



PUBLIC WORKS DEPARTMENT

INVITATION FOR BIDS,  
SPECIFICATIONS, AND CONTRACT DOCUMENTS

FOR

RAIL TRAIL SEGMENT 7 – PHASE 2  
CITY PROJECT NO. c401413  
STATE PROJECT NO. ATPSB1L-5025(080)

SANTA CRUZ CITY COUNCIL

Sonja Brunner, Mayor  
Martine Watkins, Vice Mayor  
Sandy Brown  
Justin Cummings  
Renee Golder  
Shebreh Kalantari-Johnson  
Donna Meyers

Matt Huffaker, City Manager

Bonnie Bush, City Clerk Administrator

Anthony P. Condotti, City Attorney

Mark Dettle, Public Works Department Director

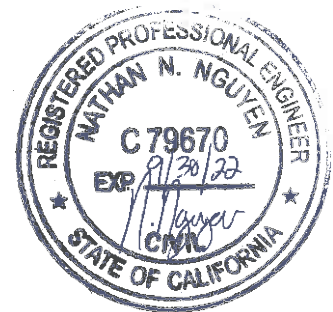
Nathan Nguyen, Assistant Public Works Director/City Engineer

**BID OPENING ~~APRIL 7, 2022~~ @ 2:00 PM PACIFIC STANDARD TIME**

**APRIL 21, per Addendum number 3**

Closing time to receive bids

will be verified by the on-line clock maintained by the  
US Naval Observatory, found at: <http://tycho.usno.navy.mil/simpletime.html>.



## NOTICE INVITING SEALED PROPOSALS OR BIDS

NOTICE IS HEREBY GIVEN that the City of Santa Cruz, California (the “City”), invites sealed Bids for the following “Project”:

### “RAIL TRAIL SEGMENT 7 – PHASE 2 (c401413)”

1. Date and Place of Opening Bids. Sealed bids for the construction of the Project will be received at the Public Works Department, 809 Center Street, Room 201, Santa Cruz, California 95060, until ~~APRIL 7, 2022, at 2:00 p.m.~~ local time in a sealed envelope plainly endorsed with the Project Name and Number, listed above. At that time, the Bids received will be publicly opened and read. Attendees will be required to wear face masks, social distance, and follow any other safety measures currently recommended by the County Public Health Officer. Bids received after the date and time stated above will be rejected as nonresponsive. APRIL 21, per Addendum number 3
2. Location of Project. The Project is to be performed at the following location: adjacent to an active rail line, the Santa Cruz Branch Line Railroad between La Barranca Park at the intersection of California Street and Bay Street and the roundabout at Pacific Avenue & Beach Street.
3. Description of Work. The Project to be performed consists of construction of a paved 0.8 mile multi-use trail, located adjacent to an active rail line, the Santa Cruz Branch Line Railroad between La Barranca Park at California St and the roundabout at Pacific Ave & Beach St. The 12-foot wide bike and pedestrian trail will require storm drain improvements, excavation, drilling, retaining wall work, slope grading, fiber communication, and lighting work. Soldier Pile retaining wall work consists of four sections of wall along the length of the trail with retained height ranging from 4 feet to 19 feet with tiebacks (the “Work”). For additional information, please contact the individual listed in Paragraph 18, below.
4. Time for Completion. The Project shall be completed in **250 working days**.
5. Bidding Documents. The “Bidding Documents” shall include this Notice Inviting Bids, the Bid Form including all attachments included herein, General Requirements, Technical Specifications (including all plans, drawings, and reports), Addenda, draft Agreement, the City’s Standard Specifications (dated 2002), as amended<sup>1</sup>, the State of California’s Department of Transportation Standard Specifications (dated 2018), as amended, and all other documents identified herein.
6. Obtaining the Bidding Documents. Bidding Documents may be downloaded, without charge, from the following designated website: **ebidboard.com**. Paper Bidding Documents may be examined and copies secured from the office of the Public Works Department, 809 Center Street, Room 201, Santa Cruz, California 95060, for a non-refundable fee of **\$500.00 (five hundred dollars)**.

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<sup>1</sup> The City’s Standard Specifications (dated 2002) are located via the City Website at:  
<https://www.cityofsantacruz.com/home/showpublisheddocument?id=2467>.



Prospective bidders are urged to register with the designated website as a Bidding Documents holder, even if Bidding Documents are obtained from a source other than the designated website or City in either electronic or paper format. The designated website will be updated periodically with Addenda, reports, and other information relevant to submitting a bid for the Project. All official notifications, Addenda, and other Bidding Documents will be offered only through the designated website. Neither City nor any City official, employee, or agent will be responsible for Bidding Documents, including Addenda, if any, obtained from sources other than the designated website or the City Public Works Department.

7. Submitted Bid. Each sealed Bid shall comply with the Bidding Documents and be submitted on the Bid Form, including all attachments. Contractor must clearly and legibly set forth all information requested in the manner and form indicated.

By submitting a Bid, the Bidder represents that it has carefully examined and investigated the Project site and all Bidding Documents.

Each Bid shall include a bid security in the form of a certified check, cashier's check, or bidder's bond made payable to the order of the City of Santa Cruz, California, for an amount not less than (10) percent of the amount of the Proposal. The bid security shall be given as a guarantee that the successful bidder will enter into the contract, and will be declared forfeited if the successful bidder refuses or fails to enter into said contract.

All bidders shall submit with its Bid the included **sworn statement of its financial responsibility, technical ability, and experience**.

8. Addenda. All submitted Bids shall verify if the City has issued any addenda for this Project. It is the bidder's sole responsibility to ensure that all addenda requirements are included in the submitted Bid. All addenda shall be posted on the City's designated website.

**NON-MANDATORY, per Addendum number 1**

9. Pre-Bid Conference. A ~~MANDATORY~~ **pre-bid conference will be held at the Project address, listed in Section 2, above, on Wednesday, March 23, 2022, from 9:00 am to 11:00 am** local time. Site walk will start at Bay Street/California Street intersection (west project limit) and end at Pacific Avenue/Beach Street intersection (east project limit). All attendees will be required to wear face masks, social distance, and follow any other safety measures currently recommend by the County Public Health Officer.
10. Withdrawing Submitted Bid. A bidder may withdraw a submitted Bid at any time prior to the time of bid opening only by written request to the City. Unless otherwise required by law, no bidder may withdraw its Bid for a period of sixty (60) days after the bid opening.
11. Award of Contract. The City will award the Project to the lowest responsible and responsive bidder based on the **BASE BID PLUS CONTINGENCY TOTAL**. The City reserves the right to reject any and all Bids, including for any minor irregularities. The City may reject a Bid if it determines that any of the bid prices are materially unbalanced to the potential detriment of the City.

Within ten (10) calendar days after receiving written notice that the contract has been awarded, the successful bidder shall return to the City the signed agreement, together with the completed Labor and Material Bond and Faithful Performance Bond each in an amount equal to one hundred percent (100%) of the contract price (issued by a corporate surety company approved by the City Attorney), insurance certificates, and all other documents as required by the Bidding Documents.

12. Department of Industrial Relations Monitoring. This Project is subject to compliance monitoring and enforcement by the Department of Industrial Relations (DIR). Prevailing wages as published by the DIR are required for all workers, including those employed by subcontractors.

No contractor or subcontractor may be listed on a Bid or awarded the contract for the Project unless registered with the DIR pursuant to Labor Code section 1725.5 and 1771.1. Refer to the DIR website, <http://www.dir.ca.gov>, to register and to find the correct wage rates and answers to questions related to prevailing wage requirements.

13. Section intentionally omitted.

14. Licenses. Bidders and their proposed subcontractors shall hold such licenses as may be required by the laws of the State of California for the performance of the Work. The Contractor is required to ensure that all subcontractors listed in the Bid Form and working on this Project hold valid licenses and certifications suitable for their trade. Bidder is required to provide with its Bid satisfactory proof of licensure to the City.

Bidders bidding as the Prime Contractor shall possess a valid **California Contractor's Class "A" license** at the time of bid submittal, and all listed subcontractors shall hold valid licenses suitable for their trade at the time of bid submittal. Failure to possess required licenses at the time of bid submittal shall render the bid non-responsive and shall act as a bar to award of the contract to the bidder and shall result in a forfeiture of the bid security.

Bidder and all subcontractors shall maintain the required licenses throughout the entire Project until the City issues a Notice of Final Acceptance.

15. **Buy America. This project is subject to the "Buy America" provisions of the Surface Transportation Assistance Act of 1982 as amended by the Intermodal Surface Transportation Efficiency Act of 1991 and as further amended by the Moving Ahead for Progress in the 21st Century Act (MAP-21) of 2012.**

16. Retention. Progress payments are subject to 5% retention withholding until thirty five (35) calendar days after recording the notice of completion. Pursuant to California Public Contract Code Section 22300, for monies earned by the General Contractor and withheld by the City to ensure the performance of the Contract. The General Contractor, may, at its option, choose to substitute securities meeting the requirements of California Public Contract Code Section 22300, or have the retained, earned monies deposited in an escrow account at a federal or state chartered bank.

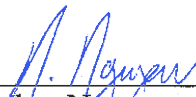
17. Business License. All Contractors and subcontractors working in the City must have a valid City of Santa Cruz business license at the time the contract is awarded, pursuant to Santa Cruz Municipal Code (SCMC) Chapter 5.04.
18. Questions for City. All questions relative to this Project prior to the opening of Bids shall be in writing and received a minimum of **ten (10)** working days prior to the above-stated Bid opening date and shall be directed to:

City of Santa Cruz, Public Works Department  
809 Center Street, Room 201, Santa Cruz, California 95060  
Ricardo Valdes  
Senior Professional Engineer  
Email: rvaldes@cityofsantacruz.com  
Tel.: (831) 420-5198  
Fax: (831) 420-5161

19. Pursuant to the provisions of California Labor Code Section 6707, each Bid submitted shall contain, as a separate bid item, adequate sheeting, shoring, and bracing, or equivalent method, for the protection of life or limb in trenches and open excavation, exceeding five feet, which shall conform to applicable safety orders. Neither this requirement, nor any payment by City for this separate bid item, shall be construed to impose tort liability on City, or its employees or agents, for any injury or damage caused by failure of any excavation or protective equipment or methods.

This Advertisement is issued by the City of Santa Cruz, California.

Dated: March 11, 2022

  
\_\_\_\_\_  
Nathan Nguyen  
Assistant Public Works Director/City Engineer  
Public Works Department  
809 Center Street, Rm. 201  
Santa Cruz, CA 95060

**BID FORM**  
**For**  
**“RAIL TRAIL SEGMENT 7 – PHASE 2 (c401413)”**

TO:               The Council of the City of Santa Cruz

PROPOSAL OF: \_\_\_\_\_

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

Business Telephone: \_\_\_\_\_

The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement, in the form specified in the Contract Documents, with the City of Santa Cruz (“City”) to perform all work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the Bidding Documents.

The undersigned Bidder understands that any or all quantities of work shown herein are approximate only and are subject to increase or decrease, and offers to do the work whether the quantities are increased or decreased at the unit prices as stated in the following tabulation. The undersigned Bidder agrees to take in full payment for the work, including all applicable state and local taxes, the amount shown on the bid sheet.

Please note closing time to receive bids will be verified according to local telephone company time.

**IT IS UNDERSTOOD THAT THIS BID IS BASED UPON COMPLETION OF THE WORK AS SPECIFIED IN THE SPECIAL PROVISIONS WITHIN 250 WORKING DAYS, AND THE PRICES INCLUDE ALL STATE, FEDERAL, AND OTHER TAXES APPLICABLE TO THE PROJECT.**

**PLEASE NOTE THAT THE CITY MAY TAKE UP TO SIXTY (60) DAYS TO AWARD THE PROJECT.**

The undersigned Bidder agrees to do any extra work, not covered by the above schedule of price, which may be ordered by the City, and to accept as full compensation therefore, such prices as may be agreed upon in writing by the City and the Contractor in accordance with the “Measurement and Payment” Section of the Standard Specifications.

If awarded the contract, the undersigned Bidder hereby agrees to submit the following documents to the City within ten (10) business days of the Notice of Award: a signed Agreement, executed bonds (including Faithful Performance Bond and Payment Bond), proper evidence of insurance, and any other forms or documents identified in the Bidding Documents and Notice of Award. The undersigned Bidder further agrees to begin work within ten (10) days after receiving the Notice to Proceed.

The undersigned Bidder has carefully examined the form of the Agreement, the Standard Specifications, the Plans and Special Provisions for the project hereinbefore described and referred to in the “Invitation to Bidders” inviting proposals for **RAIL TRAIL SEGMENT 7 – PHASE 2**

(c401413) and also the site of the work and will provide all necessary machinery, tools apparatus and other means of construction, and do all the work and furnish all materials required by said Specifications and Plans and Special Provisions in the manner described therein.

No bid will be considered for less than all items of this schedule and one contract will be awarded for the entire Project.

The undersigned has carefully checked the bid prices, and all computations involved in the preparation of this bid, and understands that the City of Santa Cruz will not be responsible for any errors or omissions on the part of the undersigned in making up this bid.

This Bid is made with a full knowledge of the kind, quantities, and quality of the work and of materials, equipment, and plans required. This proposal is also made after a complete, careful, and independent examination and investigation of the site of the work, local conditions affecting the same, and materials to be encountered.

The undersigned Bidder hereby acknowledges receipt of the following Addenda:

Addendum Number	Addendum Date

The Bidder furthermore agrees that in case of its default in executing said Agreement with necessary bonds, the check or bond accompanying this Bid and money payable will become and remain the property of the City of Santa Cruz.

Enclosed is Bidder's bond, certified check, or cashier's check no. \_\_\_\_\_ of the \_\_\_\_\_ Bank for \$ \_\_\_\_\_ which is not less than 10 percent of the Bid submitted by the undersigned, payable to the City of Santa Cruz, California, and which is given as a guarantee that the undersigned will enter into the contract if awarded the work.

It is understood and agreed that the City may reject any or all proposals, or waive any informalities or minor defects in proposals received.

It is agreed that this bid may not be withdrawn over a period of **sixty (60) days** from the opening thereof. **The City may take up to sixty (60) days to award the project.**

Bidder submits the following complete and executed documents herewith to form a complete Bid:

1. Bid Form
2. Basis of Bid (Base Bid & Alternative Bid)
3. Bid Bond (if used as security)
4. List of Subcontractors Form
5. DIR Compliance Affidavit
6. Contractor Reference Information
7. Non-Collusion Declaration

8. Bidder's Financial Qualification Form
9. Iran Contracting Act Certification
10. Contractor Qualification Questionnaire

**Note: Bidders should not add any conditions or qualifying statement to this bid as otherwise the bid may be declared irregular as being not responsive to the Advertisement for Bids.**

The undersigned declares under penalty of perjury that the information contained in this Bid and all accompanying documents are true and correct. **A notary acknowledgment is required.**

Dated: \_\_\_\_\_ Firm Name: \_\_\_\_\_

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

Phone: \_\_\_\_\_ Email Address: \_\_\_\_\_

By: \_\_\_\_\_ Title: \_\_\_\_\_

State Contractor's License No.: \_\_\_\_\_

Public Works Contractor DIR No.: \_\_\_\_\_

Signature of Bidder: \_\_\_\_\_

## Basis of Bid

Name of Bidder: \_\_\_\_\_

Project Name/Number: **RAIL TRAIL SEGMENT 7 – PHASE 2 (c401413)**

<b><u>BASE BID</u></b>					
Item No.	Item Description	Unit	Estimated Quantity	Unit Price (\$)	Unit Price Extension (\$)
1	Job Site Management	LS	1		
2	Resident Engineer's Office	LS	1		
3	Construction Survey	LS	1		
4	Subsurface Utility Location	EA	7		
5	Prepare Storm Water Pollution Prevention Plan	LS	1		
6	Rain Event Action Plan	EA	36		
7	Storm Water Sampling And Analysis Day	EA	20		
8	Storm Water Annual Report	EA	2		
9	Traffic Control System	LS	1		
10	Portable Changeable Message Sign	EA	2		
11	Project Funding Signs	EA	2		
12	Temporary Fiber Rolls	LF	4,197		
13	Temporary Silt Fence	LF	5,981		
14	Temporary Concrete Washout	EA	1		
15	Street Sweeping	DAY	120		
16	Temporary Construction Entrance	EA	2		
17	Temporary Inlet Protection	EA	28		
18	Temporary High-Visibility Fence	LF	6,927		
19	Clearing And Grubbing	SF	86,993		
20	Remove Concrete Curb & Gutter	LF	20		
21	Remove Concrete Sidewalk	SF	147		
22	Remove Irrigation	SF	4,361		
23	Remove Tree	EA	42		
24	Reset Bollard	EA	2		
25	Remove And Salvage Bollard	EA	4		
26	Reset Posts And Chain	LF	129		
27	Reset Trash Receptacle	EA	1		
28	Remove Fence	LF	809		
29	Remove Lane Separation System	EA	3		
30	Remove Thermoplastic Pavement Delineation	SF	817		
31	Remove Storm Drain Line	LF	80		
32	Remove Abandoned 2" Steel Water Line	LF	25		
33	Remove Abandoned 1" Steel Gas Line	LF	25		
34	Adjust Manhole To Grade	EA	5		
35	Tree Protection	EA	25		



36	Develop Water Supply	LS	1		
37	Import Fill	CY	3,000		
38	Roadway Excavation (Contaminated)	CY	6,232		
39	Structure Excavation (Soldier Pile Wall, Final Pay)	CY	1,132		
40	Concrete Backfill (Soldier Pile Wall, Final Pay)	CY	385		
41	Decomposed Granite	SF	816		
42	Removable Bollard	EA	7		
43	Hydroseed	SF	47,145		
44	Class 2 Aggregate Base	CY	1,210		
45	Hot Mix Asphalt (Type A)	TON	963		
46	Ground Anchor (Subhorizontal)	EA	96		
47	Timber Lagging 4x12	MFBM	117		
48	Timber Lagging 6x12	MFBM	188		
49	Concrete Paving (Trail)	SF	1,422		
50	Minor Concrete (Concrete Curb, Condition 1)	LF	258		
51	Minor Concrete (Concrete Curb, Condition 2)	LF	3,955		
52	Minor Concrete (Concrete Curb, Condition 3)	LF	120		
53	Minor Concrete (Mountable Curb)	LF	20		
54	Minor Concrete (Curb Type A1-8)	LF	356		
55	Minor Concrete (Gutter)	LF	3,810		
56	Steel Soldier Pile W10x33	LF	2,795		
57	Steel Soldier Pile W12x40	LF	3,394		
58	Steel Soldier Pile W12x45	LF	160		
59	Steel Soldier Pile W14x43	LF	196		
60	Steel Soldier Pile W14x53	LF	297		
61	Steel Soldier Pile W14x61	LF	493		
62	24" Drilled Hole (Soldier Pile)	LF	3,320		
63	Clean And Paint Structural Steel	SF	28,183		
64	15" Drain Basin	EA	14		
65	24" Drain Basin	EA	11		
66	Heavy Duty Storm Drain Manhole Cover	EA	2		
67	4" Pvc Pipe	LF	3,153		
68	12" Pvc Pipe (Wall Gutter)	LF	105		
69	12" Hdpe Pipe	LF	1,688		
70	18" Hdpe Pipe	LF	1,721		
71	Geocomposite Drain	SF	30,435		
72	Minor Concrete (Concrete V-Ditch)	LF	3,034		
73	Trail Sign (Post Condition 2)	EA	2		
74	Roadside Sign (Post Condition 1)	EA	6		
75	Furnish Single-Sheet Aluminium Sign Panel (0.063" Unframed)	SF	43		
76	6' Chain Link Fence Cond. 1 (Std Mesh) Vinyl-Clad Black	SF	3,744		
77	Chain Link Fence Cond. 2 (3/8" Mesh) Galvanized	SF	3,798		
78	6' Chain Link Gate (3/8" Mesh) Galvanized	EA	3		
79	Cable Railing	LF	2,084		

80	Post And Wire Fence	LF	3,955						
81	Lean Rail	EA	1						
82	4" Thermoplastic Traffic Stripe	LF	320						
83	6" Thermoplastic Traffic Stripe (Dashed Crosswalk)	LF	111						
84	4" Thermoplastic Traffic Stripe (Broken 9-3)	LF	3,858						
85	4" Thermoplastic Traffic Stripe (White Dashed)	LF	386						
86	Thermoplastic Pavement Marking	SF	589						
87	Thermoplastic Bike Lane Pavement Marking	SF	445						
88	Geosynthetic Fabric (Dg Path)	SY	91						
89	Geosynthetic Fabric (Ab Paving)	SY	346						
90	Traffic Counter System	EA	1						
91	Trail Electrical System - Lighting And Fiberoptics	LS	1						
92	Mobilization	LS	1						
<b>BB</b>	<b>BASE BID TOTAL</b>								
10% CONTINGENCY									
<b><u>BASE BID PLUS CONTINGENCY TOTAL</u></b>									
Basis of <b><u>BASE BID PLUS CONTINGENCY TOTAL</u></b> in Words: _____									
_____									
<b>PLEASE NOTE:</b> The City will award the Project to the lowest responsible and responsive bidder based on the <b><u>BASE BID PLUS CONTINGENCY TOTAL</u></b>									

<b><u>BID ALTERNATIVE</u></b>					
<b>BB</b>	<b>BASE BID TOTAL (Without Contingency)</b>				<b>\$</b>
93	Timber Lagging 4 X 12 (Deduct)	MFBM	(117)		
94	Timber Lagging 6 X 12 (Deduct)	MFBM	(188)		
95	Geocomposite Drain (Deduct)	SF	(30,435)		
96	4" Pvc Pipe (Deduct)	LF	(3,153)		
97	Structure Excavation (Soldier Pile Wall, Additional, Final Pay)	CY	897		
98	Furnish Precast Concrete Lagging 5 X12	LF	13,082		
99	Furnish Precast Concrete Lagging 6 X12	LF	4,034		
100	Furnish Precast Concrete Lagging 8 X12	LF	8,606		
101	Furnish Precast Concrete Lagging 10 X12	LF	1,572		
102	Erect Precast Concrete Lagging	EA	3,414		
103	4" Perforated Plastic Pipe	LF	3,070		
104	Class 1 Type A Permeable Material (Final Pay)	CY	897		
<b>BID ALTERNATIVE TOTAL</b>					
10% CONTINGENCY					
<b>BID ALTERNATIVE PLUS CONTINGENCY TOTAL</b>					
Basis of <b>BID ALTERNATIVE PLUS CONTINGENCY TOTAL</b> in Words: _____					

**Basis of Bid  
ADDENDUM #3**

Name of Bidder: \_\_\_\_\_

Project Name/Number: **RAIL TRAIL SEGMENT 7 – PHASE 2 (c401413)**

<b><u>BASE BID</u></b>					
Item No.	Item Description	Unit	Estimated Quantity	Unit Price (\$)	Unit Price Extension (\$)
1	Job Site Management	LS	1		
2	Resident Engineer's Office	LS	1		
3	Construction Survey	LS	1		
4	Subsurface Utility Location	EA	20		
5	Prepare Storm Water Pollution Prevention Plan	LS	1		
6	Rain Event Action Plan	EA	36		
7	Storm Water Sampling And Analysis Day	EA	20		
8	Storm Water Annual Report	EA	2		
9	Traffic Control System	LS	1		
10	Portable Changeable Message Sign	EA	2		
11	Project Funding Signs	EA	2		
12	Temporary Fiber Rolls	LF	4,197		
13	Temporary Silt Fence	LF	5,981		
14	Temporary Concrete Washout	EA	1		
15	Street Sweeping	DAY	120		
16	Temporary Construction Entrance	EA	2		
17	Temporary Inlet Protection	EA	28		
18	Temporary High-Visibility Fence	LF	6,927		
19	Clearing And Grubbing	SF	86,993		
20	Remove Concrete Curb & Gutter	LF	20		
21	Remove Concrete Sidewalk	SF	147		
22	Remove Irrigation	SF	4,361		
23	Remove Tree	EA	42		
24	Reset Bollard	EA	2		
25	Remove And Salvage Bollard	EA	4		
26	Reset Posts And Chain	LF	129		
27	Reset Trash Receptacle	EA	1		
28	Remove Fence	LF	809		
29	Remove Lane Separation System	EA	3		
30	Remove Thermoplastic Pavement Delineation	SF	817		
31	Remove Storm Drain Line	LF	80		
32	Remove Abandoned 2" Steel Water Line	LF	25		
33	Remove Abandoned 1" Steel Gas Line	LF	25		
34	Adjust Manhole To Grade	EA	5		

35	Tree Protection	EA	25		
36	Develop Water Supply	LS	1		
37	Import Fill	CY	3,000		
38	Roadway Excavation (Contaminated)	CY	6,232		
39	Structure Excavation (Soldier Pile Wall, Final Pay)	CY	1,132		
40	Concrete Backfill (Soldier Pile Wall, Final Pay)	CY	385		
41	Decomposed Granite	SF	816		
42	Removable Bollard	EA	7		
43	Hydroseed	SF	47,145		
44	Class 2 Aggregate Base	CY	1,210		
45	Hot Mix Asphalt (Type A)	TON	963		
46	Ground Anchor (Subhorizontal)	EA	96		
47	Timber Lagging 4x12	MFBM	117		
48	Timber Lagging 6x12	MFBM	188		
49	Concrete Paving (Trail)	SF	1,422		
50	Minor Concrete (Concrete Curb, Condition 1)	LF	258		
51	Minor Concrete (Concrete Curb, Condition 2)	LF	3,955		
52	Minor Concrete (Concrete Curb, Condition 3)	LF	120		
53	Minor Concrete (Mountable Curb)	LF	20		
54	Minor Concrete (Curb Type A1-8)	LF	356		
55	Minor Concrete (Gutter)	LF	3,810		
56	Steel Soldier Pile W10x33	LF	2,795		
57	Steel Soldier Pile W12x40	LF	3,394		
58	Steel Soldier Pile W12x45	LF	160		
59	Steel Soldier Pile W14x43	LF	196		
60	Steel Soldier Pile W14x53	LF	297		
61	Steel Soldier Pile W14x61	LF	493		
62	24" Drilled Hole (Soldier Pile)	LF	6,246		
63	Clean And Paint Structural Steel	SF	28,183		
64	15" Drain Basin	EA	14		
65	24" Drain Basin	EA	11		
66	Heavy Duty Storm Drain Manhole Cover	EA	2		
67	4" Pvc Pipe	LF	3,153		
68	12" Pvc Pipe (Wall Gutter)	LF	105		
69	12" Hdpe Pipe	LF	1,688		
70	18" Hdpe Pipe	LF	1,721		
71	Geocomposite Drain	SF	30,435		
72	Minor Concrete (Concrete V-Ditch)	LF	3,034		
73	Trail Sign (Post Condition 2)	EA	2		
74	Roadside Sign (Post Condition 1)	EA	6		
75	Furnish Single-Sheet Aluminium Sign Panel (0.063" Unframed)	SF	43		
76	6' Chain Link Fence Cond. 1 (Std Mesh) Vinyl-Clad Black	SF	3,744		
77	Chain Link Fence Cond. 2 (3/8" Mesh) Galvanized	SF	3,798		
78	6' Chain Link Gate (3/8" Mesh) Galvanized	EA	3		

79	Cable Railing	LF	2,084		
80	Post And Wire Fence	LF	3,955		
81	Lean Rail	EA	1		
82	4" Thermoplastic Traffic Stripe	LF	320		
83	6" Thermoplastic Traffic Stripe (Dashed Crosswalk)	LF	111		
84	4" Thermoplastic Traffic Stripe (Broken 9-3)	LF	3,858		
85	4" Thermoplastic Traffic Stripe (White Dashed)	LF	386		
86	Thermoplastic Pavement Marking	SF	589		
87	Thermoplastic Bike Lane Pavement Marking	SF	445		
88	Geosynthetic Fabric (Dg Path)	SY	91		
89	Geosynthetic Fabric (Ab Paving)	SY	346		
90	Traffic Counter System	EA	1		
91	Trail Electrical System - Lighting And Fiberoptics	LS	1		
92	Mobilization	LS	1		
93	Railroad Operations Flagging (Allowance)	EA	250	\$500.00	\$125,000.00
94	12” Welded Steel Pipe Casing	LF	95		
95	4” PVC Irrigation Sleeve	LF	46		
96	6” PVC Irrigation Sleeve	LF	38		
BB	BASE BID TOTAL				
				10% CONTINGENCY	
				<u>BASE BID PLUS CONTINGENCY TOTAL</u>	
Basis of <u>BASE BID PLUS CONTINGENCY TOTAL</u> in Words: _____					
_____					
_____					
PLEASE NOTE: The City will award the Project to the lowest responsible and responsive bidder based on the <u>BASE BID PLUS CONTINGENCY TOTAL</u> .					

<b><u>BID ALTERNATIVE</u></b> <b><u>ADDENDUM #3</u></b>					
Item No.	Item Description	Unit	Estimated Quantity	Unit Price (\$)	Unit Price Extension (\$)
<b>BB</b>	<b>BASE BID TOTAL (Without Contingency)</b>				<b>\$</b>
<b>97</b>	Timber Lagging 4 X 12 (Deduct)	MFBM	(117)		
<b>98</b>	Timber Lagging 6 X 12 (Deduct)	MFBM	(188)		
<b>99</b>	Geocomposite Drain (Deduct)	SF	(30,435)		
<b>100</b>	4" Pvc Pipe (Deduct)	LF	(3,153)		
<b>101</b>	Structure Excavation (Soldier Pile Wall, Additional, Final Pay)	CY	897		
<b>102</b>	Furnish Precast Concrete Lagging 5 X12	LF	13,082		
<b>103</b>	Furnish Precast Concrete Lagging 6 X12	LF	4,034		
<b>104</b>	Furnish Precast Concrete Lagging 8 X12	LF	8,606		
<b>105</b>	Furnish Precast Concrete Lagging 10 X12	LF	1,572		
<b>106</b>	Erect Precast Concrete Lagging	EA	3,414		
<b>107</b>	4" Perforated Plastic Pipe	LF	3,070		
<b>108</b>	Class 1 Type A Permeable Material (Final Pay)	CY	897		
<b>BID ALTERNATIVE TOTAL</b>					
10% CONTINGENCY					
<b>BID ALTERNATIVE PLUS CONTINGENCY TOTAL</b>					
Basis of <b>BID ALTERNATIVE PLUS CONTINGENCY TOTAL</b> in Words: _____					
_____					



**Bid Bond  
(If Bond Posted as Security)**

KNOW ALL PERSONS BY THESE PRESENT:

THAT WE, \_\_\_\_\_, AS PRINCIPAL,  
AND \_\_\_\_\_, AS SURETY, are held and firmly  
bound unto the City of Santa Cruz in the penal sum of 10 PERCENT OF THE TOTAL AMOUNT  
OF THE BID of the Principal above named, submitted by said Principal to the City of Santa Cruz  
for the work described below, for the payment of which sum in lawful money of the United States,  
well and truly to be made to the City of Santa Cruz to which said bid was submitted, we bind  
ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by  
these presents. In no case shall the liability of the surety hereunder exceed the sum of  
\$ \_\_\_\_\_.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT, WHEREAS, the Principal has  
submitted the above-mentioned bid to the City of Santa Cruz, aforesaid, for certain construction  
specifically described as follows, for which bids are to be opened at:

**2:00 p.m. / April 7, 2022**

809 Center Street, Room 201, Santa Cruz, CA 95060

For:

**“RAIL TRAIL SEGMENT 7 – PHASE 2, c401413”**

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

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

PRINCIPAL

SURETY

\_\_\_\_\_  
(Seal)

\_\_\_\_\_  
(Seal)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

\_\_\_\_\_  
Address

\_\_\_\_\_  
Address

(Note: Signatures of those executing for the surety as an Attorney-in-Fact must include a Notary Acknowledgement.)

**Bid Bond  
(If Bond Posted as Security)**

KNOW ALL PERSONS BY THESE PRESENT:

THAT WE, \_\_\_\_\_, AS PRINCIPAL,  
AND \_\_\_\_\_, AS SURETY, are held and firmly  
bound unto the City of Santa Cruz in the penal sum of 10 PERCENT OF THE TOTAL AMOUNT  
OF THE BID of the Principal above named, submitted by said Principal to the City of Santa Cruz  
for the work described below, for the payment of which sum in lawful money of the United States,  
well and truly to be made to the City of Santa Cruz to which said bid was submitted, we bind  
ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by  
these presents. In no case shall the liability of the surety hereunder exceed the sum of  
\$\_\_\_\_\_.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT, WHEREAS, the Principal has  
submitted the above-mentioned bid to the City of Santa Cruz, aforesaid, for certain construction  
specifically described as follows, for which bids are to be opened at:

**3:00 p.m. / April 21, 2022**  
809 Center Street, Room 201, Santa Cruz, CA 95060

For:

**“RAIL TRAIL SEGMENT 7 – PHASE 2, c401413”**

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

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

PRINCIPAL

SURETY

\_\_\_\_\_  
(Seal)

\_\_\_\_\_  
(Seal)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

\_\_\_\_\_  
Address

\_\_\_\_\_  
Address

(Note: Signatures of those executing for the surety as an Attorney-in-Fact must include a Notary  
Acknowledgement.)

### List of Subcontractors Form

Name of Bidder: \_\_\_\_\_  
Project Name/Number: \_\_\_\_\_

Bidder will use Subcontractors for the Work: ☐ YES ☐ NO

For each subcontractor to whom the Bidder proposes to subcontract portions of the work in an amount in excess of one-half of one percent, Bidder shall indicate on this form each proposed subcontractor's legal/contracting entity name, business address and phone number, the Contractor's State Licensing Board license number, the public works contractor registration number issued pursuant to California Labor Code Section 1725.5, the dollar amount and proportion (in percent) of the Work of each Subcontractor (of any tier) to whom a portion of the Work will be awarded via one or more subcontracts, and the work to be performed by the subcontractor.

<b>Subcontractor's Legal Name</b>	<b>Business Address and Phone Number</b>	<b>CSLB License Number</b>	<b>Public Works Contractor DIR Number</b>	<b>Subcontract Amount and Proportion of Total Bid Price</b>	<b>Work to Be Performed</b>

(Attach additional sheets, if necessary)

## DIR COMPLIANCE AFFIDAVIT

Name of Bidder: \_\_\_\_\_

Project Name/Number: \_\_\_\_\_

California Labor Code requires private contractors, and their subcontractors, to pay prevailing wages to their workers when working on a project funded by a public entity. Prevailing wages are due if the project costs more than \$1,000, and involves the following construction work: new construction, alteration, demolition, installation, repair and maintenance. Contractors must also make an attempt to hire apprentices when the total project costs exceed \$30,000.

Prior to commencement of the Contract, all Contractors and subcontractors are required to register, and maintain active registration throughout the duration of the contract with the California Department of Industrial Relations (DIR). For information regarding registration, please go to <https://www.dir.ca.gov/Public-Works/PublicWorks.html>.

- No contractor or subcontractor may be listed on a bid proposal for a public works project (effective March 1, 2015) unless registered with the DIR pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)].
- No contractor or subcontractor may be awarded a contract for public work on a public works project (effective April 1, 2015) unless registered with the DIR pursuant to Labor Code section 1725.5.
- DIR registration is required each fiscal year (July 1 – June 30).

I, the Bidder, certify that:

I acknowledge that this project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. I am aware of the provisions of Senate Bill SB 854 and Labor Code sections 1725.5, 1771.1(a), 1774-1776, 1777.5, 1813, and 1815 which require Contractors to comply with all labor compliance requirements, including but not limited to, prevailing wage requirements, Public Works Contractor Registration Program, Electronic Certified Payroll Reporting, and other requirements described in the DIR website. I will comply with such provisions before commencing the performance of the work of this contract, and maintain compliance throughout the completion of said contract.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Title

## Contractor Reference Information

Name of Bidder: \_\_\_\_\_

Project Name/Number: \_\_\_\_\_

Failure to provide this information may constitute grounds for rejection of the bid.

The Bidder has been engaged in the contracting business under State License No.(s) \_\_\_\_\_  
for a period of years.

The following are five owners for whom the Bidder has constructed projects of similar scope to the Project. Such projects will have been completed within the past five years.

1. Name, Address, Contact Person, Phone No, Email: \_\_\_\_\_

Project Description: \_\_\_\_\_

Date Completed: \_\_\_\_\_

2. Name, Address, Contact Person, Phone No, Email: \_\_\_\_\_

Project Description: \_\_\_\_\_

Date Completed: \_\_\_\_\_

3. Name, Contact Person, Phone No, Email: \_\_\_\_\_

Project Description: \_\_\_\_\_

Date Completed: \_\_\_\_\_

4. Name, Contact Person, Phone No, Email: \_\_\_\_\_

Project Description: \_\_\_\_\_

Date Completed: \_\_\_\_\_

5. Name, Contact Person, Phone No, Email: \_\_\_\_\_

Project Description: \_\_\_\_\_

Date Completed: \_\_\_\_\_

**Non-Collusion Declaration**  
(Pursuant to Section 7106 of the Public Contract Code)

Name of Bidder: \_\_\_\_\_

Project Name/Number: \_\_\_\_\_

The undersigned declares:

I am the \_\_\_\_\_ of \_\_\_\_\_, the party making the foregoing bid.

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

Any person executing this declaration on behalf of a bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the bidder.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on \_\_\_\_\_, 20\_\_, at \_\_\_\_\_[City], \_\_\_\_\_, [State].

\_\_\_\_\_  
(Signature)

### Bidder's Financial Qualification

Name of Bidder: \_\_\_\_\_

Project Name/Number: \_\_\_\_\_

Reference is hereby made to the following bank or banks as to the financial responsibility of the Bidder:

<b>Name of Bank</b>	<b>Address/Phone Number/Contact Name &amp; Title</b>

Reference is hereby made to the following surety companies as to the financial responsibility and general reliability of the Bidder:

Company: \_\_\_\_\_

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

Company: \_\_\_\_\_

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

I certify that Bidder is financially and technically capable of performing and has the necessary experience to perform the work of the contract.

I declare under penalty of perjury that the foregoing is true and correct. This certificate is executed on \_\_\_\_\_[date], at \_\_\_\_\_[city], \_\_\_\_\_[state].

BIDDER

\_\_\_\_\_  
Name: \_\_\_\_\_

Title: \_\_\_\_\_



**Iran Contracting Act Certification**  
**California Public Contract Code §§ 2202 – 2208**  
*(If Bid For More than \$1,000,000)*

Name of Bidder: \_\_\_\_\_  
Project Name/Number: \_\_\_\_\_

Bidders are ineligible to bid on or submit a bid for any contract with a public entity for goods or services of one million dollars (\$1,000,000) or more if the Bidder engages in investment activities in Iran (Public Contract Code § 2204). For bids \$1,000,000 or more, Bidders must certify that it is not on the list of ineligible vendors prohibited from doing business with the State of California and shall complete the Iran Contracting Act Certification attached and submitted with their Bid. Failure to do so may deem the Bid nonresponsive. To submit a bid for this Project, please check one of the two options and complete the declaration, below. Please note: California law establishes penalties for providing false certifications, including civil penalties equal to the greater of \$250,000 or twice the amount of the contract for which the false certification was made, contract termination, and a three-year ineligibility to bid on contracts. (Public Contract Code § 2205).

☐ Option 1: Certification

I, the official named below, certify that I am duly authorized to execute this certification on behalf of the vendor listed below, and the vendor identified below is **not** on the current list of persons engaged in investment activities in Iran created by the Department of General Services (DGS) and is not a financial institution extending twenty million dollars (\$20,000,000) or more in credit to another person/vendor, for 45 days or more, if that other person/vendor or person will use the credit to provide goods or services in the energy sector in Iran and is identified on the current list of persons engaged in investment activities in Iran created by DGS.

☐ Option 2: Exemption

Pursuant to PCC Sections 2203(c) and (d), a public entity may permit a vendor engaged in investment activities in Iran, on a case-by-case basis, to be eligible for or to bid on, submit a proposal for, or enter into or renew a contract for goods and services. Vendor has obtained an exemption from the certification requirement under the Iran Contracting Act and attaches documentation herein demonstrating the exemption approval.

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

BIDDER

\_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

## CONTRACTOR QUALIFICATION QUESTIONNAIRE

The Bidder agrees to complete, sign, and return this Contractor Qualification Questionnaire, including all required supporting documentation, with the Bid. If Bidder fails or refuses to fully complete the Contractor Qualification Questionnaire, furnish all required attachments, sign the Contractor Qualification Questionnaire, and return it to the City with the Bid, the Bid will be considered incomplete and the City reserves the right to reject the Bid as nonresponsive. The Bid will not be considered for award of the contract.

Bidder shall fully and completely answer each question set forth below. If necessary, Bidder shall attach additional sheets. Please print or type each response. If your response to any question is “no” or “none,” you must state “no” or “none.” “Not applicable” or other similar responses will not be accepted.

1. State the full legal name of the Bidder.
2. State the nature of the Bidder’s business entity (i.e. sole proprietorship, joint venture, partnership, corporation, or other [describe]).
3. State the name and address of each person or other legal entity which has a legal or equitable ownership interest of ten percent (10%) or more of the Bidder. For each such person or legal entity, state that person or entity’s ownership interest, title, and responsibilities, if any.
4. Has any person or legal entity holding a legal or equitable ownership of ten percent (10%) or more of the Bidder ever been accused of a civil violation of California Government Code Section 12650 et seq. (False Claims Act)? If so, describe in detail all facts, circumstances, and the outcome.
5. Has any person or legal entity holding a legal or equitable ownership of ten percent (10%) or more of the Bidder ever been determined by a public agency to not be a responsible bidder? If so, state the name, address, and telephone number of the public agency, including the name of the agency’s contact person.
6. State the Bidder’s contractor’s license number(s).
7. State the date Bidder first began business.
8. State any other names that Bidder has used or done business under in the past five (5) years.
9. Describe, in general, Bidder’s construction experience.
10. Has Bidder ever failed to complete a construction project? If so, describe in detail all facts, circumstances, and the outcome.
11. Has Bidder’s control over a work of improvement ever been terminated? If so, describe in detail all facts, circumstances, and the outcome.

12. For every public work of improvement upon which Bidder has furnished labor, services, materials, or equipment in the past five years, whether completed or not, for which the Bidder's original contract was greater than **\$9,000,000 but not more than \$11,000,000**, state the name, address, and telephone number of the owner and principal designer (architect or engineer), original and final cost (if greater than 10% of original), and year.
13. For every lawsuit or arbitration between Bidder and the owner of any work of improvement initiated within the past five (5) years, state the name and address of the tribunal, the matter number, the parties, a general description of the nature of the dispute, and the outcome, if any.
14. Has Bidder ever been charged with a felony? If so, describe all facts, circumstances, and the outcome, furnishing the name and address of the court in which the charge(s) were filed, including the matter name and case number.
15. Has Bidder ever been accused of a civil violation of California Government Code Section 12650 et seq. (False Claims Act)? If so, describe in detail all facts, circumstances, and the outcome.
16. Has Bidder ever been accused of presenting false claims to a public agency or public owner, as such claims are defined in California Government Code Section 12650 et seq., or 31 United States Code Section 3729 et seq.? If so, describe in detail all facts, circumstances, and the outcome.
17. Has any public agency ever determined or ruled that Bidder is not a responsible bidder? If so, state the name, address, and telephone number of the public agency, including the name of the agency's contact person.
18. Within the past five (5) years, has Bidder ever failed to complete a public works construction project, within the time allowed by the contract, plus any written agreed upon contract time extensions? If so, state the name, address, and telephone number of the owner of such public works construction project including the name of the agencies' contact person, and further, describe in detail the nature of the work of improvement.
19. Has any surety of Bidder ever paid or satisfied any claim on behalf of Bidder? If so, state all facts and circumstances, including the name, address, and telephone number of surety and all claimants.
20. Has any surety of Bidder ever been called upon to complete a project of Bidder? If so, state all facts and circumstances, including the name, address, and telephone number of surety and all claimants.
21. For each project or work of improvement that Bidder is either (a) currently furnishing labor, services, materials, or goods, or (b) under contract to furnish labor, services, materials, or goods state a general description of the project; the current status of the project and Bidder's work thereon; the owner's name, address, and telephone number; and the amount of Bidder's contract on such project.

22. State Bidder's annual gross sales for each of the last five (5) fiscal years.

23. Have Bidder's accounts receivable or rights to payment been assigned to a third party? If so, state the name of the third party and whether the third party has a secured or unsecured interest. Attach a copy of the assignment agreement to this Questionnaire.

The following certification must be signed by an owner, general partner, or officer of Bidder.

I declare under penalty of perjury under the laws of the State of California, and do personally certify and attest that: I have thoroughly reviewed the attached contractor qualification questionnaire and attachments, if any, and know its contents, and said contractor qualification questionnaire and attachments, if any, are truthful, complete and accurate; and that city of Santa Cruz may reasonably rely upon the contents as being complete and accurate; and further, that I am familiar with California Penal Code Section 72 and California Government Code Section 12650 et seq., pertaining to false claims, and further know and understand that submission or certification of a false claim may lead to fines, imprisonment, and/or other severe legal consequences.

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

BIDDER: \_\_\_\_\_

\_\_\_\_\_  
Name: \_\_\_\_\_

Title: \_\_\_\_\_

## **AGREEMENT**

THIS AGREEMENT, made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ (“Effective Date”), by and between the CITY OF SANTA CRUZ, a municipal corporation, hereinafter called “City,” and \_\_\_\_\_, hereinafter called “Contractor;”

WITNESSETH, that the parties hereto do mutually agree as follows:

### ARTICLE I

That for and in consideration of the covenants and agreements herein contained and the payments at the prices stated in the bid proposal attached hereto, and by this reference made a part hereof, the Contractor hereby covenants and agrees to furnish any and all required supervision, labor, equipment, material, services, and transportation, as set forth in the Contract Documents as hereinafter defined, and will bear any and all other expense necessary or incidental to the performance of certain work hereinafter specified, and to build, construct, reconstruct, pave or repave and complete improvements for:

#### **RAIL TRAIL SEGMENT 7 – PHASE 2**

(the “Project”) in strict conformity and compliance with the Contract Documents, and to do everything required by this Agreement, and by said Contract Documents as hereinafter defined (the “Work”).

### ARTICLE II

It is expressly agreed and understood by each and every party to this Agreement that the following documents are hereby incorporated and made a part of this Agreement (hereinafter the “Contract Documents”):

1. All applicable Laws and Regulations
2. Duly issued Agreement modifications, and allowance authorization(s) signed by the City, in chronological order by effective date of each.
3. This Agreement, including:
  - a. Exhibit A – Contractor’s Bid Proposal, including all attachments
4. Performance Bond
5. Labor and Material Bond (Payment Bond)
6. Insurance Certificates, including Contractor’s Certificate Relating to Worker’s Compensation
7. Invitation For Bids for RAIL TRAIL SEGMENT 7 – PHASE 2 (c401413), including the Project Specifications, drawings, and plans, all Exhibits, and all Addenda in the reverse order of date of issuance
8. General Conditions
9. Standard Specifications, including the City Specifications and all applicable State Specifications and/or Drawings
10. Required documents and fee payments to obtain approval for Right of Entry from St. Paul & Pacific Railroad (SPPR) in accordance with the Guidelines for Document Submission Railroad Right of Way and Right of Entry Request requirements at <https://www.progressiverail.com>

The parties to this Agreement do hereby expressly acknowledge that they have read, understand, and promise to comply with each and every provision of Contract Documents. There are no Contract Documents other than those indicated above. In the event inconsistencies, conflicts, or ambiguities between and among the Contract Documents are discovered, the parties shall attempt to resolve any ambiguity, conflict, or inconsistency informally, recognizing that the Contract Documents shall take precedence in the order in which they are listed above. Inclusion of an order of precedence herein does not in any way negate or reduce Contractor's obligation to report conflicts, discrepancies, apparent omissions, and similar matters to the City.

### ARTICLE III

It is expressly agreed and understood by the Contractor that the "Standard Specifications" consists of the documents on file at the Public Works Department of the City of Santa Cruz, entitled:

1. City of Santa Cruz Department of Public Works, Department of Parks and Recreation, and Water Department 2002 Standard Specifications ("City Specifications");
2. ~~2018 Standard Specifications of the State of California, Department of Transportation, dated 2018, and Revised Standard Specifications dated November 19, 2020 ("State Specifications"); and~~
3. State of California /Caltrans: California Manual on Uniform Traffic Control Devices (CA MUTCD) (2014 Revision 6).

Where conflicts arise between the City's Standard Specifications and the State Specifications, the City's Standard Specifications shall control and apply.

### ARTICLE IV

Contractor shall conform to all laws and regulations of the United States and the State of California, as well as laws of Santa Cruz, as may be applicable to the Project. In addition, the City Council of the City of Santa Cruz endorses the MacBride Principles and the Peace Charter and encourages all companies doing business in Northern Ireland to abide by the MacBride Principles.

### ARTICLE V

The City hereby contracts to pay said Contractor the prices provided for in the Bid Proposal in the manner, to the extent, and at the times set forth in the Contract Documents.

### ARTICLE VI

It is agreed by the parties hereto that the acceptance of the Contractor's performance will be made only by an affirmative action of the City of Santa Cruz City Council in session, evidenced by resolution, and upon the filing by the Contractor of a Release of all Claims of every nature on account of work done under this Agreement, together with an affidavit that all claims have been fully paid. The acceptance by the Contractor of said final payment shall constitute a waiver of all claims against the City arising out of or in connection with this Agreement.

## ARTICLE VII

To the fullest extent permitted by law, Contractor shall defend, indemnify, and hold harmless the City and its respective officials, officers, directors, partners, employees, and authorized agents (“Indemnitees”) from and against any and all claims, suits, actions, judgments, demands, liabilities, losses, damages, expenses, including attorneys’ fees and costs of litigation (collectively, “Losses”), arising from personal or bodily injuries, death, property damage, or otherwise in any way related to, connected with, or resulting from the obligations or performance of the Work under this Agreement by Contractor, Subcontractors, Suppliers, and their respective officers, directors, employees, agents, or other third parties directly or indirectly employed by or under their authority or control. This provision shall not be deemed to require the Contractor to indemnify or hold harmless an Indemnatee for any Loss proximately caused by the sole or active negligence or willful misconduct of the Indemnatee, as determined by a court or other adjudicatory body of competent jurisdiction. This provision shall survive the termination of the Agreement or the completion of the Work.

## ARTICLE VIII

Contractor shall be responsible for complying with the provisions of California Public Contract Code Section 7104 regarding trenching and excavations that extend deeper than four (4) feet below the surface. No change order issued pursuant to California Public Contract Code Section 7104 shall provide for any increase in compensation that would exceed the recovery allowed pursuant to the “Claims” section of the General Requirements.

## ARTICLE IX General Terms

1. Complete Agreement. This Agreement, along with the terms and conditions in the Contract Documents and any attachments, is the full and complete integration of the Parties’ agreement with respect to the matters addressed herein, and that this Agreement supersedes any previous written or oral agreements between the Parties with respect to the matters addressed herein. Unless otherwise stated, to the extent there is any conflict between this Agreement and any other agreement (written or oral), the terms of this Agreement shall control.
2. Severability. The unenforceability, invalidity or illegality of any provision(s) of this Agreement shall not render the other provisions unenforceable, invalid or illegal.
3. Waiver. Waiver by any party of any portion of this Agreement shall not constitute a waiver of the same or any other portion hereof.
4. Governing Law. This Agreement shall be governed by and interpreted in accordance with California law.
5. Contract Interpretation. Each party acknowledges that it has reviewed this Agreement and that the normal rule of construction to the effect that any ambiguities are to be resolved against the drafting party shall not be employed in the interpretation of this Agreement.
6. Counterparts. The Parties may execute this Agreement in two or more counterparts, which shall, in the aggregate, be deemed an original but all of which, together, shall constitute one and the same instrument. A scanned, electronic, facsimile or other copy of a party’s signature shall be accepted and valid as an original.



7. Warranty of Authority. The signatories to this Agreement warrant and represent that each is authorized to execute this Agreement and that their respective signatures serve to legally obligate their respective representatives, agents, successors and assigns to comply with the provisions of this Agreement.

*Signature Page to Follow*

IN WITNESS WHEREOF, this Agreement is executed by the City Manager of the City of Santa Cruz, under and pursuant to a resolution of the City Council authorizing such execution, and the Contractor has affixed his/her signature hereto the day and year first hereinabove written.

**Approved as to Form by:**

\_\_\_\_\_  
City Attorney

Date: \_\_\_\_\_

**For Contractor Name:**

Signature: \_\_\_\_\_  
(Name, Title)

Date: \_\_\_\_\_

**For CITY OF SANTA CRUZ, a municipal corporation**

\_\_\_\_\_  
City Manager

Date: \_\_\_\_\_

## **FAITHFUL PERFORMANCE BOND**

WHEREAS, the City Council of the City of Santa Cruz, a municipal corporation in the County of Santa Cruz, State of California (the "City"), and \_\_\_\_\_ hereinafter designated as "Principal" have entered into an agreement whereby Principal agrees to install and complete the work or improvement described in the contract documents entitled: **RAIL TRAIL SEGMENT 7 – PHASE 2 (c401413)**, adopted by the City Council of the City on **January 26, 2021**; and

WHEREAS, said Principal is about to enter into the annexed agreement with the City as is required to furnish security for the faithful performance of said Agreement.

NOW, THEREFORE, we, the Principal, and \_\_\_\_\_, a corporation organized and existing under and by virtue of the laws of the State of \_\_\_\_\_, as "Surety", are held and firmly bound unto the City, in the sum of \_\_\_\_\_ (\$ \_\_\_\_\_), such sum being not less than one hundred percent (100%) of the estimated contract cost of the work, lawful money of the United States of America, to be paid to the City, for payment of which sum, well and truly to be paid, we hereby jointly and severally bind ourselves, our heirs, administrators, executors, successors and assigns, by these presents;

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the above bound Principal, its heirs, executors, administrators, successors, or assigns will in all things abide by and well and truly keep and perform the covenants, conditions and provisions in the said agreement and any alteration thereof made as therein provided, on his or her part, to be kept and performed at the time and in the manner therein specified, and in all respects according to the true intent and meaning, and will indemnify and save harmless the City, its officers and agents, and employees, as therein stipulated, then this obligation will become null and void, otherwise it will be and remain in full force and effect.

As a part of the obligation secured hereby and in addition to the face amount specified therefore, there will be included costs and reasonable expenses and fees, including reasonable attorneys' fees, incurred by the City.

As a condition precedent to the satisfactory completion of the said contract, an obligation in the amount of \_\_\_\_\_ (\$ \_\_\_\_\_), being not less than ten percent (10%) of the estimated contract cost, will remain in force for a period of one (1) year after the official acceptance of said work, during which time if the Principal, its heirs, executors, administrators, successors or assigns will fail to make full, complete and satisfactory repairs and replacements or totally protect the City of Santa Cruz from loss or damage made evident during said period of one (1) year from the date of official acceptance of said work and resulting from or caused by defective materials or faulty workmanship in the prosecution of the work done, the above obligation in the sum of (\$ \_\_\_\_\_), will remain in full force and effect, otherwise the obligation will be discharged. However, notwithstanding any other provisions of this paragraph, the obligation for the surety hereunder will continue so long as any obligation of the Principal remains.

The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the contract or to the work to be performed thereunder or the

specifications will in any manner affect this obligation upon this bond, and it does hereby explicitly waive notice of any such changes, extensions of time, alterations, or additions to the terms of the contract or to the work to be performed thereunder, or to the specifications, and it further explicitly hereby waives its rights under California Civil Code § 2819.

IN WITNESS WHEREOF, the parties have executed this instrument under their seals this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, and duly signed by its undersigned representative, pursuant to the authority of its governing body.

**PRINCIPAL:**

Firm name: \_\_\_\_\_

Printed name: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Title: \_\_\_\_\_

**SURETY:**

Firm name: \_\_\_\_\_

Printed name: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Title: \_\_\_\_\_

I hereby approve the form of the within bond.

\_\_\_\_\_  
City Attorney

\_\_\_\_\_  
Date

(Note: Signatures of those executing for the surety as an Attorney-in-Fact must include a Notary Acknowledgement.)

## **LABOR AND MATERIAL BOND**

WHEREAS, as the City Council of the City of Santa Cruz, a municipal corporation in the County of Santa Cruz, State of California (the "City"), has awarded to \_\_\_\_\_ hereinafter designated as the "Principal", a contract for constructing the work or improvement described in the contract documents entitled: **RAIL TRAIL SEGMENT 7 – PHASE 2 (c401413)**, adopted by the City Council of the City **January 26, 2021** and

WHEREAS, said Principal is required under the terms of said contract to furnish a Labor and Material Bond, the surety of this bond will pay the same to the extent hereinafter set forth; and

WHEREAS, the said Principal is about to enter into the annexed contract with the City to complete the work or improvement referred to above for the City, all as more particularly and in detail shown upon the Contract Documents filed in the Office of the City Clerk of the City:

NOW, THEREFORE, we, the Principal, and \_\_\_\_\_, a corporation organized and existing under and by virtue of the laws of the State of \_\_\_\_\_ as "Surety", are held and firmly bound unto the City of Santa Cruz in the sum of \_\_\_\_\_ dollars (\$ \_\_\_\_\_), such sum being not less than one hundred percent (100%) of the estimated contract cost of the work, lawful money of the United States of America, to be paid to the City of Santa Cruz, for payment of which sum, well and truly to be made, we hereby bind ourselves, our heirs, administrators, executors, successors and assign jointly and severally.

THE CONDITION OF THIS OBLIGATION IS SUCH, that if said Principal or its heirs, executors, administrators, successors or assigns, shall fail to pay for any materials, provisions, vendor supplies, or equipment as provided in the contract documents, upon, for, or about the performance of the work contracted to be done, or for any work or waiver thereon of any kind, or for amounts due under the Unemployment Insurance Code with respect to work or labor performed by any such claimant, or fails to pay any of the persons authorized under Civil Code Section 9100 to assert a claim against a payment bond, or fails to pay for any amounts required to be deducted, withheld, and paid over to the Franchise Tax Board for the wages of employees of the Principal or his/her subcontractor pursuant to Section 18806 of the Revenue and Taxation Code, or fails to pay for any amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of the principal and all subcontractors with respect to such work and labor that the surety or sureties will pay for the same, in an amount not exceeding the sum specified in this bond, and also, in case suit is brought upon the bond, will pay, in addition to the face amount hereof, a reasonable attorney's fee, to be fixed by the Court.

The condition of this obligation is such that its terms inure to the benefit of any of the persons and entities authorized in Civil Code Section 9100 to assert a claim against a payment bond so as to give a right of action to such persons or entities or their assigns in any suit brought upon or action to enforce liability on the bond.

The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the contract or to the work to be performed thereunder shall in any manner affect its obligation upon this bond, and it does hereby explicitly waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the

work to be performed thereunder, and further explicitly hereby waives its rights under Civil Code Section 2819.

IN WITNESS WHEREOF, the above parties have executed this instrument under their seals this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, and duly signed by its undersigned representative, pursuant to the authority of its governing body.

**PRINCIPAL:**

Firm name: \_\_\_\_\_

Printed name: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Title: \_\_\_\_\_

**SURETY:**

Firm name: \_\_\_\_\_

Printed name: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Title: \_\_\_\_\_

I hereby approve the form of the within bond.

\_\_\_\_\_  
City Attorney

\_\_\_\_\_  
Date

(Note: Signatures of those executing for the surety as an Attorney-in-Fact must include a Notary Acknowledgement.)

### Contractor's Certificate Relating to Worker's Compensation

I, THE UNDERSIGNED, HEREBY CERTIFY that at all times during the performance of any work under contract with the City of Santa Cruz (check one of the following) for **RAIL TRAIL SEGMENT 7 – PHASE 2 (c401413)**:

- ☐ I have and will maintain in full force and effect Workers' Compensation Insurance, as required by Section 3700 of the Labor Code, for the performance of the Work. My Workers' Compensation insurance carrier and policy number are:

Insurance Carrier: \_\_\_\_\_

Policy Number: \_\_\_\_\_

- ☐ I have and will maintain in full force and effect and have attached hereto a Certificate of Consent to Self-Insure issued by the Director of Industrial Relations, as provided for by Section 3700 of the Labor Code, for the performance of the Work.

I declare under penalty of perjury that the foregoing is true and correct and executed on \_\_\_\_\_, 20\_\_ at \_\_\_, California.

CONTRACTOR

\_\_\_\_\_  
Name: \_\_\_\_\_

Title: \_\_\_\_\_

## GENERAL REQUIREMENTS

### 1. Failure to Execute Contract

Failure of the lowest responsible and responsive bidder to execute the Contract and provide all acceptable bonds and documents as required by the Contract Documents as provided herein within ten (10) calendar days after such bidder has received the Contract for execution shall be just cause for the annulment of the award and the forfeiture of the bid security. This period of time shall be subject to extension for such further period as may be agreed upon in writing between the City and Bidder concerned.

### 2. Contractor's Insurance

Contractor will procure and maintain for the duration of the contract, insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder and the results of that work by the Contractor, its/his agents, representatives, employees or subcontractors.

#### **A. CERTIFICATE REQUIREMENTS**

The City will be issued a Certificate of Insurance (a Memorandum of Understanding will not be accepted) with the following minimum requirements:

- Certificate(s) will show current policy number(s) and effective dates,
- Coverage and policy limits will meet, or exceed, requirements below,
- The Certificate Holder will be City of Santa Cruz, Risk Management, 333 Front Street., Suite 200, Santa Cruz, CA 95060,
- Certificate will be signed by an authorized representative,
- An endorsement will be provided to show **the City, the Santa Cruz County Regional Transportation Commission, St. Paul & Pacific Railroad (Progressive Rail), Roaring Camp Railroads INC.**, officers, officials, employees, agents, and volunteers of those entities as additional insureds.

#### **B. MINIMUM SCOPE AND LIMITS OF INSURANCE**

Consultant acknowledges that the insurance coverage and policy limits set forth in this section constitute the minimum amount of coverage required. The City will be entitled to coverage for the highest limits maintained by Consultant. Coverage will be at least as broad as:

- **COMMERCIAL GENERAL LIABILITY (CGL): \$10,000,000 PER OCCURRENCE; \$10,000,000 AGGREGATE**

Proof of coverage for **\$10 Million per occurrence** including products and completed operations, property damage, bodily injury, personal and advertising injury will be provided on Insurance Services Office (ISO) Form CG 00 01 covering CGL. If a general aggregate limit applies, either the general aggregate limit will apply separately to this project/location or the general aggregate limit will be at least twice the required occurrence limit.



**\$6,000,000, per Addendum number 3**

- RAILROAD PROTECTIVE LIABILITY INSURANCE in the minimum limit of **\$2,000,000** per occurrence and ~~\$4,000,000~~ in the aggregate, or Comprehensive or Commercial General Liability Insurance coverage that does not exclude work within fifty (50) feet of a railroad track and with a minimum limit of **\$2,000,000** per occurrence and ~~\$4,000,000~~ in aggregate.

**\$6,000,000, per Addendum number 3**

- AUTOMOBILE LIABILITY:  
Proof of coverage for \$1,000,000 provided on ISO Form Number CA 00 01 covering any auto (Code 1), or if Consultant has no owned autos, hired, (Code 8) and non-owned autos (Code 9), per accident for bodily injury and property damage.

- WORKERS' COMPENSATION AS REQUIRED BY THE STATE OF CALIFORNIA, WITH STATUTORY LIMITS, AND EMPLOYER'S LIABILITY INSURANCE: \$1,000,000 per accident for bodily injury or disease.

The Worker's Compensation policy must be **endorsed** with a waiver of subrogation in favor of the City for all work performed by the Consultant and its employees.

**(Not required if Consultant provides written verification it has no employees) -** If Contractor has no employees, Contractor shall complete and sign a Workers' Compensation Exemption Declaration and Release of Liability

- CONTRACTORS POLLUTION LIABILITY and/or ASBESTOS POLLUTION LIABILITY (CPL) (if project involves environmental hazards) with limits no less than **\$2,000,000 per occurrence or claim, and \$4,000,000 policy aggregate.**

1. If the services involve lead-based paint or asbestos identification / remediation, the Pollution Liability shall not contain lead-based paint or asbestos exclusions. If the services involve mold identification / remediation, the Pollution Liability shall not contain a mold exclusion and the definition of "Pollution" shall include microbial matter including mold.

2. The Automobile Liability policy shall be **endorsed** to include **Transportation Pollution Liability** insurance, covering hazardous materials to be transported by Contractor pursuant to the Agreement. This coverage may also be provided on the Contractors Pollution Liability policy.

- BUILDER'S RISK (Course of Construction) insurance utilizing an "All Risk" (Special Perils) coverage form, with limits equal to the completed value of the project and no coinsurance penalty provisions.

#### ***Builder's Risk (Course of Construction) Insurance***

Contractor may submit evidence of Builder's Risk insurance in the form of Course of Construction coverage. Such coverage shall **name the City as a loss payee** as their interest may appear.

If the project does not involve new or major reconstruction, at the option of the City, an Installation Floater may be acceptable. For such projects, a Property Installation Floater shall be obtained that provides for the improvement, remodel, modification, alteration, conversion or adjustment to existing buildings, structures, processes, machinery and equipment. The Property Installation Floater shall provide property damage coverage for any building, structure, machinery or equipment damaged, impaired, broken, or destroyed during the performance of the Work, including during transit, installation, and testing at the City's site.

### C. OTHER INSURANCE PROVISIONS

If Contractor maintains broader coverage and/or higher limits than the minimums shown above, the City of Santa Cruz requires and shall be entitled to the broader coverage and/or higher limits maintained by Contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the City of Santa Cruz.

The insurance policies are to comply with the following provisions:

- **ADDITIONAL INSURED STATUS**  
The City, its officers, officials, employees, agents, and volunteers are to be covered as additional insureds on the CGL, CPL, and automobile insurance (if transporting hazardous materials policies with respect to liability arising out of work or operations performed by or on behalf of Consultant including materials, parts, or equipment furnished in connection with such work or operations. General liability coverage will be provided in the form of an **endorsement** to Consultant's insurance at least as broad as ISO Form CG 20 10 11 85, or if not available, through the addition of **both** CG 20 10 CG 20 26, CG 20 33, or CG 20 38; **and** CG 20 37 (if a later edition is used).
- **PRIMARY COVERAGE**  
For any claims related to this Agreement, Consultant's insurance coverage will be **primary** insurance as respects the City, its officers, officials, employees, agents, and volunteers. Any insurance or self-insurance maintained by the City, its officers, officials, employees, agents, or volunteers will be excess of Consultant's insurance and will not contribute with it.
- **NOTICE OF CANCELLATION**  
Each insurance policy required above shall state that the coverage shall not be canceled, except with notice to the City.
- **WAIVER OF SUBROGATION**  
Consultant hereby grants to the City a waiver of any right to subrogation which any insurer of said Consultant may acquire against the City by virtue of the payment of any loss, including attorney's fees under such insurance. Consultant agrees to obtain any endorsement that may be necessary to effect this waiver of subrogation, but this provision applies regardless of whether or not the City has received a waiver of subrogation endorsement from the insurer.
- **EXCESS LIABILITY/UMBRELLA INSURANCE POLICIES**  
The excess/liability policies will provide similar coverage as the primary CGL policy with no new exclusions - Excess liability insurance must **follow form** the terms, conditions, definitions, and exclusions of the underlying CGL insurance. The excess/umbrella policy must also be written on a primary and noncontributory basis for an additional insured, and that it will apply before any other insurance that is available to such additional insured which covers that person or organization as a named insured, and we will not share with that other insurance.

The policy regarding Limits of Insurance regarding Aggregates must provide that the aggregate limits if applicable shall apply in the same manner as the aggregate limits shown in the Schedule of the Underlying Insurance.

- **SELF-INSURED RETENTIONS**  
Self-insured retentions must be declared to and approved by the City. City may require Consultant to purchase coverage with a lower retention or provide proof of ability to pay losses and related expenses. 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.
  - **ACCEPTABILITY OF INSURERS**  
Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A: VII, unless otherwise acceptable to the City.
  - **CLAIMS MADE POLICIES**  
If any of the required policies provide coverage on a claims-made basis:
    1. The Retroactive Date must be shown and must be before the date of the contract or the beginning of contract work.
    2. Insurance must be maintained and evidence of insurance must be provided for at least five (5) years after completion of the contract of work.
    3. If coverage is canceled or non-renewed, and not *replaced with another claims-made policy form with a Retroactive Date* prior to the contract effective date, the Consultant must purchase "extended reporting" coverage for a minimum of *five (5)* years after completion of contract work.
  - **VERIFICATION OF COVERAGE**  
Consultant will 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) and a copy of the Declarations and Endorsement Page of the CGL, CPL, and automobile Policy(ies) listing all policy endorsements to be approved by the City before work commences. However, failure to obtain the required documents prior to the work beginning will not waive the Consultant's obligation to provide them. The City reserves the right to require complete, certified copies of all required insurance policies, including endorsements required by these specifications, at any time.
- D. SUBCONTRACTORS**  
Consultant shall require and verify that all subcontractors maintain insurance meeting all the requirements stated herein, and Contractor shall ensure that City is an additional insured on insurance required from subcontractors.
- E. SPECIAL RISKS/CIRCUMSTANCES**  
City reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other special circumstances and provide notice to Consultant.

### 3. Claims

#### **A. Definition of "Claim".**

All provisions of California Public Contract Code Section 9204 are incorporated into and form an integral part of the Contract Documents for this Project. The City and Contractor shall comply with California Public Contract Code Section 9204 when applicable.

As used herein, the term “Claim” means a separate written demand or assertion by Contractor sent by registered mail or certified mail, with return receipt requested, for one or more of the following arising out of or related to the Contract Documents or the performance of the Work: (A) a time extension, including, without limitation, for relief from damages or penalties for delay assessed by the City under the Contract; (B) payment by the City of money or damages arising from work done by, or on behalf of, the Contractor pursuant to the Contract and payment for which is not otherwise expressly provided or to which the claimant is not otherwise entitled; (C) payment of an amount that is disputed by the City, as defined in Public Contract Code Section 9204(c).

A Claim does not include, and the procedures for processing of Contractor Claims do not apply to the following:

- (i) Claims respecting penalties for forfeitures prescribed by statute or regulation which a government agency is specifically authorized to administer, settle, or determine (other than penalties for delay assessed by the City under the Contract).
- (ii) Claims respecting personal injury, death, reimbursement, or other compensation arising out of or resulting from liability for personal injury or death.
- (iii) False claims liability under California Government Code Section 12650, et seq.
- (iv) Defects in the Work first discovered by City after final payment by City to Contractor.
- (v) Claims respecting stop notices.
- (vi) The right of City to specific performance or injunctive relief to compel performance of any provision of the Contract Documents or for other City claims against the Contractor.

#### **B. Time Period for Submission of Claim.**

If a Claim involves an adjustment to the Contract Sum or to the Contract Time due to Extra Work, then the Claim arises upon issuance of a decision denying, in whole or in part, Contractor’s Change Order Request. All other Claims arise when Contractor discovers, or should have discovered, the circumstances giving rise to the Claim (even if Contractor has not yet been damaged or delayed).

A Claim that does not involve an adjustment to the Contract Sum or Contract Time for Extra Work may be asserted if, and only if, Contractor gives written notice of intent to file the Claim to the City within five (5) calendar days of the date the Claim arises. A written notice of intent to file a Claim shall be valid if, and only if, it identifies the event or condition giving rise to the Claim, states its probable effect, if any, with respect to Contractor’s entitlement to an adjustment of the Contract Sum or Contract Time, and complies with the requirements of Section 3(C), below.

All Claims and supporting documentation and certifications must be filed as soon as possible, but no later than thirty (30) calendar days after the Claim arises. No Claims shall be filed after the final payment has been issued unless otherwise permitted by law.

#### **C. Reasonable Documentation.**

The Claim must include the following:

- (i) A statement that it is a Claim and a request for a decision on the Claim;

- (ii) A detailed factual narrative of events fully describing the nature and circumstances giving rise to the Claim, including but not limited to, necessary dates, locations, and items of Work effected and reasonable documentation to support the Claim;
- (iii) A certification, executed by each Subcontractor claiming not less than 5% of the total monetary amount sought by the Claim, that the Subcontractor's portion of the Claim is filed in good faith.
- (iv) If the Claim involves an adjustment to the Contract Sum or Contract Time for Extra Work, a statement demonstrating that a Change Order Request was submitted in a timely manner as required by the Contract Documents. If the Claim does not involve an adjustment to the Contract Sum or Contract Time for Extra Work, a statement demonstrating that a notice of intent to file the Claim was submitted in a timely manner as required by the Contract Documents.
- (v) A detailed justification for any remedy or relief sought by the Claim, including, without limitation:
  - a. A detailed cost breakdown in the form required for submittal of Change Order Requests, including an estimate of the costs incurred or to be incurred. To the extent costs have been incurred when the Claim is submitted, the Claim must include actual cost records (including, without limitation, payroll records, material and rental invoices, and the like) demonstrating that costs claimed have actually been incurred. To the extent costs have not yet been incurred at the time of Claim submittal, actual cost records must be submitted on a current basis not less than once a month during any periods costs are incurred.
  - b. Copies of actual job cost records demonstrating that the costs have been incurred.
  - c. If the Claim is based on an error, omission, conflict, or ambiguity in the Contract Documents: (1) a sworn statement by Contractor and any Subcontractors or Sub-subcontractors involved in the Claim, to the effect that the error, omission, conflict, or ambiguity was not discovered prior to submission of the Bid, or (2) if not discovered, a statement demonstrating that the error, omission, conflict, or ambiguity could not have been discovered by Contractor, its Subcontractors or Sub-subcontractors in exercise of the degree of care required of them under the Contract Documents for review of the Bid Documents prior to submission of the Bid.
- (vi) If the Claim involves a request for adjustment of the Contract Time, written documentation demonstrating that Contractor has complied with the requirements of the Contract Documents pertaining to proving the right to an extension of time and demonstrating that Contractor is entitled to an extension of time under the Contract Documents.
- (vii) A written certification signed by a responsible managing officer of Contractor's organization, who has the authority to sign subcontracts and purchase orders on behalf of Contractor and who has personally investigated and confirmed the truth and accuracy of the matters set forth in such certification, in the following form:

"I hereby certify under penalty of perjury under the laws of the State of California that I am a managing officer of (Contractor's name) and that I have reviewed the Claim presented herewith on Contractor's behalf and/or on behalf of (Subcontractor's/Sub-subcontractor's name(s)) and that the following statements are true and correct.

- a. The facts alleged in or that form the basis for the Claim are true and accurate.
- b. The Claim is submitted in good faith.

- c. The Change Order Request was timely submitted, as required by the Contract Documents.
- d. Contractor does not know of any facts or circumstances, not alleged in the Claim, that by reason of their not being alleged render any fact or statement alleged in the Claim materially misleading.
- e. Contractor has, with respect to any request for money or damages alleged in or that forms the basis for the Claim, reviewed the job cost records (including those maintained by Contractor and by any Subcontractor or Sub-subcontractor, of any Tier, that is asserting all or any portion of the Claim) and confirmed with reasonable certainty that the Losses or damages suffered by Contractor and/or such Subcontractor or Sub-subcontractor were in fact suffered in the amounts and for the reasons alleged in the Claim.
- f. Contractor has, with respect to any request for extension of time or claim of Delay, disruption, hindrance or interference alleged in or that forms the basis for the Claim, reviewed the job schedules (including those maintained by Contractor and by any Subcontractor or Sub-subcontractor, of any Tier, that is asserting all or any portion of the Claim) and confirmed on an event-by-event basis that the delays or disruption suffered by Contractor and /or such Subcontractor or Sub-subcontractor were in fact experienced for the durations, in the manner, and with the consequent effects on the time and/or sequence of performance of the Work, as alleged in the Claim; and.
- g. Contractor has not received payment from City for, nor has Contractor previously released City from, any portion of the Claim.

Signature: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Company: \_\_\_\_\_  
Date: \_\_\_\_\_

#### **D. Assertion of Claims.**

- (i) Notwithstanding the making of any Claim or the existence of any dispute regarding any Claim, unless otherwise directed by City, Contractor shall not delay, slow, or stop performance of the Work, but shall diligently proceed with performance in accordance with the Contract Documents and City will continue to make payments as required by the Contract Documents.
- (ii) All Claims and supporting documentation must be sent to the City by registered mail or certified mail with return receipt requested.
- (iii) Strict compliance with these requirements are conditions precedent to Contractor's right to an informal conference to meet and confer to resolve a Claim, mediate a Claim, or arbitrate or litigate a Claim. The failure of Contractor to strictly comply with the requirements of this Section constitutes a failure by Contractor to exhaust its administrative remedies with the City, thereby denying any court or arbitration panel of jurisdiction to adjudicate the Claim.

- (iv) There shall be no waiver of any of the rights set forth in California Public Contract Code Section 9204; provided, however, that (i) upon receipt of a Claim, the parties may mutually agree to waive, in writing, mediation and proceed directly to the commencement of a civil action or binding arbitration, as applicable; and (ii) the City may prescribe reasonable Change Order, Claim, and Dispute Resolution Procedures and requirements in addition to the provisions of this section, so long as the contractual provisions do not conflict with or otherwise the timeframes and procedures set forth in Public Contract Code Section 9204.
- (v) The City's right to commence the Contract dispute resolution process shall arise at any time following the City's actual discovery of the circumstances giving rise to the dispute. Nothing herein shall preclude the City from asserting disputes in response to a Claim asserted by Contractor.

#### **E. Decision of City on Claims.**

- (i) Pursuant to Public Contracting Code section 9204(d), upon receipt of a Claim, the City shall conduct a reasonable review of the claim and, within 45 days, shall provide the Contractor a written statement identifying what portion of the Claim is disputed and what portion is undisputed. Upon receipt of the Claim, the Owner's Representative, City, and Contractor may, by mutual agreement, extend the time period provided in this Section. If City determines that additional supporting data are necessary to fully evaluate a Claim, City will request such additional supporting data in writing. Such data shall be furnished by Contractor to City no later than 10 days after the date of such request. Any payment due to Contractor by City on an undisputed portion of the Claim shall be processed and made within 60 days after the written statement is issued.
- (ii) If the City needs approval from its governing body to provide the Contractor with a written statement identifying the disputed portion and the undisputed portion of the Claim, and the governing body does not meet within the forty-five (45) days or within the mutually agreed to extension of time following receipt of a Claim sent by registered mail or certified mail, return receipt requested, the City shall have up to three (3) days following the next duly publicly noticed meeting of the governing body after the forty-five (45) day period, or extension, expires to provide the Contractor a written statement identifying the disputed portion and the undisputed portion.
- (iii) Failure by the City to respond to a Claim from Contractor within the time periods described in this Section 3 and California Public Contract Code Section 9204 or to otherwise meet the time requirements shall result in the Claim being deemed rejected in its entirety. A Claim that is denied by reason of the City's failure to have responded to a Claim, or its failure to otherwise meet the time requirements of this Article 4.2 and California Public Contract Code Section 9204, shall not constitute an adverse finding with regard to the merits of the Claim or the responsibility or qualifications of the Contractor.
- (iv) Any payment due on an undisputed portion of the Claim shall be processed and made within 60 days after the City issues its written statement.

(v) Amounts not paid in a timely manner as required by this Section shall bear interest at 7 percent per annum, pursuant to Public Contracting Code section 9204(d)(4).

(vi) If a subcontractor or a lower tier subcontractor lacks standing to assert a Claim against the City because privity of contract does not exist, the Contractor may present to the City a Claim on behalf of a subcontractor or a lower tier subcontractor. A subcontractor may request in writing, either on its own behalf or on behalf of a lower tier subcontractor, that the Contractor present a Claim for work which has been performed by the subcontractor or lower tier subcontractor on behalf of the subcontractor. The subcontractor requesting the Claim be presented to the City shall furnish reasonable documentation supporting the Claim. Within 45 days of receipt of this written request, the Contractor shall notify the subcontractor in writing as to whether the Contractor presented the Claim to the City and, if the Contractor did not present the Claim, provide the subcontractor with a statement of the reasons for not having done so.

#### **F. Meet and Confer Conference.**

If the Contractor disputes the City's written response, or if the City fails to respond to a Claim issued pursuant to Section 3(E) within the time prescribed, the Contractor may demand in writing an informal conference to meet and confer for settlement of the issue in dispute. Upon receipt of a demand in writing sent by registered mail or certified mail, return receipt requested, the City shall schedule a meet and confer conference within 30 days for settlement of the dispute.

#### **G. Mediation.**

(i) Within ten (10) business days following the conclusion of the meet and confer conference, specified in Section 3(F), if the Claim or any portion of the Claim remains in dispute, the City shall provide the Contractor a written statement identifying the portion of the Claim that remains in dispute and the portion that is undisputed. Any payment due on an undisputed portion of the Claim shall be processed and made within sixty (60) days after the City issues its written statement. Any disputed portion of the Claim, as identified by the Contractor in writing, shall be submitted to nonbinding mediation, with the City and the Contractor sharing the associated costs equally. The City and the Contractor shall mutually agree to a mediator within ten (10) business days after the disputed portion of the Claim has been identified in writing. If the parties cannot agree upon a mediator, each party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the Claim. Each party shall bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator. If mediation is unsuccessful, the parts of the Claim remaining in dispute shall be subject to applicable procedures outside this section.

(ii) For purposes of this Section, mediation includes any nonbinding process, including, but not limited to, neutral evaluation, or a dispute review board, in which an independent third party or board assists the parties in dispute resolution through negotiation or by issuance of an evaluation. Any mediation utilized shall conform to the timeframes in this section.



- (iii) Unless otherwise agreed to by the City and the Contractor in writing, the mediation conducted pursuant to this section shall excuse any further obligation under Public Contract Code Section 20104.4 to mediate after litigation has been commenced.

## **H. Arbitration and Litigation.**

- (i) In the event mediation does not resolve the parties' dispute, the parties shall comply with the Arbitration provisions set forth in Public Contract Code Sections 10240 – 1024.13.
- (ii) Unless the City and Contractor otherwise agree in writing, the arbitration decision shall be binding upon the parties, made under and in accordance with the laws of the State of California, supported by substantial evidence, and in writing. If the total of all Claims or cross Claims submitted to arbitration is in excess of \$50,000, the award shall contain the basis for the decision, findings of fact, and conclusions of law. Any arbitration award shall be subject to confirmation, vacation, or correction under the procedures and on the grounds specified in the California Code of Civil Procedure including without limitation Section 1296. The expenses and fees of the arbitrators and the administrative fees of the AAA shall be divided among the parties equally. Each party shall pay its own counsel fees, witness fees, and other expenses incurred for its own benefit.
- (iii) The City may, but is not required, to assert as a counterclaim any matter arising out of the claims asserted by Contractor in the arbitration. City's failure to assert any such counterclaim in an arbitration shall be without prejudice to the City's right to assert the counterclaim in litigation or other proceeding.
- (iv) Any litigation shall be filed in the Superior Court of the State of California for the County of Santa Cruz.

## **I. Waiver.**

A waiver of or failure by the City to enforce any requirement in this Section 3 in connection with any Claim shall not constitute a waiver of and shall not preclude the City from enforcing such requirements in connection with any other Claims.

The Contractor agrees and understands that no oral approval, either express or implied, of any Claim shall be binding upon the City unless and until such approval is ratified by execution of a written Change Order.

### **4. Time of Completion**

Attention is directed to the provisions in Section 8 (Commencement of Work, Time of Completion and Liquidated Damages) of the Standard Specifications and these General Conditions.

The Contractor shall promptly start the work and diligently prosecute the work to completion before the expiration of **250 working days** after the date of the Notice to Proceed.

Full compensation for any additional costs occasioned by compliance with the provisions in this section shall be considered as included in the prices paid for the various contract items of work and no additional compensation will be allowed therefore.

5. Failure to Complete the Work on Time (Liquidated Damages)

All time limits stated in the Contract Documents are of the essence. If the work is not completed by Contractor in the time specified in the Contract Documents, or within any period of extension authorized in writing by the City, it is understood that City will suffer damage; and it being impracticable and infeasible to determine the amount of actual damage, it is agreed that Contractor will pay the City, as fixed and liquidated damages, and not as a penalty, the sum of **six thousand eight hundred dollars (\$6,800.00)** for each calendar day of delay until the work is completed and accepted, and Contractor and his/her surety will be liable for the amount thereof; provided, however, that Contractor shall not be charged liquidated damages because of any delays in the completion of the work due to unforeseeable causes beyond the control and without the fault or negligence of Contractor.

Contractor shall, within ten (10) days from the beginning of any such delay, notify City in writing of the cause of the delay; whereupon City shall ascertain the facts and the extent of the delay and extend the time for completing the work when, in its judgment, the findings of fact justify such an extension. City's finding of fact thereon shall be final and conclusive on the parties hereto.

6. Existing Facilities

Prospective bidders shall visit the work site and determine for themselves the existing conditions at the Project site, including location of utilities. The Contractor shall take precaution so as to avoid damaging existing public facilities and private improvements.

In accordance with California Government Code Section 4215, the City assumes the responsibility for the timely removal, relocation, or protection of existing main or trunk line utility facilities located on the Project site if such utilities are not identified in the plans and specifications made a part of the invitation for bids. The City will compensate the Contractor for the costs of locating, repairing damage not due to the Contractor's failure to exercise reasonable care, and removing or relocating existing main or trunk line utility facilities located at the Project site and not identified with reasonable accuracy in plans and specifications made a part of the invitation for bids. The City will also compensate the Contractor for the cost of equipment on the Project necessarily idled during such work. The Contractor will not be assessed liquidated damages for delay in completion of the project, when such delay was caused by the City's or utility owner's failure to provide for removal or relocation of such main or trunk line utility facilities.

Nothing in this provision or the Contract Documents will be deemed to require the City to indicate the presence of existing service laterals or appurtenances whenever the presence of such utilities on the Work site can be inferred from the presence of other visible facilities, such as buildings, meter, and junction boxes, on or adjacent to the Project site; provided, however, that nothing in this provision or the Contract Documents shall relieve the City from identifying main or trunk lines in the plans and specifications made a part of the invitation for bids.

Nothing in this provision or the Contract Documents will preclude the City from pursuing any appropriate remedy against the utility for delays which are the responsibility of the utility.

Nothing in this provision or the Contract Documents will be construed to relieve the utility from any obligation as required either by law or by contract to pay the cost of removal or relocation of existing utility facilities.

If the Contractor while performing the Work discovers utility facilities not identified by the City in the plans and specifications made a part of the invitation for bids, the Contractor must immediately notify the City and utility in writing.

Either the City or the utility, whichever owns existing main or trunk line utility facilities located on the Work site, shall have sole discretion to effect repairs or relocation work or to permit the Contractor to perform such repairs or relocation work at a reasonable price

The Contractor will be required to work around public utility facilities that are to remain in place within the construction area or that are to be relocated and relocation operations have not been completed, and (s)he will be held liable to the owners of such facilities for any damage or interference with service resulting from his/her operations.

The exact locations of underground facilities and improvements within the construction area shall be ascertained by the Contractor before using equipment that may damage or interfere with service resulting from his/her operations. It shall be the Contractor's responsibility to notify public utilities that (s)he is working in the vicinity of their facilities.

Other forces may be engaged in moving or reconstructing utility facilities or maintaining service of utility facilities, and the Contractor shall cooperate with such forces and conduct his/her operation in such a manner as to avoid unnecessary delay or hindrance to the work being performed by such other forces.

The City owns, operates, and maintains its own water distribution and sewer collection systems and will cooperate with the Contractor insofar as it is reasonable and practicable. Water, as required for City projects, may be obtained at City-owned fire hydrants provided that application is made to the Water Department and permission obtained with provision for payment.

Full compensation for conforming to the requirements of this article, not otherwise provided for, shall be considered as included in the prices paid for the various contract items of work and no additional allowance will be made therefor.

All underground utilities including but not limited to water service, sewer laterals, electrical service, and gas service broken or disturbed by the Contractor's crew will be replaced or repaired by the Contractor or Utility Company at the Contractor's expense.

The Contractor shall consult with utilities and notify them of any relocation or protection in sufficient time to allow the utilities to perform the work in a complete and orderly manner.

7. Water Pollution Control Program (WPCP) and/or Storm Water Pollution Prevention Program (SWPPP)

Water pollution control work and storm water pollution prevention work shall conform to Chapter 4 of the Best Management Practices Manual for the City's Storm Water Management Program available on the City of Santa Cruz website at:

<http://www.cityofsantacruz.com/government/city-departments/public-works/stormwater/best-management-practices>.

The Contractor shall take all necessary precautions to prevent any leakage or sewage spills of any kind onto adjacent property, public or private roadway, drainage systems, and waterways. The Contractor shall be liable for any and all clean-up costs or any fines that may be levied including those by the Regional Water Quality Control Board (RWCQB) against the City, in the event that such leakage or spill occurs. The Contractor shall also be responsible for reporting any and all spill to the appropriate regulatory agencies, including the RWCQB and the Santa Cruz-County Health Department.

8. Maintenance and Clean-Up

Throughout the construction period, the Contractor shall keep the Project site in a neat and clean condition, shall dispose of any surplus materials in an approved manner off the site, and maintain proper housekeeping practices to the satisfaction of the Engineer.

When any material is to be disposed of outside of the easement or street or highway right-of-way, the Contractor shall first obtain written permission from the owner on whose property the disposal is to be made. Disposal must conform to grading ordinance of the jurisdiction in which the Work is performed. Location of disposal sites shall be submitted to the Engineer for review and subject to his/her approval.

Upon completion of the Work, and prior to requesting final inspection, the Contractor shall thoroughly clean the site of the Work of all rubbish, excess materials, falsework, temporary structures, and equipment, and all portions of the Work shall be left in a neat and orderly condition. The final inspection, acceptance, and final payment will not be made until this has been accomplished.

9. State of California Department of Transportation Standard Specifications

All Work under the Contract shall conform to the applicable requirements of Sections 1-9 of the Standard Specifications of the State of California, Department of Transportation, dated 2018, and their Revised Standard Specifications dated November 19, 2020 and Sections 10-99 of the Standard Specifications of the State of California, Department of Transportation, dated 2015, and their Revised Standard Specifications dated April 20, 2018. Said State Specifications are to be considered an integral part of the specifications for all purposes related to this Contract. Definitions of terms not defined in City Standard Specifications shall be as defined in the State Standard Specifications, available at:  
<https://dot.ca.gov/-/media/dot-media/programs/design/documents/f00203402018stdspeca11y.pdf>.

#### 10. Notification of Project Commencement

The Contractor shall notify the City Engineer at least five (5) business days prior to mobilizing to the Project site.

#### 11. Project Schedule

The Contractor shall prepare a project schedule and submit it to the Engineer for his/her review and approval five (5) days prior to the beginning of the Work. Work shall be conducted between the hours of **8 AM and 5 PM, Monday to Friday**, except with the permission of the Director, and except in case of any emergency.

#### 12. Progress and Final Payment

Progress and final payments will be made in accordance with Section 9 of the Standard Specifications, except as herein modified.

Payments are made every two weeks by the City Finance Department. The Contractor may receive partial payments only once for any month. A listing of payment cut-off dates is available upon request.

#### 13. Extra Work

Extra work shall conform to the provisions in Section 9 of the California Standard Specifications and to these General Provisions.

Any alleged extra work or delays shall be given in writing within 24 hours of any occurrence to the Project Engineer or Inspector. The Contractor shall submit to the Project Engineer or Inspector an extra work report for each day the extra work is performed. The report shall be submitted prior to the start of work the following day. The report shall include: (1) a description of the extra work; (2) the quantity, classification, and working hours of the extra work labor force; (3) the type of equipment, code number, and hours of operation of the equipment towards extra work; and (4) the quantity and type of materials used for extra work.

#### 14. Trenching Requirements

Pursuant to Labor Code Section 6705 and these General Conditions, before the excavation of any trench or trenches five (5) feet or more in depth, where the estimated contract expenditure is twenty-five thousand dollars (\$25,000) or more, the Contractor shall submit a detailed plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during the excavation of such trench or trenches. If such plan varies from the shoring system standards, established by the Construction Safety Orders, the plan shall be prepared by a registered civil or structural engineer. No excavation shall be started until said plan has been approved by the City Engineer. When the estimated contract expenditure is less than twenty-five thousand dollars (\$25,000) the above mentioned shoring plan may be required at the discretion of the City Engineer prior to or during the course of construction.

Pursuant to Public Contract Code Section 7104, for any project which involves digging trenches or other excavations that extend deeper than four (4) feet:

1. The Contractor shall promptly, and before the following conditions are disturbed, notify the local public entity, in writing, of any:
  - a. Material that the Contractor believes may be hazardous waste material, as defined in Section 25117 of the Health and Safety Code, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law;
  - b. Subsurface or latent physical conditions at the site differing from those indicated by information about the site made available to bidders prior to the deadline for submitting bids.
  - c. Unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract.
2. The City shall promptly investigate the conditions, and if it finds that the conditions do materially so differ, or do involve hazardous waste, and cause a decrease or increase in the Contractor's cost of, or the time required for, performance of any part of the Work shall issue a change order under the procedures described in the Contract.
3. In the event that a dispute arises between the City and the Contractor whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in the Contractor's cost of, or time required for, performance of any part of the Work, the Contractor shall not be excused from any scheduled completion date provided for by the Contract, but shall proceed with all Work to be performed under the Contract. The Contractor shall retain any and all rights provided either by contract or by law which pertain to the resolution of disputes and protests between the parties.

#### 15. Third Party Claims

Both parties shall timely notify the other of the receipt of any third party claim relating to the Contract or Project. The City shall be entitled to recover its reasonable costs incurred in providing such notice.

#### 16. Force Majeure

Neither party hereto shall be considered in default in the performance of its obligation hereunder to the extent that the performance of any such obligation is prevented or delayed by an act of God, natural disaster, pandemic, acts of terrorism, war, or other peril, which is beyond the reasonable control of the affected party and without the negligence of the respective Parties. Each party hereto shall give notice promptly to the other of the nature and extent of any Force Majeure claimed to delay, hinder, or prevent performance of the services under this Agreement. Each Party will, however, make all reasonable efforts to remove or eliminate such a cause of delay or default and

will, upon the cessation of the cause, diligently pursue performance of its obligations in this Contract.

#### 17. Contractor Not an Agent

Except as City may specify in writing, Contractor shall have no authority, express or implied, to act on behalf of City in any capacity whatsoever as an agent. Contractor shall have no authority, express or implied, pursuant to this Contract to bind City to any obligation whatsoever.

#### 18. Conflicts of Interest

Contractor owes City a duty of undivided loyalty in performing the Work and services under this Contract. Contractor covenants (on behalf of Contractor and its employees, agents, representatives, and subcontractors) that there is no direct or indirect interest, financial or otherwise, which would conflict in any manner or degree with the performance of services required under this Contract. Contractor acknowledges and agrees to comply with applicable provisions of conflict of interest law and regulations, including the Political Reform Act, Section 1090 of the Government Code, and the City's conflict of interest code. Contractor will immediately advise City if Contractor learns of a conflicting financial interest of Contractor during the term of this Contract.

#### 19. City Property

Unless otherwise provided herein, Contractor agrees that all copyrights which arise from creation of Project-related documents and materials pursuant to this Agreement shall be vested in the City and Contractor waives and relinquishes all claims to copyright or other intellectual property rights in favor of City. Any work product related to this Contract shall be confidential, not to be used by the Contractor on other projects or disclosed to any third party, except by agreement in writing by the City, or except as otherwise provided herein.

#### 20. Buy America Requirements

Furnish steel and iron materials to be incorporated into the work with certificates of compliance. Steel and iron materials must be produced in the U.S. except:

1. Foreign pig iron and processed, pelletized, and reduced iron ore may be used in the domestic production of the steel and iron materials [60 Fed Reg 15478 (03/24/1995)];
2. If the total combined cost of the materials does not exceed the greater of 0.1 percent of the total bid or \$2,500, materials produced outside the U.S. may be used.

Production includes:

1. Processing steel and iron materials, including smelting or other processes that alter the physical form or shape (such as rolling, extruding, machining, bending, grinding, and drilling) or chemical composition;
2. Coating application, including epoxy coating, galvanizing, and painting, that protects or enhances the value of steel and iron materials.

## 21. Right of Entry

Contractor is required to submit documents and fee payments and obtain approval for Right of Entry from St. Paul & Pacific Railroad (SPPR) in accordance with the Guidelines for Document Submission Railroad Right of Way. Contractor is responsible for paying any flagging costs. Right of entry guidelines are provided as an attachment to these contract specifications. **Contractor and ALL Sub Contractors shall comply with the latest Certificate of Insurance requirements from St. Paul & Pacific Railroad to work within Railroad Right of Way.**

St. Paul & Pacific Railroad  
Progressive Rail Inc.  
Brenda K. Rivera, MPA  
Director, Contract Compliance  
21778 Highview Ave  
Lakeville, MN 55044  
Direct: 952-495-0579  
brivera@progressiverail.com  
www.progressiverail.com

## 22. Roaring Camp Railroad

Contractor is responsible to obtain Roaring Camp train schedule and hours of operation in advance before starting any construction activities within the Railroad Right of Way. Contractor shall avoid creating any conflict with Roaring Camp train operations. Contractor must coordinate work with Roaring Camp to comply with all the requirements of train operations during construction hours. Contractor must comply with all insurance and safety requirements from St. Paul & Pacific Railroad and Roaring Camp Railroads INC.

Roaring Camp Railroads INC.  
Todd Manoff  
5401 Graham Hill Road,  
Felton, CA 95018

PO Box G-1  
Felton CA, 95018  
(831) 335-4484  
Todd@roaringcamp.com

### **Please see below for a tentative operating schedule for 2022.**

During operating days of the Santa Cruz Beach Train (SCBT) line will pull onto the North bound leg of the wye towards California St. approximate stopping point is in the area across from Laguna St., then the train will back down into the Boardwalk. The train will be on the northbound leg of the wye only two times per day on south bound runs. The exception to this is June thru August on Wednesdays where SCBT will run a **second Charter Train**, which means, SCBT will run thru the north leg of the wye 3 times.



Approximate times the train will be passing thru the Chestnut Street area are as follows:

10:45am – 11:15am south bound.

12:15pm – 12:45pm north bound.

2:45pm – 3:15pm south bound.

4:15pm – 4:45pm north bound.

**Tentative operating schedule:**

April – Typically weekends only (Apr. 2-3, 9-10, 16-17, 23-24).

May - Typically weekends only (May 7-8, 14-15, 21-22, 28-29).

**June – Every Day (June 1-30).**

**July – Every Day (July 1-31).**

**August – Every day (Aug. 1-14).** Typically weekends (Aug. 20-21, 27-28).

September - Typically weekends and Labor Day (Sept. 3-5, 10-11, 17-18).

October – Typically weekends only (Oct. 1-2, 8-9, 15-16, 22-23, 29-30).

November - Typically weekends & Thanksgiving (Nov. 24-27).

December - Typically Weekends and Weekdays (Dec. 4-5, 17-23, 26-31). Passing through Chestnut 3:00pm – 3:30pm, 5:15pm – 5:45pm.

**Note:** Every Wednesday from mid-June thru early August Roaring Camp operates a second Charter train in the AM.

Approximate times the train will pass thru the Chestnut St. area:

10:15am – 10:45am south bound.

11:30 – 12:00pm north bound.

Tentative operating dates:

June 8, 15, 22, 29.

July 6, 13, 20, 27.

Aug. 3.

23. Santa Cruz County Regional Transportation Commission

Contractor is responsible to coordinate utility work that encroaches on railroad tracks with Santa Cruz County Regional Transportation Commission (SCCRTC).

Santa Cruz County Regional Transportation Commission

Riley Gerbrandt, PE, QSD/QSP

Associate Transportation Engineer

1101 Pacific Avenue, Suite 250

Santa Cruz, CA 95060

Main Office 831.460.3200 | Dir: 831.460.3215 | Mob: 831.316.3294

rgerbrandt@sccrtc.org

Added per Addendum  
number 3

24. American Railway Engineering and Maintenance-of-Way Association (AREMA)  
All utility, pipelines(s), crossings under railroads shall meet AREMA, Part 5, Pipelines, requirements.

## 25. Wastewater Treatment Facility (WWTF) Critical Infrastructure Protect In Place

As first ORDER OF WORK, the Contractor shall locate and protect in place Wastewater Treatment Facility Critical Infrastructure consisting of the 8" Domestic / Fire Water service and the 21KV electrical service, from the railroad line to the back of the proposed retaining wall.

The Contractor shall submit at the preconstruction meeting an emergency plan to cover emergency response should the 8" water service and/or the 21KV electric service be damaged during construction operations. The emergency plan will provide the necessary means to keep the Wastewater Treatment Facility operating. The emergency plan must include immediate notification procedures to the WWTF of any changes in service.

If the water service line is damaged or potable water service to the WWTF is impaired the Contractor must provide for at minimum:

1. The Contractor will be responsible to provide and maintain full water level in the 75,000 gallon 2 Water tank at the WWTF. This water is needed to operate process equipment. Process water usage can be as much as 150,000 gallons per day (GPD).

2. If Fire suppression features at the WWTF are out of service, The Contractor will assume fire protection risk for the entire WWTF.

3. The contractor will provide potable water to WWTF Vapex odor control units.

Contractor understands the need notify the Monterey Bay Air Board if the units go down for more than an hour. Lack of odor control puts the City at risk for violation of the Air Board permit and at risk for odor complaints. Contractor will responsible to control H2S not to exceed 2 ppm at the fence line during the interruption of odor control facilities to mitigate risk of violation or odor complaints. Emergency plan must define how water service will be supplied to 8 Vapex odor control units.

4. Contractor shall limit lack of water service to no longer than 4 hours before Contractor must provide and ensure potable water to feed the Cogen make up water system. If cogen system is inoperable due to water service interruption, the Contractor will provide full cost recovery of PGE capacity and demand fees for electric service at plant incurred due to non-operation of cogen engines 1 and 2. Emergency plan will define details of supply connection to cogen make up water system.

5. The Contractor shall ensure WWTF personnel and contractors have sanitary facilities during water service outages.

6. The Contractor shall provide potable water necessary for all environmental lab functions including but not limited to source water for reagent water, handwashing, equipment cleaning and dishwasher supply. If the 21kV electric service line is damaged or electrical service to the WWTF is interrupted, the Contractor must provide for at minimum:

1. The Contractor will provide all diesel needed for WWTF to operate on standby power.

The WWTF will need approximately 1,000 gallons of diesel a day to run the 3 standby generators.

2. There is no back up power supply to WWTF UV disinfection. During power outages, the WWTF must operate chlorine disinfection system. The Contractor assumes all risk of cost and violation due to inoperability of UV System.

3. During a power outage, the WWTF would need to run cogen to heat and mix the digesters. The Contractor will be responsible to pay complete cost recovery of staff time required to operate cogen during power outages.

Full compensation for complying with the above provisions shall be considered as included in the contract prices paid for the various items of work and no separate payment will be made therefor.

## 26. Staging Areas

See exhibit attached to this addendum showing two available, free of charge, locations for construction staging areas. Contractor shall coordinate with SCCRTC and City of Santa Cruz to meet the requirements needed to be able to use these two locations as construction staging areas.

Contractor shall be responsible to fence out with screening, install BMP's, clean up, and maintain the staging areas throughout the life of the construction project.

Before final acceptance of the staging areas by the City of Santa Cruz and SCCRTC, the Contractor shall carefully clean up the staging areas and premises, remove all surplus construction materials and rubbish of all kinds from the grounds that he/she has occupied and restore them to their original condition or better.

# **TECHNICAL SPECIFICATIONS**

FOR

## **RAIL TRAIL SEGMENT 7 PHASE 2**



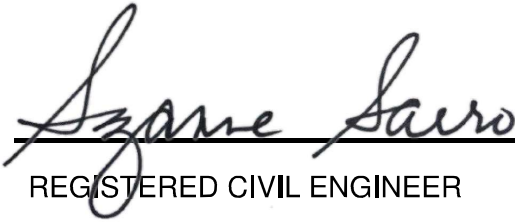
DEPARTMENT OF PUBLIC WORKS  
CITY OF SANTA CRUZ

February 28, 2022




The special provisions contained herein for the Santa Cruz Rail Trail Phase 2 have been prepared by or under the direction of the following Registered Persons.

**CIVIL**

  
REGISTERED CIVIL ENGINEER




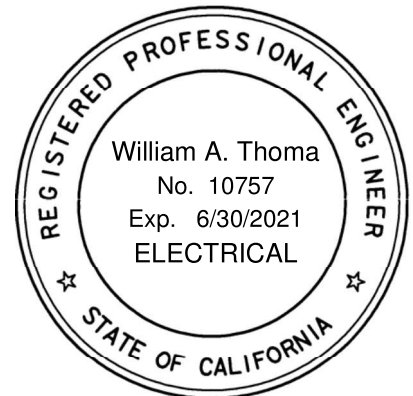
**STRUCTURES**

  
REGISTERED STRUCTURAL ENGINEER



**ELECTRICAL**

  
REGISTERED ELECTRICAL ENGINEER



**LANDSCAPE ARCHITECTURE**



LANDSCAPE ARCHITECT



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## ORGANIZATION

These special provisions modify the 2015 edition of the California Department of Transportation Standard Specifications ("Standard Specifications") and its Revised Standard Specifications dated April 20, 2018. The *Standard Specifications* are a part of this contract as described in the administrative sections of the project specifications.

Special provisions are under headings that correspond with the main-section headings of the *Standard Specifications*. A main-section heading is a heading shown in the table of contents of the *Standard Specifications*.

Each special provision begins with a revision clause that describes or introduces a revision to the *Standard Specifications* as revised by any revised standard specification.

Any paragraph added or deleted by a revision clause does not change the paragraph numbering of the *Standard Specifications* for any other reference to a paragraph of the *Standard Specifications*.

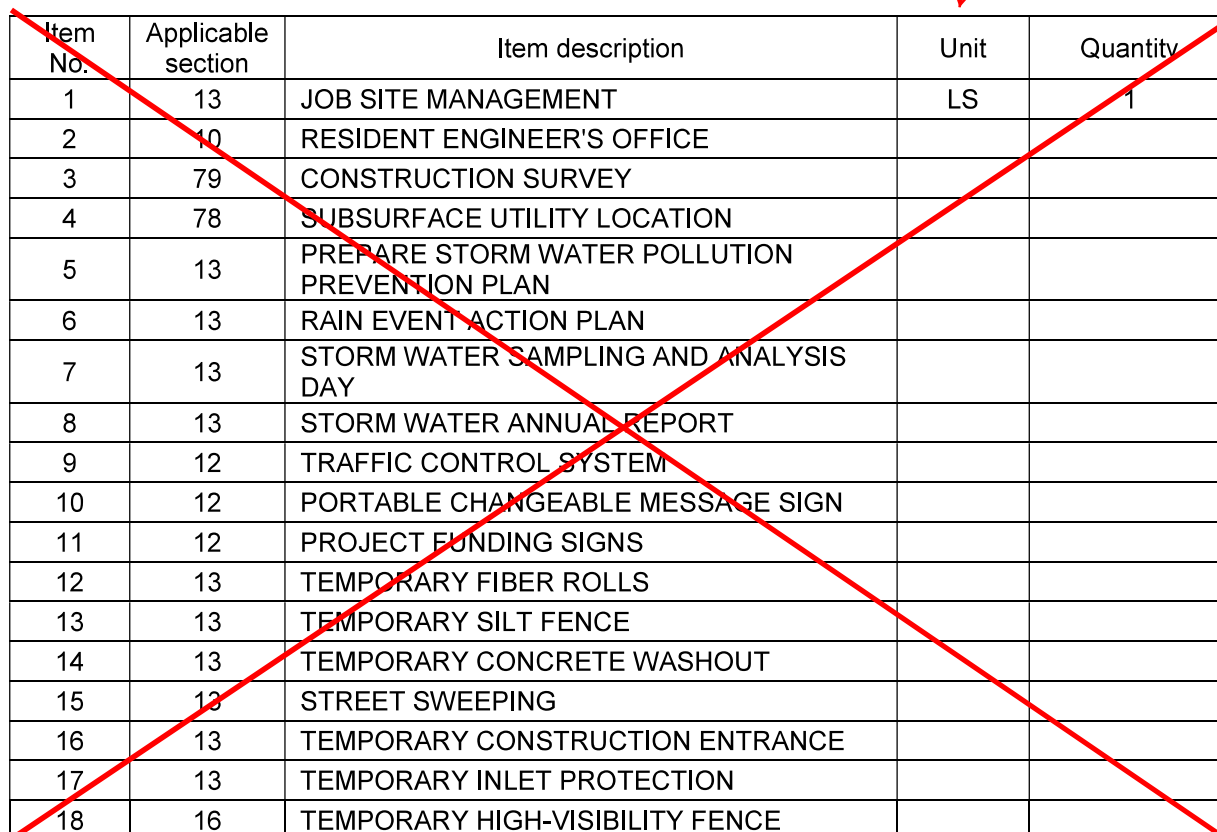
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## DIVISION I GENERAL PROVISIONS

### 1 GENERAL

See addendum  
number 3

Add to section 1-1.01:  
Bid Items and Applicable Sections



Item No.	Applicable section	Item description	Unit	Quantity
1	13	JOB SITE MANAGEMENT	LS	1
2	10	RESIDENT ENGINEER'S OFFICE		
3	79	CONSTRUCTION SURVEY		
4	78	SUBSURFACE UTILITY LOCATION		
5	13	PREPARE STORM WATER POLLUTION PREVENTION PLAN		
6	13	RAIN EVENT ACTION PLAN		
7	13	STORM WATER SAMPLING AND ANALYSIS DAY		
8	13	STORM WATER ANNUAL REPORT		
9	12	TRAFFIC CONTROL SYSTEM		
10	12	PORTABLE CHANGEABLE MESSAGE SIGN		
11	12	PROJECT FUNDING SIGNS		
12	13	TEMPORARY FIBER ROLLS		
13	13	TEMPORARY SILT FENCE		
14	13	TEMPORARY CONCRETE WASHOUT		
15	13	STREET SWEEPING		
16	13	TEMPORARY CONSTRUCTION ENTRANCE		
17	13	TEMPORARY INLET PROTECTION		
18	16	TEMPORARY HIGH-VISIBILITY FENCE		

See addendum  
number 3

Santa Cruz Rail Trail Phase 2

Item No.	Applicable section	Item description	Unit	Quantity
19	17	CLEARING AND GRUBBING		
20	73	REMOVE CONCRETE CURB & GUTTER		
21	73	REMOVE CONCRETE SIDEWALK		
22	20	REMOVE IRRIGATION		
23	20	REMOVE TREE		
24	20	RESET BOLLARD		
25	20	REMOVE AND SALVAGE BOLLARD		
26	20	RESET POSTS AND CHAIN		
27	20	RESET TRASH RECEPTACLE		
28	80	REMOVE FENCE		
29	81	REMOVE LANE SEPARATION SYSTEM		
30	84	REMOVE THERMOPLASTIC PAVEMENT DELINEATION		
31	71	REMOVE STORM DRAIN LINE		
32	78	REMOVE ABANDONED 2" STEEL WATER LINE		
33	78	REMOVE ABANDONED 1" STEEL GAS LINE		
34	71	ADJUST MANHOLE TO GRADE		
35	14	TREE PROTECTION		
36	10	DEVELOP WATER SUPPLY		
37	19	IMPORT FILL		
38	19	ROADWAY EXCAVATION (CONTAMINATED)		
39	19	STRUCTURE EXCAVATION (SOLDIER PILE WALL, FINAL PAY)		
40	19	CONCRETE BACKFILL (SOLDIER PILE WALL, FINAL PAY)		
41	20	DECOMPOSED GRANITE		
42	20	REMOVABLE BOLLARD		
43	21	HYDROSEED		
44	26	CLASS 2 AGGREGATE BASE		
45	39	HOT MIX ASPHALT (TYPE A)		
46	46	GROUND ANCHOR (SUBHORIZONTAL)		
47	57	TIMBER LAGGING 4X12		
48	57	TIMBER LAGGING 6X12		
49	40	CONCRETE PAVING (TRAIL)		
50	73	MINOR CONCRETE (CONCRETE CURB, CONDITION 1)		
51	73	MINOR CONCRETE (CONCRETE CURB, CONDITION 2)		
52	73	MINOR CONCRETE (CONCRETE CURB, CONDITION 3)		
53	73	MINOR CONCRETE (MOUNTABLE CURB)		
54		MINOR CONCRETE (CURB TYPE A1-8)		
55	73	MINOR CONCRETE (GUTTER)		
56	49	STEEL SOLDIER PILE W10X33		
57	49	STEEL SOLDIER PILE W12X40		

See addendum  
number 3

Santa Cruz Rail Trail Phase 2

Item No.	Applicable section	Item description	Unit	Quantity
58	49	STEEL SOLDIER PILE W12X45		
59	49	STEEL SOLDIER PILE W14X43		
60	49	STEEL SOLDIER PILE W14X53		
61	49	STEEL SOLDIER PILE W14X61		
62	49	24" DRILLED HOLE (SOLDIER PILE)		
63	59	CLEAN AND PAINT STRUCTURAL STEEL		
64	70	15" DRAIN BASIN		
65	70	24" DRAIN BASIN		
66	71	HEAVY DUTY STORM DRAIN MANHOLE COVER		
67	64	4" PVC PIPE		
68	64	12" PVC PIPE (WALL GUTTER)		
69	64	12" HDPE PIPE		
70	64	18" HDPE PIPE		
71	68	GEOCOMPOSITE DRAIN		
72	73	MINOR CONCRETE (CONCRETE V-DITCH)		
73	82	TRAIL SIGN (POST CONDITION 2)		
74	82	ROADSIDE SIGN (POST CONDITION 1)		
75	82	FURNISH SINGLE-SHEET ALUMINIUM SIGN PANEL (0.063" UNFRAMED)		
76	80	6' CHAIN LINK FENCE COND. 1 (STD MESH) VINYL-CLAD BLACK		
77	80	CHAIN LINK FENCE COND. 2 (3/8" MESH) GALVANIZED		
78	80	6' CHAIN LINK GATE (3/8" MESH) GALVANIZED		
79	83	CABLE RAILING		
80	80	POST AND WIRE FENCE		
81	20	LEAN RAIL		
82	84	4" THERMOPLASTIC TRAFFIC STRIPE		
83	84	6" THERMOPLASTIC TRAFFIC STRIPE (DASHED CROSSWALK)		
84	84	4" THERMOPLASTIC TRAFFIC STRIPE (BROKEN 9-3)		
85	84	4" THERMOPLASTIC TRAFFIC STRIPE (WHITE DASHED)		
86	84	THERMOPLASTIC PAVEMENT MARKING		
87	84	THERMOPLASTIC BIKE LANE PAVEMENT MARKING		
88		GEOSYNTHETIC FABRIC (DG PATH)		
89	96	GEOSYNTHETIC FABRIC (AB PAVING)		
90	87	TRAFFIC COUNTER SYSTEM		
91	87	TRAIL ELECTRICAL SYSTEM - LIGHTING AND FIBEROPTICS		
92	Front	MOBILIZATION		

See addendum  
number 3

Santa Cruz Rail Trail Phase 2

**Bid Items for Concrete Lagging Additive Bid Alternate**

Item No.	Applicable section	Item description	Unit	Quantity
93	57	TIMBER LAGGING 4 X 12 (DEDUCT)	MFBM	
94	57	TIMBER LAGGING 6 X 12 (DEDUCT)	MFBM	
95	68	GEOCOMPOSITE DRAIN (DEDUCT)	SQFT	
96	64	4" PVC PIPE (DEDUCT)	LF	
97	19	STRUCTURE EXCAVATION (SOLDIER PILE WALL, ADDITIONAL, FINAL PAY)	CY	
98	51	FURNISH PRECAST CONCRETE LAGGING 5 X12	LF	
99	51	FURNISH PRECAST CONCRETE LAGGING 6 X12	LF	
100	51	FURNISH PRECAST CONCRETE LAGGING 8 X12	LF	
101	51	FURNISH PRECAST CONCRETE LAGGING 10 X12	LF	
102	51	ERECT PRECAST CONCRETE LAGGING	EA	
103	68	4" PERFORATED PLASTIC PIPE	LF	
104	68	CLASS 1 TYPE A PERMEABLE MATERIAL (FINAL PAY)	CY	

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## 2 BIDDING

**Add between the 1st and 2nd paragraphs of section 2-1.06B:**

The City makes the following supplemental project information available:

**Supplemental Project Information**

Means	Description
Included in the <i>Information Handout</i> for download at <a href="http://www.cityofsantacruz.com">www.cityofsantacruz.com</a>	<ol style="list-style-type: none"> <li>1. Final IS/MND &amp; MMRP</li> <li>2. City of Santa Cruz Quality Assurance Program date 2/18/22</li> <li>3. Coastal, Design, Heritage Tree Permits – Conditions of Approval</li> <li>4. Green Pavement Marking Info</li> <li>5. Geotechnical Investigation for Monterey Bay Sanctuary Scenic Trail Segment 7 dated September 2017</li> <li>6. Soil Investigation Report dated December 2019</li> <li>7. Soil Management Plan dated August 2019</li> <li>8. Permanent Easements</li> <li>9. PG&amp;E Trench Packages</li> <li>10. Progressive ROE application (for reference)</li> </ol>

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## 5 CONTROL OF WORK

### Add to the end of section 5-1.20A:

During the progress of the work under this Contract, work under the following contracts may be in progress at or near the job site of this Contract:

Work By	Location	Type of work
City of Santa Cruz	Sta 201+00	Planting

### Add to the end of section 5-1.20C:

Prior to entering work site, obtain written permission from landowner, Santa Cruz County Regional Transportation Commission. Railroad restrictions may apply.

### Replace reserved section 5-1.20G with:

#### 5-1.20G Coordination with PG&E and SCCRTC

Coordinate with PG&E as required to provide new pole and service drop at Beach Street parking lot.

Coordinate utility work that encroaches on railroad tracks with the City, SCCRTC, St. Paul & Pacific Railway, LLC (a subsidiary of Progressive Rail, Inc.), and Roaring Camp Railroads Inc.

Contact information:

Santa Cruz County Regional Transportation Commission (Property Owner)  
Riley Gerbrandt, PE, QSD/QSP  
Associate Transportation Engineer  
rgerbrandt@sccrtc.org  
831.460.3215

Roaring Camp Railroads Inc.  
Todd Manoff  
PO Box G-1  
Felton CA, 95018  
831.335.4484  
Todd@roaringcamp.com

City of Santa Cruz  
Ricardo Valdes, PE  
Public Works Department  
rvaldes@cityofsantacruz.com  
831.420.5198

St. Paul & Pacific Railway, LLC (a subsidiary of Progressive Rail, Inc.) (Railroad Operator)  
Brenda K. Rivera  
Director, Contract Compliance  
brivera@progressiverail.com  
952.495.0579

### Add to the end of section 5-1.32:

Personal vehicles of your employees must not be parked on the traveled way or shoulders, including sections closed to traffic.

### Replace *Reserved* in section 5-1.36C(2) with:

The utilities shown in the following table may interfere with the work and must be exposed as soon as possible under section 78 and protected in place. Make arrangements with the utility owner (1) to conduct or witness all exposures or (2) to request temporary deactivation of the utility.



If the office is a trailer, the perimeter of the office area shall be secured by an 8-foot high chain link fence with 3 strands of barbed wire on top. The Contractor shall provide a lockable gate and lock assembly with 2 keys. Title to the trailer and provided contents shall remain with the Contractor. The Contractor shall provide the Engineer with a copy of written permission or agreement to place the Resident Engineer's trailer on private property unless such private property is within a project construction easement shown on the plans.

The office shall be furnished with three parking spaces (within the above chain link fence or contiguous to the office building); 2 desks with lockable drawers; one 5-foot minimum drafting table; two drafting stools; one 3-foot by 6-foot table and 8 standard chairs; 3 desk chairs with arms; 2 four-drawer legal size filing cabinets; 1 plan rack; one refrigerator; one fire extinguisher; one first-aid kit (bandages, gauze, etc.); bottled drinking water, restroom (24 square feet minimum) equipped with toilet and sink with hot and cold running water, soap, and paper products; 4 telephone lines (two for telephones, one for dedicated FAX use, and one for computer modem); 2 telephones capable of rollover ring; one full-feature telephone answering machine; and two portable cellular phones. HVAC system shall maintain interior temperature between 68 and 78 degrees F.

The refrigerator shall have a freezer no smaller than 4.0 cubic feet and a refrigerated compartment no smaller than 12.0 cubic feet.

Provide, not less than weekly, office cleaning service including waste paper/trash removal, floor cleaning, and rest room maintenance all to the satisfaction of the Engineer.

It is mutually agreed that the portable cellular phones are necessary for contract administration by the Engineer. It is also mutually agreed that a penalty of fifteen dollars per day, or any portion thereof greater than one hour (1 hour) after the Engineer has notified the Contractor of any malfunction, per cellular phone (\$15.00/day/phone) shall be deducted from payments due to or that may become due to the Contractor when a cellular phone does not work to the satisfaction of the Engineer. The portable cellular telephones shall be "Smart Phone", the specific model to be requested by the Engineer prior to acquisition by the Contractor. Each shall be operable from a self-contained battery and a vehicle battery and shall be supplied with individual AC charging units. Such self-contained batteries, 12-volt direct current adapters, and 110-volt alternating current chargers shall be furnished for each portable cellular telephone specified.

Provide for the City's exclusive possession and use a complete computer system with two computers connected to a networked printer/scanner/copier unit. The Contractor shall configure, install/setup, maintain, and repair the computer system. The Engineer may use the furnished computer hardware, software, and instruction manuals for any purposes relating to the project. Before delivery and setup of the computer system, submit to the Engineer for approval a detailed list of all computer hardware and software the Contractor proposes to furnish. The minimum computer system to be furnished shall include the following:

1. Complete networked computer system, including two computers each with:
  - 1.1. keyboard,
  - 1.2. optical mouse,
  - 1.3. 17-inch color monitor,
  - 1.4. Intel Duo Core 2.0 GHz or greater,
  - 1.5. 150 GB (minimum) hard disk drive,
  - 1.6. 24x (or faster) CD-RW/DVD-R/RW drive,
  - 1.7. 2 GB memory (minimum).
2. Computer operating system and other software:
  - 2.1. Windows 10 or newer operating system,
  - 2.2. Office 2013 or newer Professional with Microsoft Access, Word, Excel, Outlook, and Powerpoint,
  - 2.3. Adobe Acrobat, Version X or newer, and
  - 2.4. Oracle Primavera P6 Professional Project Management for Windows (see "Progress Schedule" section of these special provisions).

3. A network copier/scanner/printer with the following machine specifications, capabilities, and supplies:

- 3.1. automatic duplexing and collating,
  - 3.2. black/white and color network printing,
  - 3.3. black/white and color copying,
  - 3.4. black/white and color scanning,
  - 3.5. paper sizes 8 1/2" x 11", 8 1/2" x 14", and 11" x 17", and
  - 3.6. printing and paper supplies for 2000-8 1/2" x 11", 500-8 1/2" x 14", and 1000-11" x 17" sheets per month.
4. Plain paper FAX machine and supplies for 1000-8 1/2" x 11" and 500-8 1/2" x 14" sheets per month.
5. Broadband Internet connection with minimum 1.5-3.0 Mbps download bandwidth.
6. All necessary cables and hardware devices to link computer network hardware together for operational use.

The computer hardware and software furnished shall be compatible with the Contractor's project scheduling software and the project management and administration needs of the Engineer and shall include instruction manuals and other documentation normally provided with the software.

Furnish, install, set up, maintain, and repair the computer hardware and software ready for use at a location determined by the Engineer. The hardware and software shall be installed and ready for use one calendar day after the office is made available to the Engineer. When requested by the Engineer, the Contractor shall instruct and assist the Engineer in the use of the hardware and software.

When no claims involving contract progress are pending, all computer hardware and software furnished shall be removed by the Contractor upon acceptance of the contract. When contract claims involving contract progress are pending, computer hardware or software shall not be removed until the final estimate has been submitted to the Contractor. If, before the final estimate has been submitted to the Contractor, the Contractor requests relief of maintenance of the Resident Engineer's Office and if such a request is approved by the Engineer, relocate the computer system to another location within the City limits, as designated by the Engineer.

Equipment furnished shall be for the Engineer's sole use and of standard quality and new or like new in appearance and function. The office shall be installed and ready for occupancy no later than ten (10) calendar days after award of contract. For each day thereafter that the office is not ready for occupancy, the Contractor will be assessed damages in the amount of \$100.00 per calendar day. Monthly telephone bills, including billings for the cellular phones, shall be paid by the Contractor and reimbursed by contract change order without markups.

**Add to section 10-5:**

Water active construction sites at least twice daily and as needed.

Grading activities are prohibited during periods of high wind (over 15 mph).

Haul trucks must maintain at least 2 feet of freeboard.

Cover trucks hauling dirt, sand, or loose materials.

Hydroseed disturbed areas as soon as possible.

Cover inactive storage piles.

Post publicly visible signs at each end of project with:

- 1. The name and telephone number of a person to contact regarding dust complaints.
- 2. Telephone number of the BUAPCD

The assigned contact person must respond to the caller and corrective action must be taken within 48 hours.

The signs may be made of laminated printed paper attached to an inflexible weatherproof backer board.



Comply with BUAPCD Rule 402 (Nuisance).

Dispose of signs upon project completion.

**Replace the 1st sentence in the 3rd paragraph of section 10-6 with:**

Water must be nonpotable.

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## **12 TEMPORARY TRAFFIC CONTROL**

**Replace section 12-1.04 with:**

The City does not pay any flagging costs.

**Replace *Reserved* in section 12-3.11B(5) with:**

### **12-3.11B(5) Project Funding Sign**

Provide, post and maintain in good condition Measure D construction project funding information signs on Type III barricades at authorized locations.

Signs must be 4 feet wide and 3 feet tall, digital print with gloss laminate applied to corrugated plastic.

City will provide electronic files for digital printing.

Install construction project funding information signs 10 days before starting major work activities visible to public.

Dispose of construction project funding signs upon completion of the project if authorized

**Add to the beginning of the RSS for section 12-3.32C:**

Place PCMSs at the locations shown and in advance of the 1st warning sign for each:

1. Lane closure

**Add between the 9th and 10th paragraphs of the RSS for section 12-3.32C:**

Start displaying the message on the sign 5 minutes before closing the lane or shoulder or when directed by the Engineer.

**Add to section 12-4.02A(2):**

### **special days:**

1. Wharf-to-Wharf (July)
2. Tri Santa Cruz (August)
3. Ironman 70.3 (September)
4. Santa Cruz Triathlon (September)
5. Santa Cruz Half Marathon (March)
6. She is Beautiful (March)
7. Boardwalk Fun Run (March)
8. Surfer's Path Half Marathon (May)

**Add to the top of section 12-4.02A(3)(a):**

Submit a traffic maintenance plan showing deployment of traffic control and the coordination of traffic handling at each location. The plan must address traffic control as needed for materials and must include proposed haul routes.

**Add to the end of section 12-4.02C(1):**

Keep the full width of the traveled way open to traffic when no active construction activities are occurring in the traveled way or within 6 feet of the traveled way and on:

1. Friday after 3:00 p.m.
2. Saturday
3. Sunday
4. Designated holidays
5. Special days

Maintain pedestrian and bicycle passage around project.

Show pedestrian and bicycle passage on traffic control plan.

Prevent pedestrian and bicycle passage through SCCRTC right-of-way 24 hours a day in areas that are being constructed.

You may close the SCCRTC right-of-way to pedestrian and bicycle traffic at any time.

**Add to the end of section 12-4.02C(3)(a):**

If you use an impact attenuator vehicle as a shadow vehicle, you are not required to close the adjacent traffic lane for the following activities:

1. Grinding
2. Grooving
3. Saw cutting of concrete slabs
4. Installing loop detectors

If work vehicles or equipment are parked on the shoulder within 6 feet of a traffic lane on city streets, close the shoulder area with fluorescent-orange traffic cones or portable delineators. Place the cones or delineators on a taper in advance of the parked vehicles or equipment and along the edge of the traveled way at 25-foot intervals to a point not less than 25 feet past the last vehicle or piece of equipment. Use at least 9 cones or delineators for the taper. Place advance warning signs as specified in section 12-4.02C(8).

At California Street, keep a minimum of 1 paved traffic lane at least 11 feet wide open for traffic in each direction of travel.

At Beach Street, keep the following minimum open for traffic:

1. 1 paved traffic lane at least 11 feet wide in the westbound direction
2. 2 paved traffic lanes at least 11 feet wide in the eastbound direction

At Pacific Avenue, keep the following minimum open for traffic:

1. 1 paved traffic lane at least 11 feet wide in the southbound direction
2. All lanes in the northbound direction

**Replace *Reserved* in section 12-4.02C(3)(d) with:**

Construction working hours are from 8:00 AM to 5:00 PM, Monday-Friday. Municipal code restricts offensive noise between 10:00 PM and 8:00 AM.

With written authorization, construction may begin at 7:00 AM and on Saturdays. Submit a request for authorization 5 days in advance of requested 7:00 start.

Do not perform work on city streets that interferes with traffic from 6 AM to 9 AM any day, from 4 PM to 7 PM Monday through Thursday, nor from 3 PM to 7 PM Friday.

Open traffic lanes must be at least 11 feet wide.

One-way-reversing traffic-control lane closure may be allowed for paving, striping, or trenching. Obtain the Engineer's approval for one-way-reversing traffic-control lane closure one week in advance. If allowed, one-way-reversing traffic-control lane closure must be between 9 AM and 4 PM Monday through Thursday or 9 AM and 3 PM Friday.

**Replace *Reserved* in section 12-4.02C(3)(f) with:**

Closure restrictions for designated holidays and special days are shown in the following table:

<b>Lane Closure Restrictions For Designated Holidays And Special Days</b>										
Thu	Fri	Sat	Sun	Mon	Tues	Wed	Thu	Fri	Sat	Sun
x	<b>H</b> xx	xx	xx							
	<b>SD</b> xx									
x	xx	<b>H</b> xx	xx							
		<b>SD</b> xx								
	x	xx	<b>H</b> xx	xx						
			<b>SD</b> xx							
	x	xx	xx	<b>H</b> xx	xxx					
	x	xx	xx	<b>SD</b> xx	xxx					
				x	<b>H</b> xx					
				x	<b>SD</b> xx					
					x	<b>H</b> xx				
						<b>SD</b> xx				
						x	<b>H</b> xx	xx	xx	xx
							<b>SD</b> xx			
<b>Legend:</b>										
	Refer to lane requirement charts.									
x	The full width of the traveled way must be open for use by traffic after 3 PM.									
xx	The full width of the traveled way must be open for use by traffic.									
xxx	The full width of the traveled way must be open for use by traffic until 10 AM.									
<b>H</b>	Designated holiday									
<b>SD</b>	Special day									

**Add to the end of the 1st paragraph of section 12-4.02C(7)(a):**

except you may use a moving closure during traffic striping and pavement marker placement using a bituminous adhesive. Do not use a moving lane closure when grinding for recessed striping and recessed markers.

**Add to the end of section 12-4.02C(7)(a):**

Except where prohibited, use an impact attenuator vehicle:

1. To follow behind equipment and workers who are placing and removing components of a closure. Operate the flashing arrow sign in the arrow or caution mode during this activity, whichever applies. Follow at a distance that prevents intrusion into the work space from passing traffic.
2. As a shadow vehicle in a moving lane closure.





You are responsible for your personnel being informed of historic preservation laws that protect archaeological sites against any disturbance or removal of artifacts.

**Replace 4th paragraph of section 14-2.03B with:**

Install high-visibility fence or other authorized enclosure to protect and define archeological monitoring area boundaries at least seven calendar days before starting other job site activities.

**Add to section 14-6.01:**

Construction staging, maintenance and fueling and must be at least 60 feet from aquatic or riparian habitat and not in a location from where a spill would drain directly toward aquatic habitat.

**Add to the 1st paragraph of section 14-6.03A:**

This project is within or near habitat for the regulated species shown in the following table:

**Regulated Species**

California Red Legged Frog (CRLF)
Western Pond Turtle
Bats
Woodrat
Monarch Butterfly

This project includes and is adjacent to sensitive habitats shown in the following table:

**Sensitive Habitats**

Neary Lagoon
Trees and vegetation
West Cliff Drive Bridge

**Replace item 1 in the 2nd paragraph of section 14-6.03A with:**

1. Stop all work within a 100-foot radius of the discovery except as shown in the following table:

Regulated species	Protective radius (feet)
Monarch butterfly	500

**Add to section 14-6.03A:**

Properly contain trash to discourage regulated-species predators and dispose of it regularly.

If water is controlled by pumping, intakes must be completely screened with wire mesh not larger than 0.2 inch to prevent CRLF from entering the pump system.

Obtain authorization before impounding water that may attract CRLF.

City biologist will identify which trees to be removed or pruned offer suitable bat habitat. Trees to be removed that are determined to offer suitable bat habitat must be removed or pruned between September 15 and October 30.

Trees to be removed that are determined to offer suitable bat habitat must be removed in pieces and not by felling.

If a maternity roost is found, whether solitary or colonial, that roost must remain undisturbed until September 15 or until the City's biologist has determined the roost is no longer active.

If avoidance of non-maternity roost trees is not possible you may request authorization to perform removals between October 30 and August 31.

If authorization is given for removal of habitat between October 30 and August 31, cooperate with City's biologist to minimize disturbance to bats. Perform tree pruning and removal in the late afternoon or evening, and after City's biologist has attempted to roost bats.

Install high-visibility fence to form 25-ft buffer zones using around woodrat middens identified by biologist.

**Replace the 2nd paragraph of section 14-6.03B with:**

The Department anticipates nesting or attempted nesting by migratory and nongame birds from February 15 to August 31.

**Replace item 1 in the list in the 6th paragraph of section 14-6.03B with:**

1. Stop all work within a 250-foot radius of the discovery.

**Add to the list in paragraph 8 of section 14-6.03B:**

1. Install high-visibility fence to delineate a construction-free buffer zone around discovery, if ordered.

**Add to section 14-6.03:**

**14-6.03E Tree Protection**

Place temporary high-visibility fence around trees at dripline.

Cut ivy stems at base of heritage trees.

Maintain high-visibility fence during construction. Remove and dispose of fence when no longer needed.

**Replace *Reserved* section 14-6.05 with:**

**14-6.05 Cooperation with City's Biologist**

Section 14-6.05 includes specifications for coordinating and working with the City's biologist.

Request biological resource awareness training at least 10 days before the start of job site activities. All your personnel and subcontractors involved in ground-disturbing activities must complete 1 hour of training provided by the biologist before working at the job site. Biologist will provide training and monitor the biological resources shown in the table below.

Monitored Biological Resource
California Red Legged Frog (CRLF)
Nesting migratory birds
Western pond turtle
Woodrat
Bats
Monarch Butterfly

Notify the Engineer at least 10 days before starting ground-disturbing activities to allow for scheduling of the City biologist's 48-hour advance survey of CRLF.

Notify the Engineer at least 21 days before starting nest-disturbing activities to allow for scheduling of the City biologist's 14-day advance bird nest survey.

Notify the Engineer at least 7 days before disturbing vegetation or woody debris, before starting tree removal, and before initial ground-disturbing activities to allow for scheduling of the City biologist's 24-hour advance western pond turtle.

Notify the Engineer at least 21 days before starting construction activities within 500 feet of the blue gum eucalyptus grove at the West Cliff Drive Bridge during the wintering season (generally October 15 through August 31) to allow for scheduling of the City biologist's 14-day advance butterfly nest survey.

Install high-visibility fencing where directed by City's biologist.

**Replace the 2nd paragraph of section 14-8.02 with:**

Noise from job site activities must not exceed 86 dBA Lmax at 50 feet from the job site from 5 p.m. to 8 a.m., except the following activities may exceed this noise restriction during the hours and on the days shown in the following table:

**Add to section 14-8.02:**

Maintain equipment in good working order, including proper muffling.

**Add to section 14-11.01:**

Santa Cruz County Environmental Health Services (County) is providing oversight for this project in lieu of the DTSC.

Cooperate with the City's Soil Management Plan Field Coordinator.

**Add to section 14-11.02:**

Mitigation of unanticipated contamination is extra work.

**Replace section 14-11.05 with:**

This section includes requirements for stockpiling excavated material.

Place stockpiles where shown in the County- approved Soil Management Plan. Stockpiles containing contamination must not be placed where affected by surface run-on or run-off.

Stockpile material on undamaged high-density polyethylene or equivalent impermeable material. The dimensions of the polyethylene sheeting must exceed the dimensions of the stockpile.

Cover stockpiles with a minimum 13-mils-thick plastic sheeting:

1. When not actively in use for a span of four hours or more
2. At the end of each workday
3. Before rain events

.Do not place stockpiles in ESAs. Stockpiled material must not enter storm drains, inlets, or waters of the State.

Stockpiles must be no more than 50 cubic yards. Label stockpiles with their corresponding station limits. Do not mix material from different excavation locations in one stockpile.

Maintain BMPs throughout the life of the stockpiles and return the stockpile sites to their original condition or better.

**Replace section 14-11.11 with:**

**14-11.11 CITY-GENERATED CONTAMINATED SOIL**

**14-11.11A General**

Section 14-11.11 includes specifications for contaminated soil management while excavating, stockpiling, transporting, and disposing of material shown as contaminated.

Comply with Section 6 of the County-approved Soil Management Plan dated August 2019.

Excavate and dispose of roadway excavation (contaminated) under the rules and regulations of the following agencies:

1. US Department of Transportation
2. US EPA
3. California Environmental Protection Agency
4. CDPH
5. DTSC



6. Cal/OSHA
7. California Department of Resources Recycling and Recovery
8. California Air Resources Board
9. Monterey Bay Unified Air Pollution Control District

City does not pay for decontamination of your equipment.

Do not combine material from this project with material from another project.

Do not combine structure excavation material with roadway excavation (contaminated) material.

**14-11.11B Definitions**

**Contaminated material** – Existing soil with contaminant levels that are below hazardous levels.

**Hazardous material** – Existing soil containing hazardous waste levels of contaminants that must be removed and disposed of at a Class 1 disposal facility.

**14-11.11C Site Conditions**

Elevated concentrations of arsenic and other contaminants are present within the project limits. Management of this material exposes workers to health hazards. Workers that perform activities that may expose them to contaminants must have training per 29 CFR 190.120 (Hazardous Waste Operations and Emergency Response (HAZWOPER)) training.

Contaminated material includes:

1. Roadway excavation (contaminated)

Roadway excavation (contaminated) must not be reused on the project.

**14-11.11D Submittals**

**14-11.11D(1) General**

Reserved

**14-11.11D(2) Soil Handling Plan**

Within 15 days of Contract approval, submit 3 copies of a plan for:

1. Excavation and stockpiling of the roadway excavation (contaminated)
2. Transportation of excavated material to be disposed of.

**Add after the 2nd paragraph of section 14-11.11D(2):**

The handling plans must include:

1. Procedures for excavating, stockpiling, transporting, placing, and disposing of each type of material
2. Excavation schedule by location and date
4. Dust control measures
5. Air monitoring procedures, including:
  - 5.1 Location and type of equipment
  - 5.2 Sampling frequency
  - 5.3 Name and address of the laboratory that will perform the analyses
6. Transportation equipment and routes
7. Method for preventing spills and tracked material onto public roads
8. Truck waiting and staging areas
9. Spill contingency plan for material containing listed contaminants.
10. Qualifications of soil handling workers, including training and experience.
11. Methods for securing excavation site from public

The handling plan must comply with:

1. County regulations
2. This specification regarding the reuse of contaminated material

If the plan requires revisions, the City provides comments. Submit revised plan within 7 days of receiving comments. The Engineer may allow construction to proceed while minor revisions or amendments are being completed.

### 14-1.11D(3) Site Security

Prevent public entry 24 hours a day:

1. Into areas being excavated
2. At stockpile locations

### 14-11.11E Dust Control

Prevent visible dust migration during excavation, transportation, placement, and handling of material containing hazardous waste concentrations of listed contaminants under section 14-11.04.

## 14-11.11F Air Monitoring

Comply with air monitoring requirements in section 6 of approved Soil Management Plan.

## 14-11.11G Sampling and Analysis

The City does not pay for sampling and analysis required by the receiving landfill.

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## 15 EXISTING FACILITIES

**Add to the end of section 15-1.03C:**

Clean and deliver salvaged material to the material owner's property adjacent to the project. Coordinate with property owner for stockpile location.

[illegible]

## DIVISION III EARTHWORK AND LANDSCAPE

## 17 GENERAL

**Add to paragraph two in section 17-2.01:**

8. Trail
9. Areas shown to be graded

**Replace the first sentence in the fourth paragraph in section 17-2.03A with:**

Clear and grub out to the following widths the entire length of the job site and at areas shown to be graded:

**Add to fourth paragraph in section 17-2.03A:**

6. 5 feet outside of area shown as to be graded

**Add to section 17-2.03B:**

For shrubs that must be trimmed to allow for project work, cut at least one foot above ground so that root systems remain intact.

Inform Engineer if you find needles or other drug paraphernalia. Do not touch them. The Engineer will arrange for removal of the material by others. Needles and other drug paraphernalia such as drug



1. Testing and inspection responsibilities
2. Soil handling
  - 2.1. Weather conditions
  - 2.2. Progression of excavation work
  - 2.3. Roles and responsibilities
  - 2.4. Concerns of neighboring properties
3. Unique issues specific to the project, including:
  - 3.1. Dewatering
  - 3.2. Traffic control requirements
  - 3.3. Haul routes
  - 3.4. Any other local conditions

#### 19-1.01D(2) Testing of Imported Fill

Select an import borrow site from an area previously undeveloped, residential, or agricultural.

Submit detailed information on the previous use of the land from where the fill is taken. Acceptable documentation includes:

1. A previously prepared environmental site assessment signed by a licensed (CA-registered) individual
2. Previously prepared contaminant testing results signed by a licensed (CA-registered) individual.

If existing documentation is not available or is inadequate, chemically analyze samples of the fill material at the rates shown below, and based on the source of the fill and knowledge of the prior land use as shown in the following table.

**Potential Contaminants Based on the Fill Source Area**

Fill Source	Target Compounds
Land near to an existing freeway	Lead (EPA methods 6010B or 7471A), PAHs (EPA method 8310)
Land near a mining area or rock quarry	Heavy Metals (EPA methods 6010B and 7471A), asbestos (polarized light microscopy), pH
Agricultural land	Pesticides (Organochlorine Pesticides: EPA method 8081A or 8080A; Organophosphorus Pesticides: EPA method 8141A; Chlorinated Herbicides: EPA method 8151A), heavy metals (EPA methods 6010B and 7471A)
Residential/acceptable commercial land	VOCs (EPA method 8021 or 8260B, as appropriate and combined with collection by EPA Method 5035), semi-VOCs (EPA method 8270C), TPH (modified EPA method 8015), PCBs (EPA method 8082 or 8080A), heavy metals including lead (EPA methods 6010B and 7471A), asbestos (OSHA Method ID-191)

*\*The recommended analyses should be performed in accordance with USEPA SW-846 methods (1996). Other possible analyses include Hexavalent Chromium: EPA method 7199*

**Recommended Fill Material Sampling Schedule**

<b>Area of Individual Borrow Area</b>	<b>Sampling Requirements</b>
2 acres or less	Minimum of 4 samples
2 to 4 acres	Minimum of 1 sample every 1/2 acre
4 to 10 acres	Minimum of 8 samples
Greater than 10 acres	Minimum of 8 locations with 4 subsamples per location
<b>Volume of Borrow Area Stockpile</b>	<b>Samples per Volume</b>
Up to 1,000 cubic yards	1 sample per 250 cubic yards
1,000 to 5,000 cubic yards	4 samples for first 1000 cubic yards +1 sample per each additional 500 cubic yards
Greater than 5,000 cubic yards	12 samples for first 5,000 cubic yards + 1 sample per each additional 1,000 cubic yards

Submit the analysis results in a standard laboratory data including a summary of the QA/QC (Quality Assurance/Quality Control) sample results. The analysis must evaluate risk in accordance with the DTSC Preliminary Endangerment Assessment (PEA) Guidance Manual.

At a minimum, all imported fill material, including material obtained from a commercial source, must have CAM17 metals testing results with ranges shown as acceptable in the DTSC Preliminary Endangerment Assessment (PEA) Guidance Manual,

Sample and analyze borrow material before excavation. Do not excavate borrow material until the borrow site is authorized.

**Add to section 19-1.03A:**

Uncontaminated structure excavation material may be reused on project.

**Replace the 2nd paragraph of section 19-2.01A with:**

Roadway excavation (contaminated) consists of all excavation involved in the grading and construction of the project except structure excavation (soldier pile wall) and any excavation paid for as a separate bid item.

**Add to section 19-2.01A:**

Roadway excavation (contaminated) includes:

1. Excavating and stockpiling the contaminated material
2. Removing stockpiled material and disposing of it
3. Backfilling the space resulting from the excavation of unsuitable material with imported clean material up to subgrade.
4. Compliance with section 14-11.

**Replace first paragraph of section 19-2.03A with:**

For trail and concrete paving construction:

1. Excavate to subgrade.
2. Except where unsuitable material is shown or ordered to be removed, scarify excavation to a minimum depth of 8 inches and compact to 95% relative compaction to a depth of at least 8 inches.

If you overexcavate, backfill with authorized material and compact it.

**Add to section 19-2.03A:**

No roadway excavation (contaminated) material may be reused on the project. Properly dispose of roadway excavation (contaminated).

**Replace 19-2.03B with:**

Dispose of surplus material.

**Add between the 8th and 9th paragraphs of section 19-2.03G:**

Roughen excavation slopes and flat surfaces to receive erosion control materials by scarifying to a depth of 4 inches.

**Add to section 19-2.03:**

**19-2.03I Contaminated Material**

Manage roadway excavation (contaminated) under section 14-11.

**Replace section 19-2.04 with:**

The payment quantity for roadway excavation (contaminated) is determined from the average end areas and the distances between them.

If changed conditions or nature of a particular operation make determining the quantities of roadway excavation (contaminated) based on average end areas impractical, the payment quantity is the volume determined using a method best suited to obtain an accurate quantity.

If the quantities of roadway excavation (contaminated) are determined from average end areas and centerline distances, a correction for curvature is not applied to quantities within the roadway prism. In determining the quantity of material outside the original roadway prism, where the roadway centerline is used as a base, a correction is made for curvature if the centerline radius is 1,000 feet or less.

Payment for securing excavation areas and stockpiles is included in payment for roadway excavation (contaminated).

Payment for air monitoring is included in payment for roadway excavation (contaminated).

Excavation of unsuitable material will be measured and paid for as roadway excavation (contaminated).

The City does not pay for excavation beyond authorized limits. Backfill unauthorized excavation at your expense.

The City does not pay for sampling and analysis required by the receiving landfill.

**Replace sections 19-3.01C(3) and 19-3.01C(4) with:**

**19-3.01C(3) Not Used**

**19-3.01C(4) Soldier Pile Walls with and without Ground Anchors**

Submit shop drawings for soldier pile wall construction. The shop drawings must include:

1. Wall construction schedule with construction sequence
2. Traffic control
3. Method of soldier pile installation
4. Method of placing lagging
5. Excavation lift limits
6. Drilling and excavation equipment
7. Measures to ensure wall and slope stability during construction, with calculations
8. Provisions for installing verification and proof test nails
9. Methods of excavation for the staged lifts and types of excavation equipment

10. Excavation lift height and maximum duration of exposure for each wall zone, including supporting calculations and provisions to stabilize the exposed excavated face
11. Details for measuring the movement of the excavated face and the wall during stability testing and construction
12. Space requirements for installation equipment
13. Dewatering plan to divert, control, and dispose of surface and groundwater during construction
14. Provisions for discontinuous rows of soil nails

Shop drawings and calculations must be sealed and signed by an engineer who is registered as a civil engineer in the State.

Submit 5 copies of shop drawings for initial review. Allow 30 days for review.

Submit from 6 to 12 copies of final shop drawings as requested by the Engineer for final authorization.

**Add to section 19-3.01B:**

The following terms are interchangeable in the contract documents.

<b>TERM</b>	<b>EQUIVALENT TERMS</b>
Ground anchor	Tieback
Steel tube (at ground anchor)	HSS Transfer bracket, steel bracket
Anchorage enclosure	Protective cap
Pile	Pier
Cantilever wall	Type 1 Wall

**Add to the end of section 19-3.02E:**

Slurry cement backfill may contain returned plastic concrete.

Slurry cement backfill containing returned plastic concrete must comply with the specifications for concrete containing returned plastic concrete.

**Replace section 19-3.02H with:**

Concrete backfill encasing steel soldier piles below the lagging must comply with section 90-1 and have a compressive strength of 3,000 psi.

**Add to section 19-3.02:**

**19-3.02K Permeable Material**

Class I Type A permeable material must comply with section 68-2.02F(2).

**Replace section 19-3.03B(2) with:**

Excavate in a way that minimizes voids requiring backfill behind the lagging.

If Additive Bid Alternate for concrete lagging is awarded, excavate behind lagging to allow installation of permeable material backdrain and PVC pipe.

If you construct wall from the top down, do not excavate more than 3 feet below any level of ground anchors that have not been stressed and grouted.

The Engineer determines whether boulders or portions of boulders that interfere with lagging must be removed. Perform any additional earthwork ordered. The additional earthwork is change order work.

Complete placing lagging to the full height of the exposed excavation face in compliance with the approved installation plan.

**Add below paragraph four of section 19-3.03E(1):**

Do not compact by ponding or jetting unless authorized.

**Delete 3<sup>rd</sup> paragraph of section 19-3.03E(3).**

**Replace section 19-3.03J with:**

If lean concrete backfill is used in soldier pile installation, remove it as needed to install lagging.

**Replace section 19-3.04 with:**

The horizontal limit of pay for roadway excavation (contaminated) in front of soldier pile wall extends to the front face of the lagging.

The vertical limits of pay of roadway excavation (contaminated) in front of soldier pile wall are from existing grade to the grading plane.

For the Base Bid condition, the limits of structure excavation (soldier pile wall, final pay) are from the front of the lagging to the back of geocomposite drain and from the top of the lagging to the bottom of the lagging. The payment quantity for structure excavation (soldier pile wall, final pay) is the volume shown in the bid list.

If Additive Bid Alternate for concrete lagging is awarded, the limits of structure excavation (soldier pile wall, additional, final pay) are from 2 inches behind the back of lagging to the back of the permeable material backdrain, and from the top of the lagging to the bottom of the lagging. The payment quantity for structure excavation (soldier pile wall, additional, final pay) is the volume shown in the bid list.

The limit of concrete backfill (soldier pile wall, final pay) is from the bottom of the lagging to the bottom of the drilled hole. The payment quantity for concrete backfill (soldier pile wall, final pay) is the volume shown in the bid list.

Payment for excavation of vertical notches for installation of 12-inch PVC wall gutter pipes outside the limits of structure excavation (soldier pile wall, final pay) is included in payment for 12-inch PVC pipe (wall gutter).

Payment for permeable material installed as bedding and backfill of 12-inch PVC outside the limits of structure excavation (soldier pile wall, final pay) is included in payment for 12-inch PVC pipe (wall gutter).

Payment for placement and compaction of native material under concrete v-ditch behind soldier pile wall is included in payment for minor concrete (concrete v-ditch).

Payment for ground anchor earthwork is included in payment for ground anchor (subhorizontal).

Payment for lean concrete backfill, if used in installation of soldier piles, is included in payment for related items of work.

If Additive Bid Alternate for concrete lagging is awarded, payment for filter fabric behind lagging is included in payment for Class 1 Type A permeable material (final pay).

Payment for control of water is included in payment for related items of work.

**Replace the first paragraph of section 19-5.03B with:**

Compact earthwork to a relative compaction of at least 95 percent for at least a depth of 8 inches below the grading plane unless otherwise specified.

**Add to section 19-5.03D:**

You are responsible for control of water.

**Replace section 19-7.02C with:**

Native or imported soil used as engineered fill other than structural backfill on this project must be:



1. non-expansive,
2. free of organics, debris, and other deleterious materials,
3. free of "recycled" materials such as asphaltic concrete, concrete, brick, etc.,
4. granular in nature, well graded, and contain sufficient binder to allow utility trenches to stand open,
5. free of rocks in excess of 2 inches in size.
6. have a Plasticity Index between 4 and 12, and a minimum "R" Value of 30.
7. Tested under section 19-1.01D

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## 20 LANDSCAPE

**Add to section 20-3.01C(5):**

The Contract will not be accepted unless permanent erosion control planting has been satisfactorily maintained for at least 90 days after planting.

**Replace the paragraphs in section 20-5.03D(1)(d) with:**

Not Used

**Replace the paragraph in section 20-5.03D(2)(b) with:**

Not Used

**Delete the 2nd and 4th paragraphs of section 20-5.03D(3).**

**Add after the 5th paragraph of section 20-5.03D(3):**

After satisfactory completion of the decomposed granite work, apply a topcoat of solidifying emulsion annually to the surface per the manufacturer's instructions. Continue the annual application until the plant establishment period is completed or until Contract acceptance.

**Replace section 20-5.05 with:**

## 20-5.05 SITE FURNISHINGS

**20-5.05A(1) General**

Section 20-5.05 includes specifications for installing site furnishings.

Site furnishings include bollards and lean rails.

## 20-5.05A(2) Submittals

## Submit product information for site furnishings

## 20-5.05B Materials

### 20-5.05B(1) Removable Bollards

Removable bollards must be 5-inch schedule 10 galvanized pipe with a rounded galvanized cap as shown and with welded locking tab.

Lock well must be recessed to fit lock tab and lock chain. Bollard receiver must be galvanized steel pipe.

Receiver setting must be minor concrete on drain rock.

### 20-5.05B(2) Lean Rail

Lean rail elements must be galvanized commercial-quality standard steel pipe.



<b><u>Botanical Name</u></b>	<b><u>PLS Lbs.</u></b>
Hordeum brachyantherum, Meadow Barley	5.00
Nassella pulchra, Purple Needlegrass	5.00
Nassella cernua, Nodding Needlegrass	3.00
Deschampsia caespitosa var holciformis, Coastal Hairgrass	5.00
Trifolium wildenovii, Tomcat Clover	1.50
Lupinus nanus, Sky Lupine	3.00
Festuca microstachys, Small Fescue	6.00
Festuca rubra Molate, Molate red fescue	6.00
Bromus carinatus, California brome	4.00
Mellica imperfecta, Small-flowered mellica	2.00
Achillea millifolium var occidentalis, Dwarf Yellow	0.50
Eschscholzia californica var maritima, Coastal Poppy	1.50
Clarkia purpurea var quadrivularia, Purple Farewell to Spring	1.00
Lasthenia glabrata, Gold Fields	0.50
Mimulus aurantiacus, Sticky Monkey Flower	0.25
Sisyrinchium bellum, Blue Eyed Grass	3.00
Wyethia angustifolia, Narrow-leaf Mule Ears.	0.75
Artemesia douglasiana, Mugwort	1.00
Stachys bullata (if available), California Hedgenettle	0.50

**Add to section 21-2.03D:**

**Apply the hydromulch components in the table at the rates shown.**

Wood Fiber:	2,000 lbs/Acre
Fertilizer (6-20-20):	450 lbs/Acre
Tackifier:	80 lbs/Acre

[illegible]

## DIVISION IV SUBBASES AND BASES

## 26 AGGREGATE BASES

**Replace reserved section 26-1.01C with:**

At least 10 days in advance of material delivery, submit a 5 lb sample of proposed aggregate base.

Imported fill delivered to the project site without authorization must be removed from the project site.

**Replace section 39 with:**

### 39-1 GENERAL

### 39-1.01A Summary

HMA for this project is Type A.

1. Standard
2. Method

**coarse aggregate:** Aggregate retained on a no. 4 sieve.

**supplemental fine aggregate:** Aggregate passing the no. 30 sieve, including hydrated lime, portland cement, and fines from dust collectors.

### 39-1.02 MATERIALS

Tack coat must comply with the specifications for asphaltic emulsion or asphalts. Choose the type and grade.

Measure added water either by weight or volume in compliance with section 9-1.02 or you may use water meters from water districts, cities, or counties. If you measure water by volume, apply a conversion factor to determine the correct weight.

1. Weight ratio of water to bituminous material in the original asphaltic emulsion
2. Weight of asphaltic emulsion before diluting
3. Weight of added water
4. Final dilution weight ratio of water to asphaltic emulsion

Asphalt binder in HMA must comply with section 92.

30

### 39-1.02D Aggregate

Unless otherwise indicated in contract documents, the ratio of HMA lift thickness to nominal maximum aggregate size must be a minimum of 3:1. If the aggregate gradations for HMA is not specified, it must comply with the requirements shown in the following table:

Aggregate Gradation Requirements	
HMA pavement thickness shown	Gradation
0.10 foot	3/8 inch
Greater than 0.10 to less than 0.20 foot	1/2 inch
0.20 to less than 0.25 foot	1/2 or 3/4 inch
0.25 foot or greater	3/4 inch

Aggregate must be clean and free from deleterious substances.

The specified aggregate gradation must be determined before the addition of asphalt binder and includes supplemental fine aggregate. The Department tests for aggregate grading under California Test 202, modified by California Test 105 if there is a difference in specific gravity of 0.2 or more between the coarse and fine parts of different aggregate blends.

Choose sieve size TV within each TV limit presented in the aggregate gradation tables.

The proposed aggregate gradation must be within the TV limits for the specified sieve sizes shown in the following tables:

**Aggregate Gradation  
(Percentage Passing)  
HMA Type A**

3/4-inch HMA Type A

Sieve sizes	TV limits	Allowable tolerance
1"	100	--
3/4"	90–100	TV ± 5
1/2"	70–90	TV ± 6
No. 4	45–55	TV ± 7
No. 8	32–40	TV ± 5
No. 30	12–21	TV ± 4
No. 200	2.0–7.0	TV ± 2

1/2-inch HMA Type A

Sieve sizes	TV limits	Allowable tolerance
3/4"	100	—
1/2"	95–99	TV ± 6
3/8"	75–95	TV ± 6
No. 4	55–66	TV ± 7
No. 8	38–49	TV ± 5
No. 30	15–27	TV ± 4
No. 200	2.0–8.0	TV ± 2

3/8-inch HMA Type A

Sieve sizes	TV limits	Allowable tolerance
1/2"	100	--
3/8"	95–100	TV ± 6
No. 4	58–72	TV ± 7
No. 8	34–48	TV ± 6
No. 30	18–32	TV ± 5
No. 200	2.0–9.0	TV ± 2

Before the addition of asphalt binder, aggregate must have the values for the quality characteristics shown in the following table:

**Aggregate Quality**

Quality characteristic	Test method	HMA type			
		A	Not Used	Not Used	Not Used
Percent of crushed particles Coarse aggregate (% min.) One fractured face Two fractured faces Fine aggregate (% min) (Passing no. 4 sieve and retained on no. 8 sieve.) One fractured face	California Test 205	90 75  70			
Los Angeles Rattler (% max.) Loss at 100 rev. Loss at 500 rev.	California Test 211	12 45			
Sand equivalent (min.) <sup>a</sup>	California Test 217	47			
Fine aggregate angularity (% min.) <sup>b</sup>	California Test 234	45			
Flat and elongated particles (% max. by weight @ 5:1)	California Test 235	10			

<sup>a</sup> Reported value must be the average of 3 tests from a single sample.

<sup>b</sup> The Engineer waives this specification if HMA contains less than 10 percent of nonmanufactured sand by weight of total aggregate. Manufactured sand is fine aggregate produced by crushing rock or gravel.

**39-1.02E Reclaimed Asphalt Pavement**

You may produce HMA Type A using RAP. HMA produced using RAP must comply with the specifications for HMA, except aggregate quality specifications do not apply to RAP. You may substitute RAP aggregate for a part of the virgin aggregate in HMA in a quantity not exceeding 15.0 percent of the aggregate blend.

Assign the substitution rate of RAP aggregate for virgin aggregate with the JMF submittal. The JMF must include the percent of RAP used. If you change your assigned RAP aggregate substitution rate by more than 5 percent (within the 15.0 percent limit), submit a new JMF.

Process RAP from asphalt concrete. You may process and stockpile RAP during the entire project. Prevent material contamination and segregation. Store RAP in stockpiles on smooth surfaces free of debris and organic material. Processed RAP stockpiles must be only homogeneous RAP.

**39-1.03 HOT MIX ASPHALT MIX DESIGN REQUIREMENTS**

**39-1.03A General**

The mix design process consists of performing California Test 367 and laboratory procedures on combinations of aggregate gradations and asphalt binder contents to determine the OBC and HMA mixture qualities. The results become the proposed JMF.

Use the *Contractor Hot Mix Asphalt Design Data* form to record aggregate quality and mix design data. Use the *Contractor Job Mix Formula Proposal* form to present the JMF.

Laboratories testing aggregate qualities and preparing the mix design and JMF must be qualified under the Department's Independent Assurance Program. Take samples under California Test 125.

The Engineer reviews the aggregate qualities, mix design, and JMF and verifies and authorizes the JMF.

You may change the JMF during production. Do not use the changed JMF until it is authorized. Except if adjusting the JMF as specified in section 39-1.03E, perform a new mix design and submit a new JMF submittal if you change any of the following:

1. Target asphalt binder percentage
2. Asphalt binder supplier

3. Combined aggregate gradation
4. Aggregate sources
5. Substitution rate for RAP aggregate of more than 5 percent
6. Any material in the JMF

### 39-1.03B Hot Mix Asphalt Mix Design

Perform a mix design that produces HMA with the values for the quality characteristics shown in the following table:

HMA Mix Design Requirements				
Quality characteristic	Test method	HMA type		
		A	Not Used	Not Used
Air void content (%)	California Test 367	4.0		
Voids in mineral aggregate (% min.)	California Test 367			
No. 4 grading		17.0		
3/8" grading		15.0		
1/2" grading		14.0		
3/4" grading		13.0		
Voids filled with asphalt (%)	California Test 367			
No. 4 grading		76.0–80.0		
3/8" grading		73.0–76.0		
1/2" grading		65.0–75.0		
3/4" grading		65.0–75.0		
Dust proportion	California Test 367			
No. 4 and 3/8" gradings		0.9–2.0		
1/2" and 3/4" gradings		0.6–1.3		
Stabilometer value (min.) <sup>b</sup>	California Test 366			
No. 4 and 3/8" gradings		30		
1/2" and 3/4" gradings		37		

<sup>a</sup> Not Used

<sup>b</sup> California Test 304, Part 2.13.

Report the average of 3 tests. If the range of stability for the 3 briquettes is more than 8 points, prepare new briquettes and test again. The average air void content may vary from the specified air void content by  $\pm 0.5$  percent.

### 39-1.03C Job Mix Formula Submittal

Each JMF submittal must consist of:

1. Proposed JMF on a *Contractor Job Mix Formula Proposal* form
2. Mix design records on a *Contractor Hot Mix Asphalt Design Data* form dated within 12 months of submittal
3. Form CEM-3513 for mixes that have been verified within last 12 months.
4. MSDS for the following:
  - 4.1. Asphalt binder
  - 4.2. Supplemental fine aggregate except fines from dust collectors

If the Engineer requests, sample the following materials in the presence of the Engineer and place in labeled containers weighing no more than 50 lb each:

1. Coarse, fine, and supplemental fine aggregate from stockpiles, cold feed belts, or hot bins. Samples must be at least 120 lb for each coarse aggregate, 80 lb for each fine aggregate, and 10 lb for each type of supplemental fines. The City combines these aggregate samples to comply with the JMF TV's submitted on a *Contractor Job Mix Formula Proposal* form.
2. RAP from stockpiles or RAP system. Samples must be at least 60 lb.



3. Asphalt binder from the binder supplier. Samples must be in two 1-quart cylindrical-shaped cans with open top and friction lids.

For aggregate, RAP, and HMA, split the samples into at least 4 parts and label their containers. Submit 2 parts and keep 2 parts. You and the Engineer must each keep 1 part in the event of dispute resolution.

### **39-1.03D Job Mix Formula Review**

The Engineer reviews each mix design and proposed JMF within 5 business days from the complete JMF submittal. The review consists of reviewing the mix design procedures and comparing the proposed JMF with the specifications.

The Engineer may verify aggregate quality characteristics during this review period.

### **39-1.03E Job Mix Formula Verification**

If you cannot submit a verified JMF on a *Caltrans Hot Mix Asphalt Verification* form dated within 12 months before HMA production, coordinate JMF verification with the Engineer. The JMF may be verified using the procedure specified in this section, at the Engineer's option.

Based on your testing and production experience, you may submit an adjusted JMF on a *Contractor Job Mix Formula Proposal* form before verification testing. JMF adjustments may include a change in the:

1. Asphalt binder content TV up to  $\pm 0.6$  percent from the OBC value submitted on a *Contractor Hot Mix Asphalt Design Data* form; do not adjust the TV for asphalt rubber binder below 7.0 percent
2. Aggregate gradation TVs within the TV limits specified in the aggregate gradation tables

For HMA Type A, , the Engineer verifies the JMF from samples taken from HMA produced by the plant to be used. Notify the Engineer at least 2 business days before sampling materials.

In the Engineer's presence and from the same production run, take samples of:

1. Aggregate
2. Asphalt binder
3. RAP
4. HMA

Sample aggregate from cold feed belts or hot bins. Sample RAP from the RAP system. Sample HMA under California Test 125, except if you request and if authorized, you may sample from any of the following locations:

1. Plant
2. Truck
3. Windrow
4. Paver hopper
5. Mat behind the paver

You may sample from a different project, including a non-City project, if you make arrangements for the Engineer to be present during sampling.

For aggregate, RAP, and HMA, split the samples into at least 4 parts and label their containers. Submit 2 parts and keep 2 parts . You and the Engineer must each keep 1 part in the event of dispute resolution.

The Engineer verifies each proposed JMF within 20 days of receiving all verification samples and the JMF submittal has been accepted. Verification is testing for compliance with the specifications for:

1. Aggregate quality
2. Aggregate gradation TVs within the TV limits
3. Asphalt binder content TV within the TV limit
4. HMA quality specified in the table HMA Mix Design Requirements except:
  - 4.1. Air void content, design value  $\pm 2.0$  percent

- 4.2. Voids filled with asphalt, report only if an adjustment for asphalt binder content TV is less than  $\pm 0.3$  percent from OBC
- 4.3. Dust proportion, report only if an adjustment for asphalt binder content TV is less than  $\pm 0.3$  percent from OBC

The Engineer prepares 3 briquettes from a single split sample. To verify the JMF for stability and air void content, the Engineer tests the 3 briquettes and reports the average of 3 tests. The Engineer prepares new briquettes if the range of stability for the 3 briquettes is more than 8 points.

The Engineer may use the briquettes used for stability testing to determine bulk specific gravity under California Test 308. If the same briquettes are used and the tests using bulk specific gravity fail, the Engineer prepares 3 new briquettes and determines a new bulk specific gravity.

If the JMF is verified, the Engineer provides you a *Caltrans Hot Mix Asphalt Verification* form.

If tests on plant-produced samples do not verify the JMF, the Engineer notifies you and you must submit a new JMF submittal or submit an adjusted JMF based on your testing. JMF adjustments may include a change in:

1. Asphalt binder content TV up to  $\pm 0.6$  percent from the OBC value submitted on a *Contractor Hot Mix Asphalt Design Data* form except do not adjust the TV for asphalt rubber binder for RHMA-G below 7.0 percent
2. Aggregate gradation TVs within the TV limits specified in the aggregate gradation tables

You may adjust the JMF only once due to a failed verification test. An adjusted JMF requires a new *Contractor Job Mix Formula Proposal* form and verification of a plant-produced sample.

The Engineer reverifies the JMF if HMA production has stopped for longer than 30 days and the verified JMF is older than 12 months.

For each HMA type and aggregate size specified, the Engineer verifies at the City's expense up to 2 proposed JMF, including a JMF adjusted after verification failure. The Engineer deducts \$3,000 from payments for each verification exceeding this limit. This deduction does not apply to verifications initiated by the Engineer or if a JMF expires while HMA production is stopped longer than 30 days.

### **39-1.03F Job Mix Formula Renewal**

You may request a JMF renewal by submitting:

1. Proposed JMF on a *Contractor Job Mix Formula Proposal* form
2. Previously verified JMF documented on a *Caltrans Hot Mix Asphalt Verification* form dated within 12 months
3. Mix design documentation on a *Contractor Hot Mix Asphalt Design Data* form used for the previously verified JMF

If the Engineer requests, sample the following materials in the presence of the Engineer and place in labeled containers weighing no more than 50 lb each:

1. Coarse, fine, and supplemental fine aggregate from stockpiles, cold feed belts, or hot bins. Samples must include at least 120 lb for each coarse aggregate, 80 lb for each fine aggregate, and 10 lb for each type of supplemental fines. The Department combines these aggregate samples to comply with the JMF TVs submitted on a *Contractor Job Mix Formula Proposal* form.
2. RAP from stockpiles or RAP system. Samples must be at least 60 lb.
3. Asphalt binder from the binder supplier. Samples must be in two 1-quart cylindrical-shaped cans with open top and friction lids.

For aggregate, RAP, and HMA, split the samples into at least 4 parts and label their containers. Submit 2 parts and keep 2 parts. You and the Engineer must each keep 1 part in the event of dispute resolution.

The Engineer reviews each complete JMF renewal submittal within 5 business days.

The Engineer may verify aggregate qualities during this review period.

The Engineer verifies the JMF under section 39-1.03E except:

1. Engineer retains samples until you provide test results for your part on a *Contractor Job Mix Formula Renewal* form.
2. Department tests samples of materials obtained from the HMA production unit after you submit test results that comply with the specifications for the quality characteristics in section 39-1.03E.
3. Engineer verifies each proposed JMF within 30 days of receiving verification samples.
4. You may not adjust the JMF due to a failed verification.
5. For each HMA type and aggregate gradation specified, the Engineer verifies at the Department's expense 1 proposed JMF.

If the Engineer verifies the JMF renewal, the Engineer provides you a *Caltrans Hot Mix Asphalt Verification* form.

### **39-1.03G Job Mix Formula Acceptance**

You may start HMA production if:

1. Engineer's review of the JMF shows compliance with the specifications
2. Department has verified the JMF within 12 months before HMA production
3. Engineer authorizes the verified JMF

## **39-1.04 CONTRACTOR QUALITY CONTROL**

### **39-1.04A General**

Establish, maintain, and change a quality control system to ensure materials and work comply with the specifications.

You are not required to submit quality control test results. However, if quality control test results are not submitted to the Engineer within 3 days of paving, you waive the right to dispute the Engineer's results.

You must identify the HMA sampling location in your QC plan. During production, take samples under California Test 125, except if you request and if authorized, sample HMA from any of the following locations:

1. Plant
2. Truck
3. Windrow
4. Paver hopper
5. Mat behind the paver

### **39-1.04B Prepaving Conference**

Hold a prepaving conference with the Engineer at a mutually agreed time and place. Discuss methods of performing the production and paving work.

### **39-1.04C Aggregate**

Determine the aggregate moisture content and RAP moisture content in continuous mixing plants at least twice a day during production and adjust the plant controller. Determine the RAP moisture content in batch mixing plants at least twice a day during production and adjust the plant controller.

### **39-1.04D Reclaimed Asphalt Pavement**

Perform RAP quality control testing each day.

Sample RAP once daily and determine the RAP aggregate gradation under California Test 367, appendix B, and submit the results with the combined aggregate gradation.

### **39-1.04E Density Cores**

To determine density for Standard construction process projects, take 4- or 6-inch diameter density cores at least once every 5 business days. Take 1 density core for every 250 tons of HMA from random locations the Engineer designates. Take density cores in the Engineer's presence and backfill and

compact holes with authorized material. Before submitting a density core, mark it with the density core's location and place it in a protective container.

If a density core is damaged, replace it with a density core taken within 1 foot longitudinally from the original density core. Relocate any density core located within 1 foot of a rumble strip to 1 foot transversely away from the rumble strip.

#### **39-1.04F Briquettes**

Prepare 3 briquettes for each stability and air void content determination. Report the average of 3 tests. Prepare new briquettes and test again when the range of stability for the 3 briquettes is more than 8 points.

You may use the same briquettes used for stability testing to determine bulk specific gravity under California Test 308. If you use these briquettes and tests using bulk specific gravity fail, you may prepare 3 new briquettes and determine a new bulk specific gravity.

#### **39-1.05 ACCEPTANCE CRITERIA**

HMA acceptance is specified in the sections for each HMA construction process.

The Department samples materials for testing under California Test 125 and the applicable test method, except samples may be taken:

1. At the plant from a truck or an automatic sampling device
2. From the mat behind the paver

Sampling must be independent of Contractor quality control, statistically based, and random.

If you request, the Department splits samples and provides you with a part.

HMA acceptance is based on:

1. Authorized JMF
2. Accepted QC plan for Standard construction process
3. Compliance with the HMA acceptance tables
4. Visual inspection

The City prepares 3 briquettes for each stability and air void content determination. The average of 3 tests is reported. If the range of stability for the 3 briquettes is more than 8 points, new briquettes are prepared and tested.

The City may use the briquettes used for stability testing to determine bulk specific gravity under California Test 308. If the Engineer uses the same briquettes and the tests using that bulk specific gravity fail, the Engineer prepares 3 new briquettes and determines a new bulk specific gravity.

#### **39-1.06 DISPUTE RESOLUTION**

Work with the Engineer to avoid potential conflicts and to resolve disputes regarding test result discrepancies. Notify the Engineer within 5 days of receiving a test result if you dispute the test result.

If you or the Engineer dispute each other's test results, submit quality control test results and copies of paperwork including worksheets used to determine the disputed test results. An independent third party performs referee testing. Before the independent third party participates in a dispute resolution, the party must be accredited under the Department's Independent Assurance Program. The independent third party must be independent of the project. By mutual agreement, the independent third party is chosen by mutual agreement.

If split quality control or acceptance samples are not available, the independent third party uses any available material representing the disputed HMA for evaluation.

#### **39-1.07 PRODUCTION START-UP EVALUATION**

The Engineer evaluates HMA production and placement at production start-up.

Within the first 750 tons produced on the 1st day of HMA production, in the Engineer's presence and from the same production run, take samples of:

1. Aggregate
2. Asphalt binder
3. RAP
4. HMA

Sample aggregate from cold feed belts or hot bins. Take RAP samples from the RAP system. Sample HMA under California Test 125, except if you request and if authorized, you may sample HMA from any of the following locations:

1. Plant
2. Truck
3. Windrow
4. Paver hopper
5. Mat behind the paver

For aggregate, RAP, and HMA, split the samples into at least 4 parts and label their containers. Submit 2 parts and keep 2 parts. You and the Engineer must each keep 1 part in the event of dispute resolution.

You and the Department must test the split samples and report test results within 3 business days of sampling. If you proceed before receipt of the test results, the Engineer may consider the HMA placed to be represented by these test results.

Take 4- or 6-inch diameter density cores within the first 750 tons on the 1st day of HMA production. For each density core, the Department reports the bulk specific gravity determined under California Test 308, Method A, in addition to the percent of maximum theoretical density. You may test for in-place density at the density core locations and include them in your production tests for percent of maximum theoretical density.

### **39-1.08 PRODUCTION**

#### **39-1.08A General**

Do not start HMA production before JMF is authorized

Produce HMA in a batch mixing plant or a continuous mixing plant. Proportion aggregate by hot or cold feed control.

Before production, the HMA plant must have current qualification under the Caltrans' Materials Plant Quality Program or be approved by the Engineer.

During production, you may adjust:

1. Hot or cold feed proportion controls for virgin aggregate and RAP
2. Set point for asphalt binder content

#### **39-1.08B Mixing**

Mix HMA ingredients into a homogeneous mixture of coated aggregates.

Asphalt binder must be from 275 to 375 degrees F when mixed with aggregate.

When mixed with asphalt binder, aggregate must not be more than 325 degrees F. These aggregate temperature specifications do not apply if you use RAP.

HMA with or without RAP must not be more than 325 degrees F.

### **39-1.09 SUBGRADE AND TACK COAT**

#### **39-1.09A General**

Prepare subgrade or apply tack coat to surfaces receiving HMA.

### 39-1.09B Subgrade

Subgrade to receive HMA must comply with the compaction and elevation tolerance specifications in the sections for the material involved. Subgrade must be free of loose and extraneous material. If HMA is paved on existing base or pavement, remove loose paving particles, dirt, and other extraneous material by any means including flushing and sweeping.

### 39-1.09C Tack Coat

Apply tack coat:

1. To existing pavement, including planed surfaces
2. Between HMA layers
3. To vertical surfaces of:
  - 3.1. Curbs
  - 3.2. Gutters
  - 3.3. Construction joints

Before placing HMA, apply tack coat in 1 application. The application rate must be the minimum residual rate specified for the underlying surface conditions shown in the following tables:

**Tack Coat Application Rates for HMA Type A**

HMA overlay over:	Minimum residual rates (gal/sq yd)		
	CSS1/CSS1h, SS1/SS1h and QS1h/CQS1h asphaltic emulsion	CRS1/CRS2, RS1/RS2 and QS1/CQS1 asphaltic emulsion	Asphalt binder and PMRS2/PMCRS2 and PMRS2h/PMCRS2h asphaltic emulsion
New HMA (between layers)	0.02	0.03	0.02
PCC and existing HMA (AC) surfaces	0.03	0.04	0.03
Planed PCC and HMA (AC) surfaces	0.05	0.06	0.04

If you dilute asphaltic emulsion, mix until homogeneous before application.

For vertical surfaces, apply a residual tack coat rate that will thoroughly coat the vertical face without running off.

If you request and if authorized, you may:

1. Change tack coat rates
2. Omit tack coat between layers of new HMA during the same work shift if:
  - 2.1. No dust, dirt, or extraneous material is present
  - 2.2. Surface is at least 140 degrees F

Immediately in advance of placing HMA, apply additional tack coat to damaged areas or where loose or extraneous material is removed.

Close areas receiving tack coat to traffic. Do not track tack coat onto pavement surfaces beyond the job site.

Asphalt binder tack coat must be from 285 to 350 degrees F when applied.

### 39-1.10 SPREADING AND COMPACTING EQUIPMENT

Paving equipment for spreading must be:

1. Self-propelled
2. Mechanical
3. Equipped with a screed or strike-off assembly that can distribute HMA the full width of a traffic lane
4. Equipped with a full-width compacting device

5. Equipped with automatic screed controls and sensing devices that control the thickness, longitudinal grade, and transverse screed slope

Install and maintain grade and slope references.

The screed must produce a uniform HMA surface texture without tearing, shoving, or gouging.

The paver must not leave marks such as ridges and indentations, unless you can eliminate them by rolling.

Rollers must be equipped with a system that prevents HMA from sticking to the wheels. You may use a parting agent that does not damage the HMA or impede the bonding of layers.

In areas inaccessible to spreading and compacting equipment:

1. Spread the HMA by any means to obtain the specified lines, grades, and cross sections.
2. Use a pneumatic tamper, plate compactor, or equivalent to achieve thorough compaction.

### **39-1.11 TRANSPORTING, SPREADING, AND COMPACTING**

Submit material delivery tickets daily.

Do not pave HMA on wet pavement or a frozen surface.

You may deposit HMA in a windrow and load it in the paver if:

1. Paver is equipped with a hopper that automatically feeds the screed
2. Loading equipment can pick up the windrowed material and deposit it in the paver hopper without damaging base material
3. Activities for deposit, pickup, loading, and paving are continuous
4. HMA temperature in the windrow does not fall below 260 degrees F

You may pave HMA in 1 or more layers on areas less than 5 feet wide and outside the traveled way, including shoulders. You may use mechanical equipment other than a paver for these areas. The equipment must produce uniform smoothness and texture.

HMA handled, spread, or windrowed must not stain the finished surface of any improvement, including pavement.

Do not use petroleum products such as kerosene or diesel fuel to release HMA from trucks, spreaders, or compactors.

HMA must be free of:

1. Segregation
2. Coarse or fine aggregate pockets
3. Hardened lumps

Longitudinal joints in the top layer must match specified lane edges. Alternate the longitudinal joint offsets in the lower layers at least 0.5 foot from each side of the specified lane edges. You may request other longitudinal joint placement patterns.

Until the adjoining through lane's top layer has been paved, do not pave the top layer of:

1. Shoulders
2. Tapers
3. Transitions
4. Road connections
5. Driveways
6. Curve widenings
7. Turn pockets

If the number of lanes changes, pave each through lane's top layer before paving a tapering lane's top layer. Simultaneous to paving a through lane's top layer, you may pave an adjoining area's top layer, including shoulders. Do not operate spreading equipment on any area's top layer until completing final compaction.

If placing HMA against the edge of existing pavement, sawcut or grind the pavement straight and vertical along the joint and remove extraneous material.

Rolling must leave the completed surface compacted and smooth without tearing, cracking, or shoving. Complete finish rolling activities before the pavement surface temperature is:

1. Below 150 degrees F for HMA with unmodified binder

If a vibratory roller is used as a finish roller, turn the vibrator off.

For Standard construction process, where the pavement thickness shown is greater than 0.30 foot, you may place HMA Type A in multiple lifts not less than 0.15 foot each. If placing HMA Type A in multiple lifts:

1. Aggregate gradation must comply with the requirements shown in the following table:

<b>Aggregate Gradation Requirements</b>	
HMA lift thickness	Gradation
0.15 to less than 0.20 foot	1/2 inch
0.20 foot to less than 0.25 foot	3/4 inch
0.25 foot or greater	3/4 inch

2. Apply a tack coat before placing a subsequent lift
3. The Engineer evaluates each HMA lift individually for compliance

Construct temporary pavement transitions at transverse paving joints greater than 1 inch before allowing traffic onto the paved surface. Temporary pavement transitions must have a maximum slope of 20:1 or as approved by the engineer and be constructed on a bond-breaker such that upon removal of the temporary pavement transition, a clean notch remains. The temporary transitions may be constructed of either cold mix or hot mix.

Maintain the temporary pavement until final paving. Inspect each temporary transition and repair as necessary to comply with these provisions at the end of each day including weekends and holidays.

Failure to comply with temporary pavement transition provisions will result in a liquidated damage of \$250 per day per transition and/or the cost of City crews making the repairs if necessary to correct for public safety.

Have hand-compaction equipment immediately available for compacting areas inaccessible to rollers. Perform hand-compaction concurrently with breakdown rolling. If for any reason hand-compaction falls behind breakdown rolling, suspend placement of hot mix asphalt until hand-compaction is caught up. Hand-compaction includes vibraplates and hand tampers. Hand torches must be available for rework of areas which have cooled.

After compaction, the surface texture of all hand work areas must match the surface texture of the machine placed mat. Correct coarse or segregated areas immediately upon discovery. The Engineer may suspend HMA placement until coarse or segregated areas are corrected.

Spread and compact HMA under section 39-3.03 if any of the following applies:

1. Specified paved thickness is less than 0.15 foot.
2. Specified paved thickness is less than 0.20 foot and 3/4-inch aggregate grading is specified and used.
3. You spread and compact at:



- 3.1. Asphalt concrete surfacing replacement areas
- 3.2. Leveling courses
- 3.3. Areas for which the Engineer determines conventional compaction and compaction measurement methods are impeded

Do not allow traffic on new HMA pavement until its mid-depth temperature is below 160 degrees F.

If you request and if authorized, you may cool HMA Type A with water when rolling activities are complete. Apply water under section 10-6.

No deviation from the above requirements will be allowed without written authorization.

### **39-1.12 SMOOTHNESS**

#### **39-1.12A General**

Determine HMA smoothness with a profilograph and a straightedge.

#### **39-1.12B Straightedge**

The top layer of HMA pavement must not vary from the lower edge of a 12-foot straightedge:

1. More than 0.01 foot when the straightedge is laid parallel with the centerline
2. More than 0.02 foot when the straightedge is laid perpendicular to the centerline and extends from edge to edge of a traffic lane
3. More than 0.02 foot when the straightedge is laid within 24 feet of a pavement conform

#### **39-1.12C Profilograph**

For the top layer of HMA Type A pavement, determine the  $PI_0$  and must-grinds under California Test 526. Take 2 profiles within each traffic lane, 3 feet from and parallel with the edge of each lane.

A must-grind is a deviation of 0.3 inch or more in a length of 25 feet. You must correct must-grinds.

Profile the pavement in the Engineer's presence.

On tangents and horizontal curves with a centerline radius of curvature of 2,000 feet, the  $PI_0$  must be at most 3 inches per 0.1-mile section.

On horizontal curves with a centerline radius of curvature from 1,000 to 2,000 feet, including pavement within the superelevation transitions, the  $PI_0$  must be at most 6 inches per 0.1-mile section.

The following HMA pavement areas do not require a  $PI_0$ . You must measure these areas with a 12-foot straightedge and determine must-grinds with a profilograph:

1. New HMA with a total thickness less than 0.25 foot
2. HMA sections of city or county streets and roads, turn lanes, and collector lanes less than 1,500 feet in length

The following HMA pavement areas do not require a  $PI_0$  and you must measure them with a 12-foot straightedge:

1. Horizontal curves with a centerline radius of curvature less than 1,000 feet, including pavement within the superelevation transitions of those curves
2. Within 12 feet of a transverse joint separating the pavement from:
  - 2.1. Existing pavement not constructed under the same project
3. Turn lanes
4. Areas within 15 feet of manholes or drainage transitions
5. Acceleration and deceleration lanes for at-grade intersections
6. Shoulders and miscellaneous areas
7. HMA pavement within 3 feet from and parallel to the construction joints formed between curbs, gutters, or existing pavement

### **39-1.12D Smoothness Correction**

If the top layer of HMA Type A pavement does not comply with the smoothness specifications, grind the pavement to within specified tolerances, remove and replace it, or place an overlay of HMA. Do not start corrective work until your choice of methods is authorized.

Smoothness corrections must leave at least 75 percent of the specified HMA thickness. If ordered, core the pavement at the locations selected by the Engineer. Remove and replace deficient pavement areas where the overlay thickness is less than 75 percent of the thickness specified.

Corrected HMA pavement areas must be uniform rectangles with edges:

1. Parallel to the nearest HMA pavement edge or lane line
2. Perpendicular to the pavement centerline

Measure the corrected HMA pavement surface with a profilograph and a 12-foot straightedge and correct the pavement to within specified tolerances. If a must-grind area or straightedged pavement cannot be corrected to within specified tolerances, remove and replace the pavement.

### **39-1.14 MISCELLANEOUS AREAS AND DIKES**

The following specifications in section 39 do not apply to miscellaneous areas and dikes:

1. HMA construction process
2. HMA mix design requirements
3. Contractor quality control
4. Production start-up evaluation

Miscellaneous areas are outside the traveled way and include:

1. Median areas not including inside shoulders
2. Island areas
3. Sidewalks
4. Gutters
5. Gutter flares
6. Ditches
7. Overside drains
8. Aprons at the ends of drainage structures

Spread miscellaneous areas in 1 layer and compact to the specified lines and grades.

For miscellaneous areas and dikes:

1. Do not submit a JMF.
2. Choose the 3/8-inch or 1/2-inch HMA Type A and Type B aggregate gradations.
3. Minimum asphalt binder content must be 6.8 percent for 3/8-inch aggregate and 6.0 percent for 1/2-inch aggregate. If you request and if authorized, you may reduce the minimum asphalt binder content.
4. Choose asphalt binder Grade PG 70-10 or the same grade specified for HMA.

### **39-1.15 MINOR HOT MIX ASPHALT**

#### **39-1.15A GENERAL**

##### **39-1.15A Summary**

The following specifications in section 39 do not apply to minor HMA:

1. HMA construction process
2. HMA mix design requirements
3. Contractor quality control
4. Production start-up evaluation

### **39-1.15B MATERIALS**

The minimum asphalt binder content must be 6.8 percent for 3/8-inch aggregate gradation and 6.0 percent for 1/2-inch aggregate gradation.

Choose asphalt binder Grade PG 64-10, PG 64-16, or PG 70-10.

If you request and if authorized, you may reduce the minimum asphalt binder content.

Choose the 3/8-inch or 1/2-inch HMA Type A or Type B aggregate gradation.

### **39-1.15C CONSTRUCTION**

Produce HMA at a central mixing plant.

Choose any method and equipment to spread and compact.

The surface must be:

1. Textured uniformly
2. Compacted firmly
3. Without depressions, humps, and irregularities

Smoothness specifications do not apply.

## **39-2 STANDARD CONSTRUCTION PROCESS**

### **39-2.01 GENERAL**

Section 39-2 includes specifications for HMA produced and constructed under the Standard construction process.

### **39-2.02 CONTRACTOR QUALITY CONTROL**

#### **39-2.02A Quality Control Plan**

Establish, implement, and maintain a QC plan for HMA. The QC plan must comply with Caltrans Quality Control Plan Review Checklist for Hot Mix Asphalt. describe the organization and procedures you will use to:

1. Control the quality characteristics
2. Determine when corrective actions are needed (action limits)
3. Implement corrective actions

When you submit the proposed JMF, submit the proposed QC plan. You and the Engineer must discuss the QC plan during the prepaving conference.

The QC plan must address the elements affecting HMA quality including:

1. Aggregate
2. Asphalt binder
3. Additives
4. Production
5. Paving

The Engineer reviews each QC plan within 20 calendar days from the submittal. Do not produce HMA until the Engineer authorizes the QC plan.

#### **39-2.02B Quality Control Testing**

Perform sampling and testing at the specified frequency for the quality characteristics shown in the following table:

**Minimum Quality Control—Standard Construction Process**

Quality characteristic	Test method	Minimum sampling and testing frequency	HMA type			
			A	Not Used	Not Used	Not Used
Aggregate gradation <sup>a</sup>	California Test 202	1 per 750 tons and any remaining part	JMF $\pm$ Tolerance <sup>b</sup>			
Sand equivalent (min) <sup>c</sup>	California Test 217		47			
Asphalt binder content (%)	California Test 379 or 382		JMF $\pm$ 0.45			
HMA moisture content (% , max)	California Test 226 or 370	1 per 2,500 tons but not less than 1 per paving day	1.0			
Percent of maximum theoretical density (%) <sup>d, e</sup>	QC plan	2 per business day (min.)	91–97			
Stabilometer value (min) <sup>c, f</sup> No. 4 and 3/8" gradings 1/2" and 3/4" gradings	California Test 366	One per 4,000 tons or 2 per 5 business days, whichever is greater	30 37			
Air void content (%) <sup>c, g</sup>	California Test 367		4 $\pm$ 2			
Aggregate moisture content at continuous mixing plants and RAP moisture content at continuous mixing plants and batch mixing plants <sup>h</sup>	California Test 226 or 370	2 per day during production	--			
Percent of crushed particles coarse aggregate (% , min) One fractured face Two fractured faces Fine aggregate (% , min) (Passing no. 4 sieve and retained on no. 8 sieve.) One fractured face	California Test 205	As designated in the QC plan. At least once per project	90 75  70			

**Minimum Quality Control—Standard Construction Process**

Quality characteristic	Test method	Minimum sampling and testing frequency	HMA type			
			A	Not Used	Not Used	Not Used
Los Angeles Rattler (% max) Loss at 100 rev. Loss at 500 rev.	California Test 211		12 45			
Flat and elongated particles (% max by weight @ 5:1)	California Test 235		Report only			
Fine aggregate angularity (% min)	California Test 234		45			
Voids filled with asphalt (%) <sup>i</sup> No. 4 grading 3/8" grading 1/2" grading 3/4" grading	California Test 367		76.0–80.0 73.0–76.0 65.0–75.0 65.0–75.0			
Voids in mineral aggregate (% min) <sup>i</sup> No. 4 grading 3/8" grading 1/2" grading 3/4" grading	California Test 367		17.0 15.0 14.0 13.0			
Dust proportion <sup>i</sup> No. 4 and 3/8" gradings 1/2" and 3/4" gradings	California Test 367		0.9–2.0 0.6–1.3			
Smoothness	Section 39-1.12	--	12-foot straight-edge, must grind, and $PI_0$			

<sup>a</sup> Determine combined aggregate gradation containing RAP under California Test 367.

<sup>b</sup> The tolerances must comply with the allowable tolerances in section 39-1.02E.

<sup>c</sup> Report the average of 3 tests from a single split sample.

<sup>d</sup> Required for HMA Type A, Type B, and RHMA-G if the specified paved thickness is at least 0.15 foot.

<sup>e</sup> Determine maximum theoretical density (California Test 309) at the frequency specified for Test Maximum Density under California Test 375, Part 5.D.

<sup>f</sup> California Test 304, Part 2.13.

<sup>g</sup> Determine the bulk specific gravity of each lab-compacted briquette under California Test 308, Method A, and theoretical maximum specific gravity under California Test 309.

<sup>h</sup> For adjusting the plant controller at the HMA plant.

<sup>i</sup> Report only if the adjustment for the asphalt binder content TV is less than or equal to  $\pm 0.3$  percent from OBC value submitted on a *Contractor Hot Mix Asphalt Design Data* form.

For any single quality characteristic except smoothness, if 2 consecutive quality control test results do not comply with the action limits or specifications:

1. Stop production.
2. Notify the Engineer.

3. Take corrective action.
4. Demonstrate compliance with the specifications before resuming production and placement.

### **39-2.03 ACCEPTANCE CRITERIA**

#### **39-2.03A Testing**

The Department samples for acceptance testing and tests for the quality characteristics shown in the following table:

**HMA Acceptance—Standard Construction Process**

Quality characteristic				Test method	HMA type			
					A	Not Used	Not Used	Not Used
Aggregate gradation <sup>a</sup>				California Test 202	JMF ± tolerance <sup>c</sup>			
Sieve	3/4"	1/2"	3/8"					
1/2"	X <sup>b</sup>							
3/8"		X						
No. 4			X					
No. 8	X	X	X					
No. 200	X	X	X					
Sand equivalent (min) <sup>d</sup>				California Test 217	47			
Asphalt binder content (%)				California Test 379 or 382	JMF ± 0.45			
HMA moisture content (% , max)				California Test 226 or 370	1.0			
Percent of maximum theoretical density (%) <sup>e, f</sup>				California Test 375	91–97			
Stabilometer value (min) <sup>d, g</sup> No. 4 and 3/8" gradings 1/2" and 3/4" gradings				California Test 366	30 37			
Air void content (%) <sup>d, h</sup>				California Test 367	4 ± 2			
Percent of crushed particles Coarse aggregate (% , min) One fractured face Two fractured faces Fine aggregate (% , min) (Passing no. 4 sieve and retained on no. 8 sieve.) One fractured face				California Test 205	90 75  70			
Los Angeles Rattler (% , max) Loss at 100 rev. Loss at 500 rev.				California Test 211	12 45			
Fine aggregate angularity (% , min)				California Test 234	45			
Flat and elongated particles (% , max by weight @ 5:1)				California Test 235	Report only			
Voids filled with asphalt (%) <sup>i</sup> No. 4 grading 3/8" grading 1/2" grading 3/4" grading				California Test 367	76.0–80.0 73.0–76.0 65.0–75.0 65.0–75.0			
Voids in mineral aggregate (% min) <sup>i</sup> No. 4 grading 3/8" grading 1/2" grading 3/4" grading				California Test 367	17.0 15.0 14.0 13.0			
Dust proportion <sup>i</sup> No. 4 and 3/8" gradings 1/2" and 3/4" gradings				California Test 367	0.9–2.0 0.6–1.3			

**HMA Acceptance—Standard Construction Process**

Quality characteristic	Test method	HMA type			
		A	Not Used	Not Used	Not Used
Smoothness	Section 39-1.12	12-foot straight-edge, must grind, and $PI_o$			
Asphalt binder	Various	Section 92			

<sup>a</sup> The Engineer determines combined aggregate gradations containing RAP under California Test 367.

<sup>b</sup> "X" denotes the sieves the Engineer tests for the specified aggregate gradation.

<sup>c</sup> The tolerances must comply with the allowable tolerances in section 39-1.02E.

<sup>d</sup> The Engineer reports the average of 3 tests from a single split sample.

<sup>e</sup> The Engineer determines percent of maximum theoretical density if the specified paved thickness is at least 0.15 foot under California Test 375, except the Engineer uses:

1. One location per pavement repair if the repair area is less than 200 square feet; three locations for areas between 200 and 1200 square feet; and three tests per 1200 square feet thereafter.

2. California Test 309 to determine maximum theoretical density instead of calculating test maximum density in Part 5, "Determining Test Maximum Density."

<sup>f</sup> The Engineer determines maximum theoretical density (California Test 309) at the frequency specified for Test Maximum Density under California Test 375, Part 5.D.

<sup>g</sup> California Test 304, Part 2.13.

<sup>h</sup> The Engineer determines the bulk specific gravity of each lab-compacted briquette under California Test 308, Method A, and theoretical maximum specific gravity under California Test 309.

<sup>i</sup> Report only if the adjustment for the asphalt binder content TV is less than or equal to  $\pm 0.3$  percent from the OBC value submitted on a *Contractor Hot Mix Asphalt Design Data* form.

<sup>j</sup> Engineer will perform testing in accordance with CT 375 for acceptance, except maximum specific gravity (CT 309) will replace TMD testing. Perform independent quality control testing continuously during paving using nuclear or non-nuclear methods

<sup>k</sup> Failing tests will be verified by core testing if you request. Take cores at locations randomly determined by the Engineer and give them to the Engineer for testing. Take a minimum of 1 core per 250 tons or 3 cores per street, whichever is greater. Report results as the average of 3 cores.

No single test result may represent more than 750 tons or 1 day's production, whichever is less.

For any single quality characteristic except smoothness, if 2 consecutive acceptance test results do not comply with the specifications:

1. Stop production.
2. Take corrective action.
3. Take samples and split each sample into 4 parts in the Engineer's presence. Test 1 part for compliance with the specifications and submit 3 parts to the Engineer. The Department tests 1 part for compliance with the specifications and reserves and stores 2 parts.
4. Demonstrate compliance with the specifications before resuming production and placement.

Testing of passing cores will be paid for by the City. You pay for testing of failing cores. If the core density testing produces both passing and failing cores, the cost will be prorated between you and the City.

The payment deductions indicated below in Table A apply to individual cores. Table B applies to deductions for average compaction of a lot.



**Table A**  
**Reduced Payment Factors for Percent of Maximum Theoretical Density**  
**Individual Cores**

HMA Type A percent of maximum theoretical density	Reduced payment factor	HMA Type A percent of maximum theoretical density	Reduced payment factor
91.0	0.0000	97.0	0.0000
90.9	0.0125	97.1	0.0125
90.8	0.0250	97.2	0.0250
90.7	0.0375	97.3	0.0375
90.6	0.0500	97.4	0.0500
90.5	0.0625	97.5	0.0625
90.4	0.0750	97.6	0.0750
90.3	0.0875	97.7	0.0875
90.2	0.1000	97.8	0.1000
90.1	0.1125	97.9	0.1125
90.0	0.1250	98.0	0.1250
89.9	0.1375	98.1	0.1375
89.8	0.1500	98.2	0.1500
89.7	0.1625	98.3	0.1625
89.6	0.1750	98.4	0.1750
89.5	0.1875	98.5	0.1875
89.4	0.2000	98.6	0.2000
89.3	0.2125	98.7	0.2125
89.2	0.2250	98.8	0.2250
89.1	0.2375	98.9	0.2375
89.0	0.2500	99.0	0.2500
< 89.0	Remove and replace	> 99.0	Remove and replace

**Table B**  
**Reduced Payment Factors for Percent of Maximum Theoretical Density**  
**Average Compaction of a Lot**

HMA Type A Percent of Maximum Theoretical Density	Reduced Payment Factor	HMA Type A Percent of Maximum Theoretical Density	Reduced Payment Factor
92.0	0.0000	96.0	0.0000
91.9	0.0125	96.1	0.0125
91.8	0.0250	96.2	0.0250
91.7	0.0375	96.3	0.0375
91.6	0.0500	96.4	0.0500
91.5	0.0625	96.5	0.0625
91.4	0.0750	96.6	0.0750
91.3	0.0875	96.7	0.0875

<b>Table B</b> <b>Reduced Payment Factors for Percent of Maximum Theoretical Density</b> <b>Average Compaction of a Lot</b>			
HMA Type A Percent of Maximum Theoretical Density	Reduced Payment Factor	HMA Type A Percent of Maximum Theoretical Density	Reduced Payment Factor
91.2	0.1000	96.8	0.1000
91.1	0.1125	96.9	0.1125
91.0	0.1250	97.0	0.1250
90.9	0.1375	97.1	0.1375
90.8	0.1500	97.2	0.1500
90.7	0.1625	97.3	0.1625
90.6	0.1750	97.4	0.1750
90.5	0.1875	97.5	0.1875
90.4	0.2000	97.6	0.2000
90.3	0.2125	97.7	0.2125
90.2	0.2250	97.8	0.2250
90.1	0.2375	97.9	0.2375
90.0	0.2500	98.0	0.2500
< 90.0	Remove and Replace	> 98.0	Remove and Replace

#### 39-2.04 TRANSPORTING, SPREADING, AND COMPACTING

Determine the number of rollers needed to obtain the specified density and surface finish.

### 39-3 METHOD CONSTRUCTION PROCESS

#### 39-3.01 GENERAL

Section 39-3 includes specifications for HMA produced and constructed under the Method construction process.

#### 39-3.02 ACCEPTANCE CRITERIA

##### 39-3.02A Testing

The Department samples for acceptance testing and tests for the quality characteristics shown in the following table:

**HMA Acceptance—Method Construction Process**

Quality characteristic	Test method	HMA type			
		A	Not Used	Not Used	Not Used
Aggregate gradation <sup>a</sup>	California Test 202	JMF ± tolerance <sup>b</sup>			
Sand equivalent (min) <sup>c</sup>	California Test 217	47			
Asphalt binder content (%)	California Test 379 or 382	JMF ± 0.45			
HMA moisture content (% max)	California Test 226 or 370	1.0			
Stabilometer value (min) <sup>c, d</sup> No. 4 and 3/8" gradings 1/2" and 3/4" gradings	California Test 366	30 37			
Percent of crushed particles Coarse aggregate (% min) One fractured face Two fractured faces Fine aggregate (% min) (Passing no. 4 sieve and retained on no. 8 sieve.) One fractured face	California Test 205	90 75  70			
Los Angeles Rattler (% max) Loss at 100 rev. Loss at 500 rev.	California Test 211	12 45			
Air void content (%) <sup>c, e</sup>	California Test 367	4 ± 2			
Fine aggregate angularity (% min)	California Test 234	45			
Flat and elongated particles (% max by weight @ 5:1)	California Test 235	Report only			
Voids filled with asphalt (%) <sup>f</sup> No. 4 grading 3/8" grading 1/2" grading 3/4" grading	California Test 367	76.0–80.0 73.0–76.0 65.0–75.0 65.0–75.0			
Voids in mineral aggregate (% min) <sup>f</sup> No. 4 grading 3/8" grading 1/2" grading 3/4" grading	California Test 367	17.0 15.0 14.0 13.0			
Dust proportion <sup>f</sup> No. 4 and 3/8" gradings 1/2" and 3/4" gradings	California Test 367	0.9–2.0 0.6–1.3			
Smoothness	Section 39-1.12	12-foot straight-edge and must-grind			
Asphalt binder	Various	Section 92			

<sup>a</sup> The Engineer determines combined aggregate gradations containing RAP under California Test 367.

<sup>b</sup> The tolerances must comply with the allowable tolerances in section 39-1.02E.

<sup>c</sup> The Engineer reports the average of 3 tests from a single split sample.

<sup>d</sup> California Test 304, Part 2.13.

<sup>e</sup> The Engineer determines the bulk specific gravity of each lab-compacted briquette under California Test 308, Method A, and theoretical maximum specific gravity under California Test 309.

<sup>f</sup> Report only if the adjustment for the asphalt binder content TV is less than or equal to  $\pm 0.3$  percent from the OBC value submitted on a *Contractor Hot Mix Asphalt Design Data* form.

No single test result may represent more than 750 tons or 1 day's production, whichever is less.

For any single quality characteristic except smoothness, if 2 consecutive acceptance test results do not comply with the specifications:

1. Stop production.
2. Take corrective action.
3. Take samples and split each sample into 4 parts in the Engineer's presence. Test 1 part for compliance with the specifications and submit 3 parts to the Engineer. The Department tests 1 part for compliance with the specifications and reserves and stores 2 parts.
4. Demonstrate compliance with the specifications before resuming production and placement.

### 39-3.03 SPREADING AND COMPACTING EQUIPMENT

Each paver spreading HMA Type A must be followed by 3 rollers as follows:

1. One vibratory roller specifically designed to compact HMA. The roller must be capable of at least 2,500 vibrations per minute and must be equipped with amplitude and frequency controls. The roller's gross static weight must be at least 7.5 tons.
2. One oscillating type pneumatic-tired roller at least 4 feet wide. Pneumatic tires must be of equal size, diameter, type, and ply. The tires must be inflated to 60 psi minimum and maintained so that the air pressure does not vary more than 5 psi.
3. One steel-tired, 2-axle tandem roller. The roller's gross static weight must be at least 7.5 tons.

Each roller must have a separate operator. Rollers must be self-propelled and reversible.

### 39-3.04 TRANSPORTING, SPREADING, AND COMPACTING

Pave HMA in maximum 0.25-foot thick compacted layers.

If the surface to be paved is both in sunlight and shade, pavement surface temperatures must be taken in the shade.

Spread HMA Type A at the atmospheric and surface temperatures shown in the following table:

**Minimum Atmospheric and Surface Temperatures**

Compacted layer thickness, feet	Minimum Atmospheric and Surface Temperatures			
	Atmospheric, °F		Surface, °F	
	Unmodified asphalt binder	Not Used	Unmodified asphalt binder	Not Used
< 0.15	55		60	
0.15–0.25	45		50	

If the asphalt binder for HMA Type A is unmodified asphalt binder, complete:

1. First coverage of breakdown compaction before the surface temperature drops below 250 degrees F
2. Breakdown and intermediate compaction before the surface temperature drops below 200 degrees F
3. Finish compaction before the surface temperature drops below 150 degrees F

HMA compaction coverage is the number of passes needed to cover the paving width. A pass is 1 roller's movement parallel to the paving in either direction. Overlapping passes are part of the coverage being made and are not a subsequent coverage. Do not start a coverage until completing the prior coverage.

Start rolling at the lower edge and progress toward the highest part.

Perform breakdown compaction of each layer of HMA Type A with 3 coverages using a vibratory roller. The speed of the vibratory roller in miles per hour must not exceed the vibrations per minute divided by 1,000. If the thickness of the HMA layer is less than 0.08 foot, turn the vibrator off. The Engineer may order fewer coverages if the thickness of the HMA layer is less than 0.15 foot.

Perform intermediate compaction of each layer of HMA Type A with 3 coverages using a pneumatic-tired roller at a speed not exceeding 5 mph.

Perform finish compaction of HMA Type A with 1 coverage using a steel-tired roller.

No deviation from the above requirements will be allowed without written authorization.

### **39-4 EXISTING ASPHALT CONCRETE**

#### **39-4.01 GENERAL**

##### **39-4.01A General**

Section 39-4.01 includes general specifications for performing work on existing asphalt concrete facilities.

Work performed on existing asphalt concrete facilities must comply with section 15.

##### **39-4.01B Materials**

Not Used

##### **39-4.01C Construction**

Before removing a portion of an asphalt concrete facility, make a 2-inch deep saw cut to a true line along the limits of the removal area.

##### **39-4.01D Payment**

Not Used

### **39-5 PAYMENT**

Section 39-5 includes specifications for HMA payment. The weight of each HMA mixture designated in the Bid Item List must be the combined mixture weight.

If recorded batch weights are printed automatically, the bid item for HMA is measured by using the printed batch weights, provided:

1. Total aggregate and supplemental fine aggregate weight per batch is printed. If supplemental fine aggregate is weighed cumulatively with the aggregate, the total aggregate batch weight must include the supplemental fine aggregate weight.
2. Total asphalt binder weight per batch is printed.
3. Each truckload's zero tolerance weight is printed before weighing the 1st batch and after weighing the last batch.
4. Time, date, mix number, load number, and truck identification is correlated with a load slip.
5. Copy of the recorded batch weights is certified by a licensed weighmaster and submitted to the Engineer.

Payment for tack coat is included in payment for HMA (Type A).

If the dispute resolution independent third party determines the Department's test results are correct, the Engineer deducts the independent third party's testing costs from payments. If the independent third party determines your test results are correct, the Department pays the independent third party's testing costs.

AA



Performance Test		Proof Test	
Load Increment	Hold Time (Minutes)	Load Increment	Hold Time (Minutes)
AL	Until Stable	AL	Until Stable
.25 x DL	1-2	.25 x DL	1-2
AL	Until Stable	.50 x DL	1-2
.25 x DL	1-2	.75 x DL	1-2
.50 x DL	1-2	1.0 x DL	1-2
AL	Until Stable	1.2 x DL	1-2
.25 x DL	1-2	1.33 x DL <sup>a</sup>	10 or 60
.50 x DL	1-2	AL	Until Stable
.75 x DL	1-2	-	-
AL	Until Stable	-	-
.25 x DL	1-2	-	-
.50 x DL	1-2	-	-
.75 x DL	1-2	-	-
1.0 x DL	1-2	-	-
AL	Until Stable	-	-
.25 x DL	1-2	-	-
.50 x DL	1-2	-	-
.75 x DL	1-2	-	-
1.0 x DL	1-2	-	-
1.2 x DL	1-2	-	-
AL	Until Stable	-	-
.25 x DL	1-2	-	-
.50 x DL	1-2	-	-
.75 x DL	1-2	-	-
1.0 x DL	1-2	-	-
1.2 x DL	1-2	-	-
1.33 x DL <sup>a</sup>	10 or 60	-	-
AL	Until Stable		

DL = Design Load

AL = Alignment Load = 10% of DL

<sup>a</sup> = Maximum Test Load

2. Apply each load increment in less than 1 minute and hold it for the length of time shown in the table titled "Loading Schedules."
3. Measure and record the applied test load and the anchor end movement at each load increment.
4. When applying the maximum test load:
  - 4.1. Hold the load constant for 10 minutes.
  - 4.2. Start the observation period for the load hold when the pump starts to apply the last load increment.
  - 4.3. Measure and record the anchor end movement at 1, 2, 3, 4, 5, 6, and 10 minutes.
5. If the movement measured from 1 to 10 minutes is greater than 0.04 inch:
  - 5.1. Hold the load constant for an additional 50 minutes.
  - 5.2. Measure and record the anchor end movement at 15, 20, 25, 30, 45, and 60 minutes.

**Replace the 2nd paragraph of section 46-2.02B with:**

The bearing plate and the steel tube of the anchorage assembly must be galvanized steel complying with section 55. Section 11-2 does not apply to the anchorage enclosure welds or the weld between the steel tube and the bearing plate.

The anchorage enclosure must be weatherproof, UV-resistant, heavy-duty, non-metallic, bolted to the bearing plate with bolts complying with section 55 or screwed onto end of ground anchor rod.

**Replace the 3rd paragraph of section 46-2.02B with:**

The permanent bearing plate must effectively distribute the design force,  $T$ , uniformly to the steel transfer bracket such that:

1. Steel bearing stress does not exceed 0.90 of the yield strength of the steel
2. Bending stress of the plate does not exceed:
  - 2.1. 0.55 of the yield strength for steel
  - 2.2. 0.36 of the yield strength for cast steel or cast iron

**Add to section 46-2.02:**

#### 46-2.02F Concrete Encasement

Ground anchor bracket encasement must be minor concrete.

**Add to section 46-2.03A:**

Expect difficult ground anchor installation due to the presence of hard bedrock conditions.

Where shown, encase ground anchor brackets in minor concrete under section 51.

You may encounter voids in the foundation material along the length of the drilled hole that affect drilling and grouting. Use measures such as a grout sock to avoid the excessive loss of grout into the voids encountered.

**Replace the 9th paragraph of section 46-2.03A with:**

The diameter of the drilled hole must be as shown and be fully grouted.

**AA**

## 49 PILING

**Add to section 49-1.03:**

Expect difficult pile installation due to the conditions shown in the following table:



Pile location	Conditions
Upper Portion of Wall starting near Bay Street Intersection	<p>A moderately hard bedrock subsurface foundation material is anticipated at the upper length of the soldier pile retaining wall location. Conventional drilling equipment for drilling in soils may not be suitable for drilling holes for the steel soldier piling.</p> <p>Ground water was encountered at depths ranging from 6 to 14 feet below existing grades, and appears to be perching upon the dense to hard bedrock</p>
Lower Portion of Wall ending near West Cliff Drive Intersection	<p>Subsurface conditions can be expected to vary along the lower length of the retaining wall location. The upper soils consist of very loose to loose silty sand overlaying moderately hard bedrock subsurface materials. Conventional drilling equipment for drilling in soils may not be suitable for drilling holes for the steel soldier piling within the moderately hard bedrock subsurface materials.</p> <p>Ground water was encountered at depths ranging from 6 to 14 feet below existing grades, and appears to be perching upon the dense to hard bedrock</p>

**Replace first paragraph of section 49-2.03B with:**

Structural shape steel piles must comply with ASTM A572/A572M, ASTM A709/A709M, or ASTM A992/A992M.

**Add to section 49-2.03B:**

Miscellaneous metal for soldier pile wall must comply with section 75.

**Replace section 49-4.03 with:**

**49-4.03 CONSTRUCTION**

**49-4.03A General**

Reserved

**49-4.03B Drilled Holes**

Drill holes for steel soldier piles into natural foundation material. Drilled holes must be accurately located, straight, and true. The axis of the drilled hole must not deviate from plumb more than ½ percent.

Furnish and place temporary casings or tremie seals where necessary to control water or to prevent caving of the hole.

Before placing the steel soldier pile, remove loose materials existing at the bottom of the hole after drilling operations have been completed.

Do not allow surface water to enter the hole. Remove all water in the hole before placing concrete.

If temporary casings are used, they must comply with section 49-3.02C(3).

**49-4.03C Steel Soldier Piles**

Plumb and align the pile before placing concrete backfill and if used, lean concrete backfill. Pile must not deviate from plumb more than ½ percent.



**Replace last paragraph of section 59-2.01C(4)(b)(iv) with:**

Soldier pile finish coats color must match aged weathering steel color.

Apply finish coats to exposed surfaces of soldier piles.

[illegible]

## DIVISION VII DRAINAGE FACILITIES

## 64 PLASTIC PIPE

**Replace section 64-1.02 with:**

Anchor assemblies and hardware must comply with section 75.

**Add to section 64-2.01A:**

Installing plastic pipe on slope above retaining wall includes coordinating with owners of upstream properties and connecting to their existing storm drain systems to drain to the new v-ditch at the top of the new soldier pile wall.

Details for HDPE pipe on slope that reference “down drain” do not apply to vertical 12-inch PVC pipe behind retaining wall.

Installing vertical 12-inch PVC pipe behind retaining wall includes installing inlet frame and grate.

Vertical 12-inch PVC pipe behind retaining wall is also shown on plans as “downdrain.”

**Replace first paragraph in section 64-2.02B with:**

Structure backfill for plastic pipe other than 12-inch PVC pipe (wall gutter) must:

1. be approved native silty and sandy soils
2. OR must comply with section 19-3.02F(2)

Structure backfill for 12-inch PVC pipe (wall gutter) must be Class I Type A permeable material.

**Add to section 64-2.02B:**

Trench backfill under and adjacent to structure backfill, foundations, concrete slabs and pavements must be placed in horizontal layers no more than 8 inches thick. Water condition and compact each layer of trench backfill to at least 95 percent relative compaction.

**Add to section 64-2.02:**

### 64-2.02F Frame and Grate

Frame and grate for 12-inch PVC pipe (wall gutter) must comply with section 75.

**Add to section 64-2.03A:**

Connect retaining wall geocomposite drain system to 12-inch PVC pipe.

Install frame and grate in concrete gutter as shown.

**Add to section 64-2.04:**

5. Includes pipe anchor assembly

The payment quantity for 12" PVC pipe (wall gutter) is the length measured from the inlet frame to the drain basin connection. The payment quantity includes the length measured along the centerline of elbows.

AA

## 68 SUBSURFACE DRAINS

### Add to section 68-1.01A:

If Additive Bid Alternate for concrete lagging is awarded, provide 4" perforated pipe under this section.

### Replace section 68-7.04 with:

Payment for 3-inch plastic pipe connecting geocomposite wall drain and 4-inch PVC collector is included in payment for geocomposite drain.

AA

## 70 MISCELLANEOUS DRAINAGE FACILITIES

### Replace reserved section 70-8 with:

#### 70-8.01 General

##### 70-8.01A Summary

Section 70-8 includes specifications for providing PVC drain basins as shown on the plans.

Furnish and install a PVC drain basin, with iron frame, grate or cover, and concrete apron at the locations shown on the plans.

##### 70-8.01B Submittals

Submit manufacturer's information for the drain basin within three working days after contract award.

Submit a one-year written warranty from the drain basin manufacturer against defects in materials.

#### 70-8.02 Materials

##### 70-8.02A Drain Basin

Drain basin must be one of the following, or approved equal:

SUPPLIER	CONTACT	WEBSITE	PHONE/EMAIL
Nyloplast	NA	<a href="http://www.nyloplast-us.com/drain-basins">www.nyloplast-us.com/drain-basins</a>	(877) 745-3120
Macon Plastics	NA	<a href="http://www.maconplastics.com">www.maconplastics.com</a>	888.782.2722 <a href="mailto:sales@maconplastics.com">sales@maconplastics.com</a>
Harco PVC	Jon Ecklund	<a href="http://www.harcofittings.com">www.harcofittings.com</a>	<a href="mailto:JEcklund@harcofittings.com">JEcklund@harcofittings.com</a> (253) 732-8986

##### 70-8.02B Aggregate Base

Drain basin backfill must be Class 2 aggregate base complying with section 26.

##### 70-8.02C Concrete Apron

Concrete for apron must be minor concrete.

##### 70-8.02D Frame and Covers/Grates

Frames, covers and grates must be ductile iron and comply with section 75.

Covers must be slip-resistant.



## 73 CONCRETE CURBS AND SIDEWALKS

### **Add to section 73-1.02A:**

Concrete must be minor concrete complying with section 90-2 and may contain returned plastic concrete complying with section 90-9.

Curb reinforcement must comply with section 52.

### **Add to section 73-1.02B:**

DWS in new construction must be wet-set.

### **Replace second paragraph of section 73-1.03B with:**

Apply water and compact subgrade for PCC improvements to 95% relative compaction before placing any material.

### **Replace first paragraph in section 73-2.03A with:**

If curbs are constructed over existing pavement, use steel dowels and reinforcing steel to anchor the curb to the existing pavement.

### **Add to section 73-2.03A:**

Block out post pockets in curbs unless otherwise authorized.

Install reinforcement under section 52.

### **Replace section 73-3.01A:**

Section 73-3 includes specifications for constructing sidewalk, gutter, aprons, and v-ditch.

### **Add to section 73-3.01C:**

Within 2 business days of performing the surveys, submit preconstruction and post-construction surveys sealed and signed by one of the following:

1. Land surveyor licensed in the State
2. Civil engineer licensed in the State

### **Replace *Reserved* in section 73-3.01D(3) with:**

For PCC paving along trail perform a preconstruction survey to verify that forms and site constraints will allow the design dimensioning and slope requirements to be achieved. Upon completing construction of these facilities, perform a post-construction survey and verify that design dimensioning and slope requirements were achieved. The post-construction survey must include a minimum of 3 measurements for each dimension and slope requirement shown. Individual measurements must be equally distributed across the specified slope or dimensional surface.

### **Add to the beginning of section 73-3.03:**

Before placing concrete, verify that forms and job site constraints allow the required dimensioning and slopes shown. Immediately notify the Engineer if you encounter job site conditions that will not accommodate the design details.

### **Add to section 73-3.03:**

Construct reinforced inlet depressions within v-ditch behind retaining wall where shown.

Construct gutter drain basin inlet depressions where shown.

Epoxy dowel new concrete work to adjacent existing concrete sidewalk.

### **Replace section 73-3.04 with:**

All detectable warning surface is measured and paid as detectable warning surface.

Earthwork for concrete paving, gutter, and curbs is measured and paid as roadway excavation (contaminated).

AA

## **75 MISCELLANEOUS METAL**

**Replace section 75-2.04 with:**

Payment for storm drain frames, grates and covers is included in the payment for various other drainage bid items.

AA

## **78 INCIDENTAL CONSTRUCTION**

**Replace reserved section 78-6 with:**

### **78-6 SUBSURFACE UTILITY LOCATION**

#### **78-6.01 GENERAL**

Section 78-6 includes specifications for potholing as needed to positively locate and identify utilities along railroad tracks that may interfere with project.

Positively locate utilities as needed to prevent damage to utilities from construction activities and relocation requirements, if necessary.

#### **78-6.02 SUBMITTALS**

Submit a potholing plan for authorization at least two weeks in advance of proposed potholing. Include traffic control plan and water pollution control in potholing plan.

#### **78-6.03 CONSTRUCTION**

Coordinate with utility owners for authorization of potholing method for each proposed pothole.

Provide traffic control and water pollution control for potholing.

The horizontal and vertical position of the exposed facility must be tied to a survey control point. The position may be identified by GPS or traditional survey coordinates. Report the vertical distance below grade.

Return test hole locations to their existing condition or better. Dispose of spoils.

#### **78-6.04 PAYMENT**

Payment for traffic control for potholing is included in the contract price paid per each for pothole.

Payment for water pollution control for potholing is included in the contract price paid for each pothole.

**Replace reserved section 78-7 with:**

### **78-7 UTILITY REMOVALS**

#### **78-7.01 GENERAL**

Section 78-7 includes specifications for removing abandoned water and gas line.

Comply with section 71-1.03.

**78-7.02 MATERIALS**

Not used.

**78-7.03 CONSTRUCTION**

Remove utilities under section 15.

Comply with section 71-1.03.

**78-7.04 PAYMENT**

Not used.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

**79 CONSTRUCTION STAKING**

**Replace reserved section 79 with:**

**79 CONSTRUCTION STAKING**

**79-1.01 GENERAL**

Section 79 includes specifications for construction staking.

Provide construction stakes in accordance with Caltrans Surveys Manual, Chapter 12, "Construction Surveys," dated November 2012.

**79-1.02 MATERIALS**

Provide tools and equipment for accurate staking.

**79-1.03 CONSTRUCTION**

Survey control points for construction are shown.

The following list establishes the minimum level of staking required for this project:

1. For existing monuments that will be lost due to construction, cross-tie and make field notes sufficient for re-establishment of monuments.
2. Flag right-of-way and limits of clearing at 100 foot intervals with 3 foot laths.
3. Stake curb, gutter, sidewalk, driveway, and trail at 50 foot intervals and at all BC's, EC's and grade breaks.
4. Pile layout
5. Provide finished grade stakes at 25-foot intervals.
6. Prepare and verify slope staking/grid grade sheets

If your operations destroy any of the construction stakes you placed, replace such stakes when instructed by the Engineer at no additional cost to the project.

Verify the primary horizontal and vertical control and inform the Engineer of any significant differences between published values and found values. Notify the Engineer of any conflicts between design and existing conditions and submit a Request for Information (RFI) before commencing survey.

Temporary horizontal and vertical control and construction stakes and marks must be furnished and set with accuracy adequate to assure that the contemplated and completed work conforms to the lines, grades, and sections shown on the plans.

Make the computations necessary to establish the exact position of the work from control points. Computations, survey notes, and other records necessary to accomplish the work must be neat, legible and accurate. Make computations, notes, and other records available to the Engineer immediately upon completion of staking and prior to the start of related construction.

Provide organized copies of project field notes and cut sheets to the Engineer no later than 24 hours following completion of field survey staking and 48 hours prior to use. Notes must contain all pertinent



survey information including names of party chief, crewmembers, and date of survey. Submission of notes and cut sheets does not relieve you of responsibility for the accuracy of the stakes.

If your operations destroy any of the established project control points, other than those designated on the plans to be relocated, either replace such control points at your expense, subject to verification by the Engineer, or request the Engineer to replace the destroyed control points. If requested to replace the control points, the Engineer will do so within 10 working days. The cost of any such verification or replacement of the Engineer's project control points will be deducted. No adjustment in contract time for such verification or replacement of survey control points by the Engineer will be allowed.

The Engineer may perform periodic verification surveys to assure the quality of construction staking effort. Verification surveys may be performed at any time.

Remove construction stakes from the site of work when no longer needed. Upon completion of construction staking and prior to acceptance of the contract, submit all computations, survey notes, and other data used to accomplish the work.

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## **80 FENCES**

### **Replace section 80-1.04 with:**

The payment quantity for 6' chain link fence cond. 1 (std mesh) vinyl-clad black is the length of mesh fence fabric installed.

The payment quantity for chain link fence cond. 2 (3/8" mesh) galvanized is the area of mesh fence fabric installed.

Payment for mesh fabric cut away at the bottom of fence will not be measured.

Payment for mesh fabric cut away at the bottom of fence js included in payment for the type of chain link fence involved.

### **Replace section 80-3.01A with:**

Section 80-3 includes specifications for constructing chain link fences and gates with posts in the ground and in post pockets.

### **Add to section 80-3.01B:**

Chain link fence, condition 1: fence, Type CL, 6 ft, standard mesh, black vinyl-clad

Chain link fence, condition 2: fence, Type CL, varying heights, 3/8" mesh, galvanized

### **Add to section 80-3.02B:**

Posts and hardware for chain link fence, condition 1 must have powder coating applied electrostatically using exterior-grade, UV-stable, polymer powder.

### **Replace first sentence in paragraph 3 of section 80-3.02B with:**

For chain link fence condition 2 and chain link gate, galvanize posts and braces under section 75-1.02B except, instead of galvanizing, tubular posts and braces may have a protective coating system complying with the following:

### **Replace the first sentence in paragraph 3 of section 80-3.02C with:**

Chain link fabric for chain link fence condition 1 must have the diamond count corresponding to the fabric height shown in the following table:

### **Add to section 80-3.02C:**

Mesh for chain link fence condition 2 and 8-ft wide chain link gate must be 3/8".

Mesh for chain link fence condition 1 must be vinyl-clad and must comply with AASHTO M181 for Type IV fabric with a black Class A coating.

**Add to section 80-3.03:**

Install posts in post-pockets at concrete curb (condition 3) or in concrete footings behind soldier pile wall as shown.

**Replace reserved section 80-4 with:**

**80-4 POST AND WIRE FENCE**

**80-4.01 GENERAL**

Section 80-4 includes specifications for providing post and wire fence.

Weathering steel is shown on plans as weathered steel.

**80-4.02 MATERIALS**

Welding must comply with AWS D1.1. Grind welds on exposed surfaces flush with the adjacent surfaces.

Galvanize completed steel parts and hardware under section 75-1.02B.

After galvanizing, elements must be free of fins, abrasions, rough or sharp edges, and other surface defects and must not be kinked, twisted, or bent. If straightening is necessary, use an authorized method.

Elements with kinks, twists, or bends may be rejected.

Clean and regalanize (1) abraded or damaged galvanized surfaces of steel elements and (2) ends of steel elements cut after galvanizing. If authorized, you may repair the surfaces under section 75-1.02B instead of regalanizing.

Posts must be rectangular tube weathering steel as specified in ASTM A847.

Cable clamps, eye bolts, thimbles, and other required fittings must be commercial-quality steel, malleable iron, or wrought iron. Weathering steel post tops must be watertight. The eye of the eye bolts must be either drop forged or formed with a complete penetration weld. The eye must develop 100 percent of the bolt strength.

Turnbuckles must:

1. Be commercial quality
2. Have ends as shown
3. Have a minimum breaking strength of 2,100 lb
4. Be steel pipe type or drop-forged steel

Crimped sleeve clamps and stop sleeve clamps must:

1. Be nonferrous metal
2. Develop the strength of the cable
3. Be the same color as the cable

Cables must:

1. Be wire strand or rope
2. Have a minimum diameter of 1/4 inch
3. Have a minimum breaking strength of 1,800 lb
4. Be galvanized under Federal Specification RR-W-410Non-shrink epoxy grout must be a 2-component, commercial-quality epoxy adhesive manufactured especially for making epoxy-sand grout.

**80-4.03 CONSTRUCTION**

Thoroughly clean out post pockets before installing posts.

Posts must be plumb within a tolerance not to exceed 0.02 foot in 10 feet.

Connect turnbuckles and cable to welded eyes on bridge.

Thread cable through fence posts and guard rail posts and terminate at guard rail post at bridge as shown. Do not splice cables between intermediate turnbuckles and posts.



An installed roadside sign (post condition 1) consisting of one or more sign panels attached to an existing post is one unit.

Payment for furnishing sign panels is not included in the payment for installing sign panels.

Relocate roadside sign will be measured and paid as Roadside Sign (Post Condition 1).

**Replace reserved section 82-6 with:**

**82-6 TRAIL SIGNS**

**82-6.01A Summary**

Section 82-6 includes specifications for constructing trail signs.

**82-6.01B Definitions**

**Trail sign:** trail or wayfinding sign with 1 or more sign panels attached to a weathering steel post.

Trail signs are shown on plans as "Sign Post Condition 2".

**Weathering steel:** shown on plans as weathered steel

**82-6.02 MATERIALS**

A trail sign includes sign panels, fastening hardware, back braces, straps and saddle brackets, and bases.

Trail sign posts must be 2" round weathering steel pipe as specified in ASTM A847.

Bolted connections must comply with section 56-2.02D. Concrete bases must be minor concrete containing as least 470 pounds of cementitious material per cubic yard.

Unless surplus excavated material is hazardous, uniformly spread it along the adjacent roadway where designated by the Engineer.

**82-6.03 CONSTRUCTION**

Install sign posts as shown.

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

Install sign panels under section 82-3.

**82-6.04 PAYMENT**

An installed trail sign (post condition 2) consisting of one or more sign panels attached to one new post is one unit.

An installed trail sign (post condition 2) consisting of one or more sign panels attached to an existing post or pole is one unit.

Payment for furnishing sign panels is not included in the payment for installing trail signs.

**Replace section 82-9.03A with:**

Relocate each roadside sign the same day it is removed.

Relocate roadside signs using existing posts or onto utility or light poles where shown.

If an existing post is deteriorated or broken, notify the Engineer. If ordered, use a new post.

Any new post and its installation ordered for reasons other than damage you cause is change order work.

Remove concrete post foundations to at least subgrade level.

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### 83 RAILINGS AND BARRIERS

#### Add to section 83-2.07:

Cable railings are shown on plans as cable rail fence.

AA

### 84 MARKINGS

#### Add to section 84-1.01:

Thermoplastic striping must be extruded not sprayed.

#### Replace pavement marking definition in section 84-2.01B with:

**pavement marking:** Transverse marking such as (1) a limit line, (2) a stop line, or (3) a word, symbol, shoulder, parking stall, colored bicycle lane, or railroad-grade-crossing marking.

#### Add to section 84-2.01C:

Submit product data for green bicycle lane marking.

#### Delete "PTH-02SPRAY" from first paragraph in section 84-2.02B.

#### Replace reserved section 84-2.02I with:

##### 84-2.02I Bike Lane Pavement Marking

Thermoplastic Bike Lane Pavement Marking must be Ennis-Flint Pre-mark Vizigrip or approved equal.

Ennis-Flint  
115 Todd Court  
Thomasville, NC 27360  
800.331.8118  
sales@ennisflint.com  
www.ennisflint.com

#### Replace second paragraph of section 84-2.03C(2)(b) with:

Apply extruded thermoplastic for a traffic stripe at a rate of:

1. At least 0.20 lb of thermoplastic per foot of 4-inch-wide solid stripe.
2. At least 0.36 lb of thermoplastic per foot of 6-inch-wide solid stripe

The applied thermoplastic traffic stripe must be at least 0.060 inch thick.

#### Replace reserved section 84-2.03C(5) with:

##### 84-2.03C(5) Bike Lane Marking

Install bike lane marking in accordance with manufacturer's instructions.

On concrete surfaces, use a compatible primer sealer before application to assure proper adhesion.

**RSS modification to section 84-2.04 does not apply.**

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## DIVISION X ELECTRICAL WORK

### 86 GENERAL

**Delete the last paragraph of section 86-1.02F(2)(a).**

**Replace section 86-1.02F(2)(b) with:**

Not used

**Replace section 86-1.02J with:**

#### 86-1.02J Lighting

##### 86-1.02J(1) Trail Lights

Trail lights must be:

ITEM	SUPPLIER	MODEL NO.
Luminaire	Cooper Lighting	GLEON AA 02 LED E1 SL2 BZ 2L 8030 MS-L20 QA/RA 1016
Pole	Cooper Lighting	SSA4T20WX

**Replace section 86-1.02K with:**

Not used

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### 87 ELECTRICAL SYSTEMS

**Replace Reserved section 87-1.01C with:**

If you propose installation of conduit by directional drilling, submit a directional drill plan and profile for review under section 5-1.23B(2). Submittal must show existing utilities and proposed clearances. Plan and profile must be sealed and signed by an engineer who is registered as a civil engineer in the State of California.

**Replace section 87-1.02 with:**

Electrical materials must comply with section 86 unless otherwise specified in this section.

Components not specified must be as shown.

**Add to the beginning of the RSS for section 87-1.03B(3)(a):**

Use Type 3 conduit for underground installation.

**Replace the 3rd paragraph of the RSS for section 87-1.03C(1) with:**

Install a pull box on a bed of crushed rock.

**Replace section 87-1.04 with:**

Payment for coordination with PG&E is included in lump sum payment made for trail electrical system - lighting and fiberoptics.

Payment for relocation of signal conduit near California Street is included in lump sum payment made for trail electrical system – lighting and fiberoptics.

**Replace reserved section 87-9 with:**

**87-9 TRAFFIC COUNTER SYSTEMS**

**87-9.01 TRAFFIC COUNTER SYSTEMS**

**87-9.01A General**

Section 87-9 includes specifications for constructing traffic counter systems.

Traffic counter system includes:

1. Foundations
2. Pull and valve boxes
3. Conduit
4. Cables
5. Conductors
6. Wood post
7. Pedestrian sensor
8. Inductive loops
9. Software

The components of a traffic counter system are shown on the project plans.

**87-9.01B Submittals**

Submit product information and manuals.

**87-9.02 MATERIALS**

**87-9.02A Counter and Detectors**

Traffic counter must be Eco-Counter Eco-Multi with PYRO bi-directional pedestrian and ZELT inductive sensors or approved equal.

Traffic counter must have the ability to define trail user type and direction of passage.

System must have easily accessible single data logger.

Contact:

Eco-Counter:  
eco-counter@eco-counter.com | www.eco-counter.com  
604-3981 St-Laurent Blvd  
Montreal, QC  
H2W 1Y5, Canada  
Phone: +1-514-849-9779 | Toll Free: 1-866-518-4404

**87-9.02B Detector Software**

Data must be wirelessly transmitted via Bluetooth or cellular network.

System must include:

1. Data storage on a secure cloud server
2. Web-based data analysis software with the possibility to create charts, graphs and reports as well as user profiles for sharing data on local, regional and national scales.
3. Ability to overlay weather data onto counts to develop seasonal adjustment factors
4. Notification when counts are unusually high, low, or missing

4. No software access fees
5. 2-year warranty on issues linked to production

### **87-9.03 CONSTRUCTION**

Install the traffic counter system per manufacturer's instructions.

Install the inductive loop conductor with no splices except at the pull box.

Perform the conductor and operational tests for the system.

### **87-9.04 PAYMENT**

Not Used

**Replace reserved section 87-10 with:**

## **87-10 TRAIL ELECTRICAL SYSTEM – LIGHTING AND FIBER OPTICS**

### **87-10.01 GENERAL**

#### **87-10.01A Summary**

Section 87-10 includes specifications for constructing trail electrical system - lighting and fiber optics.

Trail electrical system – lighting and fiber optics includes:

1. Foundations
2. Pull boxes
3. Conduit
4. Conductors
5. Trail lights (standards and luminaires)
6. Telecom termination enclosure and pedestal
7. Meter pedestal and pad
8. Photoelectric control
9. Fuse splice connectors
10. New PG&E power pole and service drop per PG&E Greenbook.
11. New PG&E meter pedestal per PG&E Greenbook
12. Fiber optic system
13. Directional bore
14. Modifying signal and lighting system

The components of a trail electrical system – lighting and fiber optics are shown on project EP plans.

#### **87-10.01B Definitions**

Reserved

#### **87-10.01C Submittals**

Submit manufacturer's information for the trail lights, with proposed products clearly marked.

#### **87-10.01D Quality Assurance**

Reserved

### **87-10.02 MATERIALS**

#### **87-10.02A General**

Electrical materials not specified in this section must comply with section 86.

#### **87-10.02B Trail Lights**

Trail luminaires and standards are as shown.

#### **87-10.02C Fiber Optic System**

Fiber optic system must comply with section 87-19.



**87-10.03 CONSTRUCTION**

**87-10.03A General**

Set the foundations for standards such that the mast arm is perpendicular to the centerline of the trail.

Perform the conductor and operational tests for the system.

**87-10.03B Trail lights**

Install trail lights per manufacturer's instructions.

**87-10.03C Fiber Optic System**

Install fiber optic system under section 87-19.

**Replace section 87-19.01A with:**

Section 87-19 includes specifications for constructing a complete fiber optic system as shown.

A fiber optic system includes:

1. Conduit and accessories
2. Splice vaults
3. Warning tape
4. Horizontal bore
5. Fiber optic cables
6. Fiber optic splice enclosures
7. Fiber distribution units
8. Fiber optic markers
9. Fiber optic connectors and couplers
10. Patch panels and patch cords
11. Cabinets and racks
12. Infrastructure for camera installation (camera installation by others)
13. System testing
14. Training of City staff
15. Coordination for access to City's waste water treatment plant
16. Termination at City's waste water treatment plant as shown

The components of a fiber optic telecommunications system are shown on the project plans.

**Add to the end of section 87-21.03C of the RSS for section 87:**

Modifying a signal and lighting system includes removing, adjusting, or adding:

1. Pull boxes
2. Conduit
3. Conductors
4. Cables

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## DIVISION XI MATERIALS

### 96 GEOSYNTHETICS

**Replace section 96-1.02C with:**

#### **96-1.02C Geocomposite Wall Drain**

Geocomposite wall drain must be Mirafi G200N Drainage Composite or approved equal.

Geocomposite wall drain must consist of a polymeric core with filter fabric integrally bonded to one or both sides of the core creating a stable drainage void.

Filter fabric must comply with section 96-1.02B.

Geocomposite wall drain must be from 0.4 to 2 inches thick.

Geocomposite wall drain must comply with the requirements shown in the following table:

**Geocomposite Wall Drain**

Quality characteristic	Test method	Requirement
Thickness	ASTM D1777	Min 0.4" max 2.0"
Compressive strength	ASTM D1621	21,000 psf
Maximum Flow rate gradient = 1.0, Normal stress = 3,000 psf	ASTM D4716	21 gal/min/ft
Permittivity	D4491	1.7 sec <sup>-1</sup> min roll value
Flow Rate	D4491	135 gal/min/ft <sup>2</sup> min roll value
<b>Nonwoven Filter Fabric:</b>		
Grab tensile strength	ASTM D4632	Min ave roll value 120 lbs
CBR Puncture strength	ASTM D6241	Min ave roll value 310 lbs
Apparent Opening Size (AOS)	D4751	Min ave roll value U.S. Sieve 70

**Replace reserved section 96-1.02S with:**

#### **96-1.02S Geosynthetic Material for Decomposed Granite Path**

Geosynthetic material at decomposed granite path must be Mirafi HP370 or approved equal.

Geosynthetic material must comply with the requirements shown in the following tables:



## STANDARD PLANS LIST

The standard plan sheets applicable to this Contract include those listed below. The applicable revised standard plans (RSPs) listed below are included in the project plans.

### ABBREVIATIONS, LINES, SYMBOLS, AND LEGEND

A3A	Abbreviations (Sheet 1 of 3)
A3B	Abbreviations (Sheet 2 of 3)
A3C	Abbreviations (Sheet 3 of 3)
A10A	Legend - Lines and Symbols (Sheet 1 of 5)
RSP A10B	Legend - Lines and Symbols (Sheet 2 of 5)
A10C	Legend - Lines and Symbols (Sheet 3 of 5)
A10D	Legend - Lines and Symbols (Sheet 4 of 5)
A10E	Legend - Lines and Symbols (Sheet 5 of 5)

### PAVEMENT MARKERS, TRAFFIC LINES, AND PAVEMENT MARKINGS

A20A	Pavement Markers and Traffic Lines - Typical Details
A20B	Pavement Markers and Traffic Lines - Typical Details
A20C	Pavement Markers and Traffic Lines - Typical Details
A20D	Pavement Markers and Traffic Lines - Typical Details
RSP A20E	Pavement Markers and Traffic Lines - Typical Details for Contrast Striping
A24A	Pavement Markings - Arrows
A24B	Pavement Markings - Arrows and Symbols
A24C	Pavement Markings - Symbols and Numerals
A24D	Pavement Markings - Words
A24E	Pavement Markings - Words, Limit and Yield Lines
A24F	Pavement Markings - Crosswalks

### EXCAVATION AND BACKFILL

A62A	Excavation and Backfill - Miscellaneous Details
A62F	Excavation and Backfill - Metal and Plastic Culverts

### FENCES

RSP A85	Chain Link Fence
RSP A85A	Chain Link Fence Details
A85B	Chain Link Fence Details

### TEMPORARY TRAFFIC CONTROL SYSTEMS

T13	Traffic Control System for Lane Closure on Two Lane Conventional Highways
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### ROADSIDE SIGNS

RS1	Roadside Signs - Typical Installation Details No. 1
RS4	Roadside Signs - Typical Installation Details No. 4

### ELECTRICAL SYSTEMS - LEGEND AND ABBREVIATIONS

ES-1A	Electrical Systems (Legend)
ES-1B	Electrical Systems (Legend)
RSP ES-1C	Electrical Systems (Legend)

### ELECTRICAL SYSTEMS - PULL BOX

RSP ES-8A	Electrical Systems (Non-Traffic Pull Box)
RSP ES-8B	Electrical Systems (Traffic Pull Box)



PUBLIC WORKS DEPARTMENT  
809 Center Street, Room 201, Santa Cruz CA 95060 • 831 420-5160 • Fax: 831 420-5161

**ADDENDUM NUMBER 1**  
**RAIL TRAIL SEGMENT 7 – PHASE 2 PROJECT**  
**(CITY PROJECT NUMBER: c401413,**  
**STATE PROJECT NO. ATPSB1L-5025(080))**

- 
1. **Notice Inviting Sealed Proposals or Bids:** Replace “MANDATORY pre-bid conference” to “NON-MANDATORY pre-bid conference” on item number 9, Pre-Bid Conference, of the Notice Inviting Sealed Proposals or Bids.

  
\_\_\_\_\_  
Nathan Nguyen  
Assistant Director of Public Works / City Engineer

\_\_\_\_\_  
Date 3/22/22

Please sign and date this addendum in the space provided and attach it to your proposal. Should this signed and dated addendum not be attached to the proposal, the proposal could be considered non-responsive.

Dated \_\_\_\_\_ Firm Name \_\_\_\_\_

Official  
Address \_\_\_\_\_

By \_\_\_\_\_

Title \_\_\_\_\_

State Contractor's License No. \_\_\_\_\_ Phone \_\_\_\_\_

\_\_\_\_\_  
Signature of Bidder




PUBLIC WORKS DEPARTMENT  
809 Center Street, Room 201, Santa Cruz CA 95060 • 831 420-5160 • Fax: 831 420-5161

**ADDENDUM NUMBER 2**  
**RAIL TRAIL SEGMENT 7 – PHASE 2 PROJECT**  
**(CITY PROJECT NUMBER: c401413,**  
**STATE PROJECT NO. ATPSB1L-5025(080))**

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1. **BID OPENING** extended to Tuesday, April 19, 2022 at 2:00pm.
  2. **QUESTIONS FOR CITY** date has been extended to April 5, 2022. All questions relative to this Project prior to the opening of Bids shall be in writing and received by April 5, 2022, and shall be directed to:

City of Santa Cruz, Public Works Department  
809 Center Street, Room 201, Santa Cruz, California 95060  
Ricardo Valdes  
Senior Professional Engineer  
Email: [rvaldes@cityofsantacruz.com](mailto:rvaldes@cityofsantacruz.com)

  
\_\_\_\_\_  
Nathan Nguyen  
Assistant Director of Public Works / City Engineer

Date 3/25/22

Please sign and date this addendum in the space provided and attach it to your proposal. Should this signed and dated addendum not be attached to the proposal, the proposal could be considered non-responsive.

Dated \_\_\_\_\_ Firm Name \_\_\_\_\_

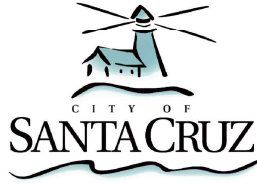
Official Address \_\_\_\_\_

By \_\_\_\_\_

Title \_\_\_\_\_

State Contractor's License No. \_\_\_\_\_ Phone \_\_\_\_\_

\_\_\_\_\_  
Signature of Bidder



PUBLIC WORKS DEPARTMENT

809 Center Street, Room 201, Santa Cruz CA 95060 • 831 420-5160 • Fax: 831 420-5161

**ADDENDUM NUMBER 3**  
**RAIL TRAIL SEGMENT 7 – PHASE 2 PROJECT**  
**(CITY PROJECT NUMBER: c401413,**  
**STATE PROJECT NO. ATPSB1L-5025(080))**

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**INVITATION FOR BIDS, SPECIFICATIONS, AND CONTRACT DOCUMENTS**

- 1. BID OPENING** extended to **Thursday, April 21, 2022 at 3:00 p.m.**
- 2. BASIS OF BID.** Basis of Bid has been modified. **REPLACE** Basis of Bid, pages 9 to 12, with the ones attached to this addendum. The changes are the following:

Item number 4, Subsurface Utility Location, estimated quantity has changed from 7 EA to 20 EA.

Item number 62, 24" Drilled Hole (Soldier Pile), estimated quantity has changed from 3,320 LF to **6,246 LF**.

Item number 93 was modified. Item number 93 is now RAILROAD OPERATIONS FLAGGING (ALLOWANCE), EA, 250 working days at \$500 per day, for a total of \$125,000.

Item number 94 was modified. Item number 94 is now 12" WELDED STEEL PIPE CASING, LF, and 95.

Item number 95 was modified. Item number 95 is now 4" PVC IRRIGATION SLEEVE, LF, and 46.

Item number 96 was modified. Item number 96 is now 6" PVC IRRIGATION SLEEVE, LF, and 38.

Bid Alternative items numbers have changed – descriptions, units and estimated quantities remain the same.

- 3. BID BOND FORM.** Bid bond form was modified due to new bid opening date, **April 21, 2022, at 3:00 p.m.** **REPLACE** Bid Bond Form, page 13, to the one attached to this addendum.

**4. AGREEMENT.** The following change is made to the Agreement:

Replace item 2 of Article III with the following:

“2. Sections 1-9 of the Standard Specifications of the State of California, Department of Transportation, dated 2018, and Revised Standard Specifications dated November 19, 2020; Sections 10-99 of the Standard Specifications of the State of California, Department of Transportation, dated 2015, and Revised Standard Specifications dated April 20, 2018 (“State Specifications”);”

**5. GENERAL REQUIREMENTS.**

The following changes are made to the General Requirements:

**Replace Railroad Protective Liability Insurance limits, on page 34, with:**

“RAILROAD PROTECTIVE LIABILITY INSURANCE in the minimum limit of \$2,000,000 per occurrence and \$6,000,000 in the aggregate, or Comprehensive or Commercial General Liability Insurance coverage that does not exclude work within fifty (50) feet of a railroad track and with a minimum limit of \$2,000,000 per occurrence and \$6,000,000 in aggregate.”

**Replace item 9 with:**

“All Work under the Contract shall conform to the applicable requirements of Sections 1-9 of the Standard Specifications of the State of California, Department of Transportation, dated 2018, and their Revised Standard Specifications dated November 19, 2020 and Sections 10-99 of the Standard Specifications of the State of California, Department of Transportation, dated 2015, and their Revised Standard Specifications dated April 20, 2018. Said State Specifications are to be considered an integral part of the specifications for all purposes related to this Contract.

Definitions of terms not defined in City Standard Specifications shall be as defined in the **State Standard Specifications**, available at:

<https://dot.ca.gov/-/media/dot-media/programs/design/documents/f00203402018stdspecsall1y.pdf>.”

**Add item 24:**

24. American Railway Engineering and Maintenance-of-Way Association (AREMA)

All utility, pipelines(s), crossings under railroads shall meet AREMA, Part 5, Pipelines, requirements.

**Add item 25:**



## 25. Wastewater Treatment Facility (WWTF) Critical Infrastructure Protect In Place

As first ORDER OF WORK, the Contractor shall locate and protect in place Wastewater Treatment Facility Critical Infrastructure consisting of the 8" Domestic / Fire Water service and the 21KV electrical service, from the railroad line to the back of the proposed retaining wall.

The Contractor shall submit at the preconstruction meeting an emergency plan to cover emergency response should the 8" water service and/or the 21KV electric service be damaged during construction operations. The emergency plan will provide the necessary means to keep the Wastewater Treatment Facility operating. The emergency plan must include immediate notification procedures to the WWTF of any changes in service.

If the water service line is damaged or potable water service to the WWTF is impaired the Contractor must provide for at minimum:

1. The Contractor will be responsible to provide and maintain full water level in the 75,000 gallon 2 Water tank at the WWTF. This water is needed to operate process equipment. Process water usage can be as much as 150,000 gallons per day (GPD).
2. If Fire suppression features at the WWTF are out of service, The Contractor will assume fire protection risk for the entire WWTF.
3. The contractor will provide potable water to WWTF Vapex odor control units. Contractor understands the need notify the Monterey Bay Air Board if the units go down for more than an hour. Lack of odor control puts the City at risk for violation of the Air Board permit and at risk for odor complaints. Contractor will responsible to control H2S not to exceed 2 ppm at the fence line during the interruption of odor control facilities to mitigate risk of violation or odor complaints. Emergency plan must define how water service will be supplied to 8 Vapex odor control units.
4. Contractor shall limit lack of water service to no longer than 4 hours before Contractor must provide and ensure potable water to feed the Cogen make up water system. If cogen system is inoperable due to water service interruption, the Contractor will provide full cost recovery of PGE capacity and demand fees for electric service at plant incurred due to non-operation of cogen engines 1 and 2. Emergency plan will define details of supply connection to cogen make up water system.
5. The Contractor shall ensure WWTF personnel and contractors have sanitary facilities during water service outages.
6. The Contractor shall provide potable water necessary for all environmental lab functions including but not limited to source water for reagent water, handwashing, equipment cleaning and dishwasher supply.

If the 21kV electric service line is damaged or electrical service to the WWTF is interrupted, the Contractor must provide for at minimum:

1. The Contractor will provide all diesel needed for WWTF to operate on standby power. The WWTF will need approximately 1,000 gallons of diesel a day to run the 3 standby generators.
2. There is no back up power supply to WWTF UV disinfection. During power outages, the WWTF must operate chlorine disinfection system. The Contractor assumes all risk of cost and violation due to inoperability of UV System.
3. During a power outage, the WWTF would need to run cogen to heat and mix the digesters. The Contractor will be responsible to pay complete cost recovery of staff time required to operate cogen during power outages.

Full compensation for complying with the above provisions shall be considered as included in the contract prices paid for the various items of work and no separate payment will be made therefor.

**Add item 26:**

**26. Staging Areas**

See exhibit attached to this addendum showing two available, free of charge, locations for construction staging areas. Contractor shall coordinate with SCCRTC and City of Santa Cruz to meet the requirements needed to be able to use these two locations as construction staging areas.

Contractor shall be responsible to fence out with screening, install BMP's, clean up, and maintain the staging areas throughout the life of the construction project.

Before final acceptance of the staging areas by the City of Santa Cruz and SCCRTC, the Contractor shall carefully clean up the staging areas and premises, remove all surplus construction materials and rubbish of all kinds from the grounds that he/she has occupied and restore them to their original condition or better.

**6. TECHNICAL SPECIFICATIONS.**

The following changes are made to the Technical Specifications:

*Replace the table in section 1-1.01 with:*

**"Bid Items and Applicable Sections**

Item No.	Applicable section	Item description	Unit	Quantity
1	13	JOB SITE MANAGEMENT	LS	1

Item No.	Applicable section	Item description	Unit	Quantity
2	10	RESIDENT ENGINEER'S OFFICE		
3	79	CONSTRUCTION SURVEY		
4	78	SUBSURFACE UTILITY LOCATION	EA	20
5	13	PREPARE STORM WATER POLLUTION PREVENTION PLAN		
6	13	RAIN EVENT ACTION PLAN		
7	13	STORM WATER SAMPLING AND ANALYSIS DAY		
8	13	STORM WATER ANNUAL REPORT		
9	12	TRAFFIC CONTROL SYSTEM		
10	12	PORTABLE CHANGEABLE MESSAGE SIGN		
11	12	PROJECT FUNDING SIGNS		
12	13	TEMPORARY FIBER ROLLS		
13	13	TEMPORARY SILT FENCE		
14	13	TEMPORARY CONCRETE WASHOUT		
15	13	STREET SWEEPING		
16	13	TEMPORARY CONSTRUCTION ENTRANCE		
17	13	TEMPORARY INLET PROTECTION		
18	16	TEMPORARY HIGH-VISIBILITY FENCE		
19	17	CLEARING AND GRUBBING		
20	73	REMOVE CONCRETE CURB & GUTTER		
21	73	REMOVE CONCRETE SIDEWALK		
22	20	REMOVE IRRIGATION		
23	20	REMOVE TREE		
24	20	RESET BOLLARD		
25	20	REMOVE AND SALVAGE BOLLARD		
26	20	RESET POSTS AND CHAIN		
27	20	RESET TRASH RECEPTACLE		
28	80	REMOVE FENCE		
29	81	REMOVE LANE SEPARATION SYSTEM		
30	84	REMOVE THERMOPLASTIC PAVEMENT DELINEATION		
31	71	REMOVE STORM DRAIN LINE		
32	78	REMOVE ABANDONED 2" STEEL WATER LINE		
33	78	REMOVE ABANDONED 1" STEEL GAS LINE		
34	71	ADJUST MANHOLE TO GRADE		
35	14	TREE PROTECTION		
36	10	DEVELOP WATER SUPPLY		
37	19	IMPORT FILL		
38	19	ROADWAY EXCAVATION (CONTAMINATED)		
39	19	STRUCTURE EXCAVATION (SOLDIER PILE WALL, FINAL PAY)		
40	19	CONCRETE BACKFILL (SOLDIER PILE WALL,		

Item No.	Applicable section	Item description	Unit	Quantity
		FINAL PAY)		
41	20	DECOMPOSED GRANITE		
42	20	REMOVABLE BOLLARD		
43	21	HYDROSEED		
44	26	CLASS 2 AGGREGATE BASE		
45	39	HOT MIX ASPHALT (TYPE A)		
46	46	GROUND ANCHOR (SUBHORIZONTAL)		
47	57	TIMBER LAGGING 4X12		
48	57	TIMBER LAGGING 6X12		
49	40	CONCRETE PAVING (TRAIL)		
50	73	MINOR CONCRETE (CONCRETE CURB, CONDITION 1)		
51	73	MINOR CONCRETE (CONCRETE CURB, CONDITION 2)		
52	73	MINOR CONCRETE (CONCRETE CURB, CONDITION 3)		
53	73	MINOR CONCRETE (MOUNTABLE CURB)		
54		MINOR CONCRETE (CURB TYPE A1-8)		
55	73	MINOR CONCRETE (GUTTER)		
56	49	STEEL SOLDIER PILE W10X33		
57	49	STEEL SOLDIER PILE W12X40		
58	49	STEEL SOLDIER PILE W12X45		
59	49	STEEL SOLDIER PILE W14X43		
60	49	STEEL SOLDIER PILE W14X53		
61	49	STEEL SOLDIER PILE W14X61		
62	49	24" DRILLED HOLE (SOLDIER PILE)	LF	6,246
63	59	CLEAN AND PAINT STRUCTURAL STEEL		
64	70	15" DRAIN BASIN		
65	70	24" DRAIN BASIN		
66	71	HEAVY DUTY STORM DRAIN MANHOLE COVER		
67	64	4" PVC PIPE		
68	64	12" PVC PIPE (WALL GUTTER)		
69	64	12" HDPE PIPE		
70	64	18" HDPE PIPE		
71	68	GEOCOMPOSITE DRAIN		
72	73	MINOR CONCRETE (CONCRETE V-DITCH)		
73	82	TRAIL SIGN (POST CONDITION 2)		
74	82	ROADSIDE SIGN (POST CONDITION 1)		
75	82	FURNISH SINGLE-SHEET ALUMINIUM SIGN PANEL (0.063" UNFRAMED)		
76	80	6' CHAIN LINK FENCE COND. 1 (STD MESH) VINYL-CLAD BLACK		
77	80	CHAIN LINK FENCE COND. 2 (3/8" MESH) GALVANIZED		

Item No.	Applicable section	Item description	Unit	Quantity
78	80	6' CHAIN LINK GATE (3/8" MESH) GALVANIZED		
79	83	CABLE RAILING		
80	80	POST AND WIRE FENCE		
81	20	LEAN RAIL		
82	84	4" THERMOPLASTIC TRAFFIC STRIPE		
83	84	6" THERMOPLASTIC TRAFFIC STRIPE (DASHED CROSSWALK)		
84	84	4" THERMOPLASTIC TRAFFIC STRIPE (BROKEN 9-3)		
85	84	4" THERMOPLASTIC TRAFFIC STRIPE (WHITE DASHED)		
86	84	THERMOPLASTIC PAVEMENT MARKING		
87	84	THERMOPLASTIC BIKE LANE PAVEMENT MARKING		
88		GEOSYNTHETIC FABRIC (DG PATH)		
89	96	GEOSYNTHETIC FABRIC (AB PAVING)		
90	87	TRAFFIC COUNTER SYSTEM		
91	87	TRAIL ELECTRICAL SYSTEM - LIGHTING AND FIBEROPTICS		
92	Front	MOBILIZATION	LS	
93	12	RAILROAD OPERATIONS FLAGGING (ALLOWANCE)	EA	250
94	20	12" WELDED STEEL PIPE CASING	LF	95
95	20	4" PVC IRRIGATION SLEEVE	LF	46
96	20	6" PVC IRRIGATION SLEEVE	LF	38

**Bid Items for Concrete Lagging Additive Bid Alternate**

Item No.	Applicable section	Item description	Unit	Quantity
97	57	TIMBER LAGGING 4 X 12 (DEDUCT)	MFBM	
98	57	TIMBER LAGGING 6 X 12 (DEDUCT)	MFBM	
99	68	GEOCOMPOSITE DRAIN (DEDUCT)	SQFT	
100	64	4" PVC PIPE (DEDUCT)	LF	
101	19	STRUCTURE EXCAVATION (SOLDIER PILE WALL, ADDITIONAL, FINAL PAY)	CY	
102	51	FURNISH PRECAST CONCRETE LAGGING 5 X12	LF	
103	51	FURNISH PRECAST CONCRETE LAGGING 6 X12	LF	
104	51	FURNISH PRECAST CONCRETE LAGGING 8 X12	LF	
105	51	FURNISH PRECAST CONCRETE LAGGING 10 X12	LF	
106	51	ERECT PRECAST CONCRETE LAGGING	EA	

**Bid Items for Concrete Lagging Additive Bid Alternate**

Item No.	Applicable section	Item description	Unit	Quantity
107	68	4" PERFORATED PLASTIC PIPE	LF	
108	68	CLASS 1 TYPE A PERMEABLE MATERIAL (FINAL PAY)	CY	

*This table replaces the table in section 5-1.36C(2) of the technical specifications:*

**Utilities to be Exposed and Protected in Place During Construction**

Utility	Location (Station)
<u>Unknown</u>	<u>207+89</u>
<u>PG&amp;E gas</u>	<u>217+88</u>
<u>Unknown</u>	<u>218+23</u>
<u>Fire Supply (8" water)</u>	<u>218+73</u>
<u>Unknown</u>	<u>218+88</u>
<u>Communication/Telcom</u>	<u>219+40</u>
<u>Unknown (CMP)</u>	<u>219+36</u>
<u>Electrical (21kV)</u>	<u>219+63</u>
<u>Unknown</u>	<u>237+62</u>

*Added to section 12 of technical specifications:*

**“Add to list in 1st paragraph of standard section 12-1.03:**

4. Provide for safe railroad operations through the work”

*Section 12-1.04 of the technical specifications is replaced with:*

“Payment for flagging for items 1 through 3 of in section 12-1.03 is included in payment for traffic control system.

If flagging is required by railroad operator (Progressive Rail), it will be paid under railroad operations flagging (allowance). Allowance amount, \$125,000, was calculated by multiplying 250 working days times \$500/day (from Progressive Rail Guidelines for Document Submission Railroad Right of Way). Amount shown for allowance is the maximum amount estimated for the project. Receipts from Progressive Rail shall be provided to the City to receive payment for this item. City shall only pay for the working days Progressive Rail provided flagging services for the project.”

*This replaces section 19-1.01B of the technical specifications:*

**“Replace section 19-1.01B with:**

**Roadway excavation (contaminated)** – roadway excavation and disposal of material shown to have contamination levels that, under the Santa Cruz County Environmental Health Services’ (County)

regulations, requires special handling and removal to 2 feet below existing grade within the entire trail prism.”

*This replaces section 19-2.03A of the technical specifications:*

**“Replace first paragraph of section 19-2.03A with:**

For trail and concrete paving construction:

1. Excavate to subgrade or 2 feet below existing surface, whichever is deeper.
2. Except where unsuitable material is shown or ordered to be removed, scarify excavation to a minimum depth of 8 inches and compact to 95% relative compaction to a depth of at least 8 inches.”

*This is added to section 78-6.04 of the technical specifications:*

“The payment quantity for subsurface utility location is by count of number of potholes made.”

*This is added to technical specifications:*

**“Add before section 78 of the technical specifications:**

## **77 LOCAL INFRASTRUCTURE**

### **77-1 CASING UNDER RAILROAD**

#### **77-1.01 GENERAL**

##### **77-1.01A Summary**

Section 77-1 includes specifications for fabricating and installing welded steel pipe casing under railroad.

Work at railroad must comply with the requirements of the American Railway Engineering and Maintenance-of-Way Association (AREMA).

Engineer will provide information about future carrier pipe so that coating and cathodic protection can be determined.

##### **77-1.01B Definitions**

Reserved

##### **77-1.01C Submittals**

Submit casing installation plan for authorization.

Installation plan must include scale drawings showing relation of the casing to railway tracks, angle of crossing, railway survey station, right-of-way lines and general layout of tracks and railway facilities. Plans must also show a cross section (or sections) from field survey, showing pipe in relation to actual profile of ground and tracks.

Plans must include:

1. Pipe diameter
2. Pipe material
3. Wall thickness
4. Joint type
5. Coating
6. Cap type at each end
7. Depth of top of casing from base of rail
8. Depth of top of casing outside of tracks

9. Type size and spacing of insulators
10. Cathodic protection information
11. For jacking:
  - a. Distance from centerline of track to jacking/receiving pits
  - b. Depth from base of rail to bottom of jacking/receiving pits
  - c. Excavation supports at pits
  - d. Boring/jacking equipment list
12. For cut and cover, if authorized:
  - a. Schedule for removal of railway components
  - b. Plan showing removal of railway components
  - c. Backfill plan
  - d. Plan showing replacement of railway components

#### **77-1.01D Quality Assurance**

Reserved

#### **77-1.02 MATERIALS**

##### **77-1.02A General**

Steel casing pipe must have a specified minimum yield strength (SMYS) of at least 35,000 psi.

Minimum wall thickness is 0.188 inches.

##### **77-1.02B Coating**

This section applies if pipe is coated.

Before shipping, the exterior surfaces of the casing must be cleaned, primed, and coated to comply with ANSI/AWWA C213 or ANSI/AWWA C214.

Wrapping tape for repairing damaged coating and wrapping field joints and fittings must be a pressure-sensitive PVC or polyethylene tape with a minimum thickness of 50 mils, 2 inches wide.

##### **77-1.03 CONSTRUCTION**

Casing must be installed by directional boring or jack and drill under section 20.

You may request authorization for installation by open trench method.

Installation by open trench, if authorized, must comply with the requirements of Part 4, Culverts, Section 4.14, Assembly and Installation of Pipe Culverts of AREMA and includes restoration of railway components removed during trenching.

Do not interfere with traffic at Waste Water Treatment Plant driveway.

Ends of pipe must extend at least 25 feet from centerline of track.

Pipelines and casing pipe must be suitably insulated from underground conduits carrying electric wires on railway rights-of-way.

Prevent leakage of any substance from the casing throughout its length except at ends.

Prevent the formation of a waterway under the railway, with an even bearing throughout its length, and must slope to one end.

Where casing and/or carrier pipe must be cathodically protected, notify Engineer and perform suitable testing to ensure that other railway structures and facilities are adequately protected from the cathodic



current in accordance with the recommendations of current Reports of Correlating Committee on Cathodic Protection, published by the National Association of Corrosion Engineers.

Bored or jacked installations must have a bored hole diameter essentially the same as the outside diameter of the pipe plus the thickness of the protective coating. If voids should develop or if the bored hole diameter is greater than the outside diameter of the pipe (including coating) by more than approximately 1 in., take remedial measures as authorized by the Engineer. Do not stop boring operations if stoppage would be detrimental to the railway.

Mark ends of casing at surface as directed.

When it is no longer needed, fill and restore surfacing in-kind at north pit. Fill and compact south pit with authorized material and compact to 90%.

If pipe is coated, repair damaged coating on the casing and wrap field joints and fittings with wrapping tape as follows:

1. Before wrapping, thoroughly clean and prime the pipe casing, joints, and fittings under the tape manufacturer's instructions.
2. Wrap the tape tightly with 1/2 uniform lap, free from wrinkles and voids to provide not less than a 100-mil thickness.
3. Wrapping at joints must extend at least 6 inches over adjacent pipe casing coverings. Apply tension such that the tape will conform closely to contours of the joint.

#### **77-1.04 PAYMENT**

The payment quantity for 12" welded steel pipe casing is the length measured along the centerline of the casing."

*This is added to section 87 of the technical specifications:*

**"Add to the top of section 87-1.03B(3)(d):**


Install conduit under railroad by either the horizontal directional drill method or jack and drill method.

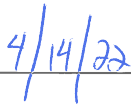
You may request authorization for installation by open trench method.

Installation by open trench, if authorized, must comply with the requirements of Part 5, "Pipelines" of AREMA and includes restoration of railway components removed during trenching.

Fill and restore surface of jack and drill pits when they are no longer needed."

7. **PLANS. REPLACE** plan sheets CP-2.01, DM-2.02, DM-2.04, EP-2.02, GP-2.02, GP-2.04, PP-2.01, PP-2.02, PP-2.04, PP-2.09, WP-1.02, and WP-1.04 with sheets CP-2.01, DM-2.02, DM-2.04, EP-2.02, GP-2.02, GP-2.04, PP-2.01, PP-2.02, PP-2.04, PP-2.09, WP-1.02, and WP-1.04 attached to this addendum.
8. **QUESTIONS SUBMITTED BY POTENTIAL BIDDERS.** Answers to questions submitted by potential bidders are attached to this addendum.

  
\_\_\_\_\_  
Nathan Nguyen  
Assistant Director of Public Works / City Engineer

  
\_\_\_\_\_  
Date

Please sign and date this addendum in the space provided and attach it to your proposal. Should this signed and dated addendum not be attached to the proposal, the proposal could be considered non-responsive.

Dated \_\_\_\_\_ Firm Name \_\_\_\_\_

Official Address \_\_\_\_\_

By \_\_\_\_\_

Title \_\_\_\_\_

State Contractor's License No. \_\_\_\_\_ Phone \_\_\_\_\_

\_\_\_\_\_  
Signature of Bidder

**Basis of Bid  
ADDENDUM #3**

Name of Bidder: \_\_\_\_\_

Project Name/Number: **RAIL TRAIL SEGMENT 7 – PHASE 2 (c401413)**

<b><u>BASE BID</u></b>					
Item No.	Item Description	Unit	Estimated Quantity	Unit Price (\$)	Unit Price Extension (\$)
1	Job Site Management	LS	1		
2	Resident Engineer's Office	LS	1		
3	Construction Survey	LS	1		
4	Subsurface Utility Location	EA	20		
5	Prepare Storm Water Pollution Prevention Plan	LS	1		
6	Rain Event Action Plan	EA	36		
7	Storm Water Sampling And Analysis Day	EA	20		
8	Storm Water Annual Report	EA	2		
9	Traffic Control System	LS	1		
10	Portable Changeable Message Sign	EA	2		
11	Project Funding Signs	EA	2		
12	Temporary Fiber Rolls	LF	4,197		
13	Temporary Silt Fence	LF	5,981		
14	Temporary Concrete Washout	EA	1		
15	Street Sweeping	DAY	120		
16	Temporary Construction Entrance	EA	2		
17	Temporary Inlet Protection	EA	28		
18	Temporary High-Visibility Fence	LF	6,927		
19	Clearing And Grubbing	SF	86,993		
20	Remove Concrete Curb & Gutter	LF	20		
21	Remove Concrete Sidewalk	SF	147		
22	Remove Irrigation	SF	4,361		
23	Remove Tree	EA	42		
24	Reset Bollard	EA	2		
25	Remove And Salvage Bollard	EA	4		
26	Reset Posts And Chain	LF	129		
27	Reset Trash Receptacle	EA	1		
28	Remove Fence	LF	809		
29	Remove Lane Separation System	EA	3		
30	Remove Thermoplastic Pavement Delineation	SF	817		
31	Remove Storm Drain Line	LF	80		
32	Remove Abandoned 2" Steel Water Line	LF	25		
33	Remove Abandoned 1" Steel Gas Line	LF	25		
34	Adjust Manhole To Grade	EA	5		

35	Tree Protection	EA	25		
36	Develop Water Supply	LS	1		
37	Import Fill	CY	3,000		
38	Roadway Excavation (Contaminated)	CY	6,232		
39	Structure Excavation (Soldier Pile Wall, Final Pay)	CY	1,132		
40	Concrete Backfill (Soldier Pile Wall, Final Pay)	CY	385		
41	Decomposed Granite	SF	816		
42	Removable Bollard	EA	7		
43	Hydroseed	SF	47,145		
44	Class 2 Aggregate Base	CY	1,210		
45	Hot Mix Asphalt (Type A)	TON	963		
46	Ground Anchor (Subhorizontal)	EA	96		
47	Timber Lagging 4x12	MFBM	117		
48	Timber Lagging 6x12	MFBM	188		
49	Concrete Paving (Trail)	SF	1,422		
50	Minor Concrete (Concrete Curb, Condition 1)	LF	258		
51	Minor Concrete (Concrete Curb, Condition 2)	LF	3,955		
52	Minor Concrete (Concrete Curb, Condition 3)	LF	120		
53	Minor Concrete (Mountable Curb)	LF	20		
54	Minor Concrete (Curb Type A1-8)	LF	356		
55	Minor Concrete (Gutter)	LF	3,810		
56	Steel Soldier Pile W10x33	LF	2,795		
57	Steel Soldier Pile W12x40	LF	3,394		
58	Steel Soldier Pile W12x45	LF	160		
59	Steel Soldier Pile W14x43	LF	196		
60	Steel Soldier Pile W14x53	LF	297		
61	Steel Soldier Pile W14x61	LF	493		
62	24" Drilled Hole (Soldier Pile)	LF	6,246		
63	Clean And Paint Structural Steel	SF	28,183		
64	15" Drain Basin	EA	14		
65	24" Drain Basin	EA	11		
66	Heavy Duty Storm Drain Manhole Cover	EA	2		
67	4" Pvc Pipe	LF	3,153		
68	12" Pvc Pipe (Wall Gutter)	LF	105		
69	12" Hdpe Pipe	LF	1,688		
70	18" Hdpe Pipe	LF	1,721		
71	Geocomposite Drain	SF	30,435		
72	Minor Concrete (Concrete V-Ditch)	LF	3,034		
73	Trail Sign (Post Condition 2)	EA	2		
74	Roadside Sign (Post Condition 1)	EA	6		
75	Furnish Single-Sheet Aluminium Sign Panel (0.063" Unframed)	SF	43		
76	6' Chain Link Fence Cond. 1 (Std Mesh) Vinyl-Clad Black	SF	3,744		
77	Chain Link Fence Cond. 2 (3/8" Mesh) Galvanized	SF	3,798		
78	6' Chain Link Gate (3/8" Mesh) Galvanized	EA	3		

79	Cable Railing	LF	2,084		
80	Post And Wire Fence	LF	3,955		
81	Lean Rail	EA	1		
82	4" Thermoplastic Traffic Stripe	LF	320		
83	6" Thermoplastic Traffic Stripe (Dashed Crosswalk)	LF	111		
84	4" Thermoplastic Traffic Stripe (Broken 9-3)	LF	3,858		
85	4" Thermoplastic Traffic Stripe (White Dashed)	LF	386		
86	Thermoplastic Pavement Marking	SF	589		
87	Thermoplastic Bike Lane Pavement Marking	SF	445		
88	Geosynthetic Fabric (Dg Path)	SY	91		
89	Geosynthetic Fabric (Ab Paving)	SY	346		
90	Traffic Counter System	EA	1		
91	Trail Electrical System - Lighting And Fiberoptics	LS	1		
92	Mobilization	LS	1		
93	Railroad Operations Flagging (Allowance)	EA	250	\$500.00	\$125,000.00
94	12” Welded Steel Pipe Casing	LF	95		
95	4” PVC Irrigation Sleeve	LF	46		
96	6” PVC Irrigation Sleeve	LF	38		
BB	BASE BID TOTAL				
				10% CONTINGENCY	
				<u>BASE BID PLUS CONTINGENCY TOTAL</u>	
Basis of <u>BASE BID PLUS CONTINGENCY TOTAL</u> in Words: _____					
_____					
_____					
PLEASE NOTE: The City will award the Project to the lowest responsible and responsive bidder based on the <u>BASE BID PLUS CONTINGENCY TOTAL</u> .					

<b><u>BID ALTERNATIVE</u></b> <b><u>ADDENDUM #3</u></b>					
Item No.	Item Description	Unit	Estimated Quantity	Unit Price (\$)	Unit Price Extension (\$)
<b>BB</b>	<b>BASE BID TOTAL (Without Contingency)</b>				\$
<b>97</b>	Timber Lagging 4 X 12 (Deduct)	MFBM	(117)		
<b>98</b>	Timber Lagging 6 X 12 (Deduct)	MFBM	(188)		
<b>99</b>	Geocomposite Drain (Deduct)	SF	(30,435)		
<b>100</b>	4" Pvc Pipe (Deduct)	LF	(3,153)		
<b>101</b>	Structure Excavation (Soldier Pile Wall, Additional, Final Pay)	CY	897		
<b>102</b>	Furnish Precast Concrete Lagging 5 X12	LF	13,082		
<b>103</b>	Furnish Precast Concrete Lagging 6 X12	LF	4,034		
<b>104</b>	Furnish Precast Concrete Lagging 8 X12	LF	8,606		
<b>105</b>	Furnish Precast Concrete Lagging 10 X12	LF	1,572		
<b>106</b>	Erect Precast Concrete Lagging	EA	3,414		
<b>107</b>	4" Perforated Plastic Pipe	LF	3,070		
<b>108</b>	Class 1 Type A Permeable Material (Final Pay)	CY	897		
<b>BID ALTERNATIVE TOTAL</b>					
10% CONTINGENCY					
<b>BID ALTERNATIVE PLUS CONTINGENCY TOTAL</b>					
Basis of <b>BID ALTERNATIVE PLUS CONTINGENCY TOTAL</b> in Words: _____					
_____					

**Bid Bond  
(If Bond Posted as Security)**

KNOW ALL PERSONS BY THESE PRESENT:

THAT WE, \_\_\_\_\_, AS PRINCIPAL,  
AND \_\_\_\_\_, AS SURETY, are held and firmly  
bound unto the City of Santa Cruz in the penal sum of 10 PERCENT OF THE TOTAL AMOUNT  
OF THE BID of the Principal above named, submitted by said Principal to the City of Santa Cruz  
for the work described below, for the payment of which sum in lawful money of the United States,  
well and truly to be made to the City of Santa Cruz to which said bid was submitted, we bind  
ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by  
these presents. In no case shall the liability of the surety hereunder exceed the sum of  
\$\_\_\_\_\_.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT, WHEREAS, the Principal has  
submitted the above-mentioned bid to the City of Santa Cruz, aforesaid, for certain construction  
specifically described as follows, for which bids are to be opened at:

**3:00 p.m. / April 21, 2022**  
809 Center Street, Room 201, Santa Cruz, CA 95060

For:

**“RAIL TRAIL SEGMENT 7 – PHASE 2, c401413”**

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

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

PRINCIPAL

SURETY

\_\_\_\_\_  
(Seal)

\_\_\_\_\_  
(Seal)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

\_\_\_\_\_  
Address

\_\_\_\_\_  
Address

(Note: Signatures of those executing for the surety as an Attorney-in-Fact must include a Notary Acknowledgement.)



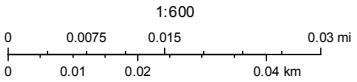




cruzMap



- April 11, 2022
- |                       |                               |
|-----------------------|-------------------------------|
| School                | Road                          |
| Railroads             | City Limit                    |
| <b>Transportation</b> | Water Resource Parcels        |
| State Highway         | Staging Area, Parking Lot #18 |
| Highway Ramp          |                               |
| Major Road            |                               |



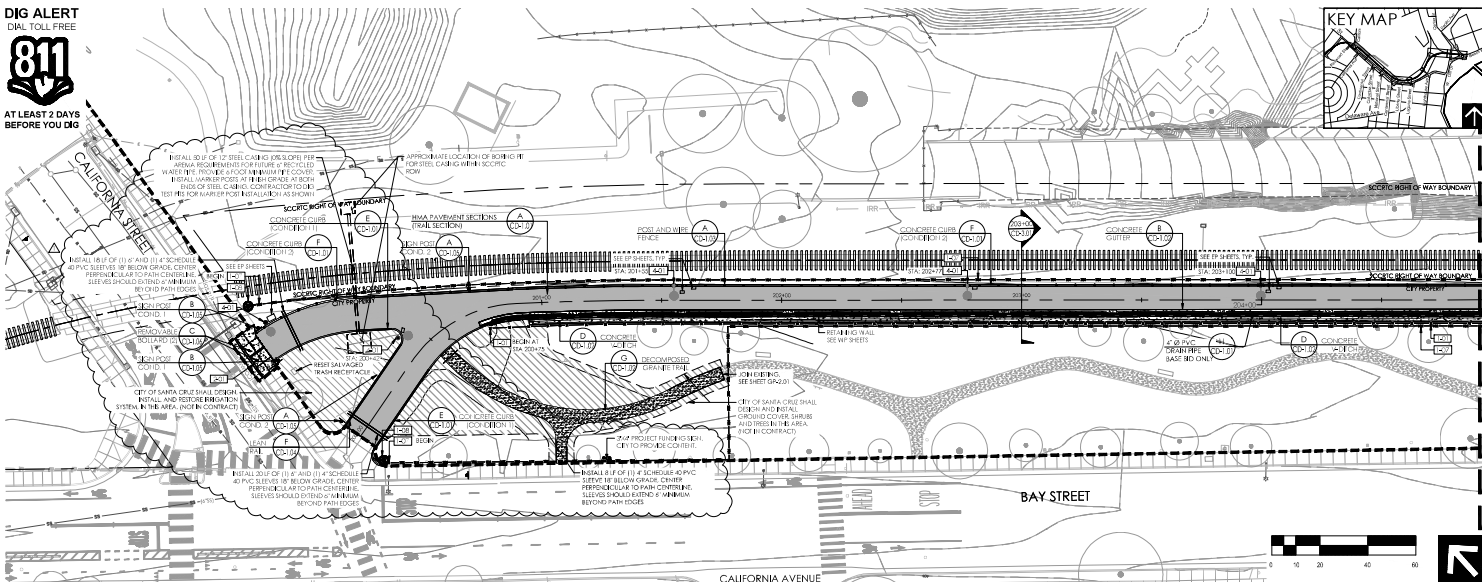




March 23, 2022



**AT LEAST 2 DAYS  
BEFORE YOU DIG**



MATCHLINE SEE SHEET CD 202

## KEYNOTE SCHEDULE

SYMBOL DESCRIPTION		NOTES	SYMBOL DESCRIPTION		NOTES
SUB-TURNINGS AND EQUIPMENT			PROVIDING AND INSTALLATION		
1001	CHAIN LINK FENCE COND. 1	6' HIGH WITH STANDARD MESH (BLACK) GALVANIZED KSP ASFA, KSP ASFA, ASB8	2001	MONUMENTAL CURB & GUTTER TYPE B	PER COUNTY DESIGN CRITERIA PG 5-A4
1002	CHAIN LINK FENCE COND. 2	8' HIGH VARIES WITH 3/8" MESH GALVANIZED KSP ASFA, KSP ASFA, ASB8	2002	CONCRETE CURB TYPE A-6	PER CALTRANS STD ASFA
1003	CHAIN LINK GATE	6' HIGH, 8' WIDE WITH 3/8" MESH GALVANIZED KSP ASFA, KSP ASFA, ASB8	<b>ELECTRICAL</b>		
1004	INSTALLATION 3/8" MESH GALVANIZED KSP ASFA, KSP ASFA, ASB8	INSTALLATION 3/8" MESH GALVANIZED KSP ASFA, KSP ASFA, ASB8	4001	PROPOSED LIGHT	B/C/D-103 FOR PLACEMENT OF SHEETS FOR INSTALLATION
1005	CABLE RAIL FENCE	CALTRANS STD B1 14-7, POST GALVANIZED PER SECTION 4-4			
<b>SUB-RESISTANT MANHOLE COVER</b>					
1007	TEMPORARY HIGH-VISIBILITY FENCE		<b>JOINT LEGEND</b>		
SYMBOL		DESCRIPTION	DETAIL		
_____		EXPANSION JOINT	B/C/D-1		
_____		CONTROL JOINT	B/C/D-1		
CONTRACTOR TO MARK AND MAINTAIN BEGIN AND END OF CULVERT, RESOURCE AREA, MARKERS TO REMAIN UNTIL AFTER FINAL COMPLETION.					

## CALIFORNIA AVENUE LEGEND

[illegible]

REVISIONS		
1	NO ADDENDUM #3	04/13/2022

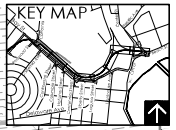


CITY OF  
**SANTACRUZ**  
PUBLIC WORKS DEPARTMENT  
809 Center Street, Room 201  
Santa Cruz, CA 95060

RAIL TRAIL SEGMENT 7 PHASE 2  
MULTI-USE TRAIL  
CONSTRUCTION KEYNOTE PLAN

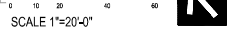
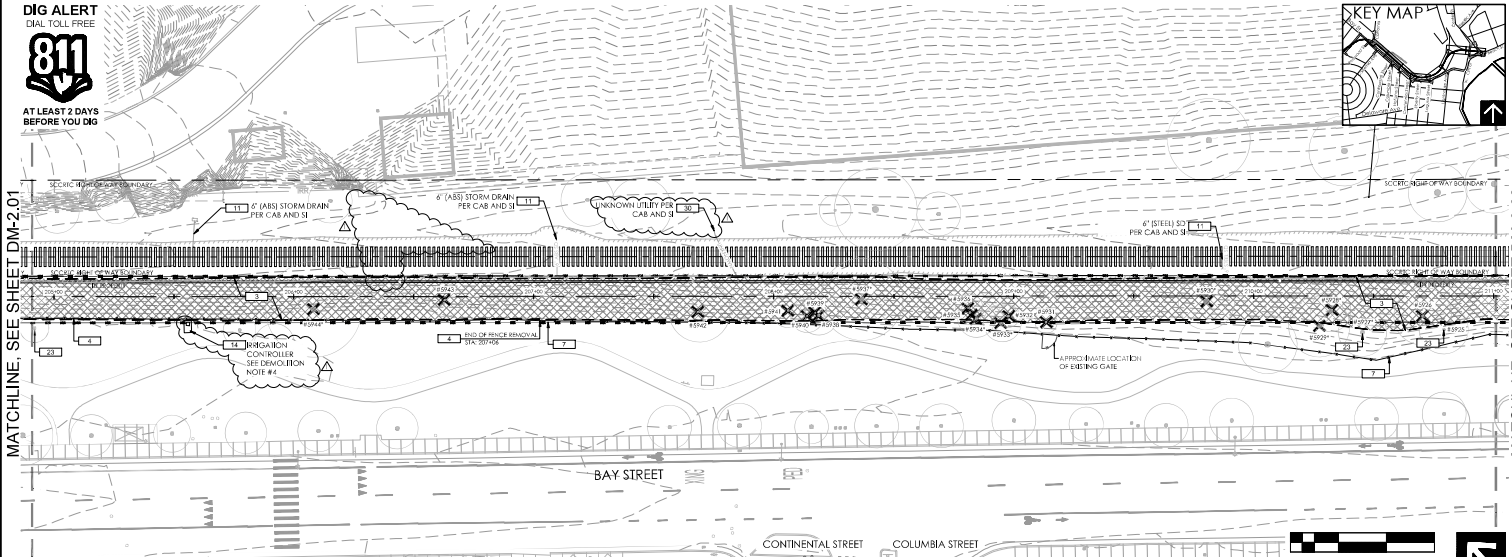
REFERENCES	DATE 1/28/22	SCALE AS SHOWN
FIELD BOOK:	DRAWN KS	CP-2.01
DRAWING #: CP-0193-01_PH2	DESIGN KS/MS	VAULT NO.
	CHECKED MS	7079B





MATCHLINE, SEE SHEET DM-2.01

MATCHLINE, SEE SHEET DM-2.03



#### KEYNOTE SCHEDULE

SYMBOL	DESCRIPTION
	PROTECT IN PLACE
	SALVAGE AND RESET PER OP SHEETS
	CLEAR AND GRUB
	REMOVE FENCE
	REMOVE EXISTING STRIPING
	PROTECT RAILROAD SIGNAL IN PLACE
	PROTECT FENCE IN PLACE
	REMOVE LANE SEPARATION SYSTEM
	SALVAGE AND RETURN TO OWNER
	REMOVE EXISTING DECOMPOSED GRANITE PATH
	PROTECT STORM DRAIN PIPE IN PLACE
	PROTECT GAS LINE IN PLACE
	PROTECT WATER LINE IN PLACE
	PROTECT UTILITY IN PLACE
	ADJUST MANHOLE RIM TO FINISH GRADE
	CONTRACTOR TO VERIFY UNKNOWN UTILITY
	PROTECT UTILITY VAULT IN PLACE
	PROTECT EXISTING LIGHT IN PLACE
	PROTECT EXISTING POSTS IN PLACE
	CONTRACTOR TO REMOVE EXISTING UTILITY AND ASSOCIATED LOCATION POSTS
	PROTECT SEWER LATERALS IN PLACE
	REMOVE IRRIGATION SYSTEM
	PROTECT TREE IN PLACE
	PROTECT SIGN IN PLACE
	REMOVE CONCRETE CURB & GUTTER AND BASE
	REMOVE CONCRETE SIDEWALK AND BASE
	URBAN FORESTER AND CONTRACTOR TO DETERMINE FEASIBILITY OF PROTECTING TREE IN PLACE IN FIELD
	PROTECT IN PLACE, IF NECESSARY FOR GRADING, HAND PRUNE ROOTS UNDER SUPERVISION OF URBAN FORESTER
	REMOVE EXISTING STORM DRAIN LINE
	CONTRACTOR TO LOCATE IN FIELD, PROTECT IN PLACE
	RELOCATED BY OTHERS
	CONTRACTOR TO REMOVE CONFLICTING PORTIONS NEEDED TO INSTALL PROPOSED STORM DRAIN AND WALL

#### DEMOLITION LEGEND

SYMBOL	DESCRIPTION
	EXISTING RAILROAD TRACKS
	RIGHT OF WAY
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	EXISTING TREE
	PROPOSED TRAIL STATION LINE
	REMOVE EXISTING DECOMPOSED GRANITE PATH

SYMBOL	DESCRIPTION
	EXISTING FENCE
	REMOVE TREE
	CLEAR AND GRUB
	LIMIT OF RAILROAD BALLAST
	CLEAR & GRUB & REMOVE IRRIGATION
	REMOVE CONCRETE SIDEWALK & BASE
	REMOVE CONCRETE CURB & GUTTER & BASE

#### DEMOLITION NOTES

- ALL EXISTING UTILITIES WERE PLOTTED FROM RECORD INFORMATION AND FIELD TOPOGRAPHY. ACTUAL LOCATIONS MAY VARY AND ADDITIONAL CROSSINGS MAY EXIST IN THE FIELD. IT IS IMPERATIVE THAT U.S.A. LOCATING SERVICES LOCATE AND MARK EXISTING UTILITIES PRIOR TO THE START OF EXCAVATION.
- THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN EXPOSING EXISTING UTILITY CROSSINGS AND SERVICES.
- ANY DAMAGE TO EXISTING UTILITIES WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR SHALL ENSURE IRRIGATION OUTSIDE OF REMOVAL AREA REMAINS OPERATIONAL.
- SEE RS-1.01 FOR TREE ACTION SCHEDULE.

	REMOVE HMA PAVING & BASE
	SAWCUT PAVEMENT

REVISIONS	
NO ADDENDUM #3	04/13/2022



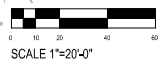
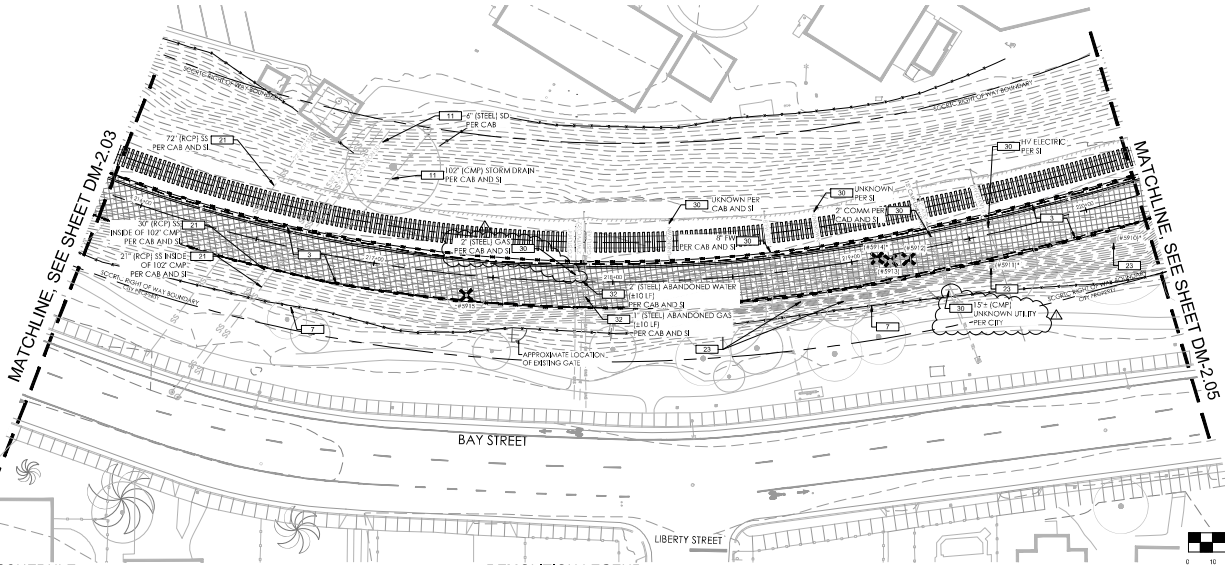
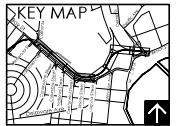
RAIL TRAIL SEGMENT 7 PHASE 2		DATE	1/28/22	SCALE	AS SHOWN
MULTI-USE TRAIL		DRAWN	AV	DM-2.02	
DEMOLITION PLAN		DESIGN	AV	VAULT NO.	
		CHECKED	DC	70798	

BID SET CONSTRUCTION DOCUMENTS - 1/28/22

DIG ALERT  
CALL TOLL FREE



AT LEAST 2 DAYS  
BEFORE YOU DIG



#### KEYNOTE SCHEDULE

ITEM NO.	DESCRIPTION
1	PROTECT IN PLACE
2	SALVAGE AND RESET PER OP SHEETS
3	CLEAR AND GRUB
4	REMOVE FENCE
5	REMOVE EXISTING STRIPING
6	PROTECT RAILROAD SIGNAL IN PLACE
7	PROTECT FENCE IN PLACE
8	REMOVE LANE SEPARATION SYSTEM
9	SALVAGE AND RETURN TO OWNER
10	REMOVE EXISTING DECOMPOSED GRANITE PATH
11	PROTECT STORM DRAIN PIPE IN PLACE
12	PROTECT GAS LINE IN PLACE
13	PROTECT WATER LINE IN PLACE
14	PROTECT UTILITY IN PLACE
15	ADJUST MANHOLE RIM TO FINISH GRADE
16	CONTRACTOR TO VERIFY UNKNOWN UTILITY
17	PROTECT UTILITY VAIL IN PLACE
18	PROTECT EXISTING LIGHT IN PLACE
19	PROTECT EXISTING POSTS IN PLACE
20	CONTRACTOR TO REMOVE EXISTING UTILITY AND ASSOCIATED LOCATION POSTS
21	PROTECT SEWER LATERALS IN PLACE
22	REMOVE IRRIGATION SYSTEM
23	PROTECT TREE IN PLACE
24	PROTECT SIGN IN PLACE
25	REMOVE CONCRETE CURB & GUTTER AND BASE
26	REMOVE CONCRETE SIDEWALK AND BASE
27	URBAN FORESTER AND CONTRACTOR TO DETERMINE FEASIBILITY OF PROTECTING TREE IN PLACE IN FIELD
28	PROTECT IN PLACE, IF NECESSARY FOR GRADING, HAND PRUNE ROOTS UNDER SUPERVISION OF URBAN FORESTER
29	REMOVE EXISTING STORM DRAIN LINE
30	CONTRACTOR TO LOCATE IN FIELD, PROTECT IN PLACE
31	RELOCATED BY OTHERS
32	CONTRACTOR TO REMOVE CONFLICTING PORTIONS NEEDED TO INSTALL PROPOSED STORM DRAIN AND WALL

#### DEMOLITION LEGEND

SYMBOL	DESCRIPTION
	EXISTING RAILROAD TRACKS
	RIGHT OF WAY
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	EXISTING TREE
	PROPOSED TRAIL STATION LINE
	REMOVE EXISTING DECOMPOSED GRANITE PATH

SYMBOL	DESCRIPTION
	EXISTING FENCE
	REMOVE TREE
	CLEAR AND GRUB
	LIMIT OF RAILROAD BALLAST
	CLEAR & GRUB & REMOVE IRRIGATION
	REMOVE CONCRETE SIDEWALK & BASE
	REMOVE CONCRETE CURB & GUTTER & BASE

#### DEMOLITION NOTES

- ALL EXISTING UTILITIES WERE PLOTTED FROM RECORD INFORMATION AND FIELD TOPOGRAPHY. ACTUAL LOCATIONS MAY VARY AND ADDITIONAL CROSSINGS MAY EXIST IN THE FIELD. IT IS IMPERATIVE THAT U.S.A. LOCATING SERVICES LOCATE AND MARK EXISTING UTILITIES PRIOR TO THE START OF EXCAVATION.
- THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN EXPOSING EXISTING UTILITY CROSSINGS AND SERVICES.
- ANY DAMAGE TO EXISTING UTILITIES WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR SHALL ENSURE IRRIGATION OUTSIDE OF REMOVAL AREA REMAINS OPERATIONAL.
- SEE RS-1.01 FOR TREE ACTION SCHEDULE.

	REMOVE HMA PAVING & BASE
	SAWCUT PAVEMENT



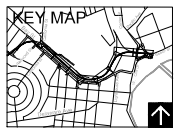
REVISIONS		
NO ADDENDUM #3	04/13/2022	



CITY OF  
**SANTA CRUZ**  
PUBLIC WORKS DEPARTMENT  
809 Center Street, Room 201  
Santa Cruz, CA 95060

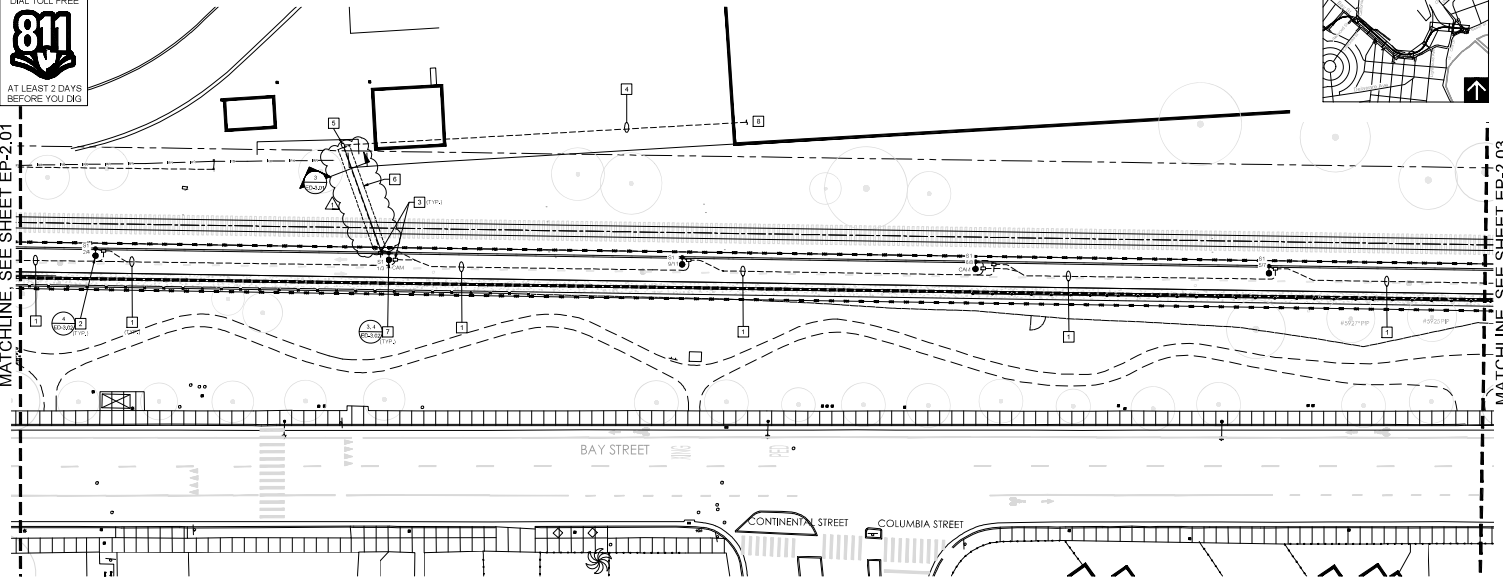
### RAIL TRAIL SEGMENT 7 PHASE 2 MULTI-USE TRAIL DEMOLITION PLAN

REFERENCES	DATE	SCALE
FIELD BOOK:	1/28/22	AS SHOWN
DRAWING # DM-2.04-14RC15.2	DRAWN AV	DM-2.04
CHECKED DC	DESIGN AV	VAULT NO. 70798



MATCHLINE SEE SHEET EP-2.01

MATCHLINE SEE SHEET EP-2.03



REFERENCE NOTES

1. PROVIDE NEW UNDERGROUND DUCTBANK WITH (3) 2" CONDUITS FOR LIGHTING CIRCUITS AND (3) 2" CONDUITS FOR FIBER OPTIC CABLES. SEE SINGLE LINE DIAGRAM FOR CONDUCTOR SIZE. (SHEET EP-1.02) AND CAMERA DIAGRAM FOR FIBER OPTIC CABLE REQUIREMENTS (SHEET EP-3.02).
2. PROVIDE TYPICAL POST LIGHT. REFER TO SHEET EP-3.02, DETAIL 4 FOR POST BASE DETAIL.
3. NOT FLUSH IN GRADE PULL BOXES (MIN. 18" DEEP). PROVIDE ONE PER POLE FOR LIGHTING. PROVIDE ONE EVERY OTHER POLE AS SHOWN FOR FIBER OPTIC CABLES. LABEL LIGHTING COVER "ELECTRICAL" AND FIBER OPTIC COVER "COMMUNICATIONS".
4. PROVIDE (2) 6 STRAND FIBER OPTIC CABLES IN (3) 2" FROM WASTE WATER TREATMENT PLANT ADMINISTRATION BUILDING. CLEAN (3) CONDUIT AS REQUIRED PRIOR TO INSTALLING CABLES. PROVIDE FIBER OPTIC TERMINAL TONG IN WASTE ADMINISTRATION BUILDING. COORDINATE WITH CITY REPRESENTATIVE FINAL TERMINATION LOCATION AND LENGTH OF RUN.
5. (E) U.S.G. CONCRETE PULL BOX.
6. PROVIDE (2) 2" FROM (E) U.S.G. PULL BOX TO (E) U.S.G. PULL BOX AT RAIL TRAIL. DIRECTIONAL DRILL UNDER RAILROAD TRACKS AND INSTALL EITHER (2) 2" OR INSTAL A MINIMUM OF (2) 2" INTERDUITS IN BORE CASING. COORDINATE LOCATION, DIRECTION AND LENGTH OF DIRECTIONAL DRILLING WITH CITY REPRESENTATIVE AND RAILROAD COMPANY. CONSTRUCT PER ADEAR REQUIREMENTS. CASING SHALL HAVE A MINIMUM GROUND COVER AND BE 2" (MINIMUM) GREATER THAN THE LARGEST OUTSIDE DIAMETER OF THE CASING PIPE.
7. PROVIDE TYPICAL POST LIGHT WITH CAMERA BOX AND TVD CAMERAS. SEE SHEET EP-3.02, DETAIL 3.
8. TRANSITION TO INDOOR RATED CABLE WITHIN THE FIRST 60' OF ENTERING THE ADMINISTRATION BUILDING AS PER CODE (IF REQUIRED).

(NOTE: ALL WORK SHOWN SHALL BE PROVIDED BY CONTRACTOR AS NEW UNLESS OTHERWISE NOTED)



REVISIONS	
BID ADDENDUM #3	04/13/2022



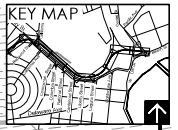
CITY OF  
**SANTACRUZ**  
PUBLIC WORKS DEPARTMENT  
809 Center Street, Room 201  
Santa Cruz, CA 95060

RAIL TRAIL SEGMENT 7 PHASE 2  
MULTI-USE TRAIL  
TRAIL LIGHTING SYSTEM

REFERENCES	
DATE	1/28/22
SCALE	1" = 20'
DRAWN	J. MINKEL
DESIGN	C. PATCHIN
CHECKED	J. DEAN
FIELD BOOK:	
DRAWING #	EP-2.02
VAULT NO.	7079B

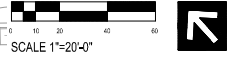
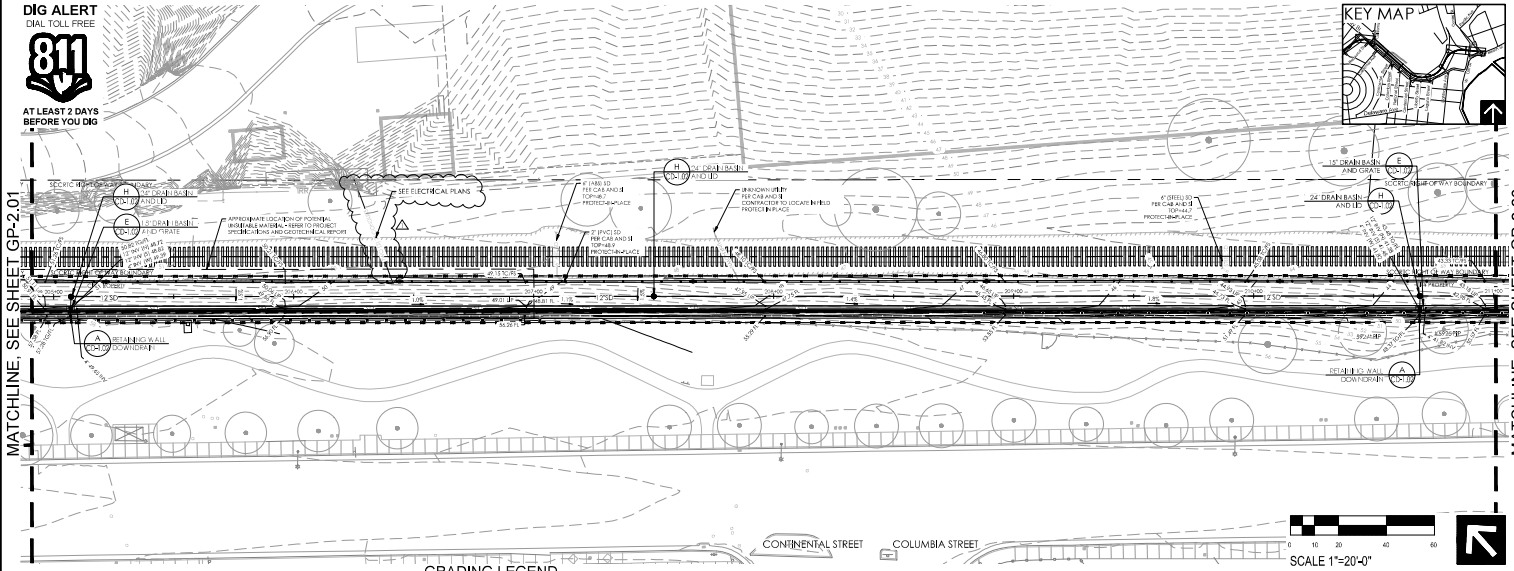
BID SET CONSTRUCTION DOCUMENTS - 1/28/22

DIG ALERT  
CALL TOLL FREE  
**811**  
AT LEAST 2 DAYS  
BEFORE YOU DIG



MATCHLINE, SEE SHEET GP-2.01

MATCHLINE, SEE SHEET GP-2.03



#### GRADING LEGEND

SYMBOL	DESCRIPTION
	EXISTING RAILROAD TRACKS
	RIGHT OF WAY
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	PROPOSED FENCE, SEE CP SHEETS

SYMBOL	DESCRIPTION
	EXISTING FENCE
	EXISTING TREE
	PROPOSED TRAIL CENTERLINE
	LIMIT OF EXISTING RAILROAD BALLAST
	LIMIT OF WORK
	PROPOSED RETAINING WALL, SEE WP SHEETS

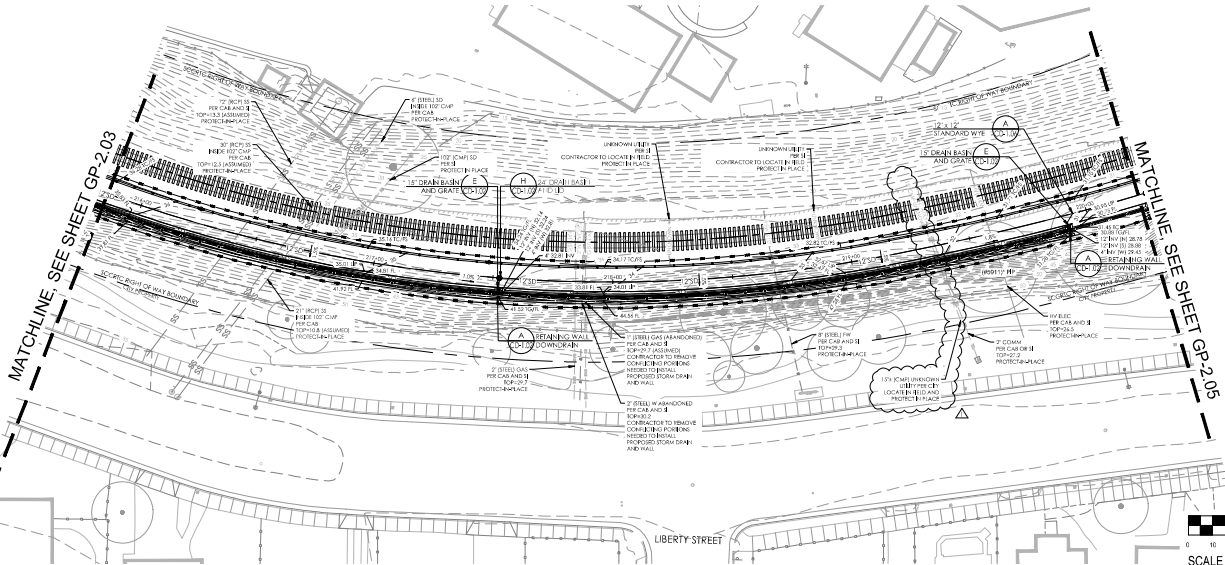
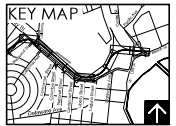


REVISIONS		
1	ADD: DRAINAGE	04/13/2022

 **CITY OF SANTA CRUZ**  
PUBLIC WORKS DEPARTMENT  
809 Center Street, Room 201  
Santa Cruz, CA 95060

### RAIL TRAIL SEGMENT 7 PHASE 2 MULTI-USE TRAIL GRADING PLAN

REFERENCES	DATE	SCALE
FIELD BOOK	1/28/22	AS SHOWN
DRAWING #	GP-2.02	
GP-2.01-RC15		
CHECKED	DC	70798



GRADING LEGEND

SYMBOL	DESCRIPTION
	EXISTING RAILROAD TRACKS
	RIGHT OF WAY
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	PROPOSED FENCE, SEE CP SHEETS

SYMBOL	DESCRIPTION
	EXISTING FENCE
	EXISTING TREE
	PROPOSED TRAIL CENTERLINE
	LIMIT OF EXISTING RAILROAD BALLAST
	LIMIT OF WORK
	PROPOSED RETAINING WALL, SEE WP SHEETS



REVISIONS		
1	ADD CUM #3	04/13/2022



RAIL TRAIL SEGMENT 7 PHASE 2  
MULTI-USE TRAIL  
GRADING PLAN

DATE	1/28/22	SCALE	AS SHOWN
DRAWN	AV		GP-2.04
DESIGN	AV		VAULT NO.
CHECKED	DC		70798



DIG ALERT

CALL TOLL FREE



AT LEAST 2 DAYS  
BEFORE YOU DIG

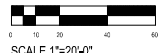
PHASE 2  
STATION 200+00 - 204+91

KEY MAP

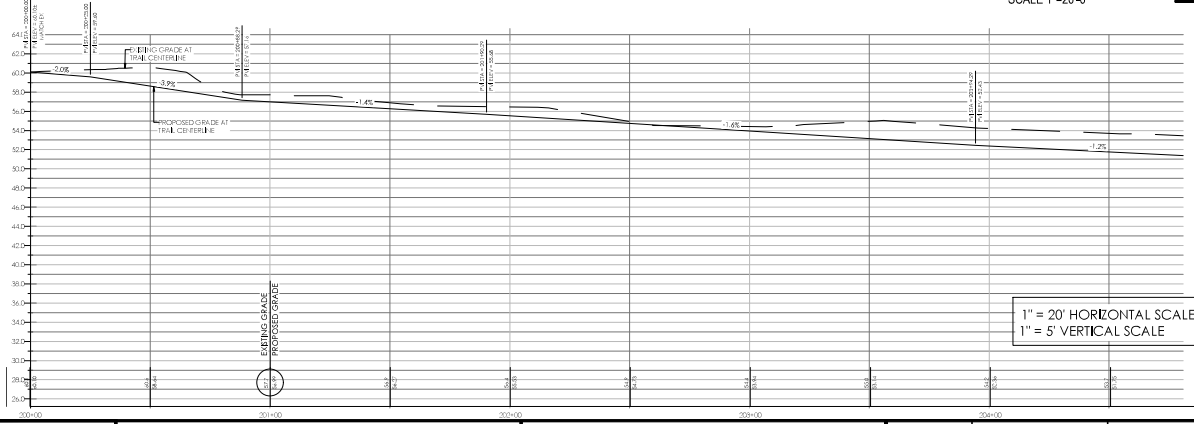


BEGIN PHASE 2  
STA 200+00.00

BAY STREET



SCALE 1"=20'-0"



1" = 20' HORIZONTAL SCALE  
1" = 5' VERTICAL SCALE



REVISIONS	
NO. ADDRESS #3	04/13/2022



RAIL TRAIL SEGMENT 7 PHASE 2  
MULTI-USE TRAIL  
PLAN AND PROFILE

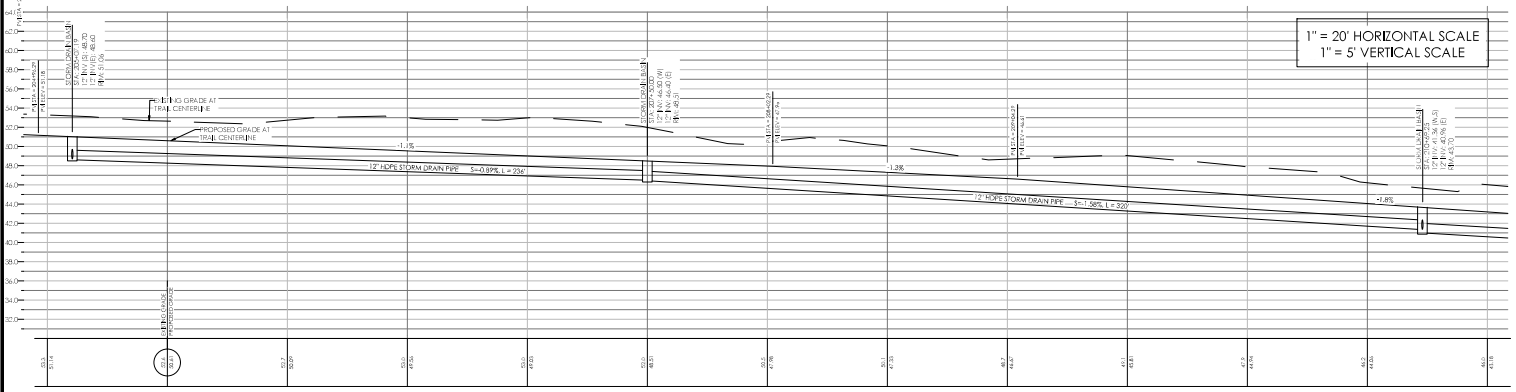
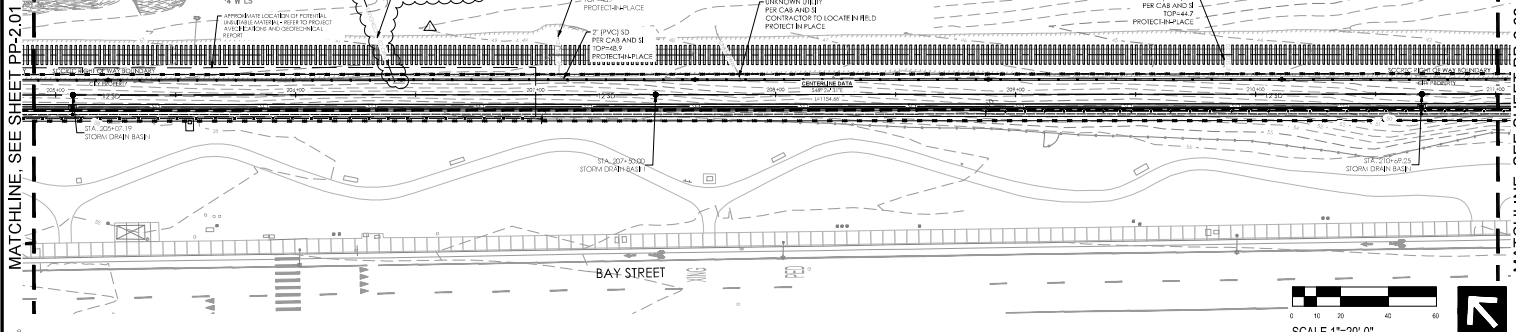
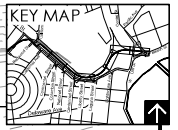
DATE	1/28/22	SCALE	AS SHOWN
DRAWN	AV		PP-2.01
DESIGN	AV		VAULT NO.
CHECKED	DC		70798

BID SET CONSTRUCTION DOCUMENTS - 1/28/22



AT LEAST 2 DAYS  
BEFORE YOU DIG

PHASE 2  
STATION 204+91 - 211+00



	<b>REVISIONS</b>		<b>CITY OF SANTA CRUZ</b> PUBLIC WORKS DEPARTMENT 809 Center Street, Room 201 Santa Cruz, CA 95060	<b>RAIL TRAIL SEGMENT 7 PHASE 2</b> <b>MULTI-USE TRAIL</b> PLAN AND PROFILE	REFERENCES	DATE	SCALE
					FIELD BOOK	1/28/22	AS SHOWN
					DRAWN	AV	PP-2.02
					DESIGN	AV	VAULT NO.
					DRAWING #	CHECKED	70798
					PP-015047-HC15_2	DC	

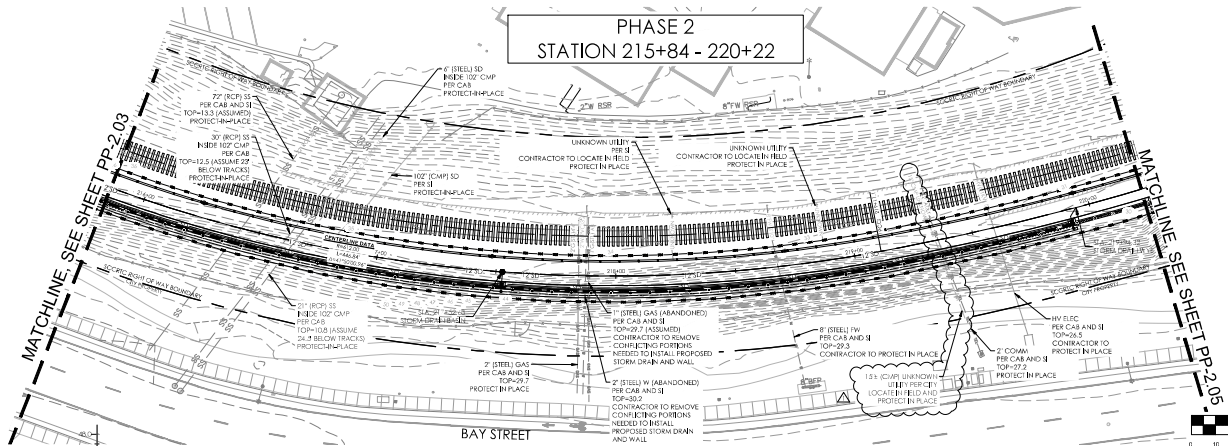
BID SET CONSTRUCTION DOCUMENTS - 1/28/22

DIG ALERT  
CALL TOLL FREE

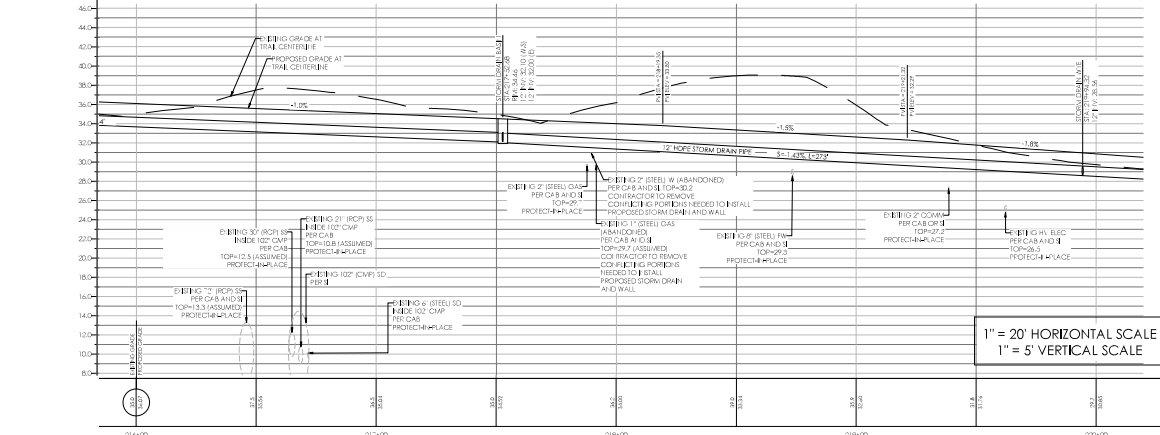


AT LEAST 2 DAYS  
BEFORE YOU DIG

PHASE 2  
STATION 215+84 - 220+22



SCALE 1"=20'-0"



1" = 20' HORIZONTAL SCALE  
1" = 5' VERTICAL SCALE



REVISIONS		
NO ADDENDUM #3	04/13/2022	

CITY OF  
**SANTA CRUZ**  
PUBLIC WORKS DEPARTMENT  
809 Center Street, Room 201  
Santa Cruz, CA 95060

RAIL TRAIL SEGMENT 7 PHASE 2  
MULTI-USE TRAIL  
PLAN AND PROFILE

DATE	1/28/22	SCALE	AS SHOWN
DRAWN	AV		PP-2.04
DESIGN	AV	VAULT NO.	70798
CHECKED	DC		

BID SET CONSTRUCTION DOCUMENTS - 1/28/22

# DIG ALERT

CALL TOLL FREE



AT LEAST 2 DAYS  
BEFORE YOU DIG

Point Totals			
Point #	Row Description	Normaling	Existing
9	FENCE	1812408.3447	6113648.2154
65	DC	1812865.6192	6115130.8728
1	CURB	1812870.5509	6115105.7297
2	SD	1812881.8417	6115105.7210
3	CURB	1812870.4560	6115104.6286
4	CURB	1812867.9578	6115147.5401
5	CURB	1812856.4395	6115138.3208
6	CURB	1812848.6189	6115149.1913
7	CURB	1812841.0040	6115147.6700
8	FENCE	1812821.1190	6115180.2907
10	FENCE	1812887.8626	6115178.6488
11	FENCE	1812443.7191	6115178.6786
12	CURB	1812407.1175	6115337.5527
13	PAD	1812608.3990	6116122.8039
14	PAD	1812610.3755	6116297.4085
15	PAD	1812603.7154	6116096.5900
16	PAD	1812617.7852	6116129.6597
17	PAD	1812622.2749	6116149.0870
18	DC	1812740.3947	6116298.0793
19	DC	1812746.4603	6116341.1319
20	DC	1812762.9190	6116171.2653
21	DC	1812768.3802	6116169.9910
22	DC	1812780.4492	6116170.7081
23	DC	1812784.0810	6116185.3301
24	DC	1812747.3438	6116172.6957
25	DC	1812750.6999	6116179.0565
26	DC	1812859.6027	6116157.2570
27	DC	1812868.4238	6116162.7610
28	FENCE	1812610.3946	6116190.2773
29	DC	1812758.0444	6116167.0292
30	CURB	1812761.0120	6116163.6084
31	DC	1812761.1183	6116162.6922
32	DC	1812855.6510	6116162.1036
33	CURB	1812850.2932	6116204.3800
34	DC	1812855.5529	6116166.7210
35	DC	1812860.7197	6116166.3225
36	SCWH	1812619.2354	6116167.2275
37	SCWH	1812633.3233	6116168.7219
38	SCWH	1812869.6524	6116166.5027
39	CURB	1812717.4460	6116228.5163
40	SCWH	1812820.9099	6116132.4292
41	CURB	1812863.3675	6116238.4455
42	CURB	1812454.4249	6116238.8094
43	ROLLARD	1812628.7800	6116290.0187
44	ROLLARD	1812627.9466	6116297.3709
45	ROLLARD	1812615.1433	6116194.2408
46	ROLLARD	1812615.8946	6116186.2782
47	ROLLARD	1812616.6191	6116178.3111
48	ROLLARD	1812617.3433	6116170.3491
49	ROLLARD	1812618.0675	6116162.3767
50	SD	1812627.9155	6116154.9970
51	SP	1812610.0230	6116283.6131
52	CURB	1812618.4545	6116283.4287
53	TRAIL	1812610.0840	6116296.8130
54	SD	1812867.6025	6116107.7651

Point Totals			
Point #	Row Description	Normaling	Existing
55	CURB	1812868.6175	6116097.8036
56	CURB	1812865.7261	6116096.6887
57	SD	1812867.9457	6116103.4280
58	CURB	1812827.4999	6116188.3781
59	SD	1812827.0415	6116188.4048
60	SD	1812616.2172	6116155.9173
61	SD	1812591.7798	6116087.8532
62	SD	1812468.4478	6116447.4809
63	STEEL CASING	1812854.0715	6116187.6385
64	STEEL CASING	1812859.9327	6116187.7460
65	PPE SLEEVE	1812864.0090	6116119.9278
67	PPE SLEEVE	1812866.1992	6116151.9160
68	PPE SLEEVE	1812866.4794	6116149.9580
69	PPE SLEEVE	1812864.3995	6116153.3483
70	PPE SLEEVE	1812858.0830	6116153.2766
71	PPE SLEEVE	1812814.9197	6116188.0864
72	PPE SLEEVE	1812823.3299	6116119.1161
73	PPE SLEEVE	1812823.3299	6116164.0037
74	PPE SLEEVE	1812823.1562	6116166.0000

**CITY OF SANTA CRUZ**  
PUBLIC WORKS DEPARTMENT  
809 Center Street, Room 201  
Santa Cruz, CA 95060

**RAIL TRAIL SEGMENT 7 PHASE 2**  
**MULTI-USE TRAIL**  
PLAN AND PROFILE

**REVISIONS**

NO ADDENDUM #3	04/13/2022
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**REFERENCES**

FIELD BOOK:

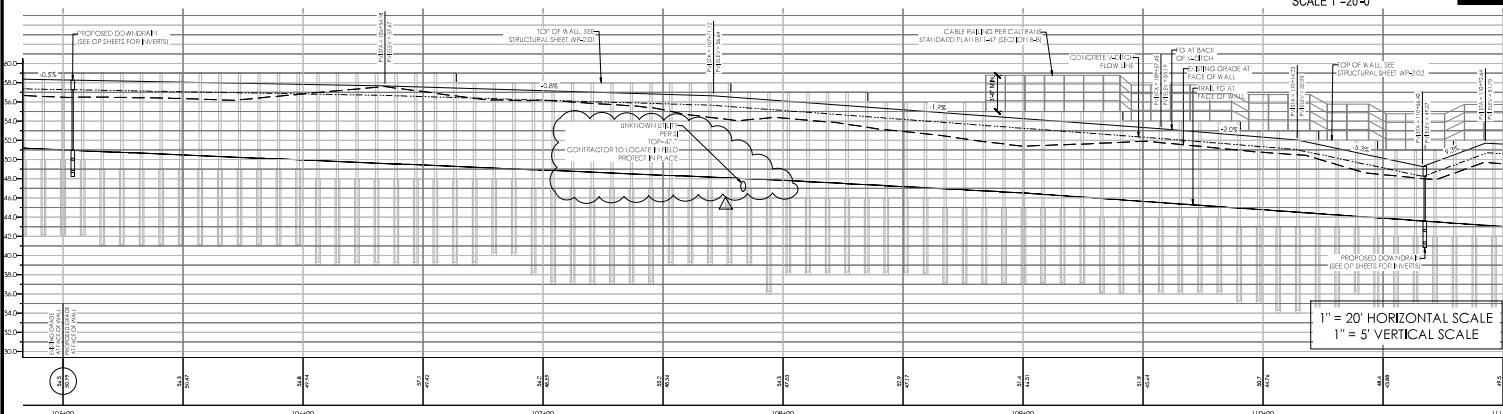
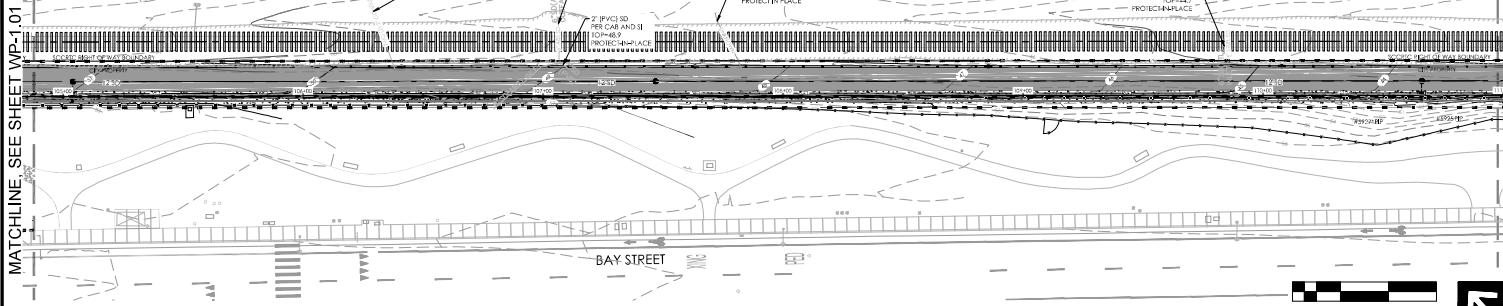
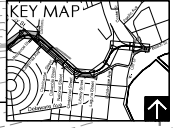
DRAWING #:  
PP-01504-HR015\_2

DATE	1/28/22	SCALE	AS SHOWN
DRAWN	AV		PP-2.09
DESIGN	AV		VAULT NO.
CHECKED	DC		70798



AT LEAST 2 DAYS BEFORE YOU DIG

# RETAINING WALL STATION 104+87 - 110+97



SCALE 1"=20'-0"

1" = 20' HORIZONTAL SCALE  
1" = 5' VERTICAL SCALE



REVISIONS		
NO ADDENDUM #3	04/13/2022	

CITY OF  
**SANTACRUZ**  
PUBLIC WORKS DEPARTMENT  
809 Center Street, Room 201  
Santa Cruz, CA 95060

## RAIL TRAIL SEGMENT 7 PHASE 2 MULTI-USE TRAIL CIVIL RETAINING WALL PLAN AND PROFILE

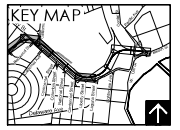
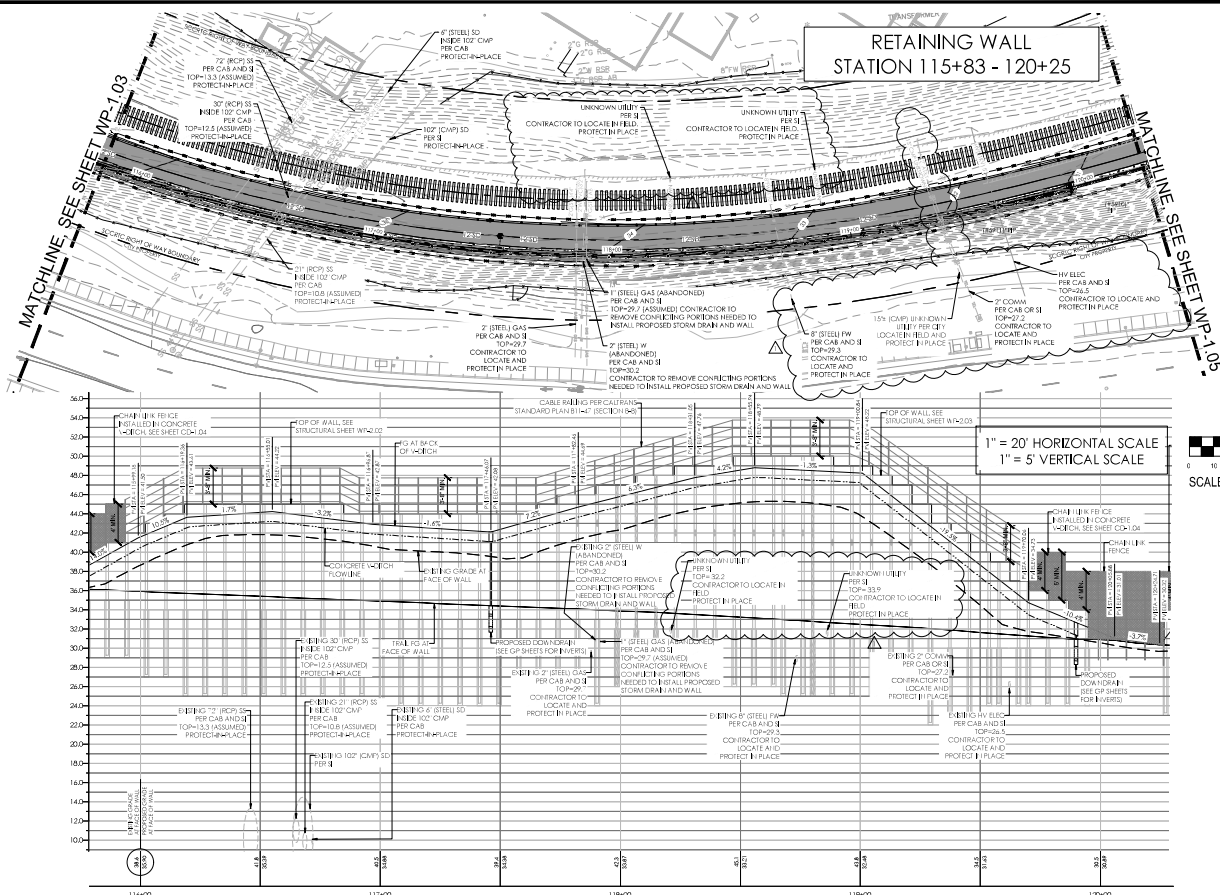
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DRAWN	AV		WP-1,02
DESIGN	AV		VAULT NO.
CHECKED	DC		70798

BID SET CONSTRUCTION DOCUMENTS - 1/28/22

DIG ALERT  
CALL TOLL FREE



AT LEAST 2 DAYS  
BEFORE YOU DIG



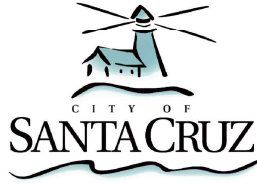
REVISIONS	
NO ADDENDUM #3	04/13/2022

CITY OF  
**SANTA CRUZ**  
PUBLIC WORKS DEPARTMENT  
809 Center Street, Room 201  
Santa Cruz, CA 95060

**RAIL TRAIL SEGMENT 7 PHASE 2**  
**MULTI-USE TRAIL**  
CIVIL RETAINING WALL PLAN AND PROFILE

DATE	1/28/22	SCALE	AS SHOWN
DRAWN	AV		WP-1,04
DESIGN	AV		VAULT NO.
CHECKED	DC		70798

BID SET CONSTRUCTION DOCUMENTS - 1/28/22



PUBLIC WORKS DEPARTMENT

809 Center Street, Room 201, Santa Cruz CA 95060 • 831 420-5160 • Fax: 831 420-5161

**RAIL TRAIL SEGMENT 7 – PHASE 2 PROJECT  
(CITY PROJECT NUMBER: c401413,  
STATE PROJECT NO. ATPSB1L-5025(080))**

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**QUESTIONS SUBMITTED BY POTENTIAL BIDDERS:**

1. Which items of work will the contingency amount be applied to during construction?

**Response:** Contingency amount could be used to pay for additional quantities of any contract items and/or for extra work/change orders.

2. What is the expected Notice to Proceed date?

**Response:** TBD.

3. We request to extend the bid date and last day of questions by 1 week to give some more time to study plans, various reports and work out the logistics of this complex project.

**Response:** Last day to receive questions has been extended to April 5, 2022.

4. Please provide tabulated data showing elevations for drilled hole bottom, drilled hole top, SS pile top. Also, number of laggings and type of lagging (4x12 or 6x12) between adjacent piles.

**Response:** The elevations requested can be read directly from the wall profiles on the WP Sheets because the elevations align with the horizontal gridlines provided for that purpose. The horizontal gridlines are given in 1 foot increments and appear on the left hand side of the profiles with corresponding elevations given at 2 foot increments. Pier depths shown on the wall profiles must be confirmed against the pier depth listed on the schedule(s) provided on sheet WD-1.00. Number of lagging members can also be read from the wall profiles since the 1 foot gridlines represent the individual lagging members. Refer to General Design Notes, Sheet WD-1.00, item “Structural Timber” for the type of lagging.

5. Which locations do the 6x12 laggings get installed and where do the 4x12s get installed?



**Response:** Refer to General Design Notes, Sheet WD-1.00, item “Structural Timber” for the type of lagging required for various height walls. (4X12 lagging full height, typical, for walls retaining 6 feet and less. 6X12 lagging full height, typical, for walls retaining more than 6 feet).

6. The quantity of Drilled Hole bid item appears to be computed from top of the concrete backfill instead of top of existing ground? Please clarify and revise the quantity.

**Response:** Quantity of 3,320 LF for Revise Item #62 24" Drilled Hole (Solider Pile) assumes measurement from top of concrete backfill. For measurement from top of existing ground, revise Item #62 24" Drilled Hole (Solider Pile) quantity from 3,320 LF to 6,246 LF.

7. How many hours or days of rail flagging should be considered by the Bidders?

**Response:** Allowance item for rail-related flagging costs have been added to the bid schedule in Addendum 3.

8. Please confirm if parking lot at the end of the project can be used for staging.

**Response:** Parking lot at the end of the project, parking lot number 18, can be used for staging at no cost to the contractor. Contractor is responsible to repair any damages happening to the parking lot during the staging time. Parking lot shall be returned to the City at its original condition or better.

9. Please confirm if the city will repair the irrigation lines damaged in the park due to construction.

**Response:** City will not repair irrigation lines damaged by the contractor in the park due construction. Contractor is responsible to cut and cap existing lines at the construction limits of work shown in the plans, sheet DM-2.01, and in Technical Specifications Section 20. City will install new irrigation system, after the project is complete, only in the areas shown on sheet CP-2.01.

10. It appears the construction of this project might need removal of some irrigation lines by the park. Which bid item will this cost be paid under?

**Response:** Bid item number 22.

11. Regarding Bid Item 22 - Remove Irrigation. How will this be measured and paid by the Square Foot?

**Response:** Measured and paid for per square foot – refer to areas for “Remove Irrigation” shown on the demo plan CD-2.01.

12. Regarding Bid Item 37 - Import Fill. How will this be measured and paid?



**Response:** Measurement method is described in standard section 19-7.04.

13. Regarding Bid Item 38 - Roadway Excavation. How will this be measured and paid?

**Response:** Measurement is described in special provisions section 19-2.04 and there is clarification of excavation type measurement limits in special provisions section 19-3.04 (to distinguish structural excavation from roadway excavation). Addendum 3 provides further clarification on limits of excavation.

14. Regarding Bid Item 63 - Clean and Paint Structural Steel. Specify the surfaces of the Steel Pile that will be painted. Specify the Surface Preparation, Primer and Paint that will be required. How many Finish Coats are required? How will this Item be measured and paid by the Square Foot?

**Response:** Refer to Standard Specifications Section 59-2.02 and Special Provisions for the coating requirements you requested. Per Standard Specifications, undercoat the entire solid pile. Per Special Provisions, finish coat exposed surface(s) of solid piles. Units of payment are square foot as defined in the bid schedule under item number #63.

15. Will the City be responsible for soils density testing and observation?

**Response:** Yes, the City will be responsible for quality assurance soil density testing and observation. Contractor must perform quality control testing required by the Contract Documents.

16. Will the apparent Low Bidder be determined by the Base Bid only or the Sum of the Base Bid and the Bid alternate?

**Response:** Base Bid only.

17. Please clarify what bid item is to carry the cost of the concrete encasement of the tiebacks as shown for the Type 3 retaining wall.

**Response:** The encasement is paid via GROUND ANCHOR (SUBHORIZONTAL).

18. Plan Sheet WP-2.02 graphically indicates down drains between Pile 179 & 180 and between Pile 200 & 201, however there is no call out for them as there are for the other down drains. Please clarify.

**Response:** Down drain locations are per GP sheets. The call outs for down drains on WP sheets are typical and for reference only, so and they do not have to point out every down drain.

19. Please clarify a call out on Sheet CP-2.08 – it appears that that the call out for the HMA Street Section (Public Street) (A/CD-1.01) is directed at the trail section in lieu of the parking lot widening as indicated on other drawings.

**Response:** The call out should be pointing the parking lot area per Trail Section 239+00 on Sheet CD-3.06.

20. Please provide locations for contractor staging area.

**Response:** Locations for contractor staging areas are shown in map posted on ebidboard.

21. Please provide diagram showing pay limits for Roadway Excavation and Structure Excavation.

**Response:** Refer to bid documents and addendums for pay limits.

22. Will the City Team prune roots greater than 2" diameter? If not, can we have an allowance carried in the bid items for the same.

**Response:** City team will not prune roots. There will not be an allowance carried in the bid items for the same.

23. Please confirm if the Subcontractors need to carry insurances as per all the requirements applicable to the General Contractor. Usually the Subs carry lower Insurance limits, and these limits may exclude many subcontractors from participating.

**Response:** The Subcontractors shall maintain insurance meeting all the requirements stated on the insurance requirements.

24. Is Roaring Camp the only entity using the tracks, and are there any freight trains in addition to the passenger trains listed? And is the ROE/ROW document from Progressive the only agreement the contractor will need to sign?

**Response:** Roaring Camp is the only entity using the tracks. ROE/ROW document from Progressive is the only agreement, regarding railroad, the contractor will need to sign.

25. What is the extent/height of steel coating and finish for steel soldier pile?

**Response:** Refer to Standard Specifications Section 59-2.02 and Special Provisions for the coating requirements you requested. Per Standard Specifications, undercoat the entire soldier pile. Per Special Provisions, finish coat exposed surface(s) of soldier piles. Units of payment are square foot as defined in the bid schedule under item number #63.

26. Please provide cross sections at every 50' along the length of the project.

**Response:** Refer to sections, profiles, and other vertical and horizontal information provided in the bid documents. CAD files (including Civil 3D surfaces) can be provided to contractor upon request and with authorization from City.

27. Please confirm the Railroad insurance limits of \$2M Occurrence and \$4M Aggregate. The standard is typically \$2M/\$6M.

**Response:** The Railroad insurance limits shall be \$2M per occurrence and \$6M in the aggregate.

28. Please provide a new Bid Bond as the old bid date is listed on the current one.

**Response:** Updated Bid Bond Form will be attached to addendum number 3.

29. Was the chain link fence items intended to be SF instead of LF?

**Response:** Chain link fence intended to be SF as shown in bid items. Chain link fence varies in height, therefore SF is used instead of LF.

30. I noticed in the specs, there was not a full section for the fiber. Can you please issue the spec section? Missing preferred manufacturer, pre-terminated or not, and testing requirements. To be more specific, the specs are missing section 87-19.

**Response:** Refer to Caltrans Standard Specifications and RSS (publicly available) as noted in the Front End Specifications for technical specs not included in the bid documents.

31. Please provide specifications for Minor Concrete (strength requirement, weight of cement, etc.)

**Response:** Refer to Caltrans Standard Specifications (publicly available) as noted in the Front End Specifications for technical specs not included in the bid documents.

32. If work is stopped due to protected species discovery, will an extension be added to the project calendar equal to the stoppage?

**Response:** City might consider extending the construction working days depending on the situation. That will be determined if such an occurrence is encountered in the field.

33. Can the city provide the space for Resident Engineer's Office / Trailer? Staging area is too small to accommodate materials, parking, resident engineer's office.

**Response:** City will not provide space for Resident Engineer's Office. The Contractor is responsible for securing suitable office space for the Resident Engineer's office.

34. Where on the project site is the Import Fill item anticipated? Is there an import fill of 2' under the entire trail?

**Response:** 2' of new native fill to be imported and replace below the new Rail Trail, to replace the contaminated soil, if needed based on finish grades. Roadway Excavation is clarified in Addendum No. 3 to identify where 2' excavation occurs.

35. Page 21, Section 19-1.01B mentions roadway excavation (contaminated) requires removal to 2 feet below finished grade. Please clarify if it is 2 feet below the new subgrade or 2' below the finished surface?

**Response:** Roadway excavation (contaminated) includes removal and disposal of the top 2 feet of existing earth within the entire trail prism. In areas to receive pavement, the exposed excavated surface of either subgrade or the top 2 feet of removal, whichever is deeper, must be scarified as described. Addendum no. 3 will make this clarification.

36. Page 21, Section 19-1.01B mentions roadway excavation (contaminated) requires removal to 2 feet below finished grade. Page 23, Section 19-2.03S mentions: for trail and concrete paving : excavate to subgrade and scarify excavation to minimum 8 inch where unsuitable material is shown or ordered to be removed. These 2 sections are contradicting. Please confirm if the contractor will need to excavate and remove roadway excavation (contaminated) 2 feet below finished grade at all trail and concrete paving areas.

**Response:** In addition to earthwork as required to install the trail, roadway excavation (contaminated) includes removal and disposal of the top 2 feet of existing earth within the entire trail prism. In areas to receive pavement, the exposed excavated surface of either subgrade or the top 2 feet of removal, whichever is deeper, must be scarified as described. Addendum no. 3 will make this clarification.

37. What does (Level), (2:1), (1.5:1) refer to from Sheet 68 through 72?

**Response:** References are to wall types and details - see sheets WD-1.00, WD-1.01. The # refers to Wall Type (1, 2, 3) and the letter refers to the schedule (A, B, C, D, etc.).

38. What is the difference between Wall Type 1A, 1B, 1C, 1D, 2A, 2B, 2C, 2D and 3? What is the classification criteria for A, B, C, D?

**Response:** References are to wall types and details - see sheets WD-1.00, WD-1.01. The # refers to Wall Type (1, 2, 3) and the letter refers to the schedule (A, B, C, D, etc.).

39. Will the city arrange and pay for the soil testing described in the Soil Management Plan? Also, will the city prepare the final SMP report and pay for the wet stamp from a Professional Geologist or Professional Engineer?

**Response:** The contractor is responsible for arranging and paying for the soil stockpiling testing as described in the Soil Management Plan. The City will prepare the final SMP report and pay for the wet stamp from a Professional Geologist or Professional Engineer.

40. Is the contaminated roadway excavation classified as Class 1, 2 or 3? Will it be considered hazardous for disposal purposes?

**Response:** Roadway excavation is considered "contaminated", not "hazardous" for disposal purposes.

41. What location are salvaged items for the City like Bollards Bid Item 25 to be taken to? 15-1.03C mentions the Owner's property adjacent to the project. What is the address?

**Response:** City of Santa Cruz Corporation Yard, 1125 River Street, Santa Cruz, CA 95060.

42. Please clarify extent of hydroseed locations. A small amount is shown on GP-2.06 and GP2.07. But this does not match up with the quantity for Basis of Bid.

**Response:** Hydroseeding is assumed to occur on graded slopes and potentially disturbed slopes between proposed wall and existing fences and/or SCCRTC ROW.

43. Is utility location paid per pothole? Please clarify.

**Response:** Utility location will be paid per pothole. Further clarification will be provided in Addendum No. 3.