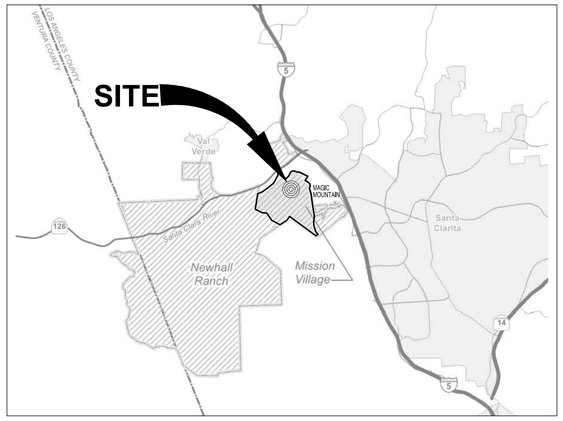
MISSION VILLAGE, VALENCIA

DPW-1 SEWAGE LIFT STATION CONSTRUCTION PLANS

EIMP2015000179 TRACT NO. 61105-2 PC 12257PS

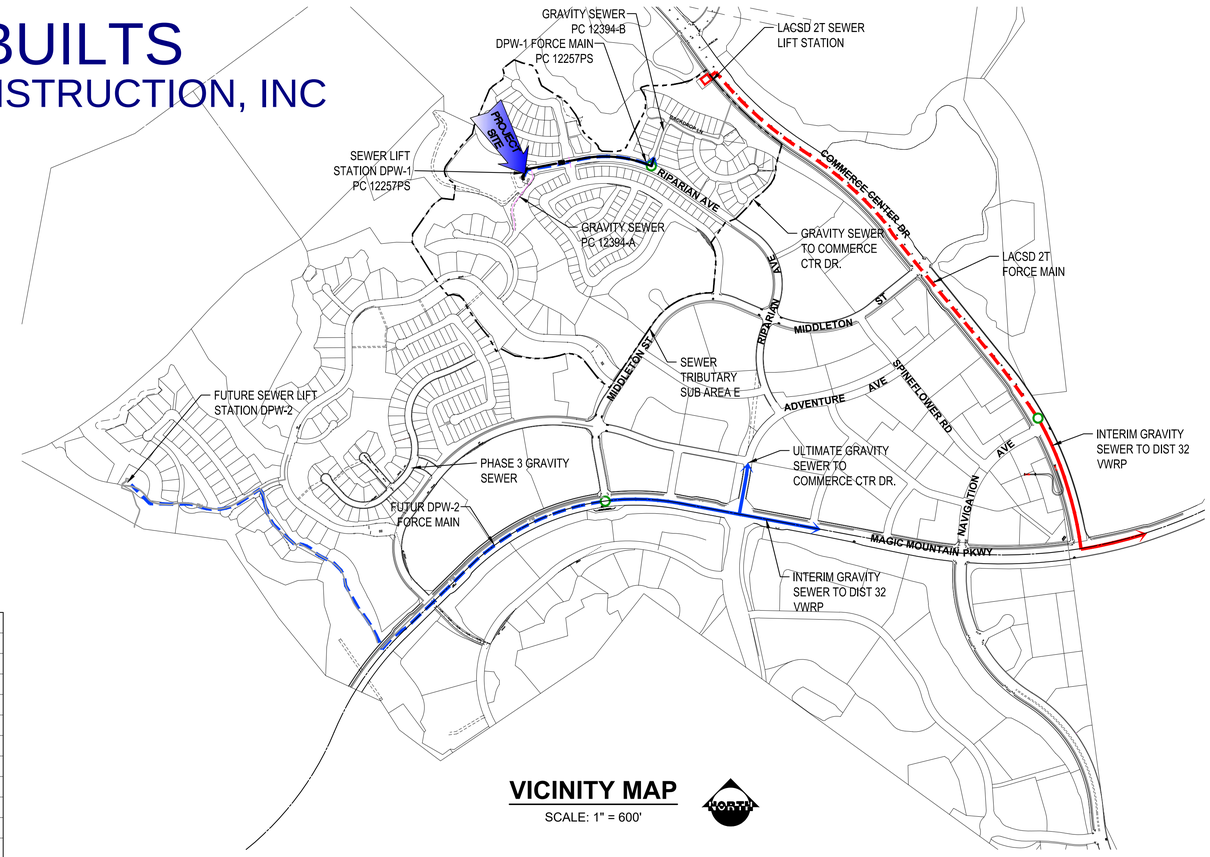
AS-BUILTS

BLOIS CONSTRUCTION, INC



LOCATION MAP

SCALE: NTS



VICINITY MAP

SCALE: 1" = 600'

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APPROVED MARK PESTRELLA, DIRECTOR OF PUBLIC WORKS

BY: _____ ASSISTANT DEPUTY DIRECTOR — 3/5/20 DATE

RECOMMENDED LAND DEVELOPMENT DIVISION

BY: _____ ASSISTANT DIVISION ENGINEER — 3/3/2020 DATE

SUBMITTED

BY: _____ FINAL MAPS, SEWER AND LANDSCAPING SUBDIVISION PLAN CHECK SECTION — 2/25/2020 DATE

REVIEWED FOR MAINTENANCE

BY: _____ SEWER MAINTENANCE DIVISION — 2/19/2020 DATE

REVIEWED DESIGN DIVISION

BY: _____ DIVISION ENGINEER — 2/20/2020 DATE

GEOTECHNICAL CONSULTANT'S APPROVAL:

THESE PLANS HAVE BEEN REVIEWED AND ARE ACCEPTABLE IN REGARDS TO SOIL CONDITIONS AND CONFORMS TO THE RECOMMENDATIONS OF THE FOLLOWING SUPPORTIVE REPORT:

GEOTECHNICAL REPORT
SEWER PUMP STATION DPW-1, PHASE 2 - MISSION VILLAGE TRACT 61105-2
NEWHALL RANCH , LOS ANGELES COUNTY, CALIFORNIA
Project No. 11688.014, April 9, 2018

REGISTERED PROFESSIONAL ENGINEER JORDEN PING-YUEN SU No. 2522 GEOTECHNICAL STATE OF CALIFORNIA

BY: _____ GEOTECHNICAL ENGINEER — 2/7/2020 DATE

COMPANY: LEIGHTON AND ASSOCIATES INC.

P.C. 12257PS — TR. NO.S TR61105-02

THOMAS GUIDE PAGE: 4549 — SMD INDEX: N-1217

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(661) 618-1136
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NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER ANDREW T. KOMOR No. C64928 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

PREPARED BY ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. C64928
EXP. 06/30/21

DRAWN KV | SCALE AS SHOWN
DESIGNED ZS | DATE JAN. 2020
CHECKED AK

THESE DRAWINGS ARE THE PROPERTY OF P.A.C.E. AND SHALL NOT BE REPRODUCED IN ANY MANNER NOR BE USED FOR CONSTRUCTION UNLESS STAMPED 'ISSUED FOR CONSTRUCTION'.

TITLE SHEET

JOB TITLE

MISSION VILLAGE
DPW-1 SEWER PUMP STATION
PC 12257PS
VALENCIA CA

PACE Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

SHEET G0.0
1 OF 62 SHEETS

JOB NO. 9862-E

Xrefs: 9862 Keymap.dwg, 9862-4 PS and PM locations.dwg, SSBASE-HMV02.dwg, SSBASE-HMV03.dwg, 36x24 DPW1.dwg
Dimscale = 40, LTscale = 1; PSBscale = 1; ACAD Ver. = 22.0s (LMS Tech); Viewtabs = 1

P:\9862EP_Mission\Village#1\wd\Design\Engineering\9862-6\Sewer PS\sheets\DPW 1 PS\9862-6 S G0.dwg - Tab: G0.0 - by kvo on 02/10/20 at 1:12:20 PM

GENERAL NOTES:

1. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO LADPW STANDARD DETAILS, THE DESIGN AND CONSTRUCTION STANDARDS AND THESE APPROVED PLANS. THE IMPROVEMENTS ARE SUBJECT TO THE INSPECTION AND APPROVAL OF THE DEPARTMENT OF PUBLIC WORKS. CONTACT LADPW CONSTRUCTION INSPECTION AT (XXX)XXX-XXXX, AT LEAST THREE (3) WORKING DAYS PRIOR TO START OF ANY WORK TO ARRANGE FOR INSPECTION.
2. IF A CONFLICT OCCURS BETWEEN THE LADPW DESIGN AND CONSTRUCTION STANDARDS AND THE RECOMMENDATIONS BY THE DESIGN ENGINEER AND/OR SOILS ENGINEER, THE MORE STRINGENT SHALL APPLY.
3. ALL CONSTRUCTION WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE GEOTECHNICAL INVESTIGATION/SOILS REPORT PREPARED BY LEIGHTON & ASSOCIATES DATED APRIL 09, 2018.
4. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH UNITED STATES ENVIRONMENTAL PROTECTION AGENCY AND CALIFORNIA DEPARTMENT OF PUBLIC HEALTH STANDARDS AND POLICIES FOR WASTEWATER SYSTEMS AND CURRENT SUPPLEMENTS THERETO.
5. THE CONTRACTOR SHALL VERIFY THAT ALL NECESSARY PERMITS HAVE BEEN OBTAINED PRIOR TO CONSTRUCTION.
6. ANY WORK PERFORMED WITHOUT THE APPROVAL OF LA DEPARTMENT OF PUBLIC WORKS (LADPW) AND/OR ALL WORK AND MATERIAL NOT IN CONFORMANCE WITH THE SPECIFICATIONS IS SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
7. BENCH MARK:NEWHALL QUAD 1995, NVAD 88, LACDPW L5402, RND HD SPK IN LOWER CONC HDWL @ N END 24' W/O C/L THE OLD RD (W RDWY) & 0.6MI S/O HENRY MAYO DR @ MI MKR # 6.25 NEWHALL QUAD, ELEV. 1031.951 FT. ADJUSTMENT: 1995.
8. BASIS OF BEARINGS:THE BEARINGS SHOWN HEREON ARE BASED ON THE BEARING S55-59-46W OF THE SOUTHEASTERLY LINE OF PARCEL MAP NO. 24500-01 FILED IN BOOK 293 PAGES 34 THROUGH 67, INCLUSIVE, OF PARCEL MAPS, RECORDS OF LOS ANGELES COUNTY.
9. ALL CONSTRUCTION STAKING FOR GRADING, CURB AND GUTTER, SIDEWALK, SANITARY SEWER, STORM DRAINS, WATER LINES, 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-PALLIATIVE MEASURES USED, TO PREVENT DUST, AS CONDITIONS WARRANT.
11. PRIOR TO RECEIVING/TAKING ANY WATER FROM THE CITY 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.
13. PRIOR TO TRENCHING FOR ANY SEWER, WATER, OR FORCE MAIN PIPE, THE CONTRACTOR SHALL VERIFY, IN THE FIELD, THE SIZE AND 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.
14. ALL TRENCHES SHALL BE BACKFILLED IN ACCORDANCE WITH STANDARD DETAILS. COMPACTION SHALL BE ACHIEVED BY MECHANICAL MEANS. NO FLOODING, PONDING, OR JETTING SHALL BE PERMITTED UNLESS APPROVED BY THE DESIGN ENGINEER.
15. ALL WATER SYSTEM CONSTRUCTION SHALL BE IN ACCORDANCE WITH LOCAL CITY DESIGN AND CONSTRUCTION STANDARDS AND THE STANDARD DETAILS.
16. ALL UNDERGROUND FACILITIES WITHIN THE RIGHT-OF-WAY SHALL BE INSTALLED; BACKFILL COMPLETED AND PASS ALL ACCEPTANCE TESTS PRIOR TO PLACING CURB AND GUTTER, SIDEWALK, ASPHALT CONCRETE, SUB-BASE OR BASE MATERIAL.
17. ALL MANHOLES, VALVES, CLEANOUTS, ETC. SHALL BE BROUGHT TO FINISH GRADE BY THE UNDERGROUND CONTRACTOR AFTER THE FINAL PAVING COURSE IS PLACED.
18. ALL STREET MONUMENTS, LOT CORNER, BENCHMARKS, AND OTHER PERMANENT PIPE OR MONUMENTS DISTURBED DURING THE PROCESS OF CONSTRUCTION SHALL BE REPLACED BY A LICENSED CIVIL ENGINEER OR SURVEYOR PRIOR TO ACCEPTANCE OF IMPROVEMENTS.
19. EROSION CONTROL FACILITIES SHALL BE INSTALLED COMPLETE AND SHALL BE MAINTAINED DAILY BY THE CONTRACTOR. THESE FACILITIES SHALL CONTROL AND CONTAIN EROSION-CAUSED SILT DEPOSITS AND PROVIDE FOR THE SAFE DISCHARGE OF SILT-FREE STORM WATERS INTO EXISTING STORM DRAIN FACILITIES.
20. 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.
21. THE CONTRACTOR SHALL KEEP EXCAVATIONS FREE FROM WATER DURING CONSTRUCTION; STATIC WATER LEVEL SHALL BE DRAWN DOWN A MINIMUM OF 2 FEET BELOW BOTTOM OF EXCAVATIONS TO MAINTAIN UNDISTURBED STEAD OF NATURAL SOILS AND ALLOW PLACEMENT OF ANY FILL TO SPECIFIED DENSITY. DISPOSAL OF WATER SHALL NOT DAMAGE PROPERTY OR CREATE A PUBLIC NUISANCE.
22. DEBRIS SHALL BE DISPOSED OF WITHIN APPROVED DISPOSAL FACILITIES.
23. DISPOSAL OF WATER INTO THE SANITARY SEWER SYSTEM IS STRICTLY PROHIBITED. DISPOSAL OF WATER INTO STORMDRAIN SYSTEM MUST BE APPROVED.
24. THE CONTRACTOR SHALL PROVIDE ADEQUATE MEANS FOR CLEANING TRUCKS AND/OR OTHER EQUIPMENT OF MUD PRIOR TO ENTERING PUBLIC STREETS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CLEAN STREETS, ALLEY DUST, AND TAKE WHATEVER MEASURES ARE NECESSARY TO INSURE THAT ALL ADJACENT ROADS ARE MAINTAINED IN A CLEAN, MUD AND DUST FREE CONDITION AT ALL TIMES.
25. CONTRACTOR SHALL MAINTAIN ALL STREETS, SIDEWALKS, AND ALL OTHER PUBLIC RIGHT-OF WAY IN A CLEAN, SAFE AND USABLE CONDITION THROUGHOUT THE COURSE OF CONSTRUCTION. ALL SPILLS OF SOIL, ROCK, CONSTRUCTION DEBRIS, ETC., SHALL BE REMOVED IMMEDIATELY FROM PUBLICLY OWNED PROPERTY. ALL ADJACENT PROPERTY, PRIVATE OR PUBLIC, SHALL BE MAINTAINED IN A CLEAN, SAFE AND SUITABLE CONDITION. THE CONTRACTOR SHALL PROVIDE FOR SAFE, UNOBSTRUCTED ACCESS TO PRIVATE PROPERTY ADJACENT TO WORK THROUGHOUT THE PERIOD OF CONSTRUCTION.
26. AN APPROVED SET OF PLANS SHALL BE ON THE JOB SITE AT ALL TIMES WORK IS IN PROGRESS. DEVIATION FROM THE PLANS WILL NOT BE ALLOWED WITHOUT AN APPROVED PLAN REVISION OR AUTHORIZATION FROM THE ENGINEER.
27. THESE DRAWINGS INDICATE THE GENERAL EXTENT OF THE REQUIRED WORK AND ARE NOT INTENDED TO INDICATE EVERY ELEMENT REQUIRED. THE CONTRACTOR SHALL FURNISH ALL ELEMENTS TO COMPLETE THE SCOPE OF WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. ALL ITEMS REQUIRING CLARIFICATIONS SHALL BE SUBMITTED AS A "REQUEST FOR INFORMATION" (RFI) TO THE ENGINEER PER THE SPECIFICATIONS.
28. CONTRACTOR SHALL TAKE MEASURES TO CONTROL DUST AND FUGITIVE EMISSIONS, IN ACCORDANCE WITH ALL LOCAL AND STATE FUGITIVE EMISSIONS AND DUST CONTROL REQUIREMENTS. MEASURES, SHALL INCLUDE, BUT NOT BE LIMITED TO WATERING THE SITE TWICE DAILY DURING GRADING TO CONTROL DUST.
29. ALL CONSTRUCTION VEHICLES OR EQUIPMENT, MOBILE OR FIXED OPERATED, SHALL BE EQUIPPED WITH PROPERLY OPERATING AND MAINTAINED MUFFLERS IN ACCORDANCE WITH THE LOCAL NOISE ORDINANCES.
30. ALL PIPE SUPPORTS SPACING SHALL MEET PIPING MANUFACTURER'S REQUIREMENTS, AND PREVENT EXCESSIVE MOVEMENT OR STRESS IN PIPES OR EQUIPMENT. REFERENCE ALSO THE SPECIFICATIONS.
31. STRUCTURAL DIMENSIONS CONTROLLED BY OR RELATED TO MECHANICAL OR ELECTRICAL EQUIPMENT SHALL BE VERIFIED BY THE CONTRACTOR AND REFLECTED ON SHOP DRAWINGS PRIOR TO CONSTRUCTION.
32. THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS, FOR THE ENGINEER'S REVIEW, AS MAY BE NECESSARY FOR THE EXECUTION OF THE WORK AND AS REQUIRED BY THE DRAWINGS AND SPECIFICATIONS.
33. CONSTRUCTION HOURS SHALL BE FROM 6 AM TO 6 PM, EXCLUDING WEEKENDS AND HOLIDAYS WITHOUT PRIOR APPROVAL FROM THE OWNER.

GENERAL CONSTRUCTION NOTES

A. ENGINEER'S NOTES

1. THE ENGINEER WILL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES OR FOR SAFETY PRECAUTIONS OR PROGRAMS UTILIZED IN CONNECTION WITH THE WORK, AND HE WILL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
2. EXISTING UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE ONLY, AND ARE NOT RELIABLE FOR CONSTRUCTION PURPOSES. CALL DIG ALERT 1-800-227-2600.
3. THE ENGINEER AND LADPW MUST APPROVE, PRIOR TO CONSTRUCTION, ANY ALTERATION OR VARIANCE FROM THESE PLANS. ANY VARIATION FROM THESE PLANS SHALL BE PROPOSED ON CONSTRUCTION FIELD PRINTS AND TRANSMITTED TO THE ENGINEER.
4. THE CONTRACTOR SHALL PROTECT AND MAINTAIN ALL EXISTING UTILITIES ON THE SITE. ANY DAMAGE TO EXISTING UTILITIES, WHETHER SHOWN OR NOT ON THE DRAWING SHALL BE REPAIRED/REPLACED AT THE CONTRACTOR'S EXPENSE. EXISTING SURFACE FEATURES AND FENCING SHALL BE REPLACED IN KIND.

GENERAL CONSTRUCTION NOTES (CONT.)

5. ANY INSPECTION BY THE CITY, COUNTY OR THE ENGINEER, SHALL NOT IN ANY WAY RELIEVE THE CONTRACTOR FROM ANY OBLIGATION TO PERFORM THE WORK IN STRICT COMPLIANCE WITH THE APPLICABLE CODES AND AGENCY REQUIREMENTS.
6. CONTRACTOR IS TO LOCATE ALL EXISTING PROPERTY MONUMENTS PRIOR TO CONSTRUCTION. A REGISTERED LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE SHALL REPLACE ANY MONUMENTS DISTURBED DURING THE CONSTRUCTION OF THIS PROJECT.
7. NOTHING CONTAINED IN THE CONTRACT DOCUMENTS SHALL CREATE, NOR SHALL BE CONSTRUED TO CREATE, ANY CONTRACTUAL RELATIONSHIP BETWEEN THE ENGINEER AND THE CONTRACTOR OR ANY SUBCONTRACTOR. ANY CONSTRUCTION WATER OBTAINED FROM THE CITY WATER SOURCE MUST BE METERED.
8. THE CONTRACTOR SHALL MAKE NO CLAIM AGAINST THE OWNER OR THE ENGINEER REGARDING ALLEGED INACCURACY OF CONSTRUCTION STAKES SET BY THE OWNER UNLESS ALL SURVEY STAKES SET BY THE OWNER ARE MAINTAINED INTACT AND CAN BE VERIFIED AS TO THEIR ORIGIN. IF IN THE OPINION OF THE OWNER, THE STAKES ARE NOT MAINTAINED INTACT AND CANNOT BE VERIFIED AS TO THEIR ORIGIN, ANY REMEDIAL WORK REQUIRED TO CORRECT ANY ITEM OR IMPROPER CONSTRUCTION WORK IN THIS DEVELOPMENT SHALL BE PERFORMED AT THE SOLE EXPENSE OF THE RESPONSIBLE CONTRACTOR OR SUBCONTRACTOR.
9. TRAFFIC CONTROL SHALL BE MAINTAINED IN ACCORDANCE WITH THE LOCAL MUNICIPAL CODES.
10. PRIOR TO FINAL APPROVAL AND ACCEPTANCE OF THE WORK THE CONTRACTOR WILL BE REQUIRED TO CLEAN AND REPAIR ADJACENT (OFF-PROJECT) ROADWAYS USED OR DAMAGED DURING THE COURSE OF CONSTRUCTION.
11. CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION WITH PLANT OPERATING STAFF AND SHALL NOT CAUSE PLANT OPERATION/PROCESS DISRUPTIONS.

B. GENERAL GRADING NOTES

1. CONTRACTOR TO FOLLOW RECOMMENDATIONS LISTED IN THE GEOTECHNICAL EVALUATION AND OR REPORT. SHOULD ANY CONFLICTS ARISE BETWEEN THE EVALUATION AND THE GRADING PLANS, THE ENGINEER SHALL BE CONTACTED.
2. THE ENGINEER MAKE NO REPRESENTATION OR GUARANTEE REGARDING EARTHWORK QUANTITIES OR THAT THE EARTHWORK FOR THIS PROJECT WILL BALANCE DUE TO VARIOUS FIELD CONDITIONS, CHANGING SOIL TYPES, ALLOWABLE CONSTRUCTION TOLERANCES AND CONSTRUCTION METHODS THAT ARE BEYOND THE CONTROL OF THE ENGINEER.
3. PRIOR TO BIDDING THE WORK, THE CONTRACTOR SHALL THOROUGHLY SATISFY HIMSELF AS TO THE ACTUAL CONDITIONS AND EARTHWORK QUANTITIES, IF ANY. NO CLAIM SHALL BE MADE AGAINST THE OWNER OR ENGINEER FOR ANY EXCESS OR DEFICIENCY THEREIN, ACTUAL OR RELATIVE.
4. THE ENGINEER/SURVEYOR WILL PERFORM FIELD SURVEYS FOR PAD ELEVATION CERTIFICATIONS UPON NOTIFICATION BY THE GRADING CONTRACTOR THAT THE PADS ARE COMPLETE AND READY FOR CERTIFICATION ONLY AS NEEDED. IT IS UNDERSTOOD THAT THE CERTIFICATION PROVIDES ONLY A REPRESENTATIVE ELEVATION OF THE AVERAGE GRADE OF EACH LOT, BUILDINGS OR UNIT PAD, AND SHALL NOT BE CONSTRUED TO INCLUDE YARD AND STREET SUBGRADE CERTIFICATION OR CERTIFICATION THAT THE ENTIRE PAD IS LEVEL, THAT IT WAS CONSTRUCTED IN THE DESIGNED LOCATION OR WAS GRADED TO THE CROSS-SECTION SET FORTH ON THE PLANS OR AS DESIGNATED IN THE GEOTECHNICAL EVALUATION AND OR REPORT.
5. THE ENGINEER'S OFFICE SHALL BE NOTIFIED BEFORE ANY ONSITE CONSTRUCTION BEGINS. CONTACT ANDY KOMOR AT (714) 481-7300
6. AN APPROVED GRADING AND DRAINAGE PLAN MUST BE ON THE JOB SITE AT ALL TIMES. DEVIATIONS FROM THIS PLAN MUST BE PRECEDED BY AN APPROVED PLAN REVISION.
7. HAUL PERMITS, WHEN REQUIRED, MUST BE OBTAINED PRIOR TO OR CONCURRENTLY WITH THE GRADING AND DRAINAGE PERMIT.
8. A SEPARATE PERMIT IS NECESSARY FOR ANY OFFSITE CONSTRUCTION.
9. APPROVAL OF THESE PLANS SHALL NOT PREVENT NEWHALL/FIVE POINT FROM REQUIRING CORRECTION OF ERRORS IN THE PLANS WHERE SUCH ERRORS ARE SUBSEQUENTLY FOUND TO BE IN VIOLATION OF ANY LAW OR ORDINANCE.

BEST MANAGEMENT PRACTICES

FOR CONSTRUCTION ACTIVITES*

Storm Water Pollution Control Requirements for Construction Activities
Minimum Water Quality Protection Requirements for All Development Construction Projects/Certification Statement

The following is intended as minimum notes or as an attachment for building and grading plans and represent the minimum standards of good housekeeping that must be implemented on all construction sites regardless of size. (Applies to all permits)

- Every effort should be made to eliminate the discharge of non-stormwater from the project site at all times.
- Eroded sediments and other pollutants must be retained on site and may not be transported from the site via sheetflow, swales, area drains, natural drainage courses or wind.
- Stockpiles of earth and other construction related materials must be protected from being transported from the site by the forces of wind or water.
- Fuels, oils, solvents and other toxic materials must be stored in accordance with their listing and are not to contaminate the soil and surface waters. All approved storage containers are to be protected from the weather. Spills must be cleaned up immediately and disposed of in a proper manner. Spills may not be washed into the drainage system.
- Excess or waste concrete may not be washed into the public way or any other drainage system. Provisions shall be made to retain concrete wastes on site until they can be disposed of as solid waste.
- Trash and construction related solid wastes must be deposited into a covered receptacle to prevent contamination of rainwater and dispersal by wind.
- Sediments and other materials may not be tracked from the site by vehicle traffic. The construction entrance roadways must be stabilized so as to inhibit sediments from being deposited into the public way. Accidental depositions must be swept up immediately and may not be washed down by rain or other means.
- Any slopes with disturbed soils or denuded of vegetation must be stabilized so as to inhibit erosion by wind and water.

"I certify that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that submitting false and/or inaccurate information, failing to update the ESCP to reflect current conditions, or failing to properly and/or adequately implement the ESCP may result in revocation of grading and/or other permits or other sanctions provided by law."

Print Name _____
(Owner or authorized agent of the owner)

Signature _____ Date _____
(Owner or authorized agent of the owner)

*The above Best Management Practices are detailed in the latest edition of the California BMP Handbook or Caltrans Stormwater Quality Handbooks.

ABBREVIATIONS

AB	AGGREGATE BASE
AC	ASPHALT CONCRETE
A/C	AIR CONDITIONER
APPROX	APPROXIMATELY
ARCH	ARCHITECTURAL
ARV	AIR RELEASE VALVE
AUTO	AUTOMATIC
AUX	AUXILIARY
AVV	AIR VACUUM VALVE
AWS	ALARM WATER SURFACE
BO	BLOWOFF
BC	BEGINNING OF CURVE
BF	BLIND FLANGE
BLDG	BUILDING
BM	BEAM, BENCHMARK
BOD	BIOCHEMICAL OXYGEN DEMAND
BOT	BOTTOM
BVC	BEGIN VERTICAL CURVE
CATV	CABLE TELEVISION
CFH	CUBIC FOOT PER HOUR
CFM	CUBIC FOOT PER MINUTE
CFS	CUBIC FOOT PER SECOND
CH	CHUCK
CMU	CONCRETE MASONRY UNIT
CO	CLEANOUT
COTG	CLEANOUT TO GRADE
CONST	CONSTRUCTION
CPLG	COUPLING
CPVC	CHLORINATED POLYVINYL CHLORIDE
CTR	CENTER
CV	CHECK VALVE
CW	COLD WATER
CYL	CYLINDER
D	DRAIN
DAF	DISSOLVED AIR FLOATATION
DI	DROP INLET
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DO	DISSOLVED OXYGEN
DTL	DETAILS
DWG	DRAWING
E	ELECTRICAL
EA	EACH
EC	END OF CURVE
ECC	ECCENTRIC
EF	EACH FACE
EFF	EFFLUENT
EL	ELEVATION
EP	EDGE OF PAVEMENT
EQUIP	EQUIPMENT
EW	EACH WAY
EXH	EXHAUST
EX	EXISTING
FC	FLEXIBLE COUPLING
FD	FLOOR DRAIN
FF	FINISH FLOOR
FG	FINISHED GROUND
FH	FIRE HYDRANT
FL	FLOW LINE
FLEX	FLEXIBLE
FLG	FLANGE
FM	FORCE MAIN
FPS	FEET PER SECOND
FS	FINISH SLAB
FT	FEET
FUT	FUTURE
G	GAS
GA	GAUGE
GAL	GALLONS
GALV	GALVANIZED
GB	GRADE BREAK
GPD	GALLONS PER DAY
GPM	GALLONS PER MINUTE
H/A	HAND-AUTOMATIC
HOA	HAND-OFF-AUTOMATIC
HORIZ	HORIZONTAL
HP	HIGH POINT
HWS	HIGH WATER SURFACE
HZ	HERTZ
ID	INSIDE DIAMETER
I&C	INSTRUMENTATION & CONTROLS INTEGRATOR
IN	INCHES
INF	INFLUENT
IRR	IRRIGATION
INV	INVERT
JB	JUNCTION BOX
LBS	POUNDS
LBS/D	POUNDS PER DAY
LF	LINEAR FEET
LP	LOW PRESSURE
LWL	LOW WATER LEVEL
LWS	LOW WATER SURFACE
MAX	MAXIMUM
MCC	MOTOR CONTROL CENTER
MECH	MECHANICAL
MFR	MANUFACTURER
MGD	MILLION GALLONS PER DAY
MG/L	MILLIGRAMS PER LITER
MH	MANHOLE OR MAINTENANCE HOLE
MIN	MINIMUM, MINUTE
MISC	MISCELLANEOUS
MJ	MECHANICAL JOINT
MLSS	MIXED LIQUOR SUSPENDED SOLIDS
N	NORTHING
N/C	NORMALLY CLOSED
N/O	NORMALLY OPEN
NTS	NOT TO SCALE
NWL	NORMAL WATER LEVEL
NPSH	NET POSITIVE SECTION HEAD
OC	ON CENTER
OD	OUTSIDE DIAMETER
OD	OXIDATION DITCH (EAST OR WEST)
PG	PRESSURE GAUGE
PI	POINT OF INTERSECTION
PO	PUSH ON
PP	POWER POLE, PIPE PENETRATION
PRFV	PRESSURE RELIEF VALVE
PRC	POINT OF REVERSE CURVE
PRV	PRESSURE REGULATING (REDUCING) VALVE
PS	PRESSURE SWITCH, PIPE SUPPORT
PSI	POUNDS PER SQUARE INCH
PV	PLUG VALVE
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
PW	POTABLE WATER
R	RADIUS
RAS	RETURN ACTIVATED SLUDGE
RED	REDUCER
REQ'D	REQUIRED
RPM	REVOLUTIONS PER MINUTE
RQMT	REQUIREMENT
R&R	REMOVE AND RELOCATE (REINSTALL)
R&S	REMOVE AND SAVE (SALVAGE)
R/W	RIGHT OF WAY
R&W	REMOVE AND WASTE
RW	RECLAIMED WATER
S	SLOPE
SS	SANITARY SEWER
SBR	SEQUENTIAL BATCH REACTOR
SCH	SCHEDULE
SD	STORM DRAIN
SE	SECONDARY EFFLUENT
SEC	SECTION
SHT	SHEET
SPEC	SPECIFICATION
SQ.	SQUARE
SST	STAINLESS STEEL
ST	STREET
STA	STATION
T&B	TOP AND BOTTOM
TB	THRUST BLOCK
TBA	TO BE ABANDONED
TDH	TOTAL DYNAMIC HEAD
TEL	TELEPHONE
TEMP	TEMPERATURE
TOS	TOP OF SLAB
TOW	TOP OF WALL
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VAC	VOLTS ALTERNATING CURRENT
VERT	VERTICAL
VCP	VITRIFIED CLAY PIPE
W	WATER
WAS	WASTE ACTIVATED SLUDGE
W/O	WITHOUT
WS	WATER SURFACE

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER ★ ANDREW T. KOMOR ★ No. 0C58928 Exp. 06/30/21 ★ CIVIL ★ STATE OF CALIFORNIA

THESE DRAWINGS ARE THE PROPERTY OF P.A.C.E. AND SHALL NOT BE REPRODUCED IN ANY MANNER NOR BE USED FOR CONSTRUCTION UNLESS STAMPED 'ISSUED FOR CONSTRUCTION'.

PREPARED BY: ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. 58928
EXP. 06/30/21

DRAWN: KV
DESIGNED: ZS
CHECKED: AK
SCALE: AS SHOWN
DATE: JAN. 2020

TITLE: GENERAL NOTES & ABBREVIATIONS

JOB: MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

PACE Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

Department of Public Works, Los Angeles County

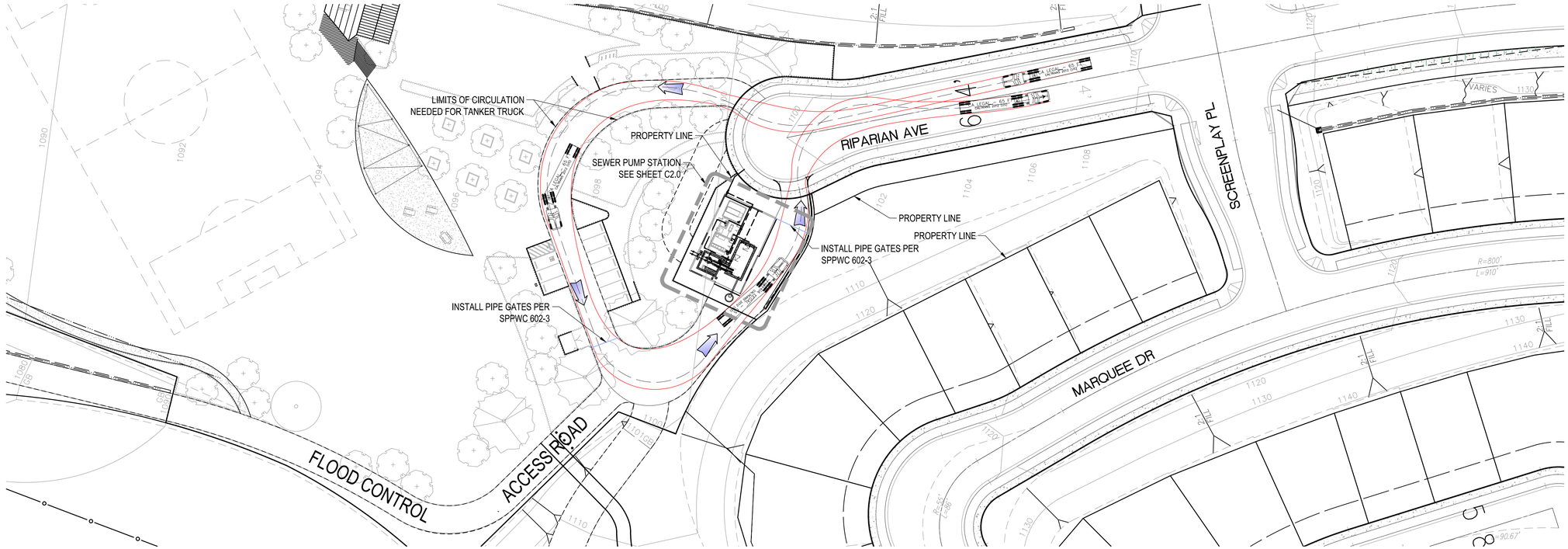
Checked _____ 2/20/2020
Design Division Date

SHEET 2 OF 62 SHEETS
G1.0

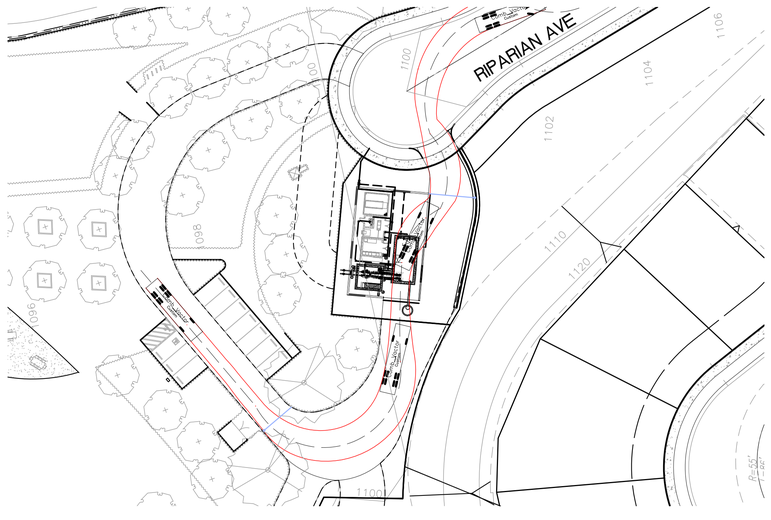
JOB NO. 9862-E

Xrefs: 3b2dv DPW-1.dwg
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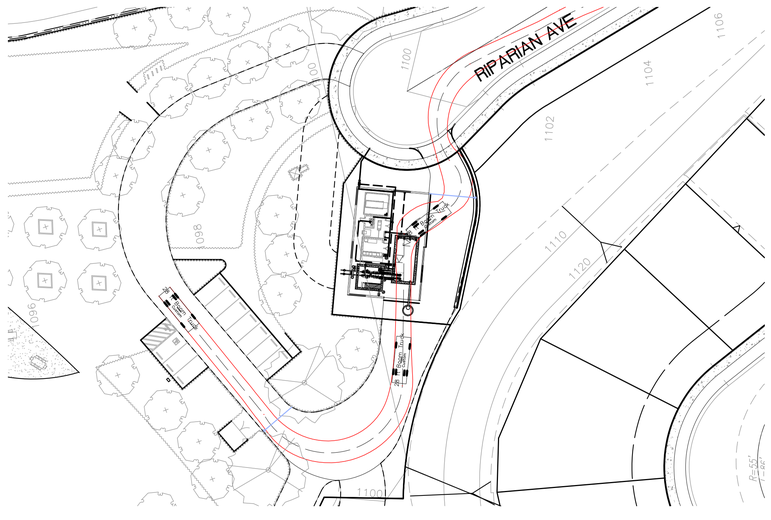
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A - SEMI WITH TANKER TRAILER DRIVING OUTSIDE PUMP STATION



B - COMBINATION VACTOR TRUCK DRIVING THROUGH PUMP STATION



C - 28' BOOM TRUCK DRIVING THROUGH PUMP STATION

NORTH

40 20 0 40 80

SCALE: 1"=40'

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER ★ ANDREW T. KOMOR ★ No. C84928 Exp. 06/30/21 ★ CIVIL ★ STATE OF CALIFORNIA

PREPARED BY
ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. 84928
EXP. 06/30/21

DRAWN KV | SCALE AS SHOWN
DESIGNED ZS | DATE JAN. 2020
CHECKED AK

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TITLE
OVERALL SITE PLAN

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

Department of Public Works, Los Angeles County
Checked Zhanhle — Design Division
2/20/2020 — Date

SHEET C1.0
3 OF 62 SHEETS
JOB NO. 9862-E

Xrefs: 9862 dpw-1 site.dwg, 9862_DPW-1 site-Mech.dwg, RGBASE-HMV02.dwg, RGBASE-HMV02.dwg, HMV224-02_DPW1 Alternative in Neighborhood Park.dwg, SITEBASE-HMV02.dwg, 36x24v DPW-1.dwg, 9862 DPW-1 Mech-plan.dwg, RGBASE-HMV02.dwg, SITEBASE-HMV02.dwg, RGBASE-HMV02.dwg, SITEBASE-HMV02.dwg
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P:\9862\EP_Mission\Mapp\FinalDesign\Engineering\9862-5\Sewer PS\plotsets\DPW-1 PS\9862-5 C1.0.dwg - Tab: C1.0 - by kvo on 02/20/20 at 4:25:47 PM

C2.0 FROM RFI 075 RESPONSE - WATER SERVICE POC AND ALIGNMENT CHANGE

CONSTRUCTION NOTES:

1. MECHANICAL ROOM IN ABOVE GRADE BUILDING. SEE MECHANICAL PLANS.
2. ELECTRICAL ROOM IN ABOVE GRADE BUILDING. SEE ELECTRICAL PLANS.
3. CAST IN PLACE VALVE VAULT. SEE MECHANICAL AND STRUCTURAL PLANS.
4. CAST IN PLACE CONCRETE WET WELL AND EMERGENCY STORAGE. SEE MECHANICAL AND STRUCTURAL PLANS.
5. STANDBY GENERATOR UNDER CANOPY. SEE MECHANICAL, ELECTRICAL AND STRUCTURAL PLANS.
6. 30' WIDE, 8' HIGH WROUGHT IRON ROLLING GATE WITH PADLOCK PER HARDWARE SCHEDULE ON SHEET A6.0 PER DETAIL (B C4.0)
7. 20' WIDE, 8' HIGH WROUGHT IRON ROLLING GATE WITH PADLOCK PER HARDWARE SCHEDULE ON SHEET A6.0 PER DETAIL (B C4.0)
8. 8' HIGH MASONRY WALL PER SPPWC 601-03 OR EQUAL.
9. 4" 316 SST FORCEMAIN PIPE. SEE MECHANICAL PLANS.
10. 4" 316 SST FORCEMAIN PIPE TRANSITION TO HDPE PIPE PER DETAIL (D C4.1)
11. 4" HDPE FORCEMAIN PIPE. SEE SHEETS C5.0, C5.1 AND C5.2.
12. 10" PVC GRAVITY SEWER TO WET WELL, SEE MECHANICAL PLANS AND DETAIL (C C4.1)
13. INSTALL 60"Ø SEWER MANHOLE PER LACSD STD. DETAIL TYPE E, DWG# S-A-206 WITH A 24" COMPOSITE FRAME AND COVER PER EJ PRODUCT MODEL COM 240123A01. MANHOLE CONCRETE MIX DESIGN SHALL CONSIST OF XYPEX BIOSAN C500 PER MANUFACTURER.
14. TRANSFORMER ON CONCRETE PAD PER SCE. CONTRACTOR TO COORDINATE WITH BJ PALMER AT (661) 294-1400.
15. INSTALL PIPE GATE PER SPPWC 602-3.
16. MAINTENANCE ACCESS ROAD. SEE SHEET C3.1.
17. CURBED LANDSCAPING AREA. LANDSCAPE MAINTENANCE SHALL BE BY OTHERS.
18. PUMP STATION SITE CONCRETE PAVEMENT PER DETAIL (D C4.0)
19. 2" WATER LINE. ISOLATION VALVE AND WATER METER BY SCVWA.
20. CONTRACTOR TO INSTALL 2" REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION DEVICE PER DETAIL (B C4.1)
21. INSTALL ±95 L.F. OF 2" HDPE (SDR 11) "BLUE STRIPE" POTABLE WATER LINE.
22. INSTALL ±10 L.F. OF ¾" HDPE (SDR 11) "BLUE STRIPE" POTABLE WATER LINE TO BATHROOM. SEE M2.2 FOR BATHROOM PLUMBING.
23. INSTALL EMERGENCY TANK FLUSHING WATER LINE, VALVES AND STAND PIPE PER DETAIL (E C4.1)
24. INSTALL REMOVABLE PIPE BOLLARD PER DETAIL (A C4.1)
25. INSTALL 4" PVC WETWELL VENT LINE PER DETAIL (D M3.1)
26. SEWER LINE PER HUNSAKER PLANS.
27. SEWER MANHOLE PER HUNSAKER PLANS.
28. INSTALL VALVE BOX FOR TRACE WIRE ACCESS STATION (TWAS) SEE DETAIL SHEET C5.2.
29. INSTALL 4" PVC DRAIN LINE FROM BACKFLOW PREVENTION TO SURFACE DRAIN BOX/GRATE.
30. INSTALL NFPA DIESEL FUEL SIGN ON CMU WALL CLOSE TO GENERATOR. SEE DETAIL (E C4.0)
31. INSTALL HOSE BIB PER DETAIL (A C4.0)
32. ELECTRICAL SES LOCATION. SEE ELECTRICAL PLAN FOR DETAILS.

POINT TABLE			
PNT. #	NORTHING	EASTING	DESCRIPTION
1	106584.85	477360.78	SE CNR WALL
2	106601.74	477324.52	SW CNR WALL
3	106656.13	477349.86	NW CNR WALL
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5	106639.62	477348.79	NE CNR BLDG
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10	106609.12	477347.45	NE CNR VAULT
11	106598.24	477342.39	SW CNR VAULT
12	106603.73	477330.60	SW SNR VAULT
13	106622.01	477361.18	NW CNR WET WELL
14	106617.43	477371.00	NE CNR WET WELL
15	106595.68	477360.87	SE CNR WET WELL
16	106600.26	477351.05	SW CNR WET WELL
17	106581.85	477352.77	SE CNR WET WELL

WATER METER LOCATION CHANGE PER APPROVED WATER PLANS

RIPARIAN AVE

SEWER EASEMENT 20'

PROPERTY LINE

10" PIPE INV. 1089.00

10" OUTLET PIPE RIM EL. 1100.50 INV. 1089.20

10" INLET PIPE INV. 1089.30

10" OUTLET PIPE INV. 1089.43

NORTH

SCALE: 1"=5'

Department of Public Works, Los Angeles County

Checked _____ Design Division _____ Date

NO	BY	DATE	REVISIONS	DATE	APP.

PREPARED BY
ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. C64928
EXP. 06/30/21

DRAWN KV | SCALE AS SHOWN
DESIGNED ZS | DATE JAN. 2020
CHECKED AK

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TITLE: SITE & PIPING PLAN

JOB: MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481- 7300 | www.pacewater.com

SHEET C2.0
4 OF 62 SHEETS
JOB NO. 9862-E

Xrefs: 9862 dpw-1 title.dwg; 9862 DPW-1 SITE-MECH .dwg; pc-civil-base .dwg; SITEBASE-HMV02.dwg; pc-civil-base .dwg; RIDBASE-HMV02.dwg; RIDBASE-HMV02.dwg; HMV224-02_DPW1 Alternative in Neighborhood Park.dwg; 36x24 DPW-1.dwg; 9862 DPW-1 Mech-plan.dwg; SSBASE-HMV02.dwg; SITEBASE-HMV.dwg; Valencia West_Opens_Space_2019-02-08.dwg; RIDBASE-HMV02.dwg; RIDBASE-HMV02.dwg; HMV224-02_DPW1 Alternative in Neighborhood Park.dwg; 36x24 DPW-1.dwg; 9862 DPW-1 Mech-plan.dwg; SSBASE-HMV02.dwg; SITEBASE-HMV.dwg; Valencia
Dimscale = 10; LTscale = 1; PSltscale = 1; ACAD Ver. = 23.0s (LMS Tech); Variistan = 1
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RFI #75

SCALE: HOR. 1"= 40'
VERT. 1"= 4'

FH AT STA:10+65.42

FH AT STA:17+10

MATCH LINE - SEE SHEET 3

LINE "R" ZONE IIA-N
RIPARIAN AVE.

LIMITS OF RESTRAINED JOINTS

FS OVER ℄ OF PIPE

IDENTICAL POINT

450.00 LF, 8" DI, CL 350 PIPE

465.29 LF, 8" DI, CL350 PIPE

39.44 LF, 6" DI, CL 350 PIPE

32.03 LF, 6" DI, CL 350 PIPE

50.07 LF, 6" DI, CL350 PIPE

LEGEND

PROPOSED (THIS PLAN SET)
- WATER MAIN
- FIRE HYDRANT
- GATE VALVE
- THRUST BLOCK
- COMBINATION AIR & VACUUM ASSY
- BLOW-OFF
- WATER METER

PROPOSED (BY OTHERS)
- CURB & GUTTER
- STORM DRAIN
- POTABLE WATER
- RECYCLED WATER
- FIRE HYDRANT
- SEWER MAIN
- WATER QUALITY
- CATCH BASIN

EXISTING
- WATERLINE
- ST. CENTERLINE
- LOT LINE
- RIGHT-OF-WAY
- TRACT BOUNDARY
- EASEMENT

NOTE
1. CONTRACTOR TO FIELD VERIFY HORIZONTAL AND VERTICAL LOCATION OF EXISTING WATER MAIN PRIOR TO INSTALLATION.
2. CONTRACTOR TO FIELD VERIFY LOCATION AND DEPTH OF EXISTING STORM DRAINS PRIOR TO WATER MAIN INSTALLATION.
3. CONTRACTOR TO FIELD VERIFY FINAL LOCATION OF PROPOSED DRIVEWAY PRIOR TO WATER METER INSTALLATION.
4. ALL WATER LINES CROSSING WITH SEWER MAINS, SEWER LATERALS, STORM DRAIN MAINS, OR STORM DRAIN LATERALS ARE TO BE INSTALLED OVER THE PIPES WITH A 12" VERTICAL MINIMUM CLEARANCE TYPICAL, UNLESS OTHERWISE NOTED.
5. NO JOINTS SHALL BE ALLOWED IN WATER MAINS WITHIN 8' OF WET UTILITY CROSSINGS PER TITLE 22 REQUIREMENTS.
6. INSTALL EBAA IRON SERIES 1700 MEGALUG RESTRAINT HARNESSES (OR APPROVED EQUAL) ON ALL PIPE JOINTS LOCATED WITHIN 10' HORIZONTALLY OF STORM DRAIN STRUCTURES WHERE THE CLEAR DISTANCE BETWEEN THE WATER MAIN AND A STRUCTURE IS LESS THAN 4'. RESTRAINT HARNESSES SHALL BE IN ADDITION TO PUSH ON PIPE RESTRAINT.

GRAPHIC SCALE: 1" = 40'

METER SCHEDULE TABLE

LOT #	MAX FLOW*	SIZE	STATION
10	128	2"	19+46.17
10	128	2"	18+98.83

* MAX. FLOW IS BASED ON FIRE FLOW

WATER CONSTRUCTION NOTES:

1 INSTALL 8" DIA. DUCTILE IRON CL 350 DOMESTIC WATER PIPELINE PER AWWA C150 AND SCVWA STD. DWG. NO. 101

4 INSTALL 8" RESILIENT WEDGE GATE VALVE (FLxMJ) PER SCVWA STD. DWG. NO. 116 AND CONCRETE ANCHOR VALVES PER SCVWA STD. DWG. NO. 102

6 INSTALL 2" BLOW-OFF ASSEMBLY PER SCVWA STD. DWG NO. 113.

8 INSTALL FIRE HYDRANT ASSEMBLY PER SCVWA STD. DWG. NO. 103

9 INSTALL 2" METER SERVICE ASSEMBLY PER SCVWA STD. DWG. NO. 108

11 INSTALL 8" TO 6" (FLXFL) REDUCER

WATER CONSTRUCTION NOTES CONTINUE

14 INSTALL 8"x8"x8"x8" DUCTILE IRON (FLxFLxFLxFL) CROSS & THRUST BLOCK PER SCVWA STD. DWG. NO. 102. SEE DETAIL "C" SHEET 8

20 INSTALL 6" DI, CL350 PER SCVWA STD. DWG. NO. 101

22 INSTALL 6" RESILIENT WEDGE GATE VALVE (FLxMJ) PER SCVWA STD. DWG. NO. 116 AND CONCRETE ANCHOR VALVES PER SCVWA STD. DWG. NO. 102

24 INSTALL FIRE HYDRANT ASSEMBLY PER SCVWA STD. DWG. NO. 103. USE 6" RESILIENT WEDGE GATE VALVE (MJxMJ) FOR ITEM 3 OF THE ASSEMBLY AND CONNECT TO PROPOSED 6" DIP AS SHOWN ON THE PLAN

25 INSTALL 8"-45° DI BEND (MJxMJ) & THRUST BLOCK PER SCVWA STD. DWG. 102

26 INSTALL 8"-90° DI BEND (MJxFL) & THRUST BLOCK PER SCVWA STD. DWG. 102

28 INSTALL 6" RESILIENT WEDGE GATE VALVE (MJxMJ) PER SCVWA STD. DWG. NO. 116 GV SHALL BE INSTALLED 12' FROM CURB FACE UNLESS NOTED OTHERWISE ON THE PLAN.

SEE LINE "MM", SHT. 8 SCREENPLAY PL.

SCREENPLAY PL.

TRACT BOUNDARY

CURB

ROW

RIPARIAN AVE.

LOT 21

LOT 20

LOT 16

LOT 7

LOT 8

LOT 10

LOT 14

DOUBLE 4" SEWER FORCED MAIN

LINE S, PER TR 61105-20 VWD 6741-20.0

DATE	REVISIONS	APPD.

HUNSAKER & ASSOCIATES IRVINE, INC.
PLANNING * ENGINEERING * SURVEYING
Three Hughes * Irvine, CA 92618 * PH: (949) 583-1010 * FX: (949) 583-0759

DESIGNED BY: RR
CHECKED BY: JP
Jonathan H Petke 03/02/2021
PROJECT ENGINEER

REGISTERED PROFESSIONAL ENGINEER JONATHAN HOBART PETKE No. 67585 Exp.09/2021 CIVIL STATE OF CALIFORNIA

DIGALERT
DIAL TOLL FREE 811
AT LEAST TWO DAYS BEFORE YOU DIG
UNDERGROUND SERVICE ALERT (USA) OF SOUTHERN CALIFORNIA

TRACT 61105-17 POTABLE WATER IMPROVEMENT PLANS FOR MASTER STREETS RIPARIAN AVE., SCREENPLAY PL., AND MARQUEE DR.

LINE "R" FROM STATION 10+00 TO 19+19.76

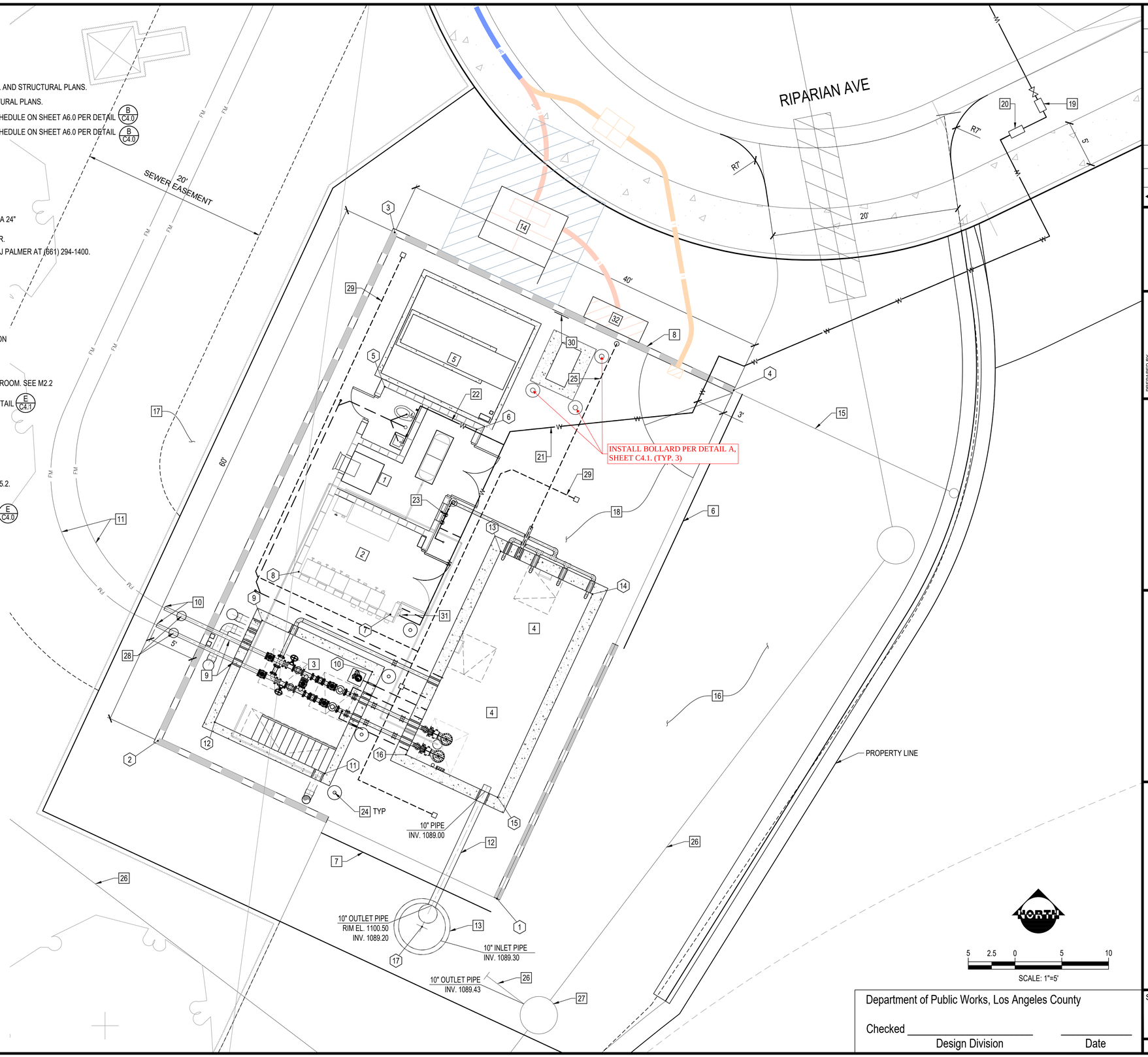
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SCALE: AS SHOWN	DRAWING No.: C-2
DATE: FEBRUARY 23, 2021	AS-BUILT
COUNTY OF: LOS ANGELES	SHEET: 4 OF 15

PLOTTED BY: Jaefors DATE: Mar. 03, 2021 07:34:15 PM FILE: C:\Users\jaefors\Box\0144022\61105-02\xrefs\MASTER\MT-MS\Vol61105-17- PH2A - WL.dwg

FROM RFI #80

CONSTRUCTION NOTES:

1. MECHANICAL ROOM IN ABOVE GRADE BUILDING. SEE MECHANICAL PLANS.
2. ELECTRICAL ROOM IN ABOVE GRADE BUILDING. SEE ELECTRICAL PLANS.
3. CAST IN PLACE VALVE VAULT. SEE MECHANICAL AND STRUCTURAL PLANS.
4. CAST IN PLACE CONCRETE WET WELL AND EMERGENCY STORAGE. SEE MECHANICAL AND STRUCTURAL PLANS.
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8. 8' HIGH MASONRY WALL PER SPPWC 601-03 OR EQUAL.
9. 4" 316 SST FORCEMAIN PIPE. SEE MECHANICAL PLANS.
10. 4" 316 SST FORCEMAIN PIPE TRANSITION TO HDPE PIPE PER DETAIL (D/C4.1)
11. 4" HDPE FORCEMAIN PIPE. SEE SHEETS C5.0, C5.1 AND C5.2.
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16. MAINTENANCE ACCESS ROAD. SEE SHEET C3.1.
17. CURBED LANDSCAPING AREA. LANDSCAPE MAINTENANCE SHALL BE BY OTHERS.
18. PUMP STATION SITE CONCRETE PAVEMENT PER DETAIL (D/C4.0)
19. 2" WATER LINE. ISOLATION VALVE AND WATER METER BY SCVWA.
20. CONTRACTOR TO INSTALL 2" REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION DEVICE PER DETAIL (B/C4.1)
21. INSTALL ±95 L.F. OF 2" HDPE (SDR 11) "BLUE STRIPE" POTABLE WATER LINE.
22. INSTALL ±10 L.F. OF ¾" HDPE (SDR 11) "BLUE STRIPE" POTABLE WATER LINE TO BATHROOM. SEE M2.2 FOR BATHROOM PLUMBING.
23. INSTALL EMERGENCY TANK FLUSHING WATER LINE, VALVES AND STAND PIPE PER DETAIL (E/C4.1)
24. INSTALL REMOVABLE PIPE BOLLARD PER DETAIL (A/C4.1)
25. INSTALL 4" PVC WETWELL VENT LINE PER DETAIL (D/M3.1)
26. SEWER LINE PER HUNSAKER PLANS.
27. SEWER MANHOLE PER HUNSAKER PLANS.
28. INSTALL VALVE BOX FOR TRACE WIRE ACCESS STATION (TWAS) SEE DETAIL SHEET C5.2.
29. INSTALL 4" PVC DRAIN LINE
30. INSTALL NFPA DIESEL FUEL SIGN ON CMU WALL CLOSE TO GENERATOR. SEE DETAIL (E/C4.0)
31. INSTALL HOSE BIB PER DETAIL (A/C4.0)
32. ELECTRICAL SES LOCATION. SEE ELECTRICAL PLAN FOR DETAILS.



POINT TABLE			
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15	106595.68	477360.87	SE CNR WET WELL
16	106600.26	477351.05	SW CNR WET WELL
17	106581.85	477352.77	SE CNR WET WELL

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER ANDREW T. KOMOR No. 063021 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

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PREPARED BY
ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. C64928
EXP. 06/30/21

DRAWN KV
DESIGNED ZS
CHECKED AK
SCALE AS SHOWN
DATE JAN. 2020

TITLE
SITE & PIPING PLAN

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481- 7300 | www.pacewater.com

Department of Public Works, Los Angeles County

Checked _____ _____
Design Division Date

SHEET C2.0
4 OF 62 SHEETS
JOB NO. 9862-E

Xrefs: 9862 dpw-1 title.dwg; 9862 DPW-1 SITE-MECH .dwg; pc-civil-base .dwg; SITEBASE-HMV02.dwg; RIGBASE-HMV02.dwg; RIGBASE-HMV02.dwg; RIGBASE-HMV02.dwg; HMV224-02_DPW1 Alternative in Neighborhood Park.dwg; 36x24 DPW-1.dwg; 9862 DPW-1 Mech-plan.dwg; SSBASE-HMV02.dwg; SITEBASE-HMV.dwg; Valencia West_Opens_Space_2019-02-08.dwg; RIGBASE-HMV02.dwg; RIGBASE-HMV02.dwg; RIGBASE-HMV02.dwg; HMV224-02_DPW1 Alternative in Neighborhood Park.dwg; 36x24 DPW-1.dwg; 9862 DPW-1 Mech-plan.dwg; SSBASE-HMV.dwg; Valencia
Dimscale = 10, LTscale = 1; PSltscale = 1; ACAD Ver. = 23.0s (LMS Tech); Variistan = 1

P:\9862EP_Mission\Stage\Civil\Design\Engineering\9862-6\Sewer PS\plotsets\DPW 1 PS\9862-5 C2.1.dwg - Tab: C2.0 - by emilia on 06/04/21 at 11:15:26 AM

FROM RFI #80 & OTHER MARKUPS

CONSTRUCTION NOTES:

1. MECHANICAL ROOM IN ABOVE GRADE BUILDING. SEE MECHANICAL PLANS.
2. ELECTRICAL ROOM IN ABOVE GRADE BUILDING. SEE ELECTRICAL PLANS.
3. CAST IN PLACE VALVE VAULT. SEE MECHANICAL AND STRUCTURAL PLANS.
4. CAST IN PLACE CONCRETE WET WELL AND EMERGENCY STORAGE. SEE MECHANICAL AND STRUCTURAL PLANS.
5. STANDBY GENERATOR UNDER CANOPY. SEE MECHANICAL, ELECTRICAL AND STRUCTURAL PLANS.
6. 30' WIDE, 8' HIGH WROUGHT IRON ROLLING GATE WITH PADLOCK PER HARDWARE SCHEDULE ON SHEET A6.0 PER DETAIL (B C4.0)
7. 20' WIDE, 8' HIGH WROUGHT IRON ROLLING GATE WITH PADLOCK PER HARDWARE SCHEDULE ON SHEET A6.0 PER DETAIL (B C4.0)
8. 8' HIGH MASONRY WALL PER SPPWC 601-03 OR EQUAL.
9. 4" 316 SST FORCEMAIN PIPE. SEE MECHANICAL PLANS.
10. 4" 316 SST FORCEMAIN PIPE TRANSITION TO HDPE PIPE PER DETAIL (D C4.1)
11. 4" HDPE FORCEMAIN PIPE. SEE SHEETS C5.0, C5.1 AND C5.2.
12. 10" PVC GRAVITY SEWER TO WET WELL, SEE MECHANICAL PLANS AND DETAIL (C C4.1)
13. INSTALL 60"Ø SEWER MANHOLE PER LACSD STD. DETAIL TYPE E, DWG# S-A-206 WITH A 24" COMPOSITE FRAME AND COVER PER EJ PRODUCT MODEL COM 240123A01. MANHOLE CONCRETE MIX DESIGN SHALL CONSIST OF XYPEX BIOSAN C500 PER MANUFACTURER.
14. TRANSFORMER ON CONCRETE PAD PER SCE. CONTRACTOR TO COORDINATE WITH BJ PALMER AT (661) 294-1400.
15. INSTALL PIPE GATE PER SPPWC 602-3.
16. MAINTENANCE ACCESS ROAD. SEE SHEET C3.1.
17. CURBED LANDSCAPING AREA. LANDSCAPE MAINTENANCE SHALL BE BY OTHERS.
18. PUMP STATION SITE CONCRETE PAVEMENT PER DETAIL (D C4.0)
19. 2" WATER LINE. ISOLATION VALVE AND WATER METER BY SCVWA.
20. CONTRACTOR TO INSTALL 2" REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION DEVICE PER DETAIL (B C4.1)
21. INSTALL ±95 L.F. OF 2" HDPE (SDR 11) "BLUE STRIPE" POTABLE WATER LINE.
22. INSTALL ±10 L.F. OF ¾" HDPE (SDR 11) "BLUE STRIPE" POTABLE WATER LINE TO BATHROOM. SEE M2.2 FOR BATHROOM PLUMBING.
23. INSTALL EMERGENCY TANK FLUSHING WATER LINE, VALVES AND STAND PIPE PER DETAIL (E C4.1)
24. INSTALL REMOVABLE PIPE BOLLARD PER DETAIL (A C4.1)
25. INSTALL 4" PVC WETWELL VENT LINE PER DETAIL (D M3.1)
26. SEWER LINE PER HUNSAKER PLANS.
27. SEWER MANHOLE PER HUNSAKER PLANS.
28. INSTALL VALVE BOX FOR TRACE WIRE ACCESS STATION (TWAS) SEE DETAIL SHEET C5.2.
29. INSTALL 4" PVC DRAIN LINE
30. INSTALL NFPA DIESEL FUEL SIGN ON CMU WALL CLOSE TO GENERATOR. SEE DETAIL (E C4.0)
31. INSTALL HOSE BIB PER DETAIL (A C4.0)
32. ELECTRICAL SES LOCATION. SEE ELECTRICAL PLAN FOR DETAILS.

POINT TABLE			
PNT. #	NORTHING	EASTING	DESCRIPTION
1	106584.85	477360.78	SE CNR WALL
2	106601.74	477324.52	SW CNR WALL
3	106656.13	477349.86	NW CNR WALL
4	106639.24	477386.12	NE CNR WALL
5	106639.62	477348.79	NE CNR BLDG
6	106635.05	477358.61	NW CNR BLDG
7	106615.25	477349.39	SE CNR BLDG
8	106619.83	477339.57	SW CNR BLDG
9	106614.61	477335.67	NW CNR VAULT
10	106609.12	477347.45	NE CNR VAULT
11	106598.24	477342.39	SW CNR VAULT
12	106603.73	477330.60	SW SNR VAULT
13	106622.01	477361.18	NW CNR WET WELL
14	106617.43	477371.00	NE CNR WET WELL
15	106595.68	477360.87	SE CNR WET WELL
16	106600.26	477351.05	SW CNR WET WELL
17	106581.85	477352.77	SE CNR WET WELL

RIPARIAN AVE

SEWER EASEMENT 20'

COMPRESSOR TANK VERTICAL ORIENTATION. COMPRESSOR PAD MOVE TO CORNER AND BACK WALL TO BETTER MANAGE ACCESS TO MECH. ROOM

INSTALL BOLLARD PER DETAIL A, SHEET C4.1. (TYP. 3)

E-STOP FOR GENERATOR

KNOX BOX

PICKETED GATE SWING GATE INSTEAD OF SLIDING GATE DUE TO SITE CONSTRAINTS

2" Main Vent

2" ER Vent

4" ER Vent

4" Main Vent

PROPERTY LINE

RELOCATE 10" VENT PIPE PER UPDATED AREA CLASSIFICATION OF VALVE VAULT. MOVE VENT EXHAUST AWAY FROM ELECTRICAL OUTLET AND LIGHT.

24 TYP

10" PIPE INV. 1089.00

10" OUTLET PIPE RIM EL. 1100.50 INV. 1089.20

10" INLET PIPE INV. 1089.30

10" OUTLET PIPE INV. 1089.43

11'-6"

0'-10"

R7'

20'

40'

5'

60'

NORTH

5 2.5 0 5 10

SCALE: 1"=5'

Department of Public Works, Los Angeles County

Checked _____ _____

Design Division Date

NO	BY	DATE	REVISIONS	DATE	APP.

ANDRE KOMOR — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA — CIVIL — No. 084828 — Exp. 06.30.21

PREPARED BY
ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. 084828
EXP. 06/30/21

DRAWN KV
DESIGNED ZS
CHECKED AK
SCALE AS SHOWN
DATE JAN. 2020

TITLE
SITE & PIPING PLAN

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

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P: (714) 481-7300 | www.pacewater.com

SHEET C2.0

4 OF 62 SHEETS

JOB NO. 9862-E

Xrefs: 9862 dpw-1 title.dwg; 9862 DPW-1 SITE-MECH.dwg; pc-civil-base.dwg; SITEBASE-HMV02.dwg; RGBASE-HMV02.dwg; RGBASE-HMV02.dwg; RGBASE-HMV02.dwg; HMV224-02_DPW1 Alternative in Neighborhood Park.dwg; 36x24v DPW-1.dwg; 9862 DPW-1 Mech-plan.dwg; SSBASE-HMV02.dwg; SITEBASE-HMV.dwg; Valencia West_Open_Space_2019-02-08.dwg; RGBASE-HMV02.dwg; RGBASE-HMV02.dwg; HMV02.dwg; West Side Comm - Mission Village - DPW-1 S.S. - composite.dwg
Drawscale = 10; LTscale = 1; PSltscale = 1; ACAD Ver. = 22.0s (LMS Tech); Viewtain = 1

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RIPARIAN AVE

PROPERTY LINE

CURB/EDGE OF PAVEMENT

CURBED LANDSCAPE AREA
MAINTENANCE BY OTHERS

TOW 1109.00
FG 1100.50

FG ±1100.5

1101.00

1100.75

FFL 1101.50

TOW 1109.00
FG 1101.00

1101.20

DRAIN GRATE
1100.50

1 1

1102.00

1100.50

TOP OF SLAB
1101.00

DRAIN GRATE
1100.50

1 2

1101.00

1101.00

1101.00

TOW 1109.00
FG 1101.00

MH RIM
1100.50

1101.0

1101.0

1100.7

INSTALL PIPE GATE
PER SPPWC 602-3

1101.3

TOE OF SLOPE
GRADE VARIES
ALONG THIS LINE

1102

PROPERTY LINE

INSTALL PIPE GATE
PER SPPWC 602-3

ACCESS ROAD PER
SHEET C3.1

1100.17

1098

1100

1102

1110

1120

NORTH

10 5 0 10 20

SCALE: 1"=10'

POINT TABLE

PNT. #	NORTHING	EASTING	DESCRIPTION
1	106631.14	477361.57	DRAIN GRATE
2	106607.55	477350.58	DRAIN GRATE

CONSTRUCTION NOTES:

1 INSTALL J.R. SMITH FIG. 2110 OR EQUAL 8" CAST IRON DRAIN GRATE WITH 6" PVC PIPE CONNECTED TO WET WELL. TIE DOWN DRAIN GRATES PER MANUFACTURER'S INSTALLATION MANUAL.

NO	BY	DATE	REVISIONS	DATE	APP.

ANDREW T. KOMOR
REGISTERED PROFESSIONAL ENGINEER
No. C64928
Exp. 06/30/21
CIVIL
STATE OF CALIFORNIA

PREPARED BY
ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. C64928
EXP. 06/30/21

DRAWN KV
DESIGNED ZS
CHECKED AK
SCALE AS SHOWN
DATE JAN. 2020

TITLE
SITE GRADING &
DRAINAGE PLAN

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.paceware.com

Department of Public Works, Los Angeles County

Checked _____ 2/20/2020
Design Division Date

SHEET C3.0
5 OF 62 SHEETS

JOB NO. 9862-E

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Xrefs: 9862 dpw-1 site.dwg, 9862 DPW-1 site-Mech.dwg, RGBASE-HMV02.dwg, RGBASE-HMV02.dwg; HMV224-02_DPW1 Alternative in Neighborhood Park.dwg; SITEBASE-HMV02.dwg; 36x24r (DPW-1.dwg, 9862 DPW-1 Mech-plan.dwg, SITEBASE-HMV.dwg; Valencia West_Open_Space_2019-02-08.dwg; RGBASE-HMV02.dwg; West Side Comm - Mission Village - DPW-1 - S.S. - composite.dwg
Dimscale = 1; LTscale = 1; PSltscale = 1; ACAD Ver. = 23.0s (LMS Tech); Viewtain = 1
P:\9862E\E_Mission\Mygf\Civil\Design\Engineering\9862-E\Sewer PS\Sheets\DPW-1 PS\9862-E-S C3.1.dwg - Tab: C3.0 - by kvo on 02/13/20 at 4:25:23 PM

FROM RFI #79

RIPARIAN AVE

PROPERTY LINE

TOW 1109.00
FG 1100.50

FG ±1100.5

DRAIN GRATE 1100.50 [1 4]

FFL 1101.50

1100.75

1101.00

CURB/EDGE OF PAVEMENT

Swale

CURBED LANDSCAPE AREA
MAINTENANCE BY OTHERS

TOP OF SLAB 1101.00

DRAIN GRATE 1100.50 [1 2]

DRAIN GRATE 1100.50 [1 1]

DRAIN GRATE 1100.50 [1 3]

TOW 1109.00
FG 1101.00

1102.00

1101.3

1101.0

MH RIM 1100.50

INSTALL PIPE GATE
PER SPPWC 602-3

ACCESS ROAD PER
SHEET C3.1

1100.7

TOE OF SLOPE
GRADE VARIES
ALONG THIS LINE

1102

1100.17

1098

1100

1102

1110

1120

NORTH

10 5 0 10 20

SCALE: 1"=10'

POINT TABLE

PNT. #	NORTHING	EASTING	DESCRIPTION
1	106627.55	477369.28	DRAIN GRATE
2	106607.55	477350.58	DRAIN GRATE
3	106593.77	477354.09	DRAIN GRATE
4	106653.70	477350.74	DRAIN GRATE

CONSTRUCTION NOTES:

[1] INSTALL J.R. SMITH FIG. 2110 OR EQUAL 8" CAST IRON DRAIN GRATE WITH 6" PVC PIPE CONNECTED TO WET WELL. TIE DOWN DRAIN GRATES PER MANUFACTURER'S INSTALLATION MANUAL.

Department of Public Works, Los Angeles County

Checked _____ _____
Design Division Date

NO	BY	DATE	REVISIONS	DATE	APP.

ANDREW T. KOMOR
REGISTERED PROFESSIONAL ENGINEER
No. C64928
Exp. 06/30/21
CIVIL
STATE OF CALIFORNIA

PREPARED BY
ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. C64928
EXP. 06/30/21

DRAWN KV | SCALE AS SHOWN
DESIGNED ZS | DATE JAN. 2020
CHECKED AK

TITLE
SITE GRADING & DRAINAGE PLAN

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

PACE
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SHEET C3.0
5 OF 62 SHEETS
JOB NO. 9862-E

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Xrefs: 9862 dpw-1 site.dwg, 9862 DPW-1 site-Mech.dwg, RGBASE-HMV02.dwg, RGBASE-HMV02.dwg, HMV224-02_DPW1 Alternative in Neighborhood Park.dwg, SITEBASE-HMV02.dwg, 36x24x DPW-1.dwg, 9862 DPW-1 Mech-plan.dwg, SITEBASE-HMV.dwg, Valencia West_Open_Space_2019-02-06.dwg, RGBASE-HMV02.dwg, HMV224-02_DPW1 Alternative in Neighborhood Park.dwg, SITEBASE-HMV02.dwg, 36x24x DPW-1.dwg, 9862 DPW-1 Mech-plan.dwg, SITEBASE-HMV.dwg, Valencia West_Open_Space_2019-02-06.dwg, RGBASE-HMV02.dwg, HMV224-02_DPW1 Alternative in Neighborhood Park.dwg, SITEBASE-HMV02.dwg, 36x24x DPW-1.dwg, 9862 DPW-1 Mech-plan.dwg, SITEBASE-HMV.dwg, Valencia West_Open_Space_2019-02-06.dwg, RGBASE-HMV02.dwg, HMV224-02_DPW1 Alternative in Neighborhood Park.dwg, SITEBASE-HMV02.dwg, 36x24x DPW-1.dwg, 9862 DPW-1 Mech-plan.dwg, SITEBASE-HMV.dwg, Valencia West_Open_Space_2019-02-06.dwg, RGBASE-HMV02.dwg, HMV224-02_DPW1 Alternative in Neighborhood Park.dwg, SITEBASE-HMV02.dwg, 36x24x DPW-1.dwg, 9862 DPW-1 Mech-plan.dwg, SITEBASE-HMV.dwg, Valencia West_Open_Space_2019-02-06.dwg, RGBASE-HMV02.dwg, HMV224-02_DPW1 Alternative in Neighborhood Park.dwg, SITEBASE-HMV02.dwg, 36x24x DPW-1.dwg, 9862 DPW-1 Mech-plan.dwg, SITEBASE-HMV.dwg, Valencia West_Open_Space_2019-02-06.dwg, RGBASE-HMV02.dwg, HMV224-02_DPW1 Alternative in Neighborhood Park.dwg, SITEBASE-HMV02.dwg, 36x24x DPW-1.dwg, 9862 DPW-1 Mech-plan.dwg, SITEBASE-HMV.dwg, Valencia West_Open_Space_2019-02-06.dwg, RGBASE-HMV02.dwg, HMV224-02_DPW1 Alternative in Neighborhood Park.dwg, SITEBASE-HMV02.dwg, 36x24x DPW-1.dwg, 9862 DPW-1 Mech-plan.dwg, SITEBASE-HMV.dwg, Valencia West_Open_Space_2019-02-06.dwg, RGBASE-HMV02.dwg, HMV224-02_DPW1 Alternative in Neighborhood Park.dwg, SITEBASE-HMV02.dwg, 36x24x DPW-1.dwg, 9862 DPW-1 Mech-plan.dwg, SITEBASE-HMV.dwg, Valencia West_Open_Space_2019-02-06.dwg, RGBASE-HMV02.dwg, HMV224-02_DPW1 Alternative in Neighborhood Park.dwg, SITEBASE-HMV02.dwg, 36x24x DPW-1.dwg, 9862 DPW-1 Mech-plan.dwg, SITEBASE-HMV.dwg, Valencia West_Open_Space_2019-02-06.dwg, RGBASE-HMV02.dwg, HMV224-02_DPW1 Alternative in Neighborhood Park.dwg, SITEBASE-HMV02.dwg, 36x24x DPW-1.dwg, 9862 DPW-1 Mech-plan.dwg, SITEBASE-HMV.dwg, Valencia West_Open_Space_2019-02-06.dwg, RGBASE-HMV02.dwg, HMV224-02_DPW1 Alternative in Neighborhood Park.dwg, SITEBASE-HMV02.dwg, 36x24x DPW-1.dwg, 9862 DPW-1 Mech-plan.dwg, SITEBASE-HMV.dwg, Valencia West_Open_Space_2019-02-06.dwg, RGBASE-HMV02.dwg, HMV224-02_DPW1 Alternative in Neighborhood Park.dwg, SITEBASE-HMV02.dwg, 36x24x DPW-1.dwg, 9862 DPW-1 Mech-plan.dwg, SITEBASE-HMV.dwg, Valencia West_Open_Space_2019-02-06.dwg, RGBASE-HMV02.dwg, HMV224-02_DPW1 Alternative in Neighborhood Park.dwg, SITEBASE-HMV02.dwg, 36x24x DPW-1.dwg, 9862 DPW-1 Mech-plan.dwg, SITEBASE-HMV.dwg, Valencia West_Open_Space_2019-02-06.dwg, RGBASE-HMV02.dwg, HMV224-02_DPW1 Alternative in Neighborhood Park.dwg, SITEBASE-HMV02.dwg, 36x24x DPW-1.dwg, 9862 DPW-1 Mech-plan.dwg, SITEBASE-HMV.dwg, Valencia West_Open_Space_2019-02-06.dwg, RGBASE-HMV02.dwg, HMV224-02_DPW1 Alternative in Neighborhood Park.dwg, SITEBASE-HMV02.dwg, 36x24x DPW-1.dwg, 9862 DPW-1 Mech-plan.dwg, SITEBASE-HMV.dwg, Valencia West_Open_Space_2019-02-06.dwg, RGBASE-HMV02.dwg, HMV224-02_DPW1 Alternative in Neighborhood Park.dwg, SITEBASE-HMV02.dwg, 36x24x DPW-1.dwg, 9862 DPW-1 Mech-plan.dwg, SITEBASE-HMV.dwg, Valencia West_Open_Space_2019-02-06.dwg, RGBASE-HMV02.dwg, HMV224-02_DPW1 Alternative in Neighborhood Park.dwg, SITEBASE-HMV02.dwg, 36x24x DPW-1.dwg, 9862 DPW-1 Mech-plan.dwg, SITEBASE-HMV.dwg, Valencia West_Open_Space_2019-02-06.dwg, RGBASE-HMV02.dwg, HMV224-02_DPW1 Alternative in Neighborhood Park.dwg, SITEBASE-HMV02.dwg, 36x24x DPW-1.dwg, 9862 DPW-1 Mech-plan.dwg, SITEBASE-HMV.dwg, Valencia West_Open_Space_Shores_2019-02-06.dwg, RGBASE-HMV02.dwg, HMV224-02_DPW1 Alternative in Neighborhood Park.dwg, SITEBASE-HMV02.dwg, 36x24x DPW-1.dwg, 9862 DPW-1 Mech-plan.dwg, SITEBASE-HMV.dwg, Valencia West_Open_Space_2019-02-06.dwg, RGBASE-HMV02.dwg, HMV224-02_DPW1 Alternative in Neighborhood Park.dwg, SITEBASE-HMV02.dwg, 36x24x DPW-1.dwg, 9862 DPW-1 Mech-plan.dwg, SITEBASE-HMV.dwg, Valencia West_Open_Space - composite.dwg
Dimscale = 1', LTscale = 1', PSltscale = 1', ACAD Ver. = 23.0s (LMS Tech), Viewtan = 1

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RFI #79

RIPARIAN AVE

PROPERTY LINE

CURB/EDGE OF PAVEMENT

CURBED LANDSCAPE AREA
MAINTENANCE BY OTHERS

TOW 1109.00
FG 1100.50

FG ±1100.5

DRAIN GRATE
1100.50

FFL 1101.50

TOP OF SLAB
1101.00

MH RIM
1100.50

Drain Line encased in slurry where it goes under the Load Bank Pad

TOW 1109.00
FG 1101.00

INSTALL PIPE GATE
PER SPPWC 602-3

TOE OF SLOPE
GRADE VARIES
ALONG THIS LINE

ACCESS ROAD PER
SHEET C3.1

NORTH

SCALE: 1"=10'

POINT TABLE

PNT. #	NORTHING	EASTING	DESCRIPTION
1	106627.55	477369.28	DRAIN GRATE
2	106607.55	477350.58	DRAIN GRATE
3	106593.77	477354.09	DRAIN GRATE
4	106653.70	477350.74	DRAIN GRATE

CONSTRUCTION NOTES:

1. INSTALL J.R. SMITH FIG. 2110 OR EQUAL 8" CAST IRON DRAIN GRATE WITH 6" PVC PIPE CONNECTED TO WET WELL. TIE DOWN DRAIN GRATES PER MANUFACTURER'S INSTALLATION MANUAL.

Department of Public Works, Los Angeles County

Checked _____ _____
Design Division Date

NO	BY	DATE	REVISIONS	DATE	APP.

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REGISTERED PROFESSIONAL ENGINEER ★ ANDREW T. KOMOR ★ No. C64928 Exp. 06/30/21 ★ CIVIL ★ STATE OF CALIFORNIA

PREPARED BY
ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. C64928
EXP. 06/30/21

DRAWN KV
DESIGNED ZS
CHECKED AK
SCALE AS SHOWN
DATE JAN. 2020

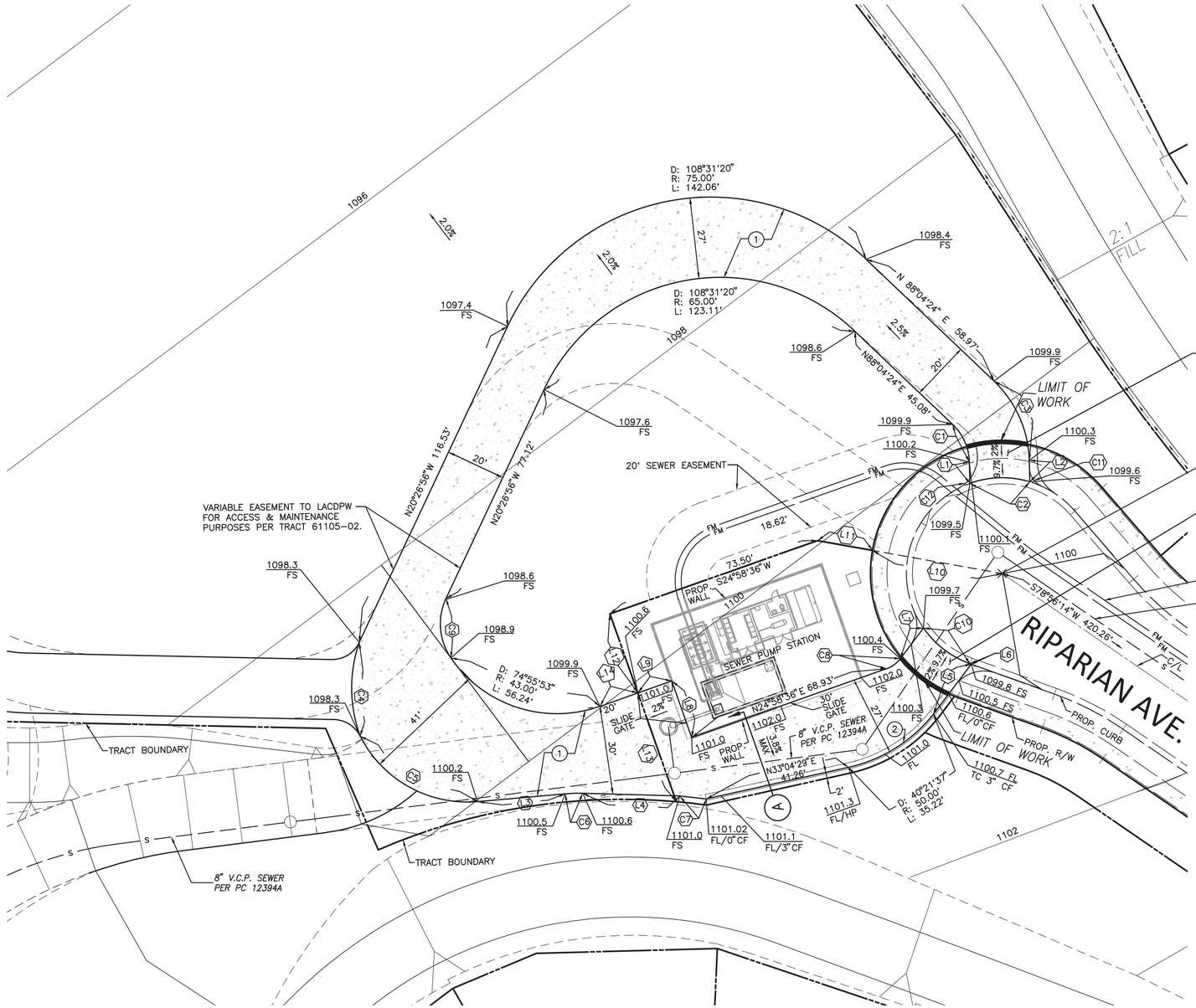
TITLE
SITE GRADING & DRAINAGE PLAN

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SHEET C3.0
5 OF 62 SHEETS
JOB NO. 9862-E

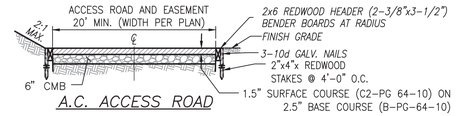
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ACCESS ROAD AND EASEMENT

CONSTRUCTION NOTES:

1. CONSTRUCT ACCESS ROAD PER DETAIL HEREON
2. CONSTRUCT MODIFIED CURB AND GUTTER PER SPPWC 120–2, TYPE A–2. MODIFIED FOR 3" CURB FACE. W=1.5'.



A.C. ACCESS ROAD

N.T.S.

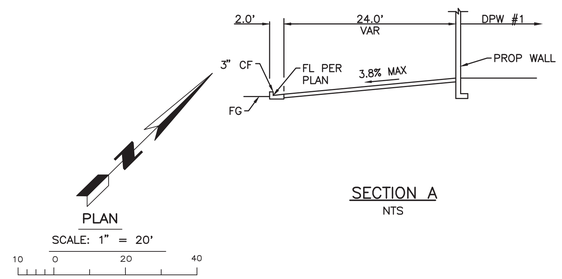
GEOTECHNICAL NOTES:

1. ALL RECOMMENDED MITIGATION MEASURES, PER THE GEOTECHNICAL ENGINEER.

NOTE: PROVIDE REPLACEMENT PLANS TO SMD FOR REVIEW AND APPROVAL AT THE TIME OF THIS TEMPORARY ACCESS ROAD REPLACEMENT

Curve Table			
Curve #	Delta	Radius	Length
C1	44°49'17"	18.00'	14.08'
C2	36°25'12"	32.00'	20.34'
C3	44°49'17"	38.00'	29.73'
C4	38°52'49"	47.00'	31.89'
C5	68°24'03"	40.00'	47.75'
C6	6°40'17"	50.00'	5.82'
C7	2°27'14"	207.12'	8.87'
C8	33°26'13"	10.00'	5.84'
C9	59°39'40"	20.00'	20.83'
C10	35°34'24"	32.00'	19.87'

Line Table		
Line #	Length	Direction
L1	7.15'	S47°06'19"E
L2	7.15'	N47°06'19"W
L3	29.29'	N39°21'13"E
L4	32.41'	N46°01'30"E
L5	19.81'	N08°27'37"W
L6	0.47'	S64°10'35"W
L7	12.76'	S08°27'37"E
L8	20.00'	N64°59'09"W
L9	12.00'	S24°58'36"W
L10	44.00'	S54°33'22"W
L11	18.62'	S54°33'22"W
L12	28.00'	S65°01'24"E
L13	38.50'	S65°01'24"E
L14	13.41'	S24°59'32"W



SECTION A

NTS

PLAN

SCALE: 1" = 20'

10 0 20 40

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER * JASON H. FUKUMITSU * No. 40695 * CIVIL * STATE OF CALIFORNIA

24-2020

PREPARED BY JASON H. FUKUMITSU
PROJECT ENGINEER
R.C.E. NO. 40695
EXP: 1-

DRAWN JG | SCALE | DESIGNED JG | CHECKED JG | DATE SEP. 2019

TITLE: ACCESS ROAD AND EASEMENT

JOB: MISSION VILLAGE CA
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA

HUNSAKER & ASSOCIATES
LOS ANGELES, INC.
PLANNING ▪ ENGINEERING ▪ SURVEYING
26074 Avenue Hall, Ste 22 ▪ Valencia, CA 91355
PH: (661) 294-2211 ▪ FX: (661) 294-9890

DEPARTMENT OF PUBLIC WORKS, LOS ANGELES COUNTY

CHECKED [signature] 2/20/2020
DESIGN DIVISION DATE

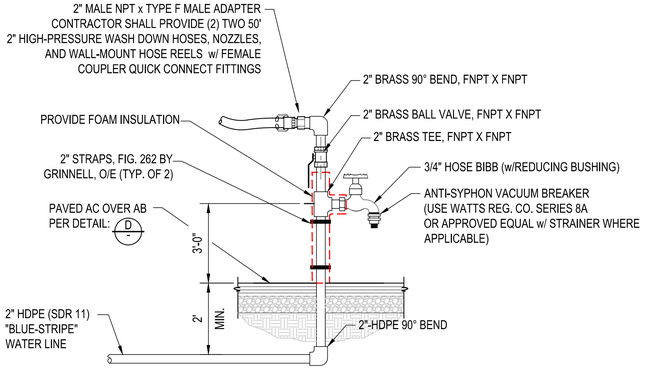
SHEET C3.1

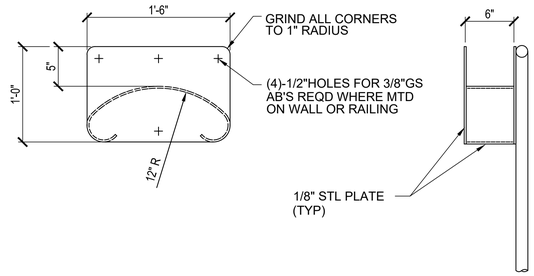
6 OF 62 SHEETS

JOB NO. 9862-E

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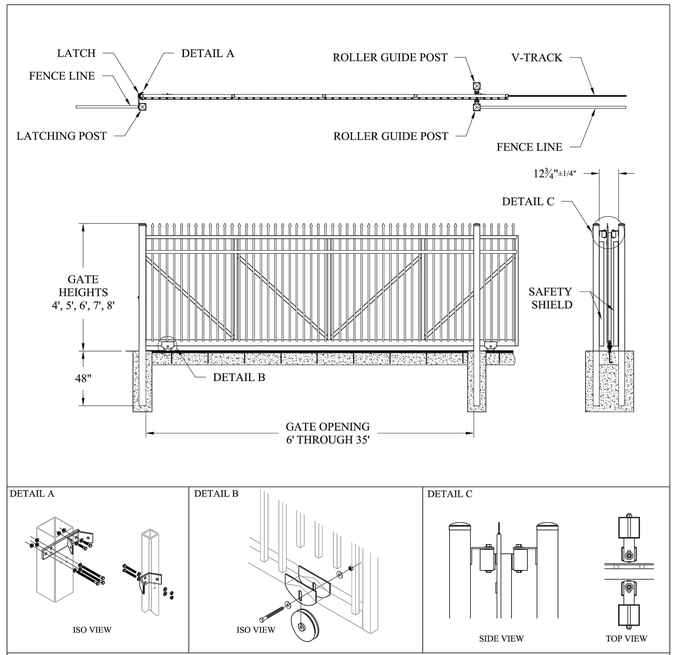


GALVANIZE AFTER FABRICATION

HOSE RACK

HOSE BIB DETAIL

N.T.S. | A



PassPort II® Industrial Ornamental Roll Gate

Ornamental Pickets: 1" Square
Top Rail(s), Uprights and Diagonals Braces: 2"Square x 11Ga.
Bottom Rail: 2" x 4" x 11Ga. (Notched &Plated for V-track Wheels)
Roll Gate Hardware : Kit #PGKOD
Available in Profiles of 2-Rail, 3-Rail & 3-Rail w/Rings

Values shown are nominal and not to be used for installation purposes. See product specification for installation requirements.
2CISORG

TITLE: PASSPORT II CLASSIC INDUSTRIAL ROLL GATE			
DWN: NJB	SH . 1of 1	SCALE: DO NOT SCALE	
ECR: 0412-02 0113-07	Date: 06/17/13	REV: C	

AMERISTAR®
1555 N. Mingo
Tulsa, OK 74116
1-888-333-3422
www.ameristarfence.com

HEIGHT
8'

PICKETED GATE SWING GATE INSTEAD OF SLIDING GATE DUE TO SITE CONSTRAINTS

ROLL GATE DETAIL

B

NOT USED

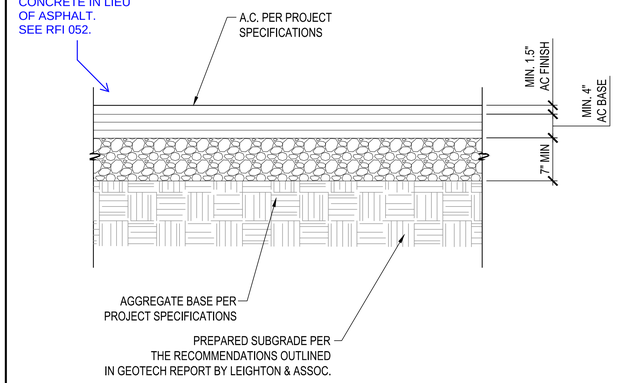
N.T.S. | C



NFPA SIGNAGE - DIESEL FUEL

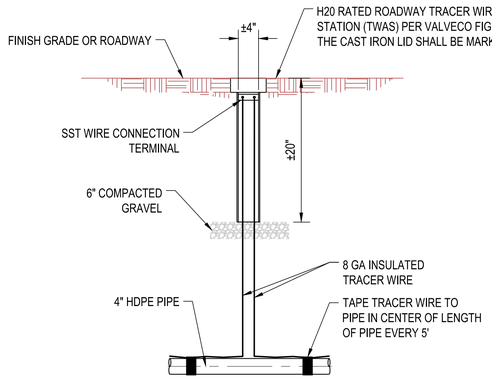
1"=1'-0" | E

PAVED SITE WITH STRUCTURAL CONCRETE IN LIEU OF ASPHALT. SEE RFI 052.



PAVEMENT DESIGN

1"=1'-0" | D



TRACER WIRE ACCESS STATION

N.T.S. | F

Department of Public Works, Los Angeles County

Checked _____ 2/20/2020

Design Division — Date

NO	BY	DATE	REVISIONS	DATE	APP.

PREPARED BY
ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. 64928
EXP. 06/30/21

DRAWN KV | SCALE AS SHOWN
DESIGNED ZS | DATE JAN. 2020
CHECKED AK

TITLE: CIVIL DETAILS

JOB: MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P.: (714) 481-7300 | www.pacewater.com

SHEET
C4.0
7 OF 62 SHEETS

JOB NO. 9862-E

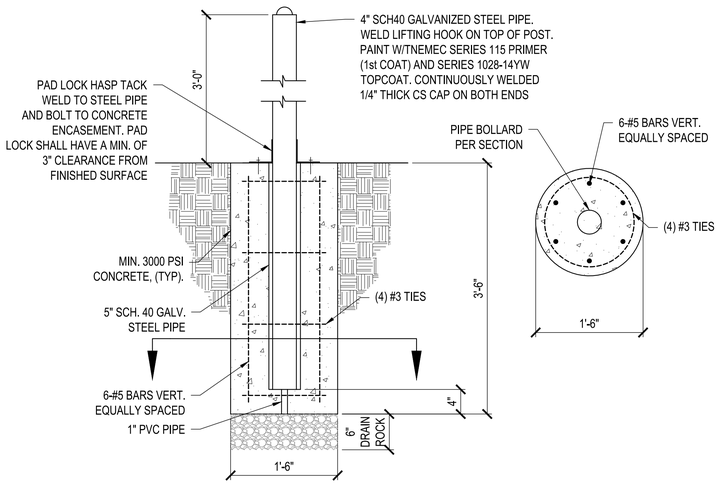
THESE DRAWINGS ARE THE PROPERTY OF P.A.C.E. AND SHALL NOT BE REPRODUCED IN ANY MANNER NOR BE USED FOR CONSTRUCTION UNLESS STAMPED 'ISSUED FOR CONSTRUCTION'.

REGISTERED PROFESSIONAL ENGINEER ANDREW T. KOMOR No. C64928 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

02/04/20 at 10:15:57 AM
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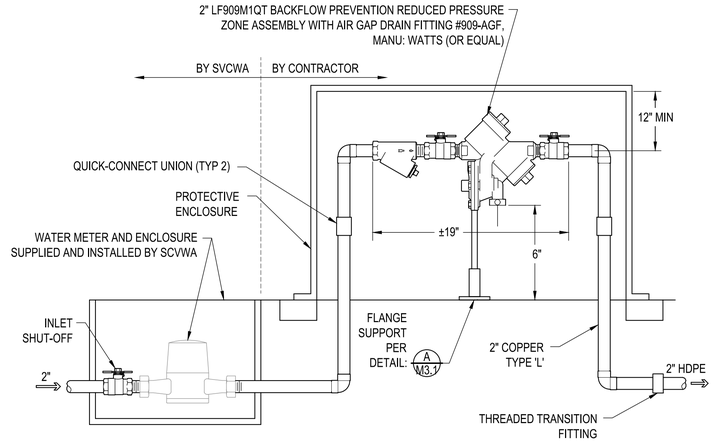
PIPE BOLLARD DETAIL

N.T.S. | A



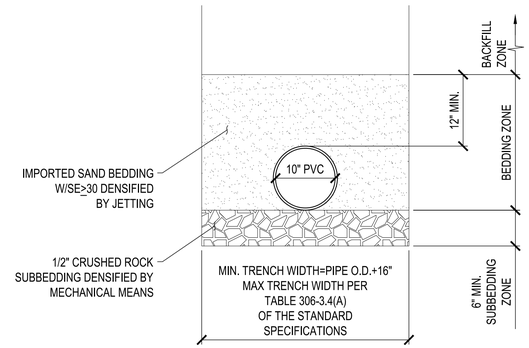
BACKFLOW PREVENTION AT WATER METER

N.T.S. | B



10" PVC TRENCH DETAIL

SCALE: 1"=1'-0" | C

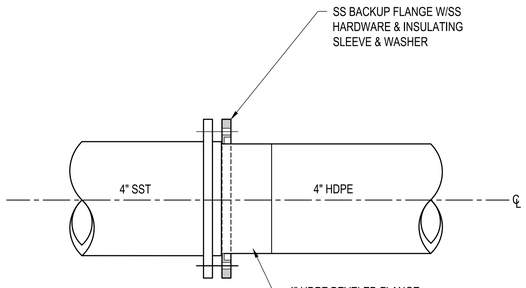


NOTES:

1. BACKFILL SHALL BE IN ACCORDANCE WITH SECTION 306-12 OF THE STANDARD SPECIFICATIONS AND/OR REQUIREMENTS OF LACDPW.
2. TRENCH WALLS MAY BE SLOPED STARTING AT THE TOP OF BEDDING ZONE.
3. PER LACDPW STD PLAN 2022-1.

SST-HDPE CONNECTION

N.T.S. | D

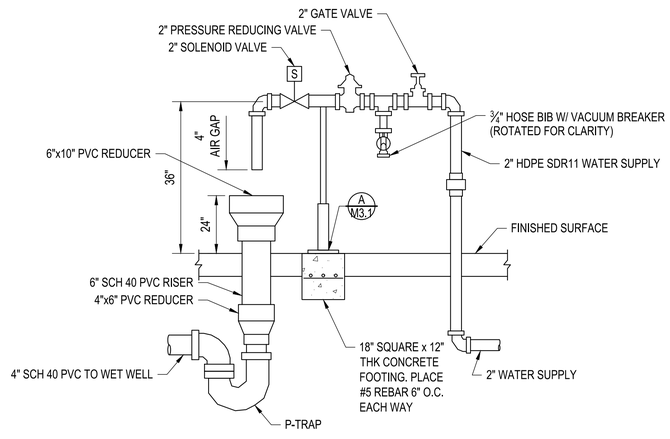


NOTES:

1. STAINLESS STEEL SHALL BE TYPE 316.
2. STAINLESS STEEL BACKUP FLANGE SHALL MATCH DUCTILE IRON PIPE FLANGE IN SIZE, NUMBER OF BOLTS, AND BOLT SIZE.

TANK FLUSHING STANDPIPE DETAIL

N.T.S. | E



NO	BY	DATE	REVISIONS	DATE	APP.

PREPARED BY
ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. —
EXP. 06/30/21

DRAWN KV | SCALE AS SHOWN | DATE JAN. 2020
DESIGNED ZS | CHECKED AK

REGISTERED PROFESSIONAL ENGINEER ANDREW T. KOMOR No. C84928 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

THESE DRAWINGS ARE THE PROPERTY OF P.A.C.E. AND SHALL NOT BE REPRODUCED IN ANY MANNER NOR BE USED FOR CONSTRUCTION UNLESS STAMPED 'ISSUED FOR CONSTRUCTION'.

TITLE
CIVIL DETAILS

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

Department of Public Works, Los Angeles County
Checked Zhanhle
Design Division
2/20/2020
Date

SHEET C4.1
8 OF 62 SHEETS
JOB NO. 9862-E

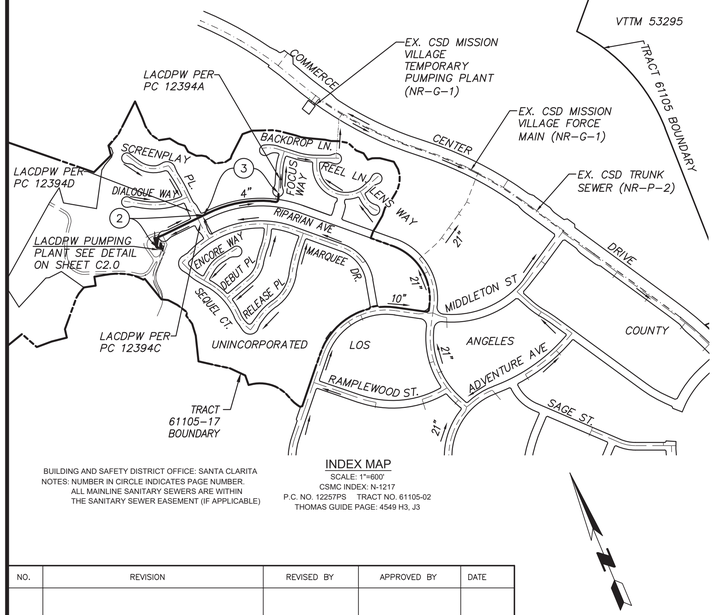
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NEWHALL QUAD (1995) NAVD 88

BENCH MARK: LACDPW L 5402
RND HD SPK IN LOWER CONC HDWL @ N END 24' W/O C/L THE OLD RD (W RDWY) & 0.6MI S/O HENRY MAYO DR @ MI MKR #6.25 NEWHALL QUAD

ELEV. 1031.951 FEET **ADJUSTMENT** 1995

Per Title 20.24.140 of LA County Code, obstructing access to sewer facilities is prohibited. No object difficult to remove shall be located over the sewer easement(s) as to interfere with ready access to sewer facilities.



BUILDING AND SAFETY DISTRICT OFFICE: SANTA CLARITA
NOTES: NUMBER IN CIRCLE INDICATES PAGE NUMBER.
ALL MAINLINE SANITARY SEWERS ARE WITHIN THE SANITARY SEWER EASEMENT (IF APPLICABLE)

INDEX MAP

SCALE: 1"=600'
CSMC INDEX: N-1217
P.C. NO. 12257PS TRACT NO. 61105-02
THOMAS GUIDE PAGE: 4549 H3, J3

NO.	REVISION	REVISED BY	APPROVED BY	DATE

STORMWATER POLLUTION PLAN NOTES

A. NOTES:

1. Every effort should be made to eliminate the discharge of non-stormwater from the project site at all times.
2. Eroded sediments and other pollutants must be retained on-site and may not be transported from the site via sheet flow, swales, area drains, natural drainage courses or wind.
3. Stockpiles of earth and other construction related materials must be protected from being transported from the site by the forces of wind or water.
4. Fuels, oils, solvents, and other toxic materials must be stored in accordance with their listing and are not to contaminate the soil and surface waters. All approved storage containers are to be protected from the weather. Spills must be cleaned up immediately and disposed of in a proper manner. Spills may not be washed into the drainage system.
6. Excess or waste concrete may not be washed into the public way or any other drainage system. Provisions shall be made to retain concrete wastes on-site until they can be disposed of as solid waste.
6. Trash and construction related solid wastes must be deposited into a covered receptacle to prevent contamination of rainwater and dispersal by wind.
7. Sediments and other materials may not be tracked from the site by vehicle traffic. The construction entrance roadways must be stabilized so as to inhibit sediments from being deposited into the public way. Accidental depositions must be swept up immediately and may not be washed down by rain or other means.
8. Any slopes with disturbed soils or denuded of vegetation must be stabilized so as to inhibit erosion by wind and water.
9. The following BMPs as outlined in, but not limited to, the latest edition of the California BMP Handbook (Construction) or Caltrans Stormwater Quality Handbooks (Construction Site BMP Manual), may apply during the construction of this project (additional measures may be required if deemed appropriate by the Project Engineer or the Building Official)

EROSION CONTROL
EC1 SCHEDULING
EC2 PRESERVATION OF EXISTING VEGETATION
EC3 HYDRAULIC MULCH
EC4 HYDROSEEDING
EC5 SOIL BINDERS
EC6 STRAW MULCH
EC7 GEOTEXTILES & MATS
EC8 WOOD MULCHING
EC9 EARTH DIKES AND DRAINAGE SWALES
EC10 VELOCITY DISSIPATION DEVICES
EC11 SLOPE DRAINS
EC12 STREAMBANK STABILIZATION
EC13 RESERVED
EC14 COMPOST BLANKETS
EC15 SOIL PREPARATION/ROUGHENING
EC16 NON-VEGETATED STABILIZATION

WIND EROSION CONTROL
WE1 WIND EROSION CONTROL

EQUIPMENT TRACKING CONTROL
TC1 STABILIZED CONSTRUCTION ENTRANCE EXIT
TC2 STABILIZED CONSTRUCTION ROADWAY
TC3 ENTRANCE/OUTLET TIRE WASH

NON-STORM WATER MANAGEMENT
NS1 WATER CONSERVATION PRACTICES
NS2 DEWATERING OPERATIONS
NS3 PAVING AND GRINDING OPERATIONS
NS4 TEMPORARY STREAM CROSSING
NS5 CLEAR WATER DIVERSION
NS6 ILLICIT CONNECTION/DISCHARGE
NS7 POTABLE WATER/IRRIGATION
NS8 VEHICLE AND EQUIPMENT CLEANING
NS9 VEHICLE AND EQUIPMENT FUELING
NS10 VEHICLE AND EQUIPMENT MAINTENANCE
NS11 PILE DRIVING OPERATIONS
NS12 CONCRETE CURING
NS13 CONCRETE FINISHING
NS14 MATERIAL AND EQUIPMENT USE
NS15 DEMOLITION ADJACENT TO WATER
NS16 TEMPORARY BATCH PLANTS

WASTE MANAGEMENT AND MATERIALS POLLUTION CONTROL
WM1 MATERIAL DELIVERY AND STORAGE
WM2 MATERIAL USE
WM3 STOCKPILE MANAGEMENT
WM4 SPILL PREVENTION AND CONTROL
WM5 SOLID WASTE MANAGEMENT
WM6 HAZARDOUS WASTE MANAGEMENT
WM7 CONTAMINATION SOIL MANAGEMENT
WM8 CONCRETE WASTE MANAGEMENT
WM9 SANITARY/SEPTIC WASTE MANAGEMENT
WM10 LIQUID WASTE MANAGEMENT

TEMPORARY SEDIMENT CONTROL
SE1 SILT FENCE
SE2 SEDIMENT BASIN
SE3 SEDIMENT TRAP
SE4 CHECK DAM
SE5 FIBER ROLLS
SE6 GRAVEL BAG BERM
SE7 STREET SWEEPING AND VACUUMING
SE8 SANDBAG BARRIER
SE9 STRAW BALE BARRIER
SE10 STORM DRAIN INLET PROTECTION
SE11 ACTIVE TREATMENT SYSTEMS
SE12 TEMPORARY SILT DIKE
SE13 COMPOST SOCKS & BERMS
SE14 BIOFILTER BAGS

NOTICE TO CONTRACTOR

1. See Construction note 11 on page 1 regarding compaction. This note applies to all sewer to be located within easements.

B. STANDARD PLANS:

The following latest revised standard plans on file in the office of the following department shall apply in the construction of this project.

LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS

2000-0	Legend for sanitary sewer plans and profiles and district maps.	2021-1	Bedding for sewer pipe.
2002-1	Precast concrete shallow manhole.	2023-2	Cradling and encasement.
2003-2	Reinforced precast concrete manhole.	2024-1	WYE or TEE support.
2004-1	Rectangular shallow manhole.	2026-1	Erosion protection in steep slopes.
2014-1	Rectangular manhole frame and cover.	2027-1	Allowable trench widths.
2015-1	Standard manhole step.	6008-1	Minimum public safety requirements.
		2100-1	Requirement's for sanitary sewers near water mains

STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION (SPPWC)

200-3	precast concrete sewer manhole	221-2	Pipe anchors and backfill stabilizers
207-2	Precast reinforced concrete manhole base	222-2	House connection sewer
208-2	Breaking into existing manholes	223-2	House connection remodeling
210-3	Manhole frame and cover locking type	225-2	Blanket protection for pipes
220-3	Chimneys		

COUNTY SANITATION DISTRICT (CSD) NOTES:

1. No connection for the disposal of industrial wastes shall be made to sewers shown on these drawings until a permit for industrial waste water discharge has been issued by the County Sanitation Districts for said connections.
2. At least three (3) working days prior to breaking into or connecting to County Sanitation Districts' sewer or manhole and prior to final acceptance of the project, a County Sanitation Districts' inspector shall be notified by telephone at (661) 257-4809 so that required inspection can be made.
3. All work involving CSD sewer or manholes shall be in accordance with the latest edition of the Standard Specifications for Public Works Construction, and CSD's latest Amendments to the Standard Specifications for Public Works Construction and Standard Drawings for Construction. A copy of the Amendments and Standard Drawings may be obtained at the Public Counter (Room 110) located at CSD's Joint Administration Office, 1955 Workman Mill Road, Whittier, Ca 90601.
4. The County Sanitation Districts is a public agency comprised of more than 20 separate sanitation districts serving LA County, including the Santa Clarita Valley Sanitation District (SCVSD) and the Newhall Ranch Sanitation District (NRSD). CSD has one staff serving all its sanitation districts with headquarters in Whittier.

BASIS OF BEARING

THE BEARINGS SHOWN HEREON ARE BASED ON THE BEARING S55-59-46W OF THE SOUTHEASTERLY LINE OF PARCEL MAP NO. 24500-01 FILED IN BOOK 293 PAGES 34 THROUGH 67, INCLUSIVE, OF PARCEL MAPS, RECORDS OF LOS ANGELES COUNTY.

DIGALERT
DIAL TOLL FREE
1-800-227-2600
AT LEAST TWO DAYS BEFORE YOU DIG
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

PRIVATE CONTRACT SEWER GENERAL NOTES

1. A force main construction permit shall be obtained and a fee paid for construction inspection and record plans to the County of Los Angeles Department of Public Works at the Permit Counter, 900 South Fremont Avenue, 8th Floor, Alhambra, at least 72 hours prior to starting work under this permit. Copies of all other required permits, such as road excavation, Caltrans, etc., must be filled with the permit application.
2. When work is within a contract city, a force main construction permit shall be obtained and a fee paid for construction inspection and record plans to the City. The contractor must contact the Director of Public Works of that City to determine the location to pay the inspection fees.
3. Prior to issuance of any permit, the contractor shall file a permit for excavations and trenches from the State of California Division of Industrial Safety, and a Certificate or Worker's Compensation Insurance with the Department of Public Works named as the Certificate Holder or both as applicable. The County of Los Angeles Department of Public Works shall be notified 30 days prior to cancellation of the insurance policy.
4. If work is done in a State Highway, a permit must be obtained from the State of California Division of Highways, 120 South Spring Street, Los Angeles, California.
5. The contractor shall contact the district office listed on the "Application for Construction Permit" to arrange for an acceptable construction start date.
6. Approval of this plan by the County of Los Angeles Department of Public Works does not constitute a representation as to accuracy of the location of or the existence or nonexistence of any underground utility pipe or structure within the limits of this project. This note applied to all pages.
7. All work shall be in accordance with the latest approved edition of the "Standard Specification for Public Works Construction" including supplements (if there is any), the latest "Additions and Amendments to the Standard Specifications for Public Works Construction," and the latest "Special Provisions for the Construction for Sanitary Sewer" and shall be prosecuted only in the presence of the County of Los Angeles Department of Public Works.
8. The contractor's attention is direct to Section 7-10.4.1 of the "Standard Specifications for Public Works Construction" in regard to safety orders and shall conform to the "Minimum Public Safety Requirement" as shown on County of Los Angeles Department of Public Works Manual Plan No. 6008-1.
9. Elevations are in feet above U.S.C. and G.S. sea level datum of 1988.
10. No revisions shall be made in these plans without the approval of the County of Los Angeles Department of Public Works.
11. No representative of the County of Los Angeles Department of Public Works will survey or layout any portion of the work.
12. Grades to which this improvement is to be constructed are shown on plans and profiles. Grade point for top of curbs, centerline of streets, or centerline of alleys, is shown by circles on profiles at all points between said designed points. The grade shall be established so as to conform to a straight line drawn between said design points.
13. The private engineer shall furnish the County of Los Angeles Department of Public Work with grade sheets and stationing for all house laterals and "Y" and "T" branches and shall provide stakes for them at their proper locations with stationing plainly marked. All house laterals shall be constructed in a straight alignment at right angles from the main line sewer except as shown on the plans. House laterals from chimneys shall not have an angle of less than 45 degrees with the M.L. sewer. Any change in alignment shall be requested in writing by the private engineer.
14. The private engineer shall furnish the house lateral depth at the property line below the top of curb elevation for each house lateral on the grade sheet.
15. An approved backwater valve is required when the pad is lower in elevation than the top of the next upstream manhole.
16. Contact Environmental Programs Division for an Industrial Waste Discharge Permit at (626) 458-3517.

CONSTRUCTION NOTES

1. Provide survey stakes on the property line or property lines produced at right angles to the sewer line at the centerline of each manhole.
2. Vitrified clay pipe joints shall be type "D" or "G" per "Standard Specifications for Public Works Construction" Section 208-2.
3. If a power pole is within three feet of the sewer, the sewer shall be encased, per LACDPW Standard Plan 2023-2, Case II, two feet on each side from the point of interference.
4. All joints between cast-iron pipe and vitrified clay shall be made with a rubber sleeve joint, type "D" (with bushing if necessary), per "Standard Specifications for Public Works Construction" Section 208-2.
5. House laterals to be constructed with inverts at the property line 6 feet below curb grade except as noted.
6. Wye or tee branches may be used for connections to the mainline sewers except as noted.
7. If during the course of construction it is determined that there is less than four feet of cover over the top of a mainline or house lateral V.C.P. sewer, which is not indicated on the plans, the pipes shall be encased per LACDPW Standard Plan 2023-2, Case II, unless otherwise approved by the County of Los Angeles Department of Public Works .
8. All structures shall be either brick sewer manholes per LACDPW Standard Plan S-3 (SPPWC 203-2), or precast concrete sewer manholes per LACDPW Standard Plan S-36 (SPPWC 200-3), or reinforced precast manhole per LACDPW Standard Plan 2003-2, except as noted.
9. Resurface all trenches within paved areas to meet Department of Public Work or California State Highway requirements in accordance with the permits.
10. Full compliance with Section 306-1.3 of the "Standard Specifications for Public Works Construction" will be required for backfill in street. Certification of backfill, compaction, and sand equivalents by a qualified Civil Engineer shall be provided by the permittee prior to the issuance of a Certificate of Partial Acceptance.
11. All backfill and fills outside of the street right of way shall be compacted to 90 percent of the maximum density as determined by ASTM Soil Compaction Test D 1557-78, Method "D", unless otherwise specified. This shall be certified by a qualified Civil Engineer. This certification shall be submitted to the Land development Division, Permit Section of the County of Los Angeles Department of Public Works prior to the acceptance of the work by the County .
12. Manhole tops in unimproved rights of way to be six inches above finished grade.
13. Sewers to be tested for leakage per Section 306-1.4 of the "Standard Specification for Public Works Construction" and "Special Provisions for the Construction of Sanitary Sewer" if applicable.
14. Manhole tops in improved rights of way to be level with finished grade.
15. All wyes and/or house laterals are to be located at least 5 feet apart, and when possible, not closer than 5 feet to any manhole.
16. All pipe materials shall be vitrified clay pipe or ductile iron pipe or other approved materials by the County of Los Angeles Department of Public Works .
17. Force main pipe shall be HDPE DR 11 minimum for working pressures below 100psi, DIPS sizing, and PE4710 material. Joints to be butt fusion weld.

"CONTRACTOR TO PROTECT AND PRESERVE IN PLACE ALL EXISTING SURVEY MONUMENT. ANY MOUMENTS DISTURBED SHALL BE RESET BY A LICENSED LAND SURVEYOR AND THE APPROPRIATE CORNER RECORD MUST BE FILED WITH THE COUNTY OF LOS ANGELES."

NOTES:
Any damage to the sewer line shall be the responsibility of the contractor/owner. All grading and construction occurring over and the vicinity of the existing sewer shall be performed in the presence of a County inspector. Where applicable, the sewers shall be protected per Std. Plan 2023-2 at all significant crossings.

PRIVATE ENGINEERS NOTICE TO CONTRACTORS:

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THESE PLANS IS REQUIRED BY A SEARCH OF AVAILABLE RECORDS TO THE BEST OF OUR KNOWLEDGE. THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THIS MAP. THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER LINES NOT OF RECORD OR NOT SHOWN ON THIS DRAWING. PRIOR TO EXCAVATION THE CONTRACTOR SHALL CALL TOLL FREE 1-800-422-4133 TO VERIFY THE UNDERGROUND LOCATION OF GAS AND TELEPHONE LINES. THE CONTRACTOR SHALL ALSO CALL MR. RAY CUMMINGS OF GENERAL TELEPHONE COMPANY AT 1-805-948 4871 SO THAT THEY CAN MARK THE LOCATION OF UNDERGROUND TELEPHONE LINES.

JASON H. FUKUMITSU — RCE NO 40695 — 2-4-2020 DATE

NO	BY	DATE	REVISIONS	DATE	APP.

PREPARED BY JASON H. FUKUMITSU
R.C.E. NO. 40695 EXP.
PROJECT ENGINEER
SCALE
DRAWN JC
DESIGNED JG
CHECKED JF
DATE SEP. 2019

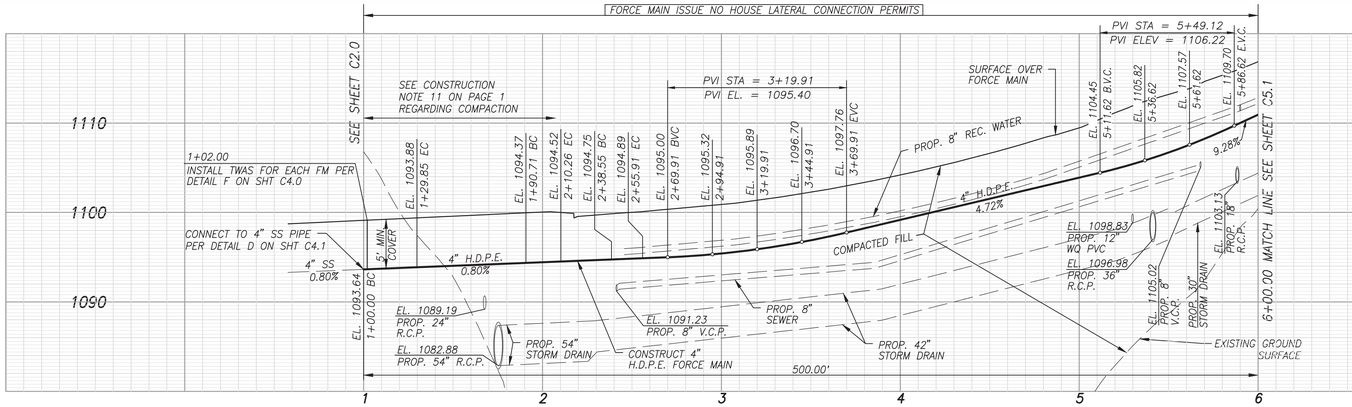
PROFESSIONAL ENGINEER JASON H. FUKUMITSU No. 40695 CIVIL STATE OF CALIFORNIA
2-4-2020

TITLE: 4 INCH FORCE MAIN PIPING PLAN & PROFILE

JOB: MISSION VILLAGE CA
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA

HUNSAKER & ASSOCIATES LOS ANGELES, INC.
PLANNING ▪ ENGINEERING ▪ SURVEYING
26074 Avenue Hall, Ste 22 ▪ Valencia, CA 91355
PH: (661) 294-2211 ▪ FX: (661) 294-9890

FORCE MAIN ISSUE NO HOUSE LATERAL CONNECTION PERMITS

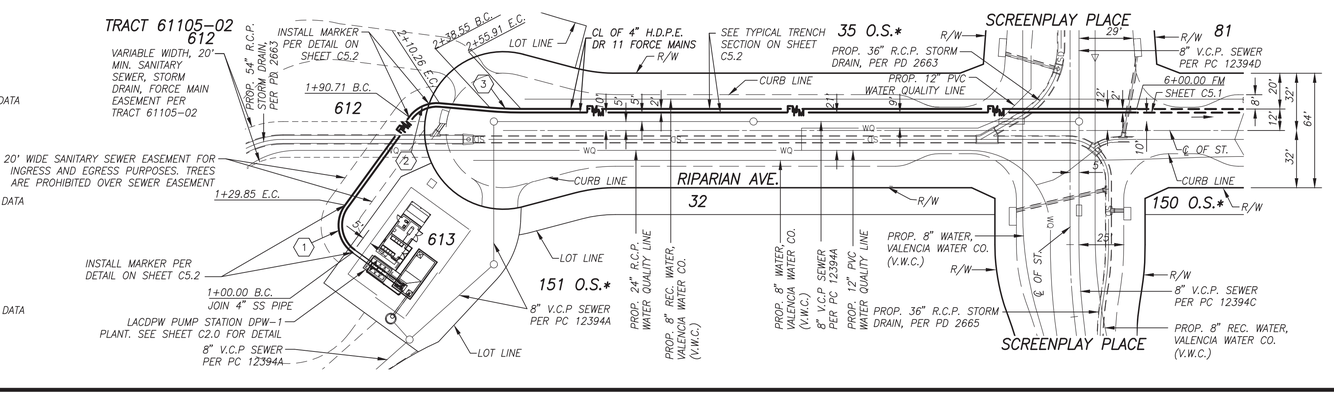


NO LA COUNTY CHARGES FOR CONNECTION

SEE COUNTY SANITATION DISTRICTS FOR SPECIAL CONNECTION CHARGES
TEL. (562) 908-4288 EX. 2727

SCALE: VERT. 1" = 8' HORIZ. 1" = 40'

DOUBLE SCALE



1 CL FORCE MAIN CURVE DATA
Δ=90°00'00"
R=19.00'
L=29.85'
T=19.00'

2 CL FORCE MAIN CURVE DATA
Δ=58°55'59"
R=19.00'
L=19.54'
T=10.74'

3 CL FORCE MAIN CURVE DATA
Δ=04°58'20"
R=200.00'
L=17.36'
T=8.68'

* LOT IS RESTRICTED FROM CONSTRUCTION OF BUILDINGS AND WILL NOT BE SERVED BY THIS SEWER

PLAN
SCALE: 1" = 40'
20 0 20 40 60 80

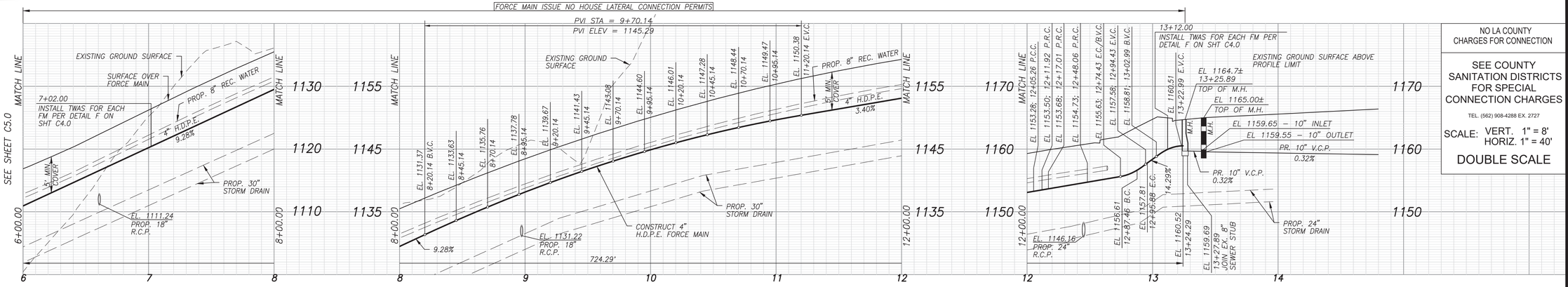
DEPARTMENT OF PUBLIC WORKS, LOS ANGELES COUNTY
CHECKED DESIGN DIVISION 2/20/2020 DATE

SHEET C5.0
9 OF 62 SHEETS
JOB NO. 9862-E

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FORCE MAIN ISSUE NO HOUSE LATERAL CONNECTION PERMITS



*LOT IS RESTRICTED FROM CONSTRUCTION OF BUILDINGS AND WILL NOT BE SERVED BY THIS SEWER

NO LA COUNTY CHARGES FOR CONNECTION

SEE COUNTY SANITATION DISTRICTS FOR SPECIAL CONNECTION CHARGES

TEL. (562) 908-4288 EX. 2727

SCALE: VERT. 1" = 8'
HORIZ. 1" = 40'

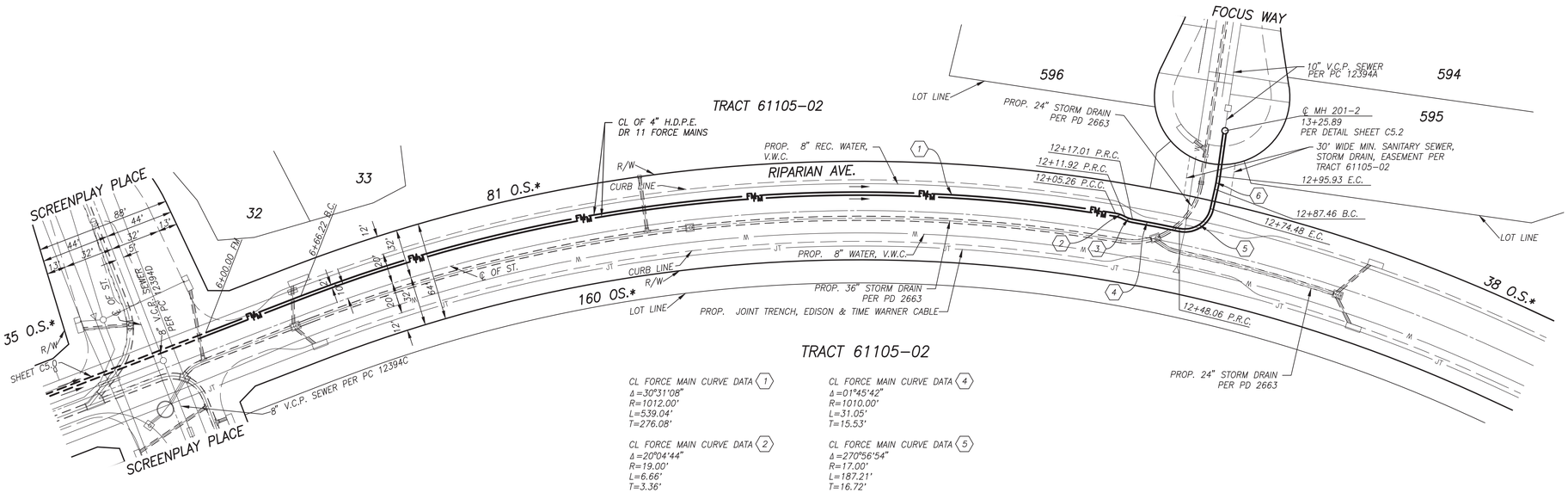
DOUBLE SCALE

NO	BY	DATE	REVISIONS	DATE	APP.

PROFESSIONAL ENGINEER JASON H. FUKUMITSU No. 40695 CIVIL STATE OF CALIFORNIA
24-2020

PREPARED BY JASON H. FUKUMITSU
R.C.E. NO. 40695 PROJECT ENGINEER
EXP.
DRAWN JG
DESIGNED JG
CHECKED JF
SCALE
DATE SEP. 2019

TITLE
4 INCH FORCE MAIN PIPING PLAN & PROFILE



PLAN
SCALE: 1" = 40'
20 0 20 40 60 80

CL FORCE MAIN CURVE DATA 1
Δ=30°31'08"
R=1012.00'
L=539.04'
T=276.08'

CL FORCE MAIN CURVE DATA 2
Δ=20°04'44"
R=19.00'
L=6.66'
T=3.36'

CL FORCE MAIN CURVE DATA 3
Δ=19°25'35"
R=15.00'
L=5.09'
T=2.57'

CL FORCE MAIN CURVE DATA 4
Δ=01°45'42"
R=1010.00'
L=31.05'
T=15.53'

CL FORCE MAIN CURVE DATA 5
Δ=270°56'54"
R=17.00'
L=187.21'
T=16.72'

CL FORCE MAIN CURVE DATA 6
Δ=04°51'10"
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L=8.47'
T=4.24'

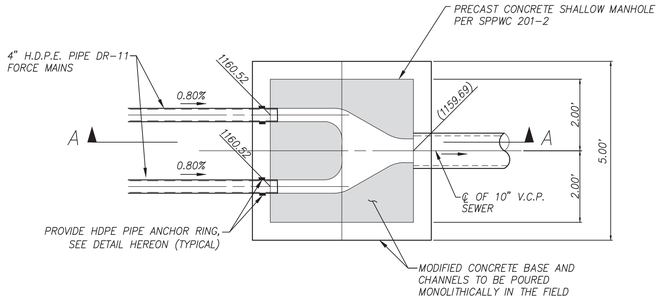
JOB
MISSION VILLAGE
DPW-1 SEWER PUMP STATION PC 12257PS
VALENCIA CA

HUNSAKER & ASSOCIATES LOS ANGELES, INC.
PLANNING ▪ ENGINEERING ▪ SURVEYING
26074 Avenue Hall, Ste 22 ▪ Valencia, CA 91355
PH: (661) 294-2271 ▪ FX: (661) 294-9890

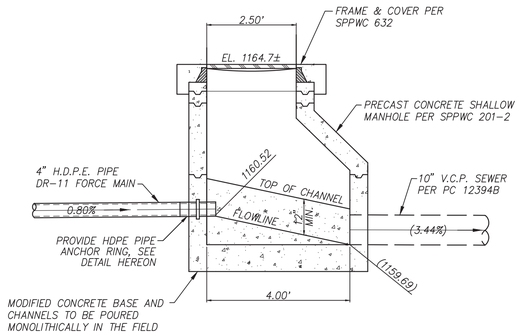
DEPARTMENT OF PUBLIC WORKS, LOS ANGELES COUNTY
CHECKED DESIGN DIVISION 2/20/2020 DATE

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10 OF 62 SHEETS
JOB NO. 9862–E

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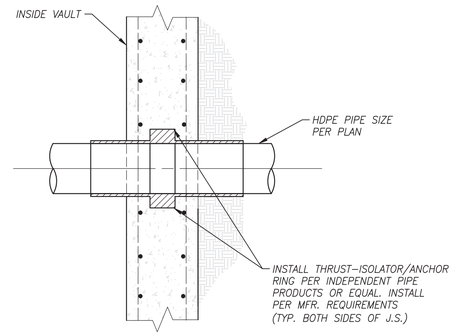


PLAN

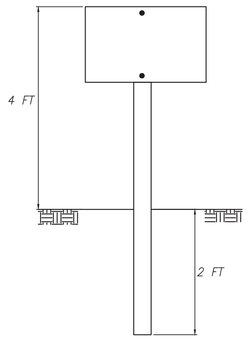


SECTION A-A

FM DISCHARGE M.H. DETAIL
SCALE: 1/2" = 1'-0"

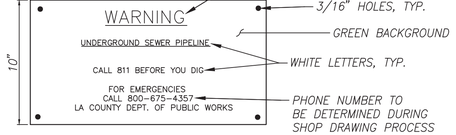


HDPE PIPE ANCHOR RING DETAIL
NO SCALE



TYPE 1 MARKER NOTES

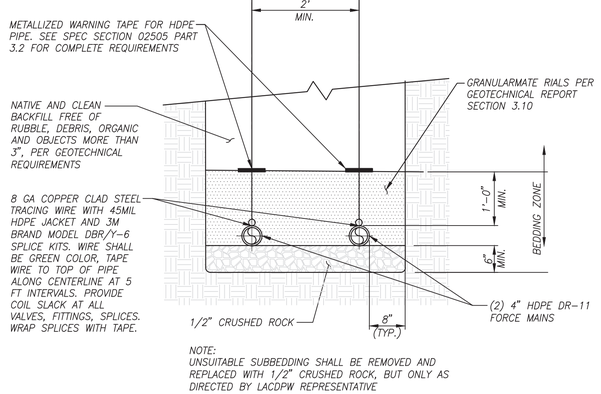
1) REFERENCE TYPE 2 MARKER DETAIL FOR SIGN REQUIREMENTS. ATTACHMENT HOLES WILL DIFFER.
2) POST SHALL BE DRIVE-IN TYPE GALVANIZED U-CHANNEL (MCMASTER-CARR 5735T61 OR EQUAL).
3) USE 1/4" DIAMETER STAINLESS STEEL BOLTS, FLAT WASHERS, AND LOCK NUTS TO ATTACH SIGN TO POST. INSTALL FLAT WASHERS ON BOLT AND NUTS. DO NOT OBSTRUCT LETTERING.
4) TYPE 1 MARKERS ARE REQUIRED IN UNPAVED AREAS AT ALL MANHOLES, MAIN LINE BENDS, VALVES, AIR RELEASE VALVES, TEST STATIONS, BLOW-OFF/DRAIN VALVES, HYDRANTS, LINE PLUGS OR CAPS, AND AT ANY OTHER LOCATIONS INDICATED ON THE DRAWINGS, OR AS DIRECTED BY LADPW.



TYPE 2 MARKER NOTES

1) MARKERS SHALL BE 0.080" THICK ALUMINUM WITH PAINTED BACKGROUND AND PAINTED LETTERING.
2) INSTALL TYPE 2 MARKERS ON PIPE CENTERLINE AT ALL GATE AND FENCE CROSSINGS AND AT ANY OTHER LOCATIONS INDICATED ON THE DRAWINGS, OR AS DIRECTED BY LADPW.
3) ATTACH TO GATES AND FENCES WITH 14 GAUGE STAINLESS STEEL WIRE.

PIPELINE MARKERS
NO SCALE



NOTE:
UNSUITABLE SUBBEDDING SHALL BE REMOVED AND REPLACED WITH 1/2" CRUSHED ROCK, BUT ONLY AS DIRECTED BY LACDPW REPRESENTATIVE

FM TRENCH DETAIL
NO SCALE

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER * JASON H. FUKUMITSU * No. 40695 * CIVIL * STATE OF CALIFORNIA
2-4-2020

PREPARED BY JASON H. FUKUMITSU
R.C.E. NO. PROJECT ENGINEER 40695
EXP.
SCALE
DRAWN JG
DESIGNED JG
CHECKED JF
DATE SEP. 2019

TITLE **FORCE MAIN DETAILS**

JOB **MISSION VILLAGE**
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

HUNSAKER & ASSOCIATES
LOS ANGELES, INC.
PLANNING ▪ ENGINEERING ▪ SURVEYING
26074 Avenue Hall, Ste 22 ▪ Valencia, CA 91355
PH: (661) 294-2271 FX: (661) 294-9890

DEPARTMENT OF PUBLIC WORKS, LOS ANGELES COUNTY
CHECKED DESIGN DIVISION 2/20/2020 DATE

SHEET C5.2
11 OF 62 SHEETS
JOB NO. 9862-E

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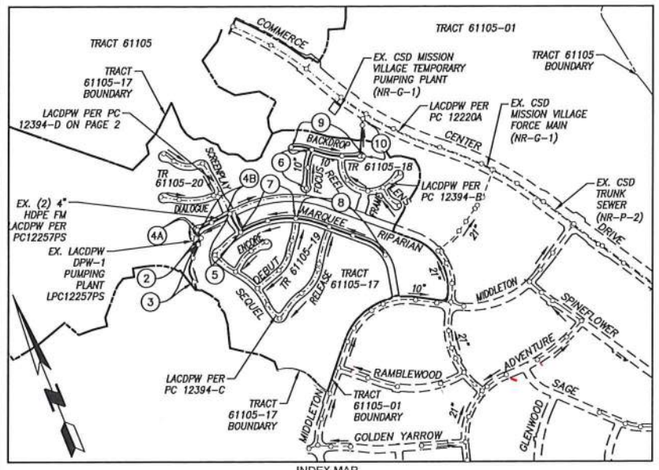
NEWHALL QUAD (2009) NAVD 88

BENCH MARK: LACDPW L 5402
RND HD SPK IN LOWER OF TWO CONC HDWLS ● N END 24' W/O C/L THE OLD RD (W RDWY) & 0.6MI S/O HENRY MAYO DR ● MI MKR #6.25

ELEV. 1031.831 FEET **ADJUSTMENT** 2009

SURVEYOR'S NOTE: TOPO & DESIGN ELEV ARE BASED ON 1995 ADJUSTMENT. TO ACQUIRE 2009 ADJUSTMENT ELEV, SUBTRACT 0.120 FT FROM ALL ELEVATIONS DEPICTED ON THESE PLANS.

Per Title 20.24.140 of LA County Code, obstructing access to sewer facilities is prohibited. No object difficult to remove shall be located over the sewer easement(s) as to interfere with ready access to sewer facilities.



BUILDING AND SAFETY DISTRICT OFFICE: SANTA CLARITA
NOTES: NUMBER IN CIRCLE INDICATES PAGE NUMBER.
ALL MANHOLE SANITARY SEWERS ARE WITHIN THE SANITARY SEWER EASEMENT

INDEX MAP

SCALE: 1"=600'
CSMD INDEX N-1217
P.C. NO. 12394-A TRACT NO. 61105-17
THOMAS GUIDE PAGE: 4549, H3, J3

NO.	REVISION	REVISED BY	APPROVED BY	DATE
1	REVISED STORM DRAIN CROSSINGS AND ADDED AN ENCASEMENT	JP Jonathan W. Potts	P. Romano	10/20/20
2	ADDED CHIMNEY AND CLEANOUT DETAIL AND REMOVED LATERAL TO A4	JP Jonathan W. Potts	P. Romano	12/10/20

STORMWATER POLLUTION PLAN NOTES

A. NOTES:
1. Every effort should be made to eliminate the discharge of non-stormwater from the project site at all times.
2. Eroded sediments and other pollutants must be retained on-site and may not be transported from the site via sheet flow, swales, area drains, natural drainage courses or wind.
3. Stockpiles of earth and other construction related materials must be protected from being transported from the site by the forces of wind or water.
4. Fuels, oils, solvents, and other toxic materials must be stored in accordance with their listing and are not to contaminate the soil and surface waters. All approved storage containers are to be protected from the weather. Spills must be cleaned up immediately and disposed of in a proper manner. Spills may not be washed into the drainage system.
5. Excess or waste concrete may not be washed into the public way or any other drainage system. Provisions shall be made to retain concrete wastes on-site until they can be disposed of as solid waste.
6. Trash and construction related solid wastes must be deposited into a covered receptacle to prevent contamination of rainwater and dispersal by wind.
7. Sediments and other materials may not be tracked from the site by vehicle traffic. The construction entrance roadways must be stabilized so as to inhibit sediments from being deposited into the public way. Accidental depositions must be swept up immediately and may not be washed down by rain or other means.
8. Any slopes with disturbed soils or denuded of vegetation must be stabilized so as to inhibit erosion by wind and water.
9. The following BMPs as outlined in, but not limited to, the latest edition of the California BMP Handbook (Construction) or Caltrans Stormwater Quality Handbooks (Construction Site BMP Manual), may apply during the construction of this project (additional measures may be required if deemed appropriate by the Project Engineer or the Building Official)

EROSION CONTROL	NON-STORM WATER MANAGEMENT	WASTE MANAGEMENT AND MATERIALS POLLUTION CONTROL
EC1 SCHEDULING	NS1 WATER CONSERVATION PRACTICES	WM1 MATERIAL DELIVERY AND STORAGE
EC2 PRESERVATION OF EXISTING VEGETATION	NS2 DEWATERING OPERATIONS	WM2 MATERIAL USE
EC3 HYDRAULIC MULCH	NS3 PAVING AND GRINDING OPERATIONS	WM3 STOCKPILE MANAGEMENT
EC4 HYDROSEEDING	NS4 TEMPORARY STREAM CROSSING	WM4 SPILL PREVENTION AND CONTROL
EC5 SOIL BINDERS	NS5 CLEAR WATER DIVERSION	WM5 SOLID WASTE MANAGEMENT
EC6 STRAW MULCH	NS6 ILLICIT CONNECTION/DISCHARGE	WM6 HAZARDOUS WASTE MANAGEMENT
EC7 GEOTEXTILES & MATS	NS7 POTABLE WATER/IRRIGATION	WM7 CONTAMINATION SOIL MANAGEMENT
EC8 WOOD MULCHING	NS8 VEHICLE AND EQUIPMENT CLEANING	WM8 CONCRETE WASTE MANAGEMENT
EC9 EARTH DIKES AND DRAINAGE SWALES	NS9 VEHICLE AND EQUIPMENT FUELING	WM9 SANITARY/SEPTIC WASTE MANAGEMENT
EC10 VELOCITY DISSIPATION DEVICES	NS10 VEHICLE AND EQUIPMENT MAINTENANCE	WM10 LIQUID WASTE MANAGEMENT
EC11 SLOPE DRAINS	NS11 PILE DRIVING OPERATIONS	TEMPORARY SEDIMENT CONTROL
EC12 STREAMBANK STABILIZATION	NS12 CONCRETE CURING	SE1 SILT FENCE
EC13 RESERVED	NS13 CONCRETE FINISHING	SE2 SEDIMENT BASIN
EC14 COMPOST BLANKETS	NS14 MATERIAL AND EQUIPMENT USE	SE3 SEDIMENT TRAP
EC15 SOIL PREPARATION/ROUGHENING	NS15 DEMOLITION ADJACENT TO WATER	SE4 CHECK DAM
EC16 NON-VEGETATED STABILIZATION	NS16 TEMPORARY BATCH PLANTS	SE5 FIBER ROLLS
		SE6 GRAVEL BAG BERM
WIND EROSION CONTROL		SE7 STREET SWEEPING AND VACUUMING
WE1 WIND EROSION CONTROL		SE8 SANDBAG BARRIER
		SE9 STRAW BALE BARRIER
EQUIPMENT TRACKING CONTROL		SE10 STORM DRAIN INLET PROTECTION
TC1 STABILIZED CONSTRUCTION ENTRANCE EXIT		SE11 ACTIVE TREATMENT SYSTEMS
TC2 STABILIZED CONSTRUCTION ROADWAY		SE12 TEMPORARY SILT DIKE
TC3 ENTRANCE/OUTLET TIRE WASH		SE13 COMPOST SOCKS & BERMS
		SE14 BIOFILTER BAGS

B. STANDARD PLANS:

The following latest revised standard plans on file in the office of the following department shall apply in the construction of this project.

LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS

2003-0	Legend for sanitary sewer plans and profiles and district maps.	2021-1	Bedding for sewer pipe.
2003-1	Precast concrete shallow manhole.	2023-2	Cradling and encasement.
2003-2	Reinforced precast concrete manhole.	2024-1	WYE or TEE support.
2003-4	Rectangular shallow manhole.	2026-1	Erosion protection in steep slopes.
2014-1	Rectangular manhole frame and cover.	2027-1	Allowable trench widths.
2015-1	Standard manhole step.	6008-1	Minimum public safety requirements.
STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION (SPPWC)		2100-1	Requirements for sanitary sewers near water mains
203-3	precast concrete sewer manhole	221-2	Pipe anchors and backfill stabilizers
207-2	Precast reinforced concrete manhole base	222-2	House connection sewer
208-2	Breaking into existing manholes	223-2	House connection remodeling
210-3	Manhole frame and cover locking type	225-2	Blanket protection for pipes
220-3	Chimneys		

COUNTY SANITATION DISTRICTS (CSD) NOTES:
1. No connection for the disposal of industrial wastes shall be made to sewers shown on these plans until a permit for industrial wastewater discharge has been issued by CSD for said connection.
2. Prior to final acceptance of the project, notify the CSD Superintendent of maintenance at (661) 257-4609 to report completion of this local sewer that indirectly discharges into the CSD sewer system.

BASIS OF BEARING

THE BEARINGS SHOWN HEREON ARE BASED ON THE BEARING S55-59-46W OF THE SOUTHEASTERLY LINE OF PARCEL MAP NO. 24500-01 FILED IN BOOK 293 PAGES 34 THROUGH 67, INCLUSIVE, OF PARCEL MAPS, RECORDS OF LOS ANGELES COUNTY.

NOTICE TO CONTRACTOR

Issue no house lateral connection permits until outlet sewer PC12257PS.DPW-1 Lift Station and PC12220A are accepted for public use by the County of Los Angeles Department of Public Works.

The developer shall be responsible for the continued maintenance of PC 12394-A sanitary sewer until the County formally accepts it for maintenance, all mainline, manholes and laterals shall be protected from damage and infiltration.

Sewer video of all segments shall be submitted prior to partial field acceptance (95%) and completed field acceptance (98%). Final map and as built sewer plans shall not have an approval prior to partial field acceptance.

All sanitary sewer manhole shafts and frames shall be watertight with Butyl Rubber Mastic joint sealing compound or approved equal by LA County Public Works.

All proposed utilities shown on this plan, except for sanitary sewer, are to be constructed per separate plan and permit.

Lot nos. 7, 8, 14, 20, 21 are restricted from construction of buildings and will not be served by this sewer.

BWV BACKWATER VALVES SHALL BE NECESSARY FOR LOTS 1-3, 5-7, 9-16 & 18-21

NOTES:
Any damage to the sewer line shall be the responsibility of the contractor/owner. All grading and construction occurring over and the vicinity of the existing sewer shall be performed in the presence of a County inspector. Where applicable, the sewers shall be protected per Std. Plan 2023-2 at all significant crossings.

811 Know what's below. Call 811 before you dig.

PRIVATE CONTRACT SEWER GENERAL NOTES

1. A sewer construction permit shall be obtained and a fee paid for construction inspection and record plans to the County of Los Angeles Department of Public Works at the Permit Counter, 900 South Fremont Avenue, 6th Floor, Alhambra, at least 72 hours prior to starting work under this permit. Copies of all other required permits, such as road excavation, Caltrans, etc., must be filed with the permit application.
2. When work is within a contract city, a sewer construction permit shall be obtained and a fee paid for construction inspection and record plans to the City. The contractor must contact the Director of Public Works of that City to determine the location to pay the inspection fees.
3. Prior to issuance of any permit, the contractor shall file a permit for excavations and trenches from the State of California Division of Industrial Safety, and a Certificate or Worker's Compensation Insurance with the Department of Public Works named as the Certificate Holder or both as applicable. The County of Los Angeles Department of Public Works shall be notified 30 days prior to cancellation of the insurance policy.
4. If work is done in a State Highway, a permit must be obtained from the State of California Division of Highways, 120 South Spring Street, Los Angeles, California.
5. The contractor shall contact the district office listed on the "Application for Construction Permit" to arrange for an acceptable construction start date.
6. Approval of this plan by the County of Los Angeles Department of Public Works does not constitute a representation as to accuracy of the location of or the existence or nonexistence of any underground utility pipe or structure within the limits of this project. This note applied to all pages.
7. All work shall be in accordance with the latest approved edition of the "Standard Specification for Public Works Construction" including supplements (if there is any), the latest "Additions and Amendments to the Standard Specifications for Public Works Construction," and the latest "Special Provisions for the Construction for Bamboy Sewer" and shall be prosecuted only in the presence of the County of Los Angeles Department of Public Works.
8. The contractor's attention is direct to Section 7-10.4.2 of the "Standard Specifications for Public Works Construction" in regard to safety orders and shall conform to the "Minimum Public Safety Requirement" as shown on County of Los Angeles Department of Public Works Standard Plan No. 6008-1.
9. Elevations are in feet above U.S.C. and G.S. sea level datum of 1988.
10. No revisions shall be made in these plans without the approval of the County of Los Angeles Department of Public Works.
11. No representative of the County of Los Angeles Department of Public Works will survey or layout any portion of the work.
12. Grades to which this improvement is to be constructed are shown on plans and profiles. Grade point for top of curbs, centerline of streets, or centerline of alleys, is shown by circles on profiles at all points between said designed points. The grade shall be established so as to conform to a straight line drawn between said design points.
13. The private engineer shall furnish the County of Los Angeles Department of Public Work with grade sheets and stationing for all house laterals and "Y" and "T" branches and shall provide stakes for them at their proper locations with stationing plainly marked. All house laterals shall be constructed in a straight alignment at right angles from the main line sewer except as shown on the plans. House laterals from chimneys shall not have an angle of less than 45 degrees with the M.L. sewer. Any change in alignment shall be requested in writing by the private engineer.
14. The private engineer shall furnish the house lateral depth at the property line below the top of curb elevation for each house lateral on the grade sheet.
15. An approved backwater valve is required when the pad is lower in elevation than the top of the next upstream manhole.
16. Contact Environmental Programs Division for an Industrial Waste Discharge Permit at (626) 458-3517.
17. When work is encroaching into Flood Control District easement and/or crossing its facilities, a Flood Control permit shall be obtained from the Los Angeles County Flood Control District at https://epicla.lacounty.gov at least 4 weeks prior to your desired start-up date. If you need additional information, you may contact Land Development Division - Permits Section Public Counter at 626-458-4921.

CONSTRUCTION NOTES

1. Provide survey stakes on the property line or property lines produced at right angles to the sewer line at the centerline of each manhole.
2. Vitrified clay pipe joints shall be type "D" or "G" per "Standard Specifications for Public Works Construction" Section 208-2.
3. If a power pole is within three feet of the sewer, the sewer shall be encased, per LACDPW Standard Plan 2023-2, Case II, two feet on each side from the point of interference.
4. All joints between cast-iron pipe and vitrified clay shall be made with a rubber sleeve joint, type "D" (with bushing if necessary), per "Standard Specifications for Public Works Construction" Section 208-2.
5. House laterals to be constructed with 4-inch at the property line 6 feet below curb grade except as noted.
6. Wye or tee branches may be used for connections to the mainline sewers except as noted.
7. If during the course of construction it is determined that there is less than four feet of cover over the top of a mainline or house lateral V.C.P. sewer, which is not indicated on the plans, the pipes shall be encased per LACDPW Standard Plan 2023-2, Case II, unless otherwise approved by the County of Los Angeles Department of Public Works.
8. All structures shall be either brick sewer manholes per LACDPW Standard Plan S-3 (SPPWC 203-2), or precast concrete sewer manholes per LACDPW Standard Plan S-36 (SPPWC 200-3), or reinforced precast manhole per LACDPW Standard Plan 2003-2, except as noted.
9. Resurface all trenches within paved areas to meet Department of Public Work or California State Highway requirements in accordance with the permits.
10. Full compliance with Section 306-1.3 of the "Standard Specifications for Public Works Construction" will be required for backfill in street. Certification of backfill, compaction, and sand equivalents by a qualified Civil Engineer shall be provided by the permittee prior to the issuance of a Certificate of Partial Acceptance.
11. All backfill and fills outside of the street right of way shall be compacted to 90 percent of the maximum density as determined by ASTM Soil Compaction Test D 1557-78, Method "D", unless otherwise specified. This shall be certified by a qualified Civil Engineer. This certification shall be submitted to the Land development Division, Permit Section of the County of Los Angeles Department of Public Works prior to the acceptance of the work by the County.
12. Manhole tops in unimproved rights of way to be six inches above finished grade.
13. Sewers to be tested for leakage per Section 306-1.4 of the "Standard Specification for Public Works Construction" and "Special Provisions for the Construction of Sanitary Sewer" if applicable.
14. Manhole tops in improved rights of way to be level with finished grade.
15. All wyes and/or house laterals are to be located at least 5 feet apart, and when possible, not closer than 5 feet to any manhole.
16. All pipe materials shall be vitrified clay pipe or ductile iron pipe or other approved materials by the County of Los Angeles Department of Public Works.
17. All Ductile iron pipes shall be lined with Protecto 401 Ceramic Epoxy lining.
18. Cured in place pipe liner shall be used for all extra vitrified clay pipe if lining is required.
19. All Chimneys shall have terminal cleanout structure per SPPWC std. plan 204-2 with traffic rated frame and cover.

PROFILE, ALIGNMENT, AND GRADE OF PAGE 1

SANITARY SEWERS

TO BE CONSTRUCTED IN

TRACT NO. 61105-17 & 18 PC NO. 12394-A

5 SHEETS: 10 PAGES

COUNTY OF LOS ANGELES CALIFORNIA
EIMP2017000593
CSMD INDEX: N-1217

MARK PESTRELLA LA COUNTY DIRECTOR OF PUBLIC WORKS
APPROVED BY LAND DEVELOPMENT DIVISION
BY _____ ASSISTANT DIVISION ENGINEER DATE 5/7/2020
SUBMITTED
BY Felipe D. Palomo 05-06-20
FINAL MAPS, SEWER AND LANDSCAPING SUBDIVISION PLAN CHECKING SECTION DATE

NEWHALL RANCH SANITATION DISTRICT
OF LOS ANGELES COUNTY, CALIFORNIA
ROBERT C. FERRANTE - CHIEF ENGINEER and GENERAL MANAGER
APPROVED BY Anthony Howard DATE: 5/13/2020 | 7:30:14 AM
OFFICE ENGINEER

PRIVATE ENGINEERS NOTICE TO CONTRACTORS:

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THESE PLANS IS REQUIRED BY A SEARCH OF AVAILABLE RECORDS TO THE BEST OF OUR KNOWLEDGE. THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THIS MAP. THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER LINES NOT OF RECORD OR NOT SHOWN ON THIS DRAWING. PRIOR TO EXCAVATION THE CONTRACTOR SHALL CALL TOLL FREE 1-800-422-4133 TO VERIFY THE UNDERGROUND LOCATION OF GAS AND TELEPHONE LINES. THE CONTRACTOR SHALL ALSO CALL MR. RAY CUMMINGS OF GENERAL TELEPHONE COMPANY AT 1-805-948 4871 SO THAT THEY CAN MARK THE LOCATION OF UNDERGROUND TELEPHONE LINES.)

PROJECT ENGINEER 5/5/2020 RCE NO DATE

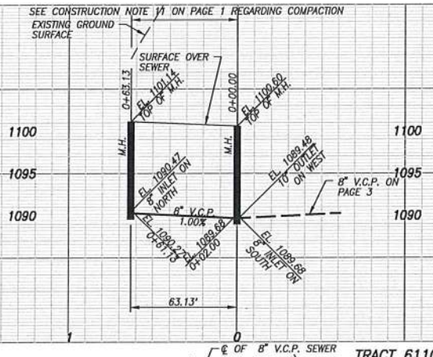
Engineer's/Surveyor's Statement Regarding the Presence of Monuments within project limits.

I hereby attest that I have located and referenced on these plans the monuments existing prior to construction to ensure perpetuation of their location in accordance with section 8771 of the business and professions code. I further attest that I have performed a record search and field inspection to identify existing monuments, shall set sufficient controlling, witness, and permanent monuments, and shall file required survey or record of survey of the references with the County surveyor. *

Engineer/Surveyor Seal and Signature 5/5/2020 DATE

*NO EXISTING MONUMENTS OF RECORD IN THE PROJECT AREA OF THESE PLAN AT THE TIME OF SIGNATURE

EIMP2017000593 P.C.12394APAGE 2

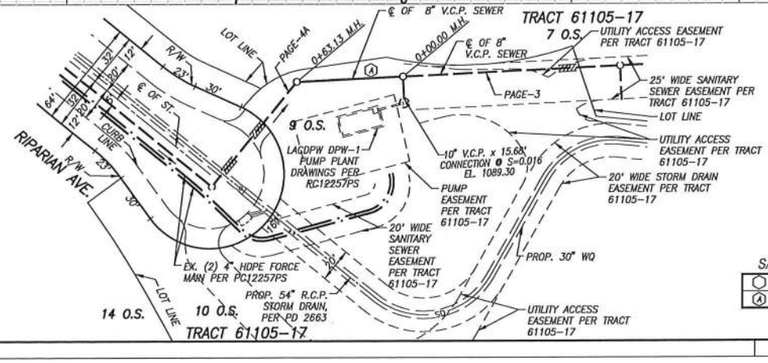


NO LA COUNTY CHARGES FOR CONNECTION

SEE COUNTY SANITATION DISTRICTS FOR SPECIAL CONNECTION CHARGES TEL. (562) 908-4288 EX. 2727

SCALE: VERT. 1" = 8' HORIZ. 1" = 40'

DOUBLE SCALE



PLAN
SCALE: 1" = 40'
25 0 50 100

SANITARY SEWER DATA TABLE

	BEARING/DELTA	LENGTH
⬡		
Ⓐ	N 37°12'02" E	63.13'

SANITARY SEWER PLANS IN
TRACT NO. 61105-17 & 18 PC NO. 12394-A

REVIEWED BY LAND DEVELOPMENT DIVISION
BY Patricia Romano 05/06/2020
FINAL MAPS, SEWER AND LANDSCAPING SUBDIVISION PLAN CHECKING SECTION DATE

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

REGISTERED PROFESSIONAL ENGINEER JASON H. FUKUMITSU No. 40695 CIVIL STATE OF CALIFORNIA
PROJECT ENGINEER DATE

HUNSAKER & ASSOCIATES
LOS ANGELES, INC.
PLANNING ▪ ENGINEERING ▪ SURVEYING
26074 Avenue Hall, Suite #23 • Valencia, CA 91355 • PH: (661) 294-2211 • FX: (661) 294-9890

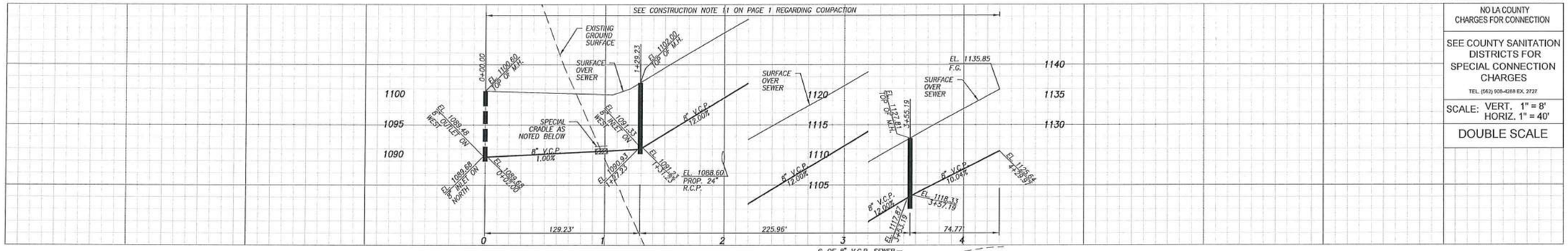
DWG

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© August 26, 2016 ON TRACT

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NO LA COUNTY CHARGES FOR CONNECTION

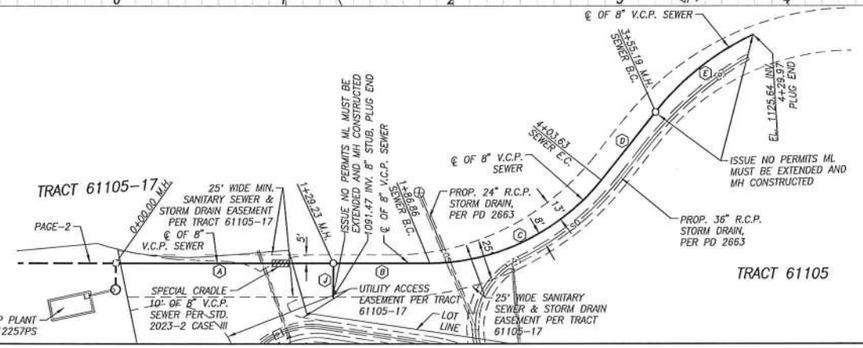
SEE COUNTY SANITATION DISTRICTS FOR SPECIAL CONNECTION CHARGES
TEL. (562) 908-4288 EX. 2727

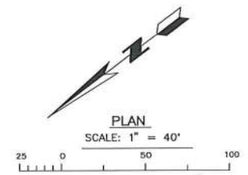
SCALE: VERT. 1" = 8'
HORIZ. 1" = 40'

DOUBLE SCALE

SANITARY SEWER DATA TABLE

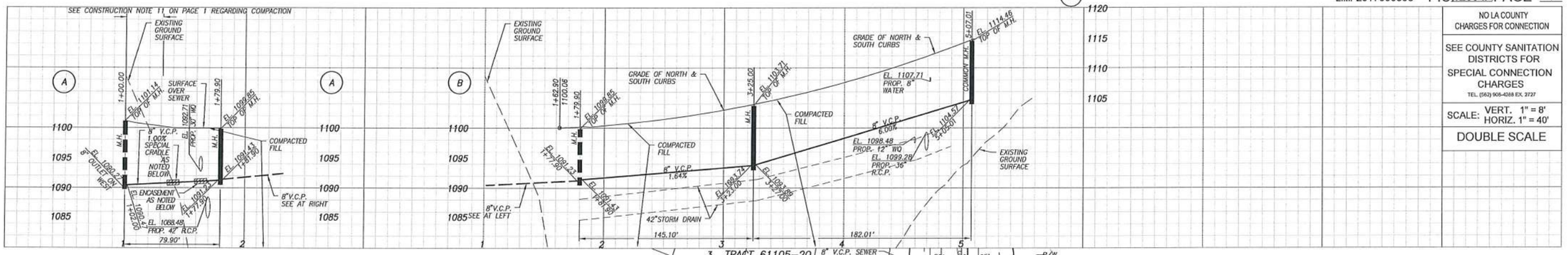
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(A)	N 37°12'02" E	–	129.23'	–
(B)	N 37°12'02" E	–	57.63'	–
(C)	51°27'43"	130.00'	116.76'	62.65'
(D)	N 14°15'42" W	–	51.57'	–
(E)	26°46'35"	160.00'	74.77'	38.08'
(J)	N 52°47'58" W	–	20.00'	–





REGISTERED PROFESSIONAL ENGINEER RAYMOND H. ORMON, JR. No. 40695 CIVIL STATE OF CALIFORNIA 5/5/2020

REVIEWED BY LAND DEVELOPMENT DIVISION
BY Pedro Romero 05/06/2020 DATE
FINAL MAPS, SEWER AND LANDSCAPING SUBDIVISION PLAN CHECKING SECTION

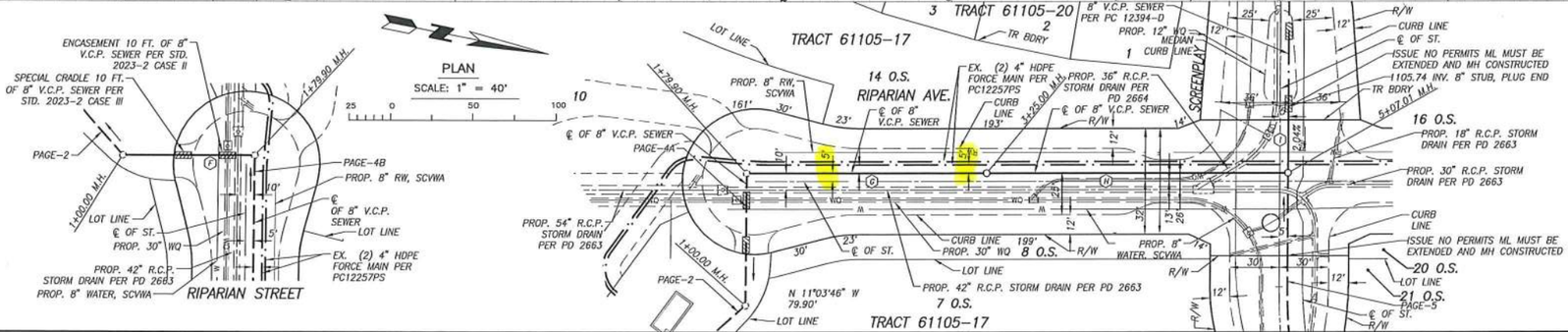


NO LA COUNTY CHARGES FOR CONNECTION

SEE COUNTY SANITATION DISTRICTS FOR SPECIAL CONNECTION CHARGES
TEL. (562) 908-4288 EX. 2727

SCALE: VERT. 1" = 8'
HORIZ. 1" = 40'

DOUBLE SCALE



SANITARY SEWER DATA TABLE

	BEARING/DELTA	LENGTH
(F)	N 11°03'46" W	79.90'
(G)	N 78°56'14" E	145.10'
(H)	N 78°56'14" E	182.01'
(I)	N 11°03'46" W	40.00'

REGISTERED PROFESSIONAL ENGINEER RAYMOND H. ORMON, JR. No. 40695 CIVIL STATE OF CALIFORNIA 5/5/2020

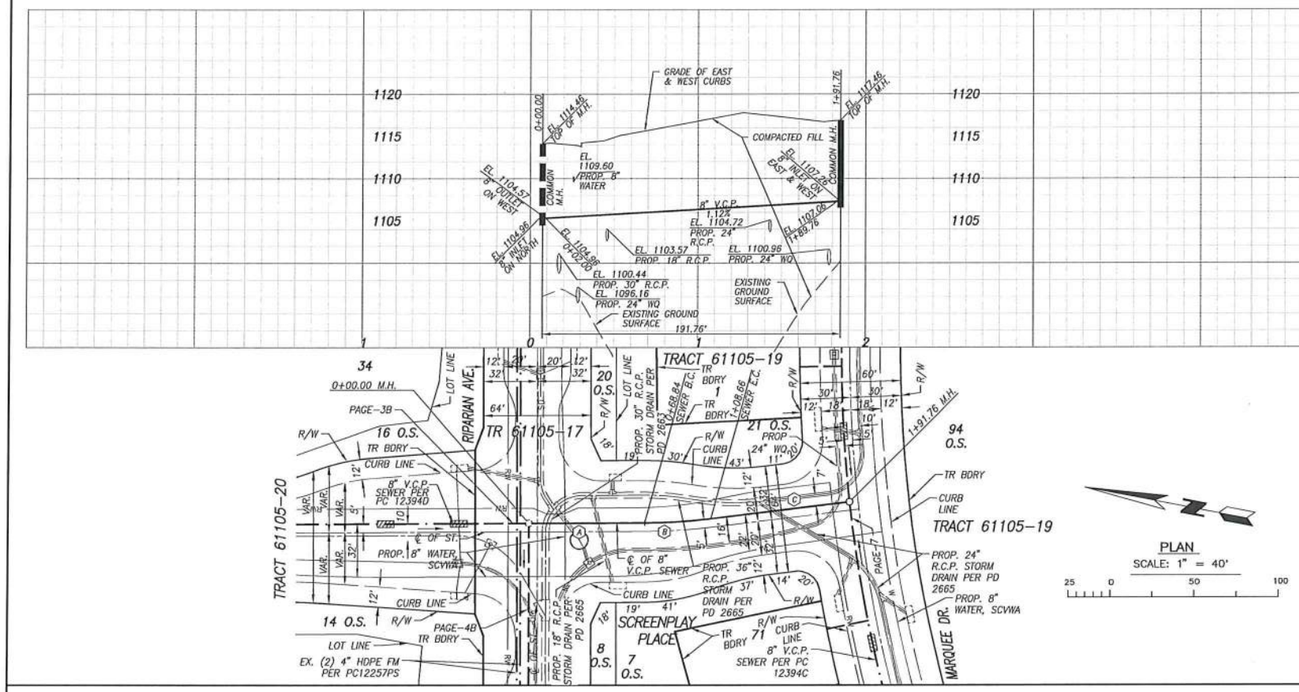
REVIEWED BY LAND DEVELOPMENT DIVISION
BY Pedro Romero 05/06/2020 DATE
FINAL MAPS, SEWER AND LANDSCAPING SUBDIVISION PLAN CHECKING SECTION

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SANITARY SEWER DATA TABLE

	BEARING/DELTA	RADIUS	LENGTH	TANGENT
A	N 11°03'46" W	–	68.84'	–
B	06°36'43"	345.00'	39.81'	19.93'
C	N 17°40'29" W	–	83.11'	–

NO LA COUNTY CHARGES FOR CONNECTION

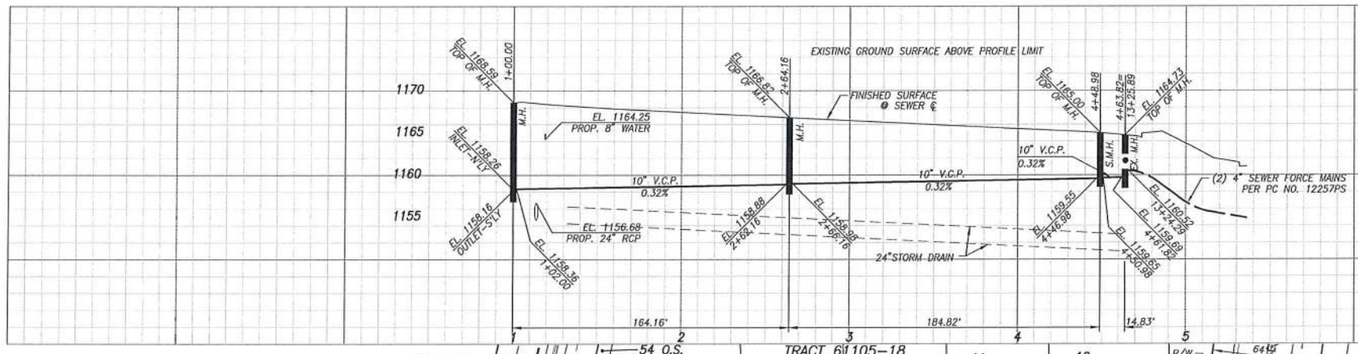
SEE COUNTY SANITATION DISTRICTS FOR SPECIAL CONNECTION CHARGES
TEL. (562) 908-4288 EX. 2727

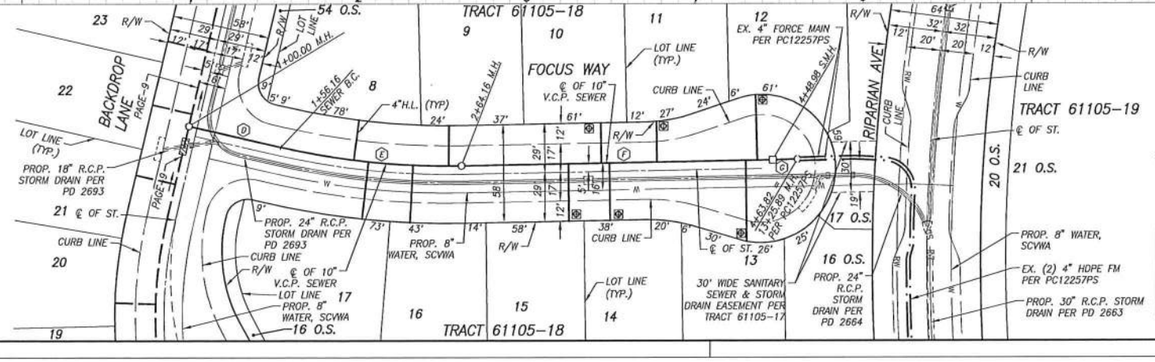
SCALE: VERT. 1" = 8'
HORIZ. 1" = 40'

DOUBLE SCALE

REGISTERED PROFESSIONAL ENGINEER JASON H. BURTON No. 40695 CIVIL STATE OF CALIFORNIA 5/5/2020

REVIEWED BY LAND DEVELOPMENT DIVISION
BY Pedro Romero 05/06/2020 DATE
FINAL MAPS, SEWER AND LANDSCAPING SUBDIVISION PLAN CHECKING SECTION





SANITARY SEWER DATA TABLE

	BEARING/DELTA	RADIUS	LENGTH	TANGENT
D	N 32°31'54" E	–	56.16'	–
E	13°54'22"	445.00'	108.00'	54.27'
F	N 18°37'32" E	–	184.82'	–
G	N 17°57'57" E	–	14.83'	–

NOTE:
HOUSE LATERALS TO BE CONSTRUCTED WITH ¼" RISE PER FOOT TO EASEMENT. WYEs TO BE HORIZONTAL.

NO LA COUNTY CHARGES FOR CONNECTION

SEE COUNTY SANITATION DISTRICTS FOR SPECIAL CONNECTION CHARGES
TEL. (562) 908-4288 EX. 2727

SCALE: VERT. 1" = 8'
HORIZ. 1" = 40'

DOUBLE SCALE

REGISTERED PROFESSIONAL ENGINEER JASON H. BURTON No. 40695 CIVIL STATE OF CALIFORNIA 5/5/2020

REVIEWED BY LAND DEVELOPMENT DIVISION
BY Pedro Romero 05/06/2020 DATE
FINAL MAPS, SEWER AND LANDSCAPING SUBDIVISION PLAN CHECKING SECTION

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EIMP2017000593 P.C. 12394A PAGE 7

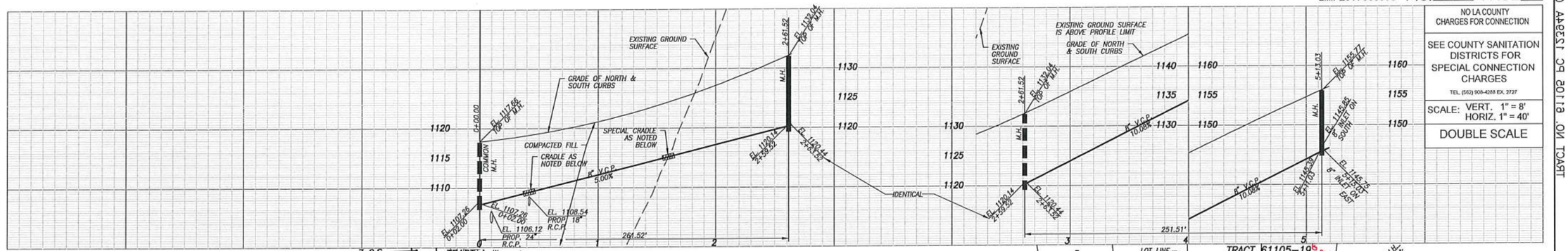
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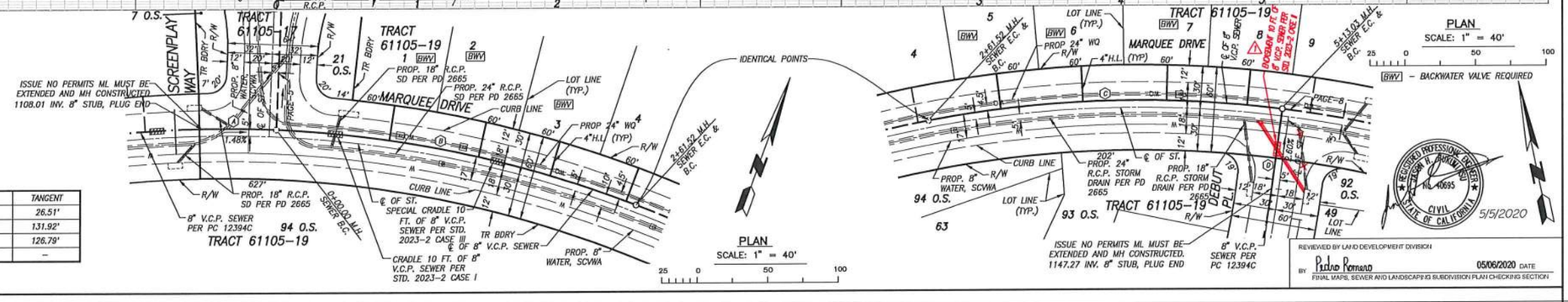
SEE COUNTY SANITATION DISTRICTS FOR SPECIAL CONNECTION CHARGES

TEL. (562) 908-4288 EX. 2727

SCALE: VERT. 1" = 8'
HORIZ. 1" = 40'

DOUBLE SCALE





SANITARY SEWER DATA TABLE

	BEARING/DELTA	RADIUS	LENGTH	TANGENT
A	03°46'20"	805.00'	53.00'	26.51'
B	18°36'48"	805.00'	261.52'	131.92'
C	17°54'05"	805.00'	251.52'	126.79'
D	N 19°33'07" E	–	56.49'	–

REVIEWED BY LAND DEVELOPMENT DIVISION
BY Pedro Romero 05/06/2020 DATE
FINAL MAPS, SEWER AND LANDSCAPING SUBDIVISION PLAN CHECKING SECTION

REGISTERED PROFESSIONAL ENGINEER STEVEN R. NORMAN NO. 40695 CIVIL STATE OF CALIFORNIA 5/5/2020

EIMP2017000593 P.C.12394APAGE 8

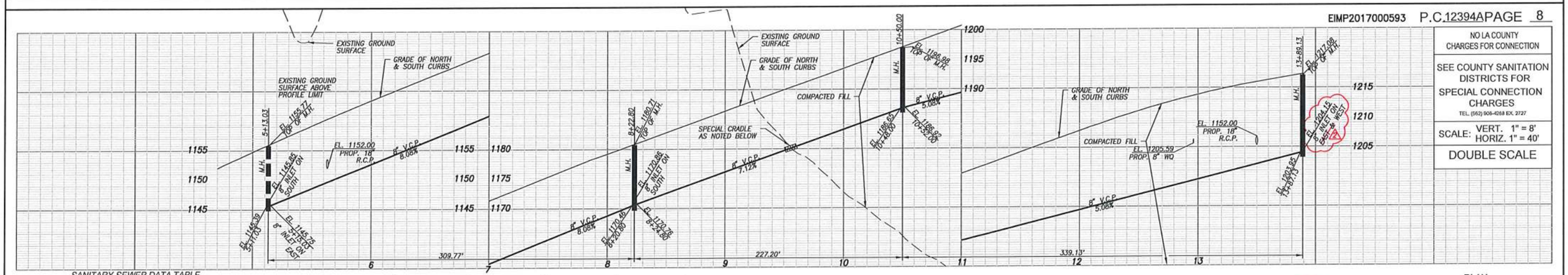
NO LA COUNTY CHARGES FOR CONNECTION

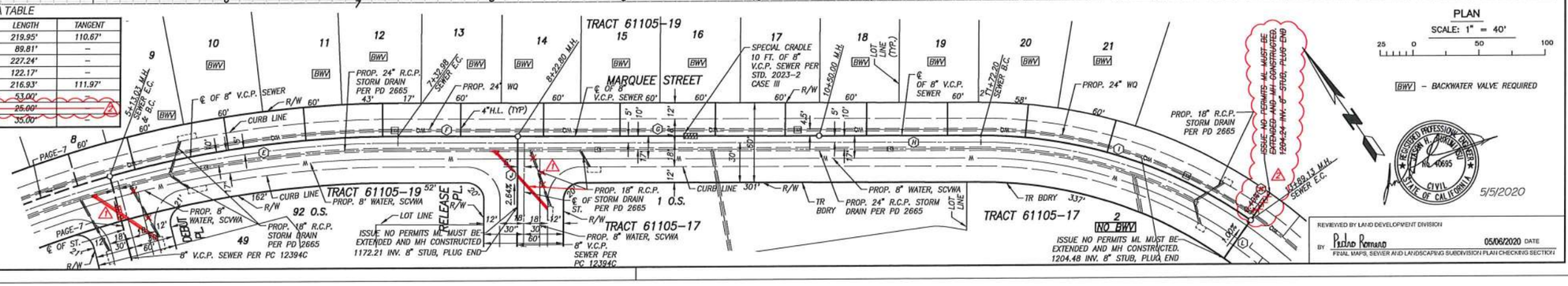
SEE COUNTY SANITATION DISTRICTS FOR SPECIAL CONNECTION CHARGES

TEL. (562) 908-4288 EX. 2727

SCALE: VERT. 1" = 8'
HORIZ. 1" = 40'

DOUBLE SCALE





SANITARY SEWER DATA TABLE

	BEARING/DELTA	RADIUS	LENGTH	TANGENT
E	15°39'18"	805.00'	219.95'	110.67'
F	N 55°08'56" W	–	89.81'	–
G	N 55°08'56" W	–	227.24'	–
H	N 55°08'56" W	–	122.17'	–
I	35°00'40"	355.00'	216.93'	111.97'
J	N 34°51'04" E		53.00'	
K	N 69°51'44" E		25.00'	
L	N 69°51'44" E		35.00'	

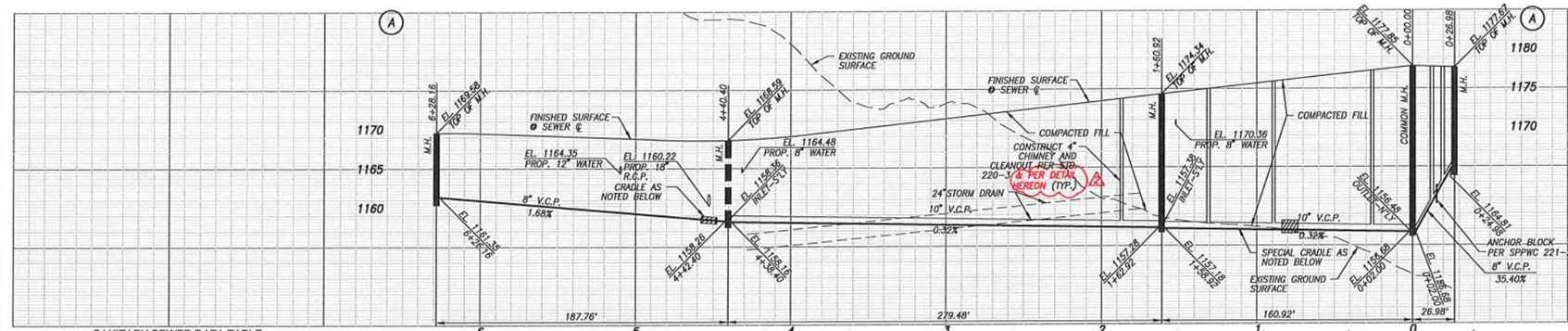
REVIEWED BY LAND DEVELOPMENT DIVISION
BY Pedro Romero 05/06/2020 DATE
FINAL MAPS, SEWER AND LANDSCAPING SUBDIVISION PLAN CHECKING SECTION

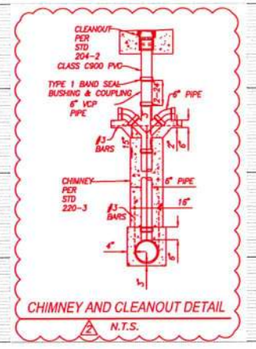
REGISTERED PROFESSIONAL ENGINEER STEVEN R. NORMAN NO. 40695 CIVIL STATE OF CALIFORNIA 5/5/2020

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CHIMNEY AND CLEANOUT DETAIL
N.T.S.

NO LA COUNTY CHARGES FOR CONNECTION

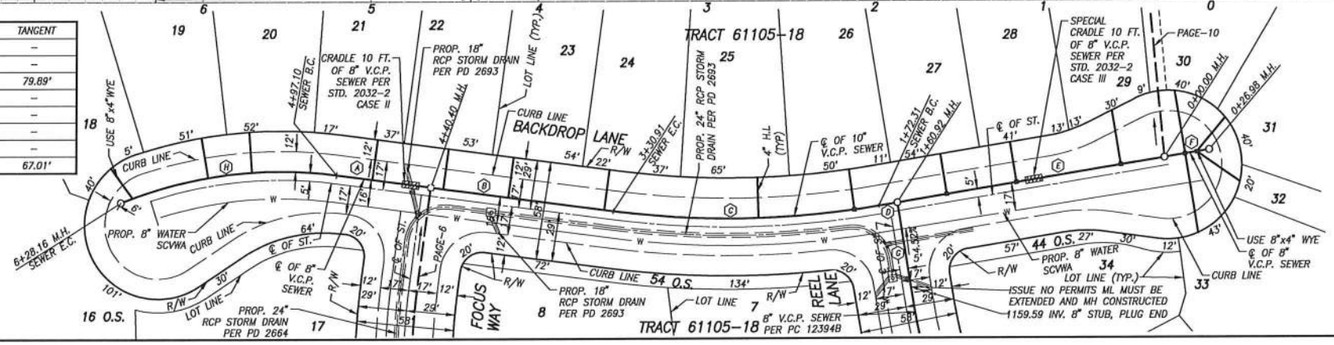
SEE COUNTY SANITATION DISTRICTS FOR SPECIAL CONNECTION CHARGES
TEL. (562) 908-4288 EX. 2727

SCALE: VERT. 1" = 8'
HORIZ. 1" = 40'

DOUBLE SCALE

SANITARY SEWER DATA TABLE

	BEARING/DELTA	RADIUS	LENGTH	TANGENT
(A)	N 57°28'06" W	–	56.71'	–
(B)	N 57°28'06" W	–	109.49'	–
(C)	16°59'07"	535.00'	158.60'	79.89'
(D)	N 74°27'13" W	–	11.38'	–
(E)	N 74°27'13" W	–	160.92'	–
(F)	N 74°27'13" W	–	26.98'	–
(G)	N 15°32'47" E	–	50.91'	–
(H)	29°26'50"	255.00'	131.06'	67.01'

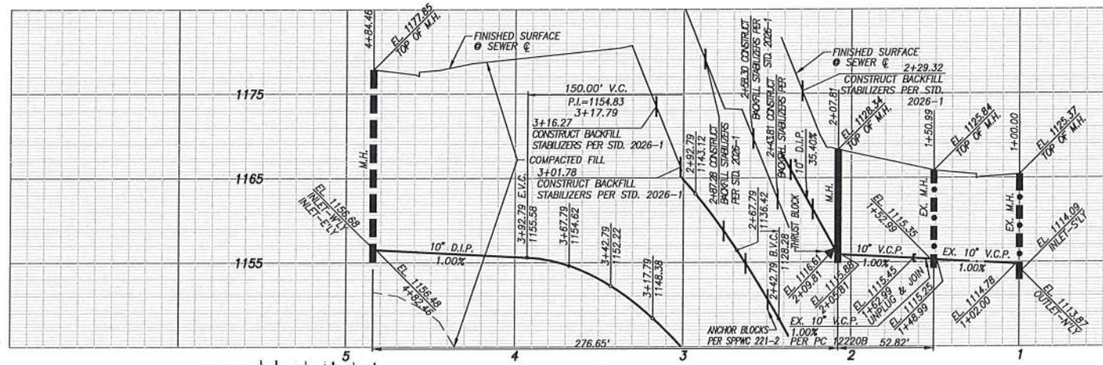


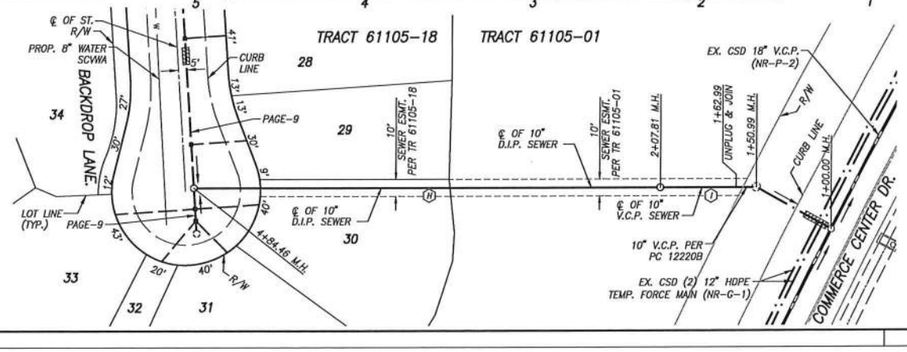
PLAN
SCALE: 1" = 40'
25 0 50 100

BWV – BACKWATER VALVE REQUIRED

REGISTERED PROFESSIONAL ENGINEER JASON P. AMMONS NO. 40695 CIVIL STATE OF CALIFORNIA 5/5/2020

REVIEWED BY LAND DEVELOPMENT DIVISION
BY Pedro Romero 05/06/2020 DATE
FINAL MAPS, SEWER AND LANDSCAPING SUBDIVISION PLAN CHECKING SECTION





PLAN
SCALE: 1" = 40'
25 0 50 100

SANITARY SEWER DATA TABLE

	BEARING/DELTA	RADIUS	LENGTH	TANGENT
(M)	N 15°24'27" E	–	276.65'	–
(I)	N 15°24'27" E	–	56.82'	–

REGISTERED PROFESSIONAL ENGINEER JASON P. AMMONS NO. 40695 CIVIL STATE OF CALIFORNIA 5/5/2020

REVIEWED BY LAND DEVELOPMENT DIVISION
BY Pedro Romero 05/06/2020 DATE
FINAL MAPS, SEWER AND LANDSCAPING SUBDIVISION PLAN CHECKING SECTION

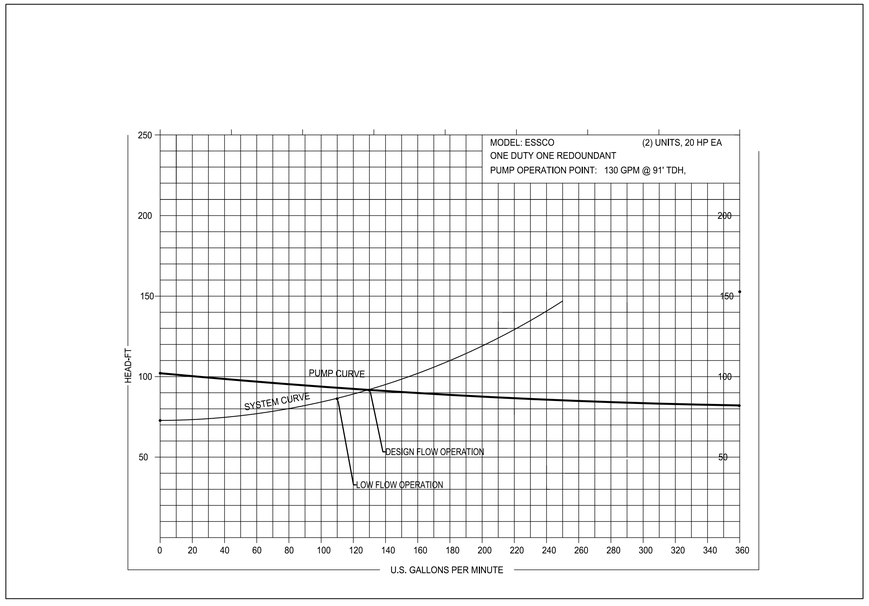
APPROVED BY BOARD OF SUPERVISORS ON 7/24/18

C:\Vineyard Ranch\61105 Mission Village\61105-GD\Sewer\VMV184-05 Plt2 SS PC12394-A MM.dwg Plotted On Nov 25, 2020--7:45am by Daryl

C5.7

DPW-1 SEWER LIFTSTATION EQUIPMENT LIST

ITEM	NAME	MANUFACTURER	DESCRIPTION	QTY
1	SUBMERSIBLE PUMP	ESSCO	4X12 SUBMERSIBLE VORTEX PUMP W/ RECESSED IMPELLER, 460V, 3PH, 20 HP, 1800 RPM, OPERATE AT 130 GPM AT 91 FT HEAD, 316 SS BASE ELBOW, 2" SS316 GUIDE RAIL ASSEMBLY WITH BRONZE SLIDE FACE, AND REQUIRED SPARE PARTS. VERIFY CABLE LENGTH BEFORE ORDER	2
2	CHECK VALVE	APCO, GA INDUSTRIES	4" SWING CHECK VALVE WITH OUTSIDE LEVER AND WEIGHT AND AIR CUSHION CYLINDER FOR SLOW CLOSING OPERATION, 150 #, DUCTILE IRON BODY PER APCO 6000, CRISPIN SWC, OR APPROVED EQUAL	2
3	GATE VALVE	KENNEDY	4" GATE VALVE WITH RESILIENT WEDGE AND NON-RISING STEM, CAST IRON BODY, PER KENNEDY VALVE MODEL KS-FW, 250 PSI	7
4	AIR COMBINATION VALVE	VAL-MATIC	STAINLESS STEEL 1" SEWAGE AIR COMBINATION VALVE, 150 PSI PER VAL-MATIC VM-801AS OR EQUAL.	2
5	FLOW METER	TOSHIBA	4" MAGNETIC FLOW METER, MODEL LF-654, NEMA 6P WITH POTTING KIT, SUBMERSIBLE AND EXPLOSION PROOF, STAINLESS STEEL BODY AND FLANGES, REMOTE TRANSMITTER, 4-20 AMP OUTPUT,	2
6	PRIMARY LEVEL TRANSMITTER	DWYER	PBLT-X SUBMERSIBLE LEVEL TRANSMITTER WITH INTRINSIC BARRIER, 316 STAINLESS STEEL, 0-15 PSI, 4-20 MAP OUTPUT	1
7	BACKUP CONTROL AND ALARM FLOAT SWITCH	PRIMEX / KWICKSWITCH KITS	(4) FLOAT LEVEL SWITCHES KIT INCLUDING 316 SST HOOKS / BRACKET FOR HIGH LEVEL (L5), HIGH HIGH LEVEL (L6), LOW LEVEL (L2)AND LOW LOW LEVEL (L1), EXPLOSION PROOF FLOAT AND CABLES WITH QUICK CABLE CONNECTION	(1) SET INSTALLED + (1) ENTIRE SPARE SET FLOATS
8	VALVE VAULT VENTILATION FAN	HARTZELL / A34-126FW-FGFXH3	460V, 3 PHASE, 60HZ, 1/3 HP, 652CFM @ 0.25" SP, 12" DIA, GALV. FIBERGLASS HOUSING, CLASS 1 DIV 2 RATED EXPLOSION PROOF, WEATHER COVER FOR MOTOR	2
9	EQUIPMENT ROOM VENTILATION FAN	CINCINNAITI FAN / BAF 12 12/6/6/25	460V, 3 PHASE, 60HZ, 1/4 HP, 1000CFM @ 0.1" SP, 12" DIA, GALV. STEEL HOUSING, WITH 12" x 12" GABLE LOUVER VENT, FLUSH MOUNT, AND DISCHARGE GUARD	1
10	RESTRAINED FLANGE COUPLING	ROMAC RFCA	4" RESTRAINED FLANGE COUPLING ADAPTER FOR IPS PIPES WITH 316 SS BOLTS AND FITTINGS, AND FUSION BONDED EPOXY COATINGS	2
11	AIR COMPRESSOR	SAILOR BEALL	MODEL PL-735-80, 480V, 3 PH, 60 HZ, 5 HP, AIR FLOW 23 CFM @ 100 PSI, 80 GALLON TANK, CONTROL PANEL	1
12	SAFETY HATCH	EJ OR BILCO	4'-0"X4'-0" CLEAR OPENING, ALUMINUM HATCH COVER WITH SAFTY GRATE, H-20 TRAFFIC RATED FOR LARGE BOOM TRUCK. 18,000# LIVE LOAD OVER 8.5"X20.5" FOOTPRINT AREA WITH WHEEL SPAN 72". CONTRACTOR TO PROVIDE DEFERRED SUBMITTAL	2
13	PUMP HATCH	EJ OR BILCO	4'-0"X4'-6" CLEAR OPENING, SUBERSIBLE PUMP ACCESS HATCH COVER WITH CABLE HOLDER AND SAFTY GRATE, HS-30 TRAFFIC RATED FOR LARGE BOOM TRUCK. 18,000# LIVE LOAD OVER 8.5"X20.5" FOOTPRINT AREA WITH WHEEL SPAN 72".CONTRACTOR TO PROVIDE DEFERRED SUBMITTAL	1
14	AIR CONDITIONING UNIT	FUJITSU	ASU24CL AND AOU24CL, 2 TON SPLIT SYSTEM WITH INDOOR UNIT AND OUTDOOR UNIT, 230V, 1 PHASE, 60 HZ, 2,310W.	1
15	STANDBY POWER GENERATOR	GENERAC, KOHLER, CUMMINS	80 KW DIESEL FUEL GENERATOR AND 250 KW ALTERNATOR W/ LEVEL II SOUND ATTENUATING OUTDOOR ENCLOSURE & DOUBLE WALL 24 HR SUB BASE FUEL TANK, MUFFER, BATTERY CHARGER, SCAQMD PERMIT AND START UP	1
16	BATHROOM FAN	BRAON 509	180 CFM WALL FAN 8" ROUND DUCT, GRILL AND OUTDOOR HOOD, 120V, 1.5 AMPS	1
17	WET WELL AERATION SYSTEM	TITUS TWISTER MIXING AERATOR	(1) UNIT WET WELL AIR LIFT ASSMBLY WITH MIXER, OZONE GENERATOR, AIR BLOWER, 120V, 60HZ, 1.7 HP, MAX 30 CFM @ 4.5 PSI, INCLUDING CONTROL PANEL 120V, 1 PHASE, 60HZ	1
18	PRESSURE TRANSDUCER	ASHCROFT / A4	0-200 PSI RANGE, 4-20 mA OUTPUT, DC 12-30 V POWER SUPPLY, CLASS I DIV II, NEMA 4X, WETTED MATERIAL 316 SST, DRY 304 SST	2
19	PRESSURE GAUGE	ASHCROFT	0-200 PSI, 3.5" DIAL, 316 SST, LIQUID FILLED, 1/4" NTP	2
20	DIAPHRAGM SEAL	ASHCROFT, WIKA	4/3" CONNECTION SIZE WITH FLUSHING PORT FOR PRESSURE TRANSDUCER AND PRESSURE GAUGE, FACTORY ASSEMBLED AND LIQUID FILLED	2
21	SUBMERSIBLE PUMP	ZOELLER / X161	90 GPM AT 10 FEET HEAD, 120 V, 1 PHASE, 1/2 HP, CAST IRON BODY, 2" DISCHARGE, 35 FEET CABLE AND FLOAT SWITCH. RATED FOR CLASS 1, DIV 1 GROUP C AND D.	1
22	VALVE VAULT ENTRY HATCH	BILCO	3' W X 10' L (MIN.) VAULT ACCESS HATCH , SINGLE LEAF ALUMINUM CONSTRUCTION, 300 PSF LIVE LOAD, CONTRACTOR TO PROVIDE DEFERRED SUBMITTAL	1
23	VALVE VAULT INSPECTION HATCH	BILCO	4'-0"X4'-0" CLEAR OPENING, MAINTENANCE ACCESS HATCH COVER WITH SAFTY GRATE, 300 PSF LIVE LOAD. CONTRACTOR TO PROVIDE DEFERRED SUBMITTAL	2
24	FLEXIBLE COUPLING	SMITH-BLAIR MODEL 411	4" 316 SST FLEXIBLE COUPLING	5



Department of Public Works, Los Angeles County

Checked _____ 2/20/2020

Design Division — Date

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER ★ ANDREW T. KOMOR ★ STATE OF CALIFORNIA — No. C64928 — Exp. 06/30/21 — CIVIL

PREPARED BY: ANDY KOMOR — PROJECT ENGINEER — R.C.E. NO. 64928 — EXP. 06/30/21

DRAWN: KV | SCALE: 1" = 1' | DESIGNED: ZS | DATE: JAN. 2020 | CHECKED: AK

THESE DRAWINGS ARE THE PROPERTY OF P.A.C.E. AND SHALL NOT BE REPRODUCED IN ANY MANNER NOR BE USED FOR CONSTRUCTION UNLESS STAMPED 'ISSUED FOR CONSTRUCTION'.

TITLE: EQUIPMENT LIST AND PUMP CURVES

JOB: MISSION VILLAGE — DPW-1 SEWER PUMP STATION PC 12257PS — VALENCIA, CA

PACE — Advanced Water Engineering — 17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708 — P: (714) 481-7300 | www.pacewater.com

SHEET M1.0

12 OF 62 SHEETS

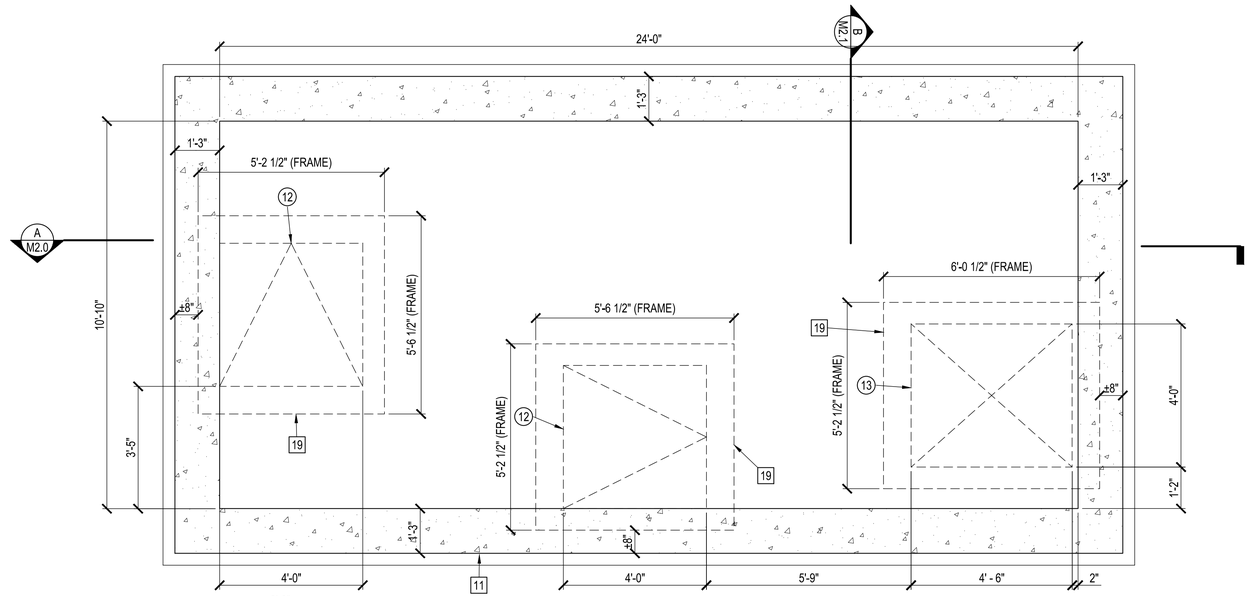
JOB NO. 9862-E

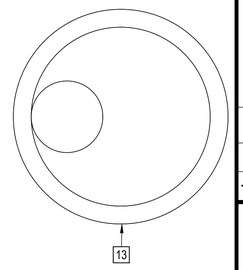
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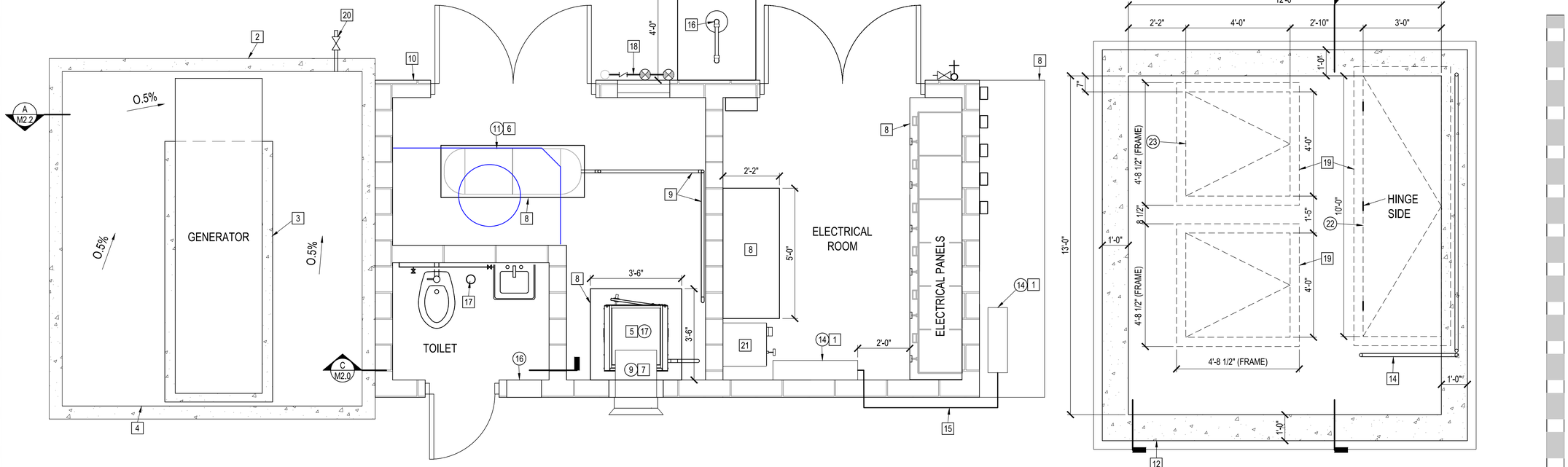
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CONSTRUCTION NOTES:

1. INSTALL ELECTRICAL ROOM AC SYSTEM, SEE M2.2 FOR ELEVATION.
2. SPILL CONTAINMENT CURB. SEE ARCHITECTURAL PLANS.
3. INSTALL 9" GENERATOR PAD. STRUCTURAL PLANS.
4. CANOPY OVER GENERATOR AREA. SEE ARCHITECTURAL PLANS.
5. INSTALL WET WELL AERATION BLOWER (17). SEE SHEET M2.2
6. INSTALL FORCE MAIN PIPE AIR COMPRESSOR PER DETAIL (F/M3.1)
7. INSTALL EQUIPMENT ROOM EXHAUST FAN , SEE SHEET M2.2 AND M3.0
8. INSTALL CONCRETE PAD PER STRUCTURAL PLANS.
9. ¾" AIR PIPING PER DETAILS (B/M3.1) (F/M3.1)
10. EQUIPMENT BUILDING, SEE ARCHITECTURAL AND STRUCTURAL PLANS.
11. WET WELL AND EMERGENCY STORAGE TANK, SEE STRUCTURAL PLANS.
12. VALVE VAULT, SEE STRUCTURAL PLANS.
13. SEWER MANHOLE. SEE SHEET C2.0.
14. INSTALL ALUMINUM GUARDRAIL PER DETAIL (J/M3.1)
15. INSTALL REFRIGERANT PIPING WITH INSULATION, INDOOR UNIT DRAIN HOSE AND WALL MOUNTED CONTROL PER INSTALLATION MANUAL.
16. INSTALL EYEWASH / EMERGENCY SHOWER STATION PER DETAIL (A/M3.0)
17. INSTALL 2" FLOOR DRAIN WITH WATER SEAL FOR BATHROOM. SEE SHEET M2.2 FOR DETAILS.
18. INSTALL 2" WATER PIPELINE AND VALVES FOR EMERGENCY TANK FLUSHING PER DETAIL (E/C4.1)
19. CONTRACTOR TO VERIFY ALL HATCH FRAME DIMENSIONS WITH HATCH MANUFACTURER PRIOR TO CONSTRUCTION.
20. INSTALL 1½" PVC DRAIN AND PVC BALL VALVE, NORMALLY OPEN.
21. WALL MOUNTED AUTOMATIC TRANSFER SWITCH. SEE ELECTRICAL SHEETS.







PUMP STATION - WET WELL PLAN VIEW ABOVE GRADE

SCALE: ½"=1'-0"

NORTH

Department of Public Works, Los Angeles County

Checked _____ 2/20/2020

Design Division — Date

NO	BY	DATE	REVISIONS	DATE	APP.

PREPARED BY
ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. C64928
EXP. 06/30/21

DRAWN	SCALE
KV	AS SHOWN
DESIGNED	
ZS	
CHECKED	DATE
AK	JAN. 2020

REGISTERED PROFESSIONAL ENGINEER ★ ANDREW T. KOMOR ★ No. C64928 Exp. 06/30/21 ★ CIVIL ★ STATE OF CALIFORNIA

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TITLE
MECHANICAL PLAN
ABOVE GRADE

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.paceworldwide.com

SHEET
M1.1
13 OF 62 SHEETS

JOB NO. 9862-E

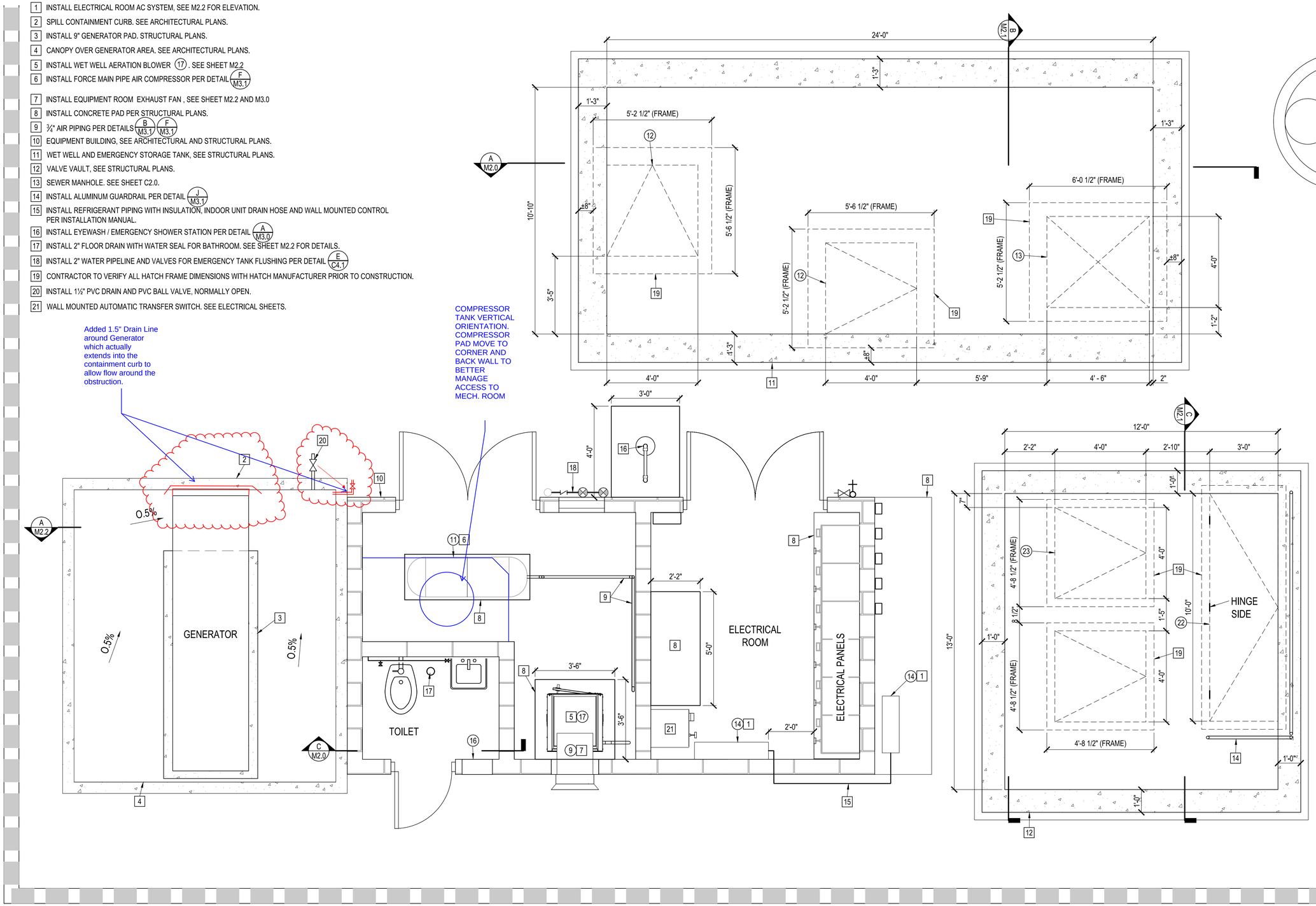
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CONSTRUCTION NOTES:

1. INSTALL ELECTRICAL ROOM AC SYSTEM, SEE M2.2 FOR ELEVATION.
2. SPILL CONTAINMENT CURB. SEE ARCHITECTURAL PLANS.
3. INSTALL 9" GENERATOR PAD. STRUCTURAL PLANS.
4. CANOPY OVER GENERATOR AREA. SEE ARCHITECTURAL PLANS.
5. INSTALL WET WELL AERATION BLOWER (17). SEE SHEET M2.2
6. INSTALL FORCE MAIN PIPE AIR COMPRESSOR PER DETAIL F/M3.1
7. INSTALL EQUIPMENT ROOM EXHAUST FAN , SEE SHEET M2.2 AND M3.0
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11. WET WELL AND EMERGENCY STORAGE TANK, SEE STRUCTURAL PLANS.
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16. INSTALL EYEWASH / EMERGENCY SHOWER STATION PER DETAIL A/M3.0
17. INSTALL 2" FLOOR DRAIN WITH WATER SEAL FOR BATHROOM. SEE SHEET M2.2 FOR DETAILS.
18. INSTALL 2" WATER PIPELINE AND VALVES FOR EMERGENCY TANK FLUSHING PER DETAIL F/C4.1
19. CONTRACTOR TO VERIFY ALL HATCH FRAME DIMENSIONS WITH HATCH MANUFACTURER PRIOR TO CONSTRUCTION.
20. INSTALL 1½" PVC DRAIN AND PVC BALL VALVE, NORMALLY OPEN.
21. WALL MOUNTED AUTOMATIC TRANSFER SWITCH. SEE ELECTRICAL SHEETS.

Added 1.5" Drain Line around Generator which actually extends into the containment curb to allow flow around the obstruction.

COMPRESSOR TANK VERTICAL ORIENTATION. COMPRESSOR PAD MOVE TO CORNER AND BACK WALL TO BETTER MANAGE ACCESS TO MECH. ROOM



PUMP STATION - WET WELL PLAN VIEW ABOVE GRADE

SCALE: ½"=1'-0"

Department of Public Works, Los Angeles County

Checked _____ 2/20/2020

Design Division — Date

NO	BY	DATE	REVISIONS	DATE	APP.

ANDY KOMOR — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA — No. 65821 — EXP. 06-30-21 — CIVIL

PREPARED BY: ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. 65821
EXP. 06/30/21

DRAWN: KV
DESIGNED: ZS
CHECKED: AK
SCALE: AS SHOWN
DATE: JAN. 2020

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TITLE: MECHANICAL PLAN ABOVE GRADE

JOB: MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
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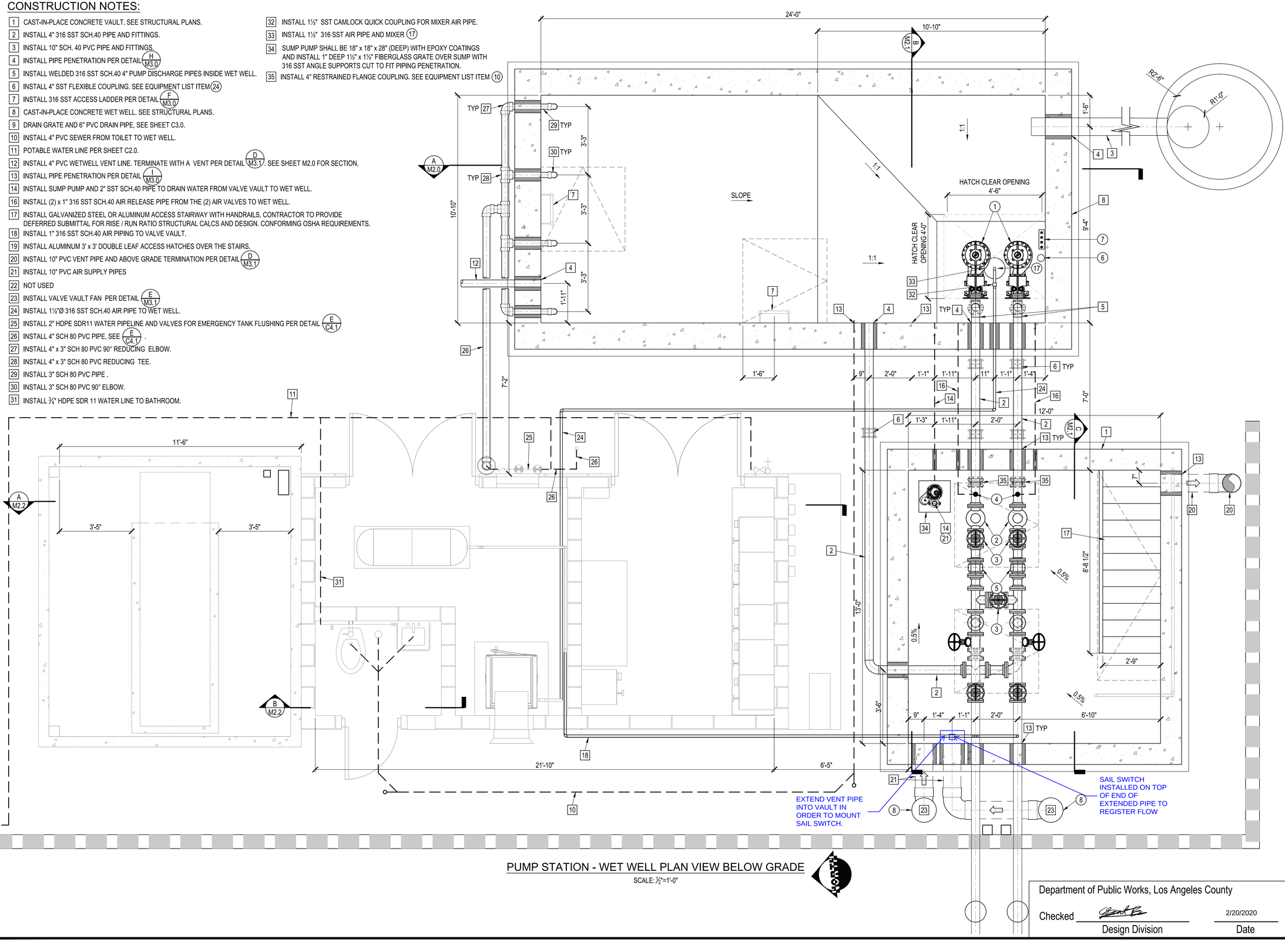
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13 OF 62 SHEETS

JOB NO. 9862-E

Xrefs: 9862 DPW-1 Mech-plan.dwg; 36x24v DPW-1.dwg
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CONSTRUCTION NOTES:

1. CAST-IN-PLACE CONCRETE VAULT. SEE STRUCTURAL PLANS.
2. INSTALL 4" 316 SST SCH.40 PIPE AND FITTINGS.
3. INSTALL 10" SCH. 40 PVC PIPE AND FITTINGS.
4. INSTALL PIPE PENETRATION PER DETAIL H/M3.0
5. INSTALL WELDED 316 SST SCH.40 4" PUMP DISCHARGE PIPES INSIDE WET WELL.
6. INSTALL 4" SST FLEXIBLE COUPLING. SEE EQUIPMENT LIST ITEM 24
7. INSTALL 316 SST ACCESS LADDER PER DETAIL F/M3.0
8. CAST-IN-PLACE CONCRETE WET WELL. SEE STRUCTURAL PLANS.
9. DRAIN GRATE AND 6" PVC DRAIN PIPE, SEE SHEET C3.0.
10. INSTALL 4" PVC SEWER FROM TOILET TO WET WELL.
11. POTABLE WATER LINE PER SHEET C2.0.
12. INSTALL 4" PVC WETWELL VENT LINE. TERMINATE WITH A VENT PER DETAIL D/M3.1. SEE SHEET M2.0 FOR SECTION.
13. INSTALL PIPE PENETRATION PER DETAIL I/M3.0
14. INSTALL SUMP PUMP AND 2" SST SCH.40 PIPE TO DRAIN WATER FROM VALVE VAULT TO WET WELL.
16. INSTALL (2) x 1" 316 SST SCH.40 AIR RELEASE PIPE FROM THE (2) AIR VALVES TO WET WELL.
17. INSTALL GALVANIZED STEEL OR ALUMINUM ACCESS STAIRWAY WITH HANDRAILS. CONTRACTOR TO PROVIDE DEFERRED SUBMITTAL FOR RISE / RUN RATIO STRUCTURAL CALCS AND DESIGN. CONFORMING OSHA REQUIREMENTS.
18. INSTALL 1" 316 SST SCH.40 AIR PIPING TO VALVE VAULT.
19. INSTALL ALUMINUM 3' x 3' DOUBLE LEAF ACCESS HATCHES OVER THE STAIRS.
20. INSTALL 10" PVC VENT PIPE AND ABOVE GRADE TERMINATION PER DETAIL D/M3.1
21. INSTALL 10" PVC AIR SUPPLY PIPES
22. NOT USED
23. INSTALL VALVE VAULT FAN PER DETAIL E/M3.1
24. INSTALL 1½"Ø 316 SST SCH.40 AIR PIPE TO WET WELL.
25. INSTALL 2" HDPE SDR11 WATER PIPELINE AND VALVES FOR EMERGENCY TANK FLUSHING PER DETAIL E/C4.1
26. INSTALL 4" SCH 80 PVC PIPE, SEE E/C4.1 .
27. INSTALL 4" x 3" SCH 80 PVC 90° REDUCING ELBOW.
28. INSTALL 4" x 3" SCH 80 PVC REDUCING TEE.
29. INSTALL 3" SCH 80 PVC PIPE .
30. INSTALL 3" SCH 80 PVC 90° ELBOW.
31. INSTALL ¾" HDPE SDR 11 WATER LINE TO BATHROOM.
32. INSTALL 1½" SST CAMLOCK QUICK COUPLING FOR MIXER AIR PIPE.
33. INSTALL 1½" 316 SST AIR PIPE AND MIXER 17
34. SUMP PUMP SHALL BE 18" x 18" x 28" (DEEP) WITH EPOXY COATINGS AND INSTALL 1" DEEP 1½" x 1½" FIBERGLASS GRATE OVER SUMP WITH 316 SST ANGLE SUPPORTS CUT TO FIT PIPING PENETRATION.
35. INSTALL 4" RESTRAINED FLANGE COUPLING. SEE EQUIPMENT LIST ITEM 10



PUMP STATION - WET WELL PLAN VIEW BELOW GRADE

SCALE: ½"=1'-0"

NORTH

Department of Public Works, Los Angeles County

Checked _____ 2/20/2020

Design Division — Date

NO	BY	DATE	REVISIONS	DATE	APP.

ANDREW T. KOMOR — REGISTERED PROFESSIONAL ENGINEER — No. 63638 Exp. 06/30/21 — CIVIL — STATE OF CALIFORNIA

PREPARED BY: ANDY KOMOR — PROJECT ENGINEER — R.C.E. NO. — EXP. 06/30/21

DRAWN: KV | SCALE: AS SHOWN

DESIGNED: ZS | DATE: JAN. 2020

CHECKED: AK

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TITLE: MECHANICAL PLAN BELOW GRADE

JOB: MISSION VILLAGE DPW-1 SEWER PUMP STATION PC 12257PS — VALENCIA CA

PACE — Advanced Water Engineering
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SHEET M1.2

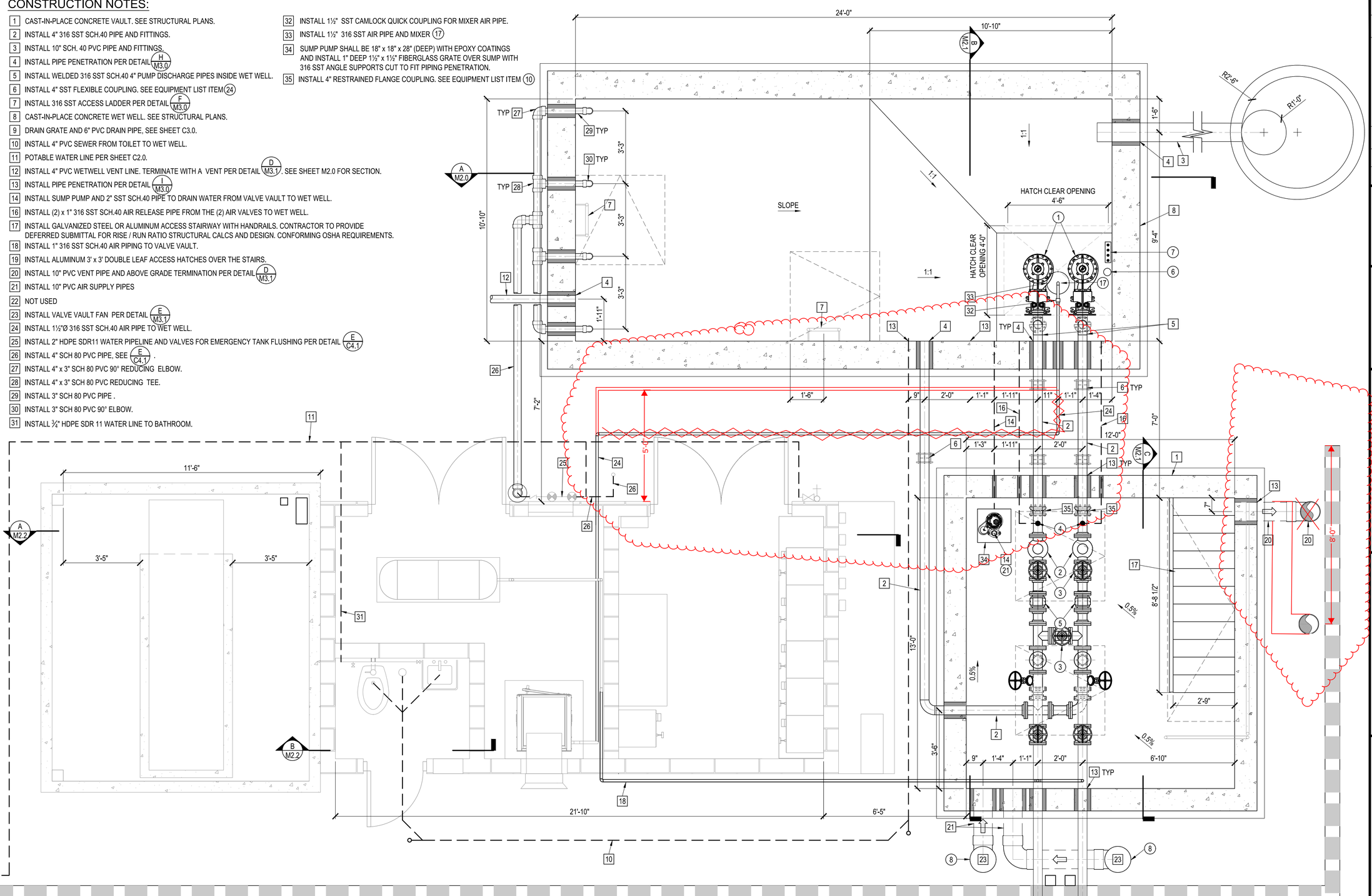
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JOB NO. 9862-E

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CONSTRUCTION NOTES:

1. CAST-IN-PLACE CONCRETE VAULT. SEE STRUCTURAL PLANS.
2. INSTALL 4" 316 SST SCH.40 PIPE AND FITTINGS.
3. INSTALL 10" SCH. 40 PVC PIPE AND FITTINGS.
4. INSTALL PIPE PENETRATION PER DETAIL H/M3.0
5. INSTALL WELDED 316 SST SCH.40 4" PUMP DISCHARGE PIPES INSIDE WET WELL.
6. INSTALL 4" SST FLEXIBLE COUPLING. SEE EQUIPMENT LIST ITEM 24
7. INSTALL 316 SST ACCESS LADDER PER DETAIL F/M3.0
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9. DRAIN GRATE AND 6" PVC DRAIN PIPE, SEE SHEET C3.0.
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32. INSTALL 1½" SST CAMLOCK QUICK COUPLING FOR MIXER AIR PIPE.
33. INSTALL 1½" 316 SST AIR PIPE AND MIXER 17
34. SUMP PUMP SHALL BE 18" x 18" x 28" (DEEP) WITH EPOXY COATINGS AND INSTALL 1" DEEP 1½" x 1½" FIBERGLASS GRATE OVER SUMP WITH 316 SST ANGLE SUPPORTS CUT TO FIT PIPING PENETRATION.
35. INSTALL 4" RESTRAINED FLANGE COUPLING. SEE EQUIPMENT LIST ITEM 10



PUMP STATION - WET WELL PLAN VIEW BELOW GRADE

SCALE: ½"=1'-0"

NORTH

Department of Public Works, Los Angeles County

Checked _____ 2/20/2020

Design Division — Date

NO	BY	DATE	REVISIONS	DATE	APP.

ANDRE KOMOR — REGISTERED PROFESSIONAL ENGINEER — CIVIL — No. 084928 Exp. 06/30/21 — STATE OF CALIFORNIA

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PREPARED BY: ANDY KOMOR — PROJECT ENGINEER — R.C.E. NO. 084928 — EXP. 06/30/21

DRAWN: KV — DESIGNED: ZS — CHECKED: AK — SCALE: AS SHOWN — DATE: JAN. 2020

TITLE: MECHANICAL PLAN BELOW GRADE

JOB: MISSION VILLAGE — DPW-1 SEWER PUMP STATION PC 12257PS — VALENCIA CA

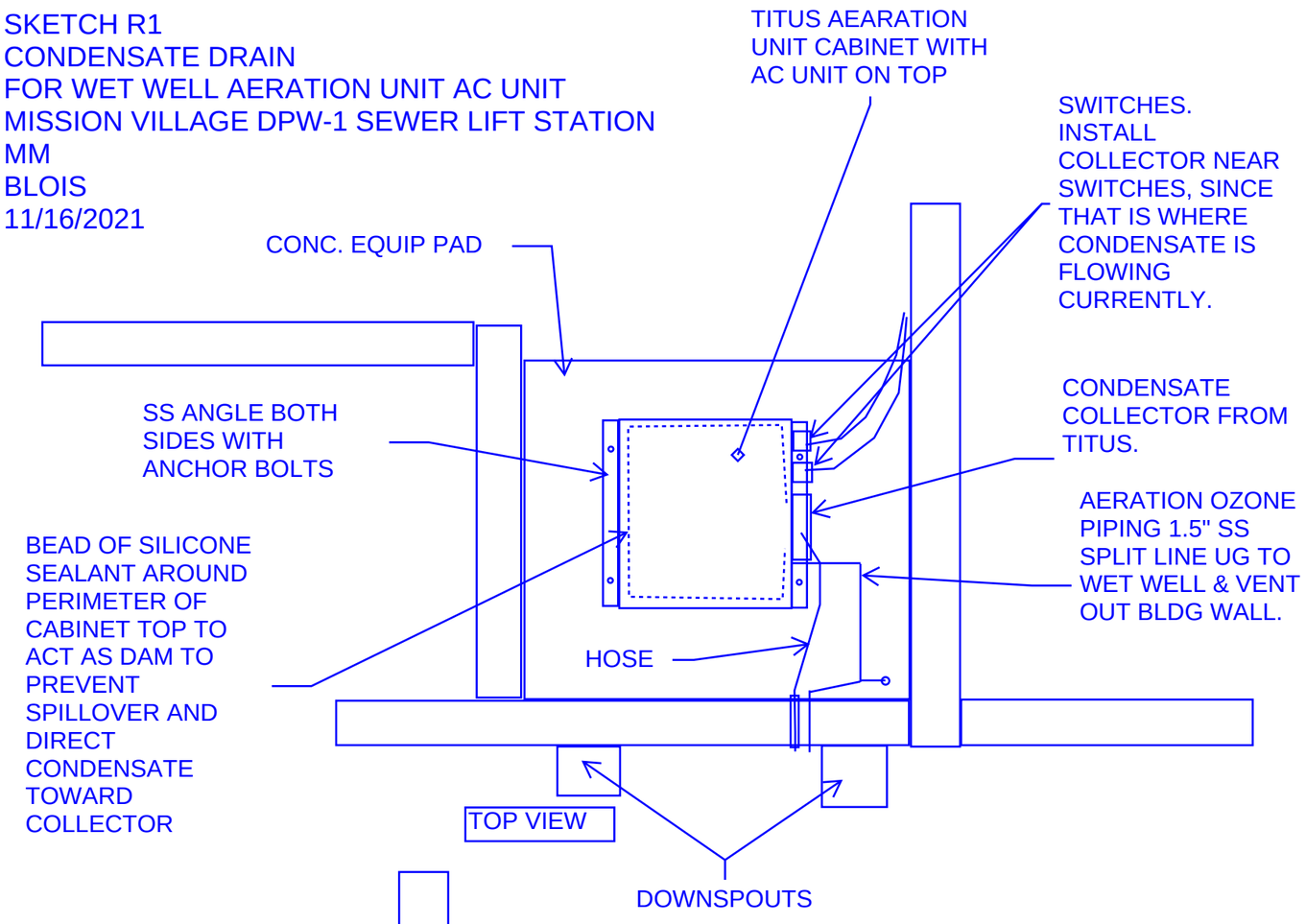
PACE — Advanced Water Engineering — 17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708 — P.: (714) 481-7300 | www.pacewater.com

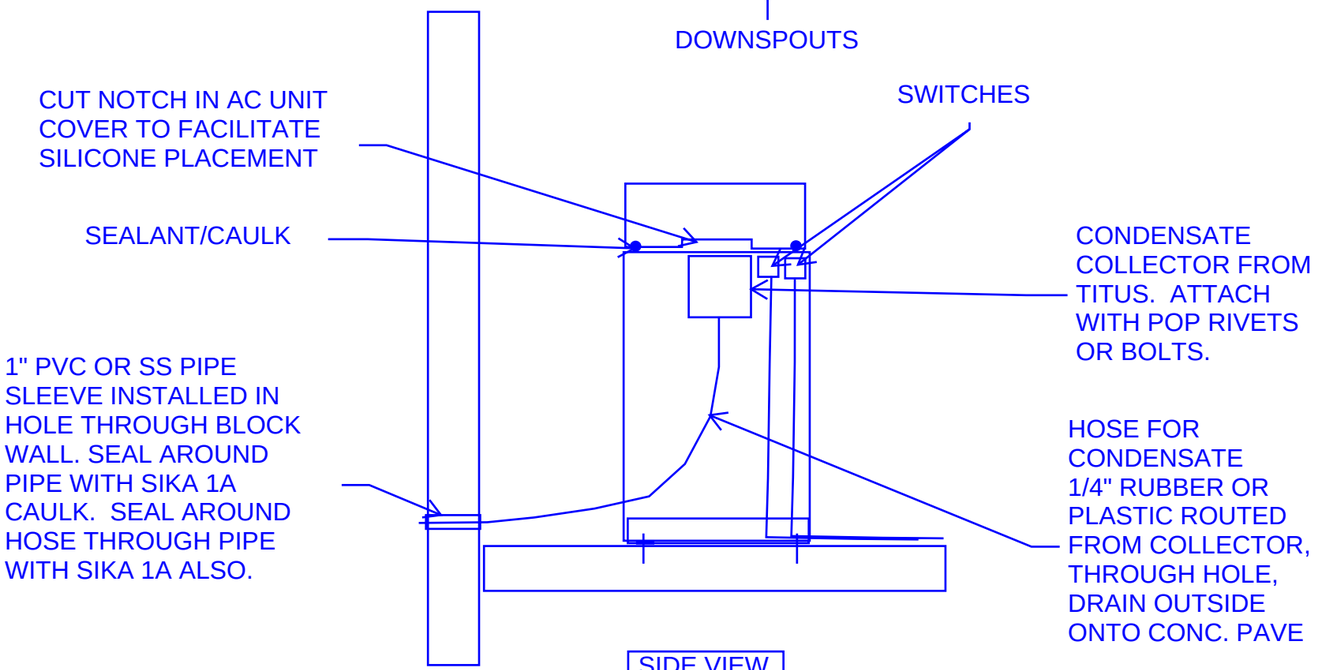
SHEET M1.2 — 14 OF 62 SHEETS

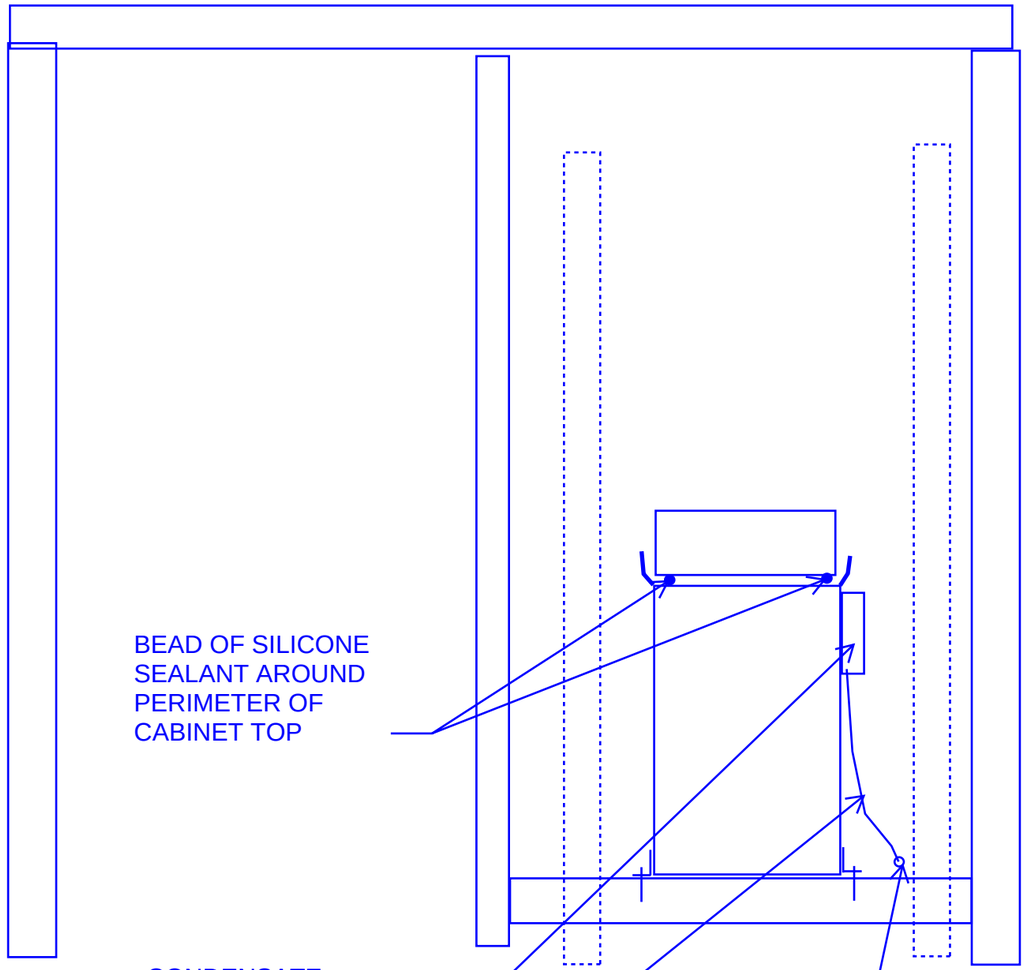
JOB NO. 9862-E

Xrefs: 9862 DPW-1 Mech-plan.dwg; 36x24r (DPW-1.dwg
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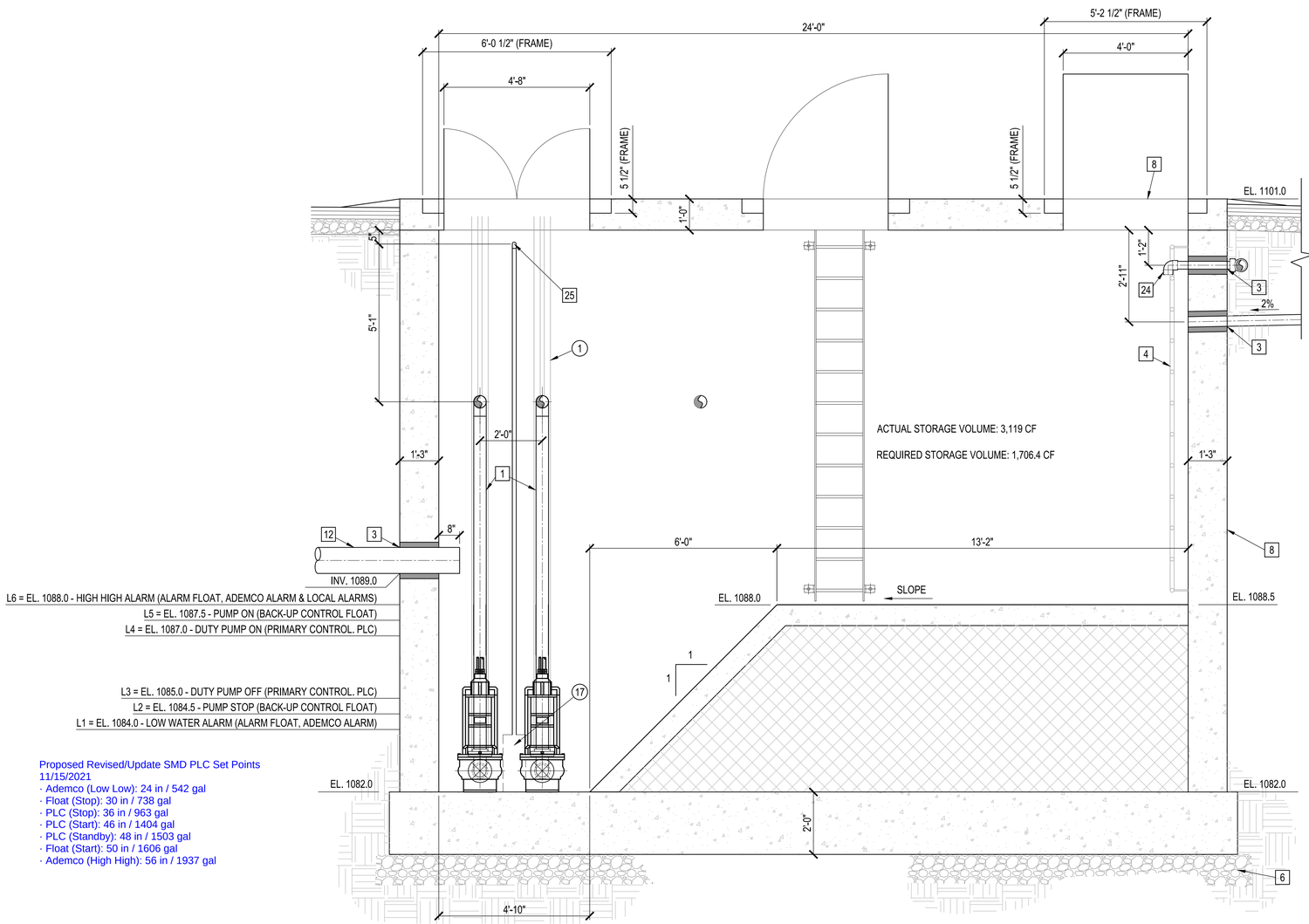
SKETCH R1
CONDENSATE DRAIN
FOR WET WELL AERATION UNIT AC UNIT
MISSION VILLAGE DPW-1 SEWER LIFT STATION
MM
BLOIS
11/16/2021







*CONDENSATE DRAIN REQUIRED BY COUNTY. SOLUTION DISCUSSED WITH COUNTY PERSONNEL ON SITE. DIRECTED BY FIVEPOINT TO PROCEED.



Proposed Revised/Update SMD PLC Set Points
11/15/2021
· Ademco (Low Low): 24 in / 542 gal
· Float (Stop): 30 in / 738 gal
· PLC (Stop): 36 in / 963 gal
· PLC (Start): 46 in / 1404 gal
· PLC (Standby): 48 in / 1503 gal
· Float (Start): 50 in / 1606 gal
· Ademco (High High): 56 in / 1937 gal

PUMP STATION - SECTION 'A'
SCALE: ½"=1'-0"

CONSTRUCTION NOTES:

1. INSTALL WELDED 316 SST 4" SCH.40 PUMP DISCHARGE LINES INSIDE WET WELL.
2. INSTALL 316 SST 4" SCH.40 PIPE AND FITTINGS (FLG'D).
3. INSTALL PIPE PENETRATION PER DETAIL H/M3.0
4. INSTALL ACCESS LADDER PER DETAIL F/M3.0
5. INSTALL 4" FLEX JOINT PER ITEM 10 IN EQUIPMENT LIST.
6. VAULT / WET WELL 6" MIN COMPACTED SUBGRADE PER GEOTECHNICAL ENGINEER.
7. CONCRETE VALVE VAULT AND REMOVABLE ALUMINUM HATCHES.
8. CONCRETE WET WELL. SEE STRUCTURAL PLANS.
9. PIPE SUPPORT PER DETAIL A/M3.1
10. SITE PAVEMENT PER CIVIL PLANS.
11. NOT USED.
12. 10" PVC SEWER INLET PIPE TO WET WELL.
13. NOT USED.
14. INSTALL (2) x 1" 316 SST SCH.40 AIR RELEASE PIPE CONNECTED TO WET WELL.
15. INSTALL ALUMINUM ACCESS STAIRWAY WITH HANDRAIL. CONTRACTOR TO PROVIDE DEFERRED SUBMITTAL FOR RISE / RUN RATIO STRUCTURAL CALCS AND DESIGN.
16. INSTALL PIPE PENETRATION PER DETAIL I/M3.0
17. INSTALL WET WELL AIR VENT PER DETAIL D/M3.1
18. 12" THK CONCRETE TOPPING.
19. INSTALL ½" 316 SST SCH.40 AIR PIPE TO FORCE MAIN PIPES WITH ISOLATION VALVE PER DETAIL G/M3.0
20. INSTALL 10" PVC VALVE VAULT VENT PIPE PER DETAIL D/M3.1
21. NOT USED.
22. INSTALL FORCE MAIN PRESSURE TRANSFORMER AND PRESSURE GAUGE PER DETAIL D/M3.0
23. INSTALL 4" PVC SCH 80 PIPE FROM AIR GAP AND SOLENOID CONTROL VALVE TO WET WELL FOR TANK FLUSHING.
24. INSTALL 3" PVC SCH 80 PIPE PENETRATION AND ELBOW (TYP OF 4).
25. INSTALL 1½" 316 SST SCH.40 AIR PIPE AND MIXER 17 PER DETAIL E/M3.1

Department of Public Works, Los Angeles County

Checked _____ 2/20/2020

Design Division — Date

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER ★ ANDREW T. KOMOR ★ No. C84928 Exp. 06/30/21 ★ CIVIL ★ STATE OF CALIFORNIA

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PREPARED BY
ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. 84928
EXP. 06/30/21

DRAWN KV | SCALE AS SHOWN
DESIGNED ZS | DATE JAN. 2020
CHECKED AK

TITLE
PUMP STATION SECTION

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P.: (714) 481-7300 | www.pacewater.com

SHEET
M2.0
15 OF 62 SHEETS

JOB NO. 9862-E

Xrefs: 9862 DPW-1 Mech-sections.dwg; 9862 DPW-1 Mech-sections dwg; 36x24x (DPW-1.dwg
Dimscale = 1; LTscale = 1; PSStyle = 1; ACAD Ver. = 23.0s (LMS Tech); Viewtain = 1
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Department of Public Works, Los Angeles County

Checked _____ 2/20/2020

Design Division — Date

GENERAL ENGINEERING CONTRACTORS
CA License No. 256065 •A, C-16, HAZ, HIC
P.O. Box 672 • Oxnard, CA 91302-0672
3201 Sturgis Road • Oxnard, CA 93030
(805) 656-1432 • FAX (805) 485-0338

REQUEST FOR INFORMATION

DATE: 1-23-2020 RFI #: **007**

Attention: Tom Hay, Tom Hay Consulting Bob Brazell, FivePoint Brian Reid, PACE Matt Mills, PACE Fax #: 661-255-4296	From: Chedrick Gonzales Delivered Via: Email Blois Construction Project No.: 3065 Project Name: Mission Village Sewer Lift Station DPW-1

Subject:	**Wet Well Sump Dimension Discrepancy**
Reference:	Drawing Sheets: M2.0, M2.1, S1.1 Detail Numbers: N/A Spec. Sections: N/A Schedule Activities Impacted: Topping Slab Installation

INFORMATION REQUESTED:

There is a discepancy with the wet well sump dimension.

Per mechanical plan sheet M2.0, sump should be 4’-10” from inside face of south wall to topping slab. Then on sheet M2.1, has the sump 5’-2” from inside face of west wall to topping slab.

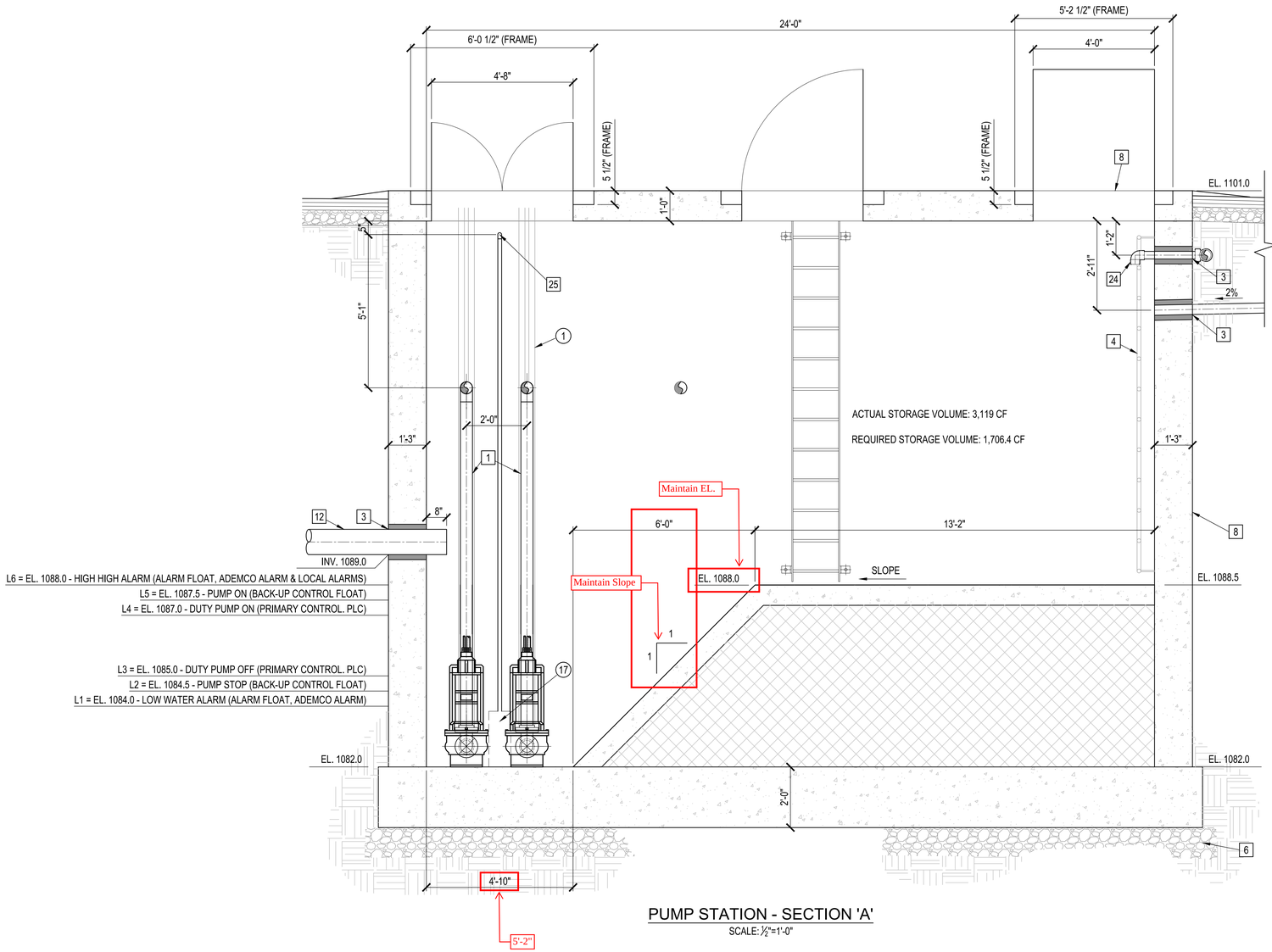
Structural plan sheet S1.1, shows the sump: 4’-10” from inside face of west wall to topping slab, then 5’-2” from inside face of south wall to topping slab. Can you please clarify?

Response Requested by:	**1/27/2020**		
If a definitive response is not received by this date Project Schedule Will be Delayed	☐ YES ☐ NO ☒ Uncertain	Potential Cost Impact	☐ YES ☐ NO ☒ Uncertain

RESPONSE: Dimensions of the wet well sump shall be as indicated on Structural Sheet S1.1. The contractor shall consider the wet well dimension seen in Section 'A' on Sheet M2.0 as 5'-2" and the dimension seen in Section 'B' on Sheet M2.1 as 4'-10". The contractor shall maintain the indicated slope and elevation seen in both Sections.

BY: M.M. DATE: 01/30/20

From RFI #7



PUMP STATION - SECTION 'A'

SCALE: ½"=1'-0"

CONSTRUCTION NOTES:

1. INSTALL WELDED 316 SST 4" SCH.40 PUMP DISCHARGE LINES INSIDE WET WELL.
2. INSTALL 316 SST 4" SCH.40 PIPE AND FITTINGS (FLG'D).
3. INSTALL PIPE PENETRATION PER DETAIL H/M3.0
4. INSTALL ACCESS LADDER PER DETAIL F/M3.0
5. INSTALL 4" FLEX JOINT PER ITEM 10 IN EQUIPMENT LIST.
6. VAULT / WET WELL 6" MIN COMPACTED SUBGRADE PER GEOTECHNICAL ENGINEER.
7. CONCRETE VALVE VAULT AND REMOVABLE ALUMINUM HATCHES.
8. CONCRETE WET WELL. SEE STRUCTURAL PLANS.
9. PIPE SUPPORT PER DETAIL A/M3.1
10. SITE PAVEMENT PER CIVIL PLANS.
11. NOT USED.
12. 10" PVC SEWER INLET PIPE TO WET WELL.
13. NOT USED.
14. INSTALL (2) x 1" 316 SST SCH.40 AIR RELEASE PIPE CONNECTED TO WET WELL.
15. INSTALL ALUMINUM ACCESS STAIRWAY WITH HANDRAIL. CONTRACTOR TO PROVIDE DEFERRED SUBMITTAL FOR RISE / RUN RATIO STRUCTURAL CALCS AND DESIGN.
16. INSTALL PIPE PENETRATION PER DETAIL I/M3.0
17. INSTALL WET WELL AIR VENT PER DETAIL D/M3.1
18. 12" THK CONCRETE TOPPING.
19. INSTALL ½" 316 SST SCH.40 AIR PIPE TO FORCE MAIN PIPES WITH ISOLATION VALVE PER DETAIL G/M3.0
20. INSTALL 10" PVC VALVE VAULT VENT PIPE PER DETAIL D/M3.1
21. NOT USED.
22. INSTALL FORCE MAIN PRESSURE TRANSFORMER AND PRESSURE GAUGE PER DETAIL D/M3.0
23. INSTALL 4" PVC SCH 80 PIPE FROM AIR GAP AND SOLENOID CONTROL VALVE TO WET WELL FOR TANK FLUSHING.
24. INSTALL 3" PVC SCH 80 PIPE PENETRATION AND ELBOW (TYP OF 4).
25. INSTALL 1½" 316 SST SCH.40 AIR PIPE AND MIXER 17 PER DETAIL H/M3.1

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER ★ ANDREW T. KOMOR ★ No. 084928 Exp. 06/30/21 ★ CIVIL ★ STATE OF CALIFORNIA

PREPARED BY: ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. 84928
EXP. 06/30/21

DRAWN: KV
DESIGNED: ZS
CHECKED: AK
SCALE: AS SHOWN
DATE: JAN. 2020

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TITLE: PUMP STATION SECTION

JOB: MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
VALENCIA CA

PACE
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P: (714) 481-7300 | www.pacewater.com

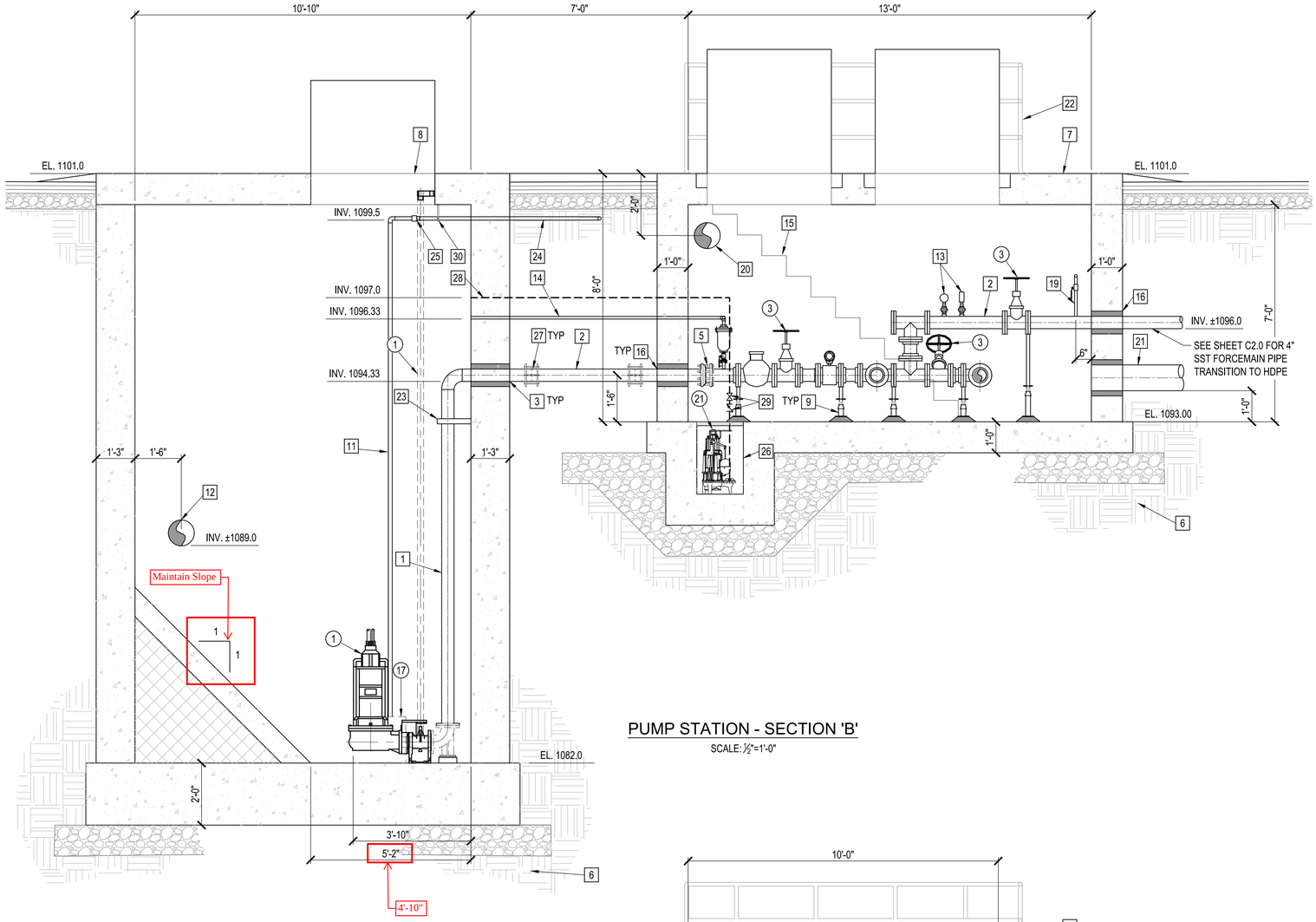
SHEET M2.0
15 OF 61 SHEETS

JOB NO. 9862-E

Xrefs: 9862 DPW-1 Mech-sections.dwg; 9862 DPW-1 Mech-sections.dwg; 36x24v (DPW-1.dwg
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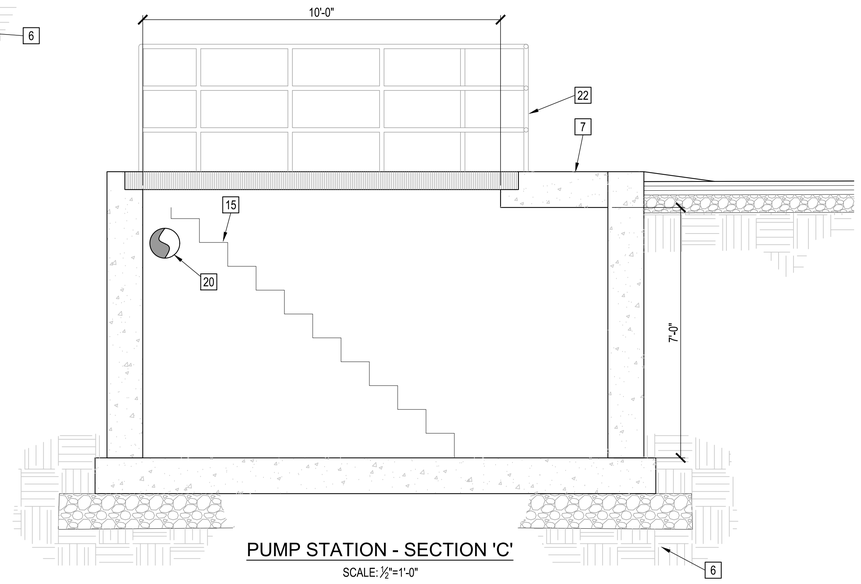
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From RFI #7



PUMP STATION - SECTION 'B'

SCALE: ½"=1'-0"



PUMP STATION - SECTION 'C'

SCALE: ½"=1'-0"

CONSTRUCTION NOTES:

1. INSTALL 316 SST 4" PUMP DISCHARGE LINES INSIDE WET WELL.
2. INSTALL SCH.40 4" 316 SST PIPE AND FITTINGS (FLG'D) INSIDE VALVE VAULT.
3. INSTALL PIPE PENETRATION PER DETAIL H/M3.0
4. INSTALL ACCESS LADDER PER DETAIL F/M3.0
5. INSTALL 4" RESTRAINED FLANGE COUPLING OR EQUAL. SEE EQUIPMENT LIST ITEM (10)
6. VAULT / WET WELL COMPACTED SUBGRADE PER GEOTECHNICAL ENGINEER.
7. CONCRETE VALVE VAULT AND REMOVABLE ALUMINUM HATCHES.
8. CONCRETE WET WELL. SEE STRUCTURAL PLANS.
9. PIPE SUPPORT PER DETAIL A/M3.1
10. SITE PAVEMENT PER CIVIL PLANS.
11. INSTALL 1½" 316 SST SCH.40 AIR PIPE AND MIXER (17).
12. 10" PVC SEWER INLET PIPE TO WET WELL.
13. INSTALL FORCE MAIN PRESSURE TRANSDUCER AND PRESSURE GAUGE PER DETAIL D/M3.0 J/M3.0
14. INSTALL (2) x 1" 316 SST SCH.40 AIR RELEASE PIPE CONNECTED TO WET WELL.
15. INSTALL GALVANIZED STEEL OR ALUMINUM ACCESS STAIRWAY WITH HANDRAILS. CONTRACTOR TO PROVIDE DEFERRED SUBMITTAL FOR RISE / RUN RATIO STRUCTURAL CALCS AND DESIGN. CONFORMING OSHA REQUIREMENTS. SEE SHEET A7.0.
16. INSTALL PIPE PENETRATION PER DETAIL I/M3.0
17. INSTALL WET WELL AIR VENT PER DETAIL D/M3.1
18. 12" THK CONCRETE TOPPING.
19. INSTALL ½" 316 SST SCH.40 AIR PIPE TO FORCE MAIN PIPES WITH ISOLATION VALVE PER DETAIL G/M3.0
20. INSTALL 10" PVC VALVE VAULT VENT PIPE PER DETAIL D/M3.1
21. INSTALL 10" PVC AIR SUPPLY PIPES AND FAN PER DETAIL E/M3.1
22. INSTALL ALUMINUM GUARDRAIL PER DETAIL J/M3.1
23. PIPE SUPPORT PER DETAIL C/M3.1
24. INSTALL 1½" SST SCH.40 AIR PIPE. SEE M1.2 FOR PLAN VIEW.
25. INSTALL 1½" SST CAMLOCK QUICK COUPLING FOR MIXER AIR PIPE.
26. SUMP PUMP SHALL BE 18" x 18" x 28" (DEEP) WITH EPOXY COATINGS AND INSTALL 1" DEEP 1½" x 1½" FIBERGLASS GRATE OVER SUMP WITH 316 SST ANGLE SUPPORTS CUT TO FIT PIPING PENETRATION.
27. INSTALL 4" SST FLEXIBLE COUPLING. SEE EQUIPMENT LIST ITEM (24)
28. INSTALL 2" 316 SST TO WET WELL PIPE FROM SUMP PUMP.
29. 2" BRONZE CHECK VALVE AND 2" BRONZE GATE VALVE FOR SUMP PUMP DISCHARGE.
30. PIPE SUPPORT PER DETAIL G/M3.1

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER ★ ANDREW T. KOMOR ★ No. 084928 Exp. 06/30/21 CIVIL ★ STATE OF CALIFORNIA

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PREPARED BY: ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. 84928
EXP. 06/30/21

DRAWN: KV
DESIGNED: ZS
CHECKED: AK
SCALE: AS SHOWN
DATE: JAN. 2020

TITLE: PUMP STATION SECTION

JOB: MISSION VILLAGE
DPW-1 SEWER
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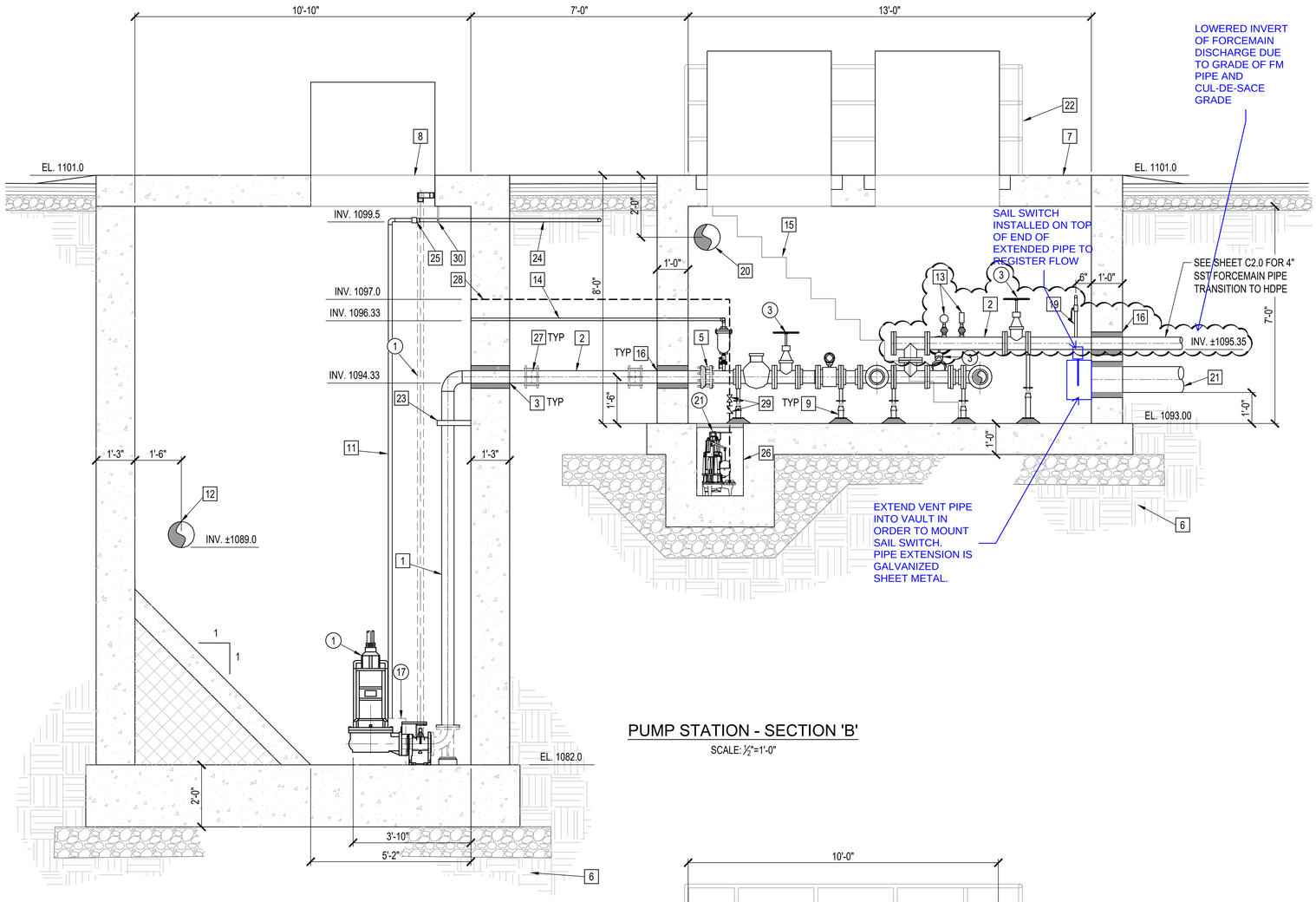
SHEET
M2.1
16 OF 61 SHEETS

JOB NO. 9862-E

Xrefs: 9862 DPW-1 Mech-sections.dwg; 9862 DPW-1 Mech-sections.dwg; 36x24 DPW-1.dwg
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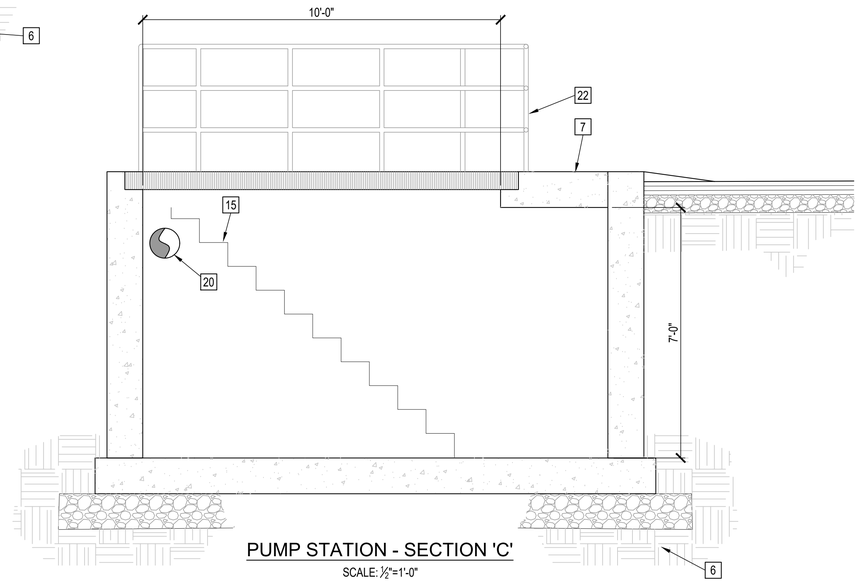
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M2.1 REVISED/UPDATED



PUMP STATION - SECTION 'B'

SCALE: ½"=1'-0"



PUMP STATION - SECTION 'C'

SCALE: ½"=1'-0"

CONSTRUCTION NOTES:

1. INSTALL 316 SST 4" PUMP DISCHARGE LINES INSIDE WET WELL.
2. INSTALL SCH.40 4" 316 SST PIPE AND FITTINGS (FLG'D) INSIDE VALVE VAULT.
3. INSTALL PIPE PENETRATION PER DETAIL H/M3.0
4. INSTALL ACCESS LADDER PER DETAIL F/M3.0
5. INSTALL 4" RESTRAINED FLANGE COUPLING OR EQUAL. SEE EQUIPMENT LIST ITEM 10
6. VAULT / WET WELL COMPACTED SUBGRADE PER GEOTECHNICAL ENGINEER.
7. CONCRETE VALVE VAULT AND REMOVABLE ALUMINUM HATCHES.
8. CONCRETE WET WELL. SEE STRUCTURAL PLANS.
9. PIPE SUPPORT PER DETAIL A/M3.1
10. SITE PAVEMENT PER CIVIL PLANS.
11. INSTALL 1½" 316 SST SCH.40 AIR PIPE AND MIXER 17.
12. 10" PVC SEWER INLET PIPE TO WET WELL.
13. INSTALL FORCE MAIN PRESSURE TRANSDUCER AND PRESSURE GAUGE PER DETAIL D/M3.0 J/M3.0
14. INSTALL (2) x 1" 316 SST SCH.40 AIR RELEASE PIPE CONNECTED TO WET WELL.
15. INSTALL GALVANIZED STEEL OR ALUMINUM ACCESS STAIRWAY WITH HANDRAILS. CONTRACTOR TO PROVIDE DEFERRED SUBMITTAL FOR RISE / RUN RATIO STRUCTURAL CALCS AND DESIGN. CONFORMING OSHA REQUIREMENTS. SEE SHEET A7.0.
16. INSTALL PIPE PENETRATION PER DETAIL I/M3.0
17. INSTALL WET WELL AIR VENT PER DETAIL D/M3.1
18. 12" THK CONCRETE TOPPING.
19. INSTALL ½" 316 SST SCH.40 AIR PIPE TO FORCE MAIN PIPES WITH ISOLATION VALVE PER DETAIL G/M3.0
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27. INSTALL 4" SST FLEXIBLE COUPLING. SEE EQUIPMENT LIST ITEM 24
28. INSTALL 2" 316 SST TO WET WELL PIPE FROM SUMP PUMP.
29. 2" BRONZE CHECK VALVE AND 2" BRONZE GATE VALVE FOR SUMP PUMP DISCHARGE.
30. PIPE SUPPORT PER DETAIL G/M3.1

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER ANDREW T. KOMOR No. 62488 Exp. 06.30.21 CIVIL STATE OF CALIFORNIA

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PREPARED BY: ANDY KOMOR
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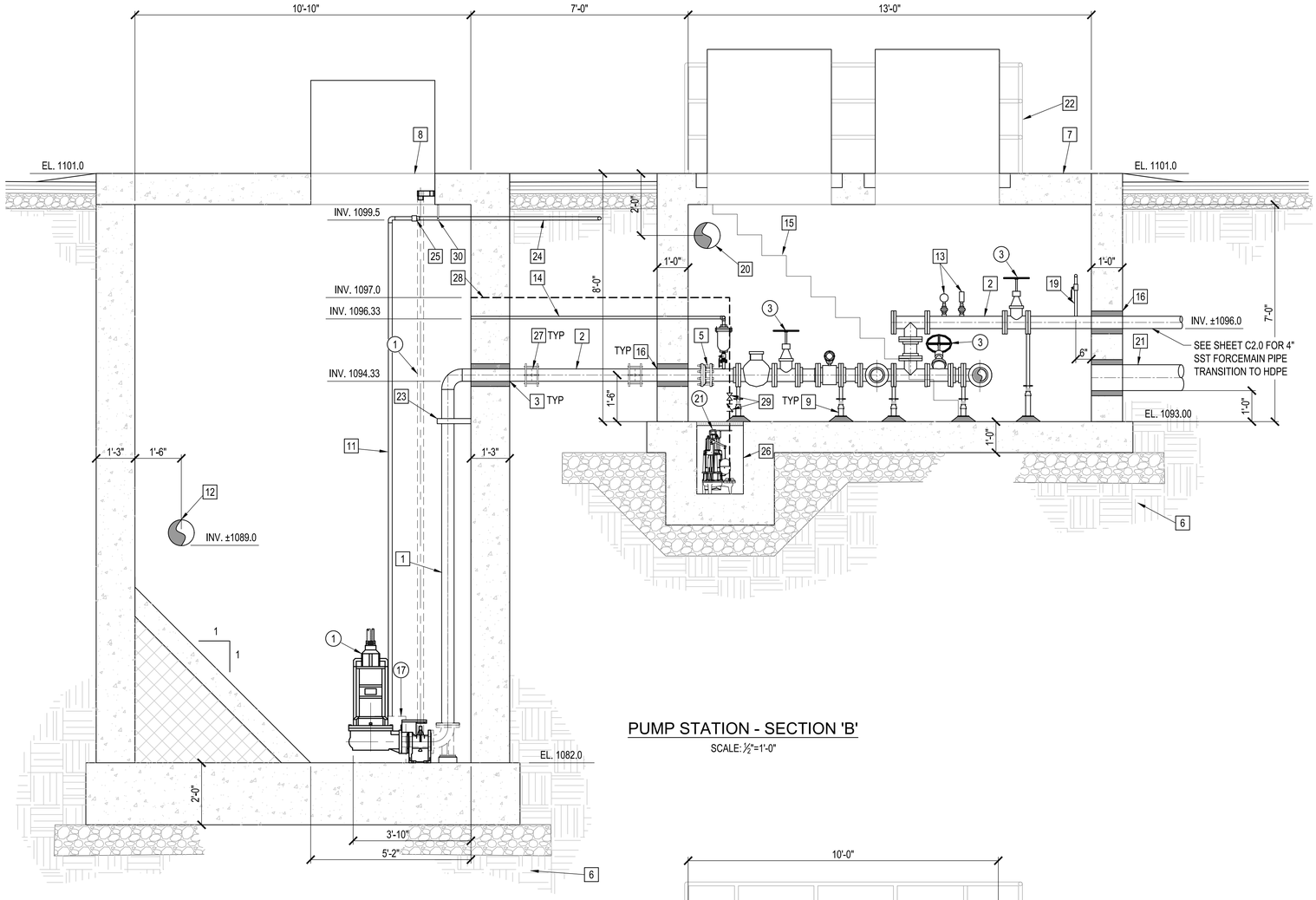
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Design Division Date

SHEET M2.1
16 OF 62 SHEETS

JOB NO. 9862-E

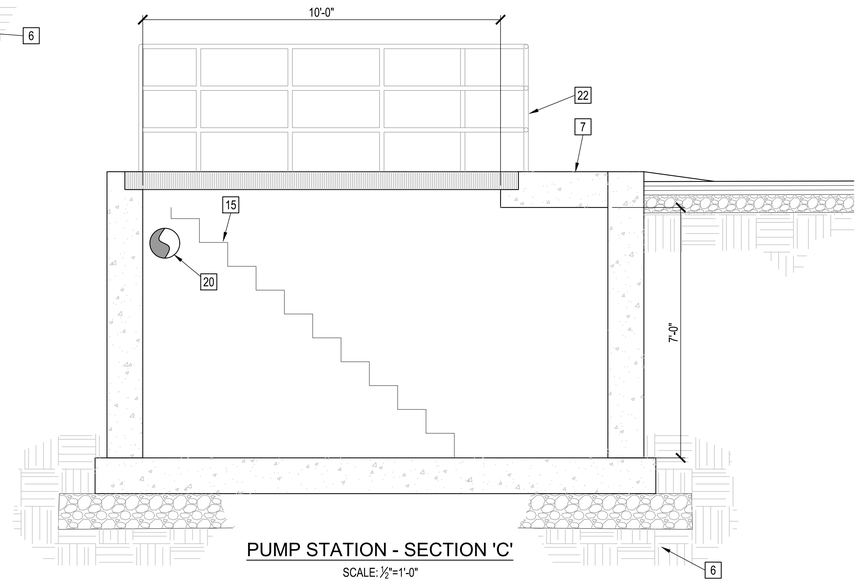
Xrefs: 9862 DPW-1 Mech-sections.dwg; 9862 DPW-1 Mech-sections.dwg; 36x24v DPW-1.dwg
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PUMP STATION - SECTION 'B'

SCALE: ½"=1'-0"



PUMP STATION - SECTION 'C'

SCALE: ½"=1'-0"

CONSTRUCTION NOTES:

1. INSTALL 316 SST 4" PUMP DISCHARGE LINES INSIDE WET WELL.
2. INSTALL SCH.40 4" 316 SST PIPE AND FITTINGS (FLG'D) INSIDE VALVE VAULT.
3. INSTALL PIPE PENETRATION PER DETAIL H/M3.0
4. INSTALL ACCESS LADDER PER DETAIL F/M3.0
5. INSTALL 4" RESTRAINED FLANGE COUPLING OR EQUAL. SEE EQUIPMENT LIST ITEM (10)
6. VAULT / WET WELL COMPACTED SUBGRADE PER GEOTECHNICAL ENGINEER.
7. CONCRETE VALVE VAULT AND REMOVABLE ALUMINUM HATCHES.
8. CONCRETE WET WELL. SEE STRUCTURAL PLANS.
9. PIPE SUPPORT PER DETAIL A/M3.1
10. SITE PAVEMENT PER CIVIL PLANS.
11. INSTALL 1½" 316 SST SCH.40 AIR PIPE AND MIXER (17).
12. 10" PVC SEWER INLET PIPE TO WET WELL.
13. INSTALL FORCE MAIN PRESSURE TRANSDUCER AND PRESSURE GAUGE PER DETAIL D/M3.0 J/M3.0
14. INSTALL (2) x 1" 316 SST SCH.40 AIR RELEASE PIPE CONNECTED TO WET WELL.
15. INSTALL GALVANIZED STEEL OR ALUMINUM ACCESS STAIRWAY WITH HANDRAILS. CONTRACTOR TO PROVIDE DEFERRED SUBMITTAL FOR RISE / RUN RATIO STRUCTURAL CALCS AND DESIGN. CONFORMING OSHA REQUIREMENTS. SEE SHEET A7.0.
16. INSTALL PIPE PENETRATION PER DETAIL I/M3.0
17. INSTALL WET WELL AIR VENT PER DETAIL D/M3.1
18. 12" THK CONCRETE TOPPING.
19. INSTALL ½" 316 SST SCH.40 AIR PIPE TO FORCE MAIN PIPES WITH ISOLATION VALVE PER DETAIL G/M3.0
20. INSTALL 10" PVC VALVE VAULT VENT PIPE PER DETAIL D/M3.1
21. INSTALL 10" PVC AIR SUPPLY PIPES AND FAN PER DETAIL E/M3.1
22. INSTALL ALUMINUM GUARDRAIL PER DETAIL J/M3.1
23. PIPE SUPPORT PER DETAIL C/M3.1
24. INSTALL 1½" SST SCH.40 AIR PIPE. SEE M1.2 FOR PLAN VIEW.
25. INSTALL 1½" SST CAMLOCK QUICK COUPLING FOR MIXER AIR PIPE.
26. SUMP PUMP SHALL BE 18" x 18" x 28" (DEEP) WITH EPOXY COATINGS AND INSTALL 1" DEEP 1½" x 1½" FIBERGLASS GRATE OVER SUMP WITH 316 SST ANGLE SUPPORTS CUT TO FIT PIPING PENETRATION.
27. INSTALL 4" SST FLEXIBLE COUPLING. SEE EQUIPMENT LIST ITEM (24)
28. INSTALL 2" 316 SST TO WET WELL PIPE FROM SUMP PUMP.
29. 2" BRONZE CHECK VALVE AND 2" BRONZE GATE VALVE FOR SUMP PUMP DISCHARGE.
30. PIPE SUPPORT PER DETAIL G/M3.1

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER ★ ANDREW T. KOMOR ★ No. 063928 Exp. 06/30/21 ★ CIVIL ★ STATE OF CALIFORNIA

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PREPARED BY
ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. 063928
EXP. 06/30/21

DRAWN: KV
DESIGNED: ZS
CHECKED: AK
SCALE: AS SHOWN
DATE: JAN. 2020

TITLE
PUMP STATION SECTION

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

Department of Public Works, Los Angeles County

Checked _____ 2/20/2020

Design Division — Date

SHEET
M2.1
16 OF 62 SHEETS

JOB NO. 9862-E

Xrefs: 9862 (DPW-1 Mech-sections.dwg, 9862 (DPW-1 Mech-sections.dwg, 36x24r DPW-1.dwg
Dimscale = 1; LTScale = 1; PSltscale = 1; ACAD Ver. = 23.0s (LMS Tech); Visretain = 1

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GENERAL ENGINEERING CONTRACTORS
CA License No. 256065 •A, C-16, HAZ, HIC
P.O. Box 672 • Oxnard, CA 91302-0672
3201 Sturgis Road • Oxnard, CA 93030
(805) 656-1432 • FAX (805) 485-0338

REQUEST FOR INFORMATION

DATE: 3-9-2020 RFI #: **015**

Attention: Tom Hay Bob Brazell, FivePoint Brian Reid, PACE Matt Mills, PACE	From: Matt Messerly Delivered Via: Email Blois Construction Project No.: 3065 Project Name: Mission Village Sewer Lift Station DPW-1

Subject:	**Move Pipe Penetrations at Wet Well**
Reference:	Drawing Sheets: M1.2, M2.0, M2.1 Detail Numbers: Spec. Sections: Schedule Activities Impacted: Structural Concrete Formwork Submittal

INFORMATION REQUESTED:

Please see the attached/below RFI from our structural concrete subcontractor R. Dugan Construction:

Can we move a total of 5 pipe penetrations located in the Wet-well to accommodate the steel formwork system:
1. On Sheet #1 of our pipe penetration plan "Section A" can we slide one of the 1" SST Air release pipes over 9 inches and then lower the 2" SST drainpipe 4 inches.
2. On Sheet #2 of our pipe penetration plan "Section D" can we slide two 3" Sch 80 PVC pipes over 9 inches and slide the 4" PVC vent pipe 2 inches. (per attached plan)

Please let us know if you have any questions on this.

Please review and advise.

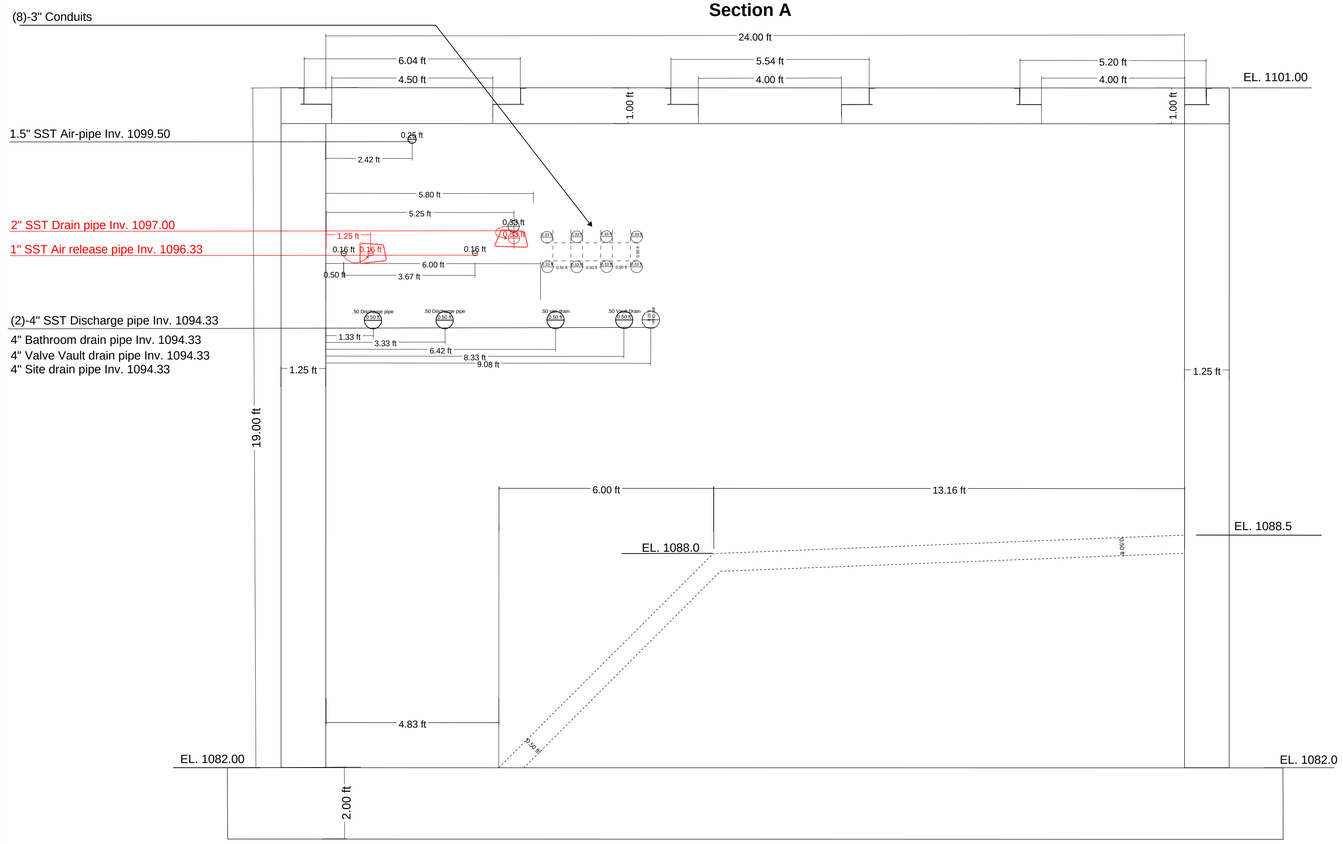
Response Requested by:	**3/17/2020**		
If a definitive response is not received by this date Project Schedule Will be Delayed	☐ YES ☐ NO ☒ Uncertain	Potential Cost Impact	☐ YES ☐ NO ☒ Uncertain

RESPONSE: PACE takes no exceptions to the proposed modifications to the 5 pipe penetrations indicated in the wet well plans below. The contractor is responsible for coordinating the necessary modifications to the pipe runs to accommodate the change in penetration location.

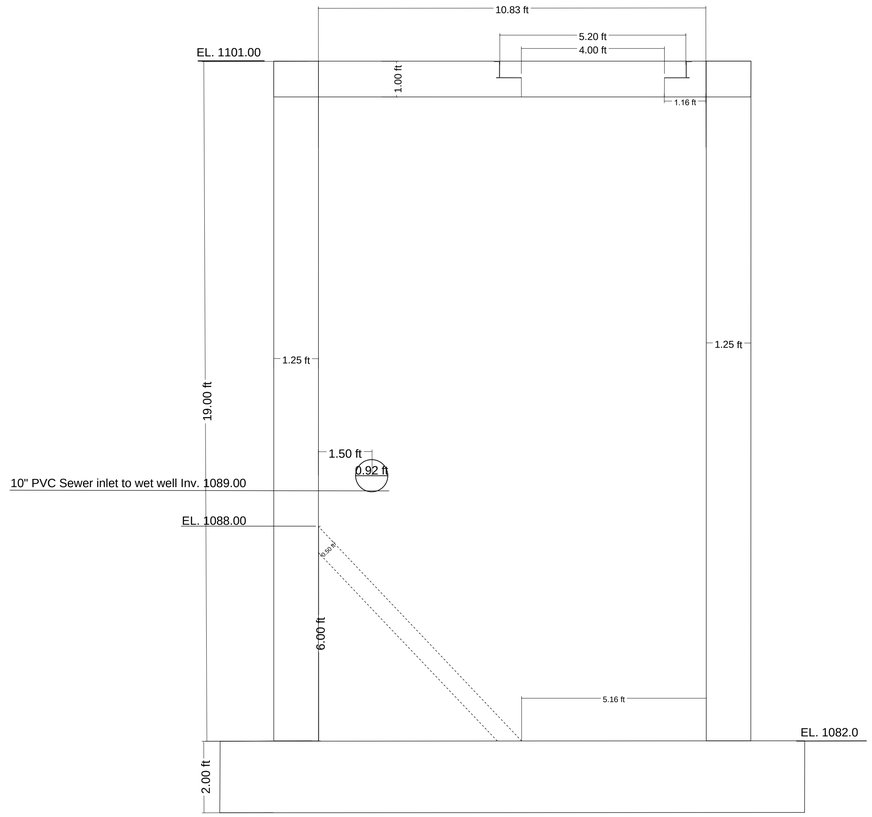
BY: M.M. DATE: 03/13/2020

RFI #15

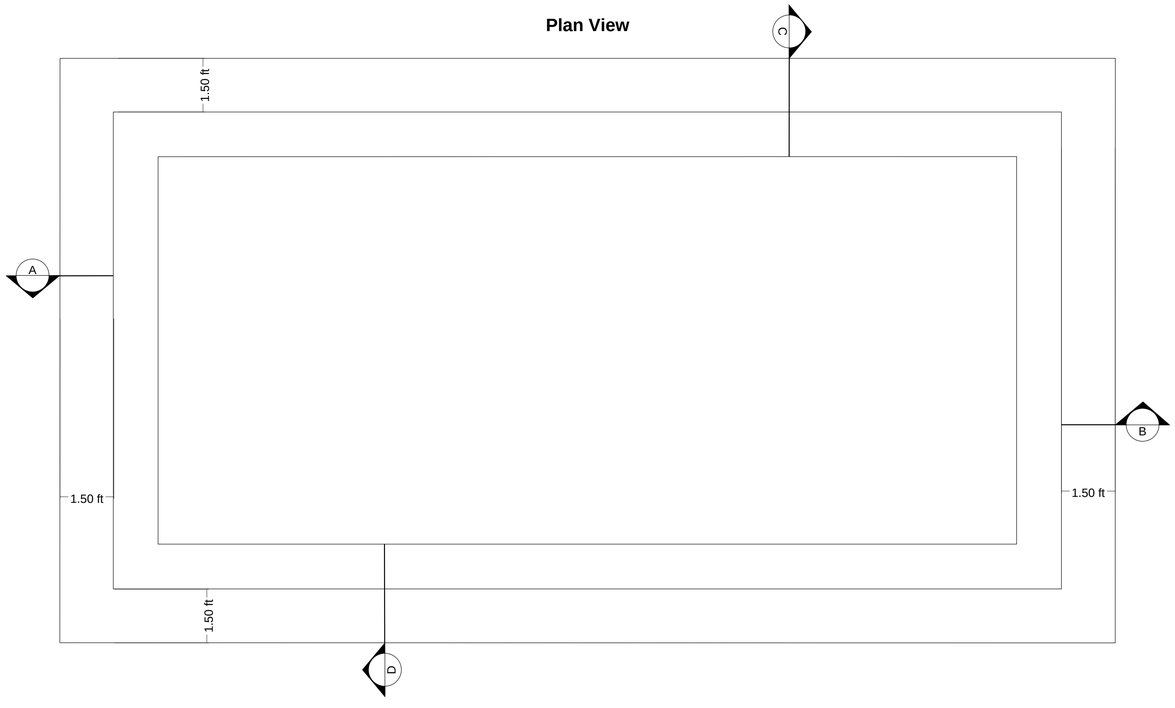
Section A



Section C



Plan View



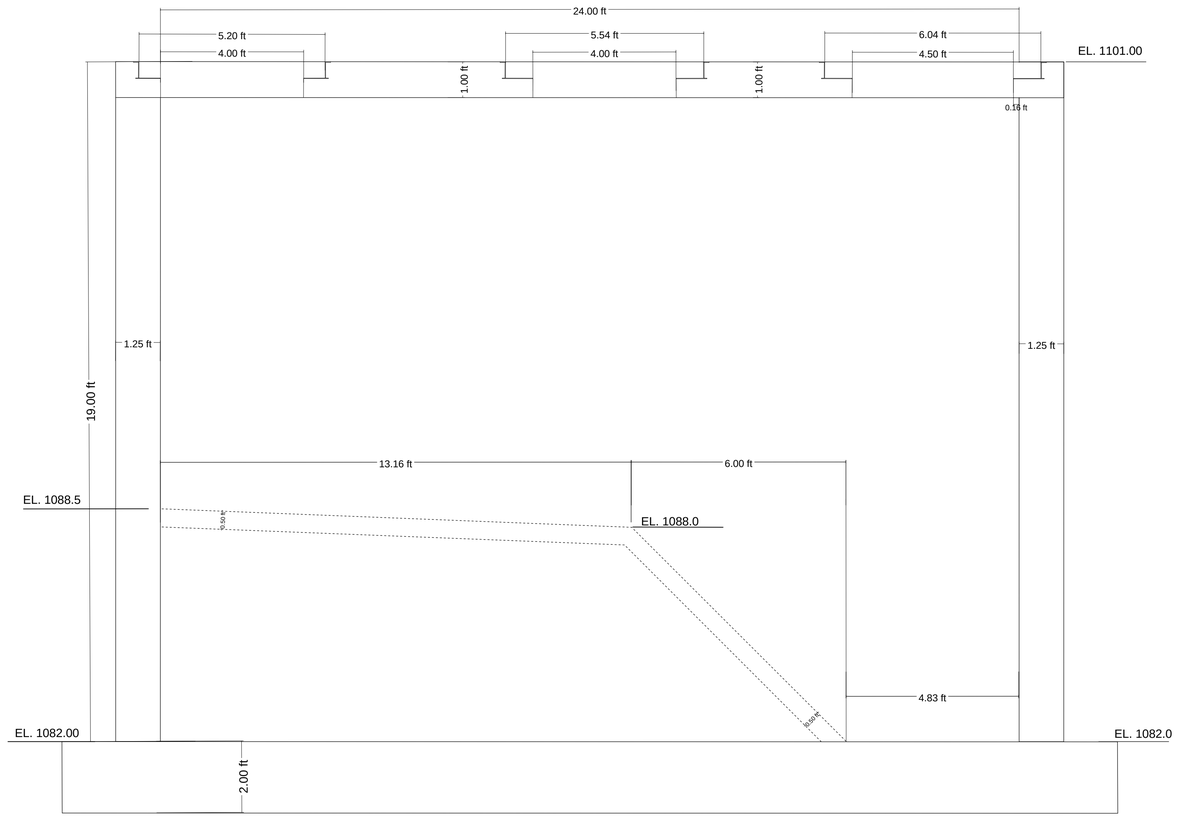
Revision 4		-	-
Revision 3		-	-
Revision 2		-	-
Revision 1		-	-

R. DUGAN CONSTRUCTION, INC
Some Brains at Concrete Structures
Phone: (951) 360-7531
Fax: (951) 360-7561
Email: WendyD@rdugandconst.com

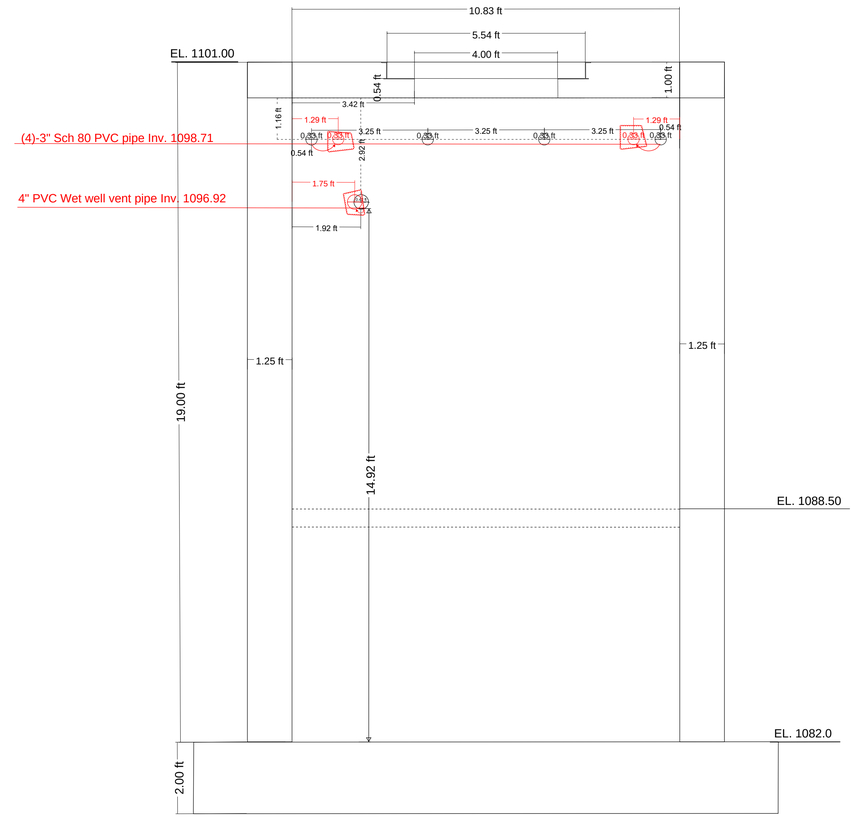
			by	Date
Company	R Dugan Construction	drawn	WD	2/27/20
Project	Mission Village DPW-01	checked		
Subject	Wet-Well			
	Pipe penetration placement			
Scale	Project No. 1062	Order No.	Drwg.No. C0.02	

RFI #15

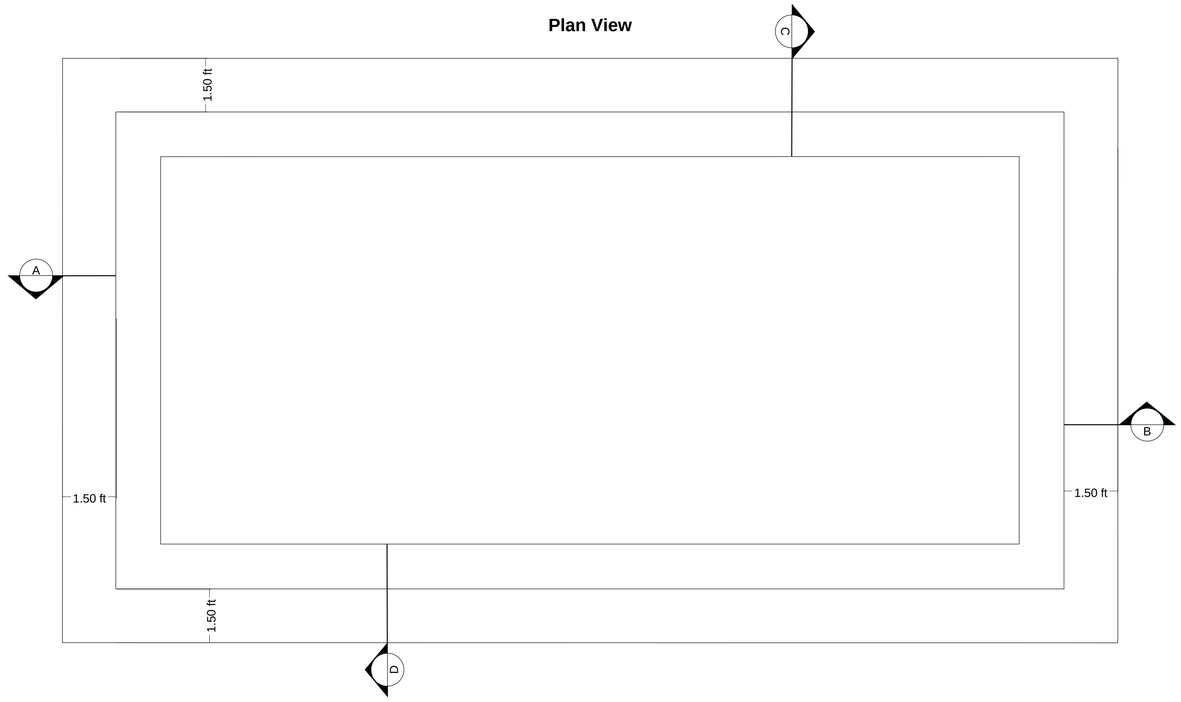
Section B



Section D



Plan View



Revision 4		.	.
Revision 3		.	.
Revision 2		.	.
Revision 1		.	.

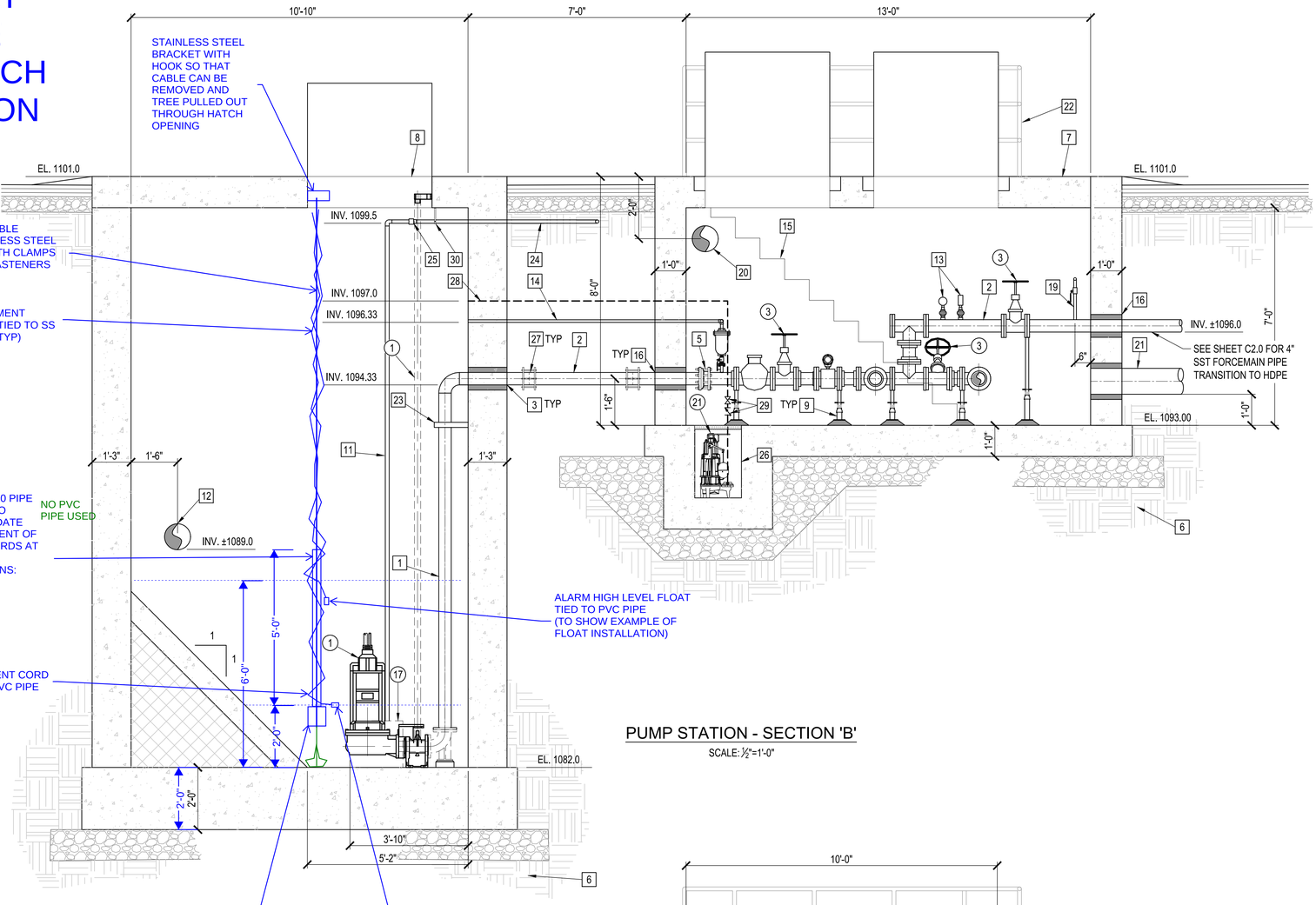
R. DUGAN CONSTRUCTION INC
Source Studio @ Concrete Structures

Phone: (951) 360-7531
Fax: (951) 360-7561
Email: WendyD@rduganconst.com

			by	Date
Company	R Dugan Construction	drawn	WD	2/27/20
Project	Mission Village DPW-01	checked		
Subject	Wet-Well			
	Pipe penetration placement			
Scale	Project No. 1062	Order No.	Dwg.No. C0.03	

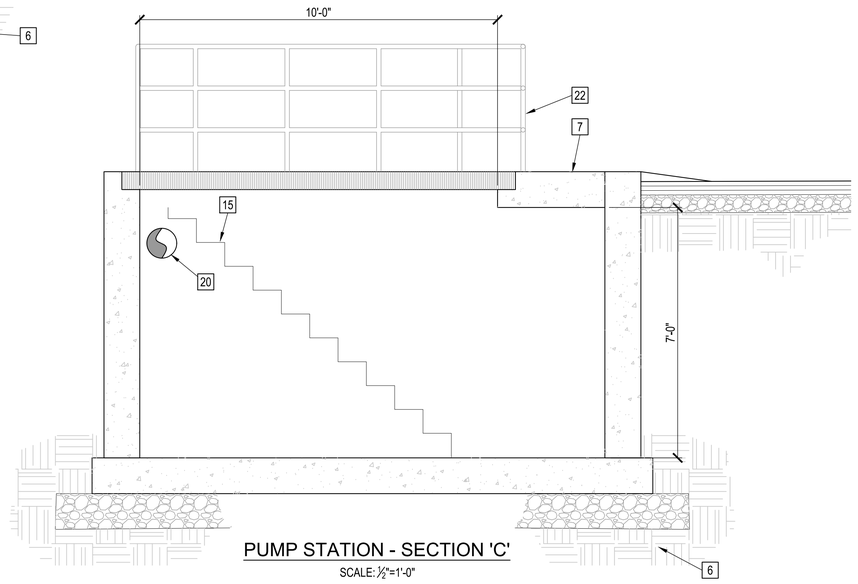
FROM RFI #100

FLOAT TREE SKETCH OPTION



PUMP STATION - SECTION 'B'

SCALE: ½"=1'-0"



PUMP STATION - SECTION 'C'

SCALE: ½"=1'-0"

CONSTRUCTION NOTES:

1. INSTALL 316 SST 4" PUMP DISCHARGE LINES INSIDE WET WELL.
2. INSTALL SCH.40 4" 316 SST PIPE AND FITTINGS (FLG'D) INSIDE VALVE VAULT.
3. INSTALL PIPE PENETRATION PER DETAIL H/M3.0
4. INSTALL ACCESS LADDER PER DETAIL F/M3.0
5. INSTALL 4" RESTRAINED FLANGE COUPLING OR EQUAL. SEE EQUIPMENT LIST ITEM 10
6. VAULT / WET WELL COMPACTED SUBGRADE PER GEOTECHNICAL ENGINEER.
7. CONCRETE VALVE VAULT AND REMOVABLE ALUMINUM HATCHES.
8. CONCRETE WET WELL. SEE STRUCTURAL PLANS.
9. PIPE SUPPORT PER DETAIL A/M3.1
10. SITE PAVEMENT PER CIVIL PLANS.
11. INSTALL 1½" 316 SST SCH.40 AIR PIPE AND MIXER 17.
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13. INSTALL FORCE MAIN PRESSURE TRANSDUCER AND PRESSURE GAUGE PER DETAIL D/M3.0 J/M3.0
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27. INSTALL 4" SST FLEXIBLE COUPLING. SEE EQUIPMENT LIST ITEM 24
28. INSTALL 2" 316 SST TO WET WELL PIPE FROM SUMP PUMP.
29. 2" BRONZE CHECK VALVE AND 2" BRONZE GATE VALVE FOR SUMP PUMP DISCHARGE.
30. PIPE SUPPORT PER DETAIL G/M3.1

NO	BY	DATE	REVISIONS	DATE	APP.

PREPARED BY
ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. ---
EXP. 06/30/21

DRAWN KV | SCALE AS SHOWN | DATE JAN. 2020
DESIGNED ZS
CHECKED AK

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TITLE
PUMP STATION SECTION

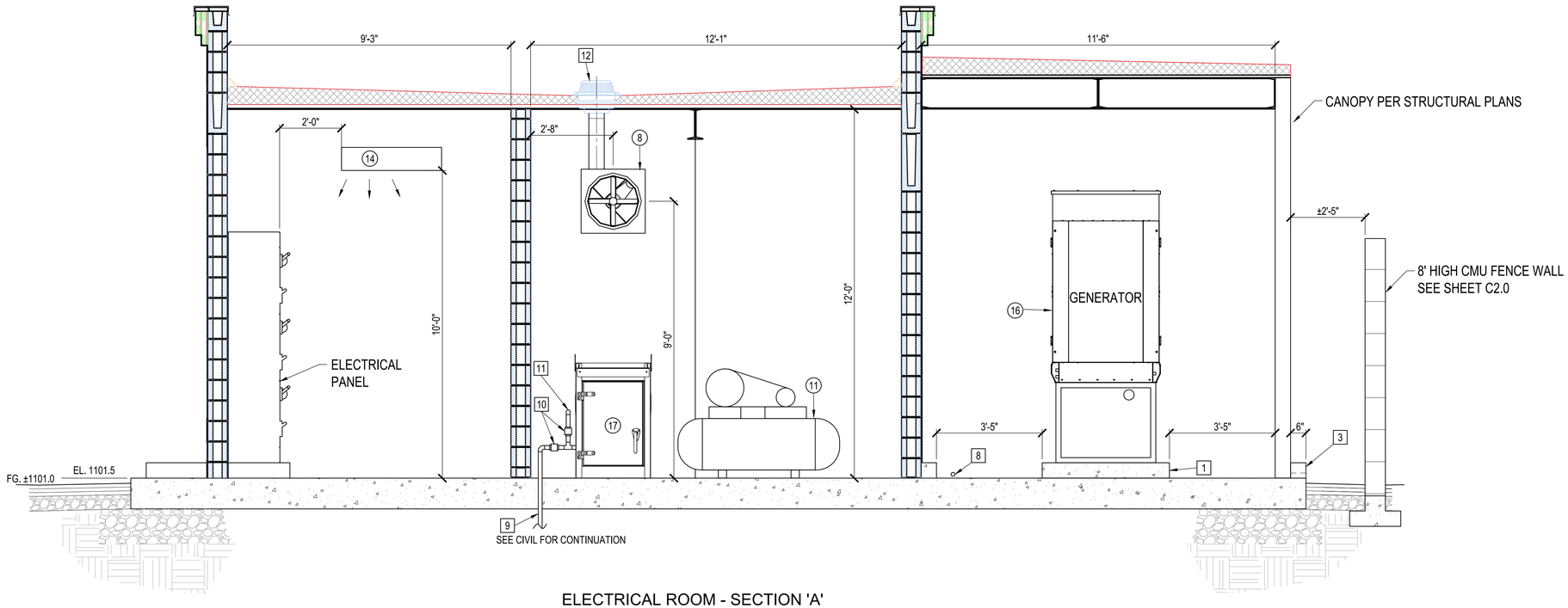
JOB
MISSION VILLAGE
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PACE
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P: (714) 481-7300 | www.paceadvancedwater.com

Department of Public Works, Los Angeles County
Checked _____ 2/20/2020
Design Division Date

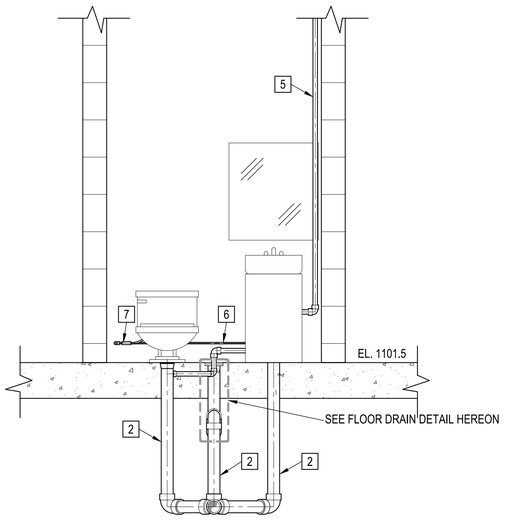
SHEET M2.1
16 OF 62 SHEETS
JOB NO. 9862-E

Xrefs: 9862 (DPW-1 Mech-sections.dwg, 9862 (DPW-1 Mech-sections.dwg, 36x24 DPW-1.dwg
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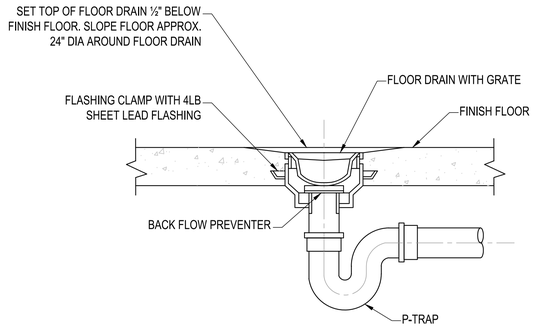
ELECTRICAL ROOM - SECTION 'A'

SCALE: ½"=1'-0"



TOILET ROOM PLUMBING - SECTION 'B'

SCALE: ½"=1'-0"



FLOOR DRAIN DETAIL

SCALE: N.T.S.

CONSTRUCTION NOTES:

1. INSTALL GENERATOR PAD PER STRUCTURAL PLANS.
2. INSTALL 4" PVC DRAIN LINE TO WET WELL, SEE SECTION B ON THIS SHEET.
3. SPILL CONTAINMENT CURB TO BE PAINTED SAFETY YELLOW.
4. NOT USED.
5. 1½" SCH40 PVC VENT LINE TO ROOF.
6. ¾" HDPE SDR11 BLUE STRIPE COLD WATER SUPPLY LINE.
7. SHUTOFF ANGLE VALVE.
8. 1½" PVC BALL VALVE FOR DRAIN AT FRONT CURB, NORMALLY OPEN.
9. 1½" 316 SST SCH.40 AIR PIPE TO WET WELL AERATION MIXER
10. 1½" SST BALL VALVE FOR AIR FLOW ADJUSTMENT.
11. 1½" 316 SST SCH.40 AIR PIPE TO OUTSIDE BUILDING WALL
12. ROOF DRAIN. SEE SHEET A8.0 DETAIL 8

NO	BY	DATE	REVISIONS	DATE	APP.

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REGISTERED PROFESSIONAL ENGINEER ANDREW T. KOMOR No. C84928 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

PREPARED BY
ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. C84928
EXP. 06/30/21

DRAWN KV | SCALE AS SHOWN
DESIGNED ZS | DATE JAN. 2020
CHECKED AK

TITLE
ELECTRICAL ROOM SECTION

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.paceadvancedwater.com

Department of Public Works, Los Angeles County

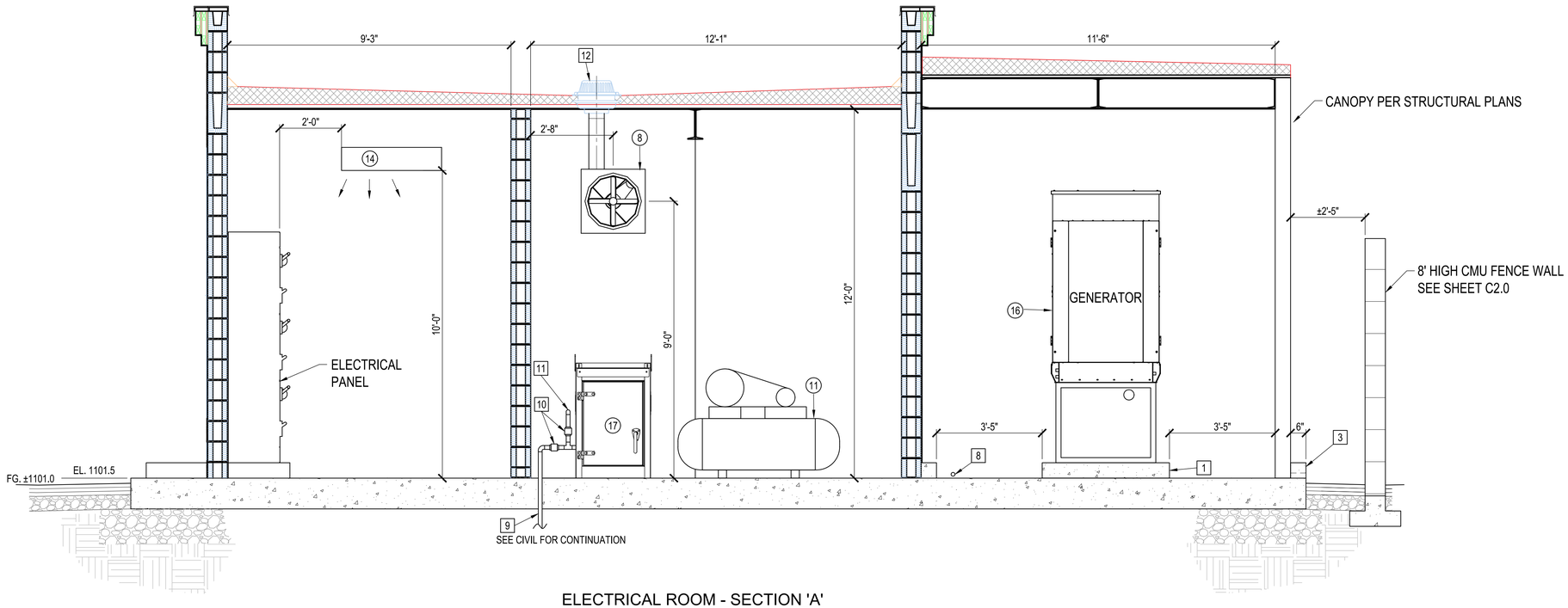
Checked _____ 2/20/2020
Design Division Date

SHEET
M2.2
17 OF 62 SHEETS

JOB NO. 9862-E

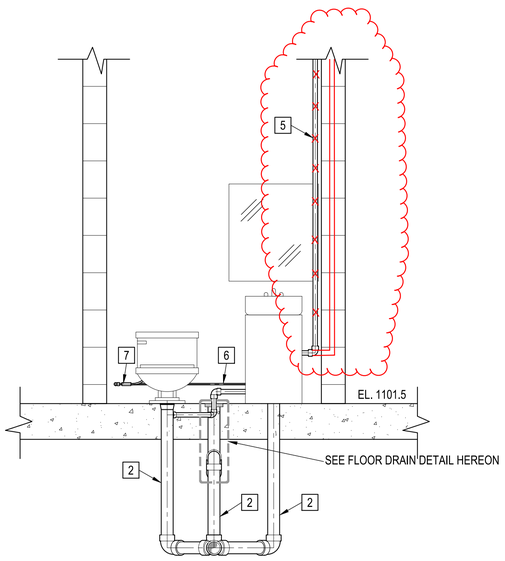
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FROM RFI #48



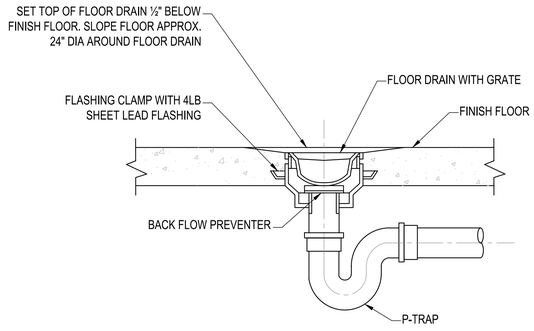
ELECTRICAL ROOM - SECTION 'A'

SCALE: ½"=1'-0"



TOILET ROOM PLUMBING - SECTION 'B'

SCALE: ½"=1'-0"



FLOOR DRAIN DETAIL

SCALE: N.T.S.

CONSTRUCTION NOTES:

1. INSTALL GENERATOR PAD PER STRUCTURAL PLANS.
2. INSTALL 4" PVC DRAIN LINE TO WET WELL, SEE SECTION B ON THIS SHEET.
3. SPILL CONTAINMENT CURB TO BE PAINTED SAFETY YELLOW.
4. NOT USED.
5. 1½" SCH40 PVC VENT LINE TO ROOF.
6. ¾" HDPE SDR11 BLUE STRIPE COLD WATER SUPPLY LINE.
7. SHUTOFF ANGLE VALVE.
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12. ROOF DRAIN. SEE SHEET A8.0 DETAIL 8

NO	BY	DATE	REVISIONS	DATE	APP.

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REGISTERED PROFESSIONAL ENGINEER ★ ANDY KOMOR ★ No. C 64928 Exp. 06-30-21 ★ CIVIL ★ STATE OF CALIFORNIA

PREPARED BY
ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. C64928
EXP. 06/30/21

DRAWN KV | SCALE AS SHOWN
DESIGNED ZS | DATE JAN. 2020
CHECKED AK

TITLE
ELECTRICAL ROOM
SECTION

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

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Department of Public Works, Los Angeles County

Checked _____ 2/20/2020

Design Division — Date

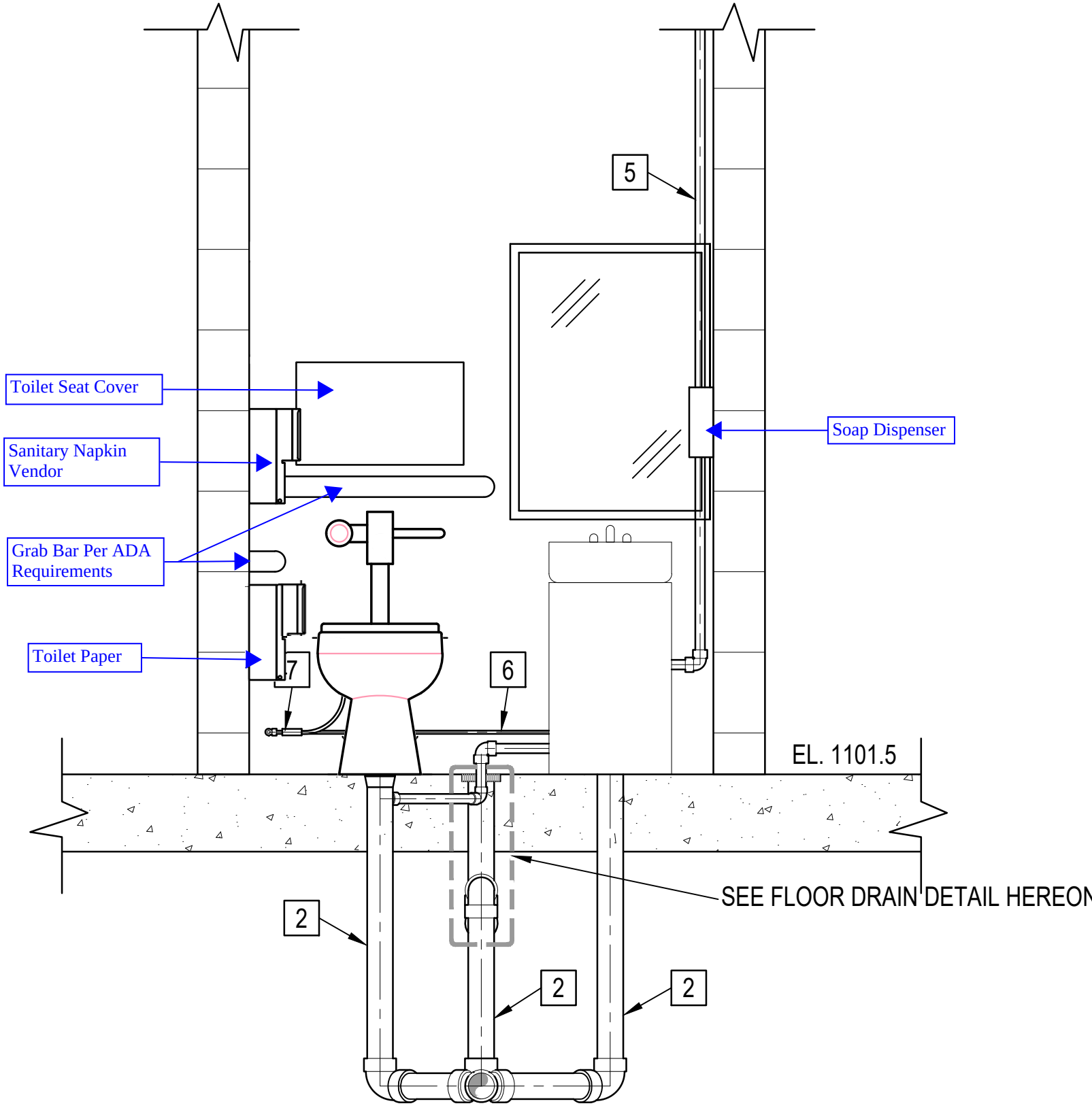
SHEET
M2.2
17 OF 62 SHEETS

JOB NO. 9862-E

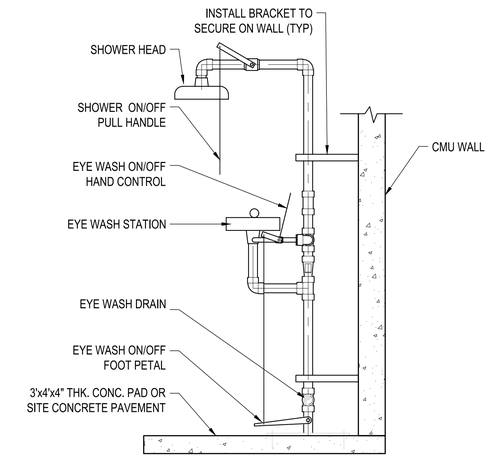
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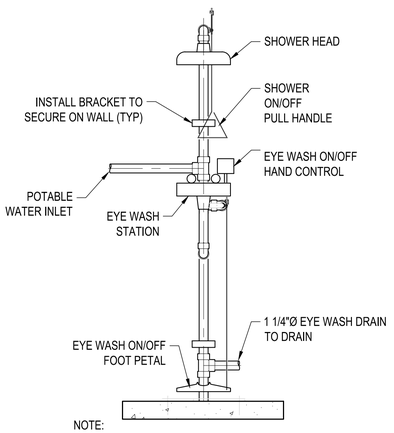
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FROM RFI #107



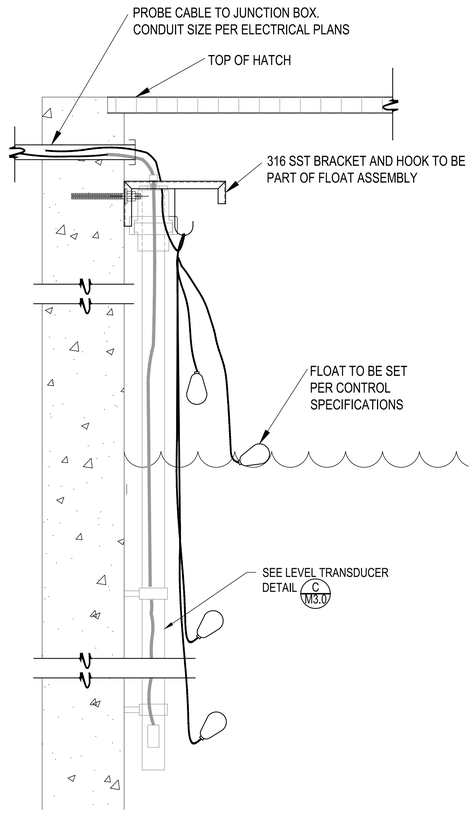
TOILET ROOM PLUMBING - SECTION 'B'





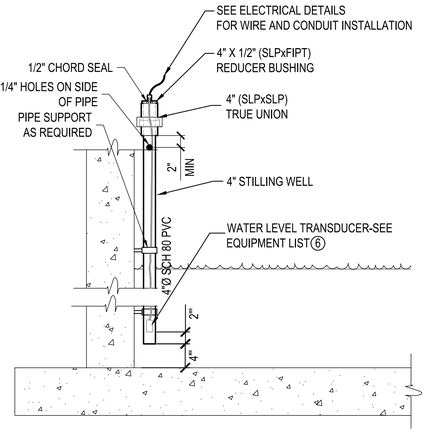
NOTE:
CONTRACTOR TO PROVDE ANTI-SCALD VALVE.

EYE WASH & SHOWER N.T.S A

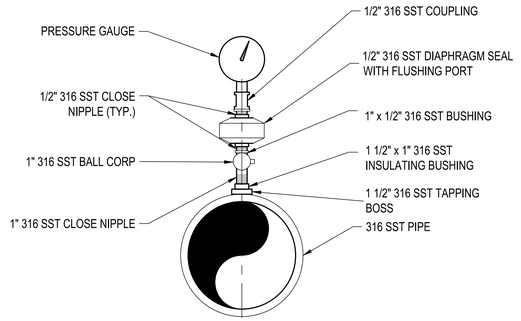


USE CONERY FLOAT TREE TO ATTACH FLOATS AS INDICATED BY PACE

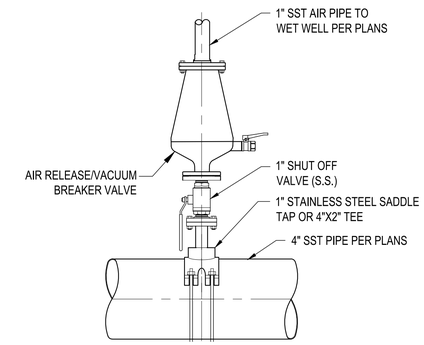
FLOAT SWITCH DETAIL N.T.S B



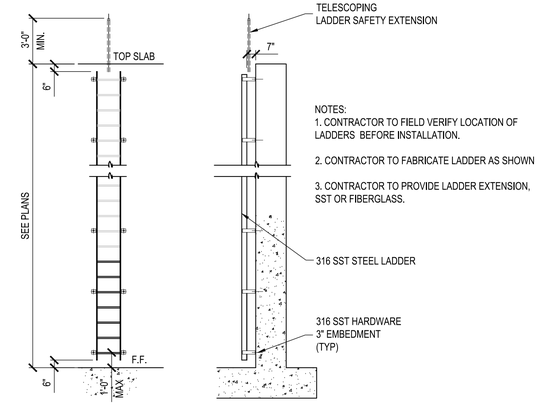
LEVEL TRANSDUCER N.T.S C



PRESSURE GAUGE N.T.S D

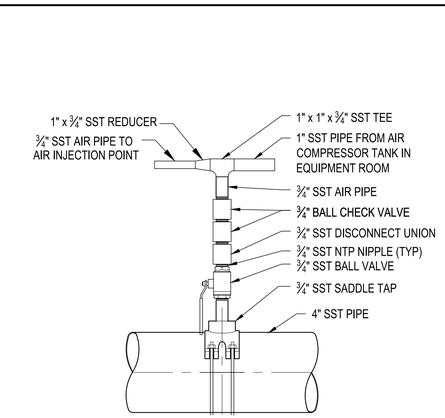


AIR RELEASE VALVE N.T.S. E

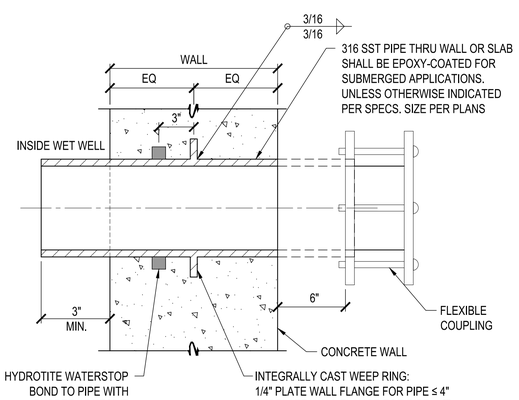


NOTES:
1. CONTRACTOR TO FIELD VERIFY LOCATION OF LADDERS BEFORE INSTALLATION.
2. CONTRACTOR TO FABRICATE LADDER AS SHOWN
3. CONTRACTOR TO PROVIDE LADDER EXTENSION, SST OR FIBERGLASS.

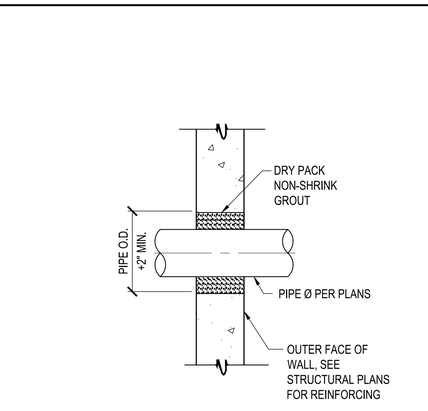
LADDER DETAIL N.T.S. F



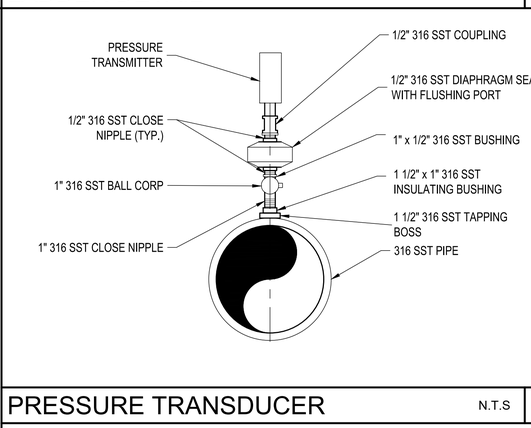
4" SST FORCE MAIN AIR INJECTION N.T.S. G



WET WELL PIPE PENETRATION N.T.S. H



DRY WELL PIPE PENETRATION N.T.S. I



PRESSURE TRANSDUCER N.T.S J

Department of Public Works, Los Angeles County

Checked _____ 2/20/2020

Design Division — Date

NO	BY	DATE	REVISIONS	DATE	APP.

PREPARED BY
ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. ---
EXP: 06/30/21

DRAWN KV | SCALE AS SHOWN
DESIGNED ZS | DATE JAN. 2020
CHECKED AK

REGISTERED PROFESSIONAL ENGINEER ANDREW T. KOMOR No. C84928 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

THESE DRAWINGS ARE THE PROPERTY OF P.A.C.E. AND SHALL NOT BE REPRODUCED IN ANY MANNER NOR BE USED FOR CONSTRUCTION UNLESS STAMPED 'ISSUED FOR CONSTRUCTION'.

TITLE
MECHANICAL DETAILS - 1

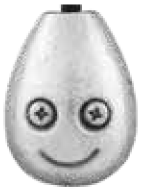
JOB
MISSION VILLAGE
DPW-1 SEWER PUMP STATION PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

SHEET M3.0
18 OF 62 SHEETS

JOB NO. 9862-E

Xrefs: 36x24x (DPW-1.dwg
Dimscale = 1; LTscale = 1; PSltscale = 1; ACAD Ver. = 23.0s (LMS Tech); Viewtwin = 1
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C10 - Zinc Plated Cord Weight



C20 - Pipe Mount w/ Poly Band Assembly



C30 - Pipe Mount w/ Stainless Band



C31 - Pipe Mount w/ Stainless Band



C40 - Releasable Tie



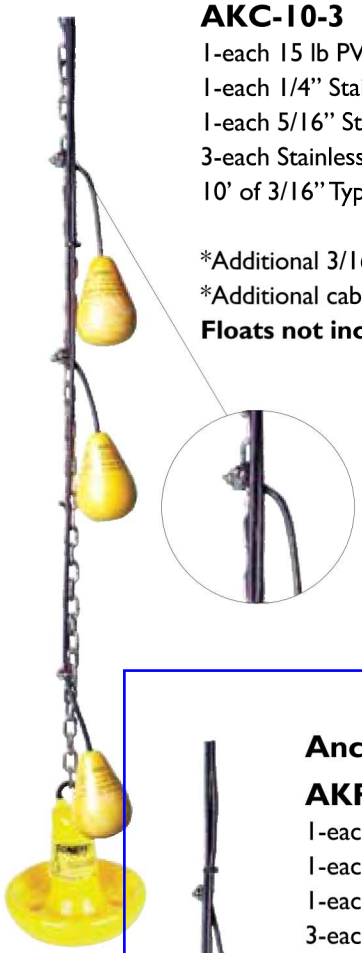
C70 - Pipe Mount Float Collar

Anchor Kit with CHAIN

AKC-10-3

1-each 15 lb PVC Coated Yellow Anchor
1-each 1/4" Stainless Steel Shackle
1-each 5/16" Stainless Steel Shackle
3-each Stainless Steel Float Clamps
10' of 3/16" Type 304 Stainless Steel Chain

*Additional 3/16" chain (per foot)
*Additional cable clamps for attaching floats (each)
Floats not included.



AKC-10-3

Anchor Kit with Cable

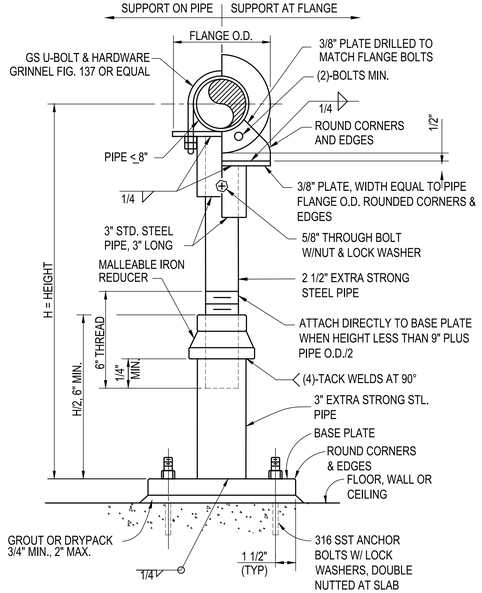
AKR-10-3

1-each 15 lb PVC Coated Yellow Anchor
1-each 1/4" Stainless Steel Shackle
1-each 5/16" Stainless Steel Shackle
3-each Stainless Steel Float Clamps
10' of 1/4" Type 304 Stainless Steel Cable

*Additional 1/4" stainless steel cable (per foot)
*Additional cable clamps for attaching floats (each)
Floats not included.



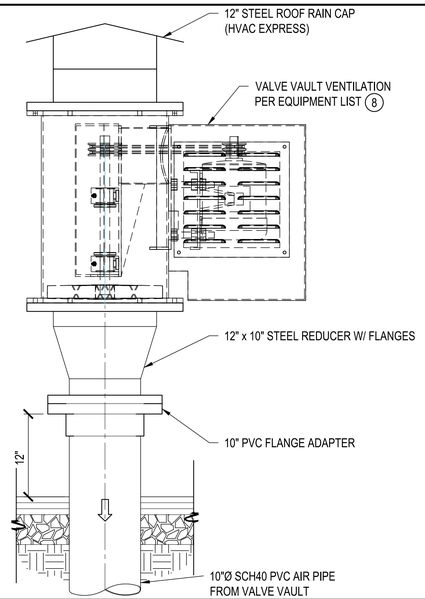
AKR-10-3



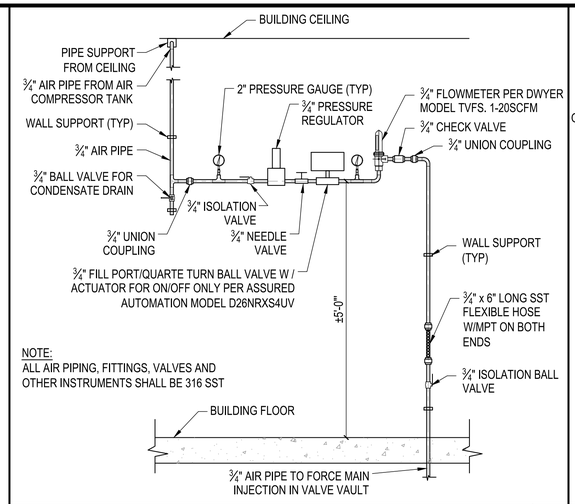
LOCATION	H (MAX.)	MEMBER	
		BASE PLATE	ANCHOR BOLTS
FLOOR	3'-0"	3/8 X 9 X 9	4-5/8"
CEILING	3'-0"	5/8 X 9 X 9	4-3/4"
WALL	1'-6"	5/8 X 9 X 9	4-3/4"

NOTES:
1. AS AN ALTERNATE, IF ADJUSTMENT IS NOT NECESSARY, DELETE 2 1/2" PIPE AND REDUCER AND WELD 3" STEEL PIPE DIRECTLY TO 3/8" PLATE ATTACHED TO PIPE FLANGE.
2. HOT DIP GALVANIZE AFTER FABRICATION. DO NOT CUT OR WELD AFTER GALVANIZING.
3. PIPE SUPPORT MAY BE ORIENTATED IN ANY DIRECTION.
4. FOR H > 3'-0", CONTRACTOR SHALL USE GRINNELL FIG. 264 AS APPROVED BY ENGINEER.

PIPE/FLANGE SUPPORT N.T.S. A

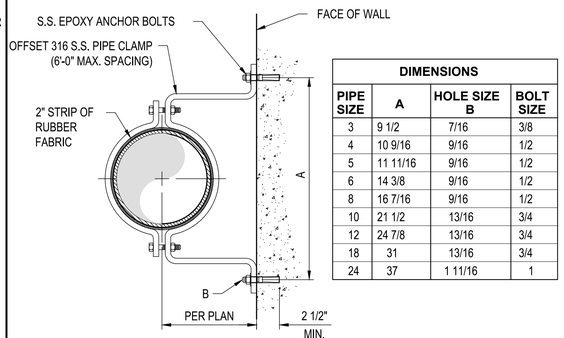


VALVE VAULT FAN N.T.S. H



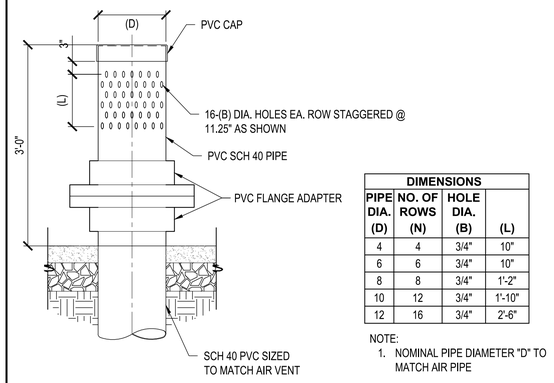
NOTE:
ALL AIR PIPING, FITTINGS, VALVES AND OTHER INSTRUMENTS SHALL BE 316 SST

AIR PIPE FROM AIR COMPRESSOR TANK N.T.S B



DIMENSIONS			
PIPE SIZE	A	HOLE SIZE B	BOLT SIZE
3	9 1/2	7/16	3/8
4	10 9/16	9/16	1/2
5	11 11/16	9/16	1/2
6	14 3/8	9/16	1/2
8	16 7/16	9/16	1/2
10	21 1/2	13/16	3/4
12	24 7/8	13/16	3/4
18	31	13/16	3/4
24	37	1 11/16	1

PIPE SUPPORT DETAIL N.T.S C



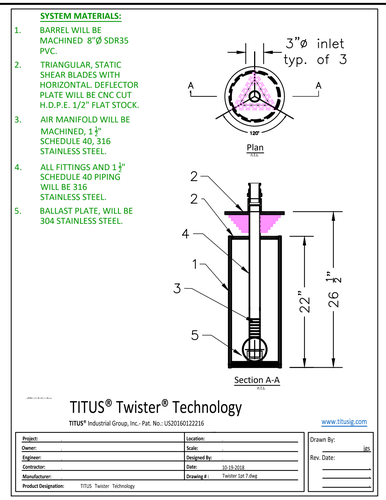
DIMENSIONS			
PIPE DIA. (D)	NO. OF ROWS (N)	HOLE DIA. (B)	(L)
4	4	3/4"	10"
6	6	3/4"	10"
8	8	3/4"	1'-2"
10	12	3/4"	1'-10"
12	16	3/4"	2'-6"

NOTE:
1. NOMINAL PIPE DIAMETER "D" TO MATCH AIR PIPE

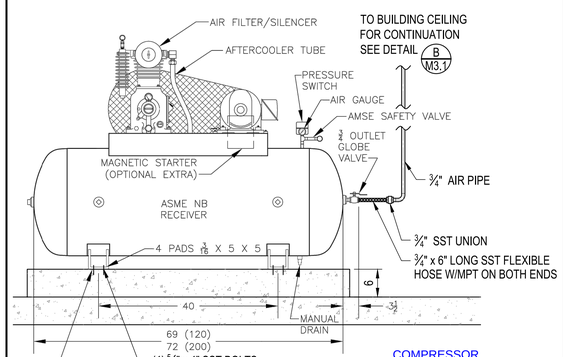
WET WELL VENT DETAIL N.T.S D

DIMENSIONS			
PIPE SIZE	A	HOLE SIZE B	BOLT SIZE
1.5	8	7/16	3/8
2	8	7/16	3/8
3	9 1/2	7/16	3/8
4	10 9/16	9/16	1/2
5	11 11/16	9/16	1/2
6	14 3/8	9/16	1/2
8	16 7/16	9/16	1/2
10	21 1/2	13/16	3/4
12	24 7/8	13/16	3/4
18	31	13/16	3/4
24	37	1 11/16	1

CEILING PIPE SUPPORT DETAIL N.T.S G

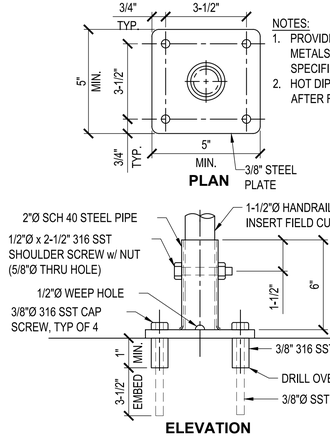


WET WELL AERATION SYSTEM N.T.S. E



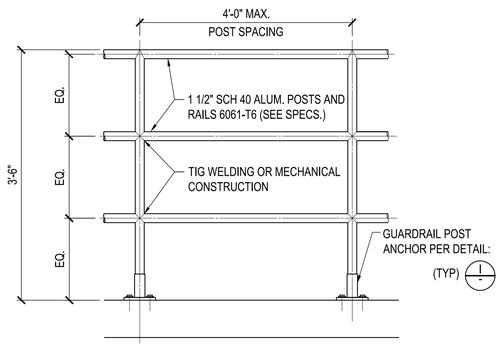
COMPRESSOR VERTICAL TANK ORIENTATION INSTEAD OF HORIZONTAL. SEE RFI 088.

AIR COMPRESSOR TANK DETAIL N.T.S F



NOTES:
1. PROVIDE PROTECTION FOR DISSIMILAR METALS & CONCRETE PER SPECIFICATIONS
2. HOT DIP GALVANIZE ALL STEEL PARTS AFTER FABRICATION.

POST ANCHOR (REMOVABLE) N.T.S I



NOTES:
1. TOP RAIL TO FINISHED GROUND DISTANCE SHALL BE 42" HIGH.
2. HOT DIP GALVANIZE ALL STEEL PARTS AFTER FABRICATION.

GUARDRAIL N.T.S J

Department of Public Works, Los Angeles County

Checked _____ 2/20/2020

Design Division — Date

NO	BY	DATE	REVISIONS	DATE	APP.

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REGISTERED PROFESSIONAL ENGINEER ★ ANDREW T. KOMOR ★ No. C64928 Exp. 06/30/21 ★ CIVIL ★ STATE OF CALIFORNIA

PREPARED BY: ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. C64928
EXP. 06/30/21

DRAWN: KV
DESIGNED: ZS
CHECKED: AK
SCALE: AS SHOWN
DATE: JAN. 2020

TITLE: MECHANICAL DETAILS - 2

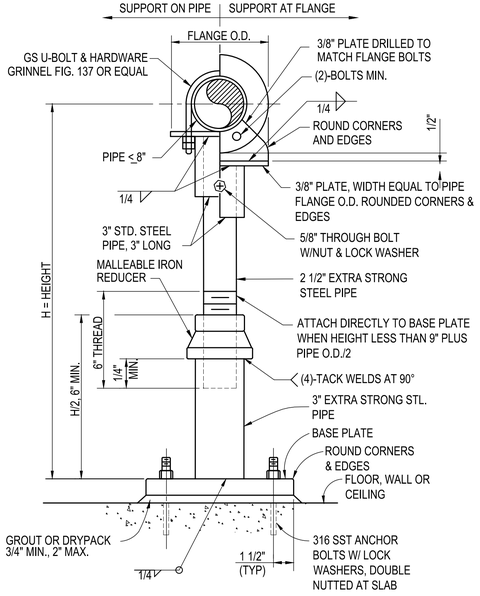
JOB: MISSION VILLAGE
DPW-1 SEWER PUMP STATION
PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.paceworldwide.com

SHEET M3.1 OF 62 SHEETS

JOB NO. 9862-E

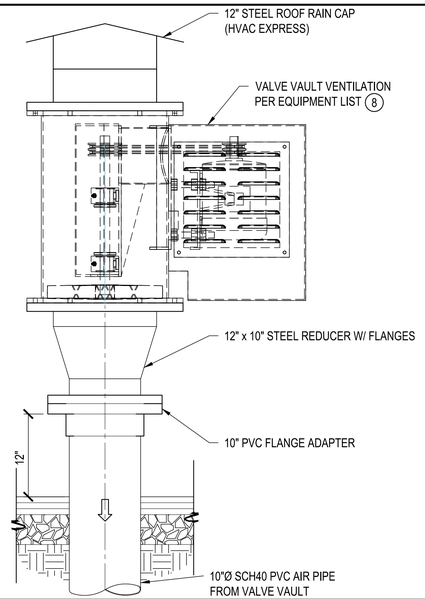
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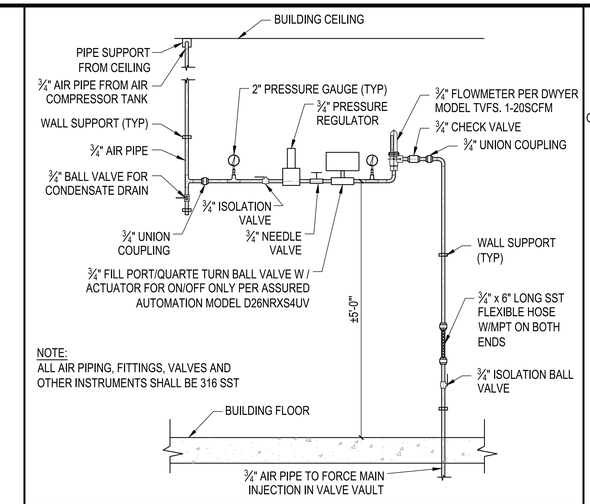
LOCATION	H (MAX.)	MEMBER	
		BASE PLATE	ANCHOR BOLTS
FLOOR	3'-0"	3/8 X 9 X 9	4-5/8"
CEILING	3'-0"	5/8 X 9 X 9	4-3/4"
WALL	1'-6"	5/8 X 9 X 9	4-3/4"

NOTES:
1. AS AN ALTERNATE, IF ADJUSTMENT IS NOT NECESSARY, DELETE 2 1/2" PIPE AND REDUCER AND WELD 3" STEEL PIPE DIRECTLY TO 3/8" PLATE ATTACHED TO PIPE FLANGE.
2. HOT DIP GALVANIZE AFTER FABRICATION. DO NOT CUT OR WELD AFTER GALVANIZING.
3. PIPE SUPPORT MAY BE ORIENTATED IN ANY DIRECTION.
4. FOR H > 3'-0", CONTRACTOR SHALL USE GRINNELL FIG. 264 AS APPROVED BY ENGINEER.

PIPE/FLANGE SUPPORT N.T.S. A

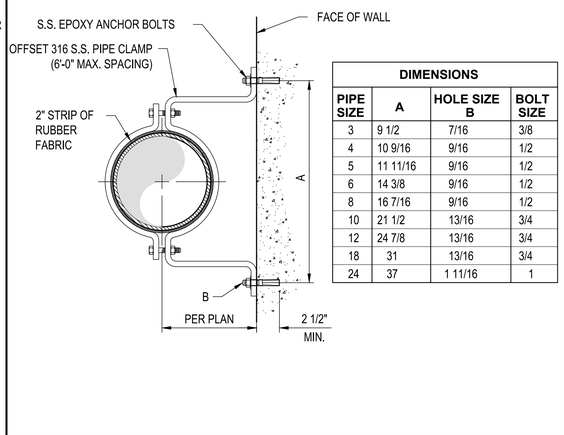


VALVE VAULT FAN N.T.S. H



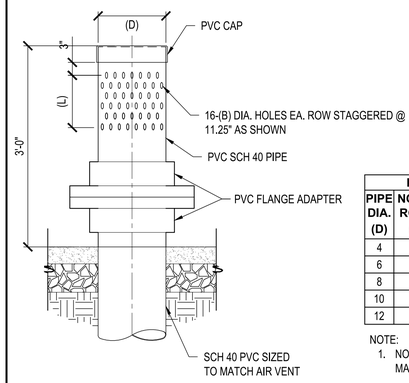
NOTE:
ALL AIR PIPING, FITTINGS, VALVES AND OTHER INSTRUMENTS SHALL BE 316 SST

AIR PIPE FROM AIR COMPRESSOR TANK N.T.S B



DIMENSIONS			
PIPE SIZE	A	HOLE SIZE B	BOLT SIZE
3	9 1/2	7/16	3/8
4	10 9/16	9/16	1/2
5	11 11/16	9/16	1/2
6	14 3/8	9/16	1/2
8	16 7/16	9/16	1/2
10	21 1/2	13/16	3/4
12	24 7/8	13/16	3/4
18	31	13/16	3/4
24	37	1 1/16	1

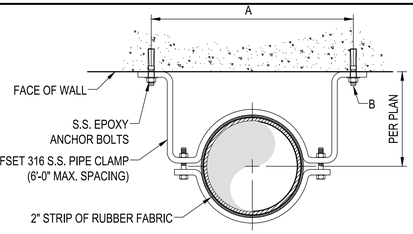
PIPE SUPPORT DETAIL N.T.S C



DIMENSIONS			
PIPE DIA. (D)	NO. OF ROWS (N)	HOLE DIA. (B)	(L)
4	4	3/4"	10"
6	6	3/4"	10"
8	8	3/4"	1'-2"
10	12	3/4"	1'-10"
12	16	3/4"	2'-6"

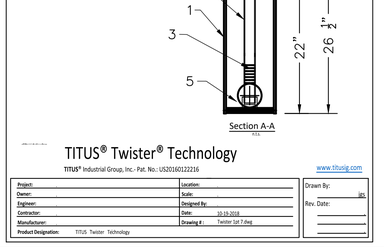
NOTE:
1. NOMINAL PIPE DIAMETER "D" TO MATCH AIR PIPE

WET WELL VENT DETAIL N.T.S D

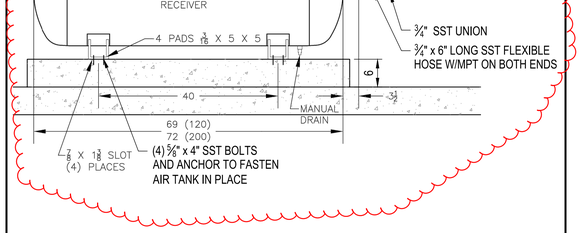


DIMENSIONS			
PIPE SIZE	A	HOLE SIZE B	BOLT SIZE
1.5	8	7/16	3/8
2	8	7/16	3/8
3	9 1/2	7/16	3/8
4	10 9/16	9/16	1/2
5	11 11/16	9/16	1/2
6	14 3/8	9/16	1/2
8	16 7/16	9/16	1/2
10	21 1/2	13/16	3/4
12	24 7/8	13/16	3/4
18	31	13/16	3/4
24	37	1 11/16	1

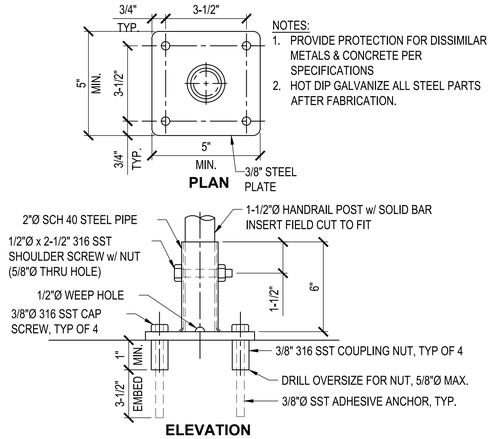
CEILING PIPE SUPPORT DETAIL N.T.S G



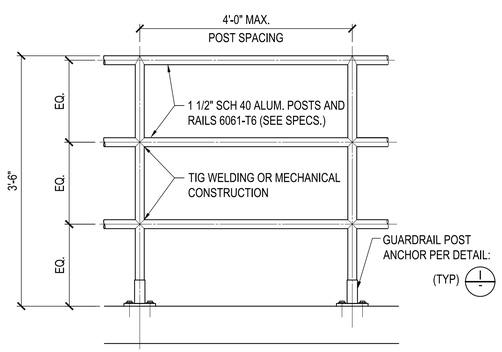
WET WELL AERATION SYSTEM N.T.S. E



AIR COMPRESSOR TANK DETAIL N.T.S F



POST ANCHOR (REMOVABLE) N.T.S I



NOTES:
1. TOP RAIL TO FINISHED GROUND DISTANCE SHALL BE 42" HIGH.
2. HOT DIP GALVANIZE ALL STEEL PARTS AFTER FABRICATION.

GUARDRAIL N.T.S J

NO	BY	DATE	REVISIONS	DATE	APP.

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REGISTERED PROFESSIONAL ENGINEER ★ ANDREW T. KOMOR ★ No. C64928 Exp. 06/30/21 CIVIL ★ STATE OF CALIFORNIA

PREPARED BY: ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. C64928
EXP. 06/30/21

DRAWN: KV
DESIGNED: ZS
CHECKED: AK
SCALE: AS SHOWN
DATE: JAN. 2020

TITLE: MECHANICAL DETAILS - 2

JOB: MISSION VILLAGE
DPW-1 SEWER PUMP STATION
PC 12257PS
VALENCIA CA

PACE
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17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
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Department of Public Works, Los Angeles County

Checked _____ 2/20/2020
Design Division — Date

SHEET M3.1 OF 62 SHEETS

JOB NO. 9862-E

Xrefs: 36x24x DPW-1.dwg
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RIPARIAN AVE

40'

SEWER

20' SEWER EASEMENT

ELECTRICAL AND TELECOM LINES

PROPERTY LINE

SWING GATE

PROPOSED 1 STORY BLDG. SEE ARCH PLANS

59'

SLIDING GATE

UNDERGROUND WET WELL

CMU WALL

PROPERTY LINE

39'

UNDERGROUND VALVE VAULT

PARKING

PARKING

PROPERTY LINE

SEWER

SWING GATE

RESIDENTIAL LOT

RESIDENTIAL LOT

RESIDENTIAL LOT

NOTES:

1. ONE STORY BUILDING, 237 SQ. FT.
2. CONSTRUCTION TYPE: 5B
3. OCCUPANCY GROUP: U

NORTH

10 5 0 10 20

SCALE: 1"=10'

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER ★ ANDREW T. KOMOR ★ No. C64928 Exp. 06/30/21 CIVIL ★ STATE OF CALIFORNIA

PREPARED BY
ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. C64928
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DRAWN KV
DESIGNED ZS
CHECKED AK
SCALE AS SHOWN
DATE JAN. 2020

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TITLE
ARCHITECTURAL SITE PLAN

JOB
MISSION VILLAGE
DPW-1 SEWER PUMP STATION PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

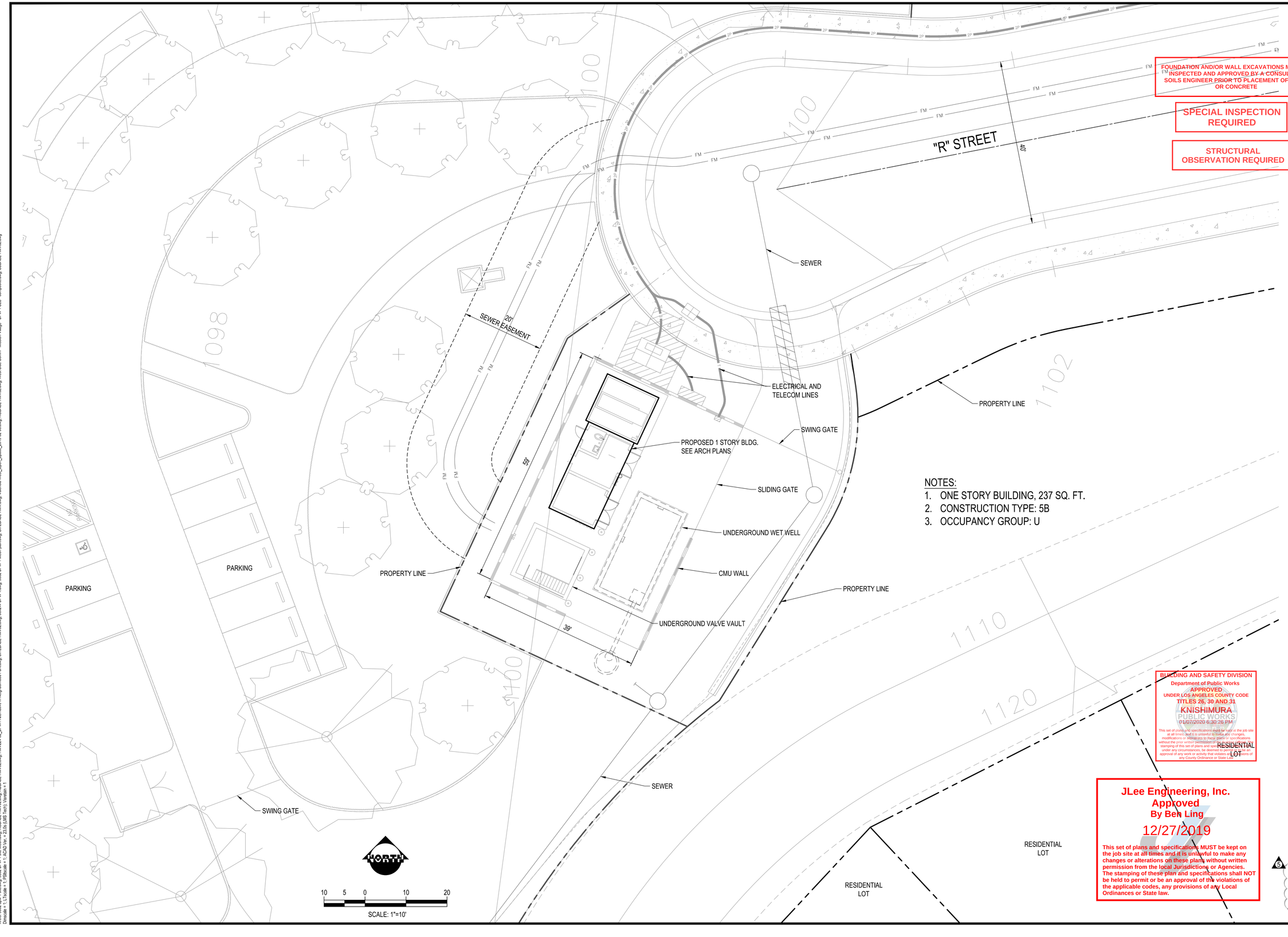
Department of Public Works, Los Angeles County

Checked _____ 2/20/2020
Design Division Date

SHEET A0.0
20 OF 62 SHEETS

JOB NO. 9862-E

Xrefs: 9862 dpw-1 site.dwg, 9862_DPW-1 site-Mech.dwg, RGBASE-HMV02.dwg, RGBASE-HMV02.dwg, HMV224-02_DPW1 Alternative in Neighborhood Park.dwg, SITEBASE-HMV02.dwg, 36x24x DPW-1.dwg, 9862 DPW-1 Mech-plan.dwg, SITEBASE-HMV.dwg, Valencia West_Open_Space_2019-02-08.dwg, RGBASE-HMV02.dwg, West Side Comm – Mission Village - DPW-1 SS - composite.dwg, SSBASE-HMV02.dwg
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FOUNDATION AND/OR WALL EXCAVATIONS MUST BE INSPECTED AND APPROVED BY A CONSULTING SOILS ENGINEER PRIOR TO PLACEMENT OF STEEL OR CONCRETE

SPECIAL INSPECTION REQUIRED

STRUCTURAL OBSERVATION REQUIRED

NOTES:
1. ONE STORY BUILDING, 237 SQ. FT.
2. CONSTRUCTION TYPE: 5B
3. OCCUPANCY GROUP: U

BUILDING AND SAFETY DIVISION
Department of Public Works
APPROVED
UNDER LOS ANGELES COUNTY CODE
TITLES 26, 30 AND 31
KNISHIMURA
PUBLIC WORKS
01/07/2020 6:30:26 PM
This set of plans and specifications must be kept at the job site at all times and it is unlawful to make any changes, modifications or alterations to these plans or specifications without the prior written permission of the Building Official. The stamping of this set of plans and specifications shall not be held to permit or be an approval of any violations of any County Ordinance or State Law.

JLee Engineering, Inc.
Approved
By Ben Ling
12/27/2019
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NO	BY	DATE	REVISIONS	DATE	APP.
6	ZS	11/19/19	CHANGES PER CITY PLAN REVIEW	11/19/19	ZS
5					
4					
3					
2					
1					

REGISTERED PROFESSIONAL ENGINEER ★ ANDREW T. KOMOR ★ No. C58928 Exp. 06/30/21 CIVIL ★ STATE OF CALIFORNIA

PREPARED BY
ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. C58928
EXP. 06/30/21

DRAWN KV
DESIGNED ZS
CHECKED AK
SCALE AS SHOWN
DATE NOV. 2019

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TITLE
ARCHITECTURAL
SITE PLAN

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
VALENCIA CA

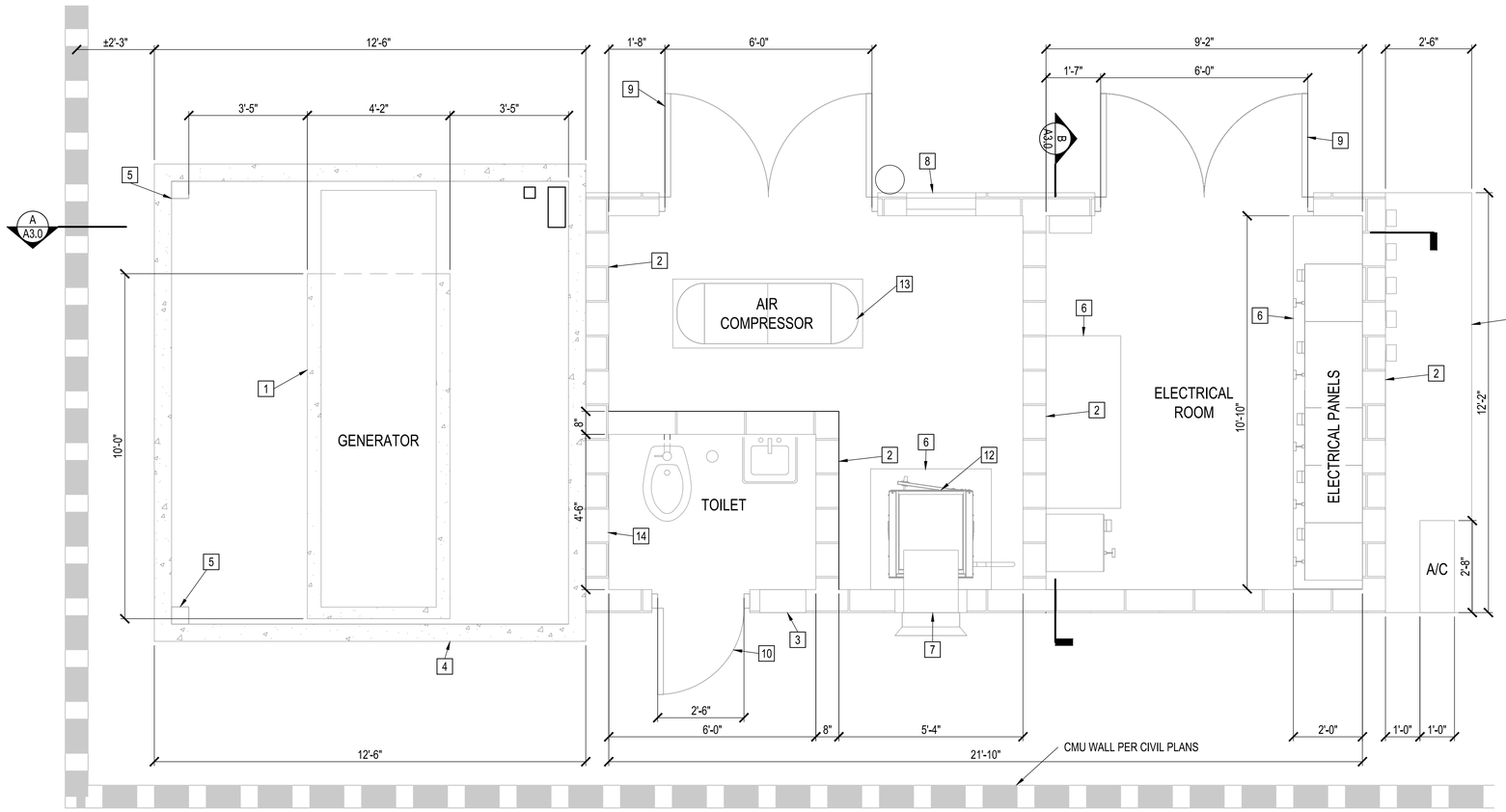
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SHEET
A0.0
--- OF XX SHEETS

JOB NO. 9862-E

Xrefs: 9862_dpw-1 site.dwg; 9862 DPW-1 site-Mech.dwg; RGBASE-HMV02.dwg; RGBASE-HMV02.dwg; HMV024-02_DPW1 Alternative n Neighborhood Park.dwg; SITEBASE-HMV02.dwg; 36x24r DPW-1 dwg; 9862 DPW-1 Mech+plan.dwg; SITEBASE-HMV.dwg; Valencia West_Open_Space_2019-02-06.dwg; RGBASE-HMV02.dwg; West Side Comm – Mission Village - DPW-1 - S.S. – composite.dwg; SSBASE-HMV02.dwg
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BUILDING - FLOOR PLAN

SCALE: ½"=1'-0"

CONSTRUCTION NOTES:

1. GENERATOR PAD PER STRUCTURAL PLANS.
2. REINFORCED CMU BLOCK WALL PER STRUCTURAL PLANS.
3. 8" DIA OPENING FOR BATHROOM FAN
4. 6" x 6 " SPILL CONTAINMENT CONCRETE CURB. SEE STRUCTURAL PLANS.
5. STEEL COLUMN. SEE STRUCTURAL PLANS.
6. CONCRETE PAD. SEE STRUCTURAL PLANS.
7. 12" DIA WALL OPENING FOR EXHAUST FAN.
8. 2'(W) x 3'(H) OPENING FOR LOUVER, SEE SHEET M1.1. (3' ABOVE F.F.)
9. DOOR AND FRAME SEE DOOR SCHEDULE SHEET A6.0
10. DOOR AND FRAME SEE DOOR SCHEDULE SHEET A6.0
11. BATHROOM INSTALLATION SEE SHEET A6.0
12. WET WELL AERATION BLOWER INSTALLATION SEE SHEET MECHANICAL PLANS
13. FORCE MAIN AIR BLOWER INSTALLATION SEE SHEET MECHANICAL PLANS
14. INSTALL WHITE COLOR 4"x4" CERAMIC GLOSSY TILES UP TO 4' FROM FLOOR FOR ALL WALLS IN THE TOILET ROOM.

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER ANDREW T. KOMOR No. C64928 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

PREPARED BY
ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. C64928
EXP. 06/30/21

DRAWN KV | SCALE AS SHOWN
DESIGNED ZS | DATE JAN. 2020
CHECKED AK

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TITLE

FLOOR PLAN

JOB

MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

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Advanced Water Engineering
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P.: (714) 481-7300 | www.paceadvancedwater.com

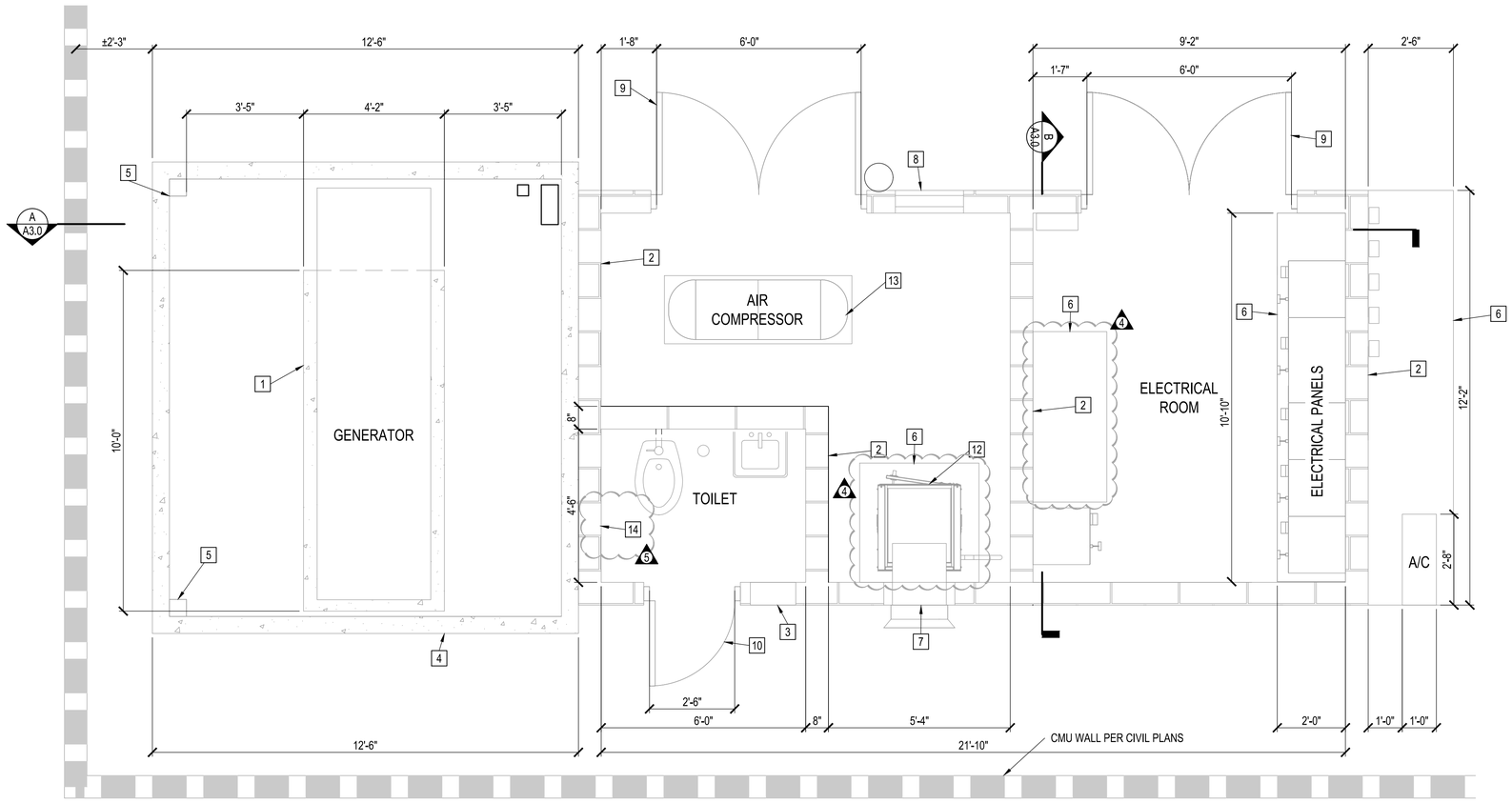
Department of Public Works, Los Angeles County

Checked _____ 2/20/2020
Design Division Date

SHEET
A1.0
21 OF 62 SHEETS

JOB NO. 9862-E

Xrefs: 9862_DPW-1 Mech-plan.dwg; 36x24r_DPW-1.dwg
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BUILDING - FLOOR PLAN

SCALE: ½"=1'-0"

NORTH

CONSTRUCTION NOTES:

1. GENERATOR PAD PER STRUCTURAL PLANS.
2. REINFORCED CMU BLOCK WALL PER STRUCTURAL PLANS.
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JLee Engineering, Inc.
Approved
By Ben Ling
12/27/2019

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100% PLANS - REV 5

NO	BY	DATE	REVISIONS	DATE	APP.
0	ZS	10/25/19	CHANGES PER LADPW PLAN REVIEW	10/25/19	ZS
0	ZS	11/19/19	CHANGES PER LACBS PLAN REVIEW	11/19/19	ZS

REGISTERED PROFESSIONAL ENGINEER ANDREW T. KOMOR No. C84928 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

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PREPARED BY
ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. C84928
EXP. 06/30/21

DRAWN KV | SCALE AS SHOWN
DESIGNED ZS | DATE NOV. 2019
CHECKED AK

TITLE
FLOOR PLAN

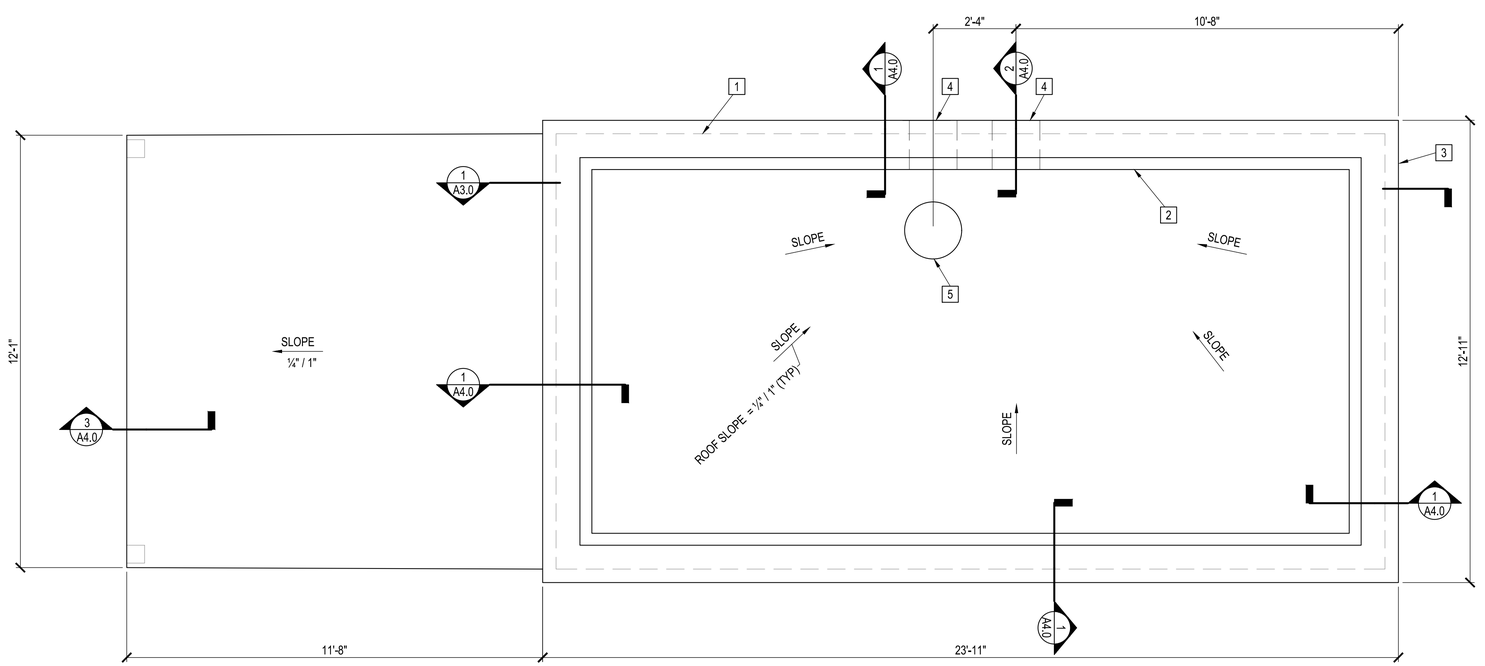
JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
VALENCIA CA

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SHEET
A1.0
---- OF XX SHEETS

JOB NO. 9862-E

Xrefs: 9862 (DPW-1 Mech-plan.dwg; 36x24r (DPW-1.dwg
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BUILDING - ROOF PLAN

SCALE: ½"=1'-0"

NORTH

CONSTRUCTION NOTES:

1. 8" CMU BLOCK WALL BELOW.
2. 4" CONT. CANT STRIP.
3. ROOF PARAPET LIMIT, SEE SHEET A4.0 DETAIL 1
4. 16"W x 4"H ROOF DRAINAGE SCUPPER. SEE SHEET A4.0 DETAIL 2.
5. ROOF DRAIN. SEE SHEET A8.0 DETAIL 8

NOTE:
MULTI-PLY SBS MODIFIED BITUMEN ROOF SYSTEM BY SIPLAST OR EQUAL. SPECIFICATION BASED ON PARDIENE 20 TA-30FR OVER POLYISO INSULATION BOARD.

NO	BY	DATE	REVISIONS	DATE	APP.

ANDRE T. KOMOR — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA — No. C84928 — Exp. 06/30/21 — CIVIL

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PREPARED BY
ANDY KOMOR
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R.C.E. NO. 84928
EXP. 06/30/21

DRAWN	SCALE	DATE
KV	AS SHOWN	JAN. 2020
DESIGNED		
ZS		
CHECKED		
AK		

TITLE
ROOF PLAN

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
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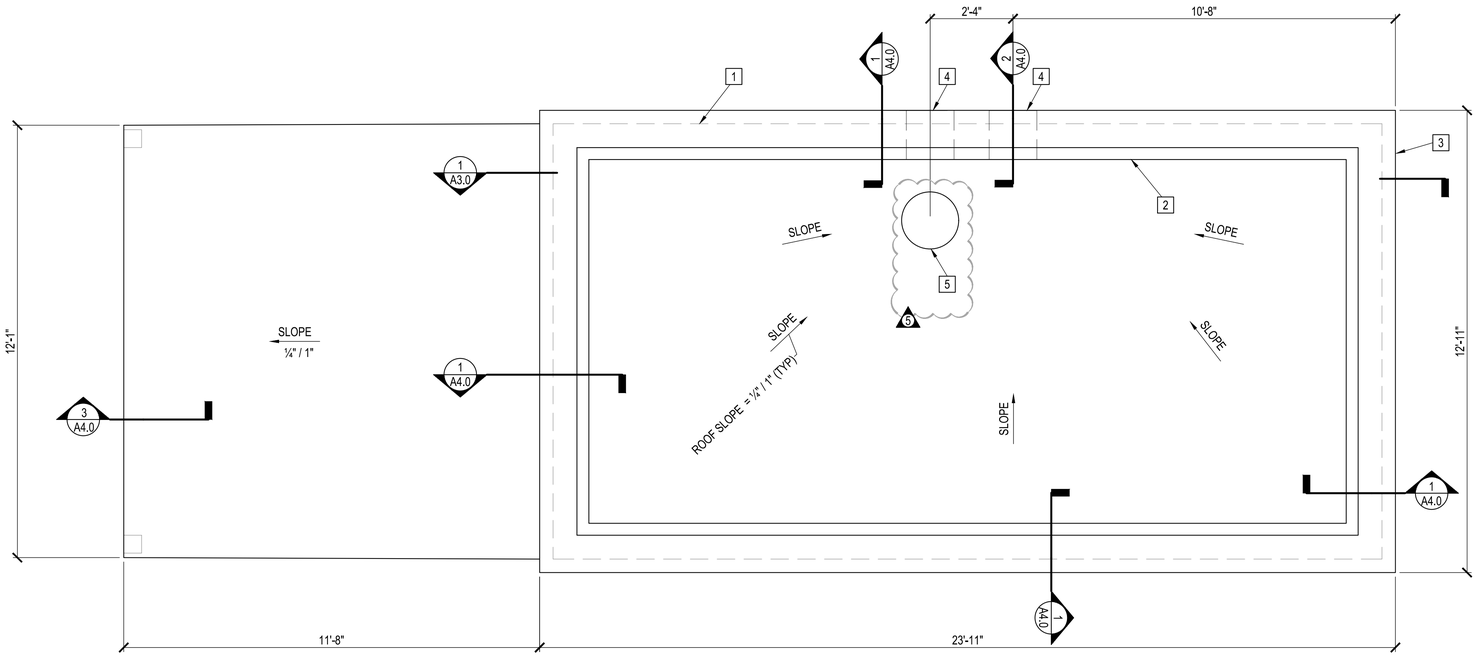
Checked _____ 2/20/2020
Design Division — Date

SHEET
A2.0
22 OF 62 SHEETS

JOB NO. 9862-E

Xrefs: 3Ik24v DPW-1.dwg; 9862 DPW-1 Mech-plan.dwg
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BUILDING - ROOF PLAN

SCALE: ½"=1'-0"

NORTH

CONSTRUCTION NOTES:

1. 8" CMU BLOCK WALL BELOW.
2. 4" CONT. CANT STRIP.
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5. ROOF DRAIN. SEE SHEET A8.0 DETAIL 8

NOTE:
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NO	BY	DATE	REVISIONS	DATE	APP.
6	ZS	11/19/19	CHANGES PER LACBS PLAN REVIEW	11/19/19	ZS
5					
4					
3					
2					
1					

ANDY T. KOMOR — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA
No. C84928
Exp. 06/30/21
CIVIL

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PROJECT ENGINEER
R.C.E. NO. 84928
EXP. 06/30/21

DRAWN: KV
DESIGNED: ZS
CHECKED: AK
SCALE: AS SHOWN
DATE: NOV. 2019

ROOF PLAN

TITLE

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
VALENCIA CA

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SHEET
A2.0
---- OF XX SHEETS

JOB NO. 9862-E

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Approved
By Ben Ling
12/27/2019

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100% PLANS - REV 5

Xrefs: 3b24x DPW-1.dwg; 8862 DPW-1 Mech-plan.dwg
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GENERAL ENGINEERING CONTRACTORS
CA License No. 256065 •A, C-16, HAZ, HIC
P.O. Box 672 • Oxnard, CA 91302-0672
3201 Sturgis Road • Oxnard, CA 93030
(805) 656-1432 • FAX (805) 485-0338

REQUEST FOR INFORMATION

DATE: 03-09-2021

RFI #: **054**

Attention: Tom Hay Bob Brazell, FivePoint Brian Reid, PACE Matt Mills, PACE Fax #: 661-255-4296	From: Matt Messerly Delivered Via: Email Blois Construction Project No.: 3065 Project Name: Mission Village Sewer Lift Station DPW-1

Subject:	**Roof Drainage Elevations**	
Reference:	Drawing Sheets:	A2.0, A3.0, A4.0, A5.0, A8.0
	Detail Numbers:	
	Spec. Sections:	
	Schedule Activities Impacted:	Bldg Block Wall, Drain Pipe and scupper installation

INFORMATION REQUESTED:

REQUEST:
#1 - A2.0 calls out for two scuppers at roof level. Only the Overflow Scupper should be installed at 2" above drain/roof elevation. Main roof drain will be installed through deck with piping exit through CMU wall below the roof deck.
#2 – Please Confirm. Please provide overflow scupper dimension.

SUGGESTION:
#1 - CMU should be cored to drain pipe size and sealed at exterior wall before installing conductor head and down spout.
Installing a scupper would leave a gap around the entire pipe.
#2 To fit within conductor head, we suggest a scupper flashing size of 14"Wx4"HT (Note:HT can go up to 8")

Eliminate lower scupper:
There are 2 scuppers shown in the plans. It appears that the lower one is extraneous and can be eliminated. Please confirm. Please confirm that the lower leader head is for the roof drain pipe and the upper leader head is for the overflow scupper.

Scupper Elevation:
The bldg. elevation on A5.0 appears to show the scupper invert at some height above the roof. The detail on A4.0 shows the invert of the scupper at the top of the roof. Please clarify the design intent.

Drain Pipe Elevation:
Bldg Elevation on A3.0 appears to show drain pipe beneath roof elevation. Please confirm elevation of roof drain pipe penetration through wall. We anticipate that approx. 18"-24"of vertical distance is needed with the 90 degree elbow fitting to turn and go horizontal from the pipe coming down from the roof drain.

Drain Pipe Material and Size:
No direct note or call-out for this. We plan to use 6” SCH80 PVC. Please confirm this is acceptable.

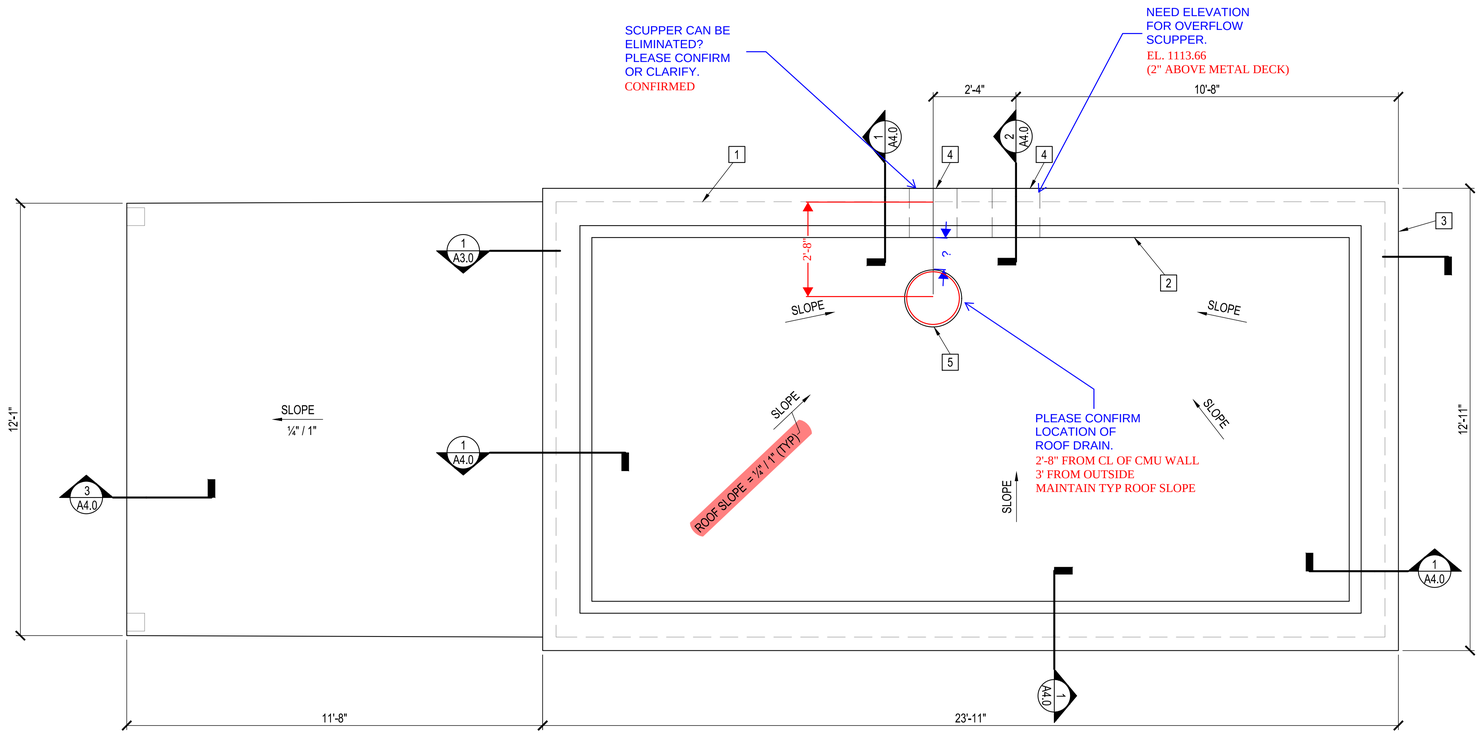
Please review advise.

Response Requested by:	**3/10/2021**	
If a definitive response is not received by this date Project Schedule Will be Delayed	☐ YES ☐ NO ☒ Uncertain	Potential Cost Impact ☐ YES ☐ NO ☒ Uncertain

RESPONSE: Please see the RFI responses in **red**.	
BY: M.J.M.	DATE: 03/25/2021

RFI #54

RFI #54



BUILDING - ROOF PLAN

SCALE: ½"=1'-0"

NORTH

CONSTRUCTION NOTES:

1. 8" CMU BLOCK WALL BELOW.
2. 4" CONT. CANT STRIP.
3. ROOF PARAPET LIMIT, SEE SHEET A4.0 DETAIL 1
4. 16"W x 4"H ROOF DRAINAGE SCUPPER. SEE SHEET A4.0 DETAIL 2.
5. ROOF DRAIN. SEE SHEET A8.0 DETAIL 8

NOTE:
MULTI-PLY SBS MODIFIED BITUMEN ROOF SYSTEM BY SIPLAST OR EQUAL. SPECIFICATION BASED ON PARDIENE 20 TA-30FR OVER POLYISO INSULATION BOARD.

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER ANDREW T. KOMOR No. C64928 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

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PREPARED BY: ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. C64928
EXP. 06/30/21

DRAWN: KV
DESIGNED: ZS
CHECKED: AK
SCALE: AS SHOWN
DATE: JAN. 2020

TITLE: ROOF PLAN

JOB: MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

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Department of Public Works, Los Angeles County

Checked _____ 2/20/2020

Design Division — Date

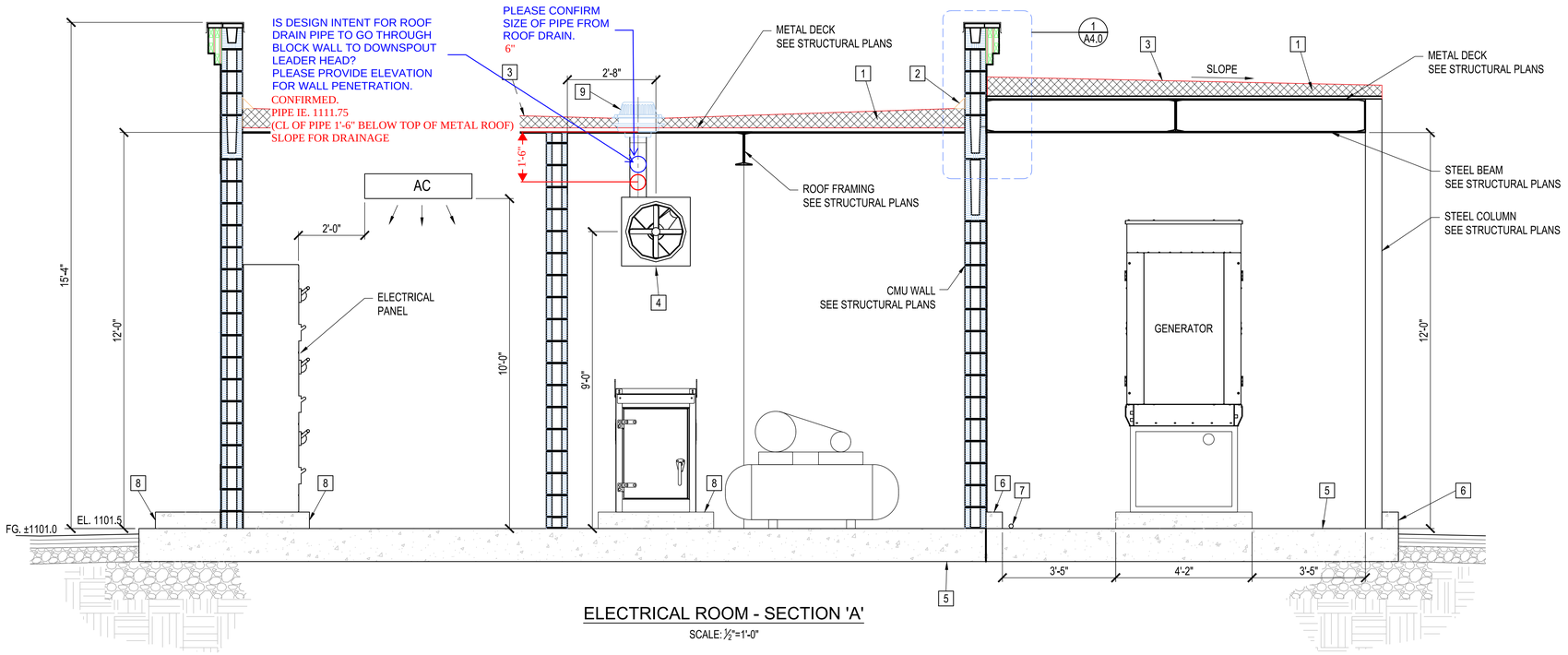
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22 OF 62 SHEETS

JOB NO. 9862-E

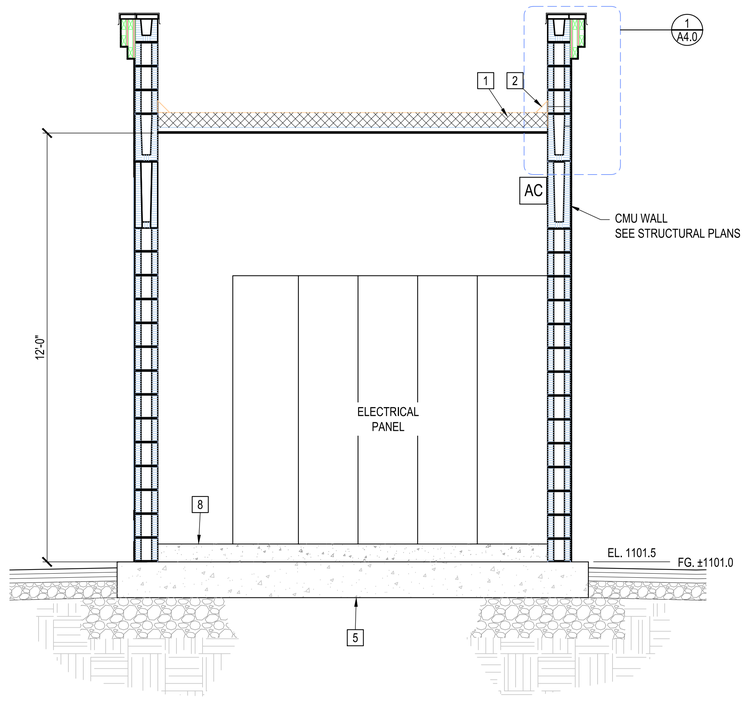
Xrefs: 3b2dv DPW-1.dwg; 9862.DPW-1 Mech-plan.dwg
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RFI #54



ELECTRICAL ROOM - SECTION 'A'

SCALE: ½"=1'-0"



ELECTRICAL ROOM - SECTION 'B'

SCALE: ½"=1'-0"

CONSTRUCTION NOTES:

1. TAPERED POLYISO INSULATION SYSTEM SLOPED TO DRAIN.
2. ROOF TO WALL PER DETAIL 7/A8.0
3. MULTI-PLY SBS MODIFIED BITUMEN ROOF SYSTEM BY SIPLEST OR EQUAL.
4. 12" DIA WALL OPENING FOR VENTILATION FAN
5. BUILDING FOUNDATION, SEE STRUCTURAL PLANS
6. 6" HIGH CONCRETE CURBS FOR GENERATOR FUEL SPILL CONTAINMENT
7. 1½" PVC PIPE AND 1½" PVC BALL VALVE FOR CONTAINMENT AREA DRAIN ON MECHANICAL PLANS.
8. CONCRETE PAD FOR PANELS. SEE STRUCTURAL PLANS.
9. ROOF DRAIN. SEE SHEET A8.0 DETAIL 8

Department of Public Works, Los Angeles County

Checked _____ 2/20/2020

Design Division — Date

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R.C.E. NO. C64928
EXP. 06/30/21

DRAWN: KV
DESIGNED: ZS
CHECKED: AK

SCALE: AS SHOWN
DATE: JAN. 2020

TITLE: BUILDING SECTION

JOB: MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

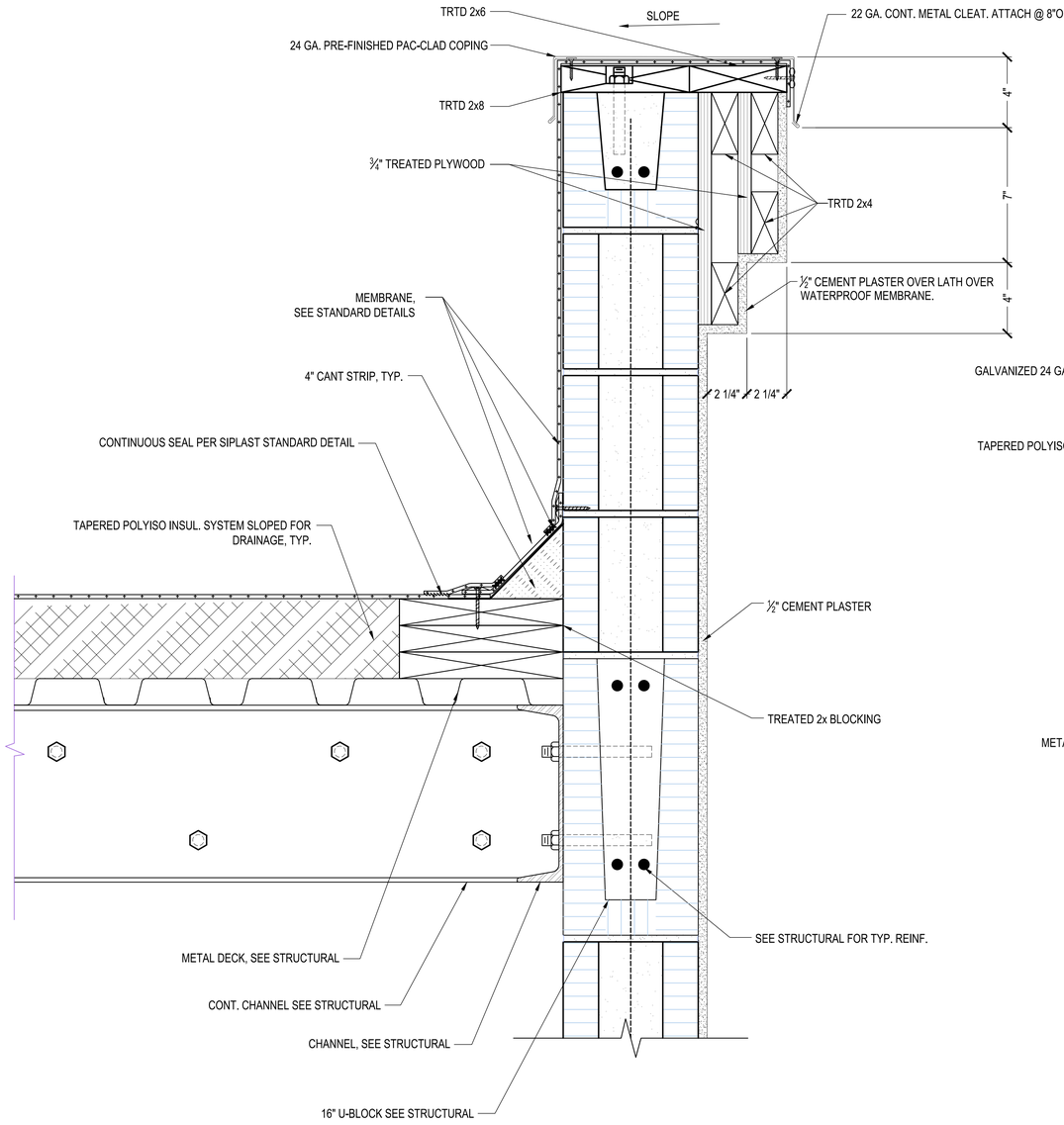
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SHEET A3.0
23 OF 62 SHEETS

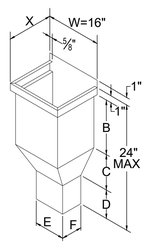
JOB NO. 9862-E

Xrefs: 36x24x LDPW-1.dwg, 9862 LDPW-1 Mech-plan.dwg
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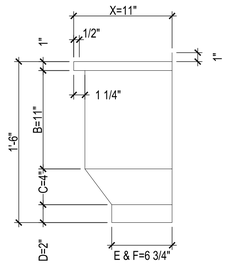
RFI #54



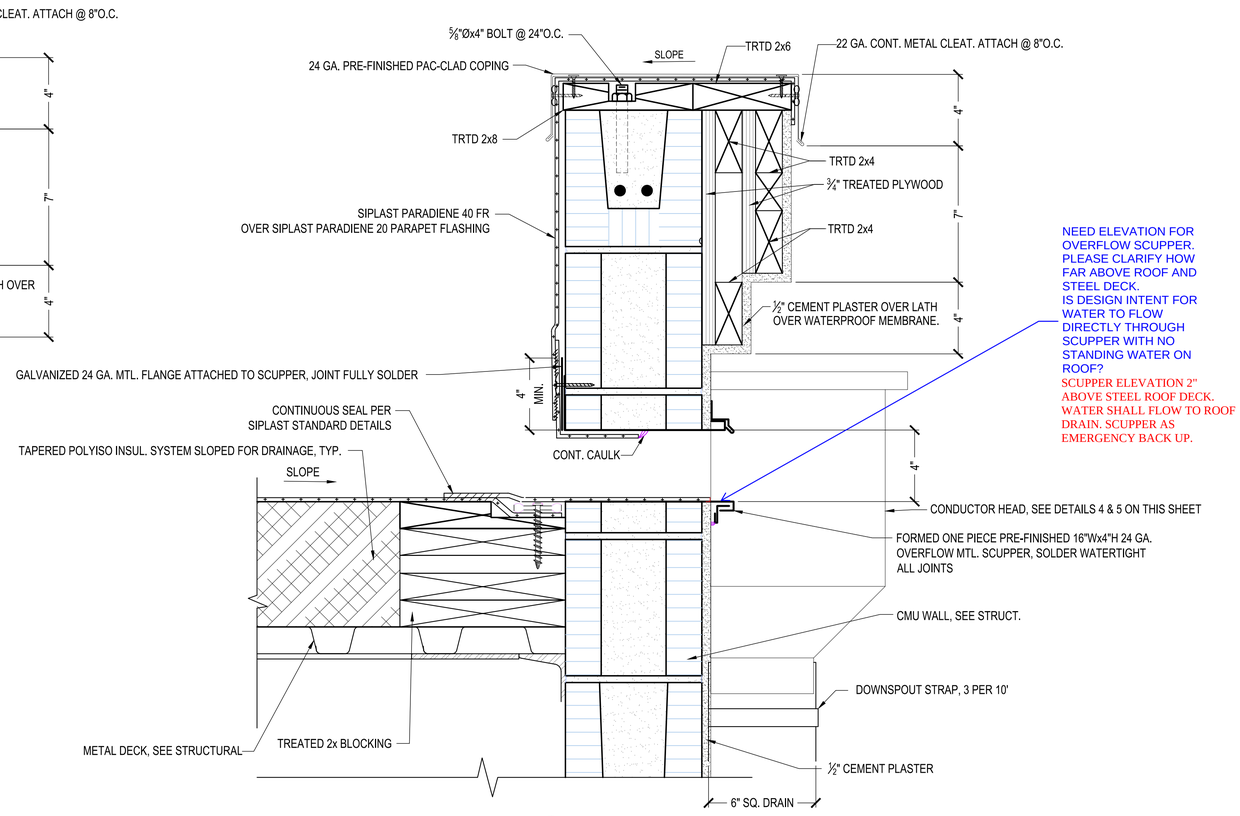
SECTION-TYPICAL PARAPET DETAIL 1 / A4.0
SCALE: 3"=1'-0"



ISOMETRIC-CONDUCTOR HEAD 4 / A4.0
SCALE: NTS

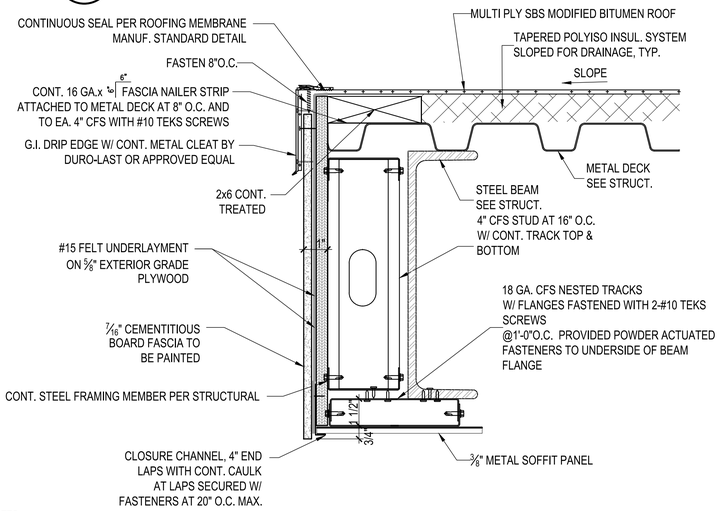


ELEVATION-CONDUCTOR HEAD 5 / A4.0
SCALE: 3"=1'-0"



NEED ELEVATION FOR OVERFLOW SCUPPER. PLEASE CLARIFY HOW FAR ABOVE ROOF AND STEEL DECK.
IS DESIGN INTENT FOR WATER TO FLOW DIRECTLY THROUGH SCUPPER WITH NO STANDING WATER ON ROOF?
SCUPPER ELEVATION 2" ABOVE STEEL ROOF DECK. WATER SHALL FLOW TO ROOF DRAIN. SCUPPER AS EMERGENCY BACK UP.

SECTION-TYPICAL SCUPPER DETAIL 2 / A4.0
SCALE: 3"=1'-0"



NOTES:
1. AN OVERLAP OF ½" WILL BE REQUIRED BETWEEN SECTIONS OF VINYL-COATED METAL. A BEAD OF CAULK IS REQUIRED IN EACH OVERLAP
2. TOP OF WOOD NAILER TO BE FLUSH WITH TOP OF INSULATION. FASTENERS USED TO ATTACH WOOD NAILERS SHALL BE SPACED NO GREATER THAN 18" O.C.
3. DRIP EDGE MUST BE FASTENED 8"O.C.
4. CLEAT MUST BE FASTENED 6"O.C.

DETAIL-CANOPY ROOF EDGE 3 / A4.0
SCALE: 3"=1'-0"

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER ANDREW T. KOMOR No. 058621 EXP. 06/30/21 CIVIL STATE OF CALIFORNIA

PREPARED BY ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. 58621
EXP. 06/30/21
SCALE AS SHOWN
DRAWN KV
DESIGNED ZS
CHECKED AK
DATE JAN. 2020

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TITLE
DETAILS

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

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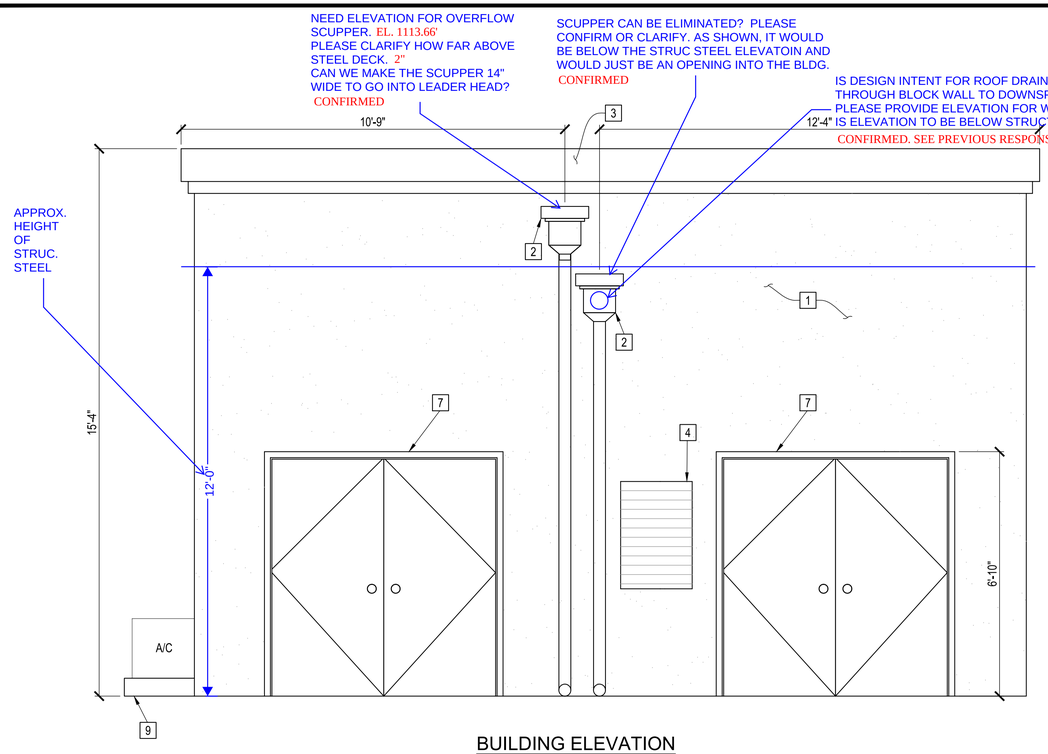
Department of Public Works, Los Angeles County
Checked _____ 2/20/2020
Design Division Date

SHEET A4.0
24 OF 62 SHEETS
JOB NO. 9862-E

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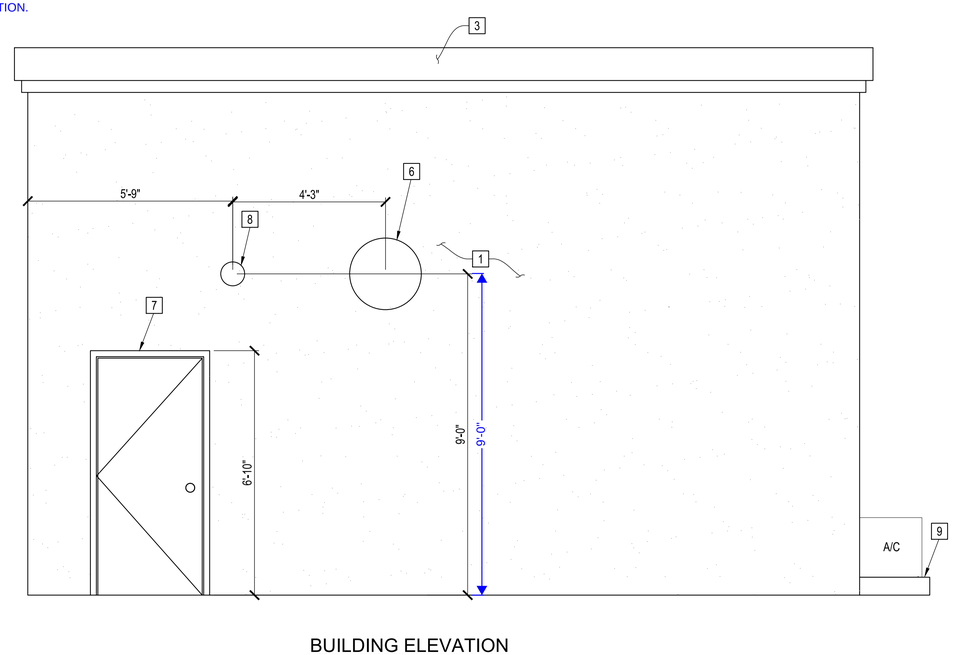
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RFI #54



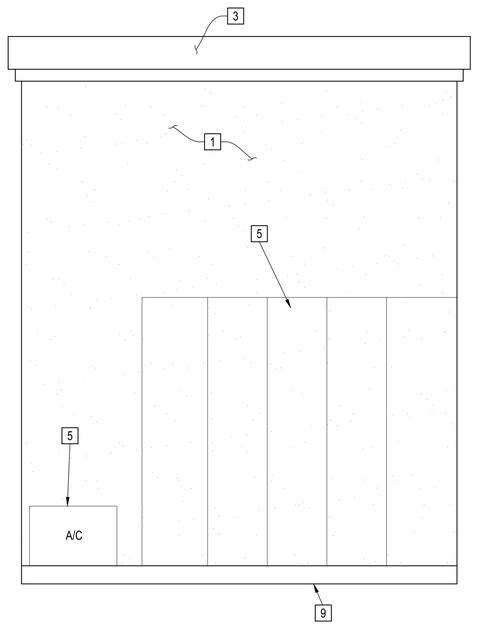
BUILDING ELEVATION

SCALE: ½"=1'-0"



BUILDING ELEVATION

SCALE: ½"=1'-0"



BUILDING ELEVATION

SCALE: ½"=1'-0"

CONSTRUCTION NOTES:

1. PLASTER WITH A SANDSTONE FINISH OVER 8" CMU. (COLOR SHALL BE CONFIRMED BY CLIENT BEFORE CONSTRUCTION)
2. 16" x 4" SCUPPERS, SEE DETAIL 2/A4.0
3. THE PARAPET WILL BE PAINTED IN A DARK GRAY COLOR. (COLOR SHALL BE CONFIRMED BY CLIENT BEFORE CONSTRUCTION)
4. INSTALL 2' x 3' ACOUSTIC LOUVER PER RUSKIN MODEL LAS-4 STATIONARY. SEE DETAILS 4, 5 AND 6 ON SHEET A7.0.
5. ELECTRICAL EQUIPMENT, SEE ELECTRICAL PLANS
6. 12" DIA OPENING FOR VENTILATION FAN
7. DOOR AND FRAME, SEE DOOR SCHEDULE SHEET A6.0
8. 8" OPENING FOR BATHROOM FAN
9. CONCRETE PAD FOR ELECTRICAL PANELS.

Department of Public Works, Los Angeles County

Checked _____ 2/20/2020

Design Division — Date

NO	BY	DATE	REVISIONS	DATE	APP.

ANDRE T. KOMOR — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA — CIVIL — No. C64928 — Exp. 06/30/21

PREPARED BY: ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. C64928
EXP. 06/30/21

DRAWN: KV
DESIGNED: ZS
CHECKED: AK
SCALE: AS SHOWN
DATE: JAN. 2020

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TITLE: BUILDING ELEVATIONS

JOB: MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
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SHEET A5.0
25 OF 62 SHEETS

JOB NO. 9862-E

Xrefs: 36x24r LDPW-1.dwg, 9862 LDPW-1 Mech-plan.dwg
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Request for Information (RFI) Response

To:	Matt Messerly (Blois Construction)
From:	Pacific Advanced Civil Engineering
Project:	Mission Village DPW-1 Sewer Lift Station
RFI #:	~~063~~ XX RFI 58
Date Received:	03/17/2021
Response:	03/30/2021
Answered By:	M.J.M.
PACE Project #:	9862

Response Type

☒ **Plan Clarification**

☒ **Proposed Plan Change**

Question/Comment:

Please see attached RFI questions composed with our roofing subcontractor, Eberhard Roofing:

1. *Does Detail 3/A4.0 apply to the sides of the canopy or just the front edge?*
    a. *Sheet A2.0 shows a callout for Detail 3/A4.0 on the front edge but not on the sides.*
2. *If fascia is to be installed per Detail 3/A4.0 on the sides of the generator canopy as well as the front edge, would the height of the fascia change to follow the roof slope?*
3. *We propose to use sheet metal fascia in lieu of cement board fascia.*
    a. *24 ga. to match soffit panel.*
    b. *Same color as coping and other sheet metal to match.*
    c. *Makes more sense than cement board for exterior exposure; cement board not typical.*
    d. *Ties in better than cement board to top drip edge and bottom soffit panel.*
4. *Propose 18 ga. fabricated sheet metal tracks and studs.*
5. *Confirm Fasteners:*
    a. *TEKS screws and self-tapping screws #10*
    b. *Fasteners noted in roofing submittal*
6. *Confirm angle on top of channel around canopy edge per structural Detail 207/S4.1.*

7. *Noting overall height dimension of fascia edge to be approximately 20". Will verify and confirm in field. Sheet metal built to measurements.*
8. *There is treated 2xs that need to be added to the parapet wood (Detail 1/A4.0) to fill in the empty space in order to complete the plywood and stucco attachment and installation. Please confirm.*

Please confirm in proposed items are acceptable to move forward.

Please see attached markups, as well. Answers and confirmations both on markups and written would be most helpful.

Please review and advise.

Answer:

PACE RESPONSE:

1. Detail 3 on Sheet A4.0 applies to all sides of the canopy.

2. The height of the fascia would change to follow the roof slope. Please see the mark-up on the Section 'A' of Sheet A3.0.

3. The proposed modifications to the fascia are acceptable to PACE. PACE has not coordinated the modifications with the County. The Contractor shall confirm with the County that the proposed modifications are acceptable.

4. The proposed modifications to the fascia are acceptable to PACE.

5. Fasteners shall be as approved in the roofing submittal and manufacturer's recommendation.

6. Confirmed.

7. Noted.

8. Confirmed.

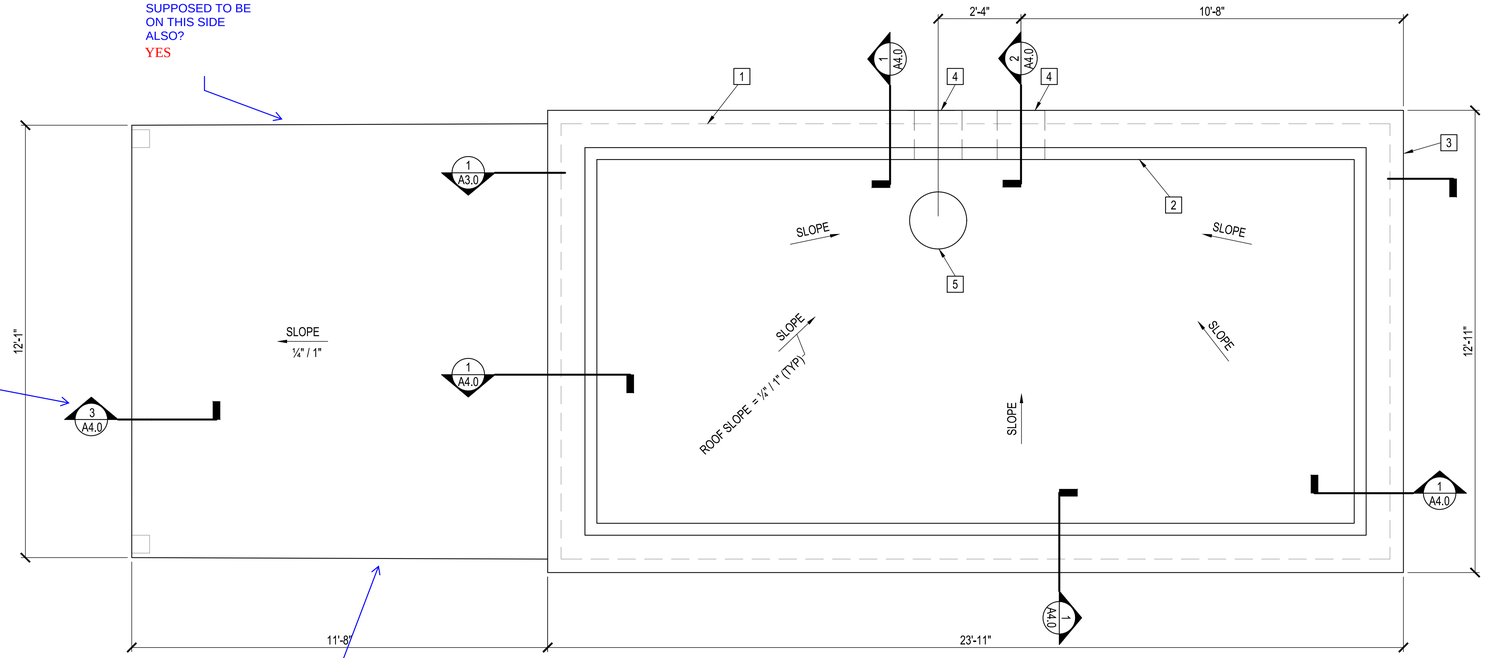
NOTES TO CONTRACTOR:

- The Contractor shall be responsible for any modifications required to utilize sheet metal fascia.

RFI #58

NO CALLOUT FOR DETAIL 3/A4.0 ON THIS SIDE. SUPPOSED TO BE ON THIS SIDE ALSO?
YES

CALLOUT FOR 3/A4.0 THIS SIDE ONLY.
IS DETAIL 3/A4.0 ONLY ON THIS EDGE OR SUPPOSED TO BE ON OTHER SIDES ALSO?
YES



NO CALLOUT FOR DETAIL 3/A4.0 ON THIS SIDE. SUPPOSED TO BE ON THIS SIDE ALSO?
YES

BUILDING - ROOF PLAN
SCALE: ½"=1'-0"

CONSTRUCTION NOTES:

1. 8" CMU BLOCK WALL BELOW.
2. 4" CONT. CANT STRIP.
3. ROOF PARAPET LIMIT, SEE SHEET A4.0 DETAIL 1
4. 16"W x 4"H ROOF DRAINAGE SCUPPER. SEE SHEET A4.0 DETAIL 2.
5. ROOF DRAIN. SEE SHEET A8.0 DETAIL 8

NOTE:
MULTI-PLY SBS MODIFIED BITUMEN ROOF SYSTEM BY SIPLAST OR EQUAL. SPECIFICATION BASED ON PARDIENE 20 TA-30FR OVER POLYISO INSULATION BOARD.

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER ANDREW T. KOMOR No. C64928 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

PREPARED BY ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. C64928
EXP. 06/30/21
DRAWN KV
DESIGNED ZS
CHECKED AK
SCALE AS SHOWN
DATE JAN. 2020

TITLE
ROOF PLAN

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

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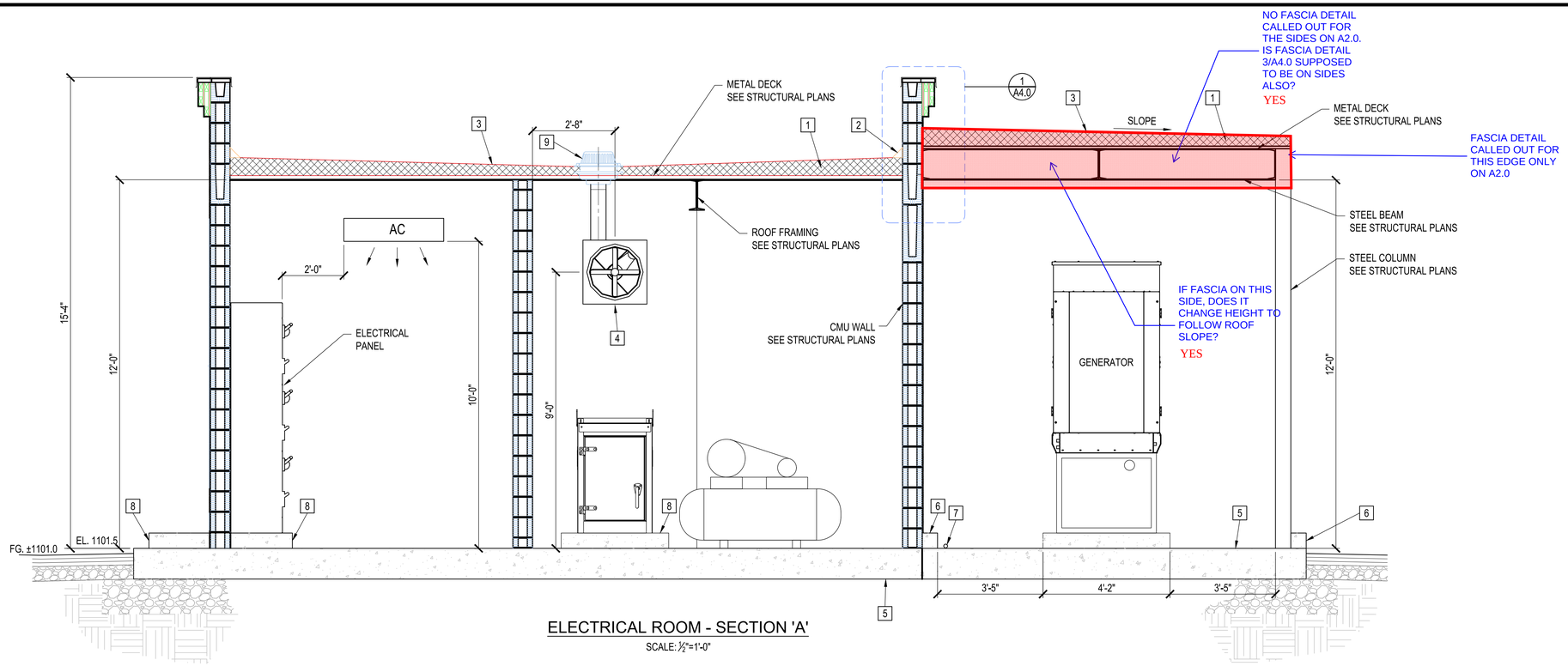
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Design Division Date

SHEET A2.0
22 OF 62 SHEETS
JOB NO. 9862-E

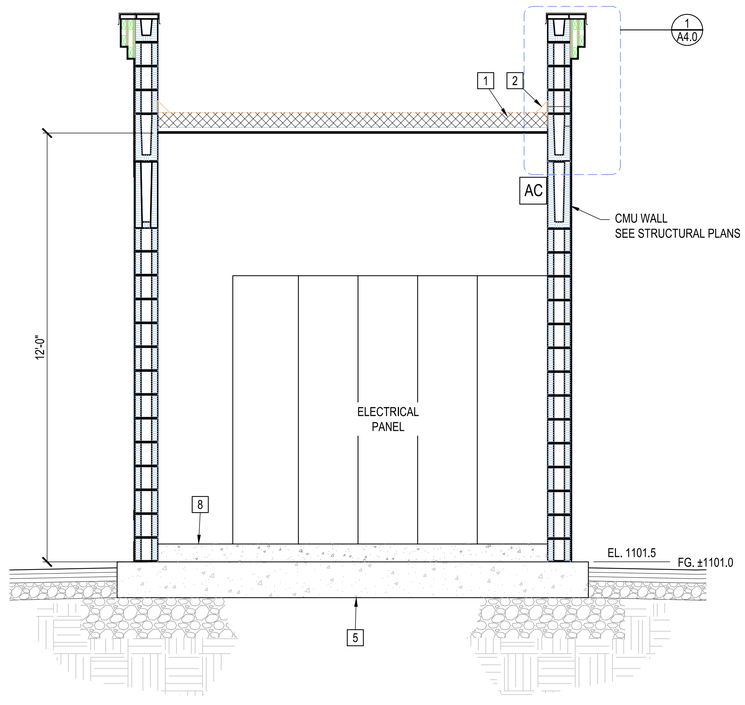
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RFI #58



ELECTRICAL ROOM - SECTION 'A'

SCALE: ½"=1'-0"



ELECTRICAL ROOM - SECTION 'B'

SCALE: ½"=1'-0"

CONSTRUCTION NOTES:

1. TAPERED POLYISO INSULATION SYSTEM SLOPED TO DRAIN.
2. ROOF TO WALL PER DETAIL 7/A8.0
3. MULTI-PLY SBS MODIFIED BITUMEN ROOF SYSTEM BY SIPLEST OR EQUAL.
4. 12" DIA WALL OPENING FOR VENTILATION FAN
5. BUILDING FOUNDATION, SEE STRUCTURAL PLANS
6. 6" HIGH CONCRETE CURBS FOR GENERATOR FUEL SPILL CONTAINMENT
7. 1½" PVC PIPE AND 1½" PVC BALL VALVE FOR CONTAINMENT AREA DRAIN ON MECHANICAL PLANS.
8. CONCRETE PAD FOR PANELS. SEE STRUCTURAL PLANS.
9. ROOF DRAIN. SEE SHEET A8.0 DETAIL 8

Department of Public Works, Los Angeles County

Checked _____ 2/20/2020

Design Division — Date

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER ANDREW T. KOMOR No. C84928 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

PREPARED BY: ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. C84928
EXP. 06/30/21

DRAWN: KV
DESIGNED: ZS
CHECKED: AK

SCALE: AS SHOWN
DATE: JAN. 2020

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TITLE: BUILDING SECTION

JOB: MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

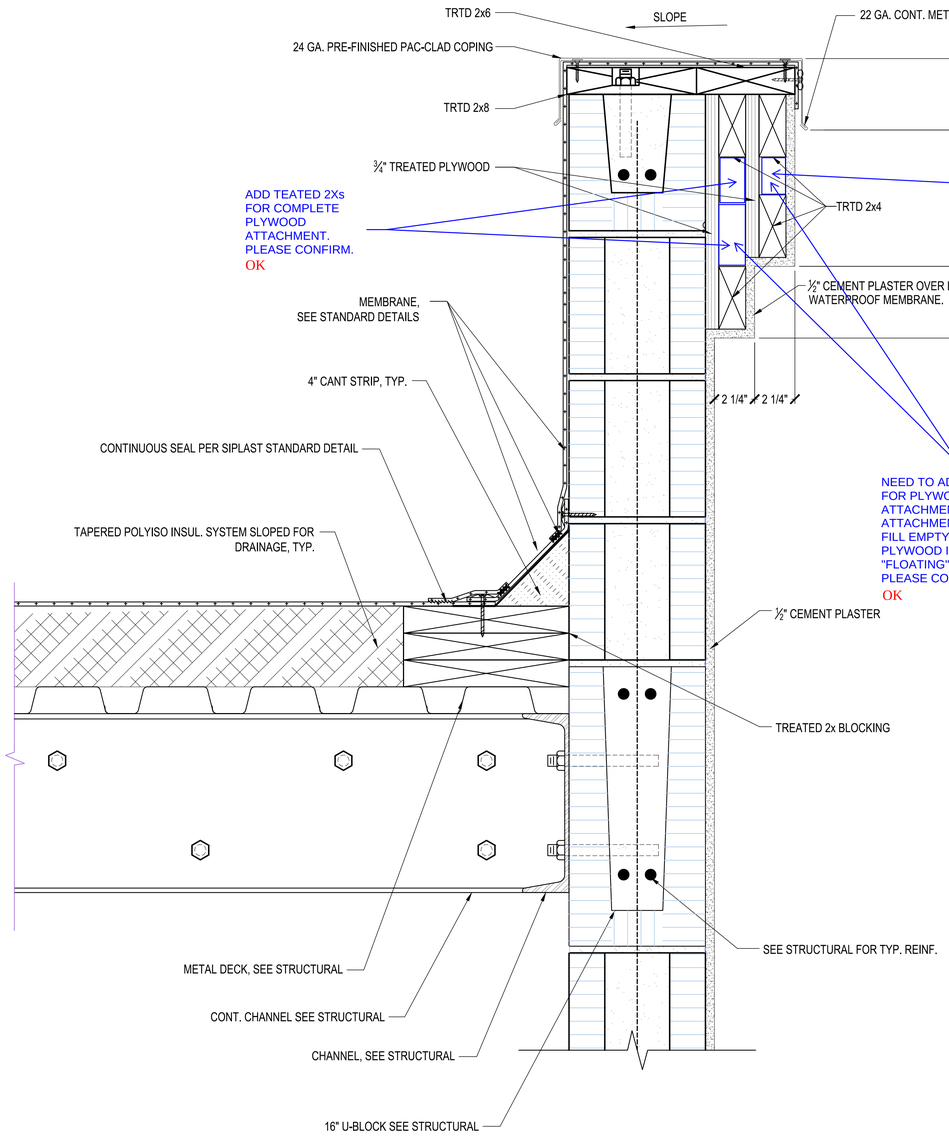
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SHEET A3.0
23 OF 62 SHEETS

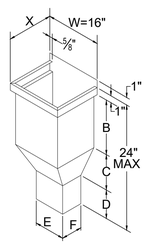
JOB NO. 9862-E

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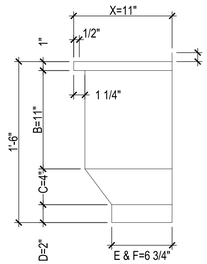
RFI #58



SECTION-TYPICAL PARAPET DETAIL 1 — A4.0
SCALE: 3"=1'-0"

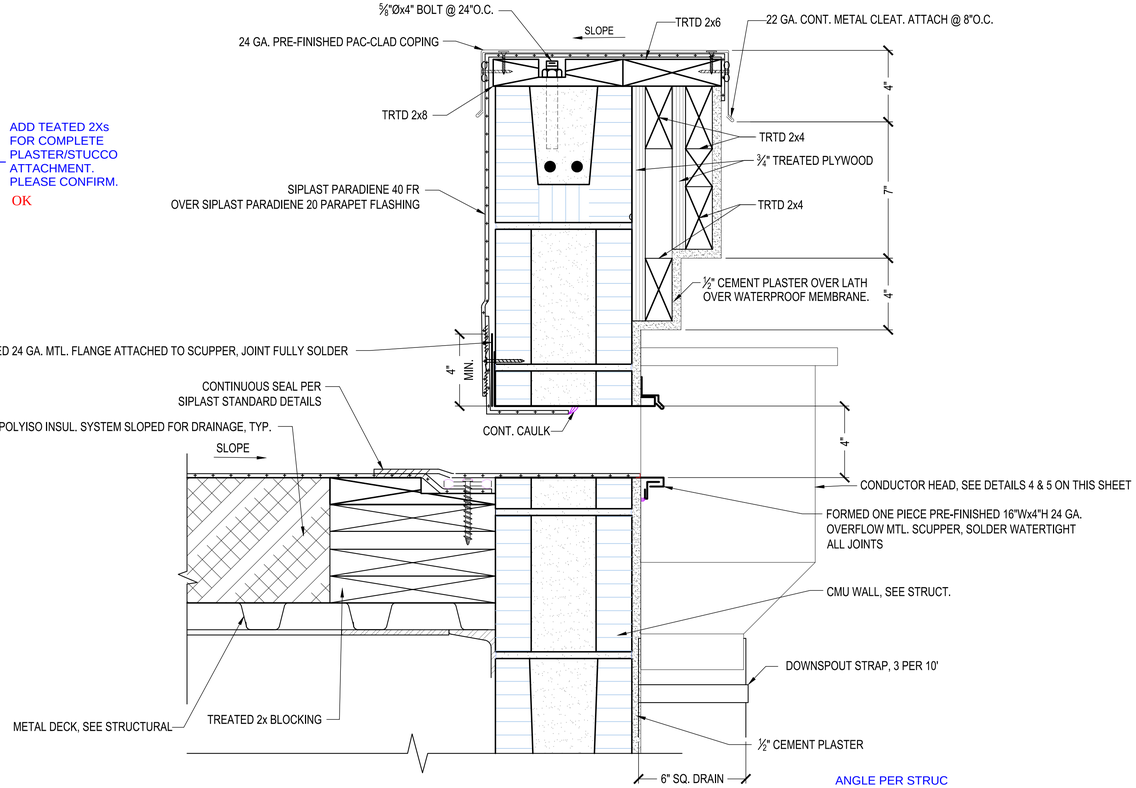


ISOMETRIC-CONDUCTOR HEAD 4 — A4.0
SCALE: NTS



CEMENT BOARD NOT TYPICAL FOR EXTERIOR FACE PROPOSE SHEET METAL 24 GA. TO MATCH SOFFIT PANEL PER ROOF SHOP DRAWINGS
OK

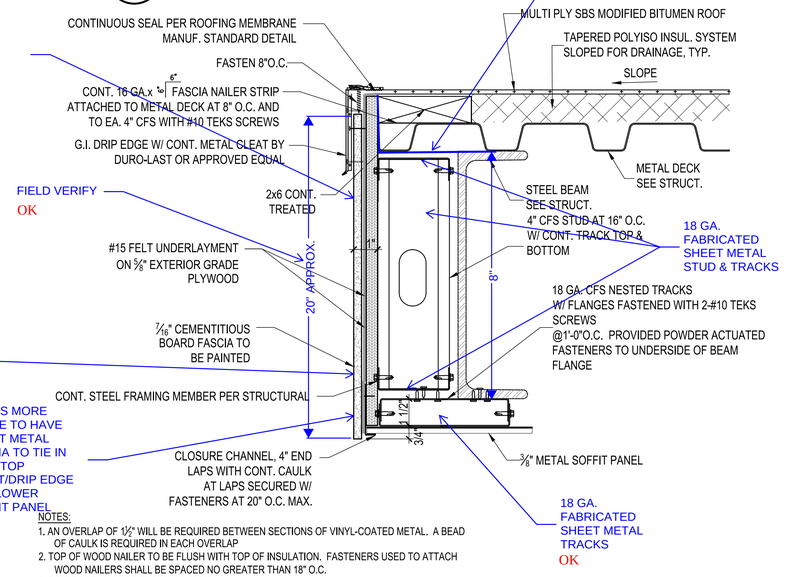
ELEVATION-CONDUCTOR HEAD 5 — A4.0
SCALE: 3"=1'-0"



SECTION-TYPICAL SCUPPER DETAIL 2 — A4.0
SCALE: 3"=1'-0"

ANGLE PER STRUC STEEL DETAIL 207. PLEASE CONFIRM.
OK

PROPOSE USE TEKS SCREWS AND/OR SELF-TAPPING SCREWS #10
OK



NOTES:
1. AN OVERLAP OF ½" WILL BE REQUIRED BETWEEN SECTIONS OF VINYL-COATED METAL. A BEAD OF CAULK IS REQUIRED IN EACH OVERLAP
2. TOP OF WOOD NAILER TO BE FLUSH WITH TOP OF INSULATION. FASTENERS USED TO ATTACH WOOD NAILERS SHALL BE SPACED NO GREATER THAN 18" O.C.
3. DRIP EDGE MUST BE FASTENED 8"O.C.
4. CLEAT MUST BE FASTENED 6"O.C.

DETAIL-CANOPY ROOF EDGE 3 — A4.0
SCALE: 3"=1'-0"

Department of Public Works, Los Angeles County

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Design Division — Date

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REGISTERED PROFESSIONAL ENGINEER ★ ANDY KOMOR ★ STATE OF CALIFORNIA CIVIL
No. C64928 Exp. 06/30/21

PREPARED BY ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. C64928
EXP. 06/30/21
SCALE AS SHOWN
DRAWN KV
DESIGNED ZS
CHECKED AK
DATE JAN. 2020

TITLE: DETAILS

JOB: MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

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SHEET A4.0
24 OF 62 SHEETS

JOB NO. 9862-E

Xrefs: 36x24v DPW-1.dwg
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REQUEST FOR INFORMATION

DATE: 11-19-2020

RFI #: **036**

Attention: Tom Hay Bob Brazell, FivePoint Brian Reid, PACE Matt Mills, PACE Fax #: 661-255-4296	From: Matt Messerly Delivered Via: Email Blois Construction Project No.: 3065 Project Name: Mission Village Sewer Lift Station DPW-1

Subject:	**Building Footing, Slab, Pad Elevation & Details & Sections**	
Reference:	Drawing Sheets:	A3.0, S0.4, S0.5, S1.1, S3.1 C3.0,
	Detail Numbers:	
	Spec. Sections:	
	Schedule Activities Impacted:	Undergrnd Conduit Instlltn; Ftng, Pad, Slab Grade & Cnstruct

INFORMATION REQUESTED:

Please provide elevations for the concrete footings for the masonry block walls for the building. Note 6 on sheet S3.1 detail 102 indicates that this info is in the plans, but it is not to be found.

Please provide a section cut through the bldg showing the footings, block walls, equip pads, and bldg. slabs with thickened edges for the plan view on sheet S1.1. This section would be similar to the section on A3. The section on A3 has dimensions that do not match the structural details. This section can be provided as a separate exhibit detail.

Please confirm that footing type F1 with the dimensions shown on S0.4 is to be used as noted and shown on S1.1.

This is to clarify info already shown on the plans (architectural sheets and structural details) to advance the cause of the project.

Please provide responses to notes and questions that are marked up in blue on several plan sheets attached.

Please provide the top of footing elevations for the site wall. The top of wall is called on out sheet C3.0.

Please provide the top of footing elevation the building by tomorrow 11/20/2020 and the section and other info by Monday 11/30/2020.

Please review and advise.

Response Requested by:	**11/20/2020 & 11/30/2020**	
If a definitive response is not received by this date Project Schedule Will be Delayed	☐ YES ☐ NO ☒ Uncertain	Potential Cost Impact ☐ YES ☐ NO ☒ Uncertain

RESPONSE:	
BY: Davis Truong, Wright Engineers	DATE: 12/2/2020

Response:

For elevation of concrete footing for the masonry block walls refer the Foundation Plan Note C on sheet S1.1. It states that all footing shall extend 18 inches min. below pad grade.

See notes on sheet A3.0 for clarification on building section.

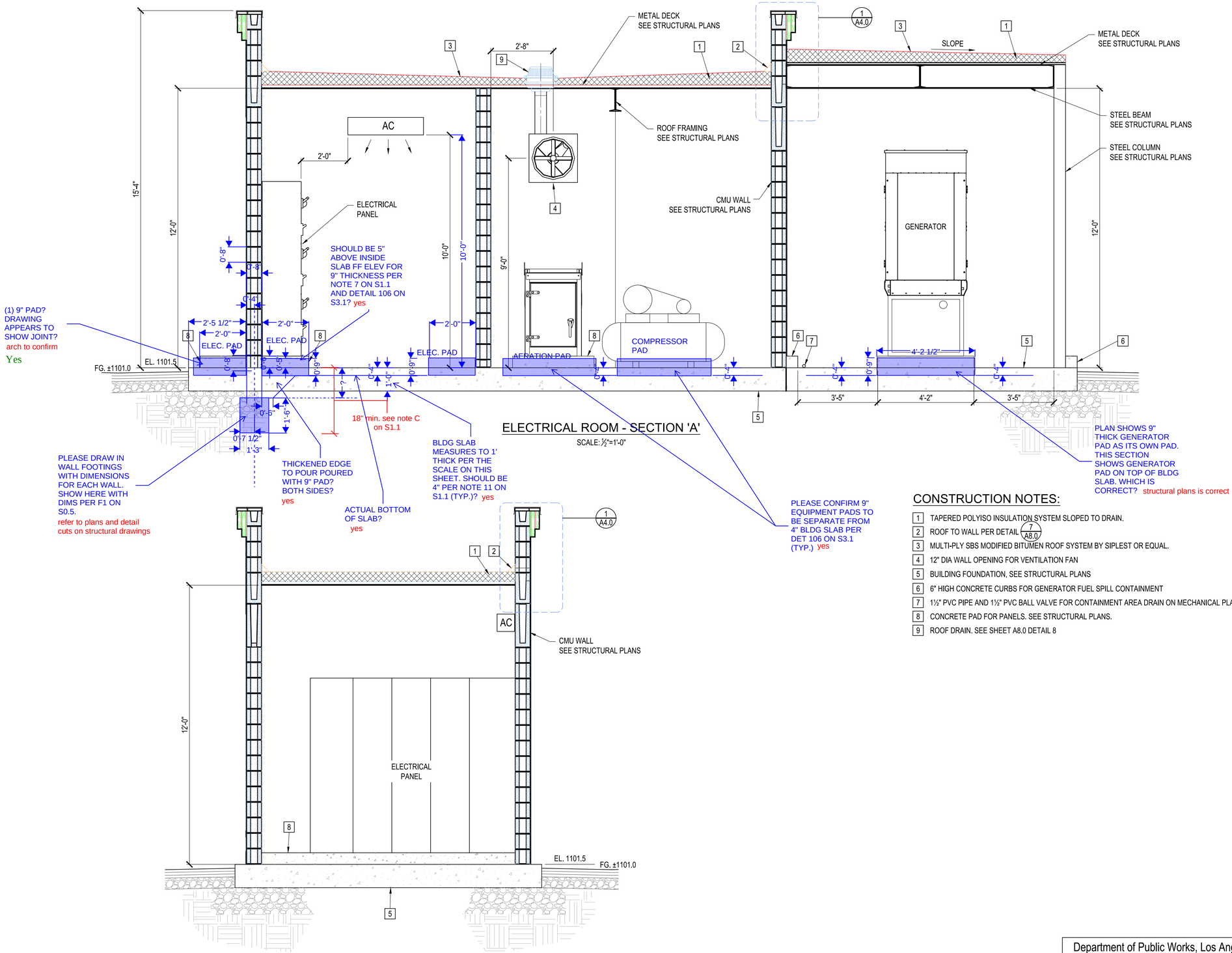
Confirmed, footing type F1 shall be dimensioned per footing schedule on S0.5 and shall be used as shown on S1.1

Response:

Please see PACE's response to the questions below in green.

BY: M.J.M. DATE: 12/02/2020

RFI #36



ELECTRICAL ROOM - SECTION 'A'

SCALE: ½"=1'-0"

ELECTRICAL ROOM - SECTION 'B'

SCALE: ½"=1'-0"

CONSTRUCTION NOTES:

1. TAPERED POLYISO INSULATION SYSTEM SLOPED TO DRAIN.
2. ROOF TO WALL PER DETAIL 7/A8.0
3. MULTI-PLY SBS MODIFIED BITUMEN ROOF SYSTEM BY SIPLEST OR EQUAL.
4. 12" DIA WALL OPENING FOR VENTILATION FAN
5. BUILDING FOUNDATION, SEE STRUCTURAL PLANS
6. 6" HIGH CONCRETE CURBS FOR GENERATOR FUEL SPILL CONTAINMENT
7. 1½" PVC PIPE AND 1¼" PVC BALL VALVE FOR CONTAINMENT AREA DRAIN ON MECHANICAL PLANS.
8. CONCRETE PAD FOR PANELS. SEE STRUCTURAL PLANS.
9. ROOF DRAIN. SEE SHEET A8.0 DETAIL 8

NO	BY	DATE	REVISIONS	DATE	APP.

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REGISTERED PROFESSIONAL ENGINEER ANDRE KOMOR No. C64928 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

PREPARED BY: ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. C64928
EXP. 06/30/21

DRAWN: KV
DESIGNED: ZS
CHECKED: AK
SCALE: AS SHOWN
DATE: JAN. 2020

TITLE: BUILDING SECTION

JOB: MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
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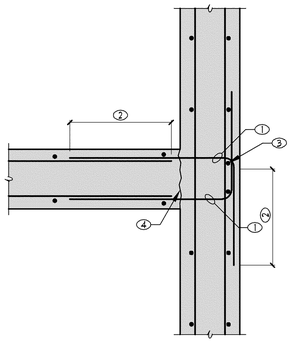
Department of Public Works, Los Angeles County

Checked _____ 2/20/2020
Design Division Date

SHEET A3.0
23 OF 62 SHEETS

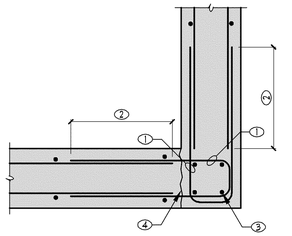
JOB NO. 9862-E

Xrefs: 3b-24x DPW-1.dwg; 9862 DPW-1 Mech-plan.dwg
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A WALL INTERSECTION

1. BENT DOWEL w/ SIZE AND SPACING TO MATCH WALL HORIZ. REINF. USE "L" SHAPED DOWELS AT WALL INTERSECTIONS AND "U" SHAPED DOWELS AT WALL CORNERS
2. LAP LENGTH PER TYPICAL REBAR LAP SCHEDULE, TYP.
3. LOCATE VERT. BAR AT HOOKED HORIZ. BAR, TYP.
4. OPTIONAL FOUR JOINT. ROUGHEN SURFACE TO 1/4" AMPLITUDE. SEE G.S.N. FOR ADDITIONAL JOINT SURFACE PREPARATION REQUIREMENTS

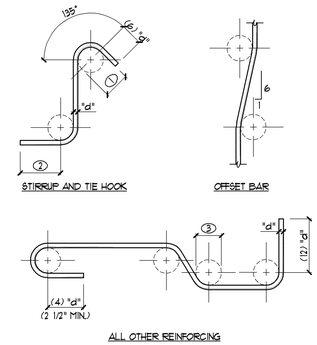


B WALL CORNER

A. SEE CONCRETE WALL SCHEDULE OR WALL ELEVATIONS FOR TYP. WALL REINF. U.N.O. ON PLAN

10 TYPICAL CONCRETE WALL INTERSECTION – PLAN

10-181011 NO SCALE



1. MINIMUM FINISHED BEND DIA. FOR STIRRUPS AND TIES ONLY (4) "d" FOR #3 BAR AND SMALLER, (6) "d" FOR #4 THRU #8. TYPICAL
2. (6) "d" FOR #3 AND SMALLER (12) "d" FOR #4 THRU #8
3. MINIMUM FINISHED BEND DIA. FOR ALL REINFORCING EXCEPT STIRRUPS AND TIES (6) "d" UP TO #8 BAR, (8) "d" FOR #9 THRU #11, (12) "d" FOR #14 AND #18.

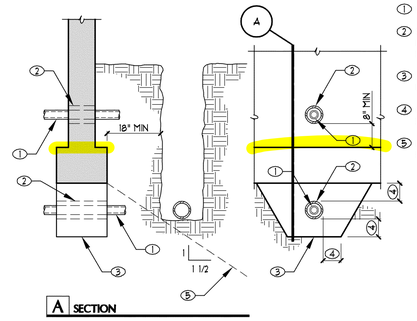
A. "d" = BAR DIA.

B. ALL REINFORCEMENT SHALL BE BENT COLD UNLESS NOTED OTHERWISE ON PLANS OR DETAILS

C. REINFORCING PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE FIELD BENT UNLESS SPECIFICALLY NOTED ON PLANS OR DETAILS

08 STANDARD REBAR BEND DETAILS

C01-01 091104 NO SCALE



A SECTION

1. PIPE/CONDUIT
2. SLEEVE. SIZE TO PROVIDE 1/2" MIN. CLEARANCE AROUND UTILITY PIPE/CONDUIT
3. LEAN CONCRETE FILL. MATCH WIDTH OF FOOTING
4. CLEARANCE EQUAL TO SLEEVE DIA. (6" MIN.)
5. NO TRENCH EXCAVATION ALLOWED BELOW THIS LINE

09 PIPE/CONDUIT AT FOOTING

F01-01 080512 NO SCALE

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER * THOMAS C. ALLEN No.55460 * STRUCTURAL * STATE OF CALIFORNIA
1/9/2020

PREPARED BY: X
R.C.E. NO. -- PROJECT ENGINEER
EXP. --
DRAWN WE | SCALE AS SHOWN
DESIGNED DT | DATE APR. 2019
CHECKED TA

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TITLE: TYPICAL DETAILS

JOB: MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
VALENCIA CA

PACE Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
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SHEET S0.4

JOB NO. 9862-E

Department of Public Works, Los Angeles County
Checked _____ _____
Design Division Date

WRIGHT engineers
2 Venture Suite 200
Irvine, CA 92618
949.477.4301 wrightla.com

S04-181011-D

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MASONRY JAMB (MJ) SCHEDULE

EXAMPLE DESIGNATION: MJ1 (6) #5 - 32"
① ② ③ ④

① MASONRY JAMB TYPE PER SCHEDULE BELOW

② TOTAL NUMBER OF JAMB BARS AS NOTED ON PLAN. ACTUAL NUMBER OF BARS SPECIFIED ON PLAN MAY BE MORE OR LESS THAN SHOWN IN EXAMPLE PROFILES BELOW

③ JAMB BAR SIZE AS NOTED ON PLAN (EX: #4, #5, #6, ETC.)

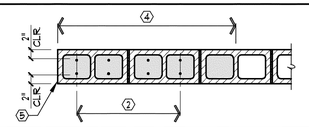
④ SOLID GROUT DISTANCE AS NOTED ON PLAN.

⑤ EDGE OF WALL OPENING

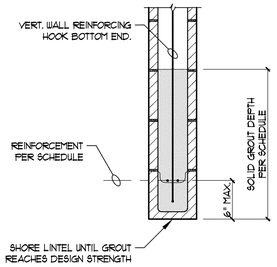
⑥ CENTER OF BEAM OR GIRDER BEARING LOCATION

⑦ CENTER JAMB REINFORCING AND SOLID GROUT ON BEAM OR GIRDER BEARING LOCATION

⑧ PROFILES SHOWN IN SCHEDULE BELOW ARE FOR ILLUSTRATION PURPOSES ONLY. ACTUAL BAR QUANTITY, SIZE, AND GROUT DISTANCE SHALL CONFORM TO ACTUAL PLAN DESIGNATIONS.

MARK	PROFILE ⑧
MJ1	

MASONRY LINTEL (ML) SCHEDULE

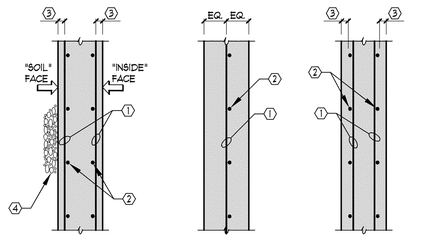


A. EXTEND GROUT, OPEN END MASONRY UNITS AND REINFORCING 2'-0" MIN. PAST EACH EDGE OF OPENING WHERE POSSIBLE. AT WALL CORNERS OR OTHER INTERFERENCE, EXTEND REINFORCEMENT AS FAR AS POSSIBLE INTO ADJACENT MASONRY AND HOOK ENDS WITH STANDARD 90 DEGREE HOOK.

B. ENDS OF LINTEL TO BE BUILT INTO ADJACENT WALL OR PILASTER WITH RUNNING BOND JOINT.

MARK	GROUT DEPTH	REINFORCING	VERTICAL REINFORCING	NOTES
ML1	24"	(2) #5 AT BOTTOM	#5 AT 16" o.c.	.

CONCRETE WALL (CW) SCHEDULE



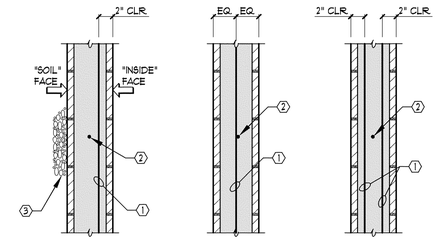
VERTICAL BARS EACH FACE | VERTICAL BARS CENTERED | VERTICAL BARS EACH FACE

① VERT. REINFORCING
② HORIZ. REINFORCING
③ SEE G.S.N. FOR CLR. COVER REQUIREMENTS
④ BACKFILL AT "SOIL" FACE AS OCCURS

A. REFER TO TYPICAL DETAILS FOR ADDITIONAL REINF. REQUIREMENTS

MARK	THICKNESS	VERT. REINFORCING	HORIZ. REINFORCING	NOTES
CW1	12"	#7 AT 9" o.c. "INSIDE" FACE, #7 AT 9" o.c. "SOIL" FACE	#6 AT 12" o.c. E.F.	.
CW2	15"	#8 AT 6" o.c. "INSIDE" FACE, #8 AT 6" o.c. "SOIL" FACE	#8 AT 6" o.c. E.F.	.

MASONRY WALL (MW) SCHEDULE



VERTICAL BARS "INSIDE" FACE | VERTICAL BARS CENTERED | VERTICAL BARS EACH FACE

① VERT. REINFORCING
② HORIZ. REINFORCING
③ BACKFILL AT "SOIL" FACE AS OCCURS

MARK	NOMINAL THICKNESS	VERT. REINFORCING FULL WALL HEIGHT	HORIZ. REINFORCING	NOTES
MW1	8"	#5 AT 24" o.c. EACH FACE	#5 AT 48" o.c.	SPECIAL INSPECTION GROUT SOLID

STEEL COLUMN (SC) SCHEDULE

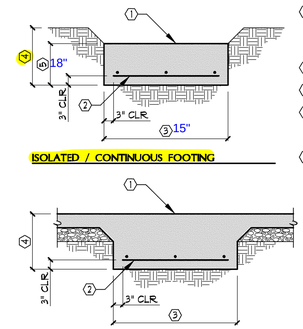
A. FOR BASE PLATE CONFIGURATION, A.R. PATTERN, AND COLUMN-TO-BASE PLATE CONNECTION, SEE TYPICAL COLUMN BASE PLATE SCHEDULE OR DETAIL.

B. STANDARD EFFECTIVE ANCHOR ROD EMBEDMENT = 1 1/2" U.N.O. EFFECTIVE EMBEDMENT SPECIFIED DENOTES MIN. DISTANCE REQ'D. BETWEEN T.O. CONCRETE AND T.O. EMBEDDED NUT U.N.O.

C. ORIENT LONG DIMENSION OF BASE PLATE PARALLEL TO WEB OF WIDE FLANGE COLUMN U.N.O.

MARK	SIZE	BASE PLATE	NOTES
SC1	HSS4x4x1/4	TYPE A 3/4" x 10" x 0'-10" w/ (4) 3/4" DIA. A.R.	DETAIL 09/S03

FOOTING (F) SCHEDULE



ISOLATED / CONTINUOUS FOOTING

THICKENED SLAB FOOTING

① SEE PLAN AND DETAILS FOR EMBEDDED ITEMS AND CONSTRUCTION ABOVE FOOTING
② REBAR
③ WIDTH / LENGTH
④ THICKNESS PER SCHEDULE OR EMBED DEPTH PER G.S.N.
⑤ THICKNESS

THICKNESS, OR DEPTH, NOT SHOWN ON PLANS

Refer to Foundation Plan Note C on sheet S1.1

MARK	WIDTH	LENGTH	THICKNESS	FOOTING REBAR	NOTES
F1	1'-3"	CONT.	1'-6"	(2) #5 CONT. AT TOP AND BOTTOM	.
F2	2'-0"	2'-0"	1'-0"	(4) #4 E. W., BOTTOM	.

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NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER ★ THOMAS C. ALLEN No.55460 ★ CIVIL STRUCTURAL ★ STATE OF CALIFORNIA 1/9/2020

PREPARED BY: X
R.C.E. NO.: --
EXP.: --
PROJECT ENGINEER: --
DRAWN: WE
DESIGNED: DT
CHECKED: TA
SCALE: AS SHOWN
DATE: APR. 2019

TITLE: SCHEDULES

JOB: MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

SHEET S0.5

JOB NO. 9862-E

Department of Public Works, Los Angeles County
Checked _____ _____
Design Division Date

WRIGHT engineers
2 Venture Suite 200
Irvine, CA 92618
949.477.7400 wrighte.com

S05-181011-S

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RFI #36

FOUNDATION KEYNOTES

1. STAIRS BY OHTERS
2. AT HATCHED AREA, PROVIDE 6" CONCRETE SLAB w/ #4 AT 18" o.c. E.W. OVER 10 PSI INSUL FOAM TYPE I (ICC ESR-1388) HIGH DENSITY FOAM INSULATION OVER CONCRETE MAT SLAB. INSTALL INSUL FOAM PER MFR.'S SPEC'S.
3. VALVE VAULT PER CIVIL PLANS. (8'-0" MAX. WALL HEIGHT)
4. CONCRETE WET WALL AND EMERGENCY STORAGE PER CIVIL PLANS (19'-0" MAX. WALL HEIGHT)
5. #6 AT 12" o.c. E.W. TOP & BOTTOM
6. NOT USED
7. 9" THICK GENERATOR PAD w/ #3 AT 16" o.c. E.W. TOP AND BOTTOM PER DETAIL 106/S3.1
8. 12" THICK CONCRETE MAT SLAB
9. REFERENCE DETAIL 110/S3.1 FOR DRAIN PIT DETAIL
10. 24" THICK CONCRETE MAT SLAB
11. CONCRETE SLAB ON GRADE SHALL BE 4" THICK w/ #4 AT 16" o.c. EACH WAY. PLACE REINF. 2" CLR. FROM TOP OF SLAB
12. 9" THICK AIR TANK PAD w/ #3 AT 16" o.c. E.W. TOP AND BOTTOM SIMILAR TO DETAIL 106/S3.1
13. 9" THICK CONCRETE PAD WITH #3 AT 16" o.c. E.W. TOP AND BOTTOM, SIMILAR TO DETAIL 106/S3.1

FOUNDATION PLAN NOTES

J. MASONRY CONTROL JOINTS (MCJ) PER TYPICAL DETAIL 01/S03 SHALL BE PLACED WHERE SPECIFICALLY SHOWN ON PLANS AND, AS A MINIMUM, AT INTERVALS NOT TO EXCEED 30'-0" o.c. COORDINATE EXACT LOCATION OF CONTROL JOINTS WITH ARCH'L.

K. SC1, SC2, SC3, . . . DENOTES STEEL COLUMN PER SCHEDULE ON SHEET S05.

L. PLACE SLAB(S) ON GRADE OVER SUBGRADE AND VAPOR BARRIER (AS REQ'D.) PER THE GEOTECHNICAL REPORT REFERENCED ON G.S.N.

M. SEE ARCH'L. AND/OR CIVIL DWGS. FOR EXTERIOR SLABS, WALLS, ETC.

N. SEE DETAIL 09/S04 FOR PIPES/CONDUIT AT FTGS. PIPES/CONDUIT SHALL NOT PASS THRU NOR BE LOCATED BENEATH ISOLATED PAD FOOTINGS.

O. SEE DETAIL 07/S3.1 FOR TYPICAL MASONRY FENCE WALLS.

FOUNDATION PLAN NOTES

D. FINISH FLOOR ELEVATION VARIES. SEE CIVIL DWGS.

E. T.O.F. ELEVATION AT STEEL OR CONCRETE COLUMNS = 1'-0" BELOW F.F. U.N.O.

F. F1, F2, F3, . . . DENOTES FOOTING PER SCHEDULE ON SHEET S05. TYPICAL FOOTING SHALL BE MARK "F1" U.N.O. ON PLAN.

G. CW1, CW2, CW3, . . . DENOTES CONCRETE WALL PER SCHEDULE ON SHEET S05. ALL CONCRETE WALLS SHALL BE MARK "CW1" U.N.O. ON PLAN.

H. MU1, MU2, MU3, . . . DENOTES MASONRY WALL PER SCHEDULE ON SHEET S05. ALL MASONRY WALLS SHALL BE MARK "MU1" U.N.O. ON PLAN.

I. MUX (X) #X-XX" INDICATES MASONRY JAMB PER MASONRY JAMB SCHEDULE ON SHEET S05. TYPICAL JAMB SHALL BE MJ1 (2) #5-24" U.N.O.

FOUNDATION PLAN NOTES

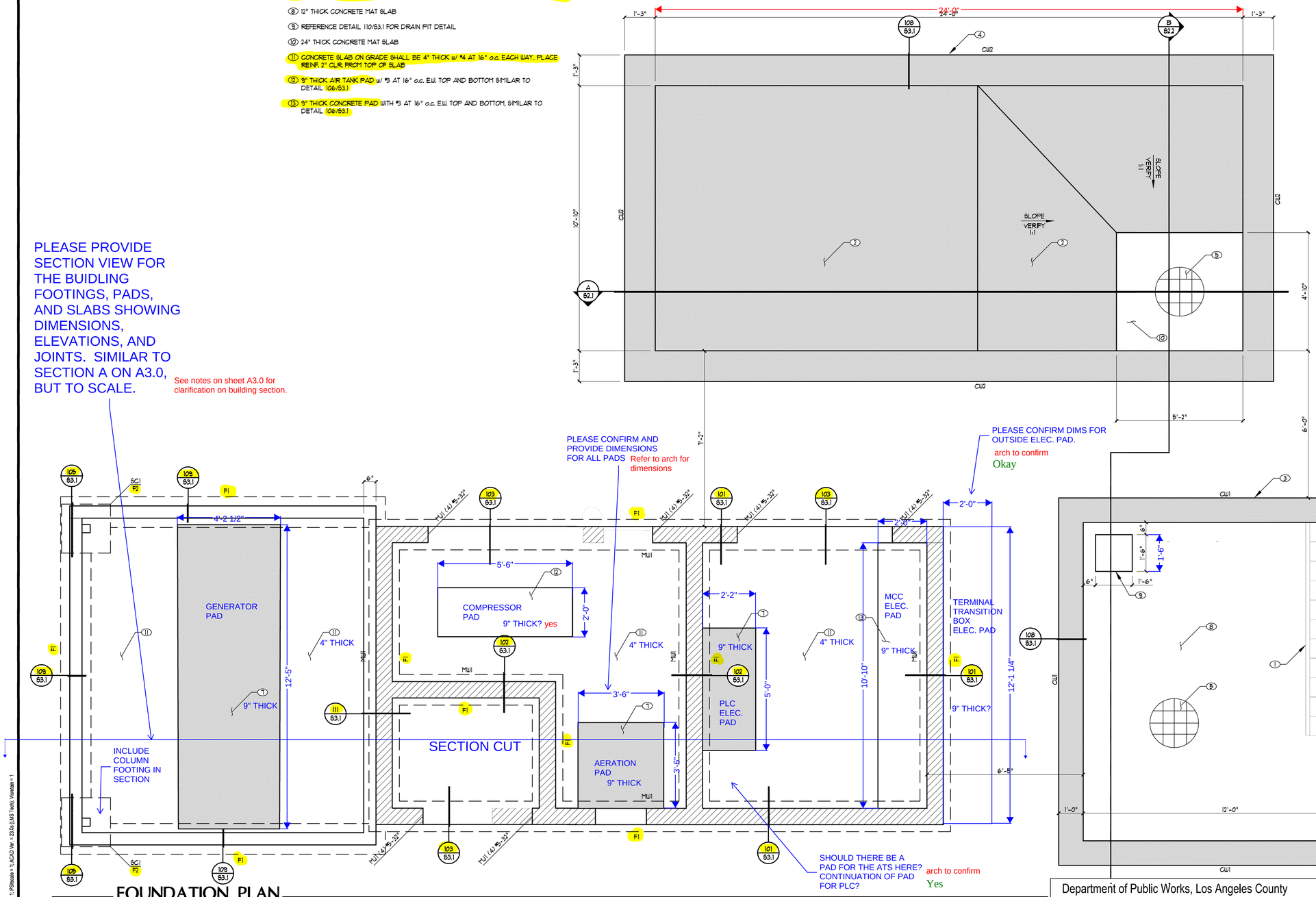
A. VERIFY ALL DIMENSIONS, ELEVATIONS, SLOPES, ETC., w/ ARCH'L. AND/OR CIVIL PRIOR TO CONSTRUCTION. RESOLVE DISCREPANCIES WITH ARCHITECT.

B. VERIFY LOCATION AND SIZE OF ALL INSERTS AND OPENINGS IN SLAB WITH ARCH'L., MECH., PLUMBING, AND ELECT. PRIOR TO CONSTRUCTION.

C. ALL FOOTINGS SHALL EXTEND 18 INCHES MIN. BELOW PAD GRADE. PAD GRADE IS DEFINED AS TOP OF SLAB FOR INTERIOR FOOTINGS, LOWEST ADJACENT COMPACTED SUBGRADE (PAD GRADE BEFORE LANDSCAPING) OR NATURAL GRADE WITHIN 5 FEET OF BUILDING FOR PERIMETER FOOTINGS, OR TOP OF EXTERIOR PAVING OR CONCRETE WHERE EXTERIOR PAVING OR CONCRETE IS PERMANENTLY LOCATED DIRECTLY ADJACENT TO BUILDING AND EXTENDS AT LEAST 5 FEET FROM BUILDING. FOOTING EXCAVATIONS SHALL BE CLEAN AND FREE FROM LOOSE DEBRIS, STANDING WATER, OR UNCOMPACTED MATERIAL AT TIME OF CONCRETE PLACEMENT. CONTRACTOR SHALL COORDINATE FOOTING EMBEDMENT WITH CIVIL GRADING PLANS TO ENSURE THAT MINIMUM EMBEDMENT SPECIFIED ABOVE IS MAINTAINED.

PLEASE PROVIDE SECTION VIEW FOR THE BUIDLING FOOTINGS, PADS, AND SLABS SHOWING DIMENSIONS, ELEVATIONS, AND JOINTS. SIMILAR TO SECTION A ON A3.0, BUT TO SCALE.

See notes on sheet A3.0 for clarification on building section.



FOUNDATION PLAN

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

Department of Public Works, Los Angeles County

Checked _____ Design Division _____ Date

WRIGHT engineers
2 Venture Suite 200
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949.477.4001 wrightle.com

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER * THOMAS C. ALLEN No.55460 * STATE OF CALIFORNIA * STRUCTURAL
1/9/2020

PREPARED BY -
PROJECT ENGINEER
R.C.E. NO. --
EXP. --
DRAWN WE
DESIGNED DT
CHECKED TA
SCALE AS SHOWN
DATE APR. 2019

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TITLE: FOUNDATION PLAN

JOB: MISSION VILLAGE
DPW-1 SEWER PUMP STATION
VALENCIA CA

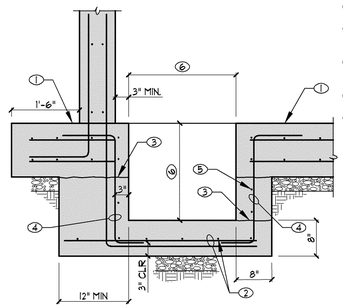
PACE Advanced Water Engineering
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SHEET S1.1

JOB NO. 9862-E

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S1\-181011-PS1

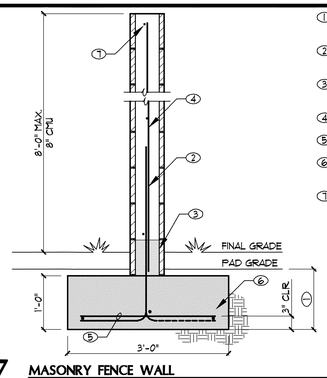
RFI #36



1. SLAB AND REINFORCING PER PLAN
2. #4 AT 12" o.c. E.W. BOTTOM
3. ROUGHENED CONSTRUCTION JOINT OR KEY
4. #4 DOWEL AT 12" o.c. w/ STANDARD HOOKS
5. #4 HORIZ. AT 12" o.c.
6. REFERENCE ARCH 2 FOR DIMENSIONS

110 DRAIN PIT DETAIL

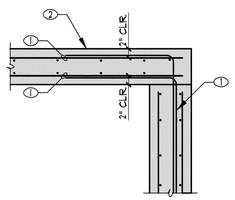
110-181011 NO SCALE



1. SEE FOUNDATION PLAN NOTES OR PLAN(S) FOR MINIMUM EMBEDMENT
2. DOWEL TO MATCH AND LAP WITH VERTICAL WALL REINFORCING
3. GROUT SOLID BELOW FINISH FLOOR
4. #4 AT 32" o.c. VERTICAL BAR
5. #4 AT 48" o.c. TRANSVERSE BAR
6. (3) #4 CONTINUOUS BARS EQUALLY SPACED
7. #4 CONTINUOUS BARS TOP AND BOTTOM AND AT 4'-0" o.c.

107 MASONRY FENCE WALL

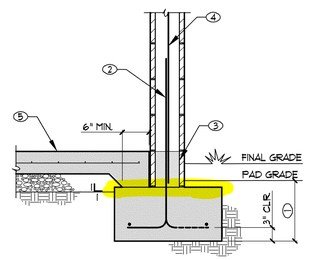
107-181011 NO SCALE



1. SLAB DOWEL TO MATCH AND LAP LID REINFORCING AND VERTICAL WALL REINFOERCEMENT
2. CONCRETE LID PER PLAN

104 ELEVATED CONCRETE SLAB AT CONCRETE WALL

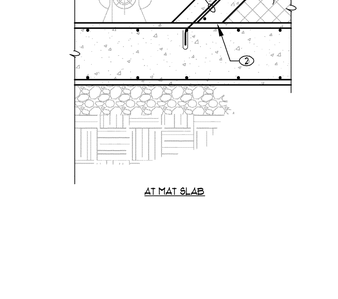
104-181011 NO SCALE



1. SEE FOUNDATION PLAN NOTES OR PLAN(S) FOR MINIMUM EMBEDMENT
2. DOWEL TO MATCH AND LAP WITH VERTICAL WALL REINFORCING
3. GROUT SOLID BELOW FINISH FLOOR
4. VERTICAL REINFORCING PER PLAN
5. CONCRETE SLAB ON GRADE PER PLAN

101 MASONRY WALL AT FOOTING

101-181011 NO SCALE



1. SEE FOUNDATION PLAN NOTES OR PLAN(S) FOR MINIMUM EMBEDMENT
2. DOWEL TO MATCH AND LAP WITH VERTICAL WALL REINFORCING
3. GROUT SOLID BELOW FINISH FLOOR
4. CONCRETE SLAB ON GRADE PER PLAN

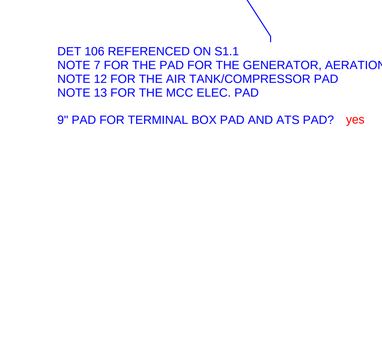
111 MASONRY WALL AT FOOTING

111-181011 NO SCALE

1. CONT. 2x4 TAPERED KEY
2. CONCRETE WALL AND REINFORCING PER PLAN
3. CONCRETE MAT SLAB AND REINFORCING PER PLAN
4. DOWEL TO MATCH AND LAP VERTICAL WALL REINFORCEMENT
5. ALTERNATE BENDS

108 CONCRETE WALL AT FOOTING

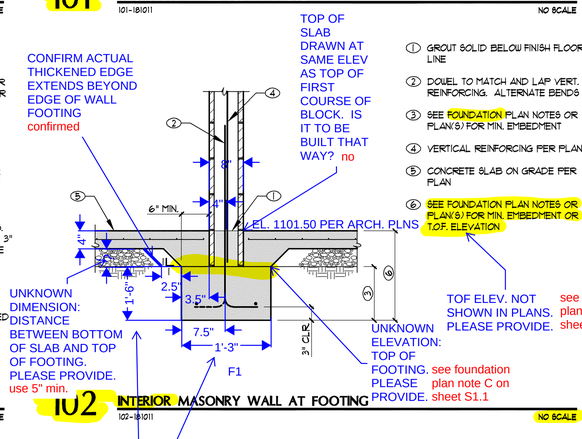
108-181011 NO SCALE



1. FOOTING SIZE AND REINF. PER FOOTING SCHEDULE U.N.O.
2. SEE FOUNDATION PLAN NOTES OR PLAN(S) FOR MIN. EMBEDMENT OR T.O.F. ELEVATION
3. BASE PLATE w/ ANCHOR RODS PER STEEL COLUMN SCHEDULE U.N.O.
4. GROUT BELOW BASE PLATE PER G.S.N. AND APPLICABLE COLUMN BASE PLATE DETAIL
5. SLAB ON GRADE (AS OCCURS) AND CLOSURE POUR BY OTHERS. CLOSURE POUR SHALL PROVIDE 3" MIN. CLR. COVER TO BASE PLATE AND ANCHOR RODS
6. PLACE CLOSURE POUR AFTER COMPLETION OF STRUCTURAL FRAMING ABOVE (i.e., ELEVATED FLOOR/ ROOF FRAMING, ELEVATED SLABS AND DECKS, ETC.)
7. LINE OF SLAB BEYOND

105 STEEL COLUMN AT FOOTING

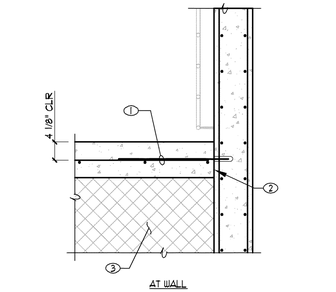
6F01-24-H66 170619 NO SCALE



1. GROUT SOLID BELOW FINISH FLOOR LINE
2. DOWEL TO MATCH AND LAP VERT. REINFORCING. ALTERNATE BENDS
3. SEE FOUNDATION PLAN NOTES OR PLAN(S) FOR MIN. EMBEDMENT
4. VERTICAL REINFORCING PER PLAN
5. CONCRETE SLAB ON GRADE PER PLAN
6. SEE FOUNDATION PLAN NOTES OR PLAN(S) FOR MIN. EMBEDMENT OR T.O.F. ELEVATION

102 INTERIOR MASONRY WALL AT FOOTING

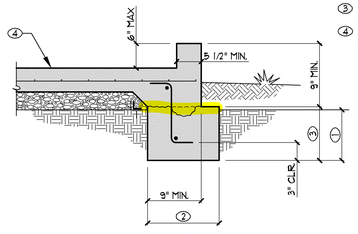
102-181011 NO SCALE



1. EPOXY DOWEL 4" MIN. w/ SIMPSON SET-XP EPOXY TO MATCH AND LAB SLAB REINFORCING
2. ROUGHEN SURFACE TO 1/4" AMPLITUDE
3. HIGH DENSITY FOAM PER PLAN

112 CONCRETE SLAB AT MAT SLAB / WALL

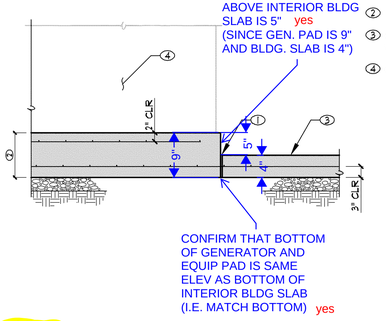
112-181011 NO SCALE



1. MINIMUM EMBEDMENT PER FOUNDATION PLAN NOTES OR PLAN(S)
2. WIDTH PER PLAN OR SCHEDULE. 12" MIN.
3. 9" MIN. FIRST POUR
4. CONCRETE SLAB ON GRADE PER PLAN

109 TYPICAL CURB AT EDGE OF SLAB

109-181011 NO SCALE



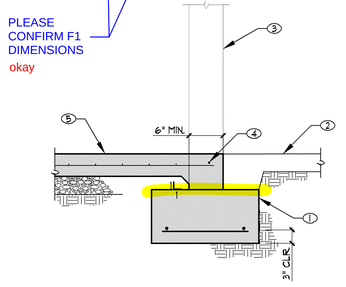
1. 3/8" MIN. EXPANSION JOINT w/ CONT. FILLER
2. THICKNESS PER PLAN
3. CONCRETE SLAB ON GRADE PER PLAN
4. GENERATOR BY OTHERS

106 GENERATOR PAD

106-181011 NO SCALE

DET 106 REFERENCED ON S1.1
NOTE 7 FOR THE PAD FOR THE GENERATOR, AERATION UNIT BOX, PLC
NOTE 12 FOR THE AIR TANK/COMPRESSOR PAD
NOTE 13 FOR THE MCC ELEC. PAD

9" PAD FOR TERMINAL BOX PAD AND ATS PAD? yes



1. FOOTING CONTINUOUS FROM BEYOND
2. FINISH GRADE OR EXTERIOR SLAB AS OCCURS
3. LINE OF WALL BEYOND AS OCCURS
4. #4 CONTINUOUS EDGE BAR
5. CONCRETE SLAB ON GRADE PER PLAN

A. SEE ARCH'L FOR EDGE TOOLING REQUIREMENTS

103 TYPICAL SLAB AT WALL OPENING

103-181011 NO SCALE

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER * THOMAS C. ALLEN No.55460 * STATE OF CALIFORNIA * STRUCTURAL
1/9/2020

PREPARED BY X
R.C.E. NO. -
EXP. -
PROJECT ENGINEER -
DRAWN WE
DESIGNED DT
CHECKED TA
SCALE AS SHOWN
DATE APR. 2019

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TITLE FOUNDATION DETAILS

JOB MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
VALENCIA CA

PACE Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

SHEET S3.1

JOB NO. 9862-E

Department of Public Works, Los Angeles County
Checked _____ _____
Design Division Date

WRIGHT engineers
2 Ventura Suite 200
Irvine, CA 92618
949.477.7001 wrightle.com

S31-181011-D

Drawscale = 1; LTscale = 1; PSScale = 1; ACAD Ver. = 23.0s (LMS Tech); Viewtwin = 1
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GENERAL ENGINEERING CONTRACTORS
CA License No. 256065 •A, C-16, HAZ, HIC
P.O. Box 672 • Oxnard, CA 91302-0672
3201 Sturgis Road • Oxnard, CA 93030
(805) 656-1432 • FAX (805) 485-0338

REQUEST FOR INFORMATION

DATE: 02-22-2021 RFI #: **050**

Attention: Tom Hay Bob Brazell, FivePoint Brian Reid, PACE Matt Mills, PACE Fax #: 661-255-4296	From: Matt Messerly Delivered Via: Email Blois Construction Project No.: 3065 Project Name: Mission Village Sewer Lift Station DPW-1

Subject:	**Building Block Wall Height**	
Reference:	Drawing Sheets:	A3.0, A5.0, S1.1, S3.1, S4.1, C3.0,
	Detail Numbers:	
	Spec. Sections:	
	Schedule Activities Impacted:	Building Block Wall Construction, Block Procurement

INFORMATION REQUESTED:

Regarding the height of the CMU block building walls for DPW1:

Our masonry subcontractor, Reyes Masonry, has indicated that they have planned on a total block wall height of 15'-4" from top of footing.

Note 5 on sheet A3.0 indicates that the block starts on the building "foundation", but also indicates an elevation of 1101.50, and shows that the top of wall goes up to a height of 15'-4" (23 courses of block) from that elevation. Reyes's interpretation of this is that the 15'4" height starts at the top of the footing. From what elevation and what structural concrete element is the 15'4" measured from? From the slab or the footing? From 1101.50 or from some other elevation?

This is not clear because Note 5 on A3.0 does not clearly indicated what structural element is being called out; the slab or the footing. It merely says "foundation". As we indicated in our RFI 036, the sections show on A3.0 do not show the bldg. concrete elements in the configuration show on the structural details. We requested that a new section detail be drawn and provided which showed the footing, pads, and slabs to scale and at the correct elevations; this would have alleviated confusion in the field and helped to expedite the owner's schedule.

If the plan dimension is 15'-4" from bldg slab finish floor to top of parapet, then it does not include distance from top of footing to top of bldg. slab, which is 9". Please confirm. CONFIRMED

Please confirm that the top of footing elevation is 1100.75, per the RFI 036 response (i.e. 5" from bottom of slab to top of footing). CONFIRMED

Please confirm if the top elevation is approx. 1116.83.
1116.83 – 1100.75 = 16.08 = 16'-1" CONFIRMED

Based on those elevations and dimensions the overall height from top of footing to top of parapet is 16’-1”. This would be 24 courses of 8” nominal CMB block. YES

Please confirm the total block wall height and the total number of courses of block; whether it is 15’-4” (23 courses) or 16’ (24 courses). 16'-1" (24 COURSES)

It is understood that the treated 2x8 wood shown on A4.0 would be added on top of the top course. This RFI is to address block wall build mainly.

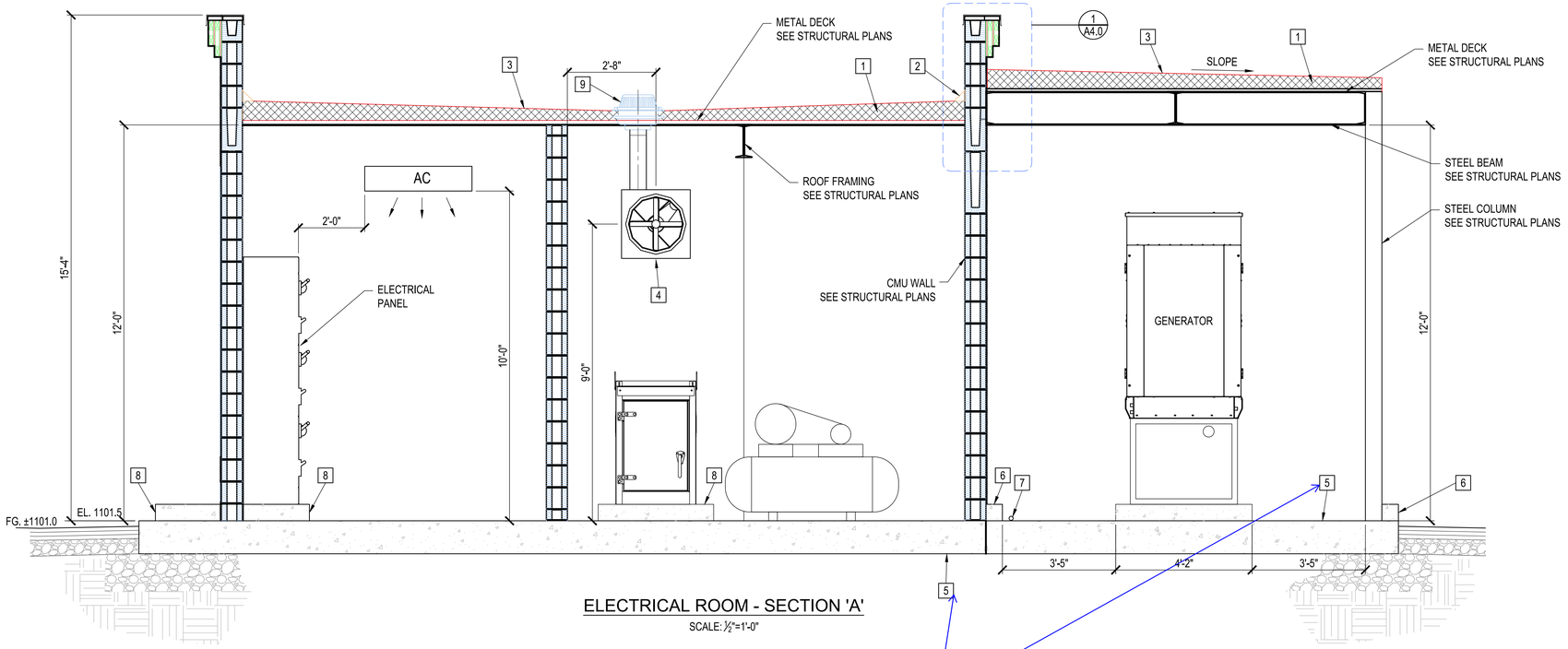
Please review and advise.

Response Requested by:	**2/24/2021**	
If a definitive response is not received by this date Project Schedule Will be Delayed	☐ YES ☐ NO ☒ Uncertain	Potential Cost Impact ☐ YES ☐ NO ☒ Uncertain

RESPONSE:	
SEE RESPONSE TO RFI ABOVE.	
BY: DAVIS TRUONG	DATE: 2/23/2021

RFI #50

RFI #50

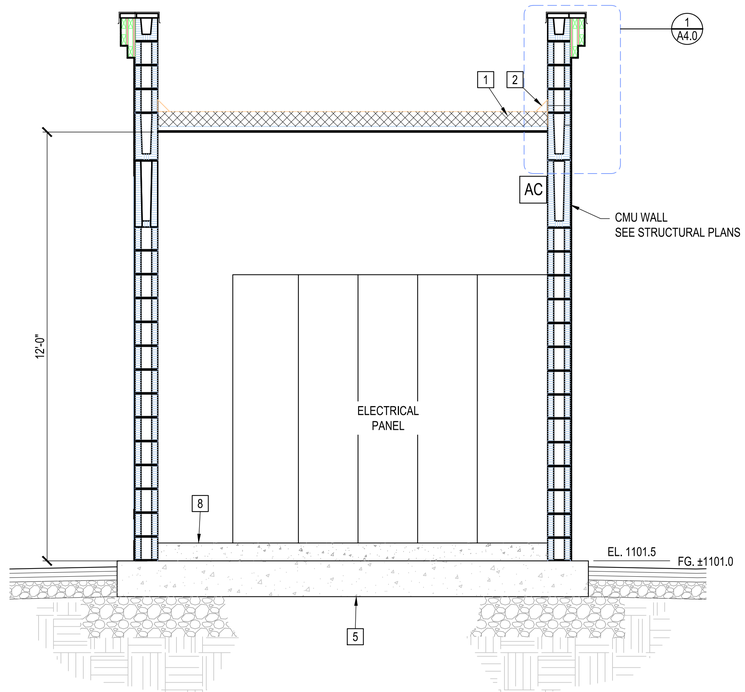


ELECTRICAL ROOM - SECTION 'A'

SCALE: ½"=1'-0"

FOOTING OR SLAB?

*DOES NOT LOOK LINK STRUCTURAL PLAN DETAILS



ELECTRICAL ROOM - SECTION 'B'

SCALE: ½"=1'-0"

CONSTRUCTION NOTES:

1. TAPERED POLYISO INSULATION SYSTEM SLOPED TO DRAIN.
2. ROOF TO WALL PER DETAIL 7/A8.0
3. MULTI-PLY SBS MODIFIED BITUMEN ROOF SYSTEM BY SIPLEST OR EQUAL.
4. 12" DIA WALL OPENING FOR VENTILATION FAN
5. BUILDING FOUNDATION, SEE STRUCTURAL PLANS
6. 6" HIGH CONCRETE CURBS FOR GENERATOR FUEL SPILL CONTAINMENT
7. 1½" PVC PIPE AND 1½" PVC BALL VALVE FOR CONTAINMENT AREA DRAIN ON MECHANICAL PLANS.
8. CONCRETE PAD FOR PANELS. SEE STRUCTURAL PLANS.
9. ROOF DRAIN. SEE SHEET A8.0 DETAIL 8

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER ANDREW T. KOMOR No. C84928 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

PREPARED BY
ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. C84928
EXP. 06/30/21

DRAWN KV
DESIGNED ZS
CHECKED AK
SCALE AS SHOWN
DATE JAN. 2020

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TITLE
BUILDING SECTION

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

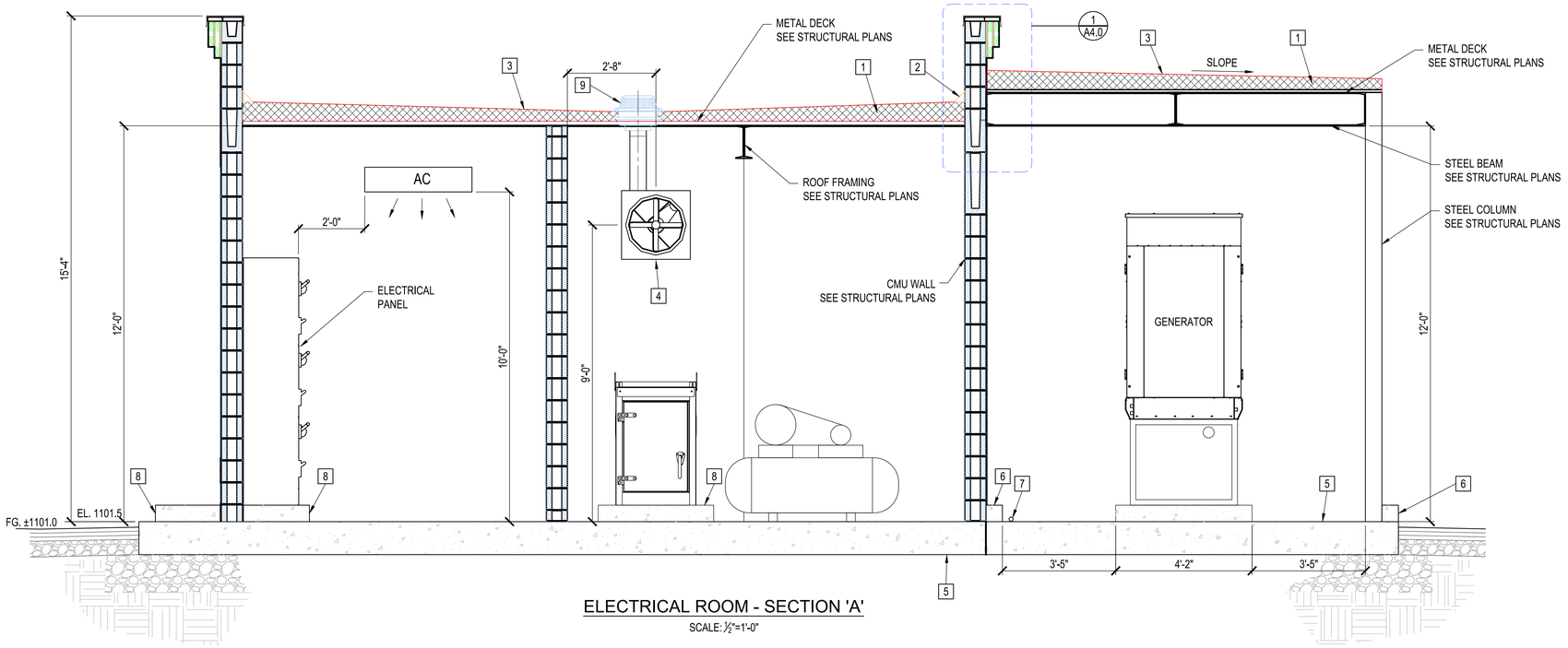
Department of Public Works, Los Angeles County

Checked _____ 2/20/2020
Design Division Date

SHEET
A3.0
23 OF 62 SHEETS

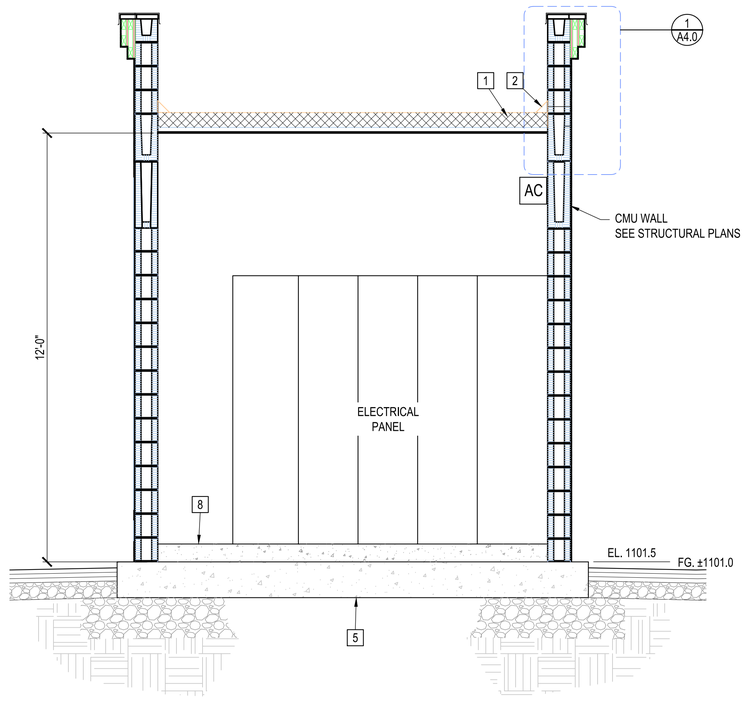
JOB NO. 9862-E

Xrefs: 36x24+ DPW-1.dwg, 9862_DPW-1 Mech-plan.dwg
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ELECTRICAL ROOM - SECTION 'A'

SCALE: ½"=1'-0"



ELECTRICAL ROOM - SECTION 'B'

SCALE: ½"=1'-0"

CONSTRUCTION NOTES:

1. TAPERED POLYISO INSULATION SYSTEM SLOPED TO DRAIN.
2. ROOF TO WALL PER DETAIL 7/A8.0
3. MULTI-PLY SBS MODIFIED BITUMEN ROOF SYSTEM BY SIPLEST OR EQUAL.
4. 12" DIA WALL OPENING FOR VENTILATION FAN
5. BUILDING FOUNDATION, SEE STRUCTURAL PLANS
6. 6" HIGH CONCRETE CURBS FOR GENERATOR FUEL SPILL CONTAINMENT
7. 1½" PVC PIPE AND 1½" PVC BALL VALVE FOR CONTAINMENT AREA DRAIN ON MECHANICAL PLANS.
8. CONCRETE PAD FOR PANELS. SEE STRUCTURAL PLANS.
9. ROOF DRAIN. SEE SHEET A8.0 DETAIL 8

Department of Public Works, Los Angeles County

Checked _____ 2/20/2020

Design Division — Date

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER ANDREW T. KOMOR No. C 64928 Exp. 06-30-21 CIVIL STATE OF CALIFORNIA

PREPARED BY
ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. C64928
EXP. 06/30/21

DRAWN KV
DESIGNED ZS
CHECKED AK
SCALE AS SHOWN
DATE JAN. 2020

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TITLE
BUILDING SECTION

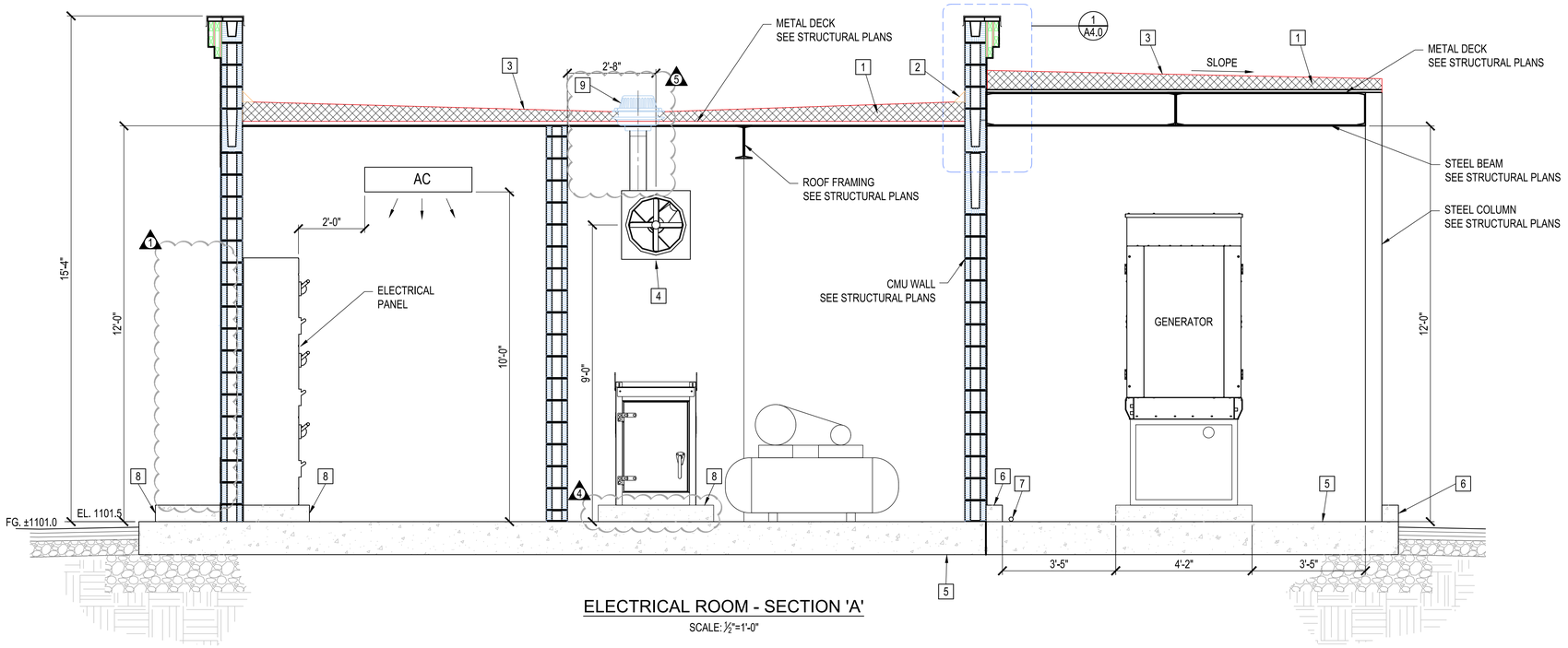
JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

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Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

SHEET
A3.0
23 OF 62 SHEETS

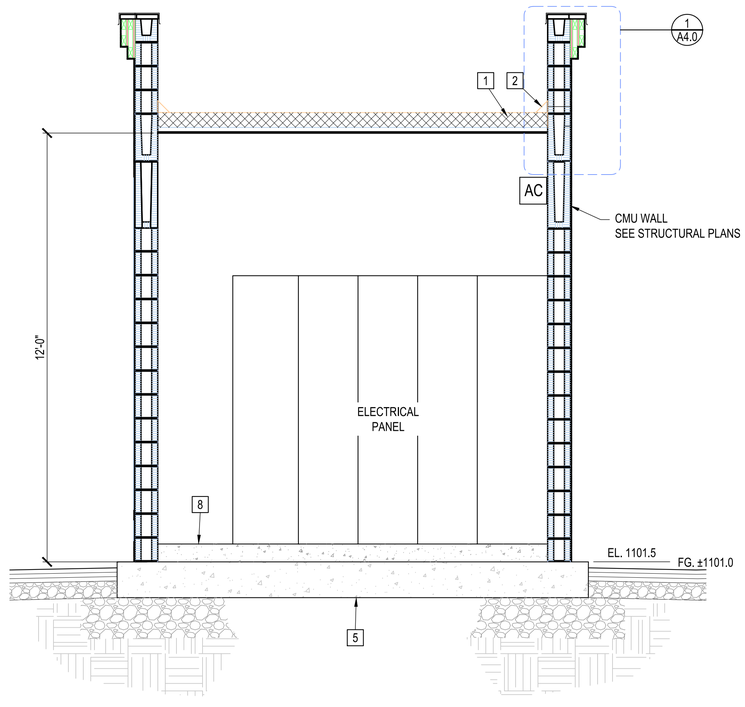
JOB NO. 9862-E

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ELECTRICAL ROOM - SECTION 'A'

SCALE: ½"=1'-0"



ELECTRICAL ROOM - SECTION 'B'

SCALE: ½"=1'-0"

CONSTRUCTION NOTES:

1. TAPERED POLYISO INSULATION SYSTEM SLOPED TO DRAIN.
2. ROOF TO WALL PER DETAIL 7/A8.0
3. MULTI-PLY SBS MODIFIED BITUMEN ROOF SYSTEM BY SIPLEST OR EQUAL.
4. 12" DIA WALL OPENING FOR VENTILATION FAN
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8. CONCRETE PAD FOR PANELS. SEE STRUCTURAL PLANS.
9. ROOF DRAIN. SEE SHEET A8.0 DETAIL 8

JLee Engineering, Inc.
Approved
By Ben Ling
12/27/2019

This set of plans and specifications MUST be kept on the job site at all times and it is unlawful to make any changes or alterations on these plans without written permission from the local Jurisdictions or Agencies. The stamping of these plan and specifications shall NOT be held to permit or be an approval of the violations of the applicable codes, any provisions of any Local Ordinances or State law.

100% PLANS - REV 5

NO	BY	DATE	REVISIONS	DATE	APP.
6	ZS	04/12/19	CHANGES PER LADPW PLAN REVIEW	04/12/19	ZS
5	ZS	10/25/19	CHANGES PER LADPW PLAN REVIEW	10/25/19	ZS
4	ZS	11/19/19	CHANGES PER LACBS PLAN REVIEW	10/25/19	ZS
3					
2					
1					

REGISTERED PROFESSIONAL ENGINEER ANDREW T. KOMOR No. C 64928 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

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PREPARED BY
ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. C64928
EXP. 06/30/21

DRAWN KV
DESIGNED ZS
CHECKED AK

SCALE AS SHOWN
DATE NOV. 2019

TITLE
BUILDING SECTION

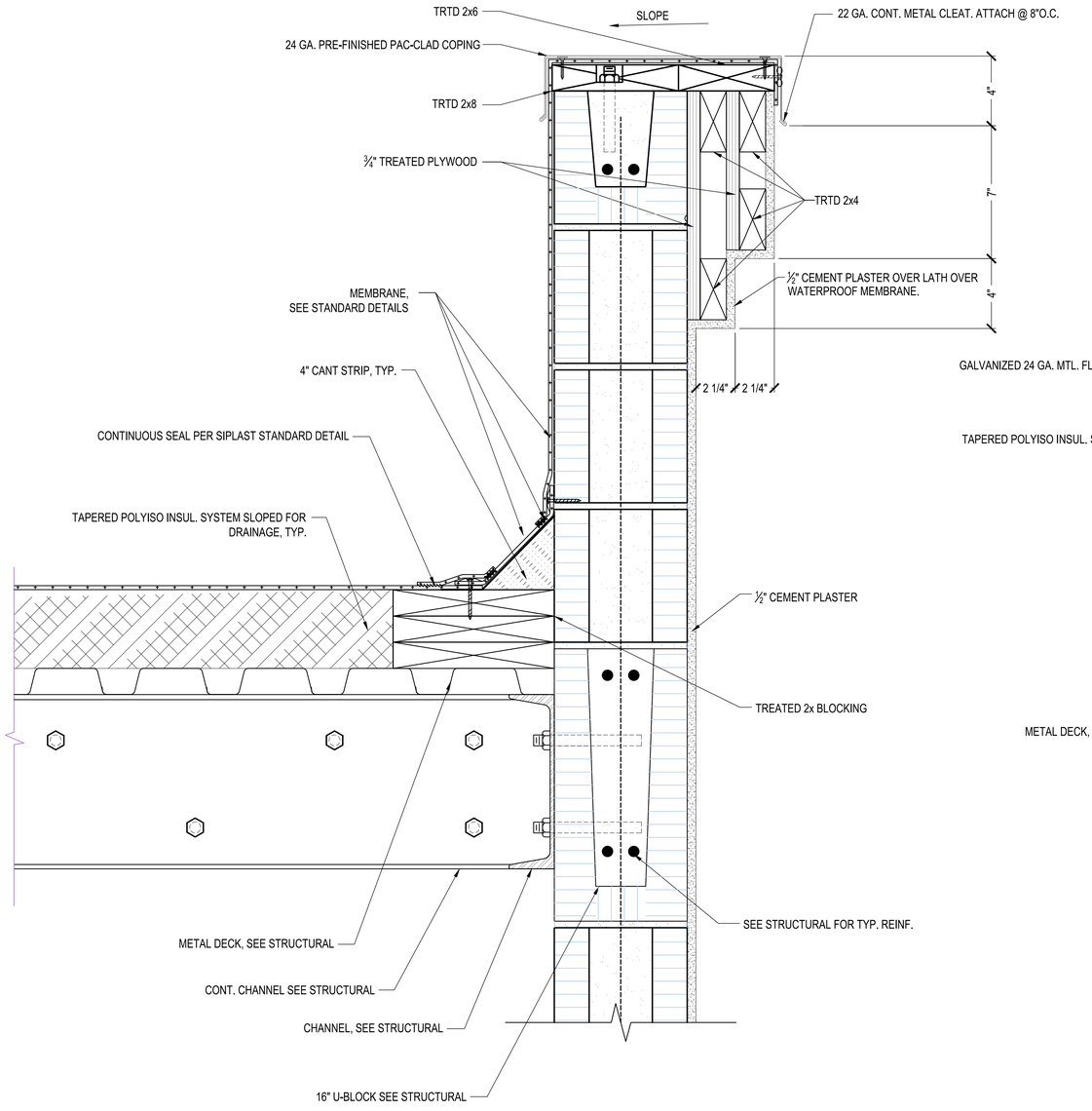
JOB
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DPW-1 SEWER
PUMP STATION
VALENCIA CA

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17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

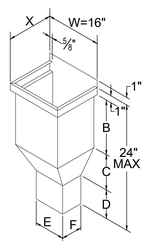
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A3.0
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JOB NO. 9862-E

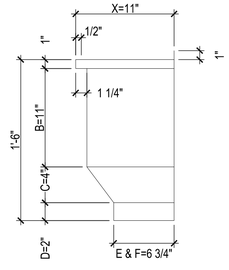
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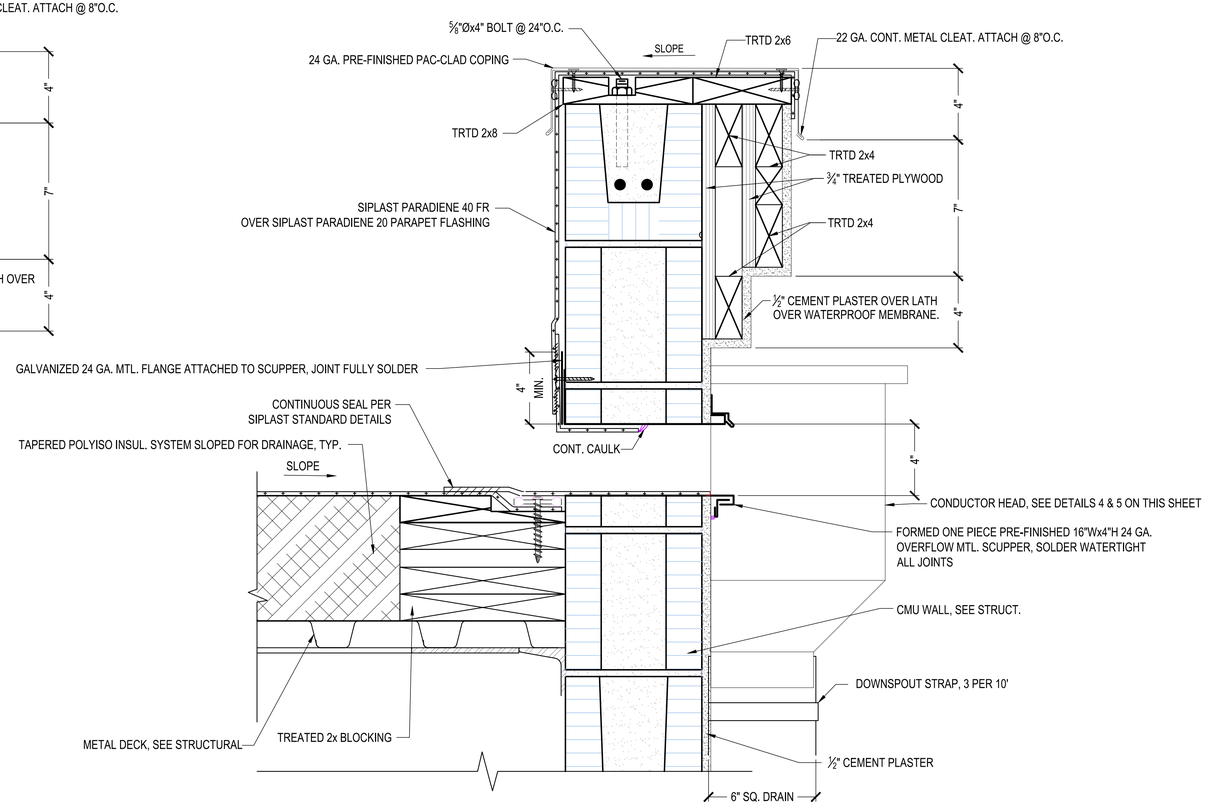
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SCALE: 3"=1'-0"



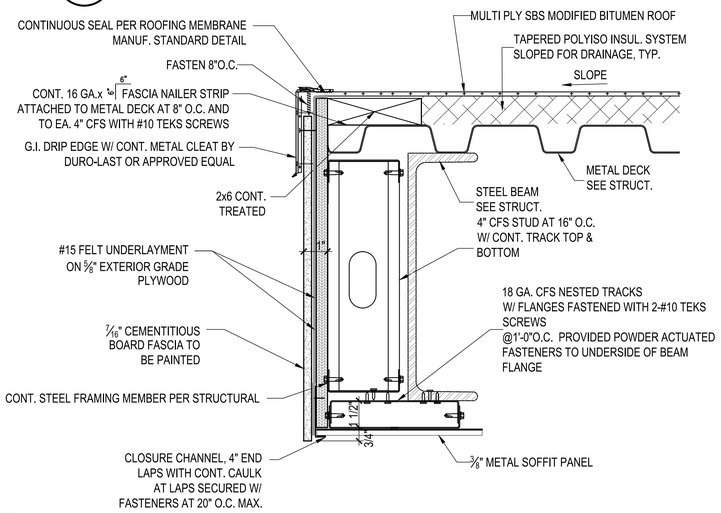
ISOMETRIC-CONDUCTOR HEAD 4 — A4.0
SCALE: NTS



ELEVATION-CONDUCTOR HEAD 5 — A4.0
SCALE: 3"=1'-0"



SECTION-TYPICAL SCUPPER DETAIL 2 — A4.0
SCALE: 3"=1'-0"



NOTES:
1. AN OVERLAP OF ½" WILL BE REQUIRED BETWEEN SECTIONS OF VINYL-COATED METAL. A BEAD OF CAULK IS REQUIRED IN EACH OVERLAP
2. TOP OF WOOD NAILER TO BE FLUSH WITH TOP OF INSULATION. FASTENERS USED TO ATTACH WOOD NAILERS SHALL BE SPACED NO GREATER THAN 18" O.C.
3. DRIP EDGE MUST BE FASTENED 8"O.C.
4. CLEAT MUST BE FASTENED 6"O.C.

DETAIL-CANOPY ROOF EDGE 3 — A4.0
SCALE: 3"=1'-0"

Department of Public Works, Los Angeles County

Checked _____ 2/20/2020
Design Division — Date

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER ★ ANDY T. KOMOR ★ No. C049928 Exp. 06/30/21 ★ CIVIL ★ STATE OF CALIFORNIA

PREPARED BY
ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. C049928
EXP. 06/30/21

DRAWN KV | SCALE AS SHOWN
DESIGNED ZS | DATE JAN. 2020
CHECKED AK

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TITLE
DETAILS

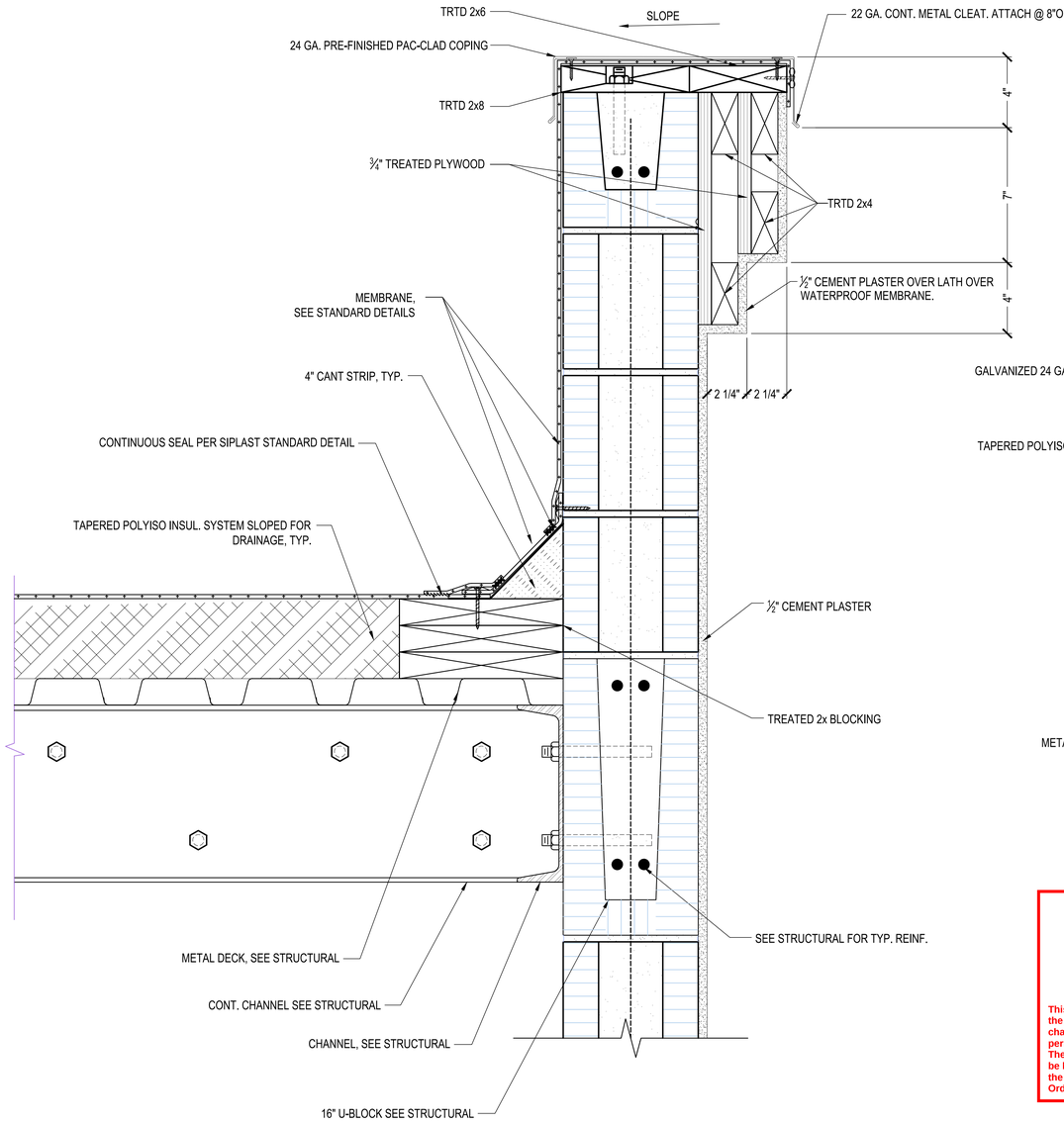
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MISSION VILLAGE
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SHEET
A4.0
24 OF 62 SHEETS

JOB NO. 9862-E

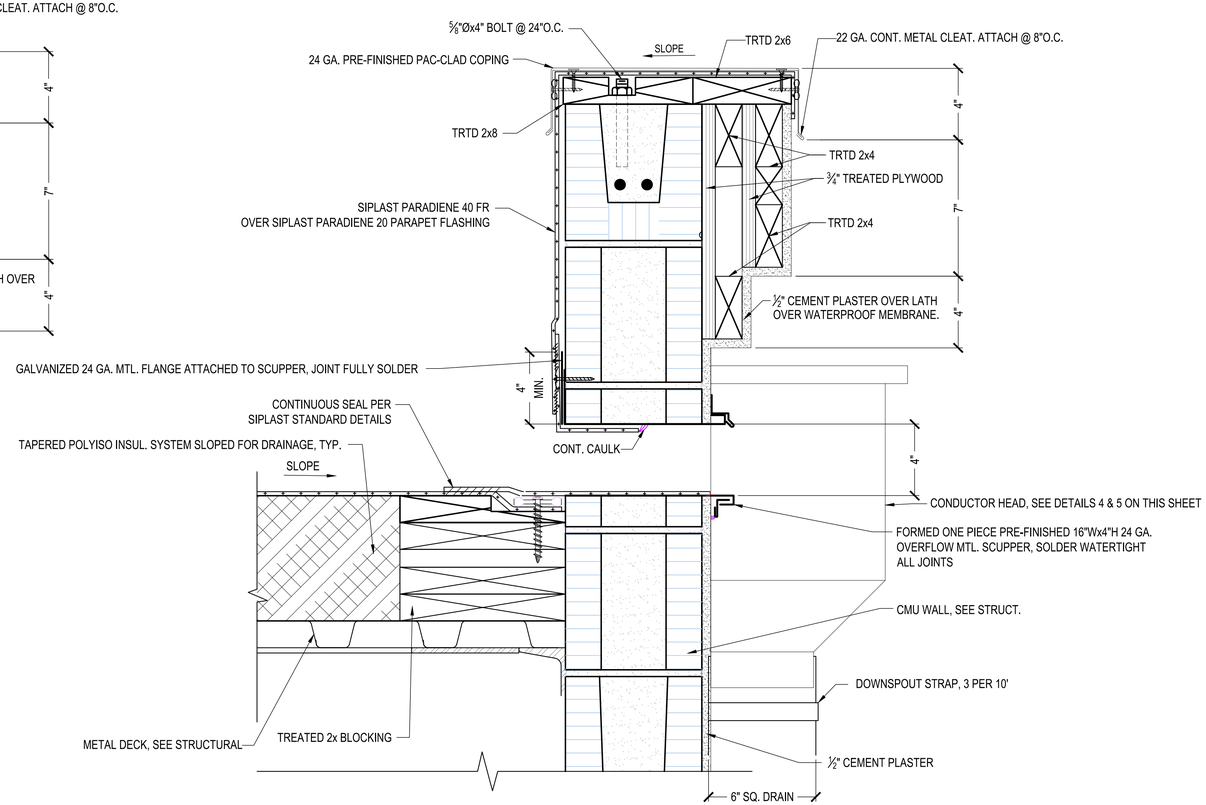
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SECTION-TYPICAL PARAPET DETAIL 1
SCALE: 3"=1'-0" A4.0

ISOMETRIC-CONDUCTOR HEAD 4
SCALE: NTS A4.0

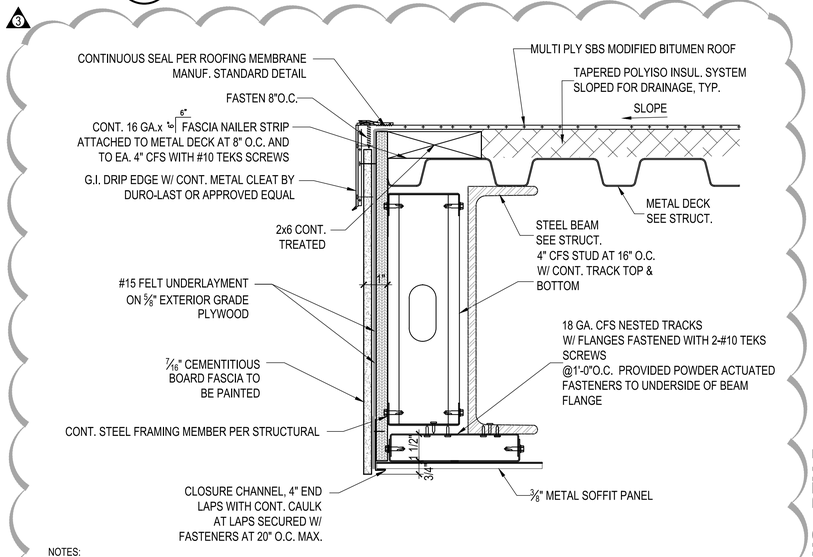
ELEVATION-CONDUCTOR HEAD 5
SCALE: 3"=1'-0" A4.0



SECTION-TYPICAL SCUPPER DETAIL 2
SCALE: 3"=1'-0" A4.0

JLee Engineering, Inc.
Approved
By Ben Ling
12/27/2019

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NOTES:
1. AN OVERLAP OF 1¼" WILL BE REQUIRED BETWEEN SECTIONS OF VINYL-COATED METAL. A BEAD OF CAULK IS REQUIRED IN EACH OVERLAP
2. TOP OF WOOD NAILER TO BE FLUSH WITH TOP OF INSULATION. FASTENERS USED TO ATTACH WOOD NAILERS SHALL BE SPACED NO GREATER THAN 18" O.C.
3. DRIP EDGE MUST BE FASTENED 8"O.C.
4. CLEAT MUST BE FASTENED 6"O.C.

DETAIL-CANOPY ROOF EDGE 3
SCALE: 3"=1'-0" A4.0

100% PLANS - REV 5

NO	BY	DATE	REVISIONS	DATE	APP.
5	ZS	08/26/19	CHANGES FOR LADPW PLAN REVIEW		

REGISTERED PROFESSIONAL ENGINEER ★ ANDREW T. KOMOR ★ No. C54928 Exp. 06/30/21 CIVIL ★ STATE OF CALIFORNIA

PREPARED BY: ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. C54928
EXP. 06/30/21
DRAWN: KV
DESIGNED: ZS
CHECKED: AK
SCALE: AS SHOWN
DATE: NOV. 2019

DETAILS

TITLE

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P. (714) 481-7300 | www.paceworlwide.com

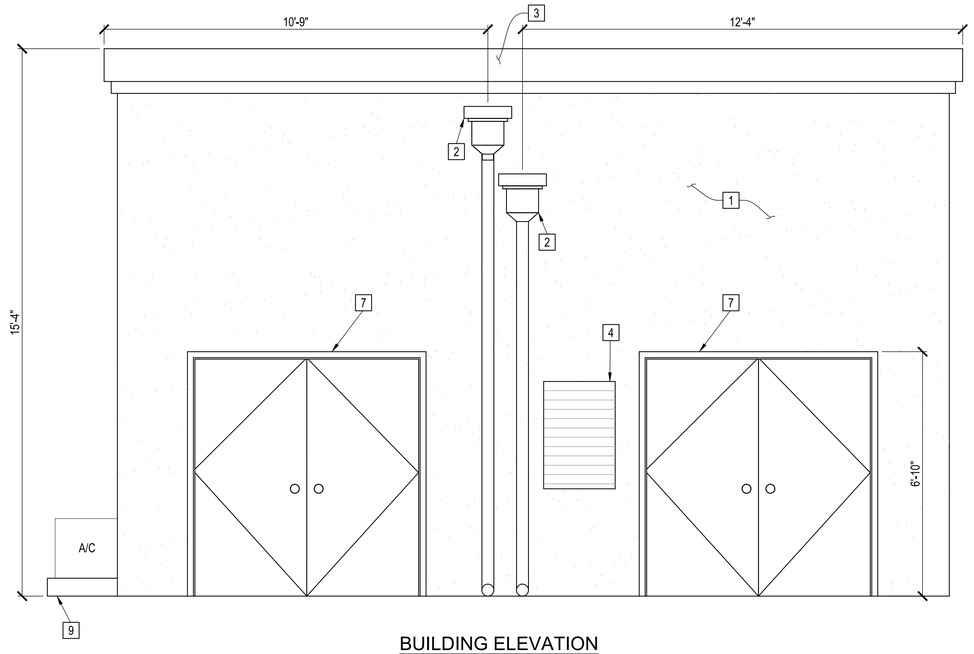
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A4.0
--- OF XX SHEETS

JOB NO. 9862-E

THESE DRAWINGS ARE THE PROPERTY OF P.A.C.E. AND SHALL NOT BE REPRODUCED IN ANY MANNER NOR BE USED FOR CONSTRUCTION UNLESS STAMPED 'ISSUED FOR CONSTRUCTION'.

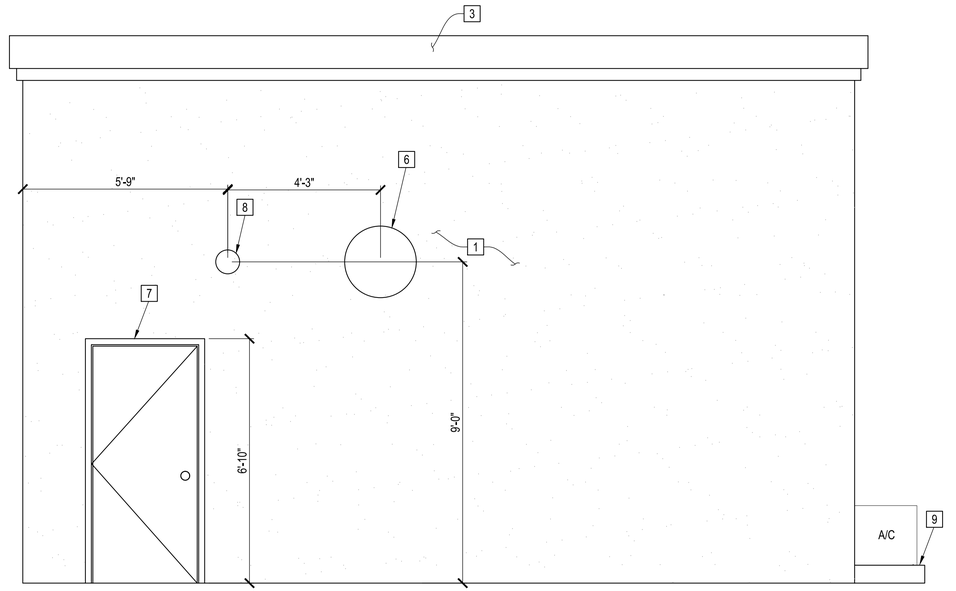
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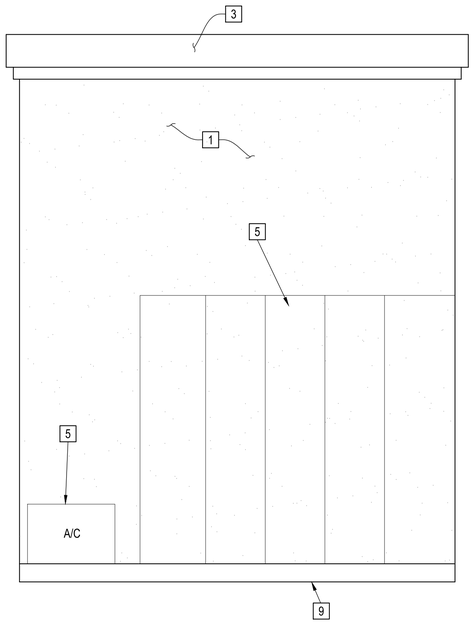
BUILDING ELEVATION

SCALE: ½"=1'-0"



BUILDING ELEVATION

SCALE: ½"=1'-0"



BUILDING ELEVATION

SCALE: ½"=1'-0"

CONSTRUCTION NOTES:

1. PLASTER WITH A SANDSTONE FINISH OVER 8" CMU. (COLOR SHALL BE CONFIRMED BY CLIENT BEFORE CONSTRUCTION)
2. 16" x 4" SCUPPERS, SEE DETAIL 2/A4.0
3. THE PARAPET WILL BE PAINTED IN A DARK GRAY COLOR. (COLOR SHALL BE CONFIRMED BY CLIENT BEFORE CONSTRUCTION)
4. INSTALL 2' x 3' ACOUSTIC LOUVER PER RUSKIN MODEL LAS-4 STATIONARY. SEE DETAILS 4, 5 AND 6 ON SHEET A7.0.
5. ELECTRICAL EQUIPMENT, SEE ELECTRICAL PLANS
6. 12" DIA OPENING FOR VENTILATION FAN
7. DOOR AND FRAME, SEE DOOR SCHEDULE SHEET A6.0
8. 8" OPENING FOR BATHROOM FAN
9. CONCRETE PAD FOR ELECTRICAL PANELS.

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER ANDY T. KOMOR No. C64928 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

PREPARED BY
ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. C64928
EXP. 06/30/21

DRAWN KV
DESIGNED ZS
CHECKED AK

SCALE AS SHOWN

DATE JAN. 2020

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TITLE
BUILDING ELEVATIONS

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

Department of Public Works, Los Angeles County

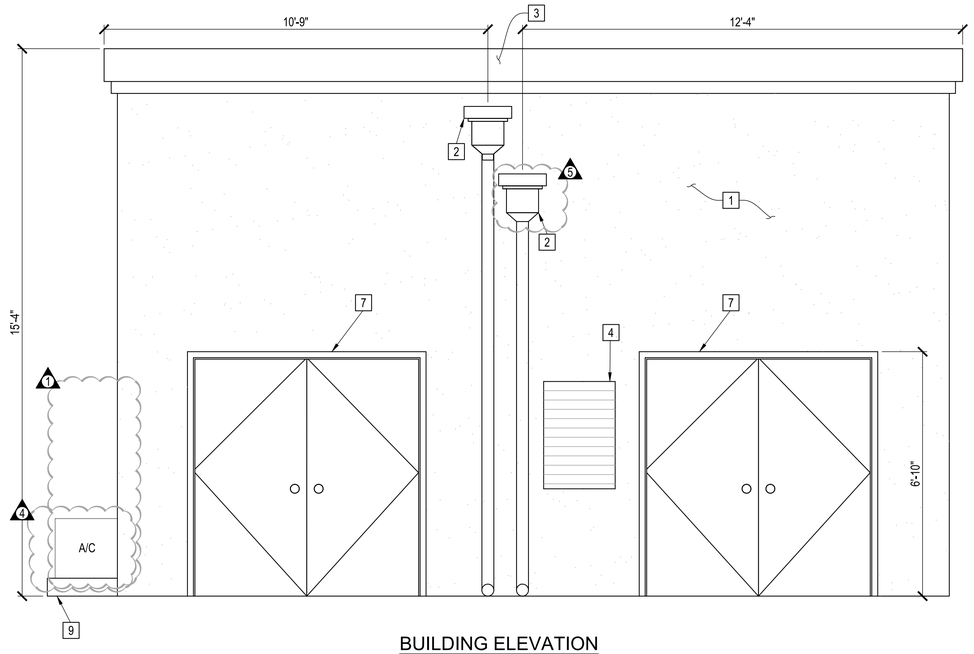
Checked _____ 2/20/2020

Design Division — Date

SHEET
A5.0
25 OF 62 SHEETS

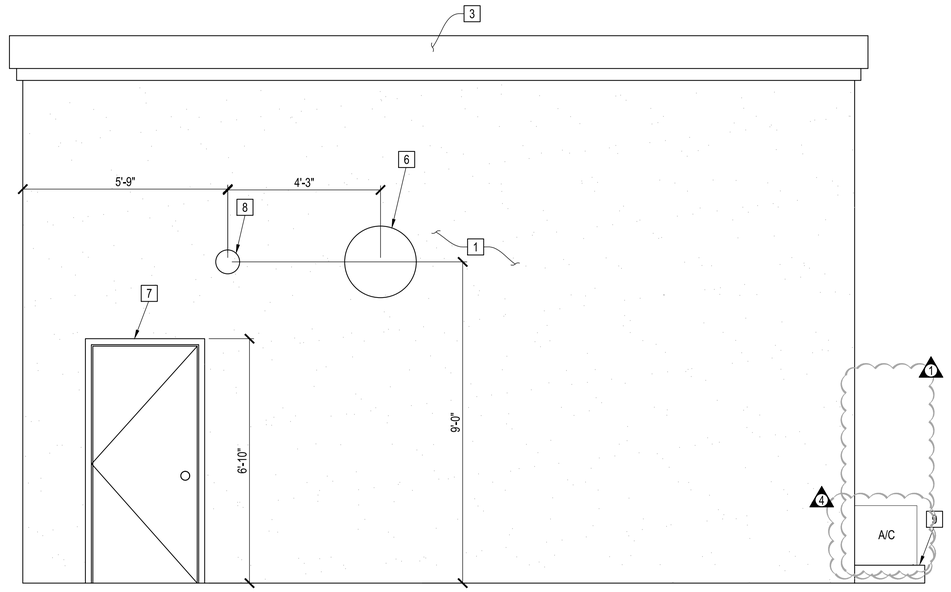
JOB NO. 9862-E

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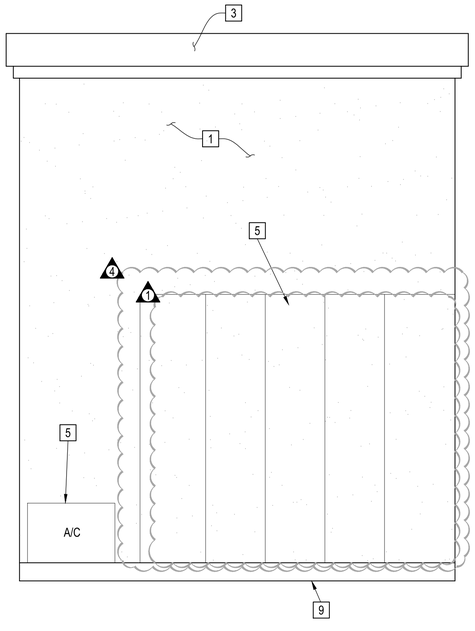
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BUILDING ELEVATION

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JLee Engineering, Inc.
Approved
By Ben Ling
12/27/2019

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100% PLANS - REV 5

NO	BY	DATE	REVISIONS	DATE	APP.
1	ZS	04/12/19	CHANGES PER LADPW PLAN REVIEW	04/12/19	ZS
2	ZS	10/25/19	CHANGES PER LADPW PLAN REVIEW	10/25/19	ZS
3	ZS	11/19/19	CHANGES PER LACBS PLAN REVIEW	11/19/19	ZS

REGISTERED PROFESSIONAL ENGINEER ANDREW T. KOMOR No. C64928 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

PREPARED BY
ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. C64928
EXP. 06/30/21

DRAWN KV | SCALE AS SHOWN
DESIGNED ZS | DATE NOV. 2019
CHECKED AK

TITLE
BUILDING ELEVATIONS

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
VALENCIA CA

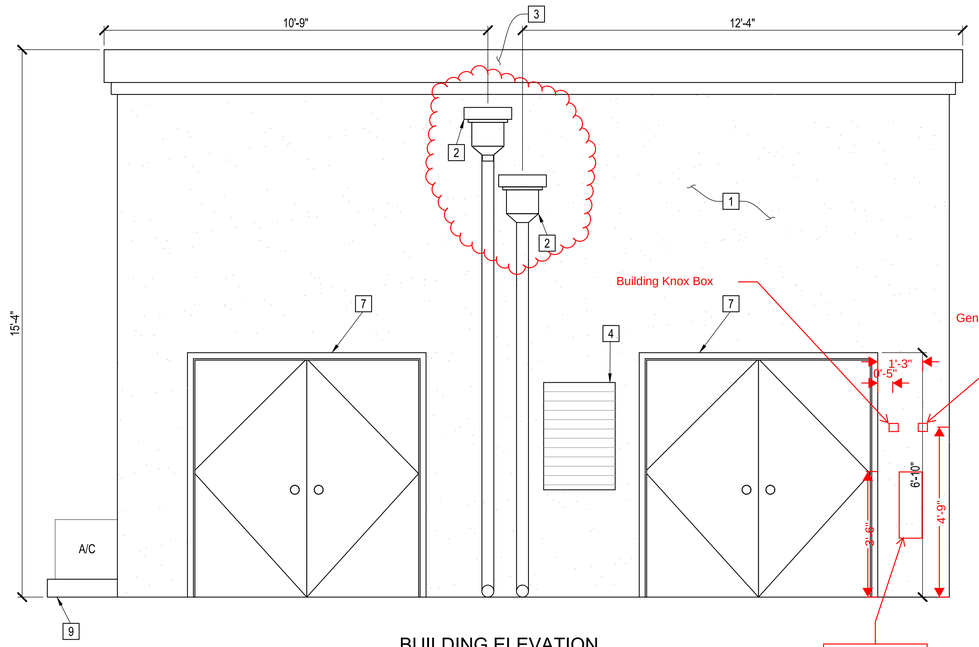
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Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

SHEET
A5.0
---- OF XX SHEETS

JOB NO. 9862-E

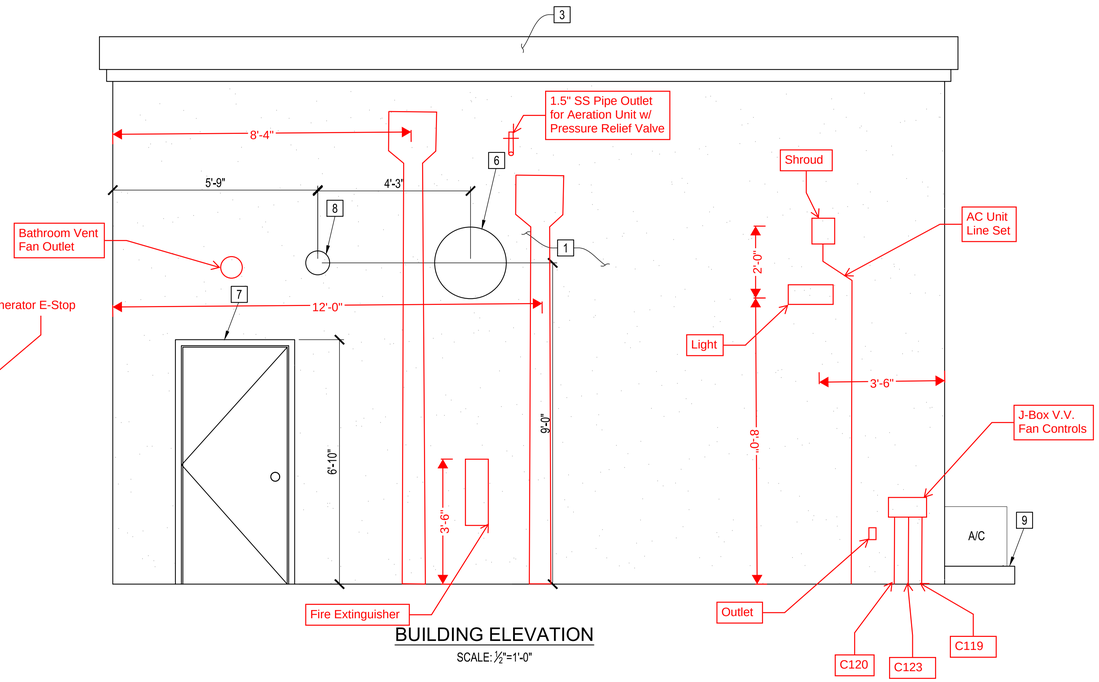
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BUILDING ELEVATION

SCALE: ½"=1'-0"

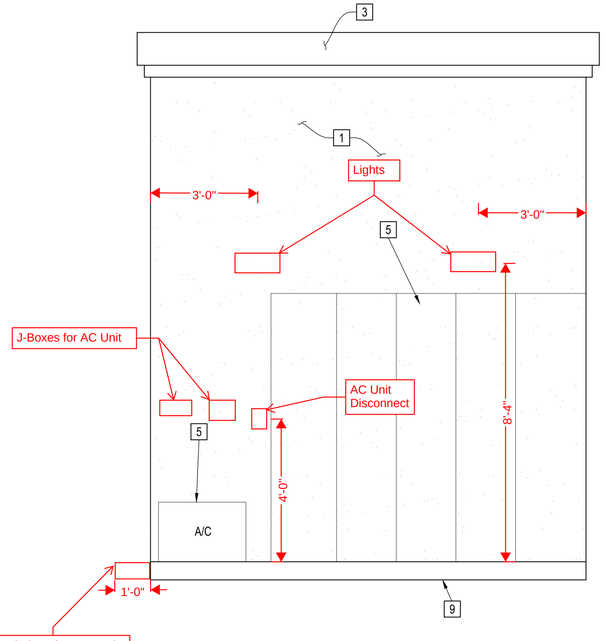


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BUILDING ELEVATION

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NO	BY	DATE	REVISIONS	DATE	APP.

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REGISTERED PROFESSIONAL ENGINEER ★ ANDREW T. KOMOR ★ No. C64928 Exp. 06/30/21 ★ CIVIL ★ STATE OF CALIFORNIA

PREPARED BY
ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. C64928
EXP. 06/30/21

DRAWN KV
DESIGNED ZS
CHECKED AK

SCALE AS SHOWN

DATE JAN. 2020

TITLE
BUILDING ELEVATIONS

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

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Department of Public Works, Los Angeles County

Checked _____ Design Division

2/20/2020 Date

SHEET A5.0

25 OF 62 SHEETS

JOB NO. 9862-E

Xrefs: 36x24x LDPW-1.dwg, 9862 LDPW-1 Mech-plan.dwg
Dimscale = 1; LTscale = 1; PSltscale = 1; ACAD Ver. = 23.0s (LMS Tech); Viewtain = 1

GENERAL ENGINEERING CONTRACTORS
CA License No. 256065 •A, C-16, HAZ, HIC
P.O. Box 672 • Oxnard, CA 91302-0672
3201 Sturgis Road • Oxnard, CA 93030
(805) 656-1432 • FAX (805) 485-0338

REQUEST FOR INFORMATION

DATE: 03-31-2021

RFI #: **061**

Attention: Tom Hay Bob Brazell, FivePoint Brian Reid, PACE Matt Mills, PACE Fax #: 661-255-4296	From: Matt Messerly Delivered Via: Email Blois Construction Project No.: 3065 Project Name: Mission Village Sewer Lift Station DPW-1

Subject:	**Downspout Locations**	
Reference:	Drawing Sheets:	A5.0, A2.0, A1.0, C4.1, M3.0, M1.1, M1.2, C2.0, C3.0, C4.1
	Detail Numbers:	
	Spec. Sections:	
	Schedule Activities Impacted:	Roofing (Insulation & Membrane), Roof Drain Installation, Downspout Installation,

INFORMATION REQUESTED:

We see potential conflicts between the downspouts, the tank flushing water line, and the eye wash.

We propose alternate installation location for the downspouts be considered as they may work better on site.

We propose to move the scupper and roof drain with their downspouts to the West wall instead of the East wall. This would dump all roof drainage back behind the building instead of in front. A drain could be added in the Northwest corner of the site and tie into the currently installed 6" PVC drain that is stubbed up at the plan location of the backflow near the NW corner of the site wall. The site would be graded to drain on the west side of the building. This is basically flipping the roof drainage 180 degrees (from East side to West side). The downspouts would go down the wall on either side of the vent fan, which is located directly above the aeration unit.

Moving the downspouts to the West wall alleviates significant congestion and possible conflicts of items to be installed between the double doors. The water service, flushing line, eye wash, and downspouts are all in the same area per plan. In our layout of the downspouts on site today, we do not believe that the current layout will work. We believe it is necessary to move the downspouts.

Please see markups on plan sheets attached for visualization and clarification.

A second option could be to keep the scupper with it's downspout on the east wall. Try to fit downspout for the scupper between the water service stub-up and the eye wash. Move the roof drain over to West wall. This option may introduce more standing water on the roof if the roof drain were to ever clog.

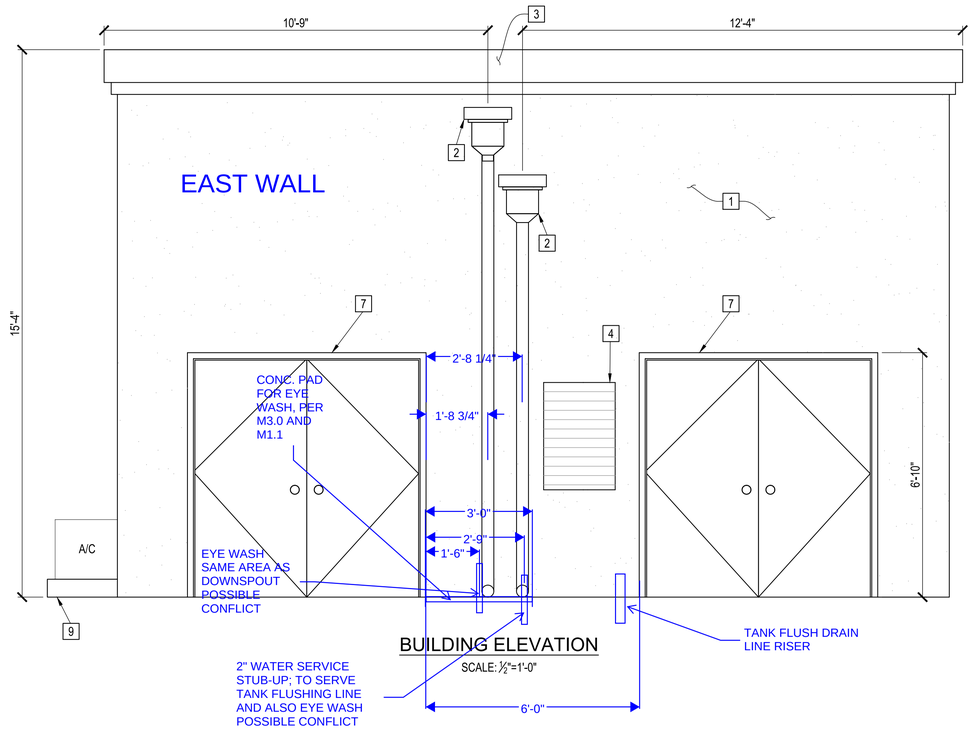
Please review and advise if this proposal is acceptable.

Response Requested by:	**4/1/2021**	
If a definitive response is not received by this date Project Schedule Will be Delayed	☒ YES ☐ NO ☐ Uncertain	Potential Cost Impact ☒ YES ☐ NO ☐ Uncertain

RESPONSE: The proposed modifications to the roof drains are acceptable.	
BY: Z.S.	DATE: 04/01/2021

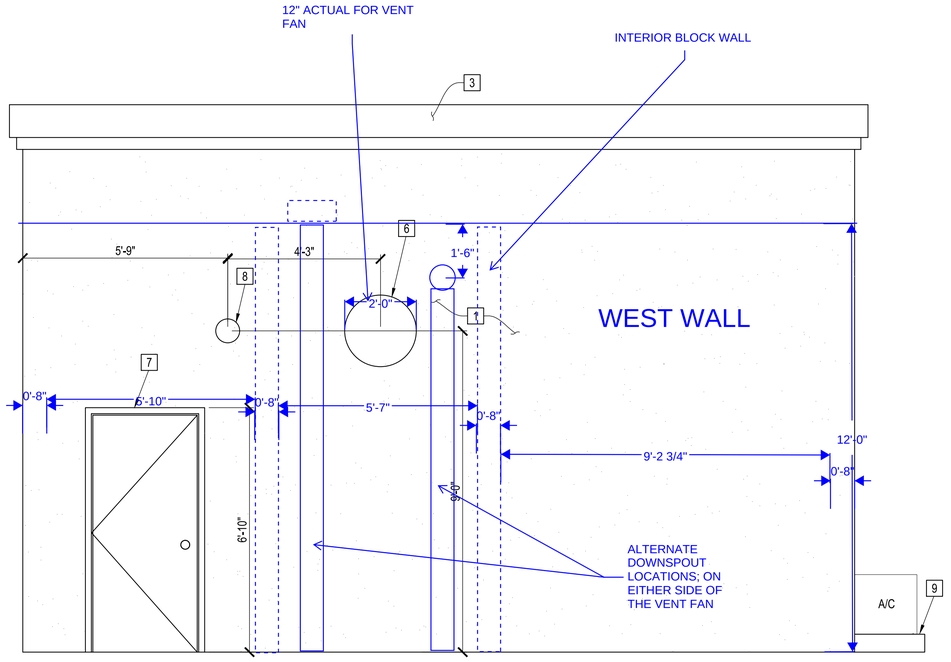
RFI #61

RFI #61



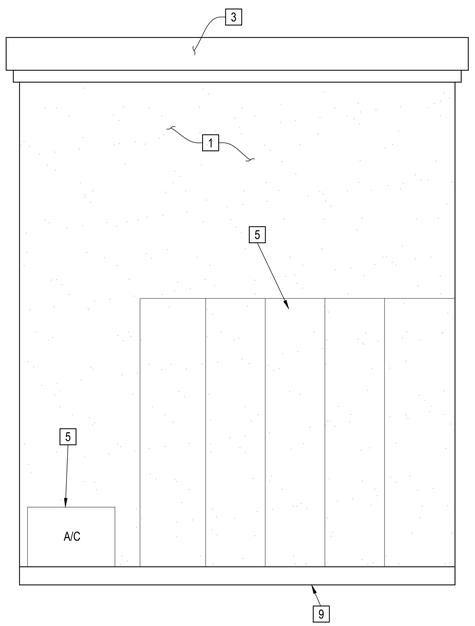
BUILDING ELEVATION

SCALE: ½"=1'-0"



BUILDING ELEVATION

SCALE: ½"=1'-0"



BUILDING ELEVATION

SCALE: ½"=1'-0"

CONSTRUCTION NOTES:

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6. 12" DIA OPENING FOR VENTILATION FAN
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NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER ANDY T. KOMOR No. C64928 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

PREPARED BY ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. C64928
EXP. 06/30/21

DRAWN KV | SCALE AS SHOWN
DESIGNED ZS | DATE JAN. 2020
CHECKED AK

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TITLE: BUILDING ELEVATIONS

JOB: MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P.: (714) 481-7300 | www.paceadvantage.com

Department of Public Works, Los Angeles County

Checked _____ Design Division

2/20/2020 Date

SHEET A5.0

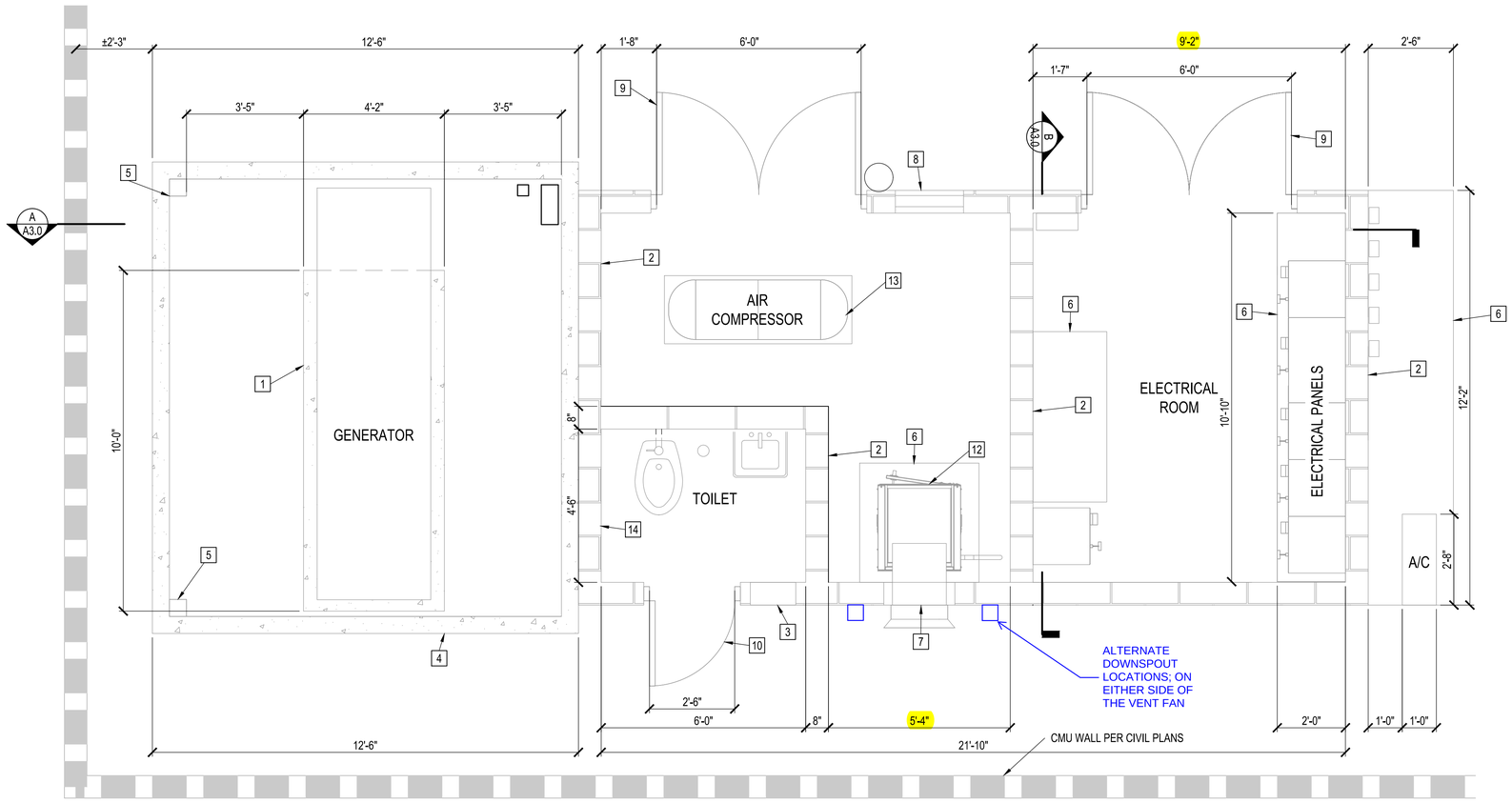
25 OF 62 SHEETS

JOB NO. 9862-E

Xrefs: 36x24x DPW-1.dwg; 9862.DPW-1 Mech-plan.dwg
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RFI #61



BUILDING - FLOOR PLAN

SCALE: ½"=1'-0"

CONSTRUCTION NOTES:

1. GENERATOR PAD PER STRUCTURAL PLANS.
2. REINFORCED CMU BLOCK WALL PER STRUCTURAL PLANS.
3. 8" DIA OPENING FOR BATHROOM FAN
4. 6" x 6 " SPILL CONTAINMENT CONCRETE CURB. SEE STRUCTURAL PLANS.
5. STEEL COLUMN. SEE STRUCTURAL PLANS.
6. CONCRETE PAD. SEE STRUCTURAL PLANS.
7. 12" DIA WALL OPENING FOR EXHAUST FAN.
8. 2'(W) x 3'(H) OPENING FOR LOUVER, SEE SHEET M1.1. (3' ABOVE F.F.)
9. DOOR AND FRAME SEE DOOR SCHEDULE SHEET A6.0
10. DOOR AND FRAME SEE DOOR SCHEDULE SHEET A6.0
11. BATHROOM INSTALLATION SEE SHEET A6.0
12. WET WELL AERATION BLOWER INSTALLATION SEE SHEET MECHANICAL PLANS
13. FORCE MAIN AIR BLOWER INSTALLATION SEE SHEET MECHANICAL PLANS
14. INSTALL WHITE COLOR 4"x4" CERAMIC GLOSSY TILES UP TO 4' FROM FLOOR FOR ALL WALLS IN THE TOILET ROOM.

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER ANDREW T. KOMOR No. C049928 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

PREPARED BY
ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. C049928
EXP. 06/30/21

DRAWN KV | SCALE AS SHOWN
DESIGNED ZS | DATE JAN. 2020
CHECKED AK

TITLE
FLOOR PLAN

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JOB
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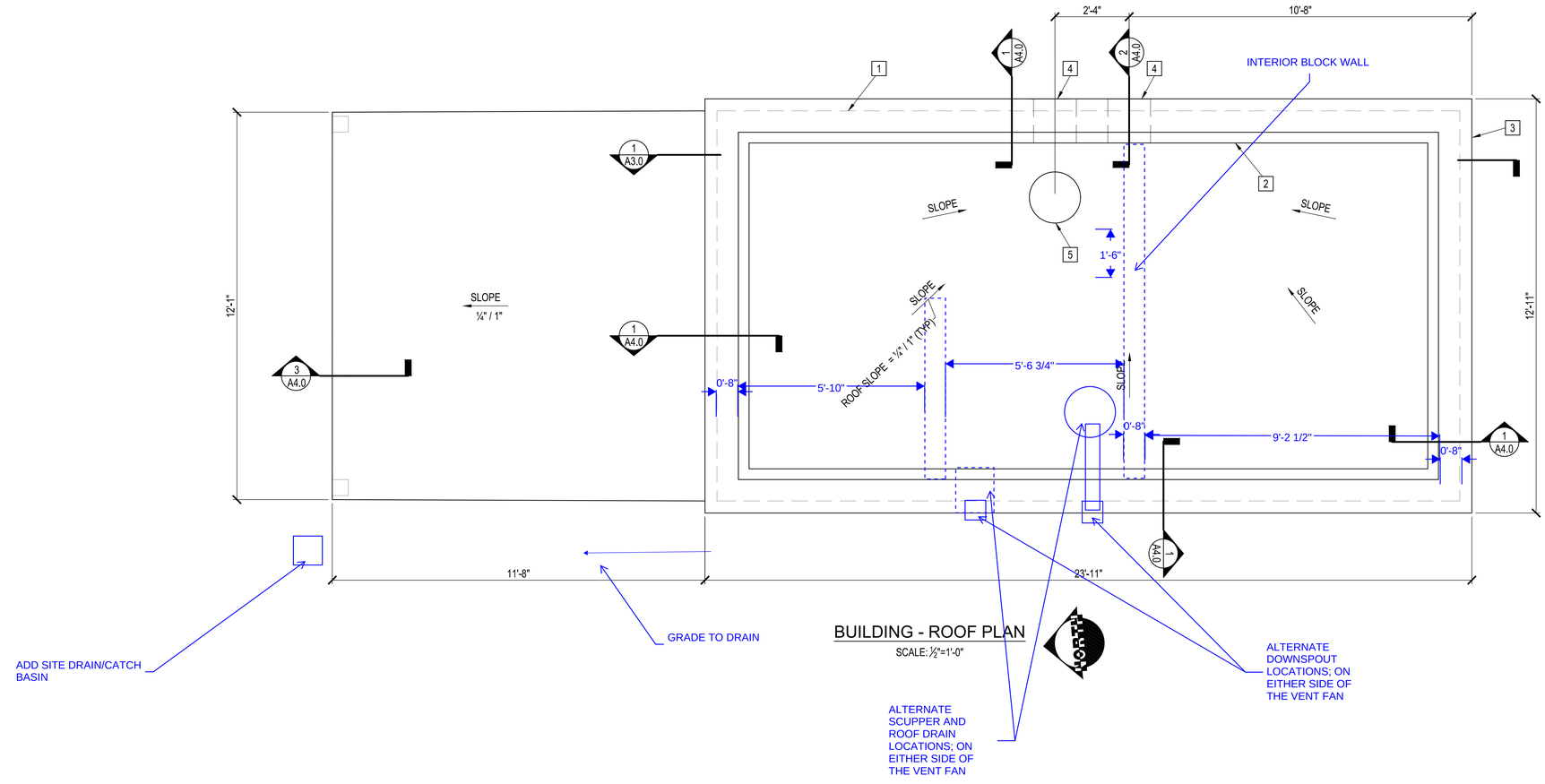
Department of Public Works, Los Angeles County
Checked _____ 2/20/2020
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SHEET
A1.0
21 OF 62 SHEETS

JOB NO. 9862-E

Xrefs: 9862 (DPW-1 Mech-plan.dwg; 36x24r (DPW-1.dwg
Dimscale = 24; LTscale = 1; PSBscale = 1; ACAD Ver. = 23.0s (LMS Tech); Viewplan = 1
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RFI #61



BUILDING - ROOF PLAN

SCALE: ½"=1'-0"

CONSTRUCTION NOTES:

1. 8" CMU BLOCK WALL BELOW.
2. 4" CONT. CANT STRIP.
3. ROOF PARAPET LIMIT, SEE SHEET A4.0 DETAIL 1
4. 16"W x 4"H ROOF DRAINAGE SCUPPER. SEE SHEET A4.0 DETAIL 2.
5. ROOF DRAIN. SEE SHEET A8.0 DETAIL 8

NOTE:
MULTI-PLY SBS MODIFIED BITUMEN ROOF SYSTEM BY SIPLAST OR EQUAL. SPECIFICATION BASED ON PARDIENE 20 TA-30FR OVER POLYISO INSULATION BOARD.

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER ANDREW T. KOMOR No. C64928 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

PREPARED BY
ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. C64928
EXP. 06/30/21

DRAWN KV
DESIGNED ZS
CHECKED AK
SCALE AS SHOWN
DATE JAN. 2020

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TITLE
ROOF PLAN

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

Department of Public Works, Los Angeles County

Checked _____ 2/20/2020
Design Division Date

SHEET
A2.0
22 OF 62 SHEETS

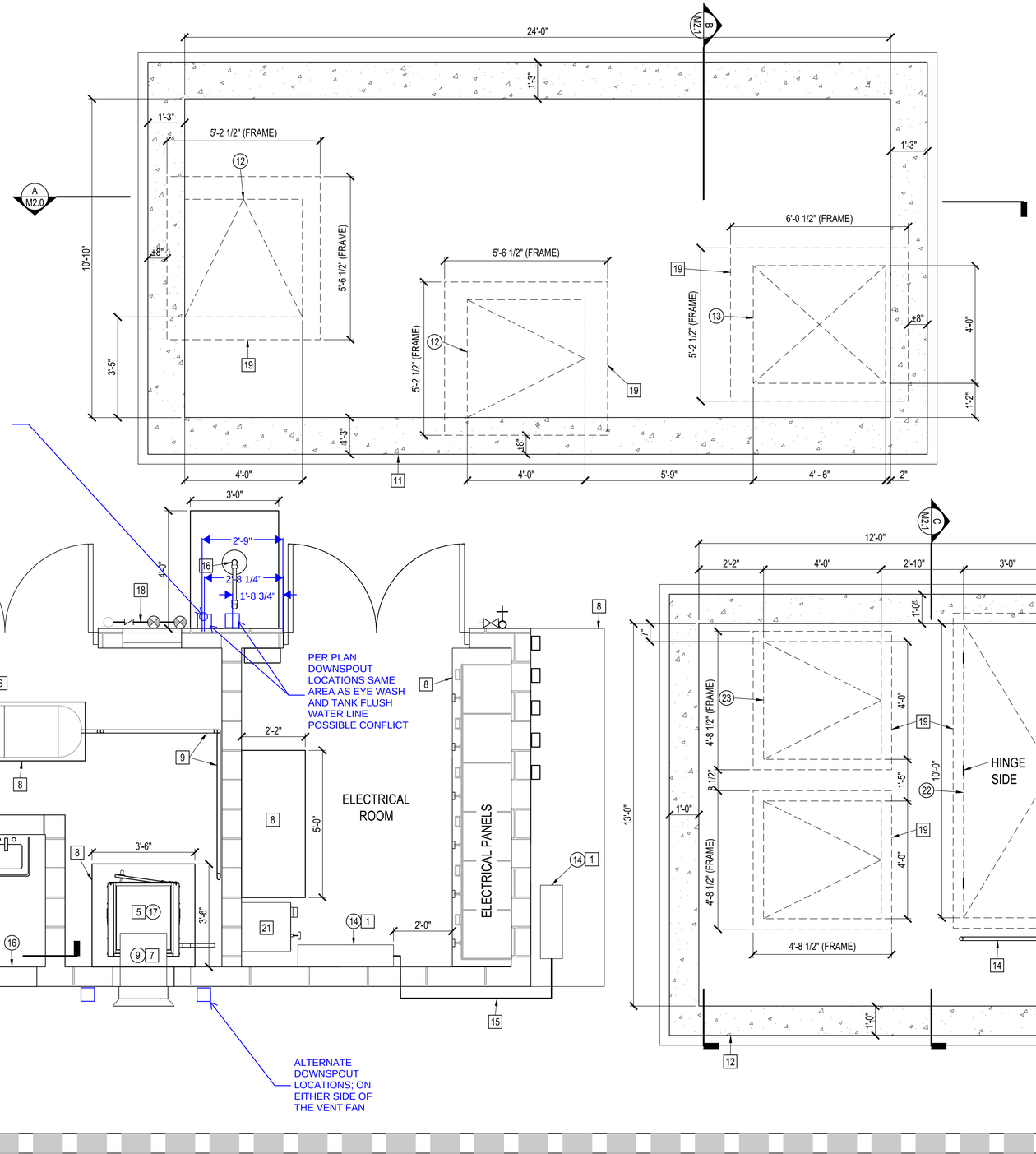
JOB NO. 9862-E

Xrefs: 36x24r LDPW-1.dwg, 9862 LDPW-1 Mech-plan.dwg
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RFI #61

CONSTRUCTION NOTES:

1. INSTALL ELECTRICAL ROOM AC SYSTEM, SEE M2.2 FOR ELEVATION.
2. SPILL CONTAINMENT CURB. SEE ARCHITECTURAL PLANS.
3. INSTALL 9" GENERATOR PAD. STRUCTURAL PLANS.
4. CANOPY OVER GENERATOR AREA. SEE ARCHITECTURAL PLANS.
5. INSTALL WET WELL AERATION BLOWER (17). SEE SHEET M2.2
6. INSTALL FORCE MAIN PIPE AIR COMPRESSOR PER DETAIL F/M3.1
7. INSTALL EQUIPMENT ROOM EXHAUST FAN , SEE SHEET M2.2 AND M3.0
8. INSTALL CONCRETE PAD PER STRUCTURAL PLANS.
9. ¾" AIR PIPING PER DETAILS B/M3.1 F/M3.1
10. EQUIPMENT BUILDING, SEE ARCHITECTURAL AND STRUCTURAL PLANS.
11. WET WELL AND EMERGENCY STORAGE TANK, SEE STRUCTURAL PLANS.
12. VALVE VAULT, SEE STRUCTURAL PLANS.
13. SEWER MANHOLE. SEE SHEET C2.0.
14. INSTALL ALUMINUM GUARDRAIL PER DETAIL J/M3.1
15. INSTALL REFRIGERANT PIPING WITH INSULATION, INDOOR UNIT DRAIN HOSE AND WALL MOUNTED CONTROL PER INSTALLATION MANUAL.
16. INSTALL EYEWASH / EMERGENCY SHOWER STATION PER DETAIL A/M3.0
17. INSTALL 2" FLOOR DRAIN WITH WATER SEAL FOR BATHROOM. SEE SHEET M2.2 FOR DETAILS.
18. INSTALL 2" WATER PIPELINE AND VALVES FOR EMERGENCY TANK FLUSHING PER DETAIL E/C4.1
19. CONTRACTOR TO VERIFY ALL HATCH FRAME DIMENSIONS WITH HATCH MANUFACTURER PRIOR TO CONSTRUCTION.
20. INSTALL 1½" PVC DRAIN AND PVC BALL VALVE, NORMALLY OPEN.
21. WALL MOUNTED AUTOMATIC TRANSFER SWITCH. SEE ELECTRICAL SHEETS.



PUMP STATION - WET WELL PLAN VIEW ABOVE GRADE

SCALE: ½"=1'-0"

NORTH

Department of Public Works, Los Angeles County

Checked _____ 2/20/2020

Design Division — Date

NO	BY	DATE	REVISIONS	DATE	APP.

PREPARED BY ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. —
EXP. 06/30/21

DRAWN KV | SCALE AS SHOWN
DESIGNED ZS | DATE JAN. 2020
CHECKED AK

REGISTERED PROFESSIONAL ENGINEER ANDREW T. KOMOR No. C84928 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

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TITLE: MECHANICAL PLAN ABOVE GRADE

JOB: MISSION VILLAGE DPW-1 SEWER PUMP STATION PC 12257PS — VALENCIA, CA

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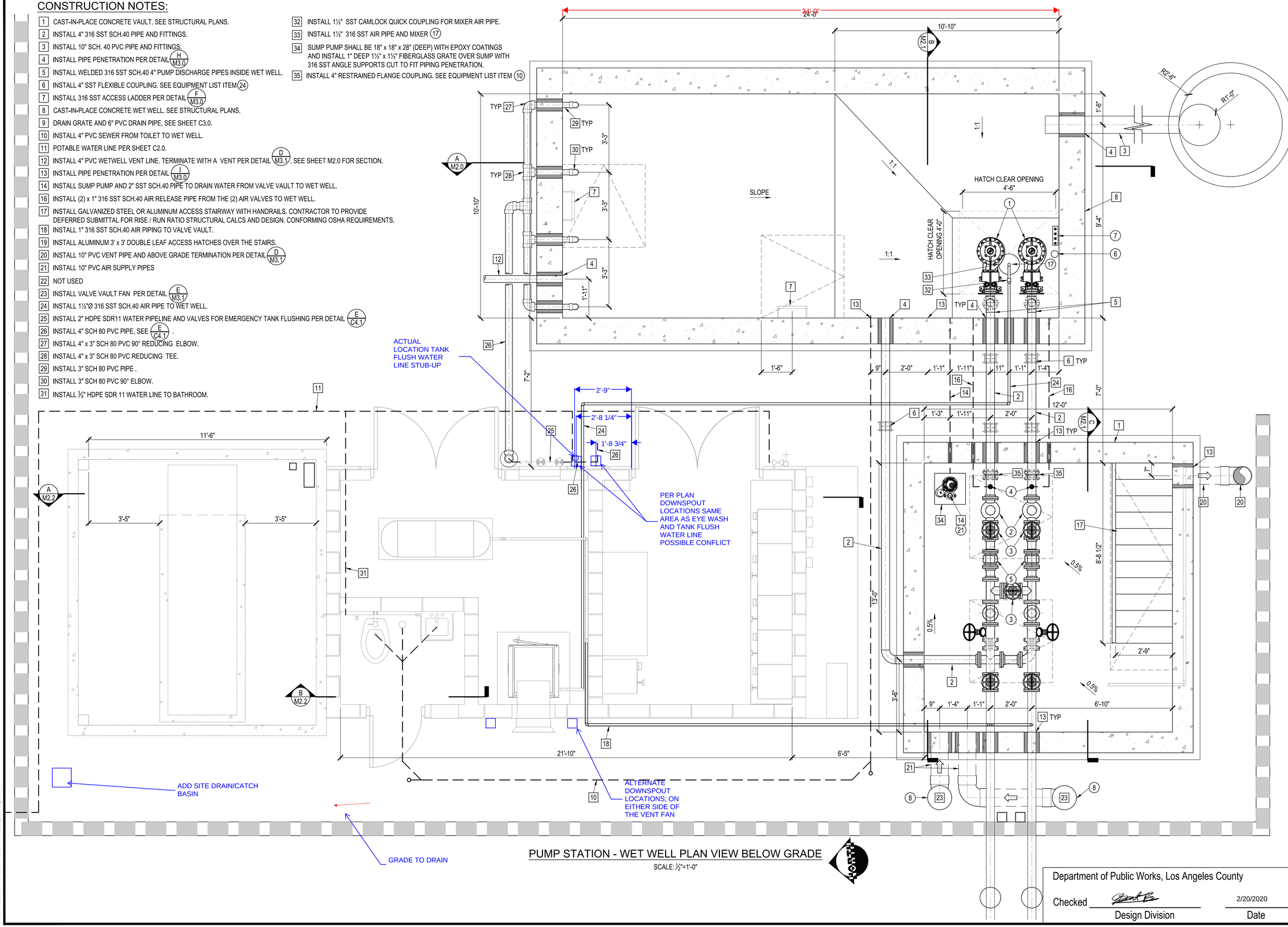
SHEET M1.1
13 OF 62 SHEETS
JOB NO. 9862-E

Xrefs: 9862 DPW-1 Mech-plan.dwg; 36x24v (DPW-1.dwg
Dimscale = 24; LTscale = 1; PSBscale = 1; ACAD Ver. = 23.0s (LMS Tech); Viewtan = 1
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RFI #61

CONSTRUCTION NOTES:

1. CAST-IN-PLACE CONCRETE VAULT. SEE STRUCTURAL PLANS.
2. INSTALL 4" 316 SST SCH.40 PIPE AND FITTINGS.
3. INSTALL 10" SCH. 40 PVC PIPE AND FITTINGS.
4. INSTALL PIPE PENETRATION PER DETAIL H/M3.0
5. INSTALL WELDED 316 SST SCH.40 4" PUMP DISCHARGE PIPES INSIDE WET WELL.
6. INSTALL 4" SST FLEXIBLE COUPLING. SEE EQUIPMENT LIST ITEM 24
7. INSTALL 316 SST ACCESS LADDER PER DETAIL F/M3.0
8. CAST-IN-PLACE CONCRETE WET WELL. SEE STRUCTURAL PLANS.
9. DRAIN GRATE AND 6" PVC DRAIN PIPE, SEE SHEET C3.0.
10. INSTALL 4" PVC SEWER FROM TOILET TO WET WELL.
11. POTABLE WATER LINE PER SHEET C2.0.
12. INSTALL 4" PVC WETWELL VENT LINE. TERMINATE WITH A VENT PER DETAIL D/M3.1. SEE SHEET M2.0 FOR SECTION.
13. INSTALL PIPE PENETRATION PER DETAIL I/M3.0
14. INSTALL SUMP PUMP AND 2" SST SCH.40 PIPE TO DRAIN WATER FROM VALVE VAULT TO WET WELL.
16. INSTALL (2) x 1" 316 SST SCH.40 AIR RELEASE PIPE FROM THE (2) AIR VALVES TO WET WELL.
17. INSTALL GALVANIZED STEEL OR ALUMINUM ACCESS STAIRWAY WITH HANDRAILS. CONTRACTOR TO PROVIDE DEFERRED SUBMITTAL FOR RISE / RUN RATIO STRUCTURAL CALCS AND DESIGN. CONFORMING OSHA REQUIREMENTS.
18. INSTALL 1" 316 SST SCH.40 AIR PIPING TO VALVE VAULT.
19. INSTALL ALUMINUM 3' x 3' DOUBLE LEAF ACCESS HATCHES OVER THE STAIRS.
20. INSTALL 10" PVC VENT PIPE AND ABOVE GRADE TERMINATION PER DETAIL D/M3.1
21. INSTALL 10" PVC AIR SUPPLY PIPES
22. NOT USED
23. INSTALL VALVE VAULT FAN PER DETAIL E/M3.1
24. INSTALL 1½"Ø 316 SST SCH.40 AIR PIPE TO WET WELL.
25. INSTALL 2" HDPE SDR11 WATER PIPELINE AND VALVES FOR EMERGENCY TANK FLUSHING PER DETAIL E/C4.1
26. INSTALL 4" SCH 80 PVC PIPE, SEE E/C4.1 .
27. INSTALL 4" x 3" SCH 80 PVC 90° REDUCING ELBOW.
28. INSTALL 4" x 3" SCH 80 PVC REDUCING TEE.
29. INSTALL 3" SCH 80 PVC PIPE .
30. INSTALL 3" SCH 80 PVC 90° ELBOW.
31. INSTALL ¾" HDPE SDR 11 WATER LINE TO BATHROOM.
32. INSTALL 1½" SST CAMLOCK QUICK COUPLING FOR MIXER AIR PIPE.
33. INSTALL 1½" 316 SST AIR PIPE AND MIXER 17
34. SUMP PUMP SHALL BE 18" x 18" x 28" (DEEP) WITH EPOXY COATINGS AND INSTALL 1" DEEP 1½" x 1½" FIBERGLASS GRATE OVER SUMP WITH 316 SST ANGLE SUPPORTS CUT TO FIT PIPING PENETRATION.
35. INSTALL 4" RESTRAINED FLANGE COUPLING. SEE EQUIPMENT LIST ITEM 10



PUMP STATION - WET WELL PLAN VIEW BELOW GRADE

SCALE: ½"=1'-0"

Department of Public Works, Los Angeles County

Checked _____ 2/20/2020

Design Division — Date

NO	BY	DATE	REVISIONS	DATE	APP.

ANDREW T. KOMOR — REGISTERED PROFESSIONAL ENGINEER — No. 65688 Exp. 06/30/21 — CIVIL — STATE OF CALIFORNIA

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PREPARED BY: ANDY KOMOR — PROJECT ENGINEER — R.C.E. NO. — EXP. 06/30/21

DRAWN: KV — DESIGNED: ZS — CHECKED: AK — SCALE: AS SHOWN — DATE: JAN. 2020

TITLE: MECHANICAL PLAN BELOW GRADE

JOB: MISSION VILLAGE DPW-1 SEWER PUMP STATION PC 12257PS — VALENCIA CA

PACE Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P.: (714) 481-7300 | www.paceadvancedwater.com

SHEET M1.2

14 OF 62 SHEETS

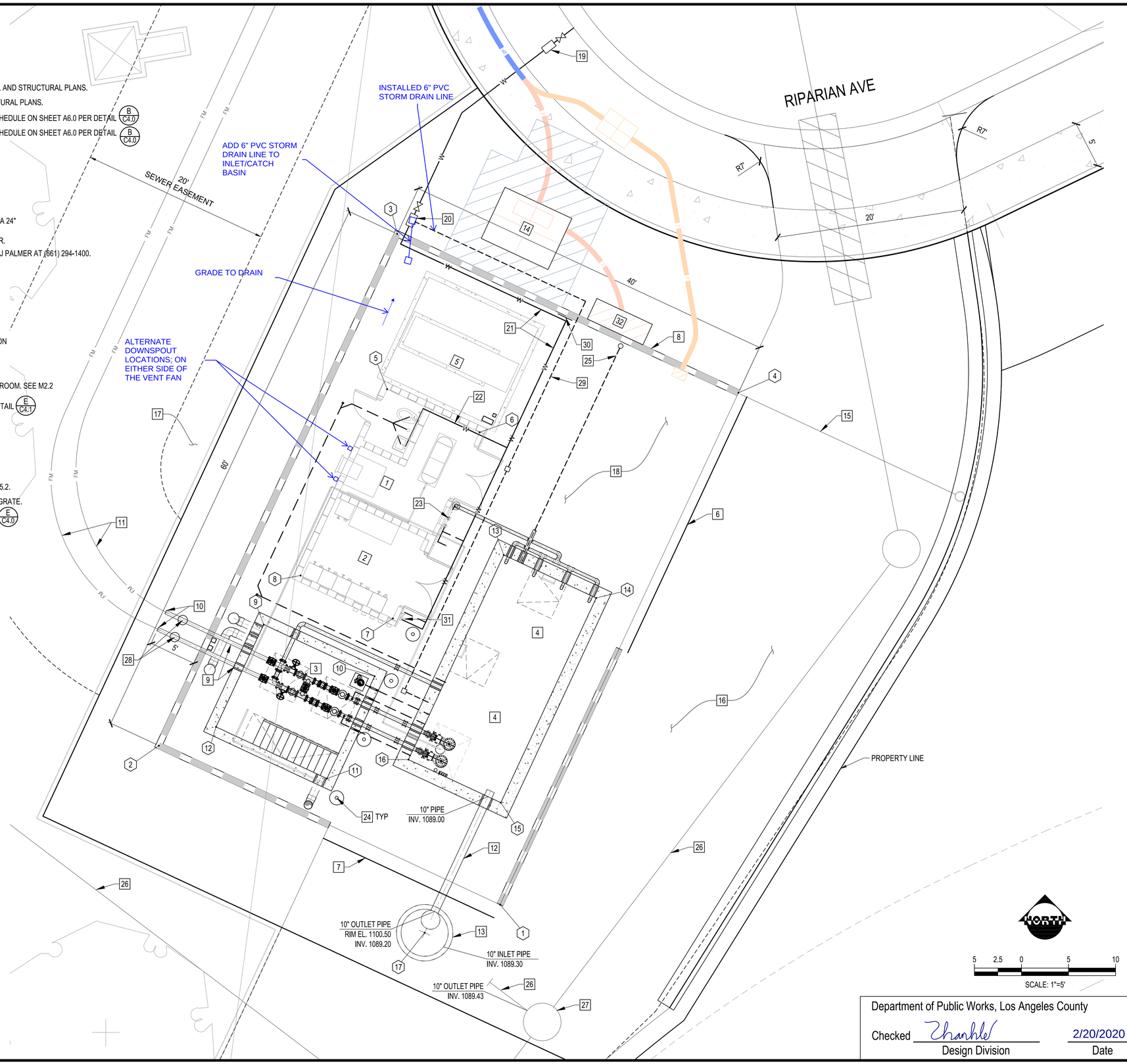
JOB NO. 9862-E

Xrefs: 9862 DPW-1 Mech-plan.dwg; 36x24r DPW-1.dwg
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RFI #61

CONSTRUCTION NOTES:

1. MECHANICAL ROOM IN ABOVE GRADE BUILDING. SEE MECHANICAL PLANS.
2. ELECTRICAL ROOM IN ABOVE GRADE BUILDING. SEE ELECTRICAL PLANS.
3. CAST IN PLACE VALVE VAULT. SEE MECHANICAL AND STRUCTURAL PLANS.
4. CAST IN PLACE CONCRETE WET WELL AND EMERGENCY STORAGE. SEE MECHANICAL AND STRUCTURAL PLANS.
5. STANDBY GENERATOR UNDER CANOPY. SEE MECHANICAL, ELECTRICAL AND STRUCTURAL PLANS.
6. 30' WIDE, 8' HIGH WROUGHT IRON ROLLING GATE WITH PADLOCK PER HARDWARE SCHEDULE ON SHEET A6.0 PER DETAIL (B / C4.0)
7. 20' WIDE, 8' HIGH WROUGHT IRON ROLLING GATE WITH PADLOCK PER HARDWARE SCHEDULE ON SHEET A6.0 PER DETAIL (B / C4.0)
8. 8' HIGH MASONRY WALL PER SPPWC 601-03 OR EQUAL.
9. 4" 316 SST FORCEMAIN PIPE. SEE MECHANICAL PLANS.
10. 4" 316 SST FORCEMAIN PIPE TRANSITION TO HDPE PIPE PER DETAIL (D / C4.1)
11. 4" HDPE FORCEMAIN PIPE. SEE SHEETS C5.0, C5.1 AND C5.2.
12. 10" PVC GRAVITY SEWER TO WET WELL, SEE MECHANICAL PLANS AND DETAIL (C / C4.1)
13. INSTALL 60"Ø SEWER MANHOLE PER LACSD STD. DETAIL TYPE E, DWG# S-A-206 WITH A 24" COMPOSITE FRAME AND COVER PER EJ PRODUCT MODEL COM 240123A01. MANHOLE CONCRETE MIX DESIGN SHALL CONSIST OF XYPEX BIOSAN C500 PER MANUFACTURER.
14. TRANSFORMER ON CONCRETE PAD PER SCE. CONTRACTOR TO COORDINATE WITH BJ PALMER AT (661) 294-1400.
15. INSTALL PIPE GATE PER SPPWC 602-3.
16. MAINTENANCE ACCESS ROAD. SEE SHEET C3.1.
17. CURBED LANDSCAPING AREA. LANDSCAPE MAINTENANCE SHALL BE BY OTHERS.
18. PUMP STATION SITE CONCRETE PAVEMENT PER DETAIL (D / C4.0)
19. 2" WATER LINE. ISOLATION VALVE AND WATER METER BY SCVWA.
20. CONTRACTOR TO INSTALL 2" REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION DEVICE PER DETAIL (B / C4.1)
21. INSTALL ±60 L.F. OF 2" HDPE (SDR 11) "BLUE STRIPE" POTABLE WATER LINE.
22. INSTALL ±10 L.F. OF ¾" HDPE (SDR 11) "BLUE STRIPE" POTABLE WATER LINE TO BATHROOM. SEE M2.2 FOR BATHROOM PLUMBING.
23. INSTALL EMERGENCY TANK FLUSHING WATER LINE, VALVES AND STAND PIPE PER DETAIL (E / C4.1)
24. INSTALL REMOVABLE PIPE BOLLARD PER DETAIL (A / C4.1)
25. INSTALL 4" PVC WETWELL VENT LINE PER DETAIL (D / M3.1)
26. SEWER LINE PER HUNSAKER PLANS.
27. SEWER MANHOLE PER HUNSAKER PLANS.
28. INSTALL VALVE BOX FOR TRACE WIRE ACCESS STATION (TWAS) SEE DETAIL SHEET C5.2.
29. INSTALL 4" PVC DRAIN LINE FROM BACKFLOW PREVENTION TO SURFACE DRAIN BOX/GRATE.
30. INSTALL NFPA DIESEL FUEL SIGN ON CMU WALL CLOSE TO GENERATOR. SEE DETAIL (E / C4.0)
31. INSTALL HOSE BIB PER DETAIL (A / C4.0)
32. ELECTRICAL SES LOCATION. SEE ELECTRICAL PLAN FOR DETAILS.



POINT TABLE

PNT. #	NORTHING	EASTING	DESCRIPTION
1	106584.85	477360.78	SE CNR WALL
2	106601.74	477324.52	SW CNR WALL
3	106656.13	477349.86	NW CNR WALL
4	106639.24	477386.12	NE CNR WALL
5	106639.62	477348.79	NE CNR BLDG
6	106635.05	477358.61	NW CNR BLDG
7	106615.25	477349.39	SE CNR BLDG
8	106619.83	477339.57	SW CNR BLDG
9	106614.61	477335.67	NW CNR VAULT
10	106609.12	477347.45	NE CNR VAULT
11	106598.24	477342.39	SW CNR VAULT
12	106603.73	477330.60	SW SNR VAULT
13	106622.01	477361.18	NW CNR WET WELL
14	106617.43	477371.00	NE CNR WET WELL
15	106595.68	477360.87	SE CNR WET WELL
16	106600.26	477351.05	SW CNR WET WELL
17	106581.85	477352.77	SE CNR WET WELL

NO	BY	DATE	REVISIONS	DATE	APP.

PREPARED BY
ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. 64928
EXP. 06/30/21

DRAWN KV | SCALE AS SHOWN
DESIGNED ZS | DATE JAN. 2020
CHECKED AK

REGISTERED PROFESSIONAL ENGINEER ★ ANDREW T. KOMOR ★ No. C64928 Exp. 06/30/21 ★ CIVIL ★ STATE OF CALIFORNIA

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TITLE
SITE & PIPING PLAN

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P.: (714) 481-7300 | www.pacewater.com

Department of Public Works, Los Angeles County
Checked Zhanhle 2/20/2020
Design Division Date

SHEET C2.0
4 OF 62 SHEETS
JOB NO. 9862-E

Xrefs: 9862 dpw-1 title.dwg, 9862 DPW-1 SITE-MECH.dwg, po-utwt-base.dwg, SITEBASE-HMV02.dwg, RGBASE-HMV02.dwg, RGBASE-HMV02.dwg, RGBASE-HMV02.dwg, HMV224-02_DPW1 Alternative in Neighborhood Park.dwg, 36x24x DPW-1.dwg, 9862 DPW-1 Mech-plan.dwg, SSBASE-HMV02.dwg, SITEBASE-HMV.dwg, Valencia West_Open_Space_2019-02-08.dwg, RGBASE-HMV02.dwg, RGBASE-HMV02.dwg, RGBASE-HMV02.dwg, HMV224-02_DPW1 Alternative in Neighborhood Park.dwg, 36x24x DPW-1.dwg, 9862 DPW-1 Mech-plan.dwg, SSBASE-HMV02.dwg, SITEBASE-HMV.dwg, Valencia
Dimscale = 10, LTscale = 1, PSltscale = 1, ACAD Ver. = 23.0s (LMS Tech), Vanstan = 1

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RFI #61

RIPARIAN AVE

INSTALLED 6" PVC STORM DRAIN LINE

ADD 6" PVC STORM DRAIN LINE TO INLET/CATCH BASIN

PROPERTY LINE

GRADE TO DRAIN

FG ±1100.5

TOW 1109.00
FG 1100.50

1101.00

1100.75

FFL 1101.50

TOW 1109.00
FG 1101.00

1101.20

DRAIN GRATE
1100.50

1102.00

TOP OF SLAB
1101.00

MH RIM
1100.50

CURB/EDGE OF PAVEMENT

CURBED LANDSCAPE AREA
MAINTENANCE BY OTHERS

INSTALL PIPE GATE
PER SPPWC 602-3

ACCESS ROAD PER
SHEET C3.1

1100.7

1101.3

1101.0

TOE OF SLOPE
GRADE VARIES
ALONG THIS LINE

1102

1100.17

NORTH

10 5 0 10 20

SCALE: 1"=10'

POINT TABLE

PNT. #	NORTHING	EASTING	DESCRIPTION
1	106631.14	477361.57	DRAIN GRATE
2	106607.55	477350.58	DRAIN GRATE

CONSTRUCTION NOTES:

1 INSTALL J.R. SMITH FIG. 2110 OR EQUAL 8" CAST IRON DRAIN GRATE WITH 6" PVC PIPE CONNECTED TO WET WELL. TIE DOWN DRAIN GRATES PER MANUFACTURER'S INSTALLATION MANUAL.

Department of Public Works, Los Angeles County

Checked Thanhle 2/20/2020

Design Division — Date

NO	BY	DATE	REVISIONS	DATE	APP.

ANDRE T. KOMOR — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA — CIVIL — No. C64928 Exp. 06/30/21

PREPARED BY
ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. C64928
EXP. 06/30/21

DRAWN KV | SCALE AS SHOWN
DESIGNED ZS | DATE JAN. 2020
CHECKED AK

TITLE
SITE GRADING & DRAINAGE PLAN

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
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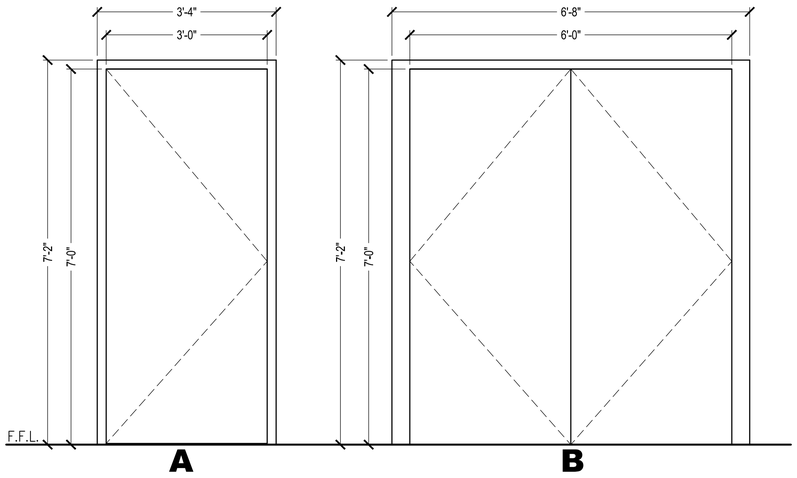
SHEET C3.0
5 OF 62 SHEETS
JOB NO. 9862-E

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Xrefs: 9862 dpw1 site.dwg, 9862 DPW-1 site-Mech.dwg, RGBASE-HMV02.dwg, RGBASE-HMV02.dwg; HMV224-02_DPW1 Alternative in Neighborhood Park.dwg; SITEBASE-HMV02.dwg; 36x24r (DPW-1.dwg, 9862 DPW-1 Mech-plan.dwg, SITEBASE-HMV.dwg; Valencia West_Open_Space_2019-02-08.dwg; RGBASE-HMV02.dwg; West Side Comm – Mission Village - DPW-1 - S.S. - composite.dwg
Dimscale = 1; LTscale = 1; PSltscale = 1; ACAD Ver. = 23.0s (LMS Tech); Viewtain = 1
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DOOR SCHEDULE

ELEV.	DOOR SIZE	DOOR DESCRIPTION	HARDWARE SET (SEE TABLE ON RIGHT)	FRAME SIZE	FRAME DESCRIPTION	DETAIL		
						HEAD	JAMB	T'HOLD
B	(2) 3'-0" x 7'-0" x 1¾"	HOLLOW METAL DOOR AND FRAME (DOUBLE DOOR)	1,3,4,5,6,7,9,10,11,12	HDR: 2"x7¾" JMB: 4"x7¾"	PAINTED HOLLOW METAL	6/A-6.0	6/A-6.0	6/A-6.0
A	3'-0" x 7'-0" x 1¾"	HOLLOW METAL DOOR AND FRAME	1,3,4,6,7,9,10,11,12	HDR: 2"x7½" JMB: 2"x7½"	PAINTED HOLLOW METAL	6/A-6.0	6/A-6.0	6/A-6.0



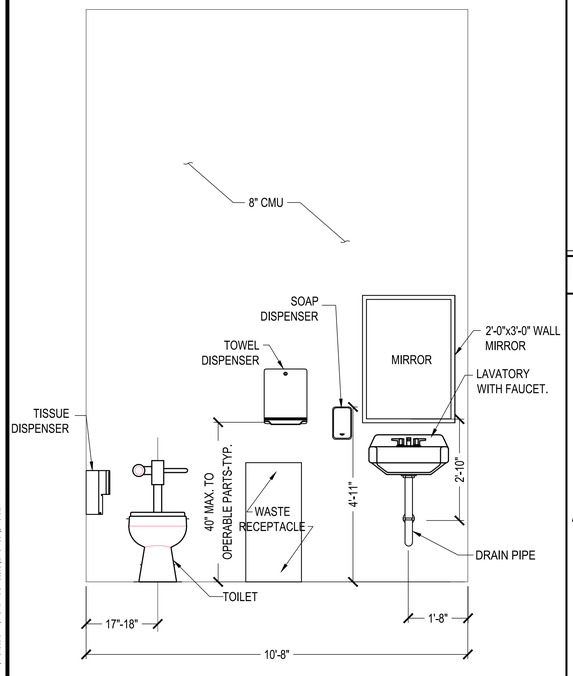
LACDPW OPERATIONAL SERVICES DIVISION DOOR HARDWARE SPECIFICATIONS FOR DPW FACILITIES, BUILDINGS AND STRUCTURES

ATTENTION: ARCHITECTS, DESIGN PROFESSIONALS, HARDWARE SPECIFIERS, CONTRACTORS, PROJECT MANAGERS AND OTHER CONCERNED PARTIES:
OSD FACILITY SERVICES SECTION/LOCKSMITH UNIT HAS STANDARDIZED THE FOLLOWING DOOR AND HARDWARE PRODUCTS. PLEASE ADHERE TO THE FOLLOWING WHEN SPECIFYING HARDWARE FOR NEW CONSTRUCTION, RENOVATION AND TENANT IMPROVEMENT WORK:

No.	KEY SYSTEM	CONSULT WITH LOCKSMITHS FOR SPECIFIC INSTRUCTIONS
1	MORTISE LOCKS	SCHLAGE *L SERIES. MARKS "PROTECTOR SERIES" CONSULT WITH LOCKSMITHS FOR SPECIFIC APPLICATIONS AND ON SUBSTITUTIONS OR EQUIVALENTS.
2	PADLOCKS	SCHLAGE PORTABLES SFIC. AMERICAN 3500 SERIES SFIC. CONSULT WITH LOCKSMITHS FOR SPECIFIC APPLICATIONS AND ON SUBSTITUTIONS OR EQUIVALENTS.
3	EXIT DEVICES	VON DUPRIN *35, *98, *99 SERIES. NO SUBS OR EQUAL. CONSULT WITH LOCKSMITH FOR APPLICATION.
4	SURFACE CLOSER	LCN *4041 FOR INTERIOR DOORS, *4040XP FOR EXTERIOR DOORS AND GATES. NO SUBS OR EQUAL WITHOUT APPROVAL FROM LOCKSMITHS
5	AUTO-FLUSH BOLTS	IVES: FB51P FOR METAL DOORS, FB61P FOR WOOD DOORS. NO SUBS OR EQUAL.
6	HINGES	IVES 5BB1 KNUCKLE BEARING HEAVY WEIGHT FULL MORTISE HINGE MCKINNEY TA2714 FULL MORTISE BEARING STANDARD WRIGHT HINGE IVES 700 CONTINUOUS HINGE STAINLESS STEEL WHERE APPLICABLE.
7	OVERHEAD STOPS	GLYNN JOHNSON 90 SERIES. USE ONLY WHERE FLOOR OR WALL STOPS ARE NOT ADVISABLE. WHEN USED, USE HEAVY WEIGHT HINGES OR CONTINUOUS HINGES. NO SUBS OR EQUAL.
8	FLOOR/WALL STOPS	IVES FS18S OF FS18L FOR HEAVY USE DOORS. IVES DOME STOPS FOR LOW FREQUENCY DOORS. NO SUBS OR EQUAL. CONSULT WITH LOCKSMITHS FOR INSTRUCTIONS. NO SPECIFICATIONS FOR WALL STOPS
9	DOOR PLATES	IVES 8400 SERIES. NO SUBS OR EQUAL.
10	THRESHOLDS	NGP OR PEMKO.
11	DOOR SEALS	NGP OR PEMKO.
12	DOORS & FRAMES	EXTERIOR: STEELCRAFT "L" SERIES 16GA HONEYCOMB CORE, GALVANIZED WITH GALVANIZED 14GA FRAME. DOORS ARE TO BE REINFORCED FOR DOOR CLOSERS AND CAPS TO BE INSTALLED.

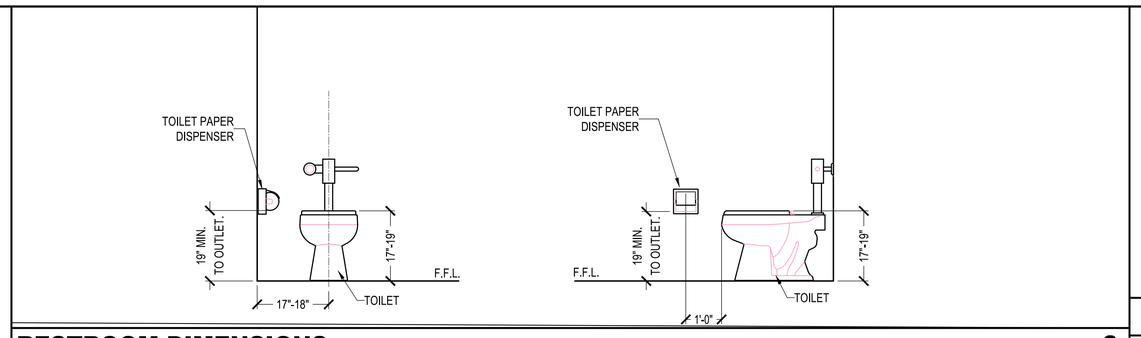
DOOR SCHEDULE

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



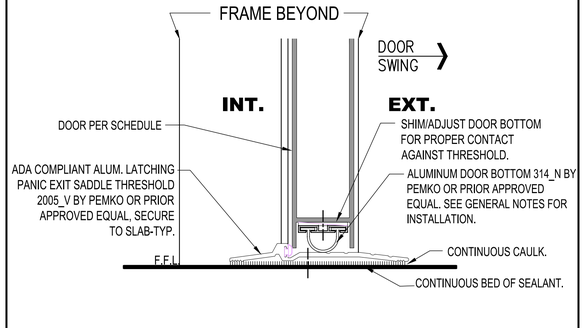
RESTROOM ELEVATION

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



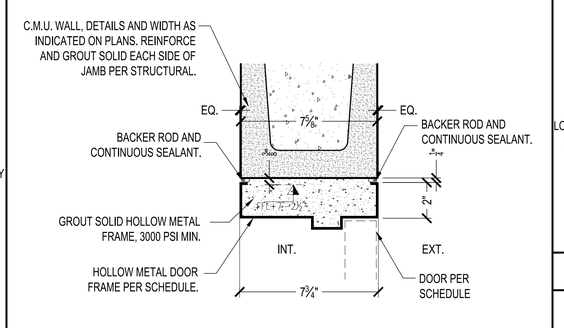
RESTROOM DIMENSIONS

SCALE: 1" = 1'-0" **3**



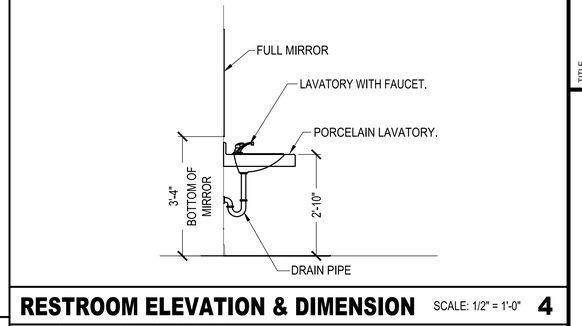
DOOR THRESHOLD

SCALE: 36" = 1'-0" **5**



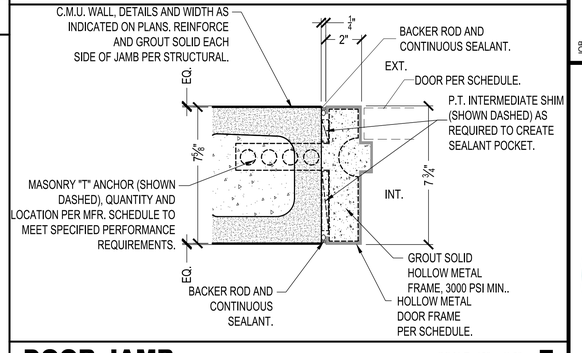
DOOR HEADER

SCALE: 18" = 1'-0" **6**



RESTROOM ELEVATION & DIMENSION

SCALE: 1/2" = 1'-0" **4**



DOOR JAMB

SCALE: 18" = 1'-0" **7**

Department of Public Works, Los Angeles County

Checked _____ 2/20/2020

Design Division — Date

NO	BY	DATE	REVISIONS	DATE	APP.

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REGISTERED PROFESSIONAL ENGINEER ★ ANDREW T. KOMOR ★ No. C64928 Exp. 06/30/21 ★ STATE OF CALIFORNIA ★ CIVIL

PREPARED BY
ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. C64928
EXP. 06/30/21

DRAWN KV | SCALE AS SHOWN
DESIGNED ZS | DATE JAN. 2020
CHECKED AK

TITLE
DOOR SCHEDULE AND DETAILS

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

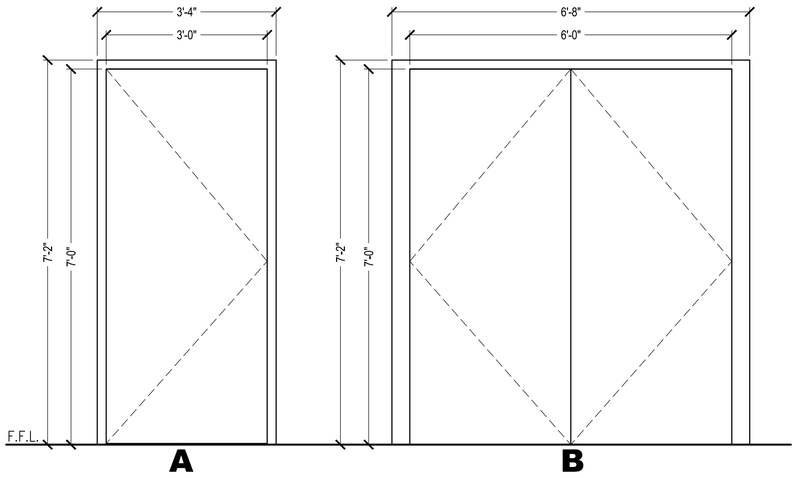
SHEET
A6.0
26 OF 62 SHEETS

JOB NO. 9862-E

Xrefs: 3b-24x DPW-1.dwg
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DOOR SCHEDULE

ELEV.	DOOR SIZE	DOOR DESCRIPTION	HARDWARE SET (SEE TABLE ON RIGHT)	FRAME SIZE	FRAME DESCRIPTION	DETAIL		
						HEAD	JAMB	THOLD
B	(2) 3'-0" x 7'-0" x 1¾"	HOLLOW METAL DOOR AND FRAME (DOUBLE DOOR)	1,3,4,5,6,7,9,10,11,12	HDR: 2"x7¾" JMB: 4"x7¾"	PAINTED HOLLOW METAL	6/A-6.0	6/A-6.0	6/A-6.0
A	3'-0" x 7'-0" x 1¾"	HOLLOW METAL DOOR AND FRAME	1,3,4,6,7,9,10,11,12	HDR: 2"x7¾" JMB: 2"x7¾"	PAINTED HOLLOW METAL	6/A-6.0	6/A-6.0	6/A-6.0



LACDPW OPERATIONAL SERVICES DIVISION DOOR HARDWARE SPECIFICATIONS FOR DPW FACILITIES, BUILDINGS AND STRUCTURES

ATTENTION: ARCHITECTS, DESIGN PROFESSIONALS, HARDWARE SPECIFIERS, CONTRACTORS, PROJECT MANAGERS AND OTHER CONCERNED PARTIES:
OSD FACILITY SERVICES SECTION/LOCKSMITH UNIT HAS STANDARDIZED THE FOLLOWING DOOR AND HARDWARE PRODUCTS. PLEASE ADHERE TO THE FOLLOWING WHEN SPECIFYING HARDWARE FOR NEW CONSTRUCTION, RENOVATION AND TENANT IMPROVEMENT WORK:

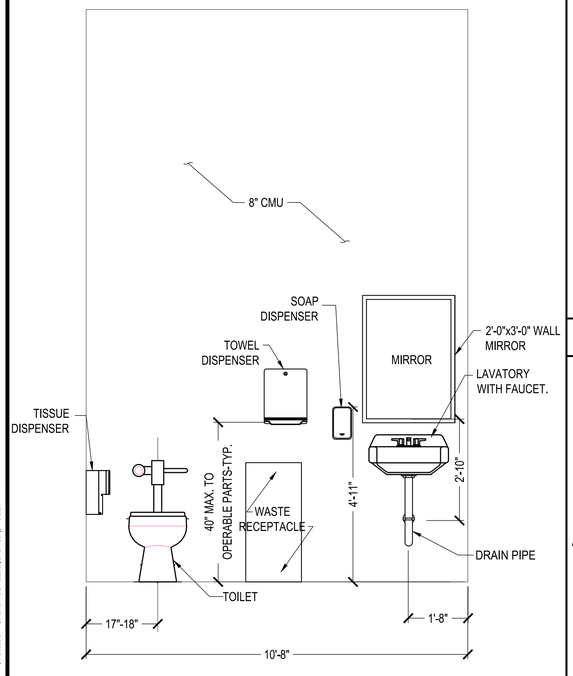
No.	KEY SYSTEM	CONSULT WITH LOCKSMITHS FOR SPECIFIC INSTRUCTIONS
1	MORTISE LOCKS	SCHLAGE *L SERIES. MARKS "PROTECTOR SERIES" CONSULT WITH LOCKSMITHS FOR SPECIFIC APPLICATIONS AND ON SUBSTITUTIONS OR EQUIVALENTS.
2	PADLOCKS	SCHLAGE PORTABLES SFIC. AMERICAN 3500 SERIES SFIC. CONSULT WITH LOCKSMITHS FOR SPECIFIC APPLICATIONS AND ON SUBSTITUTIONS OR EQUIVALENTS.
3	EXIT DEVICES	VON DUPRIN *35, *98, *99 SERIES. NO SUBS OR EQUAL. CONSULT WITH LOCKSMITH FOR APPLICATION.
4	SURFACE CLOSER	LCN *4041 FOR INTERIOR DOORS, *4040XP FOR EXTERIOR DOORS AND GATES. NO SUBS OR EQUAL WITHOUT APPROVAL FROM LOCKSMITHS
5	AUTO-FLUSH BOLTS	IVES: FB51P FOR METAL DOORS, FB61P FOR WOOD DOORS. NO SUBS OR EQUAL.
6	HINGES	IVES 5BB1 KNUCKLE BEARING HEAVY WEIGHT FULL MORTISE HINGE MCKINNEY TA2714 FULL MORTISE BEARING STANDARD WRIGHT HINGE IVES 700 CONTINUOUS HINGE STAINLESS STEEL WHERE APPLICABLE.
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JLee Engineering, Inc.
Approved
By Ben Ling
12/27/2019

This set of plans and specifications MUST be kept on the job site at all times and it is unlawful to make any changes or alterations on these plans without written permission from the local Jurisdictions or Agencies. The stamping of these plan and specifications shall NOT be held to permit or be an approval of the violations of the applicable codes, any provisions of any Local Ordinances or State law.

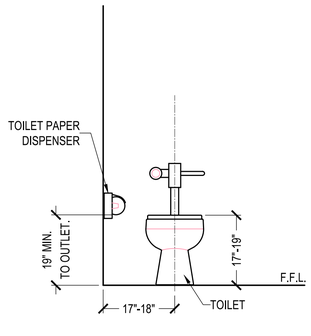
DOOR SCHEDULE

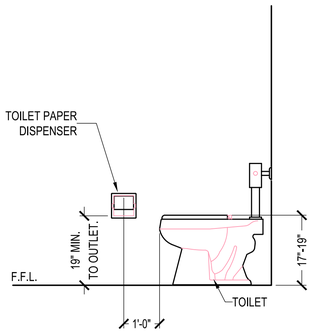
SCALE: 3/4" = 1'-0" **1**



RESTROOM ELEVATION

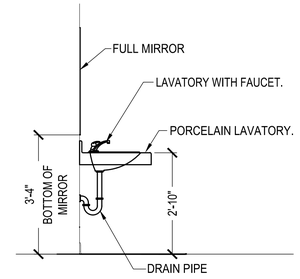
SCALE: 1" = 1'-0" **2**





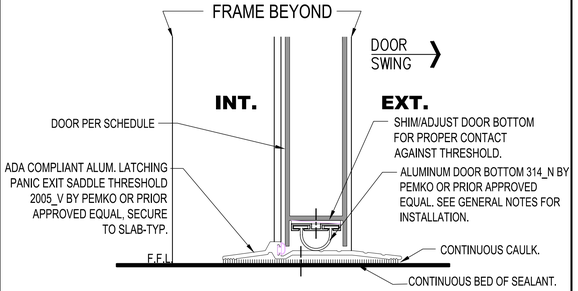
RESTROOM DIMENSIONS

SCALE: 1" = 1'-0" **3**



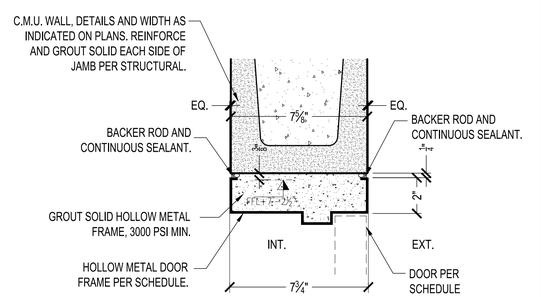
RESTROOM ELEVATION & DIMENSION

SCALE: 1/2" = 1'-0" **4**



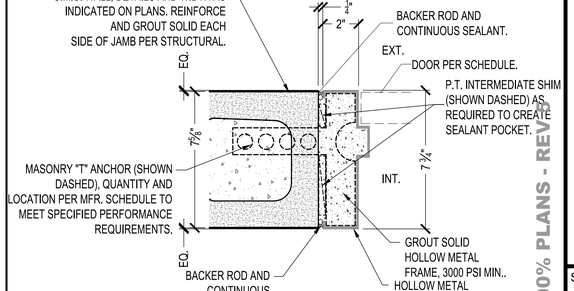
DOOR THRESHOLD

SCALE: 36" = 1'-0" **5**



DOOR HEADER

SCALE: 18" = 1'-0" **6**



DOOR JAMB

SCALE: 18" = 1'-0" **7**

100% PLANS - REVIEW

NO	BY	DATE	REVISIONS	DATE	APP.

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REGISTERED PROFESSIONAL ENGINEER ANDREW T. KOMOR No. C084928 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

PROJECT ENGINEER: ANDY KOMOR
R.C.E. NO. 084928
EXP. 06/30/21
DRAWN: KV
DESIGNED: ZS
CHECKED: AK
SCALE: AS SHOWN
DATE: NOV. 2019

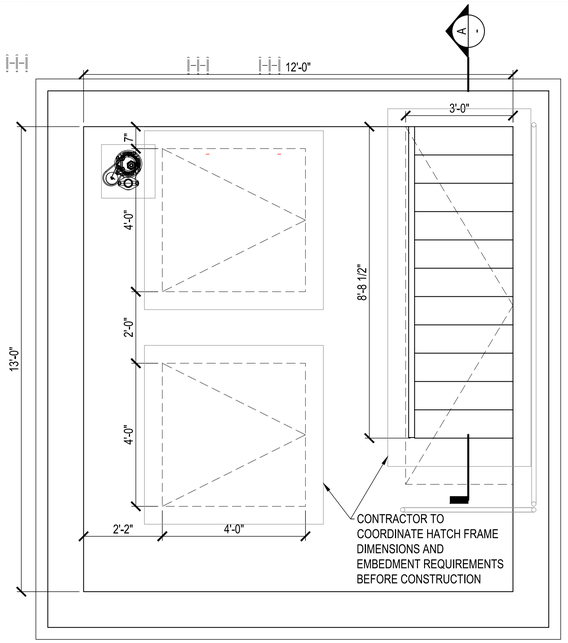
TITLE: DOOR SCHEDULE AND DETAILS

JOB: MISSION VILLAGE DPW-1 SEWER PUMP STATION — VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

SHEET A6.0
---- OF XX SHEETS
JOB NO. 9862-E

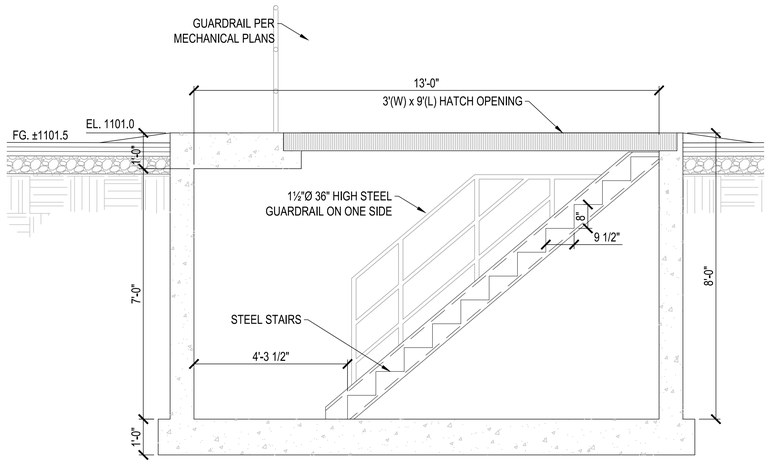
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STAIRWAY PLAN

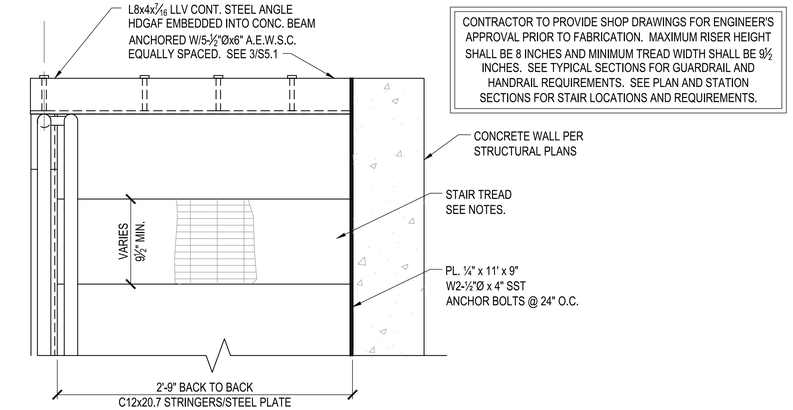
SCALE: ½"=1'-0"

NORTH



STAIRWAY SECTION - A

SCALE: ½"=1'-0"



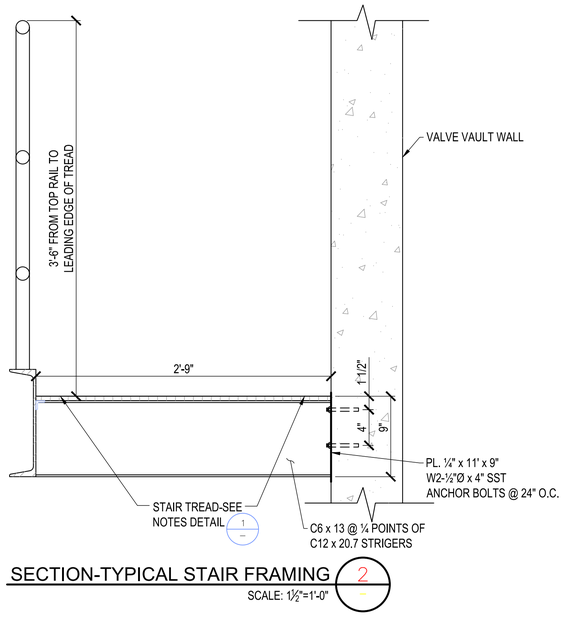
CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR ENGINEER'S APPROVAL PRIOR TO FABRICATION. MAXIMUM RISER HEIGHT SHALL BE 8 INCHES AND MINIMUM TREAD WIDTH SHALL BE 9½ INCHES. SEE TYPICAL SECTIONS FOR GUARDRAIL AND HANDRAIL REQUIREMENTS. SEE PLAN AND STATION SECTIONS FOR STAIR LOCATIONS AND REQUIREMENTS.

NOTES:

1. ALL STAIR TREADS SHALL BE SLIP-RESISTANT.
2. EACH TREAD AND THE TOP LANDING OF A STAIRWAY SHALL HAVE A NOSE WHICH EXTENDS ONE-HALF-INCH TO ONE-INCH BEYOND THE FACE OF THE LOWER RISER. NOSES SHALL HAVE AN EVEN LEADING EDGE.
3. WELDED BAR GRATING TREADS WITHOUT NOSINGS ARE ACCEPTABLE PROVIDING THE LEADING EDGE CAN BE READILY IDENTIFIED BY PERSONNEL DESENDING THE STAIRWAY AND PROVIDED THE TREAD IS SERRATED OR IS OF DEFINITE NON-SLIP DESIGN.

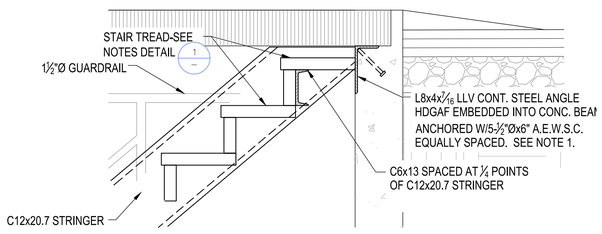
PLAN-TYPICAL STAIR FRAMING

SCALE: 1½"=1'-0"



SECTION-TYPICAL STAIR FRAMING

SCALE: 1½"=1'-0"

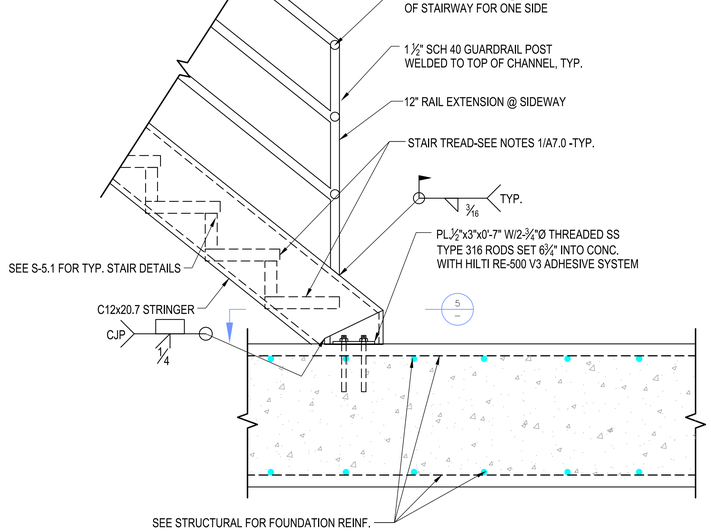


NOTE:

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SECTION-TOP OF STAIR FRAMING

SCALE: 1"=1'-0"

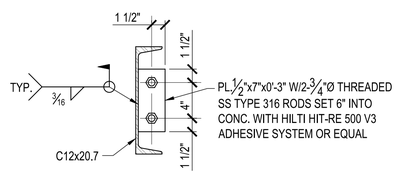


SECTION-BOT. OF STAIR FRAMING

SCALE: 1"=1'-0"

HOT-DIP GALVANIZED AFTER FABRICATION (HDGAF)

ALL STAIR STEEL COMPONENTS SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION (HDGAF). GALVANIZING SHALL BE PERFORMED IN ACCORDANCE WITH ASTM A123 AFTER FABRICATION, INCLUDING ALL SHOP WELDING AND DRILLING HAS BEEN COMPLETED. BOLT HOLES SHALL BE INCREASED AS NEEDED TO ACCOUNT FOR THE THICKNESS OF GALVANIZING. WELDING OF ALL GALVANIZED STEEL SHALL BE PERFORMED IN ACCORDANCE WITH THE PROVISIONS OF AWS D19.0. ALL DAMAGED GALVANIZED COATINGS, INCLUDING BUT NOT LIMITED TO DAMAGE DUE TO WELDING, SHALL BE REPAIRED WITH ZINC-BASED SOLDER (STICK GALVANIZING) IN ACCORDANCE WITH ASTM A780.



SECTION

SCALE: 1½"=1'-0"

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER ★ ANDREW T. KOMOR ★ No. C64928 Exp. 06/30/21 ★ CIVIL ★ STATE OF CALIFORNIA

PREPARED BY ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. C64928
EXP. 06/30/21

DRAWN KV | SCALE AS SHOWN
DESIGNED ZS | DATE JAN. 2020
CHECKED AK

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TITLE
STAIRWAY PLAN AND DETAILS

JOB
MISSION VILLAGE
DPW-1 SEWER PUMP STATION PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

Department of Public Works, Los Angeles County

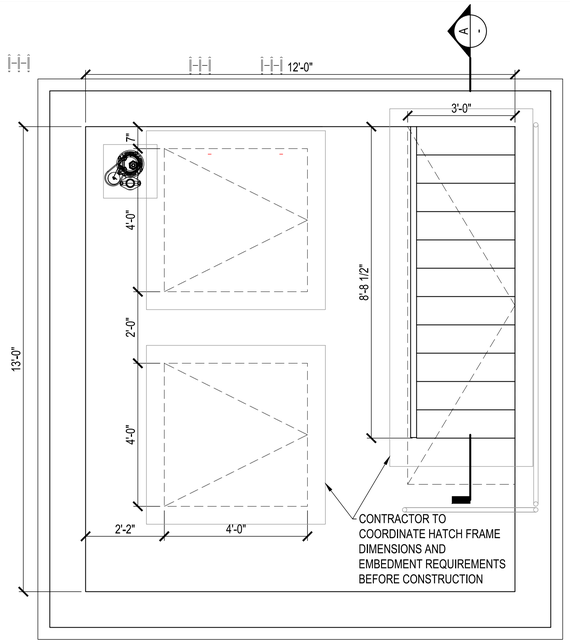
Checked _____ 2/20/2020
Design Division — Date

SHEET A7.0
27 OF 62 SHEETS

JOB NO. 9862-E

Xrefs: 9862 DPW-1 Mech-plan.dwg, 36x24+ DPW-1.dwg; 8862 DPW-1 Mech-sections.dwg
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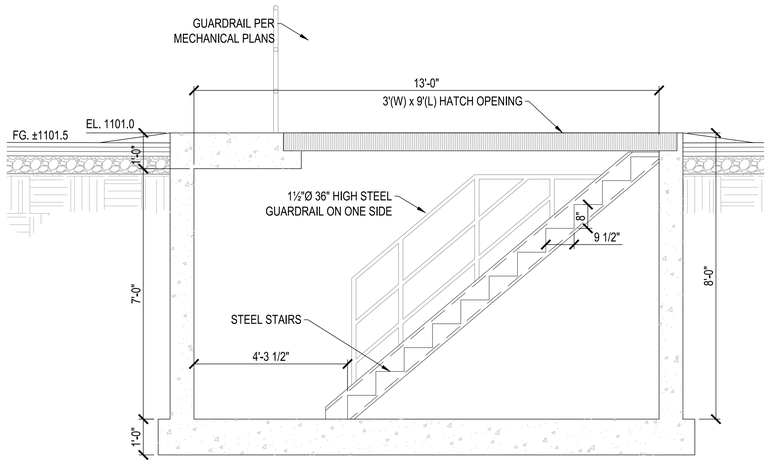
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STAIRWAY PLAN

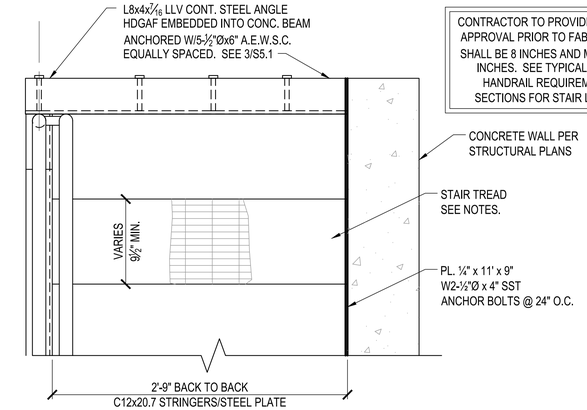
SCALE: ½"=1'-0"

NORTH



STAIRWAY SECTION - A

SCALE: ½"=1'-0"



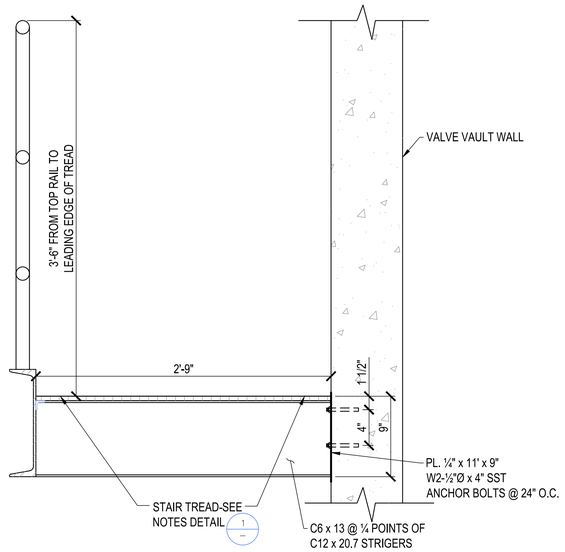
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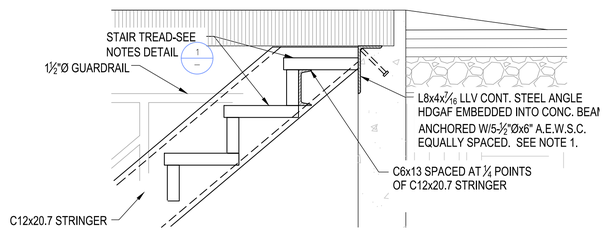
PLAN-TYPICAL STAIR FRAMING (1)

SCALE: 1½"=1'-0"



SECTION-TYPICAL STAIR FRAMING (2)

SCALE: 1½"=1'-0"



NOTE:

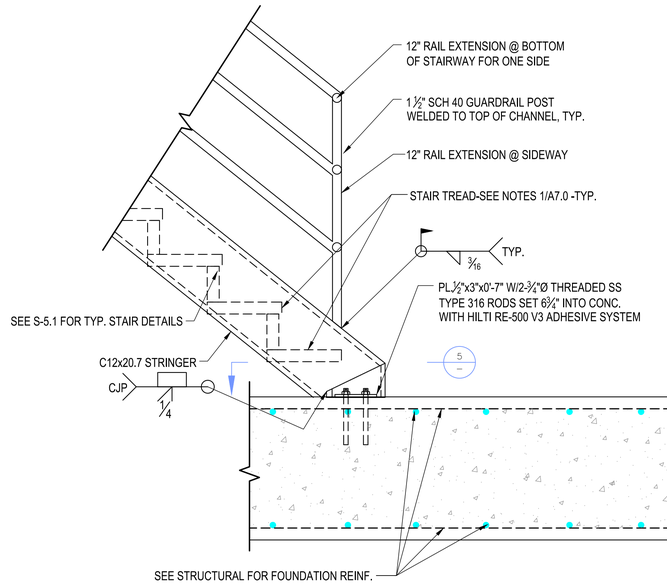
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SECTION-TOP OF STAIR FRAMING (3)

SCALE: 1"=1'-0"

HOT-DIP GALVANIZED AFTER FABRICATION (HDGAF)

ALL STAIR STEEL COMPONENTS SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION (HDGAF). GALVANIZING SHALL BE PERFORMED IN ACCORDANCE WITH ASTM A123 AFTER FABRICATION, INCLUDING ALL SHOP WELDING AND DRILLING HAS BEEN COMPLETED. BOLT HOLES SHALL BE INCREASED AS NEEDED TO ACCOUNT FOR THE THICKNESS OF GALVANIZING. WELDING OF ALL GALVANIZED STEEL SHALL BE PERFORMED IN ACCORDANCE WITH THE PROVISIONS OF AWS D19.0. ALL DAMAGED GALVANIZED COATINGS, INCLUDING BUT NOT LIMITED TO DAMAGE DUE TO WELDING, SHALL BE REPAIRED WITH ZINC-BASED SOLDER (STICK GALVANIZING) IN ACCORDANCE WITH ASTM A780.

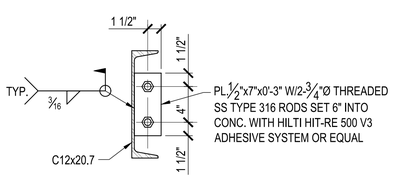


SECTION-BOT. OF STAIR FRAMING (4)

SCALE: 1"=1'-0"

JLee Engineering, Inc.
Approved
By Ben Ling
12/27/2019

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SECTION (5)

SCALE: 1½"=1'-0"

100% PLANS - REV 5

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER ★ ANDREW T. KOMOR ★ No. C59928 Exp. 06/30/21 ★ CIVIL ★ STATE OF CALIFORNIA

THESE DRAWINGS ARE THE PROPERTY OF P.A.C.E. AND SHALL NOT BE REPRODUCED IN ANY MANNER NOR BE USED FOR CONSTRUCTION UNLESS STAMPED 'ISSUED FOR CONSTRUCTION'.

PREPARED BY
ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. C59928
EXP. 06/30/21

DRAWN KV
DESIGNED ZS
CHECKED AK
SCALE AS SHOWN
DATE NOV. 2019

TITLE
STAIRWAY PLAN AND DETAILS

JOB
MISSION VILLAGE
DPW-1 SEWER PUMP STATION
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

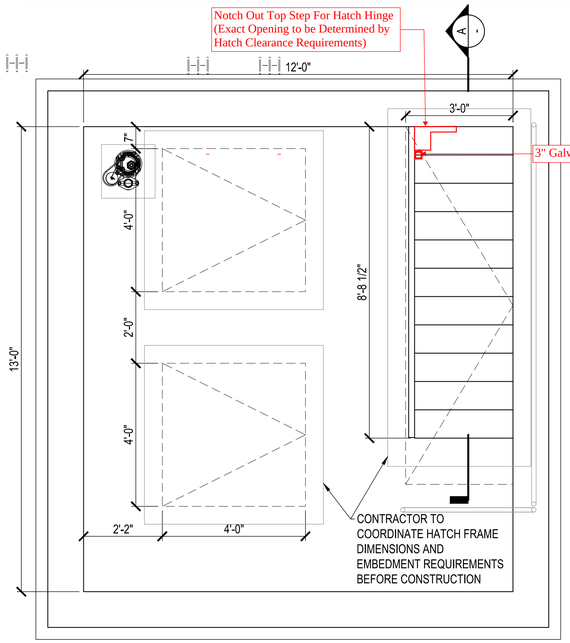
SHEET
A7.0
---- OF XX SHEETS

JOB NO. 9862-E

Xrefs: 9862 DPW-1 Mech-plan.dwg, 36x24r DPW-1.dwg; 9862 DPW-1 Mech-sections.dwg
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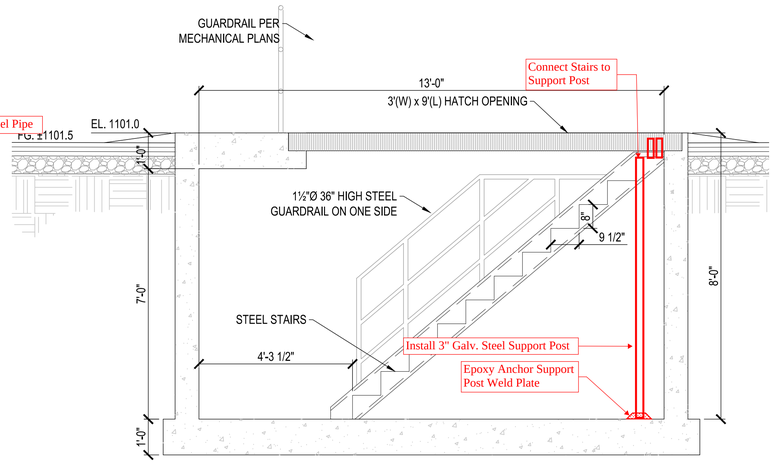
FROM RFI #93



STAIRWAY PLAN

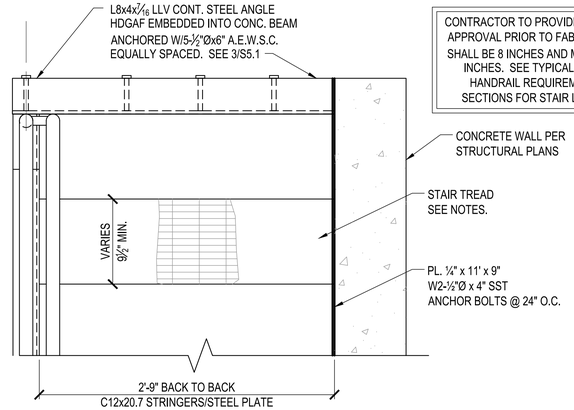
SCALE: ½"=1'-0"

NORTH



STAIRWAY SECTION - A

SCALE: ½"=1'-0"



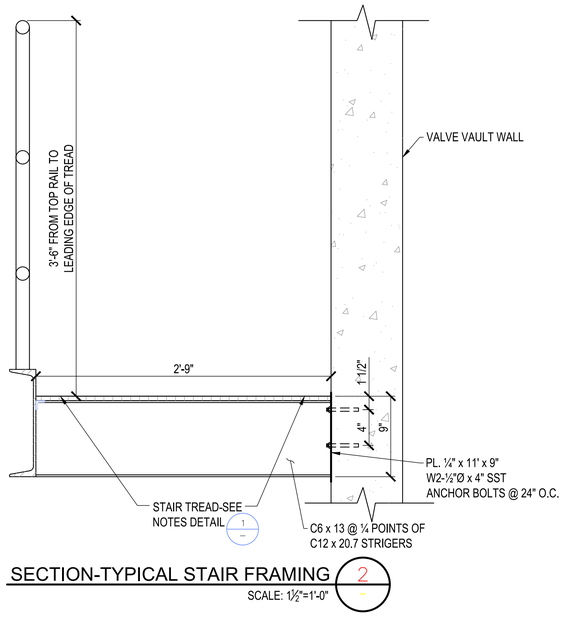
CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR ENGINEER'S APPROVAL PRIOR TO FABRICATION. MAXIMUM RISER HEIGHT SHALL BE 8 INCHES AND MINIMUM TREAD WIDTH SHALL BE 9½ INCHES. SEE TYPICAL SECTIONS FOR GUARDRAIL AND HANDRAIL REQUIREMENTS. SEE PLAN AND STATION SECTIONS FOR STAIR LOCATIONS AND REQUIREMENTS.

NOTES:

1. ALL STAIR TREADS SHALL BE SLIP-RESISTANT.
2. EACH TREAD AND THE TOP LANDING OF A STAIRWAY SHALL HAVE A NOSE WHICH EXTENDS ONE-HALF-INCH TO ONE-INCH BEYOND THE FACE OF THE LOWER RISER. NOSES SHALL HAVE AN EVEN LEADING EDGE.
3. WELDED BAR GRATING TREADS WITHOUT NOSINGS ARE ACCEPTABLE PROVIDING THE LEADING EDGE CAN BE READILY IDENTIFIED BY PERSONNEL DESENDING THE STAIRWAY AND PROVIDED THE TREAD IS SERRATED OR IS OF DEFINITE NON-SLIP DESIGN.

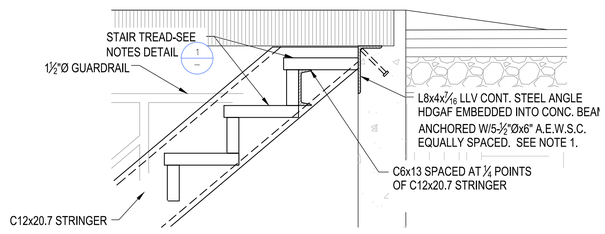
PLAN-TYPICAL STAIR FRAMING

SCALE: 1½"=1'-0"



SECTION-TYPICAL STAIR FRAMING

SCALE: 1½"=1'-0"



NOTE:

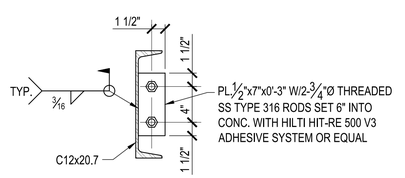
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SECTION-TOP OF STAIR FRAMING

SCALE: 1"=1'-0"

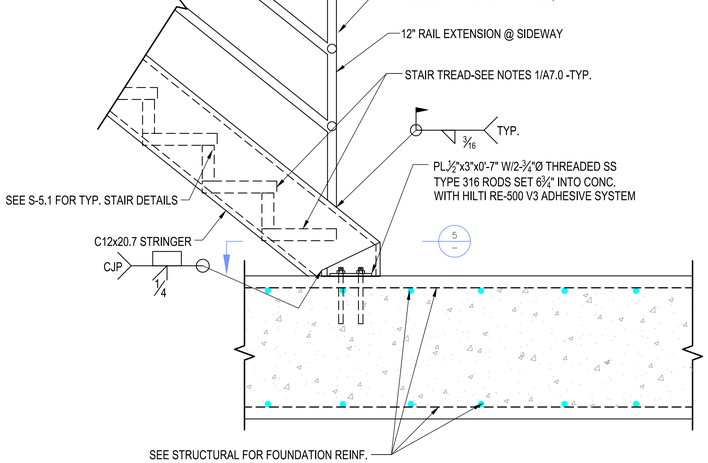
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SECTION

SCALE: 1½"=1'-0"



SECTION-BOT. OF STAIR FRAMING

SCALE: 1"=1'-0"

Department of Public Works, Los Angeles County

Checked _____ _____

Design Division Date

NO	BY	DATE	REVISIONS	DATE	APP.

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REGISTERED PROFESSIONAL ENGINEER ★ ANDREW T. KOMOR ★ No. C64928 Exp. 06/30/21 ★ CIVIL ★ STATE OF CALIFORNIA

PREPARED BY
ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. C64928
EXP. 06/30/21

DRAWN KV | SCALE AS SHOWN
DESIGNED ZS | DATE JAN. 2020
CHECKED AK

TITLE
STAIRWAY PLAN
AND DETAILS

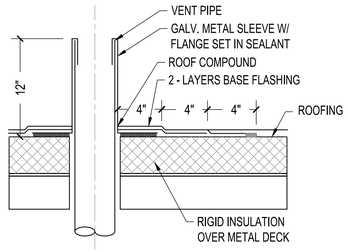
JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

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Advanced Water Engineering
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P: (714) 481-7300 | www.pacewater.com

SHEET
A7.0
27 OF 62 SHEETS

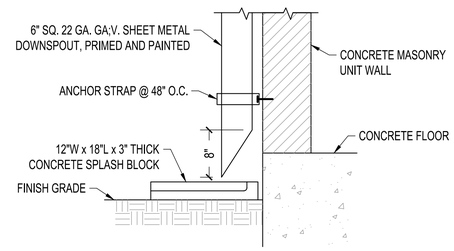
JOB NO. 9862-E

Xrefs: 9862 DPW-1 Mech-plan.dwg, 36x24+ DPW-1.dwg; 8862 DPW-1 Mech-sections.dwg
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PIPE PENETRATION @ ROOF

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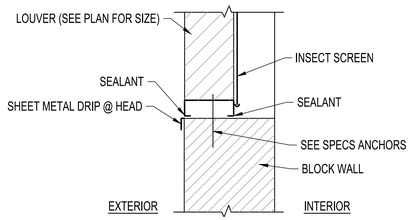


DOWNSPOUT DISCHARGE

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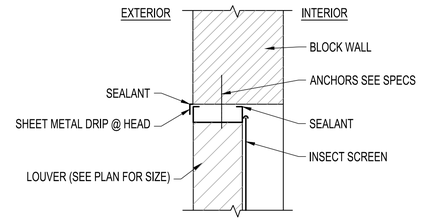
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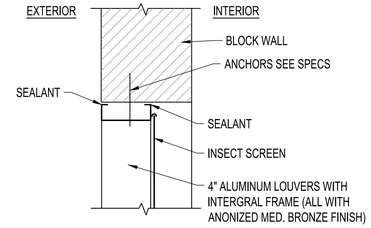
LOUVER SILL

SCALE: N.T.S. **4**



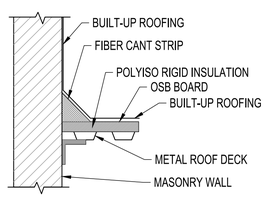
LOUVER HEAD (JAMB SIM.)

SCALE: N.T.S. **5**



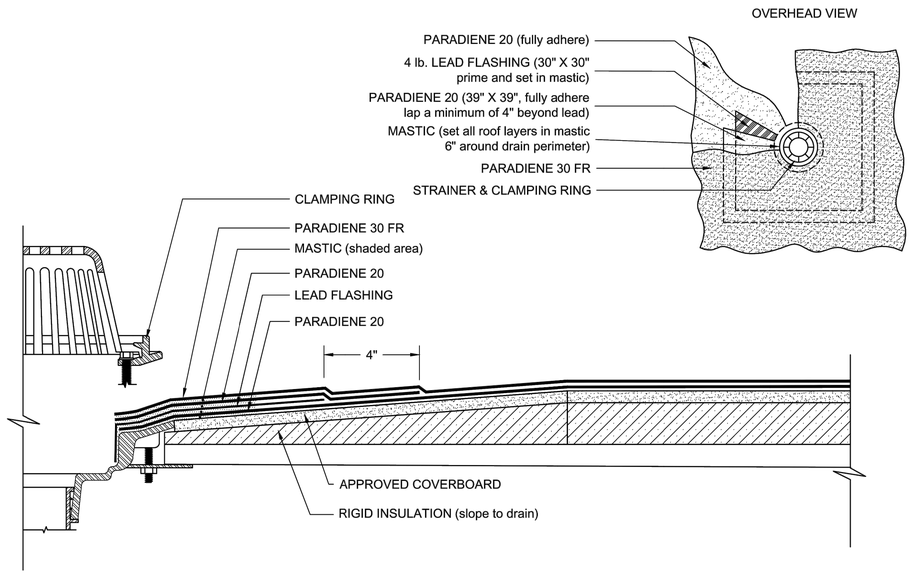
LOUVER JAM

SCALE: N.T.S. **6**



ROOF TO WALL DETAIL

SCALE: N.T.S. **7**



NOTES:
1. WHERE PRIMER IS INDICATED TO MAINTAIN PROPER ADHESION, USE PA-1125 OR PA-917 LS PRIMER. CONTACT SIPLAST FOR SPECIFIC REQUIREMENTS.
2. ROOF DRAIN COMPONENTS AND INSTALLATION GUIDELINES ARE SUPPLIED BY THE DRAIN MANUFACTURER.
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4. PA-1021 PLASTIC CEMENT, PA-828 FLASHING CEMENT, SFT CEMENT, OR PS-715 NS ELASTOMERIC SEALANT IS REQUIRED WHERE MASTIC IS INDICATED.

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ROOF DRAIN DETAIL

SCALE: N.T.S. **8**

Department of Public Works, Los Angeles County

Checked _____ 2/20/2020

Design Division Date

NO	BY	DATE	REVISIONS	DATE	APP.

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ANDY T. KOMOR — REGISTERED PROFESSIONAL ENGINEER — No. C64928 Exp. 06/30/21 — CIVIL — STATE OF CALIFORNIA

PREPARED BY: ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. C64928
EXP. 06/30/21

DRAWN: KV
SCALE: AS SHOWN
DESIGNED: ZS
DATE: JAN. 2020
CHECKED: AK

TITLE: DETAILS

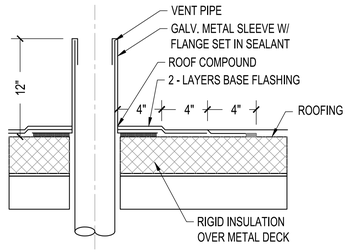
JOB: MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

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P: (714) 481-7300 | www.pacewater.com

SHEET A8.0
28 OF 62 SHEETS

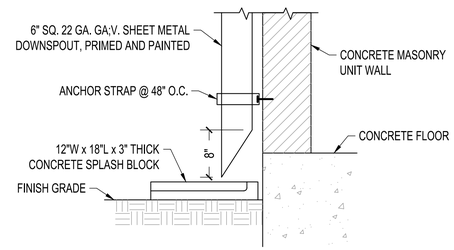
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PIPE PENETRATION @ ROOF

SCALE: N.T.S. **1**

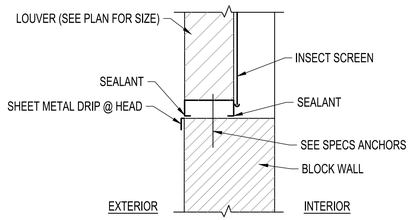


DOWNSPOUT DISCHARGE

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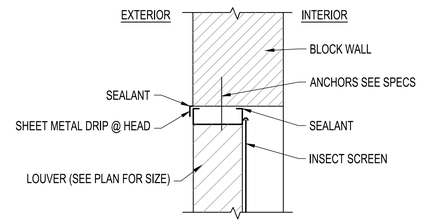
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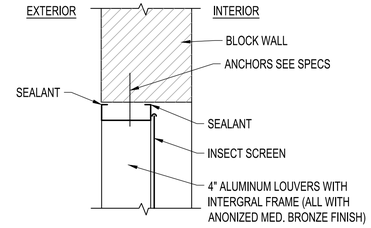
LOUVER SILL

SCALE: N.T.S. **4**



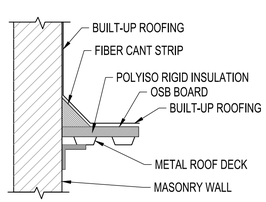
LOUVER HEAD (JAMB SIM.)

SCALE: N.T.S. **5**



LOUVER JAM

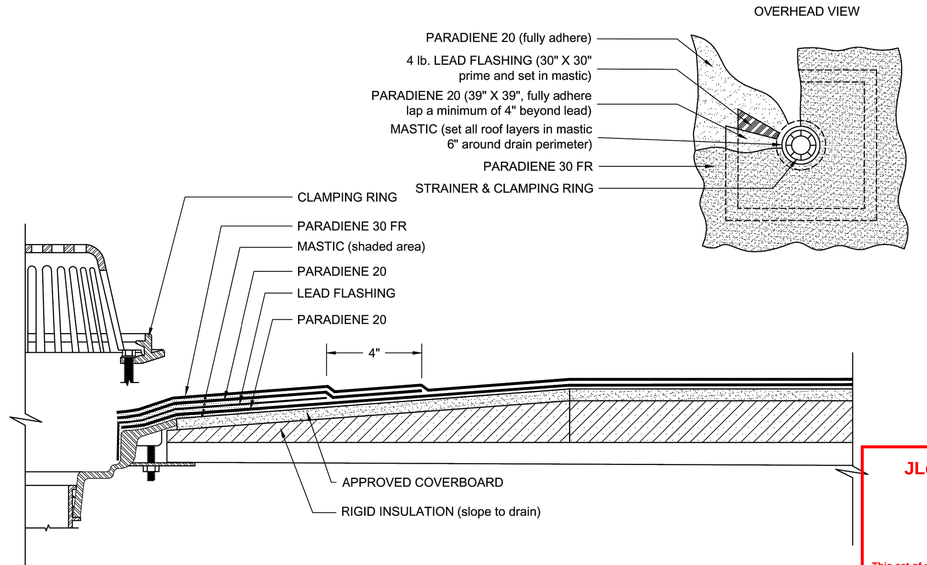
SCALE: N.T.S. **6**



ROOF TO WALL DETAIL

SCALE: N.T.S. **7**

5



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JLee Engineering, Inc.
Approved
By Ben Ling
12/27/2019

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100% PLANS - REV 5

ROOF DRAIN DETAIL

SCALE: N.T.S. **8**

NO	BY	DATE	REVISIONS	DATE	APP.
6	ZS	11/18/19	CHANGES PER LACBS PLAN REVIEW	11/18/19	ZS
5					
4					
3					
2					
1					

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REGISTERED PROFESSIONAL ENGINEER ANDREW T. KOMOR No. C84928 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

PREPARED BY: ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. 84928
EXP. 06/30/21

DRAWN: KV
DESIGNED: ZS
CHECKED: AK
SCALE: AS SHOWN
DATE: NOV. 2019

DETAILS

TITLE

JOB: MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
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SHEET
A8.0
---- OF XX SHEETS

JOB NO. 9862-E

Xrefs: 36x24 DPW-1.dwg
Dimscale = 1; LTscale = 1; PSltscale = 1; ACAD Ver. = 23.0s (LMS Tech); Viewtrans = 1

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S0.1 FROM ORIGINAL APPROVED PLANS

GENERAL STRUCTURAL NOTES

A. GENERAL

1. THESE DRAWINGS HAVE BEEN PREPARED USING STANDARDS OF PROFESSIONAL CARE AND COMPLETENESS NORMALLY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY REPUTABLE STRUCTURAL ENGINEERS IN THIS OR SIMILAR LOCALITIES. THEY ASSUME THAT THE WORK DEPICTED WILL BE PERFORMED BY AN EXPERIENCED CONTRACTOR AND/OR WORKMEN WHO HAVE A WORKING KNOWLEDGE OF THE APPLICABLE CODE STANDARDS AND REQUIREMENTS AND OF INDUSTRY ACCEPTED STANDARD GOOD PRACTICE. AS NOT EVERY CONDITION OR ELEMENT IS (OR CAN BE) EXPLICITLY SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL USE INDUSTRY ACCEPTED STANDARD GOOD PRACTICE FOR MISCELLANEOUS WORK NOT EXPLICITLY SHOWN.
2. THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, LAGGING, SHORING, BRACING, FORM-WORK, ETC. AS REQUIRED FOR THE PROTECTION OF LIFE AND PROPERTY DURING CONSTRUCTION. CONSTRUCTION MATERIALS SHALL BE UNIFORMLY SPREAD OUT SUCH THAT DESIGN LIVE LOAD PER SQUARE FOOT AS NOTED HEREIN IS NOT EXCEEDED.
3. DESIGN OF ITEMS NOT PART OF THE PRIMARY STRUCTURAL SYSTEM (SUCH AS STAIRS, RAILINGS, NON-STRUCTURAL WALLS) AND PREFABRICATED STRUCTURAL ITEMS (SUCH AS FLOOR, ROOF TRUSSES) SHALL BE PROVIDED BY OTHERS UNLESS SPECIFICALLY NOTED ON THESE DRAWINGS. REFER TO SUBMITTALS SECTION FOR ITEMS THAT MUST BE SUBMITTED FOR REVIEW AND FOR SUBMITTAL REQUIREMENTS.
4. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, CONDITIONS AND ELEVATIONS WITH ARCH'L. DRAWINGS AND RESOLVE ANY DISCREPANCIES WITH THE ARCHITECT PRIOR TO START OF CONSTRUCTION. CONTRACTOR SHALL ESTABLISH AND VERIFY ALL OPENINGS AND INSERTS FOR ARCH'L., MECH, PLUMBING AND ELECTRICAL WITH APPROPRIATE TRADES, DRAWINGS AND SUBCONTRACTORS PRIOR TO CONSTRUCTION.
5. TYPICAL DETAILS AND NOTES SHALL APPLY, THOUGH NOT NECESSARILY INDICATED AT A SPECIFIC LOCATION ON PLANS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT. DETAILS MAY SHOW ONLY ONE SIDE OF CONNECTION OR MAY OMIT INFORMATION FOR CLARITY.
6. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS.
7. STANDARDS AND CODE REFERENCES NOTED IN THESE CONSTRUCTION DOCUMENTS REFER TO THE EDITIONS ADOPTED BY THE BUILDING CODE SPECIFIED IN THE BASIS FOR DESIGN. REFERENCES NOT SPECIFICALLY ADOPTED BY SAID BUILDING CODE REFER TO THE LATEST EDITION.
8. ALL INSPECTIONS REQUIRED BY THE BUILDING CODES, JURISDICTION, OR THESE PLANS SHALL BE PROVIDED BY AN INDEPENDENT INSPECTION COMPANY OR THE BUILDING DEPARTMENT. SITE VISITS BY THE ENGINEER DO NOT CONSTITUTE AN INSPECTION.

B. BASIS FOR DESIGN

1. ROOF LOADS: DEAD LOAD: 15 PSF; LIVE LOAD (REDUCIBLE): 20 PSF
2. WIND LOADS: 110 MPH ULTIMATE WIND SPEED, EXPOSURE C, INTERNAL PRESSURE COEFFICIENT (GCpi) = 0.18; COMPONENT AND CLADDING WIND PRESSURE PER ASCE7-10
3. SEISMIC LOADS: SITE CLASS C; SEISMIC DESIGN CATEGORY D; R = 5.0; S_S = 2.253; S_1 = 1.028; S_{DS} = 1.369; S_{D1} = 0.891; SYSTEM: SPECIAL REINFORCED MASONRY SHEAR WALLS; ANALYSIS: EQUIVALENT LATERAL FORCE PROCEDURE; BASE SHEAR, V = C_SW = 0.281 W
4. SNOW LOADS: NONE

C. FOUNDATION

1. FOUNDATIONS DESIGNED PER RECOMMENDATIONS BY LEIGHTON AND ASSOCIATES, INC., REPORT NO. 11688.01, DATED 4/9/2018. SITE PREPARATION, GRADING, TESTS, INSPECTIONS, FIELD OBSERVATIONS, OR APPROVAL FROM THE GEOTECHNICAL ENGINEER RECOMMENDED BY THE GEOTECHNICAL REPORT AND ANY ADDENDA SHALL BE COMPLETED PRIOR TO CONSTRUCTION OF FOUNDATIONS.
2. ALLOWABLE DEAD PLUS LIVE LOAD SOIL PRESSURE = 2500 PSF.
3. TRENCHES AND EXCAVATIONS UNDER OR ADJACENT TO FOUNDATIONS SHALL BE PROPERLY BACKFILLED AND COMPACTED.
4. WATER PROOFING AS MAY BE REQUIRED AT SOIL FACE OF WALLS BELOW GRADE SHALL BE BY OTHERS.

D. CONCRETE

1. ALL CONCRETE CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH ACI 318, ACI 350 AND ACI 301, EXCEPT AS MODIFIED BY THE CONSTRUCTION DOCUMENTS.
2. DUE TO SEVERE/VERY SEVERE SULFATE CONTENT OF THE ON-SITE SOILS, MIN. 28 DAY COMPRESSIVE STRENGTH, f'c, SHALL BE 4500 PSI AND MAX. WATER/CEMENT RATIO SHALL BE 0.45 FOR ALL CONCRETE IN CONTACT WITH SOIL. (FOUNDATION DESIGN BASED ON 2500 PSI.)
3. FOR ALL STRUCTURAL CONCRETE NOT IN CONTACT W/ SOIL, f'c SHALL BE 3000 PSI U.N.O. EXCEPTION: NORMAL WEIGHT CONCRETE OVER STEEL DECK SHALL BE 3500 PSI.
4. CONCRETE MIXES SHALL BE DESIGNED BY A CERTIFIED LABORATORY, STAMPED BY AN APPROPRIATELY LICENSED SPECIALTY ENGINEER, AND APPROVED BY THE ENGINEER OF RECORD. MIX DESIGNS SHALL INCLUDE THE PROJECT NAME AND INDICATE THEIR USE WITHIN THE STRUCTURE. MIX DESIGNS SHALL BE PROPORTIONED TO MINIMIZE SHRINKAGE AND HAVE PROVEN SHRINKAGE CHARACTERISTICS OF 0.045% OR LESS BASED ON TESTING PER ASTM C157.
5. IF USED, EARLY STRENGTH CONCRETE SHALL BE PROPORTIONED TO DEVELOP THE 28 DAY COMPRESSIVE STRENGTH AT THE AGE REQUIRED BY THE CONTRACTOR. CONTRACTOR SHALL SUBMIT TEST DATA FOR REVIEW BY THE STRUCTURAL ENGINEER TO SUBSTANTIATE THE CONCRETE STRENGTH AT THE REQUIRED AGE.
6. ALL CONCRETE SHALL BE NORMAL WEIGHT OF 145 POUNDS PER CUBIC FOOT USING HARD ROCK AGGREGATES CONFORMING TO ASTM C33 U.N.O. WHERE LIGHTWEIGHT CONCRETE IS SPECIFIED, CONCRETE SHALL BE 110 POUNDS PER CUBIC FOOT USING AGGREGATES CONFORMING TO ASTM C330. LARGEST NOMINAL AGGREGATE SIZE SHALL BE 1-1/2" OR GREATER FOR SLABS ON GRADE AND 3/4" OR LESS FOR ALL OTHER CONCRETE U.N.O.
7. MAX. SLUMP SHALL BE 5 INCHES (EXCEPTION: WHERE ADMIXTURES/PLASTICIZERS HAVE BEEN INCLUDED IN MIX DESIGN TO IMPROVE WORKABILITY, SLUMP LIMIT SHALL BE BASED ON ADMIXTURE MFR'S RECOMMENDATIONS). MIX WATER SHALL BE CLEAN AND POTABLE.
8. PORTLAND CEMENT SHALL CONFORM TO ASTM C150. TYPE V CEMENT SHALL BE USED FOR CONCRETE IN CONTACT WITH EARTH. TYPE II CEMENT MAY BE USED ELSEWHERE. CEMENT SHALL BE TYPE V WITH POZZOLAN WHERE CONCRETE IS IN CONTACT WITH SOIL CONTAINING VERY SEVERE SULFATE EXPOSURE.
9. FLY ASH MAY BE USED IN CONCRETE, SUBJECT TO APPROVAL BY THE ARCHITECT, PROVIDED THE FOLLOWING CONDITIONS ARE MET:

D. CONCRETE (CONT'D.)

9.1. FLY ASH SHALL COMPLY WITH ASTM C618.

9.2. CEMENT CONTENT SHALL BE REDUCED A MINIMUM OF 15 PERCENT UP TO A MAXIMUM OF 25 PERCENT WHEN COMPARED TO AN EQUIVALENT CONCRETE MIX DESIGN WITHOUT FLY ASH. FLY ASH CONTENT SHALL NOT COMPRISE MORE THAN 35 PERCENT OF THE TOTAL CEMENTITIOUS CONTENT. THE WATER-CEMENT RATIO SHALL BE CALCULATED BASED ON THE TOTAL CEMENTITIOUS MATERIAL IN THE MIX.

9.3. CLASS F FLY ASH SHALL BE USED IN SULFATE RESISTANT CONCRETE WITH f'c EQUAL TO OR GREATER THAN 4000 PSI. CLASS C FLY ASH MAY BE USED ELSEWHERE.

10. WATER SOLUBLE CHLORIDE ION CONCENTRATIONS IN CONCRETE SHALL BE LIMITED PER ACI 318, SECTION 4.3, EXPOSURE CLASS "C1".
11. TIME BETWEEN CONCRETE BATCHING AND PLACEMENT SHALL BE IN ACCORDANCE WITH ASTM C94.
12. CONCRETE MIXING, PLACEMENT AND QUALITY SHALL BE PER ACI 318. MECHANICALLY VIBRATE ALL CONCRETE WHEN PLACED. SLABS ON GRADE NEED BE VIBRATED ONLY AROUND AND UNDER FLOOR DUCTS OR SIMILAR ELEMENTS. REMOVE ALL DEBRIS FROM FORMS BEFORE PLACING CONCRETE. CONCRETE SHALL NOT BE DROPPED THROUGH REINFORCING STEEL SO AS TO CAUSE SEGREGATION OF AGGREGATES. UNCONFINED FALL OF CONCRETE SHALL NOT EXCEED 5 FEET.
13. PROTECT CONCRETE FROM DAMAGE OR REDUCED STRENGTH DUE TO COLD OR HOT WEATHER IN ACCORDANCE WITH ACI 305 AND 306. CONTRACTOR SHALL TAKE SPECIAL CURING PRECAUTIONS TO MINIMIZE SHRINKAGE CRACKING OF CONCRETE SLABS.
14. ALL ITEMS TO BE CAST IN CONCRETE SUCH AS REINFORCEMENT, DOWELS, BOLTS, ANCHORS, SLEEVES, ETC., SHALL BE SECURELY POSITIONED IN THE FORMS.
15. MECH, ELECT., AND PLUMBING PENETRATIONS / EMBEDDED CONDUITS SHALL COMPLY WITH THE FOLLOWING:

15.1. ELECTRICAL CONDUITS MAY BE EMBEDDED IN STRUCTURAL CONCRETE ONLY AS NOTED IN TYPICAL DETAILS FOR WALLS AND CAST-IN-PLACE ELEVATED SLABS (EMBEDDED CONDUITS IN CONCRETE OVER STEEL DECK ARE NOT PERMITTED) OR WHERE SPECIFICALLY APPROVED IN WRITING BY THE ENGINEER. PIPING SHALL NOT BE EMBEDDED IN STRUCTURAL CONCRETE U.N.O. EMBEDDED ITEMS SHALL NOT IMPAIR THE STRENGTH OF THE MEMBER.

15.2. REFER TO TYPICAL DETAILS FOR ACCEPTABLE CONDUIT, PIPING, AND DUCT PENETRATIONS THRU SLABS AND WALLS. DO NOT CUT ANY REINF. THAT MAY INTERFERE WITH PERMITTED PENETRATIONS. OPENINGS SHALL NOT BE CORED WITHOUT PRIOR WRITTEN APPROVAL OF ENGINEER THRU THE ARCHITECT. PENETRATIONS THRU BEAMS AND COLUMNS ARE PERMITTED ONLY WHERE SPECIFICALLY DETAILED.

15.3. CONTRACTOR SHALL SUBMIT SHOP DRAWING SHOWING SIZES AND DIMENSIONED LOCATIONS OF ALL PENETRATIONS AND EMBEDDED CONDUITS IN WALLS AND ELEVATED SLABS. SHOP DRAWING MUST BE APPROVED BY ENGINEER PRIOR TO CONCRETE PLACEMENT. PENETRATIONS AND EMBEDDED CONDUITS NOT SHOWN ON APPROVED SHOP DRAWING WILL NOT BE PERMITTED UNLESS SPECIFICALLY APPROVED IN WRITING BY THE ENGINEER.

18. FORMWORK, SHORING, AND RESHORING SHALL BE DESIGNED PER ACI 347 RECOMMENDATIONS BY AN APPROPRIATELY LICENSED SPECIALTY ENGINEER EXPERIENCED IN THIS TYPE OF WORK AND SHALL BE SUBMITTED TO ENGINEER OF RECORD FOR REVIEW. FOR MULTISTORY CONSTRUCTION, SHORING/RESHORING DESIGN SHALL DEMONSTRATE THAT SHORES/RESHORES WILL BE PROVIDED FOR A SUFFICIENT NUMBER OF FLOORS TO DISTRIBUTE IMPOSED CONSTRUCTION LOADS TO SEVERAL SLAB LEVELS WITHOUT CAUSING EXCESSIVE STRESSES AND SLAB DEFLECTIONS. FOR PURPOSES OF SHORING/RESHORING CALCULATIONS, MAGNITUDES OF REDUCED LIVE LOADS SHALL BE TAKEN TO BE 60% OF VALUES INDICATED IN BASIS FOR DESIGN U.N.O.

19. FORMWORK PLACEMENT AT ELEVATED BEAMS AND SLABS SHALL PROVIDE THE CAMBERS SPECIFIED ON THESE DRAWINGS. FORM ALL EXPOSED CORNERS OF COLUMNS, WALLS, BEAMS, ETC., WITH 3/4" x 3/4" CHAMFERS U.N.O. BY ARCHITECT.
20. CONSTRUCTION JOINT SURFACES SHALL BE CLEANED AND LAITANCE REMOVED. HORIZONTAL JOINT SURFACES SHALL BE ROUGHENED TO 1/4" AMPLITUDE. THOROUGHLY WET ALL JOINT SURFACES AND REMOVE STANDING WATER IMMEDIATELY PRIOR TO NEW CONCRETE PLACEMENT.
21. CONCRETE SHALL BE CURED IN ACCORDANCE WITH ACI 318, SECTIONS 5.11.1 OR 5.11.2, WHICHEVER IS APPLICABLE, UNLESS ALTERNATE METHODS HAVE BEEN APPROVED BY THE ARCHITECT AND ENGINEER. WHERE CURING COMPOUNDS HAVE BEEN APPROVED FOR SLAB CURING, CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING COMPATIBILITY OF COMPOUNDS WITH ANTICIPATED FLOOR FINISH (e.g., RESILIENT TILE) PRIOR TO CURING COMPOUND APPLICATION.
22. GROUT BENEATH COLUMN BASES OR BEARING PLATES SHALL BE 5000 PSI (MIN.) NON-SHRINK FLOWABLE GROUT OR DRYPACK. INSTALL GROUT BENEATH BEARING PLATES BEFORE FRAMING MEMBER IS INSTALLED. AT COLUMNS, INSTALL GROUT BENEATH BASE PLATES AFTER COLUMN HAS BEEN PLUMBED. FRAMING (NOT INCLUDING CONCRETE OVER STEEL DECK OR CONCRETE TOPPING AS OCCURS) MAY BE INSTALLED ONE LEVEL ABOVE BASE PLATE PRIOR TO PLACING GROUT BENEATH BASE PLATES. GROUT SHALL BE PLACED BENEATH BASE PLATES PRIOR TO INSTALLATION OF ANY FRAMING TWO OR MORE LEVELS ABOVE BASE PLATE. GROUT DEPTH SHALL BE 1 1/2" TYPICAL, OR SHALL BE SUFFICIENT TO ALLOW GROUT OR DRYPACK TO BE PLACED BENEATH PLATE WITHOUT VOIDS.
23. CONCRETE MIX DESIGN SHALL CONSIST OF XYPEX BIOSAN C500 PER MANUFACTURER REQUIREMENTS
24. WET WELL CONCRETE SHALL BE SPECIAL EXPOSURE CONCRETE, 750-BSE-5.00P.

E. MASONRY

1. ALL MASONRY CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH IBC 2104 AND ACI 530.1.
2. MASONRY COMPRESSIVE STRENGTH, f'm, SHALL BE 2000 PSI U.N.O. AND SHALL BE VERIFIED BY THE PRISM TEST METHOD OUTLINED IN IBC 2105.2.2. AS A MINIMUM, 28 DAY COMPRESSIVE STRENGTHS OF INDIVIDUAL COMPONENTS (i.e., BLOCK, GROUT, AND MORTAR) SHALL BE AS NOTED BELOW. GREATER STRENGTHS SHALL BE USED AS REQUIRED FOR COMBINED SYSTEM TO ACHIEVE SPECIFIED VALUE OF f'm. MIN. BLOCK STRENGTH SPECIFIED IS ON NET AREA.

f'm:	BLOCK:	GROUT:	MORTAR:	MORTAR TYPE:
2000 PSI	2000 PSI	2000 PSI	1800 PSI	TYPE S
2500 PSI	3250 PSI	2500 PSI	2500 PSI	TYPE M

3. STRUCTURAL MASONRY SHALL BE HOLLOW MEDIUM WEIGHT (115 PCF), LOAD-BEARING CONCRETE MASONRY UNITS CONFORMING TO ASTM C90. BLOCK TEST DATA BY A CERTIFIED LABORATORY SHALL BE SUBMITTED FOR REVIEW. ALL BLOCKS SHALL BE PLACED IN RUNNING BOND CONSTRUCTION U.N.O. WITH ALL VERTICAL CELLS IN ALIGNMENT.
4. GROUT AND MORTAR MIXES SHALL BE DESIGNED BY A CERTIFIED LABORATORY, STAMPED BY AN APPROPRIATELY LICENSED SPECIALTY ENGINEER, AND APPROVED BY THE ENGINEER OF RECORD. MIX DESIGNS SHALL INCLUDE THE PROJECT NAME AND INDICATE THEIR USE WITHIN THE STRUCTURE.
5. LAP REINFORCING BARS PER TYPICAL REBAR LAP SCHEDULE (MASONRY) U.N.O.
6. REINFORCING SHALL BE SECURED IN ITS PROPER POSITION WITHIN THE CELL TO PREVENT LATERAL DISPLACEMENT PRIOR TO GROUTING BY WIRE POSITIONERS OR OTHER SUITABLE DEVICES AT INTERVALS NOT EXCEEDING 10'-0" o.c. MAX.

E. MASONRY (CONT'D.)

7. MIN. WALL VERT. REINF. U.N.O. ON PLANS OR DETAILS, SHALL BE #5 BAR VERT. FULL HEIGHT IN CENTER OF GROUTED CELL AT ALL WALL INTERSECTIONS, CORNERS, WALL ENDS, JAMBS AT WALL OPENINGS, AND AT EACH SIDE OF CONTROL JOINTS. REFER TO PLAN FOR TYPICAL WALL VERT. REINF. SIZE AND SPACING. DOUBLE ALL VERT. REINF. TO FOUNDATION WITH DOWELS TO MATCH AND LAP VERT. REINF.
8. MIN. WALL HORIZ. REINF. U.N.O. ON PLANS OR DETAILS, SHALL BE (2) #5 BARS IN CENTER OF 32" DEEP (MIN.) CONTINUOUS GROUTED BOND BEAM AT ELEVATED FLOOR AND ROOF LINES AND SINGLE #5 BAR IN CENTER OF 16" DEEP CONTINUOUS GROUTED BOND BEAM AT TOP OF PARAPET OR FREE STANDING WALL AND AT INTERVALS NOT TO EXCEED 48" o.c. PLACE BARS AT ELEVATED FLOOR AND ROOF LINES CONTINUOUS THROUGH CONTROL JOINTS. PROVIDE BENT BARS PER TYPICAL DETAILS TO MATCH AND LAP HORIZ. BOND BEAM REINF. AT CORNERS AND WALL INTERSECTIONS TO MAINTAIN BOND BEAM CONTINUITY. USE BOND BEAM UNITS AT HORIZ. REINF.
9. MIN. LINTEL, WHERE NOT NOTED ON PLANS, SHALL HAVE A MIN. OF (2) #5 CONTINUOUS HORIZ. BARS IN BOTTOM OF BOND BEAM OR LINTEL BLOCK AND SHALL BE GROUTED SOLID TO A MIN. DEPTH OF 24". SILLS SHALL BE REINFORCED WITH SINGLE #5 BAR IN BOND BEAM BLOCK GROUTED SOLID TO MIN. DEPTH OF 8". ALL LINTEL OR SILL REINF. AND GROUT SHALL EXTEND 2'-0" MIN. PAST JAMBS U.N.O. ON PLANS OR DETAILS.
10. MASONRY VENEER SHALL BE ATTACHED TO SUPPORTING WALL FRAMING WITH 3/16" DIA. WALL TIES OR DOVETAIL-TYPE METAL TIES OF EQUIVALENT STIFFNESS EMBEDDED INTO HORIZ. MORTAR JOINTS, VERT. SPACING OF TIES SHALL BE 16" o.c. MAX. HORIZ. SPACING SHALL BE 24" o.c. MAX. TIES IN ALTERNATE COURSES SHALL BE STAGGERED. PROVIDE WIRE REINF. IN HORIZ. MORTAR JOINTS AT 16" o.c. MAX. WHERE WITH WALL ANCHOR TIES. CONSTRUCTION JOINTS IN MASONRY VENEER WALLS SHALL BE LOCATED PER ARCH'L. DRAWINGS.
11. MECH, ELECT., AND PLUMBING PENETRATIONS THRU MASONRY SHALL COMPLY WITH THE FOLLOWING:

11.1. DO NOT CUT ANY REINF. THAT MAY INTERFERE WITH PENETRATIONS. INSTALL ANY SLEEVES REQUIRED BY MECH, ELECT., OR PLUMBING PRIOR TO GROUTING.

11.2. PENETRATIONS SHALL NOT BE CORED OR CUT INTO MASONRY WITHOUT PRIOR WRITTEN APPROVAL OF ENGINEER THRU THE ARCHITECT.

11.3. PENETRATIONS THRU LINTELS, PILASTERS, AND JAMBS ARE PERMITTED ONLY WHERE SPECIFICALLY DETAILED.

11.4. CONDUIT AND PIPING PARALLEL TO PLANE OF WALL SHALL NOT BE EMBEDDED IN WALL U.N.O.

F. REINFORCING STEEL

1. REINFORCING STEEL SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH ACI 318 AND CRSI'S MANUAL OF STANDARD PRACTICE.
2. REINFORCING STEEL SHALL CONFORM TO ASTM A615 OR ASTM A706 (A706 REQUIRED FOR ALL REINFORCING TO BE WELDED) AND SHALL BE GRADE 60 (f_y = 60 KSI) DEFORMED BARS U.N.O. REINFORCING IN SLABS ON GRADE MAY BE GRADE 40 (f_y = 40 KSI) DEFORMED BARS FOR ALL BARS #4 AND SMALLER U.N.O. ON PLANS OR DETAILS.
3. RECTANGULAR PLATE DOWELS AND SMOOTH ROUND DOWELS USED AT CONTROL AND CONSTRUCTION JOINTS IN SLABS ON GRADE SHALL CONFORM TO ASTM A36. REFER TO TYPICAL CONTROL JOINTS IN SLAB ON GRADE DETAIL FOR SIZE, PLACEMENT, SPACING, ETC. RECTANGULAR PLATE DOWELS SHALL BE BY FNA CONSTRUCTION TECHNOLOGIES (800-542-0214) OR OTHER MFR. APPROVED BY ENGINEER. INSTALL ALL PLATE DOWEL BASKET ASSEMBLIES PER MFR'S RECOMMENDATIONS.
4. ALL DIMENSIONS SHOWING THE LOCATION OF REINFORCING STEEL NOT NOTED AS "CLEAR" OR "CLR." ARE TO CENTER OF STEEL. CLEAR COVER FOR NON-PRESTRESSED CONCRETE REINFORCING SHALL BE AS NOTED BELOW U.N.O. ON PLANS OR DETAILS. CLEAR COVER FOR PRESTRESSED CONCRETE AND FOR PRECAST CONCRETE MANUFACTURED UNDER PLANT CONTROL CONDITIONS SHALL BE PER ACI 318, SECTIONS 7.12 AND 7.13, RESPECTIVELY.

EXPOSURE CONDITION:	COVER:
CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3"
WET WELL SEWAGE EXPOSURE	3"
EXPOSED TO EARTH OR WEATHER (INCLUDING SLABS ON GRADE)	
NO. 5 AND SMALLER	2"
NO. 6 AND LARGER	2"
NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND	
STRUCTURAL SLABS, WALLS, JOISTS	
NO. 11 AND SMALLER	2"
NO. 14 AND LARGER	2"
BEAMS, COLUMNS (PRIMARY REINFORCEMENT, TIES, STIRRUPS, SPIRALS)	2"

5. LAP SPLICES OF REINFORCING STEEL SHALL CONFORM TO TYPICAL REBAR LAP SCHEDULE U.N.O. NO TACK WELDING OF REINFORCING BARS ALLOWED. LATEST ACI CODE AND DETAILING MANUAL APPLY. AT WALLS AND FOOTINGS, PROVIDE BENT CORNER BARS TO MATCH AND LAP WITH HORIZ. BARS AT ALL CORNERS AND INTERSECTIONS U.N.O. VERT. WALL BARS SHALL BE SPLICED AT OR NEAR FLOOR LINES. SPLICE TOP BARS AT CENTER LINE OF SPAN AND BOTTOM BARS AT THE SUPPORT IN SPANDRELS, BEAMS, GRADE BEAMS, ETC., U.N.O. ON PLANS OR DETAILS.
6. MECHANICAL SPLICE COUPLERS SHALL HAVE CURRENT ICC APPROVAL AND SHALL BE CAPABLE OF DEVELOPING 125% OF THE SPLICED BAR'S YIELD STRENGTH.
7. ALL REINFORCING SHALL BE BENT COLD. BARS SHALL NOT BE UN-BENT AND RE-BENT. FIELD BENDING OF REBAR SHALL NOT BE ALLOWED UNLESS SPECIFICALLY NOTED.
8. WELDING OF REINFORCING BARS, METAL INSERTS, AND CONNECTIONS SHALL BE MADE ONLY AT LOCATIONS SHOWN ON PLANS OR DETAILS. SEE WELDING SECTION OF G.S.N. FOR ADDITIONAL REQUIREMENTS.
9. REINFORCING BAR SPACINGS SHOWN ON PLANS ARE MAX. ON CENTER DIMENSIONS. DOWEL ALL VERT. REINFORCING TO FOUNDATION. SECURELY TIE ALL BARS IN LOCATION BEFORE PLACING CONCRETE. MIN. CLEAR SPACING BETWEEN PARALLEL REINFORCEMENT SHALL BE THE LARGER OF 1-1/3 TIMES NOMINAL BAR DIA. OR 1-1/3 TIMES MAX. AGGREGATE SIZE OR 1-1/2". CLEAR SPACING LIMITATION APPLIES ALSO TO CLEAR DISTANCE BETWEEN A CONTACT LAP SPLICE AND ADJACENT SPLICES OR BARS.
10. SHEAR REINFORCEMENT AT SLAB TO COLUMN CONNECTIONS, AS SHOWN ON THE PLANS AND DETAILS, SHALL BE STUDRAILS AS MANUFACTURED BY DECON PER ICC ESR-2494.
11. MIN. REINFORCING AT EDGES OF CONCRETE WALL OPENINGS SHALL BE (2) #5 BARS, EXTEND THE GREATER OF THE DEVELOPMENT LENGTH OF THE BAR PER TYPICAL REBAR LAP SCHEDULE OR 24" MIN. PAST EDGES OF OPENING U.N.O. HOOK ENDS AT INTERFERENCE WITH EXTENSION.
12. WET WELL REBAR SHALL BE EPOXY COATED IN CONFORMANCE WITH ASTM SPECIFICATION A775M AND FIELD INSTALLED IN CONFORMANCE WITH ASTM SPECIFICATION D3963/D3963M.

G. STRUCTURAL STEEL

1. STRUCTURAL STEEL MEMBERS SHALL CONFORM TO THE FOLLOWING STANDARDS AND MATERIAL PROPERTIES U.N.O.:

SHAPE:	STANDARD:	F_y:
ROLLED WIDE FLANGE SECTIONS	ASTM A992	50 KSI
OTHER STANDARD STEEL SHAPES AND ROLLED SECTIONS	ASTM A36	36 KSI
BARS AND PLATES	ASTM A36 OR ASTM A572, GRADE 50 (WHERE NOTED)	36 KSI / 50 KSI
PIPES	ASTM A53, GRADE B	35 KSI
HSS (RECT.)	ASTM A500, GRADE B OR ASTM A1085	46 KSI (MIN.)
HSS (ROUND)	ASTM A500, GRADE B OR ASTM A1085	42 KSI (MIN.)

2. ASTM A6 HOT-ROLLED SHAPES WITH FLANGE THICKNESS EXCEEDING 2" SHALL BE SUPPLIED WITH CHARPY V-NOTCH TESTING IN ACCORDANCE WITH ASTM A6, SUPPLEMENTARY REQUIREMENT S30. IMPACT TESTS SHALL MEET A MINIMUM AVERAGE TOUGHNESS OF 20 FT-LB AT +10 °F. SPLICES, WELD ACCESS HOLES, COMPATIBLE WELDING PROCEDURES, WELDING PREHEAT REQUIREMENTS, AND THERMAL CUT SURFACE PREPARATION AND INSPECTION SHALL BE MADE IN ACCORDANCE WITH SECTIONS J1.5, J1.6, J2.6, AND M2.2 OF AISC 360. WELD TABS AND BACKING AT SPLICES SHALL BE REMOVED AND THE SURFACES GROUND SMOOTH.
3. ALL STRUCTURAL AND MISC. STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH AISC 303 AND SHALL BE COMPLETED BY AN "APPROVED STEEL FABRICATOR." SHOP DRAWINGS AND ERECTION DRAWINGS SHALL INCLUDE ALL ITEMS AS REQUIRED BY AISC 360, SECTION M1.
4. SHEAR CONNECTORS (SUCH AS HEADED STEEL STUDS, STEEL BARS, OR STEEL LUGS), REINFORCING BARS, DEFORMED ANCHORS, OR THREADED STUDS SHALL NOT BE ATTACHED TO THE TOP FLANGES OF BEAMS, JOISTS, OR BEAM ATTACHMENTS SO THAT THEY PROJECT VERTICALLY FROM OR HORIZONTALLY ACROSS THE TOP FLANGE OF THE MEMBER UNTIL AFTER THE METAL DECKING, OR OTHER WALKING/WORKING SURFACE, HAS BEEN INSTALLED.
5. SEE CONCRETE SECTION OF G.S.N. FOR GROUTING REQUIREMENTS BENEATH COLUMN BASES AND BEARING PLATES.
6. THE USE OF ROLLED STEEL SECTIONS AND/OR BOLTS MANUFACTURED OUTSIDE THE UNITED STATES WILL REQUIRE VERIFICATION THAT THE PRODUCTS COMPLY WITH APPLICABLE ASTM STANDARDS. MILL CERTIFICATES WILL BE REQUIRED FOR ALL STEEL. STRUCTURAL STEEL GRADES NOT MEETING THE ASTM SPECIFICATIONS FOR ROLLED SHAPES LISTED IN AISC STEEL CONSTRUCTION MANUAL TABLE 2-4 WILL REQUIRE TESTING BY AN APPROVED LABORATORY. ALL FOREIGN BOLTS MUST BE APPROVED BY COUNTY OF LOS ANGELES BUILDING AND SAFETY PRIOR TO THEIR USE.

H. STRUCTURAL STEEL WELDING

1. ALL WELDING OF STRUCTURAL STEEL SHALL CONFORM TO AISC 360, SECTION J2 AND FOLLOW THE PREQUALIFIED JOINT DETAILS INCLUDED THEREIN. WELDING OF JOINTS THAT INCLUDE REINFORCING STEEL SHALL CONFORM TO AWS D1.4.
2. WELDING SHALL BE PERFORMED BY WELDERS HOLDING VALID CERTIFICATES AND HAVING CURRENT EXPERIENCE IN THE TYPE OF WELD SHOWN ON THE DRAWINGS. CONTRACTOR MAY SHOP WELD OR FIELD WELD AT HIS DISCRETION. ALL COMPLETE-JOINT-PENETRATION (CJP) WELDS SHALL BE TESTED AND CERTIFIED BY AN INDEPENDENT TESTING LABORATORY.
3. ALL WELDING SHALL USE PREQUALIFIED MATCHING FILLER METALS PER AWS D1.1, TABLE 3.1, WITH A MIN. TENSILE STRENGTH OF 70 KSI U.N.O. WELDS BETWEEN REINFORCING BARS SHALL USE PREQUALIFIED MATCHING FILLER METALS PER AWS D1.4, TABLE 5.1, WITH A MIN. TENSILE STRENGTH OF 90 KSI U.N.O. (MIN. TENSILE STRENGTHS FOR FILLER METALS USED IN WELDS BETWEEN REINFORCING BARS AND STRUCTURAL STEEL MAY BE 70 KSI.).
4. WELDING SHALL BE PERFORMED IN ACCORDANCE WITH A WELDING PROCEDURE SPECIFICATION (WPS) AS REQUIRED IN AWS D1.1. THE WPS VARIABLES SHALL BE WITHIN THE PARAMETERS ESTABLISHED BY THE FILLER METAL MANUFACTURER. THE WPS SHALL BE SUBMITTED TO THE OWNER'S TESTING AGENCY FOR REVIEW PRIOR TO FABRICATION AND ERECTION. COPIES OF THE WPS SHALL BE ON SITE AND AVAILABLE TO ALL WELDERS AND THE SPECIAL INSPECTOR.
5. WELD LENGTHS CALLED OUT ON PLANS OR DETAILS ARE MINIMUM NET EFFECTIVE LENGTHS U.N.O.
6. ALL MISC. FILLET WELDS NOT NOTED, INCLUDING THOSE FOR STIFFENERS, MISC. PLATES, ETC., SHALL BE PER AISC 360, TABLE J2.4.
7. WELDS SHALL BE SEQUENCED TO MINIMIZE RESIDUAL STRESS DUE TO WELD SHRINKAGE.

STANDARD ABBREVIATIONS

A.B.	ANCHOR BOLT
ACI	AMERICAN CONCRETE INSTITUTE
A.C.S.	ALL COMMON SURFACES
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
AISI	AMERICAN IRON AND STEEL INSTITUTE
ALT.	ALTERNATE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
A.R.	ANCHOR ROD
ARCH'L.	ARCHITECTURAL
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWS	AMERICAN WELDING SOCIETY
B.F.	BOUNDARY FASTENERS
B.F.F.	BELOW FINISH FLOOR
BOT.	BOTTOM
BRG.	BEARING
C.J.	CONTROL JOINT
C.J.P.	COMPLETE JOINT PENETRATION
℄	CENTER LINE
CLR.	CLEAR DIMENSION TO FACE OF REBAR
COL.	COLUMN
CONT.	CONTINUOUS
CRSI	CONCRETE REINFORCING STEEL INSTITUTE
DIA.	DIAMETER
DIAG.	DIAGONAL
DWG.	DRAWING
EF.	EACH FACE

GENERAL STRUCTURAL NOTES

A. GENERAL

1. THESE DRAWINGS HAVE BEEN PREPARED USING STANDARDS OF PROFESSIONAL CARE AND COMPLETENESS NORMALLY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY REPUTABLE STRUCTURAL ENGINEERS IN THIS OR SIMILAR LOCALITIES. THEY ASSUME THAT THE WORK DEPICTED WILL BE PERFORMED BY AN EXPERIENCED CONTRACTOR AND/OR WORKMEN WHO HAVE A WORKING KNOWLEDGE OF THE APPLICABLE CODE STANDARDS AND REQUIREMENTS AND OF INDUSTRY ACCEPTED STANDARD GOOD PRACTICE. AS NOT EVERY CONDITION OR ELEMENT IS (OR CAN BE) EXPLICITLY SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL USE INDUSTRY ACCEPTED STANDARD GOOD PRACTICE FOR MISCELLANEOUS WORK NOT EXPLICITLY SHOWN.

2. THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, LAGGING, SHORING, BRACING, FORM-WORK, ETC. AS REQUIRED FOR THE PROTECTION OF LIFE AND PROPERTY DURING CONSTRUCTION. CONSTRUCTION MATERIALS SHALL BE UNIFORMLY SPREAD OUT SUCH THAT DESIGN LIVE LOAD PER SQUARE FOOT AS NOTED HEREIN IS NOT EXCEEDED.

3. DESIGN OF ITEMS NOT PART OF THE PRIMARY STRUCTURAL SYSTEM (SUCH AS STAIRS, RAILINGS, NON-STRUCTURAL WALLS) AND PREFABRICATED STRUCTURAL ITEMS (SUCH AS FLOOR, ROOF TRUSSES) SHALL BE PROVIDED BY OTHERS UNLESS SPECIFICALLY NOTED ON THESE DRAWINGS. REFER TO SUBMITTALS SECTION FOR ITEMS THAT MUST BE SUBMITTED FOR REVIEW AND FOR SUBMITTAL REQUIREMENTS.

4. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, CONDITIONS AND ELEVATIONS WITH ARCH'L. DRAWINGS AND RESOLVE ANY DISCREPANCIES WITH THE ARCHITECT PRIOR TO START OF CONSTRUCTION. CONTRACTOR SHALL ESTABLISH AND VERIFY ALL OPENINGS AND INSERTS FOR ARCH'L., MECH, PLUMBING AND ELECTRICAL WITH APPROPRIATE TRADES, DRAWINGS AND SUBCONTRACTORS PRIOR TO CONSTRUCTION.

5. TYPICAL DETAILS AND NOTES SHALL APPLY, THOUGH NOT NECESSARILY INDICATED AT A SPECIFIC LOCATION ON PLANS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT. DETAILS MAY SHOW ONLY ONE SIDE OF CONNECTION OR MAY OMIT INFORMATION FOR CLARITY.

6. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS.

7. STANDARDS AND CODE REFERENCES NOTED IN THESE CONSTRUCTION DOCUMENTS REFER TO THE EDITIONS ADOPTED BY THE BUILDING CODE SPECIFIED IN THE BASIS FOR DESIGN. REFERENCES NOT SPECIFICALLY ADOPTED BY SAID BUILDING CODE REFER TO THE LATEST EDITION.

8. ALL INSPECTIONS REQUIRED BY THE BUILDING CODES, JURISDICTION, OR THESE PLANS SHALL BE PROVIDED BY AN INDEPENDENT INSPECTION COMPANY OR THE BUILDING DEPARTMENT. SITE VISITS BY THE ENGINEER DO NOT CONSTITUTE AN INSPECTION.

B. BASIS FOR DESIGN

1. ROOF LOADS: DEAD LOAD: 15 PSF; LIVE LOAD (REDUCIBLE): 20 PSF
2. WIND LOADS: 110 MPH ULTIMATE WIND SPEED; EXPOSURE C; INTERNAL PRESSURE COEFFICIENT (GCpi) = 0.18; COMPONENT AND CLADDING WIND PRESSURE PER ASCE7-10
3. SEISMIC LOADS: SITE CLASS C; SEISMIC DESIGN CATEGORY D; R = 5.0; S_S = 2.253; S_1 = 1.028; S_{DS} = 1.369; S_{D1} = 0.891; SYSTEM: SPECIAL REINFORCED MASONRY SHEAR WALLS; ANALYSIS: EQUIVALENT LATERAL FORCE PROCEDURE; BASE SHEAR, V = C_SW = 0.281 W
4. SNOW LOADS: NONE

C. FOUNDATION

1. FOUNDATIONS DESIGNED PER RECOMMENDATIONS BY LEIGHTON AND ASSOCIATES, INC., REPORT NO. 11688.01, DATED 4/9/2018. SITE PREPARATION, GRADING, TESTS, INSPECTIONS, FIELD OBSERVATIONS, OR APPROVAL FROM THE GEOTECHNICAL ENGINEER RECOMMENDED BY THE GEOTECHNICAL REPORT AND ANY ADDENDA SHALL BE COMPLETED PRIOR TO CONSTRUCTION OF FOUNDATIONS.
2. ALLOWABLE DEAD PLUS LIVE LOAD SOIL PRESSURE = 2500 PSF.
3. TRENCHES AND EXCAVATIONS UNDER OR ADJACENT TO FOUNDATIONS SHALL BE PROPERLY BACKFILLED AND COMPACTED.
4. WATER PROOFING AS MAY BE REQUIRED AT SOIL FACE OF WALLS BELOW GRADE SHALL BE BY OTHERS.

D. CONCRETE

1. ALL CONCRETE CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH ACI 318, ACI 350 AND ACI 301, EXCEPT AS MODIFIED BY THE CONSTRUCTION DOCUMENTS.
2. DUE TO SEVERE/VERY SEVERE SULFATE CONTENT OF THE ON-SITE SOILS, MIN. 28 DAY COMPRESSIVE STRENGTH, f'c, SHALL BE 4500 PSI AND MAX. WATER/CEMENT RATIO SHALL BE 0.45 FOR ALL CONCRETE IN CONTACT WITH SOIL. (FOUNDATION DESIGN BASED ON 2500 PSI.)
3. FOR ALL STRUCTURAL CONCRETE NOT IN CONTACT W/ SOIL, f'c SHALL BE 3000 PSI U.N.O. EXCEPTION: NORMAL WEIGHT CONCRETE OVER STEEL DECK SHALL BE 3500 PSI.
4. CONCRETE MIXES SHALL BE DESIGNED BY A CERTIFIED LABORATORY, STAMPED BY AN APPROPRIATELY LICENSED SPECIALTY ENGINEER AND APPROVED BY THE ENGINEER OF RECORD. MIX DESIGNS SHALL INCLUDE THE PROJECT NAME AND INDICATE THEIR USE WITHIN THE STRUCTURE. MIX DESIGNS SHALL BE PROPORTIONED TO MINIMIZE SHRINKAGE AND HAVE PROVEN SHRINKAGE CHARACTERISTICS OF 0.045% OR LESS BASED ON TESTING PER ASTM C157.
5. IF USED, EARLY STRENGTH CONCRETE SHALL BE PROPORTIONED TO DEVELOP THE 28 DAY COMPRESSIVE STRENGTH AT THE AGE REQUIRED BY THE CONTRACTOR. CONTRACTOR SHALL SUBMIT TEST DATA FOR REVIEW BY THE STRUCTURAL ENGINEER TO SUBSTANTIATE THE CONCRETE STRENGTH AT THE REQUIRED AGE.
6. ALL CONCRETE SHALL BE NORMAL WEIGHT OF 145 POUNDS PER CUBIC FOOT USING HARD ROCK AGGREGATES CONFORMING TO ASTM C33 U.N.O. WHERE LIGHTWEIGHT CONCRETE IS SPECIFIED, CONCRETE SHALL BE 110 POUNDS PER CUBIC FOOT USING AGGREGATES CONFORMING TO ASTM C330. LARGEST NOMINAL AGGREGATE SIZE SHALL BE 1-1/2" OR GREATER FOR SLABS ON GRADE AND 3/4" OR LESS FOR ALL OTHER CONCRETE U.N.O.
7. MAX. SLUMP SHALL BE 5 INCHES (EXCEPTION: WHERE ADMIXTURES/PLASTICIZERS HAVE BEEN INCLUDED IN MIX DESIGN TO IMPROVE WORKABILITY, SLUMP LIMIT SHALL BE BASED ON ADMIXTURE MFR'S RECOMMENDATIONS). MIX WATER SHALL BE CLEAN AND POTABLE.
8. PORTLAND CEMENT SHALL CONFORM TO ASTM C150. TYPE V CEMENT SHALL BE USED FOR CONCRETE IN CONTACT WITH EARTH. TYPE II CEMENT MAY BE USED ELSEWHERE. CEMENT SHALL BE TYPE V WITH POZZOLAN WHERE CONCRETE IS IN CONTACT WITH SOIL CONTAINING VERY SEVERE SULFATE EXPOSURE.
9. FLY ASH MAY BE USED IN CONCRETE, SUBJECT TO APPROVAL BY THE ARCHITECT, PROVIDED THE FOLLOWING CONDITIONS ARE MET:

D. CONCRETE (CONT'D.)

9.1. FLY ASH SHALL COMPLY WITH ASTM C618.

9.2. CEMENT CONTENT SHALL BE REDUCED A MINIMUM OF 15 PERCENT UP TO A MAXIMUM OF 25 PERCENT WHEN COMPARED TO AN EQUIVALENT CONCRETE MIX DESIGN WITHOUT FLY ASH. FLY ASH CONTENT SHALL NOT COMPRISE MORE THAN 35 PERCENT OF THE TOTAL CEMENTITIOUS CONTENT. THE WATER-CEMENT RATIO SHALL BE CALCULATED BASED ON THE TOTAL CEMENTITIOUS MATERIAL IN THE MIX.

9.3. CLASS F FLY ASH SHALL BE USED IN SULFATE RESISTANT CONCRETE WITH f'c EQUAL TO OR GREATER THAN 4000 PSI. CLASS C FLY ASH MAY BE USED ELSEWHERE.

10. WATER SOLUBLE CHLORIDE ION CONCENTRATIONS IN CONCRETE SHALL BE LIMITED PER ACI 318, SECTION 4.3, EXPOSURE CLASS "C1".

11. TIME BETWEEN CONCRETE BATCHING AND PLACEMENT SHALL BE IN ACCORDANCE WITH ASTM C94.

12. CONCRETE MIXING, PLACEMENT AND QUALITY SHALL BE PER ACI 318. MECHANICALLY VIBRATE ALL CONCRETE WHEN PLACED. SLABS ON GRADE NEED BE VIBRATED ONLY AROUND AND UNDER FLOOR DUCTS OR SIMILAR ELEMENTS. REMOVE ALL DEBRIS FROM FORMS BEFORE PLACING CONCRETE. CONCRETE SHALL NOT BE DROPPED THROUGH REINFORCING STEEL SO AS TO CAUSE SEGREGATION OF AGGREGATES. UNCONFINED FALL OF CONCRETE SHALL NOT EXCEED 5 FEET.

13. PROTECT CONCRETE FROM DAMAGE OR REDUCED STRENGTH DUE TO COLD OR HOT WEATHER IN ACCORDANCE WITH ACI 305 AND 306. CONTRACTOR SHALL TAKE SPECIAL CURING PRECAUTIONS TO MINIMIZE SHRINKAGE CRACKING OF CONCRETE SLABS.

14. ALL ITEMS TO BE CAST IN CONCRETE SUCH AS REINFORCEMENT, DOWELS, BOLTS, ANCHORS, SLEEVES, ETC., SHALL BE SECURELY POSITIONED IN THE FORMS.

15. MECH, ELECT., AND PLUMBING PENETRATIONS / EMBEDDED CONDUITS SHALL COMPLY WITH THE FOLLOWING:

17.1. ELECTRICAL CONDUITS MAY BE EMBEDDED IN STRUCTURAL CONCRETE ONLY AS NOTED IN TYPICAL DETAILS FOR WALLS AND CAST-IN-PLACE ELEVATED SLABS (EMBEDDED CONDUITS IN CONCRETE OVER STEEL DECK ARE NOT PERMITTED) OR WHERE SPECIFICALLY APPROVED IN WRITING BY THE ENGINEER. PIPING SHALL NOT BE EMBEDDED IN STRUCTURAL CONCRETE U.N.O. EMBEDDED ITEMS SHALL NOT IMPAIR THE STRENGTH OF THE MEMBER.

17.2. REFER TO TYPICAL DETAILS FOR ACCEPTABLE CONDUIT, PIPING, AND DUCT PENETRATIONS THRU SLABS AND WALLS. DO NOT CUT ANY REINF. THAT MAY INTERFERE WITH PERMITTED PENETRATIONS. OPENINGS SHALL NOT BE CORED WITHOUT PRIOR WRITTEN APPROVAL OF ENGINEER THRU THE ARCHITECT. PENETRATIONS THRU BEAMS AND COLUMNS ARE PERMITTED ONLY WHERE SPECIFICALLY DETAILED.

17.3. CONTRACTOR SHALL SUBMIT SHOP DRAWING SHOWING SIZES AND DIMENSIONED LOCATIONS OF ALL PENETRATIONS AND EMBEDDED CONDUITS IN WALLS AND ELEVATED SLABS. SHOP DRAWING MUST BE APPROVED BY ENGINEER PRIOR TO CONCRETE PLACEMENT. PENETRATIONS AND EMBEDDED CONDUITS NOT SHOWN ON APPROVED SHOP DRAWING WILL NOT BE PERMITTED UNLESS SPECIFICALLY APPROVED IN WRITING BY THE ENGINEER.

18. FORMWORK, SHORING, AND RESHORING SHALL BE DESIGNED PER ACI 347 RECOMMENDATIONS BY AN APPROPRIATELY LICENSED SPECIALTY ENGINEER EXPERIENCED IN THIS TYPE OF WORK AND SHALL BE SUBMITTED TO ENGINEER OF RECORD FOR REVIEW. FOR MULTISTORY CONSTRUCTION, SHORING/RESHORING DESIGN SHALL DEMONSTRATE THAT SHORES/RESHORES WILL BE PROVIDED FOR A SUFFICIENT NUMBER OF FLOORS TO DISTRIBUTE IMPOSED CONSTRUCTION LOADS TO SEVERAL SLAB LEVELS WITHOUT CAUSING EXCESSIVE STRESSES AND SLAB DEFLECTIONS. FOR PURPOSES OF SHORING/RESHORING CALCULATIONS, MAGNITUDES OF REDUCED LIVE LOADS SHALL BE TAKEN TO BE 60% OF VALUES INDICATED IN BASIS FOR DESIGN U.N.O.

19. FORMWORK PLACEMENT AT ELEVATED BEAMS AND SLABS SHALL PROVIDE THE CAMBERS SPECIFIED ON THESE DRAWINGS. FORM ALL EXPOSED CORNERS OF COLUMNS, WALLS, BEAMS, ETC., WITH 3/4" x 3/4" CHAMFERS U.N.O. BY ARCHITECT.

20. CONSTRUCTION JOINT SURFACES SHALL BE CLEANED AND LAITANCE REMOVED. HORIZONTAL JOINT SURFACES SHALL BE ROUGHENED TO 1/4" AMPLITUDE. THOROUGHLY WET ALL JOINT SURFACES AND REMOVE STANDING WATER IMMEDIATELY PRIOR TO NEW CONCRETE PLACEMENT.

21. CONCRETE SHALL BE CURED IN ACCORDANCE WITH ACI 318, SECTIONS 5.11.1 OR 5.11.2, WHICHEVER IS APPLICABLE, UNLESS ALTERNATE METHODS HAVE BEEN APPROVED BY THE ARCHITECT AND ENGINEER. WHERE CURING COMPOUNDS HAVE BEEN APPROVED FOR SLAB CURING, CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING COMPATIBILITY OF COMPOUNDS WITH ANTICIPATED FLOOR FINISH (e.g., RESILIENT TILE) PRIOR TO CURING COMPOUND APPLICATION.

22. GROUT BENEATH COLUMN BASES OR BEARING PLATES SHALL BE 5000 PSI (MIN.) NON-SHRINK FLOWABLE GROUT OR DRYPACK. INSTALL GROUT BENEATH BEARING PLATES BEFORE FRAMING MEMBER IS INSTALLED. AT COLUMNS, INSTALL GROUT BENEATH BASE PLATES AFTER COLUMN HAS BEEN PLUMBED. FRAMING (NOT INCLUDING CONCRETE OVER STEEL DECK OR CONCRETE TOPPING AS OCCURS) MAY BE INSTALLED ONE LEVEL ABOVE BASE PLATE PRIOR TO PLACING GROUT BENEATH BASE PLATES. GROUT SHALL BE PLACED BENEATH BASE PLATES PRIOR TO INSTALLATION OF ANY FRAMING TWO OR MORE LEVELS ABOVE BASE PLATE. GROUT DEPTH SHALL BE 1 1/2" TYPICAL, OR SHALL BE SUFFICIENT TO ALLOW GROUT OR DRYPACK TO BE PLACED BENEATH PLATE WITHOUT VOIDS.

23. CONCRETE MIX DESIGN SHALL CONSIST OF XYPEX BIOSAN C500 PER MANUFACTURER REQUIREMENTS

24. WET WELL CONCRETE SHALL BE SPECIAL EXPOSURE CONCRETE, 750-BSE-5.00P.

E. MASONRY

1. ALL MASONRY CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH IBC 2104 AND ACI 530.1.
2. MASONRY COMPRESSIVE STRENGTH, f'm, SHALL BE 2000 PSI U.N.O. AND SHALL BE VERIFIED BY THE PRISM TEST METHOD OUTLINED IN IBC 2105.2.2. AS A MINIMUM, 28 DAY COMPRESSIVE STRENGTHS OF INDIVIDUAL COMPONENTS (i.e., BLOCK, GROUT, AND MORTAR) SHALL BE AS NOTED BELOW. GREATER STRENGTHS SHALL BE USED AS REQUIRED FOR COMBINED SYSTEM TO ACHIEVE SPECIFIED VALUE OF f'm. MIN. BLOCK STRENGTH SPECIFIED IS ON NET AREA.

f'm:	BLOCK:	GROUT:	MORTAR:	MORTAR TYPE:
2000 PSI	2000 PSI	2000 PSI	1800 PSI	TYPE S
2500 PSI	3250 PSI	2500 PSI	2500 PSI	TYPE M

3. STRUCTURAL MASONRY SHALL BE HOLLOW MEDIUM WEIGHT (115 PCF), LOAD-BEARING CONCRETE MASONRY UNITS CONFORMING TO ASTM C90. BLOCK TEST DATA BY A CERTIFIED LABORATORY SHALL BE SUBMITTED FOR REVIEW. ALL BLOCKS SHALL BE PLACED IN RUNNING BOND CONSTRUCTION U.N.O. WITH ALL VERTICAL CELLS IN ALIGNMENT.
4. GROUT AND MORTAR MIXES SHALL BE DESIGNED BY A CERTIFIED LABORATORY, STAMPED BY AN APPROPRIATELY LICENSED SPECIALTY ENGINEER, AND APPROVED BY THE ENGINEER OF RECORD. MIX DESIGNS SHALL INCLUDE THE PROJECT NAME AND INDICATE THEIR USE WITHIN THE STRUCTURE.
5. LAP REINFORCING BARS PER TYPICAL REBAR LAP SCHEDULE (MASONRY) U.N.O.
6. REINFORCING SHALL BE SECURED IN ITS PROPER POSITION WITHIN THE CELL TO PREVENT LATERAL DISPLACEMENT PRIOR TO GROUTING BY WIRE POSITIONERS OR OTHER SUITABLE DEVICES AT INTERVALS NOT EXCEEDING 10'-0" o.c. MAX.

E. MASONRY (CONT'D.)

7. MIN. WALL VERT. REINF. U.N.O. ON PLANS OR DETAILS, SHALL BE #5 BAR VERT. FULL HEIGHT IN CENTER OF GROUTED CELL AT ALL WALL INTERSECTIONS, CORNERS, WALL ENDS, JAMBS AT WALL OPENINGS, AND AT EACH SIDE OF CONTROL JOINTS. REFER TO PLAN FOR TYPICAL WALL VERT. REINF. SIZE AND SPACING. DOUBLE ALL VERT. REINF. TO FOUNDATION WITH DOWELS TO MATCH AND LAP VERT. REINF.
8. MIN. WALL HORIZ. REINF. U.N.O. ON PLANS OR DETAILS, SHALL BE (2) #5 BARS IN CENTER OF 32" DEEP (MIN.) CONTINUOUS GROUTED BOND BEAM AT ELEVATED FLOOR AND ROOF LINES AND SINGLE #5 BAR IN CENTER OF 16" DEEP CONTINUOUS GROUTED BOND BEAM AT TOP OF PARAPET OR FREE STANDING WALL AND AT INTERVALS NOT TO EXCEED 48" o.c. PLACE BARS AT ELEVATED FLOOR AND ROOF LINES CONTINUOUS THROUGH CONTROL JOINTS. PROVIDE BENT BARS PER TYPICAL DETAILS TO MATCH AND LAP HORIZ. BOND BEAM REINF. AT CORNERS AND WALL INTERSECTIONS TO MAINTAIN BOND BEAM CONTINUITY. USE BOND BEAM UNITS AT HORIZ. REINF.
9. MIN. LINTEL, WHERE NOT NOTED ON PLANS, SHALL HAVE A MIN. OF (2) #5 CONTINUOUS HORIZ. BARS IN BOTTOM OF BOND BEAM OR LINTEL BLOCK AND SHALL BE GROUTED SOLID TO A MIN. DEPTH OF 24". SILLS SHALL BE REINFORCED WITH SINGLE #5 BAR IN BOND BEAM BLOCK GROUTED SOLID TO MIN. DEPTH OF 8". ALL LINTEL OR SILL REINF. AND GROUT SHALL EXTEND 2'-0" MIN. PAST JAMBS U.N.O. ON PLANS OR DETAILS.
10. MASONRY VENEER SHALL BE ATTACHED TO SUPPORTING WALL FRAMING WITH 3/16" DIA. WALL TIES OR DOVETAIL-TYPE METAL TIES OF EQUIVALENT STIFFNESS EMBEDDED INTO HORIZ. MORTAR JOINTS, VERT. SPACING OF TIES SHALL BE 16" o.c. MAX. HORIZ. SPACING SHALL BE 24" o.c. MAX. TIES IN ALTERNATE COURSES SHALL BE STAGGERED. PROVIDE #9 WIRE REINF. IN HORIZ. MORTAR JOINTS AT 16" o.c. MAX. WHERE WITH WALL ANCHOR TIES. CONSTRUCTION JOINTS IN MASONRY VENEER WALLS SHALL BE LOCATED PER ARCH'L. DRAWINGS.
11. MECH, ELECT., AND PLUMBING PENETRATIONS THRU MASONRY SHALL COMPLY WITH THE FOLLOWING:

11.1. DO NOT CUT ANY REINF. THAT MAY INTERFERE WITH PENETRATIONS. INSTALL ANY SLEEVES REQUIRED BY MECH, ELECT., OR PLUMBING PRIOR TO GROUTING.

11.2. PENETRATIONS SHALL NOT BE CORED OR CUT INTO MASONRY WITHOUT PRIOR WRITTEN APPROVAL OF ENGINEER THRU THE ARCHITECT.

11.3. PENETRATIONS THRU LINTELS, PILASTERS, AND JAMBS ARE PERMITTED ONLY WHERE SPECIFICALLY DETAILED.

11.4. CONDUIT AND PIPING PARALLEL TO PLANE OF WALL SHALL NOT BE EMBEDDED IN WALL U.N.O.

F. REINFORCING STEEL

1. REINFORCING STEEL SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH ACI 318 AND CRSI'S MANUAL OF STANDARD PRACTICE.
2. REINFORCING STEEL SHALL CONFORM TO ASTM A615 OR ASTM A706 (A706 REQUIRED FOR ALL REINFORCING TO BE WELDED) AND SHALL BE GRADE 60 (f_y = 60 KSI) DEFORMED BARS U.N.O. REINFORCING IN SLABS ON GRADE MAY BE GRADE 40 (f_y = 40 KSI) DEFORMED BARS FOR ALL BARS #4 AND SMALLER U.N.O. ON PLANS OR DETAILS.
3. RECTANGULAR PLATE DOWELS AND SMOOTH ROUND DOWELS USED AT CONTROL AND CONSTRUCTION JOINTS IN SLABS ON GRADE SHALL CONFORM TO ASTM A36. REFER TO TYPICAL CONTROL JOINTS IN SLAB ON GRADE DETAIL FOR SIZE, PLACEMENT, SPACING, ETC. RECTANGULAR PLATE DOWELS SHALL BE BY PNA CONSTRUCTION TECHNOLOGIES (800-542-0214) OR OTHER MFR. APPROVED BY ENGINEER. INSTALL ALL PLATE DOWEL BASKET ASSEMBLIES PER MFR.'S RECOMMENDATIONS.
4. ALL DIMENSIONS SHOWING THE LOCATION OF REINFORCING STEEL NOT NOTED AS "CLEAR" OR "CLR." ARE TO CENTER OF STEEL. CLEAR COVER FOR NON-PRESTRESSED CONCRETE REINFORCING SHALL BE AS NOTED BELOW U.N.O. ON PLANS OR DETAILS. CLEAR COVER FOR PRESTRESSED CONCRETE AND FOR PRECAST CONCRETE MANUFACTURED UNDER PLANT CONTROL CONDITIONS SHALL BE PER ACI 318, SECTIONS 7.12 AND 7.13, RESPECTIVELY.

EXPOSURE CONDITION:	COVER:
CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3"
WET WELL SEWAGE EXPOSURE	3"
EXPOSED TO EARTH OR WEATHER (INCLUDING SLABS ON GRADE)	
NO. 5 AND SMALLER	2"
NO. 6 AND LARGER	2"
NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND	
STRUCTURAL SLABS, WALLS, JOISTS	
NO. 11 AND SMALLER	2"
NO. 14 AND LARGER	2"
BEAMS, COLUMNS (PRIMARY REINFORCEMENT, TIES, STIRRUPS, SPIRALS)	2"

5. LAP SPLICES OF REINFORCING STEEL SHALL CONFORM TO TYPICAL REBAR LAP SCHEDULE U.N.O. NO TACK WELDING OF REINFORCING BARS ALLOWED. LATEST ACI CODE AND DETAILING MANUAL APPLY. AT WALLS AND FOOTINGS, PROVIDE BENT CORNER BARS TO MATCH AND LAP WITH HORIZ. BARS AT ALL CORNERS AND INTERSECTIONS U.N.O. VERT. WALL BARS SHALL BE SPLICED AT OR NEAR FLOOR LINES. SPLICE TOP BARS AT CENTER LINE OF SPAN AND BOTTOM BARS AT THE SUPPORT IN SPANDRELS, BEAMS, GRADE BEAMS, ETC., U.N.O. ON PLANS OR DETAILS.
6. MECHANICAL SPLICE COUPLERS SHALL HAVE CURRENT ICC APPROVAL AND SHALL BE CAPABLE OF DEVELOPING 125% OF THE SPLICED BAR'S YIELD STRENGTH.
7. ALL REINFORCING SHALL BE BENT COLD. BARS SHALL NOT BE UN-BENT AND RE-BENT. FIELD BENDING OF REBAR SHALL NOT BE ALLOWED UNLESS SPECIFICALLY NOTED.
8. WELDING OF REINFORCING BARS, METAL INSERTS, AND CONNECTIONS SHALL BE MADE ONLY AT LOCATIONS SHOWN ON PLANS OR DETAILS. SEE WELDING SECTION OF G.S.N. FOR ADDITIONAL REQUIREMENTS.
9. REINFORCING BAR SPACINGS SHOWN ON PLANS ARE MAX. ON CENTER DIMENSIONS. DOWEL ALL VERT. REINFORCING TO FOUNDATION. SECURELY TIE ALL BARS IN LOCATION BEFORE PLACING CONCRETE. MIN. CLEAR SPACING BETWEEN PARALLEL REINFORCEMENT SHALL BE THE LARGER OF 1-1/2 TIMES NOMINAL BAR DIA. OR 1-1/3 TIMES MAX. AGGREGATE SIZE OR 1-1/2". CLEAR SPACING LIMITATION APPLIES ALSO TO CLEAR DISTANCE BETWEEN A CONTACT LAP SPLICE AND ADJACENT SPLICES OR BARS.
10. SHEAR REINFORCEMENT AT SLAB TO COLUMN CONNECTIONS, AS SHOWN ON THE PLANS AND DETAILS, SHALL BE STUDRAILS AS MANUFACTURED BY DEGON PER ICC ESR-2494.
11. MIN. REINFORCING AT EDGES OF CONCRETE WALL OPENINGS SHALL BE (2) #5 BARS, EXTEND THE GREATER OF THE DEVELOPMENT LENGTH OF THE BAR PER TYPICAL REBAR LAP SCHEDULE OR 24" MIN. PAST EDGES OF OPENING U.N.O. HOOK ENDS AT INTERFERENCE WITH EXTENSION.
12. WET WELL REBAR SHALL BE EPOXY COATED IN CONFORMANCE WITH ASTM SPECIFICATION A775M AND FIELD INSTALLED IN CONFORMANCE WITH ASTM SPECIFICATION D3963/D3963M.

G. STRUCTURAL STEEL

1. STRUCTURAL STEEL MEMBERS SHALL CONFORM TO THE FOLLOWING STANDARDS AND MATERIAL PROPERTIES U.N.O.:

SHAPE:	STANDARD:	F_y:
ROLLED WIDE FLANGE SECTIONS	ASTM A992	50 KSI
OTHER STANDARD STEEL SHAPES AND ROLLED SECTIONS	ASTM A36	36 KSI
BARS AND PLATES	ASTM A36 OR ASTM A572, GRADE 50 (WHERE NOTED)	36 KSI; 50 KSI
PIPES	ASTM A53, GRADE B	35 KSI
HSS (RECT.)	ASTM A500, GRADE B OR ASTM A1085	46 KSI (MIN.)
HSS (ROUND)	ASTM A500, GRADE B OR ASTM A1085	42 KSI (MIN.)

2. ASTM A6 HOT-ROLLED SHAPES WITH FLANGE THICKNESS EXCEEDING 2" SHALL BE SUPPLIED WITH CHARPY V-NOTCH TESTING IN ACCORDANCE WITH ASTM A6, SUPPLEMENTARY REQUIREMENT S30. IMPACT TESTS SHALL MEET A MINIMUM AVERAGE TOUGHNESS OF 20 FT-LB AT +10 °F. SPLICES, WELD ACCESS HOLES, COMPATIBLE WELDING PROCEDURES, WELDING PREHEAT REQUIREMENTS, AND THERMAL CUT SURFACE PREPARATION AND INSPECTION SHALL BE MADE IN ACCORDANCE WITH SECTIONS J1.5, J1.6, J2.6, AND M2.2 OF AISC 360. WELD TABS AND BACKING AT SPLICES SHALL BE REMOVED AND THE SURFACES GROUND SMOOTH.
3. ALL STRUCTURAL AND MISC. STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH AISC 303 AND SHALL BE COMPLETED BY AN "APPROVED STEEL FABRICATOR." SHOP DRAWINGS AND ERECTION DRAWINGS SHALL INCLUDE ALL ITEMS AS REQUIRED BY AISC 360, SECTION M1.
4. SHEAR CONNECTORS (SUCH AS HEADED STEEL STUDS, STEEL BARS, OR STEEL LUGS), REINFORCING BARS, DEFORMED ANCHORS, OR THREADED STUDS SHALL NOT BE ATTACHED TO THE TOP FLANGES OF BEAMS, JOISTS, OR BEAM ATTACHMENTS SO THAT THEY PROJECT VERTICALLY FROM OR HORIZONTALLY ACROSS THE TOP FLANGE OF THE MEMBER UNTIL AFTER THE METAL DECKING, OR OTHER WALKING/WORKING SURFACE, HAS BEEN INSTALLED.
5. SEE CONCRETE SECTION OF G.S.N. FOR GROUTING REQUIREMENTS BENEATH COLUMN BASES AND BEARING PLATES.
6. THE USE OF ROLLED STEEL SECTIONS AND/OR BOLTS MANUFACTURED OUTSIDE THE UNITED STATES WILL REQUIRE VERIFICATION THAT THE PRODUCTS COMPLY WITH APPLICABLE ASTM STANDARDS. MILL CERTIFICATES WILL BE REQUIRED FOR ALL STEEL STRUCTURAL STEEL GRADES NOT MEETING THE ASTM SPECIFICATIONS FOR ROLLED SHAPES LISTED IN AISC STEEL CONSTRUCTION MANUAL TABLE 2-4 WILL REQUIRE TESTING BY AN APPROVED LABORATORY. ALL FOREIGN BOLTS MUST BE APPROVED BY COUNTY OF LOS ANGELES BUILDING AND SAFETY PRIOR TO THEIR USE.

H. STRUCTURAL STEEL WELDING

1. ALL WELDING OF STRUCTURAL STEEL SHALL CONFORM TO AISC 360, SECTION J2 AND FOLLOW THE PREQUALIFIED JOINT DETAILS INCLUDED THEREIN. WELDING OF JOINTS THAT INCLUDE REINFORCING STEEL SHALL CONFORM TO AWS D1.4.
2. WELDING SHALL BE PERFORMED BY WELDERS HOLDING VALID CERTIFICATES AND HAVING CURRENT EXPERIENCE IN THE TYPE OF WELD SHOWN ON THE DRAWINGS. CONTRACTOR MAY SHOP WELD OR FIELD WELD AT HIS DISCRETION. ALL COMPLETE-JOINT-PENETRATION (CJP) WELDS SHALL BE TESTED AND CERTIFIED BY AN INDEPENDENT TESTING LABORATORY.
3. ALL WELDING SHALL USE PREQUALIFIED MATCHING FILLER METALS PER AWS D1.1, TABLE 3.1, WITH A MIN. TENSILE STRENGTH OF 70 KSI U.N.O. WELDS BETWEEN REINFORCING BARS SHALL USE PREQUALIFIED MATCHING FILLER METALS PER AWS D1.4, TABLE 5.1, WITH A MIN. TENSILE STRENGTH OF 90 KSI U.N.O. (MIN. TENSILE STRENGTHS FOR FILLER METALS USED IN WELDS BETWEEN REINFORCING BARS AND STRUCTURAL STEEL MAY BE 70 KSI.).
4. WELDING SHALL BE PERFORMED IN ACCORDANCE WITH A WELDING PROCEDURE SPECIFICATION (WPS) AS REQUIRED IN AWS D1.1. THE WPS VARIABLES SHALL BE WITHIN THE PARAMETERS ESTABLISHED BY THE FILLER METAL MANUFACTURER. THE WPS SHALL BE SUBMITTED TO THE OWNER'S TESTING AGENCY FOR REVIEW PRIOR TO FABRICATION AND ERECTION. COPIES OF THE WPS SHALL BE ON SITE AND AVAILABLE TO ALL WELDERS AND THE SPECIAL INSPECTOR.
5. WELD LENGTHS CALLED OUT ON PLANS OR DETAILS ARE MINIMUM NET EFFECTIVE LENGTHS U.N.O.
6. ALL MISC. FILLET WELDS NOT NOTED, INCLUDING THOSE FOR STIFFENERS, MISC. PLATES, ETC., SHALL BE PER AISC 360, TABLE J2.4.
7. WELDS SHALL BE SEQUENCED TO MINIMIZE RESIDUAL STRESS DUE TO WELD SHRINKAGE.

STANDARD ABBREVIATIONS

A.B.	ANCHOR BOLT
ACI	AMERICAN CONCRETE INSTITUTE
A.C.S.	ALL COMMON SURFACES
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
AISI	AMERICAN IRON AND STEEL INSTITUTE
ALT.	ALTERNATE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
A.R.	ANCHOR ROD
ARCH'L.	ARCHITECTURAL
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWS	AMERICAN WELDING SOCIETY
B.F.	BOUNDARY FASTENERS
B.F.F.	BELOW FINISH FLOOR
BOT.	BOTTOM
BRG.	BEARING
C.J.	CONTROL JOINT
C.J.P.	COMPLETE JOINT PENETRATION
℄	CENTER LINE
CLR.	CLEAR DIMENSION TO FACE OF REBAR
COL.	COLUMN
CONT.	CONTINUOUS
CRSI	CONCRETE REINFORCING STEEL INSTITUTE
DIA.	DIAMETER
DIAG.	DIAGONAL
DWG.	DRAWING
E.F.	EACH FACE
EL.	ELEVATION
ELECT.	ELECTRICAL
E.O.R.	ENGINEER

GENERAL STRUCTURAL NOTES (CONT'D.)

I. STRUCTURAL STEEL BOLTS, ANCHORS, HEADED STUDS

1. STRUCTURAL STEEL BOLTS, ANCHORS, ETC., SHALL CONFORM TO THE FOLLOWING STANDARDS AND MATERIAL PROPERTIES U.N.O:

COMPONENT:	STANDARD:	Fy:
BOLTS	ASTM A325	---
	OR ASTM A490 WHERE NOTED	---
NUTS	ASTM A563	---
WASHERS	ASTM F436	---
ANCHOR RODS	ASTM F1554, GRADE 36	36 KSI
	OR GRADE 55 WHERE NOTED	55 KSI
	OR GRADE 105 WHERE NOTED	105 KSI
	(GRADE 55 AND 105 RODS SHALL COMPLY WITH WELDABILITY SUPPLEMENT S1)	
WASHERS (AT ANCHOR RODS)	ASTM A36	36 KSI
	OR ASTM F844 (USS STANDARD)	---
	(F844 WASHERS PERMITTED ONLY FOR 3/4" DIA. RODS AT 1 1/16" MAX. DIA. PUNCHED HOLES IN BASE PLATE WHERE NO WELD REQ'D BETWEEN WASHER AND BASE PLATE)	

2. ALL BOLTS SHALL BE INSTALLED AS SNUG-TIGHTENED JOINTS WITH THREADS EXCLUDED FROM SHEAR PLANE (TYPE "X" CONNECTION) U.N.O. HIGH-STRENGTH BOLT ASSEMBLIES SHALL BE IN ACCORDANCE WITH THE RCSC "SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS" AND SHALL BE SNUG TIGHTENED USING ANY AISC APPROVED METHOD U.N.O. ALL BOLTS IN SLOTTED OR OVERSIZED HOLES AND ALL HIGH-STRENGTH BOLTS SHALL BE INSTALLED WITH HARDENED WASHERS.

3. BOLTED CONNECTIONS INCLUDED IN THE SEISMIC LOAD RESISTING SYSTEM (SLRS) SHALL MEET THE REQUIREMENTS FOR CLASS "A", SLIP-CRITICAL FAYING SURFACES IN ACCORDANCE WITH AISC 360, SECTION J3.8 (EXCEPTION: FAYING SURFACES OF WELDED JOINTS WHOSE PARTS ARE JOINED INITIALLY BY ERECTION BOLTS NEED ONLY BE PREPARED SUCH THAT THEY ARE FREE FROM DIRT, BURRS, AND OTHER DEFECTS THAT WOULD PREVENT SOLID FIT-UP OF THE PARTS TO BE JOINED.) BOLTS SHALL BE INSTALLED IN STANDARD HOLES U.N.O. AND PRETENSIONED PER ANY AISC APPROVED METHOD.

4. ALL ANCHOR RODS AT STEEL COLUMN BASE PLATES SHALL BE RODS WITH THREADS BOTH ENDS WITH HEAVY HEX NUT FULLY THREADED ONTO EMBEDDED END. TACK WELD NUT TO ROD OR SPOIL THREADS TO PREVENT NUT FROM BACKING OFF. ANCHOR RODS SHALL NOT BE REPAIRED, REPLACED OR FIELD-MODIFIED WITHOUT WRITTEN APPROVAL FROM THE ENGINEER OF RECORD.

5. HEADED STEEL STUDS AND AUTOMATIC WELDED DOWELS SHOWN ON PLANS OR DETAILS SHALL BE BY NELSON STUD WELDING, INC., PER ICC ESR-2826 AND ICC ESR-2907, RESPECTIVELY. STUDS SHALL HAVE FLUXED ENDS AND BE AUTOMATICALLY END-WELDED WITH SUITABLE EQUIPMENT (NO FILLET WELDING OF STUDS PERMITTED U.N.O.) AT SPACINGS INDICATED ON THE PLANS OR DETAILS. WELDING OF STUDS SHALL CONFORM TO THE REQUIREMENTS OF AWS D1.1 AND AWS C5.4. HEADED STUDS AND AUTOMATIC WELDED DOWELS BY OTHER MANUFACTURERS MAY BE SUBSTITUTED PROVIDED THEY ARE OF EQUIVALENT CAPACITY FOR THE INTENDED APPLICATION AND HAVE CURRENT ICC APPROVAL.

6. WHERE A SPECIFIC EXPANSION ANCHOR, SCREW ANCHOR, OR EPOXY PRODUCT IS SPECIFIED ON PLANS OR DETAILS, ONLY THE SPECIFIED PRODUCT SHALL BE USED AND NO SUBSTITUTIONS ARE ALLOWED. WHERE AN EXPANSION ANCHOR, SCREW ANCHOR, OR EPOXY PRODUCT IS SPECIFIED ON PLANS OR DETAILS BUT A SPECIFIC PRODUCT IS NOT STATED, ANY OF THE RESPECTIVE PRODUCTS LISTED BELOW ARE ACCEPTABLE. THE USE OF PRODUCTS NOT INCLUDED BELOW IS NOT ALLOWED. ALL PRODUCTS SHALL BE INSTALLED WITH SPECIAL INSPECTION.

7.1. EXPANSION ANCHORS IN CONCRETE SHALL BE HILTI KWIK BOLT TZ (ICC ESR-1917), SIMPSON STRONG-BOLT 2 (ICC ESR-3037), OR DEWALT POWER-STUD+ SD2 (ICC ESR-2502) U.N.O. EXPANSION ANCHORS IN MASONRY SHALL BE SIMPSON STRONG-BOLT 2 (IAPMO ER-0240), HILTI KWIK BOLT 3 (ICC ESR-1385), OR DEWALT POWER-STUD+ SD1 (ICC ESR-2966). EXPANSION ANCHORS SHALL BE INSTALLED WITH SPECIAL INSPECTION.

7.2. SCREW ANCHORS SHALL BE DEWALT SCREW-BOLT+ PER ICC ESR-4042 FOR MASONRY AND ICC ESR-3889 FOR CONCRETE, SIMPSON TITEN HD PER ICC ESR-1056 FOR MASONRY AND ICC ESR-2713 FOR CONCRETE, HILTI KWIK HUS-EZ PER ICC ESR-3056 FOR MASONRY AND ICC ESR-3027 FOR CONCRETE. SCREW ANCHORS SHALL BE INSTALLED WITH SPECIAL INSPECTION.

7.3. EPOXY ANCHORS IN CONCRETE (ALL-THREAD, REBAR, ETC.) SHALL USE HILTI HIT-RE 500 V3 (ICC ESR-3814) SIMPSON SET-3G (ICC ESR-4057), OR DEWALT PURE110+ (ICC ESR-3298) U.N.O. ALL EPOXY ANCHORS IN MASONRY (ALL-THREAD, REBAR, ETC.) SHALL USE SIMPSON SET-XP (IAPMO ER-0265), HILTI HIT-HY 270 (ICC ESR-4143) OR DEWALT AC100+ GOLD (ICC ESR-3200) U.N.O. EPOXY ANCHORS SHALL BE INSTALLED WITH SPECIAL INSPECTION.

J. STEEL DECK

1. STEEL DECK SHALL BE MANUFACTURED BY EITHER VERCO MANUFACTURING, CO. PER IAPMO ER-0211 OR ASC STEEL DECK PER IAPMO ER-0329 OR ER-0161. STEEL DECK BY OTHER MANUFACTURERS MAY BE USED ONLY WITH PRIOR WRITTEN APPROVAL OF THE ENGINEER THROUGH THE ARCHITECT. DECK STEEL SHALL BE GALVANIZED IF FIRE PROOFING IS TO BE APPLIED OR IF DECK WILL BE EXPOSED TO WEATHER. OTHERWISE, DECK STEEL MAY BE EITHER GALVANIZED OR PRIME PAINTED.

2. STEEL DECK TYPE, GAGE, ATTACHMENT TO SUPPORTING MEMBERS, AND SIDE SEAM CONNECTIONS SHALL BE AS NOTED ON PLAN. FLOOR DECKS SHALL BE COMPOSITE DECK U.N.O. DECK SHALL BE ERECTED IN ACCORDANCE WITH MFR'S RECOMMENDATIONS.

3. DECK WITH CONCRETE TOPPING SHALL BE CONTINUOUS OVER 3 OR MORE SPANS U.N.O. (EXCEPTION: CONDITIONS ALLOWING FOR ONLY 2 CONTINUOUS SPANS OR LESS ARE ACCEPTABLE ONLY IF DECK IS SHORED UNTIL CONCRETE HAS REACHED DESIGN STRENGTH). DECK WITHOUT CONCRETE TOPPING SHALL BE CONTINUOUS OVER 2 OR MORE SPANS U.N.O. BEARING LENGTH AT SUPPORTS SHALL BE 3" MIN. FOR DECK 3" DEEP OR MORE AND 2" MIN. FOR ALL OTHER DECK. END LAPS AT SUPPORTS SHALL BE 2" MIN. (EXCEPTION: WHERE HEADED SHEAR STUDS ARE TO BE WELDED TO SUPPORTING BEAM, BUTT DECK ENDS TOGETHER OVER SUPPORT IN LIEU OF END LAPPING TO ALLOW FOR SHEAR STUD WELDING THROUGH DECK.)

4. ALL DECK WELDING SHALL COMPLY WITH AWS D1.3. USE E60 OR E70 SERIES ELECTRODES (MIN. ROD DIA. = 1/8"). ALL ARC SPOT (PUDDLE) WELDS SHALL HAVE AN EFFECTIVE FUSION AREA NOT LESS THAN 1/2" IN DIA. OR 3/8" x 1". ANY ARC SEAM WELDS SHALL HAVE A FUSION AREA NOT LESS THAN 3/8" x 1 1/2". WELDS IN AREAS EXPOSED TO WEATHER SHALL BE DE-SLAGGED, CLEANED, AND PAINTED WITH A ZINC RICH PRIMER.

5. STEEL DECK SUPPLIER SHALL PROVIDE ALL NECESSARY ACCESSORIES SUCH AS RIDGE AND VALLEY PLATES, SADDLES, COVER PLATES, MUD STOPS NOT SPECIFICALLY NOTED ON PLANS, ETC., TO MAKE THE JOB COMPLETE.

6. CONCENTRATED LOADS (i.e., CEILING AND SOFFIT FRAMING, MECH. EQUIPMENT, PLUMBING, ETC.) SHALL NOT BE SUSPENDED FROM STEEL DECK. IT IS ACCEPTABLE TO SUPPORT TYPICAL LAY-IN CEILINGS FROM THE STEEL DECK. CONTRACTOR SHALL PROVIDE ENGINEERED FRAMING SYSTEM TO DISTRIBUTE CONCENTRATED LOADS TO STEEL JOISTS OR BEAMS.

7. PIPING AND ELECTRICAL CONDUITS SHALL NOT BE EMBEDDED IN CONCRETE OVER STEEL DECK.

K. SPECIAL INSPECTION

1. THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE SPECIAL INSPECTOR AT LEAST 24 HOURS NOTICE PRIOR TO PERFORMING ANY WORK REQUIRING SPECIAL INSPECTION.

3. THE SPECIAL INSPECTOR SHALL INSPECT THE WORK ASSIGNED FOR CONFORMANCE WITH THE APPROVED CONTRACT DRAWINGS AND SPEC'S. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, THE ENGINEER OF RECORD, AND OTHER DESIGNATED PERSONS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED, TO THE ENGINEER AND THE BUILDING OFFICIAL. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED PLANS AND SPEC'S AND THE APPLICABLE CODE PROVISIONS.

4. INSPECTORS SHALL INSPECT FROM AN APPROVED SET OF CONTRACT DRAWINGS. SHOP DRAWINGS SHALL NOT BE USED IN LIEU OF THE APPROVED CONTRACT DRAWINGS FOR INSPECTION PURPOSES.

5. TYPES OF WORK TO BE INSPECTED BY THE SPECIAL INSPECTOR ARE AS FOLLOWS:

5.1. EPOXY ANCHORS IN CONCRETE - INSPECTION OF EPOXY ANCHORS IN CONCRETE SHALL BE PERIODIC, U.N.O. INSTALLATIONS SHALL BE PERFORMED BY QUALIFIED PERSONNEL TRAINED (BY MANUFACTURER) TO INSTALL ADHESIVE ANCHORS AND THEY SHALL FOLLOW THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII). AT THE TIME OF INSTALLATION, THE CONCRETE SHALL HAVE ACHIEVED A MINIMUM AGE OF 28 DAYS, BE DRY, AND BE BETWEEN 50 DEGREES F AND 104 DEGREES F. THE HOLES SHALL BE DRILLED WITH A HAMMER DRILL TO THE DIMENSIONS LISTED IN THE MPII AND SHALL BE CLEANED USING THE BLOW-BRUSH-BLOW TECHNIQUE REQUIRED IN THE MPII. WHERE ANCHORS ARE INSTALLED INTO LIGHTWEIGHT CONCRETE, IT IS ASSUMED THAT THE CONCRETE IS CLASSIFIED AS ALL-LIGHTWEIGHT CONCRETE AS DEFINED IN ACI 318. ANY ADHESIVE ANCHORS INSTALLED HORIZONTALLY (EXCEPT FOR ANCHORS IN A SLAB-ON-GRADE) OR UPWARDLY INCLINED SHALL BE INSTALLED BY PERSONNEL WITH THE ACI/CRSI ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM, OR EQUIVALENT AND SHALL BE INSTALLED WITH CONTINUOUS SPECIAL INSPECTION.

5.2. EPOXY ANCHORS IN MASONRY - EPOXY ANCHORS IN MASONRY SHALL BE INSTALLED WITH SPECIAL INSPECTION. INSTALLATIONS SHALL BE PERFORMED BY QUALIFIED PERSONNEL TRAINED (BY MANUFACTURER) TO INSTALL ADHESIVE ANCHORS AND THEY SHALL FOLLOW THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII).

5.3. SCREW ANCHORS AND EXPANSION ANCHORS IN CONCRETE OR MASONRY - SCREW ANCHORS IN CONCRETE OR MASONRY SHALL BE INSTALLED WITH SPECIAL INSPECTION. ANCHORS IN CONCRETE MAY BE PERIODIC. INSTALLATIONS SHALL BE PERFORMED BY QUALIFIED PERSONNEL TRAINED (BY MANUFACTURER) TO INSTALL SCREW/EXPANSION ANCHORS AND THEY SHALL FOLLOW THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII).

5.4. CONCRETE CONSTRUCTION PER CBC SECTION 1704.4 AND TABLE 1704.4.
EXCEPTION: SPECIAL INSPECTIONS SHALL NOT BE REQ'D. FOR:
1. ISOLATED SPREAD OR CONTINUOUS CONCRETE FOOTINGS SUPPORTING WALLS OF BUILDINGS (3) STORIES OR LESS IN HEIGHT WHOSE STRUCTURAL DESIGN IS BASED ON A 2,500 PSI DESIGN COMPRESSIVE STRENGTH, f'c, OF NO GREATER THAN 2500 PSI.
2. POST-TENSIONED SLABS ON GRADE WHERE EFFECTIVE PRESTRESS IN THE CONCRETE IS LESS THAN 150 PSI.

5.5. STEEL CONSTRUCTION AND WELDING PER CBC SECTION 1704.3 AND TABLE 1704.3.

5.6. MASONRY CONSTRUCTION PER CBC 1704.5.2 AND TABLE 1704.5.1.

6. CERTIFICATE OF APPROVAL REGARDING MATERIALS AND INSPECTION OF PREFABRICATED ITEMS SHALL BE PROVIDED IN ACCORDANCE WITH IBC SECTION 1704.

L. SUBMITTALS

1. SHOP DRAWINGS OR REPORTS FOR THE FOLLOWING ITEMS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER OF RECORD PRIOR TO FABRICATION OR CONSTRUCTION (AS APPLICABLE) U.N.O.

   CONCRETE CYLINDER TESTS
   CONCRETE MODULUS OF ELASTICITY DATA
   CONTRACTOR SUBMITTAL DOCUMENTS (WELDING) PER AISC 341, PART I, APPENDIX Q
   HIGH STRENGTH GROUT/DRYPACK
   LAYOUT DWGS. FOR PENETRATIONS, EMBEDDED CONDUITS AT WALLS/ELEVATED SLABS
   MASONRY BLOCK TEST DATA
   MASONRY PRISM TESTS
   REINFORCING STEEL
   STEEL DECK
   STRUCTURAL STEEL

2. CONTRACTOR SHALL REVIEW AND STAMP SHOP DRAWINGS PRIOR TO SUBMITTING. CONTRACTOR'S REVIEW SHALL CHECK FOR COMPLETENESS/COMPLIANCE WITH CONTRACT DOCUMENTS.

3. SHOP DRAWINGS ARE REVIEWED BY ENGINEER ONLY FOR GENERAL COMPLIANCE WITH THE STRUCTURAL DRAWINGS. RESPONSIBILITY FOR CORRECTNESS SHALL REST WITH THE CONTRACTOR. SHOP DRAWINGS DO NOT SUPERSEDE OR REPLACE THE CONTRACT DRAWINGS OR SPECIFICATIONS. CHANGES, SUBSTITUTIONS, OR DEVIATIONS FROM CONTRACT DRAWINGS AND/OR SPECIFICATIONS WILL NOT BE ACCEPTED VIA SHOP DRAWING REVIEW. ALL SUCH MODIFICATIONS SHALL BE SUBMITTED SEPARATELY FOR ENGINEER'S REVIEW.

4. PREFABRICATED COMPONENTS, SPECIALTY ITEMS, OR DESIGN-BUILD ELEMENTS NOTED ON THE STRUCTURAL DRAWINGS, BUT WHICH REQUIRE THE MFR. OR SUPPLIER TO PROVIDE THE DESIGN, SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ARCHITECT AND/OR ENGINEER FOR REVIEW AS A DEFERRED SUBMITTAL. DEFERRED SUBMITTALS REQ'D. BY THE STRUCTURAL ENGINEER OF RECORD SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:

   ANCHOR TIEDOWN SYSTEM
   CONCRETE FORMWORK, SHORING, AND RESHORING
   CONCRETE MIX DESIGNS
   MASONRY GROUT AND MORTAR MIX DESIGNS
   STAIRS, HANDRAILS, GUARDRAILS, AND THEIR COMPONENTS
   STRUCTURAL PRECAST CONCRETE
   SUPPORT/ANCHORAGE OF MECH., ELECT., AND PLUMBING EQUIPMENT AND COMPONENTS
   LADDER
   ACCESS HATCH (THE ACCESS HATCHES SHALL BE DESIGNED TO RESIST H520 LOAD)

5. DEFERRED SUBMITTALS SHALL INCLUDE CALCULATIONS AND DRAWINGS PREPARED AND STAMPED BY AN APPROPRIATELY LICENSED ENGINEER (SPECIALTY ENGINEER) SHOWING LOCATION AND MAGNITUDE OF LOADS, CONFIGURATION AND SIZE OF MEMBERS, AND COMPATIBILITY OF SUBMITTAL ITEM WITH THE PRIMARY STRUCTURAL SYSTEM.

6. THE PURPOSE OF THE STRUCTURAL ENGINEER'S REVIEW OF DEFERRED SUBMITTALS SHALL BE LIMITED TO DETERMINING THAT THE DRAWINGS AND CALCULATIONS HAVE BEEN PROPERLY SEALED, THAT THE LOAD CRITERIA IS IN GENERAL CONFORMANCE WITH THE CONTRACT DOCUMENTS AND WITH THE REFERENCED BUILDING CODE, THAT CONNECTIONS TO THE PRIMARY STRUCTURE ARE COMPATIBLE WITH THE PRIMARY DESIGN, AND THAT THE PRIMARY STRUCTURE IS CAPABLE OF SUPPORTING THE IMPOSED LOADS.

7. THE STRUCTURAL ENGINEER WILL RELY UPON THE SPECIALTY ENGINEER'S SEAL AS CERTIFICATION THAT THE ITEMS DESIGNED BY THE SPECIALTY ENGINEER COMPLY WITH THE CRITERIA SET FORTH IN THE CONTRACT DOCUMENTS AND APPLICABLE CODES AND STANDARDS. THE STRUCTURAL ENGINEER SHALL NOT BE RESPONSIBLE FOR THE ADEQUACY OF DESIGNS PROVIDED BY OTHERS.

L. SUBMITTALS (CONT'D.)

8. FOR ALL SUBMITTALS, ANY CORRECTIONS NOTED WILL BE MARKED ON ONE (1) COPY SET ONLY AND RETURNED. ADDITIONAL COPIES OF ANY SUBMITTAL WILL BE RETURNED UNMARKED. CONTRACTOR SHALL BE RESPONSIBLE FOR REPRODUCING ENGINEER'S CORRECTIONS ON ADDITIONAL COPIES REQ'D. ONE COPY SET MAY BE RETAINED FOR THE ENGINEER'S RECORDS. ALLOW FIVE (5) TO TEN (10) WORKING DAYS FOR THE ENGINEER'S REVIEW.

9. REFER TO APPLICABLE G.S.N. SECTIONS FOR FURTHER REQUIREMENTS SPECIFIC TO INDIVIDUAL SUBMITTALS.

10. THE DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO THE ARCHITECT OR ENGINEER OF RECORD WHO SHALL REVIEW AND APPROVE THEM AND FORWARD THEM TO THE BUILDING OFFICIAL WITH A NOTATION INDICATING THAT THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN REVIEWED AND APPROVED AND THAT THEY HAVE BEEN FOUND TO BE IN GENERAL CONFORMANCE WITH THE DESIGN OF THE BUILDING. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THEIR DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL. PROVIDE AMPLE TIME FOR THE BUILDING OFFICIAL TO REVIEW THE DOCUMENTS

M. STRUCTURAL OBSERVATIONS

1. OBSERVATION SHALL BE PERFORMED BY THE STRUCTURAL ENGINEER (OR AN APPOINTED REPRESENTATIVE) AT EACH OF THE FOLLOWING STAGES. A LETTER REPORTING THE FINDINGS OF THE OBSERVATIONS SHALL BE PROVIDED TO THE CITY OF LOS ANGELES

1.1. PRIOR TO FOUNDATION POUR TO OBSERVE STRUCTURAL HARDWARE LOCATIONS.

1.2. AT COMPLETION OF FRAMING FOR GENERAL CONFORMANCE WITH THE APPROVED PLANS.

CITY LA DBS DEPARTMENT OF BUILDING AND SAFETY

Los Angeles Regional Uniform Code Program

Committee I-3: Structural Observation

STRUCTURAL OBSERVATION PROGRAM
AND DESIGNATION OF THE
STRUCTURAL OBSERVER

PROJECT ADDRESS: DPW-1 SEWER PUMP STATION PERMIT APPL. NO.: BLDC190725001075

Description of Work: New Pump Station

Owner: Five Point Architect: PACE Engineer: Wright Engineers

STRUCTURAL OBSERVATION
(only checked items are required)

Firm or Individual to be responsible for the Structural Observation:

Name: Wright Engineers/ Tom Allen Phone: (949) 477-4001 Calif. Registration: S5460

FOUNDATION	WALL	FRAME	DIAPHRAGM
☑ Footing, Stem Walls, Piers	☐ Concrete	☐ Steel Moment Frame	☐ Concrete
☐ Mat Foundation	☑ Masonry	☐ Steel Braced Frame	☑ Steel Deck
☐ Caisson, Piles, Grade Beams	☐ Wood	☐ Concrete Moment Frame	☐ Wood
☐ Step'g/Retain'g Foundation, Hillside Special Anchors	☐ Others:	☐ Others:	☐ Others:
☐ Others:			

DECLARATION BY OWNER

I, the Owner of the project, declare that the above listed firm or individual is hired **by me** to be the Structural Observer.

Robert Brazell 11-13-2019
Signature Date
V.P. Land Development

DECLARATION BY ARCHITECT OR ENGINEER OF RECORD (required if the Structural Observer is different from the Architect or Engineer of Record)

I, the Architect or Engineer of record for the project, declare that the above listed firm or individual is designated by me to be responsible for the Structural Observation.

64928 11/18/19
Signature License No. Date

INFORM.08 (Part 2) (Rev. 08/15/17)

Department of Public Works, Los Angeles County

Checked _____ _____
Design Division Date

WRIGHT engineers
2 Venture Suite 200
Irvine, CA 92618
949.477.4001 wrighte.com

NO	BY	DATE	REVISIONS	DATE	APP.

PROFESSIONAL ENGINEER * THOMAS C. ALLEN No.S5460 * REGISTERED STRUCTURAL * STATE OF CALIFORNIA * 1/9/2020

PREPARED BY: X
R.C.E. NO.: --
EXP.: --
DRAWN: WE
DESIGNED: DT
CHECKED: TA
SCALE: AS SHOWN
DATE: APR. 2019

TITLE: GENERAL STRUCTURAL NOTES (CONT'D)

JOB: MISSION VILLAGE
DPW-1 SEWER PUMP STATION
VALENCIA CA

PACE Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

SHEET S0.2

JOB NO. 9862-E

THESE DRAWINGS ARE THE PROPERTY OF P.A.C.E. AND SHALL NOT BE REPRODUCED IN ANY MANNER NOR BE USED FOR CONSTRUCTION UNLESS STAMPED "ISSUED FOR CONSTRUCTION".

Dimscale = 1"; 1"scale = 1; PSScale = 0; ACAD Ver = 23.0s (LMS Tech); Vtarget = 1

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GENERAL STRUCTURAL NOTES (CONT'D.)

I. STRUCTURAL STEEL BOLTS, ANCHORS, HEADED STUDS

1. STRUCTURAL STEEL BOLTS, ANCHORS, ETC., SHALL CONFORM TO THE FOLLOWING STANDARDS AND MATERIAL PROPERTIES U.N.O:

COMPONENT:	STANDARD:	Fy:
BOLTS	ASTM A325	---
	OR ASTM A490 WHERE NOTED	---
NUTS	ASTM A563	---
WASHERS	ASTM F436	---
ANCHOR RODS	ASTM F1554, GRADE 36	36 KSI
	OR GRADE 55 WHERE NOTED	55 KSI
	OR GRADE 105 WHERE NOTED	105 KSI
	(GRADE 55 AND 105 RODS SHALL COMPLY WITH WELDABILITY SUPPLEMENT S1).	
WASHERS (AT ANCHOR RODS)	ASTM A36	36 KSI
	OR ASTM F844 (USS STANDARD)	---
	(F844 WASHERS PERMITTED ONLY FOR 3/4" DIA. RODS AT 1 1/16" MAX. DIA. PUNCHED HOLES IN BASE PLATE WHERE NO WELD REQ'D BETWEEN WASHER AND BASE PLATE)	

2. ALL BOLTS SHALL BE INSTALLED AS SNUG-TIGHTENED JOINTS WITH THREADS EXCLUDED FROM SHEAR PLANE (TYPE "X" CONNECTION) U.N.O. HIGH-STRENGTH BOLT ASSEMBLIES SHALL BE IN ACCORDANCE WITH THE RCSC "SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS" AND SHALL BE SNUG TIGHTENED USING ANY AISC APPROVED METHOD U.N.O. ALL BOLTS IN SLOTTED OR OVERSIZED HOLES AND ALL HIGH-STRENGTH BOLTS SHALL BE INSTALLED WITH HARDENED WASHERS.

3. BOLTED CONNECTIONS INCLUDED IN THE SEISMIC LOAD RESISTING SYSTEM (SLRS) SHALL MEET THE REQUIREMENTS FOR CLASS "A", SLIP-CRITICAL FAYING SURFACES IN ACCORDANCE WITH AISC 360, SECTION J3.8 (EXCEPTION: FAYING SURFACES OF WELDED JOINTS WHOSE PARTS ARE JOINED INITIALLY BY ERECTION BOLTS NEED ONLY BE PREPARED SUCH THAT THEY ARE FREE FROM DIRT, BURRS, AND OTHER DEFECTS THAT WOULD PREVENT SOLID FIT-UP OF THE PARTS TO BE JOINED). BOLTS SHALL BE INSTALLED IN STANDARD HOLES U.N.O. AND PRETENSIONED PER ANY AISC APPROVED METHOD.

4. ALL ANCHOR RODS AT STEEL COLUMN BASE PLATES SHALL BE RODS WITH THREADS BOTH ENDS WITH HEAVY HEX NUT FULLY THREADED ONTO EMBEDDED END. TACK WELD NUT TO ROD OR SPOIL THREADS TO PREVENT NUT FROM BACKING OFF. ANCHOR RODS SHALL NOT BE REPAIRED, REPLACED OR FIELD-MODIFIED WITHOUT WRITTEN APPROVAL FROM THE ENGINEER OF RECORD.

5. HEADED STEEL STUDS AND AUTOMATIC WELDED DOUELS SHOWN ON PLANS OR DETAILS SHALL BE BY NELSON STUD WELDING, INC. PER ICC ESR-2826 AND ICC ESR-2907, RESPECTIVELY. STUDS SHALL HAVE FLUXED ENDS AND BE AUTOMATICALLY END-WELDED WITH SUITABLE EQUIPMENT (NO FILLET WELDING OF STUDS PERMITTED U.N.O.) AT SPACINGS INDICATED ON THE PLANS OR DETAILS. WELDING OF STUDS SHALL CONFORM TO THE REQUIREMENTS OF AWS D1.1 AND AWS C5.4. HEADED STUDS AND AUTOMATIC WELDED DOUELS BY OTHER MANUFACTURERS MAY BE SUBSTITUTED PROVIDED THEY ARE OF EQUIVALENT CAPACITY FOR THE INTENDED APPLICATION AND HAVE CURRENT ICC APPROVAL.

6. WHERE A SPECIFIC EXPANSION ANCHOR, SCREW ANCHOR, OR EPOXY PRODUCT IS SPECIFIED ON PLANS OR DETAILS, ONLY THE SPECIFIED PRODUCT SHALL BE USED AND NO SUBSTITUTIONS ARE ALLOWED. WHERE AN EXPANSION ANCHOR, SCREW ANCHOR, OR EPOXY PRODUCT IS SPECIFIED ON PLANS OR DETAILS BUT A SPECIFIC PRODUCT IS NOT STATED, ANY OF THE RESPECTIVE PRODUCTS LISTED BELOW ARE ACCEPTABLE. THE USE OF PRODUCTS NOT INCLUDED BELOW IS NOT ALLOWED. ALL PRODUCTS SHALL BE INSTALLED WITH SPECIAL INSPECTION.

7.1. EXPANSION ANCHORS IN CONCRETE SHALL BE HILTI KWIK BOLT TZ (ICC ESR-1917), SIMPSON STRONG-BOLT 2 (ICC ESR-3037), OR DEWALT POWER-STUD+ SD2 (ICC ESR-2502) U.N.O. EXPANSION ANCHORS IN MASONRY SHALL BE SIMPSON STRONG-BOLT 2 (IAPMO ER-0240), HILTI KWIK BOLT 3 (ICC ESR-1385), OR DEWALT POWER-STUD+ SD1 (ICC ESR-2966). EXPANSION ANCHORS SHALL BE INSTALLED WITH SPECIAL INSPECTION.

7.2. SCREW ANCHORS SHALL BE DEWALT SCREW-BOLT+ PER ICC ESR-4042 FOR MASONRY AND ICC ESR-3889 FOR CONCRETE, SIMPSON TITEN HD PER ICC ESR-1056 FOR MASONRY AND ICC ESR-2713 FOR CONCRETE, HILTI KWIK HUS-EZ PER ICC ESR-3056 FOR MASONRY AND ICC ESR-3027 FOR CONCRETE. SCREW ANCHORS SHALL BE INSTALLED WITH SPECIAL INSPECTION.

7.3. EPOXY ANCHORS IN CONCRETE (ALL-THREAD, REBAR, ETC.) SHALL USE HILTI HIT-RE 500 V3 (ICC ESR-3814), SIMPSON SET-3G (ICC ESR-4057), OR DEWALT PURE110+ (ICC ESR-3298) U.N.O. ALL EPOXY ANCHORS IN MASONRY (ALL-THREAD, REBAR, ETC.) SHALL USE SIMPSON SET-XP (IAPMO ER-0265), HILTI HIT-HY 270 (ICC ESR-4143) OR DEWALT AC100+ GOLD (ICC ESR-3200) U.N.O. EPOXY ANCHORS SHALL BE INSTALLED WITH SPECIAL INSPECTION.

J. STEEL DECK

1. STEEL DECK SHALL BE MANUFACTURED BY EITHER VERCO MANUFACTURING, CO. PER IAPMO ER-0217 OR ASC STEEL DECK PER IAPMO ER-0329 OR ER-0161. STEEL DECK BY OTHER MANUFACTURERS MAY BE USED ONLY WITH PRIOR WRITTEN APPROVAL OF THE ENGINEER THROUGH THE ARCHITECT. DECK STEEL SHALL BE GALVANIZED IF FIRE PROOFING IS TO BE APPLIED OR IF DECK WILL BE EXPOSED TO WEATHER. OTHERWISE, DECK STEEL MAY BE EITHER GALVANIZED OR PRIME PAINTED.

2. STEEL DECK TYPE, GAGE, ATTACHMENT TO SUPPORTING MEMBERS, AND SIDE SEAM CONNECTIONS SHALL BE AS NOTED ON PLAN. FLOOR DECKS SHALL BE COMPOSITE DECK U.N.O. DECK SHALL BE ERECTED IN ACCORDANCE WITH MFR'S RECOMMENDATIONS.

3. DECK WITH CONCRETE TOPPING SHALL BE CONTINUOUS OVER 3 OR MORE SPANS U.N.O. (EXCEPTION: CONDITIONS ALLOWING FOR ONLY 2 CONTINUOUS SPANS OR LESS ARE ACCEPTABLE ONLY IF DECK IS SHORED UNTIL CONCRETE HAS REACHED DESIGN STRENGTH). DECK WITHOUT CONCRETE TOPPING SHALL BE CONTINUOUS OVER 2 OR MORE SPANS U.N.O. BEARING LENGTH AT SUPPORTS SHALL BE 3" MIN. FOR DECK 3" DEEP OR MORE AND 2" MIN. FOR ALL OTHER DECK. END LAPS AT SUPPORTS SHALL BE 2" MIN. (EXCEPTION: WHERE HEADED SHEAR STUDS ARE TO BE WELDED TO SUPPORTING BEAM, BUTT DECK ENDS TOGETHER OVER SUPPORT IN LIEU OF END LAPPING TO ALLOW FOR SHEAR STUD WELDING THROUGH DECK.)

4. ALL DECK WELDING SHALL COMPLY WITH AWS D1.3. USE E60 OR E70 SERIES ELECTRODES (MIN. ROD DIA. = 1/8"). ALL ARC SPOT (PUDDLE) WELDS SHALL HAVE AN EFFECTIVE FUSION AREA NOT LESS THAN 1/2" IN DIA. OR 3/8" x 1". ANY ARC SEAM WELDS SHALL HAVE A FUSION AREA NOT LESS THAN 3/8" x 1 1/2". WELDS IN AREAS EXPOSED TO WEATHER SHALL BE DE-SLAGGED, CLEANED, AND PAINTED WITH A ZINC RICH PRIMER.

5. STEEL DECK SUPPLIER SHALL PROVIDE ALL NECESSARY ACCESSORIES SUCH AS RIDGE AND VALLEY PLATES, SADDLES, COVER PLATES, MUD STOPS NOT SPECIFICALLY NOTED ON PLANS, ETC., TO MAKE THE JOB COMPLETE.

6. CONCENTRATED LOADS (i.e., CEILING AND SOFFIT FRAMING, MECH. EQUIPMENT, PLUMBING, ETC.) SHALL NOT BE SUSPENDED FROM STEEL DECK. IT IS ACCEPTABLE TO SUPPORT TYPICAL LAY-IN CEILINGS FROM THE STEEL DECK. CONTRACTOR SHALL PROVIDE ENGINEERED FRAMING SYSTEM TO DISTRIBUTE CONCENTRATED LOADS TO STEEL JOISTS OR BEAMS.

7. PIPING AND ELECTRICAL CONDUITS SHALL NOT BE EMBEDDED IN CONCRETE OVER STEEL DECK.

K. SPECIAL INSPECTION

1. THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE SPECIAL INSPECTOR AT LEAST 24 HOURS NOTICE PRIOR TO PERFORMING ANY WORK REQUIRING SPECIAL INSPECTION.

3. THE SPECIAL INSPECTOR SHALL INSPECT THE WORK ASSIGNED FOR CONFORMANCE WITH THE APPROVED CONTRACT DRAWINGS AND SPEC'S. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, THE ENGINEER OF RECORD, AND OTHER DESIGNATED PERSONS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED, TO THE ENGINEER AND THE BUILDING OFFICIAL. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED PLANS AND SPEC'S AND THE APPLICABLE CODE PROVISIONS.

4. INSPECTORS SHALL INSPECT FROM AN APPROVED SET OF CONTRACT DRAWINGS. SHOP DRAWINGS SHALL NOT BE USED IN LIEU OF THE APPROVED CONTRACT DRAWINGS FOR INSPECTION PURPOSES.

5. TYPES OF WORK TO BE INSPECTED BY THE SPECIAL INSPECTOR ARE AS FOLLOWS:

5.1. EPOXY ANCHORS IN CONCRETE - INSPECTION OF EPOXY ANCHORS IN CONCRETE SHALL BE PERIODIC, U.N.O. INSTALLATIONS SHALL BE PERFORMED BY QUALIFIED PERSONNEL TRAINED (BY MANUFACTURER) TO INSTALL ADHESIVE ANCHORS AND THEY SHALL FOLLOW THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII). AT THE TIME OF INSTALLATION, THE CONCRETE SHALL HAVE ACHIEVED A MINIMUM AGE OF 28 DAYS, BE DRY, AND BE BETWEEN 50 DEGREES F AND 104 DEGREES F. THE HOLES SHALL BE DRILLED WITH A HAMMER DRILL TO THE DIMENSIONS LISTED IN THE MPII AND SHALL BE CLEANED USING THE BLOW-BRUSH-BLOW TECHNIQUE REQUIRED IN THE MPII. WHERE ANCHORS ARE INSTALLED INTO LIGHTWEIGHT CONCRETE, IT IS ASSUMED THAT THE CONCRETE IS CLASSIFIED AS ALL-LIGHTWEIGHT CONCRETE AS DEFINED IN ACI 318. ANY ADHESIVE ANCHORS INSTALLED HORIZONTALLY (EXCEPT FOR ANCHORS IN A SLAB-ON-GRADE) OR UPWARDLY INCLINED SHALL BE INSTALLED BY PERSONNEL WITH THE ACI/CRSI ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM, OR EQUIVALENT AND SHALL BE INSTALLED WITH CONTINUOUS SPECIAL INSPECTION.

5.2. EPOXY ANCHORS IN MASONRY - EPOXY ANCHORS IN MASONRY SHALL BE INSTALLED WITH SPECIAL INSPECTION. INSTALLATIONS SHALL BE PERFORMED BY QUALIFIED PERSONNEL TRAINED (BY MANUFACTURER) TO INSTALL ADHESIVE ANCHORS AND THEY SHALL FOLLOW THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII).

5.3. SCREW ANCHORS AND EXPANSION ANCHORS IN CONCRETE OR MASONRY - SCREW ANCHORS IN CONCRETE OR MASONRY SHALL BE INSTALLED WITH SPECIAL INSPECTION. ANCHORS IN CONCRETE MAY BE PERIODIC. INSTALLATIONS SHALL BE PERFORMED BY QUALIFIED PERSONNEL TRAINED (BY MANUFACTURER) TO INSTALL SCREW/EXPANSION ANCHORS AND THEY SHALL FOLLOW THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII).

5.4. CONCRETE CONSTRUCTION PER CBC SECTION 1704.4 AND TABLE 1704.4.
EXCEPTION: SPECIAL INSPECTIONS SHALL NOT BE REQ'D, FOR:
1. ISOLATED SPREAD OR CONTINUOUS CONCRETE FOOTINGS SUPPORTING WALLS OF BUILDINGS (3) STORIES OR LESS IN HEIGHT WHOSE STRUCTURAL DESIGN IS BASED ON A 28 DAY DESIGN COMPRESSIVE STRENGTH, f'c, OF NO GREATER THAN 2500 PSI.
2. POST-TENSIONED SLABS ON GRADE WHERE EFFECTIVE PRESTRESS IN THE CONCRETE IS LESS THAN 150 PSI.

5.5. STEEL CONSTRUCTION AND WELDING PER CBC SECTION 1704.3 AND TABLE 1704.3.

5.6. MASONRY CONSTRUCTION PER CBC 1704.5.2 AND TABLE 1704.5.1.

6. CERTIFICATE OF APPROVAL REGARDING MATERIALS AND INSPECTION OF PREFABRICATED ITEMS SHALL BE PROVIDED IN ACCORDANCE WITH IBC SECTION 1704.

L. SUBMITTALS

1. SHOP DRAWINGS OR REPORTS FOR THE FOLLOWING ITEMS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER OF RECORD PRIOR TO FABRICATION OR CONSTRUCTION (AS APPLICABLE) U.N.O.

   CONCRETE CYLINDER TESTS
   CONCRETE MODULUS OF ELASTICITY DATA
   CONTRACTOR SUBMITTAL DOCUMENTS (WELDING) PER AISC 341, PART I, APPENDIX Q
   HIGH STRENGTH GROUT/DRYPACK
   LAYOUT DWGS. FOR PENETRATIONS, EMBEDDED CONDUITS AT WALLS/ELEVATED SLABS
   MASONRY BLOCK TEST DATA
   MASONRY PRISM TESTS
   REINFORCING STEEL
   STEEL DECK
   STRUCTURAL STEEL

2. CONTRACTOR SHALL REVIEW AND STAMP SHOP DRAWINGS PRIOR TO SUBMITTING. CONTRACTOR'S REVIEW SHALL CHECK FOR COMPLETENESS/COMPLIANCE WITH CONTRACT DOCUMENTS.

3. SHOP DRAWINGS ARE REVIEWED BY ENGINEER ONLY FOR GENERAL COMPLIANCE WITH THE STRUCTURAL DRAWINGS. RESPONSIBILITY FOR CORRECTNESS SHALL REST WITH THE CONTRACTOR. SHOP DRAWINGS DO NOT SUPERSEDE OR REPLACE THE CONTRACT DRAWINGS OR SPECIFICATIONS. CHANGES, SUBSTITUTIONS, OR DEVIATIONS FROM CONTRACT DRAWINGS AND/OR SPECIFICATIONS WILL NOT BE ACCEPTED VIA SHOP DRAWING REVIEW. ALL SUCH MODIFICATIONS SHALL BE SUBMITTED SEPARATELY FOR ENGINEER'S REVIEW.

4. PREFABRICATED COMPONENTS, SPECIALTY ITEMS, OR DESIGN-BUILD ELEMENTS NOTED ON THE STRUCTURAL DRAWINGS, BUT WHICH REQUIRE THE MFR. OR SUPPLIER TO PROVIDE THE DESIGN, SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ARCHITECT AND/OR ENGINEER FOR REVIEW AS A DEFERRED SUBMITTAL. DEFERRED SUBMITTALS REQ'D. BY THE STRUCTURAL ENGINEER OF RECORD SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:

   ANCHOR TIEDOWN SYSTEM
   CONCRETE FORMWORK, SHORING, AND RESHORING
   CONCRETE MIX DESIGNS
   MASONRY GROUT AND MORTAR MIX DESIGNS
   STAIRS, HANDRAILS, GUARDRAILS, AND THEIR COMPONENTS
   STRUCTURAL PRECAST CONCRETE
   SUPPORT/ANCHORAGE OF MECH., ELECT., AND PLUMBING EQUIPMENT AND COMPONENTS
   LADDER
   ACCESS HATCH (THE ACCESS HATCHES SHALL BE DESIGNED TO RESIST H20 LOAD)

5. DEFERRED SUBMITTALS SHALL INCLUDE CALCULATIONS AND DRAWINGS PREPARED AND STAMPED BY AN APPROPRIATELY LICENSED ENGINEER (SPECIALTY ENGINEER) SHOWING LOCATION AND MAGNITUDE OF LOADS, CONFIGURATION AND SIZE OF MEMBERS, AND COMPATIBILITY OF SUBMITTAL ITEM WITH THE PRIMARY STRUCTURAL SYSTEM.

6. THE PURPOSE OF THE STRUCTURAL ENGINEER'S REVIEW OF DEFERRED SUBMITTALS SHALL BE LIMITED TO DETERMINING THAT THE DRAWINGS AND CALCULATIONS HAVE BEEN PROPERLY SEALED, THAT THE LOAD CRITERIA IS IN GENERAL CONFORMANCE WITH THE CONTRACT DOCUMENTS AND WITH THE REFERENCED BUILDING CODE, THAT CONNECTIONS TO THE PRIMARY STRUCTURE ARE COMPATIBLE WITH THE PRIMARY DESIGN, AND THAT THE PRIMARY STRUCTURE IS CAPABLE OF SUPPORTING THE IMPOSED LOADS.

7. THE STRUCTURAL ENGINEER WILL RELY UPON THE SPECIALTY ENGINEER'S SEAL AS CERTIFICATION THAT THE ITEMS DESIGNED BY THE SPECIALTY ENGINEER COMPLY WITH THE CRITERIA SET FORTH IN THE CONTRACT DOCUMENTS AND APPLICABLE CODES AND STANDARDS. THE STRUCTURAL ENGINEER SHALL NOT BE RESPONSIBLE FOR THE ADEQUACY OF DESIGNS PROVIDED BY OTHERS.

L. SUBMITTALS (CONT'D.)

8. FOR ALL SUBMITTALS, ANY CORRECTIONS NOTED WILL BE MARKED ON ONE (1) COPY SET ONLY AND RETURNED. ADDITIONAL COPIES OF ANY SUBMITTAL WILL BE RETURNED UNMARKED. CONTRACTOR SHALL BE RESPONSIBLE FOR REPRODUCING ENGINEER'S CORRECTIONS ON ADDITIONAL COPIES REQ'D. ONE COPY SET MAY BE RETAINED FOR THE ENGINEER'S RECORDS. ALLOW FIVE (5) TO TEN (10) WORKING DAYS FOR THE ENGINEER'S REVIEW.

9. REFER TO APPLICABLE G.S.N. SECTIONS FOR FURTHER REQUIREMENTS SPECIFIC TO INDIVIDUAL SUBMITTALS.

10. THE DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO THE ARCHITECT OR ENGINEER OF RECORD WHO SHALL REVIEW AND APPROVE THEM, AND FORWARD THEM TO THE BUILDING OFFICIAL WITH A NOTATION INDICATING THAT THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN REVIEWED AND APPROVED AND THAT THEY HAVE BEEN FOUND TO BE IN GENERAL CONFORMANCE WITH THE DESIGN OF THE BUILDING. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THEIR DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL. PROVIDE AMPLE TIME FOR THE BUILDING OFFICIAL TO REVIEW THE DOCUMENTS

M. STRUCTURAL OBSERVATIONS

1. OBSERVATION SHALL BE PERFORMED BY THE STRUCTURAL ENGINEER (OR AN APPOINTED REPRESENTATIVE) AT EACH OF THE FOLLOWING STAGES. A LETTER REPORTING THE FINDINGS OF THE OBSERVATIONS SHALL BE PROVIDED TO THE CITY OF LOS ANGELES

1.1. PRIOR TO FOUNDATION POUR TO OBSERVE STRUCTURAL HARDWARE LOCATIONS.

1.2. AT COMPLETION OF FRAMING FOR GENERAL CONFORMANCE WITH THE APPROVED PLANS.

CITY OF LOS ANGELES DEPARTMENT OF BUILDING AND SAFETY — LADBS

Los Angeles Regional Uniform Code Program

Committee I-3: Structural Observation

STRUCTURAL OBSERVATION PROGRAM
AND DESIGNATION OF THE
STRUCTURAL OBSERVER

PROJECT ADDRESS: DPW-1 SEWER PUMP STATION PERMIT APPL. NO.: BLDC190725001075

Description of Work: New Pump Station

Owner: Five Point Architect: PACE Engineer: Wright Engineers

STRUCTURAL OBSERVATION
(only checked items are required)

Firm or Individual to be responsible for the Structural Observation:
Name: Wright Engineers/ Tom Allen Phone: (949) 477-4001 Calif. Registration: S5440

FOUNDATION	WALL	FRAME	DIAPHRAGM
☑ Footing, Stem Walls, Piers	☐ Concrete	☐ Steel Moment Frame	☐ Concrete
☐ Mat Foundation	☑ Masonry	☐ Steel Braced Frame	☑ Steel Deck
☐ Caisson, Piles, Grade Beams	☐ Wood	☐ Concrete Moment Frame	☐ Wood
☐ Step'g/Retain'g Foundation, Hillside Special Anchors	☐ Others:	☐ Others:	☐ Others:
☐ Others:			

DECLARATION BY OWNER

I, the Owner of the project, declare that the above listed firm or individual is hired **by me** to be the Structural Observer.

Robert Brazell 11-13-2019
Signature V.P. Land Development Date

DECLARATION BY ARCHITECT OR ENGINEER OF RECORD (required if the Structural Observer is different from the Architect or Engineer of Record)

I, the Architect or Engineer of record for the project, declare that the above listed firm or individual is designated by me to be responsible for the Structural Observation.

Signature 64928 License No. 11/18/19 Date

INFORM.06 (Part 2) (Rev. 06/15/17)

JLee Engineering, Inc.
Approved
By Ben Ling
12/27/2019

This set of plans and specifications MUST be kept on the job site at all times and it is unlawful to make any changes or alterations on these plans without written permission from the local Jurisdictions or Agencies. The stamping of these plan and specifications shall NOT be held to permit or be an approval of the violations of the applicable codes, any provisions of any Local Ordinances or State law.

WRIGHT engineers
2 Venture Suite 200
Irvine, CA 92618
949.477.4001 wrighte.com

NO	BY	DATE	REVISIONS	DATE	APP.
1	XX	04/12/19	CHANGES PER LADPW PLAN REVIEW	05/23/19	XX
2	XX	09/25/19	PLAN CHECK REVISIONS		
3	XX	10/28/19	PLAN CHECK REVISIONS		
4	XX	11/20/19	PLAN CHECK REVISIONS		

REGISTERED PROFESSIONAL ENGINEER * THOMAS C. ALLEN No.S5440 * STRUCTURAL * STATE OF CALIFORNIA
11/20/2019

PREPARED BY: X
PROJECT ENGINEER: -
R.C.E. NO.: --
EXP.: --
DRAWN: WE
DESIGNED: DT
CHECKED: TA
SCALE: AS SHOWN
DATE: APR. 2019

TITLE: GENERAL STRUCTURAL NOTES (CONT'D)

JOB: MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
VALENCIA CA

PACE Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

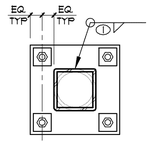
SHEET S0.2

JOB NO. 9862-E

THESE DRAWINGS ARE THE PROPERTY OF P.A.C.E. AND SHALL NOT BE REPRODUCED IN ANY MANNER NOR BE USED FOR CONSTRUCTION UNLESS STAMPED "ISSUED FOR CONSTRUCTION".

Dimscale = 1"; 1"scale = 1; PSscale = 0; ACAD Ver = 23.0s (LMS Tech); Variation = 1

K:\2018\18101\10WD\Structural\S02-18101-G.dwg - Tab: S0.2 - by jmetty on 11/20/19 at 3:01:32 PM



1. 1/4" OR MIN. WELD SIZE PER AISC 360, TABLE J2.4, WHICHEVER IS GREATER

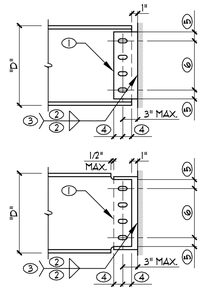
A. SEE STEEL COLUMN SCHEDULE FOR BASE PLATE DIMENSIONS AND SIZE/QUANTITY OF ANCHOR RODS U.N.O. ON PLAN

B. SEE TABLE 14-2 OF AISC STEEL CONSTRUCTION MANUAL FOR MAX. ANCHOR ROD HOLE DIA. IN BASE PLATE AND MIN. WASHER SIZE/THICKNESS. HOLE DIA. IN WASHERS SHALL BE 1/16" GREATER THAN ANCHOR ROD DIA.

05 TYPICAL COLUMN BASE PLATE

S01-15A 080304 — NO SCALE

NOMINAL BEAM DEPTH "D"	NUMBER OF BOLTS	BOLT DIA.	SHEAR PLATE THICKNESS	WELD SIZE
UP TO 7"	2	3/4"	1/4"	3/16"
8" TO 10"	2	3/4"	1/4"	3/16"
12" TO 14"	3	3/4"	3/8"	1/4"
16"	4	3/4"	3/8"	1/4"
18"	5	3/4"	3/8"	1/4"
21"	6	3/4"	3/8"	1/4"
24"	6	1"	1/2"	5/16"
27"	7	1"	1/2"	5/16"
30"	8	1"	9/16"	3/8"
33"	9	1"	9/16"	3/8"
36"	10	1"	9/16"	3/8"
40"	11	1"	9/16"	3/8"

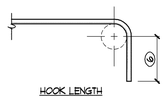


1. SHEAR PLATE THICKNESS AND BOLTS PER SCHEDULE
2. WELD SIZE PER SCHEDULE
3. DO NOT RETURN FILLET WELDS ACROSS TOP AND BOTTOM EDGES OF SHEAR PLATE
4. 2 x BOLT DIA.
5. AISC MIN. EDGE DISTANCE
6. HORIZ. SHORT-SLOTTED HOLES PER AISC 360 AT 3" o.c. MIN. IN EITHER BEAM OR SHEAR PLATE U.N.O. ON DETAILS. STANDARD ROUND HOLES IN MATING PIECE

A. SEE G.S.N. FOR BOLT SPECS.

06 TYPICAL SHEAR PLATE CONNECTION SCHEDULE

SCH02-01 080226 — NO SCALE



A. ALL TABULATED VALUES ARE IN UNITS OF INCHES U.N.O.

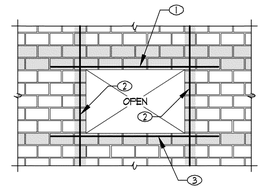
B. CONCRETE STRENGTHS SHOWN ARE FOR DESIGN PURPOSES ONLY. SEE G.S.N. FOR ACTUAL CONCRETE SPECIFICATIONS

BAR SIZE	CONCRETE (f'c 2500 PSI w/ 1 1/2" MIN. CLR.)				MASONRY		
	MIN. SPACING (1)	TOP BARS (2)	OTHER BARS	STANDARD HOOK LENGTH	EDGE BARS (4)	CENTER BARS (5) 8" CMU	CENTER BARS (5) 6" CMU
#3	2	18	14	4 1/2	13	12	12
#4	2 1/2	24	19	6	22	13	18
#5	3 1/4	30	23	7 1/2	35	20	28
#6	3 3/4	37	28	9	54	38	53
#7	4	60	46	10 1/2	(3)	(3)	-
#8	4	76	59	12	(3)	(3)	-
#9	4 1/4	94	72	13 1/2	(3)	(3)	-

1. BAR SPACING IS MEASURED AS CENTER TO CENTER BAR SPACING. NOTIFY ENGINEER WHERE BAR SPACING IS LESS THAN MIN. SPACING NOTED IN SCHEDULE
2. TOP BARS ARE HORIZONTAL BARS SO PLACED THAT 12 INCHES OR MORE OF FRESH CONCRETE IS CAST IN MEMBER BELOW SPLICE
3. MECHANICAL SPLICE COUPLER PER G.S.N. REQUIRED
4. USE EDGE BAR LAP LENGTHS FOR BARS NOT MEETING CENTER BAR CRITERIA AND WHERE CLR. COVER TO END OF WALL IS LESS THAN CLR. COVER TO FACE OF WALL
5. CENTER BARS ARE BARS PLACED AT MID-THICKNESS OF CMU. BARS NOT PLACED AT MID-THICKNESS BUT HAVING CLR. COVER TO EACH FACE OF MASONRY WALL OF AT LEAST 5 x BAR DIA. MAY ALSO USE CENTER BAR LAP LENGTHS
6. STANDARD HOOK LENGTH REFER TO STANDARD REBAR BEND DETAIL FOR MORE INFORMATION

07 TYPICAL REBAR LAP SCHEDULE

SCH02-05C 170922MDR — NO SCALE

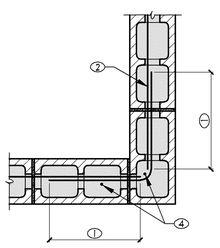


1. LINTEL PER PLAN, SCHEDULE, OR G.S.N. EXTEND 24" MIN. PAST EDGE OF OPENING
2. JAMB PER PLAN, SCHEDULE, OR G.S.N.
3. SILL PER G.S.N. EXTEND 24" MIN. PAST EDGE OF OPENING

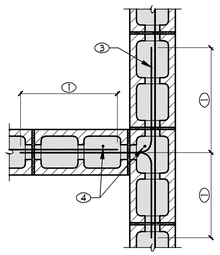
A. BEND HORIZONTAL BARS AT INTERFERENCE AT CORNERS AS OCCURS

03 TYPICAL OPENING IN MASONRY WALL

M01-04 080304 — NO SCALE



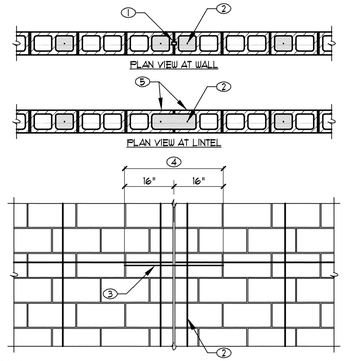
1. LENGTH PER TYPICAL REBAR LAP SCHEDULE
2. BENT REBAR SIZE TO MATCH HORIZ. WALL REINF.
3. BENT REBAR SIZE TO MATCH HORIZ. WALL REINF. ALTERNATE DIRECTIONS
4. VERTICAL REINF. PER G.S.N.



A. WHERE WALL HORIZ. REINF. ARE AT DIFFERENT ELEVATIONS FROM EACH OTHER PROVIDE BENT BAR IN SOLID-GROUTED CELLS AT EACH HORIZ. BAR SIM. TO THIS DETAIL

04 TYPICAL MASONRY WALL INTERSECTION

M01-16 080304 — NO SCALE



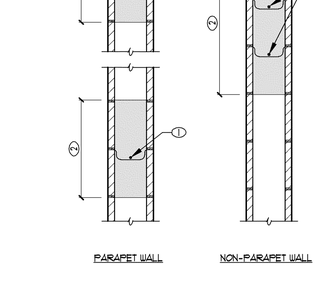
1. FILLER MATERIAL PER ARCH'L
2. VERTICAL REINFORCING EACH SIDE OF C.J.
3. 1/2" DIA. x 32" LONG SMOOTH ROD AT EACH HORIZONTAL REINFORCING BAR. GREASE BOTH ENDS
4. STOP TYPICAL HORIZONTAL REINFORCING AT CONTROL JOINTS, ONLY HORIZONTAL REINFORCING AT THE FLOOR LINE, ROOF LINE AND TOP OF WALL TO RUN THROUGH THE CONTROL JOINT
5. OPEN END BLOCK BACK TO BACK

A. LOCATE CONTROL JOINTS WHERE SHOWN ON PLAN. WHERE NOT SPECIFICALLY NOTED ON PLAN, LOCATE AT 40'-0" MAX. o.c. VERIFY LOCATION COMPATIBILITY WITH ARCH'L. PRIOR TO PLACEMENT

B. CONTROL JOINTS IN LINTELS SHALL BE LOCATED AT MID-SPAN U.N.O. LINTEL REINFORCING AT BOTTOM OF LINTEL TO BE CONTINUOUS THROUGH CONTROL JOINT

01 TYPICAL MASONRY CONTROL JOINT (MCJ)

M01-01 080304 — NO SCALE



1. HORIZONTAL REINFORCING PER PLAN OR G.S.N.
2. GROUT DEPTH PER PLAN OR G.S.N. CENTER REINFORCING AT APPROXIMATE CENTER OF GROUT
3. GROUT 8" MIN. ABOVE ELEVATED FLOOR OR ROOF LINE
4. ELEVATED FLOOR OR ROOF LINE
5. TOP OF PARAPET

02 TYPICAL HORIZONTAL REINFORCING

M01-02 080304 — NO SCALE

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER ★ THOMAS C. ALLEN No.55460 ★ STRUCTURAL ★ STATE OF CALIFORNIA 1/9/2020

PREPARED BY: X
R.C.E. NO.: --
EXP.: --
PROJECT ENGINEER: --
DRAWN: WE
DESIGNED: DT
CHECKED: TA
SCALE: AS SHOWN
DATE: APR. 2019

TITLE: TYPICAL DETAILS

JOB: MISSION VILLAGE DPW-1 SEWER PUMP STATION — VALENCIA CA

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JOB NO. 9862-E

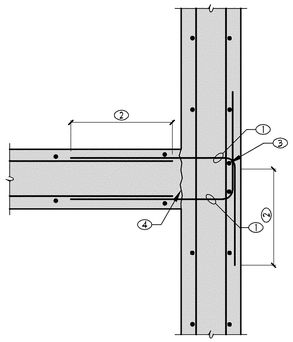
Department of Public Works, Los Angeles County

Checked _____ _____
Design Division Date

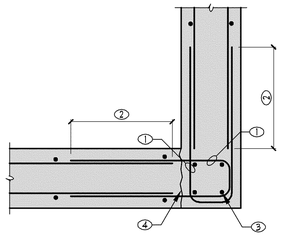
WRIGHT engineers
2 Venture Suite 200
Irvine, CA 92618
949.477.7701 wrightla.com

S03-18101-D

Dimscale = 1"; LTscale = 1"; PSltscale = 1; ACAD Ver. = 23.0s (LMS Tech); Viewtem = 1
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A WALL INTERSECTION



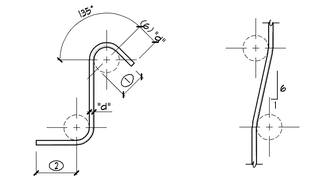
B WALL CORNER

1. BENT DOWEL w/ SIZE AND SPACING TO MATCH WALL HORIZ. REINF. USE "L" SHAPED DOWELS AT WALL INTERSECTIONS AND "U" SHAPED DOWELS AT WALL CORNERS
2. LAP LENGTH PER TYPICAL REBAR LAP SCHEDULE, TYP.
3. LOCATE VERT. BAR AT HOOKED HORIZ. BAR, TYP.
4. OPTIONAL FOUR JOINT. ROUGHEN SURFACE TO 1/4" AMPLITUDE. SEE G.S.N. FOR ADDITIONAL JOINT SURFACE PREPARATION REQUIREMENTS

A. SEE CONCRETE WALL SCHEDULE OR WALL ELEVATIONS FOR TYP. WALL REINF. U.N.O. ON PLAN

10 TYPICAL CONCRETE WALL INTERSECTION – PLAN

10-181011 NO SCALE



1. MINIMUM FINISHED BEND DIA. FOR STIRRUPS AND TIES ONLY (4) "d" FOR #3 BAR AND SMALLER, (6) "d" FOR #4 THRU #8. TYPICAL
2. (6) "d" FOR #3 AND SMALLER (12) "d" FOR #4 THRU #8
3. MINIMUM FINISHED BEND DIA. FOR ALL REINFORCING EXCEPT STIRRUPS AND TIES (6) "d" UP TO #8 BAR, (8) "d" FOR #9 THRU #11, (12) "d" FOR #14 AND #18.

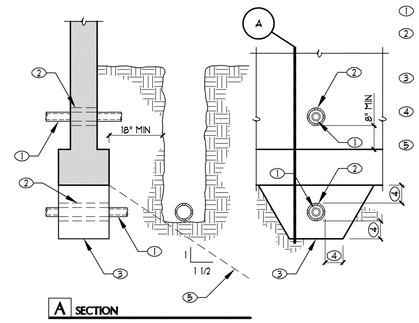
A. "d" = BAR DIA.

B. ALL REINFORCEMENT SHALL BE BENT COLD UNLESS NOTED OTHERWISE ON PLANS OR DETAILS

C. REINFORCING PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE FIELD BENT UNLESS SPECIFICALLY NOTED ON PLANS OR DETAILS

08 STANDARD REBAR BEND DETAILS

C01-01 091104 NO SCALE



A SECTION

1. PIPE/CONDUIT
2. SLEEVE. SIZE TO PROVIDE 1/2" MIN. CLEARANCE AROUND UTILITY PIPE/CONDUIT
3. LEAN CONCRETE FILL. MATCH WIDTH OF FOOTING
4. CLEARANCE EQUAL TO SLEEVE DIA. (6" MIN.)
5. NO TRENCH EXCAVATION ALLOWED BELOW THIS LINE

09 PIPE/CONDUIT AT FOOTING

F01-01 080512 NO SCALE

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER * THOMAS C. ALLEN No.55460 * STRUCTURAL * STATE OF CALIFORNIA
1/9/2020

PREPARED BY: X
R.C.E. NO.: --
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PROJECT ENGINEER: --
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DESIGNED: DT
CHECKED: TA
SCALE: AS SHOWN
DATE: APR. 2019

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TITLE: TYPICAL DETAILS

JOB: MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
VALENCIA CA

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JOB NO. 9862-E

Department of Public Works, Los Angeles County
Checked _____ _____
Design Division Date

WRIGHT engineers
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Irvine, CA 92618
949.477.4301 wrightla.com

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MASONRY JAMB (MJ) SCHEDULE

EXAMPLE DESIGNATION: MJ1 (6) #5 - 32"
① ② ③ ④

① MASONRY JAMB TYPE PER SCHEDULE BELOW

② TOTAL NUMBER OF JAMB BARS AS NOTED ON PLAN. ACTUAL NUMBER OF BARS SPECIFIED ON PLAN MAY BE MORE OR LESS THAN SHOWN IN EXAMPLE PROFILES BELOW

③ JAMB BAR SIZE AS NOTED ON PLAN (EX: #4, #5, #6, ETC.)

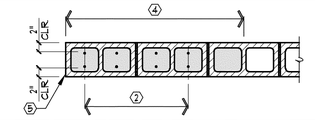
④ SOLID GROUT DISTANCE AS NOTED ON PLAN.

⑤ EDGE OF WALL OPENING

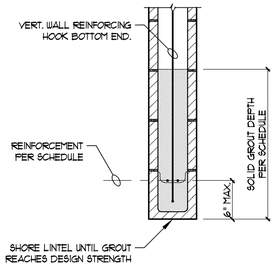
⑥ CENTER OF BEAM OR GIRDER BEARING LOCATION

⑦ CENTER JAMB REINFORCING AND SOLID GROUT ON BEAM OR GIRDER BEARING LOCATION

⑧ PROFILES SHOWN IN SCHEDULE BELOW ARE FOR ILLUSTRATION PURPOSES ONLY. ACTUAL BAR QUANTITY, SIZE, AND GROUT DISTANCE SHALL CONFORM TO ACTUAL PLAN DESIGNATIONS.

MARK	PROFILE ⑧
MJ1	

MASONRY LINTEL (ML) SCHEDULE

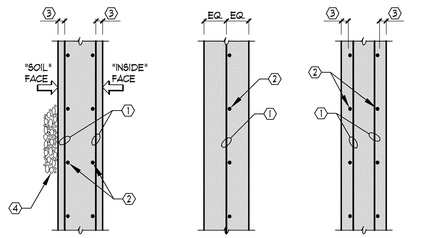


A. EXTEND GROUT, OPEN END MASONRY UNITS AND REINFORCING 2'-0" MIN. PAST EACH EDGE OF OPENING WHERE POSSIBLE. AT WALL CORNERS OR OTHER INTERFERENCE, EXTEND REINFORCEMENT AS FAR AS POSSIBLE INTO ADJACENT MASONRY AND HOOK ENDS WITH STANDARD 90 DEGREE HOOK.

B. ENDS OF LINTEL TO BE BUILT INTO ADJACENT WALL OR PILASTER WITH RUNNING BOND JOINT.

MARK	GROUT DEPTH	REINFORCING	VERTICAL REINFORCING	NOTES
ML1	24"	(2) #5 AT BOTTOM	#5 AT 16" o.c.	.

CONCRETE WALL (CW) SCHEDULE



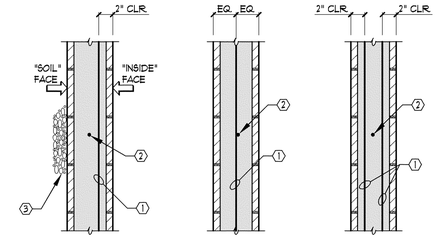
VERTICAL BARS EACH FACE | VERTICAL BARS CENTERED | VERTICAL BARS EACH FACE

① VERT. REINFORCING
② HORIZ. REINFORCING
③ SEE G.S.N. FOR CLR. COVER REQUIREMENTS
④ BACKFILL AT "SOIL" FACE AS OCCURS

A. REFER TO TYPICAL DETAILS FOR ADDITIONAL REINF. REQUIREMENTS

MARK	THICKNESS	VERT. REINFORCING	HORIZ. REINFORCING	NOTES
CW1	12"	#7 AT 9" o.c. "INSIDE" FACE, #7 AT 9" o.c. "SOIL" FACE	#6 AT 12" o.c. E.F.	.
CW2	15"	#8 AT 6" o.c. "INSIDE" FACE, #8 AT 6" o.c. "SOIL" FACE	#8 AT 6" o.c. E.F.	.

MASONRY WALL (MW) SCHEDULE



VERTICAL BARS "INSIDE" FACE | VERTICAL BARS CENTERED | VERTICAL BARS EACH FACE

① VERT. REINFORCING
② HORIZ. REINFORCING
③ BACKFILL AT "SOIL" FACE AS OCCURS

MARK	NOMINAL THICKNESS	VERT. REINFORCING FULL WALL HEIGHT	HORIZ. REINFORCING	NOTES
MW1	8"	#5 AT 24" o.c. EACH FACE	#5 AT 48" o.c.	SPECIAL INSPECTION GROUT SOLID

STEEL COLUMN (SC) SCHEDULE

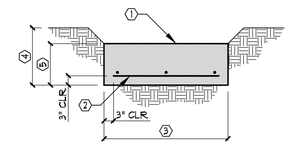
A. FOR BASE PLATE CONFIGURATION, A.R. PATTERN, AND COLUMN-TO-BASE PLATE CONNECTION, SEE TYPICAL COLUMN BASE PLATE SCHEDULE OR DETAIL.

B. STANDARD EFFECTIVE ANCHOR ROD EMBEDMENT = 1 1/2" U.N.O. EFFECTIVE EMBEDMENT SPECIFIED DENOTES MIN. DISTANCE REQ'D. BETWEEN T.O. CONCRETE AND T.O. EMBEDDED NUT U.N.O.

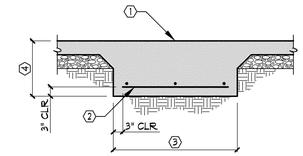
C. ORIENT LONG DIMENSION OF BASE PLATE PARALLEL TO WEB OF WIDE FLANGE COLUMN U.N.O.

MARK	SIZE	BASE PLATE	NOTES
SC1	HSS4x4x1/4	TYPE A 3/4" x 10" x 0'-10" w/ (4) 3/4" DIA. A.R.	DETAIL 09/S03

FOOTING (F) SCHEDULE



ISOLATED / CONTINUOUS FOOTING



THICKENED SLAB FOOTING

① SEE PLAN AND DETAILS FOR EMBEDDED ITEMS AND CONSTRUCTION ABOVE FOOTING
② REBAR
③ WIDTH / LENGTH
④ THICKNESS PER SCHEDULE OR EMBED DEPTH PER G.S.N.
⑤ THICKNESS

MARK	WIDTH	LENGTH	THICKNESS	FOOTING REBAR	NOTES
F1	1'-3"	CONT.	1'-6"	(2) #5 CONT. AT TOP AND BOTTOM	.
F2	2'-0"	2'-0"	1'-0"	(4) #4 E. W., BOTTOM	.

Department of Public Works, Los Angeles County

Checked _____ _____
Design Division Date

WRIGHT engineers
2 Venture Suite 200
Irvine, CA 92618
949.477.7400 wrightle.com

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER ★ THOMAS C. ALLEN No.55460 ★ STRUCTURAL ★ STATE OF CALIFORNIA
1/9/2020

PREPARED BY
.
X

PROJECT ENGINEER
R.C.E. NO. --
EXP. --

DRAWN WE
DESIGNED DT
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SCALE AS SHOWN
DATE APR. 2019

TITLE
SCHEDULES

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
VALENCIA CA

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S05-181011-S

FOUNDATION KEYNOTES

1. STAIRS BY OHTERS
2. AT HATCHED AREA, PROVIDE 6" CONCRETE SLAB w/ #4 AT 18" o.c. E.W. OVER 10 PSI INSUL FOAM TYPE I (ICC ESR-1388) HIGH DENSITY FOAM INSULATION OVER CONCRETE MAT SLAB. INSTALL INSUL FOAM PER MFR.'S SPEC'S.
3. VALVE VAULT PER CIVIL PLANS. (8'-0" MAX. WALL HEIGHT)
4. CONCRETE WET WALL AND EMERGENCY STORAGE PER CIVIL PLANS (19'-0" MAX. WALL HEIGHT)
5. #6 AT 12" o.c. E.W. TOP & BOTTOM
6. NOT USED
7. 9" THICK GENERATOR PAD w/ #3 AT 16" o.c. E.W. TOP AND BOTTOM PER DETAIL 106/S3.1
8. 12" THICK CONCRETE MAT SLAB
9. REFERENCE DETAIL 110/S3.1 FOR DRAIN PIT DETAIL
10. 24" THICK CONCRETE MAT SLAB
11. CONCRETE SLAB ON GRADE SHALL BE 4" THICK w/ #4 AT 16" o.c. EACH WAY. PLACE REINF. 2" CLR. FROM TOP OF SLAB
12. 9" THICK AIR TANK PAD w/ #3 AT 16" o.c. E.W. TOP AND BOTTOM SIMILAR TO DETAIL 106/S3.1
13. 9" THICK CONCRETE PAD WITH #3 AT 16" o.c. E.W. TOP AND BOTTOM, SIMILAR TO DETAIL 106/S3.1

FOUNDATION PLAN NOTES

J. MASONRY CONTROL JOINTS (MCJ) PER TYPICAL DETAIL 01/S03 SHALL BE PLACED WHERE SPECIFICALLY SHOWN ON PLANS AND, AS A MINIMUM, AT INTERVALS NOT TO EXCEED 30'-0" o.c. COORDINATE EXACT LOCATION OF CONTROL JOINTS WITH ARCH'L.

K. SC1, SC2, SC3, . . . DENOTES STEEL COLUMN PER SCHEDULE ON SHEET S05.

L. PLACE SLAB(S) ON GRADE OVER SUBGRADE AND VAPOR BARRIER (AS REQ'D.) PER THE GEOTECHNICAL REPORT REFERENCED ON G.S.N.

M. SEE ARCH'L. AND/OR CIVIL DWGS. FOR EXTERIOR SLABS, WALLS, ETC.

N. SEE DETAIL 09/S04 FOR PIPES/CONDUIT AT FTGS. PIPES/CONDUIT SHALL NOT PASS THRU NOR BE LOCATED BENEATH ISOLATED PAD FOOTINGS.

O. SEE DETAIL 07/S3.1 FOR TYPICAL MASONRY FENCE WALLS.

FOUNDATION PLAN NOTES

D. FINISH FLOOR ELEVATION VARIES. SEE CIVIL DWGS.

E. T.O.F. ELEVATION AT STEEL OR CONCRETE COLUMNS = 1'-0" BELOW F.F. U.N.O.

F. F1, F2, F3, . . . DENOTES FOOTING PER SCHEDULE ON SHEET S05. TYPICAL FOOTING SHALL BE MARK "F1" U.N.O. ON PLAN.

G. CW1, CW2, CW3, . . . DENOTES CONCRETE WALL PER SCHEDULE ON SHEET S05. ALL CONCRETE WALLS SHALL BE MARK "CW1" U.N.O. ON PLAN.

H. MW1, MW2, MW3, . . . DENOTES MASONRY WALL PER SCHEDULE ON SHEET S05. ALL MASONRY WALLS SHALL BE MARK "MW1" U.N.O. ON PLAN.

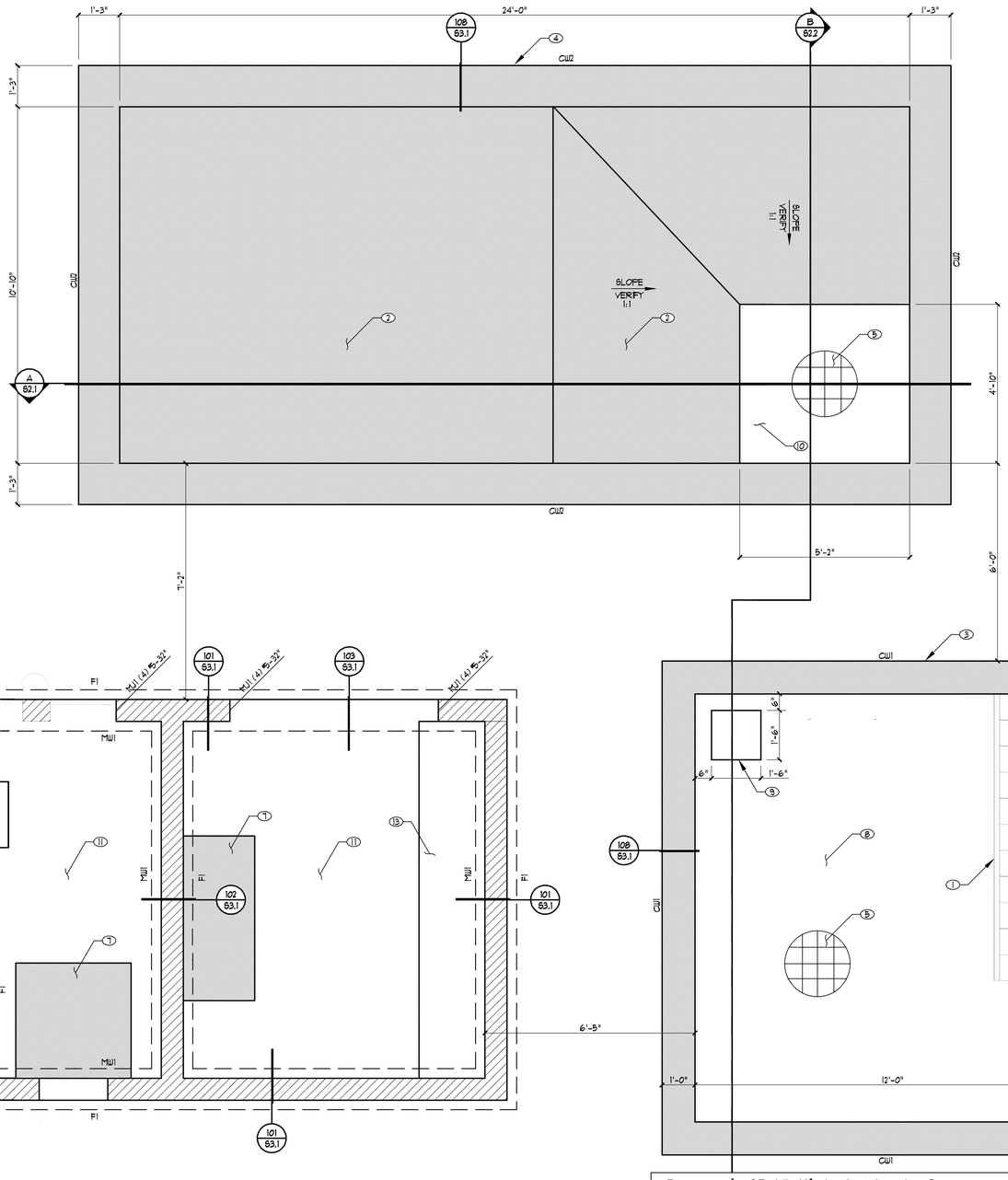
I. MJX (X) "X-XX" INDICATES MASONRY JAMB PER MASONRY JAMB SCHEDULE ON SHEET S05. TYPICAL JAMB SHALL BE MJ1 (2) #5-24" U.N.O.

FOUNDATION PLAN NOTES

A. VERIFY ALL DIMENSIONS, ELEVATIONS, SLOPES, ETC., w/ ARCH'L. AND/OR CIVIL PRIOR TO CONSTRUCTION. RESOLVE DISCREPANCIES WITH ARCHITECT.

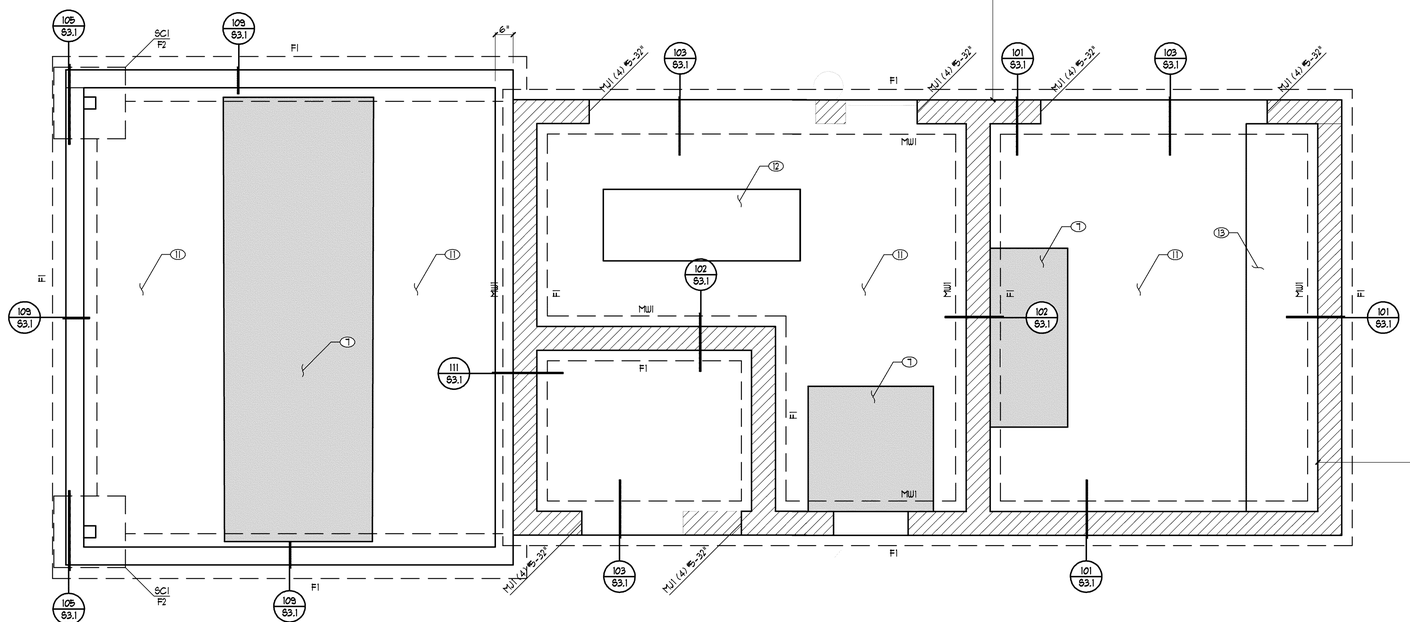
B. VERIFY LOCATION AND SIZE OF ALL INSERTS AND OPENINGS IN SLAB WITH ARCH'L., MECH, PLUMBING, AND ELECT. PRIOR TO CONSTRUCTION.

C. ALL FOOTINGS SHALL EXTEND 18 INCHES MIN. BELOW PAD GRADE. PAD GRADE IS DEFINED AS TOP OF SLAB FOR INTERIOR FOOTINGS, LOWEST ADJACENT COMPACTED SUBGRADE (PAD GRADE BEFORE LANDSCAPING) OR NATURAL GRADE WITHIN 5 FEET OF BUILDING FOR PERIMETER FOOTINGS, OR TOP OF EXTERIOR PAVING OR CONCRETE WHERE EXTERIOR PAVING OR CONCRETE IS PERMANENTLY LOCATED DIRECTLY ADJACENT TO BUILDING AND EXTENDS AT LEAST 5 FEET FROM BUILDING. FOOTING EXCAVATIONS SHALL BE CLEAN AND FREE FROM LOOSE DEBRIS, STANDING WATER, OR UNCOMPACTED MATERIAL AT TIME OF CONCRETE PLACEMENT. CONTRACTOR SHALL COORDINATE FOOTING EMBEDMENT WITH CIVIL GRADING PLANS TO ENSURE THAT MINIMUM EMBEDMENT SPECIFIED ABOVE IS MAINTAINED.



FOUNDATION PLAN

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



FOUNDATION PLAN

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

Department of Public Works, Los Angeles County

Checked _____ _____

Design Division Date

WRIGHT engineers

2 Venture Suite 200
Irvine, CA 92618
949.477.7401 wrightle.com

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER * THOMAS C. ALLEN No.55460 * STATE OF CALIFORNIA * CIVIL STRUCTURAL
1/9/2020

PREPARED BY X
PROJECT ENGINEER
R.C.E. NO. --
EXP. --
DRAWN WE
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TITLE FOUNDATION PLAN

JOB MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
VALENCIA CA

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SHEET S1.1

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S11-181011-PS1

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3201 Sturgis Road • Oxnard, CA 93030
(805) 656-1432 • FAX (805) 485-0338

REQUEST FOR INFORMATION

DATE: 11-19-2020 RFI #: **034**

Attention: Tom Hay Bob Brazell, FivePoint Brian Reid, PACE Matt Mills, PACE Fax #: 661-255-4296	From: Matt Messerly Delivered Via: Email Blois Construction Project No.: 3065 Project Name: Mission Village Sewer Lift Station DPW-1

Subject:	**Angle Frame for Sump Grate**	
Reference:	Drawing Sheets:	M1.2, S1.1, S3.1
	Detail Numbers:	
	Spec. Sections:	
	Schedule Activities Impacted:	Frame Submittal & Procurement, Valve Vault Foundation Pour

INFORMATION REQUESTED:

Regarding the angle frame for the 1" deep fiberglass grate over the sump in the valve vault:

Please provide a design and detail for the angle frame to support the grate.

Please see attached sketch of the frame showing an angle, nelson studs, and a plate to support the grate as potential design input. Please provide the sizing and dimensions for all components so that the frame can be procured.

We anticipate embedding this frame into the concrete foundation of the valve vault when we pour/place concrete. Please confirm this is acceptable.

For reference, this would be similar to the embedded stair angle with nelsons studs shown on A7.0.

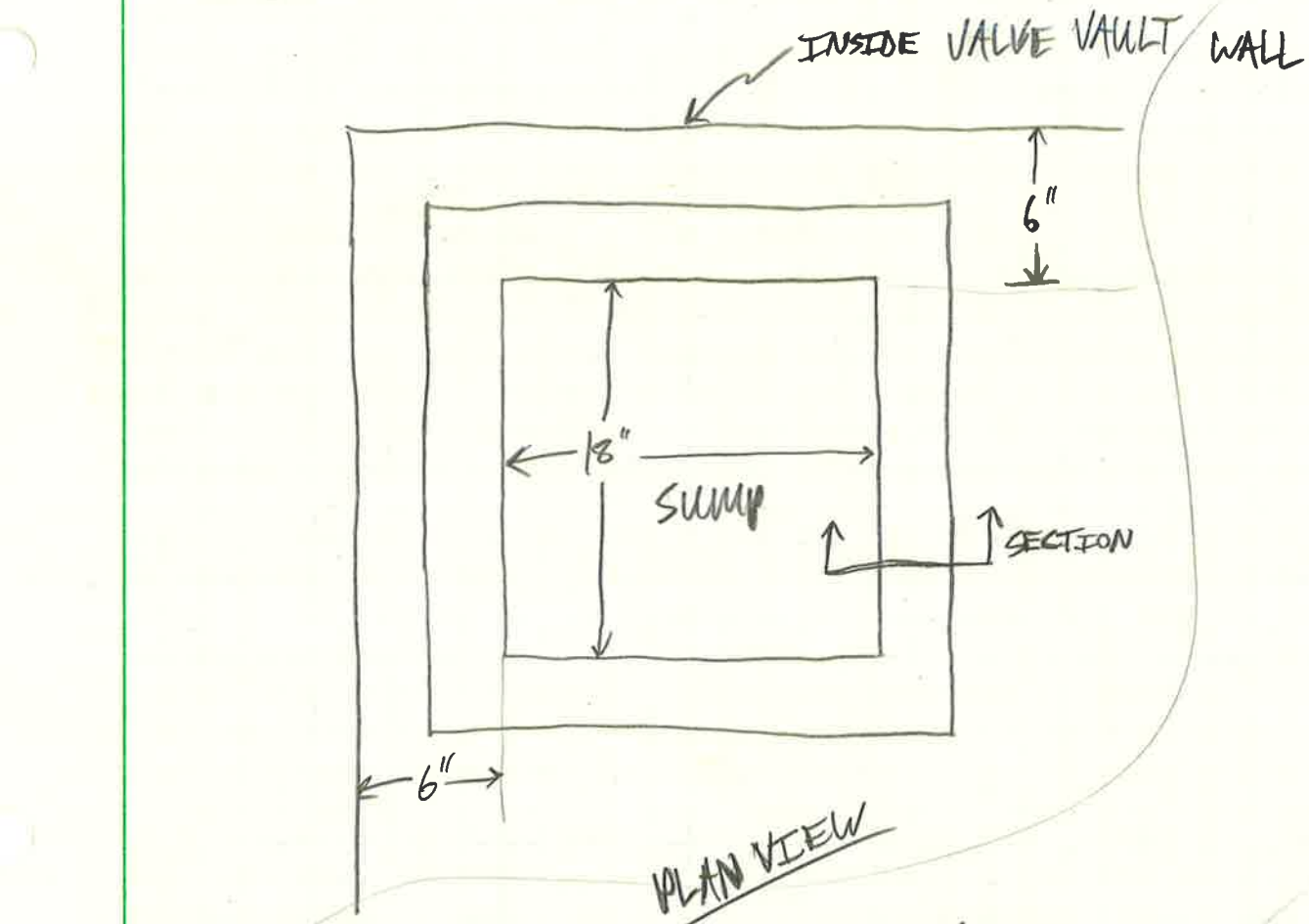
Please review and advise.

Response Requested by:	**11/23/2020**		
If a definitive response is not received by this date Project Schedule Will be Delayed	☐ YES ☐ NO ☒ Uncertain	Potential Cost Impact	☐ YES ☐ NO ☒ Uncertain

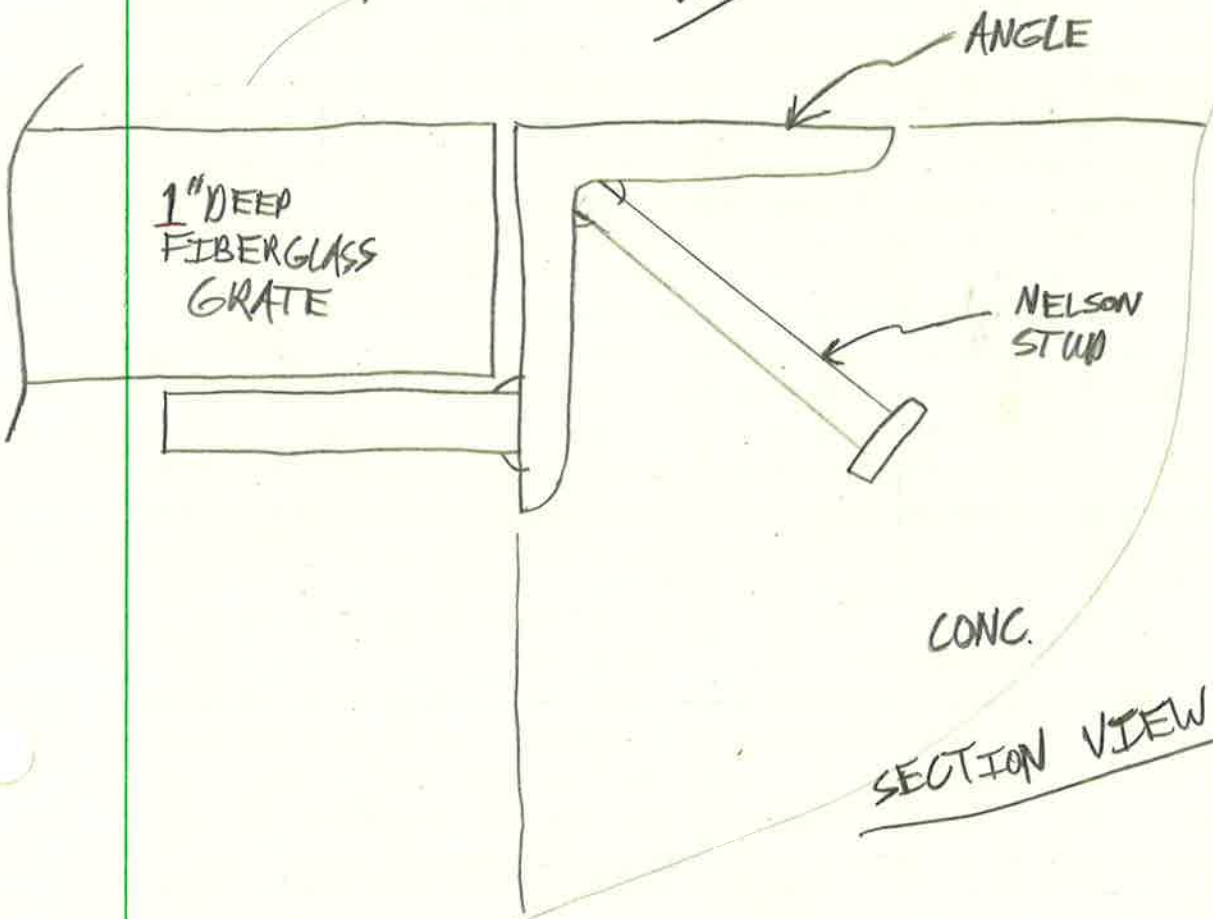
RESPONSE: PACE takes no exception to the proposed design sketch or utilizing a grate seat formed in the concrete as described in the attached email. Contractor to maintain minimum clearance requirements shown on structural sheets. PACE has not coordinated a sump style with the County. The Contractor shall coordinate with the County to determine design preference.

BY: M.J.M. DATE: 12/02/2020

SST ANGLES FOR SUMP GRATE SKETCH



PLAN VIEW



SECTION VIEW

KEYNOTES

⑨ L4x4x5/16 CONT. LEDGER

⑩ (2) #8 AT TOP AND BOTTOM

① #4 AT 12" o.c. E.W. TOP AND BOTTOM

② TOP REINFORCEMENT: #4 AT 12" o.c. E.W.
BOTTOM REINFORCEMENT: #8 AT 6" o.c. PLAN NORTH-SOUTH
DIRECTION #4 AT 12" o.c. PLAN EAST-WEST DIRECTION

③ OPENING AS OCCURS PER CIVIL PLANS. CONTRACTORS TO VERIFY ALL HATCH FRAME DIMENSIONS WITH HATCH MANUFACTURER PRIOR TO CONSTRUCTION

④ DOUBLE UP BARS AT EACH SIDE OF OPENING TOP & BOTTOM

⑤ (2) #5 x 48" TOP & BOTTOM, TYP.

⑥ 12" THICK CONCRETE LID

⑦ COORDINATE EDGE TREATMENT GRATE PER CIVIL

⑧ FULL LAP PER 07/S03 SCHEDULE, TYP.

FRAMING PLAN NOTES

I. MASONRY CONTROL JOINTS (MCJ) SHALL BE PLACED IN MASONRY WALLS. SEE FOUNDATION PLAN NOTES FOR ADDITIONAL INFO.

J. TYPICAL ROOF DECK SHALL BE 1 1/2" x 20 GA. B-36 DECK PER G.S.N. U.N.O. DECK ATTACHMENT TO ROOF FRAMING, INCLUDING EDGES OF OPENINGS AND DRAG/COLLECTOR ELEMENTS NOTED ON PLAN, SHALL BE AS FOLLOWS U.N.O. :

SUPPORTS PERPEND. TO DECK SPAN: (5) PUDDLE WELDS PER SHEET
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SIDE SEAM CONNECTIONS: BUTTON PUNCHES AT 12" o.c.,
PUNCHLOK II (VERCO DECK ONLY) AT 24" o.c.,
OR DELTAGRIP (ASC DECK ONLY) AT 24" o.c.

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A. VERIFY ALL DIMENSIONS, ELEVATIONS, SLOPES, ETC., w/ ARCH'L. PRIOR TO CONSTRUCTION. RESOLVE DISCREPANCIES WITH ARCHITECT.

B. VERIFY LOCATION AND SIZE OF ALL INSERTS AND OPENINGS IN SLAB WITH ARCH'L., MECH., PLUMBING, AND ELECT. PRIOR TO CONSTRUCTION.

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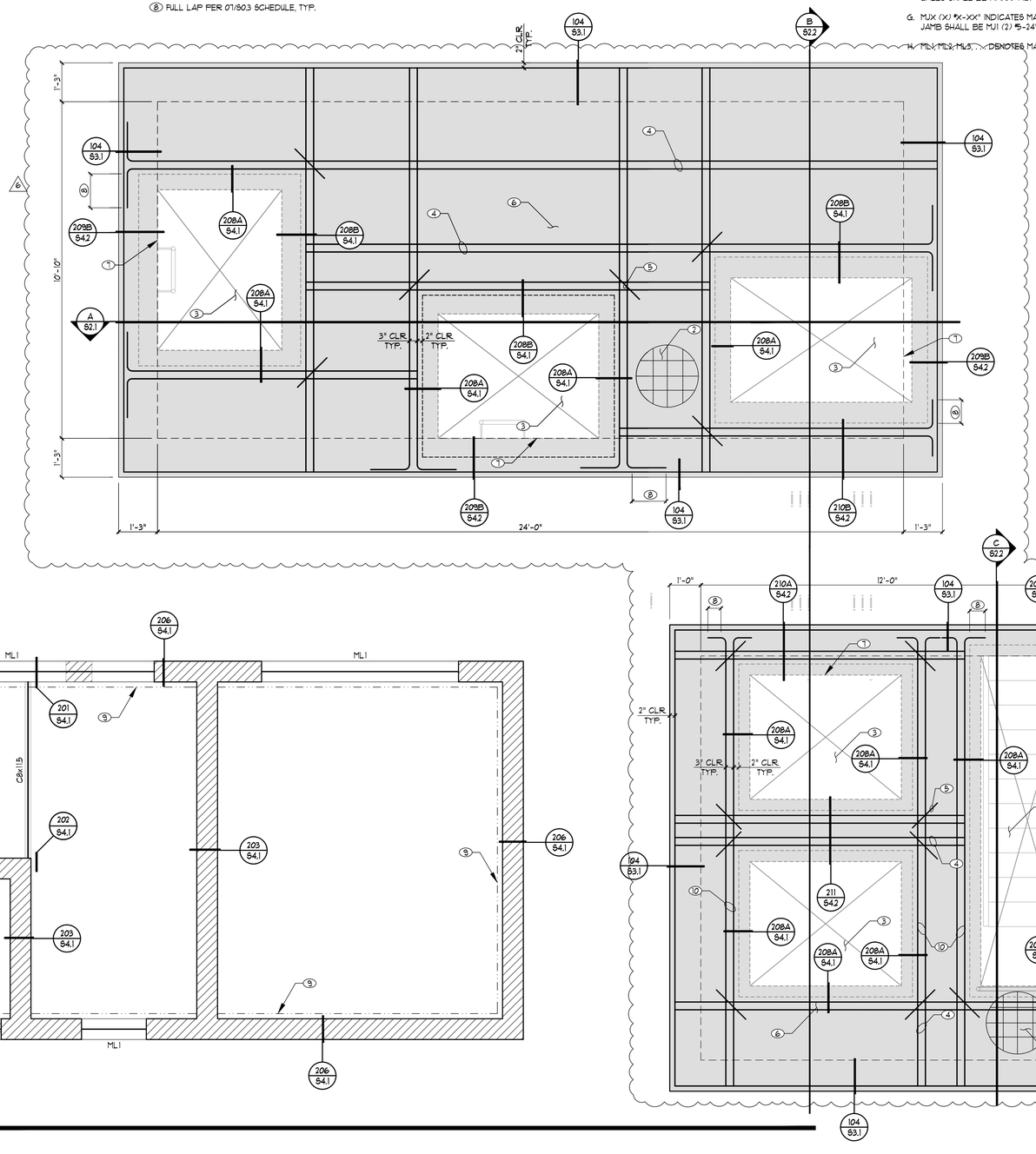
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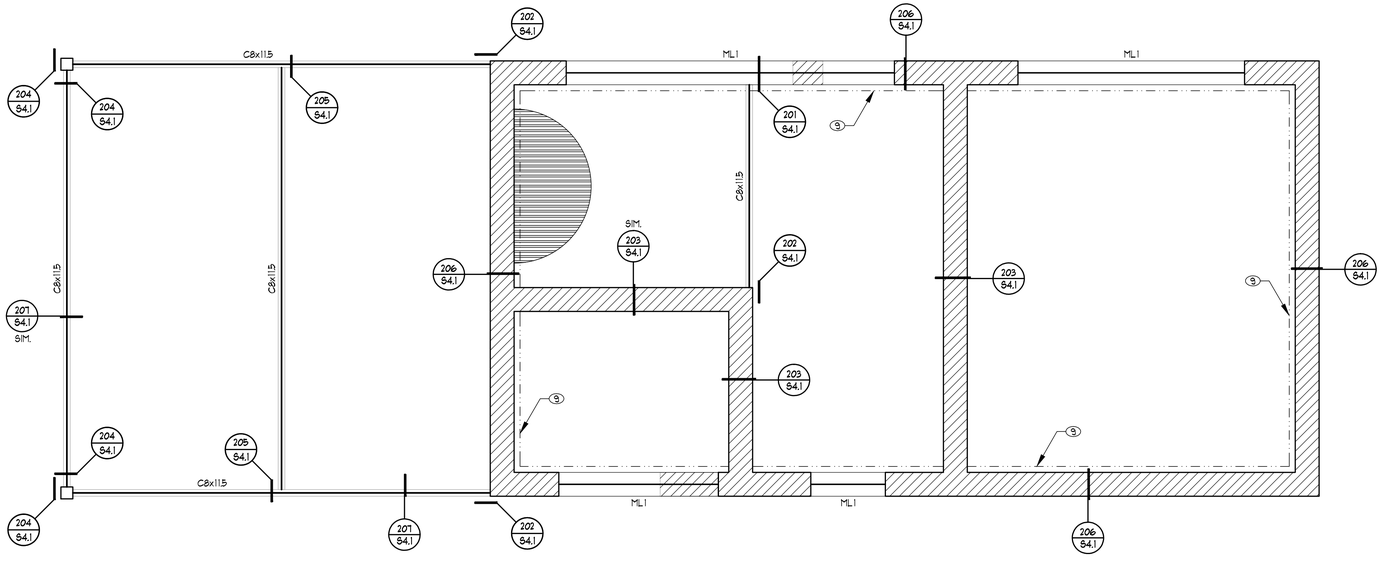
E. SEE ARCH'L. SLAB EDGE PLANS FOR SLAB, OPENING, AND STEP DIMENSIONS.

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ROOF FRAMING PLAN AND CONCRETE LID PLAN

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

6	XX	04/12/19	CHANGES PER LADPW PLAN REVIEW
5	XX	06/25/19	PLAN CHECK REVISIONS
4	XX	10/29/19	PLAN CHECK REVISIONS
3	XX	11/20/19	PLAN CHECK REVISIONS
2	XX	03/05/21	HATCH REVISIONS
1	XX	05/23/19	
APP.	DATE		

REGISTERED PROFESSIONAL ENGINEER ★ THOMAS C. ALLEN No.55460 ★ STATE OF CALIFORNIA
3/5/2021

PREPARED BY: X
PROJECT ENGINEER: --
R.C.E. NO: --
EXP: --
DRAWN: WE
DESIGNED: DT
CHECKED: TA
SCALE: AS SHOWN
DATE: APR. 2019

TITLE: ROOF FRAMING & CONCRETE LID PLAN

JOB: MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.paceware.com

SHEET S1.2

JOB NO. 9862-E

WRIGHT engineers
2 Venture Suite 200
Irvine, CA 92618
949.477.4001 wrightle.com

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S1218101-PR1

S1.2 FROM ORIGINAL APPROVED PLANS

KEYNOTES

⑨ L4x4x5/16 CONT. LEDGER

⑩ (2) #8 AT TOP AND BOTTOM

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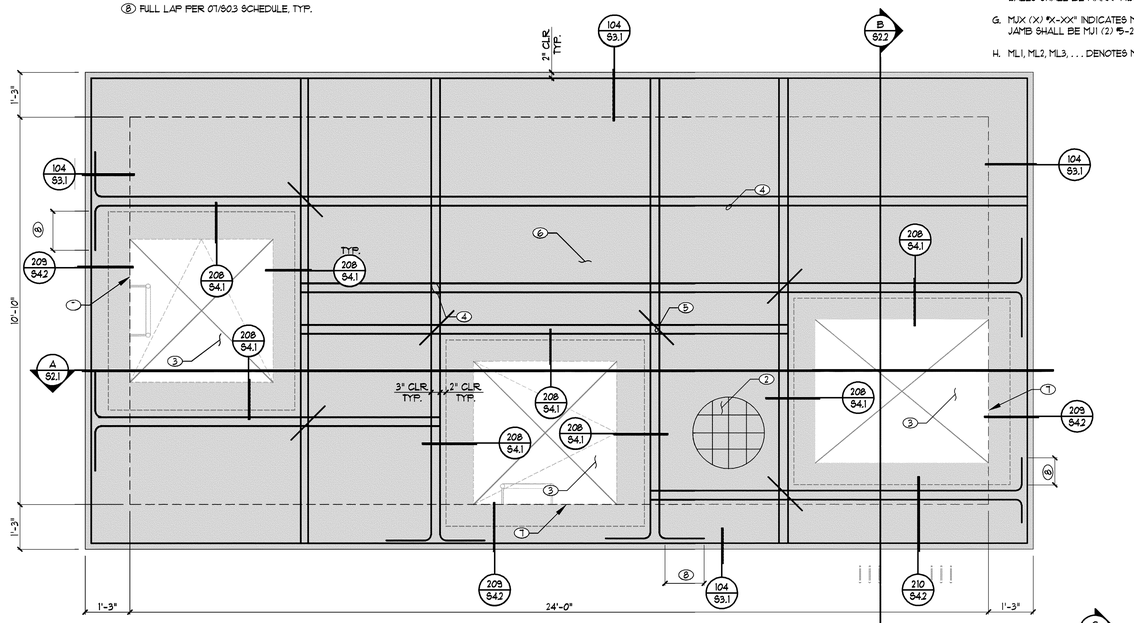
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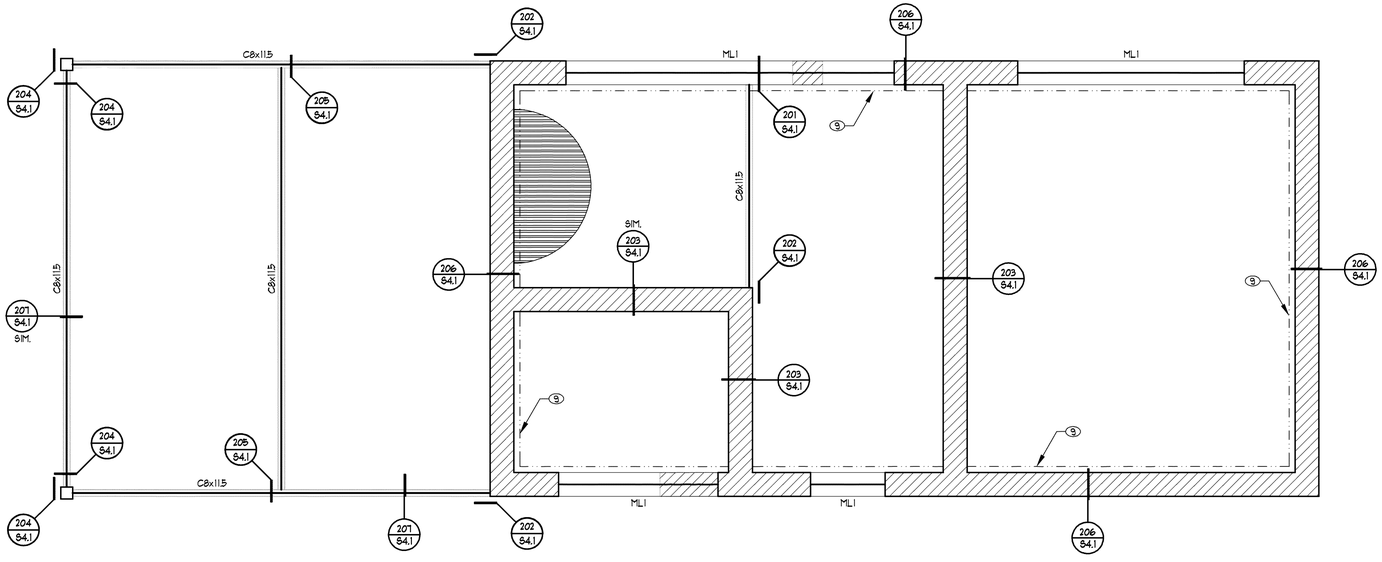
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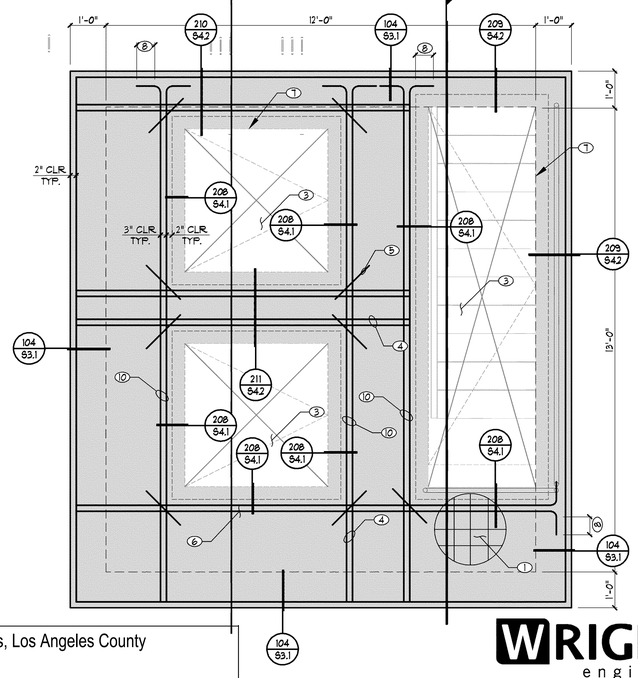
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ROOF FRAMING PLAN AND CONCRETE LID PLAN

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

Department of Public Works, Los Angeles County

Checked _____ _____
Design Division Date

WRIGHT engineers
2 Venture Suite 200
Irvine, CA 92618
949.477.A101 wrighte.com

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER * THOMAS C. ALLEN No.55460 * STATE OF CALIFORNIA * 1/9/2020

PREPARED BY
-

PROJECT ENGINEER
R.C.E. NO. --
EXP. --

DRAWN WE
DESIGNED DT
CHECKED TA
SCALE AS SHOWN
DATE APR. 2019

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TITLE
ROOF FRAMING & CONCRETE LID PLAN

JOB
MISSION VILLAGE
DPW-1 SEWER PUMP STATION
VALENCIA CA

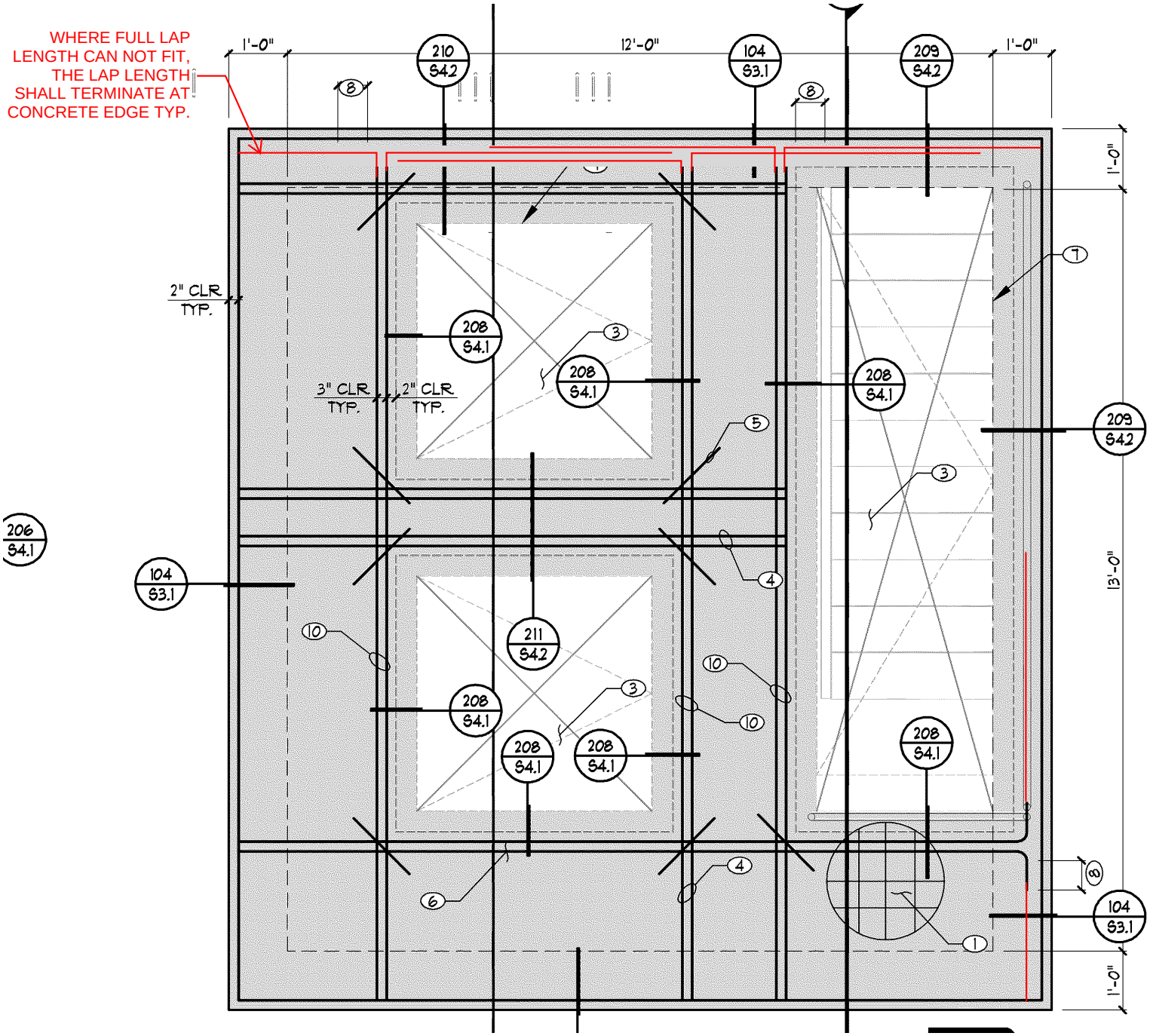
PACE Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

SHEET S1.2

JOB NO. 9862-E

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RFI #1 Response



PROJECT:	NO:	SHEET:
MISSION VILLAGE SEWER LIFT STATION	181011	3

GENERAL ENGINEERING CONTRACTORS
CA License No. 256065 •A, C-16, HAZ, HIC
P.O. Box 672 • Oxnard, CA 91302-0672
3201 Sturgis Road • Oxnard, CA 93030
(805) 656-1432 • FAX (805) 485-0338

REQUEST FOR INFORMATION

DATE: 2-16-2021

RFI #: **049**

Attention: Tom Hay Bob Brazell, FivePoint Brian Reid, PACE Matt Mills, PACE Fax #: 661-255-4296	From: Matt Messerly Delivered Via: Email Blois Construction Project No.: 3065 Project Name: Mission Village Sewer Lift Station DPW-1

Subject:	**Deck Rebar Mods for Hatches**	
Reference:	Drawing Sheets:	M1.1, S1.2, S2.1, S2.2, S4.1, S4.2
	Detail Numbers:	208 on S4.1 & 209, 210, 211 on S4.2
	Spec. Sections:	05540 Hatches
	Schedule Activities Impacted:	Decks for Wet Well & Valve Vault: Falsework Erection, Forming, Rebar Procure & Place, Hatch Installation

INFORMATION REQUESTED:

Regarding modifications to reinforcement steel in the concrete decks/roofs of the wet well and valve vault for the embedded hatches:

The following note was written as part of the submittal review from PACE for each of the four different types of hatches:
"Contractor shall be responsible for modifications to the rebar layout and concrete pad that is associated with the installation of a hatch with a frame size that differs from that shown within the Contract Documents. The Contractor shall submit proposed reinforcement modifications for the Structural Engineer of Record's approval prior to conducting the work."

Rebar modifications have been discussed between the project owner, inspection staff, us (as the general contractor), personnel from PACE, and R. Dugan (our concrete subcontractor).

We have taken steps to mark-up the deck rebar shop drawings and to look at some possible modifications resulting from the hatch frame dimensions and profile being different than what is drawn on the plans.

However, at this stage we believe the situation calls for a significant design evaluation and possible re-design of some of the rebar in the decks to accommodate these hatches. We, as the contactor, can have any number of ideas on adjustments to the rebar configuration, however it will ultimately be up to the structural engineer to understand and prescribe what will work for any required modifications to the rebar. This is a design issue.

We anticipate that revised, updated structural plan sheets and details will be issued to us to clarify these rebar mods.

Please see attached notes and mark-ups.

Please review and advise.

Response Requested by:	**2/24/2021**	
If a definitive response is not received by this date Project Schedule Will be Delayed	☐ YES ☐ NO ☒ Uncertain	Potential Cost Impact ☐ YES ☐ NO ☒ Uncertain

RESPONSE: SEE COMMENTS ON THE FOLLOWING PAGES	
BY: DAVIS TRUONG, WRIGHT ENGINEERS	DATE: 2/26/2021

RFI #49

General Engineering Contractors
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Phone 805 656-1432
FAX 805 485-0338
www.bloisconstruction.com

DPW-1 Hatch Info & Dimension Summary

RFI #49

Wet Well

Safety Hatch

- Plan View Dimension Changes (Overall Outer Frame Dimensions – dashed line on plans)
  - Length increase of 7.5” from 5’-6.5” to 6’-2”
    - 3.75” each side
  - Width stays same at 5’-2.5”
- Depth increase of 6” to 11&11/16” – includes lift spring mechanism
  - Shop drawing shows frame depth to be 10” overall
    - 3.5” channel depth (top of hatch to first step down)
    - 7.75” depth from top of hatch to second step

Pump Hatch

- Dimension Changes
  - Length increase of 9.5” from 6’-0.5” to 6’-10”
    - Split or all on one side?
  - Width increase of 1.5” from 5’-2.5” to 5’-4”
    - 0.75” each side – seems negligible
- Depth increase of 6” to 11&11/16” – includes lift spring mechanism
  - Shop drawing shows frame depth to be 10” overall
    - 3.5” channel depth (top of hatch to first step down)
    - 7.75” depth from top of hatch to second step

*The profile, or shape, of the outer frame is greater in depth, or thickness, than what is shown on the plans. This may be one of the most significant elements of reinforcement around the hatches that may have to be re-designed. The structural details for the hatches (208/S4.1, 209/S4.2, 210/S4.2, & 211/S4.2) show a 6” minimum thickness of reinforced concrete beneath the hatch frame. It is assumed that this section supports the hatch frame from below. This 6” minimum is a design that considered only a 6” thick/deep hatch frame, since the concrete deck is 12” thick. Because of the thicker hatch frames on the approved hatches, the 6” min of concrete with rebar beneath the hatch frame is not achievable with the approved hatches. If this 6” is required, the deck will have to adjust to accommodate the hatches.

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www.bloisconstruction.com

RFI #49

Valve Vault

Inspection Hatch

- Dimension Changes
  - Length increases by 10.5” from 4’-8.5” to 5’-7”
    - Possible split:
      - 7.5” on side closer to bldg.
      - 3” on side closer to entry hatch
  - Width stays same at 4’-8.5”
- Depth increase of 6” to 11&11/16” – includes lift spring mechanism
  - Shop drawing shows frame depth to be 8” overall
    - 3.5” channel depth (top of hatch to first step down)
    - 5.75” depth from top of hatch to top of grate

Entry Hatch

- Size increase not as significant
- 3’x10’ dimensions maintained between approved hatches and plan
- Plan did not show frame dimensions, but did not show dashed line indicating frame
- Add 3” each side for frame; appears to match plan

RFI #49

KEYNOTES

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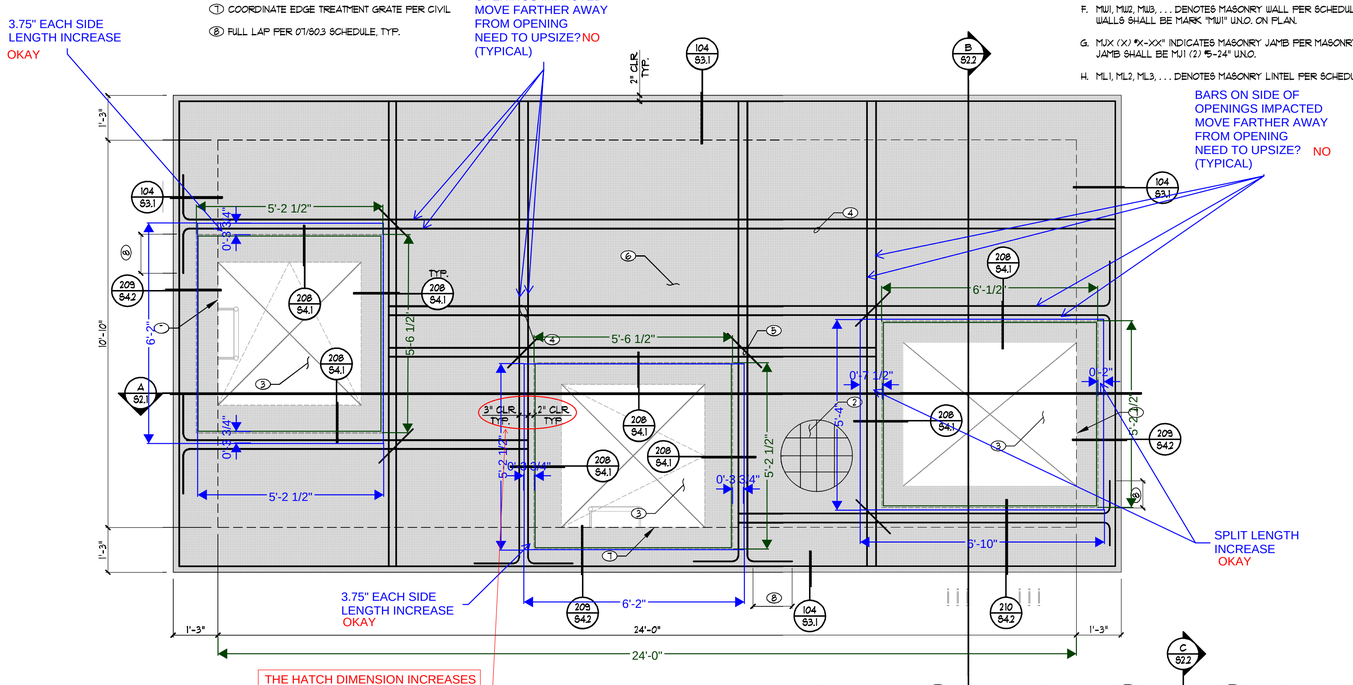
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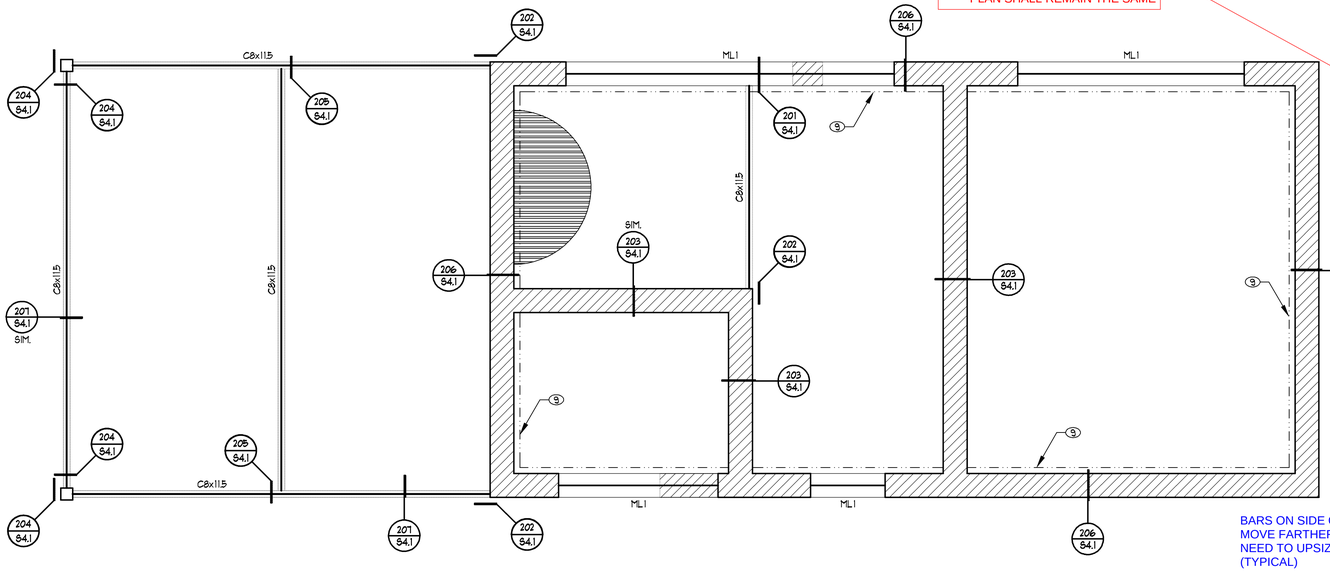
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ROOF FRAMING PLAN AND CONCRETE LID PLAN

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

Department of Public Works, Los Angeles County

Checked _____ _____
Design Division Date

WRIGHT engineers
2 Venture Suite 200
Irvine, CA 92618
949.477.4001 wrightel.com

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER ★ THOMAS C. ALLEN No.55460 ★ STATE OF CALIFORNIA ★ 1/9/2020

PREPARED BY -
R.C.E. NO. --
EXP. --
PROJECT ENGINEER --
DRAWN WE
DESIGNED DT
CHECKED TA
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TITLE: ROOF FRAMING & CONCRETE LID PLAN

JOB: MISSION VILLAGE
DPW-1 SEWER
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SHEET S1.2

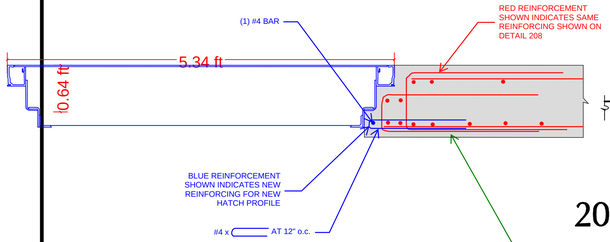
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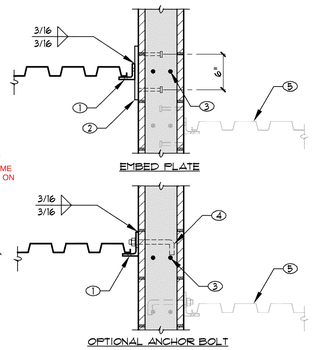
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Dimscale = 1"=1,Tscale = 1"=1,PSscale = 1",ACAD Ver. = 23.0s (LMS Tech), Viewtan = 1

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RFI #49

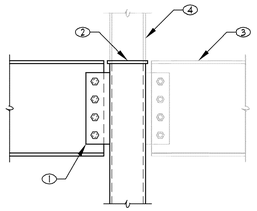




1. CONT. LEDGER PER PLAN. 4" MIN VERT. LEG REQUIRED FOR A.B. OPTION
2. PL3/8x4x9 w/ (2) 1/2" DIA. x 4" NELSON STUDS. GROUT 4" MIN. ABOVE AND BELOW ANCHORS
3. CONT. GROUTED BOND BEAM PER PLAN OR G.S.N.
4. 3/4" DIA. x6" EMBED A.B. SPACE AT ONE-HALF SPACING CALLED FOR EMBED PLATE
5. STEEL DECK AS OCCURS

A. CONCRETE OVER STEEL DECK WHERE OCCURS NOT SHOWN FOR CLARITY
B. STEEL DECK ORIENTATION MAY BE AT 90° TO THAT SHOWN
C. VERT. REINFORCING NOT SHOWN FOR CLARITY
D. MAX. EMBED PLATE SPACING 4'-0" o.c.

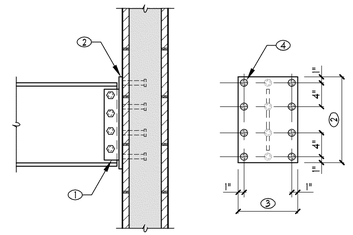
206 STEEL DECK AT MASONRY WALL
206-181011 NO SCALE



1. SHEAR PLATE, BOLTS, WELDS, ETC., PER TYPICAL SHEAR PLATE CONNECTION SCHEDULE
2. CAP PLATE AT TOP OF COLUMN PER TYPICAL COLUMN CAP PLATE DETAIL U.N.O.
3. BEAM BOTH SIDES OF COLUMN AS OCCURS PER PLAN
4. CONTINUATION OF COLUMN AS OCCURS

A. ADJOINING FRAMING AS OCCURS NOT SHOWN FOR CLARITY

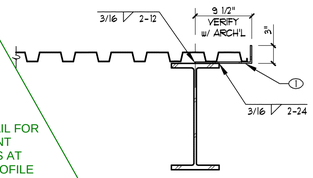
204 STEEL BEAM AT HSS COLUMN
8806-03 080227 NO SCALE



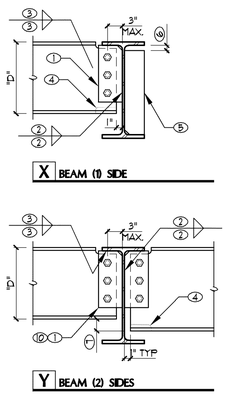
1. SHEAR PLATE SIZE AND NUMBER OF BOLTS PER TYPICAL SHEAR PLATE CONNECTION SCHEDULE
2. 3/4" EMBED PLATE, DEPTH EQUAL TO BEAM DEPTH (14" MIN.)
3. 9" FOR BEAMS UP TO 18" DEEP, 12" FOR BEAMS UP TO 24" DEEP
4. 3/4" DIA. x 5" NELSON STUDS. (8) FOR BEAMS UP TO 18" DEEP. (12) FOR BEAMS UP TO 24" DEEP

201 STEEL BEAM AT MASONRY WALL
201-181011 NO SCALE

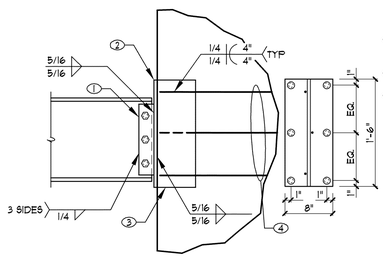
1. 3/16 x CONT. BENT PLATE EDGE ANGLE



207 STEEL DECK AT STEEL BEAM
207-181011 NO SCALE

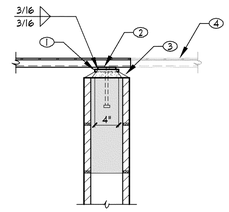


1. SHEAR PLATE, BOLTS, ETC, PER TYPICAL SHEAR PLATE CONNECTION SCHEDULE
2. WELD SIZE PER TYPICAL SHEAR PLATE CONNECTION SCHEDULE, TYP. AT SHEAR PLATE TO BEAM WEB WELDS
3. MIN. WELD SIZE PER AISC 360, TABLE J2.4, TYP. AT SHEAR PLATE TO BEAM FLANGE WELDS
4. COPE BOTTOM OF BEAM AS NECESSARY TO AVOID INTERFERENCE W/ SHEAR PLATE OR BOTTOM FLANGE OF SUPPORTING BEAM
5. STIFFENER PLATE OPPOSITE SHEAR PLATE. STIFFENER THICKNESS SHALL EQUAL SHEAR PLATE THICKNESS. STIFFENER NOT REQ'D. WHERE DEPTH OF SUPPORTED BEAM IS LESS THAN 1/2 THE DEPTH OF THE SUPPORTING BEAM
6. STIFFENER SHALL EXTEND TO WITHIN 1/2" OF BEAM FILLET
7. WHERE SUPPORTED BEAMS DIFFER IN DEPTH BY 3" OR GREATER, EXTEND SHEAR PLATE FOR DEEPER BEAM TO BOTTOM FLANGE OF SUPPORTING BEAM AND WELD ~~STRAIGHT~~
8. CHAMFER TOP OF BEAM TO MATCH ADJACENT STEEL JOIST BEARING DEPTH AS OCCURS
9. HORIZ. BOLT ROW AT "D" = T" OR LESS
10. AT DETAIL 205A, USE STD. HOLES IN BOTH BEAM WEB AND SHEAR PLATE. BOLTS SHALL BE FULLY PRETENSIONED. FAYING SURFACES SHALL BE PREPARED AS REQ'D. FOR CLASS "A" SLIP-CRITICAL JOINTS (SEE G.S.N. FOR ADDITIONAL INFO.)



1. SHEAR PLATE SIZE, TYPE AND NUMBER OF BOLTS PER TYPICAL SHEAR PLATE CONNECTION SCHEDULE
2. 3/4" EMBED PLATE w/ (6) 3/4" DIA. x 5" NELSON STUDS
3. 1/2" x 6" PLATE
4. (3) #6 x 8'-0" DEFORMED WELDABLE REBAR

202 STEEL BEAM AT MASONRY WALL DRAG CONNECTION
8M02-05 080304 NO SCALE



1. EMBED PLATE 3/8" x 6" x 0'-4" w/ (2) 1/2" DIA x 6" NELSON STUDS SPACED AT 4"
2. 3/8" x 3" x CONT. DECK BEARING PLATE
3. 1" +/- GROUT OR DRYPACK
4. CONTINUATION OF STEEL DECK AS OCCURS

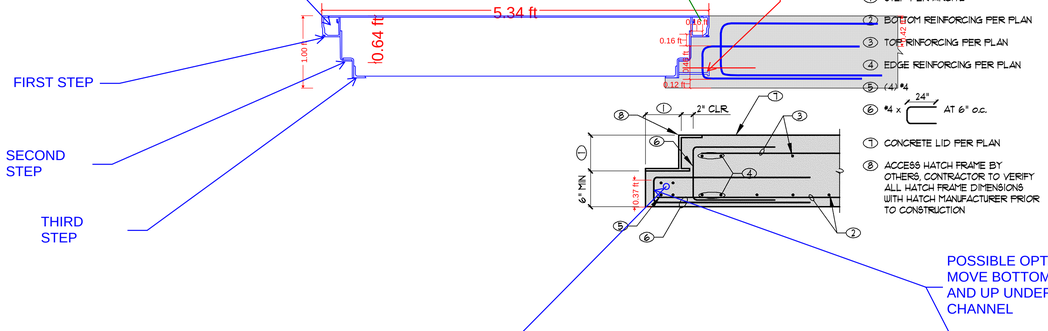
A. MAX. EMBED PLATE SPACING 4'-0" o.c.
B. WALL VERTICAL AND HORIZONTAL REINFORCING NOT SHOWN FOR CLARITY

203 STEEL DECK AT MASONRY WALL
8M03-02 161012.EDR NO SCALE

OBSERVATION:
FIRST STEP IN HATCH FRAME IS BENEATH CHANNEL WHICH GOES ALL AROUND FRAME CHANNEL DIMENSIONS ARE APPROX. 3.5" DEPTH BY 3" WIDTH

MODIFIED DETAIL FOR REINFORCEMENT REQUIREMENTS AT NEW HATCH PROFILE

POSSIBLE OPTION FOR LARGER EMBEDDED ANCHORS MAY NOT WORK WITH POST-INSTALLED METHOD



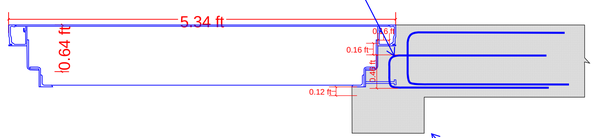
1. STEP PER ARCH'L
2. BOTTOM REINFORCING PER PLAN
3. TOP REINFORCING PER PLAN
4. EDGE REINFORCING PER PLAN
5. (4) #4
6. #4 x 24" AT 6" o.c.
7. CONCRETE LID PER PLAN
8. ACCESS HATCH FRAME BY OTHERS, CONTRACTOR TO VERIFY ALL HATCH FRAME DIMENSIONS WITH HATCH MANUFACTURER PRIOR TO CONSTRUCTION

POSSIBLE OPTION:
MOVE BOTTOM "U" BAR BACK AND UP UNDERNEATH CHANNEL

208 DEPRESSED EDGE OF SLAB AT OPENING
208-181011 NO SCALE

OBSERVATION:
REINFORCED 6" THICK SECTION OF CONCRETE SHOW BELOW BOTTOM OF HATCH WILL NOT FIT SINCE THE HATCHES ARE THICKER THAN 6"

POSSIBLE OPTIONS:
THIS REINFORCING CONFIGURATION COULD BE MOVED UP TO BENEATH THE CHANNEL
THIS SECTION COULD STAY BELOW THE HATCH IF THE DECK THICKNESS WAS INCREASED



POSSIBLE OPTION:
THICKEN CONCRETE DECK AROUND AND BENEATH HATCH TO ACCOMODATE THICKER/DEEPER FRAME TO PROVIDE 6" MIN PER ORIGINAL DETAIL
ADDITIONAL REINFORCING CAN BE PROVIDED IN THIS THICKENED SECTION
THICKENING SECTION NOT REQUIRED

205 STEEL BEAM TO BEAM SHEAR PLATE CONNECTION
205-181011 NO SCALE
205A AS NOTED SLR5

FRAMING DETAILS

BID SET - AUGUST 29, 2019
ADDENDUM #1 - SEPTEMBER 13, 2019
ADDENDUM #3 - SEPTEMBER 27, 2019

REVISION	DATE	NO.	BY
PLAN CHECK REVISIONS	06/25/19	XX	XX
CHANGES PER LADPW PLAN REVIEW	04/12/19	XX	XX
	05/23/19		
		XX	

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PREPARED BY: X
PROJECT ENGINEER
R.C.E. NO. --
EXP. --
DRAWN: WE
DESIGNED: DT
CHECKED: TCA
DATE: APR. 2019

TITLE

JOB: MISSION VILLAGE DPW-1 SEWER PUMP STATION ADDENDUM #3 VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

SHEET S4.1

JOB NO. 9862-E

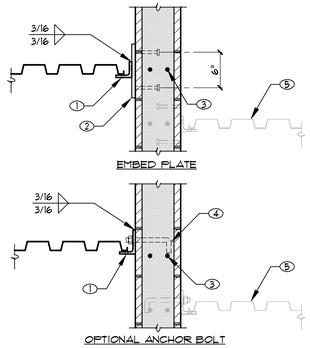
WRIGHT engineers
2 Venture Suite 200
Irvine, CA 92618
949.477.4001 wrightse.com

S41-181011-D

Dimscale = 1; LTscale = 1; PSltscale = 1; ACAD Ver. = 23.0s (LMS Tech); Visretain = 1

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RFI #49

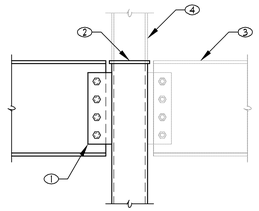


1. CONT. LEDGER PER PLAN. 4" MIN VERT. LEG REQUIRED FOR A.B. OPTION
2. PL3/8x4x9 w/ (2) 1/2" DIA. x 4" NELSON STUDS. GROUT 4" MIN. ABOVE AND BELOW ANCHORS
3. CONT. GROUTED BOND BEAM PER PLAN OR G.S.N.
4. 3/4" DIA. x6" EMBED A.B. SPACE AT ONE-HALF SPACING CALLED FOR EMBED PLATE
5. STEEL DECK AS OCCURS

A. CONCRETE OVER STEEL DECK WHERE OCCURS NOT SHOWN FOR CLARITY
B. STEEL DECK ORIENTATION MAY BE AT 90° TO THAT SHOWN
C. VERT. REINFORCING NOT SHOWN FOR CLARITY
D. MAX. EMBED PLATE SPACING 4'-0" o.c.

206 STEEL DECK AT MASONRY WALL

206-181011 NO SCALE

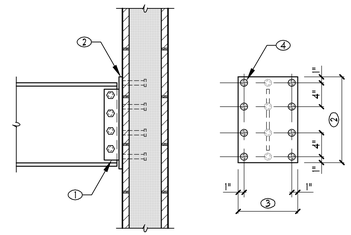


1. SHEAR PLATE, BOLTS, WELDS, ETC., PER TYPICAL SHEAR PLATE CONNECTION SCHEDULE
2. CAP PLATE AT TOP OF COLUMN PER TYPICAL COLUMN CAP PLATE DETAIL U.N.O.
3. BEAM BOTH SIDES OF COLUMN AS OCCURS PER PLAN
4. CONTINUATION OF COLUMN AS OCCURS

A. ADJOINING FRAMING AS OCCURS NOT SHOWN FOR CLARITY

204 STEEL BEAM AT HSS COLUMN

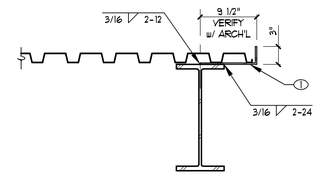
8806-03 080227 NO SCALE



1. SHEAR PLATE SIZE AND NUMBER OF BOLTS PER TYPICAL SHEAR PLATE CONNECTION SCHEDULE
2. 3/4" EMBED PLATE, DEPTH EQUAL TO BEAM DEPTH (14" MIN.)
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201 STEEL BEAM AT MASONRY WALL

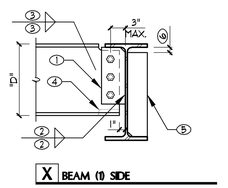
201-181011 NO SCALE

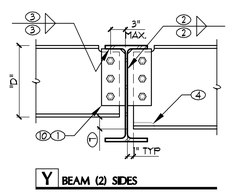


1. 3/16 x CONT. BENT PLATE EDGE ANGLE

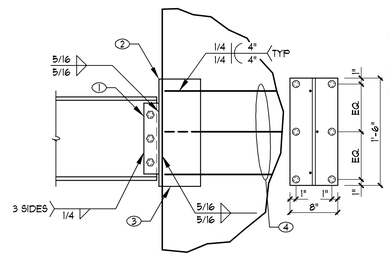
207 STEEL DECK AT STEEL BEAM

207-181011 NO SCALE





1. SHEAR PLATE, BOLTS, ETC., PER TYPICAL SHEAR PLATE CONNECTION SCHEDULE
2. WELD SIZE PER TYPICAL SHEAR PLATE CONNECTION SCHEDULE, TYP. AT SHEAR PLATE TO BEAM WEB WELDS
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8. CUT TOP OF BEAM TO MATCH ADJACENT STEEL JOIST BEARING DEPTH AS OCCURS
9. HORIZ. BOLT ROW AT "D" = T" OR LESS
10. AT DETAIL 205A, USE STD. HOLES IN BOTH BEAM WEB AND SHEAR PLATE. BOLTS SHALL BE FULLY PRETENSIONED. FAYING SURFACES SHALL BE PREPARED AS REQ'D. FOR CLASS "A" SLIP-CRITICAL JOINTS (SEE G.S.N. FOR ADDITIONAL INFO.)



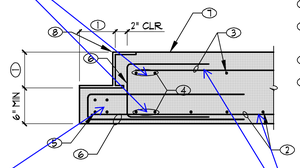
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2. 3/4" EMBED PLATE w/ (6) 3/4" DIA. x 5" NELSON STUDS
3. 1/2" x 6" PLATE
4. (3) #6 x 8'-0" DEFORMED WELDABLE REBAR

202 STEEL BEAM AT MASONRY WALL DRAG CONNECTION

8M02-05 080304 NO SCALE

POSSIBLE OPTION:
EDGE REINFORCING
MOVES OVER
SIZE INCREASE
SPACING DECREASE

NOT REQUIRED



POSSIBLE OPTION:
SUPPORTING "BEAM"
BENEATH HATCH
SIZE INCREASE
SPACING DECREASE
CONFIGURATION ADJUSTMENT

NOT REQUIRED

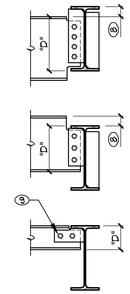
POSSIBLE OPTION:
TOP & BOTTOM
REINFORCING SIZE
INCREASE AND
SPACING DECREASE

NOT REQUIRED

1. STEP PER ARCH'L
2. BOTTOM REINFORCING PER PLAN
3. TOP RINFORCING PER PLAN
4. EDGE REINFORCING PER PLAN
5. (4) #4
6. #4 x 24" AT 6" o.c.
7. CONCRETE LID PER PLAN
8. ACCESS HATCH FRAME BY OTHERS, CONTRACTOR TO VERIFY ALL HATCH FRAME DIMENSIONS WITH HATCH MANUFACTURER PRIOR TO CONSTRUCTION

208 DEPRESSED EDGE OF SLAB AT OPENING

208-181011 NO SCALE

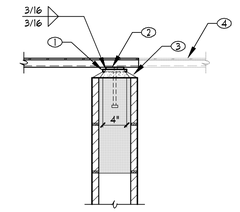


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8. CUT TOP OF BEAM TO MATCH ADJACENT STEEL JOIST BEARING DEPTH AS OCCURS
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205 STEEL BEAM TO BEAM SHEAR PLATE CONNECTION

205-181011 NO SCALE

205A AS NOTED SLRS



1. EMBED PLATE 3/8" x 6" x 0'-4" w/ (2) 1/2" DIA x 6" NELSON STUDS SPACED AT 4"
2. 3/8" x 3" x CONT. DECK BEARING PLATE
3. 1" +/- GROUT OR DRYPACK
4. CONTINUATION OF STEEL DECK AS OCCURS

A. MAX. EMBED PLATE SPACING 4'-0" o.c.
B. WALL VERTICAL AND HORIZONTAL REINFORCING NOT SHOWN FOR CLARITY

203 STEEL DECK AT MASONRY WALL

8M03-02 161012.EDR NO SCALE

Department of Public Works, Los Angeles County

Checked _____ _____

Design Division Date

WRIGHT engineers

2 Venture Suite 200
Irvine, CA 92618
949.477.4001 wrighteng.com

S41-181011-D

NO	BY	DATE	REVISIONS	DATE	APP.

PROFESSIONAL ENGINEER ★ REGISTERED ★ STATE OF CALIFORNIA
THOMAS C. ALLEN
No.55460
STRUCTURAL
1/9/2020

PREPARED BY: -
R.C.E. NO.: -
EXP.: -
PROJECT ENGINEER: -
DRAWN: WE
DESIGNED: DT
CHECKED: TA
SCALE: AS SHOWN
DATE: APR. 2019

TITLE: FRAMING DETAILS

JOB: MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
VALENCIA CA

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PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

SHEET S4.1

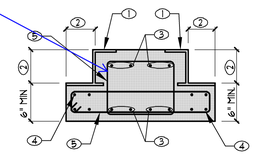
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RFI #49

OBSERVATION:
TIE MAY NOT BE IMPACTED
CAN STILL BE PLEASE BENATH CHANNEL
FRAME (FIRST STEP DOWN)

NEW FRAME PROFILE WILL NOT EFFECT REINFORCEMENT SHOW ON DETAIL 211



1. CONCRETE WALL AND REINFORCING PER PLAN
2. STEP PER ARCH'L
3. EDGE REINFORCING PER PLAN
4. (4) #4
5. #4 TIES AT 6" o.c.

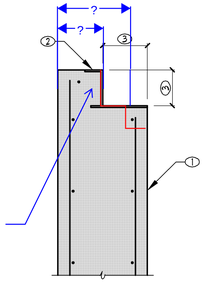
ONLY FOR VALVE VAULT BETWEEN INSPECTION HATCHES

211 DEPRESSED EDGE OF SLAB AT OPENING

211-181011 NO SCALE

HATCH FRAME AND OPENING DIMENSIONS HAVE TO BE DRAWN TO SHOW CLEAR OPENING THROUGH HATCH
HATCH CANNOT BE TOO CLOSE TO WALL EDGE OF INSIDE OF HATCH FRAME CHECKED RELATIVE TO INSIDE FACE OF WALL

NEW FRAME PROFILE WILL NOT EFFECT REINFORCEMENT SHOW ON DETAIL 209

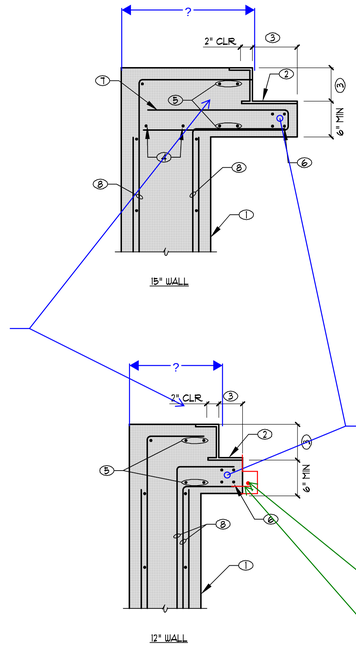


1. CONCRETE WALL AND REINFORCING PER PLAN
2. ACCESS HATCH FRAME BY OTHERS, CONTRACTOR TO VERIFY ALL HATCH FRAME DIMENSIONS WITH HATCH MANUFACTURER PRIOR TO CONSTRUCTION
3. STEP PER ARCH'L

209 DEPRESSED EDGE AT CONCRETE WALL

209-181011 NO SCALE

HATCH FRAME AND OPENING DIMENSIONS HAVE TO BE DRAWN TO SHOW CLEAR OPENING THROUGH HATCH
HATCH CANNOT BE TOO CLOSE TO WALL EDGE OF INSIDE OF HATCH FRAME CHECKED RELATIVE TO INSIDE FACE OF WALL



1. CONCRETE WALL AND REINFORCING PER PLAN
2. ACCESS HATCH FRAME BY OTHERS, CONTRACTOR TO VERIFY ALL HATCH FRAME DIMENSIONS WITH HATCH MANUFACTURER PRIOR TO CONSTRUCTION
3. STEP PER ARCH'L
4. BOTTOM REINFORCING PER PLAN
5. EDGE REINFORCING PER PLAN
6. (4) #4
7. #4 x 24" AT 6" o.c.
8. SLAB DOWEL TO MATCH AND LAP VERTICAL WALL REINFORCEMENT

SEE NOTES ON 208 FOR WHEN CUT AT WET WELL.

OBSERVATION:
REINFORCED 6" THICK SECTION OF CONCRETE SHOW BELOW BOTTOM OF HATCH WILL NOT FIT SINCE THE HATCHES ARE THICKER THAN 6"

POSSIBLE OPTIONS:
THIS REINFORCING CONFIGURATION COULD BE MOVED UP TO BENEATH THE CHANNEL
THIS SECTION COULD STAY BELOW THE HATCH IF THE DECK THICKNESS WAS INCREASED

210 DEPRESSED EDGE OF SLAB AT OPENING

210-181011 NO SCALE

Department of Public Works, Los Angeles County

Checked _____ _____
Design Division Date

WRIGHT engineers
2 Venture Suite 200
Irvine, CA 92618
949.477.4001 wrighte.com

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER ★ THOMAS C. ALLEN No.55460 ★ STRUCTURAL ★ STATE OF CALIFORNIA
1/9/2020

PREPARED BY X
PROJECT ENGINEER -
R.C.E. NO. -
EXP. -
DRAWN WE
DESIGNED DT
CHECKED TA
SCALE AS SHOWN
DATE APR. 2019

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TITLE
FRAMING DETAILS

JOB
MISSION VILLAGE
DPW-1 SEWER PUMP STATION
VALENCIA CA

PACE Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

SHEET S4.2

JOB NO. 9862-E

Dimscale = 1; LTscale = 1; PSltscale = 1; ACAD Ver. = 23.0s (LMS Tech); Viewtain = 1

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GENERAL ENGINEERING CONTRACTORS
CA License No. 256065 •A, C-16, HAZ, HIC
P.O. Box 672 • Oxnard, CA 91302-0672
3201 Sturgis Road • Oxnard, CA 93030
(805) 656-1432 • FAX (805) 485-0338

55

REQUEST FOR INFORMATION

DATE: 03-09-2021 RFI #: 0054XX

Attention: Tom Hay Bob Brazell, FivePoint Brian Reid, PACE Matt Mills, PACE Fax #: 661-255-4296	From: Matt Messerly Delivered Via: Email Blois Construction Project No.: 3065 Project Name: Mission Village Sewer Lift Station DPW-1

Subject:	**Hatches Locations, Distances, Dimensions**	
Reference:	Drawing Sheets:	S1.2, S2.1, S2.2, S4.1, S4.2
	Detail Numbers:	
	Spec. Sections:	
	Schedule Activities Impacted:	Concrete decks: rebar fab, rebar tie, form, hatch blockout, pour

INFORMATION REQUESTED:

Please see attached RFI from our concrete subcontractor, R. Dugan Construction regarding the hatches in the decks of the wet well and valve vault.

One of the main questions is requesting edge distances between the edge of the hatches and the edge of the concrete decks.

Another point is that the structural details would be significantly clearer if they were drawn to scale to show the hatch frame dimensions.

Please review advise.

Response Requested by:	**3/10/2021**		
If a definitive response is not received by this date Project Schedule Will be Delayed	☐ YES ☐ NO ☒ Uncertain	Potential Cost Impact	☐ YES ☐ NO ☒ Uncertain

RESPONSE: The dimensions indicated in the RFI are "as constructed" and do not take into account the space required for the hatch block out. Per the manufacturer's rep's recommendation, the Contractor shall allow < 3/8" of space around the hatch frame to account for the space required for an easy install. Other than the corrected dimensions herein, PACE takes no exception to the dimensions shown in the R. Dugan sketch.	
BY: Z.S. / M.J.M.	DATE: 03/19/2021

RFI #55

KEYNOTES

⑨ L4x4x5/16 CONT. LEDGER

⑩ (2) #8 AT TOP AND BOTTOM

① #4 AT 12" o.c. E.W. TOP AND BOTTOM

② TOP REINFORCEMENT: #4 AT 12" o.c. E.W.
BOTTOM REINFORCEMENT: #8 AT 6" o.c. PLAN NORTH-SOUTH
DIRECTION #4 AT 12" o.c. PLAN EAST-WEST DIRECTION

③ OPENING AS OCCURS PER CIVIL PLANS. CONTRACTORS TO VERIFY ALL HATCH FRAME DIMENSIONS WITH HATCH MANUFACTURER PRIOR TO CONSTRUCTION

④ DOUBLE UP BARS AT EACH SIDE OF OPENING TOP & BOTTOM

⑤ (2) #5 x 48" TOP & BOTTOM, TYP.

⑥ 12" THICK CONCRETE LID

⑦ COORDINATE EDGE TREATMENT GRATE PER CIVIL

⑧ FULL LAP PER 07/S03 SCHEDULE, TYP.

FRAMING PLAN NOTES

I. MASONRY CONTROL JOINTS (MCJ) SHALL BE PLACED IN MASONRY WALLS. SEE FOUNDATION PLAN NOTES FOR ADDITIONAL INFO.

J. TYPICAL ROOF DECK SHALL BE 1 1/2" x 20 GA. B-36 DECK PER G.S.N. U.N.O. DECK ATTACHMENT TO ROOF FRAMING, INCLUDING EDGES OF OPENINGS AND DRAG/COLLECTOR ELEMENTS NOTED ON PLAN, SHALL BE AS FOLLOWS U.N.O. :

SUPPORTS PERPEND. TO DECK SPAN: (5) PUDDLE WELDS PER SHEET
SUPPORTS PARALLEL TO DECK SPAN: PUDDLE WELDS AT 12" o.c.
SIDE SEAM CONNECTIONS: BUTTON PUNCHES AT 12" o.c.,
PUNCHLOK II (VERCO DECK ONLY) AT 24" o.c.,
OR DELTAGRIP (ASC DECK ONLY) AT 24" o.c.

FRAMING PLAN NOTES

A. VERIFY ALL DIMENSIONS, ELEVATIONS, SLOPES, ETC., w/ ARCH'L. PRIOR TO CONSTRUCTION. RESOLVE DISCREPANCIES WITH ARCHITECT.

B. VERIFY LOCATION AND SIZE OF ALL INSERTS AND OPENINGS IN SLAB WITH ARCH'L., MECH., PLUMBING, AND ELECT. PRIOR TO CONSTRUCTION.

C. ALL OPENINGS MAY NOT NECESSARILY BE SHOWN ON PLANS.

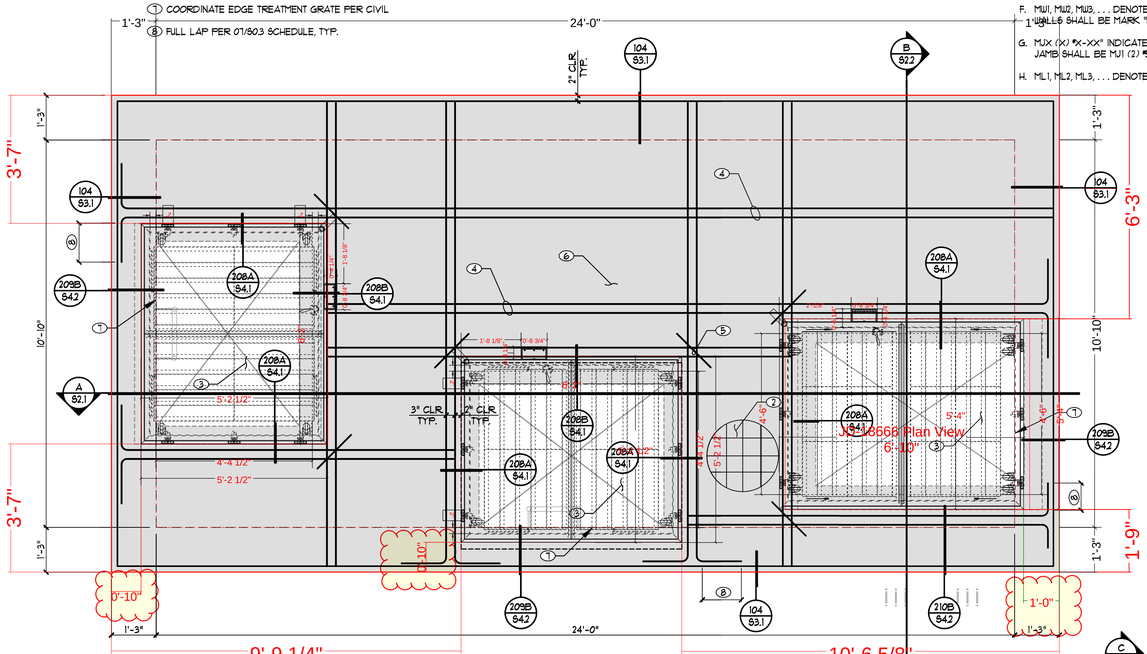
D. MISC. ITEMS SUCH AS STAIRS, LANDINGS, RAILINGS, MECH. EQUIPMENT ATTACHMENT TO PRIMARY STRUCTURAL FRAMING, ETC., SHALL BE DESIGNED BY OTHERS AND SUBMITTED FOR REVIEW AS DEFERRED SUBMITTALS PRIOR TO CONSTRUCTION. SEE G.S.N. FOR DEFERRED SUBMITTAL REQUIREMENTS.

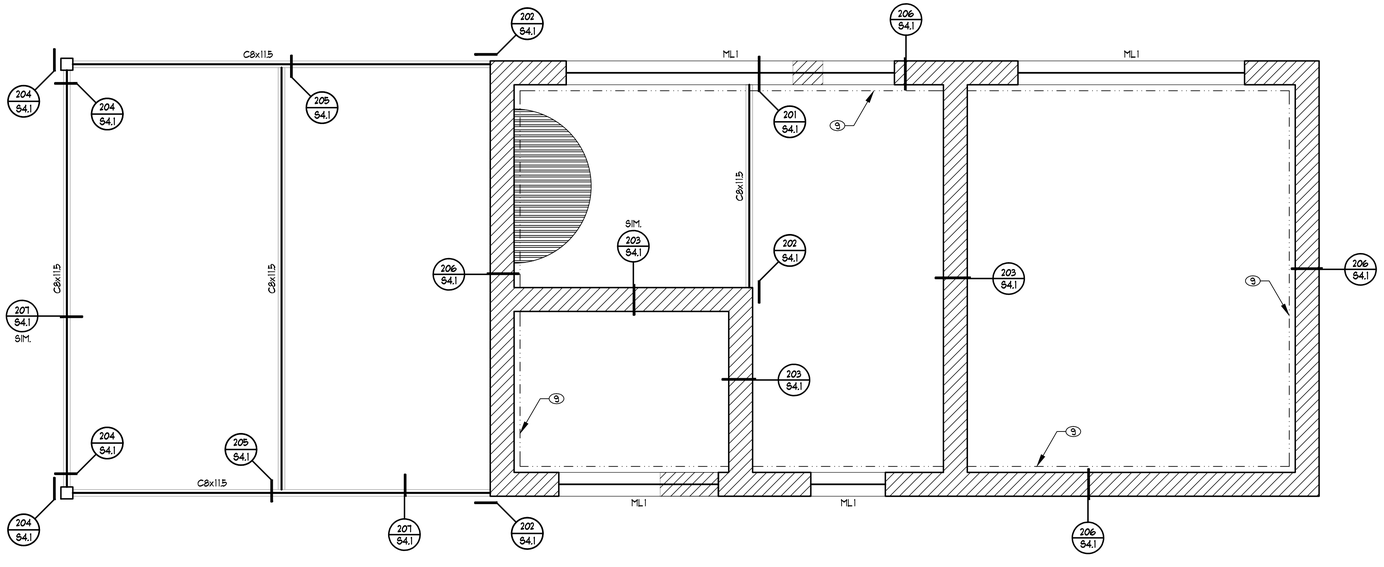
E. SEE ARCH'L. SLAB EDGE PLANS FOR SLAB, OPENING, AND STEP DIMENSIONS.

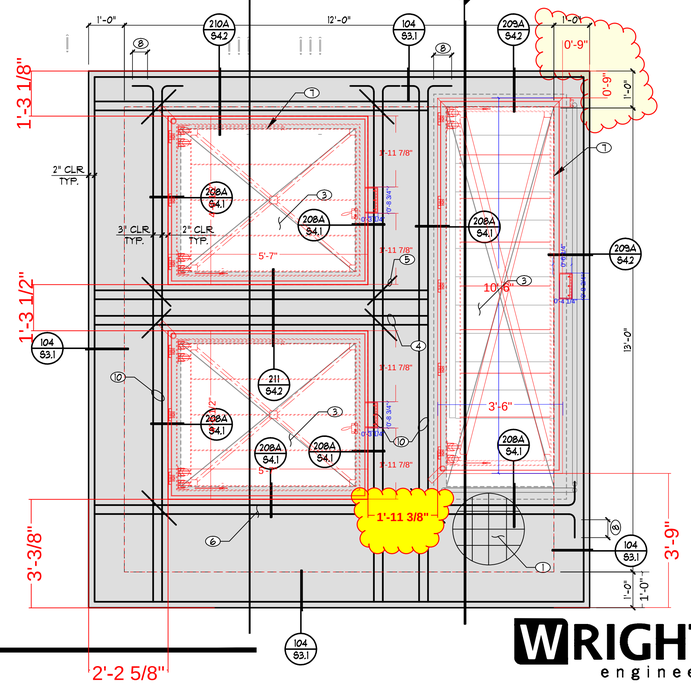
F. MW1, MW2, MW3, . . . DENOTES MASONRY WALL PER SCHEDULE ON SHEET S05. ALL MASONRY WALLS SHALL BE MARK "MW1" U.N.O. ON PLAN.

G. MJX (X) "X-XX" INDICATES MASONRY JAMB PER MASONRY JAMB SCHEDULE. TYPICAL JAMB SHALL BE MJ1 (2) #5-24" U.N.O.

H. ML1, ML2, ML3, . . . DENOTES MASONRY LINTEL PER SCHEDULE ON SHEET S05.







ROOF FRAMING PLAN AND CONCRETE LID PLAN

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

NO	BY	DATE	REVISIONS	DATE	APP.

PRELIMINARY
NOT FOR CONSTRUCTION

PREPARED BY: X
PROJECT ENGINEER
R.C.E. NO. --
EXP. --
DRAWN: WE
DESIGNED: DT
CHECKED: TA
SCALE: AS SHOWN
DATE: APR. 2019

TITLE: ROOF FRAMING & CONCRETE LID PLAN

JOB: MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
VALENCIA CA

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WRIGHT engineers
2 Venture Suite 200
Irvine, CA 92618
949.477.4001 wrightle.com

SHEET S1.2

JOB NO. 9862-E

Dimscale = 1; LLTscale = 1; PSltscale = 1; ACAD Ver. = 24.0s (LMS Tech); Variation = 1
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S12-181011-PR1

RFI #55

KEYNOTES

(9) L4x4x5/16 CONT. LEDGER

(10) (2) #8 AT TOP AND BOTTOM

(1) #4 AT 12" o.c. E.W. TOP AND BOTTOM

(2) TOP REINFORCEMENT: #4 AT 12" o.c. E.W.
BOTTOM REINFORCEMENT: #8 AT 6" o.c. PLAN NORTH-SOUTH
DIRECTION #4 AT 12" o.c. PLAN EAST-WEST DIRECTION

(3) OPENING AS OCCURS PER CIVIL PLANS, CONTRACTORS TO VERIFY ALL HATCH FRAME DIMENSIONS WITH HATCH MANUFACTURER PRIOR TO CONSTRUCTION

(4) DOUBLE UP BARS AT EACH SIDE OF OPENING TOP & BOTTOM

(5) (2) #5 x 48" TOP & BOTTOM, TYP.

(6) 12" THICK CONCRETE LID

(7) COORDINATE EDGE TREATMENT GRATE PER CIVIL

(8) FULL LAP PER 07/S03 SCHEDULE, TYP.

FRAMING PLAN NOTES

I. MASONRY CONTROL JOINTS (MCJ) SHALL BE PLACED IN MASONRY WALLS. SEE FOUNDATION PLAN NOTES FOR ADDITIONAL INFO.

J. TYPICAL ROOF DECK SHALL BE 1 1/2" x 20 GA. B-36 DECK PER G.S.N. U.N.O. DECK ATTACHMENT TO ROOF FRAMING, INCLUDING EDGES OF OPENINGS AND DRAG/COLLECTOR ELEMENTS NOTED ON PLAN, SHALL BE AS FOLLOWS U.N.O. :

SUPPORTS PERPEND. TO DECK SPAN:	(5) PUDDLE WELDS PER SHEET
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B. VERIFY LOCATION AND SIZE OF ALL INSERTS AND OPENINGS IN SLAB WITH ARCH'L., MECH, PLUMBING, AND ELECT. PRIOR TO CONSTRUCTION.

C. ALL OPENINGS MAY NOT NECESSARILY BE SHOWN ON PLANS.

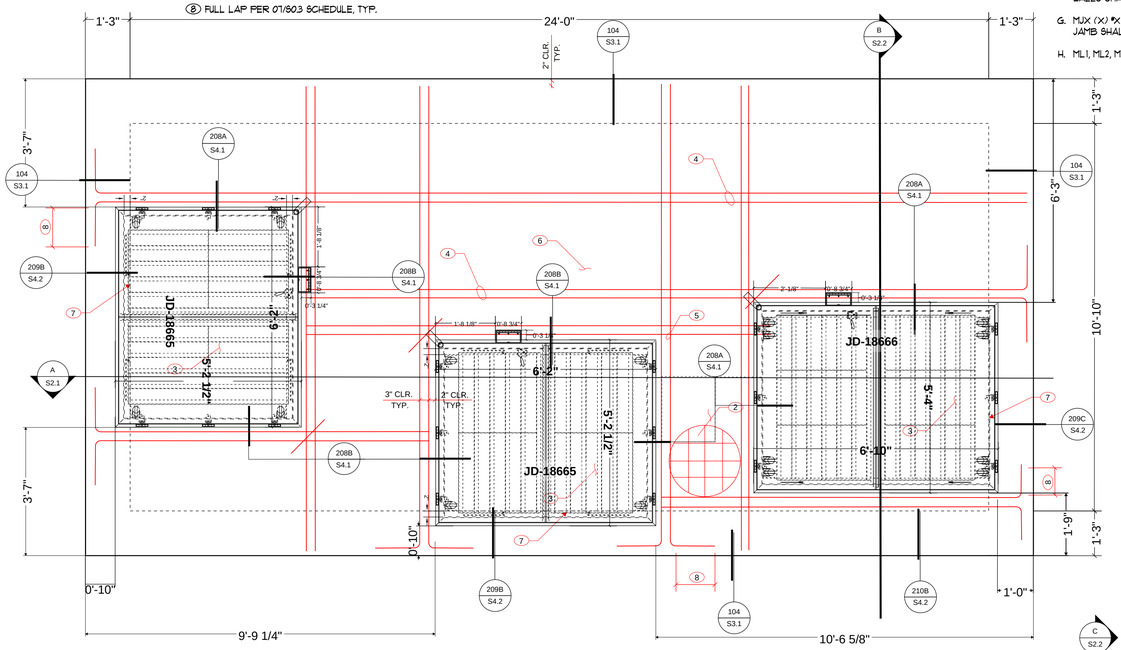
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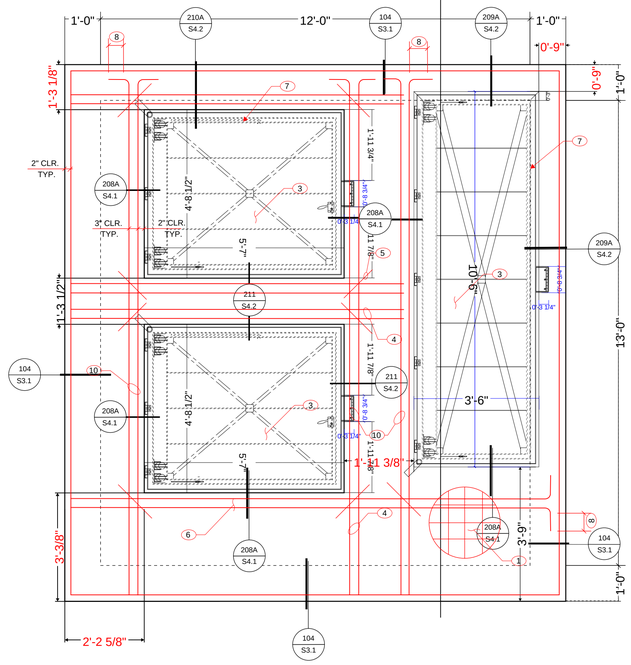
E. SEE ARCH'L. SLAB EDGE PLANS FOR SLAB, OPENING, AND STEP DIMENSIONS.

F. MW1, MW2, MW3, . . . DENOTES MASONRY WALL PER SCHEDULE ON SHEET S05. ALL MASONRY WALLS SHALL BE MARK "MW1" U.N.O. ON PLAN.

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H. ML1, ML2, ML3, . . . DENOTES MASONRY LINTEL PER SCHEDULE ON SHEET S05.

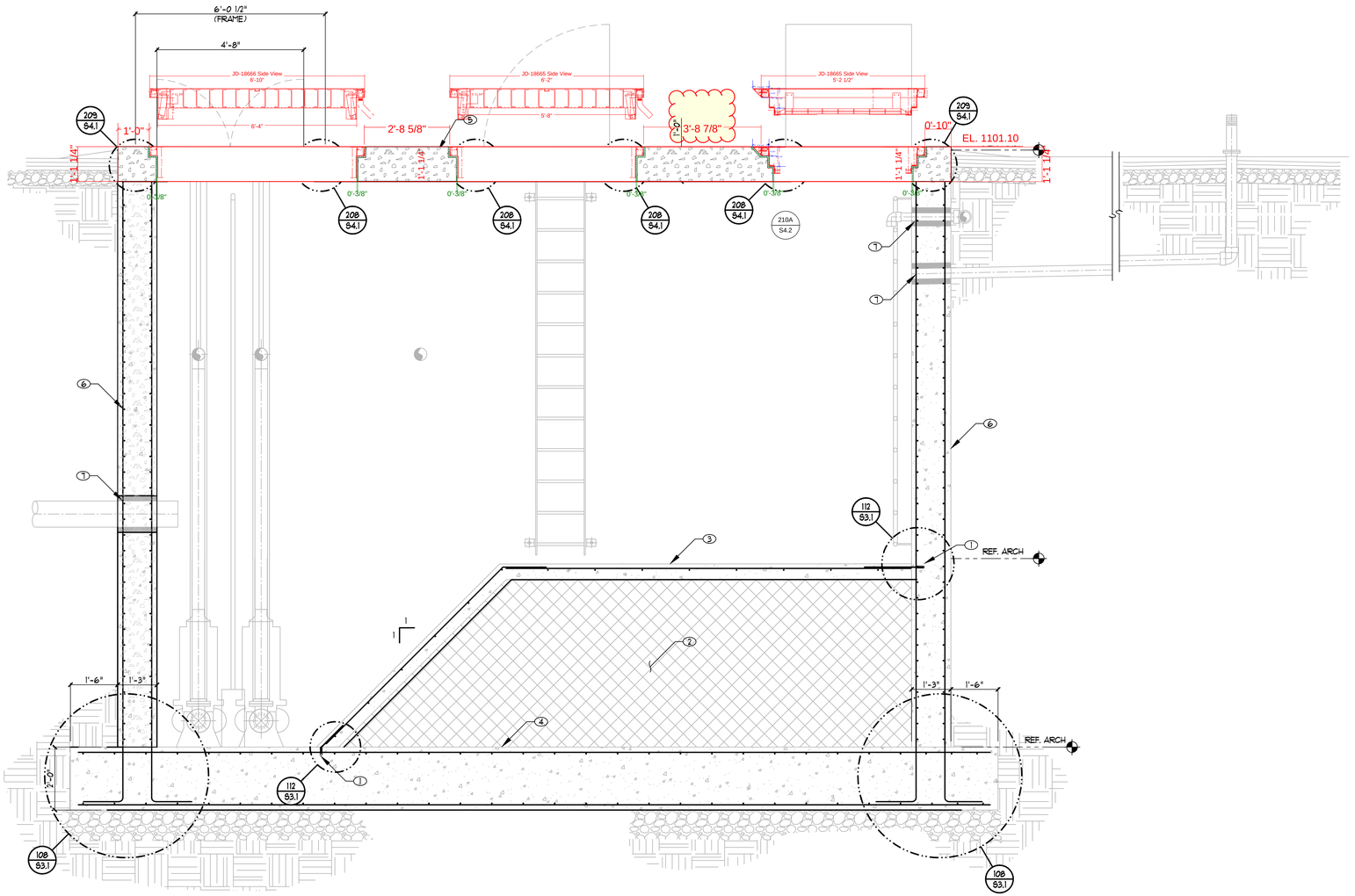




RFI #55

PLAN KEYNOTES

1. EPOXY DOWEL 3" MIN W/ SIMPSON SET-XP EPOXY TO MATCH CONCRETE TOPPING REINFORCING
2. HIGH DENSITY FOAM PER PLAN
3. CONCRETE TOPPING SLAB AND REINFORCING PER PLAN
4. CONCRETE MAT SLAB AND REINFORCING PER PLAN
5. CONCRETE LID AND REINFORCING PER PLAN
6. CONCRETE WALL AND REINFORCING PER PLAN
7. REFER TO DETAIL 09/S0.4 FOR PIPE THROUGH CONCRETE WALL



PUMP STATION – SECTION 'A'

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

WRIGHT engineers
2 Venture Suite 200
Irvine, CA 92618
949.477-4001 wrighte.com

S21-18101-SEC

PREPARED BY
X
PROJECT ENGINEER
R.C.E. NO. --
EXP. --
DRAWN WE
DESIGNED DT
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SCALE AS SHOWN
DATE APR. 2019

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NO	BY	DATE	REVISIONS	DATE	APP.

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TITLE
PUMP STATION - SECTION A

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
VALENCIA CA

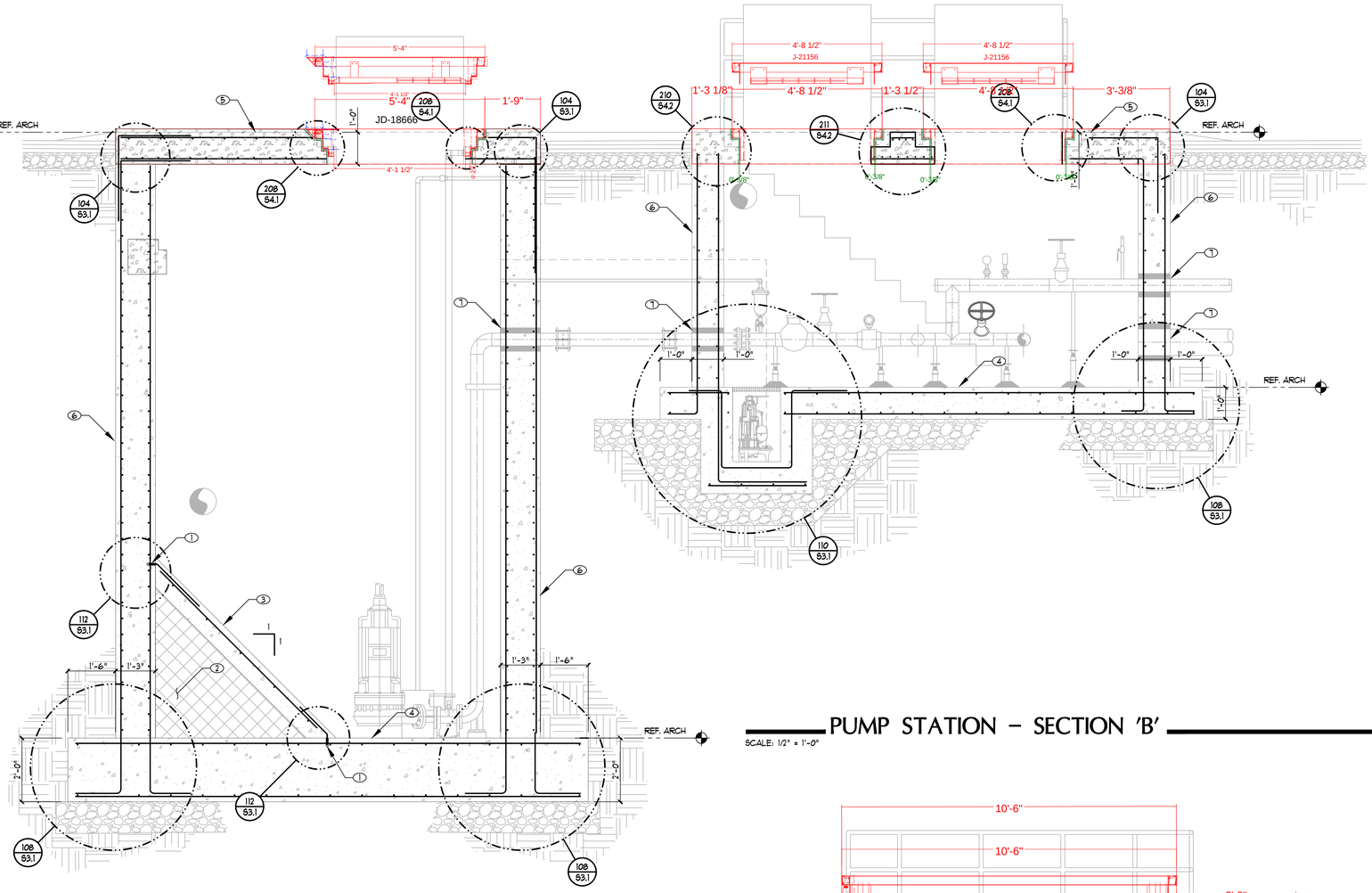
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P: (714) 481-7300 | www.pacewater.com

SHEET S2.1

JOB NO. 9862-E

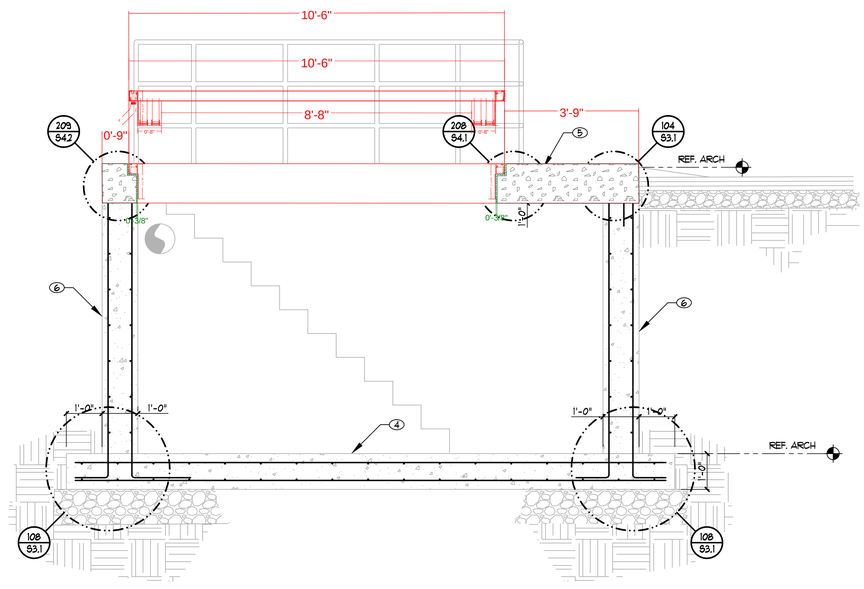
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RFI #55



PUMP STATION – SECTION 'B'

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



PUMP STATION – SECTION 'C'

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

PLAN KEYNOTES

1. EPOXY DOWEL 4" MIN W/ SIMPSON SET-XP EPOXY TO MATCH CONCRETE TOPPING REINFORCING
2. HIGH DENSITY FOAM PER PLAN
3. CONCRETE TOPPING SLAB AND REINFORCING PER PLAN
4. CONCRETE MAT SLAB AND REINFORCING PER PLAN
5. CONCRETE LID AND REINFORCING PER PLAN
6. CONCRETE WALL AND REINFORCING PER PLAN
7. REFER TO DETAIL 09/S0.4 FOR PIPE THROUGH CONCRETE WALL

NO	BY	DATE	REVISIONS	DATE	APP.

PRELIMINARY
NOT FOR CONSTRUCTION

PREPARED BY
X
PROJECT ENGINEER
R.C.E. NO. --
EXP. --

DRAWN WE | SCALE AS SHOWN
DESIGNED DT | DATE APR. 2019
CHECKED TA

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TITLE
PUMP STATION - SECTION B

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
VALENCIA CA

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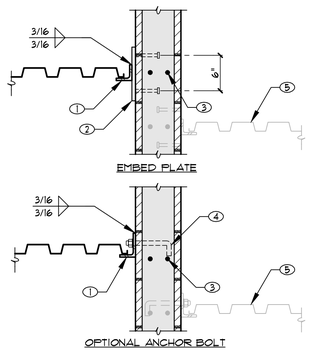
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Irvine, CA 92618
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SHEET
S2.2

JOB NO. 9862-E

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RFI #55

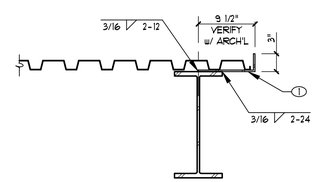


1. CONT. LEDGER PER PLAN. 4" MIN VERT. LEG REQUIRED FOR A.B. OPTION
2. PL3/8x4x9 w/ (2) 1/2" DIA. x 4" NELSON STUDS. GROUT 4" MIN. ABOVE AND BELOW ANCHORS
3. CONT. GROUTED BOND BEAM PER PLAN OR G.S.N.
4. 3/4" DIA. x6" EMBED A.B. SPACE AT ONE-HALF SPACING CALLED FOR EMBED PLATE
5. STEEL DECK AS OCCURS

A. CONCRETE OVER STEEL DECK WHERE OCCURS NOT SHOWN FOR CLARITY
B. STEEL DECK ORIENTATION MAY BE AT 90° TO THAT SHOWN
C. VERT. REINFORCING NOT SHOWN FOR CLARITY
D. MAX. EMBED PLATE SPACING 4'-0" o.c.

206 STEEL DECK AT MASONRY WALL

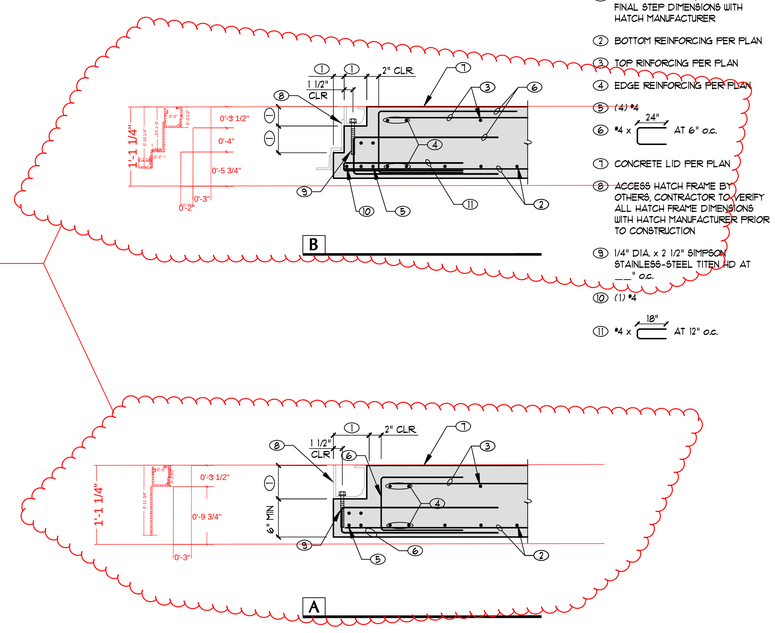
206-181011 NO SCALE



1. 3/16 x CONT. BENT PLATE EDGE ANGLE

207 STEEL DECK AT STEEL BEAM

207-181011 NO SCALE

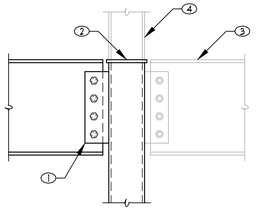


Please confirm hatch frame dimensions

1. STEP PER ARCH'L, COORDINATE FINAL STEP DIMENSIONS WITH HATCH MANUFACTURER
2. BOTTOM REINFORCING PER PLAN
3. TOP REINFORCING PER PLAN
4. EDGE REINFORCING PER PLAN
5. (4) #4
6. #4 x 24" AT 6" o.c.
7. CONCRETE LID PER PLAN
8. ACCESS HATCH FRAME BY OTHERS, CONTRACTOR TO VERIFY ALL HATCH FRAME DIMENSIONS WITH HATCH MANUFACTURER PRIOR TO CONSTRUCTION
9. 1/4" DIA. x 2 1/2" SIMPSON STAINLESS-STEEL TITEN HD AT ___" o.c.
10. (1) #4
11. #4 x 18" AT 12" o.c.

208 DEPRESSED EDGE OF SLAB AT OPENING

208-181011 NO SCALE

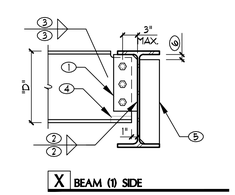


1. SHEAR PLATE, BOLTS, WELDS, ETC., PER TYPICAL SHEAR PLATE CONNECTION SCHEDULE
2. CAP PLATE AT TOP OF COLUMN PER TYPICAL COLUMN CAP PLATE DETAIL U.N.O.
3. BEAM BOTH SIDES OF COLUMN AS OCCURS PER PLAN
4. CONTINUATION OF COLUMN AS OCCURS

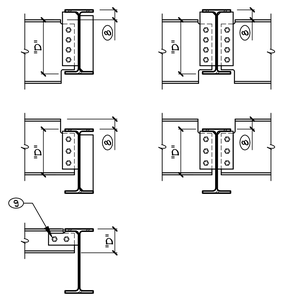
A. ADJOINING FRAMING AS OCCURS NOT SHOWN FOR CLARITY

204 STEEL BEAM AT HSS COLUMN

5506-03 080227 NO SCALE



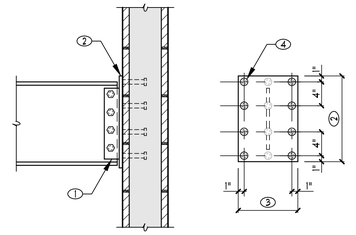
1. SHEAR PLATE, BOLTS, ETC., PER TYPICAL SHEAR PLATE CONNECTION SCHEDULE
2. WELD SIZE PER TYPICAL SHEAR PLATE CONNECTION SCHEDULE, TYP. AT SHEAR PLATE TO BEAM WEB WELDS
3. MIN. WELD SIZE PER AISC 360, TABLE J2.4, TYP. AT SHEAR PLATE TO BEAM FLANGE WELDS
4. COPE BOTTOM OF BEAM AS NECESSARY TO AVOID INTERFERENCE W/ SHEAR PLATE OR BOTTOM FLANGE OF SUPPORTING BEAM
5. STIFFENER PLATE OPPOSITE SHEAR PLATE. STIFFENER THICKNESS SHALL EQUAL SHEAR PLATE THICKNESS. STIFFENER NOT REQ'D. WHERE DEPTH OF SUPPORTED BEAM IS LESS THAN 1/2 THE DEPTH OF THE SUPPORTING BEAM
6. STIFFENER SHALL EXTEND TO WITHIN 1/2" OF BEAM FILLET
7. WHERE SUPPORTED BEAMS DIFFER IN DEPTH BY 3" OR GREATER, EXTEND SHEAR PLATE FOR DEEPER BEAM TO BOTTOM FLANGE OF (3) SUPPORTING BEAM AND WELD PERIMETER
8. CRIMP TOP OF BEAM TO MATCH ADJACENT STEEL JOIST BEARING DEPTH AS OCCURS
9. HORIZ. BOLT ROW AT "D" = 1" OR LESS
10. AT DETAIL 205A, USE STD. HOLES IN BOTH BEAM WEB AND SHEAR PLATE. BOLTS SHALL BE FULLY PRETENSIONED. FAYING SURFACES SHALL BE PREPARED AS REQ'D. FOR CLASS "A" SLIP-CRITICAL JOINTS (SEE G.S.N. FOR ADDITIONAL INFO.)



205 STEEL BEAM TO BEAM SHEAR PLATE CONNECTION

205-181011 NO SCALE

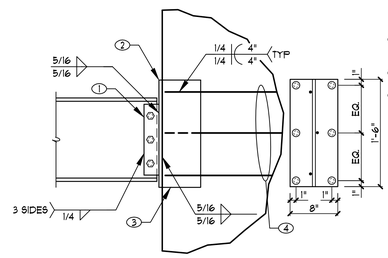
205A AS NOTED SLR55



1. SHEAR PLATE SIZE AND NUMBER OF BOLTS PER TYPICAL SHEAR PLATE CONNECTION SCHEDULE
2. 3/4" EMBED PLATE. DEPTH EQUAL TO BEAM DEPTH (14" MIN.)
3. 9" FOR BEAMS UP TO 18" DEEP. 12" FOR BEAMS UP TO 24" DEEP
4. 3/4" DIA. x 5" NELSON STUDS. (8) FOR BEAMS UP TO 18" DEEP. (12) FOR BEAMS UP TO 24" DEEP

201 STEEL BEAM AT MASONRY WALL

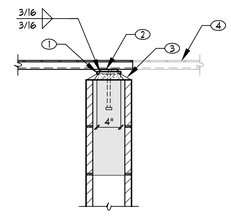
201-181011 NO SCALE



1. SHEAR PLATE SIZE, TYPE AND NUMBER OF BOLTS PER TYPICAL SHEAR PLATE CONNECTION SCHEDULE
2. 3/4" EMBED PLATE w/ (6) 3/4" DIA. x 5" NELSON STUDS
3. 1/2" x 6" PLATE
4. (3) #6 x 8'-0" DEFORMED WELDABLE REBAR

202 STEEL BEAM AT MASONRY WALL DRAG CONNECTION

SM02-05 080304 NO SCALE



1. EMBED PLATE 3/8" x 6" x 0'-4" w/ (2) 1/2" DIA x 6" NELSON STUDS SPACED AT 4"
2. 3/8" x 3" x CONT. DECK BEARING PLATE
3. 1" +/- GROUT OR DRYPACK
4. CONTINUATION OF STEEL DECK AS OCCURS

A. MAX. EMBED PLATE SPACING 4'-0" o.c.
B. WALL VERTICAL AND HORIZONTAL REINFORCING NOT SHOWN FOR CLARITY

203 STEEL DECK AT MASONRY WALL

SM03-02 161012.EDR NO SCALE

NO	BY	DATE	REVISIONS	DATE	APP.

PRELIMINARY
NOT FOR CONSTRUCTION

PREPARED BY: X
R.C.E. NO. --
EXP. --
DRAWN: WE
DESIGNED: DT
CHECKED: TA
SCALE: AS SHOWN
DATE: APR. 2019

TITLE: FRAMING DETAILS

JOB: MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
VALENCIA CA

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PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

SHEET S4.1

JOB NO. 9862-E

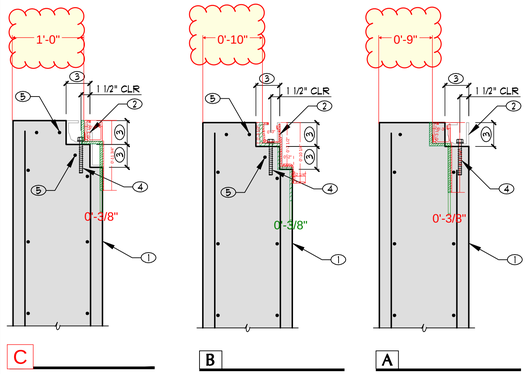
WRIGHT engineers
2 Venture Suite 200
Irvine, CA 92618
949.477.7400 wrighte.com

S41-181011-D

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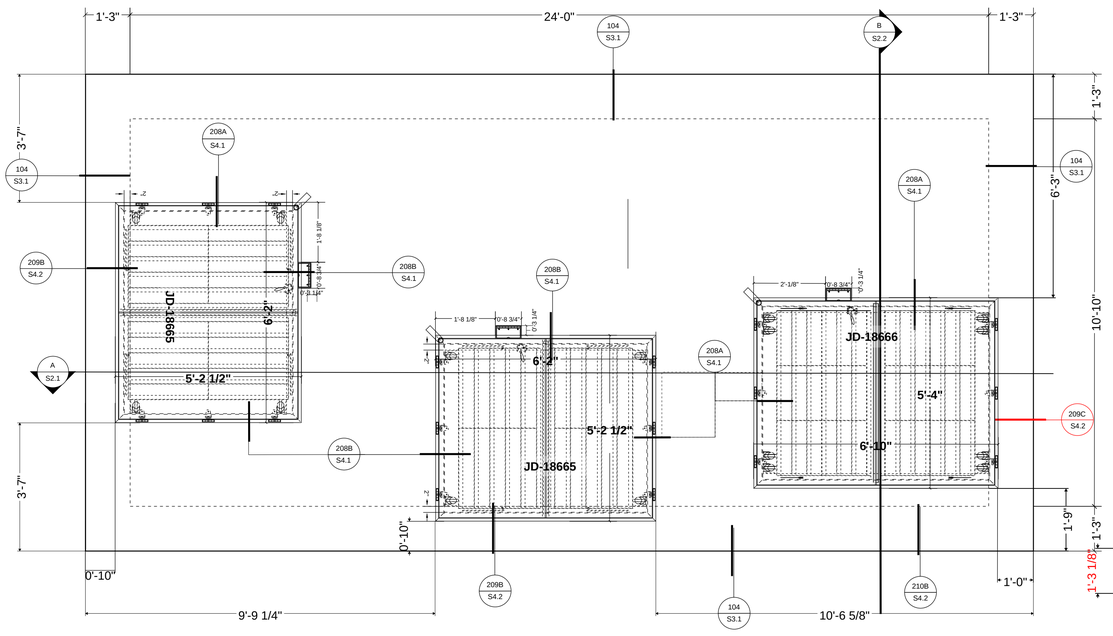
RFI #55

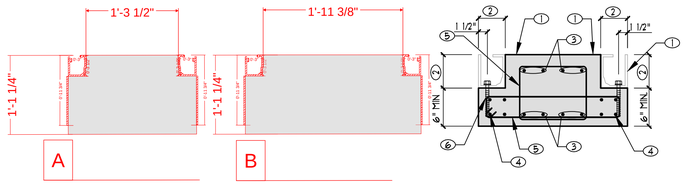


1. CONCRETE WALL AND REINFORCING PER PLAN
2. ACCESS HATCH FRAME BY OTHERS, CONTRACTOR TO VERIFY ALL HATCH FRAME DIMENSIONS WITH HATCH MANUFACTURER PRIOR TO CONSTRUCTION
3. STEP PER ARCH'L, COORDINATE FINAL STEP DIMENSIONS WITH HATCH MANUFACTURER
4. 1/4" DIA. x 2 1/2" SIMPSON STAINLESS-STEEL TITEN HD AT ___" O.C.
5. (1) #4

209 DEPRESSED EDGE AT CONCRETE WALL

209-181011 NO SCALE

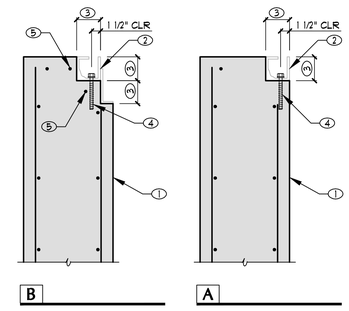




1. CONCRETE WALL AND REINFORCING PER PLAN
2. STEP PER ARCH'L, COORDINATE FINAL STEP DIMENSIONS WITH HATCH MANUFACTURER
3. EDGE REINFORCING PER PLAN
4. (4) #4
5. #4 TIES AT 6" O.C.
6. 1/4" DIA. x 2 1/2" SIMPSON STAINLESS-STEEL TITEN HD AT ___" O.C.

211 DEPRESSED EDGE OF SLAB AT OPENING

211-181011 NO SCALE



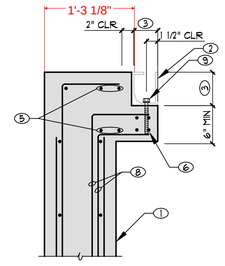
1. CONCRETE WALL AND REINFORCING PER PLAN
2. ACCESS HATCH FRAME BY OTHERS, CONTRACTOR TO VERIFY ALL HATCH FRAME DIMENSIONS WITH HATCH MANUFACTURER PRIOR TO CONSTRUCTION
3. STEP PER ARCH'L, COORDINATE FINAL STEP DIMENSIONS WITH HATCH MANUFACTURER
4. 1/4" DIA. x 2 1/2" SIMPSON STAINLESS-STEEL TITEN HD AT ___" O.C.
5. (1) #4

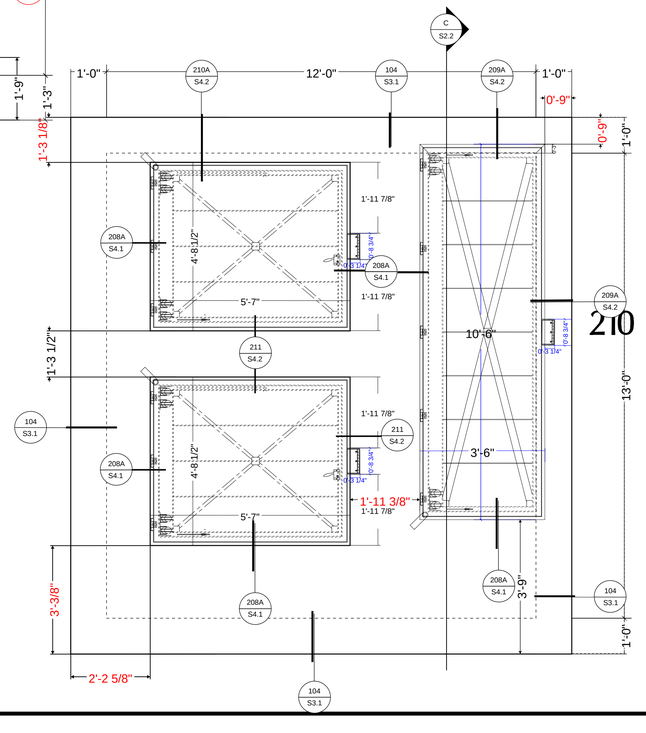
209 DEPRESSED EDGE AT CONCRETE WALL

209-181011 NO SCALE



1. CONCRETE WALL AND REINFORCING PER PLAN
2. ACCESS HATCH FRAME BY OTHERS, CONTRACTOR TO VERIFY ALL HATCH FRAME DIMENSIONS WITH HATCH MANUFACTURER PRIOR TO CONSTRUCTION
3. STEP PER ARCH'L, COORDINATE FINAL STEP DIMENSIONS WITH HATCH MANUFACTURER
4. BOTTOM REINFORCING PER PLAN
5. EDGE REINFORCING PER PLAN
6. (4) #4
7. #4 x 24" AT 6" O.C.
8. SLAB DOWEL TO MATCH AND LAP VERTICAL WALL REINFORCEMENT
9. 1/4" DIA. x 2 1/2" SIMPSON STAINLESS-STEEL TITEN HD AT ___" O.C.
10. (1) #4





210 DEPRESSED EDGE OF SLAB AT OPENING

210-181011 NO SCALE

NO	BY	DATE	REVISIONS	DATE	APP.

PRELIMINARY
NOT FOR CONSTRUCTION

PREPARED BY: X
PROJECT ENGINEER: -
R.C.E. NO: -
EXP: -
DRAWN: WE
DESIGNED: DT
CHECKED: TA
SCALE: AS SHOWN
DATE: APR. 2019

TITLE: FRAMING DETAILS

JOB: MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
VALENCIA CA

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SHEET S4.2

JOB NO. 9862-E

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Drmscale = 1; LTscale = 1; PSltscale = 1; ACAD Ver. = 24.0s (LMS Tech); Version = 1

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GENERAL ENGINEERING CONTRACTORS
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P.O. Box 672 • Oxnard, CA 91302-0672
3201 Sturgis Road • Oxnard, CA 93030
(805) 656-1432 • FAX (805) 485-0338

REQUEST FOR INFORMATION

DATE: 05-24-2021 RFI #: **077**

Attention: Tom Hay Bob Brazell, FivePoint Brian Reid, PACE Matt Mills, PACE Fax #: 661-255-4296	From: Matt Messerly Delivered Via: Email Blois Construction Project No.: 3065 Project Name: Mission Village Sewer Lift Station DPW-1

Subject:	**Fill and Seal Around Hatch Frame**	
Reference:	Drawing Sheets:	M1.1, S4.1
	Detail Numbers:	
	Spec. Sections:	
	Schedule Activities Impacted:	Hatch Installation, Wet Well Coating, Pump Installation

INFORMATION REQUESTED:

We expect there to be a gap between 1/16" and ¼" around the hatch between the edge of the frame and the edge of the concrete that has been formed/blocked out.

What should this gape be sealed with?

We are considering epoxy grout as a better product than caulk or cement-based grout.

We reached out to Five Star grout products to get their input and they've indicated that their Fluid Epoxy Grout would be a good candidate.

Please confirm it this is acceptable.

We expect the hatches to be delivered today or tomorrow and would like to order the epoxy today.

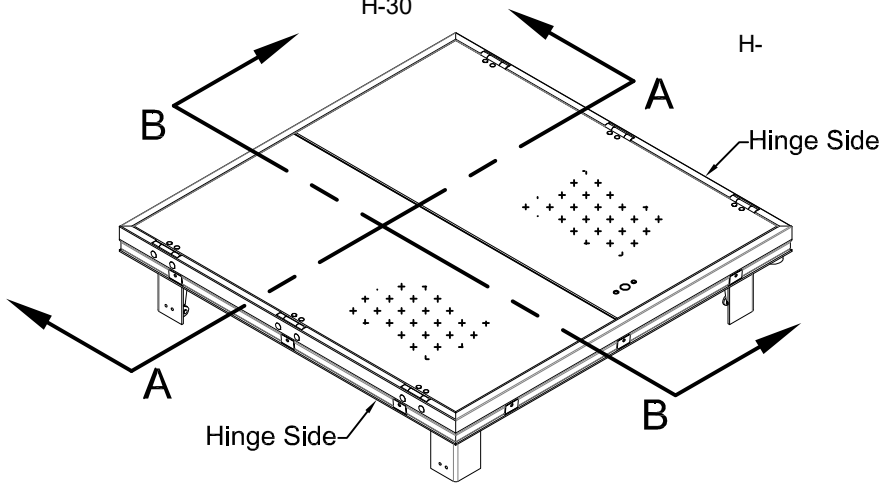
Please review and advise.

Response Requested by:	**5/24/2021**		
If a definitive response is not received by this date Project Schedule Will be Delayed	☒ YES ☐ NO ☐ Uncertain	Potential Cost Impact	☒ YES ☐ NO ☐ Uncertain

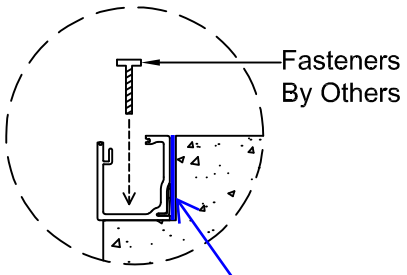
RESPONSE: PACE takes no exception to the use of epoxy grout to fill in the gap between the hatch frame and the edge of the concrete that was formed/blocked out.

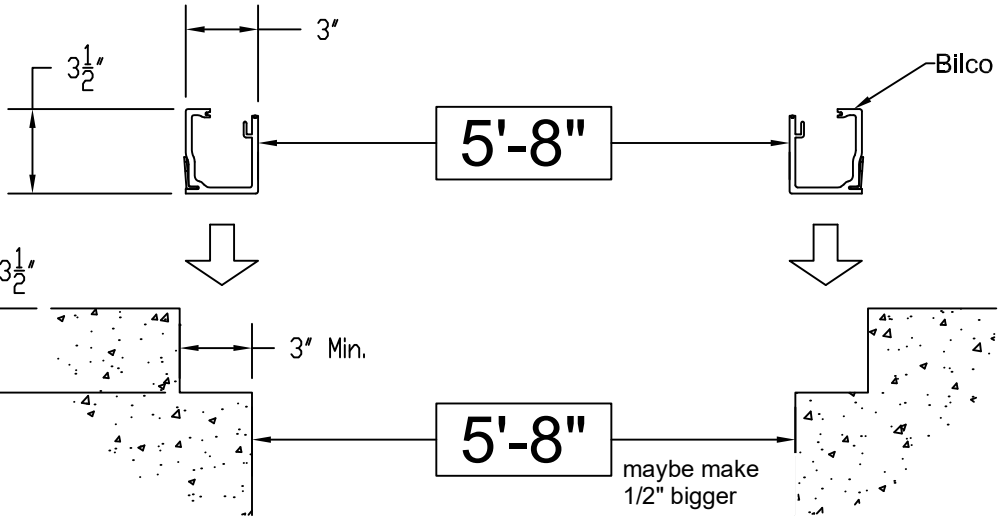
BY: Z.S. DATE: 05/24/2021

Block Out for JD-ALH20 H-30 **5'-8"** X **4'-5.5"** Aluminum Double Leaf H-
With Bilco Shelf



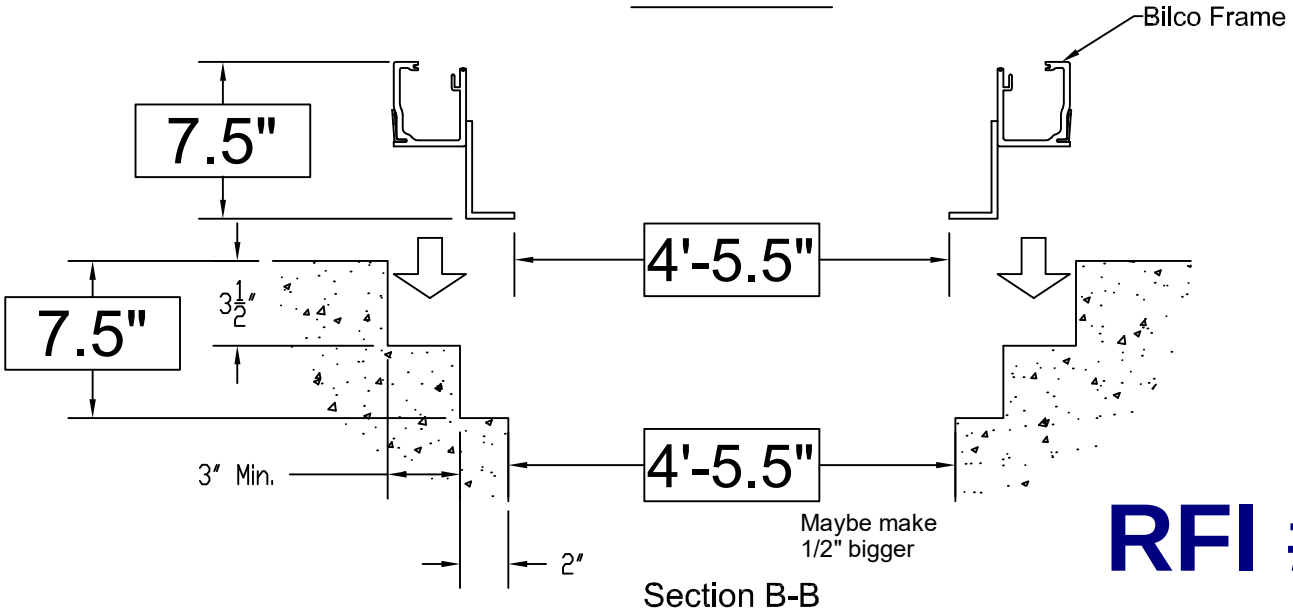
Optional Method For Anchoring:





EPOXY GROUT FILL AND SEAL BETWEEN EDGE OF HATCH FRAME AND EDGE OF CONCRETE BLOCKOUT

Section A-A



Section B-B

RFI #77

Manufacturers of Doors for Special Services
Bilco®
THE BILCO COMPANY
New Haven, Connecticut 06505

RFI #77

FIVE STAR

FLUID EPOXY

High Performance Fluid Epoxy

PRODUCT DESCRIPTION

Five Star® Fluid Epoxy is a two component, all-purpose, rapid cure fluid epoxy system. Five Star® Fluid Epoxy is designed for adhesive grouting, anchoring, anchor bolts, setting of bolts and wedges, and small repairs to concrete.

ADVANTAGES

- High early strength
- Fluid, self-leveling consistency
- Excellent adhesion to steel
- Good impact resistance
- Chemically resistant
- Convenient packaging

USES

- Anchoring machines, baseplates and other equipment
- Repair of spalled and cracked concrete
- Installation of bolts, anchors and dowels
- Dynamic loads
- Skid resistant surfaces
- Operating temperatures up to 150°F (65°C)

PACKAGING AND YIELD

Five Star® Fluid Epoxy is a two component system consisting of a resin/aggregate preblend and hardener packaged separately inside a pail and is available in a unit yielding approximately 0.20 cubic feet (5.7 liters) of hardened material.

SHELF LIFE

Two years in original unopened packaging when stored in dry conditions; high relative humidity will reduce shelf life.

TYPICAL PROPERTIESAT 70°F (21°C)		
Compressive Strength, ASTM C 579 A*	**Compressive Strength**	**Compressive Secant Modulus**
6 Hours	11,000 psi (75.8 MPa)	3.5×10^5 psi (2.4×10^3 MPa)
1 Day	13,000 psi (89.6 MPa)	4.3×10^5 psi (2.9×10^3 MPa)
7 Days	14,000 psi (96.5 MPa)	4.8×10^5 psi (3.3×10^3 MPa)
Creep, ASTM C 1181, 1 year	10×10^{-3} in/in (mm/mm) at 140°F (60°C), 400 psi (2.8 MPa)	
Tensile Strength, ASTM C 307	2,500 psi (17.2 MPa)	
Flexural Strength, ASTM C 580	6,800 psi (46.9 MPa)	
Flexural Secant Modulus, ASTM C 580	1.0×10^6 psi (6.9×10^3 MPa)	
Coefficient of Expansion, ASTM C 531	32×10^{-6} in/in/°F (57.6×10^{-6} mm/mm/°C)	
Bond to Concrete, ASTM C 882	Concrete Failure	
Working Time at 70°F (21°C)	30 minutes	

** Rate of loading 0.125 inches per minute. The data shown above reflect typical results based on laboratory testing under controlled conditions. Reasonable variations from the data shown above may result. Test methods are modified where applicable.*

RFI #77

PLACEMENT GUIDELINES

1. **SURFACE PREPARATION:** All surfaces to be in contact with Five Star® Fluid Epoxy shall be free of oil, grease, laitance and other contaminants. Concrete must be clean, sound, dry and roughened to ensure a good bond. An SSPC-SP6 commercial finish on all metal surfaces will optimize bond development to steel.
2. **FORMWORK:** Formwork shall be constructed of rigid non-absorbent materials, securely anchored, liquid-tight and strong enough to resist forces developed during grout placement. The clearance between formwork and baseplate shall be sufficient to allow for a headbox. The clearance for remaining sides shall be 1 to 2 inches (25 - 50 mm). Areas where bond is not desired must be treated with paste wax or polyethylene. Isolation joints may be necessary depending on pour dimensions. Contact Five Star Products' Engineering and Technical Service Center for further information.
3. **MIXING:** For optimum performance, all components should be conditioned to between 70°F and 80°F (21°C and 27°C) prior to use. Use mixing paddle and a slow speed drill for mixing. Pre-mix Component A (resin and aggregate preblend) until uniform color and consistency is observed. Pour all of Component B (hardener) into pail containing resin and aggregate blend and mix until a uniform color is achieved. Use immediately after mixing. Working time is approximately 30 minutes when temperatures are at 70°F (21°C).
4. **METHODS OF PLACEMENT:** Five Star® Fluid Epoxy may be poured in place at a thickness of 1/8 inch (3 mm) to 1 ½ inches (38 mm). A self-leveling product, Five Star® Fluid Epoxy needs little or no finishing.
5. **POST-PLACEMENT PROCEDURES:** In-service operation may begin immediately after minimum required strength and modulus have been achieved. Where a skid resistant surface is required, broadcast sand on fresh uncured epoxy surface. Sweeping away excess sand after epoxy cures leaves a skid resistant finish.
6. **CLEAN UP:** All tools and equipment may be cleaned with solvents or water and strong detergent solution or suitable solvent before material hardens. Sand may be used as an abrasive.

NOTE: PRIOR TO APPLICATION, READ ALL PRODUCT PACKAGING THOROUGHLY. *For more detailed placement procedures, refer to Five Star® Design-A-Spec™ installation guidelines or call Five Star Products' Engineering and Technical Service Center at 1-800-243-2206.*

CONSIDERATIONS

- Flowability and strength gain are adversely affected by lower temperatures.
- To obtain bond, concrete shall be visibly free of surface moisture.
- For placement temperatures below 50°F (10°C) or above 90°F (32°C) contact Five Star Products' Engineering and Technical Service Center at 1-800-243-2206.
- For placements greater than 1 ½ inches (38 mm), or greater than 0.20 cubic feet (5.7 liters) contact Five Star Products' Engineering and Technical Service Center at 1-800-243-2206.

CAUTION

Irritant, toxic, strong sensitizer. Contains epoxy resin and amine. This product may cause skin irritation. Do not inhale vapors. Provide adequate ventilation. Protect against contact with skin and eyes. Wear rubber gloves, long sleeve shirt, goggles with side shields. In case of contact with eyes, flush repeatedly with water and contact a physician. Areas of skin contact should be promptly washed with soap and water. Do not take internally. Keep product out of reach of children. **PRIOR TO USE, REFER TO SAFETY DATA SHEET.**

For worldwide availability, additional product information and technical support, contact your local Five Star® distributor, local sales representative, or call Five Star Products' Engineering and Technical Service Center at 1-800-243-2206.

SKU/PRODUCT CODE	DESCRIPTION	#UNITS/PALLET	UNIT SIZE
31400	Five Star® Fluid Epoxy	48 (packaged on 2 pallets)	Resin/Aggregate (A/C) pre-blend: 20.8 lbs. (9.4 kg) Hardener (B): 1.1 lbs. (0.5 kg)

WARRANTY: "FIVE STAR PRODUCTS, INC. (FSP) PRODUCTS ARE MANUFACTURED TO BE FREE OF MANUFACTURING DEFECTS AND TO MEET FSP'S CURRENT PUBLISHED PHYSICAL PROPERTIES WHEN APPLIED IN ACCORDANCE WITH FSP'S DIRECTIONS AND TESTED IN ACCORDANCE WITH ASTM AND FSP STANDARDS. HOWEVER, SHOULD THERE BE DEFECTS OF MANUFACTURING OF ANY KIND, THE SOLE RIGHT OF THE USER WILL BE TO RETURN ALL MATERIALS ALLEGED TO BE DEFECTIVE, FREIGHT PREPAID TO FSP, FOR REPLACEMENT. THERE ARE NO OTHER WARRANTIES BY FSP OF ANY NATURE WHATSOEVER, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IN CONNECTION WITH THIS PRODUCT. FSP SHALL NOT BE LIABLE FOR DAMAGES OF ANY SORT, INCLUDING PUNITIVE, ACTUAL, REMOTE, OR CONSEQUENTIAL DAMAGES, RESULTING FROM ANY CLAIMS OF BREACH OF CONTRACT, BREACH OF ANY WARRANTY, WHETHER EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR FROM ANY OTHER CAUSE WHATSOEVER. FSP SHALL ALSO NOT BE RESPONSIBLE FOR USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT HELD BY OTHERS."

Specifications Subject to Change.
For most current version of datasheet, go to FiveStarProducts.com

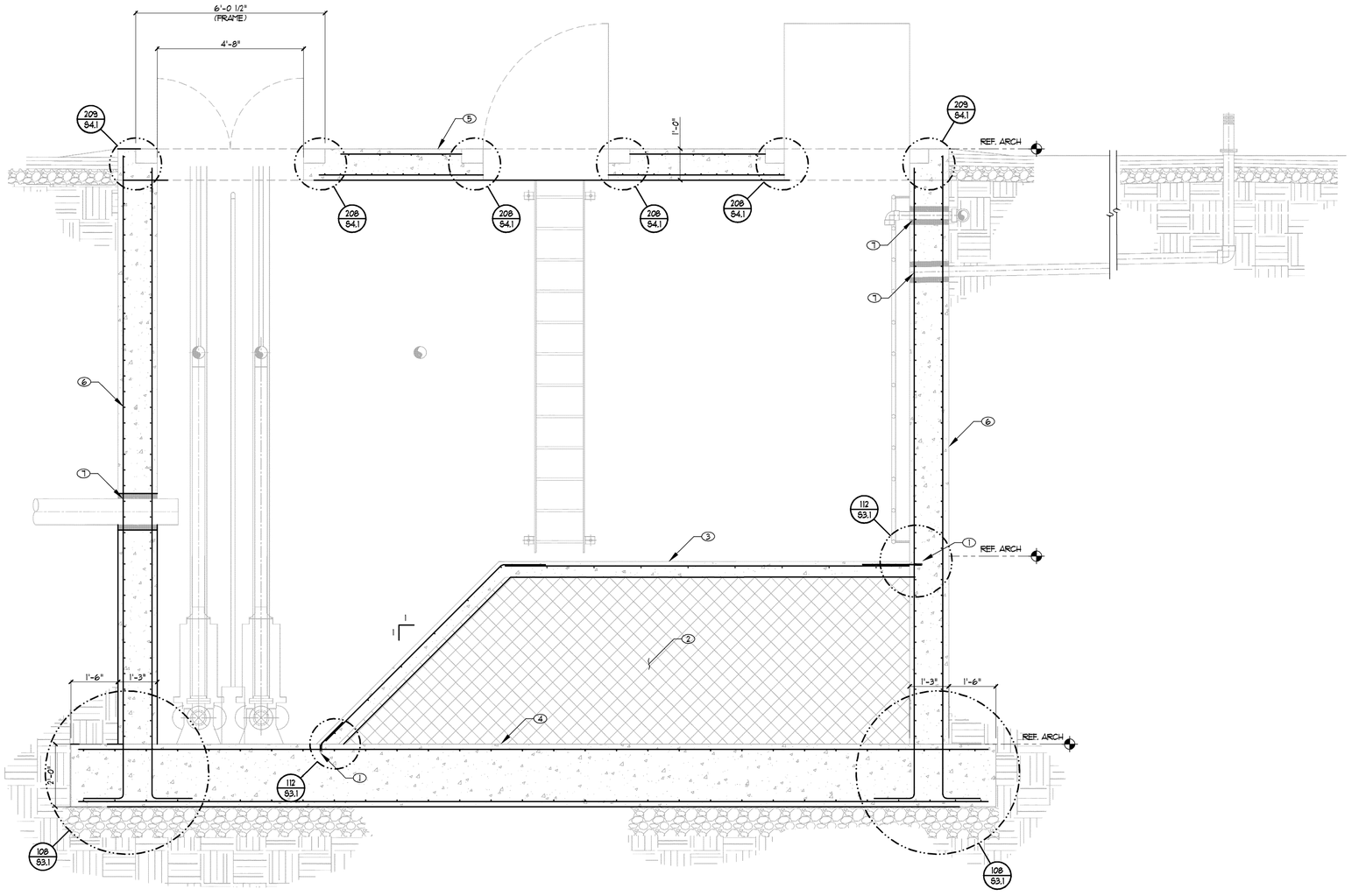
Five Star Products, Inc.
Corporate Headquarters
60 Parrott Drive
Shelton, CT 06484 USA
Tel: +1 203-336-7900 • Fax: +1 203-336-7930
FiveStarProducts.com

ISO 9001:2015 CERTIFIED

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PLAN KEYNOTES

1. EPOXY DOWEL 3" MIN W/ SIMPSON SET-XP EPOXY TO MATCH CONCRETE TOPPING REINFORCING
2. HIGH DENSITY FOAM PER PLAN
3. CONCRETE TOPPING SLAB AND REINFORCING PER PLAN
4. CONCRETE MAT SLAB AND REINFORCING PER PLAN
5. CONCRETE LID AND REINFORCING PER PLAN
6. CONCRETE WALL AND REINFORCING PER PLAN
7. REFER TO DETAIL 09/60.4 FOR PIPE THROUGH CONCRETE WALL



PUMP STATION – SECTION 'A'

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

Department of Public Works, Los Angeles County

Checked _____ _____

Design Division Date

WRIGHT engineers

2 Venture Suite 200
Irvine, CA 92618
949.477.7601 wrightle.com

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER
THOMAS C. ALLEN
No.55460
STRUCTURAL
STATE OF CALIFORNIA
1/9/2020

PREPARED BY
-

PROJECT ENGINEER
R.C.E. NO. --
EXP. --

DRAWN	SCALE
WE	AS SHOWN
DESIGNED	
DT	
CHECKED	DATE
TA	APR. 2019

TITLE
PUMP STATION - SECTION A

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

SHEET
S2.1

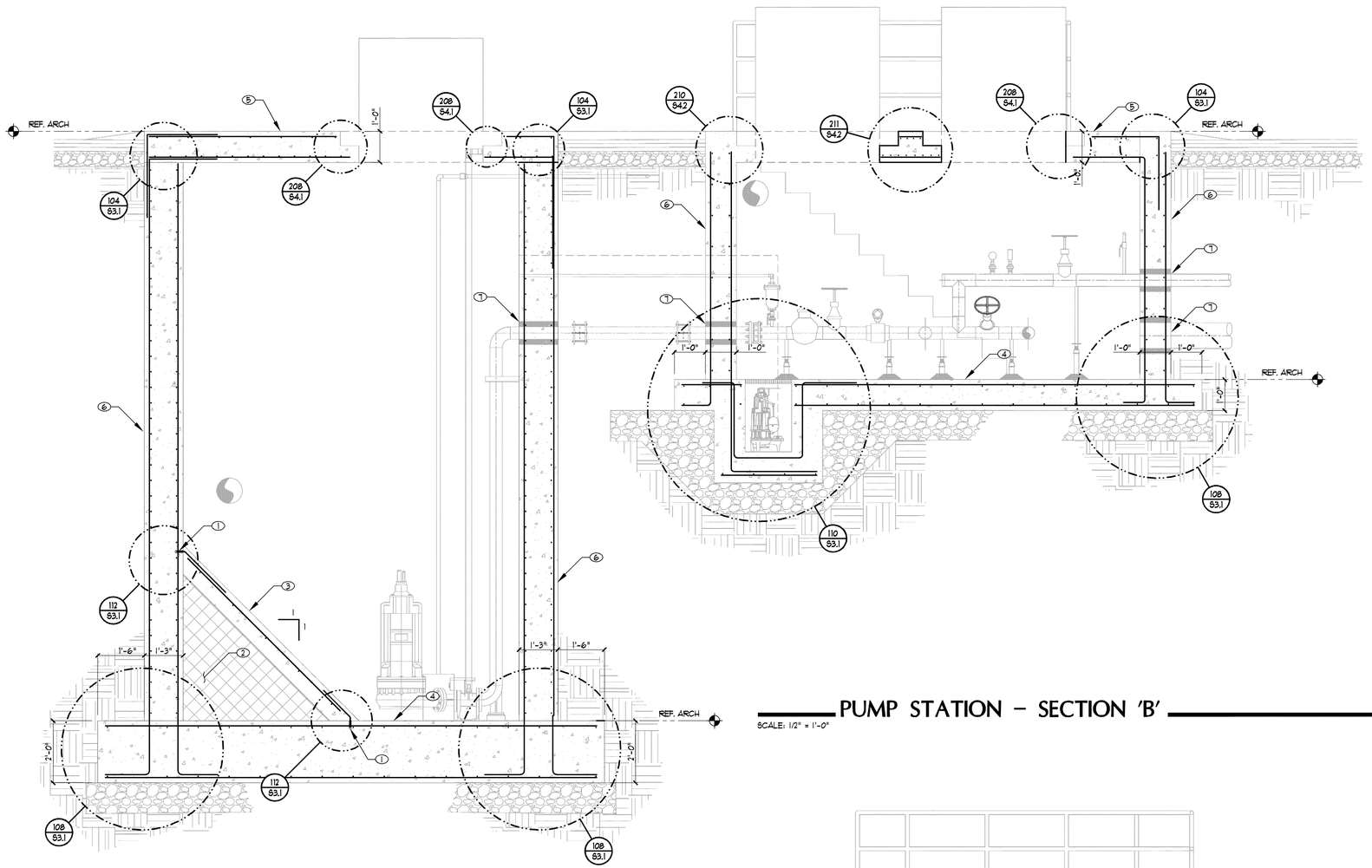
JOB NO. 9862-E

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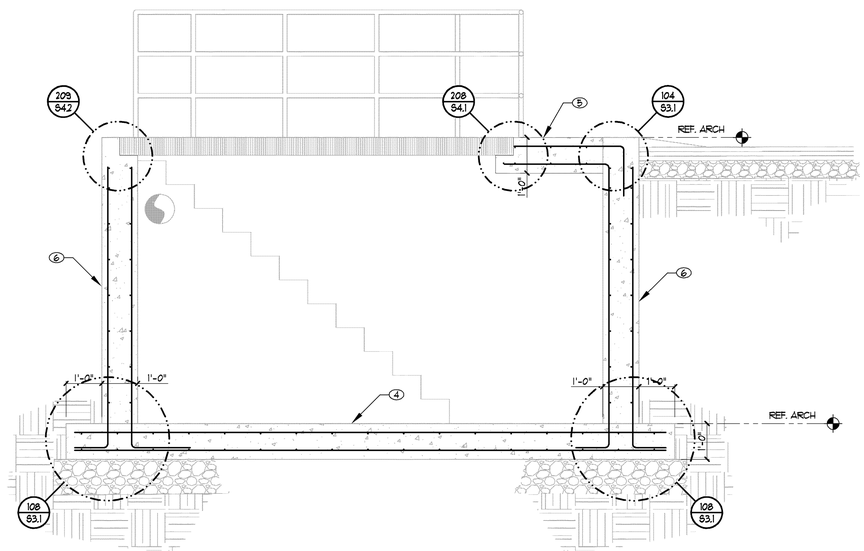
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5. CONCRETE LID AND REINFORCING PER PLAN
6. CONCRETE WALL AND REINFORCING PER PLAN
7. REFER TO DETAIL 09/S0.4 FOR PIPE THROUGH CONCRETE WALL



PUMP STATION – SECTION 'B'

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



PUMP STATION – SECTION 'C'

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

Department of Public Works, Los Angeles County

Checked _____ _____

Design Division Date

WRIGHT engineers

2 Venture Suite 200
Irvine, CA 92618
949.477.4001 wrightm.com

S22-181011-SEC

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER
THOMAS C. ALLEN
No.55460
CIVIL
STATE OF CALIFORNIA
1/9/2020

PREPARED BY
-

PROJECT ENGINEER
R.C.E. NO. --
EXP. --

DRAWN WE
DESIGNED DT
CHECKED TA

SCALE AS SHOWN
DATE APR. 2019

THESE DRAWINGS ARE THE PROPERTY OF P.A.C.E. AND SHALL NOT BE REPRODUCED IN ANY MANNER NOR BE USED FOR CONSTRUCTION UNLESS STAMPED "ISSUED FOR CONSTRUCTION".

TITLE
PUMP STATION - SECTION B

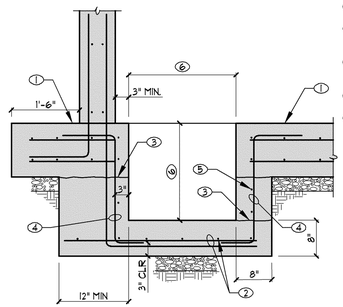
JOB
MISSION VILLAGE
DPW-1 SEWER PUMP STATION
VALENCIA CA

PACE Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

SHEET
S2.2

JOB NO. 9862-E

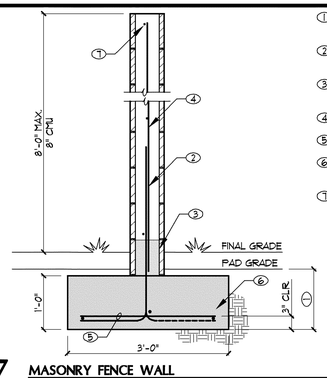
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1. SLAB AND REINFORCING PER PLAN
2. #4 AT 12" o.c. E.W. BOTTOM
3. ROUGHENED CONSTRUCTION JOINT OR KEY
4. #4 DOWEL AT 12" o.c. w/ STANDARD HOOKS
5. #4 HORIZ. AT 12" o.c.
6. REFERENCE ARCH 2 FOR DIMENSIONS

110 DRAIN PIT DETAIL

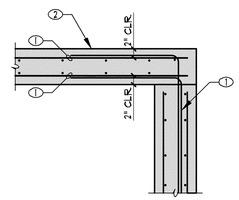
110-181011 NO SCALE



1. SEE FOUNDATION PLAN NOTES OR PLAN(S) FOR MINIMUM EMBEDMENT
2. DOWEL TO MATCH AND LAP WITH VERTICAL WALL REINFORCING
3. GROUT SOLID BELOW FINISH FLOOR
4. #4 AT 32" o.c. VERTICAL BAR
5. #4 AT 48" o.c. TRANSVERSE BAR
6. (3) #4 CONTINUOUS BARS EQUALLY SPACED
7. #4 CONTINUOUS BARS TOP AND BOTTOM AND AT 4'-0" o.c.

107 MASONRY FENCE WALL

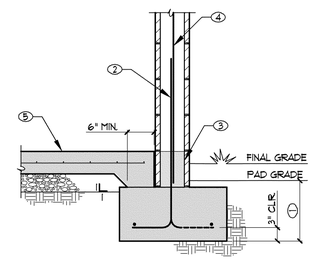
107-181011 NO SCALE



1. SLAB DOWEL TO MATCH AND LAP LID REINFORCING AND VERTICAL WALL REINFOERCEMENT
2. CONCRETE LID PER PLAN

104 ELEVATED CONCRETE SLAB AT CONCRETE WALL

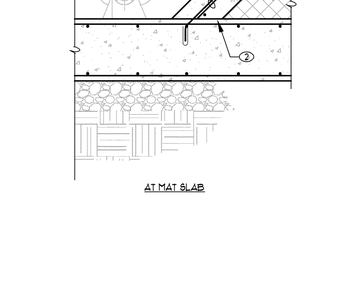
104-181011 NO SCALE



1. SEE FOUNDATION PLAN NOTES OR PLAN(S) FOR MINIMUM EMBEDMENT
2. DOWEL TO MATCH AND LAP WITH VERTICAL WALL REINFORCING
3. GROUT SOLID BELOW FINISH FLOOR
4. VERTICAL REINFORCING PER PLAN
5. CONCRETE SLAB ON GRADE PER PLAN

101 MASONRY WALL AT FOOTING

101-181011 NO SCALE



1. SEE FOUNDATION PLAN NOTES OR PLAN(S) FOR MINIMUM EMBEDMENT
2. DOWEL TO MATCH AND LAP WITH VERTICAL WALL REINFORCING
3. GROUT SOLID BELOW FINISH FLOOR
4. CONCRETE SLAB ON GRADE PER PLAN

111 MASONRY WALL AT FOOTING

111-181011 NO SCALE

1. CONT. 2x4 TAPERED KEY
2. CONCRETE WALL AND REINFORCING PER PLAN
3. CONCRETE MAT SLAB AND REINFORCING PER PLAN
4. DOWEL TO MATCH AND LAP VERTICAL WALL REINFORCEMENT
5. ALTERNATE BENDS

108 CONCRETE WALL AT FOOTING

108-181011 NO SCALE

1. FOOTING SIZE AND REINF. PER FOOTING SCHEDULE U.N.O.
2. SEE FOUNDATION PLAN NOTES OR PLAN(S) FOR MIN. EMBEDMENT OR T.O.F. ELEVATION
3. BASE PLATE w/ ANCHOR RODS PER STEEL COLUMN SCHEDULE U.N.O.
4. GROUT BELOW BASE PLATE PER G.S.N. AND APPLICABLE COLUMN BASE PLATE DETAIL
5. SLAB ON GRADE (AS OCCURS) AND CLOSURE POUR BY OTHERS. CLOSURE POUR SHALL PROVIDE 3" MIN. CLR. COVER TO BASE PLATE AND ANCHOR RODS
6. PLACE CLOSURE POUR AFTER COMPLETION OF STRUCTURAL FRAMING ABOVE (I.e., ELEVATED FLOOR/ ROOF FRAMING, ELEVATED SLABS AND DECKS, ETC.)
7. LINE OF SLAB BEYOND

105 STEEL COLUMN AT FOOTING

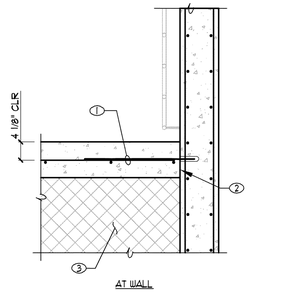
6F01-24-H66 170619 NO SCALE



1. GROUT SOLID BELOW FINISH FLOOR LINE
2. DOWEL TO MATCH AND LAP VERT. REINFORCING. ALTERNATE BENDS
3. SEE FOUNDATION PLAN NOTES OR PLAN(S) FOR MIN. EMBEDMENT
4. VERTICAL REINFORCING PER PLAN
5. CONCRETE SLAB ON GRADE PER PLAN
6. SEE FOUNDATION PLAN NOTES OR PLAN(S) FOR MIN. EMBEDMENT OR T.O.F. ELEVATION

102 INTERIOR MASONRY WALL AT FOOTING

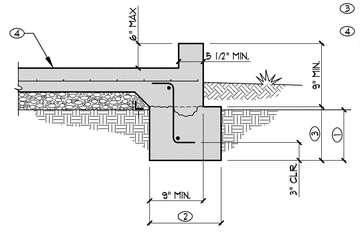
102-181011 NO SCALE



1. EPOXY DOWEL 4" MIN. w/ SIMPSON SET-XP EPOXY TO MATCH AND LAP SLAB REINFORCING
2. ROUGHEN SURFACE TO 1/4" AMPLITUDE
3. HIGH DENSITY FOAM PER PLAN

112 CONCRETE SLAB AT MAT SLAB / WALL

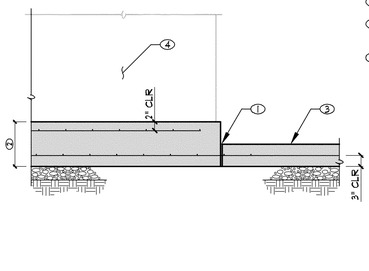
112-181011 NO SCALE



1. MINIMUM EMBEDMENT PER FOUNDATION PLAN NOTES OR PLAN(S)
2. WIDTH PER PLAN OR SCHEDULE. 12" MIN.
3. 9" MIN. FIRST POUR
4. CONCRETE SLAB ON GRADE PER PLAN

109 TYPICAL CURB AT EDGE OF SLAB

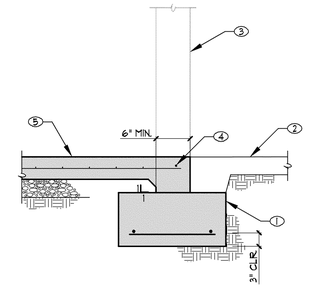
109-181011 NO SCALE



1. 3/8" MIN. EXPANSION JOINT w/ CONT. FILLER
2. THICKNESS PER PLAN
3. CONCRETE SLAB ON GRADE PER PLAN
4. GENERATOR BY OTHERS

106 GENERATOR PAD

106-181011 NO SCALE



1. FOOTING CONTINUOUS FROM BEYOND
2. FINISH GRADE OR EXTERIOR SLAB AS OCCURS
3. LINE OF WALL BEYOND AS OCCURS
4. #4 CONTINUOUS EDGE BAR
5. CONCRETE SLAB ON GRADE PER PLAN

A. SEE ARCH'L FOR EDGE TOOLING REQUIREMENTS

103 TYPICAL SLAB AT WALL OPENING

103-181011 NO SCALE

NO	BY	DATE	REVISIONS	DATE APP.

REGISTERED PROFESSIONAL ENGINEER * THOMAS C. ALLEN No.55460 * STRUCTURAL * STATE OF CALIFORNIA * 1/9/2020

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PREPARED BY: X
R.C.E. NO.: --
EXP.: --
PROJECT ENGINEER: --
DRAWN: WE
DESIGNED: DT
CHECKED: TA
SCALE: AS SHOWN
DATE: APR. 2019

TITLE: FOUNDATION DETAILS

JOB: MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

SHEET S3.1

JOB NO. 9862-E

Department of Public Works, Los Angeles County

Checked _____ _____
Design Division Date

WRIGHT engineers
2 Ventura Suite 200
Irvine, CA 92618
949.477.7001 wrightle.com

Drmscale = 1; LTscale = 1; PSScale = 1; ACAD Ver. = 23.0s (LMS Tech); Visretain = 1
K:\2019\181011\SW\DS\structural\S31-181011-0.dwg Tab: S3.1 - by peter.ee 01/09/20 at 3:17:17 PM

GENERAL ENGINEERING CONTRACTORS
CA License No. 256065 •A, C-16, HAZ, HIC
P.O. Box 672 • Oxnard, CA 91302-0672
3201 Sturgis Road • Oxnard, CA 93030
(805) 656-1432 • FAX (805) 485-0338

REQUEST FOR INFORMATION

DATE: 11-16-2020 RFI #: **032**

Attention: Tom Hay Bob Brazell, FivePoint Brian Reid, PACE Matt Mills, PACE Fax #: 661-255-4296	From: Matt Messerly Delivered Via: Email Blois Construction Project No.: 3065 Project Name: Mission Village Sewer Lift Station DPW-1

Subject:	**Eliminate Sump Construction Joint at Valve Vault**	
Reference:	Drawing Sheets:	S3.1
	Detail Numbers:	
	Spec. Sections:	
	Schedule Activities Impacted:	Valve Vault Foundation Pour

INFORMATION REQUESTED:

Can we eliminate the roughened construction joint at the "Valve vault", shown on sheet S3.1 detail 110.

We would like to pour the drain pit (for the sump pump) monolithic with the valve vault foundation.

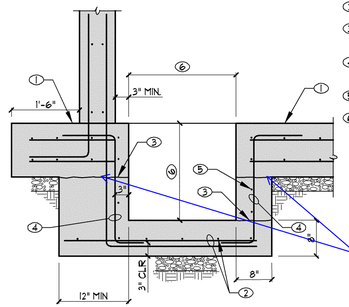
Is this acceptable?

Please review and advise.

Response Requested by:	**11/18/2020**	
If a definitive response is not received by this date Project Schedule Will be Delayed	☐ YES ☐ NO ☒ Uncertain	Potential Cost Impact ☐ YES ☐ NO ☒ Uncertain

RESPONSE:	
BY:	DATE:

RFI #32

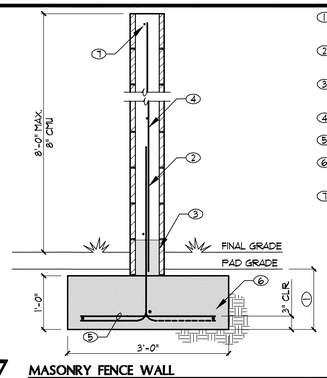


CONSTRUCTION JOINT ELIMINATED. SUMP CONSTRUCTED MONOLITHIC WITH FOUNDATION SLAB. RFI 032

1. SLAB AND REINFORCING PER PLAN
2. #4 AT 12" o.c. E.W. BOTTOM
3. ROUGHENED CONSTRUCTION JOINT OR KEY
4. #4 DOWEL AT 12" o.c. w/ STANDARD HOOKS
5. #4 HORIZ. AT 12" o.c.
6. REFERENCE ARCH 2 FOR DIMENSIONS

110 DRAIN PIT DETAIL

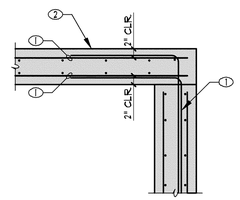
110-181011 NO SCALE



1. SEE FOUNDATION PLAN NOTES OR PLAN(S) FOR MINIMUM EMBEDMENT
2. DOWEL TO MATCH AND LAP WITH VERTICAL WALL REINFORCING
3. GROUT SOLID BELOW FINISH FLOOR
4. #4 AT 32" o.c. VERTICAL BAR
5. #4 AT 48" o.c. TRANSVERSE BAR
6. (3) #4 CONTINUOUS BARS EQUALLY SPACED
7. #4 CONTINUOUS BARS TOP AND BOTTOM AND AT 4'-0" o.c.

107 MASONRY FENCE WALL

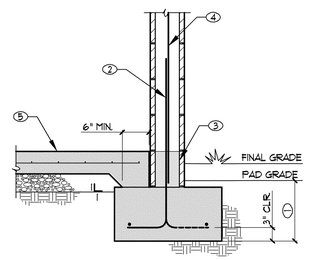
107-181011 NO SCALE



1. SLAB DOWEL TO MATCH AND LAP LID REINFORCING AND VERTICAL WALL REINFOERCEMENT
2. CONCRETE LID PER PLAN

104 ELEVATED CONCRETE SLAB AT CONCRETE WALL

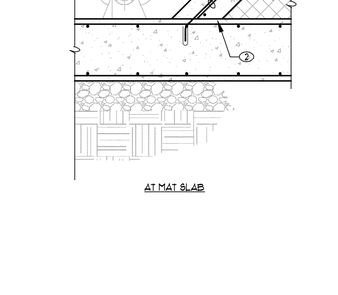
104-181011 NO SCALE



1. SEE FOUNDATION PLAN NOTES OR PLAN(S) FOR MINIMUM EMBEDMENT
2. DOWEL TO MATCH AND LAP WITH VERTICAL WALL REINFORCING
3. GROUT SOLID BELOW FINISH FLOOR
4. VERTICAL REINFORCING PER PLAN
5. CONCRETE SLAB ON GRADE PER PLAN

101 MASONRY WALL AT FOOTING

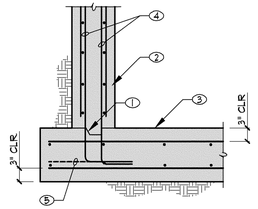
101-181011 NO SCALE



1. SEE FOUNDATION PLAN NOTES OR PLAN(S) FOR MINIMUM EMBEDMENT
2. DOWEL TO MATCH AND LAP WITH VERTICAL WALL REINFORCING
3. GROUT SOLID BELOW FINISH FLOOR
4. CONCRETE SLAB ON GRADE PER PLAN

111 MASONRY WALL AT FOOTING

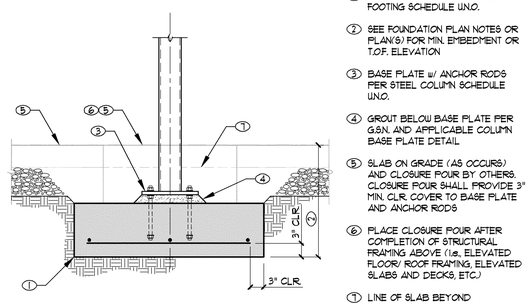
111-181011 NO SCALE



1. CONT. 2x4 TAPERED KEY
2. CONCRETE WALL AND REINFORCING PER PLAN
3. CONCRETE MAT SLAB AND REINFORCING PER PLAN
4. DOWEL TO MATCH AND LAP VERTICAL WALL REINFORCEMENT
5. ALTERNATE BENDS

108 CONCRETE WALL AT FOOTING

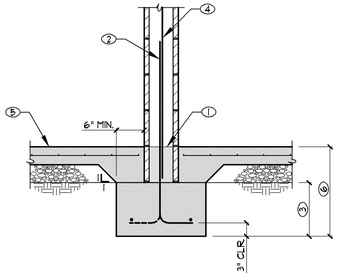
108-181011 NO SCALE



1. FOOTING SIZE AND REINF. PER FOOTING SCHEDULE U.N.O.
2. SEE FOUNDATION PLAN NOTES OR PLAN(S) FOR MIN. EMBEDMENT OR T.O.F. ELEVATION
3. BASE PLATE w/ ANCHOR RODS PER STEEL COLUMN SCHEDULE U.N.O.
4. GROUT BELOW BASE PLATE PER G.S.N. AND APPLICABLE COLUMN BASE PLATE DETAIL
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6. PLACE CLOSURE POUR AFTER COMPLETION OF STRUCTURAL FRAMING ABOVE (I.e., ELEVATED FLOOR/ ROOF FRAMING, ELEVATED SLABS AND DECKS, ETC.)
7. LINE OF SLAB BEYOND

105 STEEL COLUMN AT FOOTING

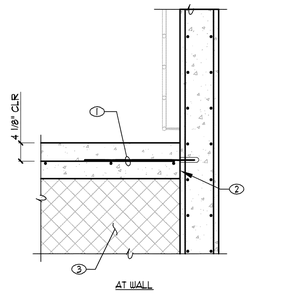
6F01-24-H66 170619 NO SCALE



1. GROUT SOLID BELOW FINISH FLOOR LINE
2. DOWEL TO MATCH AND LAP VERT. REINFORCING. ALTERNATE BENDS
3. SEE FOUNDATION PLAN NOTES OR PLAN(S) FOR MIN. EMBEDMENT
4. VERTICAL REINFORCING PER PLAN
5. CONCRETE SLAB ON GRADE PER PLAN
6. SEE FOUNDATION PLAN NOTES OR PLAN(S) FOR MIN. EMBEDMENT OR T.O.F. ELEVATION

102 INTERIOR MASONRY WALL AT FOOTING

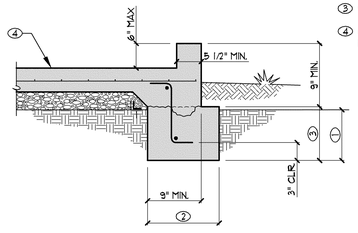
102-181011 NO SCALE



1. EPOXY DOWEL 4" MIN. w/ SIMPSON SET-XP EPOXY TO MATCH AND LAB SLAB REINFORCING
2. ROUGHEN SURFACE TO 1/4" AMPLITUDE
3. HIGH DENSITY FOAM PER PLAN

112 CONCRETE SLAB AT MAT SLAB / WALL

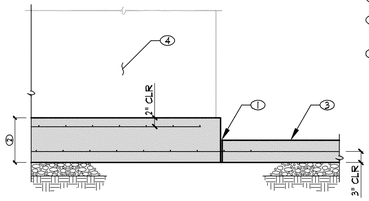
112-181011 NO SCALE



1. MINIMUM EMBEDMENT PER FOUNDATION PLAN NOTES OR PLAN(S)
2. WIDTH PER PLAN OR SCHEDULE. 12" MIN.
3. 9" MIN. FIRST POUR
4. CONCRETE SLAB ON GRADE PER PLAN

109 TYPICAL CURB AT EDGE OF SLAB

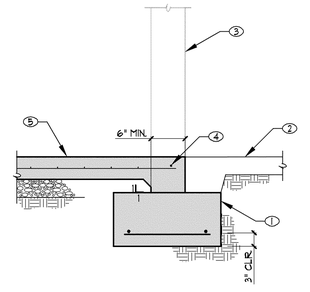
109-181011 NO SCALE



1. 3/8" MIN. EXPANSION JOINT w/ CONT. FILLER
2. THICKNESS PER PLAN
3. CONCRETE SLAB ON GRADE PER PLAN
4. GENERATOR BY OTHERS

106 GENERATOR PAD

106-181011 NO SCALE



1. FOOTING CONTINUOUS FROM BEYOND
2. FINISH GRADE OR EXTERIOR SLAB AS OCCURS
3. LINE OF WALL BEYOND AS OCCURS
4. #4 CONTINUOUS EDGE BAR
5. CONCRETE SLAB ON GRADE PER PLAN

A. SEE ARCH'L FOR EDGE TOOLING REQUIREMENTS

103 TYPICAL SLAB AT WALL OPENING

103-181011 NO SCALE

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER * THOMAS C. ALLEN No.55460 * CIVIL STRUCTURAL * STATE OF CALIFORNIA * 1/9/2020

PREPARED BY: X
PROJECT ENGINEER: -
R.C.E. NO.: -
EXP.: -
DRAWN: WE
SCALE: AS SHOWN
DESIGNED: DT
DATE: APR. 2019
CHECKED: TA

TITLE: FOUNDATION DETAILS

JOB: MISSION VILLAGE DPW-1 SEWER PUMP STATION VALENCIA CA

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PACE Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

SHEET S3.1

JOB NO. 9862-E

Department of Public Works, Los Angeles County

Checked _____ _____
Design Division Date

WRIGHT engineers
2 Venture Suite 200
Irvine, CA 92618
949.477.7001 wrightle.com

Drmscale = 1; LTscale = 1; PSScale = 1; ACAD Ver. = 23.0s (LMS Tech); Vistetain = 1
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P.O. Box 672 • Oxnard, CA 91302-0672
3201 Sturgis Road • Oxnard, CA 93030
(805) 656-1432 • FAX (805) 485-0338

REQUEST FOR INFORMATION

DATE: 2-09-2021 RFI #: **046**

Attention: Tom Hay Bob Brazell, FivePoint Matt Mills, PACE Brian Reid, PACE Fax #: 661-255-4296	From: Matt Messerly Delivered Via: Email Blois Construction Project No.: 3065 Project Name: Mission Village Sewer Lift Station DPW-1

Subject:	**Structural Detail 106**	
Reference:	Drawing Sheets:	S1.1, S3.1
	Detail Numbers:	
	Spec. Sections:	
	Schedule Activities Impacted:	Rebar Shop Drawings, Rebar Procure & Install, Bldg Slab

INFORMATION REQUESTED:

Regarding detail 106 on S3.1:

The horizontal rebar on the bottom mat of the 9" equipment pads is shown to be continuous into the adjacent 4" floor slab. This appears to be inconsistent with the note on this detail that calls for a filled construction joint.

Please confirm that the 9" pads are separate from the 4" floor slab. We expect that the rebar on the bottom mat of the 9" pad would terminate within the edge of the 9" pad and the rebar within the 4" slab would terminate within it. We expect that there is NO continuous rebar between the 9" pad and the 4" slabs. Please confirm.

Please issue an updated or revised detail 106 to show how rebar is supposed to be.

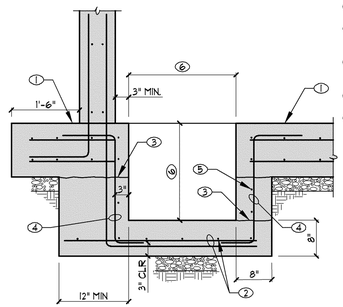
Please review and advise.

Response Requested by:	**2/10/2021**		
If a definitive response is not received by this date Project Schedule Will be Delayed	☐ YES ☐ NO ☒ Uncertain	Potential Cost Impact	☐ YES ☐ NO ☒ Uncertain

RESPONSE: Confirmed, the two pads are separate and the rebar shall terminate within each pad. There is no continuous rebar between the 9" pad and the 4" slab. See marked up 106 detail on next page.

BY: Davis Truong, Wright Engineers DATE: 02/10/2021

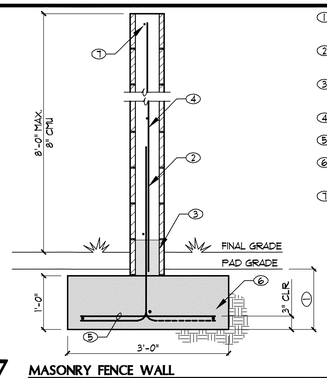
RFI #46



1. SLAB AND REINFORCING PER PLAN
2. #4 AT 12" o.c. E.W. BOTTOM
3. ROUGHENED CONSTRUCTION JOINT OR KEY
4. #4 DOWEL AT 12" o.c. w/ STANDARD HOOKS
5. #4 HORIZ. AT 12" o.c.
6. REFERENCE ARCH 2 FOR DIMENSIONS

110 DRAIN PIT DETAIL

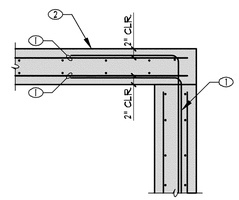
110-181011 NO SCALE



1. SEE FOUNDATION PLAN NOTES OR PLAN(S) FOR MINIMUM EMBEDMENT
2. DOWEL TO MATCH AND LAP WITH VERTICAL WALL REINFORCING
3. GROUT SOLID BELOW FINISH FLOOR
4. #4 AT 32" o.c. VERTICAL BAR
5. #4 AT 48" o.c. TRANSVERSE BAR
6. (3) #4 CONTINUOUS BARS EQUALLY SPACED
7. #4 CONTINUOUS BARS TOP AND BOTTOM AND AT 4'-0" o.c.

107 MASONRY FENCE WALL

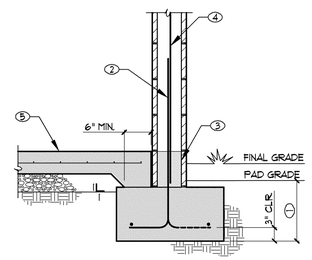
107-181011 NO SCALE



1. SLAB DOWEL TO MATCH AND LAP LID REINFORCING AND VERTICAL WALL REINFOERCEMENT
2. CONCRETE LID PER PLAN

104 ELEVATED CONCRETE SLAB AT CONCRETE WALL

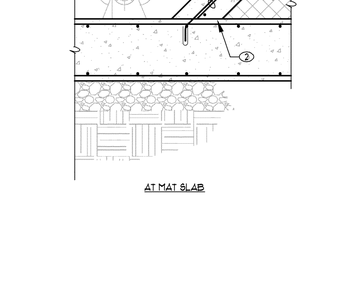
104-181011 NO SCALE



1. SEE FOUNDATION PLAN NOTES OR PLAN(S) FOR MINIMUM EMBEDMENT
2. DOWEL TO MATCH AND LAP WITH VERTICAL WALL REINFORCING
3. GROUT SOLID BELOW FINISH FLOOR
4. VERTICAL REINFORCING PER PLAN
5. CONCRETE SLAB ON GRADE PER PLAN

101 MASONRY WALL AT FOOTING

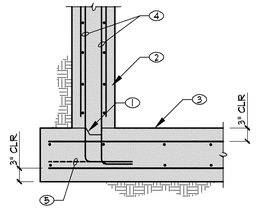
101-181011 NO SCALE



1. SEE FOUNDATION PLAN NOTES OR PLAN(S) FOR MINIMUM EMBEDMENT
2. DOWEL TO MATCH AND LAP WITH VERTICAL WALL REINFORCING
3. GROUT SOLID BELOW FINISH FLOOR
4. CONCRETE SLAB ON GRADE PER PLAN

111 MASONRY WALL AT FOOTING

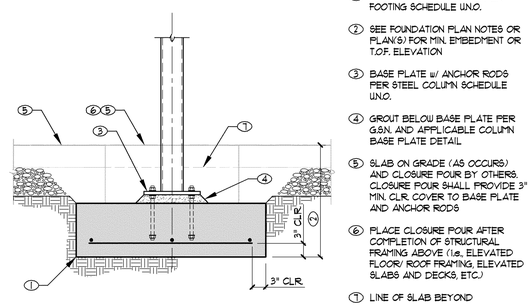
111-181011 NO SCALE



1. CONT. 2x4 TAPERED KEY
2. CONCRETE WALL AND REINFORCING PER PLAN
3. CONCRETE MAT SLAB AND REINFORCING PER PLAN
4. DOWEL TO MATCH AND LAP VERTICAL WALL REINFORCEMENT
5. ALTERNATE BENDS

108 CONCRETE WALL AT FOOTING

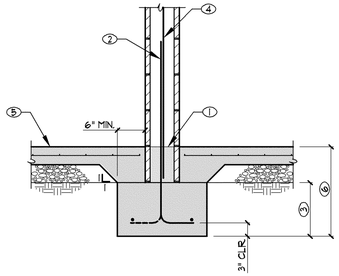
108-181011 NO SCALE



1. FOOTING SIZE AND REINF. PER FOOTING SCHEDULE U.N.O.
2. SEE FOUNDATION PLAN NOTES OR PLAN(S) FOR MIN. EMBEDMENT OR T.O.F. ELEVATION
3. BASE PLATE w/ ANCHOR RODS PER STEEL COLUMN SCHEDULE U.N.O.
4. GROUT BELOW BASE PLATE PER G.S.N. AND APPLICABLE COLUMN BASE PLATE DETAIL
5. SLAB ON GRADE (AS OCCURS) AND CLOSURE POUR BY OTHERS. CLOSURE POUR SHALL PROVIDE 3" MIN. CLR. COVER TO BASE PLATE AND ANCHOR RODS
6. PLACE CLOSURE POUR AFTER COMPLETION OF STRUCTURAL FRAMING ABOVE (I.e., ELEVATED FLOOR/ ROOF FRAMING, ELEVATED SLABS AND DECKS, ETC.)
7. LINE OF SLAB BEYOND

105 STEEL COLUMN AT FOOTING

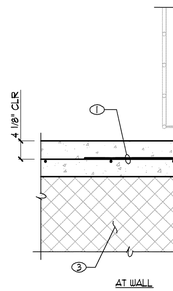
6F01-24-H66 170619 NO SCALE



1. GROUT SOLID BELOW FINISH FLOOR LINE
2. DOWEL TO MATCH AND LAP VERT. REINFORCING. ALTERNATE BENDS
3. SEE FOUNDATION PLAN NOTES OR PLAN(S) FOR MIN. EMBEDMENT
4. VERTICAL REINFORCING PER PLAN
5. CONCRETE SLAB ON GRADE PER PLAN
6. SEE FOUNDATION PLAN NOTES OR PLAN(S) FOR MIN. EMBEDMENT OR T.O.F. ELEVATION

102 INTERIOR MASONRY WALL AT FOOTING

102-181011 NO SCALE



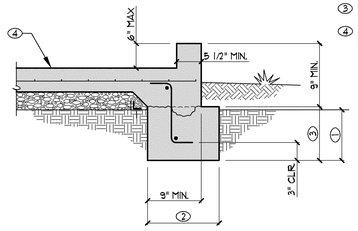
AT WALL

AT MAT SLAB

1. EPOXY DOWEL 4" MIN. w/ SIMPSON SET-XP EPOXY TO MATCH AND LAB SLAB REINFORCING
2. ROUGHEN SURFACE TO 1/4" AMPLITUDE
3. HIGH DENSITY FOAM PER PLAN

112 CONCRETE SLAB AT MAT SLAB / WALL

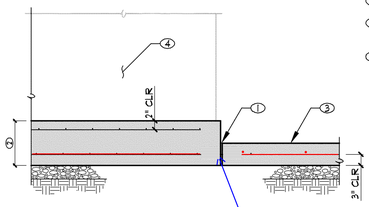
112-181011 NO SCALE



1. MINIMUM EMBEDMENT PER FOUNDATION PLAN NOTES OR PLAN(S)
2. WIDTH PER PLAN OR SCHEDULE. 12" MIN.
3. 9" MIN. FIRST POUR
4. CONCRETE SLAB ON GRADE PER PLAN

109 TYPICAL CURB AT EDGE OF SLAB

109-181011 NO SCALE



1. 3/8" MIN. EXPANSION JOINT w/ CONT. FILLER
2. THICKNESS PER PLAN
3. CONCRETE SLAB ON GRADE PER PLAN
4. GENERATOR BY OTHERS

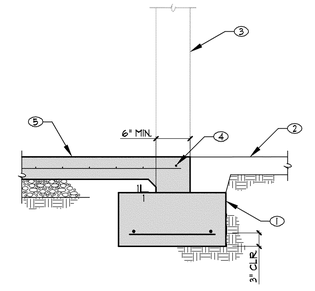
106 GENERATOR PAD

106-181011 NO SCALE

REBAR SUPPOSED TO BE CONTINUOUS?

WE EXPECT NOT TO BE CONTINOUS, DUE TO MENTION OF FILLED EXPANSION JOINT.

PLEASE REVISE DETAIL 106.



1. FOOTING CONTINUOUS FROM BEYOND
2. FINISH GRADE OR EXTERIOR SLAB AS OCCURS
3. LINE OF WALL BEYOND AS OCCURS
4. #4 CONTINUOUS EDGE BAR
5. CONCRETE SLAB ON GRADE PER PLAN

A. SEE ARCH'L FOR EDGE TOOLING REQUIREMENTS

103 TYPICAL SLAB AT WALL OPENING

103-181011 NO SCALE

Department of Public Works, Los Angeles County

Checked _____ _____

Design Division Date

WRIGHT engineers

2 Ventura Suite 200
Irvine, CA 92618
949.477.7001 wrightle.com

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER * THOMAS C. ALLEN No.55460 * STRUCTURAL * STATE OF CALIFORNIA
1/9/2020

PREPARED BY: X
R.C.E. NO. -- PROJECT ENGINEER
EXP. --
DRAWN WE | SCALE AS SHOWN
DESIGNED DT | DATE APR. 2019
CHECKED TA

TITLE: FOUNDATION DETAILS

JOB: MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

SHEET S3.1

JOB NO. 9862-E

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Drawscale = 1; LTscale = 1; PSScale = 1; ACAD Ver. = 23.0s (LMS Tech); Viewtwin = 1
K:\2019\181011\SW\DS\structural\S31-181011-0.dwg Tab: S3.1 - by peter on 01/09/20 at 3:17:17 PM

GENERAL ENGINEERING CONTRACTORS
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P.O. Box 672 • Oxnard, CA 91302-0672
3201 Sturgis Road • Oxnard, CA 93030
(805) 656-1432 • FAX (805) 485-0338

REQUEST FOR INFORMATION

DATE: 06-03-2021

RFI #: **087**

Attention: Tom Hay Bob Brazell, FivePoint Brian Reid, PACE Matt Mills, PACE Fax #: 661-255-4296	From: Matt Messerly Delivered Via: Email Blois Construction Project No.: 3065 Project Name: Mission Village Sewer Lift Station DPW-1

Subject:	**Site Wall with 6" wide block**	
Reference:	Drawing Sheets:	ESI 001 – Fence Wall Change
	Detail Numbers:	S3.1, 107
	Spec. Sections:	
	Schedule Activities Impacted:	Site Wall Footing Pour, Block Order, Block Construct

INFORMATION REQUESTED:

Regarding the 6" CMU Slump block site wall.

Please see below from our masonry subcontractor Reyes Masonry:
"We understand that the Vertical rebar has changed to #5 @ 8" O.C. and signed off by the Engineer. Waiting upon approval from the City/County. We have never built a 6x6x16 Slump wall this high. We have no idea and no guarantee how the wall will withstand and last. We can't guarantee our work being built like this. The engineer may have done this before and has information on this. Let us know how would like us to proceed."

Reyes has indicated that for a wall over 6' high, that 8" wide block is typical, that 6" wide block is not. Reyes has also indicated that 8" wide block is readily available and the order from 6" can be switch to 8" wide.

Reyes has concern that there will be issues getting the grout all way down to the lowest courses since the opening in 6" wide block is much narrower and since the rebar has been upsize to #5 which is a wider bar.

Reyes has indicated that they cannot stand by their work like they normally do with the current wall detail with 6" wide block.

There is also concern about the footing size if the decision is made to stay with 6" wide block. The footing has been laid out for 6" block; the outer dimensions of the block wall would increase by about an inch all around.

This is urgent and important as the footing pour is schedule for tomorrow morning.

Please review and advise.

Response Requested by:	**6/3/2021**	
If a definitive response is not received by this date Project Schedule Will be Delayed	☐ YES ☐ NO ☒ Uncertain	Potential Cost Impact ☐ YES ☐ NO ☒ Uncertain

RESPONSE: USE 8" WIDE BLOCK WITH #4 VERTICAL REINFORCEMENT AT 32" o.c.	
BY: DAVIS TRUONG, WRIGHT ENGINEERS	DATE: 6/4/2021

PACE
Advanced Water Engineering

ENGINEERING SUPPLEMENTAL INFORMATION

TO:	Matt Messerly, Blois Construction	DATE:	5/20/2021
FROM:	Zirang Song, PACE	ESI #:	001
PROJECT:	Mission Village DPW-1 Sewer Lift Station	PROJECT #:	9862

Mission Village DPW-1 – Fence Wall Change

The site wall shall be constructed of 6x6x16 slump block instead of precision CMU blocks. The block material will be modified to the following:

- 6x6x16 Gray Slump out of the Oxnard plant of Angelus block.
- 6x6x16 Gray Slump solid cap to match above.
- Spec Mix 210

The vertical wall reinforcement shall be changed to #5 at 8" o.c. (See Attached Detail 107)

BY: Z.S. / M.J.M. DATE: 5/20/2021

17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 F: (714) 481-7299 | www.pacewater.com

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2 Venture, Suite 200
Irvine, CA 92618
(p) 949.477.4001
(f) 949.477.4009
wrightengineers.com

Las Vegas
1645 VIllage Center Cir.
Suite 10
(p) 702.933.7000
(f) 702.933.7001

Phoenix
7400 W. Detroit St.
Suite 170
Chandler, AZ 85226
(p) 480.483.6111
(f) 480.483.6112

Salt Lake
9160 S. 300 W.
Suite 2
Sandy, UT 84070
(p) 801.352.2001
(f) 801.352.2006

Tucson
2200 East River Road
Suite 104
Tucson, AZ 85718
(p) 520.468.7400

STRUCTURAL CALCULATIONS

PROJECT: **MISSION VILLAGE DPW1 - FENCE WALL CHANGE**
PUMP STATION
LOS ANGELES, CA

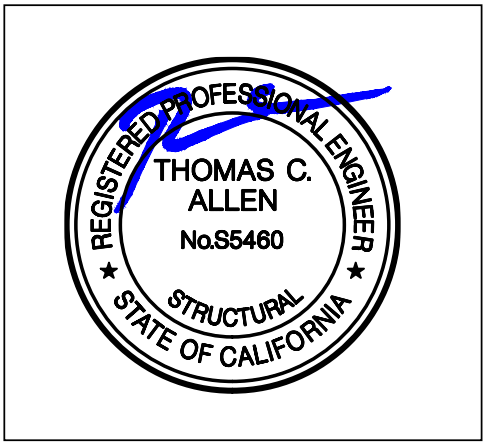
PROJECT No: SCI181011

CLIENT: **PACE ADVANCED WATER ENGINEERING**

DATE: May 19, 2021

SHEET INDEX

CALCULATION	1
DETAIL	2



These calculations are the sole property of WRIGHT ENGINEERS and may not be reproduced in whole or part without written permission. Calculations are valid only for the above named project and location and are not valid unless engineer's original wet signed seal is affixed.

7.5 FT. FENCE

MAX. HT ABOVE FOOTING (FT) :	8.00	ECC. FTG? [Y/N] :	N		
MAX. HT ABOVE GRADE (FT) :	7.50	FTG. WIDTH (IN) :	36		
$t_{NOMINAL}$ [6, 8, 12] (IN) :	6	B.O.F. EMBEDMENT (IN) :	18		
VERT. REBAR :	# 5 @ 8 " o.c.	$t_{FTG.}$ (IN) :	12	OK	
SOLID GROUTED? [Y / N] :	N	M_{OT} (LB-FT/FT) :	642		
SPECIAL INSPECTION? [Y / N] :	N	M_R (LB-FT/FT) :	1599		
WALL WT. (PSF) :	58	F.S. $_{OT}$:	2.49	OK	
f'm (PSI) :	1500	q_{MAX} (PSF) :	792	OK	
Fy (KSI) :	60	q_{MIN} (PSF) :	0		
f'c (PSI) :	2500				
n :	21.48				
d (IN) :	2.8125				
q_sBEARING (PSF) :	2500	BASIC WIND SPEED (MPH) :	110		
SOIL WT. (PCF) :	120	EXPOSURE [A,B,C,D] :	C		
		Kd :	0.85		
		Kz :	0.85		
		Kzt :	1.00		
		Cf :	1.40		
		G :	0.85		
		(ASD) qz :	13.41		
		ASD WIND PRESSURE (PSF) :	**15.96**		

R :	5				
Ss :	2.9530				
S1 :	1.028				
SITE CLASS :	D				
I :	1.0				
Fa :	1.00				
S_{DS} :	1.97				
S.D.C. :	D				
Cs:	0.394 W				
Cs:	0.164 W (MIN.)				
(ASD) V:	0.281 W				
SEISMIC PRESSURE (PSF) :	**16.31**	<--- GOVERNS			

	As					2 / jk	M	fm		Fm		fs		Fs	
	(IN^2/FT)	ρ	nρ	k	j		(LB-FT)	(PSI)		(PSI)		(KSI)		(KSI)	
WALL:	0.460	0.0136	0.293	0.527	0.824	4.61	520	303	<	338	OK	5.8	<	32.0	OK

	As	a	Mu		ϕ Mn		Vu		ϕ Vc			
	(IN^2/FT)	(IN)	(K-FT/FT)		(K-FT/FT)		(K/FT)		(K/FT)		MIN. TRANSVERSE REINFORCING	
FOOTING:	0.05	0.12	0.59	<	1.92	OK	0.50	<	8.9	OK	# 4 @ 48 " o.c.	TRANSVERSE

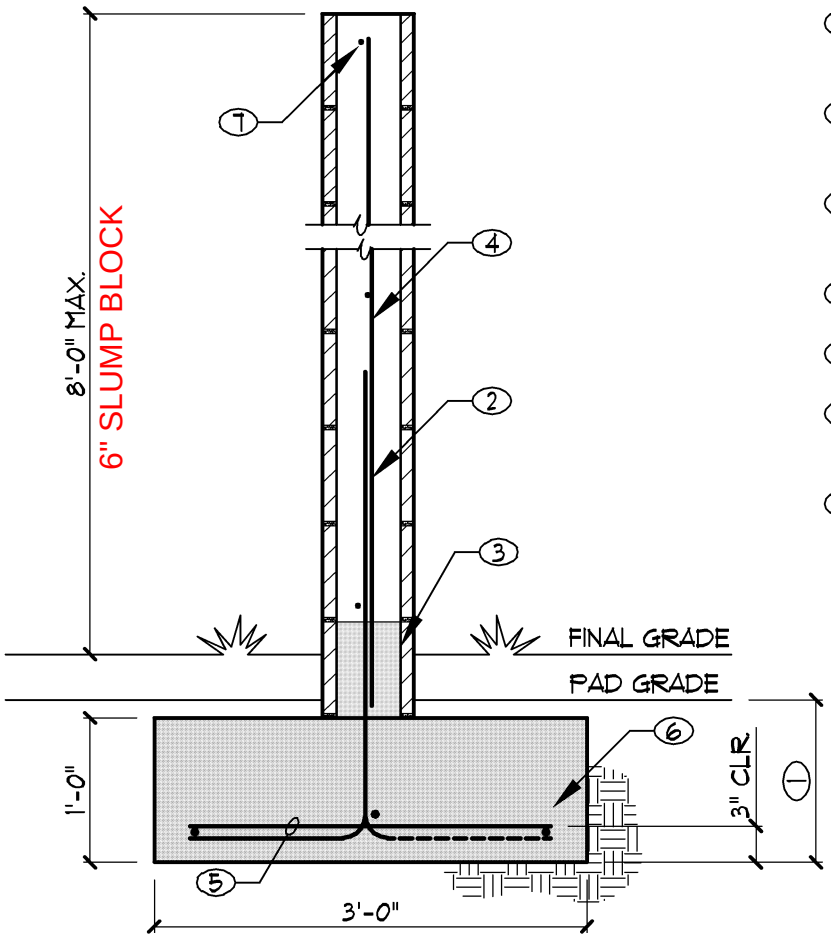
SOIL WT. (LB) :	152
FENCE WT. (LB) :	464
FOOTING WT. (LB) :	450
W_{TOTAL} (LB/FT) :	1066

This sheet contains supporting calculations only. Refer to the G.S.N. and details for construction requirements.

PROJECT: **0** PROJECT No: **0**

LOCATION: **2012 IBC Retaining Walls, Las Vegas, NV** CLIENT: **0**

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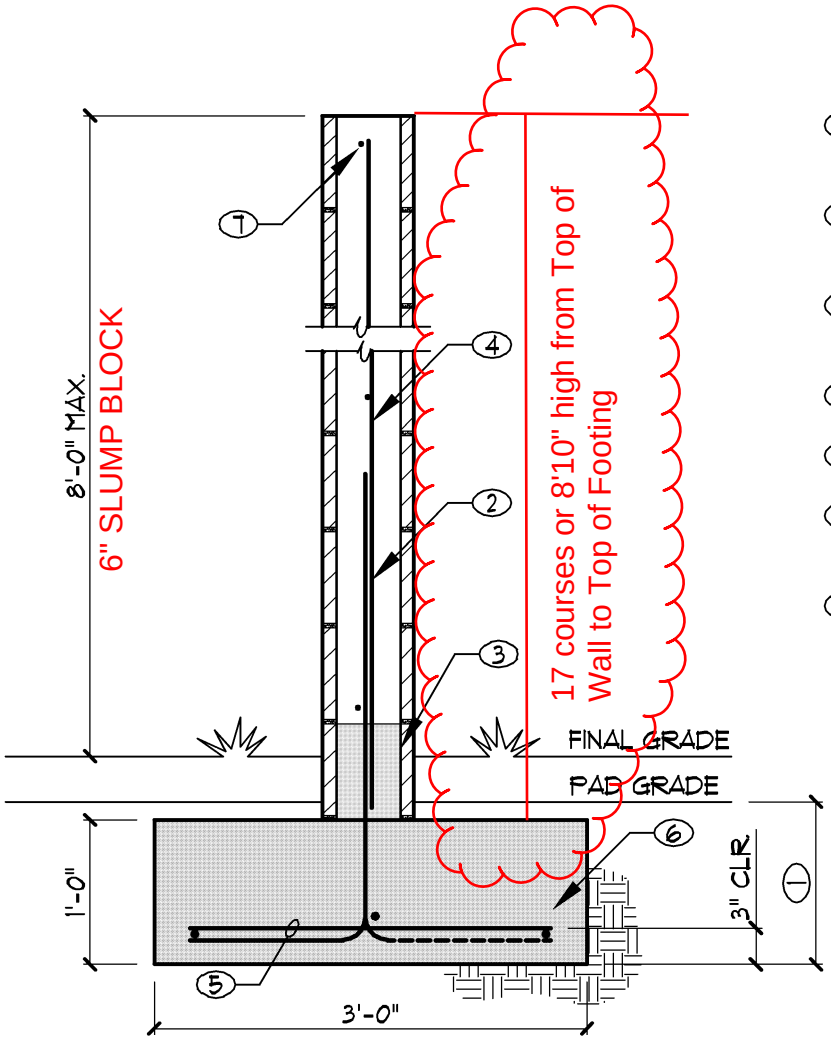


1. SEE FOUNDATION PLAN NOTES OR PLAN(S) FOR MINIMUM EMBEDMENT
2. DOWEL TO MATCH AND LAP WITH VERTICAL WALL REINFORCING
3. GROUT SOLID BELOW FINISH FLOOR
4. #5 AT 8" o.c. VERTICAL BAR
5. #4 AT 48" o.c. TRANSVERSE BAR
6. (3) #4 CONTINUOUS BARS EQUALLY SPACED
7. #4 CONTINUOUS BARS TOP AND BOTTOM AND AT 4'-0" o.c.

107 MASONRY FENCE WALL

107-181011

NO SCALE

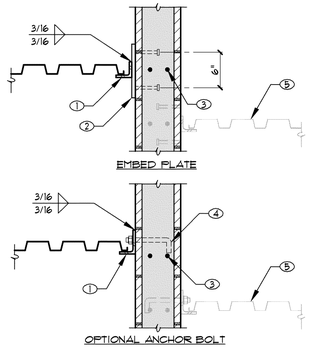


1. SEE FOUNDATION PLAN NOTES OR PLAN(S) FOR MINIMUM EMBEDMENT
2. DOWEL TO MATCH AND LAP WITH VERTICAL WALL REINFORCING
3. GROUT SOLID BELOW FINISH FLOOR
4. #5 AT 8" o.c. VERTICAL BAR
5. #4 AT 48" o.c. TRANSVERSE BAR
6. (3) #4 CONTINUOUS BARS EQUALLY SPACED
7. #4 CONTINUOUS BARS TOP AND BOTTOM AND AT 4'-0" o.c.

107 MASONRY FENCE WALL

107-181011

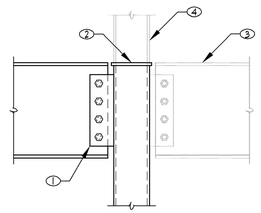
NO SCALE



1. CONT. LEDGER PER PLAN. 4" MIN VERT. LEG REQUIRED FOR A.B. OPTION
2. PL3/8x4x9 w/ (2) 1/2" DIA. x 4" NELSON STUDS. GROUT 4" MIN. ABOVE AND BELOW ANCHORS
3. CONT. GROUTED BOND BEAM PER PLAN OR G.S.N.
4. 3/4" DIA. x6" EMBED A.B. SPACE AT ONE-HALF SPACING CALLED FOR EMBED PLATE
5. STEEL DECK AS OCCURS

A. CONCRETE OVER STEEL DECK WHERE OCCURS NOT SHOWN FOR CLARITY
B. STEEL DECK ORIENTATION MAY BE AT 90° TO THAT SHOWN
C. VERT. REINFORCING NOT SHOWN FOR CLARITY
D. MAX. EMBED PLATE SPACING 4'-0" o.c.

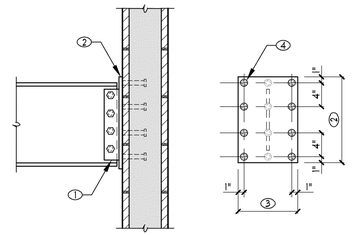
206 STEEL DECK AT MASONRY WALL
206-181011 NO SCALE



1. SHEAR PLATE, BOLTS, WELDS, ETC., PER TYPICAL SHEAR PLATE CONNECTION SCHEDULE
2. CAP PLATE AT TOP OF COLUMN PER TYPICAL COLUMN CAP PLATE DETAIL U.N.O.
3. BEAM BOTH SIDES OF COLUMN AS OCCURS PER PLAN
4. CONTINUATION OF COLUMN AS OCCURS

A. ADJOINING FRAMING AS OCCURS NOT SHOWN FOR CLARITY

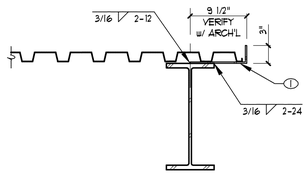
204 STEEL BEAM AT HSS COLUMN
5806-03 080227 NO SCALE



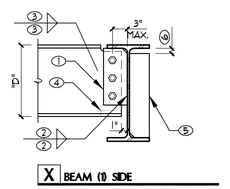
1. SHEAR PLATE SIZE AND NUMBER OF BOLTS PER TYPICAL SHEAR PLATE CONNECTION SCHEDULE
2. 3/4" EMBED PLATE, DEPTH EQUAL TO BEAM DEPTH (14" MIN.)
3. 9" FOR BEAMS UP TO 18" DEEP, 12" FOR BEAMS UP TO 24" DEEP
4. 3/4" DIA. x 5" NELSON STUDS. (8) FOR BEAMS UP TO 18" DEEP. (12) FOR BEAMS UP TO 24" DEEP

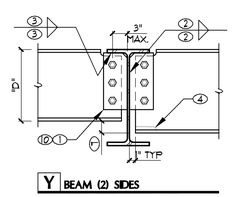
201 STEEL BEAM AT MASONRY WALL
201-181011 NO SCALE

1. 3/16 x CONT. BENT PLATE EDGE ANGLE

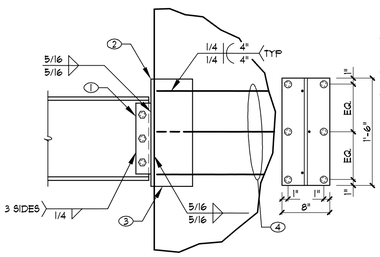


207 STEEL DECK AT STEEL BEAM
207-181011 NO SCALE





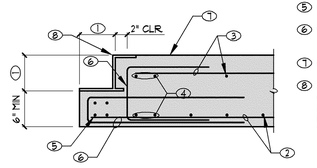
1. SHEAR PLATE, BOLTS, ETC., PER TYPICAL SHEAR PLATE CONNECTION SCHEDULE
2. WELD SIZE PER TYPICAL SHEAR PLATE CONNECTION SCHEDULE, TYP. AT SHEAR PLATE TO BEAM WEB WELDS
3. MIN. WELD SIZE PER AISC 360, TABLE J2.4, TYP. AT SHEAR PLATE TO BEAM FLANGE WELDS
4. COPE BOTTOM OF BEAM AS NECESSARY TO AVOID INTERFERENCE W/ SHEAR PLATE OR BOTTOM FLANGE OF SUPPORTING BEAM
5. STIFFENER PLATE OPPOSITE SHEAR PLATE. STIFFENER THICKNESS SHALL EQUAL SHEAR PLATE THICKNESS. STIFFENER NOT REQ'D. WHERE DEPTH OF SUPPORTED BEAM IS LESS THAN 1/2 THE DEPTH OF THE SUPPORTING BEAM
6. STIFFENER SHALL EXTEND TO WITHIN 1/2" OF BEAM FILLET
7. WHERE SUPPORTED BEAMS DIFFER IN DEPTH BY 3" OR GREATER, EXTEND SHEAR PLATE FOR DEEPER BEAM TO BOTTOM FLANGE OF (3) SUPPORTING BEAM AND WELD DIRECTLY
8. CLIP TOP OF BEAM TO MATCH ADJACENT STEEL JOIST BEARING DEPTH AS OCCURS
9. HORIZ. BOLT ROW AT "D" = 7" OR LESS
10. AT DETAIL 205A, USE STD. HOLES IN BOTH BEAM WEB AND SHEAR PLATE. BOLTS SHALL BE FULLY PRETENSIONED. FAYING SURFACES SHALL BE PREPARED AS REQ'D. FOR CLASS "A" SLIP-CRITICAL JOINTS (SEE G.S.N. FOR ADDITIONAL INFO.)



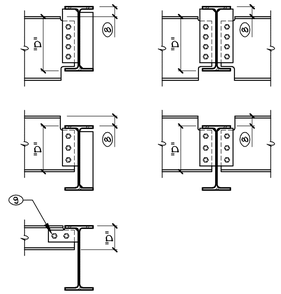
1. SHEAR PLATE SIZE, TYPE AND NUMBER OF BOLTS PER TYPICAL SHEAR PLATE CONNECTION SCHEDULE
2. 3/4" EMBED PLATE w/ (6) 3/4" DIA. x 5" NELSON STUDS
3. 1/2" x 6" PLATE
4. (3) #6 x 8'-0" DEFORMED WELDABLE REBAR

202 STEEL BEAM AT MASONRY WALL DRAG CONNECTION
SM02-05 080304 NO SCALE

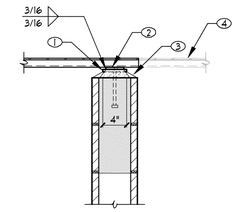
1. STEP PER ARCH'L
2. BOTTOM REINFORCING PER PLAN
3. TOP RINFORCING PER PLAN
4. EDGE REINFORCING PER PLAN
5. (4) #4
6. #4 x 24" AT 6" o.c.
7. CONCRETE LID PER PLAN
8. ACCESS HATCH FRAME BY OTHERS, CONTRACTOR TO VERIFY ALL HATCH FRAME DIMENSIONS WITH HATCH MANUFACTURER PRIOR TO CONSTRUCTION



208 DEPRESSED EDGE OF SLAB AT OPENING
208-181011 NO SCALE



205 STEEL BEAM TO BEAM SHEAR PLATE CONNECTION
205-181011
205A AS NOTED SLRS



1. EMBED PLATE 3/8" x 6" x 0'-4" w/ (2) 1/2" DIA x 6" NELSON STUDS SPACED AT 4"
2. 3/8" x 3" x CONT. DECK BEARING PLATE
3. 1" +/- GROUT OR DRYPACK
4. CONTINUATION OF STEEL DECK AS OCCURS

A. MAX. EMBED PLATE SPACING 4'-0" o.c.
B. WALL VERTICAL AND HORIZONTAL REINFORCING NOT SHOWN FOR CLARITY

203 STEEL DECK AT MASONRY WALL
SM03-02 161012.EDR NO SCALE

NO	BY	DATE	REVISIONS	DATE	APP.

PROFESSIONAL ENGINEER * REGISTERED * THOMAS C. ALLEN No.55460 * STRUCTURAL * STATE OF CALIFORNIA
1/9/2020

PREPARED BY: -
R.C.E. NO.: --
EXP.: --
PROJECT ENGINEER: X
DRAWN: WE
DESIGNED: DT
CHECKED: TA
SCALE: AS SHOWN
DATE: APR. 2019

TITLE: FRAMING DETAILS

JOB: MISSION VILLAGE DPW-1 SEWER PUMP STATION VALENCIA CA

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PACE Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

SHEET S4.1

JOB NO. 9862-E

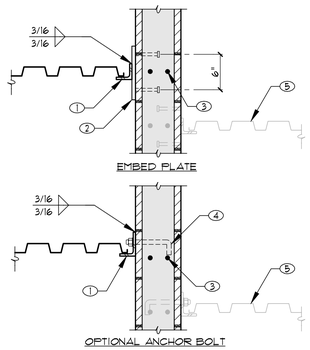
Department of Public Works, Los Angeles County
Checked _____ _____
Design Division Date

WRIGHT engineers
2 Venture Suite 200
Irvine, CA 92618
949.477.4001 wrighteng.com

S41-181011-D

Dimscale = 1"; 1 Tscale = 1' | PSIscale = 1"; ACAD Ver. = 23.0s (LMS Tech); Vizstan = 1

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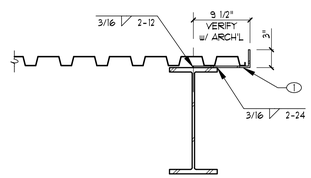


1. CONT. LEDGER PER PLAN. 4" MIN VERT. LEG REQUIRED FOR A.B. OPTION
2. PL3/8x4x9 w/ (2) 1/2" DIA. x 4" NELSON STUDS. GROUT 4" MIN. ABOVE AND BELOW ANCHORS
3. CONT. GROUTED BOND BEAM PER PLAN OR G.S.N.
4. 3/4" DIA. x6" EMBED A.B. SPACE AT ONE-HALF SPACING CALLED FOR EMBED PLATE
5. STEEL DECK AS OCCURS

A. CONCRETE OVER STEEL DECK WHERE OCCURS NOT SHOWN FOR CLARITY
B. STEEL DECK ORIENTATION MAY BE AT 90° TO THAT SHOWN
C. VERT. REINFORCING NOT SHOWN FOR CLARITY
D. MAX. EMBED PLATE SPACING 4'-0" o.c.

206 STEEL DECK AT MASONRY WALL

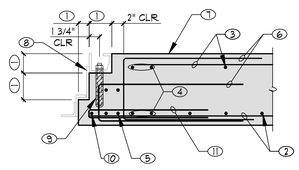
206-181011 NO SCALE

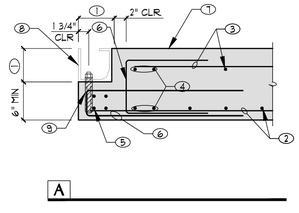


1. 3/16 x CONT. BENT PLATE EDGE ANGLE

207 STEEL DECK AT STEEL BEAM

207-181011 NO SCALE

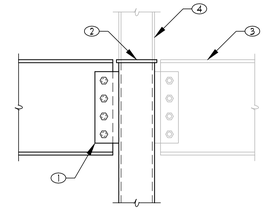




1. STEP PER ARCH'L, COORDINATE FINAL STEP DIMENSIONS WITH HATCH MANUFACTURER
2. BOTTOM REINFORCING PER PLAN
3. TOP RINFORCING PER PLAN
4. EDGE REINFORCING PER PLAN
5. (4) #4
6. #4 x 24" AT 6" o.c.
7. CONCRETE LID PER PLAN
8. ACCESS HATCH FRAME BY OTHERS, CONTRACTOR TO VERIFY ALL HATCH FRAME DIMENSIONS WITH HATCH MANUFACTURER PRIOR TO CONSTRUCTION
9. 3/8" DIA. x 2 3/4" STAINLESS-STEEL THREADED ROD EPOXY EMBED w/ HILTI HIT-RE 500 V3 AT 8" o.c.
10. (1) #4
11. #4 x 18" AT 12" o.c.

6 208 DEPRESSED EDGE OF SLAB AT OPENING

208-181011 NO SCALE

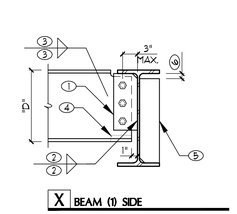


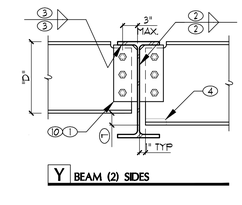
1. SHEAR PLATE, BOLTS, WELDS, ETC., PER TYPICAL SHEAR PLATE CONNECTION SCHEDULE
2. CAP PLATE AT TOP OF COLUMN PER TYPICAL COLUMN CAP PLATE DETAIL U.N.O.
3. BEAM BOTH SIDES OF COLUMN AS OCCURS PER PLAN
4. CONTINUATION OF COLUMN AS OCCURS

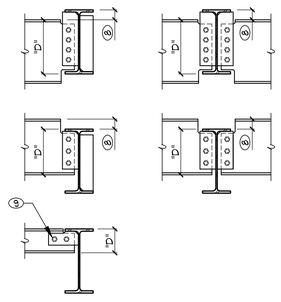
A. ADJOINING FRAMING AS OCCURS NOT SHOWN FOR CLARITY

204 STEEL BEAM AT HSS COLUMN

5506-03 080227 NO SCALE





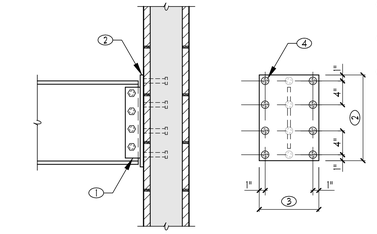


1. SHEAR PLATE, BOLTS, ETC., PER TYPICAL SHEAR PLATE CONNECTION SCHEDULE
2. WELD SIZE PER TYPICAL SHEAR PLATE CONNECTION SCHEDULE, TYP. AT SHEAR PLATE TO BEAM WEB WELDS
3. MIN. WELD SIZE PER AISC 360, TABLE J2.4, TYP. AT SHEAR PLATE TO BEAM FLANGE WELDS
4. COPE BOTTOM OF BEAM AS NECESSARY TO AVOID INTERFERENCE w/ SHEAR PLATE OR BOTTOM FLANGE OF SUPPORTING BEAM
5. STIFFENER PLATE OPPOSITE SHEAR PLATE. STIFFENER THICKNESS SHALL EQUAL SHEAR PLATE THICKNESS. STIFFENER NOT REQ'D. WHERE DEPTH OF SUPPORTED BEAM IS LESS THAN 1/2 THE DEPTH OF THE SUPPORTING BEAM
6. STIFFENER SHALL EXTEND TO WITHIN 1/2" OF BEAM FILLET
7. WHERE SUPPORTED BEAMS DIFFER IN DEPTH BY 3" OR GREATER, EXTEND SHEAR PLATE FOR DEEPER BEAM TO BOTTOM FLANGE OF (3) SUPPORTING BEAM AND WELD PERIMETER
8. CRIMP TOP OF BEAM TO MATCH ADJACENT STEEL JOIST BEARING DEPTH AS OCCURS
9. HORIZ. BOLT ROW AT "D" = 1" OR LESS
10. AT DETAIL 205A, USE STD. HOLES IN BOTH BEAM WEB AND SHEAR PLATE. BOLTS SHALL BE FULLY PRETENSIONED. FAYING SURFACES SHALL BE PREPARED AS REQ'D. FOR CLASS "A" SLIP-CRITICAL JOINTS (SEE G.S.N. FOR ADDITIONAL INFO.)

205 STEEL BEAM TO BEAM SHEAR PLATE CONNECTION

205-181011 NO SCALE

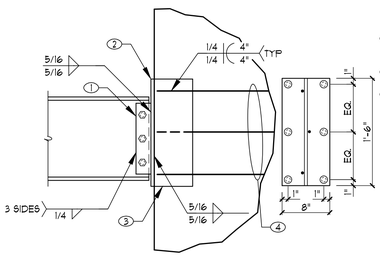
205A AS NOTED SLR5



1. SHEAR PLATE SIZE AND NUMBER OF BOLTS PER TYPICAL SHEAR PLATE CONNECTION SCHEDULE
2. 3/4" EMBED PLATE. DEPTH EQUAL TO BEAM DEPTH (14" MIN.)
3. 9" FOR BEAMS UP TO 18" DEEP. 12" FOR BEAMS UP TO 24" DEEP
4. 3/4" DIA. x 5" NELSON STUDS. (8) FOR BEAMS UP TO 18" DEEP. (12) FOR BEAMS UP TO 24" DEEP

201 STEEL BEAM AT MASONRY WALL

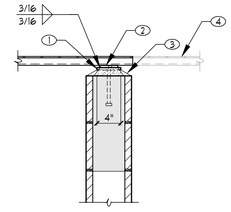
201-181011 NO SCALE



1. SHEAR PLATE SIZE, TYPE AND NUMBER OF BOLTS PER TYPICAL SHEAR PLATE CONNECTION SCHEDULE
2. 3/4" EMBED PLATE w/ (6) 3/4" DIA. x 5" NELSON STUDS
3. 1/2" x 6" PLATE
4. (3) #6 x 8'-0" DEFORMED WELDABLE REBAR

202 STEEL BEAM AT MASONRY WALL DRAG CONNECTION

SM02-05 080304 NO SCALE



1. EMBED PLATE 3/8" x 6" x 0'-4" w/ (2) 1/2" DIA x 6" NELSON STUDS SPACED AT 4"
2. 3/8" x 3" x CONT. DECK BEARING PLATE
3. 1" +/- GROUT OR DRYPACK
4. CONTINUATION OF STEEL DECK AS OCCURS

A. MAX. EMBED PLATE SPACING 4'-0" o.c.
B. WALL VERTICAL AND HORIZONTAL REINFORCING NOT SHOWN FOR CLARITY

203 STEEL DECK AT MASONRY WALL

SM03-02 161012.EDR NO SCALE

NO	BY	DATE	REVISIONS	DATE	APP.
6	XX	04/12/19	CHANGES PER LADPW PLAN REVIEW	05/23/19	XX
5	XX	08/05/19	PLAN CHECK REVISIONS		
4	XX	10/29/19	PLAN CHECK REVISIONS		
3	XX	11/20/19	PLAN CHECK REVISIONS		
2	XX	03/05/21	HATCH REVISIONS		
1					

REGISTERED PROFESSIONAL ENGINEER * THOMAS C. ALLEN No.S5460 * STRUCTURAL * STATE OF CALIFORNIA
3/5/2021

PREPARED BY: X
R.C.E. NO. --
EXP. --
DRAWN: WE
DESIGNED: DT
CHECKED: TA
SCALE: AS SHOWN
DATE: APR. 2019

TITLE: FRAMING DETAILS

JOB: MISSION VILLAGE DPW-1 SEWER PUMP STATION VALENCIA CA

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PACE Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

WRIGHT engineers
2 Venture Suite 200
Irvine, CA 92618
949.477.7400 wrightle.com

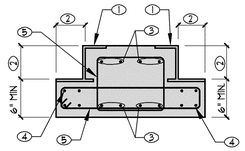
SHEET S4.1

JOB NO. 9862-E

S41-181011-D

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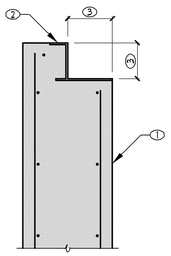
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1. CONCRETE WALL AND REINFORCING PER PLAN
2. STEP PER ARCH'L
3. EDGE REINFORCING PER PLAN
4. (4) #4
5. #4 TIES AT 6" o.c.

211 DEPRESSED EDGE OF SLAB AT OPENING

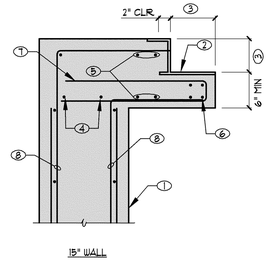
211-181011 NO SCALE



1. CONCRETE WALL AND REINFORCING PER PLAN
2. ACCESS HATCH FRAME BY OTHERS, CONTRACTOR TO VERIFY ALL HATCH FRAME DIMENSIONS WITH HATCH MANUFACTURER PRIOR TO CONSTRUCTION
3. STEP PER ARCH'L

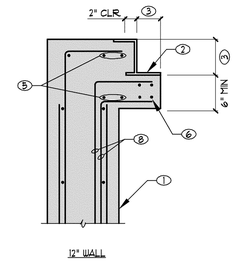
209 DEPRESSED EDGE AT CONCRETE WALL

209-181011 NO SCALE



15" WALL

1. CONCRETE WALL AND REINFORCING PER PLAN
2. ACCESS HATCH FRAME BY OTHERS, CONTRACTOR TO VERIFY ALL HATCH FRAME DIMENSIONS WITH HATCH MANUFACTURER PRIOR TO CONSTRUCTION
3. STEP PER ARCH'L
4. BOTTOM REINFORCING PER PLAN
5. EDGE REINFORCING PER PLAN
6. (4) #4
7. #4 x 24" AT 6" o.c.
8. SLAB DOUEL TO MATCH AND LAP VERTICAL WALL REINFORCEMENT



12" WALL

210 DEPRESSED EDGE OF SLAB AT OPENING

210-181011 NO SCALE

Department of Public Works, Los Angeles County

Checked _____ _____

Design Division Date

WRIGHT engineers

2 Venture Suite 200
Irvine, CA 92618
949.477.4001 wrighte.com

S42-181011-D

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER * THOMAS C. ALLEN No.55460 * STRUCTURAL * STATE OF CALIFORNIA * 1/9/2020

PREPARED BY	PROJECT ENGINEER	SCALE	DATE
-	R.C.E. NO. --	AS SHOWN	APR. 2019
X	EXP. -		
	DRAWN WE		
	DESIGNED DT		
	CHECKED TA		

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TITLE: FRAMING DETAILS

JOB: MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
VALENCIA CA

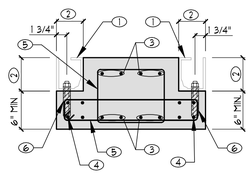
PACE Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

SHEET S4.2

JOB NO. 9862-E

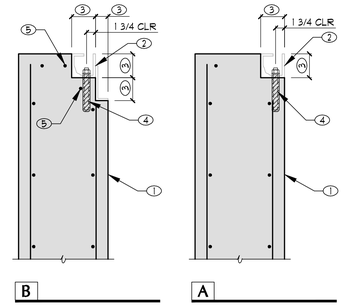
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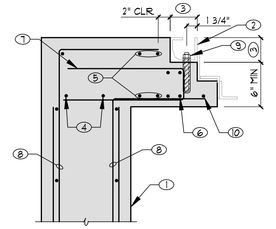
1. CONCRETE WALL AND REINFORCING PER PLAN
2. STEP PER ARCH'L, COORDINATE FINAL STEP DIMENSIONS WITH HATCH MANUFACTURER
3. EDGE REINFORCING PER PLAN
4. (4) #4
5. #4 TIES AT 6" o.c.
6. 3/8" DIA. x 2 3/4" STAINLESS-STEEL THREADED ROD EPOXY EMBED w/ HILTI HIT-RE 500 V3 AT 8" o.c.

6 **211** DEPRESSED EDGE OF SLAB AT OPENING
211-181011 NO SCALE

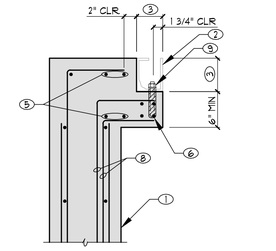


1. CONCRETE WALL AND REINFORCING PER PLAN
2. ACCESS HATCH FRAME BY OTHERS, CONTRACTOR TO VERIFY ALL HATCH FRAME DIMENSIONS WITH HATCH MANUFACTURER PRIOR TO CONSTRUCTION
3. STEP PER ARCH'L, COORDINATE FINAL STEP DIMENSIONS WITH HATCH MANUFACTURER
4. 3/8" DIA. x 2 3/4" STAINLESS-STEEL THREADED ROD EPOXY EMBED w/ HILTI HIT-RE 500 V3 AT 8" o.c.
5. (1) #4

6 **209** DEPRESSED EDGE AT CONCRETE WALL
209-181011 NO SCALE



1. CONCRETE WALL AND REINFORCING PER PLAN
2. ACCESS HATCH FRAME BY OTHERS, CONTRACTOR TO VERIFY ALL HATCH FRAME DIMENSIONS WITH HATCH MANUFACTURER PRIOR TO CONSTRUCTION
3. STEP PER ARCH'L, COORDINATE FINAL STEP DIMENSIONS WITH HATCH MANUFACTURER
4. BOTTOM REINFORCING PER PLAN
5. EDGE REINFORCING PER PLAN
6. (4) #4
7. #4 x 24" AT 6" o.c.
8. SLAB DOWEL TO MATCH AND LAP VERTICAL WALL REINFORCEMENT
9. 3/8" DIA. x 2 3/4" STAINLESS-STEEL THREADED ROD EPOXY EMBED w/ HILTI HIT-RE 500 V3 AT 8" o.c.
10. (1) #4



6 **210** DEPRESSED EDGE OF SLAB AT OPENING
210-181011 NO SCALE

WRIGHT engineers
2 Venture Suite 200
Irvine, CA 92618
949.477.4001 wrighte.com
S-S2-181011-D

NO	BY	DATE	REVISIONS	DATE	APP.
6	XX	04/12/19	CHANGES PER LADPW PLAN REVIEW	05/23/19	XX
5	XX	08/05/19	PLAN CHECK REVISIONS		
4	XX	10/29/19	PLAN CHECK REVISIONS		
3	XX	11/20/19	PLAN CHECK REVISIONS		
2	XX	03/05/21	HATCH REVISIONS		

REGISTERED PROFESSIONAL ENGINEER
THOMAS C. ALLEN
No.55460
STRUCTURAL
STATE OF CALIFORNIA
3/5/2021

PREPARED BY X
R.C.E. NO. --
EXP. --
PROJECT ENGINEER --
DRAWN WE
DESIGNED DT
CHECKED TA
SCALE AS SHOWN
DATE APR. 2019

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TITLE
FRAMING DETAILS

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

SHEET
S4.2

JOB NO. 9862-E

K:\2019\19101\DWG\Structural\S42-181011-D.dwg - Tab: S4.2 - by anya on 03/05/21 at 8:47:56 AM

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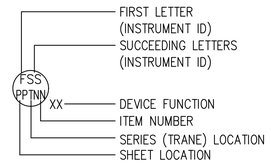
INSTRUMENT IDENTIFICATION LETTERS (FSS)

	FIRST – LETTER (F)		SUCCEEDING – LETTERS (SS)		
	MEASURED OF INITIATING VARIABLE	MODIFIER	READOUT PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
A	ANALYSIS		ALARM		
B	BURNER, COMBUSTION		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
C	CONDUCTIVITY, CONVEYOR			CONTROLLER	
D	DENSITY, DRIVE	DIFFERENTIAL			
E	VOLTAGE		SENSOR, PRIMARY ELEMENT		
F	FLOW RATE	RATIO (FRACTION)			
G	GAUGE, GENERAL		GLASS VIEWING DEVICE		
H	HAND				HIGH, OPENED
I	CURRENT (ELEC.)		INDICATING, INDICATOR		
J	POWER		SCAN		
K	TIME, TIME SCHEDULE	TIME RATE OF CHANGE		CONTROL STATION	
L	LEVEL		LIGHT		LOW, CLOSED
M	MOTOR, MOISTURE, MOTION	MOMENTARY			MIDDLE
N	INTRUSION, STATUS	MOMENTARY	STATUS	USER'S CHOICE	USER'S CHOICE
O	OPERATOR, TORQUE		ORIFICE, RESTRICTION		USER'S CHOICE
P	PRESSURE, VACUUM		POINT (TEST) CONNECTION		
Q	QUANTITY	INTERGRATE, TOTALIZE			
R	RESET, RADIATION		RECORD OR PRINT		
S	SPEED, FREQUENCY, SCREEN	SAFETY		SWITCH	SLOW
T	TEMPERATURE			TRANSMITTER	TEST
U	MULTIVARIABLE		MULTIFUCTION	MULTIFUCTION	MULTIFUCTION
V	VIBRATION, MECH. ANALYSIS			VALVE, DAMPER LOUVER	
W	WEIGHT, FORCE		WELL		
X	SWITCH	X AXIS	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED
Y	EVENT, STATE, PRESENCE	Y AXIS	UNCLASSIFIED	RELAY, COMPUT, CONVERT	
Z	POSITION DIMENSION	Z AXIS		DRIVER, ACTUATOR, UNCLASSIFIED FINAL CONTROL ELEMENT	

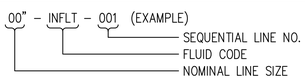
LINE CODES

- MAJOR PROCESS LINE
- MINOR PROCESS LINE
- PROCESS/CLEANING AIR
- ELECTRICAL WIRING
- CONTROL WIRING
- PLC TO SCADA COMMUNICATION
- 00"–XXXXX–000 — LINE NUMBER
- — DESCRIPTION 1 / DESCRIPTION 2 / REF SHT 1–XX.X — PROCESS CONTINUATION WITHIN SCOPE
- — DESCRIPTION 1 / DESCRIPTION 2 / REF SHT 1–XX.X — PROCESS CONTINUATION WITHIN SCOPE WITH BACKFLOW

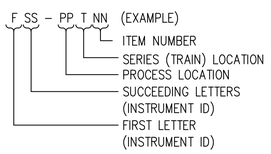
INSTRUMENT NUMBERING



LINE NUMBERING



EQUIPMENT NUMBERING



EXAMPLE:
LT–03202 = ANOXIC REACTOR #2 LEVEL TRANSDUCER #2

FLUID CODE ABBREVIATION

BP	BYPASS
BW	BACKWASH
CDS	CHEMICAL DOSING
CNTRT	CENTRATE
EFFLT	EFFLUENT
FA	FOUL AIR
FLTRT	FILTRATE
INFLT	INFLUENT
OVRFL	OVERFLOW
PA	PROCESS AIR
PRMT	PERMEATE
PW	POTABLE WATER
RAS	RETURN ACTIVATED SLUDGE
RECYC	RECYCLE
RNS	RINSE
RW	RAW WATER
SECPR	SECONDARY PROCESS
SD	SLUDGE DISCHARGE
SWR	SEWER
TERT	TERTIARY
WAS	WASTE ACTIVATED SLUDGE
WTR	WATER
WW	WASTE WATER

PROCESS LOCATION (PP)

00	MISCELLANEOUS
01	HEADWORKS
02	EQUALIZATION
03	ANOXIC REACTOR
04	AERATION
05	CLARIFIER
06	DEWATERING
07	BLOWERS
08	GENERATOR

LINE NUMBER GROUPS

000	OVERFLOW/ BYPASS/ DRAIN
100	INFLUENT/ EFFLUENT/ SECONDARY & FINAL EFFLUENT
200	TERTIARY/ REUSE WATER/ BACKWASH/ RECYC
300	PERMEATE/ FILTRATE/ CENTRATE/ BRINE
400	PROCESS AIR
500	CHEMICAL DOSING, O2/O3 GAS
600	FOUL AIR
700	WATER
800	RAS/ SOLIDS
900	WAS/ SCUM/ WASTE WATER/ RAW WATER

SERIES LOCATION (TT)

1	SHEET 1
2	SHEET 2
3	SHEET 3
4	SHEET 4

ABBREVIATIONS

ACP	ACCESS CONTROL PANEL	OC	ODOR CONTROL
ACPR	AIR COMPRESSOR	OCA	OPEN–CLOSE–AUTO
AE	ANALYTICAL SENSOR	OCR	OPEN–CLOSE–REMOTE
AI	ANALOG INPUT	OIT	OPERATOR INTERFACE TERMINAL
AIT	ANALYTICAL INDICATOR TRANSMITTER	OO	ON/OFF (MAINTAINED)
AMP	AMPERE	OOA	ON–OFF–AUTO
AO	ANALOG OUTPUT	OOR	ON–OFF–REMOTE
AT	ANALYTICAL TRANSMITTER	OSC	OPEN–STOP–CLOSE
ATS	AUTOMATIC TRANSFER SWITCH	O2	OXYGEN GAS
BLR	BLOWER	O3	OZONE GAS
CB	CIRCUIT BREAKER	PE	PRESSURE SENSOR
CBL	COARSE BUBBLE DIFFUSER	PG	PRESSURE GAUGE
CE	CONDUCTIVITY SENSOR (TDS)	PH	POTENTIAL OF HYDROGEN
CFR	CHEMICAL FEEDER	PI	PRESSURE INDICATOR / PULSE INPUT
CG	COMBUSTIBLE GASES	PID	PROPORTIONAL–INTEGRAL–DERIVATIVE
CHV	CHECK VALVE	PIT	PRESSURE INDICATOR TRANSMITTER
CL2	CHLORINE	PLC	PROGRAMMABLE LOGIC CONTROLLER
CMP	COMPACTOR	PMP	PUMP
CON	CONVEYOR	PNL	PANEL
CWC	COMPACTOR/WASHER/CONVEYOR	PO	PULSE OUTPUT
DCS	DISTRIBUTED CONTROL SYSTEM	PPG	POUNDS PER GALLON
DI	DIGITAL INPUT	PPH	POUNDS PER HOUR
DO	DISSOLVED OXYGEN / DIGITAL OUTPUT	PPM	PARTS PER MILLION
DP	DIFFERENTIAL PRESSURE	PRESS	PRESSURE
DRY	BIOSOLIDS DRYER	PRV	PRESSURE RELIEF OR REDUCING VALVE
DSS	DISTRIBUTION SWITCHBOARD SECTION	PSH	PRESSURE SWITCH HIGH
DWG	DRAWING	PSI	POUNDS PER SQUARE INCH
EDT	EDUCTOR TUBE	PSL	PRESSURE SWITCH LOW
ETM	ELAPSED TIME METER	PT	PRESSURE TRANSMITTER
EXIST	EXISTING	PV	PROCESS VERIABLE
FBD	FINE BUBBLE DIFFUSER	REM	REMOTE
FC	FAIL CLOSED	RF	RADIO FREQUENCY
FCV	MODULATING CONTROL VALVE	RIO	REMOTE INPUT–OUTPUT
FE	FLOW SENSOR	RST	RESET
FeCL2	FERROUS CHLORIDE	RTU	REMOTE TELEMETRY UNIT
FI	FLOW INDICATOR	SES	SERVICE ENTRANCE SECTION
FIT	FLOW INDICATOR TRANSMITTER	SLC	SINGLE LOOP CONTROLLER
FR	FORWARD–REVERSE	SLOS	START–LOCK–OFF–STOP
FS	FINE SCREEN / FULL SPEED	SO2	SULFUR D
FT	FLOW TRANSMITTER	SMU	SUBMERGED MEMBRANE UNIT
GDR	GRINDER	SP	SETPOINT
GPD	GALLONS PER DAY	SPD	SPEED
GPH	GALLONS PER HOUR	SPR	SPARE
GPM	GALLONS PER MINUTE	SS	START/STOP (MAINTAINED), SUSPENDED SOLIDS
GRC	GRIT CLASSIFIER	SSS	SOLID STATE STARTER (SOFT START)
H_2S	HYDROGEN SULFIDE	STG	MANUAL STOP GATE
HMI	HUMAN MACHINE INTERFACE	SUG	SLUICE GATE
HOA	HAND–OFF–AUTO	TC	TABLET CHLORINATOR
HOR	HAND–OFF–REMOTE	TDS	TOTAL DISSOLEVED SOLIDS
JB	JUNCTION BOX	TE	TEMPERATURE SENSOR
LAN	LOCAL AREA NETWORK	TG	TEMPERATURE GAUGE
LCP	LOCAL CONTROL PANEL	TI	TEMPERATURE INDICATOR
LE	LEVEL SENSOR	TIT	TEMPERATURE INDICATOR TRANSMITTER
LIT	LEVEL INDICATOR TRANSMITTER	TMR	TIMER
LOS	LOCK–OFF–STOP	TNK	TANK
LR	LOCAL / REMOTE	TS	TEMPERATURE SWITCH
LSH	LEVEL SWITCH HIGH	TSH	TEMPERATURE SWITCH HIGH
LSHH	LEVEL SWITCH HIGH HIGH	TT	TEMPERATURE TRANSMITTER
LSL	LEVEL SWITCH LOW	TV	TELESCOPING VALVE
LSLL	LEVEL SWITCH LOW LOW	UPS	UNINTERRUPTIBLE POWER SUPPLY
LSM	LEVEL SWITCH MEDIUM	UVU	ULTRAVIOLET UNIT
LT	LEVEL TRANSMITTER	V	MANUAL VALVE
MCAS	MINI CONTROL AND STATUS	VFD	VARIABLE FREQUENCY DRIVE
MCC	MOTOR CONTROL CENTER	WE	WEIR
ME	MOISTURE SENSOR	WEG	WEIR GATE
MGD	MILLION GALLONS PER DAY	WR	ADJUSTABLE WEIR
MGL	MILLIGRAM PER LITER	XV	AUTOMATED OPEN/CLOSE VALVE
MOT	MOTOR	ZS	SWITCH POSITION
MS	MOTOR STARTER		
MTU	MASTER TELEMETRY UNIT		
MXR	MIXER		
NaHSO3	SODIUM BISULFITE		
NaOCL	SODIUM HYPOCHLORITE		
NTU	TURBIDITY		

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER ★ ANDREW T. KOMOR ★ No. 063621 Exp. 6/30/21 ★ CIVIL ★ STATE OF CALIFORNIA

PREPARED BY ANDY KOMOR | PROJECT ENGINEER | R.C.E. NO. 63621 | EXP. 06/30/21

DRAWN KV | DESIGNED ZS | CHECKED AK | SCALE AS SHOWN | DATE JAN. 2020

TITLE: P&ID ABBREVIATIONS & CODES LEGEND

JOB: MISSION VILLAGE DPW-1 SEWER PUMP STATION PC 12257PS VALENCIA CA

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Department of Public Works, Los Angeles County
Checked _____ 02/20/2020
Operations Services Division — Date

SHEET I0.0
41 OF 62 SHEETS

JOB NO. 9862-E

Xrefs: 9862 DPW-1 PAD.dwg, 36x24+ DPW-1.dwg
Dimscale = 40, LTscale = 1, PSltscale = 1, ACAD Ver. = 23.0s (LMS Tech), Vorestain = 1
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INLINE INSTRUMENTS

- NOZZLE
- ORIFICE
- PITOT
- RESISTANCE TEMPERATURE DIFFERENTIAL
- MAGNETIC ELEMENT
- VENTURI
- AVERAGING PITOT
- VARIABLE AREA
- VORTEX SHEDDING
- POSITIVE DISPLACEMENT
- TARGET
- TURBINE
- SONIC
- ROTOMETER

GENERAL INSTRUMENT OR FUNCTION SYMBOLS

	FIELD MOUNTED	PRIMARY LOCATION ACCESSIBLE TO OPERATOR	PRIMARY LOCATION INACCESSIBLE TO OPERATOR	AUXILIARY LOCATION ACCESSIBLE TO OPERATOR	HARDWARE INTERLOCK
DISCRETE INSTRUMENTS	○	⊖	⊖	⊖	◇
SHARED DISPLAY SHARED CONTROL	▢	▢	▢	▢	"SOFT" INTERLOCK
COMPUTER FUNCTION	⬡	⬡	⬡	⬡	◇
PROGRAMMABLE LOGIC CONTROL	◇	◇	◇	◇	

VALVE SYMBOLS

NC NO

- GATE VALVE
- GATE VALVE
- BALL VALVE
- DIAPHRAGM VALVE
- PLUG VALVE
- 3-WAY BALL VALVE
- NEEDLE VALVE
- MUD VALVE
- LUGGED BUTTERFLY VALVE
- WAFFERED BUTTERFLY VALVE
- CHECK VALVE
- DOUBLE LEAF / BALL CHECK VALVE
- SLUICE /WEIR GATE
- FOOT VALVE

VALVE ACTUATORS

- DIAPHRAGM ACTUATOR
- MOTOR ACTUATOR
- SOLENOID ACTUATOR
- CYLINDER ACTUATOR
- LEVER
- HAND WHEEL
- CHAIN WHEEL

RELIEF DEVICES

- PRESSURE/ AIR RELIEF
- VACUUM RELIEF
- RUPTURE DISK FOR PRESSURE RELIEF
- RUPTURE DISK FOR VACUUM RELIEF

SELF-ACTING REGULATORS

- PRESSURE REDUCING
- BACK PRESSURE
- REGULATOR WITH EXTERNAL PILOT
- DIFFERENTIAL PRESSURE

MECHANICAL EQUIPMENT

- METERING PUMP
- PROGRESSIVE CAVITY PUMP
- CENTRIFUGAL PUMP/ BLOWER/ COMPRESSOR
- MIXER
- DECANTER
- ULTRA SONIC LEVEL / FLOW TRANSMITTER
- TURBINE PUMP
- SUBMERSIBLE PRESSURE SENSOR
- CHEMICAL FEED INJECTOR AND STATIC MIXER
- WASTE CONTAINER
- WALL MOUNTED MIXER
- AERATOR
- EXHAUST FAN
- SUBMERSIBLE PUMP
- WEIR GATE
- BLOWER
- TELESCOPE VALVE

PIPING SYMBOLS

- Y STRAINER
- BLIND FLANGE
- FUNNEL
- CONCENTRIC REDUCER
- ECCENTRIC REDUCER
- EDUCTOR
- WELDED CAP
- WELDED PIPE END
- SCREWED CAP
- UNION
- CAMLOCK FITTING
- FLEXIBLE LINE
- SPECTACLE BLIND
- EXPANSION JOINT
- TIE-IN POINT

COMMUNICATIONS DIAGRAM

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER ★ ANDREW T. KOMOR ★ No. C64928 Exp. 06/30/21 CIVIL ★ STATE OF CALIFORNIA

PREPARED BY ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. C64928
EXP. 06/30/21

DRAWN KV | SCALE AS SHOWN
DESIGNED ZS | DATE JAN. 2020
CHECKED AK

TITLE
P&ID SYMBOLS LEGEND

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

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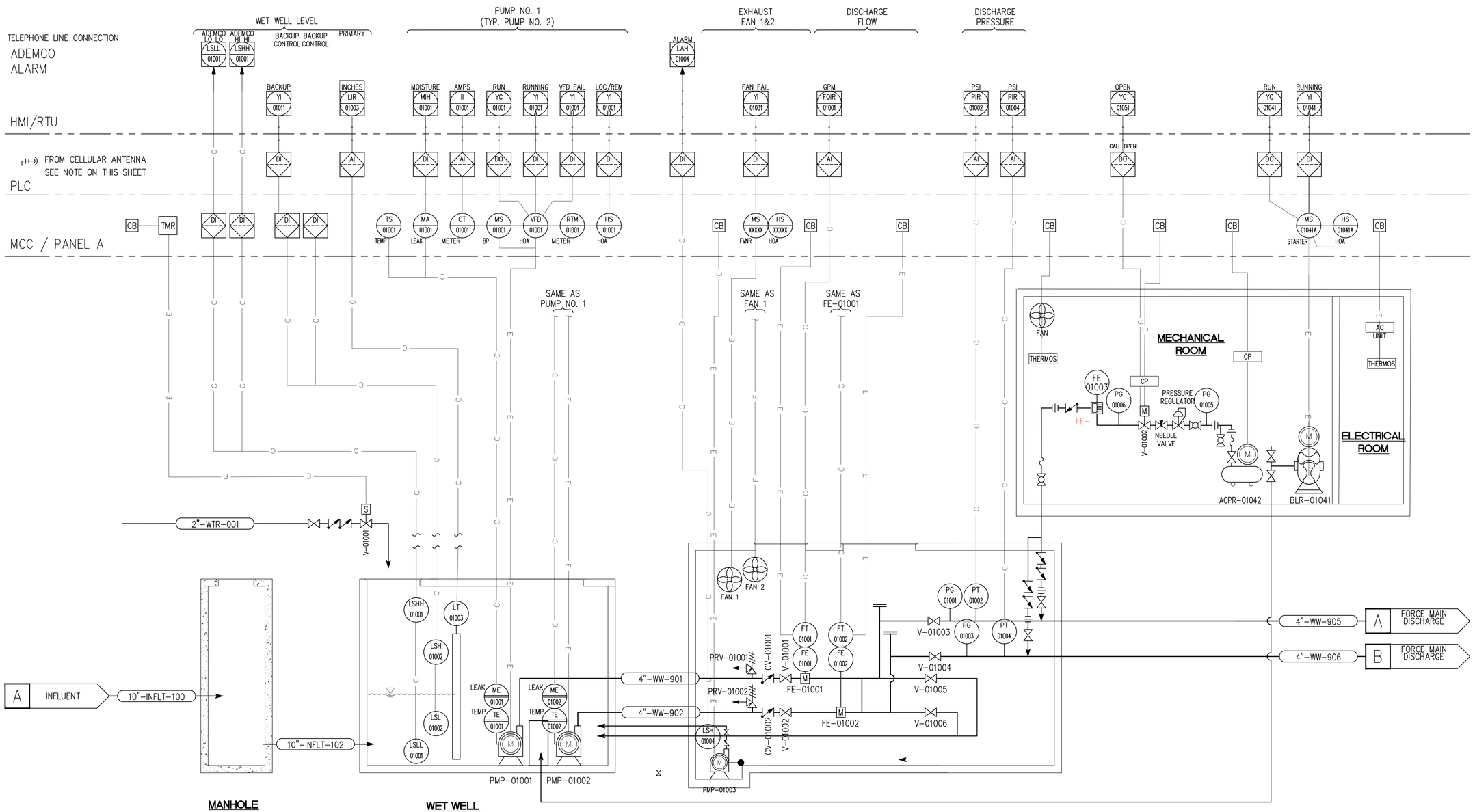
Department of Public Works, Los Angeles County
Checked _____ 02/20/2020
Operational Services Division Date

SHEET I0.1
42 OF 62 SHEETS
JOB NO. 9862-E

Xrefs: 9862 DPW-1 P&ID.dwg; 36x24x DPW-1.dwg
Dimscale = 1; LTscale = 1; PSltscale = 1; ACAD Ver. = 23.0s (LMS Tech); Viewtain = 1
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NOTE

CONTRACTOR SHALL CONTACT LA COUNTY DPW SEWER MAINTENANCE DIVISION FOR THE LATEST MODEM AND ANTENNA REQUIREMENTS PRIOR TO PURCHAGING AND INSTALLATION



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REGISTERED PROFESSIONAL ENGINEER ANDREW T. KOMOR No. C049928 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

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PREPARED BY
ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. C049928
EXP. 06/30/21

DRAWN KV
DESIGNED ZS
CHECKED AK
SCALE AS SHOWN
DATE JAN. 2020

TITLE
LIFT STATION P&ID

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

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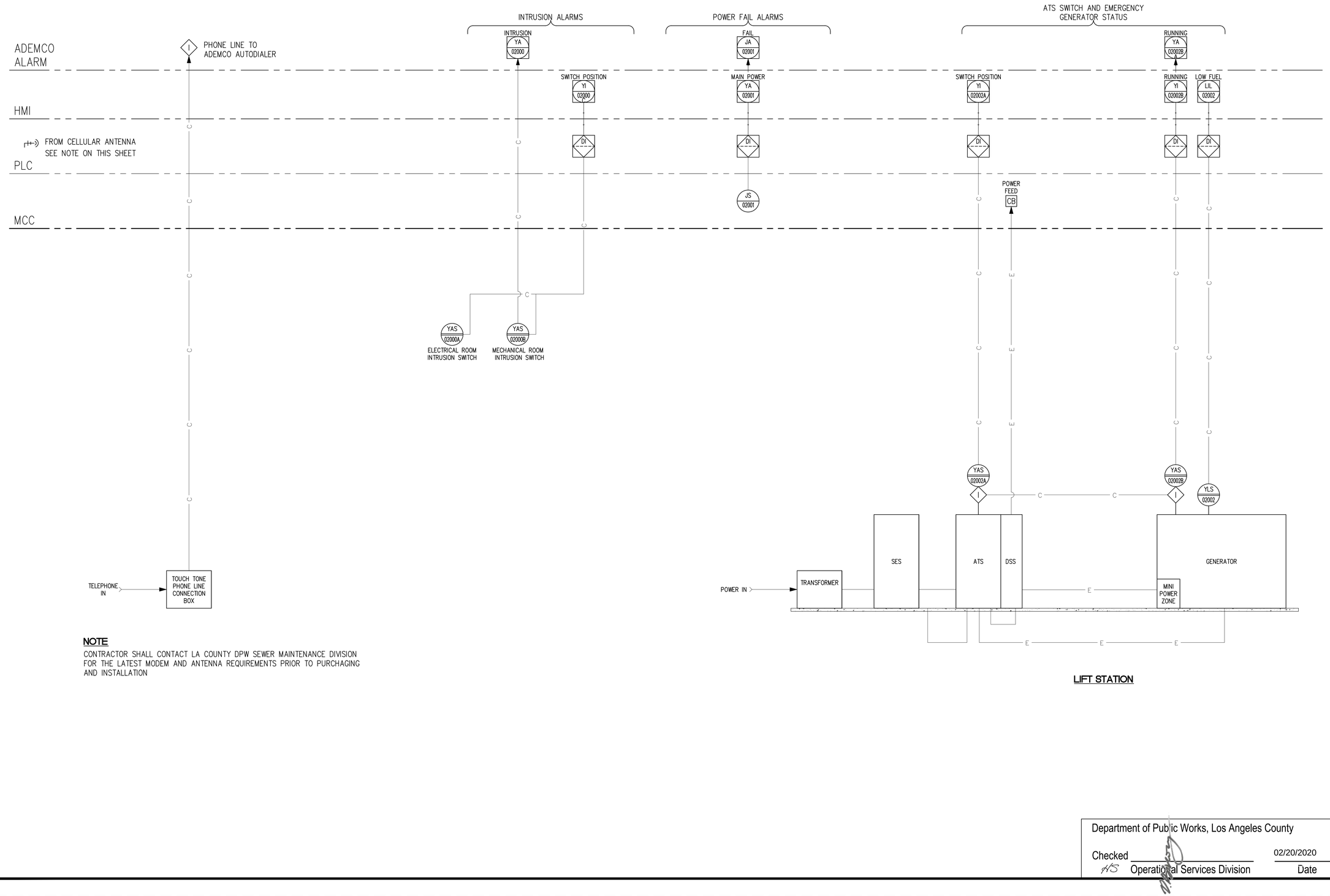
02/20/2020 Date

SHEET I1.0

43 OF 62 SHEETS

JOB NO. 9862-E

Xrefs: 9862 DPW-1 PMID.dwg, 36x24r (DPW-1.dwg
Dimscale = 1, LTscale = 1, PSltscale = 1, ACAD Ver. = 23.0s (LMS Tech), Viewtain = 1
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NOTE

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LIFT STATION

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER ANDREW T. KOMOR No. 084888 EXP. 06/30/21 CIVIL STATE OF CALIFORNIA

PREPARED BY ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. ---
EXP. 06/30/21

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DESIGNED ZS | DATE JAN. 2020
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TITLE
GENERATOR P&ID

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
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SHEET
I2.0
44 OF 62 SHEETS

JOB NO. 9862-E

Xrefs: I9862-DPW-1 PMID.dwg; 36x24r DPW-1.dwg
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MISSION VILLAGE
DPW-1 SEWER LIFT STATION AND FORCE MAIN
DPW-1 PLC CONTROL PANEL - DRAWING INDEX

LOOP NO.	DRAWING NUMBER	DESCRIPTION
1	4514-PMP-01001-1	WET WELL PUMP NO. 1
2	4514-PMP-01001-2	WET WELL PUMP NO. 1
3	4514-PMP-01002-1	WET WELL PUMP NO. 2
4	4514-PMP-01002-2	WET WELL PUMP NO. 2
5	4514-BLOWER	BLOWER 1
6	4514-FANS	VALVE VAULT FAN #1 / #2
7	4514-YAS-02000	MECHANICAL /ELECTRICAL ROOM INTRUSION SWITCH
8	4514-DPW1-PLC	DPW-1 PLC
9	4514-JS-02001	POWER FAIL ALARM
10	4514-GEN	LIFT STATION GENERATOR AND ATS
11	4514-FLOAT-NORMAL	WET WELL LO/HI LEVEL
12	4514-FLOAT-ADEMCO	WET WELL LOLO/HIHI LEVEL AND VALVE VAULT FLOODED
13	4514-V-01002	FORCE MAIN AERATION OPEN VALVE
14	4514-LT-01003	WET WELL LEVEL TRANSDUCER
15	4514-PT-01002	FORCE PRESSURE MAIN 1 TRANSDUCER
16	4514-PT-01004	FORCE PRESSURE MAIN 2 TRANSDUCER
17	4514-FT-01001	FLOW METER #1
18	4514-FT-01002	FLOW METER #2

NOTES:
1) –
2) –

REV	DESCRIPTION	DATE	APPR
4	AS–BUILT	10/08/21	YC
3	ISSUED RESUBMITTAL	08/16/21	YC
2	ISSUED RESUBMITTAL	07/28/21	YC
1	ISSUED RESUBMITTAL	06/14/21	YC
0	ISSUED PRIMARY SUBMITTAL	04/16/21	YC

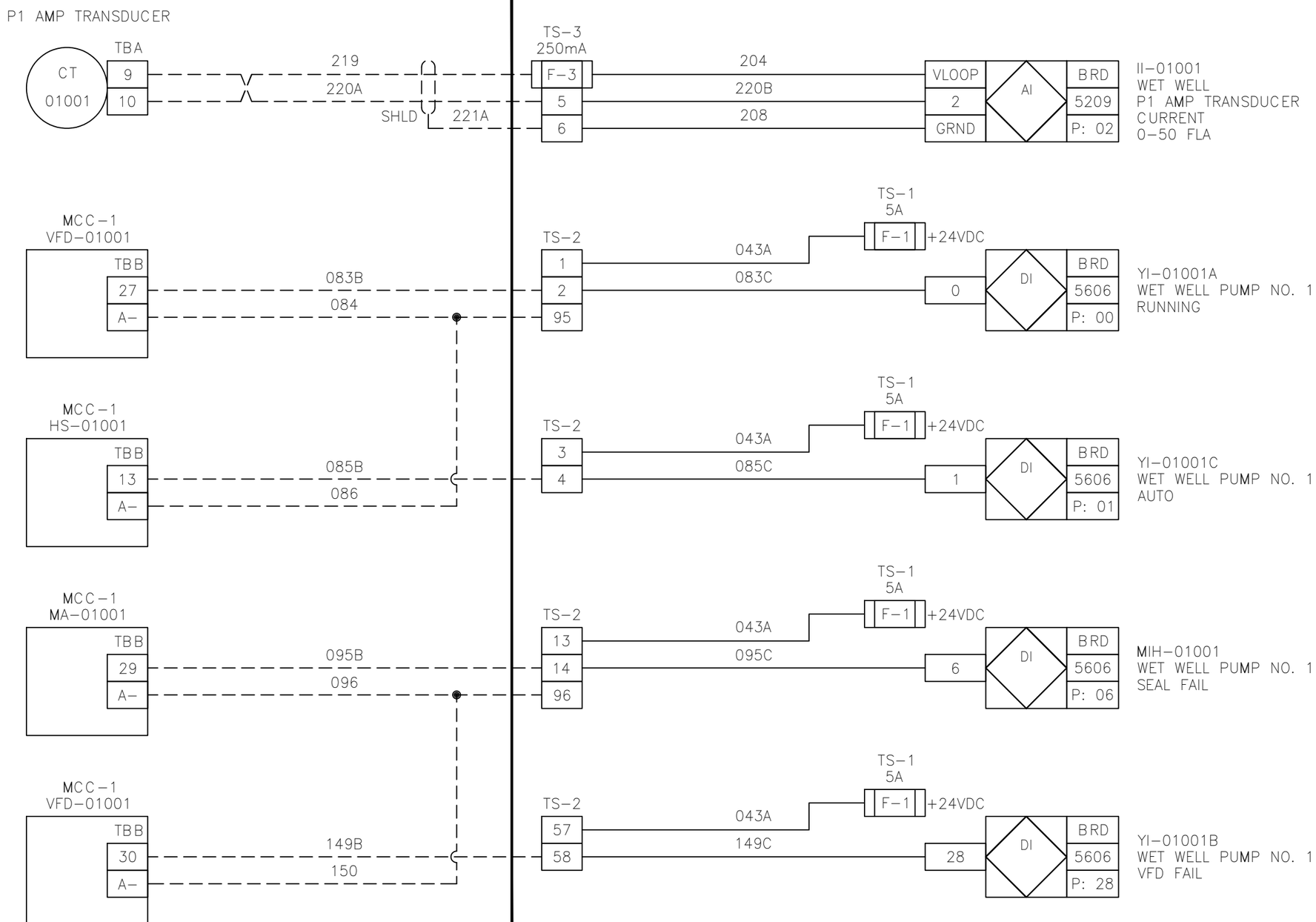
ProUsys
ELECTRICAL, INSTRUMENTATION AND CONTROL SYSTEMS
THE LOGICAL SOLUTION FOR SEAMLESS INTEGRATION

DRAWING No.	PROJECT No.
4514–DWGINDEX	4514
DRAFTER: HDL	DESIGNER: HDL
CHECKER: YC	APPROVER: YC
LOOP No. 0 of 18	DATE: 10/08/21

MISSION VILLAGE
DPW-1 SEWER LIFT STATION AND FORCE MAIN
LOOP DIAGRAMS

DRAWING INDEX

MCC-1	DPW-1 CONTROL PANEL



NOTES:
1) –
2) –

REV	DESCRIPTION	DATE	APPR
4	AS-BUILT	10/08/21	YC
3	ISSUED RESUBMITTAL	08/16/21	YC
2	ISSUED RESUBMITTAL	07/28/21	YC
1	ISSUED RESUBMITTAL	06/14/21	YC
0	ISSUED PRIMARY SUBMITTAL	04/16/21	YC

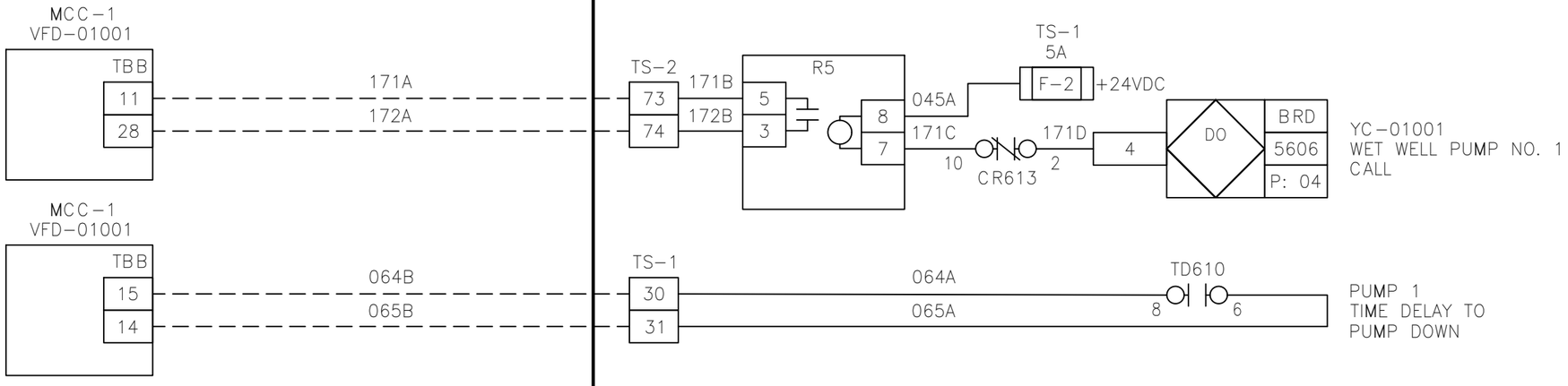
ProUsys
ELECTRICAL, INSTRUMENTATION AND CONTROL SYSTEMS
THE LOGICAL SOLUTION FOR SEAMLESS INTEGRATION

DRAWING No.	PROJECT No.
4514-PMP-01001-1	4514
DRAFTER: HDL	DESIGNER: HDL
CHECKER: YC	APPROVER: YC
LOOP No. 1 of 18	DATE: 10/08/21

MISSION VILLAGE
DPW-1 SEWER LIFT STATION AND FORCE MAIN
LOOP DIAGRAMS

WET WELL PUMP NO. 1
PMP-01001

MCC-1	DPW-1 CONTROL PANEL



NOTES:
1) –
2) –

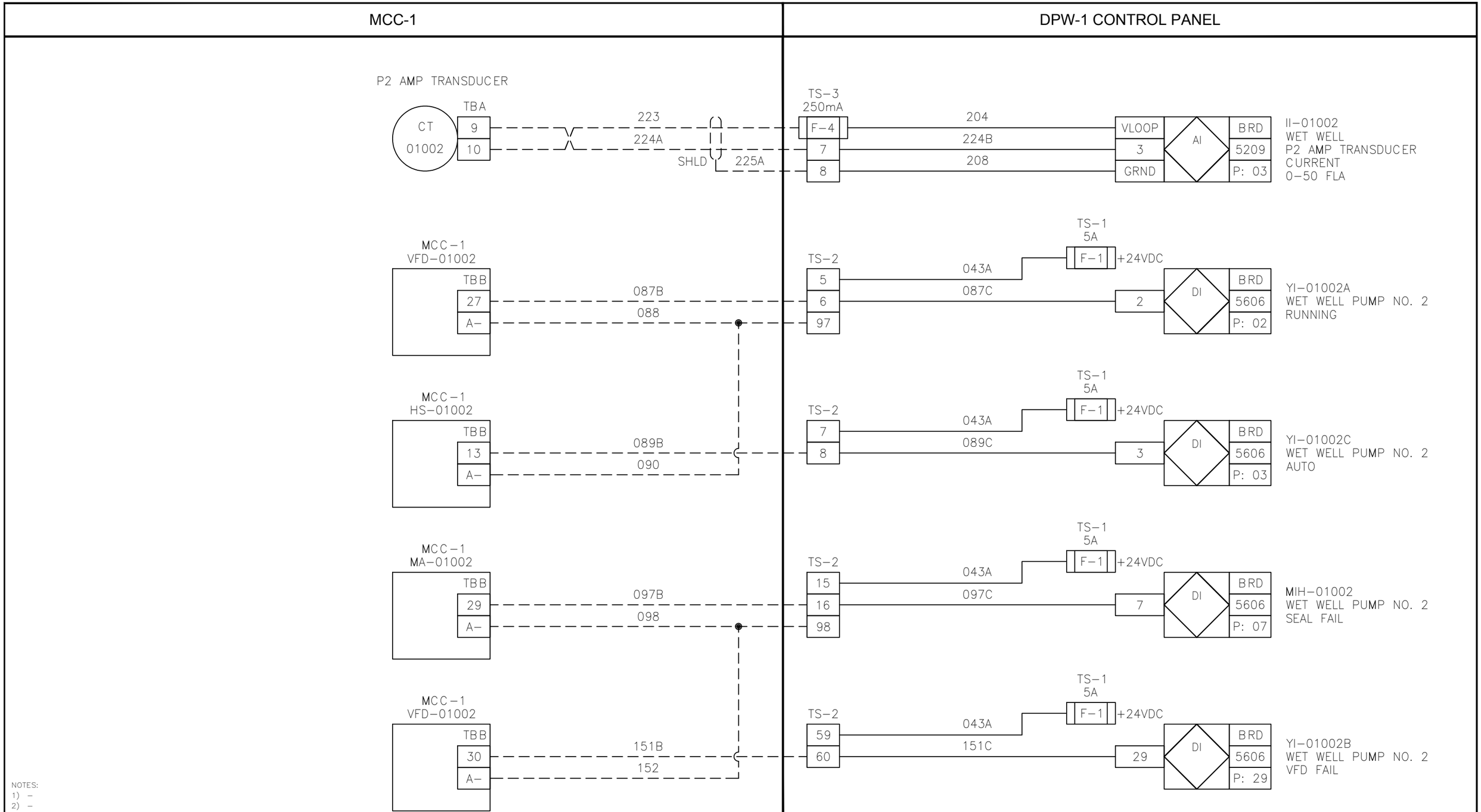
REV	DESCRIPTION	DATE	APPR
4	AS-BUILT	10/08/21	YC
3	ISSUED RESUBMITTAL	08/16/21	YC
2	ISSUED RESUBMITTAL	07/28/21	YC
1	ISSUED RESUBMITTAL	06/14/21	YC
0	ISSUED PRIMARY SUBMITTAL	04/16/21	YC

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ELECTRICAL, INSTRUMENTATION AND CONTROL SYSTEMS
THE LOGICAL SOLUTION FOR SEAMLESS INTEGRATION

DRAWING No.	PROJECT No.
4514-PMP-01001-2	4514
DRAFTER: HDL	DESIGNER: HDL
CHECKER: YC	APPROVER: YC
LOOP No. 2 of 18	DATE: 10/08/21

MISSION VILLAGE
DPW-1 SEWER LIFT STATION AND FORCE MAIN
LOOP DIAGRAMS

WET WELL PUMP NO. 1
PMP-01001



NOTES:
1) –
2) –

REV	DESCRIPTION	DATE	APPR
4	AS-BUILT	10/08/21	YC
3	ISSUED RESUBMITTAL	08/16/21	YC
2	ISSUED RESUBMITTAL	07/28/21	YC
1	ISSUED RESUBMITTAL	06/14/21	YC
0	ISSUED PRIMARY SUBMITTAL	04/16/21	YC

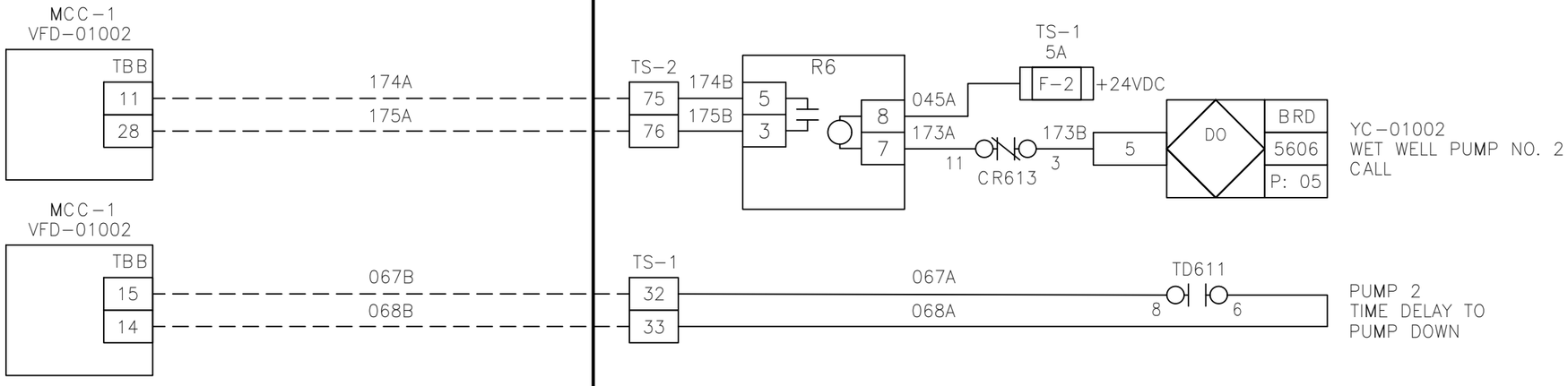
ProUsys
ELECTRICAL, INSTRUMENTATION AND CONTROL SYSTEMS
THE LOGICAL SOLUTION FOR SEAMLESS INTEGRATION

DRAWING No.	PROJECT No.
4514-PMP-01002-1	4514
DRAFTER: HDL	DESIGNER: HDL
CHECKER: YC	APPROVER: YC
LOOP No. 3 of 18	DATE: 10/08/21

MISSION VILLAGE
DPW-1 SEWER LIFT STATION AND FORCE MAIN
LOOP DIAGRAMS

WET WELL PUMP NO. 2
PMP-01002

MCC-1	DPW-1 CONTROL PANEL



NOTES:
1) –
2) –

REV	DESCRIPTION	DATE	APPR
4	AS-BUILT	10/08/21	YC
3	ISSUED RESUBMITTAL	08/16/21	YC
2	ISSUED RESUBMITTAL	07/28/21	YC
1	ISSUED RESUBMITTAL	06/14/21	YC
0	ISSUED PRIMARY SUBMITTAL	04/16/21	YC

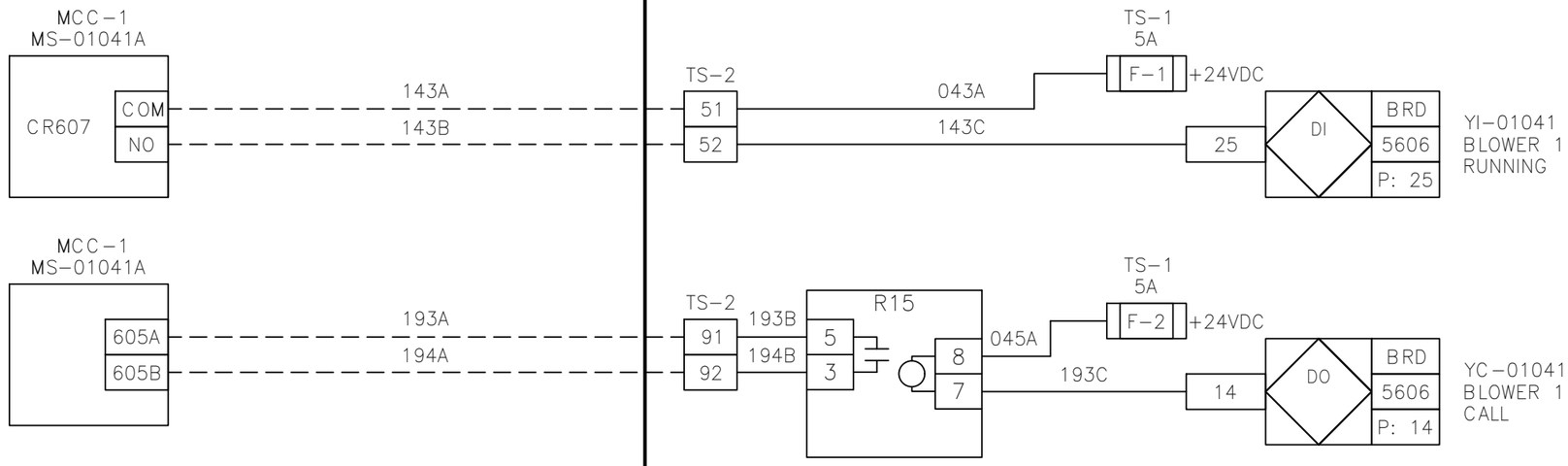
ProUsys
ELECTRICAL, INSTRUMENTATION AND CONTROL SYSTEMS
THE LOGICAL SOLUTION FOR SEAMLESS INTEGRATION

DRAWING No.	PROJECT No.
4514-PMP-01002-2	4514
DRAFTER: HDL	DESIGNER: HDL
CHECKER: YC	APPROVER: YC
LOOP No. 4 of 18	DATE: 10/08/21

MISSION VILLAGE
DPW-1 SEWER LIFT STATION AND FORCE MAIN
LOOP DIAGRAMS

WET WELL PUMP NO. 2
PMP-01002

MCC-1	DPW-1 CONTROL PANEL



NOTES:
1) –
2) –

REV	DESCRIPTION	DATE	APPR
4	AS-BUILT	10/08/21	YC
3	ISSUED RESUBMITTAL	08/16/21	YC
2	ISSUED RESUBMITTAL	07/28/21	YC
1	ISSUED RESUBMITTAL	06/14/21	YC
0	ISSUED PRIMARY SUBMITTAL	04/16/21	YC

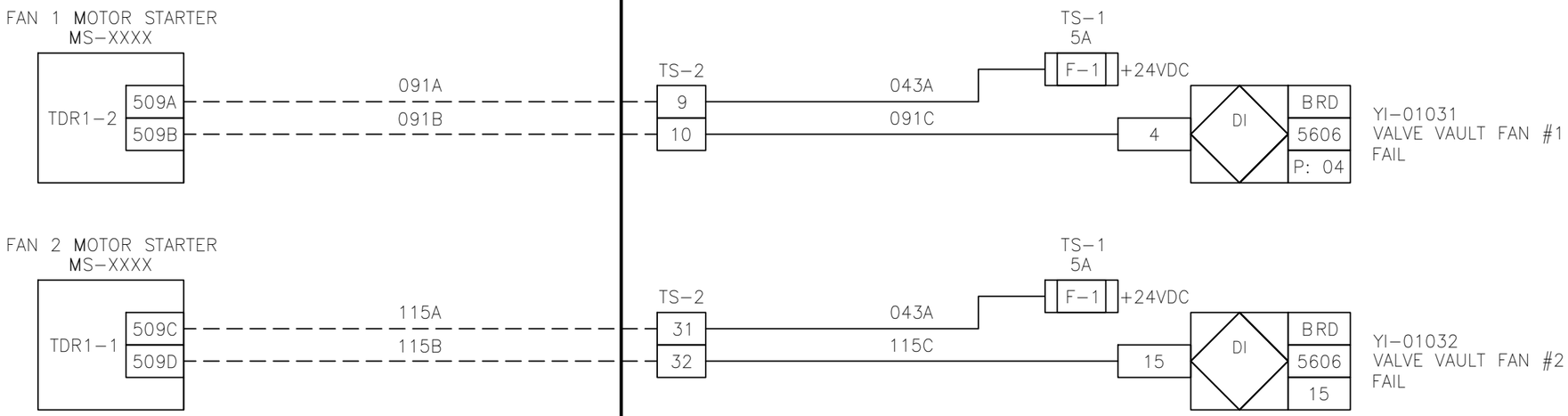
ProUsys
ELECTRICAL, INSTRUMENTATION AND CONTROL SYSTEMS
THE LOGICAL SOLUTION FOR SEAMLESS INTEGRATION

DRAWING No.	PROJECT No.
4514-BLOWER	4514
DRAFTER: HDL	DESIGNER: HDL
CHECKER: YC	APPROVER: YC
LOOP No. 5 of 18	DATE: 10/08/21

MISSION VILLAGE
DPW-1 SEWER LIFT STATION AND FORCE MAIN
LOOP DIAGRAMS

BLOWER 1 FORCE MAIN AERATION UNIT
BLR-01041

FAN MOTOR STARTERS	DPW-1 CONTROL PANEL



NOTES:
1) –
2) –

REV	DESCRIPTION	DATE	APPR
4	AS-BUILT	10/08/21	YC
3	ISSUED RESUBMITTAL	08/16/21	YC
2	ISSUED RESUBMITTAL	07/28/21	YC
1	ISSUED RESUBMITTAL	06/14/21	YC
0	ISSUED PRIMARY SUBMITTAL	04/16/21	YC

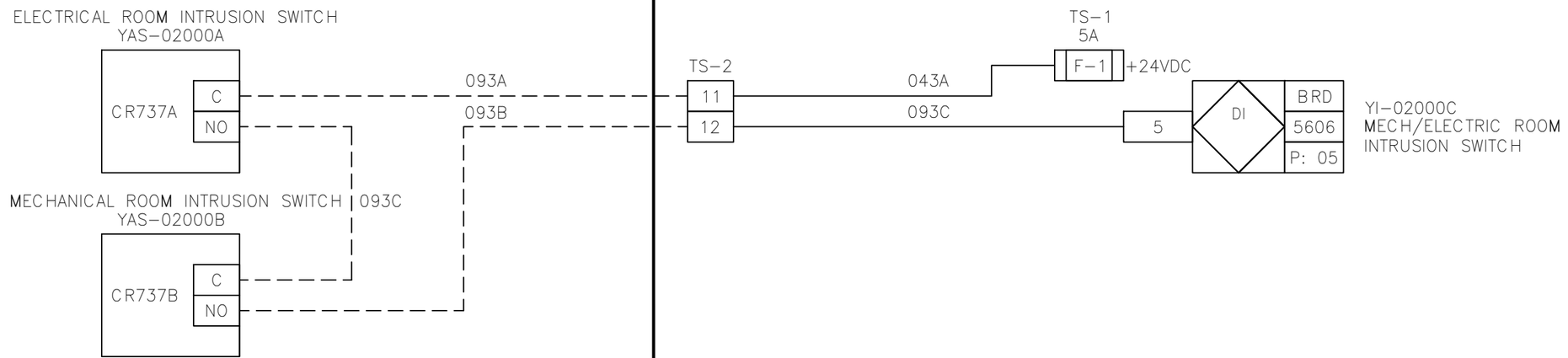
ProUsys
ELECTRICAL, INSTRUMENTATION AND CONTROL SYSTEMS
THE LOGICAL SOLUTION FOR SEAMLESS INTEGRATION

DRAWING No.	PROJECT No.
4514-FANS	4514
DRAFTER: HDL	DESIGNER: HDL
CHECKER: YC	APPROVER: YC
LOOP No. 6 of 18	DATE: 10/08/21

MISSION VILLAGE
DPW-1 SEWER LIFT STATION AND FORCE MAIN
LOOP DIAGRAMS

VALVE VAULT FAN #1/#2
YI-01031/YI-01032

MECHANICAL/ELECTRICAL ROOM	DPW-1 CONTROL PANEL



NOTES:
1) –
2) –

REV	DESCRIPTION	DATE	APPR
4	AS-BUILT	10/08/21	YC
3	ISSUED RESUBMITTAL	08/16/21	YC
2	ISSUED RESUBMITTAL	07/28/21	YC
1	ISSUED RESUBMITTAL	06/14/21	YC
0	ISSUED PRIMARY SUBMITTAL	04/16/21	YC

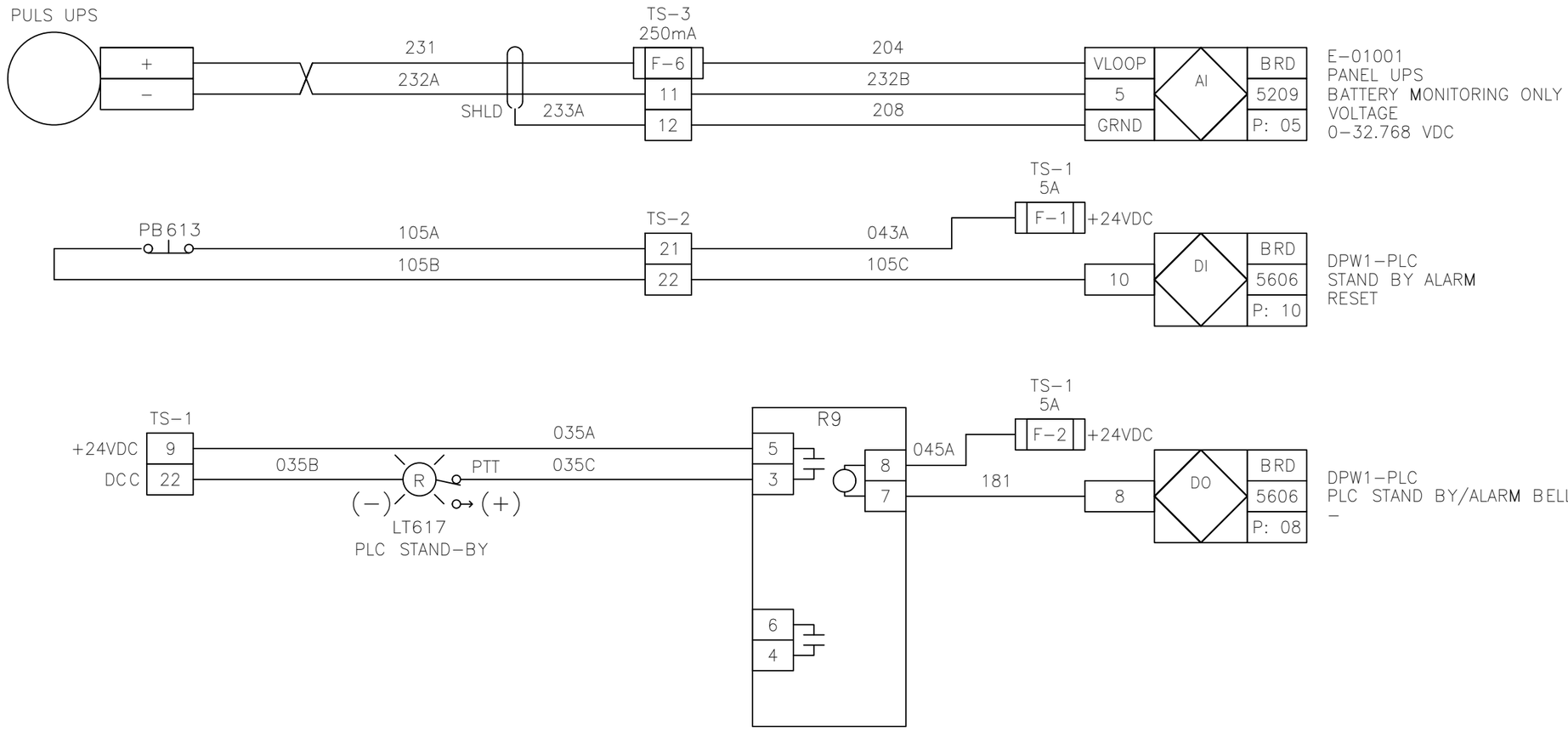
ProUsys
ELECTRICAL, INSTRUMENTATION AND CONTROL SYSTEMS
THE LOGICAL SOLUTION FOR SEAMLESS INTEGRATION

DRAWING No.	PROJECT No.
4514-YAS-02000	4514
DRAFTER: HDL	DESIGNER: HDL
CHECKER: YC	APPROVER: YC
LOOP No. 7 of 18	DATE: 10/08/21

MISSION VILLAGE
DPW-1 SEWER LIFT STATION AND FORCE MAIN
LOOP DIAGRAMS

INTRUSION SWITCH
YAS-02000

DPW-1 CONTROL PANEL



NOTES:
1) –
2) –

REV	DESCRIPTION	DATE	APPR
4	AS–BUILT	10/08/21	YC
3	ISSUED RESUBMITTAL	08/16/21	YC
2	ISSUED RESUBMITTAL	07/28/21	YC
1	ISSUED RESUBMITTAL	06/14/21	YC
0	ISSUED PRIMARY SUBMITTAL	04/16/21	YC

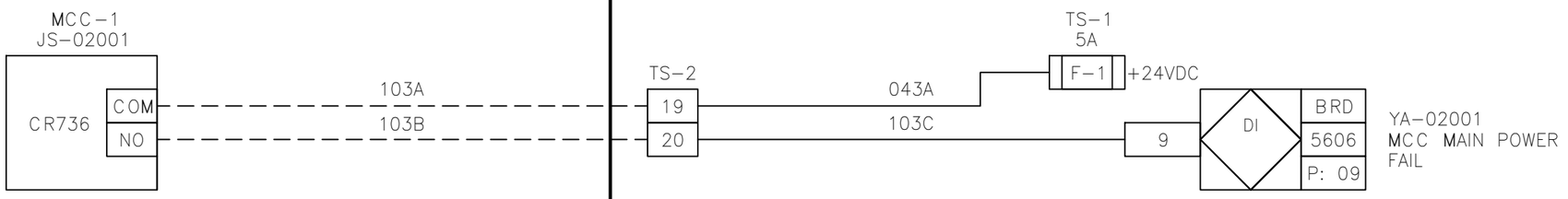
ProUsys
ELECTRICAL, INSTRUMENTATION AND CONTROL SYSTEMS
THE LOGICAL SOLUTION FOR SEAMLESS INTEGRATION

DRAWING No.	PROJECT No.
4514–DPW1–PLC	4514
DRAFTER: HDL	DESIGNER: HDL
CHECKER: YC	APPROVER: YC
LOOP No. 8 of 18	DATE: 10/08/21

MISSION VILLAGE
DPW-1 SEWER LIFT STATION AND FORCE MAIN
LOOP DIAGRAMS

DPW-1 PLC

MCC-1 - VOLTAGE MONITOR BUCKET	DPW-1 CONTROL PANEL



NOTES:
1) –
2) –

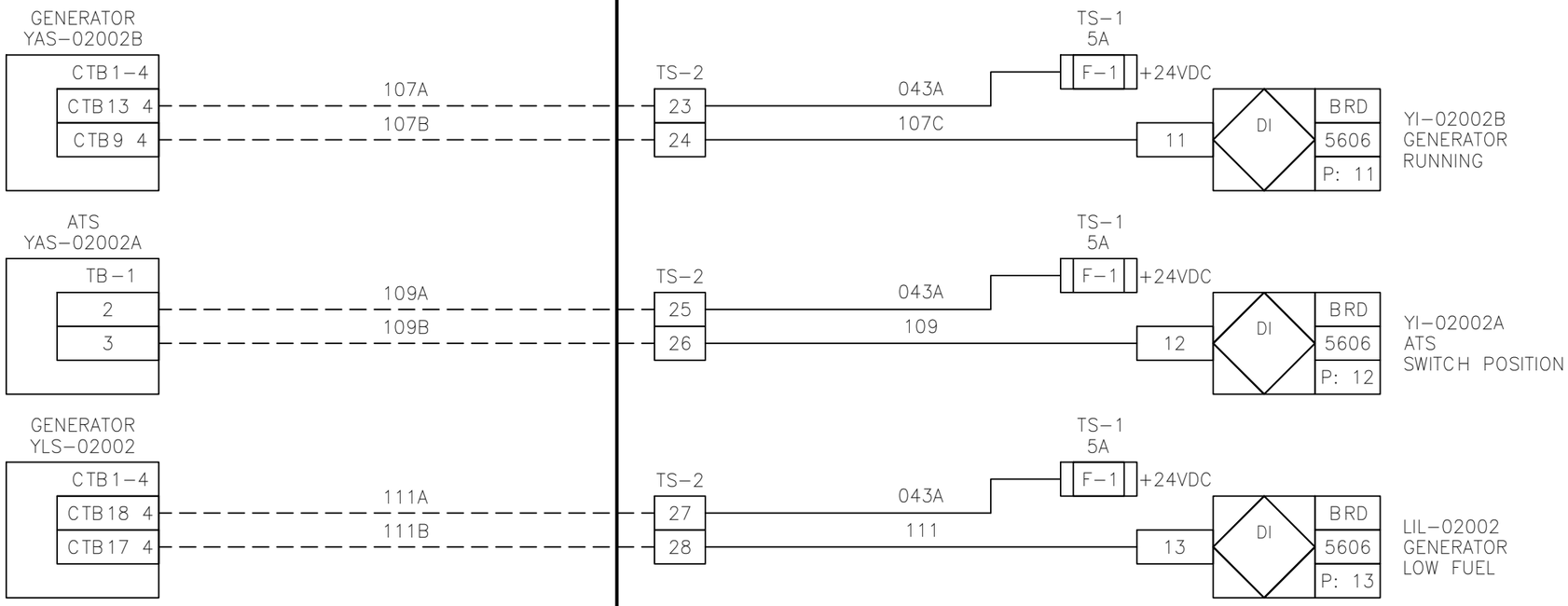
REV	DESCRIPTION	DATE	APPR
4	AS-BUILT	10/08/21	YC
3	ISSUED RESUBMITTAL	08/16/21	YC
2	ISSUED RESUBMITTAL	07/28/21	YC
1	ISSUED RESUBMITTAL	06/14/21	YC
0	ISSUED PRIMARY SUBMITTAL	04/16/21	YC

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ELECTRICAL, INSTRUMENTATION AND CONTROL SYSTEMS
THE LOGICAL SOLUTION FOR SEAMLESS INTEGRATION

DRAWING No.	PROJECT No.
4514-JS-02001	4514
DRAFTER: HDL	DESIGNER: HDL
CHECKER: YC	APPROVER: YC
LOOP No. 9 of 18	DATE: 10/08/21

MISSION VILLAGE
DPW-1 SEWER LIFT STATION AND FORCE MAIN
LOOP DIAGRAMS

POWER FAIL ALARM
JS-02001



GENERATOR

DPW-1 CONTROL PANEL

NOTES:
1) –
2) –

REV	DESCRIPTION	DATE	APPR
4	AS-BUILT	10/08/21	YC
3	ISSUED RESUBMITTAL	08/16/21	YC
2	ISSUED RESUBMITTAL	07/28/21	YC
1	ISSUED RESUBMITTAL	06/14/21	YC
0	ISSUED PRIMARY SUBMITTAL	04/16/21	YC

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ELECTRICAL, INSTRUMENTATION AND CONTROL SYSTEMS
THE LOGICAL SOLUTION FOR SEAMLESS INTEGRATION

DRAWING No.	PROJECT No.
4514-GEN	4514
DRAFTER: HDL	DESIGNER: HDL
CHECKER: YC	APPROVER: YC
LOOP No. 10 of 18	DATE: 10/08/21

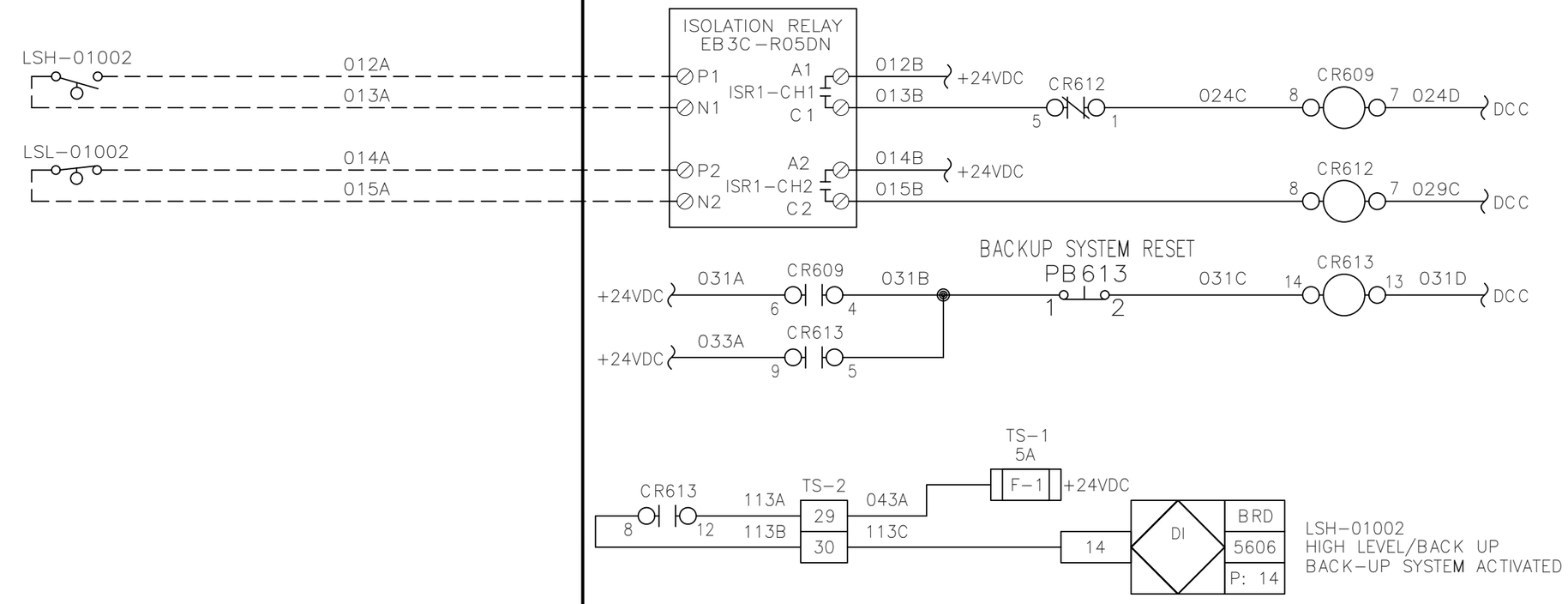
MISSION VILLAGE
DPW-1 SEWER LIFT STATION AND FORCE MAIN
LOOP DIAGRAMS

LIFT STATION GENERATOR
AND ATS

WET WELL

P&ID: I1.0
MAKE: MERCURY DISPLACEMENT INDUSTRIES, INC.
SENSOR MODEL: GF2OW80F0/GW2CW80F0
TRANSMITTER MODEL: N/A
CALIBRATION RANGE: N/A

DPW-1 CONTROL PANEL



NOTES:
1) –
2) –

REV	DESCRIPTION	DATE	APPR
4	AS-BUILT	10/08/21	YC
3	ISSUED RESUBMITTAL	08/16/21	YC
2	ISSUED RESUBMITTAL	07/28/21	YC
1	ISSUED RESUBMITTAL	06/14/21	YC
0	ISSUED PRIMARY SUBMITTAL	04/16/21	YC

ProUsys
ELECTRICAL, INSTRUMENTATION AND CONTROL SYSTEMS
THE LOGICAL SOLUTION FOR SEAMLESS INTEGRATION

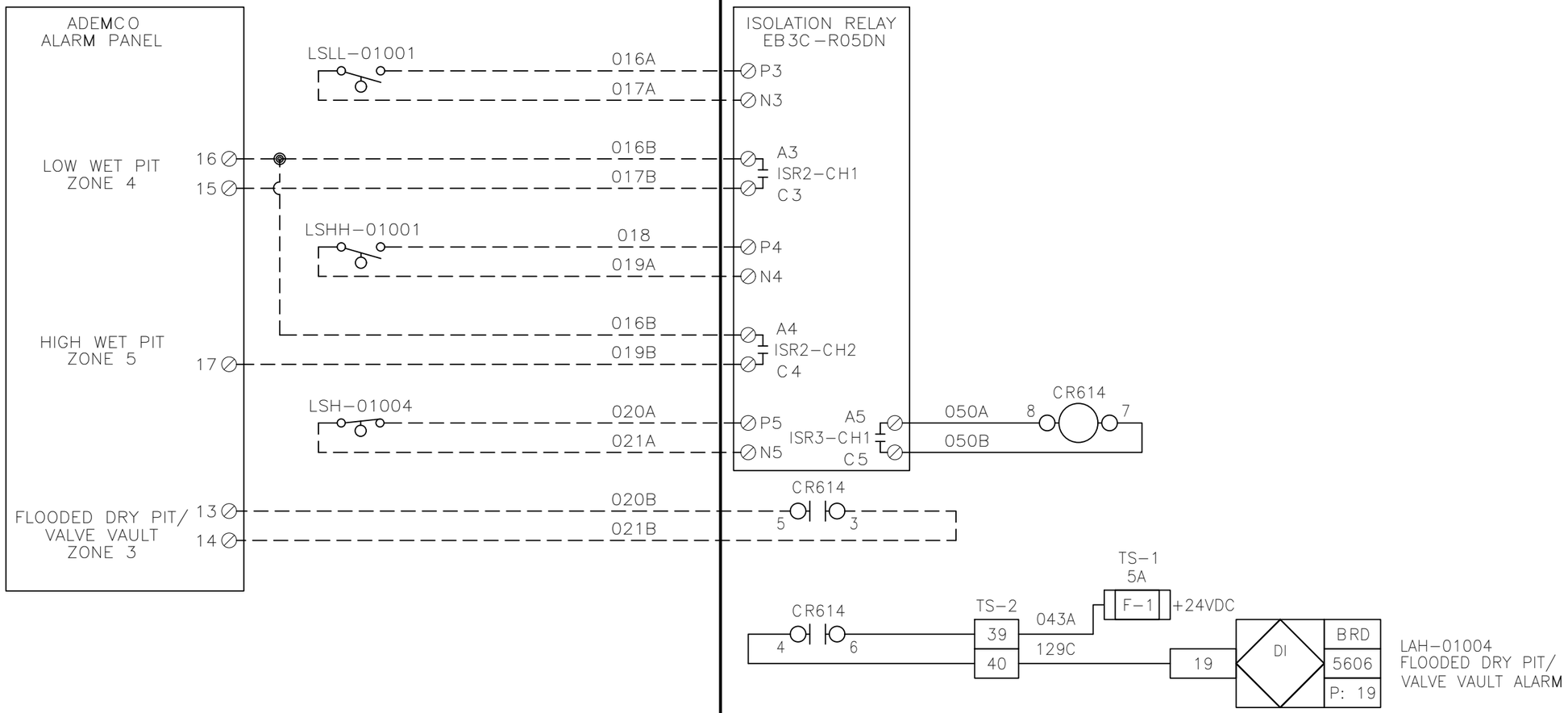
DRAWING No.	PROJECT No.
4514-FLOAT-NORMAL	4514
DRAFTER: HDL	DESIGNER: HDL
CHECKER: YC	APPROVER: YC
LOOP No. 11 of 18	DATE: 10/08/21

MISSION VILLAGE
DPW-1 SEWER LIFT STATION AND FORCE MAIN
LOOP DIAGRAMS

WET WELL LO/HI LEVEL

WET WELL / VALVE VAULT / ADEMCO ALARM PANEL	DPW-1 CONTROL PANEL

P&ID: I1.0
MAKE: MERCURY DISPLACEMENT INDUSTRIES, INC.
SENSOR MODEL: GF2OW80FO/GW2CW80FO
TRANSMITTER MODEL: N/A
CALIBRATION RANGE: N/A



NOTES:
1) –
2) –

REV	DESCRIPTION	DATE	APPR
4	AS-BUILT	10/08/21	YC
3	ISSUED RESUBMITTAL	08/16/21	YC
2	ISSUED RESUBMITTAL	07/28/21	YC
1	ISSUED RESUBMITTAL	06/14/21	YC
0	ISSUED PRIMARY SUBMITTAL	04/16/21	YC

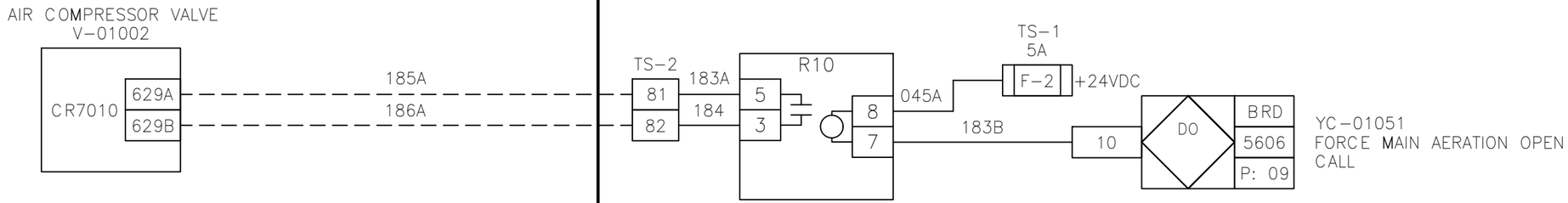
ProUsys
ELECTRICAL, INSTRUMENTATION AND CONTROL SYSTEMS
THE LOGICAL SOLUTION FOR SEAMLESS INTEGRATION

DRAWING No.	PROJECT No.
4514-FLOAT-ADEMCO	4514
DRAFTER: HDL	DESIGNER: HDL
CHECKER: YC	APPROVER: YC
LOOP No. 12 of 18	DATE: 10/08/21

MISSION VILLAGE
DPW-1 SEWER LIFT STATION AND FORCE MAIN
LOOP DIAGRAMS

WET WELL LOLO/HIHI LEVEL AND
VALVE VAULT FLOODED

MECHANICAL ROOM	DPW-1 CONTROL PANEL



NOTES:
1) –
2) –

REV	DESCRIPTION	DATE	APPR
4	AS-BUILT	10/08/21	YC
3	ISSUED RESUBMITTAL	08/16/21	YC
2	ISSUED RESUBMITTAL	07/28/21	YC
1	ISSUED RESUBMITTAL	06/14/21	YC
0	ISSUED PRIMARY SUBMITTAL	04/16/21	YC

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THE LOGICAL SOLUTION FOR SEAMLESS INTEGRATION

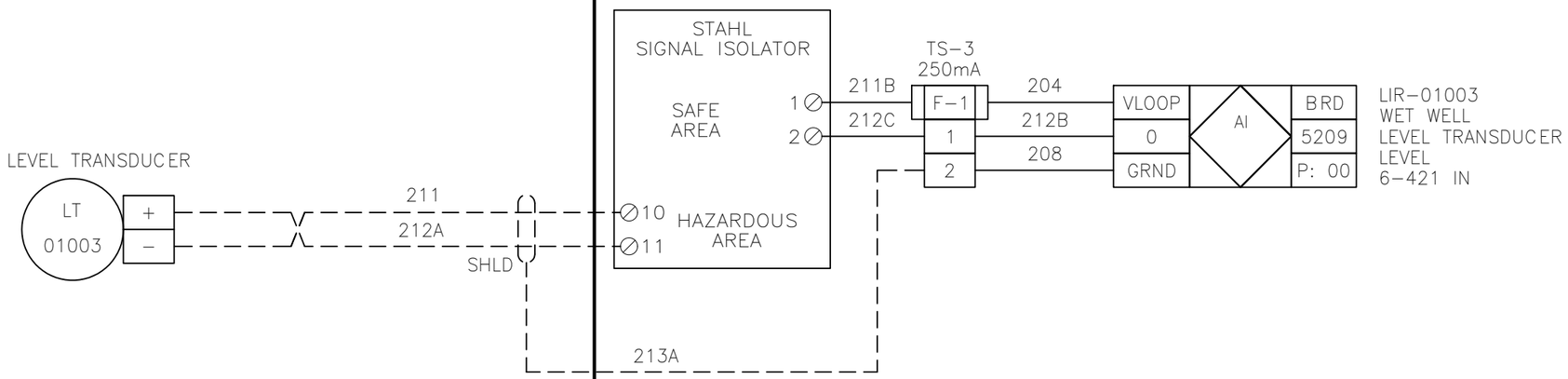
DRAWING No.	PROJECT No.
4514-V-01002	4514
DRAFTER: HDL	DESIGNER: HDL
CHECKER: YC	APPROVER: YC
LOOP No. 13 of 18	DATE: 10/08/21

MISSION VILLAGE
DPW-1 SEWER LIFT STATION AND FORCE MAIN
LOOP DIAGRAMS

FORCE MAIN AERATION OPEN VALVE
V-01002
AIR COMPRESSOR VALVE

WET WELL	DPW-1 CONTROL PANEL

P&ID: I1.0
MAKE: DWYER
SENSOR MODEL: PBLTX-15-80-PU
TRANSMITTER MODEL: N/A
CALIBRATION RANGE: 0-15 PSI



NOTES:
1) -
2) -

REV	DESCRIPTION	DATE	APPR
4	AS-BUILT	10/08/21	YC
3	ISSUED RESUBMITTAL	08/16/21	YC
2	ISSUED RESUBMITTAL	07/28/21	YC
1	ISSUED RESUBMITTAL	06/14/21	YC
0	ISSUED PRIMARY SUBMITTAL	04/16/21	YC

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THE LOGICAL SOLUTION FOR SEAMLESS INTEGRATION

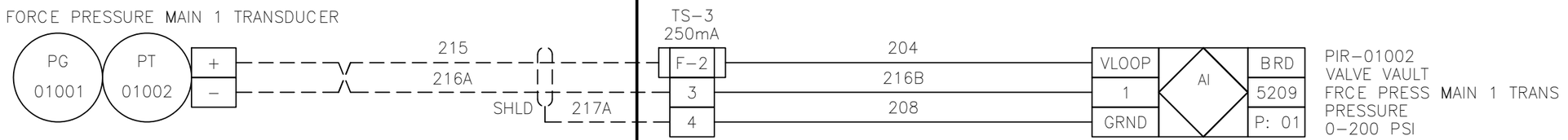
DRAWING No.	PROJECT No.
4514-LT-01003	4514
DRAFTER: HDL	DESIGNER: HDL
CHECKER: YC	APPROVER: YC
LOOP No. 14 of 18	DATE: 10/08/21

MISSION VILLAGE
DPW-1 SEWER LIFT STATION AND FORCE MAIN
LOOP DIAGRAMS

WET WELL LEVEL TRANSUCER
LT-01003

VALVE VAULT	DPW-1 CONTROL PANEL

P&ID: I1.0
MAKE: ENDRESS+HAUSER
SENSOR MODEL: ASHCROFT TYPE 1379 DURAGAUGE
TRANSMITTER MODEL: CERABAR PMP51
CALIBRATION RANGE: 0–200 PSI



NOTES:
1) –
2) –

REV	DESCRIPTION	DATE	APPR
4	AS–BUILT	10/08/21	YC
3	ISSUED RESUBMITTAL	08/16/21	YC
2	ISSUED RESUBMITTAL	07/28/21	YC
1	ISSUED RESUBMITTAL	06/14/21	YC
0	ISSUED PRIMARY SUBMITTAL	04/16/21	YC

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ELECTRICAL, INSTRUMENTATION AND CONTROL SYSTEMS
THE LOGICAL SOLUTION FOR SEAMLESS INTEGRATION

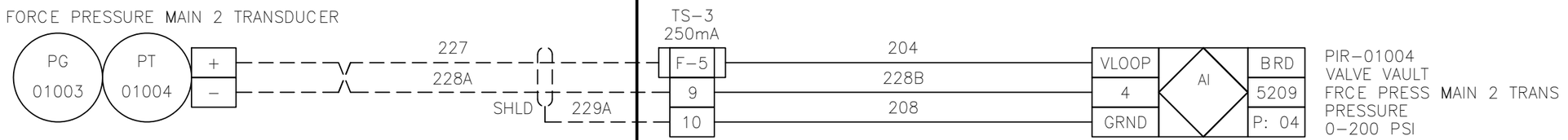
DRAWING No.	PROJECT No.
4514–PT–01002	4514
DRAFTER: HDL	DESIGNER: HDL
CHECKER: YC	APPROVER: YC
LOOP No. 15 of 18	DATE: 10/08/21

MISSION VILLAGE
DPW-1 SEWER LIFT STATION AND FORCE MAIN
LOOP DIAGRAMS

FORCE PRESSURE MAIN 1 TRANSDUCER
PT-01002

VALVE VAULT	DPW-1 CONTROL PANEL

P&ID: I1.0
MAKE: ENDRESS+HAUSER
SENSOR MODEL: ASHCROFT TYPE 1379 DURAGAUGE
TRANSMITTER MODEL: CERABAR PMP51
CALIBRATION RANGE: 0–200 PSI



NOTES:
1) –
2) –

REV	DESCRIPTION	DATE	APPR
4	AS–BUILT	10/08/21	YC
3	ISSUED RESUBMITTAL	08/16/21	YC
2	ISSUED RESUBMITTAL	07/28/21	YC
1	ISSUED RESUBMITTAL	06/14/21	YC
0	ISSUED PRIMARY SUBMITTAL	04/16/21	YC

ProUsys
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THE LOGICAL SOLUTION FOR SEAMLESS INTEGRATION

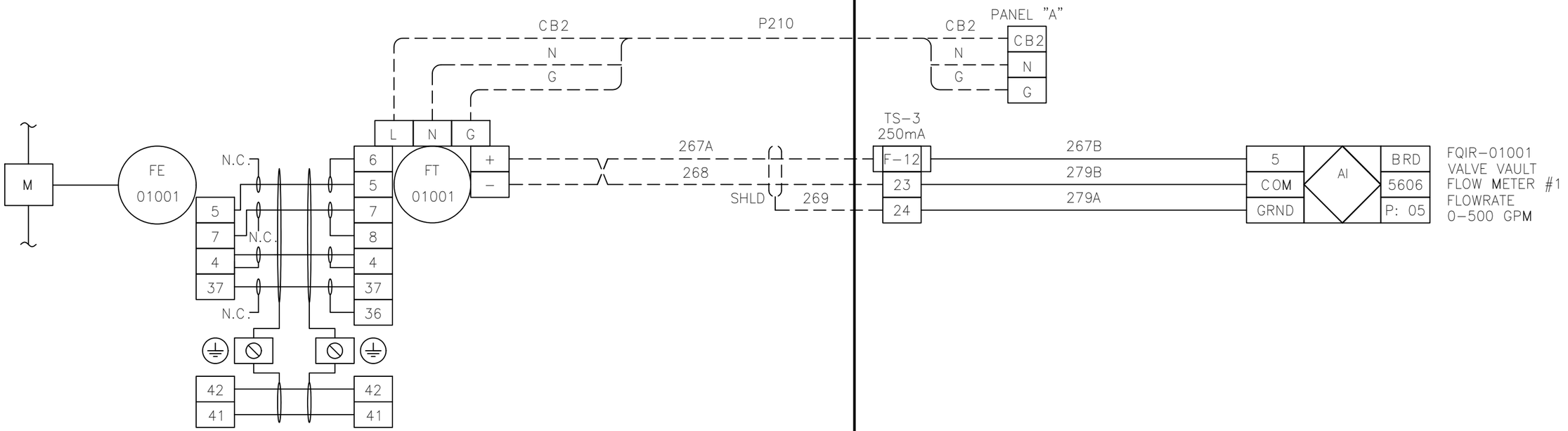
DRAWING No.	PROJECT No.
4514–PT–01004	4514
DRAFTER: HDL	DESIGNER: HDL
CHECKER: YC	APPROVER: YC
LOOP No. 16 of 18	DATE: 10/08/21

MISSION VILLAGE
DPW-1 SEWER LIFT STATION AND FORCE MAIN
LOOP DIAGRAMS

FORCE PRESSURE MAIN 1 TRANSDUCER
PT-01004

VALVE VAULT	DPW-1 CONTROL PANEL

P&ID: I1.0
MAKE: ENDRESS+HAUSER
SENSOR MODEL: PROMAG W
TRANSMITTER MODEL: PROMAG 400
CALIBRATION RANGE: 2.5–100,000 GPM



NOTES:
1) N.C. – NOT CONNECTED, INSULATED CABLE SHIELDS.
2) –

REV	DESCRIPTION	DATE	APPR
4	AS–BUILT	10/08/21	YC
3	ISSUED RESUBMITTAL	08/16/21	YC
2	ISSUED RESUBMITTAL	07/28/21	YC
1	ISSUED RESUBMITTAL	06/14/21	YC
0	ISSUED PRIMARY SUBMITTAL	04/16/21	YC

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ELECTRICAL, INSTRUMENTATION AND CONTROL SYSTEMS
THE LOGICAL SOLUTION FOR SEAMLESS INTEGRATION

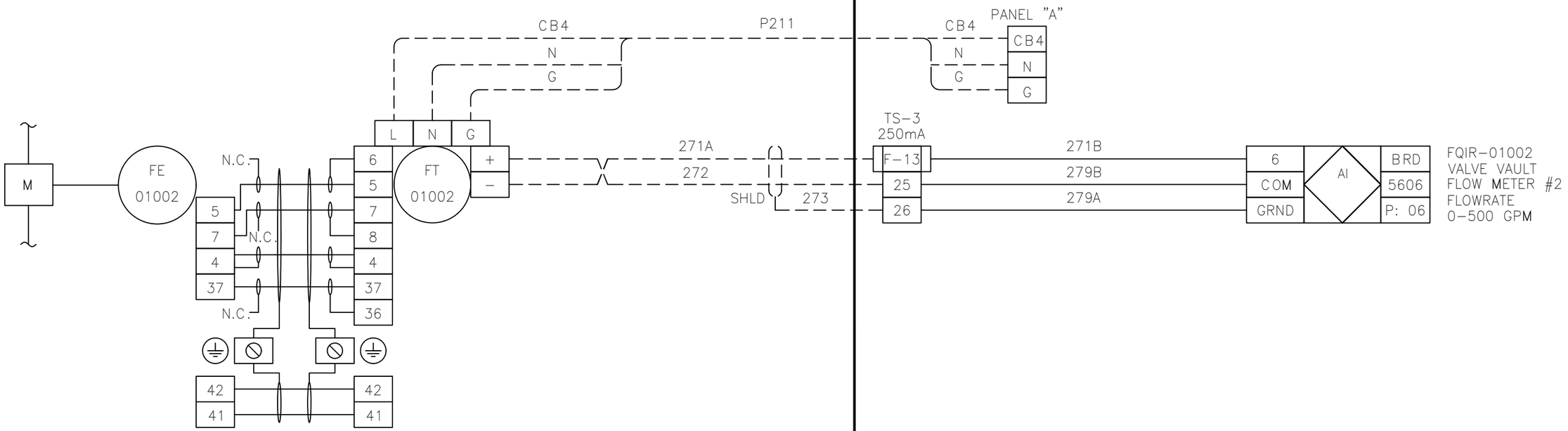
DRAWING No.	PROJECT No.
4514–FT–01001	4514
DRAFTER: HDL	DESIGNER: HDL
CHECKER: YC	APPROVER: YC
LOOP No. 17 of 18	DATE: 10/08/21

MISSION VILLAGE
DPW-1 SEWER LIFT STATION AND FORCE MAIN
LOOP DIAGRAMS

FLOW METER #1
FT-01001

VALVE VAULT	DPW-1 CONTROL PANEL

P&ID: I1.0
MAKE: ENDRESS+HAUSER
SENSOR MODEL: PROMAG W
TRANSMITTER MODEL: PROMAG 400
CALIBRATION RANGE: 2.5–100,000 GPM



NOTES:
1) N.C. – NOT CONNECTED, INSULATED CABLE SHIELDS.
2) –

REV	DESCRIPTION	DATE	APPR
4	AS-BUILT	10/08/21	YC
3	ISSUED RESUBMITTAL	08/16/21	YC
2	ISSUED RESUBMITTAL	07/28/21	YC
1	ISSUED RESUBMITTAL	06/14/21	YC
0	ISSUED PRIMARY SUBMITTAL	04/16/21	YC

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ELECTRICAL, INSTRUMENTATION AND CONTROL SYSTEMS
THE LOGICAL SOLUTION FOR SEAMLESS INTEGRATION

DRAWING No.	PROJECT No.
4514-FT-01002	4514
DRAFTER: HDL	DESIGNER: HDL
CHECKER: YC	APPROVER: YC
LOOP No. 18 of 18	DATE: 10/08/21

MISSION VILLAGE
DPW-1 SEWER LIFT STATION AND FORCE MAIN
LOOP DIAGRAMS

FLOW METER #2
FT-01002

PLAN LEGEND

- EXPOSED CONDUIT
- UNDERGROUND CONDUIT DUCTBANK
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- E EXISTING UNDERGROUND ELECTRIC
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NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER ERNEST E. BROWN REG. # 16216 EXP. 12/31/20 CIVIL STATE OF CALIFORNIA

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PREPARED BY
ERNEST E. BROWN
PROJECT ENGINEER
R.C.E. NO. 16216
EXP. 12/31/20

DRAWN	SCALE	DATE
BM, AH	AS NOTED	JAN. 2020
DESIGNED		
EEB		
CHECKED		
EEB		

TITLE
ELECTRICAL LEGEND AND ABBREVIATION LIST

JOB
MISSION VILLAGE
DPW-1 SEWER PUMP STATION PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

Department of Public Works, Los Angeles County
Checked _____ 02/20/2020
Operational Services Division Date

SHEET
E1.0
45 OF 62 SHEETS

JOB NO. 9862-E

Xrefs: 9862 DPW-1 Electrical.dwg; 36x24v DPW-1 - Elec.dwg
Dimscale = 1; LTscale = 1; PSltscale = 1; ACAD Ver. = 23.0s (LMS Tech); Viewtain = 1

P:\9862EP_Mission\Mage\Final\Design\Engineering\9862-E\Sewer PS\sheets\DPW-1 PS\9862A-5 E1.0 ELECTRICAL LEGEND AND ABBREVIATION LIST.dwg - Tab: E1.0 - by bwa on 02/13/20 at 3:15:55 PM

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ELECTRICAL NOTES:

6

1. ALL ELECTRICAL WORK SHALL BE DESIGNED PER 2017 LOS ANGELES COUNTY ELECTRICAL CODE. 2016 CALIFORNIA ELECTRICAL CODE, 2014 NATIONAL ELECTRIC CODE, AND 2016 BUILDING ENERGY EFFICIENCY STANDARDS.,
2. ALL ELECTRICAL EQUIPMENT SHALL BE LABELED, LISTED, OR CERTIFIED BY A NATIONALLY RECOGNIZED TESTING LABORATORY ACCREDITED BY THE UNITED STATES OCCUPATIONAL SAFETY HEALTH ADMINISTRATION.
3. THE MAXIMUM COMBINED VOLTAGE DROP ON BOTH INSTALLED FEEDER CONDUCTORS AND BRANCH CIRCUIT CONDUCTORS TO THE FARTHEST CONNECTED LOAD OR OUTLET SHALL NOT EXCEED 5 PERCENT
4. BELOW GRADE WET WELL AND VAULT IS A CLASS 1/DIV 2, GROUP "D" AREA. ALL EQUIPMENT, WIRING, AND INSTRUMENTATION SHALL BE IN ACCORDANCE WITH THE NEC ARTICLES 500-504.

BUILDING AND SAFETY DIVISION
Department of Public Works
APPROVED
UNDER LOS ANGELES COUNTY CODE
TITLE 27
amarcus
04/15/2020 7:32:54 AM
This set of plans and specifications must be kept at the job site at all times and it is unlawful to make any changes, modifications or alterations to these plans or specifications without the prior written permission of the Building Official. The stamping of this set of plans and specifications SHALL NOT, under any circumstances, be deemed to permit or to be an approval of any work or activity that violates any provisions of any County Ordinance or State Law

BUILDING AND SAFETY DIVISION
Department of Public Works
FINAL ENERGY APPROVED
UNDER CCR TITLE 24, PART 1,
ARTICLE 1 & PART 6
amarcus
06/19/2020 11:00:15 AM
This set of plans and specifications must be kept at the job site at all times and it is unlawful to make any changes, modifications or alterations to these plans or specifications without the prior written permission of the Building Official. The stamping of this set of plans and specifications SHALL NOT, under any circumstances, be deemed to permit or to be an approval of any work or activity that violates any provisions of any County Ordinance or State Law

NO	BY	DATE	REVISIONS	DATE	APP.
6	CN	04/09/20	REVISION FOR LAC B&S REVIEW	04/09/20	CN

REGISTERED PROFESSIONAL ENGINEER CHRISTOPHER NAJARIAN E 22545 EXP. 12/31/20 ELECTRICAL STATE OF CALIFORNIA

PREPARED BY: CHRISTOPHER NAJARIAN
PROJECT ENGINEER
R.C.E. NO. 22545
EXP. 12/31/20
DRAWN: BM, AH
SCALE: AS NOTED
DESIGNED: EEB
CHECKED: CN
DATE: JUNE 2020

TITLE: ELECTRICAL LEGEND AND ABBREVIATION LIST

JOB: MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

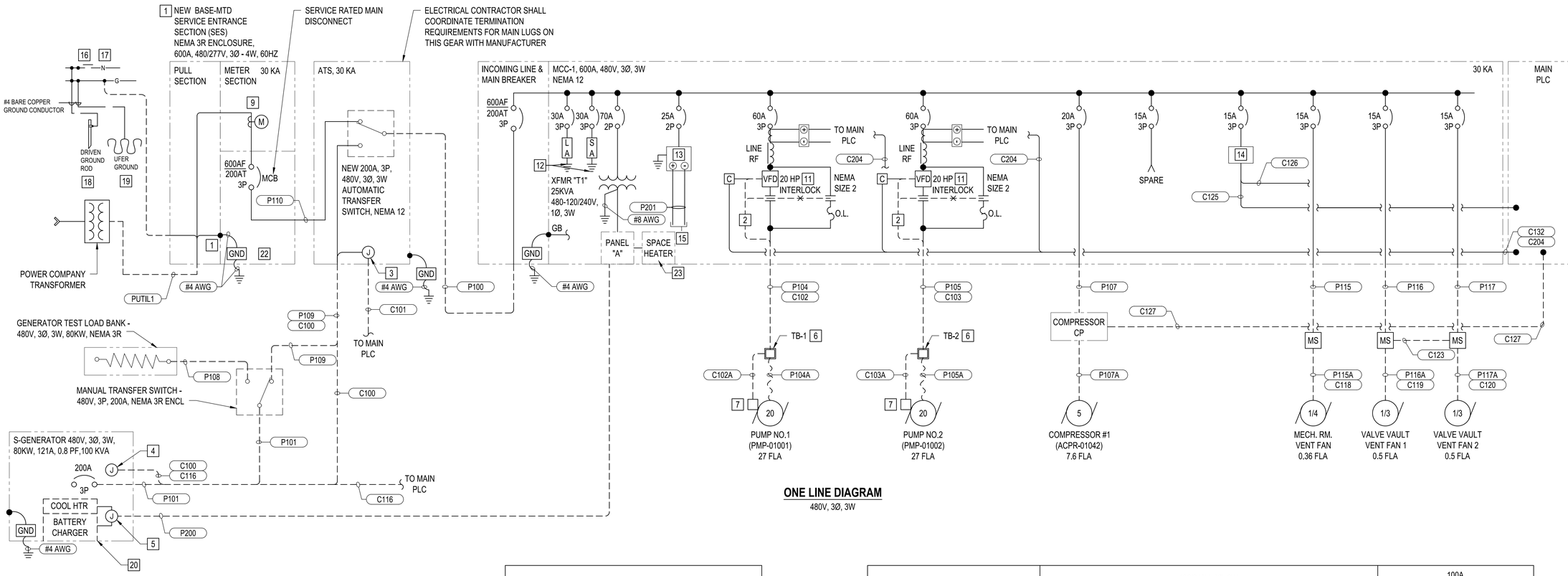
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PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
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Department of Public Works, Los Angeles County
Checked _____ Operational Services Division
_____ Date

SHEET E1.0
45 OF 72 SHEETS
JOB NO. 9862-E

Xrefs: 9862 DPW-1 Electrical.dwg; 36x24v DPW-1 - Elec.dwg
Dimscale = 1; LTscale = 1; PSltscale = 1; ACAD Ver. = 23.0s (LMS Tech); Visretain = 1
P:\9862E\P_Mission Village\Final\Design\Engineering\9862-E\Sheet Pkl\plotted\DPW-1 P\9862-E-S E1.0 ELECTRICAL LEGEND AND ABBREVIATION LIST.dwg - Tab: E1.0 - by rnolin on 04/10/20 at 7:37:47 AM



ONE LINE DIAGRAM

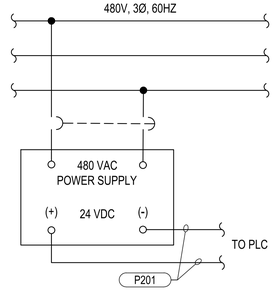
480V, 3Ø, 3W

NOTES:

1. EXTERIOR BASE- MTD UTILITY-APPROVED METER CABINET. GROUND NEUTRAL @ SES. SES AND THE MCC MUST BE OF THE SAME MANUFACTURER.
2. MOTOR PROTECTOR
3. TRANSFER SWITCH CONTROL JUNCTION BOX
4. GENERATOR CONTROL JUNCTION BOX
5. GENERATOR BATTERY CHARGER AND COOLANT HEATER JUNCTION BOX
6. TERMINAL TRANSITION BOX
7. TEMP/LEAK SENSORS
8. SEE SHEET E 8.0, DETAIL "J" FOR PLC STRUCTURE ELEVATION
9. SEE SHEET E8.1, DETAIL "E" FOR SES SECTION FRONT ELEVATION
10. ALL CIRCUIT BREAKERS WITHIN "MCC-1" SHALL BE 30 KA RATED.
11. 20 HORSEPOWER MINIMUN VFD RATING
12. GROUND LIGHTNING & SURGE ARRESTOR TO GROUND BUS.
13. 480VAC-24VDC POWER SUPPLY EATON.
14. SYMCOM 3-PHASE VOLTAGE MONITOR (USE N.O. CONTACT ON CRPF).
15. CONTINUED ON SHEETS E2.7.
16. NEUTRAL BUS LINK.
17. NEUTRAL AND GROUND BUSES. GROUNDING CONDUCTOR IS # 4 AWG.
18. PROVIDE CONNECTION TO DRIVEN GROUND ROD(S). PROVIDE ADDITIONAL GROUND RODS AS REQUIRED TO CONFORM WITH RESISTANCE TO GROUND LEVEL OF 25 OHMS OR LESS. MINIMUM SPACE BETWEEN RODS IS 6 FEET.
19. UFER GROUND. PROVIDE MINIMUM 20 FEET OF BARE COPPER CABLE EMBEDDED IN EQUIPMENT FOUNDATION IN CONTACT WITH EARTH AND BELOW WATERPROOF MEMBRANE.
20. STANDBY GENERATOR PANEL.
21. BOND SERVICE GROUND TO METAL WATER PIPE.
22. SES SHALL COMPLY IN STRICT ACCORDANCE WITH SCE EUSERC STANDARDS.
23. PROVIDE THERMOSTAT FOR MCC-1 SPACE HEATER .
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MAIN MCC LOAD SUMMARY

LOAD SUMMARY (AMPERES @ 480V)	CONNECTED	REDUNDANT
PUMP #1 (20HP) (PMP-01001)	27	
PUMP #2 (20HP) (PMP-01002)		27
COMPRESSOR #1 (5HP) (ACPR-01042)	7.6	
25KVA TRANSFORMER "T1"	52.1	
MECH RM VENTILATION FAN	0.36	
VALVE VAULT VENT FAN 1	0.5	
VALVE VAULT VENT FAN 2	0.5	
TOTAL	88.06	27.00
+ 25% LARGEST MOTOR LOAD	6.75	
GRAND TOTAL	94.81	
PERCENT CAPACITY	47.41	



POWER SUPPLY 13

DISTRIBUTION PANELBOARD PANEL "A"	120/240V, 1Ø, 3W							100A MAIN BKR
	TYPE: BOLT-ON							NEMA 12
DESCRIPTION	CKT. LOAD	BKR SIZE	CKT NO.	LOAD PHASE A	LOAD PHASE B	CKT NO.	BKR SIZE	CKT. LOAD	DESCRIPTION
S-GENERATOR PANEL	2700	40/2	1	2050		2	20/1	700	MAG FLOW METER (FE-01031)
			3		2050	4	20/1	700	MAG FLOW METER (FE-01032)
BLOWER CONTROL PANEL (BLR-01041)	1176	20/1	5	2331		6	15/2	2310	ELECTRICAL ROOM A/C UNIT
MOTORIZED COMPRESSED AIR VALVE V-01002	600	20/1	7		1755	8			
SOLENOID VALVE V-01001 TIMER	600	20/1	9	756		10	20/1	156	MECHANICAL ROOM LIGHTS
ELECTRICAL ROOM LIGHTS	234	20/1	11		425	12	20/1	191	BATHROOM RECEPTACLE AND EXHAUST FAN/LIGHT
EXTERIOR LIGHTS	660	20/1	13	1380		14	20/1	720	INTERIOR RECEPTACLES
ADEMCO ALARM PANEL	1200	20/1	15		1364	16	20/1	164	EMERGENCY LIGHTS AND EXIT SIGNS
SPARE	-	20/1	17	540		18	20/1	540	EXTERIOR RECEPTACLES
OZONE GENERATOR	1920	20/1	19		1946	20	20/1	26	VALVE VAULT LIGHTS
SUMP PUMP	600	20/1	21	1200		22	20/1	600	SOLENOID VALVE (V-01001
SPARE	-	20/1	23		1200	24	20/1	1200	MCC-1 SPACE HEATER
SPARE	-	20/1	25			26	20/1	-	SPARE
SPARE	-	20/1	27		-	28	20/1	-	SPARE
SPARE	-	20/1	29	-		30	20/1	-	SPARE
SPARE	-	20/1	31		-	32	20/1	-	SPARE
VA/PHASE				8257	8740	*INDICATES LOAD @ 125%			
25% OF LARGEST LOAD				512.5	512.5	10,000 AIC BREAKERS			
CODE TOTAL AMPS				75.1					

Department of Public Works, Los Angeles County

Checked _____ 02/20/2020

Operational Services Division — Date

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER ERNEST E. BROWN REG.# 16216 EXP. 12/31/20 CIVIL STATE OF CALIFORNIA

PREPARED BY ERNEST E BROWN
PROJECT ENGINEER
R.C.E. NO. 16216
EXP. 12/31/20

SCALE AS NOTED
DRAWN BM, AH
DESIGNED EEB
CHECKED EEB
DATE JAN. 2020

TITLE
SINGLE LINE DIAGRAM, LOAD SUMMARY AND PANEL SCHEDULE

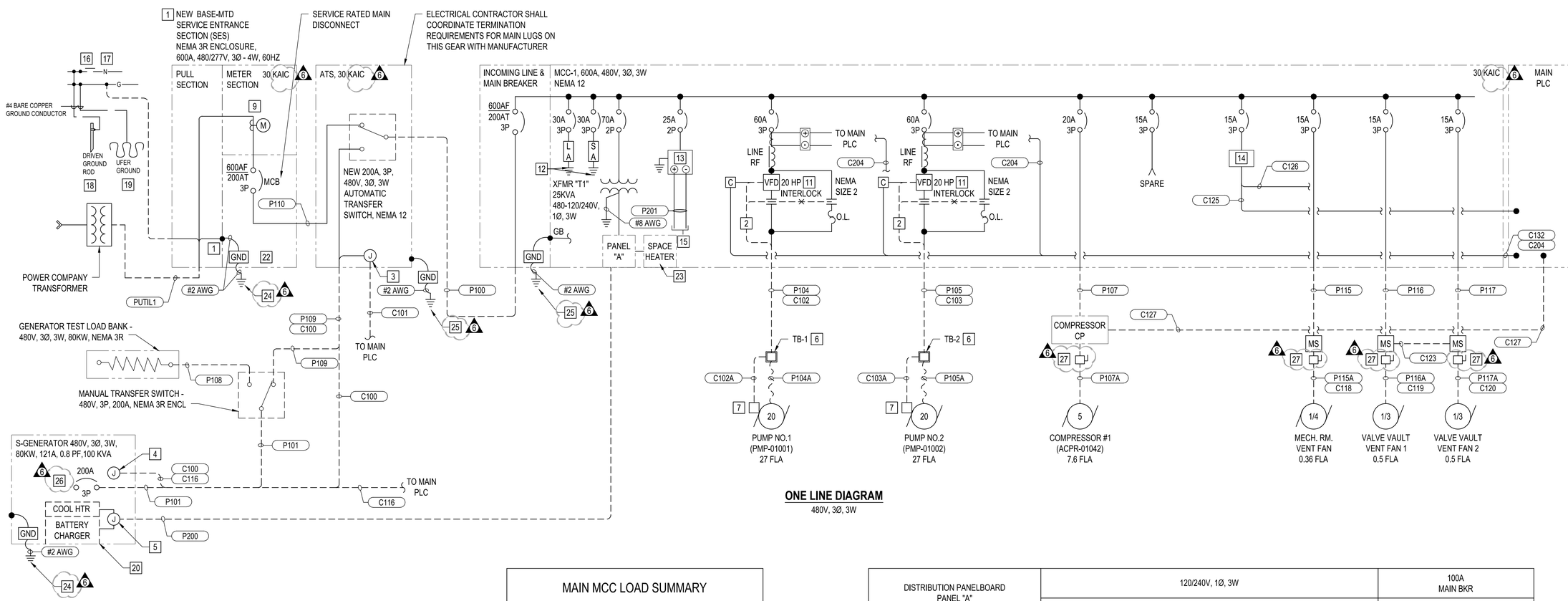
JOB
MISSION VILLAGE
DPW-1 SEWER PUMP STATION PC 12257PS
VALENCIA CA

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SHEET **E2.0**
46 OF 62 SHEETS

JOB NO. 9862-E

Xrefs: 9862 DPW-1 Electrical.dwg; 36x24v (DPW-1 - Elec.dwg
Dimscale = 40; LTscale = 1; PSltscale = 1; ACAD Ver. = 23.0s (LMS Tech); Viewtwin = 1



ONE LINE DIAGRAM

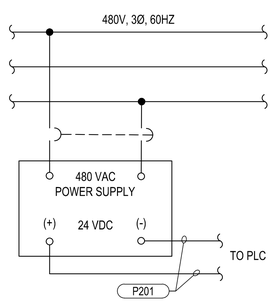
480V, 3Ø, 3W

NOTES:

1. EXTERIOR BASE- MTD UTILITY-APPROVED METER CABINET. GROUND NEUTRAL @ SES. SES AND THE MCC MUST BE OF THE SAME MANUFACTURER.
2. MOTOR PROTECTOR
3. TRANSFER SWITCH CONTROL JUNCTION BOX
4. GENERATOR CONTROL JUNCTION BOX
5. GENERATOR BATTERY CHARGER AND COOLANT HEATER JUNCTION BOX
6. TERMINAL TRANSITION BOX
7. TEMP/LEAK SENSORS
8. SEE SHEET E 8.0, DETAIL "J" FOR PLC STRUCTURE ELEVATION
9. SEE SHEET E8.1, DETAIL "E" FOR SES SECTION FRONT ELEVATION
10. ALL CIRCUIT BREAKERS WITHIN "MCC-1" SHALL BE 30 KA RATED.
11. 20 HORSEPOWER MINIMUN VFD RATING
12. GROUND LIGHTNING & SURGE ARRESTOR TO GROUND BUS.
13. 480VAC-24VDC POWER SUPPLY EATON.
14. SYMCOM 3-PHASE VOLTAGE MONITOR (USE N.O. CONTACT ON CRPF).
15. CONTINUED ON SHEETS E2.7.
16. NEUTRAL BUS LINK.
17. NEUTRAL AND GROUND BUSES. GROUNDING CONDUCTOR IS # 2 AWG.
18. PROVIDE CONNECTION TO DRIVEN GROUND ROD(S). PROVIDE ADDITIONAL GROUND RODS AS REQUIRED TO CONFORM WITH RESISTANCE TO GROUND LEVEL OF 25 OHMS OR LESS. MINIMUM SPACE BETWEEN RODS IS 6 FEET.
19. UFER GROUND. PROVIDE MINIMUM 20 FEET OF BARE COPPER CABLE EMBEDDED IN EQUIPMENT FOUNDATION IN CONTACT WITH EARTH AND BELOW WATERPROOF MEMBRANE.
20. STANDBY GENERATOR PANEL.
21. BOND SERVICE GROUND TO METAL WATER PIPE.
22. SES SHALL COMPLY IN STRICT ACCORDANCE WITH SCE EUSERC STANDARDS.
23. PROVIDE THERMOSTAT FOR MCC-1 SPACE HEATER .
6. PROVIDE THERMOSTAT FOR MCC-1 SPACE HEATER .
24. CONNECTED TO GROUND BUS VIA GROUND RING, SEE E5.0, GROUNDING PLAN.
25. CONNECTED TO GROUND BUS VIA BUILDING STEEL, SEE E5.0, GROUNDING PLAN.
26. GENERATOR SHALL BE EQUIPPED WITH A DISCONNECT, LOCKABLE IN THE OPEN POSITION.
27. INTEGRATED DISCONNECT SWITCH, RATED AT LEAST 115% OF MOTOR FLA

MAIN MCC LOAD SUMMARY

LOAD SUMMARY (AMPERES @ 480V)	CONNECTED	REDUNDANT
PUMP #1 (20HP) (PMP-01001)	27	
PUMP #2 (20HP) (PMP-01002)	27	
COMPRESSOR #1 (5HP) (ACPR-01042)	7.6	
25KVA TRANSFORMER "T1"	52.1	
MECH RM VENTILATION FAN	0.36	
VALVE VAULT VENT FAN 1	0.5	
VALVE VAULT VENT FAN 2	0.5	
TOTAL	115.06	
+ 25% LARGEST MOTOR LOAD	6.75	
GRAND TOTAL	121.81	
PERCENT CAPACITY	60.91	



POWER SUPPLY 13

DISTRIBUTION PANELBOARD PANEL "A"	120/240V, 1Ø, 3W								100A MAIN BKR
	TYPE: BOLT-ON								NEMA 12
DESCRIPTION	CKT. LOAD	BKR SIZE	CKT NO.	LOAD PHASE A	LOAD PHASE B	CKT NO.	BKR SIZE	CKT. LOAD	DESCRIPTION
S-GENERATOR PANEL	2700	40/2	1	2050		2	20/1	700	MAG FLOW METER (FE-01031)
			3		2050	4	20/1	700	MAG FLOW METER (FE-01032)
BLOWER CONTROL PANEL (BLR-01041)	1176	20/1	5	2331		6	15/2	2310	ELECTRICAL ROOM A/C UNIT
MOTORIZED COMPRESSED AIR VALVE V-01002	600	20/1	7		1755	8			
SOLENOID VALVE V-01001 TIMER	600	20/1	9	7 639		10	20/1 6	39	MECHANICAL ROOM LIGHTS
ELECTRICAL ROOM LIGHTS	7 78	20/1	11		7 269	12	20/1	191	BATHROOM RECEPTACLE AND EXHAUST FAN/LIGHT
EXTERIOR LIGHTS	660	20/1	13	1380		14	20/1	720	INTERIOR RECEPTACLES
ADEMCO ALARM PANEL	1200	20/1	15		1364	16	20/1	164	EMERGENCY LIGHTS AND EXIT SIGNS
6 EXTERIOR RECEPTACLES I	480	20/1	17	1020		18	20/1	540	EXTERIOR RECEPTACLES II
OZONE GENERATOR	1920	20/1	19		1946	20	20/1	26	VALVE VAULT LIGHTS
6 SUMP PUMP (*WITH BREAKER LOCK)	600	15/1	21	1200		22	20/1	600	SOLENOID VALVE (V-01001)
7 SPARE	-	20/1	23		1200	24	20/1	1200	MCC-1 SPACE HEATER
SPARE	-	20/1	25			26	20/1	-	SPARE
SPARE	-	20/1	27		-	28	20/1	-	SPARE
SPARE	-	20/1	29	-		30	20/1	-	SPARE
SPARE	-	20/1	31		-	32	20/1	-	SPARE
		VA/PHASE		7 8620	7 8584	*INDICATES LOAD @ 125%			
	25% OF LARGEST LOAD			512.5	512.5	10,000 AIC BREAKERS			
	CODE TOTAL AMPS			7 76.0					

BUILDING AND SAFETY DIVISION
Department of Public Works
APPROVED
UNDER LOS ANGELES COUNTY CODE TITLE 27
amarcus
PUBLIC WORKS
04/15/2020 7:32:54 AM
This set of plans and specifications shall be kept at the job site at all times; and it is unlawful to make any changes, modifications or alterations to these plans or specifications without the prior written permission of the Building Official. The stamping of this set of plans and specifications SHALL NOT, under any circumstances, be deemed to permit or to be an approval of any work or activity that violates any provisions of any County Ordinance or State Law

BUILDING AND SAFETY DIVISION
Department of Public Works
FINAL ENERGY APPROVED
UNDER CCR TITLE 24, PART 1,
ARTICLE 1 & PART 6
amarcus
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06/18/2020 11:00:15 AM
This set of plans and specifications shall be kept at the job site at all times; and it is unlawful to make any changes, modifications or alterations to these plans or specifications without the prior written permission of the Building Official. The stamping of this set of plans and specifications SHALL NOT, under any circumstances, be deemed to permit or to be an approval of any work or activity that violates any provisions of any County Ordinance or State Law

NO	BY	DATE	REVISIONS	DATE	APP.
6	CN	04/09/20	REVISION FOR LAC B/S REVIEW	04/09/20	CN
7	CN	06/01/20	REVISION FOR LAC B/S REVIEW #2	06/01/20	CN

REGISTERED PROFESSIONAL ENGINEER CHRISTOPHER M. NAJARIAN E 22545 EXP: 12-31-20 ELECTRICAL STATE OF CALIFORNIA

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PREPARED BY: CHRISTOPHER NAJARIAN
PROJECT ENGINEER
R.C.E. NO. 22545
EXP: 12/31/20

DRAWN: BM, AH
DESIGNED: EEB
CHECKED: CN
SCALE: AS NOTED
DATE: JUNE 2020

TITLE: SINGLE LINE DIAGRAM, LOAD SUMMARY AND PANEL SCHEDULE

JOB: MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

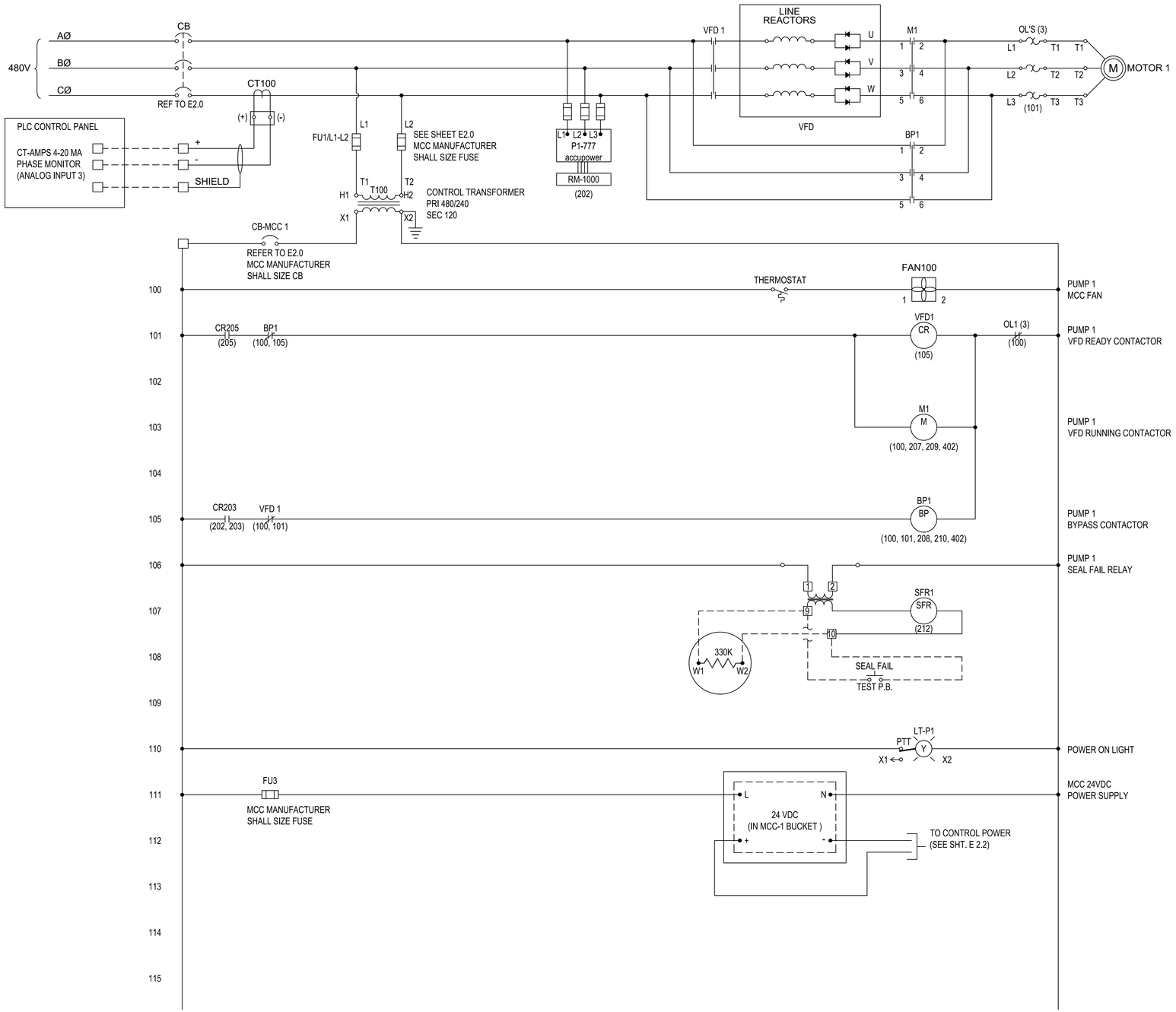
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SHEET E2.0
46 OF 72 SHEETS

JOB NO. 9862-E

Department of Public Works, Los Angeles County
Checked _____ _____
Operational Services Division Date

Xrefs: 9862 DPW-1 Electrical.dwg; 3Kv2w DPW-1 - Elec.dwg
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ELEMENTARY CONTROL SCHEMATIC
FOR PUMP PMP- 01001
(1 OF 2)

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER
ERNEST E. BROWN JR.
REG. # 16216
EXP. 12/31/20
CIVIL
STATE OF CALIFORNIA

PREPARED BY
ERNEST E. BROWN
PROJECT ENGINEER
R.C.E. NO. 16216
EXP. 12/31/20

DRAWN	SCALE	DATE
BM, AH	AS NOTED	JAN. 2020
DESIGNED		
EEB		
CHECKED		
EEB		

TITLE
ELEMENTARY CONTROL SCHEMATIC DIAGRAM 1

JOB
MISSION VILLAGE
DPW-1 SEWER PUMP STATION PC 12257PS
VALENCIA CA

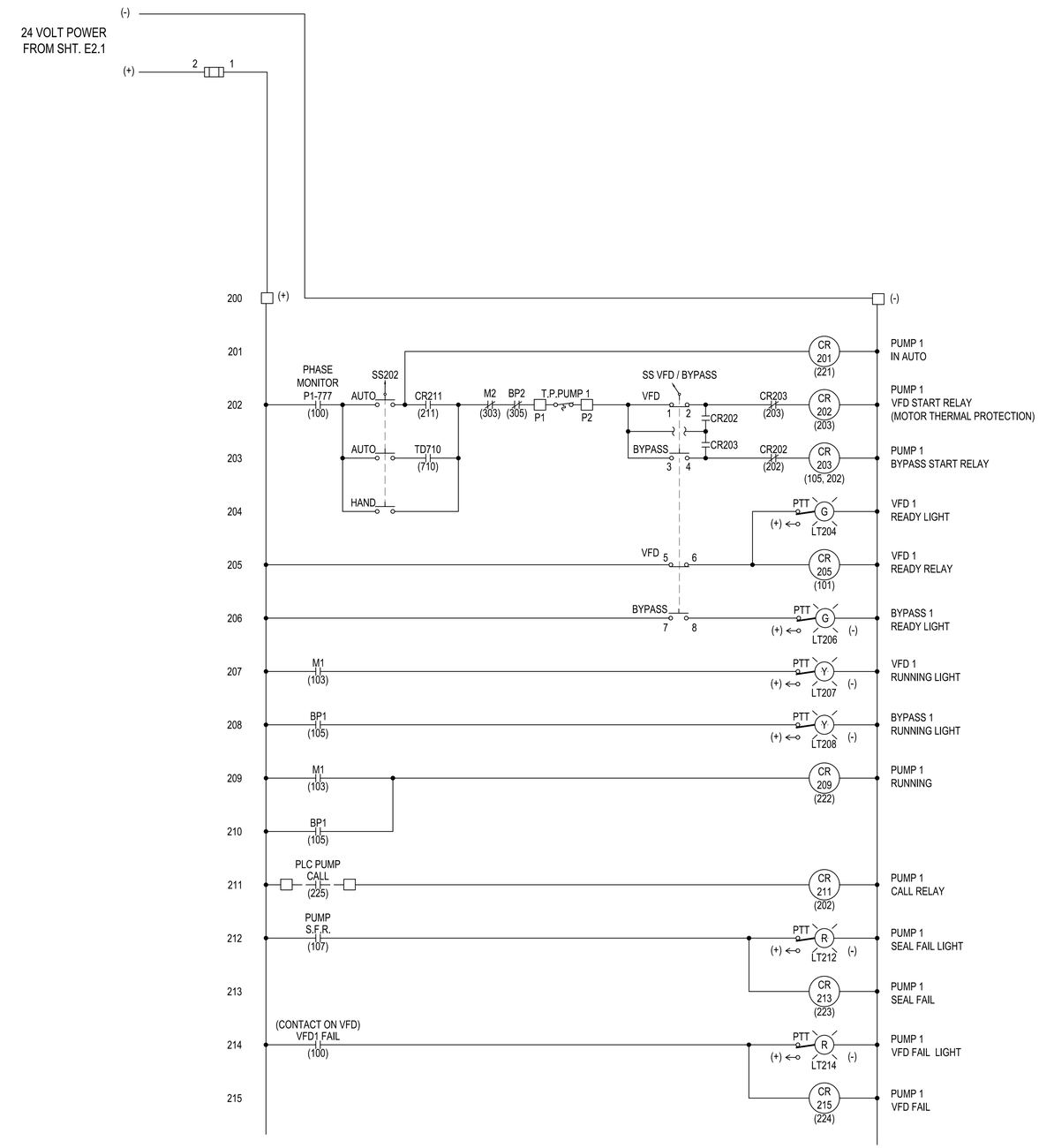
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Department of Public Works, Los Angeles County
Checked HS
Operations Services Division
02/20/2020
Date

SHEET
E2.1
47 OF 62 SHEETS

JOB NO. 9862-E

Xrefs: 36x24x DPW-1 - Elec.dwg
Dimscale = 40; LTscale = 1; PSltscale = 1; ACAD Ver. = 23.0s (LMS Tech); Viewtan = 1



ELEMENTARY CONTROL SCHEMATIC
FOR PUMP PMP- 01001
(2 OF 2)

Department of Public Works, Los Angeles County

Checked _____ 02/20/2020

Operational Services Division — Date

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER ★ ERNEST E. BROWN ★ REG. # 16216 EXP. 12/31/20 ★ CIVIL ★ STATE OF CALIFORNIA

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PREPARED BY
ERNEST E. BROWN
PROJECT ENGINEER
R.C.E. NO. 16216
EXP. 12/31/20

DRAWN BM, AH
DESIGNED EEB
CHECKED EEB
SCALE AS NOTED
DATE JAN. 2020

TITLE
ELEMENTARY CONTROL SCHEMATIC DIAGRAM 2

JOB
MISSION VILLAGE
DPW-1 SEWER PUMP STATION PC 12257PS
VALENCIA CA

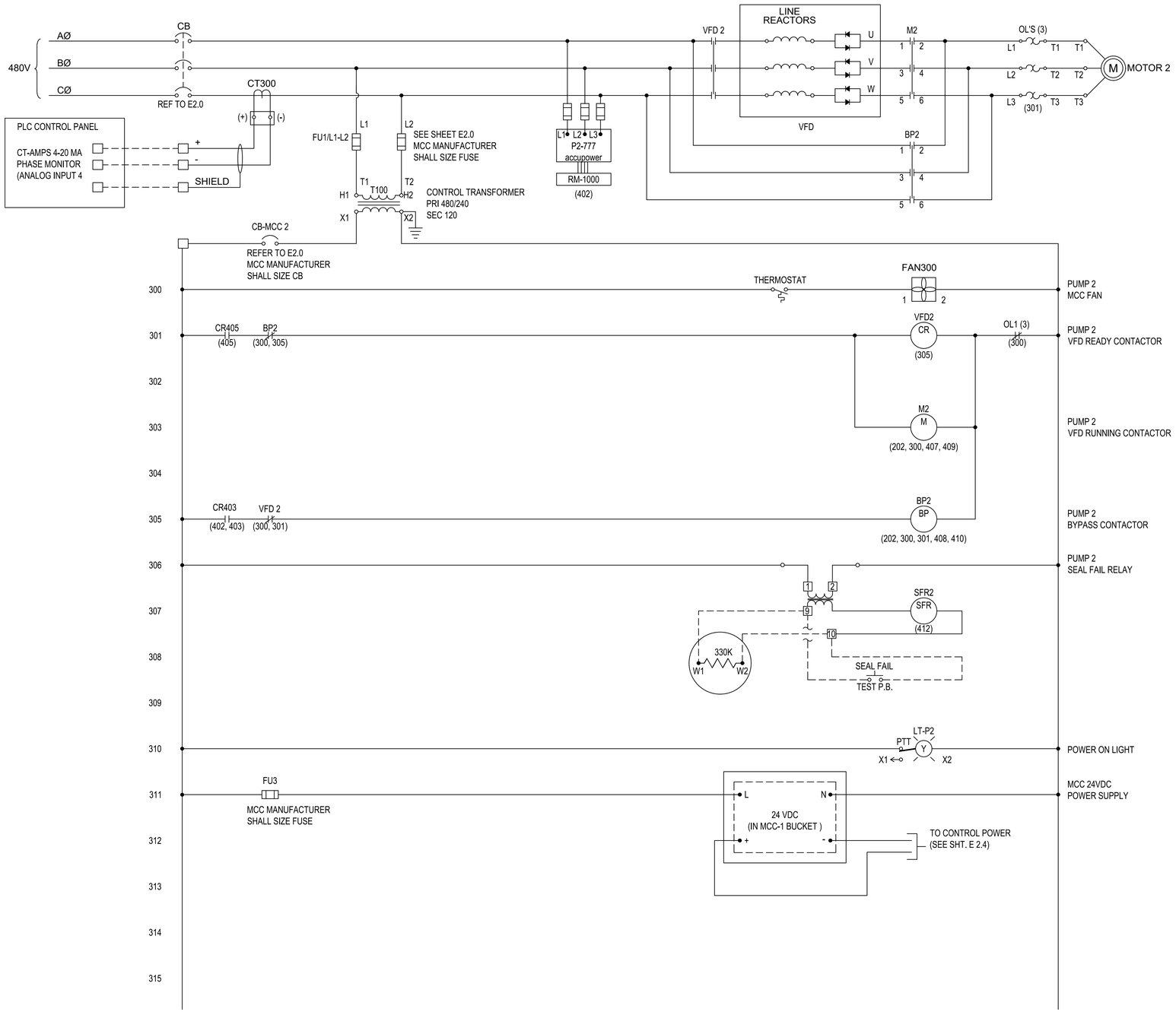
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SHEET
E2.2
48 OF 62 SHEETS

JOB NO. 9862-E

Xrefs: 36x24x DPW-1 - Elec.dwg
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ELEMENTARY CONTROL SCHEMATIC
FOR PUMP PMP- 01002
(1 OF 2)

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER
ERNEST E. BROWN JR.
REG.# 16216
EXP. 12/31/20
CIVIL
STATE OF CALIFORNIA

PREPARED BY
ERNEST E. BROWN
PROJECT ENGINEER
R.C.E. NO. 16216
EXP. 12/31/20

DRAWN	SCALE	DATE
BM, AH	AS NOTED	JAN. 2020
DESIGNED		
EEB		
CHECKED		
EEB		

TITLE
ELEMENTARY CONTROL SCHEMATIC DIAGRAM 3

JOB
MISSION VILLAGE
DPW-1 SEWER PUMP STATION PC 12257PS
VALENCIA CA

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Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
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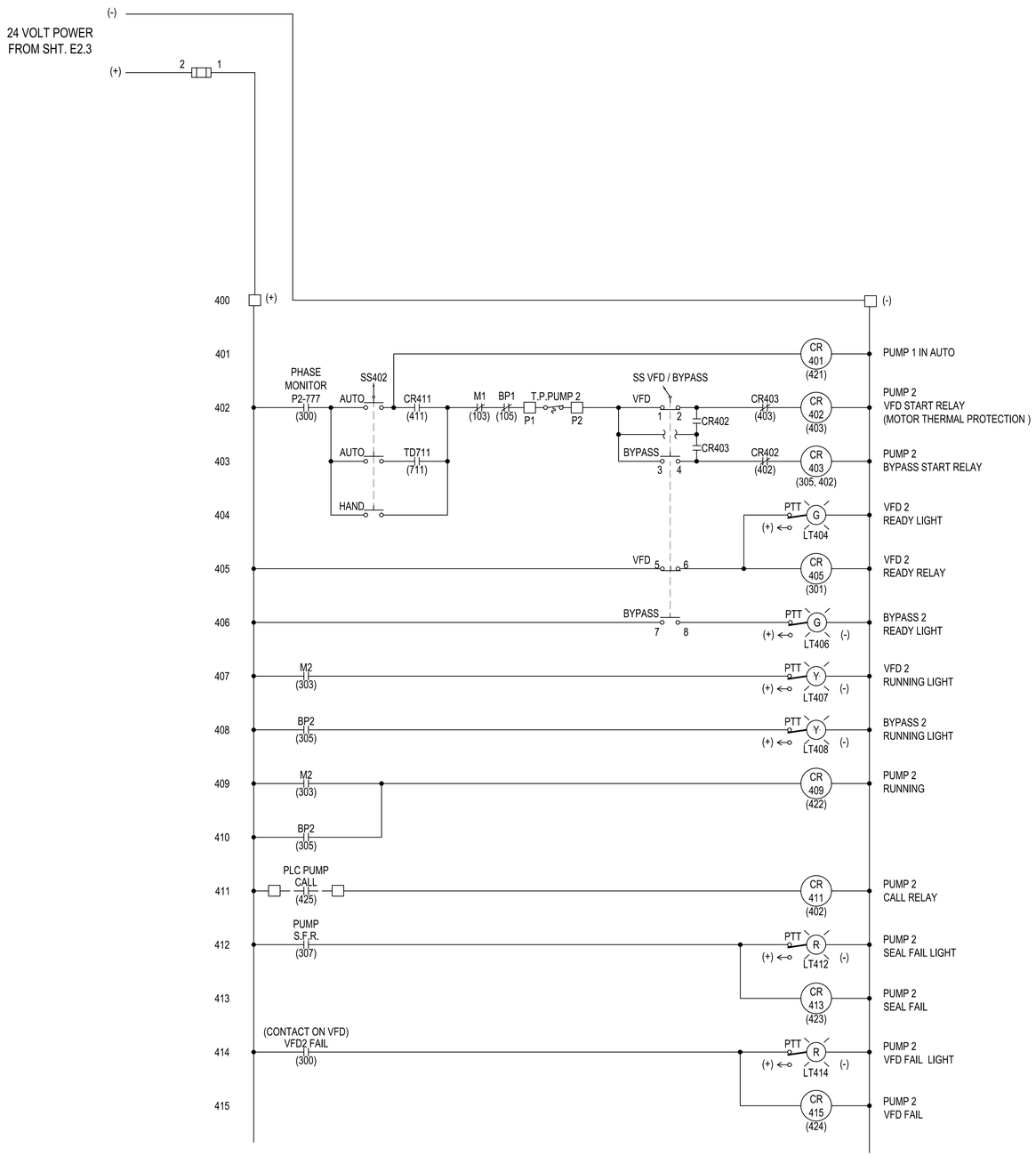
Department of Public Works, Los Angeles County

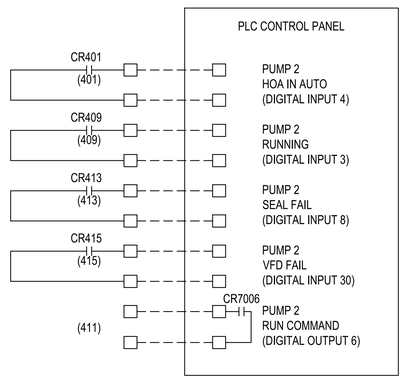
Checked _____ 02/20/2020
HS Operations Services Division Date

SHEET
E2.3
49 OF 62 SHEETS

JOB NO. 9862-E

Xrefs: 36x24x DPW-1 - Elec.dwg
Dimscale = 40; LTscale = 1; PSltscale = 1; ACAD Ver. = 23.0s (LMS Tech); Viewtan = 1





420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435

ELEMENTARY CONTROL SCHEMATIC
FOR PUMP PMP- 01002
(2 OF 2)

Department of Public Works, Los Angeles County

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Operational Services Division — Date

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER ★ ERNEST E. BROWN ★ REG. # 16216 EXP. 12/31/20 ★ CIVIL ★ STATE OF CALIFORNIA

THESE DRAWINGS ARE THE PROPERTY OF P.A.C.E. AND SHALL NOT BE REPRODUCED IN ANY MANNER NOR BE USED FOR CONSTRUCTION UNLESS STAMPED "ISSUED FOR CONSTRUCTION".

PREPARED BY
ERNEST E. BROWN
PROJECT ENGINEER
R.C.E. NO. 16216
EXP. 12/31/20

DRAWN BM, AH
DESIGNED EEB
CHECKED EEB
SCALE AS NOTED
DATE JAN. 2020

TITLE
ELEMENTARY CONTROL SCHEMATIC DIAGRAM 4

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

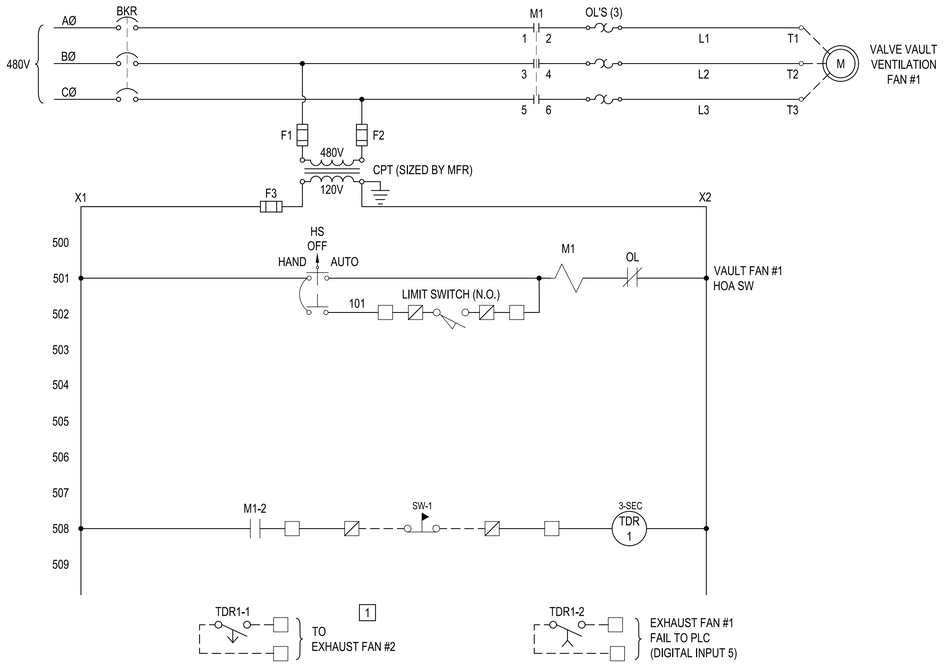
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SHEET
E2.4
50 OF 62 SHEETS

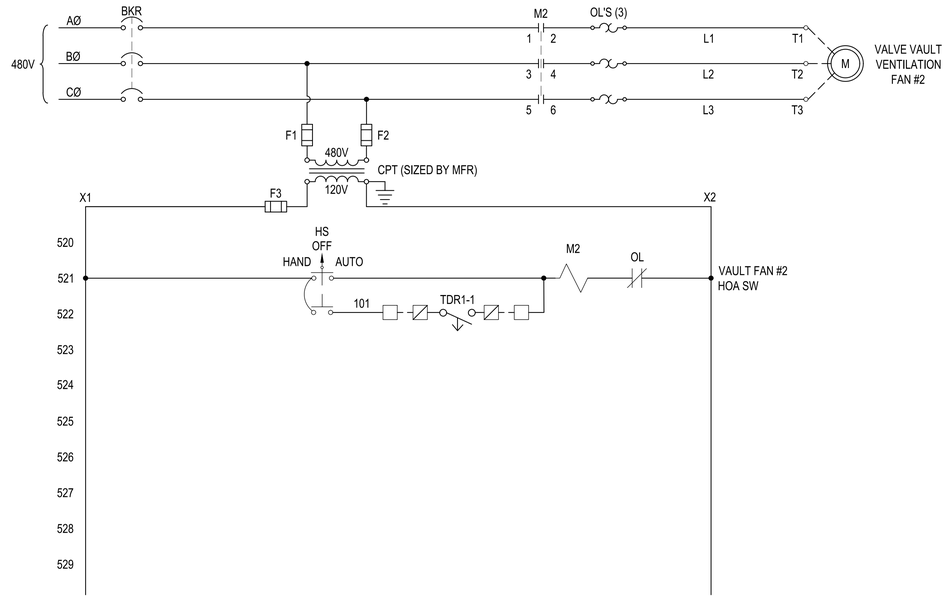
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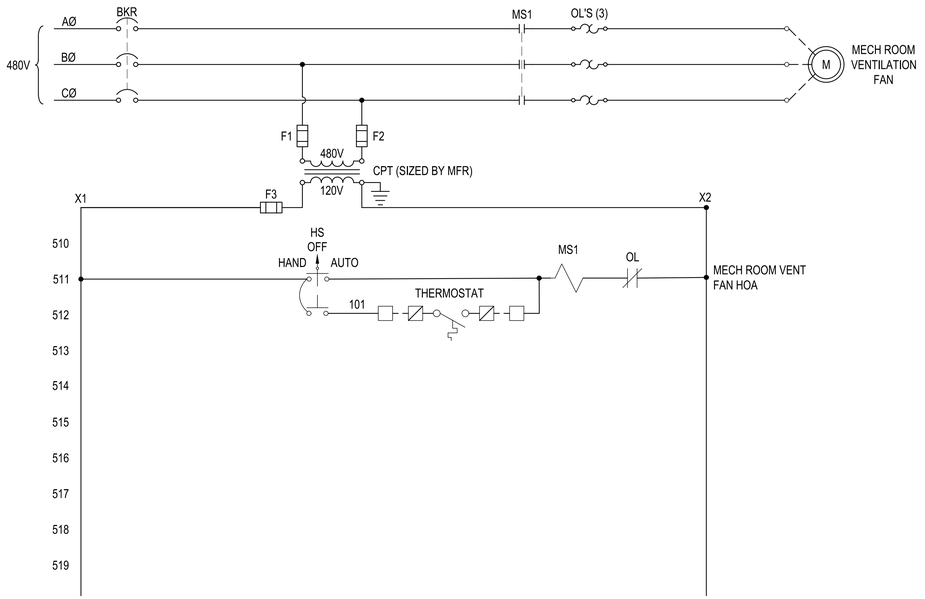
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VALVE VAULT VENTILATION FAN #1
480V



VALVE VAULT VENTILATION FAN #2
480V



ELEMENTARY CONTROL SCHEMATIC
FOR MECH ROOM VENTILATION FAN
480V

SEQUENCE OF OPERATION

1 THE CLOSING OF THE LIMIT SWITCH SIMULTANEOUSLY ENERGIZES OPERATING COIL ON VENTILATION FAN #1 MOTOR STARTER AND INITIATING THE 3-SECOND TIMING SEQUENCE OF RELAY TDR 1. THE OUTPUT OF FAN #1 OPENS SAIL SWITCH SW-1 TERMINATING TIMING / OPERATION OFF RELAY TDR 1. SHOULD THE SAIL SWITCH FAIL TO OPEN BEFORE THE 3-SECOND LIMIT (MOTOR TRIP ON OVERLOAD, LOSS OF BLADE [FAN OUTPUT], ETC.) IS REACHED, AN AUTO-START SIGNAL IS SENT TO INITIATE THE START OF VENTILATION FAN #2 AND SIMULTANEOUSLY SEND FAN FAIL SIGNAL TO THE PLC.

LEGEND

- TERMINAL IN FAN STARTER
- TERMINAL IN FIELD
- (L) VAULT LIGHT FIXTURE - 13W EXPLOSION PROOF LED LIGHT FIXTURE, C1D2, ALUMINUM BODY, NEMA 4 OR EQUIVALENT.
- TDR 1 TIME DELAY RELAY (ON-DELAY) CONTAINING 2 N.O. CONTACTS
- SW EXHAUST FAN DUCT SAIL SWITCH WITH 1 FORM "C" CONTACT.
- H O A CONTROL SWITCH, H-O-A (M-O-A) WITH 2 N.O. CONTACT BLOCKS.
- MS MAGNETIC MOTOR STARTER - 120V, 2P, IN NEMA 3R ENCLOSURE WITH OLS.
- TEMPERATURE SWITCH (N.O).

Department of Public Works, Los Angeles County

Checked _____ 02/20/2020

Operations Services Division — Date

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER ERNEST E. BROWN REG. # 16216 EXP. 12/31/20 CIVIL STATE OF CALIFORNIA

PREPARED BY
ERNEST E. BROWN
PROJECT ENGINEER
R.C.E. NO. 16216
EXP. 12/31/20

SCALE: AS NOTED
DRAWN: BM, AH
DESIGNED: EEB
CHECKED: EEB
DATE: JAN. 2020

TITLE
ELEMENTARY CONTROL SCHEMATIC DIAGRAM 5

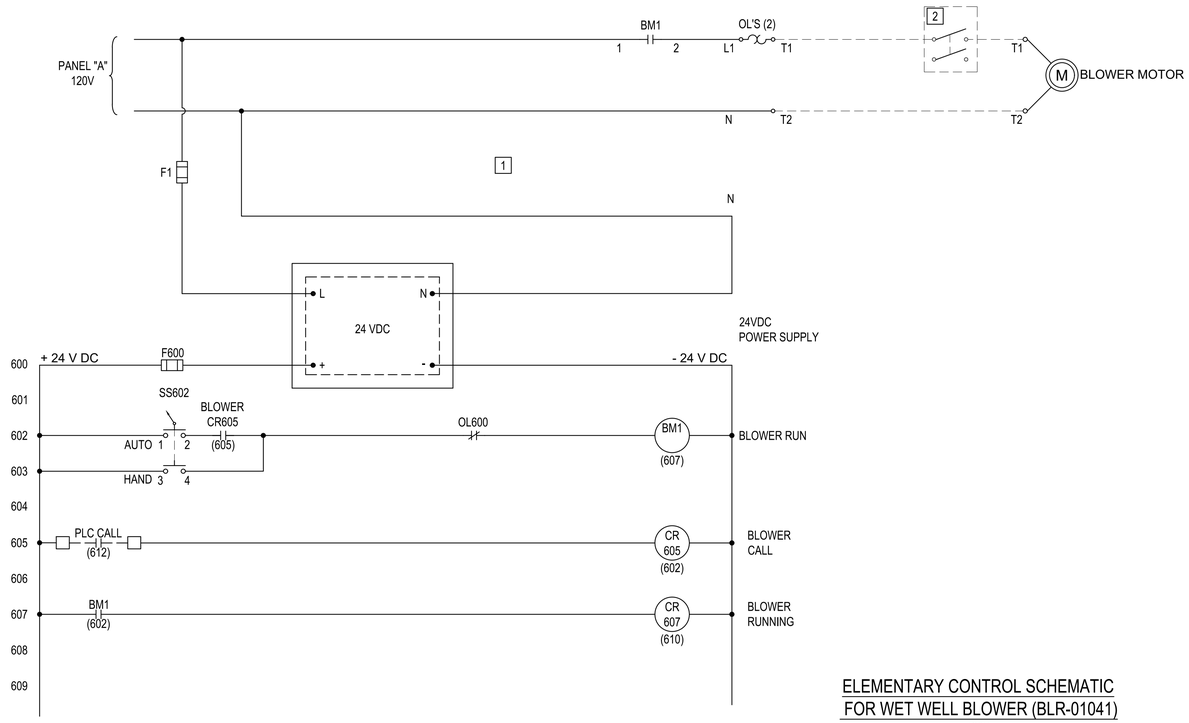
JOB
MISSION VILLAGE
DPW-1 SEWER PUMP STATION PC 12257PS
VALENCIA CA

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P: (714) 481-7300 | www.paceworldwide.com

SHEET
E2.5
51 OF 62 SHEETS

JOB NO. 9862-E

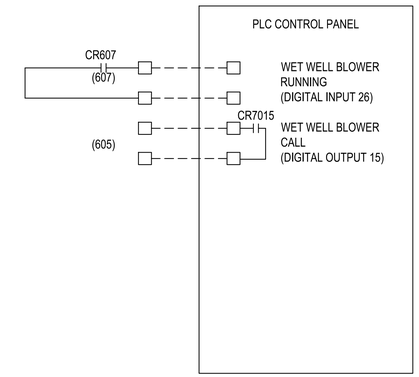
Xrefs: 36x24 DPW-1 - Elec.dwg
Dimscale = 40; LTscale = 1; PSltscale = 1; ACAD Ver. = 23.0s (LMS Tech); Viewtain = 1

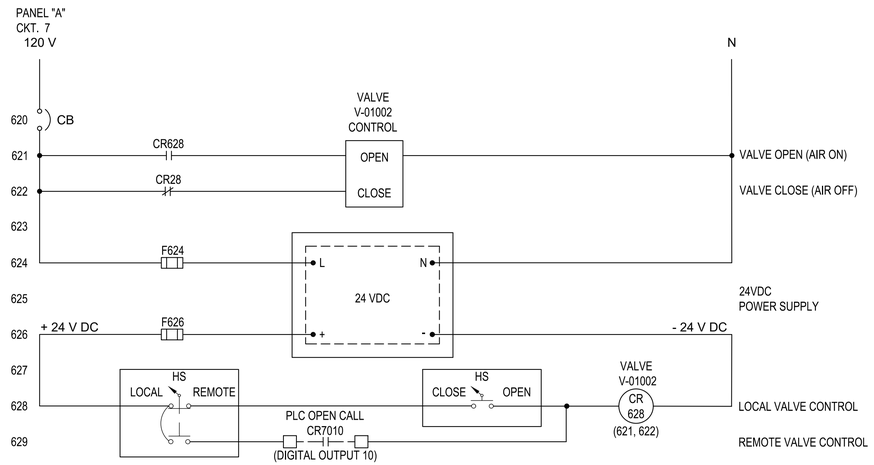


ELEMENTARY CONTROL SCHEMATIC
FOR WET WELL BLOWER (BLR-01041)
120V

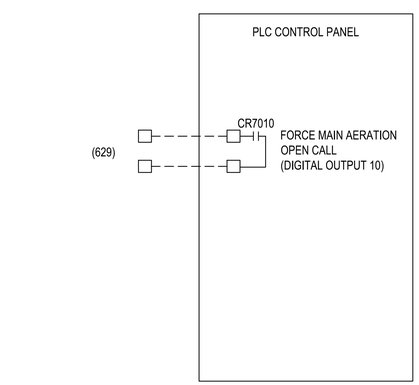
NOTES:

1. BLOWER CONTROL PANEL. REFER TO BLOWER MANUFACTURE FOR BLOWER PANEL CONTROL WIRING DIAGRAM.
2. BLOWER DISCONNECT SWITCH, 2P, 240V, NEMA 3R ENCLOSURE.





ELEMENTARY CONTROL SCHEMATIC
FOR MOTORIZED COMPRESSED AIR VALVE
120V



NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER
ERNEST E. BROWN
REG. # 16216
EXP. 12/31/20
CIVIL
STATE OF CALIFORNIA

THESE DRAWINGS ARE THE PROPERTY OF P.A.C.E. AND SHALL NOT BE REPRODUCED IN ANY MANNER NOR BE USED FOR CONSTRUCTION UNLESS STAMPED 'ISSUED FOR CONSTRUCTION'.

PREPARED BY
ERNEST E. BROWN
PROJECT ENGINEER
R.C.E. NO. 16216
EXP. 12/31/20

DRAWN	SCALE	DATE
BM, AH	AS NOTED	JAN. 2020
DESIGNED		
EEB		
CHECKED		
EEB		

TITLE
ELEMENTARY CONTROL SCHEMATIC DIAGRAM 6

JOB
MISSION VILLAGE
DPW-1 SEWER PUMP STATION PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

SHEET
E2.6
52 OF 62 SHEETS

JOB NO. 9862-E

Department of Public Works, Los Angeles County
Checked HS
Operational Services Division
02/20/2020
Date

Xrefs: 36x24x DPW-1 - Elec.dwg
Dimscale = 40; LTscale = 1; PSltscale = 1; ACAD Ver. = 23.0s (LMS Tech); Viewtain = 1

P:\9862E2_Mission\AngelFirstDesign\Engineering\9862-4\Sewer PS\sheets\DPW 1 PS\9862A-5 E2-6 ELEMENTARY CONTROL SCHEMATIC DIAGRAM 6.dwg - Tab: E2.6 - by xxx on 01/31/20 at 10:05:12 AM

Request for Information (RFI) Response

To:	Matt Messerly – Blois Construction
From:	Pacific Advanced Civil Engineering
Project:	Mission Village Sewer Lift Station
RFI #:	099
Date Received:	08/06/2021
Response:	08/06/2021
Answered By:	C.N.
PACE Project #:	9862E

Response Type

☒ **Plan Clarification**

☐ **Proposed Plan Change**

Question/Comment:

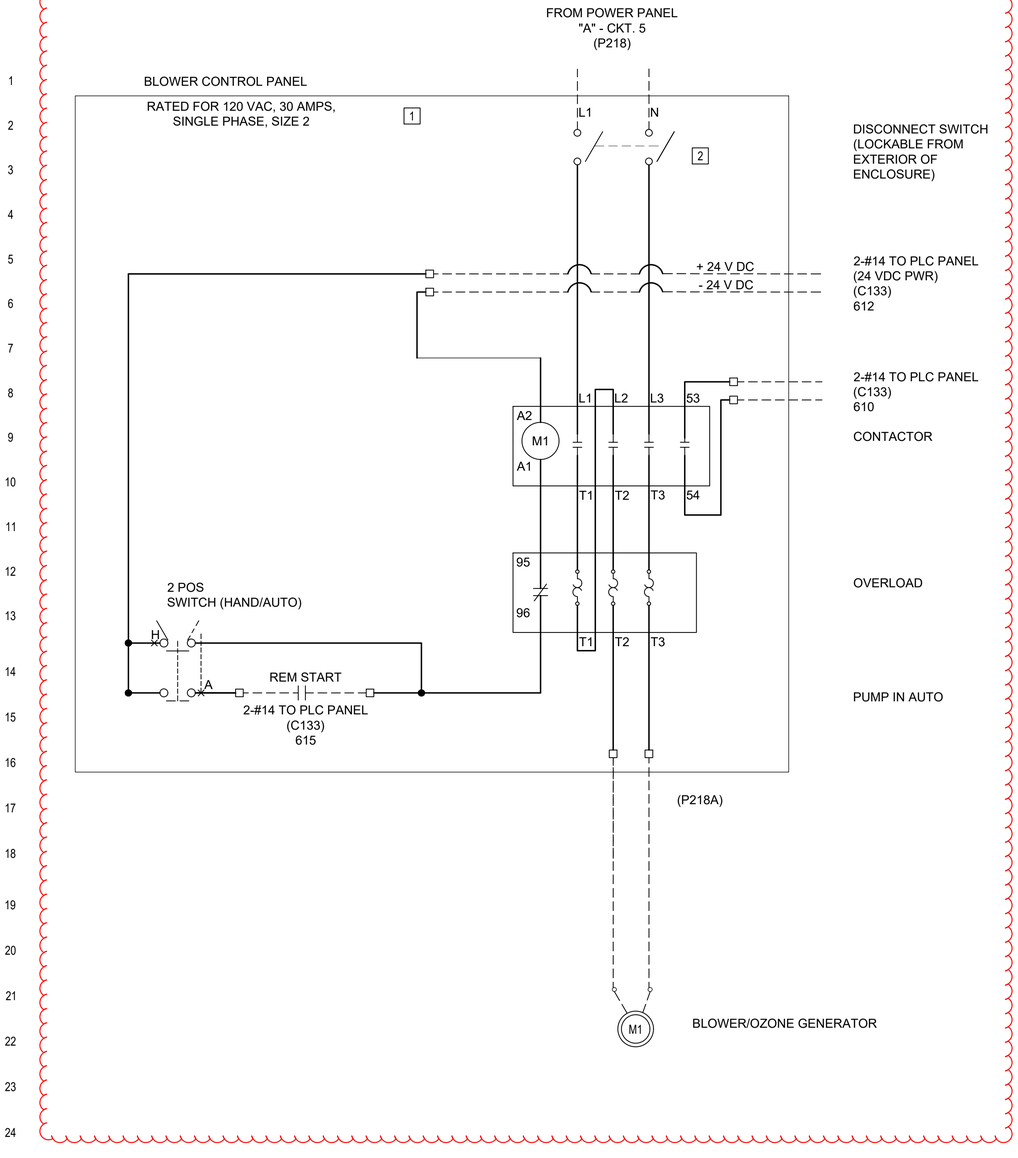
Question from Mike Buckley Taft Electric Company *on Friday, Jul 23, 2021 at 11:45 AM PDT*

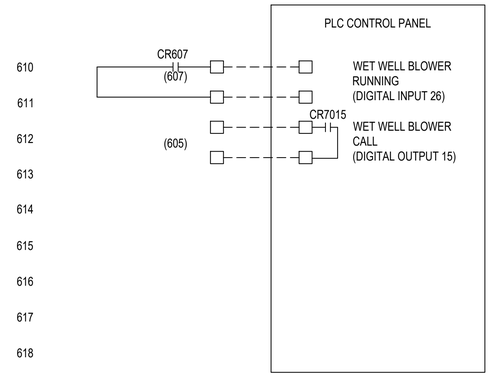
On Sheet M1.0 Items #11 & 17, it states that control panels to come with the equipment. Unfortunately, There are no readily available control panels from these manufacturers that are custom made for this particular application. Fortunately, these are very simplistic panels to assemble in the field. Please confirm it is acceptable for us to procure (2) 2-position switches, an ice cube relay with a 24 volt coil and a Normally Open & Normally Closed set of contacts in an enclosure They will be wired to the design on E2.6 marked "Motorized Compressed Air Valve" and (1) 2-Pole Contactor, (2) Ice-Cube Relays with 24 volt Coils, and 1-Normally Open set of contacts each, (1) 2-Postion switch, and (1) Enclosure wired to the design on sheet E2.6 marked "Wet Well Blower".
All components can be submitted for approval.

PACE RESPONSE:
Modifications, adding 24 VDC power for both panels, from the PLC panel will need to be updated in the PLC panel drawings.

1. Page 2 of the attached shows the updated schematic for ozone starter panel. The plans called for a manufacturer built control panel, so we would prefer the blower control panel come pre built. This way the panel is listed and the manufacturer shares liability. Something like the below is what we are looking for.

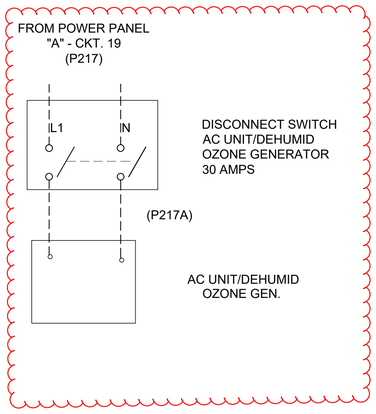
RFI #99





NOTES:

1. BLOWER CONTROL PANEL. REFER TO BLOWER MANUFACTURE FOR BLOWER PANEL CONTROL WIRING DIAGRAM.
2. BLOWER DISCONNECT SWITCH, 2P, 240V, NEMA 3R ENCLOSURE.



ELEMENTARY CONTROL SCHEMATIC
FOR WET WELL BLOWER (BLR-01041)
120V

NO	BY	DATE	REVISIONS	DATE	APP.

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PREPARED BY
CHRISTOPHER NAJARIAN
PROJECT ENGINEER
R.C.E. NO. 22945
EXP. 12/31/20

DRAWN BM, AH | SCALE AS NOTED
DESIGNED EEB | DATE JUNE 2020
CHECKED CN

TITLE
ELEMENTARY CONTROL SCHEMATIC DIAGRAM 6

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481 - 7300 | www.pacewater.com

Department of Public Works, Los Angeles County

Checked _____ _____
Operational Services Division Date

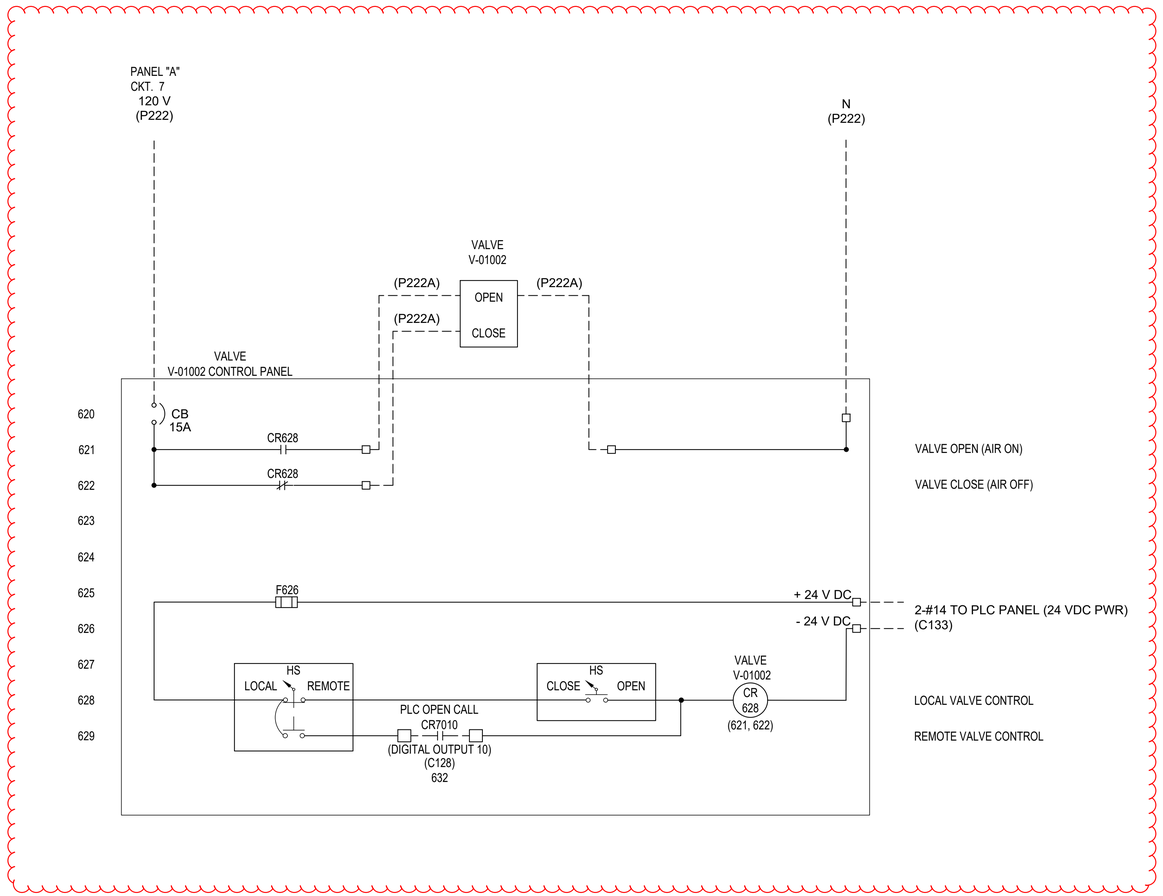
SHEET
E2.6A
52 OF 72 SHEETS

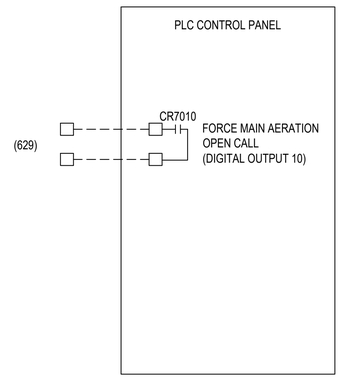
JOB NO. 9862-E

Xrefs: 36x24r DPW1 - Elec.dwg
Dimscale = 40, LTscale = 1, PSltscale = 1, ACAD Ver. = 23.0s (LMS Tech), Vistetain = 1

P:\9862EP_Mission\Mage\Pw\Design\Engineering\9862-E\Sewer PS\plotted\DPW 1 PS\9862-E E2.6 ELEMENTARY CONTROL SCHEMATIC DIAGRAM 6.dwg - by pagason on 09/08/21 at 8:42:44 AM

RFI #99





ELEMENTARY CONTROL SCHEMATIC
FOR MOTORIZED COMPRESSED AIR VALVE
120V

Department of Public Works, Los Angeles County

Checked _____ _____
Operational Services Division Date

NO	BY	DATE	REVISIONS	DATE	APP.

PREPARED BY
CHRISTOPHER NAJARIAN
PROJECT ENGINEER
R.C.E. NO. 22345
EXP. 12/31/20

DRAWN BM, AH | SCALE AS NOTED
DESIGNED EEB
CHECKED CN | DATE JUNE 2020

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TITLE
ELEMENTARY CONTROL SCHEMATIC DIAGRAM 6

JOB
MISSION VILLAGE
DPW-1 SEWER PUMP STATION PC 12257PS
VALENCIA CA

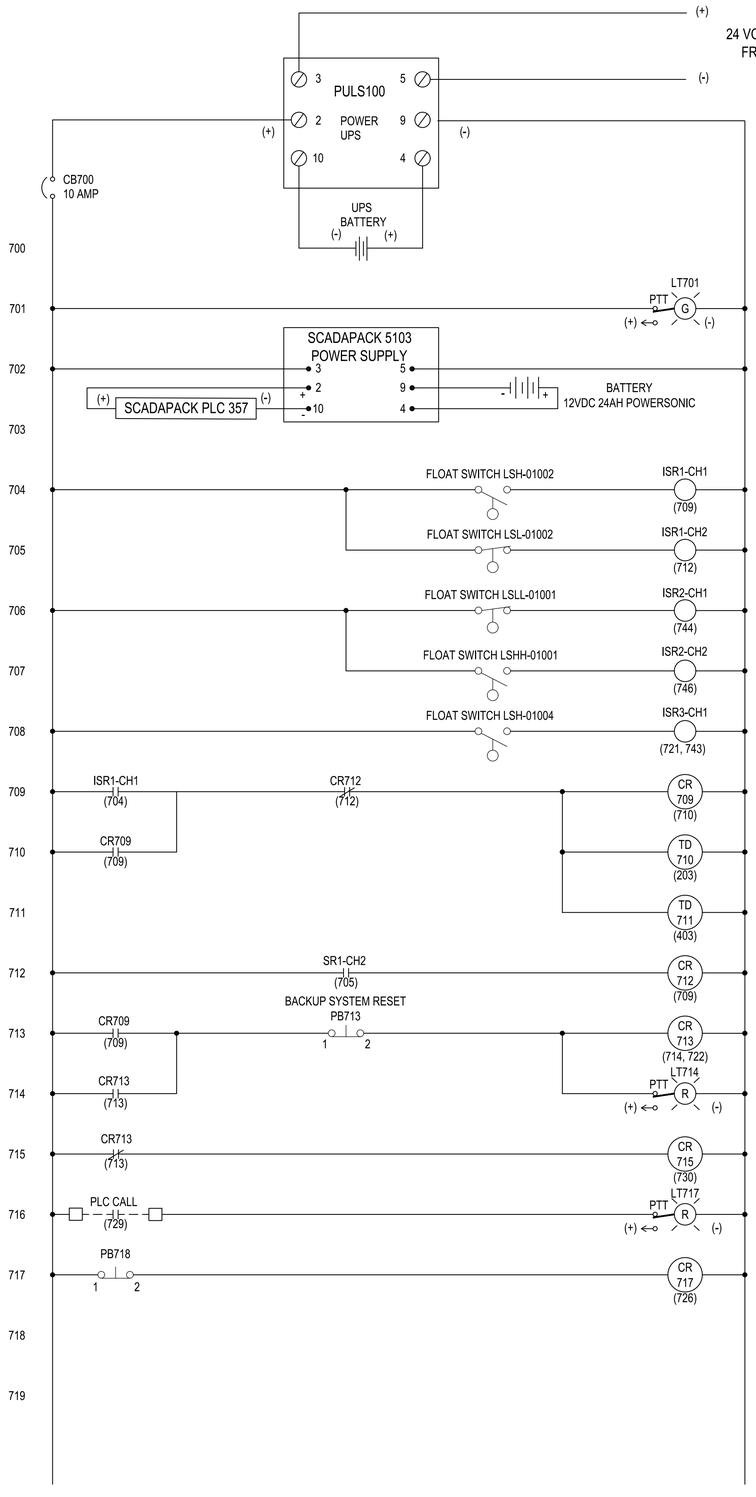
PACE
Advanced Water Engineering
17520 Newhope Street Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

SHEET
E2.6B
52 OF 72 SHEETS

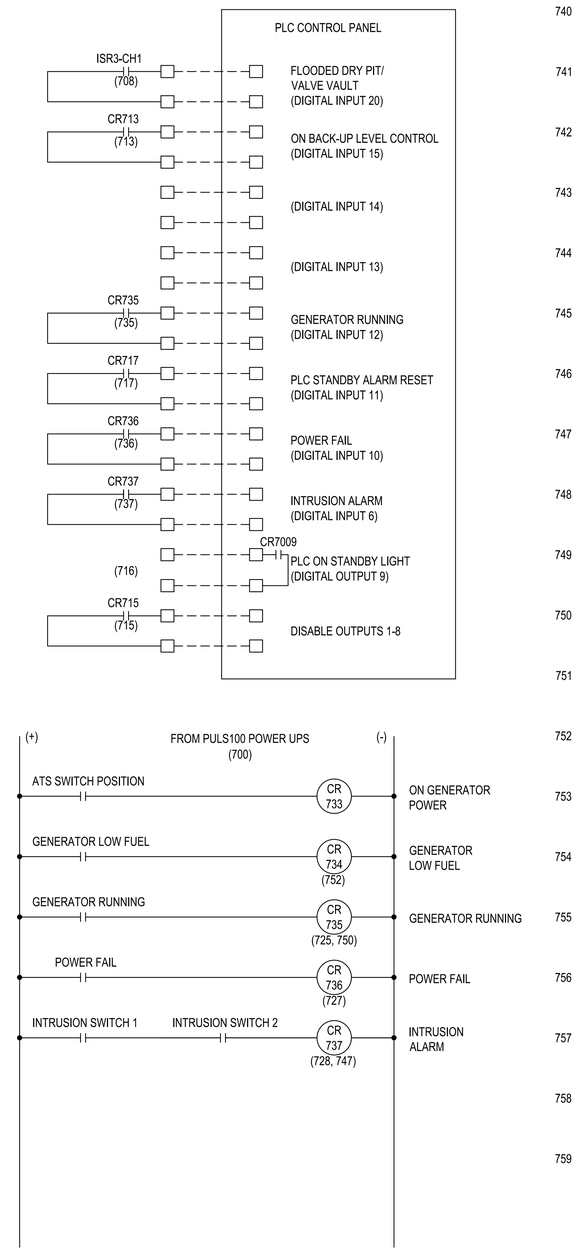
JOB NO. 9862-E

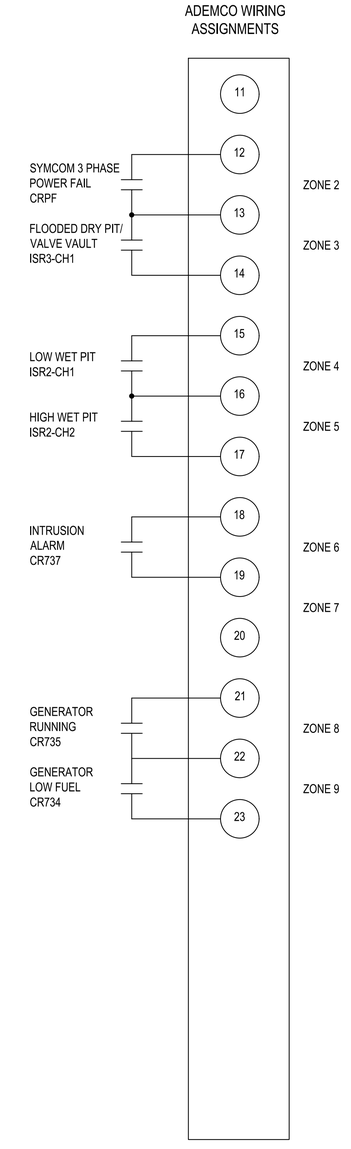
Xrefs: 38x24 (DPW) - Elec.dwg
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BACK-UP SYSTEM DETAIL WIRING





NOTE: WIRE TO FIELD DEVICES AND RELAYS IN SUCH A MANNER THAT OPEN CONTACTS RESULT IN ACTIVE ALARM STATE

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER ★ ERNEST E. BROWN ★ REG.# 16216 EXP. 12/31/20 ★ CIVIL ★ STATE OF CALIFORNIA

PREPARED BY
ERNEST E. BROWN
PROJECT ENGINEER
R.C.E. NO. 16216
EXP. 12/31/20

SCALE
AS NOTED

DRAWN
BM, AH

DESIGNED
EEB

CHECKED
EEB

DATE
JAN. 2020

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TITLE
ELEMENTARY CONTROL SCHEMATIC DIAGRAM 7

JOB
MISSION VILLAGE
DPW-1 SEWER PUMP STATION PC 12257PS
VALENCIA CA

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17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

Department of Public Works, Los Angeles County

Checked HS Operational Services Division

02/20/2020
Date

SHEET
E2.7
53 OF 62 SHEETS

JOB NO. 9862-E

Xrefs: 36x24v (DPW-1 - E3sc.dwg
Dimscale = 40; LTscale = 1; PSfactor = 1; ACAD Ver. = 23.0s (LMS Tech); Viewtwin = 1

P:\9862E\P_Mission\Mapp\FinalDesign\Engineering\9862-E\Sewer PS\plotsets\DPW-1 PS\9862-E\E2.7 ELEMENTARY CONTROL SCHEMATIC DIAGRAM 7.dwg - Tab: E2.7 - by kvn on 01/31/20 at 10:05:31 AM

CAUTION: IF THIS SHEET IS NOT 24X36 IT IS A REDUCED PRINT

AT&T LAYOUT DRAWING

CONSTRUCTION NOTES

1. MINIMUM COVER FOR STRUCTURE 36" BELOW GRADE OR 30" BELOW GUTTER FLOWLINE.

2. ALL SUBSTRUCTURE INFORMATION SHOWN WAS TAKEN FROM RECORDS AVAILABLE AND IS
APPROXIMATE. VERIFY, LOCATE AND PROTECT AS REQUIRED.

3. BEFORE EXCAVATING CALL: U.G. SERVICE ALERT 1 (800) 227-2600

4. ALL TRAFFIC CONTROL TO BE IN ACCORDANCE WITH THE C.J.U.T.C.C. WORK ARE PROTECTION AND TRAFFIC CONTROL MANUAL.

5. THIS PROJECT REQUIRES EXCAVATION. CONSTRUCTION WILL UTILIZE AND IMPLEMENT ALL BEST MANAGEMENT PRACTICES BMPs ARE REQUIRED TO ENSURE COMPLIANCE WITH SBC POLICY LETTER ISSUES FEBRUARY 21, 2003 BY ENVIRONMENTAL MANAGEMENT CONCERNING STORM WATER PERMITTING AND STORM WATER POLLUTION PREVENTION PLANS (SWPPPs) AND IN ACCORDANCE WITH THE CLEAN WATER ACT (1965) AND EPA REGULATIONS PUBLISHED IN 1990 AS MODIFIED BY THE PHASE II RULE IN 1999.

RECORDS NOTE: TIES OF EXISTING PLANT SHOW HEREON REFLECT ACTUAL CONDITIONS FOUND DURING FIELDING. CORRECT PERMANENT RECORDS.

GENERAL NOTES

1. ALL CONDUIT WILL BE PLACED IN JOINT TRENCH WITH OTHER UTILITIES UNLESS OTHERWISE NOTED.

2. ALL CONDUIT MUST BE MANDREL TESTED AND A MEASURE/PULL LINE LEFT IN THE CONDUIT.

3. PLACE CONDUITS INTO THE VAULTS AS SHOWN IN THE DETAILS ON THIS SHEET.

4. AFTER PLACEMENT AND TESTING ALL CONDUIT MUST BE CAPPED OR CLOSED WITH TAPE TO KEEP OUT MOISTURE AND FOREIGN MATERIAL.

5. FINAL CONDUIT MEASUREMENTS TO BE REPORTED TO ENGINEERING DEPARTMENT ALONG WITH FINAL LOCATION OF ALL VAULTS BY AS BUILT DRAWINGS.

6. ALL CONDUIT ELBOWS WILL HAVE NO LESS THAN A 36" RADIUS.

AT&T

CONTACT:

APPROVED FOR CONSTRUCTION :
DATE
WO
CONDUIT SIZE
CONDUIT QUANTITY
HH DIMENSIONS

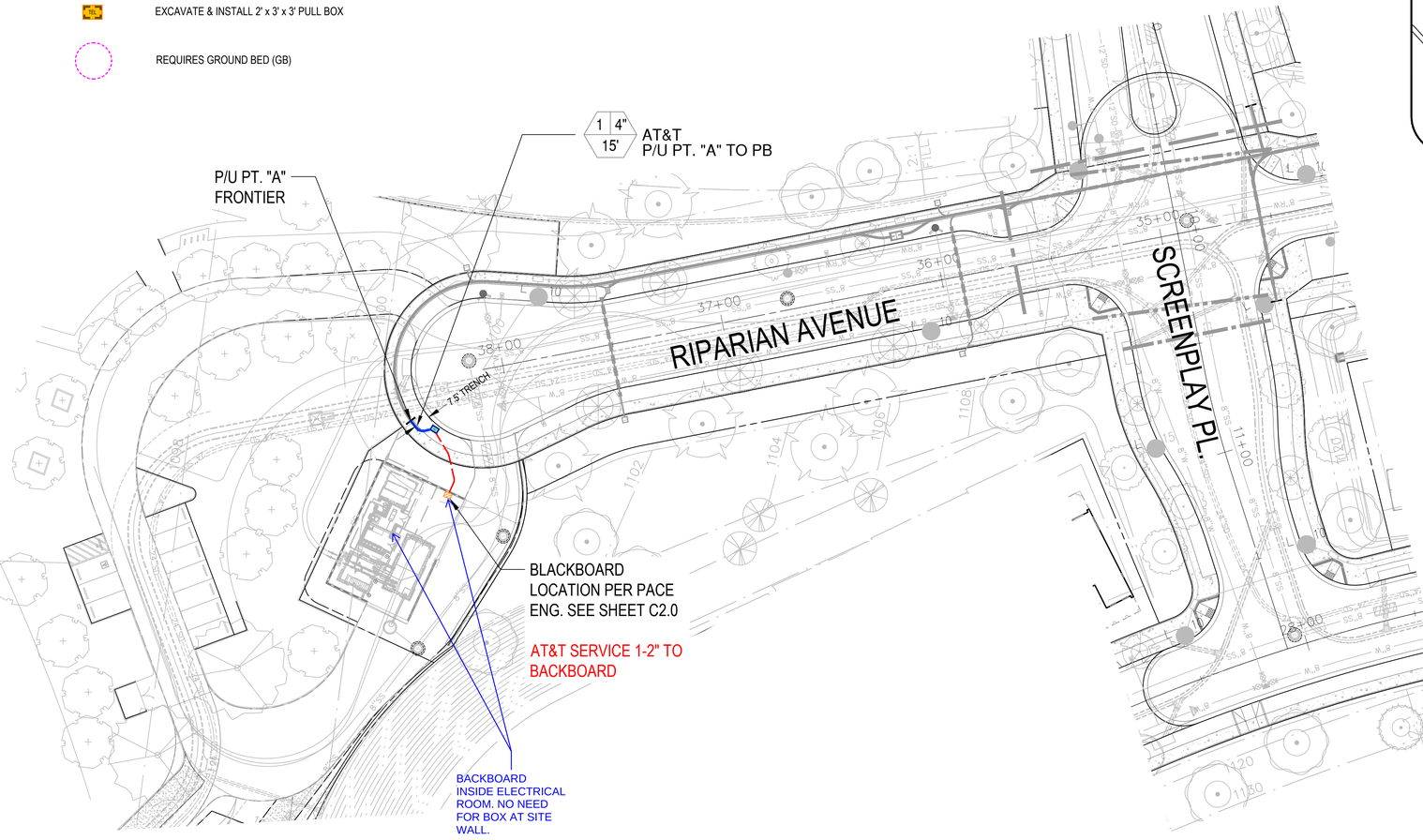
LEGEND

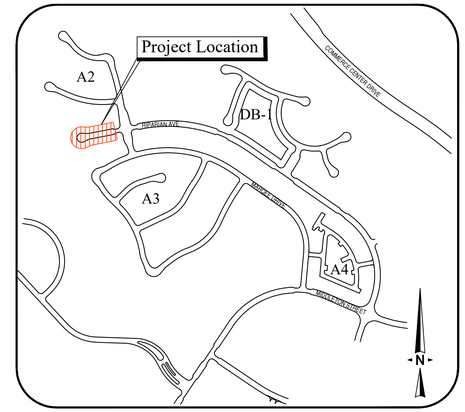
- EXCAVATE AND INSTALL 4" HDPE OR EQUAL (MAINLINE)
- EXCAVATE AND INSTALL 2" HDPE OR EQUAL (SERVICE)

CONDUIT
NO. CONDUIT REQ'D. — SIZE OF CONDUIT
REFERENCE RUN NO. — LENGTH OF CONDUIT RUN

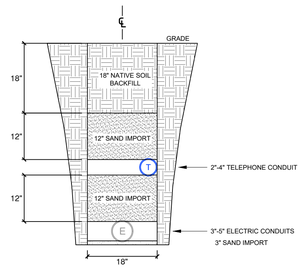
EXCAVATE & INSTALL 2' x 3' x 3' PULL BOX

REQUIRES GROUND BED (GB)



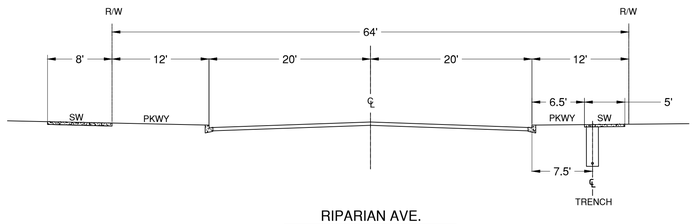


VICINITY MAP
NOT TO SCALE



JOINT TRENCH PROFILE
(Electric, Telephone, Technology Conduit)
18" WIDE

STREET PROFILE



RIPARIAN AVE.
N.T.S.

SCHEDULE OF QUANTITIES (EST.)	
MATERIAL	QUANTITY
2" HDPE	30' LF
4" HDPE	15' LF
2' x 3' x 3' PULL BOX	1

DIGALERT
DIAL TOLL FREE
811
AT LEAST TWO DAYS BEFORE YOU DIG
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

DRAWING HISTORY

CREATED	Initial Exhibit	MR	12/30/20

REVISIONS

DESCRIPTION	BY	DATE

north
SCALE: 1" = 30'

PREPARED BY
morlow management
1130 Via Callejon
San Clemente, CA 92673
949.218.8500

PREPARED FOR
FIVEPOINT
25124 Springfield Court #300
Valencia, CA 91355
661.255.4000

FOR: Westside Communities

PROJECT:
Mission Village
Valencia, CA
Tract: 61105-20 - Phase 2A
PH2A DPW-1 Lift Station AT&T Exhibit

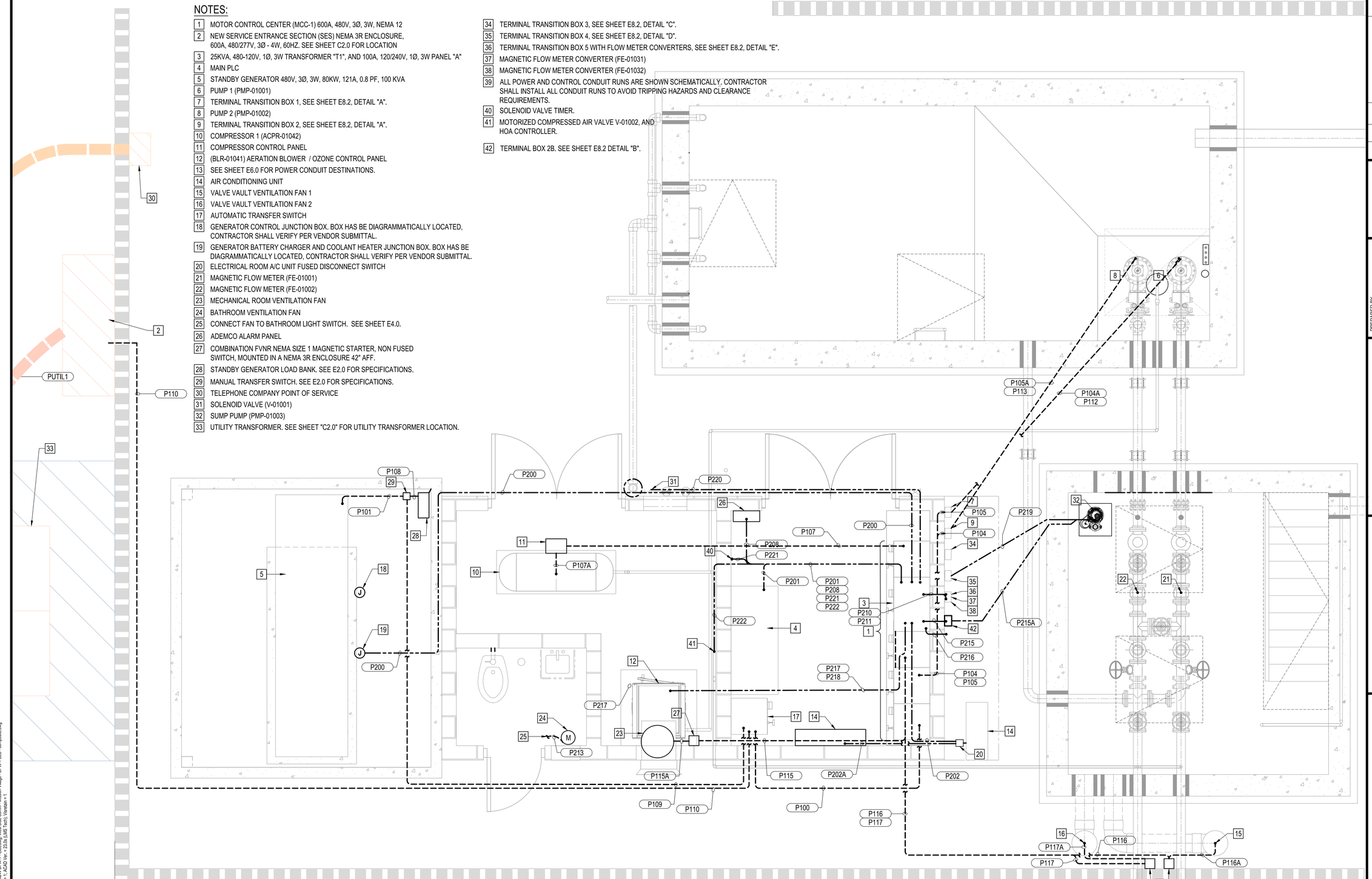
EC/AM

JOB NO. NLF-108
STATUS PRELIMINARY
DATE 02/04/2021 VER.2
SCALE 1" = 30'
SHEET 1 of 1

DRAWING FILE: C:\Users\...\Exhibit.dwg

NOTES:

1. MOTOR CONTROL CENTER (MCC-1) 600A, 480V, 3Ø, 3W, NEMA 12
2. NEW SERVICE ENTRANCE SECTION (SES) NEMA 3R ENCLOSURE, 600A, 480/277V, 3Ø - 4W, 60HZ. SEE SHEET C2.0 FOR LOCATION
3. 25KVA, 480-120V, 1Ø, 3W TRANSFORMER "T1", AND 100A, 120/240V, 1Ø, 3W PANEL "A"
4. MAIN PLC
5. STANDBY GENERATOR 480V, 3Ø, 3W, 80KW, 121A, 0.8 PF, 100 KVA
6. PUMP 1 (PMP-01001)
7. TERMINAL TRANSITION BOX 1, SEE SHEET E8.2, DETAIL "A".
8. PUMP 2 (PMP-01002)
9. TERMINAL TRANSITION BOX 2, SEE SHEET E8.2, DETAIL "A".
10. COMPRESSOR 1 (ACPR-01042)
11. COMPRESSOR CONTROL PANEL
12. (BLR-01041) AERATION BLOWER / OZONE CONTROL PANEL
13. SEE SHEET E6.0 FOR POWER CONDUIT DESTINATIONS.
14. AIR CONDITIONING UNIT
15. VALVE VAULT VENTILATION FAN 1
16. VALVE VAULT VENTILATION FAN 2
17. AUTOMATIC TRANSFER SWITCH
18. GENERATOR CONTROL JUNCTION BOX. BOX HAS BE DIAGRAMMATICALLY LOCATED, CONTRACTOR SHALL VERIFY PER VENDOR SUBMITTAL.
19. GENERATOR BATTERY CHARGER AND COOLANT HEATER JUNCTION BOX. BOX HAS BE DIAGRAMMATICALLY LOCATED, CONTRACTOR SHALL VERIFY PER VENDOR SUBMITTAL.
20. ELECTRICAL ROOM A/C UNIT FUSED DISCONNECT SWITCH
21. MAGNETIC FLOW METER (FE-01001)
22. MAGNETIC FLOW METER (FE-01002)
23. MECHANICAL ROOM VENTILATION FAN
24. BATHROOM VENTILATION FAN
25. CONNECT FAN TO BATHROOM LIGHT SWITCH. SEE SHEET E4.0.
26. ADEMCO ALARM PANEL
27. COMBINATION FVNR NEMA SIZE 1 MAGNETIC STARTER, NON FUSED SWITCH, MOUNTED IN A NEMA 3R ENCLOSURE 42" AFF.
28. STANDBY GENERATOR LOAD BANK. SEE E2.0 FOR SPECIFICATIONS.
29. MANUAL TRANSFER SWITCH. SEE E2.0 FOR SPECIFICATIONS.
30. TELEPHONE COMPANY POINT OF SERVICE
31. SOLENOID VALVE (V-01001)
32. SUMP PUMP (PMP-01003)
33. UTILITY TRANSFORMER. SEE SHEET "C2.0" FOR UTILITY TRANSFORMER LOCATION.
34. TERMINAL TRANSITION BOX 3, SEE SHEET E8.2, DETAIL "C".
35. TERMINAL TRANSITION BOX 4, SEE SHEET E8.2, DETAIL "D".
36. TERMINAL TRANSITION BOX 5 WITH FLOW METER CONVERTERS, SEE SHEET E8.2, DETAIL "E".
37. MAGNETIC FLOW METER CONVERTER (FE-01031)
38. MAGNETIC FLOW METER CONVERTER (FE-01032)
39. ALL POWER AND CONTROL CONDUIT RUNS ARE SHOWN SCHEMATICALLY, CONTRACTOR SHALL INSTALL ALL CONDUIT RUNS TO AVOID TRIPPING HAZARDS AND CLEARANCE REQUIREMENTS.
40. SOLENOID VALVE TIMER.
41. MOTORIZED COMPRESSED AIR VALVE V-01002, AND HOA CONTROLLER.
42. TERMINAL BOX 2B. SEE SHEET E8.2 DETAIL "B".



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

LEGEND:
- P100'S - 480V POWER
- P200'S - 120V POWER
- P300'S - FACTORY CABLE

Department of Public Works, Los Angeles County
Checked _____ 02/20/2020
Operational Services Division Date

NO	BY	DATE	REVISIONS	DATE	APP.

PREPARED BY
ERNEST E. BROWN
PROJECT ENGINEER
R.C.E. NO. 16
EXP. 12/31/20

DRAWN BM, AH
DESIGNED EEB
CHECKED EEB
SCALE AS NOTED
DATE JAN. 2020

TITLE
POWER PLAN

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.paceworldwide.com

SHEET
E3.0
54 OF 62 SHEETS
JOB NO. 9862-E

Xrefs: 9862 DPW-1 Mech-plan.dwg; 30x24 DPW-1 - Elec.dwg; West Side Comm - Mission Village - DPW-1 SLS - composite.dwg
Dimscale = 24; LTscale = 1; PSltscale = 1; ACAD Ver. = 23.0s (LMS Tech); Viewtain = 1

NOTES:

1. MOTOR CONTROL CENTER (MCC-1) 600A, 480V, 3Ø, 3W, NEMA 12
2. NEW SERVICE ENTRANCE SECTION (SES) NEMA 3R ENCLOSURE, 600A, 480/277V, 3Ø - 4W, 60HZ. SEE SHEET C2.0 FOR LOCATION
3. 25KVA, 480-120V, 1Ø, 3W TRANSFORMER "T1", AND 100A, 120/240V, 1Ø, 3W PANEL "A"
4. MAIN PLC (MCC)
5. STANDBY GENERATOR 480V, 3Ø, 3W, 80KW, 121A, 0.8 PF, 100 KVA
6. PUMP 1 (PMP-01001) (MCC)
7. TERMINAL TRANSITION BOX 1, SEE SHEET E8.2, DETAIL "A".
8. PUMP 2 (PMP-01002) (MCC)
9. TERMINAL TRANSITION BOX 2, SEE SHEET E8.2, DETAIL "A".
10. COMPRESSOR 1 (ACPR-01042)
11. COMPRESSOR CONTROL PANEL (MCC)
12. (BLR-01041) AERATION BLOWER / OZONE CONTROL PANEL (A-5)
13. SEE SHEET E6.0 FOR POWER CONDUIT DESTINATIONS.
14. AIR CONDITIONING UNIT (A-6,8)
15. VALVE VAULT VENTILATION FAN 1 (MCC)
16. VALVE VAULT VENTILATION FAN 2 (MCC)
17. AUTOMATIC TRANSFER SWITCH
18. GENERATOR CONTROL JUNCTION BOX. BOX HAS BE DIAGRAMMATICALLY LOCATED, CONTRACTOR SHALL VERIFY PER VENDOR SUBMITTAL.
19. GENERATOR BATTERY CHARGER AND COOLANT HEATER JUNCTION BOX. BOX HAS BE DIAGRAMMATICALLY LOCATED, CONTRACTOR SHALL VERIFY PER VENDOR SUBMITTAL.
20. ELECTRICAL ROOM A/C UNIT FUSED DISCONNECT SWITCH
21. MAGNETIC FLOW METER (FE-01001)
22. MAGNETIC FLOW METER (FE-01002)
23. MECHANICAL ROOM VENTILATION FAN (MCC)
24. BATHROOM VENTILATION FAN (A-12)
25. CONNECT FAN TO BATHROOM LIGHT SWITCH. SEE SHEET E4.0.
26. ADEMCO ALARM PANEL (A-15)
27. COMBINATION FVNR NEMA SIZE 1 MAGNETIC STARTER, NON FUSED SWITCH, MOUNTED IN A NEMA 3R ENCLOSURE 42" AFF.
28. STANDBY GENERATOR LOAD BANK. SEE E2.0 FOR SPECIFICATIONS.
29. MANUAL TRANSFER SWITCH. SEE E2.0 FOR SPECIFICATIONS.
30. TELEPHONE COMPANY POINT OF SERVICE
31. SOLENOID VALVE (V-01001) (A-22)
32. SUMP PUMP (PMP-01003) (A-21)
33. UTILITY TRANSFORMER. SEE SHEET "C2.0" FOR UTILITY TRANSFORMER LOCATION.
34. TERMINAL TRANSITION BOX 3, SEE SHEET E8.2, DETAIL "C".
35. TERMINAL TRANSITION BOX 4, SEE SHEET E8.2, DETAIL "D".
36. TERMINAL TRANSITION BOX 5 WITH FLOW METER CONVERTERS, SEE SHEET E8.2, DETAIL "E".
37. MAGNETIC FLOW METER CONVERTER (FE-01031) (A-2)
38. MAGNETIC FLOW METER CONVERTER (FE-01032) (A-4)
39. ALL POWER AND CONTROL CONDUIT RUNS ARE SHOWN SCHEMATICALLY, CONTRACTOR SHALL INSTALL ALL CONDUIT RUNS TO AVOID TRIPPING HAZARDS AND CLEARANCE REQUIREMENTS.
40. SOLENOID VALVE TIMER (A-9)
41. MOTORIZED COMPRESSED AIR VALVE V-01002, AND HOA CONTROLLER (A-7)
42. TERMINAL BOX 2B. SEE SHEET E8.2 DETAIL "B".

BUILDING AND SAFETY DIVISION
Department of Public Works
APPROVED
UNDER LOS ANGELES COUNTY CODE TITLE 27
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BUILDING AND SAFETY DIVISION
Department of Public Works
FINAL ENERGY APPROVED
UNDER CCR TITLE 24, PART 1, ARTICLE 1 & PART 6
amarcus
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06/18/2020 11:00:15 AM
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POWER PLAN
SCALE: 1/2"=1'-0"

NORTH

LEGEND:
- P100'S - 480V POWER
- P200'S - 120V POWER
- P300'S - FACTORY CABLE

Department of Public Works, Los Angeles County
Checked _____ _____
Operational Services Division — Date

NO	BY	DATE	REVISIONS	DATE	APP.
6	CN	04/09/20	REVISION FOR LAC B/S REVIEW	04/09/20	CN

REGISTERED PROFESSIONAL ENGINEER CHRISTOPHER NAJARIAN E 22545 EXP. 12/31/20 ELECTRICAL STATE OF CALIFORNIA

PREPARED BY: CHRISTOPHER NAJARIAN
PROJECT ENGINEER
R.C.E. NO. 22545
EXP. 12/31/20

DRAWN: BM, AH
DESIGNED: EEB
CHECKED: CN
SCALE: AS NOTED
DATE: JUNE 2020

TITLE: POWER PLAN

JOB: MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

SHEET E3.0
54 OF 72 SHEETS
JOB NO. 9862-E

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Xrefs: 9862 DPW-1 Mech+Elec.dwg, 36x24v DPW-1 - Elec.dwg, West Side Comm - Mission Village - DPW-1 SLS - composite.dwg
Dimscale = 24, LTscale = 1, PSltscale = 1, ACAD Ver. = 23.0s (LMS Tech), Viewtwin = 1
P:\9862EP_Mission\Misc\FinalDesign Engineering\9862-E\Sewer PS\plotsets\DPW-1 PS\9862-E S3.0 POWER PLAN.dwg - Tab: E3.0 - by rchin on 04/09/20 at 1:10:42 PM

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3201 Sturgis Road • Oxnard, CA 93030
(805) 656-1432 • FAX (805) 485-0338

REQUEST FOR INFORMATION

DATE: 2-6-2020 RFI #: **009**

Attention: Tom Hay, Tom Hay Consulting Bob Brazell, FivePoint Brian Reid, PACE Matt Mills, PACE Fax #: 661-255-4296	From: Matt Messerly Delivered Via: Email Blois Construction Project No.: 3065 Project Name: Mission Village Sewer Lift Station DPW-1

Subject:	**Conduit Penetrations Wet Well**
Reference:	Drawing Sheets: E3.0, E3.1 Detail Numbers: Spec. Sections: Schedule Activities Impacted: Conduit Procurement, Wall Pour

INFORMATION REQUESTED:

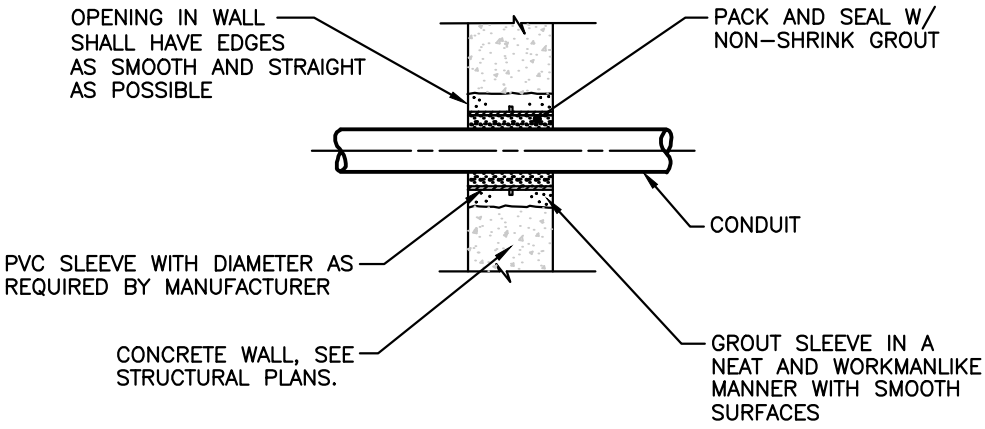
Please see the RFI below from our electrical and instrumentation subcontractor Taft Electric regarding conduit penetrations through the wet well walls.

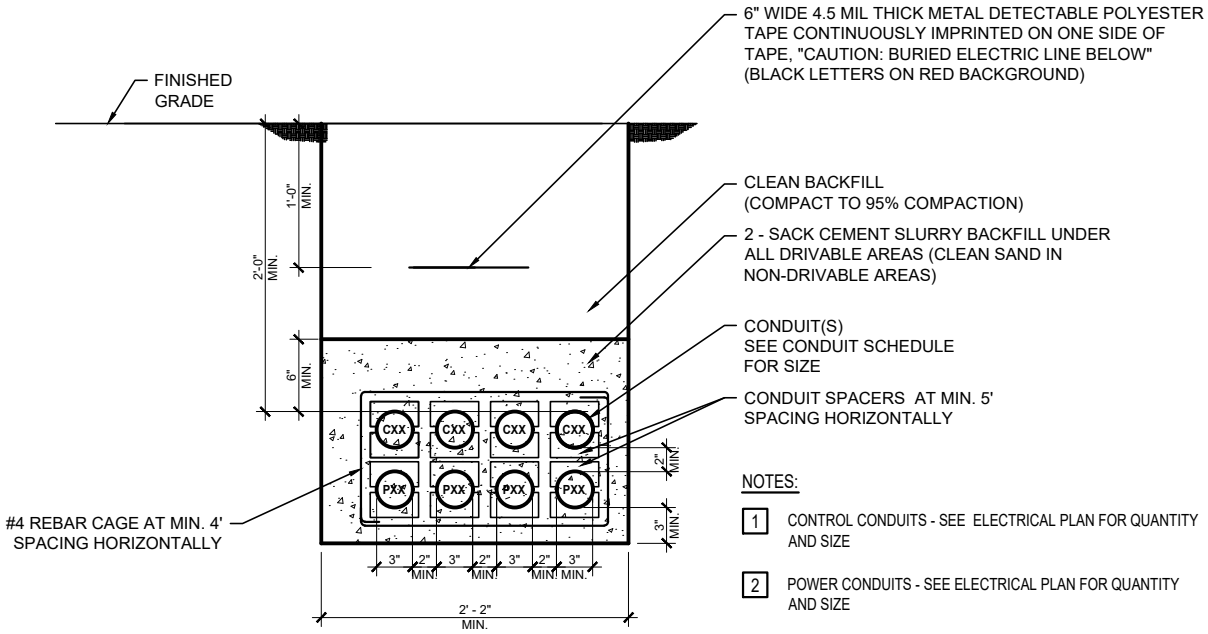
Please review and advise.

Response Requested by:	**2/17/2020**	
If a definitive response is not received by this date Project Schedule Will be Delayed	☐ YES ☐ NO ☒ Uncertain	Potential Cost Impact ☐ YES ☐ NO ☒ Uncertain

RESPONSE: Please see the attached detail showing the conduit penetration into the wet well with sleeve installation and spacing.

BY: C.N. DATE: 02/27/2020





NOTES:

1. CONTROL CONDUITS - SEE ELECTRICAL PLAN FOR QUANTITY AND SIZE
2. POWER CONDUITS - SEE ELECTRICAL PLAN FOR QUANTITY AND SIZE

RFI #09

PACE
Advanced Water Engineering
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SCALE	N.T.S.
DESIGNED	C.N.
DRAWN	M.M.
CHECKED	C.N.
DATE	02/27/20
JOB NO.	9862E

ENVIRONMENTAL WATER DETAILS

CONDUIT PENETRATION

FIG. No. ----

Xrefs:
Plotted: 0:\LTscale = 1, PSScale = 1, ACAD Ver. = 20.0s (LMB Tech) Viewbtn = 1
P:\9862EP Mission Village\Final Design\Engineering\9862-06 DPW 1 Construction Services\02 RFIs\009 - Conduit Penetrations for Wet Well\Conduit Penetration Details.dwg

Request for Information (RFI) Response

RFI #: 040

Date Received: 01/04/2021

Response: 01/04/2021

Answered By: C.N.

PACE Project #: 9862

Answer:

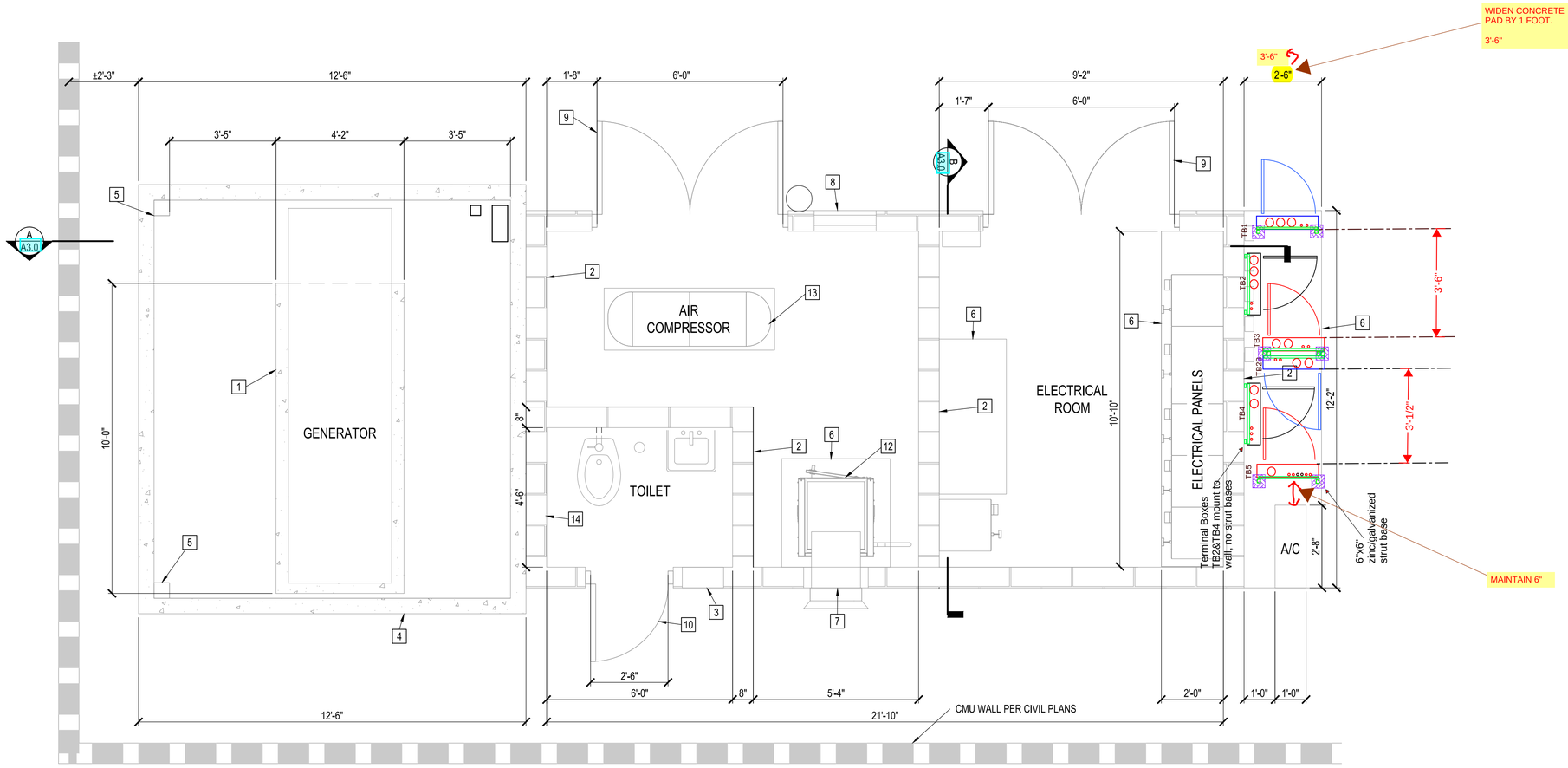
1. The post braces for the proposed TB-1 and TB-5 locations can be Eaton B280SQ (Hot Dipped Galvanized) with P1000 unsitrut, or approved equal. The post brace for the proposed TB-3/2B location can be Eaton B281SQ (Hot Dipped Galvanized) with P1001 unistrut, or approved equal. Cut sheets attached for reference.

2. TB-2/TB-4 may be attached to the CMU wall by securing two horizontal Unistrut bars (24" wide), to the CMU wall then securing to the enclosures.

3. The revised terminal box layout is accepted given the comments below, see pages 11 and 12 :
    a. The terminal boxes shall be 24" H x 24" W x 6" D, type Hoffman A24H2406SS6LP, or approved equal. Cut sheet attached for reference.
    b. The concrete pad shall be widened by one foot, from 30" to 42". Note there will be piping underground and coordination will need to be done for the pad aboveground.
    c. The clearance from the front of TB3 and the back of TB1 can be reduced from 3'-6" to 3'.
    d. Clearance from Front of TB5 and front of TB2B can be 36".
    e. Clearance from the air conditioner to the back of TB5 should be at least 6".
    f. The boxes shall be positioned so their dimensions are clear so doors can swing 90 degrees open.

4. Reminder to coordinate location of Air Conditioning stub ups P202 and P202A, see layout submittal on page 13.

FROM RFI 40 RESPONSE



BUILDING - FLOOR PLAN

SCALE: ½"=1'-0"

CONSTRUCTION NOTES:

1. GENERATOR PAD PER STRUCTURAL PLANS.
2. REINFORCED CMU BLOCK WALL PER STRUCTURAL PLANS.
3. 8" DIA OPENING FOR BATHROOM FAN
4. 6" x 6 " SPILL CONTAINMENT CONCRETE CURB. SEE STRUCTURAL PLANS.
5. STEEL COLUMN. SEE STRUCTURAL PLANS.
6. CONCRETE PAD. SEE STRUCTURAL PLANS.
7. 12" DIA WALL OPENING FOR EXHAUST FAN.
8. 2'(W) x 3'(H) OPENING FOR LOUVER, SEE SHEET M1.1. (3' ABOVE F.F.)
9. DOOR AND FRAME SEE DOOR SCHEDULE SHEET A6.0
10. DOOR AND FRAME SEE DOOR SCHEDULE SHEET A6.0
11. BATHROOM INSTALLATION SEE SHEET A6.0
12. WET WELL AERATION BLOWER INSTALLATION SEE SHEET MECHANICAL PLANS
13. FORCE MAIN AIR BLOWER INSTALLATION SEE SHEET MECHANICAL PLANS
14. INSTALL WHITE COLOR 4"x4" CERAMIC GLOSSY TILES UP TO 4' FROM FLOOR FOR ALL WALLS IN THE TOILET ROOM.

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER ANDREW T. KOMOR No. C64928 Exp. 06/30/21 CIVIL STATE OF CALIFORNIA

PREPARED BY ANDY KOMOR
PROJECT ENGINEER
R.C.E. NO. C64928
EXP. 06/30/21

DRAWN KV | SCALE AS SHOWN
DESIGNED ZS | DATE JAN. 2020
CHECKED AK

TITLE: FLOOR PLAN

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JOB: MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

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Department of Public Works, Los Angeles County
Checked _____ Design Division
2/20/2020 Date

SHEET A1.0
21 OF 62 SHEETS
JOB NO. 9862-E

Xrefs: 9862 (DPW-1 Mech-plan.dwg; 36x24r (DPW-1.dwg
Dimscale = 24; LTscale = 1; PSBscale = 1; ACAD Ver. = 23.0s (LMS Tech); Viewplan = 1
P:\9862EP_Mission\Mygal\Final\Design Engineering\9862-E\Sewer PS\sheets\DPW-1 PS\9862-E-A1.0.dwg - Tab: A1.0 - by kvo on 02/07/20 at 8:40:20 AM

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REQUEST FOR INFORMATION

DATE: 1-18-2021 RFI #: **042**

Attention: Tom Hay Bob Brazell, FivePoint Matt Mills, PACE Brian Reid, PACE Fax #: 661-255-4296	From: Matt Messerly Delivered Via: Email Blois Construction Project No.: 3065 Project Name: Mission Village Sewer Lift Station DPW-1

Subject:	**Load Bank Space Requirements**	
Reference:	Drawing Sheets:	E3.0
	Detail Numbers:	
	Spec. Sections:	16201 Gen Set
	Schedule Activities Impacted:	Electrical Procurement and Installation

INFORMATION REQUESTED:

Please see attached and below RFI from our electrical and instrumentation subcontractor, Taft Electric:

Per contract drawing indicating relative location and feasible orientation of Load Bank, adjacent to generator within raised concrete curb spill containment, under column supported canopy, it appears required space for vented intake and exhaust louvers of 8' will not be achieved. Distance between exterior CMU building with Load Bank up against containment curb leaves 1'5" for the lesser unobstructed air intake louvers. Clear space between generator and load bank may also be insufficient per NEC required working spaces in front of equipment to be maintained. Generator outline drawing shows both sides having service panels and doors with required free space to open as 28.75".

Please confirm if this is the case.

See attached for reference.

Please review and advise.

Response Requested by:	**1/21/2021**		
If a definitive response is not received by this date Project Schedule Will be Delayed	☐ YES ☐ NO ☒ Uncertain	Potential Cost Impact	☐ YES ☐ NO ☒ Uncertain

RESPONSE: Please see detailed response following the Contractor submitted RFI.	
BY: C.N.	DATE: 01/27/2021

Request for Information (RFI) Response

RFI #: XX RFI #42

Date Received: 01/18/2021

Response: 01/27/2021

Answered By: C.N.

PACE Project #: 9862

Answer:

The generator manual requires 3 feet of clearance (or greater for housing doors), be provided around the entire generator set for service and ventilation. The load bank shall be relocated out from under the canopy and be placed on its own concrete pad (without a containment curb). This placement does not really affect the site, the load bank is rated IP54 (or NEMA 3S) so it is ok being exposed and it isn't near the driveway.

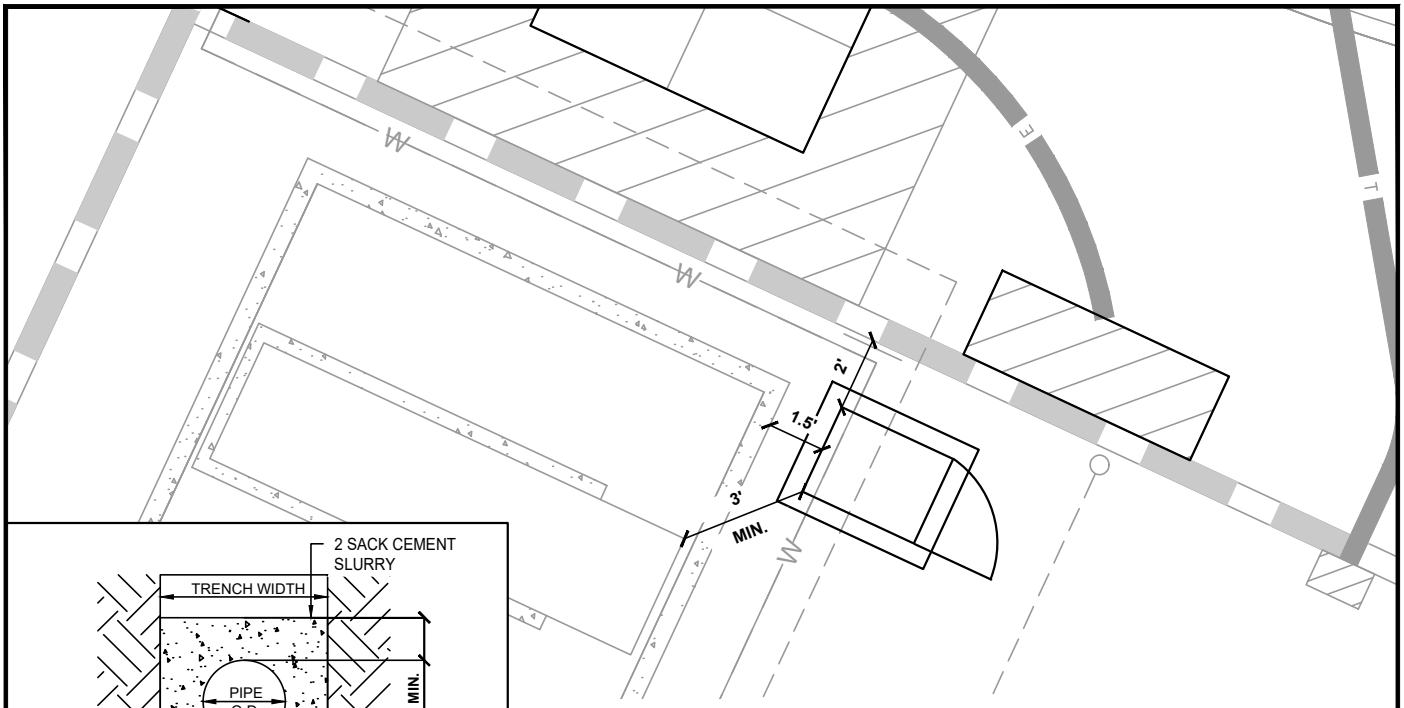
PACE recommends the use the Asco Model 3012 Load Bank instead of the submitted Model 4100. The 3012 is smaller, has an upward exhaust and still meets the requirements of our generator of 80 kW at 480V. The 4100 is rated for 600V which we don't need and takes up a larger footprint. The load bank disconnect switch should be able to be mounted on the CMU wall and still have 40" of clearance in front of it up to the generator.

The 3102 load bank dimensions are 30" x 39" and adding 6 inches to each side for the concrete pad, would get a pad of 42" x 52".

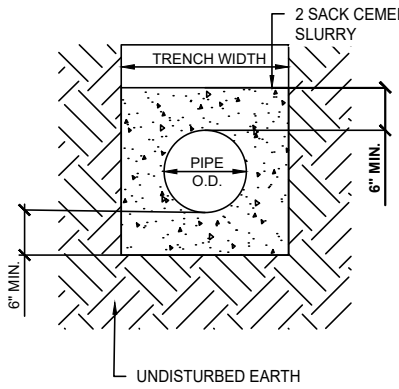
See sketch attached.

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FROM RFI 42 RESPONSE

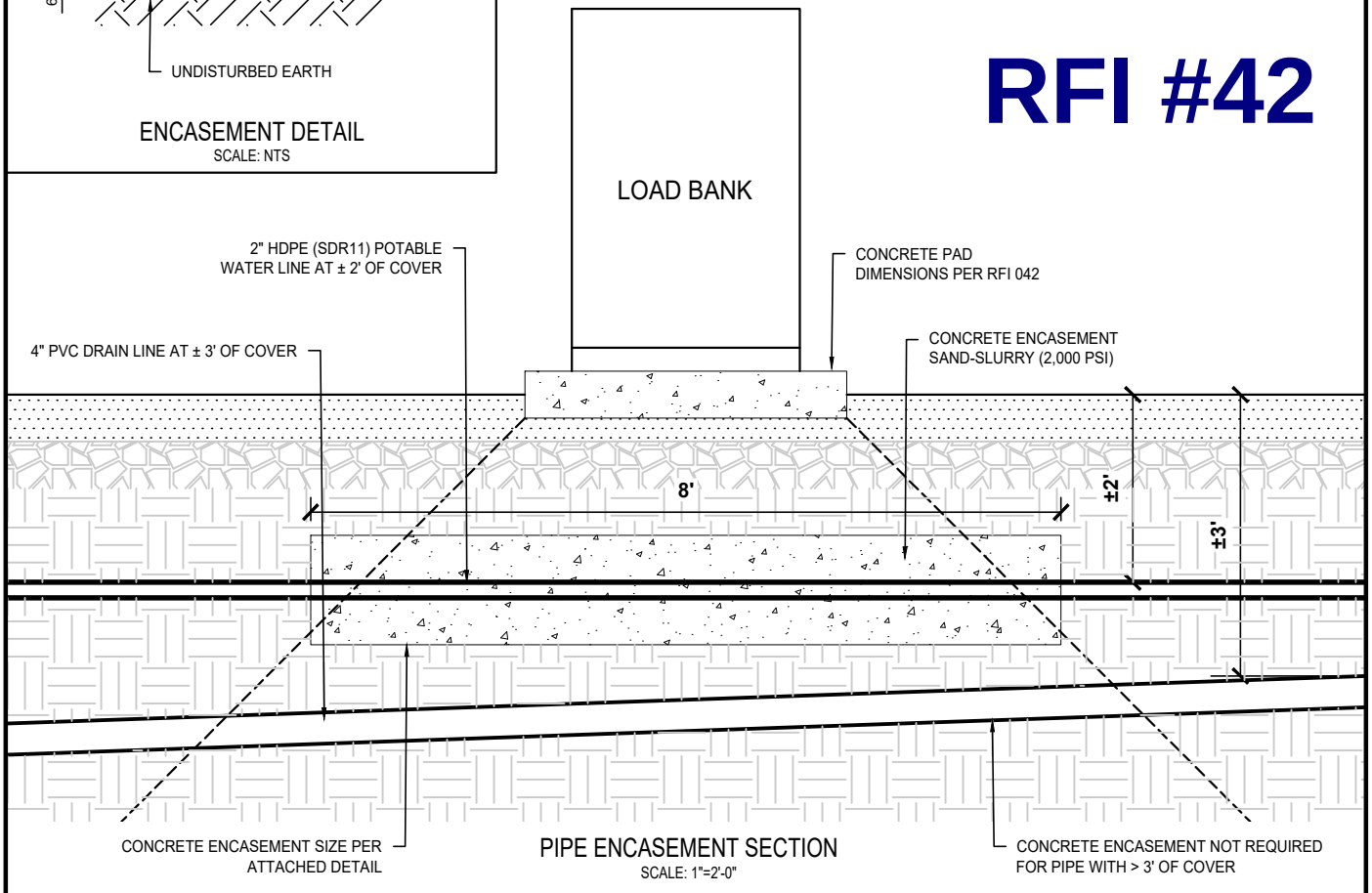


LOAD BANK SITE PLAN
SCALE: 1"=5'-0"



ENCASEMENT DETAIL
SCALE: NTS

RFI #42



PIPE ENCASEMENT SECTION
SCALE: 1"=2'-0"

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SCALE	N.T.S.
DESIGNED	- -
DRAWN	- -
CHECKED	- -
DATE	--/--/--
JOB NO.	9862

LOAD BANK DETAIL

DPW-1 SEWER LIFT STATION

FIGURE

RFI #42

NOTES:

1. MOTOR CONTROL CENTER (MCC-1) 600A, 480V, 3Ø, 3W, NEMA 12
2. NEW SERVICE ENTRANCE SECTION (SES) NEMA 3R ENCLOSURE, 600A, 480/277V, 3Ø - 4W, 60HZ. SEE SHEET C2.0 FOR LOCATION
3. 25KVA, 480-120V, 1Ø, 3W TRANSFORMER "T1", AND 100A, 120/240V, 1Ø, 3W PANEL "A"
4. MAIN PLC (MCC)
5. STANDBY GENERATOR 480V, 3Ø, 3W, 80KW, 121A, 0.8 PF, 100 KVA
6. PUMP 1 (PMP-01001) (MCC)
7. TERMINAL TRANSITION BOX 1, SEE SHEET E8.2, DETAIL "A".
8. PUMP 2 (PMP-01002) (MCC)
9. TERMINAL TRANSITION BOX 2, SEE SHEET E8.2, DETAIL "A".
10. COMPRESSOR 1 (ACPR-01042)
11. COMPRESSOR CONTROL PANEL (MCC)
12. (BLR-01041) AERATION BLOWER / OZONE CONTROL PANEL (A-5)
13. SEE SHEET E6.0 FOR POWER CONDUIT DESTINATIONS.
14. AIR CONDITIONING UNIT (A-6,8)
15. VALVE VAULT VENTILATION FAN 1 (MCC)
16. VALVE VAULT VENTILATION FAN 2 (MCC)
17. AUTOMATIC TRANSFER SWITCH
18. GENERATOR CONTROL JUNCTION BOX. BOX HAS BE DIAGRAMMATICALLY LOCATED, CONTRACTOR SHALL VERIFY PER VENDOR SUBMITTAL.
19. GENERATOR BATTERY CHARGER AND COOLANT HEATER JUNCTION BOX. BOX HAS BE DIAGRAMMATICALLY LOCATED, CONTRACTOR SHALL VERIFY PER VENDOR SUBMITTAL.
20. ELECTRICAL ROOM A/C UNIT FUSED DISCONNECT SWITCH
21. MAGNETIC FLOW METER (FE-01001)
34. TERMINAL TRANSITION BOX 3, SEE SHEET E8.2, DETAIL "C".
35. TERMINAL TRANSITION BOX 4, SEE SHEET E8.2, DETAIL "D".
36. TERMINAL TRANSITION BOX 5 WITH FLOW METER CONVERTERS, SEE SHEET E8.2, DETAIL "E".
37. MAGNETIC FLOW METER CONVERTER (FE-01031) (A-2)
38. MAGNETIC FLOW METER CONVERTER (FE-01032) (A-4)
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41. MOTORIZED COMPRESSED AIR VALVE V-01002, AND HOA CONTROLLER (A-7)
42. TERMINAL BOX 2B. SEE SHEET E8.2 DETAIL "B".

42" X 52" CONCRETE PAD

30" X 39" LOAD BANK

36" FROM GENERATOR

BUILDING AND SAFETY DIVISION
Department of Public Works
APPROVED
UNDER LOS ANGELES COUNTY CODE
TITLE 27
04/15/2020 7:32:54 AM
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BUILDING AND SAFETY DIVISION
Department of Public Works
FINAL ENERGY APPROVED
UNDER CCR TITLE 24, PART 1, ARTICLE 1 & PART 6
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NO	BY	DATE	REVISIONS	DATE	APP.
6	CN	04/09/20	REVISION FOR LAC B/S REVIEW	04/09/20	CN

REGISTERED PROFESSIONAL ENGINEER CHRISTOPHER NAJARIAN E 22545 EXP. 12/31/20 CIVIL ELECTRICAL STATE OF CALIFORNIA

PREPARED BY CHRISTOPHER NAJARIAN
PROJECT ENGINEER
R.C.E. NO. 22545
EXP. 12/31/20

DRAWN BM, AH
DESIGNED EEB
CHECKED CN
SCALE AS NOTED
DATE JUNE 2020

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TITLE: POWER PLAN

JOB: MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
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SHEET E3.0
54 OF 72 SHEETS
JOB NO. 9862-E

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

LEGEND:
P100'S - 480V POWER
P200'S - 120V POWER
P300'S - FACTORY CABLE

Department of Public Works, Los Angeles County
Checked _____ Date _____
Operational Services Division

Xrefs: 9862 DPW-1 Mech+Plbr.dwg, 36x24v DPW-1 - Elec.dwg, West Side Comm - Mission Village - DPW-1 SLS - composite.dwg
Dimscale = 24, LTscale = 1, PSltscale = 1, ACAD Ver. = 23.0s (LMS Tech), Visretain = 1
P:\9862EP_Mission\Village\FinalDesign\Engineering\9862-E\Sewer PS\plotsets\DPW-1 PS\9862-E E3.0 POWER PLAN.dwg - Tab: E3.0 - by rchin on 04/09/20 at 1:10:42 PM

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REQUEST FOR INFORMATION

DATE: 06-09-2021

RFI #: **092**

Attention: Tom Hay Bob Brazell, FivePoint Brian Reid, PACE Matt Mills, PACE Fax #: 661-255-4296	From: Matt Messerly Delivered Via: Email Blois Construction Project No.: 3065 Project Name: Mission Village Sewer Lift Station DPW-1

Subject:	**Load Bank Orientation**	
Reference:	Drawing Sheets:	C2.0, E3.0, E2.0
	Detail Numbers:	
	Spec. Sections:	16201
	Schedule Activities Impacted:	Load Bank Procurement, Install, Startup, Test, Turnover

INFORMATION REQUESTED:

Regarding the load bank for the generator for DPW-1:

The response to RFI 042 indicates for an alternate model (3012) from ASCO to be considered. This model has a much longer lead time than the submitted 4100 model. As such, the 4100 is still in production for the project.

A note on the 4100 cut sheet about 8 ft clear space for intake and exhaust screens was noted by PACE; if this could not be met, it would not be acceptable. This was discussed in a conference call on Monday 6/7/2021.

An option to deal with the clear space requirement is to rotate the load bank 90 degrees, from the installation reference by PACE in the RFI 42 response. This would put the "exhaust" facing/going towards the wet well and the intakes facing the gate and generator pad respectively.

Base on the current site layout, it appears this would provide sufficient intake and exhaust clear space. Please see markuped plan sheet attached.

This rotated installation may require modification of the recently constructed pad for the load bank. It has been stated by the electrical inspector that 3' clear is required "behind" the load bank (between load bank and block site wall). This will be laid out on site to determine exact placement and location in the general area noted.

Please confirm this is acceptable. Taft Electric is currently gathering further information; we just want to make sure we are good to keeping moving forward with this.

Please review and advise.

Response Requested by:	**6/17/2021**	
If a definitive response is not received by this date Project Schedule Will be Delayed	☐ YES ☐ NO ☒ Uncertain	Potential Cost Impact ☐ YES ☐ NO ☒ Uncertain

RESPONSE: PACE takes no exception to the proposed load bank layout/orientation with the understanding that all the manufacturer's requirements are met.	
BY: M.J.M.	DATE: 06/14/21

RFI #92

LAYOUT MARKUPS FROM CONF CALL 6-7-2021

NOTES:

1. MOTOR CONTROL CENTER (MCC-1) 600A, 480V, 3Ø, 3W, NEMA 12
2. NEW SERVICE ENTRANCE SECTION (SES) NEMA 3R ENCLOSURE, 600A, 480/277V, 3Ø - 4W, 60HZ. SEE SHEET C2.0 FOR LOCATION
3. 25KVA, 480-120V, 1Ø, 3W TRANSFORMER "T1", AND 100A, 120/240V, 1Ø, 3W PANEL "A"
4. MAIN PLC (MCC)
5. STANDBY GENERATOR 480V, 3Ø, 3W, 80KW, 121A, 0.8 PF, 100 KVA
6. PUMP 1 (PMP-01001) (MCC)
7. TERMINAL TRANSITION BOX 1, SEE SHEET E8.2, DETAIL "A".
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40. SOLENOID VALVE TIMER (A-9)
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42. TERMINAL BOX 2B. SEE SHEET E8.2 DETAIL "B".

LOAD BANK IN RED AND PAD IN GREEN FROM PACE'S RFI 42 RESPONSE

CLEAR

CONC. PAD CONSTRUCTED 5'X5'

4100 LOAD BANK 51"X37"

LOAD BANK ROTATED 90 DEGREES FROM ORIENTATION SHOWN IN RFI 42 RESPONSE

42" X 52" CONCRETE PAD

30" X 39" LOAD BANK

36" FROM GENERATOR

3' CLEAR, FLAT AREA BEHIND LOAD BANK REQUIRED PER ELECTRICAL INSPECTOR

8'-0" PAD 5'-0" 3'-8" intake 4'-5" 3'-0" controller 5'-0" exhaust critical louver 8'-0" CLEAR intake 3'-0" 8'-0" 3'-0" 5 CLEAR 11'-5"

PUTIL1

BUILDING AND SAFETY DIVISION
Department of Public Works
APPROVED
UNDER LOS ANGELES COUNTY CODE
TITLE 27
Amarous
PUBLIC WORKS
04/15/2020 7:32:54 AM
This set of plans and specifications shall be kept at the job site at all times. It is unlawful to make any changes, modifications or alterations to these plans or specifications without the prior written permission of the Building Official. The stamping of this set of plans and specifications SHALL NOT, under any circumstances, be deemed to permit or to be an approval of any work or activity that violates any provisions of any County Ordinance or State Law

BUILDING AND SAFETY DIVISION
Department of Public Works
FINAL ENERGY APPROVED
UNDER CCR TITLE 24, PART 1, ARTICLE 1 & PART 6
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06/18/2020 11:00:15 AM
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P101 P107A P108 P200 P201 P202 P202A P208 P210 P211 P213 P215 P215A P216 P217 P218 P219 P220 P221 P222 P100 P104 P105 P107 P109 P110 P115 P116 P116A P117 P117A P118 P118A P103A P113 P104A P112

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

NORTH

LEGEND:
P100'S - 480V POWER
P200'S - 120V POWER
P300'S - FACTORY CABLE

Department of Public Works, Los Angeles County
Checked _____ _____
Operational Services Division Date

NO	BY	DATE	REVISIONS	DATE	APP.
6	CN	04/09/20	REVISION FOR LAC B/S REVIEW	04/09/20	CN

REGISTERED PROFESSIONAL ENGINEER CHRISTOPHER NAJARIAN E 22545 EXP: 12/31/20 ELECTRICAL STATE OF CALIFORNIA

PREPARED BY CHRISTOPHER NAJARIAN
PROJECT ENGINEER
R.C.E. NO. 22545
EXP: 12/31/20

DRAWN BM, AH
DESIGNED EEB
CHECKED CN
SCALE AS NOTED
DATE JUNE 2020

TITLE: POWER PLAN

JOB: MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

SHEET E3.0
54 OF 72 SHEETS

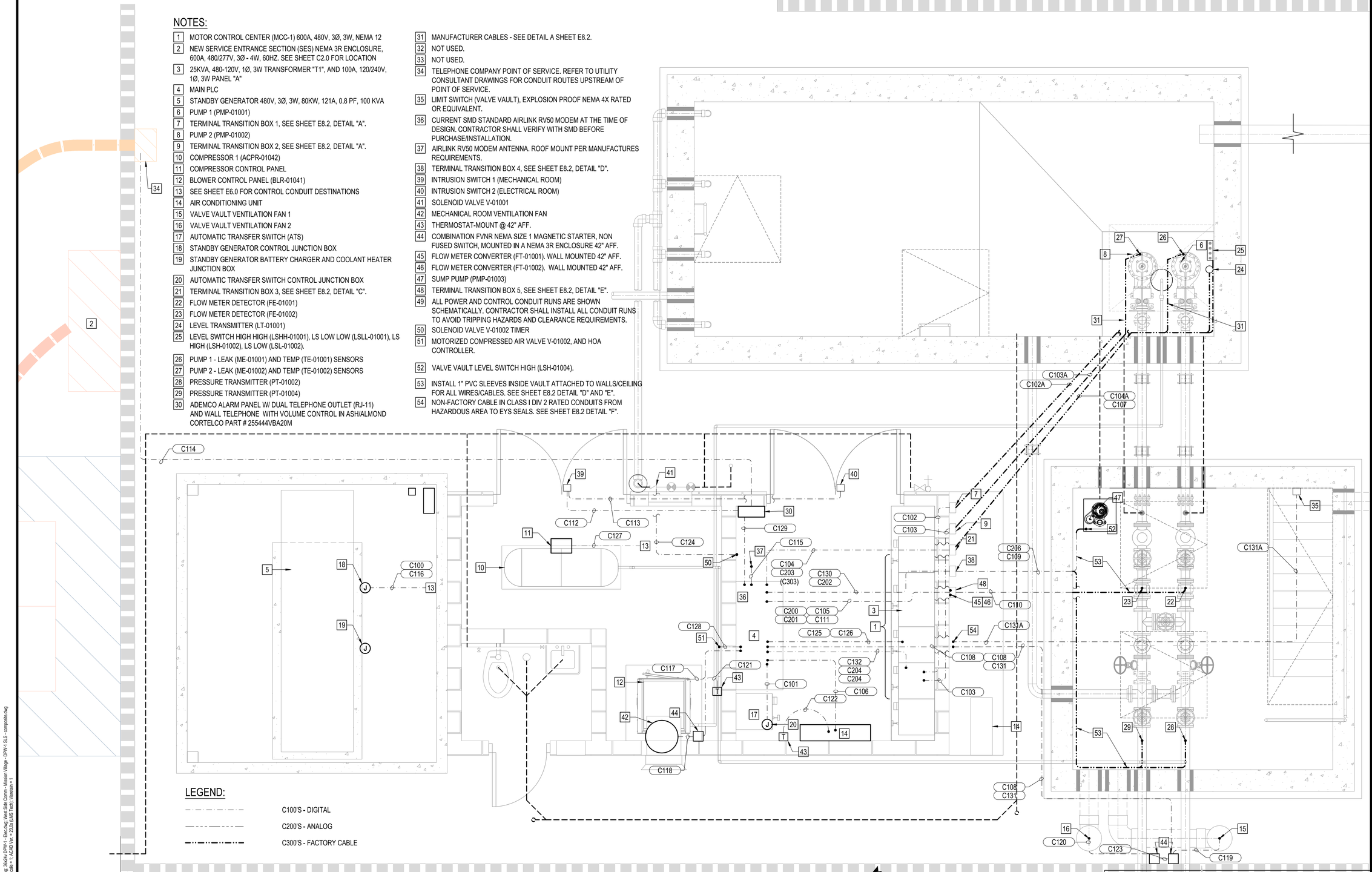
JOB NO. 9862-E

THESE DRAWINGS ARE THE PROPERTY OF P.A.C.E. AND SHALL NOT BE REPRODUCED IN ANY MANNER NOR BE USED FOR CONSTRUCTION UNLESS STAMPED 'ISSUED FOR CONSTRUCTION'.

Xrefs: 9862 DPW-1 Mech-plan.dwg, 36x24x DPW-1 - Elec.dwg, West Side Comm - Mission Village - DPW - SS.S - composite.dwg
Dimscale = 24; LTscale = 1; PSltscale = 1; ACAD Ver. = 23.0s (LMS Tech); Visretain = 1
P:\9862EP_Mission\Bid\pdf\Design Engineering\9862-E\Sewer PS\sheets\DPW 1 PS\9862-E3 E1.0 POWER PLAN.dwg - Tab: E3.0 - by mdm on 04/09/20 at 1:10:42 PM

NOTES:

1. MOTOR CONTROL CENTER (MCC-1) 600A, 480V, 3Ø, 3W, NEMA 12
2. NEW SERVICE ENTRANCE SECTION (SES) NEMA 3R ENCLOSURE, 600A, 480/277V, 3Ø - 4W, 60HZ. SEE SHEET C2.0 FOR LOCATION
3. 25KVA, 480-120V, 1Ø, 3W TRANSFORMER "T1", AND 100A, 120/240V, 1Ø, 3W PANEL "A"
4. MAIN PLC
5. STANDBY GENERATOR 480V, 3Ø, 3W, 80KW, 121A, 0.8 PF, 100 KVA
6. PUMP 1 (PMP-01001)
7. TERMINAL TRANSITION BOX 1, SEE SHEET E8.2, DETAIL "A".
8. PUMP 2 (PMP-01002)
9. TERMINAL TRANSITION BOX 2, SEE SHEET E8.2, DETAIL "A".
10. COMPRESSOR 1 (ACPR-01042)
11. COMPRESSOR CONTROL PANEL
12. BLOWER CONTROL PANEL (BLR-01041)
13. SEE SHEET E6.0 FOR CONTROL CONDUIT DESTINATIONS
14. AIR CONDITIONING UNIT
15. VALVE VAULT VENTILATION FAN 1
16. VALVE VAULT VENTILATION FAN 2
17. AUTOMATIC TRANSFER SWITCH (ATS)
18. STANDBY GENERATOR CONTROL JUNCTION BOX
19. STANDBY GENERATOR BATTERY CHARGER AND COOLANT HEATER JUNCTION BOX
20. AUTOMATIC TRANSFER SWITCH CONTROL JUNCTION BOX
21. TERMINAL TRANSITION BOX 3, SEE SHEET E8.2, DETAIL "C".
22. FLOW METER DETECTOR (FE-01001)
23. FLOW METER DETECTOR (FE-01002)
24. LEVEL TRANSMITTER (LT-01001)
25. LEVEL SWITCH HIGH HIGH (LSHH-01001), LS LOW LOW (LSLL-01001), LS HIGH (LSH-01002), LS LOW (LSL-01002).
26. PUMP 1 - LEAK (ME-01001) AND TEMP (TE-01001) SENSORS
27. PUMP 2 - LEAK (ME-01002) AND TEMP (TE-01002) SENSORS
28. PRESSURE TRANSMITTER (PT-01002)
29. PRESSURE TRANSMITTER (PT-01004)
30. ADEMCO ALARM PANEL W/ DUAL TELEPHONE OUTLET (RJ-11) AND WALL TELEPHONE WITH VOLUME CONTROL IN ASH/ALMOND CORTELCO PART # 255444VBA20M
31. MANUFACTURER CABLES - SEE DETAIL A SHEET E8.2.
32. NOT USED.
33. NOT USED.
34. TELEPHONE COMPANY POINT OF SERVICE. REFER TO UTILITY CONSULTANT DRAWINGS FOR CONDUIT ROUTES UPSTREAM OF POINT OF SERVICE.
35. LIMIT SWITCH (VALVE VAULT), EXPLOSION PROOF NEMA 4X RATED OR EQUIVALENT.
36. CURRENT SMD STANDARD AIRLINK RV50 MODEM AT THE TIME OF DESIGN. CONTRACTOR SHALL VERIFY WITH SMD BEFORE PURCHASE/INSTALLATION.
37. AIRLINK RV50 MODEM ANTENNA. ROOF MOUNT PER MANUFACTURES REQUIREMENTS.
38. TERMINAL TRANSITION BOX 4, SEE SHEET E8.2, DETAIL "D".
39. INTRUSION SWITCH 1 (MECHANICAL ROOM)
40. INTRUSION SWITCH 2 (ELECTRICAL ROOM)
41. SOLENOID VALVE V-01001
42. MECHANICAL ROOM VENTILATION FAN
43. THERMOSTAT-MOUNT @ 42" AFF.
44. COMBINATION FVNR NEMA SIZE 1 MAGNETIC STARTER, NON FUSED SWITCH, MOUNTED IN A NEMA 3R ENCLOSURE 42" AFF.
45. FLOW METER CONVERTER (FT-01001). WALL MOUNTED 42" AFF.
46. FLOW METER CONVERTER (FT-01002). WALL MOUNTED 42" AFF.
47. SUMP PUMP (PMP-01003)
48. TERMINAL TRANSITION BOX 5, SEE SHEET E8.2, DETAIL "E".
49. ALL POWER AND CONTROL CONDUIT RUNS ARE SHOWN SCHEMATICALLY. CONTRACTOR SHALL INSTALL ALL CONDUIT RUNS TO AVOID TRIPPING HAZARDS AND CLEARANCE REQUIREMENTS.
50. SOLENOID VALVE V-01002 TIMER
51. MOTORIZED COMPRESSED AIR VALVE V-01002, AND HOA CONTROLLER.
52. VALVE VAULT LEVEL SWITCH HIGH (LSH-01004).
53. INSTALL 1" PVC SLEEVES INSIDE VAULT ATTACHED TO WALLS/CEILING FOR ALL WIRES/CABLES. SEE SHEET E8.2 DETAIL "D" AND "E".
54. NON-FACTORY CABLE IN CLASS I DIV 2 RATED CONDUITS FROM HAZARDOUS AREA TO EYS SEALS. SEE SHEET E8.2 DETAIL "F".



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

Department of Public Works, Los Angeles County
Checked HS Operations Services Division
02/20/2020 Date

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER ERNEST E. BROWN REG. # 16216 EXP. 12/31/20 STATE OF CALIFORNIA

PREPARED BY ERNEST E BROWN
PROJECT ENGINEER
R.C.E. NO. 16216
EXP. 12/31/20

DRAWN BM, AH
DESIGNED EEB
CHECKED EEB
SCALE AS NOTED
DATE JAN. 2020

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TITLE
CONTROL PLAN

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

SHEET
E3.1
55 OF 62 SHEETS
JOB NO. 9862-E

Xrefs: 9862 DPW-1 Mech-plan.dwg; 36x24r DPW-1 - Elec.dwg; West Side Comm - Mission Village - DPW-1 SLS - composite.dwg
Dimscale = 24; LTscale = 1; PSltscale = 1; ACAD Ver. = 23.0s (LMS Tech); Viewtan = 1
P:\9862\E3_Mission\Mage\FieldDesign Engineering\9862-E\Sewer PS\Sheets\DPW-1 PS\9862-E-5 E3.1 CONTROL PLAN.dwg - Tab: E3.1 - by bw on 01/31/20 at 11:09:17 AM

NOTES:

1. MOTOR CONTROL CENTER (MCC-1) 600A, 480V, 3Ø, 3W, NEMA 12
2. NEW SERVICE ENTRANCE SECTION (SES) NEMA 3R ENCLOSURE, 600A, 480/277V, 3Ø - 4W, 60HZ. SEE SHEET C2.0 FOR LOCATION
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13. SEE SHEET E6.0 FOR CONTROL CONDUIT DESTINATIONS
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54. NON-FACTORY CABLE IN CLASS I DIV 2 RATED CONDUITS FROM HAZARDOUS AREA TO EYS SEALS. SEE SHEET E8.2 DETAIL "F".

BUILDING AND SAFETY DIVISION
Department of Public Works
APPROVED
UNDER LOS ANGELES COUNTY CODE
TITLE 27
amarcus
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04/15/2020 7:32:54 AM
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BUILDING AND SAFETY DIVISION
Department of Public Works
FINAL, ENERGY APPROVED
UNDER CCR TITLE 24, PART 1,
ARTICLE 1 & PART 6
amarcus
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06/18/2020 11:00:15 AM
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LEGEND:

- C100'S - DIGITAL
- C200'S - ANALOG
- C300'S - FACTORY CABLE

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

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER CHRISTOPHER NAJARIAN E 22545 EXP: 12/31/20 ELECTRICAL STATE OF CALIFORNIA

PREPARED BY CHRISTOPHER NAJARIAN
PROJECT ENGINEER
R.C.E. NO. 22545
EXP: 12/31/20

DRAWN BM, AH
DESIGNED EEB
CHECKED CN
SCALE AS NOTED
DATE JUNE 2020

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TITLE
CONTROL PLAN

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P.: (714) 481-7300 | www.pacewater.com

Department of Public Works, Los Angeles County
Checked _____ _____
Operational Services Division Date

SHEET
E3.1
55 OF 72 SHEETS
JOB NO. 9862-E

Xrefs: 9862_DPW-1 Mech-Elec.dwg; 36x24v (DPW-1 - Elec.dwg; West Side Comm - Mission Village - DPW-1 SLS - composite.dwg
Dimscale = 24; LTscale = 1; PSltscale = 1; ACAD Ver. = 23.0s (LMS Tech); Varietan = 1

P:\9862\EP_Mission\Wage\Field\Design Engineering\9862-E\Sewer PS\sheets\DPW-1 PS\9862-E-E3.1 CONTROL PLAN.dwg - Tab: E3.1 - by mdeo on 01/31/20 at 10:05:17 AM

GENERAL ENGINEERING CONTRACTORS
CA License No. 256065 •A, C-16, HAZ, HIC
P.O. Box 672 • Oxnard, CA 91302-0672
3201 Sturgis Road • Oxnard, CA 93030
(805) 656-1432 • FAX (805) 485-0338

REQUEST FOR INFORMATION

DATE: 10-20-2020

RFI #: **019**

Attention: Tom Hay Bob Brazell, FivePoint Brian Reid, PACE Matt Mills, PACE Fax #: 661-255-4296	From: Matt Messerly Delivered Via: Email Blois Construction Project No.: 3065 Project Name: Mission Village Sewer Lift Station DPW-1

Subject:	**Conduit Penetrations Wet Well with Link Seal**	
Reference:	Drawing Sheets:	E3.0, E3.1, E8.8
	Detail Numbers:	
	Spec. Sections:	
	Schedule Activities Impacted:	Conduit Procurement, Wall Form, Wall Pour

INFORMATION REQUESTED:

Please see the RFI below from our electrical and instrumentation subcontractor Taft Electric regarding conduit penetrations through the wet well walls.

This is a follow-up to our RFI 9 on the same topic.

Instead of using the detail provided by PACE in the RFI 9 response we will use the detail provided in this RFI with Link Seal, which has been approved in the submittal process.

Please let us know that this is acceptable.

Please review and advise.

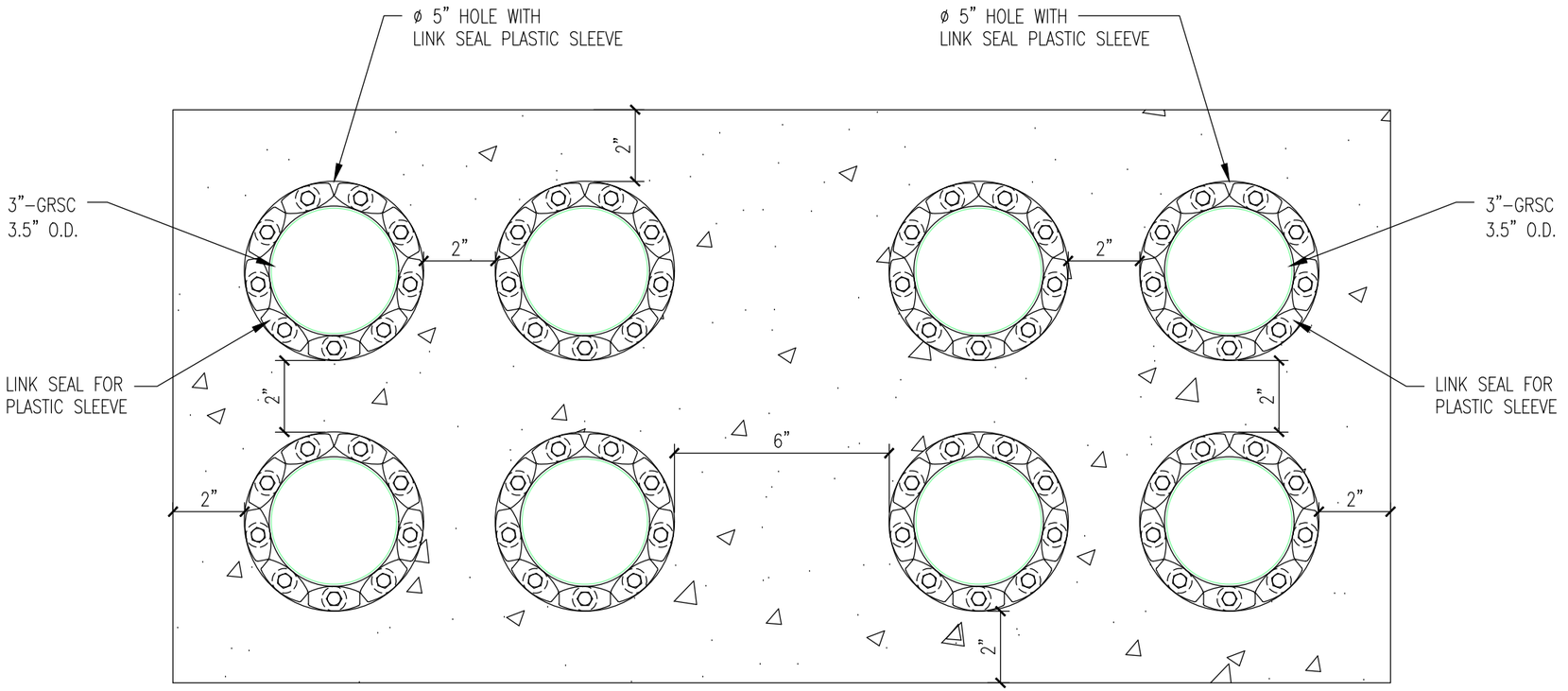
Response Requested by:	**10/28/2020**		
If a definitive response is not received by this date Project Schedule Will be Delayed	☐ YES ☐ NO ☒ Uncertain	Potential Cost Impact	☐ YES ☐ NO ☒ Uncertain

RESPONSE: PACE takes no exception to the use of the proposed detail by Taft that utilizes link seals for conduit penetrations through the wet well walls. The use of polymer spacers instead of chairs is acceptable.

BY: C.N. DATE: 10/28/2020

IF THIS SHEET IS NOT 11"x17", IT IS A REDUCED PRINT - SCALE ACCORDINGLY

DETAIL FROM SUBMITTAL 077 AND RFI 019





SCALE : 3"=1'–0"

CONDUIT AND LINK SEALS

Scale: 3" = 1'-0"

SIGN OFF

REV.	BY	DATE	REVISION INFORMATION

REFERENCE DRAWINGS

REF. NO.

TAFT ELECTRIC COMPANY
1694 Eastman Avenue ▲ Ventura, California 93003
(805) 642-4471
Lic. #772245

DRAWING TITLE
MISSION VILLAGE
2100 SAVIERS RD. OXNARD, CA 93033

CONDUIT AND LINK SEALS

Designed By
E. HARWOOD

Drawn By
A. FACIO

Initial Release Date
1-30-20

TEC Project No.
8126

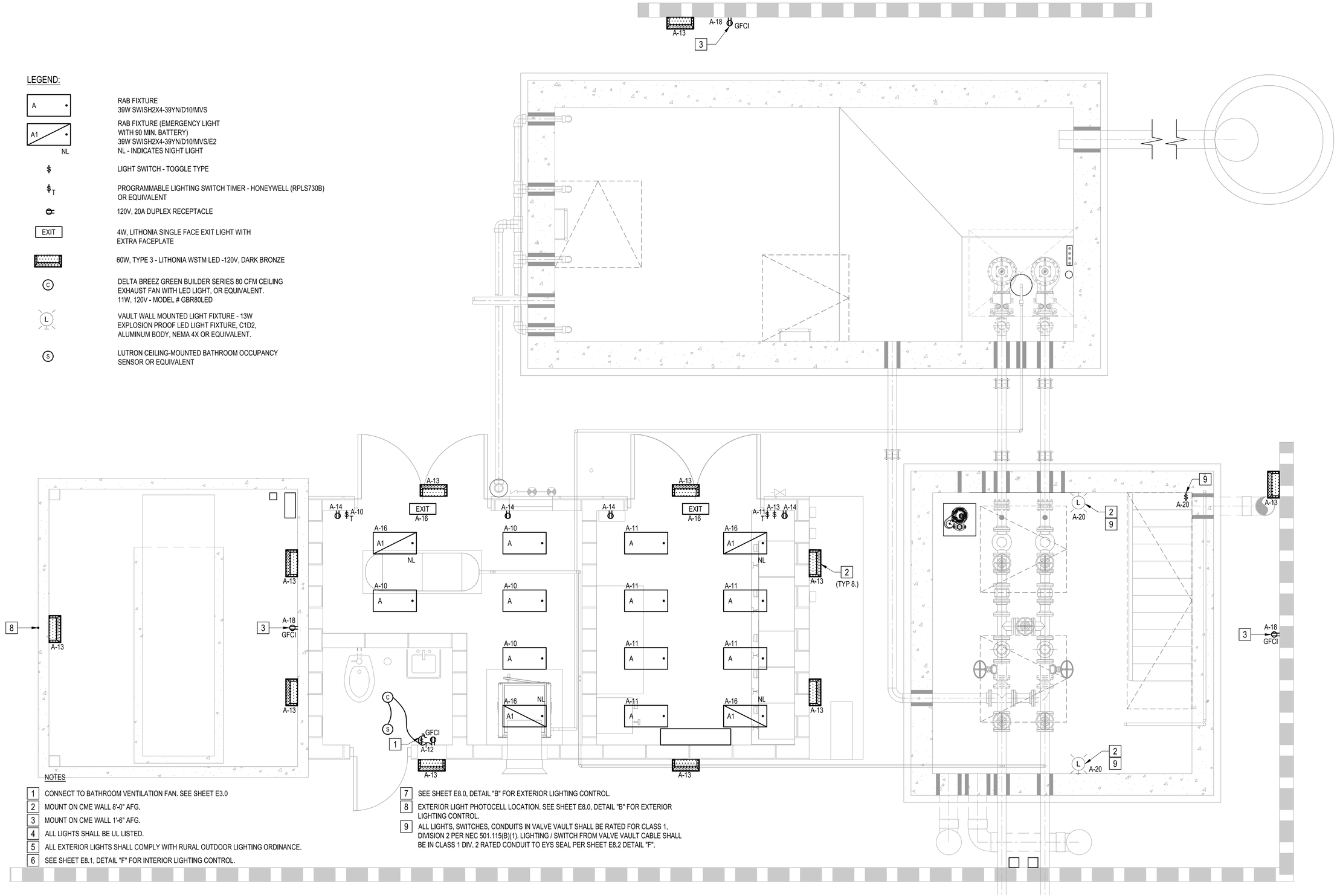
Drawing No.
TEC - XX-XX-XX

Sht. 1 of 1

N:\PRECON PROJECTS\8126 MISSION VILLAGE\02.DRAWINGS\MISSION VILLAGE BLOCKS\Conduit And Link Seals\Indexer Fixed\03/2020 8:52 AM

LEGEND:

A •	RAB FIXTURE 39W SWISH2X4-39YN/D10/MVS
A1 • NL	RAB FIXTURE (EMERGENCY LIGHT WITH 90 MIN. BATTERY) 39W SWISH2X4-39YN/D10/MVS/E2 NL - INDICATES NIGHT LIGHT
$	LIGHT SWITCH - TOGGLE TYPE
$T	PROGRAMMABLE LIGHTING SWITCH TIMER - HONEYWELL (RPLS730B) OR EQUIVALENT
	120V, 20A DUPLEX RECEPTACLE
EXIT	4W, LITHONIA SINGLE FACE EXIT LIGHT WITH EXTRA FACEPLATE
	60W, TYPE 3 - LITHONIA WSTM LED -120V, DARK BRONZE
C	DELTA BREEZ GREEN BUILDER SERIES 80 CFM CEILING EXHAUST FAN WITH LED LIGHT, OR EQUIVALENT. 11W, 120V - MODEL # GBR80LED
L	VAULT WALL MOUNTED LIGHT FIXTURE - 13W EXPLOSION PROOF LED LIGHT FIXTURE, C1D2, ALUMINUM BODY, NEMA 4X OR EQUIVALENT.
S	LUTRON CEILING-MOUNTED BATHROOM OCCUPANCY SENSOR OR EQUIVALENT



NOTES

1. CONNECT TO BATHROOM VENTILATION FAN. SEE SHEET E3.0
2. MOUNT ON CME WALL 8'-0" AFG.
3. MOUNT ON CME WALL 1'-6" AFG.
4. ALL LIGHTS SHALL BE UL LISTED.
5. ALL EXTERIOR LIGHTS SHALL COMPLY WITH RURAL OUTDOOR LIGHTING ORDINANCE.
6. SEE SHEET E8.1, DETAIL "F" FOR INTERIOR LIGHTING CONTROL.
7. SEE SHEET E8.0, DETAIL "B" FOR EXTERIOR LIGHTING CONTROL.
8. EXTERIOR LIGHT PHOTOCELL LOCATION. SEE SHEET E8.0, DETAIL "B" FOR EXTERIOR LIGHTING CONTROL.
9. ALL LIGHTS, SWITCHES, CONDUITS IN VALVE VAULT SHALL BE RATED FOR CLASS 1, DIVISION 2 PER NEC 501.115(B)(1). LIGHTING / SWITCH FROM VALVE VAULT CABLE SHALL BE IN CLASS 1 DIV. 2 RATED CONDUIT TO EYS SEAL PER SHEET E8.2 DETAIL "F".

LIGHTING AND RECEPTACLE PLAN

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

Department of Public Works, Los Angeles County

Checked _____ 02/20/2020

Operational Services Division — Date

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER — ERNEST E. BROWN — REG. # 16216 — EXP. 12/31/20 — CIVIL — STATE OF CALIFORNIA

PREPARED BY
ERNEST E. BROWN
PROJECT ENGINEER
R.C.E. NO. 16216
EXP. 12/31/20

DRAWN BM, AH
DESIGNED EEB
CHECKED EEB
SCALE AS NOTED
DATE JAN. 2020

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TITLE
LIGHTING AND RECEPTACLE PLAN

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
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SHEET
E4.0
56 OF 62 SHEETS

JOB NO. 9862-E

Xrefs: 9862 DPW-1 Mech-plan.dwg; 30x24x DPW-1 - Elec.dwg; West Side Comm - Mission Village - DPW-1 SLS - composite.dwg
Dimscale = 24; LTscale = 1; PSltscale = 1; ACAD Ver. = 23.0s (LMS Tech); Vizretain = 1
P:\9862EP_Mission\Mage\Full Design Engineering\9862-E\Sewer PS\sheets\DPW 1 PS\9862-E-E4.0 LIGHTING AND RECEPTACLE PLAN.dwg - Tab: E4.0 - by bsa on 01/31/20 at 10:09:40 AM

LEGEND:

A	RAB FIXTURE 39W SWISH2X4-39YN/D10
A1	RAB FIXTURE (EMERGENCY LIGHT WITH BATTERY BACKUP AND OCCUP SENSOR 39W SWISH2X4-39YN/D10/IMVS/E2
6 OS	OS - OCCUPANCY SENSOR
$	LIGHT SWITCH - TOGGLE TYPE
$T	PROGRAMMABLE LIGHTING SWITCH TIMER - HONEYWELL (RPLS730B) OR EQUIVALENT
	120V, 20A DUPLEX RECEPTACLE
EXIT	4W, LITHONIA SINGLE FACE EXIT LIGHT WITH EXTRA FACEPLATE
	WP1LED, RAB WALLPACK, 30W, WARM ,LED ,120V, BRONZE
PC	INTERMATIC PHOTOCELL 120VAC, GRAINGER CAT# 5U790 OR EQUAL
C	DELTA BREEZ GREEN BUILDER SERIES 80 CFM CEILING EXHAUST FAN WITH LED LIGHT, OR EQUIVALENT. 11W, 120V - MODEL # GBR80LED
L	VAULT WALL MOUNTED LIGHT FIXTURE - 13W EXPLOSION PROOF LED LIGHT FIXTURE, C1D2, ALUMINUM BODY, NEMA 4X OR EQUIVALENT.
S	LUTRON CEILING-MOUNTED BATHROOM OCCUPANCY SENSOR OR EQUIVALENT
6 WR,GFCI	WEATHER RESISTANT, GFCI PROTECTED RECEPTACLE WITH "EXTRA DUTY" WEATHERPROOF COVER

BUILDING AND SAFETY DIVISION
Department of Public Works
APPROVED
UNDER LOS ANGELES COUNTY CODE
TITLE 27
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BUILDING AND SAFETY DIVISION
Department of Public Works
FINAL ENERGY APPROVED
UNDER CCR TITLE 24, PART 1,
ARTICLE 1 & PART 6
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NOTES

1. CONNECT TO BATHROOM VENTILATION FAN. SEE SHEET E3.0
2. MOUNT ON CME WALL 8'-0" AFG.
3. MOUNT ON CME WALL 1'-6" AFG.
4. ALL LIGHTS SHALL BE UL LISTED.
5. ALL EXTERIOR LIGHTS SHALL COMPLY WITH RURAL OUTDOOR LIGHTING ORDINANCE.
6. SEE SHEET E8.1, DETAIL "F" FOR INTERIOR LIGHTING CONTROL.
7. SEE SHEET E8.0, DETAIL "B" FOR EXTERIOR LIGHTING CONTROL.
8. EXTERIOR LIGHT PHOTOCELL LOCATION. SEE SHEET E8.0, DETAIL "B" FOR EXTERIOR LIGHTING CONTROL.
9. ALL LIGHTS, SWITCHES, CONDUITS IN VALVE VAULT SHALL BE RATED FOR CLASS 1, DIVISION 2 PER NEC 501.115(B)(1). LIGHTING / SWITCH FROM VALVE VAULT CABLE SHALL BE IN CLASS 1 DIV. 2 RATED CONDUIT TO EYS SEAL PER SHEET E8.2 DETAIL "F".

LIGHTING AND RECEPTACLE PLAN
SCALE: 1/2"=1'-0"

NO	BY	DATE	REVISIONS	DATE	APP.
A	CN	04/09/20	REVISION FOR LAC B/S REVIEW	04/09/20	CN
B	CN	06/01/20	REVISION FOR LAC B/S REVIEW #2	06/01/20	CN

REGISTERED PROFESSIONAL ENGINEER CHRISTOPHER NAJARIAN ELECTRICAL STATE OF CALIFORNIA EXP. 12-31-20

PREPARED BY: CHRISTOPHER NAJARIAN
PROJECT ENGINEER
R.C.E. NO. 22545
EXP: 12/31/20

DRAWN: BM, AH
DESIGNED: EEB
CHECKED: CN
SCALE: AS NOTED
DATE: JUNE 2020

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TITLE: LIGHTING AND RECEPTACLE PLAN

JOB: MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

Department of Public Works, Los Angeles County
Checked _____ Operational Services Division
_____ Date

SHEET E4.0
56 OF 72 SHEETS
JOB NO. 9862-E

Xrefs: 9862 DPW-1 Mech-plan.dwg; 30x24v DPW-1 - Elec.dwg; West Side Comm - Mission Village - DPW-1 SLS - composite.dwg
Dimscale = 24, LTscale = 1; PSltscale = 1; ACAD Ver. = 23.0s (LMS Tech); Viewtabs = 1

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GENERAL ENGINEERING CONTRACTORS
CA License No. 256065 •A, C-16, HAZ, HIC
P.O. Box 672 • Oxnard, CA 91302-0672
3201 Sturgis Road • Oxnard, CA 93030
(805) 656-1432 • FAX (805) 485-0338

REQUEST FOR INFORMATION

DATE: 06-23-2021 RFI #: **096**

Attention: Tom Hay Bob Brazell, FivePoint Brian Reid, PACE Matt Mills, PACE Fax #: 661-255-4296	From: Matt Messerly Delivered Via: Email Blois Construction Project No.: 3065 Project Name: Mission Village Sewer Lift Station DPW-1

Subject: **Light Fixture Conflict with Rolling Gate**

Reference:	Drawing Sheets: E4.0 Detail Numbers: Spec. Sections: Schedule Activities Impacted:

INFORMATION REQUESTED:

Please reference the attached sheet E4.0. The (2) clouded light fixtures are conflicting with the rolling wrought iron gate. When the gates are opened, they will impact the wall mounted light fixtures. Please clarify design intent.

Response Requested by:	**6/30/2021**	
If a definitive response is not received by this date Project Schedule Will be Delayed	☐ YES ☐ NO ☒ Uncertain	Potential Cost Impact ☐ YES ☐ NO ☒ Uncertain

RESPONSE: Based on 06/29/21 meeting, the gate design has been modified from a rolling gate to a swing gate due to complications with the proposed design. The proposed swing gates will no longer conflict with lights. However, the light near the valve vault will still need to be relocated due to Area Classification conflicts. Please see attached mark-up.

BY: C.N. / M.J.M. DATE: 07/01/2021

RFI #96

LEGEND:

A	RAB FIXTURE 39W SWISH2X4-39YN/D10
A1	RAB FIXTURE (EMERGENCY LIGHT WITH BATTERY BACKUP AND OCCUP SENSOR 39W SWISH2X4-39YN/D10/MVS/E2
6 OS	OS - OCCUPANCY SENSOR
$	LIGHT SWITCH - TOGGLE TYPE
$T	PROGRAMMABLE LIGHTING SWITCH TIMER - HONEYWELL (RPLS730B) OR EQUIVALENT
	120V, 20A DUPLEX RECEPTACLE
EXIT	4W, LITHONIA SINGLE FACE EXIT LIGHT WITH EXTRA FACEPLATE
	WP1LED, RAB WALLPACK, 30W, WARM ,LED ,120V, BRONZE
PC	INTERMATIC PHOTOCELL 120VAC, GRAINGER CAT# 5U790 OR EQUAL
C	DELTA BREEZ GREEN BUILDER SERIES 80 CFM CEILING EXHAUST FAN WITH LED LIGHT, OR EQUIVALENT. 11W, 120V - MODEL # GBR80LED
L	VAULT WALL MOUNTED LIGHT FIXTURE - 13W EXPLOSION PROOF LED LIGHT FIXTURE, C1D2, ALUMINUM BODY, NEMA 4X OR EQUIVALENT.
S	LUTRON CEILING-MOUNTED BATHROOM OCCUPANCY SENSOR OR EQUIVALENT
6 WR,GFCI	WEATHER RESISTANT, GFCI PROTECTED RECEPTACLE WITH "EXTRA DUTY" WEATHERPROOF COVER

NOTES

1. CONNECT TO BATHROOM VENTILATION FAN. SEE SHEET E3.0
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3. MOUNT ON CME WALL 1'-6" AFG.
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LIGHTING AND RECEPTACLE PLAN
SCALE: 1/2"=1'-0"

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REGISTERED PROFESSIONAL ENGINEER CHRISTOPHER NAJARIAN No. E 22545 EXP. 12-31-20 ELECTRICAL STATE OF CALIFORNIA

PREPARED BY CHRISTOPHER NAJARIAN
PROJECT ENGINEER
R.C.E. NO. 22545
EXP. 12/31/20

DRAWN BM, AH
DESIGNED EEB
CHECKED CN
SCALE AS NOTED
DATE JUNE 2020

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TITLE
LIGHTING AND RECEPTACLE PLAN

JOB
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DPW-1 SEWER PUMP STATION PC 12257PS
VALENCIA CA

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Department of Public Works, Los Angeles County
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STATE OF CALIFORNIA
Electrical Power Distribution
NRCC-ELC-E (Created 5/18) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-ELC-E
This document is used to demonstrate compliance with mandatory requirements in §130.5 for electrical systems in newly constructed nonresidential, high-rise residential and hotel/motel occupancies. Additions and alterations to electrical service systems in these occupancies will also use this document to demonstrate compliance per §141.0(a) or §141.0(b)2P for alterations.		
Project Name: MISSION VILLAGE DPW-1 SEWER PUMP STATION	Report Page:	Page 1 of 5
Project Address:	Date Prepared:	06-01--2020

A. GENERAL INFORMATION

01 Project Location (city) | 02 Occupancy Types Within Project:

☐ Office ☐ Retail ☐ Warehouse ☐ Hotel/ Motel ☐ School ☐ Support Areas
☐ Parking Garage ☐ High-Rise Residential ☐ Relocatable ☑ Other (Write In): PUMP STATION

B. PROJECT SCOPE

Table Instructions: Include any electrical service systems that are within the scope of the permit application.

01 Electrical Service Designation/ Description	02 Scope of Work[1]	03 Rating (kVA)	04 Utility Provided Metering System Exception to §130.5(a)[2]	05 Demand Response Controls
SES	New electrical service equipment & meter	166	☑	Where required, demand response controls must be specified which are capable of receiving and automatically responding to at least one standards based messaging protocol which enables demand response after receiving a demand response signal. Sections §120.2, §130.1 and §130.3 and compliance documents NRCC-MCH, NRCC-LTI and NRCC-LTS will indicate when demand response controls are required.

Add Row | Remove Last

[1] *FOOTNOTES: Adding only new feeders and branch circuits triggers Voltage Drop 130.5(c), no other requirements from 130.5 are required.*
[2] *Applicable if the utility company is providing a metering system that indicates instantaneous kW demand and kWh for a utility-defined period.*

C. COMPLIANCE RESULTS

Table Instructions: If this table says "DOES NOT COMPLY" refer to Table D. for guidance and review the Table that indicates "No".

01 Service Electrical Metering §130.5(a)		02 Separation for Monitoring §130.5(b)		03 Voltage Drop §130.5(c)		04 Controlled Receptacles §130.5(d)	05 Compliance Results
(See Table F)		(See Table G)		(See Table H)		(See Table I)	
Yes	AND	Yes	AND	Yes	AND	Yes	COMPLIES

STATE OF CALIFORNIA
Electrical Power Distribution
NRCC-ELC-E (Created 5/18) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-ELC-E
Project Name: MISSION VILLAGE DPW-1 SEWER PUMP STATION	Report Page:	Page 2 of 5
Project Address:	Date Prepared:	06-01--2020

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

Table H indicates voltage drop calculations will be provided by the contractor.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

F. SERVICE ELECTRICAL METERING

This Section Does Not Apply

G. SEPARATION OF ELECTRICAL CIRCUITS FOR ENERGY MONITORING

Table Instructions: Complete this table for entirely new or complete replacement electrical power distribution systems to demonstrate compliance with §130.5(b). Using the dropdown choices in column 01, indicate the load types included for each service. Any load types that are not included in the service do not need to be shown.

Electrical Service Designation/Description: SES

01 Load Type per Table 130.5-B[1]	02 Minimum Required Separation of Load per Table 130.5-B	03 Compliance Method[2]	04 Location of Requirements in Construction Documents	05 Field Inspector Pass	Fail
Indust./ commercial load centers ≥ 25kVA	All loads in aggregate	Method 1	MCC	☐	☐

** NOTES: If "Other*" is selected under Compliance Method above, please indicate how compliance has been achieved in the space provided below.*

Reset | Add Row | Remove Last

[1] *FOOTNOTES: For each separate load type, up to 10% of the connected load may be of any type.*
[2] *Method 1: Switchboards/ motor control centers/ panelboard loads disaggregated for each load type*
Method 2: Switchboards/ motor control centers/ panelboard supply other distribution equipment with loads disaggregated for each load type
Method 3: Complete metering system measures and reports loads by type
See Chapter 8 of the Nonresidential Compliance Manual for more detail on Compliance Methods.

H. VOLTAGE DROP

STATE OF CALIFORNIA
Electrical Power Distribution
NRCC-ELC-E (Created 5/18) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-ELC-E
Project Name: MISSION VILLAGE DPW-1 SEWER PUMP STATION	Report Page:	Page 3 of 5
Project Address:	Date Prepared:	06-01--2020

Table Instructions: Please complete this table for entirely new or complete replacement electrical power distribution systems, or alterations that add, modify or replace both feeders and branch circuits to demonstrate compliance with §130.5(c). For alterations, only the altered circuits must demonstrate compliance per §141.0(b)2Piii.

01 Electrical Service Designation/ Description	02 Combined Voltage Drop on Installed Feeder/Branch Circuit Conductors Compliance Method		03 Location of Voltage Drop Calculations[1]	04 Sheet Number for Voltage Drop Calculations in Construction Documents	05 Field Inspector Pass	Fail
SES	☑ Voltage drop < 5%	☐ Permitted by CA Elec Code (Exception to §130.5(c))*	Contractor Responsible		☐	☐

**NOTES If "Permitted by CA Elec Code*" is selected under Compliance Method above, please indicate where the exception applies in the space provided below.*

[1] *FOOTNOTES: Voltage drop calculations may be attached to the permit application outside the construction documents if allowed by the Authority Having Jurisdiction. Select "attached" if applicable. If calculations will be the responsibility of the installing contractor, select "Contractor Responsible".*

I. CIRCUIT CONTROLS FOR 120-VOLT RECEPTACLES AND CONTROLLED RECEPTACLES

Table Instructions: Please complete this table for entirely new or complete replacement electrical power distribution systems to demonstrate compliance with §130.5(d). Both controlled and uncontrolled receptacles must be provided in office areas, lobbies, conference rooms, kitchen areas in office spaces, copy rooms and hotel/motel guest rooms.

01 Electrical Service Designation/ Description	02 Location/ Type of Controlled Receptacles	03 Shut-Off Controls	04 Permanent Durable Marking Will be Used	05 Location of Requirements in Construction Documents	06 Field Inspector Pass	Fail
ses	NA: No applicable space types		☐		☐	☐

Add Row | Remove Last

** If "Other*" is selected under Compliance Method above, please indicate how compliance has been achieved in the space provided below.*

J. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at http://www.energy.ca.gov/2015publications/CEC-400-2015-033/appendices/forms/NRCI

YES	NO	Form/Title	Field Inspector Pass	Fail
◉	○	NRCI-ELC-01-E – Must be submitted for all buildings.	☐	☐

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Department of Public Works
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Department of Public Works, Los Angeles County
Checked _____ _____
Operational Services Division Date

NO	BY	DATE	REVISIONS	DATE	APP.
6	CN	04/09/20	REVISION FOR LAC B/S REVIEW	04/09/20	CN
7	CN	06/01/20	REVISION FOR LAC B/S REVIEW #2	06/01/20	CN

REGISTERED PROFESSIONAL ENGINEER CHRISTOPHER NAJARIAN E 22545 EXP. 12-31-20 CIVIL ELECTRICAL STATE OF CALIFORNIA

PREPARED BY CHRISTOPHER NAJARIAN
PROJECT ENGINEER
R.C.E. NO. 22545
EXP. 12/31/20
DRAWN BM, AH
DESIGNED EEB
CHECKED CN
SCALE AS NOTED
DATE JUNE 2020

TITLE: TITLE 24 FORMS (1 OF 10)

JOB: MISSION VILLAGE DPW-1 SEWER PUMP STATION PC 12257PS VALENCIA CA

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SHEET 57 OF 72 SHEETS
E4.1

JOB NO. 9862-E

Xrefs: 36x24x DPW1 - Elec.dwg
Dimscale = 40, LTscale = 1; PSltscale = 1; ACAD Ver. = 23.0s (LMS Tech); Vizretain = 1

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STATE OF CALIFORNIA
Electrical Power Distribution
NRCC-ELC-E (Created 5/18)
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-ELC-E
Project Name: MISSION VILLAGE DPW-1 SEWER PUMP STATION	Report Page:	Page 4 of 5
Project Address:	Date Prepared:	06-01--2020

K. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

There are no Certificates of Acceptance applicable to electrical power distribution requirements.

STATE OF CALIFORNIA
Electrical Power Distribution
NRCC-ELC-E (Created 5/18)
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-ELC-E
Project Name: MISSION VILLAGE DPW-1 SEWER PUMP STATION	Report Page:	Page 5 of 5
Project Address:	Date Prepared:	06-01--2020

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

Documentation Author Name:	CHRISTOPHER NAJARIAN	Documentation Author Signature:	
Company:	PACE WATER	Signature Date:	06-01-2020
Address:	17520 NEWHOPE STREET, SUITE 200	CEA/ HERS Certification Identification (if applicable):	REE# 22545
City/State/Zip:	FOUNTAIN VALLEY, CA 92708	Phone:	714 425 7753

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. **The information provided on this Certificate of Compliance is true and correct.**
2. **I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)**
3. **The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.**
4. **The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.**
5. **I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.**

Responsible Designer Name:	CHRISTOPHER NAJARIAN	Responsible Designer Signature:	
Company :	PACE WATER	Date Signed:	06-01-2020
Address:	17520 NEWHOPE STREET, SUITE 200	License:	REE# 22545
City/State/Zip:	FOUNTAIN VALLEY, CA 92708	Phone:	714 425 7753

BUILDING AND SAFETY DIVISION
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REGISTERED PROFESSIONAL ENGINEER
CHRISTOPHER NAJARIAN
E 22545
EXP: 12-31-20
ELECTRICAL
STATE OF CALIFORNIA

PREPARED BY
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SHEET
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58 OF 72 SHEETS

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STATE OF CALIFORNIA
Electrical Power Distribution
CEC-NRCC-ELC-01-E (Revised 01/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-ELC-01-E
Electrical Power Distribution	Page 1 of 4
Project Name: MISSION VILLAGE DPW-1 SEWER PUMP STATION	Date Prepared: 06-01-2020

General Information

Project Address:	Climate Zone: 9	Conditioned Floor Area :
		Unconditioned Floor Area : 377

Building Type: ☑ Nonresidential ☐ High-Rise Residential ☐ Hotel/Motel
☐ Schools ☐ Relocatable Public Schools ☐ Conditioned Spaces ☐ Unconditioned Spaces
Phase of Construction: ☐ New Construction ☐ Addition ☐ Alteration

In the table below identify all applicable construction documents that specify the requirements for the scope of responsibility reported by this certificate. Use additional pages as needed to list all construction documents related to compliance of Section 130.5.

Document Number	Document Title/Descriptions (include description information for Table or Schedule if it contains compliance information)	Document Sheet # or Page #	Indicate which subsection of Section 130.5 is related to the document (e.g. 130.5(a) for service electrical metering)
16400	SERVICE AND DISTRIBUTION	62	1305.5(A)
16951	SHORT CIRCUIT AND COORDINATION REPORT	118	130.5(C)

Add Row | Remove Last

A. Service Electrical Metering

Check one of the three boxes below if the electrical power distribution system is in compliance with Section 130.5(a).

☑ For newly installed electrical service in newly constructed buildings, Service Electrical Metering is required according to Section 130.5(a). *Fill out Column 1 through 6 of table below.*

☐ For new or replacement electrical service equipment in existing buildings, Service Electrical Metering is required according to Section 141.0(b)2Pi. *Fill out Column 1 through 6 of table below.*

☑ EXCEPTION to Electrical Service Metering: Service or feeder for which the utility company provides a metering system that indicates instantaneous kW demand and kWh for a utility-defined period. *Fill out Column 1, 2 and 6 of table below with the compliance information.*

Fill out a separate line for each electrical service that is connected to the building.

Electrical Service Schedule	Electrical Service Rating	Metering Capabilities (check all that are present)				Exception to 130.5 (a)	Field Inspector
01	02	03	04	05	06	07	08
Electrical Service Designation/ Location/Description	kVA	Instantaneous (at the time) kW	Historical peak (kW)	Tracking kWh for a user-definable period	kWh per rate period	Utility metering system	Check that the metering complies
SES	166	☐	☐	☐	☑	☑	☐

Add Row | Remove Last

B. Separation of Electrical Circuits for Electrical Energy Monitoring

Check all boxes below if the electrical power distribution system is in compliance with Section 130.5(b).

☒ The electrical power distribution system meets the separation of electrical circuits for electrical energy monitoring requirement of Section 130.5(b). The electrical power distribution systems is designed so that measurement devices can monitor the electrical energy usage of load types according to TABLE 130.5-B.

☒ Describe the electrical power distribution system installed and the compliance method chosen in meeting the requirement of Section 130.5(b). Use the space below to include the information. Examples of compliance methods are detailed in Nonresidential Compliance Manual Chapter 8.

Fill out Column 1 thru 3 with the compliance information.

General Information	Electrical Power Distribution System information and Method of compliance	Electrical Service Rating	Enforcement Agency
01	02	03	04
Electrical Service Designation/Location/Description	Describe the electrical power distribution system installed and the compliance method used	kVA	Check that the system complies
SERVICE ENTRANCE SECTION	MOTOR CONTROL CENTER - METHOD 1	166	☐

Field Inspector Notes:

C. Voltage Drop

Check all boxes below if he electrical power distribution system is in compliance with Section 130.5(c).

Enforcement Agency Check that the system complies

☑ The electrical power distribution system meets the voltage drop requirement of Section 130.5(c). The maximum combined voltage drop on feeder conductors and branch circuit conductors to the farthest connected load or outlet, do not exceed 5%. ☐

☑ Voltage drop calculation documents showing compliance to Section 130.5(c) are submitted as part of the compliance document submittal. ☐

D. Circuit Controls for 120-Volt Receptacles and Controlled Receptacles

Check one or more boxes below for applicable requirements of Section 130.5(d) for the electrical power distribution system.

Field Inspector Check that the system complies

☐ The control is capable of automatically shutting OFF the controlled receptacles when the space is typically unoccupied, either at the receptacle or circuit level. For the automatic time switch control, it incorporates an override control that allows the controlled receptacle to remain ON for no more than 2 hours when an override is initiated and an automatic holiday "shut-OFF" feature that turns OFF all loads for at least 24 hours and then resumes the normally scheduled operation. Countdown timer switches are not be used to comply with the automatic time switch control requirements. The controls meet the requirement of Section 130.5(d)1. ☐

☐ There is at least one controlled receptacle within 6 ft from each uncontrolled receptacle. Where receptacles are installed in modular furniture in open office area, at least one controlled receptacle is installed at each workstation. The receptacles meet the requirement of Section 130.5(d)2. ☐

☐ There are installed split wired receptacles with at least one controlled and one uncontrolled receptacle. Where receptacles are installed in modular furniture in open office area, at least one controlled receptacle is installed at each workstation. The receptacles meet the requirement of Section 130.5(d)2. ☐

☐ Permanent and durable marking for controlled receptacles or circuits to differentiate them from uncontrolled receptacles or circuits is provided. The markings meet the requirement of Section 130.5(d)3. ☐

☐ For hotel and motel guest rooms, there are controlled receptacles for at least one-half of the 120-volt receptacles in each guest room. Electric circuits serving controlled receptacles in guestrooms are installed to have captive key controls, occupancy sensing controls, or automatic controls so the power is switched off no longer than 30 minutes after the guest room has been vacated. The receptacles meet the requirement of Section 130.5(d)4. ☐

☐ Receptacles that are only for the following purposes are excepted from Section 130.5(d): ☐
- Receptacles specifically for refrigerators and water dispensers in kitchen areas.
- Receptacles located a minimum of six ft above the floor that are specifically for clocks.
- Receptacles for network copiers, fax machines, A/V and data equipment other than personal computers in copy rooms.
- Receptacles on circuits rated more than 20 amperes.
- Receptacles connected to an uninterruptible power supply (UPS) that are intended to be in continuous use, 24 hours per day/365 days per year, and are marked to differentiate them from other uncontrolled receptacles or circuits.

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: CHRISTOPHER NAJARIAN	Documentation Author Signature: Christopher Najarian
Company: PACE WATER	Signature Date: 06-01-2020
Address: 17520 NEWHOPE STREET, SUITE 200	CEA/ HERS Certification Identification (if applicable): REE# 22545
City/State/Zip: FOUNTAIN VALLEY, CA 92708	Phone: 714 425 7753

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: CHRISTOPHER NAJARIAN	Responsible Designer Signature: Christopher Najarian
Company: PACE WATER	Date Signed: 06-01-2020
Address: 17520 NEWHOPE STREET, SUITE 200	License: REE# 22545
City/State/Zip: FOUNTAIN VALLEY, CA 92708	Phone: 714 425 7753

Duplicate of the forms already provided on Sheet E4.1, E4.2

NO	BY	DATE	REVISIONS	DATE	APP.
1	CN	04/09/20	REVISION FOR LAC B/S REVIEW	04/09/20	CN
2	CN	06/01/20	REVISION FOR LAC B/S REVIEW #2	06/01/20	CN

REGISTERED PROFESSIONAL ENGINEER CHRISTOPHER NAJARIAN E 22545 EXP: 12/31/20 CIVIL ELECTRICAL STATE OF CALIFORNIA

PREPARED BY: CHRISTOPHER NAJARIAN
PROJECT ENGINEER
R.C.E. NO.: 22545
EXP: 12/31/20

DRAWN: BM, AH | SCALE: AS NOTED
DESIGNED: EEB | DATE: JUNE 2020
CHECKED: CN

THESE DRAWINGS ARE THE PROPERTY OF P.A.C.E. AND SHALL NOT BE REPRODUCED IN ANY MANNER NOR BE USED FOR CONSTRUCTION UNLESS STAMPED 'ISSUED FOR CONSTRUCTION'.

TITLE: TITLE 24 FORMS (3 OF 10)

JOB: MISSION VILLAGE DPW-1 SEWER PUMP STATION PC 12257PS — VALENCIA CA

PACE Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewaterinc.com

Department of Public Works, Los Angeles County
Checked _____ _____
Operational Services Division — Date

SHEET 59 — 7 E4.3 — OF 72 SHEETS

JOB NO. 9862-E

Xrefs: 36x24r DPW-1 - Elec.dwg
Dimscale = 40; LTscale = 1; PSltscale = 1; ACAD Ver. = 23.0s (LMS Tech); Varistam = 1
P:\9862E\7_Mission\Bldg#1\Bldg#1\Design\Engineering\9862-E\Sewer PS\plotfiles\DPW-1 PS\9862-E-E4.x TITLE 24 FORMS.dwg - Tab: E4.3 - by rchin on 06/01/20 at 7:09:32 PM

STATE OF CALIFORNIA
INDOOR LIGHTING
CEC-NRCC-LTI-01-E (Revised 04/17) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-01-E
Indoor Lighting	Page 1 of 6
Project Name: MISSION VILLAGE DPW-1 SEWER PUMP STATION	Date Prepared: 06-01-2020

A. General Information

Climate Zone: 9	Conditioned Floor Area : 0			
	Unconditioned Floor Area : 377			
Building Type:	☐ Nonresidential	☐ High-Rise Residential	☐ Hotel/Motel	
☐ Schools	☐ Relocatable Public Schools	☐ Conditioned Spaces	☐ Unconditioned Spaces	
Phase of Construction:	☑ New Construction	☐ Addition	☐ Alteration	
Method of Compliance:	☐ Complete Building	☐ Area Category	☐ Tailored	
Project Address:				

B. Lighting Compliance Documents (select yes for each document included)

For detailed instructions on the use of this and all Energy Efficiency Standards compliance documents, refer to the Nonresidential Manual published by the California Energy Commission.

YES	NO	FORM	TITLE
◉	○	NRCC-LTI-01-E	Certificate of Compliance. All Pages required on plans for all submittals.
◉	○	NRCC-LTI-02-E	Lighting Controls, Certificate of Compliance, and PAF Calculation. All Pages required on plans for all submittals.
◉	○	NRCC-LTI-03-E	Indoor Lighting Power Allowance
○	◉	NRCC-LTI-04-E	Tailored Method Worksheets
○	◉	NRCC-LTI-05-E	Line Voltage Track Lighting Worksheets
○	◉	NRCC-LTI-06-E	Indoor Lighting Existing Conditions

BUILDING AND SAFETY DIVISION
Department of Public Works
APPROVED
UNDER LOS ANGELES COUNTY CODE
TITLE 27
amarcus
PUBLIC WORKS
04/15/2020 7:32:54 AM
This set of plans and specifications must be kept at the job site at all times and it is unlawful to make any changes, modifications or alterations to these plans or specifications without the prior written permission of the Building Official. The stamping of this set of plans and specifications SHALL NOT, under any circumstances, be deemed to permit or to be an approval of any work or activity that violates any provisions of any County Ordinance or State Law

BUILDING AND SAFETY DIVISION
Department of Public Works
FINAL ENERGY APPROVED
UNDER CCR TITLE 24, PART 1,
ARTICLE 1 & PART 6
amarcus
PUBLIC WORKS
06/18/2020 11:00:15 AM
This set of plans and specifications must be kept at the job site at all times and it is unlawful to make any changes, modifications or alterations to these plans or specifications without the prior written permission of the Building Official. The stamping of this set of plans and specifications SHALL NOT, under any circumstances, be deemed to permit or to be an approval of any work or activity that violates any provisions of any County Ordinance or State Law

STATE OF CALIFORNIA
INDOOR LIGHTING
CEC-NRCC-LTI-01-E (Revised 04/17) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-01-E
Indoor Lighting	Page 2 of 6
Project Name: MISSION VILLAGE DPW-1 SEWER PUMP STATION	Date Prepared: 06-01-2020

Add Tables for Unconditioned Spaces

C. Summary of Allowed Lighting Power

Conditioned and Unconditioned space Lighting must not be combined for compliance

	Indoor Lighting Power for Conditioned Spaces		Watts	Indoor Lighting Power for Unconditioned Spaces		Watts
1.	**Installed** Lighting NRCC-LTI-01-E, Table H	+	0	**Installed** Lighting NRCC-LTI-01-E, Table H	+	318
2.	Portable Only for Offices NRCC-LTI-01-E	+	0			
3.	Minus Lighting Control Credits NRCC-LTI-02-E	-	0	Minus Lighting Control Credits NRCC-LTI-02-E	-	0
4.	Adjusted **Installed** Lighting Power (row 1 plus row 2 minus row 3)	=	**0**	Adjusted **Installed** Lighting Power (row 1 minus row 3)	=	**318**
	COMPLIES Complies ONLY if **Installed** ≤ **Allowed** (Box 04 ≤ Box 05)			Complies ONLY if **Installed** ≤ **Allowed** (Box 04 ≤ Box 05)		COMPLIES
5.	**Allowed** Lighting Power Conditioned NRCC-LTI-03-E Alterations with replacement luminaires that have at least 50/35% lower power compared to the original existing luminaires, may instead use the allowed wattage from NRCC-LTI-06, page 2			**Allowed** Lighting Power Unconditioned NRCC-LTI-03-E Alterations with replacement luminaires that have at least 50/35% lower power compared to the original existing luminaires, may instead use the allowed wattage from NRCC-LTI-06, page 2		**377**

D. Declaration of Required Certificates of Installation

Declare by selecting yes for all of the Certificates that will be submitted. (Retain copies and verify forms are completed and signed.)

YES	NO	Form/Title	
◉	○	NRCI-LTI-01-E - Must be submitted for all buildings	☐ Field Inspector
◉	○	NRCI-LTI-02-E - Must be submitted for a lighting control system, or for an Energy Management Control System (EMCS), to be recognized for compliance.	☐ Field Inspector
○	◉	NRCI-LTI-03-E - Must be submitted for a line-voltage track lighting integral current limiter, or for a supplementary overcurrent protection panel used to energize only line-voltage track lighting, to be recognized for compliance.	☐ Field Inspector
○	◉	NRCI-LTI-04-E - Must be submitted for two interlocked systems serving an auditorium, a convention center, a conference room, a multipurpose room, or a theater to be recognized for compliance.	☐ Field Inspector
○	◉	NRCI-LTI-05-E - Must be submitted for a Power Adjustment Factor (PAF) to be recognized for compliance.	☐ Field Inspector
○	◉	NRCI-LTI-06-E - Must be submitted for additional wattage installed in a video conferencing studio to be recognized for compliance.	☐ Field Inspector

STATE OF CALIFORNIA
INDOOR LIGHTING
CEC-NRCC-LTI-01-E (Revised 04/17) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-01-E
Indoor Lighting	Page 3 of 6
Project Name: MISSION VILLAGE DPW-1 SEWER PUMP STATION	Date Prepared: 06-01-2020

E. Declaration of Required Certificates of Acceptance

Declare by selecting yes for all of the Certificates that will be submitted. (Retain copies and verify forms are completed and signed.)

YES	NO	Form/Title	
◉	○	NRCA-LTI-02-A - Must be submitted for occupancy sensors and automatic time switch controls.	☐ Field Inspector
○	◉	NRCA-LTI-03-A - Must be submitted for automatic daylight controls.	☐ Field Inspector
○	◉	NRCA-LTI-04-A - Must be submitted for demand responsive lighting controls.	☐ Field Inspector
○	◉	NRCA-LTI-05-A - Must be submitted for institutional tuning power adjustment factor (PAF).	☐ Field Inspector

A Separate Lighting Schedule Must Be Filled Out for Conditioned and Unconditioned Spaces. Installed Lighting Power listed on this Lighting Schedule is only for:
☐ **CONDITIONED SPACE** ☑ **UNCONDITIONED SPACE**

F. Indoor Lighting Schedule and Field Inspection Energy Checklist

- ☑ The actual indoor lighting power listed on the next 2 pages includes all installed permanent and planned portable lighting systems.
- ☐ When Complete Building Method is used for compliance, list each different type of luminaire on separate lines.
- ☐ When Area Category Method or Tailored Method is used for compliance, list each different type of luminaire by each different function area on separate lines
- ☐ Also include track lighting in schedule, and submit the track lighting compliance document (NRCC-LTI-05-E) when line-voltage track lighting is installed.

STATE OF CALIFORNIA
INDOOR LIGHTING
CEC-NRCC-LTI-01-E (Revised 04/17) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-01-E
Indoor Lighting	Page 4 of 6
Project Name: MISSION VILLAGE DPW-1 SEWER PUMP STATION	Date Prepared: 06-01-2020

G. INSTALLED PORTABLE LUMINAIRES IN OFFICES - Exception to Section 140.6(a)—CONDITIONED SPACES

- This section shall be filled out ONLY for portable luminaires in offices (As defined in §100.1). All other planned portable luminaires shall be documented on next page of this compliance document.
- This section is used to determine if greater than 0.3 watts of portable lighting is planned for any office.
- Fill out a separate line for each different office. Small offices that are typical (having the same general and portable lighting) may be grouped together. This allowance shall not be traded between offices having different lighting systems.

Office Portable Luminaire Schedule	Office Installed Portable Luminaire W/ft²							Office Location	Field Inspector	
01	02	03	04	05	06	07	08	09	10	11
Complete Luminaire Description (i.e., LED, under cabinet, furniture mounted, direct/indirect)	Watts per Luminaire	Number of Luminaires	Installed portable luminaire watts in this office (G02 x G03)	Square feet of this office	Watts per square foot (G04 / G05)	If G06 ≤ 0.3, enter zero; if G06 > 0.3, (G06 - 0.3)	(G05 x G07)	Identify Office area in which these portable luminaires are installed	Pass	Fail
			0			0	0		☐	☐
Total installed portable luminaire watts that are greater than 0.3 W/ft² per office:							0			
								Add Row	Remove Last	

H. INDOOR LIGHTING SCHEDULE AND FIELD INSPECTION—CONDITIONED SPACES

Luminaire Schedule		Installed Watts					Location	Field Inspector[1]	
01	02	03	04		05	06	07	08	
			How wattage was determined						
Name or Item Tag	Complete Luminaire Description (i.e., 3 lamp fluorescent troffer, F32T8, one dimmable electronic ballast)	Watts per Luminaire	CEC Default from NA8	According to §130.0(c)	Number of Luminaires	Total Installed Watts in this area (H03 x H05)	Primary Function area in which these luminaires are installed	Pass	Fail
			☐	☐		0		☐	☐
INSTALLED WATTS PAGE TOTAL:						0			
							Add Row	Remove Last	

H. INDOOR LIGHTING SCHEDULE and FIELD INSPECTION ENERGY CHECKLIST—UNCONDITIONED SPACES

Department of Public Works, Los Angeles County

Checked _____ _____

Operational Services Division — Date

NO	BY	DATE	REVISIONS	DATE	APP.
1	CN	04/09/20	REVISION FOR LAC B/S REVIEW	04/09/20	CN
2	CN	06/01/20	REVISION FOR LAC B/S REVIEW #2	06/01/20	CN

REGISTERED PROFESSIONAL ENGINEER CHRISTOPHER NAJARIAN E 22545 EXP: 12-31-20 ELECTRICAL STATE OF CALIFORNIA

PREPARED BY
CHRISTOPHER NAJARIAN
PROJECT ENGINEER
22545
R.C.E. NO. + EXP: 12/31/20

SCALE: AS NOTED
DRAWN: BM, AH
DESIGNED: EEB
CHECKED: CN
DATE: JUNE 2020

THESE DRAWINGS ARE THE PROPERTY OF P.A.C.E. AND SHALL NOT BE REPRODUCED IN ANY MANNER NOR BE USED FOR CONSTRUCTION UNLESS STAMPED 'ISSUED FOR CONSTRUCTION'.

TITLE: TITLE 24 FORMS (4 OF 10)

JOB: MISSION VILLAGE DPW-1 SEWER PUMP STATION PC 12257PS — VALENCIA CA

PACE Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

SHEET 7 E4.4
60 OF 72 SHEETS

JOB NO. 9862-E

Xrefs: 3642x-DPW1 - Elec.dwg
Dimscale = 40; LTscale = 1; PSltscale = 1; ACAD Ver. = 23.0s (LMS Tech); Viewtain = 1
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STATE OF CALIFORNIA
INDOOR LIGHTING
CEC-NRCC-LTI-01-E (Revised 04/17)
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-01-E
Indoor Lighting	Page 5 of 6
Project Name: MISSION VILLAGE DPW-1 SEWER PUMP STATION	Date Prepared: 06-01-2020

Luminaire Schedule		Installed Watts					Location	Field Inspector[1]	
01	02	03	04		05	06	07	08	
Name or Item Tag	Complete Luminaire Description (i.e., 3 lamp fluorescent troffer, F32T8, one dimmable electronic ballast)	Watts per Luminaire	How wattage was determined: CEC Default from NA8	How wattage was determined: According to §130.0(c)	Number of Luminaires	Total Installed Watts in this area (H03 x H05)	Primary Function area in which these luminaires are installed	Pass	Fail
A/A1	RAB FIXTURE SWISH2X4-39YN	39	☐	☑	7	273	PUMP STATION	☐	☐
L	WALL MOUNTED LIGHT FIXTURE	13	☐	☑	2	26	VAULT	☐	☐
C	EXHAUST FAN WITH LIGHT	11	☐	☑	1	11	PUMP STATION	☐	☐
EXIT	SINGLE FACT EXIT SIGN	4	☐	☑	2	8	PUMP STATION	☐	☐
				INSTALLED WATTS PAGE TOTAL:		318			
							Add Row	Remove Last	

BUILDING AND SAFETY DIVISION
Department of Public Works
APPROVED
UNDER LOS ANGELES COUNTY CODE
TITLE 27
amarcus
PUBLIC WORKS
04/15/2020 7:32:54 AM
This set of plans and specifications must be kept at the job site at all times and it is unlawful to make any changes, modifications or alterations to these plans or specifications without the prior written permission of the Building Official. The stamping of this set of plans and specifications SHALL NOT, under any circumstances, be deemed to permit or to be an approval of any work or activity that violates any provisions of any County Ordinance or State Law

BUILDING AND SAFETY DIVISION
Department of Public Works
FINAL ENERGY APPROVED
UNDER CCR TITLE 24, PART 1,
ARTICLE 1 & PART 6
amarcus
PUBLIC WORKS
04/18/2020 11:00:15 AM
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STATE OF CALIFORNIA
INDOOR LIGHTING
CEC-NRCC-LTI-01-E (Revised 04/17)
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-01-E
Indoor Lighting	Page 6 of 6
Project Name: MISSION VILLAGE DPW-1 SEWER PUMP STATION	Date Prepared: 06-01-2020

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: CHRISTOPHER NAJARIAN	Documentation Author Signature: [redacted]
Company: PACE WATER	Signature Date: 06-01-2020
Address: 17520 NEWHOPE STREET, SUITE 200	CEA Certification Identification (if applicable): REE# 22545
City/State/Zip: FOUNTAIN VALLEY, CA 92708	Phone: 714 425 7753

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: CHRISTOPHER NAJARIAN	Responsible Designer Signature: [redacted]
Company: PACE WATER	Date Signed: 06-01-2020
Address: 17520 NEWHOPE STREET, SUITE 200	License: REE# 22545
City/State/Zip: FOUNTAIN VALLEY, CA 92708	Phone: 714 425 7753

STATE OF CALIFORNIA
INDOOR LIGHTING – LIGHTING CONTROLS
CEC-NRCC-LTI-02-E (Revised 04/17)
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-02-E
Indoor Lighting - Lighting Controls	Page 1 of 4
Project Name: MISSION VILLAGE DPW-1 SEWER PUMP STATION	Date Prepared: 06-01-2020

A. Mandatory Lighting Control Declaration Statements (Indicate if the measure applies by checking yes or no below.)

YES	NO	Control Requirements
●	○	Lighting shall be controlled by self-contained lighting control devices which are certified to the Energy Commission according to the Title 20 Appliance Efficiency Regulations in accordance with Section 110.9.
●	○	Lighting shall be controlled by a lighting control system or energy management control system in accordance with §110.9. An Installation Certificate shall be submitted in accordance with Section 130.4(b).
○	●	One or more Track Lighting Integral Current Limiters shall be installed which have been certified to the Energy Commission in accordance with §110.9 and §130.0. Additionally, an Installation Certificate shall be submitted in accordance with Section 130.4(b).
○	●	A Track Lighting Supplementary Overcurrent Protection Panel shall be installed in accordance with Section 110.9 and Section 130.0. Additionally, an Installation Certificate shall be installed in accordance with Section 130.4(b).
●	○	All lighting controls and equipment shall comply with the applicable requirements in §110.9 and shall be installed in accordance with the manufacturer's instructions in accordance with Section 130.1.
●	○	All luminaires shall be functionally controlled with manual ON and OFF lighting controls in accordance with Section 130.1(a).
●	○	General lighting shall be separately controlled from all other lighting systems in an area. Floor and wall display, window display, case display, ornamental, and special effects lighting shall each be separately controlled on circuits that are 20 amps or less. When track lighting is used, general, display, ornamental, and special effects lighting shall each be separately controlled; in accordance with Section 130.1(a)4.
○	●	The general lighting of any enclosed area 100 square feet or larger, with a connected lighting load that exceeds 0.5 watts per square foot shall meet the multi-level lighting control requirements in accordance with Section 130.1(b).
●	○	All installed indoor lighting shall be equipped with controls that meet the applicable Shut-OFF control requirements in Section 130.1(c).
○	●	Lighting in all Daylit Zones shall be controlled in accordance with the requirements in Section 130.1(d) and daylit zones are shown on the plans.
○	●	Lighting power in buildings larger than 10,000 square feet shall be capable of being automatically reduced in response to a Demand Responsive Signal in accordance with Section 130.1(e).
●	○	Before an occupancy permit is granted for a newly constructed building or area, or a new lighting system serving a building, area, or site is operated for normal use, indoor lighting controls serving the building, area, or site shall be certified as meeting the Acceptance Requirements for Code Compliance in accordance with Section 130.4.(a). The controls required to meet the Acceptance Requirements include automatic daylight controls, automatic shut-OFF controls, and demand responsive controls.

STATE OF CALIFORNIA
INDOOR LIGHTING – LIGHTING CONTROLS
CEC-NRCC-LTI-02-E (Revised 04/17)
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-02-E
Indoor Lighting - Lighting Controls	Page 2 of 4
Project Name: MISSION VILLAGE DPW-1 SEWER PUMP STATION	Date Prepared: 06-01-2020

B. Mandatory and Prescriptive Indoor Lighting Control Schedule, PAF Calculation, and Field Inspection Checklist—CONDITIONED SPACES

Lighting Control Schedule			Standards Complying with [1] (Check all that apply or leave blank)							PAF Credit Calculation[2]			Check if Acceptance Test Required	Field Inspector	
										Watts of controlled Lighting	PAF	Control Credit (11 x 12)			
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	
Location in Building	Type/Description of Lighting Control (i.e.: occupancy sensor, automatic time switch, dimmer, automatic daylight, etc.)	# of Units	§130.1(a)	§130.1(b)	§130.1(c)	§130.1(d)	§130.1(e)	§140.6(a)2	§140.6(d)					Pass	Fail
			☐	☐	☐	☐	☐	☐	☐			0	☐	☐	☐
											Control Credit Total:		0		
											Add Row		Remove Last		

1. §130.1(a) = Manual area controls; §130.1(b) = Multi-Level; §130.1(c) = Auto Shut-Off; §130.1(d) = Automatic Daylight; §130.1(e) = Demand Response; §140.6(d) - Additional lighting controls installed to earn a PAF, §140.6(d) = Prescriptive Secondary Sidelit Daylight Controls.
2. Check Table 140.6-A for correct PAF. PAF's shall not be traded between conditioned and unconditioned spaces. As a condition to earn a PAF, an Installation Certificate is also required to be filled out, signed, and submitted.

B. Mandatory and Prescriptive Indoor Lighting Control Schedule, PAF Calculation, and Field Inspection Checklist—UNCONDITIONED SPACES

Lighting Control Schedule			Standards Complying with [1] (Check all that apply or leave blank)							PAF Credit Calculation[2]			Check if Acceptance Test Required	Field Inspector	
										Watts of controlled Lighting	PAF	Control Credit (11 x 12)			
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	
Location in Building	Type/Description of Lighting Control (i.e.: occupancy sensor, automatic time switch, dimmer, automatic daylight, etc.)	# of Units	§130.1(a)	§130.1(b)	§130.1(c)	§130.1(d)	§130.1(e)	§140.6(a)2	§140.6(d)					Pass	Fail

Department of Public Works, Los Angeles County
Checked _____ _____
Operational Services Division Date

NO	BY	DATE	REVISIONS	DATE	APP.
1	CN	04/09/20	REVISION FOR LAC B/S REVIEW	04/09/20	CN
2	CN	06/01/20	REVISION FOR LAC B/S REVIEW #2	06/01/20	CN

REGISTERED PROFESSIONAL ENGINEER CHRISTOPHER NAJARIAN EXP: 12-31-20 ELECTRICAL STATE OF CALIFORNIA

PREPARED BY
CHRISTOPHER NAJARIAN
PROJECT ENGINEER
22545
R.C.E. NO. / ∞
EXP: 12/31/20

SCALE: AS NOTED
DRAWN: BM, AH
DESIGNED: EEB
CHECKED: CN
DATE: JUNE 2020

THESE DRAWINGS ARE THE PROPERTY OF P.A.C.E. AND SHALL NOT BE REPRODUCED IN ANY MANNER NOR BE USED FOR CONSTRUCTION UNLESS STAMPED 'ISSUED FOR CONSTRUCTION'.

TITLE
TITLE 24 FORMS
(5 OF 10)

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

SHEET
E4.5
61 OF 72 SHEETS

JOB NO. 9862-E

Xrefs: 36x24 DPW1 - Elec.dwg
Dimscale = 40, LTscale = 1; PSltscale = 1; ACAD Ver. = 23.0s (LMS Tech); Viewtain = 1
P:\9862E\P_Mission\Bldg\Pln\Design\Engineering\9862-ReSheet Pl\Sheets\DPW1 PS\9862-E E4.x TITLE 24 FORMS.dwg - Tab: E4.5 - by rohn on 06/01/20 at 7:09:32 PM

STATE OF CALIFORNIA
INDOOR LIGHTING – LIGHTING CONTROLS
CEC-NRCC-LTI-02-E (Revised 04/17) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-02-E
Indoor Lighting - Lighting Controls	Page 3 of 4
Project Name: MISSION VILLAGE DPW-1 SEWER PUMP STATION	Date Prepared: 06-01-2020

MECHANICAL ROOM	AUTOMATIC SHUT OFF	1	☑	☐	☑	☐	☐	☐	☐	234	0	0	☐	☐	☐
ELECTRICAL ROOM	AUTOMATIC SHUT OFF	1	☑	☐	☑	☐	☐	☐	☐	312	0	0	☐	☐	☐
BATHROOM	OCCUPANCY SENSOR	1	☑	☐	☑	☐	☐	☐	☐	11	0	0	☐	☐	☐
PUMP VAULT	MANUAL AREA CONTROL	1	☑	☐	☐	☐	☐	☐	☐	26	0	0	☐	☐	☐
												Control Credit Total:		0	
												Add Row		Remove Last	

1. §130.1(a) = Manual area controls; §130.1(b) = Multi-Level; §130.1(c) = Auto Shut-Off; §130.1(d) = Automatic Daylight; §130.1(e) = Demand Response; §140.6(d) - Additional lighting controls installed to earn a PAF; §140.6(d) = Prescriptive Secondary Sidelit Daylight Controls.
2. Check Table 140.6-A for correct PAF. PAF's shall not be traded between conditioned and unconditioned spaces. As a condition to earn a PAF, an Installation Certificate is also required to be filled out, signed, and submitted.

BUILDING AND SAFETY DIVISION
Department of Public Works
APPROVED
UNDER LOS ANGELES COUNTY CODE
TITLE 27
amarcus
PUBLIC WORKS
04/15/2020 7:32:54 AM
This set of plans and specifications must be kept at the job site at all times and it is unlawful to make any changes, modifications or additions to these plans or specifications without the prior written permission of the Building Official. The stamping of this set of plans and specifications SHALL NOT, under any circumstances, be deemed to permit or to be an approval of any work or activity that violates any provisions of any County Ordinance or State Law.

BUILDING AND SAFETY DIVISION
Department of Public Works
FINAL ENERGY APPROVED
UNDER CCR TITLE 24, PART 1,
ARTICLE 1 & PART 6
amarcus
PUBLIC WORKS
06/18/2020 11:00:15 AM
This set of plans and specifications must be kept at the job site at all times and it is unlawful to make any changes, modifications or additions to these plans or specifications without the prior written permission of the Building Official. The stamping of this set of plans and specifications SHALL NOT, under any circumstances, be deemed to permit or to be an approval of any work or activity that violates any provisions of any County Ordinance or State Law.

STATE OF CALIFORNIA
INDOOR LIGHTING – LIGHTING CONTROLS
CEC-NRCC-LTI-02-E (Revised 04/17) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-02-E
Indoor Lighting - Lighting Controls	Page 4 of 4
Project Name: MISSION VILLAGE DPW-1 SEWER PUMP STATION	Date Prepared: 06-01-2020

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: CHRISTOPHER NAJARIAN	Documentation Author Signature:
Company: PACE WATER	Signature Date: 06-01-2020
Address: 17520 NEWHOPE STREET, SUITE 200	CEA Certification Identification (if applicable): REE# 22545
City/State/Zip: FOUNTAIN VALLEY, CA 92708	Phone: 714 425 7753

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:
1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: CHRISTOPHER NAJARIAN	Responsible Designer Signature:
Company: PACE WATER	Date Signed: 06-01-2020
Address: 17520 NEWHOPE STREET, SUITE 200	License: REE# 22545
City/State/Zip: FOUNTAIN VALLEY, CA 92708	Phone: 714 425 7753

STATE OF CALIFORNIA
INDOOR LIGHTING POWER ALLOWANCE
CEC-NRCC-LTI-03-E (Revised 04/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-03-E
Certificate of Compliance - Indoor Lighting Power Allowance	Page 1 of 5
Project Name: MISSION VILLAGE DPW-1 SEWER PUMP STATION	Date Prepared: 06-01-2020

A. SUMMARY TOTALS OF LIGHTING POWER ALLOWANCES—CONDITIONED SPACES

☐ If using Complete Building Method for compliance, use only the total in column (a) as total allowed building watts.
☐ If using Area Category Method, Tailored Method, or a combination of Area Category and Tailored method for compliance, use only the total in column (b) as the total allowed building watts.

	(a)	(b)
1. Complete Building Method Allowed Watts. Documented in section B of NRCC-LTI-03-E (below on this page)	0	
2. Area Category Method Allowed Watts. Documented in C-1 of NRCC-LTI-03-E (below on this page)		0
3. Tailored Method Allowed Watts. Documented in section A of NRCC-LTI-04-E		0
TOTAL ALLOWED BUILDING WATTS.	**0**	

☐ Check here if building contains both conditioned and unconditioned areas.

A. SUMMARY TOTALS OF LIGHTING POWER ALLOWANCES—UNCONDITIONED SPACES

☑ If using Complete Building Method for compliance, use only the total in column (a) as total allowed building watts.
☐ If using Area Category Method, Tailored Method, or a combination of Area Category and Tailored method for compliance, use only the total in column (b) as the total allowed building watts.

	(a)	(b)
1. Complete Building Method Allowed Watts. Documented in section B of NRCC-LTI-03-E (below on this page)	377	
2. Area Category Method Allowed Watts. Documented in C-1 of NRCC-LTI-03-E (below on this page)		0
3. Tailored Method Allowed Watts. Documented in section A of NRCC-LTI-04-E		0
TOTAL ALLOWED BUILDING WATTS.	**377**	

☐ Check here if building contains both conditioned and unconditioned areas.

B. COMPLETE BUILDING METHOD LIGHTING POWER ALLOWANCE—CONDITIONED SPACES

01	02	03	04
TYPE OF BUILDING (from §140.6 Table 140.6-B)	WATTS PER ft²	COMPLETE BUILDING AREA	ALLOWED WATTS
	0		0

STATE OF CALIFORNIA
INDOOR LIGHTING POWER ALLOWANCE
CEC-NRCC-LTI-03-E (Revised 04/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-03-E
Certificate of Compliance - Indoor Lighting Power Allowance	Page 2 of 5
Project Name: MISSION VILLAGE DPW-1 SEWER PUMP STATION	Date Prepared: 06-01-2020

B. COMPLETE BUILDING METHOD LIGHTING POWER ALLOWANCE—UNCONDITIONED SPACES

01	02	03	04
TYPE OF BUILDING (from §140.6 Table 140.6-B)	WATTS PER ft²	COMPLETE BUILDING AREA	ALLOWED WATTS
General Commercial Building/Industrial Work Building	1	377	377

C-1 AREA CATEGORY METHOD TOTAL LIGHTING POWER ALLOWANCES—CONDITIONED SPACES

	Watts
Total from section C-2:	0
Total from section C-3:	0
Total Watts:	0

For Alterations Only - Reduced lighting power option (Total Allowed Watts x 0.85). Enter this value into Section A, Row 2 if using this option.

C-1 AREA CATEGORY METHOD TOTAL LIGHTING POWER ALLOWANCES—UNCONDITIONED SPACES

	Watts
Total from section C-2:	0
Total from section C-3:	0
Total Watts:	0

For Alterations Only - Reduced lighting power option (Total Allowed Watts x 0.85). Enter this value into Section A, Row 2 if using this option.

NO	BY	DATE	REVISIONS	DATE	APP.
1	CN	04/09/20	REVISION FOR LAC B/S REVIEW	04/09/20	CN
2	CN	06/01/20	REVISION FOR LAC B/S REVIEW #2	06/01/20	CN

REGISTERED PROFESSIONAL ENGINEER — CHRISTOPHER NAJARIAN — No. E 22545 — EXP: 12-31-20 — ELECTRICAL — STATE OF CALIFORNIA

PREPARED BY: CHRISTOPHER NAJARIAN
PROJECT ENGINEER
R.C.E. NO.: 22545
EXP: 12/31/20
DRAWN: BM, AH
DESIGNED: EEB
CHECKED: CN
SCALE: AS NOTED
DATE: JUNE 2020

TITLE: TITLE 24 FORMS (6 OF 10)

JOB: MISSION VILLAGE DPW-1 SEWER PUMP STATION PC 12257PS — CA VALENCIA

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PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

Department of Public Works, Los Angeles County
Checked _____ _____
Operational Services Division — Date

SHEET: E4.6 (7)
62 OF 72 SHEETS
JOB NO. 9862-E

Xrefs: 36x24 - DPW1 - Elec.dwg
Dimscale = 40, LTscale = 1, PSltscale = 1, ACAD Ver. = 23.0s (LMS Tech), Viewtain = 1
P:\9862E\P_Mission\Bldg\PrintDesign\Engineering\9862-ElcSheet PS\plotsheets\DPW-1 PS\9862-E-E4.x TITLE 24 FORMS.dwg - Tab: E4.6 - by rohn on 06/17/20 at 7:09:32 PM

STATE OF CALIFORNIA
INDOOR LIGHTING POWER ALLOWANCE
CEC-NRCC-LTI-03-E (Revised 04/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-03-E
Certificate of Compliance - Indoor Lighting Power Allowance	Page 3 of 5
Project Name: MISSION VILLAGE DPW-1 SEWER PUMP STATION	Date Prepared: 06-01-2020

C-2 AREA CATEGORY METHOD GENERAL LIGHTING POWER ALLOWANCE—CONDITIONED SPACES

- Do not include portable lighting for offices. Portable lighting for offices shall be documented only in Section G of NRCC-LTI-01-E.
- Separately list lighting for each primary function area as defined in §100.1 of the Standards.

01		02	03	04
AREA CATEGORY (From §140.6 Table 140.6-C)				
Location in Building	Primary Function Area	WATTS PER ft²	AREA (ft²)	ALLOWED WATTS
		0		0
			TOTALS:	0
			Add Row	Remove Last

C-2 AREA CATEGORY METHOD GENERAL LIGHTING POWER ALLOWANCE—UNCONDITIONED SPACES.

- Do not include portable lighting for offices. Portable lighting for offices shall be documented only in Section G of NRCC-LTI-01-E.
- Separately list lighting for each primary function area as defined in §100.1 of the Standards.

01		02	03	04
AREA CATEGORY (From §140.6 Table 140.6-C)				
Location in Building	Primary Function Area	WATTS PER ft²	AREA (ft²)	ALLOWED WATTS
	Electrical, Mechanical, Telephone Rooms	0.55		0
			TOTALS:	0
			Add Row	Remove Last

C-3 AREA CATEGORY METHOD ADDITIONAL LIGHTING WATTAGE ALLOWANCE (from Table 140.6-C Footnotes)—CONDITIONED SPACES

01	02	03[2]	04	05	06	07
Primary Function	Square Feet or Linear feet[1]	Additional Watts Allowed	Wattage Allowance (02 x 03)	Description(s) and Quantity of Special Luminaire Types in each Primary Function Area	Total Design Watts[3]	ALLOWED WATTS Smaller of 04 or 06
			0			0
					TOTAL:	0

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance — April 2016

STATE OF CALIFORNIA
INDOOR LIGHTING POWER ALLOWANCE
CEC-NRCC-LTI-03-E (Revised 04/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-03-E
Certificate of Compliance - Indoor Lighting Power Allowance	Page 4 of 5
Project Name: MISSION VILLAGE DPW-1 SEWER PUMP STATION	Date Prepared: 06-01-2020

1. Use linear feet only for additional allowance for white board or chalk board. All other additional Area Category allowances shall use watts per square foot.
2. Additional watts are available only when allowed according to the footnotes on bottom of Table 140.6-C, which include: Specialized task work; Ornamental lighting; Precision commercial and industrial work; Per linear foot of white board or chalk board; Accent, display and feature lighting; and Videoconferencing Studio lighting.
3. Luminaire classification and wattage shall be determined in accordance with §130.0(c) of the Standards.

Add Row | Remove Last

C-3 AREA CATEGORY METHOD ADDITIONAL LIGHTING WATTAGE ALLOWANCE (from Table 140.6-C Footnotes)—UNCONDITIONED SPACES

01	02	03[2]	04	05	06	07
Primary Function	Square Feet or Linear feet[1]	Additional Watts Allowed	Wattage Allowance (02 x 03)	Description(s) and Quantity of Special Luminaire Types in each Primary Function Area	Total Design Watts[3]	ALLOWED WATTS Smaller of 04 or 06
			0			0
					TOTAL:	0

1. Use linear feet only for additional allowance for white board or chalk board. All other additional Area Category allowances shall use watts per square foot.
2. Additional watts are available only when allowed according to the footnotes on bottom of Table 140.6-C, which include: Specialized task work; Ornamental lighting; Precision commercial and industrial work; Per linear foot of white board or chalk board; Accent, display and feature lighting; and Videoconferencing Studio lighting.
3. Luminaire classification and wattage shall be determined in accordance with §130.0(c) of the Standards.

Add Row | Remove Last

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance — April 2016

STATE OF CALIFORNIA
INDOOR LIGHTING POWER ALLOWANCE
CEC-NRCC-LTI-03-E (Revised 04/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-03-E
Certificate of Compliance - Indoor Lighting Power Allowance	Page 5 of 5
Project Name: MISSION VILLAGE DPW-1 SEWER PUMP STATION	Date Prepared: 06-01-2020

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: CHRISTOPHER NAJARIAN	Documentation Author Signature:
Company: PACE WATER	Signature Date: 06-01-2020
Address: 17520 NEWHOPE STREET, SUITE 200	CEA Certification Identification (if applicable): REE# 22545
City/State/Zip: FOUNTAIN VALLEY, CA 92708	Phone: 714 425 7753

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: CHRISTOPHER NAJARIAN	Responsible Designer Signature:
Company: PACE WATER	Date Signed: 06-01-2020
Address: 17520 NEWHOPE STREET, SUITE 200	License: REE# 22545
City/State/Zip: FOUNTAIN VALLEY, CA 92708	Phone: 714 425 7753

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance — April 2016

BUILDING AND SAFETY DIVISION
Department of Public Works
APPROVED
UNDER LOS ANGELES COUNTY CODE
TITLE 27
amarcus
PUBLIC WORKS
04/15/2020 7:32:54 AM
This set of plans and specifications must be kept at the job site at all times and it is unlawful to make any changes, modifications or alterations to these plans or specifications without the prior written permission of the Building Official. The stamping of this set of plans and specifications SHALL NOT, under any circumstances, be deemed to permit or to be an approval of any work or activity that violates any provisions of any County Ordinance or State Law.

BUILDING AND SAFETY DIVISION
Department of Public Works
FINAL ENERGY APPROVED
UNDER CCR TITLE 24, PART 1,
ARTICLE 1 & PART 6
amarcus
PUBLIC WORKS
06/18/2020 11:00:15 AM
This set of plans and specifications must be kept at the job site at all times and it is unlawful to make any changes, modifications or alterations to these plans or specifications without the prior written permission of the Building Official. The stamping of this set of plans and specifications SHALL NOT, under any circumstances, be deemed to permit or to be an approval of any work or activity that violates any provisions of any County Ordinance or State Law.

Department of Public Works, Los Angeles County

Checked _____ _____
Operational Services Division — Date

NO	BY	DATE	REVISIONS	DATE	APP.
A	CN	04/09/20	REVISION FOR LAC B/S REVIEW	04/09/20	CN
B	CN	06/01/20	REVISION FOR LAC B/S REVIEW #2	06/01/20	CN

REGISTERED PROFESSIONAL ENGINEER CHRISTOPHER NAJARIAN E 22545 EXP: 12/31/20 ELECTRICAL STATE OF CALIFORNIA

PREPARED BY
CHRISTOPHER NAJARIAN
PROJECT ENGINEER
R.C.E. NO. 22545
EXP: 12/31/20

SCALE: AS NOTED
DRAWN: BM, AH
DESIGNED: EEB
CHECKED: CN
DATE: JUNE 2020

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TITLE
TITLE 24 FORMS
(7 OF 10)

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

SHEET
E4.7
63 OF 72 SHEETS

JOB NO. 9862-E

Xrefs: 36x24 - DPW1 - Elec.dwg
Dimscale = 40; LTscale = 1; PSltscale = 1; ACAD Ver. = 23.0s (LMS Tech); Viewtain = 1

P:\9862E\P_Mission\Bldg\PrelDesign\Engineering\9862-ESewer PS\plotsets\DPW-1 PS\9862-E-E4.x TITLE 24 FORMS.dwg - Tab: E4.7 - By rohin on 06/01/20 at 7:09:32 PM

STATE OF CALIFORNIA
OUTDOOR LIGHTING
CEC-NRCC-LTO-01-E (Revised 04/16)
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTO-01-E
Outdoor Lighting	Page 1 of 4
Project Name: MISSION VILLAGE DPW-1 SEWER PUMP STATION	Date Prepared: 06-01-2020

A. General Information

Project Address:		Total Illuminated Hardscape Area: 2400
Phase of Construction:	☒ New Construction ☐ Addition ☐ Alteration	
Outdoor Lighting Zone:	☒ LZ-1 ☐ LZ-2 ☐ LZ-3 ☐ LZ-4	

I have confirmed with the AHJ which LZ applies to this site. For default lighting zone designations, see Title 24 Part 6, §10-114.

B. Lighting Compliance Documents
(Check box for each document included)

For detailed instructions on the use of this and all Energy Efficiency Standards compliance documents, refer to the Nonresidential Manual published by the California Energy Commission.

☒	NRCC-LTO-01-E	Certificate of Compliance
☒	NRCC-LTO-02-E	Outdoor Lighting Controls Certificate of Compliance
☒	NRCC-LTO-03-E	Outdoor Lighting Power Allowance Certificate of Compliance
☐	NRCC-LTO-04-E	Outdoor Lighting Existing Conditions Certificate of Compliance

C. Summary of Allowed Outdoor Lighting Power		Watts
01	Sum Total ALLOWED Outdoor Lighting Wattage from NRCC-LTO-03-E, Page 1 Alterations with NO increase of connected lighting load may instead use the allowed wattage from NRCC-LTO-04, page 2.	416.2
	Complies ONLY if Installed (Box 02) ≤ Allowed (Box 01)	COMPLIES
02	Sum Total INSTALLED Outdoor Lighting Wattage from NRCC-LTO-01-E, Page 3	330

D. Declaration of Required Installation Certificates
Declare by checking all Installation Certificates that will be submitted. (Retain copies and verify compliance documents are completed and signed.)

☑ NRCI-LTO-01-E - Must be submitted for all buildings	☐ Field Inspector
☑ NRCI-LTO-02-E - Must be submitted for a lighting control system, or for an Energy Management Control System (EMCS), to be recognized for compliance.	☐ Field Inspector

E. Declaration of Required Certificate of Acceptance
Declare by checking all of the Certificates of Acceptance that will be submitted. (Retain copies and verify compliance documents are completed and signed.)

☑ NRCA-LTO-02-A - Must be submitted for outdoor lighting controls.	☐ Field Inspector

STATE OF CALIFORNIA
OUTDOOR LIGHTING
CEC-NRCC-LTO-01-E (Revised 04/16)
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTO-01-E
Outdoor Lighting	Page 2 of 4
Project Name: MISSION VILLAGE DPW-1 SEWER PUMP STATION	Date Prepared: 06-01-2020

F. Schedule of Luminaires Exempt from the Outdoor Lighting Power Requirements in §140.7

01	02
Name or Symbol	Description of exempt luminaire in accordance with the exemptions
WP1LED	RAB WALLPACK, 30W, WARM ,LED ,120V, BRONZE (140.7A EXCEPTIONS, INDUSTRIAL SITE)
Add Row / Remove Last	

G. Schedule of Luminaires Exempt from the Cutoff Requirements in §130.2(b)

01	02
Name or Symbol	Description of exempt luminaire in accordance with the exemptions
WP1LED	RAB WALLPACK, 30W, WARM ,LED ,120V, BRONZE (LESS THAN 150 LAMP WATTS)
Add Row / Remove Last	

H. Schedule of Luminaires Exempt from the Outdoor Lighting Control Requirements in §130.2(c)

01	02
Name or Symbol	Description of exempt luminaire in accordance with the exemptions
WP1LED	RAB WALLPACK, 30W, WARM ,LED ,120V, BRONZE (MAX RATED AT 30 WATTS)
Add Row / Remove Last	

STATE OF CALIFORNIA
OUTDOOR LIGHTING
CEC-NRCC-LTO-01-E (Revised 04/16)
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTO-01-E
Outdoor Lighting	Page 3 of 4
Project Name: MISSION VILLAGE DPW-1 SEWER PUMP STATION	Date Prepared: 06-01-2020

I. Outdoor Lighting Schedule and Field Inspection Energy Checklist

Luminaire Schedule		Installed Watts				Location	Cutoff	Field Inspector	
01	02	03	04		05	06	07	08	09	
Name or Item Tag	Complete Luminaire Description	Watts per Luminaire	How wattage was determined: CEC Default from NA8	How wattage was determined: According to §130.0(c)	Number of Luminaires	Total installed Watts in this area (03 x 05)	Primary Function area in which the luminaires are installed (Outdoor Lighting Zone)	BUG Rating	Pass	Fail
WP1LED	RAB WALLPACK, 30W, WARM ,LED ,120V, BRONZE ((LESS THAN 30 WATTS)	11	☑	☐	30	330	OUTDOOR LIGHTING	UH: / UL: / FVH: / BVH: / FH: / BH:	☐	☐
					INSTALLED WATTS PAGE TOTAL:	330				

Add Row / Remove Last

BUILDING AND SAFETY DIVISION
Department of Public Works
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STATE OF CALIFORNIA
OUTDOOR LIGHTING
CEC-NRCC-LTO-01-E (Revised 04/16)
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTO-01-E
Outdoor Lighting	Page 4 of 4
Project Name: MISSION VILLAGE DPW-1 SEWER PUMP STATION	Date Prepared: 06-01-2020

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: CHRISTOPHER NAJARIAN	Documentation Author Signature:
Company: PACE WATER	Signature Date: 06-01-2020
Address: 17520 NEWHOPE STREET, SUITE 200	CEA Certification Identification (if applicable): REE# 22545
City/State/Zip: FOUNTAIN VALLEY, CA 92708	Phone: 714 425 7753

RESPONSIBLE PERSON'S DECLARATION STATEMENT

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Responsible Designer Name: CHRISTOPHER NAJARIAN	Responsible Designer Signature:
Company: PACE WATER	Date Signed: 06-01-2020
Address: 17520 NEWHOPE STREET, SUITE 200	License: REE# 22545
City/State/Zip: FOUNTAIN VALLEY, CA 92708	Phone: 714 425 7753

Department of Public Works, Los Angeles County
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Operational Services Division Date

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1	CN	04/09/20	REVISION FOR LAC B/S REVIEW	04/09/20	CN
2	CN	06/01/20	REVISION FOR LAC B/S REVIEW #2	06/01/20	CN

PREPARED BY
CHRISTOPHER NAJARIAN
PROJECT ENGINEER
R.C.E. NO. 22545
EXP. 12/31/20

DRAWN BM, AH
DESIGNED EEB
CHECKED CN
SCALE AS NOTED
DATE JUNE 2020

REGISTERED PROFESSIONAL ENGINEER
CHRISTOPHER NAJARIAN
ELECTRICAL
No. E 22545
EXP. 12-31-20
STATE OF CALIFORNIA

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TITLE
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CA
VALENCIA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

SHEET
E4.8
64 OF 72 SHEETS

JOB NO. 9862-E

Xrefs: 36x24 - DPW1 - Elec.dwg
Dimscale = 40, LTscale = 1; PSltscale = 1; ACAD Ver. = 23.0s (LMS Tech); Viewtain = 1
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STATE OF CALIFORNIA
OUTDOOR LIGHTING CONTROLS
CEC-NRCC-LTO-02-E (Revised 08/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTO-02-E
Outdoor Lighting Controls	Page 1 of 3
Project Name: MISSION VILLAGE DPW-1 SEWER PUMP STATION	Date Prepared: 06-01-2020

A. Mandatory Outdoor Lighting Control Declaration Statements

Check all that apply:

- ☑ Lighting shall be controlled by self-contained lighting control devices which are certified to the Energy Commission according to the Title 20 Appliance Efficiency Regulations in accordance with §110.9(a).
- ☑ Lighting shall be controlled by a lighting control system or energy management control system in accordance with §110.9. An Installation Certificate shall be submitted in accordance with §130.4(b).
- ☑ All lighting controls and equipment shall comply with the applicable requirements in §110.9 and shall be installed in accordance with the manufacturer's instructions in accordance with §130.0(d).
- ☑ Part-Night Outdoor Lighting Controls, as defined in Section 100.1(b), shall meet the requirements in Section 110.9(b)5.
- ☐ All outdoor incandescent luminaires rated over 100 watts, determined in accordance with Section 130.0(c), shall be controlled by a motion sensor.
- ☐ All outdoor luminaires rated for use with lamps greater than 150 lamp watts, determined in accordance with Section 130.0(c), shall comply with Uplight and Glare requirements in accordance with Section 130.2(b).
- ☑ All installed outdoor lighting shall be controlled by a photocontrol, outdoor astronomical time-switch control, or other control capable of automatically switching OFF in accordance with Section 130.2(c)1.
- ☑ All installed outdoor lighting shall be circuited and independently controlled from other electrical loads by an automatic scheduling control in accordance with Section 130.2(c)2.
- ☑ All installed outdoor lighting, where the bottom of the luminaire is mounted 24 feet or less above the ground, shall be controlled with automatic lighting controls in accordance with Section 130.2(c)3.
- ☐ For Outdoor Sales Frontage, an automatic lighting control shall be installed in accordance with Section 130.2(c)4.
- ☑ For Building Facade, Ornamental Hardscape and Outdoor Dining lighting, an automatic lighting control shall be installed in accordance with Section 130.2(c)5.
- ☑ Before an occupancy permit is granted for the newly constructed building or for the addition, or for any altered outdoor lighting, the outdoor lighting controls shall be certified as meeting the Acceptance Requirements for Code Compliance in accordance with §130.4.(a). Outdoor lighting controls shall comply with the applicable requirements of Section 130.2(c) and Reference Nonresidential Appendix NA 7.8.

STATE OF CALIFORNIA
OUTDOOR LIGHTING CONTROLS
CEC-NRCC-LTO-02-E (Revised 08/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTO-02-E
Outdoor Lighting Controls	Page 2 of 3
Project Name: MISSION VILLAGE DPW-1 SEWER PUMP STATION	Date Prepared: 06-01-2020

B. Mandatory Outdoor Lighting Control Schedule and Field Inspection Checklist

Outdoor Lighting Control Schedule			Standards Complying With (Check all that apply)						Check if Acceptance Test Required	Field Inspector	
01	02	03	04	05	06	07	08	09	10	11	
Location and Application of Luminaires Being Controlled	Type/Description of Lighting Control (i.e. outdoor motion sensor, outdoor photocontrol, outdoor astronomical time-switch control, automatic scheduling control, part-night outdoor lighting control)	# of Units	§130.2(a)	§130.2(c)1	§130.2(c)2	§130.2(c)3	§130.2(c)4	§130.2(c)5		Pass	Fail
OUTDOOR LIGHTING	AUTOMATIC TIME SWITCH	1	☑	☑	☑	☑	☐	☐	☐	☐	☐

Add Row | Remove Last

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STATE OF CALIFORNIA
OUTDOOR LIGHTING CONTROLS
CEC-NRCC-LTO-02-E (Revised 08/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTO-02-E
Outdoor Lighting Controls	Page 3 of 3
Project Name: MISSION VILLAGE DPW-1 SEWER PUMP STATION	Date Prepared: 06-01-2020

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: CHRISTOPHER NAJARIAN	Documentation Author Signature:
Company: PACE WATER	Signature Date: 06-01-2020
Address: 17520 NEWHOPE STREET, SUITE 200	CEA Certification Identification (if applicable): REE# 22545
City/State/Zip: FOUNTAIN VALLEY, CA 92708	Phone: 714 425 7753

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Responsible Designer Name: CHRISTOPHER NAJARIAN	Responsible Designer Signature:
Company: PACE WATER	Date Signed: 06-01-2020
Address: 17520 NEWHOPE STREET, SUITE 200	License: REE# 22545
City/State/Zip: FOUNTAIN VALLEY, CA 92708	Phone: 714 425 7753

STATE OF CALIFORNIA
OUTDOOR LIGHTING POWER ALLOWANCES
CEC-NRCC-LTO-03-E (Revised 04/17) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTO-03-E
Outdoor Lighting Power Allowances	Page 1 of 4
Project Name: MISSION VILLAGE DPW-1 SEWER PUMP STATION	Date Prepared: 06-01-2020

A. OUTDOOR LIGHTING POWER ALLOWANCE SUMMARY

1. General Hardscape Lighting Power Allowance (Site Total from Section B of NRCC-LTO-03-E)	1.	416.2
2. Additional Specific "use it or lose it" Lighting Power Allowances listed in each of these cells shall be identical to total allowed watts determined in Section C-1 to C-4 of NRCC-LTO-03-E.		

PER APPLICATION from Section C-1		PER UNIT LENGTH (SALES FRONTAGE) from Section C-2		PER HARDSCAPE AREA (ORNAMENTAL LIGHTING) from Section C-3		PER SPECIFIC AREA from Section C-4.			
0	+	0	+	0	+	0	=	2.	0
3. Sum Total ALLOWED Outdoor Lighting Wattage (add rows 1 and 2)								3.	416.2

B. GENERAL HARDSCAPE LIGHTING POWER ALLOWANCE FROM TABLE 140.7-A

Area Wattage Allowance (AWA)				Linear Wattage Allowance (LWA)			Initial Wattage Allowance (IWA)	Total General Hardscape Allowance
01	02	03	04	05	06	07	08	09
Name of Area	Illuminated Hardscape Area (ft²)	AWA Per Square Foot	AWA (B02 x B03)	Perimeter Length of General Hardscape (ft)	LWA Per Linear Foot	LWA (B05 x B06)	IWA (Watts)	B04 + B07 + B08
OUTDOOR	2,400	0.02	48	188	0.15	28.2	340	416.2
							Total:	416.2

Add Row | Remove Last

Department of Public Works, Los Angeles County

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Operational Services Division — Date

NO	BY	DATE	REVISIONS	DATE	APP.
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REGISTERED PROFESSIONAL ENGINEER CHRISTOPHER NAJARIAN E 22545 EXP: 12-31-20 ELECTRICAL STATE OF CALIFORNIA

PREPARED BY: CHRISTOPHER NAJARIAN
PROJECT ENGINEER
R.C.E. NO. 22545
EXP: 12/31/20

SCALE: AS NOTED
DRAWN: BM, AH
DESIGNED: EEB
CHECKED: CN
DATE: JUNE 2020

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TITLE: TITLE 24 FORMS (9 OF 10)

JOB: MISSION VILLAGE DPW-1 SEWER PUMP STATION PC 12257PS — VALENCIA CA

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STATE OF CALIFORNIA
OUTDOOR LIGHTING POWER ALLOWANCES
CEC-NRCC-LTO-03-E (Revised 04/17)
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTO-03-E
Outdoor Lighting Power Allowances	Page 2 of 4
Project Name: MISSION VILLAGE DPW-1 SEWER PUMP STATION	Date Prepared: 06-01-2020

C. ADDITIONAL "USE IT OR LOSE IT" OUTDOOR LIGHTING POWER ALLOWANCES FOR SPECIFIC APPLICATIONS

- The additional specific outdoor lighting power allowance shall be the smaller of the allowed lighting power or the actual lighting power used.
- Use Outdoor Lighting Zone (OLZ) that is documented on page 1 of NRCC-LTO-01-E to calculate the specific wattage allowances.

C-1. WATTAGE ALLOWANCE PER APPLICATION—Table 140.7-B

- Available only for qualifying locations, which include Building Entrances or Exits; Primary Entrances to Senior Care Facilities, Police Stations, Hospitals, Fire Stations, and Emergency Vehicle Facilities; Drive Up Windows; Vehicle Service Station Uncovered Fuel Dispenser; ATM Machine Lighting
- If more than one luminaire type is used per location, use multiple rows for that location

01	02	03	04	05	06	07	08	09	10
	ALLOTTED WATTS			DESIGN WATTS					
Name of Location for Which Allowance is Claimed	Number of Qualifying Locations	Wattage Allowance per Qualifying Location	Allotted Watts (02 x 03)	Luminaire Code or Symbol	Luminaire Description	Luminaire Quantity	Watts per Luminaire	Design Watts (07 x 08)	Allowed Watts (smaller of 04 or 09)
			0					0	0
								Sum total allowance per application on this site:	0

Add Row | Remove Last

C-2. WATTAGE ALLOWANCE PER UNIT LENGTH (Sales Frontage) from Table 140.7-B

- If more than one luminaire type is used per location, use multiple rows for that location

01	02	03	04	05	06	07	08	09	10
	ALLOTTED WATTS			DESIGN WATTS					
Name of Location for Which Allowance is Claimed	Linear Feet of sales frontage	Wattage Allowance per Linear Foot	Allotted Watts (02 x 03)	Luminaire Code or Symbol	Luminaire Description	Luminaire Quantity	Watts per Luminaire	Design Watts (07 x 08)	Allotted Watts (smaller of 04 or 09)
			0					0	0
								Sum total allowance for sales frontage on this site:	0

Add Row | Remove Last

STATE OF CALIFORNIA
OUTDOOR LIGHTING POWER ALLOWANCES
CEC-NRCC-LTO-03-E (Revised 04/17)
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTO-03-E
Outdoor Lighting Power Allowances	Page 3 of 4
Project Name: MISSION VILLAGE DPW-1 SEWER PUMP STATION	Date Prepared: 06-01-2020

C-3. WATTAGE ALLOWANCE PER SQUARE FOOT OF HARDSCAPE AREA (Ornamental Lighting)—Table 140.7-B

- Allowance for the total site illuminated hardscape area. Luminaires qualifying for this allowance shall be rated for 100 watts or less as determined in accordance with Section 130.0(c), and shall be post-top luminaires, lanterns, pendant luminaires, or chandeliers.
- If more than one luminaire type is used per location, use multiple rows for that location

01	02	03	04	05	06	07	08	09	10
	ALLOTTED WATTS			DESIGN WATTS					
Name of Area for Which Ornamental Allowance is Claimed	Square Feet of Hardscape	Wattage Allowance per Square Foot	Allotted Watts (02 x 03)	Luminaire Code or Symbol	Luminaire Description	Luminaire Quantity	Watts per Luminaire	Design Watts (07 x 08)	Allowed Watts (smaller of 04 or 09)
			0					0	0
								Sum total allowance per application on this site:	0

Add Row | Remove Last

C-4. WATTAGE ALLOWANCE PER SQUARE FOOT OF SPECIFIC AREA—Table 140.7-B

- Allowances for Building Facades; Outdoor Sales Lots; Vehicle Service Station Hardscape; Vehicle Service Station Canopies; Sales Canopies; Non-Sales Canopies; Tunnels; Guard Stations; Student Pick-up/Drop-off zone; Outdoor Dining; Special Security Lighting for Retail Parking andPedestrian Hardscape.
- If more than one luminaire type is used per location, use multiple rows for that location

01	02	03	04	05	06	07	08	09	10
	ALLOTTED WATTS			DESIGN WATTS					
Name of Location for Which Allowance is Claimed	Illuminated Area of Application (ft²)	Wattage Allowance per square Foot	Allotted Watts (02 x 03)	Luminaire Code or Symbol	Luminaire Description	Luminaire Quantity	Watts per Luminaire	Design Watts (07 x 08)	Allowed Watts (smaller of 04 or 09)
			0					0	0
								Sum total allowance per application on this site:	0

Add Row | Remove Last

STATE OF CALIFORNIA
OUTDOOR LIGHTING POWER ALLOWANCES
CEC-NRCC-LTO-03-E (Revised 04/17)
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTO-03-E
Outdoor Lighting Power Allowances	Page 4 of 4
Project Name: MISSION VILLAGE DPW-1 SEWER PUMP STATION	Date Prepared: 06-01-2020

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Company: PACE WATER	Date Signed: 06-01-2020
Address: 17520 NEWHOPE STREET, SUITE 200	License: REE# 22545
City/State/Zip: FOUNTAIN VALLEY, CA 92708	Phone: 714 425 7753

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REGISTERED PROFESSIONAL ENGINEER CHRISTOPHER NAJARIAN ELECTRICAL EXP. 12-31-20 STATE OF CALIFORNIA

PREPARED BY
CHRISTOPHER NAJARIAN
PROJECT ENGINEER
R.C.E. NO. 22545
EXP: 12/31/20

DRAWN BM, AH
DESIGNED EEB
CHECKED CN
SCALE AS NOTED
DATE JUNE 2020

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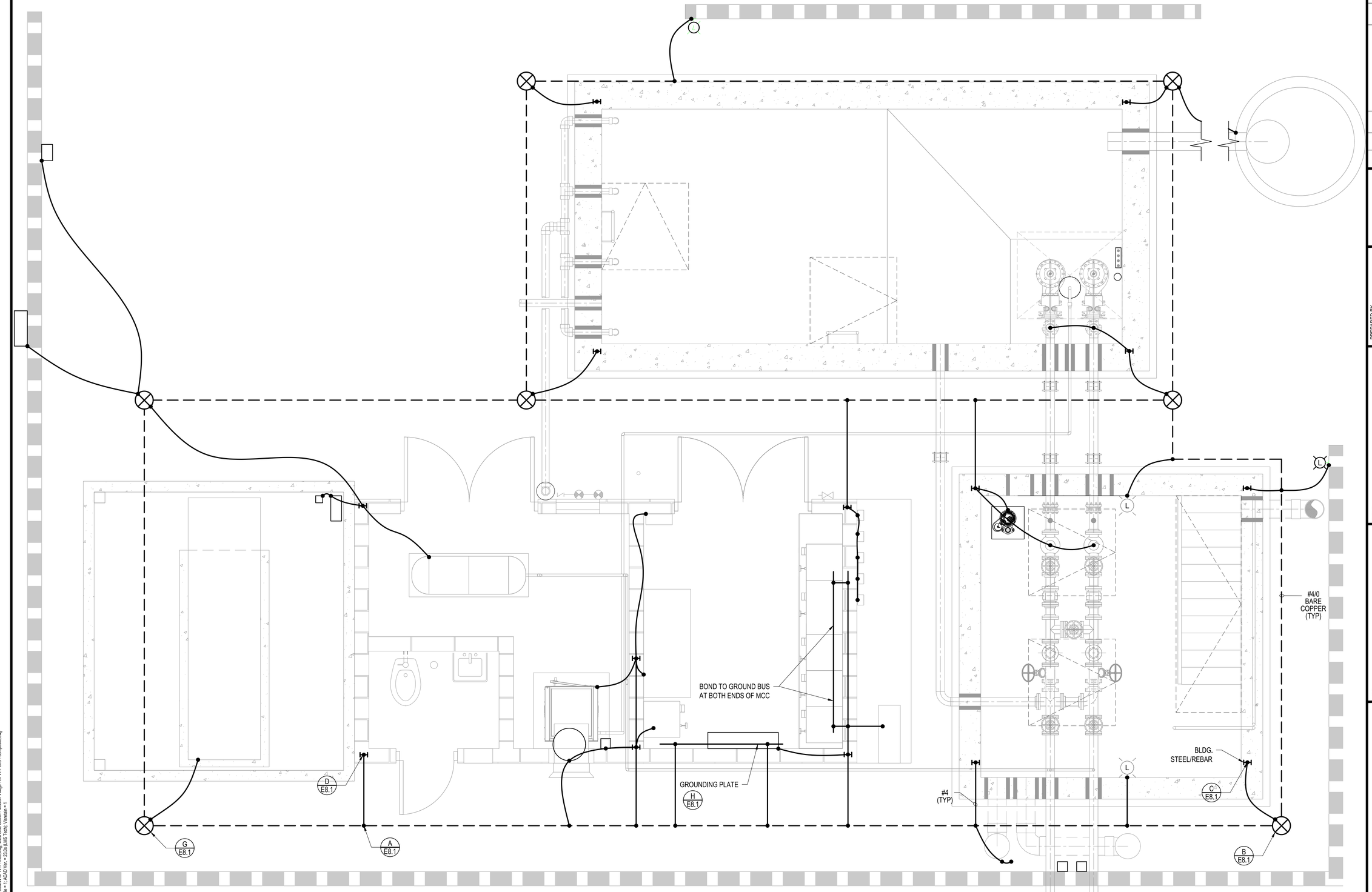
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GROUNDING PLAN
SCALE: 1/2"=1'-0"

NORTH

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER
ERNEST E. BROWN JR.
REG. # 16216
EXP. 12/31/20
CIVIL
STATE OF CALIFORNIA

PREPARED BY
ERNEST E. BROWN
PROJECT ENGINEER
R.C.E. NO. E016216
EXP. 12/31/20

DRAWN	SCALE	DATE
BM, AH	AS NOTED	JAN. 2020
DESIGNED		
EEB		
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EEB		

TITLE
GROUNDING PLAN

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MISSION VILLAGE
DPW-1 SEWER
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P.: (714) 481-7300 | www.pacewater.com

Department of Public Works, Los Angeles County

Checked _____ 02/20/2020
Operations Services Division Date

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JOB NO. 9862-E

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Department of Public Works
FINAL, ENERGY APPROVED
UNDER CCR, TITLE 24, PART 1,
ARTICLE 1 & PART 6
amarcus
PUBLIC WORKS
06/18/2020 11:00:15 AM
This set of plans and specifications must be kept at the job site at all times and it is unlawful to make any changes, modifications or alterations to these plans or specifications without the prior written permission of the Building Official. The stamping of this set of plans and specifications SHALL NOT, under any circumstances, be deemed to permit or to be an approval of any work or activity that violates any provisions of any County Ordinance or State Law

BOND TO GROUND BUS
AT BOTH ENDS OF MCC

GROUNDING PLATE
H
E8.1

#4/0
BARE
COPPER
(TYP)

#2
(TYP)

BLDG.
STEEL/REBAR

D
E8.1

G
E8.1

A
E8.1

C
E8.1

B
E8.1

L

NORTH

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

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER
CHRISTOPHER NAJARIAN
E 22545
EXP: 12-31-20
ELECTRICAL
STATE OF CALIFORNIA

PREPARED BY
CHRISTOPHER NAJARIAN
PROJECT ENGINEER
R.C.E. NO. 22545
EXP: 12/31/20

DRAWN BM, AH
DESIGNED EEB
CHECKED CN
SCALE AS NOTED
DATE JUNE 2020

THESE DRAWINGS ARE THE PROPERTY OF P.A.C.E. AND SHALL NOT BE REPRODUCED IN ANY MANNER NOR BE USED FOR CONSTRUCTION UNLESS STAMPED 'ISSUED FOR CONSTRUCTION'.

TITLE
GROUNDING PLAN

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P.: (714) 481-7300 | www.pacewater.com

Department of Public Works, Los Angeles County
Checked _____ _____
Operational Services Division Date

SHEET
E5.0
67 OF 72 SHEETS

JOB NO. 9862-E

Xrefs: 9862 DPW-1 Mech-plan.dwg, 36x24r DPW-1 - Elec.dwg, West Side Comm - Mission Village - DPW-1 SLS - composite.dwg
Dimscale = 24; LTscale = 1; PSltscale = 1; ACAD Ver. = 23.0s (LMS Tech); Viewtain = 1

P:\9862EP_Mission\Village#1\wd\Design Engineering\9862-E\Sewer PS\sheets\DPW 1 PS\9862-E5 E5.0 GROUNDING PLAN.dwg - Tab: E5.0 - by rchin on 04/09/20 at 4:53:31 AM

POWER CONDUIT WIRE SCHEDULE

CONDUIT		WIRE*		FROM	TO	REMARKS
NO.	SIZE	POWER	GROUND			
PUTIL1	3"	TBD BY UTILITY	-	UTILITY TRANSFORMER	NEW SERVICE ENTRANCE SECTION (SES)	C.O. WITH PULL CORD
P100	3"	3 #3/0	1 #4	AUTOMATIC TRANSFER SWITCH	MCC-1	
P101	3"	3 #3/0	1 #4	MANUAL TRANSFER SWITCH	STANDBY GENERATOR	
P102				NOT USED		
P103				NOT USED		
P104	1"	3 #8	1 #10	MCC-1	WALL MOUNTED TERMINAL BOX 1	SEE SHEET E8.2, DETAIL "A"
P104A	3"	MNFR'S CABLE	-	WALL MOUNTED TERMINAL BOX 1	WET WELL - PUMP 1 "PMP-01001"	SEE SHEET E8.2, DETAIL "A"
P105	1"	3 #8	1 #10	MCC-1	WALL MOUNTED TERMINAL BOX 2	SEE SHEET E8.2, DETAIL "A"
P105A	3"	MNFR'S CABLE	-	WALL MOUNTED TERMINAL BOX 2	WET WELL - PUMP 2 "PMP-01002"	SEE SHEET E8.2, DETAIL "A"
P107	1"	3 #12	1 #12	MCC-1	COMPRESSOR CONTROL PANEL	
P107A	1"	3 #12	1 #12	COMPRESSOR CONTROL PANEL	AIR COMPRESSOR 1 (ACPR-01042)	
P108	3"	3 #3/0	1 #4	MANUAL TRANSFER SWITCH	STANDBY GENERATOR TEST LOAD BANK	
P109	3"	3 #3/0	1 #4	MANUAL TRANSFER SWITCH	AUTOMATIC TRANSFER SWITCH	
P110	3"	3 #3/0	1 #4	NEW SERVICE ENTRANCE SECTION (SES)	AUTOMATIC TRANSFER SWITCH	
P111						
P112	3"	SPARE	-	WALL MOUNTED TERMINAL BOX 1	WET WELL - PUMP 1 "PMP-01001"	C.O. WITH PULL CORD
P113	3"	SPARE	-	WALL MOUNTED TERMINAL BOX 2	WET WELL - PUMP 2 "PMP-01002"	C.O. WITH PULL CORD
P114				NOT USED		
P115	1"	3 #12	1 #12	MCC-1	MECH ROOM VENTILATION FAN STARTER	
P115A	1"	3 #12	1 #12	MECH ROOM VENTILATION FAN STARTER	MECH ROOM VENTILATION FAN	
P116	1"	3 #12	1 #12	MCC-1	VALVE VAULT VENTILATION FAN 1 STARTER	
P116A	1"	3 #12	1 #12	VALVE VAULT VENTILATION FAN 1 STARTER	VALVE VAULT VENTILATION FAN 1	
P117	1"	3 #12	1 #12	MCC-1	VALVE VAULT VENTILATION FAN 2 STARTER	
P117A	1"	3 #12	1 #12	VALVE VAULT VENTILATION FAN 2 STARTER	VALVE VAULT VENTILATION FAN 2	
P200	1"	3 #8	1 #10	PANEL "A", CKTS. 1 & 3	STANDBY GENERATOR JUNCTION BOX	
P201	1"	2 #10	1 #12	480VAC-24VDC POWER SUPPLY PSG480F	MAIN PLC	
P202	1"	2 #12	1 #12	PANEL "A", CKTS. 6 & 8	ELECTRICAL ROOM A/C OUTDOOR UNIT	FUSED DISCONNECT SWITCH, 30A, 250V, 1Ø, 15A FUSE
P202A	1"	2 #12	1 #12	ELECTRICAL ROOM A/C OUTDOOR UNIT	ELECTRICAL ROOM A/C INDOOR UNIT	
P203	1"	2 #12	1 #12	PANEL "A", CKT. 10	MECHANICAL ROOM LIGHTS	
P204	1"	2 #12	1 #12	PANEL "A", CKT. 11	ELECTRICAL ROOM LIGHTS	
P205	1"	2 #12	1 #12	PANEL "A", CKT. 12	BATHROOM RECEPTACLE AND EXHAUST FAN/LIGHT	
P206	1"	2 #12	1 #12	PANEL "A", CKT. 13	EXTERIOR LIGHTS	
P207	1"	2 #12	1 #12	PANEL "A", CKT. 14	INTERIOR RECEPTACLES	
P208	1"	2 #12	1 #12	PANEL "A", CKT. 15	ADEMCO ALARM PANEL	
P209	1"	2 #12	1 #12	PANEL "A", CKT. 16	EMERGENCY LIGHTS AND EXIT SIGNS	
P210	1"	2 #12	1 #12	PANEL "A", CKT. 2	MAGNETIC FLOW METER CONVERTER (FE-01031)	
P211	1"	2 #12	1 #12	PANEL "A", CKT. 4	MAGNETIC FLOW METER CONVERTER (FE-01032)	
P212						
P212A						
P213	1"	2 #12	1 #12	BATHROOM LIGHT SWITCH JUNCTION BOX	BATHROOM VENTILATION FAN	
P214	1"	2 #12	1 #12	PANEL "A", CKT. 18	EXTERIOR RECEPTACLES	
P215	1"	2 #12	1 #12	PANEL "A", CKT. 21	WALL MOUNTED TERMINAL BOX 2B	
P215A	3"	MNFR'S CABLE	-	WALL MOUNTED TERMINAL BOX 2B	SUMP PUMP	
P216	1"	2 #12	1 #12	PANEL "A", CKT. 20	EYS SEAL / VALVE VAULT LIGHTS	
P217	1"	2 #12	1 #12	PANEL "A", CKT 19	OZONE GENERATOR PANEL	
P218	1"	2 #12	1 #12	PANEL "A", CKT. 5	BLOWER CONTROL PANEL (BLR-01041)	
P219	3"	SPARE	-	WALL MOUNTED TERMINAL BOX 4	VALVE VAULT	
P220	1"	2 #12	1 #12	PANEL "A", CKT. 22	SOLENOID VALVE V-01001	
P221	1"	2 #12	1 #12	PANEL "A", CKT. 9	SOLENOID VALVE V-01001 TIMER	
P222	1"	2 #12	1 #12	PANEL "A", CKT. 7	MOTORIZED COMPRESSED AIR VALVE V-01002	

CONTROL CONDUIT WIRE SCHEDULE

CONDUIT		WIRE*	FROM	TO	REMARKS
NO.	SIZE	CONTROL			
C100	1"	8 #14	AUTOMATIC TRANSFER SWITCH JUNCTION BOX	STANDBY GENERATOR CONTROL JUNCTION BOX	
C101	1"	8 #14	AUTOMATIC TRANSFER SWITCH JUNCTION BOX	MAIN PLC	
C102	2"	4 #14	MCC-1 (PUMP 1 VFD)	WALL MOUNTED TERMINAL BOX 1	SEE SHEET E8.2, DETAIL "A"
C102A	3"	MNFR'S CABLE	WALL MOUNTED TERMINAL BOX 1	WET WELL - PUMP 1 - LEAK (ME-01001), TEMP (TE-01001) SENSORS"	SEE SHEET E8.2, DETAIL "A"
C103	2"	4 #14	MCC-1 (PUMP 2 VFD)	WALL MOUNTED TERMINAL BOX 2	SEE SHEET E8.2, DETAIL "A"
C103A	3"	MNFR'S CABLE	WALL MOUNTED TERMINAL BOX 2	WET WELL - PUMP 2 - LEAK (ME-01002), TEMP (TE-01002) SENSORS"	SEE SHEET E8.2, DETAIL "A"
C104	2"	8 #14	MAIN PLC	WALL MOUNTED TERMINAL BOX 3	SEE SHEET E8.2, DETAIL "C"
C104A	3"	MNFR'S CABLE	WALL MOUNTED TERMINAL BOX 3	LEVEL SWITCH HIGH HIGH (LSHH-01001), LS LOW LOW (LSLL-01001), LS HIGH (LSH-01002), LS LOW (LSL-01002), AND LEVEL TRANSMITTER (LT-01001)	SEE SHEET E8.2, DETAIL "C"
C105	1"	SPARE	MAIN PLC	TERMINAL BOX 5 / MAGNETIC FLOW METER CONVERTER (FT-01001)	SEE SHEET E8.2, DETAIL "E" FLOW PULSE TOTAL (FUTURE)
C106	1"	SPARE	MAIN PLC	ELECTRICAL ROOM A/C INDOOR UNIT	C.O. WITH PULL CORD
C107	3"	SPARE	WALL MOUNTED TERMINAL BOX 3	WET WELL	C.O. WITH PULL CORD
C108	1"	2 #14	MAIN PLC	VALVE VAULT VENTILATION FAN 1 STARTER	
C109	3"	SPARE	WALL MOUNTED TERMINAL BOX 4	VALVE VAULT	C.O. WITH PULL CORD
C110	3"	MNFR'S CABLE	WALL MOUNTED TERMINAL BOX 5 / CONVERTER	FLOW METER (FE-01001), FLOW METER (FE-01002)	SEE SHEET E8.2, DETAIL "E"
C111	1"	SPARE	MAIN PLC	TERMINAL BOX 5 / MAGNETIC FLOW METER CONVERTER (FT-01002)	SEE SHEET E8.2, DETAIL "E" FLOW PULSE TOTAL (FUTURE)
C112	1"	2 #14	ADEMCO ALARM PANEL	INTRUSION SWITCH 1 (MECHANICAL ROOM)	INTRUSION ALARMS 1 AND 2 ARE WIRED IN SERIES.
C113	1"	2 #14	INTRUSION SWITCH 1 (MECHANICAL ROOM)	INTRUSION SWITCH 2 (ELECTRICAL ROOM)	INTRUSION ALARMS 1 AND 2 ARE WIRED IN SERIES.
C114	3"	PER PHONE COMPANY	TELEPHONE COMPANY POINT OF SERVICE	ADEMCO PANEL	C.O. WITH PULL CORD
C115	1"	PER MODEM & ANTENNA SUPPLIER	PLC / CELL MODEM	ANTENNA ON ROOF	SEE SHEET E.3.1 NOTE 36
C116	1"	10 #14	STANDBY GENERATOR CONTROL JUNCTION BOX	MAIN PLC	
C117	1"	4 #14	BLOWER CONTROL PANEL (BLR-01041)	MAIN PLC	
C118	1"	2 #14	MECH ROOM VENTILATION FAN STARTER	MECH ROOM VENTILATION FAN	
C119	1"	2 #14	VALVE VAULT VENTILATION FAN 1 STARTER	VALVE VAULT VENTILATION FAN 1	FAN DUCT SAIL SWITCH
C120	1"	SPARE	VALVE VAULT VENTILATION FAN 2 STARTER	VALVE VAULT VENTILATION FAN 2	
C121	1"	2 #14	WALL MOUNTED THERMOSTAT	VENTILATION FAN	
C122	1"	2 #14	WALL MOUNTED THERMOSTAT	AIR CONDITIONING UNIT	
C123	1"	2 #14	VALVE VAULT VENTILATION FAN 1 STARTER	VALVE VAULT VENTILATION FAN 2 STARTER	FAN 1 TDR1-1 TO FAN 2 AUTO
C124	1"	2 #14	SOLENOID VALVE V-01001 TIMER	SOLENOID VALVE V-01001	
C125	1"	2 #14	MCC 3-PHASE VOLTAGE MONITOR	PLC PANEL	
C126	1"	2 #14	MCC 3-PHASE VOLTAGE MONITOR	ADEMCO PANEL	
C127	1"	SPARE	MAIN PLC	COMPRESSOR CONTROL PANEL	C.O. WITH PULL CORD
C128	1"	2 #14	MAIN PLC	MOTORIZED COMPRESSED AIR VALVE (V-01002)	
C129	1"	16#14	ADEMCO ALARM PANEL	MAIN PLC	
C130	1"	2 #14	MAIN PLC	WALL MOUNTED TERMINAL BOX 4	VALVE VAULT LSH-01004
C131	1"	2#14	VALVE VAULT VENTILATION FAN 1 STARTER	EYS SEAL	
C131A	1"	2#14	EYS SEAL	LIMIT SWITCH (VALVE VAULT)	CLASS 1 DIV. 2 RATED CONDUIT
C132	1"	16 #14	MAIN PLC	MCC-1	WET WELL PUMPS 1 & 2 VFDS
C200	1"	1 #18 TSP	MAIN PLC	TERMINAL BOX 5 / FLOW METER CONVERTER (FE-01031)	
C201	1"	1 #18 TSP	MAIN PLC	TERMINAL BOX 5 / FLOW METER CONVERTER (FE-01032)	
C202	1"	4 #18 TSP	MAIN PLC	WALL MOUNTED TERMINAL BOX 4	PRESSURE TRANSMITTER (PT-01002), PT (PT-01004)
C203	1"	1 #18 TSP	MAIN PLC	WALL MOUNTED TERMINAL BOX 3	LEVEL TRANSMITTER (LT-01001)
C204	1"	2 #18 TSP	MAIN PLC	MCC-1	CURRENT MONITORS FOR PUMPS 1 & 2
C205	1"	SPARE	MAIN PLC	MCC-1	VFD SPEED CONTROL (FUTURE)
C206	3"	MNFR'S CABLE	WALL MOUNTED TERMINAL BOX 4	PRESSURE TRANSMITTER (PT-01002), PRESSURE TRANSMITTER (PT-01004), LEVEL SWITCH LSH–01004	SEE SHEET E8.2, DETAIL "D"

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER ERNEST E. BROWN REG. # 16216 EXP. 12/31/20 CIVIL STATE OF CALIFORNIA

PREPARED BY
ERNEST E BROWN
PROJECT ENGINEER
R.C.E. NO. E016216
EXP. 12/31/20

DRAWN BM, AH
DESIGNED EEB
CHECKED EEB
SCALE AS NOTED
DATE JAN. 2020

TITLE
POWER AND CONTROL CABLE AND CONDUIT SCHEDULE

JOB
MISSION VILLAGE
DPW-1 SEWER PUMP STATION PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

Department of Public Works, Los Angeles County
Checked _____ 02/20/2020
Operational Services Division Date

SHEET
E6.0
58 OF 62 SHEETS

JOB NO. 9862-E

Xrefs: 36x24r DPW1 - Elec.dwg
Dimscale = 1; LTscale = 1; PSltscale = 1; ACAD Ver. = 23.0s (LMS Tech); Viewtain = 1

POWER CONDUIT WIRE SCHEDULE

CONDUIT		WIRE*		FROM	TO	REMARKS
NO .	SIZE	POWER	GROUND			
PUTIL1	3"	TBD BY UTILITY	-	UTILITY TRANSFORMER	NEW SERVICE ENTRANCE SECTION (SES)	C.O. WITH PULL CORD
P100	3"	3 #4/0	1 #2	AUTOMATIC TRANSFER SWITCH	MCC-1	
P101	3"	3 #4/0	1 #2	MANUAL TRANSFER SWITCH	STANDBY GENERATOR	
P102				NOT USED		
P103				NOT USED		
P104	1"	3 #8	1 #10	MCC-1	WALL MOUNTED TERMINAL BOX 1	SEE SHEET E8.2, DETAIL "A"
P104A	3"	MNFR'S CABLE	-	WALL MOUNTED TERMINAL BOX 1	WET WELL - PUMP 1 "PMP-01001"	SEE SHEET E8.2, DETAIL "A"
P105	1"	3 #8	1 #10	MCC-1	WALL MOUNTED TERMINAL BOX 2	SEE SHEET E8.2, DETAIL "A"
P105A	3"	MNFR'S CABLE	-	WALL MOUNTED TERMINAL BOX 2	WET WELL - PUMP 2 "PMP-01002"	SEE SHEET E8.2, DETAIL "A"
P107	1"	3 #12	1 #12	MCC-1	COMPRESSOR CONTROL PANEL	
P107A	1"	3 #12	1 #12	COMPRESSOR CONTROL PANEL	AIR COMPRESSOR 1 (ACPR-01042)	
P108	3"	3 #4/0	1 #2	MANUAL TRANSFER SWITCH	STANDBY GENERATOR TEST LOAD BANK	
P109	3"	3 #4/0	1 #2	MANUAL TRANSFER SWITCH	AUTOMATIC TRANSFER SWITCH	
P110	3"	3 #4/0	1 #2	NEW SERVICE ENTRANCE SECTION (SES)	AUTOMATIC TRANSFER SWITCH	
P111						
P112	3"	SPARE	-	WALL MOUNTED TERMINAL BOX 1	WET WELL - PUMP 1 "PMP-01001"	C.O. WITH PULL CORD
P113	3"	SPARE	-	WALL MOUNTED TERMINAL BOX 2	WET WELL - PUMP 2 "PMP-01002"	C.O. WITH PULL CORD
P114				NOT USED		
P115	1"	3 #12	1 #12	MCC-1	MECH ROOM VENTILATION FAN STARTER	
P115A	1"	3 #12	1 #12	MECH ROOM VENTILATION FAN STARTER	MECH ROOM VENTILATION FAN	
P116	1"	3 #12	1 #12	MCC-1	VALVE VAULT VENTILATION FAN 1 STARTER	
P116A	1"	3 #12	1 #12	VALVE VAULT VENTILATION FAN 1 STARTER	VALVE VAULT VENTILATION FAN 1	
P117	1"	3 #12	1 #12	MCC-1	VALVE VAULT VENTILATION FAN 2 STARTER	
P117A	1"	3 #12	1 #12	VALVE VAULT VENTILATION FAN 2 STARTER	VALVE VAULT VENTILATION FAN 2	
P200	1"	3 #8	1 #10	PANEL "A", CKTS. 1 & 3	STANDBY GENERATOR JUNCTION BOX	
P201	1"	2 #10	1 #12	480VAC-24VDC POWER SUPPLY PSG480F	MAIN PLC	
P202	1"	2 #12	1 #12	PANEL "A", CKTS. 6 & 8	ELECTRICAL ROOM A/C OUTDOOR UNIT	FUSED DISCONNECT SWITCH, 30A, 250V, 1Ø, 15A FUSE
P202A	1"	2 #12	1 #12	ELECTRICAL ROOM A/C OUTDOOR UNIT	ELECTRICAL ROOM A/C INDOOR UNIT	
P203	1"	2 #12	1 #12	PANEL "A", CKT. 10	MECHANICAL ROOM LIGHTS	
P204	1"	2 #12	1 #12	PANEL "A", CKT. 11	ELECTRICAL ROOM LIGHTS	
P205	1"	2 #12	1 #12	PANEL "A", CKT. 12	BATHROOM RECEPTACLE AND EXHAUST FAN/LIGHT	
P206	1"	2 #12	1 #12	PANEL "A", CKT. 13	EXTERIOR LIGHTS	
P207	1"	2 #12	1 #12	PANEL "A", CKT. 14	INTERIOR RECEPTACLES	
P208	1"	2 #12	1 #12	PANEL "A", CKT. 15	ADEMCO ALARM PANEL	
P209	1"	2 #12	1 #12	PANEL "A", CKT. 16	EMERGENCY LIGHTS AND EXIT SIGNS	
P210	1"	2 #12	1 #12	PANEL "A", CKT. 2	MAGNETIC FLOW METER CONVERTER (FE-01031)	
P211	1"	2 #12	1 #12	PANEL "A", CKT. 4	MAGNETIC FLOW METER CONVERTER (FE-01032)	
P212						
P212A						
P213	1"	2 #12	1 #12	BATHROOM LIGHT SWITCH JUNCTION BOX	BATHROOM VENTILATION FAN	
P214	1"	2 #12	1 #12	PANEL "A", CKT. 18	EXTERIOR RECEPTACLES	
P215	1"	2 #12	1 #12	PANEL "A", CKT. 21	WALL MOUNTED TERMINAL BOX 2B	
P215A	3"	MNFR'S CABLE	-	WALL MOUNTED TERMINAL BOX 2B	SUMP PUMP	
P216	1"	2 #12	1 #12	PANEL "A", CKT. 20	EYS SEAL / VALVE VAULT LIGHTS	
P217	1"	2 #12	1 #12	PANEL "A", CKT 19	OZONE GENERATOR PANEL	
P218	1"	2 #12	1 #12	PANEL "A", CKT. 5	BLOWER CONTROL PANEL (BLR-01041)	
P219	3"	SPARE	-	WALL MOUNTED TERMINAL BOX 4	VALVE VAULT	
P220	1"	2 #12	1 #12	PANEL "A", CKT. 22	SOLENOID VALVE V-01001	
P221	1"	2 #12	1 #12	PANEL "A", CKT. 9	SOLENOID VALVE V-01001 TIMER	
P222	1"	2 #12	1 #12	PANEL "A", CKT. 7	MOTORIZED COMPRESSED AIR VALVE V-01002	

CONTROL CONDUIT WIRE SCHEDULE

CONDUIT		WIRE*	FROM	TO	REMARKS
NO .	SIZE	CONTROL			
C100	1"	8 #14	AUTOMATIC TRANSFER SWITCH JUNCTION BOX	STANDBY GENERATOR CONTROL JUNCTION BOX	
C101	1"	8 #14	AUTOMATIC TRANSFER SWITCH JUNCTION BOX	MAIN PLC	
C102	2"	4 #14	MCC-1 (PUMP 1 VFD)	WALL MOUNTED TERMINAL BOX 1	SEE SHEET E8.2, DETAIL "A"
C102A	3"	MNFR'S CABLE	WALL MOUNTED TERMINAL BOX 1	WET WELL - PUMP 1 - LEAK (ME-01001), TEMP (TE-01001) SENSORS"	SEE SHEET E8.2, DETAIL "A"
C103	2"	4 #14	MCC-1 (PUMP 2 VFD)	WALL MOUNTED TERMINAL BOX 2	SEE SHEET E8.2, DETAIL "A"
C103A	3"	MNFR'S CABLE	WALL MOUNTED TERMINAL BOX 2	WET WELL - PUMP 2 - LEAK (ME-01002), TEMP (TE-01002) SENSORS"	SEE SHEET E8.2, DETAIL "A"
C104	2"	8 #14	MAIN PLC	WALL MOUNTED TERMINAL BOX 3	SEE SHEET E8.2, DETAIL "C"
C104A	3"	MNFR'S CABLE	WALL MOUNTED TERMINAL BOX 3	LEVEL SWITCH HIGH HIGH (LSHH-01001), LS LOW LOW (LSLL-01001), LS HIGH (LSH-01002), LS LOW (LSL-01002), AND LEVEL TRANSMITTER (LT-01001)	SEE SHEET E8.2, DETAIL "C"
C105	1"	SPARE	MAIN PLC	TERMINAL BOX 5 / MAGNETIC FLOW METER CONVERTER (FT-01001)	SEE SHEET E8.2, DETAIL "E" FLOW PULSE TOTAL (FUTURE)
C106	1"	SPARE	MAIN PLC	ELECTRICAL ROOM A/C INDOOR UNIT	C.O. WITH PULL CORD
C107	3"	SPARE	WALL MOUNTED TERMINAL BOX 3	WET WELL	C.O. WITH PULL CORD
C108	1"	2 #14	MAIN PLC	VALVE VAULT VENTILATION FAN 1 STARTER	
C109	3"	SPARE	WALL MOUNTED TERMINAL BOX 4	VALVE VAULT	C.O. WITH PULL CORD
C110	3"	MNFR'S CABLE	WALL MOUNTED TERMINAL BOX 5 / CONVERTER	FLOW METER (FE-01001), FLOW METER (FE-01002)	SEE SHEET E8.2, DETAIL "E"
C111	1"	SPARE	MAIN PLC	TERMINAL BOX 5 / MAGNETIC FLOW METER CONVERTER (FT-01002)	SEE SHEET E8.2, DETAIL "E" FLOW PULSE TOTAL (FUTURE)
C112	1"	2 #14	ADEMCO ALARM PANEL	INTRUSION SWITCH 1 (MECHANICAL ROOM)	INTRUSION ALARMS 1 AND 2 ARE WIRED IN SERIES.
C113	1"	2 #14	INTRUSION SWITCH 1 (MECHANICAL ROOM)	INTRUSION SWITCH 2 (ELECTRICAL ROOM)	INTRUSION ALARMS 1 AND 2 ARE WIRED IN SERIES.
C114	3"	PER PHONE COMPANY	TELEPHONE COMPANY POINT OF SERVICE	ADEMCO PANEL	C.O. WITH PULL CORD
C115	1"	PER MODEM & ANTENNA SUPPLIER	PLC / CELL MODEM	ANTENNA ON ROOF	SEE SHEET E.3.1 NOTE 36
C116	1"	10 #14	STANDBY GENERATOR CONTROL JUNCTION BOX	MAIN PLC	
C117	1"	4 #14	BLOWER CONTROL PANEL (BLR-01041)	MAIN PLC	
C118	1"	2 #14	MECH ROOM VENTILATION FAN STARTER	MECH ROOM VENTILATION FAN	
C119	1"	2 #14	VALVE VAULT VENTILATION FAN 1 STARTER	VALVE VAULT VENTILATION FAN 1	FAN DUCT SAIL SWITCH
C120	1"	SPARE	VALVE VAULT VENTILATION FAN 2 STARTER	VALVE VAULT VENTILATION FAN 2	
C121	1"	2 #14	WALL MOUNTED THERMOSTAT	VENTILATION FAN	
C122	1"	2 #14	WALL MOUNTED THERMOSTAT	AIR CONDITIONING UNIT	
C123	1"	2 #14	VALVE VAULT VENTILATION FAN 1 STARTER	VALVE VAULT VENTILATION FAN 2 STARTER	FAN 1 TDR1-1 TO FAN 2 AUTO
C124	1"	2 #14	SOLENOID VALVE V-01001 TIMER	SOLENOID VALVE V-01001	
C125	1"	2 #14	MCC 3-PHASE VOLTAGE MONITOR	PLC PANEL	
C126	1"	2 #14	MCC 3-PHASE VOLTAGE MONITOR	ADEMCO PANEL	
C127	1"	SPARE	MAIN PLC	COMPRESSOR CONTROL PANEL	C.O. WITH PULL CORD
C128	1"	2 #14	MAIN PLC	MOTORIZED COMPRESSED AIR VALVE (V-01002)	
C129	1"	16#14	ADEMCO ALARM PANEL	MAIN PLC	
C130	1"	2 #14	MAIN PLC	WALL MOUNTED TERMINAL BOX 4	VALVE VAULT LSH-01004
C131	1"	2#14	VALVE VAULT VENTILATION FAN 1 STARTER	EYS SEAL	
C131A	1"	2#14	EYS SEAL	LIMIT SWITCH (VALVE VAULT)	CLASS 1 DIV. 2 RATED CONDUIT
C132	1"	16 #14	MAIN PLC	MCC-1	WET WELL PUMPS 1 & 2 VFDS
C200	1"	1 #18 TSP	MAIN PLC	TERMINAL BOX 5 / FLOW METER CONVERTER (FE-01031)	
C201	1"	1 #18 TSP	MAIN PLC	TERMINAL BOX 5 / FLOW METER CONVERTER (FE-01032)	
C202	1"	4 #18 TSP	MAIN PLC	WALL MOUNTED TERMINAL BOX 4	PRESSURE TRANSMITTER (PT-01002), PT (PT-01004)
C203	1"	1 #18 TSP	MAIN PLC	WALL MOUNTED TERMINAL BOX 3	LEVEL TRANSMITTER (LT-01001)
C204	1"	2 #18 TSP	MAIN PLC	MCC-1	CURRENT MONITORS FOR PUMPS 1 & 2
C205	1"	SPARE	MAIN PLC	MCC-1	VFD SPEED CONTROL (FUTURE)
C206	3"	MNFR'S CABLE	WALL MOUNTED TERMINAL BOX 4	PRESSURE TRANSMITTER (PT-01002), PRESSURE TRANSMITTER (PT-01004), LEVEL SWITCH LSH–01004	SEE SHEET E8.2, DETAIL "D"

BUILDING AND SAFETY DIVISION
Department of Public Works
APPROVED
UNDER LOS ANGELES COUNTY CODE
TITLE 27
amarcus
PUBLIC WORKS
04/15/2020 7:32:54 AM
This set of plans and specifications shall be kept at the job site at all times and it is unlawful to make any changes, modifications or additions to these plans or specifications without the prior written permission of the Building Official. The stamping of this set of plans and specifications SHALL NOT, under any circumstances, be deemed to permit or to be an approval of any work or activity that violates any provisions of any County Ordinance or State Law.

BUILDING AND SAFETY DIVISION
Department of Public Works
FINAL ENERGY APPROVED
UNDER CCR TITLE 24, PART 1,
ARTICLE 1 & PART 6
amarcus
PUBLIC WORKS
09/18/2020 11:00:15 AM
This set of plans and specifications shall be kept at the job site at all times and it is unlawful to make any changes, modifications or additions to these plans or specifications without the prior written permission of the Building Official. The stamping of this set of plans and specifications SHALL NOT, under any circumstances, be deemed to permit or to be an approval of any work or activity that violates any provisions of any County Ordinance or State Law.

Department of Public Works, Los Angeles County

Checked _____ _____

Operational Services Division — Date

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER CHRISTOPHER NAJARIAN E 22545 EXP. 12-31-20 ELECTRICAL STATE OF CALIFORNIA

PREPARED BY CHRISTOPHER NAJARIAN
PROJECT ENGINEER
R.C.E. NO. 22545
EXP: 12/31/20

DRAWN BM, AH | SCALE AS NOTED
DESIGNED EEB
CHECKED CN | DATE JUNE 2020

TITLE
POWER AND CONTROL CABLE AND CONDUIT SCHEDULE

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

SHEET
E6.0
68 OF 72 SHEETS

JOB NO. 9862-E

THESE DRAWINGS ARE THE PROPERTY OF P.A.C.E. AND SHALL NOT BE REPRODUCED IN ANY MANNER NOR BE USED FOR CONSTRUCTION UNLESS STAMPED "ISSUED FOR CONSTRUCTION".

Xrefs: 36x24v DPW-1 - ESec.dwg
Dimscale = 1; LTscale = 1; PSltscale = 1; ACAD Ver. = 23.0s (LMS Tech); Viewtain = 1
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GENERAL ENGINEERING CONTRACTORS
CA License No. 256065 •A, C-16, HAZ, HIC
P.O. Box 672 • Oxnard, CA 91302-0672
3201 Sturgis Road • Oxnard, CA 93030
(805) 656-1432 • FAX (805) 485-0338

REQUEST FOR INFORMATION

DATE: 12-17-2020 RFI #: **038**

Attention: Tom Hay Bob Brazell, FivePoint Brian Reid, PACE Matt Mills, PACE Fax #: 661-255-4296	From: Matt Messerly Delivered Via: Email Blois Construction Project No.: 3065 Project Name: Mission Village Sewer Lift Station DPW-1

Subject:	**Terminal Box 3 Conduit Designation/Destination**	
Reference:	Drawing Sheets:	E8.2
	Detail Numbers:	
	Spec. Sections:	16000 General Electrical Requirements
	Schedule Activities Impacted:	Electrical Procurement and Installation

INFORMATION REQUESTED:

Please see attached and below RFI from our electrical and instrumentation subcontractor, Taft Electric:

Per electrical drawing sheet 8.2, all terminal boxes with exception to Terminal Box 3 (detail C) have a specific conduit quantity, conduit size, referenceable to conduit schedule, and indicate what equipment location it specifically serves. Please specify conduit sizes, conduit quantities, and routing for Terminal Box 3, detail C from dwg. E8.2

Please review and advise.

Response Requested by:	**12/18/2020**		
If a definitive response is not received by this date Project Schedule Will be Delayed	☒ YES ☐ NO ☐ Uncertain	Potential Cost Impact	☐ YES ☐ NO ☒ Uncertain

RESPONSE: Conduit layout for TB-3 should be per the attached conduit schedule and updated detail.	
BY: C.N.	DATE: 12/21/2020

RFI #38

POWER CONDUIT WIRE SCHEDULE

CONDUIT		WIRE*		FROM	TO	REMARKS
NO .	SIZE	POWER	GROUND			
PUTIL1	3"	TBD BY UTILITY	-	UTILITY TRANSFORMER	NEW SERVICE ENTRANCE SECTION (SES)	C.O. WITH PULL CORD
P100	3"	3 #4/0	1 #2	AUTOMATIC TRANSFER SWITCH	MCC-1	
P101	3"	3 #4/0	1 #2	MANUAL TRANSFER SWITCH	STANDBY GENERATOR	
P102				NOT USED		
P103				NOT USED		
P104	1"	3 #8	1 #10	MCC-1	WALL MOUNTED TERMINAL BOX 1	SEE SHEET E8.2, DETAIL "A"
P104A	3"	MNFR'S CABLE	-	WALL MOUNTED TERMINAL BOX 1	WET WELL - PUMP 1 "PMP-01001"	SEE SHEET E8.2, DETAIL "A"
P105	1"	3 #8	1 #10	MCC-1	WALL MOUNTED TERMINAL BOX 2	SEE SHEET E8.2, DETAIL "A"
P105A	3"	MNFR'S CABLE	-	WALL MOUNTED TERMINAL BOX 2	WET WELL - PUMP 2 "PMP-01002"	SEE SHEET E8.2, DETAIL "A"
P107	1"	3 #12	1 #12	MCC-1	COMPRESSOR CONTROL PANEL	
P107A	1"	3 #12	1 #12	COMPRESSOR CONTROL PANEL	AIR COMPRESSOR 1 (ACPR-01042)	
P108	3"	3 #4/0	1 #2	MANUAL TRANSFER SWITCH	STANDBY GENERATOR TEST LOAD BANK	
P109	3"	3 #4/0	1 #2	MANUAL TRANSFER SWITCH	AUTOMATIC TRANSFER SWITCH	
P110	3"	3 #4/0	1 #2	NEW SERVICE ENTRANCE SECTION (SES)	AUTOMATIC TRANSFER SWITCH	
P111						
P112	3"	SPARE	-	WALL MOUNTED TERMINAL BOX 1	WET WELL - PUMP 1 "PMP-01001"	C.O. WITH PULL CORD
P113	3"	SPARE	-	WALL MOUNTED TERMINAL BOX 2	WET WELL - PUMP 2 "PMP-01002"	C.O. WITH PULL CORD
P114				NOT USED		
P115	1"	3 #12	1 #12	MCC-1	MECH ROOM VENTILATION FAN STARTER	
P115A	1"	3 #12	1 #12	MECH ROOM VENTILATION FAN STARTER	MECH ROOM VENTILATION FAN	
P116	1"	3 #12	1 #12	MCC-1	VALVE VAULT VENTILATION FAN 1 STARTER	
P116A	1"	3 #12	1 #12	VALVE VAULT VENTILATION FAN 1 STARTER	VALVE VAULT VENTILATION FAN 1	
P117	1"	3 #12	1 #12	MCC-1	VALVE VAULT VENTILATION FAN 2 STARTER	
P117A	1"	3 #12	1 #12	VALVE VAULT VENTILATION FAN 2 STARTER	VALVE VAULT VENTILATION FAN 2	
P200	1"	3 #8	1 #10	PANEL "A", CKTS. 1 & 3	STANDBY GENERATOR JUNCTION BOX	
P201	1"	2 #10	1 #12	480VAC-24VDC POWER SUPPLY PSG480F	MAIN PLC	
P202	1"	2 #12	1 #12	PANEL "A", CKTS. 6 & 8	ELECTRICAL ROOM A/C OUTDOOR UNIT	FUSED DISCONNECT SWITCH, 30A, 250V, 1Ø, 15A FUSE
P202A	1"	2 #12	1 #12	ELECTRICAL ROOM A/C OUTDOOR UNIT	ELECTRICAL ROOM A/C INDOOR UNIT	
P203	1"	2 #12	1 #12	PANEL "A", CKT. 10	MECHANICAL ROOM LIGHTS	
P204	1"	2 #12	1 #12	PANEL "A", CKT. 11	ELECTRICAL ROOM LIGHTS	
P205	1"	2 #12	1 #12	PANEL "A", CKT. 12	BATHROOM RECEPTACLE AND EXHAUST FAN/LIGHT	
P206	1"	2 #12	1 #12	PANEL "A", CKT. 13	EXTERIOR LIGHTS	
P207	1"	2 #12	1 #12	PANEL "A", CKT. 14	INTERIOR RECEPTACLES	
P208	1"	2 #12	1 #12	PANEL "A", CKT. 15	ADEMCO ALARM PANEL	
P209	1"	2 #12	1 #12	PANEL "A", CKT. 16	EMERGENCY LIGHTS AND EXIT SIGNS	
P210	1"	2 #12	1 #12	PANEL "A", CKT. 2	MAGNETIC FLOW METER CONVERTER (FE-01031)	
P211	1"	2 #12	1 #12	PANEL "A", CKT. 4	MAGNETIC FLOW METER CONVERTER (FE-01032)	
P212						
P212A						
P213	1"	2 #12	1 #12	BATHROOM LIGHT SWITCH JUNCTION BOX	BATHROOM VENTILATION FAN	
P214	1"	2 #12	1 #12	PANEL "A", CKT. 18	EXTERIOR RECEPTACLES	
P215	1"	2 #12	1 #12	PANEL "A", CKT. 21	WALL MOUNTED TERMINAL BOX 2B	
P215A	3"	MNFR'S CABLE	-	WALL MOUNTED TERMINAL BOX 2B	SUMP PUMP	
P216	1"	2 #12	1 #12	PANEL "A", CKT. 20	EYS SEAL / VALVE VAULT LIGHTS	
P217	1"	2 #12	1 #12	PANEL "A", CKT 19	OZONE GENERATOR PANEL	
P218	1"	2 #12	1 #12	PANEL "A", CKT. 5	BLOWER CONTROL PANEL (BLR-01041)	
P219	3"	SPARE	-	WALL MOUNTED TERMINAL BOX 4	VALVE VAULT	
P220	1"	2 #12	1 #12	PANEL "A", CKT. 22	SOLENOID VALVE V-01001	
P221	1"	2 #12	1 #12	PANEL "A", CKT. 9	SOLENOID VALVE V-01001 TIMER	
P222	1"	2 #12	1 #12	PANEL "A", CKT. 7	MOTORIZED COMPRESSED AIR VALVE V-01002	

CONTROL CONDUIT WIRE SCHEDULE

CONDUIT		WIRE*	FROM	TO	REMARKS
NO .	SIZE	CONTROL			
C100	1"	8 #14	AUTOMATIC TRANSFER SWITCH JUNCTION BOX	STANDBY GENERATOR CONTROL JUNCTION BOX	
C101	1"	8 #14	AUTOMATIC TRANSFER SWITCH JUNCTION BOX	MAIN PLC	
C102	2"	4 #14	MCC-1 (PUMP 1 VFD)	WALL MOUNTED TERMINAL BOX 1	SEE SHEET E8.2, DETAIL "A"
C102A	3"	MNFR'S CABLE	WALL MOUNTED TERMINAL BOX 1	WET WELL - PUMP 1 - LEAK (ME-01001), TEMP (TE-01001) SENSORS"	SEE SHEET E8.2, DETAIL "A"
C103	2"	4 #14	MCC-1 (PUMP 2 VFD)	WALL MOUNTED TERMINAL BOX 2	SEE SHEET E8.2, DETAIL "A"
C103A	3"	MNFR'S CABLE	WALL MOUNTED TERMINAL BOX 2	WET WELL - PUMP 2 - LEAK (ME-01002), TEMP (TE-01002) SENSORS"	SEE SHEET E8.2, DETAIL "A"
C104	2"	8 #14	MAIN PLC	WALL MOUNTED TERMINAL BOX 3	SEE SHEET E8.2, DETAIL "C"
C104A	3"	MNFR'S CABLE	WALL MOUNTED TERMINAL BOX 3	LEVEL SWITCH HIGH HIGH (LSHH-01001), LS LOW LOW (LSLL-01001), LS HIGH (LSH-01002), LS LOW (LSL-01002), AND LEVEL TRANSMITTER (LT-01001)	SEE SHEET E8.2, DETAIL "C"
C105	1"	SPARE	MAIN PLC	TERMINAL BOX 5 / MAGNETIC FLOW METER CONVERTER (FT-01001)	SEE SHEET E8.2, DETAIL "E" FLOW PULSE TOTAL (FUTURE)
C106	1"	SPARE	MAIN PLC	ELECTRICAL ROOM A/C INDOOR UNIT	C.O. WITH PULL CORD
C107	3"	SPARE	WALL MOUNTED TERMINAL BOX 3	WET WELL	C.O. WITH PULL CORD
C108	1"	2 #14	MAIN PLC	VALVE VAULT VENTILATION FAN 1 STARTER	
C109	3"	SPARE	WALL MOUNTED TERMINAL BOX 4	VALVE VAULT	C.O. WITH PULL CORD
C110	3"	MNFR'S CABLE	WALL MOUNTED TERMINAL BOX 5 / CONVERTER	FLOW METER (FE-01001), FLOW METER (FE-01002)	SEE SHEET E8.2, DETAIL "E"
C111	1"	SPARE	MAIN PLC	TERMINAL BOX 5 / MAGNETIC FLOW METER CONVERTER (FT-01002)	SEE SHEET E8.2, DETAIL "E" FLOW PULSE TOTAL (FUTURE)
C112	1"	2 #14	ADEMCO ALARM PANEL	INTRUSION SWITCH 1 (MECHANICAL ROOM)	INTRUSION ALARMS 1 AND 2 ARE WIRED IN SERIES.
C113	1"	2 #14	INTRUSION SWITCH 1 (MECHANICAL ROOM)	INTRUSION SWITCH 2 (ELECTRICAL ROOM)	INTRUSION ALARMS 1 AND 2 ARE WIRED IN SERIES.
C114	3"	PER PHONE COMPANY	TELEPHONE COMPANY POINT OF SERVICE	ADEMCO PANEL	C.O. WITH PULL CORD
C115	1"	PER MODEM & ANTENNA SUPPLIER	PLC / CELL MODEM	ANTENNA ON ROOF	SEE SHEET E.3.1 NOTE 36
C116	1"	10 #14	STANDBY GENERATOR CONTROL JUNCTION BOX	MAIN PLC	
C117	1"	4 #14	BLOWER CONTROL PANEL (BLR-01041)	MAIN PLC	
C118	1"	2 #14	MECH ROOM VENTILATION FAN STARTER	MECH ROOM VENTILATION FAN	
C119	1"	2 #14	VALVE VAULT VENTILATION FAN 1 STARTER	VALVE VAULT VENTILATION FAN 1	FAN DUCT SAIL SWITCH
C120	1"	SPARE	VALVE VAULT VENTILATION FAN 2 STARTER	VALVE VAULT VENTILATION FAN 2	
C121	1"	2 #14	WALL MOUNTED THERMOSTAT	VENTILATION FAN	
C122	1"	2 #14	WALL MOUNTED THERMOSTAT	AIR CONDITIONING UNIT	
C123	1"	2 #14	VALVE VAULT VENTILATION FAN 1 STARTER	VALVE VAULT VENTILATION FAN 2 STARTER	FAN 1 TDR1-1 TO FAN 2 AUTO
C124	1"	2 #14	SOLENOID VALVE V-01001 TIMER	SOLENOID VALVE V-01001	
C125	1"	2 #14	MCC 3-PHASE VOLTAGE MONITOR	PLC PANEL	
C126	1"	2 #14	MCC 3-PHASE VOLTAGE MONITOR	ADEMCO PANEL	
C127	1"	SPARE	MAIN PLC	COMPRESSOR CONTROL PANEL	C.O. WITH PULL CORD
C128	1"	2 #14	MAIN PLC	MOTORIZED COMPRESSED AIR VALVE (V-01002)	
C129	1"	16#14	ADEMCO ALARM PANEL	MAIN PLC	
C130	1"	2 #14	MAIN PLC	WALL MOUNTED TERMINAL BOX 4	VALVE VAULT LSH-01004
C131	1"	2#14	VALVE VAULT VENTILATION FAN 1 STARTER	EYS SEAL	
C131A	1"	2#14	EYS SEAL	LIMIT SWITCH (VALVE VAULT)	CLASS 1 DIV. 2 RATED CONDUIT
C132	1"	16 #14	MAIN PLC	MCC-1	WET WELL PUMPS 1 & 2 VFDS
C200	1"	1 #18 TSP	MAIN PLC	TERMINAL BOX 5 / FLOW METER CONVERTER (FE-01031)	
C201	1"	1 #18 TSP	MAIN PLC	TERMINAL BOX 5 / FLOW METER CONVERTER (FE-01032)	
C202	1"	4 #18 TSP	MAIN PLC	WALL MOUNTED TERMINAL BOX 4	PRESSURE TRANSMITTER (PT-01002), PT (PT-01004)
C203	1"	1 #18 TSP	MAIN PLC	WALL MOUNTED TERMINAL BOX 3	LEVEL TRANSMITTER (LT-01001)
C204	1"	2 #18 TSP	MAIN PLC	MCC-1	CURRENT MONITORS FOR PUMPS 1 & 2
C205	1"	SPARE	MAIN PLC	MCC-1	VFD SPEED CONTROL (FUTURE)
C206	3"	MNFR'S CABLE	WALL MOUNTED TERMINAL BOX 4	PRESSURE TRANSMITTER (PT-01002), PRESSURE TRANSMITTER (PT-01004), LEVEL SWITCH LSH--01004	SEE SHEET E8.2, DETAIL "D"

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER CHRISTOPHER NAJARIAN E 22545 EXP. 12-31-20 ELECTRICAL STATE OF CALIFORNIA

PREPARED BY: CHRISTOPHER NAJARIAN, PROJECT ENGINEER, R.C.E. NO. 22545, EXP. 12/31/20 | SCALE: AS NOTED | DRAWN: BM, AH | DESIGNED: EEB | CHECKED: CW | DATE: JUNE 2020

TITLE: **POWER AND CONTROL CABLE AND CONDUIT SCHEDULE**

JOB: **MISSION VILLAGE**
DPW-1 SEWER PUMP STATION PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

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68 OF 72 SHEETS
JOB NO. 9862-E

Department of Public Works, Los Angeles County
Checked _____ _____
Operational Services Division Date

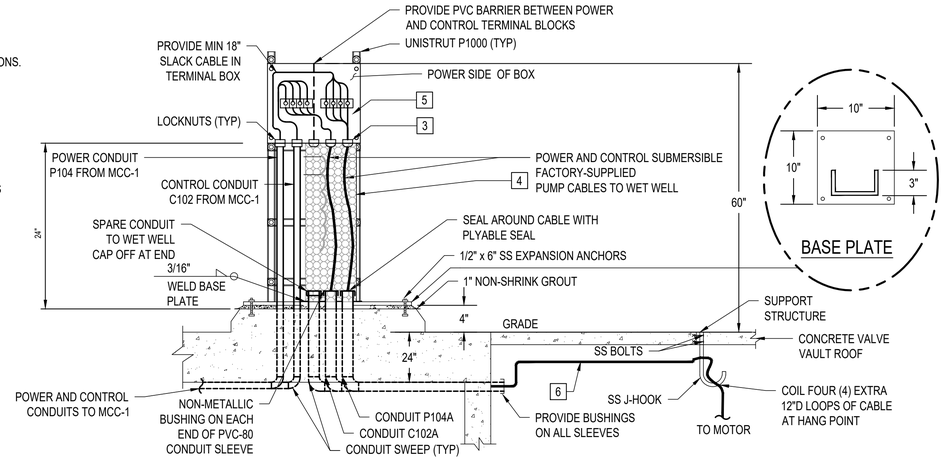
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Xrefs: 9862dx DPW-1 - Elec.dwg
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RFI #38

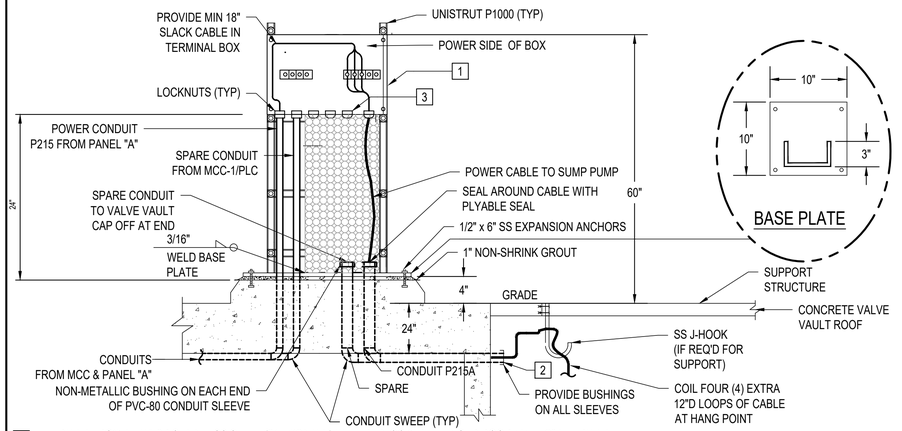
NOTES:

1. SEE SHEET E6.0 FOR POWER AND CONTROL CONDUIT DESTINATIONS.
2. SPLICE TO VENDOR CONDUCTORS IN TERMINAL BOX USING RESPECTIVE TERMINAL BLOCKS.
3. REMOVABLE STAINLESS STEEL TC CABLE GLAND BY CMP PRODUCTS, OR APPROVED EQUAL CABLE CONNECTORS.
4. PUMP POWER AND CONTROL CABLE CAGE. 16GA PERFORATED STANLESS STEEL 1/4" HOLE ON 3/8 CENTERS. CONTRACTOR SHALL ADJUST CAGE AS NEEDED TO ACCOMMODATE ALL CABLES AND CONNECTORS (INCLUDING SPARES) GOING TO WET WELL. MOUNT CAGE BACK PANEL TO UNISTRUT FOR SUPPORT.
5. TERMINAL BOX, NEMA 3R STAINLESS STEEL (24"HX24"MIN) WITH PADLOCKABLE HINGED DOOR, WITH 20A TERMINAL BLOCKS (QTY AS REQ'D) FOR CONTROL WIRES, AND FOUR (4) 480V TERMINAL BLOCKS SIZED FOR MIN. 125% FLA OF PUMPS 1 & 2 MOTORS.
6. MANUFACTURE'S CABLE IN WET WELL SHALL BE ROUTED AND HUNG NEAR ACCESS POINT TO ALLOW EASY REMOVAL/REPLACEMENT OF EQUIPMENT AND SENSORS FROM SURFACE WITHOUT NEED FOR PERSONNEL TO ENTER THE WET WELL. SEE SHEET E3.1. CONTRACTOR SHALL CONFIRM ROUTING STRATEGY WITH SMD BEFORE PURCHASE AND INSTALLATION.



TERMINAL BOX 1 AND 2 - PUMP NO. 1 SHOWN -TYP. FOR PUMP NO. 2

SCALE: N.T.S. | A



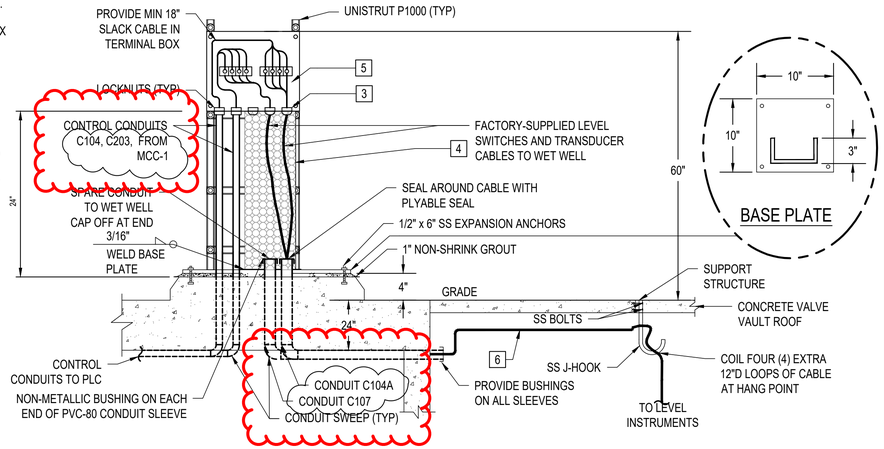
1. TERMINAL BOX, NEMA 3R STAINLESS STEEL (24"HX24"MIN) WITH PADLOCKABLE HINGED DOOR, WITH 20A TERMINAL BLOCKS FOR PUMP CONDUCTORS.
2. ROUTE CONDUIT SO STUB OUT LOCATION FROM WALL IS DIRECTILY ABOVE SUMP PUMP SO THAT MANUFACTURER'S CABLE IN VAULT CAN DROP DIRECTLY DOWN TO ALLOW EASY REMOVAL/REPLACEMENT OF EQUIPMENT.
3. TYPICAL SPARE HUB, CAPPED AND SEALED.

TERMINAL BOX 2B - SUMP PUMP

SCALE: N.T.S. | B

NOTES:

1. SEE SHEET E6.0 CONTROL CONDUIT DESTINATIONS.
2. SPLICE TO VENDOR CONDUCTORS IN TERMINAL BOX USING RESPECTIVE TERMINAL BLOCKS.
3. REMOVABLE STAINLESS STEEL TC CABLE GLAND BY CMP PRODUCTS, OR APPROVED EQUAL CABLE CONNECTORS.
4. CONTROL CABLE CAGE. 16GA PERFORATED STANLESS STEEL 1/4" HOLE ON 3/8 CENTERS. CONTRACTOR SHALL ADJUST CAGE AS NEEDED TO ACCOMMODATE ALL CABLES AND CONNECTORS (INCLUDING SPARES) GOING TO WET WELL. MOUNT CAGE BACK PANEL TO UNISTRUT FOR SUPPORT.
5. TERMINAL BOX, NEMA 3R STAINLESS STEEL (24"HX24"MIN) WITH PADLOCKABLE HINGED DOOR, WITH TERMINAL BLOCKS (QTY AS REQ'D) FOR CONTROL WIRES.
6. MANUFACTURE'S CABLE IN WET WELL SHALL BE ROUTED AND HUNG NEAR ACCESS POINT TO ALLOW EASY REMOVAL/REPLACEMENT OF EQUIPMENT AND SENSORS FROM SURFACE WITHOUT NEED FOR PERSONNEL TO ENTER THE WET WELL. SEE SHEET E3.1. CONTRACTOR SHALL CONFIRM ROUTING STRATEGY WITH SMD BEFORE PURCHASE AND INSTALLATION.

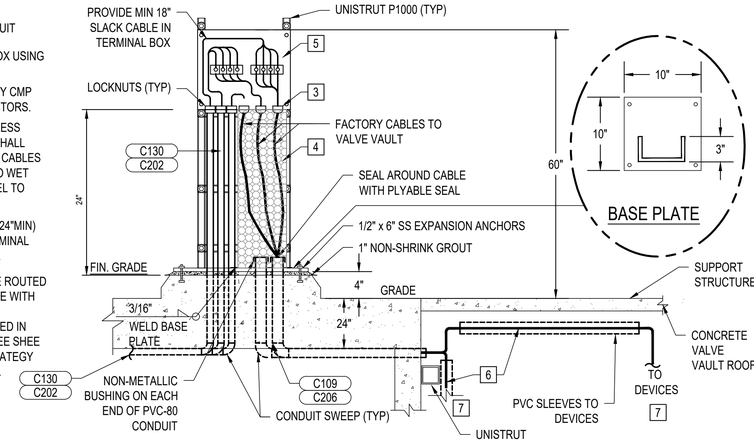


TERMINAL BOX 3

SCALE: N.T.S. | C

NOTES:

1. SEE SHEET E6.0 FOR POWER AND CONTROL CONDUIT DESTINATIONS.
2. SPLICE TO VENDOR CONDUCTORS IN TERMINAL BOX USING RESPECTIVE TERMINAL BLOCKS.
3. REMOVABLE STAINLESS STEEL TC CABLE GLAND BY CMP PRODUCTS, OR APPROVED EQUAL CABLE CONNECTORS.
4. CONTROL CABLE CAGE. 16GA PERFORATED STANLESS STEEL 1/4" HOLE ON 3/8 CENTERS. CONTRACTOR SHALL ADJUST CAGE AS NEEDED TO ACCOMMODATE ALL CABLES AND CONNECTORS (INCLUDING SPARES) GOING TO WET WELL AND VALVE VAULT. MOUNT CAGE BACK PANEL TO UNISTRUT FOR SUPPORT. SEE SHEET E3.1. CONTRACTOR SHALL CONFIRM ROUTING STRATEGY WITH SMD BEFORE PURCHASE AND INSTALLATION.
5. TERMINAL BOX, NEMA 3R STAINLESS STEEL (24"HX24"MIN) WITH PADLOCKABLE HINGED DOOR, WITH 20A TERMINAL BLOCKS (QTY AS REQ'D) FOR CONTROL CONDUITS.
6. MANUFACTURE'S CABLE IN VALVE VAULT SHALL BE ROUTED TO AVOID TRIPPING HAZARDS AND IN ACCORDANCE WITH CLEARANCE REQUIREMENTS. IN ADDITION ALL WIRES/CABLES IN VALVE VAULT SHALL BE INSTALLED IN PVC SLEEVES MOUNTED ON WALLS OR CEILING. SEE SHEE E3.1. CONTRACTOR SHALL CONFIRM ROUTING STRATEGY WITH SMD BEFORE PURCHASE AND INSTALLATION.
7. TO LEVEL SWITCHES AND/OR TRANSDUCER.

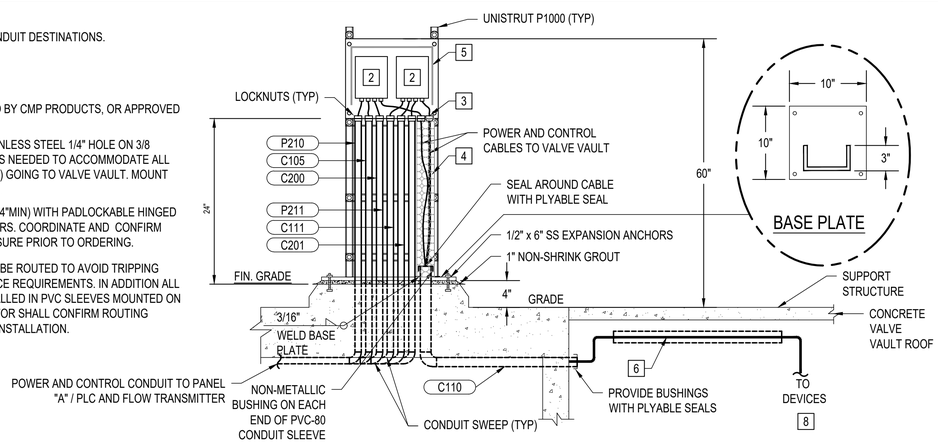


TERMINAL BOX 4 FOR PRESSURE TRANSMITTERS AND FLOAT SWITCHES

SCALE: N.T.S. | D

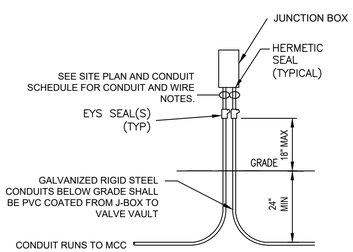
NOTES:

1. SEE SHEET E6.0 FOR POWER AND CONTROL CONDUIT DESTINATIONS.
2. FLOW METER CONVERTER FT-01001 / FT-01002.
3. REMOVABLE STAINLESS STEEL TC CABLE GLAND BY CMP PRODUCTS, OR APPROVED EQUAL CABLE CONNECTORS.
4. CONTROL CABLE CAGE. 16GA PERFORATED STANLESS STEEL 1/4" HOLE ON 3/8 CENTERS. CONTRACTOR SHALL ADJUST CAGE AS NEEDED TO ACCOMMODATE ALL CABLES AND CONNECTORS (INCLUDING SPARES) GOING TO VALVE VAULT. MOUNT CAGE BACK PANEL TO UNISTRUT FOR SUPPORT.
5. NEMA 3R STAINLESS STEEL ENCLOSURE (24"HX24"MIN) WITH PADLOCKABLE HINGED DOOR, AND SUN SHIELD FOR FLOW TRANSMITTERS. COORDINATE AND CONFIRM FLOW METER TRANSMITTER SIZES WITH ENCLOSURE PRIOR TO ORDERING.
6. MANUFACTURE'S CABLE IN VALVE VAULT SHALL BE ROUTED TO AVOID TRIPPING HAZARDS AND IN ACCORDANCE WITH CLEARANCE REQUIREMENTS. IN ADDITION ALL WIRES/CABLES IN VALVE VAULT SHALL BE INSTALLED IN PVC SLEEVES MOUNTED ON WALLS OR CEILING. SEE SHEET E3.1. CONTRACTOR SHALL CONFIRM ROUTING STRATEGY WITH SMD BEFORE PURCHASE AND INSTALLATION.



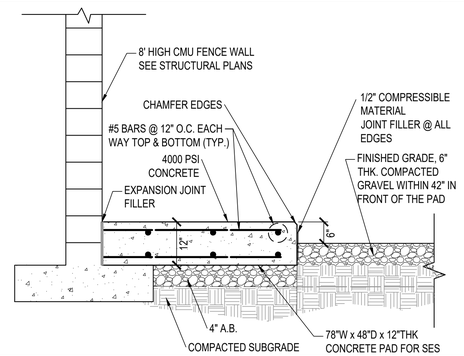
TERMINAL BOX 5 FOR FLOW METERS

SCALE: N.T.S. | E



NON-MRF CABLE CONDUIT ROUTING

SCALE: N.T.S. | F



CONCRETE PAD FOR SES

SCALE: N.T.S. | G

Department of Public Works, Los Angeles County

Checked _____ _____

Operational Services Division — Date

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER CHRISTOPHER M. JARIAN ELECTRICAL No. E 22545 EXP. 12/31/20 STATE OF CALIFORNIA

THESE DRAWINGS ARE THE PROPERTY OF P.A.C.E. AND SHALL NOT BE REPRODUCED IN ANY MANNER NOR BE USED FOR CONSTRUCTION UNLESS STAMPED 'ISSUED FOR CONSTRUCTION'.

PREPARED BY: CHRISTOPHER NAJARIAN, PROJECT ENGINEER, R.C.E. NO. 22545, EXP: 12/31/20

DRAWN: BM, AH | DESIGNED: EEB | CHECKED: CN | SCALE: AS NOTED | DATE: JUNE 2020

TITLE: ELECTRICAL DETAILS 3

JOB: MISSION VILLAGE DPW-1 SEWER PUMP STATION PC 12257PS VALENCIA CA

PACE Advanced Water Engineering
17520 Newhope Street Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

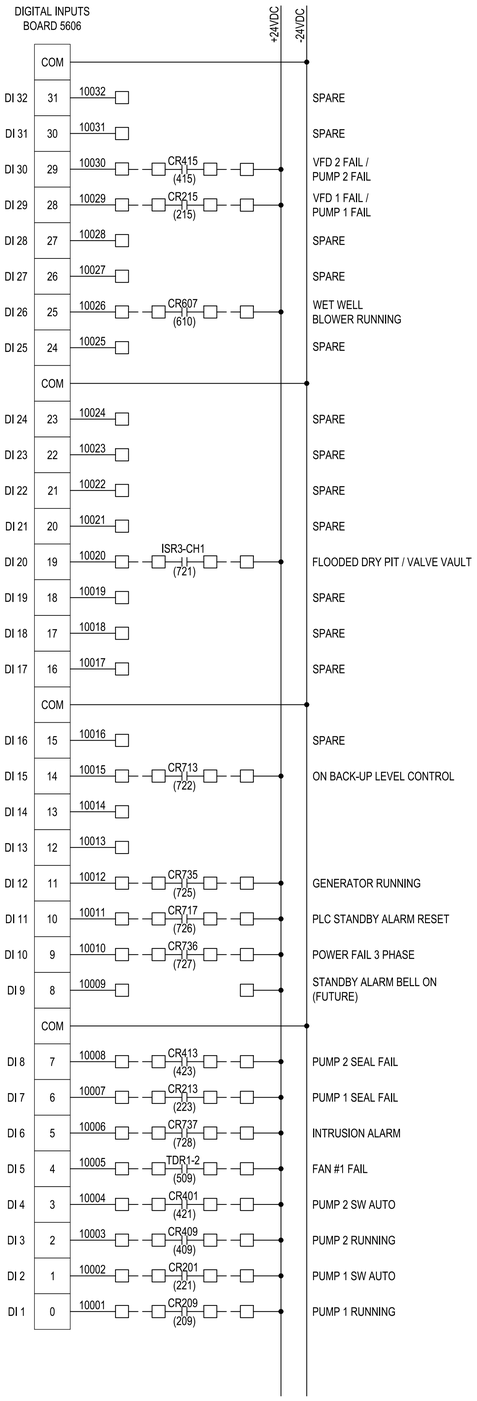
SHEET: E8.2

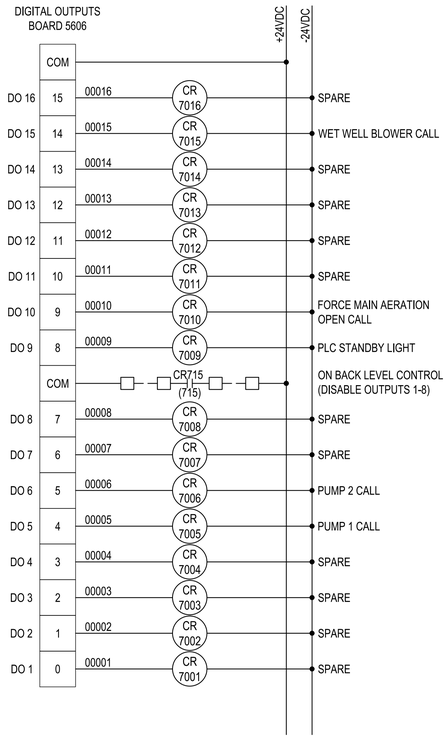
72 OF 72 SHEETS

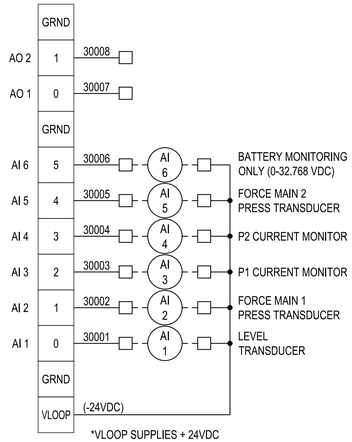
JOB NO. 9862-E

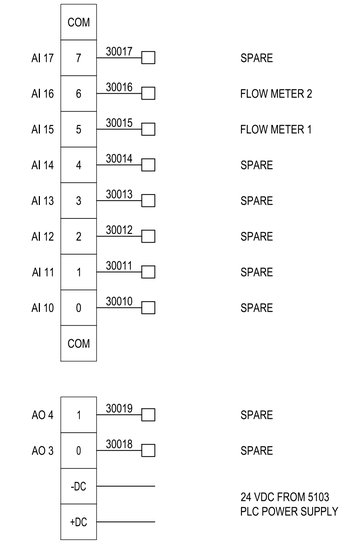
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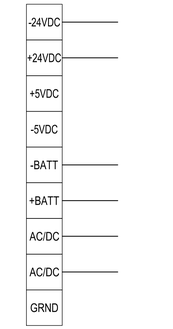
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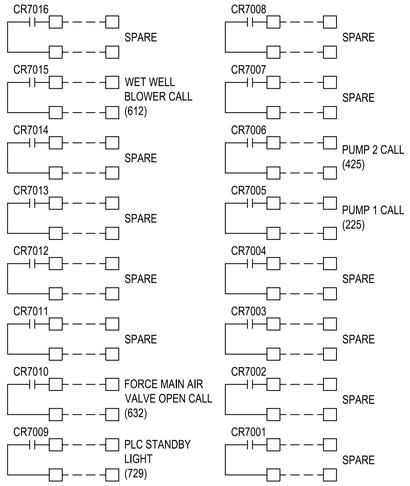












NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER ERNEST E. BROWN REG. # 16216 EXP. 12/31/20 CIVIL STATE OF CALIFORNIA

THESE DRAWINGS ARE THE PROPERTY OF P.A.C.E. AND SHALL NOT BE REPRODUCED IN ANY MANNER NOR BE USED FOR CONSTRUCTION UNLESS STAMPED 'ISSUED FOR CONSTRUCTION'.

PREPARED BY
ERNEST E. BROWN
PROJECT ENGINEER
R.C.E. NO. 16216
EXP. 12/31/20

DRAWN	SCALE	DATE
BM, AH	AS NOTED	JAN. 2020
DESIGNED		
EEB		
CHECKED		
EEB		

TITLE
PLC INPUTS AND OUTPUTS

JOB
MISSION VILLAGE
DPW-1 SEWER PUMP STATION PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P.: (714) 481-7300 | www.pacewater.com

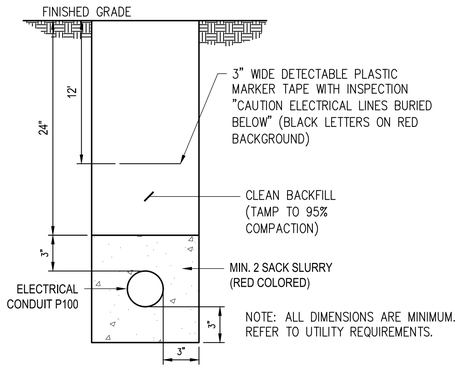
Department of Public Works, Los Angeles County
Checked _____ 02/20/2020
AS Operational Services Division Date

SHEET
E7.0
59 OF 62 SHEETS

JOB NO. 9862-E

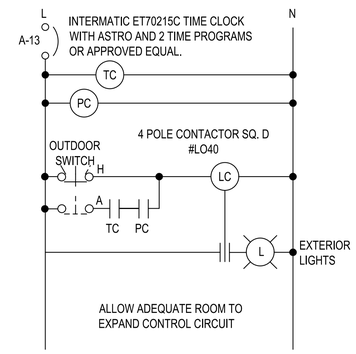
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CONDUIT TRENCH

SCALE: N.T.S. | A



TC — INTERMATIC ET70215C TIME CLOCK WITH ASTRO AND 2 TIME PROGRAMS OR APPROVED EQUAL.

PC — INTERMATIC PHOTOCELL 120VAC, GRAINGER CAT# 5U790 OR EQUAL

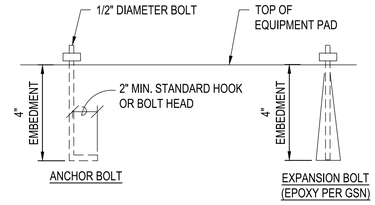
NOTES:

1 LIGHTING CONTROL PANEL IS LOCATED AT MCC-1.

EXTERIOR LIGHTING CONTROL DIAGRAM

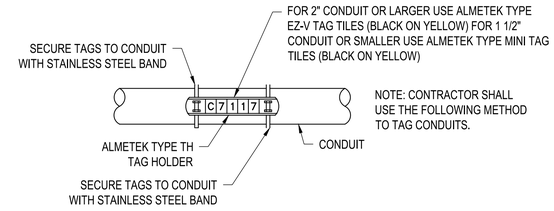
SCALE: N.T.S. | B

NOTE:
PROVIDE ANCHORS, ANCHOR BOLTS AND EXPANSION BOLTS PER THIS SCHEDULE UNLESS NOTED ON PLANS OR DETAILS.



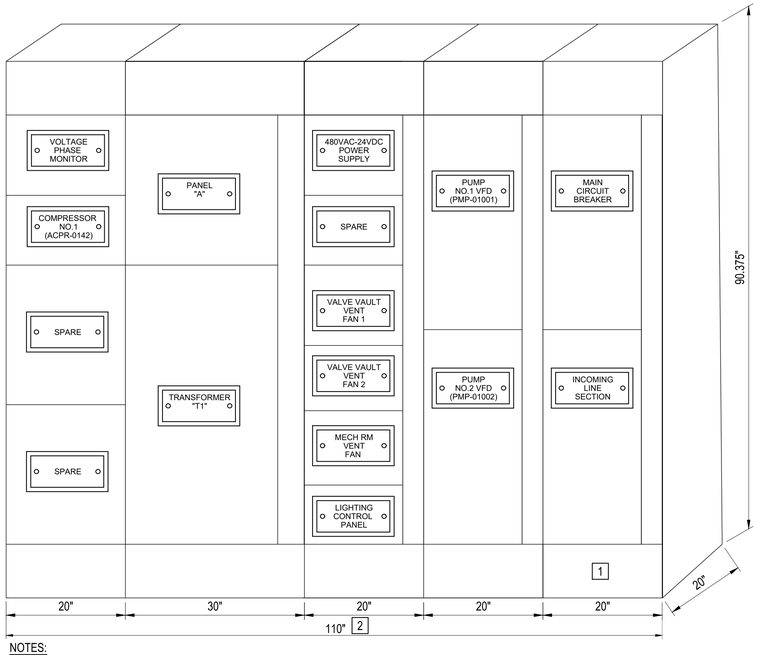
TYPICAL ANCHOR AND EXPANSION BOLT

NOT TO SCALE | C



CONDUIT MARKING

SCALE: N.T.S. | F



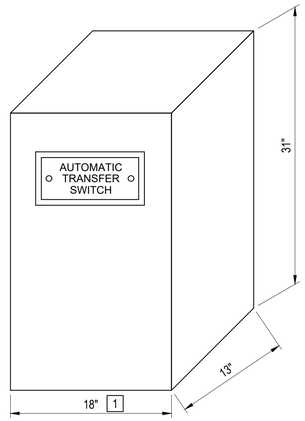
NOTES:

1 PROVIDE THERMOSTATICALLY-CONTROL SPACE HEATER FOR MCC SECTION.

2 DIMENSIONS ARE APPROXIMATE, CONTRACTOR SHALL VERIFY AGAINST VENDOR SUBMITTALS.

MCC-1 FRONT ELEVATION

SCALE: N.T.S. | D



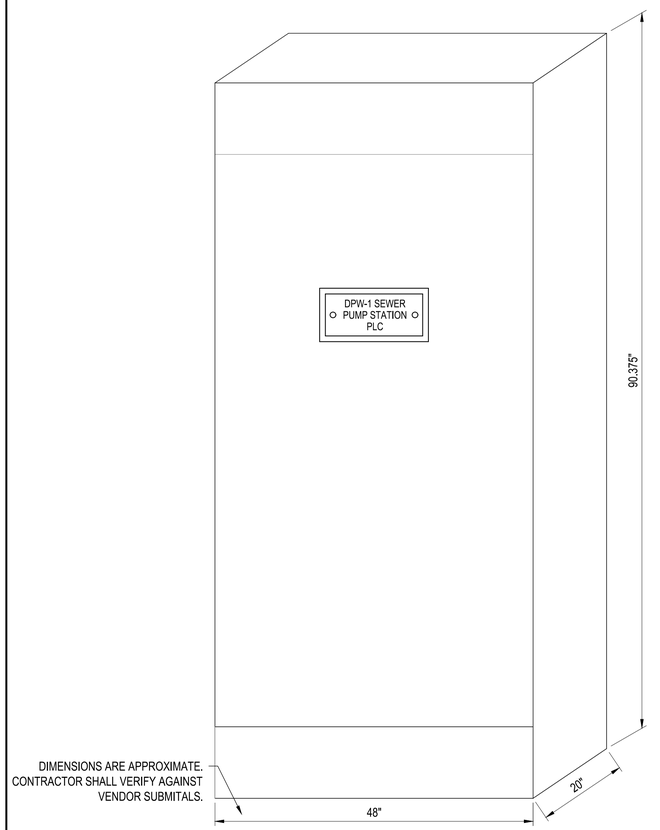
NOTES:

1 DIMENSIONS ARE APPROXIMATE, CONTRACTOR SHALL VERIFY AGAINST VENDOR SUBMITTALS.

2 CONTRACTOR SHALL WALL MOUNT ATS, 30" (BOTTOM) ABOVE FINISHED GRADE.

AUTOMATIC TRANSFER SWITCH (ATS) ELEVATION

SCALE: N.T.S. | E



DPW-1 SEWER PUMP STATION PLC FRONT ELEVATION

J

Department of Public Works, Los Angeles County

Checked _____ 02/20/2020

Operational Services Division — Date

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER — ERNEST E. BROWN — REG. # 16216 EXP. 12/31/20 — CIVIL — STATE OF CALIFORNIA

PREPARED BY ERNEST E. BROWN
PROJECT ENGINEER
R.C.E. NO. E016216
EXP. 12/31/20

DRAWN BM, AH
DESIGNED EEB
CHECKED EEB
SCALE AS NOTED
DATE JAN. 2020

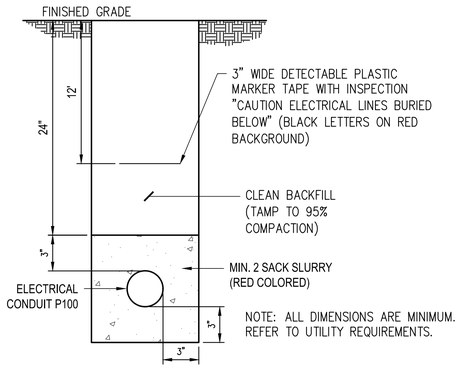
TITLE: ELECTRICAL DETAILS 1

JOB: MISSION VILLAGE
DPW-1 SEWER PUMP STATION
PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

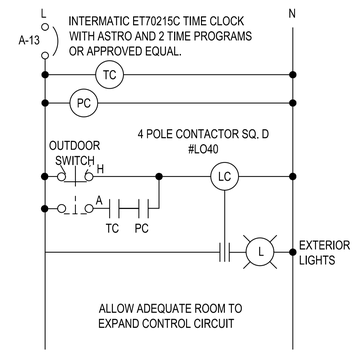
SHEET E8.0
60 OF 62 SHEETS
JOB NO. 9862-E

Xrefs: 3Kx24x DPW1 - Elec.dwg
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CONDUIT TRENCH

SCALE: N.T.S. | A



TC INTERMATIC ET70215C TIME CLOCK WITH ASTRO AND 2 TIME PROGRAMS OR APPROVED EQUAL.

PC INTERMATIC PHOTOCELL 120VAC, GRAINGER CAT# 5U790 OR EQUAL

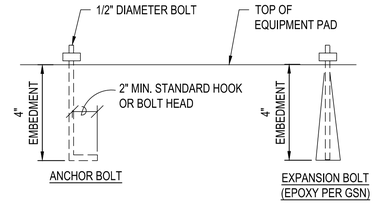
NOTES:

1 LIGHTING CONTROL PANEL IS LOCATED AT MCC-1.

EXTERIOR LIGHTING CONTROL DIAGRAM

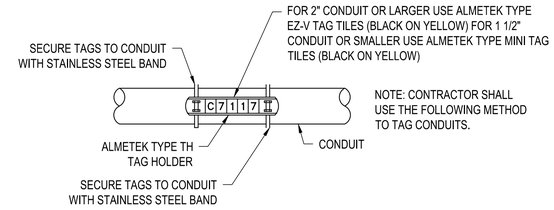
SCALE: N.T.S. | B

NOTE:
PROVIDE ANCHORS, ANCHOR BOLTS AND EXPANSION BOLTS PER THIS SCHEDULE UNLESS NOTED ON PLANS OR DETAILS.



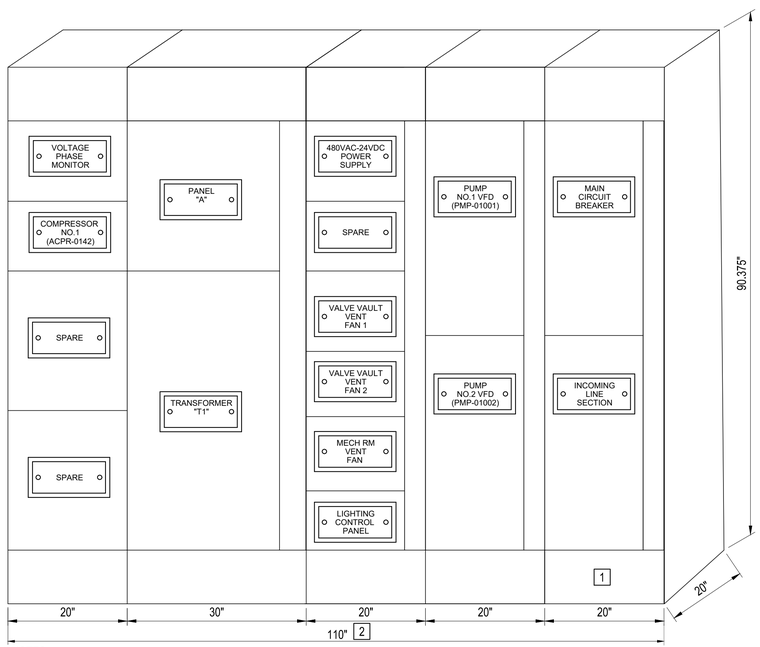
TYPICAL ANCHOR AND EXPANSION BOLT

NOT TO SCALE | C



CONDUIT MARKING

SCALE: N.T.S. | F



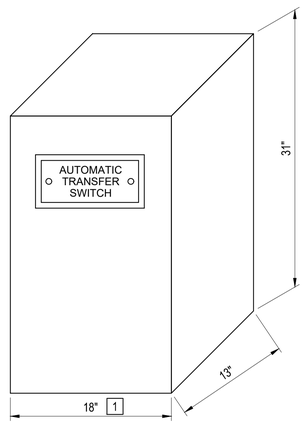
NOTES:

1 PROVIDE THERMOSTATICALLY-CONTROL SPACE HEATER FOR MCC SECTION.

2 DIMENSIONS ARE APPROXIMATE, CONTRACTOR SHALL VERIFY AGAINST VENDOR SUBMITTALS.

MCC-1 FRONT ELEVATION

SCALE: N.T.S. | D



NOTES:

1 DIMENSIONS ARE APPROXIMATE, CONTRACTOR SHALL VERIFY AGAINST VENDOR SUBMITTALS.

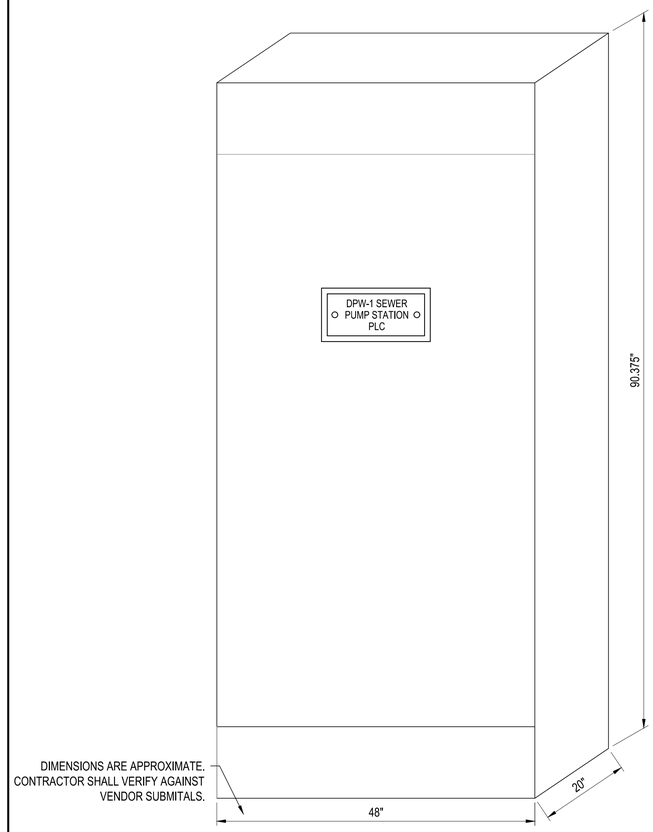
2 CONTRACTOR SHALL WALL MOUNT ATS, 30" (BOTTOM) ABOVE FINISHED GRADE.

BUILDING AND SAFETY DIVISION
Department of Public Works
APPROVED
UNDER LOS ANGELES COUNTY CODE
TITLE 27
amarcus
PUBLIC WORKS
04/15/2020 7:32:54 AM
This set of plans and specifications must be kept at the job site at all times and it is unlawful to make any changes, modifications or alterations to these plans or specifications without the prior written permission of the Building Official. The stamping of this set of plans and specifications SHALL NOT, under any circumstances, be deemed to permit or to be an approval of any work or activity that violates any provisions of any County Ordinance or State Law.

BUILDING AND SAFETY DIVISION
Department of Public Works
FINAL ENERGY APPROVED
UNDER CCR TITLE 24, PART 1,
ARTICLE 1 & PART 6
amarcus
PUBLIC WORKS
06/18/2020 11:00:15 AM
This set of plans and specifications must be kept at the job site at all times and it is unlawful to make any changes, modifications or alterations to these plans or specifications without the prior written permission of the Building Official. The stamping of this set of plans and specifications SHALL NOT, under any circumstances, be deemed to permit or to be an approval of any work or activity that violates any provisions of any County Ordinance or State Law.

AUTOMATIC TRANSFER SWITCH (ATS) ELEVATION

SCALE: N.T.S. | E



DPW-1 SEWER PUMP STATION PLC FRONT ELEVATION

J

Department of Public Works, Los Angeles County

Checked _____ _____

Operational Services Division — Date

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER CHRISTOPHER NAJARIAN E 22545 EXP. 12-31-20 CIVIL ELECTRICAL STATE OF CALIFORNIA

THESE DRAWINGS ARE THE PROPERTY OF P.A.C.E. AND SHALL NOT BE REPRODUCED IN ANY MANNER NOR BE USED FOR CONSTRUCTION UNLESS STAMPED 'ISSUED FOR CONSTRUCTION'.

PREPARED BY
CHRISTOPHER NAJARIAN
PROJECT ENGINEER
R.C.E. NO. 22545
EXP. 12/31/20

DRAWN BM, AH
DESIGNED EEB
CHECKED CN
SCALE AS NOTED
DATE JUNE 2020

TITLE
ELECTRICAL DETAILS 1

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

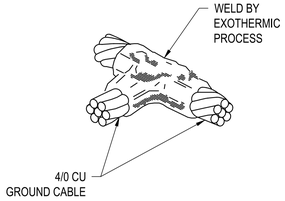
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

SHEET
E8.0
70 OF 72 SHEETS

JOB NO. 9862-E

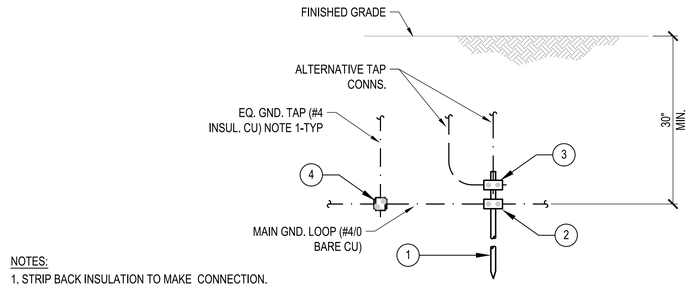
Xrefs: 3lb24v DPW1 - EBw.dwg
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GROUNDING CONNECTION

SCALE: N.T.S. | A



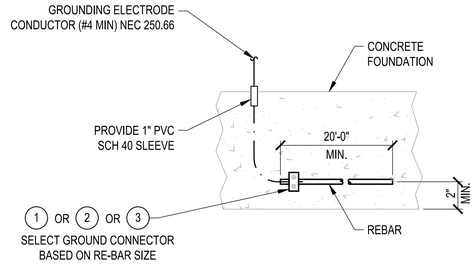
NOTES:

1. STRIP BACK INSULATION TO MAKE CONNECTION.
2. PLACE GROUND RODS INSIDE WELLS WITH CAST IRON LID.

BILL OF MATERIALS		
NO.	DESCRIPTION	QTY
1	GROUND ROD, 3/4" DIA. x 10', COPPER-CLAD STEEL	1
2	GROUND ROD CONNECTOR (5/8"-3/4", 2/0 SOL-250) BURNDY #GAR6429 OR EQUAL.	1
3	GROUND ROD CONNECTOR (5/8"-3/4", #4 SOL-2/0) BURNDY #GAR6426 OR EQUAL.	1
4	GROUND CABLE CONNECTOR (#2/0-250 TO #4-#2/0) BURNDY #GX2926 OR EQUAL.	1

GROUNDING ROD CONNECTIONS

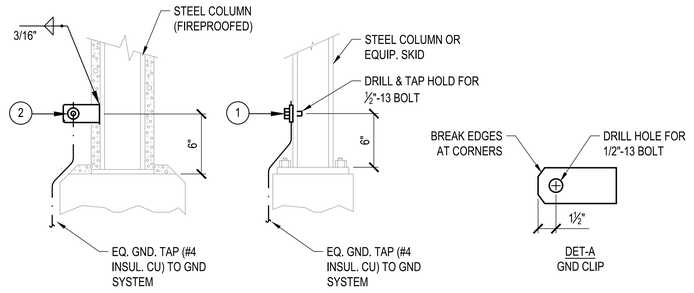
SCALE: N.T.S. | B



BILL OF MATERIALS		
NO.	DESCRIPTION	QTY
1	#4 RE-BAR, 1/2" DIA. - USE GND. CONN. BURNDY #GAR1126	1
2	#5 OR #6 RE-BAR, 5/8" OR 3/4"DIA. - USE GND. CONN. BURNDY #GAR6426	1
3	#7 OR #8 RE-BAR, 7/8" OR 1"DIA. - USE GND. CONN. BURNDY #GAR1426	1

GROUND BOND TO REBAR

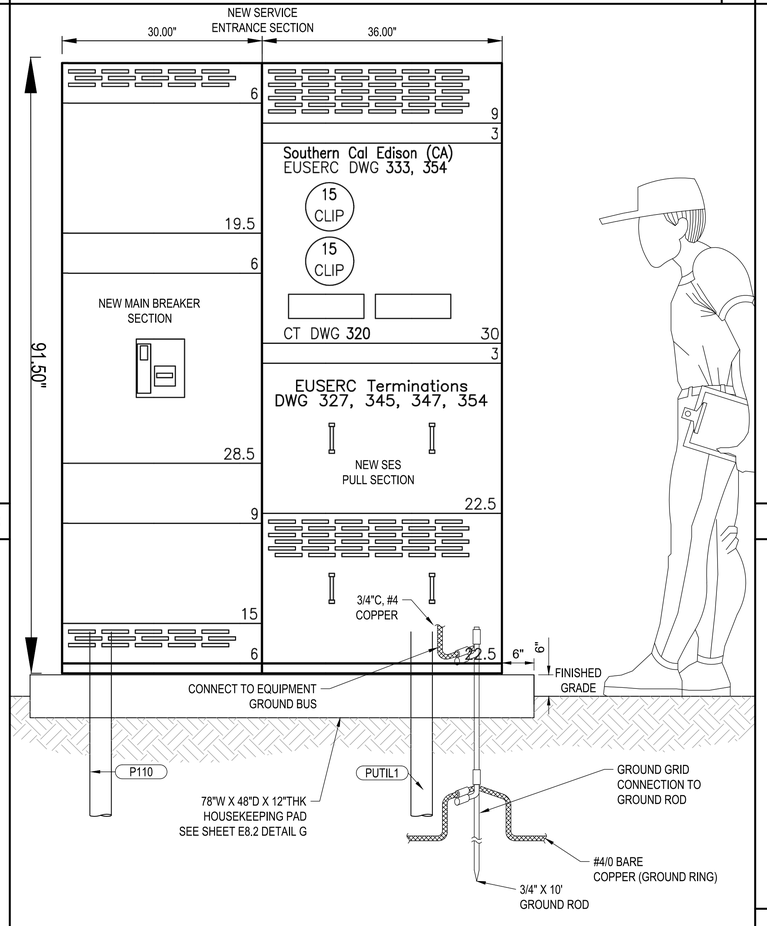
SCALE: N.T.S. | C



BILL OF MATERIALS		
NO.	DESCRIPTION	QTY
1	SERVIT POST CONNECTOR, 2/C, 1/2"-13 LONG STUD, #4-#2/0 W/ NUT & LOCKWASHER, BURNDY#K2C25B1	1
2	GROUND CLIP, MILD STEEL, 5" x 3" x 1/4" FIELD FABRICATE - SEE DET-A	1

GROUNDING CONNECTIONS

SCALE: N.T.S. | D

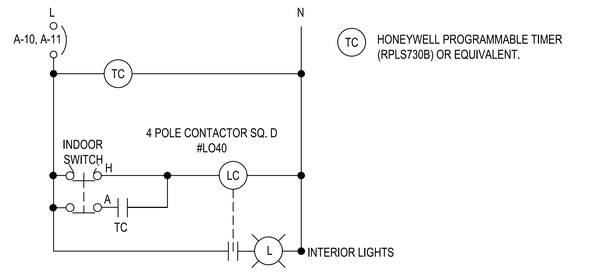


NOTES:

1. ALL EXTERIOR ELECTRICAL EQUIPMENT SHALL HAVE A NEMA 3R RATED ENCLOSURE.
2. GROUND NEUTRAL AT BASE MOUNTED SERVICE ENTRANCE SECTION, PER ALL UTILITY REQUIREMENTS.
3. EQUIPMENT DIMENSIONS ARE APPROXIMATE. CONTRACTOR SHALL VERIFY AGAINST VENDOR SUBMITTALS.

SES FRONT ELEVATION

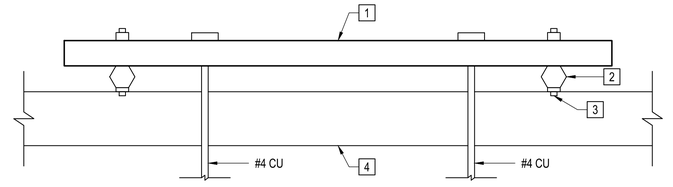
SCALE: N.T.S. | E



ALLOW ADEQUATE ROOM TO
EXPAND CONTROL CIRCUIT

INTERIOR LIGHTING CONTROL PANEL SCHEMATIC

SCALE: N.T.S. | F

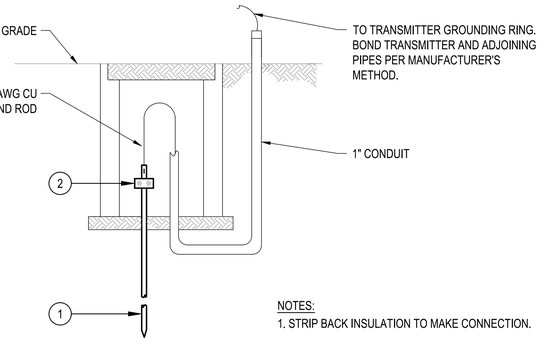


NOTES:

1. 6 1/4" X 2" X 72" LONG COPPER BAR. MOUNT 12" AFF.
2. STANDOFF INSULATOR AS REQUIRED.
3. WALL ANCHOR.
4. BUILDING WALL.

GROUNDING PLATE

SCALE: N.T.S. | H



NOTES:

1. STRIP BACK INSULATION TO MAKE CONNECTION.

BILL OF MATERIALS		
NO.	DESCRIPTION	QTY
1	GROUND ROD, 3/4" DIA. x 10', COPPER-CLAD STEEL	1
2	GROUND ROD CONNECTOR (5/8"-3/4", 2/0 SOL-250) BURNDY #GAR6429 OR EQUAL.	1

GROUNDING TEST WELL INSTALLATION

SCALE: N.T.S. | G

NO.	BY	DATE	REVISIONS	DATE	APP.

THESE DRAWINGS ARE THE PROPERTY OF P.A.C.E. AND SHALL NOT BE REPRODUCED IN ANY MANNER NOR BE USED FOR CONSTRUCTION UNLESS STAMPED 'ISSUED FOR CONSTRUCTION'.

REGISTERED PROFESSIONAL ENGINEER — ERNEST E. BROWN — REG. # 16216 EXP. 12/31/20 — CIVIL — STATE OF CALIFORNIA

PREPARED BY
ERNEST E. BROWN
PROJECT ENGINEER
R.C.E. NO. 16216
EXP. 12/31/20

SCALE	DATE
AS NOTED	JAN. 2020

DRAWN	DESIGNED	CHECKED
BM, AH	EEB	EEB

TITLE

ELECTRICAL DETAILS 2

JOB

MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

SHEET
E8.1
61 OF 62 SHEETS

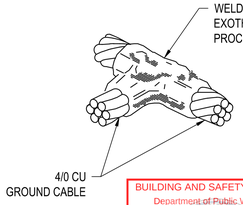
JOB NO. 9862-E

Department of Public Works, Los Angeles County

Checked _____ 02/20/2020

Operational Services Division — Date

Xrefs: 36x24v (DPW-1 - E36c.dwg
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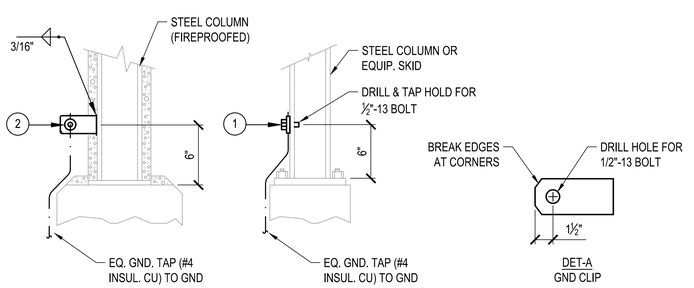


BUILDING AND SAFETY DIVISION
Department of Public Works
APPROVED
UNDER LOS ANGELES COUNTY CODE
TITLE 27
amarcus
PUBLIC WORKS
04/15/2020 7:32:54 AM
This set of plans and specifications shall be kept at the job site at all times and it is unlawful to make any changes, modifications or alterations to these plans or specifications without the prior written permission of the Building Official. The stamping of this set of plans and specifications SHALL NOT, under any circumstances, be deemed to permit or to be an approval of any work or activity that violates any provisions of any County Ordinance or State Law.

BUILDING AND SAFETY DIVISION
Department of Public Works
FINAL ENERGY APPROVED
UNDER CCR TITLE 24, PART 1,
ARTICLE 1 & PART 6
amarcus
PUBLIC WORKS
09/18/2020 11:00:15 AM
This set of plans and specifications shall be kept at the job site at all times and it is unlawful to make any changes, modifications or alterations to these plans or specifications without the prior written permission of the Building Official. The stamping of this set of plans and specifications SHALL NOT, under any circumstances, be deemed to permit or to be an approval of any work or activity that violates any provisions of any County Ordinance or State Law.

GROUNDING CONNECTION

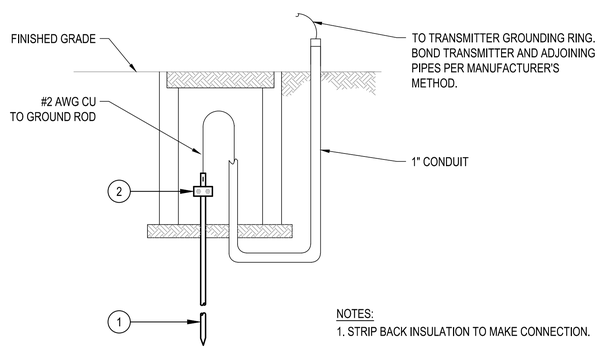
SCALE: N.T.S. | A



BILL OF MATERIALS		
NO.	DESCRIPTION	QTY
1	SERVIT POST CONNECTOR, 2/C, 1/2"-13 LONG STUD, #4-#2/0 W/ NUT & LOCKWASHER, BURNDY#K2C25B1	1
2	GROUND CLIP, MILD STEEL, 5" x 3" x 1/4" FIELD FABRICATE - SEE DET-A	1

GROUNDING CONNECTIONS

SCALE: N.T.S. | D

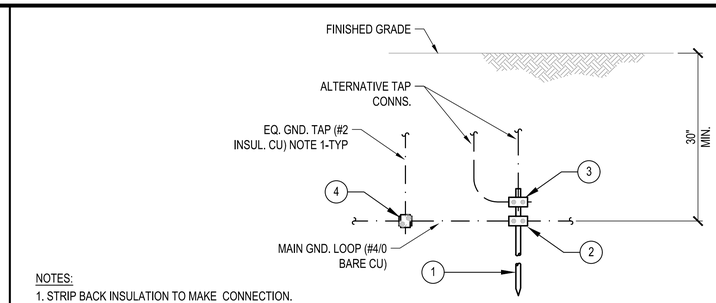


NOTES:
1. STRIP BACK INSULATION TO MAKE CONNECTION.

BILL OF MATERIALS		
NO.	DESCRIPTION	QTY
1	GROUND ROD, 3/4" DIA. x 10', COPPER-CLAD STEEL	1
2	GROUND ROD CONNECTOR (5/8"-3/4", 2/0 SOL-250) BURNDY #GAR6429 OR EQUAL.	1

GROUNDING TEST WELL INSTALLATION

SCALE: N.T.S. | G

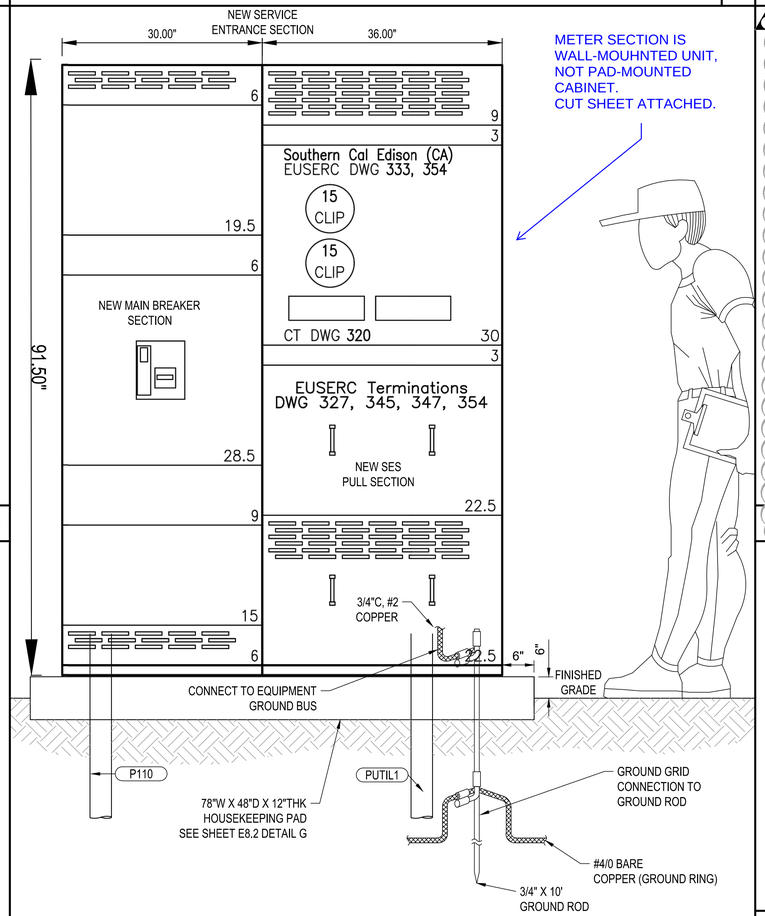


NOTES:
1. STRIP BACK INSULATION TO MAKE CONNECTION.
2. PLACE GROUND RODS INSIDE WELLS WITH CAST IRON LID.

BILL OF MATERIALS		
NO.	DESCRIPTION	QTY
1	GROUND ROD, 3/4" DIA. x 10', COPPER-CLAD STEEL	1
2	GROUND ROD CONNECTOR (5/8"-3/4", 2/0 SOL-250) BURNDY #GAR6429 OR EQUAL.	1
3	GROUND ROD CONNECTOR (5/8"-3/4", #4 SOL-2/0) BURNDY #GAR6426 OR EQUAL.	1
4	GROUND CABLE CONNECTOR (#2/0-250 TO #4-#2/0) BURNDY #GX2926 OR EQUAL.	1

GROUNDING ROD CONNECTIONS

SCALE: N.T.S. | B

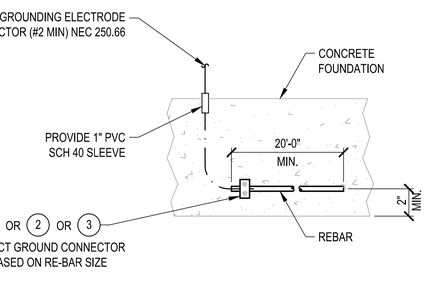


METER SECTION IS WALL-MOUHNTED UNIT, NOT PAD-MOUNTED CABINET.
CUT SHEET ATTACHED.

NOTES:
1. ALL EXTERIOR ELECTRICAL EQUIPMENT SHALL HAVE A NEMA 3R RATED ENCLOSURE.
2. GROUND NEUTRAL AT BASE MOUNTED SERVICE ENTRANCE SECTION, PER ALL UTILITY REQUIREMENTS.
3. EQUIPMENT DIMENSIONS ARE APPROXIMATE. CONTRACTOR SHALL VERIFY AGAINST VENDOR SUBMITTALS.

SES FRONT ELEVATION

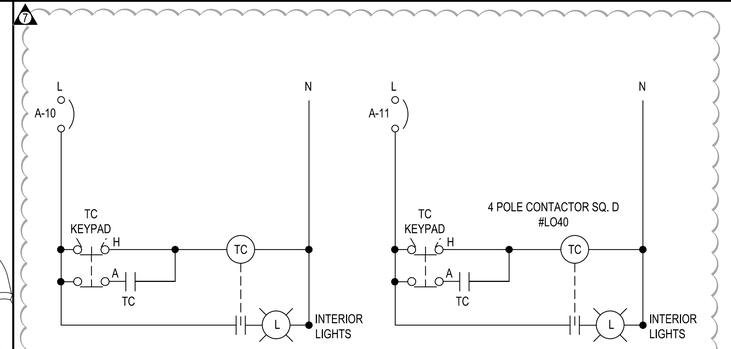
SCALE: N.T.S. | E



BILL OF MATERIALS		
NO.	DESCRIPTION	QTY
1	#4 RE-BAR, 1/2" DIA. - USE GND. CONN. BURNDY #GAR1126	1
2	#5 OR #6 RE-BAR, 5/8" OR 3/4"DIA. - USE GND. CONN. BURNDY #GAR6426	1
3	#7 OR #8 RE-BAR, 7/8" OR 1"DIA. - USE GND. CONN. BURNDY #GAR1426	1

GROUND BOND TO REBAR

SCALE: N.T.S. | C

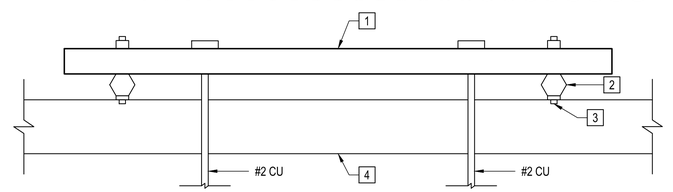


NOTES:
1. PROGRAMMABLE TIMERS ARE LOCATED ON ENTRANCE WALLS.
2. ALLOW ADEQUATE ROOM TO EXPAND CONTROL CIRCUIT.
3. MAXIMUM SETTING FOR OVERRIDE CONTROL SHALL NOT EXCEED 2 HOURS.

TC HONEYWELL PROGRAMMABLE TIMER (RPLS730B) OR EQUIVALENT.

INTERIOR LIGHTING CONTROL DIAGRAM

SCALE: N.T.S. | F



NOTES:
1. 6 1/4" X 2" X 72" LONG COPPER BAR. MOUNT 12" AFF.
2. STANDOFF INSULATOR AS REQUIRED.
3. WALL ANCHOR.
4. BUILDING WALL.
5. GROUNDING ELECTRODE CONDUCTOR(S) SHALL BE INSTALLED IN ONE CONTINUOUS LENGTH, WITH A SPLICE OR JOINT BEING MADE ONLY BY IRREVERSIBLE COMPRESSION TYPE CONNECTORS LISTED AS GROUNDING AND BONDING EQUIPMENT OR BY EXOTHERMIC WELDING, PER NEC 250.64(C)1

GROUNDING PLATE

SCALE: N.T.S. | H

Department of Public Works, Los Angeles County

Checked _____ _____
Operational Services Division | Date

NO	BY	DATE	REVISIONS	DATE	APP.
C	CN	04/09/20	REVISION FOR LAC B/S REVIEW	04/09/20	CN
B	CN	06/01/20	REVISION FOR LAC B/S REVIEW 2	06/01/20	CN

REGISTERED PROFESSIONAL ENGINEER
CHRISTOPHER NAJARIAN
E 22545
EXP: 12/31/20
ELECTRICAL
STATE OF CALIFORNIA

THESE DRAWINGS ARE THE PROPERTY OF P.A.C.E. AND SHALL NOT BE REPRODUCED IN ANY MANNER NOR BE USED FOR CONSTRUCTION UNLESS STAMPED 'ISSUED FOR CONSTRUCTION'.

PREPARED BY
CHRISTOPHER NAJARIAN
PROJECT ENGINEER
R.C.E. NO. 22545
EXP: 12/31/20

DRAWN BM, AH
DESIGNED EEB
CHECKED CN
SCALE AS NOTED
DATE JUNE 2020

TITLE
ELECTRICAL DETAILS 2

JOB
MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.paceadvancedwater.com

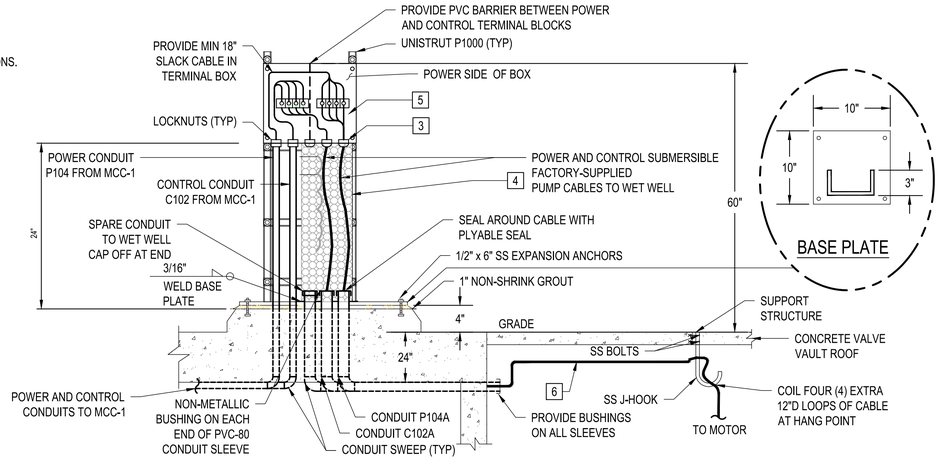
SHEET
E8.1
71 OF 72 SHEETS

JOB NO. 9862-E

Xrefs: 36x24v DPW-1 - Elec.dwg
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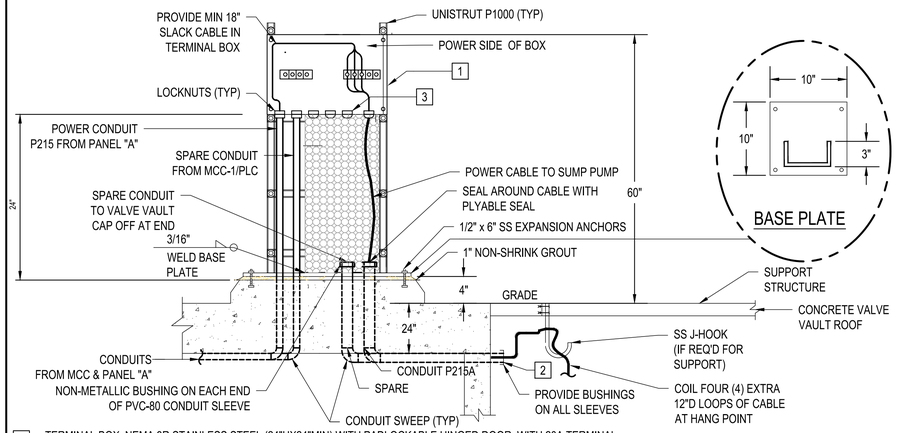
NOTES:

1. SEE SHEET E6.0 FOR POWER AND CONTROL CONDUIT DESTINATIONS.
2. SPLICE TO VENDOR CONDUCTORS IN TERMINAL BOX USING RESPECTIVE TERMINAL BLOCKS.
3. REMOVABLE STAINLESS STEEL TC CABLE GLAND BY CMP PRODUCTS, OR APPROVED EQUAL CABLE CONNECTORS.
4. PUMP POWER AND CONTROL CABLE CAGE. 16GA PERFORATED STANLESS STEEL 1/4" HOLE ON 3/8 CENTERS. CONTRACTOR SHALL ADJUST CAGE AS NEEDED TO ACCOMMODATE ALL CABLES AND CONNECTORS (INCLUDING SPARES) GOING TO WET WELL. MOUNT CAGE BACK PANEL TO UNISTRUT FOR SUPPORT.
5. TERMINAL BOX, NEMA 3R STAINLESS STEEL (24"HX24"MIN) WITH PADLOCKABLE HINGED DOOR, WITH 20A TERMINAL BLOCKS (QTY AS REQ'D) FOR CONTROL WIRES, AND FOUR (4) 480V TERMINAL BLOCKS SIZED FOR MIN. 125% FLA OF PUMPS 1 & 2 MOTORS.
6. MANUFACTURE'S CABLE IN WET WELL SHALL BE ROUTED AND HUNG NEAR ACCESS POINT TO ALLOW EASY REMOVAL/REPLACEMENT OF EQUIPMENT AND SENSORS FROM SURFACE WITHOUT NEED FOR PERSONNEL TO ENTER THE WET WELL. SEE SHEET E3.1. CONTRACTOR SHALL CONFIRM ROUTING STRATEGY WITH SMD BEFORE PURCHASE AND INSTALLATION.



TERMINAL BOX 1 AND 2 - PUMP NO. 1 SHOWN -TYP. FOR PUMP NO. 2

SCALE: N.T.S. | A



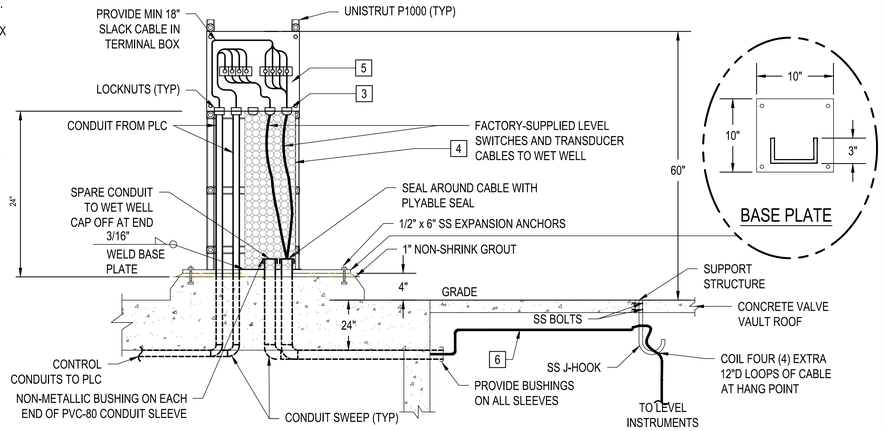
1. TERMINAL BOX, NEMA 3R STAINLESS STEEL (24"HX24"MIN) WITH PADLOCKABLE HINGED DOOR, WITH 20A TERMINAL BLOCKS FOR PUMP CONDUCTORS.
2. ROUTE CONDUIT SO STUB OUT LOCATION FROM WALL IS DIRECTLY ABOVE SUMP PUMP SO THAT MANUFACTURER'S CABLE IN VAULT CAN DROP DIRECTLY DOWN TO ALLOW EASY REMOVAL/REPLACEMENT OF EQUIPMENT.
3. TYPICAL SPARE HUB, CAPPED AND SEALED.

TERMINAL BOX 2B - SUMP PUMP

SCALE: N.T.S. | B

NOTES:

1. SEE SHEET E6.0 CONTROL CONDUIT DESTINATIONS.
2. SPLICE TO VENDOR CONDUCTORS IN TERMINAL BOX USING RESPECTIVE TERMINAL BLOCKS.
3. REMOVABLE STAINLESS STEEL TC CABLE GLAND BY CMP PRODUCTS, OR APPROVED EQUAL CABLE CONNECTORS.
4. CONTROL CABLE CAGE. 16GA PERFORATED STANLESS STEEL 1/4" HOLE ON 3/8 CENTERS. CONTRACTOR SHALL ADJUST CAGE AS NEEDED TO ACCOMMODATE ALL CABLES AND CONNECTORS (INCLUDING SPARES) GOING TO WET WELL. MOUNT CAGE BACK PANEL TO UNISTRUT FOR SUPPORT.
5. TERMINAL BOX, NEMA 3R STAINLESS STEEL (24"HX24"MIN) WITH PADLOCKABLE HINGED DOOR, WITH TERMINAL BLOCKS (QTY AS REQ'D) FOR CONTROL WIRES.
6. MANUFACTURE'S CABLE IN WET WELL SHALL BE ROUTED AND HUNG NEAR ACCESS POINT TO ALLOW EASY REMOVAL/REPLACEMENT OF EQUIPMENT AND SENSORS FROM SURFACE WITHOUT NEED FOR PERSONNEL TO ENTER THE WET WELL. SEE SHEET E3.1. CONTRACTOR SHALL CONFIRM ROUTING STRATEGY WITH SMD BEFORE PURCHASE AND INSTALLATION.

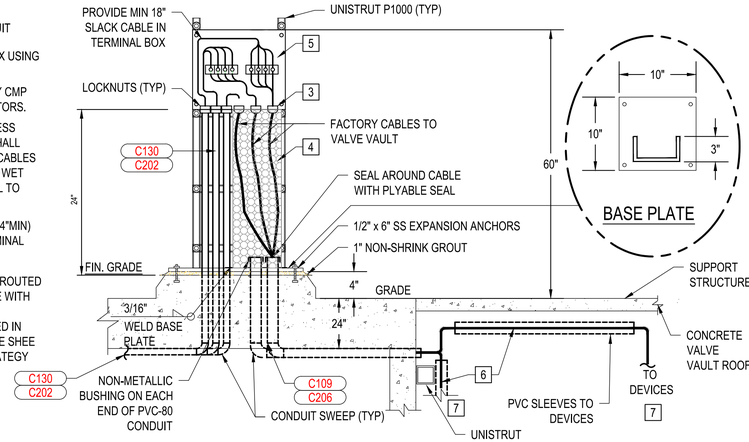


TERMINAL BOX 3

SCALE: N.T.S. | C

NOTES:

1. SEE SHEET E6.0 FOR POWER AND CONTROL CONDUIT DESTINATIONS.
2. SPLICE TO VENDOR CONDUCTORS IN TERMINAL BOX USING RESPECTIVE TERMINAL BLOCKS.
3. REMOVABLE STAINLESS STEEL TC CABLE GLAND BY CMP PRODUCTS, OR APPROVED EQUAL CABLE CONNECTORS.
4. CONTROL CABLE CAGE. 16GA PERFORATED STANLESS STEEL 1/4" HOLE ON 3/8 CENTERS. CONTRACTOR SHALL ADJUST CAGE AS NEEDED TO ACCOMMODATE ALL CABLES AND CONNECTORS (INCLUDING SPARES) GOING TO WET WELL AND VALVE VAULT. MOUNT CAGE BACK PANEL TO UNISTRUT FOR SUPPORT.
5. TERMINAL BOX, NEMA 3R STAINLESS STEEL (24"HX24"MIN) WITH PADLOCKABLE HINGED DOOR, WITH 20A TERMINAL BLOCKS (QTY AS REQ'D) FOR CONTROL CONDUITS.
6. MANUFACTURE'S CABLE IN VALVE VAULT SHALL BE ROUTED TO AVOID TRIPPING HAZARDS AND IN ACCORDANCE WITH CLEARANCE REQUIREMENTS. IN ADDITION ALL WIRES/CABLES IN VALVE VAULT SHALL BE INSTALLED IN PVC SLEEVES MOUNTED ON WALLS OR CEILING. SEE SHEE E3.1. CONTRACTOR SHALL CONFIRM ROUTING STRATEGY WITH SMD BEFORE PURCHASE AND INSTALLATION.
7. TO LEVEL SWITCHES AND/OR TRANSDUCER.

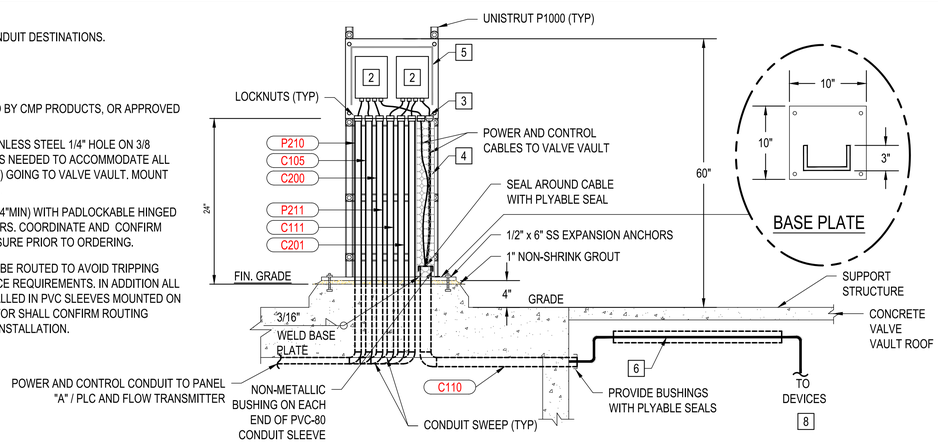


TERMINAL BOX 4 FOR PRESSURE TRANSMITTERS AND FLOAT SWITCHES

SCALE: N.T.S. | D

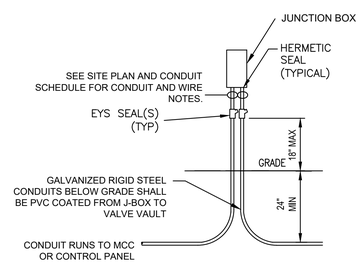
NOTES:

1. SEE SHEET E6.0 FOR POWER AND CONTROL CONDUIT DESTINATIONS.
2. FLOW METER CONVERTER FT-01001 / FT-01002.
3. REMOVABLE STAINLESS STEEL TC CABLE GLAND BY CMP PRODUCTS, OR APPROVED EQUAL CABLE CONNECTORS.
4. CONTROL CABLE CAGE. 16GA PERFORATED STANLESS STEEL 1/4" HOLE ON 3/8 CENTERS. CONTRACTOR SHALL ADJUST CAGE AS NEEDED TO ACCOMMODATE ALL CABLES AND CONNECTORS (INCLUDING SPARES) GOING TO VALVE VAULT. MOUNT CAGE BACK PANEL TO UNISTRUT FOR SUPPORT.
5. NEMA 3R STAINLESS STEEL ENCLOSURE (24"HX24"MIN) WITH PADLOCKABLE HINGED DOOR, AND SUN SHIELD FOR FLOW TRANSMITTERS. COORDINATE AND CONFIRM FLOW METER TRANSMITTER SIZES WITH ENCLOSURE PRIOR TO ORDERING.
6. MANUFACTURE'S CABLE IN VALVE VAULT SHALL BE ROUTED TO AVOID TRIPPING HAZARDS AND IN ACCORDANCE WITH CLEARANCE REQUIREMENTS. IN ADDITION ALL WIRES/CABLES IN VALVE VAULT SHALL BE INSTALLED IN PVC SLEEVES MOUNTED ON WALLS OR CEILING. SEE SHEET E3.1. CONTRACTOR SHALL CONFIRM ROUTING STRATEGY WITH SMD BEFORE PURCHASE AND INSTALLATION.



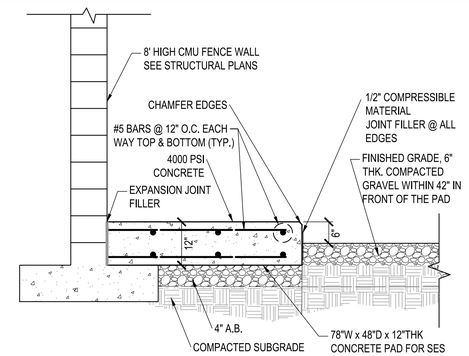
TERMINAL BOX 5 FOR FLOW METERS

SCALE: N.T.S. | E



NON-MRF CABLE CONDUIT ROUTING

SCALE: N.T.S. | F



CONCRETE PAD FOR SES

SCALE: N.T.S. | G

Department of Public Works, Los Angeles County

Checked _____ 02/20/2020

Operational Services Division — Date

NO	BY	DATE	REVISIONS	DATE	APP.

THESE DRAWINGS ARE THE PROPERTY OF P.A.C.E. AND SHALL NOT BE REPRODUCED IN ANY MANNER NOR BE USED FOR CONSTRUCTION UNLESS STAMPED 'ISSUED FOR CONSTRUCTION'.

REGISTERED PROFESSIONAL ENGINEER — ERNEST E. BROWN — REG.# 16216 EXP. 12/31/20 — CIVIL — STATE OF CALIFORNIA

PREPARED BY: ERNEST E BROWN — PROJECT ENGINEER — R.C.E. NO. — EXP. 12/31/20

DRAWN: BM, AH | DESIGNED: EEB | CHECKED: EEB | SCALE: AS NOTED | DATE: JAN. 2020

TITLE: ELECTRICAL DETAILS 3

JOB: MISSION VILLAGE — DPW-1 SEWER PUMP STATION PC 12257PS — VALENCIA CA

PACE — Advanced Water Engineering — 17520 Newhope Street Suite 200 | Fountain Valley, CA 92708 — P: (714) 481-7300 | www.pacewater.com

SHEET E8.2 — 62 OF 62 SHEETS

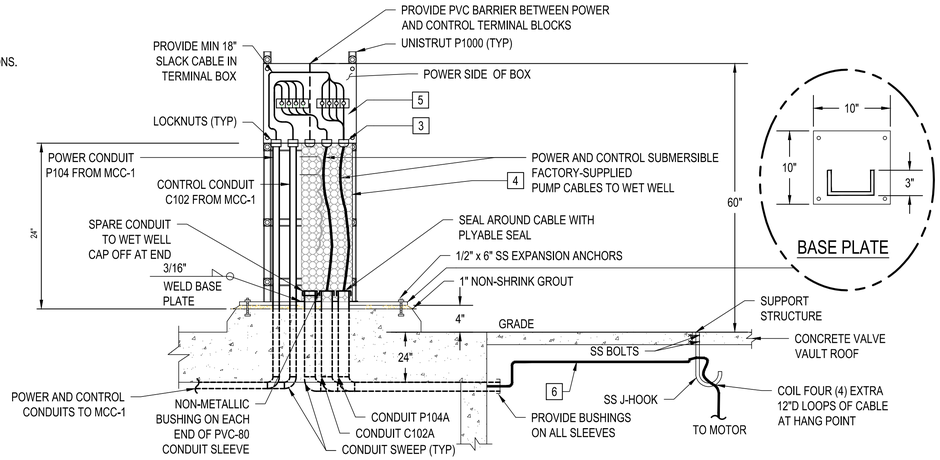
JOB NO. 9862-E

Xrefs: 36x24 (DPW-1 - Elec.dwg
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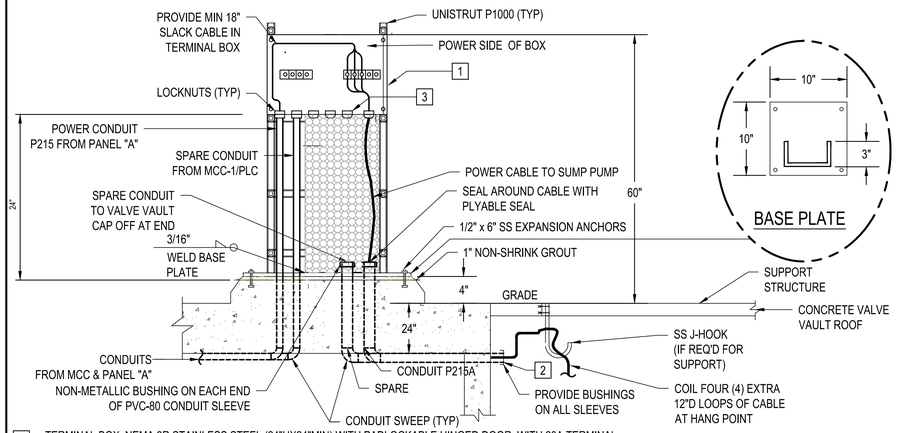
NOTES:

1. SEE SHEET E6.0 FOR POWER AND CONTROL CONDUIT DESTINATIONS.
2. SPLICE TO VENDOR CONDUCTORS IN TERMINAL BOX USING RESPECTIVE TERMINAL BLOCKS.
3. REMOVABLE STAINLESS STEEL TC CABLE GLAND BY CMP PRODUCTS, OR APPROVED EQUAL CABLE CONNECTORS.
4. PUMP POWER AND CONTROL CABLE CAGE. 16GA PERFORATED STANLESS STEEL 1/4" HOLE ON 3/8 CENTERS. CONTRACTOR SHALL ADJUST CAGE AS NEEDED TO ACCOMMODATE ALL CABLES AND CONNECTORS (INCLUDING SPARES) GOING TO WET WELL. MOUNT CAGE BACK PANEL TO UNISTRUT FOR SUPPORT.
5. TERMINAL BOX, NEMA 3R STAINLESS STEEL (24"HX24"MIN) WITH PADLOCKABLE HINGED DOOR, WITH TERMINAL BLOCKS (QTY AS REQ'D) FOR CONTROL WIRES, AND FOUR (4) 480V TERMINAL BLOCKS SIZED FOR MIN. 125% FLA OF PUMPS 1 & 2 MOTORS.
6. MANUFACTURE'S CABLE IN WET WELL SHALL BE ROUTED AND HUNG NEAR ACCESS POINT TO ALLOW EASY REMOVAL/REPLACEMENT OF EQUIPMENT AND SENSORS FROM SURFACE WITHOUT NEED FOR PERSONNEL TO ENTER THE WET WELL. SEE SHEET E3.1. CONTRACTOR SHALL CONFIRM ROUTING STRATEGY WITH SMD BEFORE PURCHASE AND INSTALLATION.



TERMINAL BOX 1 AND 2 - PUMP NO. 1 SHOWN -TYP. FOR PUMP NO. 2

SCALE: N.T.S. | A



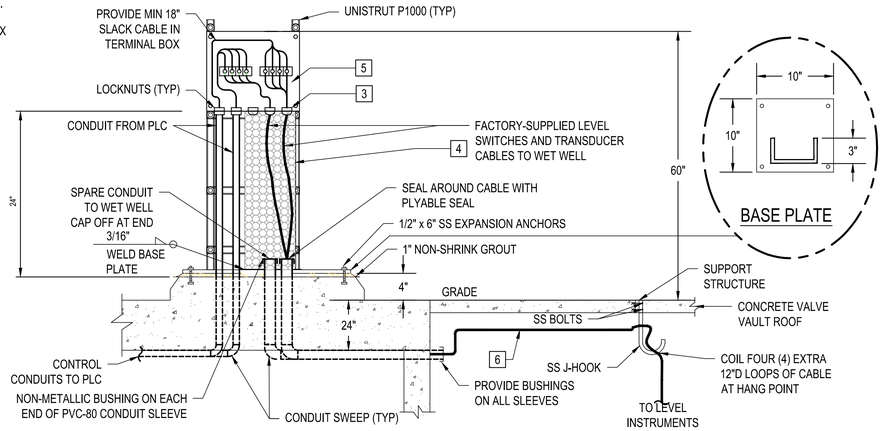
1. TERMINAL BOX, NEMA 3R STAINLESS STEEL (24"HX24"MIN) WITH PADLOCKABLE HINGED DOOR, WITH 20A TERMINAL BLOCKS FOR PUMP CONDUCTORS.
2. ROUTE CONDUIT SO STUB OUT LOCATION FROM WALL IS DIRECTLY ABOVE SUMP PUMP SO THAT MANUFACTURER'S CABLE IN VAULT CAN DROP DIRECTLY DOWN TO ALLOW EASY REMOVAL/REPLACEMENT OF EQUIPMENT.
3. TYPICAL SPARE HUB, CAPPED AND SEALED.

TERMINAL BOX 2B - SUMP PUMP

SCALE: N.T.S. | B

NOTES:

1. SEE SHEET E6.0 CONTROL CONDUIT DESTINATIONS.
2. SPLICE TO VENDOR CONDUCTORS IN TERMINAL BOX USING RESPECTIVE TERMINAL BLOCKS.
3. REMOVABLE STAINLESS STEEL TC CABLE GLAND BY CMP PRODUCTS, OR APPROVED EQUAL CABLE CONNECTORS.
4. CONTROL CABLE CAGE. 16GA PERFORATED STANLESS STEEL 1/4" HOLE ON 3/8 CENTERS. CONTRACTOR SHALL ADJUST CAGE AS NEEDED TO ACCOMMODATE ALL CABLES AND CONNECTORS (INCLUDING SPARES) GOING TO WET WELL. MOUNT CAGE BACK PANEL TO UNISTRUT FOR SUPPORT.
5. TERMINAL BOX, NEMA 3R STAINLESS STEEL (24"HX24"MIN) WITH PADLOCKABLE HINGED DOOR, WITH TERMINAL BLOCKS (QTY AS REQ'D) FOR CONTROL WIRES.
6. MANUFACTURE'S CABLE IN WET WELL SHALL BE ROUTED AND HUNG NEAR ACCESS POINT TO ALLOW EASY REMOVAL/REPLACEMENT OF EQUIPMENT AND SENSORS FROM SURFACE WITHOUT NEED FOR PERSONNEL TO ENTER THE WET WELL. SEE SHEET E3.1. CONTRACTOR SHALL CONFIRM ROUTING STRATEGY WITH SMD BEFORE PURCHASE AND INSTALLATION.

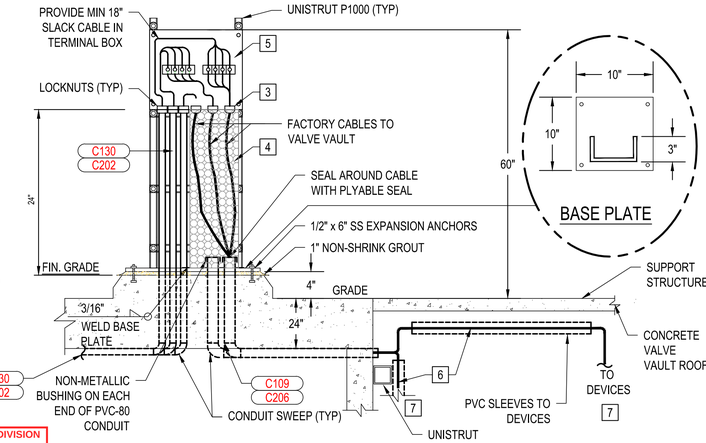


TERMINAL BOX 3

SCALE: N.T.S. | C

NOTES:

1. SEE SHEET E6.0 FOR POWER AND CONTROL CONDUIT DESTINATIONS.
2. SPLICE TO VENDOR CONDUCTORS IN TERMINAL BOX USING RESPECTIVE TERMINAL BLOCKS.
3. REMOVABLE STAINLESS STEEL TC CABLE GLAND BY CMP PRODUCTS, OR APPROVED EQUAL CABLE CONNECTORS.
4. CONTROL CABLE CAGE. 16GA PERFORATED STANLESS STEEL 1/4" HOLE ON 3/8 CENTERS. CONTRACTOR SHALL ADJUST CAGE AS NEEDED TO ACCOMMODATE ALL CABLES AND CONNECTORS (INCLUDING SPARES) GOING TO WET WELL AND VALVE VAULT. MOUNT CAGE BACK PANEL TO UNISTRUT FOR SUPPORT.
5. TERMINAL BOX, NEMA 3R STAINLESS STEEL (24"HX24"MIN) WITH PADLOCKABLE HINGED DOOR, WITH 20A TERMINAL BLOCKS (QTY AS REQ'D) FOR CONTROL CONDUITS.
6. MANUFACTURE'S CABLE IN VALVE VAULT SHALL BE ROUTED TO AVOID TRIPPING HAZARDS AND IN ACCORDANCE WITH CLEARANCE REQUIREMENTS. IN ADDITION ALL WIRES/CABLES IN VALVE VAULT SHALL BE INSTALLED IN PVC SLEEVES MOUNTED ON WALLS OR CEILING. SEE SHEE E3.1. CONTRACTOR SHALL CONFIRM ROUTING STRATEGY WITH SMD BEFORE PURCHASE AND INSTALLATION.
7. TO LEVEL SWITCHES AND/OR TRANSDUCER.



BUILDING AND SAFETY DIVISION
Department of Public Works
APPROVED
FINAL ENERGY APPROVED
APPROVED BY: amarcos
PUBLIC WORKS
04/15/2020 7:32:54 AM
This set of plans and specifications must be kept at the job site at all times and it is unlawful to make any changes, modifications or alterations to these plans or specifications without the prior written permission of the Building Official. The stamping of this set of plans and specifications SHALL NOT, under any circumstances, be deemed to permit or to be an approval of any work or activity that violates any provisions of any County Ordinance or State Law

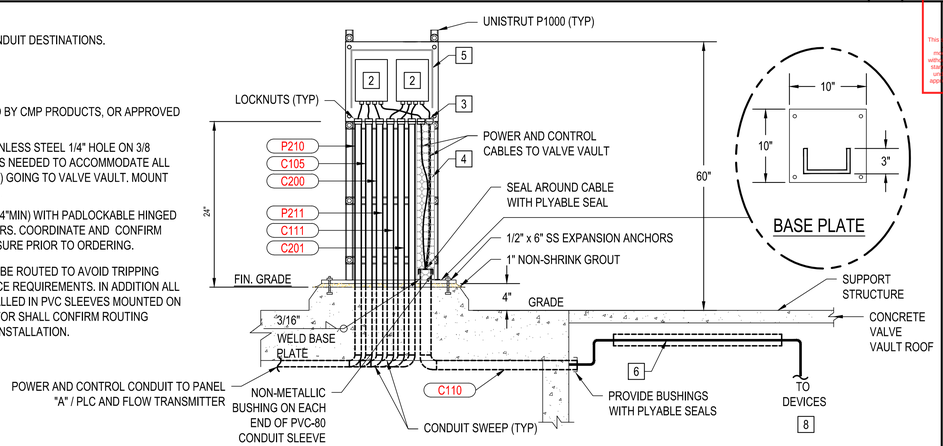
BUILDING AND SAFETY DIVISION
Department of Public Works
FINAL ENERGY APPROVED
APPROVED BY: amarcos
PUBLIC WORKS
06/18/2020 11:00:15 AM
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TERMINAL BOX 4 FOR PRESSURE TRANSMITTERS AND FLOAT SWITCHES

SCALE: N.T.S. | D

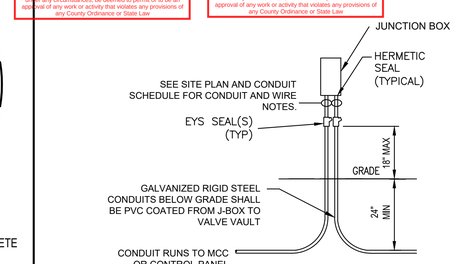
NOTES:

1. SEE SHEET E6.0 FOR POWER AND CONTROL CONDUIT DESTINATIONS.
2. FLOW METER CONVERTER FT-01001 / FT-01002.
3. REMOVABLE STAINLESS STEEL TC CABLE GLAND BY CMP PRODUCTS, OR APPROVED EQUAL CABLE CONNECTORS.
4. CONTROL CABLE CAGE. 16GA PERFORATED STANLESS STEEL 1/4" HOLE ON 3/8 CENTERS. CONTRACTOR SHALL ADJUST CAGE AS NEEDED TO ACCOMMODATE ALL CABLES AND CONNECTORS (INCLUDING SPARES) GOING TO VALVE VAULT. MOUNT CAGE BACK PANEL TO UNISTRUT FOR SUPPORT.
5. NEMA 3R STAINLESS STEEL ENCLOSURE (24"HX24"MIN) WITH PADLOCKABLE HINGED DOOR, AND SUN SHIELD FOR FLOW TRANSMITTERS. COORDINATE AND CONFIRM FLOW METER TRANSMITTER SIZES WITH ENCLOSURE PRIOR TO ORDERING.
6. MANUFACTURE'S CABLE IN VALVE VAULT SHALL BE ROUTED TO AVOID TRIPPING HAZARDS AND IN ACCORDANCE WITH CLEARANCE REQUIREMENTS. IN ADDITION ALL WIRES/CABLES IN VALVE VAULT SHALL BE INSTALLED IN PVC SLEEVES MOUNTED ON WALLS OR CEILING. SEE SHEET E3.1. CONTRACTOR SHALL CONFIRM ROUTING STRATEGY WITH SMD BEFORE PURCHASE AND INSTALLATION.



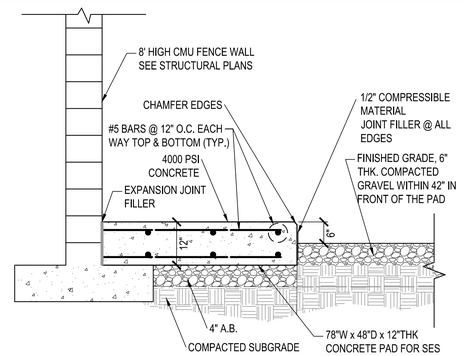
TERMINAL BOX 5 FOR FLOW METERS

SCALE: N.T.S. | E



NON-MRF CABLE CONDUIT ROUTING

SCALE: N.T.S. | F



CONCRETE PAD FOR SES

SCALE: N.T.S. | G

Department of Public Works, Los Angeles County

Checked _____ _____

Operational Services Division — Date

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NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER — CHRISTOPHER M. NAJARIAN — No. E 22545 — ELECTRICAL — EXP: 12-31-20 — STATE OF CALIFORNIA

PREPARED BY: CHRISTOPHER NAJARIAN, PROJECT ENGINEER, R.C.E. NO. 22545, EXP: 12/31/20 | SCALE: AS NOTED | DRAWN: BM, AH | DESIGNED: EEB | CHECKED: CN | DATE: JUNE 2020

TITLE: ELECTRICAL DETAILS 3

JOB: MISSION VILLAGE DPW-1 SEWER PUMP STATION PC 12257PS — VALENCIA, CA

PACE Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481-7300 | www.pacewater.com

SHEET E8.2

72 OF 72 SHEETS

JOB NO. 9862-E

Xrefs: 36GN (DPW-1 - Elec.dwg
Dimscale = 1; LTscale = 1; PSltscale = 1; ACAD Var. = 23.0a (LMS Tech); Vzextain = 1
P:\9862E_Mission\Wags\Final\Design\Engineering\9862-6\Sewer PS\3sheet\DPW-1 PS\9862-5.5 E8.2 ELECTRICAL DETAILS 3.dwg - Tab: E8.2 - by cchin on 01/31/20 at 10:15:50 AM

GENERAL ENGINEERING CONTRACTORS
CA License No. 256065 •A, C-16, HAZ, HIC
P.O. Box 672 • Oxnard, CA 91302-0672
3201 Sturgis Road • Oxnard, CA 93030
(805) 656-1432 • FAX (805) 485-0338

REQUEST FOR INFORMATION

DATE: 10-22-2020 RFI #: **021**

Attention: Tom Hay, Tom Hay Consulting Bob Brazell, FivePoint Brian Reid, PACE Matt Mills, PACE Fax #: 661-255-4296	From: Matt Messerly Delivered Via: Email Blois Construction Project No.: 3065 Project Name: Mission Village Sewer Lift Station DPW-1

Subject:	**Area Classification**
Reference:	Drawing Sheets: Detail Numbers: Spec. Sections: Schedule Activities Impacted: Electrical Installation

INFORMATION REQUESTED:

Please see attached and below RFI from our electrical and instrumentation subcontractor, Taft Electric:

Where may we find the detail outlining the specific borders between where areas are Class 1 Division 2 vs. unclassified? Attaches you will find an example. Meeting NFPA 820 and NEC requirements for areas classified therein will be a critical component for mutual project success. If no detail is currently available, please generate a sketch.

Please review and advise.

Response Requested by:	**10/30/2020**		
If a definitive response is not received by this date Project Schedule Will be Delayed	☐ YES ☐ NO ☒ Uncertain	Potential Cost Impact	☐ YES ☐ NO ☒ Uncertain

RESPONSE: Please see the updated area classification. The wet well vent shall be raised to the top of the CMU wall to avoid area classification conflicts with the modified load bank position.

BY: C.N. / M.J.M. DATE: 07/01/2021

RFI #21

Raise vent to the top of the wall to avoid conflicts with load bank location

5' RADIUS AROUND VENT IS CLASSIFIED AS CLASS 1, DIVISION 1, GROUP D

WET WELL

AREA CLASSIFICATION = CLASS 1, DIVISION 1, GROUP D
SEE CLASSIFICATION DETAIL 1

3' RADIUS AROUND VENT IS CLASSIFIED AS CLASS 1, DIVISION 2, GROUP D

CONTROL BUILDING

AREA CLASSIFICATION = UNCLASSIFIED
SEE CLASSIFICATION DETAIL 2

VALVE VAULT

AREA CLASSIFICATION = CLASS 1, DIVISION 2, GROUP D
SEE CLASSIFICATION DETAIL 3

3' RADIUS AROUND VENT IS CLASSIFIED AS CLASS 1, DIVISION 2, GROUP D

AREA CLASSIFICATION PLAN

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

NORTH

NO	BY	DATE	REVISIONS	DATE	APP.

REGISTERED PROFESSIONAL ENGINEER CHRISTOPHER NAJARIAN E 22545 EXP: 12/31/20 ELECTRICAL STATE OF CALIFORNIA

PREPARED BY: CHRISTOPHER NAJARIAN
PROJECT ENGINEER
R.C.E. NO. 22545
EXP: 12/31/20

DRAWN: BM, AH
DESIGNED: EEB
CHECKED: CN

SCALE: AS NOTED
DATE: JUNE 2020

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TITLE: AREA CLASSIFICATION PLAN

JOB: MISSION VILLAGE
DPW-1 SEWER
PUMP STATION
PC 12257PS
VALENCIA CA

PACE
Advanced Water Engineering
17520 Newhope Street, Suite 200 | Fountain Valley, CA 92708
P: (714) 481 - 7300 | www.pacewater.com

Department of Public Works, Los Angeles County

Checked _____ _____
Operational Services Division Date

SHEET
E9.0
XX OF 72 SHEETS

JOB NO. 9862-E

Xrefs: 9862 DPW-1 Mech+plan.dwg, 36x24r DPW-1 - Elec.dwg, West Side Comm - Mission Village - DPW-1 SLS - composite.dwg
Dimscale = 24; LTscale = 1; PSltscale = 1; ACAD Ver. = 23.0s (LMS Tech); Varistain = 1

P:\9862EP_Mission\Village\Final\Design\Engineering\9862-E\Sewer PS\plotweb\DPW-1 PS\9862-E S E9.0.dwg - Tab: E9.0 - by emilia on 07/01/21 at 10:11:48 AM

LISTEN.
THINK.
SOLVE.®

Rockwell Automation

6504681417-000100: MCC-1

Project Name:

MISSION VILLAGE - DPW-1 SEWER PS

MCC Name:

MCC-1

Rockwell Automation

CENTERLINE 2100
MOTOR CONTROL CENTER

PROJECT: MISSION VILLAGE - DPW-1 SEWER PS
MCC: MCC-1

REV	APPROVED	DATE	STAGE
A	A. WARANG	15-Jan-20	APPROVAL
00	A. WARANG	06-Jan-21	REL TO MFG
1	A. WARANG	18-Jan-21	PRODUCTION

PROJECT:
MISSION VILLAGE - DPW-1 SEWER PS
MCC-1

CUSTOMER:
Royal Industrial Solutions
99149710
9009-KT-930750D

ORDER-LINE NUMBER:
6504681417-000100

PROJ. DOC. TYPE: Mechanical Lineup

LANG.: ENG

Rockwell Automation

MECHANICAL ELEVATION

DRAWN BY: A. WARANG

DATE: 23-Dec-20

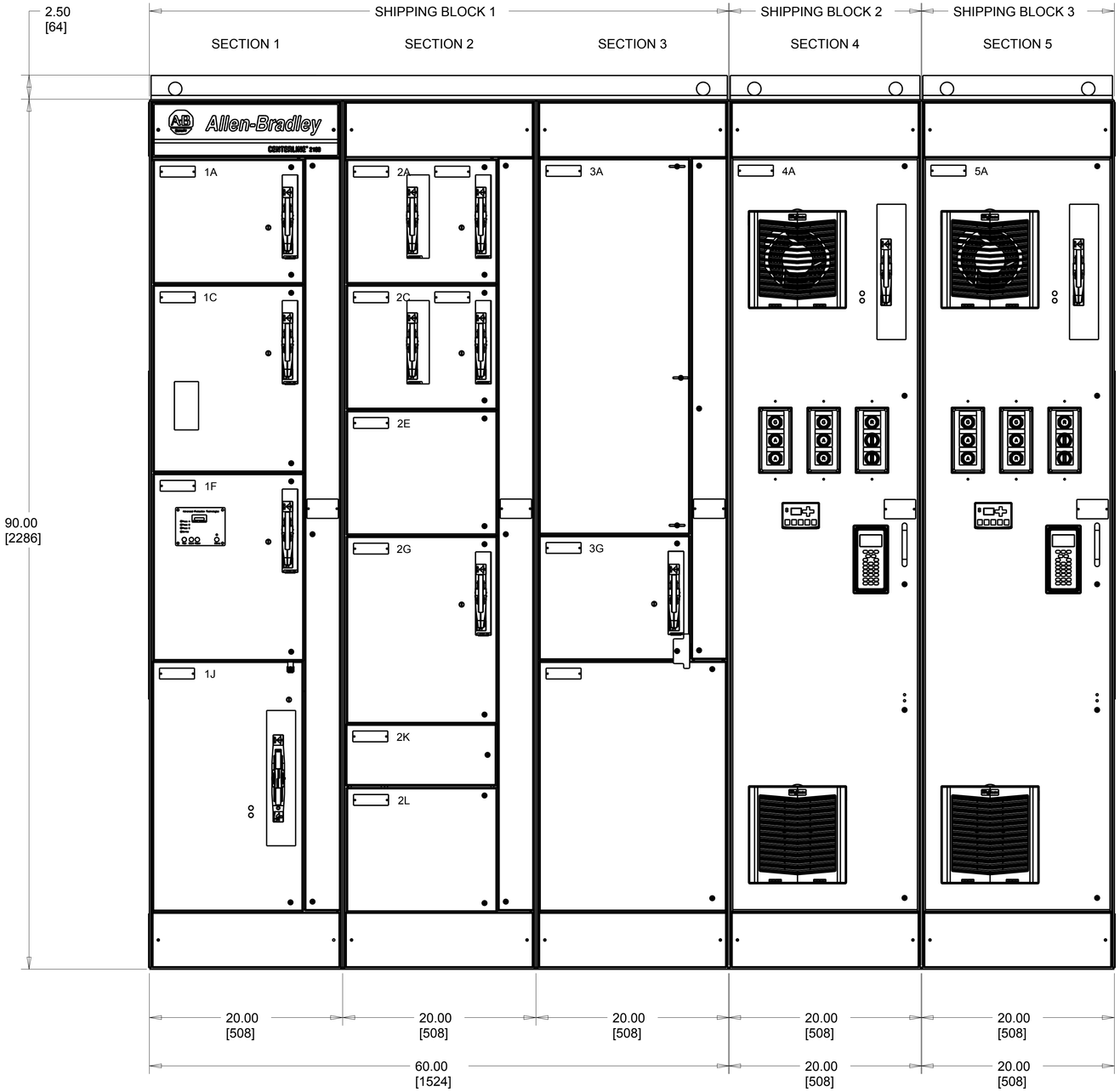
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SIZE D | 10005301484 | VER 1

10005301484-SCII.DRW

ELEVATION VIEW

(FRONT)



TOTAL LINEUP LENGTH = 100 [2540]

REV	APPROVED	DATE	STAGE
A	A. WARANG	15-Jan-20	APPROVAL
00	A. WARANG	06-Jan-21	REL TO MFG
1	A. WARANG	18-Jan-21	PRODUCTION

PROJ. DOC. TYPE: Mechanical Lineup

PROJECT:
MISSION VILLAGE - DPW-1 SEWER PS
MCC-1

CUSTOMER:
Royal Industrial Solutions
99149710
9009-KT-930750D

ORDER-LINE NUMBER:
6504681417-000100

LANG.: ENG

Rockwell Automation

MECHANICAL ELEVATION

DRAWN BY: A. WARANG

DATE: 23-Dec-20

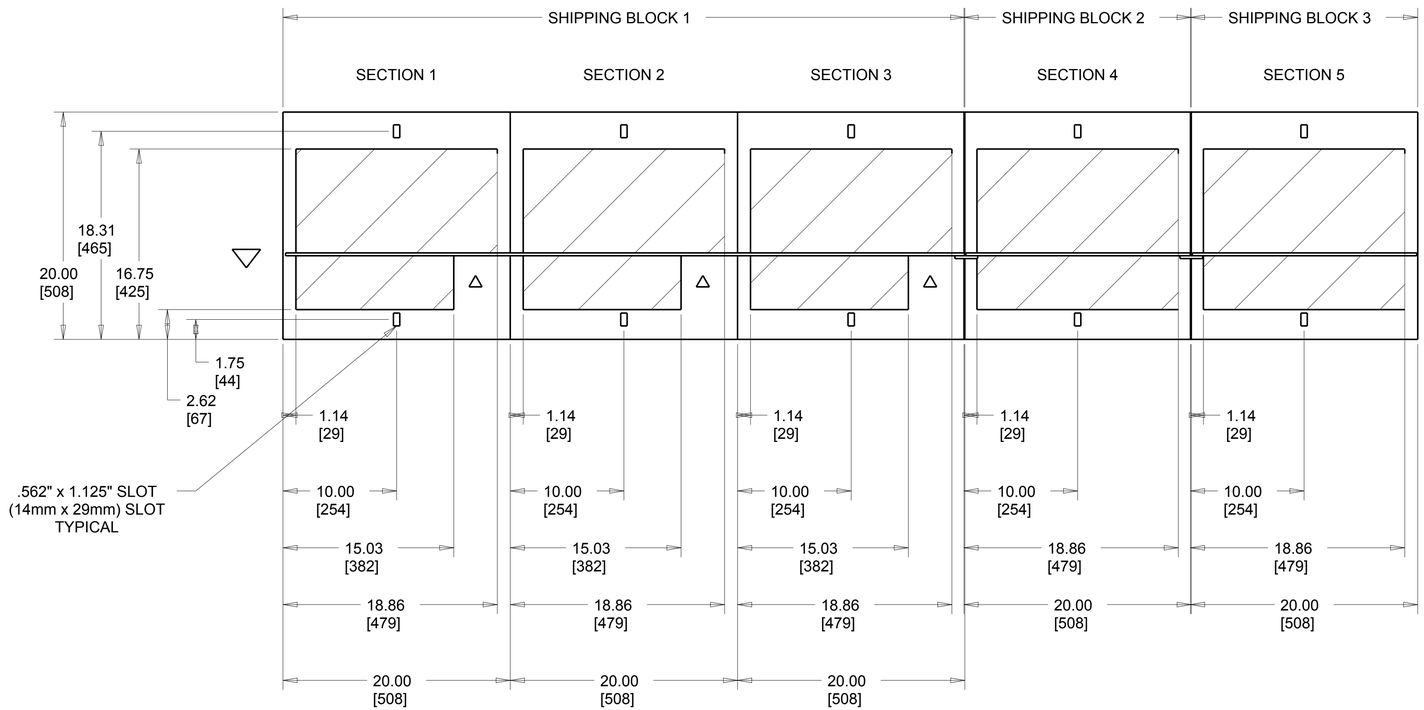
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SIZE D | 10005301484 | VER 1

10005301484-SCII.DRW

FOOTPRINT VIEW

(BACK)



(FRONT)

NOTE: HATCHED AREA FOR CABLE ENTRY

△ VERTICAL WIREWAY:
7.50" [191] DEEP.
PREFERRED LOCATION FOR POWER WIRES WHICH REQUIRE MORE THAN A 6 INCH BENDING RADIUS.

▽ GROUND BUS IS 0.25" X 1.00" OR 2.00" LOCATED 7.41" FROM FRONT OF CABINETS THAT ARE 15" OR 20" DEEP AND 12.4" FOR CABINETS THAT ARE 25" DEEP.
TOP OF GROUND BUS IS LOCATED 4.16" UP FROM BASE.

REV	APPROVED	DATE	STAGE
A	A. WARANG	15-Jan-20	APPROVAL
00	A. WARANG	06-Jan-21	REL TO MFG
1	A. WARANG	18-Jan-21	PRODUCTION

PROJ. DOC. TYPE: Mechanical Lineup

PROJECT:
MISSION VILLAGE - DPW-1 SEWER PS
MCC-1

CUSTOMER:
Royal Industrial Solutions
99149710
9009-KT-930750D

ORDER-LINE NUMBER:
6504681417-000100

LANG.: ENG

Rockwell Automation

MECHANICAL ELEVATION

DRAWN BY: A. WARANG

DATE: 23-Dec-20

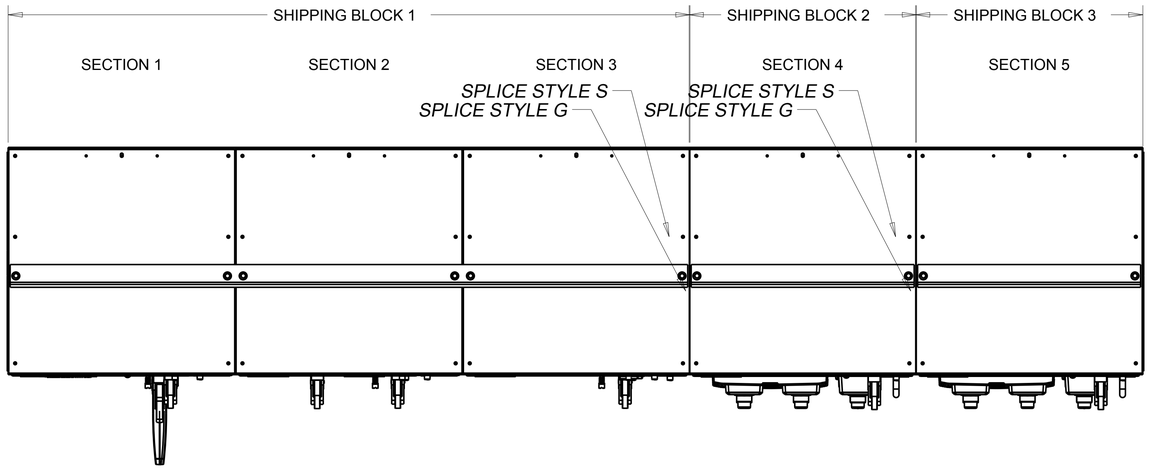
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SIZE D | 10005301484 | VER 1

10005301484-SCII.DRW

SPLICE ASSEMBLY

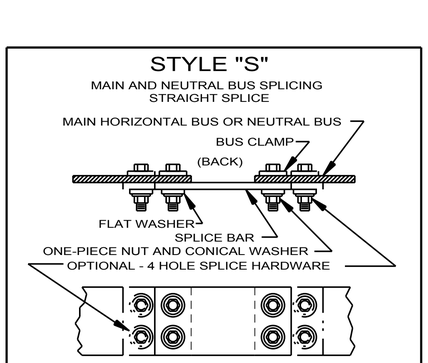
(BACK)



(FRONT)

STYLE "S"

MAIN AND NEUTRAL BUS SPLICING
STRAIGHT SPLICE

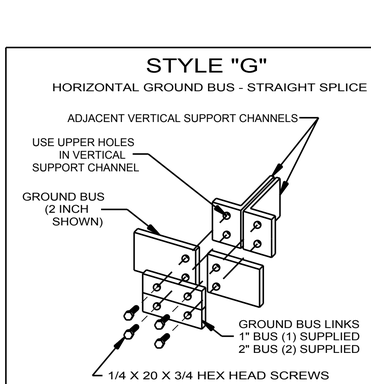


HORIZONTAL SPLICE TORQUE REQUIRED
28 LB-FT (37 Nm)

PART NUMBER:40114-715-11

STYLE "G"

HORIZONTAL GROUND BUS - STRAIGHT SPLICE



TORQUE TO A MAXIMUM 65 LB-IN (7.3 Nm)
(FROM STRUCTURE-NOT IN KIT)

PART NUMBER:40114-914-01

REV	APPROVED	DATE	STAGE
A	A. WARANG	15-Jan-20	APPROVAL
00	A. WARANG	06-Jan-21	REL TO MFG
1	A. WARANG	18-Jan-21	PRODUCTION

PROJECT:
MISSION VILLAGE - DPW-1 SEWER PS
MCC-1

CUSTOMER:
Royal Industrial Solutions
99149710
9009-KT-930750D

ORDER-LINE NUMBER:
6504681417-000100

PROJ. DOC. TYPE: Mechanical Lineup

LANG.: ENG

Rockwell Automation

MECHANICAL ELEVATION

DRAWN BY: A. WARANG

DATE: 23-Dec-20

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SIZE D | 10005301484 | VER 1

10005301484-SCII.DRW

LISTEN.
THINK.
SOLVE.®

Rockwell Automation

One Lines

Rockwell Automation Order Number:
6504681417

Date:
1/25/2021

LISTEN.
THINK.
SOLVE.®

Rockwell Automation

6504681417-000100: MCC-1

Project Name:

MISSION VILLAGE - DPW-1 SEWER PS

MCC Name:

MCC-1

Rockwell Automation

CENTERLINE 2100
MOTOR CONTROL CENTER

PROJECT: MISSION VILLAGE – DPW–1 SEWER PS
MCC: MCC–1

REV	APPROVED	DATE	STAGE
A	A. WARANG	15–Jan–20	APPROVAL
00	A. WARANG	06–Jan–21	REL TO MFG

PROJ. DOC. TYPE: COVER SHEET

PROJECT:
MISSION VILLAGE – DPW–1 SEWER PS
MCC–1

CUSTOMER:
ROYAL INDUSTRIAL SOLUTIONS
0099149710
9009–KT–930750D

ORDER–LINE NUMBER:
6504681417–000100

LANG: ENG

Rockwell Automation

ONE LINE COVER SHEET

DRAWN BY: A. WARANG | DATE: 06–Jan–21

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SHEET 1 OF 5

SIZE D | 10005301483 | VER 00

RA_TB_NEMA_D_H_SAP–11/03/16
RA_TB_NEMA_D_H_DEWE–11/03/16

10005301483_0001

MOTOR CONTROL CENTER STRUCTURE SPECIFICATIONS

ENCLOSURE DATA

NEMA TYPE 12 W BOTTOM PLATES ENCLOSURES
90" [2286] ENCLOSURE HEIGHT
20" [508] ENCLOSURE DEPTH
FRONT MOUNTED ENCLOSURE STYLE
ANSI 49 ENCLOSURE FINISH
TOTAL NUMBER OF SECTIONS 5
TOTAL NUMBER OF SHIPPING BLOCKS 3
MAIN CIRCUIT BREAKER

INCOMING POWER SYSTEM

WYE/3 PH/3 WIRE W/SOLID GRD NEUT POWER SYSTEM

480V POWER SYSTEM LINE VOLTAGE
60HZ POWER SYSTEM LINE FREQUENCY

CUSTOMER INCOMING CABLES ENTRY: BOTTOM

POWER BUS

600A HORIZONTAL POWER BUS
HORIZONTAL POWER BUS MATERIAL IS COPPER
SILVER HORIZONTAL POWER BUS PLATING
42000A RMS HORIZONTAL POWER BUS BRACING

VERTICAL POWER BUS MATERIAL IS SILVER PLATED COPPER
AUTOMATIC SHUTTER VERTICAL BUS OPENING PROTECTION

GROUND BUS

0.25" X 1" [6.4] X [25.4] HORIZONTAL GROUND BUS
HORIZONTAL GROUND BUS IS TIN PLATED COPPER
GROUND BUS LOCATED IN BOTTOM HORIZONTAL WIREWAY
VERTICAL GROUND BUS: PLUG-IN (CU/TIN)

EQUIPMENT GROUND LUG SIZE: #6AWG - 250 KCMIL
INCOMING GROUND CABLES: 2

NEUTRAL BUS

NONE REQUESTED

ONE-LINE LEGEND

UNIT LOCATION: 01A
SCHEMATIC/DIAGRAM: 1000XXXXXXX
UNIT NAMEPLATE

CUSTOMER LOAD WIRE SIZE RANGE
GND/NEUT. WIRE SIZE RANGE

MOTOR CONTROL CENTER STRUCTURE SPECIFICATIONS

NEUTRAL CONNECTION PLATES IN HORIZONTAL WIREWAY

NONE REQUESTED

STANDARD 300A VERTICAL POWER BUS CABINET(S)

01, 02, 03

600A VERTICAL POWER BUS CABINET(S)

NONE REQUESTED

HORIZONTAL NEUTRAL BUS CABINET(S)

NONE REQUESTED

VERTICAL NEUTRAL BUS CABINET(S)

NONE REQUESTED

PULLBOX REQUIRED ON CABINET(S)

NONE REQUESTED

USE HEAT SHRINK TYPE MARKERS ON ALL CONTROL WIRE (OPTION -751HS)

USE MYLAR DEVICE MARKERS TO MARK ALL COMPONENTS WITHIN THE UNIT (OPTION -751M)

MOTOR CONTROL CENTER STRUCTURE SPECIFICATIONS

ENCLOSURE OPTIONS REQUESTED

NO MASTER NAMEPLATE REQUIRED

VERTICAL WIREWAY TIE-BARS

SPACE HEATER VOLTAGE: 120V
SPACE HEATER THERMOSTAT: 1 PER SECTION

CLASS II INTERWIRING THROUGH BOTTOM WIREWAY
DIR 10005928933

MOTOR CONTROL CENTER COMMON UNIT OPTIONS

ACRYLIC STYLE UNIT NAMEPLATES
BLACK LETTERS ON WHITE UNIT NAMEPLATE COLOR
4 - LINES OF INFORMATION PER UNIT NAMEPLATE

UNITS PROVIDED WITH STAINLESS STEEL NAMEPLATE SCREWS

EXTERNAL OVERLOAD RESET BUTTONS
UNIT DIAGRAM LOCATION: WITHIN EACH UNIT

NETWORK INFORMATION

INTERWIRE BETWEEN LIGHTING TRAFO (10005320129)
LOC 03G AND LIGHTING PANEL (10005925154) LOC 03A

GENERAL INFORMATION

POWER BUS AND UNIT POWER WIRE ENDS TO BE
COLOR CODED WITH TAPE AS FOLLOWS:

PHASE 1 =BROWN
PHASE 2 =ORANGE
PHASE 3 =YELLOW

REV	APPROVED	DATE	STAGE
A	A. WARANG	15-Jan-20	APPROVAL
00	A. WARANG	06-Jan-21	REL TO MFG

PROJ. DOC. TYPE: SPECIFICATIONS SHEET

PROJECT:
MISSION VILLAGE - DPW-1 SEWER PS
MCC-1

CUSTOMER:
ROYAL INDUSTRIAL SOLUTIONS
0099149710
9009-KT-930750D

ORDER-LINE NUMBER:
6504681417-000100

LANG: ENG

Rockwell Automation

SPECIFICATIONS SHEET

DRAWN BY: A. WARANG
DATE: 06-Jan-21

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SIZE D | 10005301483 | VER 00

RA_TB_NEMA_D_H_EAP-11/03/16
RA_TB_NEMA_D_H_DEWB-11/03/16

10005301483_0002

BUS 600A SILVER PLATED COPPER – 42000A RMS BRACING

CB1
20AT
125A G FRAME
65KA S.C.C.R.

CB1
15AT
125A G FRAME
65KA S.C.C.R.

CB1
60AT
125A G FRAME
65KA S.C.C.R.

CB1
600AT (SET TRIP AT 240A)
800A M FRAME LSI
65KA S.C.C.R.

480V/60HZ/3 PH/3 WIRE
WYE/SOLID GRD NEUTRAL
LUG PAD/2 PER PH/350 KCMIL MAX.

CB1
15AT
125A G FRAME
65KA S.C.C.R.

CB2
15AT
125A G FRAME
65KA S.C.C.R.

VOLTAGE MONITOR
813S-V3-480V

300KA SPD
450277YP
30ACCN10

01A	01C	01F	01J	02A	02A
10005320121	10005301486	10005301490	10005320127	10005320123	10005320123
COMPRESSOR CP	VOLTAGE MONITOR	SPD	MAIN BREAKER	MECH. ROOM VENT FAN	SPARE
1/PH : 14AWG–1/0AWG			2/PH : 3/0AWG–350MCM CABLE ENTRY : BOTTOM	1/PH : 14AWG–1/0AWG	1/PH : 14AWG–1/0AWG

REV	APPROVED	DATE	STAGE
A	A. WARANG	15–Jan–20	APPROVAL
00	A. WARANG	06–Jan–21	REL TO MFG

PROJ. DOC. TYPE: ONE LINE

PROJECT:
MISSION VILLAGE – DPW–1 SEWER PS
MCC–1

CUSTOMER:
ROYAL INDUSTRIAL SOLUTIONS
0099149710
9009–KT–930750D

ORDER–LINE NUMBER:
6504681417–000100

LANG: ENG

Rockwell Automation

ONE LINE SCHEMATIC

DRAWN BY: A. WARANG

DATE: 06–Jan–21

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SIZE D | 10005301483 | VER 00

RA_TB_NEMA_D_H_SAP–11/03/16
RA_TB_NEMA_D_H_CEMS–11/03/16

10005301483_0003

BUS 600A SILVER PLATED COPPER – 42000A RMS BRACING

CB1
15AT
125A G FRAME
65KA S.C.C.R.

CB2
15AT
125A G FRAME
65KA S.C.C.R.

CB1
25AT
125A G FRAME
65KA S.C.C.R.

BLANK DOOR
FUTURE
UNIT

POWER
SUPPLY
1606–
XLS480E
–3

BLANK DOOR
FUTURE
UNIT

BLANK DOOR
FUTURE
UNIT

02C
10005320123
VALVE VAULT
VENT FAN 1

1/PH : 14AWG–1/0AWG

02C
10005320123
VALVE VAULT
VENT FAN 2

1/PH : 14AWG–1/0AWG

02E
10005320117

02G
10005925152
POWER SUPPLY

02K
10005320115

02L
10005320117

REV	APPROVED	DATE	STAGE
A	A. WARANG	15–Jan–20	APPROVAL
00	A. WARANG	06–Jan–21	REL TO MFG

PROJ. DOC. TYPE: ONE LINE

PROJECT:
MISSION VILLAGE – DPW–1 SEWER PS
MCC–1

CUSTOMER:
ROYAL INDUSTRIAL SOLUTIONS
0099149710
9009–KT–930750D

ORDER–LINE NUMBER:
6504681417–000100

LANG: ENG

Rockwell Automation

ONE LINE SCHEMATIC

DRAWN BY: A. WARANG

DATE: 06–Jan–21

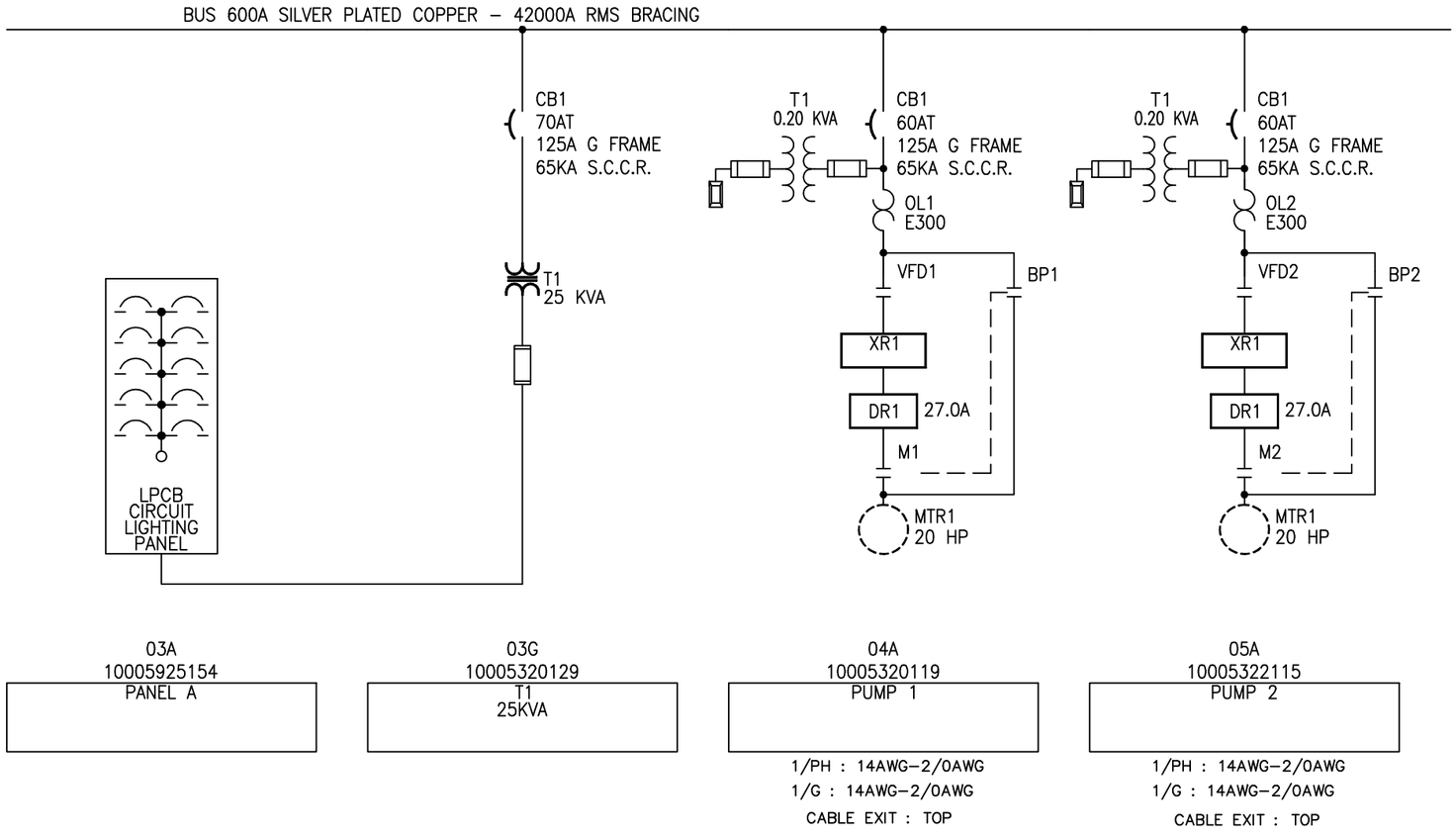
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SHEET 4 OF 5

SIZE D | 10005301483 | VER 00

RA_TB_NEMA_D_H_SAP–11/03/16
RA_TB_NEMA_D_H_CENS–11/03/16

10005301483_0004



03A	03G	04A	05A
10005925154	10005320129	10005320119	10005322115
PANEL A	T1 25KVA	PUMP 1	PUMP 2
		1/PH : 14AWG–2/0AWG 1/G : 14AWG–2/0AWG CABLE EXIT : TOP	1/PH : 14AWG–2/0AWG 1/G : 14AWG–2/0AWG CABLE EXIT : TOP

REV	APPROVED	DATE	STAGE
A	A. WARANG	15–Jan–20	APPROVAL
00	A. WARANG	06–Jan–21	REL TO MFG

PROJ. DOC. TYPE: ONE LINE

PROJECT:
MISSION VILLAGE – DPW–1 SEWER PS
MCC–1

CUSTOMER:
ROYAL INDUSTRIAL SOLUTIONS
0099149710
9009–KT–930750D

ORDER–LINE NUMBER:
6504681417–000100

LANG: ENG

Rockwell Automation

ONE LINE SCHEMATIC

DRAWN BY: A. WARANG | DATE: 06–Jan–21

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SHEET 5 OF 5

SIZE D | 10005301483 | VER 00

RA_TB_REMA_D_H_SAP–11/03/16
RA_TB_REMA_D_H_DEMO–11/03/16

10005301483_0005

LISTEN.
THINK.
SOLVE.®

Rockwell Automation

Interwiring

Rockwell Automation Order Number:
6504681417

Date:
1/25/2021

LISTEN.
THINK.
SOLVE.®

Rockwell Automation

6504681417-000100: MCC-1

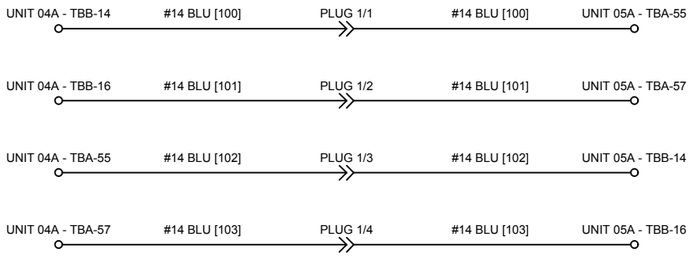
Project Name:

MISSION VILLAGE - DPW-1 SEWER PS

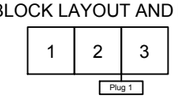
MCC Name:

MCC-1

INTERWIRING DIAGRAM



BLOCK LAYOUT AND PLUG LOCATION



REV	APPROVED	DATE	STAGE
0	A. WARANG	1/6/2021	REL. TO MFG.

PROJ. DOC. TYPE: ETO INTERWIRING

PROJECT:
PROJECT:
MISSION VILLAGE - DPW-1 SEWER PS
MCC-1

CUSTOMER:
Royal Industrial Solutions
99149710
9009-KT-930750D

ORDER-LINE NUMBER:
6504681417-100

LANG: EN

Rockwell Automation

CLASS II INTERWIRING
SUB-TITLE

DRAWN BY: A. WARANG | DATE: 1/6/2021

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SHEET 1 OF 1

SIZE		VER
D	10005928933	0

LISTEN.
THINK.
SOLVE.®

Rockwell Automation

Schematics

Rockwell Automation Order Number:

6504681417

Date:

1/25/2021

LISTEN.
THINK.
SOLVE.®

Rockwell Automation

6504681417-000100: MCC-1

Project Name:

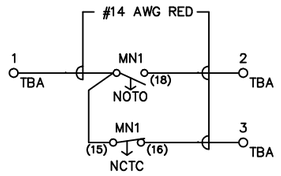
MISSION VILLAGE - DPW-1 SEWER PS

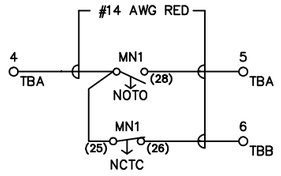
MCC Name:

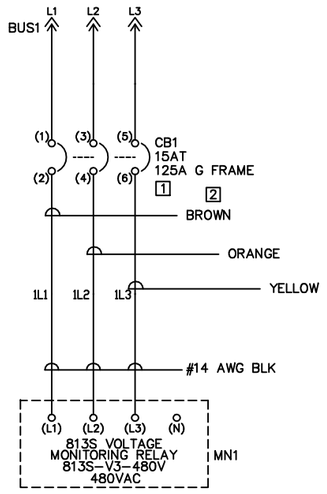
MCC-1

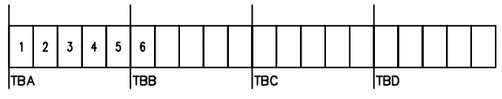
NOTES:

1. UNIT SHORT CIRCUIT CURRENT RATING CAN BE FOUND ON THE ONE-LINE (WHERE APPLICABLE) OR ON THE UNIT NAMEPLATE.
2. PROVIDE COLOR TAPE AT BOTH END OF WIRES. COVER COLORED POWER WIRE TAPE WITH SHRINK TUBING.









TERMINAL LAYOUT

TORQUE ALL FIELD CONNECTIONS TO THE VALUE SPECIFIED IN THE CUSTOMER WIRING TORQUE SPECIFICATION TABLE. ALL FACTORY WIRED CONNECTIONS HAVE BEEN PROPERLY TORQUED AND NEED NOT BE CHECKED.

REFER TO 40110-920 FOR FACTORY WIRING TORQUE SPECS

CUSTOMER WIRING TORQUE SPECS (±10%)	
Load Cable Connections:	
#14-10 AWG	20 lb-in(2.2 Nm)
Control Terminal Blocks	7 lb-in(0.8 Nm)
C.B. Internal Device TB and External Auxiliary Contacts	7 lb-in(0.8 Nm)

LOC	TAG
01C	VOLTAGE MONITOR

REV	APPROVED	DATE	STAGE
A	A. WARANG	15-Jan-20	APPROVAL
00	A. WARANG	06-Jan-21	REL TO MFG

PROJ. DOC. TYPE: ELECTRICAL SCHEMATIC

PROJECT:
MISSION VILLAGE - DPW-1 SEWER PS
MCC-1

CUSTOMER:
ROYAL INDUSTRIAL SOLUTIONS
0099149710
9009-KT-930750D

ORDER-LINE NUMBER:
6504681417-000100

LANG: ENG

Rockwell Automation

2100M EMPTY UNIT W/CB

DRAWN BY: A. WARANG

DATE: 06-Jan-21

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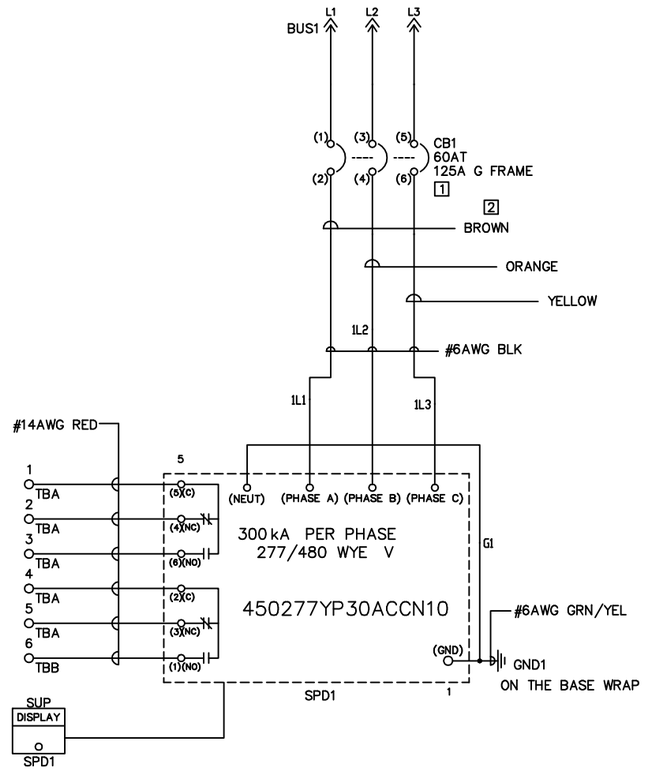
SHEET 1 OF 1

SIZE D | 10005301486 | VER 00

NOTES:

1. UNIT SHORT CIRCUIT CURRENT RATING CAN BE FOUND ON THE ONE-LINE (WHERE APPLICABLE) OR ON THE UNIT NAMEPLATE.
2. PROVIDE COLOR TAPE AT BOTH END OF WIRES. COVER COLORED POWER WIRE TAPE WITH SHRINK TUBING

TERMINAL LAYOUT



TORQUE ALL FIELD CONNECTIONS TO THE VALUE SPECIFIED IN THE CUSTOMER WIRING TORQUE SPECIFICATION TABLE. ALL FACTORY WIRED CONNECTIONS HAVE BEEN PROPERLY TORQUED AND NEED NOT BE CHECKED.

REFER TO 40110-920 FOR FACTORY WIRING TORQUE SPECS

CUSTOMER WIRING TORQUE SPECS (±10%)	
Load Cable Connections:	
#14-10 AWG	20 lb-in(2.2 Nm)
Control Terminal Blocks	7 lb-in(0.8 Nm)
C.B. Internal Device TB and External Auxiliary Contacts	7 lb-in(0.8 Nm)

LOC	TAG
01F	SPD

REV	APPROVED	DATE	STAGE
A	A. WARANG	15-Jan-20	APPROVAL
00	A. WARANG	06-Jan-21	REL TO MFG

PROJ. DOC. TYPE: ELECTRICAL SCHEMATIC

PROJECT:
MISSION VILLAGE - DPW-1 SEWER PS
MCC-1

CUSTOMER:
ROYAL INDUSTRIAL SOLUTIONS
0099149710
9009-KT-930750D

ORDER-LINE NUMBER:
6504681417-000100

LANG: ENG

Rockwell Automation

2100M EMPTY UNIT W/CB

DRAWN BY: A. WARANG

DATE: 06-Jan-21

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SHEET 1 OF 1

SIZE D | 10005301490 | VER 00

2163UB-034HJB-3F-5LRG-5TLA-14APS-14DA2R1-14FCT-14GER-14HC6S-14RLX-21-43TGM-751HS-751M

NOTES

1. REMOTE DEVICE.
2. REFER TO DRIVE USER MANUAL FOR APPLICATION DATA.
3. UNIT SHORT CIRCUIT CURRENT RATING CAN BE FOUND ON THE ONE-LINE (WHERE APPLICABLE) OR ON THE UNIT NAMEPLATE.
4. FOR HEAVY DUTY ONLY
   PORT 0: P306 [Drive Duty] =
   1 [Heavy Duty]
5. THE THERMOSTAT HAS BEEN PRESET BY THE FACTORY AT 35°C. IMPORTANT! DO NOT SET ABOVE 45°C.
6. FOR ETHERNET/IP ORDERS, ETHERNET CABLE CONNECTED TO ADAPTER IN WIREWAY OR DIRECTLY TO SWITCH. FOR ALL OTHER ORDERS, NO CONNECTION IS MADE
7. RUN IS PORT 0, R0
   PORT 0: P230 [R00 Sel]=
   PORT 0: P935 [Drive Status 1],
   BIT 16 [RUNNING]

   FAULT IS I/O MODULE PORT 4, R1
   PORT 4: P20 [R01 Sel] =
   PORT 0: P935 [Drive Status 1],
   BIT 7 [Faulted]
   PORT 4: P6, BIT 1[R1,Invert Output] =
   1 (Output Inverted)
8. A. RUN

   Port 0: P163 (DI Run) = Port 0,
   P220 (Digital In Sts), Bit 1 (Digital Input 1)

   B. SPEED SEL 1

   PORT 0: P174 [DI Speed Sel 1] =
   PORT 0: P220 [DI Sts], BIT 2 [DI 2].
   "REFERENCE A" (SPEED SOURCE FOR "AUTO" MODE = COMM MODULE IN PORT 6)
   PORT 0: P545 [Spd Ref A Sel] =
   PORT 0: P876 [Port 6 Reference].

   IN "HAND", SPEED SOURCE WILL BE THE HIM. IN "AUTO", SPEED SOURCE WILL BE THE COMM MODULE.

   "REFERENCE B" (SPEED SOURCE FOR "HAND" MODE = HIM MODULE IN PORT 2)
   PORT 0 P550 [SPD REF B SEL] =
   PORT 0: P872 [PORT 2 REFERENCE].
9. PROVIDE COLOR TAPE AT BOTH END OF WIRES. COVER COLORED POWER WIRE TAPE WITH SHRINK TUBING.
10. DO NOT USE AUTOMATIC RESET MODE IN APPLICATIONS WHERE UNEXPECTED AUTOMATIC RESTART OF THE MOTOR CAN CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT.

    ADDITIONAL DEVICES MAY BE MONITORED BY THE E300 OVERLOAD DEPENDING ON THE CONFIGURATION. CONNECT A 120VAC SIGNAL TO ANY OF THE UNUSED 120VAC INTERFACE MODULE INPUTS. ALL A1 AND A2 TERMINALS ARE INTERNALLY CONNECTED. ADDITIONAL PROGRAMMING MAY BE REQUIRED.

    REFER TO E300 USER MANUAL CHAPTER 5 FOR OPERATION.
    TO ENERGIZE THE STARTER VIA THE NETWORK, SET NETWORK TAG LogicDefinedPt00Data TO 1.

    DEVICELOGIX CONFIGURATION:
    E300 PARAMETER 164 (ConfigPreset) SET TO NetOSNonRev3Wr – OPERATING MODE 11 – (NON-REVERSING STARTER – NETWORK AND OPERATOR STATION)
11. E300 CONTROL MODULE FIRMWARE TO BE 5.000 OR GREATER TO ENABLE DEVICELOGIX.
12. APPROXIMATELY 1 TWIST PER INCH.
13. FOR ETHERNET LINEUPS, ETHERNET CABLE CONNECTED TO ADAPTER IN WIREWAY OR DIRECTLY TO SWITCH. FOR ALL OTHER ORDERS, NO CONNECTION IS MADE BY FACTORY.

700H PIN NUMBERING EXPLANATION

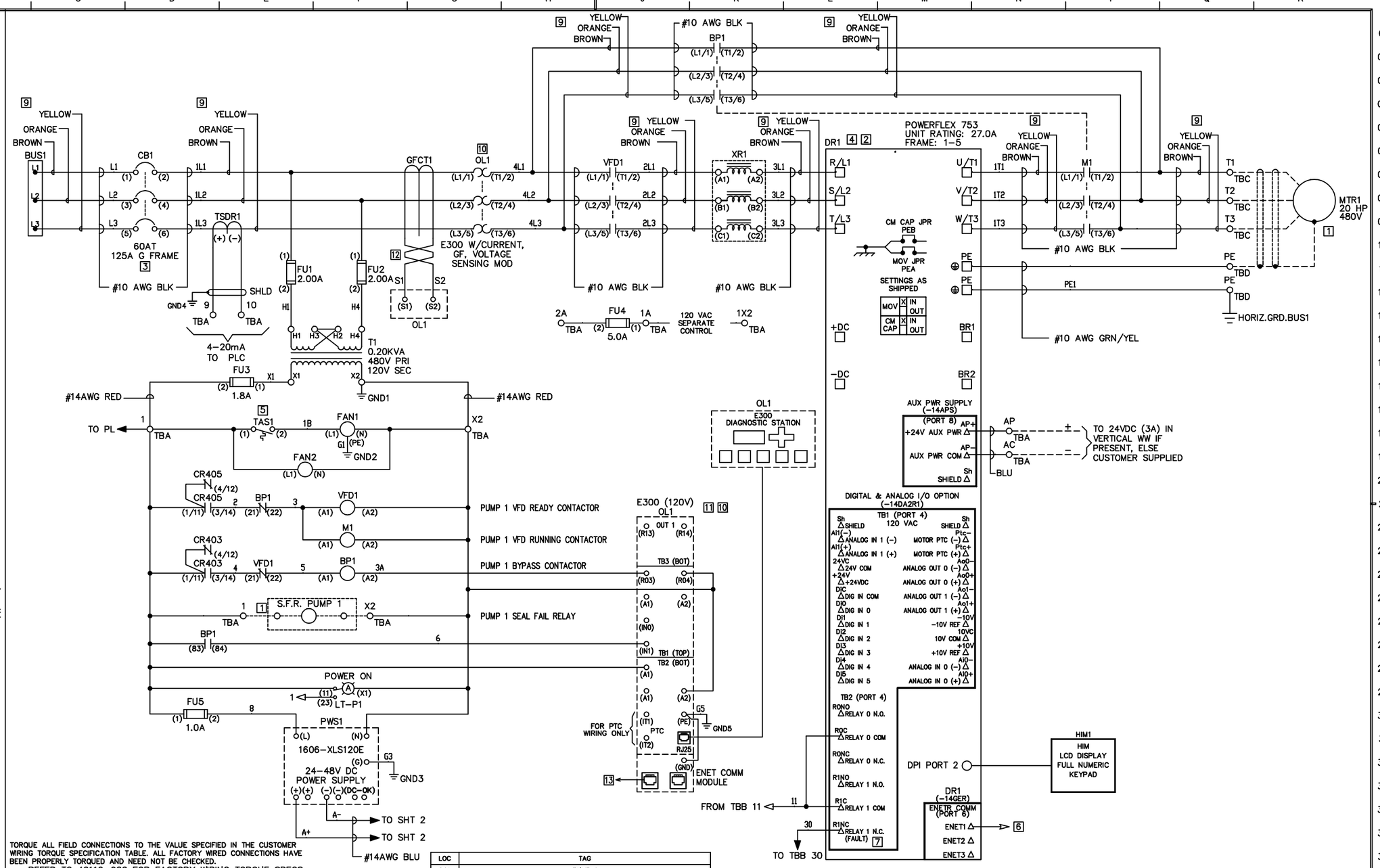
(DOMESTIC PIN # / INTERNATIONAL PIN #)
EXAMPLE: (2/A1)

NOTATION (used in above notes)
P = PARAMETER
(e.g. P158 = PARAMETER 158)

DRIVE LEGEND

☐ POWER TERMINAL

△ CONTROL TERMINAL



TORQUE ALL FIELD CONNECTIONS TO THE VALUE SPECIFIED IN THE CUSTOMER WIRING TORQUE SPECIFICATION TABLE. ALL FACTORY WIRED CONNECTIONS HAVE BEEN PROPERLY TORQUED AND NEED NOT BE CHECKED.
REFER TO 40110–922 FOR FACTORY WIRING TORQUE SPECS

CUSTOMER WIRING TORQUE SPECS (±10%)	
Fuse Clamp Screw w/Fuses	30 lb–in(3.4 Nm)
Load Cable Connection at Drive Power Terminal Blocks	24 lb–in(2.7 Nm)
Drive Main Control Terminal Blocks –– TB1, TB2 & TB3	2 lb–in(0.2 Nm)
C.B. Internal Device TB and External Auxiliary Contacts	7 lb–in(0.8 Nm)
Control Wire Connections at Control Terminal Blocks	6 lb–in(0.7 Nm)
Load Cable Connection at Power Terminal Blocks (52A Only)	30 lb–in(3.4 Nm)
Load Cable Connection at Power Terminal Blocks (65A Only)	45 lb–in(5 Nm)
Ground Wire to Horizontal Ground Bus	65 lb–in(7.3 Nm)

LOC	TAG
04A	PUMP 1

REV	APPROVED	DATE	STAGE
A	A. WARANG	15–Jan–20	APPROVAL
00	A. WARANG	06–Jan–21	REL TO MFG

PROJECT:
MISSION VILLAGE – DPW–1 SEWER PS MCC–1

CUSTOMER:
ROYAL INDUSTRIAL SOLUTIONS
0099149710
9009–KT–930750D

ORDER–LINE NUMBER:
6504681417–000100

PROJ. DOC. TYPE: ELECTRICAL SCHEMATIC

LANG: ENG

Rockwell Automation

2163U 27 AMP FLEX 753 VFD H.D

DRAWN BY: A. WARANG

DATE: 06–Jan–21

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SHEET 1 OF 3

SIZE D | 10005320119 | VER 00

RA_TB_NEMA_D_H_BMP–11/03/08
RA_TB_NEMA_D_H_DEVIB–11/03/08

10005320119.DWG

2163UB-034HJB-3F-5LRG-5TLA-14APS-14DA2R1-14FCT-14GER-14HC6S-14RLX-21-43TGM-751HS-751M

NOTES

14. ENABLE DIAGNOSTIC STATION E300 PARAMETER 224 SET TO 3 – (DiagStation) OR LOGIX TAG – C.OPERSTATIONTYPE SET TO 3
15. OUTPUT PT00 (R0) E300 PARAMETER 202 SET TO 1 – (TRIP RELAY)

DRIVE LEGEND

□ POWER TERMINAL

△ CONTROL TERMINAL

FROM SHT 1 #14AWG BLU A+ (1) FU6 0.5A (2)

TO PL 11 TBB J2 12 TBB (14) BA AUTO (13) XOO OFF HAND 13 TBB (1/11) CR411 (4/12) (3/14) 14 TBB

14 (24) BB (23) OOX TBB

15 (44) WA (43) XOO TBB TD610 [1] 14 TBB

55 TBA M2 (61) (62) BP2 (61) (62) 57 TBA LOC. 5A

16 TBB J1 17 TBB T.P. PUMP 1 [1] 18 TBB

13 TBB PUMP 1 IN AUTO PLC DIGITAL INPUT A– TBB

BYPASS (14) BA VFD (13) OX 19 TBB CR403 (8/32) (11/31) 20 (2/A1) CR402 (10/A2) SUPP 24VDC (9/34)

CR402 (4/12) (3/14) CR402 (1/11)

18 CR403 (5/22) (7/24) CR403 (6/21)

21 TBB CR402 (5/22) (6/21) 22 (2/A1) CR403 (10/A2) SUPP 24VDC CR402 (7/24)

(22) BB (21) XO

FROM SHT 1 #14AWG BLU A–

A– TBB PUMP 1 VFD START RELAY PUMP 1 MOTOR THERMAL PROTECTION

PUMP 1 BYPASS START READY

VFD 1 READY 11 (11) (23) LT404 (G) (X1)

11 TBB (44) WA (43) OX 23 TBB CR405 (2/A1) (10/A2) SUPP 24VDC

VFD 1 READY RELAY

BYPASS 1 READY 11 (11) (23) LT406 (G) (X1)

(52) WB SS2 (51) XO 24 TBB

M1 AUX (4/12) M1 AUX (1/11) (3/14) 25 TBB

VFD 1 RUNNING 11 (11) (23) LT407 (A) (X1)

BP1 (43) (44) 26 TBB

BYPASS 1 RUNNING 11 (11) (23) LT408 (A) (X1)

M1 AUX (5/22) M1 AUX (6/21) (7/24) 27 TBB PUMP 1 RUNNING PLC DIGITAL INPUT A– TBB

BP1 (53) (54)

11 TBB 28 TBB PUMP 1 CALL RELAY PLC DIGITAL OUTPUT CR411 (2/A1) (10/A2) SUPP 24VDC

[1] S.F.R. PUMP 1

11 TBB 29 TBB PUMP 1 SEAL FAIL 11 (11) (23) LT412 (R) (X1)

PUMP 1 SEAL FAIL PLC DIGITAL INPUT A– TBB

11 TBB TO R1C PORT 4 VFD FAIL FROM R1NC PORT 4 30 TBB PUMP 1 VFD 1 FAIL 11 (11) (23) LT414 (R) (X1)

PUMP 1 VFD FAIL PLC DIGITAL INPUT A– TBB

TO SHT 3 (ROC) VFD RUN FROM SHT 3 (RONO) 31 M1 AUX (2/A1) (10/A2) SUPP 24VDC

REV	APPROVED	DATE	STAGE
A	A. WARANG	15–Jan–20	APPROVAL
00	A. WARANG	06–Jan–21	REL TO MFG

PROJECT: MISSION VILLAGE – DPW–1 SEWER PS MCC–1

CUSTOMER: ROYAL INDUSTRIAL SOLUTIONS 0099149710 9009–KT–930750D

ORDER–LINE NUMBER: 6504681417–000100

PROJ. DOC. TYPE: ELECTRICAL SCHEMATIC

LANG: ENG

Rockwell Automation

2163U 27 AMP FLEX 753 VFD H.D

DRAWN BY: A. WARANG

DATE: 06–Jan–21

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SHEET 2 OF 3

SIZE D | 10005320119 | VER 00

RA_TB_NEMA_D_H_SMP–11/03/08
RA_TB_NEMA_D_H_ZERO–11/03/16

10005320119.DWG

NOTES ☐

REFER TO SHEET 1 FOR NOTES.

DRIVE LEGEND

☐ POWER TERMINAL

△ CONTROL TERMINAL

TBD: PE PE

TBC: T1 T2 T3

TBB: A- A- A- A- A- 11 11 11 11 11 12 13 13 14 14 14 15 16 17 18 19 21 23 24 25 26 27 28 29 30 (J2, J1)

TBA: X2 X2 1 1 9 10 52 54 55 57 AC AP 1X2 2A 1A

TERMINAL LAYOUT

M1 (53)(54)

#14AWG BLU WIRE — 55 — TBA — M1 (61)(62) — 56 — BP1 (61)(62) — 57 — TBA — #14AWG BLU WIRE TO PUMP 2

M1 (21)(22) | M1 (71)(72) | BP1 (71)(72)

M1 (13)(14) | M1 (83)(84)

CR405 (5/22) CR405 (6/21)(7/24) CR405 (8/32) CR405 (11/31)(9/34)

CR411 (5/22) CR411 (6/21)(7/24) CR411 (8/32) CR411 (11/31)(9/34)

M1 AUX (8/32) M1 AUX (11/31)(9/34)

AUXILLARY CONTACTS

#14 AWG BLU WIRE

CR402 (8/32) CR402 (11/31)(9/34)

52 — TBA — (54) WB SS1 (53) OOX — TBA — 54

POWERFLEX 753
UNIT RATING: 27.0A
FRAME: 1-7

[2] DR1

TB2 R0NC (MCB) △RELAY 0 N.C.

FROM SHT 2 ◁ 11 — TB2 R0C (MCB) △RELAY 0 COM

TO SHT 2 ◁ 31 — TB2 R0NO (MCB) △RELAY 0 N.O. (RUN) [7]

TB1 AI0- (MCB) △ANALOG IN 0 (-) | TB1 AO0- (MCB) ANALOG OUT 0 (-)△

TB1 AI0+ (MCB) △ANALOG IN 0 (+) | TB1 AO0+ (MCB) ANALOG OUT 0 (+)△

TB1 T0 (MCB) △TRANSISTOR OUT 0 | TB1 10VC (MCB) 10V COM△

51 — TB1 24VC (MCB) △24V COM | TB1 +10V (MCB) +10V REF△

TB1 +24V (MCB) △+24VDC | TB1 Ptc- (MCB) MOTOR PTC (-)△

TB1 DiC (MCB) △DIG IN COM | TB1 Ptc+ (MCB) MOTOR PTC (+)△

53 — TB1 Di1 (MCB) △DIG IN 1 (RUN) [8A]

TB1 Di2 (MCB) △DIG IN 2 (SPEED SEL 1) [8B]

TB3 DiOdc (MCB) △DIG IN 0

TB3 DiC (MCB) △DIG IN COM

TB3 DiOac (MCB) △DIG IN 0

REV	APPROVED	DATE	STAGE
A	A. WARANG	15-Jan-20	APPROVAL
00	A. WARANG	06-Jan-21	REL TO MFG

PROJECT:
MISSION VILLAGE - DPW-1 SEWER PS
MCC-1

CUSTOMER:
ROYAL INDUSTRIAL SOLUTIONS
0099149710
9009-KT-930750D

ORDER-LINE NUMBER:
6504681417-000100

PROJ. DOC. TYPE: ELECTRICAL SCHEMATIC | LANG: ENG

Rockwell Automation

2163U 27 AMP FLEX 753 VFD H.D

DRAWN BY: A. WARANG | DATE: 06-Jan-21

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SHEET 3 OF 3

SIZE D | 10005320119 | VER 00

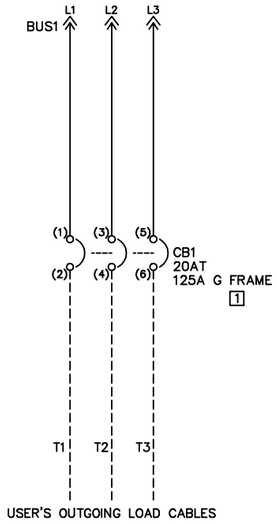
RA_TB_NEMA_D_H_SAP-11/03/16
RA_TB_NEMA_D_H_DEWE-11/03/16

10005320119.DWG

2193F-AJB-31TGM-79UT-751M

NOTES:

1. UNIT SHORT CIRCUIT CURRENT RATING CAN BE FOUND ON THE ONE-LINE (WHERE APPLICABLE) OR ON THE UNIT NAMEPLATE.



TORQUE ALL FIELD CONNECTIONS TO THE VALUE SPECIFIED IN THE CUSTOMER WIRING TORQUE SPECIFICATION TABLE. ALL FACTORY WIRED CONNECTIONS HAVE BEEN PROPERLY TORQUED AND NEED NOT BE CHECKED.

REFER TO 40110-920 FOR FACTORY WIRING TORQUE SPECS

CUSTOMER WIRING TORQUE SPECS (±10%)	
Load Cable Connections	62 lb-in(7 Nm)
H-Frame Lug Pad Assy (2193FZ only)	90 lb-in(10 Nm)
C.B. Internal Device TB and External Auxiliary Contacts	7 lb-in(0.8 Nm)
22.5 mm DSA	5 lb-in(0.6 Nm)

LOC	TAG
01A	COMPRESSOR CP

REV	APPROVED	DATE	STAGE
A	A. WARANG	15-Jan-20	APPROVAL
00	A. WARANG	06-Jan-21	REL TO MFG

PROJ. DOC. TYPE: ELECTRICAL SCHEMATIC

PROJECT:
MISSION VILLAGE - DPW-1 SEWER PS
MCC-1

CUSTOMER:
ROYAL INDUSTRIAL SOLUTIONS
0099149710
9009-KT-930750D

ORDER-LINE NUMBER:
6504681417-000100

LANG: ENG

Rockwell Automation

2193F 125 AF FEEDER CB

DRAWN BY: A. WARANG

DATE: 06-Jan-21

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SHEET 1 OF 1

SIZE D | 10005320121 | VER 00

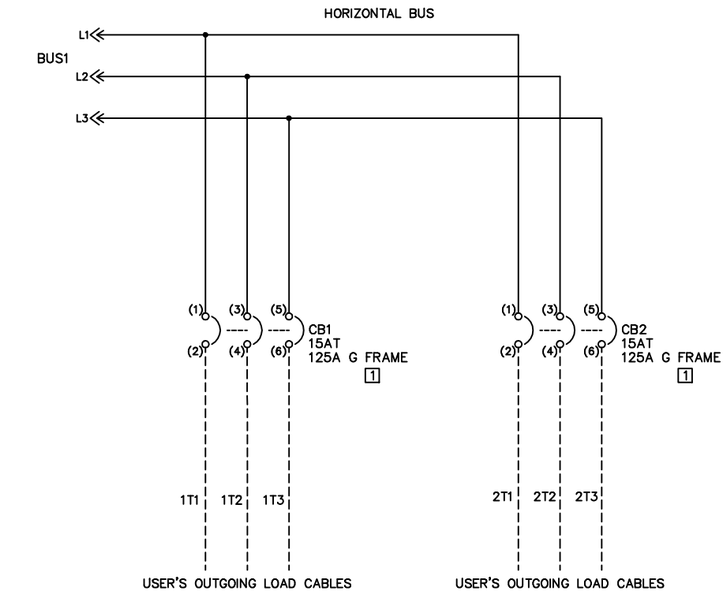
RA_TB_NEMA_D_H_SAP-11/03/16
RA_TB_NEMA_D_H_CENS-11/03/16

10005320121.DWG

2193F-AJB-79UT-751M-3030TGM

NOTES

1. UNIT SHORT CIRCUIT CURRENT RATING CAN BE FOUND ON THE ONE-LINE (WHERE APPLICABLE) OR ON THE UNIT NAMEPLATE.



TORQUE ALL FIELD CONNECTIONS TO THE VALUE SPECIFIED IN THE CUSTOMER WIRING TORQUE SPECIFICATION TABLE. ALL FACTORY WIRED CONNECTIONS HAVE BEEN PROPERLY TORQUED AND NEED NOT BE CHECKED.

REFER TO 40110-920 FOR FACTORY WIRING TORQUE SPECS

CUSTOMER WIRING TORQUE SPECS (±10%)	
Load Cable Connections	62 lb-in(7 Nm)
H-Frame Lug Pad Assy (2193FZ only)	90 lb-in(10 Nm)
C.B. Internal Device TB and External Auxiliary Contacts	7 lb-in(0.8 Nm)
22.5 mm DSA	5 lb-in(0.6 Nm)

LOC	TAG
02C	VALVE VAULT VENT FAN 1
02A	MECH. ROOM VENT FAN

REV	APPROVED	DATE	STAGE
A	A. WARANG	15-Jan-20	APPROVAL
00	A. WARANG	06-Jan-21	REL TO MFG

PROJ. DOC. TYPE: ELECTRICAL SCHEMATIC

PROJECT:
MISSION VILLAGE - DPW-1 SEWER PS
MCC-1

CUSTOMER:
ROYAL INDUSTRIAL SOLUTIONS
0099149710
9009-KT-930750D

ORDER-LINE NUMBER:
6504681417-000100

LANG: ENG

Rockwell Automation

2193F 125 AF FEEDER CB

DRAWN BY: A. WARANG

DATE: 06-Jan-21

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SHEET 1 OF 1

SIZE D | 10005320123 | VER 00

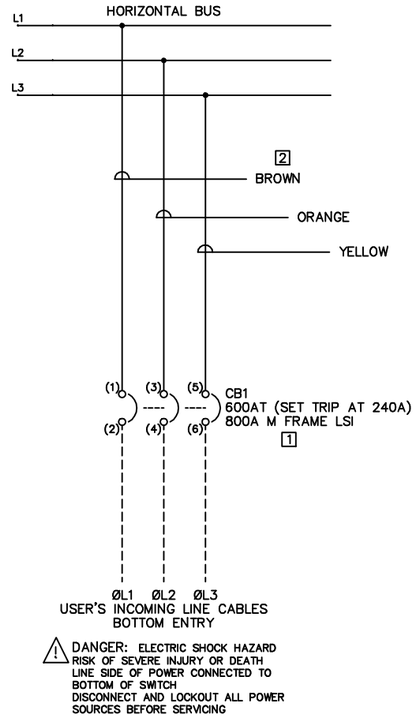
RA_TB_NEMA_D_H_SAP-11/03/16
RA_TB_NEMA_D_H_CENIS-11/03/16

10005320123.DWG

2193MB-EJC-52TMM-751M

NOTES

1. UNIT SHORT CIRCUIT CURRENT RATING CAN BE FOUND ON THE ONE-LINE (WHERE APPLICABLE) OR ON THE UNIT NAMEPLATE.
2. PROVIDE COLOR TAPE AT BOTH END OF WIRES. COVER COLORED POWER WIRE TAPE WITH SHRINK TUBING



DANGER: ELECTRIC SHOCK HAZARD
RISK OF SEVERE INJURY OR DEATH
LINE SIDE OF POWER CONNECTED TO BOTTOM OF SWITCH
DISCONNECT AND LOCKOUT ALL POWER SOURCES BEFORE SERVICING

TORQUE ALL FIELD CONNECTIONS TO THE VALUE SPECIFIED IN THE CUSTOMER WIRING TORQUE SPECIFICATION TABLE. ALL FACTORY WIRED CONNECTIONS HAVE BEEN PROPERLY TORQUED AND NEED NOT BE CHECKED.
REFER TO 40110-920 FOR FACTORY WIRING TORQUE SPECS

CUSTOMER WIRING TORQUE SPECS (±10%)	
Line Cable Connections:	
250-500 kcmil CU	275 lb-in(31 Nm)
250-500 kcmil CU/AL	275 lb-in(31 Nm)
#2/0-400 kcmil CU	381 lb-in(43 Nm)
#2/0-400 kcmil CU/AL	381 lb-in(43 Nm)
Line Lug Attachment	540 lb-in(61 Nm)
C.B. Internal Device TB and External Auxiliary Contacts	7 lb-in(0.8 Nm)
22.5 mm DSA	5 lb-in(0.6 Nm)

LOC	TAG
01J	MAIN BREAKER

REV		APPROVED	DATE	STAGE
A		A. WARANG	15-Jan-20	APPROVAL
00		A. WARANG	06-Jan-21	REL TO MFG

PROJ. DOC. TYPE: ELECTRICAL SCHEMATIC

PROJECT:
MISSION VILLAGE - DPW-1 SEWER PS
MCC-1

CUSTOMER:
ROYAL INDUSTRIAL SOLUTIONS
0099149710
9009-KT-930750D

ORDER-LINE NUMBER:
6504681417-000100

LANG: ENG

Rockwell Automation

2193M 800 AF MAIN CB

DRAWN BY: A. WARANG

DATE: 06-Jan-21

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SHEET 1 OF 1

SIZE		VER
D	10005320127	00

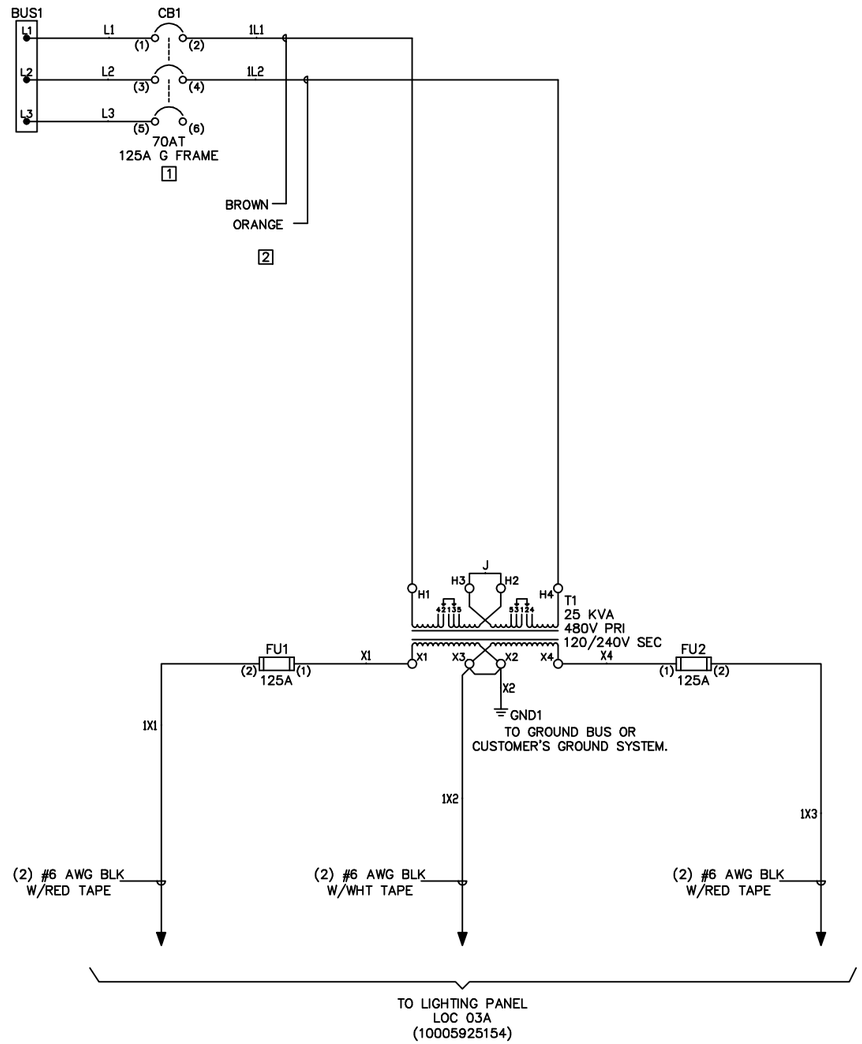
RA_TB_NEMA_D_H_SAP-11/03/16
RA_TB_NEMA_D_H_DEWB-11/03/16

10005320127.DWG

2197-MJBA-37TGM-79UT-751M

NOTES

1. UNIT SHORT CIRCUIT CURRENT RATING CAN BE FOUND ON THE ONE-LINE (WHERE APPLICABLE) OR ON THE UNIT NAMEPLATE.
2. PROVIDE COLOR TAPE AT BOTH END OF WIRES. COVER COLORED POWER WIRE TAPE WITH SHRINK TUBING.



LOC	TAG
03G	T1 25KVA

HIGH VOLTAGE CONNECTIONS (LINES ON H1 & H4)

VOLTS	RIGHT LEG JUMPER ON	LEFT LEG JUMPER ON	PERCENT TAPS	CONNECT
504	1&2	1&2	105%	H2 TO H3
492	1&2	2&3	102.5	H2 TO H3
480	2&3	2&3	100	H2 TO H3
468	2&3	3&4	97.5	H2 TO H3
456	3&4	3&4	95	H2 TO H3
444	3&4	4&5	92.5	H2 TO H3
432	4&5	4&5	90	H2 TO H3
252	1&2	1&2	105	H1 TO H3 H2 TO H4
240	2&3	2&3	100	H1 TO H3 H2 TO H4
228	3&4	3&4	95	H1 TO H3 H2 TO H4
216	4&5	4&5	90	H1 TO H3 H2 TO H4

TORQUE ALL FIELD CONNECTIONS TO THE VALUE SPECIFIED IN THE CUSTOMER WIRING TORQUE SPECIFICATION TABLE. ALL FACTORY WIRED CONNECTIONS HAVE BEEN PROPERLY TORQUED AND NEED NOT BE CHECKED.

REFER TO 40110-920 FOR FACTORY WIRING TORQUE SPECS

CUSTOMER WIRING TORQUE SPECS (±10%)	
Load Cable Connections at Secondary Fuse Holder	275 lb-in(31 Nm)
C.B. Internal Device TB and External Auxiliary Contacts	7 lb-in(0.8 Nm)

REV	APPROVED	DATE	STAGE
A	A. WARANG	15-Jan-20	APPROVAL
00	A. WARANG	06-Jan-21	REL TO MFG

PROJ. DOC. TYPE: ELECTRICAL SCHEMATIC

LANG: ENG

PROJECT:
MISSION VILLAGE - DPW-1 SEWER PS
MCC-1

CUSTOMER:
ROYAL INDUSTRIAL SOLUTIONS
0099149710
9009-KT-930750D

ORDER-LINE NUMBER:
6504681417-000100

Rockwell Automation

2197 25 KVA LIGHTING XFMR

DRAWN BY: A. WARANG

DATE: 06-Jan-21

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SHEET 1 OF 1

SIZE D | 10005320129 | VER 00

RA_TB_NEMA_D_H_SAP-11/03/16
RA_TB_NEMA_D_H_CEMS-11/03/16

10005320129.DWG

2163UB-034HJB-3F-5LRG-5TLA-14APS-14DA2R1-14FCT-14GER-14HC6S-14RLX-21-43TGM-751HS-751M-ENG

NOTES

1. REMOTE DEVICE.
2. REFER TO DRIVE USER MANUAL FOR APPLICATION DATA.
3. UNIT SHORT CIRCUIT CURRENT RATING CAN BE FOUND ON THE ONE-LINE (WHERE APPLICABLE) OR ON THE UNIT NAMEPLATE.
4. FOR HEAVY DUTY ONLY
   PORT 0: P306 [Drive Duty] =
   1 [Heavy Duty]
5. THE THERMOSTAT HAS BEEN PRESET BY THE FACTORY AT 35°C. IMPORTANT! DO NOT SET ABOVE 45°C.
6. FOR ETHERNET/IP ORDERS, ETHERNET CABLE CONNECTED TO ADAPTER IN WIREWAY OR DIRECTLY TO SWITCH. FOR ALL OTHER ORDERS, NO CONNECTION IS MADE
7. RUN IS PORT 0, R0
   PORT 0: P230 [R00 Sel]=
   PORT 0: P935 [Drive Status 1],
   BIT 16 [RUNNING]

   FAULT IS I/O MODULE PORT 4, R1
   PORT 4: P20 [R01 Sel] =
   PORT 0: P935 [Drive Status 1],
   BIT 7 [Faulted]
   PORT 4: P6, BIT 1[R1,Invert Output] =
   1 (Output Inverted)
8. A. RUN
   Port 0: P163 (DI Run) = Port 0,
   P220 (Digital In Sts), Bit 1 (Digital Input 1)

   B. SPEED SEL 1
   PORT 0: P174 [DI Speed Sel 1] =
   PORT 0: P220 [DI Sts], BIT 2 [DI 2].
   "REFERENCE A" (SPEED SOURCE FOR "AUTO" MODE = COMM MODULE IN PORT 6)
   PORT 0: P545 [Spd Ref A Sel] =
   PORT 0: P876 [Port 6 Reference].

   IN "HAND", SPEED SOURCE WILL BE THE HIM. IN "AUTO", SPEED SOURCE WILL BE THE COMM MODULE.

   "REFERENCE B" (SPEED SOURCE FOR "HAND" MODE = HIM MODULE IN PORT 2)
   PORT 0 P550 [SPD REF B SEL] =
   PORT 0: P872 [PORT 2 REFERENCE].
9. PROVIDE COLOR TAPE AT BOTH END OF WIRES. COVER COLORED POWER WIRE TAPE WITH SHRINK TUBING.
10. DO NOT USE AUTOMATIC RESET MODE IN APPLICATIONS WHERE UNEXPECTED AUTOMATIC RESTART OF THE MOTOR CAN CAUSE INJURY TO PERSONS OR DAMAGE TO EQUIPMENT.

    ADDITIONAL DEVICES MAY BE MONITORED BY THE E300 OVERLOAD DEPENDING ON THE CONFIGURATION. CONNECT A 120VAC SIGNAL TO ANY OF THE UNUSED 120VAC INTERFACE MODULE INPUTS. ALL A1 AND A2 TERMINALS ARE INTERNALLY CONNECTED. ADDITIONAL PROGRAMMING MAY BE REQUIRED.

    REFER TO E300 USER MANUAL CHAPTER 5 FOR OPERATION.
    TO ENERGIZE THE STARTER VIA THE NETWORK, SET NETWORK TAG LogicDefinedPt00Data TO 1.

    DEVICELOGIX CONFIGURATION:
    E300 PARAMETER 164 (ConfigPreset) SET TO NetOSNonRev3Wir – OPERATING MODE 11 – (NON-REVERSING STARTER – NETWORK AND OPERATOR STATION)
11. E300 CONTROL MODULE FIRMWARE TO BE 5.000 OR GREATER TO ENABLE DEVICELOGIX.
12. APPROXIMATELY 1 TWIST PER INCH.
13. FOR ETHERNET LINEUPS, ETHERNET CABLE CONNECTED TO ADAPTER IN WIREWAY OR DIRECTLY TO SWITCH. FOR ALL OTHER ORDERS, NO CONNECTION IS MADE BY FACTORY.

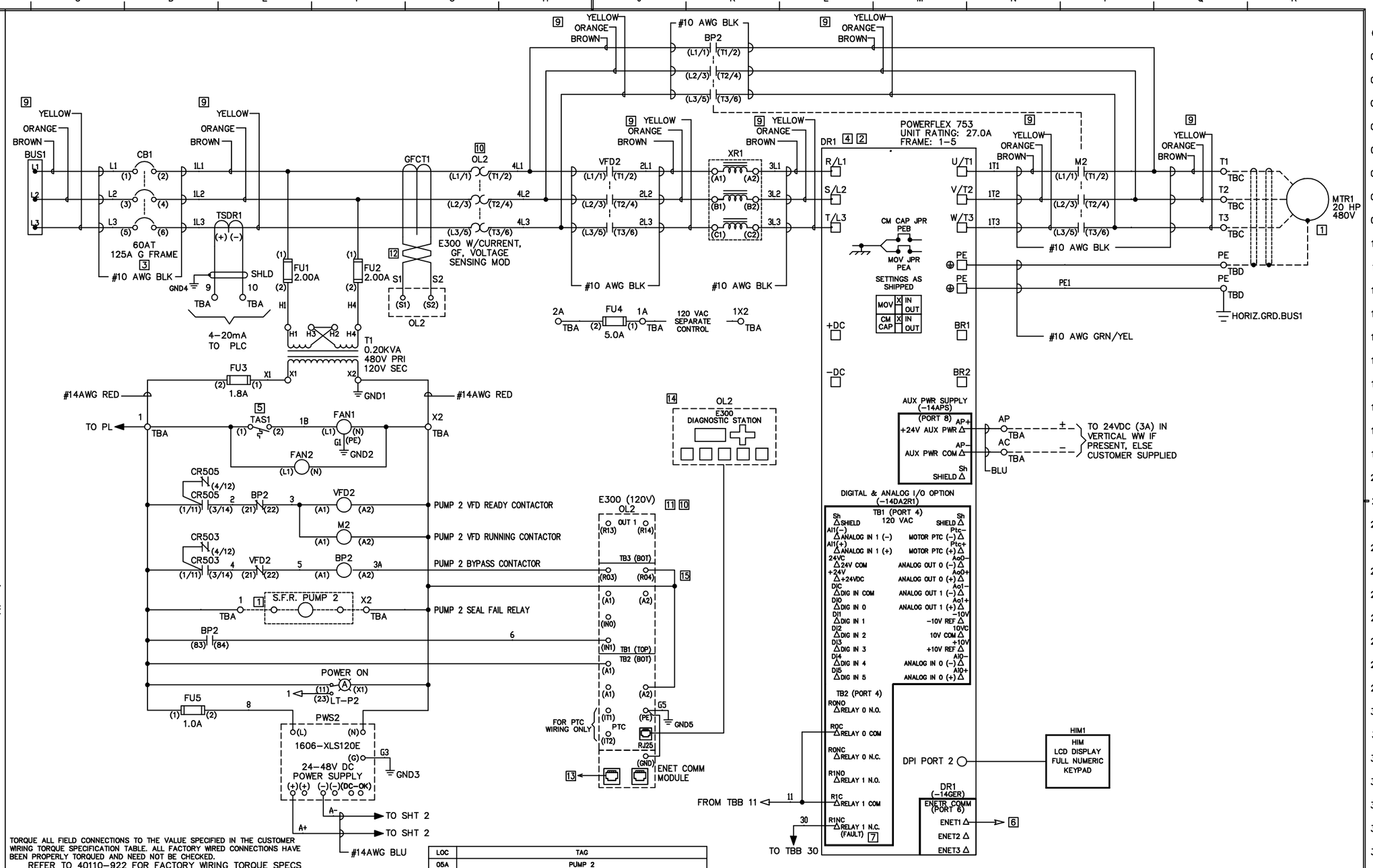
700H PIN NUMBERING EXPLANATION

(DOMESTIC PIN # / INTERNATIONAL PIN #)
EXAMPLE: (2/A1)

NOTATION (used in above notes)
P = PARAMETER
(e.g. P158 = PARAMETER 158)

DRIVE LEGEND

☐ POWER TERMINAL
△ CONTROL TERMINAL



TORQUE ALL FIELD CONNECTIONS TO THE VALUE SPECIFIED IN THE CUSTOMER WIRING TORQUE SPECIFICATION TABLE. ALL FACTORY WIRED CONNECTIONS HAVE BEEN PROPERLY TORQUED AND NEED NOT BE CHECKED.
REFER TO 40110–922 FOR FACTORY WIRING TORQUE SPECS

CUSTOMER WIRING TORQUE SPECS (±10%)	
Fuse Clamp Screw w/Fuses	30 lb–in(3.4 Nm)
Load Cable Connection at Drive Power Terminal Blocks	24 lb–in(2.7 Nm)
Drive Main Control Terminal Blocks –– TB1, TB2 & TB3	2 lb–in(0.2 Nm)
C.B. Internal Device TB and External Auxiliary Contacts	7 lb–in(0.8 Nm)
Control Wire Connections at Control Terminal Blocks	6 lb–in(0.7 Nm)
Load Cable Connection at Power Terminal Blocks (52A Only)	30 lb–in(3.4 Nm)
Load Cable Connection at Power Terminal Blocks (65A Only)	45 lb–in(5 Nm)
Ground Wire to Horizontal Ground Bus	65 lb–in(7.3 Nm)

LOC	TAG
05A	PUMP 2

REV	APPROVED	DATE	STAGE
A	A. WARANG	15–Jan–20	APPROVAL
00	A. WARANG	06–Jan–21	REL TO MFG

PROJECT:
MISSION VILLAGE – DPW–1 SEWER PS
MCC–1

CUSTOMER:
ROYAL INDUSTRIAL SOLUTIONS
0099149710
9009–KT–930750D

ORDER–LINE NUMBER:
6504681417–000100

PROJ. DOC. TYPE: ELECTRICAL SCHEMATIC
LANG: ENG

Rockwell Automation

2163U 27 AMP FLEX 753 VFD H.D

DRAWN BY: A. WARANG
DATE: 06–Jan–21

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SHEET 1 OF 3
SIZE D | 10005322115 | VER 00

RA_TB_HEMA_D_H_BAP–11/03/16
RA_TB_HEMA_D_H_DEDB–11/03/16

10005322115.DWG

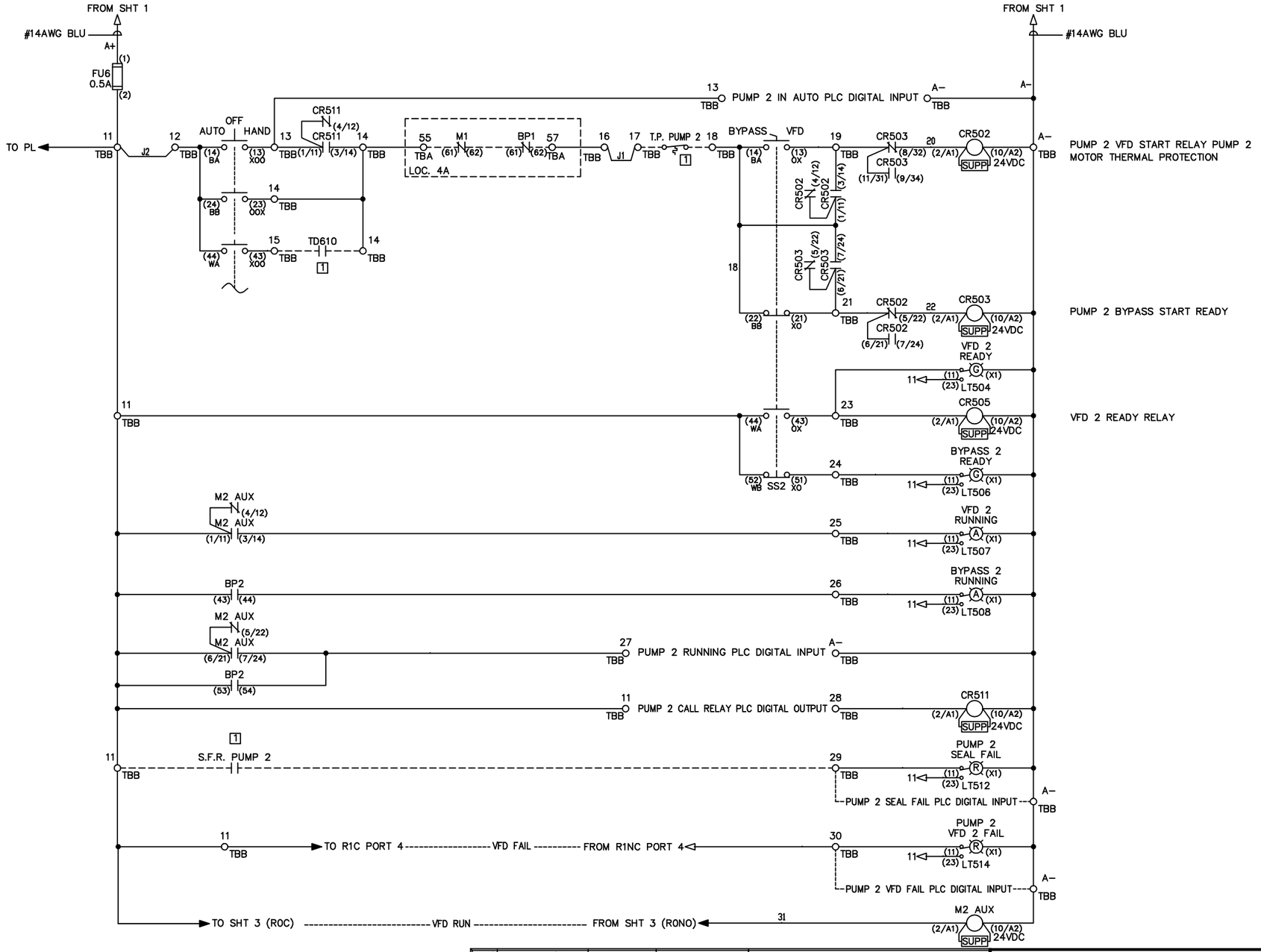
NOTES

14. ENABLE DIAGNOSTIC STATION E300 PARAMETER 224 SET TO 3 – (DiagStation) OR LOGIX TAG – C.OPERSTATIONTYPE SET TO 3
15. OUTPUT PT00 (R0) E300 PARAMETER 202 SET TO 1 – (TRIP RELAY)

DRIVE LEGEND

□ POWER TERMINAL

△ CONTROL TERMINAL



REV	APPROVED	DATE	STAGE
A	A. WARANG	15–Jan–20	APPROVAL
00	A. WARANG	06–Jan–21	REL TO MFG

PROJECT: MISSION VILLAGE – DPW–1 SEWER PS MCC–1

CUSTOMER: ROYAL INDUSTRIAL SOLUTIONS 0099149710 9009–KT–930750D

ORDER–LINE NUMBER: 6504681417–000100

PROJ. DOC. TYPE: ELECTRICAL SCHEMATIC

LANG: ENG

Rockwell Automation

2163U 27 AMP FLEX 753 VFD H.D

DRAWN BY: A. WARANG

DATE: 06–Jan–21

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SHEET 2 OF 3

SIZE D | 10005322115 | VER 00

NOTES

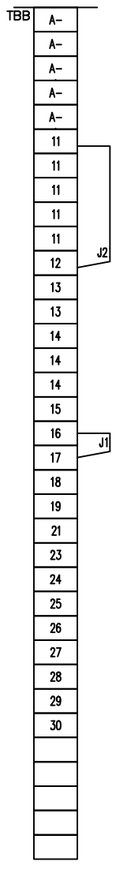
REFER TO SHEET 1 FOR NOTES.

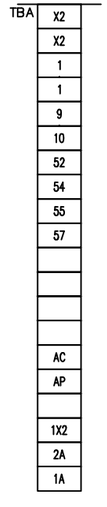
DRIVE LEGEND

POWER TERMINAL

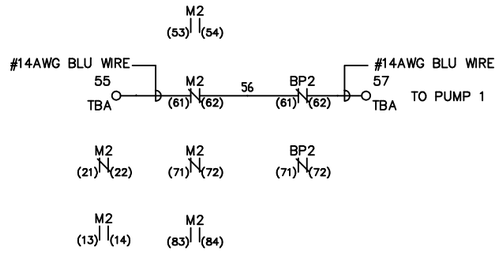
CONTROL TERMINAL

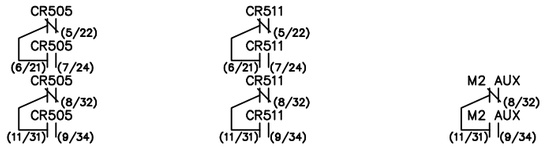




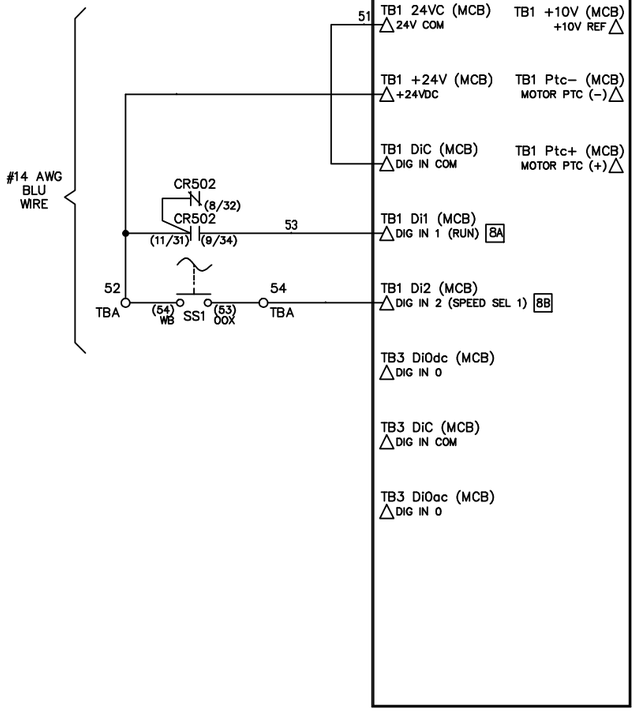


TERMINAL LAYOUT





AUXILLARY CONTACTS



REV	APPROVED	DATE	STAGE
A	A. WARANG	15-Jan-20	APPROVAL
00	A. WARANG	06-Jan-21	REL TO MFG

PROJECT:
MISSION VILLAGE - DPW-1 SEWER PS
MCC-1

CUSTOMER:
ROYAL INDUSTRIAL SOLUTIONS
0099149710
9009-KT-930750D

ORDER-LINE NUMBER:
6504681417-000100

PROJ. DOC. TYPE: ELECTRICAL SCHEMATIC

LANG: ENG

Rockwell Automation

2163U 27 AMP FLEX 753 VFD H.D

DRAWN BY: A. WARANG

DATE: 06-Jan-21

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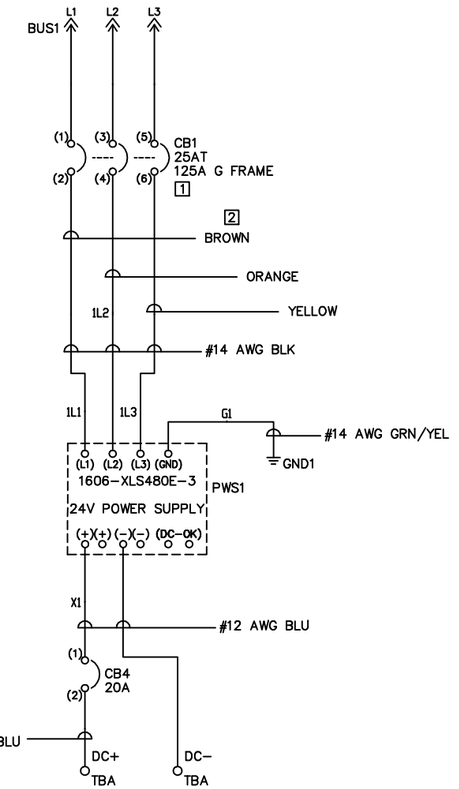
SHEET 3 OF 3

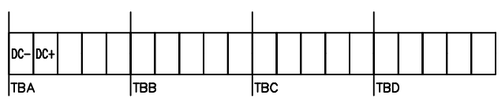
SIZE D | 10005322115 | VER 00

2100M-CJC-32TGM-79UT-751M-804

NOTES:

1. UNIT SHORT CIRCUIT CURRENT RATING CAN BE FOUND ON THE ONE-LINE (WHERE APPLICABLE) OR ON THE UNIT NAMEPLATE.
2. PROVIDE COLOR TAPE AT BOTH END OF WIRES. COVER COLORED POWER WIRE TAPE WITH SHRINK TUBING.





TERMINAL LAYOUT

TORQUE ALL FIELD CONNECTIONS TO THE VALUE SPECIFIED IN THE CUSTOMER WIRING TORQUE SPECIFICATION TABLE. ALL FACTORY WIRED CONNECTIONS HAVE BEEN PROPERLY TORQUED AND NEED NOT BE CHECKED.

REFER TO 40110-920 FOR FACTORY WIRING TORQUE SPECS

CUSTOMER WIRING TORQUE SPECS (±10%)	
Load Cable Connections:	
#14-10 AWG	20 lb-in(2.2 Nm)
Control Terminal Blocks	7 lb-in(0.8 Nm)
C.B. Internal Device TB and External Auxiliary Contacts	7 lb-in(0.8 Nm)

LOC	TAG
02G	POWER SUPPLY

REV	APPROVED	DATE	STAGE
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0099149710
9009-KT-930750D

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Rockwell Automation

2100M EMPTY UNIT W/CB

DRAWN BY: A. WARANG

DATE: 06-Jan-21

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SHEET 1 OF 1

SIZE D | 10005925152 | VER 00

RA_TB_NEMA_D_H_SAP-11/03/16
RA_TB_NEMA_D_H_CEWB-11/03/16

10005925152.DWG

2193LE-CJLT42-00WT-00A08-31A28-32B01-35B01-40B01-111-751M

NOTES

1. OTHER SIDE OF CIRCUIT IS ALSO CONNECTED TO PANEL NEUTRAL.

LIGHTING PANEL SUPPLIED WITH:
8 – FILLER PLATES
1 POLE BREAKER(S)
28 – 20AMP
2 POLE BREAKER(S)
1 – 30AMP
1 – 40AMP
1 – 100AMP MAIN BREAKER
3 POLE BREAKER(S)

DESCRIPTION	LOAD CKT.	AMPS	PANEL	NEUTRAL	AMPS	LOAD CKT.	DESCRIPTION
S-GENERATOR PANEL	2700	40A	1	2	20A	700	MAG FLOW METER (FE-01031)
			3	4	20A	700	MAG FLOW METER (FE-01032)
BLOWER CONTROL PANEL (BLR-01041)	1176	20A	5	6	30A	2310	ELECTRICAL ROOM A/C UNIT
MOTORIZED COMPRESSED AIR VALVE (V-XXXX)	600	20A	7	8			
SOLENOID VALVE (V-XXXX) TIMER	600	20A	9	10	20A	156	MECHANICAL ROOM LIGHTS
ELECTRICAL ROOM LIGHTS	234	20A	11	12	20A	191	BATHROOM RECEPTACLE AND EXHAUST FAN/LIGHT
EXTERIOR LIGHTS	660	20A	13	14	20A	720	INTERIOR RECEPTACLES
ADEMCO ALARM PANEL	1200	20A	15	16	20A	164	EMERGENCY LIGHTS AND EXIT SIGNS
SPARE	–	20A	17	18	20A	540	EXTERIOR RECEPTACLES
MECHANICAL ROOM VENTILATION FAN	130	20A	19	20	20A	26	VALVE VAULT LIGHTS
SUMP PUMP	600	20A	21	22	20A	600	SOLENOID VALVE (V-XXXX)
SPARE	–	20A	23	24	20A	1200	MCC-1 SPACE HEATER
SPARE	–	20A	25	26	20A	–	SPARE
SPARE	–	20A	27	28	20A	–	SPARE
SPARE	–	20A	29	30	20A	–	SPARE
SPARE	–	20A	31	32	20A	–	SPARE
BACKFED MAIN		100A	33	34			
			35	36			
			37	38			
			39	40			
			41	42			

225A MAIN LUGS

X1 X2

(2) #6 AWG BLK W/WHT TAPE

FROM LIGHTING TRAFO LOC 03G (10005320129)

1X2
1X1
1X3

(2) #6 AWG BLK W/RED TAPE

GFI CIRCUIT BREAKER CONNECTIONS (WHERE SPECIFIED)
PANEL NEUTRAL
WHITE WIRE
BRANCH CIRCUIT
N
REFER TO MANUFACTURERS INSTRUCTIONS FOR INSTALLATION AND TESTING.
GFI CIRCUIT BREAKER
PANEL BUS

LOC	TAG
03A	PANEL A

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Rockwell Automation

2193LE LIGHTING PANEL LPAN

DRAWN BY: A. WARANG DATE: 06-Jan-21

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SHEET 1 OF 1

SIZE D | 10005925154 | VER 00

RA_TB_NEMA_D_H_SAP-11/03/16
RA_TB_NEMA_D_H_CEWB-11/03/16

10005925154.DWG