SPECIAL PROVISIONS

FOR

CITY OF SAN LUIS OBISPO

Laguna Lake Dog Park Revitalization

Specification No. 2001068

April 2023

PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

919 Palm Street
San Luis Obispo, CA 93401
(805) 781-7200

Laguna Lake Dog Park Revitalization

Specification No. 2001068

Approval Date: April 2, 2024

April XX, 2024

12/18/2023

12/18/2023

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NOTICE TO BIDDERS
BID SUBMISSION

Sealed bids will be received by the City of San Luis Obispo at the Public Works Administration Office located at 919 Palm Street, San Luis Obispo, California 93401, until

11:00 a.m. on May 25th, 2024

at which time they will be publicly opened and read aloud. Public bid opening may also be viewed via Microsoft Teams video conference and conference call. In person attendance will be permitted. Use the following link:

or join by phone with this number: (209) 645-4165 with Conference ID:XXXXXXXX

Submit bid in a sealed envelope plainly marked:

Laguna Lake Dog Park Revitalization, Specification No. 2001068

Any bid received after the time and date specified will not be considered and will be returned to the bidder unopened. Bids received by Fax or Email will not be considered.

By submission of bid you agree to comply with all instructions and requirements in this notice and the contract documents.

All bids must be submitted on the Bid Item List form(s) provided and submitted with all other Bid Forms included in these Special Provisions.

Each bid must be accompanied by either a:

1. certified check
2. cashier's check
3. bidder's bond

made payable to the City of San Luis Obispo for an amount equal to ten percent of the bid amount as a guaranty. Guaranty will be forfeited to the City San Luis Obispo if the bidder, to whom the contract is awarded, fails to enter into the contract.

The City of San Luis Obispo reserves the right to accept or reject any or all bids or waive any informality in a bid.

All bids are to be compared based on the City Engineer's estimate of the quantities of work to be done, as shown on the Bid Item List.

Bids will only be accepted from bidders that are licensed in compliance with the provisions of Chapter 9, Division III of Business and Professions Code.

The award of the contract, if awarded, will be to the lowest responsive base plus additive alternate bid submitted by a responsible contractor whose bid complies with the

requirements prescribed. If the contract is awarded, the contract will be awarded within 60 calendar days after the opening of the bids.

Failure to raise defects in the notice to bidders or bid forms prior to bid opening constitutes a waiver of those defects.

BID DOCUMENTS

A copy of the plans and special provisions may be downloaded, free of charge, from the City's website at:

www.slocity.org/government/department-directory/public-works/public-works-bids-proposals

No printed copies are available for purchase at the City office.

Standard Specifications and Engineering Standards referenced in the Special Provisions may be downloaded, free of charge, from the City's website at:

www.slocity.org/government/department-directory/public-works/documents-online/construction-documents

You are responsible to obtain all issued addenda prior to bid opening. Addenda will be available to download at the City's website listed above or at the office of the City Engineer.

Questions must be submitted through BidSync so that it is available to the public. Contact the project manager, Erica Long at (805) 783-7758 or the Public Works Department at (805) 781-7200 prior to bid opening to verify the number of addenda issued.

You are responsible to verify your contact information is correct on the plan holders list located on the City's website at:

www.slocity.org/government/department-directory/public-works/public-works-bids-proposals.

PROJECT INFORMATION

In general, the project includes the revitalization of the Laguna Lake Dog Park which includes the installation of a new perimeter fence, a variety of new site furnishings and civil improvements as shown on the plans.

The project estimated construction cost and contract time established for the project is as follows:

BASE BID:	$850,000	80 working days
ADDITIVE ALTERNATIVE A:	$230,000	20 working days

ADDITIVE ALTERNATIVE B: $50,000 20 working days
TOTAL PROJECT BID (BASE BID + ADD ALT. “A” + ADD ALT “B”): $1,130,000

Base Bid contract time is established as 80 working days. Award of Additive Alternative “A” will add an additional 20 working days to the contract length. Award of Additive Alternative “B” will add an additional 20 working days to the contract length, for a total contract time is established as 120 working days.

The fixed liquidated damages amount is established at $500 per day for failure to complete the work within the contract time.

In compliance with section 1773 of the Labor Code, the State of California Department of Industrial Relations has established prevailing hourly wage rates for each type of workman. Current wage rates may be obtained from the Division of Labor at:

https://www.dir.ca.gov/oprl/DPreWageDetermination.htm

This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

QUALIFICATIONS

You must possess a valid Class A Contractor's License at the time of the bid opening.

You and any subcontractors required to pay prevailing wage must be registered with the Department of Industrial Relations pursuant to Section 1725.5 of the Labor Code.

You must have experience constructing projects similar to the work specified for this project. Provide three similar reference projects completed as either the prime or subcontractor. All referenced projects must have been completed within the last five years from this project’s bid opening date.

One of the three reference projects must have been completed under contract with a city, county, state or federal government agency as the prime contractor.

Failure to provide reference projects as specified in this section and as required on the qualification form is cause to reject a bid as being non-responsive.

The City reserves the right to reject any bid based on non-responsiveness if a bidder fails to provide a bid that complies with all bidding instructions.

The City reserves the right to reject a responsive bid based on the non-responsibility of the bidder if the Director of Public Works or Designee finds, after providing notice and a hearing to the bidder, that the bidder lacks the

1. knowledge
2. experience,

3. or is otherwise not responsible

as defined in Section 3.24 of the San Luis Obispo Municipal Code to complete the project in the best interest of the City.

Rejected bidders may appeal this determination. Appeal must comply with the requirements in this Notice to Bidders.

It is the City of San Luis Obispo's intent to award the contract to the lowest responsive bid submitted by a responsible bidder. If in the bidder's opinion the contract has been or may be improperly awarded, the bidder may protest the contract award.

Protests must be filed no later than five working days after either:

1. bid opening date
2. notification of rejected bid.

Protest must be in writing and received by the project manager located at:

919 Palm Street
San Luis Obispo, CA 93401.

Valid protests must contain the following information:

1. the reasons for the protest
2. any supporting documentation
3. the ruling expected by the City to remedy the protest.

Any protest not containing all required information will be deemed invalid and rejected.

The City will consider additional documentation or other supporting information regarding the protest if submitted in compliance to the specified time limits. Anything submitted after the specified time limit will be rejected and not be considered.

The Director of Public Works or Designee may request additional information to be submitted within three days of the request, unless otherwise specified, and will notify the protester of ruling within ten days of determination.

If the protester is not satisfied with ruling, the protester may appeal the ruling to the City Council in compliance with Chapter 1.20 of the City of San Luis Obispo Municipal Code.

Pursuant to the Public Records Act (Government Code, § 6250, et seq.), the City will make public records available upon request.

AWARD

The lowest bidder will be determined in compliance with Public Contract Code Section 20103.8(c) with a Publicly Disclosed Funding Amount of $1,130,000 using the total base bid plus the additive alternate "A" and additive alternate "B" bid.

- TOTAL PROJECT BID, if bid for Base Bid + Add. Alt. "A" + Add. Alt. "B" is less than $1,130,000; or

- BASE BID + ADD. ALT. “A”, if bid for Base Bid + Add. Alt. “A” is less than $1,130,000 and Total Project Bid is greater than $1,130,000; or
- BASE BID, if Base Bid is less than $1,130,000 and Base Bid + Add. Alt. “A”. is greater than $1,130,000.

As a condition to executing a contract with the City, two bonds each equal to one hundred percent of the total contract price are required in compliance with Section 3-1.05 of the Standard Specifications.

You may substitute securities for moneys withheld under the contract in compliance with the provisions of the Public Contract Code, Section 10263.

ACCOMMODATION

If any accommodations are needed to participate in the bid process, please contact Ellen Boyle at (805) 781-7274 or by Telecommunications Device for the Deaf at (805) 781-7107. Requests should be made as early as possible in the bidding process to allow time for accommodation.

BID FORMS

All bid forms must be completed and submitted with your bid. Failure to submit these forms and required bid bond is cause to reject the bid as nonresponsive. Staple all bid forms together.

THE UNDERSIGNED, agrees that they have carefully examined:

1. the location of the proposed work
2. the plans and specifications
3. read the accompanying instructions to bidders

and propose to furnish all:

4. materials
5. labor

to complete all the required work satisfactorily in compliance with

6. plans
7. specifications
8. special provisions

for the prices set forth in the bid item list:

BID ITEM LIST FOR LAGUNA LAKE DOG PARK REVITALIZATION, SPECIFICATION NO. 2001068

Item No.	$SS_{(1)}$	Item Description	Unit of Measure	Estimated Quantity	Item Price (in figures)	Total (in figures)
1	5	CONSTRUCTION SURVEY	LS	1	---	
2	13	WATER POLLUTION / EROSION CONTROL	LS	1	---	
3	15	REMOVE BENCH & CONCRETE PAD	LS	1	---	
4	15	REMOVE WOOD INFORMATION KIOSK	EA	1		
5	15	REMOVE 3' HIGH CMU WALL	LF	75		
6	15	REMOVE 4' CHAIN LINK FENCE (800 FT)	LS	1	---	
7	15	RELOCATE TRASH RECEPTACLE	LS	1	---	
8	15	RELOCATE EXISTING BOULDERS	LS	1	---	
9	15	REMOVE WATER FOUNTAIN	EA	3		
10	15	REMOVE WHEEL STOPS	EA	10		
11	15	REMOVE EXISTING SIGNS	EA	3		
12	15, 19	REMOVE & DISPOSE HMA PAVEMENT AND BASE	LS	1	---	
13	15, 71	REMOVE 24"X24" STORM DRAIN INLET	EA	1		
14	15, 71	REMOVE 12" STORM DRAIN PIPE (60 FT)	LS	1	---	

Item No.	SS(1)	Item Description	Unit of Measure	Estimated Quantity	Item Price (in figures)	Total (in figures)
15	15, 71	REMOVE 18" TRENCH DRAIN (35 FT)	LS	1	---	
16	19	REMOVE LOG BARRIERS (296 FT)(RETURN TO CITY)	LS	1	---	
17	19	EARTHWORK (CUT 2500 CY FILL 550 CY)	CY	1950		
18	19	IMPORT MATERIAL	CY	470		
19	19	CLASS 2 BASE (24")	SQFT	10350		
20	19	CRUSHED PEA GRAVEL (2" LAYER)	SQFT	11935		
21	19, 26, 73, 90	6" CONCRETE EDGING	LF	1375		
22	19, 26, 73, 90	8" CONCRETE CURB	LF	100		
23	19, 26, 73, 90	NEW CONCRETE WHEEL STOPS	EA	8		
24	19,26, 73, 90	CONCRETE CURB AND GUTTER	LF	90		
25	19,26, 73, 90	CONCRETE TRANSITION RAMP	SQFT	100		
26	19, 26, 73, 90	CONCRETE FLATWORK (SIDEWALK)	SQFT	10250		
27	20	REMOVE TREE & GRIND STUMP	EA	2		
28	20	GRIND TREE STUMP	EA	14		
29	20	WOOD BARK MULCH (3" LAYER)	CY	482		
30	20	ROOT BARRIER	LF	100		
31	20	IRRIGATION - SLEEVING	LF	133		
32	39	HMA PAVEMENT (6")	SQFT	580		
34	56	RECTANGULAR SHADE SAIL - 7' X 13'	EA	4		
35	56	RECTANGULAR SHADE SAIL - 14.5' X 18'	EA	1		
36	56	RECTANGULAR SHADE SAIL - 12.5' X 20'	EA	1		
37	56	SHADE SAIL - TRIANGLE	EA	2		
33	73	DETECTABLE WARNING SURFACE	SQFT	220		
34	77	CLEARING AND GRUBBING	SQFT	135000		
35	77	1" PVC WATER LATERAL	LF	84		
36	77	4" PVC SEWER LATERAL	LF	95		
37	77	4" PVC STORM DRAIN	LF	8		
38	77	12" HDPE STORM DRAIN	LF	80		
39	77	TRENCH DRAIN WITH CONCRETE ENCASEMENT	LF	45		

Item No.	SS(1)	Item Description	Unit of Measure	Estimated Quantity	Item Price (in figures)	Total (in figures)
40	77	CURB INLET	EA	1		
41	80	4' CHAIN LINK FENCE	LF	2117		
42	80	DOG PARK ENTRY GATE (TWO GATES PER ENTRY)	EA	6		
43	80	CHAIN LINK MAINTENANCE GATE (2 LEAVES EACH GATE)	EA	3		
44	80	INSTALL NEW LOG BARRIER (34LF)	LS	1	---	
45	82	ADA SIGNS AND POLES	EA	2		
46	84	REMOVE PAVEMENT MARKINGS	LS	1	---	
47	84	PAVEMENT MARKINGS	LS	1	---	
48	99	DRINKING FOUNTAIN WITH DOG WATER BOWL	EA	3		
49	82, 90	RELOCATE DOG BAG DISPENSER AND SIGNS	EA	2		
				Total Base Bid	**$**	
ADDITIVE ALTERNATE A BID ITEMS						
50	20	TREE PLANTING – 24” BOX	EA	38		
51	20	15 GALLON SHRUBS	EA	12		
52	20	5 GALLON SHRUBS	EA	18		
53	20	1 GALLON SHRUBS	EA	299		
54	20	TURF LAWN	SQFT	25889		
55	20	IRRIGATION - MAINLINE	LF	1484		
56	20	IRRIGATION - LATERAL LINE	LF	4608		
57	20	IRRIGATION - VALVES AND EQUIPMENT	EA	49		
58	20	IRRIGATION - TURF SPRAY HEADS	EA	29		
59	20	IRRIGATION - TREE WATERING SYSTEMS	EA	76		
60	20	IRRIGATION - DRIPLINE AREA	SQFT	6469		
61	20	IRRIGATION-DRIP EMITTER AREA	SQFT	2637		
62	20	IRRIGATION - CONTROLS (CONTROLLER AND WEATHER STATION)	LS	1	---	
63	20	MAINTENANCE (3-MONTH)	EA	3		
				Additive Alternate A Bid Total	**$**	

Item No.	SS(1)	Item Description	Unit of Measure	Estimated Quantity	Item Price (in figures)	Total (in figures)
ADDITIVE ALTERNATE B BID ITEMS						
64	19,56, 90	CONCRETE SHALLOW FOOTING (FOR SHADE SAILS)	EA	24		
65	56	RECTANGULAR SHADE SAIL - 7' X 13'	EA	4		
66	56	RECTANGULAR SHADE SAIL - 14.5' X 18'	EA	1		
67	56	RECTANGULAR SHADE SAIL - 12.5' X 20'	EA	1		
68	56	SHADE SAIL - TRIANGLE	EA	2		
Additive Alternate A Bid Total					**$**	
Project Total Bid (Base Bid + Add. Alternate A + Add. Alternate B)					**$**	
Company Name:						

(1) refers to section in the Standard Specifications, with modifications in the Special Provisions, that describe required work.

LIST OF SUBCONTRACTORS

Pursuant to Section 4100 of the Public Contracts Code and section 2-1.33C of the standard specifications, the Bidder is required to furnish the following information for each Subcontractor performing more than 1/2 percent (0.5%) of the total base bid. Do not list alternative subcontractors for the same work. Subcontracting must not total more than fifty percent (50%) of the submitted bid except as allowed in section 5-1.13 of the standard specifications.

For Streets & Highways projects, subcontractors performing less than ten thousand dollars ($10,000) worth of work need not be mentioned. **Subcontractors required to pay prevailing wage, must be registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 to be listed.**

NOTE: If there are no subcontractors, write "NONE" and submit with bid.

Name Under Which Subcontractor is Licensed	License Number	**DIR Public Works Registration Number**	Address and Phone Number of Office, Mill or Shop	Specific Description of Subcontract	% of Total Base Bid

Attach additional sheets as needed.

PUBLIC CONTRACT CODE SECTION 10285.1 STATEMENT

In compliance with Public Contract Code Section 10285.1 (Chapter 376, Stats. 1985), the bidder hereby declares under penalty of perjury under the laws of the State of California that the bidder, or any subcontractor to be engaged by the bidder, **has ____, has not ____** been convicted within the preceding three years of any offenses referred to in that section, including any charge of fraud, bribery, collusion, conspiracy, or any other act in violation of any state or federal antitrust law in connection with the bidding upon, award of, or performance of, any public works contract, as defined in Public Contract Code Section 1101, with any public entity, as defined in Public Contract Code Section 1100, including the Regents of the University of California or the Trustees of the California State University. The term "bidder" is understood to include any partner, member, officer, director, responsible managing officer, or responsible managing employee thereof, as referred to in Section 10285.1.

NOTE: The bidder must place a check mark after "has" or "has not" in one of the blank spaces provided. The above Statement is part of the Bid. Signing this Bid on the signature portion constitute signature of this Statement. Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

PUBLIC CONTRACT CODE SECTION 10162 QUESTIONNAIRE

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

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

_____ Yes _____ No

If the answer is yes, attach a letter explaining the circumstances.

PUBLIC CONTRACT CODE SECTION 10232 STATEMENT

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

LABOR CODE SECTION 1725.5 STATEMENTS

The bidder has delinquent liability to an employee or the state for any assessment of back wages or related damages, interest, fines, or penalties pursuant to any final judgment, order, or determination by a court or any federal, state, or local administrative agency, including a confirmed arbitration award. Any judgment, order, or determination that is

under appeal is excluded, provided that the contractor has secured the payment of any amount eventually found due through a bond or other appropriate means.

_____ Yes _____ No

The bidder is currently debarred under Section 1777.1 or under any other federal or state law providing for the debarment of contractors from public works.

_____ Yes _____ No

NOTE: The above Statements and Questionnaire are part of the Bid. Signing this Bid on the signature portion constitute signature of this Statement and Questionnaire. Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

NON-COLLUSION DECLARATION

I, _____, declare that

I am _____ of_____,

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

Executed on _____, 20_____, in _____

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

_____

(Signature and Title of Declarant)

(SEAL)

Subscribed and sworn to before me
this _____day of _____, 20_____

_____

Notary Public

Company Name:_____

BIDDER ACKNOWLEDGEMENTS

By signing below, the bidder acknowledges and confirms that this bid is based on the information contained in all contract documents, including the notice to bidders, plans, specifications, special provisions, and addendum number(s) _____. **(Note: You are responsible to verify the number of addenda prior to the bid opening.)**

The undersigned further agrees that in case of default in executing the required contract, with necessary bonds, within eight days, (not including Saturdays, Sundays, and legal holidays), after having received a mailed notice that the contract is ready for signature, the proceeds of the check or bond accompanying his bid will become the property of the City of San Luis Obispo.

Licensed in accordance with an act providing for the registration of contractors, License No._____, Expiration Date _____.

The above statement is made under penalty of perjury, and any bid not containing this information "will be considered non-responsive and will be rejected" by the City.

Signature of Bidder _____

_____
(Print Name and Title of Bidder)

DIR– Public Works Registration No: _____

Business Name (DBA): _____

Owner/Legal Name: _____

Indicate One: ☐Sole-proprietor ☐ Partnership ☐Corporation

List Partners/Corporate Officers: _____
Name Title

_____
Name Title

_____
Name Title

Business Address _____

Street Address _____

Mailing Address _____

City, State, Zip Code _____

Phone Number _____

Fax Number _____

Email Address _____

Date _____

QUALIFICATIONS

Failure to furnish complete reference information **ON THIS FORM**, as specified in this project's Notice to Bidders and indicated below, is cause to reject the bid. Additional information may be attached but is not a substitute for this form.

Reference Number 1

Customer Name & Contact Individual	
Telephone & Email	
Project Name (Site Address):	
Is this similar to the project being bid or did this project include Dog Park or Municipal Park activity? Yes □ No □	Describe the services provided and how this project is similar to that which is being bid:
Was this contract for a public agency? Yes □ No □	Date project completed:

Reference Number 2

Customer Name & Contact Individual	
Telephone & Email	
Project Name (Site Address):	
Is this similar to the project being bid or did this project include Dog Park or Municipal Park activity? Yes □ No □	Describe the services provided and how this project is similar to that which is being bid:
Was this contract for a public agency? Yes □ No □	Date project completed:

Reference Number 3

Customer Name & Contact Individual	
Telephone & Email	
Project Name (Site Address):	
Is this similar to the project being bid or did this project include Dog Park or Municipal Park activity? Yes □ No □	Describe the services provided and how this project is similar to that which is being bid:
Was this contract for a public agency? Yes □ No □	Date project completed:

ATTACH BIDDER'S BOND TO ACCOMPANY BID

Know all men by these presents:

That we _____, AS PRINCIPAL, and

_____, AS SURETY, are held and firmly bound unto the City of San Luis Obispo in the sum of:

_____ Dollars (_____) to be paid to said City or its certain attorney, its successors and assigns; for which payment, well and truly to be made, we bind ourselves, our heirs, executors and administrators, successors or assigns, jointly and severally, firmly by these presents:

THE CONDITION OF THIS OBLIGATION IS SUCH, that if the certain bid of the above

bounden _____

to construct _____
(insert name of street and limits to be improved or project)

dated _____ is accepted by the City of San Luis Obispo, and if the above

bounden _____, his heirs, executors, administrators, successors, and assigns shall duly enter into and execute a contract for such construction and shall execute and deliver the two bonds described within ten (10) days (not including Saturdays, Sundays, or legal holidays) after the above bounden,

_____, has received notice by and from the said City of San Luis Obispo that said contract is ready for execution, then this obligation shall become null and void; otherwise, it shall be and remain in full force and virtue.

IN WITNESS WHEREOF, we hereunto set our hands and seals this ___ day of _____, 20____.

Bidder Principal:

_____

Signature Date
Title:

Surety:

_____

_____

_____

Bidder's signature is not required to be notarized. Surety's signature must be notarized.
Equivalent form may be substituted
(Rev. 6-30-14)

SPECIAL PROVISIONS
ORGANIZATION

Special provisions are under headings that correspond with the main section heading of the Standard Specifications. Each special provision begins with a revision clause that describes or introduces a revision to the Standard Specifications. Any paragraph added or deleted by a revision clause does not change the paragraph number of the Standard Specifications for any other reference to a paragraph of the Standard Specifications.

DIVISION I GENERAL PROVISIONS

1 GENERAL

Add to Section 1-1.01 GENERAL:

The work must be done in compliance with the City of San Luis Obispo, Department of Public Works:

1. Laguna Lake Dog Park Special Provisions
2. City of San Luis Obispo Standard Specifications and Engineering Standards – 2020 edition
3. State of California, Department of Transportation Standard Specifications and Standard Plans – 2022 edition

In case of conflict between documents, governing ranking must comply with Section 5-1.02 of the City of San Luis Obispo's Standard Specifications.

Failure to comply with the provisions of these Sections is a material breach of contract:

1. Sections 5 through 8 of the Standard Specifications
2. Section 12 through 15 of the Standard Specifications
3. Section 77-1 of the Standard Specifications
4. Section 81 of the Standard Specifications
5. authorized working hours
6. OSHA compliance

2 BIDDING

Add after the 1st paragraph of Section 2-1.06B, Supplemental Project Information:

The Department makes the following supplemental project information available:

Means	Description
Included in Appendix C	1. Geotechnical Engineering Report, Laguna Lake Dog Park Improvements, 504 Madonna Road, San Luis Obispo, California dated August 4, 2023.

3 CONTRACT AWARD AND EXECUTION

Add Section 3-1.18B CONTRACT EXECUTION, Building Permit:

3-1.18B Building Permit
The contractor must obtain a no-fee building permit from the Community Development Department. All requirements of the building permit shall be applied to the project.

4 SCOPE OF WORK

Add to Section 4-1.03 WORK DESCRIPTION:

Comply with the provisions of Section(s) 5,13,15,19, 20, 26, 39, 56, 68, 71, 73, 77, 80, 82, 84, 90, and 99 for general, material, construction, and payment specifics.

5 CONTROL OF WORK

The City's Horizontal and Vertical Survey information to complete the work is available at the City's website:
https://www.slocity.org/government/department-directory/public-works/documents-online/construction-documents/survey-data

You must provide all on site survey to construct the project.

Add to Section 5-1.23 SUBMITTALS:

Refer to Section 5-1.23B(3) for Deferred Submittal requirements for the shade structures and preparation of a SWPPP. Deferred submittals are listed on the cover sheet to the plans, and described herein. Refer to Section 32 33 00, Site Furnishings for the technical specification for the shade structures.

Add Section 5-1.23B(3), Deferred Submittals

Section 5-1.23B(3), Deferred Submittals
You must submit for review by the City Building Department and Engineer, structural design documents supporting adequate design of the shade structures, within 20 working days following notice to proceed. You will be responsible for successfully securing the necessary City Building Permit for the shade structures, addressing all plan check comments, implementing the Work based on final submittals and building permit requirements, at no additional cost to the City. The City will review and approve the deferred submittal for general conformance to the Contract Documents, before forwarding the deferred submittal to the City Building Department for review and subsequent approval. No Work on the shade structures shall commence until such time the City Building Department has issued a final building permit for the structures.

The structural design documents must include at a minimum, but not be limited to the following:

1. Structural design package, stamped by a registered California structural or civil engineer.
2. Basis of design for seismic, and wind forces, supporting calculations, and incorporating applicable geotechnical recommendations included in the Project Geotechnical Report (see Appendix C).
3. Details for structural members demonstrating adequate structural design to with stand all seismic, wind and uplift, gravity forces.
4. Updated details of shade structure footings shown on Sheet SD-1, if structural design supports modifications to footing design.
5. Complete vendor package including manufacturer's installation requirements and recommendations.

7 LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

Add to Section 7-1.03B PUBLIC CONVENIENCE, Traffic Control Plan

Work hours are restricted to 7 a.m. to 4 p.m. on Dalidio Drive. Do not block access to the day use area and public restroom, at any time. Maintain safe pedestrian and bicycle access to all trails in the area of the Laguna Lake Dog Park.

Provide traffic control plan and traffic control application at or before the preconstruction meeting. Traffic control plan must be drawn to scale. The traffic control plan must address safe pedestrian and bicycle traffic access to the trails. Traffic control application may be obtained on the City's website:

www.slocity.org/government/department-directory/public-works/documents-online/construction-documents

Upon approval of the traffic control plan, the City will issue a no-fee Encroachment Permit. Permittee is responsible to comply with all conditions of the traffic control plan. Complete work using due diligence to restore free flowing of traffic, and maintaining safe pedestrian and bicycle access to trails and the Park.

8 PROSECUTION AND PROGRESS

Replace the 1st paragraph in Section 8-1.02A SCHEDULE, General with:

Provide a Level 1 schedule for this work.

Add to Section 8-1.04B START OF JOB SITE ACTIVITIES, standard Start:

Contract time will start on August 5th, 2024.

9 PAYMENT

Add to Section 9-1.03 PAYMENT SCOPE

Payment for non-standard pay items shall be as specified below:

Bid Items 65-68 – Shade Sails

A. Units: Each (EA).

B. Measurement: The number of shade sails actually provided.

C. Payment includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work required to construct complete and in place, the shade sails in accordance with the contract documents. Partial payments based on Engineer's determination.

D. Scope of bid item: shade sails includes, but is not limited to the following:
   1. Obtaining City of San Luis Obispo Building Permit, deferred submittals, and constructing shade sails in accordance with issued building permits at no additional cost to the City.
   2. Providing all shade sail footings.
   3. Providing the shade sail poles, rigging, and shade fabric per the manufacturer's specifications.
   4. All other incidental work necessary to complete shade sails installation in accordance with the Contract Documents.

Bid Item 42 – Dog Park Entry Gate (two gates per entry)

A. Units: Each (EA).

B. Measurement: The number of dog park entry gate assemblies actually provided.

C. Payment includes full compensation for all furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work required to construct complete and in place, the dog park entry gate (two gates per entry) in accordance with the contract documents. Partial payments based on Engineer's determination. The gate framing and fence fabric are included in the payment for Section 80 Fences.

D. Scope of bid item: dog park entry gate (two gates per entry) includes, but is not limited to the following:
   1. Providing all dog park entry gate (two gates per entry) special hardware and the kick plate per the manufacturer's specifications.
   2. All other incidental work necessary to complete dog park entry gate (two gates per entry) Work in accordance with the Contract Documents.

Bid Item 44 – Log Barrier

A. Units: Linear Foot (LF)

B. Measurement: Linear feet of installed new log barrier, measured parallel to the ground slope.

C. Payment includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work required to construct complete and in place, new log barrier in accordance with the contract documents.

D. Scope of bid item: log barrier includes, but is not limited to the following:
   1. Providing all new log barrier footings, hardware, and logs per the plans.
   2. All other incidental work necessary to complete new log barrier installation in accordance with the Contract Documents.

Bid Item 48 – Drinking Fountain with Dog Water Bowl

A. Units: Each (EA).

B. Measurement: The number of drinking fountains with dog water bowls actually provided.

C. Payment includes full compensation for all furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work required to construct complete and in place, the drinking fountain with dog water bowl in accordance with the contract documents. Partial payments based on Engineer's determination.

D. Scope of bid item: drinking fountain with dog water bowl includes, but is not limited to the following:
   1. Providing all drinking fountain with dog water bowls, and associated water and sewer connections.
   2. Providing the drinking fountain with dog water bowl connections to the concrete surfacing per the manufacturer's specifications.
   3. All other incidental work necessary to complete drinking fountain with dog water bowl installation in accordance with the Contract Documents.

Bid Item 49 – Relocate Dog Bag Dispenser and Signs

A. Units: Each (EA).

B. Measurement: The number of dog bag dispensers and signs actually relocated.

C. Payment includes full compensation for all furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work required to construct complete and in place, the relocate dog bag dispenser and signs in accordance with the contract documents. Partial payments based on Engineer's determination.

D. Scope of bid item: relocate dog bag dispenser and signs includes, but is not limited to the following:
   1. Disconnecting dog bag dispenser and signs (2 signs per dispenser) from existing wood posts.
   2. Providing the dog bag dispenser and signs new post and footings per the plans.
   3. Installing the dog bag dispenser and signs on the new post per the plans.
   4. All other incidental work necessary to complete relocate dog bag dispenser and signs in accordance with the Contract Documents.

DIVISION II GENERAL CONSTRUCTION

10 GENERAL

10-1.02C(2) Irrigation Facilities

Add to the end of Section 10-1.02C(2):

Protect existing irrigation components and such components to be relocated before performing any other construction activity in the area. You are cautioned that existing irrigation lines within the Park are shallow and can be easily damaged by heavy equipment driving over the surface.

You must repair damages to turf, landscaping, and irrigation infrastructure caused by your access to the project site and your operations in accordance with Section 20 Landscaping and applicable current engineering standards. Damages to irrigation system must be repaired within (2) days, and at no cost to the City. You must notify the City and Engineer immediately of any broken irrigation lines so that City can shut off the irrigation system to allow such repairs.

Prior to work on the new irrigation system all existing irrigation laterals within the project site shall be disconnected and may be abandoned in place. All existing irrigation heads within the project site must be removed.

Cap laterals outside of the project site to allow existing irrigation system outside of project limits to remain operational to surrounding planted and turf areas during construction.

15 EXISTING FACILITIES

Add to Section 15-1.01 GENERAL:

Properly recycle or dispose of items called for removal. Salvage log barriers to the City, at a location indicated by the City (on Park Site).

Add Section 15-1.01A, PRE- AND POST-CONSTRUCTION VIDEO:

You must provide pre- and post-construction video, documenting all construction access areas, staging areas, and all other areas of the Project Site subject to construction activities. Notify City a minimum of 3 working days prior to pre-construction video, to allow City opportunity to accompany video tapings. Submit pre-construction video to City within 3 working days of the videotaping, to allow City to review and comment on videotape. Provide post-construction video, covering at a minimum, same coverage as the pre-construction video, documenting all areas accessed by Contractor, any damage and repairs required. Submit post-construction video a minimum of 3 working days prior to scheduling final job walk/punchlist. You will be notified of any property restoration issues/punchlist items during the job walk.

DIVISION III EARTHWORK AND LANDSCAPE

19 EARTHWORK

Add to Section 19-1.01A GENERAL, Summary:

For the purposes of this project, all references to “roadway” or “highway” found in Section 19 is defined as the “project site” or “project Improvements.” For example, Roadway Excavation means Project Site Excavation.

Earthwork must be performed in accordance with the plans, these special provisions, the standard specifications and the project geotechnical engineering report prepared by Earth Systems Pacific, dated August 4, 2023, included in Appendix C. In instances where conflict exists, the more stringent determination will apply unless approved otherwise by the engineer.

Add to Section 3.02C Structure Backfill:

Non-expansive fill beneath exterior pedestrian flatwork. Where the plans call for 24” of non-expansive fill beneath flatwork/sidewalks, such fill must meet the material requirements of Section 19-3.02C Structure Backfill, and must be compacted to 95% relative compaction. Class 2 aggregate base per Caltrans Section 26 may be used to fulfill the 24” non-expansive fill requirement.

20 LANDSCAPE

Add to Section 20-1.02D Organic Soil Amendments:

20-1.02D(2) Soil Testing

Provide agronomic soil tests from a laboratory that uses methods of soil analysis approved by the American Society of Agronomy and the Soil Science Society of America. Collect soil samples from at least four (4) different locations at a depth from 8 to 14 inches from the surface of the park. Use sample locations that best represent areas that will be used for planting and seeding work. Provide location of proposed sample locations for approval by the Engineer. Collect testing samples after the finished grade is achieved.

Test Results must include the following:

Test Element	Method
pH	Methods of Soil Analysis, Part 3 Chemical Methods, Soil Science Society of America, Inc., 1996 Chapter 16 or USDA Agricultural handbook No. 60, Diagnosis and Improvement of Saline and Alkali Soils, Method 21a
Saturation Extract	Methods of Soil Analysis, Part 3 Chemical Methods, Soil Science Society of America, Inc., 1996 Chapter 14 or USDA Agricultural handbook No. 60, Diagnosis and Improvement of Saline and Alkali Soils, Method 2
Sodium Adsorption Ratio	Methods of Soil Analysis, Part 3 chemical Methods, Soil Science Society of America, Inc., 1996 Chapter 14 or Inductively Coupled Argon Plasma Optical Emissions, EPA Method 6010B
Water Infiltration Rate	USDA Agricultural handbook No. 60, Diagnosis and Improvement of Saline and Alkali Soils, Method 34B
Base Saturation	Methods of Soil Analysis, Part 3 Chemical Methods, Soil Science Society of America, Inc., 1996 Chapter 40 or USDA Agricultural handbook No. 60, Diagnosis and Improvement of Saline and Alkali Soils, Method 18, 19 and 20
Exchangeable Ammonium cation	Methods of Soil Analysis, Part 3 Chemical Methods, Soil Science Society of America, Inc., 1996 Chapter 38
Cation Exchange Capacity	Methods of Soil Analysis, Part 3 Chemical Methods, Soil Science Society of America, Inc., 1996 Chapter 40 or USDA Agricultural handbook No. 60, Diagnosis and Improvement of Saline and Alkali Soils, Method 18, 19 and 20
Electrical Conductivity	Methods of Soil Analysis, Part 3 Chemical Methods, Soil Science Society of America, Inc., 1996 Chapter 14 or USDA Agricultural handbook No. 60, Diagnosis and Improvement of Saline and Alkali Soils, Method 2
Soil Texture	Methods of Soil analysis, Part 1, Physical and Mineralogical Methods, Soil Science Society of America, Inc.,1986, Chapter 15
Organic Content	Methods of Soil Analysis, Part 3 Chemical Methods, Soil Science Society of America, Inc., 1996 Chapter 37
Boron	Methods of Soil Analysis, Part 3 Chemical Methods, Soil Science Society of America, Inc., 1996 Chapter 38 or Inductively Coupled Argon Plasma Optical Emissions, EPA Method 6010B
Calcium	Methods of Soil Analysis, Part 3 Chemical Methods, Soil Science Society of America, Inc., 1996 Chapter 40 or USDA Agricultural handbook No. 60, Diagnosis and Improvement of Saline and Alkali Soils, Method 18, 19 and 20 or Inductively Coupled Argon Plasma Optical Emissions, EPA Method 6010B
Chloride	Methods of Soil Analysis, Part 3 chemical Methods, Soil Science Society of America, Inc., 1996 Chapter 14 or USDA Agricultural handbook No. 60, Diagnosis and Improvement of Saline and Alkali Soils, Method 2 or Inductively Coupled Argon Plasma Optical Emissions, EPA Method 6010B
Copper	Methods of Soil Analysis, Part 3 Chemical Methods, Soil Science Society of America, Inc., 1996 Chapter 26, Ammonium Bicarbonate-Diethylenetriaminepentaacetic Acid (AB-DTPA) Method
Iron	Methods of Soil Analysis, Part 3 Chemical Methods, Soil Science Society of America, Inc., 1996 Chapter 23, Ammonium Bicarbonate-Diethylenetriaminepentaacetic Acid (AB-DTPA) Method

Magnesium	Methods of Soil Analysis, Part 3 Chemical Methods, Soil Science Society of America, Inc., 1996 Chapter 20, Ammonium Bicarbonate-Diethylenetriaminepentaacetic Acid (AB-DTPA) Method
Calcium/Magnesium Carbonate	Methods of Soil Analysis, Part 3 Chemical Methods, Soil Science Society of America, Inc., 1996 Chapter 34
Manganese	Methods of Soil Analysis, Part 3 Chemical Methods, Soil Science Society of America, Inc., 1996 Chapter 24, Ammonium Bicarbonate-Diethylenetriaminepentaacetic Acid (AB-DTPA) Method
Nitrate	Methods of Soil Analysis, Part 3 Chemical Methods, Soil Science Society of America, Inc., 1996 Chapter 31, Ion Selective Electrodes (ISE), Method
Phosphorus	Methods of Soil Analysis, Part 3 Chemical Methods, Soil Science Society of America, Inc., 1996 Chapter 32, Ammonium Bicarbonate-Diethylenetriaminepentaacetic Acid (AB-DTPA) Method
Potassium	Methods of Soil Analysis, Part 3 Chemical Methods, Soil Science Society of America, Inc., 1996 Chapter 19, Ammonium Bicarbonate-Diethylenetriaminepentaacetic Acid (AB-DTPA) Method
Sodium	Methods of Soil Analysis, Part 3 Chemical Methods, Soil Science Society of America, Inc., 1996 Chapter 19, Ammonium Bicarbonate-Diethylenetriaminepentaacetic Acid (AB-DTPA) Method
Sulfate/Sulfur	Communication Soil Science Plant Analysis, Chapter 33, 2002 Ammonium Bicarbonate-Diethylenetriaminepentaacetic Acid (AB-DTPA) Method, Optimization of a Method for soil sulfur extraction,
Zinc	Methods of Soil Analysis, Part 3 Chemical Methods, Soil Science Society of America, Inc., 1996 Chapter 26, Ammonium Bicarbonate-Diethylenetriaminepentaacetic Acid (AB-DTPA) Method

Laboratory interpretation data must cite low, medium, and high nutrient concentrations, nutritional deficiencies, excesses, and potential toxicities. Test results must include amendment recommendations for new and existing planting and seeding.
Submit test results and any recommended design modifications as a result of the test 15 days before any planting, seeding, or soil amendments activities.

Replace Section 20-1.03A(1) CONSTRUCTION, General with.

The following inspections and testing are required as the work progresses. Provide the Engineer with two working days' notice of the need for inspection. Correct all work that does not pass inspection or testing and request re-inspection or re-testing. Do not proceed with the next order of work until the inspection or testing has passed and the Engineer gives direction to proceed with the next order of work. The Engineer may reject any work done without necessary pre-approval.

1. Existing irrigation - preexisting damage check
2. Tree protection
3. Erosion control
4. Site clearance
5. Finish Grading
6. Mow strip chalk layout
7. Mow strip formwork
8. Soil conditioning materials

9. Soil conditioning
10. Irrigation mainline, valve, controller and heads - flag layout
11. Irrigation audit / Coverage test
12. Full irrigation system test
13. Re-test of existing irrigation
14. Drip Irrigation distribution tubing run - chalk layout
15. Plant delivery
16. Plant layout (excluding ground cover) - actual or flagged
17. Planting completion
18. Drip installation micro tubing, emitter placement and flow test
19. Controller operation test, manual and automatic
20. Existing irrigation - damage check
21. Final Submittals and Record Drawings
22. Completion of establishment maintenance period

Add to Section 20-1.03B MATERIAL, Pesticides:

Select herbicides from the following table:

Herbicides

Herbicide name	Herbicide type					
	Preemergent (granular)	Preemergent (non granular)	Post-emergent	Selective	Non-selective	Systemic
Glyphosate	--	--	X	--	--	X

Replace Section 20-2.01B(7) GENERAL, Materials – Valve Boxes and Covers with:

Valve boxes must be high density polyethylene (HDPE) in green color.

Covers must be:

1. High density polyethylene (HDPE)
2. Have a flush cover
3. Include locking components

Valve box covers must be labeled. Labels must:

1. Be burnished with letters of the valve type – min. 1” in height

Covers for valve boxes that contain remote control valves must be labeled with the controller and station.

Covers for valve boxes that contain irrigation equipment must be labeled with the standard abbreviation for that equipment.

Remote control valves must be labeled with a polyurethane tag. Attach the tag tightly with a nylon tie to the conductor wire. The tag must be stamped on both sides with the

appropriate letters and numbers at least 1 inch high showing the valve's controller and station.

Add to the list in the 1st paragraph of section 20-2.02B(4):

7. Be powder coated by the manufacturer to match color no. 20450 of AMS-STD-595.

Add to section 20-2.04B Materials:

All conductors shall be installed in a 1" PVC conduit. You may use conductors that are not armor-clad when installed in a conduit.

Add to section 20-2.05B FLOW SENSORS, Materials:

Flow sensor cable must:

1. Be rated for 600V.
2. Be rated for 194 degrees F.
3. Be UL listed as Type TC.
4. Comply with specifications of ICEA/NEMA.
5. Consist of two no. 16 minimum stranded copper conductors. Insulated conductor must be color coded with a PVC or nylon jacket.
6. Include a tinned copper braid or aluminized polyester film shield. Where the film is used, a no. 18 or larger, stranded or no. 16 solid, tinned, copper drain wire must be placed between the insulated conductors and the shield and in contact with the conductive surface of the shield.
7. Include a black PVC jacket with a minimum nominal thickness of either 50 mils or 48 mils where capacitance of conductors to other conductors and the shield is 87 pF/ft or better. The cable jacket must be marked with the insulation type designation, conductor size, and voltage and temperature ratings.
8. Have an outside diameter from 0.29 to 0.45 inch.
9. Be UV resistant and of the direct burial type.
10. Have no splices between components except where shown.

Add to section 20-2.06B(2)(a) IRRIGATION CONTROLLERS:

Furnish 2 keys for each irrigation controller enclosure door lock before Contract acceptance.

Add section 20-3.01B(5)(a) PLANTING, Root Stimulants:

20-3.01B(5)(b) Mycorrhizae Inoculant

Mycorrhizae inoculant must be a commercially available powder or granular product with beneficial microorganisms that will improve the ability of plant roots to absorb water and nutrients. The product must have a minimum of 13 species of fungi. Spores per gram must be 80 or greater.

Add between the 2nd and 3rd paragraphs of section 20-4.01A PLANT ESTABLISHMENTS WORK, Summary:

This project has a Type 1 plant establishment period.

Add to the beginning of the 1st paragraph of section 20-4.03A CONSTRUCTION, General:

Maintain a neat and presentable job site during plant establishment including areas not visible to the public.

Add to section 20-4.03C CONSTRUCTION, Fertilizing:

Apply slow-release fertilizer to the plants at the end of the 90-day maintenance period.

Add to section 20-4.03D CONSTRUCTION, Weed Control:

Dispose of weeds under section 20-1.03C(4).

Add to section 20-4.03 CONSTRUCTION:

20-4.03L Pest and Disease Control

Control pests under this section and section 20-1.03B.

Replace section 20-5.06 RESERVED with:
20-5.06 DECORATIVE BOULDERS

20-5.06A General

20-5.06A(1) Summary

Section 20-5.06 includes specifications for placing decorative boulders.

20-5.06A(2) Definitions

Not Used

20-5.06A(3) Submittals

Not Used

20-5.06A(4) Quality Assurance

Contractor shall confirm existing and relocated boulder locations and face with Engineer.

20-5.06B Materials

Relocate existing boulders as shown on plans. Contractor shall stockpile boulders in a suitable location on-site until such time boulders are relocated and placed into final position.

20-5.06C Construction

Mark proposed locations for placement of boulders. Final location and orientation of the boulders must be authorized at least 5 business days prior to installation. Apply anti-graffiti coating to all exposed surfaces of the boulders. Place surplus excavated material throughout the job site under section 19-2.03B. Compact subgrade under the boulder to not less than 90 percent relative compaction.

Place boulder as shown on the plans such that approximately 1/3 of the boulder height is

buried below the finished grade. Backfill and tamp remaining soil voids around the boulder until finished grade is level with the surrounding area. If backfill area has settled, refill with additional soil and tamp.

20-5.06D Payment

Not Used

Replace section 20-10.02C(2) EXISTING IRRIGATION FACILITIES, Construction, Check and Test Existing Irrigation Facilities with:

20-10.02C(2) Check and Test Existing Irrigation Facilities

Check and test existing irrigation system facilities that will remain in place or will be relocated before performing clearing and grubbing, earthwork, or other construction activity that will affect the existing irrigation system.

When available, use existing irrigation control software program and flow sensors to conduct the test. Clear obstructions in strainers and filters before conducting tests. The Engineer determines the test watering cycle lengths and controller information to be utilized during the tests.

Check for deficiencies in the existing irrigation systems including:

1. Missing, damaged or malfunctioning irrigation components
2. Leaks on supply line and irrigation components
3. Electrical continuity between irrigation controller and irrigation components
4. Electrical power at the irrigation controller
5. Communication between irrigation controller and remote access devices

Correct deficiencies as ordered. The correction of deficiencies shall be performed at no additional cost to the City.

DIVISION IV SUBBASES AND BASES

39 ASPHALT CONCRETE

Add to Section 39-1.02F RECLAIMED ASPHALT PAVEMENT:

Asphalt concrete with 25% RAP may be used for paving operations.

DIVISION VII DRAINAGE FACILITIES

70 MISCELLANEOUS DRAINAGE FACILITIES

70-6 Grated Line Drains

Modify Section 70-6.02A General:

To the first paragraph, replace “Grated line drain must be on the Authorized Material List for grated line drains” with “Grated line drain (trench drain) must be Zurn Z886-HD or approved equal,”

Replace Section 70-6.02C Line Drain Frames and Grates:

Grated line drain grate must be Zurn P6-BDD Bronze grate or approved equal.

DIVISION VIII MISCELLANEOUS CONSTRUCTION

73 CONCRETE CURBS AND SIDEWALKS

Add to Section 73-1.01 General

Concrete removal must be per Section 73-1.03A and City Standard Detail 4910. Dowel existing concrete into new concrete per Section 73-1.03F and City Standard Detail 4110.

80 FENCES

Replace paragraph 1 of Section 80-3.01C Submittals with:

Provide vinyl-clad fabric specified in Section 80-3.02C Fabric, submit a certificate of compliance for the system.

Add Section 80-3.02F Gates:

Gate hinges shall be Trademark Hardware TIGER compact hinge and CLB attachment for installation on round chain link fence posts. (www.tmhardware.com)

Gate latch to be Trademark Hardware Locinox Gate Lock LUKYJ5 with part number 3019LA-S-C-V for installation on round chain link gates. Also provide CLH-LA tension bar to secure the gate lock in place.

All gates shall be keyed alike, manufacturer option (GMA).

Provide two ADA kick plates (10" tall x 36" wide, galvanized steel) to the bottom of each gate. Kick plates shall have rounded edges. Provide 3/16" galvanized bolts with lock washers (6 each gate). Provide shop drawings.

Add to Section 80-3.03 CONSTRUCTION

Install gate hardware according to the manufacturer's specifications.

Install kick plates to fences by placing one plate on each side of the fence fabric and bolting through both plates at each corner and at the mid-point of the plate (top and bottom). Use lock washers.

DIVISION XIII APPENDICES

Add Section 100-1.01 APPENDICES:

Refer to Appendix A: Form of Agreement
Refer to Appendix B: CSI Technical Specifications
Refer to Appendix C: Geotechnical Engineering Report, City of San Luis Obispo, Laguna Lake Dog Park Revitalization Project, Dalidio Road, San Luis Obispo, California

APPENDIX A - FORM OF AGREEMENT

THIS AGREEMENT, made on _____, by and between the City of San Luis Obispo, a municipal corporation and charter city, San Luis Obispo County, California (hereinafter called the Owner) and COMPANY NAME (hereinafter called the Contractor).

WITNESSETH:

That the Owner and the Contractor for the consideration stated herein agree as follows:

ARTICLE 1, SCOPE OF WORK: The Contractor shall perform everything required to be performed, shall provide and furnish all of the labor, materials, necessary tools, expendable equipment, and all utility and transportation services required to complete all the work of construction of

LAGUNA LAKE DOG PARK REVITALIZATION, SPEC NO. 2000526-001

in strict compliance with the plans and specifications therefor, including any and all Addenda, adopted by the Owner, in strict compliance with the Contract Documents hereinafter enumerated.

It is agreed that said labor, materials, tools, equipment, and services shall be furnished and said work performed and completed under the direction and supervision and subject to the approval of the Owner or its authorized representatives.

ARTICLE II, CONTRACT PRICE: The Owner shall pay the Contractor as full consideration for the faithful performance of this Contract, subject to any additions or deductions as provided in the Contract Documents, the contract prices as follows:

Item No.	Item	Unit of Measure	Estimated Quantity	Item Price (in figures)	Total (in figures)
1.					
2.					
3.					

BID TOTAL: $ .00

Payments are to be made to the Contractor in compliance with and subject to the provisions embodied in the documents made a part of this Contract.

Should any dispute arise respecting the true value of any work omitted, or of any extra work which the Contractor may be required to do or respecting the size of any payment to the Contractor, during the performance of this Contract, said dispute shall be decided by the Owner and its decision shall be final, and conclusive.

ARTICLE III, COMPONENT PARTS OF THIS CONTRACT: The Contract consists of the following documents, all of which are as fully a part thereof as if herein set out in full, and if not attached, as if hereto attached:

1. Notice to Bidders and Information for Bidders
2. Standard Specifications and Engineering Standards
3. Special Provisions, any Addenda, Plans and Contract Change Orders
4. Caltrans Standard Specifications and Standard Plans 2015
5. Accepted Bid and Bid Bond
6. List of Subcontractors
7. Public Contract Code Sections 10285.1 Statement
8. Public Contract Code Section 10162 Questionnaire
9. Public Contract Code Section 10232 Statement
10. Labor Code Section 1725.5 Statements
11. Bidder Acknowledgements
12. Qualifications
13. Non-collusion Declaration
14. Agreement and Bonds
15. Insurance Requirements and Forms

ARTICLE IV INDEMNIFICATION: The Contractor shall indemnify, defend with legal counsel approved by City, and hold harmless City, its officers, officials, employees and volunteers from and against all liability, loss, damage, expense, cost (including without limitation reasonable legal counsel fees, expert fees and all other costs and fees of litigation) of every nature arising out of or in connection with the Contractor's negligence, recklessness or willful misconduct in the performance of work hereunder or its failure to comply with any of its obligations contained in this Agreement, except such loss or damage which is caused by the sole or active negligence or willful misconduct of the City. Should conflict of interest principles preclude a single legal counsel from representing both the City and the Contractor, or should the City otherwise find the Contractor's legal counsel unacceptable, then the Contractor shall reimburse the City its costs of defense, including without limitation reasonable legal counsel fees, expert fees and all other costs and fees of litigation. The Contractor shall promptly pay any final judgment rendered against the City (and its officers, officials, employees and volunteers) with respect to claims determined by a trier of fact to have been the result of the Contractor's negligent, reckless or wrongful performance. It is expressly understood and agreed that the foregoing provisions are intended to be as broad and inclusive as is permitted by the law of the State of California and will survive termination of this Agreement.

The Contractor obligations under this section apply regardless of whether such claim, charge, damage, demand, action, proceeding, loss, stop notice, cost, expense, judgment, civil fine or penalty, or liability was caused in part or contributed to by an Indemnitee. However, without affecting the rights of the City under any provision of this agreement, the Contractor shall not be required to indemnify and hold harmless the City for liability attributable to the active negligence of City, provided such active negligence is determined by agreement between the parties or by the findings of a court of competent jurisdiction. In

instances where the City is shown to have been actively negligent and where the City's active negligence accounts for only a percentage of the liability involved, the obligation of the Contractor will be for that entire portion or percentage of liability not attributable to the active negligence of the City.

ARTICLE V. It is further expressly agreed by and between the parties hereto that should there be any conflict between the terms of this instrument and the bid of said Contractor, then this instrument shall control and nothing herein shall be considered as an acceptance of the said terms of said bid conflicting herewith.

IN WITNESS WHEREOF, the parties to these presents have hereunto set their hands this year and date first above written.

CITY OF SAN LUIS OBISPO
A Municipal Corporation

_____
Derek Johnson, City Manager

APPROVED AS TO FORM

_____
J. Christine Dietrick
City Attorney

CONTRACTOR:

Name of Company

By:_____
Name of CAO/President
Its: CAO/PRESIDENT

(2nd signature required if Corporation):

By:_____
Name of Corporate Officer

Its: _____

APPENDIX B - CSI TECHNICAL SPECIFICATIONS
DIVISION 32 – Exterior Improvements

32 33 00 Site Furnishings

SECTION 32 33 00

SITE FURNISHINGS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes: Provide the following site furnishings, including accessories, as required for complete, finished installation.

1. 7’ x 13’ Shade Sail
2. 14.5’ x 18' Shade Sail
3. 12.5’ x 20’ Shade Sail
4. Triangular Shade Sail
5. Drinking Fountain

1.2 RELATED SECTIONS:

A. Division 01 General Requirements, which contain information and requirements that apply to the work specified herein.

1.3 SUBMITTALS

A. General: Submittals to be in accordance with the requirements of the Standard Specifications. Review or acceptance, as specified, by the Engineer required prior to commencement of work.

B. Deferred Submittal: For the shade structure, refer to Section 5 of the special provisions for additional requirements. Contractor shall be responsible for securing the City Building Permit, and installing the shade structure per approved plans and the Building Permit, at no additional cost to the City. Product Data: Submit manufacturer’s product data, storage and handling requirements and recommendations, installation methods and available colors, styles, patterns, and textures for all site furnishings listed.

C. Warranty: Manufacturer’s standard warranty.

1.4 QUALITY ASSURANCE

A. Workmanship and Materials: All workmanship and materials within this Section shall conform strictly to the manufacturer’s specifications installation instructions and guarantees.

B. The contractor shall provide laborers and supervisors who are thoroughly familiar with the type of construction involved and materials and techniques specified.

1.5 SUBSTITUTIONS, ADDITIONS AND DELETIONS

A. General: Submit proposals for substitutions for review and approval. Acceptance by the Engineer is required prior to proceeding with the work under this Section. Provide descriptive catalog literature for each item to be substituted.

1.6 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Handling of site furnishings: The Contractor is cautioned to exercise care in handling, loading, unloading, storing and installation of site furnishings. All materials shall be transported in a vehicle that allows the materials to lie flat, not to subject it to undue bending or concentrated external load at any point. Any materials that have been dented or damaged will be discarded and, if installed, shall be replaced.

B. Upon receipt at the job site, all materials shall be checked to ensure that no damages occurred during shipping or handling. Materials shall be stored in such a manner to ensure proper ventilation and drainage, and to protect against damage, weather, vandalism, or theft.

PART 2 - PRODUCTS

2.1 SHADE STRUCTURE

A. General. Shade structures shall all be of the same manufacturer.

2.2 7’ X 13’ SHADE SAILS

A. USA Shade, 1085 N. Main Street, Suite C, Orange, California 92867 or approved equal
Phone: (714) 427-6987. Website https://www.usa-shade.com/

Shade Sail: Custom shade sail, contact manufacturer for more information.

Mounting: See plans.

Color: 2 shade sails shall be sky blue (495626)
2 shade sails shall be steel grey (495718)

2.3 14.5' X 18' SHADE SAIL

A. USA Shade, 1085 N. Main Street, Suite C, Orange, California 92867 or approved equal
Phone: (714) 427-6987. Website https://www.usa-shade.com/

Shade Sail: Custom shade sail, contact manufacturer for more information.

Mounting: See plans.

Color: Steel grey (495718)

2.4 12.5’ X 20’ SHADE SAIL

A. USA Shade, 1085 N. Main Street, Suite C, Orange, California 92867 or approved equal

Phone: (714) 427-6987. Website https://www.usa-shade.com/

Shade Sail: Custom shade sail, contact manufacturer for more information.

Mounting: See plans.

Color: Sky blue (495626)

2.5 TRIANGULAR SHADE SAILS

A. USA Shade, 1085 N. Main Street, Suite C, Orange, California 92867 or approved equal
Phone: (714) 427-6987. Website https://www.usa-shade.com/

Shade Sail: Custom shade sail, contact manufacturer for more information.

Mounting: See plans.

Color: Smaller triangle shall be steel grey (495718)
Larger triangle shall be sky blue (495626)

2.6 DRINKING FOUNTAIN & DOG WATER STATION

Most Dependable Fountains Model 440 SMSS w/ Optional Pet Fountain (blue) or approved equal. 5705 Commander Dr., Arlington, TN 38002; www.mostdependable.com; (901) 867-0039

PART 3 - EXECUTION

3.1 GENERAL

A. Handle and install site furnishings in accordance with manufacturer's approved shop drawings and instructions.

B. Deliver manufactured furnishings in original packaging. Protect and secure furnishings delivered to site from damage and theft.

3.2 SITE FURNISHINGS

A. Layout of Site Furnishings

1. Layout: Layout site furniture according to the locations shown on the drawings, and as required by the Engineer.

2. Examination: Examine areas to receive site furnishings. Notify Engineer of conditions that would adversely affect installation or subsequent use. Do not begin installation until unacceptable conditions are corrected.

3. Adjustments: The Engineer reserves the right to make adjustments in the locations of the site furniture without additional cost to the County.

4. Quantity of furnishings shall be as specified on plans and in these specifications.

B. Installation of Site Furnishings

1. Drinking fountain to be surface mounted. Provide 1.5" schedule 40 PVC drainpipe stub through concrete base and a 1/2" supply line for water supply. Provide p-trap prior to connecting to the sewer line. Contractor to supply shop drawings. Flush and disinfect the potable water line after connection per Section 77-2.03J.

2. Set site furnishings level and true to line, in correct relationship to adjacent materials.

3. Bolt down in place or secure by other means all furnishings, as indicated in these specifications.

4. Prepare subgrade and footings for the shade sails per plans and manufacturer's instructions. Install shade sails per manufacturer's specifications. Layout per plans.

C. Cleaning:

1. The contractor shall clean the jobsite of excess materials and any debris that is caused by surface mounting.

2. Clean furnishings promptly after installation in accordance with manufacturer’s instructions.

3. Do not use harsh cleaning materials or methods that could damage finish.

3.3 FINAL ACCEPTANCE

A. Final Acceptance shall be when all furnishings and fixtures are installed in accordance with approved Drawings and to manufacturer’s specifications, and all damaged parts and items are replaced.

B. Submit product maintenance data.

END OF SECTION

APPENDIX C - GEOTECHNICAL ENGINEERING REPORT

CITY OF SAN LUIS OBISPO, LAGUNA LAKE DOG PARK REVITALIZATION PROJECT, DALIDO ROAD, SAN LUIS OBISPO, CALIFORNIA,

BY:
EARTH SYSTEMS PACIFIC, FILE NO. 306228-001.SER, DATED AUGUST 4, 2023

GEOTECHNICAL ENGINEERING REPORT
LAGUNA LAKE DOG PARK IMPROVEMENTS
504 MADONNA ROAD
SAN LUIS OBISPO, CALIFORNIA

August 4, 2023

Prepared for

Wallace Group

Prepared by

Earth Systems Pacific
4378 Old Santa Fe Road
San Luis Obispo, CA 93401

EARTH SYSTEMS
4378 Santa Fe Road | San Luis Obispo, CA 93401 | (805) 544-3276 | www.earthsystems.com

August 4, 2023

FILE NO.: 306228-001

Ms. Ann Sever
Wallace Group
612 Clarion Court
San Luis Obispo, CA 93401

PROJECT: LAGUNA LAKE DOG PARK IMPROVEMENTS
504 MADONNA ROAD
SAN LUIS OBISPO, CALIFORNIA

SUBJECT: Geotechnical Engineering Report

REF: Proposal for a Geotechnical Engineering Investigation, by Earth Systems Pacific, Doc. No. SLO-2306-001.PRP, dated June 1, 2023 (revised June 27, 2023).

Dear Ms. Sever:

This geotechnical engineering report has been prepared for use in the development of plans and specifications for the proposed improvements at the Laguna Lake Dog Park in San Luis Obispo, California. Preliminary geotechnical recommendations for site preparation, grading, utility trench backfill, foundations, exterior pedestrian flatwork, Hot Mix Asphalt (HMA) pavement design criteria, drainage around improvements, and construction observation and testing are presented herein.

We appreciate the opportunity to have provided professional services for this project and look forward to working with you again in the future. If there are any questions concerning this report, please do not hesitate to contact the undersigned.

Sincerely,

Earth Systems Pacific

REGISTERED PROFESSIONAL ENGINEER
ROBERT W. DOWN
No. 70206
CIVIL
STATE OF CALIFORNIA

Robert Down, PE
Principal Engineer

Jennifer Campbell, PE
Project Engineer

Doc. No.: 2308-014.SER/pm

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APPENDICES

1.0 INTRODUCTION AND SITE SETTING

We understand new site amenities are planned for the approximately 3-acre Laguna Lake Dog Park in San Luis Obispo, California. Based on the provided site plan, we understand the improvements will include new shade sails, concrete pedestrian paving, fencing, and other ancillary features. New utilities including irrigation lines are also planned. We assume the shade sails will be constructed with shallow conventional foundation elements or drilled caisson foundations. We assume proposed grades will be approximately those of existing grades; therefore, minor grading cuts and fills on the order of about 1 to 2 feet are anticipated. We assume no drainage basins or LID/BMP stormwater infiltration systems are currently planned. The site location is shown on the Site Vicinity Map presented in Appendix A.

The approximate site coordinates of latitude 35.2646N and longitude 120.6827W were obtained from the Google Earth Website (Google Earth 2023). The site is surrounded by internal roads, car parking, and Laguna Lake. The site generally slopes westward toward Laguna Lake with drainage by sheet flow to the west.

2.0 SCOPE OF SERVICES

The scope of work for this geotechnical engineering report included a general site reconnaissance, review of previous field exploration and laboratory testing, geotechnical analysis of the data, and preparation of this report. The geotechnical analysis and subsequent recommendations were based, in part, upon a site plan and verbal information provided by the client.

This report and recommendations are intended to comply with the considerations of Sections 1803.1 through 1803.6, J104.3 and J104.4, as applicable, of the 2022 California Building Code (CBC) and common geotechnical engineering practice in this area under similar conditions at this time. The test procedures were accomplished in general conformance with the standards noted, as modified by common geotechnical engineering practice in this area under similar conditions at this time.

Preliminary geotechnical recommendations for site preparation, grading, utility trench backfill, foundations, exterior pedestrian flatwork, Hot Mix Asphalt (HMA) pavement design criteria, drainage around improvements, and construction observation and testing are presented to guide the development of project plans and specifications. As there may be geotechnical issues yet to be resolved, the geotechnical engineer should be retained to provide consultation as the

design progresses, and to review project plans as they near completion to assist in verifying that pertinent geotechnical issues have been addressed and to aid in conformance with the intent of this report.

It is our intent that this report be used exclusively by the client to form the geotechnical basis of the design of the proposed Laguna Lake Dog Park improvements, and in the preparation of plans and specifications. Application beyond this intent is strictly at the user's risk. If future property owners wish to use this report, such use will be allowed to the extent the report is applicable, only if the user agrees to be bound by the same contractual conditions as the original client, or contractual conditions that may be applicable at the time of the report's use.

This report does not address issues in the domain of contractors such as, but not limited to, site safety, loss of volume due to stripping of the site, shrinkage of soils during compaction, excavatability, dewatering, temporary slope angles, construction means and methods, etc. Analyses of site or areal geology, and of the soil for lead or mold potential, radioisotopes, asbestos (either man-made or naturally occurring), hydrocarbons, or other chemical properties are beyond the scope of this report. Evaluation of ancillary features such as fences, flag poles, signage, and nonstructural fills are all not within our scope and are also not addressed. Design and/or suitability of LID features such as retention basins, bioswales, or other improvements, and determination of site suitability and design of on-site effluent disposal systems are also beyond our scope.

In the event that there are any changes in the nature, design, or location of improvements, or if any assumptions used in the preparation of this report prove to be incorrect, the conclusions and recommendations contained in this report shall not be considered valid unless the changes are reviewed, and the conclusions of this report modified or verified by the geotechnical engineer in writing. The criteria presented in this report are considered preliminary until such time as any peer review or review by any jurisdiction has been completed, conditions have been observed by the geotechnical engineer in the field during construction, and the recommendations have been verified as appropriate, or modified by the geotechnical engineer in writing.

3.0 PREVIOUS FIELD INVESTIGATION AND LABORATORY ANALYSIS

On November 12, 2008, one exploratory boring (Boring 2) was drilled in the vicinity of the proposed dog park improvements with a Mobile B-53 drill rig equipped with an 8-inch outside diameter hollow stem auger and an automatic drop hammer for sampling. The boring was drilled to a depth of about 16.5 feet below the existing ground surface (bgs). As the exploratory boring was drilled, soil samples were obtained using a 3-inch outside diameter ring-lined barrel sampler (ASTM D 3550-01 with shoe similar to ASTM D 2937-04). Standard penetration tests were also conducted at selected depths (ASTM D 1586-99). A bulk soil sample was obtained from the auger cuttings between depths of about 2 to 4 feet. The approximate location of the boring is shown on the Exploration Location Map in Appendix A.

Soils encountered in the boring were categorized and logged in general accordance with the Unified Soil Classification System and ASTM D 2488-06. Where bedrock was encountered, its properties were described based upon observation of the Standard Penetration Test sample, observation of the auger cuttings, the effort required to drill into the bedrock, and effort required to drive samplers into the bedrock. A copy of the boring log and a Boring Log Legend are included in Appendix A. In reviewing the boring log and legend, the reader should recognize that the legend is intended as a guideline only, and there are a number of conditions that may influence the characteristics observed during drilling. These include, but are not limited to, the presence of cobbles or boulders, cementation, variations in soil moisture, presence of groundwater, and other factors. Consequently, the logger must exercise judgement in interpreting the subsurface characteristics, possibly resulting in descriptions that vary somewhat from the legend. The reader should also consider the sampler type used when reviewing the blow counts.

Selected ring samples were tested for unit weight and moisture (ASTM D 2937-04, as modified for ring liners). A bulk sample was tested for maximum density and optimum moisture (ASTM D 1557-07) and expansion index (ASTM D 4829-07). Results of the 2008 laboratory tests are presented in Appendix B.

4.0 GENERAL SUBSURFACE PROFILE

Boring 2 (ESP 2008), located in the vicinity of the proposed dog park improvements, encountered about 2 feet of fill consisting of stiff sandy lean clay overlying alluvium. The alluvium consisted of sandy fat clay and sandy lean clay with gravel. The alluvial clay soils were

in a very stiff condition. Serpentinite of the Franciscan mélange was encountered in the exploration at 15 feet bgs. The soil and rock were described during drilling as being slightly moist to very moist. Subsurface water was not encountered in Boring 2 to the maximum depth explored of 16.5 feet bgs.

5.0 CONCLUSIONS

In our opinion, the site is suitable, from a geotechnical engineering standpoint, for the proposed dog park improvements. The primary geotechnical engineering concerns at the site are the potential for strong seismic shaking, expansion potential of the surficial soils, and erosion potential of the site soils. Liquefaction potential is also addressed below.

Strong Seismic Shaking

The site is in a region of high seismic activity, with the potential for large seismic events that could generate strong ground shaking. Seismic acceleration parameters should be utilized in the design of the structure so that potential damage is reduced during a seismic event. Seismic acceleration design parameters are presented in the “Foundations” Section of this report.

Expansion Potential

An expansion index (EI) test of the near-surface alluvial soils resulted in a value of 128. Per CBC Section 1803A.5.3, the soils are considered to be expansive. The more commonly used ASTM classification is that the soils are considered to have “high” expansion potential. Expansive soils tend to swell with seasonal increases in moisture and shrink during the dry season as subsurface moisture decreases. The volume changes that these materials undergo in this cyclical pattern can stress and damage foundations and pedestrian flatwork if precautionary measures are not incorporated into the design and construction procedures. Recommendations for reducing the potential effect of expansive soils on the proposed shade sail foundations and pedestrian flatwork are provided in the following sections.

Soil Erosion

The soils are considered highly erodible. It is essential that all surface drainage be controlled and directed to appropriate discharge points, and that surface soils, particularly those disturbed during construction, are stabilized by vegetation or other means during and following construction. The architect/engineer should ensure appropriate nonerosive overland escape if storm water drainage systems fail or are overwhelmed during significant storm event(s), so that soils are not eroded.

Liquefaction Potential

The site is mapped by the County of San Luis Obispo (SLOCO 2023) as being in an area of moderate liquefaction potential. As discussed above, the subsurface material encountered in Boring 2 generally consisted of stiff to very stiff clays overlying Franciscan mélange bedrock. Additionally, free subsurface water was not encountered in Boring 2. Therefore, in our opinion, the potential for liquefaction settlement to impact the site may be considered low.

6.0 PRELIMINARY GEOTECHNICAL RECOMMENDATIONS

These recommendations are applicable for the proposed project as described in the "Introduction and Site Setting" Section of this report. If other improvements not previously mentioned are included, the geotechnical engineer should be contacted for revised recommendations.

Unless otherwise noted, the following definitions are used in the recommendations presented below. Where terms are not defined, definitions commonly used in the construction industry are intended.

- **Shade Sail Foundation Areas:** The area within and extending a minimum of 5 feet beyond the perimeter of the foundations of the proposed shade sails. The shade sail area also includes the footprints of any improvements that are rigidly connected to the shade sail structures and that are expected to perform in a similar manner, if planned.
- **Flatwork Areas:** The areas within the limits of all flatwork.
- **Existing Grade:** Elevations of the site that existed as of the date of this report.
- **Scarified:** Thoroughly plowed or ripped in two orthogonal directions to a depth of not less than 8 inches.
- **Moisture Conditioned:** Soil moisture content adjusted by wetting or drying to optimum moisture content, or just above, prior to application of compactive effort.
- **Compacted/Recompacted:** Soils placed in level lifts not exceeding 8 inches in loose thickness and compacted to a minimum of 90 percent of maximum dry density, unless specified otherwise. The standard tests used to establish maximum dry density and field density should be ASTM D 1557-12 and ASTM D 6938-17, respectively, or other methods acceptable to the geotechnical engineer and jurisdiction.
- **Nonexpansive Material:** Nonexpansive material is defined as being a coarse-grained soil (ASTM D2487-17) and having an expansion index of 10 or less (ASTM D4829-19)

Site Preparation

1. The existing areas designated for site improvements should be prepared for construction by removing all existing improvements, foundations, vegetation, trees and associated root balls, debris, and other deleterious materials. Any existing unsuitable fill soils should be completely removed and replaced as compacted fill. Any existing utility lines that will not remain in service should be either removed or abandoned. The appropriate method of utility abandonment will depend upon the type and depth of the utility. Recommendations for abandonment during construction can be made as necessary.

2. Voids created by the removal of materials or utilities, and extending below the recommended overexcavation depth, should be immediately called to the attention of the geotechnical engineer. No fill should be placed unless the underlying soil has been observed by the geotechnical engineer.

Grading

1. Following site preparation, the soils in the proposed flatwork areas should be removed on a level plane to a depth of 24 inches below existing grade. The upper 24 inches of soil beneath pedestrian flatwork areas should consist of compacted nonexpansive material as described in subsequent Paragraph 3. During construction, locally deeper removals may be recommended based on field conditions. The resulting soil surface should then be scarified, moisture conditioned, and compacted prior to placing any fill soil.

2. Voids created by dislodging cobbles and/or debris during scarification should be backfilled and compacted, and the dislodged materials should be removed from the area of work.

3. On-site material and approved import materials may be used as general fill up to 24 inches below bottom of pedestrian flatwork areas. As discussed, the upper 24 inches of soil beneath the pedestrian flatwork areas should consist of nonexpansive fill. Nonexpansive material is defined as being a coarse-grained soil (ASTM D2487-17) and having an expansion index of 10 or less (ASTM D4829-19). All imported soil should be nonexpansive. Native soil may be used to finish grade or sub-grade in other areas on site. The proposed imported soils should be evaluated by the geotechnical engineer before being used, and on an intermittent basis during placement on the site.

4. All materials used as fill should be cleaned of any debris and rocks larger than 6 inches in diameter. No rocks larger than 3 inches in diameter should be used within the upper 3 feet of finish grade. When fill material includes rocks, the rocks should be placed in a sufficient soil matrix to ensure that voids caused by nesting of the rocks will not occur and that the fill can be properly compacted.

5. Generally, all soils should be compacted to a minimum of 90 percent of maximum dry density as defined above; however, the upper foot of subgrade and all aggregate base in HMA areas should be compacted to a minimum of 95 percent of maximum dry density. Subgrade and aggregate base in areas to be paved should be firm and unyielding when proof rolled with heavy, rubber-tired grading equipment prior to continuing construction.

6. If the soils are overly moist so that they become unstable or if the recommended compaction cannot be readily achieved, drying the soil to optimum moisture content, or just above, may be necessary. Placement of gravel layers or geotextiles may also be necessary to help stabilize unstable soils. If such conditions are found, the geotechnical engineer should be available to assist the contractor in selecting appropriate measures for stabilization of unstable soils. Soils that are disturbed in any manner should be removed, moisture conditioned, and recompacted.

7. In general, all cut and fill slopes should not exceed a 2:1 (horizontal to vertical) slope gradient.

Utility Trenches

1. Unless otherwise recommended, utility trenches adjacent to foundations should not be excavated within the zone of foundation influence as shown on Typical Detail A presented in Appendix C.

2. In general, trench backfill should be compacted to a minimum of 90 percent of maximum dry density. The upper foot of subgrade and all aggregate base in vehicular pavement areas should be compacted to a minimum of 95 percent of maximum dry density.

3. Utilities that must pass beneath a foundation should be placed with properly compacted utility trench backfill and the foundation should be designed to span the trench.

4. A select, noncorrosive, granular, easily compacted material should be used as bedding and shading immediately around utilities. Generally, the soil found at the site may be used for trench backfill above the select material.

5. Compaction of trench backfill by jetting or flooding is not recommended except under extraordinary circumstances. However, to aid in *encasing* utility conduits, particularly corrugated drain pipes, and multiple, closely spaced conduits in a single trench, jetting or flooding may be useful. Flooding or jetting should only be attempted with extreme caution, and any jetting operation should be subject to review by the geotechnical engineer.

6. The recommendations of this section are minimums only and may be superseded by the requirements of the architect/engineer, the recommendations of pipe manufacturers or utility companies, or the requirements of the governing jurisdiction based upon soil corrosivity or other factors.

Foundations

Conventional Shallow Foundations

1. The proposed shade sail foundations may be supported on firm native material. Any fills observed within the footing excavations should be brought to the attention of the geotechnical engineer. Footings should have a minimum embedment depth of 27 inches below lowest adjacent grade; however, footing dimensions should also conform to the requirements of CBC Section 1809 (CBSC 2022). All spread footings should be a minimum of 2 feet square. Footing reinforcement should be in accordance with the requirements of the architect/engineer; minimum continuous footing reinforcement should consist of two No. 5 rebar, one near the top and one near the bottom.

2. Footings should be designed using a maximum allowable bearing capacity of 2,000 psf dead plus live loads.

3. Using these criteria, total and differential static settlement is expected to be on the order of up to 0.5 inches.

4. The allowable bearing capacity may be increased by one-third when transient loads such as wind or seismicity are included.

5. In accordance with Chapter 20 of ASCE 7-16 (2017), Seismic Site Class D (Stiff Soil) was selected based on subsurface data from our boring. The S_1 ground motion value obtained from the Structural Engineers Association of California website (SEAOC 2023) using Seismic Site Class D was 0.382, greater than 0.2; therefore, per Section 11.4.8 of ASCE 7-16, Supplement 3, the project requires site-specific ground motion analyses unless certain exceptions relating to structural design calculations are applied. We have assumed that the Architect/Engineer intends to apply the exception allowed under Note 1 in ASCE 7-16 Supplement 3 to this project; therefore, we are providing the general procedure seismic design parameters based on the site coordinates stated in the "Introduction and Site Setting" section and Seismic Site Class D in accordance with Section 11.4.4 of ASCE 7-16. Unscaled seismic design parameters are shown in the table below. The Architect/Engineer should verify these assumptions during the design process. The project was considered to be Risk Category II as described in Table 1604.5 of the CBC (CBSC 2022).

Table 1: SEISMIC PARAMETERS

Mapped Spectral Response Acceleration for Site Class B		**Site Class "D" Adjusted Values**				**Design Values**	
Seismic Parameters	**Values (g)**	**Site Coefficients**	**Values**	**Seismic Parameters**	**Values (g)**	**Seismic Parameters**	**Values (g)**
S_S	1.036	**F_a**	1.086	**S_{MS}**	1.125	**S_{DS}**	0.750
S_1	0.382	**F_v**	1.918	**S_{M1}**	0.733	**S_{D1}**	0.488
Peak Mean Ground Acceleration (PGA_M) = 0.522g							
Seismic Design Category = D							

6. Lateral loads may be resisted by soil friction and by passive resistance of the soil acting on foundations. Lateral capacity is based on the assumption that the backfill adjacent to foundations is properly compacted. A passive equivalent fluid pressure of 350 pcf and a coefficient of friction of 0.35 may be used in design. These are ultimate values as no factors of safety, load factors, and/or other factors have been applied to any of the values.

7. Foundation excavations should be observed by the geotechnical engineer prior to rebar and PCC placement. Footing excavations should be thoroughly moistened prior to PCC placement and no desiccation cracks should be present.

Caisson Foundations

1. As an alternative to shallow foundations, drilled, cast-in-place caissons may be used to support the proposed shade sails. Caisson dimensions and reinforcement should be in accordance with the requirements of the architect/engineer. The minimum caisson diameter should be 24 inches with minimum embedment of 10 feet below lowest adjacent grade.

2. The caissons should be designed to derive support from skin friction against the alluvium. Capacity in the upper 3 feet bgs should be ignored.

3. The caissons may be designed using a downward (compressive) allowable skin friction value of 400 psf for the alluvium. Skin friction in the upper 3 feet as well as end bearing capacity should not be used in the calculations.

4. An allowable skin friction value of 280 psf can be used for short-term tension (uplift) conditions with alluvium. The self-weight of the caissons may be neglected in the determination of loading, however, it may be included, if needed, for resistance to uplift. Tension (uplift) capacity in the recompacted soils should be neglected.

5. The allowable skin friction values for the caissons may be increased by one-third when transient loads such as wind or seismicity are included. Foundations should be designed using the seismic parameters presented in Table 1 in the “Foundations” section of this report.

6. Passive resistance should be neglected in the upper 3 feet bgs. An ultimate passive resistance within the alluvium based on equivalent fluid pressure of 450 pcf, acting over 2 caisson diameters, may be taken for resistance to short term lateral loads. The structural engineer should apply an appropriate factor of safety to the ultimate values presented above.

7. Caissons should not be constructed closer than three caisson diameters to each other without approval from the geotechnical engineer.

8. Concrete used in caissons should be placed at a slump between 6 and 8 inches in dry excavations and between 8 and 10 inches when placed under water. The concrete in the upper 8 to 10 feet of the caissons should be mechanically consolidated following placement.

9. All caisson excavations should be filled with concrete on the same day as they are drilled. If this is not practicable, the caissons should be secured in a safe manner in conformance with OSHA requirements or other applicable safety standards until concrete can be placed. Any caisson excavation that has not been filled with concrete on the same day as it was drilled should have the surfaces "freshened" by extending the rotating auger into and out of the hole several times immediately prior to placement of the concrete. The bottom of the hole should then be cleaned out again by means of the clean-out bucket.

10. Caisson excavations should be observed by the geotechnical engineer during drilling operations to confirm the subsurface conditions and prior to placement of reinforcing steel and concrete. Special inspection of reinforcing steel and concrete placement for the caissons should also be provided.

Exterior Pedestrian Flatwork

1. Conventional, light-duty PCC pedestrian flatwork should have a minimum thickness of 4 full inches; the thickness of heavy duty PCC should be specified by the architect/engineer. Due to the presence of surficial highly expansive clay, we recommend any exterior flatwork be supported on at least 24 inches of non-expansive fill.

2. Flatwork should be constructed with frequent joints to allow articulation as the flatwork moves in response to seasonal temperature and soil moisture variations. The soil underlying the flatwork should be moisture conditioned prior to casting the flatwork.

3. In conventional construction, it is common to use four to six inches of sand or gravel beneath exterior flatwork. Another measure that can be taken to reduce the risk of movement of the flatwork is to provide thickened edges or grade beams around the perimeter of the flatwork. The thickened edges or grade beams could be up to 12 inches deep with the deeper edges or grade beams providing better protection. At a minimum, the thickened edge or grade beam should be reinforced by two No. 5 rebar, one near the top and one near the bottom.

4. To reduce shrinkage cracks in PCC, the PCC aggregates should be of appropriate size and proportion, the water/cement ratio should be low, the PCC should be properly placed and finished, contraction joints should be installed, and the PCC should be properly cured. PCC materials, placement, and curing specifications should be at the direction of the architect/engineer.

HMA Pavement Design Criteria

The following HMA pavement sections are based upon an assumed R-value of 5, based on clayey soil conditions and our experience with similar sites in the area, and assumed Traffic Indices (TIs) of 4.0 through 7.0. Determination of the appropriate TI for specific areas of the project is left to others. The HMA sections were calculated in accordance with the method presented in the "Highway Design Manual" (Caltrans 2020). The calculated HMA and Class 2 aggregate base (AB) thicknesses are for compacted material. Normal Caltrans construction tolerances should apply.

TABLE 3: HMA Pavement Sections

Traffic Index	HMA (in)	Class 2 AB* (in)
4.0	2.25	8.0
4.5	2.50	10.0
5.0	2.75	11.0
5.5	3.00	13.0
6.0	3.25	14.0
6.5	3.75	15.5
7.0	4.00	16.5

*Per Caltrans (2023) Section 26

1. Pavement should be set back a minimum of 2 feet from any descending slope, and a minimum of 5 feet from any descending slope that is steeper than 20 percent. Alternately, deepened curbs may be used to constrain the HMA and aggregate base. Where curbs are planned in lieu of the recommended set back, the individual situation should be reviewed, and specific recommendations prepared by the geotechnical engineer.

2. The upper 12 inches of subgrade and all aggregate base in HMA areas should be compacted to a minimum of 95 percent of maximum dry density. Subgrade and aggregate base should be firm and unyielding when proof rolled with heavy, rubber-tired grading equipment prior to continuing construction.

3. Finished pavement surfaces should be sloped to freely drain toward appropriate drainage facilities. Water should not be allowed to stand or pond on or adjacent to pavement or other improvements as it could infiltrate into the aggregate base and/or subgrade, causing premature pavement deterioration.

4. To reduce migration of surface drainage into the subgrade, maintenance of pavement areas is critical. Any cracks that develop in the pavement should be promptly sealed.

5. The local jurisdiction may have additional requirements for pavement that could take precedence over the above recommendations.

Drainage and Maintenance

1. Unpaved ground surfaces should be graded during construction, and per Section 1804.4 of the 2022 CBC, finish graded to direct surface runoff away from foundations, slopes, and other improvements at a minimum 5 percent grade for a minimum distance of 10 feet. If this is not feasible due to the terrain, property lines, or other factors, swales with improved surfaces, area drains, or other drainage features should be provided to divert drainage away from these areas.

2. Finished surfaces should be sloped to freely drain toward appropriate drainage facilities. Water should not be allowed to stand or pond on or adjacent to slopes or other improvements.

3. Stabilization of surface soils, particularly those disturbed during construction, by vegetation or other means *during and following construction,* should be implemented to protect the site from erosion damage. Care should be taken to establish and maintain vegetation.

4. To reduce the potential for damage due to erosion it is essential that the surface soils, particularly those disturbed during construction, be stabilized by vegetation or other means during and following construction. Care should be taken to establish and maintain vegetation. Any landscaping and exterior hardscape should be installed to maintain the surface drainage recommended above.

5. To reduce the potential for disruption of drainage patterns and undermining of foundations and other improvements, rodent activity should be aggressively controlled.

Observation and Testing

1. It must be recognized that the recommendations contained in this report are based on a limited number of borings and rely on continuity of the subsurface conditions encountered. Therefore, the geotechnical engineer should be retained to provide consultation during the design phase, to review plans as they near completion, to interpret this report during construction, and to provide construction monitoring in the form of testing and observation.

2. At a minimum, the geotechnical engineer should be retained to provide:

    - Professional observation during grading and backfill
    - Oversight of soil special inspection during grading and foundation construction

3. Special inspection of grading and backfill should be provided as per Section 1705.6 and Table 1705.6 (CBSC 2022). The special inspector should be under the direction of the geotechnical engineer. It is our opinion that none of the grading construction is of a nature that should warrant continuous special inspection; periodic special inspection should suffice. Subject to approval by the Building Official, the exception to continuous special inspection is described in Section 1704.2 (CBSC 2022) and should be specified by the architect/engineer and periodic special inspection of the following items should be provided by the special inspector.

    - Overexcavation to the recommended depth
    - Scarification, moisture conditioning, and compaction of the soil
    - Fill quality, placement, and compaction
    - Utility trench backfill
    - Foundation excavations

4. A program of quality control should be developed prior to beginning grading. The contractor or project manager should determine any additional inspection items required by the architect/engineer or the governing jurisdiction.

5. Locations and frequency of compaction tests should be as per the recommendation of the geotechnical engineer at the time of construction. The recommended test locations and frequency may be subject to modification by the geotechnical engineer, based upon soil and moisture conditions encountered, size and type of equipment used by the contractor, the general trend of the results of compaction tests, or other factors.

6. A preconstruction conference among the owner, the geotechnical engineer, the governing agency, the special inspector, the project inspector, the architect/engineer, and contractors is recommended to discuss planned construction procedures and quality control requirements.

7. The geotechnical engineer should be notified at least 48 hours prior to beginning construction operations. If Earth Systems Pacific is not retained to provide construction observation and testing services, it shall not be responsible for the interpretation of the information by others or any consequences arising therefrom.

7.0 CLOSURE

Our intent was to perform the geotechnical investigation in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing in the locality of this project and under similar conditions. No representation, warranty, or guarantee is either expressed or implied. This report is intended for the exclusive use by the client as discussed in the "Scope of Services" Section. Application beyond the stated intent is strictly at the user's risk.

This report is valid for conditions as they exist at this time for the type of project described herein. The conclusions and recommendations contained in this report could be rendered invalid, either in whole or in part, due to changes in building codes, regulations, standards of geotechnical or construction practice, changes in physical conditions, or the broadening of knowledge. If Earth Systems Pacific is not retained to provide construction observation and testing services, it shall not be responsible for the interpretation of the information by others or any consequences arising therefrom.

If changes with respect to project type or location become necessary, if items not addressed in this report are incorporated into plans, or if any of the assumptions used in the preparation of this report are not correct, this firm shall be notified for modifications to this report. Any items not specifically addressed in this report should comply with the CBC (CBSC 2022) and the requirements of the governing jurisdiction.

The preliminary recommendations of this geotechnical report are based upon the geotechnical conditions encountered at the site and may be augmented by additional requirements of the architect/engineer, or by additional recommendations provided by the geotechnical engineer based on conditions exposed at the time of construction.

Thank you for this opportunity to have been of service. If you have any questions, please feel free to contact this office at your convenience.

End of Text.

TECHNICAL REFERENCES

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APPENDIX A

Site Vicinity Map

Exploration Location Map

Boring Log Legend

Previous Boring Log

NOT TO SCALE

BASE MAP PROVIDED BY: GOOGLE EARTH (2023)

Earth Systems Pacific
4378 Old Santa Fe Road, San Luis Obispo, CA 93401
www.earthsystems.com
(805) 544-3276 ● Fax (805) 544-1786

SITE VICINITY MAP

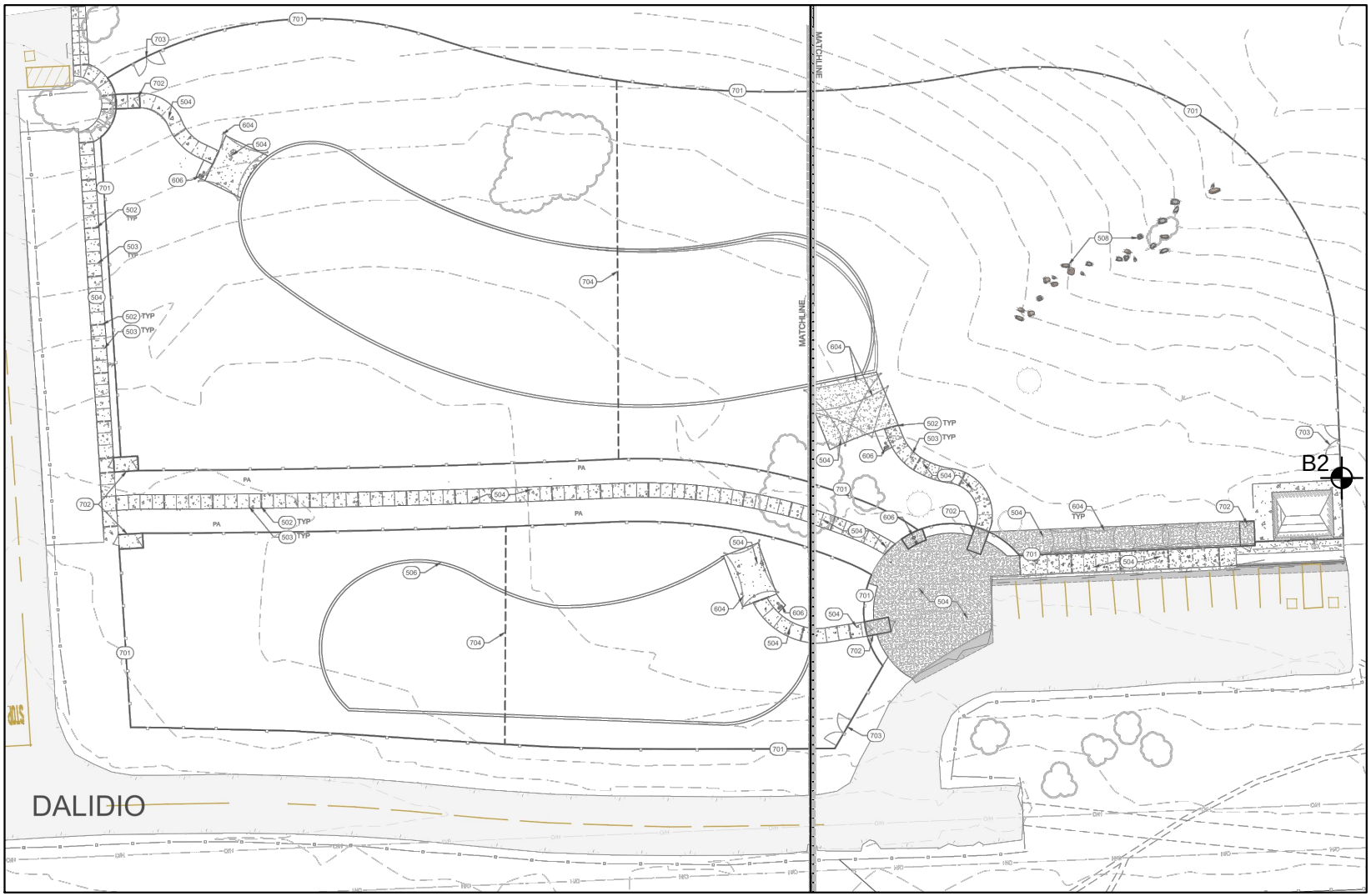
Laguna Lake Dog Park Improvements
504 Madonna Road
San Luis Obispo, California

Date
August 2023

Project No.
306228-001

Figure 1

306228-001LAGUNALAKEDOGPARK072623maps.dwg



LEGEND

B1 Boring Location, 2008 (Approx.)

BASE MAP PROVIDED BY: WALLACE GROUP (2023)

NOT TO SCALE

Earth Systems Pacific
4378 Old Santa Fe Road, San Luis Obispo, CA 93401
www.earthsystems.com
(805) 544-3276 ● Fax (805) 544-1786

EXPLORATION LOCATION MAP

Laguna Lake Dog Park Improvements
504 Madonna Road
San Luis Obispo, California

Date
August 2023

Project No.
306228-001

Figure 2

306228–001LAGUNALAKEDOGPARK072623maps.dwg

Earth Systems Pacific

BORING LOG LEGEND

SAMPLE / SUBSURFACE WATER SYMBOLS	GRAPH. SYMBOL
CALIFORNIA MODIFIED	
STANDARD PENETRATION TEST (SPT)	
SHELBY TUBE	
BULK	
SUBSURFACE WATER DURING DRILLING	
SUBSURFACE WATER AFTER DRILLING	

UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D 2487)

MAJOR DIVISIONS	GROUP SYMBOL	TYPICAL DESCRIPTIONS	GRAPH. SYMBOL
COARSE GRAINED SOILS (MORE THAN HALF OF MATERIAL IS LARGER THAN #200 SIEVE SIZE)	GW	WELL GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES	
	GP	POORLY GRADED GRAVELS, OR GRAVEL-SAND MIXTURES, LITTLE OR NO FINES	
	GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES, NON-PLASTIC FINES	
	GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES, PLASTIC FINES	
	SW	WELL GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES	
	SP	POORLY GRADED SANDS OR GRAVELLY SANDS, LITTLE OR NO FINES	
	SM	SILTY SANDS, SAND-SILT MIXTURES, NON-PLASTIC FINES	
	SC	CLAYEY SANDS, SAND-CLAY MIXTURES, PLASTIC FINES	
FINE GRAINED SOILS (HALF OR MORE OF MATERIAL IS SMALLER THAN #200 SIEVE SIZE)	ML	INORGANIC SILTS AND VERY FINE SANDS, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY	
	CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS	
	OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY	
	MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS	
	CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS	
	OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS	
	PT	PEAT AND OTHER HIGHLY ORGANIC SOILS	

OBSERVED MOISTURE CONDITION

DRY	SLIGHTLY MOIST	MOIST	VERY MOIST	WET (SATURATED)

CONSISTENCY

COARSE GRAINED SOILS			FINE GRAINED SOILS		
BLOWS/FOOT		DESCRIPTIVE TERM	BLOWS/FOOT		DESCRIPTIVE TERM
SPT	CA SAMPLER		SPT	CA SAMPLER	
0-10	0-16	LOOSE	0-2	0-3	VERY SOFT
11-30	17-50	MEDIUM DENSE	3-4	4-7	SOFT
31-50	51-83	DENSE	5-8	8-13	MEDIUM STIFF
OVER 50	OVER 83	VERY DENSE	9-15	14-25	STIFF
			16-30	26-50	VERY STIFF
			OVER 30	OVER 50	HARD

GRAIN SIZES

U.S. STANDARD SERIES SIEVE				CLEAR SQUARE SIEVE OPENING		
# 200	# 40	# 10	# 4	3/4"	3"	12"

SILT & CLAY	SAND			GRAVEL		COBBLES	BOULDERS
	FINE	MEDIUM	COARSE	FINE	COARSE		

TYPICAL BEDROCK HARDNESS

MAJOR DIVISIONS	TYPICAL DESCRIPTIONS
EXTREMELY HARD	CORE, FRAGMENT, OR EXPOSURE CANNOT BE SCRATCHED WITH KNIFE OR SHARP PICK; CAN ONLY BE CHIPPED WITH REPEATED HEAVY HAMMER BLOWS
VERY HARD	CANNOT BE SCRATCHED WITH KNIFE OR SHARP PICK; CORE OR FRAGMENT BREAKS WITH REPEATED HEAVY HAMMER BLOWS
HARD	CAN BE SCRATCHED WITH KNIFE OR SHARP PICK WITH DIFFICULTY (HEAVY PRESSURE); HEAVY HAMMER BLOW REQUIRED TO BREAK SPECIMEN
MODERATELY HARD	CAN BE GROOVED 1/16 INCH DEEP BY KNIFE OR SHARP PICK WITH MODERATE OR HEAVY PRESSURE; CORE OR FRAGMENT BREAKS WITH LIGHT HAMMER BLOW OR HEAVY MANUAL PRESSURE
SOFT	CAN BE GROOVED OR GOUGED EASILY BY KNIFE OR SHARP PICK WITH LIGHT PRESSURE, CAN BE SCRATCHED WITH FINGERNAIL; BREAKS WITH LIGHT TO MODERATE MANUAL PRESSURE
VERY SOFT	CAN BE READILY INDENTED, GROOVED OR GOUGED WITH FINGERNAIL, OR CARVED WITH KNIFE; BREAKS WITH LIGHT MANUAL PRESSURE

TYPICAL BEDROCK WEATHERING

MAJOR DIVISIONS	TYPICAL DESCRIPTIONS
UNWEATHERED	NO DISCOLORATION, NOT OXIDIZED
SLIGHTLY WEATHERED	DISCOLORATION OR OXIDATION IS LIMITED TO SURFACE OF, OR SHORT DISTANCE FROM, FRACTURES: SOME FELDSPAR CRYSTALS ARE DULL
MODERATELY WEATHERED	DISCOLORATION OR OXIDATION EXTENDS FROM FRACTURES, USUALLY THROUGHOUT; Fe-Mg MINERALS ARE "RUSTY", FELDSPAR CRYSTALS ARE "CLOUDY"
HIGHLY WEATHERED	DISCOLORATION OR OXIDATION THROUGHOUT; FELDSPAR AND Fe-Mg MINERALS ARE ALTERED TO CLAY TO SOME EXTENT, OR CHEMICAL ALTERATION PRODUCES IN SITU DISAGGREGATION
DECOMPOSED	DISCOLORATION OR OXIDATION THROUGHOUT, BUT RESISTANT MINERALS SUCH AS QUARTZ MAY BE UNALTERED; FELDSPAR AND Fe-Mg MINERALS ARE COMPLETELY ALTERED TO CLAY

drafting/masters/Boring Log Legend 062719.dwg

Earth Systems Pacific

Boring No. 2
PAGE 1 OF 1
JOB NO.: SL-15869-SA
DATE: 11/12/08

LOGGED BY: R. Wagner
DRILL RIG: Mobile B-53
AUGER TYPE: 8" Hollow Stem

LAGUNA LAKE RESTROOMS
Madonna Road
San Luis Obispo, California

DEPTH (feet)	USCS CLASS	SYMBOL	SOIL DESCRIPTION	SAMPLE DATA: INTERVAL (feet)	SAMPLE TYPE	DRY DENSITY (pcf)	MOISTURE (%)	BLOWS PER 6 IN.
0	CL		SANDY LEAN CLAY: dark brown, stiff, moist, some coarse gravel (fill)					
2				2.0–3.5	■	95.7	24.1	6 11 18
3	CH		SANDY FAT CLAY: black, very stiff, moist, trace coarse gravel (alluvium)					
4				2.0–4.0	○			
5			very moist	5.0–6.5	■	90.7	29.3	7 37 50/4.5"
6	CL		SANDY LEAN CLAY WITH GRAVEL: grey brown, very stiff, very moist					
10				10.0–11.5	■	80.1	38.0	13 31 33
15				15.0–16.5	●			13 38 50/4.0"
16			SERPENTINITE: olive grey, very soft, moist, severely decomposed (Franciscan melange)					
17			End of Boring @ 16.5' No subsurface water encountered					

LEGEND: ■ Ring Sample ○ Grab Sample ▭ Shelby Tube Sample ● SPT

NOTE: This log of subsurface conditions is a simplification of actual conditions encountered. It applies at the location and time of drilling. Subsurface conditions may differ at other locations and times.

APPENDIX B

Previous Laboratory Test Results

Laguna Lake Restrooms SL-15869-SA

BULK DENSITY TEST RESULTS

ASTM D 2937-04 (modified for ring liners)

November 26, 2008

BORING NO.	DEPTH feet	MOISTURE CONTENT, %	WET DENSITY, pcf	DRY DENSITY, pcf
2	2.0 - 2.5	24.1	118.9	95.7
2	5.5 - 6.0	29.3	117.2	90.7
2	11.0 - 11.5	38.0	110.6	80.1

EXPANSION INDEX TEST RESULTS

ASTM D 4829-07

BORING NO.	DEPTH feet	EXPANSION INDEX
2	2.0 - 4.0	128

Laguna Lake Restrooms

SL-15869-SA

MOISTURE-DENSITY COMPACTION TEST

ASTM D 1557-07 (Modified)

PROCEDURE USED: A

PREPARATION METHOD: Dry

RAMMER TYPE: Mechanical

SPECIFIC GRAVITY: 2.70 (assumed)

November 26, 2008

Boring #2 @ 2.0 - 4.0'

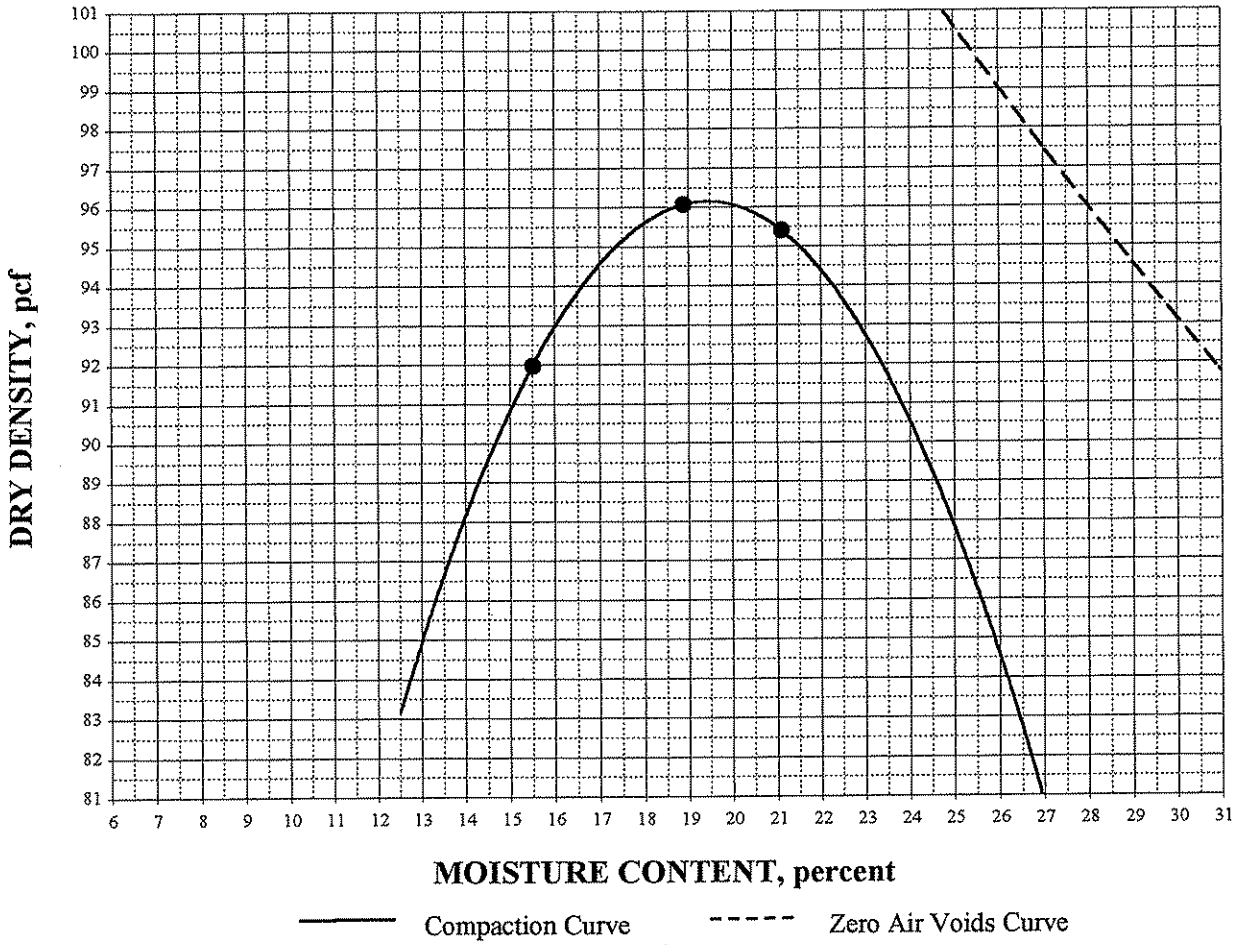
Brown Sandy Fat Clay (CH)

SIEVE DATA:

Sieve Size	% Retained
3/4"	0
3/8"	0
#4	0

MAXIMUM DRY DENSITY: 96.1 pcf

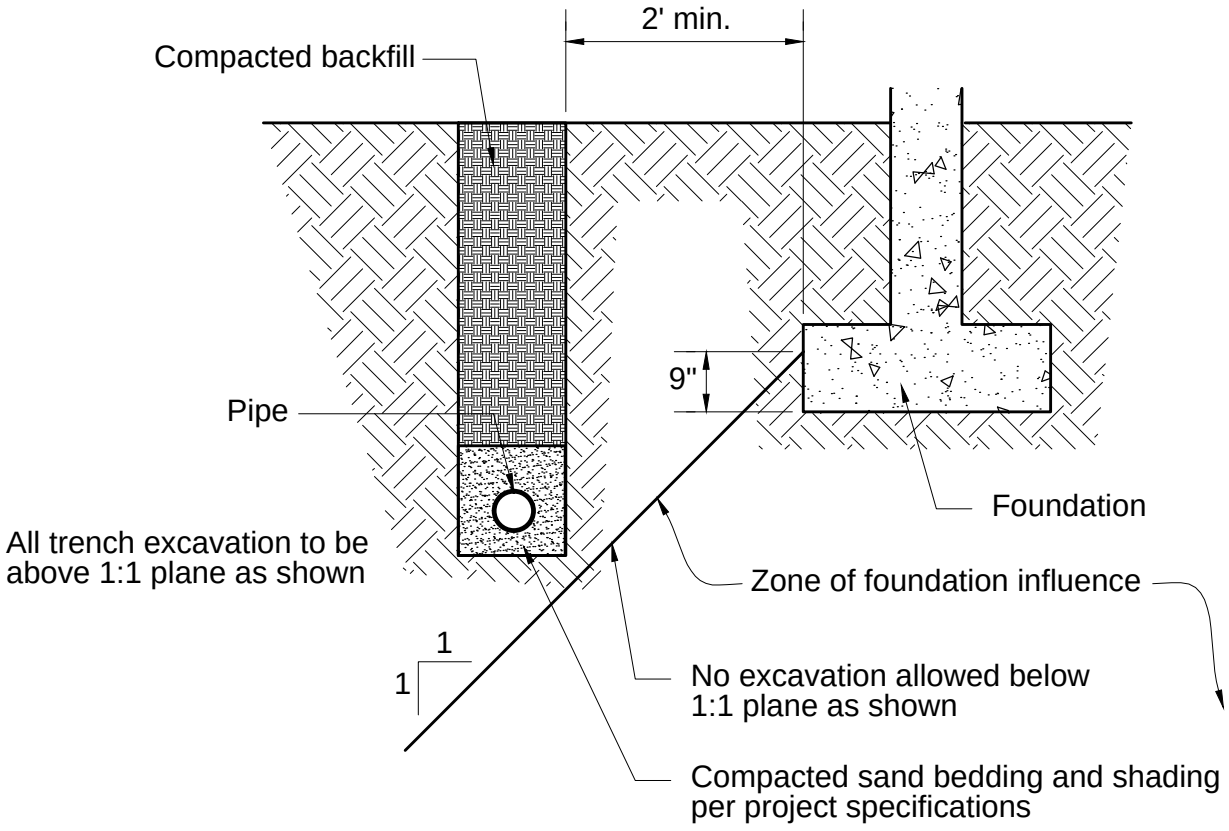
OPTIMUM MOISTURE: 19.5%



APPENDIX C

Typical Detail A: Pipe Placed Parallel to Foundations

TYPICAL DETAIL A
PIPE PLACED PARALLEL TO FOUNDATION



SCHEMATIC ONLY
NOT TO SCALE

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