

# City of San Diego

CONTRACTOR'S NAME: Dick Miller, Inc.

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TELEPHONE NO.: 951-216-4070 FAX NO.:

CITY CONTACT: Brittany Friedenreich, Senior Contract Specialist, Email: [BFriedenreic@sandiego.gov](mailto:BFriedenreic@sandiego.gov)

Phone No. (619) 533-6678

L. Bromley / A. Jaro / L. Russell

## BIDDING DOCUMENTS



FOR

## MIRAMAR LANDFILL STORM WATER BASIN IMPROVEMENTS

BID NO.: K-22-2019-DBB-3-A

SAP NO. (WBS/IO/CC): L-18002.3

CLIENT DEPARTMENT: 2115

COUNCIL DISTRICT: 6

PROJECT TYPE: CC

**THIS CONTRACT WILL BE SUBJECT TO THE FOLLOWING:**

- THE CITY'S SUBCONTRACTING PARTICIPATION REQUIREMENTS FOR SLBE PROGRAM
- PREVAILING WAGE RATES: STATE  FEDERAL
- APPRENTICESHIP

**BID DUE DATE:**

**2:00 PM**

**MAY 4, 2022**

**CITY OF SAN DIEGO'S ELECTRONIC BIDDING SITE, PLANETBIDS**

<http://www.sandiego.gov/cip/bidopps/index.shtml>

**ENGINEER OF WORK**

The engineering Specifications and Special Provisions contained herein have been prepared by or under the direction of the following Registered Engineers:

  
1) Registered Engineer

3/23/2022

Date

Seal:



  
2) For City Engineer

03/17/2022

Date

Seal:



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## REQUIRED DOCUMENTS SCHEDULE DURING BIDDING AND AWARDING

The Bidder's attention is directed to the City's Municipal Code §22.0807(e), (3)-(5) for important information regarding grounds for debarment for failure to submit required documentation.

The specified Equal Opportunity Contracting Program (EOCP) forms are available for download from the City's web site at:

<http://www.sandiego.gov/eoc/forms/index.shtml>

ITEM	DOCUMENT TO BE SUBMITTED	WHEN DUE	FROM
1.	Bid Bond (PDF via PlanetBids)	At Time of Bid	ALL BIDDERS
2.	Contractors Certification of Pending Actions	At Time of Bid	ALL BIDDERS
3.	Mandatory Disclosure of Business Interests	At Time of Bid	ALL BIDDERS
4.	Debarment and Suspension Certification for Prime Contractors	At Time of Bid	ALL BIDDERS
5.	Debarment and Suspension Certification for Subcontractors, Suppliers & Mfgs	At Time of Bid	ALL BIDDERS
6.	Bid Bond (Original)	By 5PM 3 working days after bid opening	ALL BIDDERS
7.	SLBE Good Faith Effort Documentation	By 5 PM 3 working days after bid opening	ALL BIDDERS
8.	Form AA60 – List of Work Made Available	By 5 PM 3 working days after bid opening with Good Faith Effort (GFE) documentation	ALL BIDDERS
9.	If the Contractor is a Joint Venture: <ul style="list-style-type: none"> <li>• Joint Venture Agreement</li> <li>• Joint Venture License</li> </ul>	Within 10 working days of receipt by bidder of contract forms	AWARDED BIDDER
10.	Payment & Performance Bond; Certificates of Insurance & Endorsements; and Signed Contract Agreement Page	Within 10 working days of receipt by bidder of contract forms and NOI	AWARDED BIDDER

ITEM	DOCUMENT TO BE SUBMITTED	WHEN DUE	FROM
11.	Listing of "Other Than First Tier" Subcontractors	Within 10 working days of receipt by bidder of contract forms	AWARDED BIDDER

## NOTICE INVITING BIDS

1. **SUMMARY OF WORK:** This is the City of San Diego's (City) solicitation process to acquire Construction services for **Miramar Landfill Storm Water Basin Improvements**. For additional information refer to Attachment A.
2. **FULL AND OPEN COMPETITION:** This solicitation is subject to full and open competition and may be bid by Contractors on the City's approved Prequalified Contractors List. For information regarding the Contractors Prequalified list visit the City's web site: <http://www.sandiego.gov>.
3. **ESTIMATED CONSTRUCTION COST:** The City's estimated construction cost for this project is **\$1,550,000**.
4. **BID DUE DATE AND TIME ARE: MAY 4, 2022 at 2:00 PM.**
5. **PREVAILING WAGE RATES APPLY TO THIS CONTRACT:** Refer to Attachment D.
6. **LICENSE REQUIREMENT:** To be eligible for award of this contract, Prime contractor must possess the following licensing classification: **A**
7. **SUBCONTRACTING PARTICIPATION PERCENTAGES:** Subcontracting participation percentages apply to this contract.
  - 7.1. The City has incorporated **mandatory** SLBE-ELBE subcontractor participation percentages to enhance competition and maximize subcontracting opportunities. For the purpose of achieving the mandatory subcontractor participation percentages, a recommended breakdown of the SLBE and ELBE subcontractor participation percentages based upon certified SLBE and ELBE firms has also been provided to achieve the mandatory subcontractor participation percentages:

1. SLBE participation	<b>5.4%</b>
2. ELBE participation	<b>6.9%</b>
3. Total mandatory participation	<b>12.3%</b>
  - 7.2. The Bid may be declared non-responsive if the Bidder fails to meet the following requirements:
    - 7.2.1. Include SLBE-ELBE certified subcontractors at the overall mandatory participation percentage identified in this document; **OR**

- 7.2.2.** Submit Good Faith Effort (GFE) documentation, saved in searchable Portable Document Format (PDF), demonstrating the Bidder made a good faith effort to conduct outreach to and include SLBE-ELBE Subcontractors as required in this solicitation by 5 PM 3 Working Days after the Bid opening if the overall mandatory participation percentage is not met.

**All submittals in searchable PDF shall be submitted electronically within the prescribed time identified in the contract documents via PlanetBids by invitation to the point of contact named in the bid provided by the Contract Specialist to all bidders.**

**9. AWARD PROCESS:**

- 9.1.** The Award of this contract is contingent upon the Contractor's compliance with all conditions of Award as stated within these documents and within the Notice of Intent to Award.
- 9.2.** Upon acceptance of bids and determination of the apparent low bidder, the City will prepare the contract documents for execution within approximately 21 days of the date of the bid opening. The City will then award the contract upon receipt of properly signed Contract, bonds, and insurance documents.
- 9.3.** This contract will be deemed executed and effective only upon the signing of the Contract by the Mayor or his designee and approval as to form by the City Attorney's Office.
- 9.4.** The low Bid will be determined by the Base Bid.

**10. SUBMISSION OF QUESTIONS:**

- 10.1.** The Director (or Designee) of the Purchasing & Contracting Department is the officer responsible for opening, examining, and evaluating the competitive Bids submitted to the City for the acquisition, construction and completion of any public improvement except when otherwise set forth in these documents. Any questions related to this solicitation shall be submitted to:

[BFriedenreic@sandiego.gov](mailto:BFriedenreic@sandiego.gov)

- 10.2.** Questions received less than 14 days prior to the date for opening of Bids may not be considered.
- 10.3.** Questions or clarifications deemed by the City to be material shall be answered via issuance of an addendum and posted to the City's online bidding service.

- 10.4.** Only questions answered by formal written addenda shall be binding. Oral and other interpretations or clarifications shall be without legal effect. It is the Bidder's responsibility to be informed of any addenda that have been issued and to include all such information in its Bid.



## INSTRUCTIONS TO BIDDERS

### 1. PREQUALIFICATION OF CONTRACTORS:

- 1.1. Contractors submitting a Bid must be pre-qualified for the total amount proposed, including all alternate items, prior to the date of submittal. Bids from contractors who have not been pre-qualified as applicable and Bids that exceed the maximum dollar amount at which contractors are pre-qualified may be deemed **non-responsive** and ineligible for award.
- 1.2. The completed application must be submitted online no later than 2 weeks prior to the bid opening.
- 1.3. **Joint Venture Bidders Cumulative Maximum Bidding Capacity:** For projects with an engineer's estimate of \$30,000,000 or greater, Joint Ventures submitting bids may be deemed responsive and eligible for award if the cumulative maximum bidding capacity of the individual Joint Venture entities is equal to or greater than the total amount proposed.
  - 1.3.1. Each of the entities of the Joint Venture must have been previously prequalified at a minimum of \$15,000,000.
  - 1.3.2. Bids submitted with a total amount proposed of less than \$30,000,000 are not eligible for Cumulative Maximum Bidding Capacity prequalification. To be eligible for award in this scenario, the Joint Venture itself or at least one of the Joint Venture entities must have been prequalified for the total amount proposed.
  - 1.3.3. Bids submitted by Joint Ventures with a total amount proposed of \$30,000,000 or greater on a project with an engineer's estimate of less than \$30,000,000 are not eligible for Cumulative Maximum Bidding Capacity prequalification.
  - 1.3.4. The Joint Venture designated as the Apparent Low Bidder shall provide evidence of its corporate existence and furnish good and approved bonds in the name of the Joint Venture within 14 Calendar Days of receipt by the Bidder of a form of contract for execution.
- 1.4. Complete information and links to the on-line prequalification application are available at:  
  
<http://www.sandiego.gov/cip/bidopps/prequalification>
- 1.5. Due to the City's responsibility to protect the confidentiality of the contractors' information, City staff will not be able to provide information regarding contractors' prequalification status over the telephone. Contractors may access real-time information about their prequalification status via their vendor profile on [PlanetBids™](#).

2. **ELECTRONIC FORMAT RECEIPT AND OPENING OF BIDS:** Bids will be received in electronic format (eBids) EXCLUSIVELY at the City of San Diego’s electronic bidding (eBidding) site, at: <http://www.sandiego.gov/cip/bidopps/index.shtml> and are due by the date, and time shown on the cover of this solicitation.
- 2.1. **BIDDERS MUST BE PRE-REGISTERED** with the City’s bidding system and possess a system-assigned Digital ID in order to submit an electronic bid.
- 2.2. The City’s bidding system will automatically track information submitted to the site including IP addresses, browsers being used and the URLs from which information was submitted. In addition, the City’s bidding system will keep a history of every login instance including the time of login, and other information about the user’s computer configuration such as the operating system, browser type, version, and more. Because of these security features, Contractors who disable their browsers’ cookies will not be able to log in and use the City’s bidding system.
- 2.3. The City’s electronic bidding system is responsible for bid tabulations. Upon the bidder’s or proposer’s entry of their bid, the system will ensure that all required fields are entered. **The system will not accept a bid for which any required information is missing.** This includes all necessary pricing, subcontractor listing(s) and any other essential documentation and supporting materials and forms requested or contained in these solicitation documents.
- 2.4. **BIDS REMAIN SEALED UNTIL BID DEADLINE.** eBids are transmitted into the City’s bidding system via hypertext transfer protocol secure (https) mechanism using SSL 128-256-bit security certificates issued from Verisign/Thawte which encrypts data being transferred from client to server. Bids submitted prior to the “Bid Due Date and Time” are not available for review by anyone other than the submitter who has until the “Bid Due Date and Time” to change, rescind or retrieve its proposal should it desire to do so.
- 2.5. **BIDS MUST BE SUBMITTED BY BID DUE DATE AND TIME.** Once the bid deadline is reached, no further submissions are accepted into the system. Once the Bid Due Date and Time has lapsed, bidders, proposers, the general public, and City staff are able to immediately see the results online. City staff may then begin reviewing the submissions for responsiveness, EOCP compliance and other issues. The City may require any Bidder to furnish statement of experience, financial responsibility, technical ability, equipment, and references.
- 2.6. **RECAPITULATION OF THE WORK.** Bids shall not contain any recapitulation of the Work. Conditional Bids may be rejected as being non-responsive. Alternative proposals will not be considered unless called for.
- 2.7. **BIDS MAY BE WITHDRAWN** by the Bidder only up to the bid due date and time.
- 2.7.1. Important Note: Submission of the electronic bid into the system may not be instantaneous. Due to the speed and capabilities of the user’s internet service provider (ISP), bandwidth, computer hardware and other variables, it may take time for the bidder’s submission to upload and be received by the City’s eBidding system. It is the bidder’s sole responsibility to ensure their bids are

received on time by the City's eBidding system. The City of San Diego is not responsible for bids that do not arrive by the required date and time.

- 2.8. ACCESSIBILITY AND AMERICANS WITH DISABILITIES ACT (ADA) COMPLIANCE:** To request a copy of this solicitation in an alternative format, contact the Purchasing & Contracting Department, Public Works Division Contract Specialist listed on the cover of this solicitation at least five (5) working days prior to the Bid/Proposal due date to ensure availability.

**3. ELECTRONIC BID SUBMISSIONS CARRY FULL FORCE AND EFFECT:**

- 3.1.** The bidder, by submitting its electronic bid, acknowledges that doing so carries the same force and full legal effect as a paper submission with a longhand (wet) signature.
- 3.2.** By submitting an electronic bid, the bidder certifies that the bidder has thoroughly examined and understands the entire Contract Documents (which consist of the plans and specifications, drawings, forms, affidavits and the solicitation documents), and that by submitting the eBid as its bid proposal, the bidder acknowledges, agrees to and is bound by the entire Contract Documents, including any addenda issued thereto, and incorporated by reference in the Contract Documents.
- 3.3.** The Bidder, by submitting its electronic bid, agrees to and certifies under penalty of perjury under the laws of the State of California, that the certification, forms and affidavits submitted as part of this bid are true and correct.
- 3.4.** The Bidder agrees to the construction of the project as described in Attachment "A-Scope of Work" for the City of San Diego, in accordance with the requirements set forth herein for the electronically submitted prices. The Bidder guarantees the Contract Price for a period of 120 days from the date of Bid opening. The duration of the Contract Price guarantee shall be extended by the number of days required for the City to obtain all items necessary to fulfill all conditions precedent.

- 4. BIDS ARE PUBLIC RECORDS:** Upon receipt by the City, Bids shall become public records subject to public disclosure. It is the responsibility of the respondent to clearly identify any confidential, proprietary, trade secret or otherwise legally privileged information contained within the Bid. General references to sections of the California Public Records Act (PRA) will not suffice. If the Contractor does not provide applicable case law that clearly establishes that the requested information is exempt from the disclosure requirements of the PRA, the City shall be free to release the information when required in accordance with the PRA, pursuant to any other applicable law, or by order of any court or government agency, and the Contractor will hold the City harmless for release of this information.

**5. CONTRACTOR REGISTRATION AND ELECTRONIC REPORTING SYSTEM:**

- 5.1.** **Prior** to the Award of the Contract or Task Order, you and your Subcontractors and Suppliers must register with the City's web-based vendor registration and bid management system. For additional information go to:

<http://www.sandiego.gov/purchasing/bids-contracts/vendorreg>

- 5.2.** The City may not award the contract until registration of all subcontractors and suppliers is complete. In the event this requirement is not met within the time frame specified in the Notice of Intent to Award letter, the City reserves the right to rescind the Notice of Award / Intent to Award and to make the award to the next responsive and responsible bidder / proposer.
- 6. JOINT VENTURE CONTRACTORS:** Provide a copy of the Joint Venture agreement and the Joint Venture license to the City within 14 Calendar Days after receiving the Contract forms.
- 7. INSURANCE REQUIREMENTS:**
- 7.1.** All certificates of insurance and endorsements required by the contract are to be provided upon issuance of the City's Notice of Intent to Award letter.
- 7.2.** Refer to sections 5-4, "INSURANCE" of the Supplementary Special Provisions (SSP) for the insurance requirements which must be met.
- 8. REFERENCE STANDARDS:** Except as otherwise noted or specified, the Work shall be completed in accordance with the following standards:

Title	Edition	Document Number
Standard Specifications for Public Works Construction ("The GREENBOOK") <a href="http://www.greenbookspecs.org/">http://www.greenbookspecs.org/</a>	2021	ECPI010122-01
City of San Diego Standard Specifications for Public Works Construction ("The WHITEBOOK")* <a href="https://www.sandiego.gov/ecp/edocref/greenbook">https://www.sandiego.gov/ecp/edocref/greenbook</a>	2021	ECPI010122-02
City of San Diego Standard Drawings* <a href="https://www.sandiego.gov/ecp/edocref/standarddraw">https://www.sandiego.gov/ecp/edocref/standarddraw</a>	2021	ECPI010122-03
Citywide Computer Aided Design and Drafting (CADD) Standards <a href="https://www.sandiego.gov/ecp/edocref/drawings">https://www.sandiego.gov/ecp/edocref/drawings</a>	2018	PWPI010119-04
California Department of Transportation (CALTRANS) Standard Specifications <a href="https://dot.ca.gov/programs/design/ccs-standard-plans-and-standard-specifications">https://dot.ca.gov/programs/design/ccs-standard-plans-and-standard-specifications</a>	2018	PWPI030119-05
CALTRANS Standard Plans <a href="https://dot.ca.gov/programs/design/ccs-standard-plans-and-standard-specifications">https://dot.ca.gov/programs/design/ccs-standard-plans-and-standard-specifications</a>	2018	PWPI030119-06
California Manual on Uniform Traffic Control Devices Revision 6 (CA MUTCD Rev 6) <a href="https://dot.ca.gov/programs/safety-programs/camutcd/camutcd-files">https://dot.ca.gov/programs/safety-programs/camutcd/camutcd-files</a>	2014	PWPI060121-10
<p><b>NOTE:</b> *Available online under Engineering Documents and References at: <a href="https://www.sandiego.gov/ecp/edocref/">https://www.sandiego.gov/ecp/edocref/</a></p> <p>*Electronic updates to the Standard Drawings may also be found in the link above</p>		

9. **CITY'S RESPONSES AND ADDENDA:** The City, at its discretion, may respond to any or all questions submitted in writing via the City's eBidding web site in the **form of an addendum**. No other responses to questions, oral or written shall be of any force or effect with respect to this solicitation. The changes to the Contract Documents through addenda are made effective as though originally issued with the Bid. The Bidders shall acknowledge the receipt of Addenda at the time of bid submission.
10. **CITY'S RIGHTS RESERVED:** The City reserves the right to cancel the Notice Inviting Bids at any time, and further reserves the right to reject submitted Bids, without giving any reason for such action, at its sole discretion and without liability. Costs incurred by the Bidder(s) as a result of preparing Bids under the Notice Inviting Bids shall be the sole responsibility of each bidder. The Notice Inviting Bids creates or imposes no obligation upon the City to enter a contract.
11. **CONTRACT PRICING:** This solicitation is for a Lump Sum contract with Unit Price provisions as set forth herein. The Bidder agrees to perform construction services for the City of San Diego in accordance with these contract documents for the prices listed below. The Bidder further agrees to guarantee the Contract Price for a period of 120 days from the date of Bid opening. The duration of the Contract Price guarantee may be extended, by mutual consent of the parties, by the number of days required for the City to obtain all items necessary to fulfill all contractual conditions.
12. **SUBCONTRACTOR INFORMATION:**
- 12.1. **LISTING OF SUBCONTRACTORS.** In accordance with the requirements provided in the "Subletting and Subcontracting Fair Practices Act" of the California Public Contract Code, the Bidder shall provide the **NAME** and **ADDRESS** of each Subcontractor who will perform work, labor, render services or who specially fabricates and installs a portion [type] of the work or improvement, in an amount in excess of 0.5% of the Contractor's total Bid. The Bidder shall also state within the description, whether the subcontractor is a **CONSTRUCTOR, CONSULTANT** or **SUPPLIER**. The Bidder shall state the **DIR REGISTRATION NUMBER** for all subcontractors and shall further state within the description, the **PORTION** of the work which will be performed by each subcontractor under this Contract. The Contractor shall list only one Subcontractor for each portion of the Work. The **DOLLAR VALUE** of the total Bid to be performed shall be stated for all subcontractors listed. Failure to comply with this requirement may result in the Bid being rejected as **non-responsive** and ineligible for award. The Bidder's attention is directed to the Special Provisions – Section 3-2, "SELF-PERFORMANCE", which stipulates the percent of the Work to be performed with the Bidders' own forces. The Bidder shall list all SLBE, ELBE, DBE, DVBE, MBE, WBE, OBE, SDB, WoSB, HUBZone, and SDVOSB Subcontractors for which Bidders are seeking recognition towards achieving any mandatory, voluntary (or both) subcontracting participation goals.

Additionally, pursuant to California Senate Bill 96 and in accordance with the requirements of Labor Code sections 1771.1 and 1725.5, by submitting a bid or proposal to the City, Contractor is certifying that he or she has verified that all subcontractors used on this public work project are registered with the California

Department of Industrial Relations (DIR). **The Bidder shall provide the name, address, license number, DIR registration number of any Subcontractor – regardless of tier** - who will perform work, labor, render services or specially fabricate and install a portion [type] of the work or improvement pursuant to the contract.

- 12.2. LISTING OF SUPPLIERS.** Any Bidder seeking the recognition of Suppliers of equipment, materials, or supplies obtained from third party Suppliers towards achieving any mandatory or voluntary (or both) subcontracting participation goals shall provide, at a minimum, the **NAME, LOCATION (CITY), DIR REGISTRATION NUMBER** and the **DOLLAR VALUE** of each supplier. The Bidder will be credited up to 60% of the amount to be paid to the Suppliers for materials and supplies unless vendor manufactures or substantially alters materials and supplies, in which case, 100% will be credited. The Bidder is to indicate within the description whether the listed firm is a supplier or manufacturer. If no indication is provided, the listed firm will be credited at 60% of the listed dollar value for purposes of calculating the Subcontractor Participation Percentage.
- 12.3. LISTING OF SUBCONTRACTORS OR SUPPLIERS FOR ALTERNATES.** For subcontractors or suppliers to be used on additive or deductive alternate items, in addition to the above requirements, bidder shall further note “ALTERNATE” and alternate item number within the description.
- 13. SUBMITTAL OF “OR EQUAL” ITEMS:** See Section 4-6, “Trade Names” in The WHITEBOOK and as amended in the SSP.
- 14. AWARD:**
- 14.1.** The Award of this contract is contingent upon the Contractor’s compliance with all condition’s precedent to Award.
- 14.2.** Upon acceptance of a Bid, the City will prepare contract documents for execution within approximately 21 days of the date of the Bid opening and award the Contract approximately within 7 days of receipt of properly executed Contract, bonds, and insurance documents.
- 14.3.** This contract will be deemed executed and effective only upon the signing of the Contract by the Mayor or his designee and approval as to form the City Attorney’s Office.
- 15. SUBCONTRACT LIMITATIONS:** The Bidder’s attention is directed to Standard Specifications for Public Works Construction, Section 3-2, “SELF-PERFORMANCE” in The GREENBOOK and as amended in the SSP which requires the Contractor to self-perform not less than the specified amount. Failure to comply with this requirement shall render the bid **non-responsive** and ineligible for award.
- 16. AVAILABILITY OF PLANS AND SPECIFICATIONS:** Contract Documents may be obtained by visiting the City’s website: <http://www.sandiego.gov/cip/>. Plans and Specifications for this contract are also available for review in the office of the City Clerk or Purchasing & Contracting Department, Public Works Division.

- 17. ONLY ONE BID PER CONTRACTOR SHALL BE ACCEPTED:** No person, firm, or corporation shall be allowed to make, file, or be interested in more than one (1) Bid for the same work unless alternate Bids are called for. A person, firm or corporation who has submitted a sub-proposal to a Bidder, or who has quoted prices on materials to a Bidder, is not hereby disqualified from submitting a sub-proposal or quoting prices to other Bidders or from submitting a Bid in its own behalf. Any Bidder who submits more than one bid will result in the rejection of all bids submitted.
- 18. SAN DIEGO BUSINESS TAX CERTIFICATE:** The Contractor and Subcontractors, not already having a City of San Diego Business Tax Certificate for the work contemplated shall secure the appropriate certificate from the City Treasurer, Civic Center Plaza, First floor and submit to the Contract Specialist upon request or as specified in the Contract Documents. Tax Identification numbers for both the Bidder and the listed Subcontractors must be submitted on the City provided forms within these documents.
- 19. BIDDER'S GUARANTEE OF GOOD FAITH (BID SECURITY) FOR DESIGN-BID-BUILD CONTRACTS:**
- 19.1.** For bids \$250,000 and above, bidders shall submit Bid Security at bid time. Bid Security shall be in one of the following forms: a cashier's check, or a properly certified check upon some responsible bank; or an approved corporate surety bond payable to the City of San Diego for an amount of not less than 10% of the total bid amount.
- 19.2.** This check or bond, and the monies represented thereby, will be held by the City as a guarantee that the Bidder, if awarded the contract, will in good faith enter into the contract and furnish the required final performance and payment bonds.
- 19.3.** The Bidder agrees that in the event of the Bidder's failure to execute this contract and provide the required final bonds, the money represented by the cashier's or certified check will remain the property of the City; and the Surety agrees that it will pay to the City the damages, not exceeding the sum of 10% of the amount of the Bid, that the City may suffer as a result of such failure.
- 19.4.** At the time of bid submission, bidders must upload and submit an electronic PDF copy of the aforementioned bid security. Whether in the form of a cashier's check, a properly certified check or an approved corporate surety bond payable to the City of San Diego, the bid security must be uploaded to the City's eBidding system. By 5PM, 3 working days after the bid opening date, all bidders must provide the City with the original bid security.
- 19.5.** Failure to submit the electronic version of the bid security at the time of bid submission AND failure to provide the original by 5PM, 3 working days after the bid opening date shall cause the bid to be rejected and deemed **non-responsive**.

Due to circumstances related to Covid-19, until further notice, all original bid bond submittals must be received by 5 PM, 3 working days after bid opening.

Upon circumstances returning to normal business as usual, the original bid bond shall once again be due by 5 PM the day after bid opening.

Original Bid Bond shall be submitted to:  
Purchasing & Contracting Department, Public Works Division  
1200 3<sup>rd</sup> Ave., Suite 200, MS 56  
San Diego, California, 92101  
To the Attention of the Contract Specialist on the Front Page of this solicitation.

**20. AWARD OF CONTRACT OR REJECTION OF BIDS:**

- 20.1.** This contract may be awarded to the lowest responsible and reliable Bidder.
- 20.2.** Bidders shall complete ALL eBid forms as required by this solicitation. Incomplete eBids will not be accepted.
- 20.3.** The City reserves the right to reject any or all Bids, to waive any informality or technicality in Bids received, and to waive any requirements of these specifications as to bidding procedure.
- 20.4.** Bidders will not be released on account of their errors of judgment. Bidders may be released only upon receipt by the City within 3 Working Days of the bid opening, written notice from the Bidder which shows proof of honest, credible, clerical error of a material nature, free from fraud or fraudulent intent; and of evidence that reasonable care was observed in the preparation of the Bid.
- 20.5.** A bidder who is not selected for contract award may protest the award of a contract to another bidder by submitting a written protest in accordance with the San Diego Municipal Code.
- 20.6.** The City of San Diego will not discriminate in the award of contracts with regard to race, religion creed, color, national origin, ancestry, physical handicap, marital status, sex or age.
- 20.7.** Each Bid package properly signed as required by these specifications shall constitute a firm offer which may be accepted by the City within the time specified herein.
- 20.8.** The City reserves the right to evaluate all Bids and determine the lowest Bidder on the basis of the base bid and any proposed alternates or options as detailed herein.

**BID RESULTS:**

- 20.9.** The availability of the bids on the City's eBidding system shall constitute the public announcement of the apparent low bidder. In the event that the apparent low bidder is subsequently deemed non-responsive or non-responsible, a notation of such will be made on the eBidding system. The new ranking and apparent low bidder will be adjusted accordingly.



**20.10.** To obtain the bid results, view the results on the City's web site, or request the results by U.S. mail and provide a self-addressed, stamped envelope. If requesting by mail, be sure to reference the bid name and number. The bid tabulations will be mailed to you upon their completion. The results will not be given over the telephone.

**21. THE CONTRACT:**

**21.1.** The Bidder to whom award is made shall execute a written contract with the City of San Diego and furnish good and approved bonds and insurance certificates specified by the City within 14 days after receipt by Bidder of a form of contract for execution unless an extension of time is granted to the Bidder in writing.

**21.2.** If the Bidder takes longer than 14 days to fulfill these requirements, then the additional time taken shall be added to the Bid guarantee. The Contract shall be made in the form adopted by the City, which includes the provision that no claim or suit whatsoever shall be made or brought by Contractor against any officer, agent, or employee of the City for or on account of anything done or omitted to be done in connection with this contract, nor shall any such officer, agent, or employee be liable hereunder.

**21.3.** If the Bidder to whom the award is made fails to enter into the contract as herein provided, the award may be annulled, and the Bidder's Guarantee of Good Faith will be subject to forfeiture. An award may be made to the next lowest responsible and reliable Bidder who shall fulfill every stipulation embraced herein as if it were the party to whom the first award was made.

**21.4.** Pursuant to the San Diego City Charter section 94, the City may only award a public works contract to the lowest responsible and reliable Bidder. The City will require the Apparent Low Bidder to (i) submit information to determine the Bidder's responsibility and reliability, (ii) execute the Contract in form provided by the City, and (iii) furnish good and approved bonds and insurance certificates specified by the City within 14 Days, unless otherwise approved by the City, in writing after the Bidder receives notification from the City, designating the Bidder as the Apparent Low Bidder and formally requesting the above mentioned items.

**21.5.** The award of the Contract is contingent upon the satisfactory completion of the above-mentioned items and becomes effective upon the signing of the Contract by the Mayor or designee and approval as to form by the City Attorney's Office. If the Apparent Low Bidder does not execute the Contract or submit required documents and information, the City may award the Contract to the next lowest responsible and reliable Bidder who shall fulfill every condition precedent to award. A corporation designated as the Apparent Low Bidder shall furnish evidence of its corporate existence and evidence that the officer signing the Contract and bond for the corporation is duly authorized to do so.

**23. EXAMINATION OF PLANS, SPECIFICATIONS, AND SITE OF WORK:** The Bidder shall examine carefully the Project Site, the Plans and Specifications, other materials as described in the Special Provisions, Section 3-9, "TECHNICAL STUDIES AND SUBSURFACE DATA", and the

proposal forms (e.g., Bidding Documents). The submission of a Bid shall be conclusive evidence that the Bidder has investigated and is satisfied as to the conditions to be encountered, as to the character, quality, and scope of work, the quantities of materials to be furnished, and as to the requirements of the Bidding Documents Proposal, Plans, and Specifications.

**24. CITY STANDARD PROVISIONS:** This contract is subject to the following standard provisions. See the WHITEBOOK for details.

- 24.1.** The City of San Diego Resolution No. R-277952 adopted on May 20, 1991 for a Drug-Free Workplace.
- 24.2.** The City of San Diego Resolution No. R-282153 adopted on June 14, 1993 related to the Americans with Disabilities Act.
- 24.3.** The City of San Diego Municipal Code §22.3004 for Contractor Standards.
- 24.4.** The City of San Diego's Labor Compliance Program and the State of California Labor Code §§1771.5(b) and 1776.
- 24.5.** Sections 1777.5, 1777.6, and 1777.7 of the State of California Labor Code concerning the employment of apprentices by contractors and subcontractors performing public works contracts.
- 24.6.** The City's Equal Benefits Ordinance (EBO), Chapter 2, Article 2, Division 43 of The San Diego Municipal Code (SDMC).
- 24.7.** The City's Information Security Policy (ISP) as defined in the City's Administrative Regulation 90.63.

**25. PRE-AWARD ACTIVITIES:**

- 25.1.** The contractor selected by the City to execute a contract for this Work shall submit the required documentation as specified herein and in the Notice of Intent to Award. Failure to provide the information as specified may result in the Bid being rejected as **non-responsive**.
- 25.2.** The decision that bid is non-responsive for failure to provide the information required within the time specified shall be at the sole discretion of the City.

**PERFORMANCE BOND, LABOR AND MATERIALMEN'S BOND**

---

**FAITHFUL PERFORMANCE BOND AND LABOR AND MATERIALMEN'S BOND:**

Dick Miller Inc. a corporation, as principal, and  
The Ohio Casualty Insurance Company a corporation authorized to do  
business in the State of California, as Surety, hereby obligate themselves, their successors and assigns,  
jointly and severally, to The City of San Diego a municipal corporation in the sum of **ONE MILLION SIX  
HUNDRED FORTY NINE THOUSAND SIX HUNDRED FORTY NINE DOLLARS (\$1,649,649)**, for the faithful  
performance of the annexed contract, and in the sum of **ONE MILLION SIX HUNDRED FORTY NINE  
THOUSAND SIX HUNDRED FORTY NINE DOLLARS (\$1,649,649)**, for the benefit of laborers and material  
men designated below.

**Conditions:**

If the Principal shall faithfully perform the annexed contract with the City of San Diego,  
California, then the obligation herein with respect to a faithful performance shall be void; otherwise  
it shall remain in full force.

If the Principal shall promptly pay all persons, firms and corporations furnishing materials for  
or performing labor in the execution of this contract, and shall pay all amounts due under the  
California Unemployment Insurance Act then the obligation herein with respect to laborers and  
materialmen shall be void; otherwise it shall remain in full force.

The obligation herein with respect to laborers and materialmen shall inure to the benefit of  
all persons, firms and corporations entitled to file claims under the provisions of Article 2, Claimants,  
(III) public works of improvement commencing with Civil Code Section 9100 of the Civil Code of the  
State of California.

Changes in the terms of the annexed contract or specifications accompanying same or  
referred to therein shall not affect the Surety's obligation on this bond, and the Surety hereby  
waives notice of same.

The Surety shall pay reasonable attorney's fees should suit be brought to enforce the  
provisions of this bond.

The Surety expressly agrees that the City of San Diego may reject any contractor or  
subcontractor which may be proposed by Surety in fulfillment of its obligations in the event of  
default by the Principal.

The Surety shall not utilize the Principal in completing the improvements and work specified  
in the Agreement in the event the City terminates the Principal for default.

PERFORMANCE BOND, LABOR AND MATERIALMEN'S BOND (continued)

THE CITY OF SAN DIEGO

APPROVED AS TO FORM

By: Stephen Samara

Mara W. Elliott, City Attorney  
By: [Signature]

Print Name: Stephen Samara  
Principal Contract Specialist  
Purchasing & Contracting

Print Name: Corrine Neuffer  
Deputy City Attorney

Date: 8/2/2022

Date: 8.19.22

CONTRACTOR

SURETY

Dick Miller, Inc.

The Ohio Casualty Insurance Company

By: [Signature]

By: [Signature]  
Attorney-In-Fact

Print Name: Glen Bullock

Print Name: Bart Stewart

Date: 5.19.22

Date: May 19, 2022

790 The City Drive South Suite 200  
Orange, CA 92868

Local Address of Surety

714-634-3311

Local Phone Number of Surety

\$13,762

Premium

024241184

Bond Number



This Power of Attorney Emits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

Contract No. 2208236 - 960656

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That The Ohio Casualty Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (hereinafter collectively called the "Companies"), pursuant to and by authority herein set forth, do hereby name, constitute and appoint, Matt Stewart,

of the city of ... state of ... each individually if there be more than one named, in true and lawful signing-in fact to make, execute, seal, acknowledge and deliver, for and to the benefit of as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations in pursuance of those presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed hereto this 3rd day of September, 2021.



Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company
By: David M. Casey, Assistant Secretary

State of PENNSYLVANIA
County of MONTGOMERY

On this 3rd day of September, 2021, before me personally appeared David M. Casey, who acknowledged himself to be the Assistant Secretary of Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at King of Prussia, Pennsylvania, on the day and year first above written.



Commonwealth of Pennsylvania - Notary Seal
Teresa Pastello, Notary Public
My commission expires March 24, 2023
Commission Number 120204
Member, Pennsylvania Association of Notaries

By: Teresa Pastello, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:

ARTICLE IV - OFFICERS: Section 12 - Power of Attorney
Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

ARTICLE XIII - Execution of Contracts: Section 5 - Surety Bonds and Undertakings.
Any officer of the Company authorized for that purpose in writing by the Chairman or the President, and subject to such limitations as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the President and attested by the Secretary.

Certificate of Resignation - The President of the Company, acting pursuant to the By-laws of the Company, authorizes David M. Casey, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization - By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any essential secretary of the Company whenever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Newbold, do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 19th day of May, 2022.



By: Renee C. Newbold, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or residual value guarantees.

For Bond and/or Power of Attorney (POA) verification, inquiries, please call 610-632-8240 or email HOSUR@bcmutual.com.

CALIFORNIA ACKNOWLEDGMENT

CIVIL CODE § 1189

\*\*\*\*\*

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California }
County of San Diego }

On MAY 19 2022 before me, Genevieve Sistrup, Notary Public
Date Here Insert Name and Title of the Officer
Personally appeared Bart Stewart
Name(s) of Signer(s)

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

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

WITNESS my hand and official seal.



Place Notary Seal and/or Stamp Above

Signature Genevieve Sistrup
Signature of Notary Public

OPTIONAL

Completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document
Title or Type of Document:
Document Date: Number of Pages:
Signer(s) Other Than Named Above:
Capacity(ies) Claimed by Signer(s)
Signer's Name:
Signer's Name:
Corporate Officer - Title(s)
Partner - Limited General
Individual Attorney in Fact
Trustee Guardian or Conservator
Other
Signer is Representing:
Signer is Representing:

\*\*\*\*\*

# CALIFORNIA ALL-PURPOSE CERTIFICATE OF ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California )

County of San Diego )

On May 23rd, 2022 before me, Norma A. Garcia, Notary Public  
(Print Name in the middle of the office)

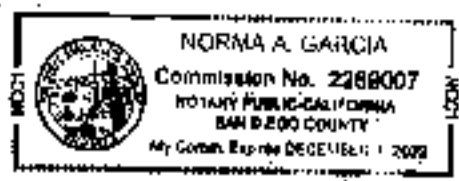
personally appeared Glen F. Bullock  
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s)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

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

WITNESS my hand and official seal.

Norma A. Garcia  
Notary Public Signature

(Notary Public Seal)



### ADDITIONAL OPTIONAL INFORMATION

**DESCRIPTION OF THE ATTACHED DOCUMENT**

Performance Bond - Miramar Landfill  
(Title or description of attached document)

Storm Water Basin Improv. K222019DBB3  
(Title or description of attached document continued)

Number of Pages        Document Date       

**CAPACITY CLAIMED BY THE SIGNER**

Individual (s)  
 Corporate Officer  
  
\_\_\_\_\_ (Title)  
 Partner(s)  
 Attorney-in-Fact  
 Trustee(s)  
 Other \_\_\_\_\_

### INSTRUCTIONS FOR COMPLETING THIS FORM

- This form complies with current California statutes regarding notary wording and, if needed, should be completed and attached to the document. An acknowledgment from other states may be accepted for documents being sent to that state as long as the wording does not require the California notary to violate California notary law.*
- State and County information must be the State and County where the document signor(s) personally appeared before the notary public for acknowledgment.
  - Date of notization must be the date that the signor(s) personally appeared which must also be the same date the acknowledgment is completed.
  - The notary public must print his or her name as it appears within his or her commission followed by a comma and two year title (notary public).
  - Print the name(s) of document signor(s) who personally appear at the time of notization.
  - Indicate the correct singular or plural form by crossing off incorrect forms (i.e. ~~withholding~~ - ~~it~~); circling the correct form. Failure to correctly indicate this information may lead to rejection of document recording.
  - The notary seal impression must be clear and photographed by reproducible inspection with out cover test or lines. If seal impression smudged, re-press if a sufficient impression, otherwise re-press with clear return legitimate form.
  - Signature of the notary public must match the signature on file with the office of the county clerk.
    - Additional information is not required but can help to ensure the acknowledgment is a mirror or attached to a different document.
    - Indicate title or type of attached document, number of pages and date.
    - Indicate the capacity claimed by the signor. If the correct capacity is a corporate officer, indicate the title (i.e. CEO, CFO, Secretary).
  - Securely attach this document to the signed document with a staple.

## ATTACHMENTS



**ATTACHMENT A**  
**SCOPE OF WORK**

## SCOPE OF WORK

### 1. SCOPE OF WORK:

- a) Mobilization.
- b) Hawthorne Basin work includes demolition of the existing gravel road, riprap drainage channel, down drain termination structure, and clearing and grubbing. Following demolition, the Hawthorne Basin will be excavated and a concrete lined earthen embankment, spillway, skimmer, outlet structure, and culvert will be installed. A new 36" HDPE down drain, inlet protection, and Type 2 energy dissipater will also be installed at a location further upstream of the basin. A new Type 2 energy dissipater will also be installed at the termination of the existing 36" CMP down drain.
- c) West Basin Skimmer/Pump System includes installation of a floating pump/skimmer with driven piles, diesel generator, and gravel staging pad.
- d) East Basin expansion work includes removal and salvage of the existing Type 2 energy dissipater, metal down drain flume, and a section of a 36" CMP storm drain; demolition of the existing standpipe, trash rack, and clearing and grubbing. Following demolition, the East Basin will be expanded and the Type 2 energy dissipater and metal down drain flume will be re-installed. A new outlet structure and skimmer will also be installed.
- e) Areas identified as erosion control areas will be stabilized with vegetation through soil preparation and application of hydraulically applied stabilizers (hydroseed and hydromulch). Straw wattle slope interruption devices will also be installed.
- f) Grade, moisture condition soil, and apply hydro-seed and hydraulic mulch in disturbed areas at Project Close-Out as indicated on Construction Drawings.
- g) Contract close-out and de-mobilization.

**1.1** The Work shall be performed in accordance with:

**1.1.1** The Notice Inviting Bids and Plans numbered **42120-01-D** through **42120-17-D**, inclusive.

**2. LOCATION OF WORK:** The location of the Work is as follows:

See **Appendix E – Location Map**.

**3. CONTRACT TIME:** The Contract Time for completion of the Work, including the Plant Establishment Period, shall be **120 Working Days**.

**ATTACHMENT B**

**RESERVED**

**ATTACHMENT C**  
**EQUAL OPPORTUNITY CONTRACTING PROGRAM**

## EQUAL OPPORTUNITY CONTRACTING PROGRAM (EOCP)

### SECTION A - GENERAL REQUIREMENTS

#### A. INTRODUCTION.

1. This document sets forth the following specifications:
  - a) The City's general EOCP requirements for all Construction Contracts.
  - b) Special Provisions for Contracts subject to SLBE and ELBE requirements only.
2. Additional requirements may apply for state or federally funded projects.
3. These requirements shall be included as Contract provisions for all Subcontracts.
4. The City specified forms, instructions, and guides are available for download from the EOCP's web site at: <http://www.sandiego.gov/eoc/forms/index.shtml>

#### B. GENERAL.

1. The City of San Diego promotes equal employment and subcontracting opportunities.
2. The City is committed to ensuring that taxpayer dollars spent on public Contracts are not paid to businesses that practice discrimination in employment or subcontracting.
3. The City encourages all companies seeking to do business with the City to share this commitment.

#### C. DEFINITIONS.

1. For the purpose of these requirements: Terms "Bid" and "Proposal", "Bidder" and "Proposer", "Subcontractor" and "Subconsultant", "Contractor" and "Consultant", "Contractor" and "Prime Contractor", "Consultant" and "Professional Service Provider", "Suppliers" and "Vendors", "Suppliers" and "Dealers", and "Suppliers" and "Manufacturers" may have been used interchangeably.
2. The following definitions apply:
  - a) **Emerging Business Enterprise (EBE)** - A for-profit business that is independently owned and operated; that is not a subsidiary or franchise of another business and whose gross annual receipts do not exceed the amount set by the City Manager and that meets all other criteria set forth in regulations implementing Municipal Code Chapter 2, Article 2, Division 36. The City Manager shall review the threshold amount for EBEs on an annual basis and adjust as necessary to reflect changes in the marketplace.
  - b) **Emerging Local Business Enterprise (ELBE)** - A Local Business Enterprise that is also an Emerging Business Enterprise.

- c) **Minority Business Enterprise (MBE)** - A certified business that is at least fifty-one percent (51%) owned by one or more minority individuals, or, in the case of a publicly owned business at least fifty-one percent (51%) of the stock is owned by one or more minority individuals; and (2) whose daily business operations are managed and directed by one or more minorities owners. Minorities include the groups with the following ethnic origins: African, Asian Pacific, Asian Subcontinent, Hispanic, Native Alaskan, Native American, and Native Hawaiian.
- d) **Women Business Enterprise (WBE)** - A certified business that is at least fifty-one percent (51%) owned by a woman or women, or, in the case of a publicly owned business at least fifty-one percent (51%) of the stock is owned by one or more women; and (2) whose daily business operations are managed and directed by one or more women owners.
- e) **Disadvantaged Business Enterprise (DBE)** - a certified business that is at least fifty-one percent (51%) owned by socially and economically disadvantaged individuals, or, in the case of a publicly owned business at least fifty-one percent (51%) of the stock is owned by one or more socially and economically disadvantaged individuals; and (2) whose daily business operations are managed and directed by one or more socially and economically disadvantaged owners.
- f) **Disabled Veteran Business Enterprise (DVBE)** - A certified business that is at least fifty-one percent (51%) owned by one or more disabled veterans; and (2) business operations must be managed and controlled by one or more disabled veterans. Disabled Veteran is a veteran of the U.S. military, naval, or air service; the veteran must have a service-connected disability of at least 10% or more; and the veteran must reside in California.
- g) **Other Business Enterprise (OBE)** - Any business which does not otherwise qualify as a Minority, Woman, Disadvantaged, or Disabled Veteran Business Enterprise.
- h) **Small Business Enterprise (SBE)** - A for-profit business that is independently owned and operated; that is not a subsidiary or franchise of another business and whose gross annual receipts do not exceed the amount set by the City Manager and that meets all other criteria set forth in regulations implementing Municipal Code Chapter 2, Article 2, Division 36. The City Manager shall review the threshold amount for SBEs on an annual basis and adjust as necessary to reflect changes in the marketplace. A business certified as a Micro Business (MB) or a Disabled Veteran Business Enterprise (DVBE) by the State of California and that has provided proof of such certification to the City Manager shall be deemed to be an SBE.

- i) **Small Local Business Enterprise (SLBE)** - A Local Business Enterprise that is also a Small Business Enterprise.

**D. CITY'S EQUAL OPPORTUNITY COMMITMENT.**

**1. Nondiscrimination in Contracting Ordinance.**

- a) You, your Subcontractors, and Suppliers shall comply with the requirements of the City's Nondiscrimination in Contracting Ordinance, San Diego Municipal Code §§22.3501 through 22.3517.

You shall not discriminate on the basis of race, gender, gender expression, gender identity, religion, national origin, ethnicity, sexual orientation, age, or disability in the solicitation, selection, hiring, or treatment of subcontractors, vendors, or suppliers. You shall provide equal opportunity for Subcontractors to participate in subcontracting opportunities. You understand and agree that the violation of this clause shall be considered a material breach of the Contract and may result in Contract termination, debarment, or other sanctions.

You shall include the foregoing clause in all Contracts between you and your Subcontractors and Suppliers.

- b) **Disclosure of Discrimination Complaints.** As part of its Bid or Proposal, you shall provide to the City a list of all instances within the past 10 years where a complaint was filed or pending against you in a legal or administrative proceeding alleging that you discriminated against your employees, Subcontractors, vendors, or suppliers, and a description of the status or resolution of that complaint, including any remedial action taken.
- c) Upon the City's request, You agree to provide to the City, within 60 Calendar Days, a truthful and complete list of the names of all Subcontractors and Suppliers that you have used in the past 5 years on any of your Contracts that were undertaken within the San Diego County, including the total dollar amount paid by you for each Subcontract or supply Contract.
- d) You further agree to fully cooperate in any investigation conducted by the City pursuant to the City's Nondiscrimination in Contracting Ordinance, Municipal Code §§22.3501 through 22.3517. You understand and agree that violation of this clause shall be considered a material breach of the Contract and may result in remedies being ordered against you up to and including contract termination, debarment, and other sanctions for the violation of the provisions of the Nondiscrimination in Contracting Ordinance. You further understand and agree that the procedures, remedies, and sanctions provided for in the Nondiscrimination in Contracting Ordinance apply only to violations of the Ordinance.

**E. EQUAL EMPLOYMENT OPPORTUNITY OUTREACH PROGRAM.**

1. You, your Subcontractors, and Suppliers shall comply with the City's Equal Employment Opportunity Outreach Program, San Diego Municipal Code §§22.2701 through 22.2707.

You shall not discriminate against any employee or applicant for employment on any basis prohibited by law. You shall provide equal opportunity in all employment practices. You shall ensure that your Subcontractors comply with this program. Nothing in this section shall be interpreted to hold you liable for any discriminatory practices of your Subcontractors.

You shall include the foregoing clause in all Contracts between you and your Subcontractors and Suppliers.

2. If the Contract is competitively solicited, the selected Bidder shall submit a Work Force Report (Form BB05) within 10 Working Days after receipt by the Bidder to the City for approval as specified in the Notice of Intent to Award letter.
3. The selected Bidder shall submit an Equal Employment Opportunity Plan if a Work Force Report is submitted and if the City determines that there are under-representations when compared to County Labor Force Availability data.
4. If the selected Bidder submits an Equal Employment Opportunity Plan, it shall include the following assurances:
  - a) You shall maintain a working environment free of discrimination, harassment, intimidation, and coercion at all Sites and in all facilities at which your employees are assigned to Work.
  - b) You shall review your EEO Policy annually with all on-Site supervisors involved in employment decisions.
  - c) You shall disseminate and review your EEO Policy with all employees at least once a year, post the policy statement and EEO posters on all company bulletin boards and job sites, and document every dissemination, review, and posting with a written record to identify the time, place, employees present, subject matter, and disposition of meetings.
  - d) You shall review, at least annually, all supervisors' adherence to and performance under the EEO Policy and maintain written documentation of these reviews.
  - e) You shall discuss your EEO Policy Statement with Subcontractors with whom you anticipate doing business, including the EEO Policy Statement in your Subcontracts, and provide such documentation to the City upon request.



- f) You shall document and maintain a record of all Bid solicitations and outreach efforts to and from Subcontractors, contractor associations, and other business associations.
- g) You shall disseminate your EEO Policy externally through various media, including the media of people of color and women, in advertisements to recruit. Maintain files documenting these efforts and provide copies of these advertisements to the City upon request.
- h) You shall disseminate your EEO Policy to union and community organizations.
- i) You shall provide immediate written notification to the City when any union referral process has impeded your efforts to maintain your EEO Policy.
- j) You shall maintain a current list of recruitment sources, including those outreaching to people of color and women, and provide written notification of employment opportunities to these recruitment sources with a record of the organizations' responses.
- k) You shall maintain a current file of names, addresses and phone numbers of each walk-in applicant, including people of color and women, and referrals from unions, recruitment sources, or community organizations with a description of the employment action taken.
- l) You shall encourage all present employees, including people of color and women employees, to recruit others.
- m) You shall maintain all employment selection process information with records of all tests and other selection criteria.
- n) You shall develop and maintain documentation for on-the-job training opportunities, participate in training programs, or both for all of your employees, including people of color and women, and establish apprenticeship, trainee, and upgrade programs relevant to your employment needs.
- o) You shall conduct, at least annually, an inventory and evaluation of all employees for promotional opportunities and encourage all employees to seek and prepare appropriately for such opportunities.
- p) You shall ensure that the company's working environment and activities are non-segregated except for providing separate or single-user toilets and necessary changing facilities to assure privacy between the sexes.

**F. SUBCONTRACTING.**

1. The City encourages all eligible business enterprises to participate in City contracts as a Contractor, Subcontractor, and joint venture partner with you, your Subcontractors, or your Suppliers. You are encouraged to take positive

steps to diversify and expand your Subcontractor solicitation base and to offer subcontracting opportunities to all eligible business firms including SLBEs, ELBEs, MBEs, WBEs, DBEs, DVBEs, and OBEs.

2. For Subcontractor participation level requirements, see the Contract Documents where applicable.
3. For the purposes of achieving the mandatory Subcontractor participation percentages, City percentage calculations will not account for the following:
  - a) "Field Orders" and "City Contingency" Bid items.
  - b) Alternate Bid items.
  - c) Allowance Bid items designated as "EOC Type II".
4. Allowance Bid items designated as "EOC Type I" will be considered as part of the Base Bid and will be included in the percentage calculation.
5. Each joint venture partner shall be responsible for a clearly defined Scope of Work. In addition, an agreement shall be submitted and signed by all parties identifying the extent to which each joint venture partner shares in ownership, control, management, risk, and profits of the joint venture.

**G. LISTS OF SUBCONTRACTORS AND SUPPLIERS.**

1. You shall comply with the Subletting and Subcontracting Fair Practices Act, Public Contract Code §§4100 through 4113, inclusive.
2. You shall list all Subcontractors who will receive more than 0.5% of the total Bid amount or \$10,000, whichever is greater on the form provided in the Contract Documents (Subcontractors list).
3. The Subcontractors list shall include the Subcontractor's name, telephone number including area code, physical address, Scope of Work, the dollar amount of the proposed Subcontract, the California contractor license number, the Public Works contractor registration number issued pursuant to Section 1725.5 of the Labor Code, and the Subcontractor's certification status with the name of the certifying agency.
4. The listed Subcontractor shall be appropriately licensed pursuant to Contractor License Laws.
5. For Design-Build Contracts, refer to the RFQ and RFP for each Project or Task Order.

**H. SUBCONTRACTOR AND SUPPLIER SUBSTITUTIONS.**

1. Listed Subcontractors and Suppliers shall not be substituted without the Express authorization of the City or its duly authorized agent.
2. Request for Subcontractor or Supplier substitution shall be made in writing to Purchasing & Contracting Department, Public Works Division, Attention Contracts Specialist, 1200 3<sup>rd</sup> Ave., Suite 200, MS56, San Diego, CA 92101 with a copy to the Engineer.

3. The request shall include a thorough explanation of the reason(s) for the substitution, including dollar amounts and a letter from each substituted Subcontractor or Supplier stating that they (the Subcontractors or Suppliers) release all interest in working on the Project and written confirmation from the new Subcontractor or Supplier stating that they agree to work on the Project along with the dollar value of the Work to be performed.
4. Written approval of the substitution request shall be received by you or from the City or its authorized officer prior to any unlisted Subcontractor or Supplier performing Work on the Project.
5. Substitution of Subcontractors and Suppliers without authorization shall subject you to those penalties set forth in Public Contract Code §4110.
6. Requests for Supplier substitution shall be made in writing at least 10 Days prior to the provision of materials, supplies, or services by the proposed Supplier and shall include proof of written notice to the originally listed Supplier of the proposed substitution.
7. A Contractor whose Bid is accepted shall not:
  - a) Substitute a person as Subcontractor or Supplier in place of the Subcontractor or Supplier listed in the original bid, except that the City, or its duly authorized officer, may consent to the substitution of another person as a Subcontractor or Supplier in any of the following situations:
    - i. When the Subcontractor or Supplier listed in the Bid, after having a reasonable opportunity to do so, fails or refuses to execute a written Contract for the scope of work specified in the subcontractor's bid and at the price specified in the subcontractor's bid, when that written contract, based upon the general terms, conditions, plans, and specifications for the project involved or the terms of the subcontractor's written bid, is presented to the subcontractor by the prime contractor.
    - ii. When the listed Subcontractor or Supplier becomes insolvent or the subject of an order for relief in bankruptcy.
    - iii. When the listed Subcontractor or Supplier fails or refuses to perform his or her subcontract.
    - iv. When the listed Subcontractor fails or refuses to meet bond requirements as set forth in Public Contract Code §4108.
    - v. When you demonstrate to the City or its duly authorized officer, subject to the provisions set forth in Public Contract Code §4107.5, that the name of the Subcontractor was listed as the result of an inadvertent clerical error.
    - vi. When the listed Subcontractor is not licensed pursuant to Contractor License Law.

- vii. When the City, or its duly authorized officer, determines that the Work performed by the listed Subcontractor or that the materials or supplies provided by the listed Supplier are substantially unsatisfactory and not in substantial accordance with the Plans and specifications or that the Subcontractor or Supplier is substantially delaying or disrupting the progress of the Work.
    - viii. When the listed Subcontractor is ineligible to work on a public works project pursuant to §§1777.1 or 1777.7 of the Labor Code.
    - ix. When the City or its duly authorized agent determines that the listed Subcontractor is not a responsible contractor.
  - b) Permit a Contract to be voluntarily assigned or transferred or allow it to be performed by anyone other than the original Subcontractor, Supplier listed in the original Bid without the consent of the City, or its duly authorized officer.
  - c) Other than in the performance of "Change Orders" causing changes or deviations from the Contract, sublet or subcontract any portion of the Work, or contract for materials or supplies in excess of 0.5% of your total bid or \$10,000, whichever is greater, as to which his or her original Bid did not designate a Subcontractor or Supplier.
8. Following receipt of notice from you of the proposed substitution of a Subcontractor or Supplier, the listed Subcontractor or Supplier who has been so notified shall have 5 Working Days within which to submit written objections to the substitution to the Contract Specialist with a copy to the Engineer. Failure to file these written objections shall constitute the listed Subcontractor or Supplier's consent to the substitution. If written objections are filed, the City shall give notice in writing of at least 5 Working Days to the listed Subcontractor or Supplier of a hearing by the City on your request for substitution.

**I. PROMPT PAYMENT.**

- 1. You or your Subcontractors shall pay to any subcontractor, not later than 7 Calendar Days of receipt of each progress payment, unless otherwise agreed to in writing, the respective amounts allowed you on account of the Work performed by the Subcontractors, to the extent of each Subcontractor's interest therein. In cases of Subcontractor performance deficiencies, you shall make written notice of any withholding to the Subcontractor with a copy to the Contracts Specialist. Upon correction of the deficiency, you shall pay the Subcontractor the amount previously withheld within 14 Calendar Days after payment by the City.
- 2. Any violation of California Business and Professions Code, §7108.5 concerning prompt payment to Subcontractors shall subject the violating Contractor or Subcontractor to the penalties, sanctions, and other remedies of that section.

This requirement shall not be construed to limit or impair any contractual, administrative, or judicial remedies otherwise available to you or your Subcontractor in the event of a dispute involving late payment or nonpayment by the Prime Contractor, deficient subcontract performance, or noncompliance by a Subcontractor.

**J. PROMPT PAYMENT OF FUNDS WITHHELD TO SUBCONTRACTORS.**

1. The City will hold retention from you and will make prompt and regular incremental acceptances of portions, as determined by the Engineer, of the Work and pay retention to you based on these acceptances.
2. You or your Subcontractors shall return all monies withheld in retention from a Subcontractor within 30 Calendar Days after receiving payment for Work satisfactorily completed and accepted including incremental acceptances of portions of the Work by the City.
3. Federal law (49CFR26.29) requires that any delay or postponement of payment over 30 Calendar Days may take place only for good cause and with the City's prior written approval. Any violation of this provision by you or your Subcontractor shall subject you or your Subcontractor to the penalties, sanctions, and other remedies specified in §7108.5 of the Business and Professions Code.
4. These requirements shall not be construed to limit or impair any contractual, administrative, or judicial remedies otherwise available to you or your Subcontractor in the event of a dispute involving late payment or nonpayment by you, deficient subcontract performance, or noncompliance by a Subcontractor.

**K. CERTIFICATION.**

1. The City accepts certifications of DBE, DVBE, MBE, SMBE, SWBE, or WBE by any of the following certifying agencies:
  - a) Current certification by the State of California Department of Transportation (CALTRANS) as DBE, SMBE, or SWBE.
  - b) Current MBE, WBE, or DVBE certification from the California Public Utilities Commission.
  - c) DVBE certification is received from the State of California's Department of General Services, Office of Small and Minority Business.
  - d) Current certification by the City of Los Angeles as DBE, WBE, or MBE.
  - e) Subcontractors' valid proof of certification status (copies of MBE, WBE, DBE, or DVBE certifications) shall be submitted as required.

**L. CONTRACT RECORDS AND REPORTS.**

1. You shall maintain records of all subcontracts and invoices from your Subcontractors and Suppliers for work on this project. Records shall show

name, telephone number including area code, and business address of each Subcontractor, Supplier, and joint venture partner, and the total amount actually paid to each firm. Project relevant records, regardless of tier, may be periodically reviewed by the City.

2. You shall retain all records, books, papers, and documents pertinent to the Contract for a period of not less than 5 years after Notice of Completion and allow access to said records by the City's authorized representatives.
3. You shall submit the following reports using the City's web-based contract compliance (Prism® portal):
  - a. **Monthly Payment.** You shall submit Monthly Payment Reporting by the 10<sup>th</sup> day of the subsequent month. Incomplete and/or delinquent reporting may cause payment delays, non-payment of invoices, or both.
4. The records maintained under item 1, described above, shall be consolidated into a Final Summary Report, certified as correct by an authorized representative of the Contractor. The Final Summary Report shall include all subcontracting activities and be sent to the EOCP Program Manager prior to Acceptance. Failure to comply may result in assessment of liquidated damages or withholding of retention. The City will review and verify 100% of subcontract participation reported in the Final Summary Report prior to approval and release of final retention to you. In the event your Subcontractors are owed money for completed Work, the City may authorize payment to subcontractor via a joint check from the withheld retention.

## EQUAL OPPORTUNITY CONTRACTING PROGRAM (EOCP)

### SECTION B - SLBE-ELBE SUBCONTRACTING REQUIREMENTS

**THESE SPECIAL PROVISIONS SUPPLEMENT THE POLICIES AND REQUIREMENTS ESTABLISHED BY THE CITY OF SAN DIEGO EQUAL OPPORTUNITY CONTRACTING PROGRAM SPECIFIED IN THE CITY'S GENERAL EOCP REQUIREMENTS.**

#### **A. GENERAL.**

1. It is the City's policy to encourage greater availability, capacity development, and contract participation by SLBE and ELBE firms in City contracts. This policy is, in part, intended to further the City's compelling interest to stimulate economic development through the support and empowerment of the local community, ensure that it is neither an active nor passive participant in marketplace discrimination, and promote equal opportunity for all segments of the contracting community.
2. The City is committed to maximizing subcontracting opportunities for all qualified and available firms.
3. This policy applies to City-funded construction contracts. Bidders shall be fully informed of this policy as set forth in these specifications. Mandatory or voluntary subcontracting percentages, Bid Discounts, and restricted competitions are specified in the Contract Documents.
4. You shall make subcontracting opportunities available to a broad base of qualified Subcontractors and shall achieve the minimum SLBE-ELBE Subcontractor participation identified for your project.
5. Failure to subcontract the specified minimum (mandatory) percentages of the Bid to qualified available SLBE-ELBE Subcontractors will cause a Bid to be rejected as non-responsive unless the Bidder has demonstrated compliance with the affirmative steps as specified in the City's document titled "Small Local Business (SLBE) Program, INSTRUCTIONS FOR BIDDERS COMPLETING THE GOOD FAITH EFFORT SUBMITTAL" and has submitted documentation showing that all required positive efforts were made prior to the Bid submittal due date. The required Good Faith Effort (GFE) documentation shall be submitted to the Contract Specialist. The instructions for completing the good faith effort submittal can be found on the City's website:  
<https://www.sandiego.gov/sites/default/files/legacy/eoc/pdf/slbegfeinst.pdf>
6. The current list of certified SLBE-ELBE firms and information for completing the GFE submittal can be found on the City's EOC Department website:  
<http://www.sandiego.gov/eoc/programs/slbe.shtml>
7. These requirements may be waived, at the City's sole discretion, on projects deemed inappropriate for subcontracting participation.

**B.**

**DEFINITIONS.**

1. The following definitions shall be used in conjunction with these specifications:

- a) **Bid Discount** – Additional inducements or enhancements in the bidding process that are designed to increase the chances for the selection of SLBE firms in competition with other firms.
- b) **Commercially Useful Function** – An SLBE-ELBE performs a commercially useful function when it is responsible for the execution of the Work and is carrying out its responsibilities by actually performing, managing, and supervising the Work involved. To perform a commercially useful function, the SLBE-ELBE shall also be responsible, with respect to materials and supplies used on the Contract, for negotiating price, determining quantity and quality, ordering the material, and installing (where applicable) and paying for the material itself.

To determine whether an SLBE-ELBE is performing a commercially useful function, an evaluation will be performed of the amount of Work subcontracted, normal industry practices, whether the amount the SLBE-ELBE firm is to be paid under the contract is commensurate with the Work it is actually performing and the SLBE-ELBE credit claimed for its performance of the Work, and other relevant factors. Specifically, an SLBE-ELBE does not perform a commercially useful function if its role is limited to that of an extra participant in a transaction, contract, or project through which funds are passed in order to obtain the appearance of meaningful and useful SLBE-ELBE participation, when in similar transactions in which SLBE-ELBE firms do not participate, there is no such role performed.

- c) **Good Faith Efforts (GFE)** – Documentation of the Bidder’s intent to comply with SLBE Program goals and procedures included in the City’s SLBE Program, Instructions for Completing Good Faith Effort Submittal available from the City’s EOCP website or the Contract Specialist.
- d) **Independently Owned, Managed, and Operated** – Ownership of a SLBE-ELBE firm shall be direct, independent, and by individuals only. Business firms that are owned by other businesses or by the principals or owners of other businesses that cannot themselves qualify under the SLBE-ELBE eligibility requirements shall not be eligible to participate in the Program. Moreover, the day-to-day management of the SLBE-ELBE firm shall be direct and independent of the influence of any other businesses that cannot themselves qualify under the SLBE-ELBE eligibility requirements.
- e) **Joint Venture** – An association of two or more persons or business entities that is formed for the single purpose of carrying out a single defined business enterprise for which purpose they combine their



capital, efforts, skills, knowledge, or property. Joint ventures shall be established by written agreement to qualify for this program.

- f) **Local Business Enterprise (“LBE”)** – A firm having a Principal Place of Business and a Significant Employment Presence in San Diego County, California that has been in operation for 12 consecutive months and a valid business tax certificate. This definition is subsumed within the definition of Small Local Business Enterprise.
- g) **Minor Construction Program** – A program developed for bidding exclusively among SLBE-ELBE Construction firms.
- h) **Principal Place of Business** – A location wherein a firm maintains a physical office and through which it obtains no less than 50% of its overall customers or sales dollars.
- i) **Protégé** – A firm that has been approved and is an active participant in the City’s Mentor-Protégé Program and that has signed the required program participation agreement and has been assigned a mentor.
- j) **Significant Employee Presence** – No less than 25% of a firm’s total number of employees are domiciled in San Diego County.

**C. SUBCONTRACTOR PARTICIPATION.**

- 1. For the purpose of satisfying subcontracting participation requirements, only 1<sup>st</sup> tier SLBE–ELBE Subcontractors will be recognized as participants in the Contract according to the following criteria:
  - a) For credit to be allowed toward a respective participation level, all listed SLBE-ELBE firms shall have been certified by the Bid due date.
  - b) The Subcontractor shall perform a commercially useful function for credit to be allowed toward subcontractor participation levels. The Subcontractor shall be required by you to be responsible for the execution of a distinct element of the Work and shall carry out its responsibility by actually performing and supervising its own workforce.
  - c) If the Bidder is seeking the recognition of materials, supplies, or both towards achieving any mandatory subcontracting participation level, the Bidder shall indicate on Form AA40 – Named Equipment/Material Supplier List with the Bid the following:
    - i. If the materials or supplies are obtained from a SLBE-ELBE manufacturer, the Bidder will receive 100% of the cost of the materials or supplies toward SLBE participation. For the purposes of counting SLBE-ELBE participation, a manufacturer is a firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the Contract and of the general character described by the specifications.

- ii. If the materials or supplies are obtained from a SLBE-ELBE supplier, the Bidder will receive 60% of the cost of the materials or supplies toward SLBE participation. For the purposes of counting SLBE-ELBE participation a Supplier is a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles or equipment of the general character described by the specifications and required under the Contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business. To be a supplier, the firm shall be an established, regular business that engages, as its principal business and under its own name, in the purchase and sale or lease of the products in question. A person may be a supplier in such bulk items as petroleum products, steel, cement, gravel, stone, or asphalt without owning, operating, or maintaining a place of business if the person both owns and operates distribution equipment for the products. Any supplementing of the suppliers' own distribution equipment shall be by a long-term lease agreement and shall not be on an ad hoc or contract-by-contract basis.
  - iii. If the materials or supplies are obtained from a SLBE-ELBE, which is neither a manufacturer nor a supplier, the entire amount of fees or commissions charged for assistance in the procurement of the materials and supplies, fees or transportation charges for the delivery of materials or supplies required on a job site will be counted toward SLBE-ELBE participation, provided the fees are reasonable and not excessive as compared with fees customarily allowed for similar services. No portion of the cost of the materials and supplies themselves will be counted toward SLBE-ELBE participation.
- d) If the Bidder is seeking the recognition of SLBE-ELBE Trucking towards achieving any mandatory subcontracting participation level, the Bidder shall indicate it on Form AA35 – List of Subcontractors with the Bid. The following factors will be evaluated in determining the credit to be allowed toward the respective participation level:
- i. The SLBE-ELBE shall be responsible for the management and supervision of the entire trucking operation for which it is getting credit on a particular Contract and there shall not be a contrived arrangement for the purpose of counting SLBE-ELBE participation.
  - ii. The SLBE-ELBE shall itself own and operate at least 1 fully licensed, insured, and operational truck used on the Contract.

- iii. The SLBE-ELBE receives credit for the total value of the transportation services it provides on the Contract using trucks it owns, insures, and operates using drivers it employs.
- iv. The SLBE-ELBE may lease trucks from another SLBE-ELBE firm including an owner-operator who is certified as a SLBE-ELBE. The SLBE-ELBE who leases trucks from another SLBE-ELBE receives credit for the total value of the transportation services the lessee SLBE-ELBE provides on the contract.
- v. The SLBE-ELBE may also lease trucks from a non-SLBE-ELBE firm, including an owner-operator. The SLBE-ELBE who leases trucks from a non-SLBE-ELBE is entitled to credit for the total value of transportation services provided by non-SLBE-ELBE lessees not to exceed the value of transportation services provided by SLBE-ELBE owned trucks on the contract. Additional participation by non-SLBE-ELBE lessees receive credit only for the fee or commission it receives as a result of the lease arrangement.
- vi. A lease shall indicate that the SLBE-ELBE has exclusive use of and control over the truck. This does not preclude the leased truck from working for others during the term of the lease with the consent of the SLBE-ELBE so long as the lease gives the SLBE-ELBE absolute priority for use of the leased truck.

**D. SLBE-ELBE SUBCONTRACTOR PARTICIPATION PERCENTAGES.**

1. Contracts valued at \$1,000,000 and above will be considered Major Public Works Contracts and will include a mandatory Subcontractor participation requirement for SLBE-ELBE firms.
  - a) The Bidder shall achieve the mandatory Subcontractor participation requirement or demonstrate GFE.
  - b) The Bidders shall indicate the participation on Forms AA35 - List of Subcontractors and AA40 - Named Equipment/Material Supplier List as applicable regardless of the dollar value.
  - c) An SLBE-ELBE Bidder may count its own participation toward achieving the mandatory goal as long as the SLBE-ELBE Bidder performs 51% of the Contract Price.
2. Contracts Valued over \$500,000 and under \$1,000,000 will also be considered Major Public Works Contracts and will include the mandatory subcontractor participation requirements described above and the following:
  - a) 5% bid discount for SLBE-ELBE firms.
  - b) Non-certified Contractor will receive 5% bid discount if they achieve the specified mandatory Subcontracting participations.

- c) Bid discounts shall not apply if the award will result in a total contract cost of \$50,000 in excess of the apparent lowest Bid.
  - d) In the event of a tie bid between a SLBE-ELBE Bidder and a non-SLBE-ELBE Bidder, the SLBE-ELBE Bidder will be awarded the Contract.
  - e) In the event of a tie bid between a discounted Bid and a non-discounted Bid, the discounted Bid will be awarded the Contract.
3. Contracts valued over \$250,000 up to \$500,000 will be considered Minor Public Works Contracts and will be awarded through a competitive Bid process open only to City certified SLBE-ELBE firms. If there are no bidders or no responsible bidders, the Contract will be made available to all Bidders and will be subject to requirements listed in items 1 and 2 for Major Public Works Contracts above.
  4. Contracts valued at \$250,000 and below will also be considered Minor Public Works Contracts and will be awarded through a competitive bid process open only to City certified ELBEs unless there are less than 2 firms available at which it will be awarded through a competitive process open only to the City certified SLBE-ELBE firms. If there are no bidders or no responsible bidders, the Contract will be made available to all Bidders and subject to requirements listed in items 1 and 2 for Major Public Works Contracts above.

**E. JOINT VENTURES.**

1. The City may allow for Joint Venture bid discounts on some Contracts. Contracts that allow for Joint Venture bid discounts will be designated in Bid documents. A firm that is bidding or competing for City Contracts may partner with a certified SLBE or ELBE to compete for Contracts as a Joint Venture.
2. A Joint Venture shall be between two entities with the same discipline or license as required by the City. Joint ventures will receive bid discounts depending on the SLBE or ELBE percentage of participation. To be eligible for a discount, a Joint Venture Agreement shall be approved by the City at the time of Bid submittal. The maximum allowable discount shall be 5%. The parties shall agree to enter in the relationship for the life of the projects.
3. Joint Venture shall submit a Joint Venture Management Plan, a Joint Venture Agreement, or both at least 2 weeks prior to the Bid due date. Copies of the Joint Venture applications are available upon request to the Contract Specialist. Each agreement or management plan shall include the following:
  - a) Detailed explanation of the financial contribution for each partner.
  - b) List of personnel and equipment used by each partner.
  - c) Detailed breakdown of the responsibilities of each partner.
  - d) Explanation of how the profits and losses will be distributed.
  - e) Description of the bonding capacity of each partner.
  - f) Management or incentive fees available for any one of the partners (if any).

4. Each Joint Venture partner shall perform a Commercially Useful Function. An SLBE or ELBE that relies on the resources and personnel of a non-SLBE or ELBE firm will not be deemed to perform a Commercially Useful Function.
5. Each Joint Venture partner shall possess licenses appropriate for the discipline for which a proposal is being submitted. If a Joint Venture is bidding on a single trade project, at the time of bid submittal, each Joint Venture partner shall possess the requisite specialty license for that trade bid.
6. The SLBE or ELBE partner shall clearly define the portion of the Work to be performed. This Work shall be of the similar type of Work the SLBE or ELBE partner performs in the normal course of its business. The Joint Venture Participation Form shall specify the Bid items to be performed by each individual Joint Venture partner. Lump sum Joint Venture participation shall not be acceptable.
7. Responsibilities of the SLBE or ELBE Joint Venture Partner:
  - a) The SLBE or ELBE partner shall share in the control, management responsibilities, risks and profits of the Joint Venture in proportion with the level of participation in the project.
  - b) The SLBE or ELBE partner shall perform Work that is commensurate with its experience.
  - c) The SLBE or ELBE partner shall use its own employees and equipment to perform its portion of the Work.
  - d) The Joint Venture as a whole shall perform Bid items that equal or exceed 50% of the Contract Price, excluding the cost of manufactured items, in order to be eligible for a Joint Venture discount.

**F. MAINTAINING PARTICIPATION LEVELS.**

1. Credit and preference points are earned based on the level of participation proposed prior to the award of the Contract. Once the Project begins you shall achieve and maintain the SLBE-ELBE participation levels for which credit and preference points were earned. You shall maintain the SLBE-ELBE percentages indicated at the Award of Contract and throughout the Contract Time.
2. If the City modifies the original Scope of Work, you shall make reasonable efforts to maintain the SLBE-ELBE participation for which creditor preference points were earned. If participation levels will be reduced, approval shall be received from the City prior to making changes.
3. You shall notify and obtain written approval from the City in advance of any reduction in subcontract scope, termination, or substitution for a designated SLBE-ELBE Subcontractor. Failure to do so shall constitute a material breach of the Contract.
4. If you fail to maintain the SLBE-ELBE participation listed at the time the Contract is awarded and have not received prior approval from the City, the

City may declare you in default and will be considered grounds for debarment under Chapter 2, Article 2, Division 8, of the San Diego Municipal Code.

**G. SUBCONTRACTING EFFORTS REVIEW AND EVALUATION.**

1. Documentation of your subcontracting efforts will be reviewed by EOCP to verify that you made subcontracting opportunities available to a broad base of qualified Subcontractors, negotiated in good faith with interested Subcontractors, and did not reject any bid for unlawful discriminatory reasons. The EOCP review is based on the federal “Six Good Faith Efforts” model.
2. The GFEs are required methods to ensure that all ELBE and SLBE firms have had the opportunity to compete for the City’s Public Works procurements. The Six Good Faith Efforts, also known as affirmative steps, attract and utilize ELBE and SLBE firms:
  - a) Ensure ELBE firms are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities.
  - b) Make information of forthcoming opportunities available to SLBE-ELBE firms and arrange time for Contracts and establish delivery schedules, where requirements permit, in a way that encourages and facilitates participation by SLBE-ELBE firms in the competitive process. This includes posting solicitations for Bids or proposals to SLBE-ELBE firms for a minimum of 10 Working Days before the Bid or Proposal due date.
  - c) Consider in the contracting process whether firms competing for large Contracts could subcontract with SLBE-ELBE firms.
  - d) Encourage contracting with a consortium of ELBE-SLBE firms when a Contract is too large for one of these firms to handle individually.
  - e) Use the services and assistance of the City’s EOC Office and the SLBE-ELBE Directory.
  - f) If you award subcontracts, require your Subcontractors to take the steps listed above.

**H. GOOD FAITH EFFORT DOCUMENTATION.**

1. If the specified SLBE-ELBE Subcontractor participation percentages are not met, you shall submit information necessary to establish that adequate GFEs were taken to meet the Contract Subcontractor participation percentages. See the City’s document titled “Small Local Business (SLBE) Program, INSTRUCTIONS FOR BIDDERS COMPLETING THE GOOD FAITH EFFORT SUBMITTAL.” The instructions for completing the good faith effort submittal can be found on the City’s website:

<https://www.sandiego.gov/sites/default/files/legacy/eoc/pdf/slbegfeinst.pdf>

**I. SUBCONTRACTOR SUBSTITUTION.**

1. Evidence of fraud or discrimination in the substitution of Subcontractors will result in sanctions including assessment of penalty fines, termination of Contract, or debarment. This section does not replace applicable California Public Contract Code.

**J. FALSIFICATION OF SUB-AGREEMENT AND FRAUD.**

1. Falsification or misrepresentation of a sub-agreement as to company name, Contract amount or actual Work performed by Subcontractors, or any falsification or fraud on the part your submission of documentation and forms pursuant to this program, will result in sanctions against you including assessment of penalty fines, termination of the Contract, or debarment. Instances of falsification or fraud which are indicative of an attempt by you to avoid subcontracting with certain categories of Subcontractors on the basis of race, gender, gender expression, gender identity, religion, national origin, ethnicity, sexual orientation, age, or disability shall be referred to the Equal Opportunity Contracting Program's Investigative Unit for possible violations of Article 2, Division 35 of the City Administrative Code, §§22.3501 et seq. (Nondiscrimination in Contracting).

**K. RESOURCES.**

1. The current list of certified SLBE-ELBE firms and information for completing the GFE submittal can be found on the City's EOC Department website:  
<http://www.sandiego.gov/eoc/programs/slbe.shtml>
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**ATTACHMENT D**  
**PREVAILING WAGE**



## PREVAILING WAGE

**PREVAILING WAGE RATES:** Pursuant to San Diego Municipal Code section 22.3019, construction, alteration, demolition, repair and maintenance work performed under this Contract is subject to State prevailing wage laws. For construction work performed under this Contract cumulatively exceeding \$25,000 and for alteration, demolition, repair and maintenance work performed under this Contract cumulatively exceeding \$15,000, the Contractor and its subcontractors shall comply with State prevailing wage laws including, but not limited to, the requirements listed below.

- 1.1. Compliance with Prevailing Wage Requirements.** Pursuant to sections 1720 through 1861 of the California Labor Code, the Contractor and its subcontractors shall ensure that all workers who perform work under this Contract are paid not less than the prevailing rate of per diem wages as determined by the Director of the California Department of Industrial Relations (DIR). This includes work performed during the design and preconstruction phases of construction including, but not limited to, inspection and land surveying work.
  - 1.1.1.** Copies of such prevailing rate of per diem wages are on file at the City and are available for inspection to any interested party on request. Copies of the prevailing rate of per diem wages also may be found at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Contractor and its subcontractors shall post a copy of the prevailing rate of per diem wages determination at each job site and shall make them available to any interested party upon request.
  - 1.1.2.** The wage rates determined by the DIR refer to expiration dates. If the published wage rate does not refer to a predetermined wage rate to be paid after the expiration date, then the published rate of wage shall be in effect for the life of this Contract. If the published wage rate refers to a predetermined wage rate to become effective upon expiration of the published wage rate and the predetermined wage rate is on file with the DIR, such predetermined wage rate shall become effective on the date following the expiration date and shall apply to this Contract in the same manner as if it had been published in said publication. If the predetermined wage rate refers to one or more additional expiration dates with additional predetermined wage rates, which expiration dates occur during the life of this Contract, each successive predetermined wage rate shall apply to this Contract on the date following the expiration date of the previous wage rate. If the last of such predetermined wage rates expires during the life of this Contract, such wage rate shall apply to the balance of the Contract.
- 1.2. Penalties for Violations.** Contractor and its subcontractors shall comply with California Labor Code section 1775 in the event a worker is paid less than the prevailing wage rate for the work or craft in which the worker is employed. This shall be in addition to any other applicable penalties allowed under Labor Code sections 1720 – 1861.

- 1.3. Payroll Records.** Contractor and its subcontractors shall comply with California Labor Code section 1776, which generally requires keeping accurate payroll records, verifying and certifying payroll records, and making them available for inspection. Contractor shall require its subcontractors to also comply with section 1776. Contractor and its subcontractors shall submit weekly certified payroll records online via the City's web-based Labor Compliance Program. Contractor is responsible for ensuring its subcontractors submit certified payroll records to the City.
- 1.3.1.** Contractor and their subcontractors shall also furnish records specified in Labor Code section 1776 directly to the Labor Commissioner in the manner required by Labor Code section 1771.4.
- 1.4. Apprentices.** Contractor and its subcontractors shall comply with California Labor Code sections 1777.5, 1777.6 and 1777.7 concerning the employment and wages of apprentices. Contractor is held responsible for the compliance of their subcontractors with sections 1777.5, 1777.6 and 1777.7.
- 1.5. Working Hours.** Contractor and their subcontractors shall comply with California Labor Code sections 1810 through 1815, including but not limited to: (i) restrict working hours on public works contracts to eight hours a day and forty hours a week, unless all hours worked in excess of 8 hours per day are compensated at not less than 1½ times the basic rate of pay; and (ii) specify penalties to be imposed on contractors and subcontractors of \$25 per worker per day for each day the worker works more than 8 hours per day and 40 hours per week in violation of California Labor Code sections 1810 through 1815.
- 1.6. Required Provisions for Subcontracts.** Contractor shall include at a minimum a copy of the following provisions in any contract they enter into with a subcontractor: California Labor Code sections 1771, 1771.1, 1775, 1776, 1777.5, 1810, 1813, 1815, 1860 and 1861.
- 1.7. Labor Code Section 1861 Certification.** Contractor in accordance with California Labor Code section 3700 is required to secure the payment of compensation of its employees and by signing this Contract, Contractor certifies that "I am aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this Contract."
- 1.8. Labor Compliance Program.** The City has its own Labor Compliance Program authorized in August 2011 by the DIR. The City will withhold contract payments when payroll records are delinquent or deemed inadequate by the City or other governmental entity, or it has been established after an investigation by the City or other governmental entity that underpayment(s) have occurred. For questions or assistance, please contact the City of San Diego's Prevailing Wage Unit at 858-627-3200.

- 1.9. Contractor and Subcontractor Registration Requirements.** This project is subject to compliance monitoring and enforcement by the DIR. A contractor or subcontractor shall not be qualified to bid on, be listed in a bid or proposal, subject to the requirements of section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, unless currently registered and qualified to perform public work pursuant to Labor Code section 1725.5. It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions code or by Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded.
- 1.9.1.** A Contractor's inadvertent error in listing a subcontractor who is not registered pursuant to Labor Code section 1725.5 in response to a solicitation shall not be grounds for filing a bid protest or grounds for considering the bid non-responsive provided that any of the following apply: (1) the subcontractor is registered prior to bid opening; (2) within twenty-four hours after the bid opening, the subcontractor is registered and has paid the penalty registration fee specified in Labor Code section 1725.5; or (3) the subcontractor is replaced by another registered subcontractor pursuant to Public Contract Code section 4107.
- 1.9.2.** By submitting a bid or proposal to the City, Contractor is certifying that he or she has verified that all subcontractors used on this public work project are registered with the DIR in compliance with Labor Code sections 1771.1 and 1725.5, and Contractor shall provide proof of registration for themselves and all listed subcontractors to the City at the time of bid or proposal due date or upon request.
- 1.10. Stop Order.** For Contractor or its subcontractors engaging in the performance of any public work contract without having been registered in violation of Labor Code sections 1725.5 or 1771.1, the Labor Commissioner shall issue and serve a stop order prohibiting the use of the unregistered contractors or unregistered subcontractor(s) on ALL public works until the unregistered contractor or unregistered subcontractor(s) is registered. Failure to observe a stop order is a misdemeanor.
- 1.11. List of all Subcontractors.** The Contractor shall provide the list of subcontractors (regardless of tier), along with their DIR registration numbers, utilized on this Contract prior to any work being performed; and the Contractor shall provide a complete list of all subcontractors with each invoice. Additionally, Contractor shall provide the City with a complete list of all subcontractors (regardless of tier) utilized on this contract within ten working days of the completion of the contract, along with their DIR registration numbers. The City shall withhold final payment to Construction Management Professional until at least thirty (30) days after this information is provided to the City.

**1.12. Exemptions for Small Projects.** There are limited exemptions for installation, alteration, demolition, or repair work done on projects of \$25,000 or less. The Contractor shall still comply with Labor Code sections 1720 et. seq. The only recognized exemptions are listed below:

**1.12.1.** Registration. The Contractor will not be required to register with the DIR for small projects. (Labor Code section 1771.1).

**1.12.2.** Certified Payroll Records. The records required in Labor Code section 1776 shall be required to be kept and submitted to the City of San Diego but will not be required to be submitted online with the DIR directly. The Contractor will need to keep those records for at least three years following the completion of the Contract. (Labor Code section 1771.4).

**1.12.3.** List of all Subcontractors. The Contractor shall not be required to hire only registered subcontractors and is exempt from submitting the list of all subcontractors that is required in section 1.11 above. (Labor code section 1773.3).

**ATTACHMENT E**  
**SUPPLEMENTARY SPECIAL PROVISIONS**

## SUPPLEMENTARY SPECIAL PROVISIONS

The following Supplementary Special Provisions (SSP) modifies the following documents:

1. The **2021 Edition** of the Standard Specifications for Public Works Construction (The "GREENBOOK").
2. The **2021 Edition** of the City of San Diego Standard Specifications for Public Works Construction (The "WHITEBOOK"), including the following:
  - a) General Provisions (A) for all Construction Contracts.

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### SECTION 1 – GENERAL, TERMS, DEFINITIONS, ABBREVIATIONS, UNITS OF MEASURE, AND SYMBOLS

- 1-2 TERMS AND DEFINITIONS.** To the "WHITEBOOK", item 55, "Normal Working Hours", ADD the following:

The **Normal Working Hours** are **7:00 AM to 4:00 PM**.

### SECTION 3 – CONTROL OF THE WORK

- 3-2 SELF-PERFORMANCE.** To the "GREENBOOK", DELETE in its entirety and SUBSTITUTE with the following:

1. You shall perform, with your own organization, Contract Work amounting to at least **50%** of the Base Bid.

- 3-9 TECHNICAL STUDIES AND SUBSURFACE DATA.** To the "WHITEBOOK", ADD the following:

5. In preparation of the Contract Documents, the designer has relied upon the following reports of explorations and tests at the Work Site:
  - a) Slope Stability Analysis for East Basin Modification. See **Appendix H**.

### SECTION 4 - CONTROL OF MATERIALS

- 4-6 TRADE NAMES.** To the "WHITEBOOK", ADD the following:

11. You shall submit your list of proposed substitutions for an "equal" item **no later than 5 Working Days after the issuance of the Notice of Intent to Award** and on the City's Product Submittal Form available at:

<https://www.sandiego.gov/ecp/edocref/>

## SECTION 5 – LEGAL RELATIONS AND RESPONSIBILITIES

**5-4**           **INSURANCE.** To the “GREENBOOK”, DELETE in its entirety and SUBSTITUTE with the following:

**5-4**           **INSURANCE.**

1.       The insurance provisions herein shall not be construed to limit your indemnity and defense duties set forth in the Contract.

**5-4.1**       **Policies and Procedures.**

1.       You shall procure the insurance described below, at your sole cost and expense, to provide coverage against claims for loss including injuries to persons or damage to property, which may arise out of or in connection with the performance of the Work by you, your agents, representatives, officers, employees or Subcontractors.
2.       Insurance coverage for property damage resulting from your operations is on a replacement cost valuation. The market value will not be accepted.
3.       You shall maintain this insurance as required by this Contract and at all times thereafter when you are correcting, removing, or replacing Work in accordance with this Contract. Your duties under the Contract, including your indemnity obligations, are not limited to the insurance coverage required by this Contract.
4.       If you maintain broader coverage or higher limits than the minimums shown below, City requires and shall be entitled to the broader coverage or the higher limits maintained by you. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to City.
5.       Your payment for insurance shall be included in the Contract Price you bid. You are not entitled to any additional payment from the City to cover your insurance, unless the City specifically agrees to payment in writing. Do not begin any Work under this Contract or allow any Subcontractors to begin work, until you have provided, and the City has approved, all required insurance.
6.       Policies of insurance shall provide that the City is entitled to 30 days advance written notice of cancellation or non-renewal of the policy or 10 days advance written notice for cancellation due to non-payment of premium. Maintenance of specified insurance coverage is a material element of the Contract. Your failure to maintain or renew coverage and to provide evidence of renewal during the term of the Contract may be treated by the City as a material breach of the Contract.

**5-4.2 Types of Insurance.**

**5-4.2.1 General Liability Insurance.**

1. Commercial General Liability Insurance shall be written on the current version of the ISO Occurrence form CG 00 01 07 98 or an equivalent form providing coverage at least as broad.
2. The policy shall cover liability arising from premises and operations, XCU (explosions, underground, and collapse), independent contractors, products/completed operations, personal injury and advertising injury, bodily injury, property damage, and liability assumed under an insured's contract (including the tort liability of another assumed in a business contract).
3. There shall be no endorsement or modification limiting the scope of coverage for either "insured vs. insured" claims or contractual liability. You shall maintain the same or equivalent insurance for at least 10 years following completion of the Work.
4. All costs of defense shall be outside the policy limits. Policy coverage shall be in liability limits of not less than the following:

<u>General Annual Aggregate Limit</u>	<u>Limits of Liability</u>
Other than Products/Completed Operations	\$10,000,000
Products/Completed Operations Aggregate Limit	\$10,000,000
Personal Injury Limit	\$5,000,000
Each Occurrence	\$5,000,000

**5-4.2.2 Commercial Automobile Liability Insurance.**

1. You shall provide a policy or policies of Commercial Automobile Liability Insurance written on the current version of the ISO form CA 00 01 12 90 or later version or equivalent form providing coverage at least as broad in the amount of \$1,000,000 combined single limit per accident, covering bodily injury and property damage for owned, non-owned, and hired automobiles ("Any Auto").
2. All costs of defense shall be outside the limits of the policy.

**5-4.2.3 Workers' Compensation Insurance and Employers Liability Insurance.**

1. In accordance with the provisions of California Labor Code section 3700, you shall provide, at your expense, Workers' Compensation Insurance and Employers Liability Insurance to protect you against all claims under applicable state workers' compensation laws. The City, its elected officials, and employees will not be responsible for any claims in law or equity occasioned by your failure to comply with this requirement.



2. Statutory Limits shall be provided for Workers' Compensation Insurance as required by the state of California, and Employer's Liability Insurance with limits of no less than \$1,000,000 per accident for bodily injury or disease.
3. By signing and returning the Contract, you certify that you are aware of the provisions of California's Workers' Compensation laws, including Labor Code section 3700, which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance, and that you will comply with these provisions before commencing the Work.

**5-4.2.8 Architects and Engineers Professional Insurance (Errors and Omissions Insurance).**

1. For Contracts with required engineering services, including Design-Build and preparation of engineered Traffic Control Plans (TCP) by you, you shall keep or require all of your employees and Subcontractors, who provide professional engineering services under Contract, to provide to the City proof of Professional Liability coverage with a limit of no less than **\$1,000,000** per claim and **\$2,000,000** aggregate per policy period of one year.
2. You shall ensure the following:
  - a) The policy retroactive date is on or before the date of commencement of the Project.
  - b) The policy will be maintained in force for a period of three years after completion of the Project or termination of the Contract, whichever occurs last. You agree that, for the time period specified above, there will be no changes or endorsements to the policy that affect the specified coverage.
3. If professional engineering services are to be provided solely by the Subcontractor, you shall:
  - a) Certify this to the City in writing, and
  - b) Agree in writing to require the Subcontractor to procure Professional Liability coverage in accordance with the requirements set forth here.

**5-4.3 Rating Requirements.** Except for the State Compensation Insurance Fund, all insurance required by this Contract shall be carried only by responsible insurance companies with a rating of, or equivalent to, at least "A-, VI" by A.M. Best Company, that are authorized by the California Insurance Commissioner to do business in the state of California, and that have been approved by the City.

**5-4.3.1 Non-Admitted Carriers.** The City will accept insurance provided by non-admitted, "surplus lines" carriers only if the carrier is authorized to do business in the state of California and is included on the List of Approved Surplus Lines Insurers (LASLI list).

All policies of insurance carried by non-admitted carriers shall be subject to all of the requirements for policies of insurance provided by admitted carriers described in this Contract.

**5-4.4 Evidence of Insurance.** You shall furnish the City with original Certificates of Insurance, including all required amendatory endorsements (or copies of the applicable policy language effecting coverage required by this clause), prior to your commencement of Work under this Contract. In addition, The City reserves the right to require complete, certified copies of all required insurance policies, including endorsements, required by these specifications, at any time.

**5-4.5 Policy Endorsements.**

**5-4.5.1 Commercial General Liability Insurance.**

**5-4.5.1.1 Additional Insured.** To the fullest extent permitted by law and consistent with the limiting provisions set forth at California Civil Code section 2782, California Insurance Code section 11580.04, and any applicable successor statutes limiting indemnification of public agencies that bind the City, the policy or policies shall be endorsed to include as an Additional Insured the City and its respective elected officials, officers, employees, agents, and representatives, with respect to liability arising out of:

- i. Ongoing operations performed by you or on your behalf,
- ii. your products,
- iii. your work, e.g., your completed operations performed by you or on your behalf, or
- iv. premises owned, leased, controlled, or used by you.

**5-4.5.1.2 Primary and Non-Contributory Coverage.** The policy shall be endorsed to provide that the coverage with respect to operations, including the completed operations, if appropriate, of the Named Insured is primary to any insurance or self-insurance of the City and its elected officials, officers, employees, agents and representatives. Further, it shall provide that any insurance maintained by the City and its elected officials, officers, employees, agents and representatives shall be in excess of your insurance and shall not contribute to it.

**5-4.5.1.3 Project General Aggregate Limit.** The policy or policies shall be endorsed to provide a Designated Construction Project General Aggregate Limit that will apply only to the Work. Only claims payments which arise from the Work shall reduce the Designated Construction Project General Aggregate Limit. The Designated Construction Project General Aggregate Limit shall be in addition to the aggregate limit provided for the products-completed operations hazard.

**5-4.5.2 Workers' Compensation Insurance and Employers Liability Insurance.**

**5-4.5.2.1 Waiver of Subrogation.** The policy or policies shall be endorsed to provide that the insurer will waive all rights of subrogation against the City and its respective elected officials, officers, employees, agents, and representatives for losses paid under the terms of the policy or policies and which arise from Work performed by the Named Insured for the City.

**5-4.6 Deductibles and Self-Insured Retentions.** You shall disclose deductibles and self-insured retentions to the City at the time the evidence of insurance is provided. The City may require you to purchase coverage with a lower retention or provide proof of ability to pay losses and related investigations, claim administration, and defense expenses within the retention. The policy language shall provide, or be endorsed to provide, that the self-insured retention may be satisfied by either the named insured or City.

**5-4.7 Reservation of Rights.** The City reserves the right, from time to time, to review your insurance coverage, limits, deductibles, and self-insured retentions to determine if they are acceptable to the City. The City will reimburse you, without overhead, profit, or any other markup, for the cost of additional premium for any coverage requested by the Engineer, but not required by this Contract.

**5-4.8 Notice of Changes to Insurance.** You shall notify the City, in writing, 30 days prior to any material change to the policies of insurance provided under this Contract. This written notice is in addition to the requirements of paragraph 8 of Section 5-4.1. Policies of insurance shall provide that the City is entitled to 30 days advance written notice of cancellation or non-renewal of the policy or 10 days advance written notice for cancellation due to non-payment of premium. Maintenance of specified insurance coverage is a material element of the Contract. Your failure to maintain or renew coverage and to provide evidence of renewal during the term of the Contract may be treated by the City as a material breach of the Contract.

**5-4.9 Excess Insurance.** Policies providing excess coverage shall follow the form of the primary policy or policies, including, all endorsements.

**SECTION 6 – PROSECUTION AND PROGRESS OF THE WORK**

**6-1.1 Construction Schedule.** To the "WHITEBOOK", ADD the following:

3. Refer to the Sample City Invoice materials in **Appendix D – Sample City Invoice with Cash Flow Forecast** and use the format shown.
4. The **90 Calendar Day** Plant Establishment Period is included in the stipulated Contract Time and shall begin with the acceptance of installation of the vegetation plan in accordance with Section 801-6, "MAINTENANCE AND PLANT ESTABLISHMENT".

**ADD:**

**6-6.1.1 Environmental Document.**

1. The City of San Diego has prepared an **Environmental Impact Report** for **Miramar Landfill Storm Basin Improvement, (Miramar Service Life Extension/Height Increase)** Project No. **122833**, as referenced in the Contract Appendix. You shall comply with all requirements of the **Environmental Impact Report** as set forth in **Appendix A**.
2. Compliance with the City's Environmental Impact Report shall be included in the Contract Price, unless separate bid items have been provided.

**SECTION 7 – MEASUREMENT AND PAYMENT**

**7-3.11 Compensation Adjustments for Price Index Fluctuations.** To the "WHITEBOOK", ADD the following:

5. This Contract is not subject to the provisions of The "WHITEBOOK" for Compensation Adjustments for Price Index Fluctuations for paving asphalt.

**SECTION 1001 – CONSTRUCTION BEST MANAGEMENT PRACTICES (BMPs)**

**1001-1 GENERAL.** To the "WHITEBOOK", ADD the following:

8. Based on a preliminary assessment by the City, this Contract is subject to SWPPP Risk Level 2.

**1001-2.10 BMP Inspection, Maintenance, and Repair.** To the "WHITEBOOK", ADD the following:

5. Maintenance activities shall be documented by the QSP or QSD in the Construction BMP Maintenance Log for projects subject to SWPPP requirements. See **Appendix G - SWPPP Construction BMP Maintenance Log**.

## TECHNICALS



*Prepared for*

**The City of San Diego**  
**Environmental Services Department**  
9601 Ridgehaven Court, Suite 310  
San Diego, California 92123

# **TECHNICAL SPECIFICATIONS**

## **STORM WATER BASIN IMPROVEMENTS**

**MIRAMAR LANDFILL**  
**SAN DIEGO, CALIFORNIA**

*Prepared by*

**Geosyntec**   
consultants

engineers | scientists | innovators

2355 Northside Drive, Suite 250  
San Diego, CA 92108

Project Number SC0957

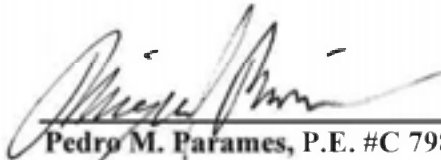
March 2021

**CERTIFICATION PAGE**

**TECHNICAL SPECIFICATIONS**

**STORM WATER BASIN IMPROVEMENTS  
MIRAMAR LANDFILL  
SAN DIEGO, CALIFORNIA**

The Engineering material and data contained in these Technical Specifications were prepared under the supervision and direction of the undersigned, whose seal as a registered Professional Engineer is affixed below.

 3/11/2021  
**Pedro M. Parames, P.E. #C 79851**  
**Engineer-of-Record**



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## **SECTION 01 11 00 SUMMARY OF WORK**

### **PART 1 - GENERAL**

#### **1.1 WORK OF THIS SECTION**

A. Section includes:

1. City and Contractor responsibilities.
2. Contractor use of site and premises.
3. Scope of Work.

#### **1.2 CITY AND CONTRACTOR RESPONSIBILITIES**

A. City's responsibilities:

1. Identify staging area.
2. Identify parking area.
3. Identify sensitive resource areas and exclusion zones.
4. Identify soil disposal (stockpile) area.
5. Furnish compost mulch.
6. Furnish recycled water at the project site.

B. Contractor's responsibilities:

1. Furnish and Implement all work described in these documents.
2. Coordination with Engineer.
3. Protection of work areas.
4. Comply with the 2018 Edition of the Standard Specifications for Public Works Construction, also known as the Greenbook.
5. Comply with the City of San Diego Standard Specifications for Public Works Construction, also known as the Whitebook, 2018 edition.
6. The Whitebook (also known as the City Supplement) is to be used in conjunction with the Greenbook. Any reference to compliance with the Whitebook indicates compliance with the Greenbook as well.
7. Comply with City of San Diego Supplementary Special Provisions (SSP).

#### **1.3 CONTRACTOR USE OF SITE**

## SECTION 01 11 00 SUMMARY OF WORK

### A. Limit use of site to allow:

1. Coordinate with City to limit access in work areas as necessary.
2. Maintain construction site free of debris and stage materials in areas approved by City Engineer.

## 1.4 SCOPE OF WORK

### A. Project Objective:

1. The West Miramar Storm Water Basin Improvements Project includes construction of the proposed Hawthorne Basin, West Basin Skimmer/Pump System, East Basin expansion and outlet modification, and erosion and sediment control best management practices (BMPs) to reduce sediment and other pollutants in storm water discharges at the West Miramar Landfill Facility. These improvements and BMPs will occur throughout the Facility including but not limited to areas identified as the Hawthorne Basin, West Perimeter Access Road, West Basin, East Basin Access Road, and East Basin.
2. This objective is met through various improvements to existing stormwater features on both the Phase 1 and Phase 2 areas of the landfill.

### B. Scope of Work:

1. Mobilization.
2. Hawthorne Basin work includes demolition of the existing gravel road, riprap drainage channel, down drain termination structure, and clearing and grubbing. Following demolition, the Hawthorne Basin will be excavated and a concrete lined earthen embankment, spillway, skimmer, outlet structure, and culvert will be installed. A new 36" HDPE down drain, inlet protection, and Type 2 energy dissipater will also be installed at a location further upstream of the basin. A new Type 2 energy dissipater will also be installed at the termination of the existing 36" CMP down drain.
3. West Basin Skimmer/Pump System includes installation of a floating pump/skimmer with driven piles, diesel generator, and gravel staging pad.
4. East Basin expansion work includes removal and salvage of the existing Type 2 energy dissipater, metal down drain flume, and a section of a 36" CMP storm drain; demolition of the existing standpipe, trash rack, and clearing and grubbing. Following demolition, the East Basin will be expanded and the Type 2 energy dissipater and metal down drain flume will be re-installed. A new outlet structure and skimmer will also be installed.
5. Areas identified as erosion control areas will be stabilized with vegetation through soil preparation and application of hydraulically applied stabilizers (hydroseed and hydromulch). Straw wattle slope interruption devices will also be installed.

## **SECTION 01 11 00 SUMMARY OF WORK**

6. Grade, moisture condition soil, and apply hydro-seed and hydraulic mulch in disturbed areas at Project Close-Out as indicated on Construction Drawings.
  7. Contract close-out and de-mobilization.
- C. A more detailed description of work scope elements is given in the specification sections that follow this section.

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION (NOT USED)**

**PART 4 - MEASUREMENT AND PAYMENT (NOT USED)**

**END OF SECTION**

## **SECTION 01 14 13 ACCESS TO SITE**

### **PART 1 - GENERAL**

#### **1.1 WORK OF THIS SECTION**

- A. This section provides a description of the CONTRACTOR's responsibilities and restrictions related to site access.

#### **1.2 RELATED SECTIONS**

- A. Related Sections are below.
  - 1. SECTION 01 55 26 – TRAFFIC CONTROL

#### **1.3 CITED STANDARDS - NONE**

#### **1.4 NOTED RESTRICTIONS**

- A. The Contractor shall confirm work hours with the City of San Diego prior to performing work.

#### **1.5 QUALITY CONTROL**

- A. Vehicle Limitations
  - 1. Fire hydrants on or adjacent to the Work shall be kept accessible at all times.
  - 2. When construction is being performed in or near improvements including (but not limited to) signs and signals, etc., temporary provisions shall be made by the Contractor to assure the visibility and proper functioning of nearby improvements.
- B. Traffic Control
  - 1. For the protection of traffic, the Contractor shall provide, place and maintain necessary barricades, traffic cones, warning signs, lights and other approved safety devices. The Contractor shall take necessary precautions for the protection of the Work and the safety of the City, Engineer, and Contractor's personnel and the public. Barricades and obstructions shall be illuminated at night. Traffic Control measures shall meet the requirements of **SECTION 01 55 26**.

### **PART 2 - PRODUCTS (NOT USED)**

### **PART 3 - EXECUTION (NOT USED)**

### **PART 4 - MEASUREMENT AND PAYMENT**

#### **4.1 SUBMITTALS**

**SECTION 01 14 13 ACCESS TO SITE**

- A. All work associated with Access to Site for this project shall be included in the various Bid items. No separate payment for this item shall be made.

**END OF SECTION**

## **SECTION 01 31 19 PROJECT MEETING**

### **PART 1 - GENERAL**

#### **A. WORK OF THIS SECTION**

1. The Contractor shall participate in project meetings including, but not limited to, the following:
  - a. Preconstruction conference.
  - b. Progress meetings.
  - c. Pre- and final Site walks.

#### **1.2 RELATED SECTIONS**

- A. The Work of the following Sections apply to the Work of this Section. Work of other Sections of the Specifications not referenced below shall also apply to the extent required for the proper performance of the Work.
1. Section 01 32 00 – Construction Progress Documentation

#### **1.3 PRECONSTRUCTION CONFERENCE**

- A. Prior to the commencement of the Work at the site, a preconstruction conference will be held at a mutually agreed time and place which shall be attended by the Contractor's Project Manager, its superintendent, and its subcontractors, as the Contractor deems appropriate. Other attendees will be:
1. Construction Manager.
  2. City's representatives.
  3. Governmental representatives as appropriate.
  4. Engineer.
  5. Others as requested by Contractor, City, or Construction Manager.
- B. Unless previously submitted to the Engineer, the Contractor shall bring to the conference one copy of each of the following:
1. Cost Loaded Construction Schedule per Section 01 32 00.
  2. Procurement schedule of major equipment and materials, and items requiring long lead time.
- C. The purpose of the preconstruction conference is to designate responsible personnel and establish a working relationship. Matters requiring coordination will be discussed and procedures for handling such matters established. The complete agenda will be

## SECTION 01 31 19 PROJECT MEETING

furnished by the Engineer to the Contractor prior to the meeting date. However, the Contractor should be prepared to discuss all of the items listed below.

1. Status of Contractor's insurance and bonds.
  2. Contractor's tentative schedules.
  3. Transmittal, review, and distribution of Contractor's submittals.
  4. Processing applications for payment.
  5. Maintaining record documents.
  6. Work sequencing.
  7. Traffic control and safety.
  8. Field decisions and change orders.
  9. Use of project site, office and storage areas, security, and housekeeping.
  10. City's needs.
  11. Major equipment deliveries and priorities.
- D. The Engineer will preside at the preconstruction conference and will arrange for keeping and distributing the minutes to all persons in attendance.

### 1.4 PROGRESS MEETINGS

- A. The Engineer will schedule and hold regular on-site progress meetings at least weekly and at other times as required by progress of the Work. The Contractor, Engineer, and all subcontractors active on the site shall attend each progress meeting. The Engineer may, at his or her discretion, request attendance by representatives of the Contractor's suppliers, manufacturers, and other subcontractors
- B. The Engineer shall preside at the meetings and will arrange for keeping and distributing the minutes. The purpose of the meetings will be to review the progress of the Work, maintain coordination of efforts, discuss changes in scheduling, and resolve other problems which may develop. During each meeting, the Contractor is required to present any issues which may impact his work, with a plan to resolve these issues expeditiously.
- C. The Engineer will invite the Design Consultant, Capital Improvement Project (CIP) Project Manager, CIP Safety Manager, and the CIP Public Information Officer, to send representatives to the weekly progress meetings. From time to time, the Construction Manager may invite others to attend as well, including the CIP City Controlled Insurance Program manager, specialty design subconsultants, utility companies, and community groups.
- D. The agenda will include but will not be limited to the following:



## **SECTION 01 31 19 PROJECT MEETING**

1. Transcript or minutes of previous meeting.
2. Safety and traffic control issues.
3. Community and public relations issues.
4. Progress since the last meeting.
5. The Contractor's three-week look-ahead schedule and planned Work progress for the next Work period.
6. Shop drawings, requests for information, survey requests, and substitution requests review.
7. Problems, conflicts, disputed issues, potential claims, and observations.
8. Field orders and change orders.
9. Applications for payment.
10. Quality standards and control.
11. Schedules, including off-site fabrication and delivery schedules. Corrective measures required.
12. Coordination between parties.

### **PART 2 - PRODUCTS (NOT USED)**

### **PART 3 - EXECUTION (NOT USED)**

### **PART 4 - MEASUREMENT AND PAYMENT**

#### **4.1 PROJECT MEETINGS**

- A. All work associated with Project Meetings for this project shall be included in the Lump Sum Price for "Mobilization" (Bid Item No. 5). No separate payment for this item shall be made.

**END OF SECTION**

**SECTION 01 32 00  
CONSTRUCTION PROGRESS DOCUMENTATION**

**PART 1 - GENERAL**

**1.1 WORK OF THIS SECTION**

- A. The Contractor's planning, scheduling and execution of the Work shall be presented to the Engineer by submission of the Construction Schedule information and data specified in this Section.

**1.2 RELATED SECTIONS**

- A. The Work of the following Sections apply to Work of this Section. Other Sections of the Specifications, not referenced below, shall also apply to the extent required for proper performance of the Work.

- 1. Section 01 33 00 – Submittal Procedures

**1.3 SUBMITTALS**

- A. Contractor submittals shall be consistent with Section 6 of the Greenbook as well as Section 6 of the Whitebook.

**1.4 CONSTRUCTION SCHEDULE – GENERAL**

- A. Construction scheduling activities by the Contractor shall be consistent with the requirements of Section 6, Prosecution and Progress of the Work of the Greenbook and Section 6, Prosecution and Progress of the Work of the Whitebook.

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION (NOT USED)**

**PART 4 - MEASUREMENT AND PAYMENT**

**4.1 CONSTRUCTION PROGRESS DOCUMENTATION**

- A. All costs associated with Construction Progress Documentation for this project shall be included in the various Bid items. No separate payment for this item shall be made.

**END OF SECTION**

## **SECTION 01 33 00 SUBMITTAL PROCEDURES**

### **PART 1 - GENERAL**

#### **1.1 WORK OF THIS SECTION**

- A. Wherever submittals are required hereunder, all such submittals by the Contractor shall be submitted to the Engineer.
- B. Proposals for material or equipment substitutions (“Or-Equal”) prior to Bid due date shall be in accordance with Section 4-6, Trade Names of the Whitebook. Per SSP Section 4-6 Trade Names, proposed substitutions for an “equal” item shall be submitted no later than 5 Working Days after the determination of the Apparent Low Bidder.
- C. Within 10 working days after the date of commencement as stated in the Notice to Proceed, the Contractor shall submit the following items to the Engineer for review:
  - 1. A Submittal Schedule for Shop Drawings, Samples, and other required submittals. Additional submittals will not be accepted for review prior to acceptance of the Submittal Schedule by the Construction Manager.
  - 2. A list of all permits and licenses the Contractor shall obtain. Indicate the agency required to grant the permit, the expected date of submittal for the permit, and the required date for receipt of the permit.

#### **1.2 RELATED SECTIONS**

- A. The Work of the following Sections apply to Work of this Section. The Work of other Sections of the Specifications, not referenced below, shall also apply to the extent required for proper performance of the Work.
  - 1. Section 01 31 19 – Project Meetings
  - 2. Section 01 32 00 – Construction Progress Documentation
  - 3. Section 01 50 00 – Temporary Facilities and Controls
  - 4. Section 01 55 26 – Traffic Control
  - 5. Section 01 57 19 – Temporary Environmental Controls
  - 6. Section 01 57 23 – Temporary Storm Water Pollution Controls
  - 7. Section 01 57 26 – Site Watering for Dust Control
  - 8. Section 01 78 39 – Project Record Documents
  - 9. Section 03 11 00 – Concrete Forming

## SECTION 01 33 00 SUBMITTAL PROCEDURES

10. Section 03 15 00 – Concrete Accessories
11. Section 03 20 00 – Concrete Reinforcing
12. Section 03 30 00 – Cast-In-Place Concrete
13. Section 05 01 00 – Metal Catwalks
14. Section 05 52 00 – Metal Railings
15. Section 05 53 00 – Metal Gratings
16. Section 26 32 13.13 – Diesel Generators
17. Section 31 20 00 – Earth Moving
18. Section 31 25 00 – Erosion and Sedimentation Controls
19. Section 33 40 00 – Stormwater Utilities
20. Section 31 35 19.16 – Geotextile Slope Protection
21. Section 31 37 00 – Riprap
22. Section 31 62 00 – Driven Piles
23. Section 32 15 00 – Aggregate Surfacing
24. Section 33 40 00 – Stormwater Utilities
25. Section 35 51 00 – Floating Construction – Pump Dock
26. Section 40 05 13.11 – Leak Testing of Piping
27. Section 40 05 13.74 – HDPE Process Piping
28. Section 40 05 23 – Process Valves
29. Section 43 21 39 – Submersible Liquid Pumps

### 1.3 PRELIMINARY SUBMITTALS LIST

- A. The following is a preliminary list of submittals to be reviewed, updated and completed by the Contractor and submitted during the pre-construction meeting, the Contractor shall provide to the City for the Engineer's review a complete listing of all anticipated Contractor submittals and the proposed submittal dates for each, including but not limited to the following:
- B. General Submittals
  1. Project Construction Schedule.
  2. Equipment and Materials Procurement Schedule.
  3. Worker Health and Safety Plan.

## SECTION 01 33 00 SUBMITTAL PROCEDURES

4. Community Health and Safety Plan.
  5. Storm Water Pollution Prevention Plan (SWPPP)
  6. Traffic Control Plan.
  7. Temporary Construction Facilities Layout Drawings.
  8. Security Plan.
  9. Shop Drawings.
  10. Project Record Drawings.
  11. Project Survey Data.
  12. Manufacturer's Operating and Maintenance (O&M) Manuals.
- C. Earthwork Submittals
1. Project Sequencing Plan.
  2. Earthwork Volume Calculations.
  3. Earthwork Operation Plan.
- D. Miscellaneous Civil Submittals
1. Recycled Water Use Log.
  2. Concrete Falsework Drawings.
  3. Concrete Forming and Jointing Accessories Product Data.
  4. Concrete Joint Shop Drawings, if needed.
  5. Portland Cement, Certificate of Compliance and Mill Reports.
  6. Concrete Mix Design(s).
  7. Concrete Delivery Tickets, if applicable.
  8. Concrete Admixtures, Certificates of Compliance.
  9. Metal Catwalks, Shop Drawings.
  10. Metal Catwalks, List of Materials and Certificates of Compliance.
  11. Metal Railings, Schedule of Railing.
  12. Metal Gratings, Certificates of Compliance.
  13. Diesel Engine Generators Manufacturer's Product Data, Certificates of Compliance, and Qualification Data.
  14. Diesel Engine Generators, Shop Drawings.

## SECTION 01 33 00 SUBMITTAL PROCEDURES

15. Diesel Engine Generators, Manufacturer's Warranty.
16. Diesel Engine Generators, O&M Manual.
17. Driven Piles, Round Wood Piling Product Data and Installation Procedures.
18. Riprap, Conformance Test Results, if necessary.
19. Riprap, Certificates of Compliance.
20. Class II Aggregate Base Gradation, Certificate of Compliance.
21. Woven Geotextile Manufacturer's Product Data, Certificates of Compliance.
22. Aggregate Gradation, Certificate of Compliance for Drainage Inlet Protection.
23. Aggregate Base Gradation, Certificate of Compliance for Tracking Control.
24. Aggregate Base Conformance Test Results, if necessary.
25. Wooden Stake Manufacturer's Catalog Cut Sheets.
26. Hydroseed Mixture Certifications.
27. Weed-free Straw Wattle Certification.
28. Hydraulic Mulch / Tackifier Design Mix.
29. Compost Sock Fabric Manufacturer's Product Data.
30. Floating Pump Dock Manufacturer's Catalog Cut Sheets and Appurtenances Literature.
31. Floating Pump Dock, Manufacturer's Warranty
32. HDPE Pipe Manufacturer's Catalog Cut Sheets and Literature.
33. HDPE Pipe, Product Data and Certificates of Compliance.
34. HDPE Pipe, Shop Drawings and Fabrication Documentation.
35. HDPE Fusion Joint Technician, Manufacturer Training Certification.
36. PVC Pipe Manufacturer's Catalog Cut Sheets and Literature.
37. PVC Pipe, Product Data and Certificates of Compliance.
38. Process Valves, Schedule of Valves.
39. Submersible Liquid Pumps, Manufacturer's Catalog Cut Sheets and Literature.
40. Submersible Liquid Pumps, Certified Testing Results.
41. Submersible Liquid Pumps, Manufacturer's O&M Manual.
42. RCP Pipe Manufacturer's Catalog Cut Sheets and Literature.

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43. Inlet Frames and Grates Manufacturer's Catalog Cut Sheets and Literature.
44. Written Report and Drawing markups of Backfilled Subsurface Piping.
45. Piping Leak Testing Procedures.
46. Gravel Bag Manufacturer's Product Data.
47. Skimmer, Manufacturer's O&M Manual

### 1.4 CONTRACTOR'S OPTIONS

- A. For products specified only by reference standard, select products by any manufacturer meeting that standard. To the maximum extent possible, provide products of the same generic kind from a single source.
- B. For products specified by naming several products or manufacturers, select any one of the products or manufacturers named that complies with the Contract Documents.
- C. For products specified by naming one or more products or manufacturers and stating "or equal," submit a Request for Substitution to the Engineer for any product or manufacturer that is not specifically named.
- D. After the Request for Substitution period (as specified in Section 4-6, Trade Names of the Whitebook and SSP Section 4-6 Trade Names) has elapsed, the Engineer will no longer accept Requests for Substitution for review.
- E. For products specified by naming only one product or manufacturer and followed by words indicating that no substitution is permitted, there is no option and no substitution will be allowed.
- F. Where more than one choice is available as a Contractor's option, select a product that is compatible with other products already selected or specified as an approved equal.

### 1.5 SHOP DRAWINGS (IF NEEDED)

- A. Submit Shop Drawings, if needed, to Engineer for review and acceptance in accordance with the accepted schedule of Shop Drawings and Sample submittals.
- B. Determine and verify before submitting each Shop Drawing or Sample:
  1. Field measurements, quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto.
  2. Materials with respect to intended use, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work.
  3. Information relative to Contractor's sole responsibilities in respect of means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.

## SECTION 01 33 00 SUBMITTAL PROCEDURES

- C. Contractor shall review and coordinate each Shop Drawing or Sample with other Shop Drawings and Samples, and with the requirements of the Work and Contract Documents.
- D. All Contractor shop drawing submittals shall be carefully reviewed by an authorized representative of the Contractor, prior to submission to the Engineer. Each submittal shall be dated, signed, and certified by the Contractor, as being correct and in strict conformance with the Contract Documents. In the case of shop drawings, each sheet shall be so dated, signed, and certified. No consideration for review by the Engineer of any Contractor submittals will be made for any items which have not been so certified by the Contractor. All non-certified submittals will be returned to the Contractor without action taken by the Engineer, and any delays caused thereby shall be the sole responsibility of the Contractor.
- E. At the time of each submission, Contractor shall give Engineer specific written notice of variations, if any, that the Shop Drawing or Sample submitted may have from the requirements of the Contract documents. The notice shall be by written communication separate from the submittal; and, in addition, shall cause a specific notation to be made on each Shop Drawing and Sample submitted to Engineer for review and acceptance of each such variation.
- F. Review and acceptance of Shop Drawings and Samples will be only to determine if items covered by submittals will, after installation or incorporation in the Work, conform to information given in the Contract Documents, and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Review and acceptance will not extend to means, methods, techniques, sequences, or procedures of construction, except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents. The review and acceptance of a separate item as such will not indicate acceptance of the assembly in which the item functions. The review of Contractor shop drawing submittals shall not relieve the Contractor of the entire responsibility for the correctness of details and dimensions. The Contractor shall assume all responsibility and risk for any misfits due to any errors in Contractor submittals. The Contractor shall be responsible for the dimensions and the design of adequate connections and details. Contractor shall make corrections required to submittals and shall return the required number of corrected copies of Shop Drawings and submit as required new Samples for review and acceptance. Contractor shall direct specific attention in writing to revisions other than corrections called for on previous submittals.
- G. Review and acceptance of Shop Drawings or Samples shall not relieve Contractor from responsibility for variation from requirements of the Contract Documents, unless Contractor has in writing called attention to each such variation at the time of submission, and written acceptance has been given of each such variation by specific written notation thereof incorporated in, or accompanying, the Shop Drawing or



**SECTION 01 33 00 SUBMITTAL PROCEDURES**

Sample acceptance.

- H. Where a Shop Drawing or Sample is required by Contract Documents or schedule of Shop Drawings and Sample submissions accepted by Engineer, related Work performed prior to review and approval of pertinent submittal will be at the sole expense and responsibility of Contractor.

**1.6 SUBMITTAL PROCEDURES**

- A. Wherever called for in the Contract documents, or where required by the Engineer, the Contractor shall furnish to the Engineer for review 6 copies plus one reproducible copy of each shop drawing submittal. If no revisions are required, 3 of the copies shall be returned. If revisions are required, the Engineer shall return 1 copy along with the reproducible for resubmission. Upon acceptance, the Engineer shall return 2 of the copies and retain the remaining copies and the reproducible. The term “Shop Drawings” as used herein shall be understood to include detail design calculations, shop drawings, fabrication, and installation drawings, erection drawings, lists, graphs, catalog sheets, data sheets, and similar items.
- B. Normally, a separate transmittal form shall be used for each specific item or class of material or equipment for which a submittal is required. Transmittal of a submittal of various items using a single transmittal form will be permitted only when the items taken together constitute a manufacturers "package or are so functionally related that expediency indicates review of the group or package as a whole”. A multiple-page submittal shall be collated into sets, and each set shall be stapled or bound, as appropriate, prior to transmittal to the Engineer.
- C. A standard transmittal form approved by the Engineer shall be used for the project. Transmittal form shall identify Contractor, indicate date of submittal, and include information prescribed by the transmitted form and assign a sequential number to each submittal in a format approved by the Engineer. Process transmittal forms to record actions regarding sample panels and sample installations.
- D. In order to indicate that the submittals have been Reviewed and Approved by Contractor as to conformance to Contract Documents, Contractor shall have made and shall use labels and/or a rubber stamp which shall materially conform to the following sample:

Submittal No:			
Contract No.		Project No.:	
Contractor:			
Reviewed and Approved for Conformance with the Contract	(Signature)		

**SECTION 01 33 00 SUBMITTAL PROCEDURES**

Documents by:	
References:	
Drawing Sheet Nos.	
Specification Section Nos.	

- E. Except as may otherwise be indicated herein, the Engineer will return prints of each submittal to the Contractor with its comments noted thereon, within 15 calendar days following their receipt by the Engineer. It is considered reasonable that the Contractor shall make a complete and acceptable submittal to the Engineer by the second submission of a submittal item. The City reserves the right to withhold monies due the Contractor to cover additional costs of the review beyond the second submittal. The maximum review period for each submittal, including all resubmittals, will be 15 days per submittal.
- F. If copies of a submittal are returned to the Contractor marked “NO EXCEPTIONS TAKEN,” formal revision and resubmission of said submittal will not be required.
- G. If copies of a submittal are returned to the Contractor marked “MAKE CORRECTIONS NOTED,” formal revision and resubmission of said submittal will be required when requested for confirmation.
- H. If a submittal is returned to the Contractor marked “REVISE-RESUBMIT,” the Contractor shall revise said submittal and shall resubmit the required number of copies of said revised submittal to the Engineer.
- I. If a submittal is returned to the Contractor marked “REJECTED-RESUBMIT,” the Contractor shall revise said submittal and shall resubmit the required.
- J. Fabrication of an item shall be commenced only after the Engineer has reviewed the pertinent submittals and returned copies to the Contractor marked either "NO EXCEPTIONS TAKEN" or “MAKE CORRECTIONS NOTED.” Corrections noted on submittals shall be considered as changes necessary to meet the requirements of the Contract Documents and shall not be taken as the basis for changes to the contract requirements.
- K. Submittal Log
  - 1. Contractor shall maintain an accurate submittal log which lists all the submittals required by this Contract, showing current status of each submittal.
  - 2. Make the submittal log available for review upon request.

**1.7 SUBMITTAL FORMAT AND COPIES**

## SECTION 01 33 00 SUBMITTAL PROCEDURES

### A. Format for Shop Drawings:

1. For shop drawings presented on sheets larger than 8 ½ inches by 11 inches, include on each drawing the drawing title, number, date, and revision numbers and dates.
2. For shop drawings presented on sheets 8 ½ inches by 11 inches or less, conform to the format and quantity requirements for product data, and present as a part of the bound volume for the submittals required by the Section.
3. Dimension drawings, except diagrams and schematic drawings; prepare dimensioned drawings to scale. Identify materials and products for work shown.
4. Shop drawings shall be not less than 8 ½ inches by 11 inches nor more than 30 inches by 42 inches.
5. Submit detailed drawings and descriptions of proposed deviations from details or component arrangement indicated on the drawings.
6. Provide finished drawings for approval indicating proposed installation of the Work, and materials and equipment being furnished.
7. Copies of plans will not be accepted for submission as drawings, nor will catalog numbers alone of materials or equipment.
8. Data shown on working drawings shall be complete with respect to dimensions, design criteria, material of construction, and other detail to enable review.

### B. Format for Product Data:

1. Present product data submittals for each Section of the Specifications as a complete, bound volume. Include a table of contents listing page and catalog item numbers for product data.
2. Indicate, by prominent notation, each product which is being submitted; indicate the Section and paragraph numbers to which it pertains.
3. Supplement product data with material prepared for the project to satisfy submittal requirements for which product data does not exist. Note that the material is developed specifically for the project.
4. Catalog data shall be explicit with regard to details of products being furnished and complete enough to enable the Design Consultant to determine that products submitted conform to requirements of specifications.
5. For submittals with more than one style, size, capacity, etc. of a product on a sheet, clearly indicate exactly which product type is being submitted for approval. Failure to do this is cause for rejection.
6. Catalog data shall bear name of manufacturer of product.

### C. Samples:

## SECTION 01 33 00 SUBMITTAL PROCEDURES

1. Label or tag each sample identifying the specification Section number, manufacturers name and address, brand name, product identification number, and intended use in the Work.

### D. Format of Administrative and Closeout Submittals:

1. Submit administrative and closeout submittals in the format and quantities required for shop drawings.
2. If the submittal includes a document which is to be used in the project or become a part of the project record, other than as a submittal, do not apply the Contractor's approval stamp to the document, but to a separate sheet accompanying the document.

## 1.8 MANUFACTURER'S INSTRUCTIONS

- A. Submit manufacturer's printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, in quantities specified for shop drawings when specified in individual Sections.
  1. Identify conflicts between manufacturers' instructions and Contract Documents.
  2. Resolve conflicts as directed by Engineer at no additional cost to City.

## 1.9 MANUFACTURER'S CERTIFICATES

- A. When specified in individual Sections, submit manufacturers' certificate(s) to Engineer for review, in quantities specified for shop drawings.
  1. Indicate material and equipment conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
  2. Certificates may be recent or previous test results on material or product, but must be acceptable to Engineer.
  3. Where specified in Contract Documents that a certificate and/or affidavit shall be submitted to City for approval of a particular product, or component of a product, such submittals shall be made in accordance with the following:
  4. A certificate submitted for a product, or component of a product, indicates test results proving that product, or component, meets the requirements of the standard specified in the Contract Documents.
  5. An affidavit consisting of a sworn statement by an official of the company manufacturing the product indicating that information on certificate is true and accurate shall accompany the certificate.
  6. A statement originating from Contractor, or his subcontractors, suppliers, or other agent which merely indicates that a particular item of equipment, product, or component of a product, meets the requirements of Contract Documents shall not

## **SECTION 01 33 00 SUBMITTAL PROCEDURES**

be considered a certificate. A submittal made in this manner will not be accepted and corresponding equipment, product, or component, shall not be finally accepted.

### **PART 2 - PRODUCTS (NOT USED)**

### **PART 3 - EXECUTION (NOT USED)**

### **PART 4 - MEASUREMENT AND PAYMENT**

#### **4.1 SUBMITTALS**

- A. All costs for equipment and labor associated with Submittals for this project shall be included in the various Bid items. No separate payment for this item shall be made.

**END OF SECTION**

## **SECTION 01 42 00 REFERENCES**

### **PART 1 - GENERAL**

#### **1.1 ABBREVIATIONS AND ACRONYMS**

- A. Within these Specifications, the following abbreviations and acronyms are used:
1. AASHTO: American Association of State Highway Transportation Officials
  2. AC: Asphalt Cement
  3. ACI: American Concrete Institute
  4. AOS: Apparent Opening Size
  5. APCD: Air Pollution Control District
  6. ASTM: American Society for Testing and Materials
  7. BMP: Best Management Practice
  8. CalTrans: California Department of Transportation
  9. CASQA: California Stormwater Quality Association
  10. CIP: Capital Improvement Project
  11. CQA: Construction Quality Assurance
  12. FHWA: Federal Highway Administration
  13. ft: foot or feet
  14. GFRP: Glass Fiber Reinforced Polymer
  15. HDPE: High-density polyethylene
  16. IGP: Industrial General Permit
  17. IIPP: Injury and Illness Prevention Program
  18. in: inch
  19. ISO: International Standards Organization
  20. kN: kilo Newtons
  21. lbs: pounds
  22. lbf: pounds force
  23. MIL United States Military Standard

## SECTION 01 42 00 REFERENCES

24. MUTCD: Manual of Uniform Traffic Control Devices
25. NPDES: National Pollutant Discharge Elimination System
26. OSHA: Occupational Safety and Hazards Administration
27. PDF: Portable Document Format
28. PLS: Pure Live Seed
29. psi: pounds per square in
30. PVC: polyvinyl chloride
31. RWQCB: Regional Water Quality Control Board
32. SWPPP: Storm Water Pollution Prevention Plan
33. SWRCB: State Water Resources Control Board
34. WPCP: Water Pollution Control Plan

### 1.2 DEFINITIONS AND TERMS OF REFERENCE

- A. Within these Specifications, the following terms are defined per the definitions in this Section:
  1. Bid: The offer or proposal of the Bidder submitted on the prescribed form setting forth the prices for the Work.
  2. Bidder: Any individual, firm, partnership, corporation, or combination thereof, submitting a Bid for the Work, acting directly or through a duly authorized representative.
  3. City: The City of San Diego.
  4. Change Order: An amendment to the agreement signed by the City authorizing an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract time issued after the effective date of the Contract.
  5. Contractor: The individual, partnership, corporation, joint venture, or other legal entity having a Contract with the City to perform the Work. In the case of Work being done under a permit issued by the City, the Contractor shall be the permittee.
  6. Construction Documents: The plans and details, including plans showing installation of major systems, equipment, fixed furnishings and graphics, the technical specifications and all other technical drawings, schedules, diagrams and specifications, attached Shop Drawings, Working Drawings, and submittals that are necessary to set forth in detail the requirements for the Project.
  7. Construction Drawings: The drawings, profiles, cross sections, Standard Plans, Working Drawings, and Shop Drawings, or reproductions thereof, approved by the

## SECTION 01 42 00 REFERENCES

- Engineer, which show the location, character, dimensions, or details of the Work.
8. Construction Manager: On-site Owner representative.
  9. Design Consultant: Engineer of Record or other engineer personnel hired by the City to consult on the design.
  10. Engineer: The Chief Engineer of the City, Director of Public Works, or other person designated by the Board, acting either directly or through authorized agents.
  11. Field Orders: A Field Order is a written agreement by the Engineer to compensate you for Work items in accordance with 2-8, "EXTRA WORK" or 2-9, "CHANGED CONDITIONS". A Field Order does not change the Contract Price or Contract Time or the intent of the Contract. The unused portions of the Field Orders shall revert to the City upon Acceptance.
  12. Greenbook: The 2018 edition of the Standard Specifications for Public Works Construction
  13. Owner: See City.
  14. Requests for Information: Formal request by the Contractor to the Engineer for information regarding Contract Documents.
  15. Shop Drawings: Drawings showing details of manufactured or assembled products proposed to be incorporated into the Work.
  16. Substitution Requests: Submittals by the Contractor regarding proposed alternate materials than those specified in Contract Documents.
  17. Whitebook: The 2018 edition of the City of San Diego Standard Specifications for Public Works Construction, also known as the City Supplement.
  18. Work: That which is proposed to be constructed or done under the Contract or permit, including the furnishing of all labor, materials, equipment, and services.
  19. SSP – City of San Diego Supplementary Special Provisions

### **PART 2 - MATERIALS (NOT USED)**

### **PART 3 - EXECUTION (NOT USED)**

### **PART 4 - MEASUREMENT AND PAYMENT (NOT USED)**

**END OF SECTION**



**SECTION 01 50 00**  
**TEMPORARY FACILITIES AND CONTROLS**

**PART 1 - GENERAL**

**1.1 WORK OF THIS SECTION**

- A. The Contractor shall provide facilities required for construction and temporary controls during construction, including the following:
1. Layout of temporary facilities.
  2. Temporary utilities.
  3. Payment for utility service.
  4. Barriers.
  5. Protection of installed work.
  6. Temporary controls.
  7. Security.
  8. Traffic controls.
  9. Provide office and sanitary facilities as required for own use.
  10. Removal of utilities, facilities, and controls.
  11. Removal of the above on completion of the Work.

**1.2 RELATED SECTIONS**

- A. The Work of the following Sections apply to Work of this Section. Work of other Sections for the Specifications not referenced below shall also apply to the extent required for proper performance of the Work.
1. Section 01 11 00 – Summary of Work
  2. Section 01 57 19 – Temporary Environmental Controls
  3. Section 01 57 23 – Temporary Storm Water Pollution Control
  4. Section 01 57 26 – Site Watering for Dust Control

**1.3 LAYOUT OF TEMPORARY FACILITIES**

- A. Submit drawings for approval showing proposed locations and sizes of offices, material and equipment staging area and similar facilities. Where onsite space for temporary facilities is limited, allocation of available space will be made by Engineer. Should Contractor require space in addition to that allocated, Contractor shall make his own arrangements for storage of materials and equipment in a location off the

## SECTION 01 50 00 TEMPORARY FACILITIES AND CONTROLS

construction site. For allocated space, submit to Engineer for approval proposed plan and layout for temporary offices, sanitary facilities, temporary construction roads, and temporary power service and distribution. Said facilities shall be located so as not to impede or prevent the principal function of existing facilities.

1. Coordinate with City to limit access in work areas as necessary.
2. Maintain construction site free of debris and stage materials in areas approved by City Engineer.

### 1.4 TEMPORARY UTILITIES

#### A. General:

1. Furnish utilities as required for own use. Coordinate with Engineer and servicing utility agencies for use of existing facilities on site.
2. Recycled water will be provided by the City to the Contractor at no cost for completion of on-site work activities.
3. Costs for all connections, meters, switch gear, phone board, construction potable water meter fees, costs for power, temporary power poles, phone service and equipment, construction water, drinking water, internet service, etc. for Contractor's field office shall be paid by Contractor. Include costs associated with these services in mobilization Lump Sum Price.
4. The Contractor shall pay all potable water permit fees and any fees for the potable water meter(s). All charges for potable water use shall be paid for by the Contractor, except as noted below.
5. Potable Water Connections: The Contractor shall not make connection to, or draw water from, any fire hydrant or pipeline without first obtaining permission of the authority having jurisdiction over the use of said fire hydrant or pipeline and from the agency owning the affected water system. For each such connection made, the Contractor shall first attach to the fire hydrant or pipeline a valve and a meter, if required by the said authority, of a size and type acceptable to said authority and agency.
6. The Contractor shall provide potable water service for field offices.

#### B. Sanitary Facilities:

1. Toilet Facilities: Fixed or portable chemical toilets shall be provided wherever needed for the use of Contractor's employees. Toilets at construction job sites shall conform to the requirements of Subpart d, Section 1926.51 of the Occupational Safety and Hazards Administration (OSHA) Standards for Construction.
2. Sanitary and Other Organic Wastes: The Contractor shall establish a regular daily collection of all sanitary and organic wastes. All wastes and refuse from sanitary

## **SECTION 01 50 00 TEMPORARY FACILITIES AND CONTROLS**

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.

3. Remove temporary facilities at completion of Work.

### **1.5 BARRIERS**

- A. Provide barriers to prevent unauthorized entry to construction, areas of excavation and to protect existing facilities and adjacent properties from damage from construction operations.
- B. Protect non-owned vehicular traffic, stored materials, site and structures from damage.

### **1.6 PROTECTION OF INSTALLED WORK**

- A. Protect installed Work and provide special protection where specified in individual specification Sections.
- B. Provide temporary and removable protection for installed Products. Control activities in immediate Work are to minimize damage.

### **1.7 TEMPORARY CONTROLS**

- A. Drainage and Erosion Control
  1. The Contractor shall comply with all applicable requirements for storm water discharge control contained in Section 01 57 23 Temporary Storm Water Pollution Control.
  2. Grade site to prevent ponding, whenever possible. Maintain excavations free of water. Provide, operate, and maintain pumping equipment to prevent accumulation of water in excavations.
  3. Protect site from puddling or running water. Provide best management practices as required to minimize soil erosion and avoid downstream sedimentation. Plan and execute construction using methods to control surface drainage from cuts and fills, as well as from borrow and waste disposal areas.
  4. Minimize amount of bare soil exposed at any one time.
  5. Provide temporary measures such as soil berms, dikes, and drains to control water flow.
  6. Construct fill and waste areas by selective placement to avoid erosive surface silts or clays.
  7. Periodically inspect earthwork to detect evidence of erosion and sedimentation and promptly apply corrective measures when warranted.

## SECTION 01 50 00 TEMPORARY FACILITIES AND CONTROLS

### B. Dust Control

1. The Contractor shall comply with all applicable requirements for dust control in Section 01 57 26 Site Watering for Dust Control.
2. Execute Work using methods to minimize raising dust from construction operations and, to prevent air-borne dust from dispersing into atmosphere.
3. Provide barriers to prevent unauthorized entry to construction and to protect existing facilities and adjacent properties from damage from demolition and construction operations.

### C. Construction Noise Control

1. The Contractor shall oversee or undertake all construction activities so as to comply with all City noise regulations. Use appropriate construction methods and equipment, and furnish and install acoustical barriers as necessary, to avoid exceeding legal noise levels.

### D. Rodent and Pest Control

1. Keep work area, including storage areas, free from rodents, noxious pests, and other vermin.
2. The Engineer shall notify Contractor on any non-compliance with this requirement and of the corrective action required. This notice, when delivered to Contractor or Contractor's representative at site of Work, shall be deemed sufficient notice of noncompliance and corrective action shall be required. After receiving notice, immediately take corrective action. If Contractor fails or refuses to eliminate rodents, pests or vermin and causes thereof promptly, City may have necessary extermination work performed and charge costs to Contractor.

### E. Pollution Control

1. Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations.
2. During the progress of the Work:
  - a. Keep the Work and surrounding premises within Work limits free of accumulations of dirt, dust, waste materials, debris and rubbish.
  - b. Keep dust generating areas wetted as needed to prevent air-borne dust.
  - c. Provide suitable containers for storage of waste materials, debris and rubbish until time of disposal.
  - d. Transport and Dispose of waste, debris and rubbish to the active landfilling area within Miramar Landfill. There will be no tipping fee assessed for existing in-place refuse that is removed and transported for disposal at onsite active landfilling area.

## **SECTION 01 50 00 TEMPORARY FACILITIES AND CONTROLS**

### **1.8 SECURITY**

#### **A. Security Program:**

1. Protect Work from theft, vandalism, and unauthorized entry.
2. Develop, and submit a written Contractor security plan to be approved by the City prior to job mobilization.
3. Maintain program throughout construction period until directed by Engineer.

### **1.9 TRAFFIC CONTROLS**

#### **A. Traffic Control Program:**

1. Provide Traffic Control to protect Workers and minimize disruption of operational activities at Miramar Landfill.
2. Develop and submit a written Contractor traffic plan to be approved by the City prior to job mobilization, as specified in Section 01 55 26.
3. Maintain program throughout construction period until directed by Engineer.

### **1.10 FIELD OFFICES**

- #### **A. Contractor's field office:** Provide and maintain temporary offices on the job site. Post a sign identifying Contractor and listing emergency telephone number(s) at, and outside of, Contractor's field office.

## **PART 2 - PRODUCTS (NOT USED)**

## **PART 3 - EXECUTION (NOT USED)**

## **PART 4 - MEASUREMENT AND PAYMENT**

### **4.1 TEMPORARY FACILITIES FOR OWN USE**

- #### **A.** All work associated with Temporary Facilities and Utilities for Contractor's Own Use for this project shall be included in the Lump Sum Price for "Mobilization" (Bid Item No. 5). No separate payment for this item shall be made.

**END OF SECTION**

**SECTION 01 55 19  
TEMPORARY PARKING AREAS**

**PART 1 - GENERAL**

**1.1 WORK OF THIS SECTION**

- A. Section includes:
  - 1. City and Contractor's responsibilities.
  - 2. Contractor use of site premises for parking and staging.

**1.2 CITY AND CONTRACTOR RESPONSIBILITIES**

- A. City's responsibilities:
  - 1. Identify staging area.
  - 2. Identify parking area.
- B. Contractor's responsibilities:
  - 1. Maintain parking area and staging area clean and free of debris.
  - 2. Limit access to parking area and staging area to Contractor's personnel, vehicles, and equipment.
- A. Except as otherwise indicated in this Section, the Contractor shall comply with the 2018 edition of the Greenbook, together with the 2018 edition of the City of San Diego Supplement, Whitebook.

**1.3 CONTRACTOR USE OF SITE**

- A. Contractor shall limit use of site to work associated with the project.
- B. Contractor shall coordinate with City to gain access to site as needed for the scope of the project.
- C. Contractor shall maintain parking area free of debris and stage materials in areas approved by City Engineer.

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION (NOT USED)**

**PART 4 - MEASUREMENT AND PAYMENTS**

**4.1 TEMPORARY PARKING AREAS**

- A. No compensation is provided for this section.

**END OF SECTION**

## **SECTION 01 55 26 TRAFFIC CONTROL**

### **PART 1 - GENERAL**

#### **1.1 WORK OF THIS SECTION**

- A. The Contractor shall provide and implement a Traffic Control Plan for work during basin construction as well as any other Work area activity that would restrict or constrict operational use of the facility roads conducted in accordance with the Contract Documents.

#### **1.2 RELATED SECTIONS**

- A. The Work of the following Sections applies to the Work of this Section. Other Sections, not referenced below, shall also apply to the extent required for proper performance of this Work.
  - 1. Section 01 33 00 – Submittal Procedures

#### **1.3 REFERENCE SPECIFICATION, CODES AND STANDARDS**

- A. Except as otherwise indicated in this Section, the Contractor shall comply with the 2018 edition of the Greenbook, together with the 2018 edition of the City of San Diego Supplement, Whitebook.

#### **1.4 CONTRACTOR SUBMITTALS**

- A. The Contractor shall submit in writing the Traffic Control Plan to be implemented on site within seven days of award of Contract.

### **PART 2 - PRODUCTS (NOT USED)**

### **PART 3 - EXECUTION (NOT USED)**

### **PART 4 - MEASUREMENT AND PAYMENT**

#### **4.1 TRAFFIC CONTROL PLAN**

- A. All labor and materials associated with the Traffic Control Plan shall be included in the Mobilization (Bid Item No. 5).

#### **4.2 TRAFFIC CONTROL**

- A. All costs for equipment and labor associated with Traffic Control for this project shall be included in the various Bid items. No separate payment for this item shall be made.

**END OF SECTION**

## **SECTION 01 55 29 STAGING AREAS**

### **PART 1 - GENERAL**

#### **1.1 WORK OF THIS SECTION**

- A. City and Contractor's responsibilities.
- B. Contractor use of site premises for staging areas.

#### **1.2 RELATED SECTIONS**

- A. The Work of the following Sections applies to the Work of this Section. Other Sections not referenced below shall also apply to the extent required for proper performance of this Work.
  - 1. Section 01 33 00 – Submittal Procedures
  - 2. Section 01 50 00 – Temporary Facilities and Controls
  - 3. Section 01 55 19 – Temporary Parking Areas
  - 4. Section 01 57 19 – Temporary Environmental Controls
  - 5. Section 01 57 23 – Temporary Storm Water Pollution Controls
  - 6. Section 02 01 00 – Maintenance of Existing Conditions
  - 7. Section 31 14 13.16 – Soil Stockpiling

#### **1.3 CITY AND CONTRACTOR RESPONSIBILITIES**

- A. City's responsibilities:
  - 1. Identify staging area.
- B. Contractor's responsibilities:
  - 1. Maintain parking area clean and free of debris.
  - 2. Limit access to parking area to Contractor's personnel, vehicles, and equipment.
  - 3. Comply with Section 3 of the Greenbook and Whitebook.

#### **1.4 CONTRACTOR USE OF SITE**

- A. Contractor shall limit use of site to work associated with the project.
- B. Contractor shall coordinate with City to gain access to site as needed for the scope of the project.



## **SECTION 01 55 29 STAGING AREAS**

- C. Contractor shall maintain staging area free of debris and stage materials in areas approved by City Engineer.
- D. Contractor shall store materials to prevent contact of pollutant with storm water, segregate and properly store chemicals and potentially hazardous materials, keep waste bins and containers closed when not in active use.

### **PART 2 - PRODUCTS (NOT USED)**

### **PART 3 - EXECUTION (NOT USED)**

### **PART 4 - MEASUREMENT AND PAYMENT**

#### **4.1 STAGING AREAS**

- A. No payment is provided for this section.

**END OF SECTION**

## **SECTION 01 57 19**

### **TEMPORARY ENVIRONMENTAL CONTROLS**

#### **PART 1 - GENERAL**

##### **1.1 WORK OF THIS SECTION**

- A. The Contractor and all of its employees and agents shall observe and comply with existing laws, ordinances, regulations and orders, in relationship to the protection of the total environment.
- B. The Contractor shall provide the following environmental controls:
  - 1. Worker Health and Safety Plan (HASP)
  - 2. Community Health and Safety Plan (HASP)
  - 3. Noise Abatement
  - 4. Storm Water Pollution Control

##### **1.2 RELATED SECTIONS**

- A. The Work of the following Sections applies to the Work of this Section. Other Sections, not referenced below, shall also apply to the extent required for proper performance of this Work.
  - 1. Section 01 11 00 – Summary of Work
  - 2. Section 01 33 00 – Submittal Procedures
  - 3. Section 01 57 23 – Temporary Storm Water Pollution Control

##### **1.3 REFERENCE SPECIFICATIONS, CODES AND STANDARDS**

- A. Except as otherwise indicated in this Section, the Contractor shall comply with the 2018 edition of the Greenbook, together with the 2018 edition of the City of San Diego Supplement, Whitebook.

##### **1.4 CONTRACTOR SUBMITTALS**

- A. The Contractor shall submit, in writing, a copy of Worker HASP and Community HASP within seven days of award of the Contract. The HASPs shall include:
  - 1. One Worker Health and Safety Plan that includes hazards inherent to working on an active landfill site, and
  - 2. One Community Health and Safety Plan prepared in accordance with Local Enforcement Agency (LEA) requirements.

## SECTION 01 57 19 TEMPORARY ENVIRONMENTAL CONTROLS

### 1.5 BIOLOGICALLY SENSITIVE AREAS

- A. The Contractor shall verify the location of sensitive resources with the CITY prior to the commencement of work. Sensitive areas are identified on the Natural Resource Map dated September 2020 included in Appendix P.
- B. No personnel or equipment is allowed in the sensitive resources identified in the vicinity. The Contractor is responsible for excluding personnel and equipment from sensitive areas for the duration of the project.

### 1.6 NOISE ABATEMENT

- A. The Contractor shall comply with all City of San Diego Noise Abatement and Control Ordinances.

### 1.7 HEALTH AND SAFETY PLAN PROVISIONS

- A. Within seven days of the award of the Contract, the Contractor shall submit for review, to the Engineer, a copy of its Work and Community HASPs. The HASPs shall be in sufficient detail to include all aspects of health and safety that may be anticipated by the scope of work.
- B. The Contractor is advised that decomposing refuse produces landfill gas which is approximately 50 percent methane (natural gas) by volume. Landfill gas is colorless, can be odorless, may contain hydrogen sulfide, is combustible, and contains no oxygen. Landfill gas can also migrate through soil near the landfill. The Contractor is, therefore, advised of the need for precautions against fire, explosion, and asphyxiation when working in or near construction areas which are in or near refuse areas. The Contractor's IIPP shall address this issue.
- C. The Contractor shall at all times be responsible for the safe protection of the Work and protection of its employees and the public. Review of the Contractor's HASPs by the City shall not relieve the Contractor of responsibility for any aspect of the work, or for compliance with all Federal, State, and local laws pertaining to health and safety. Strict Adherence to the Contractor's HASP will be required for all Contractor and subcontractor personnel.
- D. The contents of the H&SP must meet all regulatory requirements for the specific work that is proposed. The following is a list of some of the elements for an H&SP. Those plan elements which will not apply to the specific contract should be noted (such as "this construction does not involve any confined space work").

## SECTION 01 57 19 TEMPORARY ENVIRONMENTAL CONTROLS

- E. One or more of the following may be required to be included in an employer's (Contractor's) Worker and Community HASP.
1. Mandatory
    - a. Site Background and Scope of Work: Site specific with an emphasis on the type(s) of service(s) performed, the hazards associated with such work, and the programs in effect to protect the employee against those recognized hazards.
    - b. Injury and Illness Prevention Program (Title 8, California Code of Regulations, Section 3203): Required of all employers of 10 or more employees.
    - c. Code of Safe Practices (Cal. Code Regs., Title 8, §1509): All employers are required to have a Code of Safe Practices in writing and posted at the workplace.
    - d. Emergency Medical Services (Cal. Code Regs., Title 8, §1512): All employers are required to have this program in writing.
    - e. Fire Protection Program (Cal. Code Regs., Title 8, §1920): All employers are required to have this program in writing.
  2. Required by Scope of Work
    - a. Hazard Communication Program (Cal. Code Regs., Title 8, §5194): All employers are required to have this program in writing if there is a potential for their employees to come in contact with any products that may be hazardous.
    - b. Hearing Conservation Program (Cal. Code Regs., Title 8 §5097): This program shall be written into the HASP if employee noise exposures meet or exceed the levels outlined in Cal. Code Regs., Title 8, §5097.
    - c. Personal Protective Equipment (Cal. Code Regs., Title 8, §§3380-3400): Requirements must be included in the HASP if personal protective equipment is required for the contracted work.

### 1.8 NUISANCE WATER

- A. It is anticipated that nuisance water, such as rainfall or surface runoff, may be encountered within the construction site during the period of construction under this contract. The Contractor, by submitting his bid, will be held to have investigated the risks arising from such waters and to have made his bid in accordance therewith.
- B. The Contractor shall at all times protect the work from damage by such waters and shall take all due measures to prevent delays in progress of the work caused by such waters. The cost for any repairs due to such damage shall be the responsibility of the Contractor. The Contractor shall dispose of nuisance water at his own expense and without adverse effects upon the work site or any other property.

## **SECTION 01 57 19 TEMPORARY ENVIRONMENTAL CONTROLS**

### **1.9 DRAINAGE PRECAUTION**

- A. At the completion of each workday, the Contractor shall take all necessary preventive measures to avoid or minimize damage resulting in erosion or impounding caused by storm water runoff within the construction area. Erosion control measures shall consist of constructing gravel bag berms, desilting basins, drains, temporary storm water pumping facilities, and other such measures required to provide for the prevention, control and abatement of storm water discharges and damage resulting therefrom. The cost for any repairs due to such damage shall be the sole responsibility of the Contractor.

### **1.10 CONSTRUCTION WATER**

- A. The Contractor shall make arrangements for developing water sources at the project and supply of all labor and equipment to collect, load, transport, apply, and dispose of water as necessary for compaction of materials, testing, dust control and other construction use.

### **PART 2 - PRODUCTS (NOT USED)**

### **PART 3 - EXECUTION (NOT USED)**

### **PART 4 - MEASUREMENT AND PAYMENT**

#### **4.1 TEMPORARY ENVIRONMENTAL CONTROLS**

- A. All costs for equipment and labor associated with Biologically Sensitive Areas, Noise Abatement, Health and Safety Provisions, Nuisance Water, Drainage Precaution, and Construction Water or other site controls as necessary for Environmental Protection for this project shall be included in the various Bid items. No separate payment for this item shall be made.

**END OF SECTION**

## SECTION 01 57 23 TEMPORARY STORM WATER POLLUTION CONTROL

### SECTION 01 57 23 TEMPORARY STORM WATER POLLUTION CONTROL

#### PART 1 - GENERAL

##### 1.1 WORK OF THIS SECTION

- A. The Contractor and all of its employees and agents shall observe and comply with existing laws, ordinances, regulations and orders, in relationship to the protection of storm water.
- B. The Contractor shall provide the following storm water pollution controls:
  - 1. Storm Water Pollution Prevention Plan Development
  - 2. Storm Water Pollution Prevention Plan Implementation

##### 1.2 RELATED SECTIONS

- A. The Work of the following Sections applies to the Work of this Section. Other Sections, not referenced below, shall also apply to the extent required for proper performance of this Work.
  - 1. Section 01 11 00 – Summary of Work
  - 2. Section 01 33 00 – Submittal Procedures
  - 3. Section 01 57 19 - Temporary Environmental Controls
  - 4. Section 31 14 13.16 – Soil Stockpiling
  - 5. Section 31 25 00 – Erosion and Sedimentation Controls

##### 1.3 WATER POLLUTION CONTROL

- A. This project shall comply with the most current City of San Diego Storm Water Standards, apply the San Diego Regional Water Quality Control Board standards to the project and provide all design and technical documentation needed to comply with these standards, in accordance with the Whitebook, PART 10 STORM WATER.
- B. As this Project is on a landfill and will result in ground disturbance from construction activities, it is subject to the requirements of Industrial General Permit Order 2014-0057-DWQ (IGP), requiring the development of Permit Registration Documents (PRD) in accordance with the Whitebook, Section 1001-1.1(j).
- C. All IGP related documents can be located at the SWRCB website at [www.waterboards.ca.gov](http://www.waterboards.ca.gov). This project lies within the boundaries of the San Diego Regional Water Quality Control Board (RWQCB). Compliance manuals applicable to this project are the California Best Management Practices Handbook found at [www.cabmphandbooks.com](http://www.cabmphandbooks.com) and the City of San Diego Storm Water Standards Manual found at [www.sandiego.gov](http://www.sandiego.gov) (hereafter referred to as “the Manuals”).

## SECTION 01 57 23 TEMPORARY STORM WATER POLLUTION CONTROL

- D. This project shall conform to the IGP and modifications thereto. The Contractor shall have necessary certifications and fully comply with the applicable provisions of the Permits and all modifications, thereto, the Manuals, and Federal, State and local regulations and requirements that govern the Contractor's operations and stormwater and non-stormwater discharges from both the project site and areas of disturbance outside of the project limits during all construction phases. The Contractor shall comply with the requirements of the Permits and Manuals for those areas and shall implement, inspect and maintain the required water pollution control practices. Installing, inspecting and maintaining water pollution control practices on areas outside the project area and City right of way, not specifically arranged and provided for by the City in the execution of this contract, will not be paid for without prior written approval.
1. As this project is subject to the IGP and will result in ground disturbance from construction activities on a landfill, the Contractor shall prepare, submit, and implement a SWPPP in accordance with the IGP and Whitebook, Section 1001 Construction Best Management Practices.
  2. The Contractor's SWPPP shall include Best Management Practices (BMP) (consistent with the latest California Storm Water Quality Association Construction BMP Handbook and in accordance with the Whitebook Section 1001-2 Best Management Practices) developed to eliminate both non-storm water pollution and storm water run-off related pollution resulting from the construction activities.
  3. The Contractor is responsible for installing BMPs, providing BMP inspections, and repair of any damaged BMP before, during and after a storm event.
  4. The Contractor is responsible for meeting all IGP Notice-of-Termination (NOT) requirements in compliance with the IGP and Whitebook Section 1001-1.12, including but not limited to achieving 70% vegetative cover for Erosion Control Area 1. The Contractor shall follow the NOT process required by Whitebook Section 1001-1.12 where instances of "CGP" are replaced with "IGP".
  5. Contractor shall not be entitled to any time extensions or compensation for any cost due to any action required as a result of Contractor's preparation, compliance or failure to comply with those provisions of the IGP and SWPPP within Contractor's control. Contractor will be responsible for ensuring that Contractor's subcontractor(s) comply with the provisions of this Section.
  6. The Contractor shall at all times exercise reasonable precaution to protect channels, storm drains and bodies of water from pollution, including siltation arising from Contractor's operations, or erosion siltation from completed areas. Pollution control work shall consist of implementing BMPs or constructing facilities in accordance with local, state, or federal regulations which may be required to provide for control of pollutants.

## **SECTION 01 57 23 TEMPORARY STORM WATER POLLUTION CONTROL**

7. Contractor shall responsible for all aspects of this section, compliance with the IGP and Section 1001 of the Whitebook and will be liable for any action or fine imposed by the regulatory agencies for any incidents of non-compliance.

### **1.4 CONTRACTOR SUBMITTALS**

- A. The Contractor shall submit, in writing, the SWPPP, and other pertinent information satisfactory to the Engineer, demonstrating that materials and methods Contractor proposes to use will comply with the provisions of this Section. Submittals shall be in accordance with the requirements of Section 01 33 00.

### **PART 2 - PRODUCTS (NOT USED)**

### **PART 3 - EXECUTION (NOT USED)**

### **PART 4 - MEASUREMENT AND PAYMENT**

#### **4.1 TEMPORARY STORM WATER POLLUTION CONTROL**

- A. Payment for all work associated with SWPPP development, implementation, and compliance with the requirements of the IGP shall be in accordance with the Whitebook, Section 1001-3.7. All costs shall be included in the Bid items for “SWPPP Development” (Bid Item No. 2) and “SWPPP Implementation” (Bid Item No. 3). The payment for the pertinent required trainings and certifications shall be included in these Bid items.
- B. The payment for the permit to obtain coverage under the IGP shall be made under the Bid item for “SWPPP Permit Fee (EOC Type I)” (Bid Item No. 4).
- C. Payment for all work associated with meeting IGP NOT requirements shall be made under the Bid item for “SWPPP Implementation” (Bid Item No. 3).

**END OF SECTION**



**SECTION 01 57 26**  
**SITE WATERING FOR DUST CONTROL**

**PART 1 - GENERAL**

**1.1 WORK OF THIS SECTION**

- A. The Contractor is responsible for compliance with Fugitive Dust Regulations issued by the Air Pollution Control District (APCD).

**1.2 RELATED SECTIONS**

- A. Section 01 33 00 – Submittal Procedures
- B. Section 02 41 00 – Demolition
- C. Section 31 10 00 – Site Clearing
- D. Section 31 41 13.16 – Soil Stockpiling
- E. Section 31 20 00 – Earth Moving
- F. Section 31 37 00 – Riprap
- G. Section 32 15 00 – Aggregate Surfacing

**1.3 REFERENCE SPECIFICATIONS, CODES AND STANDARDS**

- A. Except as otherwise indicated in this Section, the Contractor shall comply with Section 1001 of the Whitebook.

**1.4 CONTRACTOR SUBMITTALS**

- A. The Contractor shall submit, in writing, a recycled water use log and other pertinent information satisfactory to the Engineer, demonstrating the recycled water use on site, for dust control or other purposes. Submittals shall be in accordance with the requirements of Section 01 30 00 – Submittals.

**PART 2 - PRODUCTS**

**2.1 RECYCLED WATER**

- A. Recycled water will be made available on the project site by the City for dust control purposes at no cost to the Contractor.

**2.2 OTHER**

- A. The Contractor may choose to use an alternative source of water for dust control purposes.

## SECTION 01 57 26 SITE WATERING FOR DUST CONTROL

### PART 3 - EXECUTION

#### 3.1 WATER APPLICATION

- A. Dust control operations shall be performed by the Contractor at the time, location and in the amount required, and as often as necessary to prevent project related activities from producing dust in amounts harmful to persons or causing a nuisance to persons living nearby or occupying buildings in the vicinity of the work.
- B. Water shall be applied by the Contractor at a rate that does not cause runoff from the area where water is applied.
- C. If recycled water is used, non-potable tanks, pipes, and other conveyances shall be marked “NON-POTABLE WATER – DO NOT DRINK.”
- D. If recycled water is used, non-potable water shall be conveyed in tanks or drain pipes that will not be used to convey potable water at a later time.
- E. If recycled water is used, the Contractor shall meet California Department of Health Services water reclamation criteria and the Regional Water Quality Control Board requirements for discharge.

### PART 4 - MEASUREMENT AND PAYMENT

#### 4.1 WATER APPLICATION FOR DUST CONTROL

- A. All costs for equipment and labor associated with Dust Control for this project shall be included in the Bid items for “SWPPP Implementation” (Bid Item No. 3). No separate payment for this item shall be made.

**END OF SECTION**

**SECTION 01 78 39**  
**PROJECT RECORD DOCUMENTS**

**PART 1 - GENERAL**

**1.1 WORK OF THIS SECTION**

- A. This section includes the Contractor's requirements in regard to the project record documents.

**1.2 RELATED SECTIONS - NONE**

**1.3 CITED STANDARDS - NONE**

**1.4 NOTED RESTRICTIONS - NONE**

**1.5 QUALITY CONTROL**

- A. Prior to requesting final payment, the Contractor shall obtain and submit the following items to the Engineer for transmittal to the City:

1. Manufacturers' representatives' installation, testing and startup reports.
2. Keying and codes (as applicable).
3. Maintenance stock items, spare parts and special tools.
4. Completed record drawings including survey data for features identified in the contract documents and drawings.
5. Certificates of inspection and acceptances.
6. Releases from all parties who are entitled to claims against the subject project, property or improvement pursuant to the provisions of law.
7. Manufacturer's Operation and Maintenance Manuals for Diesel Engine Generators, Submersible Liquid Pumps, and Skimmers.

B. Record Drawings

1. The Record Drawings shall be kept current with the work and shall be subject to inspection by the Engineer at any time.
2. Prior to acceptance of the work, the Contractor shall submit the record prints (redline drawings) to the Engineer for review. Using the redline drawings, the Engineer is responsible for submission of post-construction Record Drawings.

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION (NOT USED)**

**SECTION 01 78 39 PROJECT RECORD DOCUMENTS**

**PART 4 - MEASUREMENT AND PAYMENT**

- A. All costs for equipment and labor associated with Project Record Drawings for this project shall be included in the various Bid items. No separate payment for this item shall be made.

**END OF SECTION**

**SECTION 02 01 00  
MAINTENANCE OF EXISTING CONDITIONS**

**PART 1 - GENERAL**

**1.1 WORK OF THIS SECTION**

- A. This section describes how the Contractor shall address the construction practices that relate to existing items at the site at the commencement of work.
- B. Site work in relation conflicts with existing utilities, additional subsurface investigation, and surveying shall be included in this section, as applicable. All existing landfill infrastructure shall be protected in place except where indicated on plans. Infrastructure includes, but is not limited to, existing gas lines/collector, storm drains, drainage channels, survey aerial targets, groundwater monitoring wells, landfill gas monitoring wells, gravel roads, riprap, concrete, utility poles, and asphalt concrete pavement.

**1.2 RELATED SECTIONS - NONE**

**1.3 CITED STANDARDS -NONE**

**1.4 NOTED RESTRICTIONS**

- A. The Contractor shall notify the Engineer of differences in existing conditions prior to taking any action affecting said differences. Failure to notify the Engineer shall make Contractor liable for any and all related actions.
- B. The City is not responsible for costs of items disturbed or damaged by the Contractor's operation. Restoration of disturbed or damaged infrastructure shall be conducted by the Contractor at no cost to the City.
- C. The Contractor shall be responsible for all surface water runoff and shall supply the necessary dewatering and pumping equipment for handling those flows during construction.

**1.5 QUALITY CONTROL**

- A. The Contractor shall conduct all work in accordance with the applicable rules and regulations of specified governing agencies, and in accordance with the laws, rules, and/or regulations of all other authorities having jurisdiction over the required construction work.
- B. The Contractor shall determine the exact location of existing structures, underground utilities, piping, or conduit which would be in the vicinity or possibly affected by the Contractor's operations.
- C. The Contractor shall protect existing items and underground facilities in place as shown.

## **SECTION 02 01 00 MAINTENANCE OF EXISTING CONDITIONS**

- D. The Contractor shall schedule and coordinate all construction activities and shall cooperate with the City's operating personnel to provide a minimum of interruptions to the operations of other present facilities.
- E. Restoration
  - 1. Damaged or disturbed items shall be re-installed or restored to their original condition as soon as possible and prior to completion of work. Restoration shall be approved by the authority having jurisdiction over the disturbed items.
  - 2. Items not specifically stated in the specifications that are removed, damaged, destroyed, or defaced due to neglect or carelessness on the part of the Contractor shall be repaired or replaced by the Contractor if determined so by the Engineer.

### **PART 2 - PRODUCTS (NOT USED)**

### **PART 3 - EXECUTION**

#### **3.1 PREPARATION**

##### **A. Abandoned Utilities (Cut and Plug Ends)**

- 1. If encountered, the Contractor shall cut abandoned utility lines (conduits) and plug the ends with brick and mortar or a concrete plug. Plug utility lines with a wall of brick and mortar or a concrete plug from the cut end of the pipe. Remove and dispose of abandoned utilities within the trench excavation.

#### **3.2 INSTALLATION**

##### **A. Temporary Relocations**

- 1. The Contractor, with the approval of the Engineer, shall remove items, which would interfere with their construction operations, and shall re-install these items after construction is complete.
- 2. The Contractor shall disassemble items and store items for later reinstallation, as required. The Contractor shall disassemble the items carefully and store them in a safe location, and in a manner to prevent damage. Any damage to the items, as a result of the Contractor's neglect during removal, disassembly, storage, and/or reinstallation shall be replaced or repaired to the satisfaction of the Engineer at the Contractor's expense.

#### **3.3 TESTING -NONE**

### **PART 4 - MEASUREMENT AND PAYMENT**

- A. No payment is provided for this section.

## **END OF SECTION**

## **SECTION 02 41 00 DEMOLITION**

### **PART 1 - GENERAL**

#### **1.1 WORK OF THIS SECTION**

- A. The Contractor shall furnish all tools, labor, supervision, transportation, and equipment required to remove or demolish down drains and other appurtenant features as shown on the Construction Drawings. Includes permits, protection of work, and dust control.
- B. The Contractor shall furnish all tools, labor, supervision, transportation, and equipment required to dispose of removed or demolished features and waste, rubbish, and debris produced from removal or demolition activities unless otherwise noted on the Construction Drawings. Includes permitting, staging, handling, moving, stockpiling, DOT compliance weighing, loading, and hauling.

#### **1.2 RELATED SECTIONS**

- A. Section 01 55 29 – Staging Areas
- B. Section 01 57 26 – Site Watering for Dust Control
- C. Section 31 10 00 – Site Clearing

### **PART 2 - PRODUCTS (NOT USED)**

### **PART 3 - EXECUTION**

#### **3.1 GENERAL**

- A. The Contractor shall not disturb areas or demolish any materials outside of the limits of work specified on the Construction Drawings without prior written approval by the Construction Manager. Any unauthorized demolition of property features shall be repaired, to the satisfaction of the Construction Manager, at the Contractor's expense.
- B. Non-hazardous demolition material may be disposed of within the limits of the active disposal area of the Miramar Landfill or other area as directed by the Engineer. Refuse shall be placed in accordance with Section 31 20 00.
- C. Excavations performed in conjunction with demolition activities shall be backfilled in accordance with the requirements of Section 31 20 00.

### **PART 4 - MEASUREMENT AND PAYMENT**

#### **4.1 DEMOLITION**

- A. All costs for equipment and labor associated with Demolition for this project shall be included in the Bid items for "Hawthorne Basin Demolition", "West Basin

**SECTION 02 41 00 DEMOLITION**

Demolition”, and “East Basin Demolition” (Bid Item No 7, 8 and 9, respectively). No separate payment shall be made.

**END OF SECTION**



## **SECTION 03 11 00 CONCRETE FORMING**

### **PART 1 - GENERAL**

#### **1.1 WORK OF THIS SECTION**

- A. The CONTRACTOR shall provide concrete formwork, bracing, shoring, supports, and false work, in accordance with the CONTRACT DOCUMENTS.
- B. Work Included in this Section. Principal items are:
  - 1. Furnishing, erection, and removal of forms.
  - 2. Shoring and bracing of formwork.
  - 3. Setting of embedded items and pipe sleeves for mechanical and electrical work under direction of respective trade.

#### **1.2 RELATED SECTIONS**

- A. The Work of the following Sections apply to the Work of this Section. Other Sections, not referenced below, shall also apply to the extent required for proper performance of the Work.
  - 1. Section 01 33 00 – Submittal Procedures
  - 2. Section 03 15 00 – Concrete Accessories
  - 3. Section 03 20 00 – Concrete Reinforcing
  - 4. Section 03 30 00 – Cast-in-Place Concrete

#### **1.3 REFERENCE SPECIFICATIONS, CODES AND STANDARDS**

- A. Except as otherwise indicated in this Section, the CONTRACTOR shall comply with the 2018 edition of the Greenbook, together with the 2018 edition of the City of San Diego Supplement, Whitebook.
- B. The current edition of the California Building Code (CBC) as adopted by the City of San Diego Municipal Code.
- C. Except as otherwise indicated, the current editions of the following apply to the Work of this Section:
  - 1. PS 1                    U.S. Product Standard for Concrete Forms, Class I
  - 2. PS 20                  American Softwood Lumber Standard
  - 3. ACI 117                Standard Tolerances for Concrete Construction and Materials.
  - 4. ACI 347                Recommended Practice for Concrete Formwork

## SECTION 03 11 00 CONCRETE FORMING

### 1.4 SUBMITTAL

- A. The CONTRACTOR shall, in accordance with the requirements in Section 01 33 00 – Submittal Procedures, submit detailed drawings of the false work proposed to be used. Such drawings shall be in sufficient detail to indicate the general layout, sizes of members, anticipated stresses, grade of materials to be used in the false work, means of protecting existing construction which supports false work, and typical soil conditions.
- B. The CONTRACTOR shall, in accordance with the requirements in Section 01 33 00 – Submittal Procedures, submit the following.
  - 1. Form ties and all related accessories, including taper tie plugs, if taper ties are used.
  - 2. Form gaskets.
- C. The CONTRACTOR shall provide concrete construction joints and expansion Joints of the types and locations indicated on the Drawings. The CONTRACTOR shall submit shop drawings showing the proposed location and type of required construction for any joints not shown on the Drawings, and the sequence of forming and concrete placing operations.

### 1.5 QUALITY ASSURANCE

- A. Quality assurance testing will be provided by the City Materials and Testing Lab. This does not relieve the Contractor from securing the necessary construction control testing during construction when required by the contract documents.
- B. The CONTRACTOR shall comply with the requirements of California Division of Occupational Health and Safety Construction Safety Orders Section 1717 and OSHA Part 1926, Section 1926.701 that apply to the Work of this Section. The CONTRACTOR shall prepare and maintain at least one copy of the required drawings at the site. Design of the structures shown on the Drawings does not include any allowance or consideration for imposed construction loads. Shoring and falsework design drawings and calculations shall be stamped and signed by a professional engineer registered in the State of California. The CONTRACTOR shall provide forms, shoring and falsework adequate for imposed live and dead loads, including equipment, height of concrete drop, concrete and foundation pressures, stresses, lateral stability, and other safety factors during construction.
- C. Tolerances: The CONTRACTOR shall employ formwork complying with ACI 347 Guide to Formwork for Concrete, except as exceeded by the requirements of regulatory agencies, or as otherwise indicated or specified. The CONTRACTOR shall design and construct formwork to produce finished concrete conforming to tolerances given in ACI 117.

## SECTION 03 11 00 CONCRETE FORMING

### PART 2 - MATERIALS

#### 2.1 GENERAL

1. Except as otherwise expressly accepted by the RESIDENT ENGINEER, all lumber brought on the job site for use as forms, shoring, or bracing shall be new material. All forms shall be smooth surface forms and shall consist of steel panels, plywood or tongue and groove lumber.
- A. Form materials which may remain or leave residues on or in the concrete shall be classified as acceptable for potable water use by the Environmental Protection Agency within 30 days of application or use.

#### 2.2 FORM AND FALSE WORK MATERIALS

- A. Materials for concrete forms, formwork, and false work shall conform to the following requirements:
  1. Lumber shall be Douglas Fir or Southern Yellow Pine, construction grade or better, in conformance with U.S. Product Standard PS 20.
  2. Plywood for concrete formwork shall be new, waterproof, synthetic resin bonded, exterior type Douglas Fir or Southern Yellow Pine plywood manufactured especially for concrete formwork and shall conform to the requirements of PS 1 for Concrete Forms, Class I, and shall be edge sealed.
  3. Form materials shall be metal, wood, plywood, or other approved material that will not adversely affect the concrete and will facilitate placement of concrete to the shape, form, line, and grade shown. Metal forms shall be an approved type that will accomplish such results. Wood forms for surfaces to be painted shall be Medium Density Overlaid plywood, MDO Ext. Grade.

#### 2.3 FORM TIES

- A. Form ties with integral waterstops shall be provided with a plastic cone or other suitable means for forming a conical hole to ensure that the form tie may be broken off back of the face of the concrete. The maximum diameter of removable cones for rod ties, or of other removable form-tie fasteners having a circular cross-section, shall not exceed 1-1/2 inches; and all such fasteners shall be such as to leave holes of regular shape for reaming. Form ties shall be Burke Penta-Tie system by The Burke Company; Richmond Snap-Tys by the Richmond Screw Anchor Company; or approved equal.
- B. Form ties for water-retaining structures shall have integral waterstops. Removable taper ties may be used when approved by the RESIDENT ENGINEER. A preformed neoprene or polyurethane tapered plug sized to seat at the center of the wall shall be inserted in the hole left by the removal of the taper tie. Use Burke Taper-Tie System by The Burke Company; Taper-Ty by the Richmond Screw Anchor Company; or approved equal.

## SECTION 03 11 00 CONCRETE FORMING

### 2.4 FORM COATING

- A. Non-grain raising and non-staining resin or polymer type that will not leave residual matter on surface of concrete or adversely affect bonding to concrete of paint, plaster, mortar, protective coatings, waterproofing or other applied materials. Coatings containing mineral oils, paraffins, waxes or other nondrying ingredients, are not permitted. For concrete surfaces contacting portable stored water, use only coatings and form-release agents that are completely nontoxic.

### 2.5 FORM JOINT SEALERS

- A. For joints between form panels, use resilient foam rubber strips, non-hardening plastic-type caulking compound free of oil, or waterproof pressure-sensitive plastic tape of minimum 8 mil thickness and 2 inches width. For form tie holes, use rubber plugs, plastic caulking compound, or equal.

## PART 3 - EXECUTION

### 3.1 GENERAL

- A. Forms to confine the concrete and shape it to the required lines shall be used wherever necessary. The CONTRACTOR shall assume full responsibility for the adequate design of all forms, and any forms which are unsafe or inadequate in any respect shall promptly be removed from the Work and replaced at no Increased cost to the OWNER. The CONTRACTOR shall provide worker protection from protruding reinforcement bars in accordance with applicable safety codes. A sufficient number of forms of each kind shall be provided to permit the required rate of progress to be maintained. The design and inspection of concrete forms, false work, and shoring shall comply with applicable local, state and Federal regulations. Plumb and string lines shall be installed before concrete placement and shall be maintained during placement. Such lines shall be used by CONTRACTOR's personnel and by the RESIDENT ENGINEER and shall be in sufficient number and properly installed. During concrete placement, the CONTRACTOR shall continually monitor plumb and string line form positions and immediately correct deficiencies.
- B. Concrete forms shall conform to the shape, lines, and dimensions of members as called for on the Drawings, and shall be substantial, free from surface defects, and sufficiently tight to prevent leakage. Forms shall be properly braced or tied together to maintain their position and shape under a load of freshly placed concrete. If adequate foundation for shores cannot be secured, trussed supports shall be provided.
- C. Unless otherwise indicated, exterior corners in concrete members shall be provided with 3/4-inch chamfers. Re-entrant corners in concrete members shall not have fillets unless otherwise indicated.

## SECTION 03 11 00 CONCRETE FORMING

### 3.2 FORM DESIGN

- A. All forms shall be true in every respect to the required shape and size, shall conform to the established alignment and grade, and shall be of sufficient strength and rigidity to maintain their position and shape under the loads and operations incident to placing and vibrating the concrete. Suitable and effective means shall be provided on all forms for holding adjacent edges and ends of panels and sections tightly together and in accurate alignment to prevent the formation of ridges, fins, offsets, or similar surface defects in the finished concrete. Plywood, 5/8-inch and greater in thickness, may be fastened directly to studding if the studs are spaced close enough to prevent visible deflection marks in the concrete. The forms shall be tight to prevent the loss of water, cement and fines during placing and vibrating of the concrete. Specifically, the bottom of wall forms that rest on concrete footings or slabs shall be provided with a gasket to prevent loss of fines and paste during placement and vibration of concrete. Such gasket may be a 1- to 1-1/2-inch diameter polyethylene rod held in position to the underside of the wall form. Adequate clean-out holes shall be provided at the bottom of each lift of forms. The size, number, and location of such clean-outs shall be as acceptable to the RESIDENT ENGINEER. Whenever concrete cannot be placed from the top of a wall form in a manner that meets the requirements of the Contract Documents, form windows shall be provided in the size and spacing needed to allow placement of concrete to the requirements of Section 03 30 00 - Cast-in-Place Concrete. The size, number, and location of such form windows shall be as acceptable to the RESIDENT ENGINEER.

### 3.3 CONSTRUCTION

- A. Vertical Surfaces: All vertical surfaces of concrete members shall be formed, except where placement of the concrete against the ground is shown. Not less than 1 inch of concrete shall be added to the thickness of the concrete member as shown where concrete is permitted to be placed against trimmed ground in lieu of forms. Such permission will be granted only for members of comparatively limited height and where the character of the ground is such that It can be trimmed to the required lines and will stand securely without caving or sloughing until the concrete has been placed.
- B. Construction Joints: Concrete construction joints will not be permitted at locations other than those shown or specified, except as may be acceptable to the RESIDENT ENGINEER. When a second lift is placed on hardened concrete, special precautions shall be taken in the way of the number, location, and tightening of ties at the top of the old lift and the bottom of the new to prevent any unsatisfactory effect whatsoever on the concrete. Pipe stubs and anchor bolts shall be set in the forms where required.
- C. Form Ties:
1. Embedded Ties: Surface defect holes left by the removal of form tie cones shall be treated by reaming with suitable toothed reamers to leave the surface of the holes clean and rough before being filled with mortar as specified in "Finish of Concrete Surfaces" in Section 03 30 00 - Cast-In-Place Concrete. Wire ties for holding forms

## SECTION 03 11 00 CONCRETE FORMING

will not be permitted. No form-tying device or part thereof, other than metal, shall be left embedded in the concrete. Ties shall not be removed in such manner as to leave a hole extending through the interior of the concrete members. The use of snap-ties which cause spalling of the concrete upon form stripping or tie removal will not be permitted. If steel panel forms are used, rubber grommets shall be provided where the ties pass through the form to prevent loss of cement paste. Where metal rods extending through the concrete are used to support or to strengthen forms, the rods shall remain embedded and shall terminate not less than 1 inch back from the formed face or faces of the concrete.

2. Removable Ties: Where taper ties are approved for use, the larger end of the taper tie shall be on the wet side of walls in water retaining structures. After the taper tie is removed, the hole shall be thoroughly cleaned and roughened for bond. A precast neoprene or polyurethane tapered plug shall be located at the wall centerline. The hole shall be filled with non-shrink grout for water bearing and below-grade walls. The hole shall be filled with non-shrink or regular cement grout for above-grade walls which are dry on both sides. Exposed faces of walls shall have the outer 2 inches of the exposed face filled with a cement grout which shall match the color and texture of the surrounding wall surface.

### 3.4 REMOVAL OF FORMS

- A. Careful procedures for the removal of forms shall be strictly followed, and this Work shall be done with care to avoid injury to the concrete. No heavy loading on green concrete will be permitted. In the case of roof slabs and above-ground floor slabs, forms for supported slab, but not shoring, shall remain in place until test cylinders for the roof concrete attain a minimum compressive strength of 75 percent of the 28-day strength specified in Section 03 30 00 - Cast-in-Place Concrete; provided, that no forms shall be disturbed or removed under an individual panel or unit before the concrete in the adjacent panel or unit has attained 75 percent of the specified 28-day strength and has been in place for a minimum of 7 days. The time required to establish said strength shall be as determined by the RESIDENT ENGINEER who will make several test cylinders for this purpose from concrete used in the first group of roof panels placed. If the time so determined is more than the 7-day minimum, then that time shall be used as the minimum length of time. Forms for all vertical walls and columns shall remain in place at least 2 days after the concrete has been placed. Forms for all parts of the Work not specifically mentioned herein shall remain in place for periods of time as determined by the RESIDENT ENGINEER.

### 3.5 REUSE OF FORMS

- A. Forms may be reused only if in good condition and only if acceptable to the RESIDENT ENGINEER. Light sanding between uses will be required wherever necessary to obtain uniform surface texture on all exposed concrete surfaces. Exposed concrete surfaces are defined as surfaces which are permanently exposed to view. In the case of forms for the inside wall surfaces of hydraulic/water retaining structures,

## **SECTION 03 11 00 CONCRETE FORMING**

unused tie rod holes in forms shall be covered with metal caps or shall be filled by other methods acceptable to the RESIDENT ENGINEER.

### **3.6 MAINTENANCE OF FORMS**

- A. Forms shall be maintained in good condition, particularly as to size, shape, strength, rigidity, tightness, and smoothness of surface. Forms, when in place, shall conform to the established alignment and grades. Before concrete is placed, the forms shall be thoroughly cleaned. The form surfaces shall be treated with a non-staining mineral oil or other lubricant acceptable to the RESIDENT ENGINEER. Any excess lubricant shall be satisfactorily removed before placing the concrete. Where field oiling of forms is required, the CONTRACTOR shall perform the oiling at least 2 weeks in advance of their use. Care shall be exercised to keep oil off the surfaces of steel reinforcement and other metal items to be embedded in concrete.

### **3.7 FALSE WORK**

- A. The CONTRACTOR shall be responsible for the design, engineering, construction, maintenance, and safety of all false work, including staging, walkways, forms, ladders, and similar appurtenances, which shall equal or exceed the applicable requirements of the provisions of the OSHA Safety and Health Standards for Construction, and the requirements of the California Division of Industrial Safety.

### **3.8 REMOVAL OF SHORING AND FALSE WORK**

- A. The CONTRACTOR shall not remove shoring and false work until 21 days after concrete placement, or concrete has attained at least 90 percent of the 28-day design compressive strength as demonstrated by control test cylinders, but not sooner than 14 days.

## **PART 4 - MEASUREMENT AND PAYMENT**

### **4.1 CONCRETE FORMING**

- A. All costs for equipment and labor associated with Concrete Forming for this project shall be included in the various Bid items for “Hawthorne Basin Spillway, Outlet Structure, and Skimmer” (Bid Item No. 11), “Hawthorne Basin Down Drain, Gravel Surfacing, Inlet Protection, Headwall, and Type 2 Energy Dissipaters” (Bid Item No. 12), “West Basin Outlet Structure” (Bid Item No. 13), “East Basin Outlet Structure and Skimmer” (Bid Item No. 17). No separate payment for this item shall be made.

**END OF SECTION**

## **SECTION 03 15 00 CONCRETE ACCESSORIES**

### **PART 1 - GENERAL**

#### **1.1 WORK OF THIS SECTION**

- A. The CONTRACTOR shall provide joints in concrete and necessary accessories at the locations indicated, in accordance with the CONTRACT DOCUMENTS.

#### **1.2 RELATED SECTIONS**

- A. The Work of the following Sections apply to the Work of this Section. Other Sections, not referenced below, shall also apply to the extent required for proper performance of the Work.
  - 1. Section 01 33 00 – Submittal Procedures
  - 2. Section 03 11 00 – Concrete Forming
  - 3. Section 03 20 00 – Concrete Reinforcing
  - 4. Section 03 30 00 – Cast-in-Place Concrete

#### **1.3 REFERENCE SPECIFICATIONS, CODES AND STANDARDS**

- A. Except as otherwise indicated in this Section, the CONTRACTOR shall comply with the 2018 edition of the Greenbook, together with the 2018 edition of the City of San Diego Supplement, Whitebook.
- B. The current edition of the California Building Code (CBC) as adopted by the City of San Diego Municipal Code.
- C. Federal Specifications (Current Edition):
  - 1. TT-S-0227E (3) Sealing Compound, elastomeric type, Multi- component for Caulking, Sealing, and Glazing Buildings and Other Structures.
  - 2. SS-S-21 OA Sealing compound for expansion joints.
- D. ASTM Standards in Building Codes (Current Edition):
  - 1. ASTM A 775                      Specification for Epoxy-Coated Reinforcing Steel Bars
  - 2. ASTM C 920                     Specification for Elastomeric Joint Sealants
  - 3. ASTM A 775                     Specification for Epoxy-Coated Reinforcing Steel Bar
  - 4. ASTM D 1056                  Specification for Flexible Cellular Materials -- Sponge or Expanded Rubber



## SECTION 03 15 00 CONCRETE ACCESSORIES

5. ASTM D 1752 Specification for Preformed Sponge Rubber and Cork Expansion Joint Fillers for Concrete Paving and Structural Construction
6. ASTM D 2240 Test Method for Rubber Property -- Durometer Hardness
7. ASTM D 2241 Specification for Poly Vinyl Chloride (PVC) Pressure-Rated Pipe (SDR-Series)

### 1.4 TYPES OF JOINTS

- A. Construction Joints: When fresh concrete is placed against a hardened concrete surface, the joint between the two pours is called a construction joint. Unless otherwise indicated, all joints in water bearing members shall be provided with a sealant groove of the shape indicated. The surface of the first pour may also be required to receive a coating of bond breaker as indicated.
- B. Expansion Joints: To allow the concrete to expand freely, a space is provided between the two pours; the joint shall be formed as indicated. This space is obtained by placing a filler joint material against the first pour, which acts as a form for the second pour. Unless otherwise indicated, all expansion joints in water bearing members shall be provided with a center-bulb type waterstop.
- C. Control Joints: The function of the control joint is to provide a weaker plane in the concrete, where shrinkage cracks will probably occur. A groove, of the shape and dimensions indicated, is formed or saw-cut in the concrete. This groove is filled afterward with a joint sealant material as specified.

### 1.5 SUBMITTAL

- A. The CONTRACTOR shall submit the following in compliance with Section 01 33 00 – Submittal Procedures:
  1. Waterstops: Before ordering waterstop(s), qualification samples consisting of extruded or molded sections of each size or shape to be used and shall be submitted for approval by the RESIDENT ENGINEER.
  2. Joint Sealant: Before ordering the sealant material, the CONTRACTOR shall submit sufficient data to show general compliance with the requirements of the CONTRACT DOCUMENTS.
  3. Before the sealant is used on the job, the CONTRACTOR shall submit certified test reports from the sealant manufacturer on the actual batch of material being supplied indicating compliance with the above requirements.
  4. Shipping Certification: The CONTRACTOR shall furnish written certification from the manufacturer as an integral part of the shipping form, to show that all the material shipped to this project meets or exceeds the physical property requirements of the CONTRACT DOCUMENTS. Supplier certificates are not acceptable.

## SECTION 03 15 00 CONCRETE ACCESSORIES

5. Joint Location: The CONTRACTOR shall submit placement shop drawings showing the location and type of all joints for each structure.

### 1.6 QUALITY ASSURANCE

- A. Quality assurance testing will be provided by the City Materials and Testing Lab. This does not relieve the Contractor from securing the necessary construction control testing during construction when required by the contract documents.
- B. Waterstop Inspection: All waterstop field joints shall be subject to rigid inspection, and no such work shall be scheduled or started without the CONTRACTOR having made prior arrangements with the RESIDENT ENGINEER to provide for the required inspections. Not less than 24 hours' notice shall be given to the RESIDENT ENGINEER for scheduling such inspections.
- C. The following waterstop defects represent a partial list of defects which shall be grounds for rejection:
  1. Offsets at joints greater than 1/16 inch or 15 percent of material thickness, at any point, whichever is less.
  2. Exterior crack at joint, due to incomplete bond, which is deeper than 1/16 inch or 15 percent of material thickness, at any point, whichever is less.
  3. Any combination of offset or exterior crack which will result in a net reduction in the cross section of the waterstop in excess of 1/16-inch or 15% of material thickness at any point, whichever is less.
  4. Misalignment of joint which result in misalignment of the waterstop in excess of 2 inch in 10 feet.
  5. Porosity in the welded joint as evidenced by visual inspection.
  6. Bubbles or inadequate bonding which can be detected with a penknife test. If, while prodding the entire joint with the point of a pen knife, the knife breaks through the outer portion of the weld into a bubble, the joint shall be considered defective.

### 1.7 WARRANTY

- A. The CONTRACTOR shall furnish a 5-year written warranty of the entire sealant installation against faulty and/or Incompatible materials and workmanship, along with a statement that it agrees to repair or replace, to the satisfaction of the RESIDENT ENGINEER and at no additional cost to the OWNER, any defects that appear during the warranty period.

## PART 2 - MATERIALS

### 2.1 GENERAL

## SECTION 03 15 00 CONCRETE ACCESSORIES

- A. All joint materials specified herein shall be classified by the Environmental Protection Agency as acceptable for potable water use.

### 2.2 PVC WATERSTOPS

- A. General: Waterstops shall be extruded from an elastomeric polyvinyl chloride compound containing the plasticizers, resins, stabilizers, and other materials necessary to meet the requirements of these Specifications. No reclaimed or scrap material shall be used. The CONTRACTOR shall obtain from the waterstop manufacturer and submit to the RESIDENT ENGINEER current test reports and a written certification that the material to be shipped meets the physical requirements outlined in the U.S. Army Corps of Engineers Specification CRD-C572 and those listed herein.
- B. Waterstop Testing Requirements: When tested in accordance with the standards, the waterstop material shall meet or exceed the following requirements:

<u>Physical Property</u>	<u>Sheet Material Value</u>	<u>ASTM Std.</u>
1. Tensile Strength-min (psi)	1,500	D 638, Type IV
2. Ultimate Elongation-min (%)	300	D 638, Type IV

### 2.3 JOINT SEALANT

- A. Joint sealant shall be polyurethane polymer designed for bonding to concrete which is continuously submerged in water. No material will be acceptable which has an unsatisfactory history as to bond or durability when used in the joints of water retaining structures.
- B. Joint sealant material shall meet the following requirements (73 degrees F and 50% relative humidity):
1. Work Life : 45 - 180 minutes
  2. Time to Reach 20 Shore "A" Hardness: 24 hours, maximum (at 77 degrees F, 200 gr quantity)
  3. Ultimate Hardness (ASTM D 2240): 20 - 45 Shore "A"
  4. Tensile Strength (ASTM D 412): 200 psi, minimum
  5. Ultimate Elongation (ASTM D 412): 400%, minimum
  6. Tear Resistance (Die C ASTM D 624): 75 pounds per inch of thickness, minimum
  7. Color: Light Gray
- C. All polyurethane sealants for waterstop joints in concrete shall conform to the following requirements:
1. Sealant shall be two-part polyurethane with the physical properties of the cured sealant conforming to or exceeding the requirements of ANSI/ASTM C 920 or Federal Specification TT-S-0227 E (3) for two- part material, as applicable.

## SECTION 03 15 00 CONCRETE ACCESSORIES

2. For plane horizontal joints, the self-leveling compounds which meet the requirements of ANSI/ASTM C 920 Class 25, Grade P, or Federal Specification TT-S-0227 E (3), Type I shall be used. For Joints subject to either pedestrian or vehicular traffic, a compound providing non-cracking characteristics, and having a Shore "A" hardness range of 35 to 45, shall be used.
  3. Primer materials, if recommended by the sealant manufacturer, shall conform to the printed recommendations of the sealant manufacturer.
- D. All sealants, wherever shown, or required hereunder shall be PSI-270 as manufactured by Polymeric Systems Inc.; Elastothane 227R as manufactured by Pacific Polymers; Sikaflex 2C, as manufactured by Sika Corporation, or equal.

### 2.4 JOINT MATERIALS

- A. Bearing Pad: Bearing pad to be neoprene conforming to ASTM D 2000 BC 420, 40 durometer hardness unless otherwise indicated.
- B. Neoprene Sponge: Sponge to be neoprene, closed-cell, expanded, conforming to ASTM D 1056, Type 2C3-E1.
- C. Joint Filler:
  1. Joint filler for expansion joints in water holding structures shall be neoprene conforming to ASTM D 1056, Type 2C5-E1.
  2. Joint filler material in other locations shall be of the preformed non-extruding type joint filler constructed of cellular neoprene sponge rubber or polyurethane of firm texture. Bituminous fiber type will not be permitted. All non-extruding and resilient-type preformed expansion joint fillers shall conform to the requirements and tests set forth in ASTM D 1752 for Type I, except as otherwise indicated.

### 2.5 BACKING ROD

- A. Backing rod shall be an extruded closed-cell, polyethylene foam rod. The material shall be compatible with the joint sealant material used and shall have a tensile strength of not less than 40 psi and a compression deflection of approximately 25% at 8 psi. The rod shall be 1/4 inch larger in diameter than the joint width except that a 1-inch diameter rod shall be used for a 3/4-inch wide joint.

### 2.6 BOND BREAKER

- A. Bond breaker shall be Super Bond Breaker as manufactured by Burke Company, San Mateo, California; Select Cure CRB as manufactured by Select Products Co., Upland, California, or approved equal. It shall contain a fugitive dye so that areas of application will be readily distinguishable.

### 2.7 SLIP DOWELS

- A. Slip dowels in joints shall be A36 smooth epoxy-coated bars, as indicated on the Drawings, and conforming to ASTM A 775.

## SECTION 03 15 00 CONCRETE ACCESSORIES

### 2.8 PVC TUBING

- A. PVC tubing in joints shall be Sch. SDR 13.5, conforming to ASTM D 2241.

## PART 3 - EXECUTION

### 3.1 GENERAL

- A. Waterstops of the type indicated shall be embedded in the concrete across joints as indicated. All waterstops shall be fully continuous for the extent of the joint. Splices necessary to provide such continuity shall be accomplished in conformance to printed instructions of manufacturer of the waterstops. The CONTRACTOR shall take suitable precautions and means to support and protect the waterstops during the progress of the Work and repair or replace at its own expense any waterstops damaged during the progress of the Work. All waterstops shall be stored to permit free circulation of air around the waterstop material.
- B. When any waterstop is installed in the concrete on one side of a joint, while the other half or portion of the waterstop remains exposed to the atmosphere for more than 2 days, suitable precautions shall be taken to shade and protect the exposed waterstop from direct rays of the sun during the entire exposure and until the exposed portion of the waterstop is embedded in concrete.

### 3.2 JOINT CONSTRUCTION

- A. Setting waterstops: To eliminate faulty installation that may result in joint leakage, care shall be taken of the correct positioning of the waterstops during installation. Adequate provisions shall be made to support and anchor the waterstops during the progress of the Work and to ensure the proper embedment in the concrete. The symmetrical halves of the waterstops shall be equally divided between the concrete pours at the Joints. The center axis of the waterstops shall be coincident with the Joint openings. Maximum density and Imperviousness of the concrete shall be ensured by thoroughly working It in the vicinity of all Joints.
- B. In placing flat-strip waterstops in the forms, a means shall be provided to prevent them from being folded over by the concrete as It is placed. Unless otherwise indicated, all waterstops shall be held in place with light wire ties on 12-inch centers which shall be passed through the edge of the waterstop and tied to the curtain of reinforcing steel. Horizontal waterstops, with their flat face in a vertical plane, shall be held in place with continuous supports to which the top edge of the waterstop shall be tacked. In placing concrete around horizontal waterstops, with their flat face in a horizontal plane, concrete shall be worked under the waterstops by hand to avoid the formation of air and rock pockets.
- C. In placing center bulb waterstops in expansion joints, the center bulb shall be centered on the joint filler material.
- D. Joint Location: Construction joints, and other types of joints, shall be provided where indicated. When not indicated, construction joints shall be provided at 25-foot

## SECTION 03 15 00 CONCRETE ACCESSORIES

maximum spacing for all concrete construction, unless noted otherwise. The location of all joints, of any type, shall be submitted for acceptance by the RESIDENT ENGINEER.

- E. Joint Preparation: Special care shall be used in preparing concrete surfaces at joints where bonding between two sections of concrete is required. Unless otherwise indicated, such bonding will be required at all horizontal joints in walls. Surfaces shall be prepared in accordance with the requirements of Section 03 30 00 - Cast-In-Place Concrete.
- F. Pre-molded expansion joint material shall be installed with the edge at the indicated distance below or back from finished concrete surface, and shall have a slightly tapered, dressed, and oiled wood strip secured to or placed at the edge thereof during concrete placement, which shall later be removed to form space for sealing material.
- G. The space so formed shall be filled with a joint sealant material as specified. To keep the two wall or slab elements in line the joint shall also be provided with a sleeve-type dowel, unless otherwise indicated on Drawings.
- H. Construction Joint Sealant: Construction joints in water-bearing floor slabs, and elsewhere as indicated, shall be provided with grooves, which shall be filled with a construction joint sealant. The material used for forming the grooves shall be left in the grooves until just before the grooves are cleaned and filled with joint sealant. After removing the forms from the grooves, all laitance and fins shall be removed, and the grooves shall be sand-blasted. The grooves shall be allowed to become thoroughly dry, after which they shall be blown out; immediately thereafter, they shall be primed, bond breaker tape placed in the bottom of the groove and filled with the joint sealant. The primer used shall be supplied by the same manufacturer supplying the sealant. No sealant will be permitted to be used completely fill the sealant grooves. Areas designated to receive a sealant fillet shall be thoroughly cleaned, as outlined for the grooves, before application of the sealant.
- I. The primer and sealant shall be placed strictly in accordance with the printed recommendations of the manufacturer, taking special care to properly mix the sealant before application. The sides of the sealant groove shall not be coated with bond breaker, curing compound, or any other substance which would interfere with proper bonding of the sealant. All sealant shall achieve final cure at least 7 days before the structure is filled with water.
- J. All sealant shall be installed by a competent waterproofing specialty CONTRACTOR who has a successful record of performance in similar installations. Before Work is commenced, the crew doing the Work shall be instructed as to the proper method of application by a representative of the sealant manufacturer.
- K. Thorough, uniform mixing of two-part, catalyst-cured materials is essential; special care shall be taken to properly mix the sealer before Its application. Before any sealer is placed, arrange to have the crew doing the Work carefully instructed as to the proper method of mixing and application by a representative of the sealant manufacturer.

### **SECTION 03 15 00 CONCRETE ACCESSORIES**

- L. Any Joint sealant which, after the manufacturer's recommended curing time for the job conditions of the Work hereunder, fails to fully and properly cure shall be completely removed; the groove shall be thoroughly sandblasted to remove all traces of the uncured or partially cured sealant and primer, and shall be resealed with the indicated joint sealant. All costs of such removal, joint treatment, resealing, and appurtenant work shall be at no additional cost to the OWNER.
- M. Bentonite Waterstop shall not be used.

#### **PART 4 - MEASUREMENT AND PAYMENT**

- A. All costs for equipment and labor associated with Concrete Accessories for this project shall be included in the various Bid items for “Hawthorne Basin Spillway, Outlet Structure, and Skimmer” (Bid Item No. 11), “Hawthorne Basin Down Drain, Gravel Surfacing, Inlet Protection, Headwall, and Type 2 Energy Dissipaters” (Bid Item No. 12), “West Basin Outlet Structure” (Bid Item No. 13), “East Basin Outlet Structure and Skimmer” (Bid Item No. 17). No separate payment for this item shall be made.

**END OF SECTION**

## **SECTION 03 20 00 CONCRETE REINFORCING**

### **PART 1 - GENERAL**

#### **1.1 WORK OF THIS SECTION**

- A. The CONTRACTOR shall provide concrete reinforcement steel, welded wire fabric, couplers, concrete inserts, wires, clips, supports, chairs, spacers, and other accessories in accordance with the CONTRACT DOCUMENTS.
- B. Work Included in this Section. Principal items are:
  - 1. Furnishing and placing bar and mesh reinforcing for cast-in-place concrete.
  - 2. Furnishing reinforcing steel bars for masonry, including delivery to the site.
  - 3. Submittals.

#### **1.2 RELATED SECTIONS**

- A. The Work of the following Sections apply to the Work of this Section. Other Sections, not referenced below, shall also apply to the extent required for proper performance of this Work.
  - 1. Section 01 33 00 – Submittal Procedures
  - 2. Section 03 11 00 – Concrete Forming
  - 3. Section 03 15 00 – Concrete Accessories
  - 4. Section 03 30 00 – Cast-in-Place Concrete

#### **1.3 REFERENCE SPECIFICATIONS, CODES AND STANDARDS**

- A. Except as otherwise indicated in this Section, the CONTRACTOR shall comply with the 2018 edition of the Greenbook, together with the 2018 edition of the City of San Diego Supplement, Whitebook.
- B. The current edition of the California Building Code (CBC) as adopted by the City of San Diego Municipal Code.
- C. Commercial Standards (Current Edition):
  - 1. ACI 315        Details and Detailing of Concrete Reinforcement
  - 2. ACI 318        Building Code Requirements for Structural Concrete
  - 3. CRSI MSP      Concrete Reinforcing Steel Institute Manual of Standard Practice
  - 4. WRI            Manual of Standard Practice for Welded Wire Fabric
  - 5. AWS D1.4      Structural Welding Code - Reinforcing Steel



## SECTION 03 20 00 CONCRETE REINFORCING

### D. ASTM Standards in Building Codes (Current Edition):

1. ASTM A82                      Specification for Steel Wire, Plain, for Concrete Reinforcement
2. ASTM A 185                  Specification for Welded Steel Wire Fabric, Plain, for Concrete Reinforcement
3. ASTM A 615                  Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement
4. ASTM A 706                  Specification for Low-Alloy Steel Deformed Bars for Concrete Reinforcement.
5. ASTM A 775                  Specification for Epoxy-Coated Reinforcing Steel Bars

### 1.4 SUBMITTALS

- A. The CONTRACTOR shall furnish shop bending diagrams, placing lists, and drawings of all reinforcement steel before fabrication in accordance with the requirements of Section 01 33 00 – Submittal Procedures.
- B. Details of the concrete reinforcement steel and concrete inserts shall be submitted as soon as possible after receipt of the Notice to Proceed. Details of reinforcement steel for fabrication and erection shall conform to ACI 315 and the requirements Indicated. The shop bending diagrams shall show the actual lengths of bars, to the nearest inch, measured to the Intersection of the extensions (tangents for bars of circular cross section) of the outside surface. The shop drawings shall include bar placement diagrams which clearly indicate the dimensions of each bar splice.

### 1.5 QUALITY ASSURANCE

- A. Quality assurance testing will be provided by the City Materials and Testing Lab. This does not relieve the Contractor from securing the necessary construction control testing during construction when required by the contract documents.
- B. If requested by the RESIDENT ENGINEER, the CONTRACTOR shall furnish samples from each heat of reinforcement steel delivered in a quantity adequate for testing. Costs of initial tests will be paid by the OWNER. Costs of additional tests due to material failing initial tests shall be paid by the CONTRACTOR.

## PART 2 - MATERIALS

### 2.1 MATERIAL REQUIREMENTS

- A. Materials which may remain or leave residues on or within the concrete shall be classified as acceptable for potable water use by the Environmental Protection Agency within 30 days of application or use.

### 2.2 REINFORCEMENT STEEL

## SECTION 03 20 00 CONCRETE REINFORCING

A. Reinforcement steel for all cast-in-place reinforced concrete construction shall conform to the following requirements:

1. Bar reinforcement shall conform to the requirements of ASTM A 615 for Grade 60 or Grade 40 Billet Steel Reinforcement or as otherwise indicated.
2. All welded reinforcement, specifically detailed or otherwise indicated, shall be low-alloy grade 60 or grade 40 deformed bars conforming to the requirements of ASTM A 706.
3. Welded wire fabric reinforcement shall conform to the requirements of ASTM A 185 and the details indicated; provided, that welded wire fabric with longitudinal wire of W4 size wire and smaller shall be either provided in flat sheets or in rolls with a core diameter of not less than 10 inches; and provided further, that welded wire fabric with longitudinal wires larger than W4 size shall be provided in flat sheets only.
4. Spiral reinforcement shall be cold-drawn steel wire conforming to the requirements of ASTM A 82.
5. Tie wire shall be Annealed Steel, 14 gauges minimum.

B. Accessories:

1. Accessories shall include all necessary chairs, slab bolsters, concrete blocks, tie wires, dips, supports, spacers, and other devices to position reinforcement during concrete placement. All bar supports shall meet the requirements of the CRSI Manual of Standard Practice, Chapter 3, including special requirements for supporting epoxy coated reinforcing bars. Wire bar supports shall be CRSI Class 1 for maximum protection with a c-inch minimum thickness of plastic coating which extends at least 2-inch from the concrete surface. Plastic shall be gray in color.
2. Concrete blocks (dories), used to support and position reinforcement steel, shall have the same or higher compressive strength as specified for the concrete in which it is located. Wire ties shall be embedded in concrete block bar supports.

C. Epoxy coating for reinforcing and accessories, where indicated, shall conform to ASTM A 775.

### **2.3 MECHANICAL COUPLERS**

A. Mechanical couplers shall not be used.

### **2.4 WELDED SPLICES**

A. Welded splices shall not be used.

### **2.5 EPOXY GROUT**

## SECTION 03 20 00 CONCRETE REINFORCING

- A. Epoxy for grouting reinforcing bars shall be specifically formulated for such application, for the moisture condition, application temperature, and orientation of the hole to be filled.

### **PART 3 - EXECUTION**

#### **3.1 GENERAL**

- A. All reinforcement steel, welded wire fabric, and other appurtenances shall be fabricated, and placed in accordance with the requirements of the Uniform Building Code and the supplementary requirements indicated herein.

#### **3.2 FABRICATION AND DELIVERY**

- A. The CONTRACTOR shall conform to CRSI MSP, Chapters 6 and 7, except as otherwise indicated or specified. The CONTRACTOR shall bundle reinforcement and tag with suitable Identification to facilitate sorting and placing, and transport and store at site so as not to damage material. The CONTRACTOR shall keep a sufficient supply of tested, approved, and proper reinforcement at site to avoid delays.
- B. Bending and Forming: The CONTRACTOR shall bend bars of indicated size and accurately form in accordance with the requirements of ACI 315 and ACI 318 to shapes and lengths Indicated on drawings and required by methods not injurious to materials. The CONTRACTOR shall not heat reinforcement for bending. Bars with kinks or bends not scheduled will be rejected.
- C. Fabricating tolerance: All fabrication of reinforcing bars shall meet the requirements of ACI 117.

#### **3.3 PLACING**

- A. Reinforcement steel shall be accurately positioned and shall be supported and wired together to prevent displacement, using annealed iron wire ties or suitable clips at intersections. All reinforcement steel shall be supported by concrete, plastic or metal supports, spacers or metal hangers which are strong and rigid enough to prevent any displacement of the reinforcement steel. Where concrete is to be placed on the ground, supporting concrete blocks (or dories) shall be used, in sufficient numbers to support the bars without settlement, but in no case shall such support be continuous. All concrete blocks used to support reinforcement steel shall be tied to the steel with wire ties which are embedded in the blocks. For concrete over formwork, the CONTRACTOR shall furnish concrete, metal, plastic, or other acceptable bar chairs and spacers.
- B. Limitations on the use of bar support materials shall be as follows:
  - 1. Concrete Dobbie's: Permitted at all locations.
  - 2. Wire Bar Supports: Permitted only at slabs over dry areas, interior dry wall surfaces, and exterior wall surfaces.

## SECTION 03 20 00 CONCRETE REINFORCING

3. Plastic Bar Supports: Permitted at all locations except on grade.
- C. Tie wires shall be bent away from the forms to provide the specified concrete coverage.
- D. Bars additional to those shown which may be found necessary or desirable by the CONTRACTOR for securing reinforcement in position shall be provided by the CONTRACTOR at no additional cost to the OWNER.
- E. Unless otherwise specified, reinforcement placing tolerances shall be within the limits specified in Section 7.5 of ACI 318 except where in conflict with the requirements of the CBC.
- F. Bars may be moved as necessary to avoid interference with other reinforcement steel, conduits, or embedded Items. If bars are moved more than one bar diameter, or enough to exceed the above tolerances, the resulting arrangement of bars shall be subject to the approval of the RESIDENT ENGINEER.
- G. Welded wire fabric reinforcement placed over horizontal forms shall be supported on slab bolsters. Slab bolsters shall be spaced not more than 30 inches on centers, shall extend continuously across the entire width of the reinforcement mat, and shall support the reinforcement mat in the plane Indicated.
- H. Welded wire fabric placed over the ground shall be supported on wired concrete blocks (dobies) spaced not more than 3 feet on centers in any direction. The construction practice of placing welded wire fabric on the ground and hooking into place in the freshly placed concrete shall not be used.
- I. Epoxy coated reinforcing bars shall be stored, transported, and placed in such a manner as to avoid chipping of the epoxy coating. Nonabrasive slings made of nylon and similar materials shall be used. Specially coated bar supports shall be used. All chips or cracks in the epoxy coating shall be repaired with a compatible epoxy repair material prior to placing concrete.
- J. Accessories supporting reinforcing bars shall be spaced such that there is no deflection of the accessory from the weight of the supported bars. When used to space the reinforcing bars from wall forms, the forms and bars shall be located so that there is no deflection of the accessory when the forms are tightened into position.

### 3.4 SPLICES

- A. Splicing shall be in accordance with ACI-318, unless otherwise noted on Drawings.
- B. Vertical Bars. Except as specifically detailed or otherwise Indicated, splicing of vertical bars in concrete is not permitted, except at the indicated or approved horizontal construction joints or as otherwise specifically detailed.
- C. Horizontal Bars. Except as specifically detailed or otherwise Indicated, splicing of horizontal bars in concrete is not permitted.

### 3.5 WELDED WIRE MESH

## **SECTION 03 20 00 CONCRETE REINFORCING**

- A. The CONTRACTOR shall install necessary supports and chairs to hold the wire mesh in place during concrete pours. The CONTRACTOR shall straighten mesh to lay in a flat plane and bend mesh as shown or required to fit work. The CONTRACTOR shall provide laps of no less than one complete mesh, unless otherwise detailed, and shall tie every other wire waterstop laps. Roll mesh is not acceptable.

### **3.6 EMBEDMENT OF DRILLED REINFORCING STEEL DOWELS**

A. Hole Preparation:

1. The hole diameter shall be as recommended by the epoxy manufacturer but shall be no larger than 0.25 inch greater than the diameter of the outer surface of the reinforcing bar deformations.
2. The depth of the hole shall be as recommended by the epoxy manufacturer to fully develop the bar but shall not be less than 12 bar diameters, unless noted otherwise.
3. The hole shall be drilled by methods which do not interfere with the proper bonding of epoxy.
4. Existing reinforcing steel in the vicinity of proposed holes shall be located prior to drilling. The location of holes to be drilled shall be adjusted to avoid drilling through or nicking any existing reinforcing bars.
5. The hole shall be blown clean with clean, dry compressed air to remove all dust and loose particles.
6. Epoxy shall be injected into the hole through a tube placed to the bottom of the hole. The tube shall be withdrawn as epoxy is placed but kept immersed to prevent formation of air pockets. The hole shall be filled to a depth that insures that excess material will be expelled from the hole during dowel placement.
7. Dowels shall be twisted during insertion into the partially filled hole to guarantee full wetting of the bar surface with epoxy. The bar shall be inserted slowly enough to avoid developing air pockets.

## **PART 4 - MEASUREMENT AND PAYMENT**

### **4.1 CONCRETE REINFORCING**

- A. All costs for equipment and labor associated with Concrete Reinforcing for this project shall be included in the various Bid items for “Hawthorne Basin Spillway, Outlet Structure, and Skimmer” (Bid Item No. 11), “Hawthorne Basin Down Drain, Gravel Surfacing, Inlet Protection, Headwall, and Type 2 Energy Dissipaters” (Bid Item No. 12), “West Basin Outlet Structure” (Bid Item No. 13), “East Basin Outlet Structure and Skimmer” (Bid Item No. 17). No separate payment for this item shall be made.

**END OF SECTION**

## **SECTION 03 30 00 CAST-IN-PLACE CONCRETE**

### **PART 1 - GENERAL**

#### **1.1 WORK OF THIS SECTION**

- A. The CONTRACTOR shall provide finished structural concrete, complete, in accordance with the CONTRACT DOCUMENTS.
- B. The following types of concrete are covered in this Section:
  - 1. Structural Concrete: Concrete to be used in all cases except where noted otherwise in the CONTRACT DOCUMENTS.
  - 2. Lean Concrete: Concrete to be used for thrust blocks, anchor blocks, pipe trench cut-off blocks and cradles, where the preceding items are detailed on the Drawings as unreinforced. Concrete to be used as protective cover for dowels intended for future connection.
- C. The term "hydraulic structure" used in these Specifications refers to environmental engineering concrete structures for the containment, treatment, or transmission of water, or other fluids.

#### **1.2 RELATED SECTIONS**

- A. The Work of the following Sections applies to the Work of this Section. Other Sections, not referenced below, shall also apply to the extent required for proper performance of this Work.
  - 1. Section 01 33 00 – Submittal Procedures
  - 2. Section 03 11 00 – Concrete Forming
  - 3. Section 03 15 00 – Concrete Accessories
  - 4. Section 03 20 00 – Concrete Reinforcing
  - 5. Section 31 20 00 – Earth Moving

#### **1.3 REFERENCE SPECIFICATIONS, CODES AND STANDARDS**

- A. Except as otherwise indicated in this Section, the CONTRACTOR shall comply with the 2018 edition of the Greenbook, together with the 2018 edition of the City of San Diego Supplement, Whitebook.
- B. Except as otherwise indicated, the CONTRACTOR shall comply with the current edition of the California Building Code (CBC) as adopted by the City of San Diego Municipal Code.

## SECTION 03 30 00 CAST-IN-PLACE CONCRETE

C. Except as otherwise indicated, the current editions of the following standards apply to the work of this Section:

1. Commercial Standards:

- a. ACI 117 Standard Tolerances for Concrete Construction and Materials
- b. ACI 304R Recommended Practice for Measuring, Mixing, Transporting and Placing Concrete
- c. ACI 305R Hot Weather Concreting
- d. ACI 309 Consolidation of Concrete
- e. ACI 315 Details and Detailing of Concrete Reinforcement
- f. ACI 318 Building Code Requirements for Reinforced Concrete
- g. ACI 350R Environmental Engineering Concrete Structures

2. ASTM Standards in Building Codes:

- a. ASTM C 31 Practice for Making and Curing Concrete Test Specimens in the Field
- b. ASTM C 33 Specification for Concrete Aggregates
- c. ASTM C 39 Test Method for Compressive Strength of Cylindrical Concrete Specimens
- d. ASTM C 40 Test Method for Organic Impurities in Fine Aggregates for Concrete
- e. ASTM C 94 Specification for Ready-Mixed Concrete
- f. ASTM C 136 Test Method for Sieve Analysis of Fine and Coarse Aggregates
- g. ASTM C 138 Test Method for Unit Weight, Yield, and Air Content of Concrete
- h. ASTM C 143 Test Method for Slump of Hydraulic Cement Concrete
- i. ASTM C 150 Specification for Portland Cement
- j. ASTM C 156 Test Method for Water Retention by Concrete Curing Materials
- k. ASTM C 231 Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method
- l. ASTM C 260 Specification for Air-Entraining Admixtures for Concrete

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- m. ASTM C 289 Test Method for Potential Reactivity of Aggregates (Chemical Method)
- n. ASTM C 494 Specification for Chemical Admixtures for Concrete
- o. ASTM C 1077 Practice for Laboratories Testing Concrete and Concrete Aggregates for use in Construction & Criteria for Laboratory Evaluation
- p. ASTM D 1751 Specification for Preformed Expansion Joint Fillers for Concrete Paving and Structural Construction (Non-extruding and Resilient Bituminous Types)
- q. ASTM D 2419 Test Method for Sand Equivalent Value of Soils and Fine Aggregate
- r. ASTM E 119 Method for Fire Tests of Building Construction and Materials
- s. NSF/ANSI 61 Drinking Water System Components - Health Effects, NSF International

### 1.4 SUBMITTALS

- A. Mix Designs: Before starting the Work and within 14 days of the notice to proceed, the CONTRACTOR shall submit to the RESIDENT ENGINEER, for review, preliminary concrete mix designs which shall show the proportions and gradations of all materials proposed and 28-day compression test reports for each class and type of concrete specified herein in accordance with Section 01 33 00 – Submittal Procedures. The mix designs shall be checked and certified to conform to these specifications by an independent testing laboratory acceptable to the RESIDENT ENGINEER to be in conformance with these Specifications. All costs related to such checking and testing shall be borne by the CONTRACTOR at no increased cost to the OWNER.
- B. Delivery Tickets: Where ready-mix concrete is used, the CONTRACTOR shall furnish delivery tickets at the time of delivery of each load of concrete. Each ticket shall show the state certified equipment used for measuring and the total quantities, by weight, of cement, sand, each class of aggregate, admixtures, and the amounts of water in the aggregate added at the batching plant, and the amount allowed to be added at the site for the specific design mix. In addition, each ticket shall state the mix number, total yield in cubic yards, and the time of day, to the nearest minute, corresponding to the times when the batch was dispatched, when it left the plant, when it arrived at the site, when unloading began, and when unloading was finished.
- C. Cement and concrete admixtures shall be NSF 61 certified. NSF 61 certificates of compliance shall be provided as submittals
- D. The CONTRACTOR shall provide the following submittals in accordance with ACI 301:



## SECTION 03 30 00 CAST-IN-PLACE CONCRETE

1. Mill tests for cement.
  2. Admixture certification. Chloride ion content must be included.
  3. Aggregate gradation and certification.
  4. Materials and methods for curing.
- E. The CONTRACTOR shall provide catalog cuts and other manufacturer's technical data demonstrating compliance with the requirements indicated and specified herein for all admixtures used in the concrete mix design.

### 1.5 QUALITY ASSURANCE

- A. Quality assurance testing will be provided by the City Materials and Testing Lab. This does not relieve the Contractor from securing the necessary construction control testing during construction when required by the contract documents.
- B. General:
1. Tests on component materials and for compressive strength of concrete will be performed as specified herein. Test for determining slump will be in accordance with the requirements of ASTM C 143.
  2. The cost of all laboratory tests requested by the RESIDENT ENGINEER on cement, aggregates, and concrete, will be borne by the OWNER. However, the CONTRACTOR will be charged for the cost of any additional tests and investigation on work performed which does not meet the Specifications. The laboratory must meet or exceed the requirements of ASTM C 1077.
  3. Concrete for testing shall be supplied by the CONTRACTOR at no cost to the OWNER, and the CONTRACTOR shall assist the RESIDENT ENGINEER in obtaining samples, and disposal and cleanup of excess material.
- C. Field Compression Tests:
1. Compression test specimens will be taken during construction from the first placement of each class of concrete and at intervals specified herein, or as selected by the RESIDENT ENGINEER to ensure continued compliance with these Specifications. Each set of test specimens will be a minimum of four cylinders.
  2. Compression test specimens for concrete shall be made in accordance with section 9.2 of ASTM C 31. Specimens shall be 6-inch diameter by 12-inch high cylinders.
  3. Compression tests shall be performed in accordance with ASTM C 39. One test cylinder will be tested at 7 days and two at 28 days. The remaining cylinders will be held to verify test results, if needed.
- D. Evaluation and Acceptance of Concrete:

## SECTION 03 30 00 CAST-IN-PLACE CONCRETE

1. Evaluation and acceptance of the compressive strength of concrete shall be according to the requirements of ACI 318, Chapter 5 "Concrete Quality," and as specified herein.
  2. All concrete which fails to meet the ACI requirements and these Specifications, is subject to removal and replacement at no increase in cost to the OWNER.
- E. Construction Tolerances: Set and maintain concrete forms and perform finishing operations to ensure that the completed Work is within the tolerances specified herein. Surface defects and irregularities are defined as finishes and are to be distinguished from tolerances. Tolerance Is the specified permissible variation from lines, grades, or dimensions shown. Where tolerances are not stated in the Specifications, permissible deviations will be in accordance with ACI 117.
1. The following construction tolerances are hereby established and apply to finished walls and slab unless otherwise shown:
    - *Variation of the constructed: In 10 feet: 1/4-inch*
    - *Linear outline from the established position in plan: In 20 feet or more: 1/2-inch*
    - *Variation from the level in 10 feet: 1/4-inch*
    - *or from the grades shown in 20 feet or more: 1/2-inch*
    - *Variation from plumb in 10 feet: 1/4-inch;*
    - *In 20 feet or more: 1/2-inch*
    - *Variation in the thickness of slabs and walls: Minus 1/4-inch; Plus 1/2-inch*
    - *Variation in the locations and sizes of slabs and wall openings: Plus, or minus 1/4-inch*

## PART 2 - MATERIALS

### 2.1 CONCRETE MATERIALS

#### A. General:

1. All materials furnished for the Work shall comply with the requirements of Sections 201, 203, and 204 of ACI 301, as applicable.
2. Storage of materials shall conform to the requirements of Section 2.5 of ACI 301 and the Whitebook.

#### B. Materials for concrete shall conform to the following requirements:

1. Cement shall be standard brand Portland cement conforming to ASTM C 150 for Type 11/V, including Table 2 optional requirements. A minimum of 85 percent of

## SECTION 03 30 00 CAST-IN-PLACE CONCRETE

cement by weight shall pass a 325 screen. A single brand of cement shall be used throughout the Work, and before its use, the brand shall be acceptable to the RESIDENT ENGINEER. The cement shall be suitably protected from exposure to moisture until used. Cement that has become lumpy shall not be used. Sacked cement shall be stored in such a manner to permit access for inspection and sampling. Certified mill test reports, including fineness, for each shipment of cement to be used shall be submitted to the RESIDENT ENGINEER if requested regarding compliance with these Specifications.

2. Water for mixing and curing shall be potable, clean, and free from objectionable quantities of silty organic matter, alkali, salts and other Impurities. The water shall be considered potable, for the purposes of this Section only, if it meets the requirements of the local governmental agencies. Agricultural water with high total dissolved solids concentration (over 1,000 mg/l) shall not be used.
3. Aggregates shall be obtained from pits, or suppliers, as acceptable to the RESIDENT ENGINEER, shall be nonreactive, and shall conform to ASTM C 33. Maximum size of coarse aggregate shall be as specified herein. Lightweight sand for fine aggregate will not be permitted.
  - a. Coarse aggregates shall consist of clean, hard, durable gravel, crushed gravel, crushed rock or a combination thereof. The coarse aggregates shall be prepared and handled in two or more size groups for combined aggregates with a maximum size greater than 3/4 inch. When the aggregates are proportioned for each batch of concrete the two size groups shall be combined.
  - b. Fine aggregates shall be natural sand or a combination of natural and manufactured sand that are hard and durable. When tested in accordance with ASTM D 2419, the sand equivalency shall not be less than 75 percent for an average of three samples, nor less than 70 percent for an individual test. Gradation of fine aggregate shall conform to ASTM C 33, with 15 to 30 percent passing the number 50 screen and 5 to 10 percent passing the number 100 screen. The fineness modulus of sand used shall not be over 3.00.
  - c. Combined aggregates shall be well graded from coarse to fine sizes and shall be uniformly graded between screen sizes to produce a concrete that has optimum workability and consolidation characteristics. Where a trial batch is required for a mix design, the final combined aggregate gradations will be established during the trial batch process.
  - d. When tested in accordance with ASTM C 33, the ratio of silica released to reduction in alkalinity shall not exceed 1.0.
  - e. When tested in accordance with ASTM C 33, the fine aggregate shall produce a color in the supernatant liquid no darker than the reference standard color solution.

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- f. When tested in accordance with ASTM C 33, the coarse aggregate shall show a loss not exceeding 42 percent after 500 revolutions, or 10.5 percent after 100 revolutions.
  - g. When tested in accordance with ASTM C 33, the loss resulting after five cycles shall not exceed 10 percent for fine or coarse aggregate when using sodium sulfate.
4. Ready-mix concrete shall conform to the requirements of ASTM C 94.
5. Admixtures: All admixtures shall be compatible and by a single manufacturer capable of providing qualified field service representation. Admixtures shall be used in accordance with manufacturer's recommendations. If the use of an admixture is producing an inferior result, discontinue use of the admixture. Admixtures shall not contain thiocyanates nor more than 0.05 percent chloride ion and shall be nontoxic after 30 days.
- a. Air-entraining agent meeting the requirements of ASTM C 260, shall be used. Sufficient air-entraining agent shall be used to provide a total air content of 3 to 5 percent. The RESIDENT ENGINEER reserves the right, at any time, to sample and test the air-entraining agent received on the job. The air-entraining agent shall be added to the batch in a portion of the mixing water. The solution shall be matched by means of a mechanical batcher capable of accurate measurement. Air content shall be tested at the point of placement. Air entraining agent shall be Dare II by W.R. Grace; AEA-92 by Euclid Chemical Company; or equal.
  - b. Set controlling and water reducing admixtures: Admixtures may be added at the CONTRACTOR's option to control the set, effect water reduction, and increase workability. The addition of an admixture shall be at no increase in cost to the OWNER. The use of an admixture shall be subject to acceptance by the RESIDENT ENGINEER. Concrete containing an admixture shall be first placed at a location determined by the RESIDENT ENGINEER. Admixtures specified herein shall conform to the requirements of ASTM C 494. The required quantity of cement shall be used in the mix regardless of whether an admixture is used.
  - c. Concrete shall not contain more than one water reducing admixture. Concrete containing an admixture shall be first placed at a location determined by the RESIDENT ENGINEER.
  - d. Set controlling admixture shall be either with or without water-reducing properties. Where the air temperature at the time of placement is expected to be consistently over 80 degrees F, a set retarding admixture such as Eucon Retarder by Euclid Chemical Company; Daratard 17 by W.R. Grace; or equal shall be used. Where the air temperature at the time of placement is expected to be consistently under 40 degrees F, a noncorrosive set accelerating

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admixture such as Plastocrete 161FL by Sika Corporation; Pozzutec 20 by Master Builders; Daraset by W.R. Grace; or equal shall be used.

- e. Normal range water reducer shall conform to ASTM C 494, Type A. WRDA 64 by W.R. Grace; Eucon WR-91 by Euclid Chemical Company; or equal. The quantity of admixture used and the method of mixing shall be in accordance with the Manufacturer's instructions and recommendations.
- f. High range water reducer shall conform to ASTM C 494, Type for G. ADVA 190 by W.R. Grace; Eucon 1037 by Euclid Chemical Company; or equal. High range water reducer shall be added to the concrete after all other ingredients have been mixed and initial slump has been verified. No more than 14 ounces of water reducer per sack of cement shall be used. Water reducer shall be considered as part of the mixing water when calculating water cement ratio.
- g. If the high range water reducer is added to the concrete at the job site, it may be used in conjunction with the same water reducer added at the batch plant. Concrete shall have a slump of 3 inches  $\pm$  2 inch before adding the high range water reducing admixture at the job site. The high range water reducing admixture shall be accurately measured and pressure injected into the mixer as a single dose by an experienced technician. A standby system shall be provided and tested before each day's operation of the job site system.
- h. Concrete shall be mixed at mixing speed for a minimum of 30 mixer revolutions after the addition of the high range water reducer.
- i. Fly ash: Flash shall conform to the requirements of ASTM C618, Class F and Loss of Ignition shall not exceed 4 percent. Fly ash, as a percentage by weight of total cementitious materials, shall not exceed 15 percent.

### 2.2 CURING MATERIALS

- A. Materials for curing concrete as specified herein shall conform to the following requirements and ASTM C 309:
  1. All curing compounds shall be white pigmented, and resin based. Sodium silicate compounds shall not be allowed. Concrete curing compound shall be Kurez by Euclid Chemical Company; L&M Cure R; MB-429 as manufactured by Master Builders; or equal. Water based resin curing compounds shall be used only where local air quality regulations prohibit the use of a solvent based compound. Water based curing compounds shall be L&M Cure R-2; Aqua-Cure by Euclid Chemical Company; Masterkure-W by Master Builders; or equal.
  2. Polyethylene sheet for use as concrete curing blanket shall be white and shall have a nominal thickness of 6 mils. The loss of moisture when determined in accordance with the requirements of ASTM C 156 shall not exceed 0.055 grams per square centimeter of surface.

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3. Polyethylene-coated waterproof paper sheeting for use as concrete curing blanket shall consist of white polyethylene sheeting free of visible defects, uniform in appearance, having a nominal thickness of 2 mils and permanently bonded to waterproof paper conforming to the requirements of Federal Specification UU-B-790A (1) (2). The loss of moisture, when determined in accordance with the requirements of ASTM C 156, shall not exceed 0.055 gram per square centimeter of surface.
4. Polyethylene-coated burlap for use as concrete curing blanket shall be 4 mils thick, white opaque polyethylene film impregnated or extruded into one side of the burlap. Burlap shall weigh not less than 9 ounces per square yard. The loss of moisture, when determined in accordance with the requirements of ASTM C 156, shall not exceed 0.055 gram per square centimeter of surface.

### 2.3 NONWATERSTOP JOINT MATERIALS

- A. Materials for non-waterstop Joints in concrete shall conform to the following requirements:
  1. Preformed joint filler shall be a non-extruding, resilient, bituminous type conforming to the requirements of ASTM D 1751.
  2. Elastomeric joint sealer shall conform to ASTM C 920, Type S, Grade NSA, Class 25, and shall be polyurethane-based. The sealant shall be formulated for exterior use and exposure to ultraviolet rays.
  3. Mastic joint sealer shall be a material that does not contain evaporating solvents; that will tenaciously adhere to concrete surfaces; that will remain permanently resilient and pliable; that will not be affected by continuous presence of water and will not in any way contaminate potable water; and that will effectively seal the joints against moisture infiltration even when the joints are subject to movement due to expansion and contraction. The sealer shall be composed of special asphalts or similar materials blended with lubricating and plasticizing agents to form a tough, durable mastic substance containing no volatile oils or lubricants and shall be capable of meeting the test requirements set forth hereinafter, if testing is required by the RESIDENT ENGINEER.

### 2.4 MISCELLANEOUS MATERIALS

- A. Damp-proofing agent shall be an asphalt emulsion, such as Hydrocide 600 by Sonneborn; Damp-proofing Asphalt Coating by Euclid Chemical Company; Sealmastic by W. R. Meadows Inc., or equal.
- B. Bonding agents shall be epoxy adhesives conforming to the following products for the applications specified:
  1. For bonding freshly-mixed, plastic concrete to hardened concrete, Sikadur 32 HI-Mod Epoxy Adhesive, as manufactured by Sika Corporation; Concresive Liquid

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(LPL), as manufactured by Master Builders; BurkEpoxy MV as manufactured by The Burke Company; or equal.

2. For bonding hardened concrete or masonry to steel, Sikadur 31 HI-Mod Gel as manufactured by Sika Corporation; BurkEpoxy NS as manufactured by The Burke Company; Concrecive Paste (LPL) as manufactured by Master Builders; or equal.

### 2.5 CONCRETE DESIGN REQUIREMENTS

#### A. Mix Design.

1. General: Concrete shall be composed of cement, admixtures, aggregates and water. These materials shall be of the qualities specified. The exact proportions in which these materials are to be used for different parts of the Work will be determined during the trial batch. In general, the mix shall be designed to produce a concrete capable of being deposited to obtain maximum density and minimum shrinkage and, where deposited in forms, to have good consolidation properties and maximum smoothness of surface. In mix designs, the percentage of sand of the total weight of fine and coarse aggregate shall not exceed 41 for hydraulic structures or 50 for all other structures, unless noted otherwise. The aggregate gradations shall be formulated to provide fresh concrete that will not promote rock pockets around reinforcing steel or embedded items. The proportions shall be changed whenever necessary or desirable to meet the required results at no additional cost to the OWNER. All changes shall be subject to review by the RESIDENT ENGINEER.
2. Water-Cement Ratio and Compressive Strength: The minimum compressive strength and cement content of concrete shall be not less than that specified in the following tabulation.

Type of Work	Min 28-Day Compressive Strength	Max Size Aggregate (in)	Minimum Cement per yd <sup>3</sup>	Max W/C Ratio (by weight)
Sitework concrete	3,000	1	470	0.50

Note: The CONTRACTOR is cautioned that the limiting parameters specified above are not a mix design. Additional cement or water reducing agent may be required to achieve workability demanded by the CONTRACTOR's construction methods and aggregates. The CONTRACTOR is responsible for any costs associated with furnishing concrete with the required workability.

3. Adjustments to Mix Design: The mixes used shall be changed whenever such change is necessary or desirable to secure the required strength, density, workability, and surface finish and the CONTRACTOR shall be entitled to no additional compensation because of such changes.

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### B. Consistency

1. The quantity of water entering a batch of concrete shall be just sufficient, with a normal mixing period, to produce a concrete which can be worked properly into place without segregation, and which can be compacted by the vibratory methods herein specified to give the desired density, impermeability and smoothness of surface. The quantity of water shall be changed as necessary, with variations in the nature or moisture content of the aggregates, to maintain uniform production of a desired consistency. The consistency of the concrete in successive batches shall be determined by slump tests in accordance with ASTM C 143. The slumps shall be as follows:

<u>Part of Work</u>	<u>Slump (in)</u>
All concrete, unless noted otherwise	3 inches ± 1 inch
With high range water reducer added	6 inches ± 1 inch
Pea gravel mix	7 inches ± 1 inch

### C. Measurement of Cement and Aggregate

1. The amount of cement and of each separate size of aggregate entering each batch of concrete shall be determined by direct weighing equipment acceptable to RESIDENT ENGINEER.

#### 1. Weighing Tolerances:

<u>Material</u>	<u>Percent of Total Weight</u>
Cement	1%
Aggregates	3%
Admixtures	3%

### D. Measurement of Water

1. The quantity of water entering the mixer shall be measured by a suitable water meter or other measuring device of a type acceptable to the RESIDENT ENGINEER and capable of measuring the water in variable amounts within a tolerance of one percent. The water feed control mechanism shall be capable of being locked in position to deliver constantly any specified amount of water to each batch of concrete. A positive quick-acting valve shall be used for a cut-off in the water line to the mixer. The operating mechanism must be such that leakage will not occur when the valves are closed.

## 2.6 READY MIXED CONCRETE

- A. At the CONTRACTOR's option, ready-mixed concrete may be used meeting the requirements as to materials, batching, mixing, transporting, and placing as specified



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herein and in accordance with ASTM C 94, including the following supplementary requirements.

- B. Ready-mixed concrete shall be delivered to the site of the Work, and discharge shall be completed within one hour after the addition of the cement to the aggregates or before the drum has been revolved 250 revolutions, whichever is first.
- C. Truck mixers shall be equipped with electrically-actuated counters by which the number of revolutions of the drum or blades may be readily verified. The counter shall be of the resettable, recording type, and shall be mounted in the driver's cab. The counters shall be actuated at the time of starting mixers at mixing speeds.
- D. Each batch of concrete shall be mixed in a truck mixer for not less than 70 revolutions of the drum or blades at the rate of rotation designated by the manufacturer of equipment. Additional mixing, if any, shall be at the speed designated by the manufacturer of the equipment as agitating speed. All materials including mixing water shall be in the mixer drum before actuating the revolution counter for determining the number of revolution of mixing.
- E. Truck mixers and their operation shall be such that the concrete throughout the mixed batch as discharged is within acceptable limits of uniformity with respect to consistency, mix, and grading.
- F. Each batch of ready-mixed concrete delivered at the job site shall be accompanied by a delivery ticket furnished to the RESIDENT ENGINEER in accordance with Subsection 03 30 00-1.4B.
- G. The use of non-agitating equipment for transporting ready-mixed concrete will not be permitted. Combination truck and trailer equipment for transporting ready-mixed concrete will not be permitted. The quality and quantity of materials used in ready-mixed concrete and in batch aggregates shall be subject to inspection at the batching plant by the RESIDENT ENGINEER.

### PART 3 - EXECUTION

#### 3.1 PROPORTIONING AND MIXING

- A. Proportioning: Proportioning of the concrete mix shall conform to the requirements of Chapter 3 "Proportioning" of ACI 301.
- B. Mixing: Mixing of concrete shall conform to the requirements of Chapter 7 of said ACI 301 Specifications.
- C. Slump: Maximum slumps shall be as specified herein.
- D. Re-tempering: Re-tempering of concrete or mortar which has partially hardened shall not be permitted.

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### 3.2 CONSTRUCTION QUALITY CONTROL

A. Field Quality Control shall consist of the following concrete tests:

1. A set of four (4) concrete cylinders shall be taken for every 100 cubic yards, or fraction thereof, of each class of concrete placed each day.
2. One (1) slump test shall be performed per 50 CY, or fraction thereof, placed each day, of concrete.
3. Maintain records of placed concrete items. Record data, location of placement, quantity, air temperature, and test samples taken.
4. The determination of compressive strength in psi shall be made by testing 6-inch diameter by 12-inch high cylinders, made and cured in accordance with ASTM C31 and ASTM C39. Four test cylinders from each sample shall be created. One test cylinder will be tested at 7 days and two at 28 days curing time. The additional cylinder shall be maintained for additional testing if needed.

### 3.3 PREPARATION OF SURFACES FOR CONCRETING

- A. General: Earth surfaces shall be thoroughly wetted by sprinkling, before the placing of any concrete, and these surfaces shall be kept moist by frequent sprinkling up to the time of placing concrete thereon. The surface shall be free from standing water, mud, and debris at the time of placing concrete.
- B. Joints in Concrete: Concrete surfaces upon or against which concrete is to be placed, where the placement of the concrete has been stopped or interrupted so that, as determined by the RESIDENT ENGINEER, the new concrete cannot be incorporated integrally with that previously placed, are defined as construction joints. The surfaces of horizontal joints shall be given a compacted, roughened surface for good bond. The joint surfaces shall be cleaned of all laitance, loose or defective concrete, foreign material, and roughened to a minimum 1/4-inch amplitude. Such cleaning and roughening shall be accomplished by hydroblasting or sandblasting (exposing aggregate) followed by thorough washing. All pools of water shall be removed from the surface of construction joints, and the joint surface shall be coated with an epoxy-bonding agent, unless indicated otherwise, before the new concrete is placed.
- C. Placing Interruptions: When placing of concrete is to be interrupted long enough for the concrete to take a set, the working face shall be given a shape using forms or other means, that will secure proper union with subsequent Work; provided construction Joints shall be made only where acceptable to the RESIDENT ENGINEER.
- D. Embedded Items: No concrete shall be placed until all formwork, installation of parts to be embedded, reinforcement steel, and preparation of surfaces involved in the placing have been completed and accepted by the RESIDENT ENGINEER at least 4

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hours before placement of concrete. All surfaces of forms and embedded items that have become encrusted with dried grout from concrete previously placed shall be cleaned of all such grout before the surrounding or adjacent concrete is placed.

- E. All inserts or other embedded items shall conform to the requirements herein.
- F. All reinforcement, anchor bolts, sleeves, inserts, and similar items shall be set and secured in the forms where shown or by shop drawings and shall be acceptable to the RESIDENT ENGINEER before any concrete is placed. Accuracy of placement is the responsibility of the CONTRACTOR.
- G. Casting New Concrete Against Old: Where concrete is to be cast against old concrete (any concrete which is greater than 60 days of age), the surface of the old concrete shall be thoroughly cleaned and roughened by hydro-blasting or sandblasting (exposing aggregate). The joint surface shall be coated with an epoxy bonding agent unless indicated otherwise by the RESIDENT ENGINEER.
- H. No concrete shall be placed in any structure until all water entering the space to be filled with concrete has been properly cut off or has been diverted by pipes, or other means, and carried out of the forms, clear of the Work. No concrete shall be deposited underwater nor shall the CONTRACTOR allow still water to rise on any concrete until the concrete has attained its Initial set. Water shall not be permitted to flow over the surface of any concrete in such manner and at such velocity as will injure the surface finish of the concrete. Pumping or other necessary dewatering operations for removing ground water, if required, will be subject to the review of the RESIDENT ENGINEER.
- I. Corrosion Protection: Pipe, conduit, dowels, and other ferrous items required to be embedded in concrete construction shall be so positioned and supported before placement of concrete that there will be a minimum of 2 inches clearance between said items and any part of the concrete reinforcement. Securing such items in position by wiring or welding them to the reinforcement will not be permitted.
- J. Openings for pipes, inserts for pipe hangers and brackets, and the setting of anchors shall, where practicable, be provided for during the placing of concrete.
- K. Anchor bolts shall be accurately set and shall be maintained in position by templates while being embedded in concrete.
- L. Cleaning: The surfaces of all metalwork to be in contact with concrete shall be thoroughly cleaned of all dirt, grease, loose scale and rust, grout, mortar, and other foreign substances immediately before the concrete is placed.

### 3.4 HANDLING, TRANSPORTING, AND PLACING

- A. General: Placing of concrete shall conform to the applicable requirements of Chapter 8 of ACI 301 and the requirements of this Section. No aluminum materials shall be used in conveying any concrete.

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- B. Nonconforming Work or Materials: Concrete which upon or before placing is found not to conform to the requirements specified herein shall be rejected and immediately removed from the Work. Concrete which is not placed in accordance with these Specifications, or which is of inferior quality, shall be removed and replaced at no additional expense to the OWNER.
- C. Unauthorized Placement: No concrete shall be placed except in the presence of duly authorized representative of the RESIDENT ENGINEER. The CONTRACTOR shall notify the RESIDENT ENGINEER in writing at least 24 hours in advance of placement of any concrete.
- D. Placement in Wall Forms: Concrete shall not be dropped through reinforcement steel or into any deep form, nor shall concrete be placed in any form in such a manner as to leave accumulation of mortar on the form surfaces above the placed concrete. In such cases, some means such as the use of hoppers and, if necessary, vertical ducts of canvas, rubber, or metal shall be used for placing concrete in the forms in a manner that it may reach the place of final deposit without separation. In no case shall the free fall of concrete exceed 4 feet below the ends of ducts, chutes, or buggies. Concrete shall be uniformly distributed during the process of depositing and in no case after depositing shall any portion be displaced in the forms more than 6 feet in horizontal direction. Concrete in forms shall be deposited in uniform horizontal layers not deeper than 2 feet; and care shall be taken to avoid inclined layers or inclined construction joints except where such are required for sloping members. Each layer shall be placed while the previous layer is still soft. The rate of placing concrete in forms shall not exceed 5 feet of vertical rise per hour. Sufficient Illumination shall be provided in the interior of all forms so that the concrete at the places of deposit is visible from the deck or runway.
- E. Conveyor Belts and Chutes: All ends of chutes, hopper gates, and all other points of concrete discharge throughout the CONTRACTOR's conveying, hoisting and placing system shall be so designed and arranged that concrete passing from them will not fall separated into whatever receptacle immediately receives it. Conveyor belts, if used, shall be of a type to the RESIDENT ENGINEER. Chutes longer than 50 feet will not be permitted. Minimum slopes of chutes shall be such that concrete of the specified consistency will readily flow in them. If a conveyor belt is used, it shall be wiped clean by a device operated in such a manner that none of the mortar adhering to the belt will be wasted. All conveyor belts and chutes shall be covered.
- F. Placement in Slabs: Concrete placed in sloping slabs shall proceed uniformly from the bottom of the slab to the top, for the full width of the placement. As the Work progresses, the concrete shall be vibrated and carefully worked around the slab reinforcement, and the surface of the slab shall be screeded in an up-slope direction.
- G. Temperature of Concrete: The temperature of concrete when it is being placed shall be not more than 90 degrees F nor less than 55 degrees F for sections less than 12 inches thick nor less than 50 degrees for all other sections. Concrete ingredients shall

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not be heated to a temperature higher than that necessary to keep the temperature of the mixed concrete, as placed, from falling below the specified minimum temperature. When the temperature of the concrete is 85 degrees F or above, the time between the introduction of the cement to the aggregates and discharge shall not exceed 45 minutes. If concrete is placed when the weather is such that the temperature of the concrete would exceed 90 degrees F, the CONTRACTOR shall employ effective means, such as precooling of aggregates and mixing water using ice or placing at night, as necessary to maintain the temperature of the concrete, as it is placed, below 90 degrees F. The CONTRACTOR shall be entitled to no additional compensation on account of the foregoing requirements.

- H. Hot Weather Placement: Placement of concrete shall conform to ACI 305R - Hot Weather Concreting, and the following.
1. Only set retarding admixture shall be used in concrete when air temperature is expected to be consistently over 80 degrees F.
  2. The maximum temperature of concrete shall not exceed 90 degrees F immediately before placement.
  3. From the initial placement to the curing state, concrete shall be protected from the adverse effect of high temperature, low humidity, and wind.

### 3.5 PUMPING OF CONCRETE

- A. General: If the pumped concrete does not produce satisfactory end results, discontinue the pumping operation and proceed with the placing of concrete using conventional methods.
- B. Pumping Equipment: The pumping equipment must have two cylinders and be designed to operate with one cylinder only in case the other one is not functioning. In lieu of this requirement, the CONTRACTOR may have a standby pump on the site during pumping.
- C. The minimum diameter of the hose (conduits) shall be in accordance with ACI 304.2R.
- D. Pumping equipment and hoses (conduits) that are not functioning properly, shall be replaced.
- E. Aluminum conduits for conveying the concrete shall not be permitted.
- F. Field Control: Concrete samples for slump, air content, and test cylinders will be taken at the placement (discharge) end of the line.

### 3.6 ORDER OF PLACING CONCRETE

- A. The order of placing concrete in all parts of the Work shall be acceptable to the RESIDENT ENGINEER. To minimize the effects of shrinkage, the concrete shall be placed in units as bounded by construction joints shown. The placing of units shall be