



CONTRACT DOCUMENTS

FOR

BOOSTER NEIGHBORHOOD PARK PLAYGROUND UPGRADES AND REPLACEMENT

SPECIAL PROVISIONS

CITY PROJECT NO. 9051

BID NO. 25-002

PROJECT MANAGER

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Landscape Designer

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COMMUNITY SERVICES DEPARTMENT • PARKS PLANNING AND DESIGN DIVISION
CITY OF FREMONT • ALAMEDA COUNTY, CALIFORNIA

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FOR

**BOOSTER NEIGHBORHOOD PARK
PLAYGROUND UPGRADES AND REPLACEMENT**

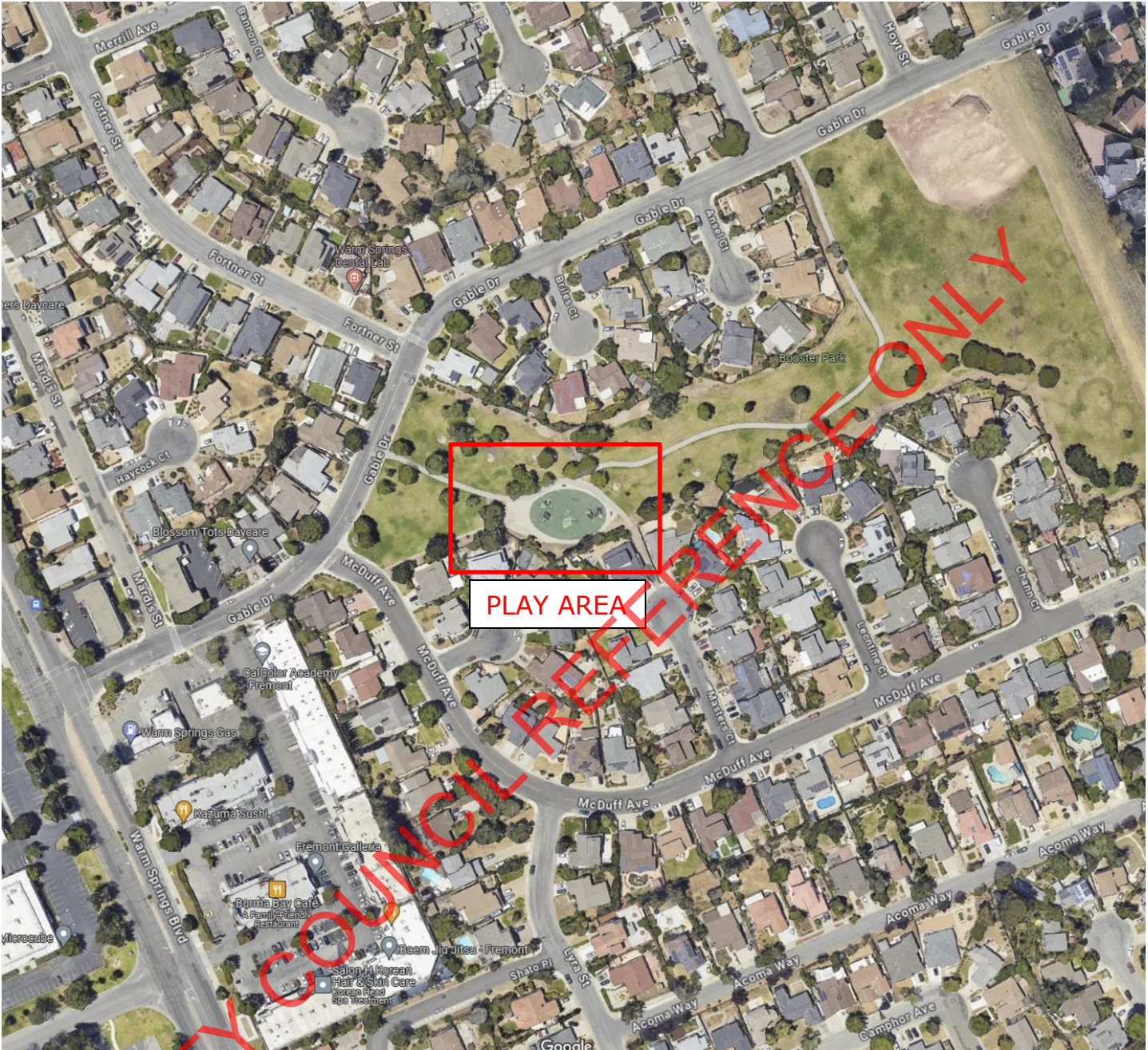
CITY PROJECT NO. PWC 9051

IN THE

CITY OF FREMONT, ALAMEDA COUNTY, CALIFORNIA

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CITY

PROJECT LOCATION MAP
Booster Neighborhood Park Playground
Upgrades and Replacement
City of Fremont

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CITY COUNCIL REFERENCE ONLY

Notice Inviting Bids

1. Bid Submission.

The City of Fremont ("City") will accept sealed bids for its **Booster Neighborhood Park Playground Upgrades and Replacement Project ("Project") (PWC9051)**, on or before **Tuesday, July 23, 2024, at 2:00 p.m.** ("Bid Deadline"), at its Purchasing Division, located at 3300 Capitol Avenue, Building B, Fremont, California 94538, at which date, time and place the bids will be opened publicly and the dollar amounts of each bid will be read aloud.

Bids shall be placed in a sealed envelope and must be received by the City of Fremont prior to the Date and Time indicated. The bids will be opened by Purchasing and the initiating department. A Preliminary bid result will be posted on the City's website the same day by 4:00pm. Please visit www.fremont.gov/532/Bid-Results to obtain Preliminary Bid Results.

We recommend that if bidders are responding via a delivery service such as US Mail, UPS, FedEx or any way other than personally delivering the bid response that it is done as soon as possible to allow for any delays in the delivery process.

PLEASE NOTE THE DELIVERY LOCATION ON THE MAP BELOW. DELIVERY TO ANY OTHER AREA OTHER THAN NOTED BELOW WILL NOT GUARANTEE DELIVERY.

For vendors that wish to deliver in person, someone will be in the Purchasing Department on the day of the bid opening to accept bids from the hours of 8:00am to 2:00pm (**please note we are closed for lunch from 12-1pm**). Delivery prior to bid opening date is recommended. City staff will be in the Purchasing Office Tuesdays, Wednesday's and Friday's to accept bids. **To deliver your bid, please come to the Liberty Street entrance ONLY, where it says BID DELIVERIES**, as shown in the sign posted at the Liberty Street entrance.



2. Project Information.

2.1 Location and Description. The Project is located at Booster Neighborhood Park on Gable Drive between Forner Street and McDuff Avenue, Fremont, CA., and is described as follows:

Base Bid: The Project consists of the temporary construction fencing, removal and disposal of existing play equipment, the removal and disposal of existing poured in place synthetic safety surfacing, installation of new poured in place synthetic safety surfacing, and installation of new upgraded play equipment, relocation of perforated pipe, and other such items and details are required by the plans, standard specifications, and special provisions.

Add Alternate #1: If awarded, the additive alternate consists of the demolition and removal of concrete pavement and the installation of concrete pavement.

Add Alternate #2: If awarded, the additive alternate consists of the installation of ADA concrete picnic table and trash receptacle.

2.2 Time for Completion. The planned timeframe for commencement and completion of construction of the Project is: **90 (ninety) working days.**

2.3 Estimated Project Cost. The estimated construction cost, or construction cost range, for the project is **\$648,835**. This estimate serves only as a guideline to bidders of the scope of the Work and the Project. No bidder, including the successful bidder, is entitled to make any claim against City based on inaccuracy of the estimated cost or range of cost of the Work or the Project.

3. License and Registration Requirements.

3.1 License. This Project requires a valid California contractor's license for the following classification(s): **Class "A"**. Contractors bidding as a joint venture must secure a joint venture license prior to award of the Contract for the Project.

3.2 DIR Registration. City may not accept a Bid Proposal from, or enter into the Contract with, a bidder without proof that the bidder is registered with the California Department of Industrial Relations ("DIR") to perform public work under Labor Code Section 1725.5, subject to limited legal exceptions.

4. Obtaining Contract Documents. The plans, specifications, plan-holder's list, bid, and contract documents for the Project, and any addenda thereto ("Contract Documents") may be purchased from ARC Document Solutions Santa Clara ("ARC"), located at 821 Martin Avenue, Santa Clara, CA 95050; telephone: (408) 295-5770; email: santaclara@e-arc.com; or via Planwell at: www.e-arc.com/ca/santaclara. No partial sets will be issued and the cost of purchase is non-refundable. Call in advance to confirm availability. Reference City of Fremont Bid No. **25-002**. Bidders are encouraged to recycle unused Contract Documents.

5. Bid Proposal and Security.

5.1 Bid Proposal Form. Each bid must be submitted using the Bid Proposal form provided with the Contract Documents.

5.2 Bid Security. The Bid Proposal must be accompanied by bid security of ten percent of the maximum bid amount, in the form of a cashier's or certified check made payable to City, or a bid bond executed by a surety licensed to do business in the State of California on the Bid Bond form included with the Contract Documents. The bid security must guarantee that, upon

award of the bid, the successful bidder will execute the Contract and submit the payment and performance bonds, the insurance certificates, and the other documentation required by the Contract Documents, within ten days after City's issuance of the Notice of Award.

6. Prevailing Wage Requirements.

6.1 General. This Project is subject to the prevailing wage requirements applicable to the locality in which the Work is to be performed for each craft, classification or type of worker needed to perform the Work, including employer payments for health and welfare, pension, vacation, apprenticeship and similar purposes.

6.2 Rates. The prevailing rates are on file with the City Engineer and available online at <http://www.dir.ca.gov/DLSR>. Each Contractor and Subcontractor must pay no less than the specified rates to all workers employed to work on the Project. The schedule of per diem wages is based upon a working day of eight hours. The rate for holiday and overtime work must be at least time and one-half.

6.3 Compliance. The Contract will be subject to compliance monitoring and enforcement by the DIR, under Labor Code Section 1771.4.

6.4 Minimum Wage. This Contract may be subject to the City Minimum Wage Ordinance, codified in Fremont Municipal Code Chapter 5.30. Contractor represents it has read and understands the City's minimum wage requirements and agrees to fully comply with the ordinance. Contractor shall promptly provide any documents and information required by City to verify compliance.

Contractor shall include all applicable minimum wage requirements in all subcontractor contracts and require subcontractors to comply with the requirements.

If federal, state, and local minimum wage laws apply to this Contract, Contractor shall comply with the highest rate of pay applicable.

Contractor's violation of the City's Minimum Wage Ordinance constitutes a material breach of Contract for which the City may pursue all available legal and equitable remedies, including termination.

For more information on the City's minimum wage requirements, please refer to the City of Fremont Minimum Wage Flyer published in the City's website and updated annually.

7. Performance, Payment and Warranty Bonds.

The successful bidder will be required to provide performance and payment bonds, each for 100% of the Contract Price.

The successful bidder will be required to provide a Warranty Bond for 20% of the Contract Price.

8. Substitution of Securities.

Substitution of appropriate securities in lieu of retention amounts from progress payments is permitted under Public Contract Code Section 22300.

9. Subcontractor List.

Each Subcontractor must be registered with the DIR to perform work on public projects. Each bidder must submit a completed Subcontractor List form with its Bid Proposal, including the name, location of the place of business, California contractor license number, DIR registration number, and portion of the Work (based on the Base Bid) for each Subcontractor that will perform work or service, or fabricate or install work, for the prime contractor in excess of one-half of 1% of the bid price, using the Subcontractor List form included with the Contract Documents.

10. Instructions to Bidders.

Additional and more detailed information about the Project and City's bidding requirements is provided in the Instructions to Bidders. All bidders should carefully review the Instructions to Bidder before submitting a Bid Proposal for the Project.

11. Bidder's Conference

A conference will be held on **Wednesday, July 10th, 2024 at 11:00am**, at the following location: **the entry path to the Booster Neighborhood Park on Gable Drive**, to acquaint all prospective bidders with the Contract Documents and the Worksite.

The bidders' conference is not mandatory.

12. Retention

Percentage. The percentage of retention that will be withheld from progress payments is 5%.

13. Specific Brands. Pursuant to Public Contract Code Section 3400(c), City has found that the following specific brands or trade names are desired for the following particular material(s), product(s), thing(s), or service(s). Fully equal substitutions will be considered or accepted for the Project:

Item:	Required brand / trade name:	Reference:
Booster Park Play Area Equipment	GameTime	Spec Section 11 68 13

Purchasing Division: _____ Date: _____
Janice Becerra-Scola,
Purchasing Agent

Publication Dates: 1) July 2nd, 2024
2) July 9th, 2024

END OF NOTICE INVITING BIDS

Instructions to Bidders

Each bid ("Bid Proposal") submitted to the City of Fremont ("City") for its **Booster Neighborhood Park Playground Upgrades and Replacement Project** ("Project") (**PWC9051**) ("Project") must be submitted in accordance with the following instructions and requirements:

1. Bid Submission.

1.1 General. Each Bid Proposal must be signed, sealed and submitted to City, using the form provided in the Contract Documents, by or before the Bid Deadline set forth in the Notice Inviting Bids. City reserves the right to amend or postpone the Bid Deadline by subsequent addendum. Faxed or emailed Bid Proposals will not be accepted, unless otherwise specified. Late submissions will be returned unopened. Each bidder is solely responsible for all of its costs to prepare and submit its bid and by submitting a bid waives any right to recover those costs from City. The bid price(s) must include all costs to perform the Work as specified, including all indirect costs such as applicable taxes, insurance and field offices.

1.2 Bid Envelope. The envelope containing the sealed Bid Proposal and all required forms and attachments must be clearly labeled and addressed as follows:

SEALED BID ENCLOSED, CITY OF FREMONT

BID PROPOSAL

Booster Neighborhood Park Playground Upgrades and Replacement Project

("Project") (PWC9051)

Bid No. 25-002

City of Fremont, Office of Purchasing (Finance Department)
3300 Capitol Avenue, Building B
Fremont, CA 94538
Attn: Janice Becerra-Scola

The envelope must also be clearly labeled, as follows, with the bidder's name, address, contractor license number(s), and registration number with the California Department of Industrial Relations ("DIR") for bidding on public works contracts (Labor Code Sections 1725.5 and 1771.1):

[Contractor company name]

[street address]

[city, state, zip code]

[California contractor license number(s)]

[DIR Registration No:_____]

1.3 DIR Registration. City will not accept a Bid Proposal from or enter into the Contract with a bidder without proof that the bidder is registered with the DIR to perform public work under Labor Code Section 1725.5, subject to limited legal exceptions. If City is unable to confirm that the bidder is currently registered with the DIR, City may disqualify the bidder and return its bid unopened. (Labor Code Section 1725.5.) If the bid is sent by mail, the sealed envelope must be enclosed in a separate envelope.

1.4 Bid Submittals. Each bidder must use the forms provided by City in these Contract Documents for the bid submittal. All bid forms must be fully completed and signed as directed, along with the required attachments, and the sealed bid submittal must include the following:

- (A) Bid Proposal
- (B) Bid Schedule
- (C) Subcontractor List
- (D) Noncollusion Declaration
- (E) Bid Security (Cashier's or Certified Check or Bid Bond)
- (F) Bidder's Statement of Responsibility

2. Pre-Bid Investigation.

2.1 Contract Documents. Each bidder is solely responsible for diligent and thorough review of the Contract Documents (as defined in the General Conditions), examination of the Project site, and reasonable and prudent inquiry concerning known and potential site conditions prior to submitting a Bid Proposal. However, except for any areas that are open to the general public, bidders may not enter City's property or the Project site without prior coordination with and written authorization from City. Bidders are responsible for reporting any errors or omissions in the Contract Documents to City prior to submitting a Bid Proposal, subject to the limitations of Public Contract Code Section 1104. City expressly disclaims responsibility for assumptions a bidder might draw from the presence or absence of information provided by City.

2.2 Utility Company Standards. The Project must be completed in a manner that satisfies the standards and requirements of the affected utility companies or agencies (collectively, "utility owners"). The successful bidder may be required by the utility owners to provide detailed plans prepared by a California registered civil engineer showing the necessary temporary support of the utilities during coordinated construction work. Bidders are directed to contact the utility owners about their requirements before submitting a Bid Proposal.

3. Questions and Requests for Information or Clarification. Questions, requests for information, and requests for clarification regarding the Project, the bid procedures, or any of the Contract Documents must be submitted to City in writing, addressed to the Project Manager for the Project, as follows:

Connie Chao, Landscape Designer
39550 Liberty Street
Fremont, CA 94537
cchao@fremont.gov

If a bidder finds any error, omission, inconsistency, or ambiguity in the Contract Documents, the bidder must make a written request for clarification before submitting the bid. Bidders must submit any inquiry under this Section by **5:00 p.m. on Wednesday, July 17th, 2024** or at least **4 Working Days** before the Bid Deadline. Questions received any later will not be addressed before the Bid Deadline.

4. Addenda. Any addenda issued prior to the bid opening are part of the Contract Documents. Subject to the limitations of Public Contract Code Section 4104.5, City reserves the right to issue addenda prior to bid time. City will make reasonable efforts to deliver addenda to known plan holders who have provided a delivery address for receipt of addenda. However, City makes no guarantee that all bidders will receive all addenda. Each bidder is responsible for ascertaining and ensuring it has received and reviewed all addenda prior to submitting its bid and must acknowledge receipt of all addenda in the Bid Proposal. Bidders should check with ARC (see Section 4 of Notice Inviting Bids) for any addenda or updates on the Project, at: <http://www.e-arc.com/ca/santaclara>.

5. Brand Designations and "Or Equal" Substitutions. Any specification designating a material, product, thing, or service by specific brand or trade name, and followed by the words "or equal," is intended only to indicate quality and type of item desired, and bidders may request use of any equal

material, product, thing, or service. All data substantiating the proposed substitute as an equal item must be submitted with the written request for substitution. Pre-bid requests for substitution must be submitted to the Engineer at least seven Working Days before the Bid Deadline, so that all interested bidders may be notified of any approved alternative. Any other requests for substitution must comply with the General Conditions. If the Engineer denies the request for substitution, the material, product, thing or service specified in the Contract Documents must be furnished and installed. This provision does not apply to materials, products, things, or services that may lawfully be designated by a specific brand or trade name under Public Contract Code Section 3400(c) and Fremont Municipal Code Section 3.20.167(b).

6. **Bid Schedule.** Bidders are required to fully complete the Bid Schedule form accompanying the Bid Proposal form with unit prices as indicated, and to submit the completed Bid Schedule with their Bid Proposal.

6.1 **Incorrect Totals.** This provision is intended to resolve computational errors on the Bid Schedule form.

(A) **Unit Price Subtotals.** In the event a computational error for any bid item (base bid or alternate) results in an incorrect extended total for that item, the submitted base bid or bid alternate total will be adjusted to reflect the corrected amount (estimated quantity X unit cost).

(B) **Unit Price Total.** In the event of a discrepancy between the actual total of the itemized or unit prices shown on the Bid Schedule for the base bid, and the amount entered as the base bid on the Bid Proposal form, the actual total of the itemized or unit prices shown on the Bid Schedule for the base bid will be deemed the base bid price.

(C) **Alternates.** In the event of a discrepancy between the actual total of the itemized or unit prices shown on the Bid Schedule for any bid alternate, and the amount entered for the alternate on the Bid Proposal form, the actual total of the itemized prices shown on the Bid Schedule for that alternate will be deemed the alternate price.

(D) **Withdrawal for Material Error.** Nothing in this provision is intended to prevent a bidder from requesting to withdraw its bid for material error under Public Contract Code Section 5100 *et seq.*

6.2 **Estimated Quantities.** The quantities shown on the Bid Schedule are estimated and the actual quantities required to perform the Work may be greater or less than the estimated amount. The Contract Price will be adjusted to reflect the actual quantities required for the Work based on the itemized or unit prices provided in the Bid Schedule, with no allowance for anticipated profit for quantities that are deleted or decreased, and no increase in the unit price. However, items marked as "Final Pay" items will be compensated based solely on City's estimated quantities, and payment will not be adjusted based on actual quantities, even if the actual quantities differ from City's estimate on the Bid Schedule. Only changes in quantities of "Final Pay" items due to design changes will be measured and paid separately pursuant to a Change Order.

7. **Bidders Interested in More Than One Bid.** No person, firm, or corporation may submit or be a party to more than one Bid Proposal unless alternate bids are specifically called for. However, a person, firm, or corporation that has submitted a subcontract proposal or quote to a bidder may submit subcontract proposals or quotes to other bidders, and may also submit a Bid Proposal as a prime contractor.
8. **Bid Proposal Form and Enclosures.** Each Bid Proposal must be completed in ink using the Bid Proposal form included in the Contract Documents. The Bid Proposal form must be fully completed without interlineations, alterations, or erasures. Any necessary corrections must be clear and

legible, and must be initialed by the bidder's authorized representative. A Bid Proposal submitted with exceptions or terms such as "negotiable," "will negotiate," or similar, will be considered non-responsive.

9. **Authorization and Execution.** Each Bid Proposal must be signed by the bidder's authorized representative. A Bid Proposal submitted by a partnership must be signed in the partnership name by a general partner with authority to bind the partnership. A Bid Proposal submitted by a corporation must be signed with the legal name of the corporation, followed by the signature and title of two officers of the corporation with full authority to bind the corporation to the terms of the Bid Proposal, under California Corporation Code Section 313.
10. **Bid Security.** Each Bid Proposal must be accompanied by bid security of ten percent of the maximum bid amount (meaning the base bid plus all additive alternate prices, if any), in the form of a cashier's check or certified check made payable to City, or a bid bond using the form included in the Contract Documents and executed by a surety licensed to do business in the State of California. The bid security must guarantee that, if City issues the Notice of Award of the Contract to the bidder, then the bidder will provide to City all of the documents required under Section 14 below within ten calendar days thereof.
11. **Withdrawal of Bid Proposals.** A Bid Proposal for the Project will be considered a firm offer and may not be withdrawn for a period of 90 days after the bid opening without forfeiture of the bid security, except as authorized for material error under Public Contract Code Section 5100 *et seq.* or Fremont Municipal Code Section 3.20.200.
12. **Bid Protest.** Any bid protest must comply with City's protest procedures for public construction project contracts, set forth in Fremont Municipal Code Section 3.20.330. City will issue the Notice of Intent to Award the Contract by posting the notice on designated public bulletin boards and on its bid results webpage at: <http://fremont.gov/index.aspx?NID=532>.

A bid protest must be submitted in writing to, and received by, City's Office of Purchasing, located at 3300 Capitol Avenue, Building B, Fremont, California 94538, before 5:00 p.m. on the fifth Working Day after the date of City's posting of the Notice of Intent to Award ("Bid Protest Deadline"). The protesting bidder will bear the risk of any nondelivery of its bid protest before the Bid Protest Deadline, regardless of the method of delivery used. The bid protest must comply with the following requirements:

12.1 General. Only a bidder that has actually submitted a Bid Proposal is eligible to submit a bid protest against another bidder. Subcontractors are not eligible to submit bid protests. A bidder may not rely on the bid protest submitted by another bidder, but must timely pursue its own protest. For purposes of this Section 12, a "Working Day" means a day that City is open for normal business, and excludes weekends and holidays observed by City. Pursuant to Public Contract Code Section 4104, inadvertent omission of a Subcontractor's DIR registration number on the Subcontractor List form is not grounds for a bid protest, provided it is corrected within 24 hours.

12.2 Protest Contents. The bid protest must contain a complete statement of the legal grounds for the protest, all the facts relevant to the protest, the form of relief requested, and the legal basis for such relief, as well as all supporting documentation. Material submitted after the Bid Protest Deadline will not be considered. The protest must refer to the specific portion(s) of the Contract Documents upon which the protest is based. The protest must include the name, address, email address, and telephone number of the protesting bidder and any person representing the protesting bidder. If City requests additional information, it must be provided to City within the time period City specifies.

12.3 Copy to Protested Bidder. Upon submission of its bid protest to City, the protesting bidder must also concurrently transmit the protest and all supporting documents to the protested bidder, and to any other bidder who has a reasonable prospect of receiving an award depending upon the outcome of the protest, by email or hand delivery to ensure delivery before the Bid Protest Deadline.

12.4 Response to Protest. The protested bidder may submit a written response to the protest, provided the response is received by City before 5:00 p.m. within two Working Days after the Bid Protest Deadline or after actual receipt of the bid protest, whichever is sooner (the "Response Deadline"). The response must include all supporting documentation. Material submitted after the Response Deadline will not be considered. The response must include the name, address, email address, and telephone number of the person representing the protested bidder if different from the protested bidder.

12.5 Copy to Protesting Bidder. Upon submission of its response to the bid protest to the City, the protested bidder must also concurrently transmit by email or hand delivery, by or before the Response Deadline, a copy of its response and all supporting documents to the protesting bidder and to any other bidder who has a reasonable prospect of receiving an award depending upon the outcome of the protest.

12.6 Exclusive Remedy. The procedure and time limits set forth in this Section are mandatory and are the bidder's sole and exclusive remedy in the event of bid protest. A bidder's failure to comply with these procedures will constitute a waiver of any right to further pursue a bid protest, including filing a Government Code Claim or initiation of legal proceedings.

12.7 Right to Award. City reserves the right to award the Contract to the bidder it has determined to be the responsible bidder submitting the lowest responsive bid, and to issue a Notice to Proceed with the Work notwithstanding any pending or continuing challenge to its determination.

13. Reservation of Rights. City reserves the right, acting in its sole discretion, to waive nonmaterial and inconsequential bid irregularities, to accept or reject any and all bids, to issue a new Notice Inviting Bids for the Project, or to abandon the Project entirely.

14. Award of Contract. City will award the Contract, if at all, by issuing a written Notice of Award within 90 days after the opening of bids, or as otherwise specified in the Special Conditions, to the responsible bidder that submitted the lowest responsive bid. The successful bidder must submit to City all of the following documents, within ten calendar days after City's issuance of the Notice of Award:

- 14.1** Two duly signed counterpart originals of the Contract provided by City with the Notice of Award, using the form included in the Contract Documents;
- 14.2** Documentation evidencing the authority of the individual(s) signing the Contract on behalf of the successful bidder;
- 14.3** Payment and performance bonds for the Project as specified in the Contract Documents and using the bond forms included in the Contract Documents, each for 100% of the Contract Price as awarded;
- 14.4** If required for this Project, a warranty bond as specified in the Contract Documents, using the warranty bond form provided for 20% of the Contract Price as awarded;
- 14.5** Insurance certificates and endorsements evidencing the successful bidder's insurance coverage, as required by the Contract Documents;
- 14.6** Documentation evidencing the successful bidder's payment of City business tax and registration tax for a business license, as required by the Contract Documents;
- 14.7** A copy of the successful bidder's California contractor's license(s), showing the classification(s) required by the Contract Documents; and

- 14.8 Identification of the successful bidder's on-site superintendent for the Project, as required by the Contract Documents.
15. **Statement of Responsibility.** Each sealed Bid Proposal must include the bidder's Statement of Responsibility using the form provided with the Contract Documents. The Statement of Responsibility must be completed and signed, including all required attachments, providing satisfactory evidence that shows the bidder's financial resources, the bidder's experience in the type of work being required by City, the bidder's organization available for the performance of the Contract, and any other required evidence of the bidder's qualifications to perform the Contract. City may consider such evidence before making its decision to award the proposed Contract. A bid that does not fully comply with this requirement may be rejected as nonresponsive. A bidder that submits a Statement of Responsibility which is subsequently determined to contain false or misleading information, or material omissions, may be disqualified as non-responsible.
16. **License(s).** The successful bidder and its Subcontractor(s) must possess the California contractor's license(s) in the classification(s) required by law to perform the Work. The successful bidder must also obtain a City business license within ten days following City's issuance of the Notice of Award. Each Subcontractor must also obtain a City business license before performing any Work.
17. **Ineligible Subcontractor.** Any Subcontractor who is ineligible to perform work on a public works project under Labor Code Sections 1777.1 or 1777.7 is prohibited from performing work on the Project.
18. **Additive and Deductive Alternates.** As required by Public Contract Code Section 20103.8, if this bid solicitation includes additive or deductive items, the method checked below will be used to determine the lowest bid. If no method is checked, subparagraph (a) will be used to determine the lowest bid. City retains the right to add to or deduct from the Contract any of the additive or deductive alternates included in the Bid Proposal.
- (a) **The lowest bid will be the lowest bid price on the base contract without consideration of the prices on the additive or deductive items.**
19. **Warranty Bond.** A warranty bond is required for this Project in the amount of 20% of the awarded Contract Price, and must be submitted with the payment and performance bonds as specified in Section 14.
20. **Pre-Construction Conference.** City will schedule a mandatory pre-construction conference for the Project following City's issuance of the Notice of Award and Contract execution by the successful bidder. The successful bidder must attend and participate in the pre-construction conference, and provide all of the required information and documents for the conference as set forth in Section 2.2(E) of the General Conditions. City will issue a Notice to Proceed following the conference, identifying the commencement date for the Work and the Contract Time.
21. **Subcontractor Work Limit.** The prime Contractor must perform at least 25% of the Work on the Project, calculated as a percentage of the base bid price on the Bid Proposal form, using Contractor's own forces. The remaining Work may be performed by qualified Subcontractors.

END OF INSTRUCTIONS TO BIDDERS

Bid Proposal

Booster Neighborhood Park Playground Upgrades and Replacement Project (PWC9051)

_____ (“Bidder”) hereby submits this Bid Proposal to the City of Fremont (“City”) for the above-referenced project (“Project”), in response to the Notice Inviting Bids and in accordance with the Contract Documents referenced therein.

1. **Base Bid.** Bidder proposes to perform and fully complete the Work for the Project as specified in the Contract Documents, within the time required for full completion of the Work, for the following price (“Base Bid”): \$_____. Bidder will furnish all labor (including supervision), materials and equipment (whether or not permanent or actually incorporated into the Work), utilities for the Work (including water, sanitary facilities, electricity, fuel, light, heat, and telephone), tools, transportation, and services necessary to complete the Work for the amounts quoted in this Bid Proposal (including the costs of all applicable taxes, patent rights, royalties, licenses, and permits). **Any Work shown on the Plans or described in the Specifications without a specific bid item(s) in this Bid Proposal is hereby included within or made part of this Bid Proposal.**

2. **Bid Alternates.** Bidder submits the following prices for the specified bid alternates:

Alternate #1: Concrete Paving
Add/Deduct: \$_____

Alternate #2: Site Furnishings
Add/Deduct: \$_____

3. **Addenda.** Bidder agrees that it has confirmed receipt of or access to, and reviewed, all addenda issued for this Bid. Bidder specifically acknowledges receipt of the following addenda:

Addendum:	Date Received:	Addendum:	Date Received:
#01	_____	#05	_____
#02	_____	#06	_____
#03	_____	#07	_____
#04	_____	#08	_____

4. **Bidder's Warranties.** By signing and submitting this Bid Proposal, Bidder warrants the following:

4.1 **Examination of Contract Documents.** Bidder has thoroughly examined the Contract Documents and represents that, to the best of Bidder's knowledge, there are no errors, omissions, or discrepancies in the Contract Documents, subject to the limitations of Public Contract Code Section 1104.

4.2 **Examination of Worksite and Local Conditions.** Bidder has visited and examined the Worksite and is familiar with the local conditions at the Project location, including the weather, road access, vehicle routes, and surface and subsurface conditions. Bidder is also familiar with the availability of labor, materials, equipment, and utilities

for the Project and has attended any mandatory bidders' conference and any mandatory pre-bid Project site visit.

- 4.3 **Bidder is Qualified.** Bidder is fully qualified to perform the Work. Bidder has the expertise and financial capacity to perform all obligations required by the Contract Documents.
- 4.4 **Contract Time.** The time for completion of the Work for the Project as specified in the Notice Inviting Bids is reasonable and Bidder is ready and able to perform the Work within that timeframe.
- 4.5 **Legal Compliance.** Bidder is aware of and will comply with all applicable legal requirements for the Project, including all federal, California, local and City laws and regulations.
 - (A) **Trenching of Five Feet or More.** For the excavation of any trench of a depth of five feet or more, this Bid Proposal includes as a bid item the cost of adequate sheeting, shoring, bracing, sloping or other equivalent provisions to be made, including the costs of design for a detailed plan, for protection of life and limb from the hazard of caving ground during the excavation. Any such provisions will conform to applicable safety orders in accordance with California Labor Code Sections 6705 and 6707.
- 4.6 **Responsibility for Bid.** Bidder has carefully reviewed this Bid Proposal and is solely responsible for any errors or omissions contained in the completed bid.
- 4.7 **Iran Contracting Act.** If the Contract Price exceeds \$1,000,000, Bidder is not identified on a list created under the Iran Contracting Act, Public Contract Code § 2200 *et seq.* (the "Act"), as a person engaging in investment activities in Iran, as defined in the Act, or is otherwise expressly exempt under the Act.

- 5. **Award of Contract.** By signing and submitting this Bid Proposal, Bidder agrees that if Bidder is awarded the Contract for the Project, Bidder will provide all of the following to City within ten calendar days following City's issuance of the Notice of Award:
 - 5.1 **Signed Contract.** Two duly signed counterpart originals of the Contract provided by City with the Notice of Award, using the form included in the Project contract documents ("Contract Documents");
 - 5.2 **Signing Authority.** Documentation evidencing the authority of the individual(s) signing the Contract on behalf of Bidder;
 - 5.3 **Payment, Performance and Warranty Bonds.** A payment bond and a performance bond for the Project, each for 100% of the maximum Contract Price as awarded, and a warranty bond, if required, for 20% of the maximum Contract Price as awarded, each executed by sureties licensed to do business in the State of California and using the applicable bond form included with the Contract Documents;
 - 5.4 **Insurance.** The insurance certificates and endorsements evidencing Bidder's insurance coverage as required by the Contract Documents;
 - 5.5 **Business Tax and Registration Tax.** Documentation evidencing Bidder's and all listed Subcontractors' payment of City business tax and registration tax for a business license, as required by the Contract Documents;

5.6 Contractor's License. A copy of Bidder's California contractor's license, showing the classification(s) required by the Contract Documents; and

5.7 On-Site Superintendent. Identification of Bidder's on-site superintendent for the Project, as required by the Contract Documents.

6. Bid Security. As a guarantee that, if awarded the Contract, Bidder will perform its obligations under Section 4 above, Bidder is enclosing bid security in the amount of ten percent of its maximum bid amount (meaning the base bid plus all additive alternate prices, if any) in one of the following forms (check one):

_____ A cashier's check or certified check payable to City and issued by _____ in the amount of \$_____.

_____ A bid bond, using the Bid Bond form included with the Contract Documents, payable to City and executed by a surety licensed to do business in the State of California.

This Bid Proposal is hereby submitted on _____, 20__.

Name and Title

[See Section 9 of Instructions to Bidders] Name and Title

Company Name License #, Expiration Date, and Classification

Address DIR Registration #

City, State, Zip Phone

Contact Name Contact Email

END OF BID PROPOSAL

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Bid Schedule

This Bid Schedule must be completed in ink and included with the sealed Bid Proposal. Pricing must be provided for each Bid Item as indicated. The lump sum or unit cost for each item must be inclusive of all costs, whether direct or indirect, including profit and overhead. The sum of all amounts entered in the "Extended Total Amount" column must be identical to the Base Bid price entered in Section 1 of the Bid Proposal form. In case of a math error or ambiguity, the unit cost listed for any bid item will prevail over the extended total amount listed for that bid item. The grand total of all of the extended total amounts listed will also prevail over the Total Base Bid listed below.

LS = Lump Sum EA = Each LF = Linear Foot CY = Cubic Yard F = Final Pay
 SF = Square Feet LB = Pounds TON = Ton (2000 lbs) AL = Allowance S = Specialty Item

BID ITEM NO.	SPEC. SECTION	ITEM DESCRIPTION	EST. QTY.	UNIT	UNIT COST	EXTENDED TOTAL AMOUNT
1	01 51 00	Mobilization	1	LS	\$	\$
2	01 56 39	Trunk Wrap Protection	1	EA		
3	01 56 20	Temporary Construction Fencing	445	LF	\$	\$
4	02 41 19	Demolish & Remove Existing Play Equipment	1	LS	\$	\$
5	02 41 19	Demolish & Remove Existing Pour-in-Place Safety Surfacing	1	LS	\$	\$
6	11 68 13	Play Equipment	1	LS	\$	\$
7	32 18 16	Pour-In-Place Synthetic Safety Surfacing	7,660	SF	\$	\$
8	32 11 23	Class II Aggregate Base Rock	120	TON	\$	\$
9	22 14 00	Relocate 4" Perforated Drain Line	45	LF	\$	\$

TOTAL BASE BID: Items 1 through 9 inclusive: \$ _____

[Note: The amount entered as the "Total Base Bid" should be identical to the Base Bid amount entered in Section 1 of the Bid Proposal form.]

ADD ALTERNATE #1 - CONCRETE PAVING

BID ITEM NO.	SPEC. SECTION	ITEM DESCRIPTION	EST. QTY.	UNIT	UNIT COST	EXTENDED TOTAL AMOUNT
10	02 41 19	Demolish & Remove Concrete Paving	1	LS	\$	\$
11	03 30 00	Concrete Paving	690	SF	\$	\$

TOTAL ADD ALTERNATE #1: Item 10 through 11 inclusive: \$ _____
 [Note: The amount entered as the "Add Alternate Bid" should be identical to the Bid Alternates amount entered in Section 1 of the Bid Proposal form.]

ADD ALTERNATE #2 - SITE FURNISHINGS

BID ITEM NO.	SPEC. SECTION	ITEM DESCRIPTION	EST. QTY.	UNIT	UNIT COST	EXTENDED TOTAL AMOUNT
12	32 33 00	ADA Picnic Table	1	EA	\$	\$
13	32 33 00	Trash Receptacle	1	EA	\$	\$
14	32 33 00	Recycle Receptacle	1	EA	\$	\$

TOTAL ADD ALTERNATE #2: Item 12 through 14 inclusive: \$ _____
 [Note: The amount entered as the "Add Alternate Bid" should be identical to the Bid Alternates amount entered in Section 1 of the Bid Proposal form.]

BIDDER NAME: _____

END OF BID SCHEDULE

Subcontractor List

For each Subcontractor that will perform a portion of the Work in an amount in excess of one-half of 1% of the Bidder's total Contract Price,¹ the bidder must list a description of the Work, the name and email address of the Subcontractor, its California contractor license number, the location of its place of business, its DIR registration number, and the percentage of the total Work to be performed by that Subcontractor, as a portion of the base bid price.

Bidders: Please print legibly. Illegible forms may be rejected.

DESCRIPTION OF WORK	SUBCONTRACTOR NAME AND EMAIL ADDRESS	CALIFORNIA CONTRACTOR LICENSE NO.	LOCATION OF BUSINESS	DIR REG. NO.	PERCENT OF WORK

CITY COUNCIL REFERENCE ONLY

END OF SUBCONTRACTOR LIST

¹ For street or highway construction this requirement applies to any subcontract of \$10,000 or more.

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Noncollusion Declaration

TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

The undersigned declares:

I am the _____ [title] of _____
[business name], the party making the foregoing bid.

The bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The bid is genuine and not collusive or sham. The bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid. The bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or to refrain from bidding. 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 to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder. All statements contained in the bid are true. 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, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, to effectuate a collusive or sham bid, and has not paid and will not pay, any person or entity for such purpose.

This declaration is intended to comply with California Public Contract Code Section 7106 and Title 23 U.S.C Section 112.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on _____ [date], at _____ [city], _____ [state].

Signature

Name

END OF NONCOLLUSION DECLARATION

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Bid Bond

_____ (“Bidder”) has submitted a bid, dated _____, 20____ (“Bid”), to the City of Fremont (“City”) for work on the **Booster Neighborhood Park Playground Upgrades and Replacement Project** (“Project”). Under this duly executed bid bond (“Bid Bond”), Bidder as Principal and _____, its surety (“Surety”), are bound to City as obligee in the penal sum of ten percent of the maximum amount of the Bid (the “Bond Sum”). Bidder and Surety bind themselves and their respective heirs, executors, administrators, successors and assigns, jointly and severally, as follows:

1. **General.** If Bidder is awarded the Contract for the Project, Bidder will enter into the Contract with City in accordance with the terms of the Bid.
2. **Submittals.** Within ten calendar days following issuance of the Notice of Award to Bidder, Bidder must submit the following to City:
 - 2.1 **Signed Contract.** Two duly signed counterpart originals of the Contract provided by City with the Notice of Award, using the form included in the Project contract documents (“Contract Documents”);
 - 2.2 **Evidence of Signing Authority.** Documentation evidencing the authority of the individual(s) signing the Contract on behalf of Bidder.
 - 2.3 **Payment, Performance and Warranty Bonds.** A payment bond and a performance bond for the Project, each for 100% of the maximum Contract Price as awarded, and a warranty bond, if required for 20% of the maximum Contract Price as awarded, each executed by a surety licensed to do business in the State of California and using the applicable bond forms included with the Contract Documents;
 - 2.4 **Insurance.** The insurance certificates and endorsements evidencing Bidder’s insurance coverage as required by the Contract Documents.
 - 2.5 **Business Tax and Registration Tax.** Documentation evidencing Bidder’s and all listed Subcontractors’ payment of City business tax and registration tax for a business license, as required by the Contract Documents.
 - 2.6 **Contractor’s License.** A copy of Bidder’s California contractor’s license, showing the classification(s) required by the Contract Documents.
 - 2.7 **On-Site Superintendent.** Identification of Bidder’s on-site superintendent for the Project, as required by the Contract Documents.
3. **Enforcement.** If Bidder fails to execute the Contract and submit to City all of the required documentation as required under Section 2 above, Surety guarantees that Bidder forfeits the Bond Sum to City. Any notice to Surety may be given in the manner specified in the Contract and delivered or transmitted to Surety as follows:

Attn: _____
Address: _____
City/State/Zip: _____
Phone: _____
Fax: _____
Email: _____

4. **Duration; Waiver.** If Bidder fulfills its obligations under Section 2 above, then this obligation will be null and void; otherwise it will remain in full force and effect for 90 days following award of the Contract or until this Bid Bond is returned to Bidder, whichever occurs first. Surety waives the provisions of Civil Code Sections 2819 and 2845.

This Bid Bond is entered into and effective on _____, 20_____.

SURETY: _____
Business name

Name/Title

(Notary Acknowledgment with Notary Seal for Surety and Surety's Power of Attorney Must be Attached)

BIDDER: _____
Business name

Signature

Name/Title

END OF BID BOND

Bidder's Statement of Responsibility

**BOOSTER NEIGHBORHOOD PARK PLAYGROUND UPGRADES
AND RENOVATION PROJECT**

The bidder must submit to City, with the Bid Proposal, a completed and signed Bidder's Statement of Responsibility. The bidder must use this form and include all required attachments and attaching clearly labeled additional sheets if needed. City may use the completed Statement of Responsibility to evaluate a bidder's qualifications for this Project. The Statement of Responsibility must be filled out completely, accurately, and legibly. Any errors, omissions, or misrepresentations in completion of the Statement of Responsibility may be grounds for rejection of the bid or termination of a Contract awarded pursuant to the bid.

Part 1: General Information

Bidder Business Name: _____ ("Bidder")

Check One: ___ Corporation
 ___ Partnership
 ___ Sole Proprietorship
 ___ Joint Venture of: _____
 ___ Other: _____

Address: _____

Phone: _____

Owner of Company: _____

Contact Person: _____

Email: _____

Bidder's California Contractor's License Number(s): _____

Part 2: Bidder Experience

1. How many years has Bidder been performing work as a contractor under its present business name? ___ years

1.1 If any of Bidder's experience listed in this Statement of Responsibility refers to work performed under a different business name(s), list on a separate sheet of paper the other name(s) and describe the relationship to Bidder's current business.

2. Has Bidder completed projects similar in type and size to this Project as a general contractor?
___ Yes ___ No

3. Has Bidder ever been disqualified on grounds that it is not responsible?
___ Yes ___ No

If yes, provide additional information on a separate sheet of paper regarding the disqualification, including the name and address of the agency or owner of the subject project, the type and size

of the project, the reasons that Bidder was disqualified as not responsible, and the month and year in which the disqualification occurred.

4. Has Bidder ever been terminated from a construction project, either as a general contractor or as a subcontractor?

_____ Yes _____ No

If yes, provide additional information on a separate sheet of paper regarding the termination, including the name and address of the agency or owner of the subject project, the type and size of the project, whether Bidder was under contract as a general contractor or a subcontractor, the reasons that Bidder was terminated, and the month and year in which the termination occurred.

5. Provide information about Bidder's current projects performed as general contractor as follows:

5.1 How many construction projects is Bidder currently under contract to perform that are still in progress? _____

5.2 What is the total dollar amount of the current construction contracts listed in Subsection 5.1? \$ _____

5.3 What is Bidder's total bonding capacity? \$ _____

5.4 How many construction contracts listed in Subsection 5.1 are:

(A) In an amount of 50% or less of Bidder's total bid amount for the Project?

(B) In an amount between 50% and 100% of Bidder's total bid amount for the Project?

(C) In an amount between 100% and 150% of Bidder's total bid amount for the Project?

(D) In an amount over 150% of Bidder's total bid amount for the Project?

6. Provide information about Bidder's past projects performed as general contractor as follows:

6.1 Five (5) most recently completed public works projects within the last Ten (10) years;

6.2 Three largest completed projects within the last three years; and

6.3 Any play equipment replacement project which is similar to this Project.

7. Use separate sheets of paper to provide all of the following information for each project identified in response to Sections 5 and 6:

7.1 Project name

7.2 Location

7.3 Owner

7.4 Owner contact (name and current phone number)

7.5 Architect or engineer name

7.6 Architect or engineer contact (name and current phone number)

7.7 Project manager (name and current phone number)

7.8 Description of project and scope of work performed

7.9 Initial contract value (at time of bid award)

- 7.10 Final cost of construction (including change orders) (provide estimated cost if project is still in progress)
- 7.11 Original scheduled completion date
- 7.12 Time extensions granted (number of days)
- 7.13 Actual date of completion (provide estimated date if project is still in progress)
- 7.14 Number and amount of stop notices or mechanic's liens filed
- 7.15 Amount of liquidated damages assessed against Bidder
- 7.16 Nature and resolution of any claim, lawsuit, and/or arbitration between Bidder and the owner.

Part 3: Claim History

1. Provide information about Bidder's claims history as follows:

- 1.1 Has any claim been made against Bidder in the past five years which has resulted in arbitration or litigation? _____
- 1.2 Has Bidder made a claim(s) against any city or other client in the past five years which has resulted in arbitration or litigation? _____
- 1.3 If the answer was yes to Subsections 1.1 or 1.2, describe each claim(s) using the format below:
 Project name _____
 Claim amount _____
 Other party entity name _____
 Other party contact (name and current phone number) _____
 Description of the claim(s), using separate sheets of paper

Part 4: Surety History

1. Provide information about Bidder's surety history as follows:

- 1.1 Has Bidder ever failed to satisfactorily complete a construction contract? _____
- 1.2 Has a surety completed any portion of a Bidder construction contract within the last five years? _____
- 1.3 If the answer was yes to Subsections 1.1 or 1.2, provide explanation(s) using the format below:
 Project name _____
 Surety name _____
 Surety contact (name and current phone number) _____
 Date surety took over the project _____
 Explanation(s), using separate sheets of paper

Part 5: Verification

In signing this document, I, the undersigned, declare that I am duly authorized to sign and submit this Bidder's Statement of Responsibility on behalf of the named Bidder, and that all responses and information set forth in this Bidder's Statement of Responsibility and the accompanying pages and attachments are, to the best of my knowledge, true, accurate and complete as of the date of submission. **I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.**

Signature: _____ Date: _____

By: _____
Name and Title

On Behalf of (Legal Name of Bidder): _____

END OF BIDDER'S STATEMENT OF RESPONSIBILITY

CITY COUNCIL REFERENCE ONLY

Contract

This public works contract ("Contract") is entered into by and between the City of Fremont ("City") and _____ ("Contractor"), for work ("Work") on the **Booster Neighborhood Park Playground Upgrades and Replacement Project** ("Project").

The parties agree as follows:

1. **Award of Contract.** In response to the Notice Inviting Bids, Contractor has submitted a Bid Proposal to perform Work on the Project. On _____, 20____, City authorized award of this Contract to Contractor for the amount set forth in Section 4, below.
2. **Contract Documents.** The Contract Documents incorporated into this Contract include and are comprised of all of the following:
 - 2.1 Notice Inviting Bids;
 - 2.2 Instructions to Bidders;
 - 2.3 Addenda, if any;
 - 2.4 Bid Proposal and attachments thereto;
 - 2.5 Contract and Change Orders;
 - 2.6 Payment and Performance Bonds, and Warranty Bond;
 - 2.7 General Conditions;
 - 2.8 Special Conditions;
 - 2.9 Project Drawings and Specifications;
 - 2.10 Notice of Award;
 - 2.11 Notice to Proceed; and
 - 2.12 The following; No other documents
3. **Contractor's Obligations.** Contractor will perform all of the Work required for the Project, as specified in the Contract Documents. Contractor must provide, furnish, and supply all things necessary and incidental for the timely performance and completion of the Work, including all necessary labor, materials, equipment, transportation, and utilities, unless otherwise specified in the Contract Documents. Contractor must use its best efforts to complete the Work in a professional and expeditious manner and to meet or exceed the performance standards required by the Contract Documents.
4. **Payment.** As full and complete compensation for Contractor's timely performance and completion of the Work in strict accordance with the terms and conditions of the Contract Documents, City will pay Contractor \$_____ ("Contract Price"), in accordance with the payment provisions in the General Conditions. The Contract Price is fully inclusive of all direct and indirect costs for performing the Work in full compliance with the Contract Documents, including, but not limited to, the items specified in Section 1 of the Bid Proposal, compliance with all General Conditions and Special Conditions requirements, all Work encompassed by the Plans and Specifications, and all taxes, overhead, and profit.
5. **Time for Completion.** Contractor will fully complete the Work for the Project within sixty (60) "Working Days" from the commencement date given in the Notice to Proceed ("Contract Time"). Contractor must commence the Work no later than ten calendar days after the commencement date stated in the Notice to Proceed. By signing below, Contractor expressly waives any claim for delayed early completion.
6. **Liquidated Damages.** If Contractor fails to complete the Work within the Contract Time, City will assess liquidated damages in the amount of \$1,750 for each day of unexcused delay in completion, and the Contract Price will be reduced accordingly.

7. Labor Code Compliance.

- 7.1 General.** This Contract is subject to all applicable requirements of Chapter 1 of Part 7 of Division 2 of the Labor Code, including requirements pertaining to wages, working hours and workers' compensation insurance.
- 7.2 Prevailing Wages.** This Project is subject to the prevailing wage requirements applicable to the locality in which the Work is to be performed for each craft, classification or type of worker needed to perform the Work, including employer payments for health and welfare, pension, vacation, apprenticeship and similar purposes. Copies of these prevailing rates are available online at <http://www.dir.ca.gov/DLSR>.
- 7.3 DIR Registration.** City may not enter into the Contract with a bidder without proof that the bidder and its Subcontractors are registered with the California Department of Industrial Relations to perform public work under Labor Code Section 1725.5, subject to limited legal exceptions.
- 7.4 Minimum Wage.** This Contract may be subject to the City Minimum Wage Ordinance, codified in Fremont Municipal Code Chapter 5.30. Contractor represents it has read and understands the City's minimum wage requirements and agrees to fully comply with the requirements. Contractor shall promptly provide any documents and information required by City to verify compliance.

Contractor shall include all applicable minimum wage requirements in all subcontractor contracts and require subcontractors to comply with the requirements.

If federal, state, and local minimum and prevailing wage laws apply to this Contract, Contractor shall comply with the highest rate of pay applicable.

Contractor's violation of the City's Minimum Wage Ordinance constitutes a material breach of Contract for which the City may pursue all available legal and equitable remedies, including termination.

- 8. Workers' Compensation Certification.** Under Labor Code Section 1861, by signing this Contract, Contractor certifies as follows: "I am aware of the provisions of Labor Code Section 3700 which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the Work on this Contract."
- 9. Conflicts of Interest.** Contractor, its employees, Subcontractors and agents, may not have, maintain or acquire a direct or indirect conflict of interest in relation to this Contract, or in the performance of this Contract, that violates any City ordinance or policy or violates any California law, including under Government Code Section 1090 *et seq.* and under the Political Reform Act as set forth in Government Code Section 81000 *et seq.* and its accompanying regulations. Any violation of this Section constitutes a material breach of the Contract.
- 10. Independent Contractor.** Contractor is an independent contractor under this Contract and will have control of the Work and the manner in which it is performed. Contractor and its Subcontractors are not employees of City and are not entitled to participate in any health, retirement, or any other employee benefits from City.

11. **Notice.** Any notice, billing, or payment required by the Contract Documents must be made in writing, and sent to the other party by personal delivery, U.S. Mail, a reliable overnight delivery service, facsimile, or by email. Notice is deemed effective upon delivery unless otherwise specified. Notice for each party must be given as follows:

City:

Name: City of Fremont
Address: 3300 Capitol Avenue
City/State/Zip: Fremont, California 94538
Phone: 510-494-4742
Attn: Khandan Bahmani, City Engineer
Email: KBahmani@fremont.gov
Copy to: cchao@fremont.gov

Contractor:

Name: _____
Address: _____
City/State/Zip: _____
Phone: _____
Attn: _____
Email: _____
Copy to: _____

12. **General Provisions.**

- 12.1 **Assignment and Successors.** Contractor may not assign its rights or obligations under this Contract, in part or in whole, without City's written consent. This Contract is binding on Contractor's successors and permitted assigns.
- 12.2 **Third Party Beneficiaries.** There are no intended third party beneficiaries to this Contract except as expressly provided in the General Conditions or Special Conditions.
- 12.3 **Governing Law and Venue.** This Contract will be governed by California law and venue will be in the Superior Court of Alameda County, and no other place.
- 12.4 **Amendment.** No amendment or modification of this Contract will be binding unless it is in a writing duly authorized and signed by the parties to this Contract.
- 12.5 **Integration.** This Contract and the Contract Documents incorporated herein, including authorized amendments or Change Orders thereto, constitute the final, complete, and exclusive terms of the agreement between City and Contractor.
- 12.6 **Severability.** If any provision of the Contract Documents, or portion of a provision, is determined to be illegal, invalid, or unenforceable, the remaining provisions of the Contract Documents will remain in full force and effect.
- 12.7 **Authorization.** Each individual signing below warrants that he or she is authorized to do so by the party that he or she represents, and that this Contract is legally binding on that party. If Contractor is a corporation, signatures from two officers of the corporation are required pursuant to California Corporation Code Section 313.

12.8 COUNTERPARTS. This Agreement may be signed in counterparts, each of which shall be deemed to be an original. The Parties agree that the digital signatures of the parties included in this Agreement are intended to authenticate this writing and to have the same force and effect as manual signatures. Any digital signature shall have the same legal validity and enforceability as a manually executed signature or use of a paper-based record keeping system to the fullest extent permitted by applicable law.

The parties agree to this Contract as witnessed by the signatures below:

CITY OF FREMONT:

APPROVED AS TO FORM:

Signature

Signature

Name/Title

Name/Title

Date: _____

CONTRACTOR: _____
Business Name

Signature

Seal:

Name/Title

Date: _____

Second Signature (See Section 12.7)

Name/Title

Date: _____

Contractor's California License Number(s) and Expiration Date(s)

END OF CONTRACT

Payment Bond

The City of Fremont ("City") and _____ ("Contractor") have entered into a contract, dated _____, 20____ ("Contract") for work on the **Booster Neighborhood Park Playground Upgrades and Replacement Project** ("Project"). The Contract is incorporated by reference into this Payment Bond ("Bond").

- 1. **General.** Under this Bond, Contractor as principal and _____, its surety ("Surety"), are bound to City as obligee in an amount not less than \$ _____, under California Civil Code Sections 9550, *et seq.*
- 2. **Surety's Obligation.** If Contractor or any of its Subcontractors fails to pay a person authorized in California Civil Code Section 9100 to assert a claim against a payment bond, any amounts due under the Unemployment Insurance Code with respect to work or labor performed under the Contract, or for any amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of Contractor and its Subcontractors, under California Unemployment Insurance Code Section 13020, with respect to the work and labor, then Surety will pay for the obligation.
- 3. **Beneficiaries.** This Bond inures to the benefit of any of the persons named in California Civil Code Section 9100, so as to give a right of action to those persons or their assigns in any suit brought upon this Bond. Contractor must promptly provide a copy of this Bond upon request by any person with legal rights under this Bond.
- 4. **Duration.** If Contractor promptly makes payment of all sums for all labor, materials, and equipment furnished for use in the performance of the Work required by the Contract, in conformance with the time requirements set forth in the Contract and as required by California law, Surety's obligations under this Bond will be null and void. Otherwise, Surety's obligations will remain in full force and effect.
- 5. **Waivers.** Surety waives any requirement to be notified of alterations to the Contract or extensions of time for performance of the Work under the Contract. Surety waives the provisions of Civil Code Sections 2819 and 2845. City waives the requirement of a new bond for any supplemental contract under Civil Code Section 9550. Any notice to Surety may be given in the manner specified in the Contract and delivered or transmitted to Surety as follows:

Attn: _____
 Address: _____
 City/State/Zip: _____
 Phone: _____
 Fax: _____
 Email: _____

- 6. **Law and Venue.** This Bond will be governed by California law, and any dispute pursuant to this Bond will be venued in the Superior Court of Alameda County, and no other place. Surety will be responsible for City's attorneys' fees and costs in any action to enforce the provisions of this Bond.

7. **Effective Date; Execution.** This Bond is entered into and is effective on _____,
20__.

SURETY: _____
Business Name

Signature

Name/Title

(Notary Acknowledgment with Notary Seal for Surety and Surety's Power of Attorney Must be Attached)

CONTRACTOR: _____
Business Name

Signature

Name/Title

Signature

Name/Title

CITY COUNCIL REFERENCE ONLY

END OF PAYMENT BOND

Performance Bond

The City of Fremont ("City") and _____ ("Contractor") have entered into a contract, dated _____, 20____ ("Contract") for work on the **Booster Neighborhood Park Playground Upgrades and Replacement Project** ("Project"). The Contract is incorporated by reference into this Performance Bond ("Bond").

1. **General.** Under this Bond, Contractor as Principal and _____, its surety ("Surety"), are bound to City as obligee for an amount not less than \$_____. By executing this Bond, Contractor and Surety bind themselves and their respective heirs, executors, administrators, successors and assigns, jointly and severally, to the provisions of this Bond.
2. **Surety's Obligations.** If Contractor fully performs its obligations under the Contract, including its warranty obligations under the Contract, and Contractor has timely provided a warranty bond as required under the Contract, Surety's obligation under this Bond will become null and void upon the City's acceptance of the Project, excluding any exceptions to acceptance, if any. Otherwise Surety's obligations will remain in full force and effect until expiration of the one year warranty period under the Contract.
3. **Surety's Waiver.** Surety waives any requirement to be notified of and further consents to any alterations to the Contract made under the applicable provisions of the Contract Documents, including changes to the scope of Work or extensions of time for performance of Work under the Contract. Surety waives the provisions of Civil Code Sections 2819 and 2845.
4. **Application of Contract Balance.** Upon making a demand on this Bond, City will make the Contract Balance available to Surety for completion of the Work under the Contract. For purposes of this provision, the Contract Balance is defined as the total amount payable by City to Contractor as the Contract Price minus amounts already paid to Contractor, and minus any liquidated damages, credits, or backcharges to which City is entitled under the terms of the Contract.
5. **Contractor Default.** Upon written notification from City that Contractor is in default under Section 13.3 of the Contract General Conditions, time being of the essence, Surety must act within the time specified in that Section 13.3 to remedy the default through one of the following courses of action:
 - 5.1 Arrange for completion of the Work under the Contract by Contractor, with City's consent, but only if Contractor is in default solely due to its financial inability to complete the Work;
 - 5.2 Arrange for completion of the Work under the Contract by a qualified contractor acceptable to City, and secured by performance and payment bonds issued by an admitted surety as required by the Contract Documents, at Surety's expense; or
 - 5.3 Waive its right to complete the Work under the Contract and reimburse City the amount of City's costs to have the remaining Work completed.
6. **Surety Default.** If Surety defaults on its obligations under the Bond, City will be entitled to recover all costs it incurs due to Surety's default, including legal, design professional, or delay costs.
7. **Notice.** Any notice to Surety may be given in the manner specified in the Contract and sent to Surety as follows:

Attn: _____
Address: _____
City/State/Zip: _____
Phone: _____
Fax: _____
Email: _____

- 8. Law and Venue.** This Bond will be governed by California law, and any dispute pursuant to this Bond will be venued in the Superior Court of Alameda County, and no other place. Surety will be responsible for City's attorneys' fees and costs in any action to enforce the provisions of this Bond.
- 9. Effective Date; Execution.** This Bond is entered into and effective on _____, 20____.

SURETY: _____
Business Name

Signature

Name/Title

(Notary Acknowledgment with Notary Seal for Surety and Surety's Power of Attorney Must be Attached)

CONTRACTOR: _____
Business Name

Signature

Name/Title

Signature

Name/Title

END OF PERFORMANCE BOND

Warranty Bond

The City of Fremont ("City") and _____ ("Contractor") have entered into a contract, dated _____, 20__ ("Contract") for work on the **Booster Neighborhood Park Playground Upgrades and Replacement Project** ("Project"). The Contract is incorporated by reference into this Warranty Bond ("Bond").

- 1. General.** Under this Bond, Contractor as principal and _____, its surety ("Surety"), are bound to City as obligee in the maximum amount of 20% of the final Contract Price or as otherwise specified in the Contract Documents.
- 2. Warranty Period.** The Contract requires Contractor to guarantee its work and that of its Subcontractors on the Project, against defects in materials or workmanship which are discovered during the one year period commencing with City's acceptance of the Project ("Warranty Period"), and to promptly make repairs or reimburse the City for repairs as further specified in Article 11 of the Contract General Conditions.
- 3. Surety's Obligations.** If Contractor faithfully carries out and performs its guarantee under the Contract, and, on due notice from City, repairs and remedies at its sole expense any and all defects in materials and workmanship in the Project which are discovered during the Warranty Period, or if Contractor promptly reimburses City for all loss and damage that City sustains because of Contractor's failure to make such repairs in accordance with the Contract requirements, then Surety's obligations under this Bond will be null and void. Otherwise, Surety's obligations will remain in full force and effect.
- 4. Waiver.** Surety waives the provisions of Civil Code Sections 2819 and 2845.
- 5. Notice.** Any notice to Surety may be given in the manner specified in the Contract and delivered or transmitted to Surety as follows:

Attn: _____
Address: _____
City/State/Zip: _____
Phone: _____
Fax: _____
Email: _____
- 6. Law and Venue.** This Bond will be governed by California law, and any dispute pursuant to this Bond will be venued in the Superior Court of Alameda County, and no other place. Surety will be responsible for City's attorneys' fees and costs in any action to enforce the provisions of this Bond.
- 7. Effective Date; Execution.** This Bond is entered into and is effective on _____, 20_____.

[Signatures are on the following page.]

SURETY: _____
Business Name

Signature

Name/Title

(Notary Acknowledgment with Notary Seal for Surety and Surety's Power of Attorney Must be Attached)

CONTRACTOR: _____
Business Name

Signature

Name/Title

Signature

Name/Title

CITY COUNCIL REFERENCE ONLY

END OF WARRANTY BOND

General Conditions

Article 1 – Definitions

Definitions. The following definitions apply to all of the Contract Documents unless otherwise indicated. Defined terms and titles of documents are capitalized in the Contract Documents, with the exception of the words “day,” “furnish,” “including,” “install,” “work day” or “working day.”

Allowance means an amount included in the Bid Proposal for Work that may or may not be included in the Project, depending on conditions that will not become known until after bids are opened. If the Contract Price includes an Allowance and the cost of performing the Work covered by that Allowance is greater or less than the Allowance, the Contract Price will be increased or decreased accordingly.

Article, as used in these General Conditions, means a numbered Article of the General Conditions, unless otherwise indicated by the context.

Change Order means a written document duly approved and executed by City, which changes the scope of Work, the Contract Price, or the Contract Time.

City means the City of Fremont, acting through its City Council, officers, employees, City Engineer, and any other authorized representatives.

City Engineer means the City Engineer for City and his or her authorized delegee(s) designated to oversee and manage the Project on City’s behalf.

City Standard Specifications means the current version of City’s Standard Specifications in effect at the time bids were submitted.

Claim means a separate demand by Contractor for a change in the Contract Time or Contract Price, that has previously been submitted to City in accordance with the requirements of the Contract Documents, and which has been rejected by City, in whole or in part; or a written demand by Contractor objecting to the amount of Final Payment.

Contract means the signed agreement between City and Contractor.

Contract Documents means, collectively, all of the documents listed as such in Section 2 of the Contract, including the Notice Inviting Bids; the Instructions to Bidders; addenda, if any; the Bid Proposal, and attachments thereto; the Contract; the Notice of Award and Notice to Proceed; the payment, performance and warranty bonds; the General Conditions; the Special Conditions; the Project Drawings and Specifications; any Change Orders; and any other documents expressly made part of the Contract Documents.

Contract Price means the total compensation to be paid to Contractor for performance of the Work, as set forth in the Contract and as amended by Change Order or adjusted for an Allowance. The Contract Price is not subject to adjustment due to inflation or due to the increased cost of labor, material, or equipment following submission of the Bid Proposal.

Contract Time means the number of calendar days for performance of the Work, as set forth in the Contract and as amended by Change Order.

Contractor means the individual, partnership, corporation, or joint-venture that has signed the Contract with City to perform the Work.

Day means a calendar day unless otherwise specified.

Design Professional means the licensed individual(s) or firm(s) retained by City to provide architectural, landscape architectural, or engineering services for the Project. If no Design Professional has been retained for this Project, any reference to Design Professional is deemed to refer to the Engineer.

DIR means the California Department of Industrial Relations

Drawings means the City-provided plans and graphical depictions of the Project requirements, and does not include Shop Drawings.

Engineer means the City Engineer for City and his or her authorized delegates.

Extra Work means new or unforeseen work added to the Project, as determined by the Engineer in his or her sole discretion, that: (A) is not covered by Contract unit prices; (B) is not part of or incidental to the scope of the Work; (C) is substantially different from the Work as described in the Contract Documents at bid time; or (D) results from a substantially changed Project condition.

Field Order means written instructions from the Engineer that require or authorize minor changes in the Work that do not affect the Contract Price or Contract Time.

Final Completion means Contractor has fully completed all of the Work required by the Contract Documents to the Engineer's satisfaction, including all punch list items, and any required commissioning, and has provided the City with all required submittals, including the warranty bond, instructions and manuals, and as-built drawings.

Final Payment means payment to Contractor of the unpaid Contract Price, including release of undisputed retention, less amounts withheld pursuant to the Contract Documents, including liquidated damages, up to 125% of the amount of any unreleased stop notice, amounts subject to setoff, up to 150% of any unresolved third-party claim for which Contractor is required to indemnify City, and up to 150% of any amount in dispute as authorized by Public Contract Code Section 7107.

Furnish means to purchase and deliver for the Project.

Hazardous Materials means any substance or material identified now or in the future as hazardous under any federal, state, or local law or regulation, or any other substance or material that may be considered hazardous or otherwise subject to statutory or regulatory requirements governing handling, disposal, or cleanup.

Including, whether or not capitalized, means "including, but not limited to," unless the context requires otherwise.

Inspector means the individual(s) or firm(s) retained by City to inspect the workmanship, materials, and manner of construction of the Project and its components to ensure compliance with the Contract Documents and all applicable codes, regulations, and permits.

Install means to fix in place for materials, and to fix in place and connect for equipment.

Plans has the same meaning as Drawings.

Project means the public works project referenced in the Contract.

Project Manager means the individual designated by City to oversee and manage the Project on City's behalf and may include his or her authorized delegee(s) when the Project Manager is unavailable. If no Project Manager has been designated for this Project, any reference to Project Manager is deemed to refer to the Engineer.

Request for Information or RFI means Contractor's written request for information submitted to City, in the manner and format specified by City, about the Contract Documents, the Work or the Project.

Section as used in these General Conditions, means a numbered Section of the General Conditions, unless otherwise indicated by the context, such as statutory references.

Shop Drawings means drawings, plan details or other graphical depictions prepared by or on behalf of Contractor, and subject to City approval, which are intended to provide details for fabrication, installation, and the like, of items required by or shown in the Drawings and Specifications.

Specifications means the technical, text specifications describing the Project requirements, which are prepared for and incorporated into this Project by or on behalf of City, and does not include the Contract, General Conditions or Special Conditions.

Subcontractor means an individual, partnership, corporation, or joint venture retained by Contractor directly or indirectly through a subcontract to perform a specific portion of the Work. The term Subcontractor applies to subcontractors, suppliers, fabricators, and equipment lessors of all tiers, unless otherwise indicated by the context.

Technical Specifications means Specifications.

Work means all of the construction and services necessary or incidental to completing the Project in conformance with the requirements of the Contract Documents.

Work Day or Working Day, whether or not capitalized, means a weekday when the City is open for business and does not include holidays observed by the City.

Worksite means the place or places where the Work is performed.

Article 2 - Roles and Responsibilities

2.1 City.

(A) **Engineer.** The Engineer, acting within the authority conferred by the City Council, is responsible for administration of the Project on behalf of City, including authority to provide directions to the Design Professional and to Contractor, in the form of Field Orders or otherwise, to ensure proper and timely completion of the Project.

(B) **Design Professional.** The Design Professional is responsible for the overall design of the Project and, to the extent authorized by City, may act on City's behalf to ensure performance of the Work in compliance with the Contract Documents. The Design Professional's decision(s) regarding interpretation of the Drawings or Specifications is final and conclusive.

2.2 Contractor.

(A) **General.** Contractor must provide all labor, materials, equipment and services necessary to perform and timely complete the Work in strict accordance with the Contract Documents, and in an economic and efficient manner in the best interests of City.

(B) **Responsibility for the Work and Risk of Loss.** Contractor is responsible for supervising and directing all aspects of the Work to facilitate the efficient and timely completion of the Work. Contractor is solely responsible for and required to exercise full control over the Work, including the construction means, methods, techniques, sequences, procedures, and coordination of all portions of the Work with that of all other contractors and Subcontractors, except to the extent that the Contract Documents provide other specific instructions. From the date of commencement of the Work until either the date on which City formally accepts the Project or the effective date of termination of the Contract, whichever is later, Contractor bears all risks of injury or damage to the Work and the materials and equipment delivered to the Worksite, by any cause including fire, earthquake, wind, weather, vandalism or theft.

(C) **Project Administration.** Contractor must provide sufficient and competent administration, staff, and skilled workforce necessary to perform and timely complete the Work in accordance with the Contract Documents. Before starting the Work, Contractor must designate in writing and provide complete contact information, including telephone numbers and email address, for the officer or employee in Contractor's organization who is to serve as Contractor's primary representative for the Project, and who has authority to act on Contractor's behalf. A Subcontractor may not serve as Contractor's primary representative.

(D) **On-Site Superintendent.** Contractor must, at all times during performance of the Work, also provide a qualified and competent full-time superintendent acceptable to City, and assistants as necessary, who must be physically present at the Project site while any aspect of the Work is being performed. The on-site superintendent must be authorized to act on Contractor's behalf concerning the Project, with the authority to sign, send, and receive all notices contemplated or required by the Contract Documents and to direct the Work. City's approval of the superintendent is required before the Work commences. If City is not satisfied with the superintendent's performance, City may request a qualified replacement of the superintendent. Failure to comply may result in temporary suspension of the Work, at Contractor's sole expense and with no extension of Contract Time, until the approved superintendent is physically present to supervise the Work. Contractor must provide written notice to City, as soon as practicable, before replacing the superintendent.

(E) **Pre-Construction Conference.** City will designate a date and time for the mandatory pre-construction conference with Contractor following Contract execution. Project administration procedures and coordination between City and Contractor will be discussed. Contractor must submit a draft version of the baseline schedule required under Section 5.2, below, at least ten days before the scheduled date for the pre-construction conference, unless a shorter period is specified by the City. The draft baseline schedule must specify the time or number of days allocated for completion of each major item, rather than the specific dates. If the City provides comments on the draft baseline schedule before the pre-construction conference, Contractor must prepare responses to the City's comments for review at the pre-construction conference. At the pre-construction conference Contractor must also present City with the information or documents listed below for City's review and acceptance before the Work commences. Failure to timely comply with any of these pre-construction submittal requirements may operate to delay issuance of the Notice to Proceed and commencement of the Work. Contractor is solely responsible for any resulting delay damages caused by its failure to comply with this provision.

- CITY OF LONG BEACH ONLY
- (1) Qualifications of the proposed on-site superintendent for the Project and his or her 24-hour complete contact information, including email address and telephone numbers during regular hours and after hours;
 - (2) List of all other key Project personnel and their complete contact information, including email addresses and telephone numbers during regular hours and after hours;
 - (3) Staging plans that identify the sequence of the Work, including any phases and alternative sequences or phases, with the goal of minimizing the impacts on residents, businesses and other operations in the Project vicinity;
 - (4) If required, traffic control plans associated with the staging plans that are signed and stamped by a licensed traffic engineer;
 - (5) Responses to City comments on the draft baseline schedule for the Work, and if required in the Special Conditions, proof of order and estimated delivery dates for any long lead time items;
 - (6) Breakdown of lump sum bid items, and cost distribution schedule of prices (schedule of values), to be used for determining the value of Work completed for future progress payments to Contractor;
 - (7) Schedule with a list of Contractor's Project submittals that require City review, and list of the proposed material suppliers;
 - (8) Plan for coordination with affected utility owner(s) and compliance with any related permit requirements;
 - (9) Videotape and photographs recording the conditions throughout the Project site before any Work begins, showing the existing improvements and current condition of the curbs, gutters, sidewalks, signs, landscaping, streetlights, structures near the Project such as building faces, canopies, shades and fences, and any other features within the Project area limits;
 - (10) Contractor's safety program and identification of Contractor's safety officer for the Project;
 - (11) Copies of the required documentation for each Subcontractor, including a copy of the contract between Contractor and each Subcontractor and the Subcontractor's California contractor's license and identification of its authorized representative for the Project;
 - (12) If requested by City, Contractor's cash flow projections; and
 - (13) Any other documents or information specified in the Special Conditions or Notice of Award.

(F) **Standards; Compliance.** Contractor must, at all times, ensure that the Work is performed in an efficient skillful manner following best practices and in full compliance with the Contract Documents and all applicable laws, regulations, codes, standards, and permits, including City's municipal code, rules, and regulations, and any orders of the administrative or judicial bodies with jurisdiction over the Work, and any applicable legal

requirements imposed by Executive Orders duly issued at the federal, state, or local level, whether or not said laws are expressly stated in the Contract Documents.

(G) **Progress Meetings.** Contractor, and the Subcontractors requested by City, must attend regular Project progress meetings with City that City will schedule;

(H) **Responsible Party.** Contractor is solely responsible to City for the acts or omissions of any Subcontractors, or any other party or parties performing portions of the Work or providing equipment, materials or services for or on behalf of Contractor or the Subcontractors. Upon City's written request, Contractor must promptly and permanently remove from the Project, at no cost to City, any employee or Subcontractor of Contractor who has proven during the course of the Work to be incompetent, intemperate or disorderly, or who has failed or refused to perform the Work as required under the Contract Documents.

(I) **Correction of Defects.** Contractor must promptly correct, at Contractor's sole expense, any Work that is determined by City to be deficient or defective in workmanship, materials, parts, or equipment. Workmanship, materials, parts or equipment that do not conform to the requirements under the Drawings, Specifications and every other Contract Document, as determined by City, will be considered defective and subject to rejection. Contractor must also promptly correct, at Contractor's sole expense, any Work performed beyond the lines and grades shown on the Plans or established by City, and any Extra Work performed without City's prior written approval. City may elect to retain defective Work and deduct the difference in value, as determined by the Engineer, from payments otherwise due to Contractor.

(J) **Contractor's Records.** Contractor must maintain all of its records relating to the Project in any form, including paper documents, photos, videos and electronic records. Project records subject to this provision include: records relating to preparation of Contractor's bid; Project cost and accounting records; Project employment records; a record copy of the Contract Documents, including the Project Plans and Specifications, Addenda, Change Orders, RFIs and RFI responses, Field Orders, and approved Shop Drawings; contracts with Contractor's suppliers and Subcontractors for the Project; and all notes, daily logs and memoranda relating to the Work.

(1) Contractor's cost and accounting records must include all supporting documentation, including original purchase orders, receipts, invoices, and payroll records, evidencing its direct costs to perform the Work, including, but not limited to, costs for labor, materials and equipment. Each cost record should include, at a minimum, a description of the expenditure with references to the applicable requirements of the Contract Documents, the amount actually paid, the date of payment, and whether the expenditure is part of the original Contract Price, related to an executed Change Order, or otherwise categorized by Contractor as Extra Work. Contractor's failure to comply with this provision as to any claimed cost operates as a waiver of any rights to recover the claimed cost.

(2) Contractor must continue to maintain its Project records in an organized manner, according to generally accepted accounting principles, for a period of four years after City's acceptance of the Project or following Contract termination, whichever occurs first. Subject to prior notice to Contractor, City is entitled to inspect or audit any of Contractor's records relating to the Project or to investigate Contractor's plant or equipment during Contractor's normal business hours. Contractor must also provide copies of the Project records to City upon request.

(K) **Copies of Project Documents Onsite.** Contractor and its Subcontractors must keep copies, at the Project site, of the Work-related documents, including the Contract, Drawings, Plans, Specifications, Addenda, Contract amendments, Change Orders, RFIs and RFI responses, Field Orders, approved Shop Drawings, and any related written interpretations. The Contract Documents, as-built drawings, and all Worksite copies must be available to City for reference at all times.

2.3 Subcontractors.

(A) **General.** All Work which is not performed by Contractor with its own forces must be performed by Subcontractors. City reserves the right to approve or reject any and all Subcontractors proposed to perform the Work, for reasons including the Subcontractor's poor reputation, lack of relevant experience, financial instability, and lack of technical ability or adequate workforce. Each Subcontractor must obtain a City business license before performing any Work. Each Subcontractor must also pay City business tax and registration tax for a business license, under Fremont Municipal Code Chapter 5.05, before performing any Work.

(B) **Contractual Obligations.** Contractor must include a provision in each of its subcontracts that incorporates by reference, and requires the Subcontractor to be bound to and comply with, the provisions of the Contract Documents as they apply to the Subcontractor's portion(s) of the Work, and to likewise bind their own subcontractors or suppliers. Such provisions to be incorporated by reference specifically include, but are not limited to, the following obligations of Contractor under the Contract Documents: indemnification of City; City business tax and registration tax compliance; insurance coverage; and compliance with nondiscrimination and all other applicable laws. Nothing in these Contract Documents creates a contractual relationship between a Subcontractor and City, but City is deemed to be a third-party beneficiary of the contract between Contractor and each Subcontractor.

(C) **Termination.** If the Contract is terminated, each Subcontractor's agreement must be assigned by Contractor to City, subject to the prior rights of any surety, but only if City accepts the assignment by written notification, and assumes all rights and obligations of Contractor pursuant to each such subcontract agreement.

(D) **Substitution of Subcontractor.** If Contractor requests substitution of a listed Subcontractor under Public Contract Code Section 4107, Contractor is solely responsible for all costs City incurs in responding to the request, including legal fees and costs to conduct a hearing.

2.4 Coordination of Work.

(A) **Concurrent Work.** City reserves the right to perform or to have performed other work on or adjacent to the Project site while the Work is being performed. Contractor is responsible for coordinating its Work with other work being performed on or adjacent to the Project site, including by any utility companies or agencies, and must avoid hindering, delaying, or interfering with the work of other contractors and subcontractors. To the full extent permitted by law, Contractor must hold harmless and indemnify City against any and all claims arising from or related to Contractor's avoidable, negligent, or willful hindrance of, delay to, or interference with the work of any utility company or agency or another contractor or subcontractor.

(B) **Defects.** Before proceeding with any portion of the Work affected by the construction or operations of others, Contractor must give the Project Manager prompt

written notification of any defects Contractor discovers which will prevent the proper execution of the Work. Failure to give notice of any known defects will be deemed acknowledgement by Contractor that the work of others is not defective and will not prevent the proper execution of the Work.

2.5 Submittals. Unless otherwise specified, Contractor must submit the following to the Project Manager for review: all schedules, Shop Drawings, samples, product data and similar submittals required by the Contract Documents, and any other submittals requested by the Project Manager. Unless otherwise specified, all submittals, including Requests for Information, are subject to the provisions of this Section.

(A) **General.** Contractor is responsible for ensuring that its submittals are accurate and conform to the Contract Documents.

(B) **Time and Manner of Submission.** Contractor must ensure that its submittals are prepared and delivered in a manner consistent with the current approved schedule for the Work and within the applicable time specified in the Contract Documents, or if no time is specified, in such time and sequence so as not to delay the performance of the Work or completion of the Project. For planning purposes, Contractor should assume at least 14 days for City review of each submittal or batch of submittals, and a longer time period for complex submittals or for large batches of submittals.

(C) **Required Contents.** Each submittal must be numbered in sequential order and include the Project name and contract number, Contractor's name and address, the name and address of any Subcontractor or supplier involved with the submittal, the date, and references to applicable Specification section(s) and/or drawing and detail number(s).

(D) **Required Corrections.** If City notes exceptions and requires corrections for any submittal, Contractor must promptly make and submit the required corrections to City in full conformance with the requirements of this Section.

(E) **Effect of Review and Acknowledgement by City.** City's review and acknowledgement of a submittal that results in no exceptions taken by City will not relieve Contractor from complying with the requirements of the Contract Documents. Contractor is responsible for any errors in any submittal, and review and acknowledgement of a submittal by City with no exceptions taken is not an assumption of risk or liability by City.

(F) **Enforcement.** Any Work performed or material used without prior review of a required submittal will be performed at Contractor's risk, and Contractor may be required to bear the costs incident thereto, including the cost of removing and replacing such Work, repairs to other affected portions of the Work, and the cost of additional time or services required of City, including costs for the Design Professional, Project Manager, or Inspector.

(G) **Excessive RFIs.** A Request for Information will be considered excessive or unnecessary if City determines that the explanation or response to the Request for Information is clearly and unambiguously discernable from the Contract Documents or in any Field Order that City has issued. City's costs to review and respond to excessive or unnecessary Requests for Information may be deducted from payments otherwise due to Contractor.

(H) **Additional Requirements for Submittals.** Any additional requirements for submittals may be included in the Special Conditions or Specifications.

- 2.6 **Shop Drawings.** When Shop Drawings are required by the Specifications or requested by the Engineer, they must be prepared according to best practices at Contractor's expense. The Shop Drawings must be of a size and scale to show all necessary details. Unless otherwise specified by City, three copies must be provided to the Engineer for review at least 30 days before the Work will be performed. If City notes exceptions or requires changes, three copies of the corrected Shop Drawings must be resubmitted to the Engineer for review. For all Project components requiring Shop Drawings, Contractor will not furnish materials or perform any Work until the Shop Drawings for those components are reviewed by City. Contractor is responsible for any errors or omissions in the Shop Drawings, shop fits and field corrections, any deviations from the Contract Documents, and for the results obtained by the use of Shop Drawings. Review of Shop Drawings by the Engineer does not relieve Contractor of Contractor's responsibility.

Article 3 - Contract Documents

3.1 Interpretation of Contract Documents.

(A) **Drawings and Specifications.** The Drawings and Specifications included in the Contract Documents are complementary. If Work is shown on one but not on the other, Contractor must perform the Work as though fully described on both, consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results. The Drawings and Specifications are deemed to include and require everything necessary and reasonably incidental to completion of the Work, whether or not particularly mentioned or shown. Contractor must perform all work and services and supply all things reasonably related to and inferable from the Contract Documents. In the event of a conflict between the Drawings and Specifications, the Specifications will control. Any arrangement or division of the Drawings and Specifications in sections is for convenience and is not to limit the Work required by separate trades. A conclusion presented in Drawings or Specifications is only a recommendation. Actual locations and depths must be determined by Contractor's field investigation. Contractor may request access to underlying or background information in City's possession that is necessary for Contractor to form its own conclusion. Subject to the limitations of Public Contract Code Section 1104, it is Contractor's responsibility to ascertain the existence of any conditions affecting the cost of the Work.

(B) **Duty to Notify and Seek Direction.** If Contractor becomes aware of a changed condition in the Project, or of any ambiguity, conflict, inconsistency, discrepancy, omission, or error in the Contract Documents, including under the Drawings or Specifications, Contractor must immediately submit a Request for Information to the Engineer and wait for a response from City before proceeding further with the related Work. The Request for Information must notify City of the issue and request clarification, interpretation or direction. The Engineer's clarification, interpretation or direction will be final and binding on Contractor. If Contractor proceeds with the related Work before obtaining City's response, Contractor will be responsible for any resulting costs, including the cost of correcting any incorrect or defective Work that results. City will not extend the Contract Time due to Contractor's failure to submit a timely Request for Information to the Engineer.

(C) **Figures and Dimensions.** Figures control over scaled dimensions.

(D) **Technical or Trade Terms.** Any terms that have well-known technical or trade meanings will be interpreted in accordance with those meanings, unless otherwise specifically defined in the Contract Documents.

(E) **Measurements.** Contractor must verify all relevant measurements at the Worksite before ordering any material or performing any Work, and will be responsible for the correctness of those measurements.

3.2 Order of Precedence. Information included in one Contract Document but not in another will not be considered a conflict or inconsistency. Unless otherwise specified in the Special Conditions, in case of any conflict or inconsistency among the Contract Documents, the following order of precedence will apply, beginning from highest to lowest:

- (A) Change Orders;
- (B) Addenda;
- (C) Contract;
- (D) Notice to Proceed;
- (E) Notice of Award;
- (F) Special Conditions;
- (G) General Conditions;
- (H) Payment, Performance and Warranty Bonds;
- (I) Specifications;
- (J) Drawings;
- (K) Contractor's Bid Proposal and attachments;
- (L) Notice Inviting Bids;
- (M) Instructions to Bidders;
- (N) City Standard Specifications;
- (O) City Standard Details; and
- (P) Any other documents prepared by and on behalf of a third party that were not prepared specifically for this Project.

3.3 Caltrans Standard Specifications. Any reference in the Contract Documents to or incorporation of the Standard Specifications of the State of California, Department of Transportation ("Caltrans"), including "Standard Specifications," "Caltrans Specifications," "State Specifications," or "CSS," means the most current edition of Caltrans' Standard Specifications, unless otherwise specified ("Standard Specifications"), including the most current amendments as of the date that Contractor's bid was submitted for this Project. The following provisions apply to use of or reference to the Standard Specifications:

(A) **Limitations.** None of the "General Provisions" of the Standard Specifications, i.e., Sections 1 through 9, applies to these Contract Documents with the exception of any specific provisions, if any, which are expressly stated to apply to these Contract Documents.

(B) **Conflicts or Inconsistencies.** If there is a conflict or inconsistency between any provision in the Standard Specifications and a provision of these Contract Documents, as determined by City, the provision in the Contract Documents will govern.

(C) **Meanings.** Terms used in the Caltrans Standard Specifications or Special Provisions are to be interpreted as follows:

- (1) Any reference to the "Engineer" is deemed to mean the City Engineer.
- (2) Any reference to the "Special Provisions" is deemed to mean the Special Conditions, unless the Caltrans Special Provisions, or any portions thereof, are expressly included in the Contract Documents under Section 2 of the Contract.
- (3) Any reference to the "Department" or "State" is deemed to mean City.

- 3.4 For Reference Only.** Contractor is responsible for the careful review of any document, study, or report provided by City or incorporated into or appended to the Contract Documents solely for informational purposes and identified as "For Reference Only." Nothing in any document, study, or report so appended and identified is intended to supplement, alter, or void any provision of the Contract Documents. Contractor is advised that City or its representatives may be guided by information or recommendations included in such reference documents, particularly when making determinations as to the acceptability of proposed materials, methods, or changes in the Work. Any record drawings or similar final or accepted drawings or maps that are not part of the Contract Documents are deemed to be For Reference Only. The provisions of the Contract Documents are not modified by any perceived or actual conflict with provisions in any document that is For Reference Only.
- 3.5 Current Versions.** Unless otherwise specified by City, any reference to the City Standard Specifications, Standard Plans and Standard Details, technical specifications, or any City or California codes or regulations means the latest specification, code or regulation in effect at the time that bids were due.

Article 4 - Bonds, Indemnity, and Insurance

- 4.1 Payment and Performance Bonds.** Within ten days following issuance of the Notice of Award, Contractor is required to provide a payment bond and a performance bond, each in the penal sum of not less than 100% of the Contract Price, using the bond forms included with the Contract Documents.
- (A) **Surety.** Each bond must be issued by a surety admitted in California. If an issuing surety cancels the bond or becomes insolvent, within seven days following written notice from City, Contractor must substitute a surety acceptable to City. If Contractor fails to substitute an acceptable surety within the specified time, City may, at its sole discretion, withhold payment from Contractor until the surety is replaced to City's satisfaction, or terminate the Contract for default.
- (B) **Supplemental Bonds for Increase in Contract Price.** If the Contract Price increases during construction by five percent or more over the original Contract Price, Contractor may be required provide supplemental or replacement bonds within ten days of written notice from City pursuant to this Section, covering 100% of the increased Contract Price and using the bond forms included with the Contract Documents.
- 4.2 Indemnity.** To the fullest extent permitted by law, Contractor must indemnify, defend, and hold harmless City, including its elected officials, officers, agents, employees, consultants and volunteers (individually, an "Indemnatee," and collectively the "Indemnitees"), from and against any and all liability, loss, damage, claims, expenses (including, without limitation, attorney fees, expert witness fees, paralegal fees, and fees and costs of litigation or arbitration) (collectively, "Liability") of every nature arising out of or in connection with the acts or omissions of Contractor, including its officers, agents, representatives, employees, Subcontractors and suppliers, in bidding or performing the Work or in failing to comply with any obligation of Contractor under the Contract, except such Liability caused by the active negligence, sole negligence, or willful misconduct of an Indemnatee. This indemnity requirement applies to any Liability arising from alleged defects in the content or manner of submission of Contractor's bid for the Contract. Contractor's failure or refusal to timely accept a tender of defense pursuant to this Contract will be deemed a material breach of the Contract. City will timely notify Contractor upon receipt of any third-party claim relating to the Contract, as required by

Public Contract Code Section 9201. Contractor's indemnity obligations under this Contract will survive the expiration or any early termination of the Contract.

4.3 Insurance. *The insurance requirements under Section 4.3 of the General Conditions are modified for this Contract, as set forth below. Except as expressly stated below, all other provisions in Section 4.3 are unchanged and remain in full force and effect.*

No later than ten days following issuance of the Notice of Award, and before commencing any Work, Contractor must, at its sole expense, procure the insurance coverage required by this Section and provide acceptable proof of the coverage to the satisfaction of City's Risk Manager. Proof of coverage must be evidenced within the body of the insurance policies or in the form of certificates and endorsements as described below. The required insurance must cover Contractor, including its officers, agents, representatives, employees, Subcontractors and suppliers, for claims now and in the future that may relate to or arise from the performance of the Work. The insurance must remain in full force and effect throughout the duration of the Contract. The insurance must be issued by companies licensed to do business in the State of California, and each such insurer must have an A.M. Best's financial strength rating of "A" or better and a financial size rating of "VII" or better. Contractor's procurement of the required insurance will not be construed to relieve Contractor of any performance obligations, to limit Contractor's liability, or to fulfill Contractor's indemnification obligations under the Contract. Contractor may carry any additional insurance it deems necessary or prudent, at its sole expense.

(A) **Insurance Coverage and Limits.** Any available insurance proceeds related to this Contract that are broader than or in excess of the specified minimum insurance coverage requirements or limits for Contractor must be made available to the additional insureds under this Contract. The requirements for Contractor's coverage and limits are: (1) the minimum coverage and limits specified in this Contract, or (2) the broader coverage and maximum limits of coverage of any insurance policy or proceeds available to the named insureds, whichever is greater. The limits of insurance required in this Contract may be satisfied by a combination of primary and umbrella or excess insurance. Any umbrella or excess insurance must contain or be endorsed to contain a provision that such coverage will also apply on a primary and non-contributory basis for the benefit of City, before City's own insurance or self-insurance will be called upon to protect it as a named insured.

(B) **Minimum Scope of Insurance.** Contractor must procure and maintain all of the following insurance coverage for this Contract, unless otherwise specified in the Special Conditions:

- (1) Insurance Services Office Commercial General Liability ("CGL") insurance that includes:
 - a) Blanket contractual liability coverage;
 - b) Contractor's protected coverage;
 - c) Broad form property coverage;
 - d) Personal injury coverage;
 - e) Completed operations coverage; and
- (2) Insurance Services Office Automobile Liability insurance, Code 1 (any auto).
- (3) Builder's Risk insurance.

- (4) Workers' Compensation insurance as required by the State of California and Employer's Liability insurance.
- (5) *Pollution Liability Insurance*: The pollution liability insurance policy must be issued on an occurrence basis, for all loss arising out of claims for bodily injury, death, property damage, or environmental damage caused by pollution conditions resulting from the Work.
- (6) Any other insurance coverage City may require in the Special Conditions.

(C) **Minimum Limits of Insurance.** Contractor must maintain coverage limits of at least the following for this Contract, unless otherwise specified in the Special Conditions:

- (1) CGL insurance: Issued on an occurrence basis, with \$2,000,000 per occurrence for bodily injury, personal injury and property damage and \$4,000,000 general aggregate. If CGL insurance or other form with a general aggregate liability is used, either the general aggregate limit must apply separately to this Contract or the general aggregate limit must be twice the required occurrence limit.
- (2) Automobile Liability insurance: \$1,000,000 per accident for bodily injury, death and property damage. For owned, loaned, hired and non-owned autos.
- (3) Builder's Risk insurance: Issued on an occurrence basis, with all-risk coverage on a 100% completed value basis on the insurable portion of the Project for the benefit of City.
- (4) Employer's Liability insurance:
 - a) Bodily Injury by Accident - \$1,000,000 each accident;
 - b) Bodily Injury by Disease - \$1,000,000 policy limit; and
 - c) Bodily Injury by Disease - \$1,000,000 each employee.
- (5) Any other limits City may require in the Special Conditions.

(D) **Deductibles and Self-Insured Retentions.**

- (1) Any deductible or self-insured retention (SIR) applicable to Contractor's insurance must be declared to and approved by City. At City's option, either:
 - a) the insurer must reduce or eliminate such deductible or SIR with respect to City, including its elected officials, officers, agents, employees, consultants, volunteers and Design Professional; or
 - b) Contractor must procure a bond guaranteeing payment of losses and related investigations, claims administration and defense expenses.
- (2) Policies containing any SIR provision must provide or be endorsed to provide that the SIR may be satisfied by either the named insured or City.
- (3) City reserves the right to obtain a full certified copy of any insurance policy and endorsement. Failure to exercise this right will not constitute a waiver of the right to exercise it later.

(E) **Endorsements.** The required CGL, automobile liability and builder's risk insurance policies must contain, or be endorsed to contain, the following provisions:

- (1) City, its elected officials, officers, agents, employees, consultants, volunteers and Design Professional, are covered as additional insureds as respects: any alleged liability arising out of activities performed by or on behalf of Contractor; products and completed operations of Contractor; premises owned, occupied or used by Contractor; any automobiles owned, leased, hired or borrowed by Contractor. The coverage will contain no special limitations on the scope of protection afforded to City, its elected officials, officers, agents, employees, consultants, volunteers and Design Professional.
- (2) Any failure to comply with reporting or other provisions of the policies, including breaches of warranties, will not affect coverage provided to City, its elected officials, officers, agents, employees, consultants, volunteers and Design Professional.
- (3) The insurance will apply separately to each insured against whom a claim is made or suit is brought, except with respect to the limits of the insurer's liability. The inclusion of more than one insured will not operate to impair the rights of one insured against another, and the coverages afforded will apply as though separate policies have been issued to each insured.
- (4) The policy does not exclude explosion, collapse, underground excavation hazard, or removal of lateral support.

(F) **Insurance Certificates and Endorsements.** Contractor must furnish properly executed certificates of insurance from insurance companies acceptable to City, with signed copies of the specified endorsements for each policy as required in Subsection M below. Such documentation must clearly evidence all coverages as required above, including specific evidence of separate endorsements naming City, its elected officials, officers, agents, employees, consultants, volunteers and Design Professional as additional insureds as also required above. The certificates must also provide that such insurance will not be materially changed, terminated or allowed to expire except after 30 days prior written notice thereof has been filed with the City Clerk by certified mail, return receipt requested, unless the change or termination is due to non-payment of premiums, in which case ten days prior written notice thereof must be filed with the City Clerk.

(G) **Completed Operations.** Contractor must maintain the required insurance coverage to the fullest amount allowed by law and must maintain the insurance for a minimum of five years following Final Completion of the Project. In the event Contractor fails to obtain or maintain completed operations coverage as required herein, City at its sole discretion may purchase the coverage required and the cost will be paid by Contractor.

(H) **Cross-Liability.** The CGL policy must include a cross-liability or severability of interest endorsement.

(I) **Failure to Maintain Insurance Coverage.** Contractor's failure, for any reason, to maintain the required insurance coverage will be deemed a material breach of this Contract. City, at its sole option, may terminate this Contract and obtain damages from Contractor resulting from such breach. Alternatively, City may purchase the required insurance coverage and, without further notice to Contractor, deduct from sums due to Contractor any premium costs advanced by City for the insurance.

(J) **Primary and Non-Contributory.** Contractor's insurance coverage under this Contract will be primary insurance as respects City, its elected officials, officers, agents, employees, consultants, volunteers and Design Professional. Any insurance or self-insurance maintained by City, its elected officials, officers, agents, employees, consultants, volunteers or Design Professional, will be excess of Contractor's insurance and will not contribute with it. The additional insured coverage under Contractor's policies will be "primary and non-contributory" and will not seek contribution from City's insurance or self-insurance and will be at least as broad as CG 20 01 04 13.

(K) **Subcontractors.** Contractor must require all Subcontractors to maintain the same levels of insurance and provide the same indemnity that Contractor is required to provide under this Contract, including the requirements related to the additional insureds and waivers of subrogation.. Contractor must require each Subcontractor to provide evidence of the required insurance and endorsements prior to the Subcontractor's commencement of any Work. The insurance requirements for Subcontractors do not replace or limit the Contractor's insurance obligations.

(L) **Subrogation Waiver.** Contractor agrees to waive subrogation rights against City, regardless of the applicability of any insurance proceeds, and to require all Subcontractors or others involved in any way with the Work to do likewise. Each required insurance policy must include an endorsement providing that the carrier agrees to waive any right of subrogation it may have against City, its elected officials, officers, agents, employees, consultants, volunteers and Design Professional.

(M) **Verification of Coverage.** Contractor must furnish City with original endorsements effecting coverage required by this Section 4.3. The endorsements must be signed by a person authorized by that insurer to bind coverage on its behalf. All endorsements must be received and approved by City's Risk Manager before the Work commences. Contractor must provide substitute insurance coverage, and written proof of the substitute insurance coverage, to City, in the form of policies, certificates and endorsements acceptable to City's Risk Manager, no later than 30 days prior to the expiration date of any insurance policy required under this Contract.

4.4 Warranty Bond. Within ten days following issuance of the notice of award, Contractor must submit a warranty bond, using the form included with the Contract Documents, to guarantee its Work as specified in Article 11, Completion and Warranty Procedures. The warranty bond must be issued by a surety admitted in California for 20% of the awarded Contract Price or as otherwise specified in the Contract Documents. If an issuing surety cancels the bond or becomes insolvent, within seven days following written notice from City, Contractor must substitute a surety acceptable to City.

Article 5 - Contract Time

5.1 Time is of the Essence. Time is of the essence in Contractor's performance and completion of the Work, and Contractor must diligently prosecute the Work and complete it within the Contract Time.

(A) **General.** Contractor must commence the Work on the date indicated in the Notice to Proceed, and must fully complete the Work in strict compliance with all requirements of the Contract Documents and within the Contract Time. Contractor may not begin performing the Work on the Project site before the date specified in the Notice to Proceed.

(B) **Rate of Progress.** Contractor and its Subcontractors must, at all times, provide workers, materials, and equipment sufficient to maintain the rate of progress necessary to ensure full completion of the Work within the Contract Time. If City determines that Contractor is failing to prosecute the Work at a sufficient rate of progress, City may, in its sole discretion, direct Contractor to provide additional workers, materials, or equipment, or to work additional hours or days without additional cost to City, in order to achieve a rate of progress satisfactory to City. If Contractor fails to comply with City's directive in this regard, City may, at Contractor's expense, separately contract for additional workers, materials, or equipment or use City's own forces to achieve the necessary rate of progress. Alternatively, City may terminate the Contract based on Contractor's default.

5.2 Schedule Requirements. All schedules must be prepared using standard scheduling software acceptable to City, and must provide schedules in electronic and paper form as requested.

(A) **Baseline (As-Planned) Schedule.** Within three calendar days following City's issuance of the Notice to Award (or as otherwise specified in the Special Conditions), Contractor must submit to City for review a final baseline (as-planned) schedule using critical path methodology showing in detail how Contractor plans to perform and fully complete the Work within the Contract Time. The final baseline schedule must be based on the draft baseline schedule submitted for the pre-construction conference pursuant to Section 2.2, above, and must incorporate City comments as directed during the pre-construction conference. The baseline schedule must show the order of the major items of Work and the dates of start and completion of each item, including when the materials and equipment will be procured. The schedule must also include the work of all trades, reflecting anticipated labor or crew hours and equipment loading for the construction activities, and must be sufficiently comprehensive and detailed to enable progress to be monitored on a day-by-day basis. For each activity, the baseline schedule must be dated, provided in the format specified in the Contract Documents or as required by City, and must include, at a minimum, a description of the activity, the start and completion dates of the activity, the activity's dependence on completion of other activities, and the duration of the activity.

- (1) **Specialized Materials Ordering.** The baseline schedule must include ordering and estimated delivery dates for specialized materials or items that are not readily available from suppliers.
- (2) **Long Lead Time Items.** The baseline schedule must include realistic estimates of the lead time required for ordering items that require a long lead time, such as items that must be specially fabricated or are subject to special handling or shipping.

(B) **City's Review of Schedules.** City will review and may note or take exceptions to the baseline schedule, and to the progress schedules submitted as required below, to assure completion of the Work within the Contract Time. Contractor is solely responsible for resolving any exceptions taken in a schedule and must, within seven days, correct the schedule to address them.

(C) **Progress Schedules.** After City reviews a final baseline schedule on which no exceptions are taken, Contractor must submit to City an updated progress schedule and three-week look-ahead schedule, in the format specified by City, for review with each application for a progress payment, or when otherwise specified by City, until completion of the Work. The updated progress schedule must: show how the actual progress of the Work as constructed to date compares to the baseline schedule; reflect any proposed changes in the method of operations, including to achieve Project milestones within the

Contract Time; and identify any actual or potential impacts to the critical path. Contractor must also submit periodic reports to City of any changes in the projected material or equipment delivery dates for the Project.

- (1) **Float.** The progress schedule must show early and late completion dates for each task. The number of days between those dates will be designated as the "float." Any float belongs to the Project and not to Contractor.
 - (2) **Failure to Submit Schedule.** Reliable, up-to-date schedules are essential to timely, efficient and cost-effective administration of the Project. If Contractor fails to submit a schedule within the time periods specified in this Section, or submits a schedule to which City has noted exceptions that are not corrected, City may withhold ten percent from payment(s) otherwise due to Contractor until the exceptions are resolved, the schedule is corrected and resubmitted, and City has taken no further exceptions.
- (D) **Recovery Schedule.** If City determines that the Work is more than two weeks behind schedule, within seven days following written notice of such determination, Contractor must submit a recovery schedule, showing how Contractor intends to perform and complete the Work within the Contract Time, based on actual progress to date.
- (E) **Effect of Acknowledgement.** Contractor and its Subcontractors must perform the Work in accordance with the most current schedule unless otherwise directed by City. City's review of a schedule does not operate to extend the time for completion of the Work or any component of the Work, and will not affect City's right to assess liquidated damages for Contractor's unexcused delay in completing the Work within the Contract Time.
- (F) **Posting.** Contractor must at all times prominently post in its on-site office a copy of the most current progress or recovery schedule that has no exceptions taken by City.
- (G) **Reservation of Rights.** City reserves the right to direct the sequence in which the Work must be performed or to make changes in the sequence of the Work in order to facilitate the performance of work by City or others, or to facilitate City's use of its property. The Contract Time or Contract Price may be adjusted to the extent such changes in sequence actually increase or decrease Contractor's time or cost to perform the Work.
- (H) **Authorized Working Days and Times.** Contractor is limited to working Monday through Friday, excluding holidays, from 7:30 a.m. until 4:00 p.m., except as provided in the Special Conditions or as authorized in writing by City. City reserves the right to charge Contractor for additional costs incurred by City due to Work performed on days or during hours not expressly authorized in the Contract Documents, including reimbursement of costs incurred for inspection, testing, and construction management services.
- (I) **Additional Requirements for Work Schedules.** Any additional requirements for Work schedules may be included in the Special Conditions or Specifications.

5.3 Delay and Extensions of Contract Time.

- (A) **Excusable Delay.** The Contract Time may be extended if Contractor encounters "Excusable Delay," which is an unavoidable delay in completing the Work within the Contract Time due to causes completely beyond Contractor's control, and which Contractor could not have avoided or mitigated through reasonable care, planning,

foresight, and diligence. Grounds for Excusable Delay may include fire, natural disasters including earthquake or unusually severe weather, acts of terror or vandalism, epidemic, unforeseeable adverse government actions, unforeseeable actions of third parties, encountering unforeseeable hazardous materials, unforeseeable site conditions, or suspension for convenience under Article 13. Contractor is not entitled to an extension of the Contract Time for delay that will not affect the time for Final Completion, based on the critical path in the baseline schedule.

(B) **Non-Excusable Delay.** Delay which Contractor could have avoided or mitigated through reasonable care, planning, foresight and diligence is "Non-Excusable Delay." Contractor is not entitled to an extension of Contract Time or any compensation for Non-Excusable Delay, or for Excusable Delay that is concurrent with Non-Excusable Delay. Non-Excusable Delay includes delay caused by:

- (1) weather conditions which are normal for the location of the Project, as determined by reliable records, including monthly rainfall averages, for the preceding ten years;
- (2) Contractor's failure to order equipment and materials sufficiently in advance of the time needed for timely completion of the Work;
- (3) Contractor's failure to provide adequate notification to utility companies or agencies for connections or services necessary for the timely performance and completion of the Work;
- (4) foreseeable conditions which Contractor could have ascertained from reasonably diligent inspection of the Worksite or review of the Contract Documents or other information provided or available to Contractor; or
- (5) Contractor's financial inability to perform the Work, including insufficient funds to pay its Subcontractors or suppliers.

(C) **Compensable Delay.** Pursuant to Public Contract Code Section 7102, in addition to entitlement to an extension of Contract Time, Contractor is entitled to compensation for costs incurred due to delay caused solely by City, when that delay is unreasonable under the circumstances involved and not within the contemplation of the parties ("Compensable Delay"). Contractor is not entitled to an extension of Contract Time or recovery of costs for Compensable Delay that is concurrent with Non-Excusable Delay, or that does not affect the time for Final Completion, based on the critical path in the baseline schedule.

(D) **Recoverable Costs.** Contractor is not entitled to compensation for Excusable Delay unless it is Compensable Delay, as defined above. Contractor is entitled to recover only the actual, direct, reasonable, and substantiated costs ("Recoverable Costs") for each working day that the Compensable Delay prevents Contractor from proceeding with more than 50% of the critical path Work scheduled for that day, based on the most recent progress schedule reviewed by City. Recoverable Costs will not include home office overhead or lost profit.

(E) **Request for Extension of Contract Time or Recoverable Costs.** A request for an extension of Contract Time or any associated Recoverable Costs must be submitted in writing to City within ten calendar days of the date the delay is first encountered, even if the duration of the delay is not yet known at that time, or any entitlement to the Contract Time extension or to the Recoverable Costs will be deemed waived. In addition to complying with the requirements of this Article 5, the request must be submitted in

compliance with the Change Order request procedures in Article 6 below. Strict compliance with these requirements is necessary to ensure that any delay or consequences of delay may be mitigated as soon as possible, and to facilitate cost-efficient administration of the Project and timely performance of the Work. Any request for an extension of Contract Time or Recoverable Costs that does not strictly comply with all of the requirements of Article 5 and Article 6 will be deemed waived.

- (1) *Required Contents.* The request must include a detailed description of the cause(s) of the delay, and must also describe the measures that Contractor has taken to mitigate the delay and/or its effects, including efforts to mitigate the cost impact of the delay, such as by workforce management or by a change in sequencing. If the delay is still ongoing at the time the request is submitted, the request should also include Contractor's plan for continued mitigation of the delay or its effects.
- (2) *Delay Days and Costs.* The request must specify the number of days of Excusable Delay claimed, or provide a realistic estimate if the duration of the delay is not yet known. If Contractor believes it is entitled to Recoverable Costs for Compensable Delay, the request must specify the amount and basis for the Recoverable Costs that are claimed, or provide a realistic estimate if the amount is not yet known. Any estimate of delay duration or cost must be updated in writing and submitted with all required supporting documentation as soon as the actual time and cost is known. The maximum extension of Contract Time will be the number of calendar days, if any, by which an Excusable Delay or a Compensable Delay exceeds a concurrent Non-Excusable Delay. Contractor is entitled to an extension of Contract Time, or compensation for Recoverable Costs for Compensable Delay, only if, and only to the extent that, such delay will unavoidably delay Final Completion.
- (3) *Supporting Documentation.* The request must also include any and all supporting documentation necessary to evidence the delay and its actual impacts, including scheduling and cost impacts with a time impact analysis using critical path methodology and demonstrating the unavoidable delay to Final Completion. The time impact analysis must be submitted in a form or format acceptable to City.
- (4) *Burden of Proof.* Contractor has the burden of proving that: (a) the delay was an Excusable or Compensable Delay, as defined above; (b) Contractor has made reasonable efforts to mitigate the delay and its schedule and cost impacts; (c) the delay will unavoidably result in delaying Final Completion; and (d) any Recoverable Costs claimed by Contractor were actually incurred and were reasonable under the circumstances.
- (5) *Legal Compliance.* Nothing in this Section 5.3 is intended to require the waiver, alteration, or limitation of the applicability of Public Contract Code Section 7102.
- (6) *No Waiver.* Any grant of an extension of Contract Time, or compensation for Recoverable Costs due to Compensable Delay, will not operate as a waiver of City's right to assess liquidated damages for Non-Excusable Delay.
- (7) *Dispute Resolution.* In the event of a dispute over entitlement to an extension of Contract Time or compensation for Recoverable Costs, Contractor may not stop working pending resolution of the dispute, but must

continue to comply with its duty to diligently prosecute the performance and timely completion of the Work. Contractor's sole recourse for an unresolved dispute based on City's rejection of a Change Order request for an extension of Contract Time or compensation for Recoverable Costs is to comply with the Dispute Resolution provisions set forth in Article 12 below.

5.4 Liquidated Damages. It is expressly understood that if Final Completion is not achieved within the Contract Time, City will suffer damages from the delay that are difficult to determine and accurately specify. Pursuant to Public Contract Code Section 7203, if Contractor fails to achieve Final Completion within the Contract Time, City will charge Contractor in the amount specified in the Contract for each day that Final Completion is delayed beyond the Contract Time, as liquidated damages and not as a penalty.

(A) **Liquidated Damages.** Liquidated damages will not be assessed for any Excusable or Compensable Delay, as set forth above.

(B) **Milestones.** Liquidated damages may also be separately assessed for failure to meet milestones specified elsewhere in the Contract Documents.

(C) **Setoff.** City is entitled to deduct the amount of liquidated damages assessed against any payments otherwise due to Contractor, including unreleased retention. If there are insufficient Contract funds remaining to cover the full amount of liquidated damages assessed, City is entitled to recover the balance from Contractor or its performance bond surety.

(D) **Occupancy or Use.** Occupancy or use of the Project in whole or in part prior to Final Completion does not constitute City's acceptance of the Project and will not operate as a waiver of City's right to assess liquidated damages for Contractor's Non-Excusable Delay in achieving Final Completion.

(E) **No Limitation on Other Remedies.** City's right to liquidated damages under this Section applies only to damages arising from Contractor's Non-Excusable Delay or failure to complete the Work within the Contract Time. City retains its right to pursue all other remedies under the Contract for other types of default or damage, including damage to property or persons, or for defective materials or workmanship. This provision for liquidated damages will not apply to the Contract or limit City in any way if Contractor abandons the Work. In such event, Contractor will be liable to City for all losses incurred.

Article 6 - Contract Modification

6.1 Contract Modification and Changes in Work. Modifications to the Contract are valid and legally binding only if, duly authorized by a written and signed Field Order or Change Order. City may also make changes in the Work without invalidating the Contract. City may direct changes in the Work, which may include Extra Work as set forth in Subsection (B) below. Any change in the Work, whether directed by City or pursuant to Contractor's request for a Change Order under Section 6.2 below, will not be a valid and binding change to the Contract unless it is formalized in a Change Order, which may include commensurate changes in the Contract Price or Contract Time as applicable. Contractor must promptly comply with City-directed changes in the Work in accordance with the original Contract Documents, even if Contractor and City have not yet reached agreement as to adjustments to the Contract Price or Contract Time for the change in the Work or for the Extra Work. Contractor is not entitled to extra compensation pursuant to Public Contract Code Section 7101 based on cost reduction changes or "value

engineering,” unless otherwise specified in the Special Conditions, or unless expressly authorized in advance in writing by City.

(A) **Disputes.** In the event of a dispute over entitlement to or the amount of a change in Contract Time or a change in Contract Price related to a City-directed change in the Work, Contractor must perform the Work as directed and may not delay its Work or cease Work pending resolution of the dispute, but must continue to comply with its duty to diligently prosecute the performance and timely completion of the Work, including the Work in dispute. In the event that City and Contractor dispute whether a portion or portions of the Work are already required by the Contract Documents or constitute Extra Work, or otherwise dispute the interpretation of any portion(s) of the Contract Documents, Contractor must perform the Work as directed and may not delay its Work or cease Work pending resolution of the dispute, but must continue to comply with its duty to diligently prosecute the performance and timely completion of the Work, including the Work in dispute, as directed by City. Contractor’s sole recourse for an unresolved dispute related to changes in the Work or performance of any Extra Work is to comply with the dispute resolution provisions set forth in Article 12, below.

(B) **Extra Work.** Contractor must promptly perform any Extra Work authorized by City in accordance with the original Contract Documents, even if Contractor and City have not yet reached agreement on the adjustments to the Contract Price or Contract Time for such work. Contractor must maintain detailed daily records that itemize the cost of each element of Extra Work, and sufficiently distinguish the direct cost of the Extra Work from the cost of other Work performed. Contractor must also provide City with summary report(s) of the Extra Work performed and the related costs, together with copies of certified payroll, invoices, and other documentation substantiating the costs. The Engineer will make any adjustments to Contractor’s Extra Work report(s) based on the Engineer’s records of the Work. When an Extra Work report(s) is agreed on and signed by both City and Contractor, the report(s) will become the basis for payment under a duly authorized and signed Change Order.

(C) **Remedy for Non-Compliance.** Contractor’s failure to promptly comply with a City-directed change is deemed a material breach of the Contract, and in addition to all other remedies available to it, City may, at its sole discretion, hire another contractor or use its own forces to complete the disputed Work at Contractor’s sole expense, and may deduct the cost from the Contract Price.

6.2 Contractor Change Order Requests. Contractor must submit a request or proposal for a change in the Work or a change in the Contract Price or Contract Time as a written Change Order request or proposal.

(A) **Time for Submission.** Any request for a change in the Contract Price or the Contract Time must be submitted in writing to the Engineer within ten calendar days of the date that Contractor first encounters the circumstances, information or conditions giving rise to the Change Order request, even if the total amount of the requested change in the Contract Price or impact on the Contract Time is not yet known at that time. If City requests that Contractor propose the terms of a Change Order, unless otherwise specified in City’s request, Contractor must provide the Engineer with a written proposal for the change in the Contract Price or Contract Time within five working days of receiving City’s request, in a form satisfactory to the Engineer.

(B) **Required Contents.** Any Change Order request or proposal submitted by Contractor must include a complete breakdown of actual or estimated costs and credits, and must itemize labor, materials, equipment, taxes, insurance, and subcontract

amounts. Any estimated cost must be updated in writing as soon as the actual amount is known.

(C) **Required Documentation.** All claimed costs must be fully documented, and any related request for an extension of time or delay-related costs must be included at that time and in compliance with the requirements of Article 5 of the General Conditions.

(D) **Required Form.** Contractor must use City's form(s), or a format(s) approved by City, for submitting all Change Order requests or proposals, unless otherwise specified by City during the pre-construction conference.

(E) **Certification.** All Change Order requests must be signed by Contractor and must include the following certification:

"The undersigned Contractor certifies under penalty of perjury that its statements and representations in this Change Order request are true and correct. Contractor warrants that this Change Order request is comprehensive and complete, and agrees that any costs, expenses, or time extension request not included herein is deemed waived. Contractor understands that submission of claims which have no basis in fact or which Contractor knows to be false may violate the False Claims Act, as set forth in Government Code Sections 12650 et seq."

6.3 Adjustments to Contract Price. The amount of any increase or decrease in the Contract Price will be determined based on one of the following methods, but in the order provided:

(A) **Unit Pricing.** Amounts previously provided by Contractor in the form of unit prices, either in a bid schedule or schedule of values, will apply if unit pricing has previously been provided in Contractor's accepted bid schedule or schedule of values for the affected Work. No additional markup for overhead or profit or other indirect costs will be added to the calculation.

(B) **Lump Sum.** A mutually agreed upon lump sum, with no additional markup for overhead, profit or other indirect costs.

(C) **Time and Materials.** On a time and materials basis, which may include a not-to-exceed limit, calculated as the total of the following sums:

- (1) All direct labor costs, plus 15 percent markup;
- (2) All direct material costs, including sales tax, plus 15 percent markup;
- (3) All direct plant and equipment rental costs, plus 15 percent markup; and
- (4) All direct subcontract costs, plus 15 percent markup for the first \$2,000 in such costs and five percent markup for all subcontract costs in excess of \$2,000.

(D) **Markup.** Markup is deemed to include all indirect costs, including overhead and profit. Any additional bond or insurance premium costs will be considered to be included in the amounts charged to City as set forth above.

6.4 Unilateral Change Order. If the parties dispute the terms of a proposed change order, including disputes over the amount of compensation or extension of time that contractor

has requested, the value of deleted or changed work, what constitutes extra work, or quantities used, City may elect to issue a unilateral Change Order, directing performance of the Work, and authorizing a change in the Contract Price or Contract Time for the amount of compensation and added time that the City believes is merited. Contractor's sole recourse to dispute the terms of a unilateral Change Order is to submit a timely Claim pursuant to Article 12, below.

- 6.5 Non-Compliance Deemed Waiver.** Contractor waives its entitlement to any increase in the Contract Price or Contract Time if Contractor fails to fully comply with the provisions of this Article. Contractor will not be paid for unauthorized Extra Work.
- 6.6 Value Engineering.** Unless otherwise specified in the Special Conditions, this Contract does not provide for payment of extra compensation to the Contractor for cost reductions resulting from a proposal submitted by the Contractor, and Contractor will not be entitled additional compensation for value engineering pursuant to Public Contract Code Section 7101.

Article 7 - General Construction Provisions

7.1 Permits and Taxes.

(A) **General.** With the exception of City building permit fees, Contractor must obtain and pay for all permits, fees, or licenses required to perform the Work, including a City business license. Contractor and all Subcontractors must pay City business tax and registration tax for the business license under Fremont Municipal Code Chapter 5.05. Contractor must cooperate with and provide notifications to all government agencies with jurisdiction over the Project, as may be required. Contractor must provide City with copies of all notices, permits, licenses, and renewals required for the Work. Contractor will be solely responsible for finalizing and closing out all permits for the Project issued by City's building department and all other government agencies with jurisdiction over the Project.

(B) **Federal Excise Tax.** Contractor must pay for all taxes on labor, material and equipment, except Federal Excise Tax to the extent that City is exempt from Federal Excise Tax.

- 7.2 Temporary Facilities.** Except as otherwise specified in the Special Conditions, and in addition to any requirements in the Specifications pertaining to temporary facilities, Contractor must provide, at Contractor's sole expense, any and all temporary facilities for the Project, including an onsite staging area for material and equipment, a field office, sanitary facilities, utilities, storage, scaffolds, barricades, walkways, and any other temporary structure required to safely perform the Work along with any incidental utility services. The locations of all temporary facilities must be approved by the City prior to installation.

(A) **Standards.** Such structures must be safe and adequate for the intended use, and installed and maintained in accordance with all applicable federal, state, and local laws, codes, and regulations.

(B) **Screening.** Contractor must fence and screen the Project site and staging area, and its operation must minimize inconvenience to neighboring properties.

(C) **Utilities.** Contractor must install and maintain the light, power, water and all other utilities required for the Project site, including the piping, wiring, lamps and related equipment necessary to perform the Work.

(D) **Removal and Repair.** Contractor must promptly remove all such temporary facilities when they are no longer needed or upon completion of the Work, whichever comes first. Contractor must promptly repair any damage to City's property caused by the installation, use, or removal of the temporary facilities, and must promptly restore the property to its original or intended condition.

(E) **Additional Requirements.** Additional provisions pertaining to temporary facilities may be included in the Specifications or Special Conditions.

7.3 Noninterference and Additional Work Areas. Contractor must avoid interfering with City's use of its property at or adjacent to the Project site, including use of roadways, entrances, parking areas, walkways, and structures. Contractor must also minimize disruption of access to private property in the Project vicinity. Contractor must coordinate with affected property owners, tenants, and businesses, and maintain some vehicle and pedestrian access to their residences or properties at all times. Temporary access ramps, fencing or other measures must be provided as needed. Before blocking access to a private driveway or parking lot, Contractor must notify the affected parties of the pending closure and allow them to remove vehicles. Private driveways, residences and parking lots must have access to a roadway during non-Work hours.

(A) **Offsite Acquisition.** Unless otherwise provided by City, Contractor must acquire, use and dispose of, at its sole expense, any additional Work areas, easements, and temporary facilities necessary to access and perform the Work.

(B) **Offsite Staging Area and Field Office.** If additional space beyond the Project site is needed, such as for the staging area or the field office, Contractor may need to make arrangements with the nearby property owner(s) to secure the space. Before occupying any property owned by a third party, Contractor must provide City with a copy of the necessary license agreement, easement, or other written authorization from the property owner, together with a written release from the property owner holding City harmless from any related liability.

7.4 Signs. No signs may be displayed on or about City's property, except signage which is required by law or by the Contract Documents, without City's prior written approval as to size, design, and location.

7.5 Worksite and Nearby Property Protections.

(A) **General.** Contractor is responsible at all times, on a 24-hour basis and at its sole cost, for protecting the Work, the Project site, and the materials and equipment to be incorporated into the Work, until the City has accepted the Project, excluding exceptions to acceptance, if any.. Except as specifically authorized by City, Contractor must confine its operations to the area of the Project site indicated in the Drawings. Contractor is liable for any damage caused by Contractor or its Subcontractors to the Work, City's real or personal property, the real or personal property of adjacent or nearby property owners, and the work or personal property of other contractors working for City, including damage related to Contractor's failure to adequately secure the Work or any Worksite.

(1) Subject to City's approval, Contractor will provide and install safeguards to protect the Work, the Project site, City's real or personal property, and the real or personal property of adjacent or nearby property owners.

(2) Public wastewater systems may not be interrupted. If the Work disrupts existing sewer facilities, Contractor must immediately notify City and establish a plan, subject to City's approval, to convey the sewage in

closed conduits back into the sanitary sewer system. Sewage must not be permitted to flow in trenches or be covered by backfill.

- (3) Contractor must remove with due care, and store at City's request, any objects or material from the Project site that City will salvage or reuse at another location.

(B) **Securing Project Site.** After completion of Work each day, Contractor must secure the Project site and, to the extent feasible, make the area reasonably accessible to the public unless City approves otherwise. All excess materials and equipment not protected by approved traffic control devices must be relocated to the staging area or demobilized. Trench spoils must be hauled off the Project site daily and open excavations must be protected with steel plates. Contractor and Subcontractor personnel may not occupy or use the Project site for any purpose during non-Work hours, except as may be provided in the Contract Documents or pursuant to prior written authorization from City.

(C) **Reporting Damage.** If any death, personal injury or property damage occurs in connection with the performance of the Work or otherwise in relation to the Project or the Contract, Contractor must immediately notify City. Contractor must first notify the Project Manager and the City Risk Manager's office by telephone and then promptly submit to the Project Manager and City Risk Manager a written report, in a form acceptable to City, with the following information: (1) a detailed description of the damage or injury, including the location, the circumstances, and the name and address of any injured or deceased person(s) and any affected property owner(s); (2) the name and address of any witnesses to the incident; and (3) the name and address of Contractor's insurance company representatives.

(D) **Unforeseen Conditions.** If Contractor encounters facilities, utilities, or other unknown conditions not shown on or reasonably inferable from the Drawings or apparent from inspection of the Project site, Contractor must immediately notify City and promptly submit a Request for Information to the Engineer and avoid taking any action which could cause damage to the facilities or utilities pending further direction from the Engineer. The Engineer's written response will be final and binding on Contractor. If the Engineer's subsequent direction to Contractor affects Contractor's cost or time to perform the Work, Contractor may submit a Change Order request as set forth in Article 6 above.

(E) **Support; Adjacent Properties.** Contractor must provide, install, and maintain all shoring, bracing, and underpinning necessary to provide support to City's property and adjacent properties and improvements thereon. Contractor must provide notifications to adjacent property owners as may be required by law.

(F) **Post-Construction Restoration.** Contractor must ensure, as part of the Work, that all parts of the construction are properly joined with the previously existing and adjacent improvements and conditions. Contractor must provide all cutting, fitting and patching needed to accomplish that requirement. Contractor must also repair or replace all existing improvements that are damaged or removed during the Work, both on and off the Project site, including curbs, sidewalks, driveways, fences, signs, utilities, street surfaces and structures. Repairs and replacements must be at least equal to the previously existing improvements, and the condition, finish and dimensions must match the previously existing improvements.

(G) **Additional Requirements.** Any additional requirements for protecting the Work, the Project site and the adjacent or nearby property may be included in the Special Conditions or Specifications.

7.6 Materials and Equipment.

(A) **General.** Unless otherwise specified, all materials and equipment required for the Work must be new, free from defects, and of the best grade for the intended purpose, and furnished in sufficient quantities to ensure the proper and expeditious performance of the Work. Contractor must furnish evidence satisfactory to the Project Manager concerning the kind and quality of materials and equipment provided. Contractor must also employ measures to preserve the specified quality and fitness of the materials and equipment. Unless otherwise specified, all materials and equipment required for the Work are deemed to include all components required for complete installation and intended operation, and must be installed in accordance with the manufacturer's recommendation. Contractor is responsible for all shipping, handling, and storage costs associated with the materials and equipment required for the Work. Contractor is responsible for providing security and protecting the Work and all of the required materials, supplies, tools and equipment at Contractor's sole cost until City has formally accepted the Project as set forth in Section 11.1 below. Contractor will not assign, sell, mortgage, or hypothecate any materials or equipment for the Project, or remove any materials or equipment that have been installed or delivered.

(B) **City-Provided.** If the Work includes installation of materials or equipment to be provided by City, Contractor is solely responsible for the proper examination, handling, storage, and installation in accordance with the Contract Documents. Contractor must promptly notify City of any defects discovered in City-provided materials or equipment. Contractor is solely responsible for any loss of or damage to such items which occurs while the items are in Contractor's custody and control, the cost of which may be offset from the Contract Price and deducted from any payment(s) due to Contractor.

(C) **Intellectual Property Rights.** Contractor must, at its sole expense, obtain any authorization or license required, including payment of any royalties or license fees, for the use for or incorporation into the Work of an invention, design, product, material, equipment, device, or process that is patented, copyright-protected, or subject to advance licensure for use. Contractor's indemnity obligations in Article 4 apply to any claimed violation of intellectual property rights in violation of this provision.

(D) **Certificate of Compliance.** When a Certificate of Compliance is specified or for any material produced outside of the United States, Contractor must submit a Certificate of Compliance before incorporating that material into the Project. The Certificate of Compliance must be in a form acceptable to the Engineer, identifying the material and its source, and the lot. The Certificate of Compliance must be signed by the material producer stating that the material fully complies with the applicable requirements of the specifications. Submission of a Certificate of Compliance will not limit Contractor's continuing obligation to use only materials that conform with the requirements of the Contract Documents.

7.7 Substitutions.

(A) **"Or Equal."** Any specification designating a material, product, or thing (collectively, "item") or service by specific brand or trade name that is followed by the words "or equal" is intended to indicate the quality and type of item or service desired, and Contractor may request use of any equal item or service.

(B) **Request for Substitution.** A post-award request for substitution of an item or service must be submitted in writing to the Engineer for approval in advance, within the applicable time period provided in the Contract Documents. If no time period is specified, the substitution request may be submitted any time within 35 days after the date of award

of the Contract, or sufficiently in advance of the time needed to avoid delay of the Work, whichever is earlier.

(C) **Substantiation.** Any available data substantiating the proposed substitute as an equal item or service must be submitted with the written request for substitution. Contractor's failure to timely provide all necessary substantiation, including any required test results as soon as they are available, is grounds for rejection of the proposed substitution, without further review.

(D) **Burden of Proving Equality.** Contractor has the burden of proving the equality of the proposed substitution at Contractor's sole cost. City has sole discretion to determine whether a proposed substitution is equal, and City's determination is final.

(E) **Approval or Rejection.** If the proposed substitution is approved, Contractor is solely responsible for any additional costs or time associated with the substituted item or service. If the proposed substitution is rejected, Contractor must, without delay, install the item or use the service as specified by City with no increase in Contract Price or Contract Time.

(F) **Contractor's Obligations.** City's review of a proposed substitution will not relieve Contractor from any of its obligations under the Contract Documents. In the event Contractor makes an unauthorized substitution, Contractor will be solely responsible for all resulting cost impacts, including the cost of removal and replacement and the impact to other design elements.

(G) **Additional Requirements for Substitutions.** Any additional requirements for substitutions may be included in the Special Conditions or Specifications.

7.8 Testing and Inspection.

(A) **General.** All materials, equipment, and workmanship used in the Work are subject to inspection and testing by City at all times and locations during construction and/or fabrication and at any Worksite, including at shops and yards as well as at the Project site. All manufacturers' application or installation instructions must be provided to the Inspector at least ten days prior to the first such application or installation. Contractor must, at all times, provide City with safe access to the Worksite and make all portions of the Work available for inspection.

(B) **Scheduling and Notification.** Contractor must cooperate with City in coordinating the inspections and testing. Contractor must schedule all tests required by the Contract Documents in time to avoid any delay to the progress of the Work. Contractor must notify the Engineer no later than two Working Days before any inspection or testing, and must provide timely notice to the other necessary parties as specified in the Contract Documents. If Contractor schedules an inspection or test beyond specified Work hours, or on a Saturday, Sunday, or recognized City holiday, Contractor must notify the Engineer at least two Working Days in advance for approval. If approved, Contractor must reimburse City for the cost of the overtime inspection or testing.

(C) **Responsibility for Costs.** City will bear the initial cost of inspection and testing to be performed by City's inspectors or any independent testing consultants retained by City, subject to the following exceptions:

(1) Contractor will be responsible for the costs of any subsequent tests which are required to substantiate compliance with the Contract Documents, and any associated remediation costs.

(2) Contractor will be responsible for inspection costs, at City's established rates, for inspection time lost because the Work is not ready or Contractor fails to appear for a scheduled inspection.

(3) If any portion of the Work that is subject to inspection or testing is covered or concealed by Contractor prior to the inspection or testing, Contractor will bear the cost of making that portion of the Work available for the inspection or testing required by the Contract Documents, and any associated repair or remediation costs. If the Engineer requests to see a covered or concealed portion of the Work that was not subject to such testing or inspection, Contractor must promptly uncover the Work but may also submit a request for a Change Order for the cost of uncovering and then re-covering that portion of the Work. However, if the uncovered Work does not conform to the Contract Documents, Contractor must pay all such costs and will not be entitled to any adjustment to the Contract Time or Contract Price.

(4) Contractor is responsible for properly shoring all compaction test sites deeper than five feet below grade, as required under Section 7.15 below.

(5) Any Work or material that is defective or fails to comply with the requirements of the Contract Documents must be promptly repaired, removed, replaced, or corrected by Contractor, at Contractor's sole expense, even if that Work or material was previously inspected or included in a progress payment.

(D) **Contractor's Obligations.** Contractor is solely responsible for any delay occasioned by remediation of defective or noncompliant Work or material. Inspection of the Work does not in any way relieve Contractor of its obligations to perform the Work as specified. Any Work done without the required inspection(s) will also be subject to rejection by City.

(E) **Distant Locations.** If required off-site testing or inspection must be conducted at a location more than 100 miles from the Project site, Contractor is solely responsible for the additional travel costs required for testing and/or inspection at such locations.

(F) **Final Inspection.** The provisions of this Section 7.8 apply to final inspection under Article 11, Completion and Warranty Provisions.

(G) **Additional Requirements for Testing and Inspection.** Any additional requirements for inspection and testing may be included in the Special Conditions or Specifications.

7.9 Worksite Maintenance and Operation. Contractor must at all times, on a 24 hour basis and at its sole cost, maintain the Project site and staging and storage areas in clean and neat condition and in compliance with all regulatory requirements for air quality and dust control. Contractor must also, on a daily basis and at its sole cost, remove and properly dispose of the debris and waste materials from the Project site.

(A) **Air Emissions Control.** Contractor must not discharge smoke or other air contaminants into the atmosphere in violation of any applicable law, regulation or rule.

(B) **Dust and Debris.** Contractor must minimize and confine dust and debris resulting from the Work. Contractor must abate dust nuisance by cleaning, sweeping, and immediately sprinkling with water excavated areas of dirt or other materials prone to cause dust, and within one hour after the Engineer notifies Contractor that an airborne nuisance exists. The Engineer may direct that Contractor provide an approved water-spraying truck for this purpose. If the Engineer determines that the dust control is not adequate, City may have the work done by others and deduct the cost from the Contract Price. Contractor will immediately remove any excess excavated material from the Worksite and any dirt deposited on public streets.

(C) **Clean up.** Before discontinuing Work in an area, Contractor must clean the area and remove all debris and waste along with the construction equipment, tools, machinery, and surplus materials. Except as otherwise specified, all excess Project materials, and the materials removed from existing improvements on the Project site with no salvage value or intended reuse by City, will be Contractor's property.

- (1) Hauling trucks and other vehicles leaving the Project site must be cleaned of exterior mud or dirt before traveling on City streets. Materials and loose debris must be delivered and loaded to prevent dropping materials or debris. Contractor must immediately remove spillage from hauling on any publicly traveled way. Streets affected by Work on the Project must be kept clean by street sweeping.
- (2) If the Contract Documents include the Caltrans Standard Specifications, Contractor must comply with the Caltrans requirements for disposal of material outside of the highway right of way.

(D) **Disposal.** Contractor must dispose of all Project debris and waste materials in a safe and legal manner. Contractor may not burn or bury waste materials on the Project site. Contractor will not allow any dirt, refuse, excavated material, surplus concrete or mortar, or any associated washings, to be disposed of onto streets, into manholes or into City's storm drain system.

(E) **Completion.** At the completion of the Work, Contractor must remove from the Worksite all of its equipment, tools, surplus materials, waste materials and debris, presenting a clean and neat appearance. Before demobilizing from the Worksite, Contractor must ensure that all surfaces are cleaned, sealed, waxed, or finished as applicable, and that all marks, stains, paint splatters, and the like have been properly removed from the completed Work and the surrounding areas, leaving those areas in the condition originally found or better.

(F) **Non-Compliance.** If Contractor fails to comply with its maintenance and cleanup obligations or any City clean up order, City may, acting in its sole discretion, elect to suspend the Work until the condition(s) is corrected with no increase in the Contract Time or Contract Price, or undertake appropriate cleanup measures without further notice and the cost will be deducted from any amounts due or to become due to Contractor.

7.10 Instructions and Manuals. Contractor must provide to City three copies each of all instructions and manuals required by the Contract Documents, unless otherwise specified. These must be complete as to drawings, details, parts lists, performance data, and other information that may be required for City to easily maintain and service the materials and equipment installed for this Project.

(A) **Submittal Requirements.** All manufacturers' application or installation instructions must be provided to City at least ten days prior to the first such application.

The instructions and manuals, along with any required guarantees and warranties, must be delivered to City for review.

(B) **Instruction of Personnel.** Contractor or its Subcontractors must instruct City's personnel in the operation and maintenance of any complex equipment as a condition precedent to Final Completion, if required in the Contract Documents.

7.11 As-built Drawings. Contractor and its Subcontractors must maintain at the Project site a separate complete set of Drawings which will be used solely for the purpose of recording changes made in any portion of the Work in order to create accurate record drawings at the end of the Project.

(A) **Duty to Update.** The as-built drawings must be updated as changes occur, on a daily basis if necessary. Progress payments may be delayed, in whole or in part, until the as-built drawings are brought up to date to the satisfaction of City. Actual locations to scale must be identified on the as-built drawings for all runs of mechanical and electrical work, including all site utilities installed underground, in walls, floors, or otherwise concealed. Deviations from the original Drawings must be shown in detail. The location of all main runs, whether piping, conduit, ductwork or drain lines, must be shown by dimension and elevation.

(B) **Final Completion.** Contractor must verify that all changes in the Work are depicted in the as-built drawings and must deliver the complete set of as-built drawings in PDF format to City for review and approval as a condition precedent to Final Completion.

7.12 Existing Utilities. As required by Government Code Section 4215, if, during the performance of the Work, Contractor discovers utility facilities not identified by City in the Contract Documents, Contractor must immediately provide written notice to City and the utility. City assumes responsibility for the timely removal, relocation, or protection of existing main or trunkline utility facilities located on the Project site if those utilities are not identified in the Contract Documents. Contractor will be compensated in accordance with the provisions of the Contract Documents for the costs of locating, repairing damage not due to Contractor's failure to exercise reasonable care, and removing or relocating utility facilities not indicated in the Drawings or Specifications with reasonable accuracy, and for equipment on the Project necessarily idled during such work. Contractor will not be assessed liquidated damages for delay in completion of the Work, to the extent the delay was caused by City's failure to provide for removal or relocation of the utility facilities.

7.13 Notice of Excavation. Government Code Section 4216.2 requires that, except in an emergency, Contractor must contact the appropriate regional notification center, or Underground Services Alert ("USA") at 800-642-2444 (for Northern California), at least two working days but not more than 14 calendar days before starting any excavation if the excavation will be conducted in an area that is known, or reasonably should be known, to contain subsurface installations, and, if practical, Contractor must delineate with white paint or other suitable markings the area to be excavated. Contractor is required to contact USA before beginning Work on the Project, and take appropriate measures to avoid damaging or obstructing access to subsurface installations.

7.14 Trenching and Excavations of Four Feet or More. As required by Public Contract Code Section 7104, if the Work includes digging trenches or other excavations that extend deeper than four feet below the surface, the provisions in this Section apply to the Work and the Project.

(A) **Duty to Notify.** Contractor must promptly, and before the following conditions are disturbed, provide written notice to City if Contractor finds any of the following conditions:

(1) Material that Contractor believes may be a hazardous waste, as defined in Section 25117 of the Health and Safety Code, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with the provisions of existing law;

(2) Subsurface or latent physical conditions at the Worksite differing from those indicated by information about the Worksite made available to bidders prior to the deadline for submitting bids; or

(3) Unknown physical conditions at the Worksite of any unusual nature, materially different from those ordinarily encountered and generally recognized as inherent in work of the character required by the Contract Documents.

(B) **City Investigation.** City will promptly investigate the conditions and if City finds that the conditions materially differ or involve hazardous waste, and cause a decrease or increase in Contractor's cost of, or the time required for, performance of any part of the Work, City will issue a Change Order.

(C) **Disputes.** In the event that a dispute arises between City and Contractor regarding any of the conditions specified in subsection (A) above, Contractor will not be excused from any scheduled completion date provided for in the Contract Documents, but must proceed with all Work to be performed under the Contract. Contractor will retain any and all rights provided either by the Contract or by law which pertain to the resolution of disputes between Contractor and City.

7.15 Trenching of Five Feet or More. As required by Labor Code Section 6705, if the Contract Price exceeds \$25,000 and the Work includes the excavation of any trench or trenches of five feet or more in depth, a detailed plan must be submitted to City for acceptance in advance of the excavation. The detailed plan must show the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during the excavation. If the plan varies from the shoring system standards, it must be prepared by a California registered civil or structural engineer. Use of a shoring, sloping, or protective system less effective than that required by the Construction Safety Orders is prohibited.

7.16 New Utility Connections. Except as otherwise specified, City will pay connection charges and meter costs for new permanent utilities required by the Contract Documents, if any. Contractor must notify City sufficiently in advance of the time needed to request service from each utility provider so that connections and services are initiated in accordance with the Project schedule.

7.17 Lines and Grades. Contractor is required to use any benchmark provided by the Engineer. Unless otherwise specified in the Contract Documents, Contractor must engage a California licensed surveyor to provide all lines and grades required to execute the Work. Contractor must also provide, preserve, and replace if necessary, all construction stakes required for the Project. All stakes or marks must be set by a California licensed surveyor or a California registered civil engineer. Contractor must notify the Engineer of any discrepancies found between Contractor's staking and grading and information provided by the Contract Documents. Upon completion, all Work must conform to the lines, elevations, and grades shown in the Plans.

7.18 Historic or Archeological Items.

(A) **Contractor's Obligations.** Contractor must ensure that all persons performing Work at the Project site are required to immediately notify the Project Manager, upon discovery of any potential historic or archeological items, including historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints or other archeological, paleontological or historical feature on the Project site (collectively, "Historic or Archeological Items").

(B) **Discovery; Cessation of Work.** Upon discovery of any potential Historic or Archeological Items, Work must be stopped within an 85-foot radius of the find and may not resume until authorized in writing by City. If required by City, Contractor must assist in protecting or recovering the Historic or Archeological Items, with any such assistance to be compensated as Extra Work on a time and materials basis under Article 6, Contract Modification. Any suspension of Work required due to discovery of Historic or Archeological Items will be treated as a suspension for convenience under Article 13.

7.19 **Environmental Control.** Contractor must not pollute any drainage course or its tributary inlets with fuels, oils, bitumens, acids, insecticides, herbicides or other harmful materials. Contractor must prevent the release of any hazardous material or hazardous waste into the soil or groundwater, and prevent the unlawful discharge of pollutants into City's storm drain system as required below. Contractor and its Subcontractors must at all times in the performance of the Work comply with all applicable federal, state, and local laws and regulations concerning pollution of waterways.

(A) **Stormwater Permit.** Contractor must comply with all applicable conditions of the State Water Resources Control Board National Pollutant Discharge Elimination System General Permit for Waste Discharge Requirements for Discharges of Stormwater Runoff Associated with Construction Activity ("Stormwater Permit").

(B) **Contractor's Obligations.** If required for the Work, a copy of the Stormwater Permit is on file in City's principal administrative offices, and Contractor must comply with it without adjustment of the Contract Price or the Contract Time. Contractor must timely and completely submit required reports and monitoring information required by the conditions of the Stormwater Permit. Contractor also must comply with all other applicable state, municipal or regional laws, ordinances, rules or regulations governing discharge of stormwater, including applicable municipal stormwater management programs.

7.20 **Noise Control.** The noise level from Contractor's operations must not exceed 86 dBA at a distance of 50 feet at any time. In addition, Contractor must comply with all applicable noise control laws, ordinances, regulations and rules, including any noise mitigation requirements in an environmental document applicable to the Project, such as a mitigated negative declaration or environmental impact report. Noise control requirements apply to all equipment used for the Work or related to the Work, including trucks, transit mixers or transient equipment that may or may not be owned by Contractor.

Article 8 – Payment

8.1 **Schedule of Values.** Prior to submitting its first application for payment, Contractor must prepare and submit to the Project Manager a schedule of values apportioned to the various divisions and phases of the Work, providing an itemized breakdown of all lump sum pricing previously provided in Contractor's Bid Proposal or Bid Schedule, including mobilization and demobilization. Each line item contained in the schedule of values must

be assigned a value such that the total of all items equals the Contract Price. The items must be sufficiently detailed to enable accurate evaluation of the percentage of completion claimed in each application for payment, and the assigned value consistent with any itemized or unit pricing submitted with Contractor's bid.

(A) **Measurements for Unit Price Work.** Materials and items of Work to be paid for on the basis of unit pricing will be measured according to the methods stipulated in the Contract Documents. For progress payments, compensation for unit-priced items will be based on the actual quantities installed during the preceding month, with the exception of items identified by City as a "Final Pay" items on the Bid Schedule, which will be paid for based solely on City's estimated quantities, except as provided in Section 8.8, on Final Payment.

(B) **Deleted or Reduced Work.** Contractor will not be compensated for Work that City has deleted or reduced in scope, except for any labor, material or equipment costs for such Work that Contractor reasonably incurred before Contractor learned that the Work could be deleted or reduced. Contractor will only be compensated for those actual, direct and documented costs incurred, and will not be entitled to any mark up for overhead or lost profits.

8.2 Progress Payments. Following the last day of each month, or as otherwise required by the Special Conditions or Specifications, Contractor will submit to the Project Manager a monthly application for payment for Work performed during the preceding month based on the estimated value of the Work performed during that preceding month.

(A) **Application for Payment.** Each application for payment must be itemized to include labor, materials, and equipment incorporated into the Work, and materials and equipment installed in the Project, as well as authorized and approved Change Orders. Each pay application must be supported by Contractor's Bid Schedule or schedule of values and any other substantiating data required by the Contract Documents.

(B) **Payment of Undisputed Amounts.** City will pay the undisputed amount due within 30 days after Contractor has submitted a complete and accurate payment application, subject to Public Contract Code Section 20104.50. City will deduct a percentage from each progress payment as retention, as set forth in Section 8.5, below, and may deduct additional amounts as set forth in Section 8.3, below.

8.3 Adjustment of Payment Application. City may adjust or reject the amount requested, in a payment application, including application for Final Payment, in whole or in part, if the amount requested is disputed or unsubstantiated. Contractor will be notified in writing of the basis for the modification to the amount requested. City may also deduct or withhold from payment otherwise due based upon any of the circumstances and amounts listed below. Amounts withheld from payment otherwise due will be released when the basis for that withholding has been remedied and no longer exists.

(A) For Contractor's unexcused failure to perform the Work as required by the Contract Documents, including correction or completion of punch list items, City may withhold or deduct an amount based on the City's estimated cost to correct or complete the Work;

(B) For loss or damage caused by Contractor or its Subcontractors arising out of or relating to performance of the Work or any failure to protect the Worksite City may deduct an amount based on the estimated cost to repair or replace;

- (C) For Contractor's failure to pay its Subcontractors and suppliers when payment is due, City may withhold an amount equal to the total of past due payments;
- (D) For Contractor's failure to timely correct rejected, nonconforming, or defective Work, City may withhold or deduct any amount based on the City's estimated cost to correct or complete the Work;
- (E) For any unreleased stop notice, City may withhold 125% of the amount claimed;
- (F) For Contractor's failure to submit any required schedule or schedule update in the manner and within the time specified in the Contract Documents, City may withhold or deduct an amount equal to five percent of the total amount requested;
- (G) For Contractor's failure to maintain or submit as-built documents in the manner and within the time specified in the Contract Documents, City may withhold or deduct an amount based on the City's estimated cost to prepare the as-builts;
- (H) For Work performed without City review of Shop Drawings, when review of Shop Drawings is required before proceeding with the Work, City may deduct any amount based on the estimated costs to correct unsatisfactory Work or diminution in value;
- (I) For fines assessed under the Labor Code, as required by law; or
- (J) For any other costs or charges that may be offset against payments due, as provided in the Contract Documents, including liquidated damages.

8.4 Early Occupancy. Neither City's payment of progress payments nor its partial or full use or occupancy of the Project constitutes acceptance of any part of the Work.

8.5 Retention. City will retain five percent of the amount due on each progress payment, or the percentage stated in the Notice Inviting Bids, whichever is greater, as retention to ensure full and satisfactory performance of the Work.

(A) **Substitution of Securities.** As provided by Public Contract Code Section 22300, Contractor may request in writing that it be allowed, at its sole expense, to substitute securities for the retention withheld by City. Any escrow agreement entered into pursuant to this provision must fully comply with Public Contract Code Section 22300, and will be subject to approval as to form by City's legal counsel.

(B) **Release of Undisputed Retention.** All undisputed retention, less any amounts that may be assessed as liquidated damages, retained for stop notices, or otherwise withheld under Section 8.3 or Section 8.6, will be released as Final Payment to Contractor no sooner than 35 days following recordation of the notice of completion, and no later than 60 days following acceptance of the Project by City's governing body or authorized designee pursuant to Section 11.1(D) below, or, if the Project has not been accepted, no later than 60 days after the Project is otherwise considered complete under Public Contract Code Section 7107(c).

8.6 Setoff. City is entitled to set off any amounts due from Contractor against any payments due to Contractor. City's entitlement to setoff includes progress payments as well as Final Payment and unreleased retention.

8.7 Payment to Subcontractors and Suppliers. Each month, Contractor must promptly pay each Subcontractor and supplier the value of the portion of labor, materials, and equipment incorporated into the Work or delivered to the Worksite by the Subcontractor

or supplier during the preceding month. Such payments must be made in accordance with the requirements of the law, and those of the Contract Documents and applicable subcontract or supplier contract.

(A) **Withholding for Stop Notice.** Pursuant to Civil Code Section 9358, City will withhold 125% of the amount claimed by an unreleased stop notice, a portion of which may be retained by City for the costs incurred in handling the stop notice claim, including attorneys' fees and costs, as authorized by law.

(B) **Joint Checks.** City reserves the right to issue joint checks made payable to Contractor and its Subcontractors or suppliers. As a condition to release of payment by a joint check, the joint check payees may be required to execute a joint check agreement in a form provided or approved by City. The joint check payees will be jointly and severally responsible for the allocation and disbursement of funds paid by joint check. Payment by joint check will not be construed to create a contractual relationship between City and a Subcontractor or supplier of any tier beyond the scope of the joint check agreement.

- 8.8 Final Payment.** Contractor's application for Final Payment must comply with the requirements for submitting an application for a progress payment as stated in Section 8.2, above. Adjustments to under-payment or over-payment in previous progress payments, including adjustments to payments for unit-priced items based on actual quantities, may be included in the calculation of Final Payment. However, compensation items for identified by City as a "Final Pay" item on the Bid Schedule (marked "F") will be based solely on the estimated quantities provided in the Bid Schedule. Only changes in quantities due to design changes will be measured and paid separately pursuant to a Change Order. The date of Final Payment is deemed to be effective on the date that City acts to release undisputed retention as final payment to Contractor, or otherwise provides written notice to Contractor of Final Payment. If the amount due from Contractor to City exceeds the amount of Final Payment, City retains the right to recover the balance from Contractor or its sureties.
- 8.9 Release of Claims.** City may, at any time, require that payment of the undisputed portion of any progress payment or Final Payment be contingent upon Contractor furnishing City with a written release of all claims against City arising from or related to the portion of Work covered by those undisputed amounts, in accordance with Civil Code Section 8120, *et seq.* Any disputed amounts may be specifically excluded from the release.
- 8.10 Warranty of Title.** Contractor warrants that title to all work, materials, or equipment incorporated into the Work and included in a request for payment will pass over to City free of any claims, liens, or encumbrances upon payment to Contractor.

Article 9 - Labor Provisions

9.1 Discrimination Prohibited. Discrimination against any prospective or present employee engaged in the Work on grounds of race, color, ancestry, national origin, ethnicity, religion, sex, sexual orientation, age, disability, or marital status is strictly prohibited. Contractor and its Subcontractors are required to comply with all applicable federal and California laws, including the California Fair Employment and Housing Act (Government Code Sections 12900 *et seq.*), Government Code Section 11135, and Labor Code Sections 1735, 1777.5, 1777.6, and 3077.5.

9.2 Labor Code Requirements.

(A) **Eight Hour Day.** Under Labor Code Section 1810, eight hours of labor constitute a legal day's work under this Contract.

(B) **Penalty.** Under Labor Code Section 1813, Contractor will forfeit to City as a penalty, the sum of \$25.00 for each day during which a worker employed by Contractor or any Subcontractor is required or permitted to work more than eight hours in any one calendar day or more than 40 hours per calendar week, except if such workers are paid overtime under Labor Code Section 1815.

(C) **Apprentices.** Contractor is responsible for compliance with the requirements governing employment and payment of apprentices, as set forth in Labor Code Section 1777.5, which is fully incorporated by reference.

(D) **Notices.** Under Labor Code Section 1771.4, Contractor is required to post all job site notices prescribed by law or regulation.

9.3 Prevailing Wages. Each worker performing Work under this Contract that is covered under Labor Code Section 1720 or 1720.9, including cleanup at the Project site, must be paid at a rate not less than the prevailing wage as defined in Sections 1771 and 1774 of the Labor Code. The prevailing wage rates are available online at <http://www.dir.ca.gov/dlsr>. Contractor must post a copy of the applicable prevailing rates at the Worksite.

(A) **Penalties.** Under Labor Code Section 1775, Contractor and any Subcontractor will forfeit to City as a penalty up to \$200.00 for each calendar day, or portion a day, for each worker paid less than the applicable prevailing wage rate. Contractor must also pay each worker the difference between the applicable prevailing wage rate and the amount actually paid to that worker.

(C) **Federal Requirements.** If this Project is subject to federal prevailing wage requirements in addition to California prevailing wage requirements, Contractor and its Subcontractors are required to pay the higher of the current applicable prevailing wage rates under federal law, available online at <http://www.access.gpo.gov/davisbacon/ca.html>.

(C) **Local Requirements.** If this Project is subject to Fremont's minimum wage requirements in addition to state and federal prevailing wage requirements, Contractor and its Subcontractors are required to pay the highest rate of pay provided by law.

9.4 Payroll Records. Contractor must comply with the provisions of Labor Code Sections 1776 and 1812 and all implementing regulations, which are fully incorporated by this reference, including requirements for electronic submission of payroll records to the DIR.

(A) **Contractor and Subcontractor Obligations.** Contractor and each Subcontractor must keep accurate payroll records, 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 in connection with the Work. Each payroll record must contain or be verified by a written declaration that it is made under penalty of perjury, stating both of the following:

(1) The information contained in the payroll record is true and correct; and

(2) Contractor or the Subcontractor has complied with the requirements of Labor Code Sections 1771, 1811, and 1815 for any Work performed by its employees on the Project.

(B) **Certified Record.** A certified copy of an employee's payroll record must be made available for inspection or furnished to the employee or his or her authorized representative on request, to City, to the Division of Labor Standards Enforcement, to the Division of Apprenticeship Standards of the Department of Industrial Relations, and as further required by the Labor Code.

(C) **Enforcement.** Upon notice of noncompliance with Labor Code Section 1776, Contractor or Subcontractor has ten days in which to comply with requirements of this Section. If Contractor or Subcontractor fails to do so within the ten day period, Contractor or Subcontractor will forfeit a penalty of \$100.00 per day, or portion a day, for each worker for whom compliance is required, until strict compliance is achieved. Upon request by the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement, these penalties will be withheld from progress payments then due.

9.5 Labor Compliance. Under Labor Code Section 1771.4, the Contract for this Project, if awarded on or after January 15, 2015, is subject to compliance monitoring and enforcement by the California Department of Industrial Relations.

Article 10 - Safety Provisions

10.1 Safety Precautions and Programs. Contractor and its Subcontractors are fully responsible for safety precautions and programs, and for the safety of persons and property in the performance of the Work. Contractor and its Subcontractors must comply with all applicable safety laws, rules and regulations and seek to avoid injury, loss, or damage to persons or property by taking reasonable steps to protect its employees and other persons at the Worksite, materials and equipment stored on or off site, and property at or adjacent to the Worksite.

(A) **Reporting Requirements.** Contractor must immediately provide a written report to City of all recordable accidents and injuries occurring at the Worksite. If Contractor is required to file an accident report with a government agency, Contractor will provide a copy of the report to City.

(B) **Legal Compliance.** Contractor's safety program must comply with the applicable legal and regulatory requirements. Contractor must provide City with copies of all notices required by law or regulation.

(C) **Contractor's Obligations.** Any damage or loss caused by Contractor arising from the Work which is not insured under property insurance must be promptly remedied by Contractor.

(D) **Remedies.** If City determines, in its sole discretion, that any part of the Work or Worksite is unsafe, City may, without assuming responsibility for Contractor's safety program, require Contractor or its Subcontractor to cease performance of the Work or to take corrective measures to City's satisfaction. If Contractor fails to promptly take the required corrective measures, City may perform them and deduct the cost from the Contract Price. Contractor agrees it is not entitled to submit a Claim for damages, for an increase in Contract Price, or for a change in Contract Time based on Contractor's compliance with City's request for corrective measures pursuant to this provision.

- 10.2 Hazardous Materials.** Unless otherwise specified in the Contract Documents, this Contract does not include the removal, handling, or disturbance of any asbestos or other Hazardous Materials. If Contractor encounters materials on the Worksite that Contractor reasonably believes to be asbestos or other Hazardous Materials, and the asbestos or other Hazardous Materials have not been rendered harmless, Contractor may continue Work in unaffected areas reasonably believed to be safe, but must immediately cease work on the area affected and report the condition to City. No asbestos, asbestos-containing products or other Hazardous Materials may be used in performance of the Work.
- 10.3 Material Safety.** Contractor is solely responsible for complying with Section 5194 of Title 8 of the California Code of Regulations, including by providing information to Contractor's employees about any hazardous chemicals to which they may be exposed in the course of the Work. A hazard communication program and other forms of warning and training about such exposure must be used. Contractor must also maintain Material Safety Data Sheets ("MSDS") at the Worksite, as required by law, for materials or substances used or consumed in the performance of the Work. The MSDS will be accessible and available to Contractor's employees, Subcontractors, and City.
- (A) **Contractor Obligations.** Contractor is solely responsible for the proper delivery, handling, use, storage, removal, and disposal of all materials brought to the Worksite and/or used in the performance of the Work. Contractor must notify the Engineer if a specified product or material cannot be used safely.
- (B) **Labeling.** Contractor must ensure proper labeling on any material brought onto the Worksite so that any persons working with or in the vicinity of the material may be informed as to the identity of the material, any potential hazards, and requirements for proper handling, protections, and disposal.
- 10.4 Hazardous Condition.** Contractor is solely responsible for determining whether a hazardous condition exists or is created during the course of the Work, involving a risk of bodily harm to any person or risk of damage to any property. If a hazardous condition exists or is created, Contractor must take all precautions necessary to address the condition and ensure that the Work progresses safely under the circumstances. Hazardous conditions may result from, but are not limited to, use of specified materials or equipment, the Work location, the Worksite condition, the method of construction, or the way any Work must be performed.

Article 11 - Completion and Warranty Provisions

11.1 Final Completion.

(A) **Final Inspection.** When the Work required by this Contract is fully performed, Contractor must provide written notification to City requesting final inspection. Based on that inspection, City will prepare a punch list of items that are incomplete, incorrectly installed, or not operating as required by the Contract Documents. The omission of any such item from this punch list will not relieve Contractor from fulfilling all requirements of the Contract Documents.

(B) **Punch List.** City will deliver the punch list to Contractor and will specify the time by which all of the punch list items must be completed or corrected. The punch list may include City's estimated cost to complete each punch list item if Contractor fails to do so within the specified time. Following the final inspection, City will charge Contractor for

City's staff time and any other costs incurred for City's additional inspection(s) and review(s) of incomplete or unacceptable punch list Work.

(C) **Requirements for Final Completion.** Final Completion will be achieved upon completion or correction of all punch list items, as verified by City inspection, and upon satisfaction of all other Contract requirements, including any commissioning required under the Contract Documents and submission of all final submittals, including a warranty bond if required, instructions and manuals as required under Section 7.10, and as-built drawings as required under Section 7.11, all to City's satisfaction.

(D) **Acceptance.** The Project will be considered accepted upon the date specified in the Engineer's written memorandum of acceptance. The City may elect, acting in its sole discretion, to accept the Project as complete subject to exceptions for punch list items that are not completed within the time specified in the punch list. With the exception of warranty work, City's acceptance, subject to any express exceptions, terminates Contractor's duty to perform the Work.

(E) **Final Payment.** Final Payment and release of retention, less any sums withheld pursuant to the provisions of the Contract Documents, will not be made sooner than 35 days after recordation of the notice of completion. If Contractor fails to complete all of the punch list items within the specified time, City may withhold up to 150% of City's estimated cost to complete each of the remaining items from Final Payment.

11.2 Warranty.

(A) **General.** Contractor warrants that all materials and equipment will be new unless otherwise specified, of good quality, in conformance with the Contract Documents, and free from defective workmanship and materials. Contractor further warrants that the Work will be free from material defects not intrinsic in the design or materials required in the Contract Documents. At City's request, Contractor must furnish satisfactory evidence of the quality and type of materials and equipment furnished. Contractor's warranty does not extend to damage caused by normal wear and tear, or improper use or maintenance.

(B) **Warranty Period.** Contractor's warranty must guarantee its Work for a period of one year from the date of City's acceptance of the Project pursuant to Section 11.1(D) (the "Warranty Period"), except when a longer guarantee is provided by a supplier or manufacturer or is required by the Specifications or Special Conditions. Contractor must obtain from its Subcontractors, suppliers and manufacturers any special or extended warranties required by the Contract Documents.

(C) **Warranty Documents.** As a condition precedent to acceptance, Contractor must supply City with all warranty and guarantee documents relevant to equipment and materials incorporated into the Work and guaranteed by their suppliers or manufacturers.

(D) **Subcontractors.** The warranty obligations in the Contract Documents apply to Work performed by Contractor and its Subcontractors, and Contractor agrees to be co-guarantor of such Work.

(E) **Contractor's Obligations.** Upon written notice from City to Contractor of any defect in the Work discovered during the Warranty Period, Contractor or its responsible Subcontractor must promptly correct the defective Work at its own cost. Contractor's obligation to correct defects discovered during the Warranty Period will continue past the expiration of the Warranty Period as to any defects in Work for which Contractor was notified prior to expiration of the Warranty Period.

(F) **City's Remedies.** If Contractor, or its responsible Subcontractor, fails to correct defective Work within ten days following notice by City, or sooner if required by the circumstances, City may correct the defects to conform to the Contract Documents at Contractor's sole expense. Contractor, or its surety, must reimburse City for its costs within 30 days following City's submission of a demand(s) for payment pursuant to this provision. If City is required to initiate legal action to compel Contractor's compliance with this provision, and City is the prevailing party in such action, Contractor and its surety are solely responsible for all of City's attorney's fees and legal costs expended to enforce Contractor's warranty obligations herein in addition to any and all costs City incurs to correct the defective Work.

(G) **Emergency Repairs.** In cases of emergency where any delay in correcting defective Work could cause harm, loss or damage, City may immediately correct the defects to conform to the Contract Documents at Contractor's sole expense. Contractor, or its surety, must reimburse City for its costs within 30 days following City's submission of a demand(s) for payment pursuant to this provision. If City is required to initiate legal action to compel Contractor's compliance with this provision, and City is the prevailing party in such action, Contractor and its surety are solely responsible for all of City's attorney's fees and legal costs expended to enforce Contractor's warranty obligations herein in addition to any and all costs City incurs to immediately correct the defective Work, including any associated overtime charges.

11.3 Use Prior to Final Completion. City reserves the right to occupy or make use of the Project, or any portions of the Project, prior to Final Completion if City has determined that the Project or portion of it is in a condition suitable for the proposed occupation or use, and that it is in its best interest to occupy or make use of the Project, or any portions of it, prior to Final Completion. City will notify Contractor in writing of its intent to occupy or make use of the Project or any portions of the Project, pursuant to this provision.

(A) **Non-Waiver.** Occupation or use prior to Final Completion will not operate as acceptance of the Work or any portion of it, nor will it operate as a waiver of any of City's rights or Contractor's duties pursuant to these Contract Documents, and will not affect nor bear on the determination of the time of substantial completion with respect to any statute of repose pertaining to the time for filing an action for construction defect.

(B) **City's Responsibility.** City will be responsible for the cost of maintenance and repairs due to normal wear and tear with respect to those portions of the Project that are being occupied or used before Final Completion. The Contract Price or the Contract Time may be adjusted pursuant to the applicable provisions of these Contract Documents if, and only to the extent that, any occupation or use under this Section actually adds to Contractor's cost or time to perform the Work.

11.4 Substantial Completion. For purposes of determining "substantial completion" with respect to any statute of repose pertaining to the time for filing an action for construction defect, "substantial completion" is deemed to mean the last date that Contractor or any Subcontractor performs Work on the Project prior to City acceptance of the Project, except for warranty work performed under this Article.

Article 12 - Dispute Resolution

12.1 Claims. This Article applies to and provides the exclusive procedures for any Claim arising from or related to the Contract or performance of the Work.

(A) **Definition.** "Claim" means a separate demand by Contractor, submitted in writing by registered or certified mail with return receipt requested, for change in the Contract Time, including a time extension or relief from liquidated damages, or a change in the Contract Price, that has previously been submitted to City in accordance with the requirements of the Contract Documents, and which has been rejected or disputed by City, in whole or in part.

(B) **Limitations.** A Claim may only include the portion of a previously rejected demand that remains in dispute between Contractor and City. With the exception of any dispute regarding the amount of money actually paid to Contractor as Final Payment, Contractor is not entitled to submit a Claim demanding a change in the Contract Time or the Contract Price, which has not previously been submitted to City in full compliance with Article 5 and Article 6, and subsequently rejected in whole or in part by City.

(C) **Scope of Article.** This Article is intended to provide the exclusive procedures for submission and resolution of Claims of any amount, and applies in addition to the provisions of Public Contract Code Section 9204 and Sections 20104 *et seq.*, which are incorporated by reference herein.

(D) **No Work Delay.** Notwithstanding the submission of a Claim or any other dispute between the parties related to the Project or the Contract Documents, Contractor must perform the Work and may not delay or cease Work pending resolution of the Claim or other dispute, but must continue to diligently prosecute the performance and timely completion of the Work, including the Work pertaining to the Claim or other dispute.

12.2 Claims Submission. The following requirements apply to any Claim subject to this Article:

(A) **Substantiation.** The Claim must be submitted to City in writing, clearly identified as a "Claim" submitted pursuant to this Article 12, and must include all of the documents necessary to substantiate the Claim including the Change Order request that was rejected in whole or in part, and a copy of City's written rejection that is in dispute. The Claim must clearly identify and describe the dispute, including relevant references to applicable portions of the Contract Documents, and a chronology of relevant events. Any Claim for additional payment must include a complete, itemized breakdown of all labor, materials, taxes, insurance, and subcontract, or other costs. Substantiating documentation such as payroll records, receipts, invoices, or the like, must be submitted in support of each claimed cost. Any Claim for an extension of time or delay costs must be substantiated with schedule analysis and narrative depicting and explaining claimed time impacts.

(B) **Claim Format.** A Claim must be submitted in the following format:

(1) General introduction, specifically identifying the submission as a "Claim" submitted under this Article 12.

(2) Relevant background information, including identification of the specific demand at issue, and the date of City's rejection of that demand.

(3) Detailed explanation of the issue(s) in dispute. For multiple issues, separately number and identify each issue and include the following for each separate issue:

(a) The background of the issue, including references to relevant provisions of the Contract Documents;

- (b) A succinct statement of the matter in dispute, including Contractor's position and the basis for that position;
- (c) A chronology of relevant events;
- (d) The identification and attachment of all supporting documents (see subsection (A), above, on Substantiation); and
- (e) Use of a separate page for each issue.

(4) Summary of issues and damages.

(5) The following certification, executed by Contractor's authorized representative:

"The undersigned Contractor certifies under penalty of perjury that its statements and representations in this Claim are true and correct. Contractor warrants that this Claim is comprehensive and complete as to the matters in dispute, and agrees that any costs, expenses, or delay claim not included herein are deemed waived. Contractor understands that submission of a Claim which has no basis in fact or which Contractor knows to be false may violate the False Claims Act (Government Code Section 12650 *et seq.*)"

(C) **Submission Deadlines.**

(1) A Claim must be submitted within 15 days following the date that City notified Contractor in writing that a request for a change in the Contract Time or Contract Price, duly submitted in compliance with Article 5 and Article 6, has been rejected in whole or in part.

(2) With the exception of any dispute regarding the amount of Final Payment, any Claim must be filed on or before the date of Final Payment, or will be deemed waived.

(3) A Claim disputing the amount of Final Payment must be submitted within 15 days of the effective date of Final Payment, under Section 8.8, above.

(4) Strict compliance with these Claim submission deadlines is necessary to ensure that any dispute may be mitigated as soon as possible, and to facilitate cost-efficient administration of the Project. **Any Claim that is not submitted within the specified deadlines will be deemed waived by Contractor.**

12.3 City's Response. City will respond within 45 days of receipt of the Claim with a written statement identifying which portion(s) of the Claim are disputed, unless the 45-day period is extended by mutual agreement of City and Contractor or as otherwise allowed under Public Contract Code Section 9204. However, if City determines that the Claim is not adequately documented, City may first request in writing, within 30 days of receipt of the Claim, any additional documentation supporting the Claim or relating to defenses to the Claim that City may have against the Claim.

(A) **Additional Information.** If additional information is thereafter required, it may be requested and provided upon mutual agreement of City and Contractor.

(B) **Non-Waiver.** Any failure by City to respond within the times specified above may not be construed as acceptance of the Claim in whole or in part, or as a waiver of any provision of these Contract Documents.

12.4 Meet and Confer. If Contractor disputes City's written response, or City fails to respond within the specified time, within 15 days of receipt of City's response, or within 15 days of City's failure to respond within the applicable 45-day time period under Section 12.3, respectively, Contractor may notify City of the dispute in writing of the sent by registered or certified mail, return receipt requested, and demand an informal conference to meet and confer for settlement of the issues in dispute. If Contractor fails to dispute City's response in writing within the specified time, Contractor's Claim will be deemed waived.

(A) **Schedule Meet and Confer.** Upon receipt of the demand to meet and confer, City will schedule the meet and confer conference to be held within 30 days, or later if needed to ensure the mutual availability of each of the individuals that each party requires to represent its interests at the meet and confer conference.

(B) **Location for Meet and Confer.** The meet and confer conference will be scheduled at a location at or near City's principal office.

(C) **Written Statement After Meet and Confer.** Within ten working days after the meet and confer has concluded, City will issue a written statement identifying which portion(s) of the Claim remain in dispute, if any.

(D) **Submission to Mediation.** If the Claim or any portion remains in dispute following the meet and confer conference, within ten working days after the City issues the written statement identifying any portion(s) of the Claim remaining in dispute, the Contractor may identify in writing disputed portion(s) of the Claim, which will be submitted for mediation, as set forth below.

12.5 Mediation and Government Code Claims.

(A) **Mediation.** Within ten working days after the City issues the written statement identifying any portion(s) of the Claim remaining in dispute following the meet and confer, City and Contractor will mutually agree to a mediator, as provided under Public Contract Code Section 9204. Mediation will be scheduled to ensure the mutual availability of the selected mediator and all of the individuals that each party requires to represent its interests. If there are multiple Claims in dispute, the parties may agree to schedule the mediation to address all outstanding Claims at the same time. The parties will share the costs of mediation equally, except costs incurred by each party for its representation by legal counsel or any other consultants.

(B) **Government Code Claims.**

(1) Timely presentment of a Government Code Claim is a condition precedent to filing any legal action based on or arising from the Contract.

(2) The time for filing a Government Code Claim will be tolled from the time Contractor submits its written Claim pursuant to Section 12.2, above, until the time that Claim is denied in whole or in part at the conclusion of the meet and confer process, including any period of time used by the meet and confer process. However, if the Claim is submitted to mediation, the time for filing a Government Code Claim will be tolled until conclusion of the mediation, including any continuations, if the Claim is not fully resolved by mutual agreement of the parties during the mediation or any continuation of the mediation.

- 12.6 Tort Claims.** This Article does not apply to tort claims and nothing in this Article is intended nor will be construed to change the time periods for filing tort-based Government Code Claims.
- 12.7 Arbitration.** It is expressly agreed, under California Code of Civil Procedure Section 1296, that in any arbitration to resolve a dispute relating to this Contract, the arbitrator's award must be supported by law and substantial evidence.
- 12.8 Damages.** Contractor bears the burden of proving entitlement to and the amount of any claimed damages. Contractor is not entitled to damages calculated on a total cost basis, but must prove actual damages. Contractor is not entitled to consequential damages, including home office overhead or any form of overhead not directly incurred at the Worksite; lost profits; loss of productivity; lost opportunity to work on other projects; diminished bonding capacity; increased cost of financing for the Project; extended capital costs; non-availability of labor, material or equipment due to delays; or any other indirect loss arising from the Contract. The Eichleay Formula or similar formula may not be used for any recovery under the Contract.
- 12.9 Multiple Claims.** In the interest of efficiency, City, acting in its sole discretion, may elect to process multiple Claims concurrently, in which case the applicable procedures above will be based on the total amount of such Claims rather than the amount of each individual Claim. Any such election will not operate to change or waive any other requirements of this Article.
- 12.10 Other Disputes.** The procedures in this Article 12 will apply to any and all disputes or legal actions, in addition to Claims, arising from or related to this Contract, unless and only to the extent that compliance with a procedural requirement is expressly and specifically waived by City. Nothing in this Article is intended to delay suspension or termination under Article 13.

Article 13 - Suspension and Termination

- 13.1 Suspension for Cause.** In addition to all other remedies available to City, if Contractor fails to perform or correct work in accordance with the Contract Documents, City may immediately order the Work, or any portion of it, suspended until the cause for the suspension has been eliminated to City's satisfaction.
- (A) **Failure to Comply.** Contractor will not be entitled to an increase in Contract Time or Contract Price for a suspension occasioned by Contractor's failure to comply with the Contract Documents.
- (B) **No Duty to Suspend.** City's right to suspend the Work will not give rise to a duty to suspend the Work, and City's failure to suspend the Work will not constitute a defense to Contractor's failure to comply with the requirements of the Contract Documents.
- 13.2 Suspension for Convenience.** City reserves the right to suspend, delay, or interrupt the performance of the Work in whole or in part, for a period of time determined to be appropriate for City's convenience, and not due to any act or omission by Contractor or its Subcontractors. Upon notice by City pursuant to this provision, Contractor must immediately suspend, delay, or interrupt the Work as directed by City. The Contract Price and the Contract Time will be equitably adjusted by Change Order to reflect the cost and delay impact occasioned by such suspension for convenience. However, the time for completing the Project will only be extended if the suspension causes or will cause delay in Final Completion.

13.3 Termination for Default. Contractor may be deemed in default for any material breach of or inability to perform the Contract, including Contractor's: refusal or failure to supply sufficient skilled workers, proper materials, or equipment to perform the Work within the Contract Time; refusal or failure to make prompt payment to its employees, Subcontractors, or suppliers; refusal or failure to correct rejected Work or replace or repair any damage caused by Contractor, its agents, or Subcontractors; disregard of laws, regulations, ordinances, rules, or orders of any public agency with jurisdiction over the Project; lack of financial capacity to complete the Work within the Contract Time; abandonment of the Work; or responsibility for any other material breach of the Contract requirements.

(A) **Notice of Default.** Upon City's determination that Contractor is in default, City may provide Contractor and its surety a written notice of default. The notice may, in City's sole discretion: provide an opportunity for Contractor to immediately cure the default; inform Contractor of City's intent to cure the default; or inform Contractor of City's intent to terminate the Contract as set forth below.

(B) **City's Right to Cure.** City may choose to cure the default through use of its own forces and charge Contractor for all resulting expenses. Such expenses may include charges for all City staff time spent and charges for any replacement contractor(s) engaged to cure the default, and any associated expenses such as for City administrative staff time, consultant fees and attorney's fees. Interest on all expenses will also be charged, in the amount of seven percent per annum from the date of payment for each expense. City may deduct all such expenses and costs from amounts otherwise payable to Contractor under the Contract.

(C) **Notice of Termination.** Within seven calendar days after the written notice of default has been given, unless the default is otherwise cured or arrangements to cure the default have been made and memorialized in writing to City's satisfaction, City may terminate the Contract by providing written notice thereof to Contractor with a copy to Contractor's surety.

(D) **Waiver.** Time being of the essence in the performance of the Work, if Contractor's surety fails to, within seven calendar days from the date of City's notice of termination, arrange for completion of the Work in accordance with the Performance Bond, Contractor's surety will be deemed to have waived its right to complete the Work under the Contract, and City may immediately make arrangements for the completion of the Work through use of its own forces. City may use City staff or hire a replacement contractor(s), or use any other means that City determines advisable under the circumstances. Contractor and its surety will be jointly and severally liable for any additional expenses and costs incurred by City to complete the Work following termination. Such expenses may include charges for all City staff time spent and charges for any replacement contractor(s) engaged to complete the Work, and any associated expenses such as for City administrative staff time, consultant fees, and attorney's fees. Interest on all expenses will also be charged, in the amount of seven percent per annum from the date of payment for each expense. In addition, City will have the right to use any materials, supplies, and equipment belonging to Contractor and located at the Worksite for the purposes of completing the remaining Work.

(E) **Other Rights and Remedies.** No Contract termination by City, or other action City takes following such termination, will prejudice, limit or extinguish any other rights or remedies that will remain available to City by law or under the Contract Documents upon such termination. City may proceed against Contractor following Contract termination to recover all losses and costs City has suffered or incurred relating to Contractor's default.

(F) **Wrongful Termination.** If a court of competent jurisdiction or an arbitrator later determines that the termination for default was wrongful, the termination will be deemed to be a termination for convenience, and Contractor's damages will be strictly limited to the compensation provided for termination for convenience under Section 13.4, below. Contractor waives any claim for any other damages for wrongful termination including consequential damages, lost opportunity costs or lost profits.

13.4 Termination for Convenience. City reserves the right to terminate all or part of the Contract for convenience upon written notice to Contractor. Upon receipt of such notice, Contractor must: immediately stop the Work, including under any terms or conditions that may be specified in the notice; comply with City's instructions to protect the completed Work and materials; and use its best efforts to minimize further costs. Subject to City's directions in the notice, Contractor must not place further orders or enter into new subcontracts for materials, equipment, services or facilities, except as may be necessary to complete any portion of the Work that is not terminated. Contractor must also promptly cancel all existing subcontracts that relate to performance of the discontinued Work.

(A) **Compensation to Contractor.** In the event of City's termination for convenience, Contractor waives any claim for damages, including for loss of anticipated profits from the Project. The following will constitute full and fair compensation to Contractor, and Contractor will not be entitled to any additional claim or compensation:

- (1) *Completed Work.* The value of its Work satisfactorily performed to date, based on Contractor's schedule of values and unpaid costs for items delivered to the Project site that were fabricated for incorporation in the Work;
- (2) *Demobilization.* Actual and substantiated demobilization costs; and
- (3) *Markup.* Five percent of the total value of the Work performed as of the date of notice of termination or five percent of the value of the Work yet to be completed, whichever is less, which is deemed to cover all overhead and profit to date.

13.5 Effect of Any Contract Termination. Upon any termination pursuant to this Article, City may enter upon and take possession of the Project and the Work. City may also take possession of, for the sole purpose of completing the Work, all of Contractor's tools, equipment and appliances, and all materials on the Worksite or stored off the Worksite that will be incorporated in the Work. Regardless of any Contract termination, Contractor's obligations for portions of the Work already performed will continue and the provisions of the Contract Documents will remain in effect as to any claim, indemnity obligation, warranties, guarantees, submittals of as-built drawings, instructions, or manuals, or other such rights and obligations arising prior to the termination date.

Article 14 - Miscellaneous Provisions

14.1 Assignment of Unfair Business Practice Claims. Under Public Contract Code Section 7103.5, Contractor and its Subcontractors agree to assign to City all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Section 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the Contract or any subcontract. This assignment will be effective at the time City tenders Final Payment to Contractor, without further acknowledgement by the parties.

- 14.2 Provisions Deemed Inserted.** Every provision of law required to be inserted in the Contract Documents is deemed to be inserted, and the Contract Documents will be construed and enforced as though such provision has been included. If it is discovered that through mistake or otherwise that any required provision was not inserted, or not correctly inserted, the Contract Documents will be deemed amended accordingly.
- 14.3 Waiver.** City's waiver of a breach, failure of any condition, or any right or remedy contained in or granted by the provisions of the Contract Documents will not be effective unless it is in writing and signed by City. City's waiver of any breach, failure, right, or remedy will not be deemed a waiver of any other breach, failure, right, or remedy, whether or not similar, nor will any waiver constitute a continuing waiver unless specified in writing by City.
- 14.4 Titles, Headings, and Groupings.** The titles and headings used and the groupings of provisions in the Contract Documents are for convenience only and may not be used in the construction or interpretation of the Contract Documents or relied upon for any other purpose.
- 14.5 Statutory and Regulatory References.** With respect to any amendments to any statutes or regulations referenced in these Contract Documents, the reference is deemed to be the version in effect on the date that that bids were due.

END OF GENERAL CONDITIONS

CITY COUNCIL REFERENCE ONLY

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ARTICLE 15 - SPECIAL CONDITIONS

SECTION 01 00 00 Supplemental to the General Conditions

1.01 CONTENTS WITHIN THIS SECTION

- A. Intention
- B. Order of Work
- C. Submittals
- D. Hours of Work and City Holidays
- E. Permits, Fees and License
- F. Verification Of Conditions
- G. Coordination and Cooperation
- H. Maintaining Traffic and Public Safety
- I. Obstructions
- J. Watering
- K. Clean-Up

1.02 INTENTION

- A. Each section of these Special Provisions shall be considered to include everything necessary and reasonably incidental to the completion of the work of that section as shown and construction as specified on the plans or mentioned herein. These General Requirements and General Conditions of the Contract shall apply to each separate section of these Special Provisions and to each separate trade or contract.

1.03 ORDER OF WORK

- A. Refer to Article 5 of the General Conditions – Contract Time.
- B. As described in Article 5.2.A, after approval of the baseline schedule, the Contractor may place temporary construction fencing. Work shall commence within ten (10) days of installing any Temporary Construction Fence. Temporary construction fencing must be complete and in place before all other phases of work can commence. Failure to begin work within ten (10) days of placing temporary construction fencing shall be deemed breach of contract.
- C. Refer to 01 56 26 “Temporary Construction Fencing” found elsewhere in this section for additional information on acceptable fencing and payment.
- D. At least ten (10) working days prior to the beginning of work, the Contractor shall submit traffic control handling plans for approval. Updated traffic handling plans as required should be submitted prior to each subsequent stage of traffic handling a minimum of ten (10) working days prior to the beginning of work on that stage. Attention is directed to the “Maintaining Traffic” section of these special provisions.
- E. At least five (5) working days prior to the beginning of work, the Contractor shall notify local authorities, including the City of Fremont Police Department of his intent to begin work. The Contractor shall cooperate with the Engineer relative to handling traffic through the area and shall make his own arrangements relative to keeping the working area clear of parked vehicles. The following contact information is provided for the

Contractors information only. Contractor is responsible for contacting and coordinating with local authorities and agencies.

Fremont Police Department – Dispatch	(510) 790-6800
Fremont Fire Department – Dispatch	(925) 422-7594
Paramedic Plus - Operations	(510) 746-5700
Paramedic Plus - Dispatch	ph.: (925) 422-7595
	fax: (510) 625-1486
U.S. Postal Service - Fremont Main Post Office	(510) 792-8655
A.C. Transit - Dispatch	(510) 891-4901
East Bay Para Transit	(510) 446-2008
Fremont Unified School District – Dispatch	(510) 657-1450 x13147
Republic Services “Allied Waste” (Garbage Pickup)	(510) 657-3500
BLT – Fremont Recycling Transfer Station	(510) 252-0500

- F. The Contractor shall commence construction of the project on the first chargeable work day as specified on the Notice to Proceed, which will be issued on the day of the preconstruction conference.
- G. **24 Hour Contact Number** - The Contractor shall assign a Project Superintendent who has the complete authority to make decisions on behalf of the Contractor. The Project Superintendent shall have the ability to speak, read and write in English. The Project Superintendent shall be on the job at all times during the construction and shall be available and on call 24 hours a day for the duration of the project. The Project Superintendent shall meet with the Engineer at least once per day while the project is actively under construction. Additionally, the Project Engineer shall attend all regularly scheduled job progress meetings. The Contractor shall provide to the Engineer and the Fremont Police Department a 24-hour contact number for the Project Superintendent. This number shall not direct calls to a recorder or other message taking service.
- H. **Advance Public Notification** – Not less than two (2) weeks prior to beginning work, the Contractor shall deliver written notice to all adjoining residents, businesses, tenants and other applicable parties listed above. Written notice shall include posting of Notices at affected court areas for the park and court users. Notice shall be given for general construction activity to occur, as well as specific activities that will, in any way, inconvenience residents/property owners/tenants or affect their operations or access to their properties. Such notice shall include the expected date for the start of construction, a general description of the construction activities that will take place, expected duration, and the name, address, and contact number of the Contractor’s Project Superintendent and of the City’s Project Engineer. A follow up notice shall then also be distributed no later than three (3) days prior to the start of construction. The follow-up notice from the Contractor should include the specific location and dates of when the work will be done, in accordance with the approved schedule. Copies of both notices shall be provided to the Engineer for approval five (5) working days prior to the initial distribution dates of each notice.
- I. **Order of work**
1. Temporary Construction Fencing
 2. Install BMP’s and Erosion Control
 3. General Construction

1.04 SUBMITTALS

- A. Refer to Article 2.5 of the General Conditions and Section 01 30 00 "Submittals" for additional information for those submittals required at the pre-construction meeting.
- B. **Contractor should note that the submittal process shall begin upon issuance of award by City Council, and prior to the issuance of the notice beginning of the Contract Time.**
- C. The City **WILL** provide a written notice indicating the Council award and requesting for submittals to begin. It is the Contractor's responsibility to provide submittals as required, and described, in each section of the special provisions.
- D. The intent of beginning the submittal process upon City Council award is to expedite this process and allow the Contractor the ability to begin the order and purchase of materials, especially for long lead-time items, in order to complete the contract work within the stated contract time.

1.05 WORK HOURS AND CITY HOLIDAYS

- A. There are no restrictions to work hours or days for this project. Work hours and days are as stated below and per Article 5 – Contract Time, 5.2 (H).
 - No work allowed on Saturday, without written authorization from the City Project Inspector or Engineer.
 - No work allowed on Sunday, without written authorization from the City Project Inspector or Engineer
- B. Work will not be performed on City holidays (and/or holiday weekends preceding or following identified holidays), without prior approval from Engineer. City recognized holidays are as follows:
 1. Labor Day – Monday, September 2, 2024
 2. Veterans Day – Monday, November 11, 2024
 3. Thanksgiving Day – Thursday, November 28, 2024
 4. The day following Thanksgiving Day – Friday, November 29, 2024
 5. Day preceding Observed Christmas Day – Tuesday, December 24, 2024
 6. Christmas Day – Observed - Wednesday, December 25, 2024
 7. Day preceding New Year's Day – Tuesday, December 31, 2024
 8. New Year's Day – Observed - Wednesday, January 1, 2025
 9. Dr. Martin Luther King, Jr. Day – Monday, January 20, 2025
 10. Presidents' Day – Monday, February 17, 2025
 11. Memorial Day – Monday, May 26, 2025
 12. Juneteenth Day – Thursday, June 19, 2025
 13. Independence Day – Friday, July 4, 2025
- C. Exceptions to this section will only be permitted upon written authorization from the Engineer.

1.06 PERMITS, FEES AND LICENSE

- A. Refer to Article 7.1 of the General Conditions – General Construction Provisions

- B. All permits must be obtained by the Contractor prior to the City scheduling a pre-construction meeting. At the pre-construction meeting, the Contractor shall bring the permit and permitted set of drawings to the meeting.
- C. City of Fremont Business Tax / License: General Contractor and all Subcontractors shall have and maintain a current City of Fremont business license, demonstrating evidence of valid workers compensation insurance and valid Contractor's license; and will have demonstrated payment of current business license fees to conduct business within the City of Fremont prior to the commencement of the work.
- D. Failure to secure and obtain the appropriate permits does not stop working days from being counted, nor will it be deemed fault of the City for allow the Contractor to proceed with work that is subsequently delayed due to lack of the appropriate permits.
- E. The Business Tax/License Dept. of the City of Fremont can be reached at 494-4790. Office hours are Monday through Friday 8 AM to 4 PM. The address is 39550 Liberty Street, at the corner of Liberty and Kearney. If you have questions about what types of businesses are allowed in residential or commercial locations, please contact the City of Fremont Planning Division at 510-494-4440. The City of Fremont uses the term *business tax* instead of *business license*. If you are a business located outside of Fremont and you will be physically coming into Fremont to conduct business, completion of an Out-of-Town Business Tax Application Form is required by the City of Fremont. Applications are available at the Development Services Center at 39550 Liberty Street at the corner of Liberty and Kearney Streets, one block from Stevenson Blvd. Office hours are Monday through Friday, 8 AM to 4PM. Applications can also be downloaded from: <http://www.ci.fremont.ca.us/business/outoftown.html>.

1.07 VERIFICATION OF CONDITIONS

- A. The Contractor shall verify all existing conditions before commencing work. All discrepancies between the plans and actual field conditions shall be immediately reported to the Engineer who shall determine if modifications in the work are necessary. The Contractor shall not modify the work without prior authorization from the Project Landscape Architect.

1.08 COORDINATION AND COOPERATION

- A. Refer to Article 2.4 of the General Conditions – Coordination of Work.
- B. The work shall be conducted under the general observation of the Engineer and shall be subject to inspection by the City of their representatives to assure strict compliance with the requirements of the Contract Documents, and all applicable building codes and other regulations. The authorized representative of the Engineer on the project site shall be those representatives or consultants designated by the Engineer to act on behalf of the City.
- C. One or more Inspectors shall periodically review the Contractor's work as the project progresses to verify conformance with the Contract Documents. The presence of the Inspectors, however, shall not relieve the Contractor of the responsibility for the proper execution of the work in accordance with all requirements of the Contract Documents and applicable building codes or other regulations. Compliance is distinctly a duty of the Contractor, and said duty shall not be avoided by any act or omission on the part of the Inspector(s).
- D. All materials and articles furnished by the Contractor shall be subject to exhaustive inspection, and no material or articles shall be used in the work until it has been inspected and accepted by the Engineer.

- E. The Contractor shall be responsible for the coordination of all the work and the coordination of the work of the Subcontractors. The Contractor shall not delegate coordination to any Subcontractor. The Contractor's on-site supervisory person shall be present and represent the Contractor whenever a meeting is held that involves any interface between the City and any Subcontractors or suppliers. The Contractor shall resolve differences or disputes between Subcontractors concerning coordination, interfaces, or extent or work.
- F. The Contractor shall coordinate all inspections governed by permits obtained in conjunction with the work. The Contractor shall schedule all inspections with adequate advance notice, and in accordance with the requirements of the permit issuer, to assure no delays while waiting for an inspector to review the work before proceeding.
- G. It shall be the responsibility of the Contractor to coordinate all necessary utility work with the appropriate utility company. The request for work to be done by the utility company affected shall be made in sufficient time so that the utility company may perform their work in time to prevent delays to the project schedule.
- H. The Contractor shall cooperate fully with all utility forces of the City 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.

1.09 MAINTAINING TRAFFIC AND PUBLIC SAFETY

- A. Refer to Section 01 55 19 "Temporary Controls" found elsewhere in Article 15 herein.

1.10 OBSTRUCTIONS

- A. Protection and repair of damage of laterals and appurtenances shall be the responsibility of the Contractor.
- B. In the event that water services are broken or damaged between the meter and the point of service, the Contractor shall immediately at his own expense, repair such damage, in a manner satisfactory to the Engineer, in order that the water supply will not be interrupted for a period greater than one hour. If such interruption is sustained, it shall be the Contractor's responsibility to notify the occupants of the premises to which said services are connected so that no damage will occur on said premises. Whenever damage is done to water meters, services between the Water District mains and said meters, fire hydrants or other appurtenances, the Water District forces shall make such needed repairs at the Contractor's expense.
- C. In the event damage is done to any gas, electric, or telephone facility by the Contractor, he shall notify the respective utility company. Repairs shall be made by the utility company at the Contractor's expense.
- D. In the event that sanitary sewer laterals are broken or damaged between the point of service and the sanitary main, the Contractor shall immediately, at his own expense, repair such damage, in a temporary manner satisfactory to the Engineer, in order that service will not be interrupted for a period greater than one hour. When such interruption occurs, it shall be the Contractor's responsibility to notify the occupants of the premises to which said service is connected so that no damage will occur on said premises and to notify Union Sanitary District so that permanent repairs may be made at the Contractor's expense.

- E. The Contractor shall take precautions to prevent any damages to existing improvements and landscaping, which is to remain in place, in the work area on both public and private properties. If the existing improvements or landscaping on public or private property are damaged, the Contractor shall repair such damage, at his own expense, to the satisfaction of the Engineer.
- F. The Contractor shall verify the exact location of all existing utilities and shall notify the Engineer and the regional notification center for operator of subsurface installations at least two working days, but not more than 14 calendar days, prior to performing any excavation or other work close to any underground pipeline, conduit, duct, wire, or to the structure. The regional notification center is:

UNDERGROUND SERVICE ALERT (USA) TEL: 1-800-227-2600
- G. At those sites not serviced by Underground Service Alert, the Contractor shall be responsible for locating all existing utilities prior to commencing any work. Contractor shall pothole utilities to determine approximate depths of utilities.
- H. Measurement and Payment: Payment for conforming to the provisions in this section "Obstructions" not otherwise provided for, shall be considered as included in the prices paid line for the various items of work involved and no additional compensation will be allowed therefor.

1.11 WATERING

- A. It shall be the responsibility of the Contractor to contact the local utility district in order to obtain a temporary water meter, and provide their own source of water for all elements of work in this project. The City shall not provide a source of water.
- B. If the Contractor uses non-potable water on the project, the sources and discharge of non-potable water shall meet the California Department of Health Services water reclamation criteria and the Regional Water Quality Control Board requirements. The Contractor shall obtain either a waste water discharge permit or a waiver from the Regional Water Quality Control Board. Copies of permits or waivers from the Regional Water Quality Control Board shall be delivered to the Engineer before using non-potable water on the project.
- C. Non-potable water, if used, shall not be conveyed in tanks or drain pipes which will be used to convey potable water. There shall be no connection between non-potable water supplies and potable water supplies. Non-potable water supply, tanks, pipes, and other conveyances of non-potable water shall be labeled:

NONPOTABLE WATER - DO NOT DRINK

1.12 CLEAN-UP

- A. Remove all debris, waste material, tools, equipment, etc., from the project site. All materials removed shall be disposed of in accordance with the provisions in Section 7.9(D) of the General Conditions.

1.13 MEASUREMENT AND PAYMENT

- A. Full compensation for conforming to the provisions in this section "**Supplemental to the General Conditions**", not otherwise provided for, shall be considered included in the prices paid for the various line items of work and no additional compensation will be allowed therefor.

END OF SECTION

SECTION 01 01 00

Project Progress Schedule

PART 1 GENERAL

1.01 RELATED SECTION

- A. General Conditions, Part 5.2 "Schedule Requirements".

1.02 INTENTION

- A. Baseline (As-Planned) Schedule: The Project is to be complete within the total maximum working days after the date specified in the City's Notice To Proceed including all punch list items, and acceptance by the City.
- B. Refer to Section 3 of the Notice Inviting Sealed Bids for Contract Time.
 - 1. The Baseline schedule must incorporate delivery of long-lead items without any slack in the schedule.
 - 2. Progress Schedule shall be the basis for evaluating job progress, payment requests, and time extension requests. Responsibility for developing Critical Path Method (CPM) schedule and monitoring actual progress as compared to Progress Schedule rests with Contractor.
 - 3. The progress schedule shall clearly show sequence and duration of major construction activities, interim milestones or completion dates required in the Contract, and the controlling operation or operations.
 - 4. Failure of Progress Schedule to include any element of the Work or any inaccuracy in Progress Schedule will not relieve Contractor from responsibility for accomplishing the Work in accordance with the Contract. City's acceptance of schedule shall be for its use in monitoring and evaluating job progress, payment requests, and time extension requests, and shall not, in any manner, impose a duty of care upon City, or act to relieve Contractor of its responsibility for means and methods of construction.
- C. City Review of Schedules: Refer to General Conditions, Part 5.2.B
 - 1. A schedule must not show completion dates beyond the Contract requirements for the interim target dates, milestones or Contract completion. The Contract completion date shall be based on the working days designated in the Contract and not on a proposed early completion shown in the schedule.
 - 2. The schedule submitted shall meet, in all respects, the time and order of work requirements of the Contract. The work shall be executed in the sequence indicated in the schedule and subsequent updates and revisions. The Contractor shall be responsible for assuring that all work sequences are logical and the schedule shows a coordinated plan for complete performance of the work. Failure of the Contractor to include any element of the work required for the performance of the Contract in the network shall not relieve the Contractor from completing all work within the time limit specified for completion of the Contract. If the Contractor fails to define any element of work, activity, or logic, and the omission of error is discovered by either the Contractor or Engineer, it shall be corrected by the Contractor at the next scheduled monthly update or revision.
 - 3. The Contractor shall allow fifteen (15) days for the Engineer to review the schedule and provide any comments, a favorable review of the schedule, or request a meeting to review the schedule. When completed, the agreed upon Progress Schedule shall be the one used by the Contractor for planning, organizing, and directing the work, and

for reporting progress. Upon agreement, this will be deemed the Original Progress Schedule and shall be updated to reflect the current status of work.

D. Progress Schedule: Shall include or comply with following requirements:

1. Time scaled, cost and resource (labor and major equipment) loaded CPM schedule.
2. Identify the activities which constitute the controlling operations or critical path.
3. Individual activities that are not significant in themselves and create a series of parallel paths shall be grouped within major activities or combined to form a more general major activity. The actual number of activities shall be sufficient to assure adequate planning of the project and to permit monitoring and evaluation of progress and analysis of time impacts and not to primarily manage the various resources that may be used by the Contractor.
4. Major activities are defined as single activities or groups of activities that create a significant portion of the project due to location, related type of work, or common completion dates.
5. Major activities shall have durations of not less than five (5) nor more than twenty (20) working days. Milestone or transitional activities may have duration of less than five (5) days. Isolated major activities, concurrent, or combined activities may have more than twenty (20) working days when approved by the Engineer.
6. Activity durations shall be total number of actual work days required to perform that activity.
7. The start and completion dates of all items of Work, their major components, and milestone completion dates, if any.
8. City-furnished materials and equipment, if any, identified as separate activities.
9. Activities for maintaining Project Record Documents.
10. Dependencies (or relationships) between activities.
11. Processing/approval of submittals and shop drawings for all Contract-required material and equipment. Activities that are dependent on submittal acceptance or material delivery shall not be scheduled to start earlier than expected acceptance or delivery dates.
Include time for submittals, re-submittals, and reviews by City. Coordinate with accepted schedule for submission of shop drawings, samples and other submittals.
Contractor shall be responsible for all impacts resulting from re-submittal of shop drawings and submittals.
12. Procurement of major equipment, through receipt and inspection at jobsite, identified as separate activity.
 - a. Include time for fabrication and delivery of manufactured products for the Work.
 - b. Show dependencies between procurement and construction.
13. Activity description; what Work is to be accomplished and where.
14. The total cost of performing each activity shall be total of labor, material, equipment, including overhead and profit of Contractor.
15. Responsibility code for each activity corresponding to Contractor or Subcontractor responsible for performing the Work.

16. Interface with the work of other Contractors, City, and agencies such, as but not limited to, utility companies.
17. Show detailed Subcontractor Work activities. In addition, furnish copies of Subcontractor schedules upon which CPM was built.
 - a. Also furnish for each Subcontractor, as determined by City, submitted on Subcontractor letterhead a statement certifying that Subcontractor concurs with Contractor's Original CPM Schedule and that Subcontractor's related schedules have been incorporated, including activity duration, cost and resource loading.
 - b. Subcontractor schedules shall be independently derived and not a copy of Contractor's schedule.
 - c. In addition to Contractor's schedule and resource loading, obtain from electrical, mechanical and plumbing Subcontractors, and other Subcontractors as required by City, productivity calculations common to their trades, such as units per person day, feet of pipe per day per person, feet of wiring per day per person, and similar information.
 - d. Furnish schedule for Contractor/Subcontractor CPM schedule meetings which shall be held prior to submission of Original CPM schedule to City. City shall be permitted to attend scheduled meetings as an observer.
18. Activity durations shall be in Work days with the exception of the Plant Establishment Period.
19. Any such agreement shall be formalized by a Change Order. The City shall not pay for acceleration if the Contractor requests an earlier (Advanced) time of completion.
20. The City is not required to accept an earlier (advanced) schedule, i.e., one that shows early completion dates for the Contract Working Days.
21. The Contractor shall not be entitled to extra compensation in the event agreement is reached on an earlier (advanced) schedule and Contractor completes his Work, for whatever reason, beyond completion date shown in earlier (advanced) schedule but within the Contract Times.
22. A schedule showing the work completed in less than the Contract Times, which has been accepted by City, shall be considered to have Project Float. The Project Float is the time between the scheduled completion of the work and Contract Substantial Completion. Project Float is a resource available to both City and the Contractor.
23. Float Ownership: Refer to 5.2.C (1) of the General Conditions. The Project owns the float. As such, liability for delay of the Completion Date rests with the party whose actions, last in time, actually cause delay to the Completion Date.
 - a. For example, if Party A uses some, but not all of the float and Party B later uses remainder of the float as well as additional time beyond the float, Party B shall be liable for the time that represents a delay to the Completion Date.
 - b. Party A would not be responsible for the time since it did not consume the entire float and additional float remained; therefore, the Completion Date was unaffected.
- E. Recovery Schedule: Refer to General Conditions, Part 5.2.D
- F. Effect of Acknowledgement: Refer to General Conditions, Part 5.2.E
- G. Posting: Refer to General Conditions, Part 5.2.F
- H. Reservation of Rights: Refer to General Conditions, Part 5.2.G
 1. The City reserves the right to require additional submittals from the Contractor, to be submitted at the pre-construction meeting, that are not specifically identified herein. If

so requested, the Contractor shall provide the Engineer with six (6) copies of any additional submittals, or if directed, provide all submittal electronically, if they do not coincide with a physical product material.

- I. Authorized Working Days and Times: Refer to General Conditions, Part 5.2.H
- J. Additional requirements for Work Schedules:
 - 1. Progress Schedule Updates: An update is defined as a regular monthly submittal and review of the schedule to incorporate actual progress to date by activity; any approved time adjustments, anticipated changes to planned activities, and projected completion dates. A revision is defined as a change in the future portion of the schedule that modifies logic, adds or deletes activities, or alters activities, sequences or durations.
 - 2. When the monthly update is completed, the Contractor shall meet with the Engineer to review Contract progress. At that meeting, the Contractor shall identify and discuss potential problem areas; current and anticipated delaying factors and their impacts; actions taken or proposed; proposed changes in schedule; out of sequence work; and any other topics related to job progress or scheduling. The Contractor shall update the most recent schedule to incorporate all current schedule information, including actual progress, approved adjustments of time and proposed changes in sequence and logic.
 - 3. The Engineer may use these and other information in evaluating the effect of the changes, delays, or time savings on the accepted schedule current at the time to determine the applicable adjustment of time, if any to any target date or completion date due to the changes, delays, or time savings.

Part 2 PRODUCTS

Not Used

Part 3 EXECUTION

3.01 MEASUREMENT AND PAYMENT

- A. Full compensation for conforming to the provisions of this section “**Project Progress Schedule**”, not otherwise provided for, shall be considered as included in prices paid for various contract items of work involved and no additional compensation will be allowed therefor.

END OF SECTION

SECTION 01 25 00 Product Substitution Procedures

PART 1 GENERAL

1.01 SECTION INCLUDES

Administrative and procedural requirements for handling requests for substitution made after Intent to Award of Contract.

1.02 DEFINITIONS

A. Substitutions: Changes in products, materials, equipment, and methods of construction required by Contract Documents proposed by Contractor after Intent to Award of Contract are considered to be requests for substitutions. Following are not considered to be requests for substitutions:

1. Revisions to Contract Documents requested by City, Supervising Construction Coordinator, Project Manager, or Project Landscape Architect.
2. Specified options of products and construction methods included in Contract Documents.
3. Contractor's determination of and compliance with governing regulations and orders issued by governing authorities.
4. Substitutions requested during bidding period, and accepted by Addendum prior to Intent to Award of Contract, are included in Contract Documents and are not subject to requirements specified in this Section for Substitutions.

1.03 SUBMITTALS

A. Requests for substitutions will not be considered before selection of Contractor. Substitutions will not be considered when:

1. Indicated on shop drawings or product data submittals without separate formal request.
2. Requested directly by Subcontractor or supplier.
3. Acceptance will require substantial revision of Contract Documents.
4. Proposed changes are not in keeping with general intent of Contract Documents.

B. Requests for substitution will be considered only within thirty-five (35) working days after Contractor selection and Intent to Award to the Contractor.

C. The Contractor hereby agrees that failure to submit alternative product requests within the stipulated time period shall act as a waiver of any future rights to offer such substitutes, and the Contractor hereby agrees to provide one of the specific products called for in the Contract Documents. Other requests will be considered only when:

1. Specified product or method of construction cannot be provided within Contract Time. Supervising Construction Coordinator will not consider request if product or method cannot be provided as result of failure to pursue Work promptly or coordinate activities properly.
2. Subsequent information or changes indicate specified product will not perform as intended.
3. Requested substitution offers City substantial advantage, in cost, time, energy conservation, or other considerations, after deducting additionally responsibilities City

must assume. City's additional responsibilities include compensation to Architect for redesign and evaluation services, compensation to Supervising Construction Coordinator for additional processing and evaluation services, increase costs of other construction by City, and similar considerations.

- a. Supervising Construction Coordinator's time shall be compensated a specified for compensation of time in subsequent article titled Modification of Documents.

Specified product or method of construction cannot receive necessary approval by governing authority, and requested substitution can be approved.

Specified product or method of construction cannot be provided in manner that is compatible with other materials and where Contractor certified that substitution will overcome incompatibility.

Specified product or method of construction cannot be coordinated with other materials and where Contractor certifies that proposed substitution can be coordinated.

Specified product or method of construction cannot provide warranty required by Contract Documents and where Contractor certifies that proposed substitution provides required warranty.

- D. Do not order or install substitute products without written acceptance.
- E. Only one (1) request for substitution for each product will be considered. When substitution is not accepted, provide specified product.
- F. Project Manager, or Landscape Architect, will determine acceptability of substitutions.
- G. Submit two (2) copies of each request to the Project Manager, or Landscape Architect, through the Supervising Construction Coordinator. Requests should be on a form entitled "Substitution Request Form". Submit separate form for each substitution, and include the following information, at minimum:
 - 1. Identify products by Specification Section and Article numbers.
 - 2. Provide manufacturer's name and address, trade name of products, and model or catalog number.
 - 3. List fabricators and suppliers as appropriate.
 - 4. Document each request with complete data substantiating compliance of proposed substitution with requirements of Contract Documents including independent laboratory testing reports, approval numbers, listings, and approved assembly descriptions as requested by Supervising Construction Coordinator, Project Manager, or Project Landscape Architect, or as required by agencies having jurisdiction.
 - 5. Attach product data as specified in Section 01 30 00.
 - 6. Give itemized comparison of proposed substitution with specified product, listing variation, and reference to Specification Section and Article numbers.
 - 7. Give quality and performance comparison between proposed substitution and specified product.
 - 8. Submit written certification from manufacturer that proposed substitution is appropriate for this application.
 - 9. List availability of maintenance services and replacement materials.
 - 10. State effect of substitution on construction schedule, and changes required in other Work or products.
- H. By making request for substitutions, Contractor:

1. Represents that Contractor has personally investigated proposed substitute product and determined that it is equal to or superior in all respects to that specified.
 2. Represents that Contractor will provide same warranty for substitution that Contractor would for that specified.
 3. Will coordinate installation of accepted substitute, making such changes as may be required for Work to be compatible with substrates and adjacent materials, and complete in all respects.
 4. Waive claims for additional time related to substitution which may later become apparent.
 5. Certifies that cost data presented is complete and includes related costs under this Contract, including redesign costs, and waives claims for additional costs related to substitution which may later become apparent.
- I. Modification of Documents: Where substitution required, for proper installation, changes to design of Work as indicated on accepted Shop Drawings, furnish drawings and specifications prepared by and bearing seal of licensed architect and engineers as appropriate, revising Contract Documents.
1. Submit revised Documents for acceptance in accordance with Section 01 30 00.
 2. Revised Drawings: Sufficiently complete for proper installation of substitution and related Work.
 3. If, in the City's Project Manager, or Landscape Architect's, sole judgment, proposed substitution is of such significance or deals with product or system affecting basic design or aesthetics, Contractor shall pay the Project Manager, or Project Landscape Architect, for changes required to Contract Documents as follows:
 - a. Reimburse City for time spent in changing Contract Documents at rate of 3.25 times rate of Direct Personnel Expense (DPE). DPE is defined as direct salaries of personnel engaged on Project and portion of costs of mandatory, and customary contributions and benefits related thereto, including employment taxes and other statutory employee benefits, insurance, sick leave, holidays, vacations, pensions, and similar contribution and benefits.
- Contractor: Responsible for cost of revised Documents, obtaining and paying for review and plan check by authorities having jurisdiction, and cost of revised construction.
- Revised drawings: Submit with Record Documents.

1.04 SUBMITTAL PROCEDURES

- A. Supervising Construction Coordinator's Action: If necessary, Project Manager, or Project Landscape Architect, through Supervising Construction Coordinator, will request additional information or documentation for evaluation within one (1) week of receipt of request for substitution. Supervising Construction Coordinator will notify Contractor of acceptance or rejection of substitution within two (2) weeks of receipt of request of additional information or documentation, whichever is later. Acceptance will be in form of a Field Order or Field Change Order.
1. Supervising Construction Coordinator, Project Manager, or Landscape Architect, will not make exhaustive attempt to determine products proposed for substitution are equivalent to, or can be modified in order to be equivalent to specified products.

- a. Where extensive investigation is required by Project Manager, or Landscape Architect, as determined by Supervising Construction Coordinator, Contractor shall reimburse City for Supervising Construction Coordinator, Project Manager, or Landscape Architect's time spent in processing additional re-submittals at rate of 3.25 times rate of Direct Personnel Expense (DPE).

Use product specified if the Project Manager, Landscape Architect, or Supervising Construction Coordinator cannot make decision on use of proposed substitute with time allocated.

If accepted by the Project Manager, or Landscape Architect, products proposed for substitution are accepted subject to modifications by manufacturer, if necessary, to meet detailed requirements of Drawings, and Specifications.

- B. For Accepted Products: Submit shop drawings, product data, and samples in accordance with Section 01 30 00.
- C. Contractor's submittal, and Architect's and Supervising Construction Coordinator's acceptance of Shop Drawings, Product Data, or Samples for construction activities not complying with Contract Documents to not constitute acceptable or valid request of substitution, nor do they constitute approval.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

3.01 MEASUREMENT AND PAYMENT

- A. Full compensation for conforming to the provisions in this section "**Product Substitutions**," not otherwise provided for, shall be considered as included in prices paid for the various contract items of work involved and no additional compensation will be allowed therefor.
- B. No additional payment over the original bid prices will be allowed when approved substitutes are used in lieu of the originally specified materials.

END OF SECTION

SECTION 01 30 00 Submittals

PART 1 GENERAL

1.01 RELATED DOCUMENTS

A. General

Drawings and General Conditions of the Contract, including Division 1 Specifications, apply to this Section.

1. Refer to General Conditions, Part 2.5 "Submittals"
2. Section 01 60 00 "Product Requirements" for Product Options
3. Section 01 63 00 "Product Substitution Procedures" for product substitutions.

B. Timing and Manner of Submission:

1. **Submittals shall begin to be provided to the City immediately after award of contract by City Council. Do not submit all at one time. Submit in accordance with the sequence of procurement, fabrication and construction.**
2. Make submittals far enough in advance of scheduled dates of installation to allow the time required for reviews, for securing necessary approvals, for possible revision and re-submittal, and for placing orders and securing delivery.
3. For items with long lead times, those items will be submitted first in order to get review and approvals, and submit for requisition of that items.4.

Submittal quantities:

- a. If submitted electronically, provide 1 copy in .pdf format, and all electronic .pdf submittals must be followed up with 1 hard copy mailed to the City to ensure the submittal is received.
- b. If hard copies are submitted, provide six (6) hard copy submittals.
- c. Samples: Provide 1 product sample at the required dimensions described elsewhere in these specifications, for the appropriate products.

C. Required Content

1. Identify each submittal and re-submittal with the following information:
 - a. Project name and address as they appear on the Contract Documents.
 - b. Contract name and number.
 - c. Contractor's name and address.
 - d. Date of submission.
 - e. Numbering System: Submittals shall be identified by sequential numbering (i.e., 001, 002, 003, etc.) Any re-submittals shall be numbered sequentially according to the original submittal number, followed by the subscript ".1, .2, .3" (i.e., 001.1, 001.2, etc.). Submittals and re-submittals shall be kept intact with the original number. Do not add new drawing or information outside the scope of the original submittal, unless specifically requested. Do not assign a new number for a re-submittal.

Reference: List Specification Section number and product reference as a cross reference for each submittal.

Do not submit separate submittals for items that can be in combined submittals. Only provide separate submittals if specific items in question require re-submittal due to a "revise and resubmit" request.

2. Identify each submittal with the following additional identification:
 - a. Contractor's stamp with initials or signature, certifying to review of submittal, compliance with Contract Documents, coordination with other impacted work, and verification of field measurements.
 - b. Drawing and Specification Section numbers to which the submittal applies.
 - c. Subcontractor's or supplier's name and address.
 - d. Name and telephone number of the individual to contact for additional information regarding the submittal.
 - e. Whether it is an original or a re-submittal.
 3. Coordination of Submittals: Prior to submittal for the Project Manager's review, as applicable, fully coordinate material as follows:
 - a. Determine and verify field dimensions and conditions, materials, catalog numbers, and similar data.
 - b. Coordinate shop drawing submittals with previously issued Addenda and Information Bulletins.
 - c. Coordinate with the various types of Work and public agencies involved.
 - d. Secure necessary approvals from public agencies and others and signify by stamp, or other means, that approvals have been secured.
 - e. Unless otherwise specifically permitted by the Project Manager, make submittals in groups containing all associated items.
 4. Completeness: Submittals shall be complete; partial submittals will be rejected for not complying with the Contract Documents.
- D. Required Corrections and Re-submittals:
1. Subject to same terms and conditions as original submittal.
 2. Project Manager will accept not more than one (1) re-submittal.
 - a. Should additional re-submittals be required, Contractor shall reimburse City for Construction Manager's account and Project Manager's account for time spent in processing additional re-submittals at rate of 3.25 times rate of Direct Personnel Expense (DPE). Direct Personnel Expense is defined as direct salaries of Construction Manager's and Project Manager's personnel engaged on Project and portion of costs of mandatory, and customary contributions and benefits related thereto, including employment taxes and other statutory employee benefits, insurance, sick leave, holidays, vacations, pensions, and similar contributions and benefits.
- E. Effect of Review and Acknowledgement by City
1. The Project Manager, as applicable, will review the Submittals or shop Drawings; mark the submittal or shop drawings with required revisions; stamp the submittal or shop drawings and indicate "No Exceptions Taken," "Make Changes Noted," or "Revise and Resubmit". "Revise and Resubmit" stamps shall not be construed by the Contractor as a valid reason for an extension of time request.
 2. Review the returned submittal or shop drawings and take appropriate action as indicated.
 - a. If submittal or shop drawings are marked "Revise and Resubmit," make revisions and indicate them with a "cloud," stamp and date, and resubmit in the same manner and number as for the original submittal.

- b. If submittal or shop drawings are marked "No Exceptions Taken" or "Make Changes Noted", print and distribute copies for City and Inspector, as well as those required for Contractor and Subcontractors.
 - 3. The Project Manager, as applicable, may review at their discretion up to one re-submittal and take action, as appropriate, in the same manner as for the original submittal. If more than one re-submittal is required, any associated costs as a result of additional reviews shall be an extra service of the Project Manager, or his consultants, and will be processed as a deductive Change Order.
 - 4. As with the original submittal, review the returned submittals or shop drawings and take appropriate action as indicated. As specified hereinabove, resubmit and revise until final action by the Project Manager, as applicable. Final action is signified by the markings "No Exceptions Noted," or "Make Changes Noted," on the returned shop drawings.
 - 5. Following final action by the Project Manager, the Contractor shall make copies and distribute as required for accomplishment and inspection of the indicated Work.
 - 6. Only those submittals or shop drawings which bear stamps showing final review of the Contractor, or the Project Manager, or the Project Manager's consultants, or the City's consultants, as applicable, shall be used.
 - 7. Reproduction and Mailing Costs: The Contractor shall pay the reproduction and mailing costs of the sepias and all prints.
 - F. Enforcement: Refer to General Conditions, Part 2.5
 - G. Excessive RFI's: Refer to General Conditions, Part 2.5
 - H. Additional Requirements for Submittals: See Part 3.01 herein
- 1.02 SHOP DRAWINGS, SUBMITTALS, PRODUCT DATA, SAMPLES, AND OTHER SUBMITTALS
- A. Shop Drawings:
 - 1. Submit copies, as required herein.
 - B. Product Data:
 - 1. Comply with all requirements for submittals of material chemical content, ventilation requirements during installation, maintenance requirements, and emissions test data specified in Division 1 and technical Specification Sections.

Submit in the quantity required to be returned, together with four additional copies each of brochures, catalog cuts, and similar material for mechanical, electrical, hardware, and elevator items; and three additional copies for all others.

Review, processing, and distribution of Product Data shall be the same as that for Shop Drawings.
 - C. Samples:
 - 1. Submit in the size specified in the individual Specification SECTIONS, and in the quantity required to be returned, together with one additional Sample, which will be retained by the Project Manager or his consultants, or the City's consultants, as applicable.
 - 2. Where Samples have natural variations in texture, color, or dimension, submit Samples showing the extreme range plus the middle range of variation.
 - 3. Ship samples to the Project Manager's or consultant's office, carriage prepaid. Samples to be returned to the Contractor will be shipped, carriage collect.

4. Patterns and Colors: Unless the exact pattern and color of a product are indicated in the Contract Documents, whenever a choice of pattern or color is available for a product, submit accurate color charts and pattern charts to the Project Manager for his review and selection.

Other Submittals: Submit as specified in the individual Specification Section.

Certificates of Compliance:

- a. Submit certificates of compliance with the associated Shop Drawings, Product Data, Samples, and other submittals required for the product.
- b. Submit on 8-1/2 x 11 inch white paper.
- c. Submit six (6) copies.
- d. The Project Manager will retain the certificates of compliance; no review reply is intended.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.02 SUBMITTAL PRIOR TO BEGINNING OF WORK

- A. At least ten (10) working days prior to the beginning of work, The Contractor shall submit traffic control handling plans for approval. Updated traffic handling plans as required should be submitted prior to each subsequent stage of traffic handling a minimum of ten (10) working days prior to the beginning of work on that stage. Attention is directed to the "Maintaining Traffic" section of these special provisions.
- B. At least five (5) working days prior to the beginning of work, the Contractor shall notify local authorities, including the City of Fremont Police Department of his intent to begin work. The Contractor shall cooperate with the Engineer relative to handling traffic through the area and shall make his own arrangements relative to keeping the working area clear of parked vehicles. The following contact information is provided for the Contractors information only. Contractor is responsible for contacting and coordinating with local authorities and agencies.
- C. **Advance Public Notification** – Not less than two (2) weeks prior to beginning work, the Contractor shall deliver written notice to all adjoining residents, businesses, tenants and other applicable parties listed above. Written notice shall include posting of Notices at affected areas of the park. Notice shall be given for general construction activity to occur, as well as specific activities that will, in any way, inconvenience residents/property Citys/tenants or affect their operations or access to their properties. Such notice shall include the expected date for the start of construction, a general description of the construction activities that will take place, expected duration, and the name, address, and contact number of the Contractor's Project Superintendent and of the City's Engineer. A follow up notice shall then also be distributed no later than three (3) days prior to the start of construction. The follow-up notice from the Contractor should include the specific location and dates of when the work will be done, in accordance with the approved schedule. Copies of both notices shall be provided to the Engineer for approval five (5) working days prior to the initial distribution dates of each notice.

3.03 SUBMITTALS REQUIRED AT THE PRECONSTRUCTION MEETING

- A. The Contractor shall provide six (6) copies of each of the following submittals to the Engineer at the pre-construction meeting, if these have not been previously provided:

1. **Designation of Superintendent**
2. A **list of all permits and licenses** the Contractor has obtained indicating the agency that issued the permit or if the permit has not been obtained, the expected date of receipt of the permit.
3. **24 Hour Contact Number** - The Contractor shall assign a Project Superintendent who has the complete authority to make decisions on behalf of the Contractor. The Project Superintendent shall have the ability to speak, read and write in English. The Project Superintendent shall be on the job at all times during the construction and shall be available and on call 24 hours a day for the duration of the project. The Project Superintendent shall meet with the Engineer at least once per day while the project is actively under construction. Additionally, the Project Engineer shall attend all regularly scheduled job progress meetings. The Contractor shall provide to the Engineer and the Fremont Police Department a 24-hour contact number for the Project Superintendent. This number shall not direct calls to a recorder or other message taking service.
4. Construction Schedule
5. A **Waste Handling Plan** (See Section 01 50 50) is required within 10 days of the issuance of a Notice to Proceed.
6. **Health and Safety Plan (HASP):** The Contractor shall submit a preliminary HASP at the pre- construction meeting for the review and approval of the Engineer. All edits and questions must be addressed and resolved, and a final HASP must be submitted prior to start of Work. The HASP shall conform to the requirements of Title 8 of the CCR and title 29 of the CFR, as well as all other relevant statutes and requirements.
7. **Site Operations Work Plan (SOW):** A preliminary SOW shall be submitted for review and approval by the Engineer at the pre-construction meeting. The SOW shall include a detailed description of any conflicts between proposed equipment locations and landscape /tree protection measures, along with a proposed remedial plan. All edits and questions must be addressed and resolved, and a final SOW must be submitted prior to start of Work. The SOW shall identify the work areas, including a site plan showing location of offices, access, proposed stockpile/staging areas, equipment operation and storage areas, landscape maintenance, and storm water runoff control measures. The SOW shall describe the Contractor's sequence and schedule of detailed activities for demolition, including: mobilization; termination of utilities at the property boundaries or as directed by the City; removal, segregation, and control of materials identified as potentially hazardous requiring disposal off-site; general building salvaging, recycling, and demolition; removal and disposal of hazardous and non-hazardous materials off-site; providing, placing, and compaction of fill material in basement excavation; grading; site work, and demobilization. The SOW shall also include a list of the equipment to be used for each phase of work, as well as minimum operating distances from active utilities, existing trees to remain, the skate park, the library, existing parking lots, hardscapes to remain, and a discussion of anticipated problems or difficulties and possible responses. The Contractor shall submit, as part of the SOW, a plan for minimizing the amount of dust and noise affecting the corporation yard. A California-registered engineer, or equivalent shall stamp the plan.
8. General Contractor shall **provide a list of all proposed project submittals**, if not previously submitted for review.
9. **Certified Payroll Reports and Statements of Compliance.**

3.04 MEASUREMENT AND PAYMENT

Full compensation for conforming to the provisions in this section "**Submittals,**" not otherwise provided for, shall be considered as included in prices paid for the various contract items of work involved and no additional compensation will be allowed therefor.

END OF SECTION

CITY COUNCIL REFERENCE ONLY

SECTION 01 32 30 Photographic Documentation

PART 1 GENERAL

1.01 GENERAL

- A. Photographic documentation performed by the General Contractor and their Subcontractors for various milestones in the projects as described herein.

1.02 PHOTOGRAPHIC DOCUMENTATION

- A. The Contractor shall take photographs of the existing conditions of the entire jobsite prior to the start of demolition and construction and monthly after the start of construction, and upon encountering unforeseen underground utilities or other conditions.
 - 1. Prior to construction to document conditions within the work area;
 - 2. Start of construction, including clearing and grubbing and demolition operations, as applicable;
 - 3. Upon encountering unforeseen underground utilities and other conditions;
 - 4. Anytime a problem arises that may result in a Notice of Potential Claim and the problem can be illustrated by photographs;
 - 5. Highlights of all formal Inspections; and
 - 6. Highlights of all undergrounding work and utility crossings; and
 - 7. Highlights of the Final Inspection and Acceptance by the City.
- B. Photographs shall be provided digitally, by email on thumb drives, or burned to CD's, capable of being downloaded to a personal computer on pdf or jpg format with the following requirements:
 - a. Minimum resolution: 1024 x 768 pixels
 - b. Colors: 24 bits per pixel.
- C. Photographs shall show an unobtrusive time and date indicator on each photo, accurately depicting the time and date when the photography was performed.
- D. CD's or thumb drives shall be labeled with the same identifying information specified above for photographs.
- E. The following information shall be furnished for each digital photograph in a manner approved by the Engineer.
 - 1. Title of Contract and Contract Number;
 - 2. Identification of subject shown;
 - 3. Station point of camera and direction of view;
 - 4. Time and date taken.

1.03 DISPUTES AND POTENTIAL CLAIMS

- A. In the event a problem arises or dispute occurs which may result in a Notice of Potential Claim under Section 9-1-04 of the Caltrans Standard Specifications and the problem or dispute can be illustrated by photographs and DVD recordings, the Contractor shall provide such photographs and DVDs.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.01 MEASUREMENT AND PAYMENT

Full compensation for conforming to the provisions in this section “**Photographic Documentation**,” not otherwise provided for, shall be considered as included in prices paid for the various contract items of work involved and no additional compensation will be allowed therefor.

END OF SECTION

CITY COUNCIL REFERENCE ONLY

SECTION 01 40 00 Testing and Inspection

PART 1 GENERAL

1.01 RELATED SECTIONS

- A. General Conditions, Article 7.8 "Testing and Inspection"
- B. 01 35 13 Soils Management Plan
- C. Section 01 45 00 "Quality Control"

1.02 SCOPE

- A. Testing is not a duty of the City and is solely at the discretion of the Project Engineer. Non-testing by the City does not release the Contractor from their responsibility to perform all work in conformance to the Standard Specifications and these Special Provisions.
- B. At the City's discretion, compaction testing will be performed by the City's testing laboratory and staff, or by an independent testing laboratory, currently on call through an existing Master Service Contract

1.03 INSPECTIONS AND TESTS BY CITY

- C. The Contractor shall coordinate with the City Project Inspector to arrange all scheduling and on-site inspection and testing as needed to satisfy permit requirements for the project.
- A. It is the responsibility of the Contractor to coordinate as needed and described herein and elsewhere in these special provisions to arrange for testing and inspection. The Contractor shall notify the City Project Inspector when permitted work is ready for specified tests and inspections.
- B. Contractor Responsibilities in Inspections and Tests:
 - 1. Advanced Notification: Refer to Article 7.8 (B) of the General Conditions.
- C. Additional Testing and Inspection: Refer to Article 7.8 (C), "Responsibility for Costs".

PART 2 PRODUCTS

Not used

PART 3 EXECUTION

3.01 MEASUREMENT AND PAYMENT

Full compensation for conforming to the provisions in this section "Testing and Inspection," not otherwise provided for, shall be considered included in the prices paid for the various line items of work requiring testing and inspection and no additional compensation will be allowed therefor.

END OF SECTION

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CITY COUNCIL REFERENCE ONLY

SECTION 01 41 00 Regulatory Requirements

PART 1 GENERAL

1.01 SUMMARY

This section includes regulatory and environmental requirements applicable to Contract.

1.02 SECTION INCLUDES

- A. Compliance with Regulatory Requirements
- B. Compliance with Americans with Disabilities Act

1.03 RELATED SECTIONS

- A. Section 01 57 23 "Statewide Construction General Permit"
- B. Section 01 57 19 "Temporary Environmental Controls"

1.04 REFERENCES TO REGULATORY REQUIREMENTS

- A. Codes, laws, ordinances, rules and regulations applicable to the Work shall have full force and effect as though printed in full in the Contract. Codes, laws, ordinances, rules and regulations are not furnished to Contractor, since Contractor is assumed to be familiar with their requirements. The listing herein of applicable codes, laws and regulations for hazardous waste abatement work is supplied to Contractor as a courtesy and shall not limit Contractor's responsibility for complying with all applicable laws, regulations or ordinances having application to the Work. Where conflict among the requirements or with these specifications exists, the most stringent requirements shall be used.
- B. Contractor's work shall conform to all applicable codes, laws, ordinances, rules and regulations which are in effect on date of contracting.
- C. References on the Drawings or in the Specifications to "code" or "building code" not otherwise identified shall mean the codes specified below, together with all additions, amendments, changes, and interpretations adopted by code authorities of the jurisdiction.
- D. Codes which apply to Contract include, but are not limited to, the following:
 - 1. California Electrical Code (Part 3, Title 24, C.C.R.)
 - 2. California Mechanical Code (Part 4, Title 24, C.C.R.)
 - 3. California Plumbing Code (Part 5, Title 24, C.C.R),
 - 4. National Electrical Code
- E. Laws, Ordinances, Rules and Regulations
 - 1. Refer to Section 01 41 10 "Regulatory Requirements Hazardous Waste", Part 1.04.
 - 2. During prosecution of Work to be done under Contract, comply with applicable laws, ordinances, rules and regulations, including, but not limited to, the following:
 - 3. Federal
 - a. Americans with Disabilities Act
 - b. Federal Water Pollution Control Act

- c. 29 CFR, Section 1910.1001, Asbestos
- d. 40 CFR, Subpart M, National Emission Standards for Asbestos

Executive Order 11246

State of California

- a. California Code of Regulations,
 - Title 5: Education
 - Title 8: Industrial Regulations
 - Title 14: Natural Resources
 - Title 17: Public Health
 - Title 19: Public Safety
 - Title 21: Public Works
 - Title 22: Social Security
 - Title 24: California Building Standards Code
 - Title 25: Housing and Community Development
 - Title 27 Environmental Protections
- b. California Education Code
- c. California Public Contract Code
- d. California Health and Safety Code
- e. California Government Code
- f. California Labor Code
- g. California Civil Code
- h. California Code of Civil Procedure
- i. CPUC General Order 95, Rules for Overhead Electric Line Construction
- j. CPUC General Order 128, Rules for Construction of Underground Electric Supply and Communications Systems
- k. California Occupational Safety and Health Administration (Cal OSHA)
- l. Occupational Safety and Health Administration (OSHA): Hazard Communications Standards.

State of California Agencies

- a. California Business, Consumer Services and Housing Agency
- b. Office of the State Fire Marshall
- c. Office of Statewide Health Planning and Development

Local Agencies:

- a. Bay Area Air Quality Management District
- b. California Green Building Standard
- c. City of Fremont
 - l. Per the City of Fremont Municipal Code, Title 8, 12, 18

Other Requirements:

- a. National Fire Protection Association (NFPA): Pamphlet 101, Life Safety.
- b. Building Energy Efficient Standards – Title 24, Part 6

1.05 COMPLIANCE WITH AMERICANS WITH DISABILITIES ACT

Contractor acknowledges that, pursuant to the Americans with Disabilities Act (ADA), programs, services and other activities provided by a public entity to the public, whether directly or through a Contractor, must be accessible to the disabled public. Contractor shall provide the services specified in this Agreement in a manner that complies with the ADA and any and all other applicable federal, state and local disability rights legislation. Contractor agrees not to discriminate against disabled persons in the provision of services, benefits or activities provided under this Agreement and further agrees that any violation of this prohibition on the part of Contractor, its employees, agents or assigns shall constitute a material breach of this Agreement.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

3.01 MEASUREMENT AND PAYMENT

Full compensation for conforming to the provisions of this section “**Regulatory Requirement**” not otherwise provided for, shall be considered as included in prices paid for various contract items of work involved and no additional compensation will be allowed therefor.

END OF SECTION

CITY COUNCIL REFERENCE ONLY

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SECTION 01 42 13 Reference Standards

1.01 GENERAL

- A. Wherever in these Specifications references are made to the standards, specifications, or other published data of the various national, regional, or local organizations, such organizations may be referred to by their acronym or abbreviation only. As a guide to the user of these specifications, the following acronyms or abbreviations which may appear in these specifications shall have the meanings indicated herein.
- B. Additional plan specific abbreviations will be listed on the title sheet, or in related sections

1.02 SECTION INCLUDES

- A. Reference Standards
- B. Reference Standards File
- C. Abbreviations

1.03 REFERENCE STANDARDS

- A. The Contract Documents contain references to various standard specifications, codes, practices, and requirements for materials, equipment, work quality, installation, inspections, and tests, which references are published and issued by the organizations, societies, and associations listed herein by abbreviations and name. Such references are hereby made a part of the Contract Documents.
- B. Whenever a reference standard contains an administrative requirements, including measurement and payment provisions, such as the standard specification of various government entities, utility districts and other agencies, such administrative requirements will not apply to the Work of this Contract. References to such Standards will be applicable to the pertinent technical provisions only.
- 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 attention of the Engineer for clarification and directions prior to ordering or providing any materials or labor. The Contractor shall bid the most stringent requirements.
- D. All material, equipment and workmanship, specified by the number symbol, or title of a referenced standard will comply with the latest edition or revision thereof and all amendments and supplements thereto in effect on the date of the Invitation to Bid, except where a particular edition or revision thereof is indicated in the reference.
- E. Unless otherwise specified, references in the Contract Documents to "Caltrans Standard Specifications" or "Standard Specifications" will mean Caltrans Standard Specifications, 2018 Edition, including any revised standard specifications in effect on the date of the Invitation to Bid.
- F. References in the Contract Documents to the "Fremont Standard Details" or City Standard Details" will mean the City of Fremont Standard Details, current edition on the date of the Invitation to Bid.
- G. References in the Contract Documents to the "Fremont Standard Specifications" or "City Standard Specifications" will mean the City of Fremont Standard Specifications, current edition on the date of the Invitation to Bid.

1.04 REFERENCE STANDARDS FILE

- A. Referenced standards will be obtained by the Contractor and maintained in the Contractor's office. Referenced standards will be made readily available for use by the Engineer and the Contractor's staff in carrying out the quality assurance and quality control programs specified in the Contract Documents, and to assure compliance with the requirements of the codes, specifications, test methods, practices, and other standards referenced in the Contract Documents.

1.05 ABBREVIATIONS AND ACRONYMS

Wherever in the Contract Documents an organization's abbreviation or acronym is used, it will be understood to mean the full name of the respective organization as specified in the various Specification Sections.

END OF SECTION

CITY COUNCIL REFERENCE ONLY

SECTION 01 43 00 Quality Assurance

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Engineer's monitoring.
- B. Engineer's inspections and test.
- C. Inspections and Tests by Governing Authorities
- D. Inspections and Tests by Serving Utilities
- E. Test Reports.
- F. Construction Quality Assurance Records Review.
- G. Certificates of Compliance.

1.02 RELATED SECTIONS

- A. Contractor's quality control requirements are specified in Article 15 – Special Conditions, Section 01 45 00 - Quality Control.

1.03 ENGINEER'S MONITORING

- A. The Engineer will perform inspection of the Contractor's on-site construction activities. Inspection consists of a review, observation, or inspection of Contractor personnel, material, equipment, processes, and test results, performed at random or at selected stages of the construction operations. The purpose of surveillance inspection is to determine if an action has been accomplished or if documents have been prepared in accordance with selected requirements of the Contract Documents.

1.04 ENGINEER'S INSPECTIONS AND TESTS

- A. The Engineer may perform inspections and tests as necessary to determine the Contractor's compliance with Contract Document requirements.
- B. Unless otherwise specified, samples and test specimens required under the Contract Documents will be furnished by the Contractor and prepared for testing in ample time for the completion of the necessary tests and analyses before the subject materials or articles are to be used. The Contractor will furnish all required test specimens at its own expense.
- C. For inspections and tests by the Engineer, the Engineer may provide the services of a qualified testing laboratory, soils engineer, or inspector, selected and paid for by the City.
- D. Except as otherwise provided in the Contract Documents, performance of the required initial test will be by the City or their representative, and all costs therefore will be borne by the City. The cost of any failed re-tests after the first test will be borne by the Contractor.
- E. A City-employed testing laboratory may supervise the preparation and selection of samples required for testing, as necessary.
- F. Unless otherwise specified, all testing will be in accordance with the methods prescribed in the current specified published standards, as applicable to the class and nature of the articles or materials considered. However, the City reserves the right to use any generally accepted system of sampling and testing which, in the opinion of the Engineer, will assure the City that the quality of the workmanship is in full accord with the Contract Documents.

- G. Failure of any portion of the work to meet any of the requirements of the Contract Documents will be reasonable cause for the Engineer to require the removal or correction and reconstruction of any such work at the Contractor's sole cost and expense.
- H. Testing is not a duty of the City and is solely at the discretion of the Engineer. Non-testing by the City does not release the Contractor from their responsibility to perform all work in conformance with the Contract Documents.
- I. Verification of Quality: Work will be subject to verification of quality by Engineer in accordance with provisions of the General Conditions of the Contract, the City of Fremont's Quality Assurance Program, and these Contract Documents.
 - 1. Contractor will cooperate by making Work available for inspection by the Engineer.
 - 2. Such verification may include field inspection as required.
 - 3. Contractor shall provide access to all parts of the Work.
 - 4. Whenever Contractor is ready to backfill, bury, cast in concrete, hide, or otherwise cover or make inaccessible any Work under the Contract, the Contractor shall notify the Engineer not less than four calendar days in advance of beginning such work.
 - 5. Failure by Contractor to notify Engineer shall be reasonable cause for the Engineer to require uncovering of any such work, at no cost to the City, and no applicable delay to the Contract.
- J. Provide all information and assistance, as required, for verification of quality by Engineer.
- K. Contract modifications, if any, resulting from such verification activities will be governed by applicable provisions in the General Conditions of the Contract.
- L. Rejection of Work: City reserves the right to reject all Work not in conformance to the requirements of the Drawings and Specifications.
- M. Correction of Non-Conforming Work: Non-conforming Work will be modified, replaced, repaired or redone by the Contractor at no change in Contract Price or Contract Time.
- N. Acceptance of Non-Conforming Work: Acceptance of nonconforming Work, without specific written acknowledgement and approval from the Engineer, will not relieve the Contractor of the obligation to correct such Work.
- O. Contract Adjustment for Non-Conforming Work: Should the Engineer determine that it is not feasible or in the City's interest to require non-conforming Work to be repaired or replaced, an equitable reduction in Contract Price will be made by agreement between City and Contractor. If equitable amount cannot be agreed upon, a Construction Change Order will be issued and the amount in dispute resolved in accordance with Article 12 – Dispute Resolution of the General Conditions.

1.05 INSPECTIONS AND TESTS BY THE CITY

- A. It is the responsibility of the Contractor to coordinate all aspects of work, inspection, and observation required by governing authorities having jurisdiction over the Work under this Contract. Such authorities include, but are not limited to, the City of Fremont Public Works Department, City of Fremont Landscape Architecture Division, and similar agencies.
- B. Except as specifically noted, scheduling and conducting such inspections is the Contractor's responsibility and will be performed at the Contractor's expense.
- C. Contractor must notify the Engineer no later than four calendar days before any inspection or testing, and must provide timely notice to the other necessary parties as specified in the Contract Documents. If Contractor schedules an inspection or test

beyond specified Work hours Contractor must notify the Engineer at least four calendar days in advance for approval. If approved, Contractor must reimburse City for the cost of the overtime inspection or testing.

- D. The City may engage an inspection and testing firm. The inspection and testing firm may provide any or all of the following:
1. Provide qualified personnel at site. Cooperate with Engineer in performance of services. Engineer may direct firm, as necessary, to location of field tests.
 2. Perform specified inspection, sampling, and testing in accordance with specified standards.
 3. Ascertain compliance of materials with requirements of Contract Documents.
 4. Promptly notify Engineer of observed irregularities or non-conformance of work or products.
 5. Perform additional inspections and tests required by Engineer.
- E. Reports by City Testing and Inspection Firm: After each inspection and test, one copy of report may be submitted to the Engineer.
1. Reports may identify any of the following:
 - a. Date issued.
 - b. Project name and number.
 - c. Identification of product and Specifications Section in which Work is specified.
 - d. Name of inspector.
 - e. Date and time of sampling or inspection.
 - f. Location in Project where sampling or inspection was conducted.
 - g. Type of inspection or test.
 - h. Date of test.
 - i. Results of tests.
 - j. Comments concerning conformance with Contract Documents and other requirements.

Test reports may indicate specified or required values and may include statement whether test results indicate satisfactory performance of products.

Test reports and samples taken but not tested will be reported.

Test reports may confirm that methods used for sampling and testing conform to specified test procedures.

When requested, testing and inspection firm may provide interpretations of test results.

Verification reports may be prepared, stating that tests and inspections specified or otherwise required for the project, have been completed and that material and workmanship comply with the Contract Drawings and Specifications.

- F. Contractor Responsibilities in Inspections and Tests:
1. Advanced Notification: Refer to Article 7.8 (B) of the General Conditions.
 2. Deliver adequate samples of materials proposed to be used, which require advance testing, together with proposed mix designs, to laboratory or designated location.

3. Cooperate with testing and inspection firm personnel and Engineer. Provide access to Work areas and off-site fabrication and assembly locations, including during weekends and after normal work hours.
4. Provide incidental labor and facilities to provide safe access to Work to be tested and inspected, to obtain and handle samples at the Project site or at source of products to be tested, and to store and cure test samples.

1.06 INSPECTIONS AND TEST SERVING UTILITIES

- A. It is the responsibility of the Contractor to coordinate all site visits of the serving utilities, as needed for the various aspects of Work.
- B. Scheduling and conducting tests and inspections required by serving utilities will be the Contractor's responsibility and will be performed at the Contractor's expense.
- C. Contractor must notify the Engineer no later than four calendar days before any inspection or testing, and must provide timely notice to the other necessary parties as specified in the Contract Documents. If Contractor schedules an inspection or test beyond specified Work hours, or on a Saturday, Sunday, or recognized City holiday, Contractor must notify the Engineer at least four calendar days in advance for approval. If approved, Contractor must reimburse the City for the cost of the overtime inspection or testing.

1.07 TEST REPORTS

- A. The Engineer will make available to the Contractor copies of all test reports for tests performed by the Engineer.

1.08 CONSTRUCTION QUALITY ASSURANCE RECORDS REVIEW

- A. The Engineer may review the Contractor's, Subcontractor's, and Supplier's quality control records and performance. The Contractor will ensure that all quality control records and places of work are open and available to the Engineer for inspection. The Engineer will give 7 calendar days notice of intention to review specific activities or installations.

1.09 CERTIFICATES OF COMPLIANCE

- A. Materials used on the basis of a certificate of compliance may be sampled and tested by the Engineer at any time. The fact that material is used on the basis of a certificate of compliance will not relieve the Contractor of its responsibility for incorporating material in the Work which conforms to the requirements of the Contract, and any such material not conforming to such requirements will be subject to rejection, whether in place or not.
- B. The City reserves the right to reject a certificate of compliance and require submittal and execution of sampling and testing procedures described herein.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

3.02 MEASUREMENT AND PAYMENT

Full compensation for conforming to the provisions in this Section, "**Quality Assurance**", unless specified otherwise, will be considered as included in the price paid for various contract items of work and no additional compensation will be allowed therefor.

END OF SECTION

SECTION 01 45 00 Quality Control

PART 1 GENERAL

1.01 SITE INVESTIGATION AND CONTROL

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

1.02 RELATED SECTIONS

- A. Section 01 32 19 "Submittal Procedures"
- B. Section 01 43 00 "Quality Assurance"

1.03 INSPECTION OF THE WORK

- A. General: The Work shall be conducted under the general observation of the Engineer and shall be subject to inspection by representatives of the City to assure strict compliance with the requirements of the Contract Documents.
- B. The authorized representative of the Engineer on the project site shall be those representatives or consultants designated by the Engineer to act on behalf of the City. The presence of the Inspectors, however, shall not relieve the Contractor of the responsibility for the proper execution of the Work in accordance with all requirements of the Contract Documents. Compliance is distinctly a duty of the Contractor, and said duty shall not be avoided by any act or omission on the part of the inspector(s).
- C. All materials and articles furnished by the Contractor shall be subject to rigid inspection, and no material or articles shall be used in the Work until it has been inspected and accepted by the Engineer or the City.
- D. At all times during the construction, the Contractor shall prevent the formation of any airborne dust nuisance. If the Contractor fails to remove the nuisance within 2 hours, the City may order that the work be done and all expenses incurred for the performance of this work will be deducted from payments to the Contractor.

1.04 QUALITY CONTROL

- A. Contractor's Quality Control: Contractor shall ensure that products, services, workmanship and site conditions comply with requirements of the Drawings and Specifications by coordinating, supervising, testing and inspecting the work and by utilizing only suitably qualified personnel.
- B. Quality of Products: Unless otherwise indicated or specified, all products shall be new, free of defects and fit for the intended use.
- C. Quality Requirements: Work shall be accomplished in accordance with quality requirements of the Drawings and Specifications, including, by reference, all Codes, laws, rules, regulations and standards. When no quality basis is prescribed, the quality shall be in accordance with the best accepted practices of the construction industry for the locale of the Project, for projects of this type.

- D. Quality of Installation: All Work shall be produced plumb, level, square and true, or true to indicated angle, and with proper alignment and relationship between the various elements.
- E. Quality Control Personnel: Contractor shall employ and assign knowledgeable and skilled personnel as necessary to perform quality control functions to ensure that the Work is provided as required.
- F. Protection of Completed Work: Take all measures necessary to preserve completed Work free from damage, deterioration, soiling and staining, until Acceptance by the City.
- G. Standards and Code Compliance and Manufacturer's Instructions and Recommendations: Unless more stringent requirements are indicated or specified, comply with manufacturer's instructions and recommendations, reference standards and building code research report requirements in preparing, fabricating erecting, installing, applying, connecting and finishing Work.
- H. Deviations from Standards and Code Compliance and Manufacturer's Instructions and Recommendations: Document and explain all deviations from reference standards and building code research report requirements and manufacturer's product installation instructions and recommendations, including acknowledgement by the manufacturer that such deviations are acceptable and appropriate for the Project.

1.05 LABORATORIES

- A. Laboratory QC testing shall be conducted by qualified testing laboratories, hired through task order by the City, or performed by the City itself at its laboratory.

1.06 SAMPLING AND TESTING

- A. Unless otherwise specified, all sampling and testing shall be done by the City, or their consultants, in accordance with the methods prescribed in the current standards of the ASTM or other specified published standards, as applicable to the class and nature of the article or materials considered; however, the City reserves the right to use any generally-accepted system of sampling and testing which, in the opinion of the Engineer, or the City's consultants will assure the City that the quality of the workmanship is in full accord with the Contract Documents.

1.07 TIME OF INSPECTIONS AND TESTS

- A. Samples and test specimens required under the Contract Documents shall be furnished by the Contractor and prepared for testing in ample time for the completion of the necessary tests and analyses before the subject materials or articles are to be used. The Contractor shall furnish all required test specimens at its own expense. Except as otherwise provided in the Contract Documents, performance of the required initial test and first re-test will be by the City, and all costs therefore will be borne by the City; except, that the cost of any test after the first re-test shall be borne by the Contractor.
- B. Whenever the Contractor is ready to backfill, bury, cast in concrete, hide, or otherwise cover or make inaccessible any work under the Contract, the Contractor shall notify the Engineer not less than 48 hours in advance of beginning any such work of backfilling, burying, casting in concrete, hiding, covering, or making inaccessible any portion of the Work to be inspected, so that the required inspections can be scheduled and performed. Failure of the Contractor to notify the Engineer at least 48 hours in advance of any such inspections shall be reasonable cause for the Engineer to require sufficient delay

in the Contractor's schedule to allow time for such inspections and any remedial or corrective work required, and all costs of such delays, including its impact or effect upon other portions of the Work shall be borne by the Contractor.

C. Provide timely coordination for inspection by permit and code authorities.

1.08 INDEPENDENT REFEREE LABORATORY

- A. The City will retain the services of an independent certified laboratory on an "on-call" basis to act as a "referee" laboratory for resolution of disputes regarding sampling and testing results reported by the City's verification samplers and testers and the Contractor's construction QC samplers and testers.
1. The services of the "referee" laboratory may be requested by the City or by the Contractor.
 2. The frequency and location of sampling and testing will be mutually agreed by the City and the Contractor prior to the referee laboratory's performing its work.
 3. The sampling and testing results determined by the "referee" laboratory shall be final and binding on both parties and not subject to disputes resolution.
- B. The party whose sampling and testing results are not confirmed and/or supported by the "referee" laboratory (i.e., the unsuccessful party) shall be responsible for payment for the "referee" services.
1. If the City is the unsuccessful party, it will make payment directly to the "referee" laboratory.
 2. If the Contractor is the unsuccessful party, the cost of the "referee" laboratory services will be deducted from the monthly progress payment(s) otherwise due, and the City will make payments to the "referee" laboratory on behalf of the Contractor.
 3. If the sampling and testing results obtained by the referee laboratory are inconclusive and do not clearly identify which party's results are correct, the cost of the referee laboratory's services will be shared equally between the Contractor and the City. The City will make full payment to the referee laboratory and the Contractor's share will be deducted from the next progress payment.
- C. The "referee" laboratory will not be associated with the Contract in any capacity or be affiliated with any party to the Contract or with any Principal Participant, the Designer and/or Subcontractor. The "referee" laboratory shall not be a department, agency, or office of any stakeholder.

1.09 DOCUMENTATION

- A. Construction: The Contractor shall collect and preserve each of the following types of data in written form concurrently during the Contractor's performance of the Work, all of which shall be in a format acceptable to the City. The Contractor may use forms provided by the City or its own forms providing equivalent information. Refer to Contract Specifications Section 01 43 00, Quality Assurance for additional requirements.
1. Daily manpower and equipment reports for the Contractor and each Subcontractor for construction-related activities shall be prepared and maintained by the Contractor.
 2. A daily log for construction-related activities in a narrative form recording all significant occurrences on the Contract, including, unusual weather; asserted

occurrences; events and conditions causing or threatening to cause any significant delay, disruption, or interference with the progress of any of the Work; significant injuries to persons or property; and a listing of each activity depicted on the current monthly plan update which is being actively prosecuted.

3. For utility-related work such data shall be maintained separately for each utility facility.
4. For harmful/hazardous material remediation work, such data shall be maintained separately for each site.
5. Records shall document all QC operations, inspections, activities, and tests performed, including the work of Subcontractors. Such records shall include any delays encountered and work noted that does not conform to the requirements of the Contract and design together with the corrective actions taken regarding such work.
6. Records shall document the measurement of quantities for all unit priced items, if any.

B. Test Reports:

1. Within five Days after completion of testing performed by or for the Contractor, submit test results of such tests to the City of Fremont.
 - a. Identify test reports with the information specified for Submittals in Contract Specifications Section 01 30 00, Submittal Procedures.
 - b. Include the name and address of the organization performing the test and the date(s) of the tests.

Test reports shall include the following information:

- a. Actual test results compared with the Contract requirements and identification of all non-conforming items.
- b. Calibration certificates.

The City of Fremont will make available to the Contractor copies of all test reports of tests performed by the City of Fremont.

C. Weekly Documentation: The Contractor shall complete and submit appropriate weekly documentation that includes factual evidence that required activities or tests have been performed, including the following:

1. The type, number, and results of QC and control activities, including reviews, inspections, tests, audits, monitoring of work performance, and materials analysis;
2. Closely-related data such as qualifications of personnel, procedures, and equipment used;
3. The identity of the QC inspector or data recorder, the type of test or observation employed, the results, the acceptability of the work, and action taken in connection with any deficiencies noted;
4. The nature of non-conforming work and causes for rejection;
5. Proposed corrective action;
6. Corrective actions taken; and
7. Results of corrective actions.

1.10 SOURCE OF MATERIALS

- A. In accordance with Contract Specifications the Contractor shall notify the City of Fremont in writing of the sources from which the Contractor proposes to obtain materials requiring City approval, certification or testing.
- B. The Contractor may use certificates of compliance for certain materials and products in lieu of the specified sampling and testing procedures.
 - 1. Submit any certificates required for demonstrating proof of compliance of materials with specification requirements with each lot of material delivered to the Work. The lot so certified shall be clearly identified by the certificate. Certificates shall be signed by an authorized representative of the producer or manufacturer and shall state that the material complies in all respects with Contract requirements.
 - 2. The Project Schedules shall indicate the date scheduled for submittal of the certificates as specified in Section 01 01 00 "Project Progress Schedule". In the case of multiple shipments, each of which shall be accompanied by a certificate of compliance, the scheduled date on the Project Schedules shall indicate the initial submittal only.
 - 3. The certificate of compliance shall be accompanied by a certified copy of test results or shall state that such test results are on file with the producer or manufacturer and shall be furnished to the City on request. The certificate shall give the name and address of the organization performing the tests, the date of the tests, and the quantity of material shipped information as specified in Contract Specifications Section 01 30 00, Submittal.
 - 4. Materials used on the basis of a certificate of compliance may be sampled and tested by the City of Fremont at any time. The fact that material is used on the basis of a certificate of compliance shall not relieve the Contractor of its responsibility for incorporating material in the Work that conforms to the requirements of the Contract, and any such material not conforming to such requirements will be subject to rejection, whether in place or not.
 - 5. The City reserves the right to refuse to permit the use of certain materials on the basis of a certificate of compliance.

1.11 MANUFACTURERS' SPECIFICATIONS AND INSTRUCTIONS

- A. Unless otherwise indicated or specified, manufactured materials, products, processes, equipment, systems, assemblies, and the like shall be erected, installed, or applied in accordance with the manufacturers' instructions, directions, or specifications. Said erection, installation, or application shall be in accordance with printed instructions furnished by the manufacturer of the material or equipment concerned for use under conditions similar to those at the Jobsite.
- B. Any deviation from the manufacturers' printed installation instructions and recommendations shall be explained and acknowledged as correct and appropriate for the circumstances, in writing, by the particular manufacturer. The Contractor will be held responsible for installations contrary to the respective manufacturers' instructions and recommendations.

1.12 SPECIALIST APPLICATOR / INSTALLER

- A. Materials, equipment, systems, and assemblies requiring special knowledge and skill for the application or installation of such materials, equipment, systems, or assemblies shall be applied or installed by the specified product manufacturer or its authorized

representative or by a skilled and experienced Subcontractor qualified and specializing in the application or installation of the specified product.

- B. The Contractor shall ensure that the installation Subcontractor is approved by the product manufacturer, as applicable.

1.13 MANUFACTURERS' FIELD SERVICES

- A. The Contractor shall have the manufacturer of a product, system, or assembly that requires special knowledge and skill for the proper application or installation of such product, system, or assembly provide appropriate field or job service at no additional cost to the City. The Contractor shall have the manufacturer inspect and approve the application or installation work.
- B. The Contractor shall make all necessary arrangements with the manufacturer of the products to be installed to provide onsite consultation and inspection services to assure the correct application or installation of the product, system, or assembly.
- C. The Contractor shall ensure that the manufacturer's authorized representative is present at the time any phase of this work is started.
- D. The Contractor shall have the manufacturer inspect and approve all surfaces over which, or upon which, the manufacturer's product will be applied or installed.
- E. The Contractor shall have the manufacturer's representative make periodic visits to the Jobsite as the work progresses as necessary for consultation and for expediting the work in the most practical manner.

1.14 FINISHED TOLERANCES

- A. Except as specified otherwise in the individual Contract Specifications Sections, finished tolerances shall conform with the following requirements:
 - 1. Poured in Place Surfacing: Grades as noted on plans. Not to exceed 2% in any direction.
 - 2. Decomposed Granite: Grades as noted on plans. Not to exceed 2% in any direction, unless existing conditions dictate.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.01 MEASUREMENT AND PAYMENT

Full compensation for conforming to the provisions in this section "Quality Control" not otherwise provided for, shall be considered as included in prices paid for the various contract items of work involved and no additional compensation will be allowed therefor, unless specified otherwise.

END OF SECTION

PART 1 GENERAL1.01 SUMMARY

- A. This section specifies requirements for diversion of construction and demolition debris from the landfill and accepted hauling practices.
- B. Related requirements specified elsewhere include, but are not limited to:
1. Fremont Municipal Code
 2. California Building Standards Code, most current version
 3. Alameda County Waste Management Authority Ordinance 2008-01

1.02 PERFORMANCE REQUIREMENT

- A. Performance Requirement: The performance requirement for this project is to divert:
- 50% of remaining construction and demolition debris to be reused or recycled
- B. The Performance Requirement shall be satisfied by providing all of the following:
1. An approved Waste Handling Plan within 10 days of Notice to Proceed
 2. Two Debris Diversion & Disposal Reports that include:
 - receipts, weigh tags or other acceptable documentation from authorized recycling facilities or vendors that clearly indicate the materials management performance requirement was met.
 - the City of origin listed as Fremont
 - the type and weight of material reused or recycled
 - the weight of material landfilled (garbage).

1.03 DEFINITIONS

- A. **"Approved Recycling Service or Facility"** means an off-site service or facility that provides processing of material for recycling, composting or other diversion from landfill and is approved by the City of Fremont.
- B. **"Construction or Demolition Debris"** shall mean brick, mortar, concrete, plaster, scrap wood, scrap metal, sheet rock, and other such bulky wastes associated with construction, demolition, refurbishing, renovation, excavation or other similar work on or related to a structure or property.
- C. **"Conversion Rate"** means the rate set forth in the standardized Conversion Rate Table approved by the City of Fremont for use in estimating the weight or volume of materials identified in the Waste Handling Plan and Debris Diversion & Disposal Report.
- D. **"Divert"** means to use material for any purpose other than disposal in a landfill and includes reuse and recycling.
- E. **"Generator"** means an City or responsible party for a Commercial facility, which generates Recyclable Materials as a result of its business, facility or property activity, including construction sites.

- F. **"Hauler"** means any person or entity that transports garbage, recyclables, yard waste or other discarded material.
- G. **"Municipal Solid Waste"** means all putrescible and non-putrescible solid, semisolid and liquid wastes, including garbage, trash, refuse, paper, rubbish, ashes, industrial waste, Construction and Demolition Waste, and other discarded wastes.
- H. **"Recyclable Materials"** mean materials which may be returned to the economic mainstream as commodities for reuse, or for processing to create new or reconstituted products, which if not segregated from garbage would otherwise become garbage. The Recyclable Materials must be segregated from garbage. Recyclable Materials include Single Commodity Construction and Demolition Debris.
- I. **"Self-Haul"** means Generators who transport his or her own materials by using a vehicle owned by the Generator and driven by the Generator's employees rather than using the hauling services of the City's franchise hauler or a third party hauling company.
- J. **"Single Commodity Construction and Demolition Debris"** means Single Commodity Recyclable Materials from Commercial Generators which is source separated, and are a result of construction, remodeling, repair or demolition on pavement, houses, commercial buildings, multi-family dwellings and other structures, including construction job sites and may include single commodity materials such as bricks, mortar, scrap wood, scrap metal, and sheet rock. Soil, asphalt and concrete are exempt from this definition.

1.04 SUBMITTALS

- A. The Contractor is required to submit a schedule that will describe all construction, demolition and removal procedures, sequence of activities, and schedule of activities. The schedule must be submitted within 10 calendar days after receipt of Notice to Proceed, prior to any demolition or construction activities, and must be approved by the Project Manager.
- B. The Contractor is required to submit a Waste Handling Plan to indicate how materials will be diverted from landfill and which facility or service will be used. The Waste Handling Plan must be submitted within 10 calendar days after receipt of Notice to Proceed and must be approved prior to any demolition or construction activities. Submit this form to: City Project Manager (See Notice to Bidders for contact information).
- C. The Contractor is required to submit a completed Debris Diversion & Disposal Report including receipts, weigh tags or other acceptable documentation at 50 percent completion of the Work. The report should be submitted within 30 calendar days of 50% completion of the Work.
- D. The Contractor is required to submit a completed Debris Diversion & Disposal Report including receipts, weigh tags or other acceptable documentation at 100 percent completion of the Work. The report should be submitted within 30 calendar days of the completion of the Work. Final payment will not be issued until the documentation is approved or outstanding fines resolved.
- E. Contractors who choose to self-haul construction debris instead of using Republic Services debris box will be required to submit monthly Debris Diversion & Disposal Reports.

1.05 QUALITY ASSURANCE

- A. Republic Services is the only hauler authorized to haul garbage and construction debris from Fremont. The Contractor must subscribe to debris box service with Republic Services for all materials, except soil, asphalt and concrete.
- B. **Alternately, the Contractor may self-haul the construction and demolition debris, using their own employees, equipment, and vehicles, to an approved facility, if the debris being hauled is an incidental part of construction or demolition services provided by the Contractor.**
- C. A City of Fremont Business tax (license) is required of all persons working in Fremont, including all Contractors, Subcontractors, and vendors.
- D. Soil, asphalt and concrete resulting from construction, remodeling, repair or demolition on pavement, houses, commercial buildings, multi-family dwellings and other structures, including construction job sites should be source separated from each other and other materials. Any hauler who pays their business tax may haul soil, asphalt, and concrete in a debris box.

1.06 WASTE HANDLING PLAN DEVELOPMENT and IMPLEMENTATION

- A. The Waste Handling Plan is an estimate of the amount and type of debris that will be generated from the project. It is important to create a Waste Handling Plan prior to starting the project to identify costs, potential savings and ensure proper recycling of the materials needed to achieve the diversion requirement. Estimate the amount and type of debris generated from the project, and then develop a plan for diverting the required percentage of construction and demolition debris from the landfill.
 - 1. Identify each type of debris item generated during the project (wood, scrap metal, etc.). Propose means and methods for collecting and separating each type of debris deemed reusable or recyclable. *Recommended Handling and Storage Procedures* with suggested actions for salvage or recycling of each type of demolition and construction debris are provided at the end of this section.
 - 2. Estimate the weight or volume, by number of tons or cubic yards (CY), of each item that will be reused, recycled, or disposed in a landfill. Enter this number in the appropriate columns. If the materials are to be reused on site, list that in Reuse column: i.e., "wood waste chipped on site for mulch."
 - 3. Include an estimate of each type of construction debris generated by the project. Items subject to the estimate and diversion requirement include:
 - a. Asphalt & Concrete
 - b. Brick/Masonry/Tiles
 - c. Building Materials (doors, windows, fixtures, etc.)
 - d. Cardboard
 - e. Carpet/Padding/Foam
 - f. Ceiling Tiles (acoustic)
 - g. Dirt/Soil/Clean Fill
 - h. Drywall/Sheetrock
 - i. Electrical Components (light fixtures, cables, etc.)

- j. Landscape Debris (Plant & Tree Trimmings)
 - k. Metal
 - l. Mixed C&D (3+ materials in one load that will be taken to an approved facility for recycling)
 - m. Mechanical Debris (ducts, plumbing fixtures, etc.)
 - n. Plastic
 - o. Trash/Garbage
 - p. Universal waste (thermostats, batteries, fluorescent tubes, etc.)
 - q. Wood and Pallets
4. All the asphalt/concrete must be reused or recycled. All plant debris must be separated from other materials and composted or used for mulch and delivered only to facilities approved by the city of Fremont. 65% of the remaining debris must be reused or recycled to comply with the CalGreen Building Code. Asphalt, concrete and plant debris do not count toward meeting the 65% diversion requirement.
5. List the name of an approved recycling facility for each type of debris. Contact the facility and verify that they can accept that debris item in the proposed quantities anticipated. Schedule each debris item and list the recycling service and recycling company name, telephone number, address, and person contacted. number, address, and person contacted.

B. Implementation

1. Maintain a log of each load, of each debris category item diverted from landfill and materials sent to recycling facilities. Log any debris sent to a Class III landfill separately. Maintain the receipts and weigh tags from all disposal and recycling activities.
- a. Include the following information in the log: type of load, load weight, name of recycling service or facility, and date accepted by recycling service or by facility.
 - b. The Project Manager reserves the right to audit the log at any time. Contractor shall retain and provide to Project Manager all weight tickets, copies of receipts, invoices, and any other documentation related to the recycling or disposal of generated debris.
 - c. Units of measure: Use same units as stated in the approved plan "good faith" estimate of construction or demolition debris (tons or cubic yards).
2. Designate specific on-site area(s) to facilitate separation of materials for potential reuse, salvage, and recycling. Do not mix garbage with materials designated for reuse, recycling or composting. Loads designated for recycling may not contain more than 10% garbage by weight or volume.
- d. Keep garbage bins and pile areas neat and clean. Signage is required to clearly mark bins for each category of debris.
 - e. When ordering a debris box, be sure to specify that the materials must be recycled, not landfilled. Inform the debris box vendor that you will require documentation that clearly states the city of origin as Fremont, identifies the type and weight of material reused or recycled.

- f. Landscape/plant debris: Separate plant and tree debris from other materials. The landscape debris must be composted, chipped, used for mulch or fuel. It is illegal to dispose of plant debris in an Alameda County landfill. Landscape debris shall not be taken out of county to avoid this requirement.
- C. Training and Coordination
1. Provide on-site instruction of appropriate salvage, reuse, separation, handling, and recycling methods to be used by all entities at the appropriate stages of the Project.
 2. Provide copies of the Waste Handling Plan to all on-site supervisors, each Subcontractor, and the Project Manager.
 3. Include construction debris management on the agenda of meetings. At a minimum, discuss mandatory recycling requirements and debris management issues at the following meetings:
- D. Pre-demolition/pre-construction meeting
1. Regularly scheduled job-site meeting

PART 2 PRODUCTS

2.01 MATERIALS, EQUIPMENT AND FACILITIES

- A. Furnish all materials, tools, equipment, devices, appurtenances, and services required for performing the salvage, demolition, and construction. Dispose of debris in a safe, acceptable manner, at approved facilities. Burying of trash and debris on the site is not permitted.
- B. Republic Services is the only approved hauler for materials in Fremont. The Contractor must subscribe to debris box service for garbage and recycling with Republic Services.
- C. The Contractor may self-haul construction and/or demolition debris to an approved recycling/disposal facility only if they use their own equipment, vehicles and employees, as part of a total construction or demolition project. Such debris removal must be provided incidentally to construction or demolition services provided by the Contractor. It is illegal to subcontract with a third party to haul garbage. Contractor can continue to self-haul construction debris off-site if all these conditions are met:
- Contractor is providing a construction or demolition service on site and the debris removal is an incidental part of the work performed; and
 - Contractors use their own employees, company vehicles and equipment; and,
 - Contractors deliver the construction debris to an approved facility (see list of approved facilities)
 - All Contractors and Subcontractors must be licensed to do business in Fremont
- D. The following facilities and service providers are approved to accept Construction & Demolition Debris for recycling:

Name of Facility	Address	Phone
Fremont Recycling & Transfer Station	41149 Boyce Road, Fremont	(510) 252-0500
Newby Island Landfill	1601 Dixon Landing Road, Milpitas	(408) 432-1234
Zanker Material Processing Facility	675 Los Esteros Road, San Jose	(408) 263-2384
Davis Street Recycling and Transfer Station	2615 Davis Street, San Leandro	(510) 563-4257
Berkeley Transfer Station	1201 2nd St, Berkeley	(510) 981-7270
Vasco Road Landfill	4001 N. Vasco Rd, Livermore	(925) 447-0491
Guadalupe Landfill	15999 Guadalupe Mines Road, San Jose	(408) 268-1670

E. Approved services for specific construction debris types:

Type of Material	Approved Hauling Options
All Garbage and Construction / Demolition debris	<ul style="list-style-type: none"> • Republic Services debris box or • Contractor self-haul to approved facility in list
Source separated recyclable material (wood, plant debris/green waste, sheetrock)	<ul style="list-style-type: none"> • Republic Services debris box or • Contractor self-haul to approved facility in list
Source separated recycling commodity (metal, cardboard)	<ul style="list-style-type: none"> • Republic Services debris box or • Contractor self-haul to approved facility or • Any approved debris box from metal recycler (Schnitzer Steel, Sims Metals etc.)
Source separated inerts (concrete, asphalt, soil)	<ul style="list-style-type: none"> • Republic Services debris box or • Contractor self-haul to approved facility/quarry or • Any approved debris box from inert recycler (Vulcan Materials, etc.)
<p>The following materials cannot be collected in Republic Services debris box containers: asbestos, batteries and other universal waste, hazardous waste, liquids, paint, oils, medical waste, tires, televisions, monitors and appliances containing chlorofluorocarbons(CFCs)</p>	

PART 3 EXECUTION

3.01 GENERAL

- A. Conduct construction and demolition to minimize interference with adjacent building areas.
- B. Conduct operations with minimum interference to public or private access.
- C. Maintain protected egress and access at all times.
- D. Perform demolition work in accordance with ANSI A10.6 and the accepted demolition plan or program.
- E. Remove items indicated for demolition within the limits of the work, and as required to complete the work of this contract. Do not remove anything beyond the limits of work indicated without prior written approval by the Project Manager. If in doubt whether to remove an item, obtain written approval by the Project Manager prior to proceeding.
- F. Remove materials from site as work progresses, at least weekly. Remove debris from the site so that its presence will not delay the progress of the work. Debris shall be the property of the Contractor and shall be removed and disposed of in a legal manner off the City's property.

3.02 MEASUREMENT AND PAYMENT

Full compensation for conforming to the provisions in this section '**Construction and Demolition Waste Management**,' not otherwise provided for, shall be considered included in prices paid for the various contract items of work involved and no additional compensations will be allowed therefor, unless specified otherwise.



**Waste Handling Plan - Form 1
(Pre-Demolition/Pre-Construction)**

Permit BLD/PWC # _____ Project Name: _____
 Project Address: _____ Date: _____
 Contractor: _____ Contact: _____
 Phone: _____ Email: _____

To complete the form:

Place an "X" in the box next to each type of material that will be generated from the project

- For materials that will go in a **debris box**, place the **X** in that column
- For materials that the **Contractor will self-haul** using their own equipment and vehicles, place the **X** in that column
- For materials that the Contractor will self-haul, provide the name of an approved recycling facility where the materials will be delivered. Approved facilities are listed in Section 01505.
- Return form to Project Manager within 10 days of the Notice to Proceed

Material	Republic Services Debris Box	Other Debris Box	Self-Haul by Contractor	Name of Recycling Facility
Asphalt / Concrete / Soil (100% recycle required)				
Plant or Tree Debris – (100% compost required)				
Cardboard				
Metal				
Mixed Construction & Demolition debris (i.e., wood, metal, drywall, plastic)				
Wood – unpainted/pallets				
Garbage				
Universal Waste (thermostats, batteries)				
Other:				

Recycling requirements:

- **RECYCLE 100%** of asphalt and concrete and non-contaminated dirt/soil.
- **RECYCLE 65%** of remaining materials generated
- **SEPARATE** plant/tree debris from other material, and **COMPOST 100%** of plant debris

SAVE ALL RECEIPTS FOR SUBMITTAL WITH A FINAL DIVERSION REPORT

Failure to provide proper documentation may result in a \$1000/ton penalty for each ton not recycled.

Waste Handling Plan Acknowledgment

The Foreman for each Subcontractor that comes on site is to receive a copy of the Construction Waste Handling Plan and complete this Acknowledgment Form.

I have read the Waste Handling Plan for the project; I understand the goals of this plan and agree to follow the procedures in the Fremont Municipal Code
(Fremont Municipal Code § 8.40-Solid Waste, Recyclables and Organics Management Ordinance www.fremont.gov).

DATE	SUBCONTRACTOR	FOREMAN NAME	SIGNATURE

All Subcontractors shall comply with the project's Waste Handling Plan, and will provide weight and waste diversion data for their debris. Foremen shall sign the Acknowledgment Sheet.

Subcontractors who fail to comply with the Waste Handling Plan will be subject to backcharges or withholding of payment, as deemed appropriate. For instance, Subcontractors who contaminate debris boxes that have been designated for a single material type will be subject to back charge or withheld payment.

1. The project's debris diversion requirements are 100% of asphalt, concrete, inerts, plant debris.
2. 65% of the remaining waste that is generated on this jobsite will be diverted from the landfill and recycled for other use.
3. The Waste Handling Plan identifies the materials that will be generated from the project, and the diversion strategy for each material type.
4. Waste prevention and recycling activities will be discussed at the beginning of Subcontractor meetings. As each new Subcontractor comes on-site, the Contractor will present him/her with a copy of the Plan and provide a tour of the jobsite to identify materials to be salvaged and the procedures for handling jobsite debris. All Subcontractor foremen will acknowledge in writing that they have read and will abide by the Plan. The Waste Handling Plan will be posted at the jobsite trailer.
5. Salvage: Excess materials that cannot be used in the project should be returned to the vendor, the City, or donated to charity if feasible.
6. Republic Services debris boxes will be delivered to the Fremont Recycling and Transfer Station. As site conditions permit, additional debris boxes should be used for particular phases of construction (e.g., concrete and wood waste) to ensure the highest amount of diversion possible.
7. In the event that the waste diversion rate is projected to be lower than what is required, then a strategy of source-separated waste diversion and/or waste stream reduction will be implemented. Source separated waste refers to jobsite waste that is not mixed but is instead allocated to a debris box designated for a single material type, such as clean wood or metal.
8. In the event that site use constraints (such as limited space) restrict the number of debris boxes that can be used for collection of designated waste the project Superintendent will, as deemed appropriate, allocate specific areas onsite where individual material types are to be consolidated. These collection points are not to be contaminated with non-designated waste types.



**Debris Diversion & Disposal Report
(After Demolition/Construction)**

Attach copies of receipts, gate tags, or other verifying documentation.

Applicant must reuse or recycle 100% of asphalt/concrete and 65% of remaining items.
Failure to provide documentation will result in a \$1000 per ton penalty for each ton not recycled or documented properly.

Permit BLD/PWC: _____ Project Name: _____
 Project Address: _____ Date: _____
 Contractor: _____ Contact: _____
 Phone: _____ Email: _____
 Type of Project: _____

Material	Tons/CY Reused	Tons/CY Recycled	Tons/CY Landfilled	Name of Recycling Facility or Service
Asphalt/ Concrete (100% reuse/recycle required)			N/A	
Plant or Tree Debris (100% reuse/compost required)			N/A	
Dirt/Clean Fill			N/A	
Brick				
Building Materials (doors, etc.)				
Cardboard				
Film Plastic				
Metal				
Mixed Const & Demo (C&D) (ie, wood, metal, drywall, film plastic)				
Plastic				
Wood - unpainted or pallets				
Wood - treated/painted				
Garbage	N/A	N/A		
Other:	N/A	N/A		
Totals:				

PROJECT SUMMARY

- A. Total tons of materials salvaged, reused, or recycled (except A/C): _____
- B. Total tons of materials landfilled (not recycled): _____
- C. Total tons of materials generated for the project (Line A+B): _____
- D. Percentage of materials recycled/reused (divide A by C x100%): _____%

For City Use Only: Approved _____	Not Approved _____
Waived _____	Staff Initials _____

Instructions for Completing the Debris Diversion & Disposal Report (DDDR)

The Debris Diversion & Disposal Report lists the actual amount of debris that was generated from the construction or demolition project.

1. Identify each type of debris item generated during the project (wood, scrap metal, etc.)
2. Enter the total weight or volume (by number of tons or cubic yards (CY)), of each item that was reused, recycled, or disposed in a landfill. Enter this number in the appropriate columns.
3. All the asphalt/concrete was to be reused or recycled. 65% of everything else must be reused or recycled to comply with the mandatory debris recycling ordinance. The asphalt and concrete tonnage will not count towards the 65% diversion requirement.
4. Attach receipts from each of the approved facilities or service providers who recycled/processed that material. Approved facilities are listed below. The receipts must indicate "Fremont" as the City of origin to be accepted.
5. If the materials were reused on site, list that in Reuse column: i.e., "wood waste chipped on site for mulch" with an estimate of the weight or volume.

Attach all receipts from all facilities and vendors for each type of debris item. The totals on the form should match the receipts. This report is due within 30 days of completing your project. An approved report and the receipts are needed before Final Permit Approval is issued from the City and the Building Inspector. Failure to provide documentation will result in a \$1000 per ton penalty for each ton not recycled.

Approved Construction & Demolition Recycling Facilities

Fremont Recycling & Transfer Station:

41149 Boyce Road, Fremont 510-252-0500
www.fremont-recycling.com

Newby Island Landfill/Recycling Facility

1601 Dixon Landing Road, Milpitas 408-262-1401

Zanker Material Processing Facility

675 Los Esteros Road, San Jose 408-263-2384

Guadalupe Landfill

15999 Guadalupe Mines Road, San Jose 408-268-1670

Davis St Transfer Station

2615 Davis Street, San Leandro 510-563-4257

Stevens Creek Quarry (concrete, asphalt, dirt only)

12100 Stevens Canyon Rd, Cupertino 408-253-2512

Recommended Handling & Storage Procedures

Item or Material by Division	Suggested Action
02 SITEWORK	
Chain Link Fencing	<i>Salvageable</i> - roll up chain link and cut off posts to maximum length allowable - all accessories (tops, clamps, bolts, straps, etc.) should be kept together in a container
03 CONCRETE	
Cast-in-place Concrete	Recyclable - typically too large for salvage and reuse
04 MASONRY	
Concrete Block	<i>Salvageable</i> - if not concrete filled - recyclable if filled with concrete
Paving Stones	<i>Salvageable</i> - stack and palletize for easy removal
Brick	<i>Salvageable</i> - if set with lime-based mortar - recyclable if set with concrete
Decorative Concrete Block	<i>Salvageable</i> - if not concrete filled - recyclable if filled with concrete
05 METALS	
Reinforcing Steel (rebar)	Recyclable - usually imbedded in concrete, therefore not reusable
Steel Flashing	Recyclable - usually not in suitable condition for reuse
<i>Interior Metal Wall Studs</i>	Recyclable - usually too time-consuming to save in suitable condition for reuse, therefore not cost effective
Structural Steel	<i>Salvageable</i> - includes I-Beams, H-Beams, Square Tubing, Pipe, and Chanel Iron - ensure care is taken to keep straight - separate by size
Cast Iron	Recyclable - usually too old and brittle for reuse
Copper	Recyclable - rarely salvageable due to the possibility of damage while salvaging
Aluminum Soffit	Recyclable - usually not in suitable condition for reuse
Misc. Steel	<i>Salvageable</i> - includes Pipe, Q-decking, Square-tubing, and Wilson joists - prior to reuse must determine the item's structural ability to meet current Building Code - recyclable if item is bent or structural ability is compromised
06 WOOD & PLASTICS	
Pressure Treated Wood Framing	<i>Salvageable</i> - same as regular wood framing
Regular Plywood Sheathing	<i>Salvageable</i> - stack in piles keeping full sheets together and partial sheets together in lots of 50 pieces - separate by 1/4", 1/2", 3/4" etc. - recommend stacking nail side to nail side - materials should be kept dry by covering with plastic sheeting (which also allows for air flow)

END OF SECTION

SECTION 01 51 00 Mobilization and Temporary Construction Facilities

PART 1 GENERAL

1.01 RELATED SECTIONS

- A. General Conditions, Article 7.2 "Temporary Facilities"
- B. Section 01 55 00 "Site Access and Storage"
- C. Section 01 56 26 "Temporary Construction Fencing"
- D. Section 02 41 19 "Site Demolition"
- E. Caltrans Standard Specifications, 2018 Edition

1.02 DESCRIPTION

Work includes: Mobilization, temporary facilities and controls required for this work, at all sites include, but are not limited to: staging areas; temporary utilities such as water, electricity and telephone; haul roads; enclosures such as tarpaulins, barricades, and canopies; sanitary facilities; scaffolding and safety equipment, and for all other work and operations which must be performed or costs incurred prior to beginning work on the various contract items on the project site. All such temporary facilities for all sites shall be located for convenience and safety and maintained in a safe and sanitary condition at all times until completion of the Contract, then removed from the site and disposed of as required or as directed.

1.03 COMPLIANCE WITH CODES AND REGULATIONS

Compliance with all requirements of pertinent safety regulations is described in the General Conditions of the Contract for Construction and shall include, but not necessarily be limited to: Federal Occupational Health Administration (OSHA) and latest edition, Uniform Building Code (with California Amendments) and ADA (American Disability Act).

1.04 PRODUCT HANDLING

Use all means necessary to maintain all temporary facilities and controls in proper and safe condition throughout progress of the work. In the event of damage or loss, immediately make all repairs and replacements necessary and at no additional cost to the City.

1.05 SUBMITTALS

General Arrangement and Layout Drawings showing arrangement of all temporary facilities including all offices, parking, material storage warehouses, shops, material laydown, staging and storage areas, fences, and roads, within 30 Days of Notice to Proceed.

1.06 GOVERNING LAWS

Temporary facilities shall be in compliance with applicable federal, State, county, municipal, and local utility laws, rules, and regulations. Nothing in these Contract Documents shall be construed to permit work not conforming to such codes and regulations.

1.07 TOOLS AND SUPPLIES

Provide engineering equipment and facilities, construction tools, equipment, materials, and supplies of the types and quantities necessary to facilitate the timely execution of the Work.

PART 2 PRODUCTS

2.01 TEMPORARY UTILITIES

- A. The Contractor shall notify all Utility Companies of their Work. Notice will give sufficient time for inspection and disconnect of the utilities by the said Utility Companies.
- B. The Contractor shall pay all charges of gas, electric, and telephone utilities for temporary connections, disconnections and service to the work.
- C. Provide safe distribution of required utilities to the job areas for use of all trades.
- D. The Contractor shall pay all charges of water, sewage and drainage for temporary services and connection/disconnection charges to the work. The City will pay for all permanent service charges for electrical, water, sewer and storm drainage.

2.02 TEMPORARY WATER

- A. Provide, maintain and pay for suitable quality water service required for construction operations as required for the work, at the Contractor's expense. Closest availability of water will be determined by the Contractor and will be approved by authorities having jurisdiction before making the connection.
- B. The Contractor shall not make connection to, or take water from, any fire hydrant or pipeline without first obtaining permission from Alameda County Water District (ACWD) or other authority having jurisdiction over the use of said fire hydrant or pipeline and from and from the Fremont Fire Department (FFD).
- C. For each such connection made, the Contractor shall first attach to the fire hydrant or pipeline a valve and a construction meter supplied by ACWD or said other authority or agency.
- D. Furnish and install all necessary temporary piping and, upon completion of the work, remove all such temporary piping.
- E. If necessary, extend branch piping with outlets located so water is available by hoses with threaded connections. Provide temporary pipe insulation to prevent freezing, if necessary.
- F. Removal of Water Connections: Before final acceptance of the Work on the project, all temporary connections and piping installed by the Contractor shall be entirely removed, and all affected improvements shall be restored to their original condition, or better, to the satisfaction of the Engineer, the City, and/or other agency owning the affected utilities.

2.03 TEMPORARY ELECTRICITY

- A. Electrical Services: Provide and maintain during the course and progress of the Work all electrical power and wiring requirements to facilitate the work of all trades and services associated with the Work. Electrical power will be provided at the Contractor's expense. The Contractor will request the utility company to install temporary power poles in locations required. All temporary wiring, feeders, and connections will be furnished by the Contractor, as required.
- B. All wiring for temporary electric light and power will be properly installed and maintained and will be securely fastened in place. All electrical facilities will conform to the requirements of CCR: Title 8, Industrial Relations, Subchapter Sub-chapter 5, Electrical Safety Orders, and Subpart K of OSHA Safety and Health Standards for Construction.

- C. All temporary electrical facilities and connections will be subject to approval of the City Engineer and the power company representative. and shall be removed in like manner at the Contractor's expense prior to final acceptance of the Work by the City.
- D. Removal of Electrical Connections: Before final acceptance of the Work on the project, all temporary connections and piping installed by the Contractor shall be entirely removed, and all affected improvements shall be restored to their original condition, or better, to the satisfaction of the Engineer, the City, and/or other agency owning the affected utility.

2.04 TEMPORARY TELEPHONE

Contractor is responsible for providing site telephone and fax as required. Existing telephones at the project site is not available for use. Maintain in the Contractor's field office or in a protected location on the job site for the use of the Subcontractors. Superintendent may opt for a cellular phone.

2.05 TEMPORARY SANITARY FACILITIES

- A. Provide and maintain required facilities and enclosures.
- B. Provide adequate fixed or portable chemical toilet conveniences whenever needed for the use of employees, including, washing facilities, and drinking water for the use of all employees and persons engaged on or about the Work, including Subcontractors and their employees. Drinking water shall be potable and drinking water facilities shall be clean and sanitary.
- C. Locate sanitary facilities where approved by City staff. To be determined in the field prior to construction and delivery
- D. Maintain in a clean and sanitary condition during the course of the Work. Keep such facilities adequately supplied with toilet paper, paper toweling, paper cups, and related supplies as required. At minimum, provide a weekly service schedule for cleaning and servicing.
- E. Sanitary and Other Organic Wastes: The Contractor shall establish a regular collection of all sanitary and organic wastes. All refuse from sanitary facilities provided by the Contractor or organic material wastes from any other source related to the Contractor's operations shall be disposed of away from the site in a manner satisfactory to the Engineer and in accordance with all laws and regulations pertaining thereto.
- F. At completion of the Work, sanitary facilities shall be properly disinfected and all evidence of same removed from the Jobsite.
- G. Comply with all minimum requirements of the Health Department or other public agency having jurisdiction. Maintain in a sanitary condition at all time – secure toilets in non-work hours from vandalism.

2.06 CONTRACTOR'S FIELD OFFICE (OPTIONAL)

- A. At the Contractors option, furnish and install a field office, not less than 8 feet by 12 feet and equipped with a table or shelf large enough for easy perusal of drawings, as well as drawing racks and shelves to maintain order and neatness. Field office shall be used to store record drawings, display permits and licenses, and permit periodic meetings with Subcontractors, City and Architect. Field Office shall also have a fax machine.
- B. The Contractor's field office shall contain a complete set of Contract Documents.

- C. The Contractor shall make arrangements and pay all costs associated with the temporary field office.

2.07 STORAGE AND PARKING AREAS (Staging Areas)

- A. The Contract Drawings may indicate work areas available to the Contractor for storage of materials and for parking of construction equipment. If so indicated, these areas will be provided to the Contractor for the durations indicated in the Contract Specifications. Additional work and storage space, if required, shall be provided by the Contractor at Contractor's expense.
- B. The Contractor shall provide parking facilities for the Contractor's personnel, Subcontractors, Supplier's delivery vehicles, and authorized visitors. Off the Jobsite parking facilities (if any) shall not impair or interfere with existing community parking and traffic conditions, regulations, and restrictions.
- C. Storage areas, construction parking, staging and construction yards shall be illuminated at a level at least 0.25 to 0.50 foot-candles average.

2.08 ENCLOSED STORAGE AND SHOPS

- A. The Contractor shall provide all temporary storage and shop rooms that may be required at the Jobsite for safe and proper storage of tools, materials, and equipment. Construct such rooms only in locations indicated or as approved by the Supervising Construction Coordinator, and so as not to interfere with the proper installation and completion of other work.
- B. Remove such rooms within 3 Days of receipt of notices from the Supervising Construction Coordinator that removal is necessary, and incur all expenses for such removal.
- C. Storage of gasoline or similar fuels shall conform to National Fire Protection Association (NFPA) regulations and local fire department regulations and shall be confined within definite boundaries apart from buildings as approved by the Supervising Construction Coordinator and the jurisdictional fire marshal.

2.09 PROTECTIVE BARRICADES AND SAFETY PRECAUTIONS

- A. Construct and maintain barricades, lights, shoring, and warning signs as required by federal and State safety ordinances and as required to protect the City's property from damage or loss and as necessary for the protection of the public and adjacent properties. Provide walks around obstructions made in a public place for prosecuting the Work. Leave all protection in place and maintain until removal is authorized.
- B. Guard and protect all workers, pedestrians, and the public from excavations, construction equipment, obstructions, and other dangers with adequate railings, guard rails, temporary walks, barricades, warning signs, directional signs, overhead protection, planking, decking, danger lights, and other suitable safeguards.
- C. Flaggers shall be provided to direct or divert pedestrian or vehicular traffic when necessary.

2.10 PUMPING

Keep the site, excavations, and structures free of accumulation of water at all times, whether from underground seepage, rainfall, drainage, or broken utility lines at no expense to the City.

2.11 FIRE PROTECTION

Temporary fire extinguishers shall be provided and available at the job site in accordance with the appropriate NFPA Bulletins and good practice.

2.12 BARRIERS AND ENCLOSURES

- A. See "Temporary Construction Fencing" found herein Article 15 and Section 01 56 26
- B. Provide barriers to prevent unauthorized entry to construction areas and to protect existing facilities and properties from damage from construction operations and demolition in accordance with OSHA and governing authorities having jurisdiction.

2.13 TEMPORARY ACCESS FACILITIES

- A. Contractor shall be responsible for any damage to streets, curbs and sidewalks due to the use of such facilities, and such damaged portions shall be repaired as required to place them in the same condition as existed prior to the commencement of the work.
- B. Extend and relocate access as Work progress requires. Provide and maintain access to fire hydrants, free of obstructions. Provide means of removing mud from vehicle wheels before entering streets.
- C. Contractors shall comply in every respect with applicable Building Codes regarding the use of public streets and sidewalks and provide the proper barricading and lighting of public thoroughfares surrounding the construction activities.
- D. Arrange for temporary parking areas on-site for construction personnel.
- E. Parking of vehicles by construction personnel shall be limited to areas within the existing parking lot outside the limits-of-work, as designated by the Project Landscape Architect, or on the plans.
- F. Use all means necessary to maintain all temporary facilities and controls in proper and safe condition throughout progress of the work. In the event of damage or loss, immediately make all repairs and replacements necessary and at no additional cost to the City.
- G. All areas affected by Contractor-constructed temporary facilities shall be restored to their original condition upon removal of the temporary facilities.

2.14 TEMPORARY PARKING AREAS

- A. Extend and relocate access and parking space usage as Work progress requires.
- B. Provide and maintain access to fire hydrants, free of obstructions.
- C. Provide means of removing mud from vehicle wheels before entering streets.
- D. Coordinate and arrange for temporary parking areas on-site to accommodate construction personnel within the existing parking lot outside the limits-of-work, as designated by the Project Landscape Architect, or on the plans.

2.15 PROTECTION OF INSTALLED WORK

- A. All work installed, completed and accepted per the direction herein to phase construction, shall be protected from damage by other phases of construction work.
- B. Contractor shall control activity in immediate work area to prevent damage.
- C. Provide temporary and removable protection for installed Products, as needed.
- D. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.

- E. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.

2.16 SECURITY

- A. Provide such watchmen, patrols, fencing, alarm system and other security means as required to adequately protect the work and to protect materials and equipment stored at the site of the work and elsewhere, and to protect the interests of the Contractor, the City, and all parties having such interest, until completion of the work and its Acceptance of the Work by the City.
- B. Storage areas will be suitably fenced and lighted and routinely patrolled by security guards.
- C. The City assumes no responsibility for protection of structures and finished work or for loss of materials and equipment from the time that Contract operations have commenced until Acceptance of the Work.
- D. If watchman/security service is deemed necessary by the Contractor, such protection shall be provided by the Contractor, and all costs therefore shall be paid for by the Contractor.
- E. Damaged, lost, or stolen materials and equipment, whether or not stored or already installed, shall be replaced by the Contractor with new specified materials and equipment, including reinstallation where applicable, at no additional cost to the City.

2.17 PROGRESS CLEANING AND WASTE REMOVAL

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
- B. Collect and remove waste materials, debris, and rubbish from site as specified in Section 01 50 50 "Construction and Demolition Waste Management".

2.18 POSTING OF REGULATIONS

Comply with industry standards and applicable laws and regulations of authorities having jurisdiction in the posting of regulations.

PART 3 EXECUTION

3.01 MATERIAL STORAGE AND PROTECTION

- A. During the progress of the work, products and materials shall be neatly stored in accordance with the appropriate manufacturer's recommendations and shall be properly cared for and protected from weather, vandalism and theft.
- B. All installed products and materials shall be adequately protected until such time as the City accepts the Project.

3.02 SPECIAL CONDITIONS OF THE SITE

- A. The area to be set aside for the use of the Contractor is indicated on the Drawings as "Limit of Work" and "Staging Area" except for sub-surface utility work, curb and gutter, temporary roads and any other work specifically shown or noted, the Contractor shall confine his operations within the limits-of-work so indicated.
- B. Work shall not proceed for the site or buildings until all temporary work such as utilities, barricades, field office and sanitary facilities are furnished and installed.

3.03 CONDITIONS AT THE SITE

- A. The Contractor shall make all necessary inspections of the job site and of the work to be fully aware of the conditions of all temporary facilities and controls at all times.
- B. The Contractor shall take all steps necessary to prohibit any part of the premises, the buildings, or structures to be overloaded by setting thereon any material or equipment, or performing thereon any of his work, which could cause any loss, damage, and/or injury to person or property.
- C. The Contractor shall make a close inspection of all materials as delivered and shall promptly return all defective materials without waiting for their rejection by the Architect.

3.04 REMOVAL

Maintain all temporary facilities and controls as long as needed for the safe and proper completion of the work. Remove all such temporary facilities and controls as rapidly as progress of the work will permit.

3.05 RESTORATION OF AREAS

Upon completion of the project, all temporary facilities shall be removed from the site and all areas not otherwise improved but which were adversely affected by the Contractor's work shall be returned to their original condition.

3.06 FINAL SITE CLEAN-UP

Prior to final inspection, thoroughly clean the entire site and restore to a neat, acceptable condition. Remove from the entire site all construction waste and unused materials, dunnage, loose rock and stones, excess earth, roots, weeds, and all debris of any description resulting from the work. Hose down and scrub where necessary all new concrete and asphalt pavement and paved walks, and all existing concrete and asphalt pavement and walks dirtied as a result of the work. Thoroughly remove mortar drippings from concrete walks and other pavements, where they occur – do not power spray concrete decks with high pressure.

3.07 CLOSEOUT

- A. Upon completion of the Work, or prior thereto when required by the Supervising Construction Coordinator, remove temporary facilities' structures and installations from the City's property.
- B. Return exterior areas utilized for temporary facilities to their original, natural state or, when called for on the Contract Documents, complete such areas as indicated.

3.08 MEASUREMENT AND PAYMENT

The lump sum price paid for "**Mobilization**" shall include full compensation for furnishing all labor, materials, tools, equipment, incidentals, including all temporary construction facilities, temporary sanitary facilities, project identification signs, and other work as described herein, and for doing all the work covered in this section, complete and in place as shown on the plans, as required by the Special Provisions, and as required by the Engineer.

END OF SECTION

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CITY COUNCIL REFERENCE ONLY

SECTION 01 55 00 Site Access and Storage

PART 1 GENERAL

1.01 GENERAL

- A. The Contractor shall take all necessary precautions for the protection of the Work and the safety of the public. The Contractor shall, at the Contractor's elective option, station guards, or other deterrent devices, as may be required to deter vandalism or theft, including but not limited to barricades, fencing and other obstructions, and security lighting. The Contractor shall secure any open access points to the project area during all hours when Contractor is not actively engaged in the performance of the Work.

1.02 RELATED SECTIONS

- A. Refer to General Conditions, Article 2.2, Article 7.2, Article 7.3, Article 7.5 and Article 7.9 regarding staging and temporary facilities.
- B. Section 01 51 00 "Mobilization and Temporary Facilities"

1.03 HIGHWAY LIMITATIONS

- A. The Contractor shall make its own investigation of the condition of available public and private roads and of clearances, restrictions, bridge load limits, and other limitations affecting transportation and ingress and egress to and from the project site. It shall be the Contractor's responsibility to construct and maintain any access or haul roads required for its demolition operations.
- B. All hauling by motor vehicles shall be confined to truck routes, except where otherwise authorized in writing by the Engineer. Truck routes are those shown on the map titled "City of Fremont Truck Routes, Adopted by City Council 4-26-1988" incorporated into these specifications, and as designated in the Fremont Municipal Code. The Contractor is responsible for acquiring all oversize/overweight vehicle permits from agencies having jurisdiction when transporting materials or equipment with size and weight exceeding established hauling criteria.

1.04 CONTRACTOR'S WORK, STAGING, AND STORAGE AREA

- A. At or before the pre-construction meeting the Contractor shall submit to the Supervising Construction Coordinator, as part of the Site Operations Work plan (SOW) required per Section 01 30 00 "Submittal", a Project site plan, drawn to scale, indicating the proposed layout and use of the site for access and staging. At minimum the plan will show the location and configuration of temporary construction fencing / tree protection fencing and gates, site access, storage, staging, temporary offices, Subcontractor parking, storm water runoff control measures, and access for Contractors doing work under concurrently under other contracts.
- B. The Contractor shall make its own arrangements for any necessary off-site storage or shop areas necessary for the proper execution of the Work. Off-site shall be defined as any area outside the temporary fencing required. If the site is located on public property, the Contractor shall submit a site plan, drawn to scale, of the proposed storage, trailer, and/or staging site for the Engineer's

approval. If the site is on private property, the Contractor shall submit evidence of the property City's approval of the use of the site.

- C. During construction, to the best extent possible, the Contractor shall maintain ingress and egress in to the parking lots to allow for continued public use.

1.05 TEMPORARY USE OF PUBLIC FACILITIES

- A. Street Use: Nothing herein shall be construed to entitle the Contractor to the exclusive use of any public street, alley, way, or parking area during the performance of the Work hereunder, and it shall so conduct its operations as not to interfere unnecessarily with the public's use of the surrounding public area, or the authorized of the City, utility companies, or other agencies in such streets, alleys, ways, or parking areas.
- B. Fire hydrants on or adjacent to the Work shall be kept accessible to firefighting apparatus.
- C. Temporary provisions shall be made by the Contractor to assure the use of the sidewalks and the proper functioning of all gutters, sewer inlets, and other drainage facilities.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

3.01 MEASUREMENT AND PAYMENT

Full compensation for conforming to the provisions in this section "**Site Access and Storage**", not otherwise provided for, shall be considered as included in prices paid for the various contract items of work involved and no additional compensation will be allowed therefor, unless specified otherwise.

END OF SECTION

PART 1 GENERAL1.01 EXISTING FACILITIES

- A. The Contractor shall protect all existing utilities, trees, shrubbery, lawn, landscaping, irrigation facilities, wells, buildings, fences, roadside signs, poles, and all other improvements not designated for demolition and removal, and shall restore damaged or temporarily relocated utilities and other improvements as listed above to a condition equal to or better than they were prior to such damage or temporary relocation, all in accordance with requirements of the Contract Documents.
- B. Potholing: The Contractor shall verify the exact locations and depths of all utilities shown and the Contractor shall make exploratory excavations of all utilities that may interfere with the Work. 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 demolition to avoid possible delays to the Contractor's works. When such exploratory excavations show the utility location as shown to be in error, the Contractor shall notify the City.
- C. The number of exploratory excavations shall be that number which is sufficient to determine the alignment and grade of the utility.
- D. All reference markings made by the Contractor shall be done with spray chalk or approved equal, and shall be removed by the Contractor when no longer needed.
- E. The Contractor is responsible for any and all damages resulting from insufficient weather protection. Contractor is to coordinate exterior work to avoid damage.
- F. The Contractor shall be completely responsible for the care and condition of the project improvements in their entirety until completion of the maintenance period and acceptance by the City. The Contractor shall provide such watchmen, guards, and security devices as deemed necessary to prevent destruction of property and vandalism.

1.02 PROTECTION OF SURVEY MARKS

- A. The Contractor shall not destroy, remove, or otherwise disturb existing survey 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 Work have been properly referenced for easy and accurate restoration.
- B. It shall be the Contractor's responsibility to notify the proper representative of the City of the time and location that work will be done. Such notification shall be sufficiently in advance of demolition so that there will be no delay due to waiting for survey points to be satisfactorily referenced for restoration. All survey markers or point disturbed by the Contractor without proper authorization of the Engineer, will be accurately restored by the City at the Contractor's expense after all contract work has been completed.

1.03 EXISTING UTILITIES AND IMPROVEMENTS

- A. General: The Contractor shall protect all underground utilities and other improvements, which may be impaired during the Work. It shall be the Contractor's responsibility to ascertain the actual location of all existing utilities and other improvements that will be encountered in its demolition operations, and to see that such utilities and other improvements are adequately protected from damage due to such operations. The Contractor shall 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. Utilities to be Moved: In case it shall be necessary to remove from the property any public utility or franchise holder, such utility or franchise holder, will, upon the request of the Contractor, be notified by the City to move such property within a specified reasonable time. When utility lines are to be removed are encountered within the area of operations, the Contractor shall notify the Engineer a sufficient time in advance for the necessary measures to be taken to prevent interruption of service.
- C. Where proper completion of the Work requires the temporary or permanent removal and/or relocation of an existing utility or other improvement, which is shown the Contractor shall remove, and, without unnecessary delay, temporarily replace or relocate such utility or the facility. In all cases of such temporary removal or relocation, restoration to former location shall be accomplished by the Contractor in a manner that will restore or replace the utility or improvement as nearly as possible to its former locations and to as good or better condition than found prior to removal.
- D. City's Right of Access: The right is reserved to the City and to the City's of public utilities and franchises to enter at any time upon any public property, right-of-way, or easement for the purpose of making changes in their facilities made necessary by the Work of this contract.
- E. Underground Utilities Not Shown or Indicated:
 - 1. Existing utility lines that are shown or the locations of which are made known to the Contractor prior to excavation and that are to be retained, and all utility lines that are constructed during excavation operations shall be protected from damage during excavation and backfilling and, if damaged, shall be immediately repaired by the Contractor.
 - 2. In the event that the Contractor damages any existing utility lines that are not shown or the locations of which are not made known to the Contractor prior to excavation, a written report thereof shall be made immediately to the City. If directed by the City, repairs shall be made by the Contractor under the provisions for changes and extra work.
- F. Approval of Repairs: All repairs to a damaged improvement are subject to inspection and approval by an authorized representative of the improvement City before being concealed by backfill or other work.
- G. Maintaining Service: All oil and gas pipelines, power, and telephone or other communication cable ducts, gas and water mains, irrigation lines, wells, 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 operations under the Contract, unless other arrangements satisfactory to the City are made with the City of said pipelines, duct, main, irrigation line, sewer, storm drain, pole, wire or cable. The Contractor shall be responsible for and shall repair all damage due to its operations, 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.

1.04 TREES, MOWING IRRIGATION, AND OTHER VEGETATION WITHIN PROJECT LIMITS

- A. General: The Contractor shall exercise all necessary precautions so as not to destroy or damage any trees, or other vegetation, including that landscaping material lying within the project limits, and shall not trim or remove any trees unless such trees have been approved for trimming or removal by the City. All existing trees and other vegetation, which become damaged during demolition, shall be trimmed or replaced by the Contractor in consultation with the City's Urban Forester to the satisfaction of the City and/or agency.

Tree trimming and replacement shall be accomplished as approved and directed by the Engineer and City's Landscape Architect or Urban Forester.

- B. City Tree Preservation Requirements, Tree Survey Standards, Arborist Analysis Report Standards and Standard Tree Preservation notes from the City Landscape Development Requirements and Policies are attached (pages 4-7) plus Sheet 8 depicting standard tree protection fencing.
- C. Contractor protection of existing trees, including protective fencing around the tree drip line is required.
- D. Replacement: The Contractor shall immediately notify the City and/or other jurisdictional agency if any tree is damaged by the Contractor's operations. Refer to Section 01 56 39 "Tree Protection" for repair compensation. If, in the opinion of the City or said other agency, the damage is such that replacement is necessary, the Contractor shall replace the tree at its own expense. The tree shall be of a like size and variety as the tree damaged, or, if of a smaller size, the Contractor shall pay the City of said tree a compensatory payment acceptable to the tree City, subject to the approval of the City or other jurisdictional agency. The size of the trees shall not be less than 1-inch diameter nor less than 6 feet in height. Fines will be assessed against the Contractor for removal of trees without the prior written approval of the City. The minimum amount of the fine or restitution to the City will be the replacement of the tree removed, with one of equal or greater size and maturity and as approved by the City. Larger fines may be assessed against the Contractor depending on the circumstances and type of tree removed, especially in the case of trees listed in the City's Historical Tree List.
- E. Irrigation: All irrigation elements, equipment and components within the project limits, and those elements, equipment and components outside the project limits of work, indicated to remain in working order, shall be the responsibility of the Contractor to remain, and be maintained, in working order over the duration of the project, including the plant establishment period. This includes all equipment connected to components within the project limits of work to be removed, relocated, or re-routed. At no point shall City crews enter the project limits of work to perform maintenance on the irrigation system. If City enters the site, at the request of the Contractor, or at the direction of the City due to negligence of the Contractor to perform maintenance, keep the system running, and adequately water existing lawn, trees, and other plant material, the Contractor shall be charged on a time and materials basis, by the City, and the cost for performing said work shall be retained from their contract, and deducted.

1.05 PROTECTION OF ADJACENT STRUCTURES

- A. The Contractor shall take steps to protect adjacent structures from damage during all project activities, including, but not limited to, building and construction, hazardous materials removal, salvage/recycling, demolition, basement demolition, backfilling, grading and landscaping operations.
- B. Any and all damage to adjacent structures shall be the responsibility of the Contractor.
- C. If damage occurs, the Contractor will take immediate steps to remedy the situation in the field.

1.06 NOTIFICATION BY THE CONTRACTOR

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 electrical power, communications, or television cables; all traffic signal and street lighting facilities; and all roadway and state highway right-of-ways the Contractor shall notify the Underground Service Alert Agency

(800-227-2600) and the respective authorities representing the City's or agencies responsible for such underground facilities not less than 48 hours prior to excavation so that a representative of said City's or agencies can mark the utility alignment or be present during such work if they so desire.

1.07 MEASUREMENT AND PAYMENT

Full compensation for conforming to the provisions in this section "**Protection of Existing Facilities,**" not otherwise provided for, shall be considered as included in prices paid for the various contract items of work involved, including mowing and irrigation of existing sod, and no additional compensation will be allowed therefor, unless specified otherwise.

END OF SECTION

CITY COUNCIL REFERENCE ONLY

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Temporary Construction Fencing.

PART 2 PRODUCTS

2.01 TEMPORARY CONSTRUCTION FENCING

- A. Temporary construction fences shall be furnished, installed, and maintained, at the project site by the Contractor, as shown on the plans and as specified in these specifications and special provisions, and as directed by the Project Inspector, or Supervising Construction Coordinator.
- B. The Contractor shall be responsible for adjusting the layout of the fences as necessary to accommodate its work, to accommodate other Contractors doing work, and accessing the site and building(s).
- C. Temporary construction fencing shall be placed around the work area intended for use by the Contractor, but will not impede movement along the sidewalk by the public.
- D. The property is available for use by the Contractor for staging. The Contractor shall submit a plan showing the location of their trailer and staging area for review by the City.
- E. Temporary construction fencing and gates shall be chain link, type CL-6, six feet (6') high, as a minimum and shall conform to the specifications for permanent fencing of similar character as provided in Section 80, "Fences" of the Standard Specifications and these special provisions.
- F. Construction fencing and gates shall be simple to install, maintain, relocate, and remove. Concrete footings for metal posts will not be required. The temporary fences and gates shall be of a type that extends fully to the ground. The Contractor may upgrade the fence in height or quality to meet the conditions at the site.
- G. Posts and footings shall be installed by the Contractor so as to fulfill the requirements outlined in this section and shall be crowned at the top to shed water.
- H. Materials may be commercial quality providing the dimensions and sizes of said materials are equal to, or greater than, the dimensions and sized specified by the Standard Specifications.
- I. Used materials may be used providing such used materials are good, sound, and are suitable for the purposed intended. The Contractor shall be the approval of the Engineer prior to installing construction fencing and gates using used materials.
- J. The Contractor shall get approval from the Engineer for location of temporary fences and gates prior to installing any materials.
- K. Temporary construction fencing that is damaged from any cause, including vandalism, during the progress of the work, shall be immediately repaired or replaced by the Contractor at this expense. Any damage caused by the use of temporary fences and gates to existing features including, but not limited to, existing turf areas, holes in the ground, damage to existing vegetation, etc. shall be repaired or replaced by the Contractor at this expense, including any holes caused by the use of temporary fences and gates.

PART 3 EXECUTION

3.01 ORDER OF WORK

- A. First order of work is to secure the site with temporary construction fencing prior to installing erosion control best management practices (BMP's).
- B. No form of demolition work or remediation work shall proceed until the site is secured.

3.02 CONDITIONS AT THE SITE

- A. The Contractor shall make all necessary inspections of the job site and work in order to be fully aware of the conditions at all times of all temporary construction fencing.
- B. The Contractor shall take all steps necessary to prohibit any part of the premises, the buildings, or structures to be overloaded by setting thereon any material or equipment, or performing thereon any of his work, which could cause any loss, damage, and/or injury to person or property.
- C. Maintain all temporary construction fencing as long as needed for the safe and proper completion of the work.

3.03 FINAL SITE CLEAN-UP

- A. See Section 01 77 00 "Project Closeout".

3.04 MEASUREMENT AND PAYMENT

- A. The linear foot unit price paid for "**Temporary Construction Fencing**" shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work covered in this section, complete and in place as shown on the plans, as required by the Special Provisions, and as required by the Project Engineer.

END OF SECTION

SECTION 01 56 39 Tree Protection

PART 1 GENERAL

1.01 DESCRIPTION

- A. Section includes protecting and maintaining existing trees, not specifically designated for removal, affected by this Work, whether or not tree trunk is located within project site. Includes protection during site work and construction.
- B. General: The Contractor shall exercise all necessary precautions so as not to destroy or damage any trees, or other vegetation, including landscaping material lying within the project limits, and shall not trim or remove any trees unless such trees have been approved for trimming or removal by the City or other jurisdictional agency. All existing trees and other vegetation, which become damaged during demolition, shall be trimmed or replaced by the Contractor in consultation with a certified arborist to the satisfaction of the City and/or agency. Tree trimming and replacement shall be accomplished as approved and directed by the Engineer.
- C. Replacement: Refer herein to Section 3.05 "Tree Replacement"
- D. All trees to be preserved and protected within temporary construction fencing or directly outside of temporary fencing shall be watered by whatever means necessary to keep the trees in a healthy condition.

1.02 RELATED SECTIONS

- A. Section 02 41 10 "Site Demolition"
- B. Landscape Standard Details, LSD-9 & LSD-10, or most current revision.

1.03 DEFINITIONS

- A. DBH – Diameter at Breast Height
- B. "Drip line" is defined as outermost extent of tree canopy, encompassing tree canopy, trunk, roots and soil. In no case shall drip line encompass an area less than a 10 foot diameter circle.
- C. "Injury" is defined, without limitation, as any bruising, scarring, tearing, or breaking of roots, branches or trunk; or soil compaction or contamination resulting in decline of health of tree.
- D. "Critical Root Zone" is defined as a minimal distance from the trunk where roots must be protected from construction related activities
- E. "Root Pruning": All pruning shall be done by a State of California Licensed Tree Contractor (C61/D49). All pruning shall be done by Certified Arborist or Certified Tree Worker in accordance with the Best Management Practices for Pruning (International Society of Arboriculture, 2008-Revised) and adhere to the most recent editions of the American National Standard for Tree Care Operations (Z133.1) and Pruning (A300).
- F. Consulting Arborist: Refer to Section 01 56 30 "Tree Removal, tree Pruning, and Root Pruning", Part 2.03.
- G. Certified Arborist or Certified Tree Worker: A worker that has been certified by the International Society of Arboriculture (ISA), in compliance with ISA standards, as experienced and capable of tree trimming and root pruning per the ISA guidelines, or the requirements as defined herein.

- H. Landscape Standard Details (LSD) – Included as part of the Fremont City Standard Details for Improvements within Public Right of Way; Approved by City Council, Resolution No 2006-31, April 1985; amended December 13, 2011; and last revised July 31, 2022.
- I. Infrastructure: The limits of work of the project as delineated on the plans, described in the special provisions, and as described by the Standard Specifications.

1.04 QUALITY ASSURANCE

- A. General Responsibility: The Contractor shall be directly responsible for protection and welfare of existing trees, which are noted to remain. This responsibility shall continue throughout the full construction period until the entire project is completed and accepted by the City and through completion of the maintenance period.
- B. Qualifications of workmen: Trimming shall be performed only by a certified arborist, or certified tree worker, certified by the International Society of Arborists; in compliance with ISA or ANSI standards. Contractor shall be responsible for obtaining and scheduling arborist, and shall have an arborist on site continuously while existing trees or roots are being pruned or remedial work is being performed. Arborist must be approved by the City of Fremont Urban Forester in writing.
- C. Reference Standards: Published specification, standards, tests, or recommended methods of trade industry apply to work of this section.
- D. International Society of Arboriculture (ISA) "Guide for Establishing Values of Trees and Other Plants," prepared by the Council of Tree and Landscape Appraisers.

1.05 JOB CONDITION

- A. Contractor shall install tree protection fencing before any construction equipment enters the site, and must not be removed for the duration of the project. Fencing can be adjusted during the demolition, grading and construction activities.
- B. Sequencing schedule: Coordinate and cooperate with other trades to enable the work to proceed as rapidly and efficiently as possible.

1.06 GUARANTEE

- A. Contractor shall guarantee that all plants covered by the provisions of this Section will be healthy and in flourishing condition of active growth one year from the date of final completion.
- B. During the warranty period the Contractor shall be liable for damages to all trees covered by the provisions of this Section.

PART 2 PRODUCTS

2.01 TREE PROTECTION FENCING

- A. The plan drawings do not call for the installation of tree protection-specific fencing. However, Contractor shall install temporary construction fencing, as delineated on plan drawings, to protect construction zone and limit of work area, adjacent to trees to be preserved.
- B. Refer to LSD-9 and Tree Protection Details and notes incorporated into the project plans.

2.02 TRUNK WRAP PROTECTION

- A. Trunk wrap protection will be installed as delineated on the plans.

- B. Trunk wrap protection shall consist of 2"x4" nominal wood slats, spaced 3 inches apart, around the trunk of the existing tree. Minimum three (3) slats per tree, and wrapped with orange construction fencing, a minimum of three (3) layers on the outside of the slats, per the contract plan details.
- C. Refer to the contract plan details for additional information.

PART 3 EXECUTION

3.01 TREE PROTECTION, TRUNK WRAP PROTECTION, AND TREE PRESERVATION

- A. Tree Preservation Notes per City's Standard Detail LSD-9, LSD-10 and the contract plan details:
 - 1. Current standard detail at city engineering division shall prevail.
 - 2. Tree protection measures must be in place before construction, demolition and/or grading activities commence. City of Fremont will stop construction if tree protection measures are not in place and maintained throughout the construction period.
 - 3. Trees called out for preservation shall be fenced at the drip line. Fencing may occur at the combined drip lines of groves of trees. Place a three-inch thick layer of bark mulch beneath drip lines of trees to be preserved. Keep bark mulch back from the tree trunk a minimum of 6 inches.
 - 4. Fencing shall be temporary construction fencing, 6 feet tall chain link fencing with steel posts embedded in the ground.
 - 5. Temporary construction fencing shall be installed at the drip line of the tree(s). Fencing shall not be installed at the base of the trunk or against tree trunk.
 - 6. No grading shall occur within the drip lines/fenced area of existing trees unless required by the plans, or the nature of the work.
 - 7. No construction materials or construction vehicles may be stored within the drip lines/fenced area of existing trees.
 - 8. Construction vehicles or machinery may not pass between two or more existing trees identified for preservation if their canopies are within 10 feet of touching. Additional fencing may be required by the city as needed.
 - 9. The Contractor is required to have an arborist certified by the International Society of Arboriculture (ISA), approved by the city, on site if site construction efforts require removal of existing roots or branch pruning. Roots approved for cutting must be cut cleanly with a saw. Ripping or shredding roots subject to fine/penalty.
 - 10. Unauthorized tree removal is subject to replacement equal to the appraised value of the tree lost per FMC 4-5108.
 - 11. The Contractor is required to water, fertilize and attend to other maintenance needs of existing trees to maintain healthy growth throughout the construction period. An earthen berm measuring minimum 6 feet in diameter, and 6 inches in height shall be constructed at the base of each tree to function as a temporary watering basin during the construction period. Trees shall be watered according to weather and tree species requirements.
 - 12. Trunk wrap protection shall occur for trees situated adjacent to pathway construction activities, as delineated on plans.

- B. During the course of construction, relocation of the fence may be required to facilitate construction. Contractor shall request authorization to relocate fence. Requests for Authorization shall be in writing to the City's Engineer 48 hours prior to anticipate relocation at no cost to the City.

3.02 PROTECTION OF TREES

- A. Trees directly adjacent to temporary construction fencing shall not be allowed to deteriorate and shall be maintained in a healthy and vigorous condition during the course of construction and maintenance period.
 - 1. Water: Provide ample water supply of potable quality and sufficient quantity for all operations required in this section. The Contractor shall provide a schedule to the Project Manager outlining the proposed watering schedule for trees affected by construction.
- B. During the course of construction, the Contractor shall take all necessary precautions, as outlined herein, to protect the existing trees to be preserved from injury or death. Protection shall be given to the roots, trunk, and foliage of all existing trees to remain. Trees, subject to the provisions of this Section, which have been injured, or may be affected by construction, shall be assessed by the City's Arborist, and then repaired immediately by a certified tree worker, under the direction of the City's Arborist. Repair may include removal of rough edges and sprung bark and severely injured branches, or other necessary work, as determined by the City's Arborist.
- C. Irrigation system servicing trees that will be affected by construction shall be repaired, replaced, or relocated according to the plans, within 30 days of removal. If the existing irrigation system is turned off, removed, or out of service for more than 30 days, all trees shall be hand watered, or watered by whatever means necessary to keep the trees in a healthy and vigorous condition during the course of construction and maintenance period.
- D. During construction, the existing site surface drainage patterns shall not be altered within the area.
- E. Take necessary measures to maintain healthy living conditions for existing trees to be preserved. Such measures shall include but not limited to periodic washing of leaves for removal of dust, irrigation, redistribution of bark mulch, etc.
- F. Do not permit the following within drip line of any existing tree to be preserved.
 - 1. Storage or parking of automobiles or other vehicles.
 - 2. Stockpiling of building materials or refuse of excavated materials.
 - 3. Skinning or bruising of bark.
 - 4. Use of trees as support posts, power poles, or signposts; anchorage for ropes, guy wires, or power lines; or other similar functions.
 - 5. Dumping of poisonous materials on or around trees and roots. Such material includes but is not limited to paint, petroleum products, contaminated water, or other deleterious materials.
 - 6. Cutting of tree roots by utility trenching, foundation digging, placement of curbs and trenches, and other miscellaneous excavation without prior approval of the Engineer and monitored by a certified arborist.
 - 7. Damage to trunk, limbs or foliage caused by maneuvering vehicles or stacking material or equipment too close to the tree.

8. Compaction of the root area by movement of trucks or grading machines; storage of equipment, gravel, earth fill, or construction supplies.
9. Excessive water or heat from equipment, utility line construction, or burning of trash under or near shrubs or trees.
10. Damage to root system from flooding, erosion, and excessive wetting and drying resulting from dewatering and other operations.

3.03 TREE REPLACEMENT

- A. The Contractor shall immediately notify the City and/or other jurisdictional agency if any tree is damaged by the Contractor's operations. If, in the opinion of the City or said other agency, the damage is such that replacement is necessary, the Contractor shall replace the tree at their expense. The tree shall be of a like size and variety as the tree damaged, or, if of a smaller size, the Contractor shall pay the City or said tree a compensatory payment acceptable to the tree City, subject to the approval of the City or other jurisdictional agency.
- B. The size of the trees shall not be less than 1-inch diameter nor less than 6 feet in height.
- C. Fines will be assessed against the Contractor for removal of trees without the prior written approval of the City. The minimum amount of the fine or restitution to the City will be the replacement of the tree removed, with one of equal or greater size and maturity and as approved by the City. Larger fines may be assessed against the Contractor depending on the circumstances and type of tree removed, especially in the case of trees listed in the City's Historical Tree List.

3.04 IRRIGATION SYSTEM

- A. If system is in place, protect existing irrigation system service point from damage.
- B. If repair is required, make repairs, ensure it is automated, and re-activate the system in order to water trees that may be affected by excavation.

3.05 MAINTENANCE

Contractor shall be responsible to perform periodic inspections of existing trees to be preserved and submit written proposals to the City's Engineer for additional maintenance work as may be required to ensure the health and general well-being of the trees. Contractor shall retain, at the direction of the Engineer, a certified arborist to perform or monitor this work.

3.06 MEASUREMENT AND PAYMENT

- A. The contract unit price paid for "**Trunk Wrap Protection**", shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work covered in this Section to protect trees, complete in place as shown on the plans, as required by the Special Provisions, and as required by the City's Engineer, Landscape Architect or Certified Arborist.
- B. Full compensation for conforming to the provisions in this section "**Tree Protection Fencing**" not otherwise provided for, shall be considered as included in prices paid for the various contract items of work involved and no additional compensation will be allowed therefor, unless specified otherwise.

END OF SECTION

CITY COUNCIL REFERENCE ONLY

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SECTION 01 57 19 Temporary Controls

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. References
- B. Related Sections
- C. Submittals
- D. Pedestrian and patron controls
- E. Traffic plans and controls
- F. Construction operations under traffic
- G. Pollution Abatement – General Requirements
- H. Dust control.
- I. Erosion and Sediment Control and Water Pollution Control
- J. Rubbish control.
- K. Mud control.
- L. Noise and vibration control.
- M. Chemicals.

1.02 REFERENCES

- A. State of California, Department of Transportation (Caltrans), Standard Specifications 2018.
- B. State of California, Department of Transportation (Caltrans), California Manual of Uniform Traffic Control Devices (California MUTCD), Part 1, Temporary Traffic Control.
- C. State of California, Vehicle Code.
- D. State of California General Permit Order 2009-0009-DWQ (as amended by 2010-0014-DWQ and 2012-006-DWQ) or most current version.
- E. California Regional Water Quality Control Board San Francisco Bay Municipal Regional Storm water NPDES Permit, Order No. R2-2015-0049.
- F. American National Standards Institute (ANSI) S1.4: Specification for Sound Level Meters.
- G. Refer to Article 7.9 of the General Conditions for Worksite Maintenance and Operation including:
 - 1. Air quality and air emissions control
 - 2. Dust and debris
 - 3. Clean up
 - 4. Disposal and Completion
- H. American National Standards Institute (ANSI) S1.4: Specification for Sound Level Meters.

1.03 RELATED SECTIONS

- A. Section 01 41 00 - Regulatory Requirements.
- B. Section 01 41 10 - Regulatory Requirements Hazardous Materials.
- C. Section 01 57 23 – Erosion and Sediment Control and Water Pollution Control

1.04 SUBMITTALS

- A. General: Refer to Contract Specifications Section 01 30 00, Submittals.
- B. Erosion and Sediment Control and Water Pollution Control
- C. Noise and Vibration Monitoring Plan as described in Part 1.12, herein.

1.05 PEDESTRIAN AND PATRON CONTROLS

A. Pedestrian Handling Plan

1. The Contractor will prepare a pedestrian handling plan for the Work within Park property to reflect any changes in pedestrian and patron paths including the accessible path. The accessible path will be as determined by the City in accordance with the requirements of California Building Code and the Americans with Disabilities Act and Architectural Barriers Act Accessibility Guidelines. The pedestrian handling plan will include drawing(s) showing proposed pedestrian handling devices including temporary signage and wayfinding signs. The Contractor will submit the plan for review and approval by the City's Engineer. All pedestrian handling devices and signage will be in compliance with the accessibility requirements of the California Building Code and the Americans with Disabilities Act and Architectural Barriers Act Accessibility Guidelines.
2. Include pedestrian handling plans for each phase of the work requiring different pedestrian diversion patterns and methods of control. Include for each phase detailed schedules for performance of work and include proposed pedestrian handling devices.
3. Where overhead protection is required for walkways during construction, the requirement for Covered Walkways of Chapter 33 of California Building Code will be followed.

B. Work Area Controls

1. All construction work within and around the Park facilities will be separated from the public with appropriate barriers to prevent public access to construction areas and to contain construction hazards.
2. When the construction work is not within the Worksite perimeter fence, a barrier will be placed around the construction work area to prevent public access to the work area and to protect the public from construction operations. The area to be enclosed within barriers will not encroach into an exit path nor block the access path to elevators, escalators or stairways. Barriers on the platform level will not be closer than 7 feet from the platform edge. Barriers on the concourse level will not interfere with access to fare gates or automatic fare collection vending equipment unless approved by the Engineer in writing.
3. A barrier that will be removed at the end of the work hours or work shift is a short-term barrier. Work performed within a short-term barrier must be able to be safely secured and not present a hazard to the public when the barrier is removed. Short-term barriers can be portable crowd control barriers, traffic delineator connected with rails, etc. to form a solid barrier, or other field constructed barriers approved by the Engineer.

4. A barrier that protects work that cannot be safely secured, is a hazard to the public, or remains in place after the end of the work hours or work shift is a long-term barrier. Long-term barriers will be a minimum of 8 feet in height. Long-term barriers will be constructed in accordance with the Barrier Design requirements of Chapter 33 of the California Building Code, and will be constructed with fire resistant materials. The use of fire retardant treated lumber and plywood is acceptable. Long-term barriers will be painted and maintained free of graffiti; paint color to be selected by the Engineer.

1.06 TRAFFIC PLANS AND CONTROLS

- A. The Contractor will prepare a traffic control plan required for the Work. The traffic plan will include drawings showing proposed traffic control devices including temporary signage and temporary pavement markings and striping. Traffic control shall conform to the provisions of Part 6, Temporary Traffic Control of the latest California Manual on Uniform Traffic Control Devices.
- B. The Contractor shall furnish, install, operate, maintain, and remove when no longer required, all traffic control and protective devices required for the approved traffic plan.
- C. The traffic control plan will be submitted to the Engineer in accordance with Article 15 – Special Conditions, and Section 01 30 00 Submittals.

1.07 CONSTRUCTION OPERATIONS UNDER TRAFFIC

- A. “Construction equipment” is defined as all types of equipment, vehicles, and tools used in connection with construction work. The term “workers” includes every person or firm performing work in or adjacent to public streets.
- B. When in traffic lanes, all vehicles and equipment will be operated at normal traffic speeds. If this is not practicable, a slow moving vehicle emblem will be displayed in accordance with the California Vehicle Code. Construction equipment will not be parked in any lane intended for use by normal traffic. Equipment parked or stored at the work site will be behind a guard rail, barrier, curb, or other protective device.
- C. One-Way Traffic: No construction equipment will be operated in traffic lanes, except in the designated direction of travel for respective lanes.
- D. Equipment Travel:
 1. No construction equipment other than that designated and used for general highway transportation will be moved on streets during hours of darkness or periods of adverse weather conditions that reduce normal visibility.
 2. Any construction equipment or material required for construction operations which exceeds the maximum vehicle dimensions specified in the Motor Vehicle Code, will be moved only in accordance with established State and local regulations. No such oversize load will be moved over public streets without first obtaining approval of the appropriate jurisdictional authority.
- E. When flagging is required, provide certified flaggers and flagging in accordance with the requirements of the California MUTCD, Part 6.
- F. All temporary control devices in connection with construction work will be removed at the close of the workday, unless the state of the work is such that warning devices are still needed and are adapted for night closing.

1.08 POLLUTION ABATEMENT - GENERAL REQUIREMENTS

- A. Conduct construction operations in a manner that will minimize pollution of the environment surrounding the area of the Work by all practicable means and

methods. Apply specific controls as specified in the Contract Specifications and as follows:

1. Waste Materials: No waste or eroded materials shall be allowed to enter natural or man-made water or sewage removal systems. Eroded materials from excavations, borrow areas, or stockpiled fill shall be contained within the Jobsite. The Contractor shall develop methods for control of erosion as specified in the project SWPPP and BMP's.
 2. Burning: No burning of waste materials or debris will be permitted.
 3. Burying: No burying of waste materials and debris will be permitted within the limits of the City's property.
- B. Provide for and maintain the flow of all sewers, drains, building or inlet connections, and all water courses which may be encountered during progress of the Work. Do not allow the contents of any sewer, drain, or building or inlet connection to flow into trenches. Immediately remove from proximity of the Work all offensive matter, using such precautions as are required by local authorities having jurisdiction.

1.09 DUST CONTROL

- A. Refer to Article 7.9 of the General Conditions, "Worksite Maintenance and Operations"
- B. The Contractor shall furnish all labor, equipment, and means required and shall carry out effective measures wherever and as often as necessary to prevent its operation from producing 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. The Contractor shall be responsible for any damage resulting from any dust originating from its operations. The dust abatement measures shall be continued until the Contractor is relieved of further responsibility by the City.
- C. Upon failure of the Contractor to remove the nuisance dust as specified in Paragraph B within 2 hours after notification by the Supervising Construction Coordinator, the City may order that such work be done by others, and all costs therefore shall be deducted from monies owned or to be owed the Contractor.
- D. It is understood that the provisions in Section 10, "Dust Control" will not prevent the Contractor from applying water or dust palliative for his convenience if he so desires; however, the Contractor shall endeavor, whenever possible to restrict the use of water to control dust for his convenience due to the current need to conserve water.
- E. The Contractor shall submit a Dust Control Plan describing proposed methods and equipment to be used for dust control, street sweeping and cleaning operations.
- F. Contractor shall provide dust control at all times, including holidays and weekends, as required to abate dust nuisance on and about the Jobsite which is a result of construction activities.
- G. Quantities and equipment for dust control shall be sufficient to effectively prevent dust nuisance on and about the Jobsite; and when weather conditions warrant, sprinkler equipment shall be on hand at all times for immediate availability.
- H. The City Inspector, City Engineer or Project Manager shall have authority to order dust control work whenever conditions warrant, and there shall be no additional cost to the City therefor. Dust control shall be effectively maintained whether or not the City Inspector, City Engineer or Project Manager orders such work.
- I. Complaints from the public shall be reported to the City Inspector, City Engineer or Project Manager and shall be acted on immediately.

- J. Where earthwork operations are in progress, keep exposed earth surfaces dampened continuously. Also, keep dirt access ways and roads dampened continuously.
- K. If portions of the Jobsite are temporarily inactive or abandoned for whatever reason, provide dust control and abatement continuously during such periods of inactivity.
- L. Where dust resulting from construction activities has collected on public sidewalks and streets, hose down such sidewalks and streets to abate flying dust parts. Clean all sidewalks and streets from accumulated dirt and dust.

1.10 EROSION AND SEDIMENT CONTROL AND WATER POLLUTION CONTROL

- A. The project requires an erosion and sediment control plans and compliance with all “Related Sections”. Refer to Section 01 57 23 “Erosion and Sediment Control and Water Pollution Control” for additional information.

1.11 RUBBISH CONTROL

During the progress of the Work, the Contractor shall keep the site of the Work and other areas used by it in a neat and clean condition, and free from any accumulation of rubbish. The Contractor shall dispose of all rubbish and waste materials of any nature occurring at the Work site, and shall establish regular intervals of collection and disposal of such materials and waste. The Contractor shall also 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 of construction in accordance with local codes and ordinances governing locations and methods of disposal, and in conformance with all applicable laws and regulations.

1.12 MUD CONTROL

- A. Contractor shall take proper measures to prevent tracking of mud onto public streets, drives, and sidewalks. Such measures shall include, but are not limited to, covering muddy areas on the Jobsite with clean, dry sand.
- B. All egress from the Jobsite shall be maintained in a dry condition, and any mud tracked onto streets, sidewalks, or drives shall be immediately removed, and the affected area shall be cleaned. The City Inspector, City Engineer or Project Manager may order such work at any time the conditions warrant.
- C. Contractor shall provide and maintain truck wheel washes and cleaning stations either at all points of haul route ingress and egress to public right-of-way or at a central location within the Jobsite. Wash water sedimentation removal and discharge quality shall be in accordance with regulatory requirements for discharge into receiving utilities or bodies of water. All trucks, or other vehicles leaving the Jobsite, shall be cleaned of mud and dirt, including mud and dirt clinging to exterior body surfaces of vehicles.
- D. All trucks coming to the Jobsite or leaving the Jobsite with materials or loose debris shall be loaded in a manner that will prevent dropping of materials or debris on streets. Spillage resulting from hauling operations along or across any public traveled way shall be removed immediately.
- E. Contractor shall engage a street sweeping and cleaning service or otherwise provide for the sweeping and cleaning of haul routes and work areas within public right-of-way. Street sweeping and cleaning operations shall comply with City of Fremont requirements. The duration of this activity shall be concurrent with excavation, hauling, and stockpiling operations. The minimum cleaning and sweeping frequency shall be continuous during continuous hauling operations and as needed during intermittent operations. The City Inspector, City Engineer or Project Manager may

order additional street sweeping and cleaning at no additional expense to the City as conditions warrant.

- F. The applicable requirements for mud control shall be included in the Contractor's Erosion Control Plan.

1.13 NOISE AND VIBRATION CONTROL

- A. Refer to Article 7.20 "Noise Control" of the General Conditions.
- B. Requirements: Minimize noise caused by construction operations, and provide working machinery and equipment fitted with efficient noise suppression devices. Employ other noise abatement measures as necessary for protection of employees and the public. In addition, restrict working hours and schedule operations in a manner that will minimize, to the greatest extent feasible, disturbance to residents in the vicinity of the Work.
- C. Definitions:
 - 1. Daytime refers to the period from 7:00 a.m. to 5:00 p.m. local time daily except Sundays and legal holidays.
 - 2. Nighttime refers to all other times including all day Sunday and legal holidays.
 - 3. Construction Limits are defined for the purpose of these noise and vibration control requirements as the City right-of-way lines, construction easement boundaries, or property lines as shown in the Contract Drawings.
- D. Contractor shall submit a Noise and Vibration Monitoring Plan describing proposed noise and vibration monitoring and recording equipment and positioning.
- E. Noise Control Requirements: Contractor shall employ noise-reducing construction practices such that construction noise does not exceed the limits specified herein. Employ other noise abatement measures as necessary for protection of employees and the public. Measures to be employed may include but are not limited to the following:
 - 1. Restrict working hours and schedule operations in a manner that will minimize, to the greatest extent feasible, disturbance to residents in the vicinity of the Work.
 - 2. Use equipment with enclosed engines and/or high performance mufflers.
 - 3. Locate stationary equipment as far as possible from noise-sensitive uses.
 - 4. Construct noise barriers, such as temporary walls or piles of excavated material between noise activities and noise sensitive uses.
 - 5. Re-route construction-related traffic along roads that will result in the least amount of disturbance to residences.
- F. Vibration Control Requirements: Contractor will employ vibration-reducing construction practices such that construction vibration does not exceed 80 VdB (more than 1 hour per Day), 90 VdB (less than 1 hour per day), or 100 VdB (less than 10 minutes per Day), or a peak particle velocity damage threshold of 0.20 inch per second for fragile buildings or structures. Measures to be employed may include but are not limited to the following:
 - 1. Locate vibration-generating equipment as far as possible from vibration-sensitive land uses.
 - 2. Avoid simultaneous operation of multiple pieces of vibration-generating equipment.
 - 3. Avoid nighttime construction in residential areas.

4. Avoid construction processes that generate high vibration levels
5. Avoid the use of vibratory rollers near vibration-sensitive uses.

G. Monitoring:

1. Monitor noise and vibration levels of work operations to assure compliance with the noise limitations specified herein. Retain record of noise measurements for inspection by the City Inspector, City Engineer or Project Manager.
2. Promptly inform the City Inspector, City Engineer or Project Manager of any complaints received from the public regarding noise and vibration. Describe the action proposed and the schedule for implementation, and subsequently inform the City Inspector, City Engineer or Project Manager of the results of the action.
3. Monitor noise and vibration levels day and night and for each new activity or piece of equipment. Start by measuring three times a Day that work operations occur plus once a night for 3 consecutive Days that work operations occur. Monitor noise and vibration levels at least once a week thereafter.

H. Measurement Procedure:

1. Except where otherwise indicated, perform all noise measurements using the A-weight network and "slow" response of an instrument complying with the criteria for a Type 2 General Purpose sound level meter as described in ANSI S1.4.
2. Measure impulsive or impact noises with an impulse sound level meter complying with the criteria of IEC 179 for impulse sound level meters. As an alternative procedure, a Type 2 General Purpose sound level meter on C-weighting and "fast" response may be used to estimate peak values of impulsive or impact noises. Transient meter indications of 125 dB C "fast" or higher will be considered as indications of impulsive noise levels of 140 dBA or greater.
3. Measure noise levels at buildings affected acoustically by the Contractor's operations at points between 3 feet and 6 feet from the building face to minimize the effect of reflections.
4. Measure noise levels at points on the outer boundaries of Construction Limits for noise emanating from within.
5. Where more than one criterion of noise limits is applicable, use the more restrictive requirement for determining compliance.

I. Continuous Construction Noise: Prevent noise from stationary sources, parked mobile sources, or any source or combination of sources producing repetitive or long-term noise lasting more than a few hours from exceeding the following limits:

1. Maximum Allowable Continuous Noise Level, dBA:

<u>Affected Residential Areas</u>	<u>Daytime</u>	<u>Nighttime</u>
Single family residences	60	50

Arterials or in multi-family residential areas,
including hospitals 65 55

Semi-residential/commercial areas,
including hotels 70 60

Affected Commercial Areas At All Times

Semi-residential/commercial areas,
including schools 65

Commercial areas with no nighttime residency 70

Affected Industrial Areas

All locations 80

- J. Intermittent Construction Noise: Prevent noises from non-stationary mobile equipment operated by a driver or from any source of non-scheduled, intermittent, non-repetitive, short term noises not lasting more than a few hours from exceeding the following limits:

1. Maximum Allowable Intermittent Noise Level, dBA:

Affected Residential Areas Daytime Nighttime

Single family residences 75 60

Arterials or in multi-family residential areas,
including hospitals 75 65

Semi-residential/commercial areas,
including hotels 80 70

Affected Commercial Areas At All Times

Semi-residential/commercial areas,
including schools 80

Commercial areas with no nighttime
residency 85

1.14 CHEMICALS

All chemicals used during project construction or furnished for project operation, 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.

1.15 MEASUREMENT AND PAYMENT

Full compensation for conforming to the provisions in this section “**Temporary Controls**” not otherwise provided for, shall be considered as included in prices paid for the various contract items of work involved and no additional compensation will be allowed therefor, unless specified otherwise.

END OF SECTION

CITY COUNCIL REFERENCE ONLY

CITY COUNCIL REFERENCE ONLY

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SECTION 01 57 23 Erosion and Sediment Control and Water Pollution Control

PART 1 GENERAL

1.01 SECTION INCLUDES

Water pollution control shall conform to the provisions of Section 7.19 "Environmental Control" of these General Conditions and the following Special Conditions and these Project Specifications.

1.02 RELATED SECTIONS

- A. Erosion, sediment, noise, dust, and exhaust control requirements are specified in Contract Specifications Section, 01 57 19 "Temporary Environmental Controls".
- B. California State Water Resources Control Board (SWRCB): Order No. 2009-0009-DWQ.
- C. Section 401 of the Clean Water Act Section, Water Quality Certification issued by the Regional Water Quality Control Board (RWQCB).
- D. Section 402 of the Clean Water Act, National Pollutant Discharge Elimination System - General Permit for Stormwater Discharges Associated with Construction issued by the State Water Resources Control Board (SWRCB) located at the following website: http://www.waterboards.ca.gov/water_issues/programs/npdes/.
- E. Land Disturbance Activities Order No. 2009-0009-DWQ, NPDES NO. CAS000002.
- F. Fremont Municipal Code (FMC) Chapter 11 - "Storm Water Management and Discharge Control Ordinance."
- G. City's Stormwater NPDES (National Pollutant Discharge Elimination System) Permit No. CAS612008.
- H. Construction General Permit, 99-08-DWQ.

1.03 SUBMITTALS

- A. General: Refer to Contract Specifications Section 01 30 00 "Submittals".
- B. Erosion and Sediment Control

1.04 FEDERAL WATER POLLUTION CONTROL ACT

Refer to Section 01 57 19, Temporary Environmental Controls.

1.05 WATER POLLUTION CONTROL PLAN

- A. A Water Pollution Control Plan shall be submitted by the Contractor to the Engineer for approval prior to proceeding with any work on this project. This plan shall be designed to implement the BMP's (fiber rolls, stabilized construction entrance, drain inlet protection, etc.) and any other BMP's the Contractor deems necessary to keep dirt, debris, and construction waste away from storm drains and local waterways. Contractor shall implement and maintain the plan, and or update the plan to provide temporary erosion and sediment control (Water Pollution Control Plan) for the duration of the project.
- B. Contractor shall implement and maintain temporary erosion and sediment control for the project as detailed in the most recent version of the Erosion Control and Sediment Control Field Manual for California, and the most recent California Stormwater Quality Association (CASQA) BMP Handbook, Construction, for the entire duration of the project.

PART 2 PRODUCTS

2.01 Best Management Practice (BMP) products shall be as specified in the most recent CASQA BMP Handbook, Construction.

PART 3 EXECUTION

3.01 EXECUTION OF WATER POLLUTION CONTROL PLAN

- A. Erosion and sediment control work shall consist of applying BMP's to control the discharge of stormwater pollutants from the project site. BMP's shall be used to cover all temporary erosion and sediment control situations that arise during construction including unanticipated field conditions year-round. These erosion and sediment control measures shall control and contain erosion-caused silt deposits and provide for the safe discharge of silt-free storm water into existing and proposed storm facilities.
- B. The Water Pollution Control Plan shall be designed to ensure the project site is protected during all storm events for the entire duration of the project.
- C. Contractor shall implement and maintain all Water Pollution Control Plan work for the project that shall include:
 - 1. Construction of any and all necessary systems to eliminate contaminants from entering the storm system.
 - 2. Clean up and control of the work site materials, spoils and debris.
 - 3. Removal of contaminants produced by equipment used for the construction of the project.
 - 4. Prohibition of illicit discharge (non-rain water) into the storm system.
 - 5. Provision of 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.
- D. The Water Pollution Control Plan must be approved by the Engineer prior to any construction work commencing on this project, as required by Section 2.5 of the General Conditions and Section 01 30 00, Submittals, of the Project Specifications.
- E. Contractor shall be responsible for ensuring that all sub-contractors and suppliers are aware of all water pollution control measures and that they implement such measures. Failure to comply with the storm water quality regulations and specifications will result in the issuance of verbal or written corrective notices, citations, fines, and/or a project stop order.
- F. Contractor shall maintain erosion and sediment control measures daily. The name of the person responsible for the daily maintenance of these facilities shall be on record with the Engineer and Project Inspector, along with a phone number where they can be reached twenty-four (24) hours a day.
- G. Erosion and Sediment Control: Temporary erosion and sediment control work shall consist of applying erosion control materials to embankment slopes, excavation slopes and other areas designated on the Water Pollution Control Plan, and installing sediment control such as, but not limited to, fiber roll, silt fence, inlet protection, gravel bags, headwall protection and stabilized construction entrances and exits, or other measures as specified in the Water Pollution Control Plan.

H. Removal of Temporary Structures: Erosion and sediment control structures and facilities shall be removed from the Jobsite upon completion of the affected work.

3.02 FEDERAL WATER POLLUTION CONTROL ACT

The Contractor's attention is directed to the Federal Water Pollution Control Act amendments of 1972 (Public Law 92-500) which requires a Corps of Engineers permit under Section 404 of the Act, for the discharge of one cubic yard or more of any dredged or fill material into "navigable waters" as defined in "Permits for Activities in Navigable Waters or Ocean Waters," Paragraph (d) (2), Federal Register of 25 July 1975, page 3134.

3.03 MEASUREMENT AND PAYMENT

Full compensation for conforming to the provisions in this section "**Water Pollution Control**" not otherwise provided for, shall be considered as included in prices paid for the various contract items of work involved and no additional compensation will be allowed therefor, unless specified otherwise.

END OF SECTION

CITY COUNCIL REFERENCE ONLY

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CITY COUNCIL REFERENCE ONLY

SECTION 01 60 00

Product Requirements

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Administrative and procedural requirements governing Contractor's selection of products for use in Project.

1.02 RELATED SECTIONS

- A. Section 01 30 00 "Submittals"
- B. Section 01 63 00 "Product Substitutions"

1.03 DEFINITIONS

- A. Definitions used in this Article are not intended to change meaning of other terms used in Contract Documents, such as "specialties," "systems," "structure," "finishes," "accessories," and similar terms. Such terms are self-explanatory and have well-recognized meanings in construction industry.
 - 1. Products: Items purchased for incorporation in Work, whether purchased for Project or taken previously purchased stock. Term "product" includes terms "material," "equipment," "system," and terms of similar intent.
 - a. Names Products: Items identified by manufacturer's product name, including make or model number or other designation, shown or lists in manufacturer's published product literature, that is current as of date of Contract Documents.
 - 2. Materials: Products substantially shaped, cut, worked, missed, finished, refined or otherwise fabricated, processed, or installed to form part of Work.
 - 3. Equipment: Product with operational parts, whether motorized or manually operated, that requires service connections, such as wiring or piping.

1.04 SUBMITTALS

- A. Product List: Prepare list showing products specified in tabular form acceptable to Construction Manager and Project Landscape Architect. Include generic names of products required. Include manufacturer's name and proprietary product names for each item listed.
- B. Refer to Section 01 30 00 "Submittals"

1.05 QUALITY ASSURANCE

- A. Source Limitations: To fullest extent possible, provide products of same kind from single source.
- B. Compatibility of Options: When given option of selecting between two (2) or more products for use on Project, product selected shall be compatible with products previously selected, even if previously selected products were also options.
- C. Nameplates: Except for required labels and operating data, do not attach or imprint manufacturer's or producer's nameplates or trademarks on exposed surfaces of products that will be exposed to view in occupied spaces or on exterior.

1. Labels: Locate required product labels and stamps on concealed surfaces or, where required for observation after installation, on accessible surfaces that are not conspicuous.
2. Equipment Nameplates: Provide permanent nameplate on each item of service-connected or power-operated equipment. Locate on easily accessible surface that is inconspicuous in occupied spaces. Nameplate shall contain following information and other essential operating data:
 - a. Name of product and manufacturer
 - b. Model and serial number
 - c. Capacity
 - d. Speed
 - e. Ratings

1.06 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products according to manufacturer's recommendations, using means and methods that will prevent damage, deterioration, and loss, including theft.
 1. Schedule delivery to minimize long-term storage at site and to prevent overcrowding of construction spaces.
 2. Coordinate delivery with installation time to assure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
 3. Deliver products to site in undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
 4. Inspect products upon delivery to ensure compliance with Contract Documents and to ensure that products are undamaged and property protected.
 5. Store products at site in manner that will facilitate inspection and measurement of quantity or counting of units.
 6. Store heavy materials away from Project structure in manner that will not endanger supporting construction.
 7. Store products subject to damage by elements above ground, under cover in weather-tight enclosure, with ventilation adequate to prevent condensation. Maintain temperature and humidity within range required by manufacturer's instructions.

PART 2 PRODUCTS

2.01 PRODUCT SELECTION

- A. General Product Requirements: Provide products that comply with Contract Documents, that are undamaged and, unless otherwise, indicated, new at time of installation.
 1. Provide products complete with accessories, trim, finish, safety guards, and other devised and details needed for complete installation and intended use and effect.

6. Standard Products: Where available, provide standard products of types that have been produced and used successfully in similar situations on other projects.
- B. Product Selection Procedures: Contract Documents and governing regulations govern product selection. Procedures governing product selection include following:
1. Nonproprietary Specifications: When Specifications list products or manufacturers that are available and may be incorporated in Work, but do not restrict Contractor to use of these products only, Contractor may propose any available product that complies with Contract requirements. Comply with Section 01 63 00 to obtain approval for use of unnamed product.
 2. Products Specified by Indicating Basis for Design: Design and approval is based on Systems, products, and assemblies of manufacturer indicated. Equivalent systems, products, and assemblies of other named manufacturers may be used; however, Contractor is responsible for additional approvals required, for coordination with remainder of Contract Documents, and for costs of redesign or recalculation required. Comply with Section 01 63 00 to obtain approval for use of unnamed product.
 3. Descriptive Specification Requirements. Where Specifications describe product or assembly, listing exact characteristics required, with or without use of brand or trade name, provide product or assembly that provides characteristics and otherwise complies with Contract requirements.
 4. Performance Specification Requirements. Where Specifications require compliance with performance requirements, provide products that comply with these requirements and are recommended by manufacturer for application indicated.
 - a. Manufacturer's recommendations may be contained in published product literature or by manufacturer's certification of performance.
 5. Compliance with Standards, Codes, and Regulations: Where Specifications only require compliance with imposed code, standard, or regulation, select product that complies with standards, codes, or regulations specified.
 6. Visual Matching: Where Specifications require matching established Sample, Architect's decision will be final on whether proposed product matches satisfactorily.
 - a. Where no product available within specified category matches satisfactorily and complies with other specified requirements, comply with provisions of Section 01 63 00 for selection of matching product in another product category.
 7. Visual Selection: Where specified product requirements include phase "as selected from manufacturer's standard colors, patterns, textures" or similar phase, select product and manufacturer that complies with other specified requirements. Architect will select color, pattern, and texture from product line selected.

PART 3 EXECUTION

3.01 INSTALLATION OF PRODUCTS

- A. Comply with manufacturer's instructions and recommendations for installation of products in applications indicated. Anchor each product securely in place, accurately located and aligned.
- B. Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.

3.02 MEASUREMENT AND PAYMENT

Full compensation for conforming to the provisions in this section "**Product Requirements**", not otherwise provided for, shall be considered as included in prices paid for the various contract items of work involved and no additional compensation will be allowed therefor.

END OF SECTION

CITY COUNCIL REFERENCE ONLY

Part 1 General1.01 SECTION INCLUDES

- A. Cleaning and cleanup during construction.
- B. Dust control.
- C. Disposal of debris.
- D. Final cleaning of station facilities and ancillary buildings.
- E. Final site cleanup.

1.02 RELATED SECTIONS

- A. Section 01 57 19, Temporary Controls.
- B. Section 02 41 19, Site/Selective Demolition.

1.03 CLEANING AND CLEANUP DURING CONSTRUCTION

- A. The entire site of the Work, including the Contractor's work and storage areas, shall be kept in a neat, clean, and orderly condition at all times during the course of this Contract. The City's Engineer may, at any time during construction, order a general cleanup of the site as a part of the Work, and there shall be no additional cost to the City therefore. The Contractor shall provide general daily clean-up and disposal service for removal of waste, rubbish, trash, and debris away from the Worksite.
- B. Perform cleaning of all facilities and ancillary buildings as required during construction to prevent accumulations of dust, dirt, soil, trash, and debris, so that a clean and safe working environment will be present at all times.
- C. Walkways over exposed earth surfaces shall also be kept neat and free of pebbles and other obstacles to walking comfortably, equivalent to broom clean of paved surfaces.
- D. The Contractor shall remove all graffiti placed during the course of the Work within the Contractor's enclosed secured areas at the work site. The Contractor shall remove the graffiti within 24 hours after its detection in these areas.

1.04 DUST CONTROL

- A. Schedule operations to prevent dust and other contaminants, resulting from Contractor's activities and cleaning operations, from contaminating neighboring residences and other structures and businesses.

1.05 DISPOSAL OF DEBRIS

- A. Dispose of waste, trash, and debris in a safe, acceptable manner, in accordance with applicable laws and ordinances and as prescribed by authorities having jurisdiction.
- B. Bury no waste material and debris on the site.
- C. Burning of trash and debris on the site will not be permitted.
- D. Refer to Section 01 50 50 "Construction and Demolition Waste Management" for coordination of disposal of trash and debris with Republic Services.

- E. Location of disposal site for trash and debris and length of haul are the Contractor's responsibility.

1.06 FINAL SITE CLEANUP

- A. Prior to Final Inspection, thoroughly clean the entire site and put it into a clean and neat, acceptable condition. Remove from the site all construction waste and unused materials, dunnage, loose rock and stones, excess earth, and debris of any description resulting from the Work.
- B. Hose down and scrub clean where necessary all pavement, vertical surfaces of concrete and masonry, and paved walks. Any runoff from this activity must be vacuumed or diverted as necessary away from the underground storm drain system.
- C. Thoroughly remove mortar droppings from concrete slabs and pavement where they occur.
- D. Free and clear all new and existing drainage systems.
- E. Clean and protect all conduit openings.
- F. Prior to Final Inspection, the Contractor shall remove all markings from streets, sidewalks, walls and other City facilities within the enclosed secured area at the work site.

Part 2 PRODUCTS

2.01 CLEANING PRODUCTS

- A. Utilize cleaning products that meet the requirements of the Green Seal GS-37 standard or comply with the requirements and maximum VOC limits of Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 8.5, Article 2, Regulation for Reducing VOC Emissions from Consumer Products (September 2001).
- B. Utilize janitorial paper products and trash bags that meet the minimum percentages of post-consumer recycled content and recovered content requirements of EPA's Comprehensive Procurements Guidelines.

Part 3 EXECUTION

3.01 MEASUREMENT AND PAYMENT

Full compensation for conforming to the provisions in this Section, "**Cleaning**", not otherwise provided for, shall be considered as included in the price paid for various contract items of work and no additional compensation will be allowed therefor.

END OF SECTION

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Requirements preparatory to final inspection.
- B. Final inspection.
- C. Acceptance of the Work and final payment.

1.02 RELATED SECTIONS

- A. Article 11 "Completion and Warranty Provisions" of the General Conditions.

1.03 REQUIREMENTS PREPARATORY TO FINAL INSPECTION

- A. Prior to final inspection, the Contractor will perform or provide the following, as applicable:
 - 1. Temporary facilities, except as may be required for punch list work, will be removed from the site.
 - 2. The site and all applicable appurtenances and improvements will be cleaned as specified in Section 01 74 14 "Cleaning".
 - 3. Record ("As-Built") drawings and specifications will be completed, signed, and submitted to the Engineer as specified in Section 01 78 39 "Project Record Documents".
 - 4. All underground utility stub outs shall be identified in the field with wooden stakes, denoting the end of the utility run, location of capped facility, and depth labeled to the facility, to facilitate the ease of identification for the next phase of work.
- B. The Contractor will be represented by its principal superintendent and such Subcontractors and Suppliers as may be necessary to answer the questions of the Engineer's inspection team.
- C. Certain elements of the Work, such as mechanical and electrical work, may be scheduled separately at appointed times in order to keep the preliminary inspection more focused and the number of persons in the City's Engineer's inspection team to a minimum.
- D. From the information gathered from this inspection, the City's Engineer will prepare a punch list of work to be performed, corrected, or completed.
- E. All work on the punch list will be completed by the Contractor prior to requesting the final inspection.

1.04 FINAL INSPECTION

- A. When all requirements of the above prepared punch list have been completed, the Contractor will request the final inspection.
- B. The request will be made in writing, addressed to the City's Engineer, at least 14 calendar days in advance of the requested date of the final inspection.
- C. The Contractor will be represented by its principal superintendent and such Subcontractors and Suppliers as may be necessary to verify the completion of the Work including punch list items.
- D. Depending on the extensiveness of the punch list items, certain elements of the Work may be scheduled separately for final inspection at appointed times.

1.05 ACCEPTANCE OF THE WORK AND FINAL PAYMENT

- A. Acceptance of the Work will be made in accordance with Article 8.4, and Article 11.1(D) of the General Conditions.
- B. Final payment will be made in accordance with Article 11.1(E) of the General Conditions.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.01 MEASUREMENT AND PAYMENT

Full compensation for conforming to the provisions in this Section, "Project Closeout", not otherwise provided for, shall be considered as included in the price paid for various contract items of work and no additional compensation will be allowed therefor.

END OF SECTION

CITY COUNCIL REFERENCE ONLY

PART 1 GENERAL1.01 SECTION INCLUDES

- A. Maintenance of Record Documents and Samples.
- B. Drawings
- C. Specifications
- D. Submittal of Record Documents and Samples.

1.02 MAINTENANCE OF RECORD DOCUMENTS AND SAMPLES

- A. Maintain at the Worksite one copy of the following documents for record purposes:
 - 1. Conformed Contract Documents
 - 2. Change Orders
 - 3. Approved Submittals
 - 4. Clarifications or Explanatory details or Request for Information (RFI)
 - 5. Inspection Reports
 - 6. Laboratory Test Records
 - 7. Field test Reports and Records.
 - 8. Factory Test Reports and Records
 - 9. Manufacturer's certificates.
- B. Maintain for record purposes at a location approved by the City engineer, electronic files for those documents which are required to be submitted electronically. Ensure that backups of electronic files are made on a regular basis and stored at a remote location.
- C. Store Record Documents and samples in field office apart from documents used for construction. Do not use record documents for construction for fabrication purposes.
- D. Provide files, racks, and secure storage for record documents and samples.
- E. Maintain record documents in a clean, dry and legible condition. Do not use record documents for construction purposes.
- F. Label and file record documents and samples in accordance with section number listings in table of contents of this project manual. Label each document "PROJECT RECORD" in neat, large, printed letters.
- G. Keep record documents and samples available for inspection by Engineer at all times.

1.03 RECORDING

- A. Record information on a set of black line opaque drawings, and in a copy of a project manual. At completion of the project, transfer information from the black line prints onto media as directed by the City.
- B. Maintain separate colors for each major system, for record information.
- C. Record information concurrently with construction progress. Do not conceal any work until required information is recorded.

- D. Contract drawings and shop drawings: Legibly mark each item to record actual construction, including:
1. Measured horizontal locations for water, storm drainage, and sanitary sewer drainage piping and measured horizontal and vertical locations for all other underground utilities, referenced to permanent surface improvements.
 2. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of construction.
 3. Field changes of dimension and detail.
 4. Changes made by modifications, including all RFI's.
 5. Details not on original contract drawings or SK drawings.
 6. References to related shop drawings and modifications.
- E. Other Documents: Maintain manufacturer's certifications, inspection certifications, field test records, and other documents required by individual specification sections.

1.04 SUBMITTALS

- A. At Contract closeout, deliver Record Documents and samples
- B. Transmit with cover letter in duplicate, listing:
1. Date.
 2. Project title and number.
 3. Contractor's name, address, and telephone number.
 4. Number and title of each Record Document.
 5. Signature of Contractor or authorized representative.
- C. Product Data and Contact List:
1. Preparation of Submittals:
 - a. Table of contents: Provide title of project; names, addresses, and telephone numbers of Architect/Engineer and Contractor with name of responsible parties; schedule of products and systems, indexed to content of the volume.
 - b. For each product or system: List names, addresses and telephone numbers of Subcontractors and suppliers, including local source of supplies and replacement parts.
 - c. Product data: Mark each sheet to clearly identify specific products and component parts, and data applicable to installation; delete inapplicable information.
 - d. Drawings: Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Do not use project record documents as informational drawings.
 - e. Typed Text: As required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions specified in Section 01 45 00 - Quality Control.
 - f. Warranties and Bonds: Bind in copy of each.
 2. Form of Submittals:
 - a. Prepare data in the form of an instructional manual.

- b. Binders: 8-1/2 x 11-inch three-ring binders with hardback, cleanable, plastic covers; 3-inch maximum ring size. When multiple binders are used, correlate data into related consistent groupings.
 - c. Cover: Identify each binder with typed or printed title "Product DATA and Contact List"; list title of Project and identify subject contents.
 - d. Arrange content by systems, under section numbers and sequence of Table of Contents of this Project Manual.
 - e. Provide tabbed fly leaf for each separate product and system, with typed description of product and major component parts of equipment.
 - f. Text: Manufacturer's printed data, or typewritten data on 20 lb. paper.
 - g. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.
 - h. Record Drawings/Documents: At Contract closeout, a Mylar copy and an electronic version (.pdf and .jpg on DVD media) of improvement plans revised to reflect "Record Drawings" conditions by the Engineer of Record shall be submitted to the City and approved by the City Engineer prior to final acceptance of work.
3. Time of Submittals:
- a. Submit one (1) copy of completed volumes in final form 15 days prior to final inspection. Copy will be returned after final inspection, with City Engineer's comments. Revise content of documents as required prior to final submittal.
 - b. Submit two (2) copies of revised volumes of data in final form within 10 days after final inspection.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

3.01 MEASUREMENT AND PAYMENT

Full Compensation for conforming to the provision in this section "**Project Record Documents**" not otherwise provided for, shall be considered as included in prices paid for the various contract items of work involved and no additional compensation will be allowed therefor.

END OF SECTION

CITY COUNCIL REFERENCE ONLY

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DIVISION 2 – EXISTING CONDITIONS

SECTION 02 41 19 SITE DEMOLITION

PART 1 GENERAL

1.01 SCOPE

- A. Site Demolition work includes the furnishing of labor, materials of any kind, tools, equipment, implements, machinery, methods of process, and services necessary to clear the site as shown on the plans, described by these Special Provisions, and as directed by the Engineer. The work shall include, but shall not necessarily be limited to, the following:
1. Implement Water Pollution Control Plan and Best Management Practices (BMP) as first order of work. See Section 01 57 23 for additional information.
 2. Installation of temporary construction fencing.
 3. Install BMP's.
 4. **Prior to demolition of existing pour-in-place synthetic safety surfacing, Contractor shall mark and record the existing elevation of the pour-in-place synthetic safety surfacing to be used as reference for the finish elevation of the new synthetic safety surfacing.**
 5. Demolition and removal of existing concrete pavement and aggregate base, if Alternate 1 is awarded.
 6. Off-haul all demolished material to an approved recycling facility per Section 01 50 50.
 7. Potholing: The Contractor shall pothole as needed to verify the location and alignment of any remaining existing utilities (storm drain, perforated pipes) to confirm depths within the play area that may be encountered during construction.
 8. All irrigation facilities encountered and damaged during the demolition process shall be repaired immediately and tested to ensure the system is functioning properly.

1.02 RELATED SECTIONS

- A. Section 01 00 00 "Supplemental to the General Requirements"
- B. Section 01 01 00 "Project Progress Schedule"
- C. Section 01 41 10 "Regulatory Requirements Hazardous Waste"
- D. Section 01 30 00 "Submittals"
- E. Section 01 57 23 "Erosion and Sediment Control and Water Pollution Control"
- F. Section 01 04 00 "Project Coordination"
- G. Section 01 41 00 "Regulatory Requirements"
- H. Section 01 32 30 "Photographic Documentation"
- I. Section 01 42 00 "Reference Standards"
- J. Section 01 50 50 "Construction and Demolition Debris Management"
- K. Section 01 51 00 "Mobilization and Temporary Construction Facilities"
- L. Section 01 55 39 "Tree Protection"
- M. Section 01 56 00 "Protection of Existing Facilities"
- N. Section 01 56 26 "Temporary Construction Fencing"

- O. Section 11A and 11B, City Standard Specifications, May 2018.
- P. All Technical Sections found herein
- Q. Public Safety: Refer to the Special Provisions herein, Section 01 00 00 “Supplemental to the General Conditions” and Caltrans Standard Specifications, May 2018.
- R. Refer to Section 01 55 27 “Maintenance of Traffic and Access” found in Article 15 herein.

1.03 SUBMITTALS

- A. Submit under provisions of Section 01 30 00 “Submittals”
- B. Proposed Protection Measures: Submit informational report, including Drawings that indicate the measures proposed for protecting individuals and property to dust control, noise and other environmental conditions.
- C. Indicate proposed location of construction fencing.
- D. Project Schedule
- E. Demolition schedule review as a part of construction schedule
- F. Waste Handling Plan, see Section 05 51 00
- G. Detailed information on methods and sequencing for accomplishing this Work shall be submitted to Project Landscape Architect no later than 10 days prior to commencement.
- H. The Contractor shall provide copies of written agreements from private land, City, landfill operators, or other agencies accepting disposal of any demolished material prior to any work.
- I. The Contractor shall submit to the City a haul route plan for approval, prior to commencing any work.
- J. Truck Movement is limited between the hours of 7 am and 4 pm, PST.

1.04 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

- A. USA Underground Service Alert
- B. CAL-OSHA

1.05 DISPOSAL OF WASTE MATERIALS AND CLEAN UP

- A. All debris, waste material, tools, equipment, shall be removed from the project site and disposed of in accordance with the provisions in Section 7.9(D) of the General Conditions.
- B. Materials required to be recycled shall be done so in accordance with Section 01 50 50 Construction and Demolition Debris Management. Regulations.
- C. Remove all materials, including all debris, waste material, tools, equipment, etc., from the project site upon, completion of work.
- D. Regulations for Hauling and Disposal: Comply with all Federal, State, and Local Agency hauling and disposal regulations, and comply with all pertinent regulations of OSHA and local codes and practices.

1.06 JOB CONDITIONS

- A. UTILITIES: Underground utilities exist in work areas; use extreme caution. Pothole to verify actual depth/ location of utilities. Notify city Engineer in writing if existing conditions interfere with any construction. Locations shown on the plan are approximate and for general information only. Notify underground service alert (USA) at least 48 hours prior to an excavation on this project (phone: 800-227-2600). Locate and mark all utilities prior to start of construction.

- B. For utilities within the project site, a private utility locating firm may be required, at the option of the contractor, to identified underground utilities which may not be identified through USA.
- C. Remove materials carefully, to extent shown or required. Provide neat and orderly junctions between existing and new materials.
- D. Protect from damage existing trees, structures and facilities that are to remain.
- E. Perform Work so as to provide the least interference and most protection to existing facilities and improvements to remain.
- F. Provide not less than 72 hours' notice of activities that will affect operations of adjacent occupied buildings.
- G. Maintain access to existing walkways, exits, and other facilities used by adjacent residents and occupants of adjacent buildings.
 - 1. Do not close or obstruct walkways, exits, or other facilities used by occupants of adjacent buildings without written permission from the City or other authorities having jurisdiction.

1.07 PROTECTION

- A. Provide as necessary to protect public, the City's employees, existing finishes, improvements to remain, existing utilities, and adjoining property from damage, all in accordance with applicable regulations.
- B. Dust Palliation: All necessary precautions, including watering, shall be taken to control air-borne dust to within reasonable limits. If serious problems and/or complaints arise due to air-borne dust, and when directed by the City's Engineer, or Project Inspector, operations causing such problems shall be temporarily discontinued.
- C. Explosives: Use of explosives will not be permitted.

1.08 QUALITY ASSURANCE

- A. Codes and Regulations: Comply with governing codes and regulations. Use experienced workers.

PART 2 MATERIALS/PRODUCTS

2.01 TEMPORARY CONSTRUCTION FENCING

- A. Refer to Section 01 56 26, "Temporary Construction Fencing" for further information, including measurement and payment.

2.02 WATER POLLUTION CONTROL AND BEST MANAGEMENT PRACTICES

- A. Refer to Section 01 57 23 "Erosion and Sediment Control and Water Pollution Control".

PART 3 EXECUTION

3.01 MOBILIZATION

- A. Refer to Section 01 51 00, "Mobilization and Temporary Construction Facilities" for additional information, including measurement and payment

3.02 TEMPORARY CONSTRUCTION FENCING

- A. As first order of work, the contractor shall install all new temporary construction fencing to secure the site, staging area, and work zone.
- B. Establish and clearly mark the accessible route to the project site entry.

- C. Section 01 56 26, the contractor shall be responsible for adjusting the layout of the fences as necessary to accommodate their work, and to accommodate other contractor's doing work, accessing the site, accessing any buildings.
- D. No additional payment will be made for adjusting the layout of the temporary construction fencing.

3.03 TREE PROTECTION FENCING

- A. Refer to Section 01 56 39, "Tree Protection" for additional information.

3.04 WATER POLLUTION CONTROL / BEST MANAGEMENT PRACTICES

- A. Refer to Section 01 57 23 for further information on Storm Water Pollution Control and Best Management Practices.

3.05 DEMOLITION

- A. Demolish and Remove Existing Play Equipment.
- B. Demolish and Remove Existing Pour-in-place Safety Surfacing:
 - 1. **Prior to all work of this section, Contractor shall carefully mark existing elevation of the pour-in-place synthetic safety surfacing in the field, and record the existing elevation of the pour-in-place synthetic safety surfacing. The existing elevation of the synthetic safety surfacing will determine the finish elevation of the new synthetic safety surfacing.**
 - a. City Survey will not provide finish elevations of the new pour-in-place synthetic safety surfacing.
 - 2. Contractor shall carefully inspect site and all objects designated to be removed and to be preserved.
 - 3. Locate all existing active utility lines traversing the site and determine the requirements for their protection and/or relocation.
 - 4. Where existing conditions conflict with representations of the Contract Documents, notify the Engineer and obtain written clarification prior to commencement of demolition.
 - 5. Do not commence Demolition Work until unsatisfactory conditions have been corrected.
 - 6. Water sprinkling, temporary enclosures, chutes, watering trucks, and other suitable methods shall be used to limit dust and dirt rising and scattering in the air. The Contractor shall comply with all government regulations pertaining to environmental protection.
 - 7. Water shall not be used in a manner that creates hazardous or objectionable conditions such as ice, flooding, muddy conditions, or pollution.
 - 8. The site shall be kept neat and orderly during the demolition to the maximum extent practical.
 - 9. Public right-of-way and private property shall be kept free of debris at all times. Stockpiles of demolished items or materials shall be removed from the site on a daily basis or stored in waste containers which shall be emptied on a weekly basis or as conditions require in order to manage the accumulation of waste. Accumulations of flammable materials shall not be permitted.
- C. Potholing
 - 1. The Contractor shall backfill all voids created by clearing and grubbing work with on-site native material, backfilled in a slightly convex mound to compensate for settling. Backfill material in all non-paved areas may be selected from the on-site excavations to be performed and shall be clean, free of lumps and debris greater than one inch and shall be cohesive.

2. Notify the Project inspector of any conflicts regarding the depth of existing underground utilities that may be affected by or come into contact with new work.
3. Any underground utilities damaged by the contractor due to not adequately potholing to determine depth, and not adequately protected shall be repaired at the contractor's expense.

3.06 DEMOLITION AND REMOVAL OF EXISTING CONCRETE PAVEMENT

- A. If Alternate 1 is awarded, demolish and remove existing concrete pavement and aggregate base to a depth of 12" to accept new 6" concrete thickness and new 6" aggregate base.

3.07 MEASUREMENT AND PAYMENT

- A. The lump sum price paid for "**Demolish and Remove Existing Play Equipment**", of the unit price schedule shall include full compensation for the various items covered by this section, and shall include furnishing all labor, materials, tools, equipment, and incidentals and doing all the work, including, but not limited to occupancy & pollution control, Utilities and Furnishings to Remain and be Protected , potholing, inspection, drain inlet preservation, concrete glue edge preservation, perforated drain line and levelling course preservation, clean-up, disposal, and complying with applicable regulations, complete in place as shown on the plans, as required by these Special Provisions, and as directed by the City Engineer or their designee.
- B. The lump sum price paid for "**Demolish and Remove Existing Pour-in-Place Synthetic Safety Surfacing**" of the unit price schedule shall include full compensation for the various items covered by this section, and shall include furnishing all labor, materials, tools, equipment, and incidentals and doing all the work, including, but not limited to occupancy & pollution control, Utilities and Furnishings to Remain and be Protected , potholing, inspection, drain inlet preservation, concrete glue edge preservation, perforated drain line and levelling course preservation, clean-up, disposal, and complying with applicable regulations, complete in place as shown on the plans, as required by these Special Provisions, and as directed by the City Engineer or their designee.
- C. If Alternate 1 is awarded, the lump sum price paid for "**Demolish and Remove Concrete Paving**", of the unit price schedule shall include full compensation for the various items covered by this section, and shall include furnishing all labor, materials, tools, equipment, and incidentals and doing all the work, including, but not limited pollution control, Utilities and Furnishings to Remain and be Protected, potholing, complete in place as shown on the plans, as required by these Special Provisions, and as directed by the City Engineer or their designee.

END OF SECTION

CITY COUNCIL REFERENCE ONLY

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DIVISION 3 – CONCRETE

SECTION 03 11 00 CONCRETE FORMWORK

PART 1 – GENERAL

1.01 SCOPE

- A. Supply and install all formwork for all cast-in-place concrete as shown on the plans and as specified herein.

1.02 COORDINATION

- A. All pipes, sleeves, anchors and bolts, angle frames, inserts, supports, ties and other materials in connection with concrete construction shall be placed and secured in position before the concrete is placed.
- B. 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 so that provision for their work can be made without delaying the project.
- C. Cutting and/or patching made necessary by failure or delay in complying with these requirements shall be done at no cost to the City.

1.03 CLEAN-UP

- A. During the progress of the work and at the completion of the work, the Contractor must conform to the requirements of Division 1, General Requirements of these Special Provisions and Section 01 74 14 "Cleaning".

PART 2 – MATERIALS

2.01 MATERIALS

- A. Forms for Slabs and Exposed Concrete: Forms for flat, exposed surfaces shall be 5-Ply Exterior B-B (Concrete Form) panels conforming to the requirements of U.S. Department of Commerce Product Standard PS 1-66. See requirements for thickness hereinafter. Panels with raised or separated face veneers shall not be used for exposed concrete.
- B. Form Facing Material
 - 1. Provide non-porous surface such as steel, plastic, or high-density overlaid plywood with watertight joint seals to prevent leakage.
 - 2. Plywood panels shall have a smooth surface treatment to prevent any development of bond or adhesion to concrete and to seal plywood surfaces against moisture.
- C. Form Ties: Fiberglass rods tinted to match concrete.
- D. Form Release: Burke Form Sealer, manufactured by W.J. Burke Company, or approved equal, shall be used and shall be applied in strict accordance with the manufacturer's directions, or approved equal.
- E. Rough Hardware: Nails, bolts, screws, anchors, etc., as shown or needed shall be furnished and set.

PART 3 – EXECUTION

3.01 WORKMANSHIP

- A. Footings shall rest on firm, undisturbed or compacted soil at a minimum depth below finish or natural grade as stated on the plans.

- B. Forms for concrete shall be complete and of such strength and construction as to prevent any spread, shifting, or settling of same when concrete is deposited therein and tight enough to avoid any leakage or washing out of cement mortar from the concrete.
- C. All forms and false-work shall be designed in a manner so that the stresses in the different members can be determined, including the details. They shall have sufficient rigidity so as to resist deflection more than one-eighth inch (1/8") between supports after the concrete has been placed therein, and to assure a smooth and even appearance of the surfaces. Any plywood forms shall be not less than one-quarter inch (1/4") thick. If necessary, to prevent deflections, plywood shall be backed with other material.
- D. Bolts, rods and other approved devices shall be used for internal ties and spreaders. These shall be of such construction that when the forms are removed, no metal shall be within one inch (1") of an exterior face.
- E. Special care shall be taken that forms are true to the required lines, grades and surfaces so as to give a uniform neat and workmanlike finish to all concrete surfaces and to make form supports of sufficient strength, properly braced and on adequate foundations so that there shall be no settling or distortion when the weight of concrete is added.
- F. All dirt, chips, sawdust, rubbish, water etc., shall be completely removed from the forms by water hosing and air pressure before any concrete is deposited therein. No wooden ties nor blocking shall be left in concrete except where indicated for attachment of other work.
- G. Any wood forms other than plywood shall be thoroughly water soaked before placing any concrete. The wetting of forms shall be started at least twelve (12) hours before concreting.
- H. Upon removal of forms, all bolts, wires for anchoring, etc., shall be either removed, cut off to lengths as directed or left in place for anchorage of other work as specified.
- I. When a concrete pour has been stopped for a sufficient length of time so that shrinkage or warp has separated the forms and the concrete, provisions shall be made to draw the forms into firm contact with the concrete before placing additional concrete. Care must be taken to prevent any shoulder or ledge being formed at a cold joint.
- J. Forms to be reused shall be in good condition and shall be thoroughly cleaned before being reused.
- K. Construction details shall be in conformance with the Standard Specifications and City of Fremont Standard Detail for curb, gutter and sidewalk, except where modified herein, or as detailed on the plans.
- L. Construction joints shall be made and located generally as indicated on the plans and in a manner so as not to impair the strength of the structure and only at locations as approved by the Engineer.

3.02 MEASUREMENT AND PAYMENT

- A. Payment for "**Concrete Formwork**" is considered to be included in the contract price paid for various concrete items of work that require formwork and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work covered in this section, complete in place as shown on the plans, as required by the Special Provisions, and as required by the Engineer, and no separate payment will be made therefor.

END OF SECTION

SECTION 03 20 00 CONCRETE REINFORCEMENT

PART 1 GENERAL

1.01 SCOPE

- A. Supply and install all reinforcing steel as shown and called for on the plans, structural drawings and in these special provisions.

1.02 COORDINATION

- A. This Contractor and other trades whose work makes it necessary for them to cooperate, shall coordinate their work so as not to interfere with each other. Interferences between items of various trades shall be resolved before any concrete is poured.

1.03 STORAGE

- A. Reinforcement shall be stored in a manner that will avoid excessive rusting or coating with grease, oil, dirt or other objectionable materials.

1.04 CLEAN-UP

- A. During the progress of the work and at the completion of the work, the Contractor must conform to the requirements of Division 1, General Requirements of these Special Provisions and Section 01 74 14 "Cleaning".

PART 2 MATERIALS

2.01 REINFORCING BARS – FLAT WORK

- A. Reinforcing detailing, fabrication, and placement shall conform to the California Building Code (CBC), "The Manual of Standard Practice of the Concrete Reinforcing Steel Institute" and the "Building Code Requirements for Structural Concrete and Commentary", ACI 318 unless otherwise noted.
- B. Reinforcing steel shall conform to the following standards:
 - 1. Deformed bars #3 - ASTM A615, Grade 40
 - 2. Deformed bars #4 and larger - ASTM A615, Grade 60
- C. Reinforcing fabrication and placing shall conform to the Manual of Standard Practice of the Western Concrete Reinforcing Institute, unless otherwise noted.
- D. All reinforcing shall be marked so identification can be made when the final in-place inspection is made. Reinforcing spacing shown are the maximum on center and all reinforcing is continuous, unless noted otherwise.
- E. All reinforcing bars shall be corrosion-resistant types at locations in contact with exposed surfaces. Reinforcing shall be clean of rust, grease and other materials likely to impair bond.
- F. All reinforcing shall be bent cold.
- G. Supports for reinforcing bars in footings shall be of sufficient strength to adequately support the bars and shall be of the type approved by the Engineer.
- H. Supports or spacers for bars in walls shall be such that exterior face of wall will not be marred when forms are stripped and final finish has been completed.
- I. Tie wire shall be No. 16 American Wire Gauge or heavier, black annealed. All reinforcing shall be properly and securely wired and properly supported above grade and away from forms to establish proper clearances.

- J. Miscellaneous Reinforcing Accessories: Spacers, chairs, dobies, ties, and other devices necessary for properly placing, spacing, supporting, and fastening reinforcement in place.

2.02 DOWELING

- A. Dowels must be #4 deformed bars and comply with ASTM A615, Grade 60
- B. Dowels shall be twelve (12") inches long, #4 deformed bar, spaced twenty-four (24") inches on center, and extend a minimum of four (4") inches into the existing concrete.
- C. Epoxy for doweling shall conform to the provisions in Section 95, "Epoxy," of the 2018 Caltrans Standard Specifications. The Contractor shall prepare the pavement surface prior to application according to the manufacturer's recommendations.

2.03 EPOXY

- A. Epoxy for doweling shall conform to the provisions in Section 95, "Epoxy," of the 2018 Caltrans Standard Specifications.
- B. The Contractor shall prepare the pavement surface prior to application according to the manufacturer's recommendations.

PART 3 EXECUTION

3.01 WORKMANSHIP

- A. All work shall comply with the requirements set forth in the "Manual of Standard Practice for Detailing Reinforced Concrete Structures", published by the American Concrete Institute except where more exacting requirements are specified in the Contract Documents.
- B. Bars shall be accurately bent and placed as indicated on the plans.
- C. Bars shall be securely fastened and supported so that they may be walked upon without displacement and to prevent movement during placing of concrete.
- D. Any construction joints in members added by the Contractor shall be reinforced as directed by the Engineer at no additional expense to the City.
- E. Termination and continuation of concrete pours: Concrete pours that are to be terminated longitudinally along a pathway, due to amount of square foot to be poured in a single day, or other reason, shall be formed at the terminal edge where a deep joint was to be placed. The terminal edge shall be a cold joint and be prepared to accept the next concrete pour. Edge shall be tooled as delineated in the plan details and doweled as described elsewhere herein.

3.02 CONNECTION TO EXISTING CONCRETE AND COLD JOINTS

- A. Wherever sidewalk, mow band or curb is removed, the entire section of sidewalk or curb between deep joints shall be removed and replaced. Horizontal dowels for proposed curb, gutter and sidewalk to be tied into existing curb, gutter and sidewalk to connect new work to existing.
- B. Where a concrete pour end with the intent to be continued, that cold joint edge shall be tooled and doweled to accept the next concrete pour.
- C. Cold joints shall occur where a deep joint was anticipated, based on the spacing outlined in the plans and details for the various sidewalk width, or plaza layouts.
- D. Epoxy rebar dowels into drilled holes. Dowels shall be placed prior to placement of new adjacent concrete.

3.03 PLACING REINFORCING STEEL

- A. Reinforcement shall be placed in accordance with the details in the drawings.
- B. Reinforcement shall be accurately placed and securely tied at intersections with No. 16 gauge black annealed wire. It shall be maintained in proper position by chairs, bar supports, or other approved devices. Bars in footings shall be supported on precast concrete blocks.
- C. Bars shall lap 30 diameters at splices. Splices in adjoining horizontal bars shall be staggered at least six feet (6'). Where this is not feasible, submit suggestions for the Engineer's consideration. Horizontal bars shall be hooked around corners not less than 24 diameters, with a minimum of twelve inches (12") as per typical details.
- D. Welding of rebar is not permitted unless approved by the Engineer.
- E. Concrete protection of reinforcement shall be not less than the following:
 - 1. Three inches (3") where concrete is poured against ground or poured against forms, but may be in contact with ground.
- F. Clear distance between bars shall be not less than one and one-half inches (1-1/2") or one and one-half (1-1/2) bar diameters, not less than one and one-third (1-1/3) times the maximum size of coarse aggregate. Wherever conduits, piping, inserts, sleeves, etc. interfere with the placing of reinforcing steel as shown or called for, the Contractor must consult the Engineer and secure from them the method of procedure before pouring any concrete.

3.04 MEASUREMENT AND PAYMENT

Payment for "**Concrete Reinforcement**" is considered to be included in the contract price paid for various concrete items of work that require reinforcement and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work covered in this section, complete in place as shown on the plans, as required by the Special Provisions, and as required by the Engineer, and no separate payment will be made therefor.

END OF SECTION

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CITY COUNCIL REFERENCE ONLY

SECTION 03 30 00 CAST IN PLACE CONCRETE

PART 1 GENERAL

1.01 SCOPE

A. Supply and install all cast-in-place concrete work as shown on the plans. The work shall include, but shall not necessarily be limited to, the following:

1. Concrete Paving

1.02 DEFINITIONS

A. All concrete noted above, not described as structural concrete, shall be defined as "Minor Concrete" as described in Caltrans specifications Section 90-2 "Minor Concrete", and shall meet all other requirements of Section 90.

1.03 DOCUMENTS

A. Related Sections

1. Section 03 11 00 "Concrete Formwork"
2. Section 03 20 00 "Concrete Reinforcement"
3. Section 07 92 00 "Concrete Joint Sealer"
4. Section 31 20 00 "Rough Grading"
5. Section 32 11 23 "Aggregate Base Course"
6. Section 32 33 00 "Site Furnishings"

B. Caltrans

1. 2018 Standard Specifications, Section 26 "Aggregate Bases"
2. 2018 Standard Specifications, Section 90 "Concrete"

1.04 REFERENCES

A. California Building Code (CBC), California Code of Regulations, Title 24, Part 2.

B. American Concrete Institute (ACI):

1. ACI 117 - Standard Specifications for Tolerances for Concrete Construction and Materials; American Concrete Institute International; 2006.
2. ACI 211.1 - Standard Practice for Selecting Proportions for Normal, Heavyweight, and Mass Concrete; American Concrete Institute International; 1991 (Reapproved 2002).
3. ACI 301 - Structural Concrete for Buildings
4. ACI 302.1R - Guide for Concrete Floor and Slab Construction.
5. ACI 304R - Guide for Measuring, Mixing, Transporting, and Placing Concrete; American Concrete Institute International; 2000
6. ACI 305.1 - Hot Weather Concreting.
7. ACI 306.1 - Cold Weather Concreting.
8. ACI 308.1 - Standard Specification for Curing Concrete.
9. ACI 318 - Building Code Requirements for Structural Concrete

C. American Society for Testing and Materials:

1. ASTM C 33 - Standard Specification for Concrete Aggregates.
 2. ASTM C 39/C 39M - Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens.
 3. ASTM C 94/C 94M - Standard Specification for Ready-Mixed Concrete.
 4. ASTM C 150 - Standard Specification for Portland Cement.
 5. ASTM C 171
 6. ASTM C 260 - Standard Specification for Air-Entraining Admixtures for Concrete.
 7. ASTM C309 - Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete.
 8. ASTM C 494/C 494M - Standard Specification for Chemical Admixtures for Concrete.
 9. ASTM C 618 - Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete.
 10. ASTM C 979 - Standard Specification for Pigments for Integrally Colored Concrete.
 11. ASTM D 994 - Standard Specification for Preformed Expansion Joint Filler for Concrete (Bituminous Type).
- D. California Test (CT)
1. CT 518, Concrete density
 2. CT 539, Concrete Compressive Strength
 3. CT 540, Test cylinders
 4. CT 521, Curing and Test
 5. All California Test not listed herein, but defined in the 2018 Standard Specifications related to concrete and minor concrete.

1.05 SUBMITTALS

- A. Product Data: For each type of manufactured material and product indicated.
- B. Color: Submit product data and manufacturer's instructions for material and product indicated:
 1. Color additives.
 2. Curing compounds.
 3. Form facing materials.
 4. Form release agents.
 5. Proprietary cleaning agents.
 6. Surface retarders.
 7. Epoxy Grout
- C. Construction Joint and Deep Joint Plan
 1. Construction and deep joints are delineated for reference and are diagrammatic.
 2. The Contractor shall show all construction joints, deep joints, and expansion joints in plan, for review and approval, prior to field layout.

3. Clearly identify joints that vary from the contract plans with a cloud, or circling the delineations, and adding notes "Engineer Verify" or "Architect Verify" to the proposed joints beyond those shown on the drawings for concrete slabs.

1.06 QUALITY ASSURANCE

- A. All work shall be accomplished using Caltrans 2018 Standard Specifications as a reference and standard for quality and performance.
- B. Concrete work shall be detailed and constructed in accordance with the guidelines of American Concrete Institute (ACI, 2017 & 2014).
- C. Perform work of this section in accordance with ACI 301 and ACI 318.
- D. Follow recommendations of ACI 305R when concreting during hot weather.
- E. So-called flat spots or bird baths in the finished surface will not be acceptable. Surfaces must drain and shall not vary more than 1/8 inch in 5 feet on any paved area.
- F. Perform work in accordance with ACI 301, Section 6 - Architectural Concrete, and the Standard Specifications as a reference and standard for quality and performance.
- G. Conform to ACI 305 during hot weather.
- H. Conform to ACI 306 during cold weather.
- I. Contraction, construction, and isolation joints shall conform ACI 302 (ACI, 2017).
- J. Maintain 3-inch, or thicker, concrete cover over all reinforcing steel where concrete is in contact with soil, in accordance with Section 20.6 of ACI Concrete Institute (ACI) Committee 318 (ACI, 2014).
- K. Obtain each material from same source and maintain high degree of consistency in workmanship throughout Project.
- L. Installer Qualifications: Concrete work shall be by firm with five (5) years of experience with work of similar scope and quality.
- M. Cure time and Concrete Testing: Minimum cure time will be 7 days before placement of synthetic safety surfacing or other. No work which places stress, tension, or loading on new concrete prior to 7 days. Contractor will proceed at their own risk if work is to occur prior to 7 days cure time.

1.07 PRODUCT DELIVERY

- A. Weight and delivery certificates for each load of material shall be delivered to the Engineer.
- B. The delivery certificates shall state the material by the approved material designation, the weight or volume, the date, time and delivery, vehicle name or number.

1.08 COORDINATION

- 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 under this Section so that provision for their work can be made without delaying the project.

1.09 PROTECTION

- A. Protect and prevent damage to adjacent properties and improvements that may be caused by the Contractor's operations.

- B. Cutting and/or patching made necessary by failure or delay in complying with these requirements shall be done at no cost to the City.
- C. Any damage to the finished pavement surface from subsequent construction, shall be repaired to a clean, smooth, true and uniform surface. Existing or new paving which has been damaged due to the Contractor's operations, and which cannot be repaired to the satisfaction of the Engineer, shall be removed and replaced at the direction of the Engineer at the Contractor's own expense before final payment is made.
- D. Locate all existing underground utilities including irrigation lines in the areas of work. If existing lines are to remain in place, provide adequate means of protection during construction.
- E. Should uncharted or incorrectly charted existing utilities including irrigation lines be encountered during construction, consult the Engineer immediately for directions as to procedure. Cooperate with City and utility companies in keeping respective services and facilities in operation. Repair damaged utilities or irrigation lines to the satisfaction of the City or utility owner.
- F. Do not interrupt existing utilities including irrigation lines serving facilities occupied and used by the City or others except when permitted in writing by the Engineer, and then only after acceptable temporary utility service or irrigation lines have been provided.

1.10 LAYOUT OF WORK

- A. Refer to Section 01 00 00, "Supplemental to the General Conditions", for information regarding layout of work.

1.11 TOLERANCES

- A. Over-excavating beyond the established excavation lines done for the Contractor's convenience shall be backfilled at the Contractor's expense.
- B. Grade to a tolerance of plus or minus one tenth (0.1) of a foot under paved areas.

1.12 TESTS AND INSPECTIONS

- A. Cylinder tests and inspections shall be performed by the City's independent testing firm for structural footing concrete only.
- B. Furnish all material for test cylinders and any other samples the Engineer requires for analysis of concrete work. Give Engineer adequate notice prior to any anticipated pour.
- C. Portland cement concrete is designated by class based on 28-day compressive strengths when tested in accordance with ASTM C39, as specified herein.
- D. Cement content to be verified by California Test 518.

1.13 DISPOSAL

- A. All materials removed shall be disposed of in accordance with Article 15, Section 01 50 50 "Construction and Demolition Debris Management" and per Section 01 74 14 "Cleaning" and Section 7.9(D) of the General Conditions.

1.14 CLEAN-UP

- A. During the progress of the work and at the completion of the work, the Contractor must conform to the requirements of Division 1, General Requirements of these Special Provisions and Section 01 74 14 "Cleaning".

PART 2 MATERIAL

2.01 MINOR CONCRETE

- A. The following shall meet the requirements of "Minor Concrete" as defined elsewhere herein. Minor concrete shall apply to all concrete paving.
 - 1. Minor concrete must contain at least 505 pounds of cementitious material and the mix may contain fly ash.
 - 2. Maximum aggregate size of 3/4 inch (3/4")
 - 3. Color: **1 lbs lamp black per cubic yard**, unless otherwise indicated.
 - 4. Minimum 28-day compressive strength of 2,500 psi,
 - 5. Minimum slump of 3" inches (3") and maximum slump of 4 inches (4")
 - 6. Aggregate: Shall meet the requirements of "Minor Concrete", or Section 90 of the 2018 Standard Specifications.
 - 7. Water: Shall meet the requirements of "Minor Concrete", or Section 90 of the 2018 Standard Specifications.
 - 8. The final surface of new sidewalk shall be broom finished to match adjoining concrete finish.
- B. All underground concrete, including all footings, shall meet the requirements of "Minor Concrete", except **no lamp black** will be required if the footings are held short of finished grade or finished surface. If flush with finished surface, finish shall match adjacent finishes, and lamp black will be included.
 - 1. Slope top of footings at grade, minimum 1%.

2.02 PROPORTIONING AND DESIGN OF MIXES

- A. Submit concrete mix design for City Engineer's approval prior to pouring of any concrete.
- B. Produce concrete of required consistency and strength which will present an appearance satisfactory to the City Engineer. Color of all exposed concrete shall match color of adjacent existing concrete when dry.

2.03 CONCRETE REINFORCEMENT

- A. Concrete reinforcement shall conform to the requirements of Section 03 20 00 "Concrete Reinforcing" of these Special Provisions.

2.04 DOWELING

- A. Refer to Section 03 20 00 "Concrete Reinforcing"

2.05 EPOXY GROUT

- A. Epoxy shall conform to the provisions in Section 95, "Epoxy," of the Standard Specifications. The Contractor shall prepare the pavement surface prior to application according to the manufacturer's recommendations.
- B. Non-Shrink Grout: Master Builders "Embeco," Grace "Vibrofoil," Hallemite "PorRok," or approved equal.

2.06 CLASS II AGGREGATE BASE (AB)

- A. Refer to Section 32 11 23 "Aggregate Base Course"

2.07 CURING AND SEALER COMPOUND

- A. Curing compound shall comply with ASTM C309.
- B. Sealer characteristics:
 - 1. Water base modified acrylic with co-polymer emulsion that is both curing compound and long-lasting sealer; non-flammable, low gloss, non-yellowing, non-clouding and wear resistant, durable against moisture, oils and most stains.
 - 2. Milky white liquid, sprays on blue, dries clear on horizontal surfaces.
- C. W-1000 Clear Cure & Seal manufactured by Davis Colors, or approved equal.

2.08 FORMS

- A. Refer to Section 03 11 00, "Concrete Formwork".
- B. Form Facing Material:
 - 1. Provide non-porous surface such as steel, plastic, or high-density overlaid plywood with watertight joint seals to prevent leakage.
- C. Form Ties: Fiberglass rods tinted to match concrete.
- D. Form Release: Burke Form Sealer, or approved equal

PART 3 EXECUTION

3.01 ROUGH GRADING AND EXCAVATION

- A. Refer to Section 31 20 00 "Rough Grading"
- B. All footings shall be excavated to the depths delineated on the plans to accommodate footings to be poured "neat".
- C. Subgrade Compaction: Refer to Section 31 20 00 "Rough Grading" for subgrade compaction requirements.

3.02 DOWELED CONNECTION TO EXISTING CONCRETE

- A. Refer to Section 03 20 00 "Concrete Reinforcement".

3.03 REINFORCING BARS

- A. Refer to Section 03 20 00 "Concrete Reinforcement"

3.04 AGGREGATE BASE

- A. Refer to Section 32 11 20 "Aggregate Base Course"

3.05 CONCRETE MIXING

- A. Concrete shall be mixed and delivered to the site in conformance with Section 90 of the Standard Specifications.
- B. All concrete shall be kept continuously agitated until discharged into the hopper at the job site.

3.06 CONVEYING AND PLACING CONCRETE

- A. All pipes, sleeves, anchors and bolts, angle frames, inserts, supports, ties and other materials in connection with concrete construction shall be placed and secured in position before the concrete is placed.
- B. For reinforcement and doweling, refer to Section 03 20 00 "Concrete Reinforcement".
- C. Before placing concrete, mixing and conveying equipment shall be wet cleaned, the forms and space to be occupied by concrete shall be thoroughly cleaned, and the forms shall be wetted. Ground water shall be removed until the completion of the work.
- D. No concrete shall be placed in any unit of work until all formwork has been completely constructed, all reinforcement has been secured in place, all items to be built into concrete are in place, and form ties at construction joints tightened.
- E. Concrete placement, once started, shall be carried on as a continuous operation until the section of approved size and shape is completed. Pour cut-offs must be of approved detail and location.
- F. Concrete shall be handled as rapidly as practicable from the mixer to the place of final deposit by methods which prevent the separation or loss of ingredients. It shall be deposited as nearly as practicable, in its final position to avoid re-handling or flowing. Concrete shall not be dropped freely where reinforcing bars will cause segregation, nor shall be dropped freely more than six feet (6'). Concrete shall be deposited to maintain a plastic surface approximately horizontal.
- G. Concrete that has partially hardened shall not be deposited in the work.
- H. All concrete shall be thoroughly and properly compacted using approved mechanical vibrators.
- I. Internal vibration must be by direct action in the concrete. Each pour shall be vibrated until the water shows indications of rising, but not until the water has risen.
- J. Along the faces of the forms, suitable tools shall be used during the pour to force large particles away from the forms and bring mortar to the surface of the forms. The responsibility for providing fully filled out, smooth, clean and properly aligned surfaces free from objectionable pockets and blemishes shall rest entirely with the Contractor.

3.07 CONCRETE PAVING FINISHES AND EDGES

- A. Concrete paving: **Medium Broom Finish** - Medium hair broom, non-slip finish. Brooming shall be perpendicular to the path of travel and so executed that the corrugations thus produced will be uniform in character and width. Edges of concrete paving shall have a 6 inch wide smooth trowelled finish around all edges and along deep joints.
- B. All flange marks resulting from tooling of edges shall be trowelled out and designated finish shall continue in its entirety to the beginning of the radius at the edge of the concrete.
- C. If flange marks remain after concrete has set, all joints and edges shall be ground smooth.
- D. Concrete flatwork shall be constructed with medium broom finish unless otherwise indicated on the plans. Surfaces shall be troweled smooth then given a transverse scored texture by drawing a hair broom across the surface. The operation shall follow immediately after the first steel troweling and while the surface is still sufficiently soft to be marked by the broom. The texturing shall be run in a continuous motion from edge to edge or joint to joint.

3.08 CONCRETE PAVING

- A. The Contractor shall provide all required saw cutting of existing concrete. The concrete shall be saw cut in a straight line to a minimum depth of two (2") inches completely across the

sidewalk and a minimum depth of three (3") inches completely across driveways. The limits of all concrete to be removed shall be to an expansion joint or score line unless otherwise marked in the field by the Engineer and saw cutting shall be required at any score line less than one-half inch (1/2") deep. The portion of the concrete to be removed shall be taken out in such a manner as to leave an even edge without chips or breaks on the remaining concrete. Cutting of the boundary line with picks or pneumatic pavement breakers will not be permitted except where score lines are one-half inch (1/2") deep or more. If for any reason the concrete does not break on the line marked by the Engineer, the Contractor shall saw cut at the next score line and remove the broken portion and replace with new concrete to meet City specifications at no cost to the City. The Contractor shall remove and dispose of all concrete and debris daily.

- B. Horizontal dowels for proposed curb, gutter and sidewalk to be tied into existing curb, gutter and sidewalk shall be Grade 60, #3 steel reinforcing bars and shall conform to Section 52, "Reinforcement," of the Standard Specifications and Section 03 20 00 "Concrete Reinforcement" found elsewhere in these Contract Specifications.
- C. Horizontal dowels shall be 12 inches long and epoxied in holes drilled in the existing concrete. Dowels shall be placed prior to placement of new adjacent concrete.
- D. Epoxy grout shall conform to the provisions in Section 95, "Epoxy" of the Standard Specifications.
- E. Contractor is required to replace existing markings or letters or install new markings or letters on face of curb to identify existing utility service locations.
- F. Unless noted otherwise, Contractor shall protect and adjust to final grade all existing street furniture (i.e. water valve boxes, water meters, etc.) within the sidewalk area.
- G. All concrete work shall be water tested in the presence of the Engineer before final acceptance.
- H. All minor concrete shall be allowed to cure for a minimum of ten (10) days after the concrete has been placed such that a minimum compressive strength of 2,400 psi is obtained prior to the placement of asphalt concrete adjacent to the concrete. Alternatively, the Contractor may submit a concrete mix design for approval by the Engineer which shows a minimum compressive strength of 2,400 psi may be obtained in less than the required ten (10) day curing period.
- I. If the Contractor elects to use the curing compound method for curing minor concrete, the curing compound shall be Curing Compound as specified in Subsection F as specified in Section 90-7.01B, "Curing Compound Method," of the Standard Specifications. The curing compound shall be applied in a manner that will provide a complete coating of all exposed faces of the concrete surface. Curing compounds that discolor pigmented concrete shall not be used.
- J. The maximum time period between removal and reconstruction of concrete sidewalk is seven (7) calendar days.

3.09 FINISHES ON FORMED SURFACES

- A. Acid wash concrete surfaces after curing as necessary to remove effervescing mineral deposits.
- B. If any rock pockets or honey combing has occurred, refer herein to sacked finish repair.

3.10 DEEP JOINTS

- A. Location and detail of deep joints shall be as indicated on the plans, or as specified, and shall be installed to 1/4 depth of the slabs or thickness of curbs and gutters, unless otherwise noted.
- B. Deep Joints shall be tooled with a radius edging tool, per the detail requirements.
- C. At the Project Inspector's discretion, with consultation with the Project Landscape Architect, deep joint locations may be relocated in the field in order to control cracking.
- D. The contractor shall also suggest changes to deep joint locations in order to control cracking. These changes must be suggested 1 week prior to pouring concrete in order to allow the Project Inspector and Project Landscape Architect time to evaluate and approve the proposed changes.
- E. Concrete paving shall have deep joints placed minimum every 10 feet, unless otherwise stated, and score joints between deep joints.
- F. Concrete bands: Shall have deep joints placed a minimum of 10 feet on center, and score joints between deep joints.
- G. Deep joints that do not meet the appropriate 1/4 depth of the slabs or thickness of curbs and gutters, due to insufficient tools, poor workmanship, or other method, will result in the removal and replacement of all concrete deemed unacceptable by the Project Landscape Architect or Project Inspector. See "Workmanship" herein.

3.11 CONCRETE REPAIR – SACKED FINISH

- A. Repair and patch tie holes, honeycombs and defective areas and trowel too smooth finish. Remove fins and other projections completely and smoothed.
- B. Thoroughly wet surface to prevent absorption.
- C. Coat entire surface with sacking mortar as soon as surface of concrete approaches surface dryness.
- D. Thoroughly and vigorously rub mortar over area with clean burlap pads to fill all voids.
- E. While mortar is still plastic but partially set (so it cannot be pulled from voids) sack-rub surface with dry mix of sacking mortar (leave out water). There should be no discernable thickness of mortar on concrete surface, except in voids; all surfaces should be uniformly textured.
- F. Immediately begin a continuous moist cure for 72 hours.

3.12 CONCRETE PROTECTION

- A. Concrete shall be protected from injurious action of the elements and defacement of any nature during construction operations. Watchmen will be required at such times as required until concrete has set for a period of ten (10) hours. Damage resulting from the vandalism may require removal and replacement of complete units of work at no cost to the City.
- B. All forms shall be kept sufficiently wet to prevent drying out of the concrete.
- C. Slabs and exposed corners of concrete shall be protected from traffic or use which will damage them in any way.

3.13 CURING AND SEALER COMPOUND APPLICATION

- A. If the Contractor elects to use the curing compound method for curing concrete, the curing compound shall be as specified in Section 90 "Curing Compound Method," of the 2018 Standard Specifications.

- B. The curing compound shall be applied in a manner that will provide a complete coating of all exposed faces of the concrete surface.
- C. All concrete surfaces shall be cured in conformance with the Standard Specifications, Contract Documents, and the manufacturer's recommendations after concrete is deposited.
- D. Manufacturer's Application Instructions:
 - 1. Maintain concrete between 65° and 85°F (18° to 29°C) during curing.
 - 2. Apply per manufacturer's recommendations after all bleed water and surface sheen has evaporated, finishing has been completed and concrete has achieved initial set.
 - 3. Apply to surfaces that are dry or damp, but not wet.
 - 4. Protect surrounding structures from overspray.
 - 5. Apply when ambient and surface temperature is above 45°F (7°C) and expected to remain above that for at least 12 hours.
 - 6. Apply with an airless or pump sprayer that is free of any resin, oil or solvent residue.
 - 7. Use sprayer on lightest setting for maximum atomization of spray. Ordinary pump canister sprayers for garden or construction use will NOT atomize adequately. Use canister sprayers designed for application of wood finishes or form release agents with the smallest available flat fan spray tip (.10) to (.30 GPM).
 - 8. Apply a thin coat uniformly over the surface. Fog lightly over sloped surfaces or impressions to prevent runs and streaks
 - 9. Do not allow sprayer to spit or sputter. Unclog nozzle and re-pressurize before continuing.
 - 10. If clogging continues, empty sprayer back into jug. Clean and flush sprayer with hot water. Then pour sealer through fine strainer or cheesecloth when refilling sprayer.
 - 11. Allow 24 hours to dry completely after application is complete.
- E. If efflorescence appears, it will be the contractor's responsibility to contact the concrete supplier, or Davis color representative, to determine the best method for cleaning the concrete surface. Potential surface treatment chemicals are SuperBlue, by EZChemUSA, P.O. Box 1485 • Canton, GA 30169 • (T)770-479-1764 • www.ezchemusa.com

3.14 PATCHING AND CLEANING

- A. After forms are removed, the Engineer shall inspect all concrete surfaces. All surface defects, including projecting fins, bolts, form ties, nails, etc., not necessary for the work, shall be removed or cut back one inch (1") from the surface, and joint marks and fins in exposed work shall be smoothed off and cleaned as directed and to the satisfaction of the Engineer.
- B. Use the same patching materials and techniques that were approved on test panel.
- C. Clean exposed concrete surfaces and adjoining work stained by the leakage of concrete to meet the approval of the Engineer.
- D. Efflorescence: Remove efflorescence as part of final cleaning.
- E. Use least aggressive cleaning techniques possible.
- F. Wear protective eye wear, gloves, and clothing suitable to work and as required by cleaner manufacturer.
- G. If proprietary cleaning agents are used, test cleaning agent on a small, inconspicuous area, and check effects prior to proceeding. Begin cleaning and wash from edge to edge. Thoroughly rinse afterwards with clean water. Follow cleaner manufacturer's instructions.

H. Do not use muriatic acid (hydrochloric) acid on colored concrete.

3.15 TOLERANCES

- A. All concrete work shall be water tested in the presence of the Project Inspector or Project Engineer before final acceptance to ensure there will be no ponding water and the surfaces drain adequately.
- B. Minor variations in appearance of colored concrete, which are similar to natural variations in color and appearance of uncolored concrete, are acceptable.
- C. As with any natural material, some variation in appearance is a normal design feature of concrete, whether colored or not. It is normal for the color of concrete to lighten as it cures; allow up to 28 days for process to occur.

3.16 WORKMANSHIP

- A. Concrete shall be constructed on a graded and prepared subgrade and rock base as shown on the plans and as specified in these Special Provisions and in accordance with Caltrans 2015 Standard Specifications except that references to measurement and payment shall not be applicable to this work.
- B. The concrete work shall conform to the requirements of Division XI "Materials" of these Special Provisions and the 2018 Standard Specifications.
- C. Defective Work: Remove and replace (R&R), when directed by the Engineer, all surfaces which show excessive shrinkage cracks, spalling, or other defects in workmanship.

3.17 DEFECTIVE CONCRETE

- A. Concrete work which does not meet the Contract Specifications or Contract Drawings shall be considered defective concrete.
- B. Color and finish of all concrete work shall match. Inconsistent color, and finishing shall be considered defective concrete.
- C. All joints shall be straight and true. Joints which are not straight shall be considered defective concrete.
- D. Concrete work which ponds, does not conform to ADA requirements, does not match grading, is of poor finish, has poor scoring depth, map cracking, chipped, cracked, or otherwise deemed non-acceptable shall be considered defective concrete.
- E. Defective concrete shall be repaired or replaced as directed by the Engineer, at no added expense to the Contract. Repair materials may include specialty cements, reinforcement grouts, dry pack, admixtures, epoxy and aggregates as necessary.
 - 1. Engineer's authorization for the Contractor to repair defective concrete work does not provide an acceptance of defective concrete work. All final repair work that does not meet the approval of the Engineer shall be rejected, removed and replaced at no additional cost to the contract.
 - 2. In general, minor defective work may be repaired by use of dry pack. If defective work is serious or affects the strength of the structure or the appearance, the Engineer may require the removal and replacement of the portion of the structure.
 - 3. Immediately after removing forms, all concrete surfaces shall be inspected any poor joints voids, rock pockets, tie holes, except as specified, etc., shall be patched at once, but not until the surfaces have first been reviewed by the Engineer. Submit patching mixture and method proposed for use, for review prior to commencing work.
 - 4. Repaired or Replaced work shall match existing work. Work which does not match may require full removal and replacement.

5. All labor, materials, equipment, incidentals, and work related to the repairs or replacement of Concrete work shall be done at no additional cost to the Contract.

3.18 CONNECTION TO EXISTING CONCRETE

- A. Refer to Section 03 20 00 "Concrete Reinforcement" for concrete-to-concrete dowel connections.

3.19 MEASUREMENT AND PAYMENT

- A. If Alternate 1 is awarded, the contract square foot price paid for "**Concrete Paving**", shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work covered in this section, including saw cutting, excavation, formwork, aggregate base placement and compaction, joints, and reinforcement, utility box and pull box elevation adjustments, complete in place as shown on the plans, as required by the Special Provisions, and as required by the City's Engineer or their designee.
- B. **Aggregate Base** – No separate payment shall be made for aggregate base placed beneath concrete construction, if Alternate 1 is awarded. The cost for furnishing and placing aggregate base shall be included in the various items of concrete construction which require aggregate base, and no additional compensation will be allowed therefor.

END OF SECTION

CITY COUNCIL REFERENCE ONLY

DIVISION 7 – THERMAL AND MOISTURE PROTECTION

SECTION 07 92 00 CONCRETE JOINT SEALER

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Review Contract Documents for requirements that affect work of this section. Specification sections that directly relate to work of this section include, but are not limited to:
- B. These special provisions are part of the plans and shall include all labor, materials, equipment, reasonable incidentals, and services necessary to the execution of the work.
- C. Refer to all other sections, determine the extent and character of related work, and coordinate all work to produce a complete, properly constructed product.
- D. Related Sections
 - 1. Section 03 11 00 “Concrete Formwork”
 - 2. Section 03 20 00 “Concrete Reinforcement”
 - 3. Section 03 30 00 “Cast in Place Concrete”

1.02 SCOPE

- A. Seal all joints with elastomeric sealant at all cold joints, and at all mechanical expansion joints using felt and backer rod.

1.03 SUBMITTALS

- A. Submit two copies of manufacturer’s literature, to include: Product Data Sheets, and appropriate Material Safety Data Sheets (MSDS).
- B. Submit color samples.

1.04 QUALITY ASSURANCE

- A. Manufacturing qualifications: The manufacturer of the specified product shall be ISO 9001/9002 certified and have in existence a recognized ongoing quality assurance program independently audited on a regular basis.
- B. Contractor qualifications: Contractor shall be qualified in the field of concrete repair and protection with a successful track record of 5 years or more. Contractor shall maintain qualified personnel who have received product training by a manufacturer’s representative.
- C. Install materials in accordance with all safety and weather conditions required by manufacturer or as modified by applicable rules and regulations of local, state and federal authorities having jurisdiction. Consult Material Safety Data Sheets for complete handling recommendations.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. All materials must be delivered in original, unopened containers with the manufacturer’s labels, product identification, and batch numbers. Damaged material must be removed from the site immediately.
- B. Store all materials off the ground and protect from rain, freezing or excessive heat until ready for use.

C. Condition the specified product as recommended by the manufacturer.

1.06 COORDINATION

A. All pipes, sleeves, anchors and bolts, angle frames, inserts, supports, ties and other materials in connection with concrete construction shall be placed and secured in position before the concrete is placed.

B. 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 so that provision for their work can be made without delaying the project.

C. Cutting and/or patching made necessary by failure or delay in complying with these requirements shall be done at no cost to the City.

1.07 JOB CONDITIONS

A. Environmental Conditions: Do not apply material if it is raining or snowing or if such conditions appear to be imminent. Minimum application temperature 40°F (5°C).

B. Protection: Precautions should be taken to avoid damage to any surface near the work zone due to mixing and handling of the specified coating.

1.08 WARRANTY

A. Provide a written warranty from the manufacturer against defects of materials for a period of five (5) years, beginning with date of substantial completion of the project.

PART 2 MATERIALS

2.01 MATERIALS

A. Polyurethane sealant:

1. Joint sealant, where specified or shown in the plans, shall be installed on all concrete joints, and shall be silicone, or approved equal; suitable to form a dry water barrier.

2. Product shall be a gun-grade, premium-grade, high-performance, 1-component, polyurethane-based, non-sag elastomeric sealant. Meets Federal specification TT-S-00230C, Type II, Class A. Meets ASTM C-920, Type S, Grade NS, Class 25; Sikaflex 1a, or approved equal.

3. The sealant shall cure under the influence of atmospheric moisture to form an elastomeric substance.

4. Colors shall match mortar and concrete colors.

5. Joint sealant shall not be used on the City Sidewalk in the public right of way.

6. Manufacturer: Sikaflex-1a, as manufactured by Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071, or approved equal.

B. Any primers, as required, recommended by the manufacturer of the specified product, approved by the engineer.

C. Backer rod or bond breaker tape, as approved by the engineer.

D. When utility boxes are within colored fields, joints shall be sealed with the noted color above for the specific concrete color.

E. Joint sealant shall not be used on the City Sidewalk in the public right of way.

2.02 PERFORMANCE CRITERIA

A. Properties of the un-cured polyurethane sealant:

1. Initial Cure (Tack-Free Time): TT'-S-00230C -4 hours Final Cure 4-7 days
2. Consistency: non-sag
3. Color: 7 architectural standard colors

B. Properties of the cured polyurethane sealant:

1. Tensile Properties (ASTM D-412) at 21 days
 - a. Tensile Stress: 200-psi min.(1.37 MPa)
 - b. Elongation at Break: 500%
 - c. Modulus of Elasticity: 25% 35 psi (0.24 MPa)
 - d. 50% 60 psi (0.41 MPa)
 - e. 100% 85 psi (0.59 MPa)
2. Shore A Hardness (ASTM D-2240) at 21 days: 40+/- 5
3. Tear Strength (ASTM D-624) at 21 days: 50 lb/in.
4. Adhesion in Peel (TT-S-00230C, ASTM C 794)
 - a. Concrete: 20-lb. mm. - 0% Adhesion Loss
 - b. Aluminum: 20-lb. mm. —0% Adhesion Loss
 - c. Glass: 20-lb. mm. —0% Adhesion Loss
5. Service Range: -40° to 170°F (-40° to 77 °C)
6. The sealant shall conform to Federal Specification TT-S-00230C, Type II, Class A
7. The sealant shall conform to ASTM C-920, Type 5, Grade NS, Class 25.
8. The sealant must comply with ANSI Standard 61 (NSF Approval) for use in contact with potable water.
9. The sealant shall be non-staining.

PART 3 EXECUTION

3.01 SURFACE PREPARATION

- A. The joint and adjacent substrate must be clean, dry, sound and free of surface contaminants. Remove all traces of the old sealant, dust, laitance, grease, oils, curing compounds, form release agents and foreign particles by mechanical means, i.e. — sandblasting, etc., as approved by the engineer. Blow joint free of dust using compressed air line equipped with an oil trap.

3.02 MIXING AND APPLICATION

A. Joints:

1. Placement Procedure: Prime substrate as required based upon the recommendations of the manufacturer of the specified product, when field testing indicates need, and when the joints will be subject to immersion after cure, as approved by the Engineer.

2. Install approved backer rod or bond breaker tape in all cold joints and zip strip mechanical joints subject to thermal movement to prevent three-sided bonding and to set the depth of the sealant at a maximum of 1/2 in., measured at the center point of the joint width.
3. Backer rod or bond breaker tape shall be as specified in related sections.
4. Joints shall be masked to prevent discoloration or application on unwanted areas, as directed by the engineer. If masking tape is used, it shall not be removed before tooling, yet must be removed before the initial cure of the sealant. Do not apply the masking tape until just prior to the sealant application.
5. Install sealant into the prepared joints when the joint is at the mid-point of its expansion and contraction cycle. Place the nozzle of the gun, either hand, air, or electric powered, into the bottom of the joint and fill entire joint. Keep the tip of the nozzle in the sealant; continue with a steady flow of sealant preceding the nozzle to avoid air entrapment. Avoid overlapping the sealant to eliminate the entrapment of air. Tool as required to properly fill the joint.
6. Adhere to all limitations and cautions for the polyurethane sealant as stated in the manufacturer's printed literature.
7. Cracks:
 - a. Any cracking in the flat concrete surface, other than within a deep joint, will be removed and replaced.

3.03 CLEANING

- A. The uncured polyurethane sealant can be cleaned with an approved solvent. The cured polyurethane sealant can only be removed mechanically.
- B. Leave finished work and work area in a neat, clean condition without evidence of spillovers onto adjacent areas.

3.04 MEASUREMENT AND PAYMENT

If Alternate 1 is awarded, payment for "Concrete Joint Sealer" work is considered to be included in the contract price paid for concrete work and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work covered in this section, complete in place as shown on the plans, as required by the Special Provisions, and as required by the City Engineer, and no separate payment will be made therefor.

END OF SECTION

DIVISION 11 - EQUIPMENT

SECTION 11 68 13 PLAY STRUCTURES

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. These special provisions are part of the plans and shall include all labor, materials, equipment, reasonable incidentals, and services necessary to the execution of the work.
- B. Refer to all other sections, determine the extent and character of related work, and coordinate all work to produce a complete, properly constructed product.
- C. Related Sections
 - 1. Section 00 00 00 "Project Coordination"
 - 2. Section 02 41 13 "Site Demolition"
 - 3. Section 32 18 16 "Playground Safety Surfacing"

1.02 DESCRIPTION OF WORK

- A. Scope of work shall include, but shall not necessarily be limited to, the following:
 - 1. Install play equipment as shown on plans.

1.03 REFERENCES AND STANDARDS

- A. The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.
 - 1. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)
 - ASTM A 135 Electric-Resistance-Welded Steel Pipe
 - ASTM A 153 Zinc Coatings (Hot-Dip) on Iron and Steel Hardware
 - ASTM A 385 High-Quality Zinc Coatings (Hot-Dip)
 - ASTM A 500 Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes
 - ASTM A 513 Electric-Resistance-Welded Carbon and Alloy Steel Mechanical Tubing
 - ASTM B 117 Salt Spray Resistance Test
 - ASTM B 221.02 Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Shapes, and Tubes
 - ASTM D 822 Conducting Tests on Paint and Related Coatings and Materials Using Filtered Open-Flame Carbon Arc Light and Water Exposure Apparatus
 - ASTM D 1248 Polyethylene Plastics Molding and Extrusion Materials.
 - ASTM D 1734 Flexibility Mandrel Test
 - ASTM 1951 Determination of Accessibility of Surface Systems Under and Around Equipment
 - ASTM D 2454 Overbake Hardness Test
 - ASTM D 2794 Resistance of Organic Coatings to the Efforts of Rapid Deformation (Impact)

ASTM D 3359 Measuring Adhesion by Tape Test

ASTM D 3363 Pencil Hardness Test

ASTM F 1292 Impact Attenuation of Surface Systems Under and Around Playground Equipment

ASTM F 1487 Playground Equipment for Public Use

ASTM F 1951 Determination of Accessibility of Surface System Under and Around Playground Equipment

ASTM F 1487 Playground Equipment for Public Use

ASTM F 3101-15 Unsupervised Public Use Outdoor Fitness Equipment

2. FEDERAL STANDARDS

FED-STD-795 Uniform Federal Accessibility Standards (UFAS)

3. FEDERAL SPECIFICATIONS

FS L-P-390 Plastic Molding Material FEP Fluorocarbon, Molding and Extrusion (Low, Medium and High) Density

FS QQA-200/8F Aluminum Alloy 6061, Bar, Rod, Shapes, Tubes, and Wire Extruded

4. CODE OF FEDERAL REGULATIONS

28 CFR Part 36 Nondiscrimination on the Basis of Disability by Public Accommodations and in Commercial Facilities, Final Rule

36 CFR Part 1191 Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities; Play Areas, Final Rule

5. UNITED STATES CONSUMER PRODUCT SAFETY COMMISSION (CPSC)

CPSC Handbook for Public Playground Safety

U.S. Consumer Product Safety Commission

Washington, D.C. 20207, (301) 504-0494

6. CALIFORNIA CODE OF REGULATIONS

1. Title 22, Social Security; Division 4, Environmental Health; Chapter 22, Safety Regulations for Playgrounds

2. Public Resources Code, Part B, Public Playground Equipment, Sections 5410 and 5411.

1.04 DEFINITIONS

A. Elevated Play Component: An elevated play component is a play component that is approached above or below grade and is part of a composite play structure. Play components that are attached to a composite play structure and that can be approached from a platform or deck area shall be considered elevated play components.

B. Ground-Level Play Component: Ground level play components are items that can be approached and exited at ground level.

C. Type of Play Component: Different types of play components shall be based on the general experience provided by the play component including (but not limited to) experiences such as rocking, swinging, climbing, spinning, and sliding.

- D. Elevated Accessible Route: An elevated accessible route is defined as the path used for connecting elevated play components.

1.05 PERFORMANCE REQUIREMENTS

A. SAFETY

Playground equipment and installation shall meet the safety requirements of CPSC and ASTM F 1487.

B. ACCESSIBILITY

Playground equipment intended for access by children with disabilities shall meet the requirements of 36 CFR Part 1191 Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities, Play Areas, Final Rule; California Code of Regulations, Title 22. Social Security; Division 4. Environmental Health; Chapter 22. Safety Regulations for Playgrounds. Wherever a conflict arises between specific provision of the above regulations, the option that provides greater accessibility shall apply.

- C. Submit two copies of product manufacturer's test report indicating compliance with the latest U.S. Consumer Product Safety Commission's Technical Guidelines for Public Playground Safety with regard to thickness of product beneath various equipment height ranges. Test reports shall be by a certified laboratory, to ASTM- F-1292-91 specifications using the f355-Procedure C Test Method.

D. Requirements for Transfer Systems:

1. Transfer platforms shall be between 11" and 18" high, minimum 24" wide, and minimum 14" deep.
2. Clear ground space at least 48" by 30" shall be provided, with the 48" long side parallel to the 24" side of the transfer platform.
3. Transfer steps shall be a minimum 24" wide by 14" deep. Steps shall be maximum 8" high. Steps on site-built and custom units shall be 6" for preschool-age play components.
4. Transfer supports shall be provided on transfer platforms and transfer steps at each level where transferring is the intended method of access.

E. Clear Floor or Ground Space:

1. Clear ground space at least 48" by 30" shall be provided at ground-level play components.
2. Clear ground spaces may overlap accessible routes and maneuvering spaces.
3. Clear ground spaces shall have slopes not steeper than 1:48 in all directions.

F. Maneuvering Space:

1. Maneuvering spaces shall comply with ADAAG section 4.8.
2. Maneuvering spaces at least 60" diameter or 60" T-shaped shall be provided at ground-level play components.
3. Maneuvering spaces shall be provided adjacent to swings.

1.06 DELIVERY, STORAGE, AND HANDLING

Equipment shall be carefully removed and stored in accordance with the manufacturer's recommendations.

1.07 WARRANTY

Manufactured playground equipment shall be guaranteed against defects in workmanship or materials for a period of one (1) year after acceptance by owner. All posts shall be guaranteed against deterioration for ten (10) years. All rotationally molded components shall be guaranteed for five (5) years. Verify all structures will meet this requirement.

1.08 SUBMITTALS

- A. **Playground Safety Audit/Certificate of Compliance** – Upon completion of all playground equipment installation, synthetic safety surfacing, and granulated surfacing, provide to the City a third party equipment audit confirming and certifying that the installed equipment was done to the manufacturer's recommendations and in conformance with ASTM F 1487 and CPSC guidelines.
- B. Submit two bound copies of play equipment product data, catalog cuts, photo brochures, specifications, and installation procedures, (including diagrams, instructions, scale models) or other printed information in sufficient detail and scope to verify compliance with requirements of the contract documents.
- C. Submit drawings showing scaled shop details of playground equipment, including equipment layout, platform heights, protective barriers, play events and use zones, in relationship to the playground design. If playground equipment other than what is shown on the drawings is proposed, shop drawings shall be provided to illustrate how the playground design and layout is modified to accommodate equipment installation and use zones.
- D. Submit a listing of at least five installations where the brand of play equipment with similar units to those proposed has been installed and has been in successful service for at least five years. This list shall include owner or purchaser; address of installation; service or maintenance organization; date of installation; and contact person and phone number.
- E. Submit two copies of the statement by the material supplier or equipment manufacturer asserting that the supplied material or equipment meets and is installed according to the specified requirements.
- F. A Certificate of Insurance, shall be provided by the manufacturer, covering both product and general liability, of not less than \$1,000,000. The issuing underwriter shall be AA rated.
- G. Submit two copies of color charts displaying manufacturer's color selections and finishes, and identifying those colors and finishes proposed for use.
- H. Submit two bound copies of procedures and instructions pertaining to frequency of preventive maintenance, inspection, adjustment, lubrication, and cleaning necessary to minimize corrective maintenance and repair for play equipment. A list of all parts and components for the system, by manufacturer's name, part number, and nomenclature, shall be attached.
- I. Submit a copy of product manufacturer's test report indicating compliance with the latest U.S. Consumer Product Safety Commission's Technical Guidelines for Public Playground Safety with regard to thickness of product beneath various equipment height rangers. Test reports shall be by a certified laboratory, to ASTM-F-1292 specifications using the f355-Procedure C Test Method.
- J. A warranty against all defects in materials and workmanship for play equipment must be provided by contractor. Warranty shall include but not be limited to such defects as bubbling, delamination, peeling, loss of integrity, poor ultraviolet stability, lack of permeability, or general deterioration due to weather.

- K. The installer of the play equipment must submit proof of liability insurance of at least \$1,000,000 from a reputable insurance company covering defects in materials, workmanship, and installation. This liability shall cover any bodily harm resulting from a failure of play equipment due to installation defects.
- L. The installer of the play equipment must submit proof that they are a certified installer of the play equipment manufacturer.
- M. Concrete mix design for play equipment footings per manufacturer's recommendations.

PART 2 PRODUCTS

2.01 PLAY EQUIPMENT

- A. All Play Equipment – See Material Legend, Sheet L3.2
- B. Play Equipment by GameTime, (Quote #106985-01-11)
Contact: Kelly Oakes koakes@mrcrec.com 1-800-235-2440
Material components include:
 - 1. # RDU Custom PowerScape Ramped 2-5 Play Structure
 - 2. # RDU Xscape 2-Bay Swing - Includes (2) belt swings and (2) Zero-G 2-5 swings
 - 3. # RDU Custom PowerScape 5-12 Play Structure
 - 4. # 3274 Sensory Wave Seat
 - 5. # 5960SP VistaTree Top 3
 - 6. # 6259 Sitting See Saw
 - 7. Color Palette:
 - a. Posts: Burgandy
 - b. Decks: Brown
 - c. Accent Metal: Butterscotch
 - d. Roofs: Burgandy
 - e. Swings: Butterscotch
 - f. Net Spinner: Green
 - g. Play Lab: Butterscotch
 - h. HDPE: Beige and Green

PART 3 EXECUTION

3.01 PREPARATION

Prior to start of excavation, contractor shall lay out the entire outdoor play area and stake location of all elements, including playground equipment, use zones, and hard surfaces, based on actual playground equipment supplied to be installed. Use zones shall overlap hard surfaces and shall meet criteria of ASTM F 1292. The Owner's representative reserves the right to adjust the equipment locations and other elements to meet field conditions and use zone safety requirements.

3.02 INSTALLATION

Playground equipment shall be assembled and installed in compliance with the written instructions of the manufacturer, and as shown on the drawings to meet the requirements

of CPSC and ASTM F 1487. The playground equipment shall be assembled and installed by or under the direct supervision of an individual who is authorized by the manufacturer to assemble and install the equipment.

3.03 PLAY EQUIPMENT

- A. The play area equipment layout, as shown on the drawings, is based on the use of specific equipment as designated for the purpose of showing the desired arrangement.
- B. Provide spot locations for select post and footings, as shown on the plans. The contractor shall be responsible for all post, footing and equipment layout, and verification that the equipment and fall zones will fit in the existing space provided.
- C. If conflicts arise with the fall zones that prevent the layout and installation from occurring as intended, the contractor shall make the proper field adjustments to the layout to ensure there is adequate room.
- D. After the field adjustment, if there are still conflicts and it is evident the structure will not adequately fit the space, the contractor shall notify the Project Inspector immediately.

3.04 PLAY AREA SECURITY

The contractor shall provide means to keep the public from using any play equipment until safety surfaces have been properly installed, the area cleaned and cleared, and all installation reviewed by the Project Landscape Architect.

3.05 LEVEL OF SAFETY SURFACING

All play equipment location in granular rubber areas shall be clearly marked to indicate the finished level of safety surfacing material to meet impact-attenuating requirements. All metal posts, springs or supports shall be as marked by the manufacturer. Those items not marked by the manufacturer shall be marked with a $\frac{3}{4}$ " circle painted with black epoxy paint.

3.06 SAFETY AUDIT

- A. The playground safety audit/Certificate of Compliance shall be performed by a third-party Certified Playground Safety Inspector (CPSI). Upon completion of the audit, the contractor will provide copies of the report to the City. The playground will then be accepted if the installation is found to be in compliance. If the installation is not in compliance, the contractor shall make the necessary repairs, at no extra cost to the City, according to the report and the playground equipment manufacturer's recommendations. The contractor will need to have the playground re-inspected, at no additional cost to the City, until the installation is brought into compliance, and certified by the CPSI.
- B. All field testing of safety surface attenuation shall also be included in the safety audit.
- C. Refer to Section 32 18 16 for safety surfacing performance requirements.

3.07 MEASUREMENT AND PAYMENT

- A. The contract unit lump sum price paid for "**Play Equipment**" of the unit price shall include full compensation for furnishing all labor, materials, tools, state and local taxes, delivery costs, equipment and incidentals for doing the work covered in this section, including excavation and installation of concrete for footings, installation of play equipment, and third party safety audit, complete and in place as shown on the plans, as required by these "Special Provisions," and as directed by the City Engineer.

END OF SECTION

DIVISION 22 – PLUMBING

SECTION 22 14 00 DRAINAGE

PART 1 GENERAL

1.01 SUMMARY

- A. Furnish all labor, materials, equipment, facilities, transportation and services to complete all drainage system improvements and related work as shown on the Drawings and/or specified herein.
- B. Prior to ordering materials mentioned in this section herein, verify the existence of subsurface drain lines.

1.02 RELATED DOCUMENTS

- A. These special provisions are part of the plans and shall include all labor, materials, equipment, reasonable incidentals, and services necessary to the execution of the work.
- B. Refer to all other sections, determine the extent and character of related work, and coordinate all work to produce a complete, properly constructed product.
- C. Related Sections
 - 1. Section 01 30 00 "Submittals"
 - 2. Section 02 41 19 "Demolition"
 - 3. Section 11A and 11B, City Of Fremont Standard Trench Backfill Specification, Standard Specifications, dated January 1995 (amended).

1.03 DESCRIPTION OF WORK

- A. Scope of work shall include, but shall not necessarily be limited to, the following for a complete and functional drainage system:
 - 1. Verify the existing 4" perforated drain line is functional by testing the line to ensure water flow through the line
 - 2. If existing perforated drain line conflicts with the new play area equipment, relocate drain line as necessary, shown on plan drawings.
 - 3. Re-use onsite excavated materials, including class 2 permeable rock, if feasible.
 - 4. Off-haul excess material and dispose off-site at appropriate disposal facility.
 - 5. Set grades, construct grades, and compact soils for drainage.
 - 6. Record as-built elevations and location information on plans to be turned over to the City prior to final Acceptance.

1.04 REGULATORY REQUIREMENTS AND REFERENCES

- A. State of California Department of Transportation Standard Specifications, 2018 Edition.
- B. California Building Code, 2019.

1.05 SUBMITTALS

- A. Submit cut-sheets or samples of all products to be used in conformance with Section 01 30 00 "Submittals" and/or applicable Division One and Division Two specifications, General Conditions and Special Provisions.
- B. Product Data: Manufacturer's catalog cuts indicating material compliance and specified options.

- C. Record Drawings: Accurately record location of new piping, drain structures, and connections to existing systems using horizontal dimensions, elevations, inverts and slope gradients as applicable.
- D. Provide two (2), one (1) quart samples of each of the following products:
 - 1. Flexible sealing compound
 - 2. Class 2 permeable rock

1.06 TESTING REFERENCES

American Association of State highway and Transportation Officials (AASHTO):

M 252	Standard Specification for Corrugated Polyethylene Pipe, 75mm to 250 mm Diameter
M 294	Standard Specification for Corrugated Polyethylene Pipe, 300mm to 1200 mm Diameter
Section 30	Construction Standard, Thermoplastic Pipe

American Society for Testing and Materials (ASTM):

C 76	Standard Specification for Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
C 655-09	Standard Specification for Reinforced Concrete D-Load Culvert, Storm Drain, and Sewer Pipe
C 443	Standard Specification for Joints for Concrete Pipe and Manholes, using Rubber Gaskets
D 1784	Specification for Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly (Vinyl Chloride) (PCPVC) Compounds
D 1785	Specifications for Poly (Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120
D 2122	Test Method for Determining Dimensions of Thermoplastic Pipe and Fittings
D 2321	Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity Flow Applications
D 2564	Specifications for Solvent Cements for Poly (Vinyl Chloride) (PVC) Plastic Piping Systems
D 2665	Specification for Poly (Vinyl Chloride) (PVC) Plastic Drain, Waste, and Vent Pipe and Fittings
D 2855	Practice for Making Solvent- Cemented Joints wit Poly (Vinyl Chloride) (PVC) Pipe and fittings
D 3212	Standard Application for Joints for Drain and Sewer Plastic Pipe Using Flexible Elastomeric Joints
F 412	Terminology Relating to Plastic Piping Systems
F 477	Elastomeric Seals (Gaskets) for Joining Plastic Pipe
F 656	Specification for Primers for Use in Solvent Cement Joints for Poly (Vinyl Chloride) (PVC) Pipe and Fittings
F 667	Standard Specification for Large Diameter Corrugated Polyethylene Pipe and Fittings
F 891	Specification for Coextruded Poly (Vinyl Chloride) (PVC) Plastic Pipe With a Cellular Core
F 1417	Standard Test Method for Installation Acceptance of Plastic Gravity Sewer Lines Using Low Pressure Air
F2898-11	Permeability of Synthetic Turf Sports Field Base Stone and Surface system by Non-confined Area Flood Test Method
CAN/CSA B182.8	Storm Sewer and Drainage Pipe and Fittings Polyethylene

1.07 PROTECTION OF PROJECT SITE

- A. Make provisions for, and take the necessary precautions to protect existing and new work from damage during entire life of project.

1.08 DELIVERY, STORAGE, AND HANDLING

- A. Store pipe neatly and orderly, stacked and blocked to prevent damage. Cracked, checked, spalled or otherwise damaged pipe shall be removed from site.
- B. Use of chain slings shall not be permitted.
- C. All piping, fittings and related materials shall be carefully handled at all times.
- D. All pipelines, fittings and drainage structures shall be kept clean and closed during construction.

1.09 PROJECT/SITE CONDITIONS

- A. Work of this section shall not be executed when site conditions are detrimental to quality of work as determined by the City Engineer.

1.10 SEQUENCING AND SCHEDULING

- A. Coordinate work of this section with all other work contained in the Contract Documents.

PART 2 PRODUCTS

2.01 CLASS 2 PERMEABLE ROCK BASE

- A. Refer to Section 32 11 23 "Aggregate Base Course"

2.02 PERFORATED PVC PIPE

- A. Perforated PVC
 - 1. 4-inch Perforated Pipe shall be Sch40 White, solvent weld with belled ends, produced in strict compliance with ASTM D1785 for PVC Pipe.
 - 2. Joints conform to ASTM D2672; solvent cement conforms to ASTM D2564 and primer to ASTM F656.
 - 3. Listed with NSF and complies with NSF/ANSI Standard 14 and Standard 61.
 - 4. Two (2) rows of perforation holes, 1200 apart, ½" diameter, min. and 5" O.C. max. Maximum operating temperature of 1400F.
 - 5. Outside diameter and wall thickness are measured in accordance to ASTM D2122.
 - 6. Sch40 pipe is installed per ASTM D2855;
 - 7. Raw Material compound is PWC 1120 Type 1 grade 1 with a cell class of 12454B, per ASTM D1784 for rigid PVC compounds and NSF listed.

PART 3 EXECUTION

3.01 PREPARATION

- A. Coordinate the sequence of work.
- B. Adjust proposed elevations as necessary to ensure proper drainage, and to conform to existing rim elevations, with no areas of standing water.
- C. Schedule and perform drainage system installation prior to prolonged wet weather periods.

3.02 EXCAVATED MATERIALS

- A. All excavated soils may be re-use in areas requiring landscape fill.
- B. All excess soil shall be off-hauled and disposed of at the Contractors expense, as described elsewhere in this section and these specifications.
- C. For all utility trenches that pass through landscaped areas, at minimum, the top 12 inches of backfill will be native materials previously excavated on site from trenching activities. Native backfill material shall be compacted per the requirements found in Section 31 20 00 "Rough Grading".

3.03 CLASS 2 PERMEABLE ROCK BASE

- A. Refer to Section 32 11 23 "Aggregate Base Course"

3.04 RELOCATION OF PERFORATED DRAIN LINE

- A. **Relocation shall only occur if perforated drain line conflicts with new play equipment footings. If conflicts between the proposed play equipment footings and existing perforated drain line do not occur and relocation of the perforated drain line was performed it shall be at the Contractor's expense.**
- B. Install per the layout indicated on the Drawings and in strict compliance with Manufacturer's written recommended installation instructions.

3.05 MEASUREMENT AND PAYMENT

- A. The linear foot contract unit price for "Relocate 4" Perforated Drain Line" as contained in the Unit Price Schedule, and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals for doing all the work covered in this section, including excavation and disposal, import and backfill of Class 2 permeable rock, non-woven geotextile fabric, amend and backfill of native soil, placement of perforated pipe, tie into area drain, complete in place as shown on the plans, as required by the special provisions, and as required by the City Engineer.

END OF SECTION

DIVISION 31 – EARTHWORK

SECTION 31 05 19 GEOTEXTILE

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. These special provisions are part of the plans and shall include all labor, materials, equipment, reasonable incidentals, and services necessary to the execution of the work.
- B. Refer to all other sections, determine the extent and character of related work, and coordinate all work to produce a complete, properly constructed product.
- C. Related Sections
 - 1. Section 02 42 13 "Site Demolition"
 - 2. Section 22 14 00 "Drainage"

1.02 DESCRIPTION/SCOPE OF WORK

- A. The primary function of the geotextile layer, or geogrid layer, is to create separation between unsuitable subgrade, permeable base rock, or other bridging or filtering application.

1.03 SUBMITTALS

- A. Product Data: Manufacturer's catalog cuts indicating material compliance and specified options.
- B. Provide samples of the following products
 - 1. Geotextile product(s)
 - a. Certificate of Conformance and Sample
 - b. Manufacturer's plan for shipping and handling the material. Contractors plan for material storage on site.
 - c. Installation procedures: Submit installation procedures for carrying out the installation work, which shall include material installation, repair and protection. Protection shall include an anchoring plan sufficient to satisfy the Contractor's and Manufacturer's Performance and Material Warranty.
 - d. Copies of delivery tickets and other receipts as evidence for the materials purchased and received that will be incorporated into the construction.
- C. Certification:
 - 1. The Contractor shall provide the Engineer a certificate stating the name of the geotextile manufacturer, product name, style, chemical compositions of filaments or yarns and other pertinent information to fully describe the geotextile.
 - 2. The Manufacturer is responsible for establishing and maintaining a quality control program to assure compliance with the requirements of the specification. Documentation describing the quality control program shall be made available upon request.
 - 3. The manufacturer's certificate shall state that the furnished geotextile meets MARV requirements of the specification as evaluated under the manufacturer's quality control program. A person having legal authority to bind the Manufacturer shall attest to the certificate.

D. Manufacturing Quality Control (MQC) test results shall be provided upon request.

1.04 TESTING REFERENCES

American Association of State highway and Transportation Officials (AASHTO):

T 88 – Standard Test Method for Particle Size Analysis of Soil

T 90 – Standard Test Method for Determining the Plastic Limit and Plasticity Index of Soils

T 99 – Standard Practice for Determination of the Moisture Density Relations of Soils Using a 5.5 lb hammer and 12 in drop (Standard Proctor)

American Society for Testing and Materials (ASTM):

D 123 – Standard Terminology Relating to Geotextiles

D 276 – Standard Test Method for Identification of Fibers in Textiles

D 4354 - Practice for Sampling of Geosynthetics for Testing.

D 4355 - Test Method for Deterioration of Geotextiles from Exposure to Ultraviolet Light and Water (Xenon-Arc Type Apparatus).

D 4439 - Terminology for Geotextiles.

D 4491 - Test Methods for Water Permeability of Geotextiles by Permittivity.

D 4533 - Test Method for Index Trapezoid Tearing Strength of Geotextiles.

D 4632 - Test Method for Grab Breaking Load and Elongation of Geotextiles.

D 4751 - Test Method for Determining Apparent Opening Size of a Geotextile.

D 4759 - Practice for Determining the Specification Conformance of Geosynthetics.

D 4873 - Guide for Identification, Storage, and Handling of Geotextiles.

Geosynthetic Accreditation Institute - Laboratory Accreditation Program (GAI-LAP).

1.05 DEFINITIONS

A. Minimum Average Roll Value (MARV): Property value calculated as typical minus two standard deviations. Statistically, it yields a 97.7 percent degree of confidence that any sample taken during quality assurance testing will exceed value reported.

B. Maximum Average Roll Value (MaxARV): Property value calculated as typical plus two standard deviations. Statistically, it yields a 97.7 percent degree of confidence that any sample taken during quality assurance testing will be below the value reported.

C. Typical Roll Value: Property value calculated from average or mean obtained from test data.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Geotextile labeling, shipment and storage shall follow ASTM D 4873.

B. Product labels shall clearly show the manufacturer or supplier name, style name, and roll number.

C. Each shipping document shall include a notation certifying that the material is in accordance with the manufacturer's certificate.

D. Each geotextile roll shall be wrapped with a material that will protect the geotextile from damage due to shipment, water, sunlight, and contaminants.

E. The protective wrapping shall be maintained during periods of shipment and storage. If the wrapping is damaged prior to installation, the outer wrap of geotextile material must be discarded before installation. PLAY D

- F. During storage, geotextile rolls shall be elevated off the ground and adequately covered to protect them from the following: Site construction damage, extended exposure to ultraviolet (UV) radiation, precipitation, chemicals that are strong acids or strong bases, flames, sparks, temperatures in excess of 71 deg C (160 deg F) and any other environmental condition that might damage the geotextile.

1.07 **QUALITY ASSURANCE SAMPLING, TESTING, AND ACCEPTANCE**

- A. Geotextiles shall be subject to sampling and testing to verify conformance with this specification. Sampling for testing shall be in accordance with ASTM D 4354.
- B. Acceptance shall be in accordance with ASTM D 4759 based on testing of either conformance samples obtained using Procedure A of ASTM D 4354, or based on manufacturer’s certifications and testing of quality control samples obtained using Procedure B of ASTM D 4354.
- C. Sewn Seams (if required):
 1. For seams that are to be sewn in the field, the Contractor shall provide at least a 2 meter (6 ft) length of sewn seam for sampling by the Engineer before the geotextile is installed.
 2. For seams that are sewn in the factory, the Engineer shall obtain samples of the factory seams at random from and roll of geotextile that is to be used on the project.
 3. If seams are to be sewn in both directions, samples of seams from both directions shall be provided.
 4. For seams that are field sewn, the seams sewn for sampling shall be sewn using the same equipment and procedures as will be used for the production seams.
 5. The seam assembly description shall be submitted by the Contractor along with the sample of the seam. The description shall include the seam type, sewing thread, and stitch density.

PART 2 PRODUCTS

2.01 **NON-WOVEN GEOTEXTILES (Filter Fabric)**

- A. To be used in perforated drain line trench.
- B. Product shall be of non-woven needle-punched construction and consist of long-chain polymeric fibers composed of polypropylene, polyethylene or polyamide. The fibers shall be oriented into a multi-directional stable network whereby they retain their positions relative with each other and allow the passage of water as specified.
- C. The fabric shall be free of any chemical treatment or coating, which reduces permeability and shall be inert to chemicals commonly found in soil.
- D. Products shall be Mirafi N-series non-woven polypropylene geotextile; ProPex 4547 non-woven geotextile, by Amoco Fabrics; or approved equal, and shall conform to the following minimum average roll values:

Mechanical Properties	Test method	Unit	Typical Value (Min)
Grab tensile Strength	ASTM D4632	lbs	120
Grab tensile elongation	ASTM D4632	%	50
Trapezoid tear strength	ASTM D4533	lbs	50
Mullen Burst Strength	ASTM D3786	psi	230

Puncture Strength	ASTM D4833	lbs	70
Permittivity	ASTM D4491	Cm/sec	1.5-1.8
Flow Rate	ASTM D4491	Gal/min/ft ²	110-130
UV Resistance	ASTM D4355	%@500 hr	70
AOS	ASTM D4751	US Std Sieve	70
CBR Puncture Strength	ASTM D6241	lbs (N)	310

PART 3 EXECUTION

3.01 PREPARATION

- A. Coordinate the sequence of work.
- B. Review proposed staked elevations and proposed limits of excavation in the field with the Project Landscape Architect.
- C. Adjust proposed elevations as necessary to ensure proper drainage.

3.02 INSTALLATION OF NON-WOVEN GEOTEXTILE

- A. Non-woven geotextile fabric shall not be installed until work is complete to the point that other work will not adversely impact the non-woven geotextile fabric.
- B. Rolls shall be handled in such a way that they are not damaged or compromised.
- C. Non-woven geotextile fabric shall be anchored with 6 inch steel staples placed at 36 inches on center during placement.
- D. Holes or tears in the non-woven geotextile fabric shall be repaired with a fabric patch spot-seamed with a minimum of 24-inch overlap in all directions.

3.03 PROTECTION OF GEOTEXTILE

- A. Atmospheric exposure of the geotextile to the elements following laydown shall be limited to 14 days to prevent damage.
- B. Equipment may operate on field without aggregate for geotextile installation under aggregate and permeable bases if subgrade is of sufficient strength.
- C. For extremely soft soils, use lightweight construction vehicles for access on first lift.
- D. Limit construction vehicles in size and weight to limit rutting in initial lift to 3 inches.
- E. If rut depths exceed 3 inches, decrease construction vehicle size or weight or increase lift thickness.
- F. Turning not permitted on first lift of base aggregate. Construct turnouts at roadway edge to facilitate construction.

3.04 MEASUREMENT AND PAYMENT

- A. Payment for "Non-Woven Geotextile Fabric" shall be included in the contract unit price paid for "**Relocate 4" Perforated Drain Line**", and no additional payment will be made therefor.

END OF SECTION

SECTION 31 20 00 ROUGH GRADING

PART 1 GENERAL

1.01 DESCRIPTION OF WORK

Provide all labor, materials, power tools, transportation, services, and equipment necessary for completion of rough grading to establish all subgrade to accept future aggregate base. Work shall include:

1. Excavation to depth as required for concrete footings.
2. Subgrade preparation within the project site to accept imported materials.
3. Excavation and transportation, placement, and compaction of onsite native soils, as needed, to establish all subgrade.
4. Off-haul and dispose all excess excavated material at an approved off-site facility.

1.02 RELATED DOCUMENTS AND SECTIONS

- A. These special provisions are part of the plans and shall include all labor, materials, equipment, reasonable incidental, and services necessary to the execution of the work.
- B. Refer to all other sections, determine the extent and character of related work, and coordinate all work to produce a complete, properly constructed product.
- C. This section is complete in its entirety and is not supplemental to the 2018 Standard Specifications except where specifically noted.
- D. Related Sections:
 1. Section 03 11 00 "Concrete Formwork"
 2. Section 03 30 00 "Cast in Place Concrete"
 3. Section 32 11 23 "Aggregate Base Course"

1.03 REFERENCE STANDARDS

- A. ASTM
 1. ASTM D422 - 63(2007) Standard Test Method for Particle-Size Analysis of Soils.
 2. ASTM D4318 - 17e1 Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.
 3. ASTM D 1557 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft³ (2,700 kN m/m³)); 2012e1.
 4. ASTM D 6938-17a - Standard Test Methods for In-Place Density and Water Content of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth); 2017a.

1.04 DEFINITIONS

- A. Excavation: Removal of material encountered above subgrade elevations.
- B. Subgrade: Surface or elevation remaining after completing excavation, or top surface of a fill or backfill immediately below subbase, base or topsoil materials.
- C. Finish Grade (FG): Final grade of softscape surfaces, including lawn, mulch, and other planting areas, but prior to the placement of these elements.
- D. Finish Surface (FS): Relates to final grade of all hardscape or concrete surfaces as it relates to the grades provided on the plans.
- E. Unsuitable Material: Any soil material that is not suitable for a specific use on the Project.

1.05 SUBMITTALS

- A. Procedures: In accordance with Section 01 30 00 "Submittals".
- B. Materials data: Submit complete materials list of soils, including source, and quantity.
- C. Requests for substitutions shall comply with Section 01 30 00 "Submittals".
- D. Samples: Provide materials from same source throughout work. Change of source requires approval of the Project Landscape Architect.
- E. Material Test Reports: Provide, from a qualified testing agency, the following test results showing compliance with the project requirements:
 - 1. Classification according to ASTM D 2487 of each onsite material proposed for fill and backfill.
- F. Submit the following items, and other items as may be required by the Project Landscape Architect and obtain written approval prior to delivery of materials to the site. Finished work shall match approved samples.
 - 1. Material samples: 5 lb sample of each type of material; submit in air-tight containers to the testing laboratory.

1.06 INSPECTIONS

- A. The City shall perform compaction testing and related testing on the subgrade, and aggregate subbase and base.
- B. Right of inspection by the City Inspector for acceptance or rejection is reserved at the nurseries or on the Jobsite at any time upon delivery or during the work.
- C. Contractor shall notify City Inspector in writing a minimum of 5 Working Days in advance of inspections.

1.07 PROJECT QUALITY

- A. Perform all work to the highest standard of quality. All work is subject to the acceptance of the City Inspector. Work that is deemed unacceptable or defective by the City Inspector shall be removed by the Contractor immediately and replaced with work that is acceptable to the City Inspector.

1.08 PROJECT CONDITIONS

- A. Existing Conditions:
 - 1. General: Exercise caution against injury to, or defacement of, existing conditions. At Contractor's expense, repair or replace items damaged from installation operations.

1.09 SCHEDULING

- A. General: Prior to starting work, coordinate work with other trades to insure proper sequencing of construction.

1.10 QUALITY ASSURANCE

- A. Agricultural Testing shall be done by a reputable laboratory for soil and plant disease diagnosis and analysis, with a minimum of 5 years' experience.
- B. Agricultural Testing laboratory: Recognized laboratory for soil and plant disease analysis for ornamental horticulture, approved by City Project Landscape Architect.
 - 1. Acceptable laboratory: Waypoint Analytical, Anaheim, CA (714) 282-8777; or Waypoint Analytical, 1101 S. Winchester Blvd, G-173, San Jose, CA 95128 (408) 727-0330;

- C. Provide an independent testing agency qualified according to ASTM E 329 to conduct soil materials and rock definition testing, as documented according to ASTM D 3740 and ASTM E 548.
- D. Conform all work and materials to the requirements of these Special Provisions.
- E. Percentage of compaction specified shall be the minimum acceptable. The percentage represents the ratio of the dry density of the compacted material to the maximum dry density of the material as determined by the procedure set forth in ASTM D 1557.
- F. Upon completion of the construction work, certify that all compacted fills are in place at the correct locations, and have been constructed in accordance with sound construction practice. In addition, certify that the materials used are of the types, quality and quantity required by these Technical Specifications. The Contractor shall be responsible for the stability of all fills and backfills constructed by his forces and shall replace portions that have been displaced or are otherwise unsatisfactory due to the Contractor's operations.
- G. Finish subgrade tolerance at completion of grading:
- H. Allowable Tolerances: Grading under this section shall be to a tolerance as follows:
 - 1. Concrete flatwork and paved areas \pm 0.05 feet.
 - 2. Areas 4:1 and Flatter: Plus or minus one-tenth of a foot (0.1'). However, the average grade over any one 50 foot square or 50 foot lineal feet of paving shall not vary more than 0.05' from the average grade shown on the drawings.
 - 3. Slopes Steeper than 4:1: Plus or minus 0.5'.

PART 2 – PRODUCTS

2.01 ON-SITE NATIVE SOIL

- A. On-site native material excavated during trenching, rough grading, or other activity and stockpiled on site prior to disposal, may be used as backfill on subgrade voids, conform areas, and irrigation trenches in landscape areas.
- B. Material shall be free of debris, organics and other deleterious material, perishable material, rubble, and debris.
- C. All excess excavated soils shall be off-hauled and disposed of at an approved off-site facility.

PART 3 – EXECUTION

3.01 GENERAL

- A. Prior to the work of this section, verify existing subgrade and inspect the work of other trades. Verify that all such work is complete to the point where rough grading may properly commence.
- B. In the event of discrepancy, immediately notify the Engineer in writing. Do not proceed with rough grading until all discrepancies have been resolved or take responsibility of condition of site at no additional expense to the City.

3.02 LINES AND LEVELS

- A. Check all points of horizontal and vertical control before any work is commenced; also check all lines and levels on the drawings. Should any discrepancies be found on the drawings or in the marks established at the site, immediately notify the Project Inspector and the Project Landscape Architect in writing so that proper adjustment may be made. The Project

Inspector and the Project Landscape Architect reserve the right to make such minor adjustments in the field as necessary to accomplish the true intent of the drawings and Specifications.

- B. Top of subgrade elevations shall be verified using laser-operation survey instruments. Grades at each point must be within ½ -inch plus or minus from the elevations shown on the plans. In addition, no two adjacent points within the grid shall cumulatively deviate more than ¾-inch (0.06 feet) from the respective points' design grades.
- C. All subgrade slopes shown on the drawings shall be completed and verified by the contractor through a conformance survey, to be reviewed and accepted by the City. The Contractor shall submit the verified grades to the City for review and approval before commencing with subsequent work items. If the methods of verification by the contractor are not acceptable by the City, and the City therefore finds it necessary to field verify the grades, the contractor will be charged accordingly.
- D. Finish grades shown on drawings are given in feet and decimals of feet and are to be the top of all graded or paved surfaces. Slope uniformly between given spot elevations unless otherwise indicated.
- E. Transition between slopes and relatively flat areas shall be rounded and gradual.

3.03 DUST PALLIATION AND SPILLAGE

- A. All necessary precautions, including watering, shall be taken to control air-borne dust to within reasonable limits in accordance with Section 01 00 00 "Supplemental to the General Conditions" of these Specifications.
- B. If serious problems and/or complaints arise due to airborne dust, and when directed by the City Project Engineer, operations causing such problems shall be temporarily discontinued at no cost to the City.
- C. The contractor shall prevent spillage when hauling on or adjacent to any Public Street or highway. In the event that spillage occurs, the contractor shall immediately remove all spillage, sweep and clean such streets in accordance with City, County, and State, and other governing regulatory requirements.

3.04 SITE PREPARATION

- A. Site preparation should begin with the removal of all vegetation, debris and other deleterious materials from the areas to be graded.
- B. Clearing and grubbing should extend to the outside of the proposed excavation and fill areas.
- C. Rubble and excavated material that do not meet criteria for use as fill should be disposed of in an appropriate landfill. Existing utilities in the work area should be relocated away from the proposed structure.
- D. Excavation resulting from removal of existing buried utilities, tree stumps, or obstructions should be backfilled with compacted fill in accordance with these Special Provision.

3.05 OBSERVATION AND REMOVALS

- A. Unsuitable materials will be considered dry, loose, soft, wet, expansive, organic, or compressible natural soil, and undocumented or otherwise deleterious fill materials. Unsuitable materials should be removed from trench bottoms and below bearing surfaces to a depth at which suitable foundation subgrade, is exposed.

3.06 CONTROL OF WATER AND DEWATERING

- A. Prevent surface water and ground water from entering excavations, from ponding on prepared subgrades, and from flooding the site and surrounding area. Provide dewatering equipment necessary to drain and keep excavations and site free from water.

- B. Protect subgrades from softening, undermining, washout and damage by rain or water accumulation.
- C. Reroute surface water runoff away from excavated areas. Do not allow water to accumulate in excavations.

3.07 SUBGRADE PREPARATION

- A. Excavate earth to lines and grades shown on drawings and to the neat dimensions indicated on the Plans, required herein.
- B. Remove and dispose of large rocks, pieces of concrete and other obstructions encountered during excavation.
- C. Prepared subgrade should be maintained in a moist, but not saturated, condition by periodic sprinkling of water prior to placement of additional overlaying fill.
- D. Subgrade that has been permitted to dry out and loosen or develop desiccation cracking, should be scarified, moisture conditioned and re-compacted.
- E. Subgrade preparation below fill, slabs, and flatwork:
 - 1. Scarify top 8 inches then moisture-condition and compact per compaction recommendation requirements.
 - 2. Keep in moist condition by sprinkling water.
- F. Subgrade preparation in utility trenches:
 - 1. Remove or compact loose/soft material.

3.08 FILL PLACEMENT AND COMPACTION REQUIREMENTS

- A. Fill and backfill should be compacted in conformance with the Table below.
- B. The allowable uncompacted thickness of each lift of fill depends on the type of compaction requirement utilized by generally should not exceed 8 inches in loose thickness.
- C. Compacted fill should be maintained in a moist, but not saturated, condition by the periodic Fill that has been permitted to dry out and loosen or develop desiccation cracking, should be scarified, moisture conditioned and recompacted, as per the requirements herein.

Fill Placement and Compaction			
Fill Type	Location	Relative Compaction¹	Moisture Content relative to optimum²
Subgrade	Flatwork, or fill and in locations not already specified	90 percent	+2 percent or above
General Fill	In locations not already specified	90 percent	+2 percent or above
Bedding and Pipe Zone Fill	Material below invert to 12 inches above pipe or conduit	90 percent	Near Optimum
Aggregate Base	Below hardscape	95 percent	Near Optimum
Notes:			
1 Expressed as percent relative compaction or ratio of field density to reference density (typically on a dry density basis for soil and aggregate). The reference density of soil and aggregate should be evaluated by ASTM D 1557.			
2 Target moisture content at compaction relative to the optimum as evaluated by ASTM D 1557.			

3.09 FIELD QUALITY CONTROL

A. Supervision: Qualified foreman must be continuously on-site during work operations.

3.10 MEASUREMENT AND PAYMENT

A. Excavation, backfill, compaction work in order to achieve subgrade under all concrete paving, compaction work in order to achieve subgrade under all pour-in-place synthetic safety surfacing, off-haul and disposal of excess excavated materials shall be considered as included in the contract unit prices paid for those items and no separate payment will be made therefor.

END OF SECTION

DIVISION 32 - EXTERIOR IMPROVEMENTS

SECTION 32 11 23 AGGREGATE BASE COURSE

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Class 2 aggregate base under pour-in-place synthetic safety surfacing.
- B. Class 2 permeable drain rock in perforated drainage trenches.
- C. Class 2 aggregate base under concrete pavement.

1.02 RELATED DOCUMENTS

- A. These special provisions are part of the plans and shall include all labor, materials, equipment, reasonable incidentals, and services necessary to the execution of the work.
- B. Refer to all other sections, determine the extent and character of related work, and coordinate all work to produce a complete, properly constructed product.
- C. Related Sections
 - 1. Section 31 20 00 "Rough Grading"
 - 2. Caltrans Standard Specifications, 2018 edition
 - 3. Section 11A and 11B, City of Fremont Standard Trench Backfill Specifications, Standard Specifications, dated January 1995 (amended).

1.03 DESCRIPTION OF WORK

- A. Scope of Work shall include, but shall not necessarily be limited to, the following for a complete and functional drainage system:
 - 1. Excavate and backfill as required in Section 31 20 00 "Rough Grading", subsection 'Grading and Utility Trenches'.
 - 2. Set grades, construct grades, and compact soils for drainage.
 - 3. Stake proposed elevations in the field for review and approval by the City Engineer prior to construction.

1.04 REFERENCE STANDARDS

- A. Caltrans standard Specifications 2018
 - 1. Section 26 Aggregate Bases
 - 2. Section 68 Subsurface Drains
- B. ASTM
 - 1. ASTM C 136 - Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates; 2006.
 - 2. ASTM D 6938-17a - Standard Test Method for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth).
 - 3. ASTM D 1557 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft³ (2,700 kN m/m³)); 2007.
 - 4. ASTM D2434: Standard Test Method for Permeability of Granular Soils (Constant Head); 2006.

1.05 SUBMITTALS

- A. Submit cut-sheets or samples of all products to be used in conformance with Section 01 32 19 "Submittals Procedures" and/or applicable Division One and Division Two specifications, General Conditions and Special Provisions.
- B. Product Data: Manufacturer's catalog cuts indicating material compliance and specified options.
- C. Record Drawings: Accurately record location of new piping, drain structures, and connections to existing systems using horizontal dimensions, elevations, inverts and slope gradients as applicable.
- D. Materials Sources: Submit name of imported materials source.
- E. Compaction Density Test Reports.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. When necessary, store materials on site in advance of need.
- B. Verify that survey bench marks and intended elevations for the Work are as indicated.

1.07 PROJECT/SITE CONDITIONS

- A. Work of this section shall not be executed when site conditions are detrimental to quality of work as determined by the Engineer.

1.08 SEQUENCING AND SCHEDULING

- A. Coordinate work of this section with all other work contained in the Contract Documents.

PART 2 PRODUCTS

2.01 CLASS 2 AGGREGATE BASE (AB)

- A. Caltrans Class 2 aggregate base, $\frac{3}{4}$ inch maximum, conforming to Section 26 of the State of California Department of Transportation Standard Specifications, dated 2018 and shall be placed as base under pour-in-place synthetic safety surfacing and other finished surface materials.
- B. Acceptable Materials: Shall be those materials sampled, tested and approved by the City.
- C. Quality Control; Testing for all aggregate base for shall be per Caltrans Standards or per ASTM requirements. If tests indicate materials do not meet specified requirements, change material and retest. Provide materials of each type from same source throughout the Work
- D. The cost for furnishing aggregate base shall be included in the various line items listed herein.

2.02 CLASS 2 PERMEABLE DRAIN ROCK

- A. Material to be used at perforated drain line trenches.
- B. Class 2 Permeable Rock, $\frac{3}{4}$ " max, shall conform and be certified to meet the requirements for 2018 Caltrans Specification Section 68-2.02F(3) "Class 2 Permeable Material".
- C. Suppliers include Graniterock, 350 Technology Drive, Watsonville, CA 95076. Ph: 831-768-2380. A.R. Wilson Quarry, or approved equal.
- D. Drainage/Permeability: minimum 10 inches per hour. Refer to Part 3, "Excavation and Backfill", for testing methodology.

- E. Relative compaction shall be achieved by uniform distribution and static rolling to assure uniform placement, grade and drainage and prevent breakdown of material. Testing shall be coordinated between the contractor and inspector to establish a baseline for testing uniformity.
- F. No separate payment shall be made for class 2 permeable rock aggregate base placed behind the concrete retaining wall. The cost for furnishing class 2 permeable rock shall be included in the various line items listed herein.

2.03 SOURCE QUALITY CONTROL

- A. Testing for all aggregate base for flatwork shall be per Caltrans Standards
- B. See Section 01 45 00 "Quality Control", for general requirements for testing and analysis of aggregate base materials.
- C. If tests indicate that materials do not meet specified requirements, change material and retest.
- D. Provide materials of each type from same source throughout the Work.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify subgrade has been prepared, inspected, gradients and elevations are correct, and is dry.

3.02 PREPARATION

- A. Coordinate the sequence of work.
- B. Adjust proposed elevations as necessary to ensure proper drainage, and to conform to existing rim elevations, with no areas of standing water.
- C. Schedule and perform drainage system installation prior to prolonged wet weather periods.
- D. Correct irregularities in subgrade gradient and elevation by scarifying, reshaping, and re-compacting.
- E. Do not place aggregate on soft, muddy, or frozen subgrade surfaces.
- F. Where required, geotextiles shall be in place prior to placement of aggregate base.

3.03 INSTALLATION CLASS 2 AGGREGATE BASE

- A. Imported Class 2 aggregate base rock, under all poured in place safety surfacing, should be compacted between a minimum 90% and 95% relative compaction of maximum dry density, unless otherwise stated in the geotechnical report included in these Special Provisions.
- B. Imported Class 2 aggregate base rock, under all concrete paving (if awarded), should be compacted between a minimum 90% and 95% relative compaction of maximum dry density, unless otherwise stated in the geotechnical report included in these Special Provisions.
- C. Compaction criteria will be based on the laboratory procedure ASTM D1557.
- D. Proof-roll subgrade immediately prior to commencement of spreading of aggregate base. Subgrade shall be stable and unyielding under construction truck and equipment loads.
- E. Spread aggregate over prepared subgrade in a manner that does not cause segregation of the material.
- F. Where the required thickness is 6 inches or less, the base material may be spread and compacted in one layer.

- G. Where the required thickness is more than 6 inches, the base material shall be spread and compacted in 2 or more layers of approximately equal thickness, and the maximum compacted thickness of any one layer shall not exceed 6 inches.
- H. Level and contour surfaces to elevations and gradients indicated.
- I. Add water to assist compaction. If excess water is apparent, remove aggregate and aerate to reduce moisture content.
- J. Base shall be firm and unyielding when proof-rolled with heavy, rubber-tired grading equipment prior to continuing construction.
- K. Use mechanical tamping equipment in areas inaccessible to compaction equipment.
- L. Base material placed in areas inaccessible to the spreading equipment may be spread in one or more layers by any means that will make possible the specified compaction and surface.
- M. The base material, after spreading, shall be shaped by means of a blade grader to such thickness that after watering and compacting, the completed base will conform to the required grade and cross section within the tolerances specified.
- N. Finish surface of the aggregate base course shall not vary more than 0.05 feet from the grade established by the Engineer.
- O. Finished base that does not conform to the foregoing requirements shall be reshaped or reworked, watered, and thoroughly re-compacted to conform thereto.
- P. The Contractor shall not allow any completed untreated rock base to be subject to public or construction traffic, except the latter necessary to the completion of the overlying surface courses.

3.04 CLASS 2 PERMEABLE DRAIN ROCK

- A. Refer to construction details for layout dimensions of class 2 permeable drain rock.
- B. The specified permeable rock base shall conform to the requirements defined herein this section, and the requirements for Caltrans Class 2 permeable material.
- C. The permeable rock base shall be placed in drainage trenches.
- D. Layers shall be compacted to between 90% minimum and 95% maximum, relative compaction, to finished base elevation with a smooth drum roller, and still maintain permeability, and provide a non-yielding, smooth, flat surface.
- E. Establish a roll pattern to achieve maximum compaction density and uniformity along a test strip and compact as follows:
 - 1. Make 3 passes with a static roller over the material as placed.
- F. Perform a dry density test.
- G. Add a small amount of moisture, as agreed upon in the field with the Project Inspector, and make 3 additional passes with a static roller if compaction is not achieved. Perform a second dry density test on the test strip.
- H. Add a lesser amount or greater amount of moisture, as agreed upon in the field with the Project Inspector, and make 3 additional passes with a static roller if compaction is not achieved. Perform a third dry density test on the test strip.
- I. Compaction readings after the third dry density test should establish the means and methods to achieve compaction for the remainder of the work.
- J. Compaction may be achieved before a third series of passes and readings is necessary.
- K. This method shall be used to place and compact the leveling course described elsewhere herein.

- L. Should any segregation of the material occur during any stage of the stockpiling, spreading, or grading, the contractor shall immediately remove and dispose of segregated material and correct or change the handling methods and procedures to prevent any further segregation.
- M. The depth of the permeable rock base shall as shown on the drawings.
- N. Upon completion of the test strip perform a field percolation test to ensure a minimum rate of 10" per hours.
- O. Field percolation testing shall be conducted in the presence of the Project Inspector Engineer in accordance with the ASTM F2898-11 testing specified herein and described in "Special Inspection and Material Testing".

3.05 TOLERANCES

- A. Flatness: Maximum variation of 1/4 inch measured with 10 foot straight edge.
- B. Scheduled Compacted Thickness: Within 1/4 inch.
- C. Variation From Design Elevation: Within 1/2 inch.

3.06 FIELD QUALITY CONTROL

- A. Refer to Section 01 45 00 "Quality Control", for general requirements for field inspection and testing.
- B. Compaction density testing will be performed on compacted aggregate base course in accordance with ASTM D6938-17a and Method C of ASTM D 1557.
- C. If tests indicate work does not meet specified requirements, remove work, replace and retest.

3.07 CLEANING

- A. Remove unused stockpiled materials, leave area in a clean and neat condition. Grade stockpile area to prevent standing surface water.

3.08 MEASUREMENT AND PAYMENT

- A. The per ton final pay quantity for "**Class 2 Aggregate Base Rock (F)**", shall include full compensation for furnishing all labor, materials, tools, equipment, compaction, and incidentals and for doing all the purchase, import and placement of material, complete in place as shown on the plans, to be installed under pour-in-place synthetic safety surfacing, as required by these Special Provisions, and as directed by the City Engineer or his designee. Quantities will not be measured. The quantity shown on the Engineer's Estimate for class 2 aggregate base rock shall be the final pay quantity for which payment is made as specified in Section 8.2 and 8.8 "Final Payment" of the General Conditions and no additional payment shall be made therefor.
- B. Payment for "Class 2 Permeable Drain Rock" shall be included in the contract unit price paid for "**Relocate 4" Perforated Drain Line**", and no additional payment will be made therefor.
- C. **Class 2 Aggregate Base – No separate payment shall be made for aggregate base placed beneath concrete construction, if Alternate 1 is awarded.** The cost for furnishing and placing aggregate base shall be included in the various items of concrete construction which require aggregate base, and no additional compensation will be allowed therefor.

END OF SECTION

CITY COUNCIL REFERENCE ONLY

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SECTION 32 18 16 POUR-IN-PLACE SAFETY SURFACING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. The work specified in this section is the provision of all material, labor, equipment, and services necessary for furnishing and installing pour-in-place safety surfacing, as shown on the Drawings and specified herein. The work includes but is not limited to:

1. Rubber Playground Surfacing

a. Playground Safety Surfacing consists of a polyurethane binder mixed with shredded tire buffings (SBR) to make up the cushion layer.

The cushion layer is capped with .5 – 1.5mm TPV granules mixed with an Aliphatic binder to create the wear course.

1.02 RELATED SECTIONS

A. Section 01 32 19 "Submittal Procedures"

B. Section 11 68 13 "Play Structures"

C. Section 32 11 23 "Aggregate Base Course"

1.03 REFERENCES

A. American Society for Testing and Materials (ASTM):

1. ASTM D412 Standard Test Methods for Vulcanized Rubber and Thermoplastic Rubbers and Thermoplastic Elastomers-Tension.
2. ASTM D624 Standard Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers.
3. ASTM D2047 Standard Test Method for Static Coefficient of Friction of Polish-Coated Floor Surfaces as Measured by the James Machine.
4. ASTM D2859 Standard Test Method for Flammability of Finished Textile Floor Covering Materials.
5. ASTM E303 Standard Test Method for Measuring Surface Frictional Properties Using the British Pendulum Tester.
6. ASTM F1292 Standard Specification for Impact Attenuation of Surface Systems Under and Around Playground Equipment.
7. ASTM F1951 Standard Specification for Determination of Accessibility of Surface Systems Under and Around Playground Equipment.
8. ASTM F2223 Standards on Playground Surfacing

B. Code of Federal Regulations (CFR)

CFR 28 Part 36 (1991) Nondiscrimination on the Basis of Disability by Public Accommodations and in Commercial Facilities, Final Rule

36 CFR part 1191 (2000) Americans with Disabilities Acts (ADA) Accessibility Guidelines for Buildings and facilities; Play Areas, Final Rule.

C. U.S. Consumer Product Safety Commission (CPSC)

CPSC Handbook for Public Playground Safety, U.S. Consumer Product Safety Commission, Washington, D.C. 20207, 301-504-0494

D. California Code of Regulations

Title 22, Social Security, Division 4. Environmental Health; Chapter 22. Safety Regulations for Playgrounds.

1.04 QUALITY ASSURANCE

- A. Workmanship and materials: All workmanship and materials within this Section shall conform strictly to the manufacturer's specifications, installation instructions, and guarantees.
- B. **Resilient safety surfacing shall be installed by a certified installer with a minimum of three (3) years' experience in the installation of the specified and accepted material and have performed a minimum of 20 installations.**

1.05 PERFORMANCE REQUIREMENTS

- A. Performance Requirements: Provide a 2 layer rubber-urethane playground surfacing system which has been designed, manufactured and installed to meet the following criteria:
1. Shock Attenuation (ASTM F1292):
 - a. Gmax: Less than 200.
 - b. Head Injury Criteria: Less than 1000.
 - c. Flammability (ASTM D2859): Pass.
 - d. Tensile Strength (ASTM D412): 60 psi (413 kPa).
 - e. Tear Resistance (ASTM D624): 140%.
 - f. Water Permeability: 0.4 gal/yd²/second.
 - g. Accessibility: Comply with requirements of ASTM F1951.
 - B. Area Safety: Safety surfacing within playground equipment use zones shall meet or exceed the performance requirements of CPSC, ADA, and ASTM F1292-09. The surface must yield both a peak deceleration of no more than 200 G max. and a Head Injury Criteria (HIC) value of no more than 1,000 for a head-first fall from the highest accessible portion of play equipment being installed as shown on drawings.
 - C. The contractor is responsible for obtaining a determination from the safety surfacing manufacturer of the product depth required to meet performance requirements for all play equipment.
 - D. Certificates of Compliance: The impact attenuation performance of the synthetic safety surfacing and granular safety surfacing proposed for installation shall be documented by certificates of compliance attained from an official manufacturer's representative. See "Submittals".
 - E. Accessibility: Safety surfaces intended to serve as accessible paths of travel for persons with disabilities shall be firm, stable and slip resistant and shall meet the requirements of FEDSTD 795, 28 CFR Part 36 ASTM F 1487, 1292.
 - F. **International Play Equipment Manufacturers Associate (IPEMA) Certification is required.**
 - G. Accessibility: Outdoor play areas shall be in compliance with the Uniform Federal Accessibility Standards (UFAS) FED-STD-795 and the Architectural and Engineer Instructions (9AEI) Design Criteria. The requirements of the Americans with Disabilities Act Accessibility Guidelines (9ADAAG) 28 DFR Part 36 that provide equal or greater accessibility than the requirements of UFAS must also be met in outdoor play areas.
 - H. Quality of Assurance:

1. Coefficient of Friction- ASTM C1028
 2. Flammability- ASTM D2859
 3. Tensile Strength – ASTM D412 (60 psi (413kPa))
 4. Permeability- ASTM F1551-03
 5. Attenuation- CPSC and ASTM F1292-09
 6. Accessibility – ASTM F1951
- I. To assure quality control, the installation shall be performed by direct employees of the manufacturer only. **Certified Installers will not be acceptable. Direct employees should be under the manufacturer's employ for a minimum of 180 days.**
 - J. Delivery, Storage and Handling: Materials and equipment shall be delivered and stored in accordance with the manufacturer's recommendations.
 - K. Project Site Conditions: Synthetic safety surfacing shall be installed on a dry subsurface, with no prospect of rain within the initial drying period, when minimum ambient temperature is 40 degrees F (4.4 degree C) and a maximum ambient temperature is 95 degrees F (35 degrees C). Exception to the temperature requirements can be made by the manufacturer of the surfacing system. Do not install in steady or heavy rain.
 - L. Sequencing and Scheduling: Safety surfacing shall be installed after the playground equipment is installed. Surface installation shall be coordinated by designated individual playground sub-equipment and sub-base installation.
 - M. Warranty: Surfacing shall maintain required impact attenuation characteristics and be guaranteed against defects in workmanship or material for a period of seven (7) years from the date of completion.

1.06 SUBMITTALS

- A. Refer to Section 01 32 19 "Submittal Procedures". Products submitted as substitutions must also provide the following:
 1. Manufacturer's descriptive product data and installation instructions, including cleaning and preventive maintenance instructions.
 2. Drawings showing details of the safety surfacing system, including layout, depths of material, sub base materials, anchoring systems and edge details.
 3. A list of all materials and components to be installed as part of the system, by weight, and/or volume and recommended coverage, including manufacturers name, shipment date, storage requirements, and precautions, and shall state chemical composition and test results to which material has been subjected in compliance with these specifications.
 4. Certificate of qualifications of the Playground Surface Installer:
 - a. A listing of at least 5 installations where products similar to those proposed for use have been installed and have been in successful service for a minimum period of 3 years. This list shall include owner or purchaser, address of installation, service or maintenance organization, date of installation, contact person, and phone number.
 - b. Statement signed by an official authorized to certify on behalf of the manufacturer of the synthetic safety surfacing attesting that the surfacing meets the requirements of ASTM F 1292-09 for a head-first fall from the highest accessible portion of specified playground equipment.
 - c. Statement signed by the Manufacturer of the synthetic safety surfacing attesting that all materials under this section shall be installed by the Manufacturer's employees and

that playground surfacing installation shall not be performed by anyone other than the Manufacturer.

5. Verification Sample: Submit manufacturer's standard color verifications sample of 6" x 6" minimum.
6. Mock up of safety surface, minimum of 6 inches x 6 inches (150 mm x 150 mm) proposed for this project.
7. Warranty for product shall maintain required impact attenuation characteristics and be guaranteed against defects in workmanship and material. Warranty shall be for 7 years. 3 repairs against vandalism shall be included up to 15 SF per occurrence.
8. An official manufacturer's representative, authorized to certify on behalf of the synthetic safety surfacing manufacturer, shall sign a statement certifying and attesting that the surfacing meets the requirements of ASTM F 1292 for a head-first fall from the highest accessible portion of installed play equipment. The impact attenuating qualities of the surfacing system shall not be diminished in the surface areas covering hardware. Testing of product shall include tests conducted over hardware. The statement shall be dated after the award of the Contract, shall state the Contractor's name and address, and shall name the project and location. The statement shall also provide the name, address, and telephone number of the testing company, the date of the test, and the test results.
9. The authorized manufacturer's representative shall certify upon completion of the installation that the safety surfacing has been installed in accordance with manufacturer's instructions and complies with all specifications and standards.

1.07 INSTALLER QUALIFICATIONS

- A. Applicator/installer must be certified by manufacturer as having been trained in the proper application of the Poured-in-Place system.
- B. International Play Equipment Manufacturer Association (IPEMA) certified.

1.08 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Safety surface shall be delivered in good condition in original unopened packages with labels intact and unloaded at job site in such a manner that no damage occurs to the product during hauling, handling or unloading at the job site.
- B. Protect materials from adverse weather or environmental conditions. Store safety surface binder at 40 degrees F (4.4 degrees C) minimum temperature and a maximum temperature of 90 degrees F (32.2 degrees C).

1.09 JOB CONDITIONS

- A. At the time of safety surface application, ambient air temperature shall be greater than 40 degree F (4.4 degrees C) and maximum ambient temperature of 95 degree F (35 degrees C) and remain so for at least 72 hours after completion. Do not install in steady of heavy rain.
- B. Protect safety surface materials from adverse weather and other damage prior to application, during application and curing.

PART 2 PRODUCTS

2.01 AGGREGATE BASE

- A. Aggregate base shall be Class 2, and shall conform to the provisions in Section 26, "Aggregate Bases," of the Standard Specifications and these special provisions and Section

32 11 23 "Aggregate Base Course" found herein.

2.02 GENERAL

A. Poured-in-Place Safety Surface

1. Safety surfacing shall consist of both recycled and synthetic materials meeting the requirements of this specification.

B. Manufacturers listed is a suggested list. Approved product must still meet the requirements of this specification, including meeting the percentages of urethane binder as outlined below under "Mixes", "Cushion Layer Section (SBR)", and "Top Layer or Wear Course."

1. SpectraPour Supreme

Mfr: SpectraTurf

Kelvin Fountano, Ph: 279 220-9074

kmfountano@spectraturf.com

UltraFlex

Mfr: FlexGround

Sandi Walsh, Ph: 916 275-3588

info@flexground.com

Totturf Supreme

Mfr: Tot Turf

Frank Horwath, ph: 510 260-9025

fhorwath@totturf.com

C. Play Surfacing Thickness

1. The type of playground equipment determines the required basemat thickness, and the basemat thickness may be different at various locations on the playground site. Depending on ASTM F1292 requirements for critical fall height (4', 5', 6', 8', 10', or 12'), select base mat thickness from options provided in subparagraph below (1 1/2", 2", 2 1/2", 3", 3 3/4", 4 1/2" or respectively).

a. Thickness:

i. 5-12 Play Equipment Area, approximately 2460sqft – 6"; Minimum depth of play surfacing, including wear surface.

ii. All other areas shall be a minimum of 4", including wear surface.

b. Mixes - required mix proportions by weight:

i. Basemat: 16+% urethane (as ratio: 14% urethane divided by 86% rubber). 14% urethane, 86% rubber (based on entire rubber & urethane mix).

ii. Top Layer/ Wear Surface: 25% urethane (ratio: 20% urethane divided by 80% TPV). 20% urethane, 80% TPV (based on entire rubber & urethane mix).

D. Cushion Layer Section (SBR)

1. Impact Attenuating Cushion Layer: Cushion Layer shall consist of a polyurethane binder mixed with shredded Styrene Butadiene Rubber (SBR) adhered with a 100% solids urethane to form a resilient, porous material.

2. Strands of SBR may vary from 0.5mm – 2.0 mm in thickness by 3.0 mm to 20mm in length. Foam or Rubber granulate (crumb rubber) is not acceptable for the cushion layer.
 3. Cushion layer shall be installed in one continuous pour on the same day. If second pour is required, seam shall be stepped and coated with polyurethane binder to ensure bond with new work.
 4. Binder shall be 16+% urethane (as ratio: 14% urethane divided by 86% rubber). 14% urethane, 86% rubber (based on entire rubber & urethane mix) and shall provide 100 percent coating of the particles. Field measurements to be taking by city during installation to confirm correct binder percentage are used.
 5. Using trowel, SBR/binder mix shall be spread in a consistent density to specified thickness at a rate of 29 lbs. and 1 oz. Total weight per cubic foot to the specified depth.
 6. SBR/binder mix shall be allowed to cure (necessary time varies based on temperature and humidity).
- E. Primer
1. Primer: Where necessary, shall be applied at a rate of 300 sq. ft. per gallon to the subbase using a short nap roller.
- F. Top Layer or Wear Course
1. TPV Wear Course shall consist of a blend of 0.5 – 1.5mm Thermal Plastic Vulcanized (TPV) granules adhered with a UV-stable Aliphatic urethane binder formulated to produce an even, uniform surface.
 - a. Binder shall be 25% urethane (ratio: 20% urethane divided by 80% TPV). 20% urethane, 80% TPV (based on entire rubber & urethane mix). Field measurements to be taking by city during installation to confirm correct binder percentage are used.
 - b. Colors: See Sheet L3.3.
 - c. Thickness of the wear course shall be ½” minimum and 5/8” maximum.
 - d. The wear course shall be porous.
 - e. Dry Static Coefficient of Friction (ASTM D2047): 1.0.
 - f. Wet Static Coefficient of Friction (ASTM D2047): 0.9.
 - g. Dry Skid Resistance (ASTM E303): 89.
 - h. Wet Skid Resistance (ASTM E303): 57.
- G. Binder
1. Binder: UV Stable Aliphatic
- H. Additional Requirements
1. Poured-in-place safety surface shall be of variable thickness to attenuate the impact from the fall heights as required by the play equipment manufacturer.
 2. Poured-in-place primer shall be a single component moisture cured polyurethane primer.
 3. Poured-in-place binder shall be an elastic polyurethane pre-polymer with minimal odor, excellent weathering and binding characteristics. Binder shall be 100% MDI based and contain 0% TDI monomers.
 4. Cushion Layer -Poured-in-place black SBR shall be 100% recycled SBR rubber. It shall be ground at ambient temperature into 3/8” shredded strands and contain less than 4% dust. It shall be transported in suitable bags to protect from moisture.

5. Wear Course - shall consist of Thermal Plastic Vulcanized (TPV) granules (UV stable colors) with an aliphatic binder formulated to produce an even and uniform surface.
6. Contractor shall provide an additional 10% of wear course material for replacement and repair.

PART 3 EXECUTION

3.01 SITE PREPARATION

- A. Finished Grade: Verify that finished elevations of adjacent areas are as indicated on the drawings, that the appropriate subgrade elevation has been established for the particular safety surface to be installed, and that the subsurface has been installed in a true, even plane, and sloped to drain as indicated in drawings. Verify the subsurface irregularities, if found, have been corrected prior to installation of the safety surfacing.
- B. Subsurface: Tolerance of aggregate subsurface shall be within 3/8 inch (10 mm) in 10 feet (3050 mm). Verify that aggregate subsurface has been fully compacted, in 2" watered lifts, to a minimum 95%.

3.02 DRAINAGE

- A. Drainage: Verify that sub surface drainage has been installed to provide positive drainage.
- B. Refer to Section 22 14 00 "Drainage"

3.03 AGGREGATE BASE

- A. Refer to Section 32 11 23 "Aggregate Base Course"

3.04 INSTALLATION

- A. Do not proceed with playground surfacing installation until all applicable site work, including substrate preparation, fencing, playground equipment installation and other relevant work, has been completed.
- B. Manufacturer's Services: A manufacturer's representative who is experienced in installation of playground safety surface shall be provided. The representative shall supervise the installation to ensure that the safety surfacing meets the impact attenuation requirements as specified herein.
- C. Safety Surface System: Components of the safety surface system shall be mixed on site in a rotating tumbler to ensure components are thoroughly mixed and are in accordance with manufactures recommendations. Installation of surfacing shall be seamless up to 2,000 square feet per day and completely bonded to subsurface. Material shall cover all foundations and fill around all elements penetrating the surface.
- D. Installation procedures shall be according to manufacturer's directions.
- E. Install safety surface cushion layer on compacted aggregate base. Aggregate base thickness varies for drainage. Slope bottom of aggregate base to drain. Safety surface thickness varies. See Drawings.
- F. Apply adhesives to safety surface with care and caution. Avoid smearing the upper surface or allowing adhesive contact with adjacent surfaces.

- G. Provide adequate setting bed to ensure bond between safety surface and sub base. All joints shall be true, straight, and tightly fitted. All trimming shall be made to provide snug fits to surrounding equipment or surfaces. No surface irregularities of cracks, voids, puckers, or similar imperfections will be permitted.
- H. Poured-in-Place System:
1. Primer: Where necessary, shall be applied at a rate of 300 sq. ft. per gallon to the sub base using a short nap roller.
 2. Primer Application: Using a brush or short nap roller, apply primer to the basemat perimeter and any adjacent vertical barriers such as playground equipment support legs, curbs or slabs that will contact the surfacing system at the rate of 300 ft²/gal (7.5 m²/L).
 3. Cushion Layer:
 - a. Cushion layer shall be installed in one continuous pour on the same day. If second pour is required, seam shall be stepped and coated with polyurethane binder to ensure bond with new work.
 - b. Whenever practical, substrate layer of surfacing material shall be installed in one continuous pour on the same day of up to 2,000 sq ft. When a second pour is required, fully coat the edge of the previous work with polyurethane binder to ensure 100% bond with new work. Apply adhesive in small quantities so that new substrate can be placed before the adhesive dries.
 - c. See above. Using trowel, SBR/binder mix shall be spread in a consistent density to specified thickness at a rate of 29 lbs. and 1 oz. Total weight per cubic foot to the specified depth.
 - d. SBR/binder mix shall be allowed to cure (necessary time varies based on temperature and humidity).
 - e. Allow cushion layer to cure for sufficient time so the indentations are not left in the basement from applicator for traffic or equipment.
 4. Top Wear Course:
 - a. Wearing surface must be of TPV granules. Wearing surface shall be bonded to Cushion Layer. If necessary, additional primer will be used between the cushion layer and wear course. Apply adhesive to substrate in small quantities so that wearing surface can be applied before adhesive dries. Surface shall be hand towelled to a smooth, even finish. Except where wearing surface is composed of differing color patterns, pour shall be continuous and seamless up to 2,000 sq ft per day. Where seams are required due to color change, adjacent colour shall be placed as soon as possible, before initial pour has cured. The edge of initial pour shall be coated with adhesive and wearing surface mixture shall be immediately applied.
 - b. TPV shall be angular granules with a (Shore A) hardness of 65°A ±5 and particle size shall be between .5 to 1.5mm. Aliphatic binder shall be not less than 22 percent of total weight of rubber used in the wear surface, and shall provide 100 percent coating of the particles.
 - c. Using trowel, TPV/binder mix shall be spread in a consistent density at a rate of 58 lbs. and 9 oz. Total weight per cubic foot to which yields a nominal thickness of ½”.
 - d. Mix shall be allowed to cure (necessary time varies based on temperature and humidity).
 - e. At the end of the minimum curing period, verify that the top wear course is sufficiently dry and firm to allow foot traffic and use without damage to the surface.

5. Perimeter: When connecting to a concrete curb or border, the inside vertical edge shall be primed with adhesive.
6. Thickness: Construction methods, such as use of measured screeds 1-1/16 inch (1.0 mm) thicker than the required surfacing depth, shall be employed to ensure that full depth of specified surfacing material is installed. Surfacing system thickness throughout the playground equipment use zone shall be as required to meet the impact attenuation requirements specified herein.

3.05 CLEAN UP

- A. Do not allow adhesive on adjacent surfaces. Immediately clean up spills of excess adhesive.
- B. Prior to final inspection and acceptance, remove all rubbish and excess material for disposal as approved, and leave area in a neat, satisfactory condition.

3.06 PROTECTION

- A. The synthetic safety surface shall be allowed to fully cure in accordance with Manufacturer's instructions. **The surface shall be protected by the Contractor from all traffic during the minimum curing period of 72 hours or as instructed by the manufacturer.** Contractor to continue to protect installed playground surface from any damages that may occur from subsequent construction activity on the site.

3.07 REPLACEMENT

- A. Replace all defective or damaged safety surface prior to acceptance.

3.08 MEASUREMENT AND PAYMENT

- A. The square foot unit price paid for "**Pour-In-Place Synthetic Safety Surfacing**" of the unit price schedule shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals for doing the work covered in this section, including all independent and third party testing, complete and in place as shown on the plans, as required by these Special Provisions, and as directed by the Project Engineer.

END OF SECTION

CITY COUNCIL REFERENCE ONLY

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SECTION 32 33 00 SITE FURNISHINGS

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1, General Requirements, apply to the work specified in this Section.
- B. Refer to all other sections, determine the extent and character of related work, and coordinate all work to produce a complete, properly constructed product.
- C. Examine contract documents for requirements that affect work of this section. Other specification sections that directly relate to the work of this section include, but are not limited to:
 - 1. Section 03 30 00 "Cast-In-Place Concrete"

1.02 DESCRIPTION OF WORK:

- A. The work in this division includes the furnishing of all labor, materials, equipment and services necessary to complete the work described on the Drawings and as herein specified, but is not limited to:
 - 1. ADA Concrete Picnic Table
 - 2. Trash Receptacle
 - 3. Recycle Receptacle

1.03 REFERENCES AND STANDARDS

- A. Comply with applicable requirements of the following standards. Where these standards conflict with other specified requirements, the most restrictive requirements shall govern.
 - 1. Manufacturers Data and Recommended Installation Requirements
 - 2. Americans with Disabilities Act of 1990 (ADA).
 - 3. U.S. Consumer Product Safety Commission (CPSC) "Handbook for Public Playground Safety."
 - 4. American Society for Testing and Materials (ASTM) F1487 "Standard Consumer Safety Performance specification for Playground Equipment for Public Use."

1.04 SUBMITTALS

- A. Manufacturers Product Data: Provide manufacturers product data prior to actual field installation work, for Architects or Owners representatives review.
- B. Shop Drawings: Provide drawings of the manufacturers recommended installation and foundation requirements prior to actual field installation work, for City Project Landscape Architect review.

1.05 QUALITY ASSURANCE

- A. Manufacturers warranties shall pass to the Owner and certification made that the product materials meet all applicable grade trademarks or conform to industry standards and inspection requirements.

1.06 PRODUCT DELIVERY AND STORAGE

- A. Materials delivered to the site shall be examined for damage or defects in shipping. Any defects shall be noted and reported to the Owners representative. Replacements, if necessary, shall be immediately re-ordered, so as to minimize any conflict with the construction schedule. Sound materials shall be stored above ground under protective cover or indoors so as to provide proper protection.

PART 2 PRODUCTS

2.01 GENERAL

- A. Products named are indicative of the features, form, finish, and quality of the furnishings desired. Products of manufacturers other than those named may be acceptable upon proof of equality.
- B. All products shall be new, delivered to the site in manufacturer's original containers, and protected at all times from damage during shipping, storage, and handling prior to and during installation.

2.02 ADA CONCRETE PICNIC TABLE

- A. ADA Concrete Table by Outdoor Creations Inc. or approved equal.
 - 1. Model: 100FSRE – Right side entry, 92” picnic table with square legs
 - 2. Color: Sunset Rose
 - 3. Finish: Smooth w/ graffiti-resistant sealer
 - 4. Acceptable Manufacturer: Outdoor Creations Inc -- 2270 Barney Road, Anderson, CA 96007, Contact: Chad

2.03 TRASH RECEPTACLE

- A. Trash Receptacle by Dumor Inc. or approved equal
 - 1. Model: 157-32SH-25BT with liner concealing shield and bonnet cover
 - 2. Color: Black
 - 3. Attachment: Surface mount
 - 4. Available: Ross Recreation, (707) 538-3800

2.04 RECYCLE RECEPTACLE

- A. Recycle Receptacle by Dumor Inc. or approved equal
 - 1. Model: 157-32SH-25BT with liner concealing shield and bonnet cover with 'RECYCLE ONLY DECAL'
 - 2. Color: Blue
 - 3. Attachment: Surface mount
 - 4. Available: Ross Recreation, (707) 538-3800

PART 3 EXECUTION

3.01 INSTALLATION

- A. For all products, specifically described below, or not, installation of products shall be as shown on the drawings, or according to manufacturer's instructions. If

discrepancies are found, or if information is lacking, consult with Project Landscape Architect immediately, prior to beginning the work.

- B. Equipment and work shall include all miscellaneous attachments, materials and field adjustments as necessary to provide complete installation and meet final finish grade requirements.
- C. Coordinate delivery and installation of site furnishings with other site work. Avoid early installation that results in undue exposure to damage.
- D. Install all items plumb, and true to line and grade.
- E. Replace damaged furnishings; no patching or repair will be allowed.
- F. All excess excavation spoils shall be incorporated into the fill for the planting areas.

3.02 PROTECTION OF INSTALLED EQUIPMENT

- A. Protect equipment from damage at all times, until final acceptance of the Work. If damage occurs to any equipment prior to final acceptance, Contractor shall, at his own expense, make replacement to satisfaction of the City Project Landscape Architect.

3.03 MEASUREMENT AND PAYMENT

- A. If Alternate #2 is awarded, the contract unit price paid for “**ADA Concrete Picnic Table**” of the unit price schedule shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work covered in this section, including delivery, installation, complete and in place as shown on the plans, as required by the Special Provisions, and as required by the City Project Landscape Architect.
- B. If Alternate #2 is awarded, the contract unit price paid for “**Trash Receptacle**” of the unit price schedule shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work covered in this section, including delivery, footings and attachments, installation, complete and in place as shown on the plans, as required by the Special Provisions, and as required by the City Project Landscape Architect.
- C. If Alternate #2 is awarded, the contract unit price paid for “**Recycle Receptacle**” of the unit price schedule shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work covered in this section, including delivery, footings and attachments, installation, complete and in place as shown on the plans, as required by the Special Provisions, and as required by the City Project Landscape Architect.

END OF SECTION