

**City of Lathrop
Department of Public Works**

**Lathrop Generations Center Parking Lot
CIP No. PK 20-01
CONTRACT SPECIFICATIONS**




Approved: 
Michael King, Public Works Director

Date: March 13, 2020

Specifications prepared
under
the direction and responsible charge of:




Jay Davidson, P.E.

3-13-20
Date

City of Lathrop
Lathrop Generations Center Parking Lot
(PK 20-01)

PROJECT DIRECTORY

CITY PROJECT CONTACTS

City of Lathrop, Public Works Department
390 Towne Centre Drive
Lathrop, CA 95330
Phone: (209) 941-7430
Fax: (209) 941-7449

Ken Reed, Project Manager
Phone: (209) 941-7363

Robert McGinnis, Sr. Construction Inspector
Phone: (209) 992-0701

Larry Backert, Utility and Street Maintenance Superintendent
Phone: (209) 992-0044

Michael King, Public Works Director
Phone: (209) 941-7454

PROJECT ENGINEER

JAMES F. TEMPLETON, JR., PE
MCKAY & SOMPS CIVIL ENGINEERS, INC.
(925) 225-0690

(END OF SECTION)

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(END OF SECTION)

**CITY OF LATHROP NOTICE INVITING SEALED BIDS - NOTICE TO CONTRACTORS
LATHROP GENERATIONS CENTER PARKING LOT, CIP PK 20-01**

The City of Lathrop invites sealed bids for the construction of public improvements for the **LATHROP GENERATIONS CENTER PARKING LOT, CIP PK 20-01**, City of Lathrop, California. Sealed bids will be received at the office of the City Clerk of the City of Lathrop, located at 390 Towne Centre Drive, Lathrop, CA until **3:00 PM on Thursday, April 2, 2020**. Bids submitted by mail shall be addressed to: City of Lathrop, Attention City Clerk / SEALED BID FOR CIP PK 20-01, 390 Towne Centre Drive, Lathrop, CA 95330 and conform to Submission of Bids standards within this Section. The bids will be publicly opened and read at **3:00 PM on Thursday, April 2, 2020**

The work to be performed under this contract is generally described as but not necessarily limited to grading, construction of curb & gutter, storm drain, parking lot, removal and replacement of sidewalk with accessible curb ramps and installation of parking lot signage and striping.

DIR Registration. Each Bidder submitting a proposal to complete the work, labor, materials and/or services (“Work”) subject to this procurement must be a Department of Industrial Relations registered contractor pursuant to Labor Code Section 1725.5 (“DIR Registered Contractor”). A Bidder who is not a DIR Registered Contractor when submitting a proposal for Work is deemed “not qualified” and the proposal of such a Bidder will be rejected for non-responsiveness. Pursuant to Labor Code Section 1725.5, all Subcontractors identified in a Bidder’s Subcontractors’ List shall be DIR Registered Contractors. If awarded the Contract for the Work, at all times during performance of the Work, the Bidder and all Subcontractors, of any tier, shall be DIR Registered Contractors.

The City of Lathrop does not sell copies of the plans and specifications. The plans and specifications may be purchased through ARC Stockton’s Plan Well at www.e-arc.com/ca/stockton, click on Public Planroom then locate the project. ARC Stockton’s location may be contacted to order plans and specifications by phone; (209) 464-8724, or e-mail; stk.branch@e-arc.com.

All communications relative to the day to day administration of this Work shall be directed to Ken Reed, Senior Construction Manager, Kreed@ci.lathrop.ca.us, (209) 941-7363, or (209) 941-7430.

INSTRUCTIONS TO BIDDERS**BACKGROUND**

The City of Lathrop is located in the San Joaquin Valley, 70 miles east of San Francisco, CA and has an approximate population of 25,000 people. The project consists of constructing an additional parking lot and typical accessories thereto for the Lathrop Generations Center. See *Description of Work*, below, for more detail.

DESCRIPTION OF WORK

The work to be performed under this contract is generally described as, but not necessarily limited to grading, construction of curb & gutter, storm drain, parking lot, removal and replacement of sidewalk with accessible curb ramps and installation of parking lot signage and striping. The Work shall be performed in accordance with the Standard Specifications and the Construction Documents as defined in the General Conditions. The Work shall be complete, and all work, materials, and services not expressly shown or called for in the Construction Documents which may be necessary for the complete and proper construction of the Work in good faith shall be performed, furnished, and installed by the Contractor as though originally specified or shown in said Construction Documents, at no increase in cost to the City.

SITE OF WORK

Bidder is responsible for examining the project site and shall not rely in the following description. The project site is located at the southwest corner of the Lathrop Generations Center just west of the intersection of Spartan Way and Golden Valley Parkway, in Lathrop, CA.

COMPLETION OF WORK

The work shall be completed within 35 working days following issuance of Notice to Proceed.

BID

Before submitting a Bid, bidders shall carefully examine and read the Construction Documents, visit the site of the work, fully inform themselves as to all existing site conditions and limitations. Bidders are required to inform themselves fully of the conditions relating to performance of the Work, and must employ, as far as possible, such methods and means in carrying out the Work as will not cause any interruption or interference to any other contractor or operations of the City or any other public agency.

Submission of a Bid shall be considered conclusive evidence that the Bidder has fully studied the Construction Documents, that Contractor has examined the site of the work, and that the Bidder is satisfied as to the conditions to be encountered in performing the work and as to the requirements of the Construction Documents.

Bids shall be properly executed upon the Bid form bound herein and made a part of these

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INSTRUCTIONS
TO BIDDERS

Construction Documents. All blank spaces in the Bid forms must be filled in, in black or blue ink. Numbers shall be stated both in words and in figures where indicated on the Bid form, and original, 'wet' signatures are required of all persons signing the Bid form. No changes on the Bid forms are allowed. In case of a difference in written words and figures, the amount stated in written words shall govern unless obviously in error.

SUBMISSION OF BIDS

All Bids must be submitted at the place and before the time prescribed in the Notice to Contractors. It is the Bidders' sole responsibility to see that his Bid is received in proper time. Bids received after that time will not be accepted. Bids will be opened publicly and read aloud immediately after the time for receipt has expired; all interested parties are invited to attend.

Each Bid must be submitted in a non-transparent sealed envelope; if submitted by mail, enclose Bid envelope in another envelope addressed to:

City Clerk,
Attention: Teresa Vargas
City of Lathrop
390 Towne Centre Drive
Lathrop, CA 95330

The sealed Bid envelope shall, in the lower right portion, be plainly identified with the following information:

- (a) Do not open before 3:00 PM on Thursday, April 2, 2020
- (b) Bid of: _____ (Name of Bidder) _____, Contractor.
- (c) LATHROP GENERATIONS CENTER PARKING LOT, CIP# PK 20-01

INTERPRETATION OF PLANS AND SPECIFICATIONS

If any person contemplating submitting a Bid is in doubt as to the true meaning of any part of the Construction Documents, or finds discrepancies in or omissions from the Construction Documents, he/she may submit to the City's Project Manager (as listed in Section 00002 Project Directory of these Specifications) a written request for an interpretation or correction thereof. All written requests must be received a minimum of 72 hours prior to bid opening; requests received after this time will not be accepted. The person submitting the request will be responsible for its prompt delivery. Any interpretation or correction of the Construction Documents will be made only by Addendum duly issued and a copy of such Addendum will be mailed or delivered to each person receiving a set of the Construction Documents. The City will not be responsible for any other explanations or interpretations of the Construction Documents. In the interest of providing information to plan holders quickly, Contractors are encouraged to provide email address(es) to the City.

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ADDENDA

Any Addenda issued before the time of bid opening are deemed to be made a part of the Construction Documents.

MODIFICATION AND WITHDRAWAL OF BIDS

No modification of bids will be allowed. Any bidder may withdraw its bid, either personally or by telegraphic or written request, if such request is received by the Project Manager prior to the scheduled time for bid opening. Any bid so withdrawn may not be resubmitted.

Bids delivered to the Project Manager at the time set for opening shall be irrevocable, and no bidder may withdraw its bid for a period of 60 days after the date of the opening of bids.

BIDDERS INTERESTED IN MORE THAN ONE BID

No Bidder, whether a person, firm, partnership, corporation, or association, shall be allowed to make, file, or to be interested in more than one Bid for the same work unless alternate bids are called for. A person, firm, partnership, corporation, or association who has submitted a sub bid to a Bidder, or who has quoted prices on materials to a Bidder, is not thereby disqualified from submitting a sub bid or quoting prices to other Bidders.

DISQUALIFICATION OF BIDDERS

More than one Bid for the same work from a person, firm, partnership, corporation, or association under the same or different name will not be accepted. Reasonable ground for believing that any person, firm, partnership, corporation, or association is interested in more than one Bid for the same work will cause the rejection of all Bids for the work in which such Bidder is interested. Any or all Bids will be rejected if there is reason for believing that collusion exists among any of the Bidders.

EXPERIENCE OF BIDDERS

Each Bid shall be supported by a statement of the Bidders' experience on the form entitled "INFORMATION REQUIRED OF BIDDER," bound herein. No award of contract will be made to a Contractor who does not hold an active Class "A" license or the appropriate specialty license applicable to the type of work bid upon at the time of opening Bids.

CONTRACTOR'S LICENSE CLASSIFICATION

In accordance with the provisions of California Public Contract Code Section 3300, the CITY OF LATHROP has determined that the Contractor must possess a valid Class "A" license or appropriate specialty license at the time of bid submission and maintain said license throughout completion of work necessary if awarded bid. Failure to possess the specified license shall render the Bid as non-responsive and shall act as a bar to award of the Contract to any bidder not possessing said license at the time of bid submission.

BIDDER'S STATEMENT OF SUBCONTRACTORS

In the form entitled List of Subcontractors, in the Information Required of Bidder and pursuant to Section 4107 of the Public Contract Code, the Bidder shall submit the name and location of the place of business of each subcontractor who will perform work or labor or render service to the Bidder in or about the construction of the Work or improvement, or a subcontractor licensed by the State of California who under subcontract to the Bidder specially fabricates and installs a portion of the work, in an amount in excess of one-half of one percent (1/2%) of the Bid. The Bidder shall indicate the portion which will be done by each such subcontractor for each such portion as is defined by the subcontractor in its bid. This listing requirement shall apply to sub-subcontractors of any installation subcontractor which is utilized to install the Work, which sub-subcontractors perform work in excess of one-half of one percent of the Contractor's Total Bid Price. The Contractor shall ensure by Contract that any subcontractor installing the Work fulfills the responsibilities of a prime contractor under Public Contract Code Section 4100, et. seq.

Failure to so list subcontractors is an express statement by the Bidder that it will perform that portion of the work with its own forces. The Bidder may not substitute any person or subcontractor for a listed subcontractor without first obtaining written permission of the Project Manager pursuant to provisions of Section 4107 of the Public Contract Code.

CALIFORNIA WAGE RATE REQUIREMENTS

In accordance with the provisions of California Labor Code Sections 1770, 1773, 1773.1, 1773.6 and 1773.7 as amended, the Director of the Department of Industrial Relations has determined the general prevailing rate of per diem wages in accordance with the standards set forth in Section 1773 for the locality in which the Work is to be performed. A copy of said wage rates is on file at the office of the City of Lathrop and shall be made available to any interested party on request. It shall be mandatory upon the Contractor to whom the Work is awarded and upon any subcontractor under the Contractor to pay not less than said specified rates to all workers employed by them in the execution of the Work.

DEPARTMENT OF INDUSTRIAL RELATIONS- COMPLIANCE MONITORING UNIT

DIR Registration.

Contractor and Subcontractor Compliance. Strict compliance with DIR registration requirements pursuant to Labor Code Section 1725.5 is a material obligation of the Contractor under the Contract Documents. The foregoing includes without limitation, compliance with DIR Registration requirements at all times during performance of the Work by the Contractor and all Subcontractors of any tier. The failure of the Contractor and all Subcontractors, of every tier, to be DIR registered at all times during the performance of the Work is the Contractor's default of a material obligation of the Contractor under the Contract Documents.

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No Subcontractor Performance of Work without DIR Registration. No portion of the Work is permitted to be performed by a Subcontractor of any tier unless the Subcontractor is a DIR Registered contractor.

Contractor Obligation to Verify Subcontractor DIR Registration Status. An affirmative and on-going obligation of the Contractor under the Contract Documents is the Contractor's verification that all Subcontractors, of all tiers, are at all times during performance of Work in full and strict compliance with DIR Registration requirements. The Contractor shall not permit or allow any Subcontractor of any tier to perform any Work without the Contractor's verification that all such Subcontractors are in full and strict compliance with DIR Registration requirements.

Contractor Obligation to Request Substitution of Non-DIR Registered Subcontractor. If any Subcontractor identified in the Contractor's Subcontractor List submitted with the Contractor's proposal for the Work is not DIR Registered at the time of opening of proposals for the Work or if a Subcontractor's DIR registration lapses prior to or during a Subcontractor's performance of Work, the Contractor shall request the CITY's consent to substitute the non-DIR registered Subcontractor pursuant to Labor Code Section 1771.1(c)(3) and/ or Labor Code Section 1771.1(d).

Certified Payroll Records.

Compliance with Labor Code Section 1771.4 and 1776. A material obligation of the Contractor under the Contract Documents is: (i) the Contractor's strict compliance with the requirements pursuant to Labor Code Section 1771.4 and 1776 for preparation and submittal of Certified Payroll Records ("CPR"); and (ii) the Contractor's enforcement of CPR preparation and submittal for all Subcontractors of every tier.

Express Condition Precedent to Payment of Contract Price. Strict compliance with CPR requirements established pursuant to Labor Code Section 1776 is an express condition precedent to the CITY's obligation to: (i) process any request for payment of any portion of the Contract Price; or (ii) to disburse any portion of the Contract Price to the Contractor. The Contractor shall demonstrate strict compliance with CPR preparation and submittal requirements by delivery to the CITY of electronic files or hard copies of all CPR's submitted by the Contractor and/ or Subcontractors for Work pursuant to Labor Code Section 1771.4 and 1776 concurrently with the submittal thereof to the Labor Commissioner. The CITY: (i) shall not be obligated to process or disburse any portion of the Contract Price; or (ii) shall not be deemed in default of the CITY's obligations under the Contract Documents unless the Contractor demonstrates strict compliance with CPR preparation and submittal requirements.

PWR Monitoring and Enforcement. During the Work, pursuant to Labor Code Section 1771.4(a)(4), the Department of Industrial Relations shall monitor and enforce the obligation of the Contractor and Subcontractors of every tier to pay the laborers performing any portion of the work the PWR established for the classification of work/ labor performed.

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AWARD OF CONTRACT

Award of the Contract will be made only to Responsive Responsible Bidders processing the ability to perform successfully, which will be determined by considering such matters as Contractor integrity, compliance with public policy, record of past performance, and financial and technical resources.

Award of the contract shall be made to the responsive responsible bidder whose bid, conforming with all the material terms and conditions of the invitation for bids, is the lowest total base bid shown in the bid schedule. Any challenge or contest of competing bids by Bidders must be submitted to the Project Manager in writing within 3 days from the date of bid opening.

The City of Lathrop hereby notifies all bidders that it will affirmatively insure that in any contract entered into pursuant to this advertisement, disadvantaged businesses including minority and woman owned business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

Pursuant to Public Contract Code Section 1103, "Responsive Responsible Bidder" means a bidder who has demonstrated the attribute of trustworthiness, as well as quality, fitness, capacity, and experience to satisfactorily perform the public works contract.

BID SECURITY, BONDS AND INSURANCE

Each Bid shall be accompanied by a certified or cashier's check or an approved Bid Bond in the amount of ten percent (10%) of the Total Bid Price payable to the City of Lathrop. Said check or bond shall be made payable to the City and shall be given as a guarantee that the Bidder, if awarded the Work, will enter into a Contract with the City, and will furnish the necessary insurance certificates, Payment Bond, and Performance Bond; each of said bonds to be in the amount stated in the Contract. In case of refusal or failure to enter into said Contract, the check or Bid Bond, as the case may be, shall be forfeited to the City. If the Bidder elects to furnish a Bid Bond as its Bid security, the Bidder shall use the Bid Bond form bound herein, or one conforming substantially to it in form.

The successful bidder shall furnish a Performance Bond (100%) and a Payment Bond (50%) of contract price.

The Bond Company acknowledges that the Performance Bond, Payment Bond, and Maintenance (Guaranty) Bond will be separately enforceable until each is separately released by the City of Lathrop. The release of one bond shall not release the remaining bond(s), even if all bonds share the same bond number.

LATHROP CITY COUNCIL RIGHTS RESERVED

The Lathrop City Council reserves the right to accept or reject any or all Bids, to waive any irregularity in a Bid, and to make award to the lowest responsive, responsible Bidder as it may best

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serve the interest of the City of Lathrop.

EXECUTION OF CONTRACT

The form of Contract, which the successful Bidder as Contractor will be required to execute, is included in the Contract Documents of these Specifications, and should be carefully examined by the Bidder. The Contract will be executed in two original counterparts.

The successful Bidder shall execute and return all original Contract Documents to the Project Manager within 10 calendar days after receipt of the Notice of Award.

The successful Bidder shall also secure all required bonds and insurance and furnish such bonds and certificates of insurance and endorsements indicating proof of coverage, and complete the Guaranty simultaneously with execution of the Contract.

TIME OF COMPLETION

The Contractor shall commence work under this Contract on or before the ten (10) working days after receiving written Notice to Proceed from the City and shall fully complete all work within thirty five (35) working days after the Notice to Proceed, subject to provisions contained in the Construction Documents relating to extension of time. The Contractor shall, at all times during the continuance of the Contract, prosecute the work with such force and equipment as are sufficient to complete it within the time specified.

RETAINAGE FROM PAYMENTS

The Contractor may elect to receive 100 percent of payments due under the Construction Documents from time to time, without retention of any portion of the payment by the City of Lathrop, by depositing securities of equivalent value with the City of Lathrop or escrow agent, all in accordance with the provisions of Section 22300 of the Public Contract Code. Such securities, if deposited by the Contractor, shall be valued by the City of Lathrop, whose decision on valuation of the securities shall be final. Securities eligible for Investment under this provision shall include those listed in Section 16430 of the Government Code, bank or savings and loan certificates of deposit, interest bearing demand deposit accounts, standby letters of credit, or other security agreed to by City of Lathrop and Contractor.

LIQUIDATED DAMAGES

If the Contractor fails to complete the Work within the time specified for Substantial Completion in the Contract, then the Contractor does hereby agree, as a part consideration for the awarding of this Contract, to pay to the City, as liquidated damages and not as a penalty, the sum of \$1000.00 per day for each calendar day beyond the dates set forth in the Agreement that the Contractor fails to achieve Substantial Completion for the Project. The said amount is fixed and agreed on by and between the Contractor and the City because of the impracticability and extreme difficulty of fixing and ascertaining the true value of the damages which the City will sustain by failure of the Contractor to complete the Work on time, including damages, some of which are indefinite, said amount is agreed to be a reasonable estimate of the amount of damages which the City will sustain

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and said amount shall be deducted from any monies due or that may become due to the Contractor, and if said monies are insufficient to cover said damages, then the Contractor shall pay the amount of the difference.

(END OF SECTION)

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BID PROPOSAL FORMS

BID PROPOSAL FORMS

TO: City of Lathrop
390 Towne Centre Drive
Lathrop, CA 95330

ATTENTION: City Clerk

FOR: **LATHROP GENERATIONS CENTER PARKING LOT, CIP# PK 20-01**

THE UNDERSIGNED, AS BIDDER, HEREBY AGREES AND DECLARES THAT:

LEGAL COMPLIANCE

The only persons or parties interested in this Bid as Principals are those named herein; that this Bid is made without collusion with any other person, firm, partnership, corporation, or association; that he has carefully examined the location of the proposed work and the Construction Documents; and he proposes and agrees that if this Bid is accepted he will contract with the City of Lathrop, in the form of the Contract as set forth in the Construction Documents for said project, to provide all the necessary labor, services, materials, and equipment, and to do all the work and furnish all the materials; and that he will accept in full payment therefore the price as proposed in the following Bid Schedule.

SCHEDULE OF PRICES

All applicable permit fees, licensing costs, sales taxes, State, and/or Federal, and any other taxes, patent rights, or royalties are included in the prices quoted in the Bid. All blank spaces must be filled in.

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BID PROPOSAL FORMS

LATHROP GENERATIONS CENTER PARKING LOT, CIP# PK 20-01

BID SCHEDULE

BID ITEM	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	EXTENDED TOTAL
1	Mobilization	1	LS		
2	Rough Grading	1,130	CY		
3	SCH 40 4" conduit sleeves	555	LF		
4	15" PVC Storm Drain	389	LF		
5	Type II SD Curb Inlet (Std. D-7)	5	EA		
6	Connect to Existing Storm Drain	1	LS		
7	Remove Existing Sidewalk	481	SF		
8	Vertical Curb	675	LF		
9	Vertical Curb & Gutter	460	LF		
10	Driveway	264	SF		
11	Sidewalk	3,800	SF		
12	Accessible Ramps	4	EA		
13	Finish Grade	26,900	SF		
14	Class 2 AB @ 6" thick	26,900	SF		
15	HMA Paving @ 3" thick	26,900	SF		
16	Erosion and Sediment Control	1	LS		
17	Signage & Striping	1	LS		
18	Parking Wheel Stop 6"x48" PCC	4	EA		
	TOTAL BASE BID				

TOTAL BID : _____

TOTAL BID IN WORDS : _____

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INFORMATION REQUIRED OF BIDDER

The Bidder (Contractor) shall furnish the following information. This information is considered essential in enabling the Project Manager to determine if the Bidder is experienced in similar types of work and if the Bid is based on a careful study of methods applicable to the work and full realization of the various factors which may affect the progress of the work. Failure to comply with this requirement may render the Bid non-responsive and may cause its rejection. Additional sheets shall be attached as required.

BIDDER'S INFORMATION

(1) Bidder's name and address:

(2) Bidder's telephone number: _____

(3) Bidder's fax number: _____

(4) Bidder's Contractor's License (Class): _____

License No.: _____

Expires: _____

(5) Person who inspected site of proposed work for Contractor's firm:

Name: _____ Date of Inspection: _____

(5) List 3 projects of a nature similar to this project:

Project	Contract Price	Name, Address and Telephone Number of Owner

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BID PROPOSAL FORMS

LIST OF SUBCONTRACTORS:

The Bidder shall list below the name and business address of each subcontractor who will perform work under this Bid in excess of one-half of one percent of the Contractor's Total Bid Price, and shall also list the portion of the WORK which will be done by such subcontractor, in accordance with Section 4107 of the Public Contract Code. After the opening of bids, no changes or substitutions will be allowed except as otherwise provided by law. The listing of more than one subcontractor for each item of work to be performed with the words "and/or" will not be permitted. Failure to comply with this requirement may render the Bid non-responsive and may cause its rejection. Should the Contractor provide a bid that does not require a subcontractor, the Contractor shall note that on this page by writing "Not Applicable" in the list below.

<u>Work to be Performed</u>	<u>Subcontractor License Number</u>	<u>Percent of Total Contract</u>	<u>Subcontractor's Name & Address</u>
1. _____	_____	_____	_____ _____
2. _____	_____	_____	_____ _____
3. _____	_____	_____	_____ _____
4. _____	_____	_____	_____ _____
5. _____	_____	_____	_____ _____
6. _____	_____	_____	_____ _____

Note: Attach additional sheets if required.

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BID PROPOSAL FORMS

ADDENDA

Bidder certifies he reviewed Stockton Blue Plan Well for addenda within 48 hours of bid opening and acknowledges receipt of the following addendum (addenda):

Respectfully submitted,

Dated

Legal Name of Firm

Signature of Authorized Representative

(Seal)

(If Bidder is a corporation, show State in which incorporated.)

The full names and post office addresses of all persons and parties interested in the foregoing Bid as principals are as follows:

(NOTICE): Give first and last names in full; in case of corporation, give names of President, Secretary, Treasurer, and Manager, and in case of partnerships and joint ventures, give names and Post Office addresses of all the individual members.

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BID PROPOSAL FORMS

BIDDER'S BOND

KNOW ALL MEN BY THESE PRESENTS:

THAT WE _____

as PRINCIPAL, and _____

as SURETY are held; and firmly bond unto the City of Lathrop in the penal sum of TEN PERCENT (10%) OF THE TOTAL AMOUNT OF THE BID of the Principal above named, submitted by the Principal to the City of Lathrop for the work described below, for the payment of which sum in lawful money of the United States, well and truly to be made to the City of Lathrop to which the bid was submitted, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by those presents. In no case shall the liability of the surety hereunder exceed the sum of \$ _____.

THE CONDITION OF THIS OBLIGATION IS SUCH,

THAT, WHEREAS, the Principal has submitted the above mentioned bid to the City of Lathrop for certain construction specifically described as follows, for which bids are to be opened at the City Hall, 390 Towne Centre Drive, Lathrop, CA: LATHROP GENERATIONS CENTER PARKING LOT, CIP# PK 20-01.

NOW, THEREFORE, if the Principal is awarded the contract and within the time and manner required under the specifications, after the prescribed forms are presented to him for signature enters into a written contract in the prescribed form, in accordance with the bid, and files two bonds with the City, one to guarantee faithful performance, and the other to guarantee payment for labor and materials as required by law, then this obligation shall be null and void; otherwise, it shall be and remain in full force.

IN WITNESS WHEREOF, we have hereunto set our hands and seals on this _____ day of _____, 20__.

_____ (Seal)

_____ (Seal)

_____ (Seal)

_____ (Seal)

Address: _____

Address: _____

NOTE: Signatures of those executing for the surety must be properly acknowledged.

NONCOLLUSION AFFIDAVIT

STATE OF _____)
)
COUNTY OF _____) ss.

_____, being first duly sworn, deposes and says that he or she is

_____ of _____ the party making the foregoing bid that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company associated, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Signature of: President, Secretary,
Manager, Project Manager or Representative

The County of _____

State of _____

Subscribed and sworn to (or affirmed) before me

on this _____ day of _____, 20____, by

_____, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

Seal _____

Signature _____

PUBLIC CONTRACT CODE SECTION 10162 QUESTIONNAIRE

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

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

Yes _____ No _____

If the answer is yes, explain the circumstances in the following space.

PUBLIC CONTRACT SECTION 10232 STATEMENT

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

NOTE: The above Statement and Questionnaire are part of the Proposal. Signing this proposal on the signature portion thereof shall also constitute signature of this Statement and Questionnaire.

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

(END OF SECTION)

SECTION 00500

LATHROP GENERATIONS CENTER PARKING LOT
CIP # PK 20--01

CONTRACT

CONTRACT

This Contract, dated _____, is entered into by and between the City of Lathrop, a municipal corporation of the State of California (City), and _____, (Contractor), whose Taxpayer Identification Number is _____.

For and in consideration of the following covenants, terms and conditions, City and Contractor (the parties) agree:

1. Term. This Contract shall commence on, and be binding on the parties on, the date of execution of this Contract, and shall expire on the date of recordation of the Notice of Substantial Completion, or, if no such notice is required to be filed, on the date that final payment is made hereunder, subject to the earlier termination of this Contract.
2. General Scope of Project and Work. Construction Documents for the Lathrop Generations Center Parking Lot, CIP# PK 20-01 (Project). Contractor shall furnish labor, services, materials and equipment in connection with the construction of the Project and complete the Work in accordance with the covenants, terms and conditions of this Contract to the satisfaction of City. The Project and Work is generally described as follows:

The work to be performed under this contract includes all work contained in the Construction Documents, as detailed in Paragraph 3 below, including, but not limited to grading, construction of curb & gutter, storm drain, parking lot, removal and replacement of sidewalk with accessible curb ramps and installation of road and parking lot signage and striping; and any task necessary to accomplish the aforementioned tasks.

The work shall be **completed within 35 working days** following issuance of Notice to Proceed.

The Work shall be complete, and all appurtenant work, materials, and services not expressly shown or called for in the Construction Documents which may be necessary for the complete and proper construction of the Work in good faith shall be performed, furnished, and installed by the Contractor as though originally specified or shown. The Contractor will be compensated for work actual work performed in accordance with the unit prices and provisions contained in these Construction Documents.

Base Bid Total: \$ _____

3. Construction Documents. This Contract shall include the Construction Documents which are on file with the City Clerk and are hereby incorporated by reference (i.e. Project Specifications, Project Plans, addenda, performance bond, labor and materials bond, certification of insurance, workers compensation certification, and guaranty) and the Bid Documents submitted by _____ on<<insert date>>. For the purposes of construing, interpreting and resolving inconsistencies between the provisions of this Contract, these documents and the provisions thereof are set forth in the order of precedence described in Article 3 of the General Conditions.

SECTION 00500

4. Compensation. In consideration of Contractor's performance of its obligations hereunder, City shall pay to Contractor the amount set forth in Contractor's Bid in accordance with the provisions of this Contract and upon the receipt of written invoices and all necessary supporting documentation within the time set forth in the Construction Documents. Contractor hereby shall not be permitted to invoice the City nor accept compensation for work not yet complete. In no event, shall the Contractor be entitled to payment for work not included in the approved scope of work, a written task order, or change order signed by the City's Public Works Director prior to commencement of any work.
5. Insurance. On or before the Date of Execution, Contractor shall obtain and maintain the policies of insurance coverage described in Section 5.2 of the General Conditions on terms and conditions and in amounts as may be required by the City. City shall not be obligated to take out insurance on Contractor's personal property or the personal property of any person performing labor or services or supplying materials or equipment under the Project. Contractor shall furnish City with the certificates of insurance and with original endorsements affecting coverage required under this Contract on or before the Date of Execution. The certificates and endorsements for each insurance policy shall be signed by a person who is authorized by that insurer to bind coverage in its behalf. Proof of insurance shall be mailed to the Project Manager to the address set forth in Section 15 of this Contract.
6. Indemnification. Contractor agrees to protect, defend, indemnify and hold City, its City Council members, officers, employees, engineer, and construction manager harmless from and against any and all claims, demands, liabilities, losses, damages, costs, expenses, liens, penalties, suits, or judgments, arising in whole or in part, directly or indirectly, at any time from any injury to or death of persons or damage to property as a result of the willful or negligent act or omission of Contractor, or which results from Contractor's noncompliance with any Law respecting the condition, use, occupation or safety of the Project site, or any part thereof, or which arises from Contractor's failure to do anything required under this Contract or for doing anything which Contractor is required not to do under this Contract, or which arises from conduct for which any Law imposes strict liability on Contractor in the performance of or failure to perform the terms and conditions of this Contract, except as may arise from the sole willful or negligent act or omission of City or any of its City Council members, officers, employees. This indemnification shall extend to any and all claims, demands, or liens made or filed by reason of any construction, renovation, or remodeling work performed by Contractor under this Contract at any time during the term of this Contract, or arising thereafter.
7. Assumption of Risk. Contractor agrees to voluntarily assume any and all risk of loss, damage, or injury to the property of Contractor which may occur in, on, or about the Project site at any time and in any manner, excepting such loss, injury, or damage as may be caused by the sole willful or negligent act or omission of City or any of its City Council members, officers, or employees.
8. Waiver. The acceptance of any payment or performance, or any part thereof, shall not operate as a waiver by City of its rights under this Contract. A waiver by City of any breach of any part or provision of this Contract by Contractor shall not operate as a waiver or

SECTION 00500

continuing waiver of any subsequent breach of the same or any other provision, nor shall any custom or practice which may arise between the parties in the administration of any part or provision of this Contract be construed to waive or to lessen the right of City to insist upon the performance of Contractor in strict compliance with the covenants, terms and conditions of this Contract.

9. Compliance with Laws. Contractor shall comply with all Laws now in force or which may hereafter be in force pertaining to the Project and Work and this Contract, with the requirement of any bond or fire underwriters or other similar body now or hereafter constituted, with any discretionary license or permit issued pursuant to any Law of any public agency or official as well as with any provision of all recorded documents affecting the Project site, insofar as any are required by reason of the use or occupancy of the Project site, and with all Laws pertaining to nondiscrimination and affirmative action in employment and hazardous materials.

DEPARTMENT OF INDUSTRIAL RELATIONS- COMPLIANCE MONITORING UNIT

DIR Registration.

- a) Contractor and Subcontractor Compliance. Strict compliance with DIR registration requirements pursuant to Labor Code Section 1725.5 is a material obligation of the Contractor under the Contract Documents. The foregoing includes without limitation, compliance with DIR Registration requirements at all times during performance of the Work by the Contractor and all Subcontractors of any tier. The failure of the Contractor and all Subcontractors of every tier to be DIR registered at all times during the performance of the Work is the Contractor's default of a material obligation of the Contractor under the Contract Documents.
- b) No Subcontractor Performance of Work Without DIR Registration. No portion of the Work is permitted to be performed by a Subcontractor of any tier unless the Subcontractor is a DIR Registered contractor.
- c) Contractor Obligation to Verify Subcontractor DIR Registration Status. An affirmative and on-going obligation of the Contractor under the Contract Documents is the Contractor's verification that all Subcontractors, of all tiers, are at all times during performance of Work in full and strict compliance with DIR Registration requirements. The Contractor shall not permit or allow any Subcontractor of any tier to perform any Work without the Contractor's verification that all such Subcontractors are in full and strict compliance with DIR Registration requirements.
- d) Contractor Obligation to Request Substitution of Non-DIR Registered Subcontractor. If any Subcontractor identified in the Contractor's Subcontractor List submitted with the

SECTION 00500

LATHROP GENERATIONS CENTER PARKING LOT
CIP # PK 20--01

CONTRACT

Contractor's proposal for the Work is not DIR Registered at the time of opening of proposals for the Work or if a Subcontractor's DIR registration lapses prior to or during a Subcontractor's performance of Work, the Contractor shall request the CITY's consent to substitute the non-DIR registered Subcontractor pursuant to Labor Code Section 1771.1(c)(3) and/ or Labor Code Section 1771.1(d).

Certified Payroll Records

- a) Compliance with Labor Code Section 1771.4 and 1776. A material obligation of the Contractor under the Contract Documents is: (i) the Contractor's strict compliance with the requirements pursuant to Labor Code Section 1771.4 and 1776 for preparation and submittal of Certified Payroll Records ("CPR"); and (ii) the Contractor's enforcement of CPR preparation and submittal for all Subcontractors of every tier.
- b) Express Condition Precedent to Payment of Contract Price. Strict compliance with CPR requirements established pursuant to Labor Code Section 1776 is an express condition precedent to the CITY's obligation to: (i) process any request for payment of any portion of the Contract Price; or (ii) to disburse any portion of the Contract Price to the Contractor. The Contractor shall demonstrate strict compliance with CPR preparation and submittal requirements by delivery to the CITY of electronic files or hard copies of all CPR's submitted by the Contractor and/ or Subcontractors for Work pursuant to Labor Code Section 1771.4 and 1776 concurrently with the submittal thereof to the Labor Commissioner. The CITY: (i) shall not be obligated to process or disburse any portion of the Contract Price; or (ii) shall not be deemed in default of the CITY's obligations under the Contract Documents unless the Contractor's demonstrates strict compliance with CPR preparation and submittal requirements.
- c) PWR Monitoring and Enforcement. During the Work pursuant to Labor Code Section 1771.4(a)(4), the Department of Industrial Relations shall monitor and enforce the obligation of the Contractor and Subcontractors of every tier to pay the laborers performing any portion of the work the PWR established for the classification of work/ labor performed.

RECORD OF WAGES PAID: INSPECTION

Pursuant to Labor Code section 1776, Contractor stipulates to the following:

- a) Contractor and each 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

SECTION 00500

public work under the Facilities lease and Construction Provisions. Such records shall be on forms provided by the Division of Labor Standards Enforcement or shall contain the same information of such forms. The payroll records may consist of payroll data that are maintained as computer records, if printouts contain the same information as the forms provided by the division and the printouts are verified as specified in subdivision (a) of Labor Code section 1776.

- 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 Contractor on the following basis:
- (1) A certified copy of an employee's payroll record shall be made available for inspection or furnished to such employees 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 CITY, the Division of Labor Standards Enforcement, and 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. However, a request by the public shall be made through either the CITY, 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 Contractor, subcontractors, and the entity through which the request was made. The public shall not be given access to such records at the principal office of Contractor.
- c) Contractor shall file a certified copy of the records enumerated in subdivision (a) with the entity that requested such records within ten (10) days after receipt of the 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 CITY, 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 contractor awarded the contract or performing the contract shall not be marked or obliterated.

SECTION 00500

- e) Contractor shall inform the CITY of the location of the records enumerated under subdivision (a), including the street address, city, and county, and shall, within (5) working days, provide a notice of a change of location and address.
- f) In the event of noncompliance with the requirements of this Article, Contractor shall have ten (10) days in which to comply subsequent to receipt of written notice specifying in what respects Contractor must comply with this Article. Should noncompliance still be evident after such 10-day period, Contractor shall pay a penalty of One- Hundred Dollars (\$100.00) to the CITY 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, such penalties shall be withheld from the progress payment then due.

The responsibility for compliance with this Article shall rest upon Contractor.

10. Bonds. As a condition precedent to City's obligation to pay compensation to Contractor, and on or before the date of Execution, Contractor shall furnish to the Project Manager the Bonds as required under the Notice to Contractors.
11. Representations and Warranties. In the supply of any materials and equipment and the rendering of labor and services during the course and scope of the Project and Work, Contractor represents and warrants:
 - (1) Any materials and equipment which shall be used during the course and scope of the Project and Work shall be vested in Contractor;
 - (2) Any materials and equipment which shall be used during the course and scope of the Project and Work shall be merchantable and fit to be used for the particular purpose for which the materials are required;
 - (3) Any labor and services rendered and materials and equipment used or employed during the course and scope of the Project and Work shall be free of defects in workmanship for a period of one (1) year after the recordation of the Notice of Substantial Completion, or, if no such notice is required to be filed, on the date that final payment is made hereunder;
 - (4) Any manufacturer's warranty obtained by Contractor shall be obtained or shall be deemed obtained by Contractor for and on behalf of City.
 - (5) Any information submitted by Contractor prior to the award of Contract, or thereafter, upon request, whether or not submitted under a continuing obligation by the terms of the Contract to do so, is true and correct at the time such information is submitted or made available to the City;

SECTION 00500

- (6) Contractor has not colluded, conspired, or agreed, directly or indirectly, with any person in regard to the terms and conditions of Contractor's Bid, except as may be permitted by the Notice to Contractors;
 - (7) Contractor has the power and the authority to enter into this Contract with City, that the individual executing this Contract is duly authorized to do so by appropriate resolution, and that this Contract shall be executed, delivered and performed pursuant to the power and authority conferred upon the person or persons authorized to bind Contractor;
 - (8) Contractor has not made an attempt to exert undue influence with the Project Manager or any other person who has directly contributed to City's decision to award the Contract to Contractor;
 - (9) There are no unresolved claims or disputes between Contractor and City which would materially affect Contractor's ability to perform under the Contract;
 - (10) Contractor has furnished and will furnish true and accurate statements, records, reports, resolutions, certifications, and other written information as may be requested of Contractor by City from time to time during the term of this Contract;
 - (11) Contractor and any person performing labor and services under this Project is duly licensed as a contractor with the State of California as required by California Business & Professional Code Section 7028, as amended; and
 - (12) Contractor has fully examined and inspected the Project site and has full knowledge of the physical conditions of the Project site.
12. Assignment. This Contract and the performance required hereunder is personal to Contractor, and it shall not be assigned by Contractor. Any attempted assignment shall be null and void.
 13. Claims of Contractor. All claims pertaining to extra work, additional charges, or delays within the Contract Time or other disputes arising out of the Contract shall be submitted by Contractor in accordance with the General Conditions.
 14. Audits by City. During the term of this Contract and for a period of not less than three (3) years after the expiration or earlier termination of this Contract, City shall have the right to audit Contractor's Project-related and Work-related writings and business records, as such terms are defined in California Evidence Code Sections 250 and 1271, as amended, during the regular business hours of Contractor, or, if Contractor has no such hours, during the regular business hours of City.
 15. Notices. All contracts, agreements, appointments, approvals, authorizations, claims, demands, Change Orders, consents, designations, notices, offers, requests and statements given by either party to the other shall be in writing and shall be sufficiently given and served upon the other party if (1) personally served, (2) sent by the United States mail,

SECTION 00500

postage prepaid, (3) sent by private express delivery service, or (4) in the case of a facsimile transmission, if sent to the telephone FAX number set forth below during regular business hours of the receiving party and followed with two (2) days by delivery of a hard copy of the material sent by facsimile transmission, in accordance with (1), (2) or (3) above. Personal service shall include, without limitation, service by delivery and service by facsimile transmission.

To City: City of Lathrop
City Clerk
390 Towne Centre Drive
Lathrop, CA 95330

Copy to: City of Lathrop
Department of Public Works
390 Towne Centre Drive
Lathrop, CA 95330

(209) 941-7363
FAX: (209) 941-7449
ATTN: Ken Reed, Project Manager

To Contractor: _____

Phone: _____

Fax: _____

ATTN: _____

16. Miscellaneous.

- (1) Bailee Disclaimer. The parties understand and agree that City does not purport to be Contractor's bailee, and City is, therefore, not responsible for any damage to the personal property of Contractor.
- (2) Consent. Whenever in this Contract the approval or consent of a party is required, such approval or consent shall be in writing and shall be executed by a person having the express authority to grant such approval or consent.
- (3) Controlling Law. The parties agree that this Contract shall be governed and construed by and in accordance with the Laws of the State of California.
- (4) Definitions. The definitions and terms are as defined in these specifications.

SECTION 00500

- (5) Force Majeure. Neither party shall be deemed to be in default on account of any delay or failure to perform its obligations under this Contract, which directly results from an Act of God or an act of a superior governmental authority.
- (6) Headings. The paragraph headings are not a part of this Contract and shall have no effect upon the construction or interpretation of any part of this Contract.
- (7) Incorporation of Documents. All documents constituting the Construction Documents described in Section 3 hereof and all documents which may, from time to time, be referred to in any duly executed amendment hereto are by such reference incorporated in this Contract and shall be deemed to be part of this Contract.
- (8) Integration. This Contract and any amendments hereto between the parties constitute the entire contract between the parties concerning the Project and Work, and there are no other prior oral or written contracts between the parties that are not incorporated in this Contract.
- (9) Modification of Contract. This Contract shall not be modified or be binding upon the parties unless such modification is agreed to in writing and signed by the parties.
- (10) Provision. Any contract, covenant, condition, clause, qualification, restriction, reservation, term or other stipulation in the Contract shall define or otherwise control, establish, or limit the performance required or permitted or to be required of or permitted by either party. All provisions, whether covenants or conditions, shall be deemed to be both covenants and conditions.
- (11) Resolution. Contractor shall submit with its Bid a copy of any corporate or partnership resolution or other writing, which authorizes any director, officer or other employee or partner to act for or on behalf of Contractor or which authorizes Contractor to enter into this Contract.
- (12) Severability. If a court of competent jurisdiction finds or rules that any provision of this Contract is void or unenforceable, the provisions of this Contract not so affected shall remain in full force and effect.
- (13) Status of Contractor. In the exercise of rights and obligations under this Contract, Contractor acts as an independent contractor and not as an agent or employee of City. Contractor shall not be entitled to any rights and benefits accorded or accruing to the City Council members, officers or employees of City, and Contractor expressly waives any and all claims to such rights and benefits.
- (14) Successors and Assigns. The provisions of this Contract shall inure to the benefit of, and shall apply to and bind, the successors and assigns of the parties.
- (15) Time of the Essence. Time is of the essence of this Contract and each of its provisions. In the calculation of time hereunder, the time in which an act is to be performed shall be computed by excluding the first Day and including the last. If

SECTION 00500

the time in which an act is to be performed falls on a Saturday, Sunday, or any Day observed as a legal holiday by City, the time for performance shall be extended to the following Business Day.

- (16) Venue. In the event that suit is brought by either party hereunder, the parties agree that trial of such action shall be vested exclusively in the state courts of California in the County of San Joaquin or in the United States District Court for the Eastern District of California.
- (17) Recovery of costs. The prevailing party in any action brought to enforce the terms of this Contract or arising out of this Contract, including the enforcement of the indemnity provision(s), may recover its reasonable costs, including reasonable attorney's fees, incurred or expended in connection with such action against the non-prevailing party.
- (18) Contractor and subcontractors must comply with all applicable standards, orders, or requirements issued under Section 306 of the Clean Air Act (42 USC 1857(h)), Section 508 of the Clean Water Act (33 USC1368), Executive Order 11738, and Environmental Protection Agency Regulations at 40 CFR Part 15.
- (19) Contractors and subcontractors must comply with mandatory standards and policies relating to the energy efficiency which are contained in the State Energy Conservation Plan issued in compliance with the Energy Policy and Conservation ACT (Public Law 94-163, 89 stat 871).
- (20) The Contractor shall provide access to the site for the Environmental Protection Agency and its duly authorized representatives, and the City.
- (21) If during the course of construction evidence of deposit of historical or archaeological interest is found, the Contractor shall cease operation affecting the find and shall notify the City, who shall notify the EPA and the State Historic Preservation Officer. No further disturbance of the deposits shall ensue until the Contractor has been notified by the City that construction may proceed. The City will issue a notice to proceed only after the state official has surveyed the find and made a determination to the EPA and the City. Compensation to the contractor, if any, for lost time or changes in construction to avoid the find, shall be determined in accordance with changed conditions or change order provisions of the Construction Documents.
- (22) Notice to Proceed. Prior to commencing work under this Contract, CONTRACTOR shall receive a written "Notice to Proceed" from CITY. A Notice to Proceed shall not be issued until all necessary bonds and insurances have been received. City shall not be obligated to pay CONTRACTOR for any services prior to issuance of the Notice to proceed.
- (23) Signatures. The individuals executing this Contract represent and warrant that they have the right, power, legal capacity, and authority to enter into and to execute this

SECTION 00500

LATHROP GENERATIONS CENTER PARKING LOT
CIP # PK 20--01

CONTRACT

Contract on behalf of the respective legal entities of the CONTRACTOR and the CITY. This Contract shall inure to the benefit of and be binding upon the parties hereto and their respective successors and assigns.

- (24) This project is a public works project: Contractor shall comply with requirements of California Labor Code § 1700 and following, and prevailing wages shall be paid for work performed on this project.
- (25) The statutory provisions for penalties for failing to comply with the State of California wage and labor laws be enforced, as well as that for failing to pay prevailing wages.

IN WITNESS WHEREOF, the parties have executed this Agreement on the date first above stated in Lathrop, California.

APPROVED:

Contractor:

City Manager

By: _____

RECOMMENDED FOR APPROVAL:

Name: _____

Director of Public Works

Title: _____

APPROVED AS TO FORM:

Taxpayer I.D. No. _____

City Attorney

(END OF SECTION)

SECTION 00610

LATHROP GENERATIONS CENTER PARKING LOT
CIP # PK 20--01

PERFORMANCE BOND
CONTRACT

Bond No: _____
Premium: _____
Contract No: _____

PERFORMANCE BOND

WHEREAS, the City Council of the City of Lathrop, State of California, and _____, ("Principal"), have entered into a Contract whereby principal agrees to install and complete certain designated public improvements. The Contract, dated _____, 20__, and identified as project _____, is hereby referred to and made a part hereof; and

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

NOW, THEREFORE, we, the principal and _____, as surety, are held and firmly bound unto the City of Lathrop ("City"), in the sum of _____ dollars (\$_____) lawful money of the United States, for the payment of which we bind ourselves, our heirs, successors, executors and administrators, jointly and severally.

The condition of this obligation is such that if the above principal, his or its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions and provisions in the Contract and any alteration thereof made as therein provided, on his or their part, to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify and save harmless City its officers, agents and employees, as therein stipulated, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect.

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

The surety 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 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 of time, alteration or addition to the terms of the Contract or to the work or to the specifications.

IN WITNESS WHEREOF, this instrument has been duly executed by the Principal and Surety above named, on _____, 20__.

SECTION 00610

**LATHROP GENERATIONS CENTER PARKING LOT
CIP # PK 20--01**

**PERFORMANCE BOND
CONTRACT**

ADDRESS OF Contractor:

_____	_____
_____	_____
_____	_____

ADDRESS OF SURETY:

_____	_____
_____	_____

(END OF SECTION)

SECTION 00620

LATHROP GENERATIONS CENTER PARKING LOT
CIP # PK 20--01

PAYMENT (LABOR AND
MATERIALS) BOND

Bond No: _____
Premium: _____
Contract No: _____

PAYMENT (LABOR AND MATERIALS) BOND

WHEREAS, the City Council of the City of Lathrop, State of California, and
, ("Principal"), have entered into an Contract whereby principal agrees to install and complete
certain designated public improvements. The Contract, dated
_____, 20__, and identified as project
_____ is hereby
referred to and made a part hereof; and

WHEREAS, under the terms of the Contract, principal is required before entering upon the
performance of the work to file a good and sufficient payment with the City of Lathrop to secure
the claims to which reference is made in Title 15 (commencing with Section 3082) of Part 4 of
Division 3 of the Civil Code of the State of California.

NOW, THEREFORE, the principal and the undersigned as corporate surety, are held
firmly bound unto the City of Lathrop and all Contractors, subcontractors, laborers, material, men
and other persons employed in the performance of the Contract and referred to in the above-
mentioned Code of Civil Procedure in the sum of
_____ dollars (\$ _____), for
materials furnished or labor thereon of any kind, or for amounts due under the Unemployment
Insurance Act with respect to such work or labor, that the surety will pay the same in an amount
not exceeding the amount set forth above, and also in case suit is brought upon this bond, will pay,
in addition to the face amount thereof, costs and reasonable expenses and fees, including
reasonable attorney's fees, incurred by City in successfully enforcing such obligation, to be
awarded and fixed by the court, and to be taxed as costs and to be included in the judgment
rendered.

It is hereby expressly stipulated and agreed that this bond shall insure to the benefit of any and all
persons, companies and corporations entitled to file claims under Title 15 (commencing with
Section 3082) of Part 4 of Division 3 of the Civil Code, so as to give a right of action to them or
their assigns in any suit brought upon this bond.

Should the conditions 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.

The surety hereby stipulates and agrees that no change, extension of time, alternation or addition
to the terms of said Contract or the specifications accompanying the same shall in any manner
affect its obligations on this bond, and it does hereby waive notice of any such change, extension,
alteration or addition.

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LATHROP GENERATIONS CENTER PARKING LOT
CIP # PK 20--01

PAYMENT (LABOR AND
MATERIALS) BOND

IN WITNESS WHEREOF, this instrument has been duly executed by the Principal and Surety above named, on _____, 20__.

ADDRESS OF PRINCIPAL:

ADDRESS OF SURETY:

(END OF SECTION)

SECTION 00660

LATHROP GENERATIONS CENTER PARKING LOT
CIP # PK 20--01

WORKER'S COMPENSATION
CERTIFICATION

WORKER'S COMPENSATION CERTIFICATION

(AS REQUIRED BY SECTION 1861
OF THE CALIFORNIA LABOR CODE)

I am aware of the provision 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 the Contract.

Contractor: _____

By: _____

Title: _____

(END OF SECTION)

SECTION 00670

LATHROP GENERATIONS CENTER PARKING LOT
CIP # PK 20--01

GUARANTY

Bond No: _____
Premium: _____
Contract No: _____

GUARANTY (WARRANTY) BOND

To the City of Lathrop

The undersigned guarantees the construction and installation of the work included in this project.

A Guaranty (Warranty) Bond is required to be submitted prior to project acceptance by the City. The Guaranty (Warranty) Bond shall be ten percent (10%) of the final contract amount. The Bond will be effective for one (1) year, beginning with the date of project acceptance.

If any of the work is defective, due to faulty workmanship, materials furnished or methods of installation, or if the work or any part of it fails to operate properly as originally intended and in accordance with the Plans and Specifications, due to any of the above causes, all within one year after the date on which this contract is accepted by the City after relief from maintenance, the undersigned agrees to reimburse the City, upon demand, for its expenses incurred in restoring the project, including the cost of any such equipment or materials replaced and the cost of removing and replacing any other work necessary to make such replacement or repairs, or, upon demand by the City, to replace any such material and to repair the work completely without cost to the City so that the work will function successfully as originally contemplated.

The City shall have the unqualified option to make any needed replacements or repairs done by the undersigned. If the City elects to have the work performed by the undersigned, the undersigned agrees that the repairs shall be made and such materials as are necessary shall be furnished and installed within a reasonable time after the receipt of demand from the City. If the undersigned fails or refuses to comply with his obligations under this guaranty, the City shall be entitled to all costs and expenses, including attorney's fees.

Signature of Bidder Date

(END OF SECTION)

GENERAL CONDITIONS**ARTICLE 1 -- DEFINITIONS**

Wherever used in these General Conditions, Special Conditions, General Requirements, Technical Specifications, Construction Documents or in any other part of these specifications the following terms have the meanings indicated:

Addenda - Written or graphic instruments issued prior to the opening of Bids, which make additions, deletions, or revisions to the Construction Documents.

Application for Payment - The form furnished by the CITY which is to be used by the CONTRACTOR to request progress or final payment and which includes such supporting documentation as is required by the Construction Documents.

Bid - The offer or proposal of the Bidder submitted on the prescribed form setting forth the price or prices for the WORK.

Bonds - Bid, Performance, and Payment Bonds and other instruments, which protect against loss due to inability or refusal of the CONTRACTOR to perform its Contract.

Change Order - A document recommended by the ENGINEER, which is signed by the CONTRACTOR and the CITY and authorizes an addition, deletion, or revision in the WORK, or an adjustment in the Contract Price or the Contract Time, issued on or after the Effective Date of the Contract.

CITY - The public body or authority, corporation, association, firm, or person with whom the CONTRACTOR has entered into the Contract and for whom the WORK is to be provided. Said public body is The City of Lathrop, located at 390 Towne Centre Drive, Lathrop, California 95330.

CITY'S REPRESENTATIVE – Contract construction manager or City personnel at the City's discretion.

City Engineer – The City Engineer is the City Engineer of the City of Lathrop.

Construction Documents - The Notice to Contractors, Instructions to Bidders, Bid Forms (including the Bid, Bid Schedule(s), Information Required of Bidder, Bid Bond, and all required certificates and affidavits), Contract, Performance Bond, Payment Bond, General Conditions, Supplementary General Conditions, Technical Specifications, Drawings, and all addenda, and change orders executed pursuant to the provisions of the Construction Documents.

Contract - The written contract between the CITY and the CONTRACTOR covering the WORK to be performed; when other documents are attached to the Contract they become part of the contract.

Contract Price - The total monies payable by the CITY to the CONTRACTOR under the terms and conditions of the Construction Documents.

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LATHROP GENERATIONS CENTER PARKING LOT
CIP # PK 20--01

GENERAL CONDITIONS

Contract Time - The number of successive calendar days stated in the Construction Documents for the completion of the WORK.

CONTRACTOR - The person, firm, or corporation with whom the CITY has executed the Contract.

COST OF WORK – The sum of all costs necessarily incurred and paid by the CONTRACTOR for labor, materials, and equipment in the proper performance of extra work.

Day - A calendar day of 24 hours measured from midnight to the next midnight.

Defective Work - Work that is unsatisfactory, faulty, or deficient; or that does not conform to the Construction Documents or the State Standard Specifications; or that does not meet the requirements of any inspection, reference standard, test, or approval referred to in the Construction Documents; or work that has been damaged prior to the ENGINEER'S recommendation of final payment.

Drawings - The drawings, plans, maps, profiles, diagrams, and other graphic representations which show the character, location, nature, extent, and scope of the WORK and which have been prepared by the ENGINEER and are referred to in the Construction Documents. Shop Drawings are not Drawings as so defined.

Effective Date of the Contract - The date indicated in the Contract on which it was executed, but if no such date is indicated it means the date on which the Contract is signed and delivered by the last of the two parties to sign and deliver.

ENGINEER – The person, firm, or corporation responsible for plan preparation and named as such in the Construction Documents.

Field Order - A written order issued by the City, which may or may not involve a change in the WORK.

Inspector – The person, firm, or corporation, as designated by the CITY as responsible for determining whether or not the WORK is constructed in accordance with the Construction Documents.

Laws and Regulations; Laws or Regulations - Laws, rules, regulations, ordinances, codes, and/or orders promulgated by a lawfully constituted body authorized to issue such Laws and Regulations.

Notice of Award - The written notice by the CITY to the apparent successful bidder stating that upon compliance by the apparent successful bidder with the conditions precedent enumerated therein within the time specified, the CITY would enter into a Contract.

Notice to Proceed - The written notice issued by the CITY to the CONTRACTOR authorizing the CONTRACTOR to proceed with the WORK and establishing the date of commencement of the Contract Time.

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LATHROP GENERATIONS CENTER PARKING LOT
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Owner – The Owner is the City of Lathrop located at 390 Towne Centre Drive, Lathrop, California 95330.

Partial Completion - Placing a portion of the WORK in service for the purpose for which it is intended (or a related purpose) before reaching Substantial Completion of the WORK.

Project - The total construction of which the WORK to be provided under the Construction Documents, may be the whole, or a part thereof.

Project Engineer – Who is the ENGINEER’S Agent, will act as directed by and under the supervision of the ENGINEER and will confer with the ENGINEER regarding its actions.

Project Manager - The authorized representative of the City who is assigned to manage the Project.

Shop Drawings - All drawings, diagrams, illustrations, schedules and other data which are specifically prepared by or for the CONTRACTOR and submitted by the CONTRACTOR to illustrate some portion of WORK and all illustrations, brochures, standard schedules, performance charts, instructions, and diagrams to illustrate material or equipment for some portion of the WORK.

Standard Plans - The latest edition of the Standard Plans of the State of California, Department of Transportation. Any reference therein to the State of California or a State agency, office or officer shall be interpreted to refer to the City of Lathrop or its corresponding agency, office or officer acting under this contract.

Standard Specifications - The latest edition of the Standard Specifications of the State of California, Department of Transportation. Any reference therein to the State of California or a State agency, office or officer shall be interpreted to refer to the City of Lathrop or its corresponding agency, office or officer acting under this contract. Only those specific sections of the Standard Specifications that are referenced shall be incorporated into the Construction Documents.

Subcontractor - An individual, firm, or corporation having a direct contract with the CONTRACTOR or with any other Subcontractor for the performance of a part of the WORK at the site.

Substantial Completion - Refers to when the WORK has progressed to the point where, in the opinion of the ENGINEER as evidenced by the Certificate of Substantial Completion/Notice of Completion as applicable, it is sufficiently complete, in accordance with the Construction Documents, so that the WORK can be utilized for the purposes for which it is intended; or if there be no such certificate issued, when final payment is due in accordance with Paragraph 14.8. The terms "substantially complete" and "substantially completed" as applied to any work refers to substantial completion thereof.

Supplementary General Conditions - The part of the Construction Documents, which make additions, deletions, or revisions to these General Conditions.

Supplier - A manufacturer, fabricator, supplier, distributor, material man, or vendor.

Technical Specifications - Those portions of the Construction Documents consisting of the General Requirements and Technical Requirements.

Underground Utilities - All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities which have been installed underground to furnish any of the following services or materials: water, sewage and drainage removal, electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, traffic, or other control systems.

WORK - The entire completed construction required to be furnished under the Construction Documents. WORK is the result of performing services, furnishing labor and furnishing and incorporating materials and equipment into the construction, all as required by the Construction Documents.

Working Day – Specific days for which a working day will be charged to the Project. Working Days include Monday through Friday (weekdays), with the exception of weekdays upon which a City Holiday falls.

ARTICLE 2 -- PRELIMINARY MATTERS

2.1 Delivery of Bonds/Insurance Certificates

- A. When the CONTRACTOR delivers the signed Contracts to the CITY, the CONTRACTOR shall also deliver to the CITY such Bonds and Insurance Policies and Certificates as the CONTRACTOR may be required to furnish in accordance with the Construction Documents.

2.2 Copies of Documents

- A. The CITY will send two (2) copies of the Contract to the Contractor for signature. After signing and returning both copies, the CITY shall furnish to the Contractor one (1) original copy of the executed Contract.

2.3 Commencement of Contract Time; Notice to Proceed

- A. The Contract Time will start to run on the commencement date stated in the Notice to Proceed.

2.4 Starting the Project

- A. The CONTRACTOR shall begin to perform the WORK within 10 working days after the commencement date stated in the Notice to Proceed, but no work shall be done at the site prior to said commencement date.
- B. Before undertaking each part of the WORK, the CONTRACTOR shall carefully study and compare the Construction Documents and check and verify pertinent figures shown

thereon and all applicable field measurements. The CONTRACTOR shall promptly report in writing to the CITY any conflict, error, or discrepancy which the CONTRACTOR may discover and shall obtain a written interpretation or clarification from the CITY/ENGINEER before proceeding with any work affected thereby.

- C. The CONTRACTOR shall submit to the CITY for review by the CITY/ ENGINEER those documents called for under Section entitled "Contractor Submittals" in the General Requirements.

2.5 Subcontract Limitations

- A. The CONTRACTOR shall perform not less than 50 percent of the Work with its own forces (i.e., without subcontracting). The 50 percent requirement shall be understood to refer to the Work, the value of which totals not less than 50 percent of the Contract Price.

2.6 Pre-Construction Conference

- A. A pre-construction conference attended by the CONTRACTOR, the CITY and others as appropriate will be held to discuss the WORK in accordance with the applicable procedures specified in the General Requirements. The CONTRACTOR shall submit the Project Schedule at this meeting.

2.7 Finalizing Schedules

- A. At least 7 days before submittal of the first Application for Payment a conference attended by the CONTRACTOR, the CITY, and others as appropriate will be held to finalize the schedules submitted in accordance with the General Requirements.

2.8 Hours of Work

- A. The CONTRACTOR shall schedule an 8-hour workday between the hours of 7:00 a.m. and 5:00 p.m. on Monday through Friday unless otherwise approved by the CITY or modified in the Supplementary General Conditions. No work requiring City inspection shall be allowed outside of normal working hours, or on weekends or holidays without written authorization of the CITY. Normal working hours are defined as being Monday through Friday, 7:00 a.m. to 5:00 p.m.

2.9 City Furnished Materials

- A. The CITY will not furnish any materials for this project. All materials required for the successful performance of this contract shall be furnished by the Contractor.

ARTICLE 3 -- CONSTRUCTION DOCUMENTS: INTENT, AMENDING, REUSE

3.1 Intent

- A. The Construction Documents comprise the entire contract between the CITY and the CONTRACTOR concerning the WORK. The Construction Documents are

complementary; what is called for by one is as binding as if called for by all. The Construction Documents will be construed in accordance with the law of the place of the State of California and local municipal codes and regulations.

- B. It is the intent of the Construction Documents to describe the WORK, functionally complete, to be constructed in accordance with the Construction Documents. Any work, materials, or equipment that may reasonably be inferred from the Construction Documents as being required to produce the intended result shall be supplied whether or not specifically called for. When words which have a well-known technical or trade meaning are used to describe work, materials, or equipment such words shall be interpreted in accordance with that meaning. Reference to standard specifications, manuals, or codes of any technical society, organization, or association, or to the Laws or Regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids, except as may be otherwise specifically stated. However, no provision of any referenced standard specification, manual, or code (whether or not specifically incorporated by reference in the Construction Documents) shall be effective to change the duties and responsibilities of the CITY, the CONTRACTOR, or the ENGINEER or any of their consultants, agents, or employees from those set forth in the Construction Documents.
- C. If, during the performance of the WORK, the CONTRACTOR finds a conflict, error, or discrepancy in the Construction Documents, the CONTRACTOR shall so report to the CITY in writing at once, and before proceeding with the work affected thereby, shall obtain a written interpretation, clarification, or correction from the ENGINEER.

3.2 Order of Precedence of Construction Documents

- A. In resolving conflicts resulting from conflicts, errors, or discrepancies in any of the Construction Documents, the order of precedence shall be as follows:
1. Change orders
 2. Contract
 3. Addenda
 4. CONTRACTOR'S Bid (Bid Form)
 5. Supplementary General Conditions
 6. Notice Inviting Bids
 7. Instructions to Bidders
 8. General Conditions
 9. Technical Specifications
 10. Referenced Standard Specifications
 - a. Caltrans 2018 Standard Specifications
 - b. Lathrop Design & Construction Standards
 11. Drawings
- B. With reference to the Drawings the order of precedence is as follows:

1. Figures govern over scaled dimensions
2. Detail drawings govern over general drawings
3. Addenda/change order drawings govern over Contract Drawings
4. Contract Drawings govern over standard drawings

3.3 Amending and Supplementing Construction Documents

- A. The Construction Documents may be amended to provide for additions, deletions, and revisions in the WORK or to modify the terms and conditions thereof by a Change Order (pursuant to Article 10).

3.4 Reuse of Documents

- A. Neither the CONTRACTOR, nor any Subcontractor or Supplier, nor any other person or organization performing any of the WORK under a contract with the CITY shall have or acquire any title to ownership rights in any of the Drawings, Technical Specifications, or other documents used on the WORK, and they shall not reuse any of them on the extensions of the Project or any other project without written consent.

3.5 Conflicts within Construction Documents

- A. Should the Construction Documents contain conflicts and/or contradictions, the more stringent shall apply at the CITY's discretion.

ARTICLE 4 -- AVAILABILITY OF LANDS; PHYSICAL CONDITIONS; REFERENCE POINTS

4.1 Availability of Lands

- A. The CITY shall furnish, as indicated in the Construction Documents, the lands upon which the WORK is to be performed, rights-of-way and easements for access thereto, and such other lands which are designated for the use of the CONTRACTOR. Easements for permanent structures or permanent changes in existing facilities will be obtained and paid for by the CITY, unless otherwise provided in the Construction Documents. Nothing contained in the Construction Documents shall be interpreted as giving the CONTRACTOR exclusive occupancy of the lands or rights-of-way provided. The CONTRACTOR shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment; provided, that the CONTRACTOR shall not enter upon nor use any property not under the control of the CITY until a written temporary construction easement agreement has been executed by the CONTRACTOR and the property owner, and a copy of said easement furnished to the CITY'S REPRESENTATIVE prior to said use; and, neither the CITY nor the ENGINEER shall be liable for any claims or damages resulting from the CONTRACTOR'S unauthorized trespass or use of any such properties.

4.2 Physical Conditions - Subsurface and Existing Structures

- A. Explorations and Reports: Reference is made to the Paragraph entitled "Physical Conditions" of the Supplementary General Conditions for identification of those reports of explorations and tests of sub-surface conditions at the site that have been utilized by the ENGINEER in the preparation of the Construction Documents. The CONTRACTOR may rely upon the accuracy of the technical data contained in such reports, however, the interpretation of such technical data, including any interpolation or extrapolation thereof, together with non-technical data, interpretations, and opinions contained in such reports or the completeness thereof is the responsibility of the CONTRACTOR.
- B. Existing Structures: Reference is made to the Paragraph entitled "Physical Conditions" of the Supplementary General Conditions for identification of those drawings of physical conditions in or relating to existing surface and subsurface structures (except Underground Utilities referred to in Paragraph 4.4 herein) which are at or contiguous to the site that have been utilized by the ENGINEER in the preparation of the Construction Documents. The CONTRACTOR may rely upon the accuracy of the technical data contained in such drawings, however, the interpretation of such technical data, including any interpolation or extrapolation thereof, together with non-technical data, interpretations, and opinions contained in such drawings or the completeness thereof is the responsibility of the CONTRACTOR.

4.3 Differing Site Conditions

- A. The CONTRACTOR shall notify the CITY'S REPRESENTATIVE in writing of the following unforeseen conditions, hereinafter called differing site conditions, promptly upon their discovery (but in no event later than 14 days from the discovery) and before they are disturbed:
1. Subsurface or latent physical conditions at the site of the WORK differing materially from those indicated, described, or delineated in the Construction Documents including those reports and documents discussed in Paragraph 4.2; and.
 2. Unknown physical conditions at the site of the WORK of an unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Construction Documents including those reports and documents discussed in Paragraph 4.3.
- B. The CITY'S REPRESENTATIVE will review the pertinent conditions and determine the necessity of obtaining additional explorations or tests with respect thereto.
- C. If the CITY'S REPRESENTATIVE concludes that because of newly discovered conditions a change in the Construction Documents is required, a Change Order will be

issued as provided in Article 10 to reflect and document the consequences of the difference.

- D. In each such case, an increase or decrease in the Contract Price or an extension or shortening of the Contract Time, or any combination thereof, will be allowable to the extent that they are attributable to any such difference. If the CITY and the CONTRACTOR are unable to agree as to the amount or length thereof, a claim may be made therefore as provided in Articles 11 and 12.
- E. The CONTRACTOR'S failure to give notice of differing site conditions within 14 days of their discovery or before they are disturbed shall constitute a waiver of all claims in connection therewith, whether direct or consequential in nature.

4.4 Physical Conditions – Underground Utilities

- A. Shown or Indicated: The information and data shown or indicated in the Construction Documents with respect to existing Underground Utilities at or contiguous to the site are based on information and data furnished to the ENGINEER by the CITY, Underground Utility Companies or by others. Unless it is expressly provided in the Supplementary Conditions and/or the Section entitled "Protection and Restoration of Existing Facilities" of the General Requirements, the CITY and the ENGINEER shall not be responsible for the accuracy or completeness of any such information or data, and the CONTRACTOR shall have full responsibility for reviewing and checking all such information and data, for locating all Underground Utilities shown or indicated in the Construction Documents, for coordination of the WORK with Underground Utility Companies during construction, for the safety and protection thereof and repairing any damage thereto resulting from the WORK, the cost of which will be considered as having been included in the Contract Price.
- B. Not Shown or Indicated: If an Underground Utility is uncovered or revealed at or contiguous to the site which was not shown or indicated in the Construction Documents and which the CONTRACTOR could not reasonably have been expected to be aware of, the CONTRACTOR shall identify to the CITY'S REPRESENTATIVE of such Underground Utility and give written notice thereof in accordance with the requirements of the Supplementary General Conditions and Section entitled "Protection and Restoration of Existing Facilities" of the General Requirements.

4.5 Reference Points

- A. The CITY will provide one bench mark, near or on the site of the WORK, and will provide two points near or on the site to establish a base line for use by the CONTRACTOR for alignment control. Unless otherwise specified in the General Requirements, the CONTRACTOR shall furnish all other lines, grades, and bench marks required for proper execution of the WORK.
- B. The CONTRACTOR shall preserve all bench marks, stakes, and other survey marks, and in case of their removal or destruction by its own employees or by its

subcontractor's employees, the CONTRACTOR shall be responsible for the accurate replacement of such reference points by professionally qualified personnel.

4.6 **Asbestos, Hazardous Waste, or Toxic or Radioactive Materials**

- A. If the CONTRACTOR observes, uncovers, or otherwise becomes aware of any asbestos, hazardous waste, or toxic or radioactive material at the site to which the CONTRACTOR or any Subcontractor, Supplier, or other person may be exposed, the CONTRACTOR shall immediately notify the CITY'S REPRESENTATIVE and thereafter confirm any oral notice in writing. The CITY'S REPRESENTATIVE shall promptly consult with the ENGINEER and the CONTRACTOR concerning such condition and determine the necessity of CITY'S retaining special consultants or qualified experts to deal therewith. The CONTRACTOR shall not perform any work in connection therewith prior to receipt of special written instructions from the CITY'S REPRESENTATIVE.

ARTICLE 5 -- BONDS AND INSURANCE

5.1 **Performance and Other Bonds**

- A. The CONTRACTOR shall furnish satisfactory Performance Bond in the amount of 100 percent of the Contract Price and Payment Bond in the amount of 50 percent of the Contract Price as security for the faithful performance and payment of all the CONTRACTOR'S obligations under the Construction Documents. The Performance Bond shall remain in effect at least until one year after the date of Substantial Completion/Notice of Completion as applicable, except as otherwise provided by Law or Regulation or by the Construction Documents; provided, that the amount of said Performance Bond may be reduced to 10 percent of the Contract Price, or \$1,000, whichever is greater. The CONTRACTOR shall also furnish such other Bonds as may be required by the Supplementary General Conditions.
- B. If the surety on any Bond furnished by the CONTRACTOR is declared a bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the WORK is located, the CONTRACTOR shall within 7 days thereafter substitute another Bond and Surety, which must be acceptable to the CITY.

5.2 **Insurance**

- A. The CONTRACTOR shall purchase and maintain the insurance required under this paragraph. Such insurance shall include the specific coverages set out herein and be written for not less than the limits of liability and coverages provided in the Construction Documents, or required by law, whichever are greater. All insurance shall be maintained continuously during the life of the Contract up to the date of Substantial Completion/Notice of Completion as applicable, pursuant to acceptance of the WORK by the CITY'S governing body, but the CONTRACTOR'S liabilities under this Contract shall not be deemed limited in any way to the insurance coverage required. The minimum

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insurance requirements shall be as follows unless modified in the Supplementary General Conditions:

<u>Coverage for Which Insurance is Afforded</u>	<u>Limits of Liability</u>
Worker's Compensation & Employer's Liability	\$1,000,000
General Liability except automobile	\$2,000,000.00 per occurrence
	\$4,000,000.00 general aggregate
	\$2,000,000.00 products / completed operations aggregate
Bodily Injury Liability Automobile	\$2,000,000.00 combined single limit

1. The liability policy shall include Commercial, Comprehensive General Liability and Umbrella Liability coverage providing coverage for Premises and Operations, Products and Completed Operations, Blanket Contractual Liability, Broad Form Property Damage and Personal and Advertising Injury, hazards of explosion, collapse and underground liability; the liability policy shall contain no exclusion for "XCU hazards." The coverage shall be provided on an "occurrence" basis. AUTOS shall include all auto exposure whether owned or non-owned, hired, returned or leased.
2. If the work performed involves the use of mechanical equipment for the purpose of grading of land, excavating, paving or drilling, the policy shall include coverage for liability of the insured for injury to or destruction of wires, conduits, pipes, mains, sewers, or other similar property, or any apparatus in connection therewith, below surface of the ground, whether owned by third parties or the CITY.
3. The policy includes a "Severability of Interest" provision and Cross Liability coverage.

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4. If such policies are canceled or changed during the period of coverage as stated herein in such a manner as to affect this Certificate, thirty (30) days' written notice shall be mailed to the said City of Lathrop.
 5. The Contractor shall purchase and maintain the insurance required under this paragraph. Such insurance shall include the specific coverage set out herein and be written for not less than the limits of liability and coverage provided in the General Conditions, or required by law, whichever are greater. All insurance shall be maintained continuously during the life of the Contract up to the date of acceptance by the City and at all times thereafter when the CONTRACTOR may be correcting, removing, or replacing defective work in accordance with Paragraph 13.6 but the Contractor's liabilities under this contract shall not be deemed limited in any way to the insurance coverage required.
 6. Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A: VII
 7. All insurance provided by CONTRACTOR under this Agreement shall be primary to any insurance available to CITY. All insurance provided under this Agreement shall not prohibit CONTRACTOR from waiving the right of subrogation prior to a loss. CONTRACTOR hereby waives all rights of subrogation against the CITY
 8. The coverage afforded under the above policies is subject to all the terms of the policies designated herein and meets all the provisions called for in Paragraph 5.2B
- B. The CONTRACTOR shall furnish the CITY with original endorsements at least as broad as CG 20 26 11 85 or its equivalent showing the type, amount, class of operations covered, effective dates and dates of expiration of policies. All of the policies of insurance so required to be purchased and maintained (or the certificates or other evidence thereof) shall contain a provision or endorsement that the coverage afforded will not be canceled, materially changed, or renewal refused until at least 30 days' prior written notice has been given to the CITY and each additional insured by certified mail. All such insurance shall remain in effect until the date the City accepts the work as complete and at all times thereafter when the CONTRACTOR may be correcting, removing, or replacing defective work in accordance with Paragraph 13.6. In addition, the insurance required herein (except for Worker's Compensation and Employer's Liability) shall name the City of Lathrop, its officials, officers, employees, agents and volunteers as "additional insured's" under the policies.
1. Workers' Compensation and Employer's Liability: This insurance shall protect the CONTRACTOR against all claims under applicable state workers' compensation laws. The CONTRACTOR shall also be protected against claims for injury, disease, or death of employees, which, for any

reason, may not fall within the provisions of a workers' compensation law. This policy shall include an "all states" endorsement. The CONTRACTOR shall require each subcontractor similarly to provide Workers' Compensation Insurance for all of the latter's employees to be engaged in such work unless such employees are covered by the protection afforded by the CONTRACTOR'S Workers' Compensation Insurance. In case any class of employees is not protected, under the Workers' Compensation Statute, the CONTRACTOR shall provide and shall cause each subcontractor to provide adequate employer's liability insurance for the protection of such of its employees as are not otherwise protected.

2. Comprehensive General Liability: This insurance shall be written in comprehensive form and shall protect the CONTRACTOR against all claims arising from injuries to persons other than its employees or damage to property of the CITY or others arising out of any act or omission of the CONTRACTOR or its agents, employees, or subcontractors. The policy shall also include protection against claims insured by usual personal injury liability coverage, a "protective liability" endorsement to insure the contractual liability assumed by the CONTRACTOR under the indemnification provisions in the General Conditions. To the extent that the CONTRACTOR'S work, or work under its direction, may require blasting, explosive conditions, or underground operations, the comprehensive general liability coverage shall contain no exclusion relative to blasting, explosion, collapse of buildings, or damage to underground structures.
3. Comprehensive Automobile Liability: This insurance shall be written in comprehensive form and shall protect the CONTRACTOR against all claims for injuries to members of the public and damage to property of others arising from the use of motor vehicles, and shall cover operation on or off the site of all motor vehicles licensed for highway use, whether they are owned, non-owned, or hired.
4. Subcontractor's Public Liability and Property Damage Insurance and Vehicle Liability Insurance: The CONTRACTOR shall either require each of its subcontractors to procure and to maintain Subcontractor's Public Liability and Property Damage Insurance and Vehicle Liability Insurance of the type and in the amounts specified in the Supplementary General Conditions or insure the activities of its subcontractors in the CONTRACTOR'S own policy, in like amount.

ARTICLE 6 -- CONTRACTOR'S RESPONSIBILITIES

6.1 Supervision and Superintendence

- A. The CONTRACTOR shall supervise and direct the WORK competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the WORK in accordance with the Construction Documents. The

CONTRACTOR shall be responsible for the means, methods, techniques, sequences, and procedures of construction and safety precautions and programs incidental thereto. The CONTRACTOR shall be responsible to see that the finished WORK complies accurately with the Construction Documents.

- B. The CONTRACTOR shall designate in writing and keep on the work site at all times during its progress a technically qualified, English-speaking superintendent, who shall not be replaced without written notice to the CITY. The superintendent will be the CONTRACTOR'S representative at the site and shall have authority to act on behalf of the CONTRACTOR. All communications given to the superintendent shall be as binding as if given to the CONTRACTOR. The CONTRACTOR shall issue all its communications to the CITY'S REPRESENTATIVE.
- C. The CONTRACTOR'S supervisor or superintendent shall be present at the site of the WORK at all times while work is in progress. Failure to observe this requirement shall be considered as suspension of the WORK by the CONTRACTOR until such time as such supervisor or superintendent is again present at the site.

6.2 Labor, Materials, and Equipment

- A. The CONTRACTOR shall provide competent, suitably qualified personnel to survey and lay out the WORK and perform construction as required by the Construction Documents. The CONTRACTOR shall furnish, erect, maintain, and remove the construction plant and any temporary works as may be required. The CONTRACTOR shall at all times maintain good discipline and order at the site. Except in connection with the safety or protection of persons or the WORK or property at the site or adjacent thereto, and except as otherwise indicated in the Construction Documents, all work at the site shall be performed during regular working hours, and the CONTRACTOR will not permit overtime work or the performance of work on Saturday, Sunday, or any legal State, Federal or CITY holiday without the written consent of the CITY'S REPRESENTATIVE.
- B. Except as otherwise provided in this Paragraph, the CONTRACTOR shall receive no additional compensation for overtime work, i.e., work in excess of 8 hours in any one calendar day or 40 hours in any one calendar week, even though such overtime work may be required under emergency conditions and may be ordered by the CITY'S REPRESENTATIVE in writing. Additional compensation will be paid the CONTRACTOR for overtime work only in the event the CITY'S REPRESENTATIVE orders extra work and the change order specifically authorizes the use of overtime work and then only to such extent as overtime wages are regularly being paid by the CONTRACTOR for overtime work of a similar nature in the same locality.
- C. All costs of inspection and testing performed during overtime work or on Saturday, Sunday, or any legal holiday by the CONTRACTOR, which is allowed solely for the convenience of the CONTRACTOR, shall be borne by the CONTRACTOR. The CITY shall have the authority to deduct the cost of all such inspection and testing from any partial payments otherwise due to the CONTRACTOR.

- D. Unless otherwise specified in the Construction Documents, the CONTRACTOR shall furnish and assume full responsibility for all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, and all other facilities and incidentals necessary for the furnishing, performance, testing, start-up, and completion of the WORK.
- E. All materials and equipment to be incorporated into the WORK shall be of good quality and new, except as otherwise provided in the Construction Documents. All Suppliers' warranties and guarantees specifically called for by the Specifications shall expressly run to the benefit of the CITY. If required by the CITY'S REPRESENTATIVE, the CONTRACTOR shall furnish satisfactory evidence (including reports of required tests) as to the kind and quality of materials and equipment. All materials and equipment shall be applied, installed, connected, erected, used, cleaned, and conditioned in accordance with the instructions of the applicable Supplier except as otherwise provided in the Construction Documents; but no provisions of any such instructions will be effective to assign to the CITY, or any of the CITY's consultants, agents, or employees, any duty or authority to supervise or direct the furnishing or performance of the WORK or any duty or authority to undertake responsibility contrary to the provisions of Paragraphs 9.9C and 9.9D.

6.3 **Adjusting Progress Schedule**

- A. The CONTRACTOR shall submit any adjustments in the progress schedule to the CITY'S REPRESENTATIVE for acceptance in accordance with the provisions for "Contractor Submittals" in the General Requirements.

6.4 **Substitutes or "Or-Equal" Items**

- A. The CONTRACTOR shall submit proposed substitutes or "or-equal" items in accordance with the provisions for "Contractor Submittals" in the General Requirements.

6.5 **Concerning Subcontractors, Suppliers, and Others**

- A. The CONTRACTOR shall be responsible to the CITY and the ENGINEER for the acts and omissions of its subcontractors and their employees regardless of tier to the same extent as CONTRACTOR is responsible to the CITY and the ENGINEER for the acts and omissions of its own employees. Nothing contained in this Paragraph shall create any contractual relationship between any subcontractor and the CITY or the ENGINEER nor relieve the CONTRACTOR of any liability or obligation under the prime Contract.

6.6 **Permits**

- A. Unless otherwise provided in the Supplementary Conditions, the CONTRACTOR shall obtain and pay for all construction permits and licenses from the agencies having jurisdiction, including the furnishing of insurance and bonds if required by such agencies. The enforcement of such requirements under this Contract shall not be made the basis for claims for additional compensation. The CITY shall assist the CONTRACTOR, when necessary, in obtaining such permits and licenses. The CONTRACTOR shall pay

all governmental charges and inspection fees necessary for the prosecution of the WORK, which are applicable at the time of opening of Bids. The CONTRACTOR shall pay all utility charges for connections to the WORK.

- B. The CONTRACTOR shall pay all license fees and royalties and assume all costs incident to the use in the performance of the WORK or the incorporation in the WORK of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Construction Documents for use in the performance of the WORK and if to the actual knowledge of the CITY or the ENGINEER its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by the CITY in the Construction Documents. The CONTRACTOR shall indemnify, defend and hold harmless the CITY and the ENGINEER and anyone directly or indirectly employed by either of them from and against all claims, damages, losses, and expenses (including attorneys' fees and court costs) arising out of any infringement of patent rights or copyrights incident to the use in the performance of the WORK or resulting from the incorporation in the WORK of any invention, design, process, product, or device not specified in the Construction Documents, and shall defend all such claims in connection with any alleged infringement of such rights.

6.7 **Laws and Regulations**

- A. The CONTRACTOR shall observe and comply with all federal, state, and local laws, ordinances, codes, orders, and regulations which in any manner affect those engaged or employed on the WORK, the materials used in the WORK, or the conduct of the WORK. If any discrepancy or inconsistency should be discovered in this Contract in relation to any such law, ordinance, code, order, or regulation, the CONTRACTOR shall report the same in writing to the CITY'S REPRESENTATIVE. The CONTRACTOR shall indemnify, defend, and hold harmless the CITY, the ENGINEER, and their officers, agents, and employees against all claims or liability arising from violation of any such law, ordinance, code, order, or regulation, whether by CONTRACTOR or by its employees or subcontractors. Any particular law or regulation specified or referred to elsewhere in the Construction Documents shall not in any way limit the obligation of the CONTRACTOR to comply with all other provisions of federal, state, and local laws and regulations. Where an individual State acts on occupational safety and health standards has been approved by Federal authority, then the provisions of said State act shall control.

6.8 **Taxes**

- A. The CONTRACTOR shall pay all sales, consumer, use, and other similar taxes required to be paid by the CONTRACTOR in accordance with the Laws and Regulations of the place of the Project, which are applicable during the performance of the WORK.

6.9 Use of Premises

- A. The CONTRACTOR shall confine construction equipment, the storage of materials and equipment, and the operations of workers to (1) the Project site, (2) the land and areas identified in and permitted by the Construction Documents, and (3) the other land and areas permitted by Laws and Regulations, rights-of-way, permits, and easements. The CONTRACTOR shall assume full responsibility for any damage to any such land or area, or to the CITY or occupant thereof or of any land or areas contiguous thereto, resulting from the performance of the WORK. Should any claim be made against the CITY or the ENGINEER by any such owner or occupant because of the performance of the WORK, the CONTRACTOR shall promptly attempt to settle with such other party by contract or otherwise resolve the claim through litigation. The CONTRACTOR shall, to the fullest extent permitted by Laws and Regulations, indemnify, defend, and hold the CITY and the ENGINEER harmless from and against all claims, damages, losses, and expenses (including, but not limited to, fees of engineers, architects, attorneys, and other professionals and court costs) arising directly, indirectly, or consequentially out of any action, legal or equitable, brought by any such other party against the CITY or the ENGINEER to the extent based on a claim arising out of the CONTRACTOR'S performance of the work.

6.10 Safety and Protection

- A. The CONTRACTOR shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the WORK. The CONTRACTOR shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:
1. All employees on the WORK and other persons and organizations who may be affected thereby;
 2. All the WORK and materials and equipment to be incorporated therein, whether in storage on or off the site; and
 3. Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction.
- B. The CONTRACTOR shall comply with all applicable Laws and Regulations (whether referred to herein or not) of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury, or loss and shall erect and maintain all necessary safeguards for such safety and protection. The CONTRACTOR shall notify CITY'S REPRESENTATIVE of adjacent property and utilities when prosecution of the WORK may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.
- C. The CONTRACTOR shall designate a responsible representative at the site whose duty shall be the prevention of accidents. This person shall be the CONTRACTOR'S

superintendent unless otherwise designated in writing by the CONTRACTOR to the CITY'S REPRESENTATIVE.

6.11 Shop Drawings and Samples

- A. After checking and verifying all field measurements and after complying with applicable procedures specified in the General Requirements, the CONTRACTOR shall submit to the CITY'S REPRESENTATIVE for review all shop drawings in accordance with the accepted schedule of Shop Drawings submittals specified in the General Requirements.
- B. The CONTRACTOR shall also submit to the CITY'S REPRESENTATIVE for review all samples in accordance with the accepted schedule of Sample submittals specified in the General Requirements.
- C. Before submittal of each shop drawing or sample, the CONTRACTOR shall have determined and verified all quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers, and similar data with respect thereto and reviewed or coordinated each shop drawing or sample with other shop drawings and samples and with the requirements of the WORK and the Construction Documents.

6.12 Continuing the Work

- A. The CONTRACTOR shall carry on the WORK and adhere to the progress schedule during all disputes or disagreements with the CITY. No work shall be delayed or postponed pending resolution of any disputes or disagreements, except as the CONTRACTOR and the CITY may otherwise agree in writing.

6.13 Liquidated Damages

- A. If the Contractor fails to complete the Work within the time specified for Substantial Completion in the Contract, then the Contractor does hereby agree, as a part consideration for the awarding of this Contract, to pay to the City, as liquidated damages and not as a penalty, the sum of \$1,000.00 per day for each calendar day beyond the dates set forth in the Agreement that the Contractor fails to achieve Substantial Completion for the Project. The said amount is fixed and agreed on by and between the Contractor and the City because of the impracticability and extreme difficulty of fixing and ascertaining the true value of the damages which the City will sustain by failure of the Contractor to complete the Work on time, including damages, some of which are indefinite, said amount is agreed to be a reasonable estimate of the amount of damages which the City will sustain and said amount shall be deducted from any monies due or that may become due to the Contractor, and if said monies are insufficient to cover said damages, then the Contractor shall pay the amount of the difference.

6.14 Indemnification

- A. To the fullest extent permitted by Laws and Regulations, the CONTRACTOR shall indemnify, defend, and hold harmless the CITY, the ENGINEER, and their officers, directors, agents, and employees, against and from all claims and liability arising under, by reason of or incidentally to the Contract or any performance of the WORK, but not from the sole negligence or willful misconduct of the CITY and/or the ENGINEER. Such indemnification by the CONTRACTOR shall include but not be limited to the following:
1. Liability or claims resulting directly or indirectly from the negligence or carelessness of the CONTRACTOR, its employees, or agents in the performance of the WORK, or in guarding or maintaining the same, or from any improper materials, implements, or appliances used in its construction, or by or on account of any act or omission of the CONTRACTOR, its employees, or agents;
 2. Liability or claims arising directly or indirectly from bodily injury, occupational sickness or disease, or death of the CONTRACTOR'S or Subcontractor's own employees engaged in the WORK resulting in actions brought by or on behalf of such employees against the CITY and/or the ENGINEER;
 3. Liability or claims arising directly or indirectly from or based on the violation of any law, ordinance, regulation, order, or decree, whether by the CONTRACTOR, its employees, or agents;
 4. Liability or claims arising directly or indirectly from the use or manufacture by the CONTRACTOR, its employees, or agents in the performance of this Contract of any copyrighted or uncopyrighted composition, secret process, patented or unpatented invention, article, or appliance, unless otherwise specifically stipulated in this Contract;
 5. Liability or claims arising directly or indirectly from the breach of any warranties, whether express or implied, made to the CITY or any other parties by the CONTRACTOR, its employees, or agents;
 6. Liabilities or claims arising directly or indirectly from the willful misconduct of the CONTRACTOR, its employees, or agents; and,
 7. Liabilities or claims arising directly or indirectly from any breach of the obligations assumed herein by the CONTRACTOR.
- B. The CONTRACTOR shall reimburse the CITY for all costs and expenses, (including but not limited to fees and charges of engineers, architects, attorneys, and other professionals and court costs) incurred by said CITY in enforcing the provisions of this Paragraph 6.13.
- C. The indemnification obligation under this Paragraph 6.13 shall not be limited in any way by any limitation of the amount or type of damages, compensation, or benefits payable

by or for the CONTRACTOR or any such subcontractor or other person or organization under workers' compensation acts, disability benefit acts, or other employee benefit acts.

6.15 Contractor's Daily Reports

- A. The CONTRACTOR shall complete a daily report indicating manpower, major equipment, subcontractors, weather conditions, etc., involved in the performance of the WORK. The daily report shall be completed on forms prepared by the CONTRACTOR and acceptable to the CITY, and shall be submitted to the CITY'S REPRESENTATIVE at the conclusion of each workday.

6.16 Assignment of Contract

- A. The CONTRACTOR shall not assign, sublet, sell, transfer, or otherwise dispose of the Contract or any portion thereof, or its right, title, or interest therein, or obligations thereunder, without the written consent of the CITY except as imposed by law. If the CONTRACTOR violates this provision, the Contract may be terminated at the option of the CITY. In such event, the CITY shall be relieved of all liability and obligations to the CONTRACTOR and to its assignee or transferee, growing out of such termination.

ARTICLE 7 -- OTHER WORK

7.1 Related Work at Site

- A. The CITY may perform other work related to the Project at the site by the CITY'S own forces, have other work performed by utility companies, or let other direct contracts therefore which may contain General Conditions similar to these. If the fact that such other work is to be performed was not noted in the Construction Documents, written notice thereof will be given to the CONTRACTOR prior to starting any such other work.
- B. The CONTRACTOR shall afford each utility company and other contractors who are a party to such a direct contract (or the CITY, if the CITY is performing the additional work with the CITY'S employees) proper and safe access to the site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such work, and shall properly connect and coordinate the WORK with theirs. The CONTRACTOR shall do all cutting, fitting, and patching of the WORK that may be required to make its several parts come together properly and integrate with such other work. The CONTRACTOR shall not endanger any work of others by cutting, excavating, or otherwise altering their work and will only cut or alter their work with the written consent of the CITY and the others whose work will be affected.
- C. If any part of the CONTRACTOR'S work depends for proper execution or results upon the work of any such other contractor or utility company (or CITY), the CONTRACTOR shall inspect and report to the CITY'S REPRESENTATIVE in writing any delays, defects, or deficiencies in such work that render it unavailable or unsuitable for such proper execution and results. The CONTRACTOR'S failure to report such delays, defects, or deficiencies will constitute an acceptance of the other work as fit and proper

for integration with the CONTRACTOR'S work except for latent or non-apparent defects and deficiencies in the other work.

7.2 Coordination

- A. If the CITY contracts with others for the performance of other work on the Project at the site, the person or organization who will have authority and responsibility for coordination of the activities among the various prime contractors will be identified in the Supplementary Conditions, and the specific matters to be covered by such authority and responsibility will be itemized and the extent of such authority and responsibilities will be provided in the Supplementary Conditions. Unless otherwise provided in the Supplementary Conditions, neither the CITY nor the ENGINEER shall have any authority or responsibility in respect of such coordination.

ARTICLE 8 -- CITY'S RESPONSIBILITIES

8.1 Communications

- A. The CITY shall issue all its communications to the CONTRACTOR through the CITY'S REPRESENTATIVE.

8.2 Payments

- A. The CITY shall make payments to the CONTRACTOR as provided in Paragraphs 14.5 and 14.8.

8.3 Lands, Easements, And Surveys

- A. The CITY'S duties in respect of providing lands and easements and providing engineering surveys to establish reference points are set forth in Paragraphs 4.1. The CITY shall identify and make available to the CONTRACTOR copies of reports of explorations and tests of subsurface conditions at the site and in existing structures, which have been utilized by the ENGINEER in preparing the Drawings and Technical Specifications.

8.4 Change Orders

- A. The CITY shall execute Change Orders as indicated in Paragraph 10.1D.

8.5 Inspections and Tests

- A. The CITY'S responsibility in respect of certain inspections, tests, and approvals is set forth in Paragraph 13.3B.

8.6 Suspension of Work

- A. In connection with the CITY'S right to stop work or suspend work, see Paragraphs 13.4 and 15.1. Paragraphs 15.2 and 15.3 deal with the CITY'S right to terminate services of the CONTRACTOR under certain circumstances.

ARTICLE 9 – CITY'S REPRESENTATIVE/ENGINEER'S STATUS DURING CONSTRUCTION**9.1 City's Representative**

- A. The CITY'S REPRESENTATIVE is the person, firm or corporation assigned to be the CITY'S representative during the construction period as set forth in the Supplementary Conditions. The duties and responsibilities and the limitations of authority of the CITY'S REPRESENTATIVE during construction are set forth in the Supplementary Conditions.

9.2 Visits to Site

- A. The CITY'S REPRESENTATIVE and/or the ENGINEER may make visits to the site during construction to observe the progress and quality of the WORK and to determine, in general, if the WORK is proceeding in accordance with the Construction Documents. The CITY'S REPRESENTATIVE and/or the ENGINEER is not required to make exhaustive or continuous on-site inspections to check the quality or quantity of the WORK. The CITY'S REPRESENTATIVE and/or the ENGINEER shall not, during such visits or as a result of such observations of the CONTRACTOR'S work in progress, supervise, direct, or have control over the CONTRACTOR'S work.

9.3 Project Engineer

- A. The ENGINEER may furnish a Project Engineer to assist in observing the performance of the WORK. The Project Engineer is the ENGINEER'S agent.

9.4 Clarifications and Interpretations

- A. The ENGINEER, through the CITY'S REPRESENTATIVE, will issue with reasonable promptness such written clarifications or interpretations of the requirements of the Construction Documents (in the form of Drawings or otherwise) as the ENGINEER may determine necessary, which shall be consistent with or reasonably inferable from the overall intent of the Construction Documents.

9.5 Authorized Variations in Work

- A. The CITY'S REPRESENTATIVE and/or the ENGINEER may authorize minor variations in the WORK from the requirements of the Construction Documents, which do not involve an adjustment in the Contract Price or the Contract Time and are consistent with the overall intent of the Construction Documents. These may be accomplished by a Field Order issued through the CITY'S REPRESENTATIVE and will require the

CONTRACTOR to perform the work involved promptly. If the CONTRACTOR believes that a Field Order justifies an increase in the Contract Price or an extension of the Contract Time and the parties are unable to agree as to the amount or extent thereof, the CONTRACTOR may make a claim therefore as provided in Article 11 or 12.

9.6 **Rejecting Defective Work**

- A. The CITY'S REPRESENTATIVE has authority to reject work, which the CITY'S REPRESENTATIVE and/or ENGINEER believes to be defective, and also has authority to require special inspection or testing of the WORK as provided in Paragraph 13.3G, whether or not the WORK is fabricated, installed, or completed.

9.7 **Contractor Submittals, Change Orders, and Payments**

- A. In accordance with the procedures set forth in the General Requirements, the CITY'S REPRESENTATIVE and/or the ENGINEER will review all CONTRACTOR submittals, including shop drawings, samples, substitutes, or "or equal" items, etc., in order to determine if the items covered by the submittals will, after installation or incorporation in the WORK, conform to the requirements of the Construction Documents and be compatible with the design concept of the completed project as a functioning whole as indicated by the Construction Documents. The CITY'S and the ENGINEER'S review shall not extend to means, methods, techniques, sequences or procedures of construction or to safety precautions or programs incident thereto.
- B. In connection with the ENGINEER'S responsibilities as to Change Orders, see Articles 10, 11, and 12.
- C. In connection with the ENGINEER'S responsibilities in respect of Applications for Payment, see Article 14.

9.8 **Decisions on Disputes**

- A. The CITY'S REPRESENTATIVE will be the initial interpreter of the requirements of the Construction Documents and judge of the acceptability of the WORK there under. Claims, disputes, and other matters relating to the acceptability of the WORK; the interpretation of the requirements of the Construction Documents pertaining to the performance of the WORK; and those claims under Articles 11 and 12 in respect to changes in the Contract Price or Contract Time will be referred initially to the CITY'S REPRESENTATIVE in writing with a request for formal decision in accordance with this paragraph, which the CITY will render in writing within 30 days of receipt of the request. Written notice of each such claim, dispute, and other matter will be delivered by the CONTRACTOR to the CITY'S REPRESENTATIVE promptly but in no event later than 30 days after the occurrence of the event giving rise thereto. Written supporting data will be submitted to the CITY'S REPRESENTATIVE within 30 days after such occurrence unless the CITY allows an additional period of time to ascertain more accurate data in support of the claim.

- B. When functioning as arbiter and judge, the ENGINEER shall not show partiality to the CITY or the CONTRACTOR and shall not be liable in connection with any interpretation or decision rendered in good faith in such capacity. The rendering of a decision by the ENGINEER with respect to any such claim, dispute, or other matter (except any which have been waived by the making or acceptance of final payment as provided in Paragraph 14.12) will be a condition precedent to any exercise by the CITY or the CONTRACTOR of such rights or remedies as either may otherwise have under the Construction Documents or by Law or Regulations in respect of any such claim, dispute, or other matter.
- C. All contracts between the Contractor and his subcontractors and suppliers regardless of tier shall include a provision that subcontractors and suppliers shall be bound to the Contractor to the same extent that the Contractor is bound to the CITY by all terms and provisions of the Contract, including this arbitration provision.

9.9 Limitation on Engineer's Responsibilities

- A. Neither the ENGINEER'S authority to act under this Article 9 or other provisions of the Construction Documents nor any decision made by the ENGINEER in good faith whether to exercise such authority shall give rise to any duty or responsibility of the ENGINEER to the CONTRACTOR, any Subcontractor, any Supplier, any surety for any of them, or any other person or organization performing any of the WORK.
- B. Whenever in the Construction Documents the terms "as ordered," "as directed," "as required," "as allowed," "as reviewed," "as approved," or terms of like effect or import are used, or the adjectives "reasonable," "suitable," "acceptable," "proper," or "satisfactory" or adjectives of like effect or import are used to describe a requirement, direction, review, or judgment of the ENGINEER and CITY as to the WORK, it is intended that such requirement, direction, review, or judgment will be solely to evaluate the WORK for compliance with the requirements of the Construction Documents, and conformance with the design concept of the completed Project as a functioning whole as indicated by the Construction Documents, unless there is a specific statement indicating otherwise. The use of any such term or adjective shall not be effective to assign to the ENGINEER and the CITY any duty or authority to supervise or direct the performance of the WORK or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.9C or 9.9D.
- C. The ENGINEER and the CITY will not have authority over or be responsible for the CONTRACTOR'S means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of the CONTRACTOR to comply with Laws and Regulations, applicable to the performance of the WORK. The ENGINEER and CITY will not be responsible for the CONTRACTOR'S failure to perform the WORK in accordance with the Construction Documents.

- D. The ENGINEER and CITY will not be responsible for the acts or omissions of the CONTRACTOR nor of any subcontractor, supplier, or any other person or organization performing any of the WORK.

ARTICLE 10 -- CHANGES IN THE WORK

10.1 General

- A. Without invalidating the Contract and without notice to any surety, the CITY may at any time or from time to time, order additions, deletions, or revisions in the WORK; these will be authorized by a written Field Order and/or a Change Order issued by the CITY based on recommendations by the Engineer. Upon receipt of any such document, the CONTRACTOR shall promptly proceed with the work involved, which will be performed under the applicable conditions of the Construction Documents.
- B. If the CITY and the CONTRACTOR are unable to agree as to the extent, if any, of an increase or decrease in the Contract Price or an extension or shortening of the Contract Time that should be allowed as a result of a Field Order, a claim may be made therefore as provided in Articles 11 or 12.
- C. The CONTRACTOR shall not be entitled to an increase in the Contract Price nor an extension of the Contract Time with respect to any work performed that is not required by the Construction Documents as amended, modified, supplemented by Change Order, except in the case of an emergency and except in the case of uncovering work as provided in Paragraph 13.3G.
- D. The CITY and the CONTRACTOR shall execute appropriate Change Orders covering:
1. Changes in the WORK, which are ordered/recommended by the ENGINEER and agreed to by CITY pursuant to Paragraph 10.1A;
 2. Changes required because of acceptance of defective work under Paragraph 13.7;
 3. Changes in the Contract Price or Contract Time which are agreed to by the parties;
or
 4. Any other changes agreed to by the parties.
- E. If notice of any change is required by the provisions of any Bond to be given to a surety, the giving of any such notice will be the CONTRACTOR'S responsibility, and the amount of each applicable Bond shall be adjusted accordingly.

10.2 Allowable Quantity Variations

- A. In the event of an increase or decrease in bid item quantity of a unit price contract, the total amount of work actually done or materials or equipment furnished shall be paid for according to the unit price established for such work under the Construction Documents,

wherever such unit price has been established; provided, that an adjustment in the Contract Price may be made for changes which result in an increase or decrease in the quantity of any unit price bid item of the WORK in excess of 25 percent.

- B. In the event a part of the WORK is to be entirely eliminated and no lump sum or unit price is named in the Construction Documents to cover such eliminated work, the price of the eliminated work shall be agreed upon in writing by the CITY and the CONTRACTOR. If the CITY and the CONTRACTOR fail to agree upon the price of the eliminated work, said price shall be determined in accordance with the provisions of Article 11.

ARTICLE 11 -- CHANGE OF CONTRACT PRICE

11.1 General

- A. The Contract Price constitutes the total compensation payable to the CONTRACTOR for performing the WORK. All duties, responsibilities, and obligations assigned to or undertaken by the CONTRACTOR shall be at its expense without change in the Contract Price.
- B. The Contract Price shall only be changed by a Change Order. Any claim for an increase in the Contract Price shall be based on written notice delivered by the CONTRACTOR to the CITY promptly (but in no event later than 30 days) after the occurrence of the event giving rise to the claim and stating the general nature of the claim. Notice of the amount of the claim with supporting data shall be delivered within 60 days after such occurrence (unless the CITY allows an additional period of time to ascertain more accurate data in support of the claim) and shall be accompanied by the CONTRACTOR'S written statement that the amount claimed covers all known amounts (direct, indirect, and consequential) to which the CONTRACTOR is entitled as a result of the occurrence of said event. All claims for adjustment in the Contract Price shall be determined by the CITY in accordance with Paragraph 9.8A if the CITY and the CONTRACTOR cannot otherwise agree on the amount involved. No claim for an adjustment in the Contract Price will be valid if not submitted in accordance with this Paragraph 11.1B.
- C. The value of any work covered by a Change Order or of any claim for an increase or decrease in the Contract Price shall be determined in one of the following ways:
1. Where the work involved is covered by unit prices contained in the Construction Documents, by application of unit prices to the quantities of the items involved.
 2. By mutual acceptance of a lump sum, which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.4.
 3. On the basis of the cost of work (determined as provided in Paragraphs 11.2 and 11.3) plus a CONTRACTOR'S fee for overhead and profit (determined as provided in Paragraph 11.4).

11.2 Cost of Work (Based On Time and Materials)

- A. General: The CONTRACTOR shall provide an approximate value of any extra work to be performed prior to starting the extra work. The sum of all costs necessarily incurred and paid by the CONTRACTOR for labor, materials, and equipment in the proper performance of extra work. Except as otherwise may be agreed to in writing by the CITY, the cost of work shall be in amounts no higher than those prevailing in the locality of the Project. Whenever any extra work is in progress, for which the definite price has not been agreed on in advance, the CONTRACTOR shall each day, report to the CITY the amount and cost of the labor and material used, and any other expense incurred in such extra work on the preceding day, and no claim for compensation for such extra work will be allowed unless such report shall have been made.
- B. Labor: The cost of labor used in performing extra work by the CONTRACTOR, a subcontractor, or other forces will be the sum of the following:
1. The actual wages paid plus any employer payments to, or on behalf of workers for fringe benefits including health and welfare, pension, vacation, and similar purposes. The cost of labor may include the wages paid to foremen when determined by the CITY that the services of foremen do not constitute a part of the overhead allowance.
 2. All payment imposed by state and federal laws including, but not limited to, compensation insurance, and social security payments.
 3. The amount paid for subsistence and travel required by collective bargaining agreements, or in accordance with the regular practice of the employer.

At the beginning of the extra work and as later requested by the CITY, the CONTRACTOR shall furnish the CITY proof of labor compensation rates being paid.

- C. Materials: The cost of materials used in performing extra work will be the cost to the purchaser, whether CONTRACTOR or subcontractor, from the supplier thereof, except as the following are applicable:
1. Trade discounts available to the purchaser shall be credited to the CITY notwithstanding the fact that such discounts may not have been taken by the CONTRACTOR.
 2. For materials secured by other than a direct purchase and direct billing to the purchaser, the cost shall be deemed to be the price paid to the actual supplier as determined by the CITY'S REPRESENTATIVE. Markup except for actual costs incurred in the handling of such materials will not be allowed.
 3. Payment for materials from sources owned wholly or in part by the purchaser shall not exceed the price paid by the purchaser for similar materials from said sources

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on extra work items or the current wholesale price for such materials delivered to the work site, whichever price is lower.

4. If in the opinion of the CITY'S REPRESENTATIVE the cost of material is excessive, or the CONTRACTOR does not furnish satisfactory evidence of the cost of such material, then the cost shall be deemed to be the lowest current wholesale price for the quantity concerned delivered to the work site less trade discount. The CITY reserves the right to furnish materials for the extra work and no claim shall be made by the CONTRACTOR for costs and profit on such materials.
- D. Equipment: The CONTRACTOR will be paid for the use of equipment at the rental rate listed for such equipment specified in the "Labor Surcharge and Equipment Rental Rates" as published by the Department of Transportation. Such rental rate will be used to compute payments for equipment whether the equipment is under the CONTRACTOR'S control, through direct City control, leasing, renting, or another method of acquisition. The rental rate to be applied for use of each item of equipment shall be the rate resulting in the least total cost to the CITY for the total period of use. If it is deemed necessary by the CONTRACTOR to use equipment not listed in the publication specified in the Supplementary General Conditions, an equitable rental rate for the equipment will be established by the CITY'S REPRESENTATIVE. The CONTRACTOR may furnish cost data, which might assist the CITY'S REPRESENTATIVE in the establishment of the rental rate.
1. All equipment shall, in the opinion of the CITY'S REPRESENTATIVE, be in good working condition and suitable for the purpose for which the equipment is to be used.
 2. Before construction equipment is used on the extra work, the CONTRACTOR shall plainly stencil or stamp an identifying number thereon at a conspicuous location, and shall furnish to the CITY'S REPRESENTATIVE, in duplicate, a description of the equipment and its identifying number.
 3. Unless otherwise specified, manufacturer's ratings and manufacturer-approved modifications shall be used to classify equipment for the determination of applicable rental rates. Equipment, which has no direct power unit, shall be powered by a unit of at least the minimum rating recommended by the manufacturer.
 4. Individual pieces of equipment or tools having a replacement value of \$100 or less, whether or not consumed by use, shall be considered to be small tools and no payment will be made therefore.
 5. Rental time will not be allowed while equipment is inoperative due to breakdowns.
- E. Equipment on the Work Site: The rental time to be paid for equipment on the work site shall be the time the equipment is in productive operation on the extra work being performed and, in addition, shall include the time required to move the equipment to the

location of the extra work and return it to the original location or to another location requiring no more time than that required to return it to its original location; except, that moving time will not be paid if the equipment is used on other than the extra work, even though located at the site of the extra work. Loading and transporting costs will be allowed, in lieu of moving time, when the equipment is moved by means other than its own power, except that no payment will be made for loading and transporting costs when the equipment is used at the site of the extra work on other than the extra work. The following shall be used in computing the rental time of equipment on the work site.

1. When hourly rates are listed, any part of an hour less than 30 minutes of operation shall be considered to be 1/2-hour of operation, and any part of an hour in excess of 30 minutes will be considered one hour of operation.
2. When daily rates are listed, any part of a day less than 4 hours operation shall be considered to be 1/2-day of operation. When CITY-operated equipment is used to perform extra work to be paid for on a time and materials basis, the CONTRACTOR will be paid for the equipment and operator, as set forth in Paragraphs (3), (4), and (5), following.
3. Payment for the equipment will be made in accordance with the provisions in Paragraph 11.2D, herein.
4. Payment for the cost of labor and subsistence or travel allowance will be made at the rates paid by the CONTRACTOR to other workers operating similar equipment already on the work site, or in the absence of such labor, established by collective bargaining agreements for the type of workmen and location of the extra work, whether or not the operator is actually covered by such an agreement. A labor surcharge will be added to the cost of labor described herein in accordance with the provisions of Paragraph 11.2B, herein, which surcharge shall constitute full compensation for payments imposed by state and federal laws and all other payments made to or on behalf of workers other than actual wages.
5. To the direct cost of equipment rental and labor, computed as provided herein, will be added the allowances for equipment rental and labor as provided in Paragraph 11.4, herein.

11.3 Special Services

- A. Special work or services are defined as that work characterized by extraordinary complexity, sophistication, or innovation or a combination of the foregoing attributes which are unique to the construction industry. The following may be considered by the CITY'S REPRESENTATIVE in making estimates for payment for special services:
 1. When the CITY'S REPRESENTATIVE and the CONTRACTOR, by agreement, determine that a special service or work is required which cannot be performed by the forces of the CONTRACTOR or those of any of its subcontractors, the special service or work may be performed by an entity especially skilled in the work to be

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performed. After validation of invoices and determination of market values by the CITY'S REPRESENTATIVE, invoices for special services or work based upon the current fair market value thereof may be accepted without complete itemization of labor, material, and equipment rental costs.

- 2. When the CONTRACTOR is required to perform work necessitating special fabrication or machining process in a fabrication or a machine shop facility away from the job site, the charges for that portion of the work performed at the off-site facility may, by agreement, be accepted as a special service and accordingly, the invoices for the work may be accepted without detailed itemization.
- 3. All invoices for special services will be adjusted by deducting all trade discounts offered or available, whether the discounts were taken or not. In lieu of the allowances for overhead and profit specified in Paragraph 11.4, herein, an allowance of 5 percent will be added to invoices for special services.

B. All work performed hereunder shall be subject to all of the provisions of the Construction Documents and the CONTRACTOR'S sureties shall be bound with reference thereto as under the original Contract. Copies of all amendments to surety bonds or supplemental surety bonds shall be submitted to the CITY'S REPRESENTATIVE for review prior to the performance of any work hereunder.

11.4 Contractor's Fee

A. Extra work ordered on the basis of time and materials will be paid for at the actual necessary cost as determined by the CITY'S REPRESENTATIVE, plus allowances for overhead and profit. For extra work involving a combination of increases and decreases in the WORK the actual necessary cost will be the arithmetic sum of the additive and deductive costs. The allowance for overhead and profit shall include full compensation for superintendence, bond and insurance premiums, taxes, office expense, and all other items of expense or cost not included in the cost of labor, materials, or equipment provided for under Paragraphs 11.2B, C, and D, herein including extended overhead and home office overhead. The allowance for overhead and profit will be made in accordance with the following schedule:

<u>Actual Necessary Cost</u>	<u>Overhead and Profit Allowance</u>
Labor.....	15 percent
Materials.....	10 percent
Equipment.....	10 percent
Subcontractor.....	5 percent

B. It is understood that labor, materials, and equipment may be furnished by the CONTRACTOR or by the subcontractor on behalf of the CONTRACTOR. When all or any part of the extra work is performed by a subcontractor, the allowance specified herein shall be applied to the labor, materials, and equipment costs of the subcontractor, to which the CONTRACTOR may add 5 percent of the subcontractor's total cost for the extra work. Regardless of the number of hierarchical tiers of subcontractors, the 5 percent increase above the subcontractor's total cost which includes the allowances for overhead

and profit specified herein may be applied one time only for each separate work transaction.

ARTICLE 12 -- CHANGE OF CONTRACT TIME

12.1 General

- A. The Contract Time may only be changed by a Change Order. Any claim for an extension of the Contract Time shall be based on written notice delivered by the CONTRACTOR to the CITY'S REPRESENTATIVE promptly (but in no event later than 30 days) after the occurrence of the event giving rise to the claim and stating the general nature of the claim. Notice of the extent of the claim with supporting data shall be delivered within 60 days after such occurrence (unless the CITY'S REPRESENTATIVE allows an additional period of time to ascertain more accurate data in support of the claim) and shall be accompanied by the CONTRACTOR'S written statement that the adjustment claimed is the entire adjustment to which the CONTRACTOR has reason to believe it is entitled as a result of the occurrence of said event. All claims for adjustment in the Contract Time shall be determined by the CITY'S REPRESENTATIVE in accordance with Paragraph 9.8 if the CITY and the CONTRACTOR cannot otherwise agree. No claim for an adjustment in the Contract Time will be valid if not submitted in accordance with the requirements of this Paragraph 12.1A.
- B. The Contract Time will be extended in an amount equal to time lost due to delays beyond the control of the CONTRACTOR provided that such time lost affects the critical path as shown on the CPM schedule if a claim is made therefore as provided in Paragraph 12.1A. Such delays shall include: acts or neglect by the CITY or others performing additional work as contemplated by Article 7, or by acts of God or of the public enemy, fire, floods, epidemics, quarantine restrictions, strikes, labor disputes, sabotage or freight embargoes.
- C. All time limits stated in the Construction Documents are of the essence of the Contract.

12.2 Extensions of Time for Delay Due to Inclement Weather

- A. Inclement weather is any weather condition or conditions resulting immediately there from, causing the CONTRACTOR to suspend construction operations or preventing the CONTRACTOR from proceeding with at least 75 percent of the normal labor and equipment force engaged on the work.
- B. Should the CONTRACTOR prepare to begin work at the regular starting time at the beginning of any regular work shift on any day on which inclement weather, or the conditions resulting from the weather, or the condition of the WORK prevents work from beginning at the usual starting time and the crew is dismissed as a result thereof, the CONTRACTOR will not be charged for a working day whether or not conditions change thereafter during said day and the major portion of the day could be considered to be suitable for such construction operations.

- C. The CONTRACTOR shall base its construction schedule upon the inclusion of the number of days of inclement weather specified in paragraph entitled "Inclement weather delays" of the Supplementary Conditions. No extension of the Contract Time due to inclement weather will be considered until after the said number of days of inclement weather has been reached. However, no reduction in Contract Time will be made if said number of days of inclement weather is not reached.

ARTICLE 13 -- WARRANTY AND GUARANTEE; TESTS AND INSPECTIONS; CORRECTION, REMOVAL, OR ACCEPTANCE OF DEFECTIVE WORK

13.1 Warranty and Guarantee

- A. The CONTRACTOR warrants and guarantees to the CITY and the ENGINEER that all work will be in accordance with the Construction Documents and will not be defective. Prompt notice of defects known to the CITY and ENGINEER shall be given to the CONTRACTOR. All defective work, whether or not in place, may be rejected, corrected, or accepted as provided in this Article 13.

13.2 Access to Work

- A. The CITY'S REPRESENTATIVE, ENGINEER, other representatives of the CITY, testing agencies, and governmental agencies with jurisdictional interests shall have access to the WORK at reasonable times for their observation, inspections, and testing. The CONTRACTOR shall provide proper and safe conditions for such access.

13.3 Tests and Inspections

- A. The CONTRACTOR shall give the CITY'S REPRESENTATIVE timely notice of readiness of the WORK for all required inspections, tests, or approvals.
- B. If Laws or Regulations of the CITY, or any public body having jurisdiction other than the CITY, require any work to specifically be inspected, tested, or approved, the CONTRACTOR shall pay all costs in connection therewith. The CONTRACTOR shall be responsible for and shall pay all costs in connection with testing the work for compliance with the Construction Documents unless stated otherwise in the Supplementary General Conditions. The CONTRACTOR shall also be responsible for and shall pay all costs in connection with any inspection or testing required in connection with the CITY'S or the ENGINEER'S acceptance of a Supplier of materials or equipment proposed as a substitution or (or-equal) to be incorporated in the WORK, or of materials or equipment submitted for review prior to the CONTRACTOR'S purchase thereof for incorporation in the WORK.
- C. The CITY'S REPRESENTATIVE will make, or have made, such inspections and tests as the CITY'S REPRESENTATIVE deems necessary to see that the WORK is being accomplished in accordance with the requirements of the Construction Documents. Unless otherwise specified in the Supplementary General Conditions, the cost of such inspection and testing will be borne by the CITY. In the event such inspections or tests

reveal non-compliance with the requirements of the Construction Documents, the CONTRACTOR shall bear the cost of corrective measures deemed necessary by the CITY'S REPRESENTATIVE, as well as the cost of subsequent re-inspection and retesting. Neither observations by the CITY'S REPRESENTATIVE nor inspections, tests, or approvals by others shall relieve the CONTRACTOR from the CONTRACTOR'S obligation to perform the WORK in accordance with the Construction Documents.

- D. All inspections, tests, or approvals other than those required by Laws or Regulations of any public body having jurisdiction shall be performed by organizations acceptable to the CITY'S REPRESENTATIVE.
- E. If any work (including the work of others) that is to be inspected, tested, or approved is covered without written concurrence of the CITY'S REPRESENTATIVE, it must, if requested by the CITY'S REPRESENTATIVE, be uncovered for observation. Such uncovering shall be at the CONTRACTOR'S expense unless the CONTRACTOR has given the CITY'S REPRESENTATIVE timely notice of the CONTRACTOR'S intention to perform such test or to cover the same and the CITY'S REPRESENTATIVE has not acted with reasonable promptness in response to such notice.
- F. If any work is covered contrary to the written request of the CITY'S REPRESENTATIVE, it must, if requested by the CITY'S REPRESENTATIVE, be uncovered for the CITY'S REPRESENTATIVE observation and replaced at the CONTRACTOR'S expense.
- G. If the CITY'S REPRESENTATIVE considers it necessary or advisable that covered work be observed by the CITY'S REPRESENTATIVE or inspected or tested by others, the CONTRACTOR, at the CITY'S REPRESENTATIVE request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as the CITY'S REPRESENTATIVE may require, that portion of the WORK in question, furnishing all necessary labor, material, and equipment. If it is found that such work is defective, the CONTRACTOR shall bear all direct, indirect, and consequential costs and damages of such uncovering, exposure, observation, inspection, and testing and of satisfactory reconstruction, including but not limited to fees and charges of engineers, architects, attorneys, and other professionals. However, if such work is not found to be defective, the CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, and reconstruction; and, if the parties are unable to agree as to the amount or extent thereof, the CONTRACTOR may make a claim therefore as provided in Articles 11 and 12.

13.4 **City May Stop the Work**

- A. If the WORK is defective, or the CONTRACTOR fails to perform work in such a way that the completed WORK will conform to the Construction Documents, the CITY'S REPRESENTATIVE may order the CONTRACTOR to stop the WORK, or any portion thereof, until the cause for such order has been eliminated; however, this right of the

CITY to stop the WORK shall not give rise to any duty on the part of the CITY to exercise this right for the benefit of the CONTRACTOR or any other party.

13.5 Correction or Removal of Defective Work

- A. If required by the CITY'S REPRESENTATIVE, the CONTRACTOR should promptly, either correct all defective work, whether or not fabricated, installed, or completed, or, if the WORK has been rejected by the CITY'S REPRESENTATIVE, remove it from the site and replace it with non-defective work. The CONTRACTOR shall bear all direct, indirect and consequential costs and damages of such correction or removal, including but not limited to fees and charges of engineers, architects, attorneys, and other professionals made necessary thereby.

13.6 One Year Correction Period

- A. If within one year after the date of Substantial Completion/Notice of Completion or such longer period of time as may be prescribed by Laws or Regulations or by the terms of any applicable special guarantee required by the Construction Documents or by any specific provision of the Construction Documents, any work is found to be defective in the CITY'S sole and absolute discretion, the CONTRACTOR shall promptly, without cost to the CITY and in accordance with CITY'S written notification, either correct such defective work, or, if it has been rejected by the CITY, remove it from the site and replace it with non-defective work. If the CONTRACTOR does not promptly comply with the such notification, or in an emergency where delay would cause serious risk of loss or damage, the CITY'S REPRESENTATIVE may have the defective work corrected or the rejected work removed and replaced, and all direct, indirect, and consequential costs and damages of such removal and replacement including but not limited to fees and charges of engineers, architects, attorneys and other professionals will be paid by the CONTRACTOR.

13.7 Acceptance of Defective Work

- A. The City may accept any work performed defectively. Any such acceptance of defective work shall not waive the City's right to enforce a one-year correction period listed above in Section 13.6(A) unless such a waiver is expressly included in the written acceptance of defective work by the City and the City receives an agreed upon decrease in the contract price in exchange for the release of the above referenced one-year warranty on any defective work accepted.
- B. If, instead of requiring correction or removal and replacement of defective work, the CITY prefers to accept the work, the CITY may do so. The CONTRACTOR shall bear all direct, indirect, and consequential costs attributable to the CITY'S REPRESENTATIVE evaluation of and determination to accept such defective work. If any such acceptance occurs prior to final payment, a Change Order will be issued incorporating the necessary revisions in the Construction Documents with respect to the WORK, and the CITY shall be entitled to an appropriate decrease in the Contract Price.

ARTICLE 14 -- PAYMENTS TO CONTRACTOR AND COMPLETION**14.1 Schedule of Values (Lump Sum Price Breakdown)**

- A. The CONTRACTOR shall provide a Schedule of Values (lump sum price breakdown) for all "Lump Sum" items of work. The Schedule of Values shall serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to the CITY'S REPRESENTATIVE.

14.2 Unit Price Bid Schedule

- A. Progress payments on account of Unit Price work will be based on the number of units completed.

14.3 Application for Progress Payment

- A. Unless otherwise prescribed by law, on the 25th of each month, the CONTRACTOR shall submit to the CITY'S REPRESENTATIVE for review, an Application for Payment filled out and signed by the CONTRACTOR covering the WORK completed as of the date of the Application and accompanied by such supporting documentation as is required by the Construction Documents.
- B. The Application for Payment shall identify, as a sub-total, the amount of the CONTRACTOR'S total earnings to date, plus the value of materials stored at the site which have not yet been incorporated in the WORK, and less a deductive adjustment for materials installed which were not previously incorporated in the WORK, but for which payment was allowed under the provisions for payment for materials stored at the site, but not yet incorporated in the WORK.
- C. The net payment due to the CONTRACTOR shall be the above-mentioned subtotal from which shall be deducted the amount of retainage specified below and the total amount of all previous payments made to the CONTRACTOR.
 - 1. The CITY may retain 5 percent of each approved progress payment until the work is completed and accepted and release of retainage and other deduction as described in Section 14.10. occurs.
- D. The value of materials stored at the site shall be an amount equal to the specified percent of the value of such materials as set forth in the Supplementary Conditions. Said amount shall be based upon the value of all acceptable materials and equipment not incorporated in the WORK but delivered and suitably stored at the site or at another location agreed to in writing; provided, each such individual item has a value of more than \$5000 and will become a permanent part of the WORK. The Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that the CONTRACTOR has received the materials and equipment free and clear of all liens, charges, security interests, and encumbrances (which are hereinafter in these General Conditions referred to as "Liens") and evidence that the materials and equipment are

covered by appropriate property insurance and other arrangements to protect the CITY'S interest therein, all of which will be satisfactory to the CITY.

14.4 Contractor's Warranty of Title

- A. The CONTRACTOR warrants and guarantees that title to all work, materials, and equipment covered by an Application for Payment, whether incorporated in the WORK or not, will pass to the CITY no later than the time of final payment free and clear of all liens.

14.5 Review of Applications for Progress Payment

- A. The CITY'S REPRESENTATIVE will, within 7 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment or return the Application to the CONTRACTOR indicating in writing the CITY's reasons for refusing to recommend payment. In the latter case, the CONTRACTOR may make the necessary corrections and resubmit the Application. Thirty days after presentation of the Application for Payment with the CITY recommendation, the amount recommended will (subject to the provisions of Paragraph 14.5B) become due and when due will be paid by the CITY to the CONTRACTOR.
- B. The CITY may refuse to make payment of the full amount requested by the CONTRACTOR because claims have been made against the CITY on account of the CONTRACTOR'S performance of the WORK or Liens have been filed in connection with the WORK or there are other items entitling the CITY to a credit against the amount recommended, but the CITY will give the CONTRACTOR written notice within 7 days stating the reasons for such action.

14.6 Partial Completion

- A. The CITY shall have the right to utilize or place into service any item of equipment or other usable portion of the WORK prior to completion of the WORK. Whenever the CITY plans to exercise said right, the CONTRACTOR will be notified in writing by the CITY, identifying the specific portion or portions of the WORK to be so utilized or otherwise placed into service.
- B. It shall be understood by the CONTRACTOR that until such written notification is issued, all responsibility for care and maintenance of all items or portions of the WORK to be partially utilized shall be borne by the CONTRACTOR. Upon issuance of said written notice of partial completion, the CITY will accept responsibility for the protection and maintenance of all such items or portions of the WORK described in the written notice.
- C. The CONTRACTOR shall retain full responsibility for satisfactory completion of the WORK, regardless of whether a portion thereof has been partially utilized by the CITY and the CONTRACTOR'S one year correction period shall commence only after the date of Substantial Completion/Notice of Completion for the WORK.

14.7 Substantial Completion

- A. When the CONTRACTOR considers the WORK ready for its intended use the CONTRACTOR shall notify the CITY and the ENGINEER in writing that the WORK is substantially complete and request that the CITY'S REPRESENTATIVE prepare a Certificate of Substantial Completion/Notice of Completion. Within a reasonable time thereafter, the CONTRACTOR and the CITY'S REPRESENTATIVE shall make an inspection of the WORK to determine the status of completion. If the CITY'S REPRESENTATIVE does not consider the WORK substantially complete, the CITY'S REPRESENTATIVE will notify the CONTRACTOR in writing giving the reasons therefore. If the CITY'S REPRESENTATIVE considers the WORK substantially complete, the CITY'S REPRESENTATIVE will prepare for execution and recordation the Certificate of Substantial Completion/Notice of Completion signed by the CITY and CONTRACTOR, which shall fix the date of Substantial Completion/Notice of Completion. As applicable, there shall be attached to the Certificate/Notice a list of items to be completed or corrected before final payment.

14.8 Final Application for Payment

- A. After the CONTRACTOR has completed all correction work referred to in Paragraph 14.7 and delivered all maintenance and operating instructions, schedules, guarantees, Bonds, certificates of inspection, marked-up record documents (as provided in the General Requirements) and other documents, all as required by the Construction Documents, and after the ENGINEER has indicated that the WORK is acceptable, the CONTRACTOR may make application for final payment following the procedure for progress payments. The final Application for Payment shall be accompanied by all documentation called for in the Construction Documents, together with complete and legally effective releases or waivers (satisfactory to the CITY) of all liens arising out of or filed in connection with the WORK.

14.9 Final Payment and Acceptance

- A. If, on the basis of the CITY'S REPRESENTATIVE'S observation of the WORK during construction and final inspection, and the CITY'S REPRESENTATIVE'S review of the final Application for Payment and accompanying documentation, all as required by the Construction Documents, the CITY'S REPRESENTATIVE is satisfied that the WORK has been completed and the CONTRACTOR'S other obligations under the Construction Documents have been fulfilled, the CITY'S REPRESENTATIVE will, within 14 days after receipt of the final Application for Payment, indicate in writing the CITY'S REPRESENTATIVE'S recommendation of payment and present the Application to the CITY for payment.
- B. After acceptance of the WORK by the CITY'S governing body, the CITY will make final payment to the CONTRACTOR of the amount remaining after deducting all prior payments and all amounts to be kept or retained under the provisions of the Construction Documents, including the following items:

1. Liquidated damages, as applicable.
2. Two times the value of outstanding items of correction work or punch list items indicated on the Certificate of Substantial Completion/Notice of Completion as being yet uncompleted or uncorrected, as applicable. All such work shall be completed or corrected to the satisfaction of the CITY within the time stated on the Certificate of Substantial Completion/Notice of Completion; otherwise the CONTRACTOR does hereby waive any and all claims to all monies withheld by the CITY to cover the value of all such uncompleted or uncorrected items.

14.10 **Release of Retainage and Other Deductions**

- A. After executing the necessary documents to initiate the lien period, and not more than 45 days thereafter (based on a 30-day lien filing period and 15-day processing time), the CITY will release to the CONTRACTOR the retainage funds withheld pursuant to the Contract, less any deductions to cover pending claims against the CITY pursuant to Paragraph 14.5B.
- B. After filing of the necessary documents to initiate the lien period, the CONTRACTOR shall have 30 days to complete any outstanding items of correction work remaining to be completed or corrected as listed on a final punch list made a part of the Certificate of Substantial Completion/Notice of Completion. Upon expiration of the 45 days, referred to in Paragraph 14.10A, the amounts withheld pursuant to the provisions of Paragraph 14.9B herein, for all remaining work items will be returned to the CONTRACTOR; provided, that said work has been completed or corrected to the satisfaction of the CITY within said 30 days. Otherwise, the CONTRACTOR does hereby waive any and all claims for all monies withheld by the CITY under the Contract to cover 2 times the value of such remaining uncompleted or uncorrected items.

14.11 **Contractor's Continuing Obligation**

- A. The CONTRACTOR'S obligation to perform and complete the WORK in accordance with the Construction Documents shall be absolute. Neither recommendation of any progress or final payment by the CITY, nor the issuance of a Certificate of Substantial Completion/Notice of Completion, nor any payment by the CITY to the CONTRACTOR under the Construction Documents, nor any use or occupancy of the WORK or any part thereof by the CITY, nor any act of acceptance by the CITY nor any failure to do so, nor any review of a Shop Drawing or sample submittal, will constitute an acceptance of work not in accordance with the Construction Documents or a release of the CONTRACTOR'S obligation to perform the WORK in accordance with the Construction Documents.

14.12 **Final Payment Terminates Liability of City**

- A. Final payment is defined as the last progress payment made to the CONTRACTOR for earned funds, less retainage as applicable, less deductions listed in Paragraph 14.9B herein. The acceptance by the CONTRACTOR of the final payment referred to in Paragraph 14.9 herein, shall be a release of the CITY and its agents from all claims of

liability to the CONTRACTOR for anything done or furnished for, or relating to, the WORK or for any act or neglect of the CITY or of any person relating to or affecting the WORK, except demands against the CITY for the remainder, if any, of the amounts kept or retained under the provisions of Paragraph 14.9 herein; and excepting pending, unresolved claims filed prior to the date of the Certificate of Substantial Completion/Notice of Completion.

ARTICLE 15 -- SUSPENSION OF WORK AND TERMINATION

15.1 Suspension of Work by City

- A. The CITY, may, at any time and without cause, suspend the WORK or any portion thereof for a period of not more than 90 days by notice in writing to the CONTRACTOR. The CONTRACTOR shall resume the WORK on receipt from the CITY'S REPRESENTATIVE of a notice of resumption of work. The CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to any suspension if the CONTRACTOR makes an approved claim therefore as provided in Articles 11 and 12.

15.2 Termination of Contract by City (Contractor Default)

- A. In the event of default by the CONTRACTOR, the CITY may give 10 days' written notice to the CONTRACTOR of CITY'S intent to terminate the Contract and provide the CONTRACTOR an opportunity to remedy the conditions constituting the default. It shall be considered a default by the CONTRACTOR whenever CONTRACTOR shall: (1) declare bankruptcy, become insolvent, or assign its assets for the benefit of its creditors; (2) fail to provide materials or workmanship meeting the requirements of the Construction Documents; (3) disregard or violate provisions of the Construction Documents or CITY'S REPRESENTATIVE'S instructions; (4) fail to prosecute the WORK according to the approved progress schedule; or, (5) fail to provide a qualified superintendent, competent workmen, or materials or equipment meeting the requirements of the Construction Documents. If the CONTRACTOR fails to remedy the conditions constituting default within the time allowed, the CITY may then issue the Notice of Termination.
- B. In the event the Contract is terminated in accordance with Paragraph 15.2A, herein, the CITY may take possession of the WORK and may complete the WORK by whatever method or means the CITY may select. The cost of completing the WORK shall be deducted from the balance which would have been due the CONTRACTOR had the Contract not been terminated and the WORK completed in accordance with the Construction Documents. If such cost exceeds the balance, which would have been due, the CONTRACTOR shall pay the excess amount to the CITY. If such cost is less than the balance, which would have been due, the CONTRACTOR shall not have claim to the difference.

15.3 Termination of Contract by City (For Convenience)

- A. The CITY may terminate the Contract at any time if it is found that reasons beyond the control of either the CITY or CONTRACTOR make it impossible or against the CITY'S interests to complete the WORK. In such a case, the CONTRACTOR shall have no claims against the CITY except: (1) for the value of work performed up to the date the Contract is terminated; and, (2) for the cost of materials and equipment on hand, in transit, or on definite commitment, as of the date the Contract is terminated, which would be needed in the WORK and which meet the requirements of the Construction Documents. The value of work performed and the cost of materials and equipment delivered to the site, as mentioned above, shall be determined by the CITY'S REPRESENTATIVE in accordance with the procedure prescribed for the making of the final application for payment and payment under Paragraphs 14.8 and 14.9.

15.4 Termination of Contract by Contractor

- A. The CONTRACTOR may terminate the Contract upon 10 days written notice to the CITY, whenever: (1) the WORK has been suspended under the provisions of Paragraph 15.1, herein, for more than 90 consecutive days through no fault or negligence of the CONTRACTOR, and notice to resume work or to terminate the Contract has not been received from the CITY within this time period; or, (2) the CITY should fail to pay the CONTRACTOR any monies due him in accordance with the terms of the Construction Documents and within 60 days after presentation to the CITY by the CONTRACTOR of a request therefore, unless within said 10-day period the CITY shall have remedied the condition upon which the payment delay was based. In the event of such termination, the CONTRACTOR shall have no claims against the CITY except for those claims specifically enumerated in Paragraph 15.3, herein, and as determined in accordance with the requirements of said paragraph.

ARTICLE 16 -- MISCELLANEOUS**16.1 Giving Notice**

- A. Whenever any provision of the Construction Documents requires the giving of written notice, it will be deemed to have been validly given if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

16.2 Title to Materials Found On the Work

- A. The CITY reserves the right to retain title to all soils, stone, sand, gravel, and other materials developed and obtained from excavations and other operations connected with the WORK. Unless otherwise specified in the Construction Documents, neither the CONTRACTOR nor any subcontractor shall have any right, title, or interest in or to any

such materials. The CONTRACTOR will be permitted to use in the WORK, without charge, any such materials, which meet the requirements of the Construction Documents.

16.3 **Right to Audit**

- A. If the CONTRACTOR submits a claim to the CITY for additional compensation, the CITY shall have the right, as a condition to considering the claim, and as a basis for evaluation of the claim, and until the claim has been settled, to audit the CONTRACTOR'S books to the extent they are relevant. This right shall include the right to examine books, records, documents, and other evidence and accounting procedures and practices, sufficient to discover and verify all direct and indirect costs of whatever nature claimed to have been incurred or anticipated to be incurred and for which the claim has been submitted. The right to audit shall include the right to inspect the CONTRACTOR'S plants, or such parts thereof, as may be or have been engaged in the performance of the WORK. The CONTRACTOR further agrees that the right to audit encompasses all subcontracts and is binding upon subcontractors. The rights to examine and inspect herein provided for shall be exercisable through such representatives as the CITY deems desirable during the CONTRACTOR'S normal business hours at the office of the CONTRACTOR.

The CONTRACTOR shall make available to the CITY for auditing, all relevant accounting records and documents, and other financial data, and upon request, shall submit true copies of requested records to the CITY.

(END OF SECTION)

SUPPLEMENTARY CONDITIONS**SC-1 GENERAL**

These Supplementary Conditions make additions, deletions, or revisions to the General Conditions as indicated herein. All provisions which are not so added, deleted, or revised remain in full force and effect. Terms used in these Supplementary General Conditions which are defined in the General Conditions have the meanings assigned to them in the General Conditions.

SC-2 DUTIES, RESPONSIBILITIES AND LIMITATIONS OF AUTHORITY OF CITY'S REPRESENTATIVE

Senior Construction Manager, Ken Reed, shall be the designated CITY'S REPRESENTATIVE for the Project. The CITY'S REPRESENTATIVE shall act as directed by and under the supervision of the CITY and will confer with the CITY regarding its actions. The CITY'S REPRESENTATIVE'S dealings in matters pertaining to the on-site WORK shall, in general, be only with the ENGINEER, and the CONTRACTOR, and dealings with subcontractors shall only be through or with the full knowledge of the CONTRACTOR. Written communication by the CONTRACTOR with the CITY will be only through or as directed by the CITY'S REPRESENTATIVE.

SC-3 COORDINATION WITH OTHER CONTRACTORS**A. Coordination**

Due to the nature of the work and its effects on other contracts and/or contractors in this project, the Contractor shall coordinate all work with the Engineer, other Contractors and utility companies.

(END OF SECTION)

SECTION 01010

**SECTION 01010
SUMMARY OF WORK**

PART 1 – GENERAL

1.1 THE REQUIREMENT

- A. The WORK to be performed under this Contract shall consist of furnishing parts, tools, equipment, materials, supplies and manufactured articles, and furnishing all labor, transportation and services, including fuel, power, water and essential communications, and performing all work or other operations required for the fulfillment of the Contract in strict accordance with the Contract Documents. The WORK shall be design/build and require that all work, materials and services not expressly indicated or called for in the Contract Documents, which may be necessary for the complete and proper construction of the WORK in good faith shall be provided.
- B. The WORK will conform to the City of Lathrop Design & Construction Standards, Caltrans 2018 Standard Plans and Standard Specifications, as well as to the City of Lathrop Municipal/City Code. The most stringent will govern.

1.2 WORK COVERED BY CONTRACT DOCUMENTS

- A. The WORK of this Contract comprises the construction of the Lathrop Generations Parking Lot Project as listed in the Bid Item List, in Lathrop, CA as defined in the Contract Documents.

The WORK for the Generations Center Parking Lot shall include but not limited to the following major work items and requirements:

- 1. The work shall include grading, construction of curb & gutter, storm drain, parking lot, removal and replacement of sidewalk with accessible curb ramps and installation of parking lot signage and striping shown in the construction documents;
 - 2. General Requirements listed in Division 01 of this Specifications;
 - 3. Technical Requirements listed in Division 02 of this Specifications;
 - 4. All work on this project will be coordinated with the City's Engineering, Public Works staff;
 - 5. Provide training for the City and facility operation personnel;
 - 6. Provide O&M manuals for equipment.
- B. The WORK includes obtaining any permits related or required by the Contract.

1.3 WORK BY OTHERS

- A. Where two (2) or more Contracts are being performed at one time on the same Site or adjacent land in such manner that work under one (1) Contract may interfere with work under another, the sequence and order of the WORK in either or both Contracts to the agreement of both contracting entities shall be determined. When the Site of one (1) Contract is the necessary or convenient means of access for performance of work under another, the privilege of access or other reasonable privilege to the CONTRACTOR so desiring may be granted, to the extent, amount, and in manner and at a time that

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SUMMARY OF WORK

shall be determined. Conduct its operations so as to cause a minimum of interference with the work of such other contractors, and shall cooperate fully with such contractors to allow continued safe access to their respective portions of the Site, as required to perform work under their respective contracts.

- B. Interference with Work on Utilities: Cooperate fully with all utility forces or forces of other public or private agencies engaged in the relocation, altering, or otherwise rearranging of any facilities, which interfere with the progress of the WORK, and shall schedule the WORK so as to minimize interference with said relocation, altering or other rearranging of facilities. Any delays, reduction in work efficiency or hardships incurred shall be identified and resolved to the satisfaction of both parties.

1.4 USE OF SITE

- A. Use of the Site shall be limited to its construction operations, including on-site storage of materials, on-site fabrication facilities and field offices.
- B. All or part of the existing Site may be utilized during the entire period of construction for the conduct of normal operations. Cooperate and coordinate to facilitate operations and to minimize interference with the operations at the same time. In any event, access to the site during the period of construction shall be allowed.

1.5 GENERAL

- A. All reference to the Standard Specifications refer to the California Department of Transportation (Caltrans) 2018 Standard Specification. If there have been recent significant revisions to Caltrans Standard Specification, the senior construction manager will determine which specification to use. Senior construction manager, Ken Reed can be reached at (209) 941-7363; email: kreed@ci.lathrop.ca.us.

(END OF SECTION)

SECTION 01025

SECTION 01025
MEASUREMENT AND PAYMENT

PART 1 – GENERAL

1.1 THE REQUIREMENT

- A. Furnish all necessary labor, machinery, tools, apparatus, equipment, materials, services and other necessary supplies and perform all work shown on the Drawings and/or described in the Specifications and Contract Documents at the Lump Sum Price.

1.2 PROGRESS AND PAYMENT SCHEDULES

- A. Within 15 days after the date of formal execution of the Agreement, prepare and submit, for approval, a Construction Schedule, which depicts the plan for completing the Contract requirements.
- B. Maintain a current Construction Schedule updated monthly at the Site available for inspection. The Schedule shall reflect all approved Change Orders and their impact to the Project Schedule.

1.3 CONDITIONS FOR PAYMENT

- A. Make payments for acceptable work in place and materials properly stored on-site. The value of payment shall be as established on the approved Schedule of Values. Terms of payment shall be as stated in the Contract Agreement.

1.4 CLAIMS FOR EXTRA WORK (See also the Contract)

- A. If any claims that instructions by the Governmental Agency or others involve extra cost, the CONTRACTOR shall give written notice of said claim within 15 days after the receipt of such instructions, and in any event before proceeding to execute the work, stating clearly and in detail the basis of his claim or claims. No such claim shall be valid unless so made.
- B. If, on the basis, of the available evidence, the determination is made that an adjustment of the Contract Price or time is justifiable, the procedure shall then be as provided in the Contract.

(END OF SECTION)

**SECTION 01040
COORDINATION****PART 1 – GENERAL**

1.1 THE REQUIREMENT

- A. The CONTRACTOR shall coordinate the WORK of all crafts, trades and subcontractors engaged on the WORK and he shall have final responsibility in regards to the Schedule, workmanship and completeness of each and all parts of the WORK.
- B. All crafts, trades and subcontractors shall be made to cooperate with each other and with others, as they may be involved in the installation of work, which adjoins, incorporates, precedes or follows the work of another. It shall be the CONTRACTOR's responsibility to point out areas of cooperation prior to execution of subcontractors Agreements and the assignment of the parts of the WORK. Each craft, trade and subcontractor shall be responsible to the CONTRACTOR, for furnishing embedded items, giving directions for doing all cutting and fitting, making all provisions for accommodating the WORK and for protecting, patching, repairing and cleaning as required to satisfactorily perform the WORK.
- C. The CONTRACTOR shall be responsible for supervising all cutting, digging and other action of his subcontractors and workers. Where such action impairs the safety or function of any structure or component of the Project as determined by the ENGINEER, the CONTRACTOR shall make such repairs, alterations and additions as will bring said structure or component back to its original design condition at no additional cost to the OWNER.
- D. The CONTRACTOR is expected to be familiar with the General Requirements and all Sections of the detailed Specifications for all other trades and to study all Drawings applicable to his WORK to the end that complete coordination between the trades will be affected. CONTRACTOR shall submit the Request for Information (RFI) to the ENGINEER if conflicts exist within the Contract Documents.

The CONTRACTOR shall review the RFI and submit, with comments, to the ENGINEER for review and response. The RFI request should include a requested response date. The ENGINEER will make every effort to meet that requested date. However, the ENGINEER will have 14 business days to review and respond back to the CONTRACTOR. If the nature of the RFI or circumstances surrounding the RFI are beyond the control of the ENGINEER, requiring the need of more than 14 business days, the ENGINEER will notify the CONTRACTOR within five business days of receipt that it will take longer than 14 business days. At that time, the CONTRACTOR and ENGINEER will establish an agreed upon response date.

Upon receipt of the RFI response, the CONTRACTOR shall distribute the RFI response as necessary. The CONTRACTOR will be required to keep and maintain a numbered log of the RFI's and responses. A copy of the log, and detail of each RFI shall be submitted to the ENGINEER for Project closeout.

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**GENERATIONS CENTER PARKING LOT
CIP PK 20-01**

COORDINATION

- E. At the discretion of the ENGINEER, additional clarification information may be provided to the CONTRACTOR, regarding the Contract Documents. This notification shall be submitted on an Engineering Supplemental Information (ESI) form. It is the intent of the ESI to provide additional clarification information to the Contract Documents. It is the intent of the ENGINEER to transmit the ESI's in a timely manner. However, the ENGINEER shall not be held responsible for rework to work performed prior to issuance of the ESI.

(END OF SECTION)

SECTION 01045

GENERATIONS CENTER PARKING LOT
CIP PK 20-01

CUTTING AND PATCHING

SECTION 01045 CUTTING AND PATCHING

PART 1 – GENERAL

1.1 THE REQUIREMENT

- A. Perform all WORK associated with cutting and patching for connection to existing water and sewer lines. This shall be complete and operable, in accordance with the Contract Documents.
- B. Do not cut and patch in a manner that would result in: a failure of the WORK to perform as intended; decreased energy performance; increased maintenance; decreased-operational life, or decreased safety.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. Match existing materials for cutting and patching work with new materials conforming to Project Requirements.

PART 3 – EXECUTION

3.1 INSTALLATION

- A. Inspect conditions prior to WORK to identify scope and type of WORK required. Protect adjacent WORK. Notify ENGINEER and the OWNER of WORK requiring interruption to the OWNERS operations.
- B. Perform WORK with Workmen skilled in the trades involved.
- C. Cutting: Use cutting tools, not chopping tools. Make neat holes. Minimize damage to adjacent work. Check for concealed utilities and structure before cutting.
- D. Patching: Make patches, seams and joints durable and inconspicuous. Comply with tolerances for new WORK.
- E. Clean WORK area and areas affected by cutting and patching operations.

(END OF SECTION)

SECTION 01090

SECTION 01090 REFERENCE STANDARDS

PART 1 – GENERAL

1.1 GENERAL

- A. Titles of Sections and Paragraphs: Titles and Subtitles accompanying Specification Sections and paragraphs are for convenience and Reference only and do not form a part of the Specifications.
- B. Applicable Publications: Whenever in these Specifications References are made to Published Specifications, Codes, Standards or other Requirements, it shall be understood that wherever no date is specified, only the latest Specifications, Standards or Requirements of the respective issuing agencies, which have been published as of the date that the Contract shall apply; except to the extent that said Standards or Requirements may be in conflict with applicable Laws, Ordinances or Governing Codes. No Requirements set forth in the Specifications or shown on the Drawings will be waived because of any provision of, or omission from, said Standards or Requirements.
- C. Specialists, Assignments: In certain instances, Specification text requires (or implies) that specific WORK is to be assigned to specialists or expert entities, who must be engaged for the performance of that WORK. Such assignments shall be recognized as Special Requirements. These Requirements shall not be interpreted so as to conflict with the enforcement of Building Codes and similar Regulations Governing the WORK; also, they are not intended to interfere with Local Union Jurisdiction Settlements and similar conventions. Such assignments are intended to establish which party or entity involved in a specific unit of work is recognized as "Expert" for the indicated construction processes or operations. Nevertheless, the final responsibility for fulfillment of the entire set of Contract Requirements remains.

1.2 REFERENCE SPECIFICATIONS, CODES AND STANDARDS

- A. Construct the WORK in accordance with the Contract Documents and the referenced portions of those Referenced Codes, Standards and Specifications.
- B. Verify the following references agree with the plans and local requirements - References herein to "Building Code" shall mean California Building Code (CBC) 2016. Similarly, references to "Mechanical Code" or "International Mechanical Code," "Plumbing Code" or "Uniform Plumbing Code," "Fire Code" or "International Fire Code," shall mean California Mechanical Code (CMC) 2016, California Plumbing Code (CPC) 2016 and California Fire Code (CFC) 2016. "Electric Code" or "National Electric Code (NEC)" shall mean the California Electrical Code (CEC) 2016, and National Electric Code of the National Fire Protection Association (NFPA) 2017. The latest edition of the codes as approved by the Municipal Code and used by the local agency as of the date that the WORK is advertised for bids, as adopted by the agency having jurisdiction, shall apply to the WORK herein, including all Addenda, Modifications, Amendments, or other Lawful changes thereto.
- C. In case of conflict between Codes, Reference Standards, Drawings and the other Contract Documents, the most stringent Requirements shall govern. All conflicts shall be brought to the

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REFERENCE STANDARDS

attention of the ENGINEER for clarification and directions prior to ordering or providing any materials or furnishing labor through the RFI process. The most stringent Requirements may be bid on.

- D. References herein to "OSHA Regulations for Construction" shall mean Title 29, Part 1926, Construction Safety and Health Regulations, Code of Federal Regulations (OSHA), including all changes and amendments thereto.
- E. References herein to "OSHA Standards" shall mean Title 29, Part 1910, Occupational Safety and Health Standards (OSHA), Code of Federal Regulations, including all changes and Amendments thereto.
- F. Applicable Standard Specifications: References in the Contract Documents to "Standard Specifications" or SSPWC shall mean the Standard Specifications for Public Works Construction, Caltrans 2018 Standard Plans and Standard Specifications or the City of Lathrop Design & Construction Standards.

1.3 REGULATIONS RELATED TO HAZARDOUS MATERIALS

- A. Responsibility for all work included in the Contract Documents, regardless if shown or not, shall comply with all EPA, OSHA, RCRA, NFPA, and any other Federal, State, and Local Regulations governing the storage and conveyance of hazardous materials, including petroleum products.

(END OF SECTION)

SECTION 01294

SECTION 01294
APPLICATIONS FOR PAYMENT

PART 1 – GENERAL

1.1 SUMMARY

- A. Section Includes: Procedures for preparation and submittal of Applications for Payment.
- B. Related Sections:
 - 1. Section 01310 - Progress Schedules and Reports.

1.2 FORMAT

- A. Develop satisfactory spreadsheet-type form generated by downloading cost data from the Progress Schedule.
- B. Fill in information required on form.
- C. When Change Orders are executed, add Change Orders at end of listing of scheduled activities.
 - 1. Identify change order by number and description.
 - 2. Provide cost of change order in appropriate column.
- D. After completing, submit Application for Payment.
- E. The ENGINEER will review application for accuracy. When accurate, the ENGINEER will transmit application to CITY for processing of payment.
- F. Execute application with signature of responsible officer of CONTRACTOR.

1.3 SUBSTANTIATING DATA

- A. Provide Substantiating Data with cover letter identifying:
 - 1. Project.
 - 2. Application number and date.
 - 3. Detailed list of enclosures.
 - 4. For stored products with item number and identification on application, description of specific material, and proof of insurance coverage for offsite stored products and copies of invoices.
 - 5. Submit "certified" payroll where required in the Contract.

1.4 SUBMITTALS

- A. Submit five copies of Application for Payment and Substantiating Data with cover letter.

SECTION 01294

- B. Coordinate requirements with the Contract General Conditions, Article 14 - Progress Payments to Contractor and Completion.

1.5 PAYMENT REQUESTS

- A. Prepare progress payment requests on a monthly basis. Base requests on the breakdowns of costs for each scheduled activity and the percentage of completion for each activity.
- B. Indicate total dollar amount of work planned for every month of the project. Equate sum of monthly amounts to Lump Sum Contract Price.
- C. Generate Progress Payment request forms by downloading cost data from the schedule information to a spreadsheet type format. Identify each activity on the Progress Schedule that has a cost associated with it, the cost for each activity, the estimated percent complete for each activity, and the value of work completed for both the payment period and job to date.
- D. Prepare summary of cost information for each Major Item of Work listed in the Schedule of Values. Identify the value of work completed for both the payment period and job to date.
- E. Submit progress payment requests at progress meetings.

(END OF SECTION)

SECTION 01310

**SECTION 01310
PROGRESS SCHEDULES AND REPORTS**

PART 1 – GENERAL

1.1 SUMMARY

- A. Section Includes: Preparation, submittal and maintenance of computerized progress schedule and reports, contract time adjustments and payment requests, including the following:
 - 1. Preliminary Schedule
 - 2. Baseline Schedule
 - 3. Weekly Schedule
 - 4. Schedule Updates
 - 5. Schedule Revisions
 - 6. Time Impact Analyses
 - 7. Final Schedule Submittal

- B. OWNER reserves the right to disapprove scheduler when submitted by CONTRACTOR if not qualified. OWNER reserves the right to remove scheduler from the project if found to be incompetent.

1.2 PRECONSTRUCTION SCHEDULING MEETING

- A. The CONTRACTOR will conduct a Preconstruction Schedule Meeting within 14 Calendar days after Notice to Proceed. This meeting is separate from the Preconstruction Conference Meeting and is intended to cover schedule issues exclusively.

- B. At the meeting, scheduling requirements shall be reviewed with CONTRACTOR. These include schedule preparation, reporting requirements, updates, revisions and schedule delay analysis. CONTRACTOR shall present their schedule methodology, planned sequence of operations and present their proposed activity coding structure.

- C. Coding Structure: CONTRACTOR shall submit proposed coding structure, identifying the code fields and the associated code values it intends to use in the project schedule. The coding structure shall, at a minimum, include code fields for Project Segment or Phase, Area of Work, Type of Work, Submittal/Procurement/Construction and Responsibility/Subcontractor. Refer to Article 1.091 for listing of activity categories to be included in the schedule.

1.3 PREPARATION

- A. Preparation and submittal of Progress Schedule represents CONTRACTOR'S intention to execute the WORK within specified time and constraints.

SECTION 01310

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PROGRESS SCHEDULES AND REPORTS

- B During preparation of the preliminary Progress Schedule, ENGINEER will facilitate CONTRACTOR efforts by being available to answer questions regarding sequencing issues, scheduling constraints, interface points and dependency relationships.
- C Failure to include an activity required for execution of the Work does not excuse CONTRACTOR from completing the WORK and portions thereof within specified times and at price specified in Agreement. Failure of CONTRACTOR to include required schedule constraints, sequences or milestones in schedule shall not relieve CONTRACTOR of obligation to conform to requirements of Contract. Acceptance of schedule shall not waive Contract requirements. In event of conflict between accepted schedule and Contract requirements, terms of Contract shall govern at all times, unless requirements are waived in writing by the CITY.
- D Reference Schedule to calendar days with beginning of Contract Time as Day "1."
- E Should CONTRACTOR submit a Baseline Schedule showing project completion more than 20 working days prior to Contract completion date OWNER may issue Change Order, at no cost to OWNER, revising time of performance of WORK and Contract completion date to match CONTRACTOR'S schedule completion date. Contract milestone dates, if any, shall be adjusted accordingly.
- F Schedule Logic: Schedule shall be assembled to show order in which CONTRACTOR proposes to carry out WORK, indicate restrictions of access, availability of Work areas, and availability and use of manpower, materials and equipment. Following criteria shall form basis for assembly of schedule logic.
 - 1. Which activities must be completed before subsequent activities can be started?
 - 2. Which activities can be performed concurrently?
 - 3. Which activities must be started immediately following completed activities?
 - 4. What major facility, equipment or manpower restrictions are required for sequencing these activities?

1.4 SUBMITTAL OF PROGRESS SCHEDULES

- A. Submit preliminary
- B. Submit, on a monthly basis, updated schedules as specified. Submit final schedule update as specified.
- C. Submit revised schedules and time impact analyses as specified.

1.5 NETWORK DETAILS AND GRAPHICAL OUTPUT

- A. Produce a clear, legible and accurate calendar based, time scaled, graphical network diagram. Group activities related to the same physical areas of the WORK. Produce the network diagram based upon the early start of all activities.

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PROGRESS SCHEDULES AND REPORTS

- B. Include for each activity, the description, activity number, estimated duration in calendar days, total float and all activity relationship lines.
- C. Illustrate order and interdependence of activities and sequence in which WORK is planned to be accomplished. Incorporate the basic concept of the precedence diagram network method to show how the start of one activity is dependent upon the start or completion of preceding activities and its completion restrict the start of following activities.
- D. Indicate the critical path for the project.
- E. Identify system shutdown dates, system tie-in dates, specified interim completion or milestone dates and contract completion date as milestones.
- F. Include, in addition to Construction Activities:
 - 1. Submission dates and review periods for major equipment submittals.
 - 2. Any activity by the OWNER that may affect progress or required completion dates.
 - 3. Equipment and long-lead material deliveries over eight (8) weeks.
 - 4. Approvals required by regulatory agencies or other third parties.

1.6 SCHEDULE OF SHOP DRAWING AND SAMPLE SUBMITTALS

- A. After the Schedule has been submitted and accepted by OWNER, CONTRACTOR shall print out, submit list of all shop drawings and sample submittals for all WORK using early start dates. This listing will contain all submittals required for the entire WORK including those listed above.

1.7 UPDATING THE SCHEDULE

- A. Update the schedule on a monthly basis, using the first of each month as a data date.
- B. Should monthly Schedule Update show project completion later than current Contract completion date, CONTRACTOR shall prepare and submit a plan to show how the project will get back on schedule.

1.8 REVISIONS TO SCHEDULE

- A. Submit revised schedule within five (5) calendar days:
 - 1. When delay in completion of any activity or group of activities indicates an overrun of the Contract time or milestone dates by 20 working days or 5% of the remaining duration, whichever is less.
 - 2. When delays in submittals, deliveries or work stoppages are encountered making necessary the replanning or rescheduling of activities.
 - 3. When the schedule does not represent the actual progress of activities.

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**GENERATIONS CENTER PARKING LOT
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PROGRESS SCHEDULES AND REPORTS

4. When any change to the sequence of activities, the completion date for major Portions of the work or when changes occur which affect the critical path.
 5. When Contract modification necessitates schedule revision, submit schedule analysis of change order work with cost proposal.
- B. Submit revised schedule and materials as specified under Article, "Submittal of Progress Schedule."
 - C. Make revisions on most recently accepted version of schedule.
 - D. Schedule Revisions shall not be prepared or submitted with Schedule Updates. They shall be separate submittals and shall be noted as Schedule Revisions.
 - E. Only upon acceptance of a revision by the OWNER shall it be reflected in the next monthly Schedule Update.
 - F. Schedule Revisions submitted for the purpose of mitigating a CONTRACTOR caused project delay (Recovery Schedule) shall not be implemented until the OWNER reviews and accepts the Schedule Revision.
- 1.9 ADJUSTMENT OF CONTRACT TIMES
- A. If the CONTRACTOR believes that the OWNER has impacted its work, such that the project completion date will be delayed, the CONTRACTOR must submit proof demonstrating the delay to the critical path. This proof, in the form of a Time Impact Analysis, may entitle the CONTRACTOR to an adjustment of contract time.

(END OF SECTION)

SECTION 01329
SAFETY PLAN

PART 1 – GENERAL

1.1 SUMMARY

- A. Section Includes: Development and maintenance of a Construction Safety Plan.

1.2 REFERENCES

- A. California Labor Code
- B. OSHA.

1.3 CONSTRUCTION SAFETY PLAN

- A. Detail the Methods and Procedures to comply with California Labor Code, Federal, and Local Health and Safety Laws, Rules and Requirements for the duration of the Contract Times. Include the following:
 - 1. Identification of the Certified or Licensed Safety Consultant who will prepare, initiate, maintain and supervise safety programs, and procedures.
 - 2. Procedures for providing workers with an awareness of safety and health hazards expected to be encountered in the course of construction.
 - 3. Safety equipment appropriate to the safety and health hazards expected to be encountered during construction. Include warning devices, barricades, safety equipment in public right-of-way and protected areas, and safety equipment used in multi-level structures.
 - 4. Methods for minimizing employees' exposure to safety and health hazards expected during construction.
 - 5. Procedures for reporting safety or health hazards.
 - 6. Procedures to follow to correct a recognized safety and health hazard.
 - 7. Procedures for investigation of accidents, injuries, illnesses and unusual events that have occurred at the construction site.
 - 8. Periodic and scheduled inspections of general work areas and specific work stations.
 - 9. Training for employees and workers at the jobsite.
 - 10. Methods of communication of safe working conditions, work practices and required personal protection equipment.
- B. Assume responsibility for every aspect of Health and Safety on the jobsite, including the health and safety of Subcontractors, suppliers, and other persons on the jobsite.
 - 1. Forward available information and reports to the Safety Consultant who shall make the necessary recommendations concerning worker health and safety at the jobsite.
 - 2. Employ additional health and safety measures specified by the Safety Consultant, as necessary, for workers in accordance with OSHA guidelines.

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**GENERATIONS CENTER PARKING LOT
CIP PK 20-01**

SAFETY PLAN

- C. Transmit to OWNER and ENGINEER copies of reports and other documents related to accidents or injuries encountered during construction.

(END OF SECTION)

**SECTION 01400
QUALITY CONTROL**

PART 1 – GENERAL

1.1 THE REQUIRMENT

- A. The Specific Quality Control Requirements for the WORK are indicated throughout the Contract Documents. The Requirements of this Section are primarily related to performance of the WORK beyond furnishing of manufactured products. The term "Quality Control" includes preactivity inspection, follow up meetings, sampling and testing, and associated requirements.

1.2 INSPECTION AT PLACE OF MANUFACTURE

- A. Unless otherwise indicated, all products, materials, and equipment shall be subject to inspection by the ENGINEER at the place of manufacture.
- B. Unless noted otherwise, the presence of the ENGINEER at the place of manufacturer is not required; however, this shall not relieve responsibility for providing products, materials and equipment that comply with all requirements of the Contract Documents.

1.3 SAMPLING AND TESTING

- A. Unless otherwise indicated, all sampling and testing will be in accordance with the methods prescribed in the current standards of the ASTM, as applicable to the class and nature of the article or materials considered.

1.4 INSPECTION AND TESTING SERVICE

- A. Inspection and testing laboratory service shall comply with the following:
 - 1. Unless indicated otherwise by the Technical Specifications, an independent firm will be appointed and employed by the CONTRACTOR to perform special inspection and soils and concrete testing.
 - 2. Perform inspections, testing and other services as required.
 - 3. Submit Reports of Testing to the ENGINEER, CONTRACTOR and OWNER if required in duplicate, indicating observations and results of tests and indicating compliance or non-compliance with Contract Documents.
 - 4. Cooperate with the independent firm and furnish samples of materials, design mix, equipment, tools, storage and assistance as requested.
 - 5. Notification prior to the expected time for operations requiring inspection and laboratory testing services is required.
 - 6. The same independent firm on instructions shall perform retesting required because of non-conformance to requirements.

SECTION 01400

7. For tests and samples required, arrangements shall be made with an independent firm for payment and scheduling of testing. Responsibility shall be taken for the cost of sampling and testing.
8. Provide an overall report on inspection and test results for project closeout.

PART 2 – EXECUTION

2.5 INSTALLATION

- A. Inspection: Inspect materials or equipment upon arrival on the job site, prior to installation and reject damaged and defective items.
- B. Measurements: Verify measurements and dimensions of the WORK, as an integral step of starting each installation.
- C. Manufacturer's Instructions: Where installations include manufactured products, compliance with manufacturer's applicable instructions and recommendations for installation, to whatever extent these are more explicit or more stringent than applicable requirements indicated in Contract Documents is required.

(END OF SECTION)

SECTION 01420

SECTION 01420
AS BUILT DRAWINGS

PART 1 – GENERAL

1.1 THE REQUIRMENT

- A. The CONTRACTOR and its Subcontractors at the start of the project shall provide a clean set of Drawings and mark on them, in large writing “As Built.” This set of drawings will be kept at the job site trailer and used to indicate with a red pencil, pen or marker the “As Built” conditions of the project. These drawings will be updated as the work progresses to reflect the “As Built” conditions.
- B. The CONTRACTOR shall be responsible to ensure that the “As Built” drawings are being kept up to date.
- C. Upon substantial completion the CONTRACTOR shall obtain all “As Built” drawings and review them for accuracy and completeness, this includes surveying of utilities as required by Section 01722. After the CONTRACTOR has reviewed and confirmed accuracy and completeness of the “As Built” drawings the CONTRACTOR shall submit the drawings and survey information to the ENGINEER of record.
- D. Upon receipt of the “As Built” drawings the ENGINEER shall make all necessary changes to the documents and provide a Record Drawing set to the CONTRACTOR for their use and distribution as required for project closeout, see Section 01700.

(END OF SECTION)

**SECTION 01505
MOBILIZATION****PART 1 – GENERAL**

1.1 Requirements

- A. Mobilization shall include a verification by the CONTRACTOR that all permits have been obtained; moving onto the site of all plant and equipment; furnishing and erecting plants, temporary buildings and other construction facilities; and implementing security requirements; all as required for the proper performance and completion of the WORK. Mobilization shall include the following principal items:

1. Moving onto the site of materials and equipment required for first month operations
2. Installing temporary construction power, wiring and lighting facilities if applicable.
3. Establishing a fire protection system as required.
4. Developing a construction water supply as required.
5. Providing field office trailers, complete with all specified furnishings and utility services (if available) including telephones, telephone appurtenances and copying machine
6. Providing all on-site communication facilities including telephones
7. Providing on-site sanitary facilities and potable water facilities.
8. Arranging for and erection of work and storage yard
9. Obtained all required permits for the project.
10. Comply with all OSHA required notices and establish a safety program
11. Having the superintendent or authorized representatives at the job site as required for execution of the work
13. Provide and implement an on-site Construction SWPP features and requirements complying with Section 01565 – Erosion and Sediment Control.
14. Provide and implement an on-site Dust Control Plan features and requirements complying with Section 01560 and 01563.

B. Measurement and Payment

Unless otherwise noted, measurement and payment for the contract work shall be in accordance with Section 01025 of the General Requirements. Full compensation for conforming to the requirements of the various sections within these Contract Documents (including the Bidding and Contract Documents, General Requirements and Technical Requirements), shall be considered as included in the prices paid for the various contract items of work involved (as listed on the Bid Schedule) and no additional compensation will be allowed

(END OF SECTION)

SECTION 01530

GENERATIONS CENTER PARKING LOT
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PROTECTION OF EXISTING FACILITIES

SECTION 01530 PROTECTION OF EXISTING FACILITIES

PART 1 – GENERAL

1.1 THE REQUIREMENT

- A. Protect all existing utilities and improvements, not designated for removal, CONTRACTOR shall restore damaged or temporarily relocated utilities and improvements to a condition equal to or better than prior to such damage or temporary relocation, all in accordance with the Contract Documents.
- B. Submit Protection Plan prior to commencement of Work in accordance to Section 01300 Submittals.

1.2 RIGHTS-OF-WAY

- A. WORK that would affect any oil, gas, sewer, or water pipeline; any telephone, telegraph, or electric transmission line; any fence; or any other structure, shall not be performed nor shall the entry upon the rights-of-way involved until notified that authority has been secured from the proper party.
- B. After authority has been obtained, said party shall be given due notice of its intention to begin work, if required by said party, and shall remove, shore, support, or otherwise protect such pipeline, transmission line, ditch, fence, or structure, or replace the same.

1.3 PROTECTION OF STREET OR ROADWAY MARKERS

- A. Do not destroy, remove or otherwise disturb any existing survey markers, other existing street or roadway markers without proper authorization. No pavement breaking or excavation shall be started until all survey or other permanent marker points that will be disturbed by the construction operations have been properly referenced. Survey markers or points disturbed shall be accurately restored after street or roadway resurfacing has been completed.

1.4 RESTORATION OF PAVEMENT

- A. General: All paved areas including asphaltic concrete berms cut or damaged during construction shall be replaced with similar materials of equal thickness to match the existing adjacent undisturbed areas, except where specific resurfacing requirements have been called for in the Contract Documents or in the requirements of the agency issuing the permit. The pavement restoration requirement to match existing sections shall apply to all components of existing sections, including sub-base, base, and pavement. Temporary and permanent pavement shall conform to the requirements of the affected pavement owner. Pavements that are subject to partial removal shall be neatly, saw cut in straight lines.
- B. Temporary Resurfacing: Wherever required by the public authorities having jurisdiction, place temporary surfacing promptly after backfilling and shall maintain such surfacing for the period of time fixed by said authorities before proceeding with the final restoration of improvements.

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GENERATIONS CENTER PARKING LOT
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PROTECTION OF EXISTING FACILITIES

- C. Permanent Resurfacing: In order to obtain a satisfactory junction with adjacent surfaces, saw cut back and trim the edge so as to provide a clean, sound, vertical joint before permanent replacement of an excavated or damaged portion of pavement. Edges of damaged pavement, along excavations and elsewhere, shall be trimmed back by saw cutting in straight lines. All pavement restoration and other facilities restoration shall be constructed to finish grades compatible with adjacent undisturbed pavement.
- D. Restoration of Sidewalks or Private Driveways: Wherever sidewalks or private roads have been removed for purposes of construction, place suitable temporary sidewalks or roadways promptly after backfilling and shall maintain them in satisfactory condition for the period of time fixed by the authorities having jurisdiction over the affected portions. If no such period of time is so fixed, maintain said temporary sidewalks or roadways until the final restoration thereof has been made.

1.5 EXISTING UTILITIES AND IMPROVEMENTS

- A. General: Protect underground Utilities and other improvements, which may be impaired during construction operations, regardless of whether or not the Utilities are indicated on the Drawings. Take all possible precautions for the protection of unforeseen Utility lines to provide for uninterrupted service and to provide such special protection as may be necessary.
- B. Except where the Drawings indicate Utilities have been field located during design or certain Utility locations shall be exposed as part of the WORK, responsibility for exploratory excavations as it deems necessary to determine the exact locations and depths of Utilities, which may interfere with its work shall be required. All such exploratory excavations shall be performed as soon as practicable after Notice to Proceed and, in any event, a sufficient time in advance of construction to avoid possible delays progress.
- C. The number of exploratory excavations required shall be that number which is sufficient to determine the alignment and grade of the utility.
- D. Utilities to be Moved: In case it shall be necessary to move the property of any public utility or franchise holder, upon request, the utility company or franchise holder will be notified to move such property within a specified reasonable time. When utility lines that are to be removed are encountered within the area of operations, notification will be required with sufficient time in advance for the necessary measures to be taken to prevent interruption of service.
- E. Utilities to be Removed: The proper completion of the WORK requires the temporary or permanent removal and/or relocation of an existing utility or other improvement, which is indicated, removal, without unnecessary delay, temporarily replacement or relocation of such Utilities or improvement in a manner satisfactory to the owner of the facility shall be required. In all cases of such temporary removal or relocation, restoration to the former location shall be accomplished in a manner that will restore or replace the Utility or improvement as close to its former locations and to as good or better condition than found prior to removal.

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PROTECTION OF EXISTING FACILITIES

- F. CITY'S Right of Access: The right is reserved to the owners of public utilities and franchises to enter at any time upon any public street, alley, right-of-way, or easement for the purpose of making changes in their property made necessary by the WORK of this Contract.
 - G. Underground Utilities Indicated: Existing Utility lines that are indicated or the locations of which are made known prior to excavation and that are to be retained. All Utility lines that are constructed during excavation operations shall be protected from damage during excavation and backfilling if damaged, shall be immediately repaired or replaced, unless otherwise repaired by the owner of the damaged Utility. If the owner of the damaged facility performs its own repairs, reimbursement to said owner for the costs of repair shall be required.
 - H. Underground Utilities Not Indicated: In the event that the existing Utility lines are damaged that are not indicated or the locations of which are not made known prior to excavation, a verbal report of such damage shall be made immediately, and a written report thereof shall be made promptly thereafter. Immediately notify the OWNER of the damaged Utility. The Utility Owner shall be notified of the damage. If directed, repairs shall be made under the provisions for changes and extra work contained in their Contract Agreement.
 - I. Costs of locating and repairing damage, not due to failure to exercise reasonable care and removing or relocating such Utility facilities, not indicated in the Contract Documents, with reasonable accuracy and for equipment on the project, which was actually working on that portion of the WORK which was interrupted or idled by removal or relocation of such Utility facilities, and which was necessarily idled during such work will be paid for as extra work resulting in the issuing of a change order in accordance with the provisions of the Contractual Agreement.
 - J. Approval of Repairs: All repairs to a damaged Utility or improvement are subject to inspection and approval by an authorized representative of the Utility or improvement owner before being concealed by backfill or other work.
 - K. Maintaining in Service: Unless indicated otherwise, oil and gasoline pipelines, power, and telephone or the communication cable ducts, gas and water mains, irrigation lines, sewer lines, storm drain lines, poles, and overhead power and communication wires and cables encountered along the line of the WORK shall remain continuously in service during all the operations under the Contract, unless other satisfactory arrangements are made with the owner of said pipelines, duct, main, irrigation line, sewer, storm drain, pole, or wire or cable. Responsible for and shall repair all damage due to its operations shall be required, and the provisions of this Section shall not be abated even in the event such damage occurs after backfilling or is not discovered until after completion of the backfilling.
- 1.6 TREES OR SHRUBS WITHIN STREET RIGHTS-OF-WAY AND PROJECT LIMITS
- A. General: Except where trees or shrubs are indicated to be removed, exercise all necessary precautions so as not to damage or destroy any trees or shrubs, including those lying within street rights-of-way and project limits, and shall not trim or remove any trees unless such trees have been approved for trimming or removal by the jurisdictional agency. Existing trees and shrubs that are damaged during construction shall be trimmed or replaced by a certified tree company under permit from the jurisdictional agency.

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PROTECTION OF EXISTING FACILITIES

- B. Replacement: Immediately notify the jurisdictional agency if any tree or shrub is damaged by operations. If, in the opinion of said agency, the damage is such that replacement is necessary, replace the tree or shrub at its own expense. The tree or shrub shall be of a like size and variety as the one damaged or if of a smaller size, the owner of said tree shall be paid a compensatory payment acceptable to the tree or shrub owner, subject to the approval of the jurisdictional agency. The size of the tree or shrub shall be not less than 1-inch diameter or less than 6-feet in height. Planting of replacement trees and shrubs shall be in accordance with the recommendations of the nursery furnishing the plants.

1.7 LAWN AREAS

- A. Lawn or landscaped areas damaged during construction shall be repaired to match the pre-construction condition to the satisfaction of the landowner.

1.8 NOTIFICATION

- A. Prior to any excavation in the vicinity of any existing underground facilities, including all water, sewer, storm drain, gas, petroleum products, or other pipelines; all buried electric power, communications, or television cables; all traffic signal and street lighting facilities; and all roadway and state highway rights-of-way, notify the respective authorities representing the owners or agencies responsible for such facilities not less than 3 days nor more than 7 days prior to excavation so that a representative of said owners or agencies can be present during such work if they so desire.

(END OF SECTION)

SECTION 01560

GENERATIONS CENTER PARKING LOT
CIP PK 20-01

TEMPORARY ENVIRONMENTAL CONTROLS

SECTION 01560 TEMPORARY ENVIRONMENTAL CONTROLS

PART 1 – GENERAL

1.1 EXPLOSIVES AND BLASTING

- A. The use of explosives on the WORK will not be permitted.

1.2 RUBBISH CONTROL

- A. During the progress of the WORK, the CONTRACTOR shall keep the Site and other areas used by it in a neat and clean condition, and free from any accumulation of rubbish. Dispose of all rubbish and waste materials of any nature occurring at the Site, and shall establish regular intervals of collection and disposal of such materials and waste. Keep its haul roads free from dirt, rubbish and unnecessary obstructions resulting from its operations. Disposal of all rubbish and surplus materials shall be off the Site in accordance with local codes and ordinances governing locations and methods of disposal, and in conformance with all applicable safety laws, and to the particular requirements of Part 1926 of the OSHA Safety and Health Standards for Construction.

1.3 SANITATION

- A. Toilet Facilities: The CONTRACTOR shall provide fixed or portable chemical toilets shall be provided wherever needed for the use of employees. Toilets at construction job sites shall conform to the requirements of Part 1926 of the OSHA Standards for Construction.
- B. Sanitary and Other Organic Wastes: The CONTRACTOR shall establish a regular daily collection of all sanitary and organic wastes. All wastes and refuse from sanitary facilities provided or organic material wastes from any other source related to operations shall be disposed of away from the Site in accordance with all laws and regulations pertaining thereto.

1.4 CHEMICALS

- A. All chemicals used or furnished by the CONTRACTOR for or during project construction, whether defoliant, soil sterilant, herbicide, pesticide, disinfectant, polymer, reactant or of other classification, shall show approval of either the U.S. Environmental Protection Agency or the U.S. Department of Agriculture. Use of all such chemicals and disposal of residues shall be in strict accordance with the printed instructions of the manufacturer.

1.5 CULTURAL RESOURCES

- A. Attention is directed to the National Historic Preservation Act of 1966 (16 U.S.C. 470) and 36 CFR 800, which provides for the preservation of potential historical architectural, archaeological, or cultural resources (hereinafter called "cultural resources").

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TEMPORARY ENVIRONMENTAL CONTROLS

- B. Conform to the applicable requirements of the National Historic Preservation Act of 1966 as it relates to the preservation of cultural resources.
- C. In the event potential cultural resources are discovered during subsurface excavations at the site of construction, the following procedures shall be instituted:
 - 1. The CONTRACTOR shall issue a Field Order directive to cease all construction operations at the location of such potential cultural resources find.
 - 2. Such Field Order shall be effective until such time as a qualified archaeologist can be called to assess the value of these potential cultural resources and make recommendations to the State Historic Preservation Office.
- D. If the archaeologist determines that the potential find is a bona fide cultural resource, at the direction of the State Historic Preservation Office, work shall be suspended at the location of the find under the provisions for changes contained in the Contractual Agreement.

(END OF SECTION)

SECTION 01563

**GENERATIONS CENTER PARKING LOT
CIP PK 20-01**

DUST CONTROL

**SECTION 01563
DUST CONTROL**

PART 1 – GENERAL

1.1 DUST ABATEMENT

- A. Preventative measures to limit the production of dust in amounts damaging to property, cultivated vegetation or domestic animals, or causing a nuisance to persons living in or occupying buildings in the vicinity shall be taken in to account. Responsibility for any damage resulting from dust originating from its operations shall be the CONTRACTOR's. The dust abatement measures shall be maintained at all times during construction of the project, in accordance with the requirements of the local Air Quality Management District.

PART 2 – EXECUTION

2.1 GENERAL

- A. The CONTRACTOR shall take necessary measures to control any and all dust related to or as a result of construction activities under this Contract. The water necessary for the dust control operation will be Owner furnished, beyond that the CONTRACTOR shall be responsible to provide whatever means necessary to accomplish the task of Dust Control. The CONTRACTOR shall be responsible for any damage resulting from dust originating from construction activities under this Contract.

(END OF SECTION)

**SECTION 01565
EROSION AND SEDIMENT CONTROLS**

PART 1 – GENERAL

1.1 THE REQUIREMENT

- A. Perform all WORK and take all measures necessary to control soil erosion resulting from construction operations, shall prevent the flow of sediment from the construction site, and shall contain construction materials (including excavation and backfill) within his protected working area, so as to, prevent damage to the adjacent wetlands and water courses.
- B. Do not employ any construction method that violates a rule, regulation, guideline or procedure established by Federal, State or local agencies having jurisdiction over the environmental effects of construction.
- C. Pollutants such as chemicals, fuels, lubricants, bitumen, raw sewage and other harmful waste shall not be discharged into or alongside of any body of water or into natural or man-made channels leading thereto.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. Bales may be hay or straw, and shall be reasonably clean and free of noxious weeds and deleterious materials. Filter fabric for sediment traps shall be of suitable materials acceptable to the ENGINEER.

PART 3 – EXECUTION

3.1 METHODS OF CONSTRUCTION

- A. Use any of the acceptable methods necessary to control soil erosion and prevent the flow of sediment to the maximum extent possible. These methods shall include, but not be limited to, the use of water diversion structures, diversion ditches and settling basins.
- B. Construction operations shall be restricted to the areas of work indicated on the Drawings and to the area, which may be entered for the construction of temporary or permanent facilities. The authority to limit the surface area of erodible earth material exposed by clearing and grubbing, excavation, borrow and fill operations shall be given. The CONTRACTOR shall provide immediate permanent or temporary pollution control measures to prevent contamination of the wetlands and adjacent watercourses. Such work may involve the construction of temporary berms, dikes, dams, sediment basins, slope drains and use of temporary mulches, mats, or other control devices or methods as necessary to control erosion. The cost of this work shall be borne by the CONTRACTOR.
- C. Excavated soil material shall not be placed adjacent to the wetlands or watercourses in a manner that will cause it to be washed away by high water or runoff. Earth berms or diversions shall be

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GENERATIONS CENTER PARKING LOT
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EROSION AND SEDIMENT CONTROLS

- constructed to intercept and divert runoff water away from critical areas. Diversion outlets shall be stable or shall be stabilized by means acceptable to the ENGINEER. If for any reason construction materials are washed away during the course of construction, the CONTRACTOR shall remove those materials from the fouled areas.
- D. For Work within easements of rights-of-way, all materials used in construction such as excavation, backfill, roadway, and pipe bedding and equipment shall be kept within the limits of these easements or rights-of-way.
- E. The CONTRACTOR shall not pump silt-laden water from trenches or other excavation into the wetlands, or adjacent watercourses. Instead, silt-laden water from his excavations shall be discharged within areas surrounded by baled hay or into sediment traps to ensure that only sediment-free water is returned to the watercourses. Damage to vegetation by excessive watering or silt accumulation in the discharge area shall be avoided.
- F. Prohibited construction procedures include, but are not limited to the following:
1. Dumping of spoil material into any streams, wetlands, surface waters or unspecified locations.
 2. Indiscriminate, arbitrary or capricious operation of equipment in wetlands or surface waters.
 3. Pumping of silt-laden water from trenches or excavations into surface waters, or wetlands.
 4. Damaging vegetation, adjacent to or outside the construction area limits.
 5. Disposal of trees, brush, debris, paints, chemicals, asphalt products, concrete curing compounds, fuels, lubricants, insecticides, wash water from concrete trucks or hydroseeders, or any other pollutant in wetlands, surface waters, or unspecified locations.
 6. Permanent or unauthorized alternation of the flow line of any stream.
 7. Open burning of debris from the construction work.
- G. Any temporary working roadways required shall be clean fill approved by the ENGINEER. In the event fill is used, the CONTRACTOR shall take every precaution to prevent the fill from mixing with native materials of the site. All such foreign fill materials shall be removed from the site following construction.

(END OF SECTION)

SECTION 01570

SECTION 01570 – TRAFFIC CONTROL

PART 1 - GENERAL

1.01 Section Includes

- A. Traffic Control Plans
- B. Construction Parking Control
- C. Traffic Control Devices (barricades, cones, signs, flashing arrow signs, etc.)
- D. Traffic Control Staffing

1.02 Submittals

- A. Traffic Control Plans (Vehicle and Pedestrian)
 - 1. At or prior to the pre-construction meeting, the Contractor shall submit traffic control plans (vehicles and pedestrian) for review and approval by the Engineer. The traffic control plans shall cover all phases of the work. These plans shall show a detailed layout of work areas and all traffic control devices to control vehicular, pedestrian, and bicycle traffic. No payment shall be made to the Contractor until the Traffic Control plan has been accepted by the Engineer.
 - 2. The Contractor shall supply, place and maintain all necessary traffic control devices during construction in accordance with the applicable requirements of the California Manual on Uniform Traffic Control Devices (MUTCD), latest edition, and the traffic control plans approved by the City.

1.03 Construction Signs

The Contractor shall provide all construction signs in accordance with the traffic control plans.

PART 2 - PRODUCTS

2.01 Cones and Barricades

- A. Cones and barricades used to direct traffic flow shall conform to Caltrans Standard Specifications, Sections 12-3.03 and 12-3.10. They are to be in good condition and sufficiently clean so as to be easily visible to traffic.
- B. Type III barricades shall be used when a street is closed to vehicular traffic.
- C. At least one flashing light must be installed on each barricade. Maintain flashing lights in good working order throughout the duration of the Work.

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TRAFFIC CONTROL

2.02 Traffic Control Signs

- A. Signs to be used for traffic control, including flashing arrow signs (Type A or Type II), shall conform to the requirements of the latest edition of the California MUTCD.
- B. “No Parking Tow-Away” signs shall be provided by the Contractor.

2.03 Traffic Control Staffing

- A. Flagman
 - 1. Persons designated by the Contractor to serve as flagman shall be trained and equipped to perform in accordance with Caltrans flagging procedures. Proof of training shall be provided to the CITY’S REPRESENTATIVE prior to flagging operations.
 - 2. If complaints are received from the public regarding the performance of flagmen, the City will review the Contractor’s flagging operations. If the operations are determined to be unsafe and are not corrected after a warning by the City, police personnel may take over at the expense of the Contractor.

PART 3 - EXECUTION

3.01 Construction Parking Control

- A. Control vehicular parking to prevent interference with public traffic and parking, and access by emergency vehicles.
- B. No overnight parking of vehicles, equipment, or storage of materials in undesignated areas will be allowed.
- C. Contractor’s employees should refrain from parking on the neighborhood streets.

3.02 General Traffic Control Requirements

- A. The Contractor shall conduct his operations and schedule cleanup so as to cause the least possible obstruction and inconvenience to traffic, pedestrians, cyclists, and adjacent property owners. All work areas shall be swept clean at the end of the day’s work and at other times when directed by the City. A mobile street sweeper shall be used wherever practical, and dust shall be suppressed to the satisfaction of the City.
- B. The Contractor shall protect open excavations, trenches and such during construction with fences, covers and railings as required, together with signs, lights, and other warning devices sufficient to maintain safe pedestrian, bicycle and vehicular traffic to the satisfaction of the City.

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TRAFFIC CONTROL

- C. Damage done by the Contractor during the course of his work to adjacent City or private property shall be repaired in kind, or as the Engineer shall direct, at the Contractor's expense. This includes the repair of traffic loop detectors, tape striping, signs, markings, etc.
- D. The Contractor shall remove all forms, debris, and undesirable material from the job site at the end of each work day.
- E. The Contractor shall notify the abutting property owners at least 48 hours prior to commencing work at their specific locations. This is in addition to the door hangers distributed as per these specifications. If the driveway to any garage or parking area is to be closed for construction work, this notice shall state the approximate time will be reopened.
- F. Dated "No Parking Tow-Away" signs shall be posted a minimum of 48 hours in advance of all work which requires that cars not be parked near the sites. The date and time of work shall be written on signs in 2" high letters with a ¼" felt marker. These signs shall be placed on either barricades per these specifications or tied to street trees located near the curb and gutter. All signs must be removed immediately after the specific work had been completed. Any cars which remain parked on the street in violation of the posted "No Parking Tow-Away" sign shall be towed away under direction of the Lathrop Police Department. The Contractor shall be responsible for notifying the Police Department at (209) 858-5551 of all vehicles that are to be towed away. The owner of the towed vehicles may contact the Police Department at (209) 858-5551. If the "No Parking Tow-Away" signs have not been posted for the required 48 hours and the car is towed, the Contractor shall be liable for the cost of towing.
- G. No stockpiling of materials or parking of equipment during non-working hours will be allowed on City property, i.e., streets, alleys, parking lots, or sidewalks, etc. Materials stockpiling and equipment parking will be allowed in areas designated by the Engineer only.
- H. Spillage resulting from hauling operations along or across any public traveled way shall be removed immediately by the Contractor at his expense.
- I. The Contractor shall maintain at a minimum one lane of traffic in each direction at all times on all streets or as directed by the Engineer. Contractor is to use arrow board for lane closures. If a street is to be closed, the contractor shall call City Engineering (209-941-7200, Ext. 7292), Police (209-858-5551) and Fire Departments (209-858-2331) prior to the start of work each day, to report/confirm all scheduled street closures. The Contractor shall coordinate with the U.S. Post Office (Lathrop Branch – 209-858-2324) in advance of street closure to coordinate mail delivery and Sunrise Sanitation Services (209-466-3604) to coordinate trash collection.

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TRAFFIC CONTROL

- J. Contractor shall maintain access to all driveways except when actually doing construction within the driveway boundaries, at which time partial access will be maintained unless alternate arrangements can be made with the property owners or tenants in advance.
- K. Each pedestrian crosswalk, when crossed by construction excavation, shall be provided with a safe pedestrian crossing platform.
- L. Work shall not restrict visibility of any traffic control device.
- M. No closure of any lane will be permitted during 7 a.m. to 9 a.m. and 4 p.m. to 6 p.m.
- N. City of Lathrop Truck Routes shall be used for heavy equipment.
- O. In the event that a lane closure is required after normal working hours, Contractor will be required to provide traffic controls (arrow boards, etc.) for the duration of the lane closure.

(END OF SECTION)

SECTION 01600

GENERATIONS CENTER PARKING LOT
CIP PK 20-01

PRODUCTS, MATERIALS, EQUIPMENT AND SUBSTITUTIONS

SECTION 01600
PRODUCTS, MATERIALS, EQUIPMENT AND SUBSTITUTIONS

PART 1 – GENERAL

1.1 DEFINITIONS

- A. The word "Products" as used in the Contract Documents is defined to include purchased items for incorporation into the WORK, regardless of whether specifically purchased for the project or taken from stock of previously purchased products. The word "Materials," is defined as products which must be substantially cut, shaped, worked, mixed, finished, refined or otherwise fabricated, processed, installed or applied to form WORK. The word "Equipment" is defined as products with operational parts, regardless of whether motorized or manually operated, and particularly including products with service connections (wiring, piping and other like items). Definitions in this paragraph are not intended to negate the meaning of other terms used in the Contract Documents, including "specialties," "systems," "structure," "finishes," "accessories," "furnishings," special construction" and similar terms, which are self-explanatory and have recognized meanings in the construction industry.
- B. Neither "Products" nor "Materials" nor "Equipment" includes machinery and equipment used for preparation, fabrication, conveying and erection of the WORK.

1.2 QUALITY ASSURANCE

- A. Source Limitations: To the greatest extent possible for each unit of WORK, the CONTRACTOR shall provide products, materials and equipment of a singular generic kind from a single source.
- B. Compatibility of Options: Where more than one choice is available as options for selection of a product, material or equipment, select an option, which is compatible with other products, materials or equipment. Compatibility is a basic general requirement of product, material and equipment selections.

1.3 PRODUCT DELIVERY AND STORAGE

- A. Deliver and store the product in accordance with manufacturer's written recommendations and by methods and means that will prevent damage, deterioration and loss including theft. Delivery schedules shall be controlled to minimize long-term storage of products at the Site and overcrowding of construction spaces. In particular, ensure coordination to ensure minimum holding or storage times for flammable, hazardous, easily damaged or sensitive materials to deterioration, theft, and other sources of loss.

1.4 TRANSPORTATION AND HANDLING

- A. Products shall be transported by methods to avoid damage and shall be delivered in undamaged condition in manufacturer's unopened containers and packaging.

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PRODUCTS, MATERIALS, EQUIPMENT AND SUBSTITUTIONS

- B. Provide equipment and personnel to handle products, materials and equipment by methods to prevent soiling and damage.
- C. Provide additional protection during handling to prevent marring and otherwise damaging products, packaging, and surrounding surfaces.

1.5 STORAGE AND PROTECTION

- A. Products shall be stored in accordance with manufacturer's written instructions and with seals and labels intact and legible. Sensitive products shall be stored in weather-tight climate controlled enclosures and temperature and humidity ranges shall be maintained within tolerances required by manufacturer's recommendations.
- B. For exterior storage of fabricated products, products shall be placed on sloped supports above ground. Products subject to deterioration shall be covered with impervious sheet covering and ventilation shall be provided to avoid condensation.
- C. Loose granular materials shall be stored on solid flat surfaces in a well-drained area and shall be prevented from mixing with foreign matter.
- D. Storage shall be arranged to provide access for inspection. Periodically inspect to assure products are undamaged and are maintained under required conditions.
- E. Storage shall be arranged in a manner to provide access for maintenance of stored items and for inspection.

1.6 MAINTENANCE OF PRODUCTS IN STORAGE

- A. Stored products shall be periodically inspected on a scheduled basis.
- B. Comply with manufacturer's product storage requirements and recommendations.
- C. Maintain manufacturer-required environmental conditions continuously.
- D. Ensure that surfaces of products exposed to the elements are not adversely affected and that weathering of finishes does not occur.
- E. For mechanical and electrical equipment, provide a copy of the manufacturer's service instructions with each item and the exterior of the package shall contain notice that instructions are included.
- F. Products shall be serviced on a regularly scheduled basis, and a log of services shall be maintained and submitted as a record document prior to final acceptance by the ENGINEER in accordance with the Contract Documents.

(END OF SECTION)

**SECTION 01700
PROJECT CLOSEOUT**

PART 1 -- GENERAL

1.1 RELATED REQUIREMENTS

- A. Related Sections:
 - 1. Section 00700 – General Conditions
 - 2. Section 01710 – Final Cleaning

1.2 PERFORMANCE TESTING

- A. Perform a pre-start systems check in order to provide an efficient transition for start-up of facility. The performance testing shall proceed as follows:
- B. Perform systems checks, which include verification of proper equipment installation, operation, and calibration with the manufacturers or their representatives.
- C. Verify the performance of the equipment and controls through full scale operation using clean water. Water shall be conveyed to the facility and the basins shall be filled to their normal operating level. Water for testing shall be provided by the CONTRACTOR.
- D. Temporary piping shall be installed for the conveyance of water to the facility. All equipment shall be tested in normal operating mode to verify proper operation of all equipment in conjunction with the plant control system.
- E. Reclaimed water will be recycled through the plant for a total systems check for a period of at least 24 hours, or until the Engineer has determined that no adjustments are necessary. At discretion and direction of the Engineer, make adjustments or repairs to coordinate the operation of the systems and extend the duration, terminate, and restart the pre-start systems check as necessary.

1.3 SUBSTANTIAL COMPLETION

- A. Submit written certification to that the project is substantially complete.
- B. Submit list of major items to be completed or corrected.
- C. Engineer will make an inspection within seven days after receipt of certification, together with a representative.
- D. Should Engineer consider that work is substantially complete:
 - 1. Prepare, and submit to Engineer, a list of the items to be completed or corrected, as determined by on-site observation.

SECTION 01700

2. Engineer will prepare and issue a Certificate of Substantial Completion, containing:
 - a. Date of Substantial Completion.
 - b. List of items to be completed or corrected, verified and amended.
 - c. The time required to complete or correct work of listed items.
 - d. Responsibilities for:
 - 1) Insurance
 - 2) Utilities
 - 3) Operation of mechanical, electrical and other systems
 - 4) Maintenance and cleaning
 - 5) Security
 - e. Signatures of: Engineer
3. Complete work listed for completion or correction, within designated time.

E. Should Engineer consider that work is not substantially complete:

1. ENGINEER shall immediately notify, in writing, stating reasons.
2. CONTRACTOR to complete work, and send second written notice to Engineer, certifying that Project, or designated portion of project of substantially complete.
3. Engineer will re-review work.

1.4 FINAL INSPECTION

A. Submit written certification that:

1. Contract Documents have been reviewed.
2. Project has been inspected for compliance with Contract Documents.
3. Work has been completed in accordance with Contract Documents.
4. Equipment and systems have been tested in presence of Engineer and are operational.
5. Project is completed and ready for final inspection.

B. Engineer will make final on-site observation/review within seven (7) days after receipt of certification.

C. Should Engineer consider that work is finally complete in accordance with requirements of Contract Documents, he shall prepare and issue the following:

1. Certificate of Completion;
2. Complete sets of As-Built plans received; and
3. A Request to make Project Closeout submittals.

D. Should Engineer consider that work is not finally complete:

1. He shall notify, in writing, stating reasons.
2. Take immediate steps to remedy the stated deficiencies, and send second written notice to Engineer certifying that work is complete.
3. Engineer will re-review the work.

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GENERATIONS CENTER PARKING LOT
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PROJECT CLOSEOUT

1.5 FINAL CLEANING UP

The work will not be considered as completed and final payment made until all final cleanup has been done in a satisfactory manner. See Section 01710 for detailed requirements.

1.6 CLOSEOUT SUBMITTALS

- A. Equipment, materials, workmanship and performance Warranties and Bonds: to requirements of particular technical specifications.

1.7 INSTRUCTION

- A. Instruct personnel in operation of all systems, mechanical, electrical and other equipment.

1.8 FINAL APPLICATION FOR PAYMENT

- A. Submit final applications in accordance with requirements of Contractual Agreement.

1.9 FINAL CERTIFICATE FOR PAYMENT

- A. Engineer will issue final certificate in accordance with provisions of Contractual Agreement.

(END OF SECTION)

SECTION 01710

GENERATIONS CENTER PARKING LOT
CIP PK 20-01

SITE MAINTENANCE AND CLEANUP

SECTION 01710 SITE MAINTENANCE AND CLEANUP

PART 1 – GENERAL

1.1 THE REQUIREMENT

- A. On a continuous basis, maintain premises free from accumulations of waste, debris and rubbish, caused by operations.
- B. At completion of WORK, remove waste materials, rubbish, tools, equipment, machinery and surplus materials, and clean all sight-exposed surfaces; leave Project clean and ready for occupancy.
- C. Related Sections:
 - 1. Section 01045 – Cutting and Patching
 - 2. Section 01700 – Project Closeout

1.2 SAFETY REQUIREMENTS

- A. Hazards control:
 - 1. Store volatile wastes in covered metal containers, and remove from premises daily.
 - 2. Prevent accumulation of wastes, which create hazardous conditions.
 - 3. Provide adequate ventilation during use of volatile or noxious substances.
- B. Conduct cleaning and disposal operations to comply with local ordinances and anti-pollution laws.
 - 1. Do not burn or bury rubbish and waste materials on Project site.
 - 2. Do not dispose of volatile wastes such as mineral spirits, oil or paint thinner in storm or sanitary drains.
 - 3. Do not dispose of wastes into streams or waterways.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. Use only cleaning materials recommended by manufacturer of surface to be cleaned.
- B. Use cleaning materials only on surfaces recommended by cleaning material manufacturer.

SECTION 01710

GENERATIONS CENTER PARKING LOT
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SITE MAINTENANCE AND CLEANUP

PART 3 – EXECUTION

3.1 DURING CONSTRUCTION

- A. Execute cleaning to ensure that building, grounds and public properties are maintained free from accumulations of waste materials and rubbish.
- B. Wet down dry materials and rubbish to lay dust and prevent blowing dust.
- C. At reasonable intervals during progress of Work, clean site and public properties, and dispose of waste materials, debris and rubbish.
- D. Provide on-site containers for collection of waste materials, debris and rubbish.
- E. Remove waste materials, debris and rubbish from site and legally dispose of at public or private dumping areas off OWNER's property.
- F. Handle materials in a controlled manner with as few handlings as possible; do not drop or throw materials from heights.
- G. Each subcontractor areas of work shall thoroughly be cleaned of all materials and equipment installed from their areas of work.

3.2 FINAL CLEANING

- A. Employ experienced workers, or professional cleaners, for final cleaning.
- B. In preparation for substantial completion, conduct final inspection of sight-exposed interior and exterior surface, and of concealed spaces.
- C. Repair, patch and touch up marred surfaces to specified finish, to match adjacent surfaces.
- D. Broom clean paved surfaces; rake clean other surfaces of grounds.
- E. Maintain cleaning until Project, or portion thereof, is occupied by OWNER.
- F. The CONTRACTOR shall restore or replace existing property or structures as promptly and practicable as work progresses.

(END OF SECTION)

SECTION 02000

GENERATIONS CENTER PARKING LOT
CIP PK 20-01

GENERAL TECHNICAL

SECTION 02000 GENERAL TECHNICAL

A-1 SCHEDULE

Attention is directed to Section A-15 "Notice to Area Residents" as a controlling scheduling item of work. The Contractor shall submit the following technical information prior to the preconstruction conference:

1. A preliminary Construction Schedule indicating the starting and completion dates of the various stages of the Work.
2. Traffic Control Plan.
3. Erosion and Sediment Control Plan

A-2 ORDER OF WORK

In general, the order of work shall be as follows:

1. Applicable Traffic Control
2. Construction
3. Project Clean-up

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

A-3 RELATIONS WITH CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

This location is within an area controlled by the Regional Water Quality Control Board. The Contractor shall fully inform himself of all rules, regulations, and conditions that may govern his operations in said area and shall conduct his work accordingly. Full compensation for conforming to the requirements of this section shall be considered as included in the contract prices.

A-4 TEMPORARY EROSION CONTROL

Temporary erosion control shall consist of, but not be limited to, constructing such facilities and taking such measures as are necessary to prevent, control and abate water, mud, and erosion damage to public and private property as a result of the construction of this project. Conformance with the requirements of this section shall in no way relieve the Contractor from his responsibilities, as provided in Section 13, " Water Pollution Prevention ", and Section 5-1.36, "Property and Facility Preservation", of the Standard Specifications. Temporary erosion control features as are necessary to prevent damage during the winter season shall be constructed and functioning. The Contractor shall construct such supplementary temporary erosion control facilities as are necessary to protect adjacent private and public property.

Temporary erosion control measures shall conform to the current edition of the CASQA Construction BMP Handbook for erosion and sediment control measures and shall include but not be limited to the protection of inlets and storm manholes to prevent oil and aggregate from entering the storm drain system. Full compensation for any cost involved in performing planned permanent storm water pollution prevention and erosion control to act as temporary storm water pollution

SECTION 02000

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GENERAL TECHNICAL

prevention and temporary erosion control shall be considered as included in the lump sum paid for the "Storm Water Pollution Prevention Program".

A-5 PRESERVATION AND PROTECTION OF TREES AND PLANTINGS

Preservation and protection of existing trees shall conform to Section 5-1.36, "Property and Facility Preservation", of the Standard Specifications and these Technical Specifications.

Payment for Preservation and Protection of Trees and Plantings as well as any necessary pruning shall be included in the various items of work and no separate payment will be made therefore.

A-6 PROGRESS SCHEDULE

Progress schedules will be required for this contract and shall conform to the provisions in Section 8 "Prosecution and Progress" of the Standard Specifications.

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

A-7 COOPERATION

Attention is directed to Sections 7, "Legal Relations and Responsibility to the Public," and Section 8, "Prosecution and Progress", of the Standard Specifications and to these General Technical Specifications. Other forces may be engaged in constructing improvements adjacent to the project. In some instances, the Contractor may be required to coordinate work and share work areas with PG&E, AT&T, Verizon, Comcast and the City's other contractors. The Contractor shall cooperate at all times with utility agencies and other contractors in the vicinity of the project and as directed by the City. Full compensation for conforming to the requirements of this section shall be considered as included in the contract prices paid for the various items of work and no additional compensation will be allowed.

A-8 SAFETY

The Contractor is hereby specifically informed that under this contract he has the sole responsibility for the safety of his work, including his workmen, equipment and that of subcontractors, and of the general public as they may come in contact with the work. The Engineer or Inspector has specifically not been hired to review the Contractor's safety or methods of operation.

A-9 OBSTRUCTIONS

Attention is directed to Section 8, "Prosecution and Progress" of the Standard Specifications and these General Technical Specifications. Attention is directed to the existence of underground power, telephone, cable television, gas, water, sewer, streetlight conduits and irrigation lines within the area in which construction is to be performed. The Contractor will be required to work around these facilities as needed to perform work in accordance with the plans. Prior to starting work, the Contractor shall (a minimum of 1 week in advance) call Underground Service Alert (USA), toll free, at 811 or (800) 642-2444 and provide USA with all necessary data relative to the proposed work. USA will accept calls and process information for participating agencies who have

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underground facilities in the area between the hours of 7:30 a.m. and 5:00 p.m. daily, except Saturdays, Sundays, and holidays. Between the hours of 5:00 p.m. and 7:30 a.m. calls will be recorded and then processed after 7:30 a.m. For emergency situations, after business hours and on Saturdays, Sundays and holidays, the Contractor shall contact the organization owning the affected facility. Upon notification, agencies having facilities in the area of the proposed excavation will mark their locations in the field using USA standard colors and codes to identify the facility's location.

The Contractor will be required to work around public utility facilities and other improvements that are to remain in place within the construction area, or that have yet to be relocated, and he will be held liable to the owners of such facilities for interference with services resulting from his operations.

Any delays claimed by the Contractor as a direct result of the utility facilities not being rearranged as provided will not be recognized nor will any delays be considered right-of-way delays within the meaning of Section 8-1.07, "Delays", of the Caltrans Standard Specifications, except that any such delays will entitle the Contractor to an extension of time as provided in Section 8-1.10, "Liquidated Damages", of the Standard Specifications. The Contractor shall immediately notify the Engineer of any such delays.

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

A-10 HOURS OF WORK

Construction work shall be limited to the hours between 7:00 AM and 5:00 PM Monday through Friday. Except as stated below, no construction is permitted on Saturdays or Sundays. Contractor's attention is directed to restrictions in the section entitled "Maintaining Traffic," in Section A-13 of these specifications.

A-11 DUST CONTROL

Dust control shall conform to the provisions in Section 10-5, "Dust Control," of the Standard Specifications and to these Technical Specifications.

Full compensation for all dust control will be considered as included in the prices paid for the various items of work involved, and no additional compensation will be allowed.

A-12 CONSTRUCTION AREA SIGNS

Construction area signs shall be furnished, installed and maintained, and removed when no longer required in accordance with the provisions in Section 12, "Temporary Traffic Control" of the Standard Specifications and when no longer required with the provisions in these Technical Specifications.

Construction area signs shall not be used until they are needed, and when no longer needed they shall be removed from the site of the work. If speed limit construction signs are shown, they shall be covered when no work is being performed and the existing speed limit signs, if of a different speed limit than speed limit construction signs, shall be covered when work is being performed.

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The Contractor shall notify the Underground Service Alert (USA) in accordance with the section on "Obstructions" in these Technical Specifications at least two (2) working days, but no more than 14 calendar days, prior to commencing any excavation for posts for construction area signage. All excavations required to install construction area signs shall be performed by hand methods without the use of power equipment, except that power equipment may be used if it is determined there are no utility facilities in the area of the proposed post holes. Stationary-mounted signs shall be erected on wood posts in the same manner specified for roadside signs and in accordance with the Caltrans Standard Plans.

Attention is directed to section entitled "Traffic Control System" elsewhere in these General Technical Specifications regarding compensation for construction area signs shown on the plans for traffic control system for lane closure. Construction area signs shall be paid as part of the bid item for Traffic Control. No separate payment will be made therefore.

A-13 MAINTAINING TRAFFIC

Attention is directed to Section 7-1.03, "Public Convenience," Section 7-1.04, "Public Safety," and Section 12 "Temporary Traffic Control", of the Standard Specifications. Nothing in these General Technical Specifications shall be construed as relieving the Contractor from his responsibilities as provided in said Section 7-1.04. Lane closures shall conform to the provisions in the section of these Technical Specifications entitled "Traffic Control System." Personal vehicles of the Contractor's employees shall not be parked on the traveled way, including any section closed to public traffic.

The Contractor shall notify the Engineer of his intent to begin work at least 5 days before work is begun.

The Contractor shall cooperate with local authorities relative to handling traffic through the area.

Whenever vehicles or equipment are parked on the shoulder within 6 feet of a traffic lane, the shoulder area shall be closed with fluorescent traffic cones or portable delineators placed on a taper in advance of the parked vehicles or equipment and along the edge of the pavement at 25-foot intervals to a point not less than 25 feet past the last vehicle or piece of equipment. A minimum of 9 cones or portable delineators shall be used for the taper. A C23 (Road Work Ahead) or C24 (Shoulder Work Ahead) sign shall be mounted on a telescoping flag tree with flags. The flag tree shall be placed to provide adequate sight distance to oncoming traffic. Depending on the location, more than one flag tree might be required.

When leaving a work area and entering a roadway carrying public traffic, the Contractor's equipment, whether empty or loaded, shall in all cases yield to public traffic. The Contractor shall maintain at least a single 11-foot lane on each street on which work is occurring. The Contractor may propose alternative traffic control measures including full street closures when submitting the traffic control plan and work schedule. Any full road closures and/or other deviations for the above requirements shall be approved by the Engineer prior to beginning work and notifying residents.

Minor deviations from the requirements of this section concerning hours of work which do not significantly change the cost of the work may be permitted upon the written request of the Contractor if in the opinion of the Engineer public traffic will be better served and the work

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expedited. Such deviations shall not be adopted until the Engineer has indicated his written approval. All other modifications will be made by contract change order.

The Contractor shall maintain traffic flow in and around school zones. Special attention must be given to minimize traffic impacts during drop-off and pick-up hours.

A-14 TRAFFIC CONTROL SYSTEM

A traffic control system shall consist of closing traffic lanes in accordance with the details shown on the plans, the provisions of Section 12, "Temporary Traffic Control", of the Standard Specifications, and the provisions under "Maintaining Traffic" elsewhere in these General Technical Specifications.

The Contractor shall submit a traffic control plan to the City at the pre-construction meeting. The traffic control plan shall indicate sign placement for working on the various streets and show compliance with these requirements. The provisions in this section will not relieve the Contractor from his responsibility to provide such additional devices or take such measures as may be necessary to comply with the provisions in Section 7-1.04, "Public Safety", of the Standard Specifications.

The base material of construction area signs shall not be plywood, except as noted on the plans. If any component in the traffic control system is damaged, displaced or ceases to operate or function as specified, from any cause, during the progress of the work, the Contractor shall immediately repair said component to its original condition or replace said component and shall restore the component to its original location.

Payment for "Traffic Control System" will be made at the Contract Lump Sum price named in the Bid Schedule. The contract lump sum price paid for "Traffic Control System" shall include full compensation for furnishing all labor (including flagging costs), materials, (including signs) tools, equipment, and incidentals and for doing all the work involved in placing, removing, storing, maintaining, and moving to new locations, replacing, and disposing of the components of the traffic control system as shown on the plans, as specified in the Standard Specifications and these Technical Specifications, and as directed by the Engineer.

Section 12, "Temporary Traffic Control", of the Standard Specifications is amended to read: The cost of furnishing all flaggers will be borne solely by the Contractor. The adjustment provisions in Section 4-1.05, "Changes and Extra Work" of the Standard Specifications, shall not apply to the item of traffic control system. Adjustments in compensation for traffic control system will be made only for increased or decreased traffic control system required by changes ordered by the Engineer, and will be made on the basis of the cost of the increased or decreased traffic control necessary. Such adjustment will be made on a force account basis as provided in Section 9-1.04, "Force Account ", of the Standard Specifications for increased work, and estimated on the same basis in the case of decreased work.

Traffic control system required for work, which is classed as extra work, as provided in Section 4-1.05, "Changes and Extra Work", of the Standard Specifications, will be paid for as a part of said extra work.

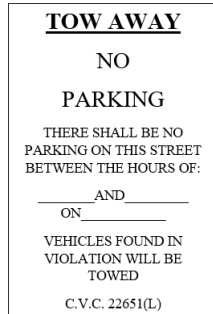
SECTION 02000

A-15 NOTICE TO AREA RESIDENTS

The Contractor shall provide notice to all residents and businesses affected by the construction relative to the Contractor’s schedule of work including the traffic control provisions during construction. The Contractor shall submit a draft notice to the City for approval at least 10 days prior to beginning work. The Notice to Area Residents shall be a door hanger type notice printed on heavy paper or cardboard. The dates of work shall match the work schedule provided to and approved by the City. If the Contractor’s schedule shall change to include dates of work beyond the dates indicated in the posted notices, the Contractor shall repost such notices at least 72 hours prior to commencing work on the changed schedule work.

A-16 REMOVAL OF ON-STREET PARKING

Seventy-two (72) hours prior to construction, the Contractor shall place barricades signed "NO PARKING - TOW AWAY - Specific Time and Date(s)" at 50 to 60 foot intervals in the work area, similar to the example below:



"NO PARKING - TOW AWAY " signs must also state "C.V.C. 22651 (L)." The first and last sign shall also be stenciled with the word "BEGIN". "NO PARKING - TOW AWAY" signs shall be submitted for approval by the Engineer before their use. The Contractor shall notify the Engineer immediately after the "NO PARKING - TOW AWAY" signs are in place. The Contractor shall supply " NO PARKING - TOW AWAY " signs and barricades.

Failure to comply with this section will prevent the City from towing vehicles parked in the proposed work area. Work will not proceed if vehicles are parked in the proposed work area. Full compensation for providing all labor, equipment and materials necessary for the removal of on-street parking shall be considered as included in the prices paid for related bid items and no additional compensation shall be allowed.

A-17 WATERING

Watering shall conform to the provisions in Section 10-6, "Watering," of the Standard Specifications.

The City will supply a hydrant meter for construction at one location at no cost to the Contractor. The location and rate of withdrawal will be subject to City approval. Contractor is responsible for \$1,200 refundable deposit for hydrant meter.

Full compensation for developing a water supply shall be considered as included in the contract prices paid for the various items of work involved and no additional compensation will be allowed.

(END OF SECTION)

SECTION 02300

**GENERATIONS CENTER PARKING LOT
CIP PK 20-01**

EARTHWORK & PREPARATION OF SITE FOR PAVING

**SECTION 02300
EARTHWORK & PREPARATION OF SITE FOR PAVING**

Refer to California Department of Transportation 2018 Standard Specifications Sections 17-2, 19-1 and 19-2.

(END OF SECTION)

SECTION 02315

GENERATIONS CENTER PARKING LOT
CIP PK 20-01

TRENCHING, BACKFILL, COMPACTION AND GRADING

SECTION 02315 TRENCHING, BACKFILL, COMPACTION AND GRADING

PART ONE - GENERAL

1.01 DESCRIPTION

- A. This item of work consists of furnishing all labor, material, tools, and equipment, to perform all the work involved in trench excavation, providing adequate sheeting, shoring, bracing, and dewatering (if needed), and placement and backfill of bedding and backfill materials, all conforming to applicable safety regulations, for the installation of new utility lines and related items of work; and all work involved in slope and swale grading; as required on the plans, described in these technical requirements, and directed by the Engineer.

PART TWO - PRODUCTS

2.01 SUBMITTALS

- A. Prior to commencing work on this project, the Contractor shall submit to the City for approval a plan and schedule of construction, which will allow the least inconvenience to the public and/or residents.
- B. Submit trenching, backfill, grading and compaction plan and procedures to the Engineer for approval at least five (5) working days before work is started. Procedures shall provide for coordination with other work in progress, a detailed description of methods and equipment to be used for each operation, and sequence of operations.
- C. Any trench excavations more than four feet (4') deep will require shoring. The Contractor shall submit to the Engineer for approval, the structural calculations to verify the structural safety and adequacy of the trench sheeting, shoring and bracing to be used on the project. No such plan shall allow shoring, sloping or a protection system less effective than that required by the Construction Safety Orders of the State Division of Occupational Safety and Health. The structural calculations must be prepared, stamped and signed by a Registered Engineer licensed to practice in the State of California.

2.02 DUST CONTROL

- A. Take appropriate action to check the spread of dust to surrounding areas and to avoid the creation of a nuisance in the surrounding area. Do not use water if it results in hazardous or objectionable conditions, such as flooding or pollution. Comply with all dust regulations imposed by local air pollution agencies.

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GENERATIONS CENTER PARKING LOT
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TRENCHING, BACKFILL, COMPACTION AND GRADING

2.03 PROTECTION

- A. Protection of Existing Work: Before beginning any cold planing work, the Contractor shall carefully survey the existing site and examine the drawings and specifications to determine the extent of the work. The Contractor shall take all necessary precautions to ensure against damage to existing work to remain in place, to be reused, or to remain the property of the City. Any damage to such work shall be repaired or replaced as approved by the Engineer at no additional cost to the City. The Contractor shall carefully coordinate the work of this section with all other ongoing work.

2.04 REFERENCES

- A. Bedding and backfill materials shall conform to the requirements of City Standard Details R-28.

PART THREE - EXECUTION

3.01 EXECUTION

Trenching, Backfill, Grading and Compaction shall conform to the provisions of City Standard Details R-28; and Section 19 "Earthwork" of the State Standard Specifications and the details shown on the Construction Plans.

- A. When the trench bottom is unstable due to a wet or spongy foundation, the trench bottom must be stabilized with gravel or crushed rock. If the unstable condition was caused by the operations of the Contractor, such gravel or crushed rock shall be furnished at the Contractor's expense. The Engineer shall be the sole judge of the suitability of the trench bottom and as to the amount of gravel or crushed rock needed to stabilize a soft foundation. The Contractor shall remove any soft material and replace it with gravel or crushed rock when ordered to do so by the Engineer. Payment for removal of any soft material not caused by the operations of the Contractor, and replacement with gravel or crushed rock, shall be paid for as extra work.
- B. Trenches shall be excavated to the alignment indicated on the project plans. Maximum length of open trench shall be 200 feet or the distance necessary to accommodate the amount of pipe able to be installed in a single day; whichever is greater unless otherwise approved by the Engineer.
- C. The temporary slopes shall be protected from rainfall and other sources of running water, and some sloughing into the excavation should be expected, especially if construction equipment is operated close to the excavations. The Contractor should anticipate that some slope maintenance would be necessary.
- D. All trenches must be back filled and compacted or covered with steel plates (if approved by the Engineer) prior to Contractor leaving job site each day. All plates

SECTION 02315

GENERATIONS CENTER PARKING LOT
CIP PK 20-01

TRENCHING, BACKFILL, COMPACTION AND GRADING

shall be placed and secured against displacement. Asphalt cutbacks shall be placed around all plate edges to provide a smooth transition.

- E. If groundwater is encountered, the Contractor shall provide proper dewatering equipment to maintain dry trenches for pipe laying operations. De-watering shall be performed in accordance with the provisions of the City Standards.
- F. Heavy equipment shall not be used to compact bedding immediately above the pipeline. Lightweight mechanical tampers or vibrating plate compactors shall be used for bedding compaction. Jetting is not permitted.

3.02 GRADE SLOPES / SWALES

A. Protection

- 1. Protect trees, plant growth, and features designated to remain.
- 2. Protect existing structures and utilities from damage or displacement.

B. Clearing and Removal

- 1. Clear areas required under areas of new construction.
- 2. Remove plants and root system of plants to 18" below existing grade.
- 3. Remove debris, rock and extracted plant life from site.

C. Preparation

- 1. Identify required lines, levels, contours, and datum.
- 2. Stake and flag locations of known utilities.
- 3. Locate, identify, and protect utilities that remain from damage.
- 4. Protect above and below grade utilities that remain.
- 5. Protect plant life, and other features remaining as a portion of final landscaping.
- 6. Protect bench marks, existing structures, paving, and curbs from excavating equipment and vehicular traffic.

D. Filling/Grading

- 1. Fill and cut areas to contours and elevations as shown on the contract plans. Maximum 1 vertical to 4 horizontal slope.

SECTION 02315

GENERATIONS CENTER PARKING LOT
CIP PK 20-01

TRENCHING, BACKFILL, COMPACTION AND GRADING

2. Place fill materials on continuous layers and compact to 90% relative compaction. Fill shall be placed in 6 to 8 inch thick lifts.
3. Maintain optimum moisture content of fill materials to attain required compaction density.
4. Slope grade away from pavement unless noted otherwise.
5. Make grade changes gradual. Blend slope into level areas.
6. Remove surplus fill materials from site.

3.03 FIELD QUALITY CONTROL

- A. Field Sampling and Testing: Contractor shall cooperate/coordinate with the City and Testing Laboratory to enable the Laboratory to perform its functions timely and properly. The initial testing costs shall be borne by the City.
- B. If tests indicate Work does not meet specified requirements, the Contractor shall remove work, replace and retest at the Contractor's expense.
- C. Frequency of Tests: Density tests shall be taken in randomly selected locations designated by the City.
- D. Cleanup debris and rubbish: clean site daily of loose papers, debris, rubbish and trash. The construction site shall be maintained in good order. Remove, transport, and dispose of debris and rubbish to a facility licensed to accept this material in a manner that will prevent spillage on streets or adjacent areas. The Contractor is responsible for cleaning up spillage from streets and adjacent areas at no additional cost to the City.
- E. Damage to existing structures, facilities, utilities, trees, lawns, shrubs, pavements, or other property caused by the Contractor shall be restored to original condition at the Contractor's expense, prior to final inspection.

(END OF SECTION)

SECTION 02570

GENERATIONS CENTER PARKING LOT
CIP PK 20-01

CONCRETE SIDEWALK, CURBS AND GUTTERS

SECTION 02570 CONCRETE SIDEWALK, CURBS, AND GUTTERS

PART ONE - GENERAL

1.01 SECTION INCLUDES

- A. Concrete paving, curbs, and mowstrips.
- B. Thickened edge.

1.02 RELATED SECTIONS

- A. Section 01400 - Quality Requirements, field samples.
- B. Section 02300 – Earthwork, preparation of site for paving
- C. Section 02704 - Aggregate Base, aggregate base preparation.
- D. Section 03100 - Concrete Forms and Accessories.
- E. Section 03200 - Concrete Reinforcement.

1.03 PRICE AND PAYMENT PROCEDURES

- A. Payment of the various Construction Items described in the Schedule of Values shall be considered full compensation for work of this Section.
- B. Payment for thickened edges shall include all work in addition to slab of which the turn down edge is a part.

1.04 REFERENCES

- A. ACI 211.1 - Standard Practice for Selecting Proportions for Normal, Heavyweight, and Mass Concrete; American Concrete Institute International; 1991 (Reapproved 2002).
- B. ACI 301 - Specifications for Structural Concrete for Buildings; American Concrete Institute International; 2005.
- C. ACI 302.1R-4 - Guide for Concrete Floor and Slab Construction.
- D. ACI 304R - Guide for Measuring, Mixing, Transporting, and Placing Concrete; American Concrete Institute International; 2000.
- E. ACI 305R - Hot Weather Concreting; American Concrete Institute International; 1999.

SECTION 02570

GENERATIONS CENTER PARKING LOT
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CONCRETE SIDEWALK, CURBS AND GUTTERS

- F. ACI 306R - Cold Weather Concreting; American Concrete Institute International; 1988 (Reapproved 2002).
- G. ASTM A 615/A 615M - Standard Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement; 2009b.
- H. ASTM C 33 - Standard Specification for Concrete Aggregates; 2008.
- I. ASTM C 39/C 39M - Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens; 2009a.
- J. ASTM C 94/C 94M - Standard Specification for Ready-Mixed Concrete; 2009a.
- K. ASTM C 150 - Standard Specification for Portland Cement; 2007.
- L. ASTM C 260 - Standard Specification for Air-Entraining Admixtures for Concrete; 2006.
- M. ASTM C 309 - Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete; 2007.
- N. ASTM C 494/C 494M - Standard Specification for Chemical Admixtures for Concrete; 2008a.
- O. ASTM C 618 - Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete; 2008a.
- P. ASTM D 1751 - Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (nonextruding and Resilient Bituminous Types); 2004 (Reapproved 2008).

1.05 SUBMITTALS

- A. Product Data: Provide data on joint filler, admixtures, curing compound, and accessories.
- B. Design Data: Indicate pavement thickness, designed concrete strength, reinforcement, and typical details. Allow 10 days for review by Owner's testing service.
- C. Certificate of Compliance: Submit certification by the materials and mix producers indicating that the materials and mixes are in compliance with these specifications. Certification shall be signed by the material and mix producers.
- D. Batch Tickets: Conform to ASTM C94.
- E. Placement Record.

SECTION 02570

GENERATIONS CENTER PARKING LOT
CIP PK 20-01

CONCRETE SIDEWALK, CURBS AND GUTTERS

1.06 QUALITY ASSURANCE

- A. Owner may employ the services of independent inspection and testing agencies for inspections and tests required for work of this Section. Contractor shall comply with requirements of the agencies during execution of the work.
- B. Perform work in accordance with ACI 301.
- C. Comply with City and Caltrans standard specifications as applicable.
- D. Acquire cement and aggregate from same source for all work.
- E. Installer Qualifications: Company specializing in performing the work of this section with minimum 10 years related experience and demonstrative experience on at least 5 successful projects of a similar scope to this project. Submit applicators/contractors resume of successful projects utilizing specified concrete color system.
- F. Field Samples
 - 1. General: Contractor shall be responsible for storing, transport, and disposal of all field samples.
 - 2. Comply with requirements of Section 01400.
 - 3. Construct a 5'x 5' field sample of each concrete finish. Use specified mixes and include examples of expansion joints, tooled control joints, workmanship, finish, and sealant.
 - 4. Cast field samples at approved location and make provisions to transport sample without damage.
 - 5. Approved field samples will be used to judge acceptance of completed work.

PART TWO - PRODUCTS

2.01 PAVING ASSEMBLIES

- A. Comply with applicable requirements of ACI 301.
- B. Conform to City Standards.

2.02 FORM MATERIALS

- A. Form Materials: Conform to ACI 301.
- B. Joint Filler: Preformed; non-extruding bituminous type (ASTM D 1751).
 - 1. Thickness: 1/2 inch.

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CONCRETE SIDEWALK, CURBS AND GUTTERS

2.03 REINFORCEMENT

- A. Reinforcing Steel: ASTM A 615/A 615M Grade 40 (280); deformed billet steel bars; unfinished finish.
- B. Dowels: ASTM A 615/A 615M Grade 40 (280); deformed billet steel bars; unfinished finish.

2.04 CONCRETE MATERIALS

- A. Obtain cementitious materials from same source throughout.
- B. Cement: ASTM C 150 Normal - Type I portland type, grey color.
- C. Fine and Coarse Mix Aggregates: ASTM C 33.
- D. Fly Ash: ASTM C 618, Class C or F.
- E. Water: Clean, and not detrimental to concrete.
- F. Air Entrainment Admixture: ASTM C 260.
- G. Chemical Admixtures: ASTM C 494/C 494M, Type A - Water Reducing, Type C - Accelerating, and Type G - Water Reducing, High Range and Retarding.

2.05 ACCESSORIES

- A. Curing Compound: ASTM C 309, Type 1, Class A.
 - 1. Acceptable Products:
 - a. 1100-Clear, by WR Meadows, Inc, www.wrmeadows.com, or equal.
- B. Joint Sealant: Sonolastic Paving Joint Sealant by Sonneborn or approved equal conforming to ASTM C920.
 - 1. Horizontal Conditions: Sonolastic SL1.
 - 2. Color: Provide manufacturer's full range of available colors to Engineer for selection.
- C. Dowel Alignment:
 - 1. Speed Dowel system by Greenstreak. Size per plans.
 - 2. Diamond Dowel System by PNA, Plate size and spacing per ACI 302.1R-04.

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2.06 CONCRETE MIX DESIGN

- A. Admixtures: Add acceptable admixtures as recommended in ACI 211.1 and at rates recommended by manufacturer.
- B. Concrete Properties:
 - 1. Conform to City standards.
 - 2. Compressive Strength, when tested in accordance with ASTM C 39/C 39M at 28 days: As scheduled.
 - 3. Maximum Slump: 3 inches.
 - 4. Maximum Aggregate Size: 3/4 inch.

2.07 MIXING

- A. Transit Mixers: Comply with ASTM C 94/C 94M.

2.08 SOURCE QUALITY CONTROL

- A. Submit proposed mix design of each class of concrete to Engineer for review prior to commencement of work.
- B. Tests on cement and aggregates will be performed to ensure conformance with specified requirements.
- C. Test samples in accordance with ACI 301.

PART THREE - EXECUTION

3.01 EXAMINATION

- A. Verify compacted subgrade is acceptable and ready to support paving and imposed loads.
- B. Verify gradients and elevations of base are correct.
- C. Start of Work of this Section will indicate Contractor's acceptance of existing conditions.

3.02 SUBBASE

- A. See Section 02704 for construction of base course for work of this Section.

3.03 PREPARATION

- A. Moisten base to minimize absorption of water from fresh concrete.
- B. Prepare Field Samples and notify Engineer to schedule review.

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- C. Adjust utility boxes, risers, lids and other appurtenances as required to meet and match proposed surface finish grade.

3.04 FORMING

- A. Place and secure forms to correct location, dimension, profile, and gradient.
- B. Form curves at constant, true radius. Straight steel forms shall not be used to form curves.
- C. Allow time for adequate review by Engineer or Designated Representative prior to scheduling pour and placement of concrete. Accommodate this review into the project schedule.
- D. Construct formwork to extend from the surface design elevation to the full depth of the paving cross section. Do not allow forms to extend above design elevations.
- E. Place dowel system according to manufacturer's recommendations.

3.05 PLACING CONCRETE

- A. Place concrete in accordance with ACI 304R.
- B. Ensure reinforcement, inserts, embedded parts, formed joints are not disturbed during concrete placement.
- C. Place concrete continuously over the full width of the panel and between predetermined construction joints. Do not break or interrupt successive pours such that cold joints occur.

3.06 JOINTS

- A. General:
 - 1. Accurately construct joints to the design lines indicated on the Drawings.
 - 2. Align curb, gutter, and sidewalk joints.
 - 3. Joints at walkway intersection shall be laid out as directed in the field. Mark joint locations on forms for review prior to placement of concrete. Adjust as directed.
 - 4. Joints along walkways between intersections shall be located at equal intervals at a distance approximately equal to the width of the walk.
- B. Isolation Joints:
 - 1. Place isolation joints as indicated on Drawings.
 - 2. Place joint filler vertical in position, in true to design lines. Secure to formwork during concrete placement to resist movement by wet concrete.

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3. Place joint filler between paving components. Recess top of filler 1/4- inch or to bottom of tooled radius.

C. Control Joints:

1. Construct as indicated on the Drawings.
2. Control joints shall be tooled with a standard tool. Tool shall leave rounded edges and shall completely separate aggregate the full depth of the joint.

D. Cold Joints:

1. Construct as indicated on the Drawings.
2. Plan execution of work so that cold joints occur at predetermined joint locations as shown on drawings and as required.

3.07 FINISHING

- A. Vehicular Paving: Light broom, texture perpendicular to pavement direction.
- B. Sidewalk Paving: Light broom, texture perpendicular to direction of travel with troweled and radiused edge 1/2-inch radius.
- C. Place curing compound on exposed concrete surfaces immediately after finishing. Apply in accordance with manufacturer's instructions.

3.08 TOLERANCES

- A. Maximum Variation of Surface Flatness: 1/4 inch in 10 ft.
- B. Maximum Variation from True Position: 1/4 inch.

3.09 FIELD QUALITY CONTROL

- A. All testing to conform to City standards.
- B. Observations: Notify Engineer at the following points during the progress of the Work. No subsequent Work shall be executed until Engineer has had the opportunity to observe the condition and status of the Work.
 1. When field samples are ready for review.
 2. Forms: When forms, base material, and embedded items are in place.
- C. Testing:
 1. Appointed testing agency will take cylinders and perform slump and air entrainment tests in accordance with ACI 301.
 2. Three concrete test cylinders will be taken for every 100 or less cubic yards of each class of concrete placed each day.

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3. One additional test cylinder will be taken during cold weather and cured on site under same conditions as concrete it represents.
4. One slump test will be taken for each load of concrete upon delivery. Perform air entrainment test with each slump test.
5. Contractor shall maintain records of placed concrete items. Record date, location of pour, quantity, air temperature, and test samples taken.

3.10 PROTECTION

- A. Immediately after placement, protect pavement from premature drying, excessive hot or cold temperatures, and mechanical injury.

3.11 CLEANING

- A. Clean concrete of efflorescence in accordance with manufacturer's instructions.
- B. Ensure concrete has sufficiently cured before cleaning.
- C. Use concrete cleaner approved by pigment manufacturer and Engineer. Do not use cleaners containing acid.
- D. Apply cleaner in accordance with cleaner manufacturer's instructions.

END OF SECTION

SECTION 02580

GENERATIONS CENTER PARKING LOT
CIP PK 20-01

PAVEMENT MARKINGS

SECTION 02580 PAVEMENT MARKINGS

PART ONE - GENERAL

1.01 DESCRIPTION

- A. Removal of existing permanent stripes, markings and pavement markers.
- B. Application of permanent stripes and pavement markings.
- C. Furnishing and installation of raised pavement markers.
- D. The work shall consist of installing signs, at the locations shown on the project plans and in accordance with the Contract Documents.
- E. Furnishing and installation of City Standard Barricade.
- F. Restoration of existing improvements.
- G. Cleanup and removal of debris.
- H. Supplying all labor, materials, equipment and apparatus not specifically mentioned herein or noted on the plans, but which are incidental and necessary to complete the work specified.

1.02 QUALITY ASSURANCE

- A. Manufacturer's certificates showing conformance with this specification shall be delivered with each shipment of materials and equipment delivered to the job site.
- B. Codes and Standards
 - 1. The standards, recommended methods and tests contained in the publications cited below shall determine the standards for the work to be done hereunder unless otherwise specifically designated on the plans:
 - a. The State of California Maintenance Manual, latest edition.
 - b. The State of California MUTCD, latest edition.
 - c. The regulations, standards, and tests of the State of California Department of Transportation Materials and Research Division.
 - d. The State of California Standard Plans and Specifications.
 - 2. Pavement striping and markings shall be placed in the locations shown on the plans and shall conform to the standards illustrated in the State of California MUTCD and Maintenance Manual.

SECTION 02580

GENERATIONS CENTER PARKING LOT
CIP PK 20-01

PAVEMENT MARKINGS

PART TWO - PRODUCTS

2.01 REMOVAL OF EXISTING STRIPING, MARKINGS, LEGENDS AND MARKERS

- A. CONTRACTOR shall submit a lead compliance plan prepared by a Certified Industrial Hygienist. This plan must be implemented prior to removing any yellow or white paint. Asphalt and paint grindings containing yellow paint must be tested for lead content. If the grindings are found to contain lead at hazardous levels, they must be disposed of at a Class I facility.
- B. Before obliterating any pavement delineation or markings that are to be replaced, the CONTRACTOR shall document and reference the existing pavement delineation and markings with sufficient control points to reestablish their alignment.
- C. Thermoplastic traffic stripes, markings and legends shall be removed to the fullest extent possible from the pavement by grinding. Material left on the pavement as a result of removing traffic striping, legends and markings shall be removed as the work progresses. Accumulations of material, which might interfere with drainage or constitute a hazard to traffic, will not be permitted.
- D. Painted traffic stripes, markings and legends shall be removed to the fullest extent possible from the pavement by sandblasting. Material left on the pavement as a result of removing traffic striping, legends and markings shall be removed as the work progresses. Accumulations of material, which might interfere with drainage or constitute a hazard to traffic, will not be permitted.
- E. Pavement markers shall be removed. Removal shall be performed in such a manner so as to leave the existing pavement undamaged. Should the removal process leave a divot of more than ¼-inch deep, each divot shall be repaired with an approved bituminous adhesive. Material left on the pavement as a result of removing pavement markers shall be removed as the work progresses. Accumulations of material, which might interfere with drainage or constitute a hazard to traffic, will not be permitted.

2.02 THERMOPLASTIC STRIPES AND MARKINGS

- A. Thermoplastic stripes and markings shall be applied hot in conformance with the manufacturer's recommended instructions and the applicable requirements of Section 84-2.04 of the State Standard Specifications.
- B. Striping and markings shall be installed accurately to the line reestablished by the CONTRACTOR. No striping and markings shall be installed until the alignment and surface has been approved by the City Engineer.

SECTION 02580

GENERATIONS CENTER PARKING LOT
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PAVEMENT MARKINGS

2.03 PAVEMENT MARKERS

- A. Pavement markers shall be installed in conformance with the requirements of Section 85-1.06 of the State Standard Specifications.
- B. Markers shall be installed accurately to the line reestablished by the CONTRACTOR. No markers shall be installed until the alignment and surface has been approved by the City Engineer.

2.04 APPLICATION OF PAVEMENT STRIPING, MARKINGS AND MARKERS

- A. The CONTRACTOR shall apply all pavement stripes, markings and markers on the new surface in accordance with the manufacturer's recommendation and these technical specifications.

2.05 REFERENCES

- A. Bedding and backfill materials shall conform to the requirements of City Standard Details R-28.

PART THREE - EXECUTION

3.01 RESTORATION OF EXISTING IMPROVEMENTS

- A. Existing signs, striping, markings and markers removed or damaged shall be replaced in kind.
- B. Existing landscaping and planting removed, damaged or disturbed shall be replaced in kind.

3.02 TRAFFIC AND STREET NAME SIGNS

- A. All traffic and street name signs shall include new posts, furnished and installed by the CONTRACTOR.
- B. The Engineer prior to installation shall approve all traffic and street name sign locations.
- C. Traffic and street name signs posts shall be installed in accordance with requirements of City Standard Detail R-25, unless otherwise noted.
- D. Existing signs or other markings removed or damaged due to installation of roadway striping shall be replaced in kind. Existing landscaping or planting removed, damaged or disturbed shall be replaced in kind.

SECTION 02580

**GENERATIONS CENTER PARKING LOT
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PAVEMENT MARKINGS

3.03 CLEANUP

- A. Upon completion of the installation of Roadway Striping, Markings and Pavement Markers, CONTRACTOR shall thoroughly clean the work site of all waste, rubbish and construction debris, drips, over-spray, improper markings, and tracked thermoplastic material; all of which shall be removed immediately from the pavement surface by methods approved by the Engineer.

(END OF SECTION)

SECTION 02703

GENERATIONS CENTER PARKING LOT
CIP PK 20-01

ASPHALT CONCRETE

SECTION 02703 ASPHALT CONCRETE

PART ONE - GENERAL

1.01 DESCRIPTION

- A. In general, this work consists of placing asphalt concrete paving per Section 39, "Asphalt Concrete", of the State Standard Specifications and described in these Technical Requirements, and directed by the Engineer.

1.02 REFERENCES

- A. Section 39, "Asphalt Concrete", of the State Standard Specifications.

PART TWO - PRODUCTS

2.01 SUBMITTALS

- A. Materials List: Submit copies of materials list, listing and identifying types and sources of materials proposed for the Work.
- B. Testing Laboratory Reports: Submit copies of laboratory test reports for asphalt concrete materials and mixtures.
- C. Mix Design: Submit mix design for asphaltic concrete.

2.02 QUALITY ASSURANCE

- A. Qualifications of Asphalt Concrete Producer: Use only materials which are furnished by a bulk asphalt concrete producer regularly engaged in production of hot-mix, hot-laid asphalt concrete.
- B. Testing and Inspection Services:
 - 1. Asphalt concrete paving shall be tested and inspected.
 - 2. Include sampling and testing of all asphalt concrete materials proposed for use in the Work, and tests and calculations for asphalt concrete mixtures.
- C. Samples may be taken and/or tests may be performed by the Testing Laboratory at any time during or after pavement work to determine quality and compaction. If quality and/or compaction do not meet these Specifications, the Contractor shall remove defective work, replace it with satisfactory work, and pay for retesting.
- D. No asphalt concrete shall be placed until the base course has been observed by the Engineer.

SECTION 02703

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ASPHALT CONCRETE

- E. In addition to provisions set forth elsewhere in this Contract, all sampling and testing specified herein shall be conducted by an approved testing laboratory.

2.03 JOB CONDITIONS

A. Weather Limitations:

1. Apply bituminous prime and tack coats only when ambient temperature in the shade is above 50 degrees F, and when the temperature has not been 35 degrees F or less for twelve hours immediately prior to application.
2. Do not apply prime and tack coats when base surface is wet or contains an excess of moisture that would prevent uniform distribution and required penetration.
3. Construct asphalt concrete surface course only when atmosphere temperature is above 50 degrees F, when underlying base is dry, and when weather is not rainy.

- B. Grade Control: Establish and maintain required lines and grades for each course during construction operations.

2.04 PROTECTION

- A. Protect products against damage during transportation, field handling, and installation of this work.
- B. Protect adjacent existing and newly placed construction and finishes as necessary to prevent damage during installation of this work.

2.05 MATERIALS

- A. Prime Coat: Liquid asphalt Type MC-250 conforming to Caltrans SS, Section 93.
- B. Paint Binder or Tack Coat: Diluted asphaltic emulsion Type SS-1 or CSS1 conforming to State Standard Specification, Section 94.
- C. Asphalt Concrete (conforming to Section 39, "Asphalt Concrete", of the State Standard Specifications):
 1. The asphalt concrete shall be "Type A", comprised of 3/4-inch maximum aggregate medium grade for the base courses "lower lifts".
 2. The asphalt concrete shall be "Type A", comprised of 1/2" maximum aggregate for the Lap Joint, Final Lift and Driveway Conform pavements.
 3. Asphalt Grade PG 64-16 conforming to State Standard Specification, Section 92.

SECTION 02703

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ASPHALT CONCRETE

4. The amount of asphalt binder to be mixed with the aggregate shall be between 4 and 7 percent by weight of the dry aggregate. The exact amount of asphalt binder to be mixed with the aggregate will be determined by a mix design submitted by the Contractor, to be approved by the Engineer no less than 5 days prior to paving.

PART THREE - EXECUTION

3.01 INSPECTION

- A. Verify that conditions are satisfactory for installation of asphalt concrete paving.
- B. Confirm that concrete adjacent to paving has been installed.
- C. Confirm that all embedded items are in place and at proper elevations prior to commencement of installation.
- D. DO NO PROCEED WITH WORK OF THIS SECTION UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.

3.02 PRIME COAT AND PAINT BINDER

- A. Uniformly apply prime coat, distributed at a rate of 0.20 to 0.50 gallons per square yard, over compacted sub-base surface.
- B. Apply sufficient material to penetrate and seal, but not flood, the surface.
- C. Apply paint binder by brush to contact surfaces of adjacent sawcut pavement, curbs, gutters, manholes, and other structures projecting into or abutting asphalt concrete pavement.
- D. Allow surfaces to dry until paint binder material is in proper condition of tackiness to receive asphalt concrete mixture.

3.03 PREPARATION AND PLACEMENT OF MIX

- A. Comply with the requirements of Caltrans SS, Section 39 for asphaltic concrete pavements. Place mix in maximum 3 inch layers and compact.
- B. Tolerance of finished grade shall be 1/4 inch plus or minus at any point. At no point shall the surface fail to drain.
- C. Asphalt concrete may be placed when the atmospheric temperature is lower than 50 degrees F, provided the asphalt concrete is placed directly into the asphalt paver hopper from the truck. Asphalt concrete may not be placed when atmospheric temperature is below 40 degrees F.

SECTION 02703

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ASPHALT CONCRETE

- D. “Lower Lifts” of asphalt concrete paving shall be held 1.5” below the finished surface; the final 1.5” lift shall be placed after placement of Lap Joint reinforcing fabric. When necessary, the contractor shall place 1.5” of temporary AC paving to open road to traffic; the temporary AC shall be removed to allow for 1.5” final AC pavement. No additional compensation will be allowed for placing and removing temporary AC pavement.
- E. Areas inaccessible to the rollers shall be compacted by use of a power compactor of the high impact vibratory plate type capable of attaining the same compaction as the rolled areas. An adequate number of rollers shall be used with each paving operation.
- F. The completed surface shall be thoroughly compacted, smooth, and true to grade and cross section, free from ruts, humps, depressions, irregularities, or segregated material.

3.04 LAP JOINT

- A. Lap joint shall conform to the detail shown on the plans and Section 02964 Cold Plane for Lap Joint
- B. Lap joint paving shall be 1/2” maximum aggregate and placed with the final AC pavement lift.

3.05 CLEAN-UP

- A. Keep work areas in workmanlike and safe condition so rubbish, wastes, and debris do not interfere with the work of others. Upon completion of work in this section, remove all rubbish, waste, and debris resulting from the operations. Remove all equipment and implements of service and leave entire area in a neat, clean, acceptable condition to the satisfaction of the Engineer.

3.06 FIELD QUALITY CONTROL

- A. Asphalt Concrete Pavement: Cracks, settling of surface, improper drainage, ridges or bumps, non-homogenous, spreading, and sloppy connection to previously laid surfaces will be construed as improper workmanship and will not be acceptable. Remove work, replace and retest at no cost to the City.
- B. Rolling shall be performed in such a manner that cracking, shoving, or displacement will be avoided. Any displacement occurring as a result of reversing the direction of the roller or from any other cause shall at once be corrected by the use of rakes and fresh asphalt mixture.

(END OF SECTION)

SECTION 02704

GENERATIONS CENTER PARKING LOT
CIP PK 20-01

AGGREGATE BASE

SECTION 02704 AGGREGATE BASE

PART ONE - GENERAL

1.01 DESCRIPTION

- A. This work shall consist of constructing “Aggregate Base Course” (under pavement sections) in conformance with the details shown on the plans and these Technical Requirements.

1.02 REFERENCES

- A. Section 26 “Aggregate Bases” of the State Standard Specifications.

PART TWO - PRODUCTS

2.01 SUBMITTALS

- A. Certified Laboratory Test Reports: Certify aggregate base meets State Standard Specifications.

2.02 MATERIALS

- A. Aggregate Base: Class 2, $\frac{3}{4}$ inch maximum, conforming to State of California, Department of Transportation Standard Specifications.
- B. Class 2 - Aggregate Base. - Aggregate for Class 2 aggregate base shall be free from organic matter and other deleterious substances, and shall be of such nature that it can be compacted readily under watering and rolling to form a firm, stable base.

PART THREE - EXECUTION

3.01 PREPARATION AND EXAMINATION

- A. The areas where “Aggregate Base Course” are to be constructed shall be cleared of weeds, grass, and debris. Removed weeds, grass and debris shall be disposed of in conformance with the provisions in Section 7-1.13, "Disposal of Material Outside the Highway Right of Way," of the State Standard Specifications.
- B. Prior to placement of “Aggregate Base Course”, subgrade material shall be scarified to a minimum depth of 6 inches and compacted to 95% relative compaction.

3.02 AGGREGATE PLACEMENT

- A. Place “Aggregate Base Course” in maximum 6 inch layers; spread over prepared substrate as indicated; and compact to 95% relative compaction.

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AGGREGATE BASE

- B. Level and contour surfaces to elevations and gradients indicated.
- C. Add water to assist compaction. If excess water is apparent, remove aggregate and aerate to reduce moisture content.
- D. Use mechanical tamping equipment in areas inaccessible to compaction equipment.

3.03 TOLERANCES

- A. Flatness: Maximum variation of $\frac{1}{4}$ inch measured with 10-foot straight edge.
- B. Compacted Thickness: Within $\frac{1}{4}$ inch.
- C. Variation from True Elevation: Within $\frac{1}{4}$ inch.

3.04 FIELD QUALITY CONTROL

- A. Field Sampling and Testing: Contractor shall cooperate/coordinate with the City and Testing Laboratory to enable the Laboratory to perform its functions timely and properly. The initial testing costs shall be borne by the City.
- B. If tests indicate Work does not meet specified requirements, the Contractor shall remove work, replace and retest at the Contractor's expense.
- C. Frequency of Tests: Density tests shall be taken in randomly selected locations designated by the City.

(END OF SECTION)

SECTION 02730

GENERATIONS CENTER PARKING LOT
CIP PK 20-01

STORM DRAINAGE

SECTION 02730 STORM DRAINAGE

PART 1 GENERAL

1.01 SUMMARY

A. This Section includes the following:

1. Trenching, Backfill, Compaction and Grading, Section 02315.

1.02 DEFINITIONS

- A. HDPE: High-density polyethylene plastic.
- B. PVC: Polyvinyl chloride plastic.
- C. RCP: Reinforced Concrete Pipe.

1.03 PERFORMANCE REQUIREMENTS

- A. Gravity-Flow, Nonpressure-Piping Pressure Ratings: At least equal to system test pressure.

1.04 SUBMITTALS

- A. Submit Product Data to the Construction Manager for the following:
Cleanouts, pipes, fittings.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Do not store plastic structures, pipe, and fittings in direct sunlight.
- B. Protect pipe, pipefittings, and seals from dirt and damage.

1.06 PROJECT CONDITIONS

- A. Site Information: Verify existing utility locations within construction limits.
- B. Locate existing structures and piping to be closed and abandoned.
Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted by the Construction Manager.

SECTION 02730

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STORM DRAINAGE

PART 2 PRODUCTS

2.01 PIPES AND FITTINGS

- A. General: Provide pipe and pipe fitting materials compatible with each other. Where more than one type of material or product is indicated or pipe material is identified as optional, selection is Installer's option subject to the requirements of this Article.
- B. Polyvinyl Chloride Pipe (PVC) and fittings: ASTM D-1784, SDR26, with flexible, gasketed joints.
 - 1. Joints: Compression-type bell and spigot in accordance with ASTM D-3212.
 - 2. Gaskets: ASTM F-477.
 - 3. Schedule 40 PVC, 15 inch diameter

2.02 MANHOLES

- A. Precast Concrete Manholes: ASTM C 478, precast, reinforced concrete, of depth indicated, with provision for rubber gasketed joints.
 - 1. Diameter: Refer to Construction Drawings.
 - 2. Base Section: Refer to Construction Drawings.
 - 3. Riser Sections: Refer to Construction Drawings.
- B. Top Section: Eccentric-cone type, unless concentric-cone or flat-slab-top type is indicated. Top of cone of size that matches grade rings.
 - 1. Gaskets: ASTM C 443, rubber.
 - 2. Grade Rings: A maximum of one 4-inch reinforced-concrete ring, of maximum total thickness, that matches 30-inch diameter frame and cover.
 - 3. Steps: Polypropylene, polypropylene-coated steel reinforcing or an approved noncorrosive fiberglass material, individual steps. Include width that allows worker to place both feet on one step and is designed to prevent lateral slippage off step. Cast into base, riser, and top section sidewalls with steps at 12 to 16-inch intervals. Omit steps for manholes less than 42-inches deep.
- C. Manhole Frames and Covers: ASTM A 536, Grade 60-40-18, ductile-iron castings designed for heavy-duty service, as indicated on the Drawings.

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STORM DRAINAGE

2.03 CATCH BASINS/INLETS

- A. Precast Concrete Catch Basins: ASTM C 478, precast, reinforced concrete, of depth indicated, with provision for rubber gasketed joints.
 - 1. Base Section: Integral with floor.
 - 2. Riser Sections- Lengths to provide depth indicated.
 - 3. Top Section: Flat-slab-top type that matches grade rings.
 - 4. Gaskets: ASTM C 443, rubber.
 - 5. Grade Rings: Provide a maximum of one ring as necessary to achieve elevation indicated on the construction plans.
 - 6. Steps: Polypropylene, polypropylene-coated steel reinforcing or an approved noncorrosive fiberglass material, individual steps or ladder. Include width that allows worker to place both feet on one step and is designed to prevent lateral slippage off step. Cast steps or anchor ladder into base, riser, and top section sidewalls at 12inch to 16-inch intervals. Omit steps for catch basins less than 48-inches deep.
 - 7. Channel and Bench: Concrete.
 - 8. Frames and Grates: Dimensions, opening pattern, free area, and other attributes indicated.

2.04 CONCRETE

- A. General: Cast-in-place concrete according to ACI 318, ACI 350R, and the following:
 - 1. Cement: ASTM C 150, Type II.
 - 2. Fine Aggregate: ASTM C 33, sand.
 - 3. Coarse Aggregate: ASTM C 33, crushed gravel.
 - 4. Water: Potable.
- B. Portland Cement Design Mix: 4000-psi minimum, with 0.45 maximum water:cementitious ratio.

SECTION 02730

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STORM DRAINAGE

1. Reinforcement Bars: ASTM A 615/A 615M, Grade-60 (Grade-420), deformed steel.
- C. Structure Channels and Benches. Factory or field formed from concrete. Portland cement design mix, 4000-psi minimum, with 0.45 maximum water-cementitious ratio. Include channels and benches in manholes and catch basins.
 1. Channels: Concrete invert, formed to same width as connected piping, with height of vertical sides to 3/4 of pipe diameter. Form curved channels with smooth, uniform radius and slope.
 - a. Invert Slope: Refer to indicated entering and exiting invert elevations indicated on the Construction Drawings.
 2. Benches: Concrete, sloped to drain into channel.
 - a. Slope: 4-percent minimum 1/2-inch per foot.
 - b. Include channels in catch basins.

2.05 DECK DRAINS

- A. Deck Drains shall be “Zern’, Type B, 6-inch diameter, polished bronze strainer with vandal-proof screws or approved equal. Deck drain shall be attached to NO. Z-415 floor drain with 6-inch outlet. Available from: Glendon Co. South San Francisco, CA Phone: 415-952-6565.

PART 3 EXECUTION

3.01 EARTHWORK

- A. No backfilling of trenches for drainage shall be allowed until approval has been given by the Construction Manager.

3.02 IDENTIFICATION

- A. Arrange for installing detectable type green warning tapes directly over piping and at outside edges of underground structures.
- B. Use detectable warning tape over nonferrous piping and over edges of underground structures.

SECTION 02730

GENERATIONS CENTER PARKING LOT
CIP PK 20-01

STORM DRAINAGE

3.03 PIPING APPLICATIONS

- A. General: Include silt-tight, unless watertight or soil-tight joints are indicated.
- B. Refer to PART 2 PRODUCTS of this Section for detailed specifications for pipe and fitting products listed below. Use pipe, fittings, and joining methods according to applications indicated.
- C. Gravity-Flow Piping: Provide pipes and fittings or materials indicated on the Construction Drawings.

3.04 INSTALLATION, GENERAL

- A. General Locations and Arrangements: Drawings indicate general location and arrangement of underground storm drainage piping. Location and arrangement of piping layout take design considerations into account. Install piping as indicated, to extent practical.
- B. Install piping beginning at low point, true to grades and alignment indicated with unbroken continuity of invert (minimum slope shall be no less than 1-inch in 10-feet). Place bell ends of piping facing upstream. Install gaskets, seals, sleeves, and couplings according to manufacturer's written instructions for use of lubricants, cements, and other installation requirements. Maintain swab or drag in line, and pull past each joint as it is completed.
- C. Use manholes for changes in direction, unless fittings are indicated. Use fittings for branch connections, unless direct tap into existing sewer is indicated.
 - 1. Use proper size increasers, reducers, and couplings where different sizes or materials of pipes and fittings are connected. Reducing size of piping in direction of flow is prohibited.
 - 2. Install piping with restrained joints at horizontal and vertical changes in direction. Use cast-in-place concrete supports and anchors or corrosion-resistant rods and clamps.
 - 3. Install piping with cover indicated on Drawings.
- D. Tunneling: Install pipe under streets or other obstructions that cannot be disturbed by tunneling, jacking, or a combination of both.

3.05 PIPE JOINT CONSTRUCTION AND INSTALLATION

- A. General: Join and install pipe and fittings according to installations indicated.

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STORM DRAINAGE

- B. Corrugated-Metal Pipe: As follows:
 - 1. External coupling bands in accordance with ASTM B 745 and ASTM A 760.
 - 2. Rubber O-ring gaskets shall be used to maintain soil tightness.
- C. HDPE Pipe and Fittings: As follows:
 - 1. Join pipe, tubing, and fittings with couplings for soiltight joints according to manufacturer's written instructions.
 - 2. Install according to ASTM D 2321 and manufacturer's written instructions.
 - 3. Joints to conform to ASTM D 3212. Gasket material conforms to ASTM F 477.
- D. PVC Drainage Pipe and Fittings: As follows:
 - 1. Join pipe and gasketed fittings with gaskets according to ASTM D 3212, with gaskets per ASTM F 477.
 - 2. Install according to ASTM D 2321.
- E. Concrete Pipe and Fittings: Install according to ACPA's "Concrete Pipe Installation Manual." Use the following seals:
 - 1. Round Pipe and Fittings: ASTM C 443 (ASTM C 443M), rubber gaskets.
 - 2. Elliptical Pipe: ASTM C 877 (ASTM C 877M), Type-1, sealing bands.
 - 3. Arch Pipe: ASTM C 877 (ASTM C 877M), Type-1, sealing bands.
- F. System Piping Joints: Make joints using system manufacturer's couplings, unless otherwise indicated.
- G. Join piping made of different materials or dimensions with couplings made for this application. Use couplings that are compatible with and that fit both systems' materials and dimensions.

3.06 CATCH-BASIN INSTALLATION

- A. Construct catch basins to sizes and shapes indicated.

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- B. Set frames and grates to elevations indicated.

3.07 STORM DRAINAGE INLETS AND OUTLET INSTALLATION

- A. Construct inlets, as indicated.
- B. Construct riprap of broken stone, as indicated.
- C. Install outlets that spill onto grade, with flared end sections that match pipe, where indicated.

3.08 CONCRETE PLACEMENT

- A. Place cast-in-place concrete according to ACI 318 and ACI 350R.

3.09 FIELD QUALITY CONTROL

- A. Owner's Independent Testing Agency will test trench backfill for compaction requirements. The Contractor shall notify the Construction Manager in advance when trench backfill tests are required and coordinate as necessary with the Construction Manager. Failed/repeat test shall be paid for by Contractor.
- B. Clear interior of piping and structures of dirt and superfluous material as work progresses. Maintain swab or drag in piping, and pull past each joint as it is completed.
 - 1. In large, accessible piping, brushes and brooms may be used for cleaning.
 - 2. Place plug in end of incomplete piping at end of day and when work stops.
 - 3. Flush piping between manholes and other structures to remove collected debris, if required by authorities having jurisdiction.
- C. The Construction Manager shall inspect interior of piping to determine whether line displacement or other damage has occurred. Inspect after approximately 24-inches of backfill is in place, and again at completion of Project.
 - 1. Submit separate reports for each system inspection.
 - 2. Defects requiring correction include the following:
 - a. Alignment: Less than full diameter of inside of pipe is visible between structures.

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- b. Deflection: Flexible piping with deflection that prevents passage of ball or cylinder of size not less than 92.5-percent of piping diameter.
 - c. Crushed, broken, cracked, or otherwise damaged piping.
 - d. Infiltration: Water leakage into piping.
 - e. Exfiltration: Water leakage from or around piping.
 3. The Contractor shall replace defective piping using new materials, and repeat inspections until defects are within allowances specified.
 4. The Construction Manager shall re-inspect and direct the Contractor to repeat procedure until results are satisfactory.
- D. Piping systems, and parts of existing systems that have been altered, extended, or repaired, for leaks and defects shall be tested before backfilling.
 1. Do not enclose, cover, or put into service before inspection and approval.
 2. Test completed piping systems according to the City Standard Specifications.
 3. Schedule tests and inspections by the Construction Manager with at least 24-hours in advance notice. The Contractor is responsible for scheduling tests and inspections.
 4. Submit separate reports for each test.

END OF SECTION

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**SECTION 02920
FINISH GRADING**

PART ONE - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

- A. Weeding and finish grading of lawn and planting areas.
- B. Preparing subgrades for lawns, and planting areas.
- C. Excavating and backfilling trenches for buried irrigation and associated electrical utilities and pits for buried irrigation components.

1.03 MEASUREMENT AND PAYMENT

- A. Payment of the various Construction Items described in the Schedule of Values shall be considered full compensation for work of this Section.

1.04 RELATED SECTIONS

- A. Section 02300 – Earthwork & Preparation of Site for Paving

1.05 DEFINITIONS

- A. Backfill: Soil materials used to fill an excavation.
 - 1. Initial Backfill: Backfill placed beside and over pipe in a trench, including haunches to support sides of pipe.
 - 2. Final Backfill: Backfill placed over initial backfill to fill a trench.
- B. Bedding Course: Layer placed over the excavated subgrade in a trench before laying pipe.
- C. Borrow: Satisfactory soil imported from off-site for use as fill or backfill.
- D. Excavation: Removal of material encountered above subgrade elevations.

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1. Additional Excavation: Excavation below subgrade elevations as directed by Engineer. Additional excavation and replacement material will be paid for according to Contract provisions for changes in the Work.
 2. Unauthorized Excavation: Excavation below subgrade elevations or beyond indicated dimensions without direction by Engineer. Unauthorized excavation, as well as remedial work directed by Engineer, shall be without additional compensation.
- E. Fill: Soil materials used to raise existing grades.
- F. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below the ground surface.
- G. Subgrade: Surface or elevation remaining after completing excavation, or top surface of a fill or backfill immediately below subbase, drainage fill, or topsoil materials.
- H. Utilities include on-site underground pipes, conduits, ducts, and cables, as well as underground services within buildings.
- I. Finish Grading: Finish grading shall consist of finishing surfaces by raking smoothly and evenly, removing, and disposal of extraneous matter to facilitate natural run-off water.

1.06 SUBMITTALS

- A. Samples: For the following:
1. 12-by-12-inch (300-by-300-mm) sample of separation fabric.

1.07 PROJECT CONDITIONS

- A. Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted in writing by Engineer and then only after arranging to provide temporary utility services according to requirements indicated:
1. Notify Engineer not less than two days in advance of proposed utility interruptions.
 2. Do not proceed with utility interruptions without Engineer's written permission.
 3. Contact utility-locator service for area where Project is located before excavating.

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- B. Demolish and completely remove from site existing underground utilities indicated to be removed. Coordinate with utility companies to shut off services if lines are active.

PART TWO - PRODUCTS

2.01 SOIL MATERIALS

- A. General:
 - 1. Conform to the Geotechnical (Soils) Report prepared for the project.
 - 2. Provide borrow soil materials when sufficient satisfactory soil materials are not available from excavations.
- B. Satisfactory Soils: ASTM D 2487 soil classification groups GW, GP, GM, SW, SP, and SM, or a combination of these group symbols; free of rock or gravel larger than 3 inches in any dimension, debris, waste, frozen materials, vegetation, and other deleterious matter.
- C. Unsatisfactory Soils: ASTM D 2487 soil classification groups GC, SC, ML, MH, CL, CH, OL, OH, and PT, or a combination of these group symbols.
 - 1. Unsatisfactory soils also include satisfactory soils not maintained within 2 percent of optimum moisture content at time of compaction.
- D. Backfill and Fill: Satisfactory soil materials.
- E. Drainage Fill: Washed, narrowly graded mixture of crushed stone, or crushed or uncrushed gravel; ASTM D 448; coarse-aggregate grading Size 57; with 100 percent passing a 1-1/2- inch sieve and 0 to 5 percent passing a No. 8 sieve.

2.02 ACCESSORIES

- A. Separation Fabric: Woven geotextile, specifically manufactured for use as a separation geotextile: made from polyolefins, polyesters, or polyamides: and with the following minimum properties determined according to ASTM D 4759 and referenced standard test methods:
 - 1. Grab Tensile Strength: 200 lbf (890 N); ASTM D 4632.
 - 2. Tear Strength: 75 lbf (333N); ASTM D 4533.
 - 3. Puncture Resistance: 90 lbf (400N); ASTM D 4833.
 - 4. Water Flow Rate: 4 gpm per sq. ft. (2.7 L/s per sq. m); ASTM D 4491.
 - 5. Apparent Opening Size: No. 30 (0.6 mm); ASTM D 4751.

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FINISH GRADING

PART THREE - EXECUTION

3.01 GENERAL

- A. Conform to the Geotechnical (Soils) Report prepared for the project.

3.02 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earthwork operations.
- B. Provide erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.

3.03 EXPLOSIVES

- A. Explosives: Do not use explosives.

3.04 EXCAVATION, GENERAL

- A. Unclassified Excavation: Excavation to subgrade elevations regardless of the character of surface and subsurface conditioned encountered, including rock, soil materials, and obstructions.
 - 1. If excavated materials intended for fill and backfill include unsatisfactory soil materials and rock, replace with satisfactory soil materials.

3.05 EXCAVATION FOR IRRIGATION TRENCHES

- A. Excavate trenches to indicated gradients, lines, depths, and elevations.
- B. Excavate trenches to uniform widths to provide a working clearance on each side of pipe or conduit. Excavate trench walls vertically.
- C. Trench Bottoms: Excavate and shape trench bottoms to provide uniform bearing and support of pipes and conduit. Shape subgrade to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits. Remove projecting stones and sharp objects along trench subgrade.

3.06 STORAGE OF SOIL MATERIALS

- A. Stockpile borrow materials and satisfactory excavated soil materials. Stockpile soil materials without intermixing. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.

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1. Stockpile soil materials away from edge of excavations. Do not store within drip line of remaining trees.

3.07 IRRIGATION TRENCH BACKFILL

- A. Place and compact bedding course on trench bottoms and where indicated. Shape bedding course to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits.
- B. Place and compact initial backfill free of particles larger than 1 inch to a height of 4 inches over the utility pipe or conduit.
 1. Carefully compact material under pipe haunches and bring backfill evenly up on both sides and along the full length of irrigation piping or conduit to avoid damage or displacement of utility system.
- C. Coordinate backfilling with utilities testing.
- D. Place and compact final backfill of satisfactory soil material to finish grade.

3.08 FILL AND LANDSCAPE MOUNDING

- A. Preparation: Remove vegetation, topsoil, debris, unsatisfactory soil materials, obstructions, and deleterious materials from ground surface before placing fills.
- B. Plow, scarify, bench, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so fill material will bond with existing material.
- C. Place and compact fill material in layers to required elevations. Mounding to be installed in natural undulating form and to the heights and extents as indicated on the drawings. Contractor to notify Engineer when mounding has been completed for review and approval of mounding.

3.09 COMPACTION OF BACKFILLS AND FILLS

- A. Place backfill and fill materials in layers not more than 6 inches in loose depth for material compacted by hand-operated tampers.
- B. Place backfill and fill materials evenly on all sides of structures to required elevations, and uniformly along the full length of each structure.
- C. Compact soil to not less than the following percentages of maximum dry unit weight according to ASTM D 698:
 1. Under structures, steps, and pavements, scarify and re-compact top 12 inches of existing subgrade and each layer of backfill or fill material at 95 percent.

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2. Under walkways, scarify and re-compact top 6 inches below subgrade and compact each layer of backfill or fill material at 92 percent.
3. Under lawn or unpaved areas, scarify and re-compact top 6 inches below subgrade and compact each layer of backfill or fill material at 85 percent.

3.10 LANDSCAPE GRADING

- A. General: Uniformly grade areas to a smooth surface, free from irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.
 1. Provide a smooth transition between adjacent existing grades and new grades.
 2. Cut out soft spots, fill low spots, and trim high spots to comply with required surface tolerances.
- B. Landscape Grading: Slope grades to direct water away from buildings and to prevent ponding. Provide positive drainage swales from all buildings, walkways, etc. to drainage catch basins or site drainage swales. No ponding is to be allowed. Finish subgrades to required elevations within the following tolerances:
 1. Lawn or Unpaved Areas: Plus or minus 1 inch.
 2. Walks: Plus or minus 1 inch.
 3. Pavements: Plus or minus 1/2 inch.
- C. Grading for Shrubs and Ground Cover: The finish grade of shrubbery and ground cover areas shall be 1½ inches below grade of adjacent pavement, walks, curbs, or headers and 3 inches below adjacent walls, except when drainage conditions may require flush grades, as directed by Engineer.
- D. Lawn Areas: The finish grade of lawn areas shall be 1½ inches below grade of adjacent pavement walks, curbs or headers, except when drainage conditions may require flush grade as directed by Engineer. Roll lawn areas with 300-pound roller until a uniformly compact and even surface is obtained.
- E. Immediately prior to planting operations, planting areas shall be cleaned of weeds, debris, rocks over 1 inch in diameter, and clumps of earth that will not break up. Adjust any areas disturbed by installation of sprinkler irrigation system.

3.11 PROTECTION

- A. Protecting Graded Areas: Protect newly graded areas from traffic, freezing, and erosion. Keep free of trash and debris.

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FINISH GRADING

- B. Repair and reestablish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.
- C. Where settling occurs before Project correction period elapses, remove finished surfacing, backfill with additional soil material, compact, and reconstruct surfacing.
 - 1. Restore appearance, quality, and condition of finished surfacing to match adjacent work, and eliminate evidence of restoration to the greatest extent possible.

3.12 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Disposal: Remove surplus satisfactory soil and waste material, including unsatisfactory soil, trash, and debris, and legally dispose of it off Owner's property.

END OF SECTION

SECTION 03000

**GENERATIONS CENTER PARKING LOT
CIP PK 20-01**

CONCRETE WORK - GENERAL

**SECTION 03000
CONCRETE WORK – GENERAL**

PART ONE - GENERAL

1.01 APPLICABLE SECTION

- A. Submit Shop Drawings, Product Data, Mill Certificates and Samples required by other portions of Contract Documents. The requirements/provisions of the General and Supplementary Conditions and Division 1 Specification Section shall apply to this section.

1.02 DESCRIPTION OF WORK

- A. The work included under this section consists of furnishing all material, supplies, equipment, tools, transportation, and facilities, and performing all labor and services necessary for, required in connection with or properly incidental to furnishing, and installing concrete work as described in this section of the specifications, shown on the accompanying drawings, or reasonably implied therefrom, except as hereinafter specifically excluded. B. Work Included:
 - 1. All formwork, including any special forms necessary to produce architectural details and/or to accommodate the work of others and removal of forms.
 - 2. All concrete reinforcement, placement, bending and forming thereof.
 - 3. All concrete and cement finishing; all surface treatment and curing, including non-slip finishes and color work.
 - 4. Installation of all reglets, bolts, anchors, cans, sleeves, column anchor bolts, etc., whether furnished under this section or by others (except cans and sleeves required under the Electrical and Mechanical Divisions).
 - 5. The furnishing of all items required to be or shown on the drawings as embedded in concrete, which are not specifically required under other sections.
 - 6. Setting headers and screeds. Curing and protecting concrete.
 - 7. Grouting of column bases.
 - 8. Inserts, sleeves, cans, etc. required under the Electrical and Mechanical Divisions.
 - 9. Routing out cracks and saw-cutting control joints as required by waterproofing.

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CONCRETE WORK - GENERAL

1.03 MEASUREMENT AND PAYMENT

- A. No separate compensation or payment shall be made for work of this Section.
- B. Full compensation for work of this Section shall be considered as part of and included in payment for each Construction Item for which the work is executed.

PART TWO - PRODUCTS – SEE OTHER PORTIONS OF SPECIFICATIONS

PART THREE - EXECUTION

3.01 DEFECTIVE WORK

- A. General: Work considered to be defective may be ordered by the Engineer to be replaced in which case the Contractor shall remove the defective work at his expense. Work considered to be defective shall include, but not be limited to, the following:
 - 1. Reinforcing:
 - a. Kinks and bends therein which are not scheduled or indicated on the drawings; reinforcing improperly placed, or previously heated, or excessively cold worked reinforcing.
 - 2. Concrete:
 - a. Concrete in which defective or inadequate reinforcing steel has been placed.
 - b. Concrete incorrectly formed or not conforming to details and dimensions on the drawings or with the intent of these documents, or concrete the surfaces of which are out of plumb or level.
 - c. Concrete below specified strength.
 - d. Concrete not meeting the maximum allowable drying shrinkage requirements.
 - e. Concrete containing wood, cloth, or other foreign matter, rock pockets, voids, honeycombs, cracks or cold joints not scheduled or indicated on the drawings.

3.02 CORRECTION OF DEFECTIVE WORK

- A. The Contractor shall, at his expense, make all such corrections and alleviation measures as directed by the Engineer.

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**GENERATIONS CENTER PARKING LOT
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CONCRETE WORK - GENERAL

- B. Concrete work containing rock pockets, voids, honeycombs, cracks or cold joints not scheduled or indicated on the drawings, shall be chipped out until all unconsolidated material is removed.
- C. Secure approval of chipped-out areas before patching. Patch per ACI 30189.

END OF SECTION

SECTION 03100

**GENERATIONS CENTER PARKING LOT
CIP PK 20-01**

CONCRETE FORMWORK

**SECTION 03100
CONCRETE FORMWORK**

PART ONE - GENERAL

1.01 APPLICABLE SECTION

- A. The requirements/provisions of the General and Supplementary Conditions and Division 1 Specification Section shall apply to this section.

1.02 SECTION INCLUDES

- A. The work included under this section consists of furnishing all material, supplies, equipment, tools, transportation, and facilities, and performing all labor and services necessary for, required in connection with or properly incidental to furnishing, installing, and removing form work as described in this section of the specifications, shown on the accompanying drawings, or reasonably implied therefrom, except as hereinafter specifically excluded.
- B. Work Included:
 - 1. Design of Formwork, Shoring and Falsework
 - 2. Construction and removal of all forms.
 - 3. Installation of items furnished under other sections but indicated therein to be installed under this section.
 - 4. Accuracy of installation is responsibility of section furnishing item.

1.03 RELATED SECTIONS

- A. Section 03200 – Reinforcing Steel
- B. Section 03300 – Cast-in-Place concrete

1.04 MEASUREMENT AND PAYMENT

- A. No separate compensation or payment shall be made for work of this Section.
- B. Full compensation for work of this Section shall be considered as part of and included in payment for each Construction Item for which the work is executed.

1.05 REFERENCES

- A. The following is a list of Reference Standards referred to in this portion of the Specification:

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GENERATIONS CENTER PARKING LOT
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CONCRETE FORMWORK

1. W.C.L.I.B.; "Standard Grading and Dressing Rules No. 17"
2. American Concrete Institute Standard ACI 347 "Guide to Formwork for Concrete" and ACI 318 "Building Code Requirements for Reinforced Concrete", Latest edition.
3. Uniform Building Code, current governing edition.
4. American Plywood Association, "U.S. Product Standard PS1-95"

1.06 QUALITY ASSURANCE

- A. Codes and Standards: Comply with all Federal, State and Local Codes and Safety Regulations. In addition, comply with the provisions of the following codes, specifications, and standards, except where more stringent requirements are shown or specified.
 1. Uniform Building Code, current governing edition.
 2. ACI-347 "Guide to Formwork for Concrete", current edition.
 3. State of California Department of Transportation Standard Specifications, current governing edition.
- B. Qualifications: Design and detailing of formwork shall be by a person experienced in the design of formwork and familiar with the principles of engineering mechanics. Design and detailing of formwork over 12' in height, shoring, and falsework shall be prepared by a registered Civil/Structural Engineer of the State of California.

1.07 SUBMITTALS

- A. General Requirements
 1. Submittals shall be made to Engineer in accordance with the requirements of Division 1, General Requirements of these specifications.
 2. Construction, and fabrication or ordering of materials for formwork shall not begin until Contractor has received submittals reviewed by Engineer governing all aspects of the intended work as required in these specifications.
- B. Shop Drawings:
 1. Formwork: Submit shop drawings for fabrication and erection of forms for portions of the concrete surfaces, as indicated below:
 - a. Formwork over 12' in height

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GENERATIONS CENTER PARKING LOT
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CONCRETE FORMWORK

- b. Show general construction of forms including size of members, bracing, jointing, special form joint or reveals, location and pattern of form tie placement, and other items that affect the structural integrity of formwork or exposed concrete visually. Formwork over 12' in height shall be designed, detailed, and stamped by a registered Civil/Structural Engineer of the State of California.
2. Falsework and Shoring Shop Drawings: The Contractor shall submit shop drawings and calculations of any required falsework or shoring. Shop drawings and calculations shall be prepared, stamped, and signed by a registered Civil/Structural Engineer of the State of California. Shop drawings and calculations shall be prepared in accordance with the requirements of the State of California Department of Transportation Standard Specifications, Section 51-1.06A, "Falsework Design and Drawings."

1.08 SEQUENCE AND SCHEDULING

- A. The Contractor shall obtain information and instructions from other trades and suppliers in ample time to schedule and coordinate the installation of items furnished by them to be embedded in concrete.

PART TWO - PRODUCTS

2.01 FORMS

- A. Plywood shall be 5/8" Exterior "B.B." Plyform Class I. Each sheet shall be grade stamped with an APA stamp.
- B. Sheathing shall be Douglas Fir "Standard" grade per Grading Rules #17, W.C.L.I.B., Paragraph 118-c. 1x6 shiplap S4S.
- C. Hardboard shall be 1/8" tempered.

2.02 SPREADERS

- A. Spreaders shall be of metal type that will give positive tying and accurate spreading.

2.03 STUDS, WALES AND SHORING

- A. Studs, wales, and shoring shall be Douglas Fir "Construction" grade per Grading Rules #17,
- B. W.C.L.I.B. Paragraph 122-b or "No. 2" grade, Paragraph 123-c.

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CONCRETE FORMWORK

2.04 MANUFACTURED ASSEMBLIES

A. Manufactured assemblies may be used as forms provided that maximum loadings and deflections used on jacks, brackets, columns, joists and other manufacturer devices does not exceed the manufacturer's recommendations.

PART THREE - EXECUTION

3.01 GENERAL

- A. Furnish and install all forms, clamps, accessories, etc., required for all poured-in-place concrete below grade and unexposed portions above grade. Where sides of excavations have been cut neat and accurate to size for pouring of concrete directly against the excavation, forms for footings will not be required.
- B. Furnish and install all forms, clamps, sealer, accessories, etc., required for all poured-in-place concrete above grade that will be exposed. C. Provide crack control and keyed cold joint forms.

3.02 DESIGN AND CONSTRUCTION OF FORMWORK

- A. Forms shall be constructed of sound material, of the correct shape and dimension, mortar tight, and of sufficient strength, and so braced and tied together that the movement of equipment, men, materials, or placing and vibrating the concrete will not throw them out of line or position. Construct so that they may be easily removed without damage to the concrete. Any movement or bellying of forms during construction shall be considered just cause for their removal and, in addition, the concrete work so affected. All formed joints on concrete surfaces to be exposed shall be taped and shall align so joints will not be apparent on the concrete surfaces. All dirt, chips, sawdust and other foreign matter shall be completely removed before concrete is placed.
- B. Before concrete is placed in forms, all inside surfaces of the forms shall be thoroughly coated with an approved form sealer. The form sealer shall be of high penetrating quality leaving no film on the surface of the forms that can be absorbed by the concrete.
- C. Form supports shall be placed on adequate foundations and have sufficient strength and bracing to prevent settlement or distortion from the weight of the concrete or other cause. Support shall rest on double wedged shim, or other approved means, so that the forms will be maintained at the proper grade.
- D. Form Ties: Bolts, rods, or other approved devices shall be used for internal form ties and shall be of sufficient quantities to prevent spreading of the forms. The ties shall be placed at least 1 inch away from the finished surface of the concrete. The

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CONCRETE FORMWORK

use of ties consisting of twisted wire loop will not be permitted. Bolts and rods that are to be completely withdrawn shall be coated with grease.

3.03 PLUMBING, LEVELING, REPAIRING AND MAINTAINING FORMS

- A. Before concrete is placed in any form, the horizontal and vertical position of the form shall be carefully verified and all inaccuracies corrected. All wedging and bracing shall be completed in advance of placing of concrete.
- B. Boards or other form materials that have been damaged or checked or warped prior to placing of concrete shall be removed from the forms and replaced with approved materials or otherwise corrected to the satisfaction of the engineer.
- C. Assign a sufficient number of men to keep watch on and maintain the forms during placing of concrete. Satisfactorily remedy any displacement or looseness of forms or reinforcement before placing of concrete. No form shall be moved or altered except as may be specifically directed.
- D. Wall forms shall be set to account for movement of post-tensioned slabs that will occur due to long term shortening of slabs. The Engineer will establish the offsets at each level after the Contractor has submitted a detailed pour schedule.

3.04 FIELD QUALITY CONTROL

- A. The Contractor shall hire the Engineer responsible for the design of formwork over 12' in height, falsework or shoring to inspect the work as detailed on the reviewed shop drawings.
- B. The Engineer responsible for design of formwork over 12' in height, falsework or shoring shall write a letter to the Engineer certifying construction is in accordance with the reviewed shop drawings and meets his/her approval prior to the Contractor placing any concrete.
- C. The Contractor shall verify accuracy of items, furnished under other sections of these specifications and installed under this section.

3.05 REMOVAL OF FORMWORK, FALSEWORK, AND SHORING

- A. Formwork, falsework, and shoring shall not be removed until the concrete members have acquired sufficient strength to support their weight and the loads to be superimposed thereon safely.
- B. Vertical forms shall remain on columns, walls, pilasters, etc., for at least seven (7) days, and formwork over 12' in height shall not be removed until the Engineer responsible for design of the formwork has approved removal.

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CONCRETE FORMWORK

- C. Shoring and falsework under beams, girders, slabs, etc. shall remain in place for at least 14 days and until the Engineer responsible for design of shoring and falsework has approved removal.
- D. The Contractor shall request to have field cured compression test specimens taken for any concrete where it is planned to remove formwork, falsework, or shoring sooner than indicated above.
- E. In removing plywood forms, no metal pinch bars shall be used and special care to be taken in stripping. Start at top edge or vertical corner where it is possible to insert wooden wedges. Wedging shall be done gradually and shall be accompanied by light tapping of the plywood panels to crack them loose. Do not remove forms with a single jerk after it has been started at one end.
- F. Forms shall be left in place as long as possible to permit shrinkage away from concrete and plywood forms shall be left in place until all other forms around are stripped and until there is no danger of damaging the architectural concrete due to other work in the vicinity.
- G. Nothing herein shall be construed as relieving the Contractor of any responsibility of the safety of the structure.
- H. After stripping, properly protect all concrete to be exposed in the finish work from damage with boards and building paper to prevent staining, spoiled edges, chips, etc.
- I. Whenever the formwork is removed during the curing period, the exposed concrete shall be cured by one of the methods specified in Section 03300.

3.06 CLEANING

- A. Clean up shall be per special conditions. Failure to perform clean up within 24 hours notice by the Engineer shall be considered adequate grounds for having the work done by others at the Contractor's expense.

END OF SECTION

SECTION 03200

GENERATIONS CENTER PARKING LOT
CIP PK 20-01

REINFORCING STEEL

SECTION 03200 REINFORCING STEEL

PART ONE - GENERAL

1.01 APPLICABLE SECTION

- A. The requirements/provisions of the General and Supplementary Conditions and Division 1 Specification Section shall apply to this section.

1.02 SECTION INCLUDES

- A. The work included under this section consists of furnishing all material, supplies, equipment, tools, transportation, and facilities, and performing all labor and services necessary for, required in connection with or properly incidental to furnishing and installing all reinforcing bars, ties, spacing devices, inserts, and all other material required to complete installation, as described in this section of the specifications, shown on the accompanying drawings, or reasonably implied therefrom.
- B. Work Included:
 - 1. Fabricating and installing all reinforcing steel for cast in place concrete and unit masonry.
 - 2. Fabrication and installing all reinforcing steel for shotcrete.
 - 3. Fabrication of reinforcing steel dowels to be embedded in existing concrete and existing masonry.
 - 4. Fabrication and installing all reinforcing steel for tilt-up precast concrete.

1.03 RELATED SECTIONS

- A. Section 03100 – Concrete Formwork
- B. Section 03300 – Cast-in-Place Concrete

1.04 MEASUREMENT AND PAYMENT

- A. No separate compensation or payment shall be made for work of this Section.
- B. Full compensation for work of this Section shall be considered as part of and included in payment for each Construction Item for which the work is executed.

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REINFORCING STEEL

1.05 REFERENCES

- A. The following is a list of Reference Standards referred to in this portion of the specifications:
 - 1. ASTM A82, "Specification for Cold-Drawn Steel Wire for Concrete Reinforcement".
 - 2. ASTM A185, "Specification for Welded Steel Wire Fabric for Concrete Reinforcement".
 - 3. ASTM A615, "Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement".
 - 4. ASTM A706, "Specification for Low Alloy Steel Deformed Bars for Concrete Reinforcement".

1.06 SUBMITTALS

- A. General Requirements:
 - 1. Submittals shall be made to Engineer in accordance with the requirements of Division 1, General Requirements of these specifications.
 - 2. Construction, fabrication, or ordering of materials shall not begin until Contractor has received submittals reviewed by Engineer governing all aspects of the intended work.
- B. Shop Drawings: Shop Drawings shall be submitted that show diagrammatic elevations of all walls, footings, columns, beams, slabs, etc., at a scale sufficiently large to show clearly the positions and erection marks of reinforcing bars, their dowels, and splices. Shop drawings shall also show details for congested areas and connections. Shop Drawings used in field must be reviewed copies.
- C. Product Data: Manufacturer's catalog sheets including instructions for use and description of application shall be provided on each of the following items intended for use on project:
 - 1. Mechanical anchorage devices for butt splices.
- D. Mill Certificates:
 - 1. The Contractor shall provide Mill Certificates for each size of bar for each heat to be used on project.

SECTION 03200

GENERATIONS CENTER PARKING LOT
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REINFORCING STEEL

2. Mill Certificates shall include name of mill, date of rolling, date of shipping to fabricator and shall be signed by fabricator certifying that each material complies with or exceeds the specified requirements. A Mill Certificate shall be furnished with each lot of material delivered to the project and the lot shall be clearly identified in the Certificate.
3. When Mill Certificates cannot be provided, the Contractor shall hire a professional testing laboratory to verify compliance and provide laboratory test reports. The Contractor shall pay for the cost of testing.

E. Laboratory Test Reports:

1. Laboratory test reports shall show the name of testing agency; date of testing, types of tests performed and shall be signed by a principal of the testing agency who is a registered Civil Engineer in the State of California.
2. When required by other portions of these specifications, laboratory test reports shall be submitted for each size of bar tested for each heat to show compliance with appropriate ASTM Standards and these specifications.

1.07 QUALITY ASSURANCE

- A. Codes and Standards: Comply with all applicable Federal, State and Local Code and Safety Regulations. In addition, comply with the provisions of the following codes, specifications, and standards, except where more stringent requirements are shown or specified:
1. ACI 315, "Details and Detailing of Concrete Reinforcement", latest edition.
 2. ACI 318, "Building Code Requirements of Reinforced Concrete", latest edition.
 3. AWS D1.4, "Structural Welding Code-Reinforcing Steel", latest edition.
- B. Mill Certificates: The Contractor shall provide Mill Certificates for reinforcing steel in accordance with the requirements of Part 1.05, "Submittals" of this specification section. When Mill Certificates cannot be provided, laboratory test reports shall be provided in accordance with the requirements of Part 1.05, "Submittals" of this specification section.
- C. Sampling, Testing, and Inspection:
1. General
 - a. All materials and work shall be subject to inspection at the mill, the fabrication shop, and at the building site. Material or workmanship not complying fully with the drawings, and/or specifications will be rejected.

SECTION 03200

GENERATIONS CENTER PARKING LOT
CIP PK 20-01

REINFORCING STEEL

- b. If the City's agent, through oversight or otherwise, has accepted material or work which is defective or contrary to specifications, this material or work, regardless of state of completion, may be rejected.
2. City: The City shall employ an independent testing laboratory or the Engineer as the City's agent to perform the sampling, testing and inspections shown on the contract drawings, and submit certified test results.
3. Contractor:
 - a. The Contractor shall cooperate with and notify City's agent at least 24 hours in advance of inspections required and shall provide samples, test pieces, and facilities for inspection without extra charge.
 - b. The Contractor shall identify each lot of fabricated reinforcing steel to be shipped to the site by assigning an individual lot number that identifies steel by heat number and shall be tagged in such a manner that each such lot can be accurately identified at the job site.
 - c. The Contractor shall remove all unidentified reinforcing steel, anchorage assemblies and bar couplers received at the site.

1.08 STORAGE OF MATERIALS

- A. Store reinforcement during fabrication and at site to avoid excessive rusting or coating with grease, oil, dirt, or other objectionable materials.

1.09 SEQUENCE AND SCHEDULING

- A. Coordinate work with all trades so as not to interfere with the work of other trades. Bring interferences between trades to Engineer's attention and resolve before any concrete is placed.

PART TWO - PRODUCTS

2.01 REINFORCING BARS

- A. Bars for reinforcement listed below shall conform to the requirements of ASTM A706, Grade 60 including Supplement S1, except as allowed in CBC Section 1921.2.5.2.
 1. Chord Bars
 2. Vertical Bars, Columns
 3. Vertical Bars, Pilasters

SECTION 03200

GENERATIONS CENTER PARKING LOT
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REINFORCING STEEL

- 4. Vertical and Horizontal Bars in Shear Walls, except Ties
 - 5. All Reinforcing Bars to be Welded
 - B. Bars for reinforcement not noted above shall be deformed, intermediate grade steel conforming to the requirements of ASTM A615, Grade 60 including Supplement S1.
- 2.02 WIRE
- A. All wire for concrete reinforcement shall conform to "Specifications for Cold-Drawn Steel Wire for Concrete Reinforcement," ASTM A82.
- 2.03 MESH
- A. All wire fabric mesh shall conform to "Specifications for Wire Fabric for Concrete Reinforcement," ASTM A185.
- 2.04 WELDING ELECTRODES
- A. Welding electrodes shall be per Table 5-1 of AWS D1.4.
- 2.05 MECHANICAL COUPLING DEVICES
- A. Mechanical coupling devices shall develop 125 percent of the minimum yield strength of the bars spliced.
- 2.06 OTHER MATERIALS
- A. All other materials, not specifically described by these specifications but required for complete and proper placement of reinforcement shall be new, first quality of their respective kinds, and subject to the approval of the Engineer.

PART THREE - EXECUTION

3.01 EXISTING CONDITIONS

- A. Prior to all work of the section, carefully inspect the installed work of other trades and verify that all work is sufficiently complete to permit the start of work under this section and that the completed work of this section will be in complete accordance with the original design and the reviewed shop drawings. In the event of discrepancy, immediately notify the Engineer/Engineer in writing.
- B. In the event conduits, pipes, inserts, sleeves, or any other items interfere with placing the reinforcement as indicated on the drawings or approved shop drawings, or as otherwise required, immediately notify the Engineer/Engineer and obtain approval on procedure before placement of reinforcement is started.

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GENERATIONS CENTER PARKING LOT
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REINFORCING STEEL

3.02 BENDING

- A. Bends for reinforcing steel shall be made in accordance with ACI 318 latest edition. Bend all bars cold. Do not field bend reinforcing steel in a manner that will injure material, cause the bars to be bent on too tight a radius, or that is not indicated as allowed on drawings or permitted by Engineer. Do not straighten bent or kinked bars for use on project without permission of Engineer. Replace bars with kinks or bends not shown on the drawings.

3.03 PLACING

- A. All reinforcement shall be placed in strict conformity with the requirements of the engineering drawings, both as to location, position and spacing of members. It shall be supported and secured against displacement by the use of adequate and proper wire supporting and spacing devices, tie wires, etc. so that it will remain in its proper position in the finished structure.
- B. Preserve clear space between parallel bars of not less than 1 1/2 times the nominal diameter of round bars and in no case let the clear distance be less than 1 1/2 inches nor less than 1-1/3 times the maximum size of aggregate for concrete. Bars placed in shotcrete shall have a minimum clearance between bars of 2 1/2" for No. 5 and smaller and 6 bar diameters for bars larger than No. 5.
- C. Lap splices shall be contact lap splices in accordance with ACI 318 unless noted otherwise on the Contract Drawings. Bars shall be wired together at laps. Wherever possible, stagger splices in adjacent bars. Make all splices in wire fabric at least 1 1/2 meshes wide or 12", which ever is greater. When splicing in areas to receive shotcrete, lap splices shall be noncontact with at least 2" clearance between bars.
- D. Butt splices shall be accomplished by mechanical anchorage devices.
- E. Bars shall not be cut by gas torch.

3.04 FIELD QUALITY CONTROL

- A. Inspection: The City's agent will perform the inspections shown on the contract drawings.

3.05 CLEANING

- A. Take all means necessary to ensure that steel reinforcement, at the time concrete is placed around it, is completely free from rust, dirt, loose mill scale, oil, paint and all coatings which will destroy or reduce the bond between steel and concrete.

END OF SECTION

SECTION 03300

GENERATIONS CENTER PARKING LOT
CIP PK 20-01

CAST – IN – PLACE CONCRETE

SECTION 03300 CAST-IN-PLACE CONCRETE

PART ONE - GENERAL

1.01 APPLICABLE SECTION

- A. The requirements/provisions of the General Requirements Specification Section shall apply to this section.

1.02 SECTION INCLUDES

- A. The work included under this section consists of furnishing all material, supplies, equipment, tools, transportation, and facilities, and performing all labor and services necessary for, required in connection with or properly incidental to furnishing, and installing cast-in-place concrete work as described in this section of the specifications, shown on the accompanying drawings, or reasonably implied therefrom, except as hereinafter specifically excluded.
- B. Work Included:
 - 1. Design of Concrete Mixes.
 - 2. All concrete and cement finishing; all surface treatment and curing, including non-slip finishes and color work.
 - 3. Installation of all reglets, bolts, anchors, cans, sleeves, column anchor bolts, etc., whether furnished under this section or by others (except cans and sleeves required under the Electrical and Mechanical Divisions).
 - 4. The furnishing of all items required to be or shown on the drawings as embedded in concrete, which are not specifically required under other sections.
 - 5. Setting headers and screeds. Curing and protecting concrete.
 - 6. Grouting of column bases and post-tensioning anchor recesses.
 - 7. Routing out cracks and saw-cutting control joints as required by waterproofing.
 - 8. Grouting between bearing plates, channels, etc. and bearing surfaces.
 - 9. Drilling of existing concrete and masonry for placement of bars, dowels, and rods.

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GENERATIONS CENTER PARKING LOT
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CAST – IN – PLACE CONCRETE

10. Grouting of bars, dowels, and rods in existing concrete and existing masonry.

1.03 RELATED SECTIONS

- A. Section 03100 – Concrete Formwork
- B. Section 03200 – Reinforcing Steel
- C. Inserts, sleeves, cans etc. required under Mechanical and Electrical Divisions 15 and 16 respectively.

1.04 MEASUREMENT AND PAYMENTS

- A. No separate compensation or payment shall be made for work of this Section.
- B. Full compensation for work of this Section shall be considered as part of and included in payment for each Construction Item for which the work is executed.

1.05 REFERENCES

- A. ASTM C31 "Method of Making and Curing Concrete Test Specimens in the Field"
- B. ASTM C33 "Specification for Concrete Aggregates "
- C. ASTM C39 "Test Method for Compressive Strength of Cylindrical Concrete Specimens"
- D. ASTM C42 "Method of Obtaining and Testing Drilled Cores and Sawed Beams of Concrete"
- E. ASTM C94 "Specification for Ready Mixed Concrete"
- F. ASTM C143 "Test Method for Slump of Portland Cement Concrete"
- G. ASTM C150 "Specification for Portland Cement"
- H. ASTM C157 "Test Method for Length Change of Hardened Hydraulic Cement Mortar and Concrete"
- I. ASTM C171 "Specification for Sheet Materials for Curing Concrete"
- J. ASTM C172 "Method of Sampling Freshly Mixed Concrete"
- K. ASTM C173 "Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method"

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- L. ASTM C231 "Test Method for Air Content of Freshly Mixed Concrete by Pressure Method"
- M. ASTM C260 "Specification for Air-Entraining Admixtures for Concrete"
- N. ASTM C309 "Specification for Liquid Membrane-Forming Compounds for Curing Concrete"
- O. ASTM C330 "Specification for Lightweight Aggregates for Structural Concrete"
- P. ASTM C494 "Specification for Chemical Admixtures for Concrete"
- Q. ASTM C618 "Coal Fly Ash and Raw or Calcined Natural Pozzolan for use as a Mineral Admixture in Concrete"
- R. ASTM C881 "Specification for Epoxy-Resin-Base Bonding Systems for Concrete"

1.06 SUBMITTALS

- A. General Requirements:
 - 1. Submittals shall be made to Engineer in accordance with the requirements of Division 1, General Requirements of these specifications.
 - 2. Construction and fabrications or mixing of materials shall not begin until Contractor has received submittals reviewed by Engineer governing all aspects of the intended work.
- B. Mix Designs: Mix designs shall be submitted for each class of concrete on the job and shall show names and brands of all materials, proportions, slump, strength, gradation of coarse and fine aggregates, and location to be used on job.
- C. Concrete Placement Schedule: The Contractor shall submit a concrete placement schedule which shall show all proposed construction joint locations, limits of each placement sequence, order of placement and type of joint proposed at each joint location.
- D. Product Data: Manufacturer's catalog sheets including instructions for use and description of application shall be provided on each of the following materials:
 - 1. Epoxies
 - 2. Grout
 - 3. Admixtures
 - 4. Curing Compounds

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5. Chemical Hardener
 6. Moisture Barriers
 7. Waterstops
- E. Samples: Submit samples of materials as specified and as otherwise required by Engineer, including names, sources and descriptions.
- F. Certificates of Compliance:
1. The Contractor shall provide Certificate of Compliance for each type of aggregate, cement and admixture to be used in each class of concrete or a Certificate of Compliance for each class of concrete.
 2. Certificates of Compliance shall include the name, source, and description of all materials used in each class of concrete and shall be signed by the concrete supplier certifying that each material item complies with, or exceeds the specified requirements. Certificates of Compliance shall be furnished 60 days in advance of any concrete pours.
 3. When Certificates of Compliance cannot be provided, the Contractor shall hire a professional testing laboratory to verify compliance of each type of material to be used in each Class of Concrete. The cost of testing shall be paid for by the Contractor.
- G. Laboratory Test Reports:
1. Laboratory test reports shall show the name of testing agency, date of testing, types of tests performed and shall be signed by a principal of the testing agency who is a registered Civil Engineer in the State of California. Laboratory tests shall not be older than eight (8) months and shall certify that the tested materials meet the specified standards.
 2. Laboratory test reports for concrete mix designs shall clearly identify each material or mix number of each mix tested to verify the correlation between the tested mix designs and the proposed mix designs.
 3. When required by other portions of these specifications, laboratory test reports shall be submitted for each material to be used in each class of concrete, or for each mix design and shall show compliance with appropriate ASTM Standards and these specifications.
- H. Weight and Batch Tags:
1. Weight and batch tags will be supplied to the engineer upon request.

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CIP PK 20-01

CAST – IN – PLACE CONCRETE

1.07 QUALITY ASSURANCE

- A. Codes and Standards: Comply with all Federal, State and Local Codes and Safety Regulations. In addition, comply with the provisions of the following codes, specifications, and standards, except where more stringent requirements are shown or specified:
 - 1. ACI 301, "Specifications for Structural Concrete for Buildings", current edition.
 - 2. ACI 318, "Building Code Requirements of Reinforced Concrete", current edition.
 - 3. Concrete Reinforcing Steel Institute, "Manual of Standard Practice".
 - 4. ASTM C94, "Specifications for Ready Mixed Concrete".
- B. Certificates of Compliance: The Contractor shall provide Certificates of Compliance for concrete materials in accordance with the requirements of Part 1.05, "Submittals", of these specifications. When Certificates of Compliance cannot be provided, laboratory test reports shall be provided in accordance with the requirements of Part 1.05, "Submittal" of these specifications.
- C. Engineer's Review: The Engineer will review the mix designs prepared by the testing laboratory hired by the Contractor.
- D. Sampling, Testing and Inspection:
 - 1. General:
 - a. All materials and work shall be subject to inspection at the batch plant, and at the building site. Material or workmanship not complying fully with the drawings, and/or specifications will be rejected.
 - b. If the City's agent, through oversight or otherwise, has accepted material or work which is defective or contrary to specifications, this material or work, regardless of state of completion, may be rejected.
 - 2. City: The City shall employ an independent testing laboratory or the Engineer as the City's agent to perform the sampling, testing, and inspections shown on the contract drawings, and submit certified test results.

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3. Contractor:
 - a. The Contractor shall cooperate with and notify City's agent at least 24 hours in advance of inspection required and shall provide samples and facilities for inspection without extra charge.
 - b. The Contractor shall hire a professional testing laboratory to provide concrete mix designs for each type of concrete on the job. Each mix design shall be verified by trial batch tests or laboratory test reports and certified to by a principal of the laboratory who is a registered Civil Engineer in the State of California and submitted to the Engineer for review. Laboratory test reports, in order to be acceptable, must conform to the requirements of CBC section 1905.3.

1.08 SEQUENCE AND SCHEDULING

- A. Obtain information and instructions from other trades and suppliers in ample time to schedule and coordinate the installation of items furnished by them to be embedded in concrete so provision for their work can be made without delaying the project.
- B. Do any cutting and patching made necessary by failure or delay in complying with these requirements, at no cost to City.

PART TWO - PRODUCTS

2.01 PORTLAND CEMENT

- A. Portland cement shall conform to ASTM C150 for Type II cement. Use a single, approved standard brand throughout work.

2.02 FLY ASH

- A. Fly ash shall conform to ASTM C618 for Class F fly ash. Proportion of fly ash shall not exceed 20% by weight of all cementitious materials in the concrete mix.

2.03 CONCRETE AGGREGATES

- A. Aggregates for hardrock concrete shall conform to ASTM C33. Aggregate for concrete slabs and pads on grade shall be granite or limestone.
- B. Aggregates for light-weight concrete shall conform to ASTM C330.

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2.04 WATER

- A. Mixing Water for concrete shall be clean and free from deleterious amounts of acids, alkalis or organic materials.

2.05 NONSHRINK GROUT

- A. Nonshrink grout shall be pre-mixed, high strength, flowable grout which does not shrink as it cures. Nonshrink grout shall attain a minimum compressive strength of 5000 psi at 7 days. Subject to compliance with requirements provide one of the following:

- 1. Metallic
 - a. Embeco 636; Master Builders.
 - b. Sikagrout 212; Sika Chemical Company.
 - c. Metallic Spec. Grout; The Burke Company.
- 2. Non-Metallic
 - a. Masterflow 928; Master Builders.
 - b. Sonogrout 10K; Sonneborn-Contech.
 - c. Sure-Grip Grout; Dayton Superior Corporation.

2.06 EPOXY BONDING AGENT AND ADHESIVES

- A. Epoxies shall be a two component material for use on dry or damp surfaces and shall conform to the requirements of ASTM C881. Epoxy bonding agents and adhesives shall be used in strict accordance with manufacturer's recommendations. Subject to compliance with requirements provide one of the following:

- 1. Sikadur Armatec 110; Sika Chemical Corporation or equal.

2.07 CURING PRODUCTS

- A. Liquid membrane curing compounds: Liquid membrane curing compounds shall conform to the requirements of ASTM C309.
- B. Waterproofing Paper: Waterproofing paper for curing concrete shall conform to the requirements of ASTM C171.

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2.08 AIR-ENTRAINING ADMIXTURE

- A. Air-entraining admixtures shall conform to the requirements of ASTM C260. Subject to that compliance, provide one of the following:
1. Sika Aer; Sika Corporation.
 2. MB-VR or MB-AE; Master Builders.
 3. Dorex AEA; W.R. Grace.
 4. Edoco 2001 or 2002; Edoco Technical Products.

2.09 WATER-REDUCING ADMIXTURE

- A. Water-reducing admixtures shall conform to the requirements of ASTM C494, Type A, and contain not more than 0.1% chloride ions. Subject to compliance with requirements, provide one of the following:
1. Eucon WR-75; Euclid Chemical Company.
 2. Pozzolith 344; Master Builders.
 3. Plastocrete 160; Sika Chemical Corporation.
 4. Chemtard; Chem-Masters Corporation.

2.10 HIGH-RANGE WATER-REDUCING ADMIXTURE (SUPER PLASTICIZER)

- A. Super Plasticizer shall conform to the requirements of ASTM C494, Type F or Type G and contain not more than 0.1% chloride ions. Subject to compliance with requirements, provide one of the following:
1. WRDA19; W.R. Grace.
 2. Sikament; Sika Chemical Corporation.
 3. Pozzolith 400; Master Builders.

2.11 WATER-REDUCING, RETARDING ADMIXTURE

- A. Water-reducing, retarding admixtures shall conform to the requirements of ASTM C494, Type D, and contain not more than 0.1% chloride ions. Subject to compliance with requirements, provide one of the following:
1. Pozzolith 300-R; Master Builders.

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2. Daratard; W.R. Grace.
3. Plastiment; Sika Chemical Corporation.

2.12 WATERSTOPS

- A. General: Provide flat, dumbbell type or centerbulb type waterstops at construction joints and other joints as indicated. Size to suit joints.
- B. Rubber Waterstops: Rubber Waterstops shall conform to the requirements of Corps of Engineers CRD-C513. Subject to compliance with requirements, provide one of the following:
 1. The Burke Company
 2. Progress Unlimited
 3. Williams Products
 4. Edoco Technical Products

2.13 CONCRETE

- A. Concrete Mix Requirements: Concrete shall have a minimum 28-day compressive strength, minimum cement content, and maximum water/cement ratio as listed in the table below and as indicated on the plans:

Concrete class	Min. 28-day Compressive Strength	Min. Non-Air Cement Content	Max	Max.
			Water/Cement Ratio Non-Air Entrained	Water/Cement Ratio Air Entrained
Class A	3000 psi	5.5 sacks	.45	.45
Class B	3500 psi	5.5 sacks	.45	.45
Class C	4000 psi	6 sacks	.45	.45
Class D	2000 psi	4 sacks	.67	.62
Lean Concrete	1500 psi	3 sacks		
Tremie Concrete	4000 psi	8 sacks	.45	.40

- B. Lightweight Concrete Mix Requirements: Lightweight concrete shall have a maximum air dried weight of 110#/cu. ft., a minimum 28-day compressive

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strength, minimum cement concrete and maximum water/cement ratio as listed in the table above.

- C. Concrete Mix Designs: The following table presents a schedule of classes of concrete, maximum aggregate, maximum slump and air content for each type of concrete, which shall be as follows:

Concrete Element	Class of Concrete	of Max. Aggregate	Size	Max. Slump (inch)	Total Air Content
Footings	A	1-1/2		3	-
Slabs on Grade	A	1		4	4%+/-1.5%
Walls, Pilasters, Beams	A	3/4		3	-
Yard Concrete Walks & Curbs	D	3/4		4	-
Columns	A	5/8		3	-
Structural Concrete Topping Slab	ALTWT	3/4		4	-
Precast Concrete Panels	Tilt-Up	B		4	-
Elevated Slabs	C	3/4		4	-
Caissons Placed Underwater	Tremie	3/4		7 min, 9 max	4%+/-1.0%
Structural Backfill	Lean	3/4		6	-

- D. Slump shall not exceed 3" for any concrete placement where top of surface slopes more than 2%.
- E. At Contractor's option, an air entraining agent conforming to the latest revision of ASTM Specification C260 may be added to the concrete to provide specified amounts of entrained air.

2.14 CONTROL JOINTS

- A. Control joints shall be sawcut using SOFF-CUT International or equal.
- B. Joints at finished surfaces for all paving and curbs per Drawings.

SECTION 03300

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CIP PK 20-01

CAST – IN – PLACE CONCRETE

PART THREE - EXECUTION

3.01 GENERAL REQUIREMENTS

- A. Produce concrete of required consistency and strength to present appearance satisfactory to Engineer.
- B. Use only one brand of cement unless otherwise authorized by Engineer.
- C. Imbedded Items: Place all pipe sleeves, inserts, anchors bolts, angle frames, ties and other imbedded items required for adjoining work or for its support prior to concreting. Imbedded items shall be positioned accurately and supported against displacement. Voids in sleeves, inserts and anchor bolt slots shall be filled temporarily with a readily removable material to prevent entry of concrete into the voids.
- D. Store materials delivered to the job and protect from foreign matter and exposure to any elements which would reduce the properties of the material.

3.02 MIXING

- A. Use ready-mixing concrete complying with ASTM C94 and with the requirements of Contract Documents. Mix for a period of not less than ten (10) minutes; at least three (3) minutes of mixing period shall be immediately prior to discharging at the job.
- B. Introduction of additional water after initial mixing not permitted.

3.03 WEATHER REQUIREMENTS

- A. Do not mix or place when atmospheric temperature is below 40 degrees F. or when conditions indicate temperature will fall below 40 degrees within 72 hours. Reinforcement, forms and ground which concrete will contact shall be completely free of frost. Keep concrete and formwork at a temperature not less than 50 degrees F. for not less than 72 hours after pouring.
- B. When temperature is above 80 degrees F. Contractor shall take precautions to insure that rebar temperature does not exceed ambient temperature.
- C. Temperature of concrete at time of placing shall not be less than 50 degrees F. and not more than 85 degrees F.

3.04 CONVEYING AND PLACING

- A. All concrete shall be mixed and delivered in accordance with the requirements of ASTM C94. All concrete shall be placed, finished and cured and all other

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pertinent construction practices shall be in accordance with the requirements of ACI 301.

- B. Notify Architect at least 48 hours before placing any concrete.
- C. Before placing, clean mixing and conveying equipment, clean forms and space to be occupied by concrete and wet forms. Remove ground water until completion of work.
- D. Place no concrete in any unit of work until all formwork has been completely constructed, all reinforcements secured in place, all items to be built into concrete are in place, and form ties at constructions joints tightened.
- E. Concrete shall be placed so that a uniform appearance of surfaces will be obtained. The concrete will be free of all rock pockets, honeycombs and voids. Deposit as nearly as practical in its final position.
- F. The subgrade must be moist when the concrete is placed for floor slab to prevent excessive loss of water from the concrete mix.
- G. Carry on concreting, once started, as a continuous operation until the section of approved size and shape is completed. Make pour cut-offs of approved detail and location.
- H. Handle concrete as rapidly as practicable from mixer to place of deposit by methods which prevent separation or loss of ingredients. Deposit as nearly as practicable in final position to avoid rehandling or flowing. Do not drop concrete freely where reinforcing bars will cause segregation, nor drop freely more than four feet. Deposit to maintain a plastic surface approximately horizontal. In walls, deposit in horizontal layers not over eighteen inches deep. In pouring columns, walls or thin sections of considerable heights, use openings in forms, elephant trunks, tremies or other approved devices which permit concrete to be placed without segregation or accumulation of hardened concrete on forms or metal reinforcement above the level of the concrete. Install so concrete will be dropped vertically.
- I. Concrete that has partially hardened shall not be deposited in the work.
- J. All concrete floors except sloping to drains shall be brought to a level not exceeding one-eighth inch (1/8") in a 10'-0" measured with a straight edge.
- K. Vibrating: Employ as many vibrators and tampers as necessary to secure the desired results. Minimum: one per each 20 cubic yards of concrete placed per hour. Eliminate the following practices: Pushing of concrete with vibrator; external vibration of forms; allowing vibrator to vibrate against reinforcing steel where steel projects into green concrete; allowing vibrator to vibrate contact faces

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of forms. Vibrators shall function at a minimum frequency of 3600 cycles per minute when submerged in concrete. Supplement vibration by forking and spading along the surfaces of the forms and between reinforcing whenever flow is restricted.

- L. Tremie Concrete: Tremie concrete is a special procedure for placing concrete underwater. Tremie concrete shall be placed by pump or a gravity feed pipe. If a gravity feed pipe is used it shall be 8" minimum diameter and shall be affixed with a shutoff device at the bottom that will allow filling of the pipe with concrete without allowing water to enter. The trunk of the pump or gravity pipe shall be placed at the bottom of caisson prior to placing any concrete. The pump trunk or gravity pipe shall be removed slowly as the caisson is filled insuring that the end of pump trunk or gravity pipe is embedded in concrete a minimum of 1 foot.

3.05 CURING

- A. General: Freshly deposited concrete shall be protected from premature drying and excessively hot or cold temperatures and shall be maintained with minimum moisture loss at a relatively constant temperature for the period of time necessary for the hydration of the cement and proper hardening of the concrete.
- B. Initial Curing:
 - 1. Initial curing shall immediately follow the finishing operation. Concrete shall be kept continuously moist at least overnight. One of the following material or methods shall be used: Ponding or continuous sprinkling; absorptive mat or fabric kept continuously wet.
 - 2. Curing compounds conforming to ASTM C309. Such compounds shall be applied in accordance with the recommendations of the manufacturer and shall not be used on any surface against which additional concrete or other cementitious finishing materials are to be bonded, where epoxy flooring is called for, where concrete topping is to receive waterproofing membrane, nor on surfaces where such curing is prohibited by the project specifications.
- C. Final Curing:
 - 1. Immediately following the initial curing and before the concrete has dried, additional curing shall be accomplished by one of the following materials or methods:
 - a. Continuing the method used in initial curing.

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- b. Waterproofing paper conforming to the requirements of ASTM C171.
 - c. Other moisture-retaining coverings as approved.
- D. **Duration of Curing:** The final curing shall continue until the cumulative number of days or fractions thereof, not necessarily consecutive, during which temperature of the air in contact with the concrete is above 50 degrees F. has totaled seven days. If high-early-strength concrete has been used, the final curing shall continue for a total of three days. Rapid drying at the end of the curing period shall be prevented.
- E. **Formed Surfaces:** Steel forms heated by the sun and all wood forms in contact with the concrete during the final curing period shall be kept wet. If forms are to be removed during the final curing period, one of the above curing materials or methods shall be employed immediately. Such curing shall be continued for the remainder to the curing period.

3.06 CONCRETE FINISHES

A. **Finishes:**

<u>Element</u>	<u>Finish</u>
Exposed Foundation Surfaces	Rough Troweled Finish
Permanently Exposed Formed Surfaces	Grout Cleaned and Sacked
Slabs	Smooth Trowel Finish

- B. **Grout Cleaned Finish:** After the concrete still freshly hardened has been pre-dampened, a slurry consisting of one part cement and one and one-half parts sand passing the No. 16 sieve, by damp loose volume, shall be spread over the surface with clean burlap pads or sponge rubber floats. Any surplus shall be removed by scraping and then rubbing with clean burlap. The finish shall be cured in an approved manner. Sample to be approved by Engineer.
- C. **Troweled Finish:** Where a troweled finish is specified, the surface shall be finished first with power floats, then with power trowels, and finally with hand trowels. The first troweling after power floating shall be done by a power trowel and shall produce a smooth surface which is relatively free of defects but which may still contain some trowel marks. Additional trowelings shall be done by hand after the surface has hardened sufficiently. The final troweling shall be done when a ringing sound is produced as the trowel is moved over the surface. The surface shall be free of any trowel marks, uniform in texture and appearance.

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- D. Broom or Belt Finish: Slabs shall be given a coarse traverse scored texture by drawing a broom or burlap belt across the surface. This operation shall follow immediately after floating.

3.07 PROTECTION

- A. Protect from injurious action of elements and defacement of any nature during operations.

3.08 CONSTRUCTION JOINTS

- A. Location and details of construction joints shall be as indicated on drawings, specified, or as approved by the Engineer. Locate so as not to impair the strength of the structure. Submit drawings with construction joints clearly defined, and schedule of pouring operations for approval in accordance with Part 1.05 "Submittals" of this specification section, prior to starting concreting.
- B. Sandblast all construction joints using coarse sand or waterblast to clean and roughen entire surface of joint, exposing coarse aggregate solidly embedded in mortar matrix. Clean forms and reinforcing of drippings. Clear away debris by compressed air.

3.09 CONTROL JOINTS

- A. Provide as indicated on the drawings.

3.10 PATCHING AND CLEANING

- A. After forms are removed, remove projecting fins, bottles, form ties, nails, etc. not necessary for the work or cut back one inch from the surface. Joint marks and fins in exposed work shall be smoothed off and cleaned as directed by the Engineer.
- B. Repair defects in concrete work as directed by the Engineer. Chip voids and stone pockets to a depth of one inch or more as required to remove all loose material. Voids, surface irregularities, chipped areas, etc., shall be filled by patching, gunite or rubbing, as directed by the Engineer. Repaired surfaces shall duplicate appearance of unpatched work.
- C. Clean exposed concrete surfaces and adjoining work stained by leakage of concrete to approval of Engineer.

3.11 FIELD QUALITY CONTROL

- A. Inspections: The City's agent will perform inspections shown on the contract drawings.

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- B. Engineer Review: The Engineer shall inspect the surfaces between plates and channels, bearing on masonry and concrete to determine if grouting of space is necessary. If grouting of space is necessary, the City's agent shall inspect the grouting procedure.
- C. Sampling and Testing: The City's agent will perform sampling and testing shown on the contract drawings.
- D. Test Results: Test results shall be reported in writing to Engineer and Contractor within 7 days after tests are made. Test results of less than .6 fc' at 7 days and less than fc' at 28 days shall be reported in writing to the Engineer and Contractor within 48 hours after tests are made. Reports of compressive strength tests shall contain the project identification name and number, date of concrete placement, name of concrete testing services, concrete type and class, location of concrete batch in structure, design compressive strength at 28 days, concrete mix proportions and materials; compressive breaking strength and type of break for both 7-day tests and 28-day tests. Strength level of concrete will be considered satisfactory if the averages of sets of three consecutive strength test results equal or exceed specified compressive strength, and no individual strength test result falls below the specified compressive strength by more than 500 psi. Concrete batch plant weight tags shall be collected at the site and submitted to the Engineer.

When the strength of field-cured cylinders is less than 85% of companion laboratory-cured cylinders, evaluate current operations and provide corrective procedures for protecting and curing in-place concrete.

- E. Additional Tests: The City's agent will make additional tests of in-place concrete when test results indicate specified concrete strengths and other characteristics have not been attained in the structure, as directed by Engineer. City's agent may conduct tests to determine adequacy of concrete by cored cylinders complying with ASTM C42, or by other methods as directed. Contractor shall pay for such tests conducted, other additional testing as may be required, and cost of repairing areas of structure tested when unacceptable concrete is verified.

3.12 CLEANING

- A. In addition to the requirements of Supplementary General Conditions, clean up all concrete and cement work on completion of this portion of the work, except protective coatings or building papers shall remain until floors have completely cured or until interior partitions are to be installed.

3.13 GROUTING

- A. Column base plates: The grout shall be mixed and placed in strict accordance with manufacturer's instructions. Care shall be taken in the grouting to ensure

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that there are no voids or air pockets, and that there is full bearing between the base plates and the grout.

- B. Bearing plates and channels: The space between plates and channels bearing against masonry or concrete shall be filled with grout when required by the Engineer. The grout shall be mixed and placed in strict accordance with manufacturer's instructions. Care shall be taken in the grouting to ensure that there are no voids or air pockets, and that there is full bearing between the bearing plates and channels and the grout.
- C. Post-tensioning Anchor Recesses.

3.14 DEFECTIVE WORK

- A. General: Work considered to be defective may be ordered by the Engineer to be replaced in which case the Contractor shall remove the defective work at his expense. Work considered to be defective shall include, but not be limited to, the following:
1. Concrete in which defective or inadequate reinforcing steel has been placed.
 2. Concrete in incorrectly formed, or not conforming to details and dimensions on the drawings or with the intent of these documents, or concrete the surfaces of which are out of plumb or level.
 3. Concrete below specified strength.
 4. Concrete not meeting the maximum allowable drying shrinkage requirements.
 5. Concrete containing wood, cloth, or other foreign matter, rock pockets, voids, honeycombs, cracks or cold joints not scheduled or indicated on the drawings.

3.15 CORRECTION OF DEFECTIVE WORK

- A. The Contractor shall, at his expense, make all such corrections and alleviation measures as directed by the Engineer.
- B. Concrete work containing rock pockets, voids, honeycombs, cracks or cold joints not scheduled or indicated on the drawings, shall be chipped out until all unconsolidated material is removed.
- C. Secure approval of chipped-out areas before patching. Patch per ACI 301, or as ordered by the Engineer.

END OF SECTION

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WHEEL STOPS

Section 03310 Wheel Stops

1.01 Description

This work consists of furnishing and installing precast concrete wheel stops in locations shown on the plans or designated by the Engineer.

1.02 Materials

Requirements for material, details and dimensions of the precast wheel stop shall be the same as specified in the bid item schedule. Dowels for anchoring the wheel stop in place shall be #5 reinforcing bars, Grade 60, conforming to ASTM designation A615 at 1 foot in length.

1.03 Construction Details

The precast wheel stop shall be set in place on top of the pavement with both ends bearing evenly on the same. A 5/8" dia. hole shall be pre-drilled in the pavement. A steel dowel shall be driven into the underlying pavement through the hole at each end of the wheel stop and through the pre-drilled hole.

1.04 Measurement and Payment

Unless otherwise noted, measurement and payment for the contract work shall be in accordance with Section 01025 of the General Requirements. Full compensation for conforming to the requirements of the various sections within these Contract Documents (including the Bidding and Contract Documents, General Requirements and Technical Requirements), shall be considered as included in the prices paid for the various contract items of work involved (as listed on the Bid Schedule) and no additional compensation will be allowed.

(END OF SECTION)