

10-28-21 grubb \\4625\dwg\4625 00\4625.00 COVER, NOTE & CONTROL.dwg TAB: 1 COVER



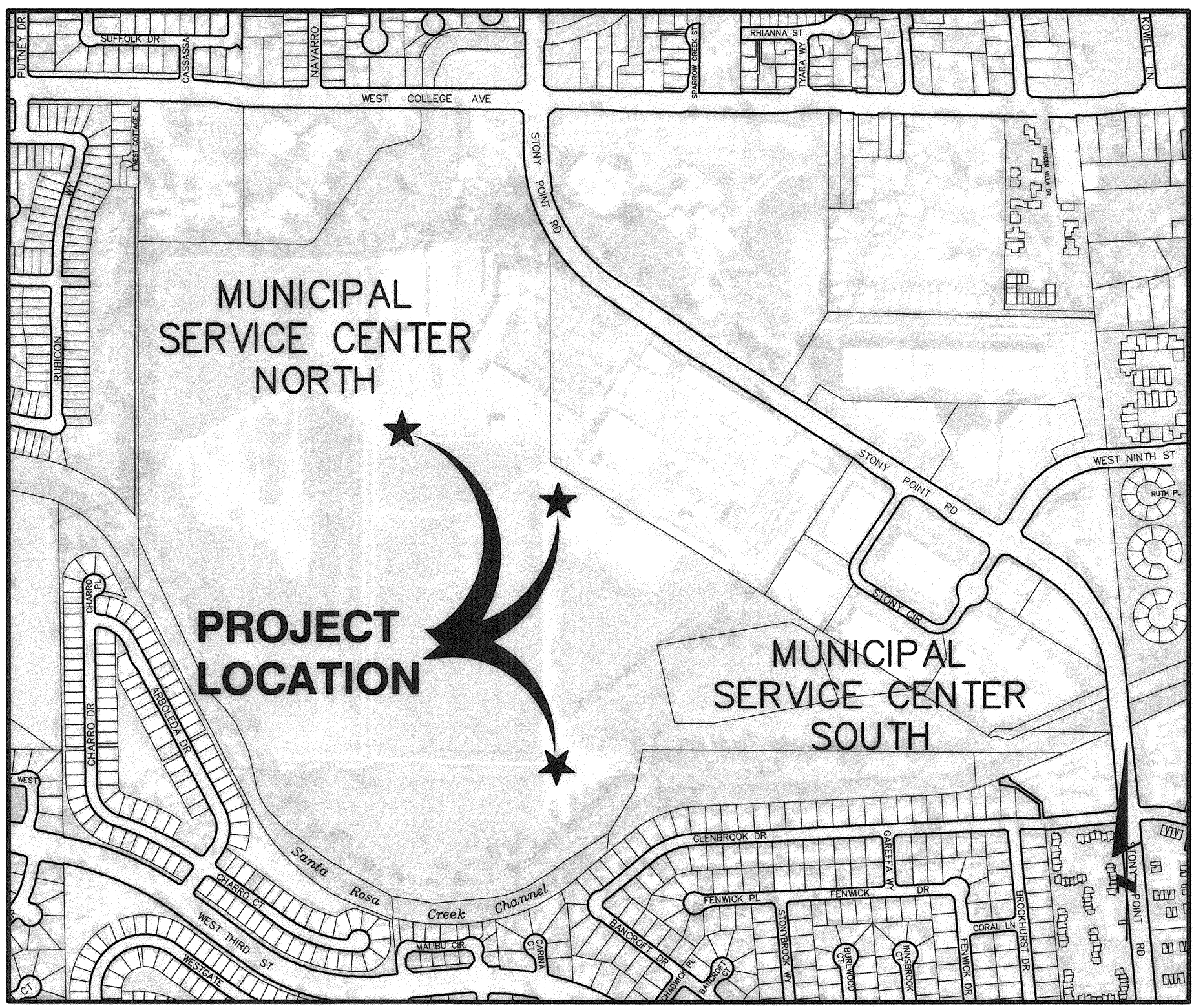
CITY OF SANTA ROSA

IMPROVEMENT PLANS FOR

WEST COLLEGE STORAGE FACILITY PUMPING IMPROVEMENTS

CONTRACT NO. C02284

OCTOBER 2021



LOCATION MAP
NOT TO SCALE

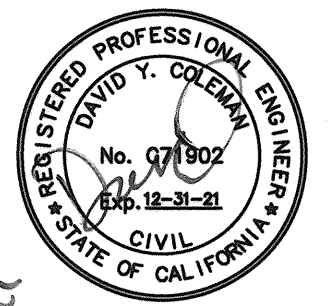
RECORD PLAN DATA	
PROJECT START:	WATER SERVICE TYPE:
PROJECT END:	MANUFACTURER:
GEN. CONTRACTOR:	FIRE HYDRANT TYPE:
SUPERINTENDENT:	MANUFACTURER:
UNDERGROUND CONTRACTOR:	INSPECTOR:
FOREMAN:	CONSTRUCTION MANAGER:
SEWER PIPE TYPE:	RECORD PLANS BY:
MANUFACTURER:	ADDITIONAL INFO:
SEWER FITTINGS MANUFACTURER:	
M.H. MANUFACTURER:	
WATER PIPE TYPE:	
MANUFACTURER:	
WATER VALVE MANUFACTURER:	
WATER FITTINGS MANUFACTURER:	

SHEET NO.	DESCRIPTION
1	COVER
2	ABBREVIATIONS, LEGEND & NOTES
3	PUMPING STATION SITE PLANS
4	PUMP CONTAINMENT STRUCTURE & DETAILS
5	DISINFECTANT CONTAINMENT STRUCTURE PLAN & DETAIL
6	DETAILS
7	STRUCTURAL NOTES, FOUNDATION PLAN & ANCHORAGE DETAILS
8	FOUNDATION PLAN, ROOF STRUCTURE FRAMING PLAN & DETAILS

BEFORE EXCAVATING
CALL U.S.A. NORTH
UNDERGROUND SERVICE ALERT
AT 811
TWO WORKING DAYS BEFORE ALL
PLANNED WORK OPERATIONS

FINAL PAY ITEM(S)	
BID ITEM(S) NAME AND QUANTITY	
SITE EXCAVATION	178 CY

Brelje & Race
CONSULTING ENGINEERS
475 Aviation Blvd. • Suite 120 • Santa Rosa, CA 95403 • 707-576-1322
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Design/Const	Survey	Subregional	BY	DEPT	REVISION	NO.	DATE	SIGNATURE	DATE

SCALE: AS SHOWN	DATE: OCTOBER 2021	CHK BY: DS
DWN BY: SYK		
APPROVED: Interim Deputy Director - Engineering		
By: <i>Andy Allen</i> Date: 11/2/21		

City of Santa Rosa WEST COLLEGE STORAGE FACILITY PUMPING IMPROVEMENTS		COVER	
CONTRACT NO. C02284		SHEET 1 OF 8	
FILE NO. 2020-0007			

AB	AGGREGATE BASE
AC	ASPHALT CONCRETE
ADA	AMERICANS WITH DISABILITIES ACT
ADPT	ADAPTER
AGG	AGGREGATE
ALUM	ALUMINUM
APN	ASSESSORS PARCEL NUMBER
APPROX	APPROXIMATE
BUILDG	BUILDING
BM	BENCHMARK
BV	BUTTERFLY VALVE
B&R	BRELJE & RACE
CBG	CALIFORNIA BUILDING CODE
CDG	COMBLED DENSITY FILL
CHK	CHECK
C	CENTERLINE
CL	CENTERLINE
CLR	CLASS
CL	CLEAR
CONC	CONCRETE
COND	CONDUIT
CP	CONTROL POINT
CFLG	COUPLING
CTR	CENTER
CY	CUBIC YARDS
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DW	DOWNSIDE
DWG	DRAWING
E	EAST
ECC	ECCENTRIC
EFFL	EFFLUENT (SEWER)
EG	EXISTING GROUND
ELL	ELEVATION
EL	ELBOW
EP	EDGE OF PAVEMENT
EX	EXISTING
FCA	FLANGED COUPLING ADAPTER
FG	FINISHED GRADE
F	FLOWLINE
FL	FLOWLINE
FLG	FLANGE
FLEX	FLEXIBLE
FM	FEET MAIN (PRESSURE)
FT	FEET
GALV	GALVANIZED
GB	GRADE BREAK
GPM	GALLONS PER MINUTE
GRD	GROUND
GSP	GALVANIZED STEEL PIPE
GV	GRADE VALVE
HDE	HOT DIPPED GALVANIZED
HDPE	HIGH DENSITY POLYETHYLENE
ID	INSIDE DIAMETER
INV	INVERT
IP	IRON PIPE
IPS	IRON PIPE SIZE
L	LENGTH
LT	LINEAL FEET
L	LEFT
MAX	MAXIMUM
MFR	MANUFACTURE
MG	MILLION GALLONS
MH	MISCELLANEOUS
MIN	MINIMUM
MISC	MISCELLANEOUS
MJ	MECHANICAL JOINT
MSL	MEAN SEA LEVEL
N	NORTH
NO.	NUMBER
NA	NOT APPLICABLE
NIC	NOT IN CONTRACT
NPT	NATIONAL PIPE THREAD
OC	ON CENTER
OD	OUTSIDE DIAMETER
OH	OVERHEAD
PGC	PORTLAND CEMENT CONCRETE
PE	PLAIN END
P	PAD GRADE
P	PROPERTY LINE
PC	POINT OF CONNECTION
PP	POPE POLE
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
R	RADIUS
RC	RELATIVE COMPACTION
RGB	REINFORCED CONCRETE BOX
RD	ROAD
RED	REDUCER
REF	REFERENCE
RT	RIGHT
R/W	RIGHT OF WAY
S	SOUTH
SCH	SCHEDULE
SF	SQUARE FEET
SG	SUBGRADE
SOF	SLIP ON FLANGE
SPEC	SPECIFICATION
SS	STAINLESS STEEL
SSI	SANITARY SEWER
S.S.D.	SEE STRUCTURAL DRAWINGS
SSMH	SANITARY SEWER MANHOLE
ST	STREET
STD	STANDARD
STL	STEEL
SY	SQUARE YARDS
TB	TOP OF BOX
TC	TOP OF CURB
TEMP	TEMPORARY
THD	THREADED
TS	TOP OF SLAB
TW	TOP OF WALL
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
W	WEST
WT	WEIGHT
"	INCHES
"	MINUTES
"	SECONDS
Δ	DELTA
∅	AND
@	AT
#	NUMBER
%	PERCENT
%	POUNDS
%	PERCENT

1. ALL WORKMANSHIP, MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE CITY OF SANTA ROSA STANDARD PLANS, THE CONSTRUCTION SPECIFICATIONS FOR PUBLIC IMPROVEMENTS, THE SPECIAL PROVISIONS FOR THIS PROJECT AND THE STATE STANDARD SPECIFICATIONS AND STANDARD PLANS. THE CONTRACTOR IS RESPONSIBLE FOR UNDERSTANDING ALL STANDARDS PERTAINING TO THIS PROJECT.
2. THE CONTRACTOR SHALL CALL UNDERGROUND SERVICE ALERT (USA NORTH) AT 811 NO LESS THAN 2 WORKING DAYS PRIOR TO ANY EXCAVATION FOR MARK OUTS OF EXISTING UNDERGROUND FACILITIES IN ACCORDANCE WITH SECTION 8-1.10 OF THE SPECIAL PROVISIONS.
3. THE LOCATIONS OF UNDERGROUND UTILITIES AND OTHER OBSTACLES SHOWN ON THE PLANS ARE BASED ON THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL POTHOLE AND DETERMINE THE EXACT LOCATION OF ALL POTENTIAL CONFLICTS IN ACCORDANCE WITH U.S.A. LAWS AND THESE SPECIAL PROVISIONS AND THE STANDARD SPECIFICATIONS. IF ANY UNMARKED UTILITIES ARE ENCOUNTERED, OR IF UNABLE TO LOCATE A MARKED UTILITY AFTER POTHOLES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER OF THAT UTILITY AND THE CITY ENGINEER.
4. ALL SEWER MANHOLES, MAINLINE CLEANOUTS AND WATER VALVES THAT ARE ON ACTIVE SYSTEMS SHALL BE ACCESSIBLE TO CITY PERSONNEL AT ALL TIMES AND SHALL BE BROUGHT TO GRADE WITHIN 48 HOURS OF PAVING.
5. THE CONTRACTOR SHALL PROTECT AND PRESERVE CITY MONUMENTS. THE CONTRACTOR SHALL COORDINATE WITH THE CITY ENGINEER 10 WORKING DAYS IN ADVANCE FOR REFERENCING OF EXISTING MONUMENTS TO BE DISTURBED. THE CONTRACTOR SHALL RECONSTRUCT DISTURBED MONUMENTS IN ACCORDANCE WITH CITY STANDARD 280.
6. OVERHEAD UTILITY SERVICE DROPS ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL INVESTIGATE THE SITE AND BE AWARE OF LIMITED CLEARANCES UNDER OVERHEAD UTILITY LINES AND LOW HANGING TREE BRANCHES. THE CONTRACTOR'S TRUCKS AND EXCAVATION EQUIPMENT SHALL BE SIZED SO THAT OVERHEAD WIRES AND TREE BRANCHES ARE NOT DAMAGED.
7. ALL EXCAVATED MATERIAL SHALL BE DISPOSED OF AS GENERATED AND AT NO TIME SHALL THE CONTRACTOR PLACE EXCAVATED MATERIAL AT THE WORK SITE.

FUEL TANKS WILL STORE DIESEL FUEL WHICH IS CLASSIFIED AS A CLASS II COMBUSTIBLE LIQUID PER 2019 CFC 5701.5.

FUEL TANKS CONFORM TO THE REQUIREMENTS OF NFPA 30 AND 2019 CFC SECTIONS 5703, AND 5704.

FIRE EXTINGUISHERS CONFORM TO THE REQUIREMENTS OF 2019 CFC SECTION 906.

EXISTING BOUNDARY

EXISTING PARCEL

CENTER

EASEMENT

SEWER MAIN, MANHOLE & CLEAN OUT		
SEWER LATERAL & CLEANOUT		
END CAP OR PLUG		
GAS MAIN, VALVE & SERVICE		
JOINT POLE & GUY ANCHOR		
OVERHEAD UTILITY		
STREET ADDRESS		
STREET SIGN		
FENCE		
SURVEY CONTROL POINT		
SURVEY MONUMENT		
AC DIKE		
CURB & GUTTER		

NOT TO SCALE

NO	NORTHING	EASTING	ELEV.	TYPE
1	1922797.982	6346534.309	121.51	520_ PK NAIL
2	1922183.919	6346243.824	118.81	515_ 3/4 Iron Pipe
7	1922965.487	6346804.861	117.79	520_ PK NAIL
20	1923170.942	6346533.008	120.01	CP PK
21	1922151.976	6346530.900	121.50	CP SPIKE

D-215 WEST COLLEGE AVE. AT MARLOW RD.; CITY DISK IN WELL MONUMENT AT ORIGINAL CL INTERSECTION, N'LY OF TWO MONUMENTS 18 FT. APART. (COORDINATE MONUMENT G-277). 2/91 EL 111.453

E-93 WEST COLLEGE AVE, 47' FT. E/O CASASSA WAY; CITY DISK IN WELL MONUMENT, ON CL WEST COLLEGE AVE, AT WEST END OF REVERSE CURVE. (COORDINATE MONUMENT G-247) 11/85 EL 105.664.

City of
Santa Rosa

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[illegible]

SOURCE: AS SHOWN DATE: OCTOBER 2021

DWN BY: —	CHK BY: DS
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APPROVED: Interim Deputy Director – Engineering
Date 11/2/21
Andy Allen

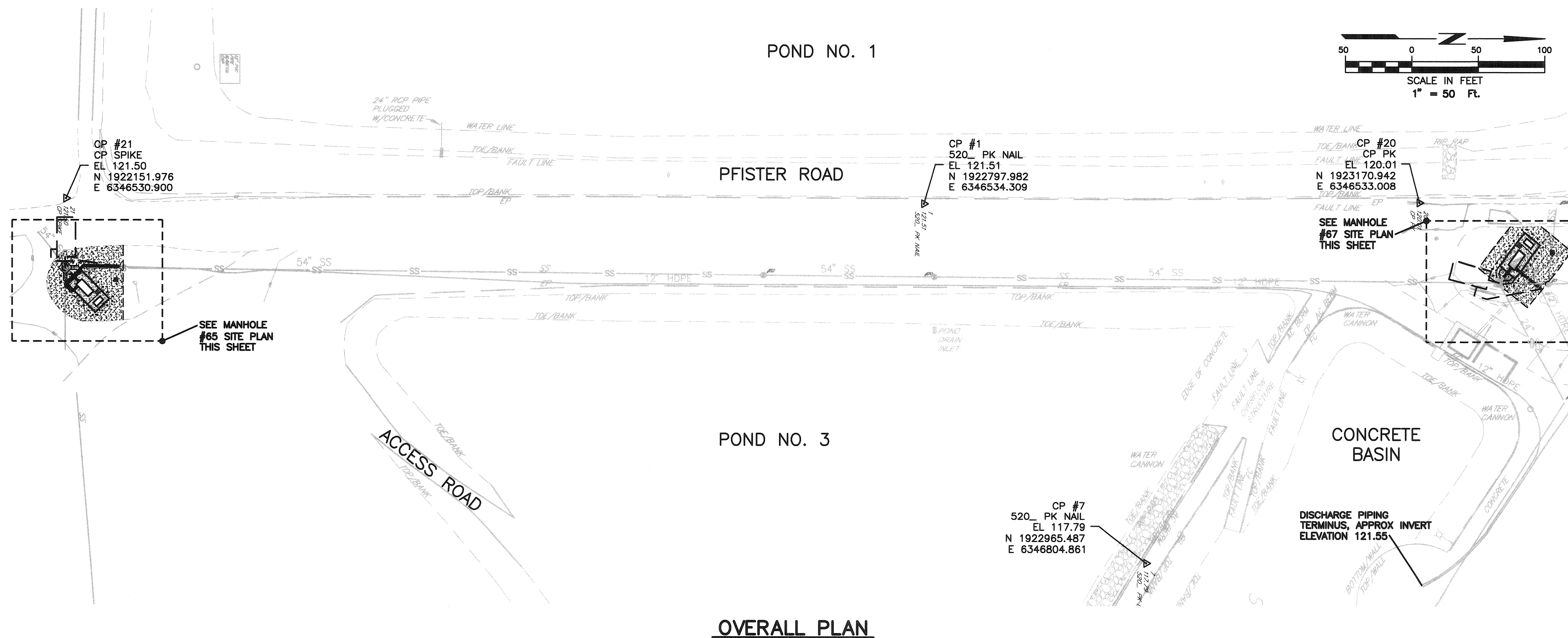
WEST COLLEGE STORAGE FACILITY PUMPING IMPROVEMENTS

ABBREVIATIONS, LEGEND & NOTES

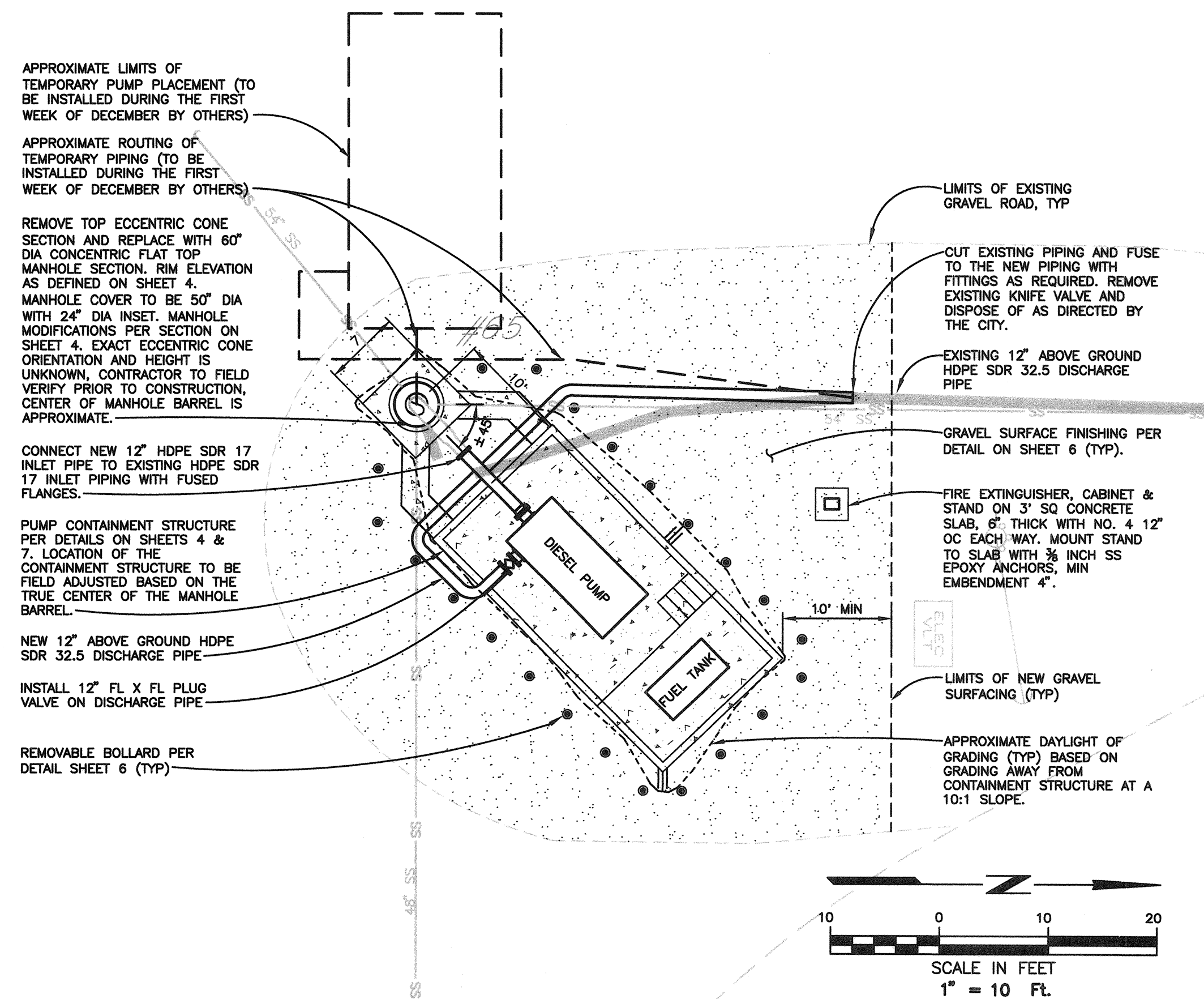
CONTRACT NO.
C02284

SHEET 2 OF 8

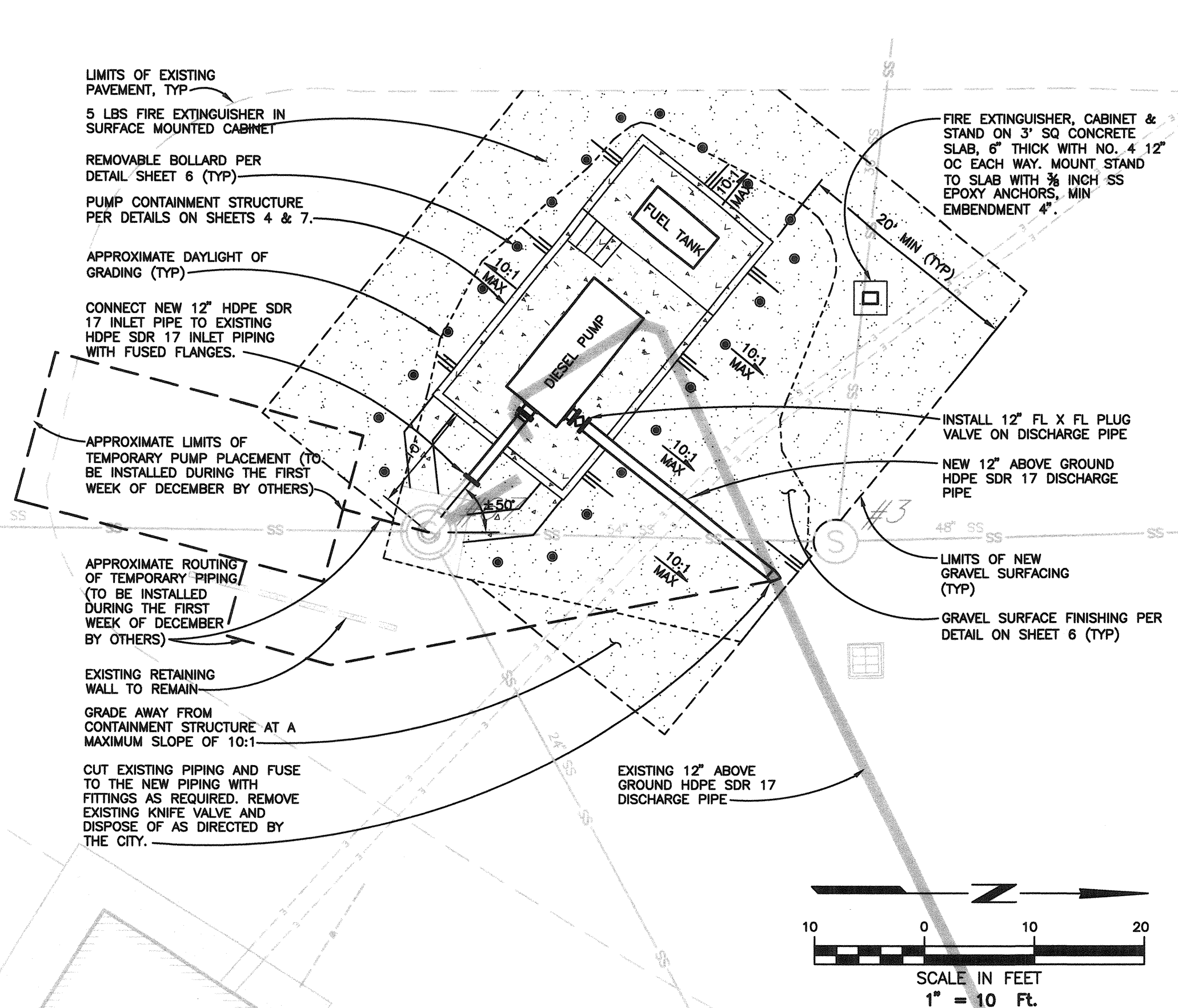
FILE NO. 2020-0007



OVERALL PLAN



MANHOLE #65 SITE PLAN



MANHOLE #67 SITE PLAN

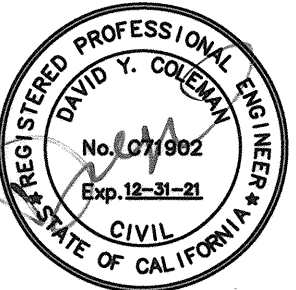
NOTES

1. DESIGN AND LAYOUT CONDUCTED WITH DIMENSIONAL DATA SUPPLIED FOR DIESEL-POWERED PUMP DPC300 AS MANUFACTURED BY GOWDIN. ADJUSTMENTS TO THE CONTAINMENT STRUCTURE DIMENSIONS IN THESE PLANS, CONTRACTOR TO ACCOMMODATE A DIFFERENT MODEL PUMP OR PUMP FROM A DIFFERENT MANUFACTURER. PROVIDE DIMENSIONAL DATA IN SUBMITTAL AND SECURE APPROVAL PRIOR TO LAYOUT OF STRUCTURE. THE SUCTION CENTERLINE ELEVATION (CL1) MUST BE AT OR BELOW THE ELEVATION DESIGNATED IN THESE PLANS. CONTRACTOR IS RESPONSIBLE FOR THE CONSEQUENTIAL COSTS ASSOCIATED WITH CHANGES TO EQUIPMENT AND LAYOUT.
2. NEW DISCHARGE PIPING DESIGN ALIGNMENT CONDUCTED WITH DATA SUPPLIED FOR DIESEL-POWERED PUMP DPC300 AS MANUFACTURED BY GOWDIN. ADJUSTMENTS TO THE PIPING ALIGNMENT MAY BE NECESSARY TO ACCOMMODATE A DIFFERENT PUMP. PROVIDE DIMENSIONAL DATA IN SUBMITTAL IF IT DIFFERS FROM DESIGN. LAYOUT PLAN ASSUMES THE PUMP TO BE A RIGHT-HAND DISCHARGE CONFIGURATION. IF LEFT-HAND DISCHARGE, SIDE DISCHARGE IS AVAILABLE FOR SELECTED PUMP. CONSULT THE ENGINEER AS TO THE PRETENDED CONFIGURATION. CONTRACTOR IS RESPONSIBLE FOR THE CONSEQUENTIAL COSTS ASSOCIATED WITH CHANGES TO EQUIPMENT AND LAYOUT.
3. 500 GAL FUEL TANK WITH BUILT IN CONTAINMENT SHALL BE FUEL/CHEM FOP500 AS MANUFACTURED BY WESTERN GLOBAL OR EQUAL.
4. FUEL TANKS ARE LOCATED SUCH THAT THEY ARE MORE THAN 25' FROM A PROPERTY LINE, MORE THAN 15' FROM A PUBLIC STREET, AND MORE THAN 5' FROM EACH OTHER, IN CONFORMANCE WITH TABLE 5704.4.2 OF 2019 CFC.
5. FUEL HOSE TYPE, SIZE, FITTINGS, AND END CONNECTIONS SHALL BE PER PUMP AND FUEL TANK MANUFACTURER'S RECOMMENDATIONS.

LOCATION	LOCATION	
	MANHOLE SITE #65 (NORTHING, EASTING)	MANHOLE SITE #67 (NORTHING, EASTING)
CENTER OF MH LID	1922151.389, 6346581.291	1922320.877, 6346591.267
FRONT RIGHT CORNER	1922152.880, 6346593.803	1922324.126, 6346588.312
FRONT LEFT CORNER	1922163.899, 6346583.100	1922321.204, 6346578.671
BACK RIGHT CORNER	1922174.054, 6346615.523	1922326.200, 6346564.726
BACK LEFT CORNER	1922185.034, 6346604.820	1922325.278, 6346555.085

CONTROL POINT COORDINATE TABLE

NO	NORTHING	EASTING	ELEV.	TYPE
1	1922797.982	6346534.309	121.51	520_ PK NAIL
2	1922183.919	6346243.824	118.81	515_ 3/4 Iron Pipe
7	1922985.487	6346804.861	117.79	520_ PK NAIL
20	1923170.942	6346533.008	120.01	CP PK
21	1922151.976	6346530.900	121.50	CP SPIKE



City of
Santa Rosa

DATE	NO. OF SHEETS	SHEET NO.	OFFICE NO.
IN BY: SYK	CHK BY: DS		

APPROVED: David Allen Interim Deputy Director – Engineering Date 11/2/20

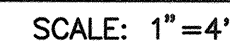
David Allen

WEST COLLEGE STORAGE FACILITY PUMPING IMPROVEMENTS	PUMPING STATION SITE PLANS
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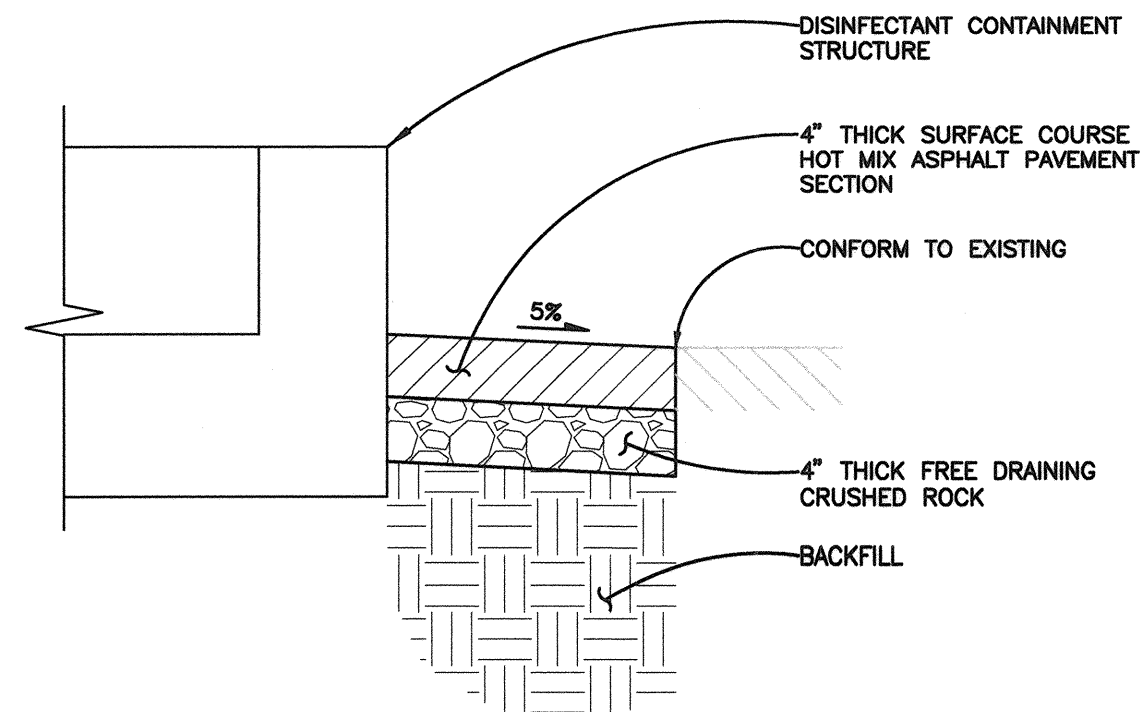
CONTRACT NO.
C02284

SHEET 3 OF 8

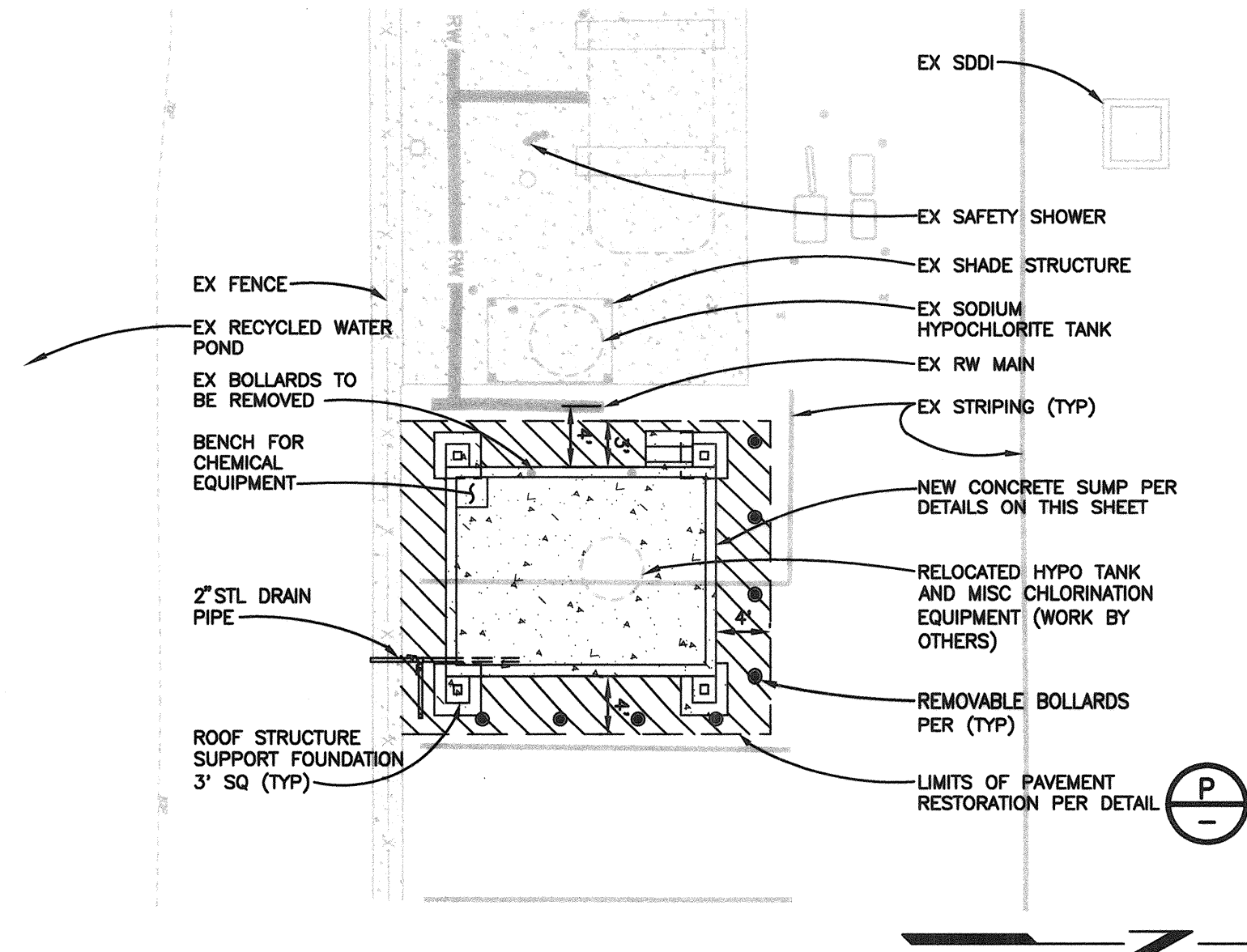
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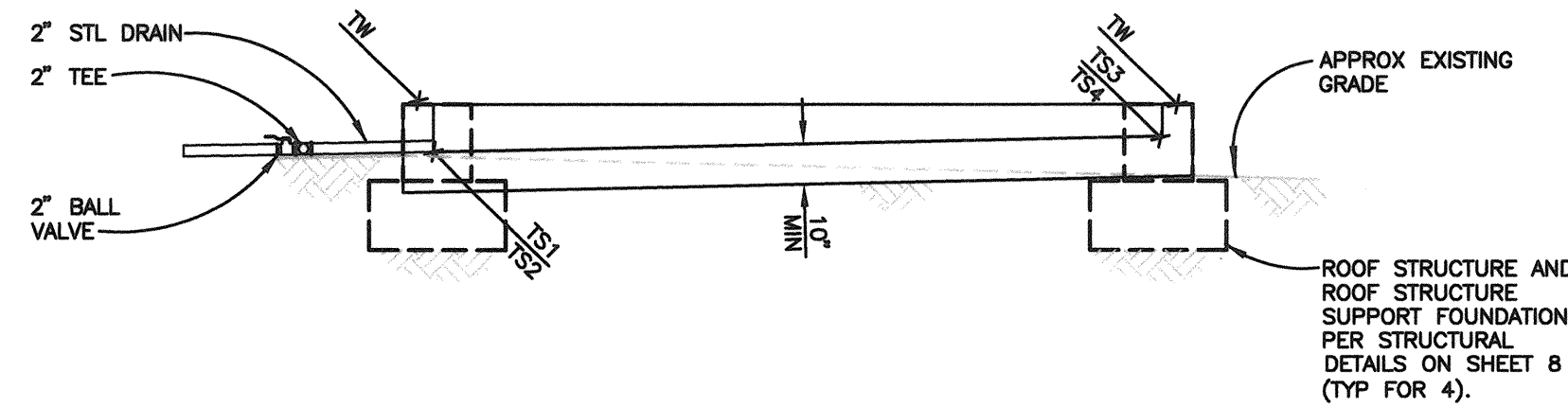
LOCATION	ELEVATION	
	MANHOLE SITE #65	MANHOLE SITE #67
RIM	121.39	119.79
MHB	96.72	97.89
FG1	121.39	119.79
FG2	121.39	119.79
TW1	121.89	120.29
TW2	122.39	120.79
CL1	122.52	120.92
CL2	121.56	119.96
TS1	118.69	117.09
TS2	118.97	117.37
TS3	119.05	117.45
TS4	119.39	117.79
TS5	121.89	120.29
TS6	122.05	120.45
TS7	121.89	120.29
TS8	122.05	120.45
INV1	118.69	117.09
INV2	119.30	117.70



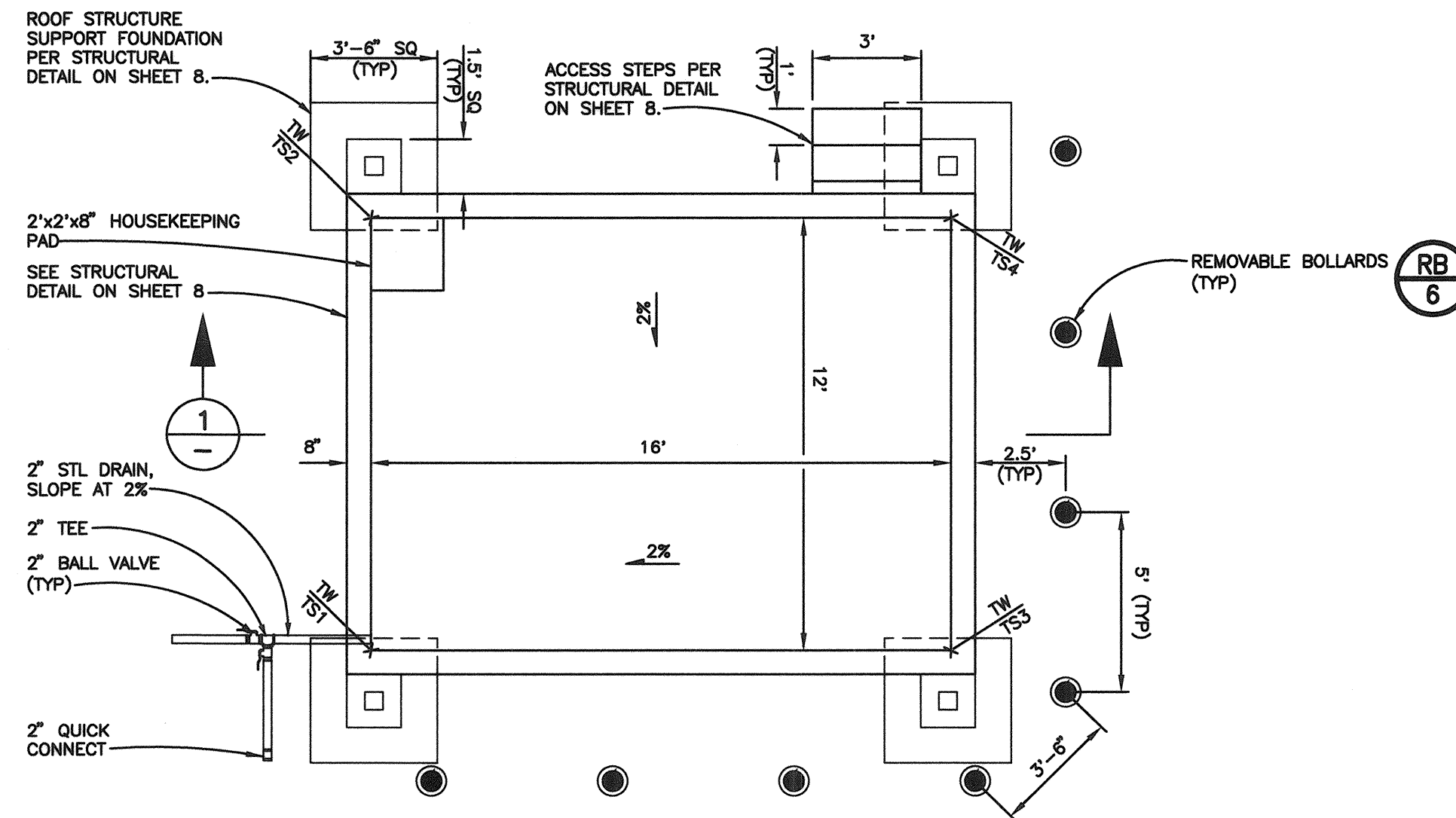
PAVEMENT RESTORATION DETAIL (P)
NOT TO SCALE



DISINFECTANT CONTAINMENT SITE PLAN
SCALE: 1"=10'



SECTION 1
SCALE: 1"=4'



DISINFECTANT CONTAINMENT DETAIL PLAN
SCALE: 1"=4'

LOCATION	DISINFECTANT CONTAINMENT (NORTHING, EASTING)
TOP RIGHT CORNER	6345971.3307, 1923516.8522
TOP LEFT CORNER	6345971.3307, 1923499.5189
BOTTOM RIGHT CORNER	6345984.6640, 1923516.8522
BOTTOM LEFT CORNER	6345984.6640, 1923499.5189

LOCATION	DISINFECTANT CONTAINMENT ELEVATION
TW	115.48
TS1	114.48
TS2	114.72
TS3	114.80
TS4	115.04

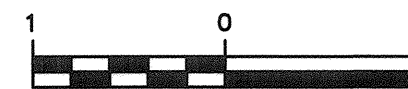


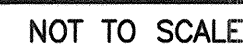
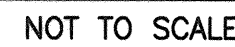
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NO.	DATE	REVISION	BY

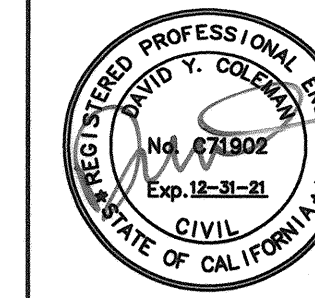
SCALE: AS SHOWN	DATE: OCTOBER 2021	CHK BY: DS
DWN BY: SYK	APPROVED: <i>Interim Deputy Director - Engineering</i>	Date: 11/2/21
By: <i>Andy Allen</i>		

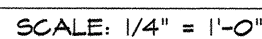
City of Santa Rosa WEST COLLEGE STORAGE FACILITY PUMPING IMPROVEMENTS	CONTRACT NO. C02284
DISINFECTANT CONTAINMENT STRUCTURE PLAN & DETAIL	SHEET 5 OF 8
	FILE NO. 2020-0007





1. HANDRAIL SHALL BE THE PRODUCT OF A COMPANY NORMALLY ENGAGED IN THE MANUFACTURE OF PIPE RAILING. RAILING SHALL BE SHOWN ASSEMBLED IN LENGTHS NOT TO EXCEED 24 FT FOR FIELD ERECTION.
2. HANDRAILS SHALL BE DESIGNED TO WITHSTAND 200# CONCENTRATED LOAD APPLIED IN ANY DIRECTION TO THE TOP RAIL. THE MANUFACTURER SHALL SUBMIT CALCULATIONS TO THE ENGINEER FOR APPROVAL.
3. POST SPACING SHALL BE A MAXIMUM OF 6'-0". POSTS AND RAILINGS SHALL BE A MINIMUM OF 1 1/2" SCHEDULE 40 PIPE.
4. POSTS SHALL NOT INTERRUPT THE CONTINUATION OF THE TOP RAIL AT ANY POINT. ALONG THE RAILING, INCLUDING CORNERS AND END TERMINATIONS (OSHA 1901.23). THE TOP SURFACE OF THE TOP RAILING SHALL BE SMOOTH AND SHALL NOT BE INTERRUPTED BY PROJECTED FITTINGS.
5. HANDRAIL POST BRACKETS SHALL BE A MINIMUM OF 4" HIGH AND ANCHORED WITH SS EPOXY ANCHOR BOLTS, MINIMUM 5/8" DIAMETER, MINIMUM OF 2 SET SCREWS PER BRACKET.

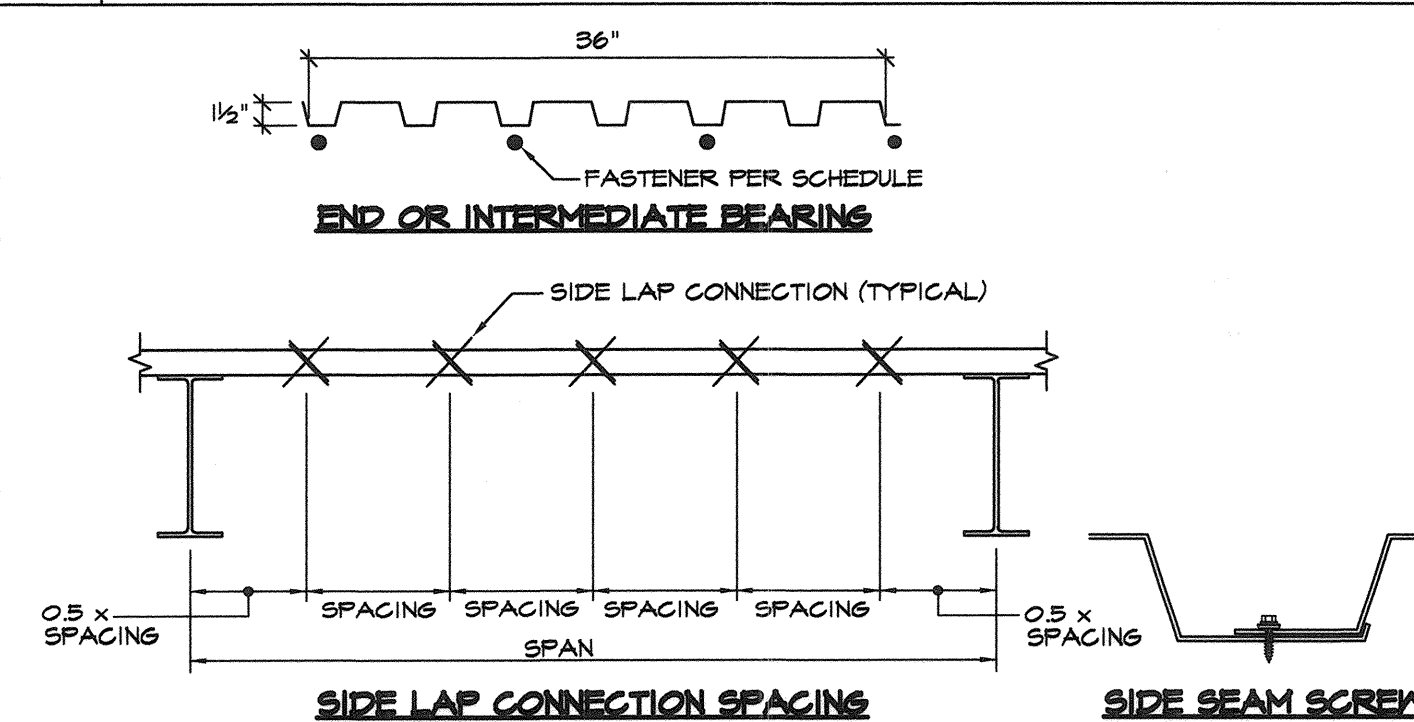
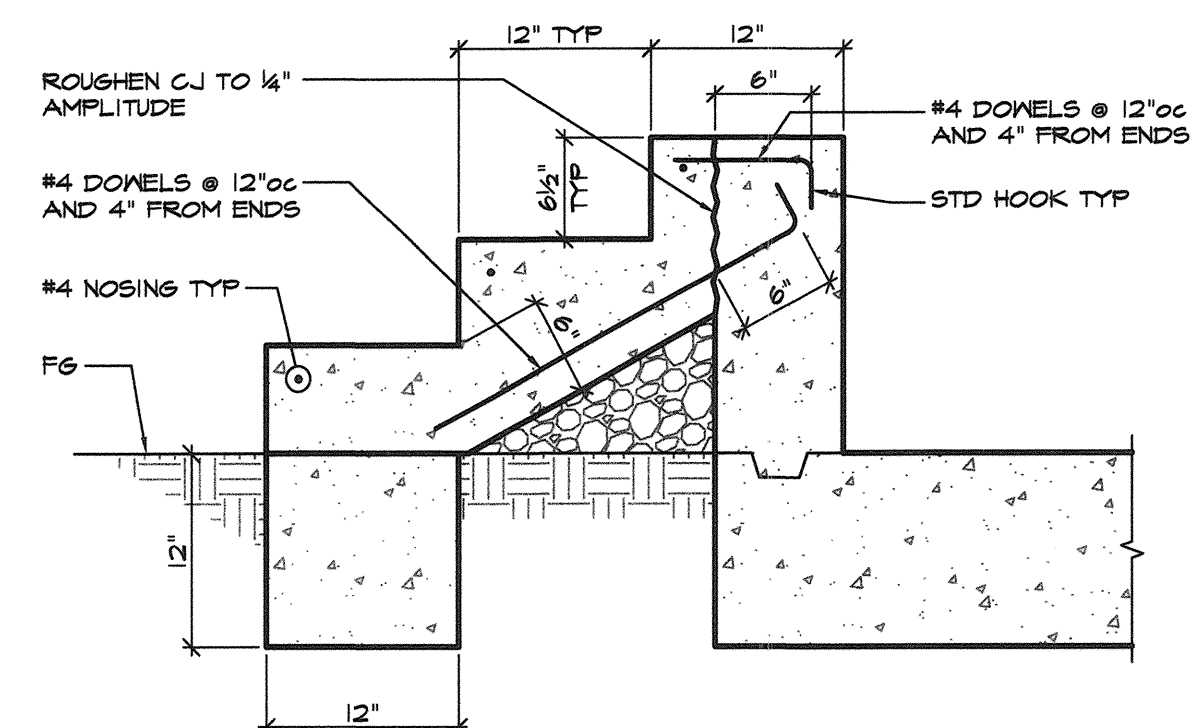
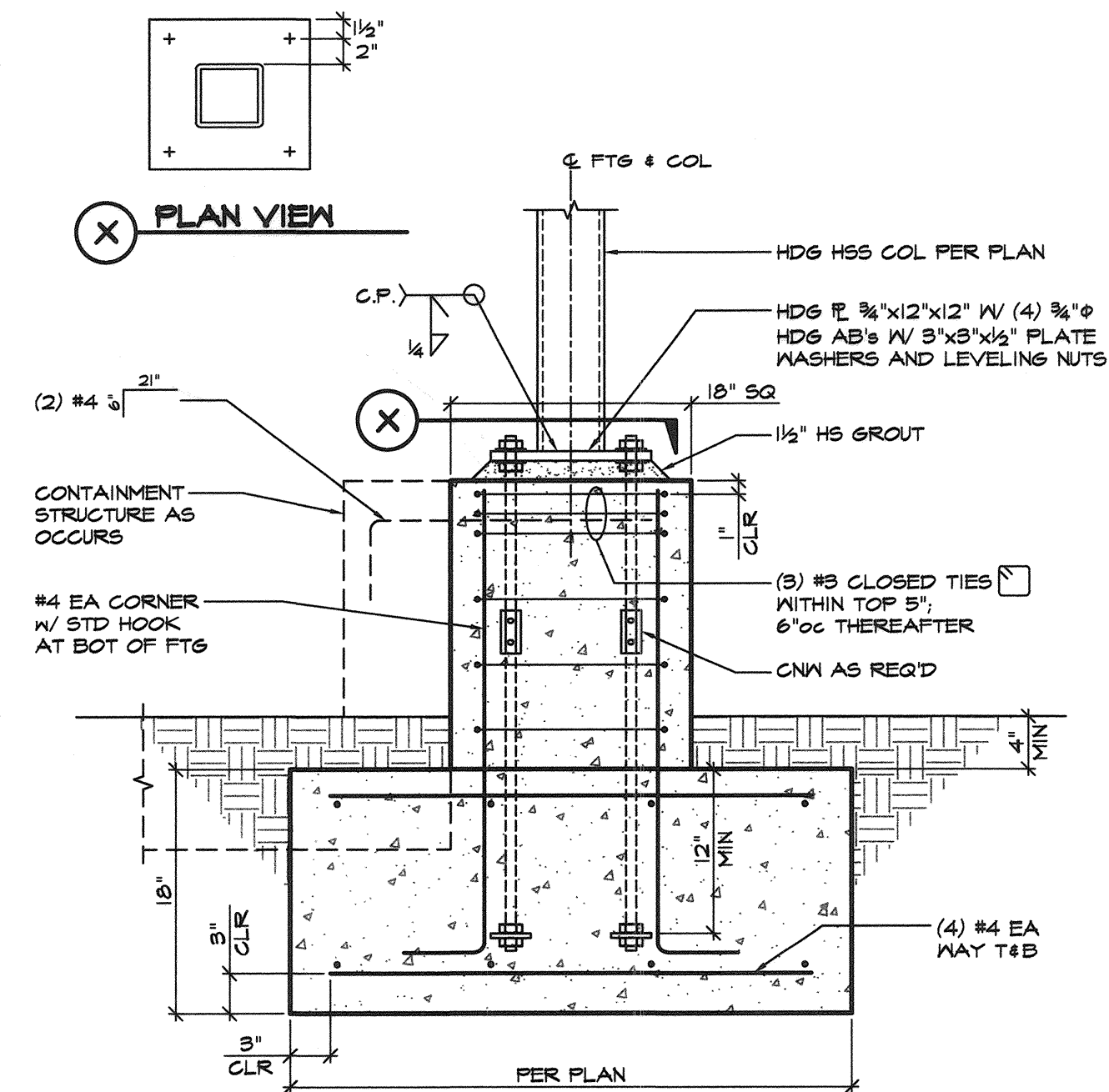
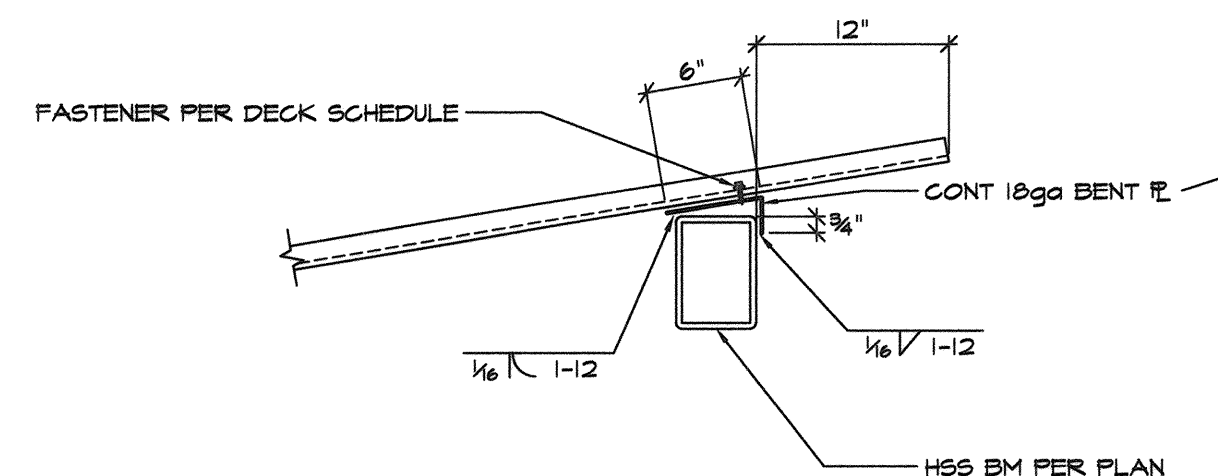
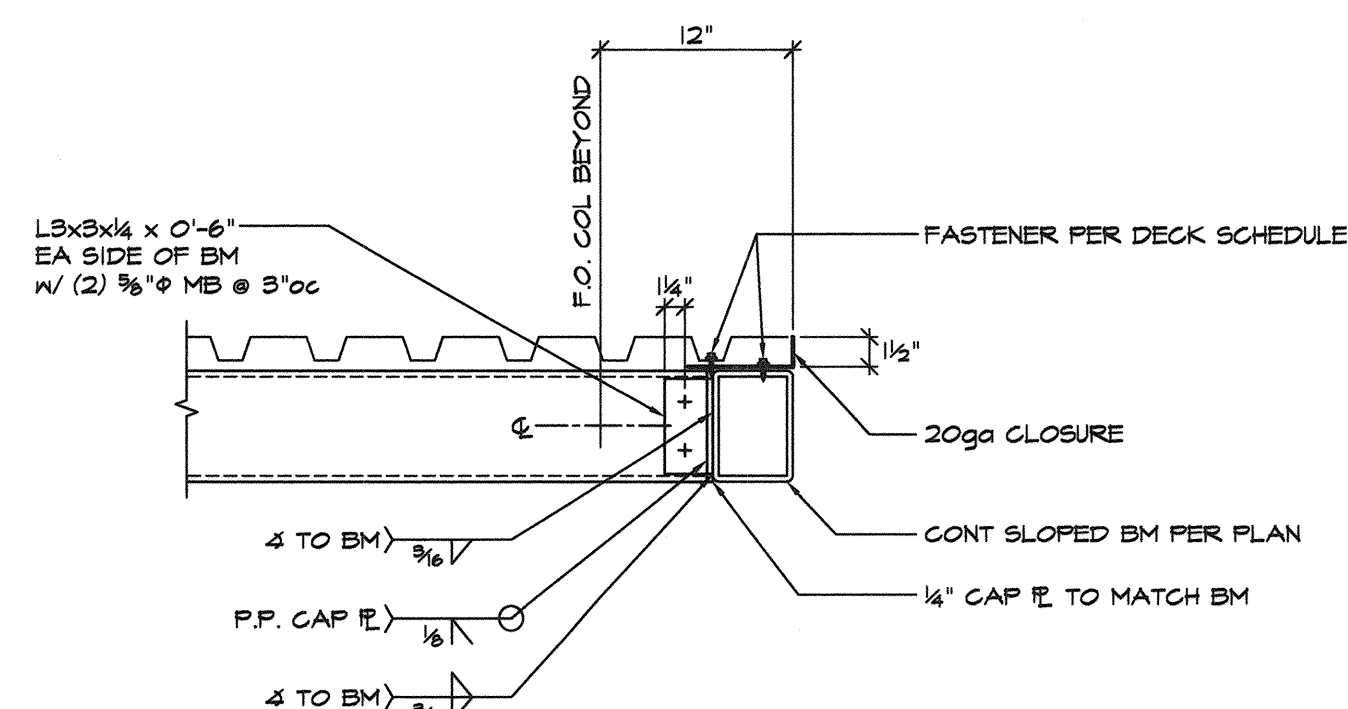
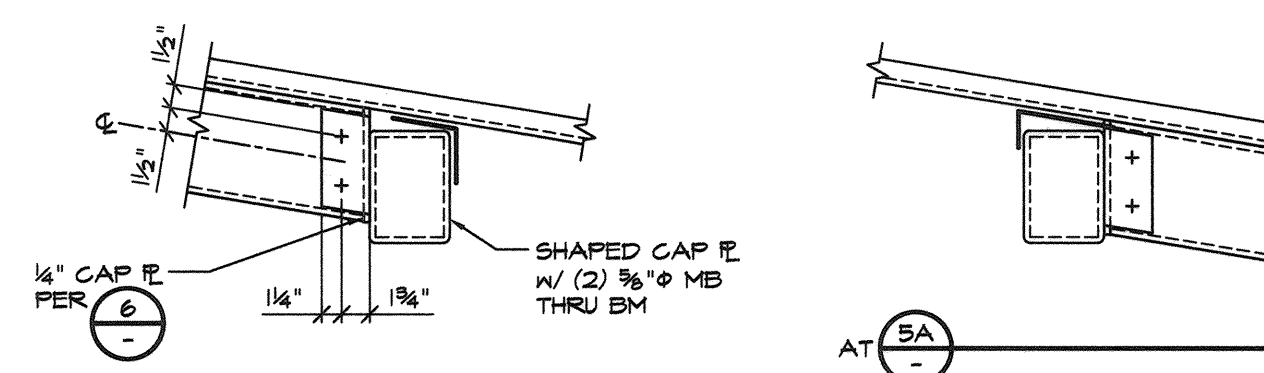
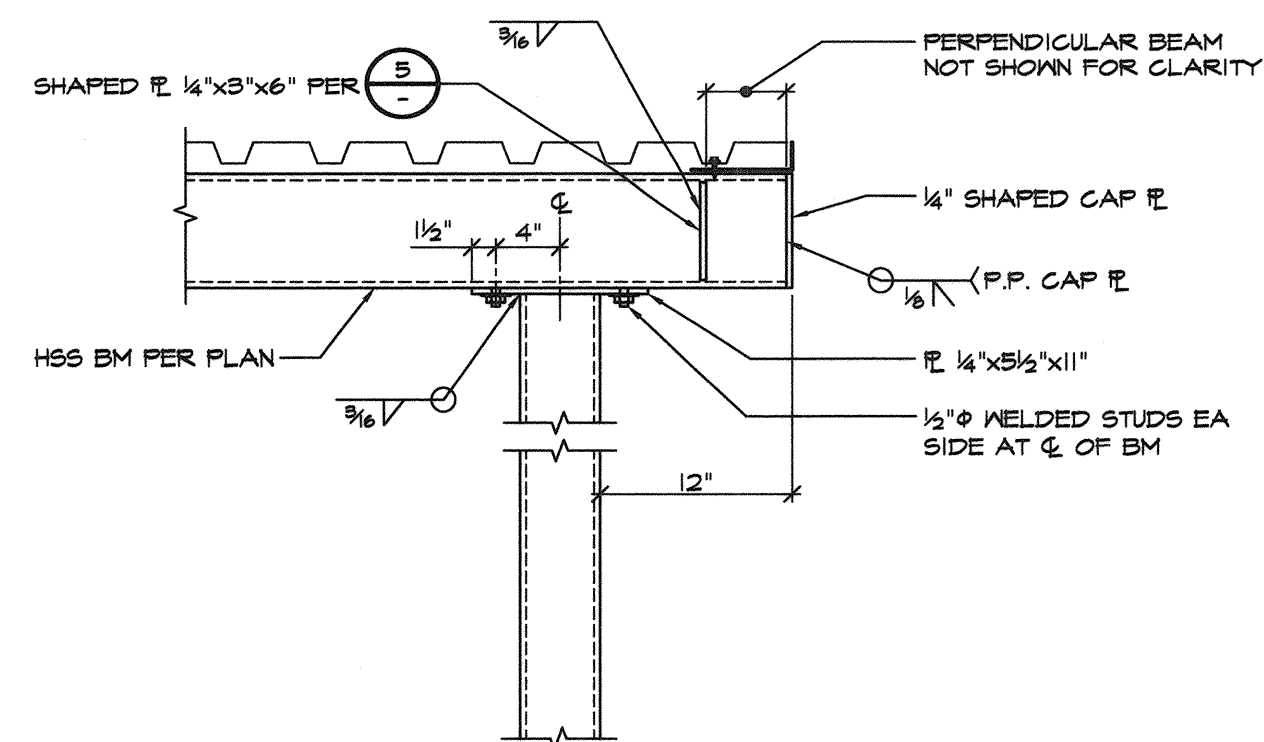
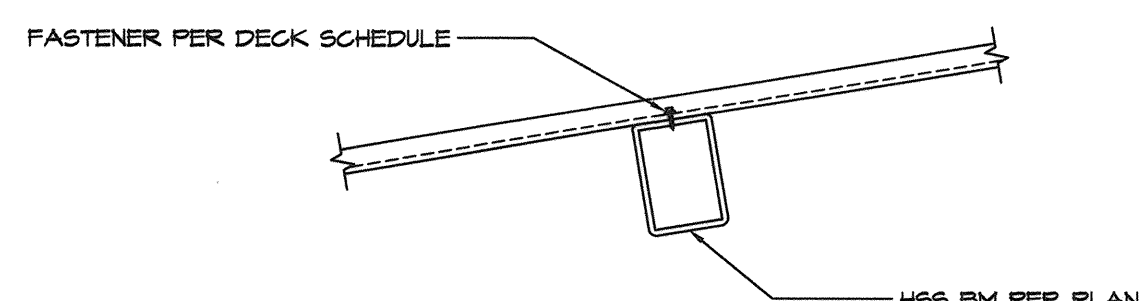
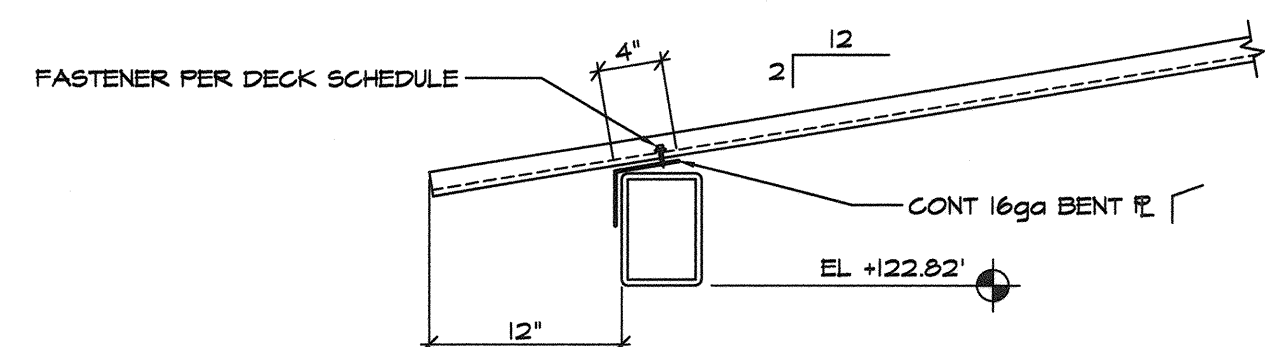
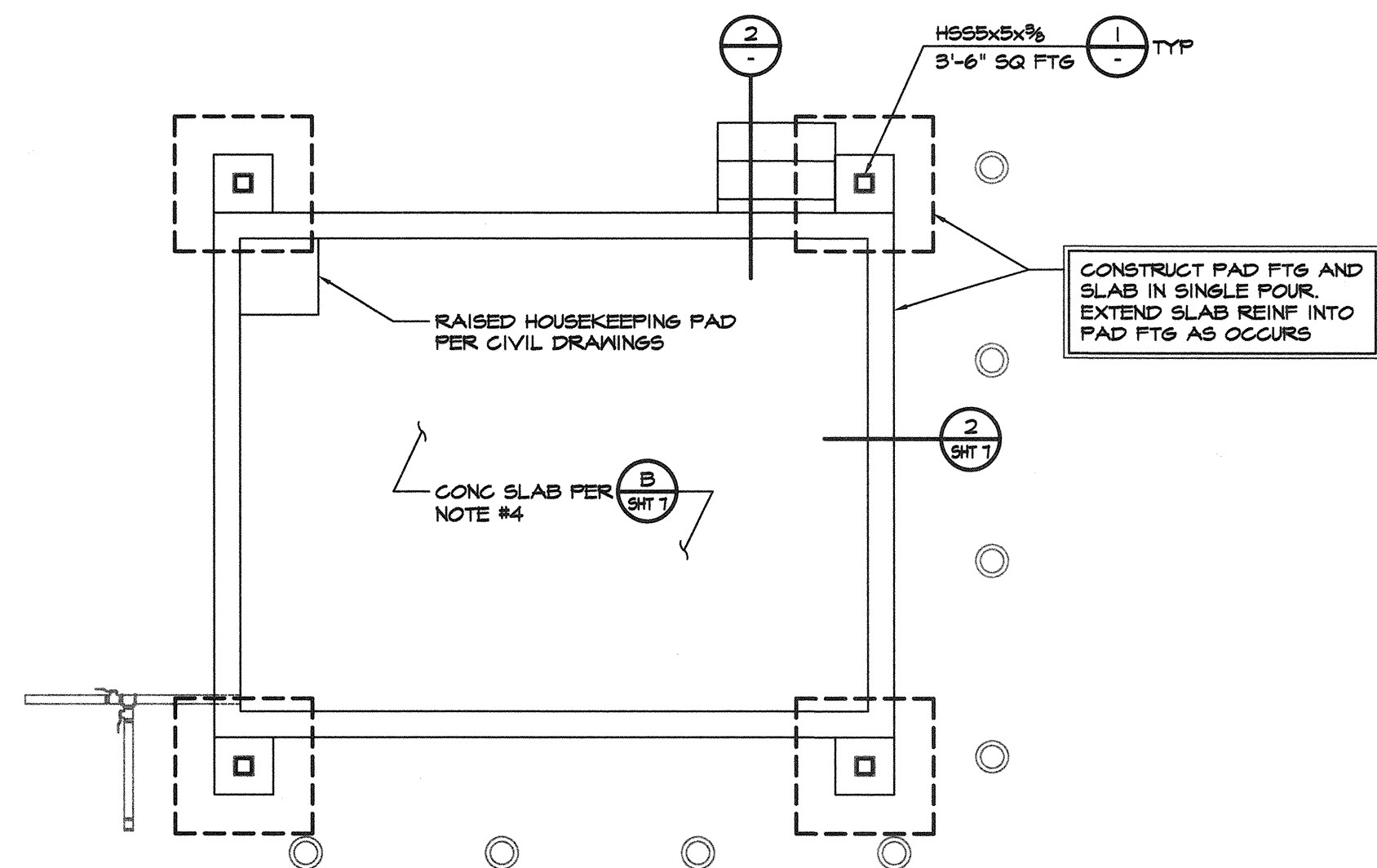
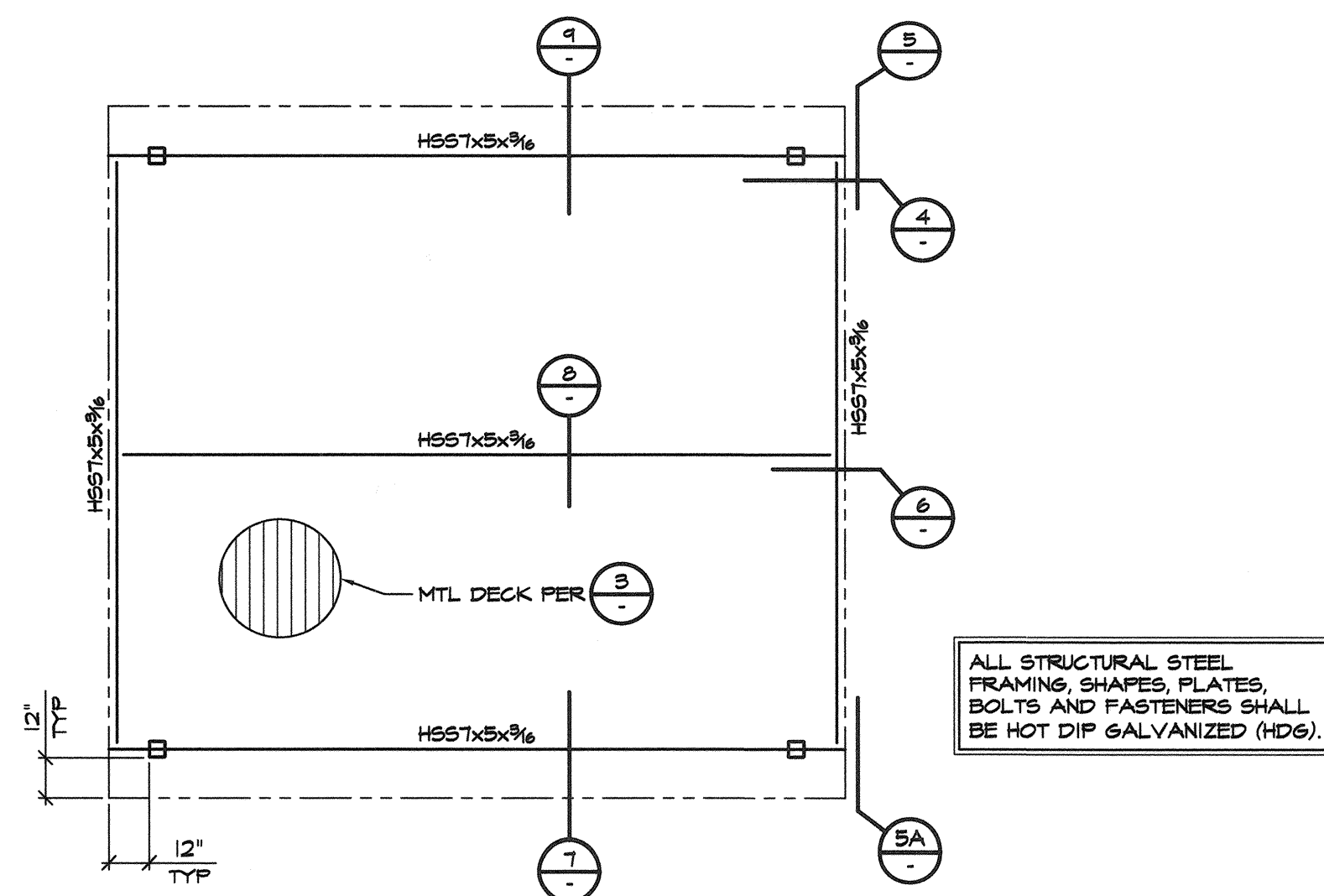




STIRRUPS & TIES

Technical drawing of a curb and gutter cross-section. The drawing shows a concrete curb on the left, a gutter with a sloped bottom, and a concrete slab on the right. Reinforcement is shown with circles and cross-hatching. Labels include:

- TERMINATE SLAB REINF W/ STD HOOK
- #4 @ 12"oc
- #4 @ 16"oc
- 1 1/2" CLR
- 10"
- 1 1/2" CLR
- #4 @ 12"oc
- #4 @ 16"oc
- EA END TO SLAB REINF
- 1 1/2
- CURB PER $\frac{9}{-}$ AS OCCURS



STEEL DECK TYPE	CONNECTION AT END & INTERIOR BEARING	SIDE SEAM ATTACHMENT
ASC BN-86 DECK, 20 GAUGE	#12 SELF-TAPPING SCREW	#12 x 3/4" SELF-TAPPING SCREW @ 18" OC


NOTES:

1. USE GALVANIZED SHEETS (G60 MIN).
2. SAD FOR PAINTING / FINISH INFO.
3. METAL DECK PER IAPMO REPORT #0161.
4. METAL DECK IS TO ATTACH TO ALL FRAMING MEMBERS.
5. USE WATERIGHT WASHERS ON ALL DECK SCREWS.
6. USE 1/2" RECOGNIZED SCREWS PRODUCED BY BULDEX, ELCO, HILTI OR SIMPSON STRONG-TIE.
7. DECK IS ATTACHED WITH #12 GALVANIZED SELF-DRILLING, SELF-TAPPING SCREWS.
SELECT ACTUAL SCREW SIZED ON SUBSTRATE THICKNESS.

[illegible]

SCALE: AS SHOWN	DATE: OCTOBER 2021
DWN BY: SDG	CHK BY: RDB

APPROVED: *Interim Deputy Director – Engineering*

By:  Date: 11/2/21