substitutions shall be accompanied by a cover letter stating the reason for the substitution and any cost difference between the specified and proposed material. Any deviations from the plans and specifications shall be clearly identified on the submittal.

Certificate of Compliance

Certificates of Compliance may be required for any material incorporated into the project at the Tribe's discretion.

Form of Submittal

Before submitting materials, Contractor shall provide the Owner's Representative a template for



example submittal form for the Owner's Representatives approval or the Contractor shall use the sample form designated by the Owner's Representative.

Contractor shall completely identify each submittal and re-submittal by using the form approved by the Owner's Representative and number submittals consecutively beginning with 1. Re-submittals shall retain the original number with an added suffix starting with "A". Said form shall include the name of the Engineer and the Project Name. It shall also clearly indicate the Item Description, Manufacturer, Specification Section Reference and Drawing Sheet Number(s) Reference. All submittals shall be certified by the Contractor for completeness and for compliance with the contract documents with the following Certification: *I hereby certify that all material submitted has been checked for completeness, for correctness, and for compliance with the drawings and specifications, that field dimensions and conditions have been verified, and that exceptions, if any are clearly noted.* Allow a 3" x 4" space on the form for the Engineer's Submittal Stamp. Transmit all submittals to Owner's Representative.

R. Measurement and Payment

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

When the bid schedule does not contain a pay item for work shown in the plans or called for in the Contract Documents, no direct payment for work will be made, but the work will be considered paid under other contract items. Items of work or other services which the Contractor is required to supply, such as clean-up or other incidental items, and which are not listed as separate bid items shall be included in the related bid items and shall be considered as paid in those items, whether or not specifically identified in the descriptions. Also included in such contract costs are any costs associated with the repair of damage, which may occur to existing improvements as a result of these construction operations.

Unless otherwise specified, measurement for work is in place, complete, and accepted.

The contract price paid shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved as detailed in the Standard Specifications, these Special Provisions, and the plans. No additional compensation will be allowed therefor.

2.0 ORDER OF WORK AND PROGRESS SCHEDULE

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

- A. The first order of work will be for the Contractor to prepare and submit a Work Plan and Schedule, Traffic Control Plan, and Submittals, for review and acceptance by the Owner's Representative.

The Contractor shall allow ten (10) working days each for the Owner's Representative review of the above submittals which will be counted concurrently if all items are submitted simultaneously.

No work may begin under the Contract until the Work Plan and Schedule, and Traffic Control Plan have been approved by the Owner's Representative. Time required for review and approval of these items shall not constitute a basis for Contract time extension.



- B. The second order of work, prior to commencing work, shall include obtaining an Underground Service Alert (USA) utility locate.
- C. The third order of work shall include implementing traffic control devices.
- D. The fourth order of work shall include the installation of water pollution control BMP's.
- E. The fifth order of work shall include clearing and grubbing, the removing existing pavements and demolition of existing facilities.
- F. The sixth order of work shall include grading/excavation for new curbs and gutters, pavement and other improvements, and the installation of underground utilities.
- G. The seventh order of work shall include completing construction of concrete curbs, gutters and pavement. Work also includes the installation of detectable warning surfaces.
- H. The eighth order of work shall include the preparation of asphalt concrete structural section including subgrade and base preparation, and the placement of asphalt concrete surface. Work also includes adjust utility boxes to finished grade.
- I. The ninth order of work shall include installation and activation of street lights.
- J. The tenth order of work shall include placement of pavement markings, striping, markers, signage, concrete wheelstops, rock energy dissipater, topsoil, rock mulch, pergola, landscaping and hydroseed.
- K. The eleventh order or work shall include site cleanup and the removal of traffic control.

The Contractor shall prepare and submit a work plan and progress schedule in accordance with Section 8-1.02 "Schedule" of the Standard Specifications and in a form provided by, or acceptable to the Karuk Tribe. The above items shall clearly disclose the Contractor's proposed procedures and methods of operation, and identify the contractors proposed schedule. The Progress Schedule will be reviewed for accuracy weekly. Any modifications to the Progress Schedule shall be submitted to the Karuk Tribe in writing. Modifications to the Progress Schedule will not constitute approval for a work schedule extension.

Measurement and Payment

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.

3.0 EXISTING FACILITIES

Attention is directed to 5-1.36 "Non-Highway Facilities" of the Standard Specifications and these Special Provisions.

It is not the intent of the plans to show locations of existing utilities, and the Karuk Tribe assumes no responsibility therefor. The Contractor shall be responsible for verifying their actual location and depth in the field. Where excavation is anticipated, the Contractor shall notify Underground Service Alert at (800) 642-2444 prior to excavation. It should be understood that various utilities are indicated on the Plans to show only the approximate location and must be verified in the field by the Contractor. It may be expected that there will be variation in location from that as shown on the Plans to the actual location. Actual



location can best be determined in the field after pre-marking by the various utilities affected. The various utilities will cooperate with the Contractor to endeavor to familiarize the Contractor with all known underground utilities obstructions, but this will not relieve the Contractor from assuming full responsibility in anticipating and locating their actual location with respect to utilities which the Contractor must locate and identify under the provisions hereof. The Contractor shall inform and coordinate all necessary operations with all local utility providers including the following agencies:

The Underground Service Alert (USA)	(800) 642-2444
Orleans Community Services District	(530) 627-3454
Karuk Tribe (Fred Burcell)	(530) 505-2785

Measurement and Payment

Full compensation for protection of existing utility facilities shall be considered as included in the various contract unit prices paid for the items of work and no additional compensation will be allowed.

4.0 PRESERVATION OF PROPERTY

Attention is directed to the provisions in Section 5-1.36A "Property and Facility Preservation", of the Standard Specifications, and these Special Provisions.

The Contractor will make a thorough investigation of the job site and size equipment accordingly. The Contractor shall select equipment to avoid damaging existing facilities, which include, but are not limited to: street paving, pipes, traffic controls, sidewalks, plants and trees, landscaping, curbs and gutters, retaining walls, fencing etc. The Contractor, at no cost to the Karuk Tribe or property owner, shall restore any damage caused by the Contractor.

Measurement and Payment

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.

5.0 MOBILIZATION/DEMobilIZATION

General

Attention is directed to the provisions in Section 9-1.16, "Progress Payments" and Section 9-1.17, "Payment After Contract Acceptance" of the Standard Specifications, and these Special Provisions.

Mobilization and Demobilization shall consist of preparatory work and operations including, but not limited to, those necessary for the movement of personnel, equipment, supplies and incidentals to the project site; for the establishment of all offices, buildings and other facilities necessary for work on the project; and for all other work and operations which must be performed or costs incurred prior to beginning work on the various contract items on the project site. Also included are final site cleanup, removal of all unused construction waste and demobilization of equipment from the site.

Measurement and Payment

Payment for Mobilization/Demobilization shall be made on a lump sum basis. This work covers all contractor costs and effort associated with mobilizing equipment, materials, and labor to the project site



as well as demobilization of same for both the base bid schedule and any additive bid schedules if awarded. Items covered by this include, but are not limited to, bonds, insurance, contracting and administrative costs, costs associated with temporary facilities and utilities, punch list items, repairs of damaged property, site cleanup, and project maintenance and warranty. The Owner will pay the following:

- Payment for 50 percent of the item total for the first monthly progress payment request
- Payment for 25 percent of the item total for the second monthly progress payment request
- Payment for 15 percent of the item total for the third monthly progress payment request
- Payment for remainder of the item total upon final project acceptance

6.0 TEMPORARY TRAFFIC CONTROL

General

The Contractor shall refer to the current California Manual of Uniform Traffic Control Devices, and shall furnish, erect, maintain and remove all necessary signs and devices during the length of this contract.

The applicable sections of Section 7-1.03 "Public Convenience", Section 7-1.04 "Public Safety", and Section 12, "Temporary Traffic Control", and Section 12-1.03 "Flagging Costs" regarding flagging costs are further revised to provide that all flaggers shall be provided by the Contractor at his expense. Flaggers shall be properly equipped and trained in accordance with "Instructions to Flaggers," published by the California Department of Transportation.

The contractor is responsible for developing and submitting to the Karuk Tribe a Traffic Control Plan for review and approval prior to commencement of construction activity.

Materials

Portable construction area signs shall comply Section 12-3.06B(1) and 12-3.06B(3) of the Standard Specifications.

The base material of construction area signs shall not be plywood, cardboard, or paper.

Construction

Prior to the start of work, the Contractor shall furnish the Karuk Tribe with a Traffic Control Plan. During the contract period, the Contractor shall coordinate his activities daily with the Karuk Tribe and make every effort to minimize the disruption of normal traffic and parking.

Contractor shall conduct operation as to offer the least possible obstruction and inconvenience to the public, and shall have under construction no greater amount of work than can prosecute properly with due respect to the rights of the public. The Contractor shall notify all affected parties 72-hours prior to any authorized road or driveway closures.

Contractor shall sequence and phase work in such a manner to allow for adequate parking facilities for persons accessing the health clinic and elder facility located at the project site. At a minimum, Contractor shall provide ten (10) temporary parking stalls with 50 feet of each facility for a total of twenty (20) temporary parking stalls. Few stalls may be provided if approved in advance by the Owner's Representative.

The Contractor shall provide safe pedestrian access to buildings at all times, to the satisfaction of the Owner. When a pedestrian path of travel traverses an active work area, Contractor shall be required to install temporary fencing to delineate work area.



The Contractor shall be prepared to remove closures and provide emergency vehicle access at all times. The Contractor will not be entitled to compensation for the delays of work resulting from a closure needing to be opened in order to provide emergency vehicle access.

All temporary signs and warning devices, including warning signs placed beyond the limit of work, shall be provided by the Contractor and shall become his property after completion of the contract.

Work shall be accomplished in such a manner as to provide access to all intersecting streets and adjacent properties whenever possible. Access to private property shall be maintained at all times to the extent practicable. Any access restrictions shall be approved in advance by the Owner.

The Contractor shall post temporary NO PARKING signs as described in the "GENERAL" section of these Special Provisions. Written notice, approved by the Owner's Representative, shall be forwarded to the Karuk Tribe prior to any posting. It shall be the responsibility of the Contractor to maintain signs and barricades overnight and on weekends and until the completion of the contract. It will be the responsibility of the Contractor to arrange for the towing and removal of any vehicles which have not been removed by the owner and which interfere with any operations

At the end of any working day when work operations have obscured existing traffic striping, the striping shall be restored via reflective painting or other interim materials subject to the approval of the Karuk Tribe.

At the end of each day's work, and at other times when construction operations are suspended, all equipment and other obstructions shall be removed from that portion of roadway open for use by public traffic.

If any component in the traffic control system is displaced, or ceases to operate or function as specified, from any cause, during the progress of the work, the Contractor shall immediately repair said component to its original condition or replace said component and shall restore the component to its original location.

Measurement and Payment

Measurement and payment for this item shall be on a lump sum basis. The contract price shall include full compensation for furnishing all labor (including flagging costs), materials, tools, equipment, and incidentals, and for doing all the work involved including but not limited to: notifications, placing, removing, storing, maintaining, moving to new locations, replacing, and disposing of the components of the traffic control system as shown on the plans, including portable construction area signs, as specified in the Standard Specifications and these Special Provisions, and as directed by the Owner's Representative. The Owner will pay the following:

- Payment for 50 percent of the item total for the first monthly progress payment request
- Payment for 25 percent of the item total for the second monthly progress payment request
- Payment for 15 percent of the item total for the third monthly progress payment request
- Payment for the remainder of the item total upon final project acceptance

7.0 CONSTRUCTION STAKING

General

This work shall consist of furnishing and setting construction stakes and marks by the Contractor to establish the lines and grades required for the completion of the work as shown on the plans and as specified in the Standard Specifications and these Special Provisions.



Contractor shall arrange for construction staking by a California licensed Land Surveyor.

Construction

The layout and establishment of grades shall be made by the Contractor. The layout and grades shall be reviewed by the Owner's Representative prior to the placement of concrete. All layout and grades shall conform to the current code requirements for slopes and cross slopes. At locations where grades are not indicated on the plans, the work shall be laid out to comply with existing code requirements.

All other specifications, including the requirements in Section 5-1.26, "Construction Surveys," of the Standard Specifications, which require the establishment of lines and grades by the Engineer shall not apply to this contract.

Construction stakes and markings shall be removed from the site of the work when no longer needed.

Measurement and Payment

Measurement and payment for this item shall be on a lump sum basis.

8.0 CONTRACTOR MATERIALS TESTING AND QUALITY CONTROL

General

The Contractor shall be responsible for controlling the quality of the materials incorporated into the work and of the work performed, and he shall cooperate with the Owner's Representative for necessary sampling requested by the Owner's Representative for material testing.

Soil, hot mix asphalt, aggregate, fill and backfill sampling and testing shall be performed by an independent materials testing firm certified and licensed to perform such tests assigned to or requested of them. The materials testing firm retained by the Contractor shall be subject to approval of the Tribe. Should a test or retest indicate non-compliance with the requirements of the Contract Documents, the non-complying item of work shall be removed, reconstructed or reworked at no additional cost to the Karuk Tribe. All reconstructed and reworked items of work shall be tested in the same manner as required for the initial work at no additional cost to the Karuk Tribe. Prior to any removal, reconstruction or rework of any work item already incorporated into the project, the Contractor shall first obtain the approval of the Karuk Tribe and Engineer as to the Contractor's proposed methods for removal, reconstruction, or rework.



Testing Frequencies

Contractor's materials tester shall perform the following tests:

Materials to be Tested	Frequency	Test Methods	Description of Test
Fill and Subgrade	1 per 500 sf/lift or fraction thereof for fill; 1 per 500 sf or fraction thereof for pavement (asphalt and concrete) subgrade;	ASTM D1557/D6938	Relative Compaction and In-Place Density
Trench Backfill and Aggregates	1 per 100 lf/lift or fraction thereof for trench backfill 1 per 500 sf/lift or fraction thereof for pavement (asphalt and concrete) subbase or base;	CT 216/231	Relative Compaction and In-Place Density
Asphalt Concrete	1 per 500 sf/lift or fraction thereof	CT 375	Relative Compaction and In-Place Density

Measurement and Payment

Contractor Material testing and Quality Control will be measured and paid by lump sum. The payment will be full compensation for furnishing all services and providing all personnel, equipment, supplies and materials, and incidentals necessary to complete required contractor sampling and testing for the project.

When initial tests indicate non-compliance with the Contract Documents, all subsequent retesting occasioned by the non-compliance shall be performed by the same testing laboratory and the cost thereof shall be paid by the Contractor. Payment for Contractor Material testing and Quality Control will not be made until all required test results are received by the Tribe.

9.0 WATER POLLUTION CONTROL

General

Attention is directed to Section 13 "Water Pollution Control" and Section 21 "Erosion Control" of the Standard Specifications and the following Special Provisions. The Contractor shall implement best management practices (BMPs) to protect coastal waters from pollution with sediments, fuels, oils, and other harmful materials.

This work includes but is not limited to furnishing, constructing, and maintaining permanent and temporary erosion and sediment control measures in accordance with the specifications, required by permits or as ordered by the Tribe during the life of the contract. This work is necessary to control water pollution, soil erosion and siltation through the use of fiber rolls, silt fences, inlet protection, and other approved erosion control devices or methods.

All maintenance and fueling required for heavy equipment and other vehicles shall be performed 100-feet away from a storm drainage inlet or drainage swale in a confined area such that there is no possibility of



contaminants being discharged to the swale. Hazardous materials (fuels, lubricants, solvents, etc.) will not be stored within 100-feet of a drainage or water body. Any failure of equipment that results in water pollution is the responsibility of the Contractor. All fuel, oils, and other harmful materials will be cleaned up to the satisfaction of the Tribe and at no additional cost to the Tribe.

If measures being taken by the Contractor are inadequate to control water pollution effectively, the Tribe may direct the Contractor to revise the operations and the water pollution control measures. No further work shall be performed until the water pollution control measures are adequate as determined by the Tribe.

Construction

The Contractor shall become fully informed of, and comply with the applicable provisions of Federal, State and local regulations that govern the Contractor's operations and storm water discharges from both the project site and areas of disturbance outside the project limits during construction.

Unless arrangements for disturbance of areas outside the project limits are made by the Tribe and made part of the contract, it is expressly agreed that the Tribe assumes no responsibility to the Contractor or property owner whatsoever with respect to any arrangements made between the Contractor and property owner to allow disturbance of areas outside the project limits.

The Contractor shall be responsible for the costs and for any liability imposed by law as a result of the Contractor's failure to comply with the requirements set forth in this section "Water Pollution Control" including, but not limited to, compliance with Federal, State and local regulations. For the purposes of this paragraph, costs and liabilities include but are not limited to fines, penalties and damages whether assessed against the Tribe or the Contractor, including those levied under the Federal Clean Water Act and the State Porter Cologne Water Quality Act.

If measures being taken by the Contractor are inadequate to control water pollution effectively, the Owner's Representative may direct the Contractor to revise the operations and the water pollution control measures. No further work shall be performed until the water pollution control measures are adequate as determined by the Owner's Representative.

Measurement and Payment

Full compensation for conforming to the provisions in this section, not otherwise provided for, shall be considered as included in prices paid for the various contract items of work involved.

10.0 DUST CONTROL

General

Dust control shall conform to the provisions in Section 14-9.03, "Dust Control," of the Standard Specifications and these Special Provisions.

Construction

The following on-site mitigation measures shall be implemented for the duration of clearing and grubbing, demolition, excavation, concrete and paving activities to control dust:

- Trucks hauling dirt or other loose materials that exceed the top of the sides of the bed shall be covered.
- A water truck shall be available as needed to prevent a dust nuisance or as directed by the Owner's Representative.



This list is not inclusive and Contractor is responsible and liable for controlling dust at all times from all activities in the project area.

Measurement and Payment

Full compensation for conforming to the provisions in this section, not otherwise provided for, shall be considered as included in prices paid for the various contract items of work involved.

11.0 TEMPORARY SHORING AND EXCAVATION SAFETY

General

Attention is directed to Section 7-1.02K(6)(b), "Excavation Safety," of the Standard Specifications and these Special Provisions. Contractor shall comply with Labor Code § 6705 while excavating. For an excavation 5 feet or more in depth, submit shop drawings for a protective system.

Construction

Temporary support shoring, temporary bracing, and protective covers if required, shall be designed and constructed in conformance with the provisions in Section 15-4.01C(2)(b), "Protective Covers," and Section 48 "Temporary Structures," of the Standard Specifications.

Temporary construction excavations and structures should conform to the regulations of the State of California, Department of Industrial relations, Division of Industrial Safety or other stricter governing regulations. The stability of temporary cut slopes, such as those constructed during the installation of the walls shall be the responsibility of the Contractor. The temporary cut slopes shown on the plans are considered maximum slopes; however, depending upon site conditions the Geotechnical Engineer may allow steeper temporary cut slopes.

If the Contractor elects to use temporary shoring, the Contractor shall submit a temporary shoring plan to the Tribe prior to commencing the work. The design submittal shall be prepared by a Civil Engineer registered in the State of California and shall address all aspects of the design, installation, and removal of the shoring system.

Measurement and Payment

Full compensation for conforming to the provisions in this section, not otherwise provided for, shall be considered as included in prices paid for the various contract items of work involved and.

12.0 CLEARING AND GRUBBING

General

Clearing and grubbing shall conform to the provisions in Section 16, "Clearing and Grubbing," of the Standard Specifications.

Construction

Clearing and grubbing shall include, but not be limited to, the removal from the areas of work all weeds, debris, concrete rubble, vegetation including roots and stumps as necessary to accommodate construction operations, or as directed by the Owner's Representative. In addition, minor clearing of trash and debris may be necessary for within the limits of work.

Areas to be graded should be stripped of the upper few inches (3-inches max) of soil containing organic



matter. Soil containing more than two percent by weight of organic matter should be considered organic. Actual stripping depth may be determined by the Owner's Representative in the field at the time of stripping. The strippings shall be removed from the site.

Measurement and Payment

The lump sum price paid for Clearing and Grubbing shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals necessary to perform the work as stated herein and shown on the plans including but not limited to removal and disposal of trash, concrete rubble, vegetation, trees, sod, roots, weeds and other debris, pruning of existing vegetation as specified herein and as directed by the Owner's Representative.

13.0 DEMOLITION OF EXISTING FACILITIES

General

The work performed in connection with various existing facilities shall conform to the provisions in Section 15, "Existing Facilities," of the Standard Specifications and these special provisions.

Construction

Existing curbs, gutters, driveways, walkways, concrete slabs, culverts, signs, posts, foundations, and other items where specified on the plans shall be removed and disposed of in accordance with the provisions of Section 15 of the Standard Specifications. Concrete and asphalt pavement shall be saw-cut and removed within existing joints as necessary. All material removed shall be considered the property of the Contractor and shall be removed and disposed of in accordance all applicable laws at the Contractor's expense. Demolished materials shall be disposed of outside the right of way in accordance with the Standard Specifications and applicable regulations. Before disposing material on non-Tribal property, the contractor shall follow the requirements in Section 5-1.20B(4) "Contractor-Property owner Agreement". The Contractor shall restore at his or her expense all landscaping including sod, irrigation lines, miscellaneous concrete and/or other item of work to preconstruction status, in like kind or better, damaged by his/her operations.

Measurement and Payment

The contract lump sum price paid for Demolition of Existing Facilities shall include furnishing all labor, materials, tools, equipment and incidentals for doing all the work involved in removing and disposing of curbs, gutters, berms, driveways including necessary sawcut, removal of water pipe, and signs, posts, as shown on the plans, as specified herein and in the Standard Specifications and as directed by the Owner's Representative.

14.0 EXCAVATION AND GRADING

General

Excavation and Grading shall conform to the provisions in Section 19-2 "Roadway Excavation," Section 19-1.03E "Ditch Excavation," and Section 19-6 "Embankment Construction" of Section 19 "Earthwork," of the Standard Specifications and these special provisions.

Construction

Excavation and Grading shall consist of all excavation (cut and fill) necessary for the grading and construction of roads, staging area connections, slope rounding, benching, swales, and ditches regardless of the nature or characteristics of material encountered during construction. Excavation and



Grading also includes the removal of existing sub-base, base, surfacing, pavement and subgrade preparation, and no separate payment will be made therefore.

Before disposing material, the contractor shall follow the requirements in Section 5-1.20B(4) "Contractor-Property owner Agreement".

The Owner's Representative may require the contractor to demonstrate compliance with subgrade requirements by proof rolling (in addition to compaction testing), which shall be conducted with a fully loaded 10 yard dump truck with a minimum rear axle load of 8 tons or equivalent. The subgrade surface should provide a firm and unyielding surface under the load of the dump truck.

Measurement & Payment

The contract lump sum price paid for Excavation and Grading shall include full compensation for furnishing all labor, materials, tools, equipment, transportation, and incidentals; and for excavating material (including existing asphalt concrete roadway), placing fill material, subgrade compaction, maintaining any stockpiled material, transporting and disposal of excess material, to a legal dump site, or other approved location, and all of the work involved as detailed in the Standard Specifications, these Special Provisions, and the plans and typical sections.

Before disposing material, the contractor shall follow the requirements in Section 5-1.20B(4) "Contractor-Property owner Agreement".

15.0 STORM DRAIN AREA DRAINS, CLEANOUT AND FLARED END SECTIONS

General

This work shall consist of furnishing and installing new storm drain areas drains, catch basins, cleanouts and flared end sections where called for in the plans and these Special Provisions.

Materials

Area drains shall be the make and model as shown on the plans.

Catch basins shall be precast concrete, with minimum 4-inch thick walls, and 6-inch thick bottom, and shall conform to the provisions of Section 70 "Miscellaneous Drainage Facilities" and these Special Provisions. Grates for catch basins shall be bolt down, galvanized steel, ADA compliant, with H-20 loading.

Cleanouts materials shall be per details in the plans.

Flared end sections shall be high density polyethylene meeting ASTM D3350 minimum cell classification 213320C. Flared end section size shall match that of the pipe that it connects to.

Construction

Excavation and backfilling operations shall comply with the manufacturer's recommendations and the requirements of Section 19, "Earthwork", of the Standard Specifications. During any excavation and backfilling operations, the Contractor is specifically directed to Subsection 19-1.02, "Preservation of Property". The Contractor shall protect any items, facilities, or improvements, as necessary, in order to avoid causing damage.

Measurement and Payment

Measurement for Area Drains, Catch Basins, Cleanouts and Flared End Sections shall each be on a unit



basis for each unit installed complete and in place. The above contract unit cost shall be considered full compensation for layout of structures, measuring and evaluating existing or new pipes to determine the final dimensions and alignment, excavation, subgrade preparation, bedding, backfill, compaction, connection of piping, and site cleanup. This item covers all labor, materials, tools, equipment, transportation, and incidentals; and other expenses to provide a finished product and all of the work involved as detailed in the Standard Specifications, these Special Provisions, and the plans.

Rock energy dissipaters used at Flared End Sections is measured and paid separately.

16.0 DOWNSPOUT CONNECTION

General

This work shall consist of furnishing and installing new downspout connections where called for in the plans and these Special Provisions.

Materials

4-inch storm drain lateral piping shall be single wall corrugated HDPE (ADS, Hancor, or approved equal). All fittings, connections and adapters shall be HDPE (ADS, Hancor, or approved equal). Downspout extensions shall be the same material, color and size of the existing downspout.

Construction

Excavation and backfilling operations shall comply with the manufacturer's recommendations and the requirements of Section 19, "Earthwork", of the Standard Specifications. During any excavation and backfilling operations, the Contractor is specifically directed to Subsection 19-1.02, "Preservation of Property". The Contractor shall protect any items, facilities, or improvements, as necessary, in order to avoid causing damage.

Measurement and Payment

Measurement for Downspout Connections shall each be on a unit basis for each unit installed complete and in place. The above contract unit cost shall be considered full compensation for layout, measuring and evaluating existing or new pipes to determine the final dimensions and alignment, excavation, subgrade preparation, bedding, backfill, compaction, 4-inch HDPE storm drain piping, HDPE fittings, connections and adapters, downspout extensions, and site cleanup. This item covers all labor, materials, tools, equipment, transportation, and incidentals; and other expenses to provide a finished product and all of the work involved as detailed in the Standard Specifications, these Special Provisions, and the plans.

17.0 STORM DRAIN PIPE

General

This work shall consist of furnishing and installing Storm Drain Pipe called for in the plans and these Special Provisions.

Materials

6-inch storm drain piping shall be single wall corrugated HDPE (ADS, Hancor, or approved equal), or schedule 40 PVC. All fittings, connections and adapters shall be HDPE (ADS, Hancor, or approved equal) or PVC. Joints for HDPE shall be bell & spigot push-on type joints. Joints for PVC pipe shall be solvent weld.

8-inch and 12-inch storm drain piping shall be corrugated HDPE pipe, dual wall, smooth interior wall with



annular exterior corrugations and shall conform to the provisions of Section 64, Plastic Pipe of the Standard Specifications. Pipe shall be joined using a bell & spigot joint meeting ASTM F2648. The joint shall be soil-tight and gaskets, when applicable, shall meet the requirements of ASTM F477. Gaskets shall be installed by the pipe manufacturer and covered with a removable wrap to ensure the gasket is free from debris. A joint lubricant supplied by the manufacturer shall be used on the gasket and bell during assembly.

Marking at plant: Each pipe and fitting shall be marked at the plant. Marking shall include size or diameter and class of pipe or fittings, manufacturer's identification, and date of manufacture, plus other information required for each type of pipe.

Construction

Excavation and backfilling operations shall comply with the requirements of Section 19, "Earthwork", of the Standard Specifications. During any excavation and backfilling operations, the Contractor is specifically directed to Subsection 19-1.02, "Preservation of Property". The Contractor shall protect any items, facilities, or improvements, as necessary, in order to avoid causing damage.

For Contractor testing requirements, refer to Section 8 "Contractors Material Testing and Quality Control" of these Special Provisions.

Measurement and Payment

Measurement for this item shall be on a per linear foot basis measured along the top of the pipe through fittings. The respective prices paid per linear foot for the different material types and sizes of Storm Drain Pipe shall include furnishing all labor, materials and equipment necessary to complete the work, including pipe elbows, couplings, inlet and outlet tapers, trench excavation, subgrade preparation, bedding, backfill, compaction, raising and/or lowering existing utility pipes to accommodate the new drainage pipes, and landscaping/open space restoration necessary to install the drainage systems indicated on the plans and specified herein. Storm Drain Pipe installation performed under these specifications will be listed in the contract bid items by size (diameter) and shall be measured by the linear foot complete in place per each respective size.

18.0 IRRIGATION SLEEVE AND UTILITY BOXES

General

This work shall consist of furnishing and installing Irrigation Sleeves and Irrigation Sleeve Utility Boxes called for in the plans and these Special Provisions.

Materials

PVC pipe and fittings with solvent weld joints, per ASTM D2729.

Irrigation sleeve utility boxes shall be NDS Standard Series 6" Round Valve Boxes (green), or approved equal. Utility box lids shall be marked "Irrigation."

Construction

Excavation and backfilling operations shall comply with the requirements of Section 19, "Earthwork", of the Standard Specifications. During any excavation and backfilling operations, the Contractor is specifically directed to Subsection 19-1.02, "Preservation of Property". The Contractor shall protect any items, facilities, or improvements, as necessary, in order to avoid causing damage.

Install sleeves, cap both end with removable cap, and place Utility box at both ends. Utility box shall be



set flush with finished grade.

For Contractor testing requirements, refer to Section 8 “Contractors Material Testing and Quality Control” of these Special Provisions.

Measurement and Payment

Measurement for Irrigation Sleeve shall be on a per linear foot basis measured along the top of the pipe through fittings. Measurement for Irrigation Sleeve Utility Box shall each be on a unit basis for each unit installed complete and in place. The respective prices paid shall include furnishing all labor, materials and equipment necessary to complete the work, including pipe caps, utility boxes and lids, trench excavation, subgrade preparation, bedding, backfill, and compaction.

19.0 IRRIGATION WATER SYSTEM

General

This work shall consist of furnishing and installing irrigation water pipe, fitting and other items as called for in the plans and these Special Provisions.

Materials

Pipe: Schedule 80 PVC ASTM D1785 or water piping.

Fittings: ASTM D2466, PVC.

Joints: ASTM D2855, solvent weld.

Irrigation water valve boxes shall be be NDS Standard Series 14”x19” Rectangular Valve Boxes (green), or approved equal. Utility box lids shall be marked “Irrigation.”

Construction

Excavation and backfilling operations shall comply with the requirements of Section 19, “Earthwork”, of the Standard Specifications. During any excavation and backfilling operations, the Contractor is specifically directed to Subsection 19-1.02, “Preservation of Property”. The Contractor shall protect any items, facilities, or improvements, as necessary, in order to avoid causing damage.

Install sleeves, cap both end with removable cap, and place valve box at both ends. Valve box shall be set flush with finished grade.

For Contractor testing requirements, refer to Section 8 “Contractors Material Testing and Quality Control” of these Special Provisions.

Measurement and Payment

The contract lump sum price paid for Irrigation Water System shall include furnishing all labor, materials, tools, equipment and incidentals necessary to complete the work, pipe, fitting, hose bibs, valves, vacuum breakers, tracer wire, valve boxes and lids, trench excavation, subgrade preparation, bedding, backfill, and compaction.

20.0 AGGREGATE BASE

General

This work shall consist of furnishing, grading, and compacting aggregate base on the prepared surface or sub-grade to the lines, grades, and thickness where called for in the plans and these Special Provisions.



Materials

Aggregate base shall conform to Subsection 26-1.02A, "Class 2 Aggregate Base", of the Standard Specifications. The grading shall be as indicated on the plans, or as directed by the Owner's Representative.

Construction

Grading shall comply with the requirements of Section 19, "Earthwork", of the Standard Specifications, and these Special Provisions. During any grading operations, the Contractor is specifically directed to Subsection 19-1.02, "Preservation of Property". The Contractor shall protect any items, facilities, or improvements, as necessary, in order to avoid causing damage.

For Contractor testing requirements, refer to Section 8 "Contractors Material Testing and Quality Control" of these Special Provisions.

Measurement and Payment

Measurement and payment for Aggregate Base used in the asphalt pavement structural sections shall be measured and paid for by the cubic yard furnished and compacted in-place, based on the lines and grades shown on the plans. The above contract unit cost shall be considered full compensation for furnishing all labor, materials, tools, equipment, transportation, and incidentals; and for performing placement, compaction, and all of the work involved as detailed in the Standard Specifications, these Special Provisions, and the plans.

Payment of Aggregate Base shall conform to Section 9-1.02C of the Standard Specifications and quantities shall be final pay quantities stated in the Bid Schedule. No additional allowance will be made unless the dimensions as shown on the plans are changed by the Owner's Representative.

Aggregate base used for area drains, catch basins, cleanouts, trench backfill, pedestrian concrete paving base, concrete curbs and gutters, and all other structures will not be paid directly but will be considered paid under other contract items.

21.0 ROCK ENERGY DISSIPATER

General

Rock Energy Dissipaters shall conform to the provisions in Section 72-4, "Small-Rock Slope Protection." This work shall consist of excavating, placing geotextile fabric, and placing the rock slope protection to the extent shown on the plans and as directed by the Owner's Representative.

Materials

Rock shall comply with Section 72-4.02 of the Standard Specifications, and the following gradation:

Sieve Size	Percent Passing
6 Inch	100
4 Inch	25-60
3 Inch	0-10

All rock material shall be granular and contain at least 90 percent crushed particles when tested under California Test 205.



Filter fabric shall be non-woven geotextile, Mirafi 140N or approved equal.

Construction

Excavate and place filter fabric on prepared subsoil. Place rocks on filter fabric in a manner that will not damage filter fabric. Place rocks individually adjacent to curbs to avoid damage to curbs.

Measurement and Payment

Rock Energy Dissipaters will be measured and paid on the cubic foot basis based on the dimensions shown on the plans. The price paid shall be considered include full compensation for furnishing all labor, materials and equipment necessary to complete the work, including but not limited to: excavation, subgrade preparation, filter fabric, rock, and all other work to provide complete installation.

Payment of Rock Energy Dissipaters shall conform to Section 9-1.02C of the Standard Specifications and quantities shall be final pay quantities stated in the Bid Schedule. No additional allowance will be made unless the dimensions as shown on the plans are changed by the Owner's Representative.

22.0 MINOR CONCRETE

General

Minor Concrete shall conform to the provisions of Section 51-7 "Minor Structures", Section 90-2 "Minor Concrete", Section 73 "Concrete Curbs and Sidewalks", Section 52 "Reinforcement", all of the Standard Specifications, and applicable portions of these Special Provisions.

Concrete curbs, gutters, and pavement shall conform to Section 73 of the Caltrans Standard Specifications. All work shall conform to the provisions of Section 90 of the Standard Specifications.

Materials

Concrete shall be minor concrete conform to the provisions of Section 90-2 of the Standard Specifications and these Special Provisions.

Reinforcement steel shall conform to the provisions in Section 52, "Reinforcement," of the Standard Specifications and these special provisions.

Drilling and bonding of reinforcement into existing concrete shall conform to the provisions in Section 51-1.03, "Drill and Bond Dowels" of the Standard Specifications and these special provisions.

Construction

The Contractor shall protect existing facilities from damage, and discoloration from concrete splash. Adjacent concrete facilities shall be covered during concrete placement to prevent concrete splash and excess concrete from staining the adjacent concrete. After initial placement, strikeoff and finishing, the protection shall be removed and the adjacent concrete cleaned.

After the subgrade is prepared, moisture conditioned, and compacted to the relative compaction shown in the plans, the Contractor shall continuously maintain the subgrade in a uniform condition at the moisture content obtained during subgrade compaction until the concrete is placed.

The maximum variation from design elevation shall not exceed +/- 0.02 feet. In some instances, particularly in critical drainage areas, tolerances may be reduced to zero. Concrete facilities shall be installed to maintain or provide positive drainage. The ponding of water in excess of 1/8" will not be allowed. Concrete placed that results in the ponding of water in excess of 1/8" shall be removed and replaced at Contractors expense.



In general, adding water to the surface of the concrete to assist in finishing operations shall not be permitted.

Before final finishing is completed and before the concrete has taken its initial set, the edges shall be carefully finished with the radius shown on the plans or a radius to match the existing construction.

Concrete shall be thoroughly consolidated against and along the faces of all forms and adjacent concrete. After the forms are removed, excess concrete below the form surface shall be removed to be flush with the form face.

The Contractor shall always have materials available to protect the surface of the fresh concrete against rain. These materials shall consist of burlap, curing paper, or plastic sheeting. If plastic sheeting is used, it shall not be allowed to contact finished concrete surfaces.

The Contractor shall also protect the concrete against traffic and vandalism. If the concrete is damaged or vandalized, the Contractor shall make the necessary repairs at its own expense. The repair procedure for damaged or vandalized concrete shall be approved in advance by the Owner's Representative. Grinding the surface of vandalized concrete will not be considered an approved method of repair.

Concrete shall be cured by protecting it against loss of moisture, rapid temperature change, and mechanical injury. The concrete shall be allowed to cure for 72 hours prior to placing adjacent asphalt concrete.

After the concrete is placed, cured, and the forms have been removed, the Contractor shall clean the site of all concrete and forming debris. Any gaps remaining between the new curbs, gutters, driveways, etc., shall be filled with full depth hot mix asphalt concrete. The total thickness of the restored pavement shall match that of the existing pavement.

Measurement and Payment

Measurement and payment for minor concrete shall be paid on a unit cost basis as identified in the Bid Schedule and specified below:

- Mow Band, Flush Curbs, Vertical Curbs, and Valley Gutters will be measured and paid on a lineal foot basis measured along the top or flowline of curb/gutter.
- Pedestrian Concrete Paving and Vehicular Concrete Paving will be measured and paid on the square foot basis.

All work shall be performed as shown on the plans and described here. The price paid shall be considered full compensation for furnishing all labor, materials and equipment necessary to complete the work, including but not limited to: layout of forms, excavation and grading, aggregate base and compaction, concrete and concrete placement and finishing, curing of concrete, striping of forms, site and area cleanup, disposal of waste material and waste concrete, and all other work necessary for completion of minor concrete work.

Payment for Minor Concrete - Pedestrian Concrete Paving shall conform to Section 9-1.02C of the Standard Specifications and quantities shall be final pay quantities stated in the Bid Schedule. No additional allowance will be made unless the dimensions as shown on the plans are changed by the Owner's Representative.



23.0 HOT MIX ASPHALT

General

This work includes producing and placing Hot Mix Asphalt (HMA) using the STANDARD process, in accordance with Section 39 of the Standard Specifications, these Special Provisions, and the plans. Work to be performed under this Section covers all labor, materials, tools, equipment, transportation and incidentals necessary to construct asphalt concrete pavements.

Material

All asphalt concrete materials shall be as specified in Section 39, "Hot Mix Asphalt", of the State Standard Specifications; these Special Provisions; and the plans and typical sections.

1/2 inch, Type A asphalt concrete mix shall be used and shall not include crumb rubber unless modified by the Engineer.

The asphalt binder grade shall be PG 64-16 conforming to Section 92, "Asphalts", of the State Standard Specifications.

Tack coat shall be emulsified asphalt Grade RS-1, SS-1, or SS-1h and shall conform to Section 94, "Asphaltic Emulsions", of the State Standard Specifications.

No Data Cores will be required for this project. Contractor Quality Control Testing will not be required as specified in Table 39-2.02 of the Standard Specifications but may be completed at an option of the contractor.

For Contractor testing requirements, refer to Section 8 "Contractors Material Testing and Quality Control" of these Special Provisions.

Each delivery ticket shall include information on the material type, binder type, oil content, and the mix design number. Material delivered to the project without such annotations shall be subject to rejection.

Construction

Spread and compact hot mix asphalt in accordance to Section 39 of the Standard Specifications and these Special Provisions, to the thickness specified on the plans.

Asphalt pavement shall be installed to maintain or provide positive drainage. The ponding of water in excess of 1/8" will not be allowed. Asphalt pavement placed that results in the ponding of water in excess of 1/8" shall be removed and replaced at Contractors expense.

Provide tack coat between HMA layers and to all vertical surfaces (curbs, gutters, construction joints existing pavements, etc.) against which new asphalt concrete paving is placed. Asphalt binder tack coat must be from 285 to 350 degrees F when applied.

Measurement and Payment

Hot Mix Asphalt will be measured by the mass (TON) as determined from certified weigh tickets delivered to and signed by the Owner's Representative on site. Asphalt concrete will be paid for at the contract price per TON for asphalt concrete furnished and placed per the lines and grades shown on the plans, and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in constructing asphalt concrete, complete in place, and placement of temporary raised pavement markers, as shown on the plans and as specified in the State Standard Specifications and these special provisions, and as directed by the Owner's Representative.



No payment will be made for the correction of deficiencies in construction. No payment will be made for over-run quantities unless pre-approved by Owner's Representative. The collection and signing of weight tickets shall not either constitute or construe acceptance or approval of over-run quantities.

If the Contractor fails to provide tack coat as required, the unit price paid for Hot Mix Asphalt will be reduced by 20% at the Owner's sole discretion.

24.0 CONCRETE WHEELSTOP

General

Section includes specifications for precast concrete wheelstops for vehicular parking stalls in parking lots as indicated.

Material

Concrete wheelstops and reinforcing shall conform to section 21, Minor Concrete, of these Special Provisions.

Construction

Securely attach wheelstops into at-grade concrete and at-grade asphalt pavement with not less than two steel dowels embedded in holes cast into wheel stops. Firmly bond each dowel to wheel stop and to pavement. At concrete pavement, drill holes in pavement for dowels. Seal hole in wheelstop with mortar.

Measurement and Payment

Measurement for Concrete Wheelstop shall each be on a unit basis for each unit installed complete and in place. The contract price paid shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all of the work involved installing concrete wheelstops, complete and in place, as shown on the plans, in accordance with the manufacturer's recommendations, and as directed by the Owner's Representative.

25.0 DETECTABLE WARNING SURFACES

General

Detectable warning surface shall conform section 73-1.02B of the Standard Specifications, applicable portions of these Special Provisions, and the requirements established by the Department of General Services, Division of State Architect.

Material

Detectable warning surfaces shall be made of Armor-Tile cast-in-place truncated domes, or approved equal. The manufacturer shall provide a written 5-year warranty for prefabricated detectable warning surfaces, guaranteeing replacement when there is defect in the dome shape, color fastness, sound-on-cane acoustic quality, resilience, or attachment. Any detectable warning surface equivalent specification will be submitted in writing for approval to the Tribe's Engineer. The color of detectable warning surfaces shall be brick red. Information on Armor-Tile truncated domes including installation specifications can be downloaded from <http://www.armor-tile.com>.

Construction

Install detectable warning surface in accordance with the manufacturer's written recommendations. Detectable warning surfaces shall be installed at a 2.00% maximum slope, and shall be installed to



maintain or provide positive drainage. The ponding of water in excess of 1/8" will not be allowed. Detectable warning surfaces placed that results in the ponding of water in excess of 1/8" shall be removed and replaced at Contractors expense.

Measurement and Payment

Measurement of Detectable Warning Surface will be measured on a square foot basis. The contract price paid per square foot for detectable warning surface shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all of the work involved installing detectable warning surfaces new concrete, complete and in place, as shown on the plans, in accordance with the manufacturer's recommendations, and as directed by the Owner's Representative.

Payment for Detectable Warning Surface shall conform to Section 9-1.02C of the Standard Specifications and quantities shall be final pay quantities stated in the Bid Schedule. No additional allowance will be made unless the dimensions as shown on the plans are changed by the Owner's Representative.

Payment for this item will not be made if the Contractor installs a Detectable Warning Surface that is different than the color specified.

26.0 PAINTED TRAFFIC STRIPE, PAVEMENT MARKINGS AND CURB PAINT

General

Painted traffic stripes (traffic lines), pavement markings and curb paint shall be applied in conformance with the provisions in Section 84-3, "Painted Traffic Stripes and Pavement Markings," of the Standard Specifications and these Special Provisions.

Material

Paint material shall comply with section 84-3.02 of the Standard Specifications.

Construction

All construction shall conform to the respective provisions of the Standard Specifications, manufacturer's installation requirements, and these Special Provisions. Where striping joins existing striping, as shown on the plans, the Contractor shall begin and end the transition from the existing striping pattern into or from the new striping pattern a sufficient distance to ensure continuity of the striping pattern. Traffic stripes and pavement markings shall be free of runs, bubbles, craters, drag marks, stretch marks, and debris.

Traffic stripes and pavement markings shall be applied in one (1) coat. Curb paint shall be applied in two (2) coats. The 1st coat of paint must be dry before applying the 2nd coat.

Measurement and Payment

Measurement and payment for traffic striping, pavement markings, and curb paint shall be made at the contract unit price as shown in the Bid Schedule and as specified below, and shall be full compensation furnishing all labor, materials and equipment necessary to complete the work, including but not limited to: establishing alignment for stripes and layout work, placement of temporary tabs, preparation of surface, placing traffic striping, pavement markings and curb paint, coordination with the Owner's Representative, cleanup, and all other work necessary.

Measurement and payment for Blue Curb Paint shall be made on a linear foot basis measured along the top of the curb in which it is applied. Double coats will not be measured individually.



Measurement and payment for 4-inch Painted Traffic Stripe shall be made on a linear foot basis measured along the center of each individual stripe.

Measurement and Payment for Painted Pavement Markings shall be made on the square foot basis for each marking installed as shown on the plans. Quantities will be determined based on the dimensions shown in the Standard Plans.

27.0 TRIBAL BASKET PATTERN LIMIT LINE (PREFORMED THERMOPLASTIC PAVEMENT MARKINGS)

General

Prefomed thermoplastic pavement markings shall be applied in conformance with the manufactures written instructions, and these Special Provisions.

Material

Prefomed thermoplastic pavement markings shall have a minimum average thickness of 90 mil. and shall be cut to the dimensions shown on the plans. Material shall be designed to be adhered to asphalt concrete and portland cement concrete pavements by means of heat fusion. The applied markings shall be very durable: oil and grease impervious; and provide immediate and continuing retroreflectivity.

The preformed marking material shall consist of a resilient polymer thermoplastic (alkyd, no hydrocarbon) with uniformly distributed glass beads throughout its entire cross section. Prefomed markings shall be available conforming to the current edition of the Manual on Uniform Traffic Control Devices for Streets and Highways as issued by the U.S. Department of Transportation Federal Highway Administration.

The preformed marking materials shall not be brittle and will be sufficiently cohesive and flexible at temperatures exceeding 50°F.

The preformed marking materials shall be fusible to asphalt and portland cement concrete pavements by means of the normal heat of a propane type torch. Adhesives, primers, or sealers are not necessary prior to the preformed markings application on asphalt and portland cement concrete pavements.

The preformed marking materials shall conform to pavement contours, breaks, and faults through the action of traffic at normal pavement temperatures. The markings shall have resealing characteristics and be capable of fusing to itself and previously applied hydrocarbon and / or alkyd thermoplastic pavement markings.

The preformed marking materials shall be capable of application on new, dense, and open graded asphalt wearing courses during the paving operation in accordance with the manufacturer's instructions.

The preformed marking materials shall be capable and ready to open to traffic 15 minutes after application.

The preformed marking materials shall be suitable for use for one year after the date of receipt when stored in accordance with the manufacturer's recommendations.

The surface of the preformed marking materials shall provide a postapplied minimum skid resistance value of at least 60 BPN when tested according to ASTM E 303.



Construction

All construction shall conform to the respective provisions of the Standard Specifications, manufacturer's installation requirements, and these Special Provisions. Pavement markings shall be free of runs, bubbles, craters, drag marks, stretch marks, gaps, overlaps and debris.

Measurement and Payment

Measurement and payment for Tribal Basket Pattern Limit Line (Preformed Thermoplastic) shall be on a per unit basis for each limit line installed, and shall be full compensation furnishing all labor, materials and equipment necessary to complete the work, including but not limited to: preparation of surface, placing pavement markings, coordination with the Owner's Representative, cleanup, and all other work necessary for completion.

28.0 ROADSIDE SIGNS

General

Roadside signs shall conform to the Provisions in Sections 56-2, "Furnish Sign Panels" and 56-4, "Roadside Signs", of the Standard Specifications and these Special Provisions. Relocating roadside signs shall conform to Section 15-2.09C of the Standard Specifications.

Materials

All new roadside signs shall be mounted on a removable metal post with sleeve and anchor in accordance with the Plans. Posts, sleeves and anchors shall be manufactured from galvanized 12 gauge steel conforming to ASTM A1011/A, G90, structural quality, Grade 50, Class 1. Corner welds shall be zinc coated after scarfing operation.

Sign panels shall conform to Section 56-2 of the Standard Specifications and the California Manual on Uniform Traffic Control Devices, 2012 Edition.

Construction

Excavate holes to dimensions shown on Plans. Cover post bottom and perforation below ground with duct tape, and place posts in the holes. Back fill around post with minor concrete. Dispose of surplus excavation material offsite.

The line between the center of the top of a post and the center of the post at ground level must not deviate from a plumb line by more than 0.02 foot in 10 feet.

Measurement and Payment

The quantity of Roadside Sign shall be measured and paid on a per unit basis for each sign (one or multiple panels) and post system (one post) installed complete and in place. The contract price shall include full compensation for furnishing all labor, tools, equipment, and incidentals, and for doing all of the work involved in furnishing and installing roadside signs complete and in place including but not limited to: excavation, perforated square steel post with sleeve and anchor, sign panel(s), concrete foundation, disposal of excess excavation material, cleanup and all work as described by the plans and the Standard Specifications, these Special Provisions, and as directed by the Owner's Representative.

The quantity of Relocate Roadside Sign shall be measured and paid on a per unit basis for each sign (one or multiple panels) and new post system (one post) relocated complete and in place. The contract price shall include full compensation for furnishing all labor, tools, equipment, and incidentals, and for doing all of the work involved in furnishing and installing roadside signs complete and in place including but not limited to: removal of existing sign and post, excavation, concrete foundation, new post, disposal



of excess excavation material, cleanup and all work as described by the plans and the Standard Specifications, these Special Provisions, and as directed by the Owner's Representative.

29.0 RELOCATE EXISTING MONUMENT SIGN

General

This work shall consist of relocating monument sign where called for in the plans and these Special Provisions.

Materials

Portland cement concrete shall conform to Section 90-2, "Minor Concrete", of the Standard Specifications. Connections/fasteners shall be per plans.

Construction

Existing monument signs are to be relocated in accordance to the plans and as directed by the Owner's Representative.

Measurement and Payment

Measurement and payment for Relocate Monument Sign shall be paid for on the lump basis. The price paid shall include furnishing all labor, materials and equipment necessary to complete the work, including but not limited to: excavation, backfill, concrete foundation, connections, and all other work as required to provide a complete installation.

30.0 PERGOLA

General

This work shall consist of constructing a pergola where called for in the plans and these Special Provisions.

Materials

Portland cement concrete shall conform to Section 90-2, "Minor Concrete", of the Standard Specifications. All other material shall be per plans.

Construction

Construct pergola in accordance to the plans and as directed by the Owner's Representative.

Measurement and Payment

Measurement and payment for Pergola shall be paid for on the lump basis. The price paid shall include furnishing all labor, materials and equipment necessary to complete the work, including but not limited to: excavation, backfill, concrete foundation, posts, beams, joists, rafters, connections/fasteners, and all other work as required to provide a complete pergola structure.

31.0 WOOD FENCE AND GATE

General

Wood fences and gates shall conform to applicable portions of Section 80 "Fences" of the Standard Plans, these Special Provisions and the plans.



Materials

All fencing material shall be as specified on the plans.

Concrete used for post foundations shall conform to section 21, Minor Concrete, of these Special Provisions.

Construction

Wood fences and gates shall be installed per the provisions in Section 80 of the Standard Specifications, and in accordance to the plans.

Measurement and Payment

Measurement and payment for Wood Fence and Gate shall be by a linear foot unit basis, measured along the face of fence at the finished grade elevation. Payment for Wood Fence and Gate shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals for doing all the work involved in installing fence and gate, complete in place, including, but not limited to layout, post excavation, fence materials and appurtenances, concrete, fence erection, and site cleanup, as shown on the plans and specified in the Standard Specifications and these Special Provisions.

32.0 IMPORT TOPSOIL

General

Furnish, deliver, and install topsoil on the Project Site in the locations shown on the Drawings and in conformance with these Standard Specifications and these Special Provisions.

Materials

Imported topsoil shall consist of fertile, friable soil of loamy character that contains organic matter in amounts natural to the region and be capable of sustaining healthy plant life. Imported topsoil must be free from deleterious substances such as litter, refuse, toxic waste, stones larger than ½ inch in size, coarse sand, heavy or stiff clay, brush, sticks, grasses, roots, noxious weed seed, weeds, and other substances detrimental to plant, animal, and human health.

Import topsoil shall be USDA soil classification sandy loam or loamy sand, fertile, friable, of uniform quality, able to support normal plant growth, and taken from a well-drained site.

Construction

Prevent spillage when hauling on or adjacent to any public street or highway. In the event that spillage occurs, the Contractor shall remove all spillage and sweep, wash, or otherwise clean such streets or highways as required by local City and County authorities and/or the State of California.

Take precautions to prevent a dust nuisance to adjacent public or private properties and to prevent erosion and transportation of soil to downstream or adjacent properties due to work under this Contract. At project site exit, clean dirt from tires. Do not track dirt onto roads.

Place topsoil after all other earthwork in an area is complete.

Spread topsoil to a uniform thickness and loosely compact. Topsoil is to be thoroughly mixed during the spreading to obtain uniformity of material.

Grade to within 1-inch of required lines and grades and lightly compact. Grading between required lines and grades to be smooth and uniform. Slope finish grades to drain surface water away from buildings,



and other structures. Slope finish grades to drain with uniform slope between points where elevations are given or between points and existing grades.

Protect the topsoil from displacement by equipment or other operations.

Measurement and Payment

Import topsoil shall be paid on the cubic yard basis. The contract price shall include full compensation for furnishing all labor, tools, equipment, and incidentals, and for doing all of the work involved in furnishing and installing import topsoil complete and in place including but not limited to: preparing subsoil, placing import topsoil, cleanup and all work as described by the plans and the Standard Specifications, these Special Provisions, and as directed by the Owner's Representative.

Payment of Import Topsoil shall conform to Section 9-1.02C of the Standard Specifications and quantities shall be final pay quantities stated in the Bid Schedule. No additional allowance will be made unless the dimensions as shown on the plans are changed by the Owner's Representative.

Local/native topsoil used in construction will not be measured and directly but will be considered paid under Roadway Excavation and Grading.

33.0 ROCK MULCH AND WEED FABRIC

General

Furnish, deliver, and install rock mulch and weed fabric in the locations shown on the Drawings and in conformance with these Standard Specifications and these Special Provisions.

Materials

Rock mulch shall be smooth, washed and clean river cobbles (3" – 6"). The material used shall be subject to the review and approval of the Owner. Provide 5 gallon sample to Owner prior to ordering material. Bidders may submit samples to Owner during bidding for pre-approval.

Weed fabric shall be professional black spunbound landscape/filter fabric (4 oz).

Construction

Immediately before placing filter fabric, surfaces to receive filter fabric must be free of loose or extraneous material and sharp objects that may damage the filter fabric during installation.

Align fabric and place in a wrinkle-free manner. Overlap adjacent rolls of the fabric from 12 to 18 inches. Spread each overlapping roll in the same direction. Fasten fabric with staples flush with the fabric to prevent movement of fabric by placement of gravel mulch. Repair or replace fabric damaged during placement of rock mulch with sufficient fabric to comply with overlap requirements.

Do not place gravel mulch during rainy conditions. The finished gravel mulch surface must be smooth and uniform, maintaining original flow lines, slope gradients, and contours of the job site.

Measurement and Payment

Rock Mulch with Weed Fabric shall be paid on the square foot basis. The contract price shall include full compensation for furnishing all labor, tools, equipment, and incidentals, and for doing all of the work involved in furnishing and installing rock mulch and weed fabric complete and in place as described by the plans and the Standard Specifications, these Special Provisions, and as directed by the Owner's Representative.



Payment of Rock Mulch with Weed Fabric shall conform to Section 9-1.02C of the Standard Specifications and quantities shall be final pay quantities stated in the Bid Schedule. No additional allowance will be made unless the dimensions as shown on the plans are changed by the Owner's Representative.

34.0 LANDSCAPING - PLANTS AND TREES

General

Landscaping shall conform to the provisions in Section 20-7, "Highway Planting" in the Standard Specifications, these Special Provisions and as shown on the plans. Work also includes relocating existing rock boulders per the plans.

Landscaping shall be provided by a California licensed Landscaping Contractor (Class C27).

Materials

Plants and trees shall be the species and size identifiable in plant schedule, grown in climatic conditions similar to those in locality of the Work.

All plants and trees shall be subject to inspection and approval of the Owner's Representative at place of growth or upon delivery for conformity to specifications. Such approval shall not impair the right of inspection and rejection during progress of the work inspection and tagging of plant material by the Owner's Representative is for design intent only and does not constitute the Owner's Representative's approval of the plant materials in regards to their health and vigor as specified. The health and vigor of the plant material is the sole responsibility of the Contractor.

Soil amendment shall be nitrogen stabilized well-rotted, compost, unleached stable or cattle manure containing not more than 25% by volume of straw, sawdust, or other bedding materials and free of chemicals or ingredients harmful to plants.

Stakes shall be softwood lumber with pointed end.

Cable, wire, eye bolts and turnbuckles shall be non-corrosive, of sufficient strength to withstand wind pressure and resulting movement of plant life.

Water shall be clean and potable. Distribution of the water shall be the responsibility of the Contractor. Lack of or failures in the irrigation system shall not relieve the Contractor from applying water as required.

Maintenance, Guarantees and Replacements

The maintenance period for work under this Section begins immediately after planting and extends for 6 months. Maintenance includes resetting or straightening trees, fertilizing, watering, and any other measures necessary to keep plants thriving and healthy.

Guarantee period begins at date of final project acceptance. The guarantee period is:

1. one year for trees, shrubs, and vines,
2. six months for grasses and groundcover.

Contractor shall provide written guarantees stating that trees, shrubs, vines, and groundcovers are the genus, species, and cultivar named on the drawings and that they will be healthy, vigorous, and in a flourishing condition of active growth throughout the maintenance and guarantee periods.



Replace dead plants and plants not in a healthy, vigorous, thriving condition. Replace plants determined to be untrue to the species, clone and/or variety specified. Make replacements within 14 days of determination by Owner's Representative. Replacements shall match specified plants. Replacements shall conform to requirements of this specification section. Replacements shall correspond in size to the size that would have been reached by the plants that they replace. The contractor is not responsible for failures due to neglect by the Owner or vandalism. The guarantee period for replacement plants ends on the same date as the guarantee period for other plants.

Construction

Protect and maintain plant life until planted. Deliver plant life materials immediately prior to placement. Keep plants moist. Plant material damaged as a result of delivery, storage or handling will be rejected.

Before beginning any work, Contractor shall protect all existing plants that are to remain on the site and as shown on the plans. In the field, identify "critical root zones" of trees and shrubs to be retained. Use of temporary protective fencing or other methods to clearly mark vegetation to be protected and retained is required. Plants that are to be temporarily moved, retained, and replaced by transplanting will be identified, and the Contractor shall provide staging/holding areas with appropriate capacity, shade, and moisture requirements to insure successful survival.

Prepare subsoil to eliminate uneven areas. Maintain profiles and contours. Make changes in grade gradual. Blend slopes into level areas. Remove foreign materials, weeds and undesirable plants and their roots, and rock over 1" in diameter. Scarify subsoil to depth of 3 inches. Dig pits and beds three times wider than plant root system.

Place plants for best appearance for review and final orientation by Owner's Representative. Set plants vertical. Remove non-biodegradable root containers. Set plants in pits or beds, partly filled with prepared plant mix, at minimum depth of 6 inches under each plant. Remove burlap, ropes, and wires, from top half of root ball. Saturate soil with water when pit or bed is half full of topsoil and again when full.

All trees shall be staked for support.

Plants will be rejected when ball of earth surrounding roots has been disturbed or damaged prior to or during planting.

Measurement and Payment

Landscaping shall be paid for on a lump sum basis. The contract price shall include full compensation for furnishing all labor, tools, equipment, and incidentals, and for doing all of the work involved in furnishing and installing plants and trees complete and in place including but not limited to: excavating pits, preparing subsoil, providing and installing plants/trees, supports, maintaining tree life throughout the maintenance period (including watering), relocating rock boulders, cleanup and all work as described by the plans and the Standard Specifications, these Special Provisions, and as directed by the Owner's Representative.

35.0 HYDROSEED

General

Hydroseeding shall conform to the provisions of Section 21, "Erosion Control" in the Standard Specifications, these Special Provisions and as shown on the plans.

Materials



Seed with a germination rate lower than the minimum rate shown may be used if authorized. Seed Mix shall be as follows:

<i>Blando Brome</i>	40%
<i>Rose Clover</i>	20%
<i>Annual Ryegrass</i>	15%
<i>Crimson Clover</i>	10%
<i>Creeping Red Fescue</i>	15%
<i>Zorro Annual Fescue</i>	5%

An alternative seed mix may be used if approved in advance by the Owner's Representative.

Maintenance, Guarantees and Replacements

The maintenance period for work under this Section begins immediately after planting and extends for 6 months. Maintenance includes fertilizing, watering, and any other measures necessary to keep grass thriving and healthy.

Guarantee period begins at date of final project acceptance. The guarantee period is six months for hydroseed/grass.

Contractor shall provide written guarantees stating that grasses are the genus, species, and cultivar named in these specifications and that they will be healthy, vigorous, and in a flourishing condition of active growth throughout the maintenance and guarantee periods.

Reseed areas that are not in a healthy, vigorous, thriving condition. Reseed within 14 days of determination by Owner's Representative. Seed mix used for reseeding shall match specified seed mix. The contractor is not responsible for failures due to neglect by the Owner or vandalism. The guarantee period for reseeded areas ends on the same date as the guarantee period for the other hydroseeded areas.

Construction

Apply hydroseed with hydraulic spray equipment that mixes fiber, tackifier, fertilizer, and seed materials specified, at an application rate of 60 lbs./acre. Seed may be dry applied to small areas not accessible by hydroseeding equipment if authorized in advance by the Owner's Representative.

Add water to hydroseed materials as recommended by the manufacturer and mix sufficiently to ensure an even application. A dispersing agent may be added to the mixture if authorized. Equipment must utilize a built-in continuous agitation and discharge system capable of producing a homogeneous mixture and a uniform application rate. The tank must have a minimum capacity of 1,000 gallons. You may use a smaller tank if authorized.

Apply materials in locations, rates, and number of applications shown and as follows:

1. Begin application within 60 minutes after adding seed to the tank.
2. Apply in successive passes as necessary to achieve the required application rate.
3. Apply all hydroseed materials indicated for a single area within 72 hours.

When hydroseed materials are applied to areas covered by turf reinforcement mats, apply hydroseed materials to the product as follows:

1. Verify the turf reinforcement mats is in uniform contact with the slope surface.
2. Spray materials into the turf reinforcement mats perpendicular to the slope and integrate well.
3. Do not displace or damage the turf reinforcement mats.



After the final application, do not allow pedestrians or equipment onto the treated areas.

Measurement and Payment

Hydroseed shall be paid on the square foot basis. The contract price shall include full compensation for furnishing all labor, tools, equipment, and incidentals, and for doing all of the work involved in furnishing and installing hydroseed complete and in place including but not limited to: preparing soil, installing hydroseed, cleanup and all work as described by the plans and the Standard Specifications, these Special Provisions, and as directed by the Owner's Representative.

Payment of Hydroseed shall conform to Section 9-1.02C of the Standard Specifications and quantities shall be final pay quantities stated in the Bid Schedule. No additional allowance will be made unless the dimensions as shown on the plans are changed by the Owner's Representative.

36.0 ADJUST UTILITY BOXES TO GRADE

General

This work shall consist of raising or adjusting existing utility valve boxes to the finish grade of the resurfaced asphalt pavement or new concrete.

All such work shall conform to the applicable provisions of the State of California, Department of Transportation, Standard Specifications (Caltrans); these Special Provisions; the plans and typical sections; and as directed by the Owner's Representative.

Material

Concrete used for to adjust utility boxes to grade shall conform to section 21, Minor Concrete, of these Special Provisions. Valve box lids in traffic areas shall be traffic rated.

Construction

Unless specifically allowed by the Owner's Representative, grade rings shall not be used to adjust utility covers.

The Contractor shall properly locate and tie all existing facilities to be raised in advance of paving operations.

Care shall be taken to keep frames and covers clean. The Contractor shall completely protect with heavy plastic or other suitable material all utility covers or other items which are visible on the surface and will be covered by his operations. This shall be completed prior to the start of operations and approved by the Owner's Representative. Any materials that adhere to the frames and covers shall be removed.

Contractor shall exercise care during the work of lowering and raising covers to avoid any construction debris from entering into the manhole chamber. Any material which enters the utility box or connecting pipes shall be removed at the expense of the Contractor to the satisfaction of the Tribe. In the event that a problem is reported, Contractor shall have on hand the necessary equipment and manpower, including traffic control devices and crew if deemed necessary, to open lids that are requested for review by the Owner's Representative, at no additional cost to the Tribe.

Facilities damaged by the Contractor shall be replaced at the Contractor's expense. Facilities (box and lid or frame and cover) found existing in a damaged condition, and reported to the Owner's Representative before disturbing, shall be replaced by the Contractor with materials furnished by the Owner.



The surface of the adjusted facilities shall be true to the new pavement or concrete surface to within one-eighth (1/8") inch deviation. This tolerance shall apply in a single direction only, either up or down. In addition, the adjusted facility shall not vary to the high tolerance on one side and the low tolerance on the other (i.e., the total aggregate tolerance on both sides shall be limited to the 1/8"-inch variation). This variation shall apply to the adjacent patch paving around the facility as well such that neither the paving nor facility vary by more than the stated tolerances.

All facilities shall be adjusted to finish grade within 48 hours after the placement of the final surface paving. If several lifts of pavement are to be placed, the facilities shall be raised if the paving operation ceases for more than 48 hours.

Replace existing valve boxes and lids in vehicular traffic areas with traffic rated boxes and lids.

Measurement and Payment

Measurement for Adjust Utility Box to Grade shall be on a unit basis for each unit adjusted. The above contract unit cost shall be considered full compensation for furnishing all labor, materials, tools, equipment, transportation, and incidentals; and for performing all of the work involved as detailed in the Standard Specifications, these Special Provisions, and the plans and typical sections.

37.0 STREET LIGHTING SYSTEM

General

Work shall conform to the provisions of Section 86, "Electrical Systems" in the Standard Specifications, these Special Provisions and as shown on the plans.

Materials and Installation

Foundations shall conform to the provisions in Section 86-2.03, "Foundations", of the Standard Specifications and these special provisions.

Portland cement concrete shall conform to Section 90-2, "Minor Concrete", of the Standard Specifications. Foundations for street light poles as shown on the plans shall be a minimum of 24" diameter and a minimum of 60" deep. Foundation anchor bolts shall per manufacturers' recommendations.

Street light standard shall be that indicated on the plans. No substitutions will be considered or allowed.
Approved distributor: Associated Lighting Reps., Inc.; Phone: 916-383-4545; Fax: 916-383-3600;
Web: www.alrinc.com.

The conduit in a foundation and between a foundation and the nearest pull box shall be Type 1, in accordance with Section 86-2.05, "Conduit," of the Standard Specifications. Other conduit shall be schedule 40 PVC.

Pull boxes shall conform to the provisions in Section 86-2.06, "Pull Boxes", of the Standard Specifications and these special provisions. Pull box covers shall be marked "STREET LIGHT."

Conductors shall be copper wire that complies with section 86-2.08 of the Standard Specifications. Splices shall be insulated by "Method B" or, at the Contractor's option, splices of conductors shall be insulated with heat shrink tubing of the appropriate size after thoroughly painting the spliced conductors with electrical insulating coating.



All conductors between the controller assembly and the service shall be stranded THW polyvinyl chloride coated.

Bonding and grounding shall conform to the provisions in Section 86-2.10, "Bonding and Grounding", of the Standard Specifications and these special provisions.

Measurement and Payment

Measurement and payment for street lighting systems shall be paid on a unit cost basis as identified in the Bid Schedule and specified below:

- 2-inch Electrical Conduit with Conductors will be measured on a lineal foot basis measured along the top of the conduit. Contractor to install conduit measuring tape in each conduit in order to verify conduit lengths. Conductors will not be measured separately.
- Electrical Pullbox shall be measured on a unit basis for each pullbox installed completed and in place.
- Street Light Foundations shall be measured on a unit basis for each foundation installed completed and in place.
- Street Light Standards shall be measured on a unit basis for each street light standard installed completed and in place.

All work shall be performed as shown on the plans and described here. The price paid shall be considered full compensation for furnishing all labor, materials and equipment necessary to complete the work involved as detailed in the Standard Specifications, these Special Provisions, and the plans and typical sections.

For Contractor testing requirements, refer to Section 8 "Contractors Material Testing and Quality Control" of these Special Provisions.

38.0 FINAL CLEAN-UP

General

Before final inspection of the work, the Contractor shall clean the work and all ground occupied in connection with the work, of all rubbish, excess materials (including liquid asphalt), and equipment. The roads and driveways shall be thoroughly swept clean of all dirt, dust and foreign material. All parts of the work shall be left in neat and presentable condition.

Measurement and Payment

Payment for clean-up in general, shall be considered as included in the unit bid price for other contract items and no additional payment shall be made.



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