

ADDENDUM NO. 3 – July 15, 2026

Mossdale Wastewater Pump Station Access Modifications and Upgrades CIP WW 26-09

This addendum amends the Contract Drawings and Specifications for this project as follows:

1. See Attachment A, new and amended plan sheets for construction of a bypass with manhole.
2. See Attachment B, new and revised Bidding and General Requirements and Technical Specifications for the construction of a bypass and manhole.
3. See Attachment C, Revised Bid Schedule, CIP WW 26-09. **All bids must be submitted on the revised bid schedule.**
4. Contract Time: The Contract Time is increased by 75 working days, for a revised total of 150 working days.
5. Supplementary Conditions 00800-2 and 00800-3 are revised as follows:

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

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

SC-3 CITY FURNISHED MATERIALS

City is pre-purchasing pumps and VFDs to be installed by Contractor

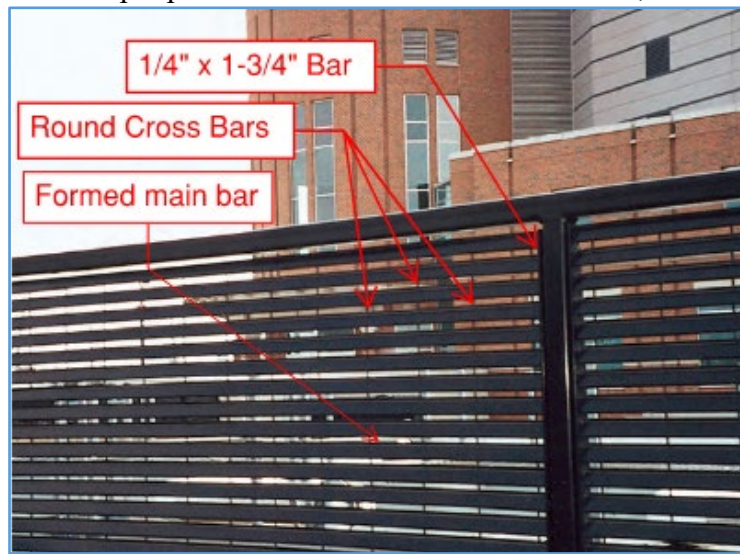
The following Requests for Information (**RFI**) have been received by the City, and are followed by the City's Answer (**A**):

RFI-1: Regarding the steel gate, please provide the sizes of gate framing S-302.

A1: The gate tube frames dimension is 5'-3" x 6'. The tube frame is 2" x 2". Inside rectangular dimension is 4'-11" x 5'-8".

RFI-2: Regarding the steel gate, per detail 6/S-303, locations of the cross bar, formed main bar and 1/4" x 1-3/4" bar on gate elevation 1/S-302

A2: The round cross bars are positioned vertically behind the infill panels. The formed main bar is running horizontally that attaches to the round cross bars and allows the infill panels to be positioned angled. The 1/4" x 1-3/4" bar is most likely welded along the vertical run of the tube frames. Please see sample picture from Ametco vendor website, below.



RFI-3: Per Specification Section 16481-2, it appears that the VFD and buckets will be purchased by the City. Can you please confirm whether the VFDs and buckets are owner-furnished and should be excluded from our scope, or if our bid is expected to include the VFDs and buckets?

A3: The Variable Frequency Drives (VFDs) shall be **purchased and installed** by the contractor and included in scope.

RFI-4: I have not been able to locate any specified instrument manufacturers or an approved vendors list within the project documents. Could you please advise which manufacturers are required or preferred for the instrumentation scope.

A4: The City does not maintain a preferred vendor list for this scope. Any manufacturer is acceptable, provided the equipment meets all Contract Documents and technical specifications. All technical compliance documentation will still undergo engineering review.

RFI-5: Temporary Sewage Bypassing:

- Neither the plans nor spec section 01350 detail the construction logistics for the bypassing operation:
 - How is the wet well to be isolated? Where is the nearest influent MH for pigging?
 - Where is nearest influent MH or pumping connection point for temp sewage bypass?
 - Where is the bypass discharge location or connection?
 - Is pump station power available to the Contractor for primary sewage pumps?
- Bypass flows: What are the existing peak line flows / lift station capacity for the bypass system? Design head for bypass?

A5: Please see Attachment A, new and amended plan sheets for the construction of a bypass with manhole and Attachment B, Technical Specifications that have been updated to include a proposed Temporary Sewage Bypass.

RFI-6: Pump procurement and electrical procurement will take longer than the time of completion allowed. Please confirm that the City will issue a limited NTP to the contractor for long lead time procurement items, and that the start of Contract tie will be negotiated with the Contractor predicated on the delivery of long lead time procurement items.

A6: The City may suspend the Contract Time for a duration equal to the time required for design, fabrication, and delivery of long-lead items furnished by the Contractor that affect the Project's critical path, as determined by the City.

RFI 7: To keep all bids equal, would the City change Bid Item #16 for Corroded Pipe Repairs to a pre-set allowance, as the contractor has no way to verify to what extent the existing pipe will need to be replaced?

A7: Mossdale Pump Station Modifications and Upgrades (CIP WW 26-09) Section 00300 100% Rev2, Bid Schedule Item #3.3 is regarding the discharge piping from each of the four wastewater pumps in the wetwell. If determined during the planned replacement of the discharge pumps, and investigation of existing conditions, that the vertical discharge piping systems from any of the four pumps is not able to perform as required to provide reliable service for at least 10 more years, a lump sum amount for all of the four discharge piping systems shall be provided. The restoration shall include all pipe, fittings and wall mounted support from the connection to the discharge pump through to the connection at the 8" check valve in the above ground portion of the lift station. Each of the four discharge paths are identical and consist of a 4"x8" eccentric reducer and approximately 26' of 8" DIP. If any of the discharge pipes or fittings from any of the pumps to the check valves is determined to have corrosion and potential for diminished life, all four risers and eccentric reducers, gaskets, bolts and all securing hardware are to be replaced for a lump sum amount to be indicated on the bid schedule item 3.3.

RFI 8: Where are the allowed locations for the contractor to utilize for temporary bypass suction & discharge. Additionally, please provide the peak flow and TDH requirements for said temporary bypass.

A8: Inclusion of a new manhole to be constructed in concert with the Mossdale Pump Station inspection, restoration, and upgrade project proposal can provide an opportunity to reduce the impact of pumping from the wastewater system manhole located on the South side of River Islands Parkway, across from 703 River Islands Parkway and encumbering both directions of travel. Neither the interior wetwell work nor the new manhole construction can be performed without bypass pumping of effluent from the sanitation system around the wetwell or new manhole work areas. Work to inspect and restore the wetwell as well as demolition of the roof and other prescribed MCC and station improvements can be performed at the discretion of the CONTRACTOR during the construction of the new manhole located at the entrance of the 703 River Islands Parkway Pump Station. It may benefit of the contractor to sequence work to take place in the wetwell after the manhole construction is complete enough to allow for bypass pumping to take place from the newly constructed manhole (to the 10" and 8" force main connections on the west side of the pump station). Consideration of this alternative must include the consequence of the manhole construction taking place directly in front of the single access gateway to the pump station.

The communicated bypass pumping plan provides approximately 175 feet of horizontal distance and approximately 30 vertical feet from the existing manhole, across several lanes of vehicular traffic, and to the force main header at the pump station. CONTRACTOR must determine and provide pump and hose requirements providing for peak flow demand of 600 gpm and maintain a redundant pump and hose system to provide immediate standby in case of primary pumping failure. The sanitary main is 21" diameter PVC at the invert of both the existing and the to-be-constructed manhole. CONTRACTOR may use the new manhole for the pumping around the wetwell portion of the WORK at his discretion. Construction of the new manhole will require bypass pumping of effluent from the South side of River Island Parkway to the force main header from when the existing 21" sewer line is sectioned to allow placement of the manhole base, construction of the MH invert and re-connection to the upstream sewer pipeline. The pumping considerations remain the same though the distance for hose will reduce to approximately 30 horizontal feet and approximately 30 feet of head. The advantage of less inconvenience to the traveling public by moving the pumping from the existing manhole to the new manhole is noted and desirable.

RFI 9: What is the preexisting condition on the wet well interior? Is there a preexisting lining installed?

A9: Wet well interior has not been accessed sufficiently to determine the condition or if a pre-existing lining was installed.

When submitting the bid for the project, the Contractor must acknowledge receipt of the addendum.

Recommended by: Steven Hollenbeak 7.15.26
Steven Hollenbeak
Assistant Engineer Date

Approved by: BT 7/15/2026
Brad Taylor, PE
Public Works Director / City Engineer Date

Attachments:

1. Attachment A, new and amended plan sheets for the construction of a bypass with manhole.
2. Attachment B, new and revised Bidding and General Requirements and Technical Specifications for the construction of a bypass and manhole.
3. Attachment C, Revised Bid Schedule, CIP WW 26-09. **All bids must be submitted on the revised bid schedule.**



ATTACHMENT A

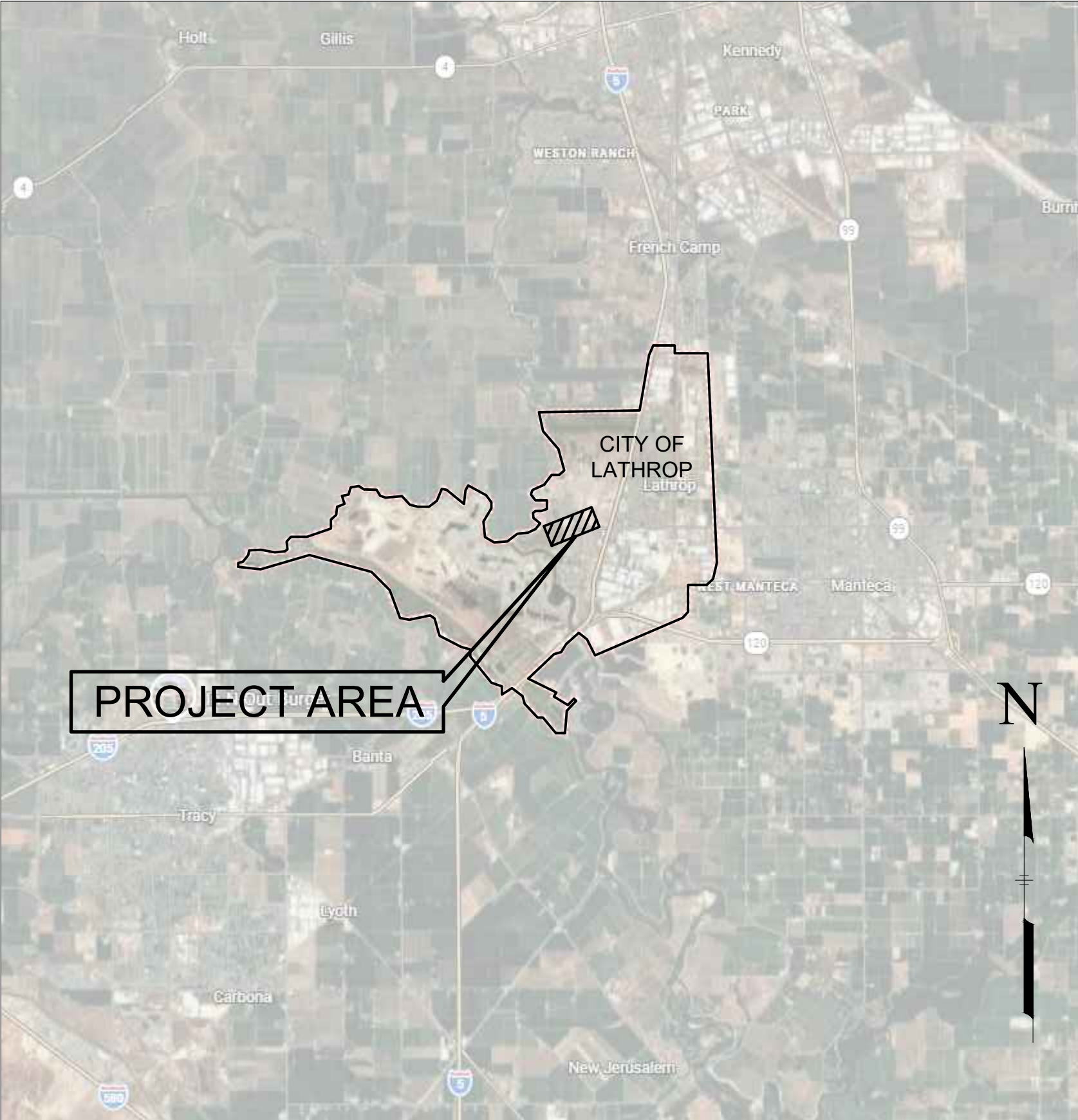
MOSSDALE WASTEWATER PUMP STATION

ACCESS MODIFICATIONS AND UPGRADES

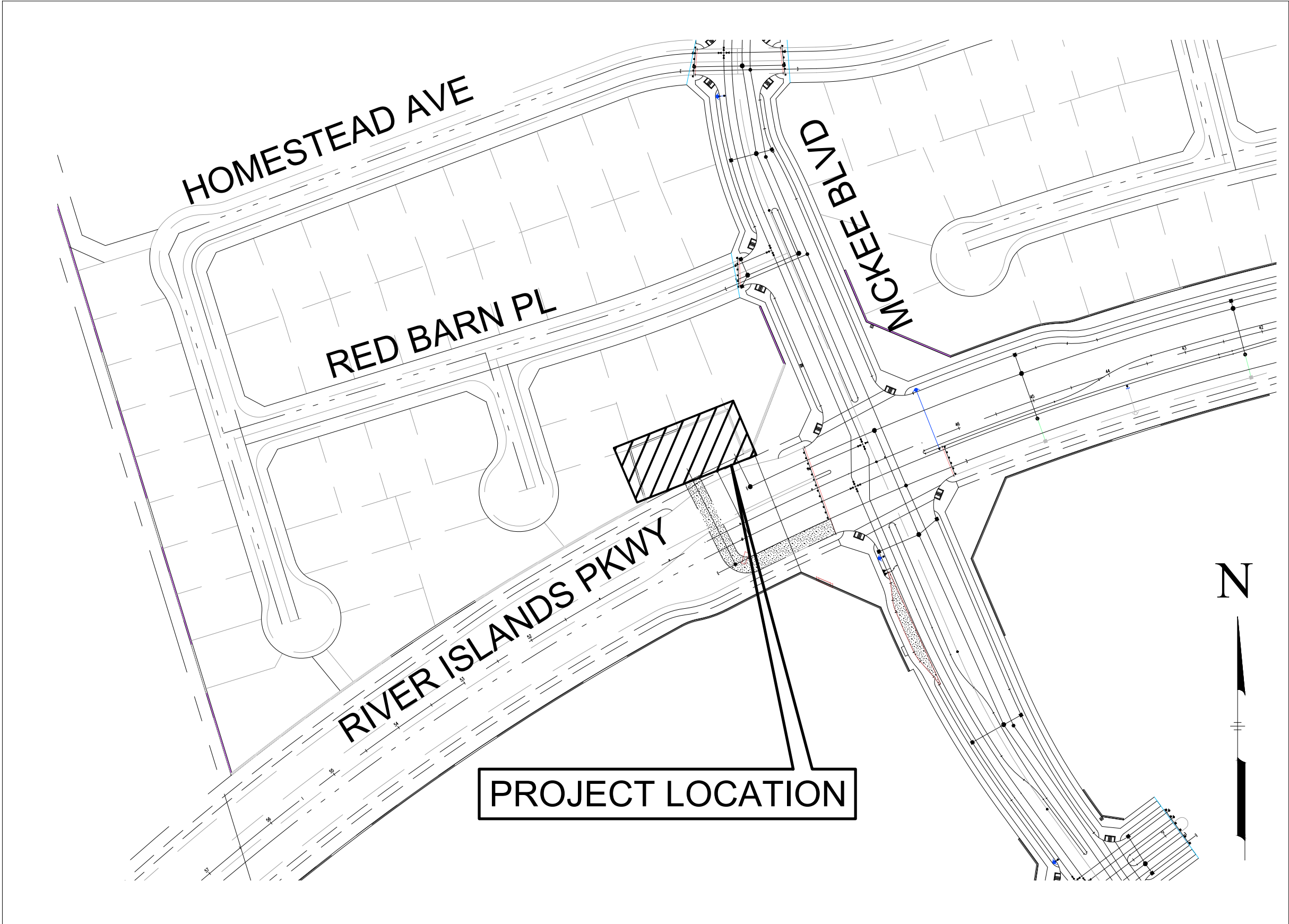
703 RIVER ISLANDS PARKWAY LATHROP, CA 95330

CIP WW 26-09

PROJECT DRAWING LIST				
SHEET ID	SHEET NO.	DESCRIPTION	REV.	ISSUE DATE
G-001	1	COVER SHEET / VICINITY MAP / DRAWING LIST	1	7/7/2026
G-002	2	ABBREVIATIONS, LEGEND, GENERAL/CONSTRUCTION NOTES	1	7/7/2026
D-001	3	EXISTING PUMP STATION DEMOLITION PLAN	0	6/1/2026
D-002	4	EXISTING PUMP STATION DEMOLITION PLAN	0	6/1/2026
C-101	5	SITE IMPROVEMENT PLAN	1	6/1/2026
C-102	6	CIVIL SECTIONS & DETAILS	0	6/1/2026
C-103	7	CIVIL SECTIONS & DETAILS	0	6/1/2026
S-301	8	STRUCTURAL PLAN & ELEVATIONS	0	6/1/2026
S-301	9	STRUCTURAL SECTION & DETAILS	0	6/1/2026
S-303	10	STRUCTURAL DETAILS	0	6/1/2026
S-304	11	TEMPORARY MANHOLE PLAN & SECTIONS	0	7/7/2026
S-305	12	TEMPORARY MANHOLE DETAILS	0	7/7/2026
S-306	13	COFFERDAM DETAIL & SECTION	0	7/7/2026
S-307	14	COFFERDAM DETAIL & SECTION	0	7/7/2026
M-401	15	MECHANICAL PLAN	0	6/1/2026
M-402	16	MECHANICAL SECTIONS	0	6/1/2026
M-403	17	HAZARDOUS AREA CLASSIFICATION	0	6/1/2026
M-404	18	SEWER BYPASS PLAN	0	7/7/2026
E-501	19	SINGLE LINE DIAGRAM	0	6/1/2026
E-502	20	EXTERIOR LIGHTING PLAN & ELEVATION	0	6/1/2026
E-503	21	CONDUIT LAYOUT PLAN & ELEVATION	0	6/1/2026
E-504	22	ELECTRICAL DETAILS	0	6/1/2026
E-505	23	ELECTRICAL DETAILS	0	6/1/2026
I-601	24	PROCESS & INSTRUMENTATION DIAGRAM	0	6/1/2026



VICINITY MAP
SCALE: NONE



AREA MAP
SCALE: 3/32"=1'-0"

PREPARED FOR/PROJECT OWNER:
CITY OF LATHROP PUBLIC WORKS DEPARTMENT
390 TOWNE CENTRE DRIVE
LATHROP, CA 95330

CONTACT INFORMATION

CIVIL ENGINEER:
ALISTO INC.
<https://www.alisto.com>
2737 N. Main St., Ste 200
Walnut Creek, CA 94597
Phone: 925-279-5000 | Fax: (510) 222-3277
Email: info-request@alisto.com
Point of Contact: Al Sevilla, PE

OWNER:
City of Lathrop - Public Works
<https://www.ci.lathrop.ca.us>
390 Towne Centre Drive,
Lathrop, CA 95330
Phone: (209) 941-7430 | Fax: (209) 241-7449
Point of Contact: Gregory Gibson, ggibson@ci.lathrop.ca.us

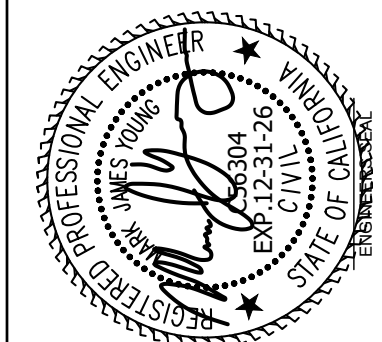


CITY OF LATHROP	
MOSSDALE LANDING SEWER PUMP STATION ACCESS MODIFICATIONS AND UPGRADES	
CITY OF LATHROP DEPARTMENT OF PUBLIC WORKS	
APPROVED BY: _____ PUBLIC WORKS DIRECTOR/CITY ENGINEER	DATE: _____ RCE NO: _____ EXP DATE: _____

DEPICTION OF EXISTING CONDITIONS SHOWN ON THESE DRAWINGS ARE REPRESENTED BASED ON SURVEY INFORMATION, AS-BUILT INFORMATION, AND FIELD SURVEY INFORMATION SUPPLIED BY OTHERS AND ARE CONSIDERED RELIABLE TO A REASONABLE PROFESSIONAL STANDARD. ALISTO INC. IS LIMITED IN DEPICTION OF RECEIVED CONTENT AND ACCURACY AND ALL CONDITIONS MUST BE VERIFIED BY THE CONSTRUCTOR PRIOR TO CONSTRUCTION ACTIVITY.

NO.	DESCRIPTION	CHECKED BY	CITY APPROVAL	APPROVED BY	DATE
0	IFC - 100%	M. Young			
1	IFC - PER ADDENDUM # 2	M. Young			

ALISTO INC.	CA C56304
BY: Mark James Young	R.C.E. exp. 12/31/2026
DATE: 7/10/2026	



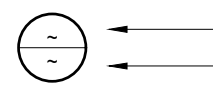
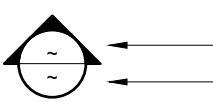
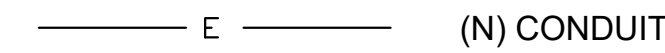
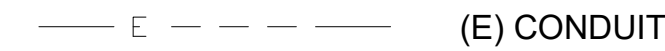
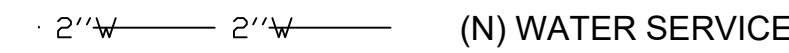
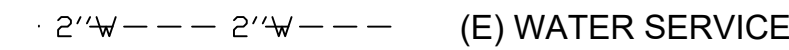
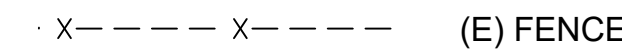
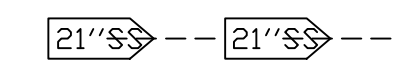
PROJECT NAME & LOCATION:	MOSSDALE LANDING SEWER PUMP STATION
COVER SHEET, MAPS, DRAWING LIST	
DESIGNED BY: J. RAMOS	DRAWN BY: E. PATINO
DATE: 06/01/26	DATE: 06/01/26
SCALE: NONE	DATE: 06/01/26



SHEET NO.	G-001
01 OF 24 SHEETS	
JOB NO.	10-866-001

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LEGEND



ABBREVIATIONS	
A, AMP	AMPERE
ABAN	ABANDONED
APPROX	APPROXIMATELY
CL, ϵ	CENTER LINE
CU	COPPER
DIA, ϕ	DIAMETER
DWG	DRAWING
EA	EACH
ELEC	ELECTRICAL
ELEV	ELEVATION
(E), EX	EXISTING
FF	FINISHED FLOOR
FG	FINISHED GRADE
(F)	FUTURE
GND	GROUND
(M)	MEASURED DISTANCE
MCC	MOTOR CONTROL CENTER
(N)	NEW, PLANNED
NTS	NOT TO SCALE
(P)	PROPOSED
P, ϕ	PHASE
R	RADIUS
STD	STANDARD
TBA	TO BE ABANDONED
TEMP	TEMPORARY
TOP	TOP OF PIPE
TOW	TOP OF WALL
(TYP)	TYPICAL
VFD	VARIABLE FREQUENCY DRIVE
W	WATT
XFMR	TRANSFORMER

GENERAL NOTES:

1. THESE PLANS HAVE BEEN CHECKED BY THE CITY OF LATHROP AND/OR ITS AUTHORIZED REPRESENTATIVE, BUT SUCH CHECKING AND/OR APPROVAL DOES NOT RELIEVE THE DEVELOPER FROM HIS RESPONSIBILITY TO CORRECT ERRORS, OMISSIONS OR MAKE CHANGES REQUIRED BY CONDITIONS DISCOVERED IN THE FIELD DURING THE COURSE OF CONSTRUCTION.
2. ALL REVISIONS TO THIS PLAN MUST BE REVIEWED BY THE CITY ENGINEER PRIOR TO CONSTRUCTION AND SHALL BE ACCURATELY SHOWN ON REVISED PLANS STAMPED AND SIGNED BY THE CITY PRIOR TO THE INSTALLATION OF THE IMPROVEMENTS.
3. ALL CONSTRUCTION AND MATERIAL SHALL CONFORM TO CITY OF LATHROP DESIGN AND CONSTRUCTION STANDARDS, THE PROJECT URBAN DESIGN CONCEPT (IF APPLICABLE), AND PER THE APPROVED PLANS. THE IMPROVEMENTS ARE SUBJECT TO THE INSPECTION AND APPROVAL OF THE PUBLIC WORKS DEPARTMENT. CONTACT PUBLIC WORKS CONSTRUCTION INSPECTION AT (209) 941-7 450, AT LEAST THREE (3) WORKING DAYS PRIOR TO START OF ANY WORK TO ARRANGE FOR INSPECTION.
4. NOTIFY UNDERGROUND SERVICE ALERT (USA-NORTH) AT "811" OR (800) 227-2600 AT LEAST TWO (2) WORKING DAYS PRIOR TO EXCAVATION. THE USA AUTHORIZATION NUMBER SHALL BE KEPT AT THE JOB SITE.
5. IF NECESSARY TO CONFIRM FIELD LOCATIONS OF FACILITIES, EXPLORATORY TRENCHING OR POTHOLING SHALL BE DONE AT THE EXPENSE OF THE CONTRACTOR.
6. IF A CONFLICT OCCURS BETWEEN THE CITY OF LATHROP DESIGN AND CONSTRUCTION STANDARDS AND THE RECOMMENDATIONS BY THE DESIGN ENGINEER AND/OR SOILS ENGINEER, THE MORE STRINGENT SHALL APPLY AS DIRECTED BY THE CITY ENGINEER.
7. THE EXISTING UTILITIES ARE PLOTTED FROM AVAILABLE RECORDS. THE CONTRACTOR SHALL TAKE PRECAUTIONARY MEASURES TO PROTECT THESE UTILITIES. THE CONTRACTOR SHALL NOT EXCAVATE UNTIL ALL UTILITY AGENCIES AND THE CITY OF LATHROP HAVE BEEN NOTIFIED AND HAVE MARKED THEIR FACILITIES IN THE FIELD.
8. EXISTING UTILITIES SHALL NOT BE INTERRUPTED UNTIL THE UTILITY COMPANY HAS PROVIDED ALTERNATIVE SERVICE FACILITIES. THE CONTRACTOR SHALL COOPERATE AND COORDINATE HIS WORK WITH THE APPROPRIATE AGENCIES AND UTILITY COMPANIES.
9. ALL CONSTRUCTION STAKING FOR GRADING, CURB, AND GUTTER, SIDEWALK, SANITARY SEWER, STORM DRAINS, WATER LINES, RECYCLED WATER, FIRE HYDRANTS, ELECTROLIERS, ETC. SHALL BE DONE BY A REGISTERED CIVIL ENGINEER OR A LICENSED LAND SURVEYOR.
10. ALL AREAS UNDERGOING GRADING, AND ALL OTHER CONSTRUCTION ACTIVITIES SHALL BE WATERED, OR OTHER DUST-PAILLIATIVE MEASURES USED, TO PREVENT DUST, AS CONDITIONS WARRANT.
11. PRIOR TO RECEIVING/TAKING ANY WATER FROM THE CITY OF LATHROP WATER SYSTEM THE CONTRACTOR SHALL ACQUIRE A CITY WATER METER OR CITY FIRE HYDRANT METER. ALL WATER USAGE SHALL BE METERED.
12. ALL LINES ABANDONED DURING CONSTRUCTION SHALL BE REMOVED UNLESS OTHERWISE NOTED ON THE PLANS.
13. PRIOR TO TRENCHING FOR ANY SEWER, WATER, RECYCLED WATER, OR STORM DRAIN PIPE, THE CONTRACTOR SHALL VERIFY, IN THE FIELD, THE SIZE AND THE LOCATION OF THE EXISTING PIPE AT THE POINT OF CONNECTION. ANY DEVIATION FROM THE PLANS SHALL BE RESOLVED BY THE DESIGN ENGINEER PRIOR TO TRENCHING. ANY DAMAGE CAUSED BY TRENCHING TO EXISTING UNDERGROUND UTILITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
14. ALL TRENCHES SHALL BE BACKFILLED IN ACCORDANCE WITH CITY STANDARD DETAILS. COMPACTION SHALL BE ACHIEVED BY MECHANICAL MEANS. NO FLOODING, PONDING, OR JETTING SHALL BE PERMITTED.
15. ASBESTOS CEMENT PIPE (ACP) OR VITRIFIED CLAY PIPE (VCP) OR FITTINGS SHALL NOT BE USED WITHIN THE CITY OF LATHROP.
16. ALL WORK SHALL CONFORM TO AND BE PERFORMED IN STRICT ACCORDANCE WITH THE CONTRACT DOCUMENTS, THE 2025 CALIFORNIA CONSTRUCTION CODES: BUILDING CODE (BC), AND ELECTRICAL CODE (EC) OF THE CITY OF LATHROP; THE 2025 CALIFORNIA ENERGY CODE; AND ALL OTHER REGULATIONS HAVING JURISDICTION. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO COMMENCEMENT OF THE WORK.
17. ALL CONTRACTORS AND SUBCONTRACTORS PERFORMING WORK SHOWN ON OR RELATED TO THESE PLANS SHALL CONDUCT THEIR OPERATIONS IN SUCH A MANNER THAT ALL EMPLOYEES ARE PROVIDED WITH A SAFE WORK PLACE AND THE PUBLIC IS PROTECTED. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORK HOURS. ALL CONTRACTORS AND SUBCONTRACTORS SHALL COMPLY WITH THE "OCCUPATIONAL SAFETY AND HEALTH REGULATIONS" OF THE U.S. DEPARTMENT OF LABOR AND WITH OTHER APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.
18. CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE CONDITION OF JOB SITES DURING THE COURSE OF THIS PROJECT, INCLUDING SAFETY AND SECURITY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
19. UNLESS DUE TO OWNER'S OR ENGINEER'S SOLE NEGLIGENCE OR WILLFUL MISCONDUCT, CONTRACTOR SHALL INDEMNIFY, HOLD HARMLESS, RELEASE, AND ON REQUEST, DEFEND OWNER AND ENGINEER, THEIR AGENTS AND EMPLOYEES, FROM ANY LIABILITY FOR INJURY TO, OR DEATH OF, ANY PERSON, OR DAMAGE TO, OR DESTRUCTION OF, ANY PROPERTY ARISING FROM CONTRACTOR'S OR SUBCONTRACTOR'S WORK RELATED TO THIS PROJECT.
20. ALL ELEVATIONS ARE BASED ON NAVD 88. ALL HORIZONTAL MEASUREMENTS ARE BASED ON NAD 83. ELEVATIONS SHOWN ON THE DRAWINGS ARE BASED ON THE BEST AVAILABLE INFORMATION AT THE TIME OF DRAWING DEVELOPMENT. CONTRACTOR SHALL VERIFY ALL MEASUREMENTS AND NOTIFY THE OWNER AND THE ENGINEER IF DISCREPANCIES ARE NOTED.
21. ESCPS MUST BE PREPARED CONSISTENT TO THE CITY'S DESIGN AND CONSTRUCTION STANDARDS AND ORDINANCES. SWPPPs MUST BE PREPARED BY A QUALIFIED SWPPP DEVELOPER AND BE COMPLIANT WITH THE STATE'S CONSTRUCTION GENERAL PERMIT. EROSION AND SEDIMENT CONTROL MEASURES MUST BE IN PLACE AT ALL TIMES DURING THE CONSTRUCTION PROJECT UNTIL FINAL SITE STABILIZATION IS ACHIEVED. THESE FACILITIES SHALL CONTROL AND CONTAIN EROSION-CAUSED SEDIMENT DEPOSITS AND PROVIDE FOR THE SAFE DISCHARGE OF SEDIMENT-FREE STORM WATER INTO EXISTING STORM DRAIN FACILITIES.
22. IF THE PROJECT IS APPLICABLE TO THE STATE'S CONSTRUCTION GENERAL PERMIT, A NOTICE OF INTENT (NOI) TO COMPLY WITH THE NPDES GENERAL PERMIT FOR STORMWATER RUN-OFF ASSOCIATED WITH CONSTRUCTION ACTIVITY SHALL BE SUBMITTED TO THE SWRCB VIA THE STATE'S SMARTS SYSTEM. THE WID# SHOULD BE INDICATED ON THE PLANS. A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) SHALL BE SUBMITTED FOR APPROVAL BY THE CITY ENGINEER.
23. DISPOSAL OF WATER INTO THE CITY SANITARY SEWER SYSTEM IS STRICTLY PROHIBITED.
24. DISPOSAL OF WATER INTO THE EXISTING STORM DRAIN SYSTEM MUST BE APPROVED IN WRITING BY THE CITY ENGINEER PRIOR TO DISPOSAL. IF APPLICABLE, CONTRACTOR SHALL PROVIDE PROOF OF COVERAGE UNDER A NPDES PERMIT FOR DEWATERING DISCHARGES TO SURFACE WATERS PRIOR TO RECEIVING APPROVAL.
25. CONTRACTORS SHALL SUBMIT A COPY OF THEIR CURRENT ANNUAL EXCAVATION PERMIT ISSUED BY THE STATE OF CALIFORNIA DIVISION OF INDUSTRIAL SAFETY (CAL-OSHA) ALONG WITH THE CONTRACTOR'S OWN TRENCH SAFETY PLAN PRIOR TO THE START OF CONSTRUCTION.

CONSTRUCTION NOTES:

1. CONTRACTOR SHALL VERIFY ALL PROVIDED DIMENSIONS AND SITE CONDITIONS PRIOR TO COMMENCING WORK.
2. CONTRACTOR SHALL NOTIFY OWNER AT LEAST ONE WEEK PRIOR TO BEGINNING CONSTRUCTION.
3. WORK SHALL BE RESTRICTED TO WEEKDAYS BETWEEN 8:00 AM TO 5:00 PM AND WEEKENDS BY CITY APPROVAL. WORK WHICH REQUIRES ANY TRAFFIC LANE CLOSURES OR RESTRICTING OF THE TRAVELED WAY SHALL BE LIMITED TO 9:00 AM TO 3 :30 PM IN THE COMMUTE DIRECTION AND 8:00 AM TO 4:30 PM IN THE NON-COMMUTE DIRECTION.
4. THE OVERTIME COST FOR INSPECTING WORK PERFORMED BEFORE 8:00 AM, AFTER 5:00 PM, WEEKENDS, AND HOLIDAYS, THAT REQUIRE CITY INSPECTION, SHALL BE PRE-PAID BY THE CONTRACTOR OR DEVELOPER BEFORE THE WORK IS AUTHORIZED.
5. CONSTRUCTION EQUIPMENT WHICH OPERATES AT A NOISE LEVEL IN EXCESS OF 85 DECIBELS (MEASURED ON THE A-WEIGHTED SCALE DEFINED IN ANSI S-1.4) AT A DISTANCE OF 100 FEET FROM THE EQUIPMENT IS PROHIBITED.
6. ALL EXISTING CONSTRUCTION AND FINISHES INDICATED TO REMAIN SHALL BE PROTECTED AS PER THE OWNER'S INSTRUCTIONS THROUGHOUT THE LIFE OF THE PROJECT. CONTRACTOR SHALL BEAR RESPONSIBILITY FOR ALL DAMAGE TO EXISTING CONSTRUCTION REQUIRED TO REMAIN.
7. THE CONTRACTOR SHALL BECOME ACQUAINTED WITH AND PROVIDE ADEQUATE PROTECTION FOR ALL EXISTING BUILDING ITEMS AND SYSTEMS TO REMAIN. ANY DAMAGE WHICH OCCURS IN SPACE BEING WORKED ON OR ABOVE OR BELOW IS TO BE REPAIRED AT THE CONTRACTOR'S EXPENSE. PATCH AND REPAIR TO MATCH EXISTING ON ALL DAMAGED FLOORS, WALLS, CEILINGS, DOORS & FRAMES, AND ANY OTHER EXISTING SURFACE TO BE RETAINED.
8. THE DEMOLITION OPERATIONS SHALL AT ALL TIMES BE CARRIED ON IN SUCH A MANNER SO AS TO PREVENT DAMAGE OR DUSTING TO ADJOINING SPACES AND FLOORS.
9. MAINTAIN PREMISES & PUBLIC PROPERTIES FREE FROM ACCUMULATION OF WASTE, DEBRIS & RUBBISH CAUSED BY OPERATIONS. AT COMPLETION OF WORK, LEAVE PREMISES & PUBLIC PROPERTIES CLEAN ON A DAILY BASIS.
10. ALL TRASH, CONSTRUCTION DEBRIS AND MATERIALS SHALL BE CONTAINED WITHIN PROPER CONTAINERS AND REMOVED ON A WEEKLY BASIS.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF RUBBISH FROM AREA OF WORK AND THE LEGAL DISPOSAL OF ALL REMOVED AND DEMOLISHED MATERIALS.
12. WATER OR DUST PALLIATIVE (DUST CONTROL) SHALL BE APPLIED TO MAINTAIN THE PROJECT SITE IN AS DUST-FREE A CONDITION AS POSSIBLE DURING NORMAL WORK HOURS AND OFF-WORK HOURS, INCLUDING HOLIDAYS AND WEEKENDS. DUST CONTROL SHALL BE APPLIED TO EXCAVATION AREAS PRIOR TO EXCAVATING AND/ OR DURING MATERIAL LOADING. DUSTY IMPORT MATERIAL SHALL RECEIVE DUST CONTROL PRIOR TO, OR IMMEDIATELY AFTER, PLACEMENT. DUST CONTROL SHALL BE APPLIED TO IN-PLACE MATERIAL AS NECESSARY TO CONTROL DUST AND AS DIRECTED BY OWNER REPRESENTATIVE.
13. CONTRACTOR TO REVIEW ALL GENERAL NOTES, SPECIFICATIONS AND/OR PROJECT MANUAL BEFORE COMMENCING WORK.
14. ALL ACTIVITY WITH RESPECT TO THIS PROJECT SHALL COMPLY WITH ALL OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS. ALL EFFORT SHALL BE MADE BY THE CONTRACTOR TO PROVIDE FOR A SAFE WORKSITE BY PROVIDING APPROPRIATE SIGNAGE AND PROTECTIONS FOR PERSONS WORKING IN OR AROUND THE PROJECT AREA.
15. CONSTRUCTION SHALL COMPLY WITH ALL PERMITS ISSUED FOR THIS PROJECT, AMERICAN WATER WORKS ASSOCIATION, THE CALIFORNIA PLUMBING CODE, THESE DRAWINGS, THE CALIFORNIA WATER RESOURCES CONTROL BOARD AND REFERENCED PROJECT SPECIFICATIONS.
16. UTILITY LOCATIONS, BOTH ABOVE GROUND AND BELOW GROUND, IF SHOWN ON THE PLANS, ARE APPROXIMATE. THERE IS NO GUARANTEE THAT THE UTILITIES SHOWN ON THE PLANS WILL BE THE ONLY UTILITIES ENCOUNTERED, NOR THAT THOSE SHOWN ARE LOCATED AS DEPICTED IN THIS PLAN SET.
17. ALL EXCAVATION SHALL BE PERFORMED IN COMPLIANCE WITH THE APPLICABLE PORTIONS OF THE CODE OF FEDERAL REGULATIONS - TITLE 29, SUBPART P, EXCAVATIONS, TRENCHING AND SHORING; ADMINISTRATIVE CODE; AND ALL OTHER PERTINENT LOCAL, STATE, AND FEDERAL REGULATIONS.
18. ANY EXISTING IMPROVEMENTS THAT ARE DAMAGED DURING CONSTRUCTION SHALL BE REMOVED, REPLACED, AND FULLY RESTORED TO ITS' ORIGINAL CONDITION AT THE DEVELOPER'S COST. ALL WORK SHALL BE APPROVED BY THE CITY ENGINEER.
19. CONTRACTOR SHALL MAINTAIN THE JOB SITE IN CLEAN, SAFE AND USABLE CONDITION THROUGHOUT THE COURSE OF CONSTRUCTION. ALL SPILLS OF SOIL, ROCK, CONSTRUCTION DEBRIS, ETC., SHALL BE REMOVED IMMEDIATELY FROM PUBLIC ACCESS AREAS. ALL TRASH, CONSTRUCTION DEBRIS AND MATERIALS SHALL BE CONTAINED WITHIN THE CONSTRUCTION AREA UNTIL OFF-SITE DISPOSAL CAN BE ARRANGED.
20. PRIOR TO ANY WORK BEING PERFORMED, THE CONTRACTOR SHALL ATTEND A PRECONSTRUCTION MEETING WITH THE CITY OF LATHROP. THE CONTRACTOR SHALL PROVIDE THE CITY OF LATHROP 72 HOURS' NOTICE TO SCHEDULE THE PRE-CONSTRUCTION MEETING. THE CONTRACTOR SHALL ALSO NOTIFY THE LISTED PROJECT CONTACTS A MINIMUM OF 72 HOURS IN ADVANCE OF SAID MEETING.

EXISTING CONDITIONS NOTES:

1. DO NOT INTERRUPT EXISTING UTILITIES SERVING OCCUPIED OR USED FACILITIES, EXCEPT WHEN AUTHORIZED BY THE ENGINEER. PROVIDE TEMPORARY SERVICES DURING INTERRUPTIONS TO EXISTING UTILITIES AS REQUIRED.
2. CONTRACTOR SHALL COORDINATE UTILITY RELATED REQUIREMENTS, INCLUDING APPLICATION FOR SERVICE, WITH UTILITY COMPANIES.

ELECTRICAL NOTES:

1. SEE ELECTRICAL DRAWINGS FOR GENERAL NOTES ON ELECTRICAL AND INSTRUMENTATION CONSTRUCTION.

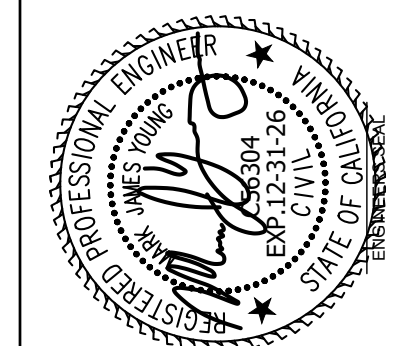
WATER NOTES:

1. ALL WATER CONSTRUCTION, MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND PLANS OF THE CITY OF LATHROP.
2. THE CONTRACTOR IS TO BE RESPONSIBLE FOR ALL TESTING AND DISINFECTING OF WATER LINES IN CONFORMANCE WITH THE REQUIREMENTS OF THE CITY OF LATHROP PRIOR TO FINAL ACCEPTANCE.
3. ACTUAL CONNECTIONS TO EXISTING CITY OF LATHROP WATER LINES WILL NOT BE PERMITTED PRIOR TO COMPLETION OF STERILIZATION AND TESTING OF THE WATER MAINS. ALL EXISTING WATER VALVES ARE TO BE OPERATED UNDER THE DIRECTION OF THE WATER DIVISION OF THE CITY OF LATHROP OR CITY OF LATHROP PERSONNEL ONLY.

REVISIONS				
NO.	DESCRIPTION	CHECKED BY	CITY APPROVAL	DATE
0	IFC - 100%.	M. Young		
1	IFC - PER APPENDIX #2.	M. Young		

ALISTO INC.

BY: Mark James Young R.C.E. CA C56304
DATE: 7/10/2026 exp. 12/31/2026



PROJECT NAME & LOCATION	MOSSDALE LANDING SEWER PUMP STATION			
	ABBREVIATIONS, LEGEND, NOTES 703 RIVER ISLANDS PARKWAY LATHROP, CA 95330			
DESIGN BY: J. RAMOS	DWN BY: E. PATINO	REV BY: M. YOUNG		
DATE: 06/01/26	DATE: 06/01/26	DATE: 06/01/26	SCALE	06/01/26
			NONE	



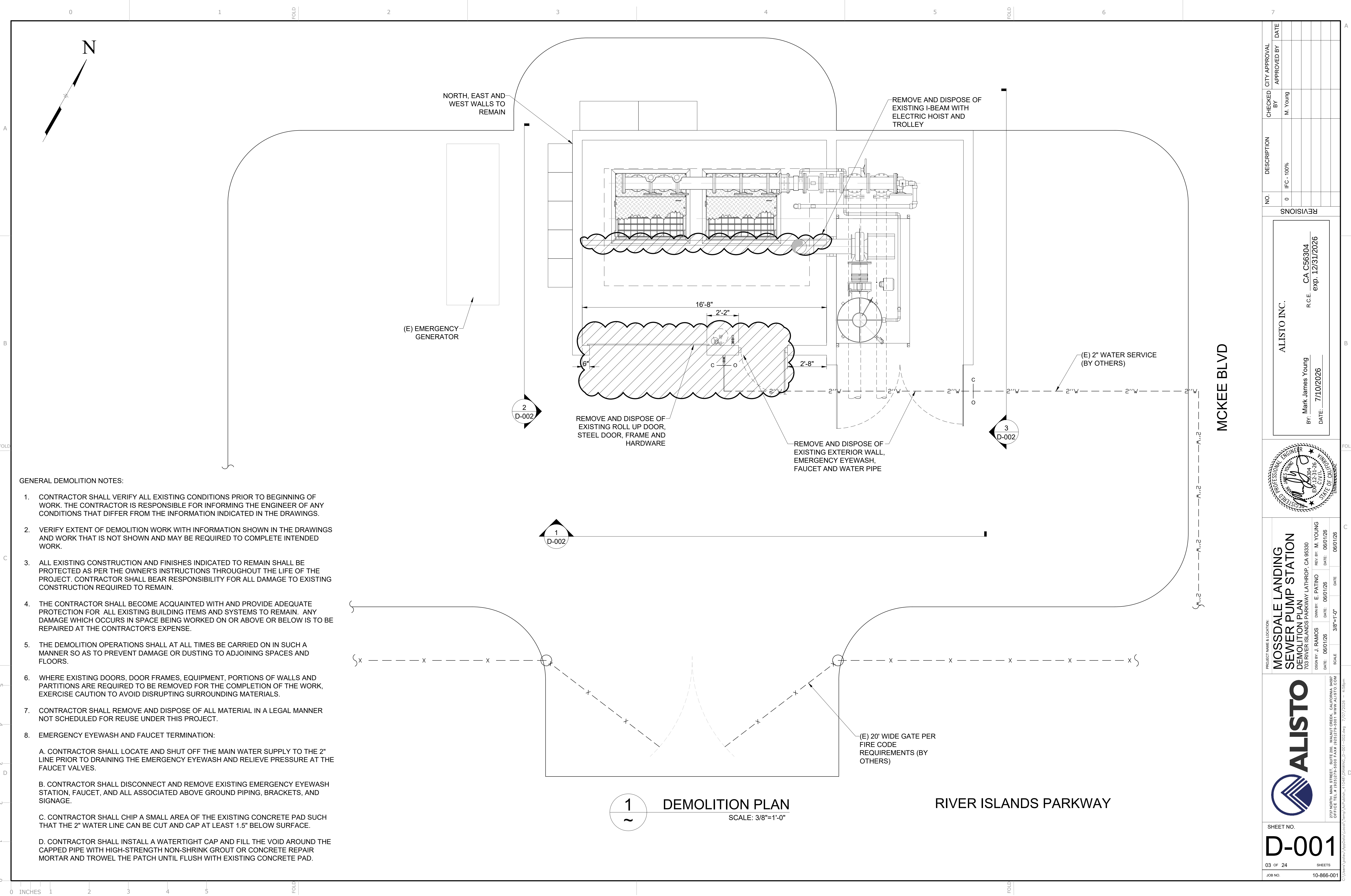
SHEET NO.
G-002
02 OF 24 SHEETS
JOB NO. 10-866-001

(A) (U) — 866 — City of Laramie (DOI — Wastewater Pump Station Residual (DOI — Drawings (ALTOCAD DRAWINGS) (DRAWING_01_001-002.dwg) 7/07/2026 — 5:05pm)

(B) FOLD

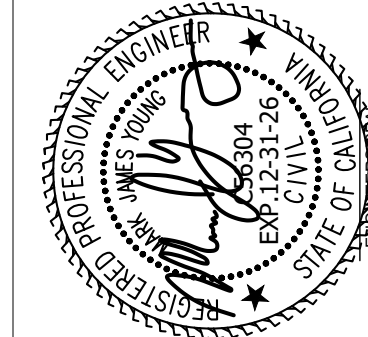
(C)

(D) THIS DRAWING IS AN INSTRUMENT OF SERVICE OF THE PROPERTY OF ALSTO INC. IT IS TO BE USED ONLY FOR THE PROJECT AND PURPOSE SPECIFICALLY IDENTIFIED IN THE TITLE BLOCK. NO PART OF THIS DRAWING IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE WRITTEN PERMISSION. ALL DRAWINGS ARE TO BE RETURNED WHEN NO LONGER IN USE.



GENERAL DEMOLITION NOTES:

- CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING OF WORK. THE CONTRACTOR IS RESPONSIBLE FOR INFORMING THE ENGINEER OF ANY CONDITIONS THAT DIFFER FROM THE INFORMATION INDICATED IN THE DRAWINGS.
- VERIFY EXTENT OF DEMOLITION WORK WITH INFORMATION SHOWN IN THE DRAWINGS AND WORK THAT IS NOT SHOWN AND MAY BE REQUIRED TO COMPLETE INTENDED WORK.
- ALL EXISTING CONSTRUCTION AND FINISHES INDICATED TO REMAIN SHALL BE PROTECTED AS PER THE OWNER'S INSTRUCTIONS THROUGHOUT THE LIFE OF THE PROJECT. CONTRACTOR SHALL BEAR RESPONSIBILITY FOR ALL DAMAGE TO EXISTING CONSTRUCTION REQUIRED TO REMAIN.
- THE CONTRACTOR SHALL BECOME ACQUAINTED WITH AND PROVIDE ADEQUATE PROTECTION FOR ALL EXISTING BUILDING ITEMS AND SYSTEMS TO REMAIN. ANY DAMAGE WHICH OCCURS IN SPACE BEING WORKED ON OR ABOVE OR BELOW IS TO BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- THE DEMOLITION OPERATIONS SHALL AT ALL TIMES BE CARRIED ON IN SUCH A MANNER SO AS TO PREVENT DAMAGE OR DUSTING TO ADJOINING SPACES AND FLOORS.
- WHERE EXISTING DOORS, DOOR FRAMES, EQUIPMENT, PORTIONS OF WALLS AND PARTITIONS ARE REQUIRED TO BE REMOVED FOR THE COMPLETION OF THE WORK, EXERCISE CAUTION TO AVOID DISRUPTING SURROUNDING MATERIALS.
- CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL MATERIAL IN A LEGAL MANNER NOT SCHEDULED FOR REUSE UNDER THIS PROJECT.
- EMERGENCY EYEWASH AND FAUCET TERMINATION:
 - CONTRACTOR SHALL LOCATE AND SHUT OFF THE MAIN WATER SUPPLY TO THE 2" LINE PRIOR TO DRAINING THE EMERGENCY EYEWASH AND RELIEVE PRESSURE AT THE FAUCET VALVES.
 - CONTRACTOR SHALL DISCONNECT AND REMOVE EXISTING EMERGENCY EYEWASH STATION, FAUCET, AND ALL ASSOCIATED ABOVE GROUND PIPING, BRACKETS, AND SIGNAGE.
 - CONTRACTOR SHALL CHIP A SMALL AREA OF THE EXISTING CONCRETE PAD SUCH THAT THE 2" WATER LINE CAN BE CUT AND CAP AT LEAST 1.5" BELOW SURFACE.
 - CONTRACTOR SHALL INSTALL A WATERTIGHT CAP AND FILL THE VOID AROUND THE CAPPED PIPE WITH HIGH-STRENGTH NON-SHRINK GROUT OR CONCRETE REPAIR MORTAR AND TROWEL THE PATCH UNTIL FLUSH WITH EXISTING CONCRETE PAD.



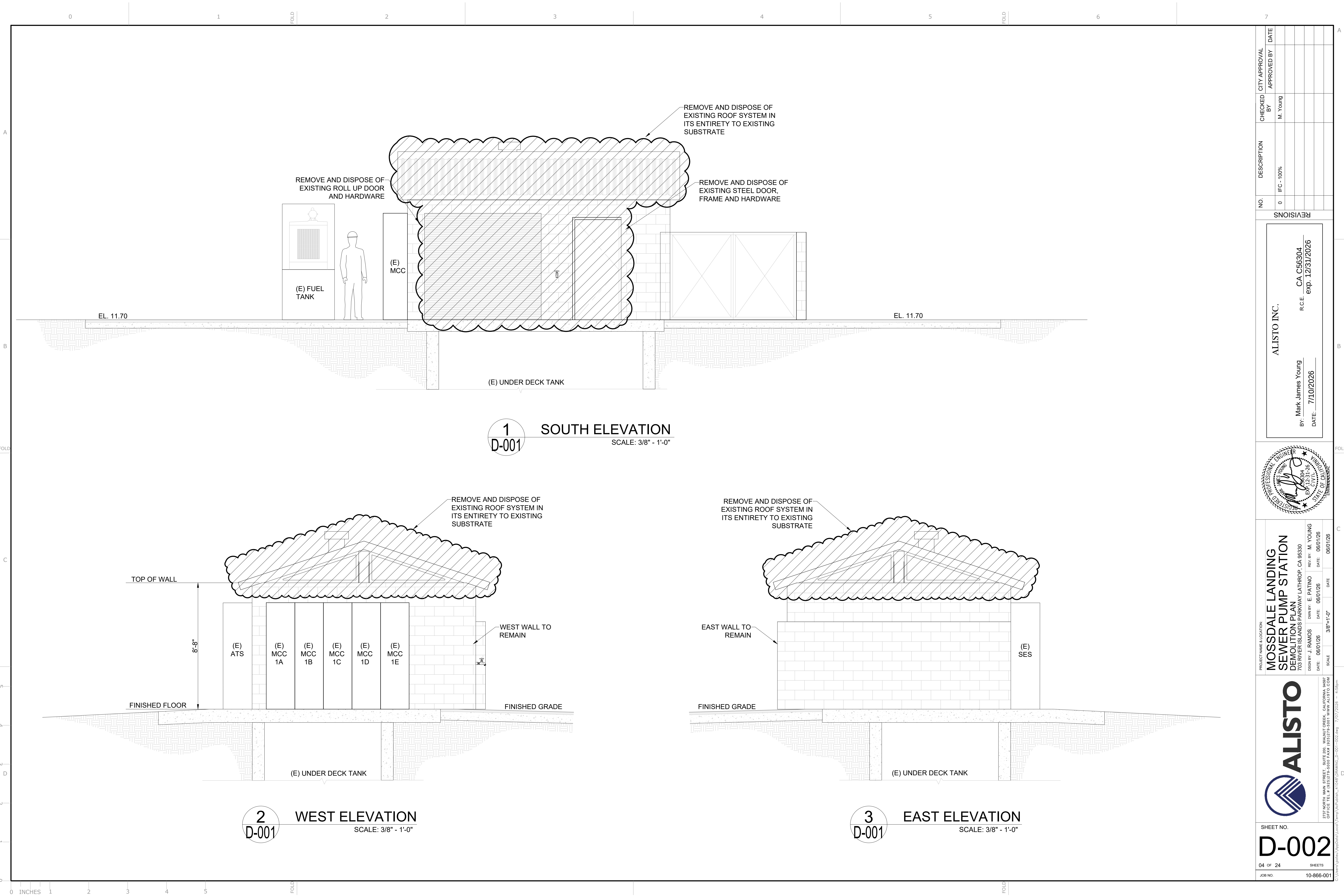
PROJECT NAME & LOCATION:	
MOSSDALE LANDING SEWER PUMP STATION DEMOLITION PLAN	
DESIGN BY: J. RAMOS	DATE: 06/01/26
DRAWN BY: E. PATINO	DATE: 06/01/26
REV. BY: M. YOUNG	DATE: 06/01/26
SCALE: 3/8"=1'-0"	DATE: 06/01/26



SHEET NO.	
D-001	
03 OF 24	SHEETS
JOB NO.	10-866-001

REVISIONS	
NO.	DESCRIPTION
0	IFC - 100%
CHECKED BY: M. Young	
CITY APPROVAL	
APPROVED BY	DATE

ALISTO INC.	
BY: Mark James Young	R.C.E. CA C56304
DATE: 7/10/2026	exp. 12/31/2026



NO.		DESCRIPTION	CHECKED BY	CITY APPROVAL
0	0	IFC - 100%	M. Young	APPROVED BY
				DATE

ALISTO INC.

BY: Mark James Young
DATE: 7/10/2026

R.C.E. CA C56304
exp. 12/31/2026

PROFESSIONAL ENGINEER
STATE OF CALIFORNIA
EXP. 12/31/26
CA C56304

PROJECT NAME & LOCATION:
MOSSDALE LANDING SEWER PUMP STATION DEMOLITION PLAN
703 RIVER ISLANDS PARKWAY LATHROP, CA 95330

DESIGN BY: J. RAMOS
DATE: 06/01/26

DRAWN BY: E. PATINO
DATE: 06/01/26

REV. BY: M. YOUNG
DATE: 06/01/26

SCALE: 3/8"=1'-0"

ALISTO

2737 NORTH MAIN STREET, SUITE 200, WALNUT CREEK, CALIFORNIA 94597
OFFICE TEL # 925.272.5500 FAX # 925.272.5501 WWW.ALISTO.COM

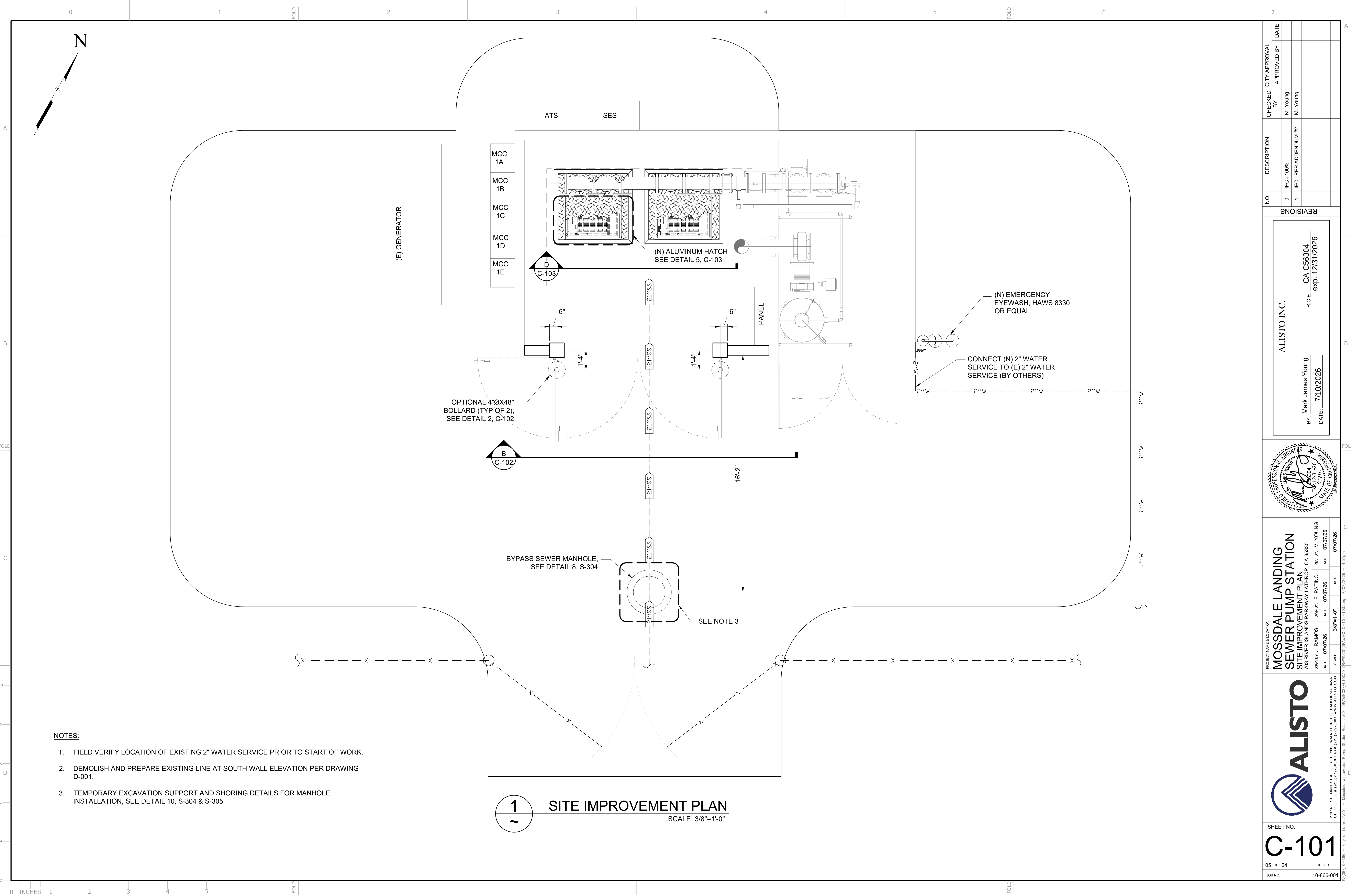
SHEET NO.
D-002

04 OF 24 SHEETS

JOB NO. 10-866-001

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C:\Users\jramos\Documents\10-866-001\10-866-001.dwg 7/7/2026 4:35pm



- NOTES:
1. FIELD VERIFY LOCATION OF EXISTING 2" WATER SERVICE PRIOR TO START OF WORK.
 2. DEMOLISH AND PREPARE EXISTING LINE AT SOUTH WALL ELEVATION PER DRAWING D-001.
 3. TEMPORARY EXCAVATION SUPPORT AND SHORING DETAILS FOR MANHOLE INSTALLATION, SEE DETAIL 10, S-304 & S-305

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PROJECT NAME & LOCATION:
**MOSSDALE LANDING
SEWER PUMP STATION
SITE IMPROVEMENT PLAN**
703 RIVER ISLANDS PARKWAY LATHROP, CA 95330
DESIGN BY: J. RAMOS DATE: 07/07/26
DRAWN BY: E. PATINO DATE: 07/07/26
REV. BY: M. YOUNG DATE: 07/07/26
SCALE: 3/8"=1'-0"

SHEET NO.
C-101
05 OF 24 SHEETS

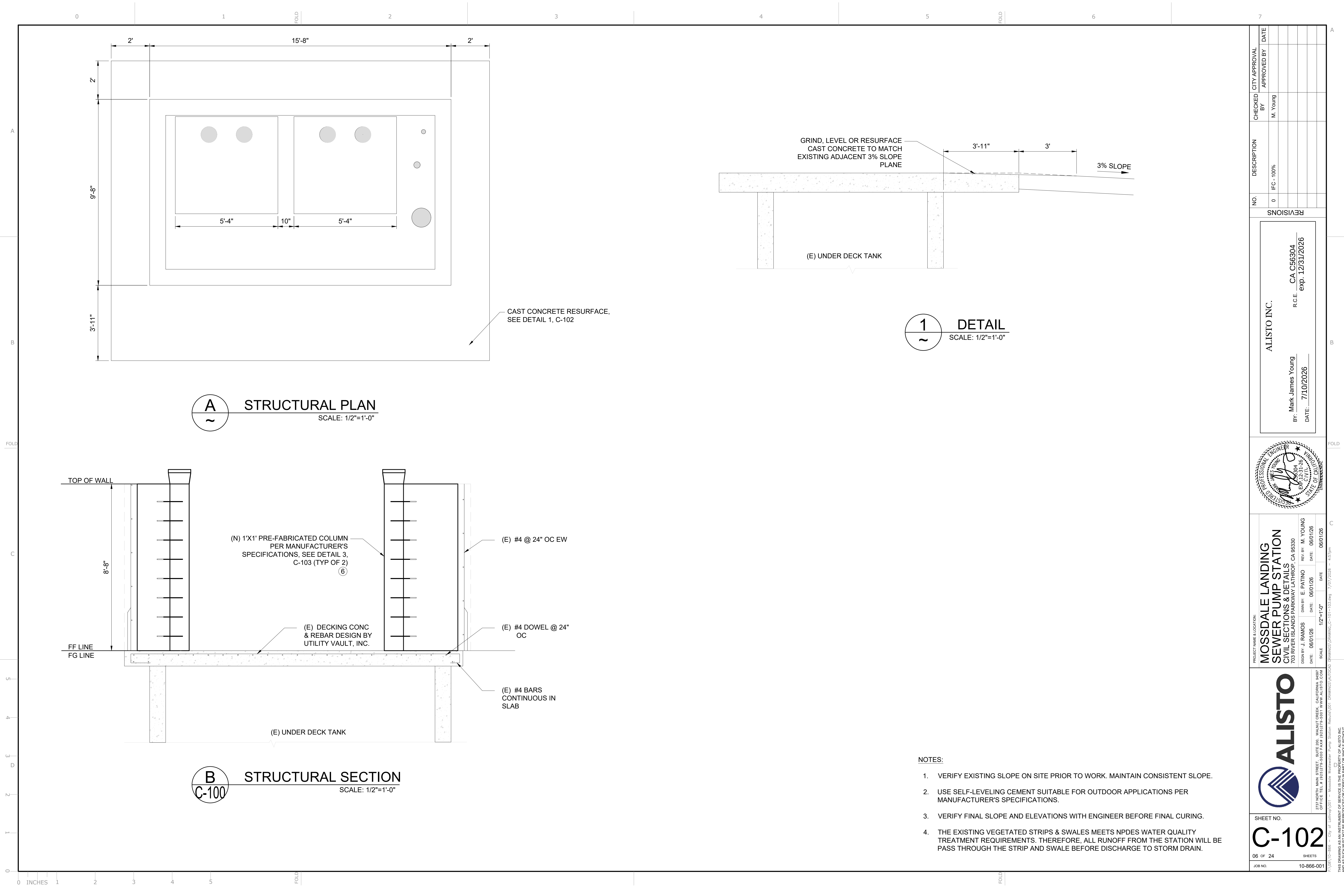
JOB NO. 10-866-001

PROFESSIONAL ENGINEER
MAY 3 2006
EXP. 12/31/26
STATE OF CALIFORNIA
ENGINEER

BY: Mark James Young
DATE: 7/10/2026
R.C.E. CA C56304
exp. 12/31/2026

NO. 0 1
DESCRIPTION 0 IFC - 100% 1 IFC - PER ADDENDUM #2
CHECKED BY M. Young M. Young
CITY APPROVAL APPROVED BY DATE

REVISIONS

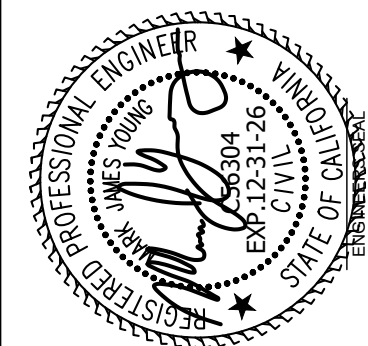


A
~
STRUCTURAL PLAN
SCALE: 1/2"=1'-0"

B
C-100
STRUCTURAL SECTION
SCALE: 1/2"=1'-0"

1
~
DETAIL
SCALE: 1/2"=1'-0"

- NOTES:
- VERIFY EXISTING SLOPE ON SITE PRIOR TO WORK. MAINTAIN CONSISTENT SLOPE.
 - USE SELF-LEVELING CEMENT SUITABLE FOR OUTDOOR APPLICATIONS PER MANUFACTURER'S SPECIFICATIONS.
 - VERIFY FINAL SLOPE AND ELEVATIONS WITH ENGINEER BEFORE FINAL CURING.
 - THE EXISTING VEGETATED STRIPS & SWALES MEETS NPDES WATER QUALITY TREATMENT REQUIREMENTS. THEREFORE, ALL RUNOFF FROM THE STATION WILL BE PASS THROUGH THE STRIP AND SWALE BEFORE DISCHARGE TO STORM DRAIN.



PROJECT NAME & LOCATION:
**MOSSDALE LANDING
SEWER PUMP STATION**
CIVIL SECTIONS & DETAILS
703 RIVER ISLANDS PARKWAY LATHROP, CA 95330
DESIGN BY: J. RAMOS DATE: 06/01/26
DRAWN BY: E. PATINO DATE: 06/01/26
REV. BY: M. YOUNG DATE: 06/01/26
SCALE: 1/2"=1'-0"

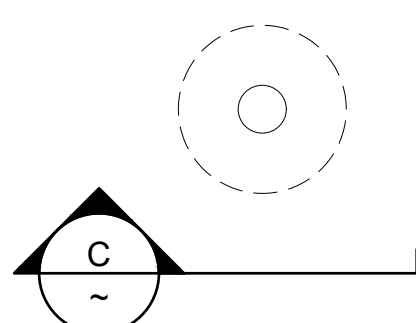


SHEET NO.
C-102
06 OF 24 SHEETS
JOB NO. 10-866-001

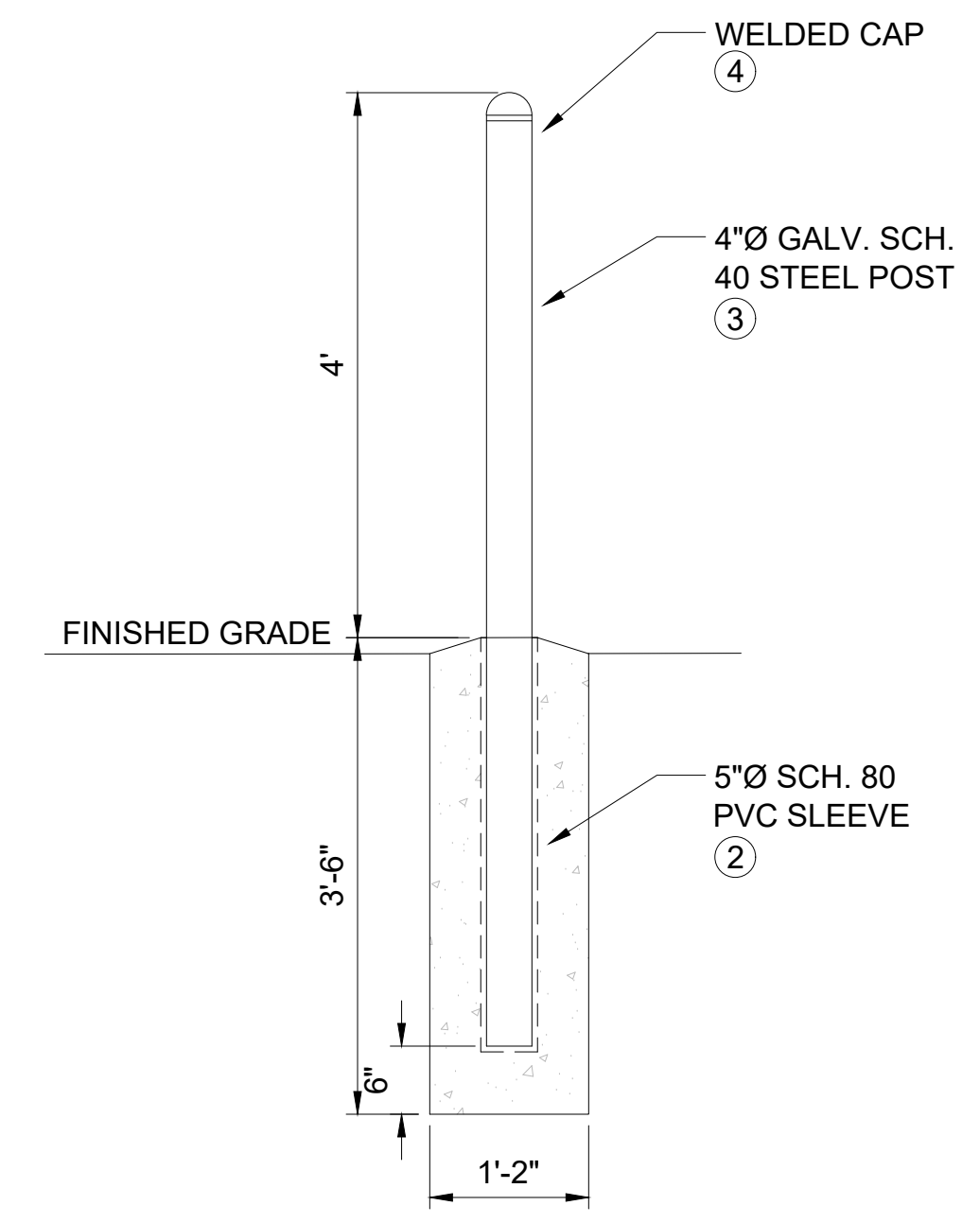
NO.	DESCRIPTION	CHECKED BY	CITY APPROVAL
0	IFC - 100%	M. Young	APPROVED BY DATE

REVISIONS

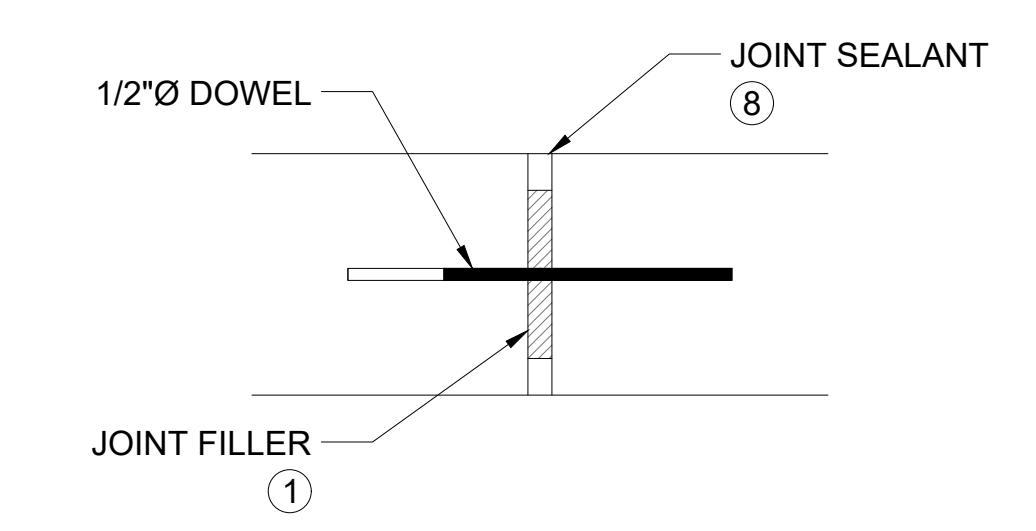
BY: Mark James Young	R.C.E. CA C56304
DATE: 7/10/2026	exp. 12/31/2026



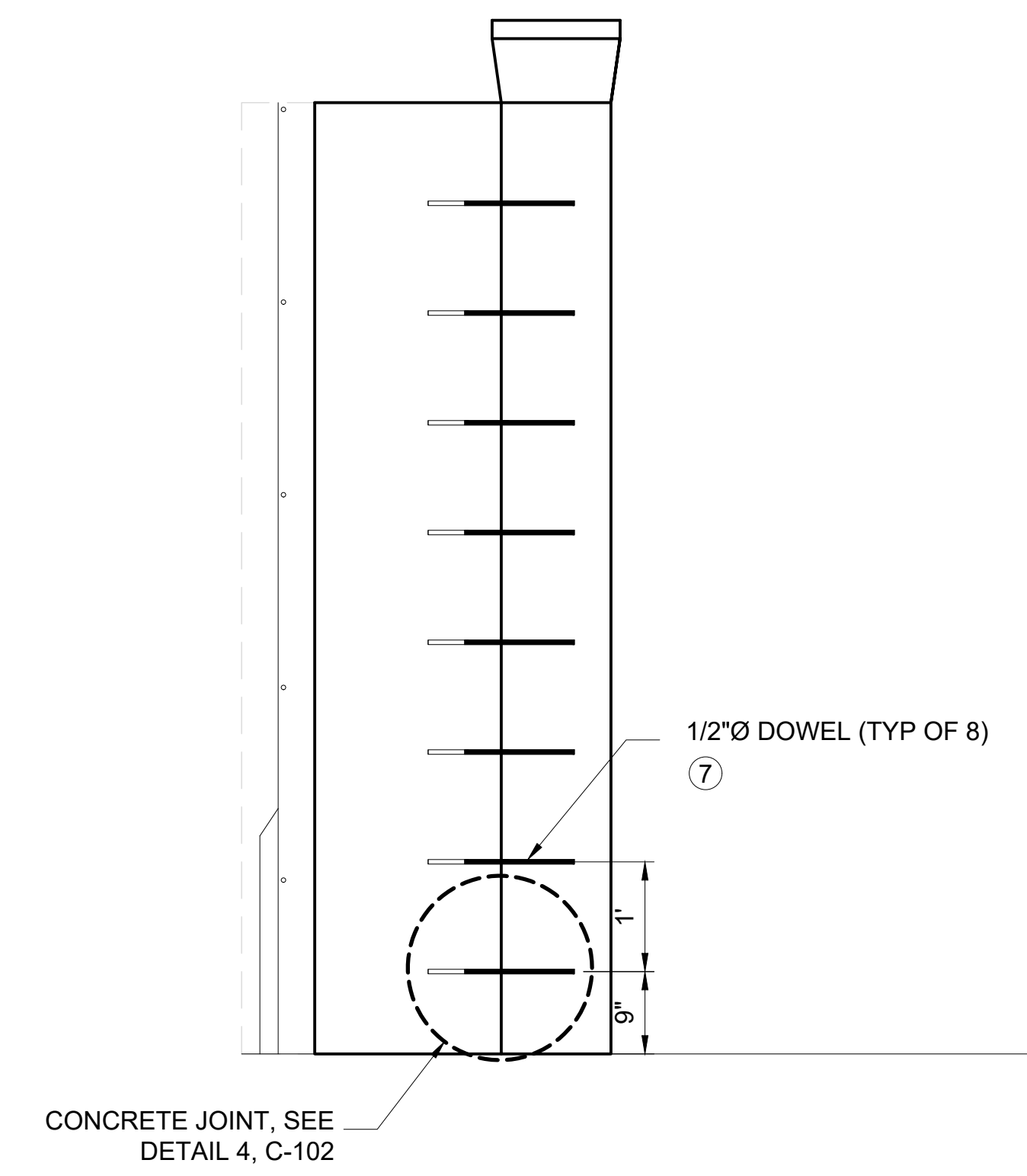
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C-101 **DETAIL**
SCALE: 3/4"=1'-0"



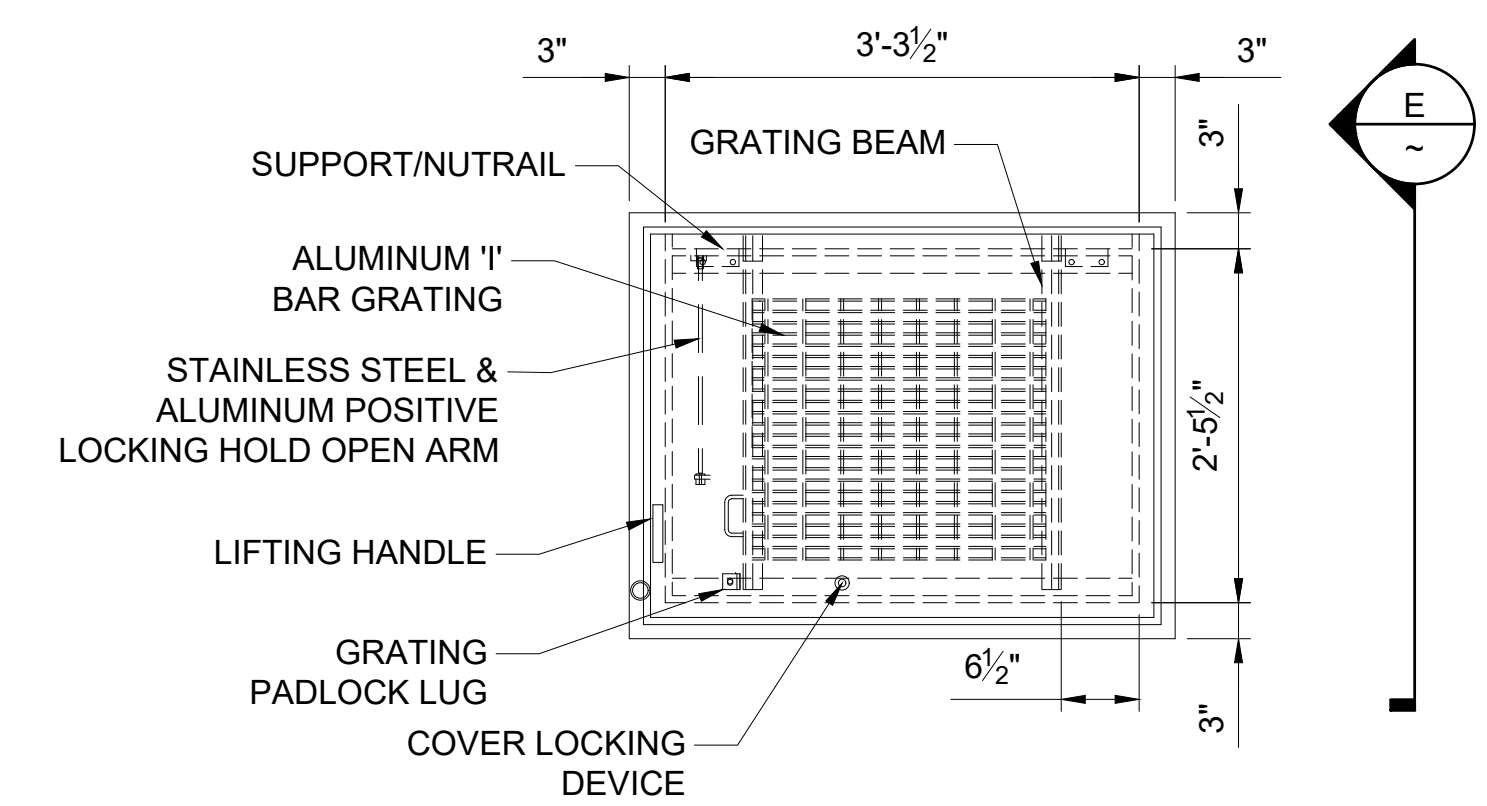
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SECTION
SCALE: 3/4"=1'-0"



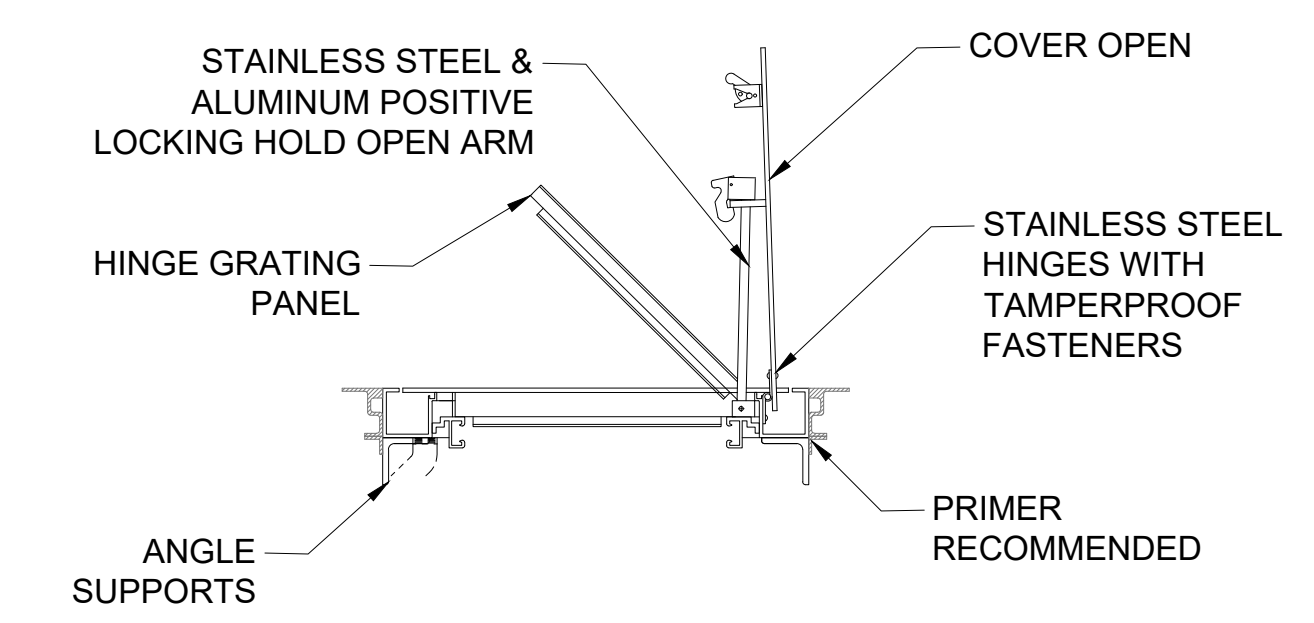
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DETAIL
SCALE: NONE



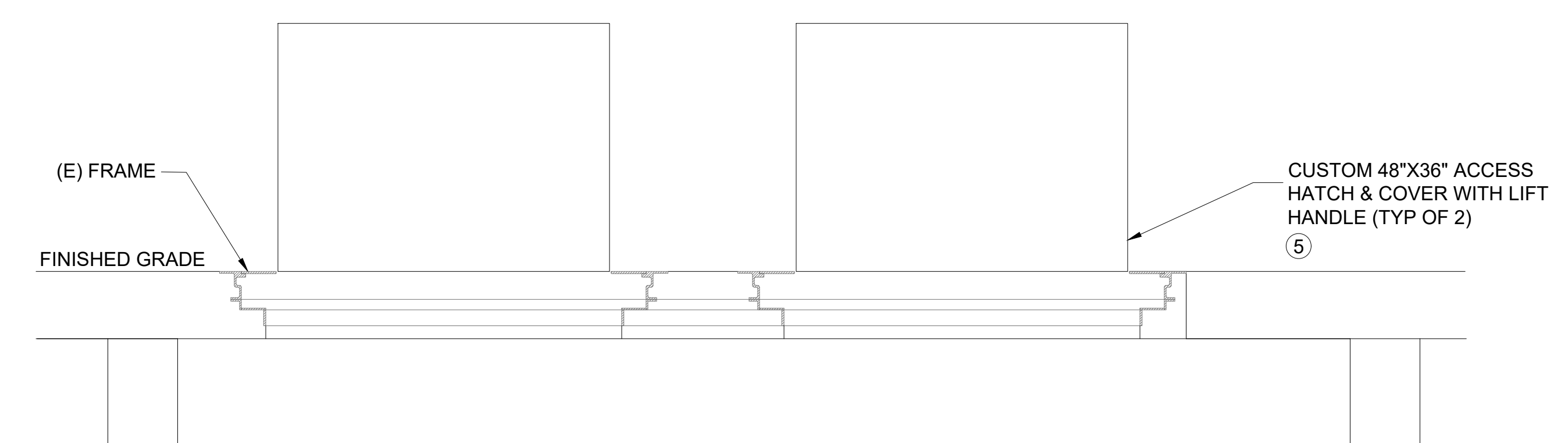
3
C-102 **DETAIL**
SCALE: 3/4"=1'-0"



5
C-101 **DETAIL**
SCALE: 3/4"=1'-0"



E
SECTION
SCALE: 3/4"=1'-0"



D
C-101 **SECTION**
SCALE: 3/4"=1'-0"

BILL OF MATERIALS					
ITEM	QTY	U/I	DESCRIPTION	MANUFACTURER	P/N
1	1	EA	JOINT FILLER		
2	72	FT	PIPE, 5"Ø, SCH. 80, STEEL GALVANIZED		
3	168	FT	PIPE, 4"Ø, SCH. 40, STEEL GALVANIZED		
4	2	EA	CAP, 4"Ø, STEEL GALVANIZED		
5	2	EA	ALUMINUM ACCESS COVER; CHANNEL FRAME WITH 1 1/2" DRAIN COUPLING, EMBEDDED FLANGED REMOVED, T316 STAINLESS STEEL HARDWARE, HOLD OPEN ARM, SLAM LOCK, PADLOCK BAR, GASKET, LOCKABLE-HINGED PROTECTIVE GRATING PANEL & 300 PSF LOAD RATING, POWDER COATED SAFETY ORANGE.	HALLIDAY PRODUCTS OR APPVD EQUAL	S1R046035B-PD-H
6	2	EA	1'X1' PRE-FABRICATED CONCRETE COLUMN, 104" HIGH, PER MANUFACTURER'S SPECIFICATIONS		
7	16	EA	DOWEL, 1/2"Ø X 16" LONG		
8	1	EA	JOINT SEALANT		

ALISTO INC.

BY: Mark James Young
R.C.E. CA C56304
exp. 12/31/2026
DATE: 7/10/2026

PROFESSIONAL ENGINEER
STATE OF CALIFORNIA
EXP. 12/31/26
CA C56304

PROJECT NAME & LOCATION
MOSSDALE LANDING
SEWER PUMP STATION
CIVIL SECTIONS & DETAILS
703 RIVER ISLANDS PARKWAY LATHROP, CA 95330
DESIGN BY: J. RAMOS
DATE: 06/01/26
SCALE: 3/4"=1'-0"

OWNED BY: M. YOUNG
REV. BY: E. PATINO
DATE: 06/01/26
DATE: 06/01/26

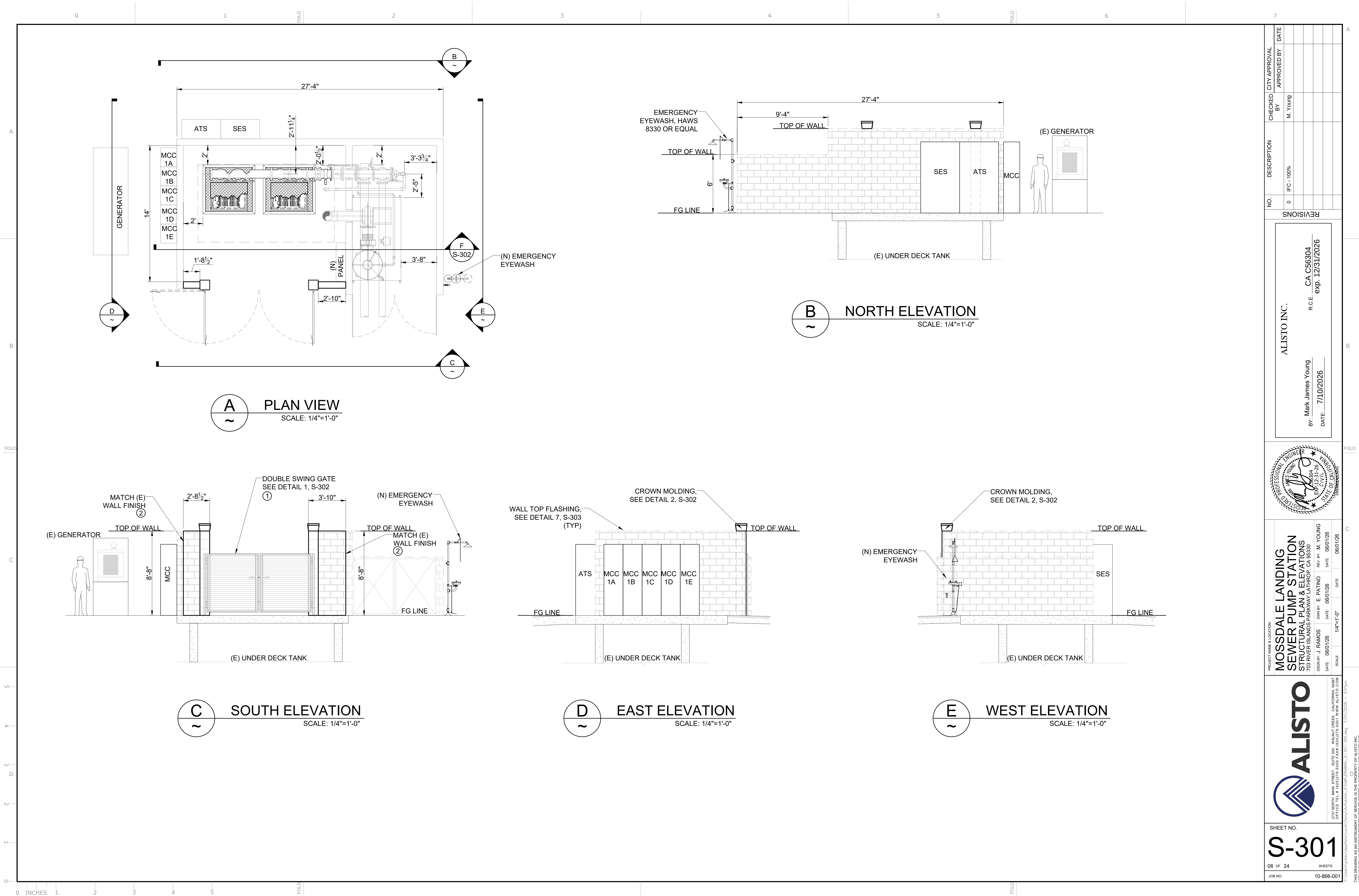
2737 NORTH MAIN STREET, SUITE 200, WALNUT CREEK, CALIFORNIA 94597
OFFICE TEL # 925.272.5800 FAX # 925.272.5801 WWW.ALISTO.COM

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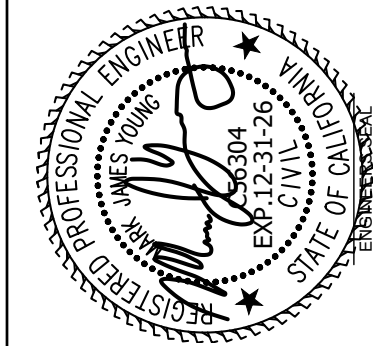
SHEET NO.
C-103
07 OF 24 SHEETS

JOB NO.
10-866-001

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REVISIONS					
BY: Mark James Young DATE: 7/10/2026 R.C.E. CA C56304 exp. 12/31/2026					
ALISTO INC.					



PROJECT NAME & LOCATION		DATE	
MOSSDALE LANDING SEWER PUMP STATION		06/01/26	
STRUCTURAL PLAN & ELEVATIONS		06/01/26	
703 RIVER ISLANDS PARKWAY LATHROP, CA 95330		06/01/26	
DESIGNED BY: J. RAMOS		DATE: 06/01/26	
DRAWN BY: E. PATINO		DATE: 06/01/26	
SCALE		1/4"=1'-0"	

ALISTO

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SHEET NO.
S-301

08 OF 24 SHEETS

JOB NO. 10-866-001

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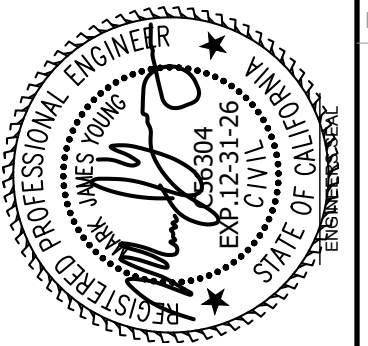
BILL OF MATERIALS					
ITEM	QTY	U/I	DESCRIPTION	MANUFACTURER	P/N
1	1	EA	10'-6" X 6' DOUBLE SWING GATE WITH 2" X 2" STEEL POST, FRAMES(S) HINGES, PANELS, PADLOCKABLE SLIDE AND CANE BOLT; SHADOW 100% INFILL PANELS WITH 31/32" X 1/16" FORMED MAIN BAR AND 5/32" ROUND CROSS BAR	AMETCO OR APPVD EQUAL	
2	AS REQ.	EA	CINDER BLOCKS		
3	1	EA	GROUT		
4	65	FT	GALVANIZED STEEL, 22 GAUGE METAL FLASHING		
5	2	EA	14"x14"x9 POLYURETHANE CROWN MOLDING		
6	1	EA	WATERPROOF SEALANT		

REVISIONS		NO.	DESCRIPTION	CHECKED BY	CITY APPROVAL DATE
		0	IFC - 100%	M. Young	

ALISTO INC.

BY: Mark James Young R.C.E. CA C56304

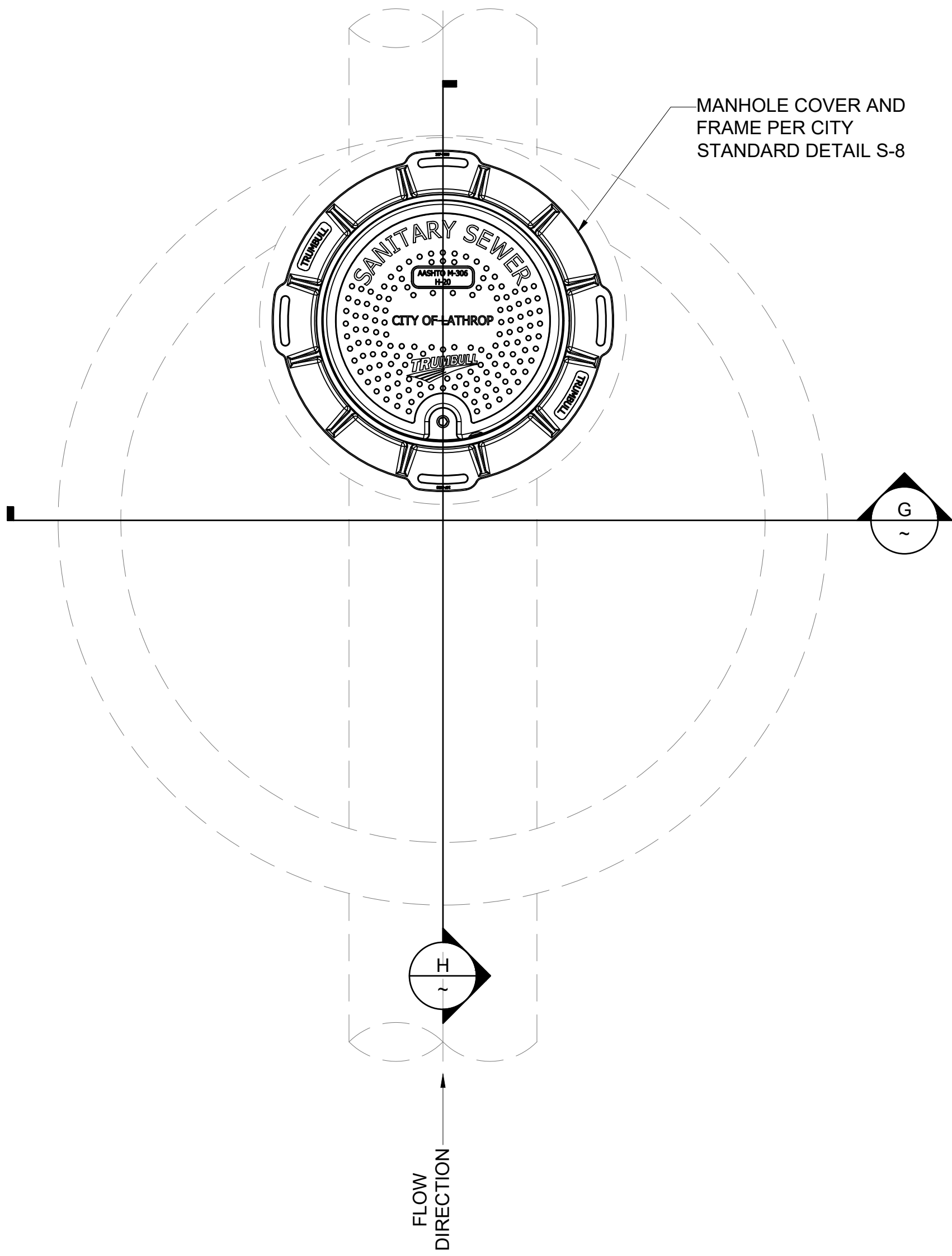
DATE: 7/10/2026 exp. 12/31/2026



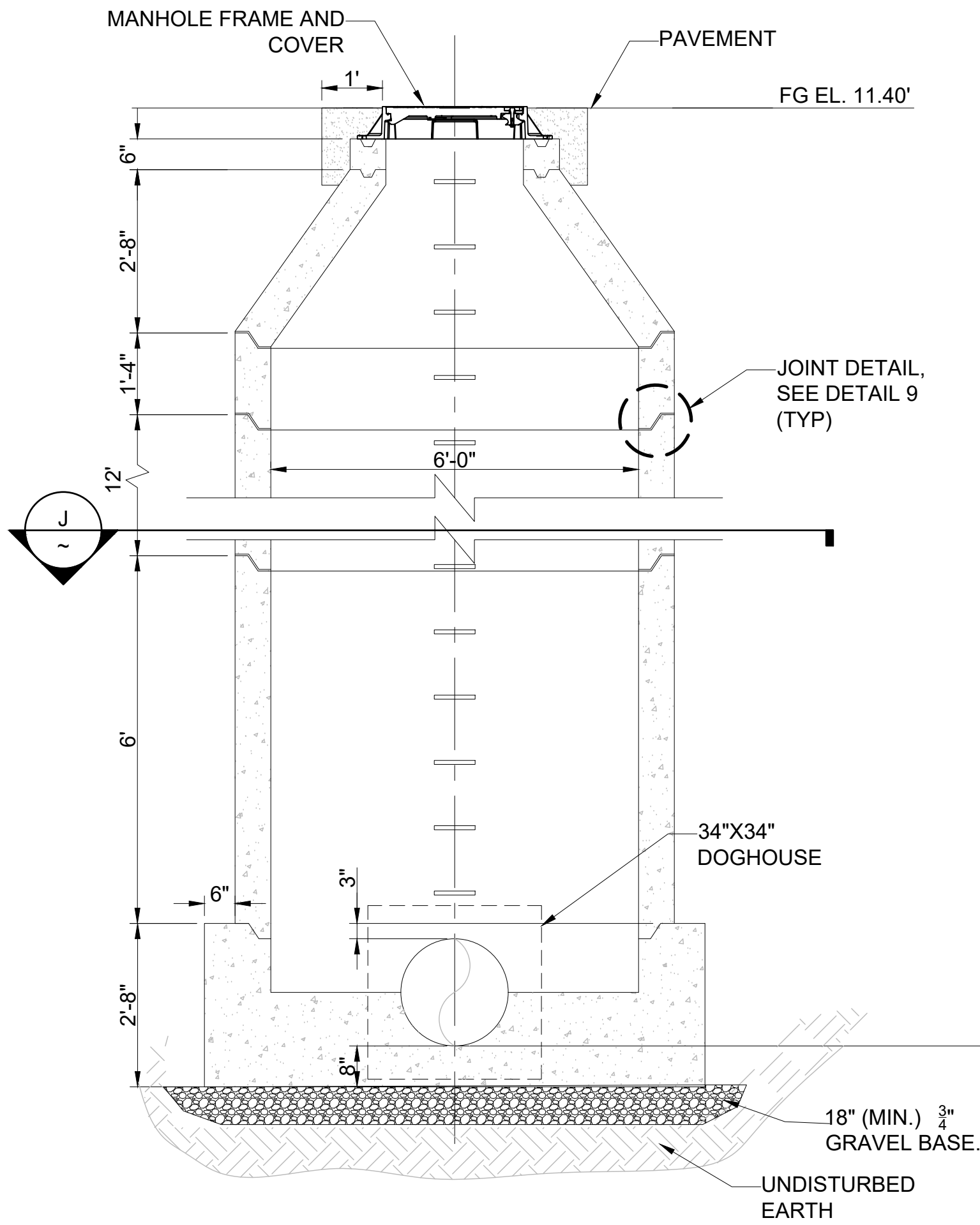
PROJECT NAME & LOCATION:		MOSSDALE LANDING SEWER PUMP STATION STRUCTURAL DETAILS	
703 RIVER ISLANDS PARKWAY LATHROP, CA 95330		DESIGNER: J. RAMOS	REV. BY: M. YOUNG
DATE: 06/01/26	DATE: 06/01/26	DATE: 06/01/26	DATE: 06/01/26
SCALE	AS SHOWN	DATE	06/01/26

 ALISTO	2727 MAIN STREET, SUITE 200, WALNUT CREEK, CALIFORNIA 94597 OFFICE TEL: (925)737-5000 FAX: (925)737-5001 WWW.ALISTO.COM
	SHEET NO. S-303 10 OF 24 SHEETS JOB NO. 10-866-001

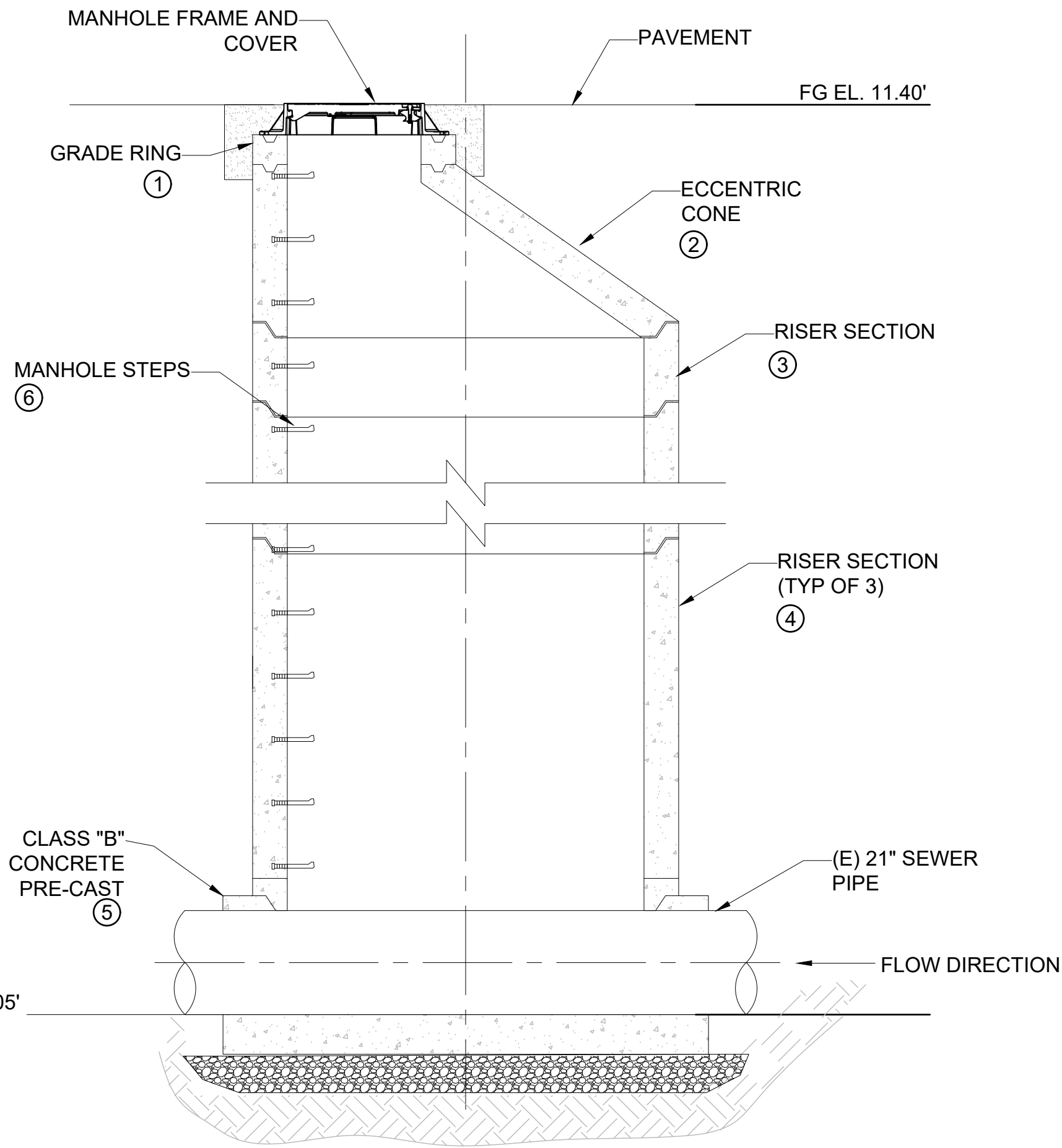
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8
C-101 BYPASS SEWER MANHOLE
SCALE: 1"=1'-0"



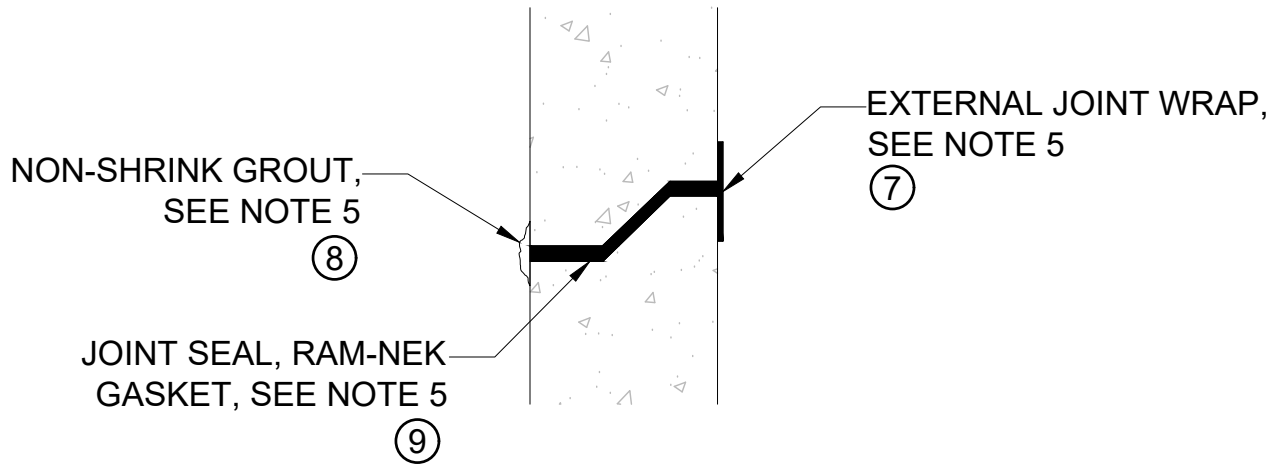
G SECTION
SCALE: 1/2"=1'-0"



H SECTION
SCALE: 1/2"=1'-0"

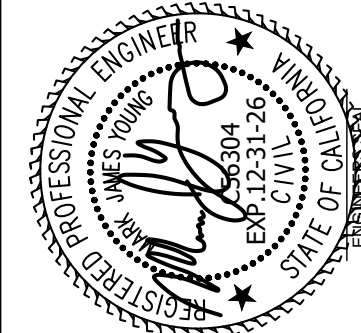
NOTES:

- ASSUMPTION: DISTANCE FROM INVERT AT PUMP STATION TO MH LOCATION: 16'-2" @ 2% SLOPE $\approx$ 0.325'. PIPE INVERT ELEVATION @ MANHOLE = -13.605'. ACTUAL PIPE SLOPE UNKNOWN. NEW MH ELEVATION SHALL PROVIDE FOR POSITIVE FLOW THROUGH TO PUMP STATION.
- BYPASS SANITARY SEWER MANHOLE SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY STANDARD DRAWING S-1.
- PRECAST REINFORCED CONCRETE MANHOLE UNIT SHALL CONFORM TO ASTM C-478.
- ALL MANHOLES SHALL BE VACUUM TESTED IN THE FIELD IN ACCORDANCE WITH SECTION 5-7.2 D LEAKAGE OF THE CITY STANDARDS.
- ALL JOINTS SHALL BE SET ON RAM-NEK OR APPROVED EQUAL. INTERIOR AND EXTERIOR JOINTS & PICK POINTS SHALL BE GROUTED. WRAP EXTERIOR JOINT WITH RUB'R-NEK EXTERNAL CONCRETE JOINT WRAP.
- MANHOLE SHALL HAVE A POLYURETHANE OR FIBERGLASS COATING, OR PVC LINER RECOMMENDED BY A REPUTABLE MANUFACTURER AS BEING SUITABLE FOR THIS USE, APPLIED TO THE INTERIOR OF THE MANHOLE.
- SUPPORT MANHOLE SECTION ON CONCRETE CINDER BLOCKS FOR CAST IN PLACE PROCESS. DO NOT SET BASE SECTION DIRECTLY ON PIPE.



9 JOINT DETAIL
SCALE: NONE

BILL OF MATERIALS					
ITEM	QTY	U/I	DESCRIPTION	MANUFACTURER	P/N
1	1	EA	6", 27"-DIAMETER KEYED CONCRETE ADJUSTMENT GRADE RING	JENSEN OR APPVD EQUAL	QMHA-72
2	1	EA	2'-8", 72"-DIAMETER CONCRETE ECCENTRIC CONE RING WITH LIFTING HOOKS	JENSEN OR APPVD EQUAL	QMHA-72
3	1	EA	1'-4", 72"-DIAMETER CONCRETE RISER SECTION WITH LIFTING HOOKS	JENSEN OR APPVD EQUAL	QMHA-72
4	3	EA	6'-0", 72"-DIAMETER CONCRETE RISER SECTION WITH LIFTING HOOKS	JENSEN OR APPVD EQUAL	QMHA-72
5	1	EA	2'-8", 72"-DIAMETER CLASS "B" CONCRETE PRECAST BASE	JENSEN OR APPVD EQUAL	QMHA-72
6	AS REQ.	EA	MANHOLE STEPS		
7	AS REQ.	EA	EXTERNAL CONCRETE JOINT WRAP	RUB'R-NEK WRAP OR APPVD EQUAL	
8	AS REQ.	EA	NON-SHRINK GROUT		
9	AS REQ.	EA	PREFORMED, FLEXIBLE, MODIFIED-BITUMEN GASKET-TYPE JOINT SEALANT	RAM-NEK OR APPVD EQUAL	



PROJECT NAME & LOCATION:
**MOSSDALE LANDING
SEWER PUMP STATION
TEMPORARY MANHOLE PLAN & SECTIONS**
703 RIVER ISLANDS PARKWAY LATHROP, CA 95330
DESIGNER: J. RAMOS DATE: 07/07/26
DRAWN BY: E. PATINO DATE: 07/07/26
REV. BY: M. YOUNG DATE: 07/07/26



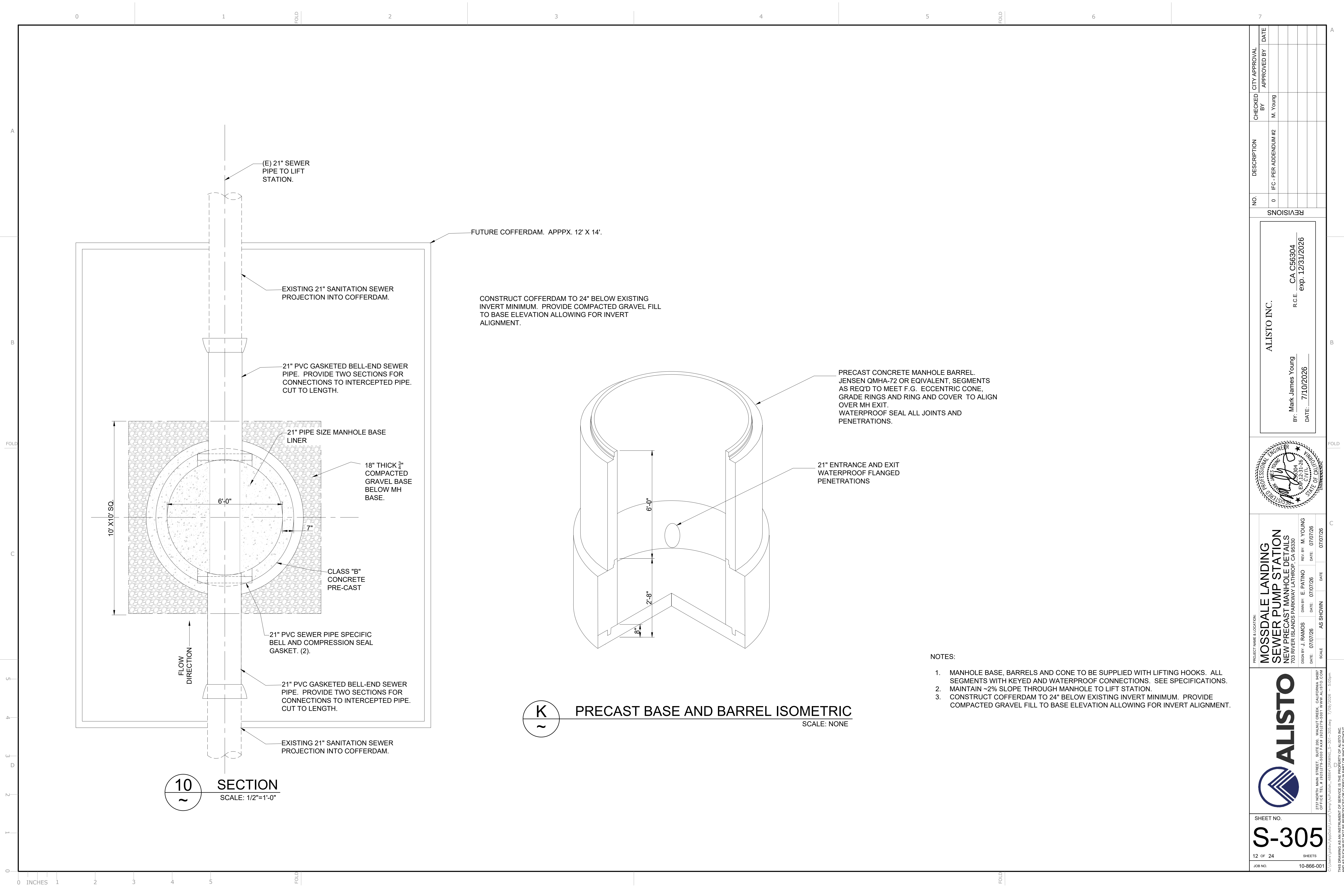
SHEET NO.
S-304
11 OF 24 SHEETS
JOB NO. 10-866-001

NO.	DESCRIPTION	CHECKED BY	CITY APPROVAL	APPROVED BY	DATE
0	IFC - PER ADDENDUM #2	M. Young			

REVISIONS	NO.	DESCRIPTION	DATE
	1	CA C56304	exp. 12/31/2026
	2	Mark James Young	7/10/2026

ALISTO INC.
R.C.E. CA C56304
exp. 12/31/2026
BY: Mark James Young
DATE: 7/10/2026

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10 SECTION
SCALE: 1/2"=1'-0"

K PRECAST BASE AND BARREL ISOMETRIC
SCALE: NONE

- NOTES:
- MANHOLE BASE, BARRELS AND CONE TO BE SUPPLIED WITH LIFTING HOOKS. ALL SEGMENTS WITH KEYED AND WATERPROOF CONNECTIONS. SEE SPECIFICATIONS.
 - MAINTAIN ~2% SLOPE THROUGH MANHOLE TO LIFT STATION.
 - CONSTRUCT COFFERDAM TO 24" BELOW EXISTING INVERT MINIMUM. PROVIDE COMPACTED GRAVEL FILL TO BASE ELEVATION ALLOWING FOR INVERT ALIGNMENT.

PROJECT NAME & LOCATION:
**MOSSDALE LANDING
SEWER PUMP STATION
NEW PRECAST MANHOLE DETAILS**
703 RIVER ISLANDS PARKWAY LATHROP, CA 95330
DESIGN BY: J. RAMOS DATE: 07/07/26
DRAWN BY: E. PATINO DATE: 07/07/26
REV. BY: M. YOUNG DATE: 07/07/26
SCALE: AS SHOWN

BY: **Mark James Young**
DATE: **7/10/2026**

ALISTO INC.
R.C.E. **CA C56304**
exp. **12/31/2026**

NO.	DESCRIPTION	CHECKED BY	CITY APPROVAL
0	IFC - PER ADDENDUM #2	M. Young	APPROVED BY DATE

SHEET NO.
S-305

12 OF 24 SHEETS

JOB NO. 10-866-001

2737 NORTH MAIN STREET, SUITE 200, WALNUT CREEK, CALIFORNIA 94597
OFFICE TEL # 925.272.5800 FAX # 925.272.5801 WWW.ALISTO.COM

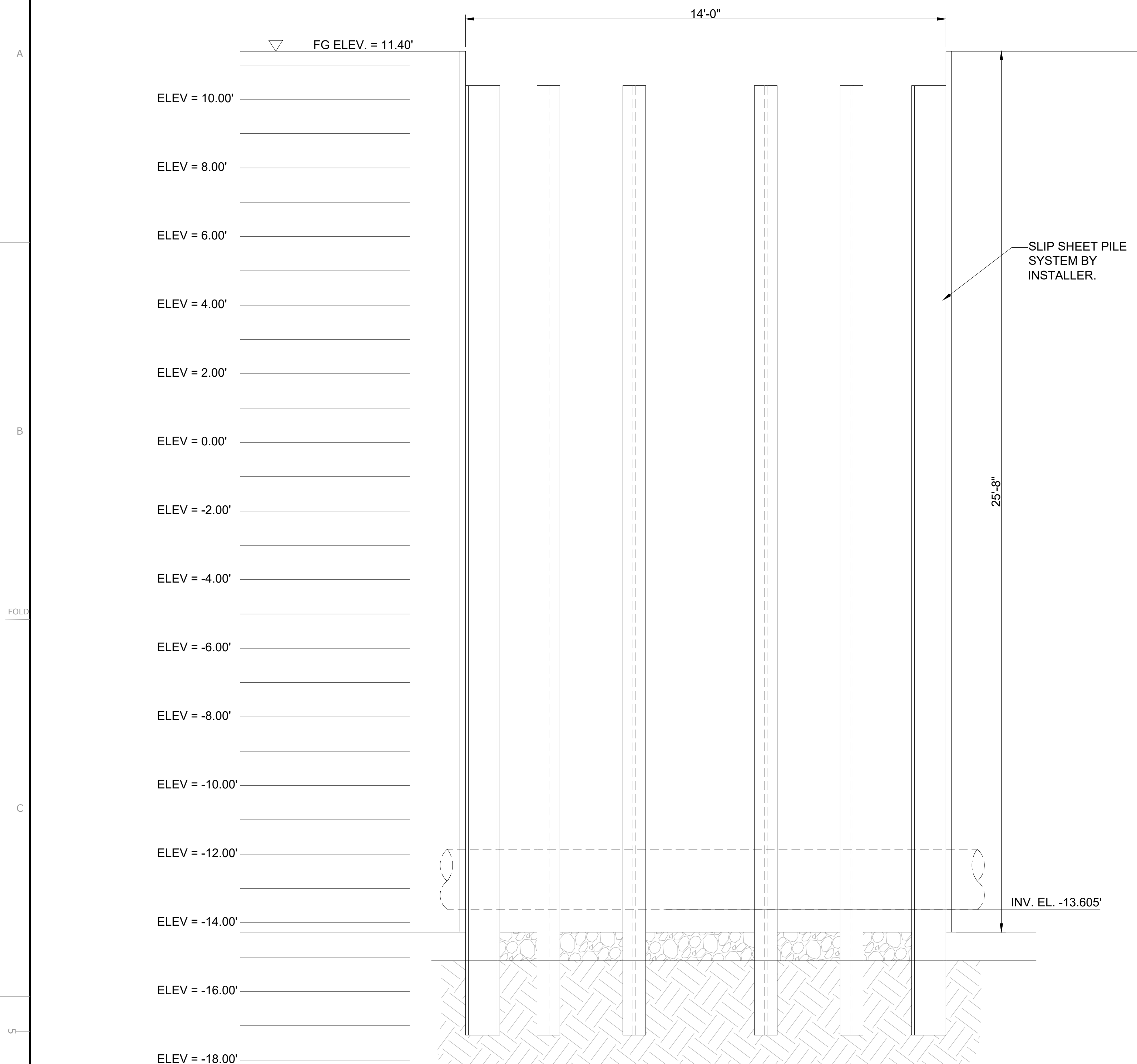
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- NOTES:
1. FINAL EXCAVATION SHORING TO BE DESIGNED BY SUPPLIER.
 2. MANHOLE BASE, BARRELS AND CONE TO BE SUPPLIED WITH LIFTING HOOKS. ALL SEGMENTS WITH KEYED AND WATERPROOF CONNECTIONS. SEE SPECIFICATIONS.
 3. MAINTAIN ~2% SLOPE THROUGH MANHOLE TO LIFT STATION.
 4. CONSTRUCT COFFERDAM TO 24" BELOW EXISTING INVERT MINIMUM. PROVIDE COMPACTED GRAVEL FILL TO BASE ELEVATION ALLOWING FOR INVERT ALIGNMENT.

		PROJECT NAME & LOCATION: MOSSDALE LANDING SEWER PUMP STATION COFFERDAM DETAIL & SECTION 703 RIVER ISLANDS PARKWAY LATHROP, CA 98330		DESIGNED BY: J. RAMOS DATE: 07/07/26		DRAWN BY: E. PATINO DATE: 07/07/26		REVISIONS 0 IFC - PER ADDENDUM #2		CHECKED BY: M. Young CITY APPROVAL:		DATE:	
SHEET NO. S-306		13 OF 24		JOB NO.		10-866-000		SCALE: 1/2"=1'-0"		DATE: 07/07/26		DATE: 07/07/26	



SECTION

SCALE: 1/2"=1'-0"

- NOTES:

1. FINAL EXCAVATION SHORING TO BE DESIGNED BY SUPPLIER.
2. MANHOLE BASE, BARRELS AND CONE TO BE SUPPLIED WITH LIFTING HOOKS. ALL SEGMENTS WITH KEYED AND WATERPROOF CONNECTIONS. SEE SPECIFICATIONS.
3. MAINTAIN ~2% SLOPE THROUGH MANHOLE TO LIFT STATION.
4. CONSTRUCT COFFERDAM TO 24" BELOW EXISTING INVERT MINIMUM. PROVIDE COMPACTED GRAVEL FILL TO BASE ELEVATION ALLOWING FOR INVERT ALIGNMENT.



SHEET NO.

S-307

14 OF 24 SHEETS

JOB NO. 10-866

PROJECT NAME & LOCATION:

MOSSDALE LANDING
SEWER PUMP STATION
CONFERDAM DETAIL & SECTION

703 RIVER ISLANDS PARKWAY LATHROP, CA 95330

DESIGN BY: J. RAMOS DRAWN BY: E. PATINO REV BY: M. YOUNG

DATE: 07/07/26 DATE: 07/07/26 DATE: 07/07/26

SCALE: 1/2"=1'-0"



ALISTO INC.

R.C.E. CA C59304
exp. 12/31/2026

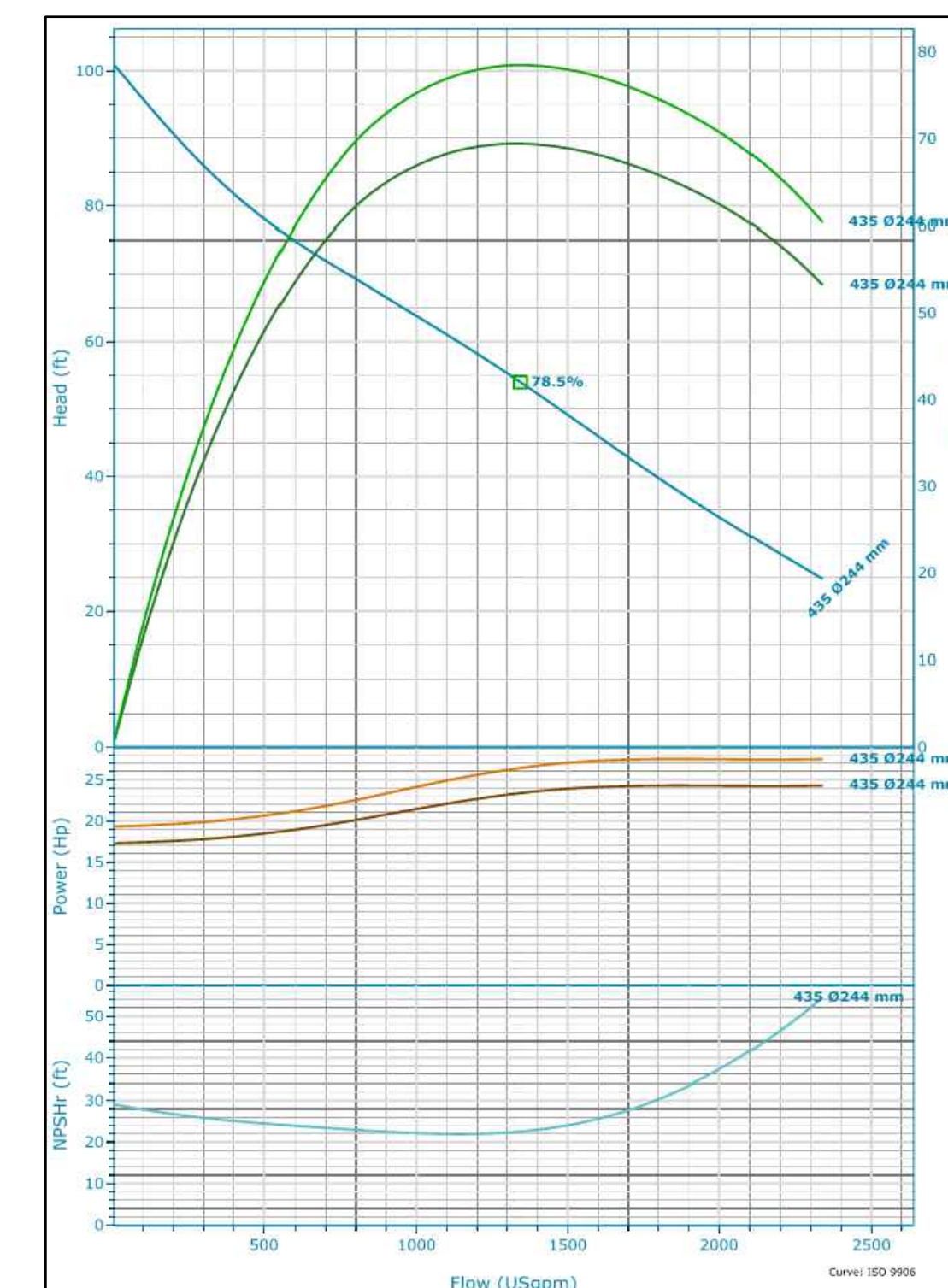
BY: Mark James Young DATE: 7/10/2026

REVISONS

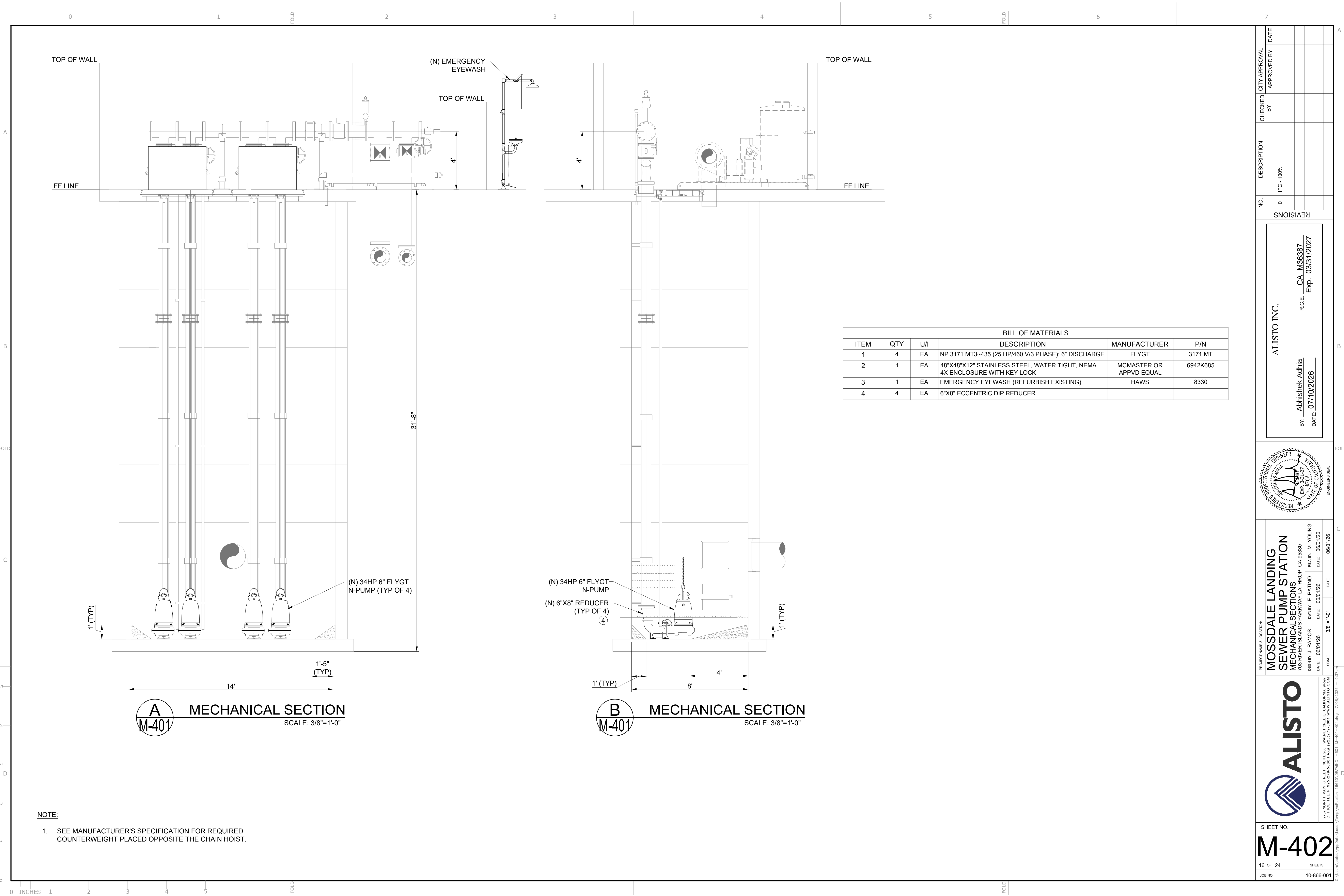
NO.	DESCRIPTION	CHECKED BY	CITY APPROVAL
0	IFC - PER ADDENDUM #2	M. Young	



PUMP HYDRAULIC DATA & PERFORMANCE CURVE



PROJECT NAME & LOCATION:		MOSSDALE LANDING SEWER PUMP STATION	
		MECHANICAL PLAN	
		703 RIVER ISLANDS PARKWAY, LATHROP, CA 95330	
DRAWN BY:	E. PATINO	REV BY:	M. YOUNG
DATE:	06/01/26	DATE:	06/01/26
SCALE:	3/8"=1'-0"	DATE:	06/01/26
ALISTO			
			
SHEET NO.			
M-401			
15 OF 24 SHEETS			
JOB NO.		10-866-	



NOTE:

1. SEE MANUFACTURER'S SPECIFICATION FOR REQUIRED COUNTERWEIGHT PLACED OPPOSITE THE CHAIN HOIST.

BILL OF MATERIALS					
ITEM	QTY	U/I	DESCRIPTION	MANUFACTURER	P/N
1	4	EA	NP 3171 MT3~435 (25 HP/460 V/3 PHASE); 6" DISCHARGE	FLYGT	3171 MT
2	1	EA	48"X48"X12" STAINLESS STEEL, WATER TIGHT, NEMA 4X ENCLOSURE WITH KEY LOCK	MCMMASTER OR APPVD EQUAL	6942K685
3	1	EA	EMERGENCY EYEWASH (REFURBISH EXISTING)	HAWS	8330
4	4	EA	6"X8" ECCENTRIC DIP REDUCER		

ALISTO INC.
BY: Abhishek Adhia
DATE: 07/10/2026
R.C.E. CA M36387
Exp. 03/31/2027

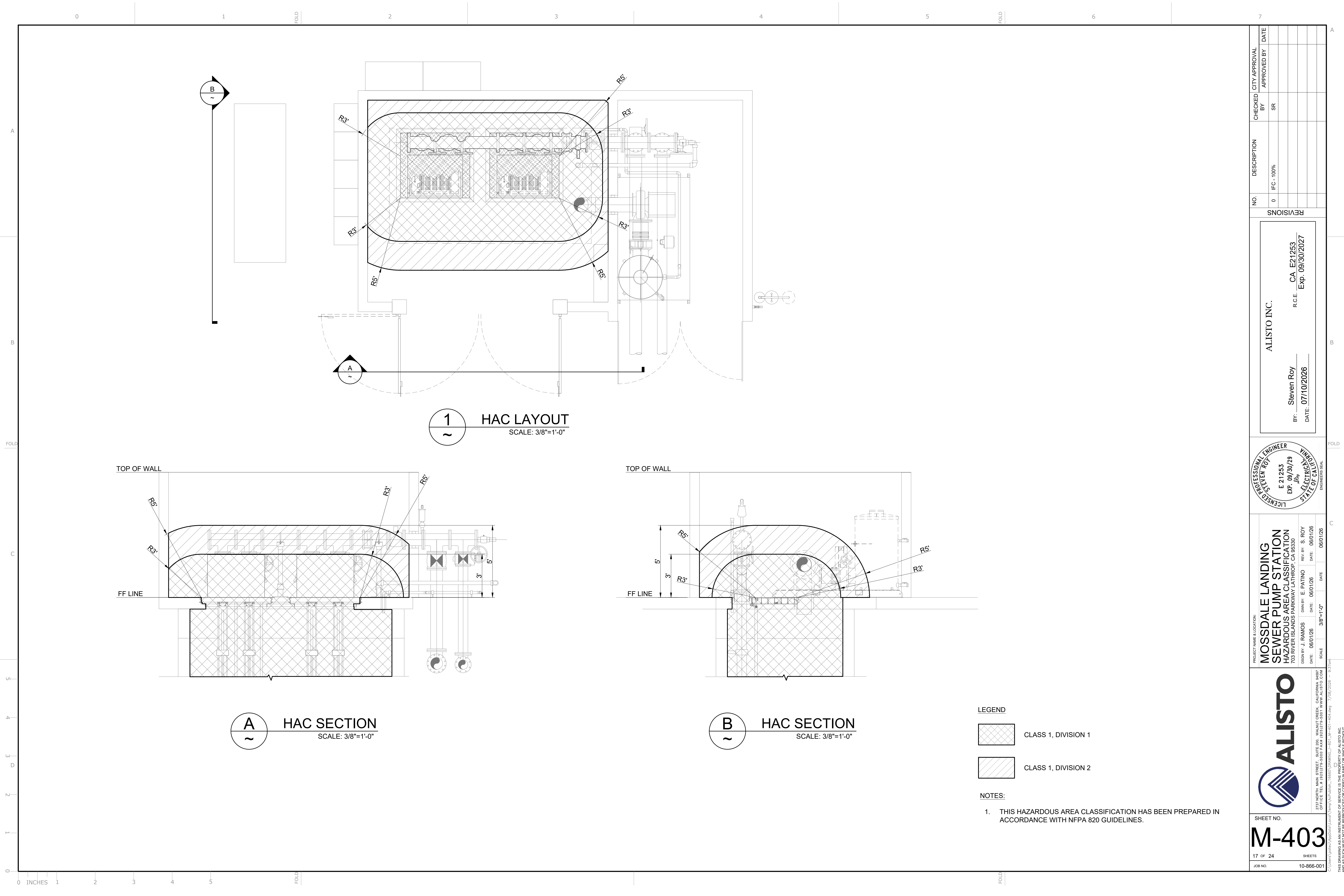
REGISTERED PROFESSIONAL ENGINEER
ABHISHEK ADHIA
EXPIRATION DATE: 3-31-27
STATE OF CALIFORNIA
ENGINEER'S SEAL

PROJECT NAME & LOCATION:
**MOSSDALE LANDING
SEWER PUMP STATION
MECHANICAL SECTIONS**
703 RIVER ISLANDS PARKWAY LATHROP, CA 95330
DESIGN BY: J. RAMOS
DATE: 06/01/26
SCALE: 3/8"=1'-0"

DRAWN BY: E. PATINO
DATE: 06/01/26
DATE: 06/01/26
DATE: 06/01/26

2737 NORTH MAIN STREET, SUITE 200, WALNUT CREEK, CALIFORNIA 94597
OFFICE TEL # 925-275-5500 FAX # 925-275-5501 WWW.ALISTO.COM
C:\Users\jramos\Documents\16862\MOSSDALE\16862-MOSSDALE-M-401-M-401.dwg 7/26/2026 - 9:37 am

SHEET NO.
M-402
16 OF 24 SHEETS
JOB NO. 10-866-001



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OFFICE TEL # 925/272-5500 FAX # 925/272-5501 WWW.ALISTO.COM

PROJECT NAME & LOCATION

MOSSDALE LANDING
SEWER PUMP STATION
HAZARDOUS AREA CLASSIFICATION
703 RIVER ISLANDS PARKWAY LATHROP, CA 95330

DESIGN BY: J. RAMOS

DATE: 06/01/26

DRAWN BY: E. PATINO

DATE: 06/01/26

REV. BY: S. ROY

DATE: 06/01/26

SCALE

3/8"=1'-0"

SHEET NO.

M-403

JOB NO.

10-866-001

2737 NORTH MAIN STREET, SUITE 200, WALNUT CREEK, CALIFORNIA 94597
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7/25/2026 - 9:37am

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PROFESSIONAL ENGINEER
STEVEN ROY
E 21253
EXP. 09/30/29
JRS
ELECTRICAL
STATE OF CALIFORNIA
BUSINESS SEAL

BY: Steven Roy
DATE: 07/10/2026

R.C.E. CA E21253
Exp 09/30/2027

NO.

0

DESCRIPTION

IFC - 100%

CHECKED BY

SR

CITY APPROVAL

APPROVED BY

DATE

REVISIONS

NO.

DESCRIPTION

IFC - 100%

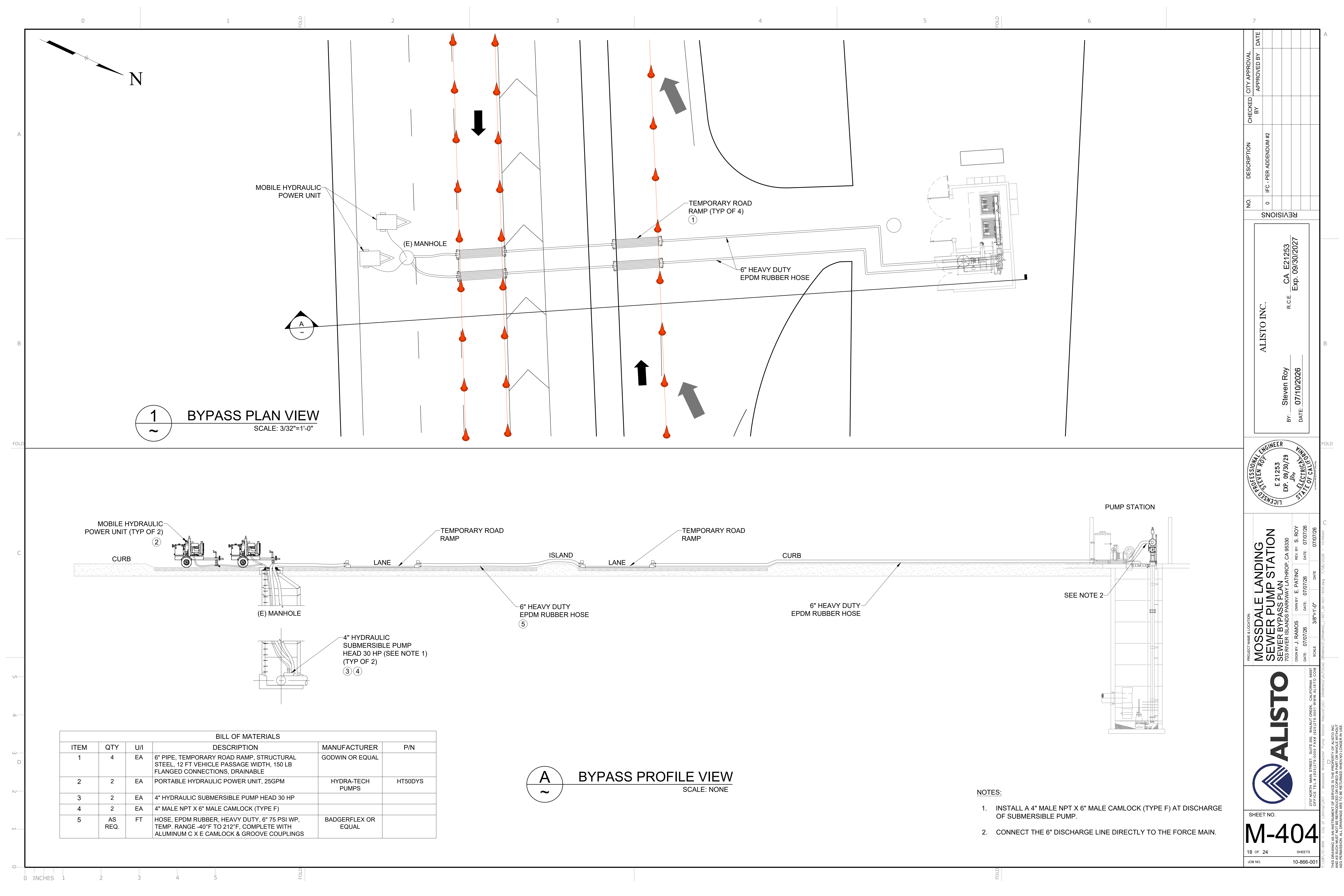
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SR

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APPROVED BY

DATE



1 BYPASS PLAN VIEW
SCALE: 3/32"=1'-0"

A BYPASS PROFILE VIEW
SCALE: NONE

BILL OF MATERIALS					
ITEM	QTY	U/I	DESCRIPTION	MANUFACTURER	P/N
1	4	EA	6" PIPE, TEMPORARY ROAD RAMP, STRUCTURAL STEEL, 12 FT VEHICLE PASSAGE WIDTH, 150 LB FLANGED CONNECTIONS, DRAINABLE	GODWIN OR EQUAL	
2	2	EA	PORTABLE HYDRAULIC POWER UNIT, 25GPM	HYDRA-TECH PUMPS	HT50DYS
3	2	EA	4" HYDRAULIC SUBMERSIBLE PUMP HEAD 30 HP		
4	2	EA	4" MALE NPT X 6" MALE CAMLOCK (TYPE F)		
5	AS REQ.	FT	HOSE, EPDM RUBBER, HEAVY DUTY, 6" 75 PSI WP, TEMP. RANGE -40°F TO 212°F, COMPLETE WITH ALUMINUM C X E CAMLOCK & GROOVE COUPLINGS	BADGERFLEX OR EQUAL	

- NOTES:
- INSTALL A 4" MALE NPT X 6" MALE CAMLOCK (TYPE F) AT DISCHARGE OF SUBMERSIBLE PUMP.
 - CONNECT THE 6" DISCHARGE LINE DIRECTLY TO THE FORCE MAIN.

CITY APPROVAL

CHECKED BY

APPROVED BY

DATE

DESCRIPTION

0 IFC - PER ADDENDUM #2

NO

0

REVISIONS

ALISTO INC.

BY: Steven Roy

DATE: 07/10/2026

R.C.E. CA E21253

Exp 09/30/2027

LICENSED PROFESSIONAL ENGINEER

STEVEN ROY

E 21253

EXP. 09/30/29

STATE OF CALIFORNIA

ELECTRICAL

PROJECT NAME & LOCATION

MOSSDALE LANDING SEWER PUMP STATION SEWER BYPASS PLAN

703 RIVER ISLANDS PARKWAY LATHROP, CA 95330

DESIGN BY: J. RAMOS

DATE: 07/07/26

DRAWN BY: E. PATINO

DATE: 07/07/26

REV. BY: S. ROY

DATE: 07/07/26

SCALE: 3/8"=1'-0"

DATE: 07/07/26

ALISTO

2337 NORTH MAIN STREET, SUITE 200, WALNUT CREEK, CALIFORNIA 94597

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18 OF 24 SHEETS

JOB NO. 10-866-001

SHEET NO.

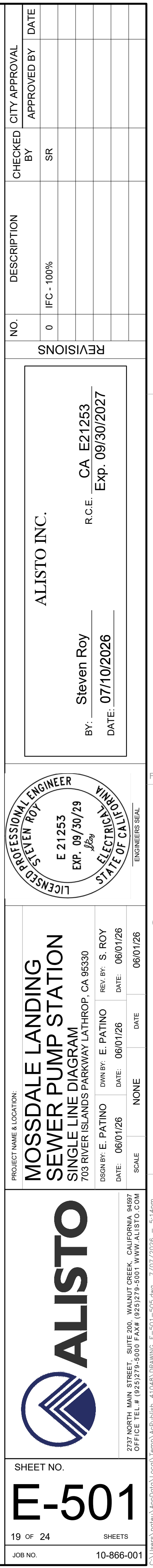
M-404

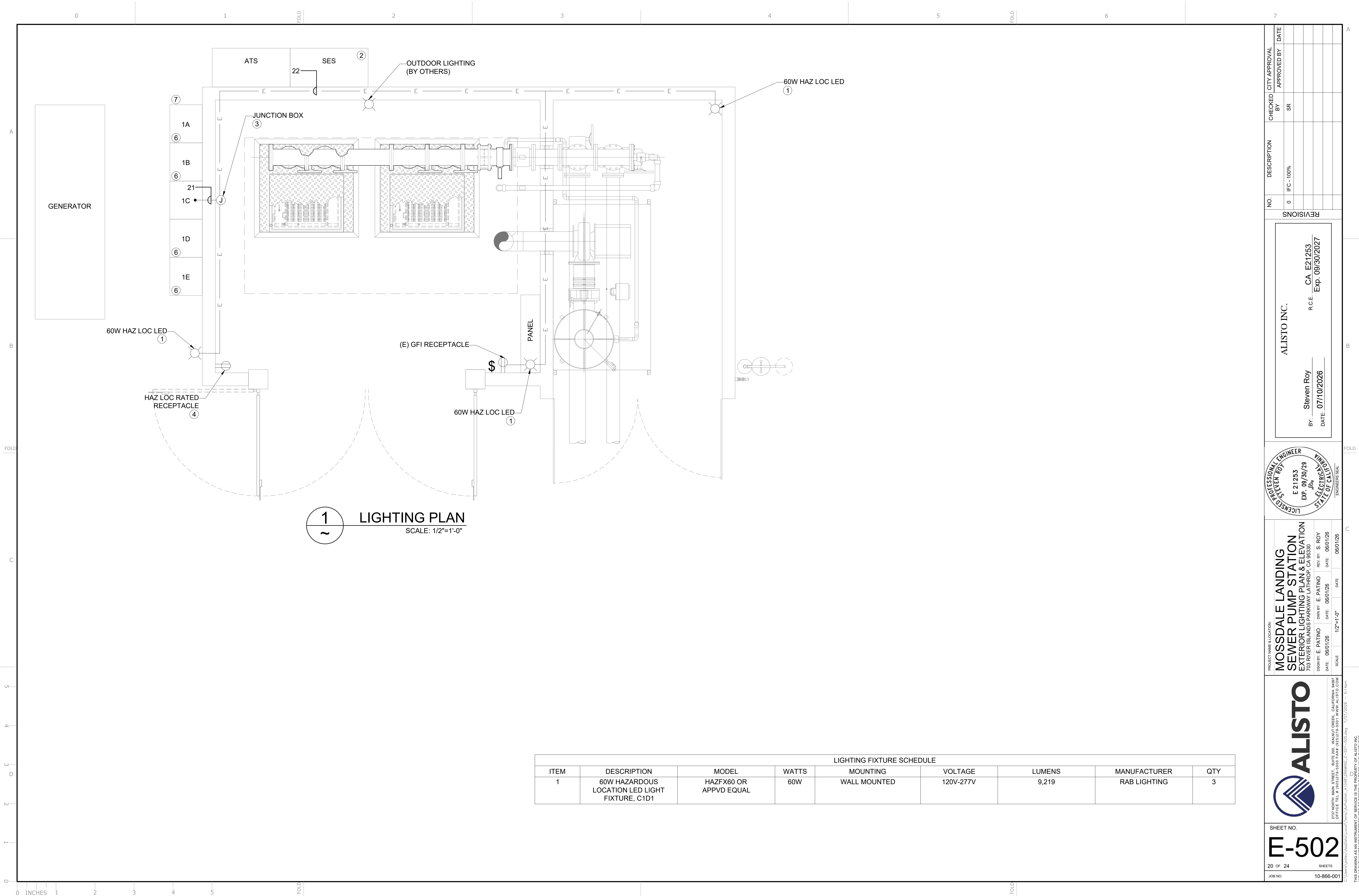
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SHEET NO.

E-502

20 OF 24 SHEETS

JOB NO.

10-866-001

PROJECT NAME & LOCATION

MOSSDALE LANDING
SEWER PUMP STATION
EXTERIOR LIGHTING PLAN & ELEVATION
703 RIVER ISLANDS PARKWAY LATHROP, CA 95330

DESIGN BY: E. PATINO

DATE: 06/01/26

OWNED BY: E. PATINO

DATE: 06/01/26

REV. BY: S. ROY

DATE: 06/01/26

PROFESSIONAL ENGINEER

ALISTO INC.

E 21253

EXP. 09/30/29

STATE OF CALIFORNIA

ENGINEER'S SEAL

BY: Steven Roy

DATE: 07/10/2026

R.C.E. CA E21253

Exp 09/30/2027

NO.

0

IFC - 100%

DESCRIPTION

CITY APPROVAL

CHECKED BY

APPROVED BY

DATE

REVISIONS

NO.

0

IFC - 100%

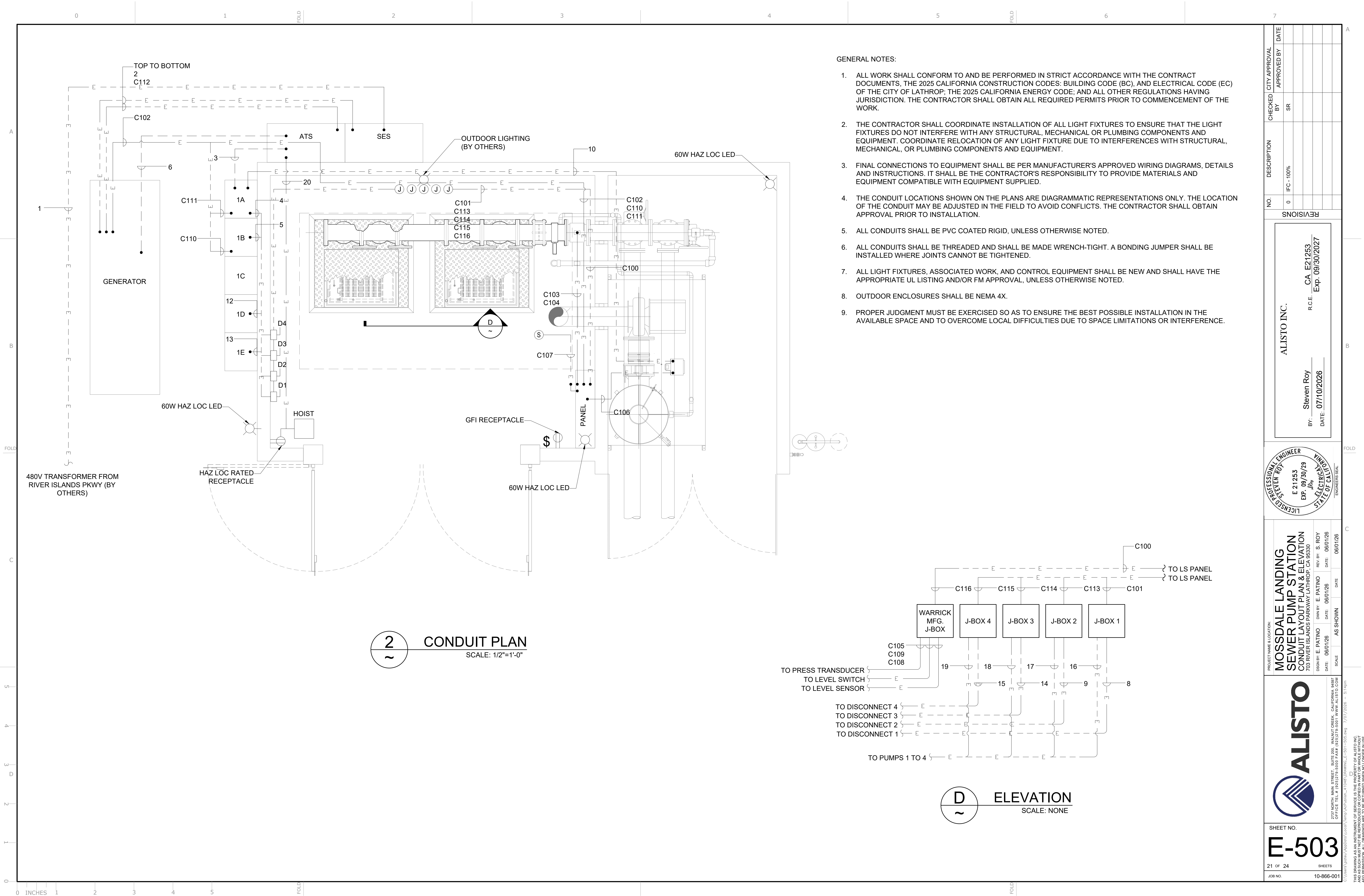
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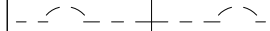
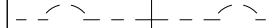
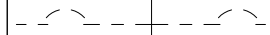
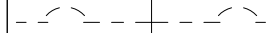
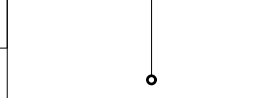
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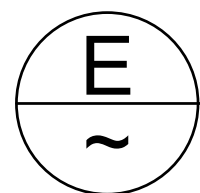


POWER CONDUIT SCHEDULE						
#	CONDUIT	WIRE	ORIGIN	DESIGNATION	VOLTAGE	NOTES
1	-	-	PG&E TRANSFORMER	METER SECTION	480V, 3φ	MEET ALL PG&E REQUIREMENTS
2	2.5"	(3) #3/0 + (1) #3/0 N+ #6 GND	GENERATOR	ATS	480V, 3φ	
3	2.5"	(3) #3/0 + (1) #3/0 N+ #6 GND	MAIN DISTRIBUTION PANEL	MCC1A	480V, 3φ	
4	1"	(3) #6 + #8 GND	VFD 1 (MCC 1A)	DISCONNECT 1	480V, 3φ	
5	1"	(3) #6 + #8 GND	VFD 2 (MCC 1B)	DISCONNECT 2	480V, 3φ	
6	1"	(3) #10 + #10 GND	MAIN DISTRIBUTION PANEL	GENERATOR AUX, POWER PANEL	480V, 3φ	
7	-	-	-	-	-	-
8	1"	(3) #6 + #8 GND	DISCONNECT 1	J-BOX 1	480V, 3φ	-
9	1"	(3) #6 + #8 GND	DISCONNECT 2	J-BOX 2	480V, 3φ	-
10	1"	(3) #12 + #12 GND	ODOR FAN FEEDER (MCC 1A)	ODOR STARTER PANEL	480V, 3φ	-
11	1"	(3) #12 + #12 GND	ODOR STARTER PANEL	ODOR FAN	480V, 3φ	-
12	1"	(3) #6 + #8 GND	VFD 3 (MCC 1D)	DISCONNECT 3	480V, 3φ	-
13	1"	(3) #6 + #8 GND	VFD 4 (MCC 1E)	DISCONNECT 4	480V, 3φ	-
14	1"	(3) #6 + #8 GND	DISCONNECT 3	J-BOX 3	480V, 3φ	-
15	1"	(3) #6 + #8 GND	DISCONNECT 4	J-BOX 4	480V, 3φ	-
16	1/2"	MFG. CABLE	J-BOX 1	PUMP 1	480V, 3φ	-
17	1/2"	MFG. CABLE	J-BOX 2	PUMP 2	480V, 3φ	-
18	1/2"	MFG. CABLE	J-BOX 3	PUMP 3	480V, 3φ	-
19	1/2"	MFG. CABLE	J-BOX 4	PUMP 4	480V, 3φ	-
20	1"	(3) #6 + #8 GND	MAIN DISTRIBUTION PANEL	ELECTRIC CHAIN HOIST/RECEPT	480V, 3φ	NEW CONDUIT
21	1"	(3) #6 + #8 GND	MCC 1C PANEL	J-BOX 5	120V, 1φ	NEW CONDUIT
22	1"	(3) #6 + #8 GND	J-BOX 5	60W LIGHTING	120V, 1φ	NEW CONDUIT

CONTROL CONDUIT SCHEDULE						
#	CONDUIT	WIRE	ORIGIN	DESIGNATION	VOLTAGE	NOTES
C100	-	(16) #12 + (6) #14 + (2) TSP #18 SHIELDED	LS PANEL	C101, C105, C113, C114, C115, C116	120 VAC	
C101	1"	(4) #12	C100	PUMP 1 J-BOX	120 VAC	TEMP & SEAL DETECT
C102	1"	(2) #14 + (1) #14 GND	LS PANEL #1	GENERATOR	24 VDC	GENERATOR FAIL, NEW CONDUIT
C103	1"	(1) TSP #18 SHIELDED	LS PANEL #1	FLOWMETER CONVERTER	24 VDC	NEW CONDUIT
C104	1"	(4) #14 + (1) #14 GND	LS PANEL #1	FLOWMETER CONVERTER	120 VAC	NEW CONDUIT
C105	1"	(2) TSP #18 SHIELDED	PRESS. TRANSDUCER	WARRICK MFG. J-BOX	24 VDC	NEW CONDUIT
C106	1"	(4) #14	LS PANEL #1	ODOR FAN STARTER	120 VAC	ODOR STARTER DRY CONTACT
C107	1"	(2) #14 + (1) #14 GND	LS PANEL #1	SMOKE DETECTOR	120 VAC	
C108	-	MFG. CABLE	LEVEL SENSOR	WARRICK MFG. J-BOX	24 VDC	NEW CONDUIT
C109	-	MFG. CABLE	LEVEL SWITCH	WARRICK MFG. J-BOX	120 VAC	NEW CONDUIT
C110	1"	(24) #14 + (1) #14 GND	LS PANEL #1	MCC/VFDS	24 VDC	NEW CONDUIT
C111	1"	(8) TSP #18 SHIELDED	LS PANEL #1	MCC/VFDS	24 VDC	NEW CONDUIT
C112	1"	(2) #14 + (1) #14 GND	ATS	GENERATOR	24 VDC	GENERATOR RUN SIGNAL
C113	1"	(4) #12	C100	PUMP 2 J-BOX	120 VAC	TEMP & SEAL DETECT
C114	1"	(4) #12	C100	PUMP 3 J-BOX	120 VAC	TEMP & SEAL DETECT
C115	1"	(4) #12	C100	PUMP 4 J-BOX	120 VAC	TEMP & SEAL DETECT
C116	1"	(6) #14 + (2) TSP #18	C100	WARRICK MFG. J-BOX	120 VAC	

BILL OF MATERIALS					
ITEM	QTY	U/I	DESCRIPTION	MANUFACTURER	P/N
2	1	EA	SWITCHGEAR (REUSE EXISTING)	GE	
3	1	EA	NEMA 4X RATED JUNCTION BOX, 4"X4"X3"	MCMaster-CARR OR APPVD EQUAL	7360K591
4	1	EA	NEMA 4X RATED 230V GFI RECEPTACLE (FOR ELECTRIC HOIST)		
5	180	FT	PVC COATED RIGID CONDUIT , 1" STEEL GRAY	OCAL OR APPVD EQUAL	COND1-G
6	4	EA	GE MCC BUCKET 40 HP @ 480 VAC VFD CAT. NO. ACQ580-01-052A 0 BREAKER DISCONNECT CAT. NO. SELA36AI0100 W/SRPE80A100 80 A. RATING PLUG TYPE:MCP	ABB	MCCGEE9000L36-U
7	1	EA	MOTOR CONTROL CENTER (REUSE EXISTING)	GE	E9000

PANEL: MOUNTING:		240/120V PANEL, 1 PHASE SURFACE MOUNTED			MAIN					
CKT	SHOWN ON DWG	LOAD	CKT BREAKER RATING	LOAD (A)		LOAD (A)	CKT BREAKER RATING	LOAD	SHOWN ON DWG	CKT
1		GFI RECEPTACLE	20A	3		1.56	20A	EXTERIOR LIGHTING		2
3		FLOW METER	20A	1			20A	SPARE		4
5		LS CONTROL PANEL 1	20A	5			20A	SPARE		6
7		SMOKE DETECTOR	20A	1			20A	SPARE		8
9		SPACE						SPACE		10
11		SPACE						SPACE		12
13		SPACE						SPACE		14
15		SPACE						SPACE		16
17		SPACE						SPACE		18
19		SPACE						SPACE		20
21		SPACE						SPACE		22
23		SPACE						SPACE		24
TOTAL				10		1.56	TOTAL			
PANEL LOCATION:		MCC 1C								
FEED FROM:		10KVA, 1 PH, 40A, 240/120V								



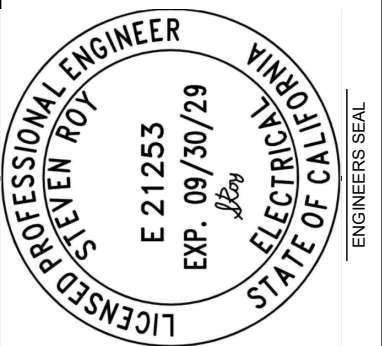
PANEL SCHEDULE

SCALE: NONE

LOAD CALCULATIONS	
	CONNECTED AMPS
LS PUMP#1 (34 HP)	40A
LS PUMP#2 (34 HP)	40A
LS PUMP#3 (34 HP)	40A
LS PUMP#4 (34 HP) (BACKUP)	40A
ODOR CONTROL (7.5 HP)	11A
10 KVA/ 1P XFMR	3.25A
25% LARGEST LOAD	10A
TOTAL	184.25A

NOTE:

1. LS PUMP #4 IS A BACKUP PUMP AND A MAXIMUM OF 3 PUMPS WILL RUN SIMULTANEOUSLY.

[illegible]

PROJECT NAME & LOCATION:	MOSSDALE LANDING SEWER PUMP STATION ELECTRICAL DETAILS 703 RIVER ISLANDS PARKWAY LATHROP, CA 95330			
SCALE	NONE	DATE	DATE	DATE
DESIGN BY: E. PATINO	OWN BY: E. PATINO	REV BY: S. ROY	06/01/26	06/01/26



ALISTO

237 NORTH MAIN STREET, SUITE 200, WAKULI CREEK, CALIFORNIA 94097
 OFFICE TEL / (925) 279-5000 FAX / (925) 279-5001 WWW.ALISTO.COM

SHEET NO.

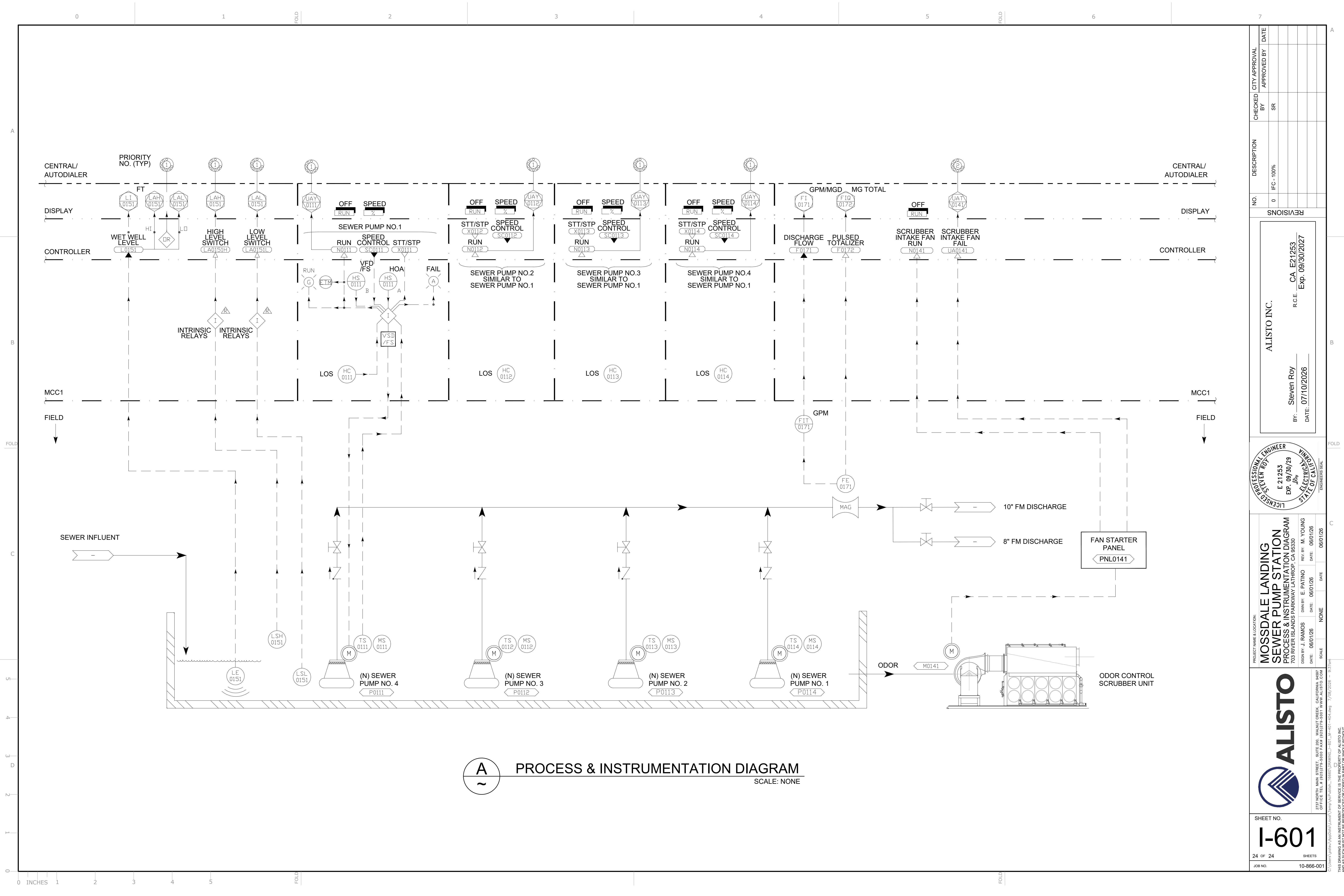
E-504

22 OF 24 SHEETS

JOB NO.

10-866-001

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A PROCESS & INSTRUMENTATION DIAGRAM
SCALE: NONE

CHECKED BY SR	CITY APPROVAL APPROVED BY DATE	DESCRIPTION NO. 0 IFC - 100%	REVISIONS	BY: Steven Roy DATE: 07/10/2026	R.C.E. CA E21253 Exp 09/30/2027
ALISTO INC.					
PROFESSIONAL ENGINEER E 21253 EXP. 09/30/23 J. J. YOUNG ELECTRICIAN STATE OF CALIFORNIA					
PROJECT NAME & LOCATION: MOSSDALE LANDING SEWER PUMP STATION PROCESS & INSTRUMENTATION DIAGRAM 703 RIVER ISLANDS PARKWAY LATHROP, CA 95330					
DESIGNED BY: J. RAMOS	DATE: 06/01/26	SCALE: NONE	DATE: 06/01/26	DATE: 06/01/26	DATE: 06/01/26
237 NORTH MAIN STREET, SUITE 200, WALNUT CREEK, CALIFORNIA 94597 OFFICE TEL # 925.272.5500 FAX # 925.272.5501 WWW.ALISTO.COM					
SHEET NO. I-601 24 OF 24 SHEETS JOB NO. 10-866-001					

the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.8 Hours of Work

- A. The CONTRACTOR shall schedule an 8-hour workday between the hours of 7:00 a.m. and 6:00 p.m. Monday through Friday unless otherwise approved by the CITY or modified in the Supplementary Conditions. No work requiring City inspection shall be allowed outside of normal working hours, or on weekends or holidays without written authorization of the CITY.

2.9 City Furnished Materials

- A. The CITY is pre-purchasing Pumps to be installed by the contractor. All other materials required for the successful performance of this contract shall be furnished by the Contractor unless modified in the Supplementary Conditions.

2.10 Electronic Transmittals

- A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer and Contractor may transmit, and shall accept, Project-related correspondence, text, data, documents, drawings, information, and graphics, including but not limited to Shop Drawings and other submittals, in electronic media or digital format, either directly or through access to a s secure Project website.

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

3.1 Intent

- A. The Construction Documents comprise the entire contract between the CITY and the CONTRACTOR concerning the WORK. The Construction Documents are complementary; what is called for by one is as binding as if called for by all. The Construction Documents will be construed in accordance with the law of the place of the State of California and local municipal codes and regulations.
- B. It is the intent of the Construction Documents to describe the WORK, functionally complete, to be constructed in accordance with the Construction Documents. Any work, materials, or equipment that may reasonably be inferred from the Construction Documents as being required to produce the intended result shall be supplied whether or not specifically called for. When words which have a well-known technical or trade meaning are used to describe work, materials, or equipment such words shall be interpreted in accordance with that meaning. Reference to standard specifications, manuals, or codes of any technical society, organization, or association, or to the Laws or Regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard specification, manual, code, or Laws or Regulations in effect at the time

SUPPLEMENTARY CONDITIONS

SC-1 GENERAL

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

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

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

SC-3 CITY FURNISHED MATERIALS:

City is pre-purchasing pumps to be installed by Contractor.

(END OF SECTION)

SECTION 01010 – SUMMARY OF WORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section

1.2 THE REQUIREMENT

- A. The WORK to be performed under this Contract shall consist of furnishing all labor, tools, materials, parts, equipment, transportation and services, including fuel, power, water and essential communications, and supervision required to execute the following core structural, mechanical, and electrical improvements or other operations required for the fulfillment of the Contract in strict accordance with the Contract Documents. All work, materials and services not expressly indicated or called for in the Contract Documents, which may be necessary for the complete and proper construction of the WORK in good faith shall be provided.
- B. The WORK will conform to the City of Lathrop Design & Construction Standards, the most recent edition of the Caltrans Standard Plans and Standard Specifications, as well as to the City of Lathrop Municipal/City Code. The most stringent will govern.
- C. The CONTRACTOR shall take all necessary precautions including constant monitoring of bypass pumping and diversions to ensure that no sewer service is interrupted and no sewage is misdirected out to the sewer system. In the event that a sewage backup or spill occurs, the CONTRACTOR shall notify the CITY immediately and follow the procedures outlined in the CITY' Sanitary Sewer Overflow Emergency Response Plan. The CONTRACTOR shall be liable for all cleanup, damages, and resultant fines in the event of a spill.

1.3 SUMMARY - WORK COVERED BY CONTRACT DOCUMENTS

- A. The Mossdale Wastewater Pump Station Access Modifications and Upgrades project in Lathrop, California, involves the renovation and improvement of a water/sewer facility. The project, categorized under Wastewater Lift Station Access Modifications (CIP WW-26-09) as listed in the BID Item List, focuses on upgrading access to the facility and improving existing infrastructure.
- B. The WORK for the Mossdale Wastewater Pump Station Access Modifications and Upgrades, CIP WW 26-09 shall Include but is not limited to the following major work items and requirements:
 - 1. The work shall include general civil, mechanical, electrical, and control work shown in the construction documents;

2. General Requirements listed in Division 01 of this Specifications;
3. All work on this project will be coordinated with the City's Engineering and Public Works staff;
4. Temporary sewer flow bypass during construction;
5. Demolition and removal of existing roofing assembly, wall openings, and headspace/masonry lintels;
6. Access Roll-Up door removal and modifications;
7. Outside Switchgear and VFD bucket replacement, including conduits and wires;
8. Four old pumps/motors removal and replacement with City supplied pumps and connecting hardware;
9. Wet Well hatches and overhead hoist/beam removal and replacement;
10. Interior and Exterior Lighting upgrades;
11. Maintaining the structural integrity of the remaining concrete masonry unit walls;
12. Manhole installation including excavation and shoring
13. Excavation Support System design and stamp by California PE
13. Testing, commissioning, and startup for the site;
14. Provide training for the City and facility operation personnel;
15. Provide O&M manuals for equipment;
16. Provide As-builts drawings, and
17. Provide equipment and system warranty and trainings per contract documents.
18. The Work includes obtaining any permits related or required by the Contract:

1.4 PROJECT IDENTIFICATION & LOCATION

A. Project Identification: Mossdale Landing Sewer Pump Lift Station Rebuild

1. Project Title: Mossdale Wastewater Pump Station Access Modifications and Upgrades.
2. Lead Agency: City of Lathrop, California.
3. Facility Site: Mossdale Wastewater Pump Station facility.

1.5 WORK BY OTHERS

- A. Where two (2) or more Contracts are being performed at one time on the same Site or adjacent land in such manner that work under one (1) Contract may interfere with work under another, the sequence and order of the WORK in either or both Contracts to the agreement of both contracting entities shall be determined. When the Site of one (1) Contract is the necessary or convenient means of access for performance of work under another, the privilege of access or other reasonable privilege to the CONTRACTOR so desiring may be granted, to the extent, amount, and in manner and at a time that shall be determined. Conduct its operations so as to cause a minimum of interference with the work of such other contractors, and shall cooperate fully with such contractors to allow continued safe access to their respective portions of the Site, as required to perform work under their respective contracts.

1.6 USE OF SITE

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

1.7 GENERAL

- A. All reference to the Standard Specifications and Plans refer to the most recent edition of the California Department of Transportation (Caltrans) Standard Specifications and Plans. If there have been recent significant revisions to Caltrans Standard Specification, the ENGINEER will determine which specification to use.

PART 2 – BID ITEM DESCRIPTIONS

2.1 GENERAL

Payment for the various items of the Bid Schedule, as further specified herein, shall include all compensation to be received by the Contractor for furnishing all tools, equipment, supplies, and manufactured articles, and for all labor, operations, and incidentals appurtenant to the items of work being described, as necessary to complete the various items of the Work all in accordance with the requirements of the Contract Documents, including all appurtenances thereto, and including all costs of permits and cost of compliance with the regulations of public agencies having jurisdiction, including Safety and Health Requirements of the California Division of Industrial Safety and the Occupational Safety and Health Administration of the U.S. Department of Labor (OSHA). No separate payment will be made for any item that is not specifically set forth in the Bid Schedule, and all costs therefore shall be included in the prices named in the Bid Schedule

for the various appurtenant items of work.

2.2 BID ITEMS 1.1 – 1.3: GENERAL & SITE MOBILIZATION

The contract lump sum price paid for Bid Item No. 1 shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals for doing the work, including but not limited to preparation and submittal of all project records and documents, temporary facilities, movement onto the sites, delivery of all materials and equipment to the site required for operation, developing a construction staging area, all preparatory work, best management practices installations, site security, sanitation facilities, coordination and cooperation required, attending project meetings, cost of bonds, insurances for both the prime and subcontractors, providing and adhering to occupation safety and health standards, licenses and paying all applicable fees, removal of temporary facilities at the completion of the projects, and all other related mobilization and demobilization costs. Mobilization bid price shall not exceed five percent (5%) of the total bid

2.3 BID ITEMS 2.1-2.7 : CIVIL, SITE WORK, & DEMOLITION

The contract price measured and paid on each basis for Bid Item No. 2 shall constitute the full compensation for furnishing all labor, materials, tools, and equipment to perform work involved in Civil, Site Work, and Demolition that includes Excavation and Backfill, Demolition Work and Offsite Disposal, Temporary Sewage Bypass System, CMU Bracing and Reinforcement, Double Swing Gate Installation, Sewer Wet Well Hatch Installation, Bollards Installation, and bracing, sloping, trench shoring if required, and other provisions for worker safety per Labor Code Sections 6705 in accordance with the Plans, as specified in these specifications, and as required by the Engineer.

The roof shall be removed along with the existing crane system, and the contractor will be required to rent a portable aluminum gantry crane or similar for removal of the existing pumps and installation of new. The contractor would also need a separate crane system for confine space entry; the aluminum gantry crane should NOT be used in conjunction with confine space entry unless it is rated to do so. The gantry crane should be rated to lift 3000 – 4000 lbs. since the pumps are 2400 lbs. approximately. Work shall include maintaining continuous operation of the lift station during the retrofit, in accordance with Section 11100.

2.4 BID ITEMS 3.1 – 3.4: MECHANICAL & PIPING

The contract price measured and paid on a per each basis for Bid Item No. 3 shall constitute the full compensation for furnishing all labor, materials, tools, and equipment for the removal of four (4) existing submersible pumps and associated guide rail systems, and the installation, anchoring, alignment, and commissioning of four (4) owner-furnished submersible sewer pumps within the existing wet well as shown on the plans and specified in the contract documents. Work shall include the removal and disposal of existing guide rails and hardware, installation of new stainless steel guide rail systems, installation of pump mounting components, connection to existing piping and electrical systems, and

performance testing to verify proper operation.

The relocation of the existing emergency eyewash station served by a 2-inch domestic water service, including all required piping modifications, fittings, valves, supports, testing, and restoration shall be in accordance with Section 15410.

2.5 BID ITEMS 4.1-4.5: ELECTRICAL

The contract price measured and paid on a per each basis for Bid Item No. 4 shall constitute the full compensation for furnishing all labor, materials, tools, and equipment for VFD Replacement and Control Panel Enclosure Installation, Temporary Conduit Bypass or Support, Lighting in accordance with Section 16050, 16481, 16500, and all incidentals, complete in place, as shown on the Plans and Standard Detail, as specified in these specifications, and as required by the Engineer.

2.6 BID ITEMS 5.1 – 5.3: MANHOLE INSTALLATION

The contract lump sum price paid for Bid Item No. 5 shall constitute full compensation for all labor, materials, tools, equipment, safety measures, and incidentals required to install the designed manhole including the design and stamp of an excavation support system by a California PE and the excavation, shoring, and dewatering of the excavation shaft.

2.7 BID ITEMS 6.1 – 6.3: STRUCTURAL AND WET WELL REHABILITATION

The contract lump sum price paid for Bid Item No. 6 shall constitute full compensation for all labor, materials, tools, equipment, safety measures and incidentals required to thoroughly clean the interior of the existing lift station wet well prior to structural repairs or coating application, inspection and repair of deteriorated concrete surfaces, application of a high-performance protective lining system to the interior of the wet well, furnishing and installation of a new aluminum wet well access hatch.

2.8 BID ITEMS 7.1 – 7.2: SITE RESTORATION & CLOSEOUT

The contract price measured and paid on a per each basis for Bid Item No. 7 shall constitute the full compensation for furnishing all labor, materials, tools, and equipment for pavement restoration and regrading of existing concrete pad and asphalt to be performed in accordance with the requirements specified in Section 02318, Section 02950, and Section 03900 and all incidentals, complete in place, as shown on the Plans and Standard Detail, as specified in these specifications, and as required by the Engineer.

Start Up, Commissioning, and Final Testing and all incidentals as shown on the Plans and Standard Detail, as specified in these specifications, and as required by the Engineer.

PART 3 – EXECUTION (NOT USED)

(END OF SECTION 01100)

SECTION 01350 – SEWER BYPASS PLAN

PART 1 - GENERAL

1.1 SUMMARY

- A Contractor shall construct Sewer Bypass Plan as per Drawing M-404 or provide a detailed Sewer Bypass Plan for lift station rehabilitation to ensure uninterrupted service and prevent sanitary sewer overflows (SSOs) and field changes which include the following:
 - 1. A stamped plan by a licensed engineer, using 100% redundant (standby) pumps and power, and capacity to handle peak flows.
 - 2. Design criteria and specifications, installation, implementation, operation, and maintenance of a temporary bypass pumping and flow control system.
- B. The Contractor shall furnish all materials, labor, equipment, power, maintenance, and incidentals required to maintain continuous and reliable wastewater service in all lines for the duration of the project.

1.2 BYPASS PUMPING SYSTEM REQUIREMENTS:

- A. System Capacity: Must handle 1.5 times the existing peak line/lift station capacity, including potential rain events.
- B. Pump Specifications: Centrifugal, automatic self-priming, dry-running capable, with non-clog impellers
- C. Standby/Redundancy: A minimum of two trailer-mounted pumps (one duty, one backup) is required. The backup must start automatically.
- D. Piping & Hoses: Suction and discharge pipes must be pressure-rated, secured against thrust, and routed to avoid pedestrian/traffic hazards.
- E. Controls: Level monitoring, such as floats or ultrasonic units, must be set to prevent surcharging or dry-running.

1.3 POWER AND STANDBY EQUIPMENT

- A. Redundant Power: Uninterrupted power supply via automatic transfer switches (ATS) for primary electric pumps, or diesel-driven pumps with automatic start capabilities.
- B. Standby Generators: If using portable generators, an automatic transfer switch (ATS) must be provided.

1.4 SUBMITTALS

- A. Bypass Pumping Plan Form; it shall be the Contractor's responsibility to legibly and thoroughly complete the Bypass Pumping Plan Form. The Contractor shall submit it to the Engineer and the appropriate City of Lathrop staff for review and approval, prior to the installation of any pumping system proposed for use. Unless the bypass pumping is associated with an emergency work order, the standard approval protocol is as follows: The Contractor prepares and submits the plan to the Engineer a minimum of 7 days prior to mobilizing to site.
- B. In addition to the Bypass Pumping Form, the Contractor shall also furnish a sufficiently detailed schematic drawing identifying the location of all bypass pumping system components. The schematic drawing shall clearly label parallel/crossing streets, identify landmark structures, and depict the locations of all pumps and piping.
- C. At a minimum, the bypass pumping plan schematic drawing and associated attachments should include the following items:
 - 1. Pump curves showing designed operation point for this specific project.
 - 2. Location of bypass system pumping components.
 - 3. Location of manhole or access point for suction and discharge.
 - 4. Configuration, routing, location and depth of the suction and discharge piping.
 - 5. General arrangement of any additional support equipment.
 - 6. Temporary pipe supports, anchoring and thrust restraint blocks.
 - 7. Traffic Control Plan and Traffic Department permit if the bypass is within the right- of-way.
 - 8. Description of the method for removing pressure and all wastewater from existing force mains to be taken out of service, if necessary.
 - 9. Sewer plugging locations, methods, and types of plugs.
 - 10. Method of protecting discharge manholes or structures from erosion and damage.

1.4 RESPONSIBILITY/AUTHORITY

- A. It is essential to the operation of the existing wastewater system that there is no interruption in the flow of wastewater throughout the duration of the project. The Contractor shall be completely responsible for designing, scheduling, providing, installing, operating, fueling and maintaining the temporary bypass pumping

system in a manner that does not cause or contribute to overflows, releases, or spills of wastewater from the wastewater or bypass system.

- B. Contractor shall provide responsible personnel to monitor and operate the bypass system during its hours of operation. The monitoring employees shall be properly trained, experienced, and qualified such that they can quickly and effectively address any potential emergency and non-emergency situations associated with the bypass system. The wastewater and bypass systems shall be inspected at least once every 4 hours. The Contractor shall be responsible for ensuring that the wastewater collection system is not compromised during bypass installation or operation, and contractor shall ensure that the system operates properly during this period. Maintenance log/report required weekly to be submitted by Contractor to Engineer/Owner.
- C. The Contractor shall consider, and be responsible, for the impact on the collection system area. Both upstream and downstream of the bypass and shall maintain the system in a manner that will protect public and private property from damage and flooding. Upstream impacts may include but are not limited to backups and overflows. Downstream impacts may include but are not limited to surcharges and overflows.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. Temporary Road Ramp: 6" Pipe, Structural Steel, 12 feet (ft) Vehicle Passage Width, 150 lb. Flanged Connections, Drainable, Maximum Capacity of 1,000 GPM, Solids Passing of 2.5", Pressure Rating of 75 PSI
- B. Portable Hydraulic Power Unit: 20 Gallon Diesel Tank, 35 HP, Operating Pressure of 1000-3000 PSI, Hydraulic Flow between 16-25 GPM
- C. Submersible Pump: 4" Discharge, Max GPM of 1,100, Hydraulic Flow up to 41 GPM, 30 HP
- D. Reducer: 4" Male NPT x 6" Male, Camlock (Type F)
- E. Hose: EPDM Rubber, Heavy Duty, 6" 75 PSI Working Pressure, Temperature Range -40 F to 212 F, Complete with Aluminum C x E Camlock & Groove Couplings

PART 3 – EXECUTION

3.1 GENERAL

- A. This sewer bypass approach safely reroutes up to an estimated low flow of 400 GPM and peak flow of 550 GPM of wastewater to the lift station. The sewer bypass will move sewer water from an upstream existing manhole, route it through traffic-

rated road ramps to ensure continuous sewer flow without traffic disruption and safely provide for its discharge directly into the force mains on the opposite side of the four-lane roadway.

B. Design Parameters are as follows:

1. Approximate low flow conditions is 400 GPM
2. Approximate peak flow conditions is 550 GPM
3. $TDH = 75 \text{ FT} = \text{Manhole lift} + \text{Pipe Head Loss} + \text{Lift Station TDH}$

3.2 PREPARATION

- A. Confined Space Entry: All manhole activities must comply strictly with OSHA permit-required confined space regulations.
- B. Safety Equipment: Test manhole air quality continuously. Ensure all workers wear OSHA-compliant Class 3 high-visibility safety gear and use proper fall-protection and confined space entry gear
- C. Equipment Verification: Prior to deployment, inspect the 4" hydraulic submersible pump, the Hydraulic Power Unit (HPU), and ensure the 4" Male NPT x 6" Male Camlock adapter is free from structural defects.
- D. Traffic Control: Place advanced traffic control warnings, as the temporary Godwin Road Ramps will alter vehicular speeds.

3.3 EQUIPMENT PLACEMENT AND INSTALLATION STEPS

- A. Equipment Placement will be in accordance with Drawing M-404
- B. Pipeline Isolation: Insert a pneumatic inflatable pipe plug rated for a minimum 21-inch diameter pipe into the downstream channel of the manhole. Securely anchor it to prevent displacement from hydrostatic pressure back-up.
- C. Pump Rigging and Submergence: Attach a heavy-duty lifting cable to the 4" hydraulic submersible pump body. Carefully lower the pump down into the manhole benching area. Ensure it rests level and is equipped with a trash strainer cage to avoid debris clogging.
- D. Surface Connections: Position the diesel or gas-driven Hydraulic Power Unit (HPU) securely on the surface next to the manhole. Connect the high-pressure hydraulic supply, return, and case drain lines from the HPU down to the submerged pump body.
- E. Discharge Adaption: Thread the 4" Male NPT x 6" Male Camlock fitting tightly into the pump's discharge port using a heavy-duty thread sealant. Snugly couple a 6" female camlock discharge hose to this adapter.

3.4 PIPELINE ROUTING & ROAD RAMP INTEGRATION

- A. Layout the Run: Unroll 6-inch flexible lay-flat or wire-reinforced discharge hose from the manhole up toward the lift station.
- B. Deploy Road Ramps: Anchor the structural-steel road ramps perpendicular to the traffic path. Use the integrated 150-lb flange or adapter connections to the 6" discharge hose seamlessly into the ramp inlet and outlet.
- C. Terminal Discharge: Route the remaining length of the 6" line securely to the top of the receiving force main. Tie down the terminal hose end using heavy-duty ratchet straps to completely counteract any pipe whipping action during high flows.

3.5 QUALITY CONTROL & HYDROSTATIC TESTING

- A. Freshwater Test: Prior to running live sewage, fill the entire 150-foot system configuration with clean water and run the pump.
- B. Leak Inspection: Check every camlock connection, the NPT adapter, and the road ramp joints for visible leaks or pressure drops.
- C. HPU Calibration: Adjust the HPU flow control valve until the hydraulic pump matches the baseline torque and engine RPM parameters required to cleanly execute the required flow.

3.6 OPERATION, MONITORING, & DECOMMISSIONING

- A. Live Commencement: Monitor the wet well manhole fluid levels closely. Turn on the HPU, warming up the engine before engaging the hydraulic pressure loop to begin live bypass pumping.
- B. Diurnal Monitoring: Establish a continuous or auto-dialing telemetry check schedule to watch for peak diurnal shifts in flow. Periodically check the pneumatic gauge on the 21" pipe plug to monitor for pressure loss.
- C. System Flush: Once the sewer maintenance completion permits normal flow, open the drain valve built directly into the road ramps to easily clear trapped liquids. Flush the 150-foot pipeline thoroughly with clean water into the sanitary system before uncoupling.
- D. Extraction: Disengage hydraulic circuits, uncouple hoses, deflate and remove the 21" isolation plug, and carefully winch the submersible pump head out of the manhole structure.

(END OF SECTION 01350)

SECTION 02240 – DEWATERING

PART 1 - GENERAL

1.1 DESCRIPTION

- A. The WORK of this Section includes site dewatering necessary to permit excavation and construction to be performed properly under dry conditions.
- B. The CONTRACTOR is responsible for dewatering all excavations as required to complete the work, which includes the design, installation, and operation of the dewatering system to comply with the requirements of this section.

1.2 RELATED SECTIONS:

- A. Section 02100 – Site Preparation
- B. Section 02200 – Earthwork
- C. Section 02250 – Shoring and Underpinning
- D. Section 02260 – Excavation Support Systems
- E. Section 02318 - Trenching

1.3 QUALITY ASSURANCE

- A. All dewatering operations including routine inspections, daily reporting, rate control of dewatering and proper disposal of dewatering effluent is the sole responsibility of the CONTRACTOR.
- B. Protection of adjacent structures from adverse effects of dewatering and assuring adequate dewatering operations shall be the responsibility of the CONTRACTOR.

1.4 PERMITS

- A. The CONTRACTOR shall be responsible for obtaining all permits that are necessary to dispose of water properly and shall be responsible for all costs associated with obtaining the necessary permits and maintaining permit compliance, including all costs associated with permit violation.

1.5 SUBMITTALS

- A. Prior to commencement of excavation, the CONTRACTOR shall prepare a detailed dewatering plan and schedule for dewatering of excavations that include but not limited to piezometers, estimated dewatering rates, volume, equipment requirements, and calculations. The plan shall be prepared and signed by a California registered Civil Engineer, Geotechnical Engineer, Engineering Geologist, or Hydrogeologist with experience of at least one dewatering operation

of similar magnitude and complexity in a recently completed construction project. The CONTRACTOR's dewatering plan is subject to review by the ENGINEER.

PART 2 – PRODUCTS

2.1 EQUIPMENT

- A. Dewatering, where required, may include the use of well points, piezometers, sump pumps, temporary pipelines for water disposal, generator with fuel, rock or gravel placement, and other means including standby pumping equipment maintained on the jobsite continuously.

PART 3 – EXECUTION

3.1 GENERAL REQUIREMENTS

- A. All water encountered in the trench shall be disposed of by the CONTRACTOR in a manner that would not damage public or private property or create a nuisance or health issue. The CONTRACTOR shall be responsible for always having sufficient pumping equipment and machinery readily available, which includes standby equipment for power failure conditions, to keep excavation free from water until the trench is backfilled.
- B. Surface drainage shall be intercepted and diverted from excavations using temporary barriers and collected in shallow ditches around the perimeter of the excavation, drained to sumps, and then pumped or drained away from the excavation and properly disposed of.
- C. Dewatering shall commence and the system shall be placed into operation when groundwater is first encountered and will remain continuous until pipes and structures have been constructed and fill materials have been placed and dewatering is no longer required. Groundwater shall be maintained during construction of below ground systems to greater than 2 feet below the bottom of excavation. The registered professional shall submit a written certificate that the system has been installed in accordance with the approved dewatering plan.
- D. Dewatering shall always be conducted in such a manner as to preserve the undisturbed bearing capacity of the subgrade soils at proposed bottom of excavation.
- E. If foundation soils are disturbed or loosened by the upward seepage of water or an uncontrolled flow of water, the affected areas shall be excavated and replaced with drain rock Type E or similar
- F. A positive and continuous removal of water shall be maintained to prevent floatation of structures and facilities by maintaining a positive and continuous removal of water.

- G. If well points or wells are used, they shall be adequately spaced to provide the necessary dewatering and shall be sand packed and/or other means used to prevent pumping of fine sands or silts from the subsurface. A continual check shall be maintained to ensure that the subsurface soil is not being removed by the dewatering operation.
- H. The release of groundwater to its original static level shall be performed in such a manner as to not disturb the natural foundation soils, prevent disturbance of compacted backfill and prevent flotation or movement of structures, pipelines, and sewers.

(End of Section 02240)

SECTION 02260 – EXCAVATION SUPPORT SYSTEM

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 DESCRIPTION

- B. This Section includes all labor, materials, equipment, and engineering services to design, install, monitor, maintain, and remove temporary excavation support systems. This specification covers Interlocking Steel Sheet Piling, Braced/Anchored Cofferdams, and associated shoring.

1.3 RELATED SECTIONS:

- A. Section 02300 – Earthwork
- B. Section 02240 – Dewatering

1.4 QUALITY ASSURANCE

- A. CONTRACTOR shall be responsible for selecting, designing, and engineering an excavation support system capable of resisting all earth pressures, hydrostatic loads, and dynamic surcharges (e.g., traffic, construction equipment).
- B. CONTRACTOR shall protect adjacent municipal utilities, public rights-of-way, levee foundations, and workers from cave-ins, lateral earth movement, or excessive settlement.
- C. CONTRACTOR shall provide all ancillary work necessary to complete the excavation support system including, but not limited to, obtaining permits, pre-trenching for removal of drilling obstructions, and construction of equipment pads and platforms.
- D. CONTRACTOR shall retain a California-licensed Professional Engineer (PE) or Structural Engineer (SE) to design and stamp all excavation support systems. The Engineer of Record shall have at minimum ten years' design experience providing this type of engineering.
- E. CONTRACTOR shall use vibratory hammers for sheet pile installation and extraction to minimize ground vibrations and disruption to nearby infrastructure.
- F. CONTRACTOR shall comply with California OSHA Title 8 Construction Safety Orders for excavations deeper than 5 feet.

1.5 DESIGN CRITERIA

- A. Basic unit stresses for the working stress design of excavation support structures shall be taken from the following references:
- B. Structural Steel: Manual of Steel Construction, American Institute of Steel Construction (AISC).
- C. Reinforced Concrete: Building Code Requirements for Structural Concrete, American Concrete Institute, (ACI 318).
- D. Excavation support systems shall be designed to allow the required free excavated space for workers, concrete formwork, wall waterproofing, and drainage systems.
- E. Deflection shall be restricted so that zero settlement or lateral displacement occurs at adjacent structures or public streets.
- F. Structures exceeding 4 feet in height or encroaching on public easements require specific approvals from the City Engineer.
- G. Design must accommodate lateral pressures from soil, hydrostatic heads, traffic loads (min. AASHTO H-20/HL-93), and equipment surcharges.
- H. Excavation systems must be structurally integrated with Section 02240 - Dewatering.
- I. Excavation shall be mechanically dewatered to keep work dry.

1.6 REGULATORY REQUIREMENTS

- A. California Building Code, 2010 Edition (CBC) with San Francisco Amendments.
- B. California Code of Regulations, Title 8, Chapter 4, Subchapter 4 – Construction Safety Orders, and Subchapter 19 – Trench Construction Safety Orders.
- C. California Code of Regulations, Title 24, Part 2, California Building Code, Chapter 33 and Appendix Chapter 33, and Structural Chapters 18 and 18A.
- D. Excavations, regardless of depth, shall comply fully with the requirements of Sections 3301.2, 3301.2a and 3301.3 of California Building Code.

1.7 SUBMITTALS

- A. Complete design package of structural calculations and installation layout plans to be submitted to the City of Lathrop that include:
 - 1. Documents signed and stamped by a Civil or Structural Engineer legally licensed in the State of California.

2. A clear sequence of operations that explicitly detail the driving methods, equipment to be used, vibration monitoring protocols, and the cofferdam extraction process.
3. A dewatering layout for sheet piles or cofferdams cutting through groundwater in conformance to City of Lathrop's sewer and storm criteria.
4. Calculations based on the specific soil classification and groundwater elevation parameters provided in the project's specific geotechnical report.
5. A vibration-monitoring program that contains baseline surveys and allowable peak particle velocity limits for sheet piling driven near structures.
6. A comprehensive monitoring plan detailing the methods for tracking and documenting the horizontal and vertical displacements of both the shoring system and adjacent utilities.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. Steel Sheet Piling that conform to ASTM A572 (Grade 50 or higher) or ASTM A690 (high-strength, low-alloy for marine/corrosive environments). Temporary sheets must be continuous and feature interlocking Z-type or U-type profiles.
- B. Wales, struts, diagonal bracing, and soldier piles that conform to ASTM A36/A36M or ASTM A992/A992M.
- C. High-quality structural lumber graded according to West Coast Lumber Inspection Bureau (WCLIB) or Western Wood Products Association (WWPA) rules.
- D. High-strength bolts that conform to ASTM F3125 (Grade A325).
- E. Threaded Fasteners & Bolts that conform to ASTM F3125 or ASTM A307.
- F. Welding Electrodes that meet AWS D1.1 structural welding code standards.
- G. Two sacks of ASTM C150 Type II/V (highly sulfate-resistant for Central Valley soils) cement per cubic yard for filling soldier pile pilot holes.
- H. Stress-graded lumber with a minimum allowable bending stress of 1,200 psi, treated if left permanently in place.

PART 3 – EXECUTION

3.1 PREPARATION & COORDINATION

- A. Locate and mark all underground utilities prior to starting sheet pile driving operations.
- B. Conduct shallow pre-trenching along the sheet pile alignment to clear shallow concrete, old pipelines, or hidden obstructions.
- C. Document the exact condition of adjacent buildings, pavements, and properties using high-definition photos or video.

3.2 SHEET PILING & COFFERDAM INSTALLATION

- A. Piles and vertical framing members must be driven within 1.0 percent of plumb and within 2 inches of the plan coordinates shown on approved shop drawings.
- B. Use vibratory or impact hammers appropriate for Lathrop's silty/sandy delta soils. Pre-drilling or jetting requires written authorization from the City Engineer if it risks loosening adjacent foundation soils.
- C. Sheet piling must be driven with continuous interlocking joints. If a sheet splits or unzips from its adjacent lock during driving, it must be pulled and replaced immediately

3.3 EXCAVATION WATER CONTROL

- A. Dewatering will be in conformance to Section 02240.
- B. Dewatering pumps tied into the manhole excavation must operate continuously 24/7 until structural concrete or backfill is placed 1 foot above the static water table.
- C. Pumped water must pass through sediment filtration tanks or settling basins before being discharged into the municipal storm system, preventing silt contamination.
- D. Discharge must comply with the City of Lathrop's National Pollutant Discharge Elimination System (NPDES Stormwater Permit) regulations.

3.4 MONITORING

- A. The contractor's "Competent Person" must inspect the support systems daily. Any horizontal or vertical deflection exceeding specified limits (typically 0.5 to 1 inch max) requires immediate bracing adjustments

3.5 REMOVAL AND BACKFILL

- A. Extract sheet piles and bracing systems carefully as backfilling progresses. Do not remove structural elements until backfill reaches a level capable of supporting the remaining wall height.
- B. Fill any voids left by extracted sheet piles immediately with sand, pea gravel, or a flowable ASTM C150 concrete/cement-grout slurry mix to prevent soil migration or localized surface settlement.
- C. Backfill must be placed in lifts and compacted to 95% relative compaction per City of Lathrop Standards.
- D. Per City of Lathrop general conditions, remove all construction debris, excess soil, and piling offcuts weekly. Restore any damaged adjacent public rights-of-way or sidewalks immediately.

(End of Section 02260)

SECTION 02300 – EARTHWORK

PART 1 - GENERAL

1.1 DESCRIPTION

- A. The WORK of this Section includes all earthwork required for construction of the WORK, complete and operable in accordance with Contract Documents and standards.

1.2 RELATED SECTIONS:

- A. Section 02318 – Trenching

1.3 QUALITY ASSURANCE

- A. CONTRACTOR shall have minimum 5 years documented experience specializing in performing work of this section.
- B. CONTRACTOR shall provide a minimum of 72 hours written notice to the CITY to schedule a pre-construction meeting prior to beginning demolition activities.
- C. CONTRACTOR shall perform all WORK in accordance with OSHA standards and local building regulations.

1.4 SUBMITTALS

- A. Excavation Plan and stockpile storage sites.
- B. Backfill Plan

PART 2 – PRODUCTS

2.1 MATERIALS

- A. Pipe Bedding: Clean sand with 100 percent passing a 3/8 IN sieve, at least 90 percent passing a Number 4 sieve, and a sand equivalent value not less than 30.
- B. Trench Backfill: Well-graded native soil free of organic debris, rubbish, or rocks larger than 3 inches in any dimension. Import materials should meet the same requirements for onsite fill material and have a plasticity index less than 12. ENGINEER shall sample and test proposed imported fill materials at least 72 hours prior to the delivery to the site.
- C. Aggregate Base: Class 2 Aggregate Base $\frac{3}{4}$ inch maximum as per Caltrans Specifications Section 26-1.02A.

PART 3 – EXECUTION

3.1 EXCAVATION - GENERAL

- A. Excavation shall include all operations in connection with the removal of all materials and obstructions that would interfere with proper execution and completion of the WORK.
- B. All pipeline and utility trench excavation shall be performed as per Section 02318.
- C. Trench width shall be at minimum 2 inches wider than the outside diameter of the pipe with a maximum of 6 inches wider than the pipe diameter.
- D. Excavation to a depth that maintains the minimum cover of the existing pipe based on the field survey performed prior to excavation activities.
- E. CONTRACTOR shall be responsible for any excessive soil disposal, including but not limited to obtaining and paying for all required permits, landowner and agency approvals for disposal of excess excavated material, as defined in the contract.

3.2 BACKFILL

- A. Backfill shall not be dropped directly upon any pipe.
- B. Backfill shall be placed in the excavation to moisture content suitable for compaction.
- C. Backfill material shall be placed and spread evenly in layers. When compaction is achieved using mechanical equipment, the layers shall be evenly spread so that when each layer compacted shall not exceed 6 inches in thickness. The compaction lift depth may be adjusted at the direction of the ENGINEER.
- D. During spreading, each layer shall be thoroughly mixed as necessary to promote uniformity of material in each layer. Pipe zone backfill materials shall be manually spread around the pipe so when compacted the pipe zone backfill will provide uniform bearing and side support.

3.3 COMPACTION

- A. All field soils testing shall be done by a testing laboratory for soil material that is required to be compacted to a percentage of maximum density. The following methods shall be used for testing:
 - 1. Maximum density at optimum moisture content – Method C of ASTM d 1557
 - 2. Maximum and minimum index densities of cohesionless, free-draining material – ASTM D4253 and D4254

3. Field density in-place – ASTM D 1556 and ASTM D 2922
- B. Extent of compaction testing will be as necessary to assure compliance with Specifications and City of Lathrop Standards.
- C. Inspection notification should be at least 48 hours to the CITY inspector prior to covering any pipe bedding, pipe placement, or starting final backfill sequence.
- D. Corrective work shall be performed for any compaction test or subgrade inspection failures at the expense of the CONTRACTOR.

3.4 GRADING

- A. See Section 02950.

(End of Section 02300)

SECTION 02500 UTILITY SERVICES

PART 1 - GENERAL

1.1 DESCRIPTION

- A. The WORK of this Section includes the field-verification, exposing, sourcing, cutting, and rerouting the existing 2" water service line and installation of the interconnecting pipe to the manhole.
- B. Materials listed in Part 2 are contingent upon field findings for the 2" water service line.

1.2 RELATED SECTIONS:

- A. Section 02300 – Earthwork
- B. Section 02318 - Trenching

1.3 QUALITY ASSURANCE

- A. CONTRACTOR shall not order piping until field verification is approved by Engineer.
- B. The CONTRACTOR shall mark and contact the local Underground Service Alert (USA) at least two working days prior to commencing any field excavation. Additionally, WORK will not be performed until positive responses from all utility members on the USA ticket have been received.
- C. The CONTRACTOR shall be responsible for conducting all trenching and shoring in accordance with CAL/OSHA and local standards.

1.4 REFERENCES

- A. ASTM C478: Specification for Precast Reinforced Concrete Manhole Sections.
- B. ASTM D4101: Specification for Polypropylene Injection Molding and Extrusion Materials.
- C. ASTM C923: Standard Specification for Resilient Connectors Between Reinforced Concrete Manhole Structures, Pipes, and Fittings.
- D. ASTM D2321: Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications.

1.5 SUBMITTALS

- A. Field Verification Report of the potholing performed that contains the exact outer diameter, inner diameter, pipe material, and photographs of the 2" water service line.
- B. Product Data for the matched pipe material, specialized fittings, and valves after Field Verification Report is approved.
- C. Pressure testing and bacteriological sampling sequence plan.
- E. Manufacturer specifications and installation instructions for flexible boot or gasket connectors that include required installation values such as torque values or allowable pipe deflection angles.
- F. Shop drawings of hole locations, diameters, and clearances between adjacent openings.
- G. Results of the negative pressure vacuum testing.

PART 2 – PRODUCTS

2.1 2" WATER SERVICE LINE

- A. Choice of pipe material and fittings will be selected dynamically from the options below based on the approved Field Verification Report to match or safely transition the existing line:
 - 1. Seamless Copper Tubing: ASTM B88, Type K, annealed temper.
 - 2. Polyethylene Piping: AWWA C901 with minimum pressure rating of 200 psi, copper tube size outside diameter.
 - 3. Galvanized Steel/Brass (Legacy): ASTM B88, Type K, annealed temper.

2.2 MANHOLE

- A. 21-inch diameter pipe pups shall match the material, wall thickness, and specifications of the main line carrier pipe.
- B. High-grade rubber gaskets or flexible, elastomeric boot-type connectors matching to City of Lathrop Detail S-1 Sanitary Sewer Type I Manhole.
- C. Internal expansion rings, external take-up bands, and fastening hardware shall be constructed of Grade 304 or Grade 316 stainless steel.
- D. Mechanical plugs or air-tight gasketed caps rated to withstand maximum system test pressures.

PART 3 – EXECUTION

3.1 GENERAL REQUIREMENTS

- A. It is CONTRACTOR's responsibility to physically identify and mark the existing water line alignment in the field and perform a utility survey of the areas surrounding the proposed reroute alignment and proposed manhole location.
- B. It is CONTRACTOR'S responsibility to confirm that 811/USA and a private utility locator were used to identify any existing utilities within the proposed trench area and proposed manhole location.
- C. The CONTRACTOR will prepare the reroute site in accordance with Section 02318 – Trenching Subsection 3.1.
- D. CONTRACTOR will be responsible for verifying and confirming water system is depressurized before WORK starts.

3.2 2" WATER SERVICE LINE

A. CUTTING AND CAPPING

- 1. Cut a minimum of 6 inches of pipe after the point of connection for the reroute prior to capping.
- 2. Install a pressure rated cap with the matching piping materials in type, size, and pressure class.

B. REROUTING AND INSTALLATION

- 1. Trench and install new water line in accordance with Section 02318.
- 2. The piping materials shall match the existing system in type, size, and pressure class unless otherwise approved by the ENGINEER.
- 3. Provide bends, tees, reducers, and adapters as required for complete installation.
- 4. All piping and fittings shall be rated for a minimum pressure equal to or greater than the operating pressure of the existing 2-inch water service.
- 5. CONTRACTOR to confirm with ENGINEER if a thrust block will be required for the 2" -90-degree bend at the point of connection for the reroute. CONTRACTOR will be responsible for installing the thrust block in accordance with Standard Detail W-1 and W-2 of City of Lathrop Standards.

C. TESTING AND DISINFECTION

1. Inspect all piping installations prior to testing to verify proper installation, alignment, and support.
2. Perform hydrostatic pressure testing of the domestic water piping system in accordance with AWWA C600 at a minimum pressure of 150 psi for not less than two (2) hours.
3. Demonstrate proper operation of the system to the ENGINEER or City's representative and obtain acceptance prior to final completion.
4. All labor, materials and equipment required for testing shall be provided by the CONTRACTOR. The cost of testing shall be paid by the CONTRACTOR.

3.3 MANHOLE PIPE INSTALLATION

- A. Pre-cast concrete surface and exterior of the manhole shall be thoroughly cleaned and removed from all dirt, oil, and concrete slurry prior to installation of boot or gasket.
- B. Physical plugs or barrier screen catchers shall be used when cutting into or modifying an active sewer segment to block construction fragments from traveling downstream into the lift station.
- C. Flexible elastomeric watertight joints matching ASTM D3212 criteria shall be installed for transitioning into the structure.
- E. Axial deflection at the flexible connection shall not exceed manufacturer's rated maximum.
- F. Mechanically brace and anchor the outboard end of the 21-inch pup against the manhole structure or undisturbed earth to prevent lateral, vertical, or axial movement during backfill.
- G. The 21-inch pipe pup shall be fully supported by a stabilized, well-compacted bed of Class I or Class II crushed stone aggregate conforming to ASTM D2321 to eliminate shear loading on the connector.
- H. Negative pressure vacuum testing shall be performed prior to backfilling that includes all the 21-inch pipe connection in accordance with ASTM C1244.
- I. Any visible moisture infiltration around the periphery of the 21-inch rubber boot or gasket assembly during high groundwater conditions constitutes a test failure and must be remediated.

3.5 ASPHALT RESTORATION AND GRADING

- A. Seed Section 02950 – Site Restoration and Rehabilitation.

(End of Section 02500)

SECTION 02530 – SANITARY SEWERAGE

PART 1 - GENERAL

1.1 DESCRIPTION

- A. The WORK of this Section includes:
 - 1. Rehabilitation and structural repair of precast concrete wet well structures.
 - 2. Modification and installation of concrete floor benching.
 - 3. Manhole installation.
 - 3. Work shall include maintaining continuous operation of the lift station during the inspection and rehabilitation of the lift station. The CONTRACTOR shall provide all necessary temporary pumping, bypass systems, sequencing, and controls.

1.2 RELATED SECTIONS:

- A. Section 09960 – High-Performance Coatings
- F. Section 11100 – Submersible Sewer Pumps

1.3 QUALITY ASSURANCE

- A. CONTRACTOR or SUBCONTRACTOR shall have minimum 5 years documented experience specializing in performing work of this section.
- B. All field welding shall be performed by welders currently certified in accordance with AWS D1.6.
- C. All work shall be performed in accordance with applicable OSHA regulations, including but not limited to Confined Space Entry requirements and Lock-Out/Tag-Out (LOTO) procedures. The CONTRACTOR shall be responsible for personnel safety and compliance with all safety protocols associated with wet well access and pump handling.

1.4 REFERENCES

- A. City of Lathrop Standard Details S-1, S-3, and S-8
- B. Standard Test Method for Concrete Sewer Manholes by the Negative Air Pressure (Vacuum) Test Prior to Backfill
- C. City of Lathrop: Design and Construction Standards (Sewer System Standard)

- D. ASTM C1244: Standard Test Method for Concrete Sewer Manholes by the Negative Air Pressure (Vacuum) Test.
- E. ASTM C478: Standard Specification for Circular Precast Reinforced Concrete Manhole Sections.
- F. ASTM C923: Standard Specification for Resilient Connectors Between Reinforced Concrete Manhole Structures, Pipes, and Fittings.
- G. AWWA C110 / C115: American Water Works Association Standards for Ductile-Iron Fittings and Flanged Pipe.
- H. AWS D1.6: Structural Welding Code - Stainless Steel.
- I. OSHA 29 CFR 1910.146: Permit-Required Confined Spaces.

1.5 SUBMITTALS

- A. Manufacturer details and specifications for precast sections, base units, frames, and covers conforming to City Standard Details.
- B. Submit product data and manufacturer application procedures for polyurethane or fiberglass interior linings.

PART 2 – PRODUCTS

2.1 WET WELL REHABILITATION AND STRUCTURAL REPAIR MATERIALS

- A. Concrete Repair Mortar: High-strength, shrinkage-compensated, fiber-reinforced cementitious mortar. Formulated for vertical and overhead applications in severe sewer environments (e.g., Sika Top 123 Plus or approved equal).
- B. Hydraulic Cement: Ultra-fast-setting hydraulic compound used to instantly stop active hydrostatic water infiltration (leakage) through concrete cracks.
- C. Benching Grout: Non-shrink, non-metallic cementitious grout capable of reaching 5,000 psi compressive strength within 28 days (ASTM C109)

2.2 PRECAST CONCRETE MANHOLE

- A. Reinforced precast concrete rings and eccentric cone tops meeting ASTM C478.
- B. High-grade rubber gaskets or preformed plastic sealing compound matching to City of Lathrop Detail S-1 Sanitary Sewer Type I Manhole.
- D. Class B concrete with a minimum compressive strength of 2,500 PSI.

2.3 MANHOLE FRAME AND COVER

- A. Heavy-duty gray iron traffic frames conforming to City of Lathrop Sewer Detail S-3
 - 1. Gray Iron casting conforming to ASTM A-48 Class 35B.
 - 2. D&L Supply Company Product Number A-1094-R1 or City-approved equal.
- D. A composite nonmetallic manhole cover as per City of Lathrop Standard Detail S-8.

PART 3 – EXECUTION

3.1 WET WELL REHABILITATION

- A. PREPARATION
 - 1. Activate the approved bypass pumping system. Verify stable operation and zero leakage into the wet well before allowing technicians to enter.
 - 2. Plug, bulkhead, or isolate all incoming gravity lines using inflatable sewer plugs secured with safety chains.
- B. STRUCTURAL REHABILITATION & INSPECTION
 - 1. Hydro-Demolition / Cleaning: High-pressure water-blast concrete surfaces at a minimum of 4,000 psi to remove grease, loose concrete, and micro-biologically induced corrosion layers.
 - 2. Structural Repair: Chip away defective concrete until sound aggregate is exposed. Coat exposed reinforcing steel with an anti-corrosion epoxy primer. Apply repair mortar to restore the original wall thickness and structural profile.
 - 3. Floor Benching: Remove old, flat, or degraded concrete floors. Pour new non-shrink concrete benching sloped at a minimum of 1:1 (45 degrees) toward the pump suction intake areas to completely prevent solids accumulation.
- C. FIELD QUALITY CONTROL
 - 1. Structural Inspection: Visually inspect all patches and benching. Concrete surfaces must be smooth, uniform, and completely free of cracks, honeycombing, or active water weeping before releasing the site for Section 09960 coatings.
 - 2. Scrape and remove all fallen mortar, grout splatter, construction fasteners, and debris from the newly sloped floor.

3. Ensure the structure is thoroughly clean and dry for subsequent high-performance coating application.

D. PIPING AND FITTINGS AND MECHANICAL APPURTENANCES

1. Installation of sewage pumps and associated stainless steel pump guide rails and lifting hardware, replacement of interior ductile iron piping, fittings, wall sleeves, pipe supports, and 6" x 8" reducer is covered under Section 11100 – Submersible Sewer Pumps.

3.2 MANHOLE

A. GENERAL REQUIREMENTS

1. Manhole to be constructed and work to be performed in accordance with the current City of Lathrop Design and Construction Standards.
2. Manhole will contain an interior polyurethane or fiberglass protective coating approved for hydrogen sulfide (H₂S) resistance.
3. Flexible elastomeric watertight joints matching ASTM D3212 criteria shall be installed for gravity conduits transitioning into the structure.
4. Finished frame and cover profiles shall sit perfectly flush with the final asphalt concrete lift or driveway grade.
5. CONTRACTOR shall submit detailed shop drawings for all manhole frames, covers, and precast concrete sections for Engineer approval prior to ordering materials.

B. FIELD QUALITY CONTROL & TESTING

1. Manhole shall undergo negative air pressure (vacuum) testing prior to backfilling.
2. Test shall adhere with ASTM C1244. If manhole fails vacuum test, manhole shall be repaired and retested at the CONTRACTOR's expense before final acceptance

(End of Section 02530)

SECTION 02950 – SITE RESTORATION AND REHABILITATION

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Modification of existing asphalt pavement to match the new 1.5% concrete grade and transition back to the existing 3.0% site grade.
- B. Surface restoration of existing asphalt pavement removed during the eyewash water line reroute.
- C. Surface restoration over the deep shaft manhole excavation as indicated in engineering drawings.

1.2 GENERAL

- A. All asphalt work performed shall be from certified or experienced workers.
- B. All work shall be performed in accordance with OSHA standards.
- C. Protective measures will be used to protect public health and safety.
- D. The final surface must exhibit positive drainage, and surface deviation does not exceed 1/8 inch in a 10-foot straightedge.
- E. Transitions shall be a smooth or as close as “S-curve” profile with no abrupt angular breaks.
- F. Asphalt shall be raked and rolled to achieve a flush finish that is unnoticeable to traffic.
- G. Prior to any asphalt modification, target station elevations will be calculated, measured, and marked.
- H. All work shall be completed in accordance with Caltrans Highway Design Manual and AASHTO and City of Lathrop Standards.

1.3 REFERENCES

- A. Section 02318 - Trenching
- B. Section 03900 – Concrete Restoration and Cleaning

1.4 SUBMITTALS

- A. Asphalt restoration work shall:
 - 1. Submit proposed asphalt mix design from a local plant at least 10 days prior to paving.
 - 2. Submit results of in-place density and compaction tests conducted by an independent laboratory.

PART 2 – PRODUCTS

2.1 MATERIALS FOR ASPHALT REHABILITATION/RESTORATION

- A. Fine-graded hot mix asphalt – Superpave 9.5mm or Type S-III for the 2” water service line trench.
- B. Coarse-graded structural hot mix asphalt conforming to Superpave 19.0mm or Type S-I for the deep shaft excavation.
- B. Emulsified asphalt conforming to AASHTO M 140.
- C. Hot-poured elastic rubberized asphalt sealant for the pavement transition.
- D. Performance graded binder as specified by local state DOT standards for the project climate zone.
- E. Crushed stone or gravel conforming to ASTM D692.
- F. Temporary cold mix asphalt to be replaced with permanent hot mix within 30 days for the 2” water service line trench and within 7 days for the deep shaft manhole excavation.

PART 3 – EXECUTION

3.1 GRADE REHABILITATION

- A. Preparation
 - 1. Existing asphalt shall be milled to a depth sufficient to allow for a minimum 2” thick fine-graded asphalt surface course.
 - 2. Milling depth will be tapered, being deepest at the concrete interface and feathered out at the calculated target end elevation mark.
 - 3. Milled surface shall be clean and free of any loose material and dust.

B. Asphalt Placement

1. Apply tack coat to the entire milled area and vertical concrete face at a calculated spray rate that meets residual asphalt rate of 0.04 to 0.08 gal/sq yard.
2. Delineate transition zones to ensure a smooth, continuous grade from the concrete interface to the 3% existing grade.

3.2 ASPHALT RESTORATION

A. Preparation

1. Saw -cut existing asphalt in straight, vertical lines at least 12 inches beyond the trench edge.
2. Verify trench backfill is compacted to 95% proctor density before paving.
3. Trench area shall be free of all loose debris, dust, and moisture.

B. Restoration

1. Apply a uniform coat of tack to all vertical faces of existing asphalt.
2. Asphalt shall be installed in maximum 2-inch compacted lifts.
3. Roll asphalt until flush with adjacent surfaces and reaches a minimum relative compaction of 92%.

3.3 DEEPT SHAFT EXCAVATION SURFACE RESTORATION

A. Preparation

1. Saw -cut existing asphalt in straight, vertical lines at least 24 inches beyond the trench edge.
2. Verify upper 12 inches is compacted to 95% proctor density before paving.
3. All perimeter edges shall be free of all loose debris, dust, and mud.
4. A minimum of 8-inch-thick layer of crushed stone base shall be installed and compacted in maximum 4-inch lifts using a mechanical vibratory roller or plate compactor.

B. Restoration

1. Apply a uniform coat of tack to the aggregate based all vertical faces at a residual rate of 0.05 to 0.15 gallons per square yard.

2. A minimum 4-inch-thick asphalt binder course shall be installed and compacted to a minimum of 92%.
3. A minimum 2-inch-thick asphalt surface course shall be installed that matches the grade and cross-slope of the surrounding existing pavement with no surface deviations greater than 1/8 inch per 10-foot straightedge.
4. All final perimeter join seams between the new patch and old road will be sealed with hot-poured rubberized asphalt joint sealant.

3.4 QUALITY ASSURANCE

- A. After asphalt has cooled, 5 gallons of water shall be poured to visually verify that flow is without interruption or ponding.
- B. Any areas holding water deeper than 1/16" shall be removed and replaced.
- C. Asphalt concrete shall be delivered and compacted in accordance with the City of Lathrop Standard Specifications and Plans.

3.5 SITE MAINTENANCE

- A. Prevent debris and asphalt from entering the lift station wet well or storm drains with good housekeeping practices and containment methods.

(End of Section 02950)

SECTION 16481 – MOTOR CONTROL CENTER

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this section.

1.2 SCOPE OF WORK

- A. The CONTRACTOR shall reuse the existing Motor Control Center (MCC) indicated on the plans and shall install new Variable Frequency Drivers (VFDs) Buckets and associated equipment as shown on the plans and specified herein.
- B. Work shall include, but not be limited to the following:
 - 1. Field verification of existing MCC construction, ratings, available space, and short-circuit capacity.
 - 2. Removal of existing VFD starter units and/or components as indicated on the plans.
 - 3. Installation of new VFD Bucket starter units as shown on the plans.
 - 4. Modifications to existing MCC bus, wiring, and control compartments as required to accommodate new VFDs.
- C. Existing MCC sections, structure, bus, and enclosures shall remain unless noted otherwise.

1.3 QUALITY ASSURANCE

- A. All new MCC components and accessories shall be manufactured by the original MCC manufacturer or an approved equal to ensure compatibility with existing equipment.
- B. All work shall comply with the latest adopted editions of the National Electrical Code (NEC), NEMA standards, IEEE standards, and applicable local codes.
- C. The CONTRACTOR shall protect existing MCC equipment from damage during modification and installation activities.

1.4 SUBMITTALS

- A. Product Data:
 - 1. VFD Bucket internal wiring diagrams.

2. External connection diagrams showing wiring to motors, controls, and instrumentation.
3. Installation instructions for VFDs and modified MCC components.
4. Manufacturer's certification that new components are suitable for the existing MCC.

PART 2 – PRODUCTS

2.1 EXISTING MOTOR CONTROL CENTER (MCC)

- A. The existing GE Evolution E9000 MCC shall be reused. All modifications shall be compatible with the existing manufacturer, construction, electrical ratings, bus configuration, and physical dimensions unless otherwise approved by the ENGINEER.
- B. The existing MCC shall remain compliant with all applicable NEMA standards after modification.
- C. Prior to modification, the CONTRACTOR shall field verify all existing MCC conditions, including but not limited to equipment dimensions, bus ratings, wiring, and control schematics.

2.2 VARIABLE FREQUENCY DRIVER (VFD)

- A. VFD Buckets shall be as indicated on the plans and shall be suitable for the connected motor horsepower, voltage, and load characteristics.
- B. Each MCC Bucket assembly shall include, at minimum, the following:
 1. Integral or external control terminals as required for interface with existing SCADA and/or control systems.
 2. MCC Bucket MCCGEE9000L36-U, suitable for 40HP at 480VAC by GE unless otherwise approved by the ENGINEER.
 3. VFD shall be rated for 480VAC, 3-phase pumps and equipped with control power transformer (CPT) and motor circuit protection.

2.3 MATERIALS AND COMPONENTS

- A. Devices, such as, but not limited to, starters, circuit breaker, relays, timers, conductors, shall conform to other sections of these contract documents.
- B. Existing MCC bus bars, grounding, and structural components shall not be modified without the approval of the ENGINEER.

- C. Devices, such as, but not limited to, starters, circuit breaker, relays, timers, conductors, shall conform to other sections of these contract documents.
- D. Existing MCC bus bars, grounding, and structural components shall not be modified without the approval of the ENGINEER.

PART 3 – EXECUTION

3.1 GENERAL

- A. All work shall be performed in accordance with manufacturer recommendations and the requirements herein.
- B. The CONTRACTOR shall field verify the existing MCC manufacturer and model, bus ratings and spare capacity and physical space and dimension limitations.
- C. Any discrepancies between existing conditions and the Plans shall be reported to the ENGINEER before proceeding.
- D. Motor overload and protective settings shall be coordinated with VFD manufacturer requirements.
- E. Existing wiring disturbed during modification shall be neatly re-terminated, re-labeled, and restored to a condition equal to or better than original.
- F. Any components found damaged, degraded, or unsuitable for reuse during inspection shall be reported to the ENGINEER and replaced as directed.

3.2 FIELD TESTING

- A. MCCs shall be tested in accordance with Section 16050.

(End of Section 16481)

ATTACHMENT C

SECTION 00300

MOSSDALE PUMP STATION MODIFICATIONS AND UPGRADES

CIP WW 26-09

BID PROPOSAL FORMS

MOSSDALE WASTEWATER PUMP STATION ACCESS MODIFICATIONS AND UPGRADES

CIP WW 26-09

REVISED BID SCHEDULE

BID ITEM	DESCRIPTION	QTY	UNITS	UNIT PRICE	EXTENDED TOTAL
1.0	General & Site Mobilization				
1.1	Mobilization / Demobilization	1	LS	\$	\$
1.2	Insurance, Bonds, and Permits Procurement	1	LS	\$	\$
1.3	Best Management Practices for Environmental and Public Protection	1	LS	\$	\$
2.0	Civil, Site Work & Demolition				
2.1	Temporary Sewage Bypass System (Setup, Operation, Removal)	1	LS	\$	\$
2.2	Excavation, Shoring (if required), Trench Safety, and Backfill for Eyewash Relocation	1	LS	\$	\$
2.3	Demolition of Existing Roof, Headspace/Masonry Lintels, Access Roll-Up Door, Side-Door, Wall Openings, Overhead Hoist/Beam Removal & Offsite Disposal of Debris	1	LS	\$	\$
2.4	Temporary Engineered Concrete Masonry Unit Wall Bracing & Shoring	1	LS	\$	\$
2.5	Concrete Masonry Unit Reinforcement or Permanent Bracing	1	LS	\$	\$
2.6	Concrete-Filled Steel Bollards	2	EA	\$	\$
2.7	Double Swing Gate Installation	1	LS	\$	\$
3.0	Mechanical & Piping				
3.1	Submersible Wastewater Pumps Installation and Replacement of 4" x 8" Reducer with 6" x 8" Reducer	1	EA	\$	\$
3.2	Installation of Stainless-Steel Pump Guide Rails & Upper Brackets	1	EA	\$	\$
3.3	Assessment, Inspection and Systematic Replacement of any Corroded Pipes and Fittings in the Wet Well	1	EA	\$	\$

00300-3

SECTION 00300

MOSSDALE PUMP STATION MODIFICATIONS AND UPGRADES

CIP WW 26-09

BID PROPOSAL FORMS

3.4	Eyewash Disconnection, Relocation, and Installation including Water Service Reroute and Connection	1	EA	\$	\$
4.0	Electrical				
4.1	Temporary Conduit Bypass or Support	1	LS	\$	\$
4.2	Lighting Installation	1	LS	\$	\$
4.3	Variable Frequency Drive Replacement and Control Panel Enclosure Installation	1	LS	\$	\$
4.4	Rerouting and Installation of New Conduits	1	LS	\$	\$
4.5	Furnish & Install New VFDs and Buckets	1	LS	\$	\$
5.0	Manhole Installation				
5.1	Excavation, Shoring, Safety, and Backfill for excavation shaft including design and stamp by PE	1	LS	\$	\$
5.2	Labor: Installation	1	LS	\$	\$
5.3	Materials including pre-cast base, precast manhole rings, manhole steps, and manhole lid, aggregate base, backfilling	1	LS	\$	\$
6.0	Structural and Wet Well Rehabilitation				
6.1	Wet Well Inspection, Cleaning & Debris Removal	1	LS	\$	\$
6.2	Concrete Structural Repair & Protective Coating	1	LS	\$	\$
6.3	Aluminum Wet Well Access Hatch Installation	1	LS	\$	\$
7.0	Site Restoration & Closeout				
7.1	Asphalt Paving of Trench / Regrading of Existing Concrete Pad and Existing Asphalt Slope / Concrete Surface Finish	1	LS	\$	\$
7.2	Start-up Services, Commissioning, and Final Testing	1	LS	\$	\$

TOTAL BID : _____

TOTAL BID IN WORDS : _____