



# City of Sacramento City Council

11

915 I Street, Sacramento, CA, 95814  
[www.CityofSacramento.org](http://www.CityofSacramento.org)

**Meeting Date:** 9/11/2012

**Report Type:** Consent

**Title: Contract: Sacramento City College Bicycle/Pedestrian Improvements Project**

**Report ID:** 2012-00737

**Location:** Sacramento City College at 12th Avenue between 23rd Street and Panther Parkway, Districts 4 and 5

**Recommendation:** Pass a Motion: 1) approving Plans and Specifications for the Sacramento City College Bicycle/Pedestrian Improvements Project; and 2) awarding the construction contract to Navajo Pipelines, Inc. for an amount not-to-exceed \$350,000 for the project.

**Contact:** Greg Smith, Associate Engineer, (916) 808-8364; Nicholas Theocharides, Engineering Services Manager, (916) 808-5065, Department of Public Works

**Presenter:** None

**Department:** Public Works Department

**Division:** Civil & Electrical Design

**Dept ID:** 15001131

**Attachments:**

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- 1- Description/Analysis
- 2 - Background Information
- 3 - Location Map
- 4 - Contract with Navajo Pipelines

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**City Attorney Review**

Approved as to Form  
Michael Sparks  
9/5/2012 3:17:10 PM

**City Treasurer Review**

Reviewed for Impact on Cash and Debt  
Russell Fehr  
8/28/2012 3:24:30 PM

**Approvals/Acknowledgements**

Department Director or Designee: Jerry Way - 9/4/2012 8:59:04 AM

## Description/Analysis

**Issue:** The Sacramento City College Bicycle/Pedestrian Improvement project will provide a pedestrian and bicycle friendly route on 12<sup>th</sup> Avenue between 23<sup>rd</sup> Street and Panther Parkway to link the Light Rail station and eventually the Sacramento City College Pedestrian Overcrossing project to the Freeport Boulevard and William Land Park area.

The Sacramento City College Bicycle/Pedestrian Improvements Project was advertised and bids were received on July 11, 2012. Unfortunately, no valid bids were received. Under City Code 3.60.170, the City met its obligation to publicly bid the project and can now award the project to any Contractor of its choosing. In the spirit of attaining a good price, the City requested five Contractors to submit a quote for the project, just as if they were submitting a regular bid. Navajo Pipelines, Inc. was selected as the lowest responsive and responsible bidder. City Council approval is necessary to move forward with awarding a construction contract.

**Policy Considerations:** The action requested herein is consistent with City Code Title 3 and the City's Strategic Plan to improve and diversify the transportation system, enhance and preserve the neighborhoods, and improve safety.

**Economic Impacts:** This new infrastructure and public works project is expected to create 1.40 total jobs (0.81 direct jobs and 0.60 jobs through indirect and induced activities) and create \$216,102 in total economic output (\$136,211 of direct output and another \$79,891 of output through indirect and induced activities).

*The indicated economic impacts are estimates calculated using a calculation tool developed by the Center for Strategic Economic Research (CSER). CSER utilized the IMPLAN input-output model (2009 coefficients) to qualify the economic impacts of a hypothetical \$1 million of spending in various construction categories within the City of Sacramento in an average one-year period. Actual impacts could differ significantly from the estimates and neither the city of Sacramento nor CSER shall be held responsible for consequences resulting from such differences.*

### Environmental Considerations:

**California Environmental Quality Act (CEQA):** The pedestrian bridge project, as originally designed, was approved by the City Council, as was a Mitigated Negative Declaration and Mitigation Monitoring Plan approved, in 2010 (Resolution No. 2010-009). In 2011, City Council approved an addendum relating to minor project changes (Resolution No. 2011-405). The current request implements these approvals and does not include any new substantial changes to the project. No additional CEQA review is required. CEQA Guideline section 15162 applies.

**Sustainability Considerations:** This project is consistent with the City's Sustainability Master Plan. It conforms to the Air Quality Focus Area by improving and optimizing transportation infrastructure.

**Other:** None.

**Commission/Committee Action:** None.

**Rationale for Recommendation:** Navajo Pipelines, Inc. is the lowest responsive and responsible bidder.

**Financial Considerations:** The City College Pedestrian Overcrossing Project (T15065700) has a total budget of \$3,689,771 consisting of Transportation Development Act, Proposition 1B, and local transportation funds. As of August 17, 2012, the City College Pedestrian Overcrossing Project (T15065700) has an unobligated balance of \$1,540,805, which is sufficient to execute the contract with Navajo Pipelines, Inc. in the amount of \$350,000 for the Sacramento City College Bicycle/ Pedestrian Improvements Project, cover construction management costs, and complete the City College Pedestrian Overcrossing Project (T15065700).

There are no general funds planned or allocated for this project.

**Emerging Small Business Development (ESBD):** The ESBD requirements for this contract do not apply since this is a negotiated contract. Navajo Pipelines, Inc. has pledged a 65.3% ESBE participation through the negotiation process.

**Background Information:**

The Sacramento City College Bicycle/Pedestrian Improvement Project is located in the City of Sacramento, just north of Sutterville Road between Freeport Boulevard and 24<sup>th</sup> Street. Within the project area is the Los Rios Sacramento City College Main Campus, Hughes Stadium, and the 24<sup>th</sup> Street/City College Light Rail Station.

As part of this project, bike, sidewalk and lighting improvements to 12<sup>th</sup> Avenue will be constructed as a supplementary project to support the City College Pedestrian Overcrossing Project (T15065700). This future overcrossing project will construct a new pedestrian overcrossing extending from the parking garage area of the Sacramento City College campus, over the Light Rail Train and Union Pacific Railroad tracks, and into the proposed Curtis Park Village development. The purpose is to provide an east-west pedestrian and bicyclist link between Land Park and Curtis Park neighborhoods.

Given the relatively low traffic volumes on 12<sup>th</sup> Avenue and the limited distance of one-way traffic, this project will be striping a contra-flow bike lane to accommodate westbound bicycle traffic and eliminate the bicycling bottleneck. This improvement would be done in conjunction with a bifurcated sidewalk on the north side of 12<sup>th</sup> Avenue which will improve regional pedestrian circulation to the campus and Light Rail Station. Additionally, the future bridge structure will be located such that relocations of several SMUD facilities will be required. The SMUD lines currently run parallel, north and south, to the Regional Transit Light Rail tracks. The SMUD distribution line facilities and other minor telecommunication utility lines that share poles shall be undergrounded as part of this project.

This project was advertised and two bids were received on July 11, 2012. The bids are summarized below:

Contractor	Bid Amount	ESBE Participation (Goal 20%)	Responsive
Freddy's Grading and Paving	\$309,523	82.7	No
David Engineering	\$915,061	74.8	No

Unfortunately, the contractors' bids were deemed to be non-responsive because neither bid contained a breakdown of the lump sum electrical items as required by the contract documents. Under City Code 3.60.170, the City met its obligation to publicly bid the project and can now award the project to any Contractor of its choosing. In the spirit of attaining a good price, the City requested five Contractors to submit a quote for the project, just as if they were submitting a regular bid. The quotes are summarized below:

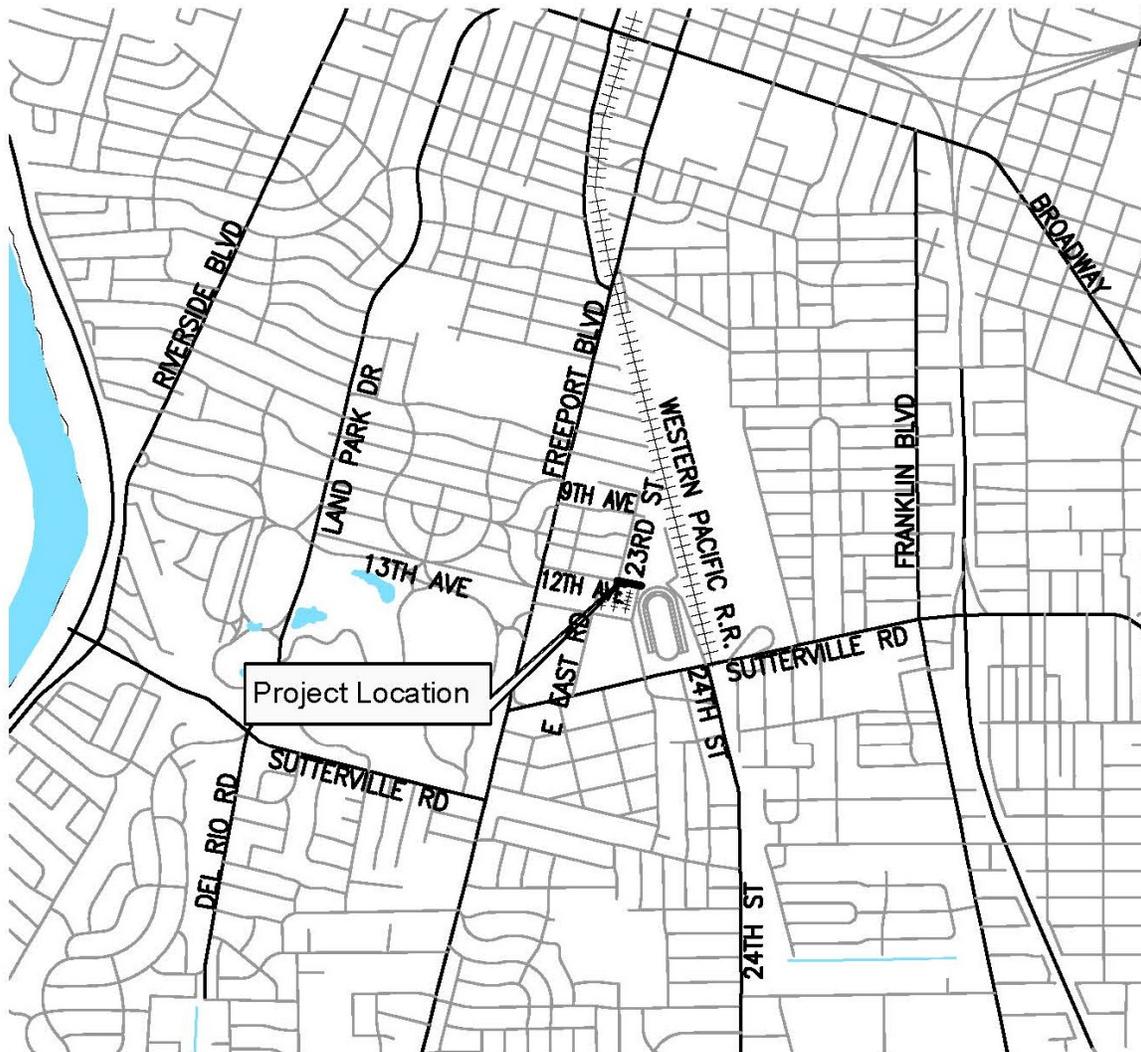
Contractor	Quote Amount	Quote Submitted
Navajo Pipelines	\$350,000	Yes
Cazadores Construction	\$647,876	Yes
Western Engineering	N/A	No
Freddi's Grading and Paving	N/A	No
Martin General Engineering	N/A	No

The engineer's construction estimate was \$311,500. Navajo Pipelines, Inc. was selected as the lowest responsive and responsible bidder. City Council approval is necessary to move forward with awarding a construction contract.

Construction is anticipated to start in September 2012 and be completed in November 2012.

EXHIBIT A

Location Map for  
**SACRAMENTO CITY COLLEGE BICYCLE/  
PEDESTRIAN IMPROVEMENTS**  
T15065701



Map Contact  
V. GRECHKO



JULY 10, 2012



**DEPARTMENT OF  
PUBLIC WORKS**

**CITY OF SACRAMENTO  
CALIFORNIA**

915 I ST  
RM 2000  
SACRAMENTO, CA  
95814-2702

**ENGINEERING SERVICES  
DIVISION**

PH 916-808-8300  
FAX 916-808-8281

**CONTRACT SPECIFICATIONS  
FOR**

**Sacramento City College Bicycle/Pedestrian Improvements**

**(PN: T15065701)**

Separate Plans

For Project Information Call:  
Greg Smith, Project Manager  
(916) 808-8364

Proposals are to be submitted before  
**10:00 A.M. August 20, 2012** to:  
Attention: Greg Smith  
New City Hall, 2<sup>nd</sup> Floor  
915 I Street, Room 2000  
Sacramento, CA 95814

**ESBE PROGRAM**

For information on meeting the City of Sacramento's Small Business Enterprise (SBE) and Emerging Business Enterprise (EBE) project goals, please contact Jose Ledesma at (916) 808-8195, or visit the City of Sacramento's small business web site at:  
[http://dev.cityofsacramento.org/econdev/business-open/Sub\\_small-business-certification.cfm](http://dev.cityofsacramento.org/econdev/business-open/Sub_small-business-certification.cfm)

Estimated Construction Cost: **\$311,500.00** Construction Time: 65 Calendar Days

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ESBE REQUIREMENTS  
(City Contracts no Federal Funds Used)

I. **ESBE PROGRAM REQUIREMENTS**

On February 9, 1999, the Sacramento City Council adopted an Emerging and Small Business Development (ESBD) program to provide enhanced opportunities for the participation of small business enterprises (SBEs) and emerging business enterprises (EBEs) in the City's contracting and procurement activities. The ESBD program establishes an annual emerging and small business enterprise (ESBE) participation goal for the City's contracts, and authorizes City departments to require minimum ESBE participation levels in individual contracts so that the annual ESBE participation goal can be met. Under City Code Section 3.60.270, when the bid specifications for a City contract establishes a minimum participation level for ESBEs, **no bidder on the contract shall be considered a responsive bidder unless its bid meets the minimum ESBE participation level required by the bid specifications.**

The City has established a minimum 20% participation level for ESBEs on this contract. Pursuant to City Code Section 3.60.270, no bidder on this contract shall be considered a responsive bidder unless its bid meets or exceeds this minimum participation level.

Bidders shall include copies of their Certification as a SBE or EBE and the SBE or EBE Certifications for each subcontractor, trucker, material supplier, or other business entity listed on the forms submitted with the sealed proposal. **Failure to submit the required ESBE information by the close of business two days after bid opening will be grounds for finding the bid non-responsive.**

II. **ESBE CERTIFICATION**

- A. A SBE designated in the bid must be certified as such by the State of California or by the City, as defined herein, prior to the time bids are received.
- B. An EBE designated in the bid must be certified as such by the City, as defined herein, prior to the time bids are received.

III. **DETERMINATION OF ESBE PARTICIPATION LEVEL**

- A. The percent of ESBE participation shall be determined based on the dollar amount of the work to be performed by a certified ESBEs as that dollar amount is specifically stated on the **SUBCONTRACTOR and ESBE PARTICIPATION VERIFICATION FORM (FM 440)** in the bid package, relative to the total dollar amount of the bid, except as provided other wise below.
- B. To receive credit for participation, a ESBE must perform a commercially useful function; i.e., must be responsible for the execution of a distinct element of the work and must carry its responsibility by actually performing, managing, or supervising the work.
- C. Suppliers: Credit for supplies by ESBEs will be 100 percent.
- D. Truckers: Credit for trucking by ESBEs will be 100 percent.

**IV. ESBE REQUIREMENTS OF SUCCESSFUL BID/PROPOSAL**

- A. ESBE RECORDS - The Contractor shall maintain records of all subcontracts with certified ESBE subcontractors and records of materials purchased from certified ESBE vendors/suppliers for one (1) year after receiving final payment from the City. Such records shall show the name and business address of each ESBE subcontractor or vendor/supplier and the total dollar amount actually paid each ESBE subcontractor or vendor/supplier.

Upon completion of the contract, a summary of these records shall be prepared, certified correct by the Contractor's authorized representative and furnished to the City. The Contractor shall provide such other information, records, reports, certifications or other documents as may be required by City, to determine compliance with any provision of the ESBD program or these specifications.

- B. REPORTING REQUIREMENTS AND SANCTIONS - Failure to provide specific information, records, reports, certifications, or any other documents required for compliance with these specifications shall be considered noncompliance with the contract. If the Contractor fails to correct a deficiency within fifteen (15) days after notification, a deduction may be made from the contract amount. The deduction shall be ten (10) percent of the estimated value of the work done during the month, not to be less than \$1,000 nor exceed \$10,000 and shall be deducted from the next progress payment.

- C. PERFORMANCE OF ESBE SUBCONTRACTORS AND SUPPLIERS - The ESBEs listed by the Contractor shall perform the work and supply the materials for which they are listed unless the Contractor has received prior written authorization from the City to perform the work with other forces or to obtain the material from other sources. Reasons for requesting such authorization would include:

1. The listed ESBE fails to execute a written contract based upon the general terms, conditions, plans, and specifications for the project.
2. The listed ESBE becomes bankrupt or insolvent.
3. The listed ESBE subcontractor fails to meet the bond requirements of the Contractor.
4. The work performed by the listed subcontractor is unsatisfactory and/or is not in accordance with the plans and specifications, or the subcontractor fails to perform his/her obligations under the subcontractor contract.
5. It would be in the best interest of the City. The Contractor shall not be entitled to any payment for such work or materials unless it is performed or supplied by the listed SBE or EBE or other forces (including those of the Contractor) authorized in writing, by the City.

- D. SUBCONTRACTOR SUBSTITUTION - No substitution of an ESBE subcontractor shall be made at any time without compliance with the Subcontracting Listing Law and the written consent of the City. If a ESBE subcontractor is unable to perform successfully and is to be replaced, the Contractor will be required to make good faith efforts to replace the original ESBE subcontractor with another certified ESBE subcontractor. The new ESBE subcontractor must be certified at the time of substitution.

V. **DEFINITIONS**

A. **Emerging Business Enterprise (EBE)**

The City shall certify EBEs utilizing the small business certification criteria and standards of the State of California, General Services Department, Office of Small Business Certification and Resources, that were in effect on December 1, 1998, provided that the size standard, industry by industry, shall be set at 50% of the State small business certification criteria and standards that were in effect on December 1, 1998.

B. **Small Business Enterprise (SBE)**

The City shall certify SBEs utilizing the small business certification criteria and standards of the State of California, General Services Department, Office of Small Business Certification and Resources. The City will also accept State certified SBEs.

C. **CONTRACTOR**

The individual, partnership, corporation, joint venture or other legal entity entering into a contract with the City of Sacramento.

D. **SUBCONTRACTOR**

The individual, partnership, corporation, or other legal entity entering into a contract with the prime contractor to perform a portion of the work.

STATE OF CALIFORNIA - DEPARTMENT OF INDUSTRIAL RELATIONS - DIVISION  
OF APPRENTICESHIP STANDARDS  
EXCERPTS FROM THE CALIFORNIA LABOR CODE RELATING TO  
APPRENTICES ON PUBLIC WORKS  
CHAPTER 1 OF DIVISION 2  
APPRENTICES ON PUBLIC WORKS  
(NOTE: **BOLDFACE TYPE DENOTES KEY POINTS.**)

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1773.3. An awarding agency whose public works contract falls within the jurisdiction of Section 1777.5 shall, within five days of the award, send a copy of the award to the Division of Apprenticeship Standards. When specifically requested by a local joint apprenticeship committee, the division shall notify the local joint apprenticeship committee regarding all such awards applicable to the joint apprenticeship committee making the request. Within five days of a finding of any discrepancy regarding the ratio of apprentices to journeymen, pursuant to the certificated fixed number of apprentices to journeymen, the awarding agency shall notify the Division of Apprenticeship Standards. (Added by Stats. 1978, Ch. 1249)

1776. (a) Each contractor and subcontractor shall keep an accurate payroll record, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by him or her in connection with the public work.
- (b) The payroll records enumerated under subdivision (a) shall be certified and shall be available for inspection at all reasonable hours at the principal office of the contractor on the following basis:
- (1) A certified copy of an employee's payroll record shall be made available for inspection or furnished to the employee or his or her authorized representative on request.
  - (2) A certified copy of all payroll records enumerated in subdivision (a) shall be made available for inspection or furnished upon request to a representative of the body awarding the contract, the Division of Labor Standards Enforcement and the Division of Apprenticeship Standards of the Department of Industrial Relations.
  - (3) A certified copy of all payroll records enumerated in subdivision (a) shall be made available upon request by the public for inspection or copies thereof made; provided, however, that a request by the public shall be made through either body awarding the contract, the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement. If the requested payroll records have not been provided pursuant to paragraph (2), the requesting party shall, prior to

being provided the records, reimburse the costs of preparation by the contractor, subcontractors, and the entity through which the request was made. The public shall not be given access to the records at the principal office of the contractor.

- (c) Each contractor shall file a certified copy of the records enumerated in subdivision (a) with the entity that requested the records within 10 days after receipt of a written request.
- (d) Any copy of records made available for inspection as copies and furnished upon request to the public or any public agency by the awarding body, the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement shall be marked or obliterated in such a manner as to prevent disclosure of an individual's name, address and social security number. The name and address of the contractor awarded the contract or performing the contract shall not be marked or obliterated.
- (e) The contractor shall inform the body awarding the contract of the location of the records enumerated under subdivision (a), including the street address, city and county, and shall, within five working days, provide a notice or a change of location and address.
- (f) In the event of noncompliance with the requirements of this section, the contractor shall have 10 days in which to comply subsequent to receipt of written notice specifying in what respects the contractor must comply with the section. Should noncompliance will be evident after the 10-day period, the contractor shall, as a penalty to the state or political subdivision on whose behalf the contract is made or awarded, forfeit twenty-five dollars (\$25) for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, these penalties shall be withheld from progress payments then due.
- (g) The body awarding the contract shall cause to be inserted in the contract stipulations to effectuate this section. These stipulations shall fix the responsibility for compliance with this section on the prime contractor.
- (h) The director shall adopt rules consistent with the California Public Records Act (Ch. 3.5 (commencing with Sec. 6250), of Div. 7, Title 1, Gov. C.) and the Information Practices Act of 1977, (Title 1.8 (commencing with Sec. 1798) Pt. 4, Div. 3, Civ. C.) governing the release of these records, including the establishment of reasonable fees to be charged for reproducing copies of records required by this section.

(Amended 1983 Ch. 681)

1777.5. Nothing in this chapter shall prevent the employment of properly registered apprentices upon public works. Every such apprentice shall be paid the standard wage paid to apprentices under the regulations of the craft or trade at which he or she is employed, and shall be employed only at the work of the craft or trade to which he or she is registered.

Only apprentices, as defined in Section 3077, who are in training under apprenticeship standards and written apprentice agreements under Chapter 4 (commencing with Section 3070) of Division 3, are eligible to be employed on public works. The employment and training for each apprentice shall be in accordance with the apprenticeship standards and apprentice agreements under which he or she is training.

When the contractor to whom the contract is awarded by the state or any political subdivision, or any subcontractor under him or her, in performing any of the work under the contract or subcontract, employs workers in any apprenticeable craft or trade, the contractor and subcontractor shall apply to the joint apprenticeship committee administering the apprenticeship standards of the craft or trade in the area of the site of the public work for a certificate approving the contractor or subcontractor under the apprenticeship standards for the employment and training of apprentices in the area or industry affected. However, approval as established by the joint apprenticeship committee or committees shall be subject to the approval of the Administrator of Apprenticeship.

The joint apprenticeship committee or committees, subsequent to approving the subject contractor or subcontractor, shall arrange for the dispatch of apprentices to the contractor or subcontractor in order to comply with this section. Every contractor and subcontractor shall submit contract award information to the applicable joint apprenticeship committee which shall include an estimate of journeyman hours to be performed under the contract, the number of apprentices to be employed, and the approximate dates the apprentices will be employed. There shall be an affirmative duty upon the joint apprenticeship committee or committees administering the apprenticeship standards of the craft or trade in the area of the site of the public work to ensure equal employment and affirmative action in apprenticeship for women and minorities.

Contractors or subcontractors shall not be required to submit individual applications for approval to local joint apprenticeship committees provided they are already covered by the local apprenticeship standards. The ratio of work performed by apprentices to journeymen who shall be employed in the craft or trade on the public work may be the ratio stipulated in the apprenticeship standards under which the joint apprenticeship committee operates, but, except as otherwise provided in this section, in any case shall the ratio be less than one hour of apprentices work for every five hours of labor performed by a journeyman. However, the minimum ratio for the land surveyor classification shall not be less than one apprentice for each five journeymen.

Any ratio shall apply during any day or portion of a day when any journeyman, or the higher standard stipulated by the joint apprenticeship committee, is employed at the job site and shall be computed on the basis of the hours worked during the day by journeymen so employed, except for the land surveyor classification. The contractor shall employ apprentices for the number of hours computed as above before the end of the contract. However, the contractor shall endeavor, to the greatest extent possible, to employ apprentices during the same time period that the journeymen in the same craft or trade are employed at the job site. Where an hourly apprenticeship ratio is not feasible for a particular craft or trade, the Division of Apprenticeship Standards, upon application of a joint apprenticeship committee, may order a minimum ratio of not less than one apprentice for each five journeymen in a craft or trade classification.

The contractor or subcontractor, if he or she is covered by this section, upon the issuance of the approval certificate, or if he or she has been previously approved in the craft or trade, shall employ the number of apprentices or the ratio of apprentices to journeymen stipulated in the apprenticeship standards. Upon proper showing by the contractor that he or she employs apprentices in the craft or trade in the state on all of his or her contracts on an annual average of not less than one hour of apprentice work for every five hours of labor performed by a journeyman, or in the land surveyor classification, one apprentice for each five journeymen, the Division of Apprenticeship Standards may grant a certificate exempting the contractor from the 1-to-5 hourly ratio as set forth in this section. This section shall not apply to contracts of general contractors or to contracts of specialty contractors not bidding for work through a general or prime contractor, when the contracts of general contractors or those specialty contractors involve less than thirty thousand dollars (\$30,000) or 20 working days. Any work performed by a journeymen in excess of eight hours per day or 40 hours per week, shall not be used to calculate the hourly ratio required by this section.

"Apprenticeable craft or trade" as used in this section, means a craft or trade determined as an apprenticeable occupation in accordance with rules and regulations prescribed by the Apprenticeship Council. The joint apprenticeship committee shall have the discretion to grant a certificate, which shall be subject to the approval of the Administrator of Apprenticeship, exempting a contractor from the 1-to-5 ratio set forth in this section when it finds that any one of the following conditions is met:

- (a) Unemployment for the previous three-month period in the area exceeds an average of 15 percent.
- (b) The number of apprentices in training in such area exceeds a ratio of 1 to 5.

- (c) There is a showing that the apprenticeable craft or trade is replacing at least one-thirtieth of its journeymen annually through apprenticeship training, either on a statewide basis, or on a local basis.
- (d) Assignment of an apprentice to any work performed under a public works contract would create a condition which would jeopardize his or her life or the life, safety, or property of fellow employees or the public at large or if the specific task to which the apprentice is to be assigned is of such a nature that training cannot be provided by a journeyman.

When exemptions are granted to an organization which represents contractors in a specific trade from the 1-to-5 ratio on a local or statewide basis the member contractors will not be required to submit individual applications for approval to local joint apprenticeship committees, if they are already approved by the local apprenticeship standards.

A contractor to whom the contract is awarded, or any subcontractor under him or her, who, in performing any of the work under the contract, employees journeymen or apprentices in any apprenticeable craft or trade and who is not contributing to a fund or funds to administer and conduct the apprenticeship program in any craft or trade in the area of the site of the public work, to which fund or funds other contractors in the area of the site of the public work are contributing, shall contribute to the fund or funds in each craft or trade in which he or she employs journeymen or apprentices on the public work in the same amount or upon the same basis and in the same manner as the other contractors do, but where the trust fund administrators are able to accept the funds, contractors not signatory to the trust agreement shall pay a like amount to the California Apprenticeship Council. The contractor or subcontractor may add the amount of the contributions in computing his or her bid for the contract. The Division of Labor Standards Enforcement is authorized to enforce the payment of the contributions to the fund or funds as set forth in Section 227.

The body awarding the contract shall cause to be inserted in the contract stipulations to effectuate this section. The stipulations shall fix the responsibility of compliance with this section for all apprenticeable occupations with the prime contractor.

All decisions of the joint apprenticeship committee under this section are subject to Section 3081.

(Amended by Stats. 1989, Ch. 1224)

1777.6. It shall be unlawful for an employer or a labor union to refuse to accept otherwise qualified employees as registered apprentices on any public works, on the ground of the race, religious creed, color, national origin, ancestry, sex, or age, excepted as provided in Section 3077, of such employee. (Amended by Stats. 1976, Ch. 1179)

- 1777.7. (a) In the event a contractor or subcontractor willfully fails to comply with Section 1777.5, the Director of Industrial Relations shall deny to the contractor or subcontractor, both individually and in the name of the business entity under which the contractor or subcontractor is doing business, the right to bid on, or to receive, any public works contract for a period of up to one year for the first violation and for a period of up to three years for the second and subsequent violations. Each period of debarment shall run from the date the determination of noncompliance by the Administrator of Apprenticeship becomes and order of the California Apprenticeship Council.
- (b) A contractor or subcontractor who violates Section 1777.5 shall forfeit as a civil penalty the sum of fifty dollars (\$50) for each calendar day of noncompliance. Notwithstanding Section 1727, upon receipt of a determination that a civil penalty has been imposed, the awarding body shall withhold the amount of the civil penalty from contract progress payments then due or to become due.
- (c) In lieu of the penalty provided for in subdivision (a) or (b), the director may for a first time violation and with the concurrence of the joint apprenticeship committee, order the contractor or subcontractor to provide apprentice employment equivalent to the work hours that would have been provided for apprentices during the period of non-compliance.
- (d) Any funds withheld by the awarding body pursuant to this section shall be deposited in the General Fund if the awarding body is a state entity, or in the equivalent fund of an awarding body if the awarding body is an entity other than the state.
- (e) The interpretation and enforcement of Section 1777.5 and this section shall be in accordance with the rules and procedures of the California Apprenticeship Council.

(Amended by Stats. 1989, Ch. 1224)

JG3-01.A

**BID PROPOSAL FORMS**

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**PLEASE REMOVE AND**

**COMPLETE**

**THE FOLLOWING DOCUMENTS**

**AND**

**SUBMIT AS**

**THE BID PROPOSAL**

**PACKAGE**

TO THE HONORABLE CITY COUNCIL  
 SACRAMENTO, CALIFORNIA:

In compliance with the Contract Documents, the undersigned hereby proposes to furnish all required labor, materials, supervision, transportation, equipment, services, taxes and incidentals required for:

**SACRAMENTO CITY COLLEGE BICYCLE/PEDESTRIAN IMPROVEMENTS PROJECT  
 (T15065701)**

in the City and County of Sacramento, California.

The Work is to be done in strict conformity with the Contract Documents now on file in the Office of the City Clerk, for the following sum:

Item No.	Item	Estimated Quantity	Unit	Unit Price	Total
1.	CLEARING AND GRUBBING	1	LS	\$ 10,000.-	\$ 10,000.-
2.	ROADWAY EXCAVATION AND GRADING	320 (F)	CY	\$ 60.-	\$ 19,200.-
3.	BOLLARD TO REMOVE	4	EA	\$ 100.-	\$ 400.-
4.	CHAIN LINK FENCE TO REMOVE	360	LF	\$ 5.-	\$ 1800.-
5.	PAVEMENT PLANING (0.17")	100	SY	\$ 60.-	\$ 6000.-
6.	AGGREGATE BASE CLASS 2 TO PLACE	135	CY	\$ 60.-	\$ 8100.-
7.	ASPHALT CONCRETE (1/2") PAVEMENT TO PLACE	100	TON	\$ 150.-	\$ 15,000.-
8.	SLURRY SEAL (TYPE II) TO PLACE	1,350	SY	\$ 11.00	\$ 14,850.-
9.	3 1/2" PCC SIDEWALK TO CONSTRUCT	5,120	SF	\$ 6.00	\$ 30,720.-
10.	3 1/2" REINFORCED PCC SIDEWALK TO CONSTRUCT	840	SF	\$ 8.00	\$ 6,720.-
11.	CURB AND GUTTER TYPE 2 (MOD-1) TO CONSTRUCT	165	LF	\$ 30.-	\$ 4,950.-
12.	CURB AND GUTTER TYPE 2 (MOD-2) TO CONSTRUCT	20	LF	\$ 30.-	\$ 600.-
13.	VEE-GUTTER NO. 2 (MOD) TO CONSTRUCT	170	LF	\$ 35.-	\$ 5,950.-

14.	CURB TYPE 3 TO CONSTRUCT	240	LF	\$ 25.-	\$ 6000.-
15.	CURB TYPE 4A TO CONSTRUCT	100	LF	\$ 30.-	\$ 3000.-
16.	TRUNCATED DOMES TO INSTALL (36" X 48")	10	EA	\$ 500.-	\$ 5000.-
17.	8' DECORATIVE STEEL FENCE TO INSTALL	240	LF	\$ 110.-	\$ 26400.-
18.	CHAIN LINK FENCE TO RELOCATE	65	LF	\$ 55.-	\$ 3575.-
19.	CHAIN LINK GATE TO RELOCATE	1	EA	\$ 500.-	\$ 500.-
20.	PARKING BUMPERS TO PAINT AND RELOCATE	1	LS	\$ 1000.-	\$ 1000.-
21.	TIRE STRIP TO RELOCATE	1	EA	\$ 1000.-	\$ 1000.-
22.	MAINTENANCE HOLE TO ADJUST TO GRADE	1	EA	\$ 750	\$ 750
23.	WATER VALVE TO ADJUST TO GRADE	1	EA	\$ 500.-	\$ 500
24.	TYPE B DROP INLET (ROLLED CURB WITH TRAP AND SUMP)	1	EA	\$ 2500.-	\$ 2500.-
25.	DRAINAGE INLET GRATE TO INSTALL	1	EA	\$ 500.-	\$ 500
26.	12" STORM DRAIN PIPE TO INSTALL	41	LF	\$ 150.-	\$ 6150.-
27.	FIRE HYDRANT TO RELOCATE	1	EA	\$ 4000.-	\$ 4000.-
28.	STAMPED CONCRETE TO CONSTRUCT (3 1/2")	110	SF	\$ 25.-	\$ 2750.-
29.	TRAFFIC SIGN TO PLACE	15	EA	\$ 100.-	\$ 1500.-
30.	NEW POST TO INSTALL	5	EA	\$ 200	\$ 1000.-
31.	SIGN TO REMOVE	5	EA	\$ 50.-	\$ 250
32.	SIGN TO RELOCATE	7	EA	\$ 150	\$ 1050.-
33.	TRAFFIC STRIPE TO REMOVE	150	LF	\$ 6.-	\$ 900
34.	PAVEMENT MARKINGS TO REMOVE	50	SF	\$ 20.-	\$ 1000.-

35.	THERMOPLASTIC TRAFFIC STRIPE TO PLACE	1	LS	\$ 1000.-	\$ 1000.-
36.	THERMOPLASTIC PAVEMENT MARKINGS TO PLACE	1200	SF	\$ 5.-	\$ 600.-
37.	RAISED PAVEMENT MARKERS TO PLACE	140	EA	\$ 5.-	\$ 700.-
38.	JOINT TRENCH TO CONSTRUCT	715	LF	\$ 90.-	\$ 64350.-
39.	6'X8' PULL BOX TO CONSTRUCT	2	EA	\$ 10,000.-	\$ 20000.-
40.	IRRIGATION SYSTEM AT CITY COLLEGE PROPERTY TO MODIFY	1	LS	\$ 5000.-	\$ 5000.-
41.	IRRIGATION SYSTEM AT WATER TOWER TO MODIFY	1	LS	\$ 4915.-	\$ 4915.-
42.	AUTOMATIC IRRIGATION SYSTEM	1	LS	\$ 10000.-	\$ 10000.-
43.	TREES TO PLANT	9	EA	\$ 150.-	\$ 1350.-
44.	SHRUBS 5 GALLON TO PLANT	28	EA	\$ 25.-	\$ 700.-
45.	SHRUBS 1 GALLON TO PLANT	62	EA	\$ 20.-	\$ 1240.-
46.	BARK MULCH TO PLACE	2,500	SF	\$ .50	\$ 1250.-
47.	TURF HYDROSEEDING	1	LS	\$ 1280.-	\$ 1280.-
48.	TREE TO REMOVE	2	EA	\$ 500.-	\$ 1000.-
49.	LANDSCAPE MAINTENANCE (180 DAYS)	6	MO	\$ 500.-	\$ 3000.-
50.	STREET LIGHT INSTALLATION	1	LS	\$ 40000.-	\$ 40000.-

(F) – denotes final pay quantity

CONTRACTOR NAME:

TOTAL

\$ 350,000.-

It is understood that this Bid Proposal is based upon completion of the joint trench work by **October 15, 2012** and all remaining work within a period of **SIXTY FIVE (65) CALENDAR DAYS**, commencing on the date set forth in the written Notice to Proceed issued by the City to the Contractor. The Contractor is hereby notified and reminded that per City Contract requirements, the City will issue a Notice to Proceed within 15 calendar days of execution of contract by City. Contact work days will start immediately on the date of the Notice to Proceed. Attached is a sample of a Notice to Proceed.

**A schedule of values (cost break-down) for lump-sum electrical items shall be included with the bid. Otherwise, the bid will be deemed non-responsive. See Electrical Provisions for requirements of the cost breakdown.**

In determining the amount bid by each bidder, the City may disregard mathematical errors in addition, subtraction, multiplication, and division that appear obvious on the face of the Proposal. When such a mathematical error appears on the face of the Proposal, the City shall have the right to correct such error and to compute the total amount bid by said bidder on the basis of the corrected figure or figures.

The City Council may reject any and all bids and waive any informalities or minor irregularities in the bids.

When an item price is required to be set forth in the Proposal, and the total for the item set forth separately does not agree with a figure which is derived by multiplying the item price times the Engineer's estimate of the quantity of work to be performed for said item, the item price shall prevail over the sum set forth as the total for the item unless, in the sole discretion of the City, such a procedure would be inconsistent with the policy of the bidding procedure. The total paid for each such item of work shall be based upon the item price and not the total price. Should the Proposal contain only total price for the item and the item price is omitted, the City shall determine the item price by dividing the total price for the item by the Engineer's estimate of the estimated quantities of work to be performed as items of work.

If the Proposal contains neither the item price nor the total price for the item, then it shall be deemed incomplete and the Proposal shall be disregarded.

The undersigned has examined the location of the proposed Work, the local conditions at the place where the Work is to be done, is familiar with the Contract Documents and is familiar and expressly agrees to the liquidated damages provision of the Contract Documents.

The undersigned has checked carefully all of the foregoing figures and understands that the City of Sacramento will not be responsible for any errors or omissions on the part of the undersigned in making up this Bid Proposal.

Enclosed is a Bid Proposal Guarantee, as required, consisting of a bidder's bond or other acceptable security for not less than ten percent (10%) of the amount Bid Proposal.

The undersigned agrees that all addenda received and acknowledged herein shall become a part of and be included in this Bid Proposal. This Bid Proposal includes the following addenda:

Add. #	<u>  1  </u>	DATE	<u>  7/6/12  </u>
Add. #	<u>          </u>	DATE	<u>                  </u>
Add. #	<u>          </u>	DATE	<u>                  </u>

NOTE: State whether your concern is a corporation, a co-partnership, private individual, or individuals doing business under a firm name.

corporation

If the Bidder is a corporation, the Bid Proposal must be executed in the name of the corporation and must be signed by a duly authorized officer of the corporation.

If the Bidder is a partnership, the Bid Proposal must be executed in the name of the partnership and one of the partners must subscribe their signature thereto as the authorized representative of the partnership.

AMOUNT OF BID PROPOSAL GUARANTEE ENCLOSED:

(\$ \_\_\_\_\_) not less than ten percent (10%) of amount Bid Proposal

\_\_\_\_\_ CERTIFIED CHECK  
\_\_\_\_\_ CASHIER'S CHECK  
X \_\_\_\_\_ BID BOND  
\_\_\_\_\_ MONEY ORDER  
\_\_\_\_\_ OTHER SECURITY

CONTRACTOR:

By Karen Silva  
(Signature)

Karen Silva  
(Print or Type)

Title President

Address 4671 24th Street  
Sacramento CA 95822

Telephone No. 916 448 0134

Fax No. 916 448 0841

Email Address navajoinc@aol.com

Date 8/20/12

Contractor's License No. 655660 Type A

Expiration Date 6/30/14

Tax I.D. Nos.- Fed. 68 0382103 State 3984002-0

City of Sacramento Business Operation Tax Certificate No. 90791  
(City will not award contract if Certificate Number is missing.)

Please indicate if you are any of the following:

EBE X Cert # 19205

SBE X Cert # 21294

UDBE \_\_\_\_\_ Cert # \_\_\_\_\_

MWBE X Cert # 11010045



CITY OF SACRAMENTO

**THIS FORM MUST BE SUBMITTED WITH THE SEALED BID PROPOSAL**

**CITY OF SACRAMENTO SUBCONTRACTOR and ESBE PARTICIPATION VERIFICATION**

To be eligible for award of this contract, the bidder shall list any business entity used to attain the 20% ESBE goal. Additionally, all other subcontractors who perform work, labor, or render service in an amount in excess of one-half of 1 percent of the total bid amount shall be listed. In the case of bids for the construction of streets and highways, including bridges, subcontractors whose subcontract value exceeds one-half (0.5) of one percent of the total bid or ten thousand dollars (\$10,000), whichever is greater, shall be listed. Estimated dollar values shall be provided for all work / services listed. The inclusion of false information or the omission of required information will render the bid non-responsive. **READ THE ABOVE REQUIREMENT CAREFULLY**

Name of Prime Contractor: Business Entity or Subcontractor Name and Location	Indicate EBE or SBE (subject to verification)	Bid Amount: Items of Work and/or Description of Work or Service Subcontracted or Materials to be provided to complete contract	Date: Estimated Dollar Value of Work / Services Provided
Navajo Pipelines Inc	EBE	GC	7/11/12
Siema Traffic Markings 3139 Switzer Rd		striping	10,234.-
Golden Ball Fence 4104 South B St Stockton		Fencing	28,203.-
CPM 9390 Elder Creek 5050		blowing soil	12,933.-
Valley Crest Landscape 5050		landscape	25,000.-
M & M Electric 1600 Auburn Blvd 5050		electrical	45,120.-



CITY OF SACRAMENTO, CALIFORNIA  
OFFICE OF SMALL BUSINESS

EMERGING AND SMALL BUSINESS DEVELOPMENT PROGRAM

## SMALL BUSINESS CERTIFICATION

EFFECTIVE THIS DATE: JULY 6, 2010

NAVAJO PIPELINES, INC.

IS CERTIFIED AS AN EMERGING/SMALL BUSINESS ENTERPRISE

CITY CERTIFICATION NUMBER: 19205

EXPIRATION: 7/6/13

The City of Sacramento defines a Small Business Enterprise (SBE) as a commercially functioning firm, that is independently owned and operated, not dominant in its field of operations; has its principal office located in California; has its owners and officers domiciled in California; together with its affiliates, is either a service, construction, or non-manufacturer that has 100 or fewer employees; with average annual gross receipts not exceeding twelve million dollars (\$12,000,000) over the previous three (3) tax years; or, a manufacturer that has 100 or fewer employees. In addition to meeting eligibility requirements for a SBE, an Emerging Business Enterprise (EBE) classification is based on the firm's total gross receipts over a three (3) year period, within defined industry-specific thresholds.

*CONGRATULATIONS! ON YOUR EFFORTS TO CONDUCT BUSINESS WITH THE CITY  
AND PARTICIPATE IN THE LOCAL ECONOMIC DEVELOPMENT OF OUR REGION.*

THIS CERTIFICATE ISSUED BY:

ECONOMIC DEVELOPMENT DEPARTMENT  
915 I STREET, SACRAMENTO, CA 95814  
(916) 808-7223 WWW.CITYOFSACRAMENTO.ORG/ECONDEV

NOREEN JAMES  
CERTIFYING OFFICER



## MINIMUM QUALIFICATIONS QUESTIONNAIRE

Sacramento City Code Section 3.60.020 authorizes the Sacramento City Council to adopt standard minimum qualifications for bidders on competitively bid public works construction projects, and requires, among other provisions, that a bidder meet such minimum qualifications at the time of bid opening in order to bid. On July 31, 2007, the City Council adopted Resolution No. 2007-574 establishing these standard minimum qualifications. Pursuant to City Code section 3.60.020, a bidder failing to meet these minimum qualifications at the time of bid opening shall not be considered a responsible bidder for purposes of bidding on the subject project.

All bidders must demonstrate compliance with the minimum qualifications established by Resolution No. 2007-574 by completing all of the questions contained in this questionnaire. Bidder responses shall be limited to those operating business units, offices, branches and/or subsidiary divisions of the bidder that will be involved with the performance of any project work if awarded the contract. If a bidder answers "yes" to any single question, fails to submit a fully completed questionnaire, or submits false information, this will result in a determination that the minimum qualifications are not met, and the bidder shall not be considered a qualified bidder for purposes of bidding on this contract. If two or more entities submit a bid on a contract as a Joint Venture, each entity within the Joint Venture must separately meet these minimum qualifications for the Joint Venture to be considered a qualified bidder.

The City of Sacramento ("City") shall make its determination on the basis of the submitted questionnaire, as well as any relevant information that is obtained from others or as a result of investigation by the City. While it is the intent of this questionnaire to assist the City in determining whether bidders possess the minimum qualifications necessary to submit bids on the City's competitively bid public works construction contracts, the fact that a bidder submits a questionnaire demonstrating that it meets these minimum qualifications shall not in any way limit or affect the City's ability to: (1) review other information contained in the bid submitted by the bidder, and additional relevant information, and determine whether the contractor is a responsive and/or responsible bidder; or (2) establish pre-qualification requirements for a specific contract or contracts.

By submitting this questionnaire, the bidder consents to the disclosure of its questionnaire answers: (i) to third parties for purposes of verification and investigation; (ii) in connection with any protest, challenge or appeal of any action taken by the City; and (iii) as required by any law or regulation, including without limitation the California Public Records Act (Calif. Gov't Code sections 6250 et seq.). Each questionnaire must be signed under penalty of perjury in the manner designated at the end of the form, by an individual who has the legal authority to bind the bidder submitting the questionnaire. If any information provided by a bidder becomes inaccurate, the bidder shall immediately notify the City and provide updated accurate information in writing, under penalty of perjury.

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**FOR CITY CLERK USE ONLY**

RESOLUTION NO.: 2007-574

DATE ADOPTED: July 31, 2007



6. Answer either subsection A or B, as applicable:

A. Your firm has completed three or more government construction contracts in Sacramento County within the last five years: Within those five years, has your firm been assessed liquidated damages on three or more government construction contracts in Sacramento County for failure to complete contract work on time?

**NOTE: If there is a pending administrative or court action challenging the assessment of liquidated damages on a government contract within the last five years, you need not include that contract in responding to this question.**

Yes

No

Not applicable

**OR**

B. Your firm has not completed at least three government construction contracts in Sacramento County within the last five years: Within the last three years, has your firm been assessed liquidated damages on three or more government construction contracts for failure to complete contract work on time?

**NOTE: If there is a pending administrative or court action challenging an assessment of liquidated damages on a government contract within the last three years, you need not include that contract in responding to this question.**

Yes

No

Not applicable

7. In the last three years has your firm been debarred from bidding on, or completing, any government agency or public works construction contract for any reason?

**NOTE: If there is a pending administrative or court action challenging a debarment, you need not include that debarment in responding to this question.**

Yes

No

8. Has CAL OSHA assessed a total of three or more penalties against your firm for any "serious" or "willful" violation occurring on construction projects performed in Sacramento County at any time within the last three years?

**NOTE: If there is a pending administrative or court action appealing a penalty assessment, you need not include that penalty assessment in responding to this question.**

Yes

No

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**FOR CITY CLERK USE ONLY**

RESOLUTION NO.: 2007-574

DATE ADOPTED: July 31, 2007

9. Answer either subsection A or B, as preferred:

A. In the last three years has your firm had a three year average Workers' Compensation experience modification rate exceeding 1.1?

Yes

No

**OR**

B. In the last three years has your firm had a three-year average incident rate for total lost workday cases exceeding 10?

**NOTE: Incident rates represent the number of lost workday cases per 100 full-time workers and is to be calculated as:  $(N/EH) \times 200,000$ , where**

**N** = number of lost workday cases (as defined by the U.S. Dept. of Labor, Bureau of Labor Statistics)  
**EH** = total hours worked by all employees during the calendar year  
**200,000** = base for 100 equivalent full-time working (working 40 hours per week, 50 weeks per year)

Yes

No

10. In the past three years, has the federal EPA, Region IX or a California Air Quality Management District or Regional Water Quality Control Board assessed penalties three or more times, either against your firm, or against the project owner for a violation resulting in whole or in part from any action or omission by your firm on a project on which your firm was a contractor in Sacramento County?

**NOTE: If there is a pending administrative or court action appealing a penalty assessment, you need not include that penalty assessment in responding to this question.**

Yes

No

---

**FOR CITY CLERK USE ONLY**

RESOLUTION NO.: 2007-574

DATE ADOPTED: July 31, 2007

11. In the past three years, has the federal EPA, Region IX or a California Air Quality Management District or Regional Water Quality Control Board assessed a single penalty of \$100,000 or more, either against your firm, or against the project owner for a violation resulting in whole or in part from any action or omission by your firm on a project on which your firm was the contractor in Sacramento County?

**NOTE:** If there is a pending administrative or court action appealing a penalty assessment, you need not include that penalty assessment in responding to this question.

Yes  No

12. In the past three years, have civil penalties been assessed against your firm pursuant to California Labor Code 1777.7 for violation of California public works apprenticeship requirements, three or more times?

**NOTE:** If there is a pending administrative or court action appealing a penalty assessment, you need not include that penalty assessment in responding to this question.

Yes  No

13. In the past three years, has a public agency in California withheld contract payments or assessed penalties against your firm for violation of public works prevailing wage requirements, three or more times?

**NOTE:** If there is a pending administrative or court action appealing a withholding or penalty assessment, you need not include that withholding or penalty assessment in responding to this question.

Yes  No

14. Has your firm been assessed penalties for violation of public works prevailing wage requirements in California, in an aggregate amount for the past three years of \$50,000 or more?

**NOTE:** If there is a pending administrative or court action appealing a penalty assessment, you need not include that penalty assessment in responding to this question.

Yes  No

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FOR CITY CLERK USE ONLY

RESOLUTION NO.: 2007-574

DATE ADOPTED: July 31, 2007

**VERIFICATION AND SIGNATURE**

I, the undersigned, certify and declare that I have read all the foregoing answers to this Minimum Qualifications Questionnaire, and know their contents. The matters stated in these Questionnaire answers are true of my own knowledge and belief, except as to those matters stated on information and belief, and as to those matters I believe them to be true. I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Signed at Sacramento CA, on 8/20/12.  
(Location) (Date)

Signature: Karen Silva

Print name: Karen Silva

Title: President

NOTE: If two or more entities submit a bid on a contract as a Joint Venture, each entity within the Joint Venture must submit a separate Minimum Qualifications Questionnaire.

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**FOR CITY CLERK USE ONLY**

RESOLUTION NO.: 2007-574

DATE ADOPTED: July 31, 2007

All future solicitations will incorporate the following standard language to notify potential bidders of the City Council policy regarding businesses headquartered in Arizona.

**City of Sacramento Boycott of Arizona-Headquartered Businesses**

On June 15, 2010, the Sacramento City Council adopted Resolution No. 2010-346 opposing two Arizona laws (SB 1070 and HB 2162) that will allow Arizona police to arrest individuals suspected of being unlawfully present in the United States and to charge immigrants with a state crime for not carrying immigration documents. Sacramento City Council Resolution No. 2010-346 also called for a boycott of the State of Arizona and businesses headquartered in Arizona until Arizona repeals or a court nullifies SB 1070 and HB 1262. Resolution No. 2010-346 provides, in pertinent part, that “where practicable and where there is no significant additional cost to the City, the City of Sacramento shall not enter into any new, amended, extended or supplemental contracts to purchase or procure goods or services from any business or entity that is headquartered in Arizona ...”

Pursuant to the provisions of Resolution No. 2010-346, the City may determine that a bid from a business or entity that is headquartered in Arizona is nonresponsive and the City may reject the bid on that basis.

Bidders that are headquartered in the United States shall certify in the space below the state where the bidder is headquartered:

California  
State Where Bidder is Headquartered

6/23/10

# TITLE VI

## Title VI Language

### APPENDIX A

During the performance of this contract, the contractor, for itself, its assignees and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

**(1) Compliance with Regulations:**

The contractor shall comply with the Regulations relative to nondiscrimination in Federally-assisted programs of the Department of Transportation (hereinafter, "DOT") Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time, (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.

**(2) Nondiscrimination:**

The contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor shall not participate either directly or indirectly in the discrimination prohibited by section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.

**(3) Solicitations for Subcontracts, Including Procurements of Materials and Equipment:**

In all solicitations either by competitive bidding or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the contractor of the contractor's obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, color, or national origin.

**(4) Information and Reports:**

The contractor shall provide all information and reports required by the Regulations or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the (Recipient) or the (Name of Appropriate Administration) to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information the contractor shall so certify to the (Recipient), or the (Name of Appropriate Administration) as appropriate, and shall set forth what efforts it has made to obtain the information.

**(5) Sanctions for Noncompliance:**

In the event of the contractor's noncompliance with the nondiscrimination provisions of this contract, the (Recipient) shall impose such contract sanctions as it or the (Name of Appropriate Administration) may determine to be appropriate, including, but not limited to:

- (a) withholding of payments to the contractor under the contract until the contractor complies, and/or
- (b) cancellation, termination or suspension of the contract, in whole or in part.

**(6) Incorporation of Provisions:**

The contractor shall include the provisions of paragraphs (1) through (6) in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto. The contractor shall take such action with respect to any subcontract or procurement as the (Recipient) or the (Name of Appropriate Administration) may direct as a means of enforcing such provisions including sanctions for non-compliance: Provided, however, that, in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the contractor may request the (Recipient) to enter into such litigation to protect the interests of the (Recipient), and, in addition, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

## **Green Contracting Survey (Voluntary)**

The City of Sacramento and the Sacramento Metropolitan Air Quality District (SMAQMD) are conducting a joint pilot project to help meet Federal Clean Air Standards for the Sacramento region.

Attached is a Green Contracting Fleet Inventory Form. Please complete the form, remove it from the bid package and return it to SMAQMD in the postage paid envelope provided with the bid package. Please do not return the Green Contracting Fleet Inventory Form to the City of Sacramento with the bid documents or otherwise.

A limited amount of funds and other financial incentives may be available to qualified contractors participating in this joint project to assist qualified contractors with upgrading and/or replacing equipment and/or trucks.

**Completing and returning the Green Contracting Fleet Inventory Form is strictly voluntary.**





All future solicitations will incorporate the following standard language to notify potential bidders of the City Council policy regarding businesses headquartered in Arizona.

**City of Sacramento Boycott of Arizona-Headquartered Businesses**

On June 15, 2010, the Sacramento City Council adopted Resolution No. 2010-346 opposing two Arizona laws (SB 1070 and HB 2162) that will allow Arizona police to arrest individuals suspected of being unlawfully present in the United States and to charge immigrants with a state crime for not carrying immigration documents. Sacramento City Council Resolution No. 2010-346 also called for a boycott of the State of Arizona and businesses headquartered in Arizona until Arizona repeals or a court nullifies SB 1070 and HB 1262. Resolution No. 2010-346 provides, in pertinent part, that “where practicable and where there is no significant additional cost to the City, the City of Sacramento shall not enter into any new, amended, extended or supplemental contracts to purchase or procure goods or services from any business or entity that is headquartered in Arizona ...”

Pursuant to the provisions of Resolution No. 2010-346, the City may determine that a bid from a business or entity that is headquartered in Arizona is nonresponsive and the City may reject the bid on that basis.

Bidders that are headquartered in the United States shall certify in the space below the state where the bidder is headquartered:

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State Where Bidder is Headquartered

6/23/10

# **NON-DISCRIMINATION IN EMPLOYEE BENEFITS BY CITY CONTRACTORS ORDINANCE**

## **INTRODUCTION**

The Sacramento Non-Discrimination In Employee Benefits By City Contractors Ordinance (the "Ordinance"), codified as Sacramento City Code Chapter 3.54, prohibits City contractors from discriminating in the provision of employee benefits between employees with spouses and employees with domestic partners, and between the spouses and domestic partners of employees.

## **APPLICATION**

The provisions of the Ordinance apply to any contract or agreement (as defined below), between a Contractor and the City of Sacramento, in an amount exceeding \$25,000.00. The Ordinance applies to that portion of a contractor's operations that occur: (i) within the City of Sacramento; (ii) on real property outside the City of Sacramento if the property is owned by the City or if the City has a right to occupy the property; or (iii) at any location where a significant amount of work related to a City contract is being performed. The provisions apply only to those employee(s) actually working on the City contract and only for the actual amount of time the employee(s) spend working on such contract.

The Ordinance does not apply: to subcontractors or subcontracts of any Contractor or contractors; to transactions entered into pursuant to cooperative purchasing agreements approved by the Sacramento City Council; to legal contracts of other governmental jurisdictions or public agencies without separate competitive bidding by the City; where the requirements of the ordinance will violate or are inconsistent with the terms or conditions of a grant, subvention or agreement with a public agency or the instructions of an authorized representative of any such agency with respect to any such grant, subvention or agreement; to contracts for excavation or street construction; or to agreements for the use of City right-of-way where a contracting utility has the power of eminent domain.

## **DEFINITIONS**

As set forth in the Ordinance, the following definitions apply:

"Contract" means an agreement for public works or improvements to be performed, or for goods or services to be purchased or grants to be provided, at the expense of the City or to be paid out of moneys deposited in the treasury or out of the trust money under the control or collected by the City. "Contract" also means a written agreement for the exclusive use ("exclusive use" means the right to use or occupy real property to the exclusion of others, other than the right reserved by the fee owner) or occupancy of real property for a term exceeding 29 days in any calendar year, whether by singular or cumulative instrument, (i) for the operation or use by others of real property owned or controlled by the City for the operation of a business, social, or other establishment or organization, including leases, concessions, franchises and easements, or (ii) for the City's use of occupancy of real property owned by others, including leases, concessions, franchises and easements.

"Contract" shall not include: a revocable at-will use or encroachment permit for the use of or encroachment on City property regardless of the ultimate duration of such permit; excavation, street construction or street use permits; agreements for the use of City

## **NON-DISCRIMINATION IN EMPLOYEE BENEFITS BY CITY CONTRACTORS ORDINANCE**

right-of-way where a contracting utility has the power of eminent domain; or agreements governing the use of City property that constitute a public forum for activities that are primarily for the purpose of espousing or advocating causes or ideas and that are generally protected by the First Amendment to the United States Constitution or that are primarily recreational in nature.

“Contractor” means any person or persons, firm partnership or corporation, company , or combination thereof, that enters into a Contract with the City. “Contractor” does not include a public entity.

“Domestic Partner” means any person who has a currently registered domestic partnership with a governmental entity pursuant to state or local law authorizing the registration.

“Employee Benefits” means bereavement leave; disability, life, and other types of insurance; family medical leave; health benefits; membership or membership discounts; moving expenses; pension and retirement benefits; vacation; travel benefits; and any other benefit given to employees;. “Employee benefits” shall not include benefits to the extent that the application of the requirements of this chapter to such benefits may be preempted by federal or state.

### **CONTRACTOR’S OBLIGATION TO PROVIDE THE CITY WITH DOCUMENTATION AND INFORMATION**

Contractor shall provide the City with documentation and information verifying its compliance with the requirements of the Ordinance within ten (10) days of receipt of a request from the City. Contractors shall keep accurate payroll records, showing, for each City Contract, the employee’s name, address, Social Security number, work classification, straight time pay rate, overtime pay rate, overtime hours worked, status and exemptions, and benefits for each day and pay period that the employee works on the City Contract. Each request for payroll records shall be accompanied by an affidavit to be completed and returned by the Contractor, as stated, attesting that the information contained in the payroll records is true and correct, and that the Contractor has complied with the requirements of the Ordinance. A violation of the Ordinance or noncompliance with the requirements of the Ordinance shall constitute a breach of contract.

### **EMPLOYER COMPLIANCE CERTIFICATE AND NOTICE REQUIREMENTS**

(a) All contractors seeking a Contract subject to the Ordinance shall submit a completed Declaration of Compliance Form (attachment “A”), signed by an authorized representative, with each proposal, bid or application. The Declaration of Compliance shall be made a part of the executed contract, and will be made available for public inspection and copying during regular business hours.

(b) The Contractor shall give each existing employee working directing on a City contract, and (at the time of hire), each new employee, a copy of the notification provided as attachment “B.”

(c) Contractor shall post, in a place visible to all employees, a copy of the notice provided as attachment “C.”

**NON-DISCRIMINATION IN EMPLOYEE BENEFITS BY CITY CONTRACTORS  
ORDINANCE**

**DECLARATION OF COMPLIANCE  
Equal Benefits Ordinance**

Navajo Pipelines Inc  
Name of Contractor

4671 24th St Sacramento  
Address

The above named contractor ("Contractor") hereby declares and agrees as follows:

1. I have read and understand the Non-Discrimination In Employee Benefits By City Contractors Ordinance ("Ordinance") provided to me by the City of Sacramento ("City") in connection with the City's request for proposals or other solicitations for the performance of services, or for the provision of commodities, under a City contract or agreement ("Contract").
2. As a condition of receiving the City Contract, I agree to fully comply with the requirements of the Ordinance, codified as Chapter 3. 54 of the Sacramento City Code.
3. If the face amount of this City Contract is less than \$25,000, as a condition of receiving this Contract, I agree to notify the City in writing if the aggregate value of the City Contract referenced herein, after changes, modifications, or similar actions, equals or exceeds \$25,000 in total value.
4. I understand, to the extent that such benefits are not preempted or prohibited by federal or state law, employee benefits covered by the Ordinance, are any of the following:
  - a. Bereavement Leave
  - b. Disability, life, and other types of insurance
  - c. Family medical leave
  - d. Health benefits
  - e. Membership or membership discounts
  - f. Moving expenses
  - g. Pension and retirement benefits
  - h. Vacation
  - i. Travel benefits
  - j. Any other benefit offered to employees

I agree that should I offer any of the above listed employee benefits, that I will offer those benefits, without discrimination between employees with spouses and employees with domestic partners, and without discrimination between the spouses and domestic partners of such employees.

5. I understand that I will not be considered to be discriminating in the provision or application of employee benefits under the following conditions or circumstances:

## NON-DISCRIMINATION IN EMPLOYEE BENEFITS BY CITY CONTRACTORS ORDINANCE

- a. In the event that the actual cost of providing a benefit to a domestic partner or spouse, exceeds the cost of providing the same benefit to a spouse or domestic partner of an employee, I will not be required to provide the benefit, nor shall it be deemed discriminatory, if I require the employee to pay the monetary difference in order to provide the benefit to the domestic partner or to the spouse.
- b. In the event I am unable to provide a certain benefit, despite taking reasonable measures to do so, if I provide the employee with a cash equivalent, I will not be deemed to be discriminating in the application of that benefit.
- c. If I provide employee benefits neither to employee's spouses nor to employee's domestic partners.
- d. If I provide employee benefits to employees on a basis unrelated to marital or domestic partner status.
- e. If I submit, to the Program Coordinator, written evidence of making reasonable efforts to end discrimination in employee benefits by implementing policies which are to be enacted before the first effective date after the first open enrollment process following the date the Contract is executed with the City.

I understand that any delay in the implementation of such policies may not exceed one (1) year from the date the Contract is executed with the City, and applies only to those employee benefits for which an open enrollment process is applicable.

- f. Until administrative steps can be taken to incorporate, in the infrastructure, nondiscrimination in employee benefits

The time allotted for these administrative steps will apply only to those employee benefits for which administrative steps are necessary and may not exceed three (3) months from the date the Contract is executed with the City.

- g. Until the expiration of a current collective bargaining agreement(s) where, in fact, employee benefits are governed by a collective bargaining agreement(s).
- h. I take all reasonable measures to end discrimination in employee benefits by either requesting the union(s) involved agree to reopen the agreement(s) in order for me to take whatever steps are necessary to end discrimination in employee benefits or by my ending discrimination in employee benefits without reopening the collective bargaining agreement(s).

## NON-DISCRIMINATION IN EMPLOYEE BENEFITS BY CITY CONTRACTORS ORDINANCE

- i. In the event I cannot end discrimination in employee benefits despite taking all reasonable measures to do so, I provide a cash equivalent to eligible employees for whom employee benefits (as listed previously), are not available.  
  
Unless otherwise authorized in writing by the City Manager, I understand this cash equivalent must begin at the time the union(s) refuse to allow the collective bargaining agreement(s) to be reopened or no longer than three (3) months from the date the Contract is executed with the City.
6. I understand that failure to comply with the provisions of Section 5. (a) through 4. (i), above, will subject me to possible suspension and/or termination of this Contract for cause; repayment of any or all of the Contract amount disbursed by the City; debarment for future contracts until all penalties and restitution have been paid in full; deemed ineligible for future contracts for up to two (2) years; the imposition of a penalty, payable to the City, in the sum of \$50.00 for each employee, for each calendar day during which the employee was discriminated against in violation of the provisions of the Ordinance.
7. I understand and do hereby agree to provide each current employee and, within ten (10) days of hire, each new employee, of their rights under the Ordinance. I further agree to maintain a copy of each such letter provided, in an appropriate file for possible inspection by an authorized representative of the City. I also agree to prominently display a poster informing each employee of these rights.
8. I understand that I have the right to request an exemption to the benefit provisions of the Ordinance when such a request is submitted to the Procurement Services Division, in writing with sufficient justification for resolution, prior to contract award.  
  
I further understand that the City may request a waiver or exemption to the provisions or requirements of the Ordinance, when only one contractor is available to enter into a contract or agreement to occupy and use City property on terms and conditions established by the City; when sole source conditions exist for goods, services, public project or improvements and related construction services; when there are no responsive bidders to the EBO requirements and the contract is for essential goods or services; when emergency conditions with public health and safety implications exist; or when the contract is for specialized legal services if in the best interest of the City.
9. In consideration of the foregoing, I shall defend, indemnify and hold harmless, the City, its officers and employees, against any claims, actions, damages, costs (including reasonable attorney fees), or other liabilities of any kind arising from any violation of the City's Equal Benefits Requirements or of the Ordinance by me.

**NON-DISCRIMINATION IN EMPLOYEE BENEFITS BY CITY CONTRACTORS  
ORDINANCE**

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that I am authorized to bind the Contractor to the provisions of this Declaration.

Raren Silva  
Signature of Authorized Representative

8/20/12  
Date

Raren Silva  
Print Name

President  
Title

**NON-DISCRIMINATION IN EMPLOYEE BENEFITS BY CITY CONTRACTORS  
ORDINANCE**



**YOUR RIGHTS UNDER THE CITY OF SACRAMENTO'S  
NON-DISCRIMINATION IN EMPLOYEE BENEFITS BY CITY CONTRACTORS  
ORDINANCE**

On ..... (date), your employer (the "Employer") entered into a contract with the City of Sacramento (the "City") for ..... (contract details), and as a condition of that contract, agreed to abide by the requirements of the City's Non-Discrimination In Employee Benefits By City Contractors Ordinance (Sacramento City Code Section 3.54).

The Ordinance does not require the Employer to provide employee benefits. The Ordinance does require that if certain employee benefits are provided by the Employer, that those benefits be provided without discrimination between employees with spouses and employees with domestic partners, and without discrimination between the spouse or domestic partner of employees.

The Ordinance covers any employee working on the specific contract referenced above, but only for the period of time while those employees are actually working on this specific contract.

The included employee benefits are:

- Bereavement leave
- Disability, life and other types of insurance
- Family medical leave
- Health benefits
- Membership or membership discounts
- Moving expenses
- Pension and retirement benefits
- Vacation
- Travel benefits
- Any other benefits given to employees

(Employee Benefits does not include benefits that may be preempted by federal or state law.)

If you feel you have been discriminated or retaliated against by your employer in the terms and conditions of your application for employment, or in your employment, or in the application of these employee benefits, because of your status as an applicant or as an employee protected by the Ordinance, or because you reported a violation of the Ordinance, and after having exhausted all remedies with your employer,

## NON-DISCRIMINATION IN EMPLOYEE BENEFITS BY CITY CONTRACTORS ORDINANCE

### You May . . .

- Submit a written complaint to the City of Sacramento, Contract Services Unit, containing the details of the alleged violation. The address is:

City of Sacramento  
Contract Services Unit  
915 I St, 2<sup>nd</sup> Floor  
Sacramento, CA 95814-2714

- Bring an action in the appropriate division of the Superior Court of the State of California against the Employer and obtain the following remedies:
  - Reinstatement, injunctive relief, compensatory damages and punitive damages
  - Reasonable attorney's fees and costs

# NON-DISCRIMINATION IN EMPLOYEE BENEFITS BY CITY CONTRACTORS ORDINANCE



## YOUR RIGHTS UNDER THE CITY OF SACRAMENTO'S NON-DISCRIMINATION IN EMPLOYEE BENEFITS BY CITY CONTRACTORS ORDINANCE

If your employer provides employee benefits, they must be provided to those employees working on a City of Sacramento contract without discriminating between employees with spouses and employees with domestic partners.

The included employee benefits are:

- Bereavement leave
- Disability, life and other types of insurance
- Family medical leave
- Health benefits
- Membership or membership discounts
- Moving expenses
- Pension and retirement benefits
- Vacation
- Travel benefits
- Any other benefits given to employees

If you feel you have been discriminated against by your employer . . .

### **You May . . .**

- o Submit a written complaint to the City of Sacramento, Contract Services Unit, containing the details of the alleged violation. The address is:  
  
City of Sacramento  
Contract Services Unit  
915 I St, 2<sup>nd</sup> Floor  
Sacramento, CA 95814-2714
- o Bring an action in the appropriate division of the Superior Court of the State of California against the employer and obtain reinstatement, injunctive relief, compensatory damages, punitive damages and reasonable attorney's fees and costs.

### **Discrimination and Retaliation Prohibited.**

If you feel you have been discriminated or retaliated against by your employer in the terms and conditions of your application for employment, or in your employment, because of your status as an applicant or as an employee protected by the Ordinance, or because you reported a violation of this Ordinance . . .

### **You May Also . . .**

Submit a written complaint to the City of Sacramento, Contract Services Unit, at the same address, containing the details of the alleged violation.

**FOLLOWING FORMS TO BE FILLED OUT**

**AND SIGNED**

**ONLY**

**IF AWARDED CONTRACT**

AGREEMENT  
(Construction Contract Over \$25,000)

THIS AGREEMENT, dated for identification September 11, 2012, is made and entered into between the CITY OF SACRAMENTO, a municipal corporation ("City"), and Navajo Pipeline Inc., 4671 24th Street, Sacramento CA 95822

The City and Contractor hereby mutually agree as follows:

1. CONTRACT DOCUMENTS

The Contract Documents, sometimes also referred to as the "Contract," consist of the following items, which are hereby incorporated by reference as if set forth in full in this Agreement:

The Notice to Contractors  
The Proposal Form submitted by the Contractor  
The Instructions to Bidders  
The Emerging and Small Business Enterprise (ESBE) Requirements  
The Requirements for the Non-Discrimination in Employee Benefits by City Contractors Ordinance and the Declaration of Compliance  
The City's Reference Guide for Construction Contracts  
The Addenda, if any  
This Agreement  
The Standard Specifications  
The Special Provisions  
The Plans and Technical Specifications  
The drawings and other data and all developments thereof prepared by City pursuant to the Contract  
Any modifications of any of the foregoing made or approved by City, including but not limited to duly authorized change orders.

Unless specifically noted otherwise, references to the "Standard Specifications" shall mean and refer to the Standard Specifications for Public Construction of the City of Sacramento approved by the Sacramento City Council on June 4, 2007 (Resolution No. 2007-350), and any subsequent amendments thereto approved by the Sacramento City Council or the Sacramento City Manager. Work called for in any one Contract Document and not mentioned in another is to be performed and executed as if mentioned in all Contract Documents. The table of contents, titles and headings contained in the Contract Documents are provided solely to facilitate reference to various provisions of the Contract Documents and in no way affect or limit the interpretation of the provisions to which they refer.

2. DEFINITIONS

Unless otherwise specifically provided herein, all words and phrases defined in the Standard Specifications shall have the same meaning and intent in this Agreement.

3. AGREEMENT CONTROLS

In the event of a conflict between any of the terms and conditions set forth in this Agreement and the terms and conditions set forth in other Contract Documents, the terms and conditions set forth

in this Agreement shall prevail, except that the provisions of any duly authorized change order shall prevail over any conflicting provisions of this Agreement.

4. SCOPE OF CONTRACT

Contractor agrees to furnish all tools, equipment, apparatus, facilities, labor, material and transportation necessary to perform and complete in a good and workmanlike manner to the satisfaction of City, all the Work called for in the Contract Documents entitled:

Sacramento City College Bicycle/Pedestrian Improvements  
(PN: T15065701)

including the Work called for in the following alternative bid items described in the Proposal Form:

---

Contractor agrees to perform such Work in the manner designated in and in strict conformity with the Contract Documents.

5. CONTRACT AMOUNT AND PAYMENTS

City agrees to pay and Contractor agrees to accept, as complete payment for the above Work, in accordance with the schedule and procedures set forth in the Contract Documents and subject to deductions, withholdings and additions as specified in the Contract Documents, a total sum that shall not exceed the total bid amount set forth in Contractor's Proposal Form. In addition, subject to deductions, withholdings and additions as specified in the Contract Documents, payment for individual items of the Work shall be computed as follows:

(A) For items of the Work for which a lump sum price is specified in Contractor's Proposal Form, Contractor shall be paid the lump sum price(s) specified in Contractor's Proposal Form; and

(B) For items of the Work for which a unit price is specified in Contractor's Proposal Form, Contractor shall be paid the sum computed at such unit price, or computed at a different price if such different price is determined by City in accordance with the Standard Specifications, based on the actual amount of each such item performed and/or furnished and incorporated in the Work; provided that in no event shall the total sum for a unit price item exceed the total bid amount set forth for such item in the Contractor's Proposal Form, unless authorized by Change Order.

6. PROGRESS PAYMENTS

Subject to the terms and conditions of the Contract, City shall cause payments to be made upon demand of Contractor as follows:

(A) On or about the first of the month, the Engineer shall present to the Contractor a statement showing the amount of labor and materials incorporated in the Work through the twentieth (20) calendar day of the preceding month. After both Contractor and Engineer approve the statement in writing, and the City's labor compliance officer provides written approval, the City shall issue a certificate for ninety-five (95) percent of the amount it shall find to be due, subject to any deductions or withholdings authorized or required under the Contract or any applicable Laws or Regulations.

(B) No inaccuracy or error in said monthly estimates shall operate to release Contractor from damages arising from such Work or from enforcement of each and every provision of the Contract Documents, and City shall have the right subsequently to correct any error made in any estimate for payment.

(C) Contractor shall not be paid for any defective or improper Work.

(D) The remaining five (5) percent of the value of the Work performed under the Contract, if unencumbered and subject to any deductions or withholdings authorized or required under the Contract or any applicable Laws or Regulations, shall be released not later than sixty (60) days after completion and final acceptance of the Work by City. Acceptance by Contractor of the final payment shall constitute a waiver of all claims against the City arising under the Contract Documents, except for disputed claims in stated amounts that the Contractor specifically reserves in writing, but only to the extent that the Contractor has complied with all procedures and requirements applicable to the presentation and processing of such claim(s) under the Contract Documents. Contractor shall be entitled to substitute securities for retention or to direct that payments of retention be made into escrow, as provided in Public Contract Code Section 22300, upon execution of the City's Escrow Agreement for Security Deposits in Lieu of Retention.

(E) The parties agree that, for purposes of the timely progress payment requirements specified in Public Contract Code Section 20104.50, the date that the City receives a statement jointly approved by the Contractor and the Engineer as provided above shall be deemed to constitute the date that City receives an undisputed and properly submitted payment request from the Contractor. Progress payments not made within 30 days after this date may be subject to payment of interest as provided in Public Contract Code Section 20104.50.

#### 7. RETENTION OF SUMS CHARGED AGAINST CONTRACTOR

When, under the provisions of this Contract or any applicable Laws or Regulations, City is authorized or required to withhold, deduct or charge any sum of money against Contractor, City may deduct and retain the amount of such charge from the amount of the next succeeding progress estimate(s), or from any other moneys due or that may become due Contractor from City. If, on completion or termination of the Contract, sums due Contractor are insufficient to pay City's charges, City shall have the right to recover the balance from Contractor or its Sureties.

#### 8. COMMENCEMENT AND PROSECUTION OF WORK

Contractor shall commence the Work not later than fifteen (15) working days after the date of the written Notice to Proceed from City to Contractor and shall diligently prosecute the Work to final completion. The phrase "commence the Work" means to engage in a continuous program on-site including, but not limited to, site clearance, grading, dredging, land filling and the fabrications, erection, or installation of the Work. The Notice to Proceed shall be issued within fifteen (15) calendar days following execution of the Agreement by the City and the filing by Contractor of the required Bonds and proof of insurance, provided that the Engineer may delay issuance of the Notice to Proceed if the Engineer determines in the Engineer's sole discretion that conditions on the site of the Work are unsuitable for commencement of the Work. After the Notice to Proceed is issued, the continuous prosecution of Work by Contractor shall be subject only to Excusable Delays as defined in this Agreement.

9. TIME OF COMPLETION

The entire Work shall be brought to completion in the manner provided for in the Contract Documents on or before **65 calendar days** from the date of the Notice to Proceed (hereinafter called the "Completion Date") unless extensions of time are granted in accordance with the Contract Documents.

Failure to complete the entire Work by the Completion Date and in the manner provided for in the Contract Documents shall subject Contractor to liquidated damages as provided in this Agreement. Time is and shall be of the essence in the performance of the Contract and the Work.

10. PAYMENTS DO NOT IMPLY ACCEPTANCE OF WORK

The payment of any progress payment, or the acceptance thereof by Contractor, shall not constitute acceptance of the Work or any portion thereof and shall in no way reduce the liability of Contractor to replace unsatisfactory work or material, whether or not the unsatisfactory character of such work or material was apparent or detected at the time such payment was made.

11. ACCEPTANCE NOT RELEASE

Contractor shall correct immediately any defective or imperfect work or materials that may be discovered before final acceptance of the entire Work, whether or not such defect or imperfection was previously noticed or identified by the City. The inspection of the Work, or any part thereof, shall not relieve Contractor of any of its obligations to perform satisfactory work as herein specified.

Failure or neglect on the part of City or any of its officers, employees or authorized agents to discover, identify, condemn or reject defective or imperfect work or materials shall not be construed to imply an acceptance of such work or materials, if such defect or imperfection becomes evident at any time prior to final acceptance of the entire Work, nor shall such failure or neglect be construed as barring City from enforcing Contractor's warranty(ies) or otherwise recovering damages or such a sum of money as may be required to repair or rebuild the defective or imperfect work or materials whenever City may discover the same, subject only to any statutes of limitation that may apply to any such claim.

12. CITY'S RIGHT TO TAKE POSSESSION OF THE WORK IN WHOLE OR IN PART

The City shall have the right at any time to enter upon the Work and perform work not covered by this Contract, or to occupy and use a portion of the Work, prior to the date of the final acceptance of the Work as a whole, without in any way relieving Contractor of any obligations under this Contract.

13. NO WAIVER OF REMEDIES

Neither the inspection by City, its officers, employees or agents, nor any certificate or other approval for the payment of money, nor any payment for, nor acceptance of the whole or any part of the Work by City, nor any extensions of time, nor any position taken by City, its officers, employees or its agents shall operate as a waiver of any provision of the Contract Documents nor of any power herein reserved to City or any right to damages herein provided, nor shall any waiver of any breach of this Agreement be held to be a waiver of any other or subsequent breach.

All remedies provided in the Contract Documents shall be taken and construed as cumulative; in addition to each and every other remedy herein provided, the City shall have any and all equitable and legal remedies that it would in any case have.

14. WARRANTY

Except as otherwise expressly provided in the Contract Documents, and excepting only items of routine maintenance, ordinary wear and tear and unusual abuse or neglect by City, Contractor warrants and guarantees all Work executed and all supplies, materials and devices of whatsoever nature incorporated in or attached to the Work, or otherwise provided as a part of the Work pursuant to the Contract, to be absolutely free of all defects of workmanship and materials for a period of one year after final acceptance of the entire Work by the City. Contractor shall repair or replace all work or material, together with any other work or material that may be displaced or damaged in so doing, that may prove defective in workmanship or material within this one year warranty period without expense or charge of any nature whatsoever to City.

In the event that Contractor shall fail to comply with the conditions of the foregoing warranty within ten (10) days after being notified of the defect in writing, City shall have the right, but shall not be obligated, to repair, or obtain the repair of, the defect and Contractor shall pay to City on demand all costs and expense of such repair. Notwithstanding anything herein to the contrary, in the event that any defect in workmanship or material covered by the foregoing warranty results in a condition that constitutes an immediate hazard to public health or safety, or any property interest, or any person, City shall have the right to immediately repair, or cause to be repaired, such defect, and Contractor shall pay to City on demand all costs and expense of such repair. The foregoing statement relating to hazards to health, safety or property shall be deemed to include both temporary and permanent repairs that may be required as determined in the sole discretion and judgment of City.

In addition to the above, the Contractor shall make a written assignment of all manufacturer's and other product warranties to the City, prior to completion and final acceptance of the Work by City.

The Contractor's Performance Bond shall secure the performance of the Contractor's obligations under this Section 14, and the Contractor and its Surety shall be jointly and severally liable for these obligations.

15. LIQUIDATED DAMAGES IF WORK NOT COMPLETED ON TIME

(A) The actual fact of the occurrence of damages and the actual amount of the damages that City would suffer if the entire Work, and/or any specified portion thereof, were not completed within the time(s) specified herein are dependent upon many circumstances and conditions that could prevail in various combinations, and for this reason, it is impracticable and extremely difficult to fix the actual damages. Damages that City would suffer in the event of such delay include: loss of the use of the project; expenses of prolonged assignment to the project of an architectural and/or engineering staff; prolonged costs of administration, inspection, and supervision; increased operational expenses and/or impaired operation of other facilities dependent upon completion of the project; and the loss and inconvenience suffered by the public within the City of Sacramento by reason of the delay in the completion of the project or portion thereof. Accordingly, the parties agree, and by execution of this Agreement, Contractor acknowledges that it understands and agrees, that the amount(s) set forth herein as liquidated

damages reflect the parties' best efforts at the time of entering into the Contract to estimate the damages that may be incurred by City and the public due to the Contractor's delay in completion of the Work and/or any specified portion thereof, and shall be presumed to be the amount of damages sustained by the failure of Contractor to complete the entire Work and/or any specified portion thereof within the time(s) specified herein.

(B) Contractor shall pay liquidated damages to City for failure to complete the entire Work by the Completion Date (in accordance with the Contract Documents, 1.4, "Completion Time", Page 5 of the special provisions) commencing on the date set forth in the written notice to proceed (as extended in accordance with the Contract Documents, if applicable), continuing to the time at which the entire Work is completed. Such amount is the actual cash value agreed upon by the City and Contractor as the loss to City and the public resulting from Contractor's default.

The parties agree, and by execution of this Agreement, Contractor acknowledges that it understands and agrees, that the foregoing provisions provide for the imposition of liquidated damages from the Completion Date (as extended in accordance with the Contract Documents, if applicable) until the date of completion of the entire Work as determined by the Engineer in accordance with Section 8-4 of the Standard Specifications, whether or not the Work or any portion thereof is claimed or determined to be substantially complete prior to such date of completion.

(C) In the event Contractor shall become liable for liquidated damages, City, in addition to all other remedies provided by law, shall have the right to withhold any and all payments that otherwise would be or become due Contractor until the liability of Contractor under this section is finally determined. City shall have the right to use and apply such payments, in whole or in part, to reimburse City for all liquidated damages due or to become due to City. Any remaining balance of such payments shall be paid to Contractor only after discharge in full of all liability incurred by Contractor under this section or otherwise under any provision of the Contract Documents or any applicable Law or Regulation. If the sum so retained by City is not sufficient to discharge all such liabilities of Contractor, Contractor shall continue to remain liable to City until all such liabilities are satisfied in full. No failure by City to withhold any payment as specified above shall in any manner be construed to constitute a release of any such liabilities nor a waiver of the City's right to withhold payment for such liabilities.

## 16. INDEMNITY AND HOLD HARMLESS

(A) Contractor shall defend, hold harmless and indemnify the City, its officers, employees, and agents, and each and every one of them, from and against any and all actions, damages, costs, liabilities, claims, demands, losses, judgments, penalties, costs and expenses of every type and description, whether arising on or off the site of the Work, including, but not limited to, any fees and/or costs reasonably incurred by City's staff attorneys or outside attorneys and any fees and expenses incurred in enforcing this provision (hereafter collectively referred to as "Liabilities"), including but not limited to Liabilities arising from personal injury or death, damage to personal, real or intellectual property or the environment, contractual or other economic damages, or regulatory penalties, arising out of or in any way connected with performance of or failure to perform the Work by the Contractor, any subcontractor or agent, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, whether or not (i) such Liabilities are caused in part by

a party indemnified hereunder, or (ii) such Liabilities are litigated, settled or reduced to judgment; provided that the foregoing indemnity does not apply to liability for damages for death or bodily injury to persons, injury to property, or other loss, damage or expense to the extent arising from (i) the sole negligence or willful misconduct of, or defects in design furnished by, City, its agents, servants, or independent contractors who are directly responsible to City, or (ii) the active negligence of City.

(B) The existence or acceptance by City of any of the insurance policies or coverages described in this Agreement shall not affect or limit any of City's rights under this Section 16, nor shall the limits of such insurance limit the liability of Contractor hereunder. The provisions of this Section 16 shall survive any expiration or termination of the Contract.

17. CONTRACTOR SHALL ASSUME RISKS

Until the completion and final acceptance by City of all Work under this Contract, the Work shall be under Contractor's responsible care and charge, and Contractor, at no cost to City, shall rebuild, repair, restore and make good all injuries, damages, re-erectations, and repairs occasioned or rendered necessary by accidental causes of any nature, to all or any portions of the Work.

18. GENERAL LIABILITY OF CONTRACTOR

Except as otherwise herein expressly stipulated, Contractor shall perform all the Work and furnish all the labor, materials, tools, equipment, apparatus, facilities, transportation, power and light, and appliances, necessary or proper for performing and completing the Work herein required in the manner and within the time herein specified. The mention of any specific duty or liability of Contractor shall not be construed as a limitation or restriction of any general liability or duty of Contractor, and any reference to any specific duty or liability shall be construed to be solely for the purpose of explanation.

19. INSURANCE

During the entire term of this Contract and until completion and final acceptance of the Work as provided in the Contract Documents, Contractor shall maintain in full force and effect the insurance coverage described in this section.

Full compensation for all premiums that Contractor is required to pay for the insurance coverage described herein shall be included in the compensation specified for performance of the Work under the Contract. No additional compensation will be provided for Contractor's insurance premiums.

It is understood and agreed by the Contractor that its liability to the City shall not in any way be limited to or affected by the amount of insurance coverage required of or carried by the Contractor.

(A) Minimum Scope and Limits of Insurance Coverage

(1) Commercial General Liability Insurance, providing coverage at least as broad as ISO CGL Form 00 01 on an occurrence basis for bodily injury, including death, of one or more persons, property damage and personal injury, with limits of not less than one million dollars (\$1,000,000) per occurrence. The policy shall provide contractual liability

and products and completed operations coverage for the term of the policy.

(2) Automobile Liability Insurance providing coverage at least as broad as ISO Form CA 00 01 on an occurrence basis for bodily injury, including death, of one or more persons, property damage and personal injury, with limits of not less than one million dollars (\$1,000,000) per occurrence. The policy shall provide coverage for owned, non-owned and/or hired autos as appropriate to the operations of the Contractor.

(3) Workers' Compensation Insurance with statutory limits, and Employers' Liability Insurance with limits of not less than one million dollars (\$1,000,000). The Worker's Compensation policy shall include a waiver of subrogation.

(B) Additional Insured Coverage

(1) Commercial General Liability Insurance: The City, its officials, employees and volunteers shall be covered by policy terms or endorsement as additional insureds as respects general liability arising out of activities performed by or on behalf of Contractor, products and completed operations of Contractor, and premises owned, leased or used by Contractor. The general liability additional insured endorsement must be signed by an authorized representative of the insurance carrier.

If the policy includes a blanket additional insured endorsement or contractual additional insured coverage, the above signature requirement may be fulfilled by submitting that document with a signed declaration page referencing the blanket endorsement or policy form.

(2) Automobile Liability Insurance: The City, its officials, employees and volunteers shall be covered by policy terms or endorsement as additional insureds as respects auto liability.

(C) Other Insurance Provisions

The policies are to contain, or be endorsed to contain, the following provisions:

(1) Contractor's insurance coverage shall be primary insurance as respects City, its officials, employees and volunteers. Any insurance or self-insurance maintained by City, its officials, employees or volunteers shall be in excess of Contractor's insurance and shall not contribute with it.

(2) Any failure to comply with reporting provisions of the policies shall not affect coverage provided to City, its officials, employees or volunteers.

(3) Coverage shall state that Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

(4) City will be provided with thirty (30) days written notice of cancellation or material change in the policy language or terms.

(D) Acceptability of Insurance

Insurance shall be placed with insurers with a Bests' rating of not less than A:V. Self-insured retentions, policy terms or other variations that do not comply with the requirements of this Section 19 must be declared to and approved by the City Risk Management Division in writing prior to execution of this Agreement.

(E) Verification of Coverage

(1) Contractor shall furnish City with certificates and required endorsements evidencing the insurance required. The certificates and endorsements shall be forwarded to the City representative designated by City. Copies of policies shall be delivered to the City on demand. Certificates of insurance shall be signed by an authorized representative of the insurance carrier.

(2) The City may withdraw its offer of contract or cancel the Contract if the certificates of insurance and endorsements required have not been provided prior to execution of this Agreement. The City may withhold payments to Contractor and/or cancel the Contract if the insurance is canceled or Contractor otherwise ceases to be insured as required herein.

(F) Subcontractors

Contractor shall require and verify that all subcontractors maintain insurance coverage that meets the minimum scope and limits of insurance coverage specified in subsection A, above.

20. FAILURE TO MAINTAIN BONDS OR INSURANCE

If, at any time during the performance of this Contract, Contractor fails to maintain any item of the bonds and/or insurance required under the Contract in full force and effect, Contractor shall immediately suspend all work under the Contract and notify City in writing of such failure. After such notice is provided, or if City discovers such failure and notifies Contractor, the City thereafter may withhold all Contract payments due or that become due until notice is received by City that such bonds and/or insurance have been restored in full force and effect and that the premiums therefor have been paid for a period satisfactory to the Division of Risk Management. Contractor shall not resume work until notified by City to do so, and the City shall have no responsibility or liability for any costs incurred by Contractor as a result of such suspension of Work.

In addition to the foregoing, any failure to maintain any item of the required bonds and/or insurance at any time during the performance of this Contract will be sufficient cause for termination of the Contract by City.

The Contractor shall be solely responsible for, and shall defend, indemnify and hold harmless the City, its officers, employees and agents against and from, any and all damages, claims, losses, actions, costs or other expenses of any kind incurred by any party as a direct or indirect result of any suspension of Work or termination of the Contract under the provisions of this Section.

21. EXCUSABLE DELAYS

For the purpose of these Contract Documents, the term "Excusable Delay" shall mean, and is limited to, delay caused directly by: acts of God; acts of a public enemy; fires; inclement weather as determined by the Engineer; riots; insurrections; epidemics; quarantine restrictions; strikes; lockouts; sitdowns; acts of a governmental agency; priorities or privileges established for the manufacture, assemble, or allotment of materials necessary in the Work by order, decree or otherwise of the United States or by any department, bureau, commission, committee, agent, or administrator of any legally constituted public authority; changes in the Work ordered by City insofar as they necessarily require additional time in which to complete the Work; the prevention of Contractor from commencing or prosecuting the Work because of the acts of others, excepting Contractor's subcontractors or suppliers; or the prevention of Contractor from commencing or prosecuting the Work because of a Citywide failure of public utility service.

The term "Excusable Delay" shall specifically not include: (i) any delay that could have been avoided by the exercise of care, prudence, foresight and diligence on the part of Contractor; (ii) any delay in the prosecution of any part of the Work that does not constitute a Controlling Operation, whether or not such delay is unavoidable; (iii) any reasonable delay resulting from time required by City for review of any Contractor submittals and for the making of surveys, measurements and inspection; and, (iv) any delay arising from an interruption in the prosecution of the Work on account of reasonable interference by other Contractors employed by City that does not necessarily prevent the completion of the entire Work within the time specified. Excusable Delays, if any, shall operate only to extend the Completion Date (not in excess of the period of such delay as determined by City) and shall not under any circumstances increase the amount City is required to pay Contractor except as otherwise provided in these Contract Documents.

## 22. CONTRACTOR TO SERVE NOTICE OF DELAYS

Whenever Contractor foresees any delay in the prosecution of the Work, and in any event as soon as possible (not to exceed a period of ten (10) calendar days) after the initial occurrence of any delay that Contractor regards as or may later claim to be an Excusable Delay, the Contractor shall notify the Engineer in writing of such delay and its cause, in order that the Engineer: (i) may take immediate steps to prevent if possible the occurrence or continuance of the delay; or (ii) if this cannot be done, may determine whether the delay is to be considered excusable, how long it continues, and to what extent the prosecution and completion of the Work are delayed thereby. Said written notice shall constitute an application for an extension of time only if the notice requests such an extension and sets forth the Contractor's estimate of the additional time required together with a full description of the cause of the delay relied upon.

After the completion of any part or whole of the Work, the Engineer, in estimating the amount due Contractor, will assume that any and all delays that may have occurred in its prosecution and completion were not Excusable Delays, except for such delays for which the Contractor has provided timely written notice as required herein, and that the Engineer has found to be excusable. Contractor shall not be entitled to claim Excusable Delay for any delay for which the Contractor failed to provide such timely written notice.

## 23. EXTENSION OF TIME

If the Contractor complies with Section 22, above, and the Engineer finds a delay claimed by the Contractor to be an Excusable Delay, the Contractor shall be allowed an extension of time to complete the Work that is proportional to the period of Excusable Delay determined by the Engineer, subject to the approval by City of a change order granting such time extension. During

a duly authorized extension for an Excusable Delay, City shall not charge liquidated damages against the Contractor for such delay.

If the City extends the time to complete the Work as provided herein, such extension shall in no way release any warranty or guarantee given by Contractor pursuant to the provisions of the Contract Documents, nor shall such extension of time relieve or release the sureties of the Bonds provided pursuant to the Contract Documents. By executing such Bonds, the Sureties shall be deemed to have expressly agreed to any such extension of time. The granting of any extension of time as provided herein shall in no way operate as a waiver on the part of City of its rights under this Contract, excepting only extension of the Completion Date for such period of Excusable Delay as may be determined by the Engineer and approved by a duly authorized change order.

24. NO PAYMENT FOR DELAYS

No damages or compensation of any kind shall be paid to Contractor or any subcontractor because of delays in the progress of the Work whether or not such delays qualify for extension of time under this Agreement; except that this provision shall not preclude the recovery of damages for a delay caused by the City that is unreasonable under the circumstances and that is not within the contemplation of the parties, provided that the Contractor timely submits all such written notice(s) and fully complies with such other procedures as may be specified in the Contract Documents or any Laws or Regulations for Contractor to claim damages for such delay.

25. CHANGES IN THE WORK

Changes in the Work authorized or directed in accordance with the Contract Documents and extensions of time of completion made necessary by reason thereof shall not in any way release any warranty or guarantee given by Contractor pursuant to the provisions of the Contract Documents, nor shall such changes in the Work relieve or release the Sureties on Bonds provided pursuant to the Contract Documents. By executing such Bonds, the Sureties shall be deemed to have expressly agreed to any such change in Work and to any extension of time made by reason thereof.

26. TERMINATION AFTER COMPLETION DATE

In addition to any other rights City may have, if any services or work required under the Contract (including but not limited to punch list items) are not completed as of the Completion Date (as adjusted by any extensions of time for Excusable Delays granted pursuant to the Contract Documents), City may terminate the Contract at any time after the Completion Date (as adjusted by any extensions of time for Excusable Delays granted pursuant to the Contract Documents), by providing a written notice to Contractor specifying the date of termination. Such notice also may specify conditions or requirements that Contractor must meet to avoid termination of the Contract on such date. If Contractor fails to fulfill all such conditions and requirements by such termination date, or, if no such conditions or requirements are specified, Contractor shall cease rendering services and performing work on such termination date, and shall not be entitled to receive any compensation for services rendered or work performed after such termination date. In the event of such termination, Contractor shall remain liable to City for liquidated damages incurred for any period of time prior to the termination date.

In addition to any other charges, withholdings or deductions authorized under the Contract or any Laws or Regulations, if City terminates the Contract pursuant to this section, City may withhold and deduct from any payment and/or retention funds otherwise due Contractor any sum necessary

to pay the City's cost of completing or correcting, or contracting for the completion or correction of, any services or work under the Contract that are not completed to the satisfaction of the City or that otherwise are deficient or require correction as of such termination date, including but not limited to incomplete punch list items. Such costs shall include all of the City's direct and indirect costs incurred to complete or correct such services or work, including the City's administrative and overhead costs. If the amount of payment(s) and/or retention funds otherwise due the Contractor are insufficient to pay such costs, City shall have the right to recover the balance of such costs from the Contractor and/or its Surety(ies).

27. TERMINATION FOR CONVENIENCE

Upon written notice to the Contractor, the City may at any time, without cause and without prejudice to any other right or remedy of the City, elect to terminate the Contract for the convenience of City. In such case, the Contractor shall be paid (without duplication of any items, and after deduction and/or withholding of any amounts authorized to be deducted or withheld by the Contract Documents or any Laws or Regulations):

(A) For Work executed in accordance with the Contract Documents prior to the effective date of termination and determined to be acceptable by the Engineer, including fair and reasonable sums for overhead and profit on such Work;

(B) For reasonable claims, costs, losses, and damages incurred in settlement of terminated contracts with subcontractors, suppliers, and others; and

(C) For reasonable expenses directly attributable to termination.

Contractor shall not be paid for any loss of anticipated profits or revenue for any Work not performed prior to termination, nor for any economic loss arising out of or resulting from such termination, except for the payments listed in this section. Contractor's warranty under Section 14 of this Agreement shall apply, and Contractor shall remain responsible for all obligations related to such warranty, with respect to all portions of the Work performed prior to the effective date of the termination for convenience pursuant to this section. The City shall be entitled to have any or all remaining Work performed by other contractors or by any other means at any time after the effective date of a termination for convenience pursuant to this section.

28. TERMINATION FOR BREACH OF CONTRACT

If Contractor abandons the Work under this Contract, or if the Contract or any portion of the Contract is sublet or assigned without the consent of the City, or if the Engineer determines in the Engineer's sole discretion that the conditions of the Contract in respect to the rate of progress of the Work are not being fulfilled or any part thereof is unnecessarily delayed, or if Contractor violates or breaches, or fails to execute in good faith, any of the terms or conditions of the Contract, or if Contractor refuses or fails to supply enough properly skilled labor or materials or refuses or fails to make prompt payment to subcontractors for material or labor, or if Contractor disregards any Laws or Regulations or proper instruction or orders of the Engineer, then, notwithstanding any provision to the contrary herein, the City may give Contractor and its Sureties written notification to immediately correct the situation or the Contract shall be terminated.

In the event that such notice is given, and, in the event such situation is not corrected, or arrangements for correction satisfactory to the City are not made, within ten (10) calendar days from the date of such notice or within such other period of time as may be specified by the City in the notice, the Contract shall upon the expiration of said period cease and terminate. In the event of any such termination, City may take over the Work and prosecute the Work to completion, or otherwise, and the Contractor and its Sureties shall be liable to City for any cost occasioned City thereby, as hereinafter set forth.

In the event City completes the Work, or causes the Work to be completed, no payment of any kind shall be made to Contractor until the Work is complete. The cost of completing the Work, including but not limited to, extra costs of project administration and management incurred by City, both direct or indirect, shall be deducted from any sum then due, or that becomes due, to Contractor from City. If sums due to Contractor from City are less than the cost of completing the Work, Contractor and its Sureties shall pay City a sum equal to this difference on demand. In the event City completes the Work, and there is a sum remaining due to Contractor after City deducts the costs of completing the Work, then City shall pay such sum to Contractor. The Contractor and Contractor's Sureties shall be jointly and severally liable for all obligations imposed on Contractor hereunder.

No act by City before the Work is finally accepted, including, but not limited to, exercise of other rights under the Contract, actions at law or in equity, extensions of time, payments, assessments of liquidated damages, occupation or acceptance of any part of the Work, waiver of any prior breach of the Contract or failure to take action pursuant to this section upon the happening of any prior default or breach of Contractor, shall be construed to be a waiver or estoppel of the City's right to act pursuant to this Section upon any subsequent event, occurrence or failure by Contractor to fulfill the terms and conditions of the Contract. The rights of City to terminate the Contract pursuant to this Section and pursuant to Sections 26 and 27 are cumulative and are in addition to all other rights of City pursuant to the Contract and at law or in equity.

29. CONTRACTOR BANKRUPT

If Contractor should commence any bankruptcy proceeding, or if Contractor is adjudged a bankrupt, or if Contractor makes any assignment for the benefit of creditors, or if a receiver is appointed on account of Contractor's insolvency, then the City may, without prejudice to any other right or remedy, terminate the Contract and complete the work by giving notice as provided in Section 28 above.

30. SURETIES' OBLIGATIONS UPON TERMINATION

If the City terminates the Contract pursuant to Section 28 or Section 29 above:

(A) The Surety under Contractor's performance bond shall be fully responsible for all of the Contractor's remaining obligations of performance under the Contract as if the Surety were a party to the Contract, including without limitation Contractor's obligations, as provided in the Contract Documents, to complete and provide a one-year warranty of the entire Work, pay liquidated damages and indemnify, defend and hold harmless City, up to the full amount of the performance bond.

(B) The Surety under Contractor's payment bond shall be fully responsible for the performance of all of the Contractor's remaining payment obligations for work, services,

equipment or materials performed or provided in connection with the Work or any portion thereof, up to the full amount of the payment bond.

31. ACCOUNTING RECORDS OF CONTRACTOR

During performance of the Contract and for a period of three (3) years after completing the entire Work, Contractor shall maintain all accounting and financial records related to the Contract and performance of the Work in accordance with generally accepted accounting practices, and shall keep and make such records available for inspection and audit by representatives of the City upon reasonable written notice.

32. USE TAX REQUIREMENTS

During the performance of this Agreement, CONTRACTOR, for itself, its assignees and successors in interest, agrees as follows:

(A) Use Tax Direct Payment Permit: For all leases and purchases of materials, equipment, supplies, or other tangible personal property used to perform the Agreement and shipped from outside California, the Contractor and any subcontractors leasing or purchasing such materials, equipment, supplies or other tangible personal property shall obtain a Use Tax Direct Payment Permit from the California State Board of Equalization (“SBE”) in accordance with the applicable SBE criteria and requirements.

(B) Sellers Permit: For any construction contract and any construction subcontract in the amount of \$5,000,000 or more, Contractor and the subcontractor(s) shall obtain sellers permits from the SBE and shall register the jobsite as the place of business for the purpose of allocating local sales and use tax to the City. Contractor and its subcontractors shall remit the self-accrued use tax to the SBE, and shall provide a copy of each remittance to the City.

(C) The above provisions shall apply in all instances unless prohibited by the funding source for the Agreement.

IN WITNESS WHEREOF, the parties hereto have signed this Agreement on the date set for opposite their names.

**CONTRACTOR**

Under penalty of perjury, I certify that the taxpayer identification number and all other information provided here are correct.

DATE 8/28/12

BY Ramen Silva  
RAREN SILVA  
Print Name  
President  
Title

BY Ramen Silva  
Raren Silva  
Print Name  
Secretary  
Title  
680382103  
Federal ID#  
3984002-0  
State ID#  
90791

City of Sacramento Business Operation Tax Certificate No. (City will not award contract until Certificate Number is obtained)

Type of Business Entity (check one):

- Individual/Sole Proprietor
- Partnership
- Corporation
- Limited Liability Company
- Other (please specify: \_\_\_\_\_)

**CITY OF SACRAMENTO**  
a municipal corporation

DATE \_\_\_\_\_

BY \_\_\_\_\_  
For: \_\_\_\_\_  
City Manager

Original Approved As To Form:

[Signature]  
City Attorney

Attest:  
\_\_\_\_\_  
City Clerk

\*ISSUED IN DUPLICATE\*

**CITY OF SACRAMENTO  
PERFORMANCE BOND**

Department of Transportation  
Page 1 of 1

**Bond No.:** 105797325  
**Premium:** \$3,500.00

**WHEREAS**, the City of Sacramento, State of California, hereinafter called City, has conditionally awarded to Navajo Pipeline Inc., 4671 24th Street, Sacramento CA 95822 as principal, hereinafter called Contractor, a contract for construction of:

Sacramento City College Bicycle/Pedestrian Improvements  
(PN: T15065701)

which contract is by reference incorporated herein and made a part hereof as if the Surety named below were a party to the contract, and is hereinafter referred to as the Contract; and

**WHEREAS**, under the terms of the Contract, Contractor is required to furnish a bond for the faithful performance of the Contract.

**NOW, THEREFORE**, we the Contractor and (*here insert full name and address of Surety*):

Travelers Casualty and Surety Company of America, 11070 White Rock Road, Suite 130, Rancho Cordova, CA 95670

a corporation duly authorized and admitted to transact business and issue surety bonds in the State of California, hereinafter called Surety, are held and firmly bound unto the City, as obligee, in the sum of:

THREE HUNDRED FIFTY THOUSAND DOLLARS (\$350,000.00), for the payment of which sum well and truly to be made, we the Contractor and Surety bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally. The condition of this obligation is such that, if the Contractor, Contractor's heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and fully perform all covenants, conditions and agreements required to be kept and performed by Contractor in the Contract and any changes, additions or alterations made thereto, to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meanings, and shall indemnify and save harmless the City, its officers, employees and agents, as therein provided, then the Surety's obligations under the Contract and this bond shall be null and void; otherwise they shall be and remain in full force and effect. This obligation shall remain in full force and effect through the end of the Contract warranty period, which will expire one year after the completion of work date specified in the Notice of Completion filed for the above-named project.

As part of the obligations secured hereby and in addition to the sum specified above, there shall be included all costs, expenses and fees, including attorney's fees, reasonably incurred by City in successfully enforcing such obligations, all to be taxed as costs and included in any judgment rendered.

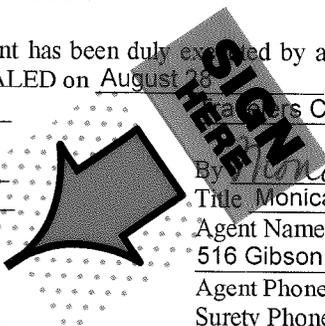
The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder or to the specifications accompanying the same shall in any way affect its obligations on this bond, and it does hereby waive notice of any such change, extension, alteration or addition.

**IN WITNESS WHEREOF**, this instrument has been duly executed by authorized representatives of the Contractor and Surety. SIGNED AND SEALED on August 28, 2012. To be effective September 12, 2012.  
Navajo Pipelines, Inc.

By Royen Silva (Contractor) (Seal)  
Title President

By Monica A. Hutchison (Surety) (Seal)  
Title Monica A. Hutchison, Attorney-in-Fact  
Agent Name and Address Warren G. Bender Co.  
516 Gibson Drive, Suite 240, Roseville, CA 95678  
Agent Phone # (916) 380-5300  
Surety Phone # (916) 852-5266  
California License # 0406967

ORIGINAL APPROVED AS TO FORM:  
[Signature]  
City Attorney



# CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

STATE OF CALIFORNIA

County of Placer }

On August 28, 2012 before me, Jason Michael Theis, Notary Public,  
Date Here Insert Name and Title of the Officer

personally appeared Monica A. Hutchison  
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

Witness my hand and official seal.

Signature Jason Michael Theis  
Signature of Notary Public



Place Notary Seal Above

## OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

### Description of Attached Document

Title or Type of Document: \_\_\_\_\_

Document Date: \_\_\_\_\_ Number of Pages: \_\_\_\_\_

Signer(s) Other Than Named Above: \_\_\_\_\_

### Capacity(ies) Claimed by Signer(s)

Signer's Name: \_\_\_\_\_

- Individual
- Corporate Officer — Title(s): \_\_\_\_\_
- Partner —  Limited  General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: \_\_\_\_\_



Signer Is Representing: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Signer's Name: \_\_\_\_\_

- Individual
- Corporate Officer — Title(s): \_\_\_\_\_
- Partner —  Limited  General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: \_\_\_\_\_



Signer Is Representing: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\*ISSUED IN DUPLICATE\*

**CITY OF SACRAMENTO  
PAYMENT BOND**

Department of Public Works  
Page 1 of 1

**Bond No.:** 105797325  
**Premium:** Included

**WHEREAS**, the City of Sacramento, in the State of California, hereinafter called City, has conditionally awarded to: Navajo Pipeline Inc., 4671 24th Street, Sacramento CA 95822

hereinafter called Contractor, a contract for construction of:

Sacramento City College Bicycle/Pedestrian Improvements (PN: T15065701)

Which contract is by reference incorporated herein and made a part hereof, and is hereinafter referred to as the Contract; and

**WHEREAS**, under the terms of the Contract and pursuant to Chapter 5 of Title 3 of Part 6 of Division 4 of the California Civil Code (commencing with Civil Code Section 9550), Contractor is required to furnish a good and sufficient payment bond to secure payment of the claims to which reference is made in Civil Code Section 9554.

**NOW, THEREFORE**, we the Contractor and (*here insert full name and address of Surety*):

Travelers Casualty and Surety Company of America, 11070 White Rock Road, Suite 130, Rancho Cordova, CA 95670, a corporation duly authorized and admitted to transact business and issue surety bonds in the State of California, hereinafter called Surety, are held and firmly bound unto the City, and unto all persons or entities entitled to assert a claim against a payment bond under any of the aforesaid Civil Code provisions in the sum of THREE HUNDRED FIFTY THOUSAND DOLLARS (\$350,000.00), on the condition that if Contractor shall fail to pay for any materials or equipment furnished or used in performance of the Contract, or for any work or labor thereon of any kind, or for amounts due under the Unemployment Insurance Act with respect to such work or labor, or for any amounts required to be deducted, withheld, and paid over to the Franchise Tax Board or the Employment Development Department from the wages of employees of the Contractor and all subcontractors with respect to such work or labor, then the Surety shall pay the same in an amount not exceeding the sum specified above. If suit is brought upon this bond, Surety shall pay, in addition to the above sum, all costs, expenses and fees, including attorney's fees, reasonably incurred by any party in successfully enforcing the obligation secured hereby, all to be taxed as costs and included in any judgment rendered. Should the condition of this bond be fully performed, then this obligation shall become null and void, otherwise it shall be and remain in full force and effect, and shall bind Contractor, Surety, their heirs, executors, administrators, successors and assigns, jointly and severally.

It is hereby stipulated and agreed that this bond shall inure to the benefit of all persons, companies, corporations, political subdivisions, State agencies and other entities entitled to assert a claim against a payment bond under any of the aforesaid Civil Code provisions, so as to give a right of action to them or their assigns in any suit brought upon this bond. The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder or to the specifications accompanying the same shall in any way affect its obligations on this bond, and it does hereby waive notice of any such change, extension, alteration or addition.

**IN WITNESS WHEREOF**, this instrument has been duly executed by authorized representatives of the Contractor and Surety. SIGNED AND SEALED on August 28, 20 12. To be effective September 12, 2012.

Navajo Pipelines, Inc.  
(Contractor) (Seal)  
By Karen Silva  
Title President

Travelers Casualty and Surety Company of America  
(Surety) (Seal)  
By Monica A. Hutchison  
Title Monica A. Hutchison, Attorney-in-Fact

ORIGINAL APPROVED AS TO FORM:

[Signature]  
City Attorney

# CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

STATE OF CALIFORNIA

County of Placer }

On August 28, 2012 before me, Jason Michael Theis, Notary Public  
Date Here Insert Name and Title of the Officer

personally appeared Monica A. Hutchison  
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

Witness my hand and official seal.

Signature Jason Michael Theis  
Signature of Notary Public



Place Notary Seal Above

## OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

### Description of Attached Document

Title or Type of Document: \_\_\_\_\_

Document Date: \_\_\_\_\_ Number of Pages: \_\_\_\_\_

Signer(s) Other Than Named Above: \_\_\_\_\_

### Capacity(ies) Claimed by Signer(s)

Signer's Name: \_\_\_\_\_

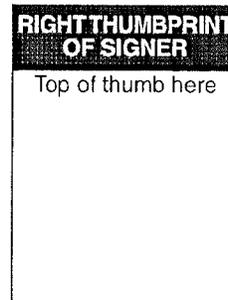
- Individual
- Corporate Officer — Title(s): \_\_\_\_\_
- Partner —  Limited  General
- Attorney in Fact
- Trustee s
- Guardian or Conservator
- Other: \_\_\_\_\_



Signer Is Representing: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Signer's Name: \_\_\_\_\_

- Individual
- Corporate Officer — Title(s): \_\_\_\_\_
- Partner —  Limited  General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: \_\_\_\_\_



Signer Is Representing: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



POWER OF ATTORNEY

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company

Attorney-In Fact No. 224770

Certificate No. 004809095

KNOW ALL MEN BY THESE PRESENTS: That St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company and St. Paul Mercury Insurance Company are corporations duly organized under the laws of the State of Minnesota, that Farmington Casualty Company, Travelers Casualty and Surety Company, and Travelers Casualty and Surety Company of America are corporations duly organized under the laws of the State of Connecticut, that United States Fidelity and Guaranty Company is a corporation duly organized under the laws of the State of Maryland, that Fidelity and Guaranty Insurance Company is a corporation duly organized under the laws of the State of Iowa, and that Fidelity and Guaranty Insurance Underwriters, Inc., is a corporation duly organized under the laws of the State of Wisconsin (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint

David K. Johnson, Monica A. Hutchison, Stephen D. Bender, and Edward D. Johnson

of the City of Roseville, State of California, their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed and their corporate seals to be hereto affixed, this 10th day of April, 2012.

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company



State of Connecticut
City of Hartford ss.

By: [Signature]
George W. Thompson, Senior Vice President

On this the 10th day of April, 2012, before me personally appeared George W. Thompson, who acknowledged himself to be the Senior Vice President of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

In Witness Whereof, I hereunto set my hand and official seal. My Commission expires the 30th day of June, 2016.



[Signature]
Marie C. Tetreault, Notary Public

\*ISSUED IN DUPLICATE\*

**CITY OF SACRAMENTO  
PERFORMANCE BOND**

Department of Transportation  
Page 1 of 1

**Bond No.:** 105797325  
**Premium:** \$3,500.00

**WHEREAS**, the City of Sacramento, State of California, hereinafter called City, has conditionally awarded to Navajo Pipeline Inc., 4671 24th Street, Sacramento CA 95822 as principal, hereinafter called Contractor, a contract for construction of:

Sacramento City College Bicycle/Pedestrian Improvements  
(PN: T15065701)

which contract is by reference incorporated herein and made a part hereof as if the Surety named below were a party to the contract, and is hereinafter referred to as the Contract; and

**WHEREAS**, under the terms of the Contract, Contractor is required to furnish a bond for the faithful performance of the Contract.

**NOW, THEREFORE**, we the Contractor and (*here insert full name and address of Surety*):

Travelers Casualty and Surety Company of America, 11070 White Rock Road, Suite 130, Rancho Cordova, CA 95670

a corporation duly authorized and admitted to transact business and issue surety bonds in the State of California, hereinafter called Surety, are held and firmly bound unto the City, as obligee, in the sum of:

THREE HUNDRED FIFTY THOUSAND DOLLARS (\$350,000.00), for the payment of which sum well and truly to be made, we the Contractor and Surety bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally. The condition of this obligation is such that, if the Contractor, Contractor's heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and fully perform all covenants, conditions and agreements required to be kept and performed by Contractor in the Contract and any changes, additions or alterations made thereto, to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meanings, and shall indemnify and save harmless the City, its officers, employees and agents, as therein provided, then the Surety's obligations under the Contract and this bond shall be null and void; otherwise they shall be and remain in full force and effect. This obligation shall remain in full force and effect through the end of the Contract warranty period, which will expire one year after the completion of work date specified in the Notice of Completion filed for the above-named project.

As part of the obligations secured hereby and in addition to the sum specified above, there shall be included all costs, expenses and fees, including attorney's fees, reasonably incurred by City in successfully enforcing such obligations, all to be taxed as costs and included in any judgment rendered.

The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder or to the specifications accompanying the same shall in any way affect its obligations on this bond, and it does hereby waive notice of any such change, extension, alteration or addition.

**IN WITNESS WHEREOF**, this instrument has been duly executed by authorized representatives of the Contractor and Surety. SIGNED AND SEALED on August 28, 20 12. To be effective September 12, 2012.  
Navajo Pipelines, Inc. Travelers Casualty and Surety Company of America

(Contractor) (Seal)  
By Raven Silva  
Title President

(Surety) (Seal)  
By Monica A. Hutchison  
Title Monica A. Hutchison, Attorney-in-Fact  
Agent Name and Address Warren G. Bender Co.  
516 Gibson Drive, Suite 240, Roseville, CA 95678  
Agent Phone # (916) 380-5300  
Surety Phone # (916) 852-5266  
California License # 0406967

ORIGINAL APPROVED AS TO FORM:  
[Signature]  
City Attorney

# CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

STATE OF CALIFORNIA

County of Placer }

On August 28, 2012 before me, Jason Michael Theis, Notary Public  
Date Here insert Name and Title of the Officer

personally appeared Monica A. Hutchison  
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

Witness my hand and official seal.

Signature Jason Michael Theis  
Signature of Notary Public



Place Notary Seal Above

## OPTIONAL

*Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.*

### Description of Attached Document

Title or Type of Document: \_\_\_\_\_

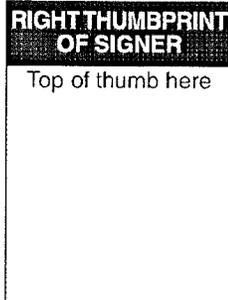
Document Date: \_\_\_\_\_ Number of Pages: \_\_\_\_\_

Signer(s) Other Than Named Above: \_\_\_\_\_

### Capacity(ies) Claimed by Signer(s)

Signer's Name: \_\_\_\_\_

- Individual
- Corporate Officer — Title(s): \_\_\_\_\_
- Partner —  Limited  General
- Attorney in Fact
- Trustee s
- Guardian or Conservator
- Other: \_\_\_\_\_



Signer Is Representing: \_\_\_\_\_

Signer's Name: \_\_\_\_\_

- Individual
- Corporate Officer — Title(s): \_\_\_\_\_
- Partner —  Limited  General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: \_\_\_\_\_



Signer Is Representing: \_\_\_\_\_

\*ISSUED IN DUPLICATE\*

**CITY OF SACRAMENTO  
PAYMENT BOND**

Department of Public Works  
Page 1 of 1

**Bond No.:** 105797325  
**Premium:** Included

**WHEREAS**, the City of Sacramento, in the State of California, hereinafter called City, has conditionally awarded to: Navajo Pipeline Inc., 4671 24th Street, Sacramento CA 95822

hereinafter called Contractor, a contract for construction of:

Sacramento City College Bicycle/Pedestrian Improvements (PN: T15065701)

Which contract is by reference incorporated herein and made a part hereof, and is hereinafter referred to as the Contract; and

**WHEREAS**, under the terms of the Contract and pursuant to Chapter 5 of Title 3 of Part 6 of Division 4 of the California Civil Code (commencing with Civil Code Section 9550), Contractor is required to furnish a good and sufficient payment bond to secure payment of the claims to which reference is made in Civil Code Section 9554.

**NOW, THEREFORE**, we the Contractor and (*here insert full name and address of Surety*):

Travelers Casualty and Surety Company of America, 11070 White Rock Road, Suite 130, Rancho Cordova, CA 95670 \_\_\_\_\_, a corporation duly authorized and admitted to transact business and issue surety bonds in the State of California, hereinafter called Surety, are held and firmly bound unto the City, and unto all persons or entities entitled to assert a claim against a payment bond under any of the aforesaid Civil Code provisions in the sum of THREE HUNDRED FIFTY THOUSAND DOLLARS (\$350,000.00), on the condition that if Contractor shall fail to pay for any materials or equipment furnished or used in performance of the Contract, or for any work or labor thereon of any kind, or for amounts due under the Unemployment Insurance Act with respect to such work or labor, or for any amounts required to be deducted, withheld, and paid over to the Franchise Tax Board or the Employment Development Department from the wages of employees of the Contractor and all subcontractors with respect to such work or labor, then the Surety shall pay the same in an amount not exceeding the sum specified above. If suit is brought upon this bond, Surety shall pay, in addition to the above sum, all costs, expenses and fees, including attorney's fees, reasonably incurred by any party in successfully enforcing the obligation secured hereby, all to be taxed as costs and included in any judgment rendered. Should the condition of this bond be fully performed, then this obligation shall become null and void, otherwise it shall be and remain in full force and effect, and shall bind Contractor, Surety, their heirs, executors, administrators, successors and assigns, jointly and severally.

It is hereby stipulated and agreed that this bond shall inure to the benefit of all persons, companies, corporations, political subdivisions, State agencies and other entities entitled to assert a claim against a payment bond under any of the aforesaid Civil Code provisions, so as to give a right of action to them or their assigns in any suit brought upon this bond. The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder or to the specifications accompanying the same shall in any way affect its obligations on this bond, and it does hereby waive notice of any such change, extension, alteration or addition.

**IN WITNESS WHEREOF**, this instrument has been duly executed by authorized representatives of the Contractor and Surety. SIGNED AND SEALED on August 28, 20 12. To be effective September 12, 2012.

Navajo Pipelines, Inc.  
\_\_\_\_\_  
(Contractor) (Seal)  
By Ramon Silva  
Title President

Travelers Casualty and Surety Company of America  
\_\_\_\_\_  
(Surety) (Seal)  
Title Monica A. Hutchison, Attorney-in-Fact



ORIGINAL APPROVED AS TO FORM:  
[Signature]  
\_\_\_\_\_  
City Attorney

# CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

STATE OF CALIFORNIA

County of Placer }

On August 28, 2012 before me, Jason Michael Theis, Notary Public,  
Date Here Insert Name and Title of the Officer

personally appeared Monica A. Hutchison  
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

Witness my hand and official seal.

Signature Jason Michael Theis  
Signature of Notary Public



Place Notary Seal Above

## OPTIONAL

*Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.*

### Description of Attached Document

Title or Type of Document: \_\_\_\_\_

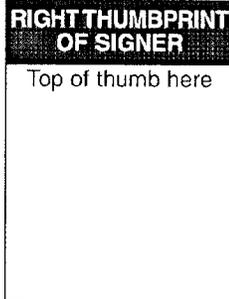
Document Date: \_\_\_\_\_ Number of Pages: \_\_\_\_\_

Signer(s) Other Than Named Above: \_\_\_\_\_

### Capacity(ies) Claimed by Signer(s)

Signer's Name: \_\_\_\_\_

- Individual
- Corporate Officer — Title(s): \_\_\_\_\_
- Partner —  Limited  General
- Attorney in Fact
- Trustee s
- Guardian or Conservator
- Other: \_\_\_\_\_



Signer Is Representing: \_\_\_\_\_

Signer's Name: \_\_\_\_\_

- Individual
- Corporate Officer — Title(s): \_\_\_\_\_
- Partner —  Limited  General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: \_\_\_\_\_



Signer Is Representing: \_\_\_\_\_



POWER OF ATTORNEY

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company

Attorney-In Fact No. 224770

Certificate No. 004809094

KNOW ALL MEN BY THESE PRESENTS: That St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company and St. Paul Mercury Insurance Company are corporations duly organized under the laws of the State of Minnesota, that Farmington Casualty Company, Travelers Casualty and Surety Company, and Travelers Casualty and Surety Company of America are corporations duly organized under the laws of the State of Connecticut, that United States Fidelity and Guaranty Company is a corporation duly organized under the laws of the State of Maryland, that Fidelity and Guaranty Insurance Company is a corporation duly organized under the laws of the State of Iowa, and that Fidelity and Guaranty Insurance Underwriters, Inc., is a corporation duly organized under the laws of the State of Wisconsin (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint

David K. Johnson, Monica A. Hutchison, Stephen D. Bender, and Edward D. Johnson

of the City of Roseville, State of California, their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed and their corporate seals to be hereto affixed, this 10th day of April, 2012.

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company



State of Connecticut
City of Hartford ss.

By: George W. Thompson, Senior Vice President

On this the 10th day of April, 2012, before me personally appeared George W. Thompson, who acknowledged himself to be the Senior Vice President of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

In Witness Whereof, I hereunto set my hand and official seal. My Commission expires the 30th day of June, 2016.



Marie C. Tetreault, Notary Public

**WORKER'S COMPENSATION CERTIFICATION**

In accordance with Article 5 (commencing at Section 1860), Chapter 1, Part 7, Division 2 of the Labor Code, the below certificate must be signed and filed with the awarding body prior to performing any work under this contract. Labor Code Section 3700, inter alia, states the following:

"Every employer shall secure the payment of compensation in one or more of the following ways:

- "(a) By being insured against liability to pay compensation in one or more insurers duly authorized to write compensation insurance in this State.
- "(b) By securing from the Director of Industrial Relations a certificate of consent to self-insure, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to his employees.

To be signed by authorized corporate officer or partner or individual submitting the Proposal. If Bidder is: (example)

1. An individual using a firm name, sign: "John Doe, an individual doing business as Blank Company."
2. An individual doing business under his own name, Sign: your name only.
3. A co-partnership, sign: "John Doe and Richard Doe, co-partners doing business as Blank Company, by, John Doe, co-partner.
4. A corporation, sign: "Blank Company, by John Doe, Secretary." (or other title)

*I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for worker's compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this contract.*

DATE: 8/28/12

Contractor Navajo Pipelines

By Ramon Silva  
Signature

## Construction and Demolition (C&D) Debris Recycling Requirements

As a condition of receiving this Contract, Contractor agrees to fully comply with the requirements specified herein for all demolition projects, as well as projects with a valuation of \$250,000 or more:

1. **Definitions.** For purposes of this section, the following terms, words and phrases shall have the following meanings:

"Certified C&D sorting facility" means a facility that receives C&D debris and/or processes C&D debris into its component material types for reuse, recycling, and disposal of residuals and possesses a valid certificate as a C&D sorting facility from the Sacramento Regional County Solid Waste Authority.

"Construction and demolition debris" or "C&D debris" means used or commonly discarded materials resulting from construction, repair, remodel or demolition operations on any pavement, house, building, or other structure, or from landscaping that are not hazardous as defined in California Health and Safety Code section 25100 et seq. Such materials include, but are not limited to, concrete, asphalt, wood, metal, brick, dirt, sand, rock, gravel, plaster, glass, gypsum wallboard, cardboard and other associated packaging, roofing material, ceramic tile, carpeting, masonry, plastic pipe, trees, and other vegetative matter resulting from land clearing and landscaping.

"Divert" or "diversion" means to use materials for any purpose other than disposal in a landfill or transformation facility. Methods to divert materials include on-site reuse of the materials, delivery of materials from the project site to a certified C&D sorting facility or a recycling facility, or other methods as approved in regulations promulgated by the City Department of Utilities.

"Franchised waste hauler" means a person who possesses a valid commercial solid waste collection franchise issued by the Sacramento Regional County Solid Waste Authority.

"Mixed C&D debris" means loads that include commingled recyclable and non-recyclable C&D debris generated at a project site.

"Recyclable C&D debris" means C&D debris required to be diverted from landfills as specified in the Waste Management Plan and returned to the economic mainstream in the form of raw material for new, reused or reconstituted products that meet the quality standards necessary to be used in the marketplace.

"Recycling facility" means a facility or operation that receives, processes, and transfers source-separated recyclable materials.

"Source-separated C&D debris" means recyclable C&D debris that is separately sorted and containerized at the site of generation by individual material type and segregated from mixed C&D debris prior to collection and transporting.

"Waste log" means a record detailing the management of C&D debris generated by the covered project, including the date and weight/volume of material by type that was salvaged, reused, recycled or disposed.

2. **Waste Management Plan.** A completed WMP (see **Attachment 1**) must be submitted to and approved by the City prior to commencing any work on the project. The WMP must specify the types of C&D debris that will be generated from the project; the manner in which C&D debris will be managed and/or stored on the project site; the manner in which recyclable C&D debris generated from the project will be recycled or reuse; the person who will haul, collect or transport the recyclable C&D debris from the project site; and the certified C&D sorting facility or recycling facility where recyclable C&D debris will be delivered. The WMP must be approved by the City prior to commencing any work on the project.

3. Contractor shall be solely responsible for diverting the recyclable C&D materials specified on the WMP. Mixed C&D debris shall be delivered to a SWA-certified C&D sorting facility only. Only the permit holder, the person who generates the waste, a franchised waste hauler, or the City of Sacramento can transport or haul mixed C&D debris. Source-separated C&D debris may be delivered by any person to any recycling facility that accepts such materials. (See **Attachment 2** for list of C&D Debris Haulers and Facilities).

4. During the course of the project, Contractor shall maintain a waste log (see **Attachment 3**), and keep all weight tickets or weight receipts, for all C&D debris hauled away from the project. At a minimum, the waste log shall specify the C&D debris generated by the project; the manner in which C&D debris was recycled or re-used; and the facility where the C&D debris was delivered.

5. Within 30 days after submitting the project completion report, Contractor shall submit to the City a completed waste log, along with copies of supporting weight tickets. Contractor shall maintain and keep accurate and complete records of all bills, weight receipts or weight tickets that were issued for the collection, transport or disposal of C&D debris for a period of one-year after submittal of the waste log. The records shall be made available for inspection, examination and audit by the City during the one-year retention period to validate the information provided in the WMP and in the waste log. If the City determines noncompliance by the Contractor after an audit has been conducted, Contractor shall reimburse the City for all costs incurred in performing the audit.

6. Failure by Contractor to comply with any provisions specified herein will subject Contractor to possible suspension and/or termination of this Contract for cause; repayment of any or all of the Contract amount disbursed by the City; imposition of a penalty, payable to the City (\$50-\$250 for first offense, \$251-\$500 for second offense, and \$501-\$1500 for subsequent offenses); and/or submission of a performance security deposit fee when submitting a permit application to the City for a project within one year of imposition of the penalty.

For questions or to obtain more information about the Recycling Requirements for C&D debris, contact the City of Sacramento, Solid Waste Services Division, 2812 Meadowview Road, Building 1, Sacramento, CA 95832, or telephone (916) 808-4833, or email [C&D@cityofsacramento.org](mailto:C&D@cityofsacramento.org)

# C&D Debris Waste Management Plan

C&D Debris Waste Management Plan  
City of Sacramento Solid Waste Services  
2812 Meadowview Road, Building 1  
Sacramento, CA 95832  
Phone: (916) 808-4839 / Fax: (916) 808-4999  
C&D@cityofsacramento.org

Form

submitted by:

Please attach a business card, or put your name with a phone number and/or an email address.

This Waste Management Plan (WMP) must be submitted and approved before work can begin. Only one WMP is required for each public construction project. The administration fee and, if applicable, a security deposit must be submitted with this form to be approved. Administration fee is 0.04% of project bid amount (min \$40, max \$800); security deposit, if applicable, is 1% of bid amount (max \$10,000). The accompanying Waste Log must be submitted within 30 days of the project completion report, or a penalty may be imposed.

## A. Building Project Information:

Job Address: \_\_\_\_\_

Contractor: \_\_\_\_\_

Address: \_\_\_\_\_

Engineering

Estimate: \_\_\_\_\_

Phone: \_\_\_\_\_

Email: \_\_\_\_\_

## B. Briefly describe the project:

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## C. Materials Required to be Recycled

50% of all debris must be recycled if generated during the course of your project. You can either source-separate them, which may be hauled by anyone, or mix them in one container and send the mixed C&D debris load to a Certified Mixed C&D Sorting Facility. Mixed C&D loads can only be hauled by a franchised hauler or self-hauled. Please see the Definitions section, on the next page, for more information.

**50%**  
of all debris  
must be recycled

## D. Material Management

1. How will C&D debris will be stored on the project site: \_\_\_\_\_ Mixed C&D \_\_\_\_\_ Source-Separated

2. Company to haul away debris: \_\_\_\_\_

3. Facilities to receive debris: \_\_\_\_\_

# C&D Debris Waste Management Plan

C&D Debris Waste Management Plan  
City of Sacramento Solid Waste Services  
2812 Meadowview Road, Building 1  
Sacramento, CA 95832  
Phone: (916) 808-4839 / Fax: (916) 808-4999  
C&D@cityofsacramento.org

## E. Definitions.

Please read and understand these terms. Call Solid Waste at (916) 808-4833 if these terms are not clear to you. More information is also available online at <http://www.cityofsacramento.org/utilities/>.

1. **Self-haul or self-hauling:** This is when the general contractor or a subcontractor who is doing work on the project hauls their own waste materials for recycling or disposal. Note that a jobsite cleanup crew is not doing other work on the project and is not self-hauling. Jobsite cleanup crews need to be franchised in order to haul mixed C&D debris away.
2. **Franchised hauler:** Check the Department of Utilities (DOU) website for a list of these haulers. Only these companies and the City of Sacramento can collect and haul mixed C&D debris generated within the City for a fee.
3. **Source separation:** This means keeping wood, metal, cardboard, or other recyclables in separate containers, and sending the materials to an authorized recycler. A list of authorized recyclers can be found on the DOU web site. Source-separated materials may be hauled by anyone.
4. **Mixed C&D debris:** This means putting all recyclable debris into one container. Mixed materials must be sent to a certified mixed C&D sorting facility. Mixed materials may be either self-hauled or hauled by a franchised hauler. If your job site is crowded, this option saves the most space.
5. **Certified Mixed C&D Sorting Facility:** See the DOU web site for a list. These facilities have been certified by the Sacramento Regional Solid Waste Authority (SWA) to extract recyclable materials from mixed C&D debris.

## F. Terms and Conditions

- Your approved Waste Management Plan and Waste Log must be kept on the job site for the duration of the project.
- City of Sacramento Solid Waste Services staff may enter the jobsite to inspect waste collection areas.
- **ALL Clean Wood Waste** (unpainted, untreated lumber, plywood and OSB), **Inert Materials** (concrete, asphalt paving, brick, block, and dirt), **Wooden Pallets**, **Scrap Metal**, and **Corrugated Cardboard** must be recycled.
- Only SWA-Certified Mixed C&D Sorting Facilities may be used to recycle these materials if mixed with other materials.
- Only the City of Sacramento, SWA-Franchised Haulers, or self-haulers (as defined above) may collect and transport mixed C&D material from the jobsite.
- C&D Debris may not be burned or dumped illegally.
- Your Waste Log must be completed and submitted, with supporting weight tickets, within 30 days of submitting your project completion report. All waste hauling and disposal or recycling activity must be entered on the Waste Log, including information from any subcontractors who self-hauled their own debris off-site.
- You must keep all receipts or weight-tickets from your project for a period of one year from the submittal of your waste log.
- Failure to comply with these terms and conditions may result in a fine and payment of a security deposit on future projects.

# C&D Debris Haulers & Facilities

C&D Debris Waste Management Plan  
City of Sacramento Solid Waste Services  
2812 Meadowview Road, Building 1  
Sacramento, CA 95832  
Phone: (916) 808-4833 / Fax: (916) 808-4999  
C&D@cityofsacramento.org

## Certified Mixed C&D Facilities

Allied Waste / Elder Creek Transfer and Recovery	(916) 387-8425
Florin-Perkins Public Disposal	(916) 443-5120
L&D Landfill	(916) 737-8640
Waste Management / K&M Recycle America	(916) 452-0142

## Franchised Haulers

ACES Waste Services, Inc.	(866) 488-8837	Elk Grove Waste Management, LLC	(916) 689-4052
Allied Waste Services	(916) 631-0600	Mini Drops, Inc.	(916) 686-8785
All Waste Systems, Inc.	(916) 456-1555	Norcal Waste Services of Sacramento	(916) 381-5300
Atlas Disposal Industries, LLC	(916) 455-2800	North West Recyclers	(916) 686-8575
California Waste Recovery Systems	(916) 441-1985	Waste Management of Sacramento	(916) 387-1400
Central Valley Waste Services, Inc.	(209) 369-8274	Waste Removal & Recycling	(916) 453-1400
City of Sacramento Solid Waste	(916) 808-4839	Western Strategic Materials, Inc.	(916) 388-1076

Recyclers*		Recovery Stations & Landfills	
Bell Marine	(916) 442-9089	Elder Creek Recovery & Transfer Station	(916) 387-8425
C & C Paper Recycling	(916) 920-2673	Kiefer Landfill	(916) 875-5555
EBI Aggregates	(916) 372-7580	L & D Landfill	(916) 383-9420
International Paper	(916) 371-4634	North Area Recovery Station	(916) 875-5555
Modern Waste Solutions	(916) 447-6800	Sacramento Recycling & Transfer Station	(916) 379-0500
PRIDE Industries, Inc.	(916) 640-1300	Waste Management Recycle America	(916) 452-0142
Recycling Industries, Inc.	(916) 452-3961		
Sacramento Local Conservation Corps	(916) 386-8394		
Smurfit-Stone Container Corporation	(916) 381-3340		
Southside Art Center	(916) 387-8080		
Spencer Building Maintenance, Inc.	(916) 922-1900		

More updated information can be found online at:  
<http://www.cityofsacramento.org/utilities/>

\* Please note that any facility may receive source-separated recyclable materials as long as it is authorized to do so by the State of California. This is not meant to be a complete list.



## **Monthly Pay Request Application and Schedule of Values Processing**

1. The Contractor must have Microsoft Excel Version 7 to prepare Pay Request Application and Schedule of Values.
2. The City will provide the Contractor with an electronic version of the Schedule of Values with bid items and Contractor prices and Pay Request Application at or immediately after the preconstruction meeting.
3. On a monthly basis, the Contractor shall submit an electronic copy of the Pay Request Application and Schedule of Values to City Inspector for review.
4. Upon approval by City Inspector, the Contractor shall print out hard copies of the Pay Request Application and Schedule of Values, sign and submit to City Inspector for processing.



DEPARTMENT OF TRANSPORTATION  
ENGINEERING SERVICES DIVISION  
915 I Street, Room 2000

# PAY REQUEST APPLICATION

(All information to be entered on Schedule of Values page.)

PROJECT NAME:	Sacramento City College Bicycle/Pedestrian Improvements Project		
CONTRACTOR: <i>(per agreement)</i>			
REMITTANCE ADDRESS:			
PHONE NUMBER: ( )			
INVOICE NO.:	T15065701-	CITY PROJECT NUMBER:	T15065701
		PERIOD ENDING DATE:	

ORIGINAL CONTRACT AMOUNT:	
CHANGE ORDER NO. 1	
CHANGE ORDER NO. 2	
CHANGE ORDER NO. 3	
CHANGE ORDER NO. 4	
CHANGE ORDER NO. 5	
CHANGE ORDER NO. 6	
CHANGE ORDER NO. 7	
CHANGE ORDER NO. 8	
CHANGE ORDER NO. 9	
TOTAL CHANGE ORDERS:	
CONTRACT AMOUNT TO DATE:	
TOTAL WORK COMPLETED TO DATE:	
RETENTION WITHHELD:	
LESS PREVIOUS PAYMENTS:	
AMOUNT DUE THIS INVOICE:	
TOTAL COMPLETED LESS RETENTION:	

**If the project is CDBG funded, or the prime contractor is a certified UDBE or ESBE, please check the applicable box & you do not need to fill out the section below.**

UDBE Prime Contractor    
  ESBE Prime Contractor    
  CDBG Funded

List all ESBE/UDBE subcontractors employed on this project during this period ending date and indicate committed amounts to be paid to the sub contractors. Please also include ESBE/UDBE materials suppliers and trucking firms. Keep records of payments made, as you will be asked to furnish these at contract completion. The Pay Request Application will be considered incomplete unless this information is provided along with all other required documentation to support the request for payment. Attach additional sheets if necessary.

Circle UDBE for FEDERALLY funded projects.  
 Circle ESBE for LOCALLY funded projects.

Original amount pledged:	
Pledge Increase/Decrease to Include Change Order(s):	
Total amount pledged:	

ESBE / UDBE Sub-Contractor	Previous Total (A)	Current Pay Request Total (B)	Total ESBE / UDBE Work (A+B)	Percentage Attained (A+B)/Amount Pledged
Totals:				

\*\*\*Labor compliance (payrolls, etc.) is current and submitted for this Pay Request\*\*\*



DEPARTMENT OF TRANSPORTATION  
 ENGINEERING SERVICES DIVISION  
 915 I Street, Room 2000

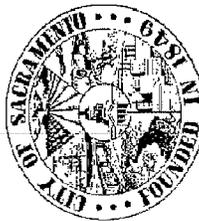
# PAY REQUEST APPLICATION

(All information to be entered on Schedule of Values page.)

<b>Approved</b> By (Prime Contractor)	_____	Date: _____
	PRINT AND SIGN	
Submit To:	Department of Transportation 915 "I" Street, Room 2000 Sacramento, CA 95814 <b>Attn: CONSTRUCTION INSPECTOR</b>	
<b>Approved</b> By (Resident Const. Inspector)	_____	Date: _____
	PRINT AND SIGN	
<b>Certified by Project Manager</b> By (Project Manager)	_____	Date: _____
	PRINT AND SIGN	
<b>Approved</b> By (Labor Compliance)	_____	Date: _____
	PRINT AND SIGN	

In accordance with Public Contract Code Sec. 20104.50 the City shall pay the Contractor interest on any progress payment which is made by City more than 30 days after City receives an undisputed and properly submitted written payment request. Said interest shall be equal to the rate set forth in CCP Sec.685.010(a), and shall begin to accrue upon the expiration of said 30 day period. Any written request for a progress payment which City determines to be disputed, improper or not suitable for payment for any reason shall be returned to Contractor within 7 days after receipt by City, along with a written statement of the reason or reasons why such request is disputed, improper or not suitable for payment.

	Contractor Entered Data
	Construction Inspector's Name.
	PM certifies that all information is correct.



# SCHEDULE OF VALUES

## V4 - temp 5%

PROJECT NAME:  
 CITY PROJECT NUMBER:  
 CONTRACTOR: (As per City Agreement)  
 REMITTANCE ADDRESS:  
 PHONE NUMBER: ( )  
 INVOICE NUMBER:

DEPARTMENT OF TRANSPORTATION  
 ENGINEERING SERVICES DIVISION  
 915 J Street, Room 2000

Sacramento City College Bicycle/Pedestrian Improvements Project  
 T15065701

Remit To:  
 Department of Transportation  
 Engineering Services Division  
 915 J Street, Room 2000  
 Sacramento, CA 95814

Payment No.  
 Work Performed Thru  
 Days Expended on Contract

T15065701-

Item No	Item Description	Original Contract Quantity	Unit	Unit Price	Original Contract Amount	Previous Work Completed (SHOULD MATCH PREVIOUS PAY REQUESTS TOTAL WORK COMPLETED COLUMNS)		Current Work Completed		Total Work Completed		Balance of Contract	
						Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount
1	CLEARING AND GRUBBING	1	LS									1.00	
2	ROADWAY EXCAVATION AND GRADING (F)	320	CY									320.00	
3	BOLLARD TO REMOVE	4	EA									4.00	
4	CHAIN LINK FENCE TO REMOVE	360	LF									360.00	
5	PAVEMENT PLANING (0.17")	100	SY									100.00	
6	AGGREGATE BASE CLASS 2 TO PLACE	135	CY									135.00	
7	ASPHALT CONCRETE (1/2") PAVEMENT TO PLACE	100	TON									100.00	
8	SLURRY SEAL (TYPE II) TO PLACE	1,350	SY									1,350.00	
9	3 1/2" PCC SIDEWALK TO CONSTRUCT	5,120	SF									5,120.00	
10	3 1/2" REINFORCED PCC SIDEWALK TO CONSTRUCT	840	SF									840.00	
11	CURB AND GUTTER TYPE 2 (MOD-1) TO CONSTRUCT	165	LF									165.00	
12	CURB AND GUTTER TYPE 2 (MOD-2) TO CONSTRUCT	20	LF									20.00	
13	VEE-GUTTER NO. 2 (MOD) TO CONSTRUCT	170	LF									170.00	
14	CURB TYPE 3 TO CONSTRUCT	240	LF									240.00	
15	CURB TYPE 4A TO CONSTRUCT	100	LF									100.00	
16	TRUNCATED DOMES TO INSTALL (36" X 48")	10	EA									10.00	
17	8" DECORATIVE STEEL FENCE TO INSTALL	240	LF									240.00	
18	CHAIN LINK FENCE TO RELOCATE	65	LF									65.00	
19	CHAIN LINK GATE TO RELOCATE	1	EA									1.00	
20	PARKING BUMPERS TO PAINT AND RELOCATE	1	LS									1.00	
21	TIRE STRIP TO RELOCATE	1	EA									1.00	
22	MAINTENANCE HOLE TO ADJUST TO GRADE	1	EA									1.00	
23	WATER VALVE TO ADJUST TO GRADE	1	EA									1.00	
24	TYPE B DROP INLET (ROLLED CURB WITH TRAP AND SUMP)	1	EA									1.00	
25	DRAINAGE INLET GRATE TO INSTALL	1	EA									1.00	
26	12" STORM DRAIN PIPE TO INSTALL	41	LF									41.00	

Item No	Item Description	Original Contract Quantity	Unit	Unit Price	Original Contract Amount	Previous Work Completed (SHOULD MATCH PREVIOUS PAY REQUEST'S TOTAL WORK COMPLETED COLUMNS)		Current Work Completed		Total Work Completed		Balance of Contract		
						Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	
27	FIRE HYDRANT TO RELOCATE	1	EA									1.00		
28	STAMPED CONCRETE TO CONSTRUCT (3 1/2")	110	SF									110.00		
29	TRAFFIC SIGN TO PLACE	15	EA									15.00		
30	NEW POST TO INSTALL	5	EA									5.00		
31	SIGN TO REMOVE	5	EA									5.00		
32	SIGN TO RELOCATE	7	EA									7.00		
33	TRAFFIC STRIPE TO REMOVE	150	LF									150.00		
34	PAVEMENT MARKINGS TO REMOVE	50	SF									50.00		
35	THERMOPLASTIC TRAFFIC STRIPE TO PLACE	1	LS									1.00		
36	THERMOPLASTIC PAVEMENT MARKINGS TO PLACE	1,200	SF									1,200.00		
37	RAISED PAVEMENT MARKERS TO PLACE	140	EA									140.00		
38	JOINT TRENCH TO CONSTRUCT	715	LF									715.00		
39	6X8' PULL BOX TO CONSTRUCT	2	EA									2.00		
40	IRRIGATION SYSTEM AT CITY COLLEGE PROPERTY TO MODIFY	1	LS									1.00		
41	IRRIGATION SYSTEM AT WATER TOWER TO MODIFY	1	LS									1.00		
42	AUTOMATIC IRRIGATION SYSTEM	1	LS									1.00		
43	TREES TO PLANT	9	EA									9.00		
44	SHRUBS 5 GALLON TO PLANT	28	EA									28.00		
45	SHRUBS 1 GALLON TO PLANT	62	EA									62.00		
46	BARK MULCH TO PLACE	2,500	SF									2,500.00		
47	TURF HYDROSEEDING	1	LS									1.00		
48	TREE TO REMOVE	2	EA									2.00		
49	LANDSCAPE MAINTENANCE (180 DAYS)	6	MO									6.00		
50	STREET LIGHT INSTALLATION	1	LS									1.00		
<b>Original Contract Total:</b>														
Change Order #1 - See change order summary sheet for details														
Change Order #2 - See change order summary sheet for details														
Change Order #3 - See change order summary sheet for details														
Change Order #4 - See change order summary sheet for details														
Change Order #5 - See change order summary sheet for details														
Change Order #6 - See change order summary sheet for details														
Change Order #7 - See change order summary sheet for details														
Change Order #8 - See change order summary sheet for details														
Change Order #9 - See change order summary sheet for details														

Item No	Item Description	Original Contract Quantity	Unit	Unit Price	Original Contract Amount	Previous Work Completed (SHOULD MATCH PREVIOUS PAY REQUEST'S TOTAL WORK COMPLETED COLUMNS)		Current Work Completed		Total Work Completed		Balance of Contract	
						Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount
	Sum of all Change Orders				\$0.00	"Total Work to Date" From Previous Pay Request		This Estimate (current work)		Total Work to Date		Balancing Total of Adjusted Contract	\$0.00
	CCO Adjusted Contract Amount (Original + Change Orders)				\$0.00	Retention Withheld From Previous Pay Request		This Retention (current work) (5%)		Retention Withheld to Date			
	Partial Retention Release (Prior approval is needed before proceeding with partial retention release)					"Retention Released to Date" From Previous Pay Request		Current Retention Release		Retention Released to Date			
						"Total Paid To Date" from Previous Pay Request		This Payment		Total Paid to Date			Supervisor Approval (Print & Sign)

Contractor Entered Data

PM Entered Data

**GUARANTEE**

We hereby guarantee the **Sacramento city College Bicycle/Pedestrian Improvements Project (PN: T15065701)** the City of Sacramento for one (1) year in accordance with the guarantee required in the specifications. We agree to repair or replace any or all such work, together with all or any other work which may be displaced in so doing, that may be proven defective in workmanship or material within the one-year period from the date of acceptance without any expense whatsoever to the City, ordinary wear and tear and unusual abuse or neglect excepted.

In the event of our failure to comply with the above-mentioned conditions within five (5) days time after being notified in writing, we collectively or separately, do hereby authorize the City to proceed to have the defects repaired and made good at our expense and will pay the costs and damages, including but not limited to any related attorney fees and City staff and administrative expenses, therefor immediately upon demand.

Dated: 8/28/12

Signed: Raren Silva

Raren Silva  
Printed Name

Navajo Pipelines  
Company

4671 24th St  
Address

Sacramento CA 95822

**CERTIFICATE OF LIABILITY INSURANCE**DATE (MM/DD/YYYY)  
08/30/12

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

<b>PRODUCER</b> Warren G. Bender Co. 518 Gibson Drive Suite 240 Roseville, CA 95678 Stephen D. Bender	916-380-5300 916-380-5206	<b>CONTACT NAME:</b> Warren G. Bender Co. <b>PHONE (A/C, No., Ext.):</b> 916-380-5300 <b>E-MAIL ADDRESS:</b> certs@wgbender.com	<b>FAX (A/C, No.):</b> 916-380-5206
	<b>INSURED</b> Navajo Pipelines, Inc. 4671 24th Street Sacramento, CA 95822-1412		<b>INSURER(S) AFFORDING COVERAGE</b> INSURER A: Travelers Property Casualty INSURER B: Travelers Indemnity Company INSURER C: Travelers Property Casualty INSURER D: INSURER E: INSURER F:

**COVERAGES**      **CERTIFICATE NUMBER:**      **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<b>GENERAL LIABILITY</b> <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC	X	X	CO6406N968	07/12/12	07/12/13	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 300,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000
	<b>AUTOMOBILE LIABILITY</b> <input checked="" type="checkbox"/> ANY AUTO ALL OWNED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input type="checkbox"/> SCHEDULED AUTOS NON-OWNED AUTOS	X		8106405N968	07/12/12	07/12/13	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
A	<b>UMBRELLA LIAB</b> <input checked="" type="checkbox"/> OCCUR <b>EXCESS LIAB</b> <input type="checkbox"/> CLAIMS-MADE DED      RETENTION \$			CUP6405N968	07/12/12	07/12/13	EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ 5,000,000
A	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	N/A	DTJUB6A54970 0 11	10/01/11	10/01/12	<input checked="" type="checkbox"/> WC STATU-TORY LIMITS      OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
C	<b>Installation Float</b>			6605533C640	07/12/12	07/12/13	Limit 250,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)  
 Sacramento City College Bicycle/Pedestrian Improvements Project / The City of Sacramento, its officials, agents, employees & volunteers are included as additional insureds per the attached endorsements. AI, Auto AI, GL WOS, WC WOS, Wrap Up Exclusion, Res Exclusion

**CERTIFICATE HOLDER****CANCELLATION**

CITY-S2  City of Sacramento Department of Transportation Engineering Services Division 915 I St Room 2000 Sacramento, CA 95814-2700	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.  AUTHORIZED REPRESENTATIVE <i>Stephen D. Bender Ins.</i>
---	--

**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY**

## **BLANKET ADDITIONAL INSURED (CONTRACTORS)**

This endorsement modifies insurance provided under the following:

### COMMERCIAL GENERAL LIABILITY COVERAGE PART

1. WHO IS AN INSURED – (Section II) is amended to include any person or organization that you agree in a "written contract requiring insurance" to include as an additional insured on this Coverage Part, but:
  - a) Only with respect to liability for "bodily injury", "property damage" or "personal injury"; and
  - b) If, and only to the extent that, the injury or damage is caused by acts or omissions of you or your subcontractor in the performance of "your work" to which the "written contract requiring insurance" applies. The person or organization does not qualify as an additional insured with respect to the independent acts or omissions of such person or organization.
  - c) The insurance provided to the additional insured does not apply to "bodily injury" or "property damage" caused by "your work" and included in the "products-completed operations hazard" unless the "written contract requiring insurance" specifically requires you to provide such coverage for that additional insured, and then the insurance provided to the additional insured applies only to such "bodily injury" or "property damage" that occurs before the end of the period of time for which the "written contract requiring insurance" requires you to provide such coverage or the end of the policy period, whichever is earlier.
2. The insurance provided to the additional insured by this endorsement is limited as follows:
  - a) In the event that the Limits of Insurance of this Coverage Part shown in the Declarations exceed the limits of liability required by the "written contract requiring insurance", the insurance provided to the additional insured shall be limited to the limits of liability required by that "written contract requiring insurance". This endorsement shall not increase the limits of insurance described in Section III – Limits Of Insurance.
  - b) The insurance provided to the additional insured does not apply to "bodily injury", "property damage" or "personal injury" arising out of the rendering of, or failure to render, any professional architectural, engineering or surveying services, including:
    - I. The preparing, approving, or failing to prepare or approve, maps, shop drawings, opinions, reports, surveys, field orders or change orders, or the preparing, approving, or failing to prepare or approve, drawings and specifications; and
    - II. Supervisory, inspection, architectural or engineering activities.
3. The insurance provided to the additional insured by this endorsement is excess over any valid and collectible "other insurance", whether primary, excess, contingent or on any other basis, that is available to the additional insured for a loss we cover under this endorsement. However, if the "written contract requiring insurance" specifically requires that this insurance apply on a primary basis or a primary and non-contributory basis, this insurance is primary to "other insurance" available to the additional insured which covers that person or organization as a named insured for such loss, and we will not share with that "other insurance". But the insurance provided to the additional insured by this endorsement still is excess over any valid and collectible "other insurance", whether primary, excess, contingent or on any other basis, that is available to the additional insured when that person or organization is an additional insured under such "other insurance".
4. As a condition of coverage provided to the additional insured by this endorsement:
  - a) The additional insured must give us written notice as soon as practicable of an "occurrence" or an offense which may result in a claim. To the extent possible, such notice should include:

COMMERCIAL GENERAL LIABILITY

- I. How, when and where the "occurrence" or offense took place;
  - II. The names and addresses of any injured persons and witnesses; and
  - III. The nature and location of any injury or damage arising out of the "occurrence" or offense.
- b) If a claim is made or "suit" is brought against the additional insured, the additional insured must:
- I. Immediately record the specifics of the claim or "suit" and the date received; and
  - II. Notify us as soon as practicable.
- The additional insured must see to it that we receive written notice of the claim or "suit" as soon as practicable.
- c) The additional insured must immediately send us copies of all legal papers received in connection with the claim or "suit", cooperate with us in the investigation or settlement of the claim or defense against the "suit", and otherwise comply with all policy conditions.
- d) The additional insured must tender the defense and indemnity of any claim or "suit" to

any provider of "other insurance" which would cover the additional insured for a loss we cover under this endorsement. However, this condition does not affect whether the insurance provided to the additional insured by this endorsement is primary to "other insurance" available to the additional insured which covers that person or organization as a named insured as described in paragraph 3. above.

5. The following definition is added to SECTION V. - DEFINITIONS:

"Written contract requiring insurance" means that part of any written contract or agreement under which you are required to include a person or organization as an additional insured on this Coverage Part, provided that the "bodily injury" and "property damage" occurs and the "personal injury" is caused by an offense committed:

- a. After the signing and execution of the contract or agreement by you;
- b. While that part of the contract or agreement is in effect; and
- c. Before the end of the policy period.

**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.**

## CONTRACTORS XTEND ENDORSEMENT

This endorsement modifies insurance provided under the following:

### COMMERCIAL GENERAL LIABILITY COVERAGE PART

**GENERAL DESCRIPTION OF COVERAGE** – Provisions **A.-H.** and **J.-N.** of this endorsement broaden coverage, and provision **I.** of this endorsement may limit coverage. The following listing is a general coverage description only. Limitations and exclusions may apply to these coverages. Read all the **PROVISIONS** of this endorsement carefully to determine rights, duties, and what is and is not covered.

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li><b>A.</b> Broadened Named Insured</li> <li><b>B.</b> Extension of Coverage – Damage To Premises Rented To You           <ul style="list-style-type: none"> <li>• Perils of fire, explosion, lightning, smoke, water</li> <li>• Limit increased to \$300,000</li> </ul> </li> <li><b>C.</b> Blanket Waiver of Subrogation</li> <li><b>D.</b> Blanket Additional Insured – Managers or Lessors of Premises</li> <li><b>E.</b> Incidental Medical Malpractice</li> <li><b>F.</b> Extension of Coverage – Bodily Injury</li> <li><b>G.</b> Contractual Liability – Railroads</li> </ul> | <ul style="list-style-type: none"> <li><b>H.</b> Additional Insured – State or Political Subdivisions</li> <li><b>I.</b> Other Insurance Condition</li> <li><b>J.</b> Increased Supplementary Payments           <ul style="list-style-type: none"> <li>• Cost of bail bonds increased to \$2,500</li> <li>• Loss of earnings increased to \$500 per day</li> </ul> </li> <li><b>K.</b> Knowledge and Notice of Occurrence or Offense</li> <li><b>L.</b> Unintentional Omission</li> <li><b>M.</b> Personal Injury – Assumed by Contract</li> <li><b>N.</b> Blanket Additional Insured –Lessor of Leased Equipment</li> </ul> |
|--|---|

### PROVISIONS

#### A. BROADENED NAMED INSURED

1. The Named Insured in Item 1. of the Declarations is as follows:

The person or organization named in Item 1. of the Declarations and any organization, other than a partnership, joint venture or limited liability company, of which you maintain ownership or in which you maintain the majority interest on the effective date of the policy. However, coverage for any such additional organization will cease as of the date, if any, during the policy period, that you no longer maintain ownership of, or the majority interest in, such organization.

2. WHO IS AN INSURED (Section II) Item 4.a. is deleted and replaced by the following:

- a. Coverage under this provision is afforded only until the 180th day after you acquire or form the organization or the end of the policy period, whichever is earlier.

3. This Provision **A.** does not apply to any person or organization for which coverage is excluded by endorsement.

#### B. EXTENSION OF COVERAGE – DAMAGE TO PREMISES RENTED TO YOU

1. The last paragraph of COVERAGE A. BODILY INJURY AND PROPERTY DAMAGE LIABILITY (Section I – Coverages) is deleted and replaced by the following:

Exclusions **c.** through **n.** do not apply to damage to premises while rented to you, or temporarily occupied by you with permission of the owner, caused by:

- a. Fire;
- b. Explosion;
- c. Lightning;
- d. Smoke resulting from such fire, explosion, or lightning; or
- e. Water.

A separate limit of insurance applies to this coverage as described in Section III Limits Of Insurance.

## COMMERCIAL GENERAL LIABILITY

2. This insurance does not apply to damage to premises while rented to you, or temporarily occupied by you with permission of the owner, caused by:
  - a. Rupture, bursting, or operation of pressure relief devices;
  - b. Rupture or bursting due to expansion or swelling of the contents of any building or structure, caused by or resulting from water;
  - c. Explosion of steam boilers, steam pipes, steam engines, or steam turbines.

3. Paragraph 6. of LIMITS OF INSURANCE (Section III) is deleted and replaced by the following:

Subject to 5. above, the Damage To Premises Rented To You Limit is the most we will pay under COVERAGE A. for the sum of all damages because of "property damage" to any one premises while rented to you, or temporarily occupied by you with permission of the owner, caused by: fire; explosion; lightning; smoke resulting from such fire, explosion, or lightning; or water. The Damage To Premises Rented To You Limit will apply to all "property damage" proximately caused by the same "occurrence", whether such damage results from: fire; explosion; lightning; smoke resulting from such fire, explosion, or lightning; or water; or any combination of any of these causes.

The Damage To Premises Rented To You Limit will be the higher of:

- a. \$300,000; or
  - b. The amount shown on the Declarations for Damage To Premises Rented To You Limit.
4. Paragraph a. of the definition of "insured contract" (DEFINITIONS - Section V) is deleted and replaced by the following:
    - a. A contract for a lease of premises. However, that portion of the contract for a lease of premises that indemnifies any person or organization for damage to premises while rented to you, or temporarily occupied by you with permission of the owner, caused by: fire; explosion; lightning; smoke resulting from such fire, explosion, or lightning; or water, is not an "insured contract";

5. This Provision B. does not apply if coverage for Damage To Premises Rented To You of COVERAGE A. BODILY INJURY AND PROPERTY DAMAGE LIABILITY (Section I - Coverages) is excluded by endorsement.

### C. BLANKET WAIVER OF SUBROGATION

We waive any right of recovery we may have against any person or organization because of payments we make for Injury or damage arising out of: premises owned or occupied by or rented or loaned to you; ongoing operations performed by you or on your behalf, done under a contract with that person or organization; "your work"; or "your products". We waive this right where you have agreed to do so as part of a written contract, executed by you before the "bodily injury" or "property damage" occurs or the "personal injury" or "advertising injury" offense is committed.

### D. BLANKET ADDITIONAL INSURED - MANAGERS OR LESSORS OF PREMISES

WHO IS AN INSURED (Section II) is amended to include as an insured any person or organization (referred to below as "additional insured") with whom you have agreed in a written contract, executed before the "bodily injury" or "property damage" occurs or the "personal injury" or "advertising injury" offense is committed, to name as an additional insured, but only with respect to liability arising out of the ownership, maintenance or use of that part of any premises leased to you, subject to the following provisions:

1. Limits of Insurance. The limits of insurance afforded to the additional insured shall be the limits which you agreed to provide in the written contract, or the limits shown on the Declarations, whichever are less.
2. The insurance afforded to the additional insured does not apply to:
  - a. Any "bodily injury" or "property damage" that occurs, or "personal injury" or "advertising injury" caused by an offense which is committed, after you cease to be a tenant in that premises;
  - b. Any premises for which coverage is excluded by endorsement; or
  - c. Structural alterations, new construction or demolition operations performed by or on behalf of such additional insured.
3. The insurance afforded to the additional insured is excess over any valid and collectible

"other insurance" available to such additional insured, unless you have agreed in the written contract that this insurance must be primary to, or non-contributory with, such "other insurance".

**E. INCIDENTAL MEDICAL MALPRACTICE**

1. The following is added to paragraph 1. Insuring Agreement of COVERAGE A. – BODILY INJURY AND PROPERTY DAMAGE LIABILITY (Section I – Coverages):

"Bodily injury" arising out of the rendering of, or failure to render, the following will be deemed to be caused by an "occurrence":

- a. Medical, surgical, dental, laboratory, x-ray or nursing service, advice or instruction, or the related furnishing of food or beverages;
- b. The furnishing or dispensing of drugs or medical, dental, or surgical supplies or appliances;
- c. First aid; or
- d. "Good Samaritan services." As used in this Provision E., "Good Samaritan services" are those medical services rendered or provided in an emergency and for which no remuneration is demanded or received.

2. Paragraph 2.a.(1)(d) of WHO IS AN INSURED (Section II) does not apply to any registered nurse, licensed practical nurse, emergency medical technician or paramedic employed by you, but only while performing the services described in paragraph 1. above and while acting within the scope of their employment by you. Any "employees" rendering "Good Samaritan services" will be deemed to be acting within the scope of their employment by you.

3. The following exclusion is added to paragraph 2. Exclusions of COVERAGE A. – BODILY INJURY AND PROPERTY DAMAGE LIABILITY (Section I – Coverages):

(This insurance does not apply to:) "Bodily injury" or "property damage" arising out of the willful violation of a penal statute or ordinance relating to the sale of pharmaceuticals committed by or with the knowledge or consent of the insured.

4. For the purposes of determining the applicable limits of insurance, any act or omission

together with all related acts or omissions in the furnishing of the services described in paragraph 1. above to any one person will be deemed one "occurrence".

5. This Provision E. does not apply if you are in the business or occupation of providing any of the services described in paragraph 1. above.
6. The insurance provided by this Provision E. shall be excess over any valid and collectible "other insurance" available to the insured, whether primary, excess, contingent or on any other basis, except for insurance that you bought specifically to apply in excess of the Limits of Insurance shown on the Declarations of this Coverage Part.

**F. EXTENSION OF COVERAGE – BODILY INJURY**

The definition of "bodily injury" (DEFINITIONS – Section V) is deleted and replaced by the following:

"Bodily injury" means bodily injury, mental anguish, mental injury, shock, fright, disability, humiliation, sickness or disease sustained by a person, including death resulting from any of these at any time.

**G. CONTRACTUAL LIABILITY – RAILROADS**

1. Paragraph c. of the definition of "insured contract" (DEFINITIONS – Section V) is deleted and replaced by the following:

- c. Any easement or license agreement;

2. Paragraph f.(1) of the definition of "insured contract" (DEFINITIONS – Section V) is deleted.

**H. ADDITIONAL INSURED – STATE OR POLITICAL SUBDIVISIONS – PERMITS**

WHO IS AN INSURED (Section II) is amended to include as an insured any state or political subdivision, subject to the following provisions:

1. This insurance applies only when required to be provided by you by an ordinance, law or building code and only with respect to operations performed by you or on your behalf for which the state or political subdivision has issued a permit.
2. This insurance does not apply to:
  - a. "Bodily injury," "property damage," "personal injury" or "advertising injury" arising out of operations performed for the state or political subdivision; or

## COMMERCIAL GENERAL LIABILITY

- b. "Bodily injury" or "property damage" included in the "products-completed operations hazard".

### I. OTHER INSURANCE CONDITION

- A. COMMERCIAL GENERAL LIABILITY CONDITIONS (Section IV), paragraph 4. (Other Insurance) is deleted and replaced by the following:

#### 4. Other Insurance

If valid and collectible "other insurance" is available to the insured for a loss we cover under Coverages A or B of this Coverage Part, our obligations are limited as follows:

##### a. Primary Insurance

This insurance is primary except when b. below applies. If this insurance is primary, our obligations are not affected unless any of the "other insurance" is also primary. Then, we will share with all that "other insurance" by the method described in c. below.

##### b. Excess Insurance

This insurance is excess over any of the "other insurance", whether primary, excess, contingent or on any other basis:

- (1) That is Fire, Extended Coverage, Builder's Risk, Installation Risk, or similar coverage for "your work";
- (2) That is Fire insurance for premises rented to you or temporarily occupied by you with permission of the owner;
- (3) That is insurance purchased by you to cover your liability as a tenant for "property damage" to premises rented to you or temporarily occupied by you with permission of the owner; or
- (4) If the loss arises out of the maintenance or use of aircraft, "autos", or watercraft to the extent not subject to Exclusion g. of Section I - Coverage A - Bodily Injury And Property Damage Liability; or
- (5) That is available to the insured when the insured is an additional

insured under any other policy, including any umbrella or excess policy.

When this insurance is excess, we will have no duty under Coverages A or B to defend the insured against any "suit" if any provider of "other insurance" has a duty to defend the insured against that "suit". If no provider of "other insurance" defends, we will undertake to do so, but we will be entitled to the insured's rights against all those providers of "other insurance".

When this insurance is excess over "other insurance", we will pay only our share of the amount of the loss, if any, that exceeds the sum of:

- (1) The total amount that all such "other insurance" would pay for the loss in the absence of this insurance; and
- (2) The total of all deductible and self-insured amounts under that "other insurance".

We will share the remaining loss, if any, with any "other insurance" that is not described in this Excess Insurance provision.

##### c. Method Of Sharing

If all of the "other insurance" permits contribution by equal shares, we will follow this method also. Under this approach each provider of insurance contributes equal amounts until it has paid its applicable limit of insurance or none of the loss remains, whichever comes first.

If any of the "other insurance" does not permit contribution by equal shares, we will contribute by limits. Under this method, the share of each provider of insurance is based on the ratio of its applicable limit of insurance to the total applicable limits of insurance of all providers of insurance.

- B. The following definition is added to DEFINITIONS (Section V):

"Other insurance":

- a. Means insurance, or the funding of losses, that is provided by, through or on behalf of:

- (1) Another insurance company;
  - (2) Us or any of our affiliated insurance companies, except when the Non cumulation of Each Occurrence Limit section of Paragraph 5 of LIMITS OF INSURANCE (Section III) or the Non cumulation of Personal and Advertising Injury limit sections of Paragraph 4 of LIMITS OF INSURANCE (Section III) applies;
  - (3) Any risk retention group;
  - (4) Any self-insurance method or program, other than any funded by you and over which this Coverage Part applies; or
  - (5) Any similar risk transfer or risk management method.
- b. Does not include umbrella insurance, or excess insurance, that you bought specifically to apply in excess of the Limits of Insurance shown on the Declarations of this Coverage Part.

**J. INCREASED SUPPLEMENTARY PAYMENTS**

Paragraphs 1.b. and 1.d. of SUPPLEMENTARY PAYMENTS – COVERAGES A AND B (Section I – Coverages) are amended as follows:

- 1. In paragraph 1.b., the amount we will pay for the cost of bail bonds is increased to \$2500.
- 2. In paragraph 1.d., the amount we will pay for loss of earnings is increased to \$500 a day.

**K. KNOWLEDGE AND NOTICE OF OCCURRENCE OR OFFENSE**

- 1. The following is added to COMMERCIAL GENERAL LIABILITY CONDITIONS (Section IV), paragraph 2. (Duties In The Event of Occurrence, Offense, Claim or Suit):

Notice of an "occurrence" or of an offense which may result in a claim must be given as soon as practicable after knowledge of the "occurrence" or offense has been reported to you, one of your "executive officers" (if you are a corporation), one of your partners who is an individual (if you are a partnership), one of your managers (if you are a limited liability company), or an "employee" (such as an insurance, loss control or risk manager or administrator) designated by you to give such notice.

Knowledge by any other "employee" of an "occurrence" or offense does not imply that you also have such knowledge.

- 2. Notice of an "occurrence" or of an offense which may result in a claim will be deemed to be given as soon as practicable to us if it is given in good faith as soon as practicable to your workers' compensation insurer. This applies only if you subsequently give notice of the "occurrence" or offense to us as soon as practicable after you, one of your "executive officers" (if you are a corporation), one of your partners who is an individual (if you are a partnership), one of your managers (if you are a limited liability company), or an "employee" (such as an insurance, loss control or risk manager or administrator) designated by you to give such notice discovers that the "occurrence" or offense may involve this policy.
- 3. This Provision K. does not apply as respects the specific number of days within which you are required to notify us in writing of the abrupt commencement of a discharge, release or escape of "pollutants" that causes "bodily injury" or "property damage" which may otherwise be covered under this policy.

**L. UNINTENTIONAL OMISSION**

The following is added to COMMERCIAL GENERAL LIABILITY CONDITIONS (Section IV), paragraph 6. (Representations):

The unintentional omission of, or unintentional error in, any information provided by you which we relied upon in issuing this policy shall not prejudice your rights under this insurance. However, this Provision L. does not affect our right to collect additional premium or to exercise our right of cancellation or nonrenewal in accordance with applicable state insurance laws, codes or regulations.

**M. PERSONAL INJURY – ASSUMED BY CONTRACT**

- 1. The following is added to Exclusion e. (1) of Paragraph 2., Exclusions of Coverage B. Personal Injury, Advertising Injury, and Web Site Injury Liability of the Web XTEND Liability endorsement:

Solely for the purposes of liability assumed in an "insured contract", reasonable attorney fees and necessary litigation expenses incurred by or for a party other than an insured are deemed to be damages because of "personal injury" provided:

- (a) Liability to such party for, or for the cost of, that party's defense has also been as-

COMMERCIAL GENERAL LIABILITY

sumed in the same "insured contract"; and

(b) Such attorney fees and litigation expenses are for defense of that party against a civil or alternative dispute resolution proceeding in which damages to which this insurance applies are alleged.

2. Paragraph 2.d. of SUPPLEMENTARY PAYMENTS – COVERAGES A AND B (Section I – Coverages) is deleted and replaced by the following:

d. The allegations in the "suit" and the information we know about the "occurrence" or offense are such that no conflict appears to exist between the interests of the insured and the interests of the indemnitee;

3. The third sentence of Paragraph 2 of SUPPLEMENTARY PAYMENTS – COVERAGES A AND B (Section I – Coverages) is deleted and replaced by the following:

Notwithstanding the provisions of Paragraph 2.b.(2) of Section I – Coverage A – Bodily Injury And Property Damage Liability, or the provisions of Paragraph 2.e.(1) of Section I – Coverage B – Personal Injury, Advertising Injury And Web Site Injury Liability, such payments will not be deemed to be damages for "bodily injury" and "property damage", or damages for "personal injury", and will not reduce the limits of insurance.

4. This provision M. does not apply if coverage for "personal injury" liability is excluded by endorsement.

**N. BLANKET ADDITIONAL INSURED – LESSOR OF LEASED EQUIPMENT**

WHO IS AN INSURED (Section II) is amended to include as an insured any person or organization (referred to below as "additional insured") with whom you have agreed in a written contract, executed before the "bodily injury" or "property damage" occurs or the "personal injury" or "advertising injury" offense is committed, to name as an additional insured, but only with respect to their liability for "bodily injury", "property damage", "personal injury" or "advertising injury" caused, in whole or in part, by your acts or omissions in the maintenance, operation or use of equipment leased to you by such additional insured, subject to the following provisions:

1. Limits of insurance. The limits of insurance afforded to the additional insured shall be the limits which you agreed to provide in the written contract, or the limits shown on the Declarations, whichever are less.

2. The insurance afforded to the additional insured does not apply to any "bodily injury" or "property damage" that occurs, or "personal injury" or "advertising injury" caused by an offense which is committed, after the equipment lease expires.

3. The insurance afforded to the additional insured is excess over any valid and collectible "other insurance" available to such additional insured, unless you have agreed in the written contract that this insurance must be primary to, or non-contributory with, such "other insurance".

**EXCLUSION – ALL HAZARDS IN CONNECTION WITH A  
DESIGNATED EXPOSURE**

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

This endorsement modifies the insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

"Your work" on or for any project that, in whole or in part, is or will become any single-or multi-family housing, any residential condominium, any residential apartment or any assisted living facility. This description does not include "your work" within the boundaries of, or below, what is or will become any public street, roadway or right of way and does not include "your work" that is water or sewer line repair or replacement work other than such work on or inside any building.

This insurance does not apply to "bodily injury," "property damage," "personal injury," or "advertising injury" arising out of:

1. Any exposures shown in the above schedule; or
2. Any supervision, instructions, recommendations or advice given or which should have been given in connection therewith.

**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.**

**EXCLUSION – ALL PROJECTS SUBJECT TO A  
WRAP-UP INSURANCE PROGRAM  
WITH LIMITED EXCEPTIONS FOR CERTAIN ONGOING  
OPERATIONS**

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART  
SELF-INSURED EXCESS COMMERCIAL GENERAL LIABILITY COVERAGE PART

1. The following exclusion is added to Paragraph 2., Exclusions of **Section I – Coverage A – Bodily Injury And Property Damage Liability**:

This insurance does not apply to "bodily injury" or "property damage" arising out of any project that is or was subject to a "wrap-up insurance program".

This exclusion does not apply to "bodily injury" or "property damage" arising out of your ongoing operations that:

- a. Are being performed at any location owned by, or rented to, you that is outside the project site for that project and is not covered by the "wrap-up insurance program" for that project; or
- b. Are punch list or warranty work, if coverage was available to the insured under the "wrap-up insurance program" for "bodily injury" or "property damage" arising out of your ongoing operations and the "bodily injury" or

"property damage" occurs after the expiration of all such coverage.

The exceptions in this exclusion do not apply to "bodily injury" or "property damage" included in the "products-completed operations hazard" even if you are required to provide such coverage for an additional insured by a written contract or agreement.

2. The following is added to **Section V – Definitions**:

"Wrap-up insurance program" means any agreement or arrangement, including any contractor-controlled, owner-controlled or similar insurance program, under which some or all of the contractors working on a specific project, or specific projects, are required to participate in a program to obtain insurance that:

- a. Includes the same or similar insurance as that provided by this Coverage Part; and
- b. Is issued specifically for injury or damage arising out of such project or projects.



**WORKERS COMPENSATION  
AND  
EMPLOYERS LIABILITY POLICY**

**ENDORSEMENT WC 99 03 76 (00) -**

**POLICY NUMBER: DTJUB6A54970 0 11**

**WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS  
ENDORSEMENT - CALIFORNIA  
(BLANKET WAIVER)**

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule.

You must maintain payroll records accurately segregating the remuneration of your employees while engaged in the work described in the Schedule.

The additional premium for this endorsement shall be \_\_\_\_\_ % of the California workers' compensation premium otherwise due on such remuneration.

**Schedule**

**Person or Organization**

**Job Description**

As required per written contract

# Travelers Property Casualty

A Member of *Travelers Group*

POLICY NUMBER: 8106405N968

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

## ADDITIONAL INSURED

This endorsement modifies insurance provided under the following:

### BUSINESS AUTO COVERAGE FORM

#### A. SCHEDULE

Person or Organization:

Address:

As required by written contract

#### B. PROVISIONS

Paragraph C. of the WHO IS AN INSURED provision includes the person or organization indicated below but only for his, her or its liability because of acts or omissions of an "insured" under paragraphs a. or b. of that provision, subject to the following additional provisions:

1. No liability is assumed by that person or organization for the payment of any premiums stated in the policy or earned under the policy.
2. In the event of cancellation of the policy, written notice of cancellation will be mailed by us to that person or organization

CA T3 01 01 87

**Request for Taxpayer  
 Identification Number and Certification**

Give Form to the  
 requester. Do not  
 send to the IRS.

Name (as shown on your income tax return)  
**Navajo Pipelines, Inc**

Business name/disregarded entity name, if different from above

Check appropriate box for federal tax classification:  
 Individual sole proprietor     C Corporation     S Corporation     Partnership     Trust/estate  
 Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) ▶ \_\_\_\_\_     Exempt payee  
 Other (see instructions) ▶ \_\_\_\_\_

Address (number, street, and apt. or suite no.)  
**4671 24th Street**

City, state, and ZIP code  
**Sacramento, CA 95822**

Requester's name and address (optional)

List account number(s) here (optional)

**Part I Taxpayer Identification Number (TIN)**

Enter your TIN in the appropriate box. The TIN provided must match the name given on the "Name" line to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note: If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

Social security number									
				-					
Employer identification number									
6	8	-	0	3	8	2	1	0	3

**Part II Certification**

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
- I am a U.S. citizen or other U.S. person (defined below).

**Certification instructions.** You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions on page 4.

Sign Here    Signature of U.S. person ▶ *Raren Silva*    Date ▶ *8/28/12*

**General Instructions**

Section references are to the Internal Revenue Code unless otherwise noted.

**Purpose of Form**

A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

- Certify that the TIN you are giving is correct (or you are waiting for a number to be issued);
- Certify that you are not subject to backup withholding; or
- Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income.

Note: If a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

**Definition of a U.S. person.** For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien,
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States,
- An estate (other than a foreign estate), or
- A domestic trust (as defined in Regulations section 301.7701-7).

**Special rules for partnerships.** Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax on any foreign partners' share of income from such business. Further, in certain cases where a Form W-9 has not been received, a partnership is required to presume that a partner is a foreign person, and pay the withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid withholding on your share of partnership income.

# Withholding Exemption Certificate

**2011**

(This form can only be used to certify exemption from nonresident withholding under California Revenue and Taxation Code (R&TC) Section 18662. Do not use this form for exemption from wage withholding.)

**590**

File this form with your withholding agent. (Please type or print)

Withholding agent's name

Payee's name <b>Navajo Pipelines, Inc</b>		Payee's <input type="checkbox"/> SOS file no. <input checked="" type="checkbox"/> CA corp. no. <input type="checkbox"/> FEIN <b>1963618</b>
Address (number and street, PO Box, or PMB no.) <b>4671 24th Street</b>		Apt. no./ Ste. no.
City <b>Sacramento,</b>	State <b>CA</b>	ZIP Code <b>95822</b>

Read the following carefully and check the box that applies to the payee.

I certify that for the reasons checked below, the payee named on this form is exempt from the California income tax withholding requirement on payment(s) made to the entity or individual.

**Individuals — Certification of Residency:**

I am a resident of California and I reside at the address shown above. If I become a nonresident at any time, I will promptly notify the withholding agent. See instructions for General Information D, Who is a Resident, for the definition of a resident.

**Corporations:**

The above-named corporation has a permanent place of business in California at the address shown above or is qualified through the California Secretary of State (SOS) to do business in California. The corporation will file a California tax return and withhold on payments of California source income to nonresidents when required. If this corporation ceases to have a permanent place of business in California or ceases to do any of the above, I will promptly notify the withholding agent. See instructions for General Information F, What is a Permanent Place of Business, for the definition of permanent place of business.

**Partnerships or limited liability companies (LLC):**

The above-named partnership or LLC has a permanent place of business in California at the address shown above or is registered with the California SOS, and is subject to the laws of California. The partnership or LLC will file a California tax return and will withhold on foreign and domestic nonresident partners or members when required. If the partnership or LLC ceases to do any of the above, I will promptly inform the withholding agent. For withholding purposes, a limited liability partnership (LLP) is treated like any other partnership.

**Tax-Exempt Entities:**

The above-named entity is exempt from tax under California Revenue and Taxation Code (R&TC) Section 23701 \_\_\_\_\_ (insert letter) or Internal Revenue Code Section 501(c) \_\_\_\_\_ (insert number). The tax-exempt entity will withhold on payments of California source income to nonresidents when required. If this entity ceases to be exempt from tax, I will promptly notify the withholding agent. Individuals cannot be tax-exempt entities.

**Insurance Companies, Individual Retirement Arrangements (IRAs), or Qualified Pension/Profit Sharing Plans:**

The above-named entity is an insurance company, IRA, or a federally qualified pension or profit-sharing plan.

**California Trusts:**

At least one trustee and one noncontingent beneficiary of the above-named trust is a California resident. The trust will file a California fiduciary tax return and will withhold on foreign and domestic nonresident beneficiaries when required. If the trustee becomes a nonresident at any time, I will promptly notify the withholding agent.

**Estates — Certification of Residency of Deceased Person:**

I am the executor of the above-named person's estate. The decedent was a California resident at the time of death. The estate will file a California fiduciary tax return and will withhold on foreign and domestic nonresident beneficiaries when required.

**Nonmilitary Spouse of a Military Servicemember:**

I am a nonmilitary spouse of a military servicemember and I meet the Military Spouse Residency Relief Act (MSRRA) requirements. See instructions for General Information E, MSRRA.

**CERTIFICATE:** Please complete and sign below.

Under penalties of perjury, I hereby certify that the information provided in this document is, to the best of my knowledge, true and correct. If conditions change, I will promptly notify the withholding agent.

Payee's name and title (type or print) Karen Silva, President Daytime telephone no. 916-448-0134

Payee's signature ► Karen Silva Date 8/28/12

**WORKER'S COMPENSATION CERTIFICATION**

In accordance with Article 5 (commencing at Section 1860), Chapter 1, Part 7, Division 2 of the Labor Code, the below certificate must be signed and filed with the awarding body prior to performing any work under this contract. Labor Code Section 3700, inter alia, states the following:

"Every employer shall secure the payment of compensation in one or more of the following ways:

- "(a) By being insured against liability to pay compensation in one or more insurers duly authorized to write compensation insurance in this State.
- "(b) By securing from the Director of Industrial Relations a certificate of consent to self-insure, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to his employees.

To be signed by authorized corporate officer or partner or individual submitting the Proposal. If Bidder is: (example)

1. An individual using a firm name, sign: "John Doe, an individual doing business as Blank Company."
2. An individual doing business under his own name, Sign: your name only.
3. A co-partnership, sign: "John Doe and Richard Doe, co-partners doing business as Blank Company, by, John Doe, co-partner.
4. A corporation, sign: "Blank Company, by John Doe, Secretary." (or other title)

*I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for worker's compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this contract.*

DATE: 8/28/12

Contractor Navajo Pipelines

By Raven Silva  
Signature

**GUARANTEE**

We hereby guarantee the **Sacramento city College Bicycle/Pedestrian Improvements Project (PN: T15065701)** the City of Sacramento for one (1) year in accordance with the guarantee required in the specifications. We agree to repair or replace any or all such work, together with all or any other work which may be displaced in so doing, that may be proven defective in workmanship or material within the one-year period from the date of acceptance without any expense whatsoever to the City, ordinary wear and tear and unusual abuse or neglect excepted.

In the event of our failure to comply with the above-mentioned conditions within five (5) days time after being notified in writing, we collectively or separately, do hereby authorize the City to proceed to have the defects repaired and made good at our expense and will pay the costs and damages, including but not limited to any related attorney fees and City staff and administrative expenses, therefor immediately upon demand.

Dated: 8/28/12

Signed: Raren Silva

Raren Silva

Printed Name

Navajo Pipelines

Company

4671 24th St

Address

Sacramento CA 95822

**Request for Taxpayer  
 Identification Number and Certification**

Give Form to the  
 requester. Do not  
 send to the IRS.

Print or type See Specific Instructions on page 2.	Name (as shown on your income tax return) <b>Navajo Pipelines, Inc</b>	
	Business name/disregarded entity name, if different from above	
	Choose appropriate box for federal tax classification: <input type="checkbox"/> Individual/sole proprietor <input checked="" type="checkbox"/> C Corporation <input type="checkbox"/> S Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Trust/estate <input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) ▶ <input type="checkbox"/> Other (see instructions) ▶	<input type="checkbox"/> Exempt payee
	Address (number, street, and apt. or suite no.) <b>4671 24th Street</b>	Requester's name and address (optional)
City, state, and ZIP code <b>Sacramento, CA 95822</b>		List account number(s) here (optional)

<b>Part I Taxpayer Identification Number (TIN)</b>																																						
Enter your TIN in the appropriate box. The TIN provided must match the name given on the "Name" line to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I Instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see <i>How to get a TIN</i> on page 3.  Note: If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td align="center" colspan="9">Social security number</td> </tr> <tr> <td style="width: 20px; height: 20px;"></td> </tr> </table> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td align="center" colspan="9">Employer identification number</td> </tr> <tr> <td style="width: 20px; height: 20px;">6</td> <td style="width: 20px; height: 20px;">8</td> <td style="width: 20px; height: 20px;">-</td> <td style="width: 20px; height: 20px;">0</td> <td style="width: 20px; height: 20px;">3</td> <td style="width: 20px; height: 20px;">8</td> <td style="width: 20px; height: 20px;">2</td> <td style="width: 20px; height: 20px;">1</td> <td style="width: 20px; height: 20px;">0</td> <td style="width: 20px; height: 20px;">3</td> </tr> </table>	Social security number																		Employer identification number									6	8	-	0	3	8	2	1	0	3
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6	8	-	0	3	8	2	1	0	3																													

<b>Part II Certification</b>	
Under penalties of perjury, I certify that:	
1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and 2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and 3. I am a U.S. citizen or other U.S. person (defined below).	
<b>Certification instructions.</b> You must cross out Item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, Item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions on page 4.	
Sign Here	Signature of U.S. person ▶ <b>Raren Silva</b>  Date ▶ <b>8/28/12</b>

**General Instructions**  
 Section references are to the Internal Revenue Code unless otherwise noted.

**Purpose of Form**  
 A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued).
2. Certify that you are not subject to backup withholding, or
3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income.

**Note.** If a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

**Definition of a U.S. person.** For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien,
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States,
- An estate (other than a foreign estate), or
- A domestic trust (as defined in Regulations section 301.7701-7).

**Special rules for partnerships.** Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax on any foreign partners' share of income from such business. Further, in certain cases where a Form W-9 has not been received, a partnership is required to presume that a partner is a foreign person, and pay the withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid withholding on your share of partnership income.

# Withholding Exemption Certificate

2011

(This form can only be used to certify exemption from nonresident withholding under California Revenue and Taxation Code (R&TC) Section 18662. Do not use this form for exemption from wage withholding.)

590

File this form with your withholding agent. (Please type or print)

Withholding agent's name

Payee's name

Navajo Pipelines, Inc

Payee's

SSN or ITIN

SOS file no.

CA corp. no.

FEIN

1963618

Address (number and street, PO Box, or PMB no.)

4671 24th Street

Apt. no./ Ste. no.

City

Sacramento,

State  
CA

ZIP Code  
95822

Read the following carefully and check the box that applies to the payee.

I certify that for the reasons checked below, the payee named on this form is exempt from the California income tax withholding requirement on payment(s) made to the entity or individual.

**Individuals — Certification of Residency:**

I am a resident of California and I reside at the address shown above. If I become a nonresident at any time, I will promptly notify the withholding agent. See instructions for General Information D, Who is a Resident, for the definition of a resident.

**Corporations:**

The above-named corporation has a permanent place of business in California at the address shown above or is qualified through the California Secretary of State (SOS) to do business in California. The corporation will file a California tax return and withhold on payments of California source income to nonresidents when required. If this corporation ceases to have a permanent place of business in California or ceases to do any of the above, I will promptly notify the withholding agent. See instructions for General Information F, What is a Permanent Place of Business, for the definition of permanent place of business:

**Partnerships or limited liability companies (LLC):**

The above-named partnership or LLC has a permanent place of business in California at the address shown above or is registered with the California SOS, and is subject to the laws of California. The partnership or LLC will file a California tax return and will withhold on foreign and domestic nonresident partners or members when required. If the partnership or LLC ceases to do any of the above, I will promptly inform the withholding agent. For withholding purposes, a limited liability partnership (LLP) is treated like any other partnership.

**Tax-Exempt Entities:**

The above-named entity is exempt from tax under California Revenue and Taxation Code (R&TC) Section 23701 \_\_\_\_\_ (insert letter) or Internal Revenue Code Section 501(c) \_\_\_\_\_ (insert number). The tax-exempt entity will withhold on payments of California source income to nonresidents when required. If this entity ceases to be exempt from tax, I will promptly notify the withholding agent. Individuals cannot be tax-exempt entities.

**Insurance Companies, Individual Retirement Arrangements (IRAs), or Qualified Pension/Profit Sharing Plans:**

The above-named entity is an insurance company, IRA, or a federally qualified pension or profit-sharing plan.

**California Trusts:**

At least one trustee and one noncontingent beneficiary of the above-named trust is a California resident. The trust will file a California fiduciary tax return and will withhold on foreign and domestic nonresident beneficiaries when required. If the trustee becomes a nonresident at any time, I will promptly notify the withholding agent.

**Estates — Certification of Residency of Deceased Person:**

I am the executor of the above-named person's estate. The decedent was a California resident at the time of death. The estate will file a California fiduciary tax return and will withhold on foreign and domestic nonresident beneficiaries when required.

**Nonmilitary Spouse of a Military Servicemember:**

I am a nonmilitary spouse of a military servicemember and I meet the Military Spouse Residency Relief Act (MSRRA) requirements. See instructions for General Information E, MSRRA.

**CERTIFICATE:** Please complete and sign below.

Under penalties of perjury, I hereby certify that the information provided in this document is, to the best of my knowledge, true and correct. If conditions change, I will promptly notify the withholding agent.

Payee's name and title (type or print) Karen Silva, President Daytime telephone no. 916-448-0134

Payee's signature ▶ Karen Silva Date 8/28/12



DEPARTMENT OF  
TRANSPORTATION

ENGINEERING SERVICES  
DIVISION

CITY OF SACRAMENTO  
CALIFORNIA

915 I St, RM 2000

SACRAMENTO, CA  
95814-2702

PH 916-808-8300  
FAX 916-808-8281

## NOTICE TO PROCEED

DATE

ABC Construction  
Attn: John Construction  
123 ABC Street  
Sacramento, CA 95814

**RE: PROJECT NAME (PN: )**

Notice is hereby given you are authorized to commence work on the above referenced project on \_\_\_\_\_. You are legally required to begin work within fifteen (15) working days of this date. The entire work on the project must be completed within \_\_\_\_ ( ) **working days** from the date of this notice. Forty eight (48) hours prior to starting work, please notify the Project Manager \_\_\_\_\_ , **808-\_\_\_\_\_**. Please address all correspondence to:

Engineering Services Division  
915 I Street, Room 2000  
Sacramento, CA 95814  
(916) 808-8300/ (916) \_\_\_\_\_  
(916) 808-7903 FAX  
Attn: \_\_\_\_\_

Please reference City Project No. \_\_\_\_\_ in all billing and correspondence. We look forward to a mutually successful project. The City of Sacramento is committed to the "Partnering Concept" of open communication and cooperative construction. In that spirit, please do not hesitate to contact us via phone at (916) 808-8195 or FAX at (916) 808-8281 if we can be of any assistance.

Respectfully,

Receipt Acknowledged, \_\_\_\_\_

\_\_\_\_\_  
Jose R. Ledesma  
Contract Services

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

cc:

Tim Mar  
Risk Management  
Shareen Kidd  
Project File

\_\_\_\_\_  
Title

# **SPECIAL PROVISIONS**

SACRAMENTO CITY COLLEGE  
BICYCLE/PEDESTRIAN IMPROVEMENTS  
BETWEEN 23<sup>RD</sup> STREET AND PANTHER PARKWAY

IN THE  
CITY OF SACRAMENTO

City Project No.: T15065701

THE SPECIAL PROVISIONS CONTAINED HEREIN HAVE BEEN PREPARED BY OR  
UNDER THE DIRECTION OF THE FOLLOWING REGISTERED ENGINEERS:

Civil:



R. Matthew Brogan, Registered Civil Engineer



Electrical:



Kin Y. Chan, Registered Civil Engineer



Landscape:



Erik Smith, Registered Landscape Architect



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**(PN: T15065701)**

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**SPECIAL PROVISIONS  
FOR  
SACRAMENTO CITY COLLEGE  
BICYCLE/PEDESTRIAN IMPROVEMENTS  
BETWEEN 23<sup>rd</sup> STREET AND PANTHER PARKWAY  
(PN: T15065701)**

**1. GENERAL REQUIREMENTS**

**1.1 SCOPE AND LOCATION OF WORK**

The following items of work are to be performed in these Special Provisions:

The Sacramento City College Bicycle/Pedestrian Improvements Project will accommodate a contraflow bike lane on 12<sup>th</sup> Avenue between 23<sup>rd</sup> Street and Panther Parkway by means of restriping 12<sup>th</sup> Avenue and the construction of curb islands. These improvements will be contained within the existing roadway section and no widening of 12<sup>th</sup> Avenue is anticipated. The project will also provide pedestrian friendly improvements linking the City College Light Rail Station to 12<sup>th</sup> Avenue including the construction and/or reconstruction of curb ramps, a sidewalk extension from the Hughes Stadium promenade, a bifurcated sidewalk to the north of 12<sup>th</sup> Avenue, and pedestrian/bicycle improvements to the intersection of 12<sup>th</sup> Avenue and Panther Parkway. This project is intended to supplement the Sacramento City College Light Rail Station Pedestrian/Bicycle Crossing Project (PN: T15065700) with utility infrastructure improvements necessary for the future relocation of electrical and fiber optic lines. Relocation of these utilities will occur with subsequent projects and is not considered part of the scope of services for this project.

The scope of work with these Special Provisions includes, in general:

- Construction of new Portland Cement Concrete Sidewalks, Reinforced Portland Cement Concrete Sidewalk, Curb and Gutter, Curb Returns and Curb Islands.
- Placement of asphalt concrete and aggregate base
- Restriping of 12<sup>th</sup> Avenue and the intersection of 12<sup>th</sup> Avenue and Panther Parkway
- Removal, relocation and installation of roadside signs
- Removal of existing Portland Cement Concrete
- Replacement of deteriorated rolled curb and gutter
- Relocation and/or removal of existing bollards, parking bumpers, chain link fence, fire hydrant, chain link gate and tire strip.
- Adjusting an existing manhole to grade
- Installation of a new drainage inlet and lateral.
- Installation of decorative steel fencing.
- Construction of joint utility trench conduit and pull boxes

- Landscaping improvements including modification of existing irrigation systems, construction of new irrigation systems, tree and shrub plantings, and the relocation of an existing tree
- Electrical work including furnishing and installing all necessary equipment and material to install street lighting as indicated on the Plan sheets and these Special Provisions.

## 1.2 SPECIFICATIONS

The work to be performed under this contract shall be in accordance with the Special Provisions contained herein. In these Special Provisions, reference is made to the City Standard Specifications of the City of Sacramento, adopted June 2007, referred to herein as "Standard Specifications". The General Requirements of this contract shall be governed by these Special Provisions first, followed by Section 1 through Section 8 of the Standard Specifications. **All work on the Joint Trench and Pull Boxes shall conform to SMUD's Distribution Underground Structure Engineering Specification T007 Dated September 2006.** Other standards or specifications specified in these Special Provisions govern only the applicable technical specifications unless otherwise specified in these Special Provisions.

Reference to the State Standard Specifications in these Special Provisions shall refer to the State of California Department of Transportation Standard Specifications, adopted May 2006, including all subsequent updates and addendums.

## 1.3 ORDER OF WORK

Order of work shall conform to the provisions in Section 5-1.05, "Order of Work," of the State Standard Specifications and these special provisions.

The project plans reference Phase 1 and Phase 2 improvements. These two phases may be constructed concurrently; however the City desires that the Contractor construct the joint utility trench as the first item of work.

## 1.4 COMPLETION TIME

**The City desires to begin construction after September 15, 2012 to minimize inconvenience to Sacramento City College classes and avoid disruptions to large events on campus. The desired schedule is as follows:**

Award Contract: September 11, 2012  
 Notice to Proceed: September 12, 2012  
 Begin Construction: September 17, 2012 (First Calendar Day)  
 Joint Trench Construction Complete: October 15, 2012  
 Construction Complete: November 20, 2012

**The Contractor shall diligently prosecute all joint trench work to completion by October 15<sup>th</sup>.** Joint trench work is defined as all improvements shown on sheets C-5 and C-6 in the project plans. Work completion includes all functional and acceptance tests to the satisfaction of the City and SMUD. Should said work not be completed to the satisfaction of the City and SMUD within said time, the Contractor shall pay to the City of Sacramento a sum of

Nine Hundred Ten dollars (\$910.00) as liquidated damages for each calendar delay after the expiration of such period until acceptance of the said work by the City and its delivery to the City.

**The Contractor shall diligently prosecute all work to completion (except plant establishment) before the expiration of SIXTY FIVE (65) calendar days**, commencing on the beginning of construction date set forth in the written Notice to Proceed issued by the City to the Contractor. The Contractor shall pay a sum in the amount of NINE HUNDRED TEN DOLLARS (\$910.00) as liquidated damages, and not as a penalty, for each calendar day delay after the expiration of Sixty Five (65) calendar days. Construction work not related to the joint trench may be done concurrently with joint trench work at the discretion of the Contractor

Weekend and night work will be allowed. The cost of inspection will be borne by the City.

The Engineer will furnish the Contractor a weekly statement showing the number of calendar days charged to the contract for the preceding week and the number of calendar days charged to date. The Contractor will be allowed five (5) calendar days in which to file a written protest setting forth in what respect the Contractor disagrees with the calendar day statement, otherwise the calendar day statement of the Engineer shall be deemed to have been accepted by the Contractor as correct.

#### **1.5 PROVIDING BONDS AND SURETY**

The Contractor shall provide signed agreement and surety bonds within ten (10) calendar days after receipt of notice to award by the City and prior to award by the City Council.

#### **1.6 PRE-BID INTERPRETATION OF CONTRACT DOCUMENTS**

No oral representations or interpretation will be made to any bidder as to the meaning of the contract documents. Requests for interpretation shall be made in writing and delivered to the City at least seven (7) calendar days before the time announced for opening the proposals. Interpretation, where necessary, will be made by the City in the form of an addendum to the contract documents and, when issued, will be sent as promptly as is practicable to all parties to whom the bid documents have been issued. All such addenda shall become part of the contract. Requests for information regarding this procedure or other similar information, shall be directed to Gregory Smith of the Department of Transportation, Engineering Services Division, 915 I Street, Room 2000, Sacramento, CA 95814, (916) 808-8364, FAX (916) 808-7903 or [gsmith@cityofsacramento.org](mailto:gsmith@cityofsacramento.org).

It shall also be the bidder's responsibility to call to the attention of the Engineer any missing pages or drawings in the contract documents including the addenda. These items shall be brought to the attention of the Engineer immediately but at least two (2) weeks prior to the bid opening date.

**1.7 NO TRUCK HAUL ROUTE ON 28TH STREET SOUTH OF E STREET**

The Contractor and its subcontractors must not use 28th Street south of E Street as part of any haul route to and from the Bell Marine Co., Inc./ Harbor Sand and Gravel located at 200 28th Street. Acceptable routes to and from the facility are as follows:

To enter facility:

North on 30th Street  
West on E Street  
North on 28th Street

To exit facility:

South on 28th Street  
East on C Street  
South on 29th Street

The Contractor shall be assessed an administrative penalty of \$500 for each Contractor or subcontractor dump truck that uses 28th Street South of E Street to enter or exit the Bell Marine Co., Inc./Harbor Sand and Gravel.

**1.8 CERTIFICATE OF COMPLIANCE**

The Contractor shall provide the Engineer with a manufacturer's "Certificate of Compliance" at the Engineer's request within two weeks. The Certificate of Compliance shall clearly show that the material, equipment and/or work is in compliance with the tests and specifications set forth in these contract documents.

**1.9 FINAL PAY QUANTITY**

Final pay quantity is designated on the sealed bid proposal sheet with a "(F)". Final pay quantity shall conform to Section 9-1.015 "Final Pay Items" of the State Standard Specifications, except that the final pay quantity designation shall be made on the sealed bid proposal rather than the Plans.

**1.10 EQUIPMENT TO BE SUPPLIED**

All equipment, material and supplies called for in the specifications shall be new and currently manufactured items, unless otherwise specified. All equipment shall be complete and in operation to the satisfaction of the Engineer at the time of acceptance of the work.

All incidental parts which are not shown on the Plans or specified herein and which are necessary to complete the project shall be furnished and installed as though such parts were shown on the Plans or specified herein.

### **1.11 HANDLING AND REMOVAL OF HAZARDOUS OR CONTAMINATED MATERIALS**

In the event hazardous or contaminated materials are encountered at the site for which separate handling or removal provisions have not been made in these Special Provisions, the Contractor shall stop work on that item, contact the Engineer and schedule his operations to work elsewhere on the site if possible. The City will be responsible for handling and removal of hazardous material or may request that the Contractor shall be available, through contract change order, to provide additional services as needed for the completion of the work. Additional services may consist of retaining a subcontractor who possesses a California license for hazardous substance removal and remedial actions.

Hazardous or contaminated materials may only be removed and disposed of from the project site in accordance with the following provisions:

1. All work is to be completed in accordance with the following regulations and requirements:
  - a. Chapter 6.5, Division 20, California Health and Safety Code.
  - b. California Administration Code, Title 22, relating to Handling, Storage, and Treatment of Hazardous Materials. 29 Code of Federal Regulation 1910.120 relating to Hazardous Waste Operation Safety Training.
  - c. City of Sacramento Building Code and the current edition of the Uniform Building Code.
2. Coordination shall be made with the County of Sacramento Environmental Management Department, Hazardous Materials Division, and the necessary applications shall be filed.
3. All hazardous materials shall be disposed of at an approved disposal site and shall only be hauled by a current California registered hazardous waste hauler using correct manifesting procedures and vehicles displaying a current Certificate of Compliance. The Contractor shall identify by name and address the site where toxic substances shall be disposed of. NO payment for removal and disposal services shall be made without a valid certificate from the approved disposal site that the material was delivered.

None of the aforementioned provisions shall be construed to relieve the Contractor from the Contractor's responsibility for the health and safety of all persons (including employees) and from the protection of property during the performance of the work. This requirement shall be applied continuously and not be limited to normal working hours.

### **1.12 COORDINATION**

The Contractor shall coordinate his activities in a manner that will provide the least interference with the City's operations, other contractors and utility companies working in the area, and agencies exercising jurisdiction over the project area or portions thereof.

1. At a minimum the Contractor shall coordinate his operations with the following:
  1. City Traffic Signal and Street Lighting Maintenance Shop  
Contractor shall notify Norm Colby, via the Resident Engineer, a minimum of five (5) working days before any electrical work begins at 808-6635.
  2. City Fire Alarm  
Contractor shall notify Doug Crawford, at 798-0673 or 277-6133, a minimum of five (5) working days prior to beginning work at each location.
  3. Underground Service Alert  
Contractor shall contact Underground Service Alert (USA) at 1-800-227-2600, a minimum of three (3) working days prior to any excavation.
  4. Sacramento Municipal Utility District (SMUD)  
Contractor shall contact Darren Hanson, SMUD, at (916) 732-5521, at least 1 month before service hook-up is required, before service disconnect is required, before pole quadrants for risers need to be marked, before any poles need to be stood by SMUD, or before any overhead line heights need to be measured.
  5. Pacific Gas and Electric (PG&E)  
Contractor shall contact David Allen, Senior Field Engineer Technician for PG&E, at (916) 386-5277, and Larry Schlaht at (916) 386-5371 at least 7 calendar days before start of construction.
  6. Regional Transit (RT)  
Contractor shall notify Jenny Nielo at (916) 321-3884 a minimum of five (5) working days prior to beginning work adjacent to the City College Light Rail Station
  7. Union Pacific Railroad (UPRR)  
Contractor shall notify Jim Smith at (916) 789-5152 a minimum of five (5) working days prior to any work in UPRR right-of-way
  8. Los Rios Community College District  
Contractor shall notify Pablo Manzo at (916) 856-3400 a minimum of five (5) working days prior to any work in Los Rios Community College District right-of-way
2. The contractor must coordinate construction activities with Regional Transit (RT) and comply with the specifications below. **On Track Safety (OTS) training will be required for all workers who will be working within RT right of way and will be made available to the Contractor by RT on Tuesdays based on availability.**

#### 2.1 COORDINATION WITH RT LIGHT RAIL OPERATIONS-HOURS OF WORK

In addition to the requirements of the Contract Documents, construction of this Project will be coordinated with revenue service operations of the Sacramento

Regional Transit Light Rail System (RT Light Rail Operations). RT Light Rail Operations operating conditions are in effect and light rail vehicles (LRVs) will be in revenue service daily from approximately 5:00 a.m. continuous until approximately 1:00 a.m. the next day, seven days a week. LRVs generally run at 15-minute intervals, each direction, with the exception of evening hours and weekend mornings, which are scheduled for 30-minute intervals each direction. Contractor must obtain and have the responsibility to be familiar with the current "Daily RT Light Rail Operations Light Rail Schedule" and any revisions issued during the term of this Contract.

Contractor will cause all Work to be performed with regard to time, place and manner so that RT Light Rail Operations scheduled revenue service is not disrupted unless expressly provided otherwise herein. All work performed by Contractor or its subcontractors of any tier in the vicinity of the existing LRT track and facilities must be in accordance with RT Light Rail Operations Instructions for Track Warrants. It is Contractor's responsibility to apply for and secure the Track Warrant and/or Red Tag for each and every shift of Limited or Full Access construction, as defined below. If Contractor fails to comply with this requirement, and/or if Contractor or its subcontractors of any tier violate the terms of the Track Warrants and/or Red Tags, RT will issue a Stop Work Order to Contractor. The Stop Work Order will be in effect until such time as a Track Warrant or Red Tag is secured and/or the violation is corrected. Any delays or costs associated with this requirement must be borne by Contractor.

During hours of revenue service, Contractor and/or its subcontractors of any tier will be allowed Limited Access to any track area with RT Light Rail Operations revenue service operations through the Project site. Limited Access construction is defined as work to be performed within 6' to 10' of the centerline of the operating track, or any work that includes equipment capable of coming in contact with the overhead catenary system. Limited Access construction must be coordinated daily with RT Light Rail Operations through the Track Warrant procedure.

During the hours when RT Light Rail Operations is not in operation, approximately 1:00 a.m. to 4:30 a.m. daily, Contractor and/or its subcontractors of any tier will be permitted Full Access to the existing track and facilities in the construction area. Any Work performed on the existing track structure and facilities during Full Access will be restored by Contractor to complete operating conditions prior to the resumption of scheduled revenue service. Full Access will be coordinated each and every time with RT Light Rail Operations through the Track Warrant and Red Tag procedures.

Contractor and its subcontractors, regardless of tier, must not perform any Work that will require an unscheduled disruption of service at any time. All Work must be performed with sufficient labor, materials, and standby equipment to ensure that unscheduled service disruptions do not occur.

Contractor must submit a Work Plan detailing hours of work, construction methods and activities for RT's approval. The Work Plan must indicate the means to ensure conformance to this special condition. Contractor must not do any Work until Contractor receives written approval of the Work Plan from RT.

Conformance with the requirements of this section shall be considered as included in the contract prices paid for the various items of work involved and no additional compensation will be allowed therefor.

## 2.2 COOPERATION WITH RT LIGHT RAIL OPERATIONS

All communications and/or correspondence relating to inspection and coordination between Contractor and RT Light Rail Operations must be given as set out in Article 5 of the Contract Notices, unless otherwise specifically authorized by the RT Assistant General Manager (AGM) of Engineering and Construction. In the event of such authorization, Contractor must keep said RT AGM informed, in writing, of all such communications and their content.

RT Light Rail Operations staff will communicate directly with Contractor if conditions deemed to be an emergency exist. Under emergency conditions, life or property must be in immediate danger of loss. Should an emergency condition occur, Contractor must follow the directions of the RT Light Rail Operations staff without hesitation.

The application for issuance of Track Warrants and Red Tags must be coordinated directly between Contractor and RT Light Rail Operations staff. Contractor must maintain the Track Warrant or Red Tag documentation at the work site. Failure to produce the required documentation when requested will result in the cessation of Work until the documentation is produced. No exceptions will be allowed, and time for completion will not be extended if Work is stopped for the foregoing reason.

Red Tags will be provided by RT at no cost for the first 3 Red Tag permits and at a cost of \$500.00 per Red Tag thereafter. The cost for the Red Tag must be paid at the time of submitting the application for the Red Tag. Contractor must call Michael Cormiae, Wayside Maintenance Superintendent at (916) 648-8422 to arrange for the Red Tag permit. Red Tags will only be given for the hours between 1:00 a.m. and 4:00 a.m. Application for a Red Tag must be made at least 7 calendar days prior to the date requested.

Conformance with the above requirements, and any associated fees, shall be considered as included in the contract prices paid for the various items of work involved and no additional compensation will be allowed therefor.

## 2.3 RT'S ON TRACK SAFETY TRAINING

RT's On Track Safety program is designed to provide training to workers around RT's light rail tracks. This training will provide information on safety precautions needed while working on or near light rail tracks and the High Voltage Catenary system. The program also covers the use of Track Warrants and High Voltage Red Tag procedures. This training is required by RT to be held prior to the start of each project for all workers working on or near RT's light rail tracks. Training records and sign up sheets will be kept for 3 years by RT. Contractor is solely responsible for ensuring all workers receive this training prior to performing the work and for scheduling the training with RT's Safety Department for all employees. The scheduling of the training and the time to complete it will not change the number of calendar days required to complete the Work. Contractor must take special precautions necessary to provide safe working conditions for all personnel working in proximity of RT's light rail operations.

All work required for coordination with Sacramento Regional Transit in order to perform the proposed work, including any and all training requirements, shall be considered as included in the prices of related items of work and no separate payment will be made.

The Contractor shall be responsible for any garden refuse piles, which are inadvertently placed in the street between the time of City pickup and the Contractor's work. The cost for removing garden refuse piles shall be included in the unit prices bid for the various items of the proposal.

The cost of coordination shall be included in the unit prices bid for the various items of the proposal and no additional compensation will be allowed therefor.

### **1.13 PROJECT SCHEDULING**

The Contractor shall submit to the Engineer a practicable progress schedule and a schedule of values at the pre-construction meeting and within 5 days of the Engineer's written request at any other time. The Contractor shall furnish the schedules on a form of his choice. The progress schedule shall show the order in which the Contractor proposes to carry out the work, the dates on which he will start the features of the work and the contemplated dates for completion of the work. The schedule of values is submitted for use in determining progress payments. The progress schedules submitted shall be consistent in all respects with the time and order of work requirements of the contract.

The Contractor shall submit, review and update a project schedule in accordance with Section 7-2 of the Standard Specifications. Subsequent to the time that submittal of a progress schedule and a schedule of values is required in accordance with these specifications, no progress payments will be made prior to the submittal of an acceptable project schedule.

#### **1.14 PROTECTION OF EXISTING IMPROVEMENTS**

The location, alignment, and depth of existing underground utilities as shown on the Plans are taken from a limited amount of potholing and public records and no responsibility is assumed for their accuracy.

The Contractor's attention is directed to the provisions of Chapter 3.1 "PROTECTION OF PUBLIC UTILITIES IN PUBLIC CONTRACTS" of the California Government Code concerning protecting existing overhead and underground utilities. In particular, Section 4216 and Section 4217.

Existing improvements, utilities and adjacent property shall be protected from damage resulting from the Contractor's operations. All trees, shrubbery, grass, fences, mail boxes, walls and other improvements including existing pavements, sidewalks, street improvements, sprinkler systems and underground utilities and other improvements not to be removed under this contract shall be protected from damage by the Contractor throughout the construction period.

All painted or other disfiguring markings on the pavement, sidewalk or gutters shall be removed by the Contractor before acceptance of the work.

The Contractor will insure that utility services to customers in the project are maintained.

The Contractor is responsible for the protection of and for damage to existing overhead and underground utility lines and services encountered during the course of construction. The Contractor shall notify the respective utility owner prior to any interruption of service.

The Contractor is expected to "pothole" existing underground utilities a minimum of five (5) working days in advance at any location where an existing utility may be in conflict with the proposed work.

The cost of relocating existing overhead or underground utilities not specified on Plans to be relocated, but which the Contractor elects to relocate or cut and reconnect for his/her own convenience, shall be borne by the Contractor.

No compensation will be paid to the Contractor for the maintenance and protection of existing utilities and facilities. The cost of such work shall be included in whatever bid item the Contractor deems appropriate.

#### **1.15 TRAFFIC HANDLING, PUBLIC SAFETY AND CONVENIENCE**

The contractor's attention is directed to Sections 6 and 7 of the Standard Specifications.

The contractor shall submit to the Engineer for review and approval a plan showing traffic control measures for vehicles, pedestrians and bicycles affected by the construction work. For emergency purposes, the responsible person in charge of the work must be reachable by phone 24 hours a day during the progress of the work. A 24-hour phone number shall be indicated on the permit application.

The contractor shall adhere to guidelines as stated in Section 12.20.030 of Title 12 of the Sacramento City Code pertaining to Traffic Control Plan – Requirements, and shall conform to the current edition of the California MUTCD. Particular attention is directed to Chapter 6D – Pedestrian and Worker Safety and Chapter 6F – Temporary Traffic Control Zone Devices, Section 6F.68 – Detectable Edging for Pedestrians.

Spillage resulting from hauling operations along or across any public traveled way shall be removed immediately by the Contractor at his expense.

Construction operations shall be conducted in such a manner as to cause as little inconvenience as possible to abutting property owners.

Roadway excavation and the construction of embankments shall be conducted in such a manner as to provide a relatively smooth and even surface satisfactory for use by public traffic at all times. Skid resistance steel plates or other approved methods shall be used to cover all open excavations in the roadways and sidewalks at all times during construction

At the end of each working day if a difference in excess of 0.2 foot exists between the elevation of the existing pavement and the elevation of any excavation within 8 feet of the traveled way, material shall be placed and compacted against the vertical cuts adjacent to the traveled way. During excavation operations, native material may be used for this purpose, however, once the placing of the structural section commences, structural material shall be used. The material shall be placed to the level of the elevation of the top of existing pavement and tapered at a slope of 4:1 or flatter to the bottom of the excavation. Full compensation for placing the material on a 4:1 slope, regardless of the number of times it is required, and subsequent removing or reshaping of the material to the lines and grades shown on the plans shall be considered as included in the contract price paid for roadway excavation and no additional compensation will be allowed therefor. No payment will be made for material placed in excess of that required for the structural section.

In the direction of the travel way, the material shall be placed to the level of the elevation of the top of existing pavement and tapered at a slope of 10% maximum or flatter to the bottom of the elevation.

All joint trench work shall be done in an expeditious manner and cause as little inconvenience to the traveling public as possible. The contractor will be allowed to close 24th Street north of the pedestrian crossing from the parking structure between the hours of 7:00 PM and 6:30 AM Monday through Friday during joint trench construction only. Full vehicular access to 24<sup>th</sup> Street must be restored by 6:30 AM and maintained between the hours of 6:30 AM to 7:00 PM Monday through Friday. Weekend closures of 24<sup>th</sup> Street may be allowed with approval from the Engineer. Bicycles and pedestrians must be allowed access to the Light Rail Station during operating hours except during an emergency closure. The Contractor shall provide for pedestrian and bicycle traffic by phasing construction operations or by providing alternative pedestrian and bicyclist access through or adjacent to construction areas. Proper advance notice signage with reasonable detours shall be installed and maintained through all phases of construction. At no

time shall pedestrians be diverted into a portion of the street used for vehicular traffic or on to private property unless adequate lane closure signage is in place.

The plans shall be developed with the following requirements:

1. Joint trench working hours and all intersection improvements fronting Panther Parkway with the potential to adversely affect traffic operations at the discretion of the Engineer shall be between 7:00 PM and 6:30 AM Monday through Sunday. Work between 6:30AM and 7:00PM Saturday and Sunday may be allowed if approved by the Engineer and the Los Rios Community College District. The Contractor must submit a written request for all proposed work between 6:30 AM and 7:00 PM a minimum of 5 working days prior to planned work. The Engineer will notify the Contractor within 2 work days if the request is approved.
2. All other working hours shall be between 7:00 AM and 7:00 PM Monday through Sunday, unless otherwise approved by the Engineer.
3. Access on 12<sup>th</sup> Avenue must be maintained at all times unless otherwise approved by the Engineer.
4. 24th Street can be closed to thru traffic for work on the joint trench only.
5. The Contractor shall furnish, install temporary stripes and maintain temporary construction warning signs, lighting, flaggers, barricades, striping and other devices necessary to safeguard the general public and the work, and to provide for the safe and proper routing of all vehicular and of pedestrian traffic within and through the limits of the projects during the construction. The requirement shall apply continuously and shall not be limited to normal working hours.
6. The Contractor shall maintain existing electrical facilities and traffic and public safety in accordance with Section 34 of the Standard Specifications and these Special Provisions.
7. Residential driveways may only be closed after giving property owners 24 hour notice in advance of the closure. Driveways may only be closed during normal work periods and while the contractor is actively pursuing work which requires the driveway to be closed, except when forms are in place, or while concrete is being cured.
8. Commercial driveways shall remain open at all times. The Contractor shall schedule the commercial driveways to be poured in two phases unless more than one driveway is available to the property. The Contractor shall coordinate the driveway closure with property owners' 5 calendar days in advance.
9. All work within public streets and/or roadway right-of-way shall be done in an expeditious manner so as to cause as little inconvenience to the traveling public as possible. Skid-resistant steel plates or other approved methods shall be used to cover all open excavations in the roadway during non-working hours.

Full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all work involved in public safety and convenience shall be considered as included in the prices paid for various contract items of work and no additional compensation will be allowed.

#### **1.16 USE OF SLIP-FORM MACHINES FOR CONCRETE CONSTRUCTION**

The Contractor may use concrete slip form machines to construct concrete curbs, gutters and sidewalks. The Contractor must maintain proposed lines and grades as shown on the plans. For curbs constructed on existing pavements, the contractor must construct the curb to eliminate any uneven lines and top of curb grade elevations. If in the sole discretion of the Engineer, these lines and grades are not maintained, the Contractor shall remove and replace the concrete at his/her costs.

#### **1.17 TRAFFIC CONTROL AND HANDLING FOR CONSTRUCTION STAKING**

The Contractor is responsible for providing traffic control (at the request of the City survey crew) to place the Contractor's construction stakes within vehicle travel lanes of heavy volume streets and highways. Heavy volume streets are typically major and minor collectors and arterial streets; and are not alleys, local residential, local commercial, or local industrial streets. The cost to provide traffic control for construction staking in the vehicle travel lanes shall be included in the bid items the Contractor deems appropriate.

#### **1.18 PUBLIC NOTIFICATION**

The Contractor shall notify residents and businesses within the project limits in writing five (5) working days in advance of beginning work. The notice shall be approved by the Engineer and shall describe the work to be performed, the anticipated duration of construction and the name and telephone number of the Contractor's representative that can be reached 24 hours a day, 7 days a week.

The Contractor shall be responsible for issuing a second notice to property owners five (5) working days in advance of commencing any work on private property. The Contractor shall include in the public notification flyers/postcards detailed procedures explaining precautions the homeowner can take to help prevent plugged utility service fixture problems. The Contractor shall submit to the Engineer for review and approval public notification flyers/postcards before they are issued to the public.

Full compensation for this item shall be included in the prices paid for various contract items of work and no additional compensation will be allowed.

#### **1.19 EQUIPMENT LIST AND DRAWINGS SUBMITTALS**

Equipment list and drawings shall be in accordance with Section 34-3 of the Standard Specifications and these Special Provisions.

Unless otherwise permitted in writing by the Engineer, the Contractor shall, within ten (10) days following notification of award of the contract submit to the Engineer for approval a listing of

equipment and material which he/she proposes to furnish and install. The list shall be complete as to name of manufacturer, size and catalog number of unit, and shall be supplemented by other data, including detailed scale drawings and wiring drawings. A minimum of five (5) copies of the above data shall be submitted to the Engineer for review and approval.

The Contractor shall submit to the Engineer a statement from each vendor supplying electrical equipment, including but not limited to, signal heads, standards, electroliers, luminaries, service pedestal and all other electrical equipment indicating that the orders for the materials required for this contract have been received and accepted by said vendor. The confirmed date of delivery to the contractor shall be indicated on the statement.

All substitutions are subject to the approval of the Engineer.

### **1.20 PROOF OF COMPLIANCE WITH CONTRACT**

In order that the Engineer may determine whether the Contractor has complied with the requirements of the contract documents not readily determinable through inspection and tests of plant, equipment, work, or materials, the Contractor shall at any time when requested, at the Contractor's expense, submit to the Engineer properly authenticated documents or other satisfactory proofs as to his compliance with such requirements.

### **1.21 BACKFILLING OF VOIDS**

All voids resulting from the removal of trees, pipes, maintenance holes, ditch boxes, or other buried structures or objects shown on the Plans or called in these Special Provisions to be removed, shall be backfilled per the provisions of Section 26 (Trench Backfill) of the Standard Specifications. In the event job excavated native material is unsuitable for backfill as determined by the Engineer, the Contractor shall furnish the required suitable backfill material.

The cost to backfill voids as specified in the Special Provisions shall be included in the price bid for the respective items to remove trees, pipe, maintenance holes, ditch boxes, or other buried structures or objects, and no additional compensation shall be allowed.

### **1.22 PAVEMENT CUTTING AND RESTORATION**

Pavement cutting and restoration shall conform to the provisions of Section 13-4 of the Standard Specifications and these Special Provisions.

No pavement cutting shall precede pavement excavation by more than seven (7) calendar days unless approved by the Engineer. Prior to excavation in paved areas, pavement will be broken within the limits of expected excavation so as to prevent lifting of the pavement during excavation. Prior to restoration, the pavement shall be sawed or scored with an abrasive type pavement cutter (maximum blade width 1/4"). The proper tools and equipment shall be used so that the pavement will be cut to a neat and straight line six inches (6") beyond the limits of actual excavation.

Where pavement cutting takes place more than five (5) calendar days before trench excavation, the Contractor shall fill the pavement cuts with asphaltic patching mix and maintain a smooth riding surface until trenching begins.

Where the limits of excavation are located within twelve (12") of the edge of existing pavement or lip of the curb and/or gutter, the existing pavement within this twelve inches (12") shall also be removed.

Full compensation for furnishing all labor, materials, tools, equipment and incidentals and for all work involved in this item shall be considered as included in the unit price bid for roadway excavation and removing and replacing asphaltic concrete pavement.

### **1.23 PROTECTION OF TREES**

During construction the Contractor shall protect existing trees. All work near the trees shall be coordinated by the Contractor with the City Arborist, Duane Goosen, phone number 808-4996. The Contractor shall comply with direction as given by the City Arborist and the following City requirements regarding tree protection:

No storage of materials or parking of vehicles may occur within the drip lines of the trees, except on paved streets.

If, during construction, tree roots two inches (2") in diameter or greater are encountered, work shall stop immediately and the City Arborist shall be contacted for a root inspection, and roots shall not be cut without arborist approval. Roots approved by the arborist to be pruned during the course of project construction shall be cleanly cut. If extensive root pruning is proposed an arborist inspection will determine if tree removal is necessary.

If construction activities will affect any of the limbs of the trees, a certified arborist (certified by International Society of Arboriculture, Western Chapter) shall be consulted prior to the cutting or removal of any limb. Limbs approved by the arborist to be pruned during the course of project construction shall be cleanly cut.

The Contractor shall be responsible for damages to trees. Trees damaged by the Contractor during construction activities shall be assessed by the City Arborist using the International Society of Arborists (ISA) appraisal guide or UFS standard diameter and area indexing. The Contractor's responsibility for damaged trees will be determined by the Arborist.

Full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all work involved in this section shall be considered as included in the prices paid for various contract items of work and no additional compensation will be allowed.

### **1.24 TREE TRIMMING**

Trees identified by the Engineer to be trimmed shall be trimmed in accordance with the following specifications and as directed by the Engineer or project Arborist in conjunction with the City Arborist:

General Conditions - This work is to be performed by a Tree Service Contractor, licensed and bonded to do business in the City of Sacramento. The work to be done will consist not only of this trimming and removal of branches and limbs but also disposal of material trimmed from these trees. Disposal of material will not be allowed at the City Dump.

Contractor shall be aware of and shall comply with all ordinances governing and related to tree trimming work. Contractor shall furnish all labor, materials and equipment as required in performing the work described herein in strict accordance with these specifications and subject to the terms and conditions of this contract.

Description of Work - The work shall be done primarily from truck mounted aerial platforms except where trees are inaccessible to trucks. All hand and power tools in the performance of this work shall be subject to inspection and approval of the Manager of the Urban Forest Services division or his designated representative who shall serve as the inspector for the City.

In general, the standard tree trimming equipment shall be used and shall be maintained in a satisfactory condition at all times. All tools shall be clean, sharp, in proper working order and shall be checked for safety before each job.

Inspection/Permit - The Contractor shall notify the Engineer prior to 8:00 a.m. on each day Contractor will be trimming trees.

The Contractor shall notify, 3 working days prior to tree trimming, the City Arborist, Duane Goosen, (916) 808-4996 and obtain, for this project, a permit for tree trimming within the City.

Special Conditions - All licenses, insurance, etc., necessary to assume the legal responsibility for said work shall be acquired by the Contractor to cover the liabilities which might be caused by said work.

All workmen shall comply with State Compensation Safety Rules and must wear safety equipment at all times while on the job. Adequate warning devices, barricades, guards, cones, etc., shall be placed and necessary precautions shall be taken by the Contractor to provide protection for the workers, pedestrians and vehicular traffic in the area. Work shall be scheduled and conducted in a cooperative manner in order to give the least possible interference with or annoyance to others. It shall be the responsibility of the Contractor to work out any cooperative work schedules as necessary.

All tree work requiring climbing of trees shall be suspended during inclement weather. No trimmings or debris shall be left overnight on any of the work sites. Upon completion of a specific area, the site shall be left in a clean and orderly condition. It shall be the responsibility of the Contractor to repair any damages to adjacent property including shrubs, trees or other growth as well as structures along the route.

To prevent the spread of Dutch elm disease, tree trimming tools shall be sprayed with Lysol before any tree trimming and after each tree has been trimmed.

Personnel - All work shall be done by qualified and trained persons. They shall be familiar with tree climbing and trimming work in general and trained to work in trees of any size. A qualified foreman shall be provided to oversee and direct the work of each crew.

Correct Cuts - All work shall be done in a professional and workmanlike manner. All cuts shall be made in accordance with the following sections in these Special Provisions, and as directed by the Engineer. Trees shall be trimmed at locations where there are tree conflicts and as directed by the Engineer or project Arborist in conjunction with the City Arborist.

Tree trimming shall include the removal of any limbs or brush from limbs in order to achieve a clear space of at least six foot (6') radial distance from each luminaire. The results of the tree trimming shall produce an unobstructed cone of light that will illuminate a semicircle on the street at street level. The semicircle shall have a radius of forty feet (40') minimum on the street from the electrolier base. The unobstructed cone of light shall also illuminate an area at sidewalk level on the house side of the electrolier. This illuminated area shall extend fifteen feet (15') minimum from the base of the electrolier.

Twigs, small limbs and sucker growth shall be removed with hand pruners, pole pruners or a fine toothed saw. All portions of a tree removed in the pruning operations, whether small or large in diameter, shall be made just outside the branch bark ridge, parallel to and immediately adjacent to the tree limb from which the part is removed.

Any dead wood and broken limbs encountered in the pruning operations shall be removed. Dead wood shall be defined as any portion of the tree having no living foliage, no live buds or no apparent life in the cambium layer. Final cuts on dead limbs shall not cut into the branch bark ridge or branch collar of the parent limb. Dead limbs larger than three-fourths of one inch (3/4") in diameter shall be removed by sawing. Broken limbs shall be removed except where branches have split and one portion of the branch can be saved by pruning to reduce lateral end weight.

Shrubs shall be pruned as directed by the Engineer and shall conform to current ISA specifications.

The cost of such work shall be included in whatever bid item the Contractor deems appropriate.

### **1.25 STOP WORK IF CULTURAL RESOURCES ARE DISCOVERED**

If artifacts or stone, bone, or shell are uncovered during construction activities, the Contractor shall stop work within 100 feet of the find and notify the City, who will consult with a qualified archaeologist for an on-the-spot evaluation. Additional mitigation of the archaeological site will be the responsibility of the City. If bone is found and it appears to be human, the City will notify the Sacramento County coroner and the Native American Heritage Commission (916/322-7791).

### **1.26 HEALTH AND SAFETY**

The Contractor is warned that existing sewers and appurtenances have been exposed to sewage and industrial wastes. These facilities shall therefore be considered contaminated with disease-

causing organisms. Personnel in contact with contaminated facilities, debris, wastewater, or similar items shall be advised by the Contractor of the necessary precautions that must be taken to avoid becoming diseased. It is the Contractor's responsibility to urge his personnel to observe a strict regime of proper hygienic precautions, including any inoculations recommended by the local public health officer.

Because of the danger of solvents, gasoline, and other hazardous material in the existing sewers, these areas shall be considered hazardous to open flame, sparks, or unventilated occupancy. The Contractor shall be aware of these dangers and shall take the necessary measures to assure his personnel observe proper safety precautions when working in these areas.

The Contractor shall not allow any wastewater to discharge from sewage collection systems onto adjacent lands of waters. In case of accidental discharge, the Contractor shall be responsible for containment, immediate cleanup and disposal at his own expense to the full satisfaction of the Engineer. Where containment is not possible, adequate disinfection shall be provided by the Contractor at his expense as directed by the Engineer or agency with jurisdiction. If, in the opinion of the Engineer, the Contractor fails to adequately follow the above guidelines, he will make arrangements to have the work done by others, and have the cost charged to the Contractor.

#### **1.27 PERMITS AND STAGING AREA**

If the Contractor decides he/she needs additional working easement areas, work sites or material sites to facilitate his operation, it shall be his sole responsibility to locate, negotiate, obtain and pay for such additional working easements, work sites and material sites.

The Contractor shall submit to the Engineer written authorization from the property owner of private property being used for the storage of equipment or materials. A copy of any written agreements entered into between the Contractor and the property owner concerning encroachment onto private property shall be provided to the Engineer prior to beginning any work on the property.

All areas lying outside of the street right-of-way which are affected by the work shall be restored to the same, or better condition existing prior to the commencement of the work, to the satisfaction of the Engineer.

The cost of necessary permits, all restoration, including but not limited to landscaping improvements, shall be included in the various items of work the Contractor deems appropriate, and no separate or additional compensation shall be made.

#### **1.28 EROSION AND SEDIMENT CONTROL**

Erosion and Sediment Control shall be in accordance with Section 16 of the City Standard Specifications. The costs associated for compliance with this section including, but not limited to, all water quality, erosion, sediment and pollution control measures deemed necessary by the Engineer shall be included in the various items of work the Contractor deems appropriate and no additional compensation shall be made.

## **2. ITEMS OF THE PROPOSAL**

### **ITEM NO. 1 - CLEARING AND GRUBBING**

Clearing and grubbing shall conform to Section 12 and 13 of the Standard Specifications and these Special Provisions. The removal of the existing roadway pavement, base, native material, curb, gutter and sidewalk shall be part of the "Roadway Excavation and Grading" item and shall not be paid for under this item.

Payment shall be at the lump sum bid and shall include full compensation for furnishing all labor, materials, tools, equipment, incidentals and for doing all work involved in clearing and grubbing as shown on the Plans, as specified in these Special Provisions and as directed by the Engineer.

### **ITEM NO. 2 - ROADWAY EXCAVATION AND GRADING**

Excavation and grading shall conform to Section 14 of the Standard Specifications and these Special Provisions.

Excavation shall include sawcutting and removal of all asphalt concrete (AC), aggregate base (AB), Portland Cement Concrete (PCC), speed humps, native material and soil to allow construction of improvements to the lines and grades shown on the Plans. This item shall include grading behind the proposed sidewalk necessary to match the existing grades and improvements.

This work shall include excavation and grading necessary to construct the proposed street section, ditch grading and ditches, median, curb, gutter, sidewalk, driveways, walkways and shall include finish grading to match the back of sidewalk to surrounding grade using a maximum 4:1 slope per the construction plans. This work shall include shaping and trimming of slopes, and the placement and compaction of excavated earth material to the lines and grades shown on the Plans.

All existing asphalt pavements to be removed shall be full depth saw-cut at the limits of removal as shown on the Plans and in accordance with Section 13 of the Standard Specifications.

Excess excavated material shall become the property of the Contractor and shall be deposited in a location and manner satisfactory to the Engineer. When any material is to be disposed of outside the right-of-way, the Contractor shall obtain written permission from the owner upon whose property the disposal is to be made before any material is deposited thereon.

The Contractor shall exercise extreme care to avoid damaging the curb and gutter lips, sidewalks, and planting areas during excavation operations. Gutter lips damaged by the Contractor which are spalled in excess of one inch (1") deep by five inches (5") long will be repaired at the Engineer's direction. The cost of repairs to damaged curb and gutter shall be considered as included in this item, and no separate payment shall be made therefore.

Payment shall be made based on the final pay quantity indicated on the Sealed Proposal and will not be recalculated in the field. Payment for fill grading shall be included in the unit bid price for this item and shall not be made separately.

Payment shall be based on final pay quantity per cubic yard and shall include full compensation for all labor, materials, tools, equipment, incidentals and for doing all work involved with roadway excavation and grading as shown on the Plans, as specified in these Special Provisions and as directed by the Engineer.

### **ITEM NO. 3 - BOLLARD TO REMOVE**

Existing bollards shall be removed as shown on the plans or as directed by the Engineer and shall conform to Section 13 of the Standard Specifications. Voids created by the removal of bollards shall be backfilled per Section 1.23 (Backfilling of Voids) of these Special Provisions.

Payment shall be at the unit price bid per each bollard to remove and shall include full compensation for furnishing all labor, material, tools, equipment, incidentals and for doing all work involved in removing bollards as specified in these Special Provisions and as directed by the Engineer.

### **ITEM NO. 4 - CHAIN LINK FENCE TO REMOVE**

Chain link fence shall be removed as shown on the plans or as directed by the Engineer and shall conform to Section 13 of the Standard Specifications. Existing fence shall be removed to the nearest fence post as directed by the Engineer.

The Engineer shall determine the amount and exact limits of fence to be removed in the field. Measurement for payment shall be based upon the actual length of fence removed. No adjustment to the unit price bid for this item shall be made for any variation in the estimated quantity.

Salvaged chain link fence shall become the property of the Contractor and shall be deposited in a location and manner satisfactory to the Engineer. Payment for disposal of the fence shall be considered part of this bid item.

Payment shall be at the unit price bid per lineal foot and shall include full compensation for furnishing all labor, materials, tools, equipment, incidentals and for doing all work involved in removing existing chain link fences as shown on the Plans, as specified in these Special Provisions and as directed by the Engineer.

### **ITEM NO. 5 - PAVEMENT PLANING (0.17' MIN)**

Pavement planing (0.17' minimum) shall be done in an approved manner by cold planing as shown on the Plans, as specified in these Special Provisions and in conformance with the requirements of Section 22 of the Standard Specifications. Rubber-tired grinding machines will only be allowed with the Engineers permission and with the understanding that any damage done

by the grinding machine to the existing asphalt pavement be repaired by the Contractor at his expense.

Contractor shall provide temporary lane delineation, including centerline (yellow) and/or lane lines (white), between the time of grinding operations and roadway paving. Temporary lane delineation shall consist of pavement markers, painted stripes or other means approved by the Engineer.

The Contractor shall obtain a hydrant permit from the City of Sacramento, Department of Utilities for each piece of equipment that requires water from a fire hydrant.

Payment shall be at the unit price bid per square yard and shall include full compensation for furnishing all labor, material, tools, equipment, incidentals and for doing all work involved in pavement planing as specified in these Special Provisions and as directed by the Engineer.

#### **ITEM NO. 6 - AGGREGATE BASE CLASS 2 TO PLACE**

Class 2 aggregate base shall be placed as shown on the Plans and conform to Sections 10 and 17 of the Standard Specifications and these Special Provisions.

This item shall include placing Class 2 aggregate base under the proposed curb, gutter, sidewalk, islands and driveways.

Payment shall be made at the unit price bid per cubic yard and shall include full compensation for furnishing all labor, materials, tools, equipment, incidentals and for doing all work involved in placing aggregate base Class 2 as shown on the Plans, as specified in these Special Provisions and as directed by the Engineer.

#### **ITEM NO. 7 - ASPHALT CONCRETE (1/2") PAVEMENT TO PLACE**

Asphalt concrete shall be Type A, 1/2" maximum aggregate and shall be placed as shown on the Plans, as specified in these Special Provisions and in conformance with the requirements of Sections 10 and 22 of the Standard Specifications.

Payment shall be at the unit price bid per ton based on the weight tickets and shall include full compensation for furnishing all labor, materials, tools, equipment, incidentals and for doing all work involved in placing asphalt concrete pavement as shown on the Plans, as specified in these Special Provisions and as directed by the Engineer.

#### **ITEM NO. 8 - SLURRY SEAL (TYPE II) TO PLACE**

Slurry seal (Type II) shall be placed where shown on the Plans or as directed by the Engineer and shall conform to the applicable requirements of Section 23 of the Standard Specifications and these Special Provisions.

Payment shall be at the unit price bid per square yard and shall include full compensation for furnishing all labor, material, tools, equipment, incidentals and for doing all work involved with

placing slurry seal (Type II) as shown on the Plans, as specified in these Special Provisions and as directed by the Engineer.

**ITEM NO. 9 - 3 1/2" PCC SIDEWALK TO CONSTRUCT**

**ITEM NO. 10 - 3 1/2" REINFORCED PCC SIDEWALK TO CONSTRUCT**

Portland cement concrete (PCC) sidewalk and reinforced PCC sidewalk shall be constructed as shown on the Plans or as directed by the Engineer and shall conform to the applicable requirements of Sections 10, 21, 24 and 38 of the Standard Specifications.

Sidewalk transitions and curb ramps shall be included in this bid item. The sidewalk portion of the curb ramps shall be paid under this item of the proposal. The Curb ramps shall be constructed where shown on the Plans or as directed by the Engineer.

At locations where curb ramps or sidewalks are being retrofitted into existing sidewalk areas, sidewalk shall match existing color by adding one pound of lamp black per cubic yard of concrete.

Payment shall be at the unit price bid per square foot and shall include full compensation for furnishing all labor, materials, tools, equipment, incidentals and for doing all work involved in placing 3-1/2" PCC sidewalk and 3-1/2" reinforced PCC sidewalk as shown on the Plans, as specified in these Special Provisions and as directed by the Engineer.

**ITEM NO. 11 - CURB AND GUTTER TYPE 2 (MOD-1) TO CONSTRUCT**

**ITEM NO. 12 - CURB AND GUTTER TYPE 2 (MOD-2) TO CONSTRUCT**

**ITEM NO. 13 - VEE-GUTTER NO. 2 (MOD) TO CONSTRUCT**

Portland cement concrete Curb and Gutter Type 2(MOD-1), Curb and Gutter Type 2 (MOD-2) and Vee-Gutter No. 2 (MOD) shall be constructed as shown on the Plans or as directed by the Engineer and shall conform to the applicable requirements of Sections 10, 24 and 38 (DWG. T-11) of the Standard Specifications.

The curb and gutter portion of the curb ramps and transitions to existing curb and gutter of a different type shall be paid for with this item of work.

The new concrete curb and gutter shall match existing improvements. The curb and gutter shall match existing color by adding one pound of lamp black per cubic yard of concrete.

Payment shall be at the unit price bid per lineal foot and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all work involved in constructing curb and gutter type 2 as shown on the Plans, as specified in these Special Provisions and as directed by the Engineer.

**ITEM NO. 14 - CURB TYPE 3 TO CONSTRUCT**

**ITEM NO. 15 - CURB TYPE 4A TO CONSTRUCT**

Portland cement concrete Curb Type 3 and Curb Type 4A shall be constructed as shown on the Plans or as directed by the Engineer and shall conform to the applicable requirements of Sections 10, 24 and 38 (DWG. T-11) of the Standard Specifications.

Payment shall be at the unit price bid per lineal foot and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all work involved in constructing curb type 3 as shown on the Plans, as specified in these Special Provisions and as directed by the Engineer.

**ITEM NO. 16 - TRUNCATED DOMES TO INSTALL (36" X 48")**

Cast in place truncated domes shall be installed as shown on the Plans or as directed by the Engineer and shall conform to the applicable requirements of Section 38 (DWG.T-78 and T-79) of the Standard Specifications.

On existing asphalt, truncated domes shall be embedded in concrete and installed as shown on the Plans or as directed by the Engineer. Concrete and steel reinforcement necessary to embed truncated domes in asphalt shall be considered part of truncated dome installation and no additional compensation will be provided. Installation of these truncated domes shall conform to the applicable requirements of Section 38 (DWG T-79) of the Standard Specifications.

Detectable Warning Tiles shall be Armor Tile, ADA Solutions or approved equal, as manufactured by Engineered Plastics Inc.: Product (#1) #ADA-C3648S-YW, Cast in Place, 36" x 48", Sound Amplifying, Color Federal Yellow, Product (#2) #ADA-S-3648-YW, Surface Applied, 36" x 48", Sound Amplifying, Color Federal Yellow or ADA Solutions Product (#1) #3648IDPAVIY, Cast in Place, 36" x 48", Sound Amplifying, Color Federal Yellow, Product (#2) #3648IDRET1Y, Surface Applied, 36" x 48", Sound Amplifying, Color Federal Yellow. Detectable Warning Tiles shall have a five (5) year written warranty.

Installation of detectable warnings shall be by manufacturer trained and certified individuals. Detectable warning and installation shall have a five (5) year written warranty.

Payment shall be at the unit price bid per each and shall include full compensation for furnishing all labor, materials, tools, equipment, incidentals and for doing all work involved with installing cast in place truncated domes as shown on the Plans, as specified in these Special Provisions and as directed by the Engineer.

**ITEM NO. 17 - 8' DECORATIVE STEEL FENCE TO INSTALL**

Decorative tubular steel fence shall be installed by the Contractor as shown on the plans and as directed by the Engineer. The fence shall be 8' AMERISTAR Montage II – Majestic Style or approved equal. The fence shall be black with a 4" air gap, 3-rails and a flat rail top and bottom.

Submittals are required for any proposed substitutions or deviations from the Plans or Specifications. The contractor shall submit a materials summary sheet indicating which items will be installed as specified and which items are proposed for substitutions. The Contractor shall submit proof of order within ten (10) working days of the Notice to Proceed, indicating all specified materials have been ordered, noting “as specified” or “substitutions proposed”.

Steel material for fence framework (i.e. tubular pickets, rails and posts) shall be galvanized prior to forming in accordance with the requirements of ASTM A653/A653M, with minimum yield strength of 45,000 psi (310 MPa). The steel shall be hot-dip galvanized to meet the requirements of ASTM A653/A653M with a minimum zinc coating weight of 0.90 oz/ft<sup>2</sup> (276 g/m<sup>2</sup>), coating designation G-90.

Material for pickets shall be 1” square x 14 Ga. tubing. The rails shall be steel channel, 1.75” x 1.75” x .105”. Picket holes in the rail shall be spaced 4.715” o.c. Fence posts shall be 3” square by 12 Ga. Pickets, rails and posts shall be pre-cut to specified lengths. Rails shall be pre-punched to accept pickets.

Pickets shall be inserted into the pre-punched holes in the rails and shall be aligned to standard spacing using a specially calibrated alignment fixture. The aligned pickets and rails shall be joined at each picket-to-rail intersection by Ameristar’s proprietary fusion welding process, thus completing the rigid panel assembly (Note: The process produces a virtually seamless, spatter-free good-neighbor appearance, equally attractive from either side of the panel).

The manufactured panels and posts shall be subjected to an inline electrodeposition coating (E-Coat) process consisting of a multi-stage pretreatment/wash (with zinc phosphate), followed by a duplex application of an epoxy primer and an acrylic topcoat. The minimum cumulative coating thickness of epoxy and acrylic shall be 2 mils (0.058 mm). The color shall be Black. The coated panels and posts shall be capable of meeting the performance requirements for each quality characteristic shown in Table – Coating Performance Requirements (Note: The requirements in Table 2 meet or exceed the coating performance criteria of ASTM F2408).

<u>Quality Characteristics</u>	<u>ASTM Test Method</u>	<u>Performance Requirements</u>
Adhesion	D3359 – Method B	Adhesion (Retention of Coating) over 90% of test area (Tape and knife test).
Corrosion Resistance	B117, D714 & D1654	Corrosion Resistance over 1,500 hours (Scribed per D1654; failure mode is accumulation of 1/8” coating loss from scribe or medium #8 blisters).
Impact Resistance	D2794	Impact Resistance over 60 inch lb. (Forward impact using 0.625” ball).

Weathering Resistance	D822 D2244, D523 (60° Method)	Weathering Resistance over 1,000 hours (Failure mode is 60% loss of gloss or color variance of more than 3 delta-E color units).
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The manufactured fence system shall be capable of meeting the vertical load, horizontal load, and infill performance requirements for Industrial weight fences under ASTM F2408.

Fence post shall be spaced according to the plans and these specifications, plus or minus 1/2". For installations that must be raked to follow sloping grades, the post spacing dimension must be measured along the grade. Fence panels shall be attached to posts with brackets supplied by the manufacturer. Posts shall be set in concrete footers having a minimum depth of 36".

Payment shall be at the unit price bid per lineal foot and shall include full compensation for furnishing all labor, materials, tools, equipment, incidentals and for doing all work involved in installing decorative fence as shown on the Plans, as specified in these Special Provisions and as directed by the Engineer.

**ITEM NO. 18 - CHAIN LINK FENCE TO RELOCATE**

Contractor shall remove and relocate the existing fence where shown on the Plans, as directed by the Engineer, and in accordance with Section 13 of the Standard Specifications.

The Contractor shall use existing fence material from the respective property in the relocating of fences. Contractor shall replace any fencing material damaged with new material of equal quality or better.

The relocated fences shall be constructed according to (DWG.T-90). Contractor shall store fence in a secure area under good conditions until time for reconstruction.

Where fences are removed for relocating, the Contractor has the option of resetting the fence during the construction of the sidewalk or using a temporary eight-foot (8') chain link fence to protect the existing property. The property must be protected by fencing at all times. Payment for temporary fencing shall be included in the cost of this item.

The Engineer shall determine the amount and exact limits of fence to be relocated in the field. Measurement for payment shall be based upon the actual length of fence relocated. No adjustment to the unit price bid for this item shall be made for any variation in the estimated quantity.

Payment shall be at the unit price bid per lineal foot and shall include full compensation for furnishing all labor, materials, tools, equipment, incidentals and for doing all work involved in relocating existing chain link fences as shown on the Plans as specified in these Special Provisions and as directed by the Engineer.

**ITEM NO. 19 - CHAIN LINK GATE TO RELOCATE**

Contractor shall remove and relocate existing gate where shown on the Plans, as directed by the Engineer, and in accordance with Section 13 of the Standard Specifications.

The Contractor, where possible, shall use existing gate material from the respective property in the relocation of gates. The gate may need modifications to conform to the new grades of the proposed driveway. The cost for any modifications including the concrete flat area for the gate wheels, welding new wheels or any other modifications to make the gate work properly shall be included in this item. Contractor shall replace any gate material damaged with new material of equal quality or better.

Where gates are removed for relocation, the Contractor has the option of relocating the gate during the construction of the new driveway or using a temporary gate to protect the existing property at all times. Payment for temporary gates, driveways, and walkways shall be included in the cost of this item.

Payment shall be at the unit price bid per each and shall include full compensation for furnishing all labor, materials, tools, equipment, incidentals and for doing all work involved in relocating chain link gate as shown on the Plans as specified in these Special Provisions and as directed by the Engineer.

**ITEM NO. 20 - PARKING BUMPERS TO PAINT AND RELOCATE**

Existing parking bumpers shall be painted and relocated as shown on the plans and as directed by the Engineer. The Contractor shall use the existing parking bumpers on 12<sup>th</sup> Avenue between 23<sup>rd</sup> Street and Panther Parkway. New parking bumpers of equal or better quality may be used in lieu of the existing parking bumpers at the Contractor's discretion, however no additional compensation will be provided for using new parking bumpers.

Parking bumpers shall be pressure washed, dried and painted white. Coatings must comply with section 91-4.05 of the State Standard Specifications. Relocated parking bumpers shall be anchored with a minimum of two (2) No. 5 Epoxy Coated Rebar to a minimum depth of 18" measured from the existing roadway surface. Voids in the roadway that are created by the removal of existing anchors shall be backfilled per Section 1.23 (Backfilling of voids) of these Standard Specifications. Salvaged parking bumpers shall become the property of Los Rios Community College District and shall be deposited in a location and manner satisfactory to the Engineer.

Payment shall be at the lump sum bid and shall include full compensation for furnishing all labor, materials, tools, equipment, incidentals and for doing all work involved in painting and relocating parking bumpers as shown on the Plans, as specified in these Special Provisions and as directed by the Engineer.

**ITEM NO. 21 - TIRE STRIP TO RELOCATE**

Tire strips shall be relocated as shown on the plans, as directed by the Engineer, and in accordance with Section 13 of the Standard Specifications. The relocated tire strip shall be anchored to the existing roadway in a manner that is satisfactory to the Engineer and maintains the existing functionality of the tire strip. The exact location of the relocated tire strip is to be determined in the field by the Engineer.

Payment shall be at the unit price bid per each and shall include full compensation for furnishing all labor, materials including new fasteners, tools, equipment, incidentals and for doing all work involved relocating tire strips as shown on the Plans, as specified in these Special Provisions and as directed by the Engineer.

**ITEM NO. 22 - MAINTENANCE HOLE TO ADJUST TO GRADE**

Existing maintenance holes shall be adjusted to the grade of the new surface and shall conform to the applicable requirements of Sections 10, 25 and 38 of the Standard Specifications and these Special Provisions.

The cost of adjusting a maintenance hole shall include any necessary lowering, temporarily removing, covering and raising the maintenance hole head to the grade of the new surface under this item.

If lowering is necessary, the Contractor shall verify that all lowered maintenance holes are raised back to grade by back checking against drawings. The Contractor shall perform field review with the Engineer to ensure all maintenance holes shown on the drawings have been raised to grade.

Payment shall be at the unit price bid per each and shall include full compensation for furnishing all labor, materials, tools, equipment, incidentals and for doing all work involved in adjusting maintenance holes to grade as shown on the Plans, as specified in these Special Provisions and as directed by the Engineer.

**ITEM NO. 23 - WATER VALVE TO ADJUST TO GRADE**

Water valves boxes shall be adjusted to grade and shall conform to applicable requirements of Sections 10, 27 and 38 of the Standard Specifications and these Special Provisions. Adjusting water meter boxes to grade shall be included in this item of work.

Included in this item is furnishing and placing new utility boxes and steel standpipes (risers) and liners as required, and adjusting the utility boxes to grade.

Payment shall be at the unit price bid per each and shall include full compensation for furnishing all labor, materials, tools, equipment, incidentals and for doing all work involved in adjusting water valve boxes and water meter boxes to grade, as shown on the Plans as specified in these Special Provisions and as directed by the Engineer.

**ITEM NO. 24 - TYPE B DROP INLET (ROLLED CURB WITH TRAP AND SUMP)**

Drop Inlets and Gutter Drains shall conform to Sections 20, 24 and 38 of the Standard Specifications.

Drop Inlets and Gutter Drains shall be precast or cast in place, formed using wood or metal forms. Hand forming of concrete will not be allowed. If cast in place, maximum wall thickness shall be 8-inches.

The grate shall conform for Section 38 of the Standard Specifications. The grate shall be installed so that either end of the grate can be lifted from the frame and removed by pulling parallel to the curb. The grate frame shall be installed between ½ and 1 inch from the face of the open back hood. All joints and all connections between the hardware (grate and hood) and the vertical walls of the drain inlet shall be grouted forming a smooth transition with a light broom finish.

The open back hood shall be cast iron or approved equal.

The vertical distance between the grate and the top of the hood shall be a minimum of 5" and a maximum of 8". If the top of the hood must be placed below the top of curb, there shall be a minimum 3" cover of concrete. One number 4 rebar shall be placed in the concrete and shall extend 12" on both sides of the hood. If the top of the hood is placed flush with the top of curb, the Contractor shall embed hood in concrete, 4 inches from the back of the hood extending 6 inches beyond both ends of the hood.

Drain lead shall be connected to drain inlet with approved waterstop cast into side wall with non-shrink grout. Waterstop shall have a minimum of 2-inches of embedment on all sides. Pipe end shall be flush with the inside surface of the box.

Curb and gutter reconstruction shall match existing geometry and, at the Engineers discretion, extend up to 5 feet in length on either side of the inlet. The cost of curb and gutter reconstruction shall be included in the unit price for this item. Surface restoration shall be in accordance with the appropriate section of these Special Provisions. Pavement cutting shall be perpendicular and parallel to the centerline of the road. Surface restoration due to drain inlet removal and installation shall be paid for as part of this item. Gutter depressions, as shown on the plans, shall be fully compensated into the unit price paid per drainage inlet and no additional compensation will be allowed.

Payment shall be at the unit price bid per each and shall include full compensation for furnishing all materials, labor, tools, equipment, and incidentals and for doing all work necessary to construct Type B Drop Inlet (rolled curb with trap and sump) as shown on the Plans, as specified in these Special Provisions and as directed by the Engineer.

### **ITEM NO. 25 - DRAINAGE INLET GRATE TO REPLACE**

Where shown on the plans, drainage inlet grates shall be removed and replaced with ADA compliant grates with a width opening of ½” or less perpendicular to the pedestrian path of travel. Inlet grates shall conform to Section 30 of the Standard Specifications.

Payment shall be at the unit price bid per each and shall include full compensation for furnishing all materials, labor, tools, equipment, and incidentals and for doing all work necessary to remove and replace drainage inlet grates as shown on the Plans, as specified in these Special Provisions and as directed by the Engineer.

### **ITEM NO. 26 - 12” STORM DRAIN PIPE TO INSTALL**

Where shown on the Plans, 12” diameter storm drain pipes shall be PVC as specified elsewhere in the Special Provisions. Drain lead connections to manholes shall be included in this item. Drain inlet lead and fittings shall be constructed to the details on the Plans and shall conform to Sections 10, 14, and 26 of the Standard Specifications and these Special provisions. All pipes shall be fusion welded.

This item shall include all necessary trenching, bedding, backfilling, and pavement restoration involved in the installation of the storm drain pipe.

C-900 PVC for pipe and fittings shall be utilized for any pipe that has less than 18-inches of cover between the top of the installed pipe and the finish grade. If the depth of cover is less than 12 inches, the Contractor shall encase pipe with controlled density fill as specified elsewhere. When the Engineer approves shallow placement of DI leads requiring protective measures proposed by Contractor, all work associated with protective measures shall be considered as extra and paid per Section 8-10 of the Standard Specifications.

Controlled Density Backfill – Also known as Controlled Low Strength Material (CLSM) or ready Mixed Flowable Fill (RFF) as processed and distributed by the National Ready Mixed Concrete Association.

Material shall be a hand excavatable mixture of cement, pozzolan, coarse and fine aggregate and water which has been mixed in accordance with ASTM C 94.

Flowable – Material shall be flowable with a high slump, non-segregating consistency that readily flows and fills voids, congested areas, difficult to reach places, and that can be used for pipe zone fill, trench zone fill, pipe abandonment, structure backfill, and structure cavity fill.

Rapid Set – Material shall obtain early strength gain, to allow traffic load or other live loads on the fill in less than 7 days after placing the material.

Cement – Shall be type II in accordance with requirements of ASTM C 150.

Pozzolan – Shall be added to improve flowability and shall be type F in accordance with the requirements of ASTM C 618.

Aggregate – Coarse aggregate shall consist of well graded mixture of crushed rock with a maximum size aggregate of ½ inch. 100% shall pass the ½ inch sieve. Not more than 30% shall be retained by the ¼ inch sieve and not more than 12% shall pass the number 200 sieve. All material shall be free from organic matter and not contain more alkali, sulfates, or salts than the native materials at the site of work.

Admixtures – Air entrainment shall be added (minimum of 8%, maximum of 20%) to improve workability in accordance with ASTM C 260. Water reducing agent shall be added to improve workability in accordance with ASTM C 494.

Water – Shall be potable, clean, and free from silty organic matter, alkali, salts, or other impurities.

Density – Minimum density shall be 120 PCF, maximum density 135 PCF.

Compressive Strength – Minimum 28 day compressive strength shall be 50 psi and the maximum shall be 150 psi.

Care shall be taken to avoid floating the pipe, especially with pipe types other than concrete. Means shall be employed to assure a consistent flowline in accordance with plans and special provisions.

When connecting to a manhole:

A) If a precast manhole base is allowed, the Contractor shall install a flexible joint (bell and spigot or flexible coupling) a horizontal distance of 18-inches to 24-inches from the wall of the manhole.

B) All connections to the manholes not cast as part of the base shall be made by use of a coring machine and a "Cor-N-Seal" or approved equal flexible watertight coupling. The incoming pipe shall be cut, and the space between the inserted pipe and the seal shall be grouted smooth.

After mandrel inspection, the DI leads placed will be inspected by the City's Field Services Division utilizing a robotic T.V. camera device as specified elsewhere in these Special Provisions. It shall be the Contractor's responsibility to coordinate the T.V. inspection with the Engineer.

The lead invert elevations shown on the Plans are approximate only. It shall be the Contractor's responsibility to determine the final vertical alignment by means of locating potential conflicts prior to construction of the drain inlet, lead, or coring of the manhole. No deflections will be allowed in the lead unless otherwise approved by the Engineer. Guidelines for final profile of drain lead are as follows: The distance from the grate elevation to the top of the drain inlet base shall be between 4'-8" and 5' unless otherwise shown on the Plans or directed by the Engineer.

The drain lead shall have a minimum slope of 0.0025 ft/ft unless otherwise approved by the Engineer. Unless otherwise stated herein, no additional compensation shall be paid to the Contractor for potholing, or altering drain inlet or lead elevations.

Included in this item is the construction of concrete collars connecting leads into other drainage structures.

For Class 4 Concrete Backfill as shown on the plans, the cost shall be assumed included in the unit price per linear foot of storm drain pipe and no separate or additional payment shall be made for its use.

Payment shall be at the unit price bid per linear foot of proposed storm drain pipe to install and shall include full compensation for furnishing all labor, materials, tools, surface restoration, equipment and incidentals and for doing all work involved in installing 12" storm drain pipe as shown on the Plans, as specified in these Special Provisions and as directed by the Engineer.

#### **ITEM NO. 27 - FIRE HYDRANT TO RELOCATE**

This item shall consist of relocating standard fire hydrants as shown on the Plans and shall conform to applicable requirements of Sections 10, 27, and 38(DWG.W-201) of the Standard Specifications and these Special Provisions.

The nominal diameter for hydrant leads and gate valves shall be 6" for 6" mains, or 8" for 8" and larger mains. Reducers will not be allowed on hydrant leads unless otherwise approved.

A bury line shall be clearly marked on the hydrant barrel per manufacturers recommendations.

The furnishing and placing of the branch lead pipe from the water main to the fire hydrant shall be included with the bid item for the appropriate size water main. Also the furnishing and installing of the fire hydrant gate valves shall be included with this line item and no additional compensation will be allowed.

Payment shall be at the contract unit price bid per each and shall include full compensation for furnishing all labor, material, tools, equipment, incidentals and for doing all work involved in relocating fire hydrants as shown on the Plans, as specified in these Special Provisions and as directed by the Engineer.

#### **ITEM NO. 28 - STAMPED CONCRETE TO CONSTRUCT (3-1/2")**

Stamped concrete (3-1/2" thick) shall be constructed where shown on the Plans.

This item shall include the Stamped Concrete treatment inside the islands. The Stamped Concrete section shall consist of 3-1/2" Stamped Concrete over 4" AB Class 2. The AB Class 2 is paid for under a separate item of work. Paving work shall include deep tool joints (1" min. deep) at 6' on center maximum. Expansion joints shall be placed adjacent to all vertical surfaces.

**MATERIALS:**

Provide and install all Stamped Concrete Color Hardener and release agents. Color Hardener shall be regular grade and Release Agent shall be a dry powdered, colored agent used to facilitate release of the imprinting tools from concrete surface, and to provide moderate color variations to the textured surface. Provide and apply sealer. All edges of all imprinted slabs shall be left uncolored (e.g. adjacent concrete curbs).

Concrete shall have a minimum compressive strength of 3,500 psi. Portland cement shall conform to ASTM C 150 Type I, II, or V, depending on soil conditions. Install in a separate pour from the curb.

Expansion Joint Fillers: ASTM D 994; asphaltic compound strips, ½” thick unless otherwise noted, precut to proper size; on-grade slabs, walks, curbs, gutters, and similar flatwork where joints are not otherwise noted or specified.

Coloring, Imprints, Curing and Sealing Materials:

***Color Hardener: The concrete shall be colored with “Brick Red” Color Hardener (Regular Grade). Pattern shall be Brick Red “6-inch square Grid” pattern, stamped perpendicular to adjacent concrete curb.***

All paving shall be reinforced with 10 gauge welded wire fabric, 6” X 6” grid openings. Set fabric in center of concrete section.

All stamped concrete shall be sealed in accordance with the manufacturer’s recommendations, and as noted below.

**INSTALLATION:**

The area to receive stamped concrete shall have the sub-grade prepared as required in Section 17 of the Standard Specifications

Placing:

Formwork shall be installed in accordance with the City of Sacramento Standard Specifications and as noted in these provisions.

Absorbent forms shall be thoroughly wetted before concrete is placed. Aggregate base/sand beds for slab-on-grade shall be moist but not saturated when concrete is placed.

Placing of concrete shall be done immediately after mixing. No concrete shall be placed or used after it has begun to set and no retempering will be allowed. The method used in placing shall be such that concrete is conveyed to place and deposited without separation of the ingredients.

Splash or accumulations of hardened or partially hardened concrete shall be removed. Contact faces of forms for exposed concrete shall be protected from splash during placing of adjacent concrete.

Placing of concrete shall be carried on in a continuous operation without interruption until placing of course, section, panel or monolith is completed.

Distribution of concrete shall be even and continuous and no pour joints shall show. Before a pour is started, make certain that adequate equipment, workers and concrete will be available to pour in cycles, which will permit proper and thorough integration of each layer on concrete. Upon stopping of pour, the top surface shall be on a level.

Remove debris, mud and water from places to receive concrete.

Concrete splash and/or grout shall be removed from surfaces that will receive finish. Provided protection of all finished surfaces so not to splash concrete on other finishes.

Place, screed, and slope paving to finished grade, and floated to a uniform surface using standard finishing techniques.

**Vibration and Compaction:**

Concrete shall be thoroughly compacted by means of internal mechanical vibrators. Place vibrators directly in concrete at 18" to 30" intervals, for a period of approximately 5-15 seconds and withdraw slowly, or as directed, depending on the consistency of the concrete. One vibrator will be required for each location where simultaneous placing takes place, to ensure thorough vibrating of all sections. Provide sufficient spare vibrators on the job so as to have them readily available in case any vibrator in use should cease to function properly. If original spare vibrators must be used, provide additional spares. Under no condition shall vibrator be placed against reinforcing steel or attached to forms. Vibrators may not be used to transport materials.

Vibrator shall be of the flexible immersion type having frequency of not less than 7000 rpm.

Voids and rock pockets shall be eliminated; voids and rock pockets in exposed concrete may be cause to reject that portion of the Work.

**Construction Joints:**

Placement of construction joints and the manner in which they are provided shall be only as approved. Construction joints shall be as few as possible and will not be permitted simply to save forms.

Construction joints, including keys, shall be cleaned and roughed by removing entire surface and exposing clean aggregate, solidly embedded, by means of sandblasting or other approved methods. Forms and reinforcing shall be cleaned of drippings, debris, etc. Just before starting of new pour, horizontal surfaces shall be covered with ½" to 1" thickness of grout that is composed of cement and fine aggregate of the same proportion as that used in concrete work, but omitting the 1 ½" aggregate when 1 ½" is the maximum size or omitting half of the ¾" aggregate where ¾" is the maximum size. Proportions will be determined by the testing agency.

**Expansion Joint Fillers:**

Place filler material so that the top of the surface is level and aligned uniformly ¼" below adjacent concrete surface.

Color Hardener shall be applied evenly to the surface of the fresh concrete by the dry-shake method using a minimum of 60 pounds per 100 square feet. It shall be applied in two or more shakes, floated after each shake and troweled only after the final floating. Prior to shake, thoroughly mask off adjacent concrete not intended to be colorized.

Clear Liquid Release Agent shall be applied evenly to the troweled surface prior to imprinting.

While still in its plastic stage of set, the imprinting tools shall be applied to the surface.

After the initial curing period, the surface of the slab shall be sealed with Color over the red brick for antiquing and penetrating sealer.

Payment shall be at the unit price bid per square foot and shall include full compensation for furnishing all labor, material, tools, equipment, incidentals and for doing all work involved in constructing colored concrete as shown on the plans, as specified in these Special Provisions and as directed by the Engineer.

#### **ITEM NO. 29 - TRAFFIC SIGN TO PLACE**

This item shall consist of manufacturing, furnishing and installing traffic signs on existing posts or new posts shall be placed where shown on the Plans or as directed by the Engineer and shall conform to the applicable requirements of Sections 32 and 38 of the Standard Specifications and these Special Provisions. New posts will be paid by a separate item.

The Contractor shall notify the Engineer two (2) working days prior to the placement of the signs. The Contractor shall review the proposed sign location with the Engineer and a supervisor from the City's Traffic Signs and Markings section prior to installation of the sign. The Engineer may make adjustments to the proposed sign location in the field.

The Contractor shall use the sign sizes as shown in the State of California, Department of Transportation Traffic Manual, unless specified otherwise on the drawings.

Signs located at the side of the roadway shall have a minimum height of seven feet (7') from the adjacent ground to the bottom of the sign, unless specified otherwise. The height of a combination of signs in the median, such as an R7 with an R10, shall be 18 inches from the top of the island to the bottom of the lowest sign (R10) with a maximum one-inch separation between the two signs.

Each sign shall have the date of manufacture and a location number stenciled on the backside. Location information shall consist of each sign having an individual number which will be recorded on a clean set of Plans during the sign installation and shall be turned in as part of the "Record Drawings".

##### **A. Sign Posts**

A 5/16-inch diameter cap screw with a plated rubber backwasher against the face of the sign and elastic stop nuts shall be placed through the sign and post at both top and bottom

of each sign. A “V” notched piped saddle, to support the sign, shall be placed between the sign and the post.

**B. Signal and Street Light Poles**

Place a 3/4-inch stainless steel banded strap and appropriate hardware at both top and bottom of each sign.

**C. Sheeting Grade**

Sheeting Grade shall use ASTM Type 11 or 3M DG Cubed specifications designed to enhance nighttime visibility of traffic control signs and objects. Type 11 or 3M DG Cubed sheeting shall have a precoated adhesive protected by an easily removable liner.

Payment shall be made at the unit price bid per each sign and shall include full compensation for furnishing all labor, materials, tools, equipment, incidentals and for doing all work involved in placing traffic signs on existing posts or new post as shown on plans, as specified in these Special Provisions and as directed by the Engineer.

**ITEM NO. 30 - NEW POST TO INSTALL**

This item shall consist of installing new posts for traffic signs where shown on the Plans or as directed by the Engineer and shall conform to the applicable requirements of Sections 32 and 38 of the Standard Specifications and these Special Provisions.

The Contractor shall notify the Engineer two (2) working days prior to the placement of the posts. The Contractor shall review the proposed post location with the Engineer and a supervisor from the City’s Traffic Signs and Markings section prior to installation of the post. The Engineer may make adjustments to the proposed post location in the field.

All posts shall have a minimum resisting Moment of 400 foot-pounds. All posts shall be capped. Post caps may be aluminum or galvanized steel. Bolts and miscellaneous metal hardware shall be galvanized or plated after fabrication in conformance with Section 75 “galvanizing” of the State of California, Department of Transportation Standard Specifications.

Payment shall be made at the unit price bid per each post, and shall include full compensation for furnishing all labor, materials, tools, equipment, incidentals and for doing all work involved in installing new posts for traffic signs as shown on plans, as specified in these Special Provisions and as directed by the Engineer.

**ITEM NO. 31 - SIGN TO REMOVE**

Existing roadside signs shall be removed where shown on the Plans or as directed by the Engineer and shall conform to the applicable requirements of Section 32 of the Standard Specifications and these Special Provisions. Removed sign panels shall be salvaged and delivered to the City of Sacramento Traffic Sign and Markings Section at 5730 24<sup>th</sup> Street, Building 10, Sacramento, CA. Existing roadside signs shall not be removed until replacement signs have been installed or until the existing signs are no longer required for the direction of public traffic, unless otherwise directed by the Engineer.

Payment shall be at the unit price bid per each and shall include full compensation for furnishing all labor, material, tools, equipment, incidentals and for doing all work involved in removing roadside signs as shown on the Plans, as specified in these Special Provisions and as directed by the Engineer.

**ITEM NO. 32 - SIGN TO RELOCATE**

Existing roadside signs shall be removed and relocated to the new locations shown on the Plans or as directed by the Engineer and shall conform to the applicable requirements of Section 32 of the Standard Specifications and these Special Provisions. Each roadside sign shall be installed at the new location on the same day that the sign is removed from its original location.

Payment shall be at the unit price bid per each and shall include full compensation for furnishing all labor, material, tools, equipment, incidentals and for doing all work involved in relocating the roadside signs as shown on the Plans, as specified in these Special Provisions and as directed by the Engineer.

**ITEM NO. 33 - TRAFFIC STRIPE TO REMOVE**

Thermoplastic and preformed traffic stripes (4", 6", 8", 12") shall be removed to the fullest extent possible from the pavement by grinding. Grinding material left on the pavement as a result of removing traffic stripes shall be removed as the work progresses. Accumulations of grinding material, which might constitute a hazard to traffic, will not be permitted.

The Contractor shall place temporary markers prior to removing traffic control measures during the striping removal operation. Temporary markers shall be maintained until permanent striping is in place.

Measurement shall be by the linear foot of traffic stripe removed. No payment will be made for gaps in broken traffic stripes. Double center stripes shall be paid as two (2) four-inch stripes.

Twelve-inch traffic stripes are defined as both transverse and longitudinal lines, which include, but are not limited to, 12" limit lines, 12" crosswalks stripes, and 12" speed hump stripes. 24" limit lines shall be considered as two 12" stripes to remove.

The quantities of this item may be adjusted, deleted, or omitted as directed by the Engineer to meet existing requirements. No adjustment to the unit price bid will be made because of a change in quantity from the Engineer's estimate.

Payment shall be at the unit price bid per linear foot of traffic stripe removed regardless of width and shall include full compensation for furnishing all labor, materials, tools, equipment, incidentals and for doing all work involved with removing traffic stripes as specified in these Special Provisions and as directed by the Engineer.

**ITEM NO. 34 - PAVEMENT MARKINGS TO REMOVE**

Thermoplastic and preformed pavement marking shall be removed to the fullest extent possible from the pavement by grinding. Grinding material left on the pavement as a result of removing markings shall be removed as the work progresses. Accumulations of grinding material, which might constitute a hazard to traffic, will not be permitted.

The quantities of this item may be adjusted, deleted, or omitted as directed by the Engineer to meet existing requirements. No adjustment to the unit price bid will be made because of a change in quantity from the Engineer's estimate.

Pavement markings are defined as, but are not limited to, word and symbol markings, parking brackets, and "Triple-four" crosswalks.

Payment shall be at the unit price bid per square foot of pavement markings removed and shall include full compensation for furnishing all labor, materials, tools, equipment, incidentals and for doing all work involved with removing pavement markings as specified in these Special Provisions and as directed by the Engineer.

**ITEM NO. 35 - THERMOPLASTIC TRAFFIC STRIPING TO PLACE**

**ITEM NO. 36 - THERMOPLASTIC PAVEMENT MARKINGS TO PLACE**

Thermoplastic traffic stripes and markings, both white and yellow, shall be placed where shown on the Plans or as directed by the Engineer and shall conform to the applicable requirements of Section 32 of the Standard Specifications and these Special Provisions.

Payment shall be at the unit price bid per lump sum of thermoplastic traffic stripes and by square feet for markings and shall include full compensation for furnishing all labor, material, tools, equipment, incidentals and for doing all work involved with placing thermoplastic traffic stripes and markings as shown on the Plans, as specified in these Special Provisions and as directed by the Engineer.

**ITEM NO. 37 - RAISED PAVEMENT MARKERS TO PLACE**

Raised pavement markers shall be furnished and placed where shown on the Plans or as directed by the Engineer and shall conform to the applicable requirements of Section 32 of the Standard Specifications and these Special Provisions.

Payment shall be at the unit price bid per each and shall include full compensation for furnishing all labor, material, tools, equipment, incidentals and for doing all work involved with placing pavement markers as shown on the Plans, as specified in these Special Provisions and as directed by the Engineer.

**ITEM NO. 38 - JOINT TRENCH TO CONSTRUCT**

This item shall consist of all materials, labor, equipment, and incidentals necessary to provide a complete conduit system for the future relocation of SMUD and SUREWEST facilities. The

materials include but are not limited to the trench (excavation and appropriate backfill), conduit ducts, elbows, risers, enclosures, 3' x 6' pull boxes, and all measures required to protect these facilities (concrete encasements, barricades, etc.). 6' x 8' Pull Boxes will be paid for under a separate line item.

**ALL WORK SHALL CONFORM TO SMUD'S DISTRIBUTION UNDERGROUND STRUCTURE ENGINEERING SPECIFICATION T007 DATED SEPTEMBER 2006.**

An onsite pre-construction meeting with a SMUD inspector is mandatory 48 hours in advance of construction. Copies of the Local Agency Building Permit will be required prior to scheduling pre-construction meetings with District Inspectors for non-residential developments. Call John Paneda (916) 869-0419.

All material and work shall be subject to inspection, examination, and testing by SMUD, at any time during manufacture, installation, or construction. The Contractor shall provide and maintain proper facilities and safe access for such inspections or testing. The Contractor shall pay the cost of all tests required under this specification. SMUD will pay the costs of any additional testing required by its Inspector to ensure the adequacy of the work.

Backfilling shall not be done until the work to be covered has been approved by a SMUD Inspector. For scheduling of SMUD inspectors call: Subdivisions – (916) 732-5722 New Business – (916) 732-5892 a minimum of 48 hours prior to the placing of any concrete or duct systems in construction of customer owned facilities. Failure to call the Scheduling office may require excavation to inspect or disapproval of the work.

In locations where the joint trench removes portions of an existing concrete walkway, the top two inches of backfill shall be Asphalt Concrete (1/2") as specified in these Special Provisions and in conformance with the requirements of Sections 10 and 22 of the Standard Specifications. The asphalt will provide a continuous, common walking surface that is not interrupted by abrupt changes in level exceeding 1/4" and does not exceed a 1:50 gradient (2%) in any direction. The asphalt concrete required in concrete walkways to backfill the proposed joint trench shall be considered part of the joint trench and no additional compensation will be allowed.

In locations where the joint trench removes portions of an existing asphalt roadway, the replaced pavement section shall adhere to drawing T-80 of the City of Sacramento Standard Specifications. The existing asphalt concrete is to be ground 2 inches deeper and six inches wider than the trench on both sides and replaced with new asphalt concrete. The replaced structural section shall conform in quality and thickness to the type of pavement removed but in no case shall be less than six inches (6") of Asphalt Concrete (1/2") on twelve inches (12") of Aggregate Base Class II. All Asphalt Concrete and Aggregate Base used in the roadway shall conform with these Special Provisions and the requirements of Sections 10, 17 and 22 of the Standard Specifications. The asphalt concrete and aggregate base in roadway sections required to backfill the proposed joint trench shall be considered part of the joint trench and no additional compensation will be allowed.

In locations where the joint trench requires the removal of curb and gutter, the existing curb and gutter shall be removed as necessary to the nearest expansion joint or score mark as determined by the Engineer. The curb and gutter removed shall be replaced in conformance with Section 24 of the Standard Specifications. Replacement of curb and gutter shall be considered part of the joint trench and no additional compensation will be allowed.

Payment shall be at the unit price bid per lineal foot of joint trench to construct and shall include full compensation for furnishing all labor, material, tools, equipment, incidentals and for doing all work involved with constructing the joint trench as shown on the Plans, as specified in these Special Provisions and as directed by the Engineer.

#### **ITEM NO. 39 - 6'X8' PULL BOX TO CONSTRUCT**

This item shall consist of all materials, labor, equipment, and incidentals necessary to construct 6'x8' pull boxes for the future relocation of SMUD and SUREWEST facilities. This item includes the excavation and appropriate backfill, conduit ducts, concrete, enclosures, anchors, paint, spreader bars, covers and all measures required to protect these facilities.

#### **ALL WORK SHALL CONFORM TO SMUD'S DISTRIBUTION UNDERGROUND STRUCTURE ENGINEERING SPECIFICATION T007 DATED SEPTEMBER 2006.**

Constructed pull boxes should be in conformance with SMUD standard drawings UVC 1.6 and 1.6.1.

Payment shall be at the unit price bid per each and shall include full compensation for furnishing all labor, material, tools, equipment, incidentals and for doing all work involved in constructing 6' x 8' pull boxes as shown on the Plans, as specified in these Special Provisions and as directed by the Engineer.

#### **ITEM NO. 40 - IRRIGATION SYSTEM AT CITY COLLEGE PROPERTY TO MODIFY**

This item shall consist of adjusting existing Automatic Irrigation System located on City College Property as shown on the drawings in conformance with the applicable paragraphs of Sections 10 and 36 of the Standard Specifications and these Special Provisions.

Contractor shall coordinate with City College five (5) working days prior start of work to coordinate access and disturbance of irrigation system.

Salvaged irrigation materials including but not limited to irrigation heads and valves shall be returned to the City College.

Replace irrigation materials damaged.

Install new irrigation heads and nozzles as necessary to provide head to head coverage with no overspray onto pavements or structures.

Payment shall be made at the lump sum price bid and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all work involved in completing the Irrigation System at City College Property as shown on the plans, as specified in the Standard Specifications, in these Special Provisions and as directed by the Inspector.

#### **ITEM NO. 41 - IRRIGATION SYSTEM AT WATER TOWER TO MODIFY**

This item shall consist of adjusting existing Automatic Irrigation System located at the water tower as shown on the drawings in conformance with the applicable paragraphs of Sections 10 and 36 of the Standard Specifications and these Special Provisions.

Contractor shall coordinate with Department of Utilities five (5) working days prior start of work to coordinate access.

Salvaged irrigation materials including but not limited to irrigation heads and valves shall be returned to the Department of Utilities.

Replace irrigation materials damaged.

Install new irrigation heads and nozzles as necessary to provide head to head coverage with no overspray onto pavements or structures.

Payment shall be made at the lump sum price bid and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all work involved in completing the Existing Irrigation System as shown on the plans, as specified in the Standard Specifications, in these Special Provisions and as directed by the Inspector.

#### **ITEM NO. 42 - AUTOMATIC IRRIGATION SYSTEM**

This item shall consist of furnishing and installing an Automatic Irrigation System as shown on the drawings in conformance with the applicable paragraphs of Sections 10 and 36 of the Standard Specifications and these Special Provisions.

##### AUTOMATIC IRRIGATION MATERIALS

Electric Control Valves shall be Superior model 950, or approved equal, and shall be constructed of all brass as specified in Section 10-50 and Standard Drawing No. LA-3 of the Standard Specifications and these drawings. Plastic control valves are not acceptable. Lawn area valves shall be installed a six inches (6") below finished grade in a valve box, and shrub/groundcover valves shall be installed at grade in the planter area in a locking valve box.

Valve Boxes shall be installed in conformance with Section 10-52 and Standard Drawing LA-3 of the Standard Specifications.

Irrigation Control Wires shall conform to Sections 10-48 and 36-12 of the Standard Specifications. Trench for irrigation control wires through existing lawn shall be twenty-four inches (24") deep. Trenching for irrigation control wires through existing paved areas shall conform to Section 34-10 of the Standard Specifications.

Irrigation Control Wires shall conform to Sections 10-48 and 36-12 of the Standard Specifications. Trench for irrigation control wires through existing lawn shall be twenty-four inches (24") deep. Trenching for irrigation control wires through existing paved areas shall conform to Section 34-9 of the Standard Specifications.

- A. Irrigation Control Wires shall be color coded to the use listed below and follow the colors associated with them.
- Rotor - Green Wire
  - Spray Heads - Yellow Wire
  - Bubblers - Blue Wire
  - Common Wire - White Wire

Plastic Irrigation Pipe Fittings shall conform to Section 10-46 of the Standard Specifications with the following addition: All threaded fittings for PVC pipe shall be Schedule 80.

Lateral Line Pipe or pipe on the discharge side of the irrigation control valve shall be Class 200 solvent weld PVC pipe and shall conform to Section 10-44 of the Standard Specifications, except as previously amended.

Electronic Marker System shall conform to Section 10-54 of the Standard Specifications, except as amended by the following: no marker locators will be required by the Contractor. Contractor shall supply only enough markers for use in new irrigation system. The markers shall be fastened to the underside of the valve box cover of buried lawn area valves only.

Sprinklers shall be installed at the locations shown on the Plans, in conformance with Standard Drawing No. L-50 of Section 36 of the Standard Specifications and these drawings. Sprinklers shall be the type and model as shown on the drawings.

Rotors shall be installed at the locations shown on the Plans, in conformance with Standard Drawing No. L-50 of Section 36 of the Standard Specifications and these drawings. Rotors shall be the type and model as shown on the drawings.

Tree Bubbler shall be installed at the locations shown on the Plans, in conformance with details shown on these drawings. Tree bubblers shall be the type and model as shown on the drawings.

Payment shall be made at the lump sum price bid and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all work involved

in completing the Automatic Irrigation System as shown on the plans, as specified in the Standard Specifications, in these Special Provisions and as directed by the Inspector.

#### **ITEM NO. 43 - TREES TO PLANT**

This item shall consist of furnishing, preparing and planting 15-gallon and 24" box Trees in conformance with Sections 10 and 35 of the Standard Specifications and as amended by these Special Provisions.

Preparing of Planting Areas shall conform to Section 35-5 of the Standard Specifications.

Soil in lawn areas adjacent to paved areas shall be graded so that after settlement, the soil will be one half inch (1/2") below the top of the paving.

Weed Control shall conform to Section 35-6 of the Standard Specifications.

##### Tree Planting Materials

Trees Planting Materials shall conform to Sections 10-43 and 35-7 of the Standard Specifications, except where noted.

- A. Trees quality and size shall comply with current edition of "American Standard for Nursery Stock" as adopted by the American Association of Nurseryman. Tree locations shall be as shown on plans. Proposed tree locations shall be field staked by the Contractor prior to planting, subject to the approval of the Landscape Architect.
- B. Plant Schedules shown on the plans are for the Contractor's convenience only. The Contractor shall confirm all quantities and shall plant as required by the Planting Plan when discrepancies exist.
- C. Tree Stake shall be pressure-treated lodgepole pine, eight foot (8') by two inch (2") diameter.
- D. Nursery Stake shall be removed prior to final acceptance unless other directed by the Landscape Architect.
- E. Tree Ties shall conform to Section 35-7, paragraph G with the exception of the ties shall be rubber and attached per planting detail.
- F. Backfill Mix shall consist of three parts native soil to one part soil amendment. Soil amendment for planting pits shall be 90% bark based product, fir and 0-1/4" in size, treated with nitrogen having a 2-0-0 NPK ratio.
- G. Mulch shall conform to the applicable paragraphs of Section 35-8. Mulch area shall be a four foot (4') diameter circle from the tree base in turf and shrub areas.

- H. Fertilizer Tablets shall be 21-gram tablets with 20-10-5 NPK ratio, and shall be applied as follows:

Twelve (12) tablets per 15 gallon container  
Eighteen (18) tablets per 24" box container

Payment shall be made at the unit price bid per each, and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all work involved in planting the Trees as shown on the plans, as specified in these Special Provisions and as directed by the Inspector.

**ITEM NO. 44 - SHRUBS 5 GALLONS TO PLANT**

**ITEM NO. 45 - SHRUBS 1 GALLON TO PLANT**

This item shall consist of furnishing, preparing and planting Shrub and Groundcover Areas in conformance with Sections 10 and 35 of the Standard Specifications and as amended by these Special Provisions.

SOIL PREPARATION

Preparing of Planting Areas shall conform to Section 35-5 of the Standard Specifications.

Soil in Shrub and Groundcover areas adjacent to paved areas shall be graded so that after settlement, the soil will be three inches (3") below the top of the adjacent paving or curb.

Weed Control shall conform to Section 35-6 of the Standard Specifications.

- A. Landscape Fabric shall be Fabriscape Professional Landscape Fabric, 3 ounce Spunbond or an approved equal. Tensile Strength shall be 130 lbs and shall conform to ASTM D-4632. Elongation at break shall be less than 70% and conform to ASTM D-4632 and Puncture Strength shall be a minimum of 35 lbs and conform to ASTM D-4751. The Coefficient of Permeability shall be  $4 \times 10^{-2}$  cm / second and conform to ASTM D-4491. The landscape fabric shall be secured to the prepared subgrade with 4" mulch. Installation of the landscape fabric shall be installed to cover all of the shrub and ground cover areas. The landscape fabric shall be installed as one piece and installation of landscape fabric shall not have pieces smaller than 3' x 3' square unless approved by the construction inspector. The landscape fabric shall only have holes no greater than the root ball diameter of the plant material. No landscape fabric shall be exposed upon final acceptance by the City of Sacramento.
- B. Staples or Fasteners – Landscape fabric shall be held in place by the use of staples or fasteners along all corners and seams at approximately 10' O.C. or closer as required to hold Landscape fabric in place. No staples or fasteners shall be placed within the shrub or groundcover root ball.

Soil Preparation Materials shall conform to Section 10-39, 10-40, 10-41, 35-8 of the Standard Specifications.

- A. Soil Conditioner/Fertilizer Contractor shall submit soil fertility analysis upon completion of rough grading for approval and application of amendments. Soils fertility analysis shall evaluate the following: micronutrient content, macronutrient content, pH level, saturation percentage, soil texture, infiltration rate, conductivity, total dissolved salts, cation exchange capacity, Sulfur or Lime levels, Gypsum levels, Sodium absorption ratio, exchangeable Sodium percentage, organic matter and recommendations based on analytical results. Soil conditioner shall be cultivated into the top twelve inches (12") of the soil and thoroughly watered in. Contractor shall provide proof of soil conditioner application to the Landscape Architect.

#### PLANTING MATERIALS

Planting Materials shall conform to Section 10-43 and 35-8 of the Standard Specifications.

Plant Legends shown on the plans are for the Contractor's convenience only. The Contractor shall confirm all quantities and shall plant as required by the Planting Plan when discrepancies exist.

Plants shall be the variety and size as shown on the plans and shall be placed as shown on the plans and the shrub planting detail.

- A. Fertilizer Tablets shall be 21-gram tablets with 20-10-5 NPK ratio, and shall be applied as follows:
- One (1) tablet per One (1) gallon container
  - Three (3) tablets per Five (5) gallon container
- B. Backfill Mix shall consist of three parts native soil to one part soil amendment. Soil amendment for planting pits shall be a 90% bark based product, fir, and 0-1/4" in size, treated with nitrogen having a 2-0-0 NPK ratio.

Payment shall be at the unit price bid per each and shall include full compensation for furnishing all labor, material, tools, equipment, and incidentals and for doing all work involved in completing the Shrub and Groundcover Areas as shown on the Plans, as specified in these Special Provisions and as directed by the Inspector.

#### **ITEM NO. 46 - BARK MULCH TO PLACE**

This item shall consist of furnishing and installing a 3" layer of Bark Mulch as shown on the drawings in conformance with the applicable paragraphs of Section 35 of the Standard Specifications and these Special Provisions.

Mulch shall be evenly spread in all shrub and groundcover areas to a three-inch (3") finished depth as specified on the plans. Mulch shall be Large Walk-On bark, fibrous in nature, one-inch (1") minimum to four-inch (4") maximum in length. Contractor shall submit a mulch sample to the Landscape Architect for approval at least forty-eight (48) hours prior to installation.

Payment shall be at the unit price bid per square foot and shall include full compensation for furnishing all labor, materials, tools, equipment, incidentals and for doing all work involved in installing bark mulch as shown on the Plans, as specified in these Special Provisions and as directed by the Engineer.

#### **ITEM NO. 47 - TURF HYDROSEEDING**

This item shall consist of furnishing materials, preparing and Turf Hydroseeding areas shown on the Plans in conformance with Sections 10 and 35 of the Standard Specifications and as amended by these Special Provisions.

#### **SOIL PREPARATION**

Preparing of Planting Areas, Section 35-5 of the Standard Specifications shall be amended as follows: Soil shall be cultivated until the condition of the soil is loose and fine-textured to a depth of four inches (4"). Finish grade of all planting areas shall be reviewed and approved by the Landscape Architect before proceeding with planting.

Soil in lawn areas adjacent to curbs or paved areas shall be graded so that after settlement, the soil will be one-half inch (1/2") below the top of curb or paving.

Weed Control shall conform to Section 35-6 of the Standard Specifications.

Soil Preparation Materials shall conform to Sections 10-39, 10-40, 10-41, 35-8 of the Standard Specifications.

Soil Conditioner/Fertilizer Contractor shall submit soil fertility analysis upon completion of rough grading for approval and application of amendments. Soils fertility analysis shall evaluate the following: micronutrient content, macronutrient content, pH level, saturation percentage, soil texture, infiltration rate, conductivity, total dissolved salts, cation exchange capacity, Sulfur or Lime levels, Gypsum levels, Sodium absorption ratio, exchangeable Sodium percentage, organic matter and recommendations based on analytical results. Soil conditioner shall be cultivated into the top twelve inches (12") of the soil and thoroughly watered in. Contractor shall provide proof of soil conditioner application to the Landscape Architect.

#### **TURF HYDROSEEDING MATERIALS**

Turf Hydroseeding shall conform to Section 10-42, and applicable paragraphs of Section 35-10 of the Standard Specifications and these Special Provisions.

Seed Mix shall consist of 90% Dwarf fescue, 10% Dwarf Kentucky Blue Grass applied at the rate of not less than twelve (12) lbs. of viable seed per 1,000 square feet. Seed mix shall be submitted to the Landscape Architect for approval. All seed shall be labeled in accordance with the California Food and Agricultural Code and shall be delivered to the site in original, unopened containers and shall bear a dated guaranteed analysis.

Wood Fiber Mulch shall be applied at the rate of 60 lbs. per 1,000 square feet. Wood Mulch shall be fibrous cellulose mulch containing no growth or germination inhibiting substances, and shall be manufactured in such a manner that when thoroughly mixed with seed, fertilizer, and water, in the proportions specified, it will form homogenous slurry, which is capable of being sprayed to form a porous mat. The fibrous mulch in its air-dry state shall contain not more than 10 percent by weight of water.

A. Binder shall be Am-Tac tackifier or approved equal applied at the rate as recommended by the manufacturer. Binder shall bind the fiber mulch to prevent erosion.

B. Turf Starter Fertilizer shall be applied at the rate of ten (10) lbs. per 1,000 square feet. Starter fertilizer shall conform to the requirements of the California Food and Agricultural Code A.

C. Fungicide shall be applied at the rate of one-third (1/3) lbs. per 1,000 square feet.

Payment shall be made at the lump sum price bid and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all work involved in completing the Turf Hydroseeding as shown on the plans, as specified in these Special Provisions and as directed by the Inspector.

#### **ITEM NO. 48 - TREE TO REMOVE**

Removal of trees at those locations shown on the plans shall conform to Section 12 of the Standard Specifications and these Special Provisions and as directed by the Landscape Architect.

Payment shall be at the unit price bid per each and shall include full compensation for furnishing all labor, material, tools, equipment, and incidentals and for doing all work involved with removing trees as shown on the Plans, as specified in these Special Provisions and as directed by the Inspector.

#### **ITEM NO. 49 - LANDSCAPE MAINTENANCE (180 DAYS)**

This item shall consist of maintaining the landscape planted areas installed in this contract as shown on the plans in conformance with Sections 35-13 through 35-20 of the Standard Specifications and as amended by these Special Provisions.

A. Start of Maintenance Period shall conform to Section 35-15 of the Standard Specifications.

B. Watering shall conform to Section 35-13 of the Standard Specifications and these Special Provisions.

C. Plant Replacement shall conform to Sections 35-14 of the Standard Specifications.

D. Plant Establishment period or Landscape Maintenance Period shall conform to Section 35-16 of the Standard Specifications and be amended as follows: The Landscape Maintenance Period shall be one hundred and eighty (180) calendar days and shall begin on the date of the Start of Maintenance Period. Plant Establishment and Landscape Maintenance shall continue until final acceptance of the work.

E. Lawn Maintenance shall conform to Section 35-16 of the Standard Specifications. When the lawn reaches three inches (3") in height, the Contractor shall mow it to a height of one and one-half inches (1-1/2"). The lawn shall be mowed thereafter on a weekly basis to a height of one and one-half inches (1-1/2"). Lawn growing around trees, light poles, fences, and other obstacles shall be maintained at a height equal to that of the adjacent lawn areas, or may be chemically controlled with the approval of the Landscape Architect. Catching of lawn clippings shall not be required. Following a minimum of three (3) mowings the Contractor shall be required to treat the lawn with a selective broadleaf and grass weed herbicide that will not harm the lawn. The Contractor shall conform to Section 35-6 of the Standard Specifications for application of herbicides.

Lawn Fertilizer (2nd Application): One week prior to the final inspection the Contractor shall apply to all lawn areas a second application of fertilizer with a 16-6-8, N-P-K analysis, at six (6) pounds per 1,000 square feet.

F. Tree & Shrub Maintenance. Trees and Shrubs shall be pruned and shaped as directed by the Landscape Architect. Trees shall be restaked as necessary. Maintain watering basins and shrub and groundcover areas free of weeds.

G. Pre-Final Inspection shall conform to Section 35-17 of the Standard Specifications and be amended as follows: Seven (7) weeks prior to the end of Maintenance Period, the Inspector and the Landscape Architect shall conduct a pre-final inspection. At the pre-final inspection or at anytime thereafter, should the Inspector determine that the project meets the requirements of the final acceptance of the work, he may issue final acceptance of the project to the Contractor.

H. Final Inspection shall conform to Section 35-18 of the Standard Specifications. At the time of final acceptance of the work, any square yard of the planted areas shall be ninety percent (90%) weed free and in a neatly mowed condition, as determined by the Inspector.

Payment shall be made at the unit price bid per month and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all work involved in completing the Landscape Maintenance (180 days) as shown on the plans, as specified in these Special Provisions and as directed by the Inspector.

#### **ITEM NO. 50 - STREET LIGHT INSTALLATION**

**A Schedule of Values (cost break-down) for lump sum electrical items must be included with the bid. Otherwise, the bid will be deemed non-responsive.**

The sum of the amounts for the units of work listed in the cost break-down for electrical work shall be equal to the contact lump sum price bid for the work. The unit price is the material and installed cost with overhead, profit, and labor.

The Contractor shall determine the quantities to complete the work shown on the plans. The quantities and values shall be included in the cost break-down submitted with the bid package. The Contractor shall be responsible for the accuracy of the quantities and values. No adjustment in compensation will be made in the contract lump sum prices paid for the various electrical work items due to any differences between the quantities shown in the cost break-down furnished by the Contractor and the quantities required to complete the work as shown on the plans and as specified in these special provisions. At the Engineer's discretion, the approved cost break-down may be used to determine partial payments during the progress of the work and as the basis of calculating the adjustment in compensation for the items of electrical work due to changes ordered by the Engineer. When an ordered change increases or decreases the quantities of an approved cost break-down, the adjustment in compensation may be determined, at the Engineer's discretion, in the same manner specified for increases and decreases in the quantity of a contract item of work in accordance with Section 4-1.03B, "Increased or Decreased Quantities", of Caltrans Standard Specification. The cost break-down submitted by the responsive qualified low bid Contractor shall be approved by the Engineer before any partial payment for the items of electrical work shall be made based on the cost break-down. The cost break-down shall include, but is not limited to: type of equipment, estimated quantity, and unit price (\$/LF or each). See below for sample items. Some items from the list may not apply to the project, and other items may need to be included. Contractor shall submit break-down in a spreadsheet format.

*Conduit* – list each size (2", 3", etc.), installation method, quantity (LF), unit price (\$/LF).

*Conductor* – list each size (#6, #8, etc.), quantity (LF), and unit price (\$/LF).

*Pull Box* – list type (#5, #6, etc), quantity, and unit price (\$/EA).

*Electrical Service* – type (metered or unmetered), quantity, and unit price (\$/EA).

*Streetlight Standards with Foundation* – list each standard (such as 1-B, Type quantity, and unit price (\$/EA).

The work to be performed for this item, in general, includes furnishing and installing all necessary equipment and materials for a new streetlight system as indicated on the Plan sheets and these Special Provisions.

Included in the work shall be furnishing and installing streetlights, conduits, conductors, pull boxes, foundations, traffic control measures, incidentals, and all appurtenances shown on the Plans and called for in these Special Provisions.

Contractor shall supply and install lockable lids for the pull boxes. See Special Provisions for details.

Payment shall be at the lump sum price bid and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all work involved with installing the new lights as shown on the Plans, as specified in these Special Provisions and as directed by the Engineer.

### **3. ELECTRICAL PROVISIONS WHICH APPLY TO ALL ELECTRICAL ITEMS**

#### **3.1 Conduit Material**

Conduit to be installed underground shall be Schedule 40 polyvinyl chloride (PVC) or Schedule 40 polyethylene conduit as described herein unless otherwise indicated or specified. PVC conduit shall comply with the specifications in Section 34-10 of the City Standard Specifications. High-density polyethylene conduit shall comply with the following specifications:

Conduit shall be fabricated from polyethylene shall be in conformance with applicable ASTM and NEMA standards and Article 347 of the National Electrical Code. Non-black polyethylene conduit shall contain not less than 2500 parts per million (ppm) of a hindered amain ultraviolet light stabilizer. Ultraviolet stabilization additive for black polyethylene conduit shall consist of a carbon black loading of  $2.5\% \pm 0.5\%$  by weight.

Conduit shall be manufactured from high-density polyethylene resin designated as Type III, Category 5, Class C, Grade P34 material in accordance with ASTM D1248.

#### **3.2 Conduit Installation**

Conduit installation shall be in accordance with Section 34-9, 34-10 of the Standard Specifications and as modified by these Special Provisions. "Jet-rodding" is not permitted.

Conduits terminating in pull boxes, standards, pedestals and cabinets shall rise vertically and shall not slope in any direction. Conduits terminating in standards, pedestals, and cabinets shall terminate one and one-half inches (1½") above finished grade. Conduits shown on the Plans to be adjacent and parallel to each other shall be installed in the same trench or drill hole unless otherwise specified or directed by the Engineer. Under the sidewalk, conduit shall be laid to a depth of not less than eighteen inches (18") below the sidewalk grade.

Conduits shall be installed by trenching or directional drilling method.

All applicable requirements in these Special Provisions to locate, and to protect existing utilities, utility laterals, obstructions, and other facilities in the area shall be conformed to and no additional compensation will be allowed therefor. Contractor is responsible for any damage and

the repair of any existing facilities damaged by his/her trenching or drilling operations. Contractor is responsible for any potholing necessary and cost for potholing shall also be included in price paid for applicable items of work and no additional compensation will be allowed therefor. All trenching or drilling work shall be contained within the City right-of-way. If utilities or other obstacles are encountered at the specified conduit depth, any additional drilling required to avoid the obstacle shall be made at the Contractor's expense and no additional compensation will be allowed therefor. Location of trenching and drill holes shall take into consideration minimal impact to the street pavement while still meeting the requirements of these Special Provisions.

#### A. Trenching Method

Installation of conduit by trenching shall be in conformance with the Plans and these Special Provisions. See plan sheets for trench details. Trenches shall be backfilled or covered at the end of each work day. All conduit installed by trenching shall be anchored every 15 feet to the bottom of the trench, with an approved method, so as to prevent the conduit from floating when the concrete is backfilled into the trench.

1. Trenches in reconstructed roadways shall be backfilled with slurry portland cement per cubic yard and fine type aggregate as defined in the Standard Specifications Section 10-5. A red oxide in the amount of 5 lbs. per cubic yard shall be mixed uniformly throughout the slurry cement. See plan sheets for amount of sack slurry and depth of conduit(s).
2. Trenches in existing roadways shall use the "T-Trench" method. The portion over the trench shall be paved with asphalt concrete, Type A with  $\frac{3}{4}$ " aggregate (coarse); except on residential streets where the base course shall be Type A,  $\frac{3}{4}$ " aggregate (coarse) and surface coarse shall be Type B,  $\frac{1}{2}$ " aggregate, (medium), per Section 22 of the City Standard Specifications, unless otherwise directed by the Engineer. See plan sheets for width and thickness of asphalt concrete over trench. Trenches shall be backfilled with slurry portland cement per cubic yard and fine type aggregate as defined in the Standard Specifications Section 10-5. A red oxide in the amount of 5 lbs. per cubic yard shall be mixed uniformly throughout the slurry cement. See plan sheets for amount of sack slurry.

#### B. Directional Drilling Method

Installation of conduit by directional drilling shall be in conformance with the Plans and these Special Provisions.

Conduits shall be installed such that the top of the conduit(s) are not less than eighteen inches (18") below the finished grade in sidewalk areas and not less than thirty inches (30") in all other areas except as otherwise specified or directed by the Engineer.

Prior to the start of directional drilling, the Contractor shall submit a plan which identifies

location and size of proposed drill holes, describes process for identifying/locating existing utility services and other underground utilities or obstructions, identifies a proposed “drilling corridor” to avoid conflicts with existing utilities, services and other facilities. This plan shall be submitted to the Engineer a minimum of ten (10) working days prior to the start of work. The Contractor will not be allowed to directional drill until an approved plan is on file with the Engineer

Directional drilling shall be performed by the technique of creating and directing a bore hole along a predetermined path to a specified targeted location where indicated on the plans to install conduits. The technique shall involve the use of mechanical and hydraulic equipment to change the boring course and shall use instrumentation to monitor the location and orientation of the boring head assembly along the predetermined course. Drilling shall be accomplished with fluid-assisted mechanical cutting. Unless otherwise approved, boring fluids shall be a mixture of bentonite and water or polymers and additives. Bentonite sealants and water will be used to lubricate the drilling head. It is mandatory that minimum pressures and flow rates be used during drilling operations so as not to fracture the subgrade material around and/or above the bore. Uncontrolled jetting (where the primary purpose is to use fluid force to erode soil for creation of the final bore hold diameter) is prohibited. The drilling system shall utilize small-diameter fluid jets to fracture, and mechanical cutters to cut and excavate the soil as the head advances forward.

All drilling shall be located a minimum of three feet (3') from the center of all existing maintenance holes. Drilling that run parallel to any sanitary sewer or storm drainage lines shall maintain a minimum clearance of three feet (3') measured from the centerline of the sewer or drainage line to the adjacent side of the drill hole. Drilling that crosses any sewer or drainage line shall cross at 90 degrees to the line or at a minimum of 45 degrees if a 90 degree crossing is not possible.

### **3.3 Conductors**

Conductors shall be in accordance with Section 34-12 of the Standard Specifications, except for the following:

1. If the existing ground wire (green 1#10 THW) is used as a pullwire, a new ground wire shall be pulled with the new conductors or cables.
2. Unless otherwise noted, insulation Types THHN and THWN are not approved for installation.
3. The electrolier leads from base to lamp socket shall be No. 12 THW solid wire with 45 mils insulation suitable for 600-volt service for historic decorative, post top and mast arm electroliers.

### **3.4 Inspection**

Inspection shall be in accordance with Section 34-22 of the Standard Specifications and these Specifications.

### **3.5 Lighting Standards**

Lighting Standards shall be in accordance with the latest California Department of Transportation Standard Plans, unless otherwise specified in these Specifications or Plans.

Lighting standards shall also be in accordance with Section 34-18 of the City Standard Specifications, unless otherwise specified.

### **3.6 Ornamental Streetlight – Sealing of Streetlight Pole Foundation**

Ornamental streetlight shall be City's standard Style 1 as shown on plans with SimplyLed ACN-70-C or approved equal.

The concrete for the foundation shall be finished so that the top surface is straight and smooth with a 2% grade conforming to the adjoining sidewalk.

Once the pole is installed and leveled on the anchor bolts, the gap between the base of the pole and the top of the foundation shall be sealed using the following procedure.

1. The bottom surface of the pole base shall be primed using Pecora P-120 or approved equal and the top of the foundation shall be primed using a Pecora P-150 or approved equal. The curing of the concrete used for the foundation or pavement and the application of the primer shall follow the guidelines provided by the manufacturer of the primer and sealant.
2. The gap to be sealed shall be partially filled by pushing in a 1.5" diameter Bi-Cellular Backer Rod (SOF Rod), cut to size, and installed around the bottom perimeter of the pole base, pushed against the anchor bolts. The backer rod product shall be made by Construction Foam Products or approved equal.
3. A one half-inch (1/2") inside diameter drain tube shall be placed in the gap between the base of the pole and its foundation to prevent standing water. The drain tube shall be placed under the backer rod, flush with the finished surface of the concrete, and extending about 2.25" toward the center of the pole base. It shall be placed so that it is following the downward slope of the surrounding sidewalk and top of foundation (about 2%). The drain tube shall be made of PVC with a wall thickness of 1/16" or as approved by the engineer.
4. Once the primer is dry as recommended by the manufacturer, and the backer rod is installed, the Contractor shall apply a silicone sealant, with a minimum thickness of

0.5inch. Use a pre-tinted black color silicone, model number Pecora 890NST or approved equal. Completely seal the gap between the base of the pole and the top of the foundation with the silicone making. Use a masking tape when applying the sealant, in order not to smear the outside of the pole, and the surrounding pavement with the sealant material. The sealant shall be smoothed out around the base of the pole, and any excess material removed before it is set to cure as required by the sealant manufacturer.

The sealant shall be smoothed out around the base of the pole, and any excess material removed before it is set to cure as required by the sealant manufacturer.

### **3.7 Pull Boxes**

Shall be in accordance with Section 34-11 of the Standard Specifications, except for the following:

- a. All new pull boxes shall be set in place prior to pouring any new sidewalk.
- b. Existing pull boxes damaged by the installation of new conduits shall be removed and replaced at the Contractor's expense as directed by the Engineer.
- c. All pull boxes shall be placed in sidewalk areas unless otherwise specified on the plans or directed by the Engineer, and shall not be placed in driveways, in vehicular traveled lanes, or in any part of the new sidewalk handicap ramp areas. Unless otherwise specified, pull boxes shall be placed a minimum of 5 feet from existing driveways.
- d. Contractor shall cut, remove and replace the concrete to the nearest joint when installing new pull boxes.
- e. New pull boxes shall have a minimum of 6" of new concrete around all sides in sidewalks.
- f. For pull boxes to be removed, holes or depressions resulting from the removed pull box shall be filled, compacted, brought to grade, and filled to match surrounding materials.
- g. Pull boxes shall be placed as shown according to the details shown on the Plans and according to these Special Provisions.
- h. Install pull box on top of crushed rock foundation. Adjust pull box to grade. The crushed rock foundation shall have a minimum of 12" in depth and continue to extend a minimum of

6" beyond the outside edge of the pull box. Compact crushed rock while maintaining integrity of conduit. Conduit and pull boxes shall not be damaged nor cracked.

- i. All No. 5 and No. 6 Pull Boxes shall have steel security lids with locking key bolt.
  - 1) Pull Box Lid shall be manufactured by LockLid Secure Utility Enclosure Lids manufactured by Jensen MetalTech or approved equal. (#5 PB - Locklid 1324 Lid LL K-S TrxPlt Sac Glv; #6 PB – LockLid 1730 Lid LL K-SD TrxPlt Sac Glv)
  - 2) Lid shall be ¼" thick minimum galvanized steel.
  - 3) Lid shall be manufactured with slip resistant surface.
  - 4) Lid shall be non-traffic rated, unless otherwise specified.
  - 5) Lid shall be equipped with a lock mechanism which can be secured from the top of lid.
  - 6) Lock shall be recessed a 1 inch diameter circle. Lock shall be a Secure Keyed Bryce Fastener, or approved equal.
  - 7) A steel welding plug shall be provided by the manufacturer to be inserted into the 1 inch diameter recessed lock. (Locklid # Plugs Sac Stl Plgs LkLd Lids, or approved equal).
  - 8) Lid shall be flush with top of pull box when the lid is completely secured and locked to the pull box.
  - 9) No. 5 pull boxes shall have a single cam locking system, or approved equal.
  - 10) No. 6 pull boxes shall have a double cam locking system, or approved equal.
  - 11) Lid shall have a grounding lug.
  - 12) Supply five sets of keys for the locks.
  - 13) Supply two sets of lifting tools for the lid.
  - 14) Lid shall be free of scratches, defects, and debris. Lids shall be installed new.

### **3.8 Wiring**

Wiring shall be in accordance with Section 34-13 of the Standard Specifications, except for the following:

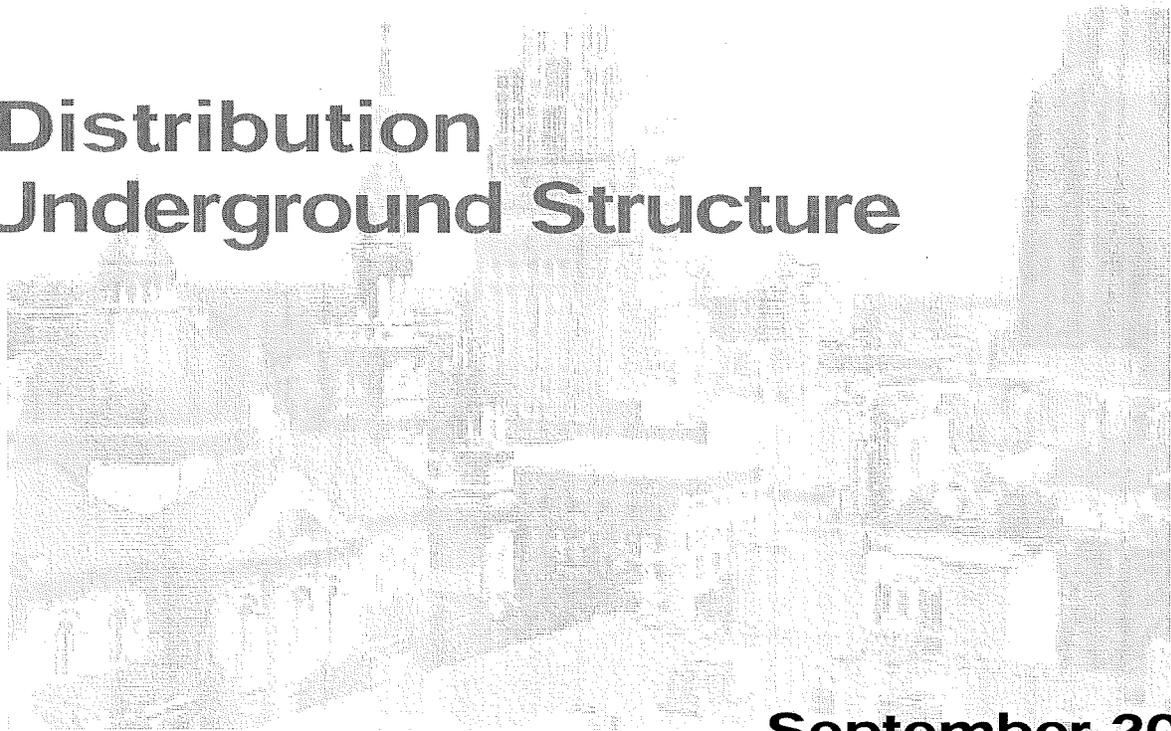
- a. After taping, all splices shall be painted with an approved electrical coating that will resist oil, acids, alkalies, and adverse environmental conditions.
- b. Pull ropes used to pull conductors in conduit shall be a minimum of three-eighths inch (3/8") in diameter.

**APPENDIX**

**SMUD's Distribution Underground Structure Engineering Specifications T007**

# Electric Service Requirements

## Distribution Underground Structure



September 2006

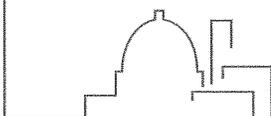
### ENGINEERING SPECIFICATION T007



**SMUD**

SACRAMENTO MUNICIPAL UTILITY DISTRICT  
6201 S Street, P.O. Box 15830, Sacramento, CA 95852-1830

The Power To Do More.<sup>SM</sup>



<sup>SM</sup>A registered service mark of Sacramento Municipal Utility District



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## 1 PURPOSE

- 1.1 Generally, all new residential, commercial and industrial developments will be designed and constructed as underground conduit systems. This Engineering Specification is used to set forth the Sacramento Municipal Utility District (SMUD) requirements pertaining to material and installation of the electric distribution underground structures for new electric service and for changes to existing facilities. The requirements are necessary for SMUD to supply uniform and safe service throughout the District. It is important that the customer and their representatives, including contractors, read and understand this specification in its entirety because service will not be connected until all of the requirements are satisfied and approved by all of the appropriate inspection authorities including SMUD.

**USE CAUTION WHEN DIGGING.  
TO AVOID BURIED ELECTRICAL CABLES,  
CALL U.S.A. (Underground Service Alert)  
BEFORE DIGGING  
800-227-2600**

## 2 SCOPE

- 2.1 This specification applies to the material, construction, and installation requirements for electric distribution underground structures throughout the District.

## 3 REFERENCES

- 3.1 All equipment shall be designed, manufactured, supplied, and installed in accordance with the latest applicable standards including but limited to:
- 3.1.1 Specification for Smooth-Wall Poly (Vinyl Chloride) (PVC) Conduit and Fittings for Underground Installation American Society for Testing and Materials (ASTM) F512, Standard
  - 3.1.2 National Electric Manufacturers Association (NEMA) TC-2, Electrical Polyvinyl Chloride (PVC) Conduit
  - 3.1.3 National Electric Manufacturers Association (NEMA) TC-3, Polyvinyl Chloride (PVC) Fittings for Use with Rigid PVC Conduit and Tubing
  - 3.1.4 National Electric Manufacturers Association (NEMA) TC-6 & 8, Polyvinyl Chloride (PVC) Plastic Utilities Duct for Underground

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Installations

- 3.1.5 California Public Utilities Commission (CPUC), General Order 128, Rules for Construction of Underground Electrical Supply and Communication Systems.
- 3.1.6 Underwriters Laboratories (UL) 651, UL Standard for Safety Schedule 40 and 80 Rigid PVC Conduit and Fittings
- 3.1.7 Western Underground Committee (WUC) guide 3.6, Non-Concrete Enclosures.
- 3.1.8 ASTM C857, Standard Practice for Minimum Structural Design Loading for Underground Precast Concrete Utility Structures.
- 3.1.9 American National Standard Institute (ANSI) and Society of Cable Telecommunications Engineers (SCTE) 77, Specification for Under Ground Enclosure Integrity.

**4 REQUIREMENTS FOR SERVICE**

**4.1 General**

- 4.1.1 Contact SMUD's Customer Services Department at, 1-888-742-7683, for new or additional service. The street address is 6301 S Street, Sacramento, CA. 95817. This must be accomplished as soon as initial planning is considered. Delays in supplying this required information could cause an unnecessary inconvenience for the customer.
- 4.1.2 Commercial and industrial installations require building plans and definite load information to be furnished, in writing, to SMUD Customer New Services, MS E108, at P.O. Box 15830, Sacramento, CA 95819, as soon as possible. Delays in supplying this required information could cause an unnecessary inconvenience for the customer.
- 4.1.3 The customer shall be required to conform to this specification and satisfy all of the requirements, including but not limited to, having the work inspected by a SMUD Inspector, before SMUD personnel energize the customer's panel or other point of service. Electric service will not be established until the customer satisfactorily completes the "customer service entrance facilities" and interior wiring. It is important that early arrangements be made in advance of the installation of electric service lines and the location and setting of meters.

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NOTE: "Customer service entrance facilities" is the term used to designate that all of the electrical components are required to be furnished and installed by the customer.

- 4.1.4 The District commitment letter will normally be valid for one year. A new District commitment shall be required after one year unless a customer has requested and received written approval for a longer period of time from a SMUD Designer.
- 4.1.5 The customer shall be responsible to protect his or her own equipment where unusually stable voltage regulation is required by the operation of the customer's equipment, beyond that supplied by SMUD in the normal operation of its system. Any special or auxiliary equipment required by the customer will be installed on the load side of the meter. The customer shall install, own, operate and maintain this special or auxiliary equipment at the customer's expense.
- 4.1.6 No service shall be connected until approved by the appropriate inspection authority. Only authorized SMUD employees are permitted to make connections between District wiring and customer wiring.
- 4.1.7 All installations must be located within public utility easements or formal District rights-of-way, which parallel the street except as may be directed by a SMUD Designer.
- 4.1.8 All conduit and pull boxes located in the Public Utility Easement are to be installed by the customer at the customer's expense and will be deeded to SMUD. All pull boxes to be deeded to SMUD will have their concrete/steel covers engraved with the words "SMUD ELECTRIC". This wording meets the requirements of State Safety Order G.O. No. 128 for identification of ownership.
- 4.1.9 The Customer shall secure all the permits and licenses necessary for the prosecution of the work , unless noted elsewhere, at the customer's own expense. The customer shall give all notices necessary and incidental to the due and lawful prosecution of the work.
- 4.1.10 Portions of the work may be near existing facilities. These facilities may remain energized throughout the course of the work. The customer and their personnel shall use extreme care while performing work near energized facilities. It shall be the responsibility of the Customer to ascertain the location of both existing overhead and underground facilities and to be fully aware of the proximity of their work to the energized electrical facilities or other hazards. The customer shall be responsible for

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any damage to existing electrical facilities caused by the customer. The Underground Service Alert organization shall be used to help locate existing facilities. USA 1-800-227-2600.

- 4.1.11 All residential development contracts and/or agreements with SMUD shall be executed in accordance with the provisions of Rule and Regulation 15.
- 4.1.12 Commercial and Industrial contracts and/or agreements with SMUD shall be executed in accordance with the provisions of Rule and Regulation 16.
- 4.1.13 Normally, only one service point will be granted to one building or one parcel of property. Multiple service points may be granted to one parcel, provided they meet the requirements of the "National Electric Code" as well as the requirements of SMUD and local inspection authorities.
- 4.1.14 SMUD's New Services Division will determine the customer's service voltage. Multiple service voltages to one building or parcel of property will only be granted upon approval of SMUD's New Services Division and local inspection authorities.
- 4.1.15 Joint Utility Trench
  - 4.1.15.1. Joint utility trenches can only be used for power, communications, CATV, and gas facilities. No other facilities shall be allowed in the utility trench. Location and separation within the joint utility trench must be agreed upon by the utilities in advance.
  - 4.1.15.2. For commercial/industrial projects, the customer will consult with the other utilities in an attempt to coordinate trenching, however, the customer must recognize that each utility has its own design criteria. The customer must get written approval for any requested deviations from the power plan submitted by the SMUD Designer before construction starts.

**USE CAUTION WHEN  
DIGGING TO AVOID  
BURIED ELECTRICAL CABLES  
BEFORE DIGGING CALL  
U.S.A. (Underground Service Alert)  
1-800-227-2600**

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4.1.16 Street Lights

4.1.16.1. The street lighting system design and construction is the responsibility of the customer. SMUD will work with local municipal agencies to provide a designated street light service point. For information concerning street light systems call:

City of Galt	209-745-0575
City of Folsom	916-355-7272
City of Sacramento	916-808-5288
County of Sacramento	916-874-5809

4.1.16.2. The customer is responsible to arrange for the installation of any necessary temporary facilities required to energize the development street light system prior to permanent facilities being.

4.1.16.3. The customer shall install a street light box and the necessary conduit within the city or county right-of-way. City or County inspectors will inspect the box and the conduit.

4.1.17 The Customer shall indemnify, defend, and hold harmless the Sacramento Municipal Utility District, its directors, officers, representatives, agents, and employees against all claims, loss, damage, expense and liability asserted or incurred by other parties, including, but not limited to, the Sacramento Municipal Utility District's employees and Customers' employees, arising out of or in any way connected with the performance of work described by this specification and caused by the acts, omissions, intent or negligence, whether active or passive, of the Customer, its agents, employees and suppliers, and excepting only loss, damage or liability as may be caused by the intentional acts or the active negligence of the Sacramento Municipal Utility District. It is the intent of parties hereto that, where negligence is determined to have been contributory, principles of comparative negligence will be followed and each party shall bear the proportionate cost of any loss, damage, expense and liability attributable to that party's negligence.

4.2 **Material Furnished and Installed by SMUD**

4.2.1 SMUD will furnish and install electric facilities that include: transformers, switchgear, primary conductors, terminations, connectors,

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splices, and associated materials. District charges for materials and installation labor will be in accordance with the latest provisions of Rule and Regulation 15 and 16.

- 4.2.1.1. The SMUD designer shall determine the quantity, size, and type of facilities to be furnished and installed by SMUD.
- 4.2.1.2. SMUD will provide and install material required to make the connection between the customer supplied ground rod and the transformer.
- 4.2.1.3. Secondary conductors and associated facilities shall be installed per the “Extension of Facilities to Residential Premises, Rule and Regulation 15.”
- 4.2.1.4. For commercial developments (Rule 16), secondary conductors will be furnished and installed from the transformer to the secondary junction box, if a junction box is required.

**4.3 Material Furnished and Installed by Customer**

- 4.3.1 The customer is required to furnish and install all materials, labor, equipment, and incidentals necessary to provide a complete conduit system. The complete conduit system also includes any future facility needs. The materials include but are not limited to the trench (excavation and appropriate backfill), conduit ducts, manholes, vaults, enclosures, switchgear pads, transformer pads/wells, service boxes, and all measures required to protect these facilities (concrete encasements, retaining walls, barricades, etc.). The material and installation shall be per this specification, which includes the design and construction drawings located in Appendix A.
- 4.3.2 The customer shall comply with all applicable District procedures and specifications in order to assure SMUD of the acceptable installation of customer installed transformer pads and duct lines intended for attachment to the District's system.
- 4.3.3 SMUD equipment and material are to be installed and maintained in or on facilities furnished by the customer. The customer will grant the District's Representative a right of access to the site for construction inspection and maintenance purposes.
- 4.3.4 SMUD equipment shall be accessible to a 26,000-pound SMUD service vehicle in all weather. SMUD equipment shall be no further than 15 feet

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from a drivable surface. The drivable surface shall have a minimum width of 20 feet.

- 4.3.5 Only those electrical conduits intended for electric service shall be placed under a transformer pad. The placement of other conduits or structure foreign to the electric service must be approved by a SMUD designer or SMUD construction inspector.
- 4.3.6 Secondary Conductors
- 4.3.6.1. Secondary conductors and associated facilities shall be installed per the “Extension of Facilities to Residential Premises, Rule and Regulation 15.”
- 4.3.6.2. For commercial developments (Rule 16), the customer shall install secondary conductors to terminate at a transformer or at a secondary junction box.
- 4.3.7 Transformer Vaults
- 4.3.7.1. Transformer vaults shall be installed by the customer and shall comply with SMUD Specification T-001, “Customer Owned Vault Requirements.” Contact SMUD’s New Services Division for a copy. Vault and transformer room size specifications are stated in Specification T-001.
- 4.3.7.2. Service Entrance Conductor or Buss Duct
- Service entrance conductors or buss duct shall be furnished and installed by the customer.
  - The service entrance conductors within a transformer vault shall be long enough to rack on vault wall as determined by SMUD’s New Services Division.
  - Service entrance buss duct, transformer tap can, and connectors may be used with District approval within vaults. Customer transformer tap can and buss duct shall terminate as close as practical to the SMUD transformer.
- 4.3.8 Alcoves for Transformer Installations
- 4.3.8.1. Alcoves for transformer installations shall comply with SMUD Specification C-003. Contact SMUD’s New Services Division for a copy.

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4.3.9 Protective Barriers (Bollards)

4.3.9.1. The customer shall install bollards when the edge of the District equipment is less than five feet from vehicular traffic, or when SMUD determines the equipment location may become exposed to vehicular traffic.

4.3.9.2. The bollards shall be in accordance with one of two methods outlined on Engineering Drawings UVD 2.4 and UVD 2.5.

4.3.10 The customer and/or their representatives or contractors shall not enter any vault, manhole, or other SMUD facility that contains energized equipment except in the presence of a District Representative. SMUD personnel are available for this purpose upon 48-work hours notice to SMUD's New Services Division.

4.3.11 For scheduling of SMUD inspectors call: Subdivisions – (916) 732-5722 New Business – (916) 732-5892 a minimum of 48 hours prior to the placing of any concrete or duct systems in construction of customer owned facilities. Failure to call the Scheduling office may require excavation to inspect or disapproval of the work.

4.4 **Inspections**

4.4.1 SMUD will provide an Inspector. Two full working days are required to schedule an inspector. The hours of work for the Inspector are from 8:00 a.m. to 3:00 p.m., Monday through Friday. All work requiring the presence of the Inspector shall be scheduled during these hours. For scheduling of inspectors call: **Subdivisions - (916) 732-5722; New Business - (916) 732-5892.**

4.4.2 All material and work shall be subject to inspection, examination, and testing by SMUD, at any time during manufacture, installation, or construction. The Customer shall provide and maintain proper facilities and safe access for such inspections or testing. The Customer shall pay the cost of all tests required under this specification. SMUD will pay the costs of any additional testing required by its Inspector to ensure the adequacy of the work.

4.4.3 The Customer shall, unless otherwise specified, give 48 hours advance notice to the SMUD Inspector prior to placing concrete, installing ground rods, backfilling trench, and mandrelling conduit.

4.4.4 SMUD shall have the right to reject defective material and work.

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Rejected work shall be corrected, and rejected material shall be replaced with proper material. The Customer shall promptly segregate and remove rejected material from the job site.

- 4.4.5 Failure of the Customer to adhere to the above provisions may result in the Customer being required, at his expense, to remove, uncover or otherwise enable inspection of such work by the Inspector.
- 4.4.6 Rejected work will result in delaying electric service until the inadequacies are corrected. The customer shall pay the cost of correcting rejected work.

**4.5 Excavation and Backfill**

- 4.5.1 Backfilling shall not be done until the work to be covered has been approved by a SMUD Inspector.
- 4.5.2 Excavation, backfill, and compaction shall be in accordance with this specification, which includes the latest revision of SMUD drawings, shown in Appendix C, unless otherwise specified in the plans and /or the requirements of the local jurisdiction.
- 4.5.3 For backfilling trenches, except for concrete encased conduit, fine earth, sandy loam, or sand shall be used for initial backfill unless specified or shown otherwise on the plans. Initial backfill shall extend to a minimum of 6 inches above the top conduit. Initial backfill shall be carefully placed and compacted so as to fill all voids without disturbing or damaging the conduits and form an envelope of at least six (6) inches on all sides. Fine earth shall mean earth free of rocks or clods larger than 3/4 inches and deleterious matter. The method of compaction used shall be as approved by the Inspector. Jetting shall not be allowed.
- 4.5.4 Concrete encasement shall be required on all elbows, except at risers, and shall be a mix consisting of 3/8-inch maximum size well graded, washed, naturally round, aggregate, five sacks of Type 1 cement per cubic yard and have a slump of not to exceed eight (8) inches. Total encasement may not be required on elbows installed at the base of the pole (i.e. risers), however the concrete shall be placed on the inside radius of the elbow. The concrete shall be a minimum of 12 inches in depth. Plywood or drywall is typically placed on the sides of the elbow to create a form.
- 4.5.5 Where encasement is required, concrete shall be placed to form a conduit encasement of at least three (3) inches on all sides three (3) to six (6) inches between the outer surfaces of the envelope and the surface of the

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nearest conduit. .

4.5.6 When concrete is used, a ticket from concrete company shall be provided upon request.

4.5.7 Surfaces upon which concrete is to be placed shall be free of standing water, mud, and debris. Absorptive surfaces against which concrete is to be placed shall be moistened.

#### 4.6 Installation - Boxes

4.6.1 The sub grade for all sub surface boxes and transformer pads shall be compacted to a relative density of at least 90 percent. A written compaction report shall be provided upon request.

4.6.2 All switchgear boxes, primary pull boxes, and secondary pull boxes installed in full traffic locations require an aggregate base of an eight (8) inch layer of 3/4" crushed rock. The 3/4" crushed rock shall be tamped and consolidated. All boxes shall be placed level.

4.6.3 Secondary pull boxes rated and installed in incidental traffic locations shall be installed per U1S3X4.

4.6.4 Secondary service boxes shall be installed so that top of box follows the slope of the finished grade except as noted on the drawings.

4.6.5 For all switchgear boxes, the Customer shall hold backfill two (2) feet from the surface and two feet out from the box to allow for installation of perimeter grounding conductor. The customer shall install the ground grid wire (4/0 Bare CU). The Inspector shall coordinate inspection for installing and backfilling the grounding wire. See SMUD drawings UGA2.5 and U12H3X1.

4.6.6 The customer will install all pull boxes and pads at final grade. Facilities that have been installed, which, in the District's judgment, require raising, lowering, or relocation as a result of customer development changes, shall be done in total at customer expense.

4.6.7 Where mounded landscaping is planned or added at a later date, the customer is responsible to provide permanent retaining walls or appropriate grade change to insure pull boxes are not covered and proper operating clearances are maintained. Wood is not considered permanent and is not an acceptable material. Contact SMUD's Inspector for further information.

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#### 4.7 Installation - Conduit

- 4.7.1 All conduits shall be placed in accordance with SMUD design and installed per the associated drawings that are a part of this specification.
- 4.7.2 The Customer shall furnish and install conduit systems in accordance with the plan and specifications. A conduit system shall consist of one or more conduits in the same trench.
- 4.7.3 All non-metallic conduit shall be cemented at all joints with a suitable cement recommended by the manufacturer of the conduit and per ASTM 2564 & ASTM 2855.
- 4.7.4 All conduits terminating at pull boxes shall have end bells. The end bells shall either be flush with the inside wall and grouted in place or stubbed up as shown on the drawings.
- 4.7.5 Sweeps and elbows shall have a uniform curvature over their entire length. The customer shall use factory made sweeps and elbows whenever possible. The Customer shall not kink or offset the joints in order to curve the line.
- 4.7.6 All conduit bends made by the Customer shall be made with suitable equipment while maintaining a round cross-section of the conduit. The bending method shall be in accordance with the equipment manufacturer's recommendations. Heating kinking and flattening of the conduit will not be permitted.
- 4.7.7 The minimum cover of the conduit systems shall be as shown on the drawings. Cover shall be measured from finished grade to top of encasement for concrete encased system and top of upper most conduits for direct buried system. Conduits may need to be installed at a greater depth due to existing facilities or alignment changes.
- 4.7.8 The conduit shall be placed such that there is firm bearing for the full length. Conduit shall be laid on as uniform a slope as possible.
- 4.7.9 The conduits shall be thoroughly cleaned and tested after installation. The test shall involve drawing a mandrel through each conduit. The SMUD Inspector will furnish mandrels. The mandrel test shall be pulled only in the presence of the Inspector.
- 4.7.10 Conduits that do not pass the mandrel test shall be repaired and re-tested. A brush shall not be used in any plastic conduit.

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4.7.11 A flat tape pull line shall be left in each conduit as a "sleeper".

**4.8 District Approved Material**

**4.8.1 Request for Material Approval**

4.8.1.1. Materials to be incorporated in the work may be designated under a trade name or the name of the manufacturer, for convenience in designation on the plans or in the specifications. Where materials are specified by a particular designation, or equal, the Customer may use an alternative material which is of equal quality and of the required characteristics for the purpose intended, subject to the following requirements:

4.8.1.2. The Customer shall request approval of a proposed substitution in writing accompanied by complete data as to the quality of the material proposed. Such request shall be made in ample time to permit due consideration for approval without delaying the work. At least ten (10) working days are required to review submittal.

4.8.1.3. The burden of proof as to the equality or suitability of alternatives shall be upon the Customer. Samples may be required to determine equality. SMUD shall be the sole judge as to the equality and suitability of alternative materials. Materials incorporated in the work prior to approval of their use by SMUD shall be at the Customer's risk and subject to subsequent rejection. Submittals shall be sent to:

Sacramento Municipal Utility District  
PO Box 15830  
Standards Engineer, Mail Stop E202  
Sacramento, California 95852-1830

**4.8.2 Conduit**

4.8.2.1. Unless otherwise specified, all two (2), three (3), four (4), five (5), and six (6) inch diameter conduit systems shall be entirely non-metallic.

4.8.2.2. The conduit for pole risers shall be Schedule 80 PVC.

4.8.2.3. DB 120 type conduit

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- All type DB 120: two (2) inch, three (3), four (4) inch, five (5) inch, and six (6) inch conduit; shall be polyvinyl chloride (PVC), gray color, 20 feet in length with an integral belled end, and in accordance with the latest revisions of ASTM F512 and NEMA TC-8. Conduit shall be any manufacturer meeting specification. Additional couplings required for installation shall be manufactured, rated, and designed for use with this conduit.

4.8.2.4. Schedule 40 and 80 type conduit

- All Schedule 40 and 80, two (2), three (3), four (4), five (5), and six (6) inch conduit shall be polyvinyl chloride (PVC), gray color, 10 feet in length with an integral belled end, and in accordance with the latest revisions of UL651 and NEMA TC-2. Conduit shall be from any manufacturer meeting this specification. Additional couplings required for installation shall be manufactured, rated, and designed for use with this conduit.
- Elbow (Rigid Non-metallic)  
All two (2), three (3), four (4), five (5), and six (6) inch elbows shall be polyvinyl chloride (PVC), Schedule 40 except as noted on the drawings. Elbows shall conform to NEMA TC-3, Type III application. Elbows shall be acceptable from any manufacturer meeting specification.
  - Two (2) inch elbows shall have an 18-inch radius.
  - Three (3) inch elbows shall have an 18-inch radius.
  - Four (4) inch elbows shall have a 30-inch radius.
  - Five (5) inch elbows shall have a 36-inch radius.
  - Six (6) inch elbows shall have a 48-inch radius.

4.8.2.5. End Bell

- The end bells shall be solid one piece type, polyvinyl chloride (PVC), Schedule 40, gray color. End bells shall conform to NEMA Publication No. TC3 Type III application.
- End bells shall be the following or District approved equal:

	<b>Carlson No</b>	<b>Condux No</b>
<b>2" Conduit</b>	E997J	61019-20

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<b>3" Conduit.</b>	E997L	61019-30
<b>4" Conduit</b>	E997N	61019-40
<b>5" Conduit.</b>	E997P	
<b>6" Conduit</b>	E997R	61019-60

4.8.2.6. Conduit Plug

- The conduit plugs shall be plastic tapered for appropriate conduit size. Plugs shall be the following or District approved equal:

	<b>4" Conduit</b>	<b>6" Conduit</b>
<b>Carlton</b>	P258N	P258RT
<b>Certainteed</b>	59655	59657
<b>Condux</b>	80476-00	80478-00

4.8.3 Ground rods

- 4.8.3.1. Ground rods shall be 5/8" x 8'-0" copper clad steel. The copper cladding shall be a 14-mil thick minimum. The cladding shall be bonded to a carbon steel rod 0.562 to 0.565 inches in diameter (nominal 5/8 inch) and eight (8) feet in length. The maximum tolerances of ground rod length are plus one (1) inch and minus zero (0) inches. The ground rod shall be a sectional type with one end having a true conical machined driving point and non-thread end. The opposite end shall be flat with a non-thread end. The quantity of ground rods shall be per the associated drawings and/or per the SMUD Designer.

Ground rod shall be the following or District approved equal:

<b>Eritech</b>	615883
<b>Joslyn</b>	J8338-13 (E)
<b>Thompson Lightning Protection</b>	TL588

4.8.4 Pull Tape ( Sleeper)

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4.8.4.1. The tape shall be made from Polyester, be lubricated, printed with footage markings and have a minimum strength of 2500 lb. The tape shall be one continuous length with no splices. The tape shall be the following or District approved equal:

<b>ARNCO</b>	DLWP25S-3000
<b>NEPTCO</b>	WP 2500P
<b>Pacific Strapping</b>	FMT-P2500
<b>Fibertek</b>	WP2500
<b>Advance Fiber Technologies</b>	WPP 2500 PL
<b>Wellington Slick-Tape</b>	N303M10-9083
<b>Red Buck</b>	PW2500

4.8.5 Transformer Pads and Wells

4.8.5.1. Transformer Pad -Non-Concrete Single Phase

- The transformer pad shall be made from reinforced plastic material or rotational molded polyethylene. The nominal dimensions are 44 inches wide by 51 inches long by 3-1/2 inches thick. The top surface of the pad must be level. Cable entrance opening and 1/2 inch inserts shall be provided as shown on the drawing. The pad shall be manufactured in accordance with this specification and SMUD construction standard drawing UVD 2.1. The pad shall be the following or District approved equal:

<b>Armorcast</b>	A6001875 or P6001875
<b>Quazite</b>	PH5144AA
<b>Replacon</b>	44513
<b>CDR</b>	PP-4451-04
<b>NewBasis</b>	Style 4451

4.8.5.2. Transformer Well for Single Phase Transformer

- The well shall be plastic type, one piece, and circular, with a 12-inch height. Nominal 32-inch diameter top opening

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(including flange), and nominal 25-inch diameter bottom opening. All edges shall be smooth to prevent cable insulation abrasion. The well shall be the following or District approved equal.

<b>Armorcast</b>	6001875
<b>CDR</b>	0623
<b>Quazite</b>	UA0489AA
<b>Replacon</b>	322512
<b>NewBasis</b>	CW32001202-61

4.8.5.3. Transformer Pad – Pre-cast Concrete Three Phase (7'x 7' x 6")

- Refer to drawings UVD 2.2 & UVD 2.3. The pad shall be the following or District approved equal:

<b>Jensen Precast</b>	7750-STP
<b>Utility Vault</b>	Pad-77-50
<b>Associated Concrete</b>	P-77-SM-50
<b>Brooks Products</b>	8484 TP-SMUD

4.8.5.4. Transformer Pad – Pre-cast Concrete Three Phase (10'x 8'-9"x 6")

- Refer to drawings UVD 2.3A & UVD 2.3A1. The pad shall be the following or District approved equal:

<b>Jensen Precast</b>	120105-STP
<b>Utility Vault</b>	Pad-120-105
<b>Associated Concrete</b>	P-120-SM-105
<b>Brooks Products</b>	120105 TP-SMUD

4.8.5.5. Transformer Well for Three Phase Transformers

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- Manufactured from a non-concrete material. Nominal size (36" x 36" x 18") single-piece design. The well shall be one of the following or District approved equal:

<b>Replacon</b>	363618S-1
<b>Armorcast Products</b>	A6001790
<b>CDR</b>	CW00-3636-18
<b>NewBasis</b>	CW32001202-61

#### 4.8.6 Pad Mount Secondary Junction Box

- 4.8.6.1. A secondary pad mounted junction, drawings UIS3D1, UAD1.6, and UVC 1.7 may be required whenever the customer installed source terminations exceed those allowed. See UAD1.5 to determine the number of secondary conductors that can terminate on a transformer given the transformer size and conductor size.
- 4.8.6.2. The customer is responsible for providing 12' tails per conductor per phase. The customer is also responsible for installing the handhole for the secondary junction box. The handhole shall be to the proper grade, as part of the customer's secondary conduit installation. The maximum number of cables (customer's and SMUD's) that can be terminated in a padmount secondary junction box installation is 80. See UAD1.6, listed in Appendix C, for number of SMUD cables.
- 4.8.6.3. Secondary conductors from transformer to enclosure are to be furnished and installed by SMUD in the customer's conduit. SMUD will furnish connectors and make all connections in transformer and/or enclosure.
- 4.8.6.4. Before considering installation of any secondary over 750 KCMIL, the customer must receive approval in writing from a SMUD Designer and the local inspection authority. The customer will be required to furnish SMUD approved connectors and compression tooling for any approved installation of conductors over 750 KCMIL.

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4.8.6.5. The ends of all customer service conductors terminating in a box enclosure, SMUD transformer, or any other terminating point must be sealed in such a manner that moisture will not enter the cable.

4.8.7 Subsurface Boxes for Switchgear and Secondary Junction Box

4.8.7.1. RPM Handhole Box (88" x 67" x 48")  
12KV Switchgear

- The box and cover shall be made from Reinforced Polymer Mortar (RPM).
- The nominal minimum outside dimensions is 88-inches long, by 67-inches wide by 48-inches high with a 26-inch wide skid resistant cover. The cover shall be in a galvanized steel recess.
- The cover shall withstand pedestrian traffic loading.
- The cover shall be marked "SMUD ELECTRIC" in minimum one (1) inch high letters.
- The cover shall have recessed bolt holes with self-cleaning inserts for 1/2-inch diameter pentahead bolts (and washers if needed).
- One (1) 1 1/16-inch diameter hole shall be provided in each 88-inch sidewall to provide a balance point for lifting.
- Two 5/8-inch diameter copper clad ground rods shall be installed at location shown on drawing.
- The box shall be pre-assembled at the factory and shipped as one complete unit.
- The box and cover shall be manufactured in accordance with this specification and SMUD construction standard number UVC1.4.
- The box and cover combination shall be from one of the following or District approved equal:

Replacon 886748S

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Armorcast Products	A6006788AX48
CDR	PA40-8968-48

4.8.7.2. RPM Handhole Box (102" x 82" x 48")  
21KV Switchgear

- The box and cover shall be made from Reinforced Polymer Mortar (RPM).
- The nominal minimum outside dimensions is 102-inches wide by 82-inches long by 48-inches high with a 26-inch wide skid resistant cover. The cover shall be in a galvanized steel recess.
- The cover shall be marked "SMUD ELECTRIC" in minimum one (1) inch high letters.
- The cover shall have recessed boltholes with self-cleaning inserts for 1/2-inch diameter pentahead bolts.
- The cover shall be secured with corrosion resistant pentahead bolts (and washers if needed).
- One (1) 1 1/16-inch diameter hole shall be provided in each 102-inch sidewall to provide a balance point for lifting. Two 5/8-inch diameter copper clad ground rods shall be installed at location shown on drawing.
- The box shall be pre-assembled at the factory and shipped as one complete unit. The box and cover shall be manufactured in accordance with this specification and SMUD construction standard drawing UVC1.5.
- The box and cover combination shall be from one of the following or District approved equal:

Replacon	1028248S
Armorcast Products	A6008202AX48

4.8.7.3. Non-Concrete Secondary J-Box (48" x 96" x 48")  
Secondary Junction Enclosure

- The box and cover shall be made from Reinforced Polymer



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install primary pull boxes per the associated installation drawings shown in Appendix C.

4.8.8.3. Open Bottom Concrete Boxes (4'x 6' & the 6'x 8')

- The boxes shall be made from precast concrete.
- The nominal outside dimensions (OD) for the 4'x 6' box are 48-inches wide by 72-inches long by 42-inches high. Refer to SMUD drawing UVC1.2.
- The nominal outside dimensions (OD) for the 6'x 8' box are 74-inches wide by 98-inches long by 48-inches high. Refer to SMUD drawing UVC1.6.
- The bottom of the boxes shall be open.
- The box shall be rated for H20 traffic loading.
- The 4'x 6' box shall have one step (Bowco Industries 93813F) on one short wall as shown on SMUD drawing UVC1.2.
- The 6'x 8' box shall have two steps (Bowco Industries 93813F) on one short wall as shown on SMUD drawing UVC1.6.
- The 4'x6' box and cover combination shall be from one of the following or District approved equal:

Brooks Products	460 SMUD Section X 42" Deep
Associated Concrete	4266-SM-T – NB/3565-R9-SM
Jensen Precast	4266-S-NB
Utility Vault	644NF – S/64-3256-F

- The 6'x8' box and cover combination shall be from one of the following or District approved equal:

Brooks Products	680 SMUD Section X 48" Deep
Associated Concrete	68-B42-SM/3565
Jensen Precast	6690-S-NB/4266
Utility Vault	68-SMUD-48-S/64-3256

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4.8.8.4. Box Cover Covers, Spring Assist (4' x 6' & 6' x 8')

- The light traffic box covers for the 4' x 6' and 6' x 8' boxes shall consist of a galvanized steel frame.
- The covers shall be designed for H-10 traffic loading.
- The 2-piece spring assist opening shall be **steel** for the 4' x 6' and **aluminum** for the 6' x 8'.
- Steel and aluminum covers shall meet the anti-slip requirements shown below under the heading, 'Steel and Aluminum Covers'.
- Covers shall be marked with an aluminum plate insert 7-1/2" x 2-1/2" on opposite corners. One plate shall be marked with "SMUD ELECTRIC," and the manufacturer's name or logo the other plate shall be blank. Plates to be secured with 1/2" Allen-head stainless steel bolts.
- Lids shall have lifting provision for 1/2" hook consisting of a blind opening 4" x 9/16" x 1-1/8" deep (min.). Locking mechanism shall be captive 1/2" stainless steel penta-head swing gate on top lid only.
- The frame shall be hot dip galvanized steel with spring assist lid opening and provision for lay back to horizontal and remain attached to the frame.
- Leveling provision on interior of frame and the cover shall be provided with 4 adjusting clips.
- Refer to the illustration for the 4' x 6' light traffic cover on drawing UVC 1.2.2.
- Refer to the illustration for the 6' x 8' light cover on drawing UVC1.6.1.

4.8.8.5. Full Traffic Box Covers (4' x 6' & 6' x 8')

- These covers shall come with a frame.
- The covers shall be designed for H20 traffic loading.
- The concrete covers shall be manufactured to have a non-

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slip surface.

- The covers shall be marked with two aluminum plate inserts 7-1/2" x 2-1/2" on opposite corners. One plate shall be marked with "SMUD ELECTRIC" and the manufacturer's name or logo. The other plate shall be blank. Plates to be secured with 1/2" Allen-head stainless steel bolts.
- The cover shall have four (4) 3/4" diameter threaded lifting inserts filled with rust inhibitor and installed metal Allen head screws.
- The frame shall have lifting provisions of welded angle on the outside of each corner on the long sides of the frame.
- The 48" x 72" cover shall have a 31" diameter manhole access. The 72" x 96" cover shall have a 39" diameter manhole access.
- The covers shall be manufactured in accordance with SMUD drawing UVC1.2.3 for the 48" x 72" cover and UVC1.6.2 for the 72" x 96" cover.

4.8.8.6. Full traffic rated secondary handhole boxes shall be procured per the following specification and installed per the associated installation drawings by the customer, as shown in Appendix C. These boxes shall be installed with at least one 12" riser. These boxes are rated for full deliberate traffic and may be used in roadways and alleys. The box dimensions (ID) that are included are:

17 x 30 x 12

24 x 36 x 12

- High density reinforced open bottom concrete box
- H-20 full traffic loading design for box and cover
- Box shall have self-cleaning inserts for 1/2" – 13 UNC pentahead bolts
- Inside dimensions of 24"W x 36"L
- Box shall be a minimum of 12" high
- Cover shall be 2-pc reinforced steel plate

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- Cover shall have anti-slip coating applied, such as Mebec or SlipNOT
- Cover shall be marked 'SMUD ELECTRIC' with 1-inch minimum height letters
- Box shall be shipped with no more than three (3) on a pallet
- This box must be designed to the latest edition of the AASHTO Bridge specification and all structural calculations must be available upon request to the SMUD Standards Group.
- Only products that are made from materials that are approved in the AASHTO design manual and have published design stresses are acceptable.

4.8.8.7. Full traffic rated extensions for secondary handhole boxes shall be procured per the following specification and installed per the associated installation drawings by the customer, as shown in Appendix C.

- Extension shall be a minimum of 10" high and be made of high density reinforced concrete
- H-20 full traffic loading design
- Extension shall be shipped with no more than three (3) on a pallet
- This box extension must be designed to the latest edition of the AASHTO Bridge specification and all structural calculations must be available upon request to the SMUD Standards Group.
- Only products that are made from materials that are approved in the AASHTO design manual and have published design stresses are acceptable.

4.8.8.8. Incidental traffic rated secondary handhole boxes shall be procured per the following specification and installed per the associated installation drawings by the customer, as shown in Appendix C. These boxes are rated for incidental traffic and may be used in driveways or parking lots. The box dimensions

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(ID) that are included are:

17 x 30 x 18

24 x 36 x 18

30 x 48 x 18 (Also used for primary applications)

- The box shall be open bottom.
- The box, cover, and extension shall be constructed of Fiberglass Reinforced Polymer (FRP), Polymer Concrete (PC), Reinforced Polymer Mortar (RPM), or other District-approved equal.
- The cover and box rim shall be concrete gray in color.
- There shall be provision for minimum one-inch keying and a lip on the top rim of box designed for support of the installed box to surrounding concrete. Reference Figure 1 of WUC 3.6.
- The box and cover shall meet Western Underground Committee Guide 3.6 requirements except for the structural requirements.
- The box and cover structural requirements shall be in accordance with ANSI/SCTE 77, and be capable of passing ANSI/SCTE 77 20K/Tier 15 loading requirements for Occasional Non-Deliberate *Heavy Traffic*.
- The box shall have a minimum of two boltholes with self-cleaning, floating style nuts. The floating nuts shall be easily replaced, and be supplied with matching 1/2" – 13-1/2" x 4 TPI coil bolt bolts.
- The cover shall be marked with "SMUD ELECTRIC" in minimum one-inch letters.
- The cover shall have recessed boltholes. The boxes and covers shall be assembled together prior to shipment.
- The boxes may be stacked a maximum of five (5) high and shall be palletized and strapped for ease of handling during shipping and handling.

4.8.8.9. Aluminum and steel secondary handhole, pullbox, and J-Box covers shall be manufactured with ASTM tested non-slip

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material as currently used by SlipNOT and Mebec. This material shall meet the following performance/manufacturing requirements:

- The coefficient of friction of the surface shall be no less than 0.60 as determined by ASTM C-1028.
- Bond strength rating per ASTM – C633 shall have average bond strength of at least 4000 psi.
- The surface shall be etched a minimum of 25 mils prior to application of the non-slip material.

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## Appendix A

### Construction Standard Specification No. 913-C

#### 1. General

- (a) This specification shall cover cast-in-place concrete for footings, slabs, vaults, manholes, buildings, and other structures, but not including duct encasements. This specification shall govern excepting as modified by the Special Conditions. All construction work is subject to quality control, inspection, and testing under direction of the inspector.
- (b) The Contractor shall furnish concrete as specified herein.
- (c) The design mix for structural concrete shall be proportioned to provide minimum compressive strength of 3000 psi in 28 days, at a design slump of 6 inches. Portland Cement for structural concrete shall conform to the latest revision of ASTM Designation C150. Mixing water shall be as clean as domestic drinking water. The maximum size aggregate used shall not be larger than 1 and 1/2 inches. Aggregates shall conform to the latest revision of ASTM Designation C33.
- (d) Concrete may be sampled at the job site and tested by the District for compliance with these specifications.

#### 2. Forms and Surfaces On Which Concrete Is Placed

- (a) Outside forms shall be used for vertical surfaces, excepting upon approval of the Inspector, to cast concrete directly against undisturbed existing material where excavation is cut to "neat lines" which shall be two inches over-excavation of drawing dimensions. The allowable deviation from plan thickness for concrete walls against earth shall be +2 inches to +6 inches.
- (b) The bottom surface of excavations upon which concrete structures are to be placed shall be a smooth level plane, with the top 6 inches compacted to 95% relative density, and constructed to the elevation necessary to meet the requirements of the drawings and the specifications with the following tolerances. The level compacted plane at the bottom of the slabs and the footings may be from 0 inches to 6 inches lower than that required by the plans, but the resulting concrete structure shall be of uniform thickness.
- (c) Vertical forms shall extend into dirt subgrade. Forms shall be accurately constructed to produce structures of the shape, lines, and dimensions required by the drawings. All exposed vertical edges shall be chamfered 3/4 inch x 3/4 inch. All sharp edges inside manholes and vaults shall be chamfered 3/4 inch x 3/4 inch.

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- (d) All form material shall be new, except where approved by the inspector. Erected forms shall be adequately strong, rigid and durable to withstand all stresses imposed upon them, to permit all operations of placing and consolidating the concrete, without deflection or any damage which would impair the quality of the finished work. Forms shall be so constructed as to obtain exposed surfaces of concrete having a uniform texture, free from irregularities, offsets, fins, or other defects.
- (e) All surfaces upon which concrete is to be placed shall be clean, free of loose material and standing water. The surfaces of dry porous materials against which concrete is to be placed shall be moistened.

### 3. Steel Reinforcing Bars

- (a) Material
  - (1) Reinforcing steel shall conform to the following:  
Type A Bars: ASTM Designation A615, Grade 40  
Type B Bars: ASTM Designation A615, Grade 60  
Welded-Wire Fabric: ASTM Designation A185  
Spiral Reinforcing Wire: ASTM Designation A82
  - (2) Details of reinforcing shall conform to the requirements of the "Building Code Requirements for Reinforced Concrete" (ACI 381-1) of the American Concrete Institute.
  - (3) All bars shall be deformed bars, excepting spiral reinforcement may be plain bars.
  - (4) Type A bar steel reinforcement shall be used unless otherwise specified in the Special Conditions and/or drawings. Spacers and chairs shall be standard products of types best suited for the intended purpose as approved by the Designer.
- (b) Placing Reinforcing Steel
  - (1) Placing of reinforcing steel shall conform to the requirements of the "Building Code Requirements for Reinforced Concrete" (ACI 318-71) of the "American Concrete Institute.
    - a. Steel reinforcement bars shall be placed where shown on the drawings.
    - b. Before reinforcement is placed, the surfaces shall be cleaned of heavy flaky rust, loose mill scale, dirt, grease, or other foreign substances.

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- c. Reinforcement shall be accurately placed and secured in position so that it will not shift.
- d. Welding of reinforcing steel or anchor bolts shall not be permitted.
- e. Bars shall be tied with wire at least 3 times in any bar length.
- f. Bar supports shall have sufficient strength to carry the loads, shall hold the bars firmly, and shall be placed close enough together so that bars will not sag or displace under normal working conditions.
- g. Bar splices shall meet the requirements of ACI 318-71, but the length of bar overlap shall not be less than shown in the following table.

MINIMUM SPLICE LENGTH		
<u>Bar Size</u>	<u>Grade 40</u>	<u>Grade 60</u>
#4 thru #8	24 bar diameters	36 bar diameters
#9 thru #11	32 bar diameters	48 bar diameters
Larger sizes	As required by ACI 318-71	

- h. Bar splices shall be staggered so that not more than 50% of the bars are spliced in any one-splice length.
  - i. Bar splices shall not be made in the middle third of a span of concrete members.
- (2) All reinforcing steel shall have the following minimum cover, unless otherwise shown by the drawings or by the Special conditions of the Specifications:
- a. A minimum of 3 inches cover when concrete is placed against earth;
  - b. 2 inches minimum cover when formed or screeded and back-filled; and
  - c. 1 and 1/2 inches minimum cover when formed or screeded and open to air.

**4. Mixing**

- (a) Mixing shall be in accordance with ASTM-C 94, latest revision.
- (b) Any concrete which has been mixed 90 minutes after initial addition of water

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shall not be used in the work. Any high-early strength concrete, which has been mixed 45 minutes after initial addition of water, shall not be used in the work.

- (c) The use of any admixture shall not be permitted in concrete for structures without the written approval of the Engineer; or unless specified in the Special Conditions.

**5. Placing**

- (a) Forms, reinforcing steel, embedded items, etc. will be inspected prior to concrete placement. Embedment of aluminum in structural concrete is prohibited, unless it is effectively coated or wrapped.
- (b) Concrete placement shall commence only in the presence of, and upon approval of, the inspector.
- (c) The slump of concrete to be placed in the work shall be the least slump that will allow satisfactory placement in the particular work, but shall not exceed 6 inches.
- (d) Concrete shall be placed as nearly as practicable in its final position to avoid segregation due to handling or flowing. Placing, once started, shall be carried on as a continuous operation in approximately horizontal layers until placement of the section or panel is completed. All concrete placed shall be thoroughly consolidated during placement and shall be worked around reinforcement and embedded fixtures and into the corners of the forms with the aid of mechanical vibrating equipment and supplemented by hand spading and tamping. The location, manner, and duration of the application of the vibrators shall be such that the concrete is free of rock pockets, closes against all surfaces of form and embedded material, and is consolidated to the maximum density without segregation of the mortar and coarse aggregates.
- (e) Concrete shall not be permitted to fall from a height greater than 6 feet without the use of adjustable-length pipes or "elephant trunk".

**6. Construction Joints**

When construction joints are necessary, they shall be made in accordance with the following:

- (a) Joints shall be located as indicated by the drawings.
- (b) Joints not located in the plans shall be so made and located as to least impair the strength of the structure and shall meet with the approval of the Inspector.

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- (c) Where a joint is permitted, it shall be neatly made. All joint lines shall be straight and plumb level, and expressly approved by the Inspector. Under no circumstance shall the concrete along a joint be allowed to assume natural slope. Care shall be taken to make the joint as inconspicuous as possible. Where a joint is made, the surface of the concrete shall be roughened and thoroughly cleaned. Cleaning shall consist of the removal of all loose or defective concrete, coatings, and foreign material.

**7. Finishing**

- (a) All horizontal surfaces of concrete shall have a steel troweled, light broom finish. All top horizontal edges shall be rounded with a steel edger.
- (b) All rock pockets and porous and fractured concrete shall be removed by chipping openings into the concrete. The chipped openings shall be filled with concrete or dry packed, as directed.
- (c) Surface variation for all troweled surfaces shall not exceed 1/8 inch in 8 feet, measured with a straight edge. The tolerance in elevation shall not exceed 1/8 inch (plus or minus) from true plane at the elevation shown by the plans.

**8. Curing**

- (a) Curing compound shall be either clear or white pigmented curing compound, as approved by the inspector. It shall be applied to all exposed concrete within one hour after finishing. Curing compound shall be applied within one hour after stripping, if forms are removed within seven days after placing the concrete or as approved by the inspector.
- (b) Tops of footings, which will be under grouted base plates, shall be thoroughly cleaned after curing to remove compounds, or foreign material.

**9. Protecting Concrete**

- (a) All concrete shall be maintained at a temperature of not less than 40°F for seven days after placing. When required by the inspector, the Contractor shall submit a written outline of his proposed methods for protecting the concrete.
- (b) Concrete shall not be placed on frozen or frost coated ground, forms, steel, or other coated surfaces.
- (c) All concrete that has been frozen or damaged for any reason shall be removed and replaced by the contractor.

**10. Form Removal and Backfill**

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Forms and false work supporting forms in structures shall not be removed until approved by the inspector, but in no case in less than seven days when ordinary Portland Cement concrete is used or in less than three days when high-early strength cement is used. Backfill shall not be placed on or around such structures until all outside forms are removed, and the same requirements for age of concrete have been complied with as given above. Backfill shall be placed and compacted to 95% relative density.

**11. Application of Loads**

Loads shall not be allowed to be imposed upon concrete structures until laboratory test results indicate that the concrete has attained the specific design strength, and until approved by the inspector.

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## Appendix B

### List of Material Suppliers

The table below lists material suppliers with whom SMUD is familiar. It is not intended to be an exhaustive list of all possible suppliers in the area. There may be additional vendors that can provide the required material for you.

**ARMORCAST PRODUCTS**

13230 Saticoy Street.  
N. Hollywood, CA 91605  
(818) 982-3600  
Fax (818) 982-7742

**CDR SYSTEMS**

Moon Associates, Inc  
727 Industrial Road  
San Carlos, CA 94070  
(415) 802-8240  
Fax (415) 802-8243

**CAPITAL WHOLESALE COMPANY**

P.O. Box 1466  
1235 S Street  
Sacramento, CA 95807  
(916) 443-8051

**J.M. ELECTRICAL SALES**

5245 Topaz Avenue  
Rocklin, CA 95677  
(510) 887-8444

**ASSOCIATED CONCRETE PRODUCTS**

1901 Isabel Avenue  
Livermore, CA 94550  
(925) 426-1100

**JENSEN PRECAST**

5400 Raley Boulevard  
Sacramento, CA 95830  
(916) 991-8800  
Fax (916) 991-8810/800-843-9569

**CONSOLIDATED ELECTRICAL DIST.**

1800 24th Street  
Sacramento, CA 95816  
(916) 452-3111

**NORCAL ELECTRICAL SUPPLY**

1101-W North Market Boulevard  
Sacramento, CA 95834  
(916) 928-9700

**ELECTROREP, INC.**

208 Pennsylvania Avenue  
San Francisco, CA 94107  
(415) 864-0210  
Fax (415) 522-0450

**PACIFIC ELECTRIC SUPPLY**

801 Striker Ave.  
Sacramento CA 95834  
(916) 924-3330

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**Material Suppliers (cont.)**

**ASSOCIATED PLASTICS, INC.**

2626 Kansas Avenue  
Riverside, CA 92507  
(909) 787-0600  
Fax (909) 787-0632

**QUAZITE**

F.M. Nicholas Co. Inc.  
3077 Teagarden St.  
San Leandro, CA 94577  
(530) 342-8781  
Fax (530) 892-8096

**GENERAL ELECTRIC SUPPLY CO**

1001 Fee Drive  
Sacramento, CA 95815  
(916) 648-3100

**UTILITY VAULT COMPANY**

P O Box 727  
Pleasanton, CA 94566  
(925) 846-8183  
Fax (925) 846-4904

**GRAYBAR ELECTRIC COMPANY**

P O Box G  
1211 Fee Drive  
Sacramento, CA 95813  
(916) 922-8061  
Fax (800) 837-1174

**VALLEY ELECTRIC**

1831 18th Street  
Sacramento, CA 95801  
(916) 448-8271

**HERNING UNDERGROUND SUPPLY**

6935 Power Inn Rd  
Sacramento, CA  
  
(916) 381-1580

**TEICHERT BROOKS PRODUCTS**

2441 Charter Way  
Stockton, CA 95206  
(209) 464-7696  
Fax (209) 464-6822

**INDEPENDENT ELECTRIC**

4076 Channel Drive  
West Sacramento, CA  
(916) 376 8400

**AZCO**

2250 Stewart St # 9  
Stockton, CA  
(209) 943-2452

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## Appendix C

### Design and Construction Drawings

The customer and/or their representatives or contractors shall adhere to the design and construction drawings listed in the table below, unless otherwise specified in writing by a District Inspector or Designer. The Customer shall review all drawings. Any questions or comments shall be brought to Sacramento Municipal Utility District's (SMUD) attention for clarification or resolution.

#### Design and Construction Drawings

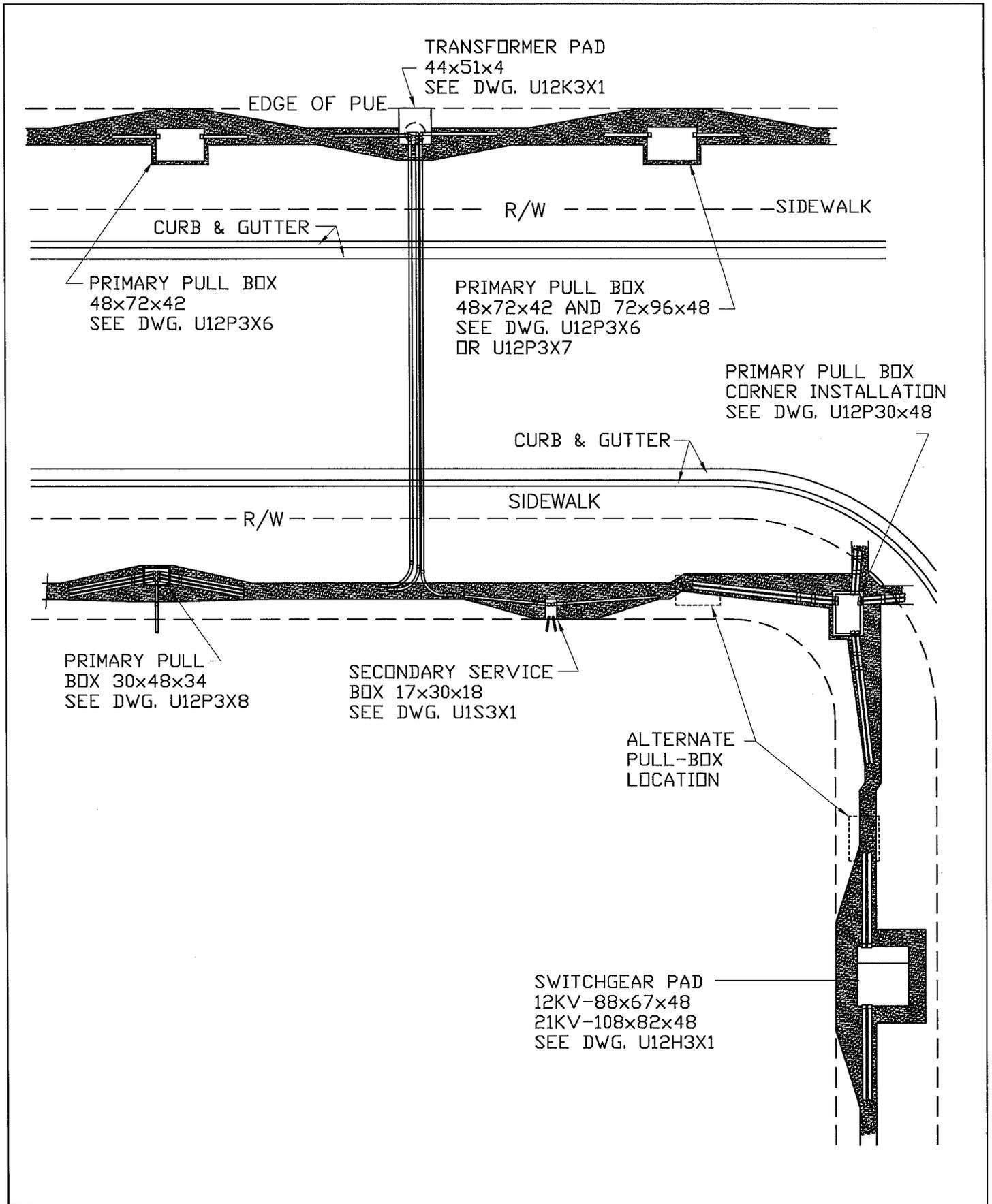
Drawing Title	Drawing Identification Code	Page Number
RESIDENTIAL CONDUIT SYSTEM TYPICAL INSTALLATION	U12P3X	C-1
DETAIL TYPICAL CONDUIT TERMINATION	U12P3X2	C-2
TYPICAL DISTRIBUTION TRENCH	U12P3X3	C-3
PRIMARY PULL BOX CORNER INSTALLATION 30" X 48" X 18"	U12P3X5	C-4
PRIMARY PULL BOX INSTALLATION 48" X 72" X 42"	U12P3X6	C-5
PRIMARY PULL BOX INSTALLATION 72" X 96" X 48"	U12P3X7	C-6
SWITCHGEAR PAD TYPICAL INSTALLATION	U12H3X1	C-7
SINGLE PHASE TRANSFORMER PAD AND WELL INSTALLATION	U12K3X1	C-8
SECONDARY SERVICE BOX INSTALLATION 17" X 30" X 18"	U1S3X1	C-9
RESIDENTIAL SECONDARY SERVICE BOX WIRE INSTALLATION	U1S3X2	C-10
SERVICE CONDUIT AT HOUSE FOUNDATION	U1S3X3	C-11

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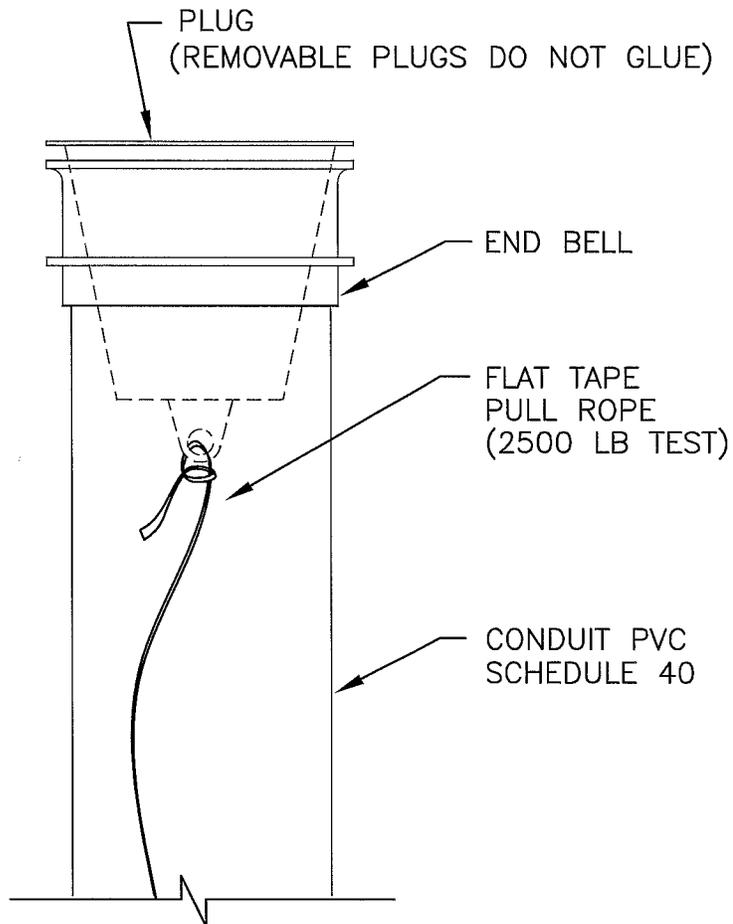
Drawing Title	Drawing Identification Code	Page Number
SECONDARY SERVICE BOX INSTALLATION IN INCIDENTAL TRAFFIC LOCATIONS	U1S3X4	C-12
OPEN BOTTOM CONCRETE BOX 48" X 72" X 42"	UVC1.2	C-13
BOX COVER FOR 48" X 72" SPRING ASSIST	UVC1.2.2	C-14
FULL TRAFFIC BOX COVER FOR 48" X 72"	UVC1.2.3	C-15
RIGGING CONFIGURATION OPEN BOTTOM CONCRETE BOX 48" X 72" X 42"	UVC1.2.4	C-16
BOX COVER 4' X 6' T-TAP	UVC1.2.5	C-17
RPM HANDHOLE BOX 88" X 67" X 48" FOR 12KV SWITCHGEAR	UVC1.4	C-18
RPM HANDHOLE BOX 102" X 82" X 48" FOR 21KV SWITCHGEAR & FEEDER TIE SWITCHES	UVC1.5	C-19
12 & 21KV PADMOUNTED SWITCHGEAR GROUNDING DETAIL	UGA2.5	C-20
OPEN BOTTOM CONCRETE BOX 72" X 96" X 48"	UVC1.6	C-21
BOX COVER FOR 72" X 96" SPRING ASSIST	UVC1.6.1	C-22
FULL TRAFFIC BOX COVER FOR 72" X 96"	UVC1.6.2	C-23
RIGGING CONFIGURATION OPEN BOTTOM CONCRETE BOX 72" X 96" X 48"	UVC1.6.3	C-24
NON-CONCRETE SECONDARY J-BOX 48" X 96" X 48"	UVC1.7	C-25
COVER INSTALLATION DETAILS	UVC1.8.3	C-26
PRIMARY PULL BOX AND T-TAP INSTALLATION 30" X 48" X 34"	UVC2.1	C-27

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Drawing Title	Drawing Identification Code	Page Number
T-TAP COVERS FOR 30" X 48" BOX	UVC2.2	C-28
COMMERCIAL SECONDARY RUNS FROM TRANSFORMER TO PANEL	UAD1.5	C-29
COMMERCIAL SECONDARY RUNS FROM TRANSFORMER TO J-BOX	UAD1.6	C-30
SECONDARY J-BOX PAD MOUNT	U1S3D1	C-31
NON-CONCRETE SINGLE PHASE TRANSFORMER PAD 44" X 51"	UVD2.1	C-32
THREE PHASE TRANSFORMER PAD PRE-CAST 7' X 7'	UVD2.2	C-33
THREE PHASE TRANSFORMER PAD INSTALLATION 7' X 7'	UVD2.3	C-34
THREE PHASE TRANSFORMER PAD PRE-CAST FOR 2000 KVA OR LARGER 9'-8" X 10'	UVD2.3A	C-35
THREE PHASE TRANSFORMER PAD PRE-CAST FOR 2000 KVA OR LARGER INSTALLATION 9'-8" X 10'	UVD2.3A1	C-36
PAD MOUNTED TRANSFORMER GUARD CHAIN LINK FENCE TYPE	UVD2.4	C-37
PAD MOUNTED TRANSFORMER GUARD PIPE TYPE WITH REMOVABLE BARRIER	UVD2.5	C-38
GENERAL ARRANGEMENTS FOR PAD MOUNT SECONDARY J-BOXES	UVD5.4	C-39
GENERAL ARRANGEMENT FOR PAD MOUNT 12 AND 21KV SWITCHGEAR	UVD5.5	C-40
TYPICAL DISTRIBUTION RISER	U1N	C-41
DIFFICULT TRENCHING AREAS		C-42



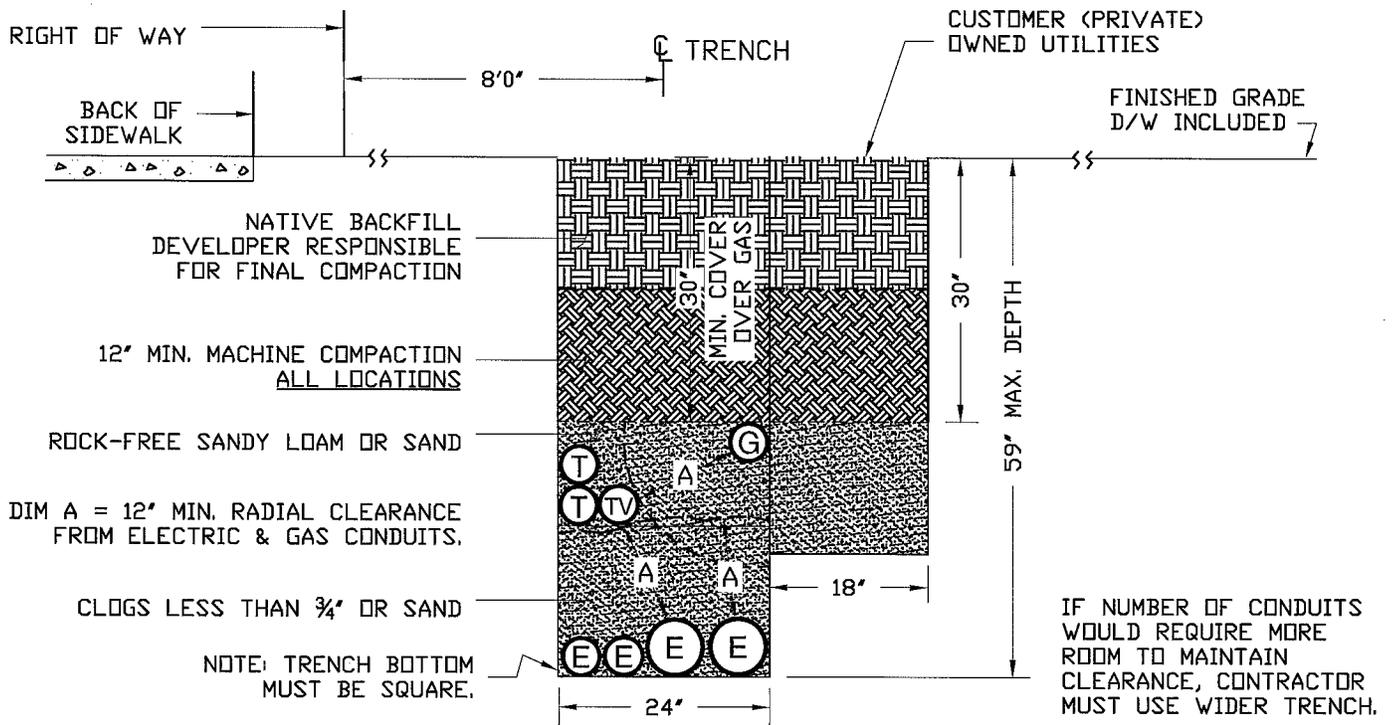
ENGR. SPEC. <b>T007</b>	CONSTRUCTION STANDARDS	REV: 3
 <b>SMUD</b> SACRAMENTO MUNICIPAL UTILITY DISTRICT	<b>RESIDENTIAL CONDUIT SYSTEM TYPICAL INSTALLATION</b>	DATE: Aug. 06
DRAWING REFERENCE# <b>U12P3X</b>	PAGE# <b>210 of 253</b>	



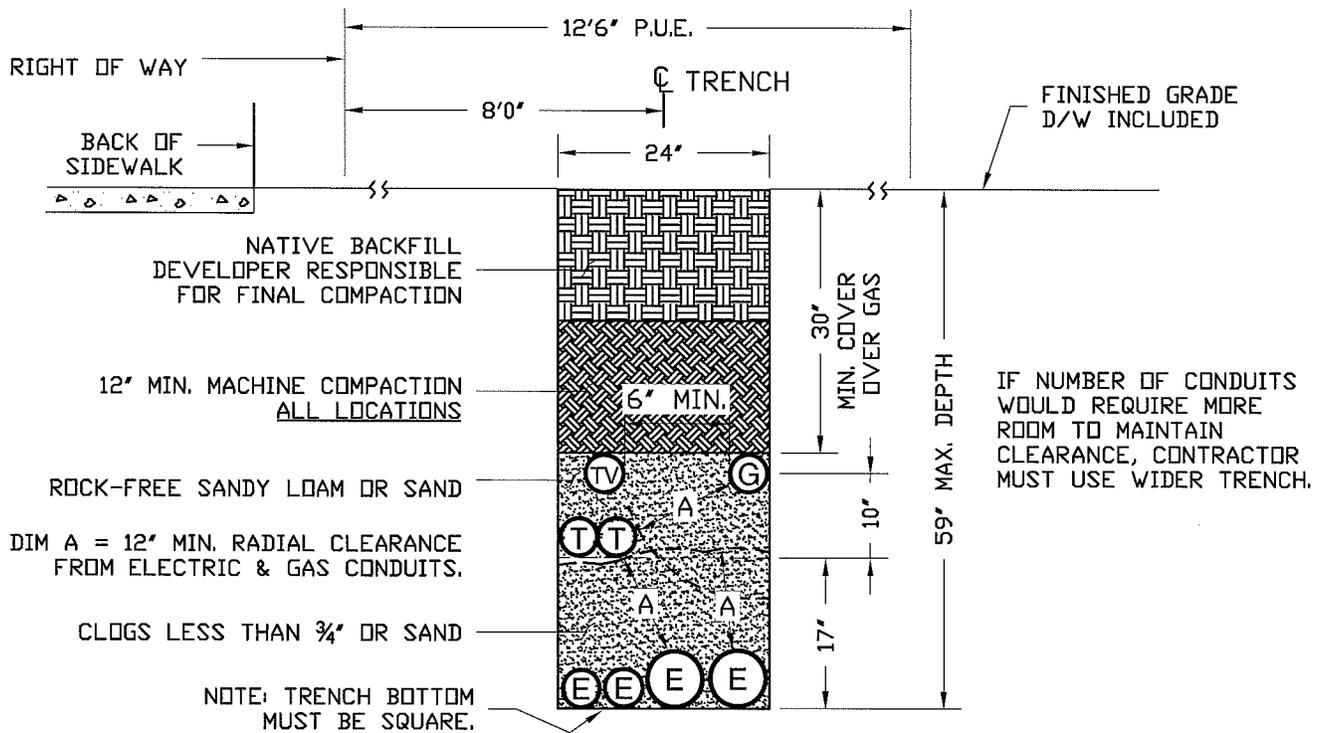
NOTE:

1. REFER TO SPECIFICATION NO. C004 "RESIDENTIAL CONDUIT SYSTEM" FOR MATERIAL AND INSTALLATION INSTRUCTIONS.

ENGR. SPEC. T007	CONSTRUCTION STANDARDS	REV: 1	
 <p style="text-align: center;"><b>DETAIL</b> TYPICAL CONDUIT TERMINATION</p>		DATE: Aug. 06	
		DRAWING REFERENCE# U12P3X2	PAGE# 212 of 253 C-2

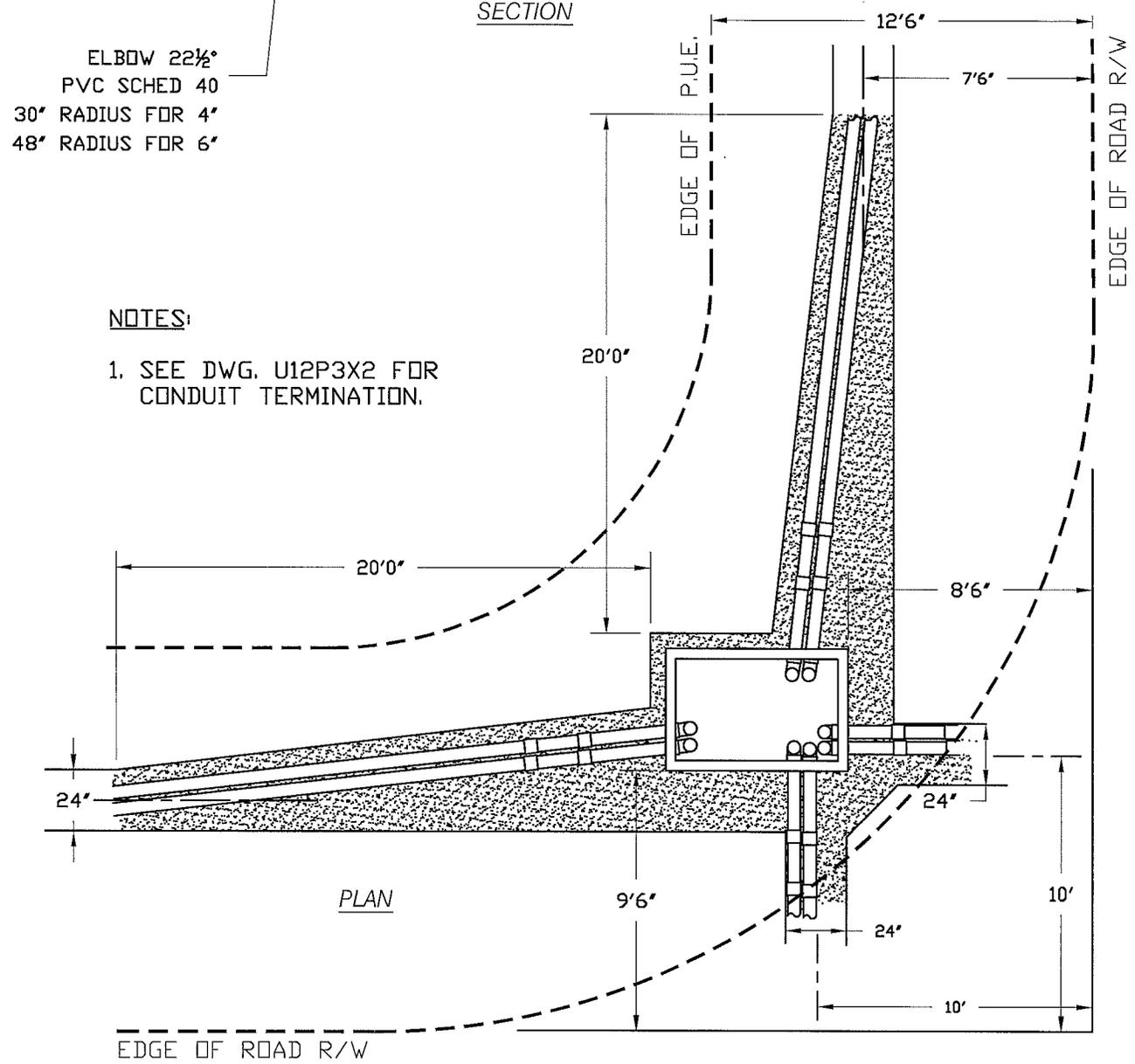
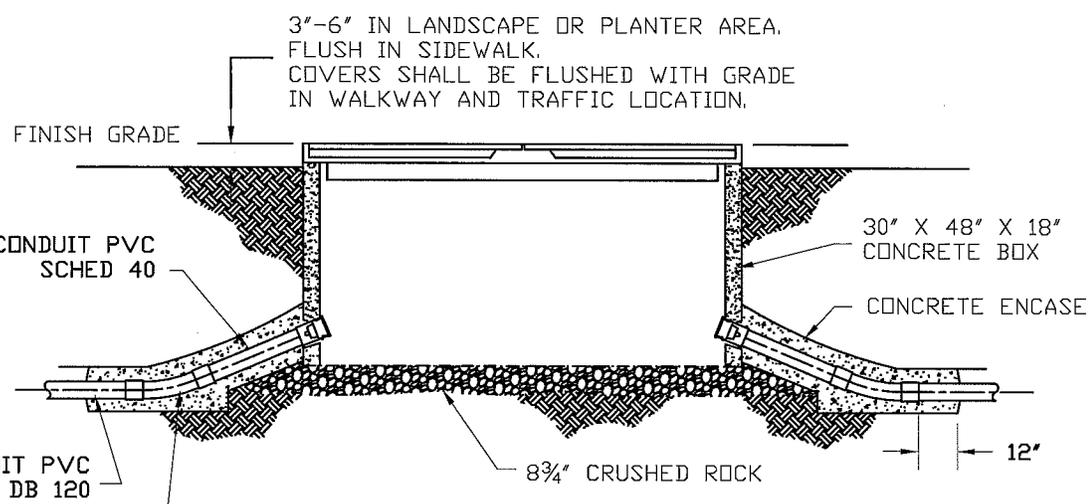


SMUD AND OTHER UTILITIES EXCEPT ROSEVILLE TELEPHONE



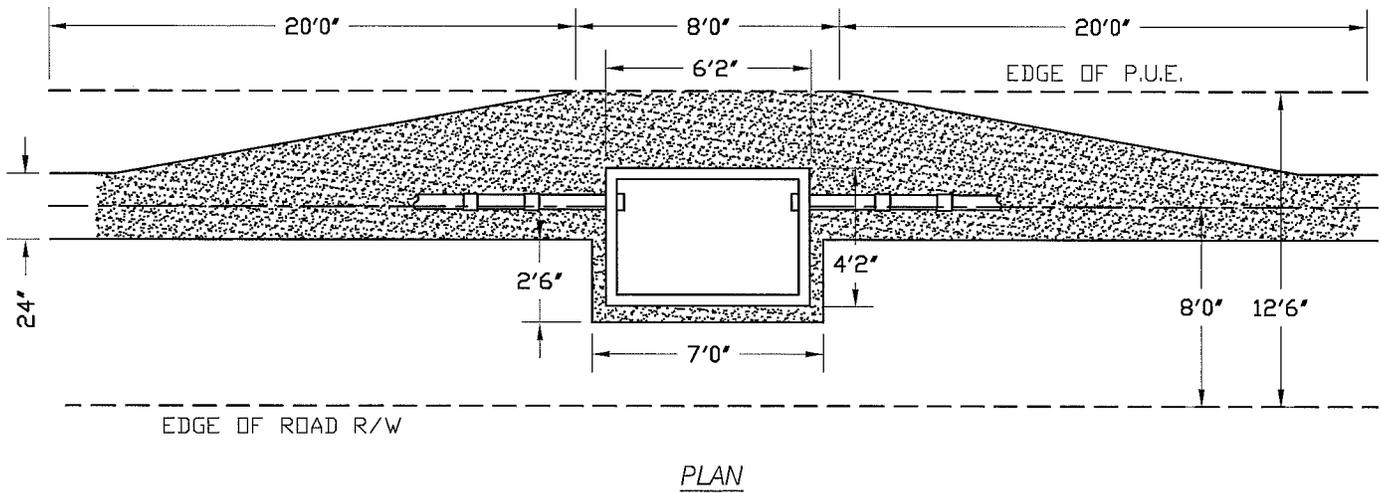
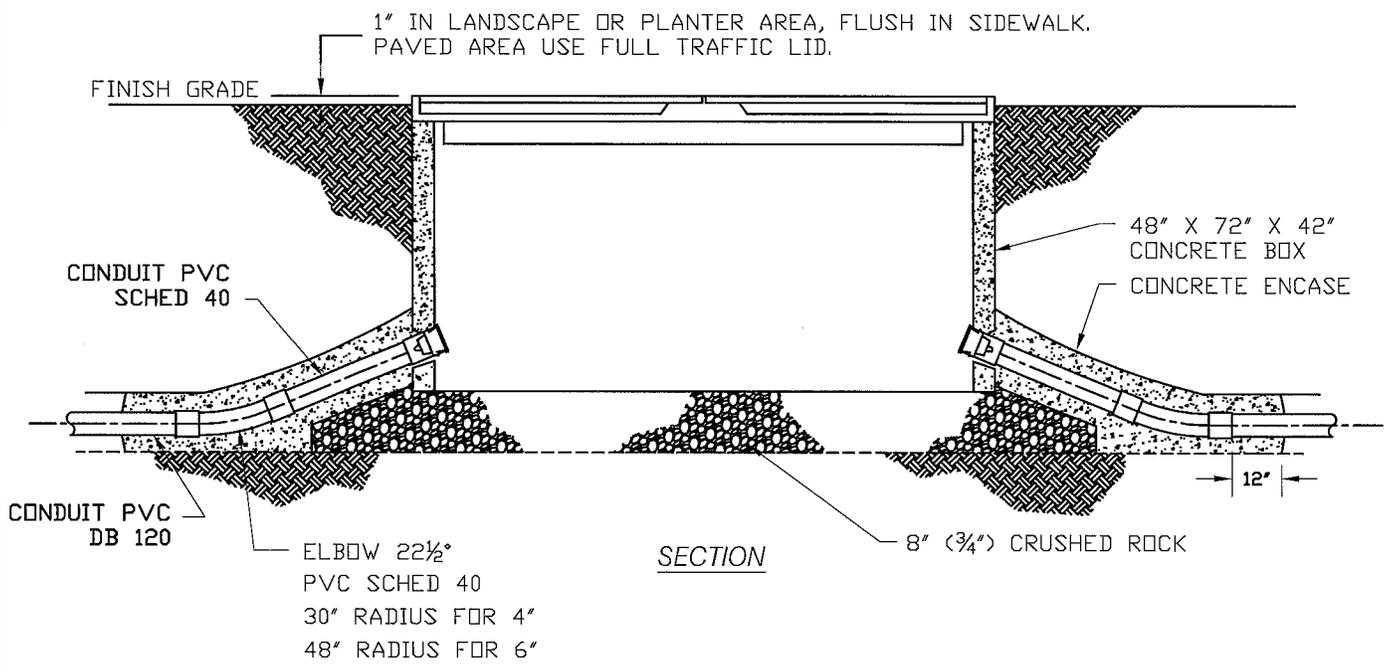
SMUD AND ROSEVILLE TELEPHONE

ENGR. SPEC. T007	CONSTRUCTION STANDARDS	REV: 1
	<p>TYPICAL DISTRIBUTION TRENCH</p>	DATE: Aug. 06
		DRAWING REFERENCE# U12P3X3



- NOTES:**
1. SEE DWG. U12P3X2 FOR CONDUIT TERMINATION.

ENGR. SPEC. <b>T007</b>	CONSTRUCTION STANDARDS	REV: 1
 <b>SMUD</b> SACRAMENTO MUNICIPAL UTILITY DISTRICT	<b>PRIMARY PULL BOX CORNER INSTALLATION</b> 48" x 72" x 42"	DATE: Aug. 06 DRAWING REFERENCE# <b>U12P3X5</b> PAGE# <b>20 of 253</b>

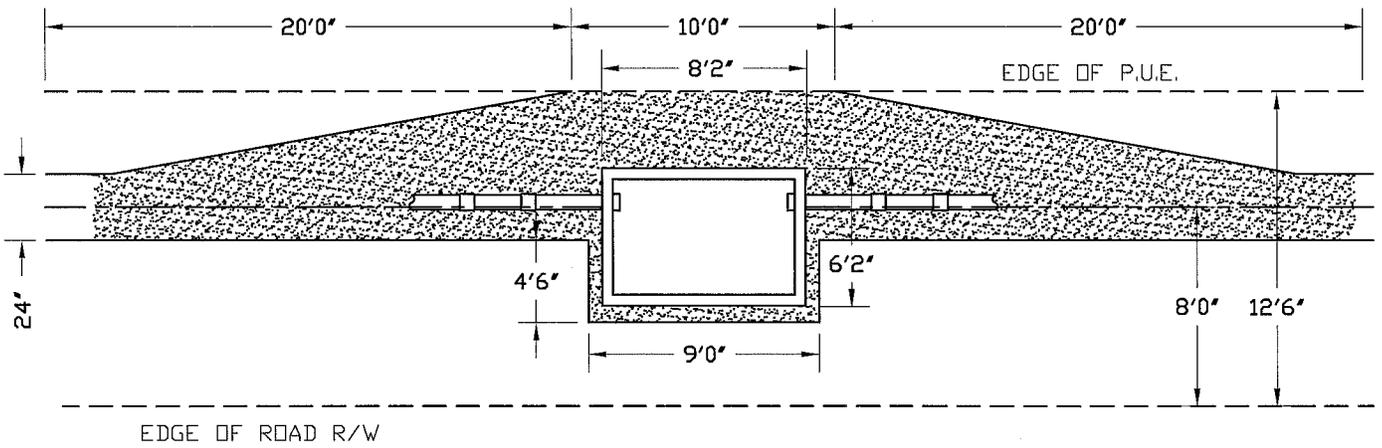
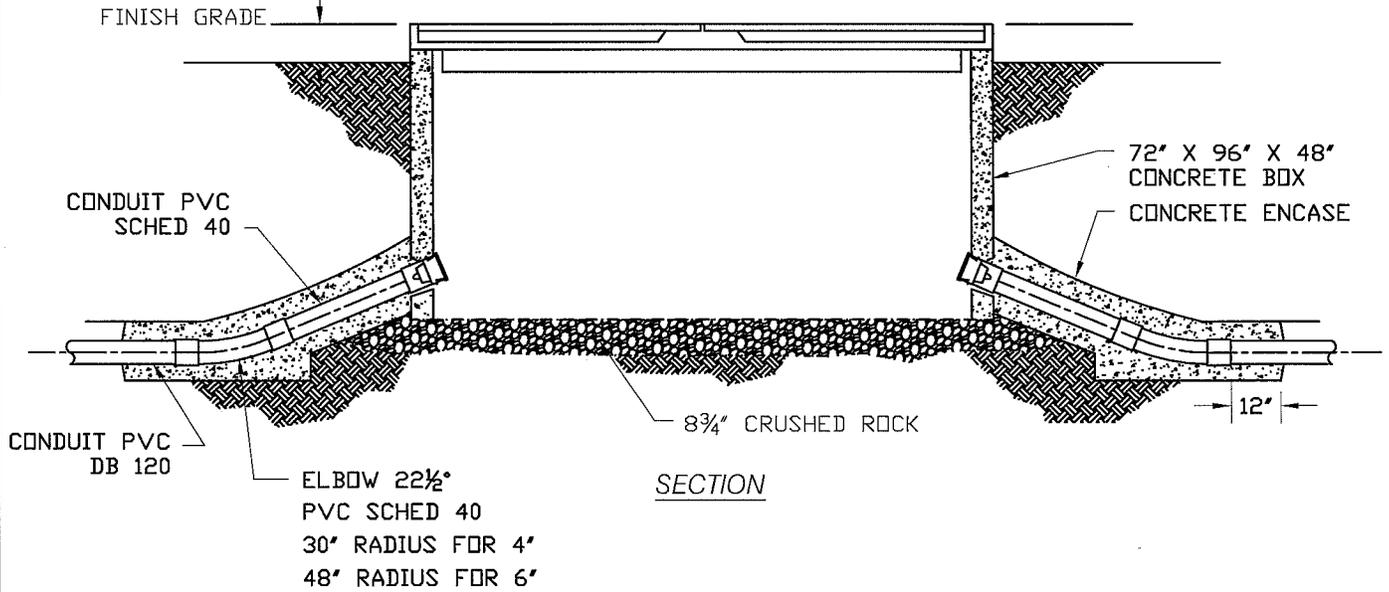


NOTES:

1. SEE DWG. U12P3X2 FOR CONDUIT TERMINATION.

ENGR. SPEC. T007	CONSTRUCTION STANDARDS	REV: 1	
PRIMARY PULL BOX INSTALLATION 48" x 72" x 42"		DATE: Aug. 06	
 <b>SMUD</b> SACRAMENTO MUNICIPAL UTILITY DISTRICT	DRAWING REFERENCE# U12P3X6	PAGE# 215 of 253	

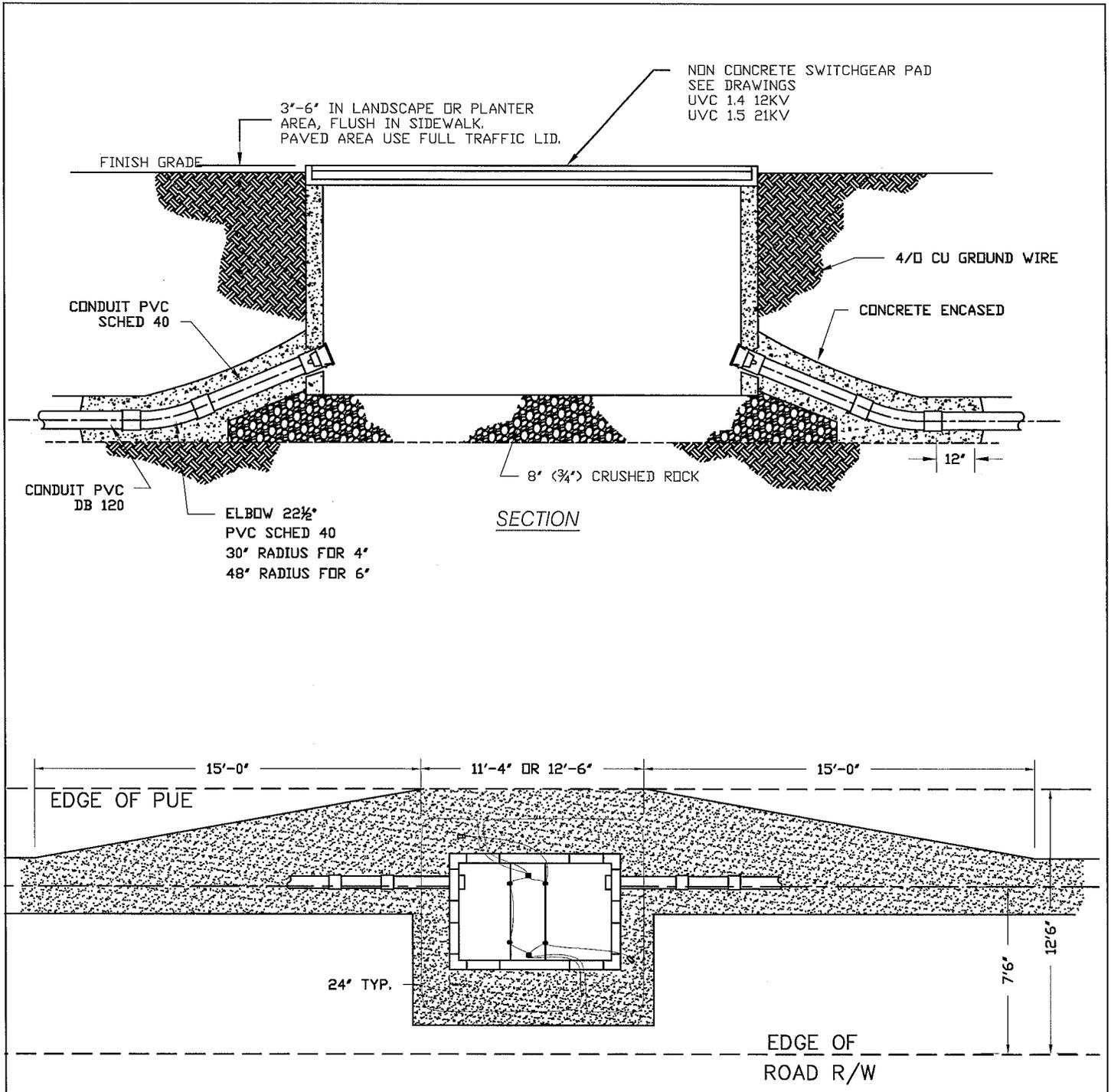
3"-6" IN LANDSCAPE OR PLANTER AREA,  
 FLUSH IN SIDEWALK.  
 COVERS SHALL BE FLUSH WITH GRADE  
 IN WALKWAY AND TRAFFIC LOCATION.



**NOTES:**

1. SEE DWG. U12P3X2 FOR CONDUIT TERMINATION.

ENGR. SPEC. T007	CONSTRUCTION STANDARDS	REV: 1	
		DATE: Aug. 06	
 <b>SMUD</b> SACRAMENTO MUNICIPAL UTILITY DISTRICT	<b>PRIMARY PULL BOX INSTALLATION</b> 72" x 96" x 48"	DRAWING REFERENCE# <b>U123X7</b>	PAGE# <b>20-6 253</b>



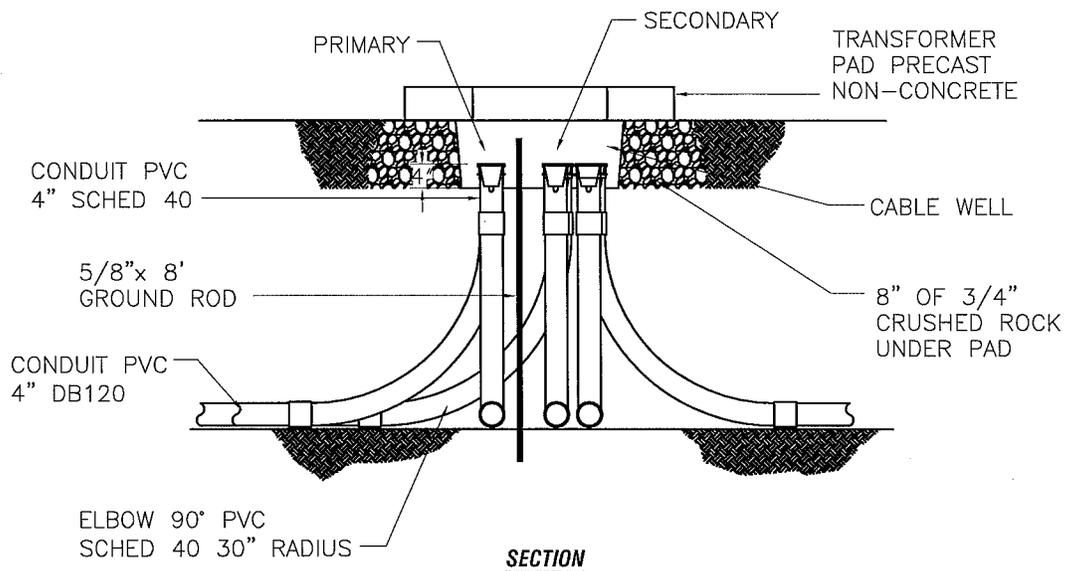
SECTION

NOTES:

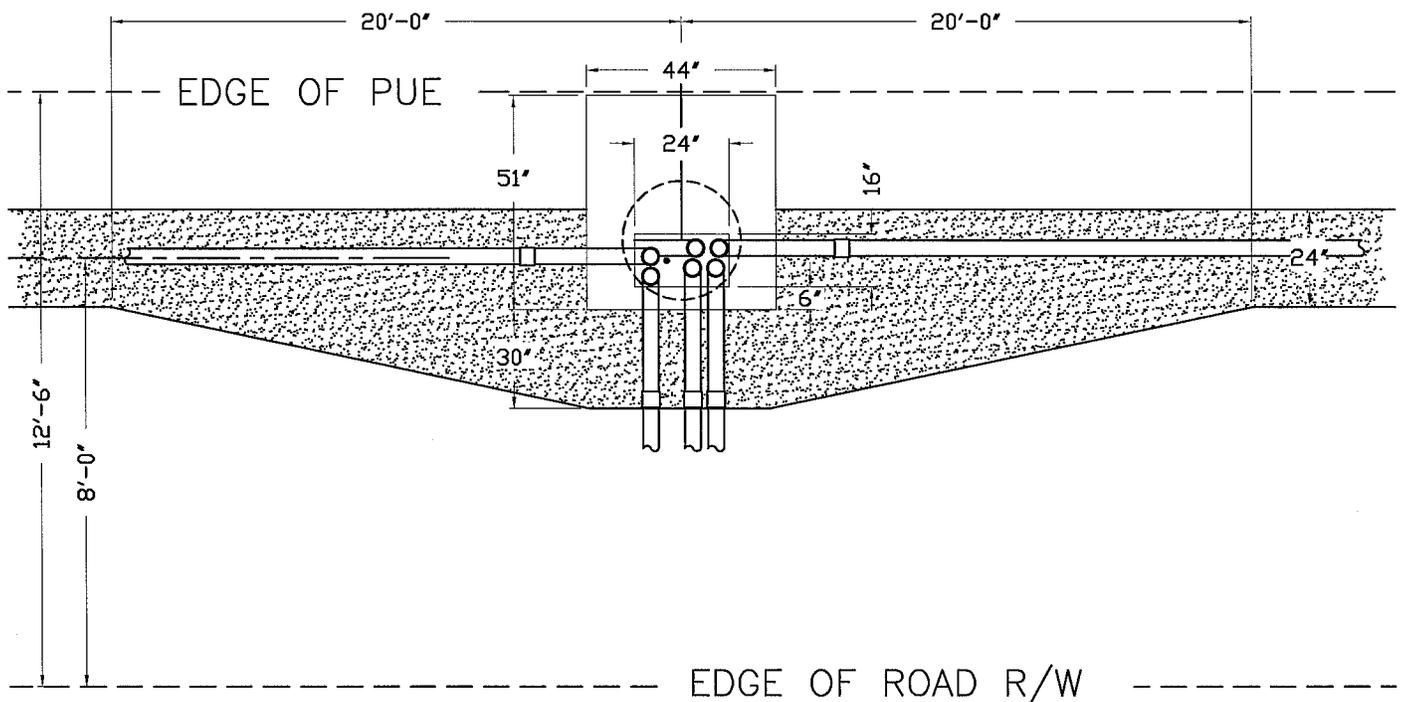
1. SEE UGA 2.5 FOR GROUNDING INSTALLATION.
2. SEE U12P3X2 FOR CONDUIT TERMINATION.

ENGR. SPEC. <b>T007</b>	CONSTRUCTION STANDARDS	REV: 3	
 <b>SMUD</b> SACRAMENTO MUNICIPAL UTILITY DISTRICT		DATE: Aug. 06	
		DRAWING REFERENCE# <b>U12H3X1</b>	PAGE# <b>21 of 253</b>

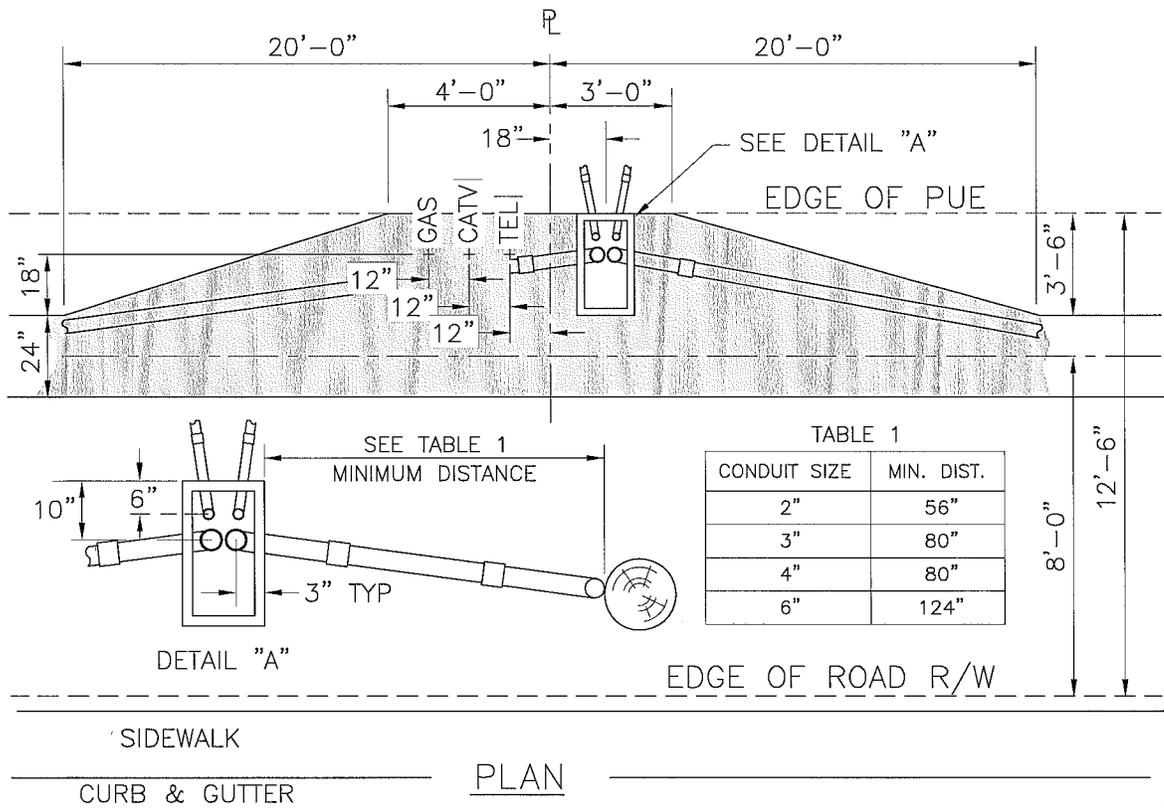
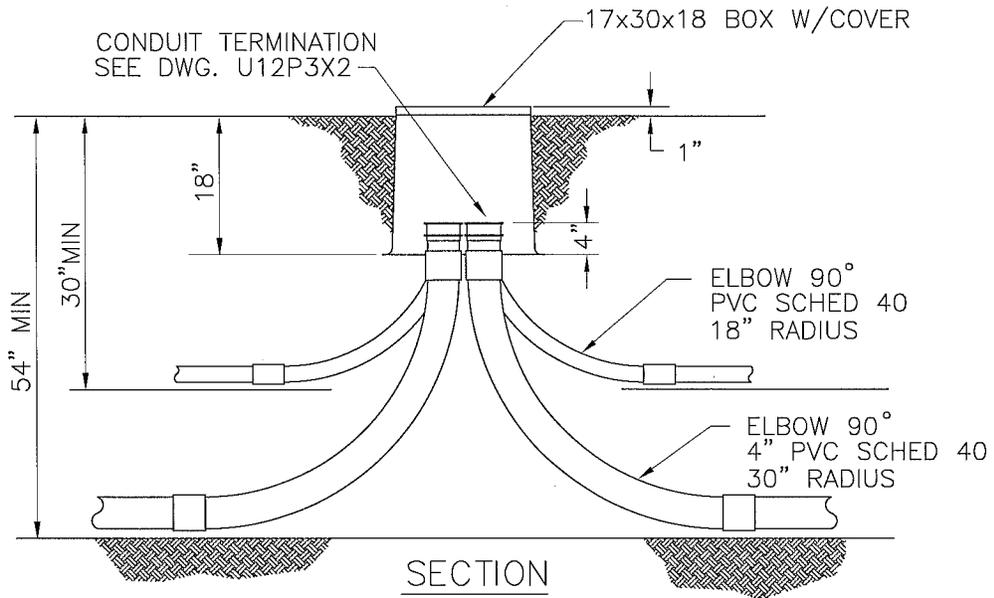
**SWITCHGEAR PAD  
TYPICAL INSTALLATION**



NOTE:  
SEE U12P3X2 FOR  
CONDUIT TERMINATION



ENGR. SPEC. T007	CONSTRUCTION STANDARDS	REV: 3	
<b>SMUD</b> SACRAMENTO MUNICIPAL UTILITY DISTRICT		DATE: Aug. 06	
		DRAWING REFERENCE# U12K3X1	PAGE# 21 of 253
<b>SINGLE PHASE TRANSFORMER PAD AND WELL INSTALLATION</b>			



ENGR. SPEC. T007

CONSTRUCTION STANDARDS

REV: 4

DATE: Aug. 06



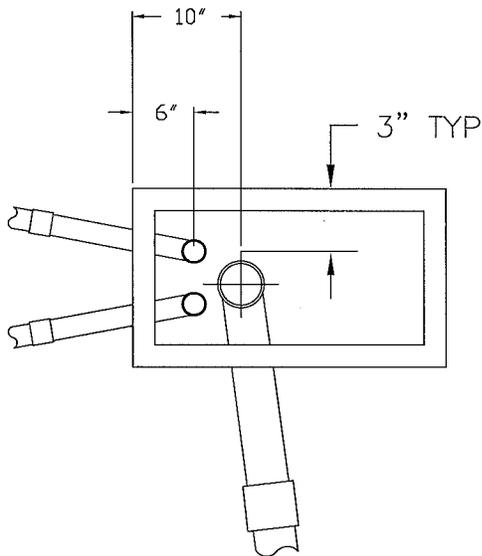
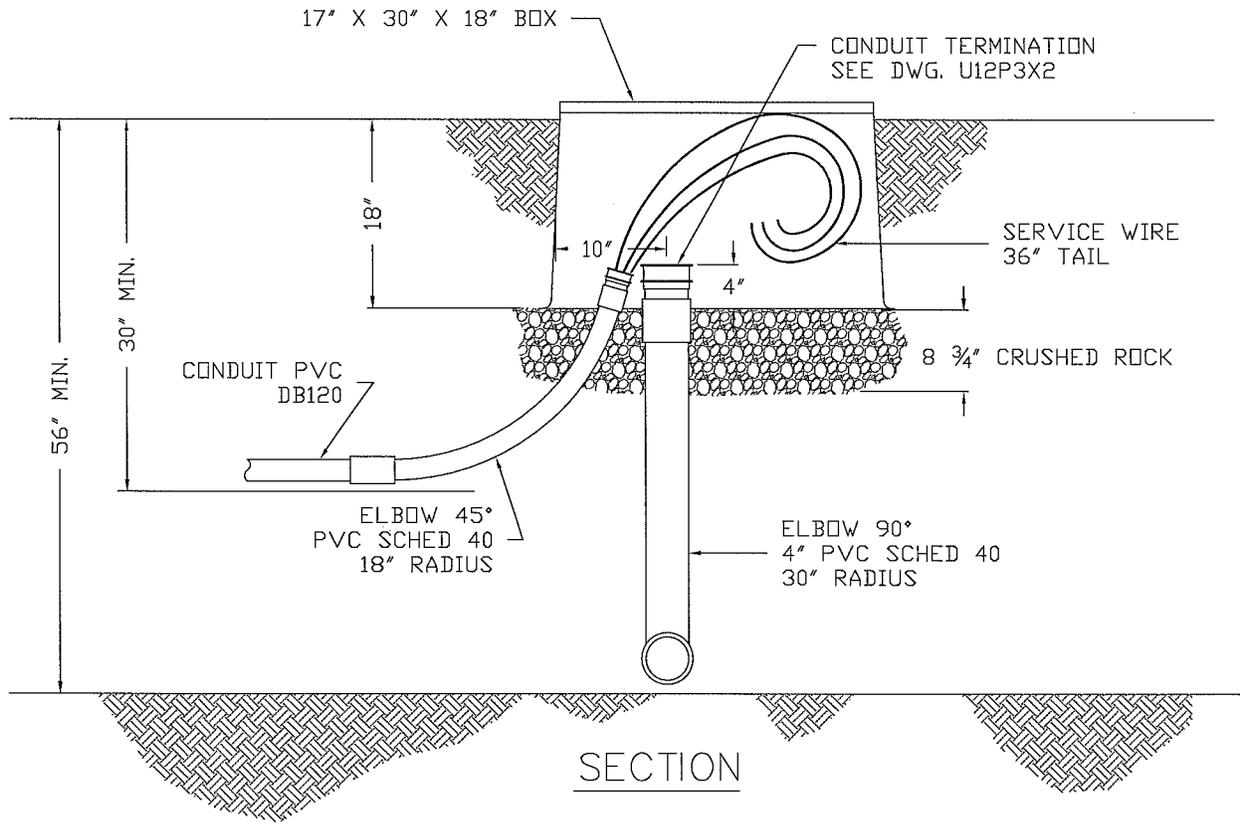
SECONDARY SERVICE  
BOX INSTALLATION 17" x 30" x 18"

DRAWING REFERENCE#

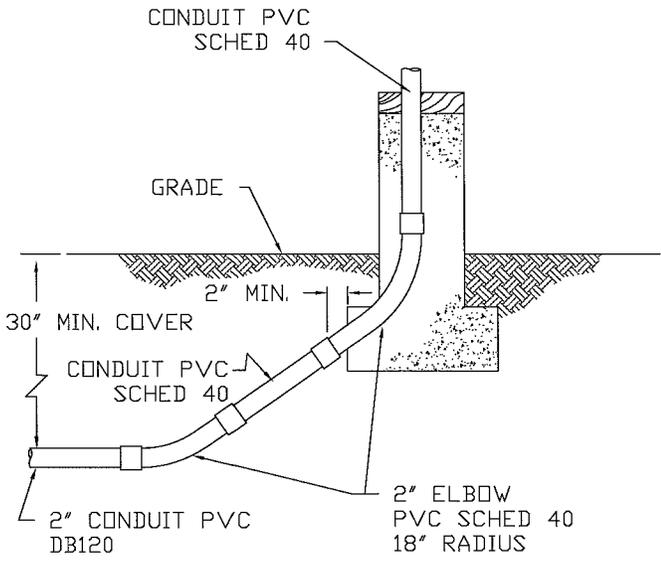
U1S3X1

PAGE#

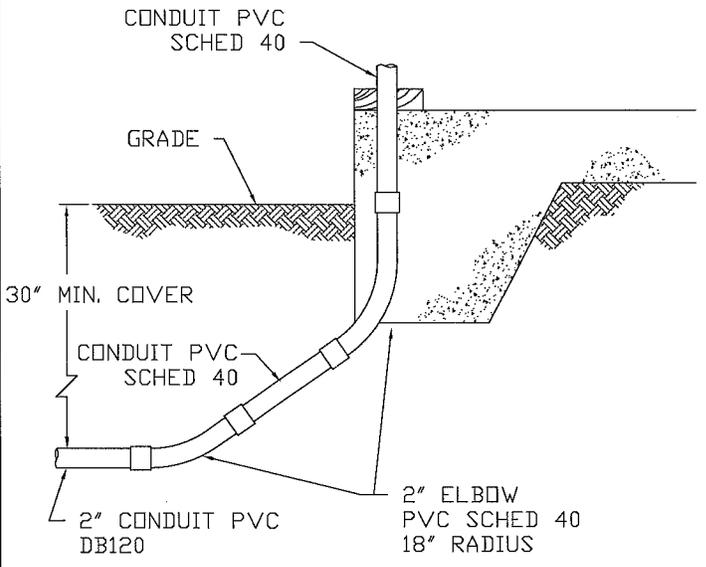
219 of 253



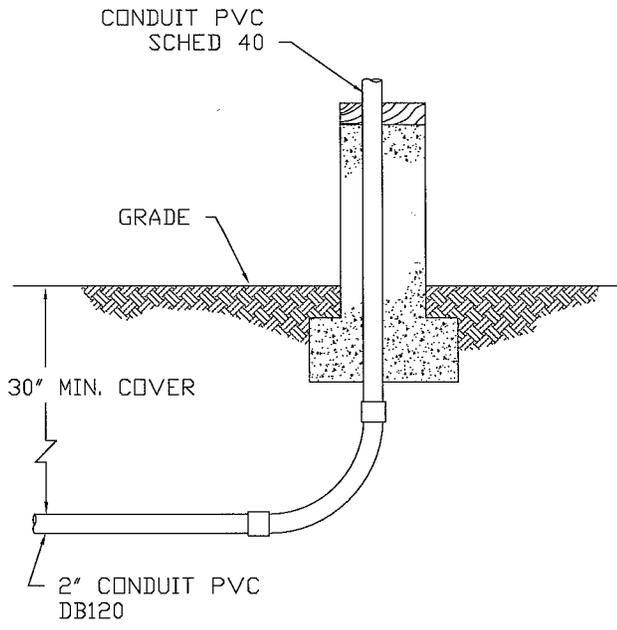
ENGR. SPEC. <b>T007</b>	CONSTRUCTION STANDARDS	REV: 3	
 <b>SMUD</b> SACRAMENTO MUNICIPAL UTILITY DISTRICT	<b>RESIDENTIAL SECONDARY SERVICE BOX WIRE INSTALLATION</b>	DATE: Aug. 06	PAGE#
DRAWING REFERENCE# <b>U1S3X2</b>		PAGE# <b>3010253</b>	



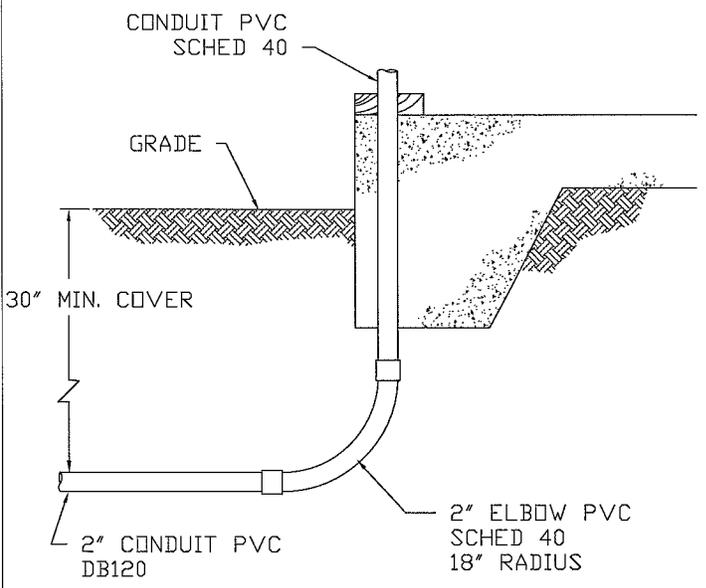
**CONVENTIONAL FOUNDATION**  
(TYPICAL)



**CONCRETE SLAB FOUNDATION**  
(TYPICAL)

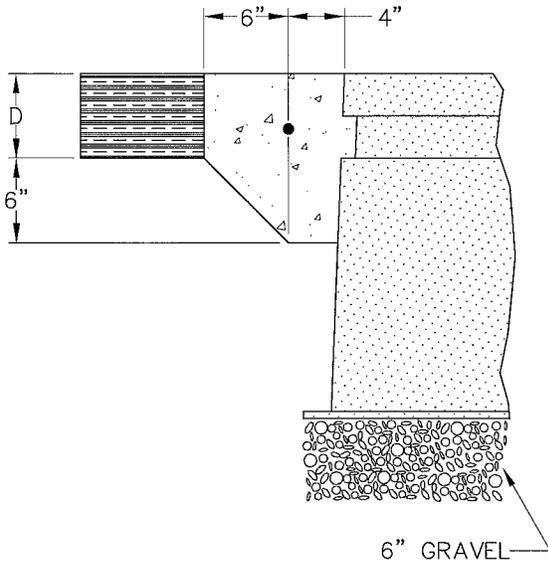


**CONVENTIONAL FOUNDATION**  
(TYPICAL)

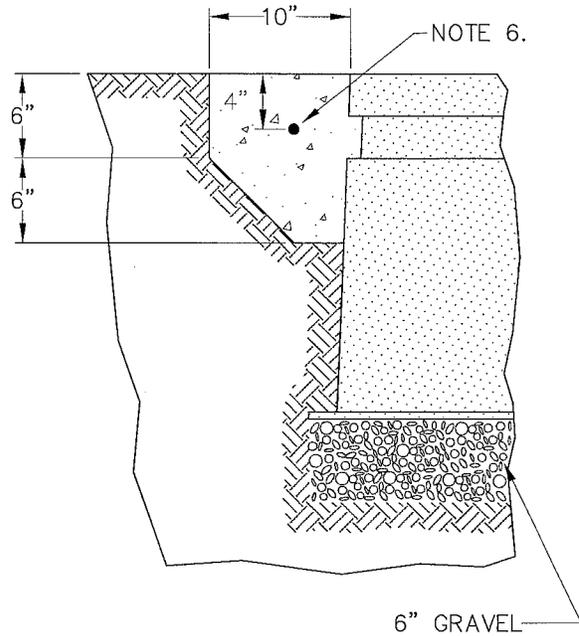


**CONCRETE SLAB FOUNDATION**  
(TYPICAL)

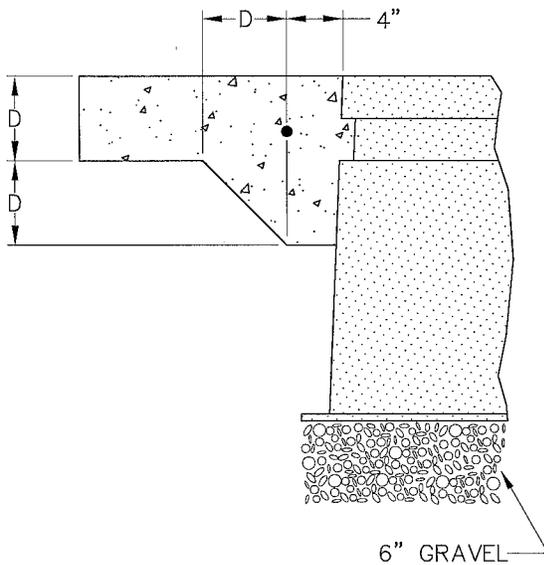
ENGR. SPEC. <b>T007</b>	CONSTRUCTION STANDARDS	REV: 1	
 <b>SMUD</b> SACRAMENTO MUNICIPAL UTILITY DISTRICT	<b>SERVICE CONDUIT AT HOUSE FOUNDATION</b>	DATE: Aug. 06	
		DRAWING REFERENCE# <b>U1S3X3</b>	PAGE# <b>201-p1 253</b>



ASPHALT PAVEMENTS



COMPACTED EARTH

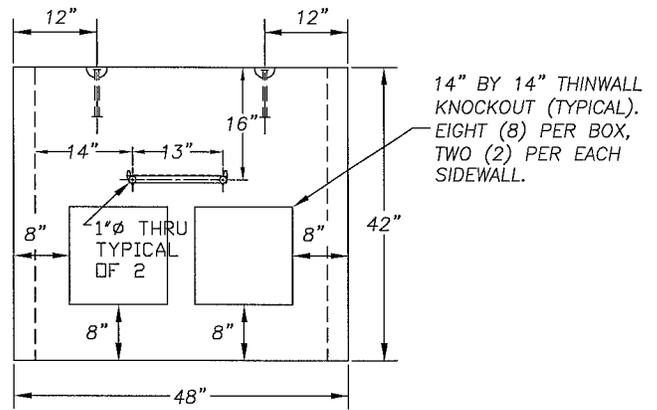
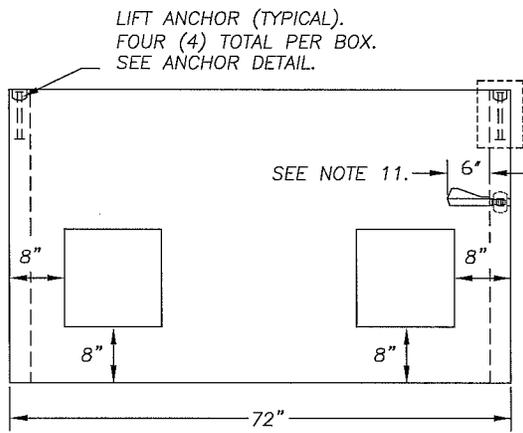
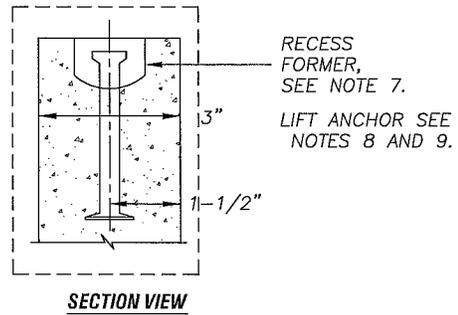
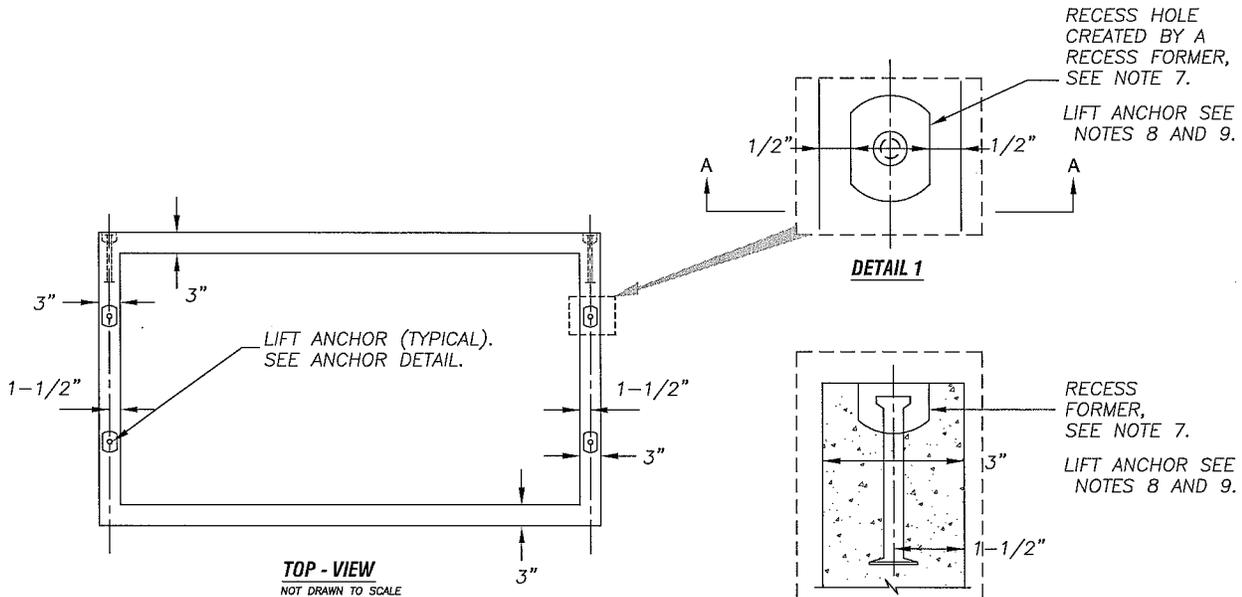


CONCRETE PAVEMENTS

NOTES:

1. CONCRETE ENCASEMENT TO BE 3,000 PSI MINIMUM.
2. CONCRETE ENCASEMENT RING DIMENSION, D, TO BE EQUAL TO DESIGN PAVEMENT DEPTH.
3. DO NOT USE POLYMER CONCRETE BOXES IN FULL DELIBERATE TRAFFIC APPLICATIONS.
4. TEMPORARILY BRACE THE LONG SIDE OF THE BOX WITH WOOD DURING BACKFILL OPERATION. REMOVE BRACE AFTER BACKFILLING.
5. BACKFILL COMPACTION TO BE 95% OR USE CONCRETE.
6. USE (1) ONE LOOP OF #3 REBAR.

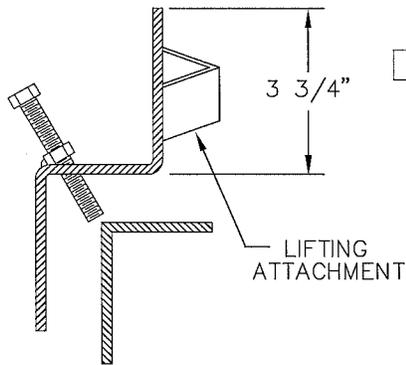
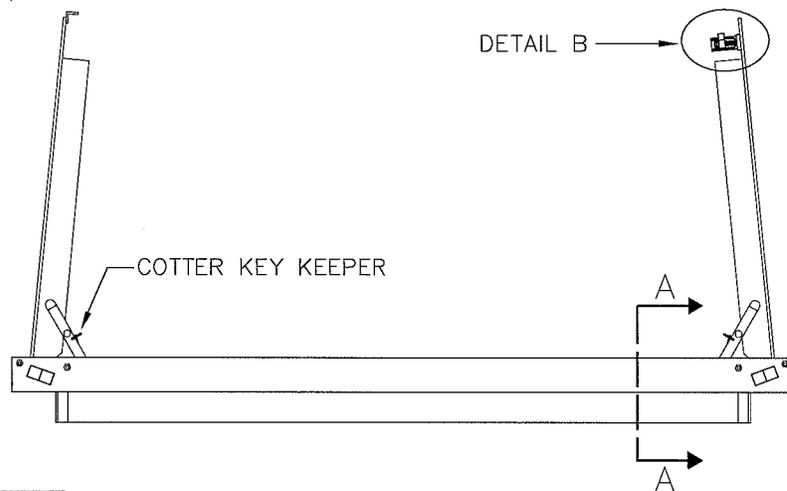
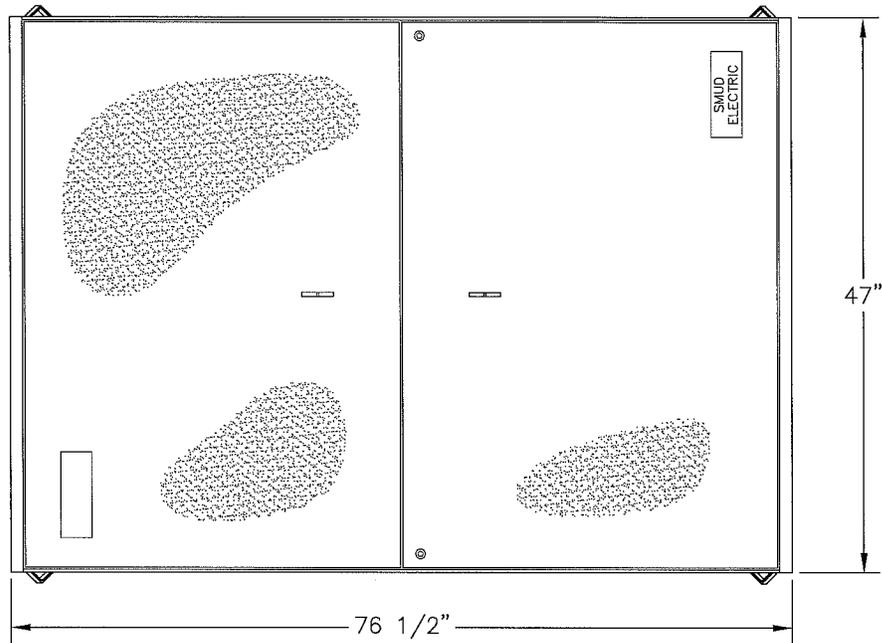
ENGR. SPEC. T007	CONSTRUCTION STANDARDS	REV: 1	
 <p style="text-align: center;"><b>SECONDARY SERVICE BOX INSTALLATION IN INCIDENTAL TRAFFIC LOCATIONS</b></p>		DATE: Aug. 06	PAGE#
		DRAWING REFERENCE# <b>U1S3X4</b>	PAGE# <b>202 of 253</b>



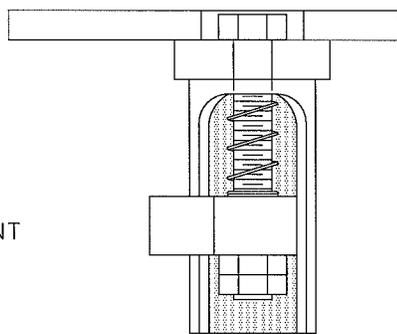
**NOTES:**

1. A SPREADER BAR, WITH TWO (2) TWO-WAY SLINGS, FOUR FEET IN LENGTH, FOUR (4) APPROPRIATE LIFTING BODIES, AND ASSOCIATED HARDWARE SHALL BE USED WHEN LIFTING BOXES WITH THE LIFT ANCHORS. SEE UVC1.2.4 NOTE 3.
2. FOR PROPER RIGGING, SEE UVC1.2.4.
3. DESIGNED FOR H-20 TRAFFIC LOADING.
4. MANUFACTURER SHALL PAINT/STENCIL CORRECT WEIGHT AND CATALOG NUMBER INSIDE AND OUTSIDE OF THE BOX.
5. REDRAWN FROM A-2042.
6. SAP MATERIAL NUMBER 10007677.
7. RECESS HOLE SHALL BE CREATED BY USING THE ST-39 RECESS FORMER FOR A TWO TON ANCHOR FROM MEADOW BURKE PRODUCTS, OR EQUAL.
8. THE LIFTING ANCHOR SHALL BE A STARCON SC-52 ANCHOR FROM MEADOW BURKE PRODUCTS WITH AN ANCHOR HEAD MARK OF 2.5S AND SHALL BE AT LEAST SIX AND THREE QUARTERS INCHES LONG, OR EQUAL.
9. LIFT ANCHORS SHALL BE POSITIONED IN THE CENTERLINE OF THE WALL. MISALIGNMENT (OFF CENTERLINE) OF THE ANCHOR FOOT MAY RESULT IN A DRASTIC REDUCTION OF THE SAFE WORKING LOAD. USE SPACERS AND/OR TIE THE ANCHOR TO REBAR TO ASSURE PROPER POSITIONING.
10. FOR BOX COVER, SEE UVC1.2.2 OR UVC1.2.3.
11. BOX SHALL INCLUDE ONE STEP (BOWCO INDUSTRIES NO. 93813R) ON ONE SHORT WALL.

ENGR. SPEC. T007	CONSTRUCTION STANDARDS	REV: 7	
		DATE: Aug. 06	
 <b>SMUD</b> SACRAMENTO MUNICIPAL UTILITY DISTRICT	<b>OPEN BOTTOM CONCRETE BOX</b> 48" x 72" x 42"	DRAWING REFERENCE# UVC1.2	PAGE# 203 of 253



LEVELING BOLT  
SECTION A-A



LOCKING ASSEMBLY  
DETAIL B

SAP MATERIAL NUMBER 10012135

NOTES:

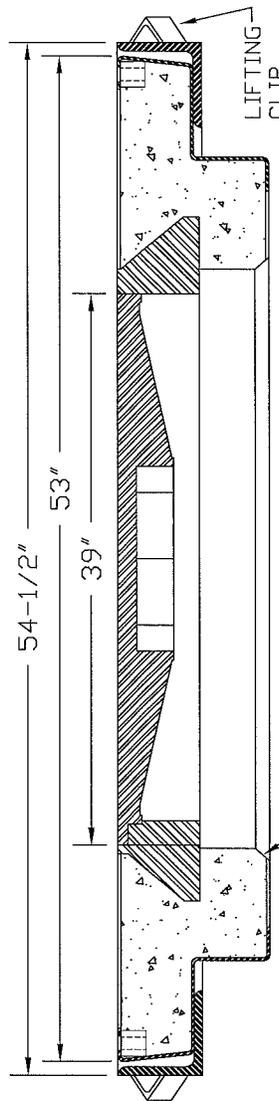
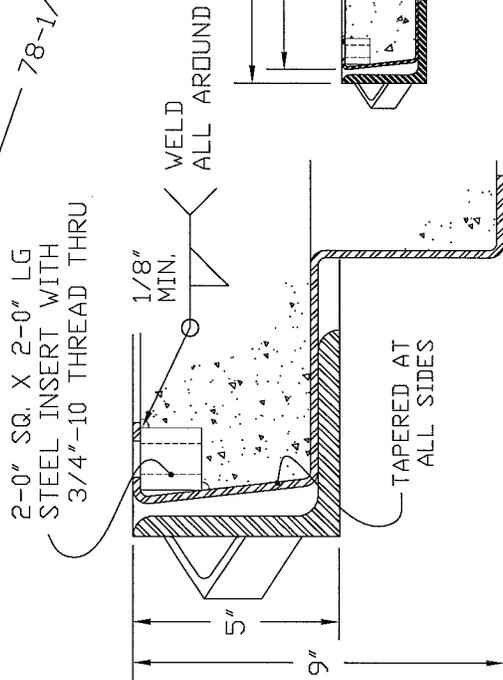
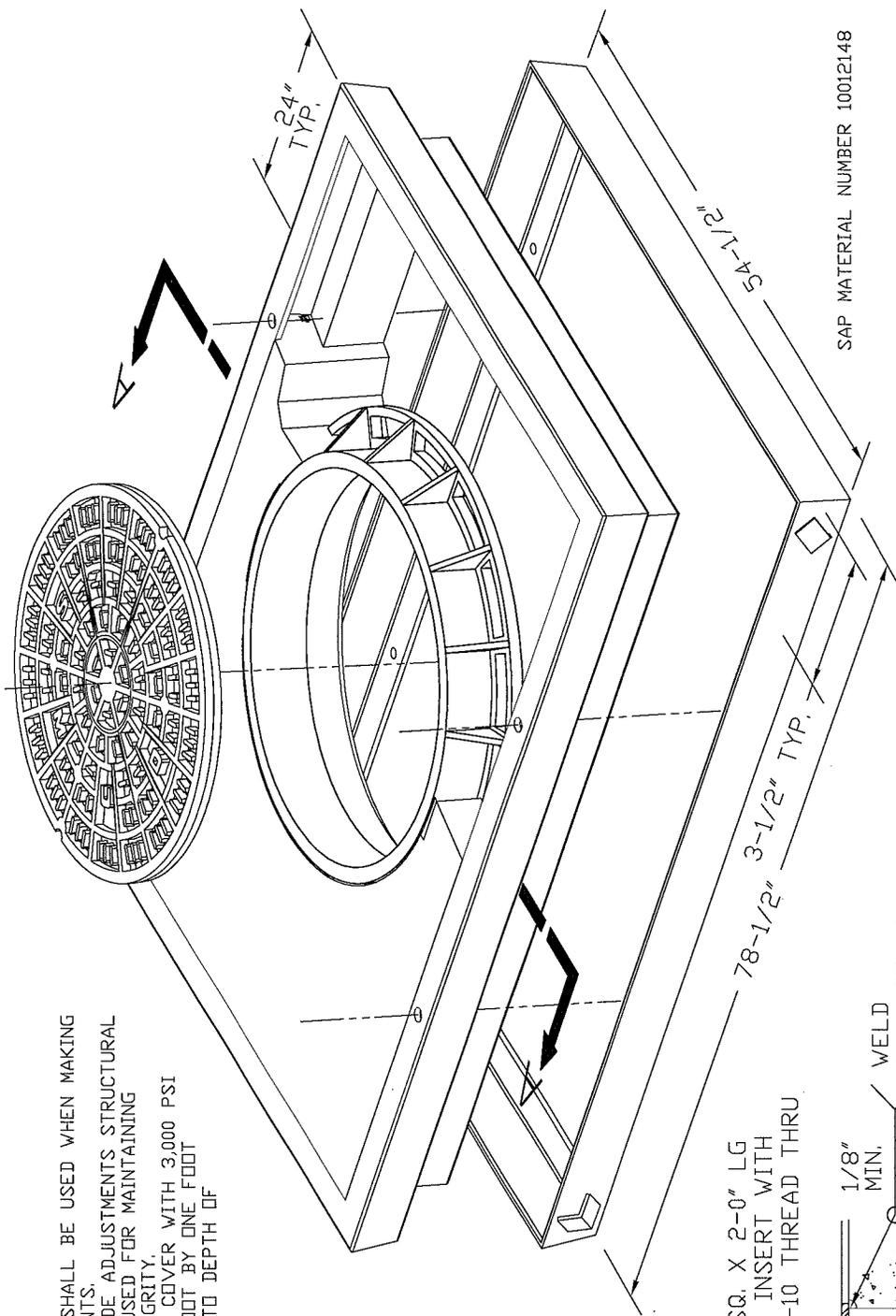
1. ADJUSTING CLIPS SHALL BE USED WHEN MAKING GRADE ADJUSTMENTS.
2. STRUCTURAL GROUT OR FOAM SEALANT MUST BE USED AS DIRECTED BY SMUD INSPECTOR.
3. THE SURFACE SHALL BE TESTED TO A MINIMUM OF 0.60 COF PER ASTM C-1028.
4. MINIMUM OF 25 MIL SURFACE ETCHING PRIOR TO ADDING NON-SLIP MATERIAL.
5. BOND STRENGTH OF NON-SLIP MATERIAL SHALL BE AT LEAST 4000 PSI PER ASTM C-633.

ENGR. SPEC. <b>T007</b>	CONSTRUCTION STANDARDS	REV: 1	
 <b>SMUD</b> SACRAMENTO MUNICIPAL UTILITY DISTRICT		DATE: Aug. 06	
		DRAWING REFERENCE# <b>UVC1.2.2</b>	PAGE# <b>3414 253</b>

**BOX COVER FOR  
48" x 72"  
SPRING ASSIST**

NOTES:

1. ADJUSTING CLIPS SHALL BE USED WHEN MAKING GRADE ADJUSTMENTS.
2. WHEN MAKING GRADE ADJUSTMENTS STRUCTURAL GROUT MUST BE USED FOR MAINTAINING STRUCTURAL INTEGRITY.
3. CONCRETE ENCASE COVER WITH 3,000 PSI CONCRETE ONE FOOT BY ONE FOOT DEPTH (MIN) OR TO DEPTH OF PAVEMENT.



FRAME DETAIL

SECTION A-A

45° CHAMFER ALL AROUND

LIFTING CLIP

SAP MATERIAL NUMBER 10012148

ENGR. SPEC. T007

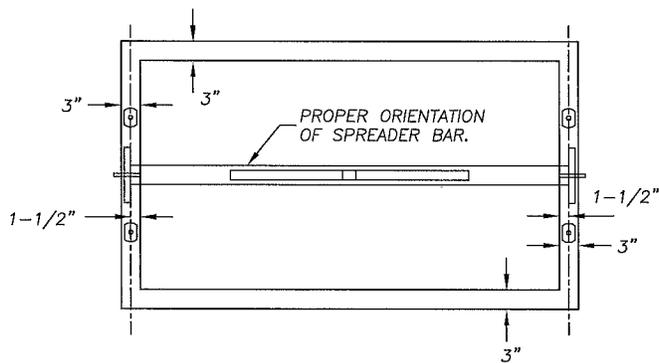
CONSTRUCTION STANDARDS

REV: 2  
DATE: Aug. 06

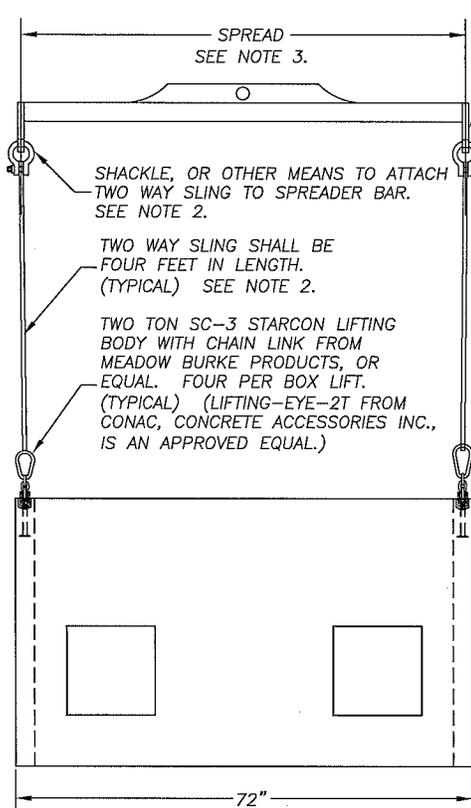


FULL TRAFFIC BOX COVER FOR 48" X 72"

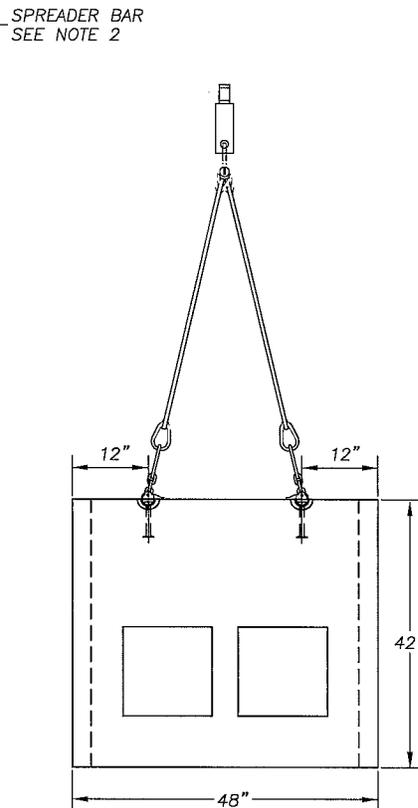
DRAWING REFERENCE# UVC1.2.3  
PAGE# 23-45-53



**TOP - VIEW**  
NOT DRAWN TO SCALE



**FRONT - VIEW**  
NOT DRAWN TO SCALE

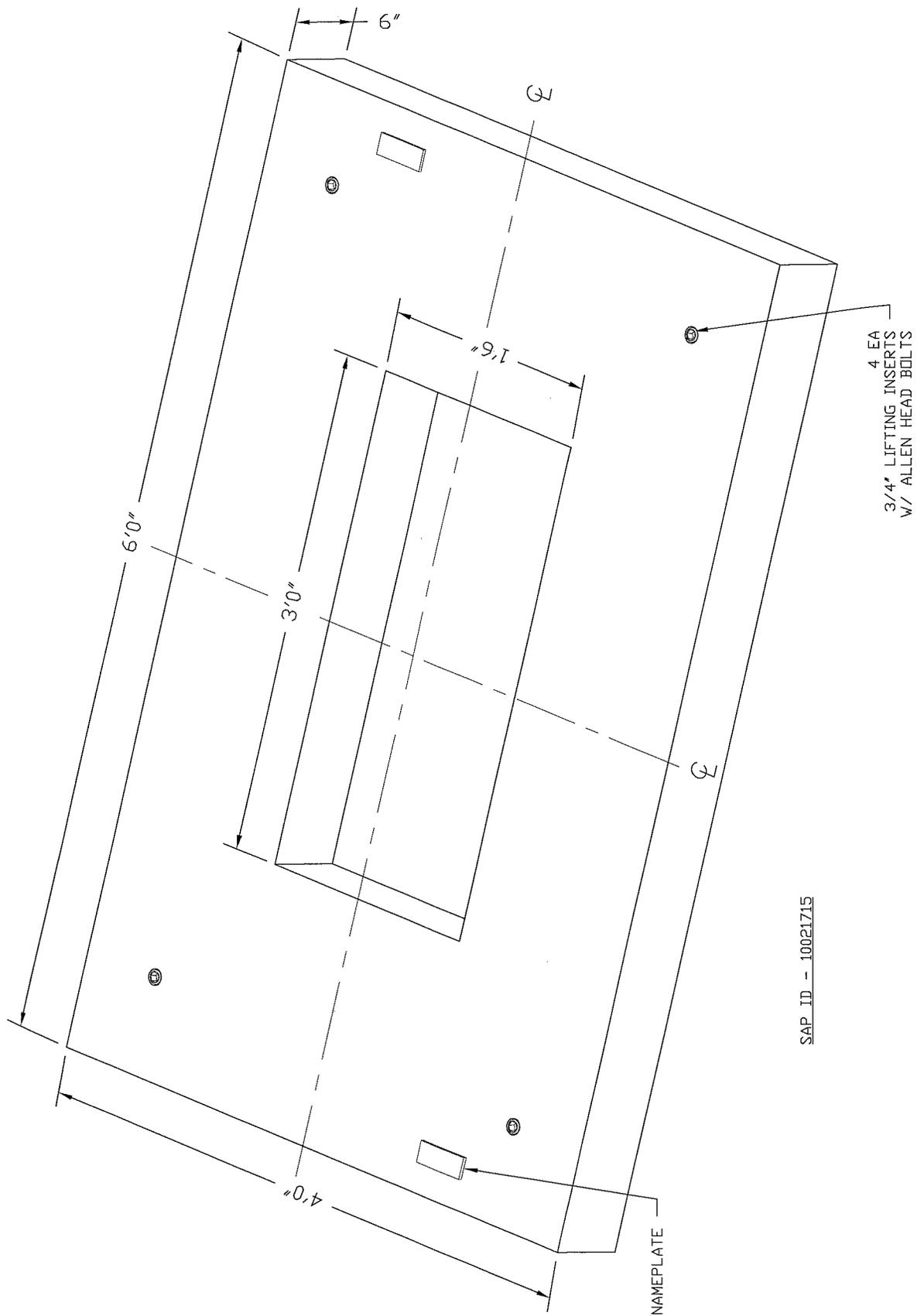


**SIDE - VIEW**  
NOT DRAWN TO SCALE

**NOTES:**

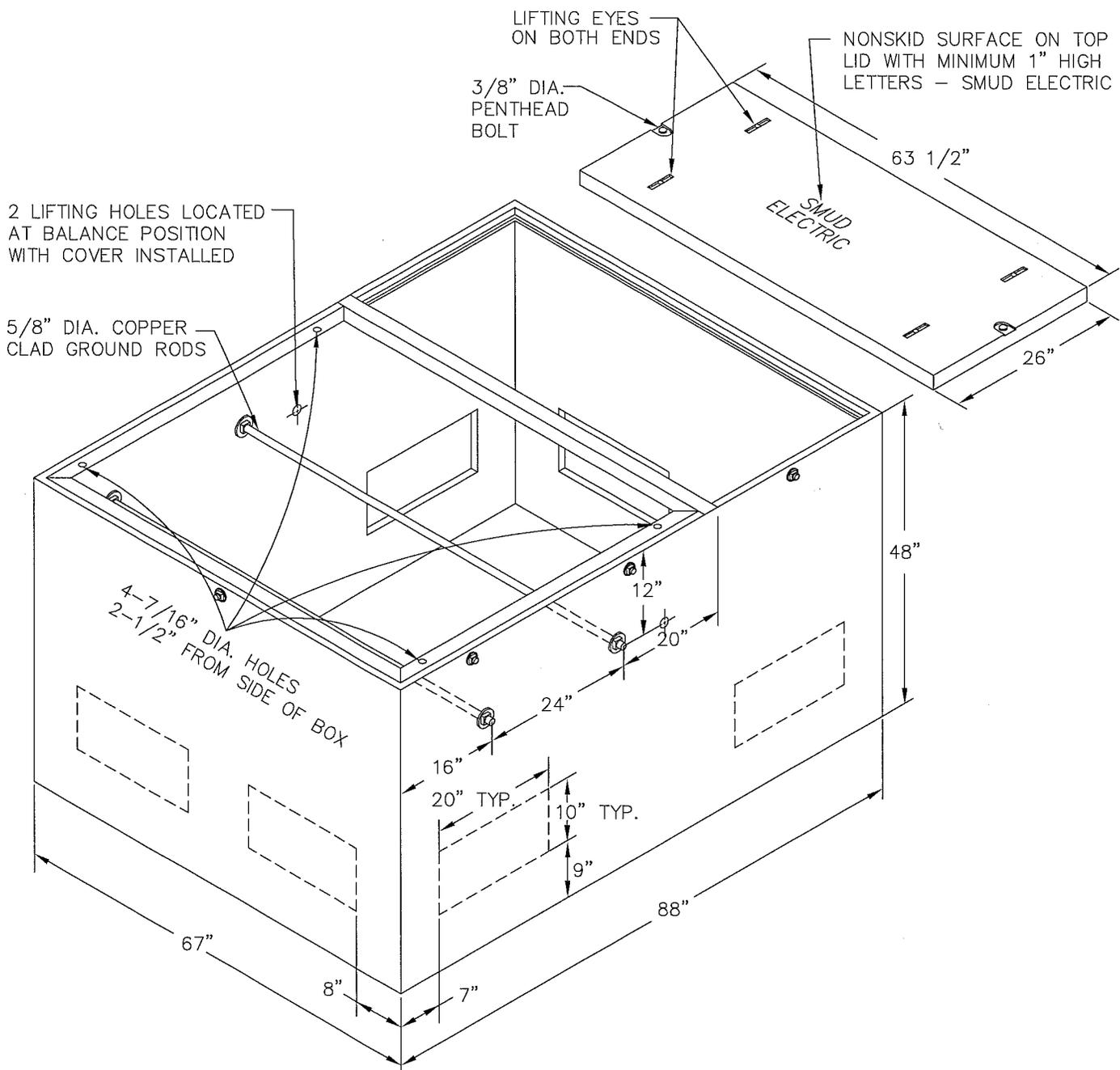
1. "NO EMPLOYEE SHALL BE PERMITTED UNDER PRECAST CONCRETE MEMBERS BEING LIFTED OR TILTED INTO POSITION EXCEPT THOSE EMPLOYEES REQUIRED FOR THE ERECTION OF THOSE MEMBERS." CODE OF FEDERAL REGULATIONS (CFR) TITLE 29 (1990 REVISION) SECTION 1926.704 E.
2. "LIFTING HARDWARE SHALL BE CAPABLE OF SUPPORTING AT LEAST FIVE TIMES THE MAXIMUM INTENDED LOAD APPLIED OR TRANSMITTED TO THE LIFTING HARDWARE." CODE OF FEDERAL REGULATIONS (CFR) TITLE 29 (1990 REVISION) SECTION 1926.704 D.
3. A SPREADER BAR WITH A SPREAD OF SEVENTY INCHES SHALL BE USED TO ENSURE LIFTING FORCES ARE IN LINE WITH THE WALL AS ILLUSTRATED ABOVE. ANY DEVIATION OF SPREAD DIMENSION SHALL BE APPROVED BY A LICENSED CIVIL ENGINEER PRIOR TO USE.
4. NOT ALL APPLICABLE REGULATIONS ARE NOTED.

ENGR. SPEC. <b>T007</b>	CONSTRUCTION STANDARDS	REV: 0	
 <p><b>SMUD</b> SACRAMENTO MUNICIPAL UTILITY DISTRICT</p> <p><b>RIGGING CONFIGURATION OPEN BOTTOM CONCRETE BOX 48" x 72" x 42"</b></p>		DATE: Aug. 06	PAGE#
		DRAWING REFERENCE# <b>UVC1.2.4</b>	PAGE# <b>3616253</b>



SAP\_ID - 10021715

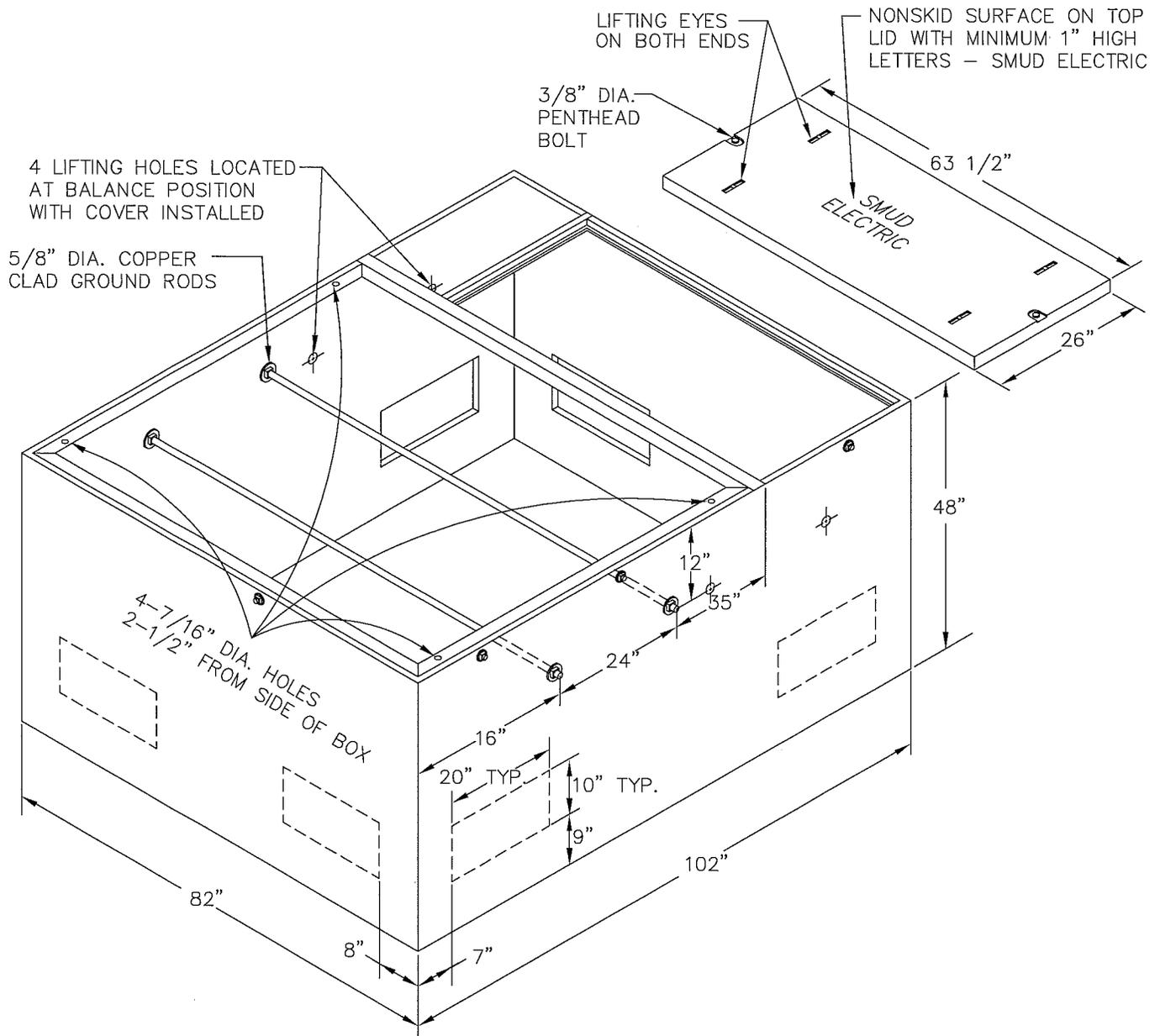
ENGR. SPEC. <b>T007</b>	CONSTRUCTION STANDARDS	REV: 0	
 <b>SMUD</b> SACRAMENTO MUNICIPAL UTILITY DISTRICT	<b>BOX COVER</b> <b>4' x 6'</b> <b>T-TAP</b>	DATE: Aug. 06	PAGE#
DRAWING REFERENCE# <b>UVC1.2.5</b>		PAGE# <b>227 of 253</b> <b>C-17</b>	



**NOTES:**

1. DESIGNED FOR PEDESTRIAN TRAFFIC LOADING.
2. MANUFACTURER SHALL PAINT/STENCIL CORRECT WEIGHT AND CATALOG NUMBER ON EACH BOX.
3. REPLACON CATALOG NO. 886748S OR SMUD ENGINEERING APPROVED EQUAL.
4. ASSEMBLED COMPONENTS MUST BE SECURELY FASTENED TOGETHER FOR SHIPPING AND INSTALLATION BY USE OF CORROSION RESISTANT BOLTS OR METAL BANDS.
5. SMUD SAP MATERIAL NO. 10003736.
6. REDRAWN FROM A-1998.

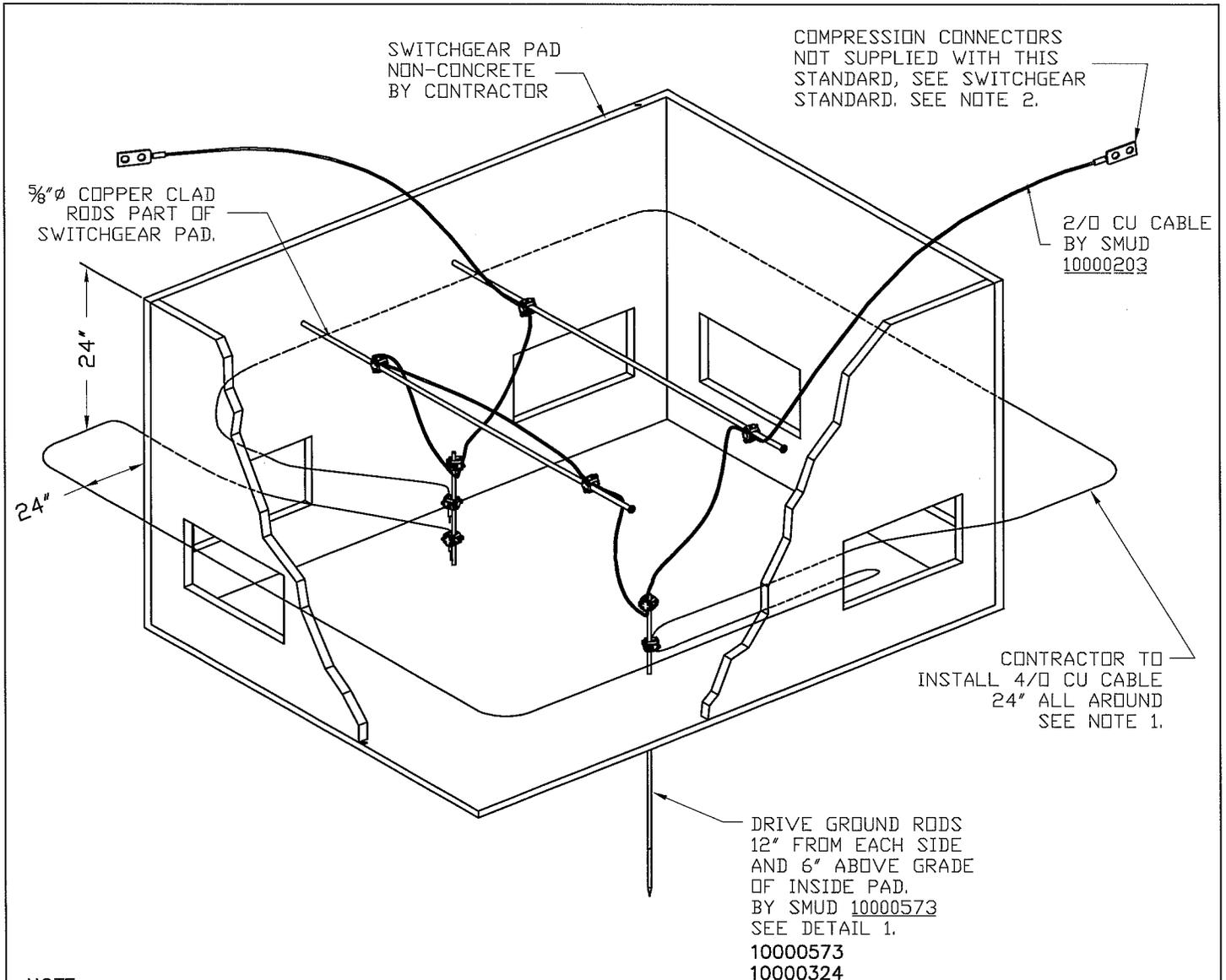
ENGR. SPEC. <b>T007</b>	CONSTRUCTION STANDARDS	REV: 0	
 <p style="text-align: center;"><b>RPM HANDHOLE BOX</b> 88" x 67" x 48" <b>FOR 12 KV SWITCHGEAR</b></p>		DATE: Aug. 06	
		DRAWING REFERENCE# <b>UCV1.4</b>	PAGE# <b>2818 253</b>



**NOTES:**

1. DESIGNED FOR PEDESTRIAN TRAFFIC LOADING.
2. MANUFACTURER SHALL PAINT/STENCIL CORRECT WEIGHT AND CATALOG NUMBER ON EACH BOX.
3. REPLACON CATALOG NO. 1028248S OR SMUD ENGINEERING APPROVED EQUAL.
4. ASSEMBLED COMPONENTS MUST BE SECURELY FASTENED TOGETHER FOR SHIPPING AND INSTALLATION BY USE OF CORROSION RESISTANT BOLTS OR METAL BANDS.
5. SMUD SAP MATERIAL NO. 10008774.
6. REDRAWN FROM A-2052.

ENGR. SPEC. <b>T007</b>	CONSTRUCTION STANDARDS	REV: 0	
	<b>RPM HANDHOLE BOX 102" x 82" x 48"</b> <b>FOR 21 KV SWITCHGEAR AND</b> <b>12KV FEEDER TIE SWITCHES</b>	DATE: Aug. 06	
		DRAWING REFERENCE# <b>UVC1.5</b>	PAGE# <b>209 of 253</b>



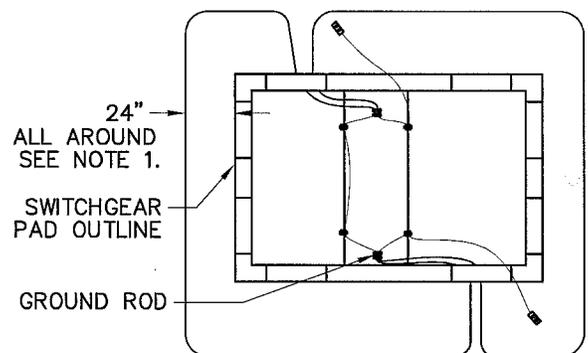
**NOTE:**

1. CONTRACTOR TO INSTALL PERIMETER 4/0 AWG 19 STRAND CU GROUND WIRE 24" DEEP AND 24" OUT FROM BOX WALL. BRING 30 INCH LONG TAILS THROUGH KNOCKOUTS ON SIDES OF BOX.
2. SMUD TO INSTALL GROUND RODS, 2/0 CU CABLE AND CONNECTORS.

**DETAIL 1 – GROUND ROD CONNECTION**

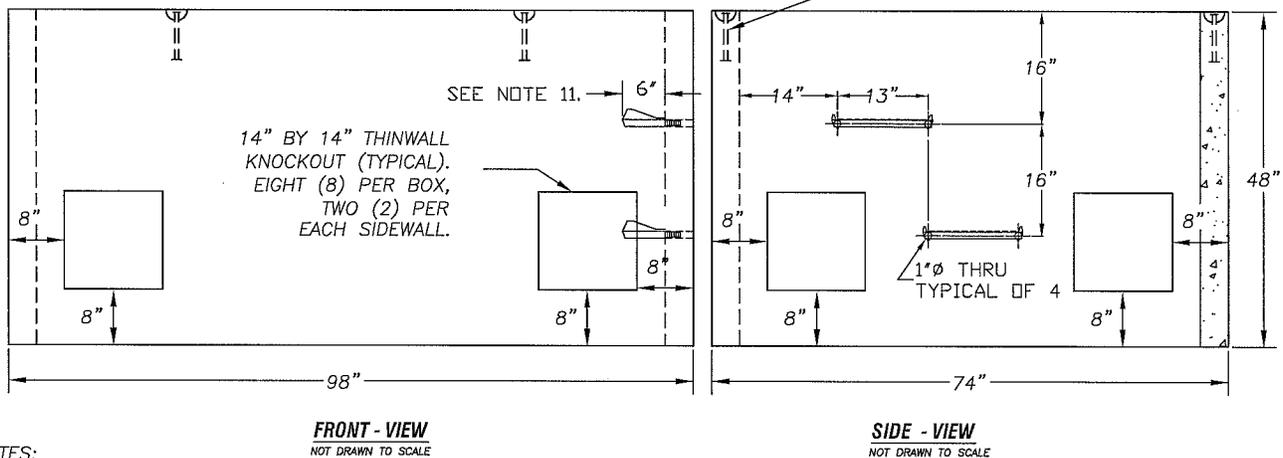
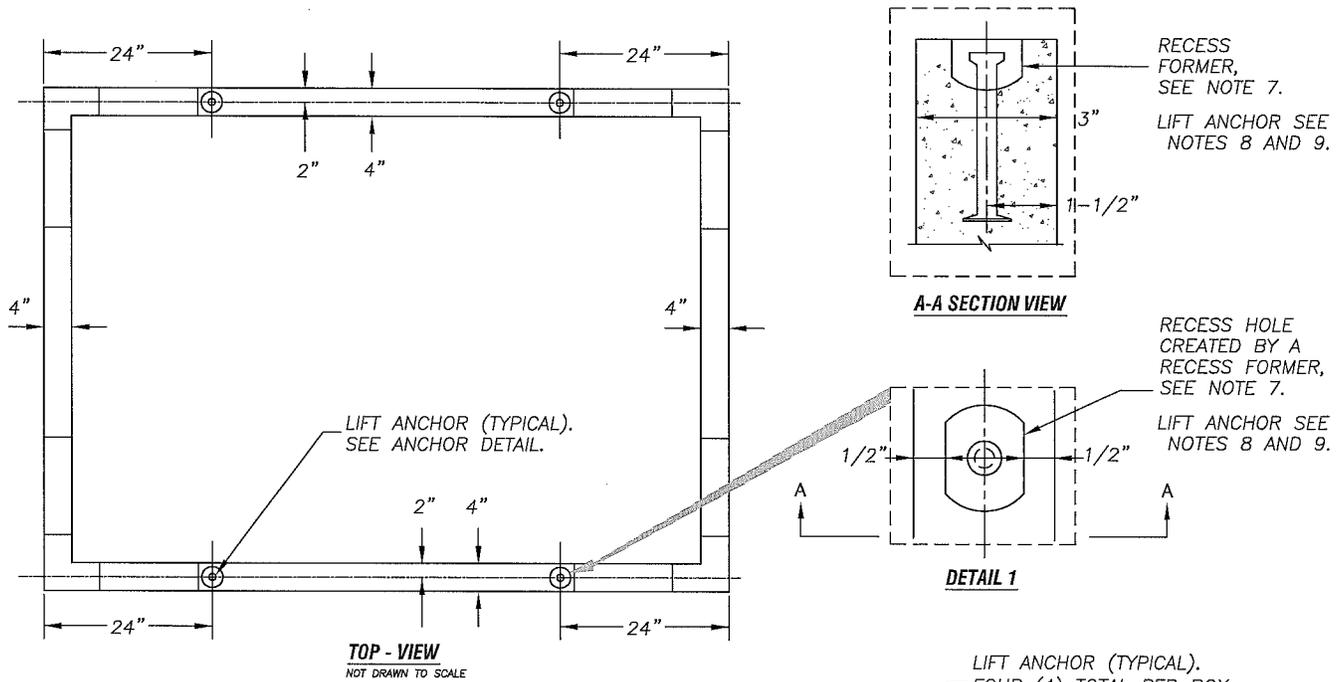
SAP MATERIAL NO.	QUANTITY	MATERIAL DESCRIPTION
10000203	50 FT	CABLE BARE CU SD 2/0 AWG 7 STRAND
10000573	2 EA	ROD GROUND COPPER CLAD 5/8 DIA 8 FT
10000324	9 EA	CONN 2-BOLT CU 350 KCMIL CABLE TO
10000204	70 FT	CABLE CABLE BARE CU SD 4/0 AWG 19 STRAND

THIS MATERIAL IS NOT PROVIDED AS PART OF THIS STANDARD.



**PLAN VIEW**

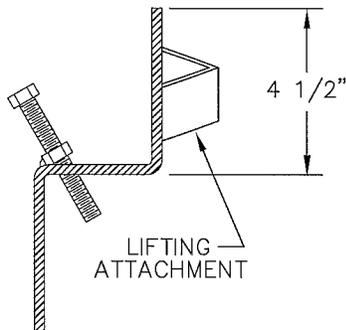
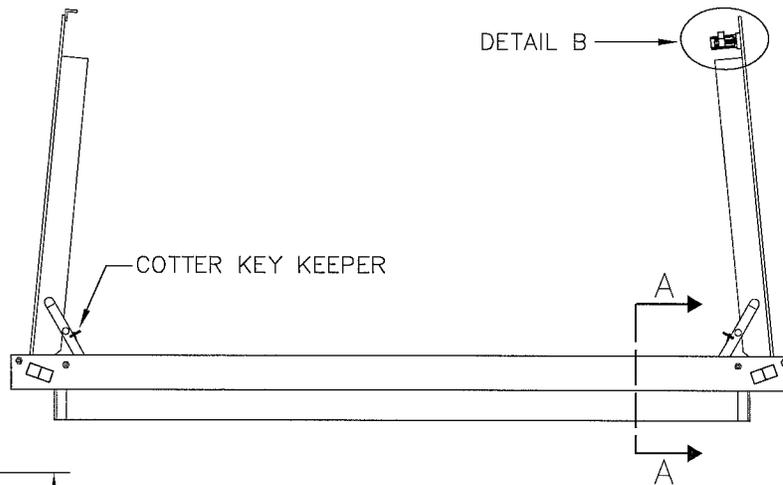
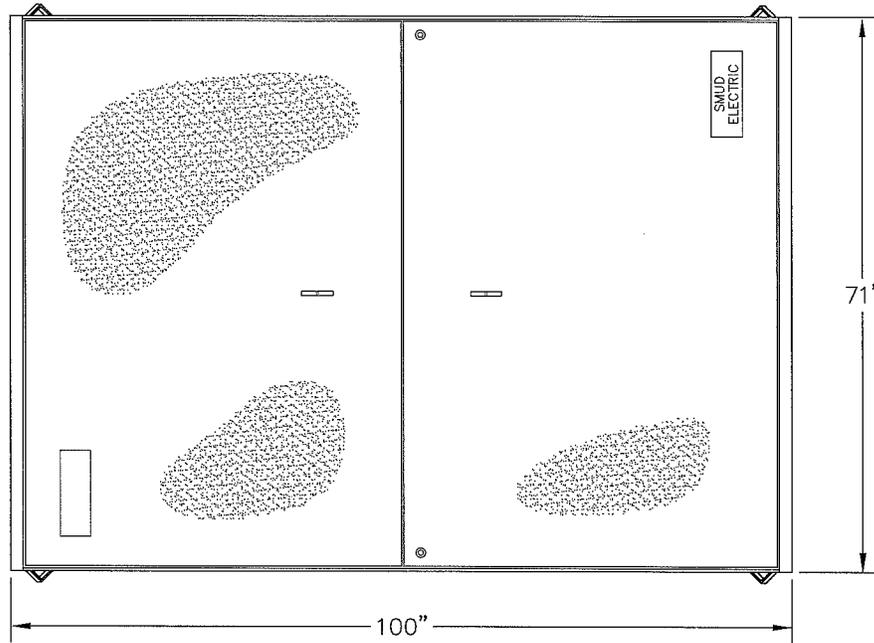
ENGR. SPEC. <b>T007</b>	CONSTRUCTION STANDARDS	REV: 2 DATE: SEPT. 06
<b>SMUD</b> SACRAMENTO MUNICIPAL UTILITY DISTRICT	<b>12KV &amp; 21KV          PAD MOUNT SWITCHGEAR          GROUNDING DETAIL</b>	DRAWING REFERENCE# <b>UGA2.5</b> PAGE# <b>253</b>



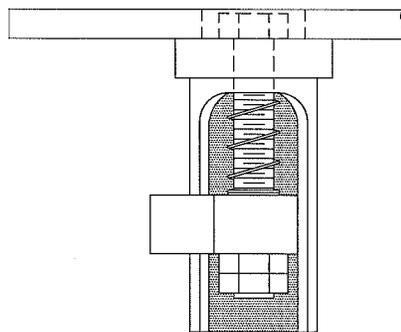
**NOTES:**

1. A SPREADER BAR, WITH TWO (2) TWO-WAY SLINGS, FOUR FEET IN LENGTH, FOUR (4) APPROPRIATE LIFTING BODIES, AND ASSOCIATED HARDWARE SHALL BE USED WHEN LIFTING BOXES WITH THE LIFT ANCHORS. SEE UVC1.6.3 NOTE 3.
2. FOR PROPER RIGGING, SEE UVC1.6.3.
3. DESIGNED FOR H-20 TRAFFIC LOADING.
4. MANUFACTURER SHALL PAINT/STENCIL CORRECT WEIGHT AND CATALOG NUMBER INSIDE AND OUTSIDE OF THE BOX.
5. REDRAWN FROM B-1019.
6. SAP MATERIAL NUMBER 10009740.
7. RECESS HOLE SHALL BE CREATED BY USING THE SC-12 RECESS FORMER FOR A TWO TON ANCHOR FROM MEADOW BURKE PRODUCTS, OR EQUAL.
8. THE LIFTING ANCHOR SHALL BE A STARCON SC-52 ANCHOR FROM MEADOW BURKE PRODUCTS WITH AN ANCHOR HEAD MARK OF 2.5S AND SHALL BE AT LEAST SIX AND THREE QUARTERS INCHES LONG, OR EQUAL.
9. LIFT ANCHORS SHALL BE POSITIONED IN THE CENTERLINE OF THE WALL. MISALIGNMENT (OFF CENTERLINE) OF THE ANCHOR FOOT MAY RESULT IN A DRASTIC REDUCTION OF THE SAFE WORKING LOAD. USE SPACERS AND/OR TIE THE ANCHOR TO REBAR TO ASSURE PROPER POSITIONING.
10. FOR BOX COVER, SEE UVC1.6.1 OR UVC1.6.2.
11. BOX SHALL INCLUDE TWO STEPS (BOWCO INDUSTRIES NO. 93813R) ON ONE SHORT WALL.

ENGR. SPEC. <b>T007</b>	CONSTRUCTION STANDARDS	REV: 6
		DATE: Aug. 06
	<b>OPEN BOTTOM CONCRETE BOX</b> 72" x 96" x 48"	DRAWING REFERENCE#
		UVC1.6
		PAGE#
		12 of 253



LEVELING BOLT  
SECTION A-A



LOCKING ASSEMBLY  
DETAIL B

SAP MATERIAL NUMBER 10012132

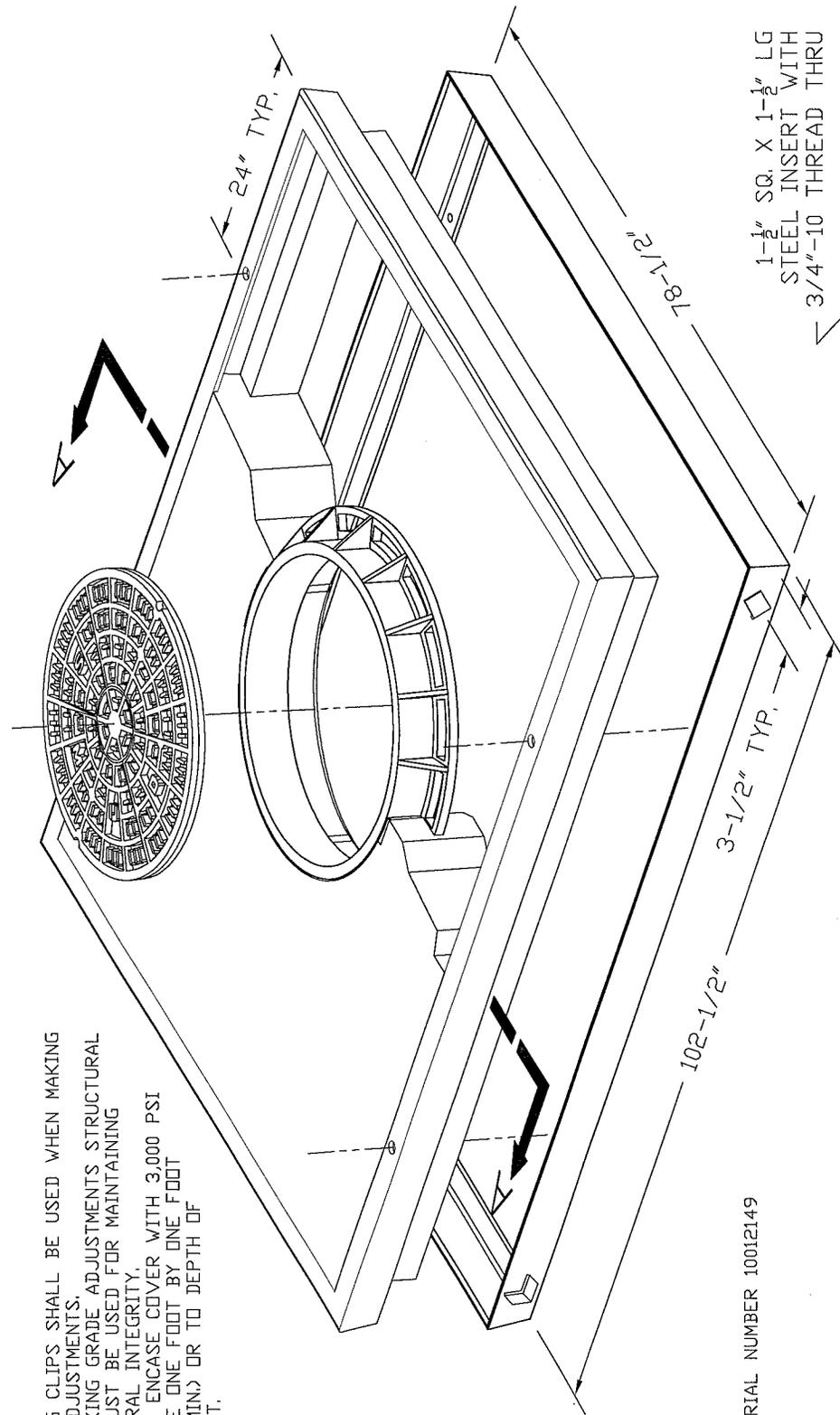
NOTES:

1. ADJUSTING CLIPS SHALL BE USED WHEN MAKING GRADE ADJUSTMENTS.
2. STRUCTURAL GROUT OR FOAM SEALANT MUST BE USED AS DIRECTED BY SMUD INSPECTOR.
3. THE SURFACE SHALL BE TESTED TO A MINIMUM OF 0.60 COF PER ASTM C-1028.
4. MINIMUM OF 25 MIL SURFACE ETCHING PRIOR TO ADDING NON-SLIP MATERIAL.
5. BOND STRENGTH OF NON-SLIP MATERIAL SHALL BE AT LEAST 4000 PSI PER ASTM C-633.

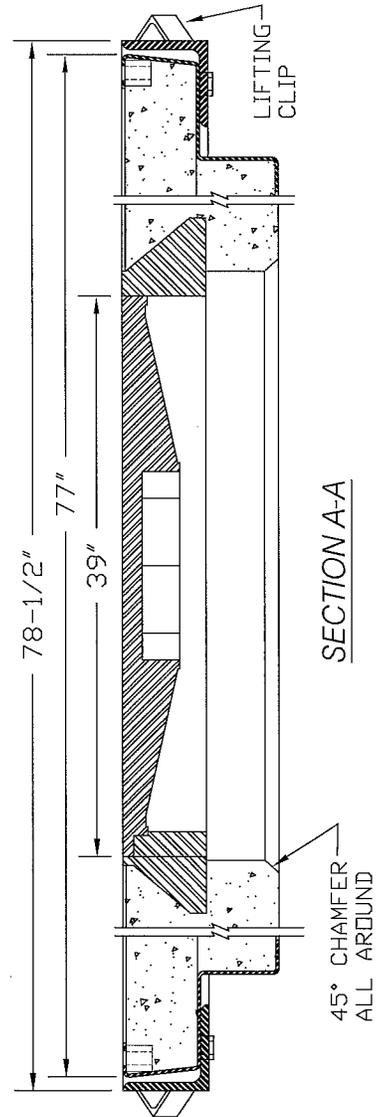
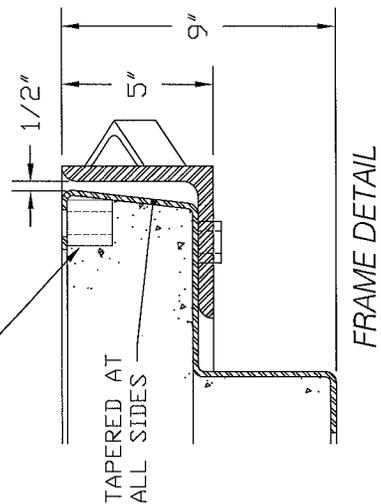
ENGR. SPEC. <b>T007</b>	CONSTRUCTION STANDARDS	REV: 1	
	<b>BOX COVER FOR 72" x 96" SPRING ASSIST</b>	DATE: Aug. 06	
		DRAWING REFERENCE#	PAGE#
		UVC1.6.1	322253

NOTES:

1. ADJUSTING CLIPS SHALL BE USED WHEN MAKING GRADE ADJUSTMENTS.
2. WHEN MAKING GRADE ADJUSTMENTS STRUCTURAL GROUT MUST BE USED FOR MAINTAINING STRUCTURAL INTEGRITY.
3. CONCRETE ENCASE COVER WITH 3,000 PSI CONCRETE ONE FOOT BY ONE FOOT DEPTH (MIN.) OR TO DEPTH OF PAVEMENT.



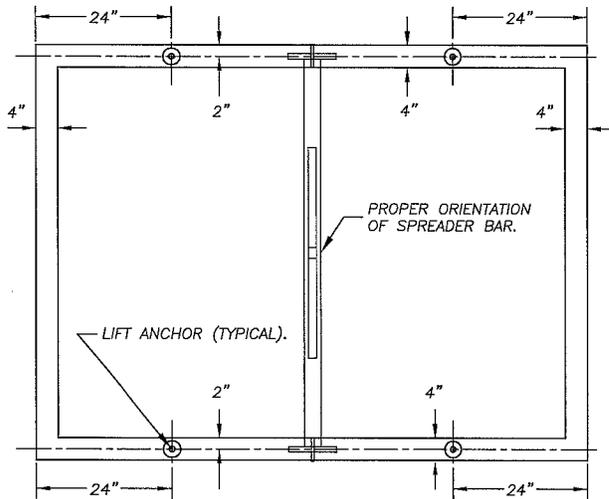
SAP MATERIAL NUMBER 10012149



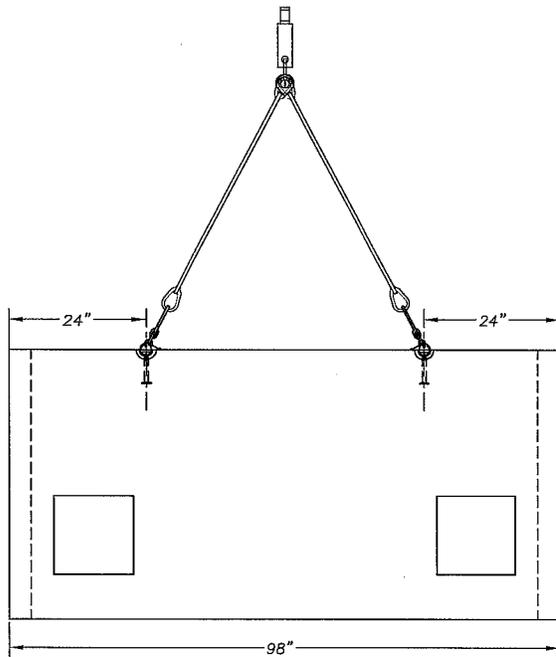
SECTION A-A

FRAME DETAIL

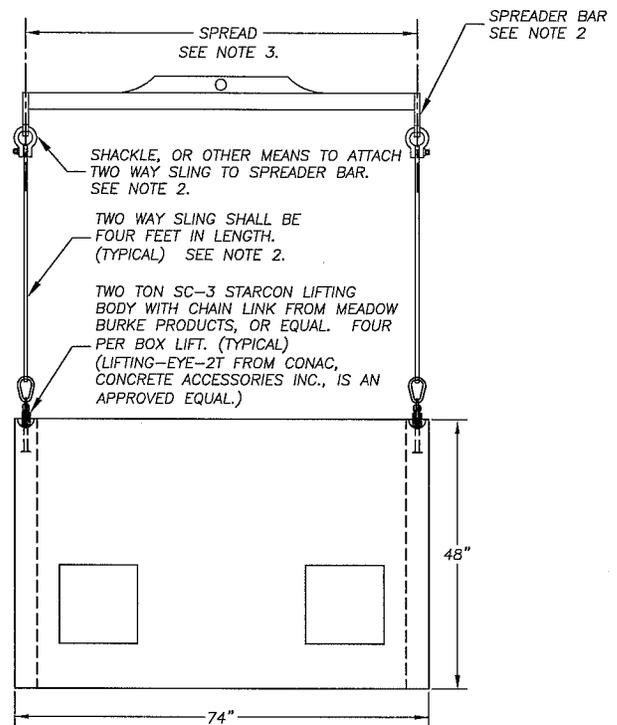
ENGR. SPEC. <b>T007</b>	CONSTRUCTION STANDARDS	REV: 2
	<b>FULL TRAFFIC BOX COVER FOR 72" x 96"</b>	DATE: Aug. 06
		DRAWING REFERENCE# <b>UVC1.6.2</b>
		PAGE# <b>263 of 253</b>



**TOP - VIEW**  
NOT DRAWN TO SCALE



**FRONT - VIEW**  
NOT DRAWN TO SCALE



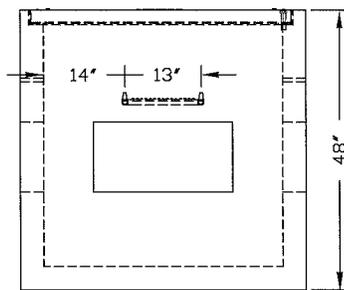
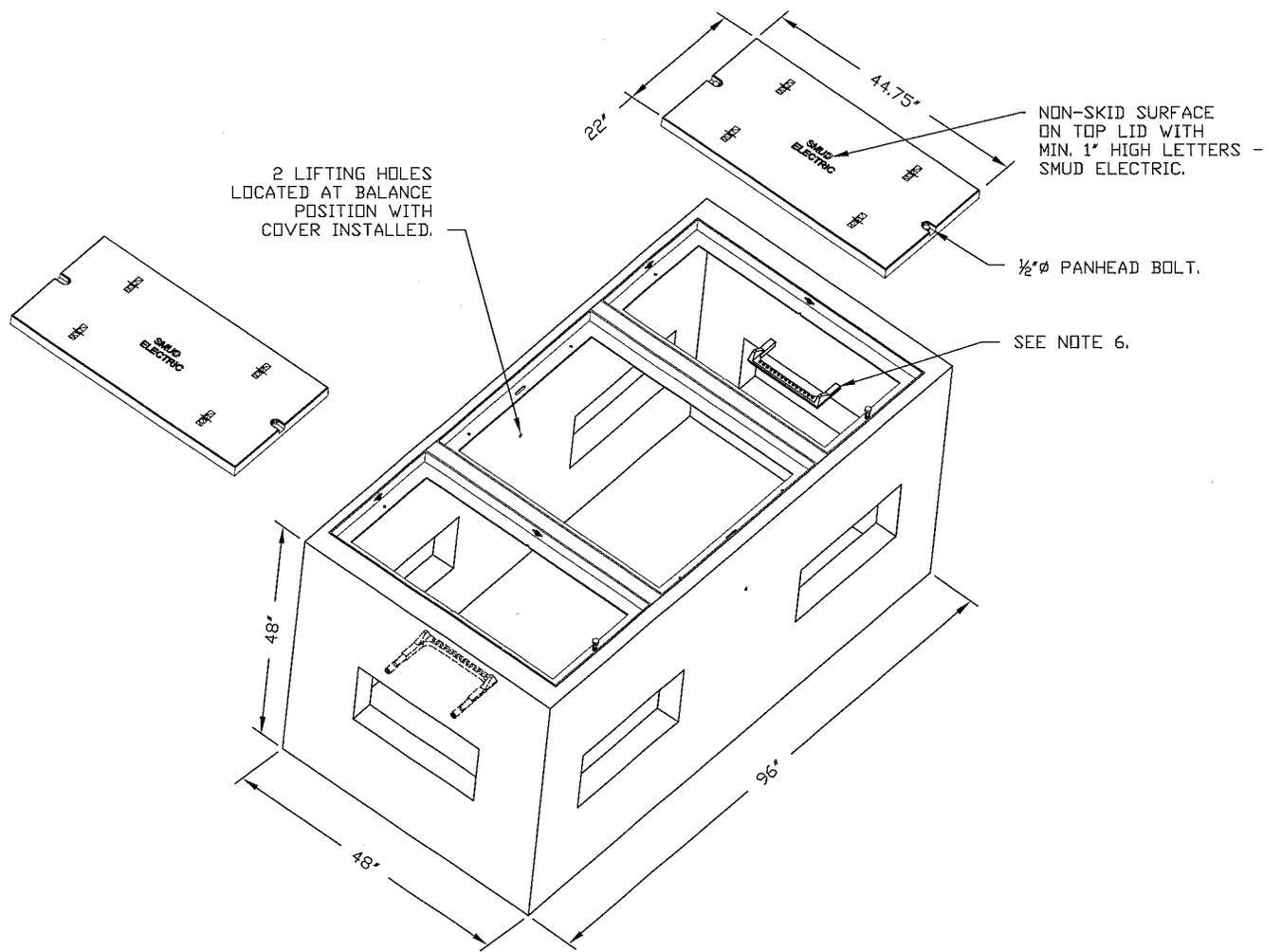
**SIDE - VIEW**  
NOT DRAWN TO SCALE

**NOTES:**

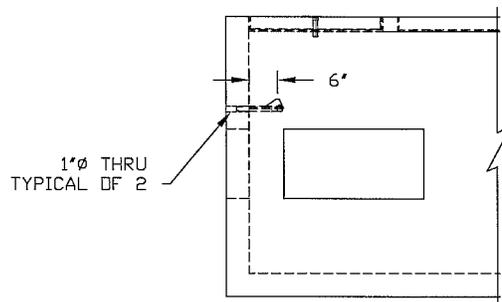
1. "NO EMPLOYEE SHALL BE PERMITTED UNDER PRECAST CONCRETE MEMBERS BEING LIFTED OR TILTED INTO POSITION EXCEPT THOSE EMPLOYEES REQUIRED FOR THE ERECTION OF THOSE MEMBERS." CODE OF FEDERAL REGULATIONS (CFR) TITLE 29 (1990 REVISION) SECTION 1926.704 E.
2. "LIFTING HARDWARE SHALL BE CAPABLE OF SUPPORTING AT LEAST FIVE TIMES THE MAXIMUM INTENDED LOAD APPLIED OR TRANSMITTED TO THE LIFTING HARDWARE." CODE OF FEDERAL REGULATIONS (CFR) TITLE 29 (1990 REVISION) SECTION 1926.704 D.
3. A SPREADER BAR WITH A SPREAD OF SEVENTY INCHES SHALL BE USED TO ENSURE LIFTING FORCES ARE IN LINE WITH THE WALL AS ILLUSTRATED ABOVE. ANY DEVIATION OF SPREAD DIMENSION SHALL BE APPROVED BY A LICENSED CIVIL ENGINEER PRIOR TO USE.
4. NOT ALL APPLICABLE REGULATIONS ARE NOTED.

ENGR. SPEC. T007	CONSTRUCTION STANDARDS	REV: 0	
 <b>SMUD</b> SACRAMENTO MUNICIPAL UTILITY DISTRICT		DATE: Aug. 06	
		DRAWING REFERENCE# <b>UVC1.6.3</b>	PAGE# <b>24</b> of 25

**RIGGING CONFIGURATION  
OPEN BOTTOM CONCRETE BOX  
72" x 96" x 48"**



**FRONT VIEW**

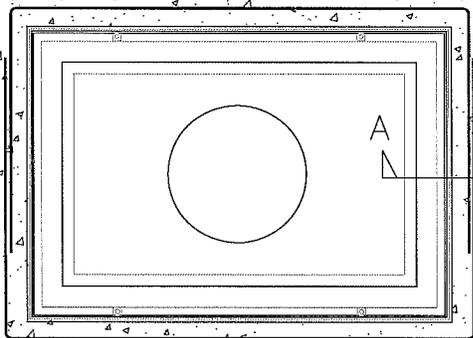
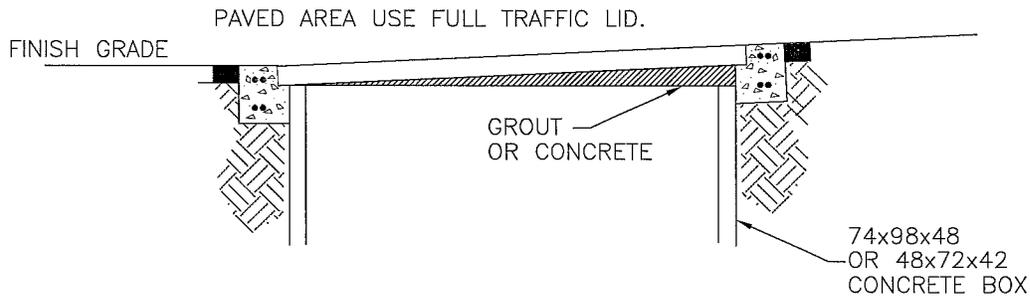
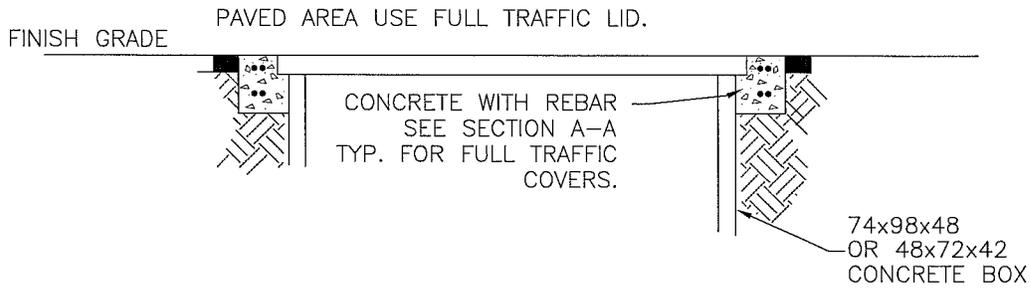
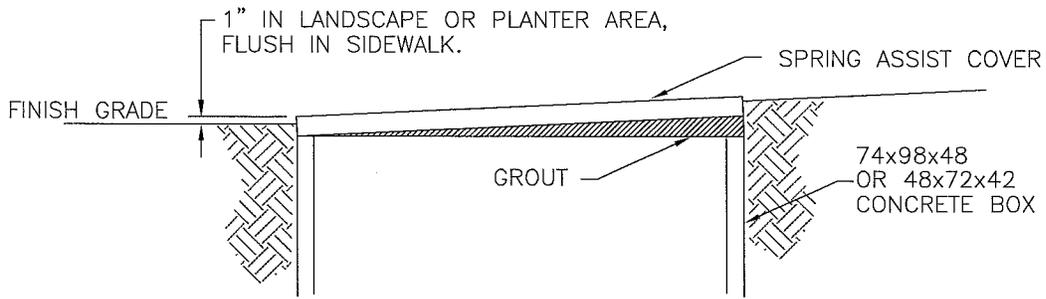


**SIDE VIEW**

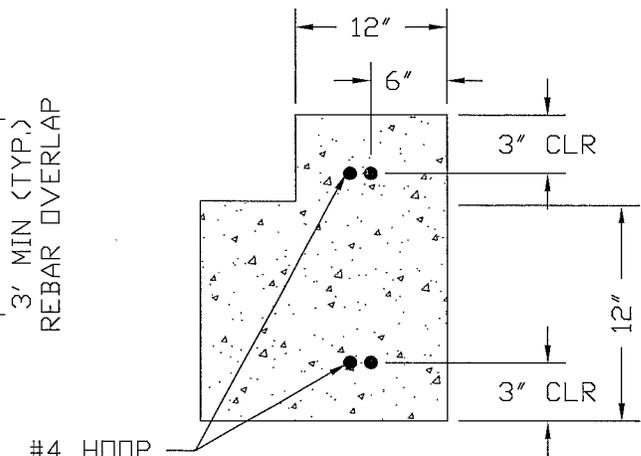
**NOTES:**

1. DESIGNED FOR PEDESTRIAN TRAFFIC LOADING.
2. MANUFACTURER SHALL PAINT/STENCIL CORRECT WEIGHT AND CATALOG NUMBER ON EACH BOX.
3. REPLACON CATALOG NO. 4896 J-BOX-S OR SMUD ENGINEERING APPROVED EQUAL.
4. ASSEMBLED COMPONENTS MUST BE SECURELY FASTENED TOGETHER FOR SHIPPING AND INSTALLATION BY USE OF CORROSION RESISTANT BOLTS OR METAL BANDS.
5. SAP MATERIAL NUMBER 10011318 USED WITH ENCLOSURE SECONDARY BUS P.M. SAP MATERIAL NUMBER 10010041.
6. BOX SHALL INCLUDE (2) ONE STEP (BOWCO INDUSTRIES NO. 93813R). ONE ON EACH SHORT WALL.

ENGR. SPEC. <b>T007</b>	CONSTRUCTION STANDARDS	REV: 2	
<div style="display: flex; justify-content: center; align-items: center;"> <div style="text-align: center;"> <p><b>NON-CONCRETE SECONDARY J-BOX</b></p> <p>48" x 96" x 48"</p> </div> </div>		DATE: Aug. 06	PAGE#
		DRAWING REFERENCE# <b>UVC1.7</b>	PAGE# <b>25</b>



TOP VIEW

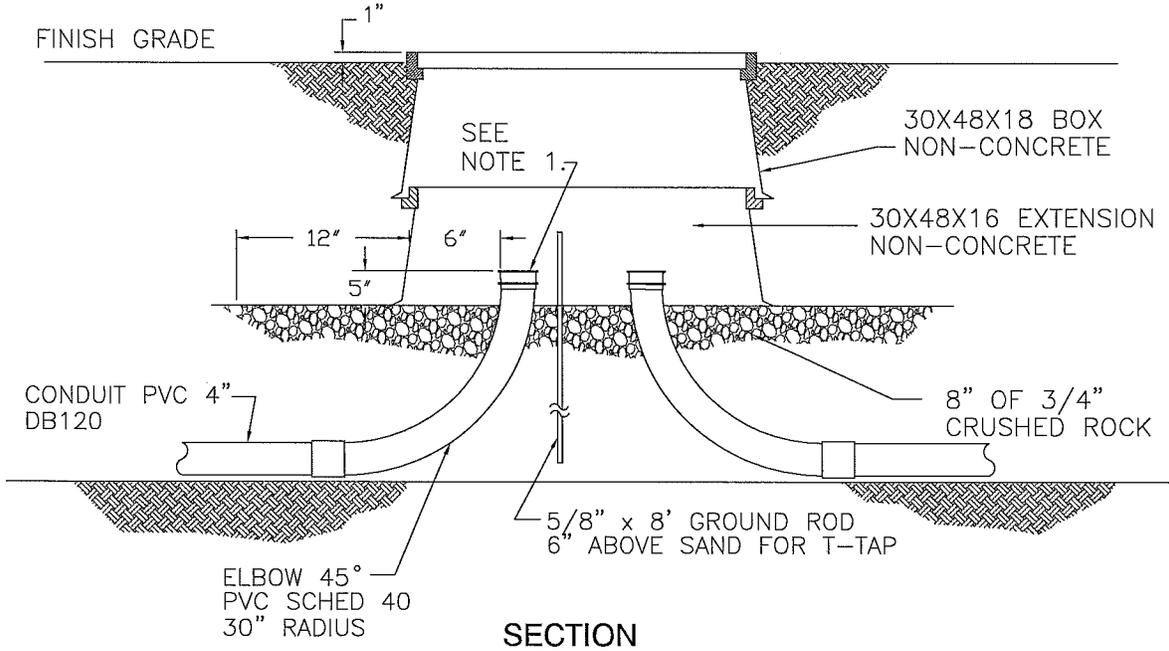


SECTION A-A

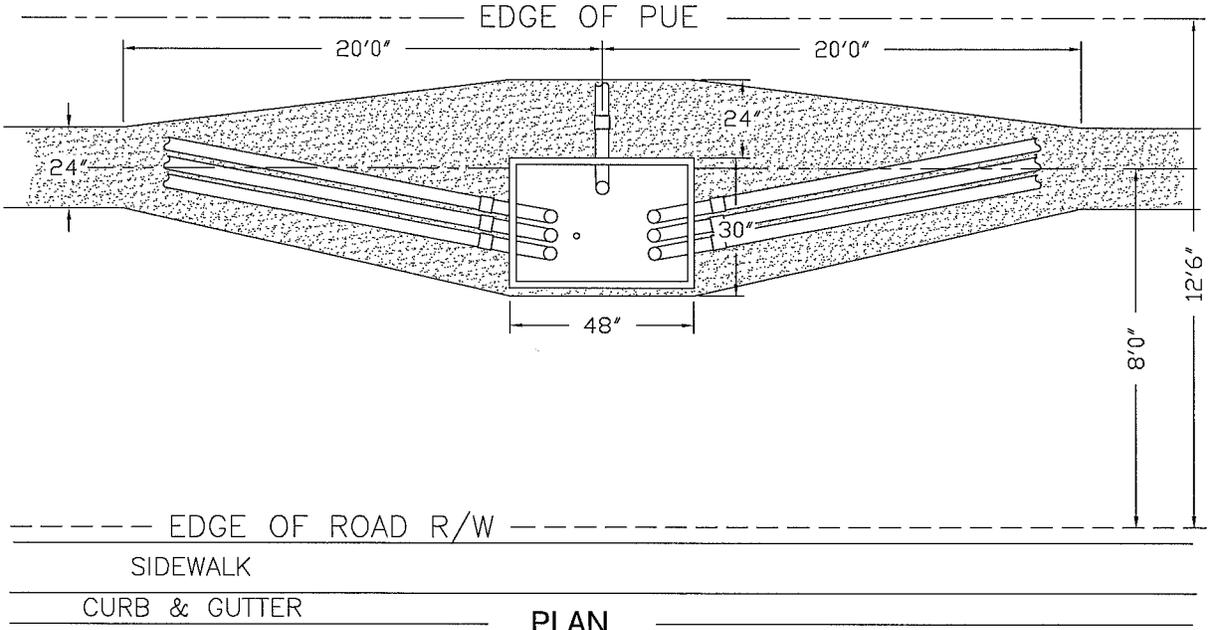
**NOTE:**

1. USE PORTLAND EXPANDING (NON-SHRINK), NON-METALIC GROUT.
2. CONCRETE ENCASEMENT TO BE 3,000 PSI (5 SACK) MINIMUM.

ENGR. SPEC. <b>T007</b>	CONSTRUCTION STANDARDS	REV: 2	
	<b>COVER INSTALLATION DETAILS</b>	DATE: Aug. 06	PAGE#
DRAWING REFERENCE# <b>UVC1.8.3</b>		PAGE# <b>C-26</b>	



**SECTION**



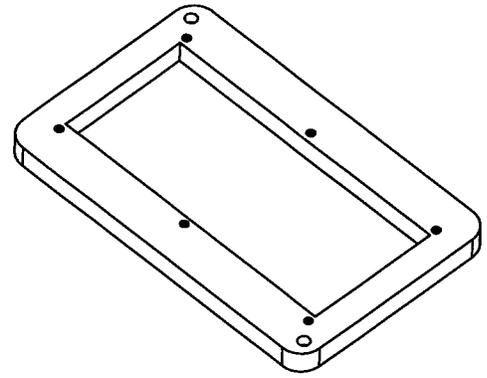
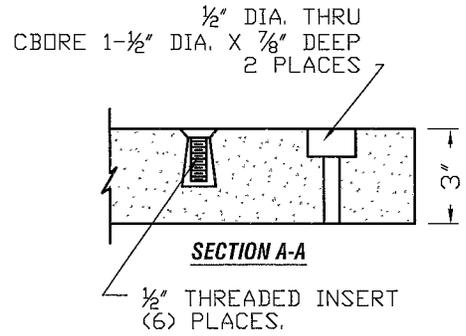
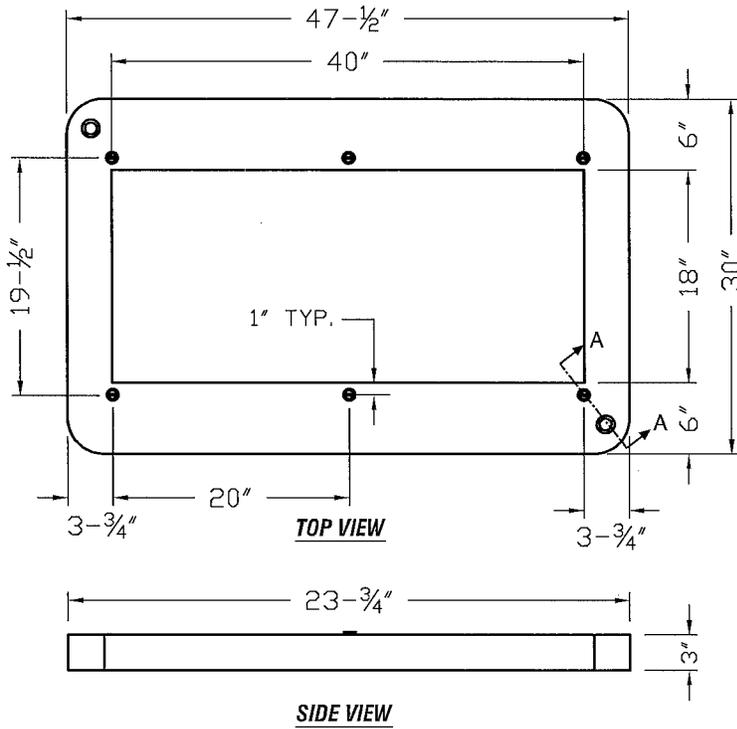
**PLAN**

NOTES:

- 1. SEE DWG. U12P3X2 FOR CONDUIT TERMINATION.

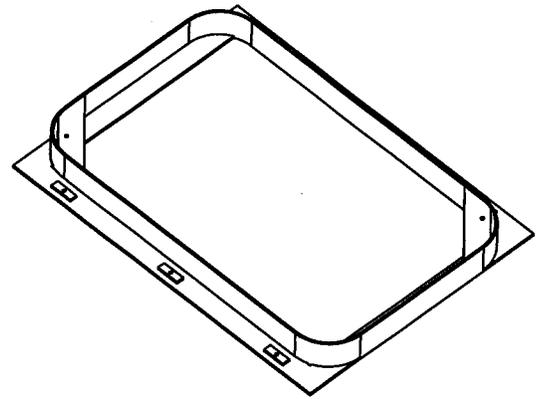
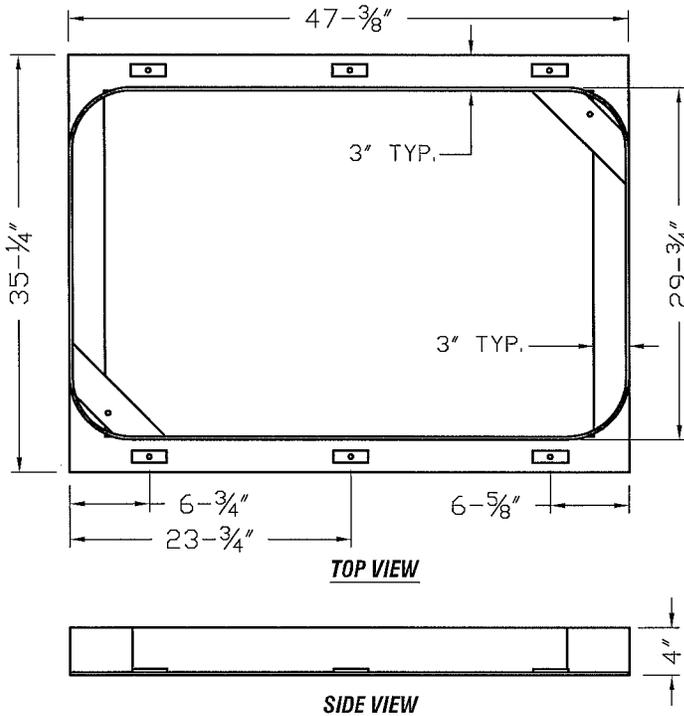
ENGR. SPEC. <b>T007</b>	CONSTRUCTION STANDARDS	REV: 4	
<b>SMUD</b> SACRAMENTO MUNICIPAL UTILITY DISTRICT		DATE: Aug. 06	
<b>PRIMARY PULL BOX AND T-TAP INSTALLATION</b> 30" x 48" x 34"		DRAWING REFERENCE#	PAGE#
		<b>UVC2.1</b>	<b>27</b> of <b>253</b>

**COVER FOR 3-WAY T-TAP**



NOTE:  
 1. COVER SHALL BE POLYMER CONCRETE.  
 2. SMUD STOCK CODE 10012220.

**COVER FOR 4-WAY T-TAP**



NOTE:  
 1. COVER SHALL BE GALVANIZED STEEL.  
 2. SMUD STOCK CODE 10020563.

ENGR. SPEC. <b>T007</b>	CONSTRUCTION STANDARDS	REV: 0	
 <b>SMUD</b> SACRAMENTO MUNICIPAL UTILITY DISTRICT	<b>T-TAP COVERS                  FOR                  30" x 48" BOX</b>	DATE: Aug. 06	PAGE#
DRAWING REFERENCE# <b>UVC2.2</b>	PAGE# <b>28 of 253</b> <b>C-28</b>		

THE DISTRICT PREFERRED METHOD OF CONSTRUCTION IS TO HAVE THE SECONDARY CONDUCTORS TERMINATE AT THE DISTRICT TRANSFORMER(S) AND THE CUSTOMER'S PANEL(S). THIS PREFERRED METHOD ALSO INCLUDES PARALLEL TRANSFORMERS, I.E. TWO TRANSFORMERS SERVING THE SAME CUSTOMER. FOR EXAMPLE, TWO 500 KVA (208Y/120) TRANSFORMERS SERVING THE SAME CUSTOMER CAN HAVE UP TO 20 SERVICE RUNS, 10 FROM EACH TRANSFORMER. IF THE CRITERIA BELOW IS EXCEEDED, A SECONDARY JUNCTION BOX SHALL BE REQUIRED.

MAXIMUM NUMBER OF COMMERCIAL SERVICE RUNS FROM SMUD'S PADMOUNT TRANSFORMERS

SMUD SPECIFIES A MAXIMUM NUMBER OF SERVICE RUNS THAT CAN BE SERVED DIRECTLY FROM ONE PADMOUNT TRANSFORMER DUE TO:

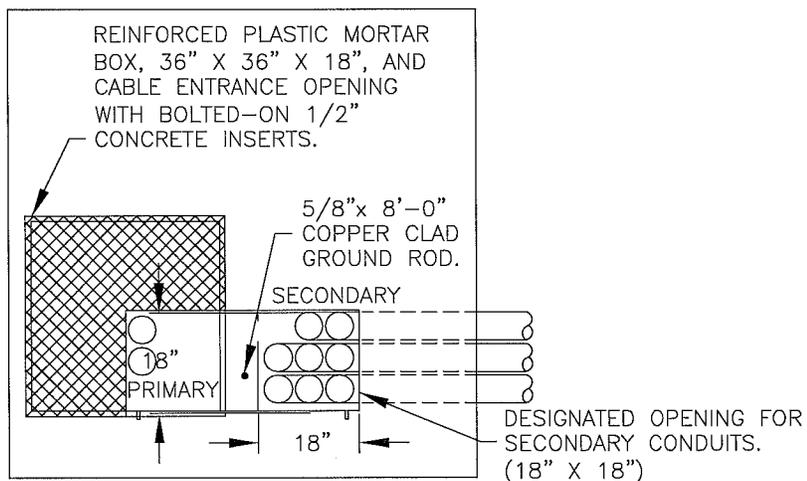
- 1) THE NUMBER AND SIZE OF CONDUCTORS THAT CAN BE TERMINATED ON THE TRANSFORMER SECONDARY CONNECTORS, AND
- 2) THE NUMBER AND SIZE OF CONDUITS THAT CAN BE ACCOMMODATED BY THE OPENING IN THE TRANSFORMER PAD. (SEE FIGURE 1.) THE MAXIMUM NUMBER OF CONDUITS MAY ALSO BE FURTHER REDUCED BY EXISTING CONDUIT INSTALLATION.

A SECONDARY JUNCTION BOX SHALL BE INSTALLED ADJACENT TO THE TRANSFORMER WHEN THE CUSTOMER'S SECONDARY DESIGN EXCEEDS THE REQUIREMENTS OF TABLE 1, OR THE COMBINED NUMBER AND SIZE OF THE CONDUITS EXCEEDS THE CAPACITY THE OF 18" BY 18" OPENING IN THE TRANSFORMER PAD, AS ILLUSTRATED IN FIGURE 1. REFER TO UAD1.6 FOR SECONDARY JUNCTION BOX

TABLE 1. - MAXIMUM CONDUCTORS INSTALLED PER PHASE ON THREE PHASE PAD MOUNT TRANSFORMERS

THREE PHASE PAD MOUNT TRANSFORMER DESCRIPTION	MAXIMUM NUMBER OF CONDUCTORS PER PHASE	ACCEPTABLE CONDUCTOR SIZES
75 KVA OR SMALLER FOR ALL SECONDARY VOLTAGES	6	6 AWG THROUGH 500 KCMIL
150 KVA AND 300 KVA FOR ALL SECONDARY VOLTAGES	8	1/0 AWG THROUGH 750 KCMIL
500 KVA SECONDARY 480Y/120	8	1/0 AWG THROUGH 750 KCMIL
500 KVA SECONDARY 208Y/120	10	1/0 AWG THROUGH 750 KCMIL
750 KVA OR LARGER FOR ALL SECONDARY VOLTAGES	10	1/0 AWG THROUGH 750 KCMIL

FIGURE 1. - TRANSFORMER PAD



ENGR. SPEC. <b>T007</b>	CONSTRUCTION STANDARDS	REV: 1
		DATE: Aug. 06
	<b>COMMERCIAL SECONDARY RUNS FROM TRANSFORMER TO PANEL</b>	DRAWING REFERENCE# <b>UAD1.5</b>
		PAGE# <b>289-25253</b>

SMUD SECONDARY RUNS FROM TRANSFORMER TO JUNCTION BOX

THE NUMBER AND SIZE OF SECONDARY CABLES TO BE INSTALLED BY SMUD, AS WELL AS THE NUMBER AND SIZE OF SECONDARY CONDUITS, TO BE INSTALLED BY THE CUSTOMER, FROM THE TRANSFORMER TO THE SECONDARY JUNCTION BOX ARE SPECIFIED IN THE FOLLOWING TABLES. (SEE NOTE 1.)

I. 120/208 VOLT INSTALLATION

3 PHASE TRANSFORMER SIZE (12 KV)	120% OF PHASE AMPS AT 208 VOLTS	NUMBER OF SECONDARY CIRCUITS	QUANTITY AND SIZE OF SECONDARY CONDUCTORS PER 3-PHASE CIRCUIT (SEE NOTE 2.)	NUMBER & SIZE OF CONDUITS REQUIRED	TOTAL NUMBER OF CONDUCTORS
45 KVA	150	1	3-4/0 CU & 1-4/0 CU NEUTRAL	2-4"	4
75 KVA	250	1	3-500 KCMIL CU & 1-4/0 CU NEUTRAL	2-4"	4
150 KVA	500	2	3-500 KCMIL CU & 1-4/0 CU NEUTRAL	3-4"	8
300 KVA	1000	3	3-500 KCMIL CU & 1-4/0 CU NEUTRAL	4-4"	12
500 KVA	1665	6	3-500 KCMIL CU & 1-4/0 CU NEUTRAL	7-4"	24
750 KVA	2500	5	6-500 KCMIL CU & 1-500 KCMIL CU NEUTRAL	6-5"	35

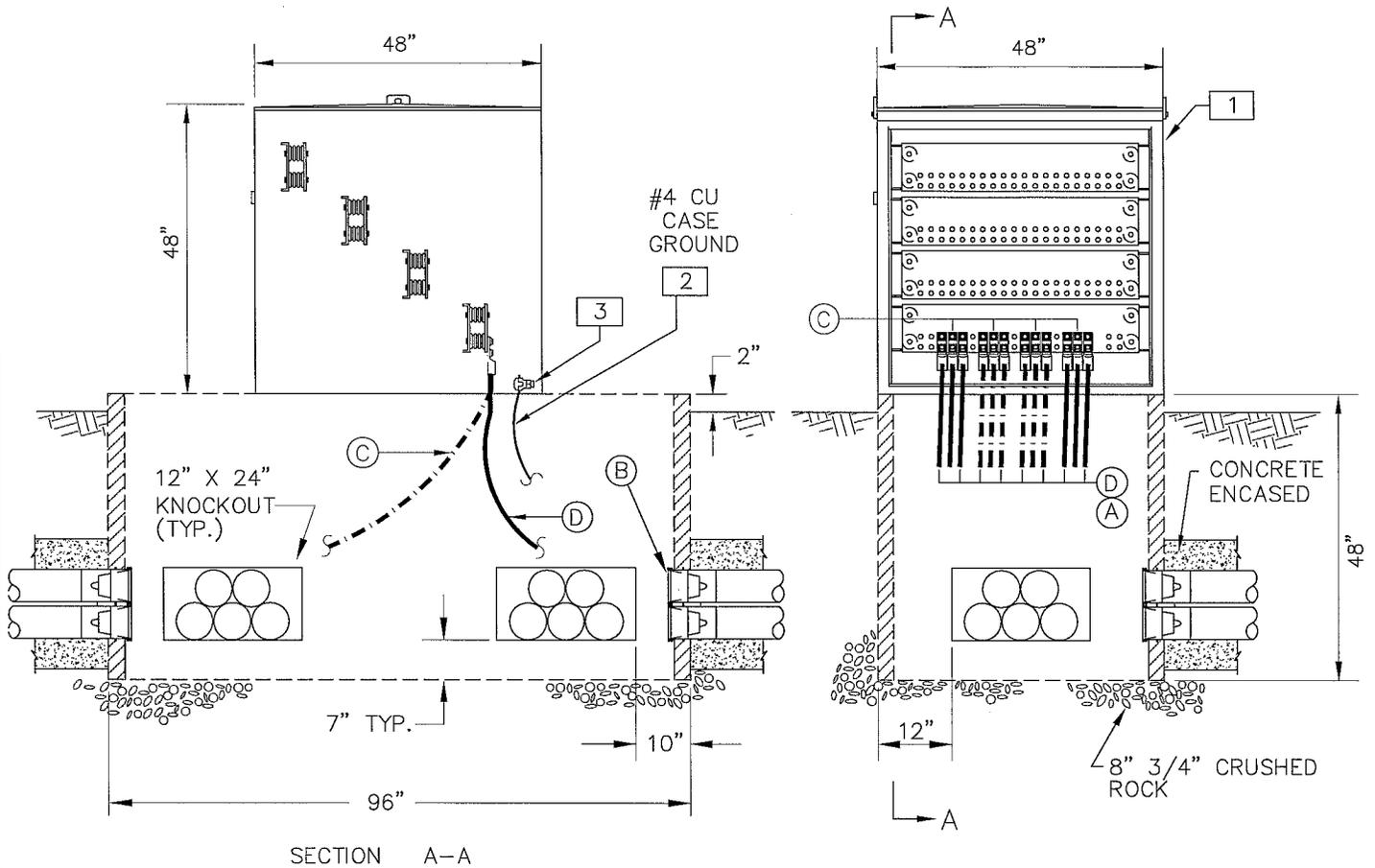
II. 277/480 VOLT INSTALLATION

3 PHASE TRANSFORMER SIZE (12 KV)	120% OF PHASE AMPS AT 480 VOLTS	NUMBER OF SECONDARY CIRCUITS	QUANTITY AND SIZE OF SECONDARY CONDUCTORS PER 3-PHASE CIRCUIT (SEE NOTE 2.)	NUMBER & SIZE OF CONDUITS REQUIRED	TOTAL NUMBER OF CONDUCTORS
45 KVA	65	1	3-4/0 CU & 1-4/0 CU NEUTRAL	2-4"	4
75 KVA	110	1	3-4/0 CU & 1-4/0 CU NEUTRAL	2-4"	4
150 KVA	220	1	3-500 KCMIL CU & 1-4/0 CU NEUTRAL	2-4"	4
300 KVA	435	2	3-500 KCMIL CU & 1-4/0 CU NEUTRAL	3-4"	8
500 KVA	725	3	3-500 KCMIL CU & 1-4/0 CU NEUTRAL	4-4"	12
750 KVA	1085	4	3-500 KCMIL CU & 1-4/0 CU NEUTRAL	5-4"	16
1000 KVA	1445	5	3-500 KCMIL CU & 1-4/0 CU NEUTRAL	6-4"	20
1500 KVA	2165	4	6-500 KCMIL CU & 1-500 KCMIL CU NEUTRAL	5-5"	28
2000 KVA	2890	5	6-500 KCMIL CU & 1-500 KCMIL CU NEUTRAL	6-5"	35
2500 KVA	3610	6 SEE NOTE 3.	6-500 KCMIL CU & 1-500 KCMIL CU NEUTRAL	6-5"	42

NOTES:

- NUMBER AND SIZE OF SECONDARY CABLES REQUIRED FROM THE TRANSFORMER TO THE SECONDARY JUNCTION BOX IS BASED ON NEC 2002, TABLES 310.15(B)(2)(A) AND 310.16, FOR 90°C.
- EACH THREE PHASE CIRCUIT AS DEFINED BY THE COLUMN TITLED "QUANTITY AND SIZE OF SECONDARY CONDUCTORS PER 3-PHASE CIRCUIT" SHALL BE INSTALLED IN ONE CONDUIT.
- BUS EXTENSION BAR OR STACKING LUGS NEEDED FOR INSTALLATION. STACKING LUGS ARE NOT STOCKED DUE TO VERY LIMITED USAGE. THE USE OF EXTENSION BARS OR STACKING LUGS ARE NOT THE PREFERRED METHODS OF CONSTRUCTION.

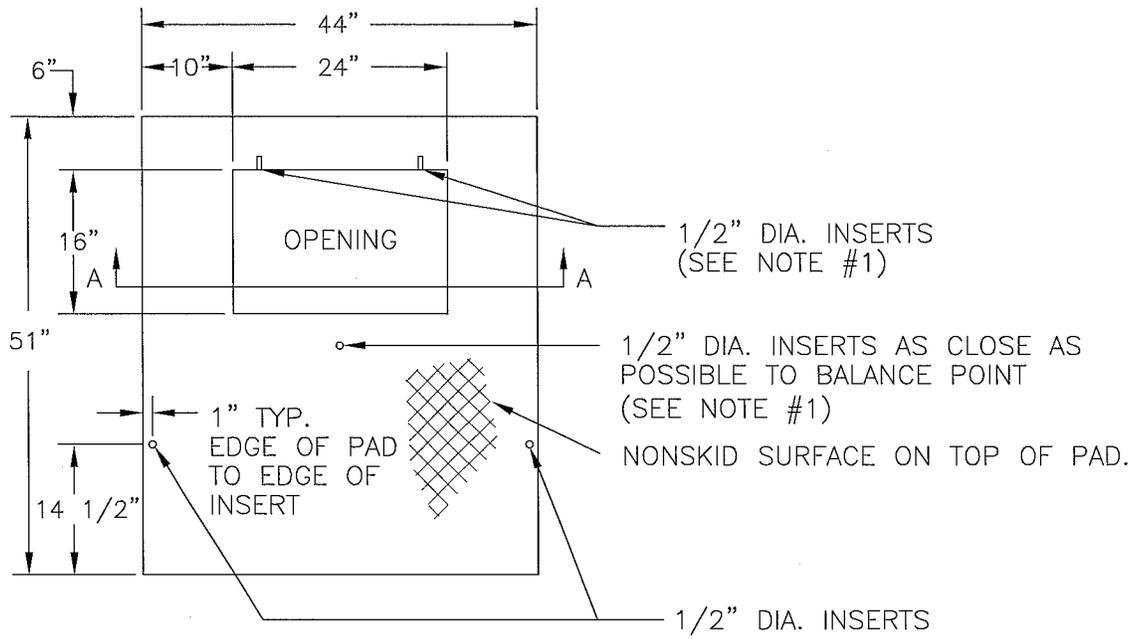
 <p><b>SMUD</b> SACRAMENTO MUNICIPAL UTILITY DISTRICT</p>	<p>T007</p>	<p>CONSTRUCTION STANDARDS</p>	<p>REV: 3</p>
			<p>DATE: Aug. 06</p>
<p><b>COMMERCIAL SECONDARY RUNS FROM TRANSFORMER TO J-BOX</b></p>		<p>DRAWING REFERENCE#</p>	<p>PAGE#</p>
		<p>UAD1.6</p>	<p>249-90253</p>



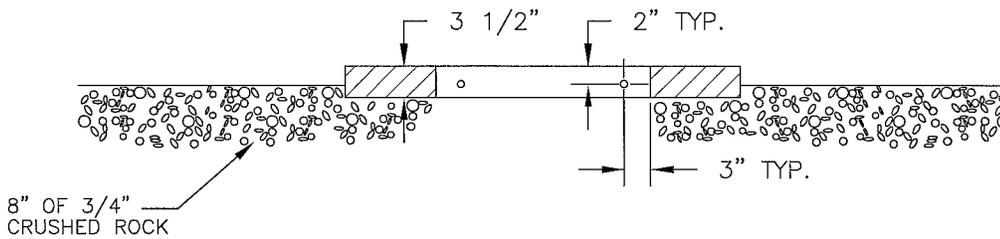
NOTES:

- (A) CUSTOMERS SERVICE CONDUCTOR TAILS TO BE 12 FT. LONG, COILED IN BOX.
- (B) SEE U12P3X2 FOR CONDUIT TERMINATION.
- (C) FOR INSTALLATIONS THAT WILL HAVE MORE THAN 3000 SECONDARY AMPS, THE CONDUCTORS FROM THE TRANSFORMER SHALL BE LOCATED IN THE CENTER OF THE BUS.
- (D) FOR INSTALLATIONS THAT WILL HAVE MORE THAN 3000 SECONDARY AMPS, THE CUSTOMER'S SERVICE CONDUCTORS SHALL BE DIVIDED AND SPACED EQUALLY ON OPPOSITE SIDES OF THE SMUD CONDUCTORS, AS SHOWN.
- E. BOXES USED IN BUILDING ALCOVE APPLICATIONS SHALL HAVE A BOTTOM.
- F. SEE UAD 1.6 FOR NUMBER AND SIZE OF TRANSFORMER CONDUITS & CONDUCTORS.
- G. CONNECTORS AND TRANSFORMER SECONDARY CONDUCTOR MUST BE ORDERED SEPARATELY.
- H. SAP MATERIAL NO. 10010041
- I. USE WITH NON CONCRETE SECONDARY J-BOX UVC1.7 SAP MATERIAL NO. 10011318

ENGR. SPEC. <b>T007</b>	CONSTRUCTION STANDARDS	REV: 3	
<b>SECONDARY J-BOX PAD MOUNT</b>		DATE: Aug. 06	
 <p><b>SMUD</b> SACRAMENTO MUNICIPAL UTILITY DISTRICT</p>		DRAWING REFERENCE# <b>U1S3D1</b>	PAGE# <b>2131 253</b>



PLAN

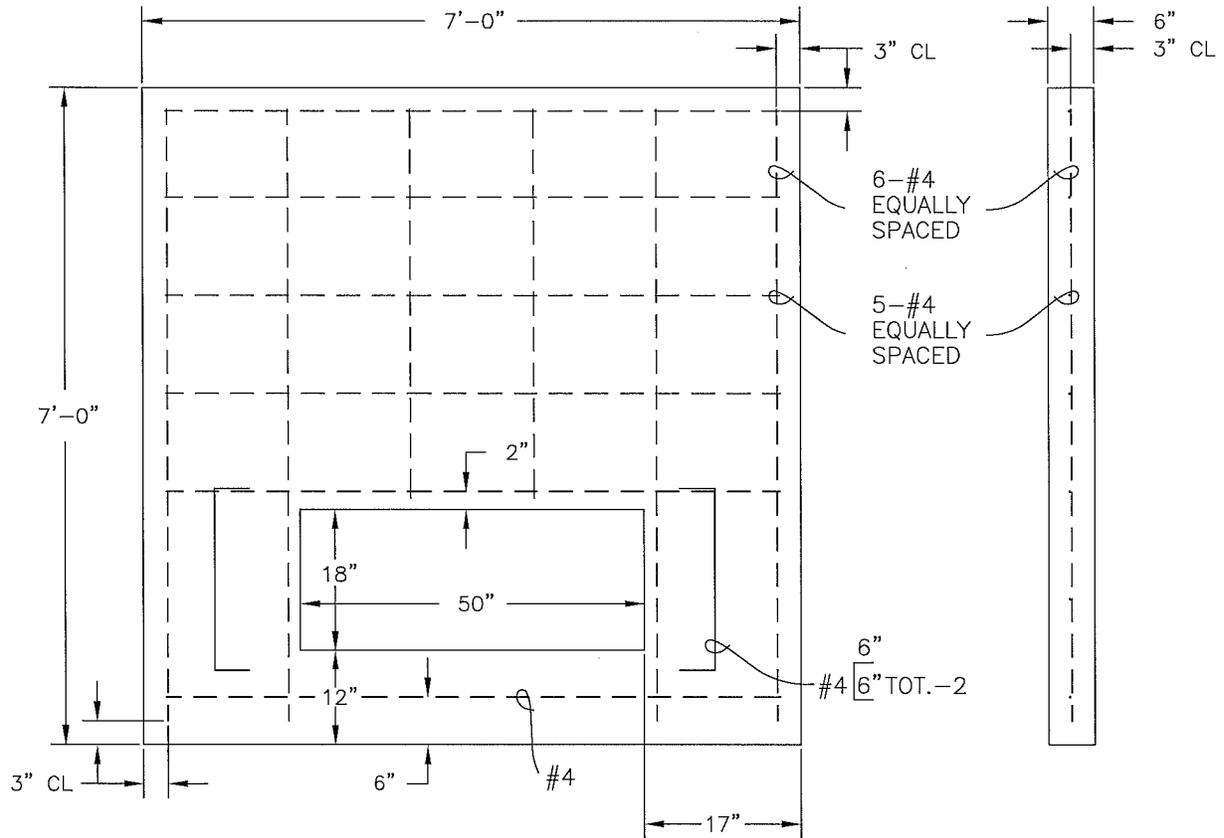


SECTION A-A

NOTES:

1. ALL INSERTS MUST BE CORROSION RESISTANT.
2. TOP SURFACE OF PAD MUST BE LEVEL.
3. FOR INSTALLATION SEE DWG. U12K3X1, SINGLE PHASE TRANSFORMER PAD & WELL INSTALLATION, PAGE E-9. DISTRIBUTION UNDERGROUND STRUCTURE, ELECTRIC SERVICE REQUIREMENTS BOOK.
4. SAP MATERIAL NO. 10000530.
5. REDRAWN FROM A-1997.

ENGR. SPEC. T007	CONSTRUCTION STANDARDS	REV: 1	
 <b>SMUD</b> SACRAMENTO MUNICIPAL UTILITY DISTRICT	<b>NON-CONCRETE          SINGLE PHASE          TRANSFORMER PAD 44" x 51"</b>	DATE: Aug. 06	
		DRAWING REFERENCE# UVD2.1	PAGE# 24232253



### REINFORCING STEEL DETAIL

NOTES:

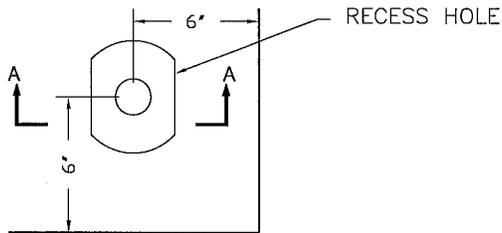
1. CONCRETE SHALL BE PROPORTIONED AND PLACED PER SMUD ENGINEERING SPECIFICATION C913.
2. CONCRETE COMPRESSIVE STRENGTH IN 28 DAYS, 3000 PSI.
3. DEFORMED REINFORCING STEEL, ASTM A615 GR. 40.
4. FOR PRIMARY CONDUIT ARRANGEMENT, SEE DRAWING UVD2.3.
5. USE TRANSFORMER WELL. SEE E.S.R. SECTION VII PARAGRAPH 4.10.3.
6. PRECAST PAD SHALL BE USED, SAP MATERIAL NO. 10011684.
7. REDRAWN FROM B-823.
8. THREADED INSERTS - W/PLUGS FOR LIFTING.
9. ALIGNMENT MARK.

ENGR. SPEC. <b>T007</b>	CONSTRUCTION STANDARDS	REV: 1	
	<b>THREE PHASE TRANSFORMER PAD PRE-CAST 7' x 7'</b>	DATE: Aug. 06	PAGE#
DRAWING REFERENCE# <b>UVD2.2</b>		PAGE# <b>20338253</b> <b>C-38</b>	

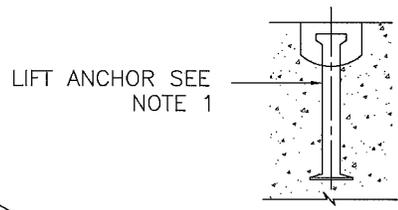


NOTES:

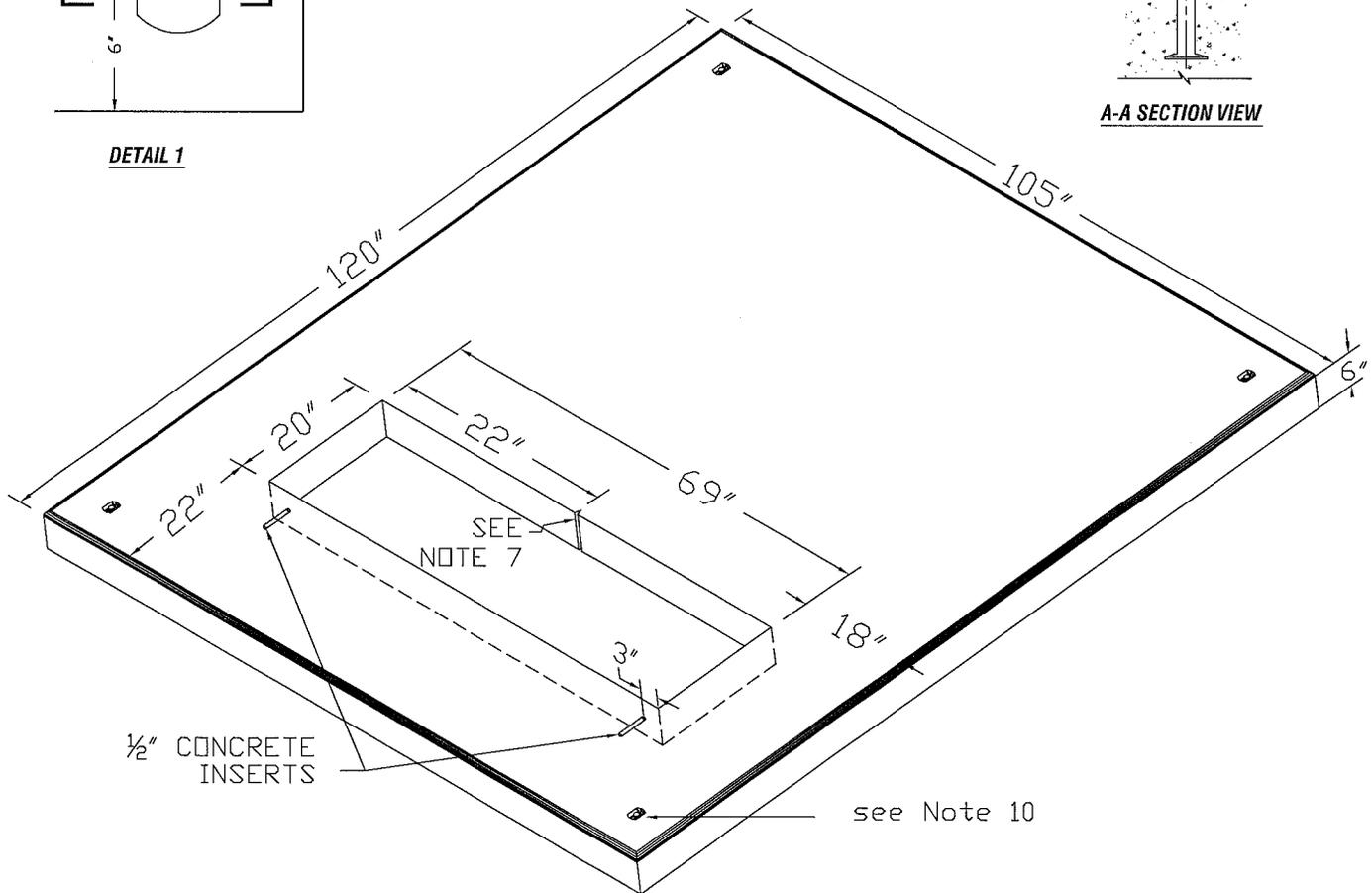
1. CONCRETE SHALL BE PROPORTIONED AND PLACED PER SMUD ENGINEERING SPECIFICATION C913.
2. CONCRETE COMPRESSIVE STRENGTH IN 28 DAYS SHALL BE 3000 PSI.
3. PRECAST PAD SHALL BE CAPABLE TO HOLD 20,000 POUND LOAD.
4. FOR PRIMARY CONDUIT ARRANGEMENT, SEE DRAWING UVD2.3A1.
5. USE TRANSFORMER WELL. SEE E.S.R. SECTION VII PARAGRAPH 4.10.3.
6. PRECAST PAD SHALL HAVE LIFTING ANCHORS LOCATED ONE IN EACH CORNER APPROXIMATELY 6 IN. FROM EACH SIDE. THE LIFTING ANCHOR SHALL BE 'SWIFT LIFT P52 ANCHOR' FROM DAYTON/RICHMOND PRODUCTS, OR EQUIVALENT. THE ANCHOR SHALL BE AT LEAST 4-1/2" LONG, AND SHALL NOT PROTRUDE FROM THE PAD. (SEE DETAIL)
7. PAD SHALL HAVE AN ALIGNMENT MARK AS SHOWN. THIS MARK IS USED TO ALIGN TRANSFORMER WELL DURING INSTALLATION.
8. MANUFACTURERS NAME OR LOGO AND WEIGHT SHALL BE PERMANENTLY MARKED ON AN OUTSIDE EDGE.
9. APPROXIMATE WEIGHT IS 6,400 LB.



**DETAIL 1**

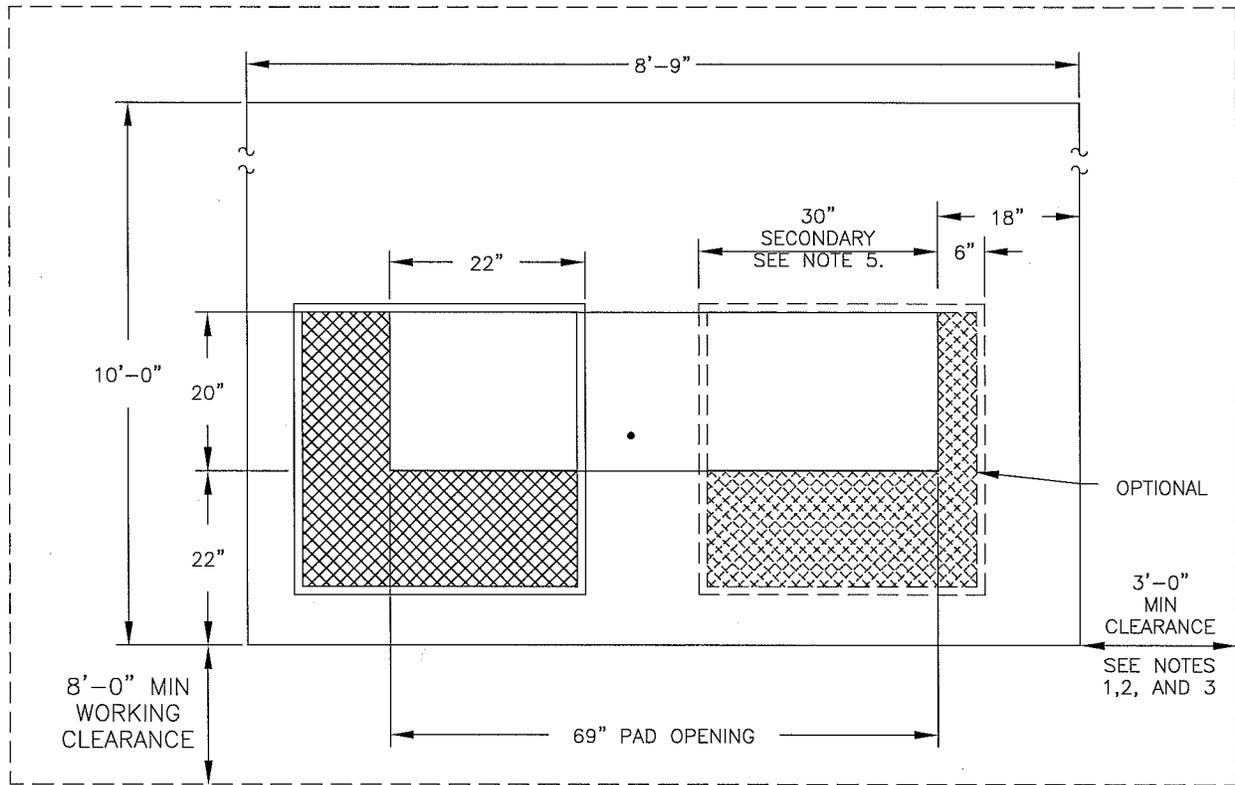


**A-A SECTION VIEW**



10/10/2006 11:14:26 AM, By: GMilare

ENGR. SPEC. <b>T007</b>	CONSTRUCTION STANDARDS	REV: <b>3</b>				
		DATE: <b>Oct. 06</b>				
 <b>SMUD</b> SACRAMENTO MUNICIPAL UTILITY DISTRICT	<b>THREE PHASE TRANSFORMER PAD          PRE-CAST FOR 2000KVA OR LARGER          8'-9" x 10'</b>	<table border="1"> <tr> <td>DRAWING REFERENCE#</td> <td>PAGE#</td> </tr> <tr> <td><b>UVD2.3A</b></td> <td><b>C235</b> of 253</td> </tr> </table>	DRAWING REFERENCE#	PAGE#	<b>UVD2.3A</b>	<b>C235</b> of 253
DRAWING REFERENCE#	PAGE#					
<b>UVD2.3A</b>	<b>C235</b> of 253					

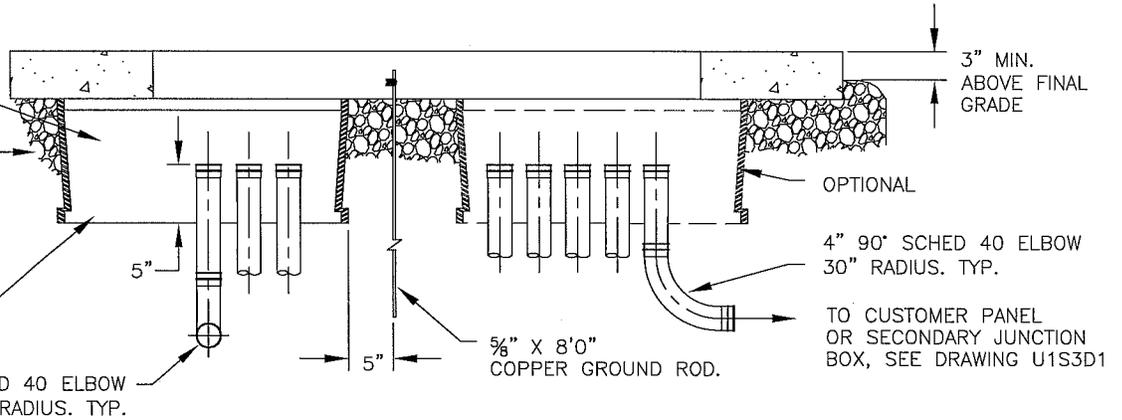


REPLACON RPM BOX  
CAT NO. RP363618  
36"W x 36"L x 18"D

8" of 3/4" CRUSHED  
ROCK ON 6" OF  
95% COMPACTED  
SUBGRADE (TYP.).  
COMPACT BACKFILL  
AROUND RPM BOX.

3" of 3/4"  
CRUSHED ROCK  
INSIDE BOX

4" 90° SCHED 40 ELBOW  
30" RADIUS. TYP.



OPTIONAL

4" 90° SCHED 40 ELBOW  
30" RADIUS. TYP.

TO CUSTOMER PANEL  
OR SECONDARY JUNCTION  
BOX, SEE DRAWING U1S3D1

5/8" X 8'0"  
COPPER GROUND ROD.

3" MIN.  
ABOVE FINAL  
GRADE

NOTES:

1. THE TRANSFORMER PAD SHALL BE SO LOCATED THAT THE PAD SIDE OR SIDES ADJACENT TO THE SURFACE OF A BUILDING SHALL HAVE A CLEARANCE OF NOT LESS THAN 3 FEET. THIS CLEARANCE MAY BE REDUCED TO 2 FEET IF THE BUILDING SURFACE IS NONCOMBUSTIBLE. CONTACT A SMUD DESIGNER TO CONFIRM CLEARANCE REQUIREMENTS.
2. ANY EXISTING OR PROPOSED SWITCHGEAR OR ELECTRICAL EQUIPMENT MUST PROVIDE CLEARANCES, FROM THE TRANSFORMER AND PAD, LISTED BY NATIONAL ELECTRICAL CODE.
3. PROTECTIVE GUARDS SHALL BE INSTALLED PER SMUD ENGINEERING DRAWINGS UVD2.4 AND UVD2.5, WHERE THE TRANSFORMER MAY BE LESS THAN 5' FROM VEHICULAR TRAFFIC. ALL CLEARANCES ARE TO BE APPROVED BY A SMUD DESIGNER.
4. CUSTOMER INSTALLED SECONDARY CABLE MUST EXTEND A MINIMUM OF SIX FEET OUT OF CONDUIT.
5. THE MAXIMUM NUMBER OF SECONDARY CIRCUITS TO BE CONNECTED TO THE TRANSFORMER IS 10, AND THE MAXIMUM SIZE OF SECONDARY CONDUCTOR IS 750 KCMIL. A SECONDARY CIRCUIT CONSISTS OF FOUR CONDUCTORS (THREE PHASE AND THE NEUTRAL).
6. SEE UAD1.5 TO VERIFY IF A SECONDARY JUNCTION BOX IS REQUIRED FOR THE 120" X 105" TRANSFORMER PAD, A 36" X 36" X 18" D WELL MAY BE INSTALLED ON THE SECONDARY SIDE IN ORDER TO ACCOMMODATE MORE CONDUITS.
7. CONDUIT ELBOWS SHALL BE 90° SCHEDULE 40 WITH A THIRTY INCH RADIUS AND CONCRETE ENCASED.

ENGR. SPEC. T007

CONSTRUCTION STANDARDS

REV: 1  
DATE: Oct. 06

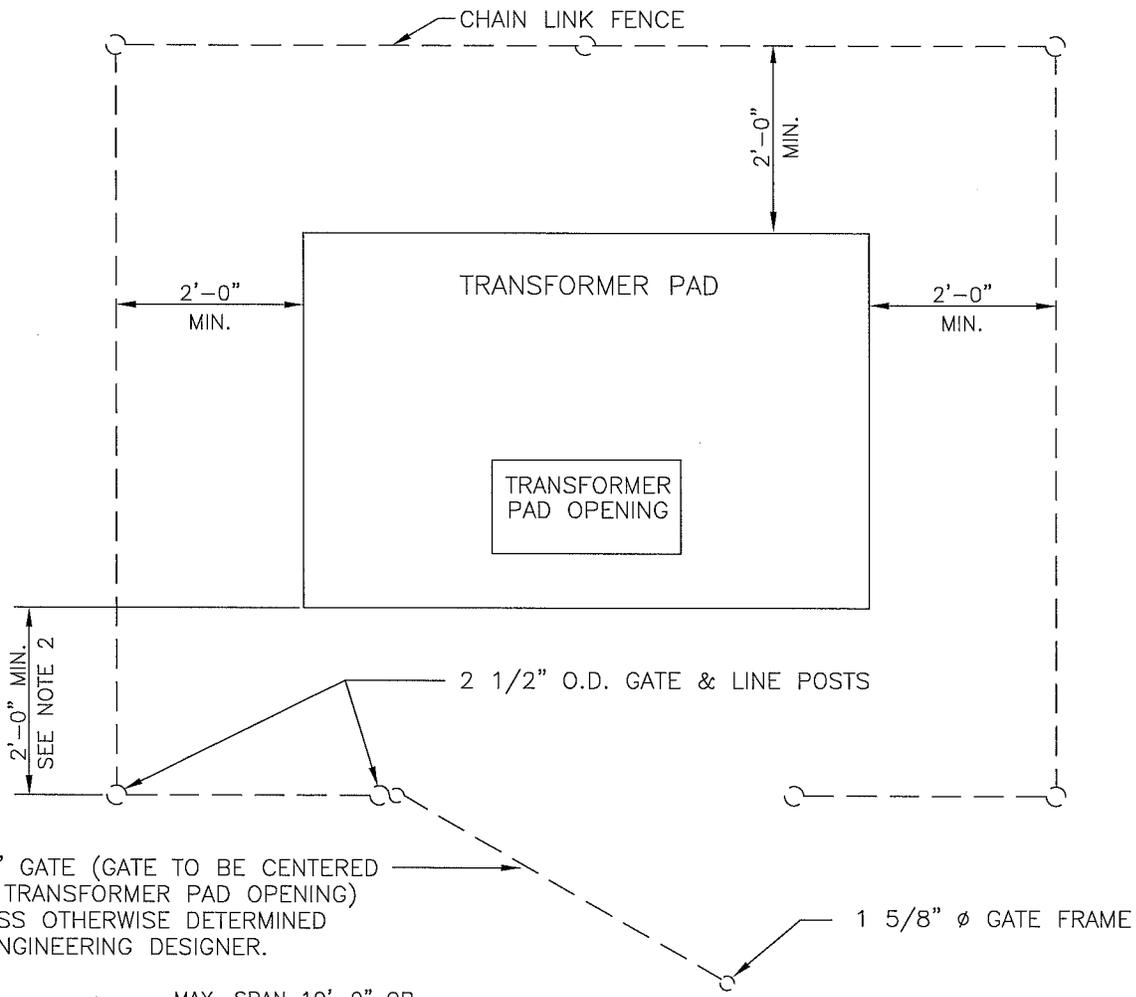


THREE PHASE TRANSFORMER  
PAD PRE-CAST FOR 2000KVA OR  
LARGER INSTALLATION 8'-9" x 10'

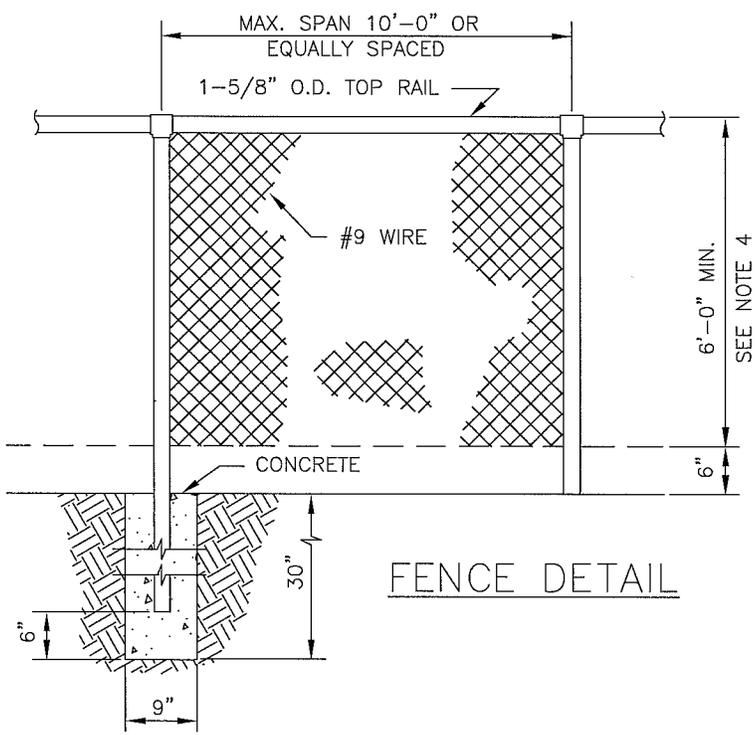
DRAWING REFERENCE# PAGE#

UVD2.3A1

24636253  
C-36



7'-0" GATE (GATE TO BE CENTERED WITH TRANSFORMER PAD OPENING) UNLESS OTHERWISE DETERMINED BY ENGINEERING DESIGNER.

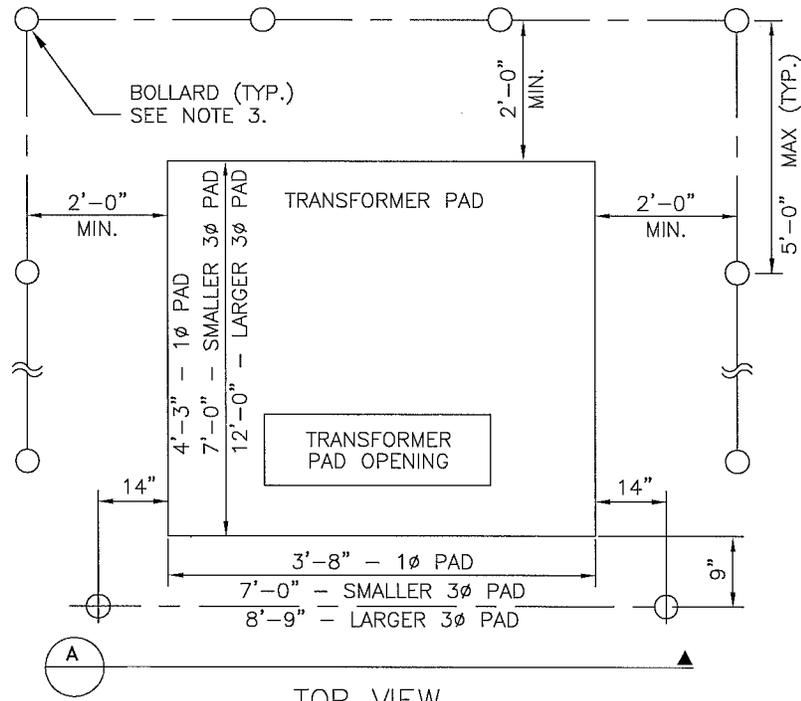


FENCE DETAIL

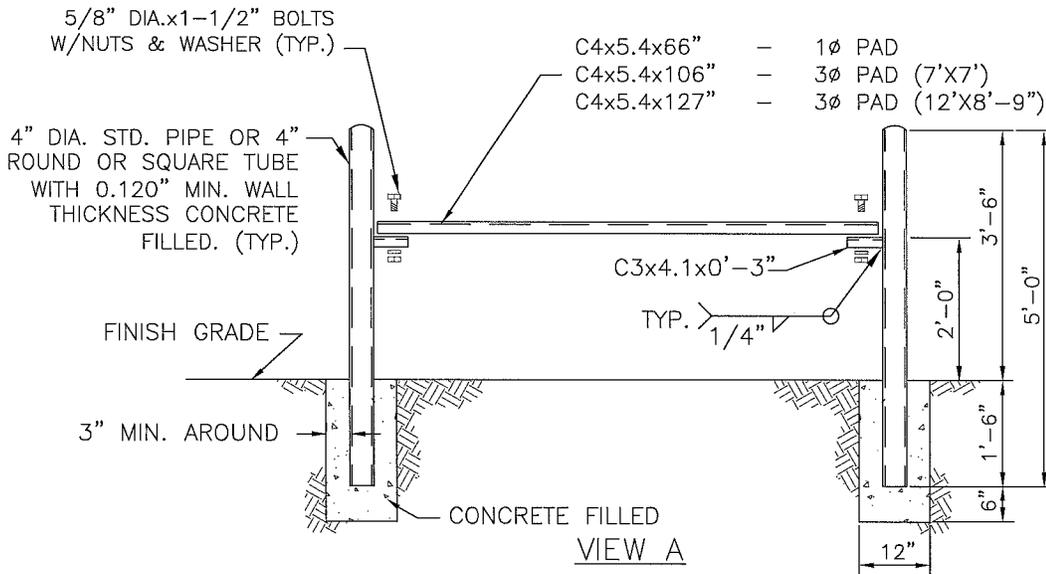
NOTES:

1. IF A BUILDING IS USED AS ANY PORTION OF THIS GUARD, THE TRANSFORMER PAD SHALL BE SO LOCATED THAT THE PAD SIDE OR SIDES ADJACENT TO THE SURFACE OF THE BUILDING SHALL HAVE A CLEARANCE OF NOT LESS THAN 3 FEET. THIS CLEARANCE MAY BE REDUCED TO 2 FEET IF THE BUILDING SURFACE IS NON-COMBUSTIBLE. TRANSFORMERS 750 KVA AND ABOVE CONTACT DESIGNER FOR SPECIAL CLEARANCE REQUIREMENTS.
2. 8'-0" CLEARANCE SHALL BE PROVIDED IN FRONT OF UNIT TO PERMIT HOT STICK OPERATION.
3. REDRAWN FROM A-1065.
4. ADDITIONAL HEIGHT MAY BE REQUIRED.

ENGR. SPEC. <b>T007</b>	CONSTRUCTION STANDARDS	REV: <b>1</b>	
		DATE: <b>Aug. 06</b>	
 <b>SMUD</b> SACRAMENTO MUNICIPAL UTILITY DISTRICT	<b>PAD MOUNTED TRANSFORMER GUARD CHAIN LINK FENCE TYPE</b>	DRAWING REFERENCE# <b>UVD2.4</b>	PAGE# <b>2 of 3</b>



TOP VIEW

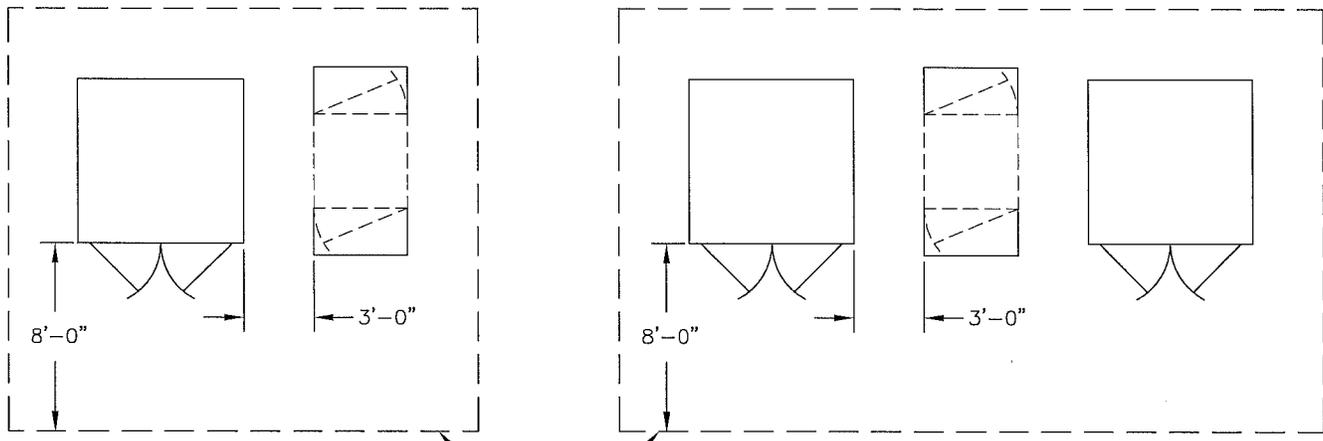


VIEW A

NOTES:

- IF A BUILDING IS USED AS ANY PORTION OF THIS GUARD, THE TRANSFORMER PAD SHALL BE SO LOCATED THAT THE PAD SIDE OR SIDES ADJACENT TO THE SURFACE OF THE BUILDING SHALL HAVE A CLEARANCE OF NOT LESS THAN 3 FEET. THIS CLEARANCE MAY BE REDUCED TO 2 FEET IF THE BUILDING SURFACE IS NONCOMBUSTIBLE. TRANSFORMERS 750 KVA AND ABOVE CONTACT DESIGNER FOR SPECIAL CLEARANCE REQUIREMENTS.
- 8'-0" CLEARANCE SHALL BE PROVIDED IN FRONT OF UNIT TO PERMIT HOT STICK OPERATION.
- BOLLARDS SHALL BE LOCATED BEHIND THE PAD AND ON BOTH SIDES OF THE PAD. BOLLARDS SHALL BE LOCATED HAS SHOWN AND EQUALLY SPACED. THE MAXIMUM DISTANCE BETWEEN BOLLARDS SHALL BE FIVE FEET. THE MINIMUM QUANTITY OF BOLLARDS SHALL BE AS FOLLOWS: 5 FOR 1Ø PAD (3'-8" X 4'-3"), 6 FOR THE 3Ø PAD (7' X 7'), AND 8 FOR THE LARGER 3Ø PAD (12' X 8'-9"). THESE QUANTITIES MAY BE REDUCED IF A BUILDING IS USED AS A PORTION OF THE GUARD. THERE SHALL ALSO BE A REMOVABLE BARRIER. LOCATED AS SHOWN, THAT CONSISTS OF TWO VERTICAL PIPES OR TUBES AND A HORIZONTAL CHANNEL AS SHOWN IN "VIEW A."
- REDRAWN FROM A-1954.

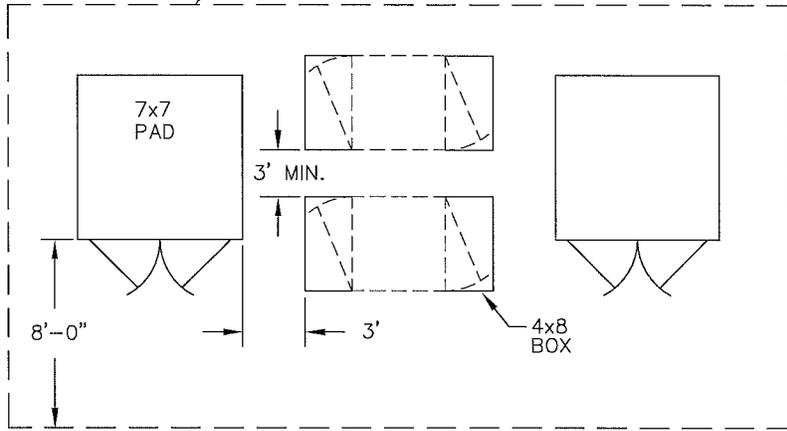
ENGR. SPEC. <b>T007</b>	CONSTRUCTION STANDARDS	REV: 4	
 <p style="text-align: center;"><b>PAD MOUNTED TRANSFORMER GUARD PIPE TYPE WITH REMOVABLE BARRIER</b></p>		DATE: Aug. 06	PAGE#
		DRAWING REFERENCE# <b>UVD2.5</b>	PAGE# <b>20838253</b>



A. ONE TRANSFORMER

B. TWO TRANSFORMER

OUTLINE OF CLEARANCE AND WORKING SPACE - SEE NOTE 1.

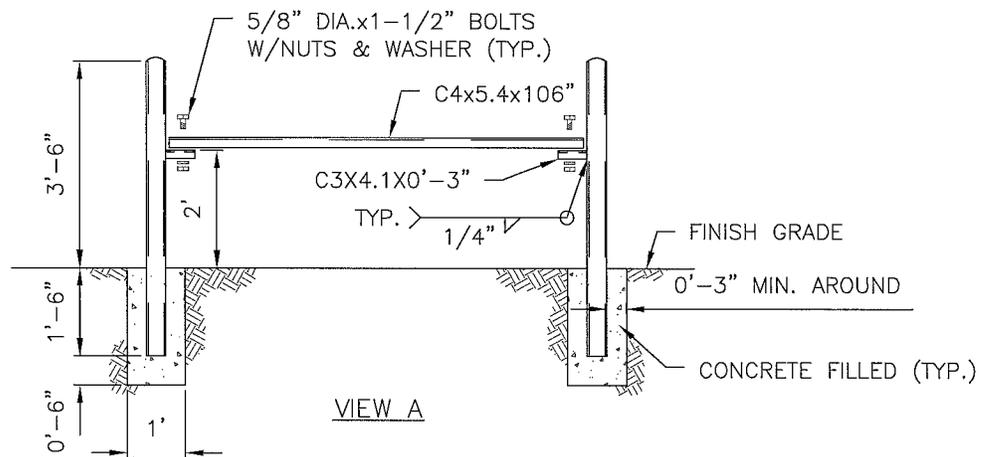
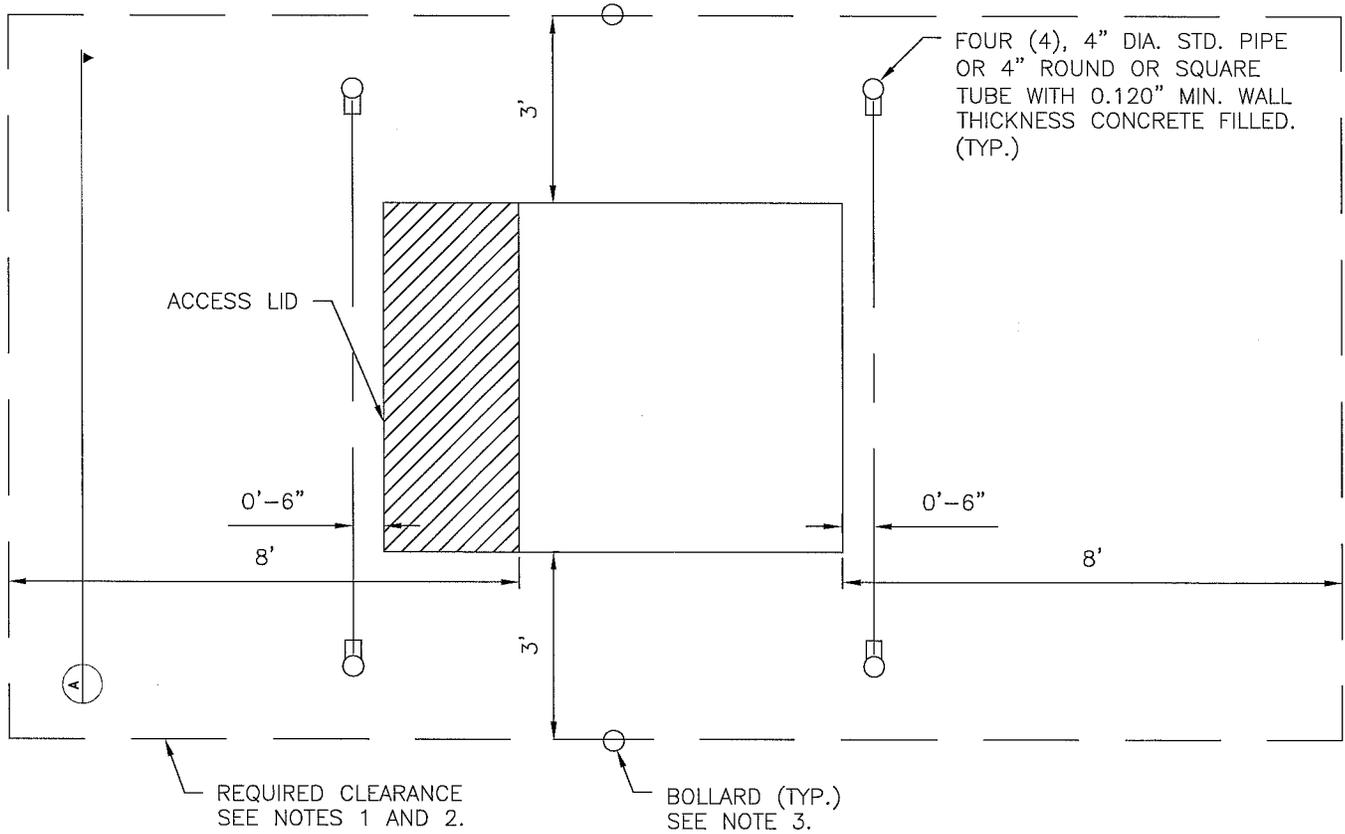


C. TWO TRANSFORMERS & TWO SECONDARY JUNCTION BOXES

NOTES:

1. MAINTAIN 3 FOOT CLEARANCE FROM ALL COMBUSTIBLE BUILDING WALLS. MAINTAIN 2 FOOT CLEARANCE FROM NONCOMBUSTIBLE BUILDING WALLS AND ALL OTHER WALLS OR FENCES. MAINTAIN 8 FOOT WORKING CLEARANCE IN FRONT OF TRANSFORMERS.
2. SEE DRAWINGS UVD2.2 , UVD2.3, AND UVD2.3A FOR TRANSFORMER PAD DETAILS.
3. SEE DRAWING U1S3D1 FOR SECONDARY JUNCTION BOX DETAILS.
4. SEE DRAWING UVD2.4 & UVD2.5 FOR MECHANICAL PROTECTION REQUIREMENTS.

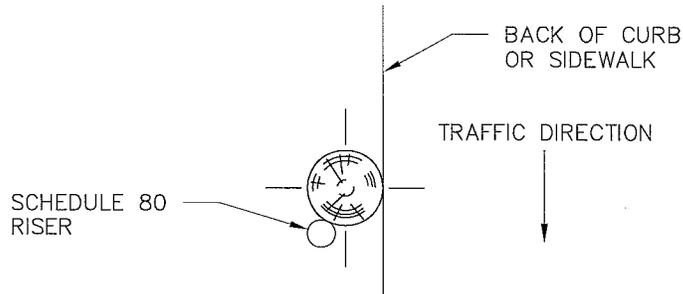
ENGR. SPEC. <b>T007</b>	CONSTRUCTION STANDARDS	REV: 1	
 <p style="text-align: center;"><b>GENERAL ARRANGEMENTS FOR PAD MOUNT SECONDARY J-BOXES</b></p>		DATE: Aug. 06	
		DRAWING REFERENCE# <b>UVD5.4</b>	PAGE# <b>3939 253</b>



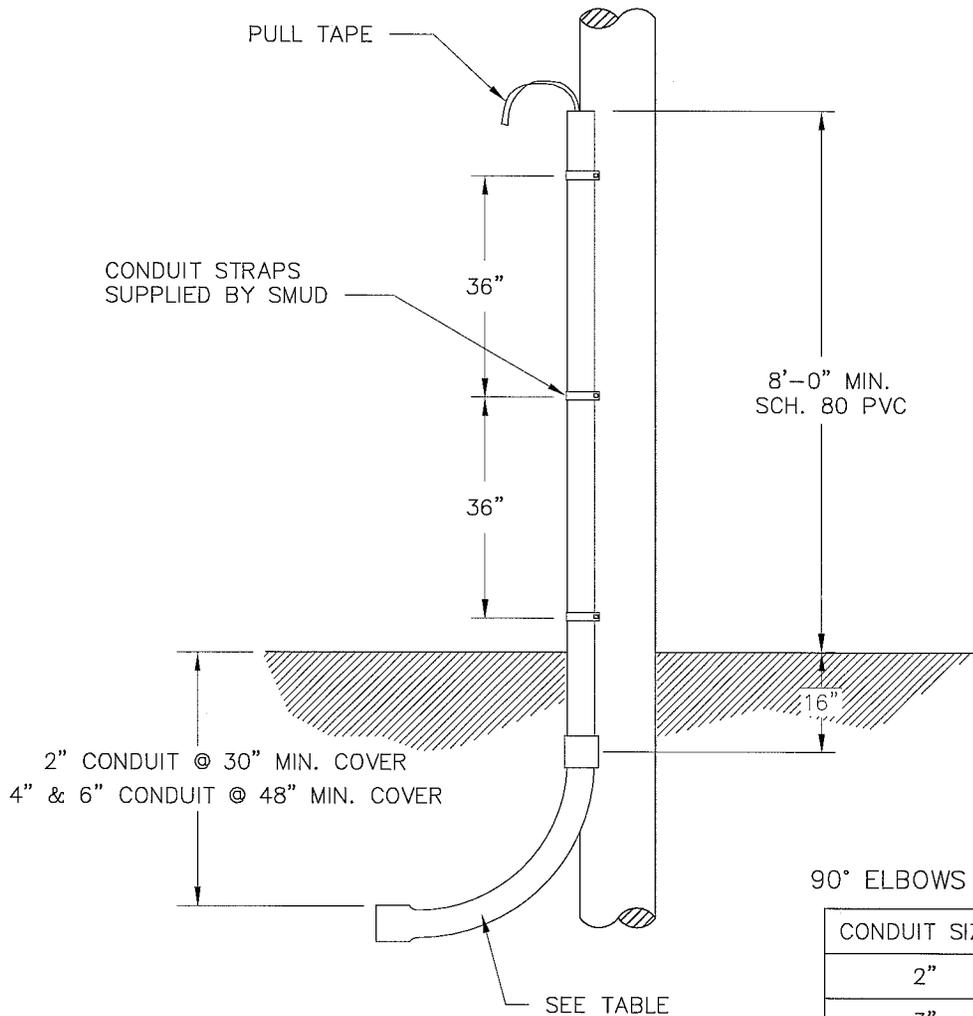
NOTES:

1. A MINIMUM CLEARANCE OF 3 FEET SHALL BE MAINTAINED BETWEEN EACH SIDE OF THE SWITCHGEAR AND ALL ADJACENT STRUCTURAL SURFACES.
2. A MINIMUM WORKING CLEARANCE OF 8 FEET SHALL BE MAINTAINED AT ALL TIMES IN FRONT OF AND BEHIND THE SWITCHGEAR AS SHOWN. OTHER MEANS MAY BE REQUIRED TO PREVENT VEHICLES FROM PARKING WITHIN THE REQUIRED CLEARANCE ZONE.
3. ONE (1) BOLLARD SHALL BE LOCATED ON EACH SIDE OF THE SWITCHGEAR AS SHOWN AND SHALL BE EQUIDISTANT BETWEEN THE REMOVABLE BARRIERS.
4. SEE UVC1.4 AND UVC1.5 FOR SWITCHGEAR BOX DETAILS.

ENGR. SPEC. <b>T007</b>	CONSTRUCTION STANDARDS	REV: 2	
<b>GENERAL ARRANGEMENT FOR PAD MOUNT 12 &amp; 21 KV SWITCHGEAR</b>		DATE: Aug. 06	PAGE#
		DRAWING REFERENCE# <b>UVD5.5</b>	PAGE# <b>20140253</b> <b>40</b>



PREFERRED RISER QUADRANT

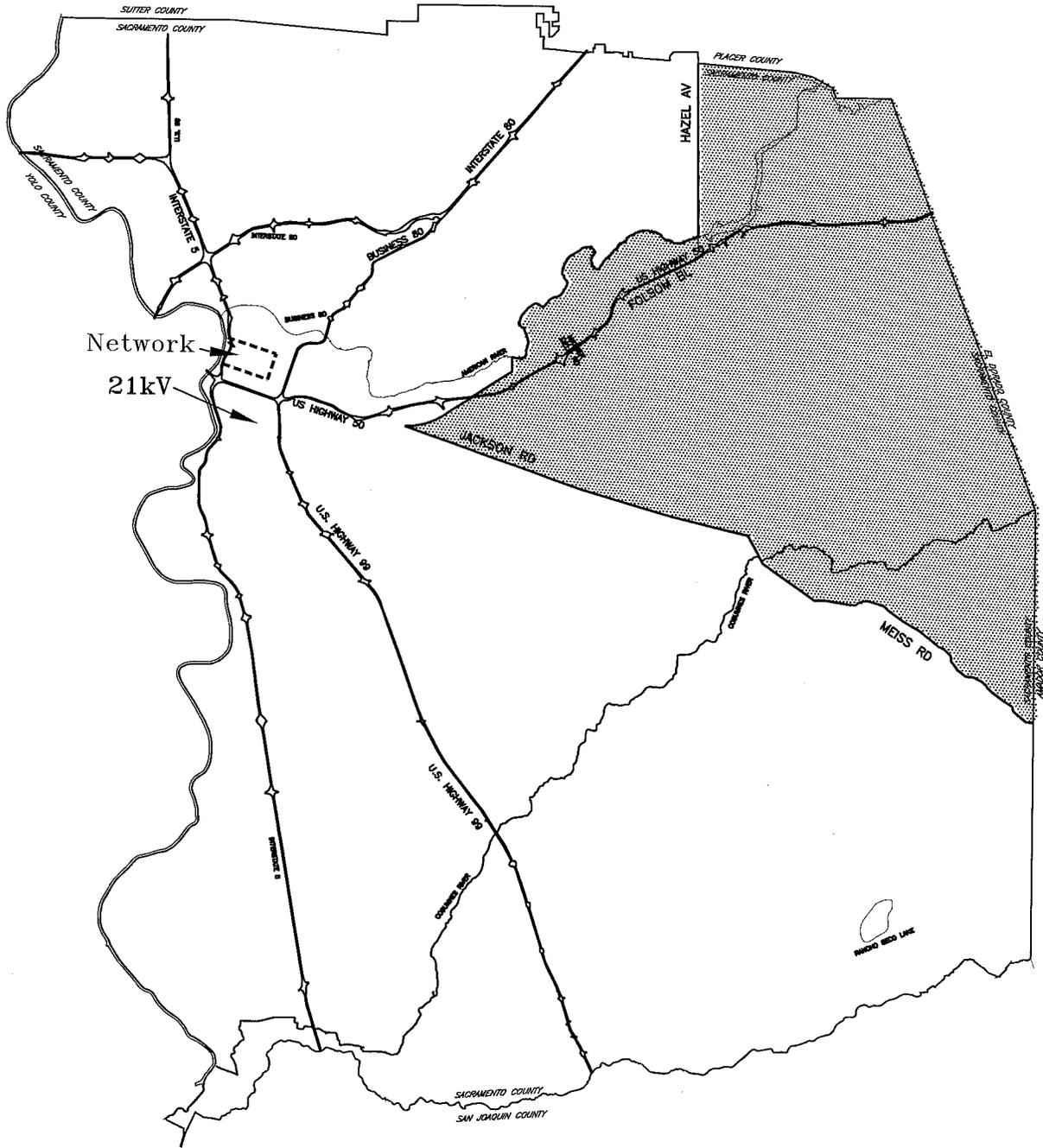


90° ELBOWS – PVC SCHEDULE 40

CONDUIT SIZE	VERTICAL MIN. RADIUS
2"	18"
3"	18"
4"	30"
6"	48"

NOTE: CONCRETE ENCASEMENT MAY BE REQUIRED ON ELBOWS.

ENGR. SPEC. <b>T007</b>	CONSTRUCTION STANDARDS	REV: 1	
 <b>SMUD</b> SACRAMENTO MUNICIPAL UTILITY DISTRICT	<b>TYPICAL DISTRIBUTION RISER</b>	DATE: Aug. 06	
		DRAWING REFERENCE#	PAGE#
		U1N	141 253



 - INDICATES DIFFICULT AREAS

NOTES

1. USE DIFFICULT CONDITIONS COST WHEN TRENCHING IN THESE AREAS.
2. WHEN TRENCHING IN THESE AREAS SANDBACKFILL WILL BE REQUIRED.

ENGR. SPEC. T007	CONSTRUCTION STANDARDS	REV: 0
 <b>SMUD</b> SACRAMENTO MUNICIPAL UTILITY DISTRICT	<b>DIFFICULT TRENCHING AREAS</b>	DATE: Aug. 06 DRAWING REFERENCE# PAGE#

# PM Consultant Approval Checklist

(PLEASE ATTACH THE MOST CURRENT APPROVED RATE LIST EXCERPTED FROM AGREEMENT)

Project Manager: **MATTHEW JOHNS**  
 Project: DEL PASO BLVD SS  
 CIP #: T15098400  
 Consultant Firm: YOUNGDAHL CONSULTING GROUP  
 City Agreement #: 2011-1121  
 Purchase Order #:  
 ESBE % Pledged: 2.2%  
 UDBE % Pledged: 2.2%  
 Approved indirect rate:  
 Approved benefit rate:  
 Approved profit margin:  
 Agreement Start Date: 9/2/2011  
 Sunset date: 12/31/2013

Invoice #: **50052**  
 Invoice Total: \$ 3,303.00  
 Work Performed Thru: 7/1/2012 TO 7/31/12  
 Activity: 502  
 Fund(s):  
 Original Agreement Amount: \$ 75,000.00  
 ADDENDUM 11-007-T15098400 \$ 40,000.00  
 Supplement #2:  
 Supplement #3:  
 Supplement #4:  
 Supplement #5:  
 Overall Agreement Amount: \$ 75,000.00  
 Date of Last City Mgr Auth Reset:

Only actual names and/or titles listed on the latest executed agreement should be listed. If there are names and/or titles listed on the invoice that are not included in the latest executed agreement, the invoice must be rejected and revised, and a supplemental agreement processed, if needed.		Approved Rate per Latest Agreement	PM Initial if rate is correct on invoice	Comments
Name	Title			
	CAL TEST 539 - 1ST HR	30		
	CAL TEST 539 - 2ND HR	26		
	ENGINEERING TECH. - 1ST HR	115		
	ENGINEERING TECH. - 2ND HR	90		

- Total contract amount not exceeded
- Contract sunset date is at least 6 months in the future
- Rates for consultant staff match rates in current contract
- All consultant classifications charged to project are approved in recent contract
- Firm overhead/benefit rate/profit margin matches recent contract
- All sub-consultants and rates on invoice are approved in recent contract
- No mark ups have been charged to reimbursables or sub-consultants
- Cummulative UDBE% attained, including current invoice amounts intended to be paid to subs \_\_\_\_\_
- Cummulative ESBE% attained, including current invoice amounts intended to be paid to subs \_\_\_\_\_

**I certify that the subject invoice is in compliance with the terms of the latest executed agreement.**

Enter PM's Name Here \_\_\_\_\_

Date \_\_\_\_\_