CALIFORNIA WATER SERVICE

STATION 022 – SAN MATEO, CA
PROPOSED STATION REDEVELOPMENT

NOTES:

1. PROPERTY LOCATION: RECORDED AS A PORTION OF RECORD OF SURVEY VOLUME 41, PAGE 98, R/S NO. 2773 AND PARCEL MAP NO. 306, VOLUME 62, PAGE 47. ASSESSOR'S MAP COUNTY OF SAN MATEO, APN NO. 039-332-200.
2. PROPOSED FACILITY IS A WATER UTILITY PUMP STATION, NOT A PLACE OF EMPLOYMENT, PUBLIC ACCOMMODATION, OR COMMERCIAL FACILITY. THEREFORE, THIS PROJECT IS NOT SUBJECT TO THE A.D.A. PROVISIONS OF TITLE 24 IN THE CALIFORNIA BUILDING CODE.
3. TWO (2) SIGNIFICANT TREES TO BE REMOVED. TREE REMOVAL AND REPLACEMENT REQUIREMENTS WILL COMPLY WITH CITY ORDINANCE CHAPTER 18 SECTION 18.
4. FENCING AND LANDSCAPING WILL BE MAINTAINED IN GOOD CONDITION.
5. ALL PIPE WITHIN STATION PROPERTY "TO BE ABANDONED," IS TO BE REMOVED.

EASEMENT NOTE

A CURRENT TITLE REPORT FOR THE SUBJECT PROPERTY HAS NOT BEEN EXAMINED BY LEA & BRAZE ENGINEERING, INC. EASEMENTS OF RECORD MAY EXIST THAT ARE NOT SHOWN ON THIS MAP. EASEMENTS SHOWN ARE PER PARCEL MAP 306 (62 PM 46) & (21 MAPS 76).

WATER UTILITY PROJECT:

THE PROPOSED PROJECT WILL REPLACE THE EXISTING BUILDING FOUNDATION, PUMPS, AND STATION PIPING, AND SERVE THE EXACT SAME FUNCTION (I.E. POTABLE WATER BOOSTER STATION). THE NEW EQUIPMENT AND BUILDING WILL INCREASE THE WATER SYSTEM'S RELIABILITY, WHILE AESTHETICALLY BLENDING INTO THE SURROUNDING NEIGHBORHOOD, RESPECTIVELY.

PROPOSED FACILITIES:

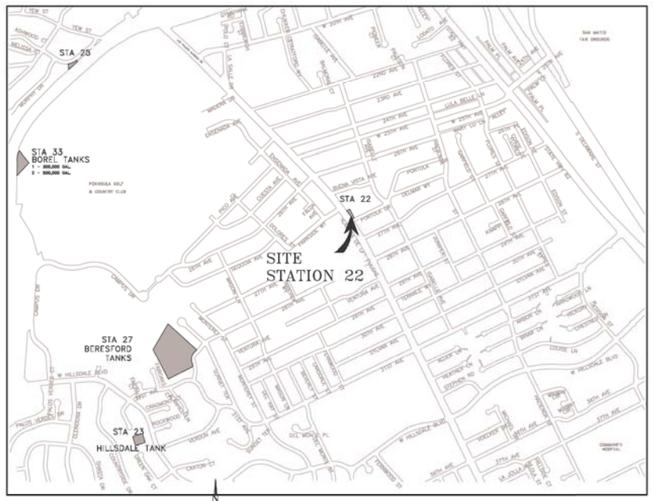
1. 16'W x 30'L x 12'H CONCRETE MASONRY BUILDING
   BOOSTER PUMPS
   - PUMP E = 2,000 GPM, 60 HP
   - PUMP F = 2,400 GPM, 50 HP
   - PUMP G = 2,000 GPM, 50 HP
2. INDOOR ELECTRICAL PANELBOARD
3. 6' WIDE CONCRETE WALKWAY & 4' WIDE CONCRETE PORCH
4. 3 HYDRANTS
5. 1 FLOW METER AND VAULTS
6. EXPAND DRIVEWAY APPROACH & RE-PAVE DRIVEWAY
7. EXTERIOR LIGHTING
8. 1,889 SQUARE FEET OF NEW LANDSCAPING (4)
9. 1 FLOW METER AND VAULT AT NEARBY STATION 27

OCCUPANCY AND BUILDING SUMMARY

- ZONING CLASSIFICATION – R1B (ONE FAMILY DWELLING "B")
- STORIES – 1
- FIRE SPRINKLERS – NFPA 13 FIRE SPRINKLER SYSTEM (4)
- BUILDING AREA (SF) – 480
- WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE 2019 CALIFORNIA BUILDING (CBC), PLUMBING (CPC), MECHANICAL (CMC), FIRE (CFC), AND ELECTRICAL (CEC) CODES.

HERITAGE TREE SURVEY DATA:

COMMON NAME	DIAMETER (in²)	W/H RATIO
CHINESE ELM	12.5/11	30'/20'
LIQUIDAMBAR	17.5	20'/20'
LIQUIDAMBAR	19.5	20'/25'
LIQUIDAMBAR	20.5	25'/30'
LIQUIDAMBAR	21.5	20'/25'
CAMPHOR	24.5	45'/50'
COAST LIVE OAK	17.5	40'/45'
MAGNOLIA	18.5	24'/22'
MAGNOLIA	19.5	30'/20'



VICINITY MAP
N.T.S.

DEVELOPMENT PROJECT DATA INFORMATION

SITE ADDRESS:	ALAMEDA DE LAS PULGAS & PORTOLA DRIVE SAN MATEO, CA 94403	
APN	039-33-2200	
ZONING CLASSIFICATION:	R1B	
LOT SIZE (Sq. Ft.):	5,424	
PERMITTED FLOOR AREA RATIO:	0.5	
MAXIMUM PERMITTED FLOOR AREA (Sq. Ft.):	2,712	
	EXISTING:	PROPOSED:
FLOOR AREA (SQ. FT.)*		
MAIN STRUCTURE (STATION):	480	480
TOTAL FLOOR AREA:	480	480
TOTAL UNCOVERED PARKING STALLS:	DRIVEWAY IS ADEQUATE FOR 2 VEHICLES	

(3)

GRADING EARTHWORK QUANTITIES:

CUT: 4.74 CU. YD.
FILL: 9.24 CU. YD.
NET: 4.50 CU. YD. (FILL)

NOTE:
EARTHWORK QUANTITIES ARE APPROXIMATE FOR PERMITTING PURPOSES ONLY. NO SHRINK OR SWELL FACTORS HAVE BEEN APPLIED TO THESE VALUES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL GRADING REQUIRED TO OBTAIN FINISH GRADES AS SHOWN.

DRAWING INDEX:

ENGINEERING

DEPARTMENT

REVISIONS:
1. CMU BUILDING DESIGN & WALKWAYS, R.O. 3/14/20
2. INSTALL 18" BUTTERFLY VALVE R.O. 7/22/20
3. 18" GATE VALVE & PLANNING DEPT UPDATES, R.O. 4/13/2021
4. PROPOSED FACILITY, OCCUPANCY AND BUILDING SUMMARY, R.O.8/17/21

	DATE:	INIT:
DISTRIBUTION MAP		
PLAT SHEET		
SYSTEM SCHEMATIC		
STATION SCHEMATIC		

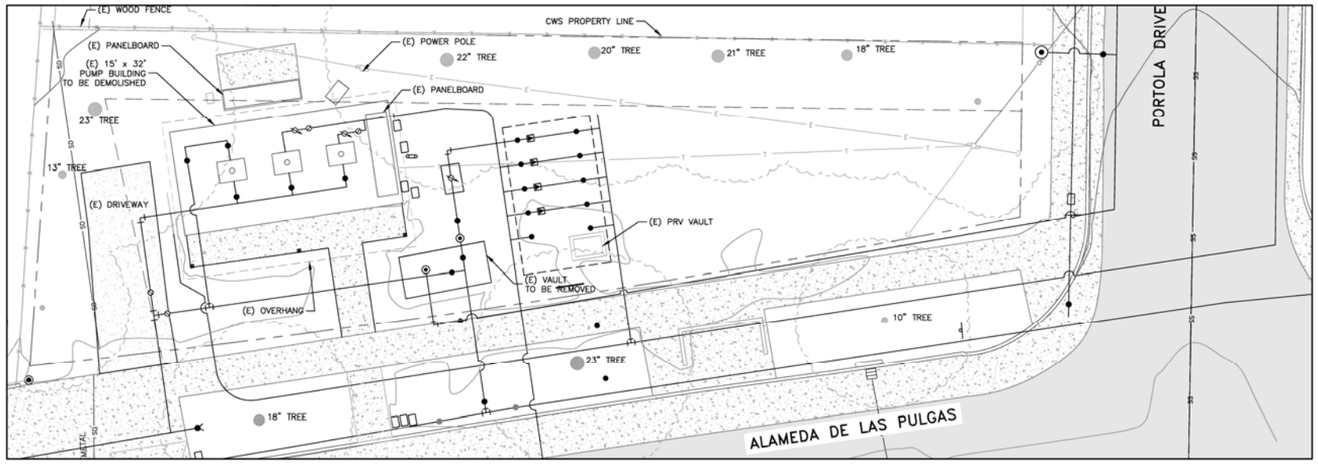
PLAT SHEET NO.: SM-29-25
SCALE: AS SHOWN
DRAWN BY: R.O./P.R.
DESIGNED BY: S.G./B.G.
TECH REVIEW: DATE: 6/24/2021
CHECKED BY: DATE: 6/24/2021
APPROVED BY: DATE: 6/24/2021

REGISTERED PROFESSIONAL ENGINEER
LUIS ZAMUDIO
No. C82640
CIVIL
STATE OF CALIFORNIA

TITLE: MID PENINSULA – STATION 22
PROPOSED STATION REDEVELOPMENT
TITLE SHEET

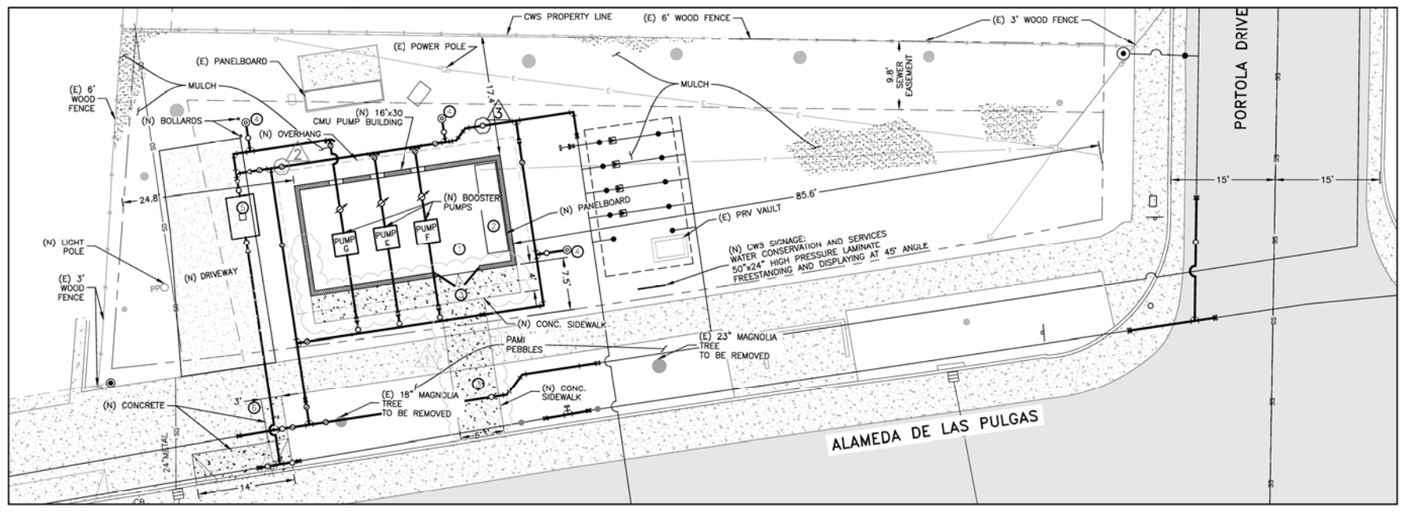
DISTRICT: MID PENINSULA
SAN MATEO
DATE: 11/13/2019
PROJECT ID.: 00098594
DRAWING NO.: MPS-5403-R4
SHT 1 OF 4

SHEET 1 OF 23



STATION 22 EXISTING SITE PLAN

SCALE: 1" = 10'



STATION 22 PROPOSED SITE PLAN

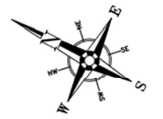
SCALE: 1" = 10'

ADDREVIATIONS:

APN	= ASSESSORS PARCEL NUMBER	MJ	= MECHANICAL JOINT
AB	= AGGREGATE BASE	(N)	= NEW/PROPOSED
AC	= ASPHALT CONCRETE	NEC	= NATIONAL ELECTRIC CODE
CB	= CATCH BASIN	N.T.S.	= NOT TO SCALE
CI	= CAST IRON	PBC	= PORTABLE BOOSTER CONNECTION
CONC.	= CONCRETE	PBE	= PLAIN BOTH ENDS
CPLG	= COUPLING	PO	= PUSH-ON
CU. YD.	= CUBIC YARD(S)	POE	= PLAIN ON END
CWS	= CALIFORNIA WATER SERVICE	PRV	= PRESSURE REDUCING VALVE
DI	= DUCTILE IRON	PVC	= POLYVINYL CHLORIDE
EL.	= ELEVATION	RE	= REDUCER
ELL	= ELBOW JOINT	SD	= STORM DRAIN
EP	= EDGE OF PAVEMENT	SOW	= SLIP ON WELD FLANGE
EP	= ELECTRICAL PANEL	SS	= SEWER
EX./(E)	= EXISTING	STD BLK	= STANDARD STEEL PIPE
FBE	= FLANGE BOTH ENDS	STL	= STEEL
FH	= FIRE HYDRANT	SQ. FT.	= SQUARE FEET
FL	= FLOW LINE	TDH	= TOTAL DYNAMIC HEAD
FOE	= FLANGE ON END	TOC	= TOP OF CURB
FS	= FINISH SURFACE	TYP	= TYPICAL
GB	= GROUND BOX	UMC	= UNIFORM MECHANICAL CODE
GPM	= GALLONS PER MINUTE	UPC	= UNIFORM PLUMBING CODE
HORIZ.	= HORIZONTAL	VBE	= VICTAULIC BOTH ENDS
HP	= HORSEPOWER	VOE	= VICTAULIC ON END
IBC	= INTERNATIONAL BUILDING CODE	W	= WIDTH
L	= LENGTH	VERT.	= VERTICAL
MH	= MANHOLE	VOL.	= VOLUME

LEGEND:

ABANDON	= TEE
CTV — CABLE TV – BURIED	= ELBOW, 45°
℄ — CENTER LINE	= ELBOW, 90°
EASEMENT	= BLOWOFF (PROPOSED)
E — ELECTRICAL – ABOVE GROUND	= BLOWOFF (EXISTING)
EX _" DI — EXISTING WATER	= GATE VALVE (PROPOSED)
CHAINLINK FENCE	= GATE VALVE (EXISTING)
WROUGHT IRON FENCE	= GATE VALVE (PROPOSED) NORMALLY CLOSED
FO — FIBER	= GATE VALVE (PROPOSED) NORMALLY OPEN
GAS — GAS	= REDUCER (PROPOSED)
INTERIOR LOT LINES	= REDUCER (EXISTING)
OIL — OIL	= FIRE HYDRANT (PROPOSED)
PROPERTY LINE	= FIRE HYDRANT (EXISTING)
_" DI — PROPOSED WATER	= BUTTERFLY VALVE
RIGHT-OF-WAY (R/W)	= CHECK VALVE
SS — SANITARY SEWER	= FLEX CPLG.
SD — STORM DRAIN	= CATCH BASIN
STRUCTURE	= FLOW/MAG METER
T — TELECOMMUNICATIONS – BURIED	= POWER POLE
WALL – BLOCK	= STORM DRAIN MANHOLE
= CONCRETE PAVEMENT	= SEWER MANHOLE
= CLASS II AB CRUSHED ROCK	= STREET LIGHT
= ASPHALT	= TRAFFIC LIGHT
= DIRT/EARTH	= WATER METER
= MULCH	
= SINGLE POLE SIGN	



0 10 20
5 15

SCALE: 1"=10'

ENGINEERING

CALIFORNIA WATER SERVICE

DEPARTMENT

REVISIONS:
1. CMU BUILDING DESIGN & WALKWAYS R.O. 3/14/20
2. INSTALL 18" BUTTERFLY R.O. 7/22/20
3. 18" GATE VALVE & PLANNING DEPT UPDATES: R.O. 4/13/2021

	DATE:	INIT.
DISTRIBUTION MAP		
PLAT SHEET		
SYSTEM SCHEMATIC		
STATION SCHEMATIC		

PLAT SHEET NO.: SM-29-25

SCALE: AS SHOWN

DRAWN BY: R.O./P.R.

DESIGNED BY: S. GONZALEZ

TECH REVIEW: DATE: 04/23/2021

CHECKED BY: DATE: 04/23/2021

APPROVED BY: DATE: 04/23/2021

REGISTERED PROFESSIONAL ENGINEER — DEVASEKHAR PRASANNA — No. C76302 EXP. 06-30-22 — CIVIL — STATE OF CALIFORNIA

MID PENINSULA – STATION 22
PROPOSED STATION REDEVELOPMENT
EXISTING & PROPOSED SITE PLAN

TITLE:

DISTRICT: MID PENINSULA

SAN MATEO

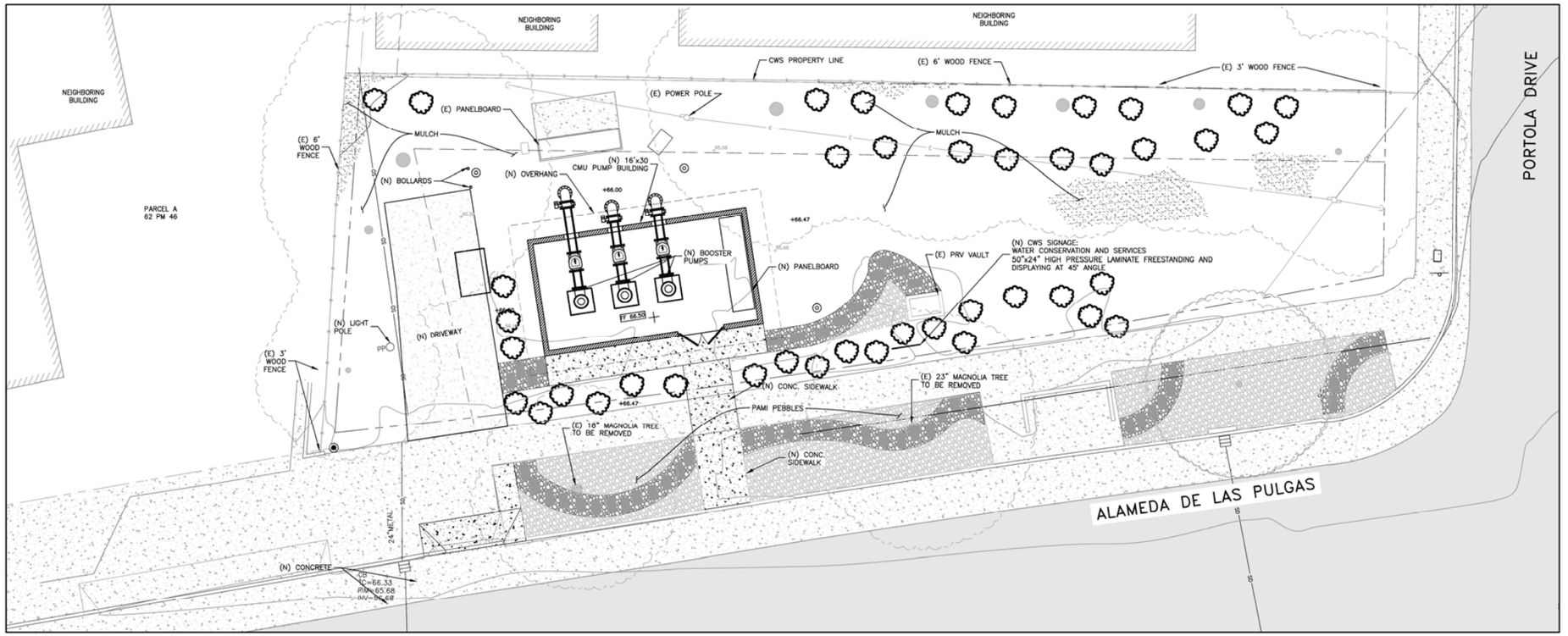
DATE: 11/13/2019

PROJECT ID.: 00098594

DRAWING NO.: MPS-5403-R3

SHT 2 OF 4

SHEET 2 OF 23



STATION 22 PROPOSED ABOVE GROUND SURFACE FEATURES

SCALE: 1" = 8'

LEGEND:

- ABANDON
- CTV — CABLE TV – BURIED
- CENTER LINE
- EASEMENT
- E — ELECTRICAL – BURIED
- EX _" DI — EXISTING WATER
- CHAINLINK FENCE
- WROUGHT IRON FENCE
- FO — FIBER
- GAS — GAS
- INTERIOR LOT LINES
- OIL — OIL
- PROPERTY LINE
- _" DI — PROPOSED WATER
- RIGHT-OF-WAY (R/W)
- SS — SANITARY SEWER
- SD — STORM DRAIN
- STRUCTURE
- T — TELECOMMUNICATIONS – BURIED
- WALL – BLOCK
- = CONCRETE PAVEMENT
- = PAMI PEBBLES
- = ASPHALT
- = DIRT/EARTH
- = MULCH
- FG 100.62 PROPOSED FINISH GRADE
- +66.28 PROPOSED GRADE
- 66.28 EXISTING GRADE
- = TEE
- = ELBOW, 45°
- = ELBOW, 90°
- = BLOWOFF (PROPOSED)
- = BLOWOFF (EXISTING)
- = GATE VALVE (PROPOSED)
- = GATE VALVE (EXISTING)
- NC = GATE VALVE (PROPOSED) NORMALLY CLOSED
- NO = GATE VALVE (PROPOSED) NORMALLY OPEN
- = REDUCER (PROPOSED)
- = REDUCER (EXISTING)
- = FIRE HYDRANT (PROPOSED)
- = FIRE HYDRANT (EXISTING)
- = BUTTERFLY VALVE
- = CHECK VALVE
- = FLEX CPLG.
- = CATCH BASIN
- F = FLOW/MAG METER
- PP = POWER POLE
- = STORM DRAIN MANHOLE
- S = SEWER MANHOLE
- = STREET LIGHT
- = TRAFFIC LIGHT
- WM = WATER METER
- = ABOVE GROUND PIPE
- = SINGLE POLE SIGN

ABBREVIATIONS:

APN	= ASSESSORS PARCEL NUMBER	MJ	= MECHANICAL JOINT
AB	= AGGREGATE BASE	(N)	= NEW/PROPOSED
AC	= ASPHALT CONCRETE	NEC	= NATIONAL ELECTRIC CODE
CB	= CATCH BASIN	N.T.S.	= NOT TO SCALE
CI	= CAST IRON	PBC	= PORTABLE BOOSTER CONNECTION
CONC.	= CONCRETE	PBE	= PLAIN BOTH ENDS
CPLG	= COUPLING	PO	= PUSH-ON
CU. YD.	= CUBIC YARD(S)	POE	= PLAIN ON END
CWS	= CALIFORNIA WATER SERVICE	PRV	= PRESSURE REDUCING VALVE
DI	= DUCTILE IRON	PVC	= POLYVINYL CHLORIDE
EL.	= ELEVATION	RE	= REDUCER
ELL	= ELBOW JOINT	SD	= STORM DRAIN
EP	= EDGE OF PAVEMENT	SOW	= SLIP ON WELD FLANGE
EP	= ELECTRICAL PANEL	SS	= SEWER
EX./(E)	= EXISTING	STD BLK	= STANDARD STEEL PIPE
FBE	= FLANGE BOTH ENDS	STL	= STEEL
FH	= FIRE HYDRANT	SQ. FT.	= SQUARE FEET
FL	= FLOW LINE	TDH	= TOTAL DYNAMIC HEAD
FOE	= FLANGE ON END	TOC	= TOP OF CURB
FS	= FINISH SURFACE	TYP	= TYPICAL
GB	= GROUND BOX	UMC	= UNIFORM MECHANICAL CODE
GPM	= GALLONS PER MINUTE	UPC	= UNIFORM PLUMBING CODE
HORIZ.	= HORIZONTAL	VBE	= VICTAULIC BOTH ENDS
HP	= HORSEPOWER	VOE	= VICTAULIC ON END
IBC	= INTERNATIONAL BUILDING CODE	W	= WIDTH
L	= LENGTH	VERT.	= VERTICAL
MH	= MANHOLE	VOL.	= VOLUME

0 10 20
5 15
SCALE: 1"=10'

ENGINEERING

CALIFORNIA WATER SERVICE

DEPARTMENT

REVISIONS:
1 CMU BUILDING DESIGN & WALKWAYS R.O. 3/15/20
2 INSTALL 18" BUTTERFLY VALVE R.O. 7/22/20
3 PLANNING DEPT UPDATES R.O. 4/13/2021

	DATE:	INIT.
DISTRIBUTION MAP		
PLAT SHEET		
SYSTEM SCHEMATIC		
STATION SCHEMATIC		

PLAT SHEET NO.: SM-29-25

SCALE: AS SHOWN

DRAWN BY: R.O./P.R.

DESIGNED BY: S. GONZALEZ

TECH REVIEW: DATE: 04/23/2021

CHECKED BY: DATE: 04/23/2021

APPROVED BY: DATE: 04/23/2021

REGISTERED PROFESSIONAL ENGINEER
DEVSEKHAR PRASANNA
No. C76302
EXP. 06-30-22
CIVIL
STATE OF CALIFORNIA

TITLE:
MID PENINSULA – STATION 22
PROPOSED STATION REDEVELOPMENT
PROPOSED ABOVE GROUND FEATURES

DISTRICT: MID PENINSULA

SAN MATEO

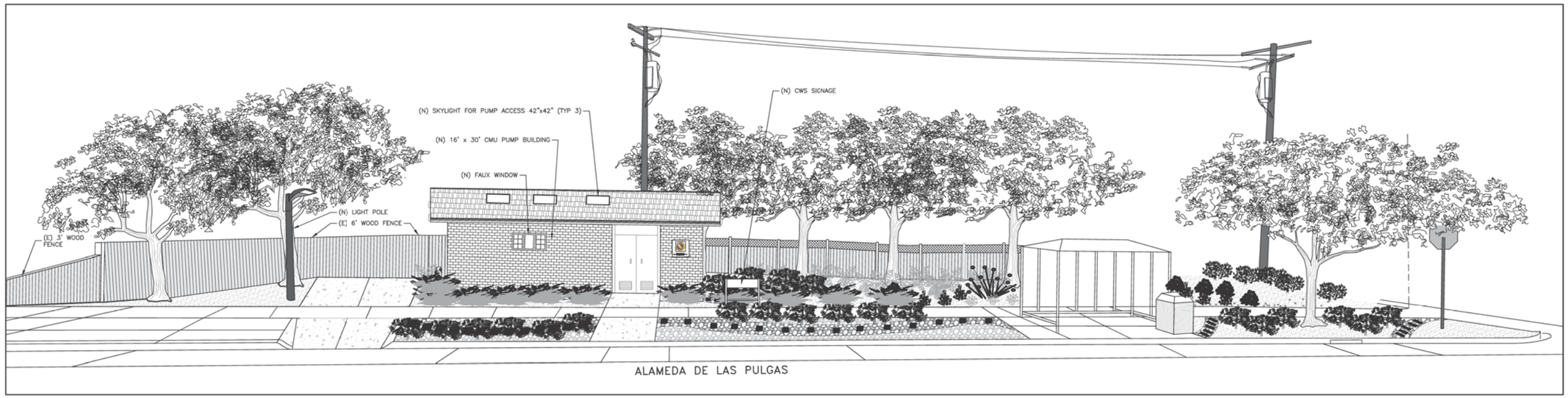
DATE: 11/13/2019

PROJECT ID.: 00098594

DRAWING NO.: MPS-5403-R3

SHT 3 OF 4

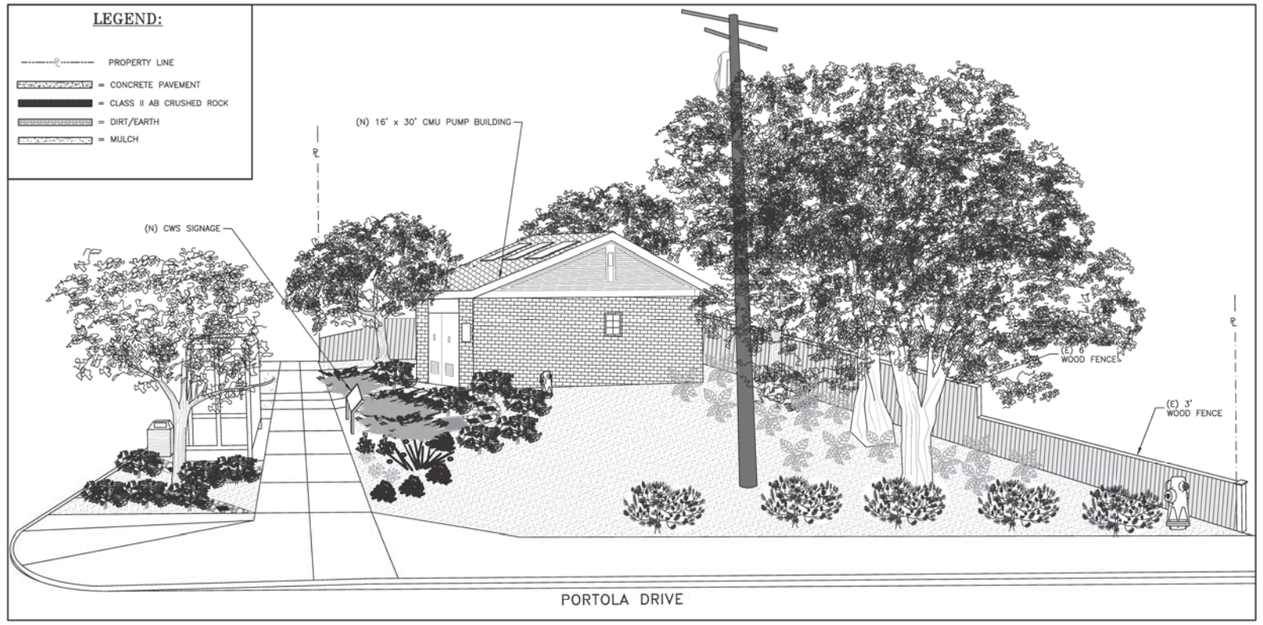
3 SHEET 3 OF 23



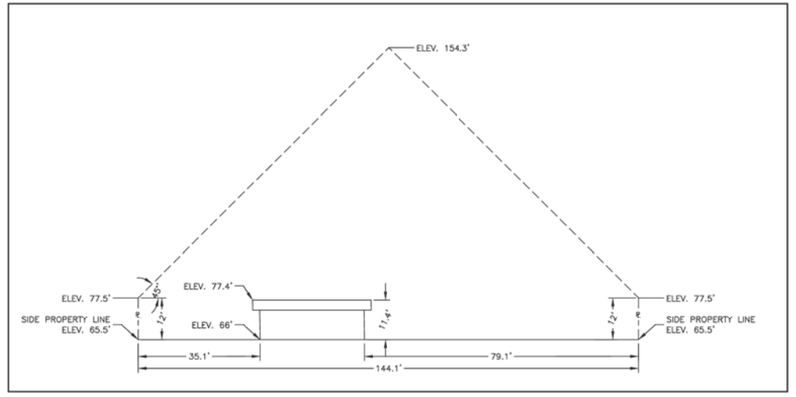
STATION 22 PROPOSED ELEVATION
ALAMEDA DE LAS PULGAS
N.T.S.

LEGEND:

- PROPERTY LINE
- = CONCRETE PAVEMENT
- = CLASS II AB CRUSHED ROCK
- = DIRT/EARTH
- = MULCH



STATION 22 PROPOSED ELEVATION
PORTOLA DRIVE
N.T.S.



DAYLIGHT PLANE SKETCH
SCALE: 1:20

0 5 10 15 20
SCALE: 1"=10'

ENGINEERING
CALIFORNIA WATER SERVICE
DEPARTMENT

REVISIONS:
1 CMU BUILDING DESIGN & WALKWAYS, R.O. 3/14/20
2 INSTALL 18" BUTTERFLY VALVE, R.O. 7/23/20
3 PLANNING DEPT UPDATES, R.O. 4/13/2021

	DATE:	INIT.
DISTRIBUTION MAP		
PLAT SHEET		
SYSTEM SCHEMATIC		
STATION SCHEMATIC		

PLAT SHEET NO.: SM-29-25
SCALE: AS SHOWN
DRAWN BY: R.O./P.R.
DESIGNED BY: S. GONZALEZ
TECH REVIEW: DATE: 04/23/2021
CHECKED BY: DATE: 04/23/2021
APPROVED BY: DATE: 04/23/2021

REGISTERED PROFESSIONAL ENGINEER
DEVSEKHAR PRASANNA
No. C76302
EXP. 06-30-22
CIVIL
STATE OF CALIFORNIA

TITLE:
MID PENINSULA – STATION 22
PROPOSED STATION REDEVELOPMENT
ELEVATIONS

DISTRICT: MID PENINSULA
SAN MATEO
DATE: 11/13/2019
PROJECT ID.: 00098594
DRAWING NO.: MPS-5403-R3
SHT 4 OF 4

3 SHEET 4 OF 23

DEMOLITION LEGEND:

AFTER PHASE 1 PIPING IS COMPLETED, REMOVE ALL ASSETS ABOVE AND BELOW GROUND.

- REMOVE BUILDING
- REMOVE SIDEWALK, CONCRETE & VAULTS
- ABANDON PIPING, CAP END(S) AND REMOVE UNLESS NOTED OTHERWISE
- EG 100.62 — EXISTING FLOOR ELEVATION
- x66.28 — EXISTING GRADE

LEGEND:

- CTV — CABLE TV – BURIED
- ℄ — CENTER LINE
- EASEMENT
- E — ELECTRICAL – BURIED
- EX _" DI — EXISTING WATER
- CHAINLINK FENCE
- WROUGHT IRON FENCE
- FO — FIBER
- GAS — GAS
- INTERIOR LOT LINES
- OIL — OIL
- PROPERTY LINE
- _" DI — PROPOSED WATER
- RIGHT-OF-WAY (R/W)
- SS — SANITARY SEWER
- SD — STORM DRAIN
- STRUCTURE
- T — TELECOMMUNICATIONS – BURIED
- WALL – BLOCK
- CONCRETE PAVEMENT
- CLASS II AB CRUSHED ROCK
- ASPHALT
- DIRT/EARTH
- SINGLE POLE SIGN
- TEE
- ELBOW, 45°
- ELBOW, 90°
- BLOWOFF (PROPOSED)
- BLOWOFF (EXISTING)
- GATE VALVE (PROPOSED)
- GATE VALVE (EXISTING)
- NC — GATE VALVE (PROPOSED) NORMALLY CLOSED
- NO — GATE VALVE (PROPOSED) NORMALLY OPEN
- REDUCER (PROPOSED)
- REDUCER (EXISTING)
- FIRE HYDRANT (PROPOSED)
- FIRE HYDRANT (EXISTING)
- BUTTERFLY VALVE
- CHECK VALVE
- FLEX CPLG.
- CATCH BASIN
- F — FLOW/MAG METER
- PP — POWER POLE
- STORM DRAIN MANHOLE
- S — SEWER MANHOLE
- STREET LIGHT
- TRAFFIC LIGHT
- WM — WATER METER

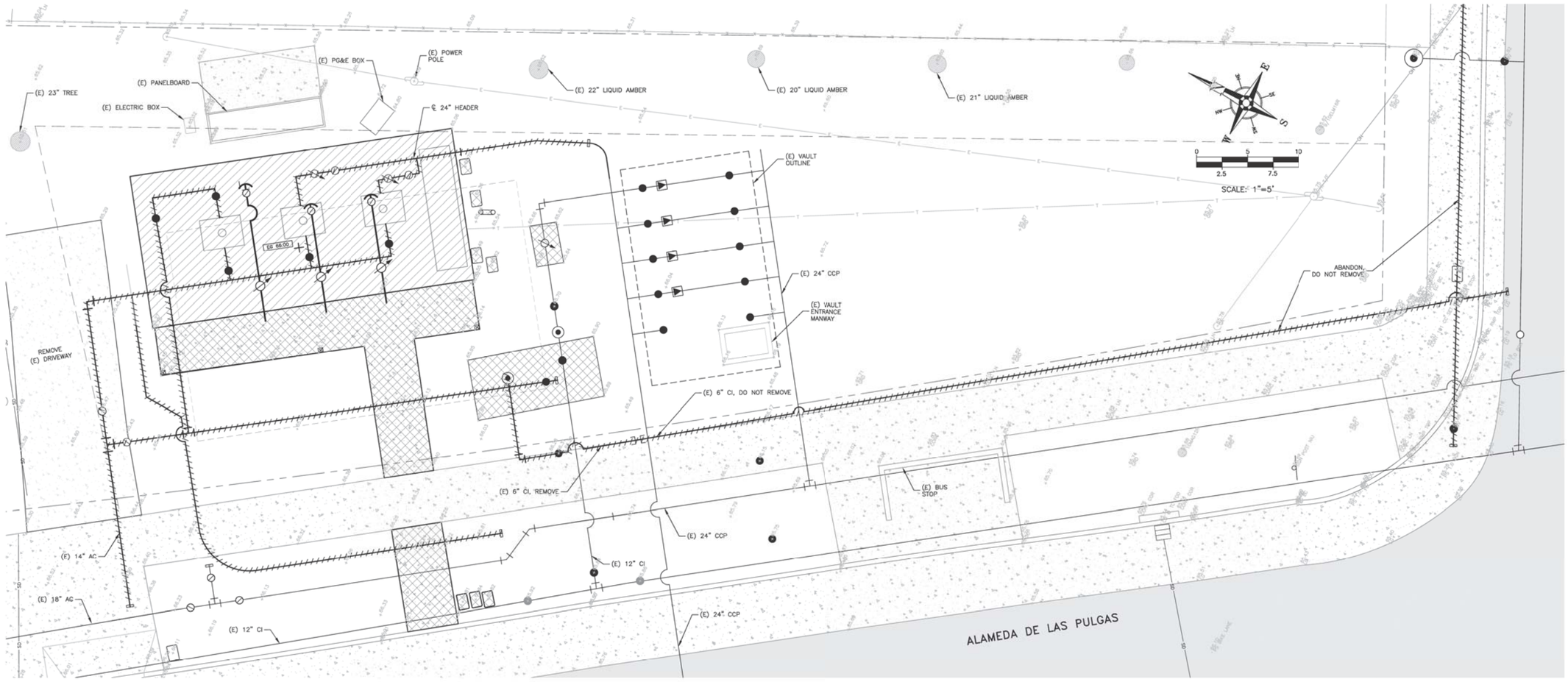
DEMOLITION NOTES:

1. CONTRACTOR SHALL PREPARE EXISTING SITE FOR DEMOLITION AND REGRADING BY REMOVING ALL LOOSE MATERIAL, VEGETATION, CONCRETE, GRAVEL FROM PERIMETER, DEBRIS, AND OTHER DELETERIOUS MATERIAL AS REQUIRED TO COMPLETE CONSTRUCTION ACTIVITIES. AT THE APPROVAL OF CAL WATER, THIS MATERIAL CAN BE STOCKPILED ON SITE AND RE-USED FOR LANDSCAPING; OTHERWISE THIS MATERIAL SHALL BE DISPOSED OF IN A SUITABLE LOCATION OFF-SITE.

1.1. SPOILS MATERIAL EXCAVATED AT NEW BUILDING CAN BE RE-USED AS COMPACTED FILL PROVIDED IT IS FREE OF ORGANIC MATTER AND MATERIAL LARGER THAN 4 INCHES IN DIAMETER.

1.2. IMPORTED FILL SHOULD BE FREE OF ORGANIC MATERIAL AND SHALL NOT CONTAIN ANY MATERIAL LARGER THAN 4 INCHES AND SHALL HAVE A PLASTICITY INDEX (P.I.) OF LESS THAN 15.

1.3. THE FILL SHALL BE PLACED IN HORIZONTAL LIFTS NOT EXCEEDING 8 INCHES IN LOOSE THICKNESS; MOISTURE CONDITIONED TO AT LEAST OPTIMUM MOISTURE CONTENT, AND COMPACTED TO 90 PERCENT RELATIVE COMPACTION.



ENGINEERING

CALIFORNIA WATER SERVICE

DEPARTMENT

REVISIONS:

	DATE:	INIT.
⚠1 PLANNING DEPT UPDATES, R.O. 4/13/2021		
DISTRIBUTION MAP		
PLAT SHEET		
SYSTEM SCHEMATIC		
STATION SCHEMATIC		

PLAT SHEET NO.: SM-29-25

SCALE: AS SHOWN

DRAWN BY: R.O./P.R.

DESIGNED BY: S. GONZALEZ

	DATE:
TECH REVIEW:	04/23/2021
CHECKED BY:	04/23/2021
APPROVED BY:	04/23/2021

REGISTERED PROFESSIONAL ENGINEER
DEVISEKHAR PRASANNA
No. C76302
EXP. 06-30-22
CIVIL
STATE OF CALIFORNIA

TITLE:
MID PENINSULA – STATION 22
PROPOSED STATION REDEVELOPMENT
PHASE 1 – DEMOLITION PLAN

DISTRICT: MID PENINSULA

SAN MATEO

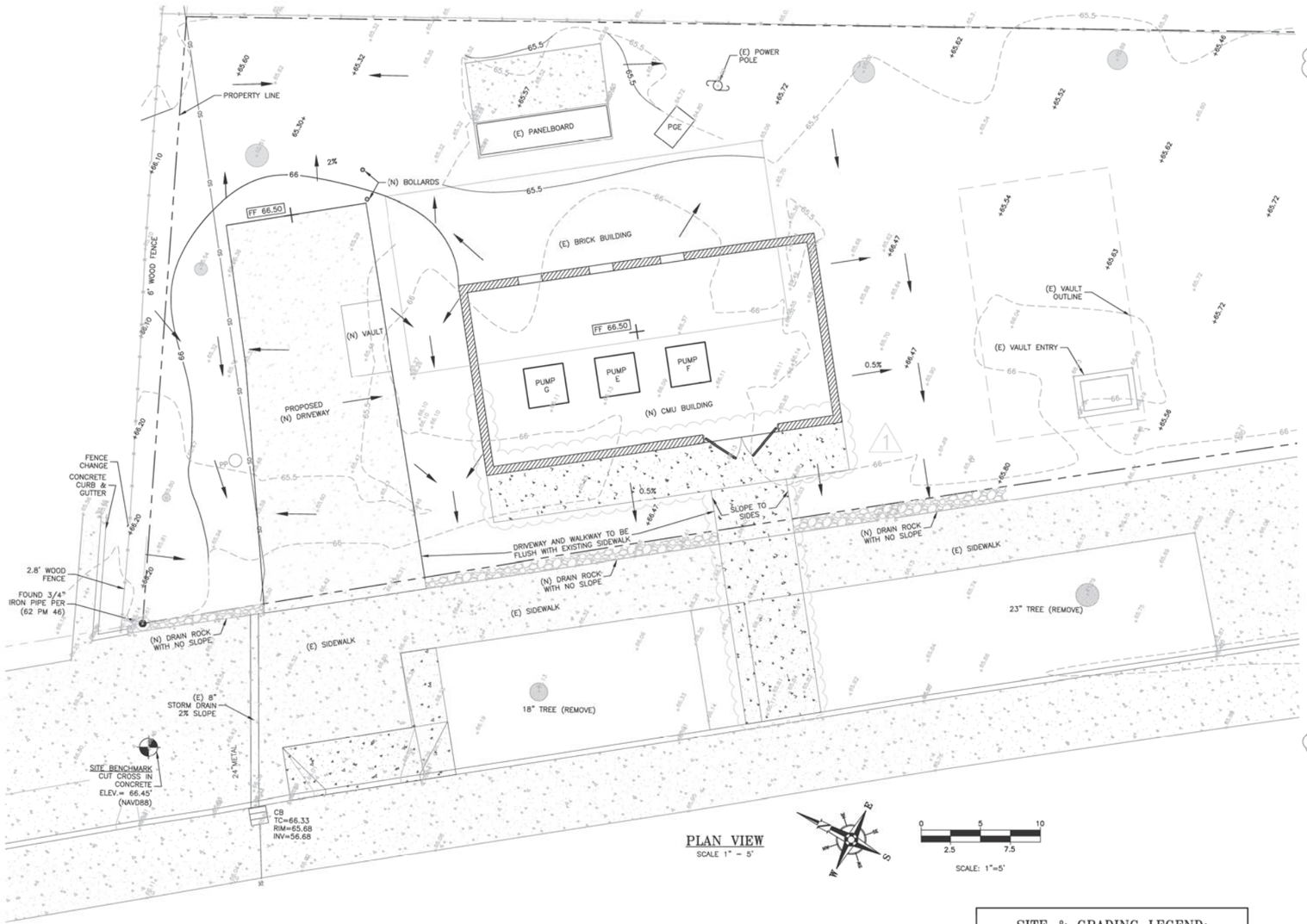
DATE: 03/27/2020

PROJECT ID.: 00098594

DRAWING NO.: MPS-5411-R1

SHT 1 OF 1

1 SHEET 5 OF 23



PLAN VIEW
SCALE 1" = 5'

SCALE: 1"=5'

SITE & GRADING NOTES:

1. C.W.S. STATION IS LOCATED ON ALAMEDA DE LAS PULGAS AT THE CORNER OF PORTOLA DR. SAN MATEO, CA, PARCEL MAP NO. 306, VOLUME 62, PAGE 47, SAN MATEO COUNTY RECORDS. APN IS 039-332-200.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ADHERING TO AND COMPLYING WITH LOCAL GOVERNING AGENCY PERMIT RESTRICTIONS, WHICH MAY AFFECT ALLOWABLE WORKING HOURS AND NOISE LEVELS.
3. CONTRACTOR SHALL BECOME FAMILIAR WITH PROJECT SURROUNDINGS, WORKING CONDITIONS, AND SITE LIMITATIONS AND WILL INCLUDE ALLOWANCES IN THEIR BID TO COVER ANY PROJECT CONSTRAINTS.
4. CONTRACTOR SHALL APPLY CALIFORNIA STORMWATER QUALITY ASSOCIATION (CASQA) BEST MANAGEMENT PRACTICES TO PREVENT WATER AND SEDIMENT FROM ENTERING NAVIGABLE WATERWAYS. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING AND INSTALLING THE APPLICABLE AND APPROPRIATE BMP's IDENTIFIED IN THE CASQA – STORMWATER BEST MANAGEMENT PRACTICES HANDBOOK AVAILABLE ONLINE AT WWW.CABMPHANDBOOKS.COM. SOME OF THE REQUIRED PRACTICES MAY OR MAY NOT BE SHOWN ON THIS SITE PLAN. SEE NOTES 15 AND 16.
5. CONTRACTOR TO CONTACT "UNDERGROUND SERVICES ALERT" 48 HOURS PRIOR TO ANY EXCAVATION.
6. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXACT LOCATION AND DEPTH OF ALL EXISTING UTILITIES.
7. THE LIST OF MATERIALS FOR THIS PROJECT IS FOR REFERENCE PURPOSES ONLY, AND IS NOT INTENDED AS A FULL TAKE-OFF OF ALL MATERIALS REQUIRED TO COMPLETE THE PROJECT AS PER CWS CO. STANDARD SPECIFICATIONS.
8. ASPHALT CONCRETE TO BE TYPE III, CLASS C2, GRADE PG 64-10 PER PWSI (PUBLIC WORKS STANDARDS, INC.) STANDARD SPECIFICATIONS (THE "GREENBOOK"). PLACE ASPHALT ON CL 2 AGGREGATE BASE (AB) COMPACTED TO 95% RELATIVE COMPACTION.
9. THERE SHALL BE MINIMUM OF 8" OF CLASS 2 AGGREGATE BASE (AB) UNDER ANY PROPOSED FOUNDATION OR PAVEMENT COMPACTED TO 95% RELATIVE COMPACTION.
10. MAINTENANCE AREA SHALL BE GRADED TO 4" BELOW PROPOSED FINAL ELEVATIONS AND THEN SCARIFIED, WATERED AND COMPACTED TO 85% RELATIVE COMPACTION PER ASTM D1557. PLACE 4" OF CLASS 2 A.B. COMPACTED TO 90% RELATIVE COMPACTION. THE ENTIRE SITE, EXCEPT STEEP SLOPES AND EQUIPMENT AREAS, IS TO BE CONSIDERED MAINTENANCE AREA
11. CONTRACTOR SHALL GRADE THE SITE TO FINAL ELEVATIONS SHOWN FOR PROPER SURFACE DRAINAGE. FINAL GRADING SHALL ALLOW SURFACE DRAINAGE TO AVOID DRAINAGE TO THE ADJACENT PROPERTIES. FINAL GRADES MAY BE ADJUSTED AS NEEDED IN THE FIELD TO BALANCE CUTS AND FILLS.
12. IMPORT FILL:
    A) IMPORTED FILL MATERIAL FOR BUILDING AND DRIVEWAY SHALL CONSIST OF ESSENTIALLY GRANULAR, SILTY SANDS WITH LOW EXPANSION POTENTIAL AND FREE OF GRASSES, WEEDS, ROCKS, DEBRIS AND SOLUBLE SULFATES IN EXCESS OF 1,000 PARTS PER MILLION. IMPORT SOIL SHALL MEET THE FOLLOWING CRITERIA:
       MAXIMUM % PASSING #200 SIEVE 50
       MAXIMUM LIQUID LIMIT 14
       MINIMUM R-VALUE 50
       MAXIMUM EXPANSION PRESSURE 10PSF
       (TEST METHOD: CALIFORNIA TEST 301)
    B) IMPORT FILL FOR REMAINING PORTION OF SITE SHALL BE SANDY LOAM SUITABLE FOR PLANTING.
    C) IMPORTED FILL SHOULD BE FREE OF ORGANIC MATERIAL AND IT SHOULD CONTAIN NO MATERIAL LARGER THAN 4 INCHES AND HAVE A PLASTICITY INDEX OF LESS THAN 16.
13. THE EXCAVATED ON-SITE MATERIAL IS SUITABLE AS COMPACTED FILL PROVIDED IT IS FREE OF ORGANIC MATTER AND MATERIAL LARGER THAN 4 INCHES IN DIAMETER.
14. FILL SHOULD BE PLACED IN HORIZONTAL LIFTS NOT EXCEEDING 8 INCHES IN LOOSE THICKNESS, MOISTURE CONDITIONED TO AT LEAST OPTIMUM CONTENT, AND COMPACTED TO AT LEAST 95 PERCENT RELATIVE COMPACTION BENEATH ALL STRUCTURES, AND 90 PERCENT RELATIVE COMPACTION ELSEWHERE. A SITE SPECIFIC GEOTECHINCAL REPORT, IF AVAILABLE SHALL OVERRIDE/AMEND SUCH REQUIREMENTS.
15. CONSTRUCTION OPERATIONS DUST SHALL BE CONTROLLED. WASTEWATER GENERATED DURING CONSTRUCTION SHALL NOT BE DISCHARGED TO THE STORM DRAIN SYSTEM. THIS INCLUDES WASTE FROM PAINTING, SAW CUTTING, CONCRETE WORK ETC. THE CONTRACTOR SHALL MAKE ARRANGEMENTS TO ELIMINATE DISCHARGES TO THE STORM DRAIN SYSTEM AND THE EXISTING SUMP, IF NECESSARY PROVIDE AN AREA FOR ON-SITE WASHING ACTIVITIES DURING CONSTRUCTIONS. MATERIALS THAT COULD CONTAMINATE STORM RUNOFF SHALL BE STORED IN AREAS WHICH ARE DESIGNATED TO PREVENT EXPOSURE TO RAINFALL AND TO NOT ALLOW STORM WATER TO RUN ONTO THE AREA.
16. PAVEMENT CLEANING-FLUSHING OF STREETS/PARKING LOTS TO REMOVE DIRT AND CONSTRUCTION DEBRIS IS PROHIBITED UNLESS SEDIMENT CONTROLS ARE USED. PREFERABLY, AREAS REQUIRED CLEANING SHOULD BE SWEPT.
17. SPOILS SHALL NOT REMAIN ON-SITE. DISPOSAL OF ALL PROJECT GENERATED SPOILS SHALL BE AT A FACILITY LICENSED AND CLASSIFIED TO ACCEPT THE MATERIALS. CONTRACTOR TO PROVIDE OWNER WITH A FORMAL RECEIPT FROM THE ACCEPTING FACILITY. ALL MATERIALS THAT WILL REQUIRE TESTING PRIOR TO DISPOSAL SHALL BE SAMPLED AND TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE DISPOSAL FACILITY IN ADVANCE OF THE NEED FOR DISPOSAL.
18. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH 2016 C.B.C., 2016 C.F.C., AND MOST CURRENT NFPA AND NEC AWWA E101 & C600.
19. SITE CONTRACTOR MUST SHARE THE SITE WITH OWNER'S OTHER CONTRACTORS.
21. DRIVEWAY, LOCATION AND CONSTRUCTION SHALL COMPLY WITH CITY STANDARDS. 2

GRADING EARTHWORK QUANTITIES:

CUT: 4.74 CU. YD.
FILL: 9.24 CU. YD.
NET: 4.50 CU. YD. (FILL)

NOTE:
EARTHWORK QUANTITIES ARE APPROXIMATE FOR PERMITTING PURPOSES ONLY. NO SHRINK OR SWELL FACTORS HAVE BEEN APPLIED TO THESE VALUES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL GRADING REQUIRED TO OBTAIN FINISH GRADES AS SHOWN.

SITE & GRADING LEGEND:

- FG 100.62 + — PROPOSED FINISH GRADE
- FF 100.62 + — PROPOSED FINISH FOUNDATION OR FLOOR
- +66.28 — PROPOSED GRADE
- 66.28 — EXISTING GRADE
- FINAL SURFACE DRAINAGE FLOW DIRECTION (0.5% SLOPE MIN.)
- 505 — EXISTING CONTOUR
- 505 — PROPOSED CONTOUR
- FENCE
- PROPERTY LINE
- PROPOSED STRUCTURE
- EXISTING STRUCTURE (TO BE REMOVED)
- BOUNDARY
- CONCRETE PAVEMENT
- LANDSCAPE
- ASPHALT
- DIRT/EARTH
- A — A SECTION CALLOUT

NOTES

1. ALL DISTANCES AND DIMENSIONS ARE IN FEET AND DECIMALS OF A FOOT.
2. UNDERGROUND UTILITY LOCATION IS BASED ON SURFACE EVIDENCE.
3. BUILDING FOOTPRINTS ARE SHOWN AT GROUND LEVEL.
4. FINISH FLOOR ELEVATIONS ARE TAKEN AT DOOR THRESHOLD (EXTERIOR).

BASIS OF BEARINGS

COORDINATES AND BEARINGS SHOWN ARE BASED ON THE CALIFORNIA STATE COORDINATE SYSTEM OF 1983, ZONE 3

BENCHMARK

CITY OF SAN MATEO BENCHMARK #047-004
RAMSET NAIL & WASHER ON TOP OF CURB, WESTERLY END, NORTHWESTERLY RETURN, ALAMEDA DE LAS PULGAS & 28TH AVENUE
ELEVATION = 67.11' (ADJUSTED TO NAVD88, LEA & BRAZE ENGINEERS)

SITE BENCHMARK

SURVEY CONTROL POINT
CUT CROSS IN CONCRETE
ELEVATION = 66.45'
(ADJUSTED TO NAVD 88 DATUM)

Know what's below. Call before you dig.

ENGINEERING

CALIFORNIA WATER SERVICE

DEPARTMENT

REVISIONS:
1. CMU BUILDING DESIGN & WALKWAYS. R.O. 3/27/20
2. REVISED GRADING NOTES R.O. 7/22/20
3. DRIVEWAY LENGTHENED. R.O. 4/13/2021

	DATE:	INIT.
DISTRIBUTION MAP		
PLAT SHEET		
SYSTEM SCHEMATIC		
STATION SCHEMATIC		

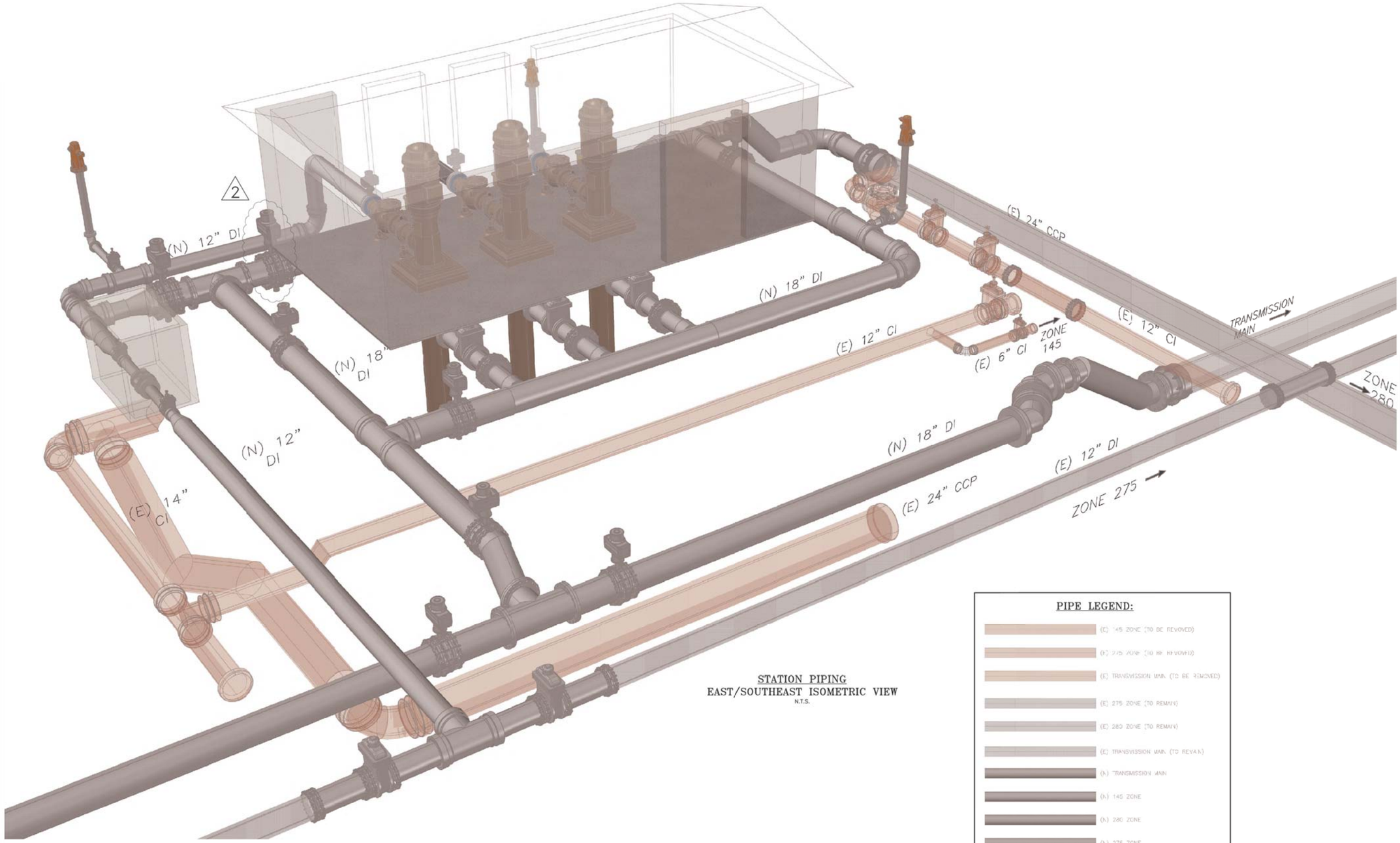
PLAT SHEET NO.: SM-29-25
SCALE: AS SHOWN
DRAWN BY: R.O./P.R.
DESIGNED BY: S. GONZALEZ
TECH REVIEW: DATE: 04/23/2021
CHECKED BY: DATE: 04/23/2021
APPROVED BY: DATE: 04/23/2021

REGISTERED PROFESSIONAL ENGINEER
DEVSEKHAR PRASANNA
No. C76302
EXP. 06-30-22
CIVIL
STATE OF CALIFORNIA

TITLE:
MID PENINSULA - STATION 22
PROPOSED STATION REDEVELOPMENT
GRADING PLAN

DISTRICT: MID PENINSULA
SAN MATEO
DATE: 11/13/2019
PROJECT ID.: 00098594
DRAWING NO.: MPS-5412-R3
SHT 1 OF 1

SHEET 6 OF 23



STATION PIPING
EAST/SOUTHEAST ISOMETRIC VIEW
N.T.S.

PIPE LEGEND:

- (E) 145 ZONE (TO BE REMOVED)
- (E) 275 ZONE (TO BE REMOVED)
- (E) TRANSMISSION MAIN (TO BE REMOVED)
- (E) 275 ZONE (TO REMAIN)
- (E) 280 ZONE (TO REMAIN)
- (E) TRANSMISSION MAIN (TO REMAIN)
- (N) TRANSMISSION MAIN
- (N) 145 ZONE
- (N) 280 ZONE
- (N) 275 ZONE

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

ENGINEERING

CALIFORNIA WATER SERVICE

DEPARTMENT

REVISIONS:

A. CMU BUILDING DESIGN.
B. INSTALL FLANGE COUPLING ADAPTER. R.O.: 3/27/20

A. INSTALL 18" BUTTERFLY VALVE. R.O. 7-22-20

A. PLANNING DEPT UPDATES R.O. 4/13/2021

	DATE:	INIT.
DISTRIBUTION MAP	☐	
PLAT SHEET	☐	
SYSTEM SCHEMATIC	☐	
STATION SCHEMATIC	☐	

PLAT SHEET NO.: SM-29-25

SCALE: AS SHOWN

DRAWN BY: R.O./P.R.

DESIGNED BY: S. GONZALEZ

TECH REVIEW: DATE: 04/23/2021

CHECKED BY: DATE: 04/23/2021

APPROVED BY: DATE: 04/23/2021

REGISTERED PROFESSIONAL ENGINEER
DEVSEKHAR PRASANNA
No. C76302
EXP. 06-30-22
CIVIL
STATE OF CALIFORNIA

TITLE:
MID PENINSULA - STATION 22
PROPOSED STATION REDEVELOPMENT
PIPING PLAN - ISOMETRIC VIEW

DISTRICT: MID PENINSULA

SAN MATEO

DATE: 11/13/2019

PROJECT ID.: 00098594

DRAWING NO.: MPS-5437-R3

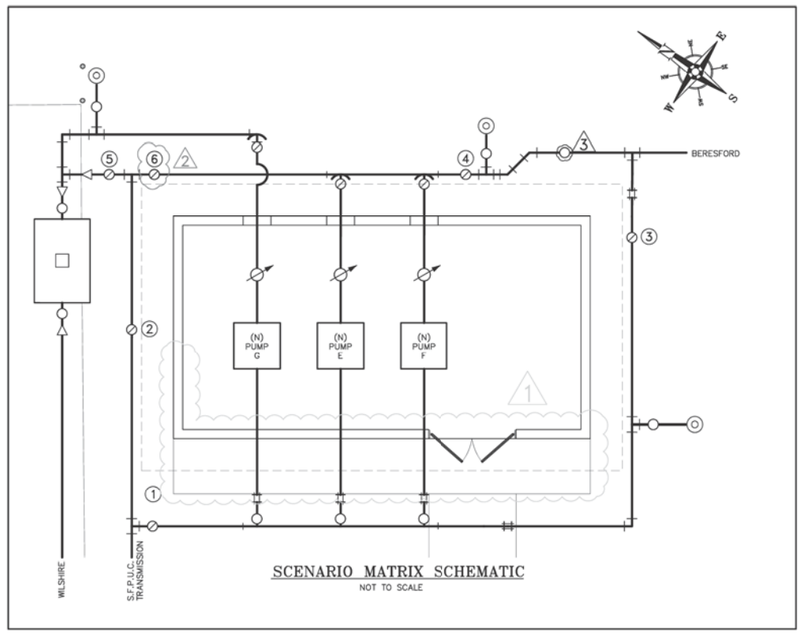
SHT 1 OF 1

3 SHEET 7 OF 23

REFERENCE LIST ONLY – CONTRACTOR TO VERIFY AND OBTAIN ALL MATERIALS REQUIRED TO COMPLETE THE PROJECT.

BILL OF MATERIALS

12" DUCTILE IRON (DI) PIPE		18" TR-FLEX DUCTILE IRON (DI) PIPE	
QTY.	DESCRIPTION	QTY.	DESCRIPTION
1	12" 90° ELL, FLGxPO	4	18" 45° ELL, MJ W/RESTRAINED ADAPTER
3	12" 90° ELL, FLG 125#	1	18" 90° ELL, FLG-MJ W/RESTRAINED ADAPTER
1	12" 90° ELL, PO W/RESTRAINT GASKETS	1	18" 90° ELL, MJ W/RESTRAINED ADAPTER
2	12" DI, FBE 150# (CUT-TO-FIT) TYP. PUMPS E & F	1	18" AC COUPLING PER NOTE 30 ON THIS SHEET
1	12" DI, FBE 150# (CUT-TO-FIT) TYP. PUMP G	2 (2)	18" BUTTERFLY VALVE, FLG, MOTOR ACTUATED (OWNER SUPPLIED)
6	12" DI, FBE 150# 1'-6" LONG	4	18" BUTTERFLY VALVE MJ, MOTOR ACTUATED (OWNER SUPPLIED)
3	12" DI, FBE 150# 1' LONG	2	18" BUTTERFLY VALVE, MJ
3 3	12" DI, FOE-POE 150# (CUT-TO-FIT)	3 1	18" BUTTERFLY VALVE, MJxFLG W/RESTRAINED ADPTER
1	12" DI PIPE, FBE (LENGTH TO BE DETERMINED IN FIELD)	1	18" GATE VALVE, MJ W/RESTRAINED ADAPTER
3	12" BUTTERFLY VALVE, FLG	1	18" CAP MJ W/RESTRAINED ADAPTER
2	12" GATE VALVE, PO W/1-12" RINGS, RESTRAINT GASKETS	7	18" SOLID SLEEVE MJ, 10" SLEEVE W/RESTRAINED ADAPTERS
3	12" GATE VALVE, FLG W/RESTRANT GASKET	2	18" TEE, FLG, MJ BRANCH W/RESTRAINED ADAPTER
1	12" TEE, POxFLG W/3-12" RINGS, RESTRAINT GASKETS	1	18" TEE, MJ W/RESTRAINED ADAPTER
1	12" TEE, MJ, FLG BRANCH, W/RESTRAINT GASKETS	1	18" TEE, MJ, W/RESTRAINED ADAPTER, FLG BRANCH
7	12" SOLID SLEEVE MJ, 10" SLEEVE W/RESTRAINED ADAPTERS	4	18" TR FLEX PIPE, FOE-POE (CUT-TO-FIT)
3	12" TRANSITION COUPLING (14" O.D. x 12" DI)	13	18" TR FLEX PIPE, PBE (CUT-TO-FIT)
1	12"x6" HYDRANT TEE MJ W/RESTRAINED ADAPTER & ASSEMBLY (PBC)	2	18"x6" HYDRANT TEE MJ W/RESTRAINED ADAPTER & ASSEMBLY (PBC)
1	18"x12" REDUCER, FBE	1	CL&C PIPE, FBE (PIECE MARKED "A", SHEET 13 DETAIL G)
1	12" FLANGE COUPLING ADAPTER	1	CL&C PIPE, FBE (PIECE MARKED "B", SHEET 13 DETAIL G)
1	JCM 303-1388X12-RESS 250 PSI/ 150# ANSI FFSO FLANGE COUPLING ADAPTER & 617-1388SS RESTRAINT ASSEMBLY	1	CL&C PIPE, FBE (PIECE MARKED "E", SHEET 13 DETAIL G)
±98'	12" DI PIPE W/RESTRAINT GASKETS	1	CL&C PIPE, FBE (PIECE MARKED "F", SHEET 13 DETAIL G)
±9'	8" DI PIPE W/RESTRAINT GASKETS	1	CL&C PIPE, FBE (PIECE MARKED "G", SHEET 13 DETAIL G)
		2	JCM 304-2878X18-RESS 250PSI/ 150# ANSI FFSO FLANGE COUPLING ADAPTER & 617-2878SS RESTRAINT ASSEMBLY
		±186'	18" TR-FLEX PIPE
		±51'	18" TR-FLEX PIPE, FBE
		AS REQ'D	GRIPPER RINGS
AS REQ'D	THRUST BLOCK REQUIRED FOR ALL ELL'S, TEE'S, & RE'S. REFER TO CWS STANDARD THRUST BLOCK DETAIL AND TABLE, CWS-435-R4	AS REQ'D	TRACER WIRE #8 AWG SOLID COPPER THW INSULATED
AS REQ'D	TRACER WIRE #12 AWG SOLID COPPER THW INSULATED	AS REQ'D	LINE GUARD TAPE
AS REQ'D	LINE GUARD TAPE	AS REQ'D	METAL GUARD #301
AS REQ'D	METAL GUARD #301	AS REQ'D	RES-BIT WRAP
AS REQ'D	RES-BIT WRAP	AS REQ'D	POLYWRAP TUBING FOR 18" DI PIPE
AS REQ'D	POLYWRAP TUBING FOR 12" DI PIPE	AS REQ'D	MATERIALS IN TIE-IN DETAILS A-K



SCENARIO MATRIX SCHEMATIC
NOT TO SCALE

OPERATIONAL SCENARIO MATRIX

		Scenario Matrix						
		A	B	C	D	E	F	G
	From Transmission Main	Pump to Beresford	Free flow to Beresford	Pump to Wilshire	Free flow to Wilshire	Pump from Beresford to Transmission	Free flow from Beresford to Transmission	Pump from Beresford to Wilshire
1	Pump to Beresford	Open - 1 & 4 Closed - 2, 3, 5 & 6 Pumps - F		Open - 1 & 4 Closed - 2, 3, 5 & 6 Pumps - F & G	Open - 1, 2, 4 & 5 Closed - 3 & 6 Pumps - F			
2	Free flow to Beresford		Open - 1 & 3 Closed - 2, 4, 5 & 6 Pumps - OFF	Open - 1 & 3 Closed - 2, 4, 5 & 6 Pumps - G	Refer to H.1 or I.1			
3	Pump to Wilshire	Open - 1 & 4 Closed - 2, 3, 5 & 6 Pumps - F & G	Open - 1 & 3 Closed - 2, 4, 5 & 6 Pumps - G	Open - 1 Closed -3, (2) 4, 5 & 6 Pumps - G				
4	Free flow to Wilshire	Open - 1, 2, 4 & 5 Closed - 3 & 6 Pumps - F	Refer to H.1 or I.1		Open - 2 & 5 Closed - 3 (1) & 4 (6) Pumps - OFF			
5	Pump from Beresford to Transmission					Open - 2, 3, & 6 Closed - 1, 4, & 5 Pumps - F		Open - 2, 3 & 6 Closed - 1, 4, & 5 Pumps - F & G
6	Free flow from Beresford to Transmission						Open - 1 &3 or 2&4, 6 Closed - 5 Pumps - OFF	
7	Pump from Beresford to Wilshire					Open - 2, 3 & 6 Closed - 1, 4, & 5 Pumps - F & G		Open - 3 Closed - 1, 2, 4,5&6 Pumps - G

SCENARIO MATRIX (W/ZONES TIED TOGETHER)

		H	I
1	Free Flow (ALL ZONES)	Open - 1, 2, 3, & 5 Closed - 4 & 6 Pumps - OFF	Open - 2, 4, 5 & 6 Closed - 1 or 3 Pumps - OFF

PUMPING SCENARIO SUMMARY

(Assuming Pumping from Transmission Main)
- *Free flow and pump to each Zone*
- *Pump to both Zones*
- *Free flow to both Zones*

- *Pump from Beresford to Transmission Main*
- *Pump from Beresford to Wilshire*
- *Pump from Beresford to Wilshire and Transmission*
- *Free flow from Beresford to Transmission*
- *Free flow from Beresford to both Zones*

- *Pump E will be operated when Pump G is offline and per Pump G's control/operation parameters.*

GENERAL NOTES

1. CONTRACTOR SHALL BECOME FAMILIAR WITH PROJECT SURROUNDINGS, WORKING CONDITIONS, AND SITE LIMITATIONS AND SHALL INCLUDE ALLOWANCES IN THEIR BID TO COVER ANY PROJECT CONSTRAINTS.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ADHERING TO AND COMPLYING WITH LOCAL GOVERNING AGENCY PERMIT RESTRICTIONS, WHICH MAY AFFECT ALLOWABLE WORKING HOURS AND NOISE LEVELS.
3. CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL AS REQUIRED BY APPLICABLE LOCAL GOVERNING AGENCY AND SHALL SUBMIT A TRAFFIC CONTROL PLAN PER CALTRANS STANDARDS TO GOVERNING AGENCY (AS REQUIRED) PRIOR TO CONSTRUCTION.
4. WORK REQUIRING TRAFFIC CONTROL SHALL BE CONDUCTED BETWEEN THE HOURS OF 8:30 A.M. AND 3:30 P.M., MONDAY THRU FRIDAY, OR AS OTHERWISE AUTHORIZED BY LOCAL GOVERNING AGENCY REPRESENTATIVE.
5. CONTRACTOR SHALL APPLY NPDES BEST MANAGEMENT PRACTICES TO PREVENT CHLORINATED WATER AND SEDIMENT FROM ENTERING NAVIGABLE WATERWAYS. CONTRACTOR TO SUBMIT A STORM WATER POLLUTION PREVENTION PLAN (SWPPP), INCLUDING DUST CONTROL, TO OWNER FOR APPROVAL WITHIN 5 WORKING DAYS OF AWARD OF CONTRACT AND PRIOR TO ANY SOIL DISTURBANCE. SEE SPECIFICATIONS FOR DETAILS.
6. CONTRACTOR TO CONTACT "UNDERGROUND SERVICE ALERT" 48 HOURS PRIOR TO ANY EXCAVATION.
7. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXACT LOCATION AND DEPTH OF ALL EXISTING UTILITIES.
8. TRENCHES TO BE SHORED IN ACCORDANCE WITH CALIFORNIA OSHA REGULATIONS.
9. PLACE A CONTINUOUS WIRE AND STRIP OF DETECTOR TAPE OVER ALL PIPES AND EXTEND UP INTO ALL VALVE BOXES. TRACER WIRE IS REQUIRED ON ALL PIPE. (SEE DWG. CW-850-R4).
10. SEE DWG. CW-435 FOR TYPICAL THRUST BLOCK INSTALLATION.
11. FACILITIES SEPARATION:
    A. WATER MAIN SHALL BE INSTALLED AT LEAST 10 FEET HORIZONTALLY FROM AND ONE FOOT VERTICALLY ABOVE ANY PIPELINE CONVEYING SEWAGE (UNTREATED, PRIMARY, OR SECONDARY), DISINFECTED SECONDARY RECYCLED WATER, OR HAZARDOUS FLUIDS.
    B. WATER MAIN SHALL BE INSTALLED 4 FEET HORIZONTALLY FROM AND ONE FOOT VERTICALLY ABOVE ANY PIPELINE CONVEYING TERTIARY RECYCLED WATER OR STORM DRAINAGE.
    C. AT CROSSINGS, WATER MAIN SHALL BE CONSTRUCTED NO LESS THAN 45 DEGREES TO AND AT LEAST ONE FOOT VERTICALLY ABOVE ANY PIPELINES INDICATED IN 11.A AND 11.B.
    D. NO CONNECTION JOINTS SHALL BE MADE IN THE WATER MAIN WITHIN EIGHT HORIZONTAL FEET OF CROSSING OF ANY PIPELINES INDICATED IN 11.A AND 11.B (OR 10 FEET IF CROSSING UNDER).
    E. WATER MAIN SHALL NOT BE INSTALLED WITHIN 100 HORIZONTAL FEET OF ANY SANITARY LANDFILL, WASTEWATER DISPOSAL POND, OR HAZARDOUS WASTE DISPOSAL SITE.
    F. WATER MAIN SHALL NOT BE INSTALLED WITHIN 25 HORIZONTAL FEET OF ANY CESSPOOL, SEPTIC TANK, SEWAGE LEACH FIELD, SEEPAGE PIT, UNDERGROUND HAZARDOUS MATERIAL STORAGE TANK, OR GROUNDWATER RECHARGE PROJECT SITE.
    G. ALL SEPARATION DISTANCES ARE BASED FROM EDGE TO EDGE OF PIPES.
    H. PROPOSED MAIN SHALL BE INSTALLED ABOVE EXISTING HOUSE SEWER LATERALS. IF BELOW FOLLOW NOTE 11D.
12. WHEN ASSEMBLING A PVC C-900 PIPE TO AN IRON FITTING (PUSH-ON OR MECHANICAL JOINT), REMOVE ALL BUT 1 INCH OF THE FACTORY-MADE BEVEL FROM THE SPIGOT END OF THE PIPE PRIOR TO INSTALLATION.
13. USE PVC ±1 DEGREE AND ±5 DEGREES HIGH DEFLECTION CPLGS TO ACHIEVE PROPER RADIUS FOR CURVES. DO NOT DEFLECT PIPE AT FITTINGS.
14. VALVE CANS AND COVERS SHALL BE PLACED OVER ALL VALVES. COVERS SHALL BE SET TO EXISTING FINISHED GRADE AND RESET IF NECESSARY ONCE THE STREET IS AT FINAL GRADE. (SEE DWGS. CW-14-R6 & CW-439-R6).
15. NO VALVE COVERS ARE TO LIE IN SIDEWALKS, CROSS GUTTER, CURB OR DRIVEWAYS. EACH SERVICE SHOULD ALSO BE LOCATED TO PROVIDE PROTECTION TO THE METER BOX FROM VEHICLE TRAFFIC AND PARKING.
16. PROTECT UNDERGROUND FLEXIBLE COUPLINGS, BARE STEEL, MJ x MJ SLEEVES, AND ALL BOLTS (INCLUDING STAINLESS STEEL) AS FOLLOWS:
    A. THE ENTIRE AREA OF THE FITTING MUST BE DRY AND FREE OF DUST, DIRT, AND OTHER FOREIGN MATTER. RUST OR OTHER FOREIGN MATTER MUST BE REMOVED BY SCRAPING OR WIRE BRUSHING. WIPING WITH A DRY CLEAN CLOTH MAY BE NECESSARY TO REMOVE THE PARTICLES FROM BRUSH CLEANING. ANY OIL OR GREASE MUST BE REMOVED BY USING A LOS RESIDUE, VOLATILE PETROLEUM SOLVENT BEFORE APPLICATION OF GREASE AND WRAPPING.
    B. THE EXPOSED AREA SHOULD BE COATED WITH A HEAVY COATING OF METAL COATING OF METALGUARD 301 GREASE BY THE GLOVE METHOD TO A THICKNESS OF AT LEAST 1/4 INCH.
    C. FIRMLY WRAP THE ENTIRE GREASE AREA WITH ONE LAYE, HALF-LAPPED, OF A WOVEN GLASS FILAMENT MESH (RES OR BIT WRAP, 4 INCHES WIDE).
    D. APPLY A SECOND LAYER OF METALGUARD 301 GREASE ON TOP OF THE GLASS FILAMENT BY THE GLOVE METHOD TO A THICKNESS OF AT LEAST 1/4 INCH.
    E. FIRMLY WRAP THE ENTIRE GREASE AREA WITH A SECOND LAYER, HALF-LAPPED, OF THE WOVEN GLASS FILAMENT MESH.
    F. COVER THE ENTIRE MESH WRAPPED AREA OF THE FITTING WITH A THIRD AND FINAL COATING AT LEAST 1/4 INCH THICK OF METALGUARD 301 GREASE BY THE GLOVE METHOD.
    G. FIRMLY APPLY 2 LAYERS OF POLYWRAP, HALF-LAPPED, OVER ALL AREAS OF THE COATED AND WRAPPED FITTING. BACKFILLING MAY FOLLOW IMMEDIATELY AFTER THIS WRAPPING.
17. TRENCH BACKFILL AND PAVING SHALL CONFORM TO TRENCH SECTION DETAILS AND ALL GOVERNING AGENCY REQUIREMENTS.
18. NEW PIPELINE SHALL BE INSTALLED WITH 4 FEET OF COVER, EXCEPT WHERE SPECIFIED OTHERWISE.
19. CONTRACTOR SHALL LIMIT DAILY TRENCHING OPERATIONS TO THE LENGTH OF PIPE THAT CAN BE INSTALLED AND BACKFILLED THAT DAY. RESTORE TRAFFIC LANES AT THE END OF EACH WORKDAY.
20. CONTRACTOR SHALL INSTALL NEW MAIN AND ADJUST FROM NOMINAL LINE AND GRADE TO MATCH THE EXISTING FACILITIES AT ALL LOCATIONS. THE CONTRACTOR SHALL INSTALL A TEMPORARY CAP, BLOWOFF AND BACKFLOW DEVICE AT TIE-IN LOCATIONS FOR TESTING (SEE DWGS. CW-122-R5 & CW-638-R1). CONTRACTOR WILL TIE THE NEW MAIN FROM THIS LOCATION.
21. THE NEW PIPELINE SHALL BE TESTED AT 150 PSI FOR A PERIOD OF 4 HOURS. SEE SPECIFICATIONS TO DETERMINE EXACT TESTING REQUIREMENTS.
22. TIE-INS TO BE MADE AT A TIME THAT IS CONVENIENT TO CALIFORNIA WATER SERVICE COMPANY AND IN COMPLIANCE WITH THE LOCAL GOVERNING AGENCY PERMIT GUIDELINES. THE ADDITIONAL COST DUE TO OVERTIME PAY SHALL BE AT CALIFORNIA WATER SERVICE COMPANY'S EXPENSE.
23. CONTRACTOR SHALL PROVIDE MISC. MATERIAL REQUIRED TO COMPLETE THE TIE-IN SUCH AS, BUT NOT LIMITED TO: PROTECTION COATING MATERIAL FOR PIPE AND FITTINGS, LINEGUARD TAPE, CONCRETE FOR THRUST BLOCKS, EMBEDMENT BACKFILL AROUND AND OVER THE PIPE, FINAL BACKFILL TO MEET COMPACTION REQUIREMENTS, AND PAVEMENT REPLACEMENT.
24. CONTRACTOR SHALL BE RESPONSIBLE TO ABANDON ALL PIPE ENDS BY PLUGGING WITH BRICK AND MORTAR. ABANDON ALL GATE VALVES BY REMOVING COVER, CUT CASING DOWN TO SUBGRADE, AND BACKFILL VALVE CASING WITH CONCRETE SLURRY TO REMOVE VOIDS. REPLACE BASE ROCK AND PERMANENT PAVEMENT AS NECESSARY. WHEN REMOVING EXISTING FITTINGS, CONTRACTOR SHALL ALSO REMOVE EXISTING CONCRETE THRUST BLOCK.
25. SPOILS SHALL NOT REMAIN ON-SITE. DISPOSAL OF ALL PROJECT-GENERATED SPOILS SHALL BE AT A FACILITY LICENSED AND CLASSIFIED TO ACCEPT THE MATERIALS. CONTRACTOR TO PROVIDE OWNER WITH A FORMAL RECEIPT FROM THE ACCEPTING FACILITY. ALL MATERIALS THAT WILL REQUIRE TESTING PRIOR TO DISPOSAL SHALL BE SAMPLED AND TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE DISPOSAL FACILITY IN ADVANCE OF THE NEED FOR DISPOSAL.
26. THE LIST OF MATERIALS FOR THIS PROJECT IS FOR CALIFORNIA WATER SERVICE COMPANY ESTIMATING AND REFERENCE PURPOSES ONLY, AND IS NOT INTENDED AS A FULL TAKE-OFF OF ALL MATERIALS REQUIRED TO COMPLETE THE PROJECT PER CALIFORNIA WATER SERVICE COMPANY STANDARD SPECIFICATIONS.
27. AT TIE-INS, CONTRACTOR SHALL SPRAY OR SWAB ALL FITTINGS WITH CHLORINE SOLUTION FOR DISINFECTION PRIOR TO FINAL CONNECTIONS.
28. CONTRACTOR TO ENSURE AIR IN THE PIPELINE IS REMOVED USING EXISTING OUTLETS SUCH AS FIRE HYDRANTS AND BLOW-OFF. CONTRACTOR IS RESPONSIBLE FOR INSTALLING AIR RELEASES IF EXISTING OUTLETS ARE INSUFFICIENT.
29. ALL WORK SHALL COMPLY WITH CAL WATER SPECIFICATIONS FOR MATERIALS, INSTALLATION, DISINFECTION AND DE-CHLORINATION PER LATEST REVISION OF DRAWING CW-863-R6.
30. TO MAKE CONNECTIONS BETWEEN DI & AC USE ROMAC RC400, JCM 204, SMITH & BLAIR 413. **ALL COUPLINGS AND FLANGES ARE TO BE RATED FOR 250 PSI WORKING PRESSURE.**

ENGINEERING

CALIFORNIA WATER SERVICE

DEPARTMENT

REVISIONS:
- A. CMU BUILDING DESIGN.
- B. INSTALL FLANGE COUPLING ADAPTER. R.O. 3/27/20
- 1 INSTALL 18" BUTTERFLY VALVE. UPDATE OPERATIONAL SCENARIO MATRIX. R.O. 7/22/20
- 2 18" GATE VALVE & SPOOL R.O. 4/13/2021

	DATE:	INIT.
DISTRIBUTION MAP		
PLAT SHEET		
SYSTEM SCHEMATIC		
STATION SCHEMATIC		

PLAT SHEET NO.: SM-29-25

SCALE: AS SHOWN

DRAWN BY: R.O./P.R.

DESIGNED BY: S. GONZALEZ

TECH REVIEW: DATE: 04/23/2021

CHECKED BY: DATE: 04/23/2021

APPROVED BY: DATE: 04/23/2021

REGISTERED PROFESSIONAL ENGINEER — DEVSEKHAR PRASANNA — No. C76302 EXP. 06-30-22 — CIVIL — STATE OF CALIFORNIA

TITLE: MID PENINSULA - STATION 22 PROPOSED STATION REDEVELOPMENT PIPING PLAN - GENERAL NOTES

DISTRICT: MID PENINSULA

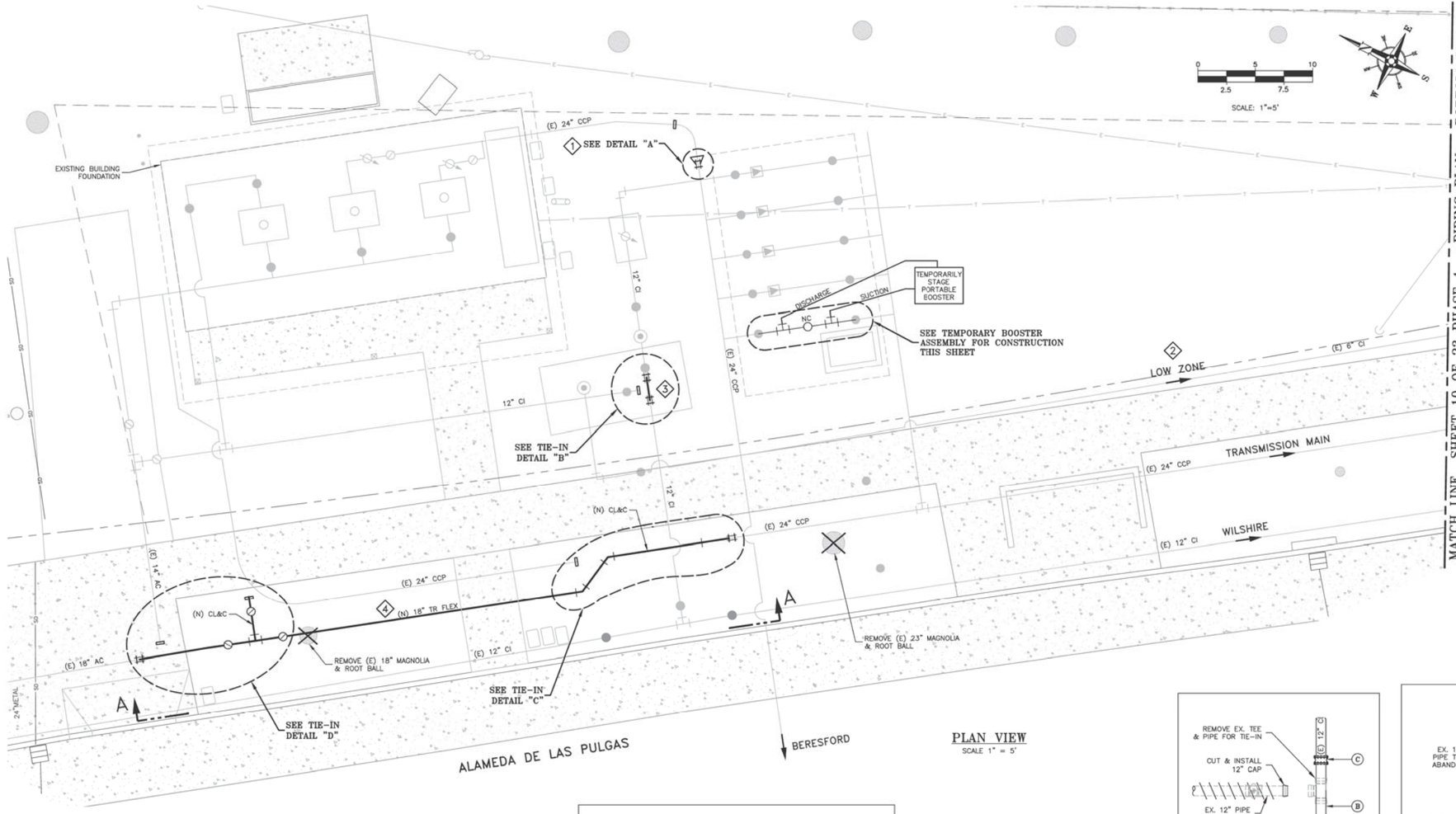
SAN MATEO

DATE: 11/13/2019

PROJECT ID.: 00098594

DRAWING NO.: MPS-5404-R3

SHT 1 OF 7



MATCH LINE SHEET 10 OF 23 PHASE 1 – PIPING PLAN – PORTOLA DRIVE

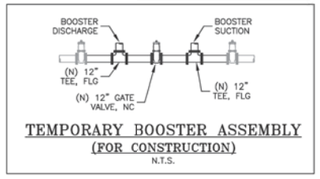
CHRONOLOGY OF TASKS

1. INSTALL THE BLIND FLANGE AND THRUST BLOCK AT 24" CCP.
2. ABANDON 4" PIPE ON PORTOLA DRIVE. TIE–IN THE 6" TO THE 12" MAIN.
3. INSTALL PIPE SPOOL AND COUPLINGS TO ABANDON THE 12" CI ON SITE.
4. INSTALL 18" MAIN.

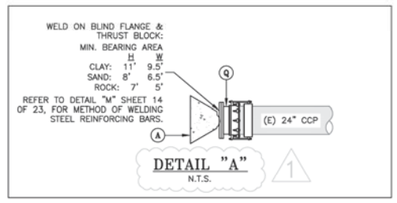
SECTION "A–A", TIE–IN's, & PLAN VIEW CONSTRUCTION NOTES

ITEM	DESCRIPTION
A	THRUST BLOCK, BEARING AREA: REFER TO DETAIL "K" SHEET 14 OF 23
B	12" DI PIPE
C	12" SOLID SLEEVE MJ, 10" SLEEVE W/RESTRAINED GASKETS
D	18" BUTTERFLY VALVE, MJxFLG W/RESTRAINED ADAPTER
E	18" BUTTERFLY VALVE MJ W/RESTRAINED ADAPTER SEE DETAIL "J" SHEET 14 OF 23
F	18" CAP MJ W/RESTRAINED ADAPTER
G	18" TR FLEX PIPE, FOE–POE (CUT–TO–FIT)
H	18" DI PIPE, PBE (CUT–TO–FIT)
J	18" CL&C PIPE, FBE (PIECE MARKED "E", SHEET 13 OF 23 DETAIL G)
K	18" CL&C PIPE, FBE (PIECE MARKED "F", SHEET 13 OF 23 DETAIL G)
L	18" 45° ELL, MJ W/RESTRAINED ADAPTER
M	18" SOLID SLEEVE MJ, 10" SLEEVE W/RESTRAINED ADAPTERS
N	18" AC COUPLING PER NOTE 30 ON SHEET 8 OF 23
P	18" TEE, FLG BRANCH, MJ RUN W/RESTRAINED ADAPTER
Q	JCM 304–2878X18–RESS 250PSI/ 150# ANSI FFSO FLANGE COUPLING ADAPTER & 617–2878SS RESTRAINT ASSEMBLY
*	CONTRACTOR SHALL INSTALL NEW MAIN AND ADJUST FROM NOMINAL LINE AND GRADE TO MATCH EXISTING FACILITIES AT THIS LOCATION. THE CONTRACTOR SHALL INSTALL A TEMPORARY CAP AND BLOW–OFF AT THIS LOCATION

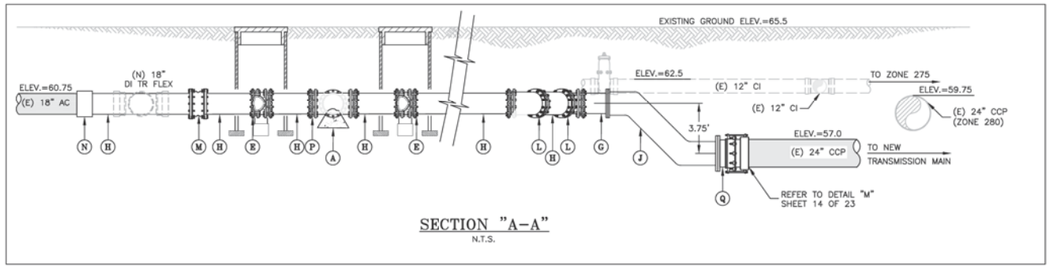
PLAN VIEW
SCALE 1" = 5'



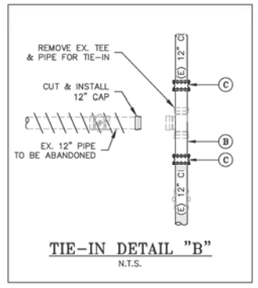
TEMPORARY BOOSTER ASSEMBLY
(FOR CONSTRUCTION)
N.T.S.



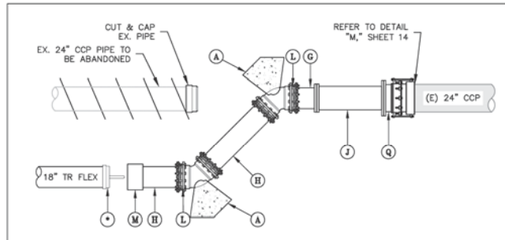
DETAIL "A"
N.T.S.



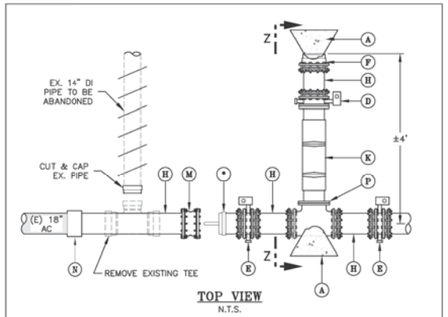
SECTION "A–A"
N.T.S.



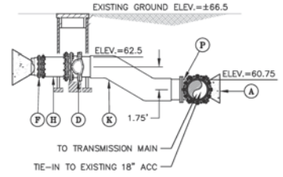
TIE–IN DETAIL "B"
N.T.S.



TIE–IN DETAIL "C"
N.T.S.



TOP VIEW
N.T.S.



SECTION Z–Z
N.T.S.

TIE–IN DETAIL "D"
N.T.S.

ENGINEERING

CALIFORNIA WATER SERVICE

DEPARTMENT

REVISIONS:
1 INTALL FLANGE COUPLING ADAPTER R.O. 3/27/2020
2 PLANNING DEPT UPDATES; R.O. 9/13/2021

	DATE:	INIT.
DISTRIBUTION MAP		
PLAT SHEET		
SYSTEM SCHEMATIC		
STATION SCHEMATIC		

PLAT SHEET NO.:
SM–29–25
SCALE:
AS SHOWN
DRAWN BY:
R.O./P.R.
DESIGNED BY:
S. GONZALEZ
TECH REVIEW: DATE:
04/23/2021
CHECKED BY: DATE:
04/23/2021
APPROVED BY: DATE:
04/23/2021

REGISTERED PROFESSIONAL ENGINEER
DEVASEKHAR PRASANNA
No. C76302
EXP. 06–30–22
CIVIL
STATE OF CALIFORNIA

TITLE:
MID PENINSULA – STATION 22
PROPOSED STATION REDEVELOPMENT
PHASE 1 – PIPING PLAN

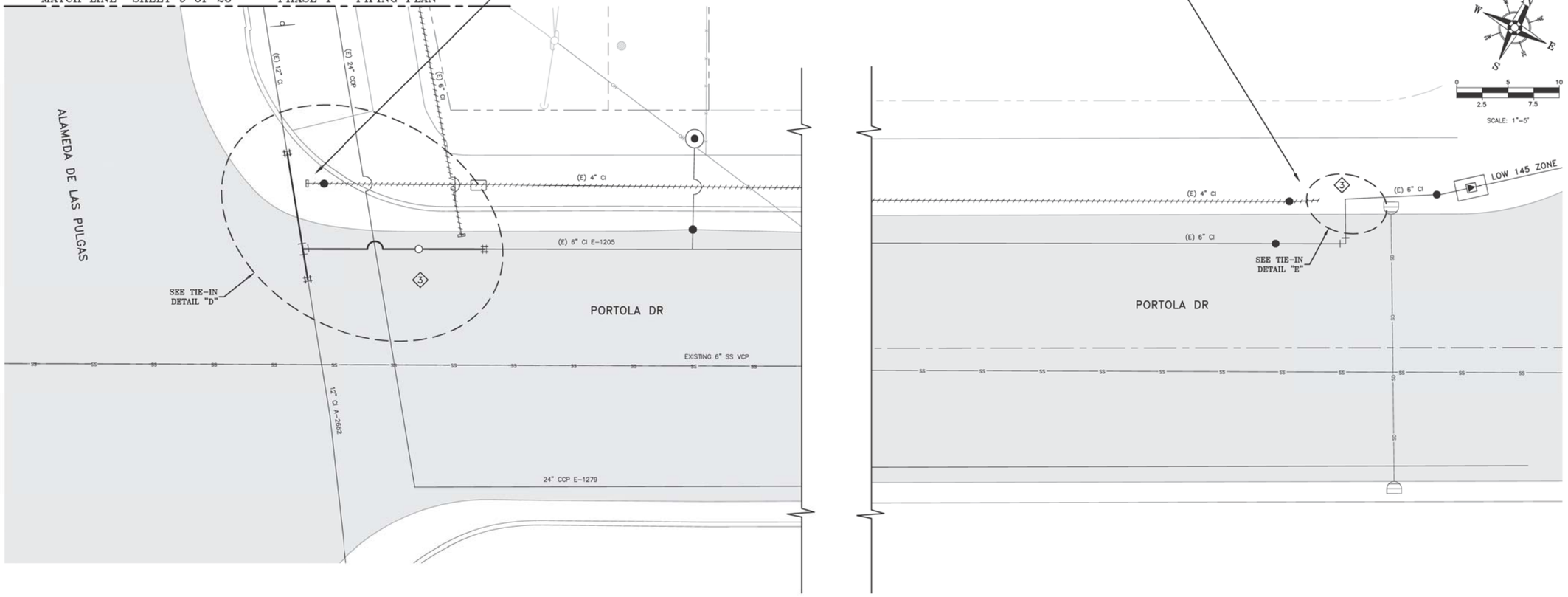
DISTRICT:
MID PENINSULA
SAN MATEO
DATE:
11/13/2019
PROJECT ID:
00098594
DRAWING NO.:
MPS–5404–R2
SHT 2 OF 7

2 SHEET 9 OF 23

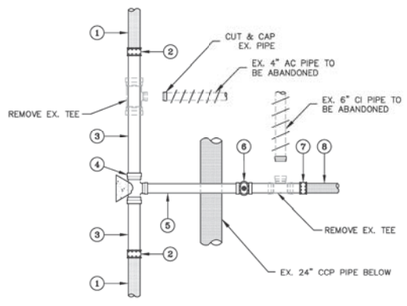
MATCH LINE SHEET 9 OF 23

PHASE 1 - PIPING PLAN

ABANDON 480' OF 4" CI

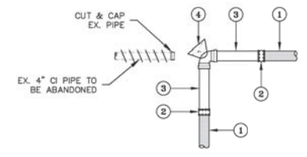


PLAN VIEW
SCALE 1" = 5'



TIE-IN DETAIL "D"
N.T.S.

1. EXISTING MAIN, 12" CI PIPE
2. 1 – 12" CI x DI SOLID SLEEVE MJ (2 TOTAL)
3. ±5' OF 12" DI PIPE (CUT TO FIT)
4. 1 – 12" x 6" TEE PO w/ 2–12" RINGS & 1–6" RING
5. ±5' OF 6" PVC C–900 PIPE (CUT TO FIT)
6. 1 – 6" GATE VALVE, PO w/2–6" RINGS
7. 1 – 6" PVC x CI SOLID SLEEVE MJ, 10" SLEEVE (2 TOTAL)
8. (E) 6" CI PIPE



TIE–IN DETAIL "E"
N.T.S.

1. EXISTING MAIN, 6" CI PIPE
2. 1 – 6" PVC x CI SOLID SLEEVE MJ, 10" SLEEVE
3. ±5' OF 6" PVC C–900 PIPE (CUT–TO–FIT)
4. 1 – 6" ELL 90°, PO w/2–8" RINGS

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

ENGINEERING

CALIFORNIA WATER SERVICE

DEPARTMENT

REVISIONS:
1 PLANNING DEPT UPDATES. A.O. 4/13/2021

	DATE:	INIT.
DISTRIBUTION MAP	X	
PLAT SHEET	X	
SYSTEM SCHEMATIC		
STATION SCHEMATIC		

PLAT SHEET NO.:
SM–29–25

SCALE:
AS SHOWN

DRAWN BY:
P. ROMO

DESIGNED BY:
S. GONZALEZ

TECH REVIEW: DATE: 04/23/2021

CHECKED BY: DATE: 04/23/2021

APPROVED BY: DATE: 04/23/2021

REGISTERED PROFESSIONAL ENGINEER
DEVASEKHAR PRASANNA
No. C76302
EXP. 06–30–22
CIVIL
STATE OF CALIFORNIA

TITLE:
MID PENINSULA – STATION 22
PROPOSED STATION REDEVELOPMENT
PHASE 1 – PIPING PLAN – PORTOLA DRIVE

DISTRICT:
MID PENINSULA

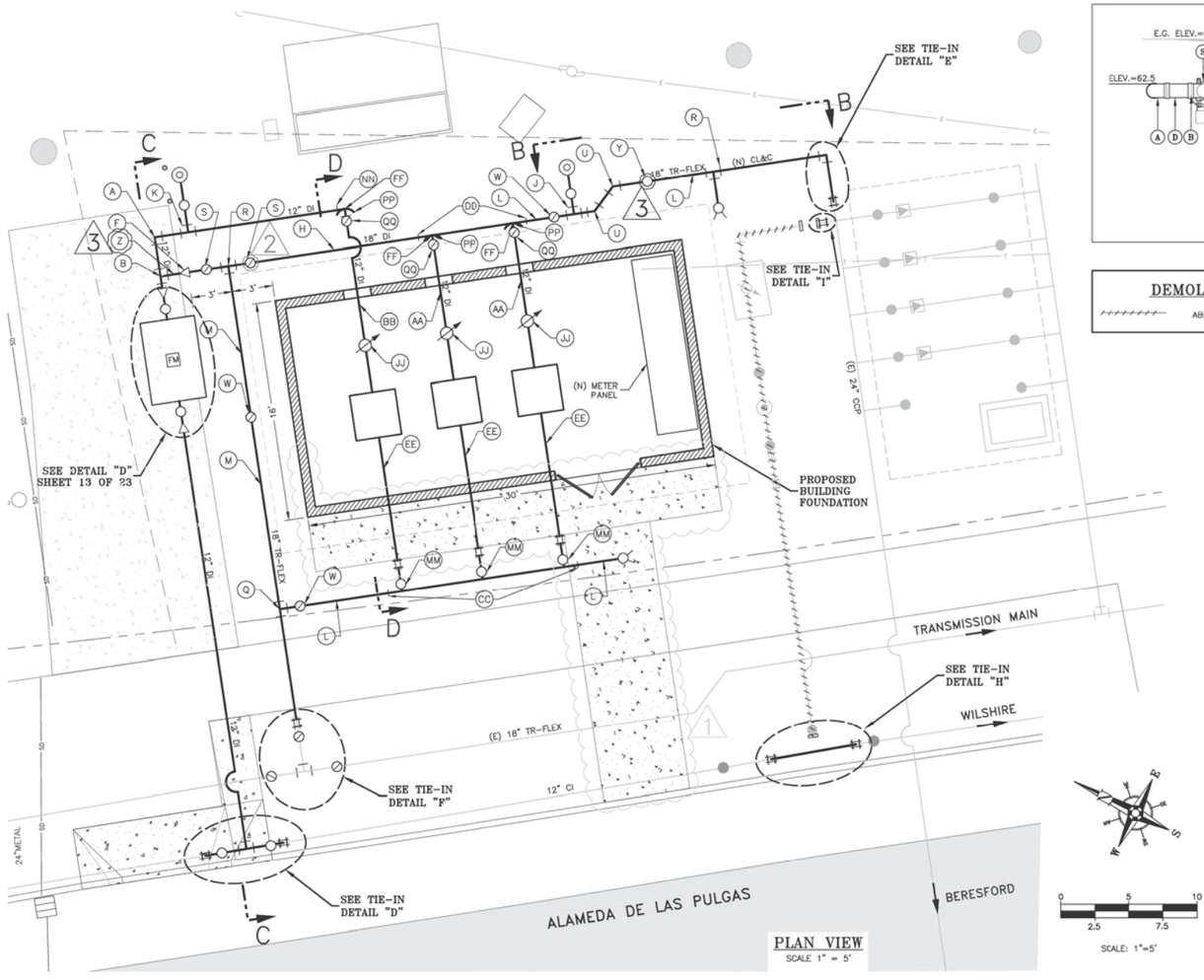
SAN MATEO

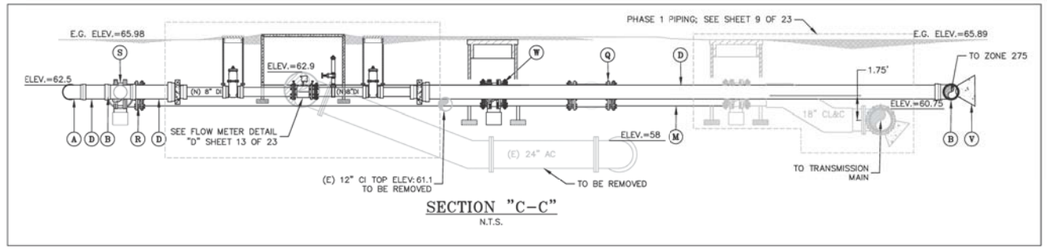
DATE:
03/27/2020

PROJECT ID.:
00098594

DRAWING NO.:
MPS–5404–R1

SHT 3 OF 7

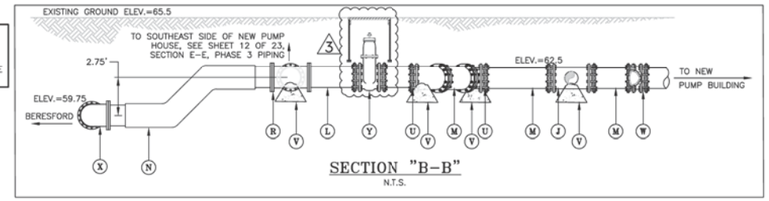




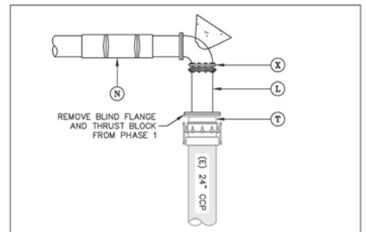
SECTION "C-C"
N.T.S.

DEMOLITION LEGEND:

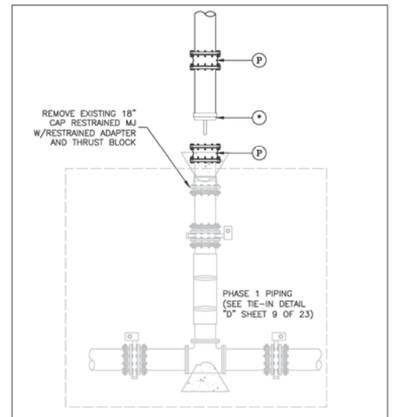
ABANDON PIPING, CAP END(S), REMOVE



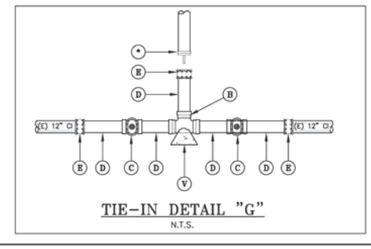
SECTION "B-B"
N.T.S.



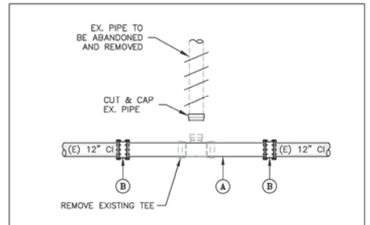
TIE-IN DETAIL "E"
N.T.S.



TIE-IN DETAIL "F"
N.T.S.



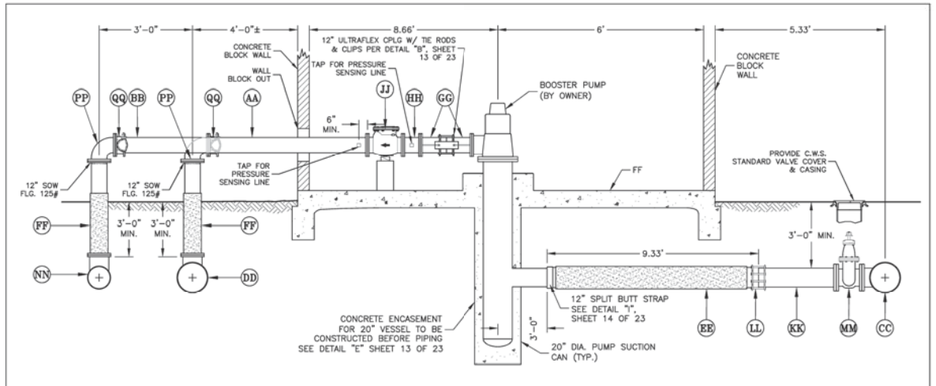
TIE-IN DETAIL "G"
N.T.S.



TIE-IN DETAIL "H"
N.T.S.

- INSTALL TO OCCUR **AFTER** PHASE 2 TIE-INS. WATER LINE IS TO BE OPERATIONAL DURING ENTIRE PHASE 2 CONSTRUCTION.
- INSTALL FLANGE COUPLING ADAPTER 250 PSI W/ RESTRAINT AND INSTALL BLIND FLANGE W/ THRUST BLOCK.
- REFER TO THRUST BLOCK SCHEDULE FOR 12" PLUG CAP.
- REFER TO DETAIL "M," SHEET 14 OF 23 FOR METHOD OF WELDING STEEL REINFORCING BARS.

DETAIL "I"
N.T.S.



SECTION "D-D"
PUMP CONNECTION, PROFILE VIEW
N.T.S.

SECTION D-D CONSTRUCTION NOTES

ITEM	DESCRIPTION
AA	12" DI, FBE 150# (CUT-TO-FIT) TYP. PUMPS E & F
BB	12" DI, FBE 150# (CUT-TO-FIT) TYP. PUMP G
CC	CL&C PIPE, FBE (PIECE MARKED "A", SHEET 13 OF 23 DETAIL "G")
DD	CL&C PIPE, FBE (PIECE MARKED "B", SHEET 13 OF 23 DETAIL "G")
EE	CL&C PIPE, FBE (PIECE MARKED "C", SHEET 13 OF 23 DETAIL "G")
FF	CL&C PIPE, FBE (PIECE MARKED "D", SHEET 13 OF 23 DETAIL "G")
GG	12" DI, FOE-POE 150# 1'-6" LONG
HH	12" DI, FBE 150# 1' LONG
JJ	12" CHECK VALVE, LEVER 7 SPRING, FLG 125#
KK	12" DI, FOE-POE 150# (CUT-TO-FIT)
LL	12" TRANSITION COUPLING (14" O.D. x 12" DI)
MM	12" GATE VALVE, FLG W/RESTRANT GASKET
NN	12" 90° ELL, FLGxPO
PP	12" 90° ELL, FLG 125#
QQ	12" BUTTERFLY VALVE, FLG

SECTION B-B, C-C, TIE-IN's & PLAN VIEW CONSTRUCTION NOTES

ITEM	DESCRIPTION
A	12" 90° ELL, PO W/ RESTRAINT GASKETS
B	12" TEE, POxFLG BRANCH W/3-12" RINGS, RESTRAINT GASKETS
C	12" GATE VALVE, PO W/1-12" RINGS, RESTRAINT GASKETS
D	12" DI PIPE (CUT-TO-FIT) W/ RESTRAINT GASKETS
E	12" SOLID SLEEVE MJ, 10" SLEEVE W/ RESTRAINED ADAPTERS
F	18"x12" REDUCER, FBE
G	JCM 303-1388X12-RESS 250 PSI/ 150# ANSI FFSO FLANGE COUPLING ADAPTER & 617-1388SS RESTRAINT ASSEMBLY
H	18" DI PIPE, FBE
L	18" TR FLEX PIPE, FOE-POE
J	18"x6" HYDRANT TEE MJ W/ RESTRAINED ADAPTER
K	12"x6" HYDRANT TEE MJ W/ RESTRAINED ADAPTER
M	18" TR FLEX PIPE, PBE
N	CL&C PIPE, FBE (PIECE MARKED "G", SHEET 13 OF 23 DETAIL "G")
P	18" SOLID SLEEVE MJ, 10" SLEEVE W/ RESTRAINED ADAPTERS
Q	18" TEE, MJ W/ RESTRAINED ADAPTER
R	18" TEE, FLG, MJ BRANCH W/ RESTRAINED ADAPTER
2 S	18" BUTTERFLY VALVE, FLG MOTOR ACTUATED (CWS SUPPLIED)
T	JCM 304-2878X18-RESS 250PSI/ 150# ANSI FFSO FLANGE COUPLING ADAPTER & 617-2878SS RESTRAINT ASSEMBLY (PHASE 1)
U	18" 45° ELL, MJ W/ RESTRAINED ADAPTER
V	THRUST BLOCK, BEARING AREA: REFER TO DETAIL "K" SHEET 14 OF 23
W	18" BUTTERFLY VALVE MJ W/ RESTRAINED ADAPTER, MOTOR ACTUATED (CWS SUPPLIED)
X	18" 90° ELL, FLG-MJ W/ RESTRAINED ADAPTER
3 Y	18" GATE VALVE MJ W/ RESTRAINED ADAPTER
Z	12" DI PIPE, FBE (LENGTH TO BE FIELD DETERMINED)
*	CONTRACTOR SHALL INSTALL NEW MAIN AND ADJUST FROM NOMINAL LINE AND GRADE TO MATCH EXISTING FACILITIES AT THIS LOCATION. THE CONTRACTOR SHALL INSTALL A TEMPORARY CAP AND BLOW-OFF AT THIS LOCATION

ENGINEERING

CALIFORNIA WATER SERVICE

DEPARTMENT

REVISIONS:
- 1 A.CMU BUILDING DESIGN & WALKWAYS B.INSTALL FLANGE COUPLING ADAPTER R.O. 3/27/2020
- 2 INSTALL 18" BUTTERFLY R.O. 7-22-20
- 3 18" GATE VALVE & SPOOL R.O. 4/13/2021

	DATE:	INIT.
DISTRIBUTION MAP		
PLAT SHEET		
SYSTEM SCHEMATIC		
STATION SCHEMATIC		

PLAT SHEET NO.: SM-29-25

SCALE: AS SHOWN

DRAWN BY: R.O./P.R.

DESIGNED BY: S. GONZALEZ

TECH REVIEW: DATE: 04/23/2021

CHECKED BY: DATE: 04/23/2021

APPROVED BY: DATE: 04/23/2021

REGISTERED PROFESSIONAL ENGINEER — DEVSEKHAR PRASANNA — No. C76302 EXP. 06-30-22 — CIVIL — STATE OF CALIFORNIA

TITLE: MID PENINSULA - STATION 22 PROPOSED STATION REDEVELOPMENT PHASE 2 - PIPING PLAN

DISTRICT: MID PENINSULA

SAN MATEO

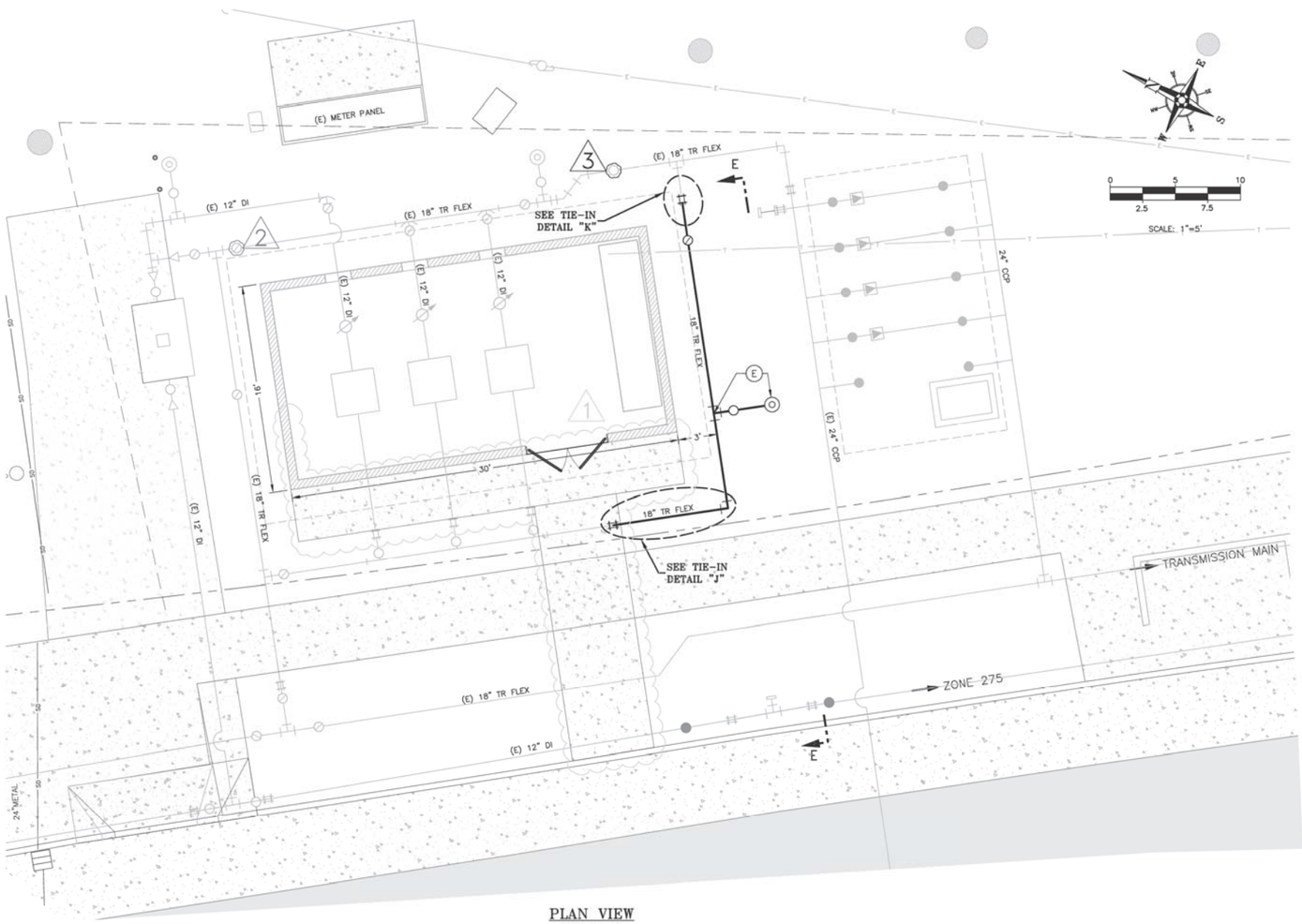
DATE: 11/13/2019

PROJECT ID.: 00098594

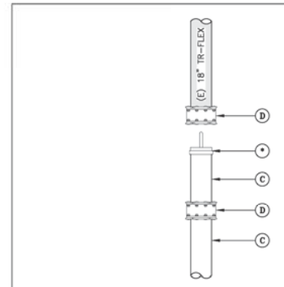
DRAWING NO.: MPS-5404-R3

SHT 4 OF 7

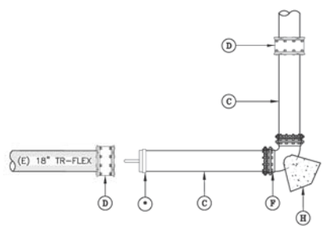
811 Know what's below. Call before you dig.



PLAN VIEW
SCALE 1" = 5'

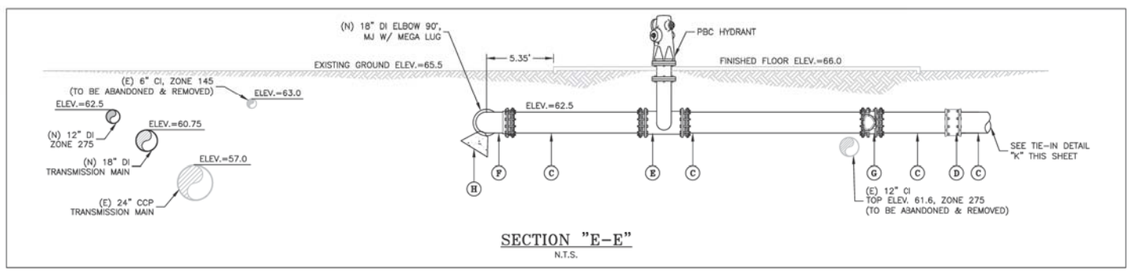


TIE-IN DETAIL "K"
N.T.S.



TIE-IN DETAIL "J"
N.T.S.

SECTION E-E & TIE-IN CONSTRUCTION NOTES	
ITEM	DESCRIPTION
A	12" DI PIPE (CUT-TO-FIT) W/RESTRAINT GASKETS
B	12" SOLID SLEEVE MJ, 10" SLEEVE W/RESTRAINED ADAPTERS
C	18" TR FLEX PIPE, PBE
D	18" SOLID SLEEVE MJ, 10" SLEEVE W/RESTRAINED ADAPTERS
E	18"x6" HYDRANT TEE MJ W/RESTRAINED ADAPTER
F	18" 90° ELL, MJ W/RESTRAINED ADAPTER
G	18" BUTTERFLY VALVE, MJ W/RESTRAINED ADAPTERS, MOTOR ACTUATED (CWS SUPPLIED)
H	THRUST BLOCK, BEARING AREA: TBD
*	CONTRACTOR SHALL INSTALL NEW MAIN AND ADJUST FROM NOMINAL LINE AND GRADE TO MATCH EXISTING FACILITIES AT THIS LOCATION. THE CONTRACTOR SHALL INSTALL A TEMPORARY CAP AND BLOW-OFF AT THIS LOCATION



SECTION "E-E"
N.T.S.

Know what's below. Call before you dig.

ENGINEERING

CALIFORNIA WATER SERVICE

DEPARTMENT

REVISIONS:
1 CMU BUILDING DESIGN & WALKWAYS, R.O. 3/27/20
2 18" BUTTERFLY VALVE R.O. 7-22-20
3 18" GATE VALVE R.O. 4/13/2021

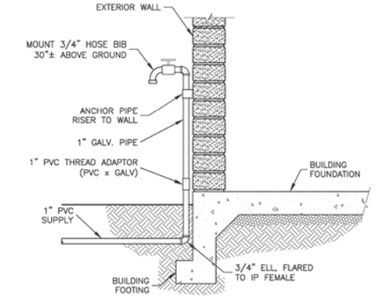
	DATE:	INIT.
DISTRIBUTION MAP		
PLAT SHEET		
SYSTEM SCHEMATIC		
STATION SCHEMATIC		

PLAT SHEET NO.: SM-29-25
SCALE: AS SHOWN
DRAWN BY: R.O./P.R.
DESIGNED BY: S. GONZALEZ
TECH REVIEW: DATE: 04/23/2021
CHECKED BY: DATE: 04/23/2021
APPROVED BY: DATE: 04/23/2021

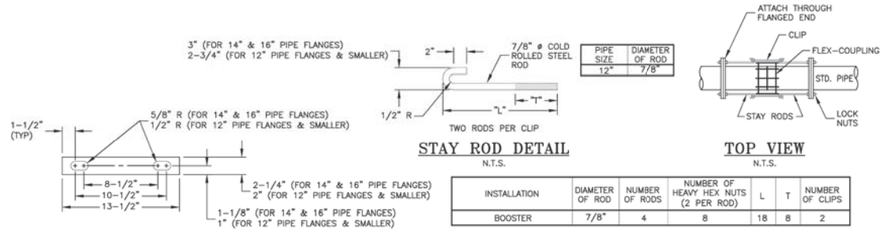
REGISTERED PROFESSIONAL ENGINEER
DEVSEKHAR PRASANNA
No. C76302
EXP. 06-30-22
CIVIL
STATE OF CALIFORNIA

TITLE:
MID PENINSULA - STATION 22
PROPOSED STATION REDEVELOPMENT
PHASE 3 - PIPING PLAN

DISTRICT: MID PENINSULA
SAN MATEO
DATE: 11/13/2019
PROJECT ID.: 00098594
DRAWING NO.: MPS-5404-R3
SHT 5 OF 7



DETAIL "A"
HOSE BIB INSTALLATION
N.T.S.



PIPE SIZE	DIAMETER OF ROD
12"	7/8"

STAY ROD DETAIL
N.T.S.

TOP VIEW
N.T.S.

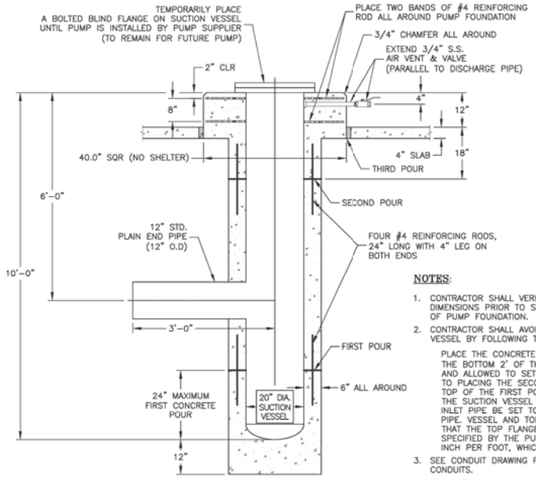
CLIP DETAIL
N.T.S.

INSTALLATION	DIAMETER OF ROD	NUMBER OF RODS	NUMBER OF HEAVY HEX NUTS (2 PER ROD)	L	T	NUMBER OF CLIPS
BOOSTER	7/8"	4	8	18	8	2

NOTE:

1) LENGTH OF "L" SHALL EQUAL THE LENGTH OF FOE–POE.
2) ROD DIAMETER SHALL BE THE SAME DIAMETER AS THE FLANGE BOLT.
3) USE 1/2" THICK BAR STOCK FOR CLIPS.

DETAIL "B"
STAY ROD AND CLIP DETAIL
N.T.S.

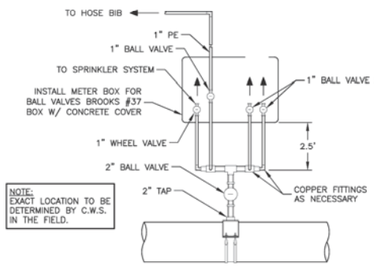


NOTES:

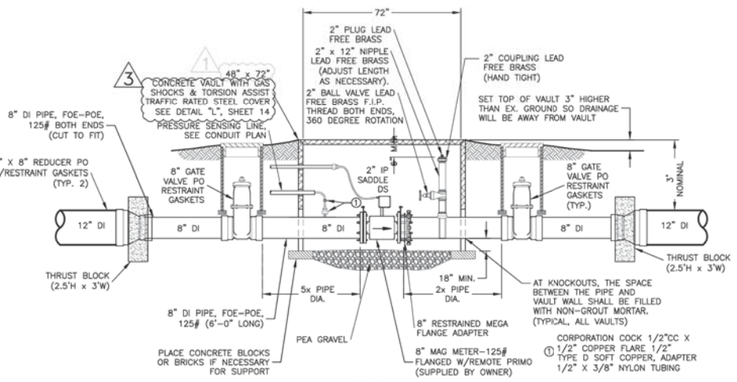
1. CONTRACTOR SHALL VERIFY ALL SUCTION VESSEL DIMENSIONS PRIOR TO SETTING THE GRADE FOR THE TOP OF PUMP FOUNDATION.
2. CONTRACTOR SHALL AVOID FLOATATION OF THE SUCTION VESSEL BY FOLLOWING THIS PROCEDURE:

   PLACE THE CONCRETE ENCASEMENT IN THREE POURS. THE BOTTOM 2' OF THE VESSEL SHALL BE POURED FIRST AND ALLOWED TO SET A MINIMUM OF 12 HOURS PRIOR TO PLACING THE SECOND POUR. COMPLETELY GROUT THE TOP OF THE FIRST POUR. IT IS VERY IMPORTANT THAT THE SUCTION VESSEL BE COMPLETELY VERTICAL AND THE INLET PIPE BE SET TO THE GRADE OF EXISTING SUCTION PIPE. VESSEL AND TOP FLANGE SHALL BE INSTALLED SO THAT THE TOP FLANGE IS LEVEL WITHIN THE LIMITS SPECIFIED BY THE PUMP MANUFACTURER, OR .005 OF AN INCH PER FOOT, WHICHEVER IS GREATER.
3. SEE CONDUIT DRAWING FOR EXACT LOCATION OF ALL CONDUITS.
4. FOUNDATION DIMENSIONS ASSUME 75 HP MAX, 28" SQ FLANGE, 20" DIA. VESSEL, 2,500 GPM MAX. AND 14" MAX. DIA. PUMP BOWL.

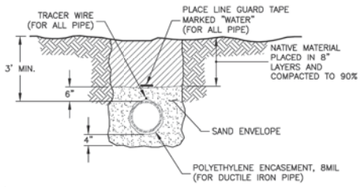
DETAIL "E"
BOOSTER PUMP CONCRETE ENCASEMENT SUCTION VESSEL AND PUMP FOUNDATION
N.T.S.



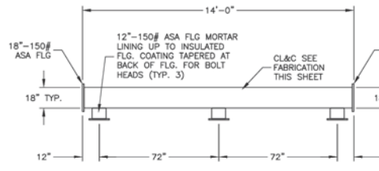
DETAIL "C"
2" SERVICE TAP
N.T.S.



DETAIL "D"
8" MAG METER WITH HYDRO CONDUIT (TYP. 2) CONNECTION W/ 12" & 18" DI PIPE
N.T.S.



2 DETAIL "F"
ON–SITE TRENCH DETAIL
N.T.S.

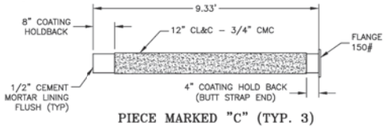


SUCTION HEADER–PIECE MARKED "A"

NOTES:

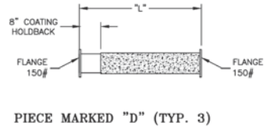
1. STEEL CYLINDER SHALL BE PER A.S.A. WITH ASTM A53 TEST PRESSURE AND ASTM A36 PHYSICAL PROPERTIES.
2. COATING SHALL BE REINFORCED WITH 14 GAUGE WIRE MESH OR 14 GAUGE WIRE SPIRALLY WOULD IN CENTER OF COATING PER LATEST REVISION OF AWWA STANDARD C205.
3. COATING SHALL TAPERED BACK OF FLANGE FOR BOLTS.
4. CEMENT MORTAR COATING = 3/4" MIN.
5. WELDING FITTINGS SHALL BE ASTM A234 GRADE B.
6. BOLT HOLES IN FLANGES SHALL STRADDLE THE CENTERLINE OF PIPES.

LEGEND: CML–CEMENT MORTAR LINING
CMC–CEMENT MORTAR COATING



PIECE MARKED "C" (TYP. 3)

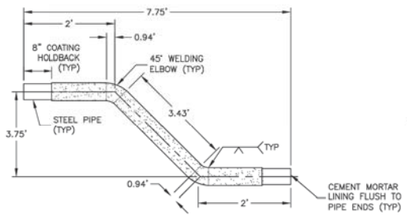
PIECE "MARKED"	QTY	STEEL CYL. (OD)	SCH.	CML	CMC
A	1	20"	10	1/2"	3/4"
B	1	20"	10	1/2"	3/4"
C	3	12.75"	20	1/2"	3/4"



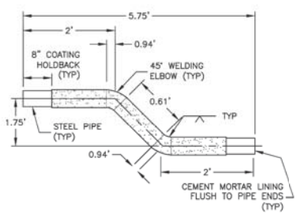
PIECE MARKED "D" (TYP. 3)

PIECE "MARKED"	"L" LENGTH	QTY	NOM. SIZE	STEEL CYL. (OD) "S"	SCH.	CML	CMC
D	5'	3	12"	12.75"	20	1/2"	3/4"

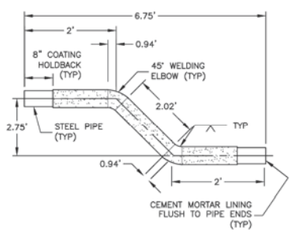
* CUT TO FIT AS NEEDED
CEMENT MORTAR LINING, CML
CEMENT MORTAR COATING, CMC



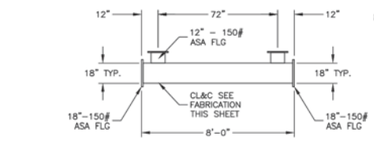
PIECE MARKED "E"



PIECE MARKED "F"



PIECE MARKED "G"



DISCHARGE HEADER–PIECE MARKED "B"

PIECE MARKED	PIPE STEEL CYL. (OD)	PIPE SCHED.	CML	CMC	ELBOW SCHED.	ELBOW 45° E(1)
E	18.0"	10	1/2"	3/4"	.375"	11.25°
F	18.0"	10	1/2"	3/4"	.375"	11.25°
G	18.0"	10	1/2"	3/4"	.375"	11.25°

DETAIL "G"
CL&C PIPE DETAILS
N.T.S.

ENGINEERING

CALIFORNIA WATER SERVICE

DEPARTMENT

REVISIONS:
1 VAULT DEPTH, R.O. 3/27/20
2 DETAIL UPDATES, R.O. 8/26/20
3 VAULT TYPE, R.O. 4/13/2021

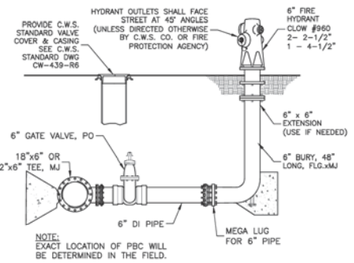
	DATE:	INIT.
DISTRIBUTION MAP		
PLAT SHEET		
SYSTEM SCHEMATIC		
STATION SCHEMATIC		

PLAT SHEET NO.: SM–29–25
SCALE: AS SHOWN
DRAWN BY: R.O./P.R.
DESIGNED BY: S. GONZALEZ
TECH REVIEW: DATE: 04/23/2021
CHECKED BY: DATE: 04/23/2021
APPROVED BY: DATE: 04/23/2021

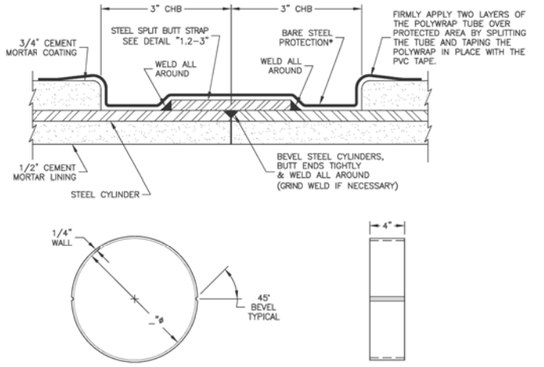
REGISTERED PROFESSIONAL ENGINEER
DEVASEKHAR PRASANNA
No. C76302
EXP. 06–30–22
CIVIL
STATE OF CALIFORNIA

TITLE:
MID PENINSULA – STATION 22
PROPOSED STATION REDEVELOPMENT
PIPING DETAILS

DISTRICT: MID PENINSULA
SAN MATEO
DATE: 11/13/2019
PROJECT ID.: 00098594
DRAWING NO.: MPS–5404–R3
SHT 6 OF 7



DETAIL "H"
PORTABLE BOOSTER CONNECTION
N.T.S.



DETAIL "I"
12" TWO PIECE STEEL-BUTT STRAP
N.T.S.

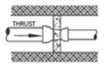
THRUST BLOCK SCHEDULE

PIPE SIZE	FITTING	TYPE OF SOIL: SOFT CLAY (1000 P.S.F.) MIN. BEARING AREA (SQ. FT.)	SOFT CLAY DIMENSION (FEET) A	SOFT CLAY DIMENSION (FEET) B	SAND (2000 P.S.F.) MIN. BEARING AREA (SQ. FT.)	SAND DIMENSION (FEET) A	SAND DIMENSION (FEET) B	ROCK (3000 P.S.F.) MIN. BEARING AREA (SQ. FT.)	ROCK DIMENSION (FEET) A	ROCK DIMENSION (FEET) B
6"	PLUG, CAP	6	3	2	3	2	1.5	2	2	1
	90° ELL	8	3.2	2.5	4.1	2.7	1.5	3	2	1.5
	45° ELL	4.4	2.2	2	2.3	1.5	1.5	1.5	1.5	1
	22 1/2° ELL	2.3	1.5	1.5	1	1	1	1	1	1
	TEE W/ 6"OUTLET	6	3	2	3	2	1.5	2	2	1
8"	PLUG, CAP	10	4	2.5	5	2.5	2	3.3	2.2	1.5
	90° ELL	14	4	3.5	7	2.8	2.5	5	2.5	2
	45° ELL	7.5	3	2.5	3.8	2	1.9	2.6	1.7	1.5
	22 1/2° ELL	4	2	2	2	2	1	1.5	1.5	1
	TEE W/8"OUTLET	10	4	2.5	5	2.5	2	3.3	2.2	1.5
12"	PLUG, CAP	24	6	4	12	4	3	7.5	3	2.5
	90° ELL	32.5	6.5	5	16.1	4.6	3.5	10.8	3.6	3
	45° ELL	17.5	5	3.5	8.8	3.5	2.5	6	3	2
	22 1/2° ELL	9	3.6	2.5	4.6	2.3	2	3	2	1.5
	TEE W/12"OUTLET	24	6	4	12	4	3	7.5	3	2.5
14"	PLUG, CAP	31.5	6.3	5	15.8	4.5	3.5	10.5	3.5	3
	90° ELL	44.4	7.4	6	22	5.5	4	14.7	4.2	3.5
	45° ELL	24	6	4	12	4	3	8.1	3	2.7
	22 1/2° ELL	12	4	3	6	3	2	4	2	2
	TEE W/ 14"OUTLET	31.5	6.3	5	15.8	4.5	3.5	10.5	3.5	3
16"	PLUG, CAP	40.7	7.4	5.5	20	5	4	13.5	4.5	3
	90° ELL	56	8	7	28.8	6.4	4.5	20	5	4
	45° ELL	31	6.2	5	15.8	4.5	3.5	10.5	3.5	3
	22 1/2° ELL	15.8	4.5	3.5	7.8	3	2.6	5.2	2.6	2
	TEE W/ 16"OUTLET	40.7	7.4	5.5	20	5	4	13.5	4.5	3
18"	PLUG, CAP	52	8	6.5	26.4	6.6	4	17.5	5	3.5
	90° ELL	75	10	7.5	37	7.4	5	24.8	6.2	4
	45° ELL	40.7	7.4	5.5	20	5	4	14	4	3.5
	22 1/2 ELL	20	5	4	10.5	3.5	3	6.9	3	2.3
	TEE W/ 18"OUTLET	52	8	6.5	26.4	6.6	4	17.5	5	3.5

NOTE:
1. THRUST BLOCKS DESIGNED FOR A MAXIMUM OF 150 PSI WATER PRESSURE
2. ALL CONCRETE SHALL CONTAIN 6 SACKS OF CEMENT PER CUBIC YARD.
3. THRUST BLOCKS SHALL BE POURED AGAINST UNDISTURBED SOIL.
4. KEEP ALL CONCRETE CLEAR OF THE JOINTS ON ALL FITTINGS.
5. FORMS ARE REQUIRED ON ALL THRUST BLOCKS AND TO BE SUPPLIED BY CONTRACTOR. ALL FITTINGS TO BE WRAPPED WITH POLYETHELENE PRIOR TO POURING THRUST BLOCKS.

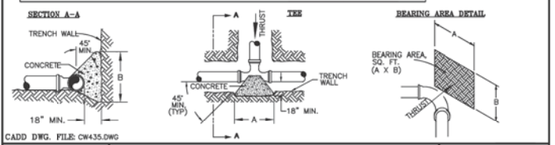
TEE & SOLID PLUG

NOTE: SEE PLANS FOR SIZE & DETAIL OF CONCRETE BLOCK WHEN REQUIRED FOR REDUCER.



REDUCER

90° ELL

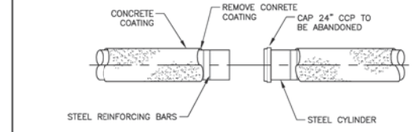


CADD DWG. FILE: CW435.DWG

ENGINEERING	TITLE: TYPICAL THRUST BLOCK INSTALLATION				
DEPARTMENT	DISTRICT:	DATE: 11/28/94	SCALE: NONE	EST. NO.:	PLAT NO.:
PLAT SHEET	DRAWN BY: A.I.G.	CHECKED BY: D.T.D.	APPROVED BY:	DWG. NO.: CW-435-R4	
	REVISION: R3. Enlarged table, added reducer and detail. 6/30/94 AIG. R4. Added notes. 1/11/96 AIG.				

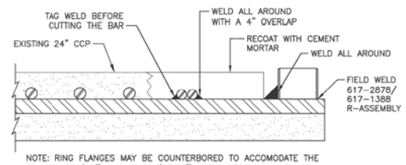
DISTRIBUTION MAP — DATE: INIT.
BOOK MAP
PLAT MAP
STATION SCHEMATIC
SYSTEM SCHEMATIC
VALVE RECORD
AS BUILT

2 DETAIL "K"
N.T.S.



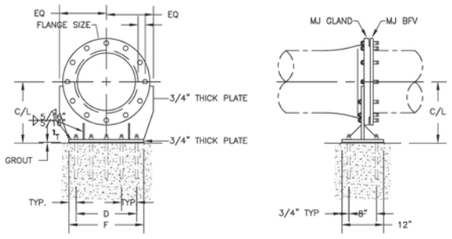
PROCEDURE:

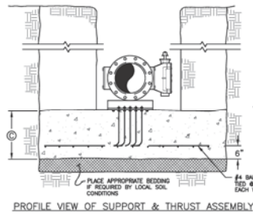
1. EXCAVATE AND EXPOSE THE EXISTING 24" CCP PIPE AT THE TIE-IN LOCATION. THE LINE SHOULD BE SHUT DOWN AND DRAINED.
2. REMOVE THE EXTERIOR MORTAR COATING FROM THE AREA WHERE THE CUT WILL BE MADE.
3. TAG WELD THE REINFORCING BAR IN PLACE, RIGHT AFTER THE MORTAR COATING ENDS. CUT THE REINFORCING BARS, ALLOWING AT LEAST A FULL COIL OF BAR TO LAP ONTO THE EXPOSED STEEL CYLINDER.
4. PULL THE REINFORCING BAR TAUT, MAINTAINING THE EXISTING DESIGNED SPACING AND CONTACT WITH STEEL CYLINDER. WRAP THE EXPOSED STEEL CYLINDER ALLOWING 4" OVERLAP AND ANCHOR BAR TO CYLINDER BY WELDING.
5. CUT THE EXISTING 24" CCP. CAP THE 24" CCP TO BE ABANDONED.
6. CEMENT MORTAR OVER THE EXPOSED STEEL CYLINDER IN THE FIELD.



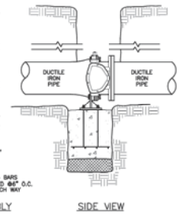
NOTE: RING FLANGES MAY BE COUNTERBORED TO ACCOMODATE THE OD OF CCP (24") AND CL&C (25.75"). FIELD VERIFY OD OF CCP.

DETAIL "M"
WELD RESTRAINT RING ON EXISTING 24" CCP
N.T.S.

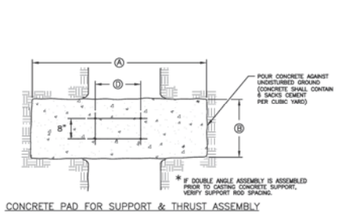




PROFILE VIEW OF SUPPORT & THRUST ASSEMBLY



SIDE VIEW



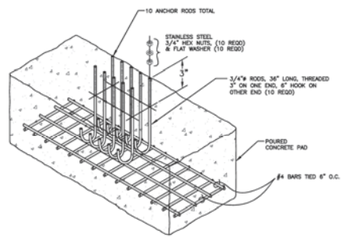
CONCRETE PAD FOR SUPPORT & THRUST ASSEMBLY

NOTE:
POSITION ALL MECHANICAL JOINT BOLTS IN FLANGES PRIOR TO FASTENING SUPPORT & THRUST ASSEMBLY TO BUTTERFLY VALVE.

NOTE:
WITH TR-FLEX, SHOULD ONLY BE CONSIDERED ❂ TIE-INS AND MAY NOT NEED WITH BEND THRUST BLOCKS.

3 NO. OF SUPPORT & THRUST ASSEMBLYS REQUIRED

SIZE	ALL DIMENSIONS ARE IN INCHES Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓕ	CONCRETE REQUIRED
18" B-FLY	90	30	36	18.74"	24.75"	2 YD³
16" B-FLY	90	30	36	16.72"	22.50"	2 YD³
12" B-FLY	78	30	24	12.58"	17.88"	1.2 YD³

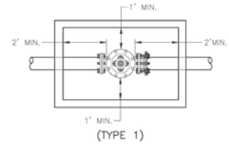


DETAIL "J"
BFV ANCHOR BLOCK DETAIL
N.T.S.

INSTALLATION PROCEDURE

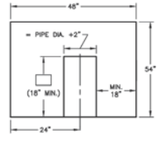
1. Compact and level the bottom of the excavation.
2. Place 8 inch layer of tamped 3/4" crushed drain rocks.
3. Place the vault lid onto the concrete vault.
4. Use provided leveling bolt (typ. of 4) to ensure cover is at finished grade elevation.
5. Backfill rebar frame with concrete. (5 sack concrete)
6. Install ladder in desired location.

SPACING REQUIREMENTS FOR VALVES



(TYPE 1)

MOUSE HOLE DETAIL



SM-22 MOUSE HOLE SIZES

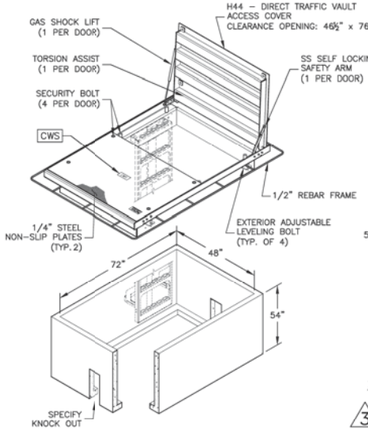
X1	16"
Y1	36"

MOUSE HOLE:
☒ TYPE 1
☐ TYPE 2

SM-27 MOUSE HOLE SIZES

X2	30"
Y2	60"

TYPICAL BONNET SPECIFICATIONS	BONNET DIAMETER
1" CLA-VAL	5.62"
2" CLA-VAL	6.62"
3" CLA-VAL	9.12"
4" CLA-VAL	11.5"
6" CLA-VAL	15.75"
8" CLA-VAL	20.0"
10" CLA-VAL	23.62"

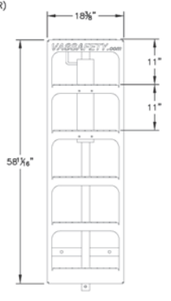


* SPECIFY LOAD RATING REQUIRED
10K-PEDESTRIAN ONLY
20K-INCIDENTAL TRAFFIC

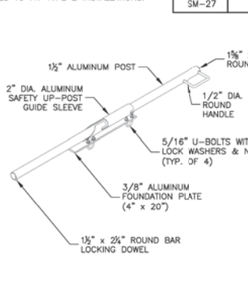
NOTE: CHECK ARMORCAST CATALOG FOR CUSTOM SIZES TO FIT TYPE 2 INSTALLATIONS.

STANDARD SIZES

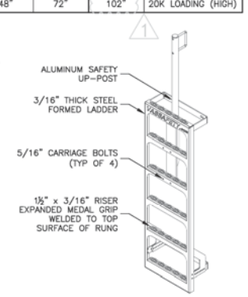
LOCATION	SPECIFY QUANTITY	INSIDE DIMENSIONS A-WIDTH	INSIDE DIMENSIONS B-LENGTH	SPECIFY C-DEPTH	SPECIFY *LOAD RATING
SM-22	1	48"	72"	60"	20K LOADING (HIGH)
SM-27	1	48"	72"	102"	20K LOADING (HIGH)



STEEL FORMED LADDER



SAFETY UP-POST



SAFETY UP-POST & LADDER

3 DETAIL "L"
CONCRETE VAULT WITH GAS SHOCKS & TORSION ASSIST COVER
N.T.S.

ENGINEERING
CALIFORNIA WATER SERVICE
DEPARTMENT

REVISIONS:
1 VAULT DEPTH & MOUSE HOLES R.O. 3/27/20
2 TOTAL UPDATES R.O. 8/28/20
3 VAULT TYP. R.O. 4/13/2021

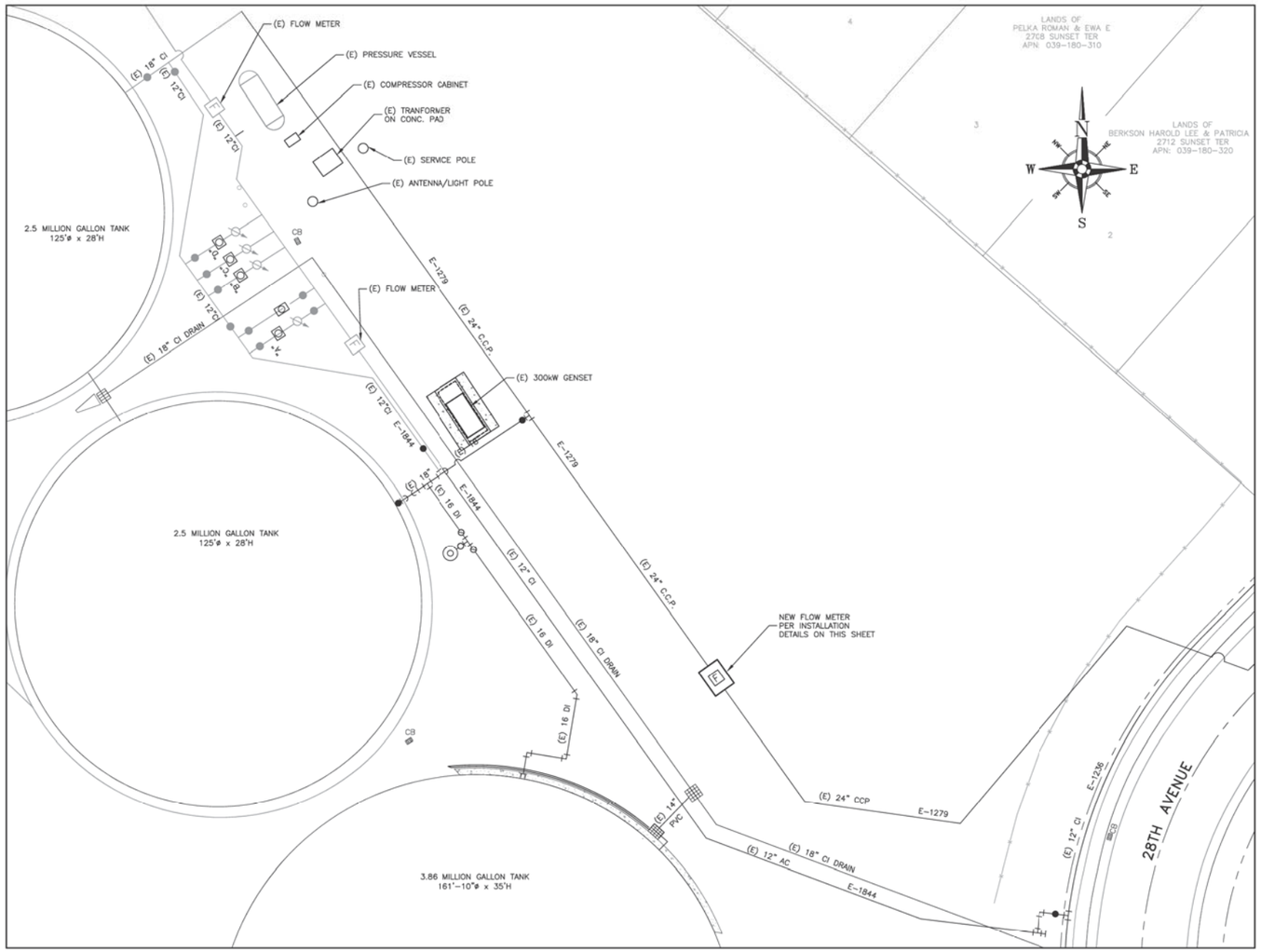
DATE: INIT.
DISTRIBUTION MAP
PLAT SHEET
STATION SCHEMATIC
STATION SCHEMATIC

PLAT SHEET NO.: SM-29-25
SCALE: AS SHOWN
DRAWN BY: R.O./P.R.
DESIGNED BY: S. GONZALEZ
TECH REVIEW: DATE: 04/23/2021
CHECKED BY: DATE: 04/23/2021
APPROVED BY: DATE: 04/23/2021

REGISTERED PROFESSIONAL ENGINEER
DEVSEKHAR PRASANNA
No. C76302
EXP. 06-30-22
CIVIL
STATE OF CALIFORNIA

TITLE:
MID PENINSULA - STATION 22
PROPOSED STATION REDEVELOPMENT
PIPING DETAILS

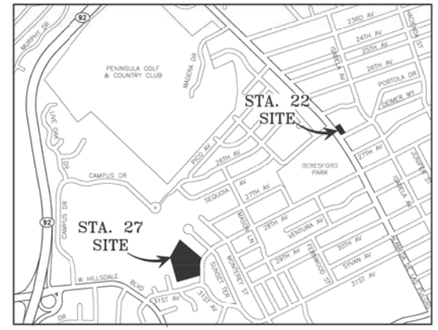
DISTRICT: MID PENINSULA
SAN MATEO
DATE: 11/13/2019
PROJECT ID.: 00098594
DRAWING NO.: MPS-5404-R3
SHT 7 OF 7



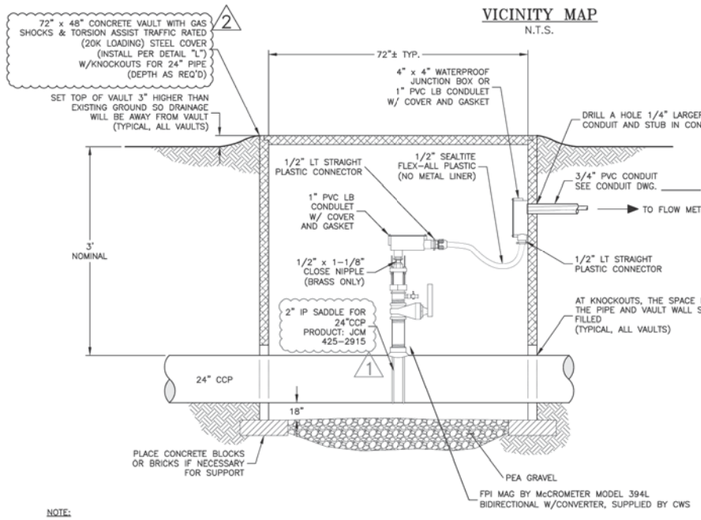
STATION 27 – BERESFORD TANK SITE
SCALE: 1" = 20'

STATION 22 LOCATION:
ALAMEDA DE LAS PULGAS, CITY OF SAN MATEO
SAN MATEO COUNTY, CA
APN 039-332-200

STATION 27 LOCATION:
28th AVENUE, CITY OF SAN MATEO
SAN MATEO COUNTY, CA
APN 039-210-010



VICINITY MAP
N.T.S.



NOTE:
LOCATION TO BE DETERMINED IN THE FIELD TO LIMIT CHANCES OF CONTACTING REBAR DURING INSTALLATION OF FLOW SENSOR.

BELOW GROUND FLOW SENSOR INSTALLATION
N.T.S.

ENGINEERING
CALIFORNIA WATER SERVICE
DEPARTMENT

REVISIONS:
1 FLOW SENSOR SADDLE MODEL R.O. 5/27/20
2 VAULT TYPE & SITE PLAN UPDATES R.O. 4/13/2021

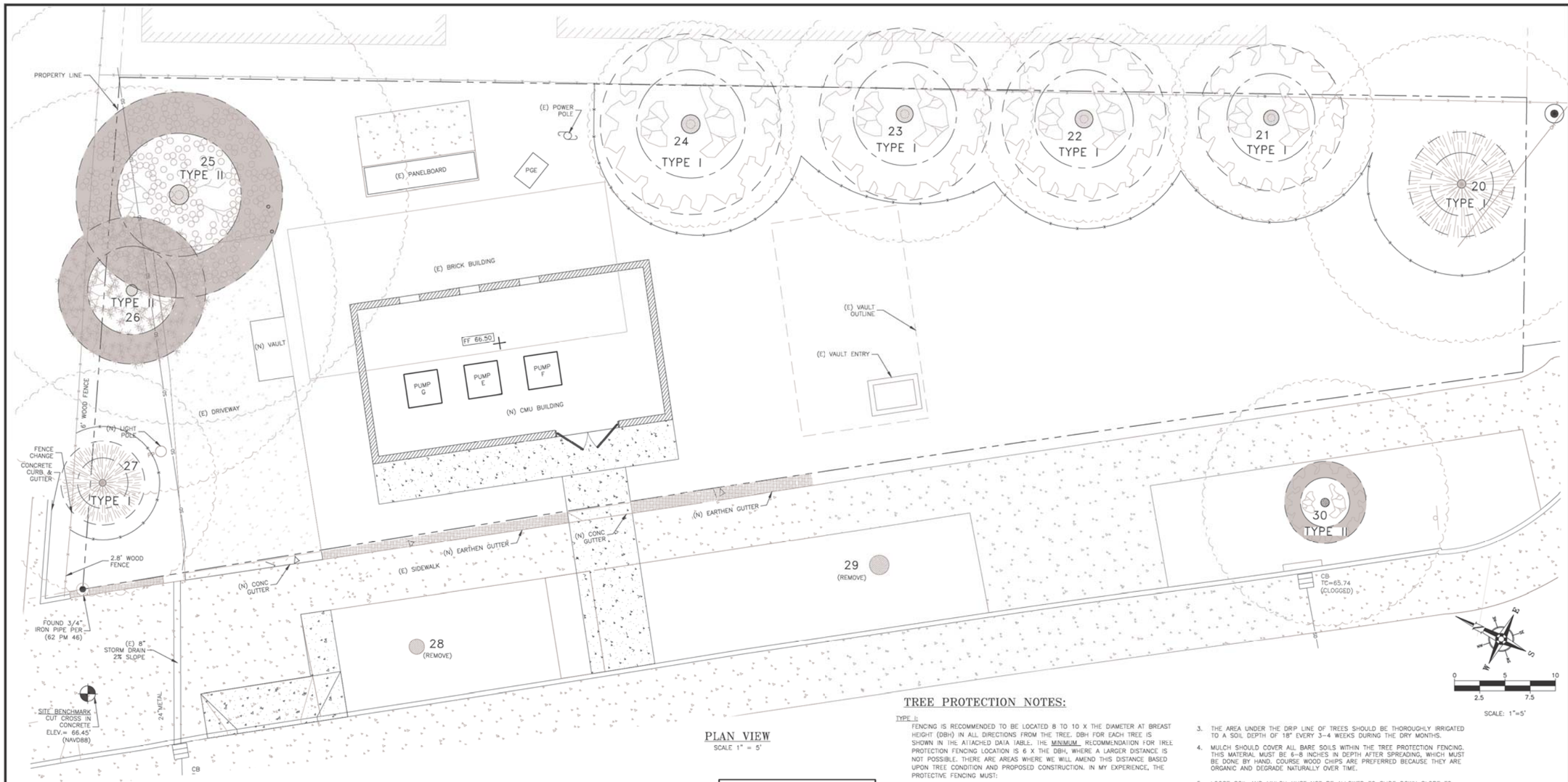
	DATE:	INIT.
DISTRIBUTION MAP		
PLAT SHEET		
SYSTEM SCHEMATIC		
STATION SCHEMATIC		

PLAT SHEET NO.: SM-29-25
SCALE: AS SHOWN
DRAWN BY: R.O./P.R.
DESIGNED BY: S. GONZALEZ
TECH REVIEW: DATE: 04/23/2021
CHECKED BY: DATE: 04/23/2021
APPROVED BY: DATE: 04/23/2021

REGISTERED PROFESSIONAL ENGINEER
DEVASEKHAR PRASANNA
No. C76302
EXP. 06-30-22
CIVIL
STATE OF CALIFORNIA

TITLE:
MID PENINSULA – STATION 22
PROPOSED STATION REDEVELOPMENT
PHASE 3 – STATION 27
FLOW METER INSTALLATION

DISTRICT: MID PENINSULA
SAN MATEO
DATE: 11/13/2019
PROJECT ID.: 00098594
DRAWING NO.: MPS-5497-R2
SHT 1 OF 1



PLAN VIEW
SCALE 1" = 5'

SCALE: 1"=5'

TREE SURVEY DATA:

TAG NO	COMMON NAME	DIAMETER AT BREAST HEIGHT (IN)*	W/H	HEALTH	STRUCTURE	PROTECTED (X)	PROTECTED REMOVAL (XX)	NOTES, RECOMMENDATIONS
20	CHINESE ELM	12.5/11	30'/20'	f	fp	X		RECOMMEND EWR, DWR, SP, CODOMINANT LEADERS AT BASE WITH POOR ATTACHMENT
21	LIQUIDAMBAR	17.5	20'/20'	f	f	X		RECOMMEND EWR, DWR, SP, MULTIPLE LEADERS AT 8'
22	LIQUIDAMBAR	19.5	20'/25'	f	fp	X		RECOMMEND EWR, EWR, SP, CODOMINANT LEADERS AT 7' WITH POOR ATTACHMENT
23	LIQUIDAMBAR	20.5	25'/30'	fg	f	X		RECOMMEND EWR, EWR, SP
24	LIQUIDAMBAR	21.5	20'/25'	f	fp	X		RECOMMEND EWR, EWR, SP, CODOMINANT LEADERS AT 6' WITH POOR ATTACHMENT
25	CAMPHOR	24.5	45'/50'	f	fp	X		RECOMMEND EWR, EWR, SP, CODOMINANT LEADERS AT 5' WITH POOR ATTACHMENT, GROWING INTO OAK
26	COAST LIVE OAK	17.5	40'/45'	fg	fp	X		RECOMMEND EWR, EWR, SP, CODOMINANT LEADERS AT 5' WITH POOR ATTACHMENT, GOOD VIGOR, INSECTS
27	CHINESE ELM	10	22'/25'	fp	f			RECOMMEND EWR, EWR, SP, THIN CANOPY WITH LITTLE NEW GROWTH AT TOP
28	MAGNOLIA	18.5	24'/22'	fp	fp	X	X	RECOMMEND REMOVAL, LOW VIGOR WITH LITTLE NEW GROWTH, STUB CUTS
29	MAGNOLIA	19.5	30'/20'	fp	fp	X	X	RECOMMEND REMOVAL, LOW VIGOR WITH LITTLE NEW GROWTH, HOLES IN TRUNK, STUB CUTS
30	MAGNOLIA	9.75	24'/18'	fg	f			RECOMMEND EWR, DWR, SP

DWR – DEAD WOOD REMOVAL
EWR – END WEIGHT REDUCTION: PRUNING TO REMOVE WEIGHT FROM LIMB ENDS, THUS REDUCING THE POTENTIAL FOR LIMB FAILURE.
RCE – ROOT COLLAR EXCAVATION: EXCAVATING A SMALL AREA AROUND A TREE THAT IS CURRENTLY BURIED BY SOIL OR REFUSE ABOVE BUTTRESS ROOTS, USUALLY DONE WITH A HAND SHOVEL.
SP – STRUCTURAL PRUNING – REMOVAL OF SELECTED NON-DOMINANT LEADERS IN ORDER TO BALANCE THE TREE

LEGEND:

- DRIPLINE
- LIQUID AMBAR
- COAST LIVE OAK
- CAMPHOR
- CHINESE ELM
- OUTER BOUNDRY (10xø)
- 2 INNER BOUNDRY (6xø)
- TRUNK WRAP (TYPE II TREE)
- TREE PROTECTION FENCING

TREE PROTECTION NOTES:

TYPE I:
FENCING IS RECOMMENDED TO BE LOCATED 8 TO 10 X THE DIAMETER AT BREAST HEIGHT (DBH) IN ALL DIRECTIONS FROM THE TREE. DBH FOR EACH TREE IS SHOWN IN THE ATTACHED DATA TABLE. THE MINIMUM RECOMMENDATION FOR TREE PROTECTION FENCING LOCATION IS 6 X THE DBH, WHERE A LARGER DISTANCE IS NOT POSSIBLE. THERE ARE AREAS WHERE WE WILL AMEND THIS DISTANCE BASED UPON TREE CONDITION AND PROPOSED CONSTRUCTION. IN MY EXPERIENCE, THE PROTECTIVE FENCING MUST:

A. CONSIST OF CHAIN LINK FENCING AND HAVING A MINIMUM HEIGHT OF 6 FEET.

B. BE MOUNTED ON STEEL POSTS DRIVEN APPROXIMATELY 2 FEET INTO THE SOIL.

C. FENCING POSTS MUST BE LOCATED A MAXIMUM OF 10 FEET ON CENTER.

D. PROTECTIVE FENCING MUST BE INSTALLED PRIOR TO THE ARRIVAL OF MATERIALS, VEHICLES, OR EQUIPMENT.

E. PROTECTIVE FENCING MUST NOT BE MOVED, EVEN TEMPORARILY, AND MUST REMAIN IN PLACE UNTIL ALL CONSTRUCTION IS COMPLETED, UNLESS APPROVED BE A CERTIFIED ARBORIST.

F. TREE PROTECTION SIGNAGE SHALL BE MOUNTED TO ALL INDIVIDUAL TREE PROTECTION FENCES.

TYPE II:
TYPE II TREE PROTECTION TREES SITUATED IN A SMALL TREE WELL OR SIDEWALK PLANTER PIT SHALL BE WRAPPED WITH 2 INCHES OF ORANGE PLASTIC FENCING AS PADDING FROM THE GROUND TO THE FIRST BRANCH WITH 2 INCH THICK WOODEN SLATS BOUND SECURELY ON THE OUTSIDE. DURING INSTALLATION OF THE WOOD SLATS, CAUTION SHALL BE USED TO AVOID DAMAGING ANY BARK OR BRANCHES. MAJOR SCAFFOLD LIMBS MAY ALSO REQUIRE PLASTIC FENCING AS DIRECTED BY THE CITY ARBORIST.

BASED ON THE EXISTING DEVELOPMENT AND THE CONDITION AND LOCATION OF TREES PRESENT ON SITE, THE FOLLOWING IS RECOMMENDED:

1. THE PROJECT ARBORISTS IS MICHAEL YOUNG (650) 321-0202. A PROJECT ARBORIST SHOULD SUPERVISE ANY EXCAVATION ACTIVITIES WITHIN THE TREE PROTECTION ZONE OF THESE TREES.
2. ANY ROOTS EXPOSED BY THE HAND DUG EXPLORATORY TRENCH THAT ARE LARGER THAN 1.5 INCHES IN DIAMETER SHOULD NOT BE CUT OR DAMAGED UNTIL THE PROJECT ARBORIST HAS AN OPPORTUNITY TO ASSESS THE IMPACT THAT REMOVING THESE ROOTS COULD HAVE ON THE TREES.
3. THE AREA UNDER THE DRIP LINE OF TREES SHOULD BE THOROUGHLY IRRIGATED TO A SOIL DEPTH OF 18" EVERY 3-4 WEEKS DURING THE DRY MONTHS.
4. MULCH SHOULD COVER ALL BARE SOILS WITHIN THE TREE PROTECTION FENCING. THIS MATERIAL MUST BE 6-8 INCHES IN DEPTH AFTER SPREADING, WHICH MUST BE DONE BY HAND. COURSE WOOD CHIPS ARE PREFERRED BECAUSE THEY ARE ORGANIC AND DEGRADE NATURALLY OVER TIME.
5. LOOSE SOIL AND MULCH MUST NOT BE ALLOWED TO SLIDE DOWN SLOPE TO COVER THE ROOT ZONES OR THE ROOT COLLARS OF PROTECTED TREES.
6. THERE MUST BE NO GRADING, TRENCHING, OR SURFACE SCRAPING INSIDE THE DRIPLINES OF PROTECTED TREES, UNLESS SPECIFICALLY APPROVED BY A CERTIFIED ARBORIST. FOR TRENCHING, THIS MEANS:
   G. TRENCHES FOR ANY UNDERGROUND UTILITIES (GAS, ELECTRICITY, WATER, PHONE, TV CABLE, ETC.) MUST BE LOCATED OUTSIDE THE DRIPLINES OF PROTECTED TREES, UNLESS APPROVED BY A CERTIFIED ARBORIST. ALTERNATIVE METHODS OF INSTALLATION MAY BE SUGGESTED.
   H. LANDSCAPE IRRIGATION TRENCHES MUST BE LOCATED A MINIMUM DISTANCE OF 10 TIMES THE TRUNK DIAMETER FROM THE TRUNKS OF PROTECTED TREES UNLESS OTHERWISE NOTED AND APPROVED BY THE ARBORIST.
7. MATERIALS MUST NOT BE STORED, STOCKPILED, DUMPED, OR BURIED INSIDE THE DRIPLINES OF PROTECTED TREES.
8. EXCAVATED SOIL MUST NOT BE PILED OR DUMPED, EVEN TEMPORARILY, INSIDE THE DRIPLINES OF PROTECTED TREES.
9. LANDSCAPE MATERIALS (COBBLES, DECORATIVE BARK, STONES, FENCING, ETC.) MUST NOT BE INSTALLED DIRECTLY IN CONTACT WITH THE BARK OF TREES BECAUSE OF THE RISK OF SERIOUS DISEASE INFECTION.
10. LANDSCAPE IRRIGATION SYSTEMS MUST BE DESIGNED TO AVOID WATER STRIKING THE TRUNKS OF TREES, ESPECIALLY OAK TREES.
11. ANY PRUNING MUST BE DONE BY A COMPANY WITH AN ARBORIST CERTIFIED BY THE ISA (INTERNATIONAL SOCIETY OF ARBORICULTURE) AND ACCORDING TO ISA, WESTERN CHAPTER STANDARDS, 1998.
12. ANY PLANTS THAT ARE PLANTED INSIDE THE DRIPLINES OF OAK TREES MUST BE OF SPECIES THAT ARE COMPATIBLE WITH THE ENVIRONMENTAL AND CULTURAL REQUIREMENTS OF OAKS TREES. A PUBLICATION DETAILING PLANTS COMPATIBLE WITH CALIFORNIA NATIVE OAKS CAN BE OBTAINED FROM THE CALIFORNIA OAK FOUNDATION'S 1991 PUBLICATION "COMPATIBLE PLANTS UNDER & AROUND OAKS" DETAILS PLANTS COMPATIBLE WITH CALIFORNIA NATIVE OAKS AND IS CURRENTLY AVAILABLE ONLINE AT:

HTTP://CALIFORNIAOAKS.ORG/WP-CONTENT/UPLOADS/2016/04/COMPATIBLEPLANTSUNDERAROUNDOAKS.PDF

ENGINEERING

CALIFORNIA WATER SERVICE

DEPARTMENT

REVISIONS:
1. NOTES & PLANNING DEPT UPDATES R.O. 4/13/2021
2. NOTES & PLANNING DEPT UPDATES R.O. 6/17/2021

	DATE:	INIT.
DISTRIBUTION MAP		
PLAT SHEET		
SYSTEM SCHEMATIC		
STATION SCHEMATIC		

PLAT SHEET NO.: SM-29-25
SCALE: AS SHOWN
DRAWN BY: R.O./P.R.
DESIGNED BY: S.G./B.G.
TECH REVIEW: DATE: 6/24/2021
CHECKED BY: DATE: 6/24/2021
APPROVED BY: DATE: 6/24/2021

REGISTERED PROFESSIONAL ENGINEER
LUIS ZAMUDIO
No. C82640
CIVIL
STATE OF CALIFORNIA

TITLE:
MID PENINSULA – STATION 22
PROPOSED STATION REDEVELOPMENT
TREE PROTECTION PLAN

DISTRICT: MID PENINSULA
SAN MATEO
DATE: 03/27/2020
PROJECT ID.: 00098594
DRAWING NO.: MPS-5539-R2
SHT 1 OF 3

1 SHEET 16 OF 23

urbantreemanagement

Tree Inventory of

San Mateo Station SM-22 Alameda De Las Pulgas
San Mateo, CA 94025

Prepared by
Urban Tree Management, Inc.

February 17, 2021

Revised June 15, 2021

(650) 321-0202 | po box 971 los gatos ca 95031 | urbantreemanagement.com
contractor's license # 755089 | certified arborist WC#23 | certified tree risk assessor #1399

San Mateo Station SM-22 Alameda De Las Pulgas
San Mateo, CA 94025

Assignment

It was our assignment to physically inspect trees in the survey area based on a topographic map provided by the client. We were to map, tag and compile data for each tree and write an inventory/ survey report documenting my observations.

Additionally, we were to review the "Tree Protection Plan", drawing #MPS-5539, sheet 16 of 18 dated 3/27/2020, the "Grading Plan", "Demolition Plan", "Plot and Elevation Plan" and confirm the tree protection is per our recommendations.

Summary

This survey provides a numbered map and complete and detailed information for each tree surveyed. There are eleven trees included in this report. Nine of the trees are protected trees under the City of San Mateo's heritage tree protection ordinance. Two protected trees are recommended for removal.

Trees #20 thru #24 and #27 will require Type I tree protection fencing at six (6) times the trunk diameter. The Type I tree protection fencing will be installed per the details on page four (4) of this report. Trees #25 & #26 and street tree #30 will require Type II tree protection as detailed on page four (4) of this report.

The Tree Protection Plan has been updated below and should be updated on Drawing #MPS-5539, sheet 16 of 18 dated 3/27/2020. If this update isn't possible, Urban Tree Management can be onsite to inspect the tree protection and write a sign off letter so construction can proceed.

Discussion

All the trees surveyed were examined and then rated based on their individual health and structure according to the table below. For example, a tree may be rated "good" under the health column for excellent/vigorous appearance and growth, while the same tree may be rated "fair/poor" in the structure column if structural mitigation is needed. More complete descriptions of how health and structure are rated can be found under the "Methods" section of this report. The complete list of trees and all relevant information, including their health and structure ratings, their "protected/significant" status, a map and recommendations for their care can be found in the data sheet that accompanies this report.

Rating	Health	Structure
Good	excellent/vigorous	flawless
Fair/good	no significant health concerns	very stable
Fair	showing initial or temporary disease, pests or lack of vitality. measures should be taken to improve health and appearance.	routine maintenance needed such as pruning or end weight reduction as tree grows
Fair/poor	in decline, significant health issues	significant structural weakness(es), mitigation needed, mitigation may or may not preserve the tree
Poor	dead or near dead	hazard

Methods

The trunks of the trees are measured using an arborist's diameter tape at 48" above soil grade. In cases where the main trunk divides below 48", the tree is measured (per the City of San Mateo's heritage tree ordinance) at the point where the trunks divide. In these cases, the height of that measurement is given in the note's column on the attached data sheet. The canopy height and spread are estimated using visual references only.

The condition of each tree is assessed by visual observation only from a standing position without climbing or using aerial equipment. No invasive equipment is used. Consequently, it is possible that individual tree(s) may have internal (or underground) health problems or structural defects, which are not detectable by visual inspection. In cases where it is thought further investigation is warranted, a "full tree risk assessment" is recommended. This assessment may be inclusive of drilling or using sonar equipment to detect internal decay and include climbing or the use of aerial equipment to assess higher portions of the tree.

The health of an individual tree is rated based on leaf color and size, canopy density, new shoot growth and the absence or presence of pests or disease.

Individual tree structure is rated based on the growth pattern of the tree (including whether it is leaning); the presence or absence of poor limb attachments (such as co-dominant leaders); the length and weight of limbs and the extent and location of apparent decay. For each tree, a structural rating of fair or above indicates that the structure can be maintained with routine pruning such as removing dead branches and reducing end weight as the tree grows. A fair/poor rating indicates that the tree has significant structural weaknesses and corrective action is warranted. The notes section for that tree will then recommend a strategy/technique to improve the structure or mitigate structural stresses. A poor structural rating indicates that the tree or portions of the tree are likely to fail and that there is little that can constructively be done about the problem other than removal of the tree or large portions of the tree. Very large

trees that are rated Fair/Poor for structure AND that are near structures or in an area frequently traveled by cars or people, receive an additional **CONSIDER REMOVAL" notation under recommendations. This is included because structural mitigation techniques do not guarantee against structural failure, especially in very large trees. Property owners may or may not choose to remove this type of tree but should be aware that if a very large tree experiences a major structural failure, the danger to nearby people or property is significant.

Survey Area Observations

The property is in a residential area in the City of San Mateo. The surveyed area is basically rectangular and flat. The surveyed area is unoccupied.

Tree Health on This Property

Generally, the health of the trees in the survey area range from fair/good to fair/poor. The property is unoccupied and would benefit from continued irrigation and tree maintenance. Individual issues and recommendations for each tree are listed under the "Notes" column on the accompanying data sheet.

Tree Structure on This Property

Ideally, trees are pruned for structure when young and are properly mainained to reduce end-weight as they grow. This practice prevents excessively long, lateral branches that are prone to breaking off due to weight or wind. As mentioned above the property is unoccupied and would benefit from a regular maintenance program. The structure rating on all trees in the surveyed area have received fair to fair/poor ratings.

Local Regulations Governing Trees

Heritage tree is any of the following:

(1) Any bay (Umbellularia californica), buckeye (Aesculus spp.), oak (Quercus spp.), cedar (Cedrus) or redwood (Sequoia) tree that has a diameter of ten (10) inches or more measured at forty-eight (48) inches above natural grade;
(2) Any tree or stand of trees designated by resolution of the City Council to be of special historical value or of significant community benefit;
(3) A stand of trees, the nature of which makes each dependent on the others for survival;
(4) Any other tree with a trunk diameter of sixteen (16) inches or more, measured at forty-eight (48) inches above natural grade.

Risks to Trees by Construction

Besides the above-mentioned health and structure-related issues, the trees at this site could be at risk of damage by construction or construction procedures that are common to most construction sites. These procedures may include the dumping or the stockpiling of materials over root systems; the trenching across the root zones for utilities or for landscape irrigation; or the routing of construction traffic across the root system resulting in soil compaction and root dieback. It is therefore essential that Tree Protection Fencing be used as per the Landscape Architect's drawings. In constructing underground utilities, it is essential that the location of trenches be done outside the drip lines of trees except where approved by the Arborist.

Tree Protection Plan

TYPE I

Protective fencing is required to be provided during the construction period to protect trees to be preserved. This fencing must protect a sufficient portion of the root zone to be effective. Fencing is recommended to be located 8 to 10 X the diameter at breast height (DBH) in all directions from the tree. DBH for each tree is shown in the attached data table. The minimum recommendation for tree protection fencing location is 6 X the DBH, where a larger distance is not possible. There are areas where we will amend this distance based upon tree condition and proposed construction. The protective fencing must:

a. Consist of chain link fencing and having a minimum height of 6 feet.
b. Be mounted on steel posts driven approximately 2 feet into the soil.
c. Fencing posts must be located a maximum of 10 feet on center.
d. Protective fencing must be installed prior to the arrival of materials, vehicles, or equipment.
e. Protective fencing must not be moved, even temporarily, and must remain in place until all construction is completed, unless approved be a certified arborist.
f. Tree Protection Signage shall be mounted to all individual tree protection fences.

TYPE II

• Type II Tree Protection Trees situated in a small tree well or sidewalk planter pit, shall be wrapped with 2-inches of orange plastic fencing as padding from the ground to the first branch with 2-inch thick wooden slats bound securely on the outside. During installation of the wood slats, caution shall be used to avoid damaging any bark or branches. Major scaffold limbs may also require plastic fencing as directed by the City Arborist.

Based on the existing development and the condition and location of trees present on site, the following is recommended:

1. The Project Arborists is Michael Young (650) 321-0202. A Project Arborist should supervise any excavation activities within the tree protection zone of these trees.

2. Any roots exposed by the hand dug exploratory trench that are larger than 1.5 inches in diameter should not be cut or damaged until the project Arborist has an opportunity to assess the impact that removing these roots could have on the trees.
3. The area under the drip line of trees should be thoroughly irrigated to a soil depth of 18" every 3-4 weeks during the dry months.
4. Mulch should cover all bare soils within the tree protection fencing. This material must be 6-8 inches in depth after spreading, which must be done by hand. Course wood chips are preferred because they are organic and degrade naturally over time.
5. Loose soil and mulch must not be allowed to slide down slope to cover the root zones or the root collars of protected trees.
6. There must be no grading, trenching, or surface scraping inside the driplines of protected trees, unless specifically approved by a Certified Arborist. For trenching, this means:
   a. Trenches for any underground utilities (gas, electricity, water, phone, TV cable, etc.) must be located outside the driplines of protected trees, unless approved by a Certified Arborist. Alternative methods of installation may be suggested.
   b. Landscape irrigation trenches must be located a minimum distance of 10 times the trunk diameter from the trunks of protected trees unless otherwise noted and approved by the Arborist.
7. Materials must not be stored, stockpiled, dumped, or buried inside the driplines of protected trees.
8. Excavated soil must not be piled or dumped, even temporarily, inside the driplines of protected trees.
9. Landscape materials (cobbles, decorative bark, stones, fencing, etc.) must not be installed directly in contact with the bark of trees because of the risk of serious disease infection.
10. Landscape irrigation systems must be designed to avoid water striking the trunks of trees, especially oak trees.
11. Any pruning must be done by a Company with an Arborist Certified by the ISA (International Society of Arboriculture) and according to ISA, Western Chapter Standards, 1998.
12. Any plants that are planted inside the driplines of oak trees must be of species that are compatible with the environmental and cultural requirements of oaks trees. A publication detailing plants compatible with California native oaks can be obtained from The California Oak Foundation's 1991 publication "Compatible Plants Under & Around Oaks" details plants compatible with California native oaks and is currently available online at: http://californiaoaks.org/wp-content/uploads/2016/04/CompatiblePlantsUnderAroundOaks.pdf

+++++

I certify that the information contained in this report is correct to the best of my knowledge and that this report was prepared in good faith. Please call me if you have questions or if I can be of further assistance.

Respectfully,

Michael P. Young

ENGINEERING

CALIFORNIA WATER SERVICE

DEPARTMENT

REVISIONS:
1 NOTES & PLANNING DEPT UPDATES R.O. 4/13/2021
2 NOTES & PLANNING DEPT UPDATES R.O. 6/17/2021

	DATE:	INIT.
DISTRIBUTION MAP		
PLAT-SHEET		
SYSTEM SCHEMATIC		
STATION SCHEMATIC		

PLAT SHEET NO.: SM-29-25
SCALE: AS SHOWN
DRAWN BY: R.O./P.R.
DESIGNED BY: S.G./B.G.
TECH REVIEW: DATE: 6/24/2021
CHECKED BY: DATE: 6/24/2021
APPROVED BY: DATE: 6/24/2021

REGISTERED PROFESSIONAL ENGINEER
LUIS ZAMUDIO
No. C82640
CIVIL
STATE OF CALIFORNIA

TITLE:
MID PENINSULA - STATION 22
PROPOSED STATION REDEVELOPMENT
TREE PROTECTION PLAN

DISTRICT: MID PENINSULA
SAN MATEO
DATE: 02/18/2021
PROJECT ID.: 00098594
DRAWING NO.: MPS-5539-R2
SHT 2 OF 3

2 SHEET 17 OF 23

urbantreemanagement inc.

ASSUMPTIONS AND LIMITING CONDITIONS

1. Any legal description provided to this arborist is assumed to be correct. No responsibility is assumed for matters legal in character nor is any opinion rendered as to the quality of any title.
2. This arborist can neither guarantee nor be responsible for accuracy of information provided by others.
3. This arborist shall not be required to give testimony or to attend court by reason of the information provided by this arborist unless subsequent written arrangements are made, including payment of an additional fee for services.
4. Loss or removal of any part of this report invalidates the entire report.
5. Possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the person(s) to whom it is addressed without written consent of this arborist.
6. This report and the values expressed herein represent the opinion of this arborist, and this arborist's fee is in no way contingent upon the reporting of a specified value nor upon any finding to be reported.
7. Sketches, diagrams, graphs, photos, etc., in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering reports or surveys.
8. This report has been made in conformity with acceptable appraisal/evaluation/diagnostic reporting techniques and procedures, as recommended by the International Society of Arboriculture.
9. When applying any pesticide, fungicide, or herbicide, always follow label instructions.
10. No tree described in this report was climbed, unless otherwise stated. This arborist cannot take responsibility for any defects which could only have been discovered by climbing. A full root collar inspection, consisting of excavating the soil around the tree to uncover the root collar and major buttress roots, was not performed, unless otherwise stated. This arborist cannot take responsibility for any root defects which could only have been discovered by such an inspection.

ARBORIST DISCLOSURE STATEMENT

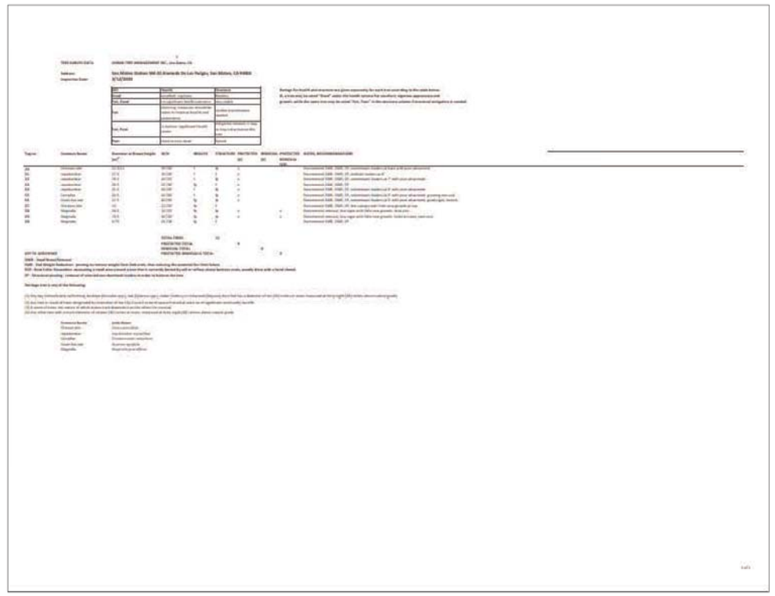
Arborists are tree specialists who use their education, knowledge, training, and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risk of living near trees. Clients may choose to accept or disregard the recommendations of the arborist, or to seek additional advice.

Arborists cannot detect every condition that could possibly lead to the structural failure of a tree. Trees are living organisms that fail in ways we do not fully understand. Conditions are often hidden within trees and below ground. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Like-wise, remedial treatments, like any medicine, cannot be guaranteed.

Treatment, pruning and removal of trees may involve considerations beyond the scope of the arborist's services such as property boundaries, property ownership, site lines, disputes between neighbors, and other issues. Arborists cannot take such considerations into account unless complete and accurate information is disclosed to the arborist. An arborist should then be expected to reasonably rely upon the completeness and accuracy of the information provided.

Trees can be managed, but they cannot be controlled. To live near trees is to accept some degree of risk. The only way to eliminate all risk associated with trees is to eliminate all trees.

t 650-321-0202 | po box 971 los gatos ca 95031 | urbantreemanagement.com
contractors license # 755989 | certified arborist WC-ISA #823 | certified tree risk assessor #1399



Existing Tree Evaluation Schedule with Landscape Unit Values

****Must be Completed and Attached to Arborist Report**

Required For Projects Involving the Removal of Trees 6" or More in Diameter for the Construction of New Residential Dwelling Units, Building Additions or Parking Lot Additions.

An Arborist Report and an Existing Tree Evaluation Schedule with Landscape Unit Values is required **for all trees with a diameter of 6 inches or more proposed for removal**. This Inventory must be prepared by an Arborist or Licensed Landscape Architect consistent with SMMC 27.71.150 PRESERVATION OF EXISTING TREES. Please submit an excel file with the information below.

Existing Tree Evaluation Schedule:

Formula for Calculating LU Value: (_____ x _____ x _____) ÷ 0.35 x (_____ x _____ x _____) = _____

Ref.	Species Name	Fate: Preserved / Removed	Species Value %	Condition Value %	Location Value %	0.35	Caliper Size (inches)	0.70 if in allowable bldg. area	1.25 if Heritage Tree	LU Value
28	Magnolia grandiflora	Remove	80	20	60	0.35	18.5	1	1.25	6.34
29	Magnolia grandiflora	Remove	80	20	60	0.35	19.5	1	1.25	6.69
						0.35				
						0.35				
						0.35				

Total LU Value of Trees to be Removed: 13.03

Required Tree Planting

Zoning Code, Section 27.71 – Landscape, requires all projects to have a minimum ratio of **1 tree per 400 square feet** of landscaped area. Existing trees that are a minimum of 6 inch diameter may count toward this total.

Landscape Area: 2,720 sq. ft. ÷ 400 = 6.8 (a)

Number of existing trees from Tree Evaluation Schedule with a 6 inch or greater diameter **to be preserved:** 9 (b)

Landscape Unit (LU) value of trees **to be removed** from the Tree Evaluation Schedule: 20.16 (c)

Minimum LU value to be replaced and/or met through payment of in-lieu fees: **[a – b + c = d]** 17.96 (d)

New Trees:

A "landscape unit" (LU) value equivalent to (d) above, must either be planted on site, or an "in-lieu" fee paid to the city's street tree planting fund. If the LU value shown at (e) is not equal or greater than (d), then an in-lieu fee must be paid to the City's street tree planting fund at the rate defined annually in the City's Comprehensive Fee Schedule for each deficient LU.

New Trees Being Planted*

Quantity	Size	LU Value	Total LU Value
	15 gallon	1	
	24 inch box	2	
	36 inch box	3	
	48 inch box	4	

Total LU Value of new trees being proposed: 0 (e)

*New replacement trees shall be in addition to and not substitute requirements for new street trees, parking lot trees or other required trees.

Fees Owed to the City Street Tree Planting Fund:

If (d) is greater than (e), there will be an LU value deficit calculated as follows:

[d – e = 17.9 **x (the annually defined $ per LU value as per Current Comprehensive Fee Schedule)** = $ 5,765.16

ENGINEERING

CALIFORNIA WATER SERVICE

DEPARTMENT

REVISIONS:
1 NOTES & PLANNING DEPT UPDATES R.O. 4/13/2021
2 NOTES & PLANNING DEPT UPDATES R.O. 6/17/2021

	DATE:	INIT.
DISTRIBUTION MAP		
PLAT SHEET		
SYSTEM SCHEMATIC		
STATION SCHEMATIC		

PLAT SHEET NO.: SM-29-25

SCALE: AS SHOWN

DRAWN BY: R.O./P.R.

DESIGNED BY: S.G./B.G.

TECH REVIEW: DATE:

CHECKED BY: DATE: 6/24/2021

APPROVED BY: DATE: 6/24/2021

REGISTERED PROFESSIONAL ENGINEER — LUIS ZAMUDIO — No. C82640 — CIVIL — STATE OF CALIFORNIA

TITLE: MID PENINSULA – STATION 22 PROPOSED STATION REDEVELOPMENT TREE PROTECTION PLAN

DISTRICT: MID PENINSULA

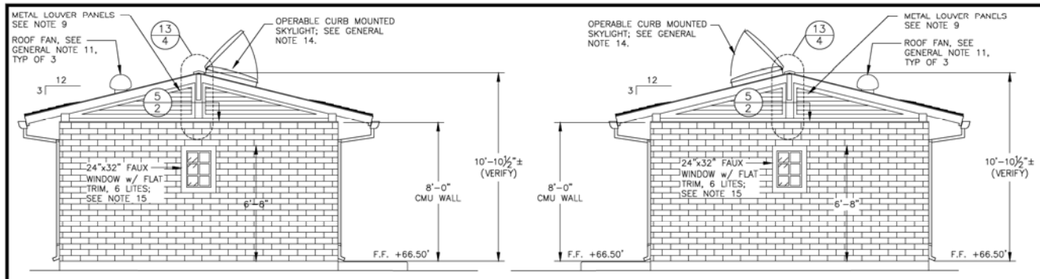
SAN MATEO

DATE: 02/18/2021

PROJECT ID.: 00098594

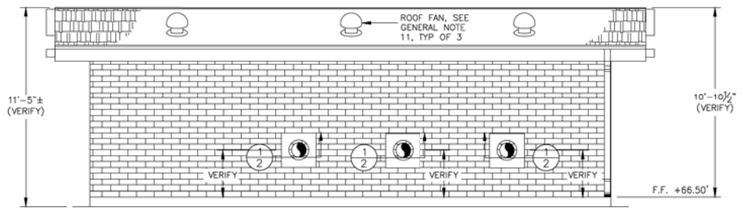
DRAWING NO.: MPS-5539-R2

SHT 3 OF 3

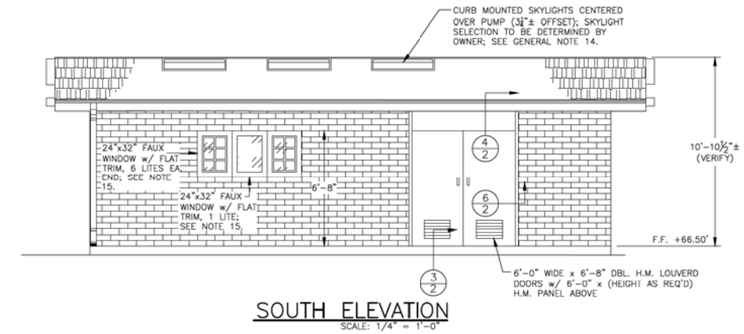


WEST ELEVATION
SCALE: 1/4" = 1'-0"

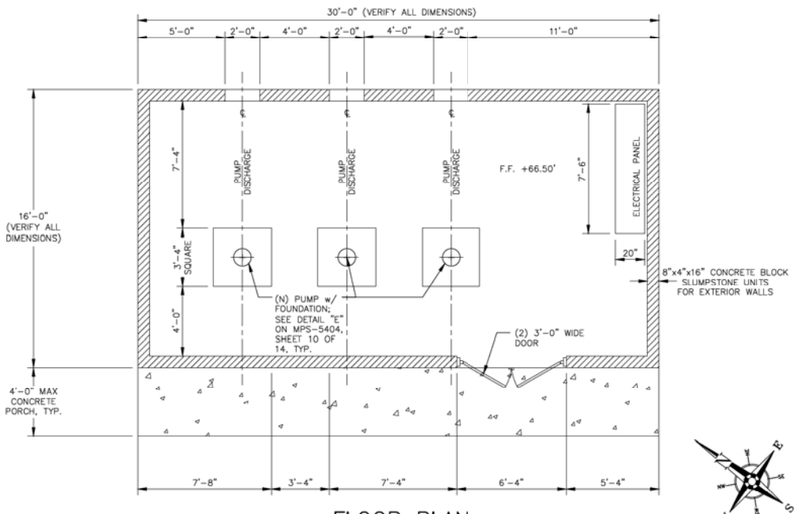
EAST ELEVATION
SCALE: 1/4" = 1'-0"



NORTH ELEVATION
SCALE: 1/4" = 1'-0"



SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



FLOOR PLAN
1/4" = 1'-0"

STRUCTURAL NOTES:

1. ALL CONSTRUCTION NOT SPECIFICALLY DETAILED SHALL CONFORM TO THE REQUIREMENTS OF THE 2019 CALIFORNIA BUILDING CODE (CBC) AND ANY LOCAL CODE REQUIREMENTS. ALL DETAILS, SECTIONS AND NOTES SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO SIMILAR SITUATIONS ELSEWHERE UNLESS OTHERWISE NOTED.

2. THE CONTRACTOR SHALL COMPARE THIS DRAWING WITH EXISTING CONDITIONS AT THE SITE, AND WITH ALL OTHER APPLICABLE DRAWINGS. HE SHALL VERIFY MEASUREMENTS OF ALL EXISTING FEATURES AFFECTING HIS WORK, AND SHALL REPORT ANY DISCREPANCIES TO THE CALIFORNIA WATER SERVICE COMPANY ENGINEER FOR CLARIFICATION AND ADJUSTMENT BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR VERIFICATION OF ALL DIMENSIONS SHOWN ON THIS DRAWING WITH THE REQUIREMENTS OF EXISTING CONDITIONS AND ALL RELATED NEW EQUIPMENT.

3. FOUNDATION PREPARATION: AREAS TO RECEIVE FILL SHALL BE SCARIFIED TO A DEPTH OF 12" AND MOISTURE-CONDITIONED TO A MINIMUM OF 2% ABOVE OPTIMUM MOISTURE CONTENT AND COMPACTED TO A MINIMUM 90% OF THE MAXIMUM DRY DENSITY PER ASTM D1557. THERE SHALL BE A MINIMUM OF 6" CLASS 2 AGGREGATE BASE (AB) UNDER ANY PROPOSED FOUNDATION.

FOOTINGS SHALL BE AS DETAILED ON THE DRAWINGS. THE FOUNDATION DESIGN IS BASED UPON THE VALUES FOR CLASS 5 MATERIALS LISTED IN TABLE 1806.2 OF THE CBC. THE FOOTINGS HAVE BEEN DESIGNED FOR AN ALLOWABLE SOIL BEARING PRESSURE OF 1,500 PSF (DL+LL) PLUS ONE THIRD INCREASE FOR WIND AND SEISMIC LOADS. FOOTINGS SHALL BEAR 18" MIN. INTO FIRM UNDISTURBED ORIGINAL SOIL OR ENGINEERED FILL.

THE AGGREGATE BASE, FORMS AND SUBGRADE SHALL BE THOROUGHLY WETTED BEFORE PLACEMENT OF CONCRETE.

4. CONCRETE:
SHALL DEVELOP A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS OF AGE (DESIGN BASED ON 2500 PSI-NO SPECIAL INSPECTION REQUIRED PER EXCEPTION 2.3 IN SECTION 1705.3 OF 2019 CBC). MINIMUM CEMENT SHALL BE 6 SACKS PER CUBIC YARD. MAXIMUM SLUMP SHALL BE 3". ALL REINFORCING BARS, ANCHOR BOLTS, INSERTS, AND OTHER EMBEDDED HARDWARE SHALL BE ACCURATELY SET AND SECURELY HELD IN PLACE TO MAINTAIN POSITIONS DURING PLACEMENT OF CONCRETE. CONCRETE PAD SHALL BE WATER CURED CONTINUOUSLY FOR 7 DAYS. UNLESS OTHERWISE NOTED.

NO ALUMINUM CONDUIT OR PRODUCTS CONTAINING ALUMINUM OR ANY OTHER MATERIAL INJURIOUS TO THE CONCRETE SHALL BE EMBEDDED IN THE CONCRETE.

CONCRETE INSPECTION TO BE PERFORMED BY CWS CO.

5. MASONRY:
SPECIFIED DESIGN MASONRY STRENGTH f'm = 1500 psi. ALL CMU SHALL BE 8"x4"x16" SLUMPSTONE GRADE N HOLLOW LOAD BEARING CONCRETE MASONRY UNITS, 1900 PSI OR GREATER, CONFORMING TO ASTM C90 OR APPROVED EQUIVALENT. ALL BLOCKS SHALL BE ADOBE COLOR SLUMPSTONE UNITS UNLESS NOTED OTHERWISE. MORTAR SHALL BE CBC TYPE "S", (1800 PSI). GROUT SHALL DEVELOP 2000 PSI MINIMUM ULTIMATE STRENGTH AT 28 DAYS AGE. BLOCKS SHALL BE LAID UP DRY IN RUNNING BOND, WITH FACE AND CROSS SHELLS FULLY BEDDED IN MORTAR. ALL CELLS SHALL BE SOLIDLY FILLED WITH GROUT. THE MAXIMUM HEIGHT OF ANY GROUT POUR SHALL BE FOUR FEET.
REINFORCING STEEL SHALL BE AS NOTED ON THE PLANS, EXCEPT THAT ALL OPENINGS SHALL BE REINFORCED WITH TWO #5 BARS ALONG EACH BOUNDARY AND EXTENDING 24" BEYOND ALL CORNERS OR THROUGH DOWELS TO FOUNDATION. HOOK HORIZONTAL REINFORCEMENT AROUND VERTICAL REINFORCEMENT AT JAMBS OR WALL ENDS WITH STANDARD HOOK. CONSTRUCTION SHALL CONFORM TO CHAPTER 21 OF THE CBC.

6. REINFORCING STEEL:
ALL BARS SHALL BE GRADE 60 DEFORMED BARS CONFORMING TO ASTM A615. REINFORCING BAR BENDS AND STANDARD HOOKS SHALL CONFORM TO ACI 318, LATEST EDITION. ALL BENDS SHALL BE SEISMIC HOOKS UNLESS OTHERWISE SHOWN. BARS 20 FEET AND SHORTER IN LENGTH SHALL BE IN SINGLE LENGTH RUNS WITHOUT SPLICES. BARS LONGER THAN 20 FEET IN LENGTH SHALL BE SPLICED WITH 72 BAR DIAMETER LAPS. SPLICES IN ADJACENT BAR RUNS SHALL BE WELL STAGGERED.

7. CARPENTRY AND TIMBER:
A. STRUCTURAL LUMBER GRADING SHALL BE WCLB STANDARD GRADING RULES FOR WEST COAST LUMBER #17. PLYWOOD SHALL CONFORM TO U.S. CURRENT PRODUCT STANDARD PS-1.

B. LUMBER SCHEDULE:

BEAMS, HEADERS, POSTS, WALL PLATES	DOUGLAS FIR #1 U.O.N.
RAFTERS	DF #2 OR BETTER (S4S)
2x4 STUDS AND BLOCKING	DF STANDARD OR BETTER
SILLS AND LEDGERS	PRESSURE TREATED DF #2

C. BOLTS IN WOOD SHALL CONFORM TO ASTM A-307. BOLT HOLES SHALL BE DRILLED 1/16" OVERSIZE OF BOLT. USE STANDARD WASHER ON ALL BEARING OF HEADS AND NUTS AGAINST WOOD UNLESS OTHERWISE NOTED. BOLTS, NUTS AND WASHERS SHALL BE HOT-DIPPED GALVANIZED OR STAINLESS STEEL WHERE EXPOSED TO WEATHER. BOLTS WITH UPSET THREADS ARE NOT ALLOWED.

D. BOLT TIGHTENING: ALL NUTS SHALL BE TIGHTENED WHEN PLACED AND RE-TIGHTENED AT COMPLETION OF PROJECT, OR IMMEDIATELY BEFORE FINISHING OF CONSTRUCTION WHICH WILL MAKE THEM INACCESSIBLE.

E. HOLES IN WOOD SILLS AND PLATES OF SHEAR AND BEARING WALLS SHALL BE PLACED NEATLY IN THE CENTER OF THE PIECE AND SHALL NOT BE GREATER IN DIAMETER THAN ONE-THIRD OF THE WIDTH OF THE SILL OR PLATE. NOTCHING WILL NOT BE ALLOWED. HOLES LARGER THAN NOTED ABOVE MAY BE BORED IN THE SILLS PROVIDING THE SILL IS CONSIDERED CUT IN TWO AND ANCHOR BOLTS PLACED ACCORDINGLY.

F. CUTTING, NOTCHING AND DRILLING JOISTS AND BEAMS FOR PIPES SHALL BE LIMITED TO CUTS AND BORED HOLES NOT GREATER THAN ONE-FIFTH THE JOIST DEPTH, LOCATED AT LEAST ONE-FIFTH THE JOIST DEPTH CLEAR FROM THE TOP AND BOTTOM, AND LOCATED NOT FURTHER FROM THE END OF THE JOIST THAN THREE TIMES THE JOIST DEPTH, UNLESS FULLY DETAILED ON PLANS.

G. WOOD FRAMING EMBEDDED IN OR ADJACENT TO CONCRETE OR MASONRY WALLS SHALL BE TREATED WITH AN APPROVED PRESERVATIVE. LUMBER EXPOSED TO WEATHER SHALL BE PRESSURE TREATED FOR ABOVE GROUND USE ACCORDING TO AWPA C-2, OR OTHERWISE EFFECTIVELY SEALED AND MAINTAINED, OR BE ALL-HEART REDWOOD. SUBMIT TYPE OF PRESERVATIVE TO BE USED FOR APPROVAL. FIELD CUTS AND HOLES SHALL BE FIELD TREATED IN ACCORDANCE WITH CURRENT AWPA M-4.

H. CMU WALL SILLS SHALL BE NATURALLY DURABLE REDWOOD OR PRESSURE TREATED. ANCHOR BOLTS SHALL BE ½" DIAMETER AND SHALL BE EMBEDDED AT LEAST 7" INTO CMU. ANCHOR BOLTS SHALL BE SPACED NOT MORE THAT 4'-0" O.C. THERE SHALL BE A MINIMUM OF 2 ANCHOR BOLTS PER SILL PLATE WITH ONE BOLT LOCATED NOT MORE THAN 12" (OR LESS THAN 4") FROM EACH END OF THE SILL PLATE.

I. FRAMING HARDWARE SHALL BE AS MANUFACTURED BY SIMPSON COMPANY OR OTHER APPROVED HARDWARE MANUFACTURER. NOTATIONS ON THE DRAWINGS REFER TO ITEMS SHOWN IN THEIR CATALOG (LATEST EDITION). HARDWARE SHALL BE INSTALLED WITH THE NAILS AND BOLTS CALLED FOR IN THE TABLES IN THE CATALOG. IF OTHER BRANDS ARE USED, THEY MUST BE EQUIVALENT IN ALL STRUCTURAL ASPECTS. A COPY OF THE CATALOG MUST BE KEPT AT THE JOB SITE.

J. NAILING: ALL NAILS SHALL BE COMMON WIRE NAILS UNLESS OTHERWISE SHOWN OR NOTED. SUB-DRILL WHERE THERE IS A DANGER OF SPLITTING. NAILS EXPOSED TO WEATHER SHALL BE GALVANIZED. FOR NAILING SCHEDULE, SEE TABLE 2304.10.1 OF THE 2019 CBC.

8. GLULAM BEAMS:
SHALL BE DOUGLAS FIR 24F-V4 FOR SIMPLE SPANS AND 24F-V8 (FB=2400 PSI) FOR CANTILEVER AND CONTINUOUS SPANS, UNLESS OTHERWISE NOTED, OF THE SIZE AND CAMBER INDICATED ON THE DRAWINGS. ALL GLU-LAMS SHALL BE CAMBERED TO R=2,000' UNLESS OTHERWISE NOTED. ALL GLU-LAMS SHALL HAVE WET USE TYPE LAMINATING ADHESIVE AND SHALL HAVE 1-1/2" LAMINATIONS. EXPOSED OR PARTIALLY EXPOSED GLU-LAM BEAMS SHALL BE ARCHITECTURAL APPEARANCE GRADE WITH RESAWN FINISH. CONCEALED GLU-LAM BEAMS SHALL BE INDUSTRIAL APPEARANCE GRADE. SUBMIT GLU-LAM BEAM SHOP DRAWINGS TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION. WRAP ALL GLU-LAM BEAMS FOR SHIPPING AND FURNISH CERTIFICATE OF INSPECTION FOR MANUFACTURER AND SLOPE OF GRAIN OF INDIVIDUAL MEMBERS. AITC CERTIFICATES TO BE PROVIDED FOR BUILDING DEPARTMENT OFFICIAL. HOLES FOR CONDUITS NO GREATER THAN 1-1/2" IN DIAMETER MAY BE DRILLED IN GLU-LAM BEAMS PROVIDED NO BORING IS DONE IN THE TOP OR BOTTOM 20% OF LAMINATIONS.

9. EPOXY ANCHORS SHALL BE HILTI HIT-RE 500 V3 (ICC REPORT #ESR-3814) WITH F1554 GR. 36 OR F593 STAINLESS STEEL ANCHOR RODS. EPOXY ANCHORS SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS; SPECIAL INSPECTION IS REQUIRED PER CHAPTER 17 OF THE 2019 CBC & ABOVE REFERENCED ICC REPORTS.

SPECIAL TESTS & INSPECTION SCHEDULE

THE FOLLOWING ITEMS SHALL BE INSPECTED. "SPECIAL INSPECTION" SHALL CONFORM TO 2019 CBC 1705. SPECIAL INSPECTION AGENCIES AND/OR INDIVIDUALS SHALL BE RETAINED BY THE OWNER AND APPROVED BY THE BUILDING OFFICIAL PRIOR TO ANY WORK. FOR MATERIAL TESTING REQUIREMENTS, SEE SPECIFICATIONS AND/OR GENERAL NOTES. TESTING AGENCY SHALL SEND COPIES OF ALL STRUCTURAL TESTING AND INSPECTION REPORTS DIRECTLY TO THE BUILDING OFFICIAL AND ENGINEER.

ITEM	REQUIRED	REMARKS
MASONRY (LEVEL 3)	YES	PER SECTION 1705.4 & TMS 402-16(TABLE 3.1) & 602-16 (TABLES 3 & 4)
EPOXY (WHERE OCCURS)	YES	VISUAL-INSTALLATION PROCEDURES ONLY (PER SECTION 1705.1.1)

GENERAL NOTES

1. OWNER TO SET PUMP AND CONTRACTOR TO SET PANELBOARD PRIOR TO ERECTION OF BUILDING WALLS, COORDINATE WITH OWNER.

2. NOTIFY OWNER BEFORE PLACING CONCRETE SO THAT THE PLACEMENT OF UNDERGROUND ELECTRICAL & HYDRAULIC CONDUITS CAN BE VERIFIED. ALL UNDERGROUND ELECTRICAL CONDUIT MUST BE INSTALLED BY OWNER APPROVED ELECTRICAL CONTRACTORS.

3. VERIFY LOCATION OF ALL WALL OPENINGS, PIPE RUNS OR OTHER SITE CONDITIONS AFFECTING WORK WITH OWNER.

4. TOP OF PUMP BASE IS TO BE LEVEL. SLAB & PUMP BASE TO HAVE A HARD TROWEL FINISH.

5. ELECTRICAL WORK: REFER TO CALIFORNIA WATER SERVICE CO. ELECTRICAL DRAWINGS AND STANDARDS, AND COMPLY THEREWITH. ALL WORK SHALL COMPLY WITH APPLICABLE CODES.

6. PAINTING SPECIFICATIONS: (SEE TABLE BELOW). ALL WORK WILL BE DONE IN ACCORDANCE WITH CWS CO. FACILITIES PAINT SPECIFICATION, CWS CO. WILL PROVIDE PAINT SPECIFICATIONS UPON REQUEST. SURFACE PREPARATION SHALL BE DONE IN ACCORDANCE WITH CWS CO. SPECIFICATIONS.

ITEM SPECIFIED	PAINTING SPECIFICATIONS
CONCRETE WALLS, MASONRY UNITS FINISH – INTERIOR & EXTERIOR:	ASPS NO. 32
CONCRETE FLOOR: PRIMER: FINISH: COLOR: FED. STD. 595 (16440 – GREY) BROADCAST SAND FINISH	ASPS NO. 35
WOOD: PRIMER: FINISH – INTERIOR: COLOR – FED. STD. 595 (30450 – DESERT SAND) FINISH – EXTERIOR: COLOR – FED. STD. 595 (10070 – DARK BROWN)	ASPS NO. 40
GALVANIZED, STAINLESS STEEL & OTHER NON-FERROUS METALS: PRIMER: INTERMEDIATE: FINISH – INTERIOR: PIPES & PUMP HEADS: COLOR – FED. STD. 595 (16440 – GREY) LOUVERS, DOORS, ETC.: COLOR – FED. STD. 595 (30450 – DESERT SAND) FINISH – EXTERIOR: PIPES: COLOR – FED. STD. 595 (10070 – DARK BROWN) LOUVERS, DOORS, ETC: COLOR – FED. STD. 595 (10070 – DARK BROWN)	ASPS NO. 37
CARBON STEEL: PRIMER: INTERMEDIATE: FINISH – EXTERIOR: COLOR – FED. STD. 595 (10070 – DARK BROWN)	ASPS NO. 28

7. HARDWARE:
A. BUTTS: 1-1/2" PER STANLEY #FBF-199 US26D, N2D
B. LOCK: SCHLAGE "L" SERIES LOCK 03456 WITH A 03 LEVER; 626 FINISH
C. DOOR STOP: GLYNN-JOHNSON W27 OR HAGER "ACCENT" 256W WALL STOP AND LEVER TYPE HOLDER ON ALL DOORS, STAINLESS STEEL

8. HOLLOW METAL (HM) DOORS AND FRAMES :
A. DOOR: CECO OR KRIEGER 18 ga. 1¾" THICK, 6'-8" HEIGHT WITH METAL HEAD PANEL. ONE SET LOUVER DOOR (6' WIDE DOUBLE DOORS).
B. FRAMES : CECO OR KRIEGER 16ga.
C. COMPLETE WITH ANCHORS AND ASTRAGAL
D. SHOP PRIME COAT OVER GALVANIZE. EXIT DOOR SHALL BE OPEN-ABLE FROM THE INSIDE WITHOUT THE USE OF A KEY, SPECIAL KNOWLEDGE OR EFFORT.

9. LOUVERED GABLE SHALL BE 6" DEEP "SLIMSHIELD" QUIET-VENT ACOUSTIC LOUVERS w/ BIRD SCREEN AND INSECT SCREEN. ALL LOUVERS ARE TO BE CONNECTED TO FIXED METAL JAMBS AND PLATES w/ SHEET METAL SCREWS. CONTRACTOR SHALL PROVIDE OWNER THE MANUFACTURER'S DATA ON ACOUSTIC AND AERODYNAMIC PERFORMANCES.

10. CONCRETE SLAB AND PUMP FOUNDATIONS SHALL HAVE 2 COATS OF CLEAR SEALER SPEC NO. A-6.

11. CONTRACTOR TO PROVIDE & INSTALL ROOF VENTILATION FANS. VENTILATION FAN TO BE MODEL DAYTON 24½"x2HP ROOF MOUNT UP BLAST 12750CFM VOLT VENTILATOR, GRAINGER 7A639 OR EQUAL. LOCATION TO BE DETERMINED IN FIELD AND MOUNTED PER THE MANUFACTURER'S INSTRUCTIONS.

12. OCCUPANCY = GROUP U – DIVISION I (MECHANICAL EQUIPMENT ROOM) CONSTRUCTION TYPE = TYPE V BUILDING (NON-RATED)

13. ROOFING: FIBERGLASS ROOF SHINGLES TO BE GAF "TIMBERLINE", 40 YR WARRANTY DIMENSIONAL APPEARANCE BURNT SIENNA BLEND. INSTALL PER MANUFACTURER RECOMMENDATIONS FOR CLASS "A" LOW SLOPE APPLICATION.

14. CONTRACTOR TO PROVIDE AND INSTALL SKYLIGHTS. SKYLIGHT TO BE MODEL NO. 4242AL, MANUFACTURED BY BRISTOLE DAYLIGHTING SYSTEMS, SANTA ANA, CA OR APPROVED EQUIVALENT. ALL FASTENERS SHALL BE SPECIAL TYPE. CONTRACTOR TO PROVIDE OWNER THE FASTENER TOOLS AT THE END OF CONSTRUCTION.

15. CONTRACTOR TO PROVIDE AND INSTALL FAUX WINDOWS. FAUX WINDOWNS SHALL BE MANUFACTURED BY IMAGINATION MILLWORK OR APPROVED EQUIVALENT. FOUR (4) RECTANGLE 24"x32" FLAT TRIM, 6 LITES, PVC AND ONE (1) RECTANGLE 24"x32" FLAT TRIM, 1 LITE, PVC. WATER-PROOFING, FLASHING & CLOSURE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. INSTALLATION SHALL BE PER MANUFACTURER SPECIFICATIONS.

DESIGN LOADS

SCOPE: GRAVITY AND LATERAL ANALYSIS FOR NEW 16'-0"x30'-0"x8'-0" TALL CMU PUMP HOUSE.

SECTION 1604.5 & TABLE 1604.5: RISK CATEGORY	IV (ESSENTIAL FACILITY)
SECTION 1606 – DEAD LOADS	
PUMP HOUSE	12 PSF
SECTION 1607 – LIVE LOADS: PUMP HOUSE	20 PSF
SECTION 1608 – SNOW LOAD	N/A
SECTION 1609 – WIND DESIGN DATA	
BASIC DESIGN SPEED, V (3s GUST)	102 MPH
NOMINAL DESIGN SPEED, $V_{ASD}=V\sqrt{0.6}$ (3s GUST)	79 MPH
WIND EXPOSURE	B
INTERNAL PRESSURE COEFFICIENT	N/A
SIMPLIFIED DESIGN WIND PRESSURE (ASCE7-16 SECTION 28.5.3), P_{s30}	22.0 PSF; 14.6 PSF
SECTION 1613 – EARTHQUAKE DESIGN DATA	
LATITUDE	37.540°
LONGITUDE	-122.313°
SITE CLASS	D
SPECTRAL RESPONSE @ 0.2 SEC PERIOD, S_s	1.981
SPECTRAL RESPONSE @ 1.0 SEC PERIOD, S_1	0.817
SHORT PERIOD SITE COEFFICIENT @ 0.2 SEC PERIOD, F_a	1.200
LONG PERIOD SITE COEFFICIENT @ 1.0 SEC PERIOD, F_v	1.700
MODIFIED SPECTRAL RESPONSE @ 0.2 SEC PERIOD, S_{MS}	2.377
MODIFIED SPECTRAL RESPONSE @ 1.0 SEC PERIOD, S_{M1}	1.389
DESIGN SPECTRAL RESPONSE COEFFICIENTS, S_{DS} (LIMIT S_{DS} PER 12.8.1.3)	1.109
S_{D1}	0.926
SEISMIC DESIGN CATEGORY	E
CHAPTER 12: EQUIVALENT LATERAL FORCE PROCEDURE (ASCE7-16 SECTION 12.8.1) PUMP HOUSE:	
SEISMIC IMPORTANCE FACTOR, I_e	1.5
BASIC SEISMIC FORCE RESISTING SYSTEM	SPECIAL REINF. CMU WALLS
RESPONSE MODIFICATION FACTOR, R	5.0
SEISMIC RESPONSE COEFFICIENT, C_s	0.333
DESIGN BASE SHEAR	$V=C_sW$

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

PEG JOB #: 19-137

Pacific Engineering Group, Inc.
9699 Blue Larkspur Lane, Ste 104 Monterey, CA 93940
ph: (831) 333-0644

DRAWN BY: A. GARCIA
CHECKED BY: A.G. 02/10/2021
DESIGNED BY: A. GARCIA
APPROVED BY: (SIGNATURE) DATE: 02/10/2021

REGISTERED PROFESSIONAL ENGINEER ALICIA GARCIA No. 87143 Exp. 09-30-21 CIVIL STATE OF CALIFORNIA
NOT VALID WITHOUT WET SIGNATURE

ENGINEERING
CALIFORNIA WATER SERVICE
DEPARTMENT

REVISIONS:

	DATE:	INIT.

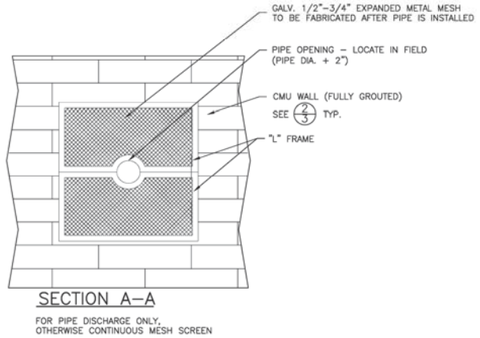
DISTRIBUTION MAP ☐
PLAT SHEET ☐
SYSTEM SCHEMATIC ☐
STATION SCHEMATIC ☐

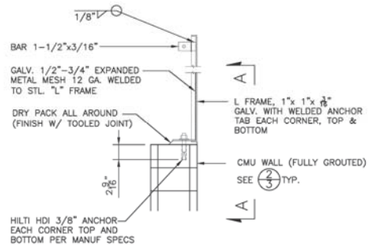
PLAT SHEET NO.:

SCALE: AS NOTED
DRAWN BY:
DESIGNED BY:
TECH REVIEW: DATE:
CHECKED BY: DATE:
APPROVED BY: DATE:

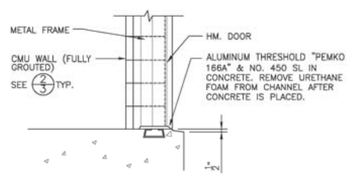
TITLE: MID PENINSULA – STATION 22
16'-0"x30'-0"x8'-0" TALL CONCRETE MASONRY PUMP BUILDING

DISTRICT: MID PENINSULA
SAN MATEO
DATE: 02/10/2021
PROJECT ID.: 00098594
DRAWING NO.: MPS-5621
SHT 1 OF 4

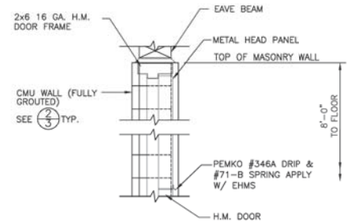




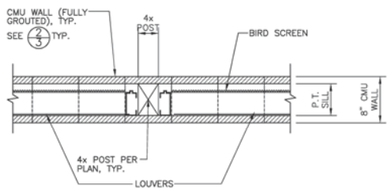
1/2 SCREEN DETAIL — SCALE: 1" = 1'–0"



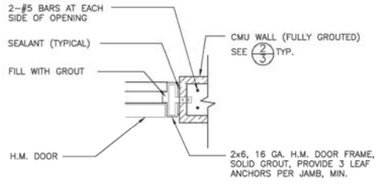
3/2 DOOR SILL — SCALE: 1" = 1'–0"



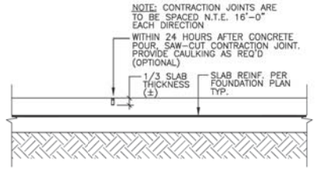
4/2 DOOR HEAD — SCALE: 1" = 1'–0"



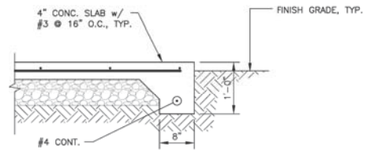
5/2 LOUVER DIVIDER — SCALE: 1" = 1'–0"



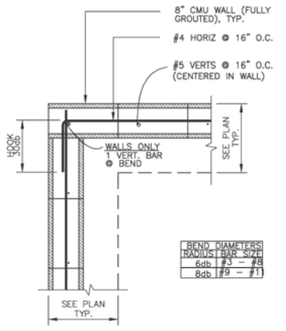
6/2 DOOR JAMB — SCALE: 1" = 1'–0"



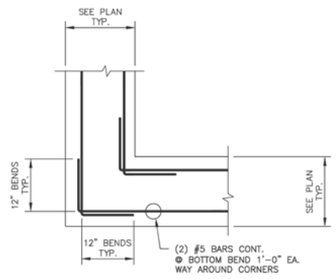
7/2 CONTRACTION JOINT — SCALE: 3/4" = 1'–0"



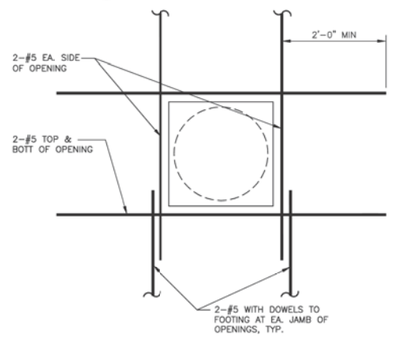
8/2 CONCRETE PORCH DETAIL — SCALE: 3/4" = 1'–0"



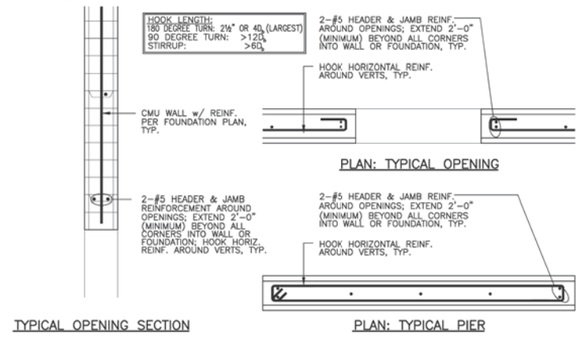
9/2 TYPICAL CORNER (PLAN) — SCALE: 3/4" = 1'–0"



10/2 TYPICAL REINFORCEMENT AT FTG. CORNERS (PLAN) — SCALE: 3/4" = 1'–0"



11/2 TYP REINFORCEMENT AT OPENING — SCALE: 3/4" = 1'–0"



12/2 TYPICAL CMU REINFORCEMENT — SCALE: 3/4" = 1'–0"

Know what's below. Call before you dig.

PEG JOB #:	19–137
DRAWN BY:	A. GARCIA
DESIGNED BY:	A. GARCIA
CHECKED BY:	A.G.
DATE:	02/10/2021
APPROVED BY: (SIGNATURE)	
DATE:	02/10/2021

Pacific Engineering Group, Inc.
9699 Blue Larkspur Lane, Ste 104 Monterey, CA 93940
ph: (831) 333-0644

REGISTERED PROFESSIONAL ENGINEER — No. 67143 — Exp. 09–30–21 — 02/10/2021 — CIVIL — STATE OF CALIFORNIA
NOT VALID WITHOUT WET SIGNATURE

ENGINEERING
CALIFORNIA WATER SERVICE
DEPARTMENT

REVISIONS:

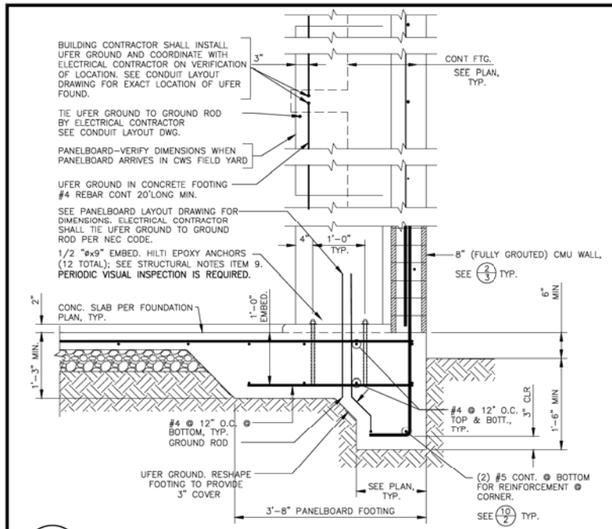
	DATE:	INIT.
DISTRIBUTION MAP		
PLAT SHEET		
SYSTEM SCHEMATIC		
STATION SCHEMATIC		

PLAT SHEET NO.:

SCALE: AS NOTED
DRAWN BY:
DESIGNED BY:
TECH REVIEW: DATE:
CHECKED BY: DATE:
APPROVED BY: DATE:

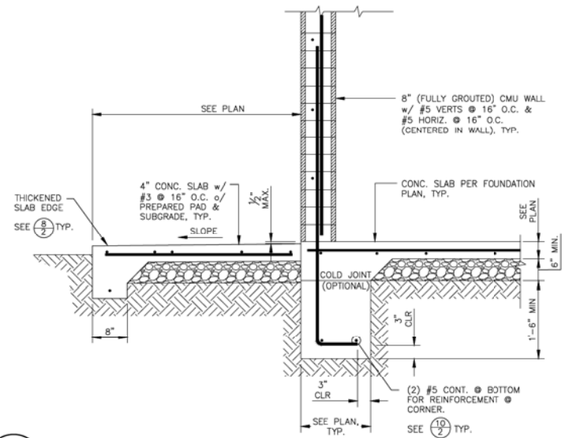
TITLE: MID PENINSULA – STATION 22
16'–0"x30'–0"x8'–0" TALL CONCRETE MASONRY PUMP BUILDING

DISTRICT: MID PENINSULA
SAN MATEO
DATE: 02/10/2021
PROJECT ID.: 00098594
DRAWING NO.: MPS–5621
SHT 2 OF 4



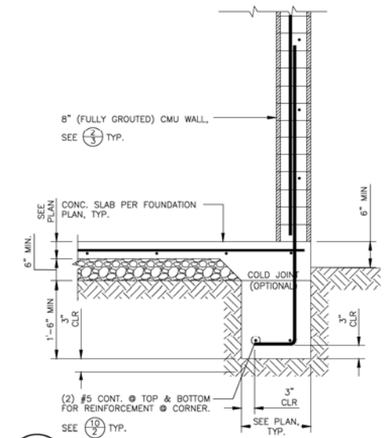
1/3 FOUNDATION DETAIL AT PANELBOARD

SCALE: 3/4" = 1'–0"



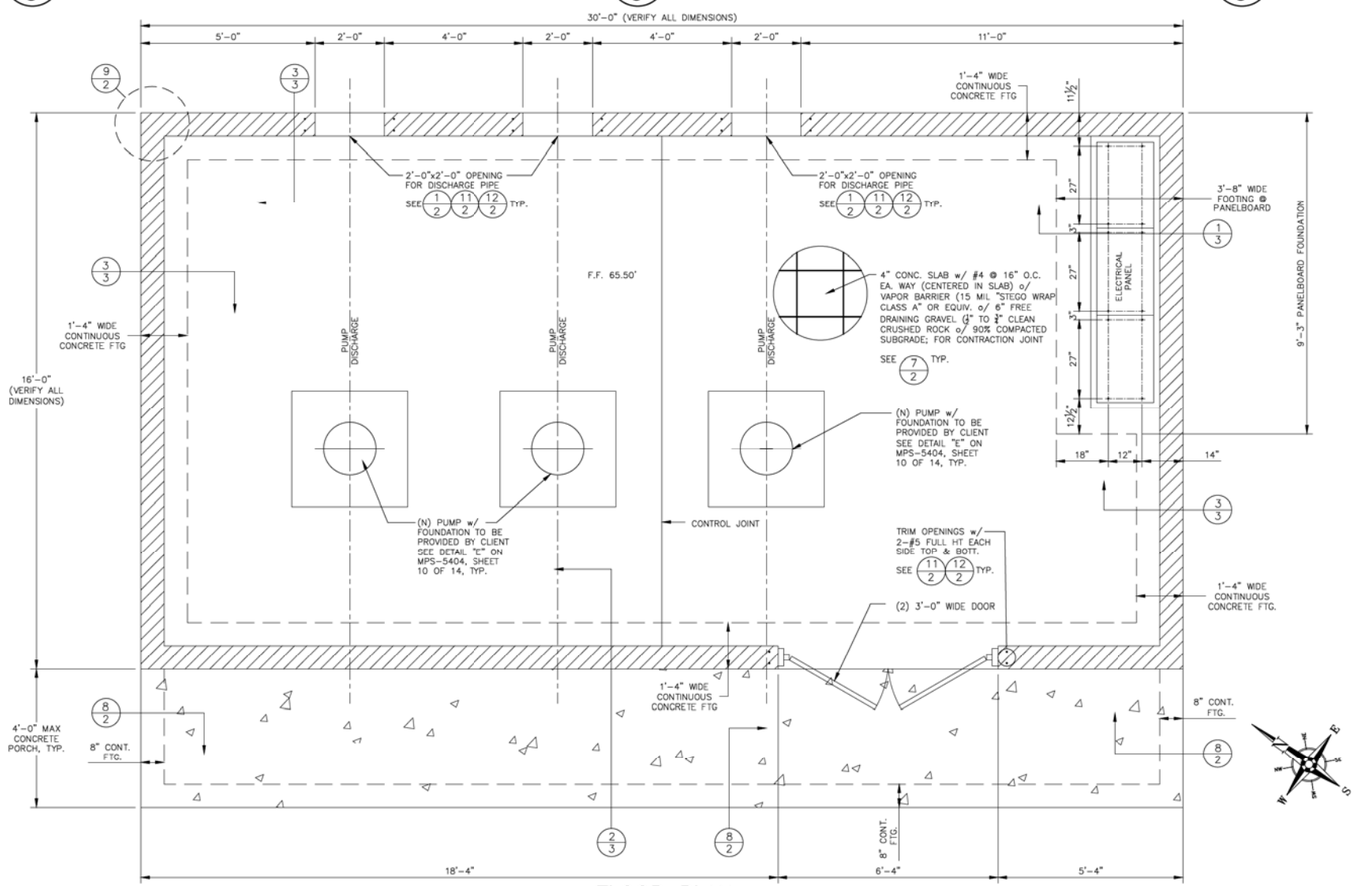
2/3 FOUNDATION DETAIL AT PORCH

SCALE: 3/4" = 1'–0"



3/3 FOUNDATION DETAIL

SCALE: 3/4" = 1'–0"



FLOOR PLAN

1/2" = 1'–0"

ENGINEERING

CALIFORNIA WATER SERVICE

DEPARTMENT

REVISIONS:

	DATE:	INIT.
DISTRIBUTION MAP		
PLAT SHEET		
SYSTEM SCHEMATIC		
STATION SCHEMATIC		

PLAT SHEET NO.:

SCALE: AS NOTED

DRAWN BY:

DESIGNED BY:

TECH REVIEW: DATE:

CHECKED BY: DATE:

APPROVED BY: DATE:

TITLE: MID PENINSULA – STATION 22
16'–0"x30'–0"x8'–0" TALL CONCRETE MASONRY PUMP BUILDING

DISTRICT: MID PENINSULA

SAN MATEO

DATE: 02/10/2021

PROJECT ID.: 00098594

DRAWING NO.: MPS–5621

SHT 3 OF 4

Know what's below. Call before you dig.

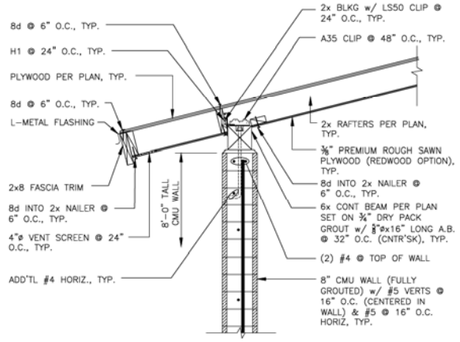
PEG JOB #: 19–137

Pacific Engineering Group, Inc.
9699 Blue Larkspur Lane, Ste 104 Monterey, CA 93940
ph: (831) 333–0644

DRAWN BY: A. GARCIA
CHECKED BY: A.G. 02/10/2021
DESIGNED BY: A. GARCIA
APPROVED BY: (SIGNATURE) DATE: 2/10/2021

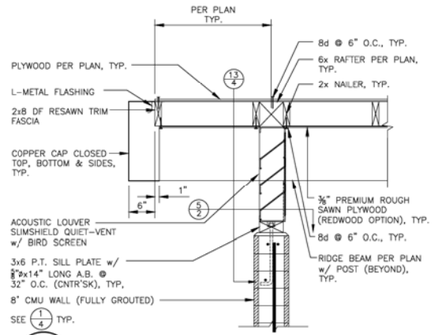
REGISTERED PROFESSIONAL ENGINEER ALICIA GARCIA No. 67143 Exp. 09–30–21 CIVIL STATE OF CALIFORNIA

NOT VALID WITHOUT WET SIGNATURE



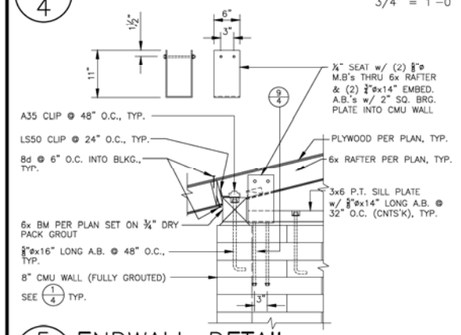
1/4 TYPICAL EAVE DETAIL

3/4" = 1'-0"



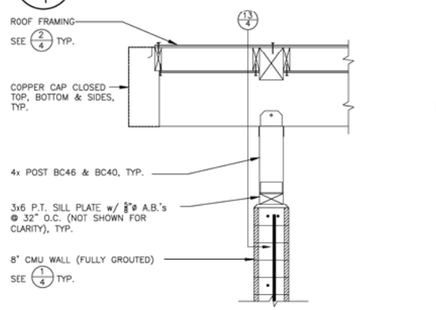
2/4 LOUVER AT GABLE

3/4" = 1'-0"



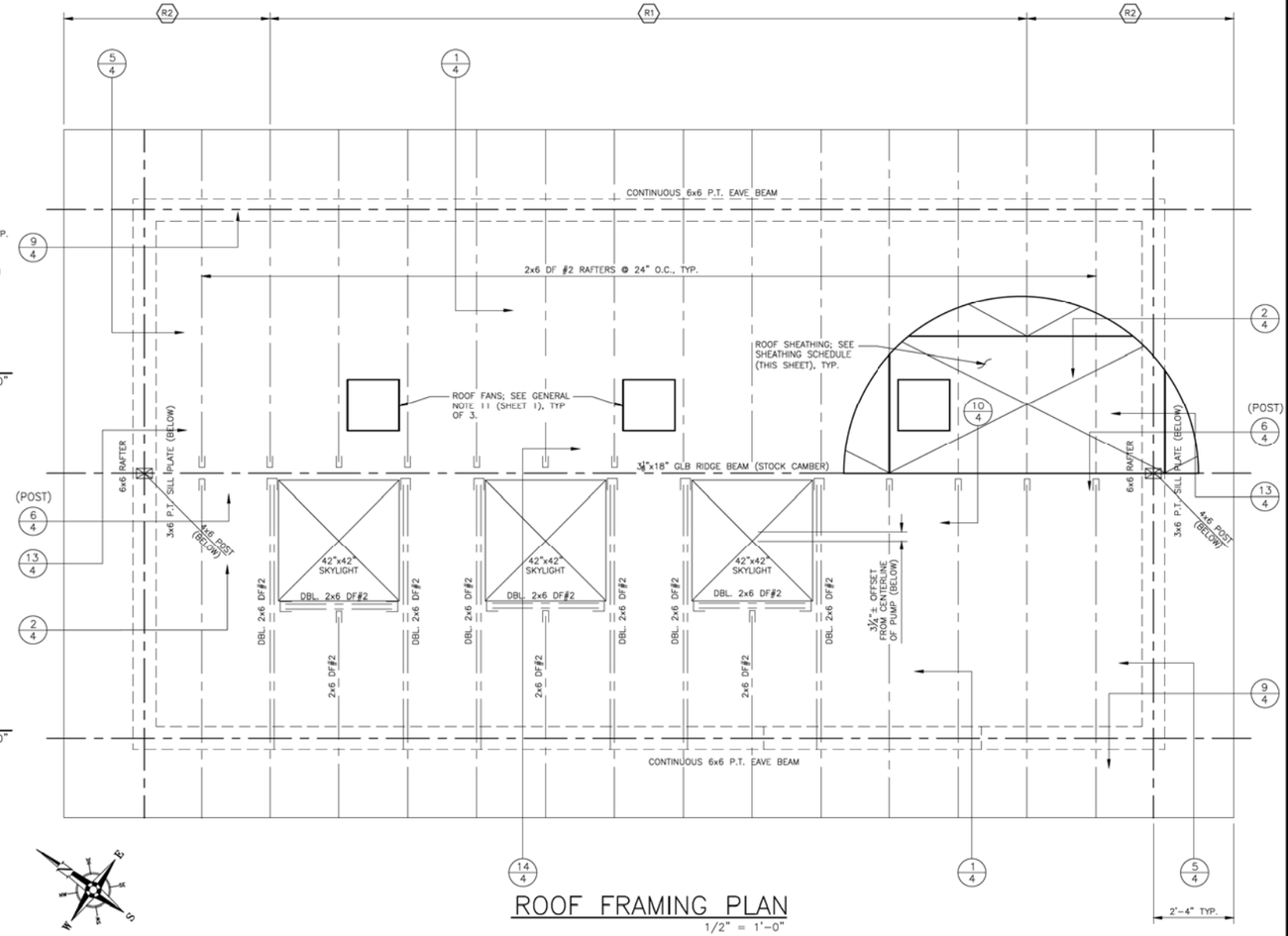
5/4 ENDWALL DETAIL

3/4" = 1'-0"



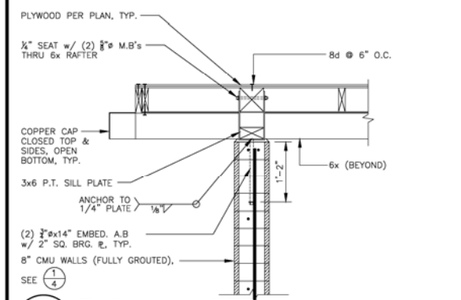
6/4 TYP. POST DETAIL

3/4" = 1'-0"



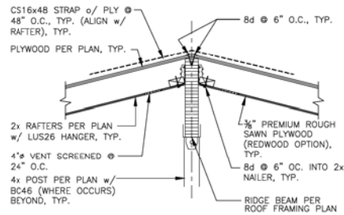
ROOF FRAMING PLAN

1/2" = 1'-0"



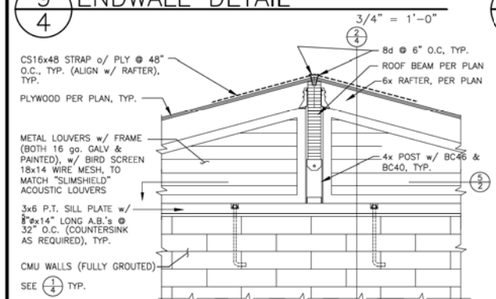
9/4 ENDWALL DETAIL

3/4" = 1'-0"



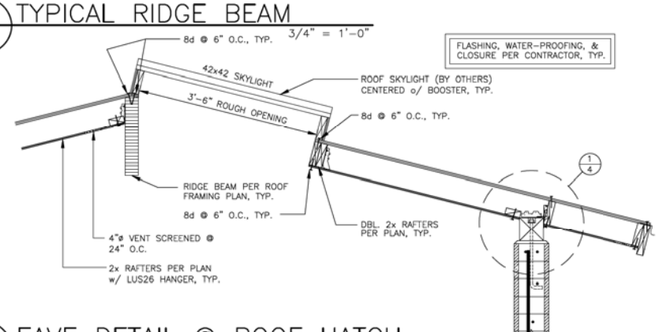
10/4 TYPICAL RIDGE BEAM

3/4" = 1'-0"



13/4 LOUVER AT RIDGE BEAM

3/4" = 1'-0"



14/4 EAVE DETAIL @ ROOF HATCH

3/4" = 1'-0"

SHEATHING SCHEDULE

MARK	SHEATHING (1, 4)	SHEATHING NAILING (9) EDGE (T.E.N.)	FIELD	PLATE (1 & 9) NAILING	SILL (1, 5, 8) BOLTING	SHEAR (1) TRANSFER CLIPS	ALLOW. SHEAR #/FT.	NOTES (1)
R1 ROOF SHEATHING U.O.N.	1/2" CDX PLY.	8d @ 6" O.C.	8d @ 12" O.C.	N . A .	N . A .	STD. PLY. CLIP 24" O.C.	240 / 180	
R2 ROOF SHEATHING U.O.N.	1/2" CDX PLY.	8d @ 4" O.C.	8d @ 6" O.C.	N . A .	N . A .	STD. PLY. CLIP 24" O.C.	350	ALL EDGES BLOCKED

1 – UNLESS OTHERWISE SPECIFIED IN DRAWINGS.
2 – AWC SDPWS–2015; TABLE 4.2A ALLOWABLE SHEAR CAPACITIES FOR BLOCKED DIAPHRAGMS (OMEGA = 2.0).
AWC SDPWS–2015; TABLE 4.2C ALLOWABLE SHEAR CAPACITIES FOR UNBLOCKED DIAPHRAGMS (OMEGA = 2.0).
3 – AWC SDPWS–2015; TABLE 4.3A ALLOWABLE SHEAR CAPACITIES FOR BLOCKED SHEARWALL PANELS (OMEGA = 2.0).
4 – ROOF SHEATHING SHALL BE APPLIED FACE GRAIN PERPENDICULAR TO FRAMING – TYP.
5 – CONTINUE SHEARWALL AND NAILING OVER SIDE OF POST AT END OF SHEARWALL.
6 – ALL SILL PLATES SHALL BE PRESSURE TREATED DOUGLAS FIR, (U.O.N.). ALL FASTENERS, INCLUDING NUTS AND WASHERS, IN CONTACT WITH PRESERVATIVE TREATED WOOD SHALL BE OF HOT–DIPPED ZINC–COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE OR COPPER PER CBC SECTION 2304.10.5.1. ANCHOR BOLTS SHALL HAVE A MINIMUM OF 3"x3"x1/4" THICK PLATE WASHER PLYWOOD JOINTS AND SILL PLATE NAILING SHALL BE STAGGERED IN ALL CASES.
7 – WHERE PANELS ARE APPLIED ON BOTH FACES OF A WALL AND NAIL SPACING IS LESS THAN 6 INCHES ON CENTER, PANEL JOINTS SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS OR FRAMING MEMBERS SHALL BE 3–INCH NOMINAL OR THICKER. NAILS ON EACH SIDE OF PANEL JOINTS SHALL BE STAGGERED.
8 – IN SEISMIC DESIGN CATEGORY D, E, OR F, WHERE ALLOWABLE SHEAR VALUES EXCEED 350#/FT, FOUNDATION SILL PLATES, & ALL FRAMING MEMBERS RECEIVING EDGE NAILING FROM ABUTTING PANELS SHALL NOT BE LESS THAN A SINGLE 3x MEMBER OR TWO 2" NOMINAL MEMBERS FASTENED TOGETHER IN ACCORDANCE WITH TABLE 2304.10.1. NAILS ON EACH SIDE OF PANEL JOINTS SHALL BE STAGGERED.
9 – ALL NAILS SHALL BE 8d COMMON NAILS (2½"x.131) OR 10d COMMON (3"x.148") AS INDICATED IN SCHEDULE; AND SHALL BE GAVANIZED, HOT DIPPED OR TUMBLED.
10 – SPECIAL INSPECTION REQUIRED FOR NAILS WITH EDGE SPACING AT 4" O.C. OR CLOSER PER CBC SECTION 1705.12.2 WITH EXCEPTION AS NOTED.

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

PEG JOB #: 19-137

Pacific Engineering Group, Inc.
9699 Blue Larkspur Lane, Ste 104 Monterey, CA 93940
ph: (831) 333-0644

DRAWN BY: A. GARCIA
DESIGNED BY: A. GARCIA
CHECKED BY: A.G. DATE: 02/10/2021
APPROVED BY: (SIGNATURE) DATE: 2/10/2021

REGISTERED PROFESSIONAL ENGINEER ALICIA GARCIA No. 87143 Exp. 09-30-21 CIVIL STATE OF CALIFORNIA

NOT VALID WITHOUT WET SIGNATURE

ENGINEERING

CALIFORNIA WATER SERVICE

DEPARTMENT

REVISIONS:

	DATE:	INIT.
DISTRIBUTION MAP		
PLAT SHEET		
SYSTEM SCHEMATIC		
STATION SCHEMATIC		

PLAT SHEET NO.:

SCALE: AS NOTED

DRAWN BY:

DESIGNED BY:

TECH REVIEW: DATE:

CHECKED BY: DATE:

APPROVED BY: DATE:

TITLE: MID PENINSULA – STATION 22
16'-0"x30'-0"x8'-0" TALL CONCRETE MASONRY PUMP BUILDING

DISTRICT: MID PENINSULA

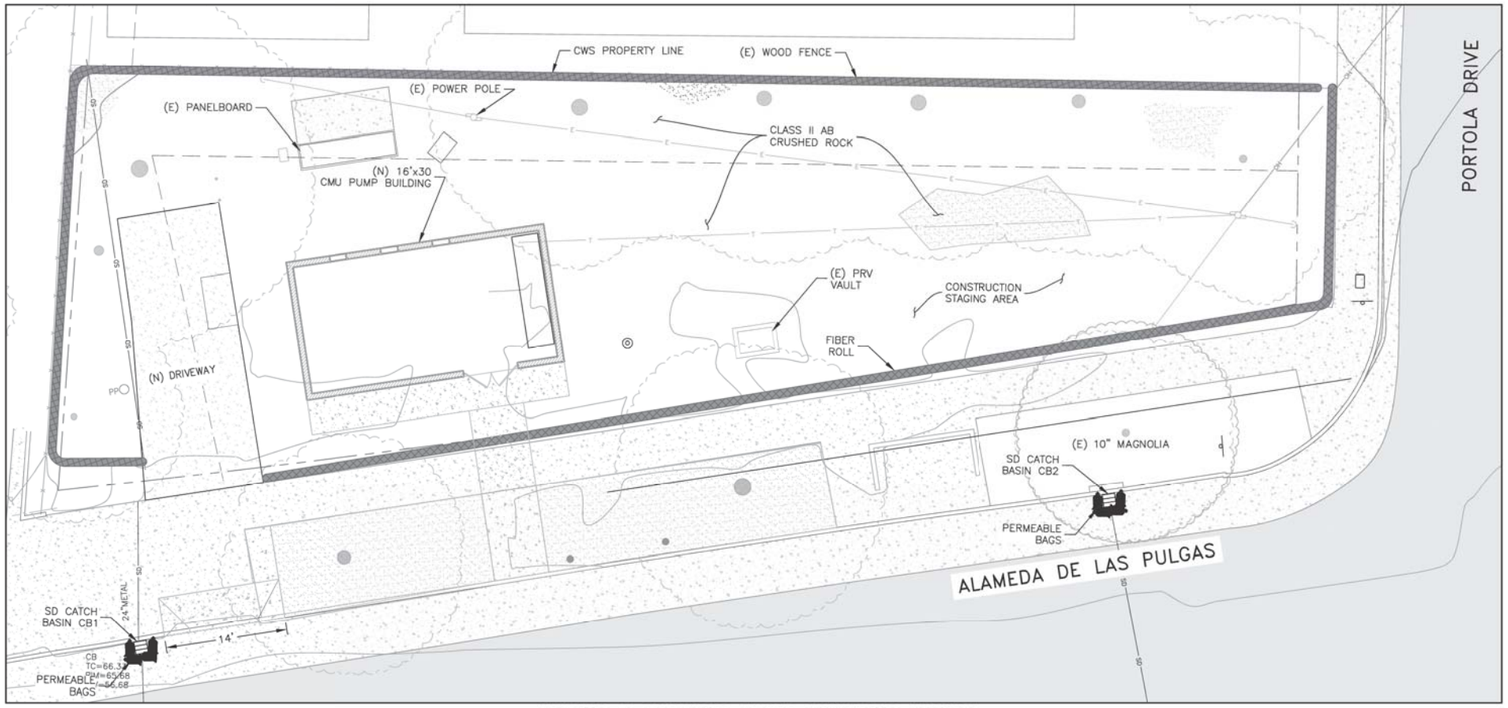
SAN MATEO

DATE: 02/10/2021

PROJECT ID.: 00098594

DRAWING NO.: MPS-5621

SHT 4 OF 4

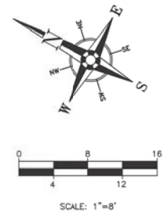


STATION 22 PROPOSED WATER POLLUTION CONTROL

SCALE: 1" = 8'

LEGEND:

- = CATCH BASIN
- = FIBER ROLL
- = PERMEABLE BAG
- = CONCRETE PAVEMENT
- = CLASS II AB CRUSHED ROCK
- = ASPHALT
- = DIRT/EARTH



SCALE: 1"=8'

ENGINEERING

CALIFORNIA WATER SERVICE

DEPARTMENT

REVISIONS:

1 ELEVATION VIEW REMOVED DUE TO REDUNDANCY. R.O. 4/13/2021

	DATE:	INIT.
DISTRIBUTION MAP		
PLAT SHEET		
SYSTEM SCHEMATIC		
STATION SCHEMATIC		

PLAT SHEET NO.: SM-29-25

SCALE: AS SHOWN

DRAWN BY: R.OSORIO

DESIGNED BY: S. G/B. G.

TECH REVIEW: DATE: 04/23/2021

CHECKED BY: DATE: 04/23/2021

APPROVED BY: DATE: 04/23/2021

REGISTERED PROFESSIONAL ENGINEER
DEVASEKHAR PRASANNA
No. C76302
EXP. 06-30-22
CIVIL
STATE OF CALIFORNIA

MID PENINSULA - STATION 22
PROPOSED STATION REDEVELOPMENT
WATER POLLUTION CONTROL

TITLE:

DISTRICT: MID PENINSULA

SAN MATEO

DATE: 08/26/2020

PROJECT ID.: 00098594

DRAWING NO.: MPS-WPC-R1

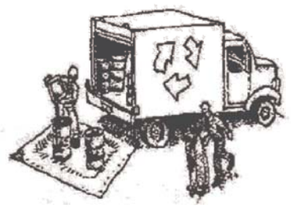
SHT 1 OF 1

SAN MATEO COUNTYWIDE
Water Pollution Prevention Program
Clean Water. Healthy Community.

Construction Best Management Practices (BMPs)

Construction projects are required to implement the stormwater best management practices (BMP) on this page, as they apply to your project, all year long.

Materials & Waste Management



Non-Hazardous Materials

- ❑ Berm and cover stockpiles of sand, dirt or other construction material with tarps when rain is forecast or if not actively being used within 14 days.
- ❑ Use (but don't overuse) reclaimed water for dust control.

Hazardous Materials

- ❑ Label all hazardous materials and hazardous wastes (such as pesticides, paints, thinners, solvents, fuel, oil, and antifreeze) in accordance with city, county, state and federal regulations.
- ❑ Store hazardous materials and wastes in water tight containers, store in appropriate secondary containment, and cover them at the end of every work day or during wet weather or when rain is forecast.
- ❑ Follow manufacturer's application instructions for hazardous materials and be careful not to use more than necessary. Do not apply chemicals outdoors when rain is forecast within 24 hours.
- ❑ Arrange for appropriate disposal of all hazardous wastes.

Waste Management

- ❑ Cover waste disposal containers securely with tarps at the end of every work day and during wet weather.
- ❑ Check waste disposal containers frequently for leaks and to make sure they are not overfilled. Never hose down a dumpster on the construction site.
- ❑ Clean or replace portable toilets, and inspect them frequently for leaks and spills.
- ❑ Dispose of all wastes and debris properly. Recycle materials and wastes that can be recycled (such as asphalt, concrete, aggregate base materials, wood, gyp board, pipe, etc.)
- ❑ Dispose of liquid residues from paints, thinners, solvents, glues, and cleaning fluids as hazardous waste.

Construction Entrances and Perimeter

- ❑ Establish and maintain effective perimeter controls and stabilize all construction entrances and exits to sufficiently control erosion and sediment discharges from site and tracking off site.
- ❑ Sweep or vacuum any street tracking immediately and secure sediment source to prevent further tracking. Never hose down streets to clean up tracking.

Equipment Management & Spill Control

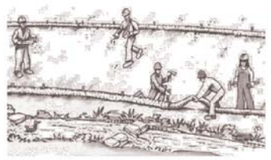
Maintenance and Parking

- ❑ Designate an area, fitted with appropriate BMPs, for vehicle and equipment parking and storage.
- ❑ Perform major maintenance, repair jobs, and vehicle and equipment washing off site.
- ❑ If refueling or vehicle maintenance must be done onsite, work in a bermed area away from storm drains and over a drip pan or drop cloths big enough to collect fluids. Recycle or dispose of fluids as hazardous waste.
- ❑ If vehicle or equipment cleaning must be done onsite, clean with water only in a bermed area that will not allow rinse water to run into gutters, streets, storm drains, or surface waters.
- ❑ Do not clean vehicle or equipment onsite using soaps, solvents, degreasers, or steam cleaning equipment.

Spill Prevention and Control

- ❑ Keep spill cleanup materials (e.g., rags, absorbents and cat litter) available at the construction site at all times.
- ❑ Inspect vehicles and equipment frequently for and repair leaks promptly. Use drip pans to catch leaks until repairs are made.
- ❑ Clean up spills or leaks immediately and dispose of cleanup materials properly.
- ❑ Do not hose down surfaces where fluids have spilled. Use dry cleanup methods (absorbent materials, cat litter, and/or rags).
- ❑ Sweep up spilled dry materials immediately. Do not try to wash them away with water, or bury them.
- ❑ Clean up spills on dirt areas by digging up and properly disposing of contaminated soil.
- ❑ Report significant spills immediately. You are required by law to report all significant releases of hazardous materials, including oil. To report a spill: 1) Dial 911 or your local emergency response number, 2) Call the Governor's Office of Emergency Services Warning Center, (800) 852-7550 (24 hours).

Earthmoving



- ❑ Schedule grading and excavation work during dry weather.
- ❑ Stabilize all denuded areas, install and maintain temporary erosion controls (such as erosion control fabric or bonded fiber matrix) until vegetation is established.
- ❑ Remove existing vegetation only when absolutely necessary, and seed or plant vegetation for erosion control on slopes or where construction is not immediately planned.
- ❑ Prevent sediment from migrating offsite and protect storm drain inlets, gutters, ditches, and drainage courses by installing and maintaining appropriate BMPs, such as fiber rolls, silt fences, sediment basins, gravel bags, berms, etc.
- ❑ Keep excavated soil on site and transfer it to dump trucks on site, not in the streets.

Contaminated Soils

- ❑ If any of the following conditions are observed, test for contamination and contact the Regional Water Quality Control Board:
  - Unusual soil conditions, discoloration, or odor.
  - Abandoned underground tanks.
  - Abandoned wells
  - Buried barrels, debris, or trash.

Paving/Asphalt Work

- ❑ Avoid paving and seal coating in wet weather or when rain is forecast, to prevent materials that have not cured from contacting stormwater runoff.
- ❑ Cover storm drain inlets and manholes when applying seal coat, tack coat, slurry seal, fog seal, etc.
- ❑ Collect and recycle or appropriately dispose of excess abrasive gravel or sand. Do NOT sweep or wash it into gutters.
- ❑ Do not use water to wash down fresh asphalt concrete pavement.

Sawcutting & Asphalt/Concrete Removal

- ❑ Protect nearby storm drain inlets when saw cutting. Use filter fabric, catch basin inlet filters, or gravel bags to keep slurry out of the storm drain system.
- ❑ Shovel, abosorb, or vacuum saw-cut slurry and dispose of all waste as soon as you are finished in one location or at the end of each work day (whichever is sooner!).
- ❑ If sawcut slurry enters a catch basin, clean it up immediately.

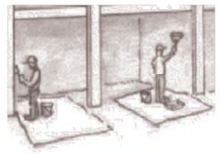
Concrete, Grout & Mortar Application

- ❑ Store concrete, grout, and mortar away from storm drains or waterways, and on pallets under cover to protect them from rain, runoff, and wind.
- ❑ Wash out concrete equipment/trucks offsite or in a designated washout area, where the water will flow into a temporary waste pit, and in a manner that will prevent leaching into the underlying soil or onto surrounding areas. Let concrete harden and dispose of as garbage.
- ❑ When washing exposed aggregate, prevent washwater from entering storm drains. Block any inlets and vacuum gutters, hose washwater onto dirt areas, or drain onto a bermed surface to be pumped and disposed of properly.

Landscaping

- ❑ Protect stockpiled landscaping materials from wind and rain by storing them under tarps all year-round.
- ❑ Stack bagged material on pallets and under cover.
- ❑ Discontinue application of any erodible landscape material within 2 days before a forecast rain event or during wet weather.

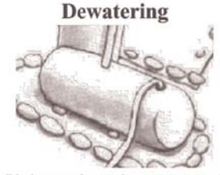
Painting & Paint Removal



Painting Cleanup and Removal

- ❑ Never clean brushes or rinse paint containers into a street, gutter, storm drain, or stream.
- ❑ For water-based paints, paint out brushes to the extent possible, and rinse into a drain that goes to the sanitary sewer. Never pour paint down a storm drain.
- ❑ For oil-based paints, paint out brushes to the extent possible and clean with thinner or solvent in a proper container. Filter and reuse thinners and solvents. Dispose of excess liquids as hazardous waste.
- ❑ Paint chips and dust from non-hazardous dry stripping and sand blasting may be swept up or collected in plastic drop cloths and disposed of as trash.
- ❑ Chemical paint stripping residue and chips and dust from marine paints or paints containing lead, mercury, or tributyltin must be disposed of as hazardous waste. Lead based paint removal requires a state-certified contractor.

Dewatering



- ❑ Discharges of groundwater or captured runoff from dewatering operations must be properly managed and disposed. When possible send dewatering discharge to landscaped area or sanitary sewer. If discharging to the sanitary sewer call your local wastewater treatment plant.
- ❑ Divert run-on water from offsite away from all disturbed areas.
- ❑ When dewatering, notify and obtain approval from the local municipality before discharging water to a street gutter or storm drain. Filtration or diversion through a basin, tank, or sediment trap may be required.
- ❑ In areas of known or suspected contamination, call your local agency to determine whether the ground water must be tested. Pumped groundwater may need to be collected and hauled off-site for treatment and proper disposal.

Storm drain polluters may be liable for fines of up to $10,000 per day!

ENGINEERING
CALIFORNIA WATER SERVICE
DEPARTMENT

REVISIONS:
1 PLANNING DEPT. UPDATES. K.O. 4/13/2021

	DATE:	INIT.
DISTRIBUTION MAP		
PLAT SHEET		
SYSTEM SCHEMATIC		
STATION SCHEMATIC		

PLAT SHEET NO.: SM-29-25
SCALE: AS SHOWN
DRAWN BY: R.OSORIO
DESIGNED BY: S. G/B. G.
TECH REVIEW: DATE: 04/23/2021
CHECKED BY: DATE: 04/23/2021
APPROVED BY: DATE: 04/23/2021

REGISTERED PROFESSIONAL ENGINEER
DEVSEKHAR PRASANNAN
No. C76302
EXP. 06-30-22
CIVIL
STATE OF CALIFORNIA

TITLE: MID PENINSULA - STATION 22
PROPOSED STATION REDEVELOPMENT
CONSTRUCTION BEST MANAGEMENT PRACTICES

DISTRICT: MID PENINSULA
SAN MATEO
DATE: 08/26/2020
PROJECT ID.: 00098594
DRAWING NO.: MPS-CBMP-R1
SHT 1 OF 1

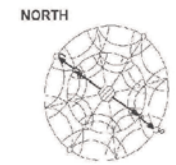
1 SHEET 21 OF 23

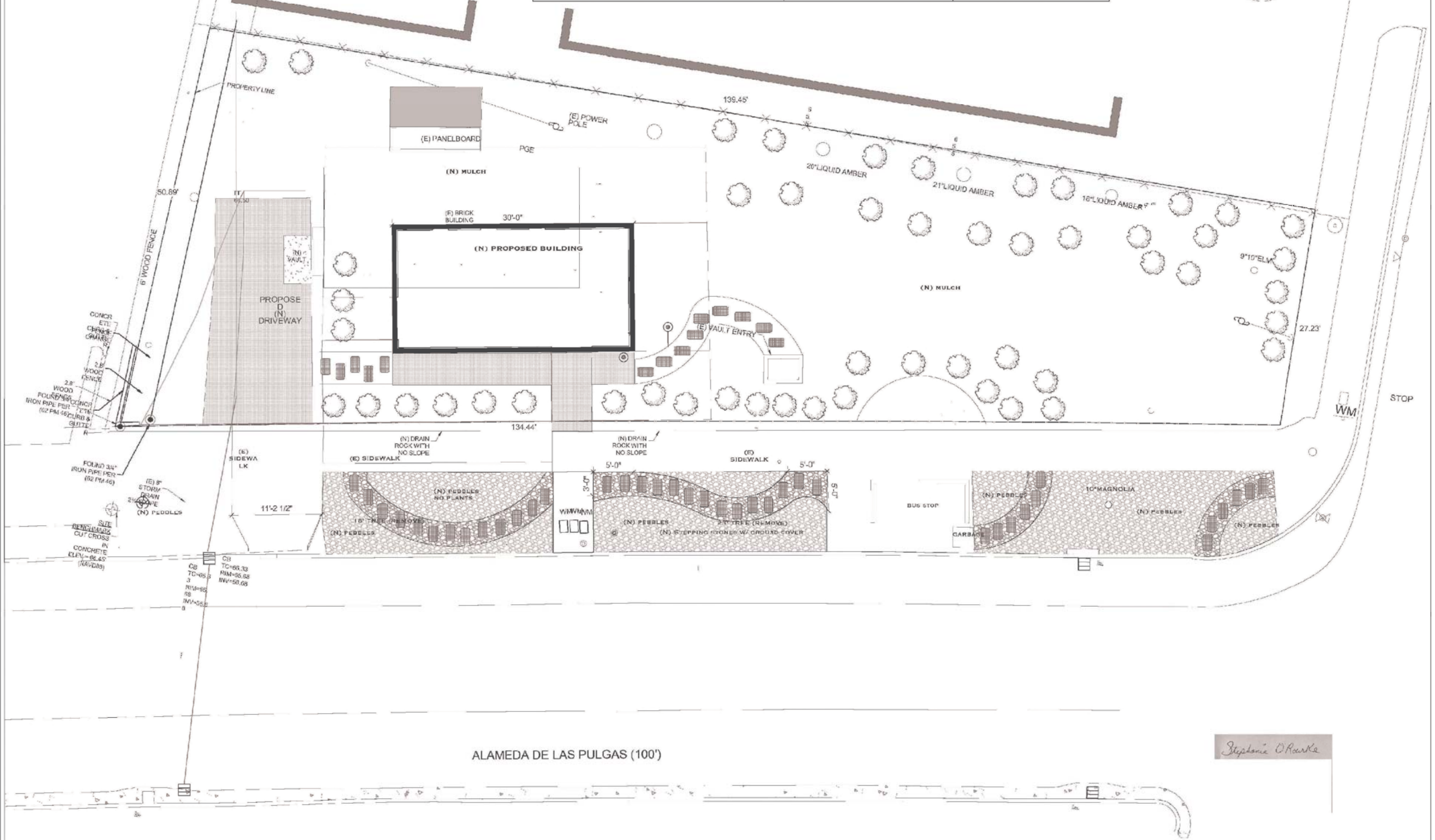
SCOPE OF WORK
1. NEW STEPPING STONES W/ PEBBLES IN BLVD.
2. NEW PLANTS
3. NEW MULCH AROUND ALL PLANTS
5. NEW PAMI PEBBLES W/ LANDSCAPE FABRIC
6. NEW DRIP LINE IRRIGATION

NOTES
1. USE GREY COLOR BLUE STEPPING STONES
2. INSTALL LANDSCAPE FABRIC UNDER
3. ADD BENDER BOARD TO CONTAIN GROUND COVER
4. ADD PAMI PEBBLES
5. REMOVE ALL EXISTING PLANTS NOT TREES

INDEX
L1 SITE PLANS
L2 PLANT PLAN
L3 IRRIGATION PLANS

LEGEND
PLANTS
STEPPING STONE-FLAGSTONE
PEBBLES





Stephanie O'Rourke

SITE PLAN

Stephanie O'Rourke
Landscape Reflections
1345 Howard Ave. #203
Burlingame, Calif. 94010
(650) 347-2499
C27 777808

CAL WATER #22
ALAMEDA DE LAS PULGAS
SAN MATEO,CA.

Feb. 26, 2021
PAPER SIZE 24X36
SCALE 3/16"=1'

L1

ENGINEERING
DEPARTMENT

REVISIONS:

	DATE:	INIT.
DISTRIBUTION MAP		
PLAT SHEET		
SYSTEM SCHEMATIC		
STATION SCHEMATIC		

PLAT SHEET NO.: SM-29-25
SCALE: AS SHOWN
DRAWN BY: R.O./P.R.
DESIGNED BY: S. G./B.G.
TECH REVIEW: DATE: 04/23/2021
CHECKED BY: DATE: 04/23/2021
APPROVED BY: DATE: 04/23/2021

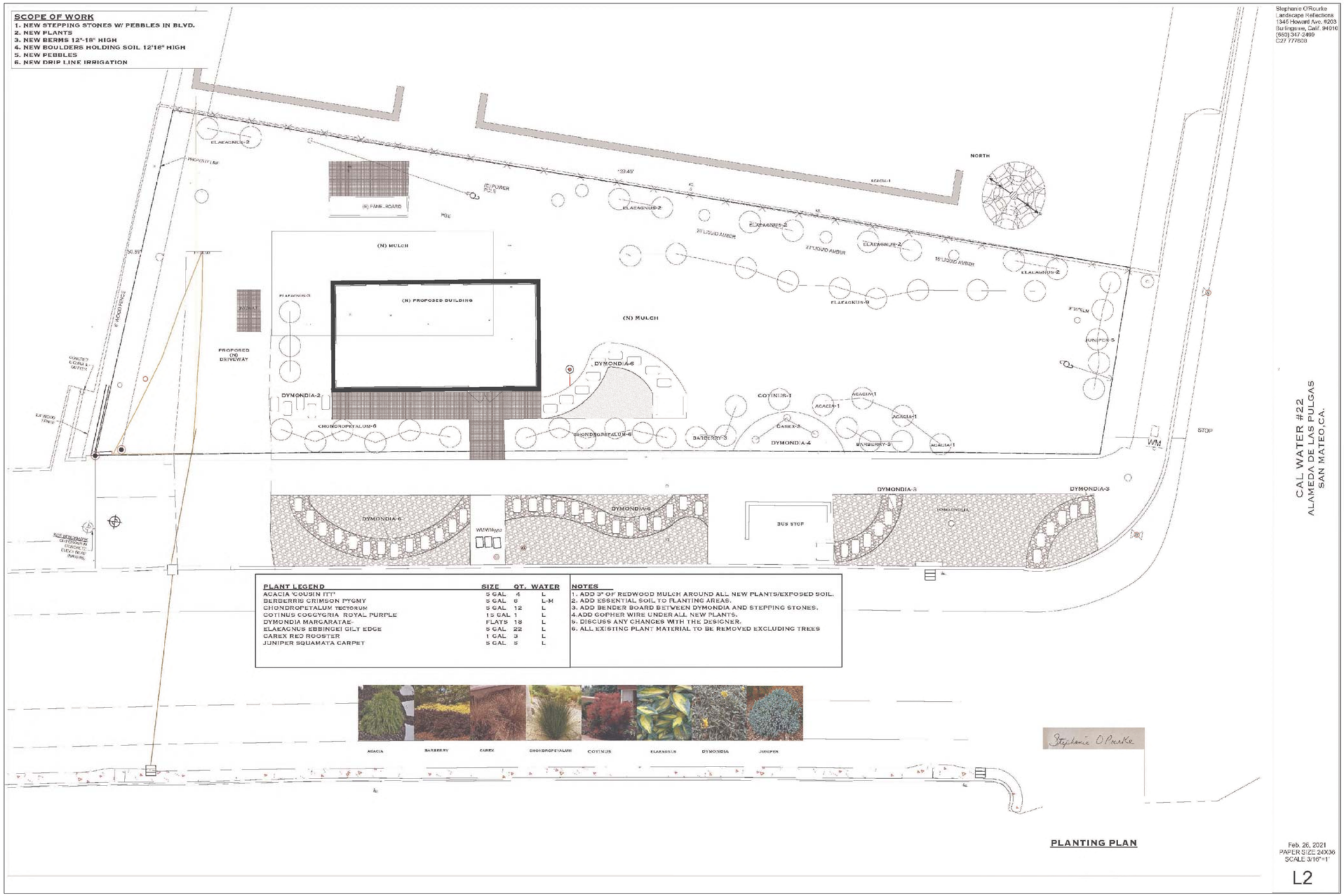
TITLE:
MID PENINSULA - STATION 22
PROPOSED STATION REDEVELOPMENT
LANDSCAPING PLAN

DISTRICT: MID PENINSULA
SAN MATEO
DATE: 03/16/2021
PROJECT ID.: 00098594
DRAWING NO.: MPS-5623
SHT 1 OF 3

SHEET 22a OF 23

SCOPE OF WORK
1. NEW STEPPING STONES W/ PEBBLES IN BLVD.
2. NEW PLANTS
3. NEW BERMS 12"-18" HIGH
4. NEW BOULDERS HOLDING SOIL 12'18" HIGH
5. NEW PEBBLES
6. NEW DRIP LINE IRRIGATION

Stephanie O'Rourke
Landscape Reflections
1345 Howard Ave. #203
Burlingame, Calif. 94010
(650) 347-2499
C27 777603



PLANT LEGEND	SIZE	QT.	WATER
ACACIA 'COUSIN ITT'	5 GAL	4	L
BERBERRIS CRIMSON PYGMY	5 GAL	6	L-M
CHONDROPETALUM TECTORUM	5 GAL	12	L
COTINUS COGGYGRIA ROYAL PURPLE	15 GAL	1	L
DYMONDIA MARGARATAE-	FLATS	18	L
ELAEAGNUS EBBINGEI GILT EDGE	5 GAL	22	L
CAREX RED ROOSTER	1 GAL	3	L
JUNIPER SQUAMATA CARPET	5 GAL	5	L

NOTES
1. ADD 3" OF REDWOOD MULCH AROUND ALL NEW PLANTS/EXPOSED SOIL.
2. ADD ESSENTIAL SOIL TO PLANTING AREAS.
3. ADD BENDER BOARD BETWEEN DYMONDIA AND STEPPING STONES.
4. ADD GOPHER WIRE UNDER ALL NEW PLANTS.
5. DISCUSS ANY CHANGES WITH THE DESIGNER.
6. ALL EXISTING PLANT MATERIAL TO BE REMOVED EXCLUDING TREES

Stephanie O'Rourke

PLANTING PLAN

Feb. 26, 2021
PAPER SIZE 24X36
SCALE 3/16"=1'

L2

CAL WATER #22
ALAMEDA DE LAS PULGAS
SAN MATEO, CA.

ENGINEERING
CALIFORNIA WATER SERVICE
DEPARTMENT

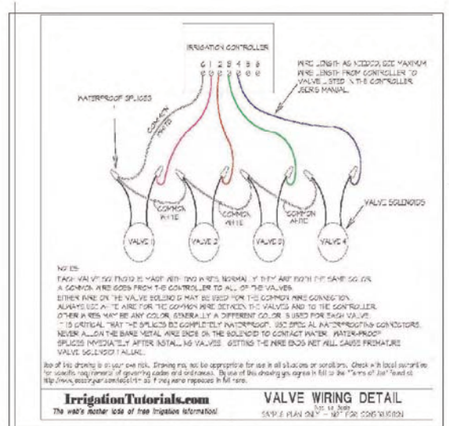
REVISIONS:

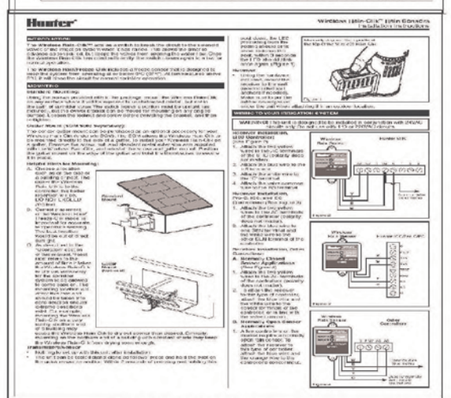
	DATE:	INIT.
DISTRIBUTION MAP		
PLAT SHEET		
SYSTEM SCHEMATIC		
STATION SCHEMATIC		

PLAT SHEET NO.: SM-29-25
SCALE: AS SHOWN
DRAWN BY: R.O./P.R.
DESIGNED BY: S. G./B.G.
TECH REVIEW: DATE: 04/23/2021
CHECKED BY: DATE: 04/23/2021
APPROVED BY: DATE: 04/23/2021

TITLE:
MID PENINSULA – STATION 22
PROPOSED STATION REDEVELOPMENT
LANDSCAPING PLAN

DISTRICT: MID PENINSULA
SAN MATEO
DATE: 03/16/2021
PROJECT ID.: 00098594
DRAWING NO.: MPS-5623
SHT 2 OF 3





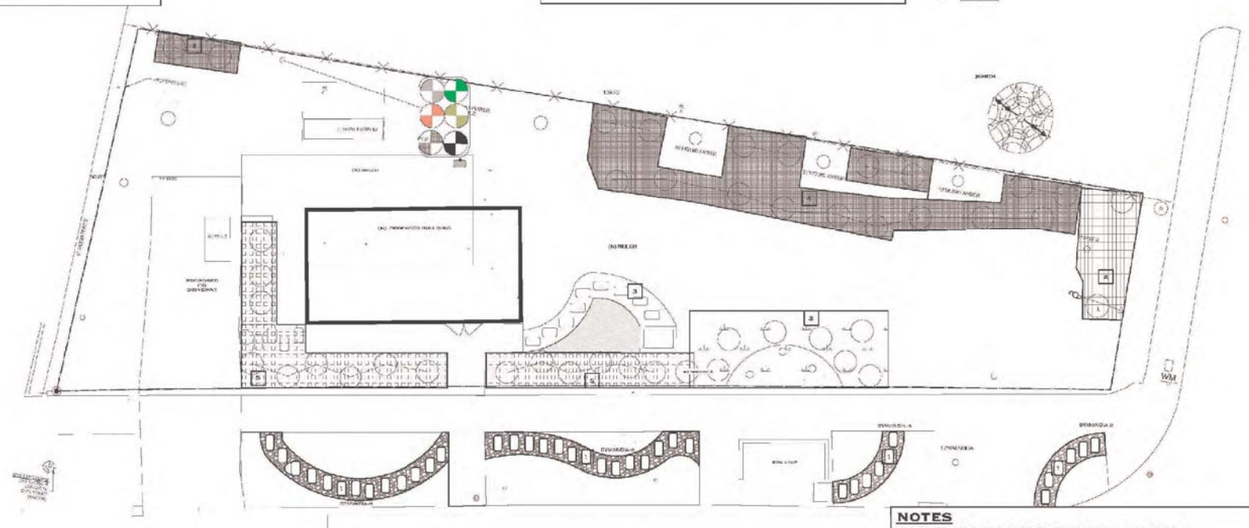
MAINLINE
LATERAL LINE
HOSE BIB
VALVES

PLANTING AREA SF

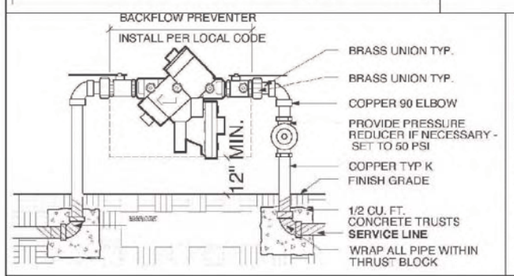
1869 SF OF NEW PLANTS

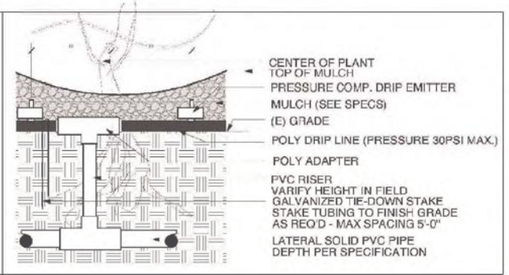
VALVE 1-DRIP LINES-LOW WATER
VALVE 2-DRIP LINES-LOW WATER
VALVE 3-DRIP LINES -LOW WATER
VALVE 4-DRIP LINES-LOW WATER
VALVE 5-DRIP LINES-LOW WATER

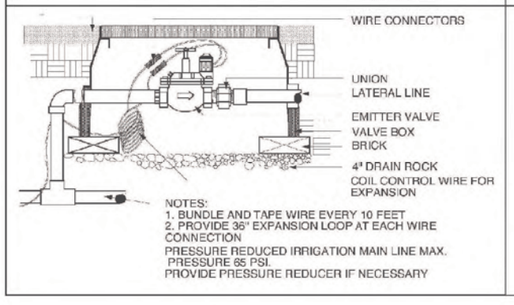
1
2
3
4
5

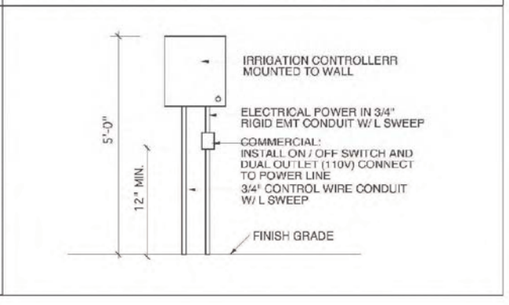


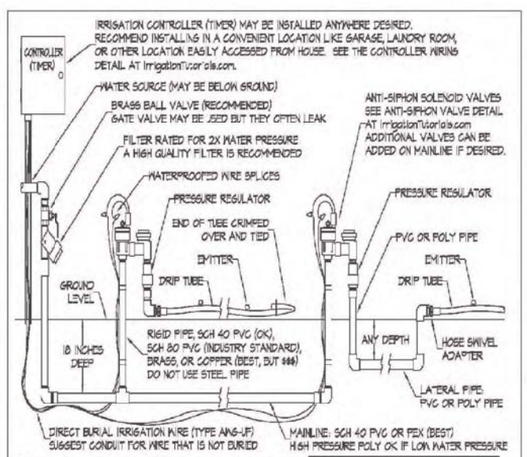
ALAMEDA DE LAS PULGAS











NOTES

TORO VALVES OR COMPARABLE TO BE LOCATED
IN GREEN PLASTIC CHRISTY BOXES
SCH 40 PVC 12" DEEP
3/4 REDUCED TO 1/2"
THE LAST 10'-20' RUN
BACKFLOW DEVICE IS NEEDED-FEBCO 825Y
LOCATED IN AN INCONSPICUOUS PLANTING BED
APPROVED PRIOR TO INSTALLATION
CHECK WATER PRESSURE BEFORE CONFIRMING
PIPE SIZE
DRIP LINES FOR ALL PLANTING AREAS
THIS IS A BASIC CONCEPTUAL DESIGN
ON FIELD CHANGES MIGHT BE NEEDED.
AUTOMATIC TIMER TO BE INSTALLED
A MINIMUM LAYER OF 3" OF MULCH TO ALL EXPOSED SOIL
ADD A HUNTER RAIN CLICK RAIN SENSOR
DEDICATED WATER METER MUST BE INSTALLED
PRESSURE REGULATING DEVICE NEEDED
MANUAL SHUT OFF NEEDED
CHECK VALVES ON ALL SPRINKLER HEADS AT LOW POINT

DESIGN CRITERIA

*FOLLOW ALL CALIFORNIA BUILDING CODES
*FOLLOW ALL CALIFORNIA ELECTRICAL CODES
*FOLLOW ALL FIRE CODES
*ELECTRICAL TO COMPLY WITH LOCAL ELECTRIC
*I HAVE COMPLIED WITH THE CRITERIA OF THE ORDINANCE AND APPLIED THEM FOR THE EFFICIENT USE OF WATER IN THE LANDSCAPE DESIGN PLANS
*A DIAGRAM OF THE IRRIGATION PLAN SHOWING THE HYDROZONES SHALL BE KEPT WITH THE IRRIGATION CONTROLLER FOR SUBSEQUENT MANAGEMENT PURPOSES.
*A CERTIFICATE OF COMPLETIONSHALL BE FILLED OUT AND CERTIFIED BY EITHER THE DESIGNER OR CONTRACTOR AT FINAL INSPECTION
*AN IRRIGATION AUDIT REPORT SHALL BE COMPLETE AT THE TIME OF FINAL INSPECTION BY A SEPARATE CONTRACTOR

ALL DISTANCES AND DIMENSIONS ARE IN FEET AND DECIMALS OF A FOOT.

UNDERGROUND UTILITY LOCATION IS BASED ON SURFACE EVIDENCE.

BUILDING FOOTPRINTS ARE SHOWN AT GROUND LEVEL.

FINISH FLOOR ELEVATIONS ARE TAKEN AT DOOR THRESHOLD (EXTERIOR)

Stephanie O'Rourke
Landscape Reflections
1348 Howard Ave. #203
Burlingame, Calif. 94010
(650) 347-2499
C27 777603

CAL WATER #22
ALAMEDA DE LAS PULGAS
SAN MATEO,CA.

Feb. 26, 2021
PAPER SIZE 24X36
SCALE 1/4"=1'

IRRIGATION

L3

ENGINEERING
CALIFORNIA WATER SERVICE
DEPARTMENT

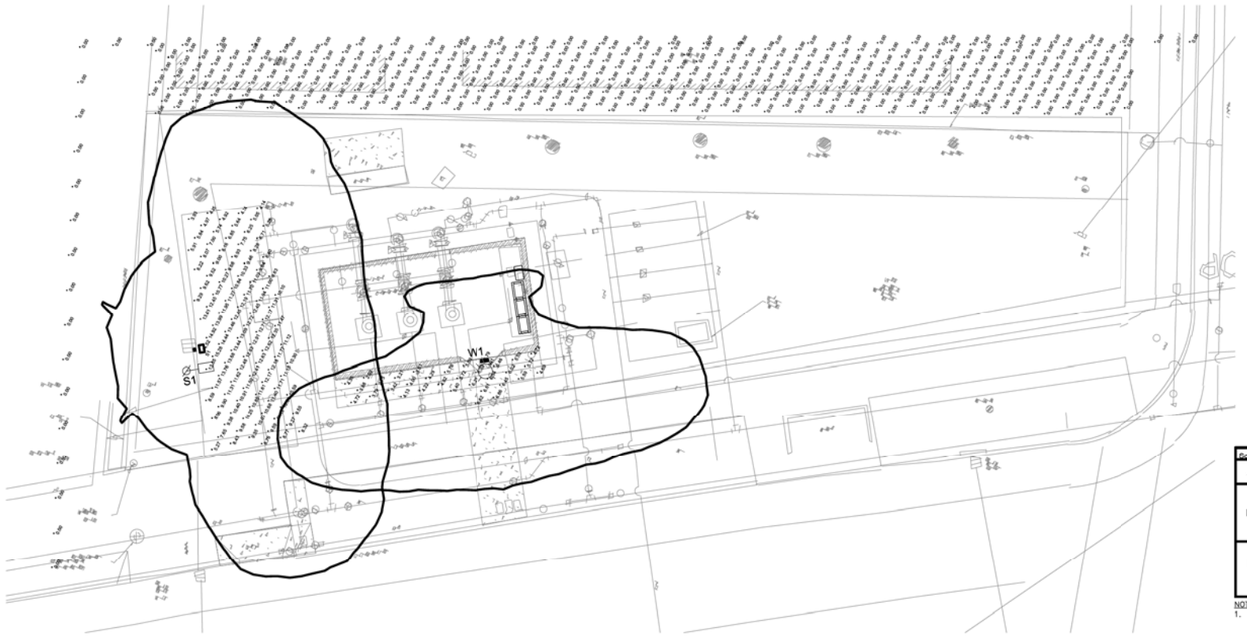
REVISIONS:

	DATE:	INIT.
CONSTRUCTION MAP		
PLAT SHEET		
SYSTEM SCHEMATIC		
STATION SCHEMATIC		

PLAT SHEET NO.: SM-29-25
SCALE: AS SHOWN
DRAWN BY: R.O./P.R.
DESIGNED BY: S. G./B.G.
TECH REVIEW: DATE: 04/23/2021
CHECKED BY: DATE: 04/23/2021
APPROVED BY: DATE: 04/23/2021

TITLE:
MID PENINSULA - STATION 22
PROPOSED STATION REDEVELOPMENT
LANDSCAPING PLAN

DISTRICT: MID PENINSULA
SAN MATEO
DATE: 03/16/2021
PROJECT ID.: 00098594
DRAWING NO.: MPS-5623
SHT 3 OF 3



STATION 22 OUTDOOR LIGHTING PHOTOMETRIC PLAN
SCALE: 1" = 10'

0 10 20
5 15
SCALE: 1"=10'

LIGHTING CONTROL EQUIPMENT:

- PROVIDE LIGHTING CONTROL PANEL. ALL LIGHTS SHALL HAVE DIMMING CARD AND LOW VOLTAGE LIGHT SENSOR.
- "S1" FIXTURE SHALL HAVE MOTION SENSOR.
- ALL FIXTURES SHALL BE EQUIPPED WITH VANDAL-RESISTANT COVERS.

LIGHTING CONTROL NOTES:

- ALL OUTDOOR LIGHTING SHALL BE CONFIGURED FOR DUSK-TO DAWN OPERATION UTILIZING LIGHT SENSOR INPUT TO THE LIGHTING CONTROL PANEL. OUTDOOR LIGHTING SHALL INCLUDE (1) POLE MOUNTED TYPE "S1" FIXTURE AND (1) EXTERIOR WALL-MOUNTED TYPE "W1" FIXTURES.
- ALL OUTDOOR LIGHTING SHALL BE CONFIGURED FOR MULTI-LEVEL LUMEN OUTPUT "STEPPED OPERATION" DURING NIGHT-TIME USE AND SHALL CONFORM TO 2019 BUILDING ENERGY EFFICIENCY STANDARDS, SECTION 130.2 FOR AUTOMATIC SCHEDULING CONTROLS.
- SOURCE 120V POWER FOR LIGHTING CIRCUITS FROM PANELBOARD LC2.

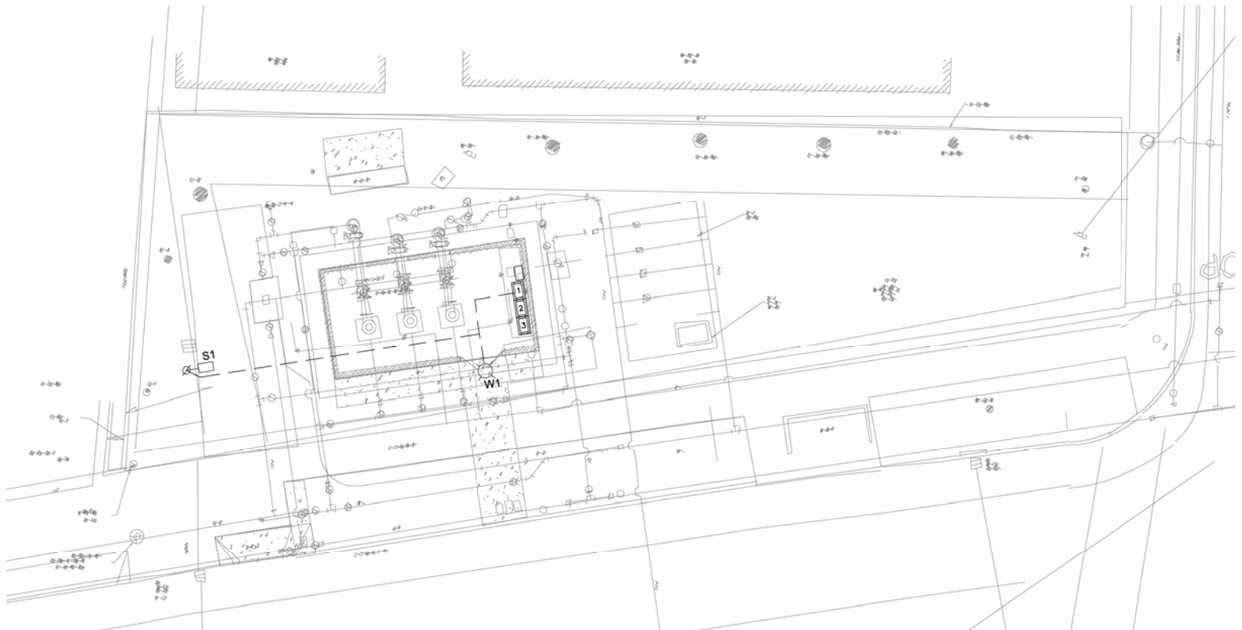
Schedule

Symbol	Label	Image	QTY	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens per Lamp	Lumen Multiple	LLF	Wattage	Efficiency	Distribution	Poler Plot	Notes
▭	W1		1	Lithonia Lighting	DSXW1 LED 10C 700 40K T2M MVOLT/ MOUNT AT 4' ABOVE MAN DOOR	DSXW1 LED WITH (1) 10 LED LIGHT ENGINES, TYPE T2M OPTIC, 4000K, @ 700mA.	LED	1	DSXW1_LED_10C_700_40K_T2M_MVOLT.ies	2683	1	1	26.2	100%	TYPE III, MEDIUM, BUG RATING: B1-U0-G1		
▭	S1		1	Lithonia Lighting	DSX0 LED P4 40K T3S MVOLT HS MOUNT TO 10' SQUARE STEEL POLE	DSX0 LED P4 40K T3S MVOLT WITH HOUSESIDE SHIELD	LED	1	DSX0_LED_P4_40K_T3S_MVOLT_HSIves	8767	1	1	92	100%	TYPE III, SHORT, BUG RATING: B1-U0-G2		

NOTES:
1. S1 FIXTURE MANUFACTURER SHALL FURNISH A 10' SQUARE STEEL POLE. POLE SHALL HAVE A CLEAR ANODIZED FINISH AND MEET WIND LOADS AND GUST FACTOR FOR RELATED PROJECT LOCATION. POLE SHALL BE MOUNTED TO A CONCRETE BASE PER DETAIL. SUITABLE ANCHOR BOLTS, BASE COVER, GROUND LUG AND VIBRATION PAD FURNISHED WITH POLE.

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
10' OFFSET FROM PROP LINE	+	0.00 fc	0.00 fc	0.00 fc	N/A	N/A
SOUTHWEST ENTRY	+	5.02 fc	6.86 fc	2.22 fc	3.4:1	2.6:1
STATION 22 LIGHT LEAKAGE TO NEIGHBORING BUILDING	+	0.00 fc	0.00 fc	0.00 fc	N/A	N/A
STATION 22-DRIVEWAY	+	10.11 fc	15.28 fc	3.93 fc	3.9:1	2.6:1



STATION 22 OUTDOOR LIGHTING PLAN
SCALE: 1" = 10'

0 10 20
5 15
SCALE: 1"=10'

ENGINEERING

CALIFORNIA WATER SERVICE

DEPARTMENT

REVISIONS:

	DATE:	INIT.
DISTRIBUTION MAP		
PLAT SHEET		
SYSTEM SCHEMATIC		
STATION SCHEMATIC		

PLAT SHEET NO.:
SM-29-25
SCALE:
NONE
DRAWN BY:
J. ISIDORO
DESIGNED BY:
T. ADAMS
TECH REVIEW: DATE:
CHECKED BY: DATE:
APPROVED BY: DATE:

REGISTERED PROFESSIONAL ENGINEER
BRIAN G. YOUNG
No. E20743
ELECTRICAL
STATE OF CALIFORNIA
04-21-21

TITLE:
MID PENINSULA - STATION 22
LIGHTING SITE PLAN 1
AND PHOTOMETRIC SITE PLAN

DISTRICT:
MID PENINSULA
SAN MATEO
DATE:
APRIL 2021
PROJECT ID.:
00098594
DRAWING NO.:
MPS-5654
SHT 14 OF 16

STATE OF CALIFORNIA
Outdoor Lighting
NRCC-LTO-E (Created 01/21) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTO-E
This document is used to demonstrate compliance with requirements in §110.9, §130.0, §130.2, §140.7, and §141.0(b)2I for outdoor lighting scopes using the prescriptive path.		
Project Name: California Water Service Mid Peninsula - Station 22	Report Page:	Page 1 of 6
Project Address: 2657 Alameda de las Pulgas, San Mateo, CA 94403	Date Prepared:	03/12/2021

A. GENERAL INFORMATION

01	Project Location (city)	San Mateo	04	Total Illuminated Hardscape Area (ft²)	458.49
02	Climate Zone	3			
03	Outdoor Lighting Zone per Title 24, Part 1 §10-114 or as designated by Authority Having Jurisdiction (AHJ):				

☐ LZ 0: Very Low Undeveloped Parkland ☐ LZ 2: Moderate Rural Areas ☐ LZ 4: High Must be reviewed by CA Energy Commission for Approval
☐ LZ-1: Low - Developed Parkland ☑ LZ-3: Moderately High - Urban Areas

B. PROJECT SCOPE

Table Instructions: Include any outdoor lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.7 or §141.0(b)2I, for alterations.

My project consists of:

01	02
☑ New Lighting System	Must Comply with Allowances from §140.7.
☐ Altered Lighting System	Is your alteration increasing the connected lighting load (Watts)? ◯ Yes ◯ No

03	04	05
% of Existing Luminaires Being Altered[1]	Sum Total of Luminaires Being Added or Altered	Calculation Method

[1] FOOTNOTES: % of Existing Luminaires Being Altered = (Sum Total of Luminaires Being Added or Altered / Existing Luminaires within the Scope of the Permit Application) x 100

C. COMPLIANCE RESULTS

Table Instructions: If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.

Calculation of Total Allowed Lighting Power (Watts) §140.7 or §141.0(b)2L												Compliance Results		
01		02		03		04		05		06		07	08	09
General Hardscape Allowance §140.7(d)1	+	Per Application §140.7(d)2	+	Sales Frontage §140.7(d)2	+	Ornamental §140.7(d)2	+	Per Specific Area §140.7(d)2	OR	Existing Power §141.0(b)2L	=	Total Allowed (Watts)	≥ Total Actual (Watts)	07 Must be ≥ 08
(See Table I)		(See Table J)		(See Table K)		(See Table L)		(See Table M)		(See Table N)			(See Table F)	
363.7547	+		+		+		+		OR		=	363.7547	≥ 118.2	COMPLIES
Cutoff Compliance (See Table G for Details)													Not Applicable	
Controls Compliance (See Table H for Details)													COMPLIES with Exceptional Conditions	

STATE OF CALIFORNIA
Outdoor Lighting
NRCC-LTO-E (Created 01/21) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTO-E
Project Name: California Water Service Mid Peninsula - Station 22	Report Page:	Page 2 of 6
Project Address: 2657 Alameda de las Pulgas, San Mateo, CA 94403	Date Prepared:	03/12/2021

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. Outdoor Lighting Controls Permit Applicant Notes:
Southwest Entry Walkway: Exception 1 (Section 130.2(c)3 Luminaire wattage of Fixture W1 <40 watts.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

F. OUTDOOR LIGHTING FIXTURE SCHEDULE

Table Instructions: For new or altered lighting systems demonstrating compliance with §140.7 (ie Table I has expanded for input), include all luminaires being installed and any existing luminaires remaining or being moved within the spaces covered by the permit application in the Table below. For altered lighting systems using the Existing Power method per §141.0(b)2L (ie Table N has expanded for input), include only new luminaires being installed and replacement luminaires being installed as part of the project scope (ie, do not include existing luminaires remaining or existing luminaires being moved).

Designed Wattage:

01	02		03	04	05	06	07	08	09	10	
Name or Item Tag	Complete Luminaire Description		Watts per luminaire[1,2]	How Wattage is determined	Total number luminaires[3]	Luminaire Status[4]	Excluded per §140.7(a)	Design Watts	Cutoff Req. ≥ 6,200 initial lumen output §130.2(b)*	Field Inspector Pass	Fail
W1	LED Wallpack	☐ Linear	26.2	Mfr. Spec[5]	1	New	☐	26.2	NA: <6,200 lumens	☐	☐
S1	LED Pole Light	☐ Linear	92	Mfr. Spec[5]	1	New	☐	92	NA: <6,200 lumens	☐	☐
						Total Designed Watts:		118.2			

** NOTES: Selections with a * require a note in the space below explaining how compliance is achieved.*
EX: Luminaire is lighting a statue; EXCEPTION 2 to §130.2(b).

[1] FOOTNOTES: Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per §130.0(c)
[2] For linear luminaires, wattage should be indicated as W/ft instead of Watts/luminaire. Total linear feet for the luminaire should be indicated in column 05 instead of number of luminaires.
[3] Select "New" for new luminaires in a new outdoor lighting project or for added luminaires in an alteration. Select "Altered" for replacement luminaires in an alteration. Select "Existing to Remain" for existing luminaires within the project scope that are not being altered and are remaining. Select "Existing Reinstalled" for existing luminaires which are being removed and reinstalled as part of the project scope
[4] Compliance with mandatory cutoff requirements is required for luminaires with initial lumen output ≥ 6,200 unless exempted by §130.2(b).

STATE OF CALIFORNIA
Outdoor Lighting
NRCC-LTO-E (Created 01/21) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTO-E
Project Name: California Water Service Mid Peninsula - Station 22	Report Page:	Page 3 of 6
Project Address: 2657 Alameda de las Pulgas, San Mateo, CA 94403	Date Prepared:	03/12/2021

G. CUTOFF REQUIREMENTS (BUG)

This Section Does Not Apply

H. OUTDOOR LIGHTING CONTROLS

Table Instructions: Complete this table demonstrating compliance with controls requirements for all new or altered luminaires installed as part of the permit application. For alteration projects, luminaires which are existing to remain (ie untouched) and luminaires which are removed and reinstalled (wiring only) do not need to be included in this table even if they are within the spaces covered by the permit application.
*When an option having a * is selected, the notes section of this table must be completed. The lighting controls section of the Compliance Summary Table on the first page will show "DOES NOT COMPLY" if the notes are left blank. For each requirement in columns 02 through 04, do not leave the field blank, instead select NA or Exempt* from the dropdown list to indicate not applicable or an exemption.*

Mandatory Controls

01	02	03	04	05	
Area Description	Shut-Off §130.2(c)1	Auto-Schedule §130.2(c)2	Motion Sensor §130.2(c)3	Field Inspector Pass	Fail
Station 22 Driveway	Photocontrol	Yes	Yes	☐	☐
Southwest Entry Walkway	Photocontrol	Yes	Exempt *	☐	☐

**NOTES: Controls with a * require a note in the space below explaining how compliance is achieved.*
EX: Not permitted by health & safety to be turned off; EXCEPTION 1 to §130.2(c).
Southwest Entry Walkway Exception 1 (Section 130.2(c)3 Luminaire wattage of Fixture W1 <40 watts.

I. LIGHTING POWER ALLOWANCE (per §140.7)

Table Instructions: Please complete this table for areas using the allowance calculations per §140.7. General Hardscape Allowance is per Table 140.7-A while "Use it or lost it" Allowances are per Table 140.7-B. Indicate which allowances are being used to expand sections for user input. Luminaires that qualify for one of the "Use it or lose it" allowances shall not qualify for another "Use it or lose it" allowance.

	01				
	"Use it or lose it" Allowances (select all that apply)				
☑ General Hardscape Allowance	☐ Per Application	☐ Sales Frontage	☐ Ornamental	☐ Per Specific Area	
	Table I (below)	Table J	Table K	Table L	Table M

Calculated General Hardscape Lighting Power Allowance per Table 140.7-A (LZ 2 & 3)
Table Continued

STATE OF CALIFORNIA
Outdoor Lighting
NRCC-LTO-E (Created 01/21) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTO-E
Project Name: California Water Service Mid Peninsula - Station 22	Report Page:	Page 4 of 6
Project Address: 2657 Alameda de las Pulgas, San Mateo, CA 94403	Date Prepared:	03/12/2021

02	03	04	05	06	07	08	09	10
Area Description	Surface Type	Area Wattage Allowance (AWA) Illuminated Area (ft²)	Allowed Density (W/ft²)	Area Allowance (Watts)	Linear Wattage Allowance (LWA) Perimeter Length (lf)	Allowed Density (W/lf)	Linear Allowance (Watts)	Total General AWA + LWA (Watts)
Station 22 - Driveway	Concrete	309.89	0.03	9.2967		0.4	0	9.2967
Southwest Entry Walkway	Concrete	148.6	0.03	4.458		0.4	0	4.458
								0
								0
						Initial Wattage Allowance for Entire Site (Watts):		350
						Total Geneal Hardscape Allowance (Watts):		363.7547

J. LIGHTING ALLOWANCE: PER APPLICATION

This Section Does Not Apply

K. LIGHTING ALLOWANCE: SALES FRONTAGE

This Section Does Not Apply

L. LIGHTING ALLOWANCE: ORNAMENTAL

This Section Does Not Apply

M. LIGHTING ALLOWANCE: PER SPECIFIC AREA

This Section Does Not Apply

N. EXISTING CONDITIONS POWER ALLOWANCE (alterations only)

This Section Does Not Apply

STATE OF CALIFORNIA
Outdoor Lighting
NRCC-LTO-E (Created 01/21) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTO-E
Project Name: California Water Service Mid Peninsula - Station 22	Report Page:	Page 5 of 6
Project Address: 2657 Alameda de las Pulgas, San Mateo, CA 94403	Date Prepared:	03/12/2021

O. 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 https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCI/

YES	NO	Form/Title	Field Inspector Pass	Fail
◉	◯	NRCI-LTO-01-E - Must be submitted for all buildings.	☐	☐
◉	◯	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.	☐	☐

P. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

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 must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: http://www.energy.ca.gov/title24/attcp/prcviders.html

YES	NO	Form/Title	Field Inspector Pass	Fail
◉	◯	NRCA-LTO-02-A - Must be submitted for all outdoor lighting controls except for alterations where controls area added to ≤ 20 luminaires.	☐	☐

STATE OF CALIFORNIA
Outdoor Lighting
NRCC-LTO-E (Created 01/21) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTO-E
Project Name: California Water Service Mid Peninsula - Station 22	Report Page:	Page 6 of 6
Project Address: 2657 Alameda de las Pulgas, San Mateo, CA 94403	Date Prepared:	03/12/2021

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and compiete

Documentation Author Name:	Thang Nguyen, EIT	Documentation Author Signature:	Thang Nguyen (Digitally signed by Thang Nguyen Date: 2021.03.12 16:05:19 -07'00')
Company:	Water Works Engineers	Signature Date:	03/12/2021
Address:	7500 N Dobson Rd, Suite 200	CEA/ HERS Certification Identification (if applicable):	
City/State/Zip:	Scottsdale, AZ 85256	Phone:	(480) 447 3572

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:	Brian Young, PE	Responsible Designer Signature:	Brian G. Young (Digitally signed by Brian G. Young Date: 2021.03.23 14:53:19 -07'00')
Company :	Water Works Engineers	Date Signed:	03/12/2021
Address:	7500 N Dobson Rd, Suite 200	License:	CA PE No.: E20743
City/State/Zip:	Scottsdale, AZ 85256	Phone:	(480) 661-1742

ENGINEERING

CALIFORNIA WATER SERVICE

DEPARTMENT

REVISIONS:

DATE: INIT.
DISTRIBUTION MAP
PLAT SHEET
SYSTEM SCHEMATIC
STATION SCHEMATIC

PLAT SHEET NO.:
SM-29-25
SCALE:
NONE
DRAWN BY:
J. ISIDORO
DESIGNED BY:
T. ADAMS
TECH REVIEW: DATE:

CHECKED BY: DATE:

APPROVED BY: DATE:

REGISTERED PROFESSIONAL ENGINEER BRIAN G. YOUNG No. E20743 ELECTRICAL STATE OF CALIFORNIA
04-21-21

TITLE:
MID PENINSULA – STATION 22
LIGHTING SITE PLAN 2

DISTRICT:
MID PENINSULA
SAN MATEO
DATE:
APRIL 2021
PROJECT ID.:
00098594
DRAWING NO.:
MPS-5654
SHT 15 OF 16