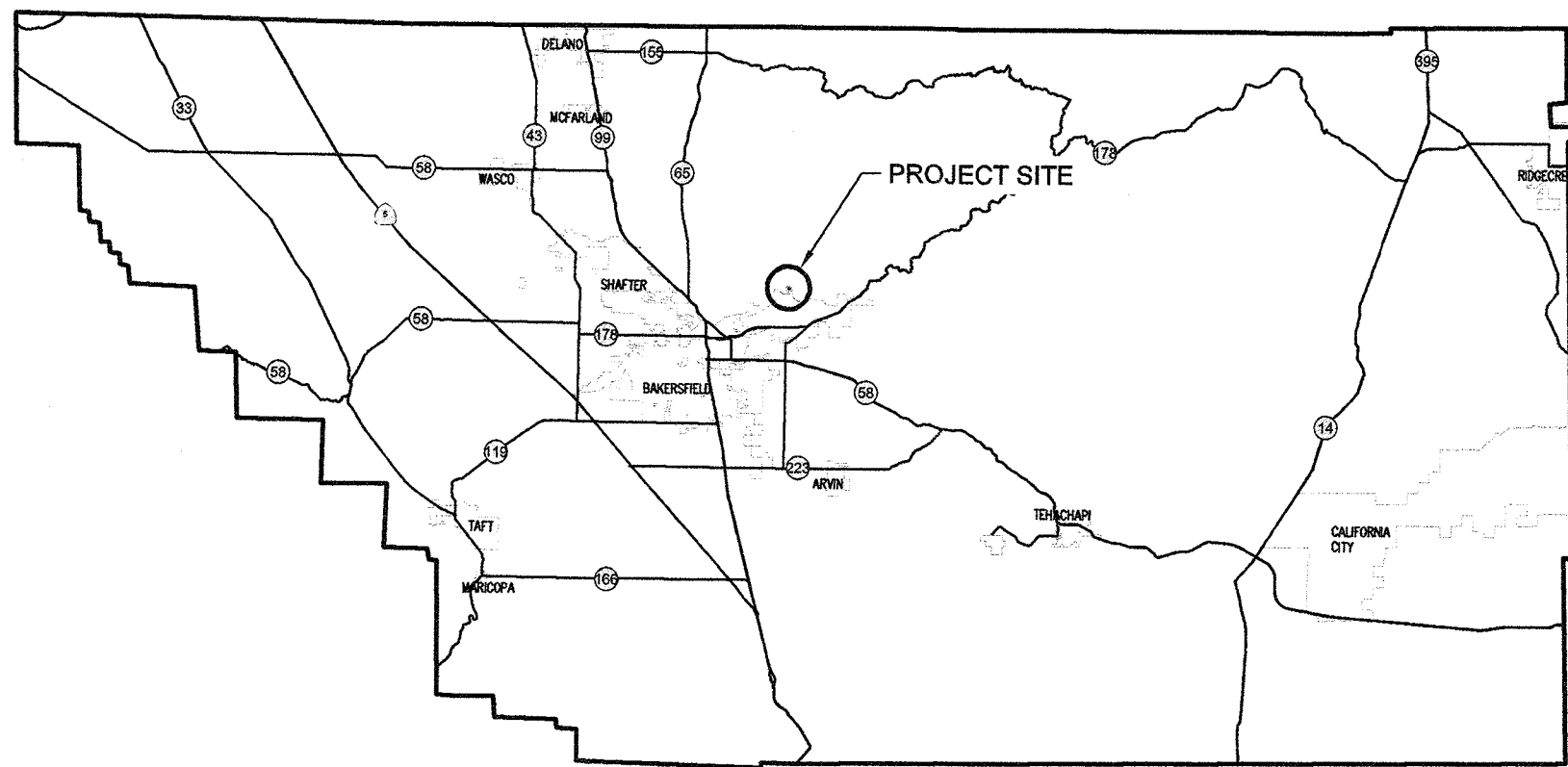


# IMPROVEMENT PLANS

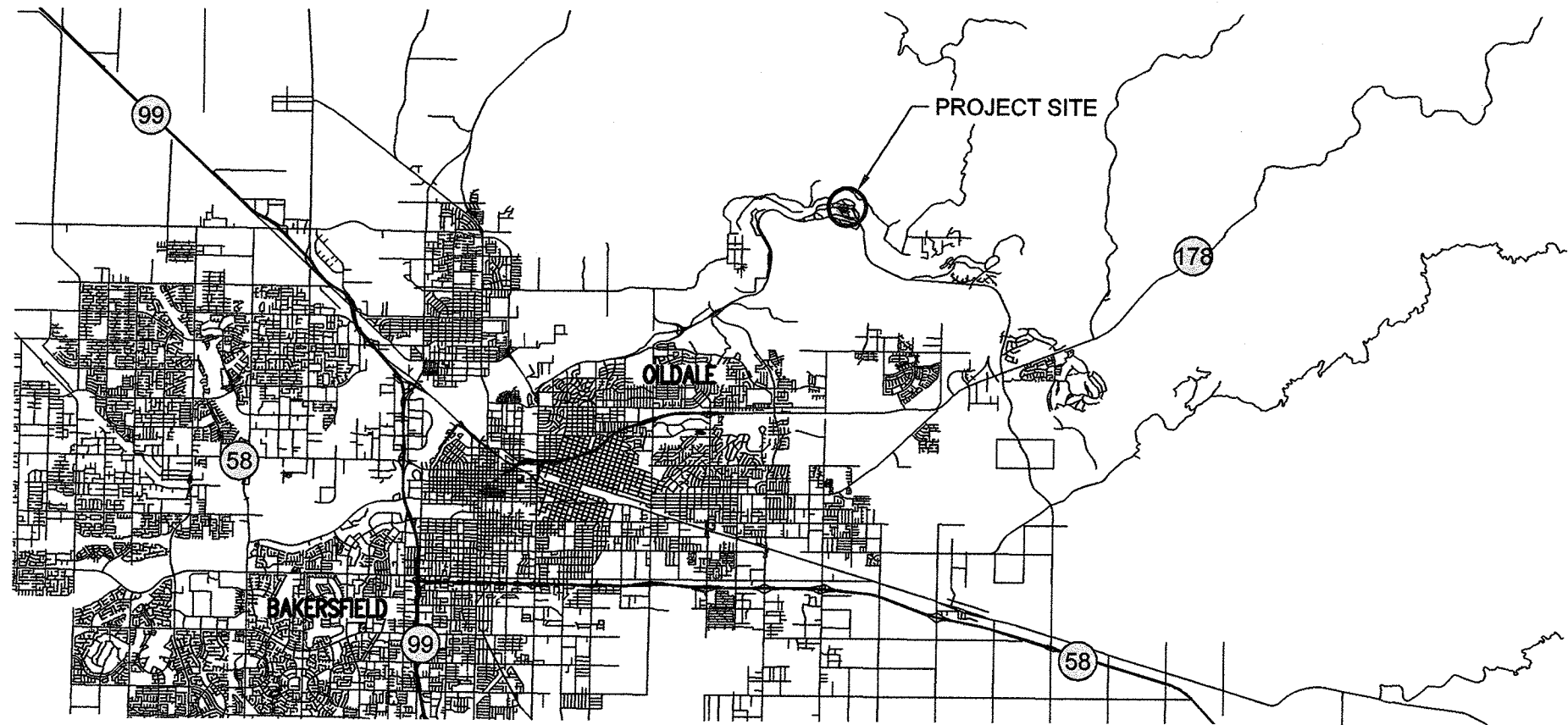
FOR

## HART MEMORIAL PARK ADVENTURE PLAY AREA

### COUNTY OF KERN, CALIFORNIA



VICINITY MAP  
NOT TO SCALE



SITE LOCATION MAP  
NOT TO SCALE

#### ABBREVIATIONS

AC ASPHALTIC CONCRETE  
ACP ASBESTOS CEMENT PIPE  
AISC AMERICAN INSTITUTE OF STEEL CONSTRUCTION  
ARV AIR RELEASE VALVE  
A&V AIR AND VACUUM (COMBINATION) VALVE  
AVG AVERAGE  
BC BEGIN CURVE  
BF BLIND FLANGE  
BFV BUTTERFLY VALVE  
BIA BUREAU OF INDIAN AFFAIRS  
BLDG BUILDING  
BM BENCH MARK  
BO BLOW OFF  
BV BALL VALVE  
C CURB  
CAV COMBINATION AIR VALVE  
CATV CABLE TELEVISION  
CI CAST IRON  
CL CENTERLINE  
CL CLASS  
CMP CORRUGATED METAL PIPE  
CO CLEANOUT  
CONC CONCRETE  
CONST CONSTRUCTION  
CONT CONTINUOUS  
CP CATHODIC PROTECTION  
CPLG COUPLING  
CY CUBIC YARD  
DET DETAIL  
DIA DIAMETER  
DIM DIMENSION  
DIW DRIVEWAY  
E EXISTING  
EA EACH  
EC END CURVE  
ELE ELEVATION  
EP EDGE OF PAVEMENT  
EX EXISTING  
EG EXISTING GROUND  
FCA FLANGE COUPLING ADAPTOR  
FDC FIRE DEPARTMENT CONNECTION  
FF FINISH FLOOR  
FG FINISH GRADE  
FH FIRE HYDRANT  
FL FLOW LINE  
FL FIRE LINE  
FLG FLANGE  
FS FINISH SURFACE  
FT FEET  
G GAS  
GA GAGE  
GAL GALLON  
GALV GALVANIZED  
GB GRADE BREAK  
GPD GALLONS PER DAY  
GPM GALLONS PER MINUTE  
GV GATE VALVE  
HC HANDICAP  
HDPE HIGH DENSITY POLYETHYLENE  
HGL HYDRAULIC GRADE LINE  
ID INSIDE DIAMETER  
IN INCHES  
INV INVERT  
JP JOINT POLE  
JT JOINT UTILITY TRENCH  
L LENGTH  
LAT LATERAL  
LF LINEAR FEET  
LP LIGHT POLE  
LT LEFT

M METER  
MAX MAXIMUM  
MIN MINIMUM  
MISC MISCELLANEOUS  
MH MANHOLE  
N/A NOT APPLICABLE  
NGVD NATIONAL GEODETIC VERTICAL DATUM  
NIC NOT IN CONTRACT  
NTS NOT TO SCALE  
OD OUTSIDE DIAMETER  
OD PORTLAND CEMENT CONCRETE  
PCC POTHOLE (UTILITY WAS POTHOLED)  
PH POST INDICATOR VALVE  
POC POINT OF CONNECTION  
PRV PRESSURE REGULATING VALVE  
PSF POUND PER SQUIRE FOOT  
PSI POUND PER SQUARE INCH  
PVC POLYVINYL CHLORIDE  
R RADIUS  
RC REINFORCED CONCRETE  
RCP REINFORCED CONCRETE PIPE  
REQD REQUIRED  
RT RIGHT  
R/W RIGHT OF WAY  
RET WALL RETAINING WALL  
SS SANITARY SEWER  
SCH SCHEDULE  
SD STORM DRAIN  
SHT SHEET  
SPEC SPECIFICATIONS  
SSFM SANITARY SEWER FORCE MAIN  
STA STATION  
STD STANDARD  
STL STEEL  
SW SIDEWALK  
T TELEPHONE  
TB THRUST BLOCK  
TB TOP OF BANK  
TC TOP OF CURB  
TF TOP OF FOOTING  
TG TOP OF GRATE  
TP TOP OF PAVEMENT  
TYP TYPICAL  
TW TOP WALL  
UTL COMMON TRENCH UTILITIES  
VAR VARIES  
VC VERTICAL CURVE  
VIC VICTAULIC COUPLING  
VERT VERTICAL  
W WATER  
WF WIDE FLANGE  
WL WATER LINE  
WM WATER METER  
WS WATER SERVICE  
WV WATER VALVE  
WWM WELDED WIRE MESH  
WW WET WELL

\*NOTE: THIS IS A STANDARD SET OF ABBREVIATIONS.  
NOT ALL ABBREVIATIONS SHOWN WILL APPLY TO THIS WORK.

#### OWNER

COUNTY OF KERN  
GS CONSTRUCTION SERVICES  
1115 TRUXTUN AVE  
BAKERSFIELD, CA 93308

COUNTY MAIN CONTACT:  
CESAR JUAREZ, ARCHITECT  
SUPERVISING ENGINEER  
KERN COUNTY GENERAL SERVICES  
CONSTRUCTION SERVICES  
(661) 868-3057

#### SITE ADDRESS

HART MEMORIAL PARK  
LEVEE & LAKE ROAD  
BAKERSFIELD, CA 93308

#### ASSESSOR'S PARCEL NUMBER

093-172-018

#### ENGINEER

WALLACE GROUP  
612 CLARION COURT  
SAN LUIS OBISPO, CA 93401

#### GEOTECHNICAL ENGINEER

BSK ASSOCIATES  
700 22ND STREET  
BAKERSFIELD, CA 93301

#### ELECTRICAL ENGINEER

GRAY ELECTRICAL CONSULTING + ENGINEERING, CORP  
2529 PROFESSIONAL PARKWAY, SUITE A  
SANTA MARIA, CA 93456

#### SCOPE OF WORK:

THE SCOPE OF WORK FOR THIS PLAN SET INCLUDES:

- CONSTRUCTION OF PLAY AREA AND SPLASH PAD FEATURES INCLUDING UNDERGROUND PUMP AND CONTROLS.
- CONSTRUCTION OF WATER RECLAMATION SYSTEM INCLUDING PUMP, PUMP ENCLOSURE, TANK, AND PIPING.
- CONSTRUCTION OF SEPTIC SYSTEM INCLUDING TANKS AND LEACH FIELD
- CONSTRUCTION OF SITE FURNISHINGS, LANDSCAPE PLANTING, AND IRRIGATION SYSTEM RETROFIT.
- CONSTRUCTION OF ELECTRICAL COMPONENTS SERVICING THE VARIOUS AMENITIES

#### ALTERNATE BID ITEMS:

THERE ARE NO ALTERNATE BID  
ITEMS ON THIS PROJECT.

#### DEFERRED APPROVAL ITEMS:

THE PRE-FABRICATED RESTROOM  
BUILDING WILL BE A DEFERRED  
APPROVAL ON THIS PROJECT.

#### Sheet List Table

Sheet Number	Sheet Title
C1.0	TITLE SHEET
C1.1	NOTE SHEET
C2.0	TOPOGRAPHIC SURVEY
C4.0	CONTROL POINT PLAN
C4.1	SW HORZ. CONTROL PLAN
C4.2	NE HORZ. CONTROL PLAN
C6.0	SEPTIC SYSTEM LAYOUT
C6.1	SEPTIC SYSTEM DETAILS
C6.2	SEPTIC SYSTEM DETAILS
M6.3	SPLASH PAD EFFLUENT SITE PLAN
M6.4	SPLASH PAD EFFLUENT PIPING OVERVIEW
M6.5	PUMP STATION ELEVATION
M6.6	PUMP PAD PLAN & TANK SECTION
M6.7	PUMP & PIPING DETAILS
M6.8	DETAIL SHEET
S1.0	GENERAL NOTES
S1.1	SPECIAL INSPECTION
S1.2	TYPICAL DETAILS
S2.1	SITE PLAN
S2.1	PUMP STATION PLANS
S3.1	PUMP STATION DETAILS
S3.2	PUMP STATION DETAILS
LP-1	HARDSCAPE PLAN
LD-1	HARDSCAPE DETAILS
LD-2	SPLASH PAD DETAILS
LD-3	PLAYGROUND & SPLASH PAD SURFACING
PP-1	PLANTING PLAN
PD-1	PLANTING DETAILS
IP-1	IRRIGATION PLAN
ID-1	IRR. NOTES AND CALCULATIONS
ID-2	IRRIGATION DETAILS
E-0.1	GENERAL NOTES, SYMBOLS, & ABBREVIATIONS
E-1.0	SINGLE LINE DIAGRAM
E-1.1	ELECTRICAL SCHEDULES
E-2.0	ELECTRICAL SITE PLAN
E-3.0	ELECTRICAL DETAILS

#### BUILDING CODE ANALYSIS:

PUMP HOUSE:  
USE: SHED FOR PUMP EQUIPMENT  
OCCUPANCY GROUP: U  
TYPE OF CONSTRUCTION: V-B  
SPRINKLERS: NON-SPRINKLERED  
PROPOSED FLOOR AREA: 330 SQ. FT  
HEIGHT: 12 FT.  
STORIES: 1  
ALLOWABLE FLOOR AREA: 5,500 SQ. FT  
HEIGHT: 40 FT.  
STORIES: 1

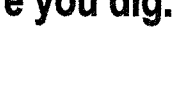
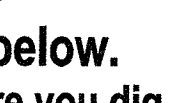
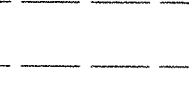
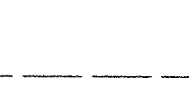
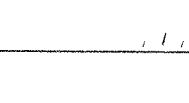
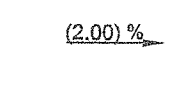
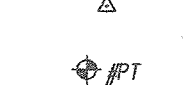
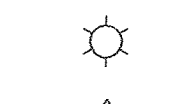
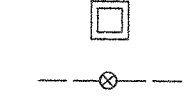
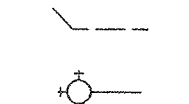
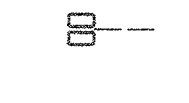
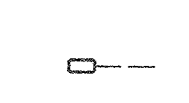
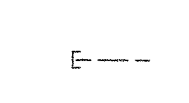
#### HAZARDOUS MATERIALS:

NO HAZARDOUS MATERIALS WILL BE  
STORED AND/OR USED ON THIS  
PROJECT.

#### LEGEND

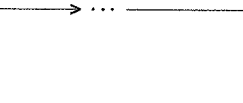
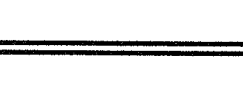
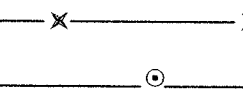
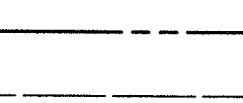
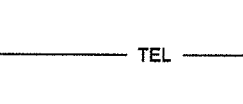
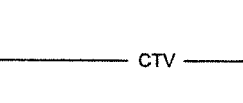
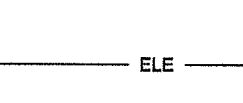
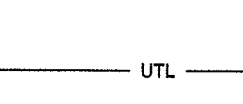
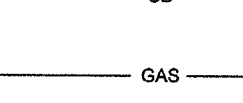
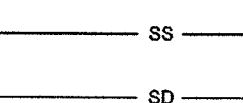
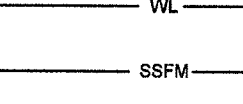
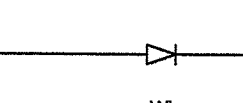
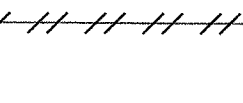
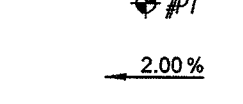
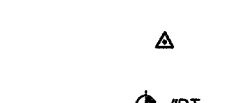
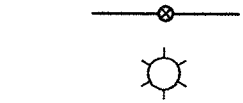
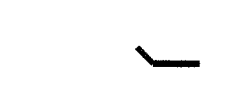
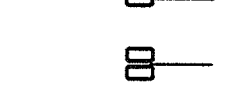
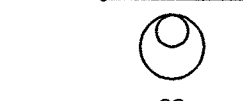
##### EXISTING

(100.0 FS)



##### PROPOSED

101.50 FS



##### DESCRIPTION

SPOT ELEVATIONS

SEWER MANHOLE

SEWER CLEANOUT

SERVICE LATERAL  
(W=WATER, G=GAS,  
U=UTILITIES)

SERVICE METER (W=WATER)

DOUBLE SERVICE METER  
(W=WATER)

SEWER LATERAL

FIRE HYDRANT

STORM DRAIN MANHOLE

STORM DRAIN CATCH BASIN

GATE VALVE

STREET LIGHT

SURVEY MONUMENT

BENCH MARK

SLOPE PERCENTAGE

ABANDON UTILITY

EDGE OF PAVEMENT

REDUCER / INCREASER

WATER LINE

SEWER FORCE MAIN

GRAVITY SEWER LINE

STORM DRAIN

UNDERGROUND  
GAS LINE

UNDERGROUND UTILITY  
LINE LOCATION

UNDERGROUND  
ELECTRICAL LINE

UNDERGROUND  
CABLE TELEVISION LINE

UNDERGROUND  
TELEPHONE LINE

RIGHT OF WAY

EASEMENT

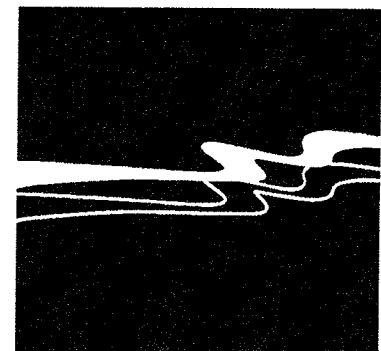
CENTERLINE

BARBED WIRE FENCE

CHAIN LINK FENCE

RETAINING WALL

FLOWLINE



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COUNTY OF KERN  
GENERAL SERVICES  
DIVISION  
OF THE  
COUNTY ADMINISTRATIVE OFFICE  
1115 TRUXTUN AVENUE  
BAKERSFIELD, CALIFORNIA

PROJECT

HART MEMORIAL  
PARK ADVENTURE  
PLAY AREA

LEVEE & LAKE ROAD  
BAKERSFIELD, CA  
93308

APPROVED BY  
COUNTY BOARD OF SUPERVISORS

DATE

RECOMMENDED FOR APPROVAL  
DEPARTMENT

DIRECTOR

RECOMMENDED FOR APPROVAL  
GENERAL SERVICES DIVISION

CHIEF GENERAL SERVICES OFFICER

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GENERAL NOTES

1. THESE PLANS ARE PART OF A SET OF CONTRACT DOCUMENTS AND SHALL NOT BE CONSIDERED THE SOLE SOURCE OF CONSTRUCTION INFORMATION. ALL CONSTRUCTION WORK AND INSTALLATIONS SHALL CONFORM TO THE COUNTY OF KERN STANDARDS AND SPECIFICATIONS, THE CONTRACT DOCUMENTS AND WORK SHALL BE SUBJECT TO THE APPROVAL OF THE COUNTY OF KERN GS CONSTRUCTION SERVICES (COUNTY).
2. THE CONTRACTOR SHALL HAVE COPIES OF THE APPROVED CONTRACT DOCUMENTS FOR THIS PROJECT ON THE SITE AT ALL TIMES AND SHALL BE FAMILIAR WITH ALL APPLICABLE STANDARDS AND SPECIFICATIONS.
3. CONTRACTOR AGREES THAT HE OR SHE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE DURING THE COURSE OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE ENGINEER AND OWNER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR ENGINEER, OR THIRD PARTY IN VIOLATION OF THE LAW OR IN TRESPASS. THE CONTRACTOR SHALL PRACTICE SAFETY AT ALL TIMES AND SHALL FURNISH, ERECT, AND MAINTAIN, SUCH FENCES, BARRICADES, LIGHTS, AND SIGNS NECESSARY TO GIVE ADEQUATE PROTECTION TO THE PUBLIC AT ALL TIMES.
4. INFORMATION PERTAINING TO EXISTING UNDERGROUND FACILITIES IS BASED ON RECORD INFORMATION AND IS SHOWN FOR INFORMATION PURPOSES ONLY. UNDERGROUND FEATURES SHOWN IN PLAN VIEW ON THE PLANS ARE INDICATED WITH THEIR APPROXIMATE LOCATION AND EXTENT, AND MAY NOT APPEAR IN PROFILE OR SECTIONS VIEWS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL AGENCIES INVOLVED AND SHALL LOCATE ALL FACILITIES PRIOR TO EXCAVATION IN ANY AREA. THE CONTRACTOR SHALL CALL UNDERGROUND SERVICE ALERT (USA), TOLL FREE AT 811 AND THE COUNTY OF KERN AT 661-868-3066 FORTY- EIGHT (48) HOURS PRIOR TO THE START OF CONSTRUCTION.
5. THE CONTRACTOR SHALL CONTINUALLY REVIEW JOB SITE CONDITIONS. CONDITIONS REQUIRING CONSTRUCTION DIFFERENT FROM THAT SHOWN ON THE PLANS SHALL BE REPORTED TO THE ENGINEER PRIOR TO PROCEEDING WITH THE AFFECTED CONSTRUCTION.
6. THESE DRAWINGS REPRESENT THE FINISHED CONDITION AND UNLESS OTHERWISE INDICATED, THEY DO NOT SHOW THE METHOD OF CONSTRUCTION.
7. ALL IMPROVEMENTS SHOWN OR INDICATED ON THESE DRAWINGS ARE TO BE CONSTRUCTED AND/OR INSTALLED BY THE CONTRACTOR IN THIS PROJECT, UNLESS THEY ARE CALLED OUT AS: "EXISTING", "FUTURE", "NIC", NOT A PART, OR HAVE SOME OTHER EXCLUDING NOTATION.
8. CONTRACTOR SHALL KEEP A SET OF PROJECT DRAWINGS ON WHICH RECORD INFORMATION SHALL BE PLACED NOTING DEVIATIONS FROM THE PLANS IN THE LOCATION, GRADE, SIZE, TYPE, AND SCOPE OF WORK WHICH IS CONSTRUCTED.
9. THE ENGINEER OF WORK SHALL PERFORM PERIODIC REVIEWS OF COMPLETED WORK TO DETERMINE CONFORMANCE WITH THE APPROVED PLANS. CONTRACTOR SHALL CORRECT ANY DIFFERENCES FOUND BY SUCH SURVEY AND WILL PROVIDE ALL CONTRACTOR'S RECORDS KEPT DURING THE COURSE OF CONSTRUCTION TO THE ENGINEER OF WORK FOR PREPARATION OF RECORD DRAWINGS. ENGINEER WILL PREPARE SUCH RECORD DRAWINGS UPON COMPLETION OF THE WORK AND PRIOR TO COUNTY'S FINAL INSPECTION.
10. OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA) REQUIREMENTS AND STANDARDS SHALL BE OBSERVED AT THE JOB SITE AT ALL TIMES.
11. ALL CONSTRUCTION SHALL BE IN COMPLETE COMPLIANCE WITH ALL RECOMMENDATIONS AND REQUIREMENTS AS SET FORTH IN THE SOILS REPORT: GEOTECHNICAL ENGINEERING REPORT PREPARED BY BSK ASSOCIATES DATED DECEMBER 12, 2022.
12. UTILITY LINES ARE SHOWN FOR REFERENCE ONLY. CONTACT PROJECT OWNER FOR UTILITY COMPANY PLANS.
13. PRIOR TO FINAL INSPECTION AND/OR CERTIFICATION OF OCCUPANCY THE COUNTY HEALTH DEPT SHALL APPROVE & INSPECT THE CROSS CONNECTION DEVICES
14. CONTRACTOR TO WORK WITHIN THE FOLLOWING CONSTRUCTION HOURS:

MONDAY - FRIDAY 7:00am - 6:00pm

SATURDAY 8:00am - 5:00pm

SUNDAY NO WORK ALLOWED

PRE-CONSTRUCTION MEETING

1. A PRE-CONSTRUCTION MEETING SHALL BE HELD PRIOR TO COMMENCEMENT OF WORK. THE MEETING SHALL INCLUDE (AT A MINIMUM) THE OWNER/REPRESENTATIVE, CONTRACTORS, ENGINEER OF WORK, GEOTECHNICAL ENGINEER, PERTINENT UTILITY COMPANIES, SURVEYOR AND COUNTY STAFF.
2. A PRE-CONSTRUCTION MEETING IS REQUIRED WITH THE INSPECTOR TO REVIEW THE SPECIAL INSPECTION REPORTING REQUIREMENTS, EROSION, & SEDIMENTATION CONTROL, SWPPP, QSP, & REPORTS REQUIRED. TO SCHEDULE THE MEETING CALL MICHAEL WOODRUFF 661-868-3066.

COUNTY GENERAL NOTES

1. NO CONSTRUCTION SHALL BE STARTED WITHOUT PLANS APPROVED BY THE COUNTY OF KERN GS CONSTRUCTION SERVICES (COUNTY). THE COUNTY SHALL BE NOTIFIED AT LEAST 24-HOURS PRIOR TO STARTING OF CONSTRUCTION AND OF THE TIME LOCATION OF THE PRE-CONSTRUCTION CONFERENCE. ANY CONSTRUCTION PERFORMED WITHOUT APPROVED PLANS OR PRIOR NOTIFICATION TO THE COUNTY MAY BE REJECTED AND WILL BE AT THE CONTRACTOR'S AND/OR OWNER'S RISK.
2. FOR ANY CONSTRUCTION PERFORMED THAT IS NOT IN COMPLIANCE WITH PLANS OR PERMITS APPROVED FOR THE PROJECT THE COUNTY MAY REVOKE ALL ACTIVE PERMITS AND RECOMMEND THAT COUNTY CODE ENFORCEMENT PROVIDE A WRITTEN NOTICE OR STOP WORK ORDER IN ACCORDANCE WITH THE LAND USE ORDINANCE.
3. ALL CONSTRUCTION WORK AND INSTALLATIONS SHALL CONFORM TO THE MOST CURRENT COUNTY'S PUBLIC IMPROVEMENT STANDARDS AND ALL WORK SHALL BE SUBJECT TO THE APPROVAL OF THE COUNTY.
4. THE PROJECT OWNER AND CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND/OR MAINTAINING ALL WEATHER ACCESS AT ALL TIMES TO EXISTING PROPERTIES LOCATED IN THE VICINITY OF WORK. ADDITIONALLY, THEY SHALL BE RESPONSIBLE FOR MAINTAINING ALL EXISTING SERVICES, INCLUDING UTILITY, GARBAGE COLLECTION, MAIL DISTRIBUTION, ETC., TO ALL EXISTING PROPERTIES LOCATED IN THE VICINITY OF WORK.
5. ON-SITE HAZARDS TO PUBLIC SAFETY SHALL BE SHIELDED BY CONSTRUCTION FENCING. FENCING SHALL BE MAINTAINED BY THE DEVELOPER AND CONTRACTOR UNTIL SUCH TIME THAT THE PROJECT IS COMPLETED AND OCCUPIED, POTENTIAL HAZARDS HAVE BEEN MITIGATED, OR ALTERNATIVE PROTECTIVE MEASURES HAVE BEEN INSTALLED.
6. SOILS TESTS SHALL BE DONE IN ACCORDANCE WITH THE COUNTY'S PUBLIC IMPROVEMENT STANDARDS. ALL TESTS MUST BE MADE WITHIN 15-DAYS PRIOR TO THE PLACING MATERIAL. THE TEST RESULTS SHALL CLEARLY INDICATE THE LOCATION AND SOURCE OF THE MATERIAL.

7. ROADWAY COMPACTION TESTS SHALL BE MADE ON SUBGRADE MATERIAL, AGGREGATE BASE MATERIAL, AND MATERIAL AS SPECIFIED BY THE SOILS ENGINEER. SAID TESTS SHALL BE MADE PRIOR TO THE PLACEMENT OF THE NEXT MATERIAL LIFT.
8. SUBGRADE MATERIAL SHALL BE COMPACTED TO A RELATIVE COMPACTION OF 95-PERCENT IN THE ZONE BETWEEN FINISHED SUBGRADE ELEVATION AND A MINIMUM OF 1-FOOT BELOW. ALL MATERIAL IN FILL SECTIONS BELOW THE ZONE MENTIONED ABOVE SHALL BE COMPACTED TO 90-PERCENT RELATIVE COMPACTION.
9. A REGISTERED CIVIL ENGINEER SHALL CERTIFY THAT THE IMPROVEMENTS, WHEN COMPLETED, ARE IN SUBSTANTIAL COMPLIANCE WITH THE PLANS PRIOR TO THE REQUEST TO THE COUNTY FOR A FINAL INSPECTION. RECORD DRAWINGS SHALL BE PREPARED AFTER CONSTRUCTION IS COMPLETED. THE CIVIL ENGINEER CERTIFYING THE IMPROVEMENTS AND PREPARING AS-BUILT PLANS SHOULD BE PRESENT WHEN THE FINAL INSPECTION IS MADE BY THE COUNTY.
10. ALL UTILITY COMPANIES SHALL BE NOTIFIED PRIOR TO THE START OF CONSTRUCTION.
11. AN ENCROACHMENT PERMIT ISSUED BY THE COUNTY IS REQUIRED FOR ALL WORK DONE WITHIN THE COUNTY RIGHT-OF-WAY. THE ENCROACHMENT PERMIT MAY ESTABLISH ADDITIONAL CONSTRUCTION, UTILITY AND TRAFFIC CONTROL REQUIREMENTS.
12. THE ENCROACHMENT INSPECTOR, ACTING ON BEHALF OF THE COUNTY, MAY REQUIRE REVISIONS IN THE PLANS TO SOLVE UNFORESEEN PROBLEMS THAT MAY ARISE IN THE FIELD. ALL REVISIONS SHALL BE SUBJECT TO THE APPROVAL OF THE DEVELOPER'S ENGINEER OF WORK.
13. THE STRUCTURAL SECTION SHALL BE BASED ON SOILS TESTS TAKEN AT THE TIME OF CONSTRUCTION AND USING A TRAFFIC INDEX OF 8.0 FOR OLD COUNTY ROAD/GIBSON ROAD. THE STRUCTURAL SECTION SHALL BE APPROVED BY THE COUNTY PRIOR TO ROAD CONSTRUCTION.
14. WHEN THE PROJECT SITE EARTHWORK IS NOT INTENDED TO BALANCE THEN A SEPARATE GRADING PERMIT FOR THE SENDING OR RECEIVING PROPERTY MAY BE REQUIRED. A COPY OF THE PERMIT/S OR EVIDENCE THAT NO PERMITS ARE REQUIRED SHALL BE SUBMITTED TO THE COUNTY PRIOR TO COMMENCING PROJECT EARTHWORK.

GRADING NOTES

1. REFER TO THE GRADING PLANS FOR FINISH GRADES OF THE SURROUNDING AREA.
2. PRIOR TO FINAL INSPECTION, THE GEOTECHNICAL ENGINEER SHALL CERTIFY THAT ALL GRADING, SCARIFICATION, AND COMPACTION WAS DONE IN ACCORDANCE WITH THE RECOMMENDATIONS IN THE SOILS REPORT AND AS NOTED ON THESE PLANS.
3. THE GEOTECHNICAL ENGINEER SHALL INSPECT AND CERTIFY THAT ALL FOUNDATION EXCAVATIONS COMPLY WITH THE RECOMMENDATIONS OF THE SOILS REPORT.

DUST CONTROL NOTES

1. THE CONTRACTOR SHALL COMPLY WITH DUST CONTROL MEASURES REQUIRED BY THE AIR POLLUTION CONTROL BOARD.
2. IMPLEMENT PERMANENT DUST CONTROL MEASURES AS SOON AS POSSIBLE FOLLOWING COMPLETION OF ANY SOIL DISTURBING ACTIVITIES
3. STABILIZE ALL DISTURBED/EXPOSED SOIL AREAS PER THE EROSION CONTROL NOTES.
4. DURING CONSTRUCTION, WATER TRUCKS OR SPRINKLER SYSTEMS SHALL BE USED IN SUFFICIENT QUANTITIES TO PREVENT AIRBORNE DUST FROM LEAVING THE SITE. INCREASED FREQUENCY WILL BE REQUIRED WHENEVER WIND SPEEDS EXCEED 15 MPH. RECLAIMED (NON-POTABLE) WATER SHALL BE USED WHENEVER POSSIBLE.
5. ALL DIRT STOCKPILE AREAS SHALL BE SPRAYED OR COVERED DAILY AS NEEDED.
6. ALL TRUCKS HAULING SOIL MATERIALS TO AND FROM THE SITE SHALL BE COVERED WITH A TARP TO PREVENT DUST FROM BLOWING OFF THE TRUCK.
7. ALL CONSTRUCTION VEHICLES SHALL NOT EXCEED 15 MPH ON ANY UNPAVED SURFACE AT THE CONSTRUCTION SITE.
8. INSTALL WHEEL WASHERS WHERE VEHICLES ENTER AND EXIT UNPAVED ROADS ONTO ADJACENT STREETS, OR WASH CONSTRUCTION EQUIPMENT AND VEHICLES BEFORE LEAVING THE SITE.
9. SWEEP STREETS AT THE END OF EACH DAY IF VISIBLE SOIL MATERIAL IS CARRIED ONTO ADJACENT PAVED ROADS. WATER SWEEPERS WITH RECLAIMED WATER SHALL BE USED WHEN FEASIBLE.
10. THE CONTRACTOR SHALL DESIGNATE A PERSON OR PERSONS TO MONITOR THE DUST CONTROL PROGRAM AND TO ORDER INCREASED WATERING, AS NECESSARY, TO REDUCE THE TRANSPORT OF DUST OFF-SITE. THE DESIGNATED PERSON'S DUTY SHALL INCLUDE HOLIDAY AND WEEKEND PERIODS WHEN WORK MAY NOT BE IN PROGRESS.
11. CONSTRUCTION EQUIPMENT SHALL CONFORM TO THE MOST CURRENT AIR QUALITY REGULATIONS FOR THE OPERATION OF MOTOR VEHICLES.

REPORTS REQUIRED

1. ENGINEER OF RECORD TO PROVIDE A FINAL REPORT STATING THE WORK PERFORMED IS IN SUBSTANTIAL CONFORMANCE WITH THE APPROVED PLANS.
2. A GEOTECHNICAL ENGINEER OR CIVIL ENGINEER TO DETERMINE GRADING PERFORMED IS IN SUBSTANTIAL CONFORMANCE WITH THE APPROVED PLANS AND IS SUITABLE TO SUPPORT THE INTENDED STRUCTURE(S).

SCOPE OF WORK

GRADING FOR CONCRETE, UTILITIES, SPLASH PAD, PUMP STATION.

CODE COMPLIANCE

1. PROJECT SHALL COMPLY WITH THE FOLLOWING CODES:

2022 CALIFORNIA BUILDING CODE

2022 CALIFORNIA ELECTRIC CODE

2022 CALIFORNIA MECHANICAL CODE

2022 CALIFORNIA PLUMBING CODE

CALIFORNIA TITLE 24: 2011 CALIFORNIA ENERGY CODE & ACCESSIBILITY STDS

KERN COUNTY ORDINANCE

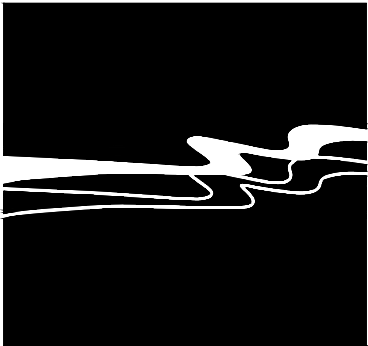
DISTURBED AREA

0.1 acres

SOILS REPORT

CONTRACTOR SHALL COMPLY WITH THE RECOMMENDATIONS AS STATED IN:

GEOTECHNICAL ENGINEERING INVESTIGATION  
HMP ADVENTURE PLAY AREA PROJECT  
BAKERSFIELD, KERN COUNTY, CA  
BSK PROJECT 690-000-166  
DECEMBER 12, 2022



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BAKERSFIELD, CALIFORNIA

PROJECT

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PARK ADVENTURE  
PLAY AREA

LEVEE & LAKE ROAD  
BAKERSFIELD, CA  
93308

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CHAIRMAN BOARD OF SUPERVISORS DATE

RECOMMENDED FOR APPROVAL  
DEPARTMENT

DIRECTOR DATE

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CONSULTANT STAMP



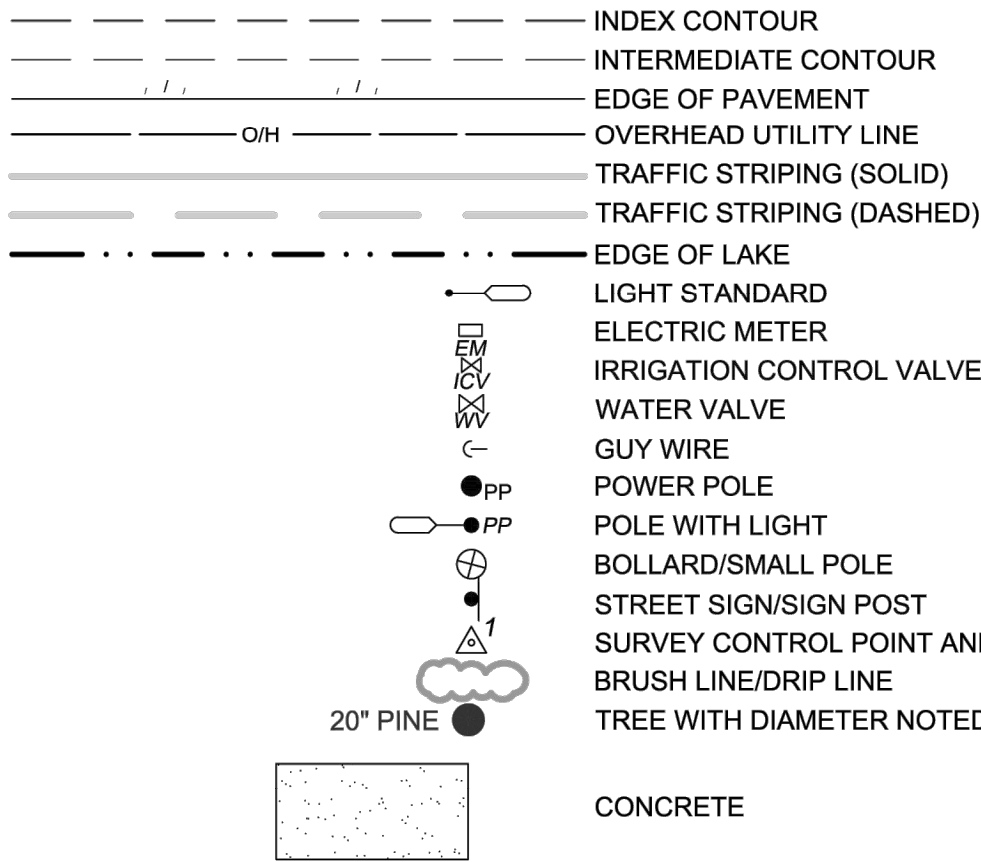
DATE	REV	DESCRIPTION

DATE	5/29/2024	SHEET NO.  C1.1
DESIGNED BY	NWL	
DRAWN BY	AMC	
CHECKED BY	NFW	
JOB NO.	1650.7014-21	DRAWING FILE 20MM010
HART PARK PROP 88 IMPROVEMENTS NOTE SHEET		



# SURVEY CONTROL AND TOPOGRAPHIC MAP

## LEGEND

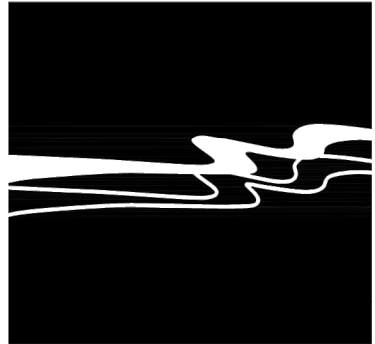
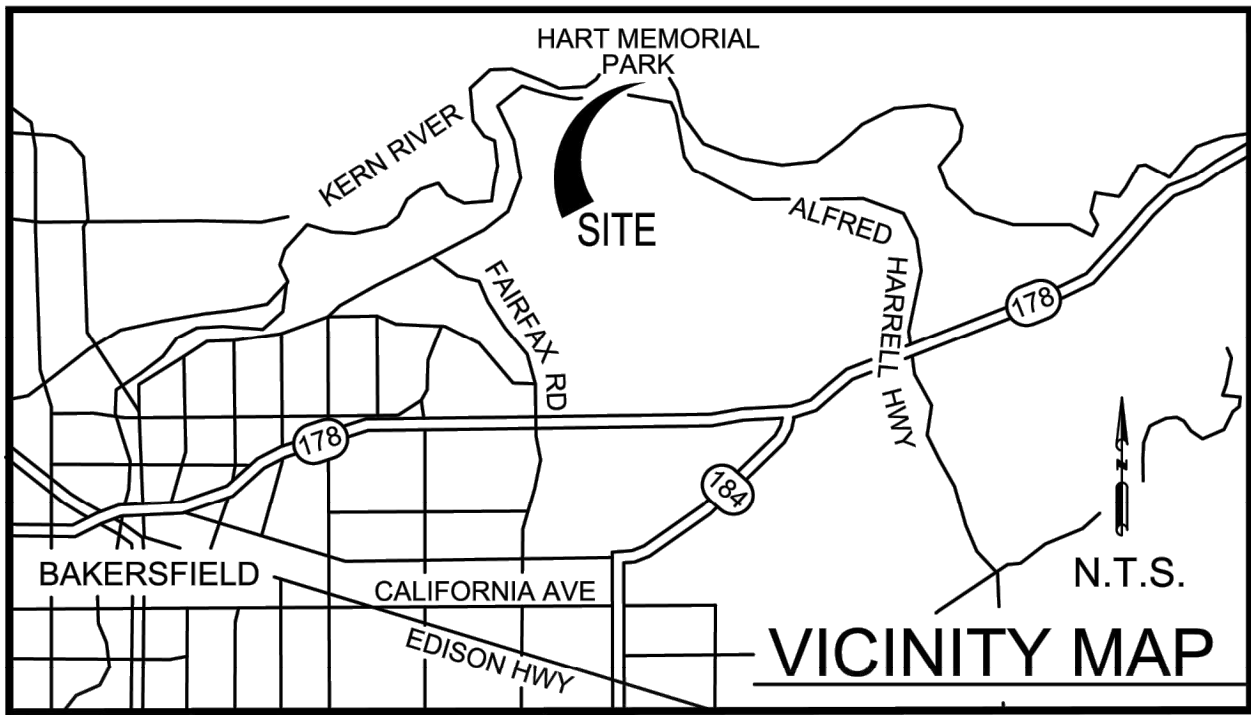


## ABBREVIATIONS

AC	ASPHALTIC CONCRETE
ACB	AC BERM
BM	BENCHMARK
BOW	BOTTOM OF WALL
BWAL	BLACK WALNUT
CF	CURB FACE
CO	COUNTY
CONC	CONCRETE
DIA	DIAMETER
DR	DRIVE
ELE	ELECTRIC
ELEV	ELEVATION
EUC	EUCALYPTUS
L. AMBER	LIQUIDAMBER
L. OAK	LIVE OAK
LP	LIGHT POLE
m	METRIC
OD	OUTSIDE DIAMETER
PP	POWER POLE
PT	POINT
RD	ROAD
SL	STREET LIGHT
ST	STREET
SYC	SYCAMORE
TOW	TOP OF WALL
UTL	UTILITY
WF	WATER FOUNTAIN

## SURVEY CONTROL POINTS

PT. NO.	NORTHING	EASTING	ELEV.	DESC.
100	2350736.98	6290893.71	489.60	SET 80D NAIL
103	2350695.33	6291085.08	493.90	SET MAGNETIC NAIL WG
104	2350890.33	6291117.91	491.49	SET COTTON SPINDLE WG
105	2350929.04	6290819.24	487.92	SET X TC
107	2350946.78	6290287.85	484.47	SET COTTON SPINDLE WG
108	2350769.92	6290395.76	487.48	SET MAGNETIC NAIL WG
109	2350558.17	6290483.99	489.30	SET #5 REBAR WG
114	2350893.58	6290527.55	485.55	SET #5 REBAR WG
125	2350893.07	6291181.21	492.66	SET X CONC



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PROJECT

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PLAY AREA

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93308

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CHAIRMAN BOARD OF SUPERVISORS DATE

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CONSULTANT STAMP



CLAYTON L. BRADSHAW, LS 8298  
DATE: 12/11/2023

DATE	REV	DESCRIPTION

DATE	5/29/2024	SHEET NO.
DESIGNED BY		
DRAWN BY	NDS	C-2.0
CHECKED BY	BD	
JOB NO.	1650.7014-21	DRAWING FILE
		1650-0001-TOPO.DWG
		HART PARK PROP 66 IMPROVEMENTS
		TOPOGRAPHIC SURVEY

## SURVEY NOTES

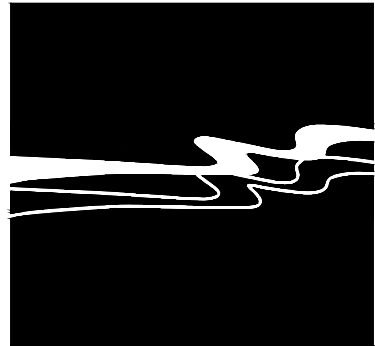
- THE HORIZONTAL DATUM FOR THIS SURVEY IS THE NORTH AMERICAN DATUM OF 1983, 2011 ADJUSTMENT [NAD83(2011)], EPOCH DATE OF 2010.00.
- THE PROJECTION USED IS THE CALIFORNIA COORDINATE SYSTEM OF 1983 (CCS83), ZONE 5 PROJECTION.
- THIS SURVEY TIED TO 3 NATIONAL GEODETIC SURVEY (NGS) CONTINUOUSLY OPERATING REFERENCE STATIONS (CORS). THOSE STATIONS ARE THE NGS POINTS DESIGNATED "P554", HAVING A PUBLISHED POSITION OF: NORTHING 2,111,789.79; EASTING 6,307,067.95; AND "P563", HAVING A PUBLISHED POSITION OF: NORTHING 2,341,686.43; EASTING 6,138,227.58 AND "P567" HAVING A PUBLISHED POSITION OF: NORTHING 2,340,363.48; EASTING 6,337,139.79. THE RESULTING BEARING FROM "P563" TO "P567" BEING: S 89°37'08"E. THE BEARINGS SHOWN HEREON ARE REFERENCED TO CCS83, ZONE 5 GRID NORTH.
- ALL MEASUREMENTS LISTED, SHOWN AND REPRESENTED HEREON ARE BASED ON GRID DISTANCES OF THE CALIFORNIA COORDINATE SYSTEM OF 1983 ZONE 5 PROJECTION. THE COMBINED SCALE FACTOR FOR THE PROJECT IS 0.99997779 THIS SCALE FACTOR WAS CALCULATED USING AN ELEVATION OF 489.60 FEET FOR PT. NO. 100. DIVIDE THE DISTANCES HEREON BY THE COMBINED SCALE FACTOR TO OBTAIN GROUND DISTANCES. ALL DISTANCES SHOWN ARE U.S. SURVEY FEET
- THE CONVERGENCE ANGLE IS: -0°31'05" AT PT. NO. 100.
- THE ORTHOMETRIC HEIGHTS (ELEVATIONS) ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) AND ARE DERIVED CALIFORNIA ORTHOMETRIC HEIGHTS OF 1988 (DERIVED COH88). THE DERIVED COH88 WAS CALCULATED AT POINT NUMBER 100 USING THE FOLLOWING VALUES: A NAD83 ELLIPSOID HEIGHT OF 382.05 FEET, AND A GEOID12B GEOID HEIGHT OF -107.55 FEET, RESULTING IN A DERIVED COH88 ELEVATION OF 489.60 FEET.
- THE CONTOUR INTERVAL IS 1 FOOT.
- UNDERGROUND UTILITY LOCATIONS ARE PLOTTED BASED ON ABOVE GROUND PAINT MARKS BY OTHERS, ABOVE GROUND SURFACE STRUCTURES. ACTUAL LOCATION MAY DIFFER. ADDITIONAL UNDERGROUND UTILITY LINES MAY EXIST. FOR INFORMATION REGARDING UTILITY LOCATION, SIZE, DEPTH, CONDITION, AND CAPACITY CONTACT UTILITY OR MUNICIPAL/PUBLIC SERVICE FACILITY.
- UNDERGROUND PIPE SIZES ARE BASED ON VISUAL OBSERVATIONS MADE FROM THE SURFACE AND ARE APPROXIMATE.
- EASEMENTS AFFECTING THE PROPERTY SHOWN HEREON MAY EXIST. NO TITLE INFORMATION WAS PROVIDED. NO ATTEMPT HAS BEEN MADE TO PLOT EASEMENTS.
- THE TREE CANOPY DRIPLINES SHOWN HEREON ARE MEASURED FROM THE AERIAL ORTHO-PHOTO IMAGE FOR THIS SURVEY DATED 07/12/2022 AND SHOULD BE CONSIDERED APPROXIMATE UNTIL CONFIRMED BY A BIOLOGIST OR ARBORIST.
- THIS MAP REPRESENTS A SURVEY MADE BY ME AT THE REQUEST OF COUNTY OF KERN. THE FIELD SURVEY WAS PERFORMED JULY TWELFTH THROUGH THIRTEENTH, TWO THOUSAND TWENTY-TWO.







GRAPHIC SCALE  
0 10 20 40  
(IN FEET)  
1 IN = 20 FT



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PROJECT  
**HART MEMORIAL  
PARK ADVENTURE  
PLAY AREA**

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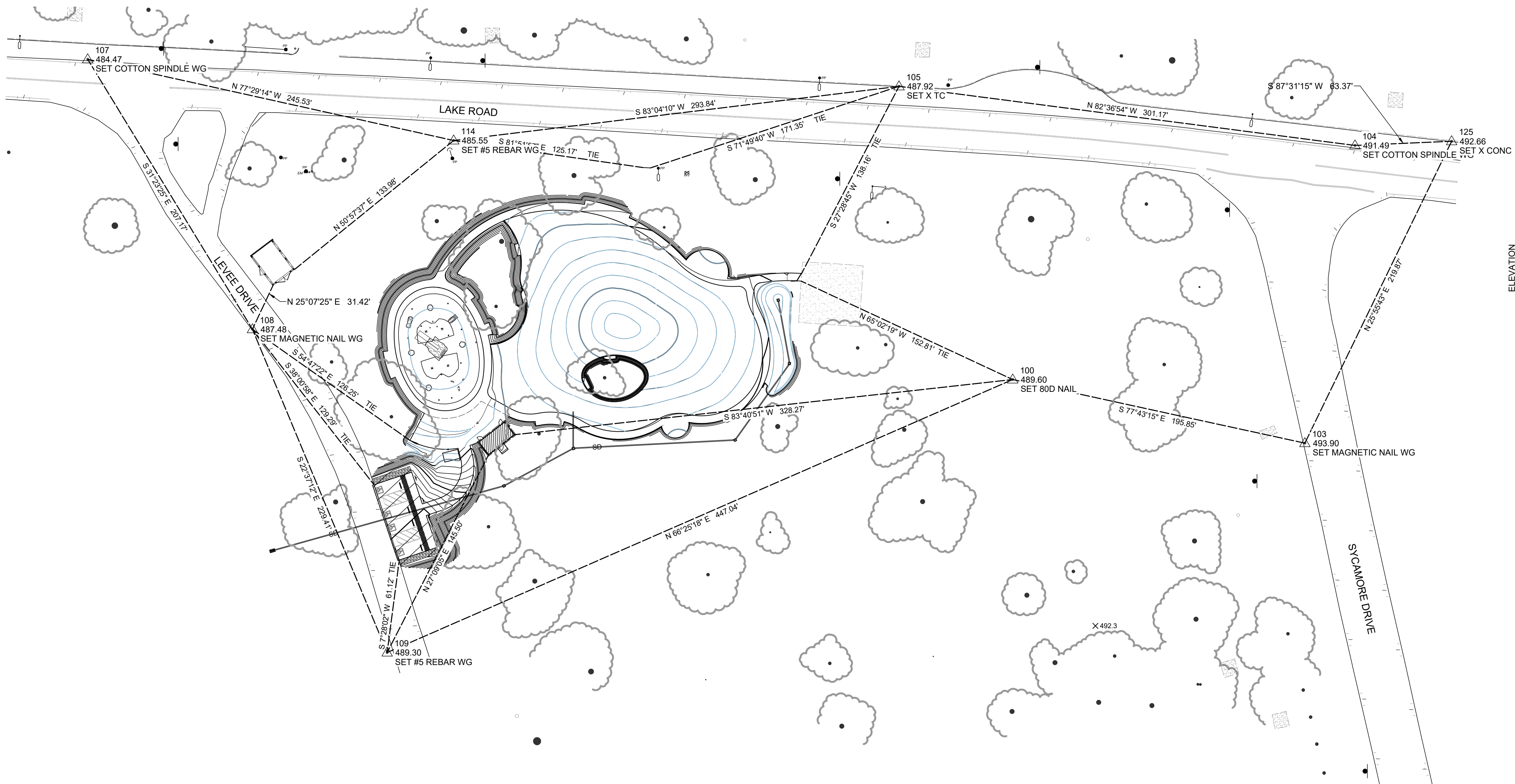


DATE	REV	DESCRIPTION

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DRAWN BY RMS	
CHECKED BY RAH	
JOB NO. 1650.7014-21	DRAWING FILE 20MM010

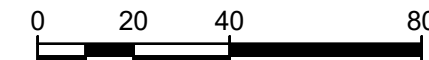
HART PARK PROP 68 IMPROVEMENTS  
DEMOLITION PLAN





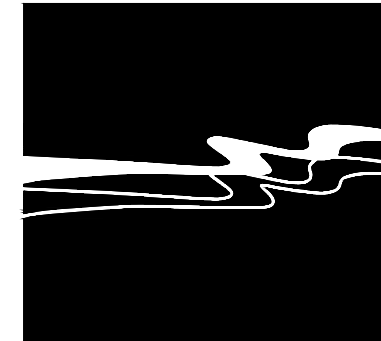
SURVEY CONTROL POINTS				
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
100	2350736.98	6290893.71	489.60	SET 80D NAIL
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114	2350893.58	6290527.55	485.55	SET #5 REBAR WG
125	2350893.07	6291181.21	492.66	SET X CONC

## GRAPHIC SCALE



(IN FEET)

1 IN = 40 FT



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DIRECTOR \_\_\_\_\_

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CONSULTANT STAMP

[illegible]

DATE 5/29/2024

DESIGNED BY

EB  
DRAWN BY

DESIGNED BY	RMS
CHECKED BY	

CHECKED BY  
RAH

**JOB NO.**

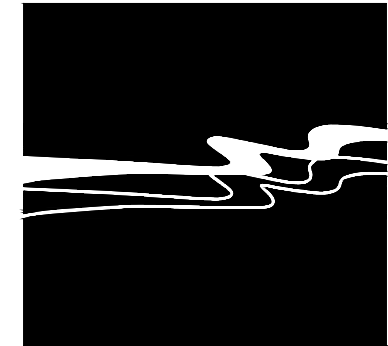
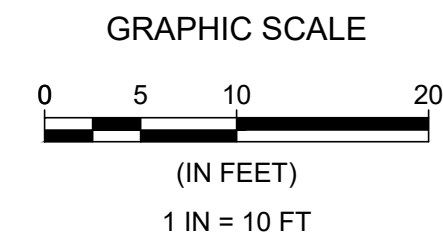
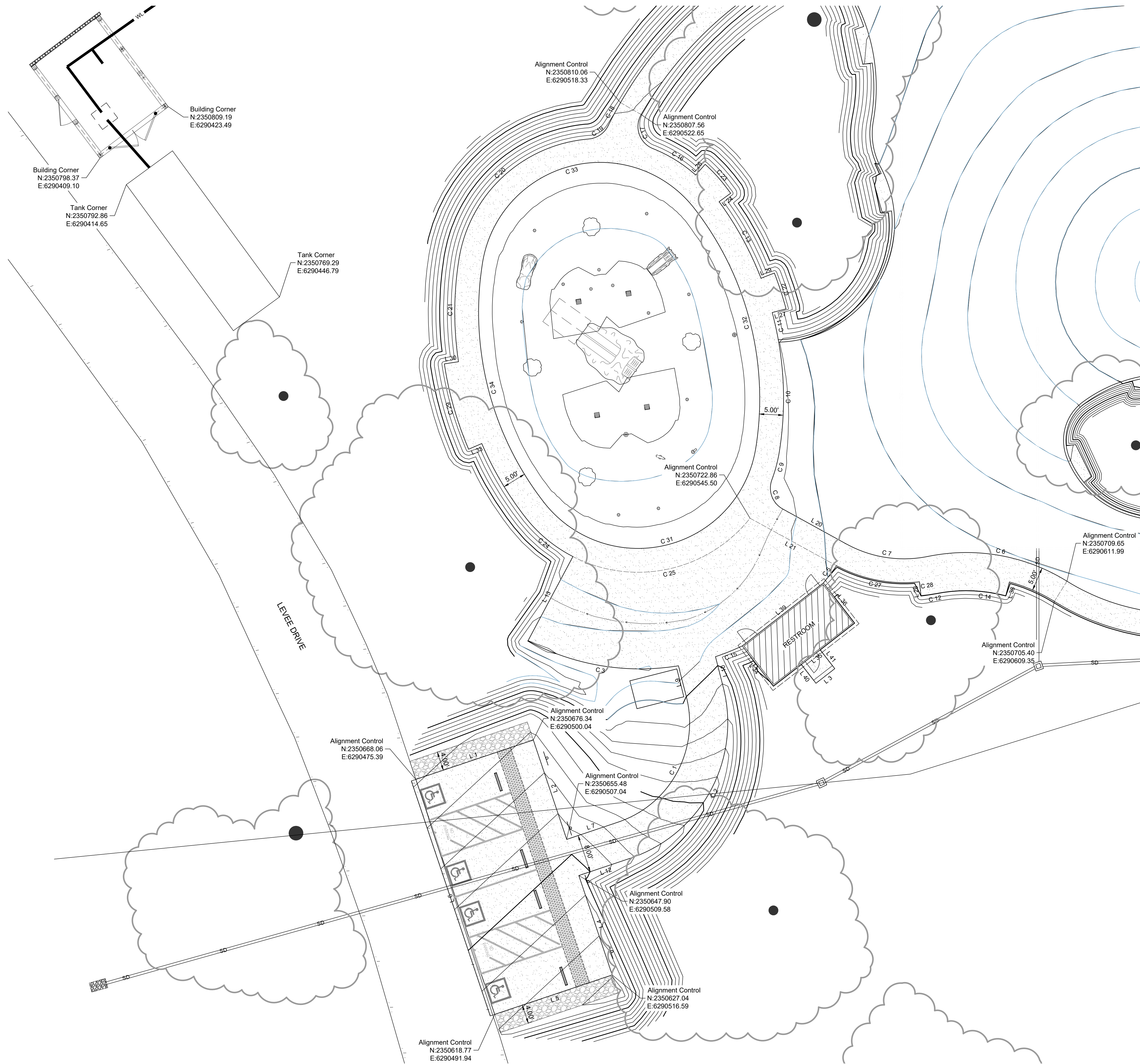
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JOB NO. 1650.7014-21	DRAWING FILE 20MM010
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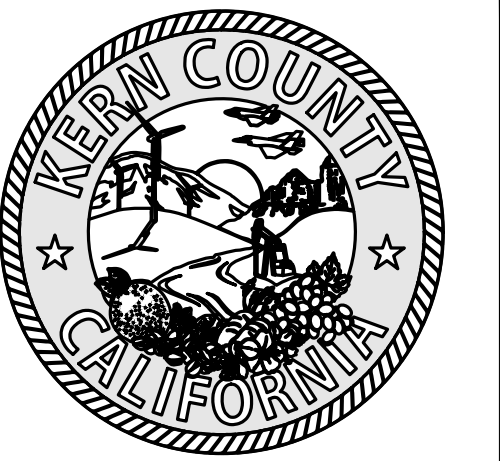
HART PARK PROP 68 IMPROVEMENTS  
CONTROL POINT PLAN





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LEVEE & LAKE ROAD  
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93308

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COUNTY BOARD OF SUPERVISORS

CHAIRMAN BOARD OF SUPERVISORS	DATE
RECOMMENDED FOR APPROVAL DEPARTMENT	

DIRECTOR	DATE
RECOMMENDED FOR APPROVAL	
GENERAL SERVICES DIVISION	

CHIEF GENERAL SERVICES OFFICER DATE

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DATE 5/29/2024	SHEET NO.  C4.1
DESIGNED BY EB	
DRAWN BY RMS	
CHECKED BY RAH	
JOB NO. 1650.7014-21	DRAWING FILE 20MM010

HART PARK PROP 68 IMPROVEMENTS  
 SW HORIZ. CONTROL PLAN

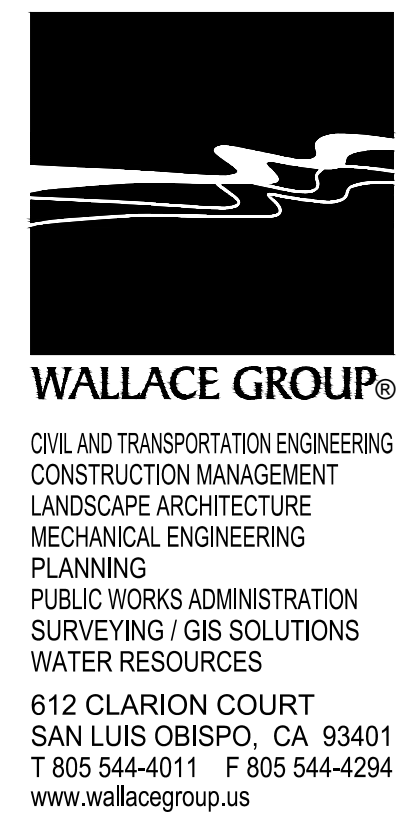
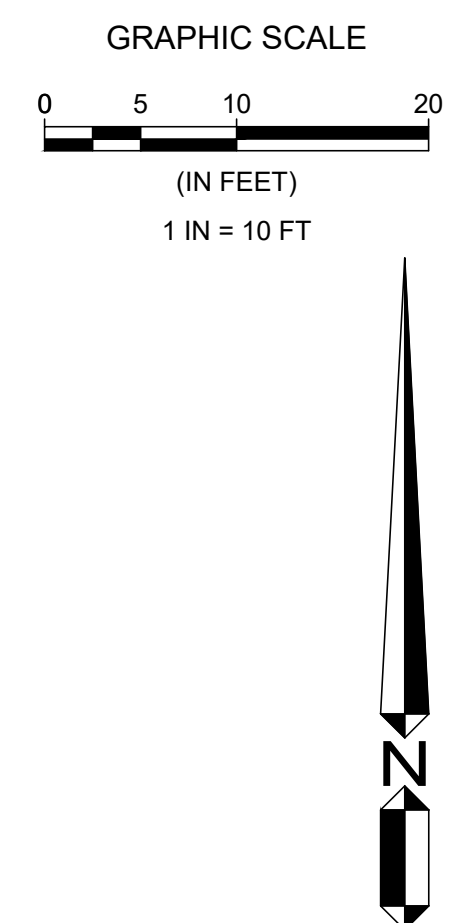
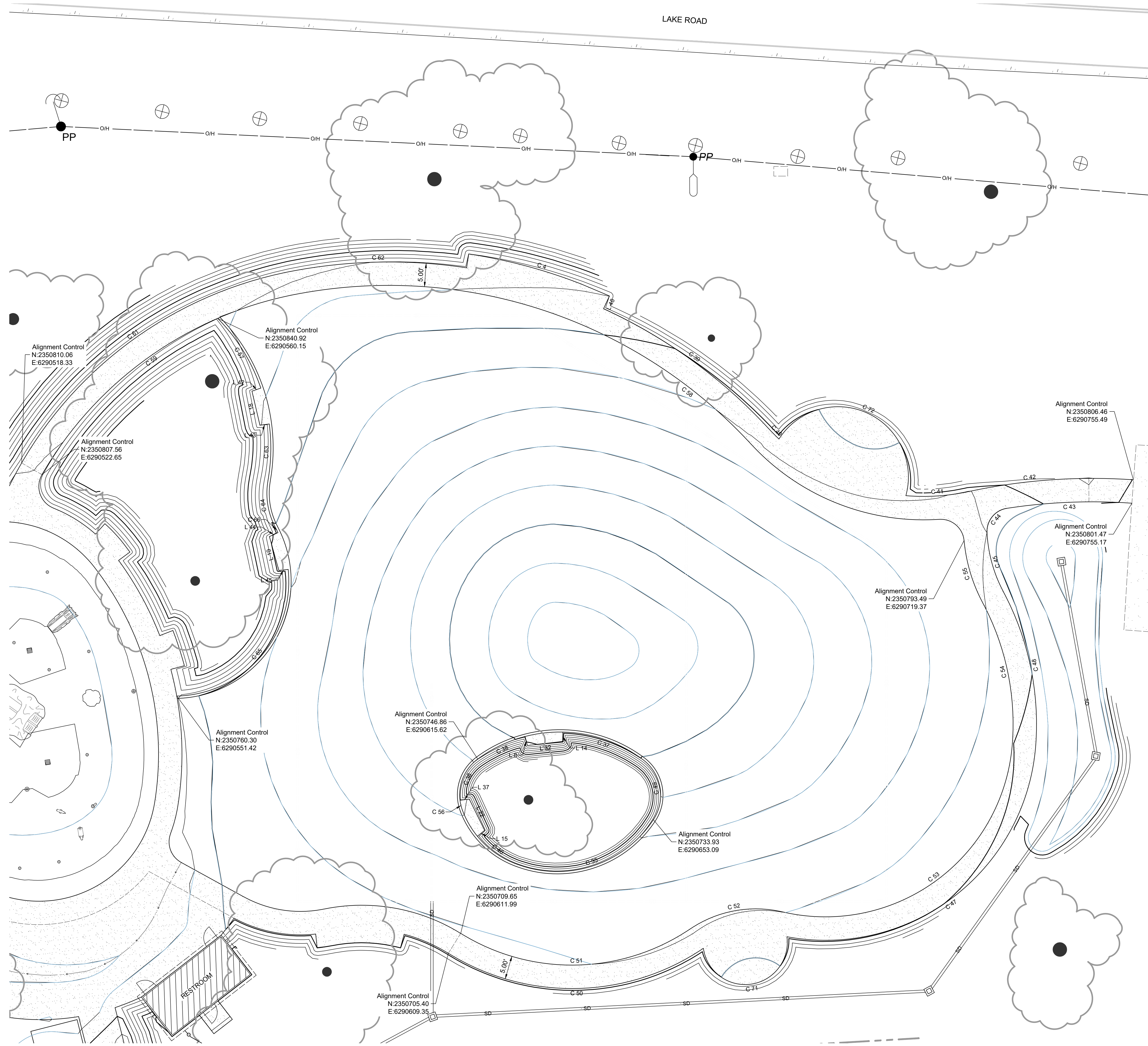
Curve #	Length	Radius	Delta
C 1	32.91	22.00	85°43'07"
C 2	44.88	30.00	85°43'07"
C 3	32.58	50.00	37°19'54"
C 5	4.54	50.00	5°12'22"
C 6	30.34	40.00	43°27'08"
C 7	17.63	25.00	40°24'49"
C 8	7.14	5.00	81°50'35"
C 9	5.99	30.00	11°28'42"
C 10	23.18	70.00	18°58'18"
C 11	6.36	70.00	5°12'25"
C 12	3.11	33.00	5°24'06"
C 13	18.35	70.00	15°01'20"
C 14	14.84	32.00	26°33'45"
C 15	6.07	50.00	6°57'00"
C 16	10.58	30.00	20°11'49"
C 17	8.59	5.00	98°24'03"
C 18	5.53	85.00	3°43'34"
C 19	5.15	5.00	59°01'43"
C 20	39.88	30.00	76°09'27"
C 21	21.71	70.00	17°46'15"
C 22	7.91	73.00	6°12'27"
C 23	8.10	35.30	13°08'43"
C 24	13.06	30.00	24°56'15"
C 25	41.18	30.00	78°38'50"

Curve #	Length	Radius	Delta
C 27	18.33	30.00	35°00'43"
C 28	2.83	30.00	5°24'04"
C 29	18.66	73.00	14°38'43"
C 31	57.96	25.00	132°50'37"
C 32	53.50	65.00	47°09'23"
C 33	57.96	25.00	132°50'37"
C 34	53.50	65.00	47°09'23"

Line #	Length	Direction
L 1	26.00	N71°27'24"E
L 2	22.00	S18°33'22"E
L 3	5.00	N52°11'02"E
L 4	22.00	S18°33'12"E
L 5	26.00	S71°26'38"W
L 6	52.01	N18°33'22"W
L 7	11.37	N71°26'38"W
L 9	6.72	N14°16'29"W
L 10	6.66	S14°16'29"W
L 12	11.37	S71°26'38"W
L 13	20.04	S28°04'54"W
L 20	15.30	N61°11'54"W
L 21	20.37	S61°11'37"E
L 24	3.00	N53°47'28"E
L 26	3.00	S41°51'03"W

Line Table		
Line #	Length	Direction
L 27	3.00	N75°01'15"E
L 28	3.00	S6°12'36"E
L 29	3.00	S68°48'48"W
L 30	3.00	S81°25'45"W
L 33	3.00	N66°47'02"E
L 34	10.67	N37°48'58"E
L 35	21.54	N52°11'02"E
L 36	10.67	N37°48'58"W
L 38	3.00	N14°57'02"E
L 39	21.54	N52°11'02"E
L 40	5.00	S37°48'58"E
L 41	5.00	N37°48'58"W





COUNTY OF KERN  
GENERAL SERVICES  
DIVISION  
OF THE  
COUNTY ADMINISTRATIVE OFFICE  
1115 TRUXTUN AVENUE  
BAKERSFIELD, CALIFORNIA

---

PROJECT

HART MEMORIAL  
PARK ADVENTURE  
PLAY AREA

LEVEE & LAKE ROAD  
BAKERSFIELD, CA  
93308

APPROVED BY  
COUNTY BOARD OF SUPERVISORS

CHAIRMAN BOARD OF SUPERVISORS \_\_\_\_\_ DATE \_\_\_\_\_

RECOMMENDED FOR APPROVAL  
DEPARTMENT

DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_

RECOMMENDED FOR APPROVAL  
GENERAL SERVICES DIVISION

CHIEF GENERAL SERVICES OFFICER DATE

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CONSULTANT STAMP



Curve Table			
Curve #	Length	Radius	Delta
C 4	31.43	113.00	15°56'06"
C 35	33.03	24.50	77°14'59"
C 36	10.03	9.50	60°29'59"
C 37	18.34	29.50	35°37'46"
C 38	11.25	29.50	21°51'18"
C 39	43.73	110.00	22°46'48"
C 40	3.21	45.00	4°05'00"
C 41	13.38	45.00	17°02'08"
C 42	35.44	125.00	16°14'32"
C 43	26.76	120.00	12°46'30"
C 44	7.34	5.00	84°08'56"
C 45	13.20	30.00	25°12'47"
C 46	10.50	19.50	30°50'41"
C 47	75.60	45.00	96°15'40"
C 48	33.89	60.00	32°21'30"
C 49	14.32	9.50	86°22'27"
C 50	57.52	50.00	65°55'04"
C 51	51.77	45.00	65°55'04"
C 52	20.63	25.00	47°16'16"
C 53	69.07	40.00	98°56'19"

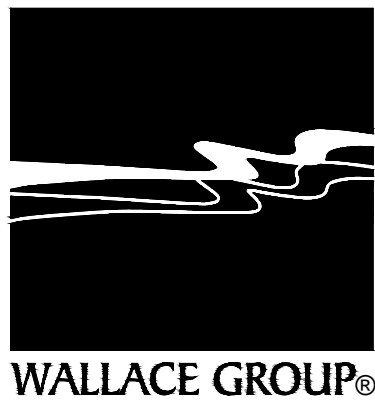
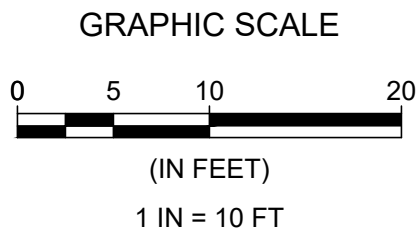
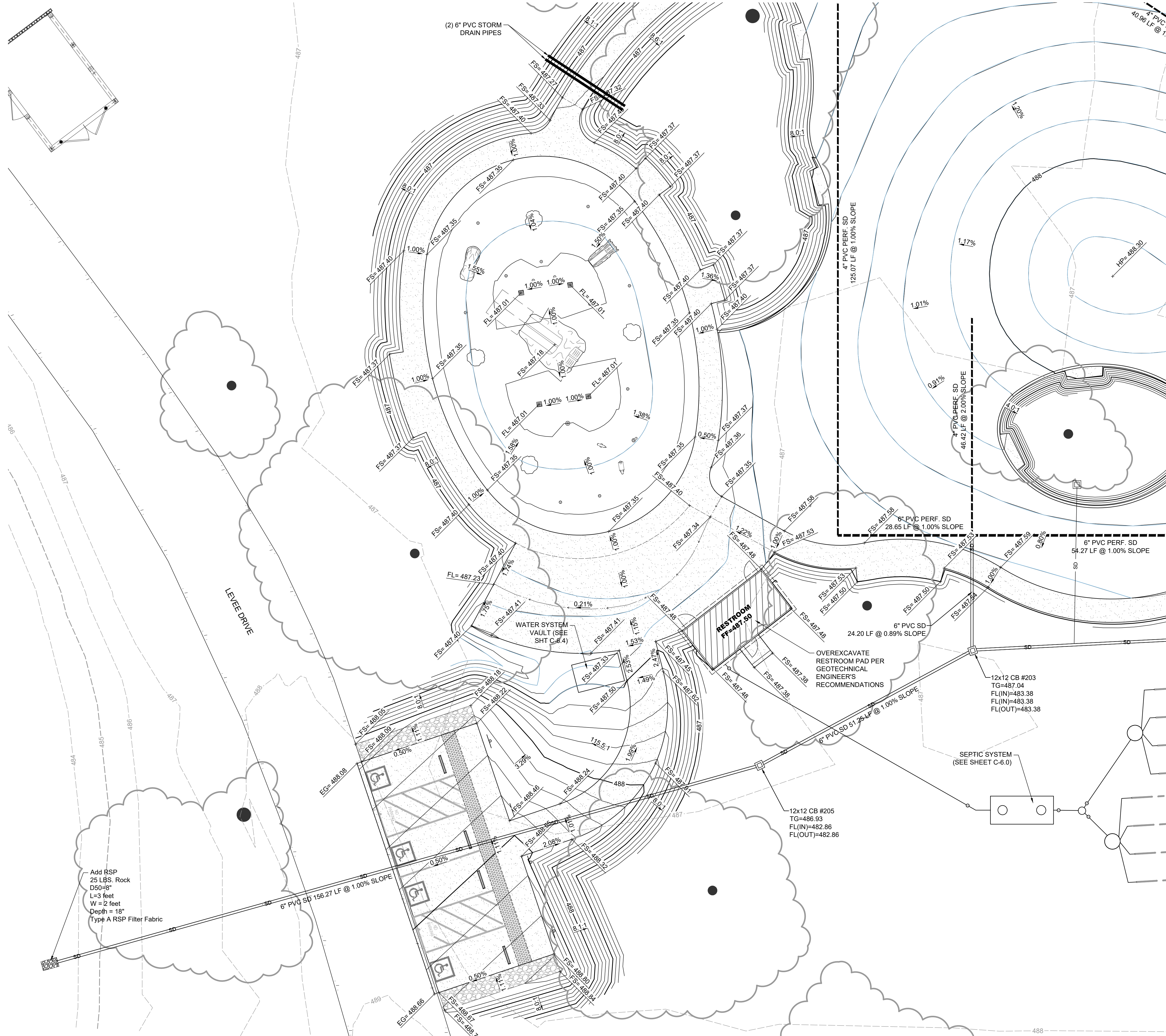
Curve Table			
Curve #	Length	Radius	Delta
C 54	31.06	55.00	32°21'30"
C 55	13.96	35.00	22°51'24"
C 56	2.29	9.50	13°47'40"
C 57	17.64	39.50	25°35'39"
C 58	35.33	104.99	19°16'54"
C 59	68.30	80.00	48°54'48"
C 61	72.56	85.00	48°54'48"
C 62	37.81	110.00	19°41'38"
C 63	12.13	39.50	17°35'54"
C 64	10.31	15.50	38°06'48"
C 65	40.42	24.50	94°31'31"
C 66	1.24	24.50	2°53'30"
C 71	28.23	9.00	179°43'46"
C 72	42.59	15.00	162°41'57"

Line Table		
Line #	Length	Direction
L 8	2.00	S14°35'22"E
L 14	2.00	N1°13'14"E
L 15	2.00	N50°37'38"E
L 18	7.47	S13°12'32"E
L 19	7.49	S15°31'55"E
L 22	7.42	N26°09'36"W
L 32	7.56	N83°18'56"E
L 37	2.00	S83°03'22"W
L 42	2.00	S71°04'29"W
L 43	2.00	N82°30'27"E
L 44	2.00	S64°53'04"W
L 45	2.00	N84°03'05"E
L 48	3.00	S24°35'49"W

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DATE	5/29/2024	SHEET NO.  C4.2
DESIGNED BY	EB	
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JOB NO.	1650.7014-21	DRAWING FILE 20MM010
HART PARK PROP 68 IMPROVEMENTS NE HORZ. CONTROL PLAN		





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PROJECT  
**HART MEMORIAL  
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PLAY AREA**  
LEVEE & LAKE ROAD  
BAKERSFIELD, CA  
93308

APPROVED BY  
COUNTY BOARD OF SUPERVISORS  
DATE  
RECOMMENDED FOR APPROVAL  
DEPARTMENT  
DIRECTOR  
DATE  
RECOMMENDED FOR APPROVAL  
GENERAL SERVICES DIVISION  
CHIEF GENERAL SERVICES OFFICER  
DATE

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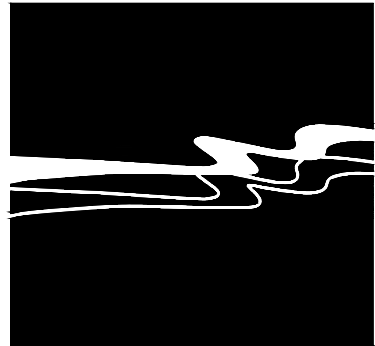
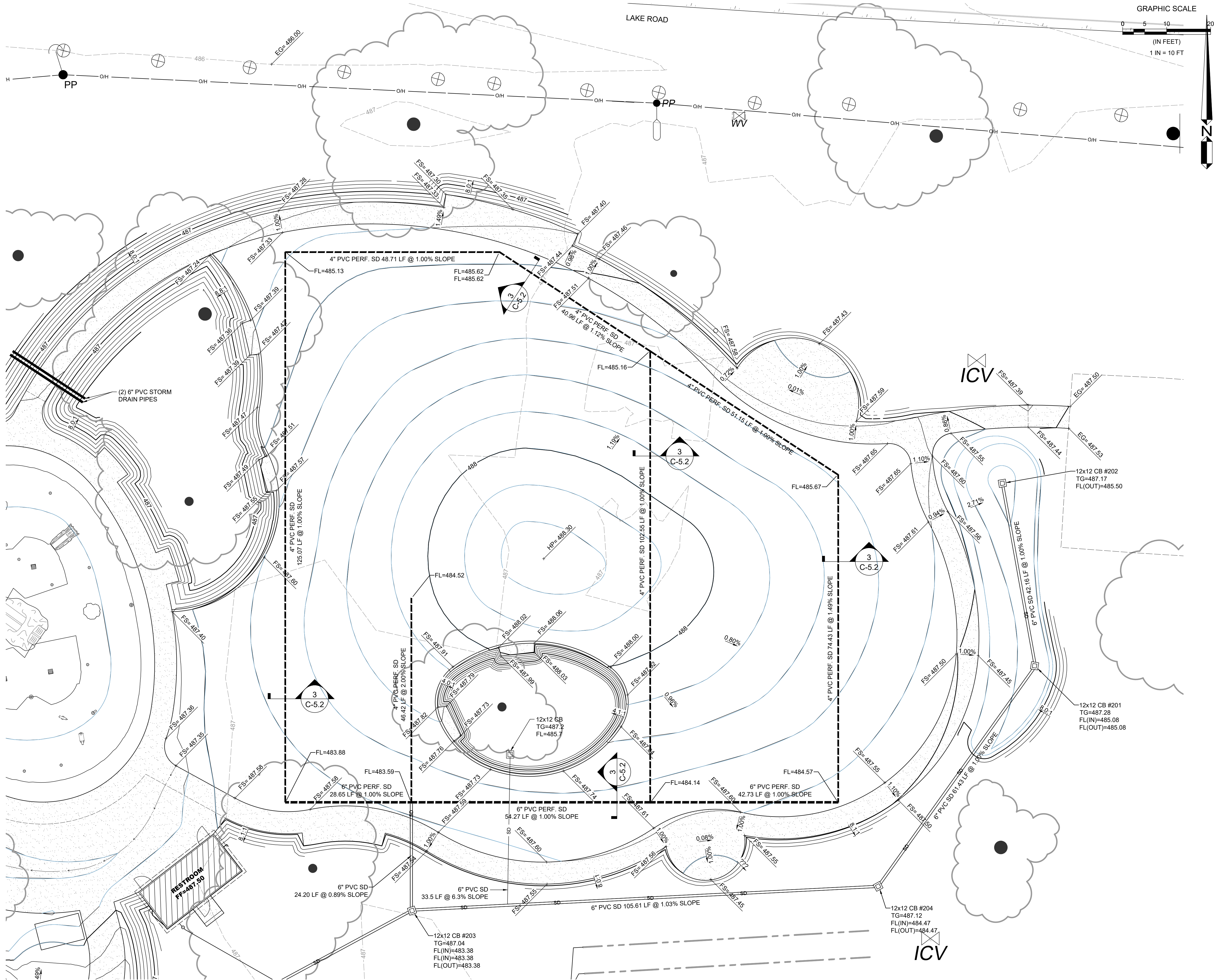


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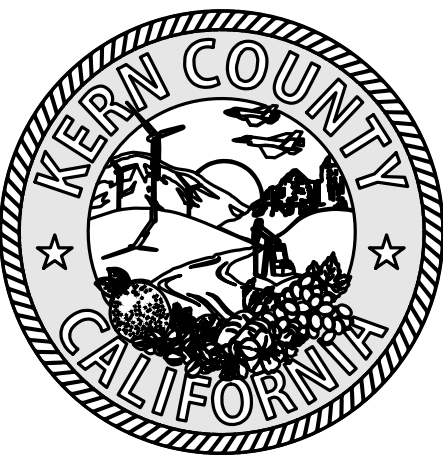
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CONTOUR NOTE  
MINOR CONTOUR INTERVAL = 0.1'





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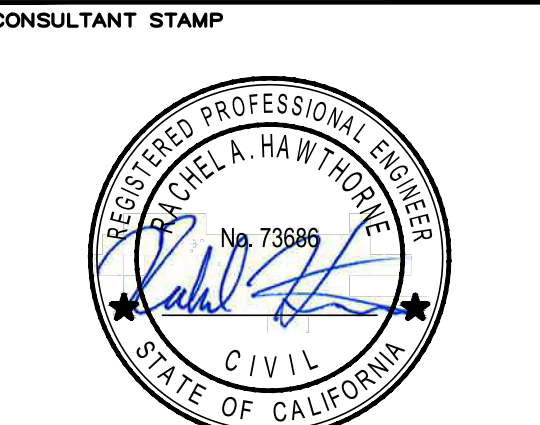
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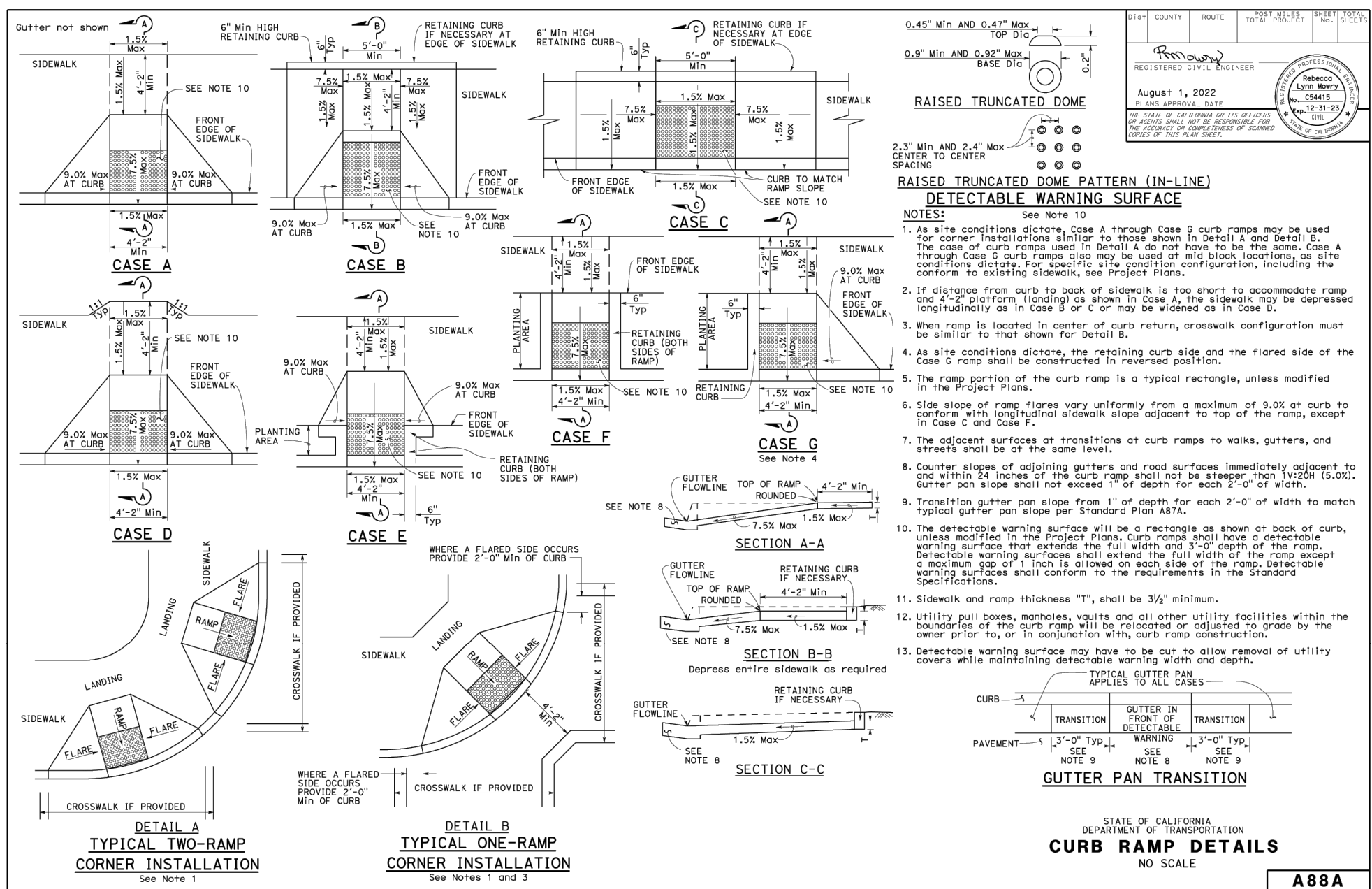
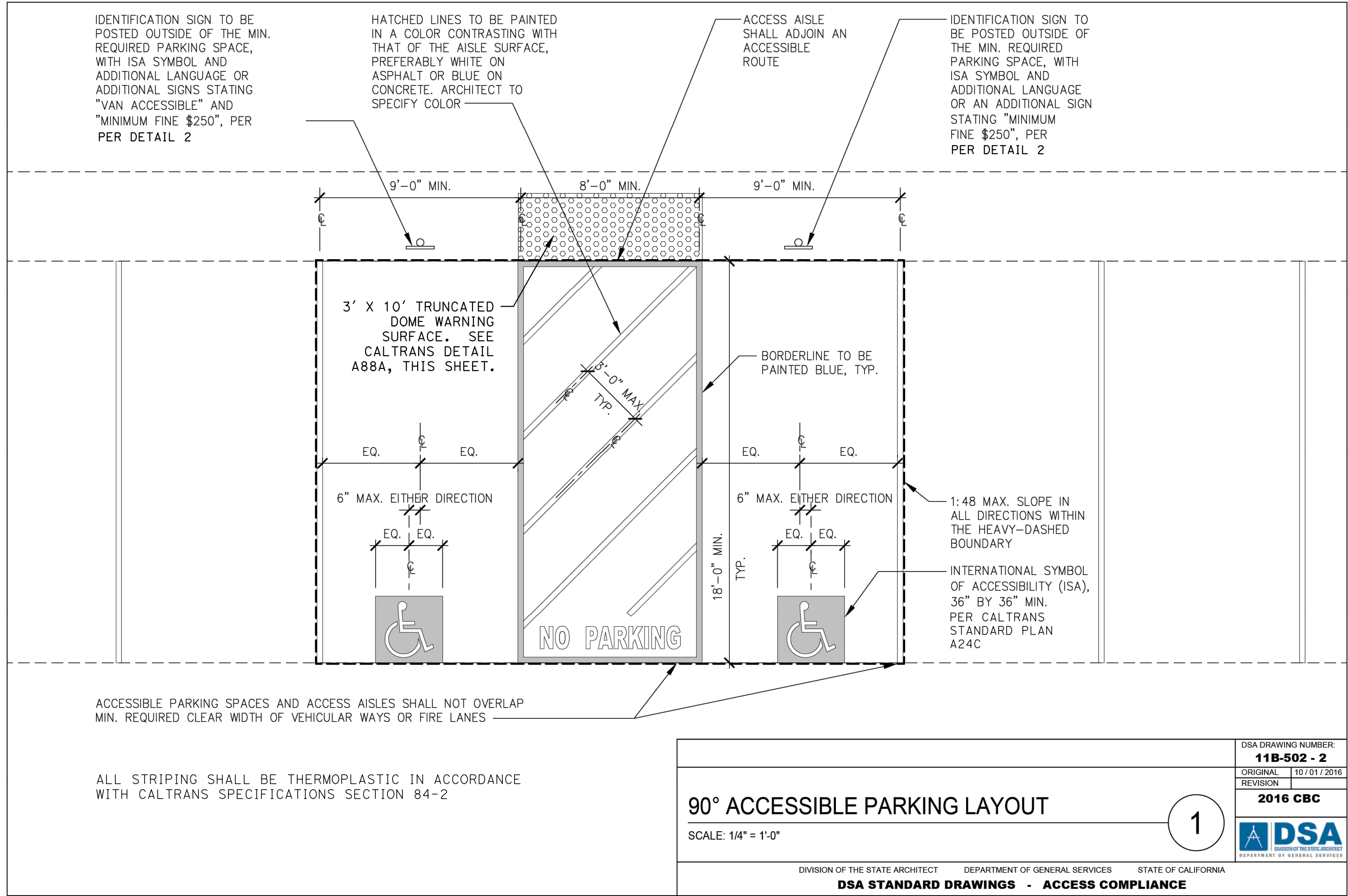
APPROVED BY COUNTY BOARD OF SUPERVISORS	DATE
CHAIRMAN BOARD OF SUPERVISORS	DATE
RECOMMENDED FOR APPROVAL DEPARTMENT	DATE
DIRECTOR	DATE
RECOMMENDED FOR APPROVAL GENERAL SERVICES DIVISION	DATE
CHIEF GENERAL SERVICES OFFICER	DATE

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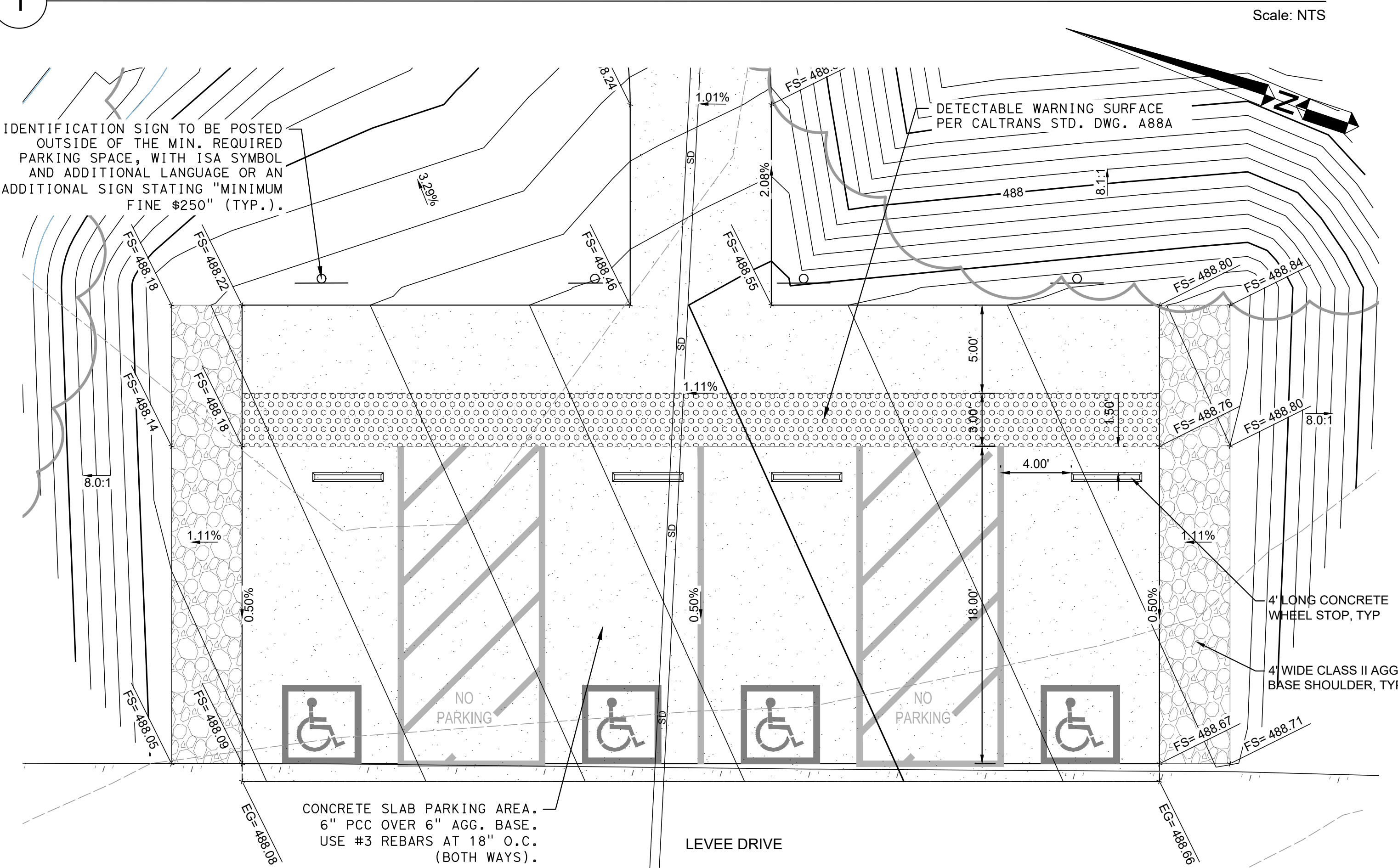
DATE	REV	DESCRIPTION
05/22/2024	1	DESIGNED BY EB
	2	DRAWN BY RMS
	3	CHECKED BY RAH
JOB NO. 1650.7014-21	SHEET NO. C-5.1	
DRAWING FILE 20MM010		HART PARK PROP 68 IMPROVEMENTS NE GRADING PLAN





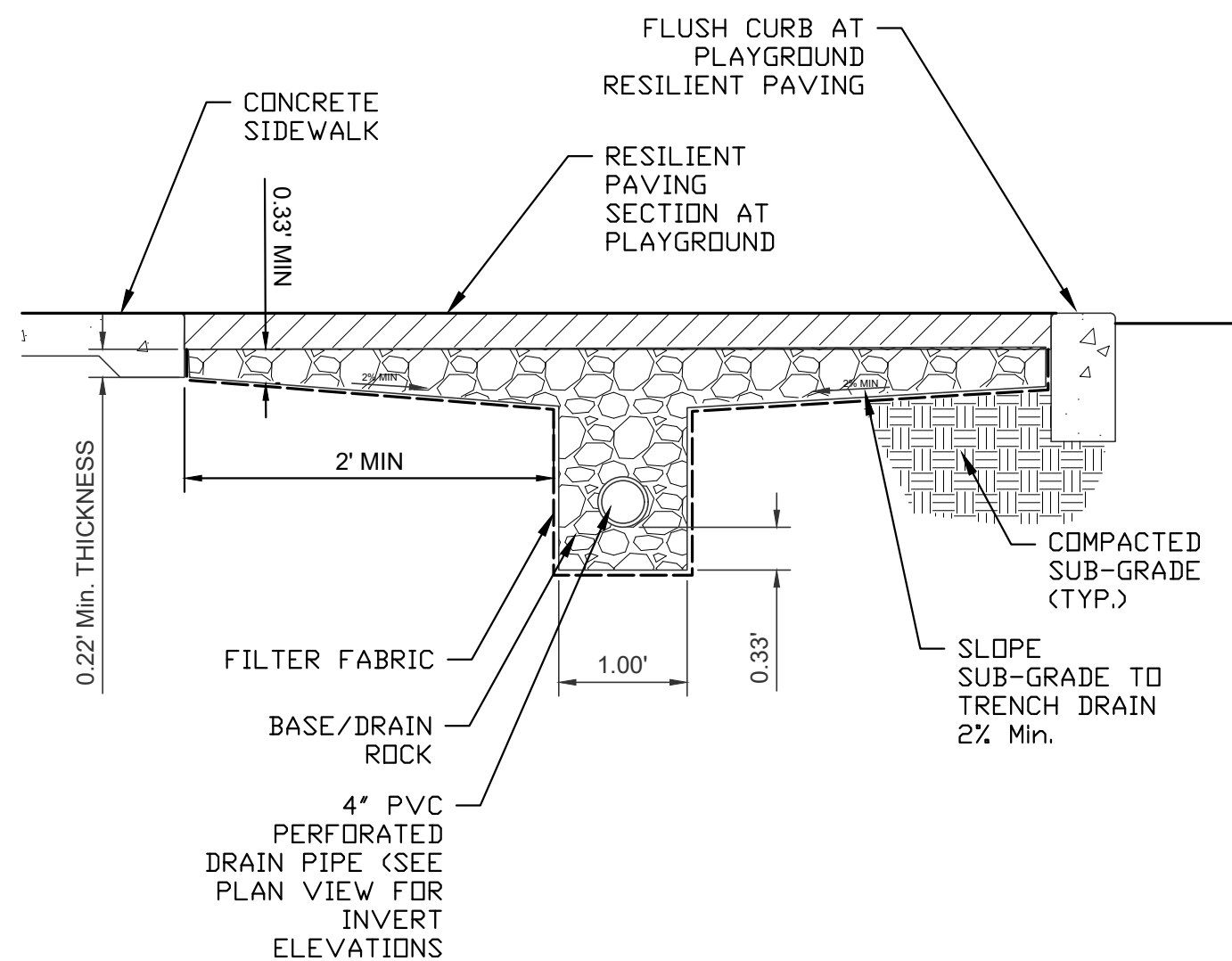
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## 1 DSA DETAIL 11B-502-2



## 2 ACCESSIBLE PARKING

## 3 RESILIENT PAVING SUBDRAINAGE



Scale: NTS



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CHAIRMAN BOARD OF SUPERVISORS DATE  
RECOMMENDED FOR APPROVAL  
DEPARTMENT

DIRECTOR DATE

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CHIEF GENERAL SERVICES OFFICER DATE

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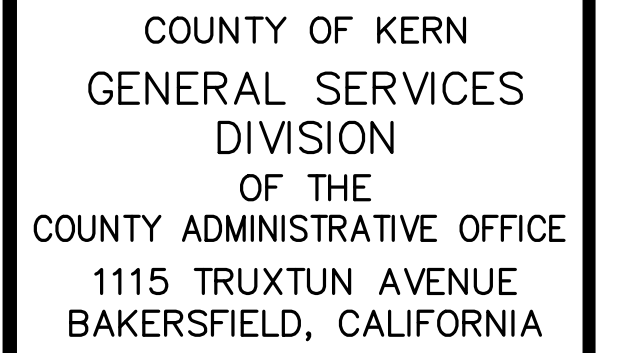
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DATE	REV	DESCRIPTION

DATE	05/22/2024	SHEET NO.	
DESIGNED BY	EBB		
DRAWN BY	RMS		C-5.2
CHECKED BY	RAH		
JOB NO.	1650.7014-21	DRAWING FILE	20MM010
HART PARK PROP 68 IMPROVEMENTS GRADING DETAILS			





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CHAIRMAN BOARD OF SUPERVISORS \_\_\_\_\_ DATE \_\_\_\_\_

DEPARTMENT

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CHIEF GENERAL SERVICES OFFICER \_\_\_\_\_ DATE \_\_\_\_\_

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CONSULTANT STAMP

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<b>DATE</b>	5/29/2024	<b>SHEET NO.</b>  C6.0
<b>DESIGNED BY</b>	GH	
<b>DRAWN BY</b>	AMC	
<b>CHECKED BY</b>	GH	
<b>JOB NO.</b>	1650.7014-21	
		<b>DRAWING FILE</b> 20MM010
HART PARK PROP 68 IMPROVEMENTS SEPTIC SYSTEM LAYOUT		

(XXX)	DESCRIPTION
300	<u>PROPOSED FACILITIES</u>
301	PREFABRICATED RESTROOM, SEE SPECIFICATIONS
302	CLEANOUT; SEE DETAIL 1, SHEET C-6.2
303	2,500 GALLON SEPTIC TANK; SEE DETAILS SHEET C-6.1
304	DIVERSION VALVE PER SPECS
305	DISTRIBUTION BOX; SEE DETAILS 5 AND 6, SHEET C-6.2
306	6" SDR 35 PVC PIPE, SLOPE 0.67%; SEE DETAIL 4, SHEET C-6.1
307	4" SDR 35 PVC PIPE, SLOPE 1%; SEE DETAIL 4, SHEET C-6.1
308	LEACH LATERAL TRENCH, SEE DETAILS 2, 3, AND 4, SHEET C-6.2

1. LOCATION OF IRRIGATION WATER LINE INFERRED FROM SURFACE FEATURES. MAINTAIN MINIMUM 5' SEPARATION BETWEEN PRESSURIZED WATER LINE AND LEACH FIELD. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING LOCATION OF THE IRRIGATION WATER LINE AND PROVIDING REQUIRED CLEARANCE.
2. CONTRACTOR SHALL VERIFY PRESENCE OF UNDERGROUND UTILITIES, MARK THEIR LOCATIONS, AND NOTIFY THE CITY ENGINEER OF ANY POTENTIAL CONFLICTS WITH PROPOSED SEPTIC SYSTEM AND LEACH DISPOSAL FIELD. CONTRACTOR IS RESPONSIBLE FOR COORDINATING CONSTRUCTION ACTIVITIES WITH UTILITY OWNERS.
3. TRENCH WORK SHALL BE PERFORMED IN ACCORDANCE WITH CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH STANDARDS AND REGULATIONS. A COPY OF ANY TRENCH PERMIT FROM THE CALIFORNIA DIVISION OF INDUSTRIAL SAFETY SHALL BE PROVIDED PRIOR TO ANY TRENCH EXCAVATION EXCEEDING FIVE FEET OF DEPTH.
4. ALL VALVE BOXES, VAULTS, AND HANDHOLES SHALL BE RATED FOR INDUSTRIAL H-20 TRAFFIC LOADING.
5. DISPOSAL FIELD SHALL BE CONSTRUCTED WITH HAND TOOLS AND LIGHTWEIGHT TRACK-MOUNTED EQUIPMENT. DO NOT USE HEAVY EQUIPMENT IN THE DISPOSAL FIELD AREA TO AVOID UNDESIRABLE SOIL COMPACTION.
6. EXISTING GRADE OUTSIDE OF THE DISPOSAL FIELD LIMITS SHALL REMAIN UNDISTURBED.
7. PIPING LAYOUT IS CONSIDERED SCHEMATIC AND MAY BE MODIFIED IN THE FIELD AS NECESSARY WHILE PRESERVING DESIGN INTENT.
8. UNDERGROUND IMPROVEMENTS SHALL BE TESTED AND APPROVED PRIOR TO BACKFILLING.
9. DESIGN OF SEPTIC SYSTEM AND TRENCH LAYOUT BASED ON SITE SOIL CONDITIONS AS DOCUMENTED IN THE DECEMBER 12, 2022 GEOTECHNICAL ENGINEERING INVESTIGATION REPORT. AS SITE CONDITIONS MAY VARY OVER TIME, THE CONTRACTOR SHALL REPORT ANY CHANGES ENCOUNTERED DURING CONSTRUCTION.

PERCOLATION TEST RESULTS: 12 MINUTES PER INCH  
LOADING RATE: 1.5 GPD/SF  
LEACH FIELD TRENCH INFILTRATION AREA: 3 SF/LF  
LINEAR LOADING RATE: 1.5 GPD/SF X 3 SF/LF = 4.5 GPD/FT

TOILETS: 2 (@ 36 GAL/HR/TOILET)  
FAUCETS: 3 (@ 15 GAL/HR/FAUCET)

CALCULATED WW FLOW: 8 HOURS X 117 GPD/FIXTURES  
= 936 GPD

ESTIMATED TOTAL WW FLOW: 1,000 GPD

$$\text{LEACH TRENCH LENGTH} = \text{PEAK DAILY FLOW} / \text{LINEAR LOADING RATE}$$

REQUIRED 100% LEACH TRENCH LENGTH: 1000 GPD /4.5 GPD/FT= 222 FT  
(100% CAPACITY)  
DESIGN LENGTH: FOUR 65 LF TRENCHES

\*200% CAPACITY REQUIRED PER KERN COUNTY LAMP THEREFORE:

REQUIRED 200% LEACH TRENCH LENGTH: 444 FT (200% CAPACITY)  
DESIGN LENGTH: EIGHT (65 LF TRENCHES)

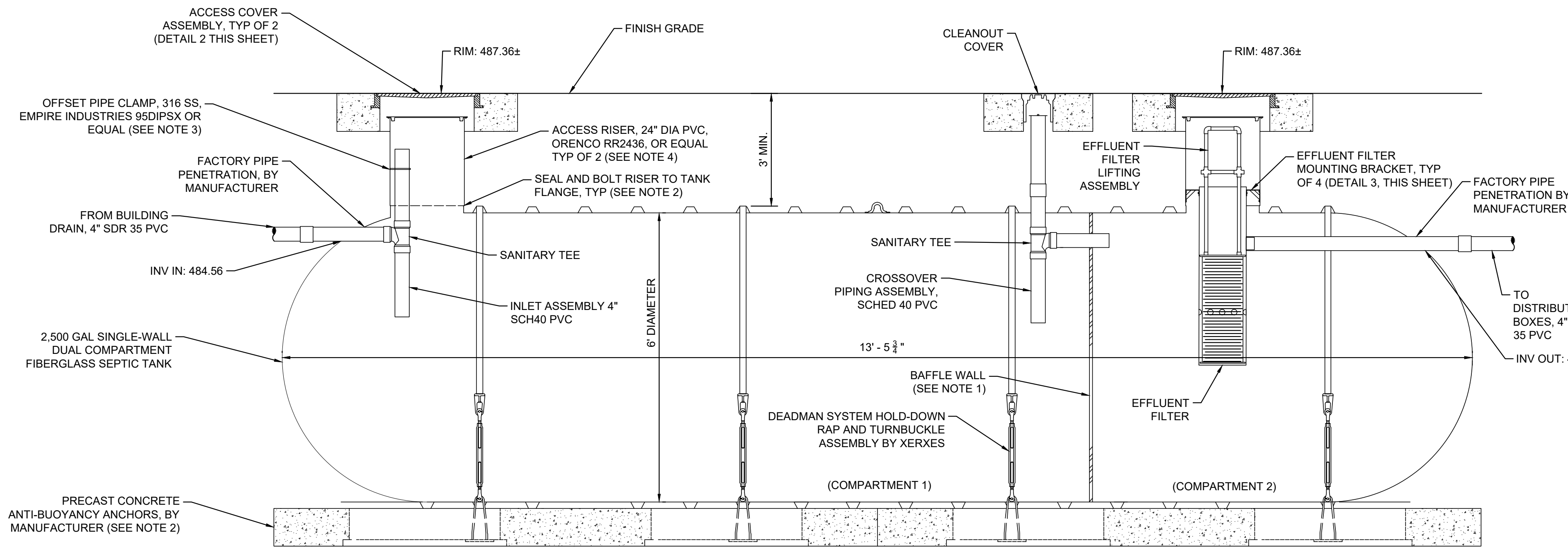
SEPTIC TANK SIZE REQUIRED:

2 X PEAK DAILY FLOW =  
2 X 1000 GAL = 2,000 GAL

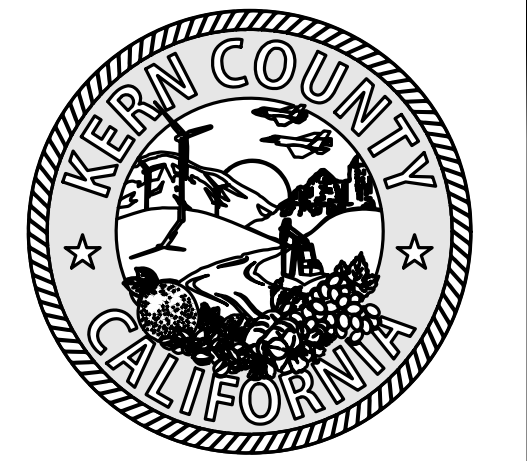
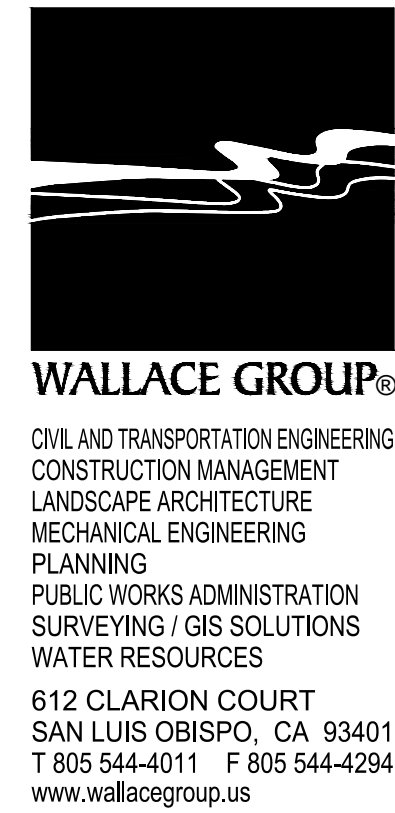
DESIGN SIZE: 2,500 GAL SEPTIC TANK FOR  
ADDITIONAL RESERVE CAPACITY

DESIGN SIZE: 2,500 GAL SEPTIC TANK FOR  
ADDITIONAL RESERVE CAPACITY





- NOTES:
1. SEPTIC TANK COMPARTMENT 1 MUST BE AT LEAST TWICE THE VOLUME OF COMPARTMENT 2.
  2. TANK, ANCHORS, AND ALL APPURTENANCES SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
  3. ALL BOLT HOLES IN TANK RISERS SHALL BE SEALED WATERTIGHT WITH EXTERIOR-GRADE SILICONE SEALANT.
  4. RISER LENGTH, INLET PIPE VERTICAL EXTENSION LENGTH, CROSSOVER PIPE VERTICAL EXTENSION LENGTH, AND EFFLUENT FILTER HANDLE ASSEMBLY LENGTH MAY NEED TO BE LONGER OR CUT TO LENGTH AS-NEEDED TO ALLOW EASY ACCESS FROM FINISH GRADE. CONTRACTOR TO VERIFY FINISH GRADE AND DEPTH OF TANK COVER PRIOR TO ORDERING MATERIALS. DRY TANK WEIGHT IS APPROXIMATELY 1,300 LBS.
  5. TANK SHALL BE INSTALLED LEVEL TO ENSURE PROPER GRAVITY PIPE FLOW AND PREVENT BACKFLOW OF SEWAGE INTO THE GRAVITY DRAIN FROM BUILDINGS.
  6. TANK SHALL BE INSTALLED ON MINIMUM 12" BEDDING OF PRIMARY BACKFILL MATERIAL.
  7. DEADMAN ANCHORS SHALL NOT BE PLACED IN THE TANK SHADOW (THE AREA BETWEEN VERTICAL EXTENSION OF THE TANK'S OUTER WALLS).
  8. PRIMARY BACKFILL SHALL, AT MINIMUM, EXTEND TO 75% OF THE TANK DIAMETER FROM THE BOTTOM OF THE TANK.
  9. FILTER FABRIC SHALL BE USED TO SEPARATE PRIMARY AND SECONDARY BACKFILL LAYERS. FABRIC SEAMS SHALL OVERLAP 12" MINIMUM.
  10. USE HAND OPERATED VIBRATING PLATE MECHANICAL COMPACTOR FOR SOIL COMPACTION.
  11. SEE SPECIFICATIONS FOR BACKFILL REQUIREMENTS.

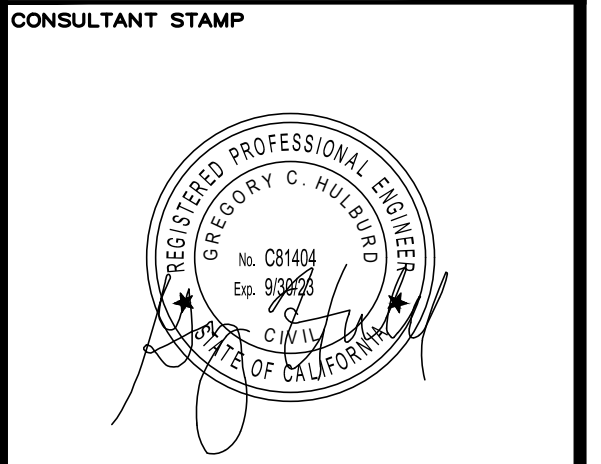


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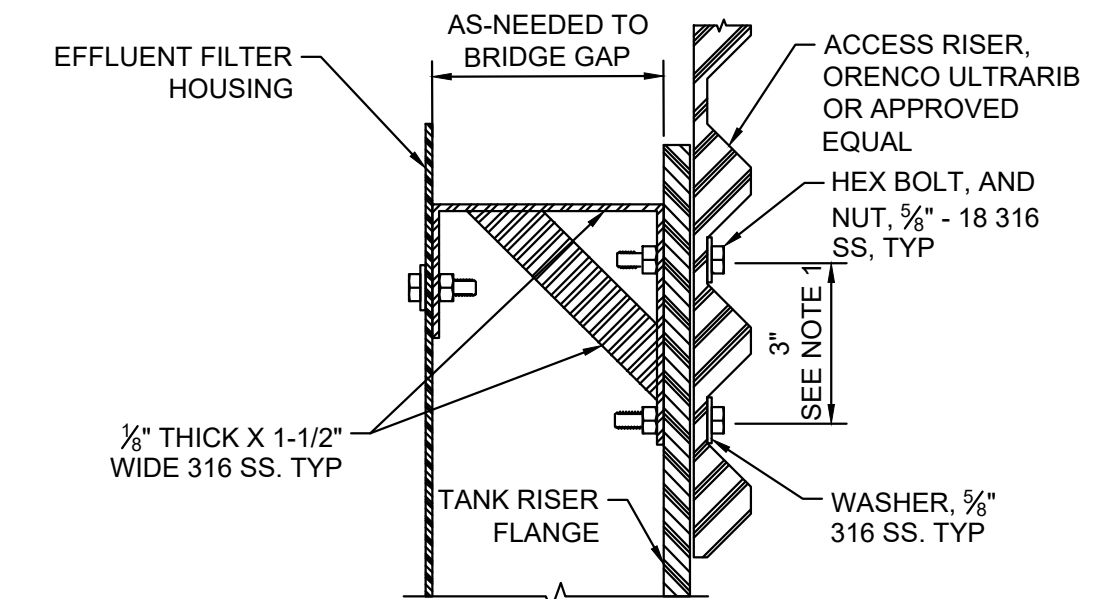
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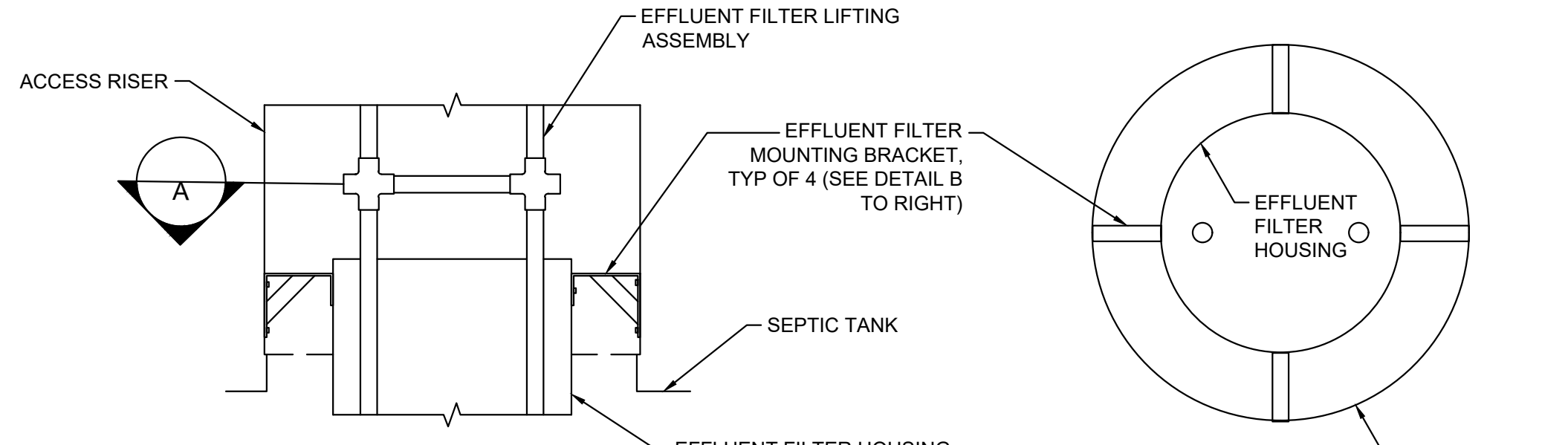


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HART PARK PROP 68 IMPROVEMENTS SEPTIC SYSTEM DETAILS	

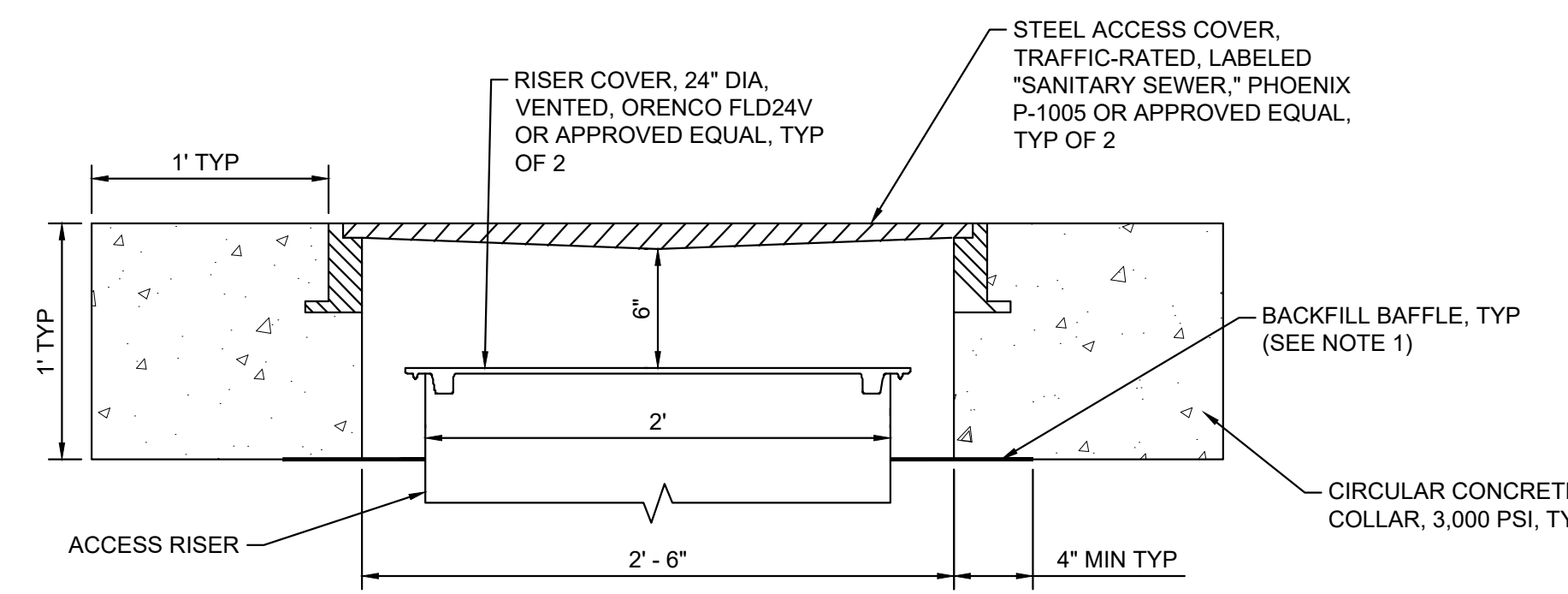


- NOTES:
1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN FIELD

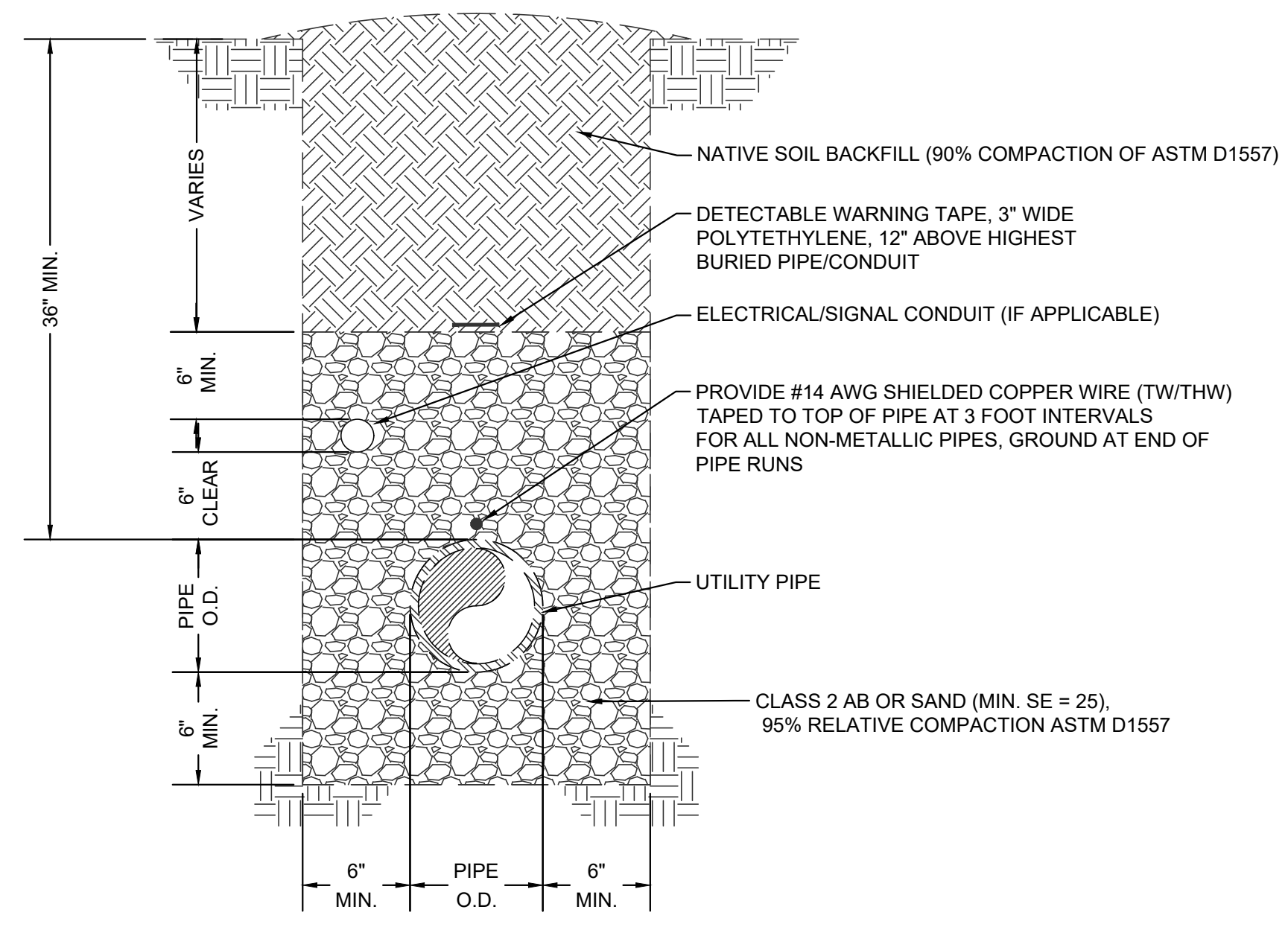


## 2 ACCESS COVER ASSEMBLY DETAIL

- NOTES:
1. CIRCULAR BACKFILL BAFFLE SHALL BE CUT TO FIT ACCESS RISER OUTSIDE DIAMETER SNUGLY, AND EXTEND BELOW CONCRETE COLLAR 4" AT A MINIMUM.

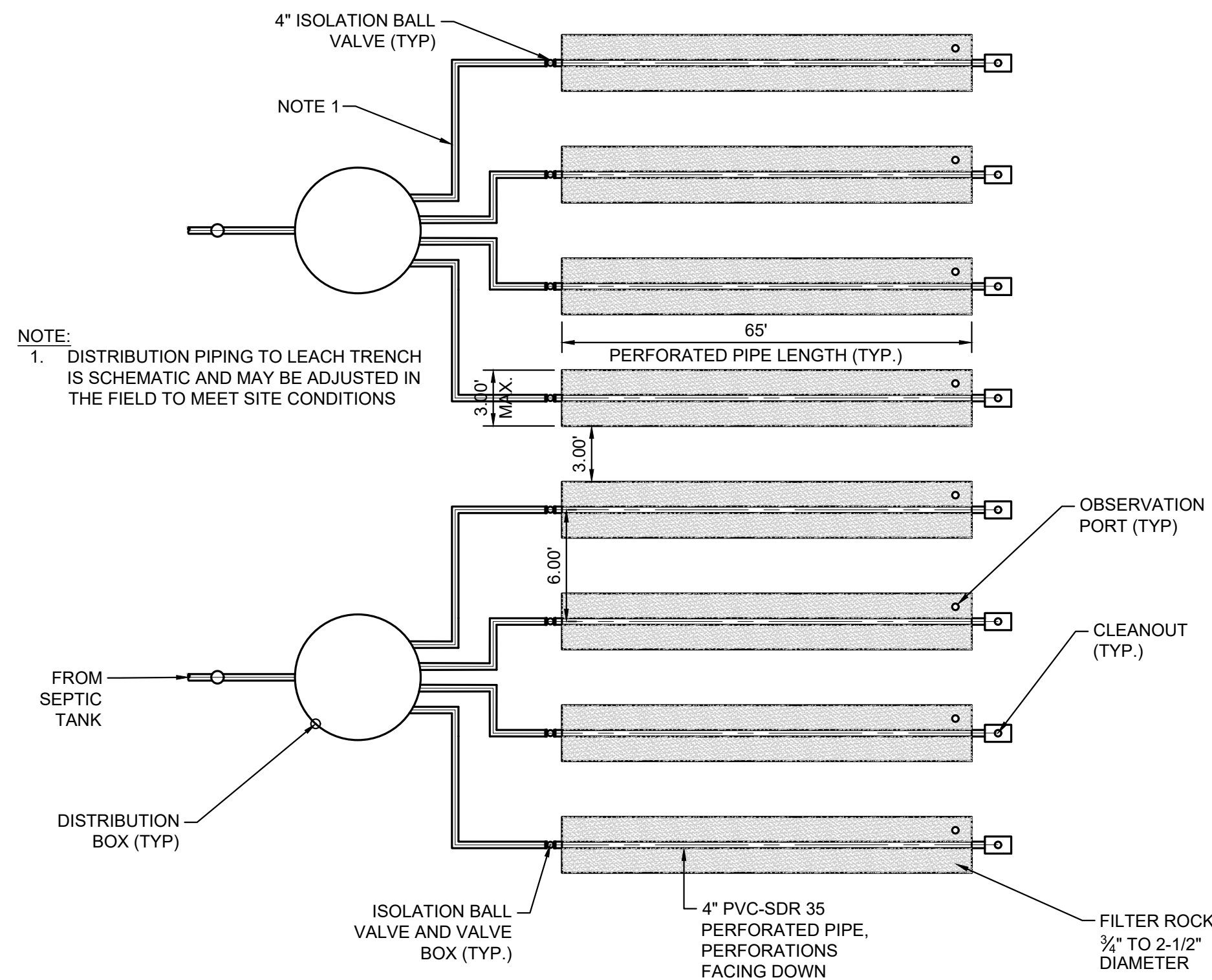


## 4 UNPAVED FINISH UTILITY TRENCH

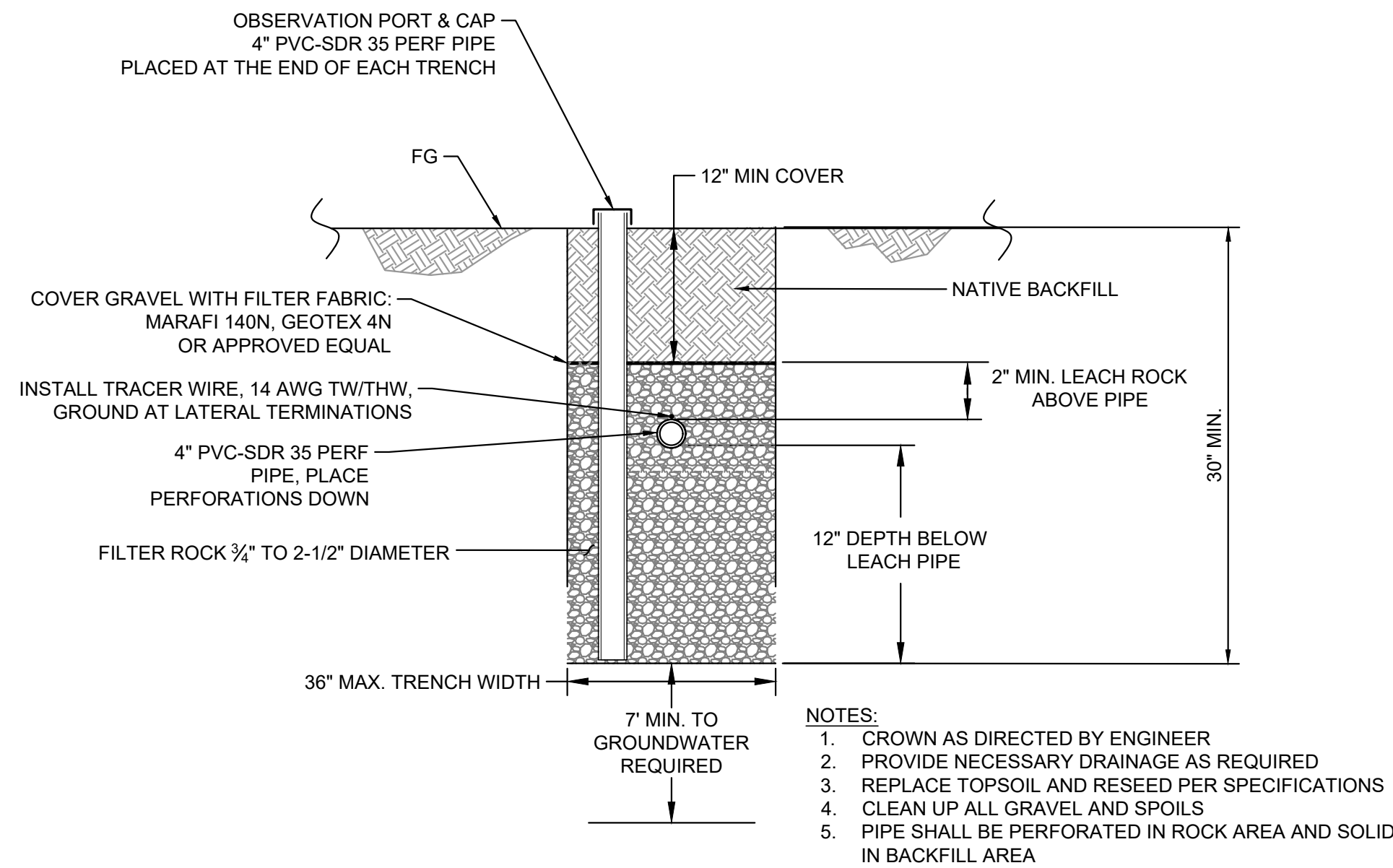


- NOTES:
1. FOR TRENCH DEPTHS GREATER THAN 5 FEET, THE ENTIRE TRENCH SHALL BE COMPACTED TO 95% OF ASTM D1557.
  2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR OR PERMITTEE TO CONTACT "UNDERGROUND SERVICE ALERT" (800-642-2444) FOR AN ACCURATE LOCATION OF EXISTING POWER, TELEPHONE, OIL OR NATURAL GAS UNDERGROUND FACILITIES, AND TO CONTACT THE APPROPRIATE AGENCIES FOR THE LOCATION OF CABLE T.V., WATER, SEWER, DRAINAGE, FIBER OPTIC AND OTHER UNDERGROUND FACILITIES.
  3. ALL TRENCHES SHALL BE BACKFILLED TO THE SURFACE OR COVERED IMMEDIATELY AFTER WORK ON THE FACILITIES WHEN THE TRENCH IS COMPLETED. IN NO CASE SHALL TRENCHES BE LEFT OPEN OVERNIGHT.

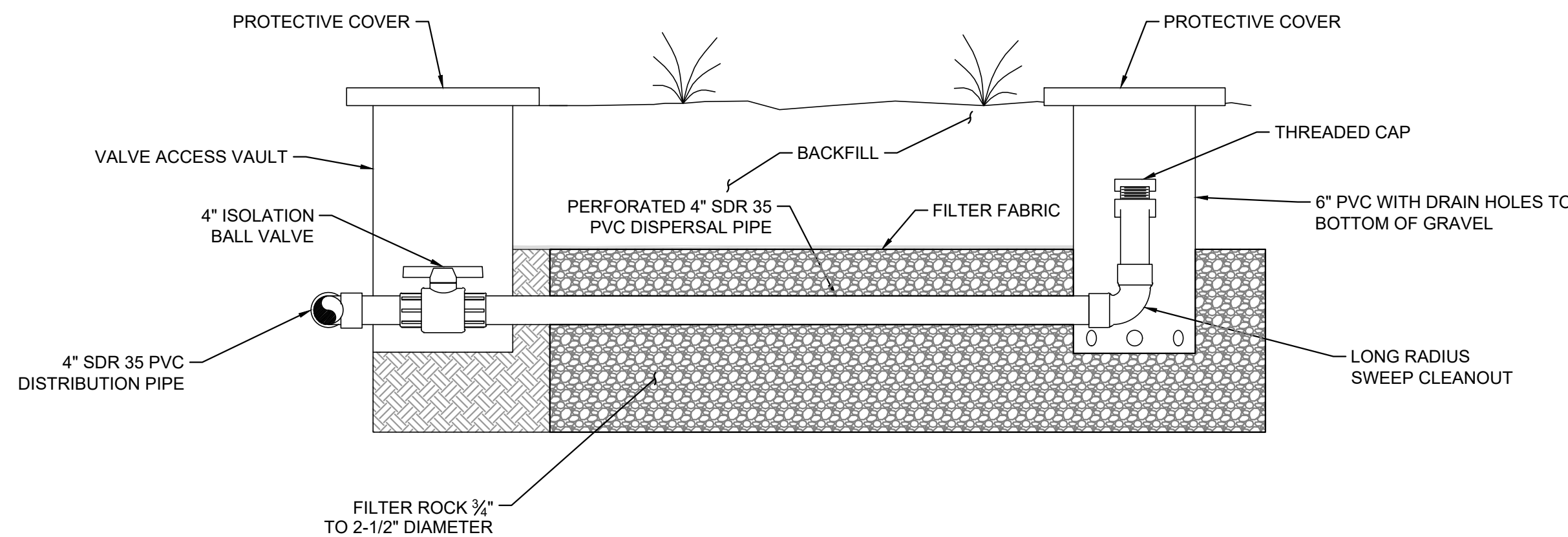




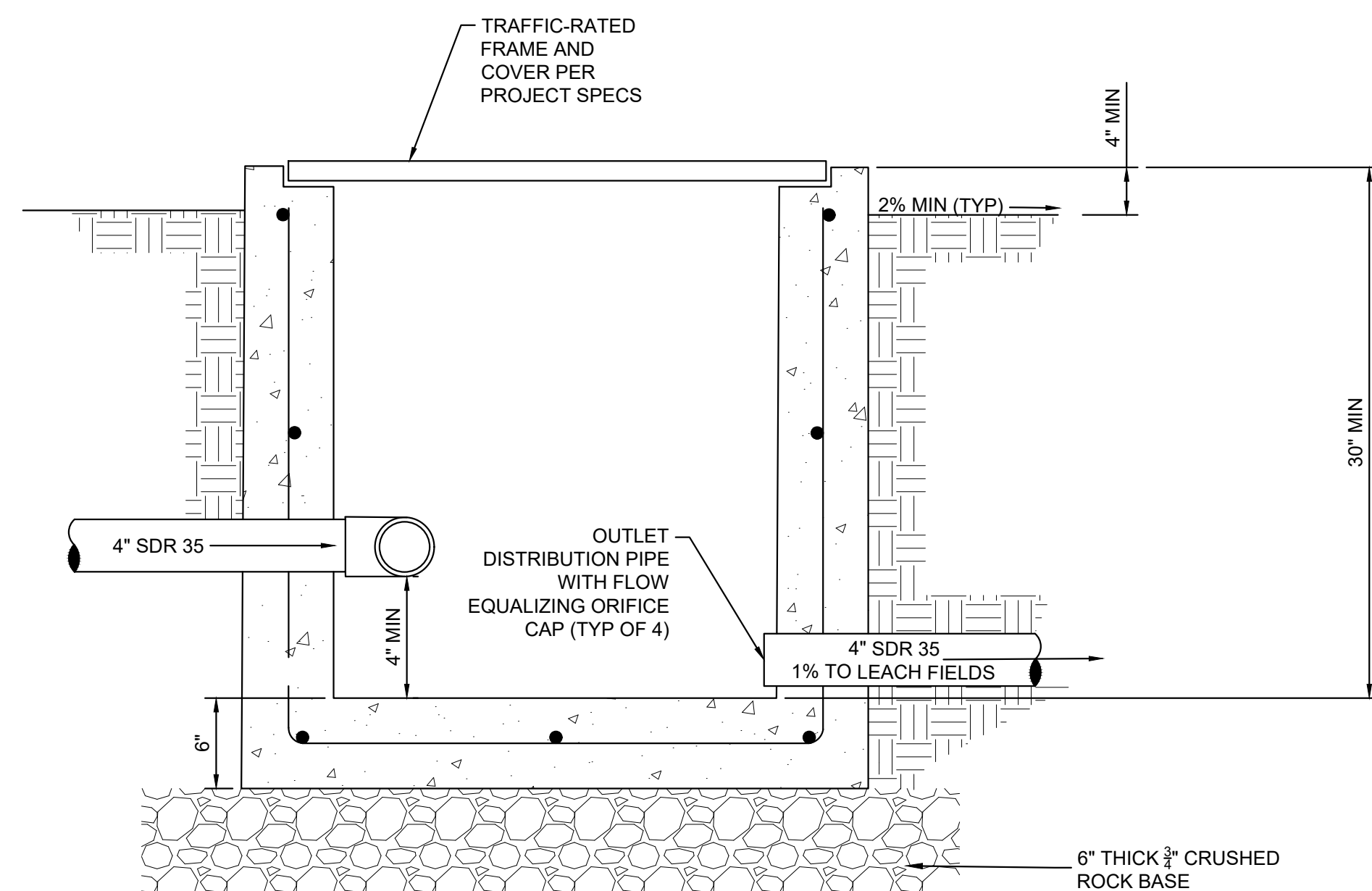
3 LEACH FIELD PLAN  
100% BUILDOUT AREA



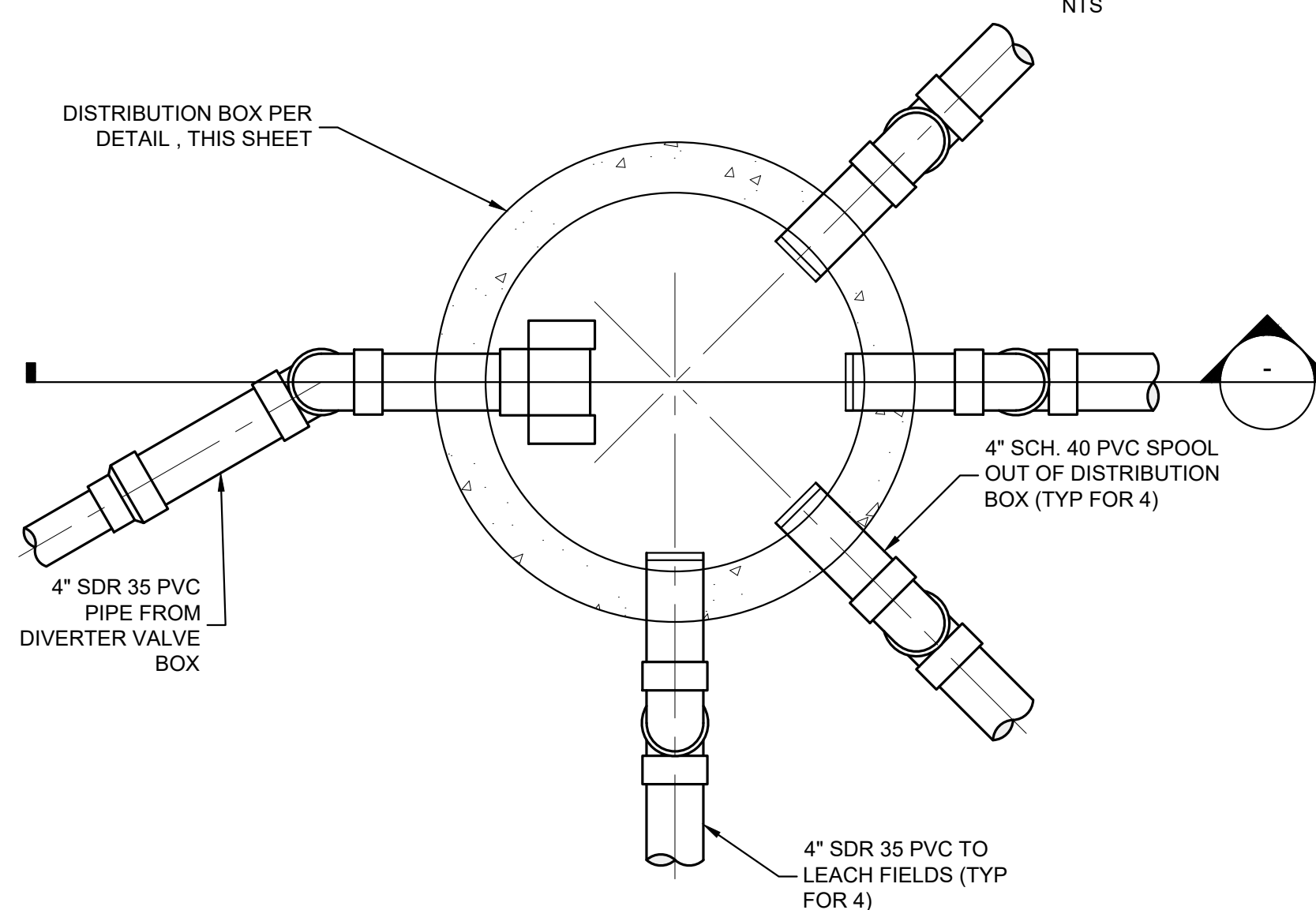
2 LEACH LATERAL TRENCH DETAIL



4 LONGITUDINAL TRENCH SECTION

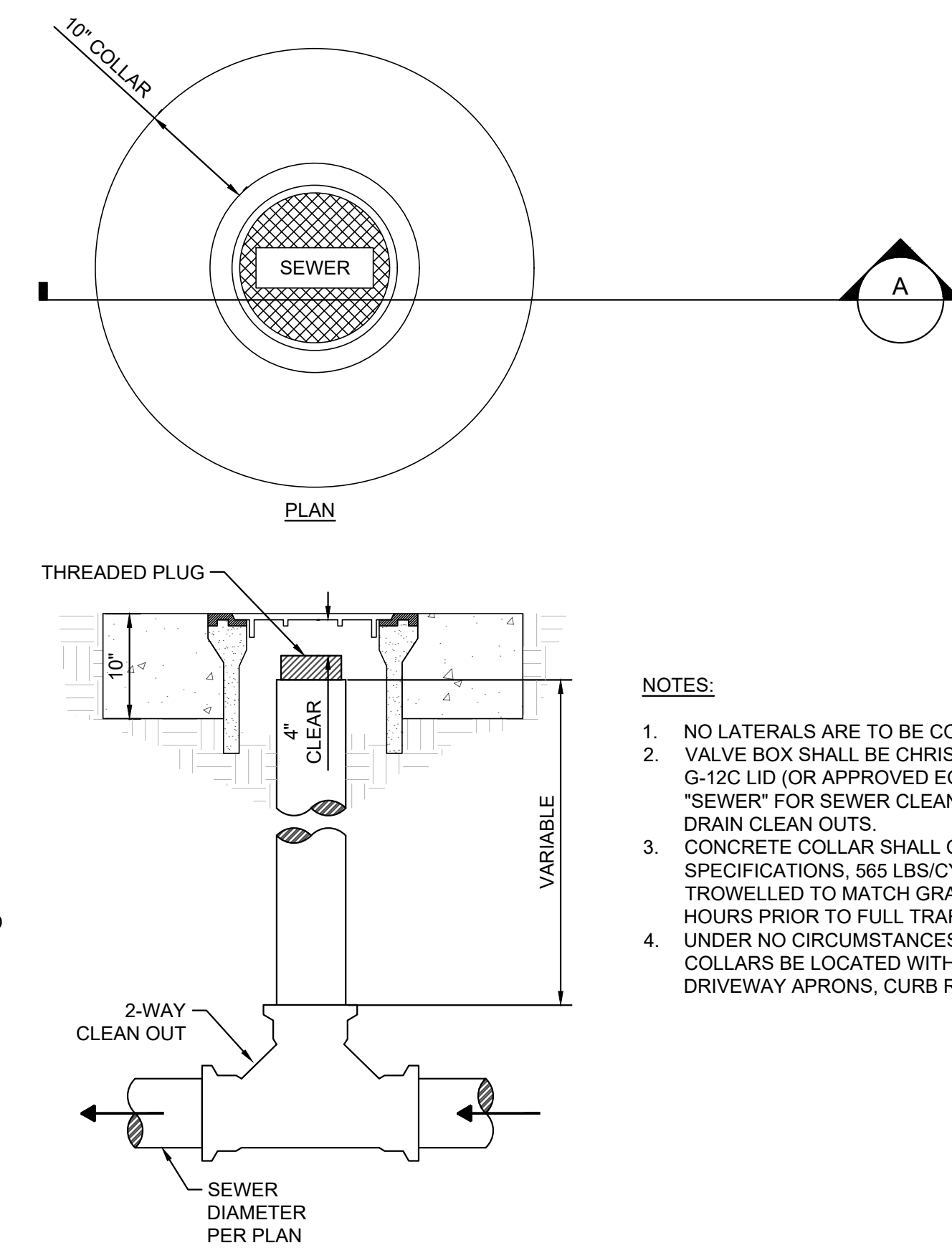


SECTION VIEW



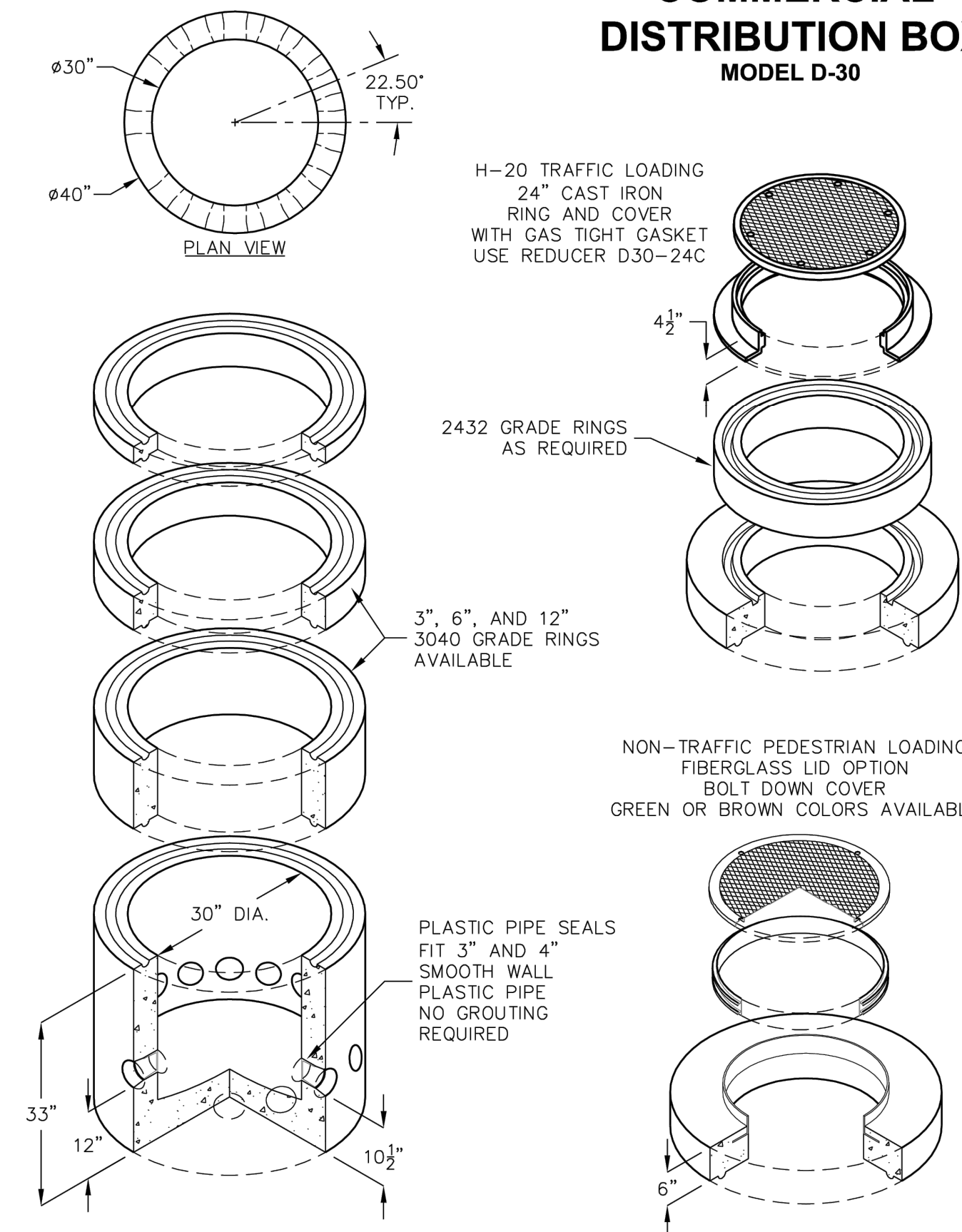
PLAN VIEW

5 DISTRIBUTION BOX DETAIL



1 CLEAN OUT DETAIL

## COMMERCIAL DISTRIBUTION BOX MODEL D-30



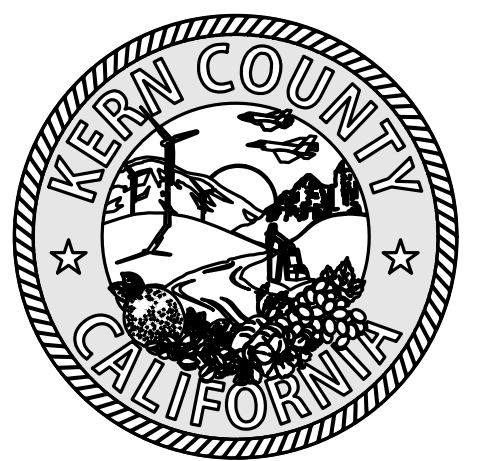
FOR COMPLETE DESIGN AND PRODUCT INFORMATION CONTACT JENSEN PRECAST.

4/5/2010  
D30-C.DWG  
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**JENSEN PRECAST**

6 DISTRIBUTION BOX MFG. CUT SHEET



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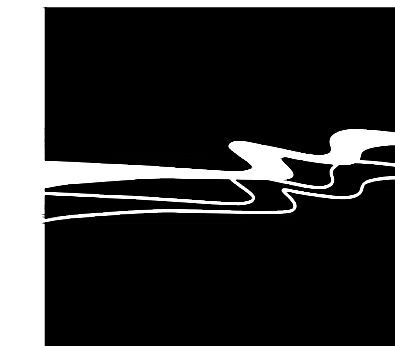
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			HART PARK PROP 68 IMPROVEMENTS SEPTIC SYSTEM DETAILS





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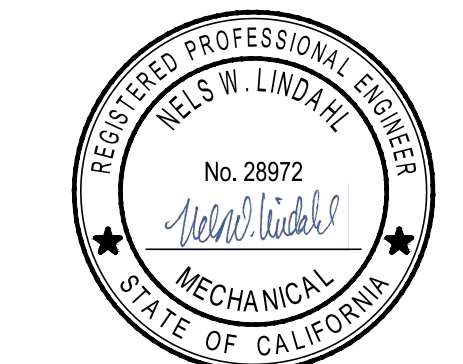
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DIRECTOR	DATE
RECOMMENDED FOR APPROVAL GENERAL SERVICES DIVISION	

CHIEF GENERAL SERVICES OFFICER DATE

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		DRAWING FILE 20MM010
HART PARK PROP 68 IMPROVEMENTS SPASH PAD EFFLUENT SITE PLAN		

## REFERENCE NOTES

(XXX)	DESCRIPTION
300	<u>PROPOSED FACILITIES</u>
320	15,000 GALLON BURIED CONCRETE STORAGE TANK, SEE DETAIL 2, SHEET C-6.8
321	PUMP BUILDING, SEE SHEET ##### FOR DETAILS
322	VERTICAL TURBINE PUMP IN PUMP CAN 15 HP PEERLESS 7LB OR EQUAL.
323	4" X 4' REMOVABLE ROOF HATCH WITH SECURITY BARS FOR PUMP AND MOTOR REMOVAL, SEE DETAIL 2, SHEET X
324	ASME PRE-CHARGED EPOXY LINED SURGE TANK, 79 GALLONS MINIMUM. AA TANKS SSA 300 OR EQUAL. 4" VICTALIC CONNECTION.
325	4" CL200 C900 PVC 45-DEGREE ELBOW GLUED FITTING
326	THRUST BLOCK, SEE DETAIL 5, SHEET ##### FOR SIZING
327	3" CL200 C900 PVC PIPE, 3' MIN COVER.
328	4" CL200 C900 PVC PIPE
329	6" SDR-35 PIPE
330	3" CL200 C900 PVC 45-DEGREE ELBOW GLUED FITTING
331	6" SDR-35 45-DEGREE ELBOW GLUED FITTING
332	6" SDR-35 22.5-DEGREE ELBOW GLUED FITTING
333	24" DIAMETER ACCESS HOLES WITH GRADE RISER AND MANHOLE LID APPROX. 3' ABOVE EG
334	4" SDR-35 PIPE WITH P-TRAP, 2% MIN. SLOPE TO TANK
335	18" X 18" DRAINAGE INLET, SEE DETAIL 3, SHEET C-6.8
336	3" CL200 C900 PVC 22.5-DEGREE ELBOW GLUED FITTING
337	2" SCH80 PVC, WATER LINE
338	2" SCH80 PVC, WATER LINE 45-DEGREE ELBOW GLUED FITTING
339	2" SCH80 PVC, WATER LINE 22.5-DEGREE ELBOW GLUED FITTING
340	2" SCH80 PVC, WATER LINE 90-DEGREE ELBOW GLUED FITTING
341	2" BRASS WATER LINE ISOLATION VALVE IN CHRISTY G05 VALVE BOX

UNLESS OTHERWISE SPECIFIED ON PLANS, BURIED AND EXPOSED DUCTILE IRON PIPE SHALL BE COATED WITH STANDARD ASPHALTIC COATING PER AWWA C151 AND CEMENT MORTAR LINED WITH SEAL COAT PER AWWA C104

GRAPHIC SCALE

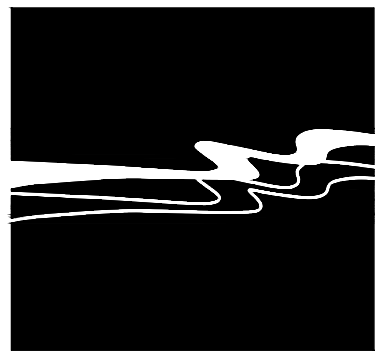
7.5 15

(IN FEET)

1 IN = 15 FT







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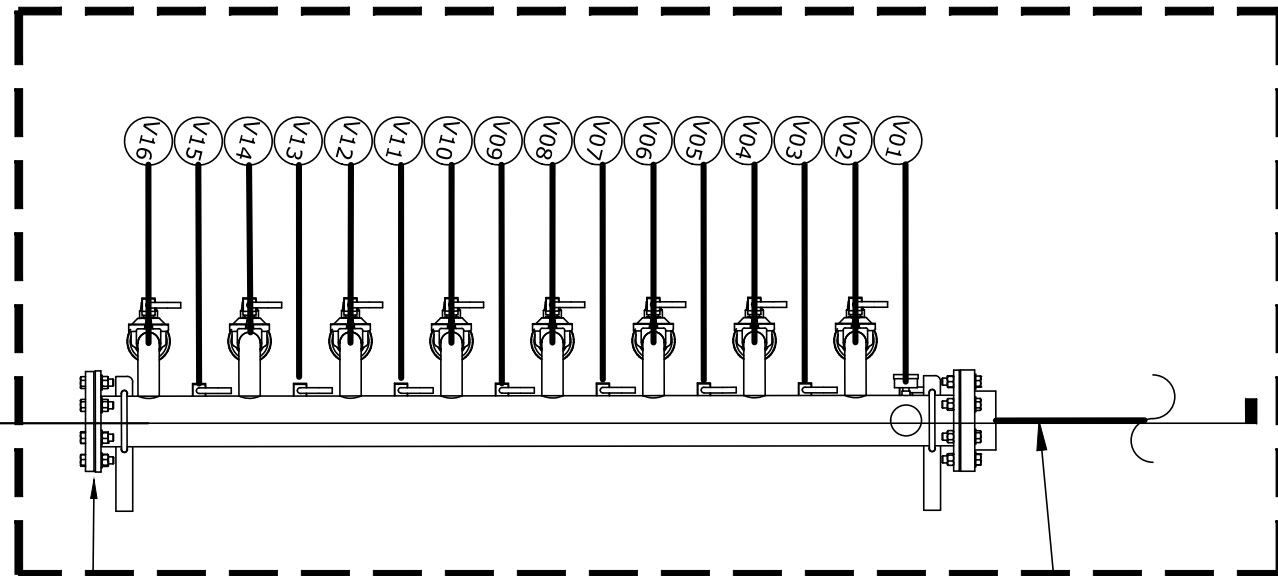
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HART PARK PROP 68 IMPROVEMENTS  
SPLASH PAD EFFLUENT PIPING OVERVIEW

### REFERENCE NOTES

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340	2" SCH80 PVC, WATER LINE 90-DEGREE ELBOW GLUED FITTING
341	2" BRASS WATER LINE ISOLATION VALVE IN CHRISTY G05 VALVE BOX
342	POWER SUPPLY 120V, 1Ø, 60HZ 16 AMPS
343	DSC-8-16 SEQUENCING CONTROLLER WALL MOUNTED
344	SPLASH PAD WATER SUPPLY LINES BY WATER ODYSSEY
345	SPLASH PAD COMBINED EFFLUENT PIPE BY WATER ODYSSEY
346	3" ROMAC FLANGED COUPLING ADAPTER WITH MJ GLAND
372	3" CL 350 DIP FLANGED 90 DEGREE BEND
373	3" DIP CL 350, PLAIN END X PLAIN END

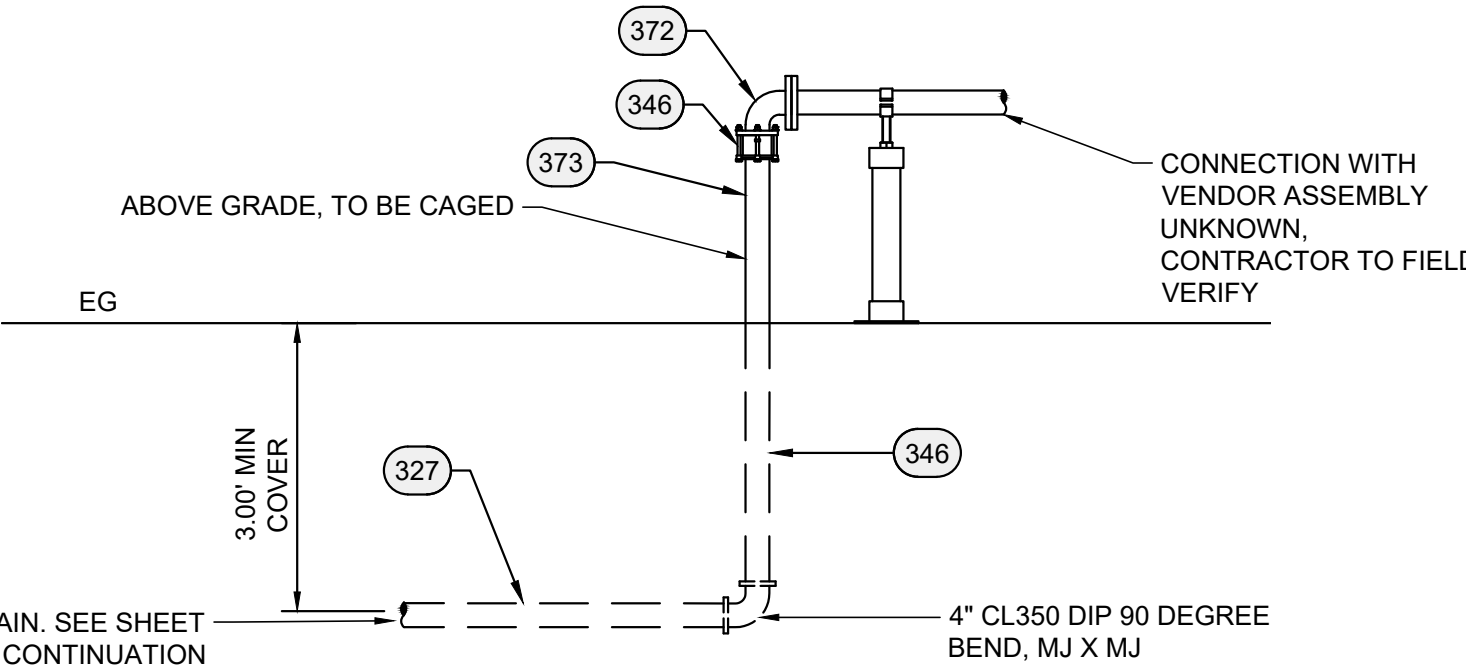
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CONTRACTOR TO FIELD  
VERIFY AND MAKE  
APPROPRIATE CONNECTION

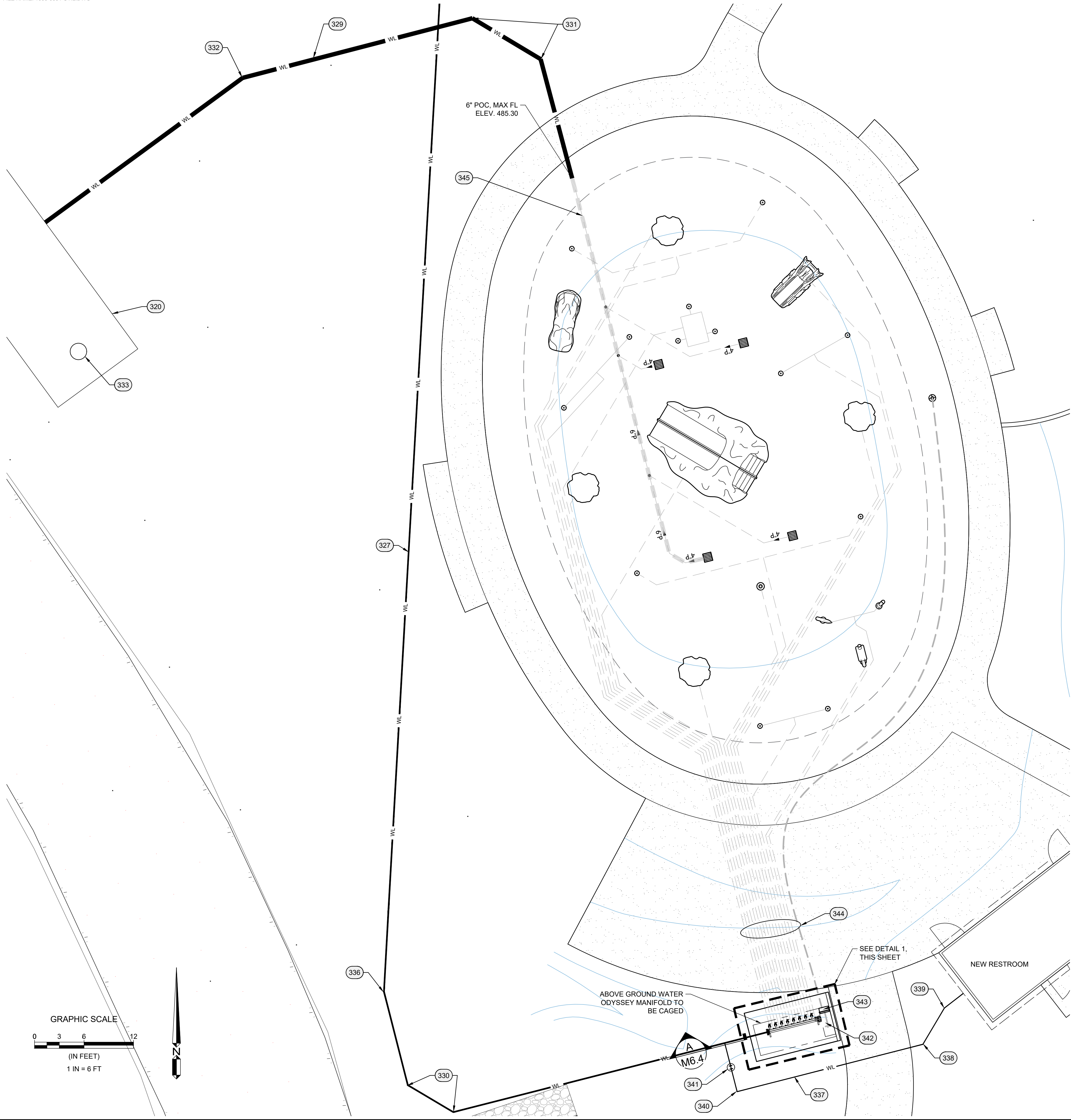
### 1 WATER ODYSSEY MANIFOLD DETAIL

NTS



### A WATER ODYSSEY MANIFOLD CONNECTION SECTION VIEW

NTS



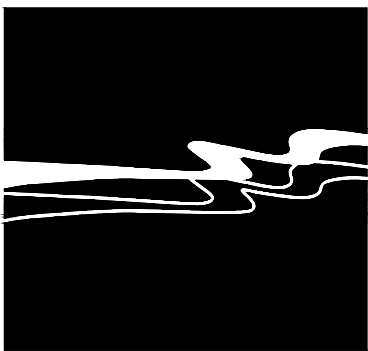


PUMP DESIGN	
PUMP TYPE	VERTICAL TURBINE
DESIGN FLOW (GPM)	150
DESIGN TOTAL DYNAMIC HEAD (FT)	191
SUCTION BELL DIAMETER (IN)	6.75
BARREL INSIDE DIAMETER (IN)	10
PUMP STATION PARAMETERS	
TOTAL WET WELL DEPTH (FT)	7

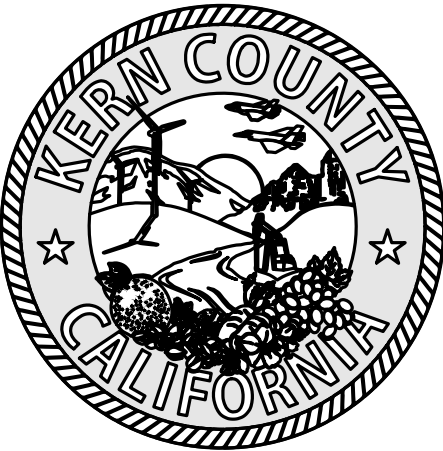
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334	4" SDR-35 PIPE WITH P-TRAP, 2% MIN. SLOPE TO TANK
335	18" X 18" DRAINAGE INLET, SEE DETAIL 3, SHEET C-6.8
347	PRESSURE SWITCH WITH 0-200 PSIG READOUT GAUGE (CONTROLS BY OTHERS)
348	4" PUMP CONTROL VALVE, CLA-VAL MODEL 60-11, FLANGED
349	4" AIR RELEASE AND VACUUM VALVE ASSEMBLY, FLANGED
351	FLANGE MOUNTED PIPE SUPPORT TO BE DESIGNED BY CONTRACTOR
352	4" FLANGED RESILIENT WEDGE GATE VALVE
353	4" DISMANTLING JOINT ROMAC DJ405
354	4" CL 350 DIP, FLANGED X PLAIN END
355	4" CL 350 DIP, 90-DEGREE ELBOW, FLANGED X FLANGED
356	4" STYLE 77 VICTAULIC COUPLING
357	4" CL 350 DIP, FLANGED X FLANGED TEE FITTING
360	LEVEL SENSORS. PRIMARY: PRESSURE TRANSDUCER IN STILLING WELL. BACKUP: HIGH AND LOW LEVEL FLOAT SWITCHES. (CONTROLS BY OTHERS)
361	4" RESTRAINED FLANGE ADAPTER, EBAA IRON 2100 MEGAFLANGE OR EQUAL
364	4" CL 350 DIP ELBOW. FLANGED TO VICTAULIC.
365	4" CL 350 FLANGED DI PIPE
367	4" CL 350 DIP FLANGED TEE
374	SUBMERGED PIPE SEAL PER DETAIL 6, SHEET C-6.7
376	6" X 4" CL 350 FLANGED DI ECCENTRIC REDUCER
377	A DEFERRED SUBMITTAL IS REQUIRED FOR THE PUMP ANCHORAGE. SEE SHEET S1.0 SECTION ENTITLED "NOTES ON EQUIPMENT ANCHORS/ANCHORAGE" FOR REQUIREMENTS.

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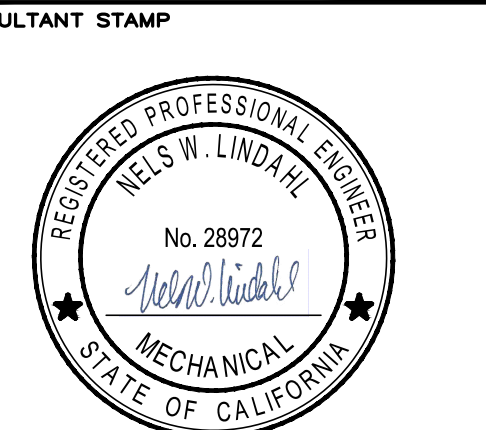
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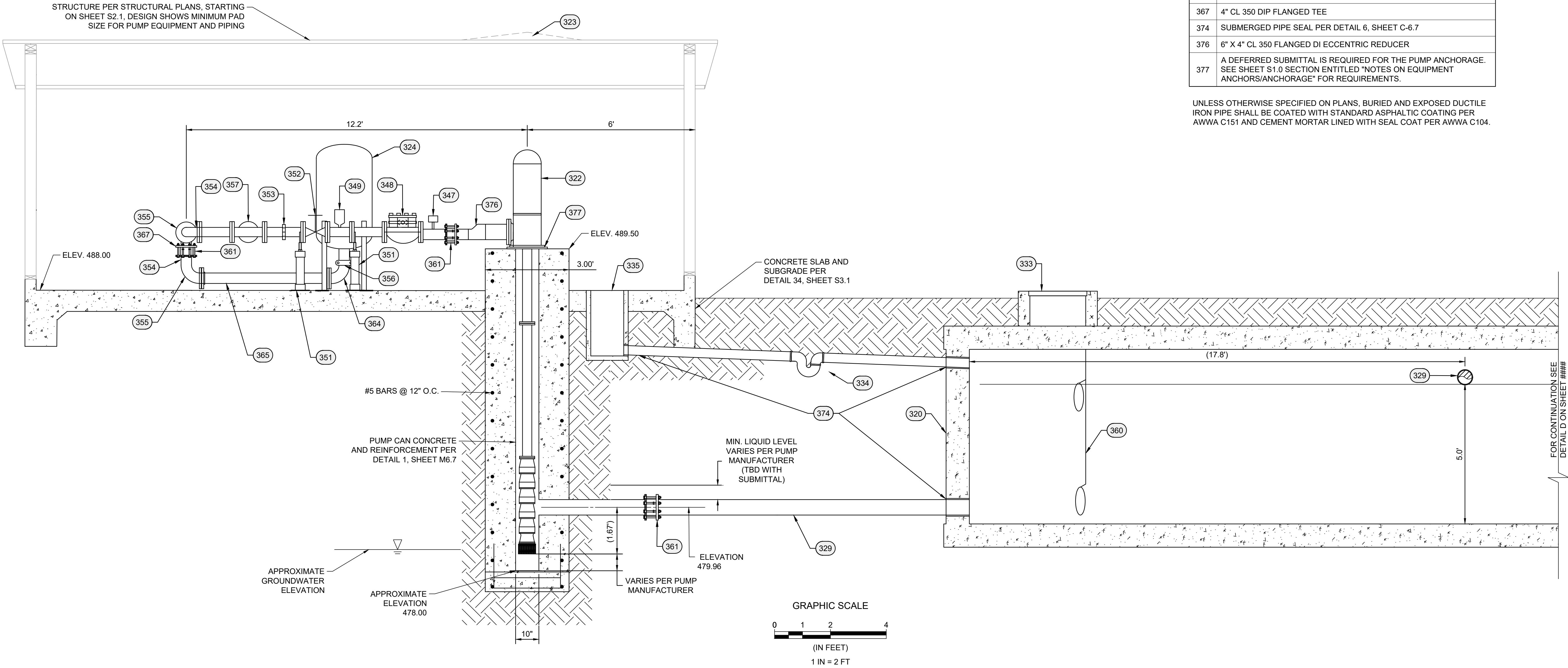
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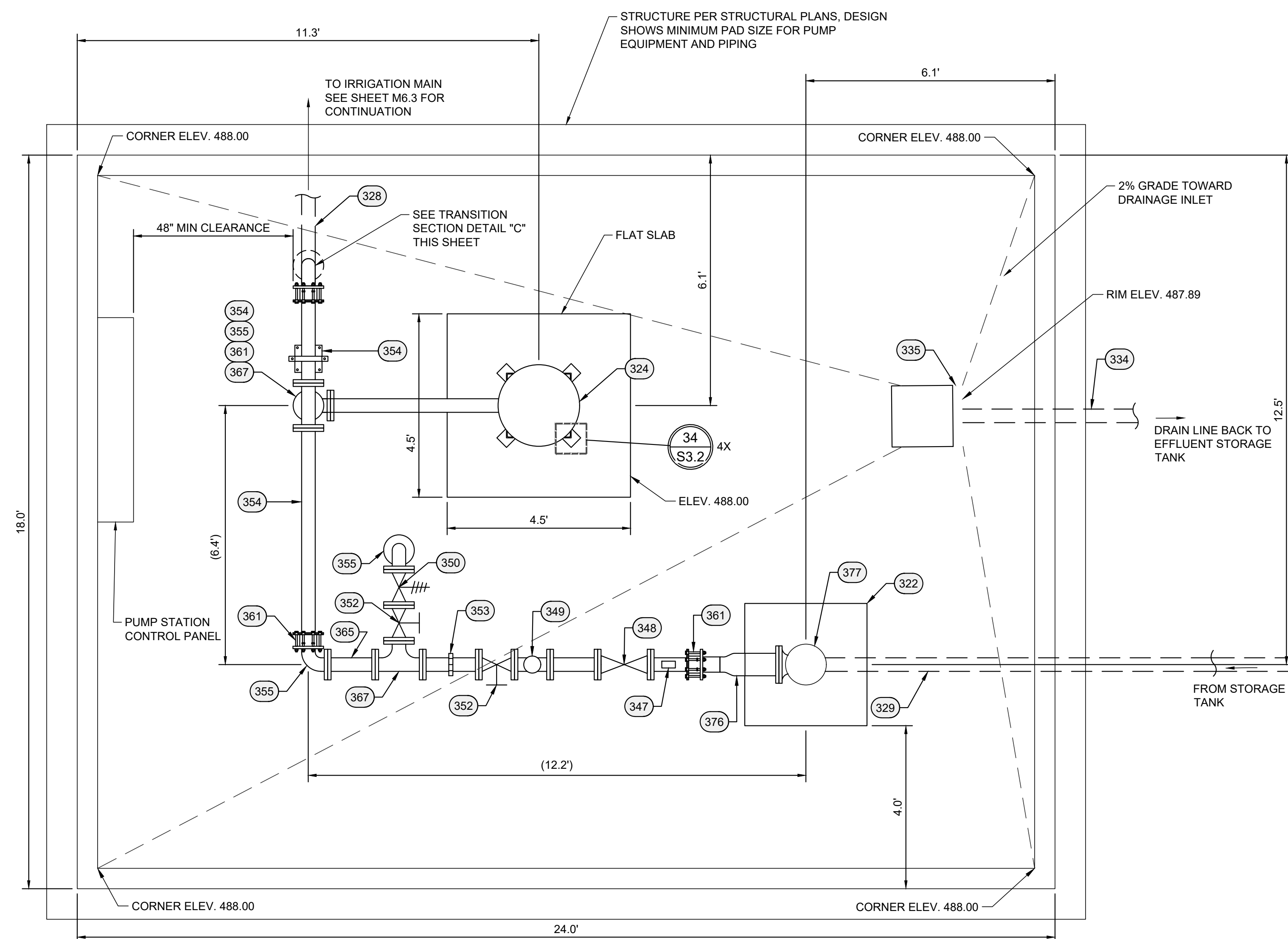
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DATE 5/29/2024	SHEET NO. M6.5
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JOB NO. 1650.7014-21	DRAWING FILE 20MM010
HART PARK PROP 68 IMPROVEMENTS PUMP STATION ELEVATION	

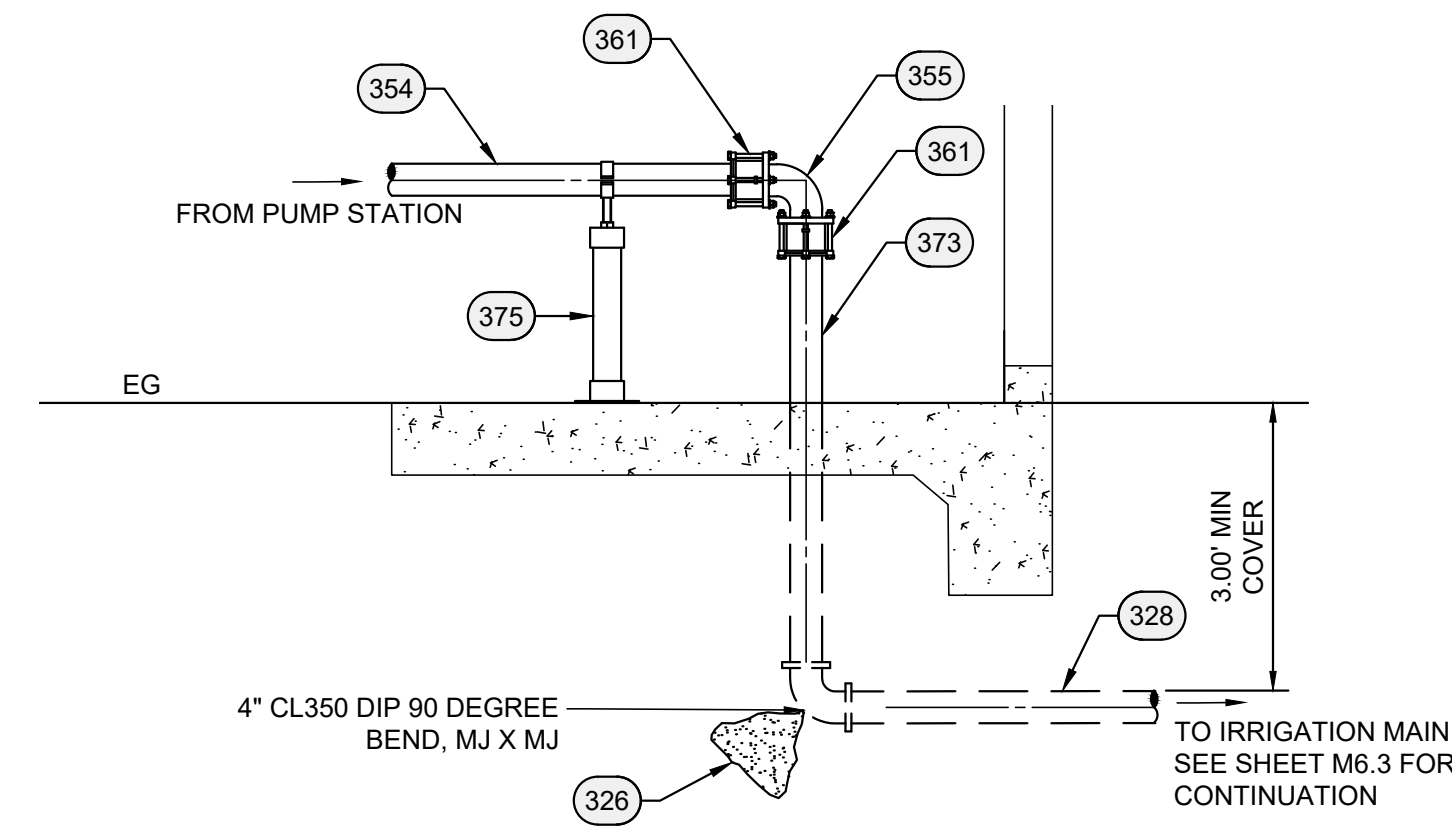


B PUMP HOUSE SECTION VIEW

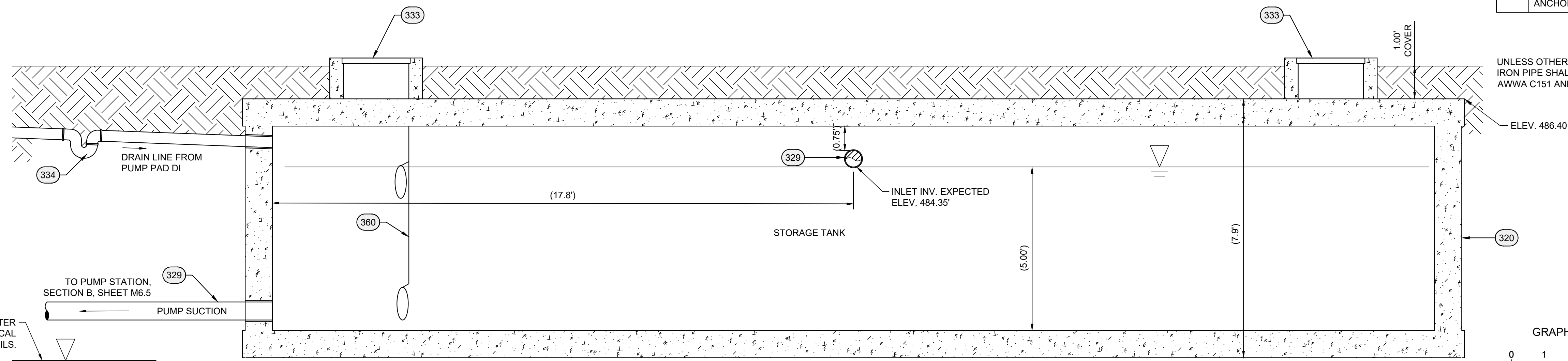
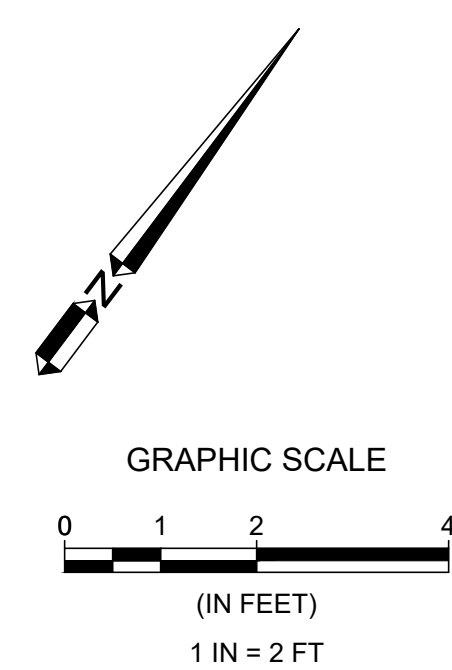




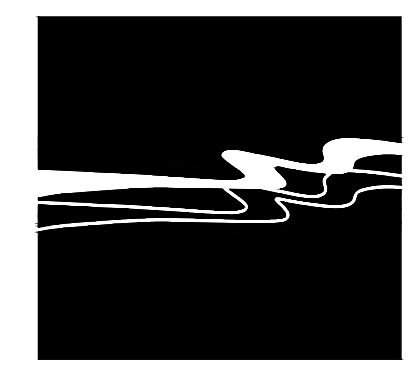
1 PUMP HOUSE PLAN VIEW



**C PUMP HOUSE PIPE TRANSITION SECTION**



**D STORAGE TANK SECTION VIEW**



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PARK ADVENTURE  
PLAY AREA

LEVEE & LAKE ROAD  
BAKERSFIELD, CA  
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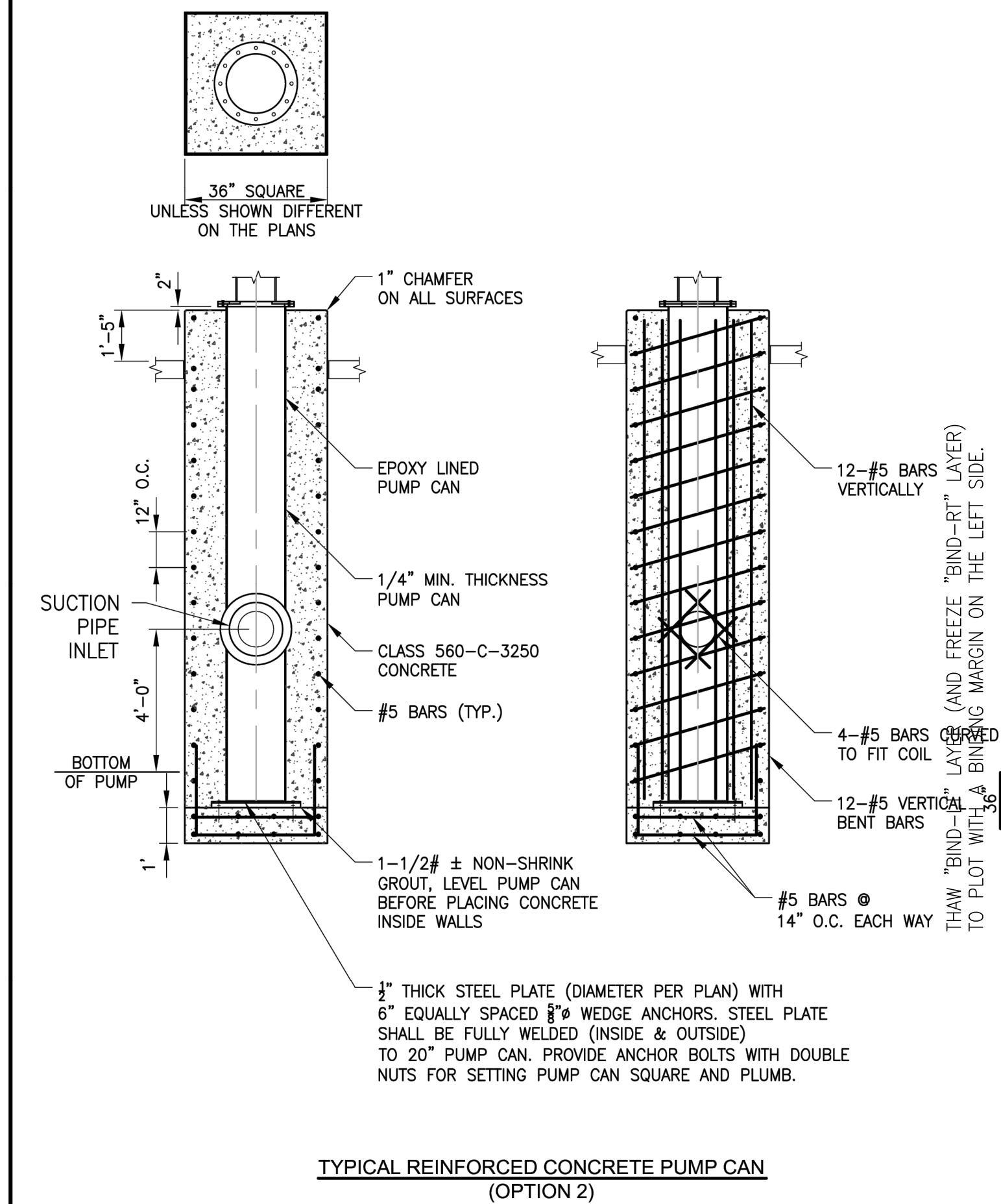
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JOB NO.	1650.7014-21	DRAWING FILE	20MM010
HART PARK PROP 68 IMPROVEMENTS			
PUMP PAD PLAN & TANK SECTION			

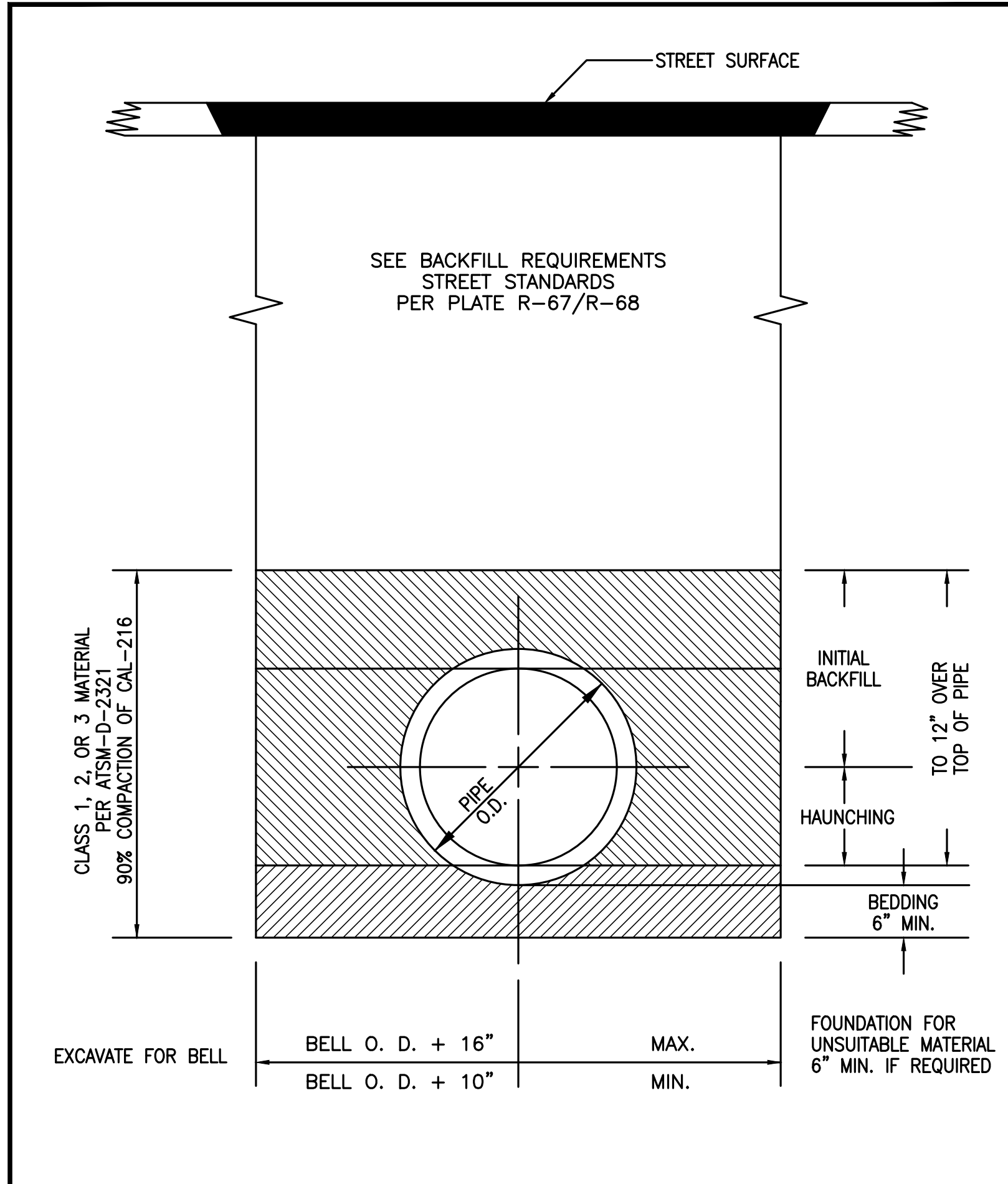




APPROVED BY: GSCC STANDARDS COMMITTEE		TITLE: <b>TYPICAL PUMP STATION BUILDING AND PIPING SECTION</b>
EDC MANAGER	10/16 DATE	SCALE: NONE DATE: 10/16 REV: 1.1 STANDARD DWG NO. PS-3E

1 REINFORCED PUMP CAN

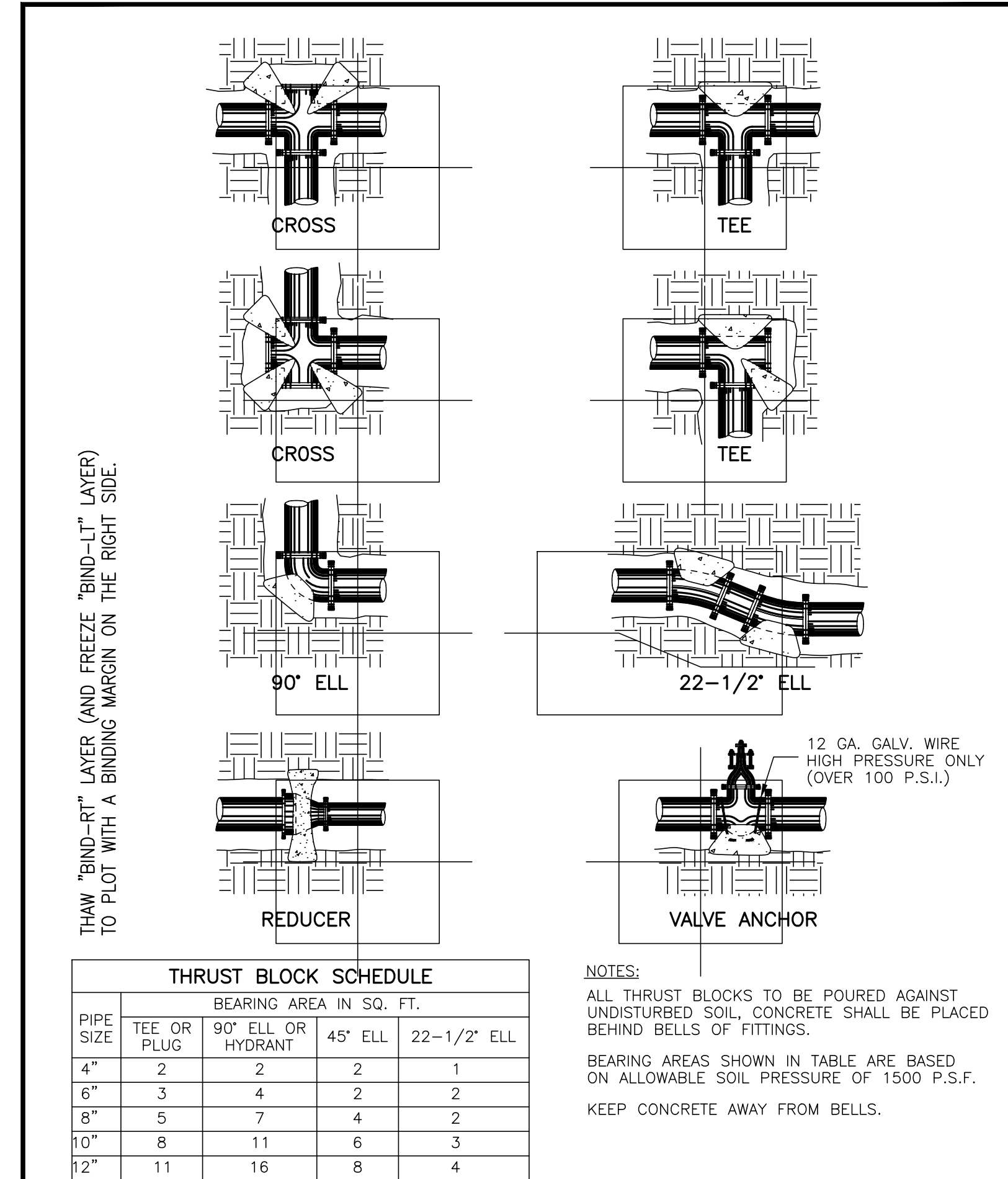
N.T.S.



PLOTTED:	DATE: 6-16-1995	COUNTY OF KERN STATE OF CALIFORNIA <b>DEVELOPMENT STANDARD</b>	PVC PIPE TRENCH SECTION IN PAVED AREAS	PLATE NO. W-4
Revisions Date Desc	DESIGNED BY: DRAWN BY: ALLUNA CHECKED BY: ROM			

2 TYPICAL PVC PIPE TRENCH SECTION

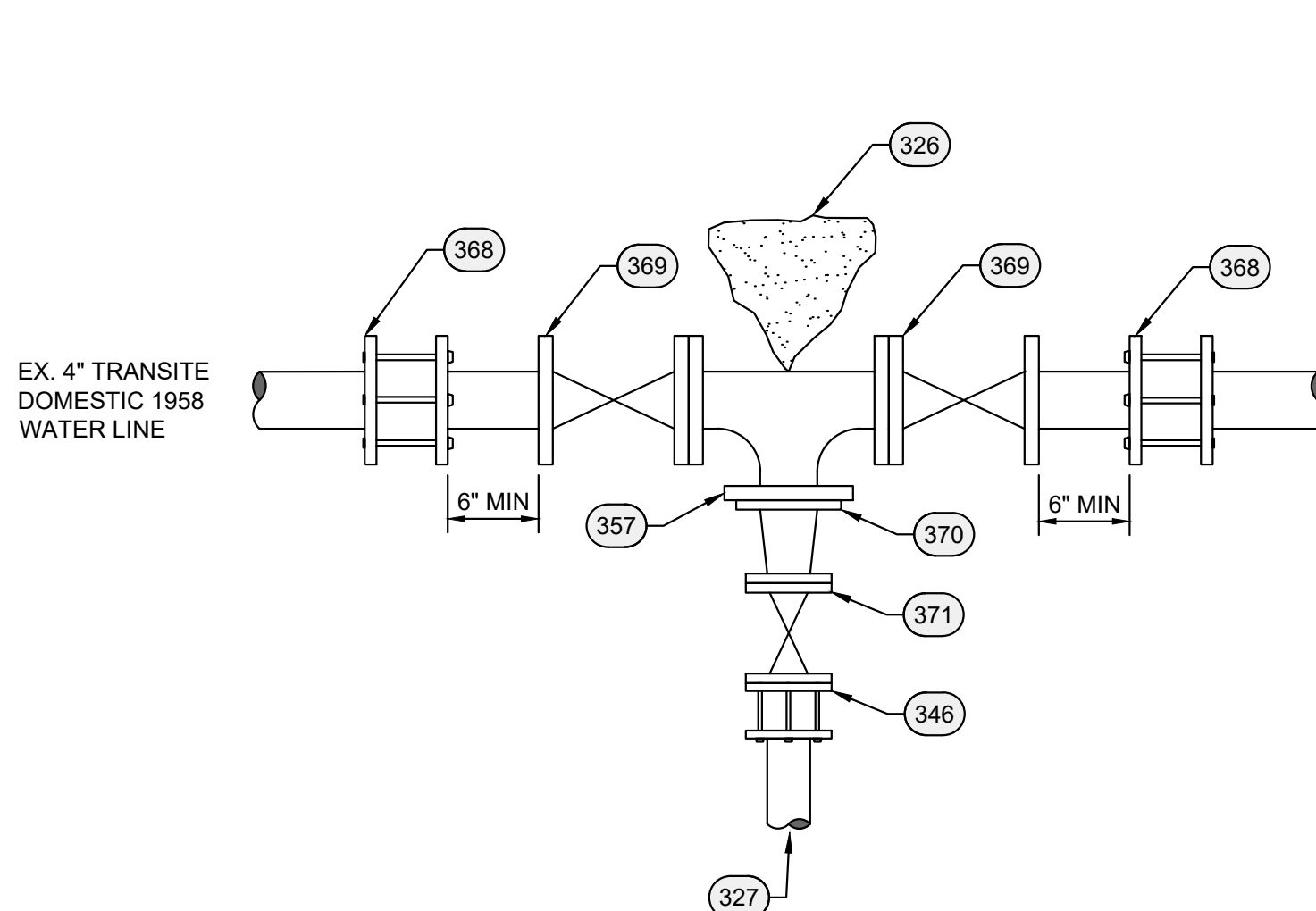
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PLOTTED:	DATE: 6-9-1995	COUNTY OF KERN STATE OF CALIFORNIA <b>DEVELOPMENT STANDARD</b>	TYPICAL THRUST BLOCK DETAILS	PLATE NO. W-3
Revisions Date Desc	DESIGNED BY: DRAWN BY: ALLUNA CHECKED BY:			

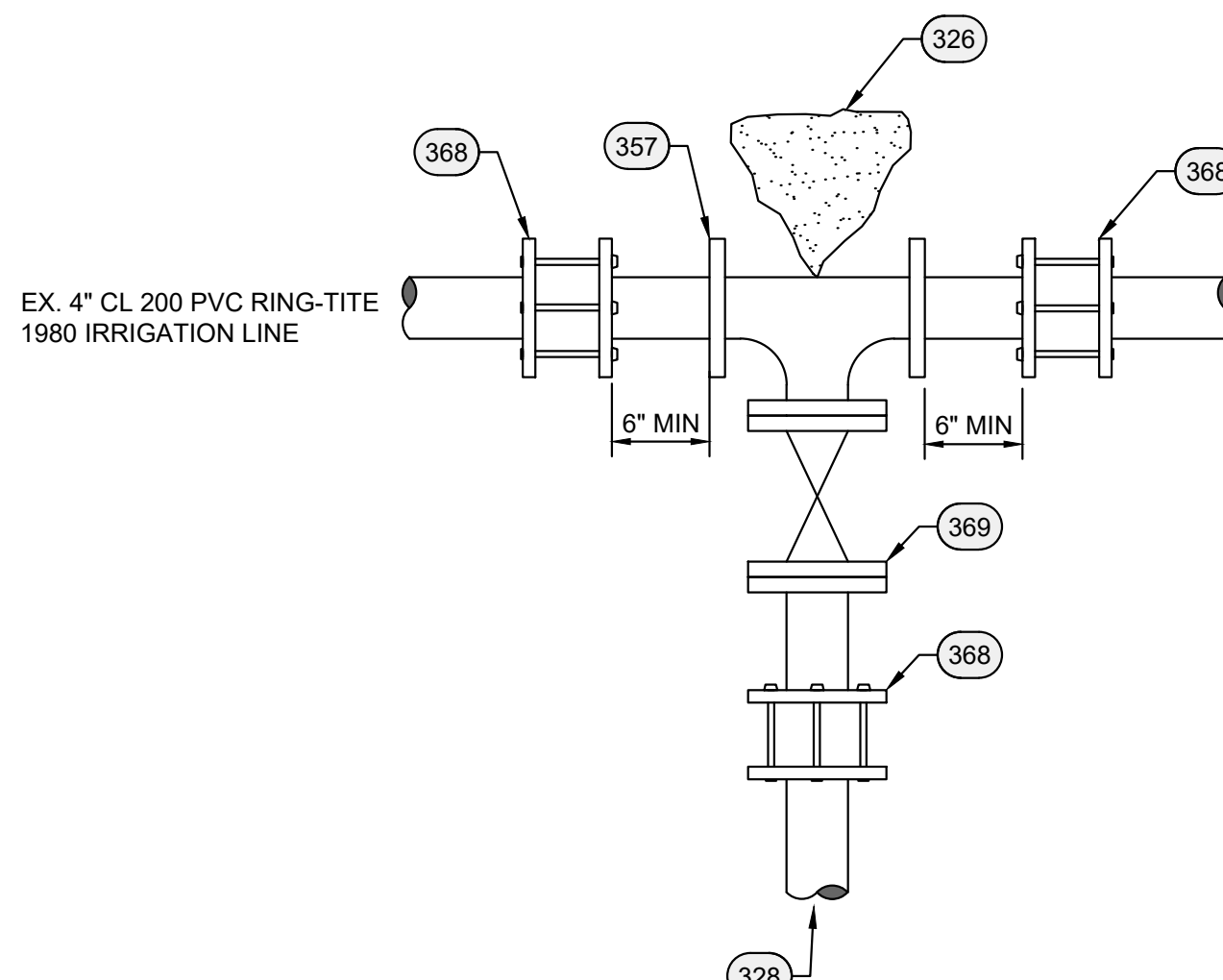
5 TYPICAL THRUST BLOCK DETAILS

N.T.S.



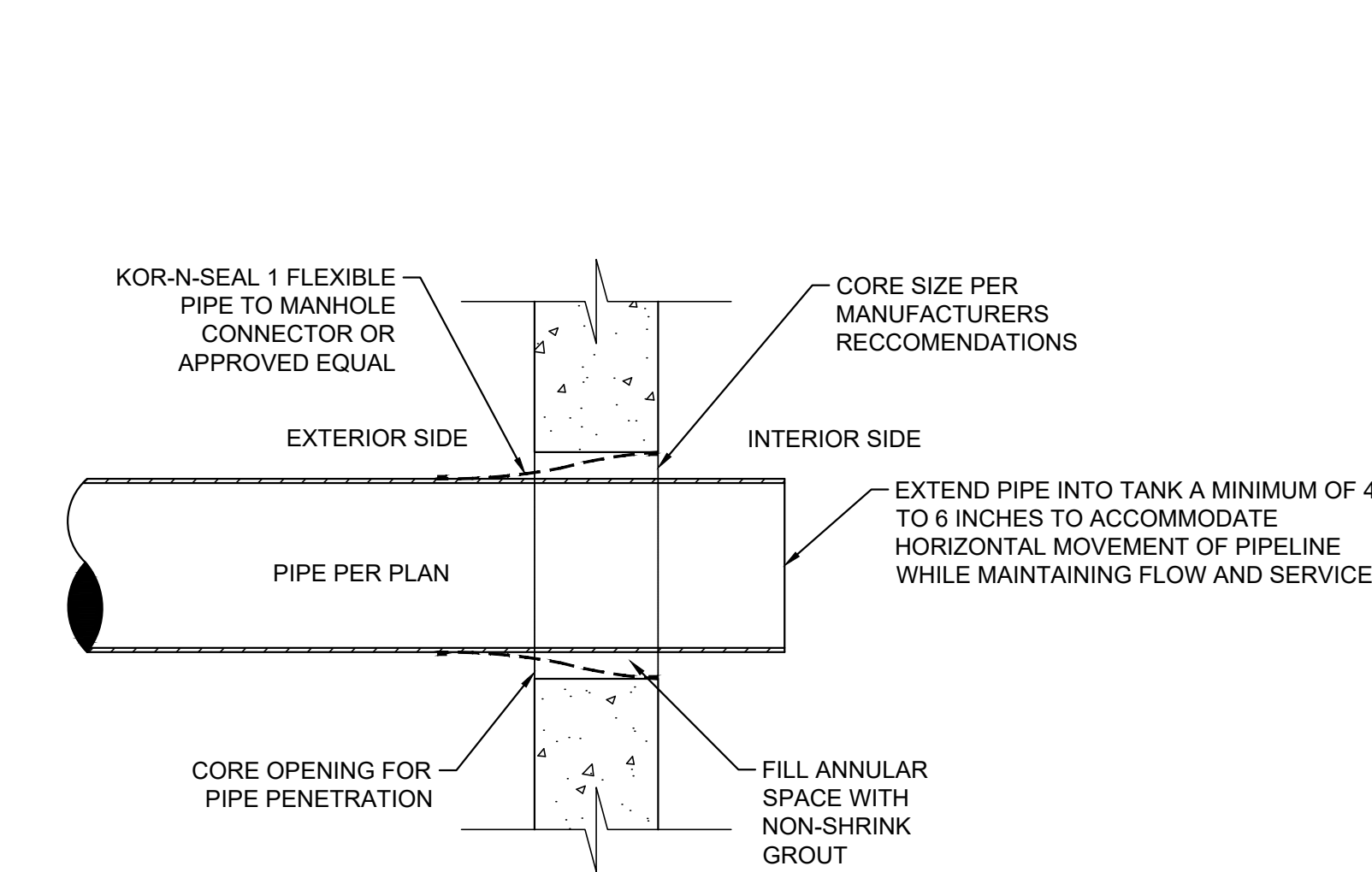
3 WATER MAIN TIE-IN

1"=1'



4 IRRIGATION LINE TIE-IN

1"=1'



6 SUBMERGED PIPE PENETRATION DETAIL

NTS

## REFERENCE NOTES

XXX	DESCRIPTION
300	PROPOSED FACILITIES
326	THRUST BLOCK, SEE DETAIL 5, THIS SHEET
327	3" CL200 C900 PVC PIPE
328	4" CL200 C900 PVC PIPE
346	3" ROMAC FLANGED COUPLING ADAPTER WITH MJ GLAND
357	4" CL 350 DIP, FLANGED X FLANGED TEE FITTING
368	4" SOLID SLEEVE COUPLING
369	4" GATE VALVE AND VALVE BOX, SEE DETAIL 4, SHEET C-6.8
370	3" X 4" CL350 DI CONCENTRIC FLANGED REDUCER
371	3" GATE VALVE AND VALVE BOX, SEE DETAIL 4, SHEET C-6.8



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PROJECT  
HART MEMORIAL  
PARK ADVENTURE  
PLAY AREA  
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RECOMMENDED FOR APPROVAL  
DEPARTMENT

DIRECTOR

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CONSULTANT STAMP

REGISTERED PROFESSIONAL ENGINEER  
NELS W. LINDAHL  
No. 28972  
MECHANICAL  
STATE OF CALIFORNIA

DATE	REV	DESCRIPTION

DATE 5/29/2024	SHEET NO. M6.7
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HART PARK PROP 68 IMPROVEMENTS  
PUMP & PIPING DETAILS



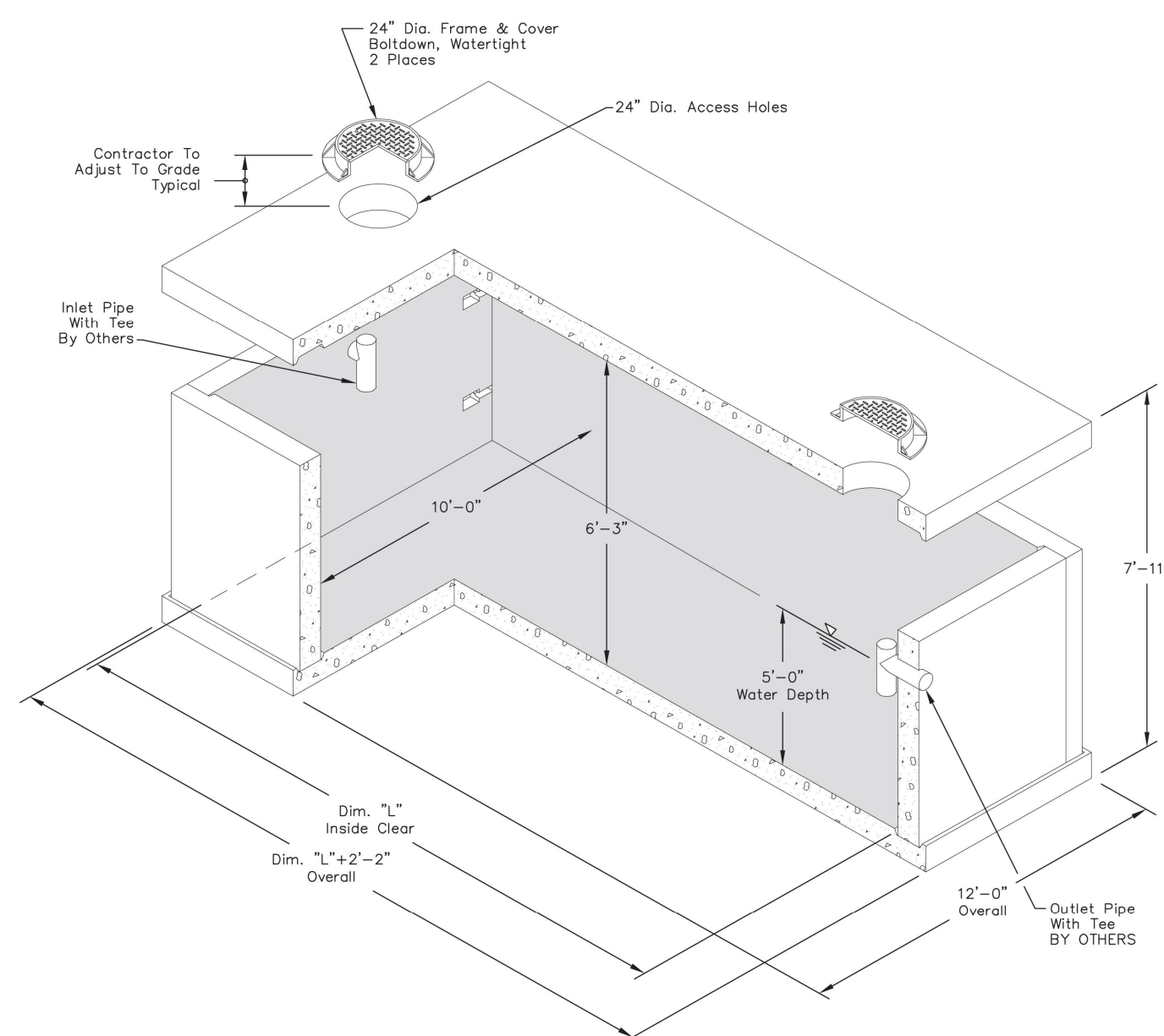
REMOVED. SEE STRUCTURAL PLANS FOR DETAILS

## 1 CONCRETE SLAB AND SUBGRADE

 $1'' = 1$ 

## Delivering Reliability

## HOLDING TANK PANEL VAULT SYSTEM



HOLDING TANK SIZING CHART									
GALLONS	5000	6000	7000	8000	9000	10000	11000	12000	13000
DIM. "L"	14'-0"	16'-6"	19'-0"	22'-0"	24'-6"	27'-0"	30'-0"	32'-6"	35'-6"

Items Shown Are Subject To Change Without Notice  
Issue Date: April 2016

150

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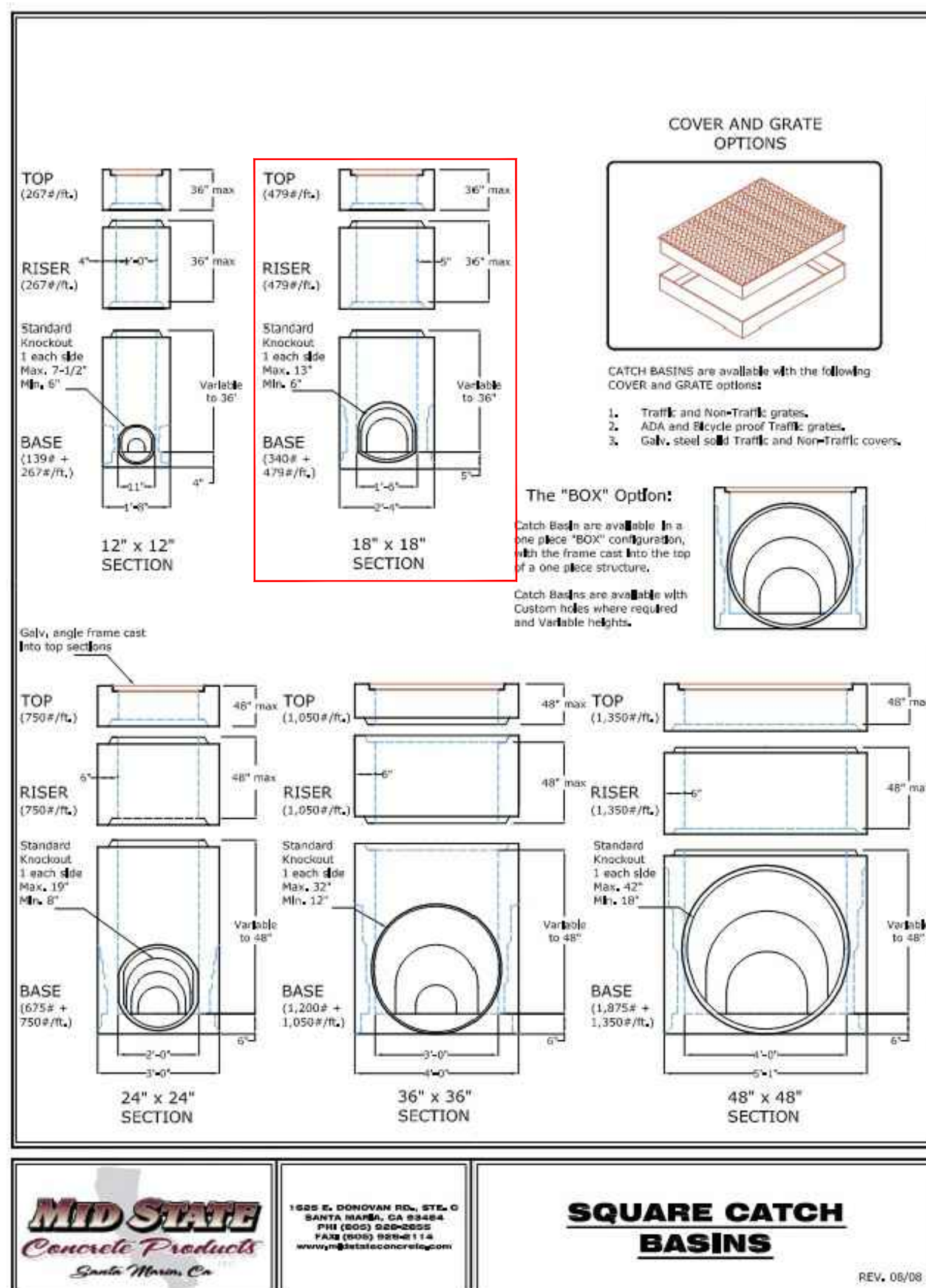
**Mailing Address**  
PO Box 588  
Auburn, WA 98071

**Phone:** 800-892-1538  
**Fax:** 253-735-4201  
**Email:** [cpauburn@oldcastle.com](mailto:cpauburn@oldcastle.com)

**opauburn.com**

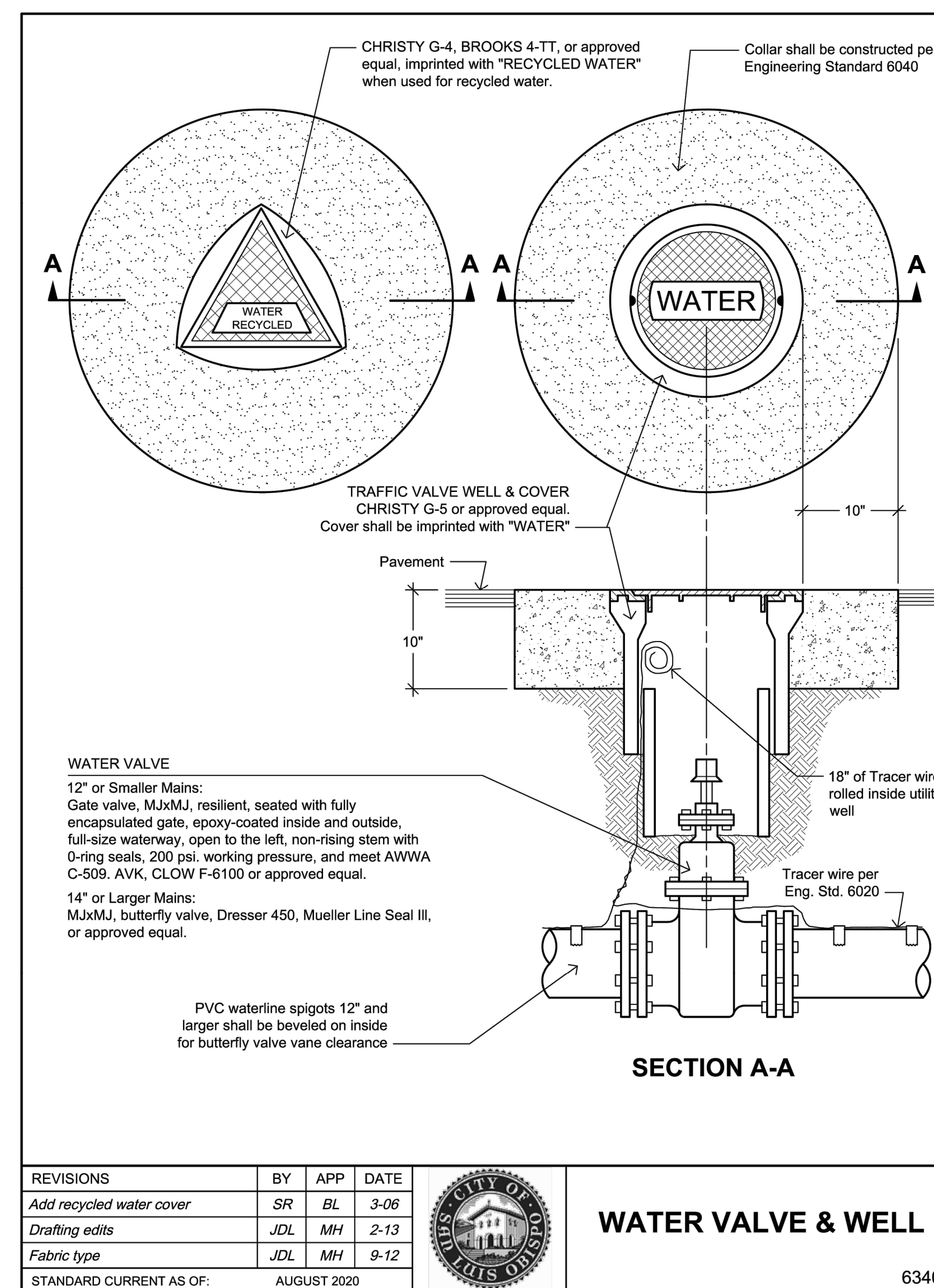
2 EFFLUENT STORAGE TANK VENDOR DETAIL FOR REFERENCE ONLY

NOTE: TANK VENDOR DETAIL FOR REFERENCE ONLY, CONTRACTOR TO SUBMIT PRE-CAST TANK DESIGN FOR APPROVAL PRIOR TO CONSTRUCTION.

$$1^m = 1$$


2 CATCH BASIN VENDOR DETAIL FOR REFERENCE ONLY

NTS



④ WATER VALVE WELL & COVER

NTS



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## HART MEMORIAL PARK ADVENTURE PLAY AREA

LEVEE & LAKE ROAD  
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93308

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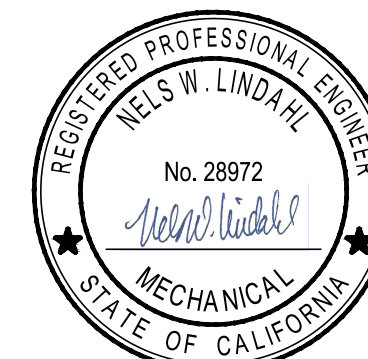
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JOB NO. 1650.7014-21	DRAWING FILE 20MM010
HART PARK PROP 68 IMPROVEMENTS DETAIL SHEET	



GENERAL STRUCTURAL NOTES

GENERAL

1. The Contractor shall verify all dimensions and conditions at the job site prior to starting construction. Notify the Engineer immediately if any discrepancies or inconsistencies are found.
2. Details shown on the structural drawings are typical. Similar details apply to similar conditions. In the event certain aspects of the work are not fully detailed on the drawings or specified in these structural notes, the construction shall be of the same character as for similar conditions that are shown or specified and shall be reviewed by the Engineer.
3. Existing conditions shown on these drawings are to be field verified by the Contractor as the work progresses. Notify the Engineer immediately if existing conditions are discovered which are different than those shown. Construction shall not proceed until written instructions have been received from the Engineer.
4. Notes and details on the drawings shall take precedence over these general notes and typical details. Dimensions shown on the drawings shall take precedence over scale.
5. Where there are discrepancies or conflicts between the drawings, notes, and specifications the stricter requirement shall apply unless directed or confirmed with the Architect and Engineer.
6. These structural drawings and general notes represent the finished structure. Unless otherwise indicated, they do not specify the method of construction. The Contractor shall provide all measures necessary to protect the structure, workers and other persons during construction. Such measures shall include, but not be limited to, bracing of sufficient strength and stiffness to resist all loads, including wind and seismic loads, imposed on all elements of the structure; shoring for the building, construction equipment, earth banks and retaining walls; forms, scaffolding and planking. These protective measures are the sole responsibility of the Contractor and site visits by the Engineer will not include observation of said measures. Construction materials placed on framed roofs or floors shall be spread out and the resulting loads shall not exceed the design live load for each level.
7. Openings, pockets, etc. shall not be placed in slabs, foundations, walls, beams, columns, joists, etc. unless specifically detailed on the structural drawings.
8. All phases of the work shall conform to the minimum standards of the 2022 California Building Code (CBC), these structural notes, and all local ordinances.
9. All ASTM specifications noted on these drawings or general notes shall be of the latest revision.
10. Prefabricated/manufactured assemblies shall be designed to support themselves, and the assumed loads acting on them. Actual field dimensions shall be verified prior to ordering products. Material specifications, fabrication procedures, and installation recommendations to be per manufacturer, and as noted in these plans.
11. Special inspection in accordance with Section 1704 of the CBC shall be provided by a qualified person who is acceptable to the Engineer and Building Department for the following types of work:
- See Statement and Schedule of Special Inspection.
12. The contractor shall contact the Engineer a minimum of 48 hours prior to reaching the following stages of the work:
- a) Placing of concrete.  
b) Steel framing erected.  
c) All structural work completed.

FOUNDATION

1. Foundation design based on soil investigation by BSK Associates Report No. 000-000-166, dated December 12, 2022.
2. Allowable soil bearing values and foundation design are based on soil conditions shown by test borings. Actual soil conditions which deviate appreciably from that shown in the test borings or buried structures found during earthwork operations shall be reported to the Engineer immediately.
3. All site work and grading shall be done in accordance with the Geotechnical Investigation Report.
4. All foundations shall bear in uniform material.
5. Excavations for foundations shall conform to the lines and dimensions shown on the drawings. Remove all loose material and debris from excavations and de-water excavations as required to maintain dry working conditions. The Soils Engineer shall approve all site work and foundation excavations prior to installing reinforcing steel or placing concrete.
6. The Soils Engineer shall approve all backfill materials prior to placement and observe backfill operations.
7. The bottom of all footings shall be horizontal. Where adjoining footings bear at different elevations the bottom of the footings shall be stepped as detailed on the drawings.
8. The Soils Engineer shall approve drilled pile excavations prior to placing concrete.

CONCRETE

1. All concrete work shall be performed in accordance with the latest edition of the ACI Building Code (ACI 318) and the latest edition of the ACI Manuals of Concrete Practice.
2. Floor/slab flatness and levelness requirement shall be determined by the architect or owner. Testing as required to verify floor/slab flatness and levelness shall conform to ASTM E1155.
3. Submit concrete mix designs to Engineer for review.
4. Concrete strength: 4000 psi @ 28 days
5. Minimum cement content: 6.0 sacks per yard
6. Maximum water-cement ratio: 0.49 - max water to cement ratio = 0.43 if pouring slab directly on vapor retarder
7. Aggregate size: 1". Provide the maximum ratio of coarse aggregate to fine aggregate consistent with placing requirements.
8. Maximum slump: 4-1/2" per ASTM C143.

Concrete materials:

- a) Cement: Portland Type II, ASTM C150.  
b) Coarse aggregate: ASTM C33.  
c) Fine aggregate: ASTM C33. Reactivity ratio Sc/Rc shall not exceed one (1) per ASTM C269.  
d) Water: potable.  
e) Ready mixed concrete: ASTM C94.  
f) Water reducing admixture: As required, submit to EOR for review.  
g) Air entraining admixture (recommended): Provide between 2% and 4% of entrained air, submit product to EOR for review. Air entraining admixture is recommended for all concrete except hard troweled slabs.
10. Reinforcing materials:  
a) ASTM A615 Grade 60.  
b) Welded wire fabric: ASTM A1064  
c) Reinforcing for welded inserts: ASTM A706 Grade 60. All bars to be welded shall be marked with a W to designate weldability.  
d) Cold drawn spiral reinforcing: ASTM A1064.
11. Miscellaneous materials:  
a) Sand base under slab on grade: Clean sand with less than 3% passing the #200 sieve and no deleterious material content.  
b) Capillary break base under slab on grade: Clean, coarse sand and/or gravel with 100% passing the 1" sieve, 0-20% passing the #16 sieve, and 0-3% passing the #200 sieve, and no deleterious material content.  
c) Vapor retarder: Per Geotechnical Report, 15 mil STEGO Wrap or approved equal.  
d) High-strength grout and/or drypack: Non-shrink, non-metallic aggregate type per ASTM C1107. Minimum compressive strength of 7,000psi at 28 days when placed in a fluid state. Mix and apply as directed by manufacturer. BASF Masterflow 928 or approved equal.  
e) Curing compounds: Water based liquid membranes conforming to ASTM C309 when tested in accordance with ASTM C156: EUCLID Aqua-Cure or approved equal.  
f) Expansion joint material: Conform to ASTM D-1751.  
g) Joint Sealant: Sikaflex - 1c SL

12. Welding of reinforcing steel: Reinforcing steel shall not be welded unless specifically detailed on the drawings or directed by the Engineer. All welding of reinforcing steel shall be in accordance with the latest edition of "Recommended Practice for Welding Reinforcing Steel, Metal Inserts, and Connections in Reinforced Concrete Construction" by the AWS (AWS D1.4). Use low hydrogen E80xx or E90xx electrodes for welding of reinforcing steel.
13. Lap splices: See Schedule.
14. Cover to bars: See Schedule.
15. Concrete curing: Keep concrete continuously wet for 7 days or apply curing compound in strict accordance with manufacturer's printed instructions.
16. Form removal: Remove forms in accordance with the following schedule:  
a) Side forms of footings: Minimum 2 days.  
b) Edge forms of slab on grade strips: Minimum 1 day.  
c) Side forms of joists, beams, and girders: Minimum 3 days.  
d) Walls and columns: Minimum 10 days.
17. Vibration: Vibrate all concrete in place with a mechanical vibrator used by experienced personnel.
18. Outside diameter of conduit or pipe embedded in slab shall not exceed 30% of slab thickness, or 1-1/2", whichever is smaller, unless specifically detailed otherwise. All conduits or pipes larger than the 1-1/2" or 30% slab thickness (O.D.) shall be placed under the slab. Conduits can be grouped in pairs. Minimum clear distance between single conduits or pairs shall be 6". Conduits shall be wrapped in a manner suitable to provide a bond break, and allow concrete expansion/shrinkage.
19. Projecting corners of walls, beams, columns, etc. shall be formed with a 3/4" chamfer unless specifically noted otherwise.
20. Testing:  
a) Laboratory: The Owner shall retain the services of a Testing Laboratory where samples will be tested in accordance with these structural notes and the applicable standards of the ASTM. Work under this division (to be performed by the Contractor) includes the taking and storage of samples and their delivery to the laboratory.  
b) Minimum samples: Make a minimum of 3 test cylinders for each day's pour, and as required by ACI 318.  
c) Minimum testing of samples: Test cylinders as follows: 1 at 7 days, and 2 at 28 days.  
d) Test reports: A copy of all test reports shall be submitted to the Engineer.
21. Shop drawings: Submit to the Architect and Engineer for review. No reinforcing shall be placed until reviewed shop drawings have been received on the job. Shop drawings shall consist of both cut and placing sheets. Placing sheets shall contain all information required to position all reinforcing steel without having to refer to the structural drawings.

CONCRETE BLOCK MASONRY

1. Concrete block masonry units: Hollow medium weight aggregate single or double open end bond beam units conforming to ASTM C90 Grade N, Type I. For color and exterior finish, refer to Architectural drawings. Minimum f'm = 2000 psi.
2. Mortar:  
a) Strength: 2500 psi @ 28 days (ASTM C270).  
b) Composition: Type M with Portland cement in accordance with CBC  
c) Slump: 2-1/2" to 3".
3. Grout: Transit mix.  
a) Strength: 2500 psi @ 28 days.  
b) Composition: Submit mix design to Engineer for review; minimum 7 sacks of Portland cement per yard; 60% fine aggregate and 40% coarse aggregate.  
c) Admixture: Sika Grout Aid, Type 2, used in accordance with the manufacturer's printed instructions.  
d) Consistency: Grout shall be of fluid consistency and shall be pumped into place.

Reinforcing materials

- a) ASTM A615 Grade 60.  
b) Reinforcing for welded inserts: ASTM A706. All bars to be welded shall be marked with a W to designate weldability.

5. Grouting operation: All masonry walls shall be grouted using high lift grouting procedure in accordance with the latest revision of IR 24-4 produced by the California Office of the State Engineer. Masonry units shall be dry at the time they are grouted. Red tape will be wrapped around the vibrator shaft at the start of each lift such that the tape will be even with the top of the wall being poured when the vibrator has penetrated half way into the previous lift.

6. Lap splices of reinforcing steel per schedule, unless noted otherwise.

7. Shop drawings: Submit reinforcing steel shop drawings to the Engineer for review. No reinforcing shall be placed until reviewed shop drawings have been received on the job. Shop drawings shall consist of both cut and placing sheets. Placing sheets shall contain all information required to position all reinforcing steel without having to refer to the structural drawings.

STRUCTURAL STEEL AND MISC METALS

1. See Architectural drawings for finishes on steel framing. Steel exposed to weather shall be primed and painted with a high-performance exterior coating approved by the Architect and Engineer or hot-dip galvanized (see below), unless noted otherwise.
2. Materials, unless noted otherwise:  
a) Wide flange shapes: ASTM A992.  
b) Tubular shapes (Rectangular & Round): ASTM A500 Grade C.  
c) All other structural steel: ASTM A36.  
d) All-thread rod: ASTM F1554.  
e) Bolts: ASTM A307.  
f) Nuts: ASTM A563A.  
g) High strength bolts: ASTM F3125 A325-N.  
h) High strength nuts: ASTM A563DH.  
i) High strength bolt washers: ASTM F463 Type 1.  
j) Welded headed studs: ASTM A108.  
k) Welding filler metal classification strength: 70 ksi  
l) Stainless steel plate: Type 304 or 316.  
m) Stainless steel all thread rods and bolts: As noted on plan and details.  
n) Stainless steel nuts: At F593 ATR use: ASTM F594 CW1 or CW2 (316) At A193 ATR use: ASTM A194 Grade 8.
3. Installation of high strength bolts: In accordance with AISC "Specification for Structural Joints Using ASTM A325 or A490 Bolts" turn-of-nut method.
4. Holes for bolts & threaded rods shall be standard size and nuts/bolts shall be installed Snug Tight per AISC, unless noted otherwise.
5. All welds to conform to AWS D1.1 and shall use prequalified welding procedure specifications (WSPs). The Engineer shall be notified where alternate qualification of the weld process are required.
6. Copes and weld access holes shall conform to AWS D1.1 for tension regions at all locations.
7. Cable railing: Cable railing shall be stainless steel wire rope (sswr) 1x19, Type 304 or 316. Tension cables to force specified on plans and details. Terminate cables on end posts with threaded terminal with nuts & washers or washer-nuts. Connect cable to threaded terminal with connection (machine swage, etc) to match cable break strength. At cable penetrations in railing post isolation bushing or grommets may optionally be provided.
8. Galvanizing: Steel sections, assemblies, and miscellaneous iron angles, clips, connection hardware, and other elements exposed to weather shall be hot-dip galvanized. Hot-dip galvanized steel framing shall be per ASTM A123 Class 55 minimum. Hot-dip galvanized connection hardware shall be per ASTM A153 or F2329. High-strength bolts per ASTM F3125 A325 may be mechanically galvanized per ASTM B695 Class 55. Mating bolts and nuts shall receive the same zinc-coating. Repair all uncoated, damaged, or altered galvanized surfaces per ASTM A870. Where field welds are specifically called out, remove zinc completely in the area of the weld. Do not water quench galvanized members and assemblies.
9. Shop drawings: Submit to the Architect and Engineer for review. Shop and erection drawings shall contain all information required to install all structural steel without having to refer to the structural drawings. Where member or assemblies are required to be galvanized, shop and erection drawings shall also indicated size and location of drain holes as required per ASTM A385.

COLD-FORMED STEEL

1. Reference Standards:  
a) AISI "North American Specification for the Design of Cold-Formed Steel Structural Members"  
b) AISI "Standard for Cold Formed Steel Framing - General Provisions"  
c) AISI "Standard for Cold Formed Steel Framing - Floor and Roof System"  
d) AISI "Standard for Cold Formed Steel Framing - Header Design"  
e) AISI "Standard for Cold Formed Steel Framing - Wall Stud Design"  
f) AISI "Standard for Cold Formed Steel Framing - Lateral Design"  
g) AWS D1.3 "Structural Welding Code - Sheet Steel."
2. Materials:  
a) Structural Sections:  
• 54, 68 and 97-mil; ASTM A1003 Grade 50 Type H or ASTM A653 S5 Grade 50 Class 1, Min Fy = 50 ksi.  
• 33 and 43-mil; ASTM A1003 Grade 33 Type H or ASTM A653 S5 Grade 33 Class 1, Min Fy = 33 ksi.  
• "Z" or "C" Metal Building or Canopy Purlins or Girts; ASTM A653 Grade 55 (fy = 55 ksi)  
b) Sheet Metal Screws: Grabber, Buildex, or Simpson Strong-Tie Self-Drilling, #10 screws unless noted otherwise on drawings; ASTM C1513 or SER approved alternate.  
c) Powder-Actuated Fasteners to Steel: Simpson Strong-Tie PDPAT in accordance with ICC ESR-2138  
d) Powder-Actuated Fasteners to Concrete: Simpson Strong-Tie PDPAT in accordance with ICC ESR-2138, with 3/8" embedment unless noted otherwise.  
e) Weld Material: E60XX electrodes conforming to AWS D1.3  
f) Studs and Track shall be galvanized in accordance with ASTM A653 G60, unless in contact with pressure treated wood. If in contact with pressure treated wood, use G90 or greater coatings. Fastenings not shown on the drawings shall be as recommended by the manufacturer.

3. Size and Profile: Cold-formed steel framing members shall be as specified in the Steel Stud Manufacturers Association ICC ESR-3064P and of the size and profile as shown on the drawings. Alternate members equivalent in shape, size, and strength by manufacturers not members of the Steel Stud Manufacturer's Association shall be subject to review and approval by the Architect / Engineer.
4. Connectors and Fasteners: Connectors shall be installed per the manufacturer's instructions. All screws shall be snug with the steel surface and shall penetrate into steel studs by a minimum of three exposed threads. Connections shall not be stripped. Screws, 3/4" or smaller, shall be installed a minimum of 3/8" from steel edges and with no less than 3/4" o.c. spacing.

When fastening to structural steel, Powder Actuated Fasteners shall be installed a minimum of 1/2" from steel edges and with no less than 1" o.c. spacing. When fastening to concrete, Powder Actuated Fasteners shall be installed a minimum of 3/4" from concrete edges and with no less than 5" o.c. spacing. Powder Actuated Fasteners shall not be used for hanging applications.

5. Full-Height Non-Load-Bearing Stud Walls: Full height non-load-bearing stud walls shall be attached to concrete slabs above with deflection track to allow for differential vertical floor deflections under live loads. Maintain 1/2" gap between top of studs and slab unless noted otherwise on plan.

6. Member Condition: All structural cold-formed framing members must be in good condition. Damaged members, members with cracking in the steel at the bend radius locations, and members with significant red rusting or scaling of the protective coating are unacceptable and must be replaced, unless approved by the Engineer. Members not meeting tolerances listed below shall be replaced prior to loading.

7. Erection and Tolerances: Cold-formed steel framing shall be erected true and plumb per the requirements and within the specified tolerances listed below. For purposes of this section, camber is defined as the deviation from straightness of a member or any portion of a member with respect to its major axis, and sweep is defined as the deviation from straightness of a member or any portion of a member with respect to its minor axis.

- a) For joists, track, and axial load bearing studs, out of plumbness and out of straightness (camber and sweep) shall not exceed 1/1000<sup>th</sup> of the member length (1/8" over 10'-0").  
b) Erect framing in accordance with manufacturer's instructions.  
c) Studs shall seat into top and bottom tracks. The gap between the end of the stud and the web of the track shall not exceed 1/16" for axial load bearing studs.  
d) Joists and end stiffeners shall be located directly over studs. The use of a wall top track as a load distribution member is not permitted.

8. When provided, factory punchouts will be located along the center line of the webs of the stud members and will have a minimum center-to-center spacing of 24" and a minimum clear distance of 10". Punchouts for members greater than 2 1/2" deep are a maximum of 1 1/2" wide x 4 1/2" long. Members with depths 2 1/2" and smaller are maximum 3/4" wide x 4 1/2" long. Any configuration or combination of holes that fit within the punchout width and length limitations mentioned above shall be permitted; other punchout configurations and locations not in compliance with limitations listed above must be approved by a design professional. Values herein are based on punchout configuration and location as described above.

9. Field Cuts and Notches: Field cuts and notches of any kind (including widening pre-punched holes) are NOT allowed in any structural cold-formed steel member without prior approval from Engineer.

10. Shop drawings: Submit to the Architect and Engineer for review. Shop and erection drawings shall contain all information required to install all structural steel without having to refer to the structural drawings. Where member or assemblies are required to be galvanized, shop and erection drawings shall also indicated size and location of drain holes as required per ASTM A385.

FASTENERS IN HARDENED CONCRETE

1. Substitution requests for products other than those listed below and noted in plans and details may be submitted to the SEOR for review. Substitutions may be considered for products having a code report recognizing the product for the appropriate application and project building code.
2. Locate existing reinforcement prior to installation of fasteners. Reinforcing shall not be cut unless approved by the SEOR.
3. Anchors that will be exposed to weather shall be stainless steel or hot dip galvanized material unless noted otherwise.
4. Adhesive Anchors:  
a) Adhesive anchors using HILTI HIT-RE 500 V3 Epoxy shall be installed in accordance with the ICC Report No. ESR-3814 & the manufacturer's printed installation instructions.  
b) Adhesive anchors using Simpson SET-3G Epoxy shall be installed in accordance with the ICC Report No. ESR-4057 & the manufacturer's printed installation instructions.  
c) Adhesive anchors using Simpson SET-XP Epoxy shall be installed in accordance with ICC Report No. ESR-2508 & the manufacturer's printed installation instructions. SET-XP may only be used for slab dowels unless specifically noted otherwise.  
d) Installation of adhesive anchors shall be performed by personnel trained to install adhesive anchors.  
e) Concrete shall have a minimum age of 21 days, and the design concrete strength (f'c) shall be met.  
f) Nominal hole depth & diameter shall be as indicated on the drawings. Additional hole length & width and fastener length shall be provided as required by the manufacturer for the specified nominal dimensions. Holes shall be dry, oil- and dust-free.  
g) Anchor spacing and edge distance shall be as shown on the drawings but not less than the minimum allowed in the ICC Report.  
h) Holes shall be drilled with a hammer drill with carbide tipped bits.  
i) In areas receiving adhesive anchors, all existing reinforcement shall be located in order to avoid damaging the reinforcement while installing the anchors.  
j) Periodic special inspection is required for the installation of adhesive anchors, except continuous special inspection is required at overhead (vertically up or upward inclined) installations. Installation of adhesive anchors horizontally or upwardly inclined to support sustained tension loads shall be performed by personnel certified by an applicable certification program.

Screw Anchors:

- a) Screw anchors using carbon steel or stainless steel HILTI KWIK HUS-EZ (KH-EZ) concrete anchors and shall be installed in accordance with ICC Report No. ESR-3027 & the manufacturer's printed installation instructions.  
b) Screw anchors using carbon steel or stainless steel Simpson Titen HD concrete anchors shall be installed in accordance with ICC Report No. ESR-2713 & the manufacturer's printed installation instructions.  
c) Concrete shall have a minimum age of 7 days, and the design concrete strength (f'c) shall be met.  
d) Hole depth & diameter shall be as indicated on the drawings.  
e) Anchor spacing and edge distance shall be as shown on the drawings but not less than the minimum allowed in the ICC Report.  
f) Holes shall be drilled with a hammer drill with carbide tipped bits.  
g) In areas receiving screw anchors, all existing reinforcement shall be located in order to avoid damaging the reinforcement while installing the anchors.  
h) Periodic special inspection is required for the installation of screw anchors.

STRUT

1. Substitution requests for products other than those listed below may be submitted to the E.O.R for review. Substitutions may be considered for products having a code report recognizing the product for the appropriate application and project building code.
2. Strut members & hardware as shown in the latest edition of the "Atkore Unistrut" catalog. Install all hardware in strict accordance with the manufacturer's printed instructions. Fill all holes required by manufacturer for maximum hardware strength, unless noted otherwise.
3. Strut members & hardware shall be steel or stainless steel, unless noted otherwise.
4. Strut members & hardware that will be exposed to weather shall be stainless steel or hot dip galvanized material, unless noted otherwise.
5. Where channel nuts are required to resist slip, provide any of the following channel nuts: P1006-1010 or P3006-3010, unless noted otherwise. Torque bolts per manufacturer's instructions for maximum allowable resistance to slip.
6. Where hardware required set screws, torque screws per manufacturer's instructions for maximum hardware strength, unless noted otherwise.

ABBREVIATIONS

AB	ANCHOR BOLT
AC	ALASKA CEDAR
ADD'L	ADDITIONAL
ALUM	ALUMINUM
ALT	ALTERNATE
ARCH	ARCHITECTURAL
ATR	ALL THREAD ROD
AYC	ALASKA-YELLOW CEDAR
BLK(G)	BLOCK(ING)
BN	BEAM
BN	DIAPHRAGM BOUNDARY NAILING
BOT	BOTTOM
BTWN	BETWEEN
CALIF	CALIFORNIA
CANT'L	CANTILEVERED
CG	CENTER OF GRAVITY
CJ	CEILING JOISTS
CLR	CLEAR/CLEARANCE
CMU	CONCRETE MASONRY UNITS
CONC	CONCRETE
CONN	CONNECTION
CONT	CONTINUOUS
CNTR(D)	CENTER
DBL	DOUBLE
DIA OR ø	DIAMETER
DJ	DECK JOIST
DB	DECK BEAM
DWG	DRAWING
(E)	EXISTING
EA	EACH
EF	EACH FACE
ELEV	ELEVATION
EMBED	EMBEDMENT
EN	SHEARWALL EDGE NAILING
EWL	ENTIRE WALL LENGTH
FWP	ENGINEERED WOOD PRODUCT
EXP	EXPOSED
EXT	EXTERIOR
FB	FLOOR BEAM
FDN	FOUNDATION
FF	FINISH FLOOR ELEVATION
FG	FINISH GRADE
FJ	FLOOR JOIST
FLR	FLOOR
FN	FIELD NAILING
FOC	FACE OF CONCRETE
FOS	FACE OF STUD, OR FACTOR OF SAFETY
FRMG	FRAMING
FS	FAR SIDE
FTG	FOOTING
GA	GAUGE
GB	GRADE BEAM
GLB	GLUE LAMINATED BEAM
HD	HOLDDOWN
HDO	HOT DIP GALVANIZED
HDR	HEADER
HGR	HANGER
HK	HOOK
HORIZ	HORIZONTAL
INFO	INFORMATION
INT	INTERIOR
K	KING POST
L	LONG
MFR	MANUFACTURER
MAX	MAXIMUM
MB	MACHINE BOLT
MIN	MINIMUM
(N)	NEW
NTS	NOT TO SCALE
OC	ON CENTER
OH	OPPOSITE HAND
PA	POST ABOVE
PERP	PERPENDICULAR
PTDF	PRESSURE TREATED DOUGLAS FIR
RB	ROOF BEAM
REF'D	REFERENCED
REQ'D	REQUIRED
RR	ROOF RAFTER
SCHED	SCHEDULE
SEOR	STRUCTURAL ENGINEER OF RECORD
SHGT	SHEATHING
SIM	SIMILAR
SMS	SHEET METAL SCREW
SO	SQUARE
SS	STAINLESS STEEL
STD	STANDARD
T	TRIM POST
T&B	TOP & BOTTOM
T&G	TONGUE & GROOVE
THK	THICKNESS
TOW	TOP OF WALL
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
VIF	VERIFY IN FIELD
VVA	VERIFY WITH ARCH
VVC	VERIFY WITH CIVIL
VVG	VERIFY WITH GEOTECH
VWM	VERIFY WITH MECH
VVO	VERIFY WITH OWNER
w/	WITH
WTS	WELDED THREADED STUD

Structural Sheet Index	
Sheet Number	Sheet Title
S1.0	General Notes
S1.1	Special Inspection
S1.2	Typical Details
S2.0	Site Plan
S2.1	Pump Station Plans
S3.1	Pump Station Details
S3.2	Pump Station Details

DESIGN NOTES:

1. Dead Loads:  
a) Roof uniform distributed load: 6.0psf (Projected on Horiz. Plane) - Add 2.5 psf for solar for seismic (not concurrent with roof live)
2. Roof Live Load = 20psf
3. Wind design data:  
a) Occupancy Risk Category = II  
b) Basic Wind Speed (3-sec gust) = 94 mph  
c) Wind Exposure(s) = C
4. Earthquake design data:  
a) Occupancy Risk Category = II  
b) Seismic Importance Factor, i = 1.0  
c) Mapped Spectral Response Accelerations, S<sub>s</sub> = 0.887g & S<sub>1</sub> = 0.317g  
d) Site Class = D  
e) Spectral Response Coefficients, S<sub>DS</sub> = 0.677g & S<sub>1</sub> = 0.419g  
f) Seismic Design Category = D  
g) Basic Seismic-Force Resisting System(s) = Steel Ordinary Cantilever Columns  
h) Analysis Procedure Used = Equivalent Lateral Force
5. Design Allowable Bearing Values of Soils: 2,700psf
6. Special Loads: none

LIMITATIONS/SCOPE DEFINITION:

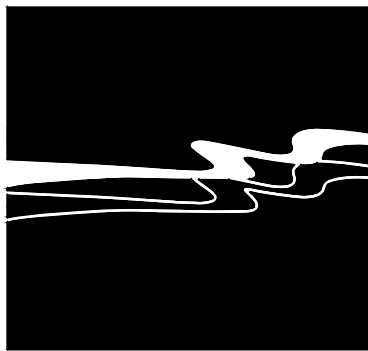
THE SCOPE OF THE DESIGN HEREIN IS FOR THE ELEMENTS DETAILED ONLY. EQUIPMENT ANCHORAGE DETAILS PROVIDED ARE FOR ANCHORAGE ONLY. EQUIPMENT SHALL BE ENGINEERED FOR THE DESIGN LOADS BY OTHERS (MFR) - INCLUDING CABINET SUPPORT OF INTERNAL & EXTERNAL COMPONENTS.

SUBMITTALS REQUIRED FOR REVIEW FOR THIS SCOPE ARE:

- ANY ELEMENTS THAT ARE DIFFERENT THAN NOTED HEREIN, THIS WOULD INCLUDE, BUT IS NOT LIMITED TO EQUIPMENT WEIGHTS, SIZES & LAYOUTS OR PROPOSED ALTERNATE CONNECTORS/CONNECTIONS
- WHERE NOTED IN PLANS AND DETAILS

NOTES ON EQUIPMENT ANCHORS/ANCHORAGE:

- THE DETAILS IN THIS PACKAGE FOR ARE UNIT ANCHORAGE ONLY. UNITS THEMSELVES ARE DESIGNED BY OTHERS.
- VERIFY ALL DIMENSIONS IN FIELD - IF DIMENSIONS VARY CONTACT ENGINEER PRIOR TO INSTALLATION.
- WHERE ANCHORS ARE SPECIFIED FOR EQUIPMENT, CONTRACTOR SHALL VERIFY ANCHOR PLATE (PER MFR) HOLE DIMENSION. IF ANCHOR SPECIFIED DOES NOT FIT OR IS MORE THAN 1/8" SMALLER IN DIAMETER, CONTACT ENGINEER UNLESS IT IS EXPLICITLY DETAILED.
- UNLESS NOTED OTHERWISE, SPECIFIED ANCHOR MINIMUM EDGE DISTANCES ARE ALL AROUND/ALL SIDES. MINIMUM ANCHOR EDGE DISTANCES ARE FOR ANCHORAGE DESIGN ONLY. ADDITIONAL EDGE DISTANCES MAY BE REQUIRED FOR SLAB/SUPPORT CAPACITY AND STABILITY, ACCESS CLEARANCE AROUND UNITS, ETC.
- SPECIAL INSPECTION IS REQUIRED FOR ALL ANCHORS.
- DEFERRED SUBMITTAL IS ONLY REQUIRED FOR EQUIPMENT ANCHORAGE WHERE NOTED ON PLAN



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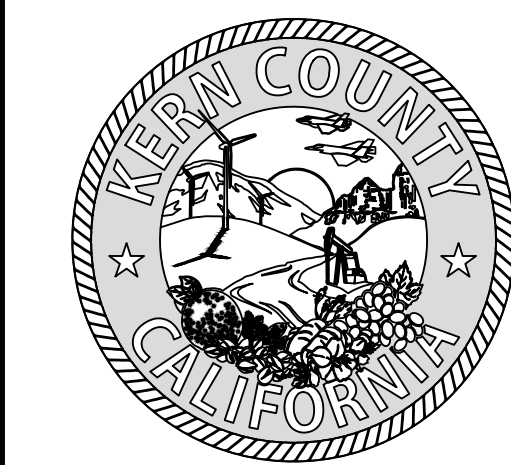
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COUNTY OF KERN  
GENERAL SERVICES  
DIVISION  
OF THE  
COUNTY ADMINISTRATIVE OFFICE  
1115 TRUXTON AVENUE  
BAKERSFIELD, CALIFORNIA

PROJECT

HART MEMORIAL  
PARK ADVENTURE  
PLAY AREA

LEVEE & LAKE ROAD  
BAKERSFIELD, CA  
93308

APPROVED BY  
COUNTY BOARD OF SUPERVISORS

CHAIRMAN BOARD OF SUPERVISORS DATE

RECOMMENDED FOR APPROVAL  
DEPARTMENT

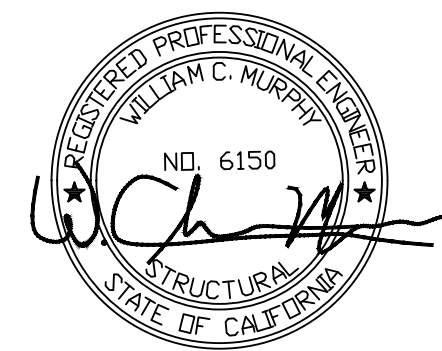
DIRECTOR DATE

RECOMMENDED FOR APPROVAL  
GENERAL SERVICES DIVISION

CHIEF GENERAL SERVICES OFFICER DATE

THESE DRAWINGS, SPECIFICATIONS, DESIGN IDEAS AND ARRANGEMENTS ARE, AND SHALL REMAIN, THE PROPERTY OF THE CONSTRUCTION SERVICES DIVISION, COUNTY OF KERN. NO PART THEREOF SHALL BE COPIED, ELECTRONICALLY MODIFIED, DISCLOSED TO OTHERS OR USED IN CONNECTION WITH ANY WORK OR PROJECT OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED AND DEVELOPED, WITHOUT THE EXPRESS WRITTEN PERMISSION OF THE CONSTRUCTION SERVICES DIVISION, COUNTY OF KERN. VISUAL CONTACT WITH THESE DRAWINGS OR SPECIFICATIONS SHALL CONSTITUTE CONCLUSIVE EVIDENCE OF ACCEPTANCE OF THESE RESTRICTIONS. USE OF THESE DOCUMENTS FOR THE DEVELOPMENT OF ADDENDA, AS-BUILTS, CLARIFICATIONS OR EQUIPMENT AND MATERIAL LAYOUTS SHALL REMAIN THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND CONSTRUCTION SERVICES ACCEPTS NO RESPONSIBILITY FOR ANY INACCURACIES FOUND IN THE DEVELOPMENT OF THESE INSTRUMENTS OF SERVICE.

CONSULTANT STAMP



DATE	REV	DESCRIPTION

DATE	09/20/24	SHEET NO.
DESIGNED BY	BM	S1.0
DRAWN BY	BM	
CHECKED BY	CM	
JOB NO.	1650.7014-21	
	20MM010	
HART PARK PROP 68 IMPROVEMENTS GENERAL NOTES		



STATEMENT OF SPECIAL INSPECTIONS, 2022 CBC

Project: Hart Park Pump Station  
Location: Levee & Lake Road, Bakersfield, CA

- This Statement of Special Inspections is submitted in fulfillment of the requirements of CBC Sections 1704. Included are:
- Schedule of Special Inspections and tests applicable to this project:
    - ☒ Special Inspections per Sections 1704 and 1705
    - ☒ Special Inspections for Seismic Resistance
    - ☐ Special Inspections for Wind Resistance
  - List of Testing Agencies and other special inspectors that will be retained to conduct the tests and inspections.

Special Inspections and Testing will be performed in accordance with the approved plans and specifications, this statement and CBC Sections 1704 and 1705.

The Schedule of Special Inspections summarizes the Special Inspections and tests required. Special Inspectors will refer to the approved plans and specifications for detailed special inspection requirements. Any additional tests and inspections required by the approved plans and specifications will also be performed.

Interim reports will be submitted to the Building Official and the Registered Design Professional in Responsible Charge in accordance with CBC Section 1704.2.4.

A Final Report of Special Inspections documenting required Special Inspections, testing and correction of any discrepancies noted in the inspections shall be submitted prior to issuance of a Certificate of Use and Occupancy (Section 1704.2.4). The Final Report will document:

- Required special inspections.
- Correction of discrepancies noted in inspections.

The Owner recognizes his or her obligation to ensure that the construction complies with the approved permit documents and to implement this program of special inspections. In partial fulfillment of these obligations, the Owner will retain and directly pay for the Special Inspections as required in CBC Section 1704.2.

This plan has been developed with the understanding that the Building Official will:

- Review and approve the qualifications of the Special Inspectors who will perform the inspections.
- Monitor special inspection activities on the job site to assure that the Special Inspectors are qualified and are performing their duties as called for in this Statement of Special Inspection.
- Review submitted inspection reports.
- Perform inspections as required by the local building code.

Prepared by:

W. Chris Murphy, SE 6150

Registered Design Professional in Responsible Charge

Signature:  Date: 09-20-2024

Owner's Authorization:

Building Official's Acceptance:

Owner

Building Official

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

SCHEDULE OF INSPECTION, TESTING AGENCIES, AND INSPECTORS

The following are the testing agencies and special inspectors that will be retained to conduct tests and inspection on this project.

Responsibility	Firm	Address, Telephone
1. Special Inspection (except for geotechnical)	BSK Associates	700 22nd St, Bakersfield, CA 661-327-0671
2. Material Testing	BSK Associates	700 22nd St, Bakersfield, CA 661-327-0671
3. Geotechnical Inspections	BSK Associates	700 22nd St, Bakersfield, CA 661-327-0671

SEISMIC REQUIREMENTS (Section 1704.3.2)

Identify seismic-force-resisting system and designated seismic systems subject to special inspections as per Section 1705.11:  Steel Ordinary Cantilever Column  The extent of the seismic-force-resisting system is defined in more detail in the construction documents.
--

WIND REQUIREMENTS (Section 1704.3.3)

Identify main wind-force-resisting system and designated wind resisting components subject to special inspections as per Section 1705.10:  N/A  The extent of the main wind-force-resisting system is defined in more detail in the construction documents.
---

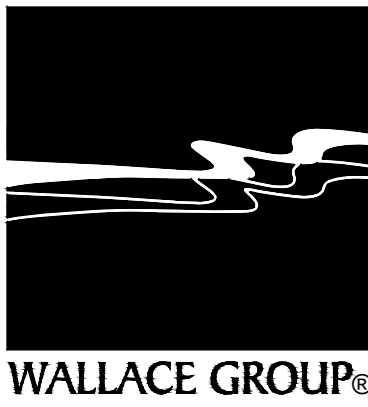
Per CBC 1704.4: Each contractor responsible for the construction of a main wind or seismic force resisting system, designated seismic system or a wind or seismic resisting component listed in the statement of special inspections shall submit a written statement of responsibility to the building official and the owner prior to the commencement of work on the system or component. The contractor's statement of responsibility shall contain the following: (1) Acknowledgement of awareness of the special requirements contained in the statement of special inspections. (2) Acknowledgement that control will be exercised to obtain conformance with the construction documents approved by the building official. (3) Procedures for exercising control within the contractor's organization, the method and frequency of reporting and the distribution of the reports. (4) Identification and qualification of the person(s) exercising such control and their position(s) in the organization.

SCHEDULE OF SPECIAL INSPECTION

Notation Used in Table:

Column headers:  
C Indicates continuous inspection is required.  
P Indicates periodic inspections are required. The notes and/or contract documents should  
Box entries:  
X Is placed in the appropriate column to denote either "C" continuous or "P" periodic inspections.  
--- Denotes an activity that is either a one-time activity or one whose frequency is defined in some other manner  
Additional detail regarding inspections and tests are provided in the project specifications or notes on the drawings.

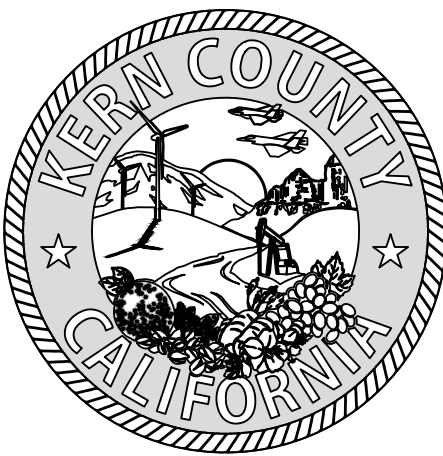
Req'd This Job	Verification and Inspection	C	P	Notes
X	<b>1705.2.1 - Structural Steel (Alum Sim.)</b>			
X	1. Review material test reports and certifications (AISC 360 N5.2)	---	---	AWS certified inspector required
X	2. Inspection of welding (AISC 360 N5.4)	---	---	
	3. NDT of welded joints (AISC 360 N5.5)	---	---	
	4. Inspection of high strength bolting (AISC 360 N5.6)	---	---	For Risk Category II structures, NDT shall be performed on 10% of CJP groove welds with materials $\frac{3}{16}$ " thick or greater.
X	5. Verify compliance of fabricated and erected members with construction documents (AISC 360 N5.7)	---	---	For Risk Category III & IV structures, NDT shall be performed on CJP groove welds with materials $\frac{3}{16}$ " thick or greater.
	6. Headed studs and anchors (AISC 360 N6)	---	---	
	7. Inspection of deck attachment (AISC 360 N5.2)	---	---	
X	<b>1705.3 - Concrete Construction</b>			
X	1. Inspection of reinforcing steel, including prestressing tendons and verify placement		X	
	2. Reinforcing bar welding: a. Verify weldability of reinforcing bars other than ASTM A706; b. Inspect single-pass fillet welds, maximum $\frac{3}{16}$ "; and c. Inspect all other welds		X	
X	3. Inspection of anchors cast in concrete		X	
	4. Inspection of anchors post-installed in hardened concrete members: a. Adhesive anchors installed in horizontally or upwardly inclined orientations to resist sustained tension loads b. Mechanical anchors and adhesive anchors not defined in 4.a	X	X	Verify with manufacturer
X	5. Verify use of required design mix		X	
X	6. Prior to concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete	X		
X	7. Inspect concrete and shotcrete placement for proper application techniques	X		
X	8. Verify maintenance of specified curing temperature and techniques		X	
	9. Inspection of prestressed concrete for: a. Application of prestressing forces; and b. Grouting of bonded prestressing tendons	X X		
	10. Inspect erection of precast concrete members		X	
	11. Verify in-situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to removal of shores and forms from beams and structural slabs		X	
X	12. Inspect formwork for shape, location and dimensions of the concrete member being formed		X	
X	<b>1705.6 - Required Special Inspections and Tests of Soils</b>			
Refer to Geotechnical Report	1. Verify materials below shallow foundations are adequate to achieve the desired bearing capacity.		X	Refer to Geotechnical Report
	2. Verify excavations are extended to proper depth and have reached proper material.		X	
	3. Perform classification and testing of compacted fill materials.		X	
	4. Verify use of proper materials, densities lift thicknesses during placement and compaction of compacted fill.	X		
	5. Prior to placement of compacted fill, inspect subgrade and verify that site has been prepared properly.		X	
X	<b>1705.12 - Special Inspections for Seismic Resistance</b>			
X	1. Structural Steel Special Inspections for Seismic Resistance: a. Inspection of structural steel in accordance with AISC 341.			



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COUNTY ADMINISTRATIVE OFFICE  
1115 TRUXTON AVENUE  
BAKERSFIELD, CALIFORNIA

PROJECT

HART MEMORIAL  
PARK ADVENTURE  
PLAY AREA

LEVEE & LAKE ROAD  
BAKERSFIELD, CA  
93308

APPROVED BY  
COUNTY BOARD OF SUPERVISORS

CHAIRMAN BOARD OF SUPERVISORS DATE

RECOMMENDED FOR APPROVAL  
DEPARTMENT

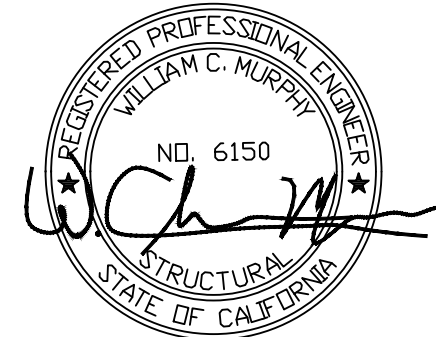
DIRECTOR DATE

RECOMMENDED FOR APPROVAL  
GENERAL SERVICES DIVISION

CHIEF GENERAL SERVICES OFFICER DATE

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DATE	REV	DESCRIPTION

DATE 09/20/24	SHEET NO.
DESIGNED BY BM	S1.1
DRAWN BY BM	
CHECKED BY CM	
JOB NO. 1650.7014-21	DRAWING FILE 20MM010
HART PARK PROP 68 IMPROVEMENTS SPECIAL INSPECTION	



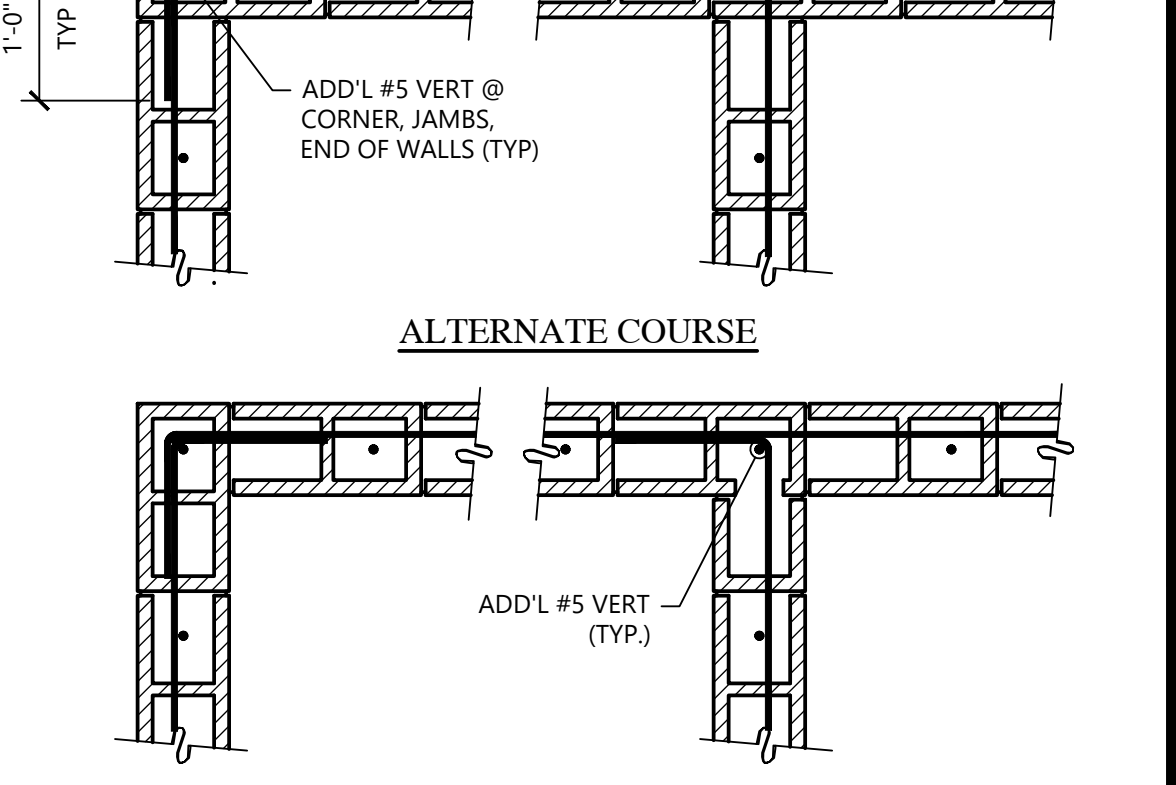
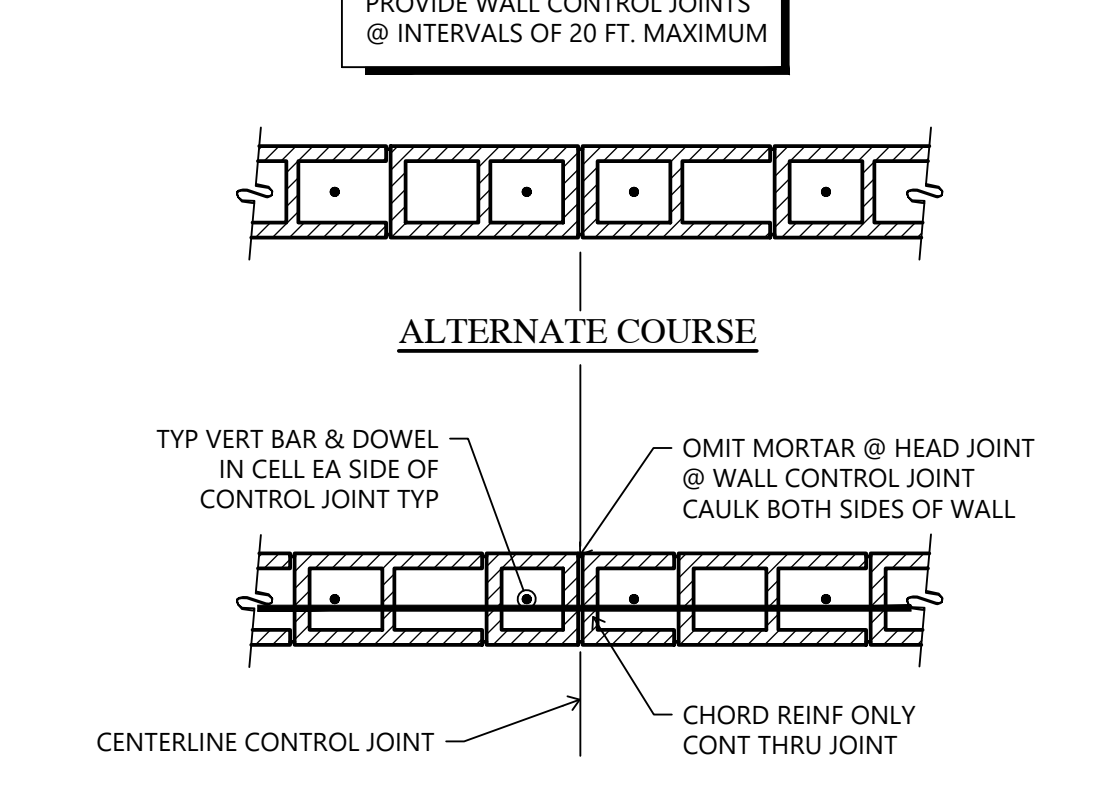
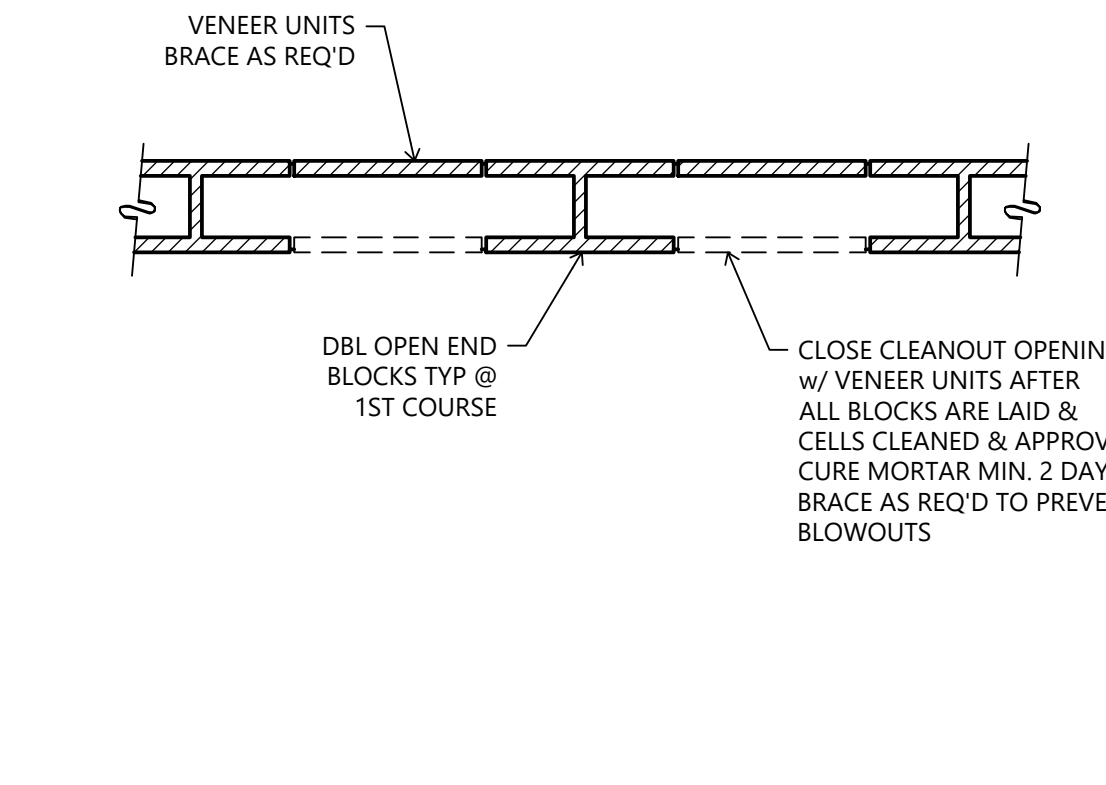
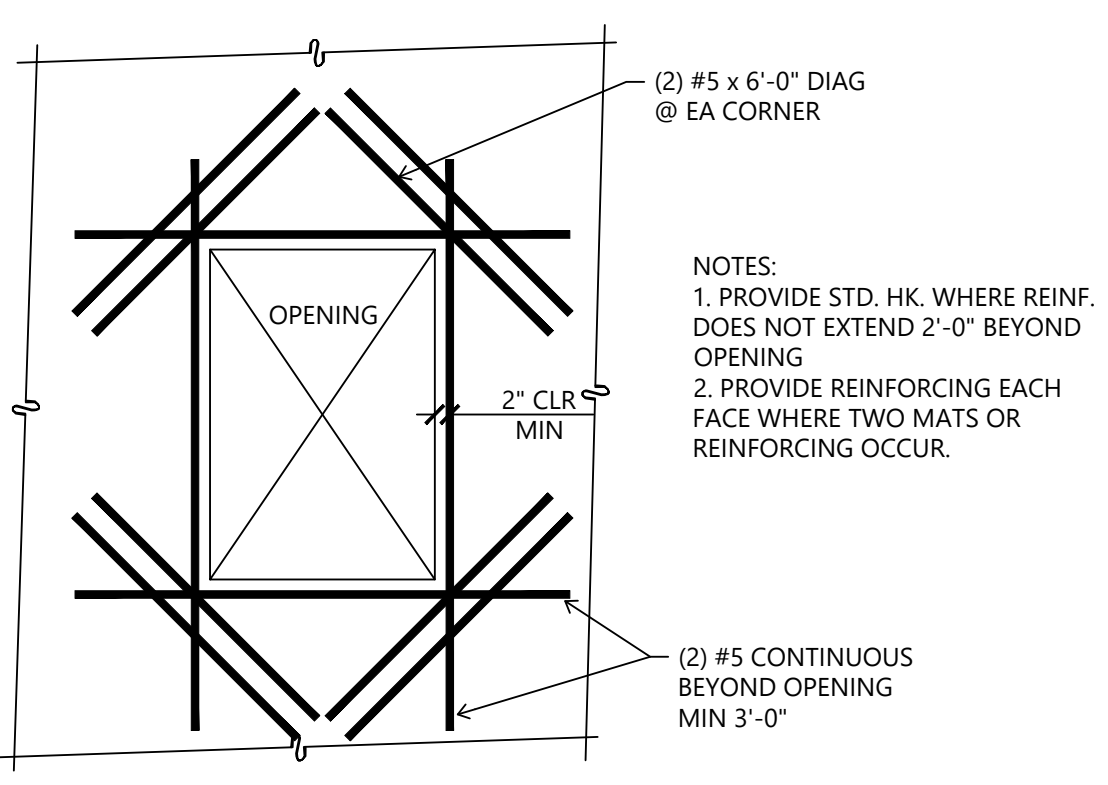
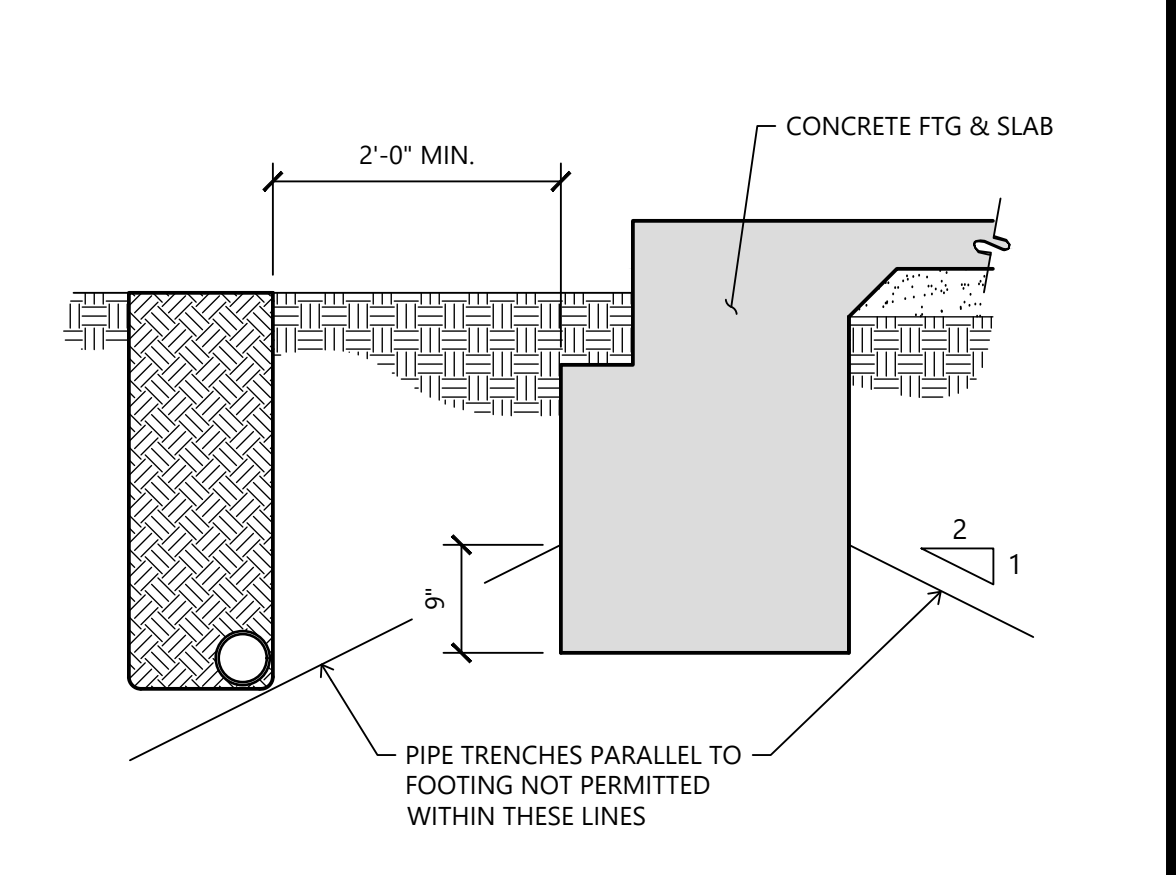
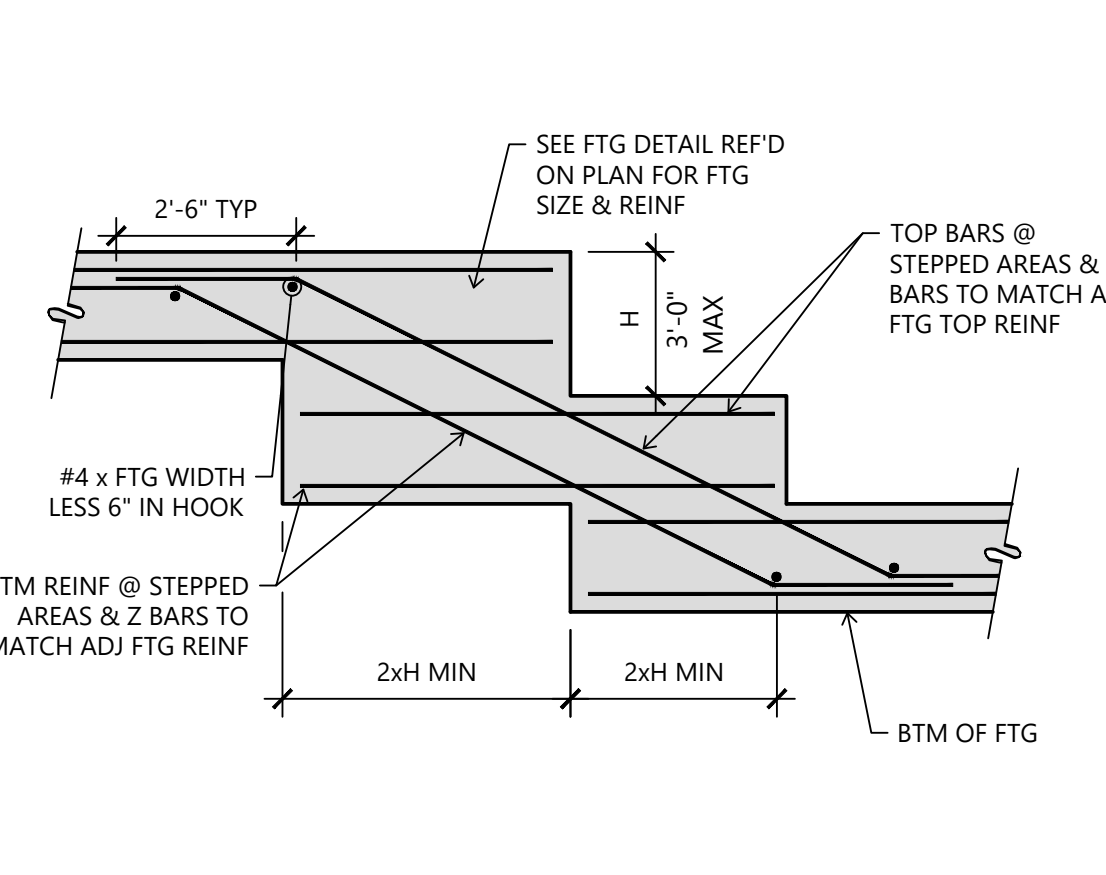
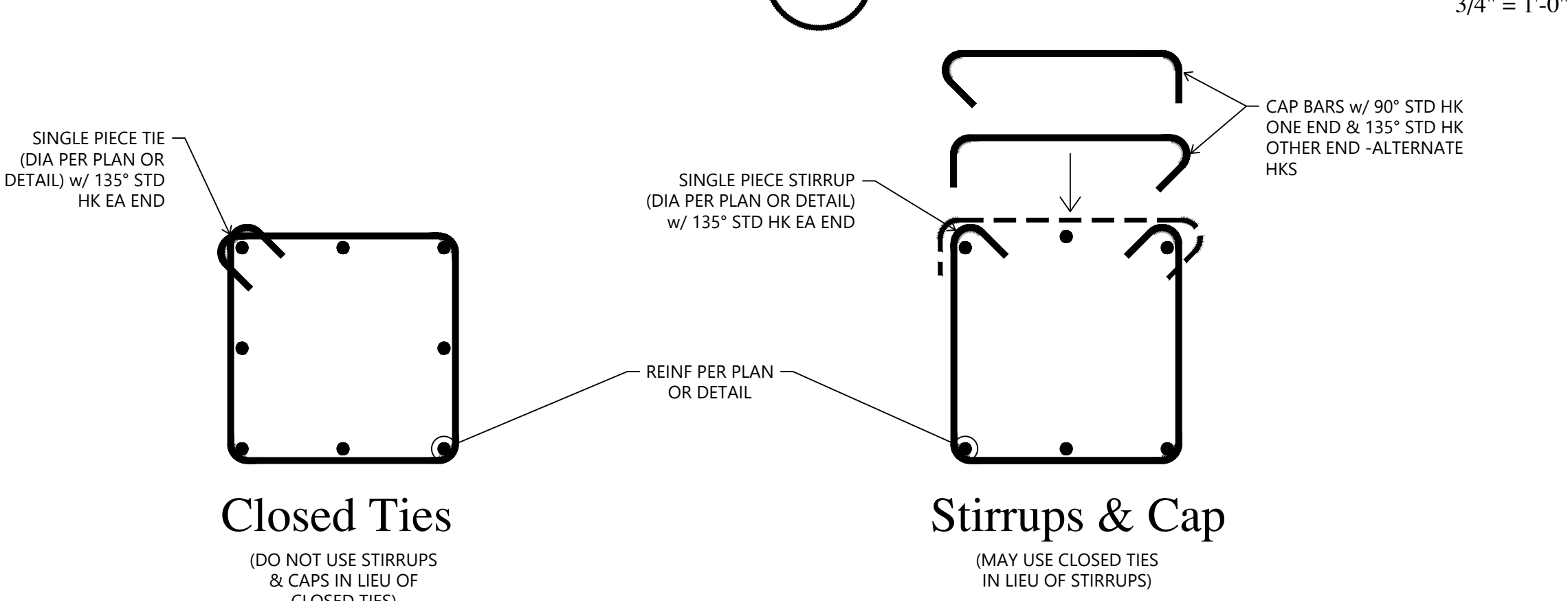
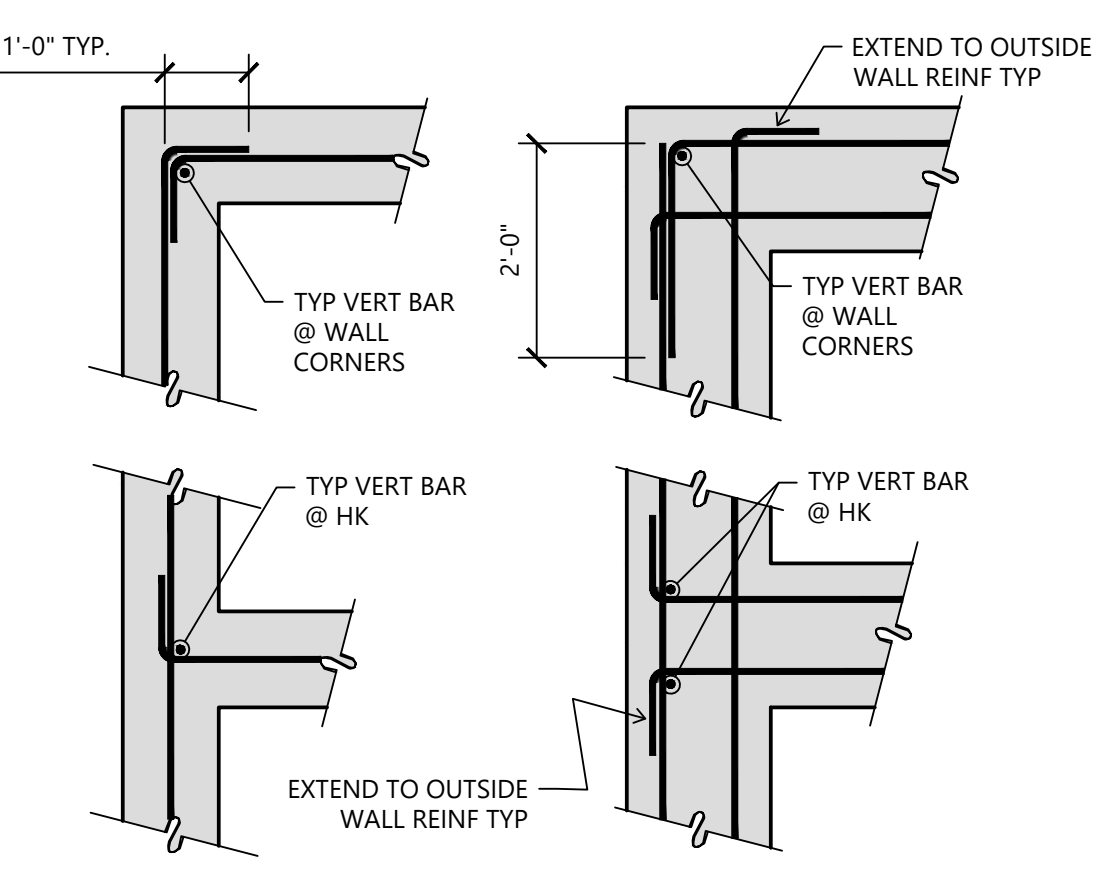
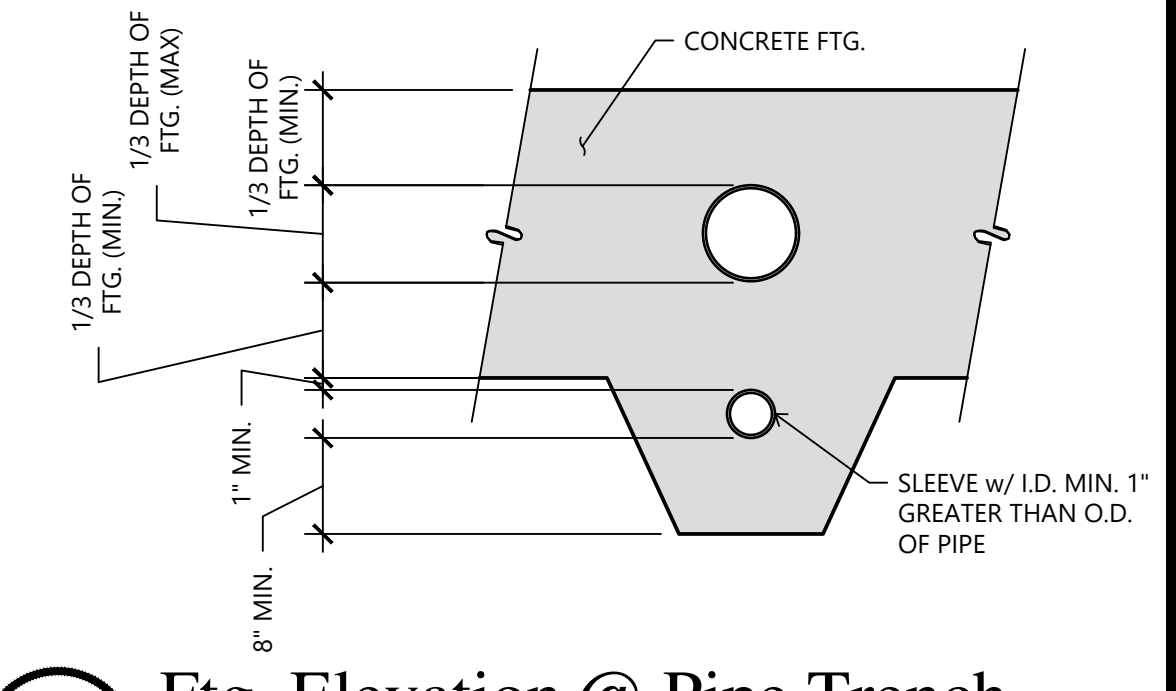
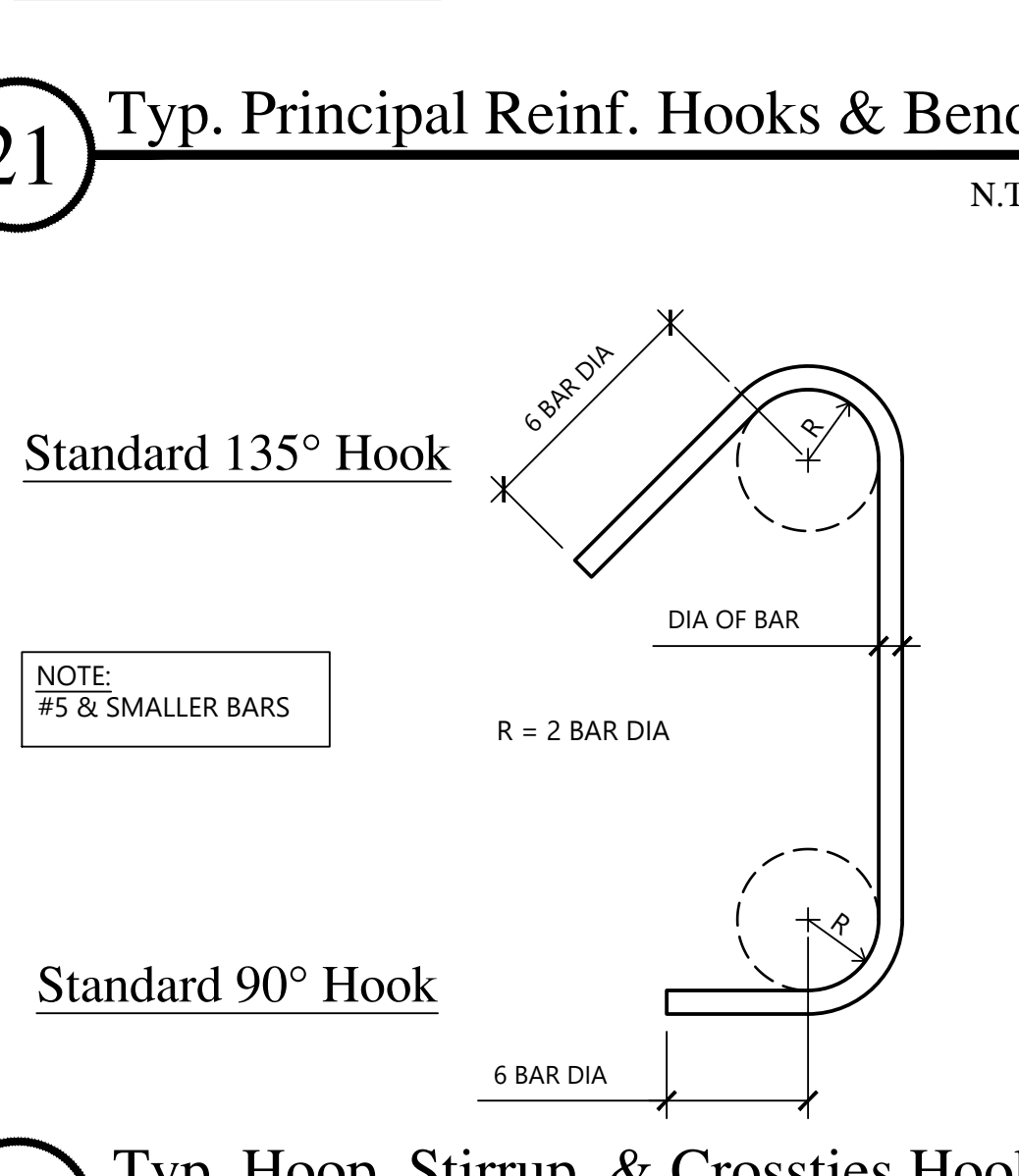
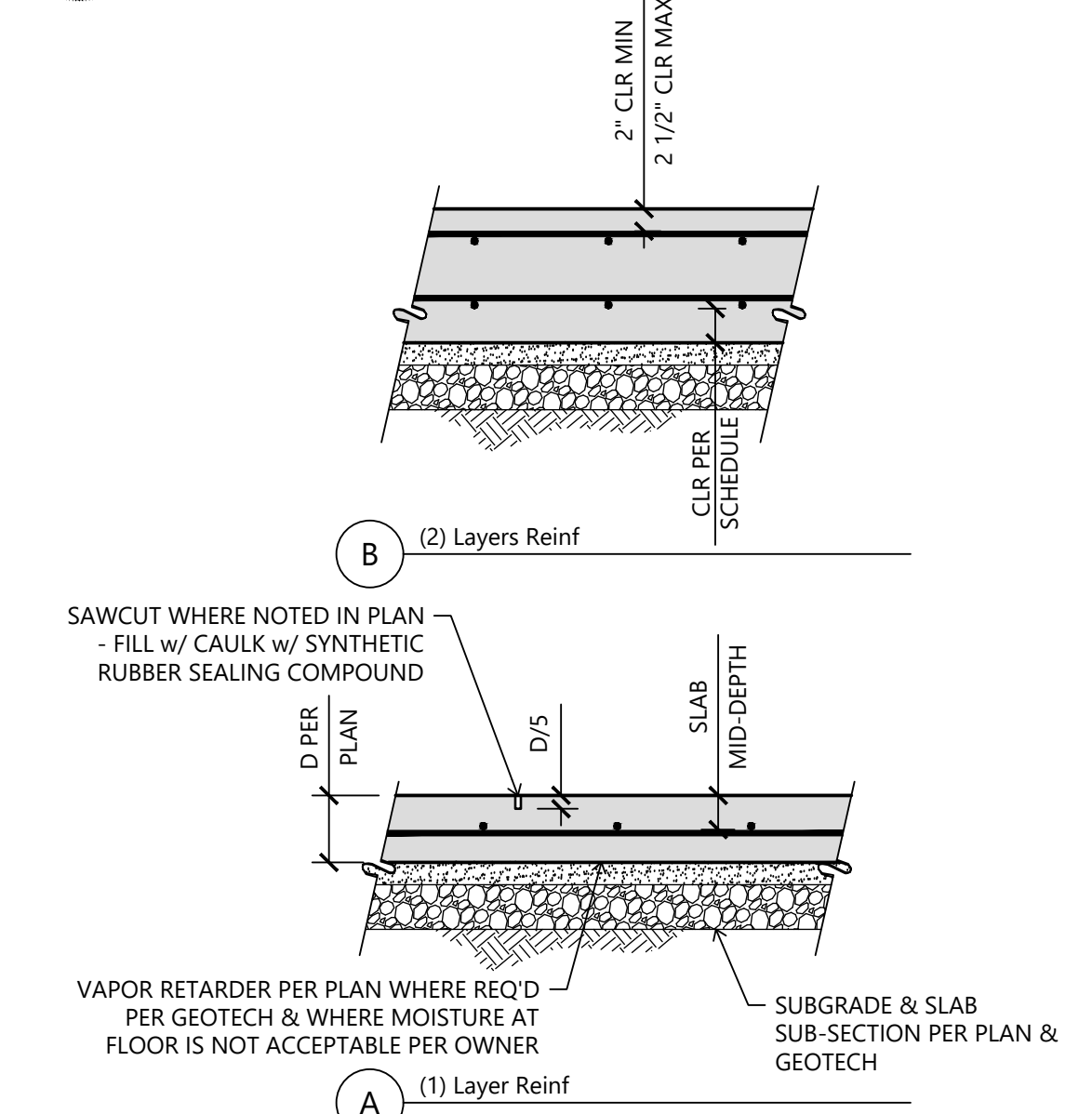
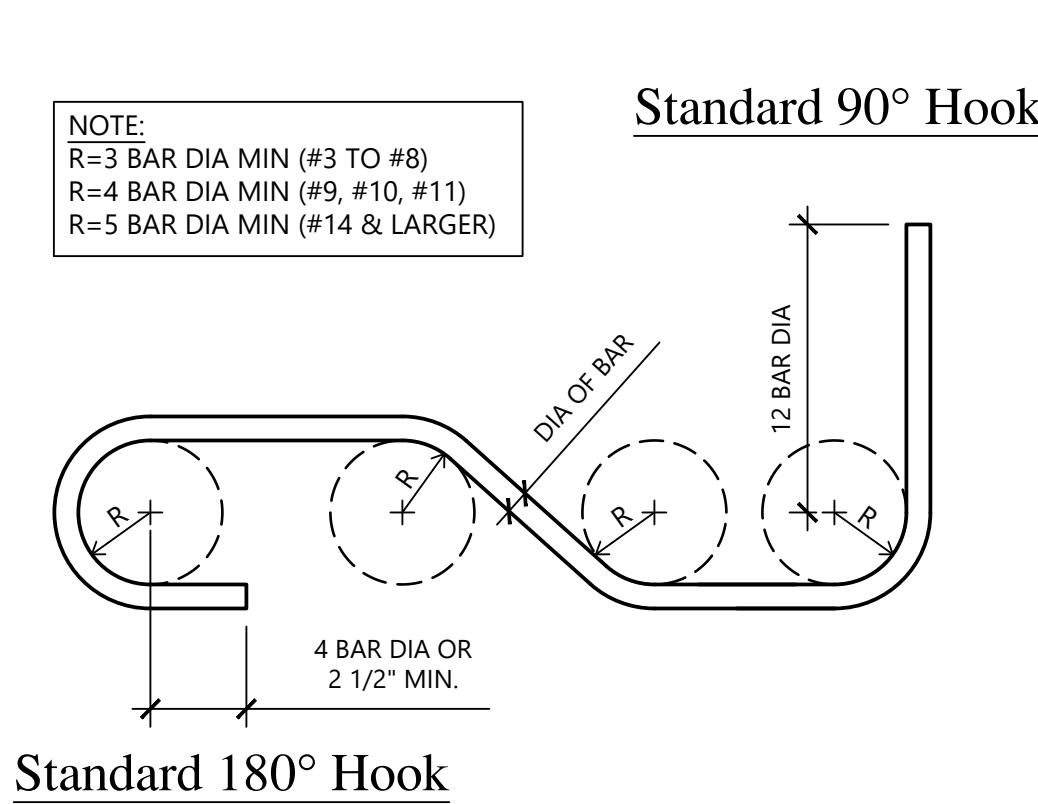
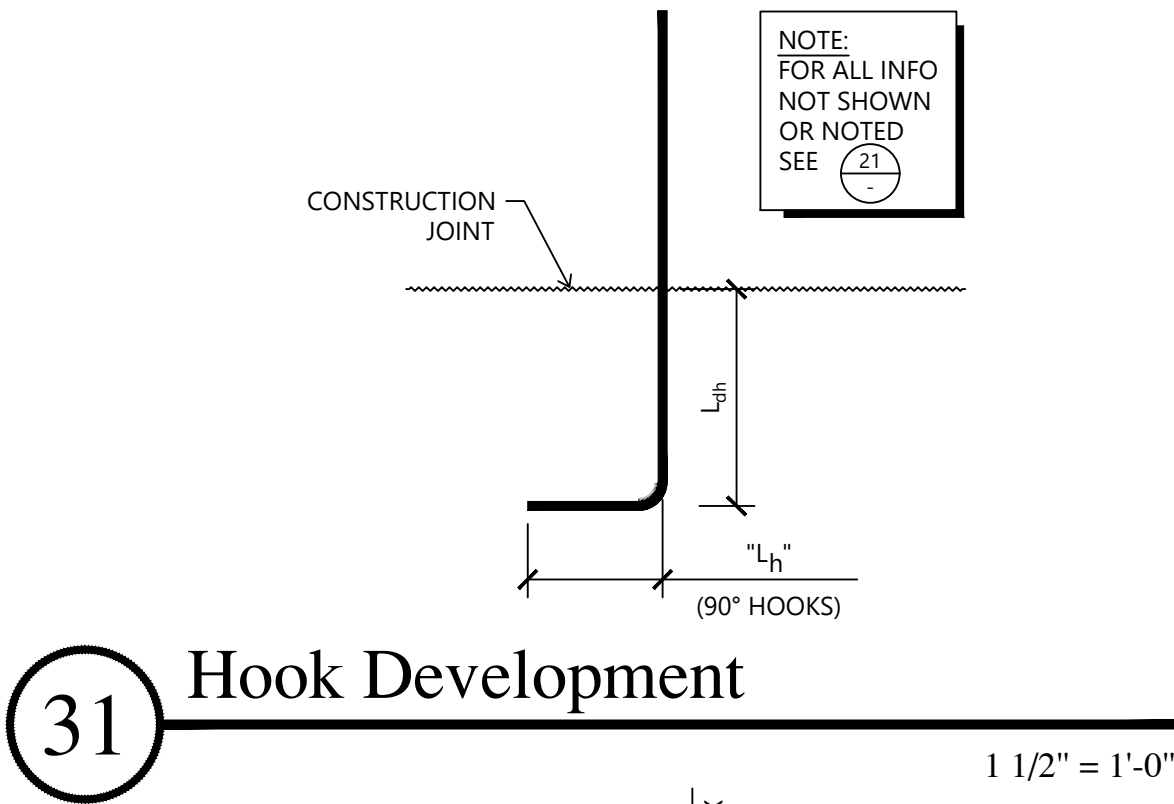
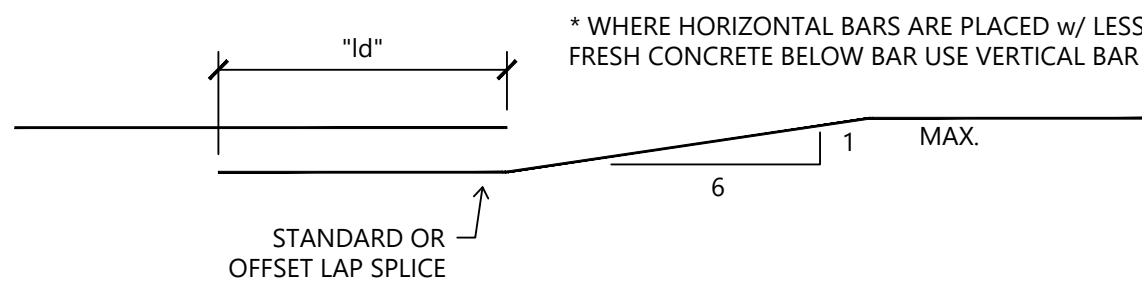
STANDARD HOOK DEVELOPMENT LENGTH					
"L <sub>dh</sub> " = HOOK LENGTH					
NORMAL WEIGHT CONC					
BAR SIZE	"L <sub>h</sub> " (90° HOOKS)	f <sub>c</sub> =2500	f <sub>c</sub> =3000	f <sub>c</sub> =4000	f <sub>c</sub> =5000
#3	5"	7"	6"	5"	5"
#4	8"	9"	8"	7"	6"
#5	10"	11"	10"	9"	8"
#6	12"	13"	12"	10"	9"
#7	14"	15"	14"	12"	11"
#8	16"	17"	16"	14"	12"
#9	19½"	19"	18"	15"	14"
#10	22"	21"	20"	17"	16"
#11	24½"	24"	22"	19"	17"

CONCRETE COVER REQUIREMENTS (NON-PRESTRESSED)		
COVER FOR REINFORCEMENT SHALL NOT BE LESS THAN THE FOLLOWING:		CONCRETE COVER (in.)
A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH.		3
B. CONCRETE EXPOSED TO EARTH OR WEATHER: B.1. No. 6 THROUGH No. 18 BARS B.2. No. 5 BAR, W31 OR D31 WIRE, AND SMALLER		2 1-1/2
C. CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:		
SLABS, WALLS, JOISTS: C.1. No. 14 AND No. 18 BARS C.2. No. 11 BAR AND SMALLER		1-1/2 3/4
BEAMS, COLUMNS: C.3. PRIMARY REINFORCEMENT, TIES, STIRRUPS, SPIRALS		1-1/2
SHELLS, FOLDED PLATE MEMBERS: C.4. No. 6 BAR AND LARGER C.5. No. 5 BAR, W31 OR D31 WIRE, AND SMALLER		3/4 1/2

VERTICAL BAR LAP SPICE SCHEDULE					
"l <sub>d</sub> " = LAP SPICE LENGTH					
BAR SIZE	CMU	f <sub>m</sub> =1500	f <sub>c</sub> =2500	f <sub>c</sub> =3000	f <sub>c</sub> =4000
#3	19"	24"	22"	19"	17"
#4	34"	32"	29"	25"	23"
#5	45"	39"	36"	31"	28"
#6	54"	47"	43"	37"	34"
#7	63"	69"	63"	54"	48"
#8	72"	78"	72"	62"	55"
#9	81"	88"	81"	70"	62"
#10	NA	100"	91"	79"	69"
#11	NA	110"	101"	87"	76"

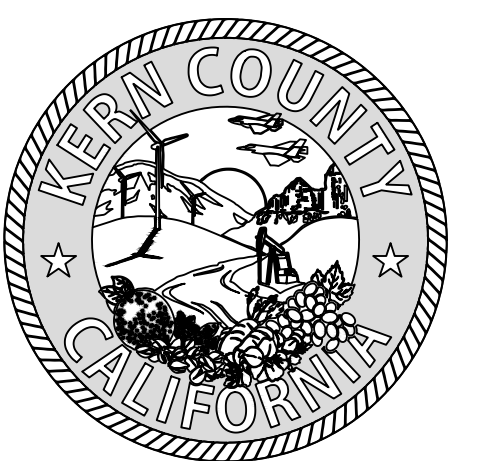
HORIZONTAL BAR LAP SPICE SCHEDULE*					
"l <sub>d</sub> " = LAP SPICE LENGTH					
BAR SIZE	CMU	f <sub>m</sub> =1500	f <sub>c</sub> =2500	f <sub>c</sub> =3000	f <sub>c</sub> =4000
#3	19"	31"	28"	25"	23"
#4	34"	41"	38"	33"	30"
#5	45"	51"	47"	41"	37"
#6	54"	61"	56"	49"	45"
#7	63"	89"	81"	71"	63"
#8	72"	102"	93"	81"	72"
#9	81"	115"	105"	91"	81"
#10	NA	129"	118"	102"	90"
#11	NA	143"	131"	114"	99"

\* WHERE HORIZONTAL BARS ARE PLACED w/ LESS THAN 12" OF FRESH CONCRETE BELOW BAR USE VERTICAL BAR TABLE



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BAKERSFIELD, CALIFORNIA

HART MEMORIAL  
PARK ADVENTURE  
PLAY AREA  
LEVEE & LAKE ROAD  
BAKERSFIELD, CA  
93308

APPROVED BY COUNTY BOARD OF SUPERVISORS	DATE
RECOMMENDED FOR APPROVAL DEPARTMENT	DATE
DIRECTOR	DATE
RECOMMENDED FOR APPROVAL GENERAL SERVICES DIVISION	DATE
CHIEF GENERAL SERVICES OFFICER	DATE

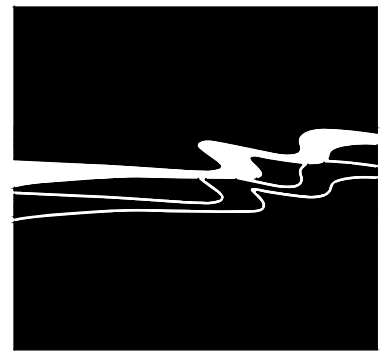
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CONSULTANT STAMP  
REGISTERED PROFESSIONAL ENGINEER  
WILLIAM C. MURPHY  
NO. 6150  
STRUCTURAL  
STATE OF CALIFORNIA

E	REV	DESCRIPTION

**S1.2**

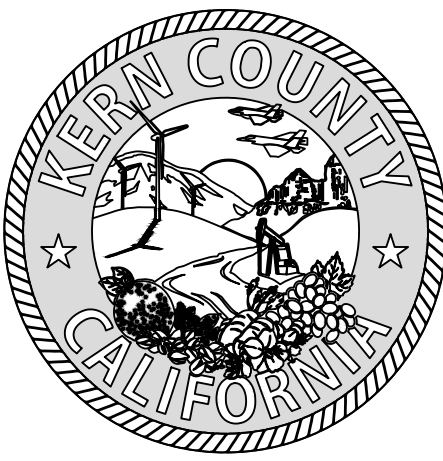




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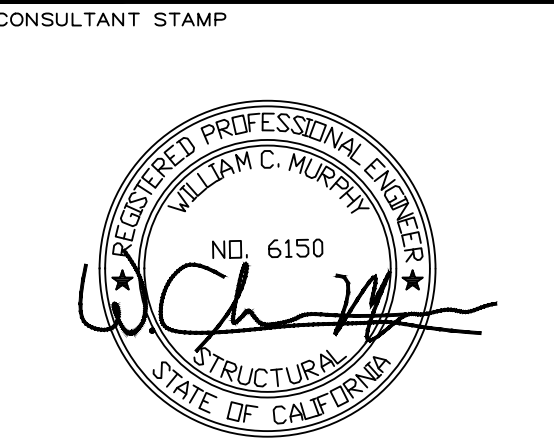


COUNTY OF KERN  
GENERAL SERVICES  
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1115 TRUXTUN AVENUE  
BAKERSFIELD, CALIFORNIA

PROJECT  
**HART MEMORIAL  
PARK ADVENTURE  
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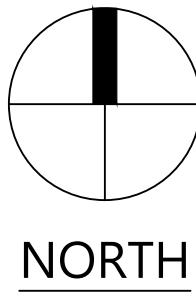
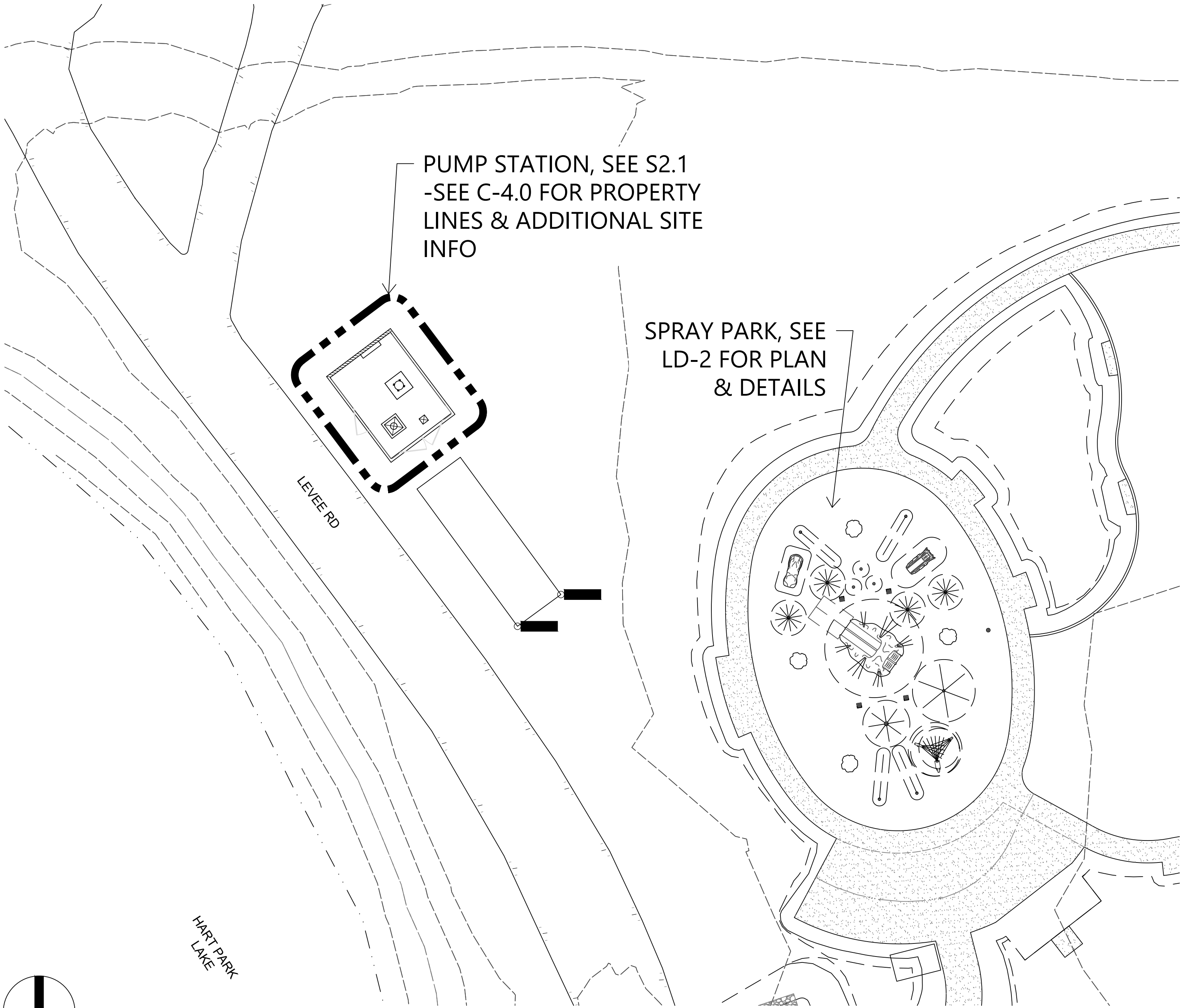
APPROVED BY COUNTY BOARD OF SUPERVISORS	DATE
CHAIRMAN BOARD OF SUPERVISORS	DATE
RECOMMENDED FOR APPROVAL DEPARTMENT	DATE
DIRECTOR	DATE
RECOMMENDED FOR APPROVAL GENERAL SERVICES DIVISION	DATE
CHIEF GENERAL SERVICES OFFICER	DATE

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HART PARK PROP 68 IMPROVEMENTS SITE PLAN	



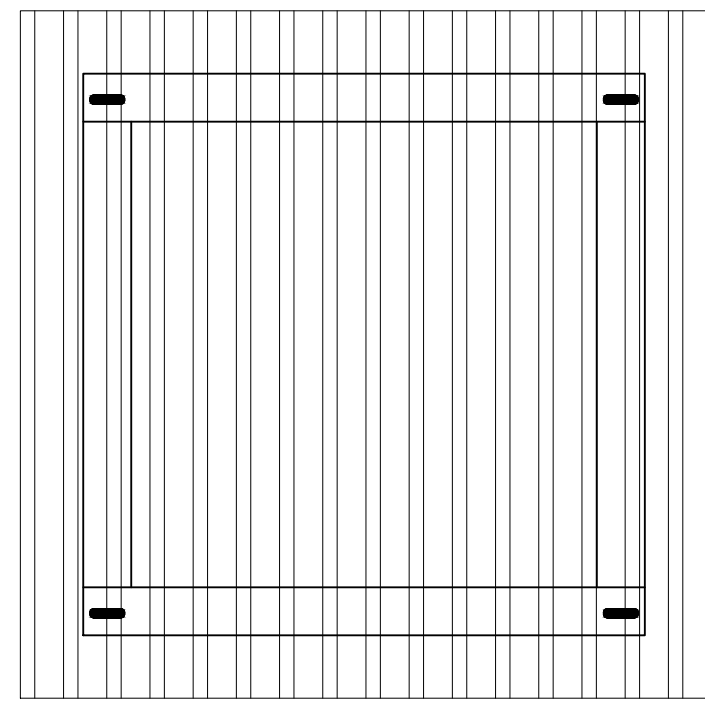
Site Plan

SCALE: 1/16" = 1'-0"

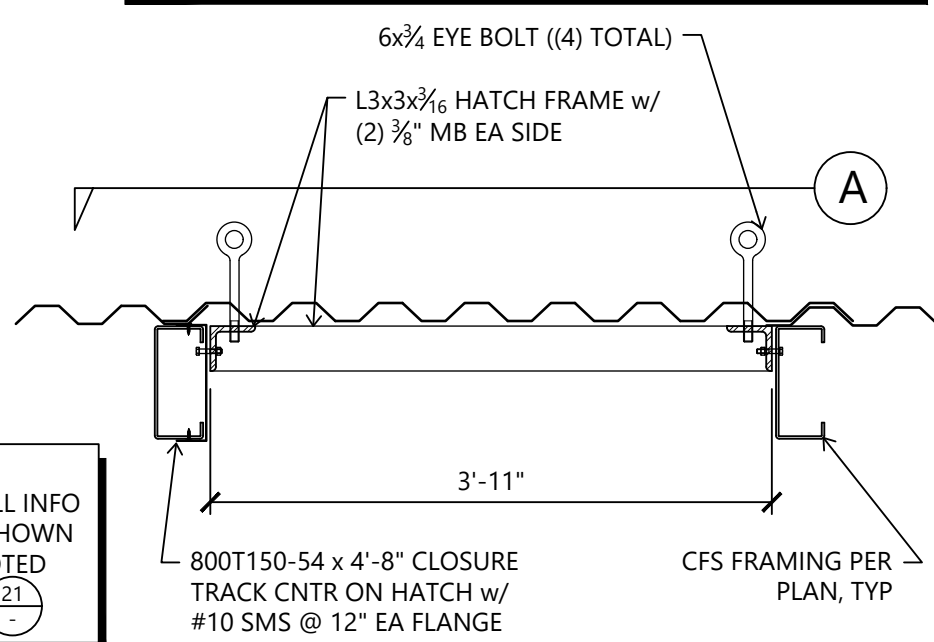




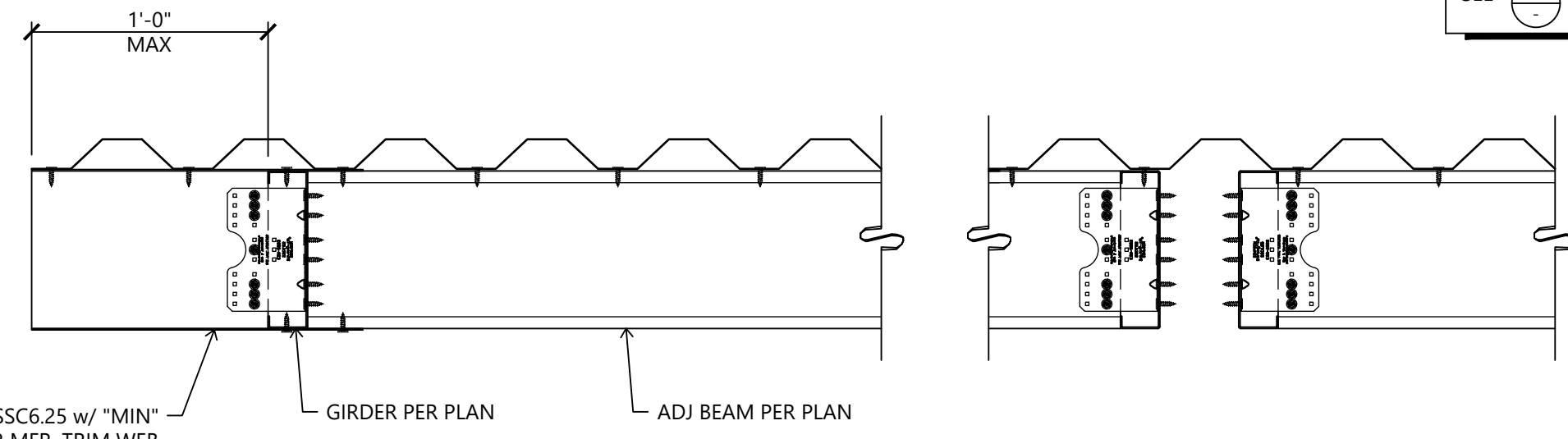




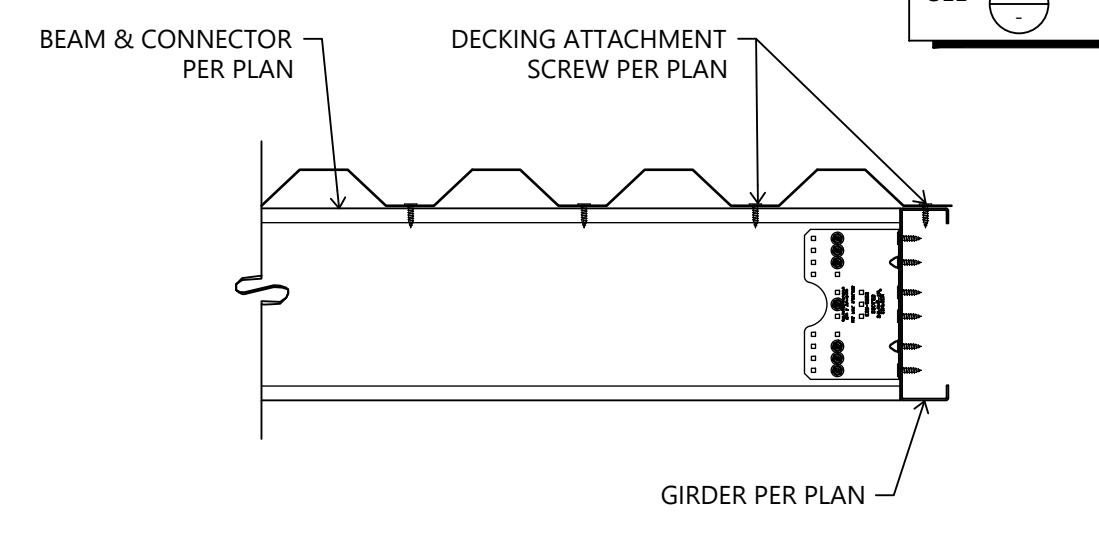
- NOTES:
- SEE PLAN FOR FRAMING INFORMATION
  - OVERLAP & SEAL METAL ROOF DECKING ON ALL SIDES OF ROOF HATCH TO PREVENT WATER INTRUSION
  - PROVIDE EYE BOLTS FOR LIFTING ROOF HATCH OFF
  - APPLY NEOPRENE RUBBER TAPE ALL SIDES OF ROOF DECKING AT ROOF HATCH, 3" WIDE X 1/2" THICK
  - ALL HOT ROLLED STEEL AND STEEL FASTENERS/HARDWARE SHALL BE HOT DIP GALVANIZED



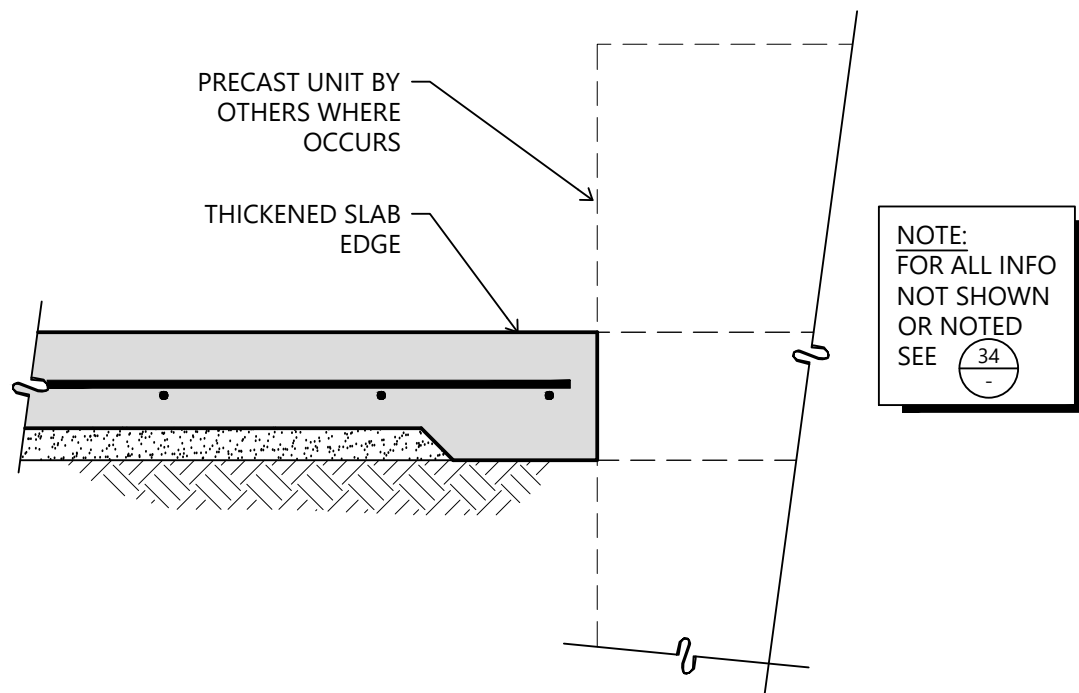
51 Roof Hatch



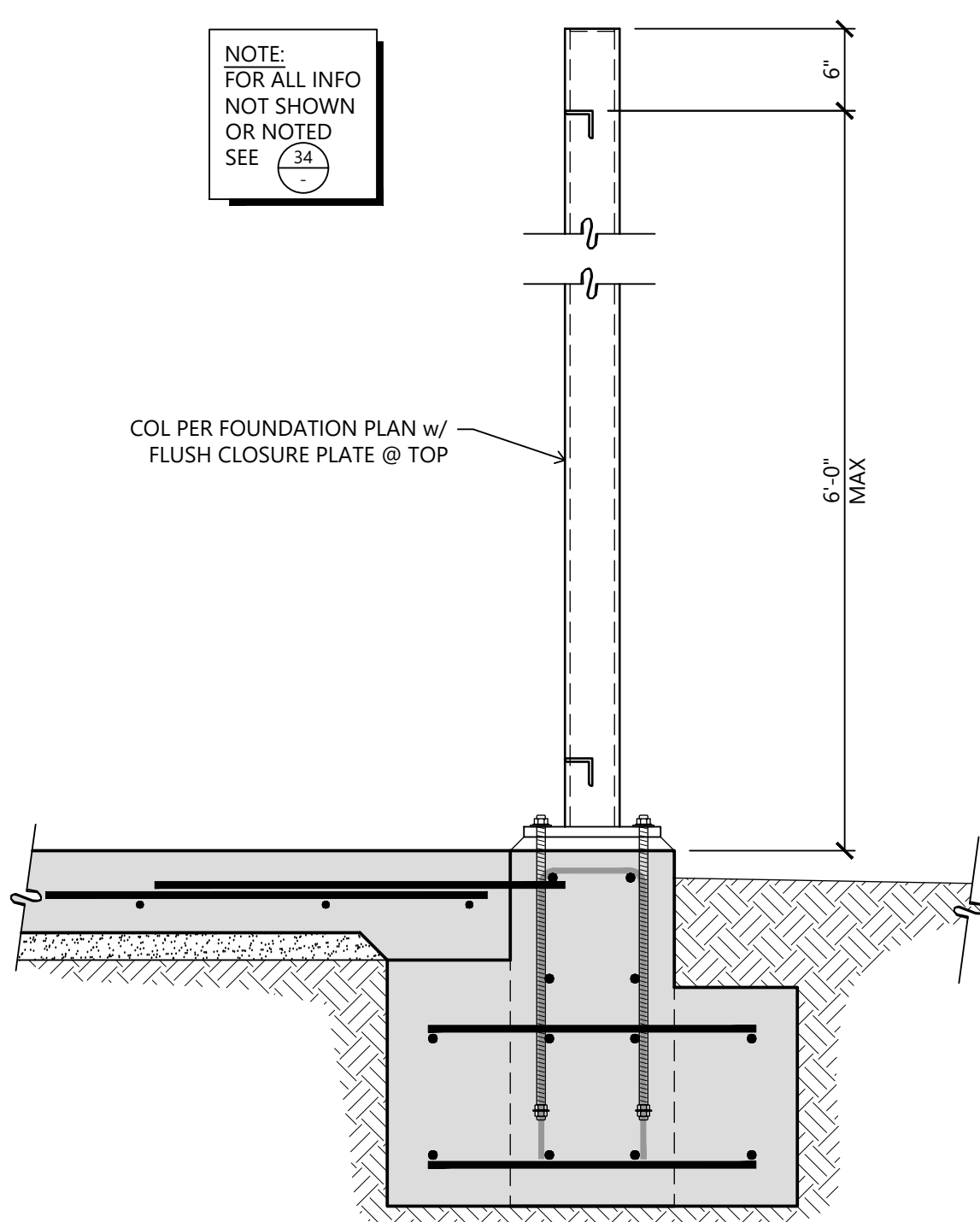
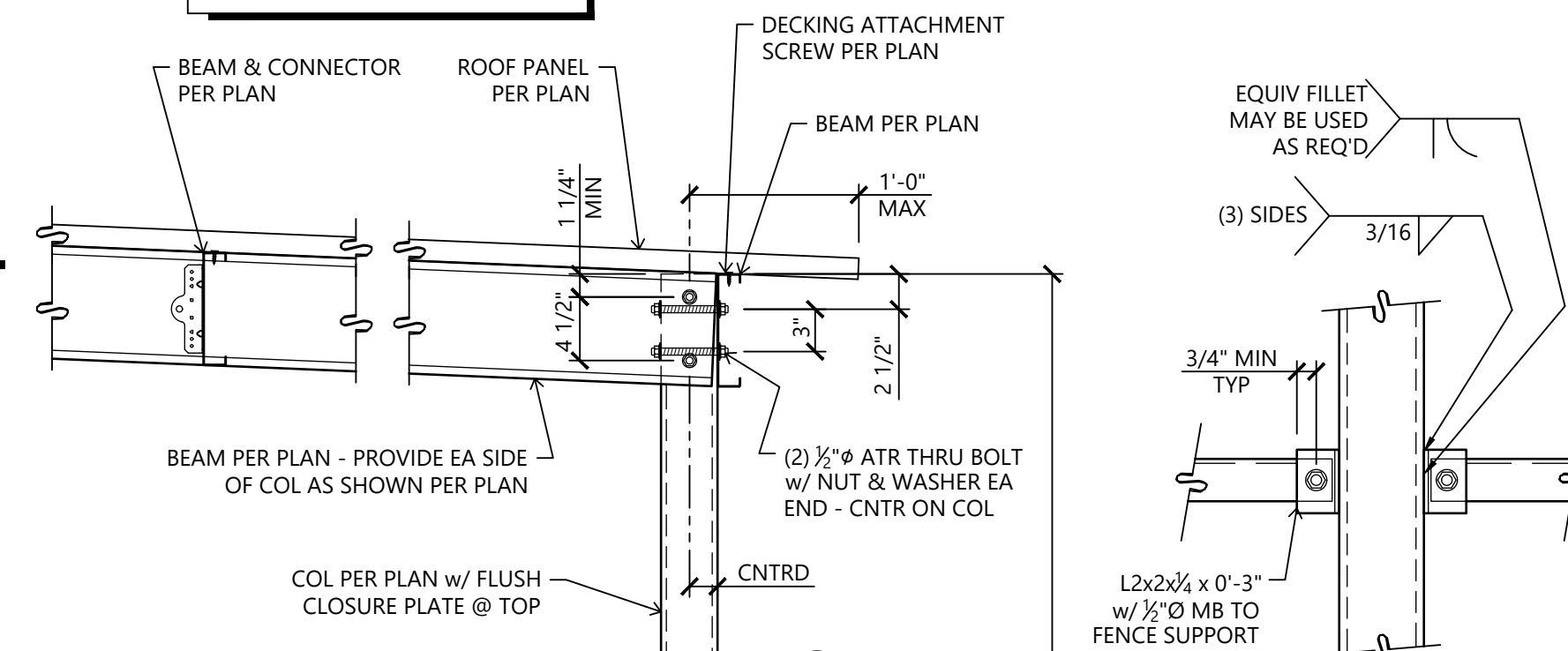
31 Roof Section



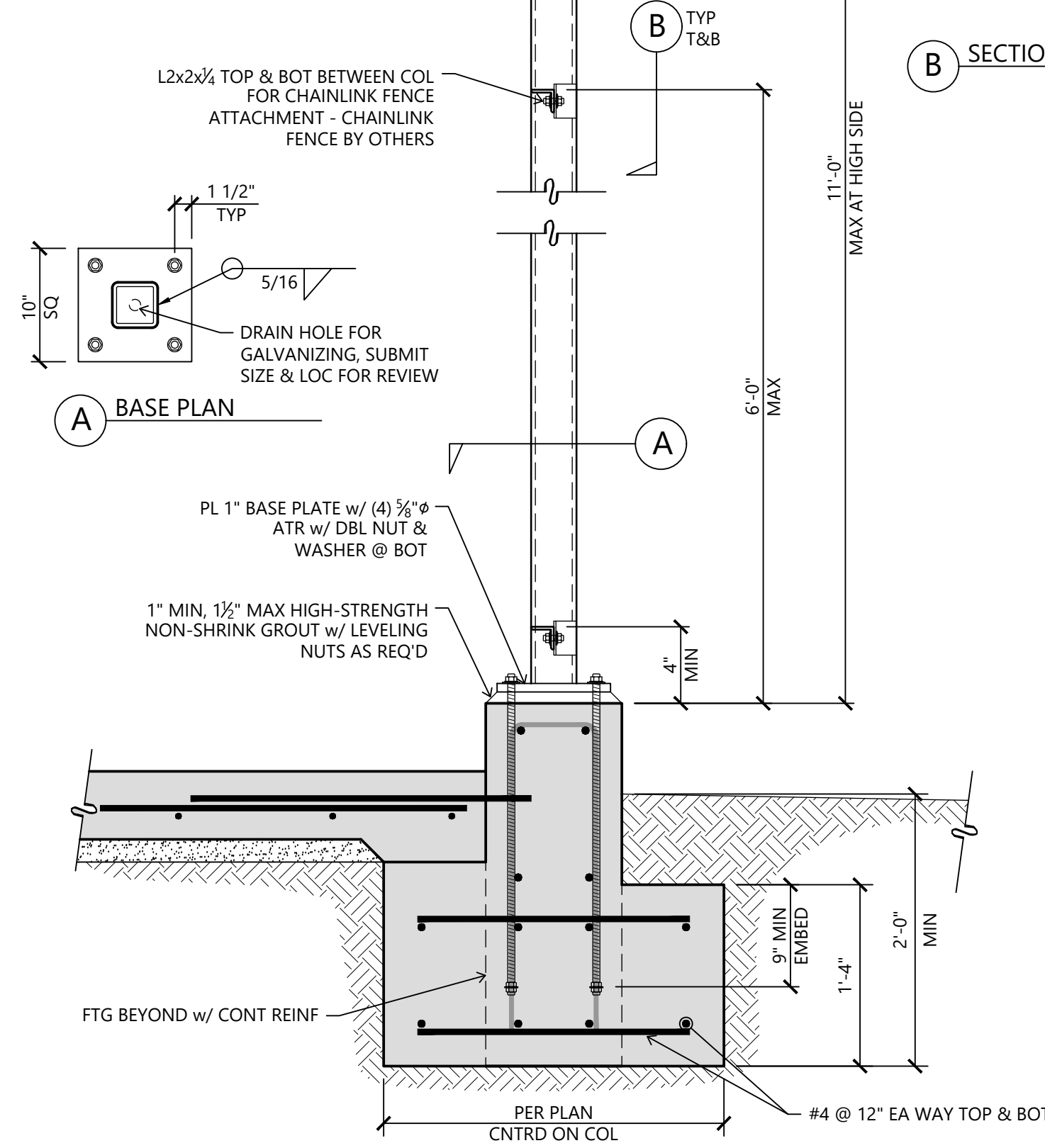
21 Roof Section



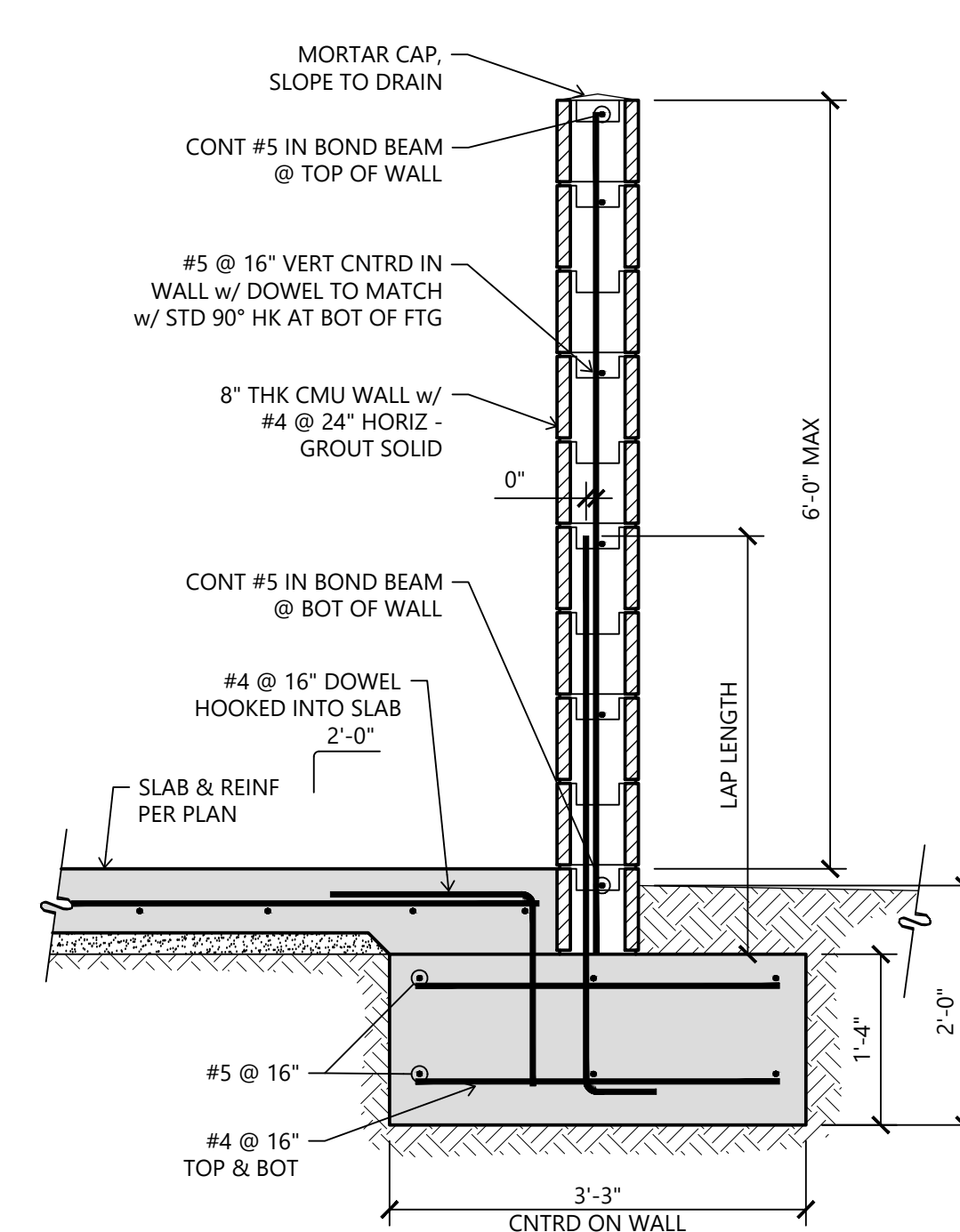
42 Slab Opening



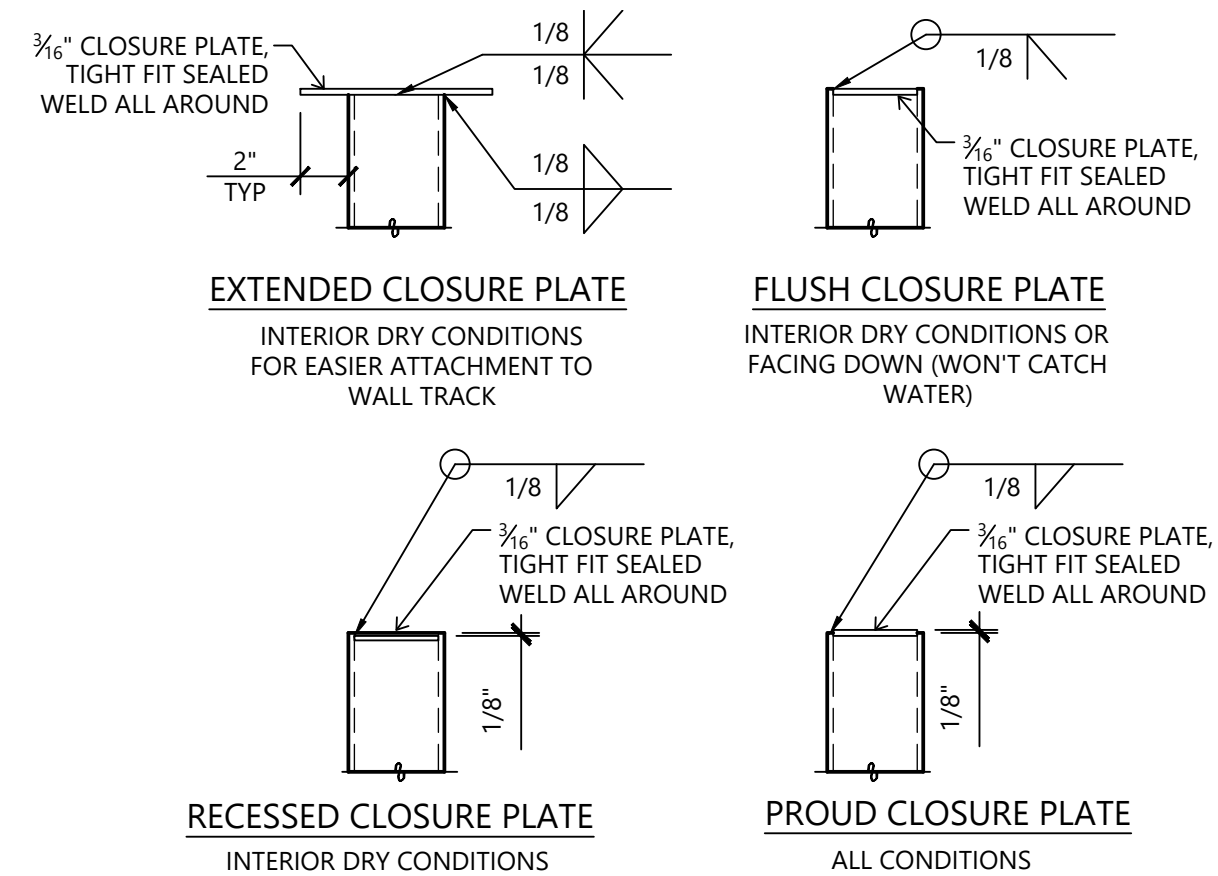
44 Fence Column & Footing Section



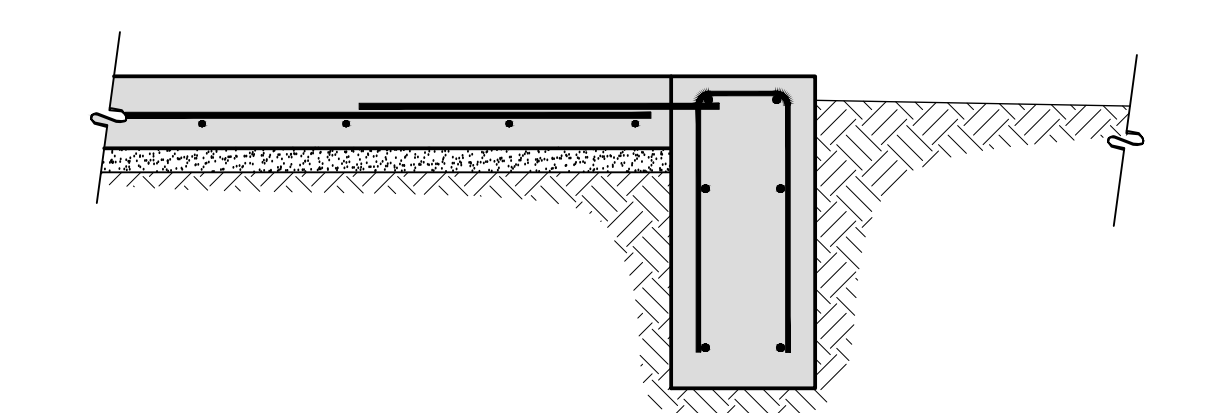
34 Typical Canopy Column & Footing Section



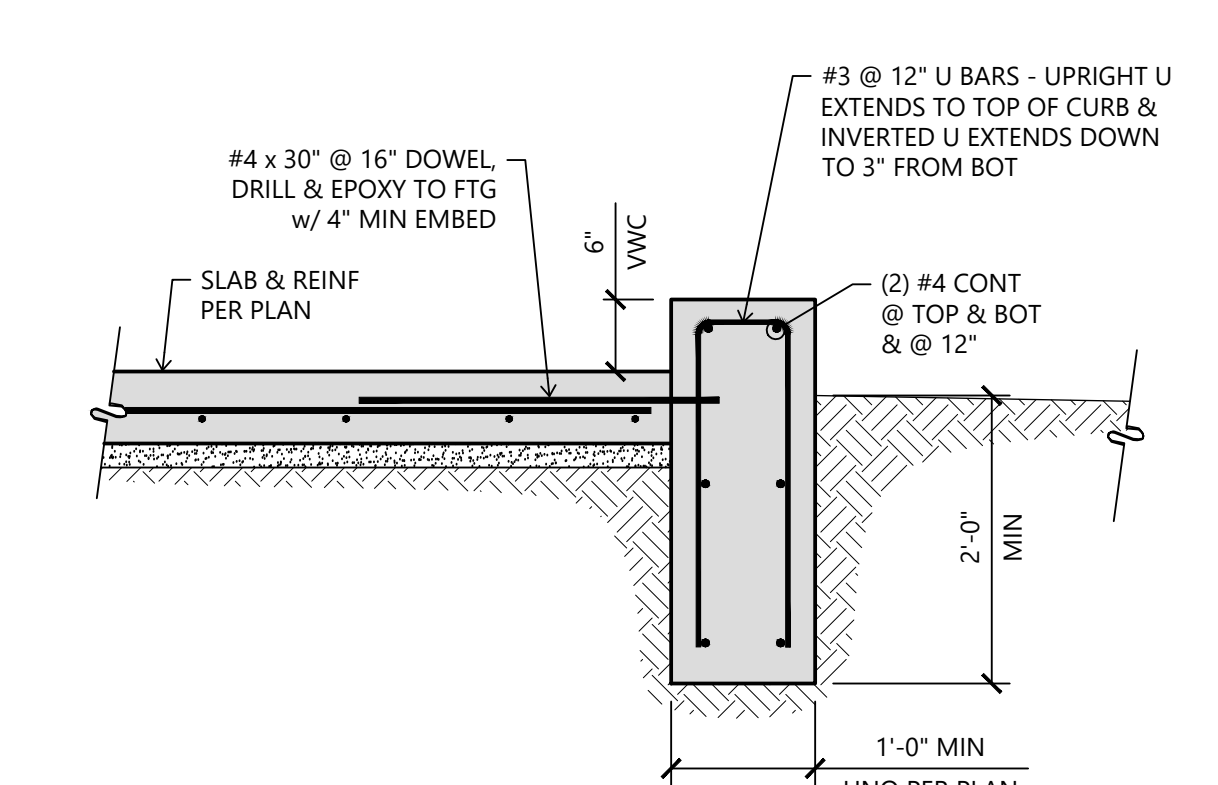
24 CMU Wall Section



12 Typical HSS Closure Plate



13 Slab Edge



14 Typical Slab Edge

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APPROVED BY  
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CHAIRMAN BOARD OF SUPERVISORS \_\_\_\_\_ DATE \_\_\_\_\_

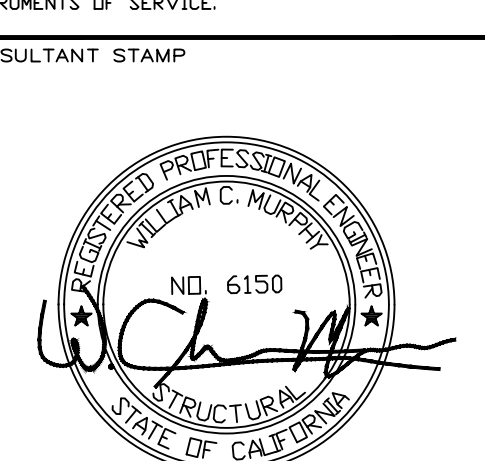
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DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_

RECOMMENDED FOR APPROVAL  
GENERAL SERVICES DIVISION \_\_\_\_\_

CHIEF GENERAL SERVICES OFFICER \_\_\_\_\_ DATE \_\_\_\_\_

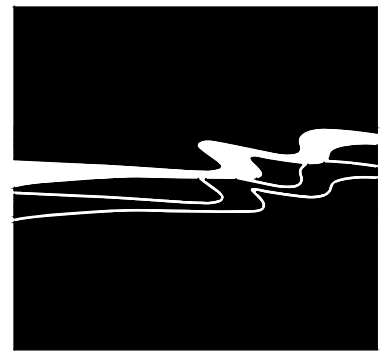
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DESIGNED BY BM	DRAWING FILE 20MM010
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JOB NO. 1650.7014-21	
HART PARK PROP 68 IMPROVEMENTS PUMP STATION DETAILS	

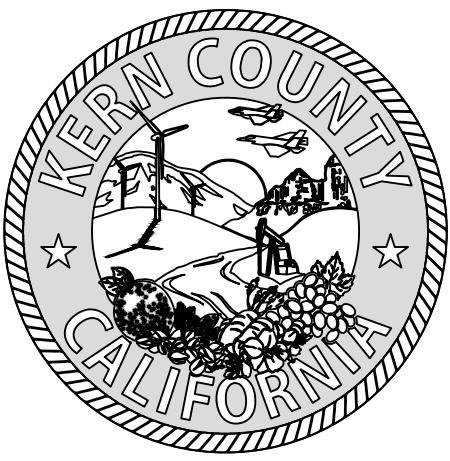




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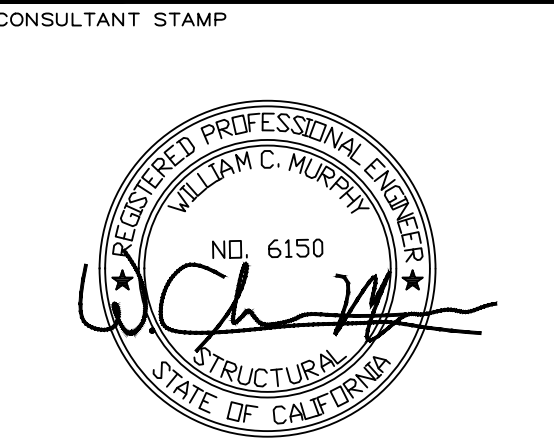


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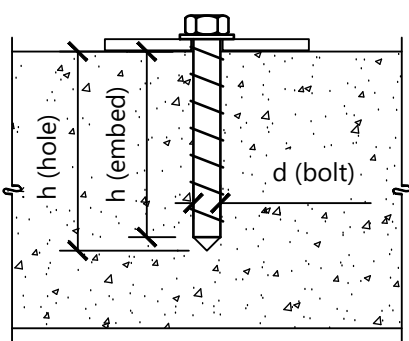
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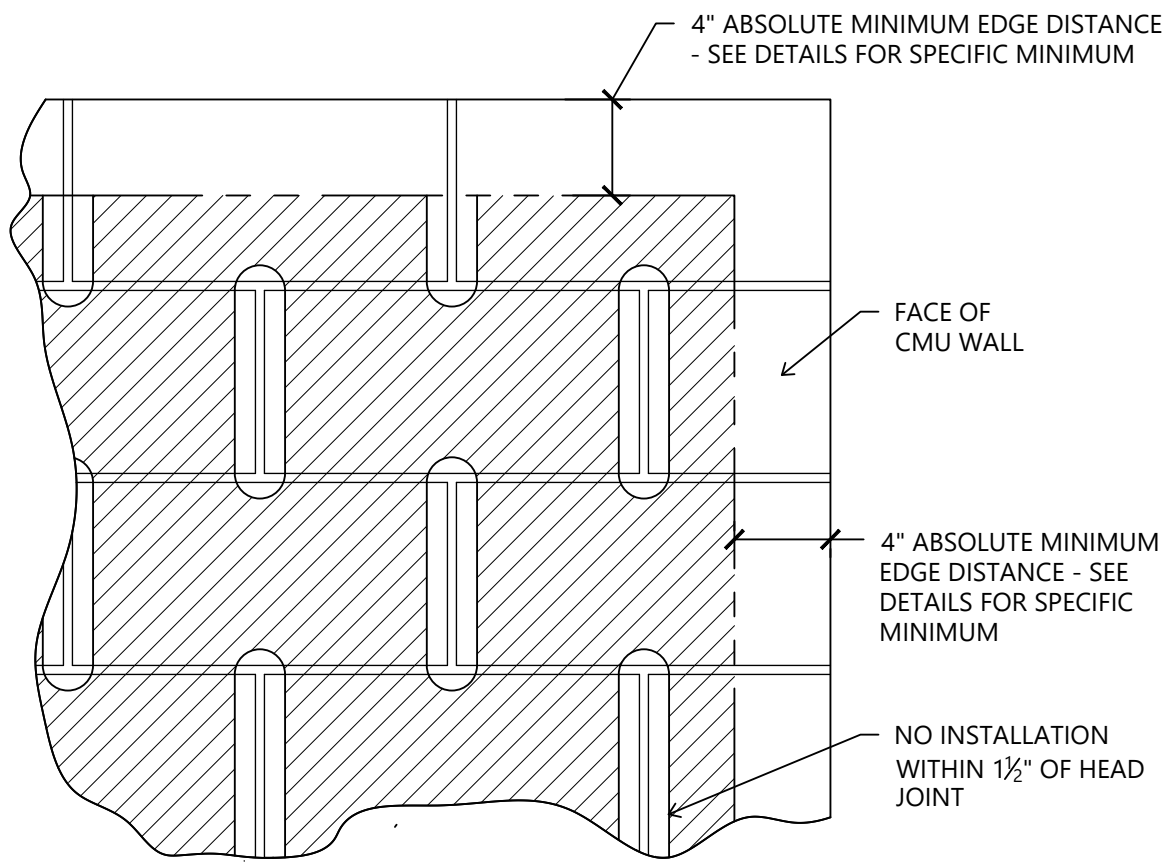
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HART PARK PROP 68 IMPROVEMENTS PUMP STATION DETAILS	



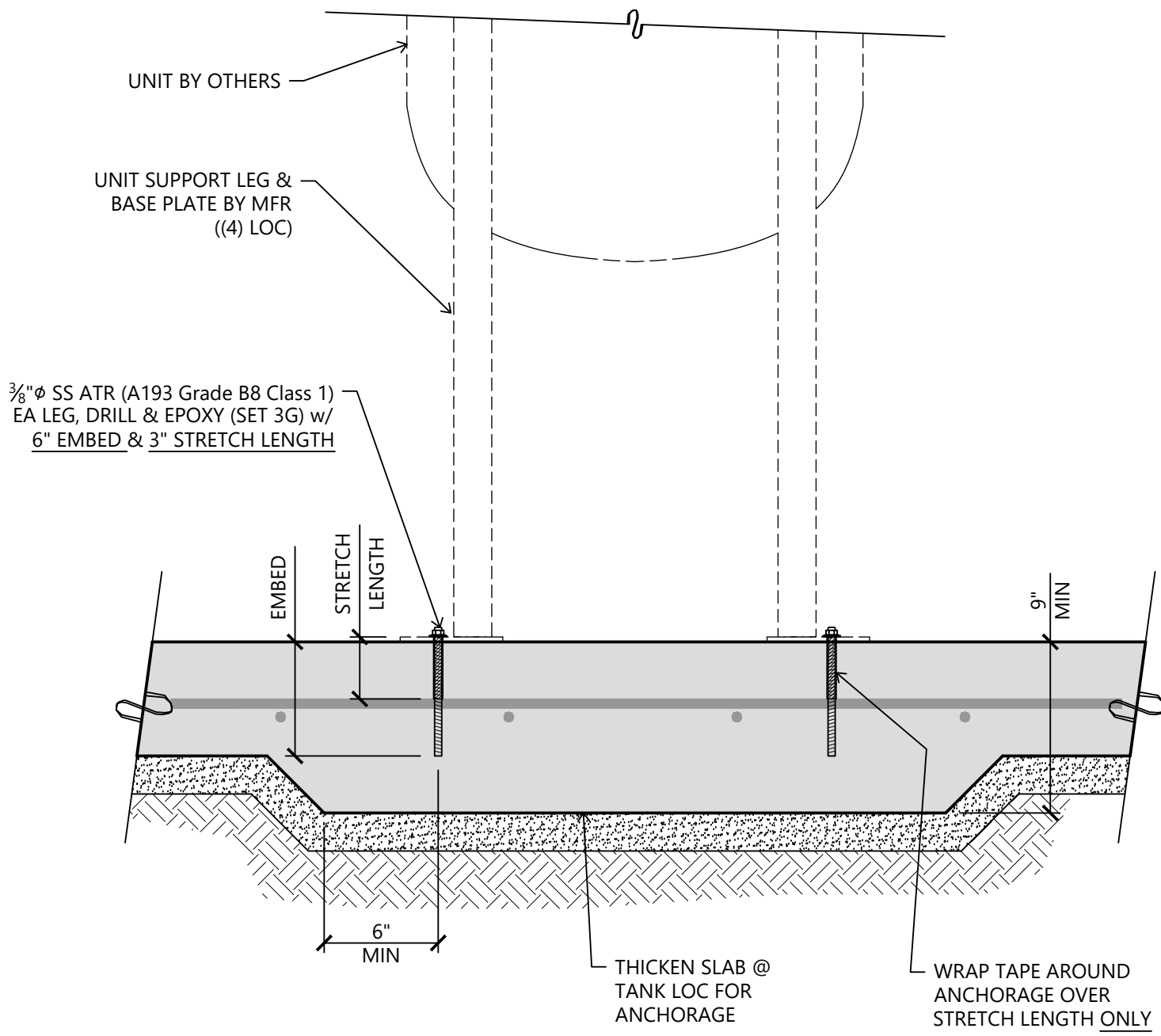
Titen HD Diameter (in.)	Wrench Size (in.)	Recommended Fixture Hole Size (in.)	Min. Hole Depth Overdrill (in.)
1/4	3/8	3/8 TO 7/8	1/2
3/8	9/16	1/2 TO 3/4	3/4
1/2	3/4	3/4 TO 1 1/4	1
3/4	1 1/8	3/4 TO 1 3/4	1 1/2
1	1 3/8	1 TO 1 5/8	2

**32** Typ. Titen Screw Anchor Install. 1 1/2" = 1'-0"



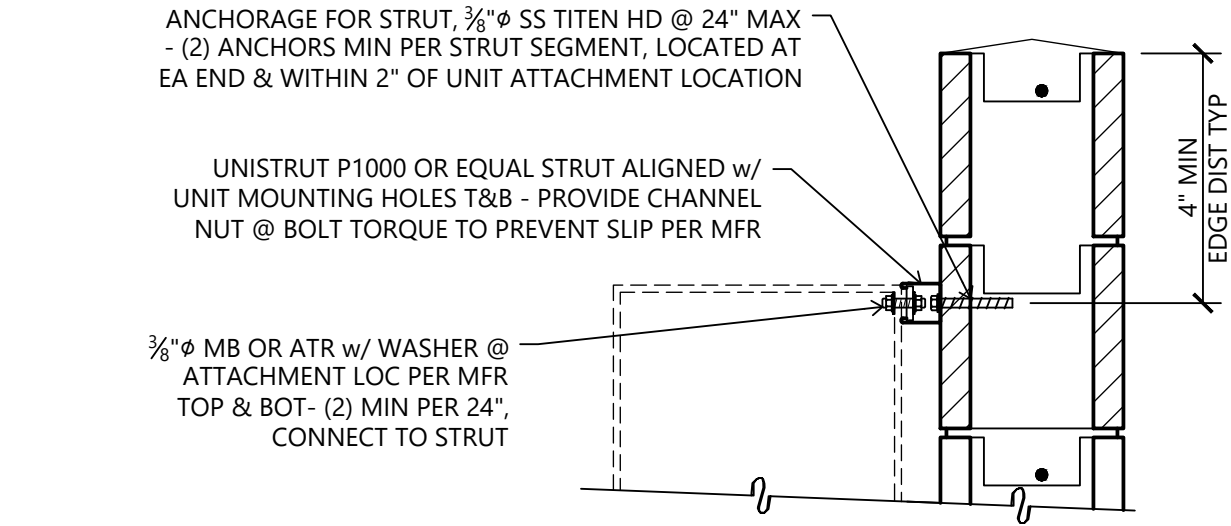
**22** CMU Joint Anchor Layout 1 1/2" = 1'-0"

- EQUIPMENT ASSUMPTIONS:
- SURGE TANK: ASSUMED MAX OP. WT. = 1100#
  - ANCHORAGE DIMENSIONS (O.C.) = 16.9"x16.9"
  - (4) ANCHORS ((1) EA LEG)
  - HEIGHT = 64" (MAX CG HT FROM BASE = 44")

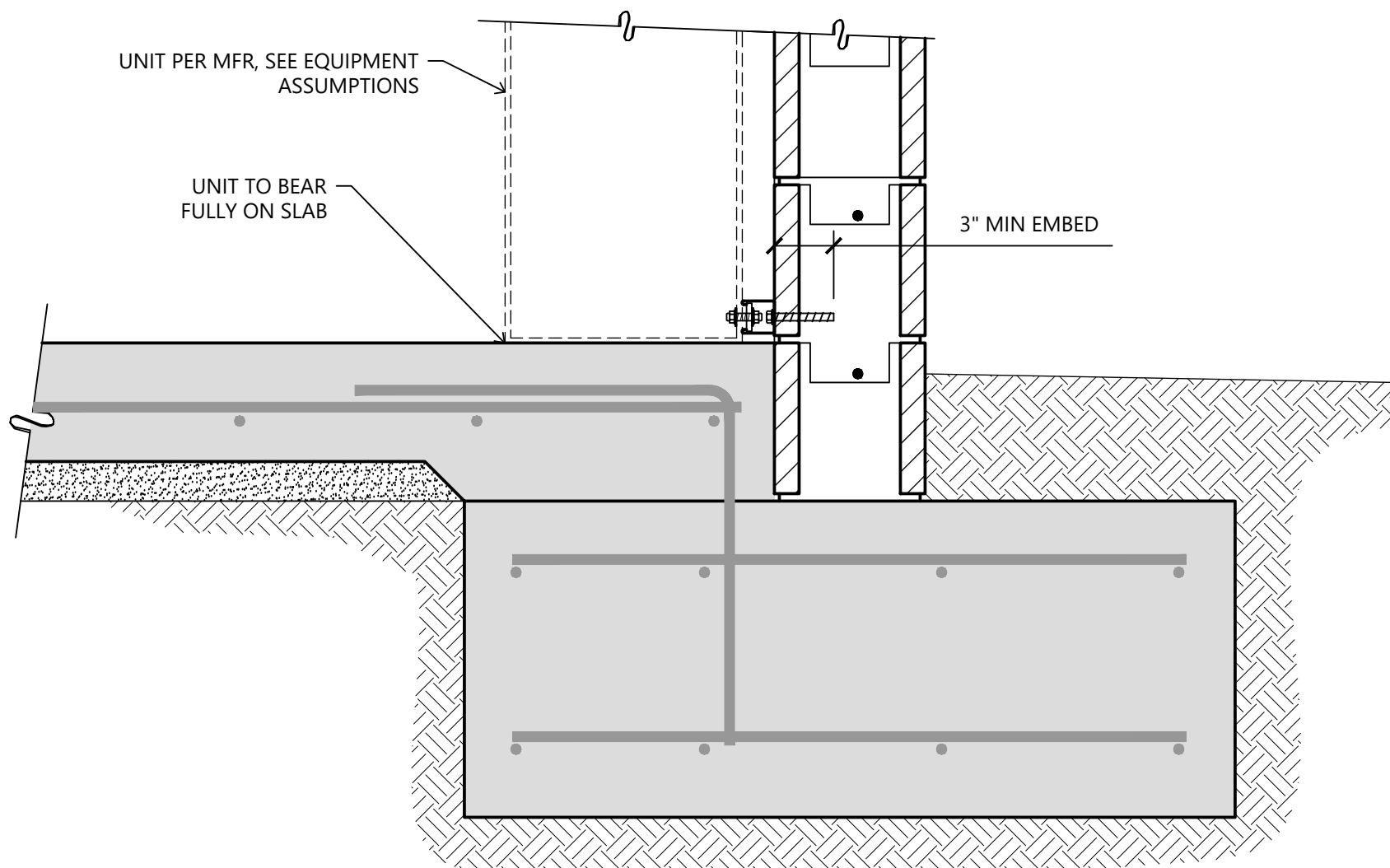


**34** Slab Supported & Wall Anchored Unit 1 1/2" = 1'-0"

- EQUIPMENT ASSUMPTIONS:
- PUMP STATION CONTROL PANEL: ASSUMED MAX OP. WT. = 40psf (480# PER 24")
  - ATTACHMENT TO WALL AT TOP & BOT OF UNIT PER DETAIL
  - HEIGHT = 72" (MAX CG HT FROM BASE OF CABINET = 36")

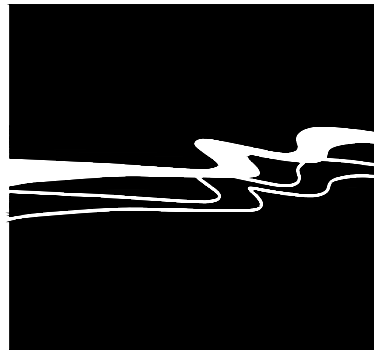
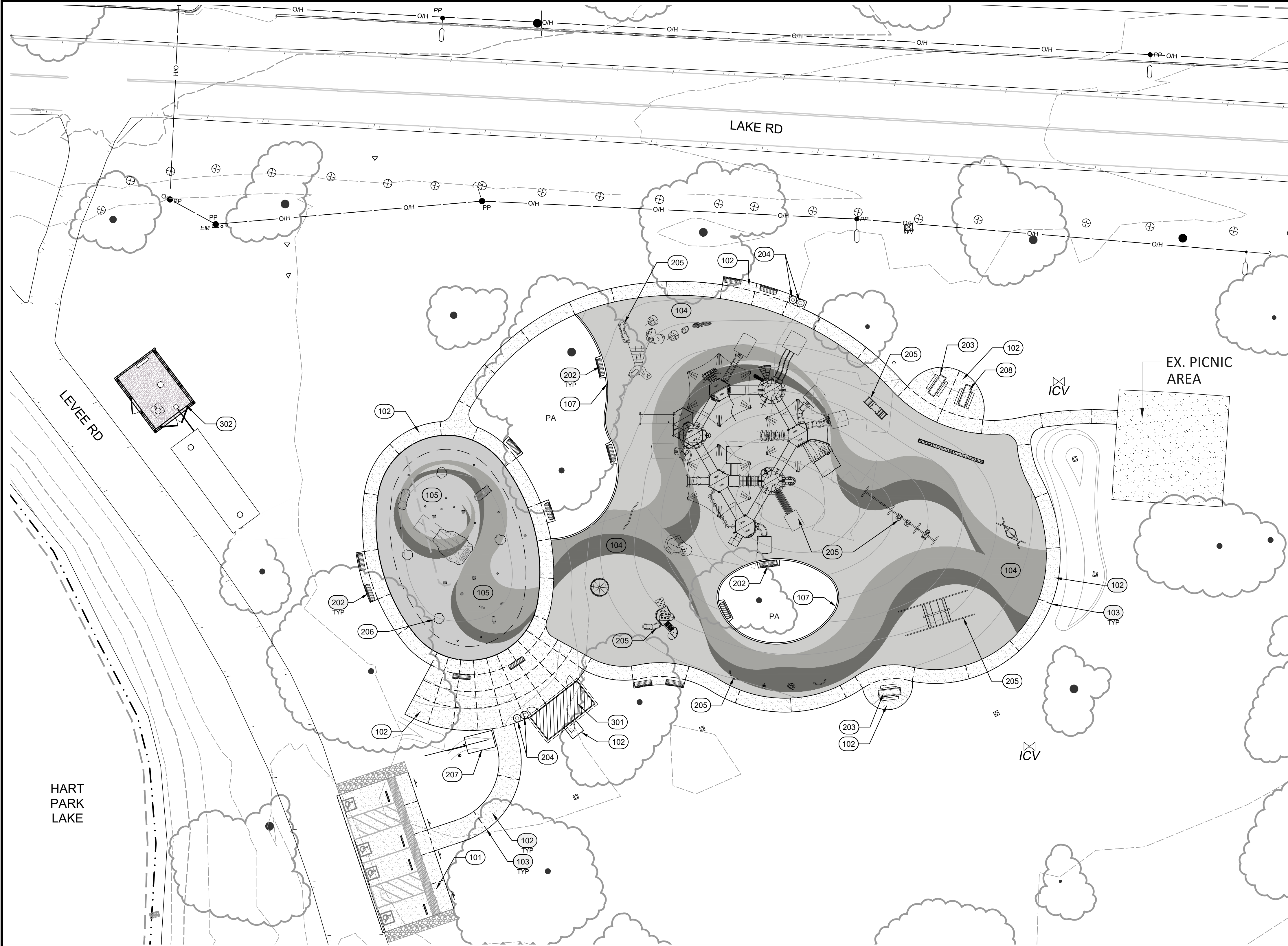


NOTE:  
FOR ALL INFO  
NOT SHOWN  
OR NOTED  
SEE S3.2



**24** Slab Supported & Wall Anchored Unit 1 1/2" = 1'-0"





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BAKERSFIELD, CALIFORNIA

PROJECT  
**HART MEMORIAL  
PARK ADVENTURE  
PLAY AREA**  
LEVEE & LAKE ROAD  
BAKERSFIELD, CA  
93308

APPROVED BY  
COUNTY BOARD OF SUPERVISORS  
CHAIRMAN BOARD OF SUPERVISORS DATE  
RECOMMENDED FOR APPROVAL  
DEPARTMENT  
DIRECTOR DATE  
RECOMMENDED FOR APPROVAL  
GENERAL SERVICES DIVISION  
CHIEF GENERAL SERVICES OFFICER DATE

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DATE	REV	DESCRIPTION

DATE 5/29/2024	SHEET NO. <b>LP-1</b>
DESIGNED BY EAS	
DRAWN BY EAS	
CHECKED BY MJW	
JOB NO. 1650.7014-21	DRAWING FILE 20MM010
HART PARK PROP 68 IMPROVEMENTS HARDSCAPE PLAN	

HARDSCAPE NOTES:

PAVEMENT DESIGN

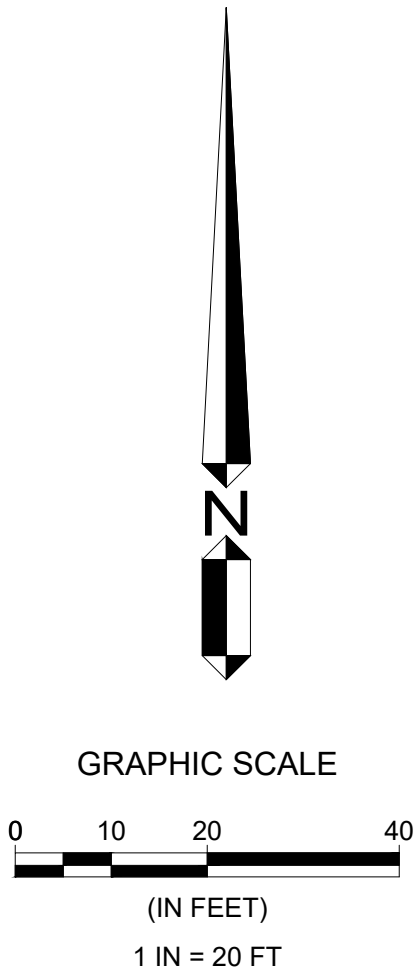
- RECOMMENDATIONS FOR MIX DESIGN, CURING, JOINTS AND REINFORCEMENT SHALL BE AS PROMULGATED BY THE PORTLAND CEMENT ASSOCIATION. CONTROL AND CONSTRUCTION JOINTS SHALL BE USED TO SEPARATE THE PAVEMENTS INTO APPROXIMATELY SQUARE SHAPED AREAS AT A SPACING OF NO MORE THAN 2.5 TIMES THE SLAB THICKNESS IN FEET (I.E. 4" SLAB, JOINTS AT 10' O.C.) OR 15 FEET ON-CENTER, EACH WAY, WHICHEVER IS LESS. A CONCRETE SHRINKAGE OF APPROXIMATELY 1/16-INCH PER 10 FEET OF LENGTH SHALL BE ANTICIPATED AND JOINTS SHALL BE DESIGNED ACCORDINGLY.
- ALL JOINTS IN AND ADJACENT TO THE PCC PAVEMENT SHALL BE SEALED TO PRECLUDE ENTRY OF WATER INTO THE SOIL'S UNDERLYING PAVED AREAS.

SURFACE AND SUBSURFACE DRAINAGE

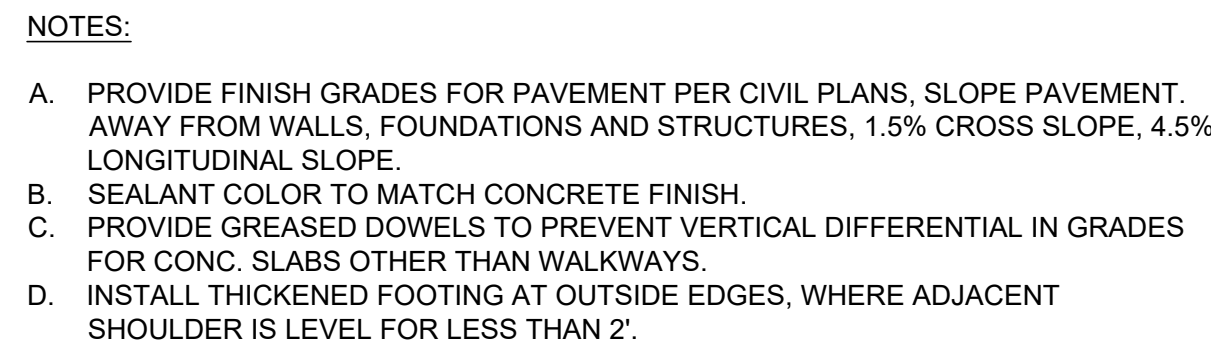
- SURFACE DRAINAGE GRADIENTS SHALL BE PLANNED TO PREVENT PONDING AND PROMOTE DRAINAGE OF SURFACE WATER AWAY FROM BUILDING FOUNDATIONS, EDGES OF PAVEMENTS AND SIDEWALKS. FOR SOIL AREAS WE RECOMMEND THAT A MINIMUM OF 2% GRADIENT BE MAINTAINED.

BMP MAINTENANCE PLAN

- OWNER IS RESPONSIBLE FOR MAINTENANCE OF DRAIN SYSTEM, INCLUDING PERIODIC INSPECTION FOR REMOVAL OF OBSTRUCTIONS FROM ENTIRE DRAIN SYSTEM.
- OWNER TO INSURE THAT DRAIN SYSTEM IS OPERATING EFFICIENTLY AND THAT ALL NECESSARY REPAIRS ARE MADE TO PROTECT SAID PROPERTY AND THE HEALTH, SAFETY AND WELFARE OF THE PUBLIC.
- BEFORE AND AFTER RAINY SEASONS, OWNER SHALL BE RESPONSIBLE TO VISUALLY INSPECT AND CLEAR DEBRIS FROM ROOF GUTTERS, DOWN SPOUTS, AND OVERFLOW PIPE(S) CHECKING INFILTRATION PIT OVERFLOW PIPE, MAINTAINING DEPRESSED AREAS AND LANDSCAPE ABOVE AND AROUND INFILTRATION PIT.
- BEFORE AND AFTER RAINY SEASONS, OWNER SHALL BE RESPONSIBLE FOR INSPECTING ALL LANDSCAPE CATCH DEVICES AND REMOVING ALL DEBRIS FROM GRATES AND SCREENS (WHERE APPLICABLE) AND BUILDUP IN CATCH BASINS.

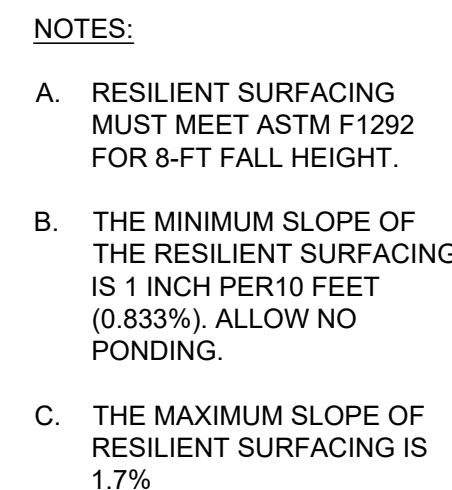
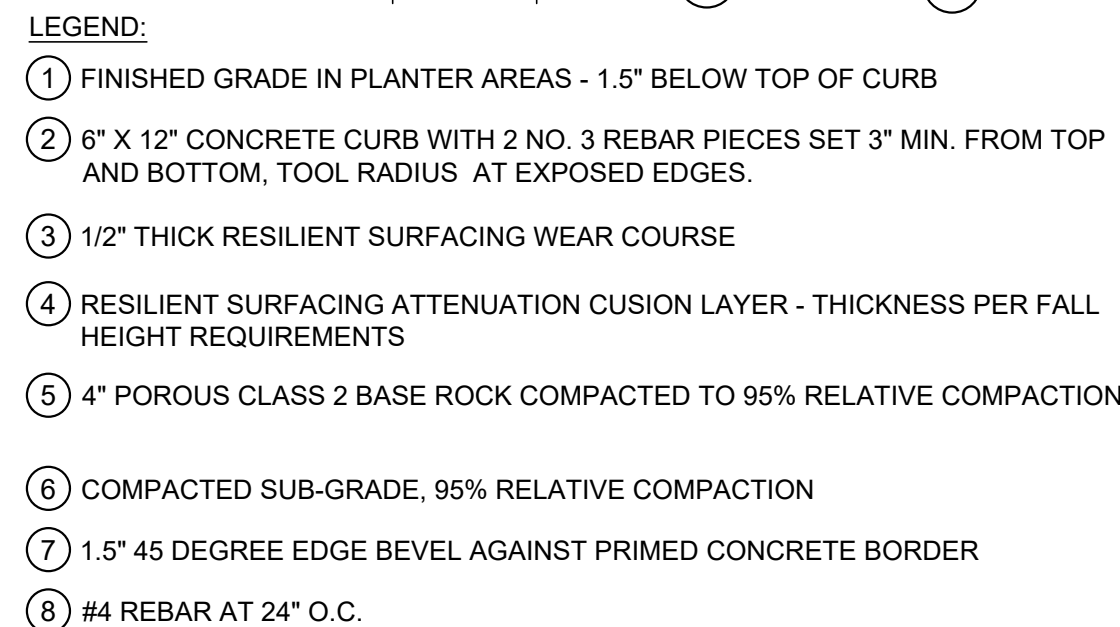






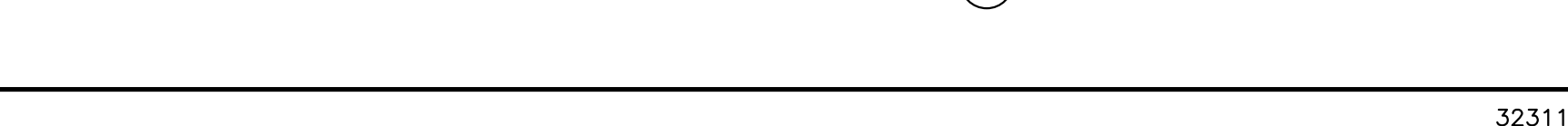
- LEGEND:**
- ① CONCRETE PAVING - MEDIUM BROOM FINISH
  - ② COLD JOINT, @ 10' O.C. MAX LONGITUDINAL
  - ③ 1/4" RADIUS, TYP. ALL EDGES
  - ④ 18" PAPER SLIP DOWEL @ 18" O.C.
  - ⑤ #4 REBAR @ 24" O.C. BOTH WAYS
  - ⑥ 1/2" EXPANSION JOINT, BACKERBEAD, AND SEALANT @ 30'-0" MAX LONGITUDINAL INTERVALS UNO PER PLAN, SEE NOTES
  - ⑦ 1 1/4" TOOLED JOINT @ 5' O.C. MIN. UNO PER PLAN
  - ⑧ BUILDING FACE OR VERTICAL SURFACE
  - ⑨ COMPACTED SUBGRADE, 95% RELATIVE COMPACTION
  - ⑩ FINISH GRADE
  - ⑪ COMPACTED NATIVE MATERIAL, 95% COMPACTION

- LEGEND:**
- ① FINISHED GRADE
  - ② NEW CONCRETE PAVING WITH A THICKENED EDGE
  - ③ 1/2" THICK RESILIENT SURFACING WEAR COURSE
  - ④ RESILIENT SURFACING ATTENUATION CUSHION LAYER - THICKNESS PER FALL HEIGHT REQUIREMENTS
  - ⑤ PLAYGROUND AREA: POROUS CLASS 2 BASE ROCK COMPACTED TO 95% RELATIVE COMPACTION.  
SPLASH PAD AREA: NEW CONCRETE PAD.
  - ⑥ SUB-GRADE PREPARATION: COMPACT TO 95%
  - ⑦ 1-1/2" 45 DEGREE EDGE BEVEL AGAINST PRIMED CONCRETE BORDER

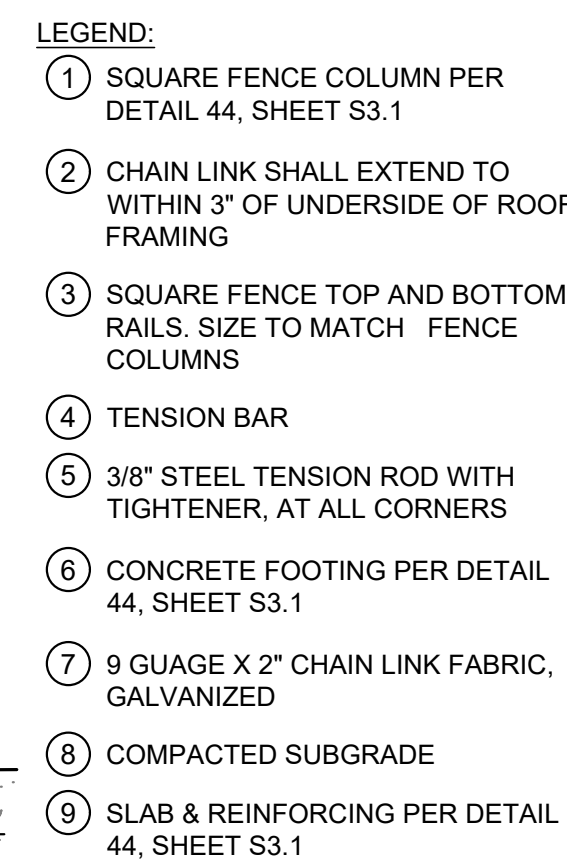

$$1'' = 1' - \theta'$$

$$1\frac{1}{2}'' = 1'-0''$$


## 6

	LEGEND
1	CONCRETE PAD WITH CURB, SEE SHEET C-6.6
2	ELECTRIC CONTROL PANEL, SEE SHEET C-6.6
3	SURGE TANK, SEE SHEET C-6.6
4	DRAINAGE INLET, SEE SHEET C-6.6
5	PIPE, SEE SHEET C-6.6
6	NOT USED
7	NOT USED
8	VERTICAL TURBINE PUMP, SEE SHEETS C-6.5 AND C-6.6
9	CORRUGATED METAL ROOF, SEE SHEET S2.1
10	6' CHAIN-LINK FENCE, SEE DETAIL 7, THIS SHEET
11	CHAIN-LINK MAINTENANCE GATE, SEE DETAIL 5 THIS SHEET
12	POSTS, SEE STRUCTURAL SHEETS
13	CMU WALL, SEE SHEETS S2.1 AND S3.1
14	5.5' CHAIN LINK GATE, SEE DETAIL 8, THIS SHEET

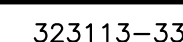


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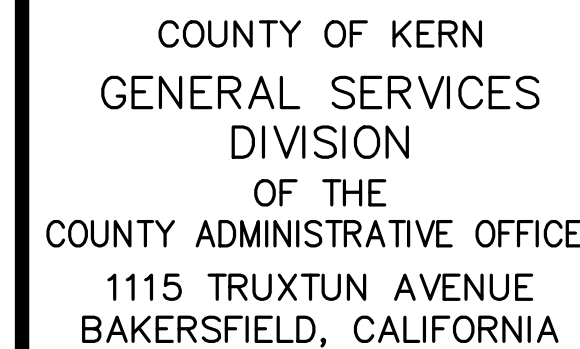
- NOTES:**
1. ALL METAL FENCE COMPONENTS SHALL HAVE BLACK VINYL COATING
  2. SEE SHEETS S2.1 AND S3.1 FOR MORE INFORMATION.
  3. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION

$$1/2'' \equiv 1' - 0'$$

$$1/2'' = 1'-0''$$


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PROJECT

# HART MEMORIAL PARK ADVENTURE PLAY AREA

LEVEE & LAKE ROAD  
BAKERSFIELD, CA  
93308

APPROVED BY  
COUNTY BOARD OF SUPERVISORS

CHAIRMAN BOARD OF SUPERVISORS DATE

RECOMMENDED FOR APPROVAL  
DEPARTMENT

DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_

RECOMMENDED FOR APPROVAL

NAME	GENERAL	GENERAL	GENERAL	DAY
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CHIEF GENERAL SERVICES OFFICER	DATE

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USE OF THESE DRAWINGS IN CONTACT WITH SPECIFICATIONS SHALL CONSTITUTE CONCLUSIVE EVIDENCE OF ACCEPTANCE OF THESE RESTRICTIONS.

USE OF THESE DOCUMENTS FOR THE DEVELOPMENT OF ADULTERATED, SUBSTITUTED, OR REPRODUCED, AND MATERIAL LAYOUTS SHALL REMAIN THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND THE CONSTRUCTION SERVICES ACCEPTS NO RESPONSIBILITY FOR ANY DAMAGES AND IN THE DEVELOPMENT OF THESE INSTRUMENTS OF SERVICE.

CONSULTANT STAMP

[illegible]

DATE 5/00/2004

DESIGNED BY

EAS

DRAWN BY  
EAS

CHECKED BY  
M J W

JOB NO.	
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1650.7014—

SHEET NO.	
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LD-1

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	DRAWING FILE
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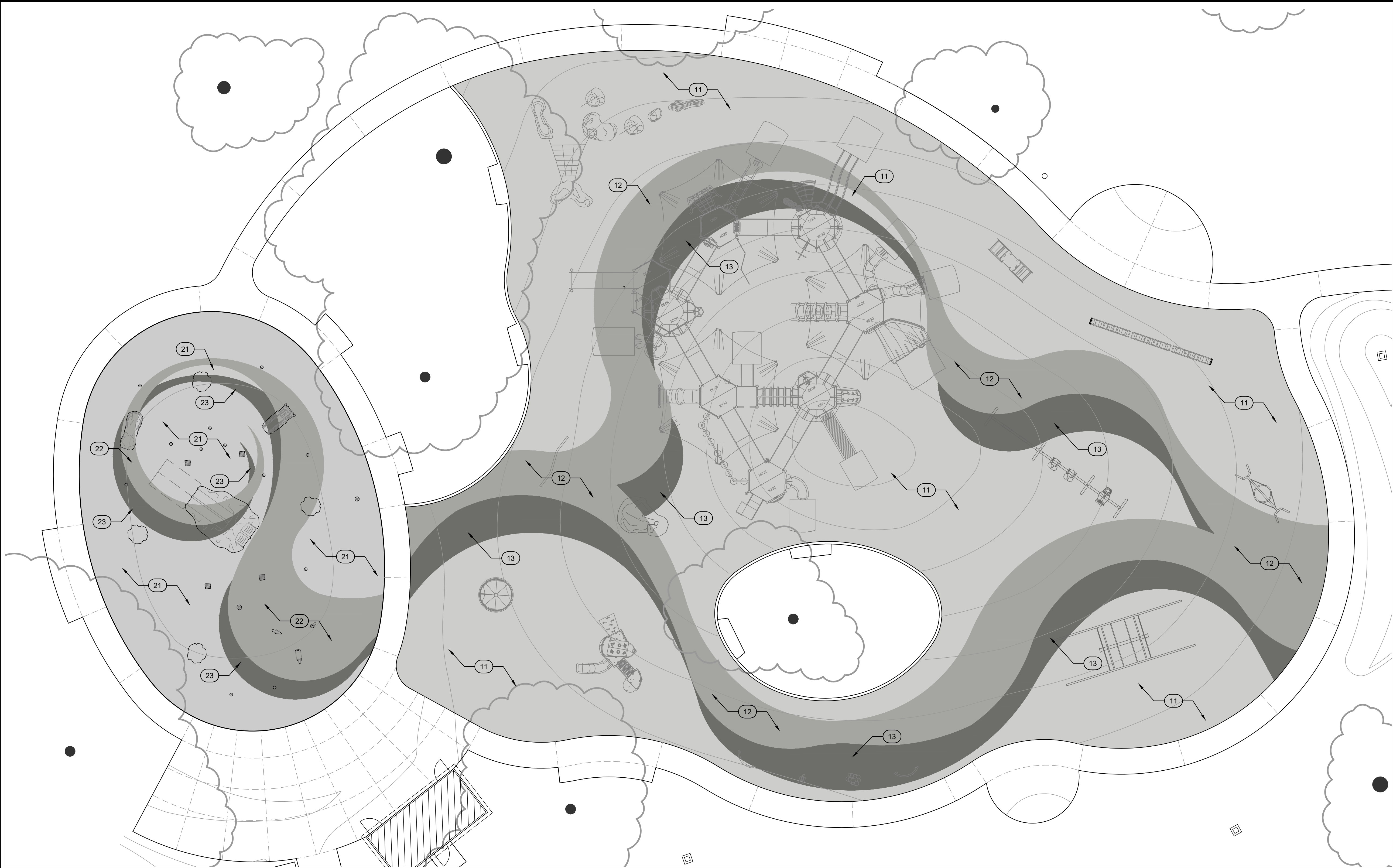
1650.7014-21	20MM01
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HART PARK PROP 68 IMPROVEMENTS  
HARDSCAPE DETAILS









SURFACING NOTES:

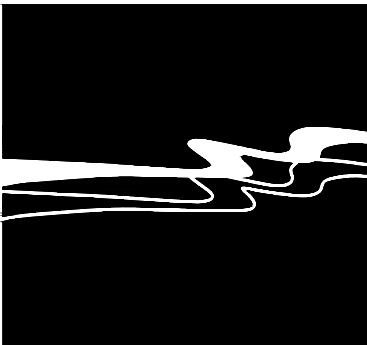
POURED IN PLACE FALL ATTENUATION

- 1. PLAYGROUND SURFACING SHALL BE 'FLEXGROUND' OR APPROVED EQUAL. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- 2. PROVIDE DEPTH FOR FALL ATTENUATION LAYER PER PLAYGROUND MANUFACTURER'S SPECIFICATION FOR THE SPECIFIED EQUIPMENT.
- 3. LANDSCAPE ARCHITECT WILL PROVIDE AUTOCAD FILE OF SURFACING LAYOUT FOR USE IN LAYOUT OF COLOR PATTERNS.

SPLASH PAD SURFACING

- 1. SPLASH PAD SURFACING SHALL BE 'SPLASH TREAD' OR APPROVED EQUAL. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- 2. LANDSCAPE ARCHITECT WILL PROVIDE AUTOCAD FILE OF SURFACING LAYOUT FOR USE IN LAYOUT OF COLOR PATTERNS

SURFACING REFERENCE KEYNOTES	
XXX	DESCRIPTION
10	PLAYGROUND FALL SURFACING
11	PIP PLAYGROUND SURFACING COLOR - BEIGE
12	PIP PLAYGROUND SURFACING COLOR - TURQUOISE
13	PIP PLAYGROUND SURFACING COLOR - LIGHT BLUE
20	SPLASH PAD FALL SURFACING
21	SPLASH TREAD COLOR - SANDSTONE
22	SPLASH TREAD COLOR - TEAL
23	SPLASH TREAD COLOR - UTAH



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BAKERSFIELD, CALIFORNIA

PROJECT  
  
HART MEMORIAL  
PARK ADVENTURE  
PLAY AREA  
  
LEVEE & LAKE ROAD  
BAKERSFIELD, CA  
93308

APPROVED BY COUNTY BOARD OF SUPERVISORS	
CHAIRMAN BOARD OF SUPERVISORS	DATE
RECOMMENDED FOR APPROVAL DEPARTMENT	
DIRECTOR	DATE
RECOMMENDED FOR APPROVAL GENERAL SERVICES DIVISION	
CHIEF GENERAL SERVICES OFFICER	DATE


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DESIGNED BY ----	LD-3
DRAWN BY ----	
CHECKED BY MJW	
JOB NO. 1650.7014-21	DRAWING FILE 20MM010
HART PARK PROP 68 IMPROVEMENTS PLAYGROUND & SPLASH PAD SURFACING	



GRAPHIC SCALE  
0 5 10 20  
(IN FEET)  
1 IN = 10 FT



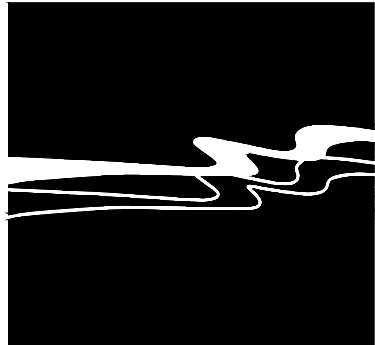


PLANT SCHEDULE

SHRUBS	BOTANICAL / COMMON NAME	CONT	QTY	
	ARCTOSTAPHYLOS X 'PACIFIC MIST' / PACIFIC MIST MANZANITA	1 GAL	17	
	CEANOTHUS X 'JOYCE COULTER' / JOYCE COULTER WILD LILAC	5 GAL	12	
	JUNCUS PATENS / CALIFORNIA GRAY RUSH	5 GAL	20	
	RIBES VIBURNIFOLIUM / EVERGREEN CURRANT	5 GAL	22	
	SALVIA LEUCANTHA 'MIDNIGHT' / MIDNIGHT MEXICAN BUSH SAGE	5 GAL	13	
	SALVIA LEUCANTHA 'SANTA BARBARA' / MEXICAN BUSH SAGE	5 GAL	14	
	TEUCRIUM CHAMAEDRYS / GERMANDER	1 GAL	29	
	WESTRINGIA FRUTICOSA 'WES05' / MUNDI™ COAST ROSEMARY	5 GAL	38	
GROUND COVERS	BOTANICAL / COMMON NAME	CONT	SPACING	QTY
	CYNODON X 'TIFTON 328' / TIFGREEN BERMUDAGRASS HAND BROADCAST AND RAKE IN. SEE PLANTING NOTES.	SEED		50,487 SF

NOTE:

1. LIMIT OF TURF SEEDING TO COVER ALL TURF AREA DISTURBED BY CONSTRUCTION.



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CHIEF GENERAL SERVICES OFFICER

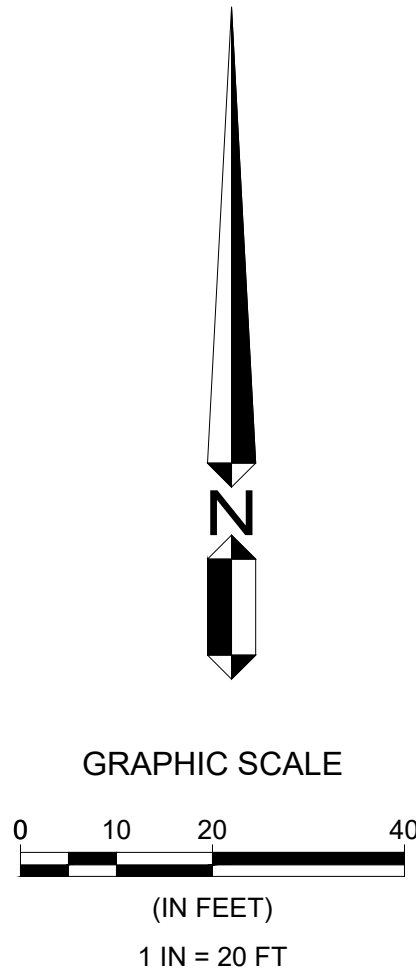
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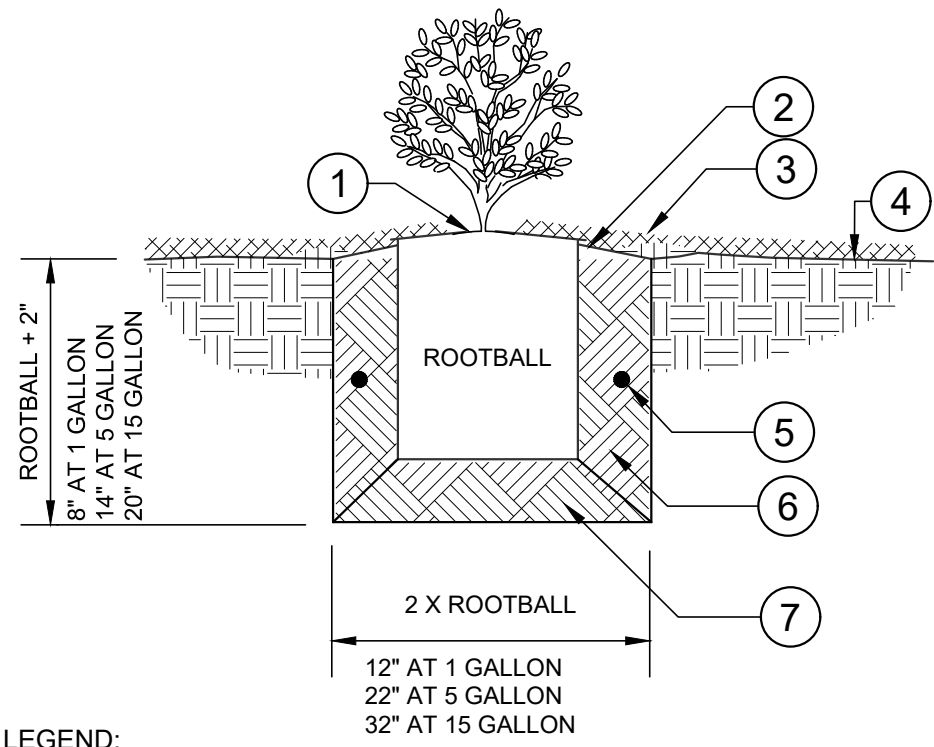


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DATE 5/29/2024	SHEET NO. PP-1
DESIGNED BY EAS	
DRAWN BY SLB	
CHECKED BY MJW	
JOB NO. 1650.7014-21	DRAWING FILE 20MM010
HART PARK PROP 68 IMPROVEMENTS PLANTING PLAN	

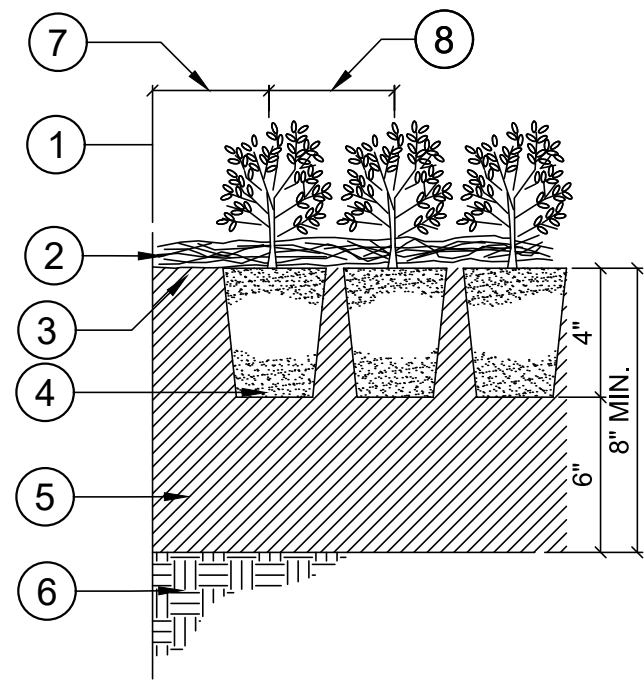






LEGEND:

- 1 SET ROOTBALL CROWN 1" HIGHER THAN SURROUNDING FINISHED GRADE
- 2 SLOPE FINISHED GRADE AT BACKFILL AWAY FROM ROOTBALL
- 3 BARK MULCH - 3" DEPTH
- 4 FINISHED GRADE
- 5 PLANT TABLETS AS SPECIFIED
- 6 BACKFILL MIX, SEE NOTES AND SPECIFICATIONS
- 7 NATIVE SOIL MIX, FIRMLY COMPACTED



LEGEND:

- 1 EDGE OF PLANTING
- 2 3" DEPTH OF BARK MULCH
- 3 FINISH GRADE
- 4 PLANTS FROM POTS OF LINERS AS REQUIRED
- 5 BACKFILL MIX, SEE NOTES & SOILS REPORT
- 6 EXISTING SOIL
- 7 2/3 PLAN SPACING
- 8 SPACING PER PLANS

NOTES:

- A. PREPARE FINISH GRADE OF BEDS TO SURFACE DRAIN AWAY FROM WALLS / STRUCTURES

1 SHRUB PLANTING

1" = 1'-0"

329333.13-11

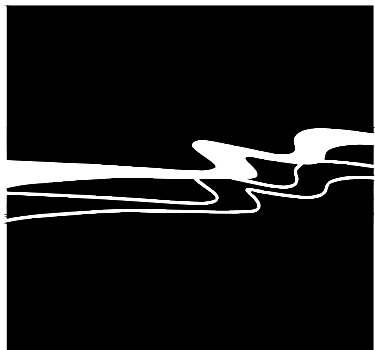
2 GROUND COVER BED PLANTING

SCALE = NTS

329313.13-01

PLANTING NOTES:

1. REFER TO PLANTING PLANS, PLAN NOTES, SPECIFICATIONS, PLANT LEGEND, AND PLANTING DETAILS FOR ADDITIONAL PLANTING INFORMATION. REFER TO IRRIGATION PLANS, NOTES, SPECIFICATIONS, AND DETAILS FOR RELATED LANDSCAPE WORK.
2. NOTIFY OWNER'S REPRESENTATIVE (REP.) 48 HOURS MINIMUM PRIOR TO COMMENCEMENT OF WORK TO COORDINATE PROJECT INSPECTION SCHEDULE.
3. VERIFY ALL EXISTING CONDITIONS, DIMENSIONS AND ELEVATIONS BEFORE PROCEEDING WITH THE WORK. IMMEDIATELY NOTIFY OWNER'S REPRESENTATIVE OF FIELD CONDITIONS THAT VARY FROM THOSE SHOWN ON DRAWINGS AND SEEK CORRECTIONS AND DIRECTIONS BEFORE PROCEEDING WITH WORK. ASSUME FULL RESPONSIBILITY FOR ALL NECESSARY CORRECTIONS DUE TO FAILURE TO REPORT KNOWN DISCREPANCIES.
4. LOCATE AND MARK ALL EXISTING UTILITIES WHETHER SHOWN HEREON OR NOT. PROTECT FROM DAMAGE ALL UTILITIES, AREAS AND STRUCTURES IN AND AROUND LANDSCAPE WORK AREAS. ASSUME FULL RESPONSIBILITY AND EXPENSE FOR REPAIR AND REPLACEMENT OF DAMAGES CAUSED BY CONTRACTOR.
5. LOCATION OF NON-LANDSCAPE CONSTRUCTION ELEMENTS SUCH AS LIGHTS, SIGNS, STRUCTURES, TRANSFORMERS, AND OTHER ELEMENTS ARE APPROXIMATE. CONTRACTOR SHALL VERIFY FIELD CONDITIONS WHETHER SHOWN HEREON OR NOT. WHEN SHOWN ITEMS DO NOT CORRESPOND TO FIELD CONDITIONS, REPORT DISCREPANCIES TO OWNER'S REP. FOR CLARIFICATIONS AND INSTRUCTIONS PRIOR TO PROCEEDING WITH WORK.
6. PLANTING ACCESSORIES & MATERIAL:
  - A. FERTILIZER TABLETS: AGRIFORM (OR APPROVED EQUAL) 20-10-5, TWO 10-GRAM TABLETS FOR 5 GALLON SIZE PLANTS, ONE 10-GRAM TABLET FOR 1 GALLON SIZE.
  - B. FULLY COMPOSTED ORGANIC MATERIAL. MIX 3" THICK LAYER INTO EXISTING SITE SOIL FOR THE SHRUB PLANTING AREAS ONLY. INCORPORATE 6" DEEP BEING CAREFUL TO AVOID DAMAGE TO EXISTING TREE ROOTS.
  - C. MULCH: CONIFEROUS BARK MULCH AT SHRUB LOCATIONS ONLY. SUBMIT SAMPLE FOR APPROVAL.
7. SOIL MANAGEMENT REPORT: PROVIDE ONE REPRESENTATIVE SOIL SAMPLE OF THE EXISTING SITE SOIL IN ACCORDANCE WITH LABORATORY PROTOCOL. SOIL ANALYSIS TO INCLUDE:
  - A. SOIL TEXTURE
  - B. INFILTRATION RATE
  - C. PH
  - D. TOTAL SOLUBLE SALTS
  - E. SODIUM
  - F. PERCENT ORGANIC MATTER
  - G. RECOMMENDATIONS FOR SHRUB AND SOD PLANTING.
8. ADD FERTILIZER AND AMENDMENTS TO THE PLANTING AREAS PER SOIL TEST REPORT RECOMMENDATIONS FOR PLANTING WORK.
9. PREPLANTING PREPARATION:
  - A. PROCEED WITH PLANTING WORK ONLY AFTER IRRIGATION WORK IS COMPLETED, TESTED, AND APPROVED BY OWNER'S REP. PROTECT IRRIGATION SYSTEM FROM DAMAGE.
  - B. ROUGH GRADE PLANTING AREAS UNIFORMLY SMOOTH, DEVOID OF DEPRESSIONS, TO CONFORM TO THE GRADING PATTERNS ESTABLISHED BY CIVIL ENGINEERING DRAWINGS. ENSURE POSITIVE WATER REMOVAL AT 2% MINIMUM GRADIENT TO DRAINAGE ELEMENTS OR STRUCTURES PROVIDED BY OTHERS.
  - C. REMOVE ALL ROCKS GREATER THAN 1" DIAMETER AND ALL DEBRIS AND DELETERIOUS MATERIAL FROM PLANTING AREAS.
  - D. TAKE CARE TO AVOID DAMAGE TO EXISTING TREE ROOTS.
10. PLANTS: ALL PLANTS OF THE SAME SPECIES/CULTIVAR/VARIETY SHALL HAVE MATCHING FORM, FLOWER COLOR, AND SIZE, IN HEALTHY AND THRIVING CONDITION, FREE FROM INJURIES, DISEASES, PESTS AND ROOT-BOUND OR GIRDLING ROOTS. REPLACE REJECTED PLANTS WITH MATCHING SPECIES, SIZE AND FORM.
11. PLANTING:
  - A. IRRIGATE PLANTING AREAS TO BRING TOP 6" OF SOIL TO FIELD CAPACITY. ALLOW SOIL TO DRAIN. DO NOT WORK SOIL UNTIL IT RETURNS TO A MOIST FRIABLE CONDITION.
  - B. PLACE PLANTS IN THEIR CONTAINERS AT THE LOCATIONS PER PLANS FOR APPROVAL BY OWNER'S REP. MAKE MINOR ADJUSTMENTS AS REQUIRED BY FIELD CONDITIONS AND TO ALLOW OPTIMAL IRRIGATION COVERAGE.
  - C. PLANT QUANTITIES GIVEN ON PLANT LEGEND ARE FOR GENERAL GUIDANCE ONLY. PROVIDE THE SPECIFIED PLANT SPECIES IN THE QUANTITIES AT THE REQUIRED SPACING TO ACHIEVE THE DESIGN EFFECT/INTENT SHOWN ON THE PLANS.
  - D. PLANT SHRUBS AS SHOWN ON DETAILS.
  - E. INSTALL 3" DEEP CONIFEROUS BARK MULCH TO COVER BARE SOIL AROUND NEW SHRUBS AND EXISTING TREES IN SHRUB AREAS. KEEP MULCH 3" AWAY FROM SHRUB TRUNKS, 6-8" AWAY FROM TREE TRUNKS.
  - F. APPLY TURF SEED BY BROAD CAST SEEDING AT A RATE OF 15 POUNDS PER 15,000 SQ. FT. RAKE IN AND IRRIGATE THOROUGHLY.
  - G. PROVIDE TEMPORARY FENCE AROUND SEEDED TURF AREAS FOR A MINIMUM OF ONE MONTH FOR SEED ESTABLISHMENT.
12. 1-YEAR MAINTENANCE PERIOD: MAINTAIN PLANTINGS IN THRIVING CONDITION USING ACCEPTED INDUSTRY PRACTICES FOR WATERING, FERTILIZING, AND PRUNING. REPLACE PLANTS THAT DIE OR FAIL TO ESTABLISH IN THRIVING CONDITION WITH SPECIES, SIZE AND FORM MATCHING OTHERS ON SITE. REPAIR OR REPLACE BROKEN IRRIGATION COMPONENTS.
13. WARRANTY: WARRANT PLANT MATERIAL AND IRRIGATION SYSTEM FOR ONE YEAR FROM END OF MAINTENANCE PERIOD. REPLACE DEAD OR DYING PLANTS AND BROKEN IRRIGATION COMPONENTS WITHIN THIS PERIOD.



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GENERAL SERVICES  
DIVISION  
OF THE  
COUNTY ADMINISTRATIVE OFFICE  
1115 TRUXTUN AVENUE  
BAKERSFIELD, CALIFORNIA

PROJECT

HART MEMORIAL  
PARK ADVENTURE  
PLAY AREA

LEVEE & LAKE ROAD  
BAKERSFIELD, CA  
93308

APPROVED BY  
COUNTY BOARD OF SUPERVISORS

CHAIRMAN BOARD OF SUPERVISORS DATE

RECOMMENDED FOR APPROVAL  
DEPARTMENT

DIRECTOR DATE

RECOMMENDED FOR APPROVAL  
GENERAL SERVICES DIVISION

CHIEF GENERAL SERVICES OFFICER DATE

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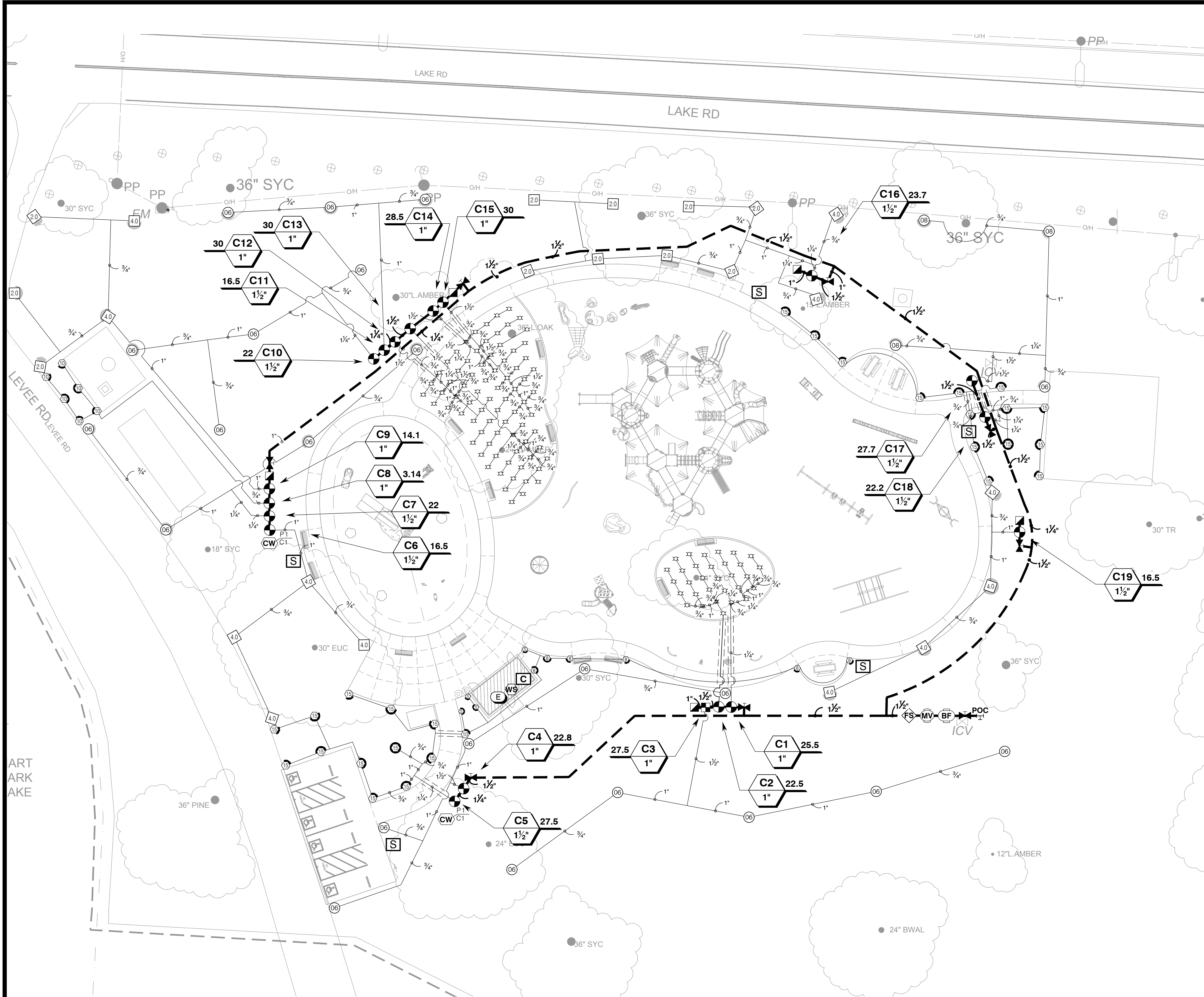
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DATE	REV	DESCRIPTION

DATE	5/29/2024	SHEET NO.
DESIGNED BY	EAS	PD-1
DRAWN BY	EAS	
CHECKED BY	MJV	
JOB NO.	1650.7014-21	DRAWING FILE
		20MM010
HART PARK PROP 68 IMPROVEMENTS PLANTING DETAILS		





GENERAL IRRIGATION RENOVATION NOTES

- THE CONTRACTOR SHALL INSPECT THE SITE PRIOR TO BIDDING.
- LIMITED IRRIGATION RECORD DRAWINGS ARE AVAILABLE. EXISTING VALVE AND WATER LINE LOCATIONS SHOWN ON THESE PLANS ARE BY GROUND OBSERVATION. VERIFY LOCATION IN FIELD PRIOR TO BIDDING AND START OF WORK.
- CONTRACTOR TO OPERATE AND REVIEW EXISTING IRRIGATION SYSTEM TO BECOME FAMILIAR WITH PIPE AND EQUIPMENT LOCATIONS, MANUFACTURER, MODEL, SIZE ETC. CONTRACTOR SHALL PROTECT IN PLACE VALVES, CONTROL WIRE, MAINLINE, LATERALS AND OTHER EQUIPMENT ADJACENT TO THE WORK AREA AS FEASIBLE AND AT DIRECTION OF THE OWNER.
- IRRIGATION MAINLINE, LATERAL LINES AND VALVES AS SHOWN ON THESE PLANS ARE SCHEMATIC. VERIFY LOCATION IN FIELD PER NOTE 3 ABOVE. EXISTING EQUIPMENT WHICH CANNOT BE LOCATED (E.G. EXISTING WATER LINES, SHUTOFF VALVES, CONTROL VALVES ET AL) SHALL BE INSTALLED WITH NEW EQUIPMENT. COORDINATE WITH OWNER PRIOR TO PURCHASE OR INSTALLATION.
- CONTRACTOR SHALL EVALUATE EXISTING IRRIGATION SYSTEM COMPONENTS TO DETERMINE THEIR CONDITION AND FUNCTIONALITY. DAMAGED, WORN AND/OR INOPERABLE PIPE OR EQUIPMENT SHALL BE REPLACED WITH NEW COMPONENTS.
- ALL WORK SHALL BE PERFORMED PER LOCAL, STATE AND FEDERAL CODES AND ORDINANCES.
- THE IRRIGATION SCOPE OF WORK ON THESE PLANS INCLUDES, BUT IS NOT LIMITED TO, INSTALLING NEW PRESSURE REDUCERS AND FILTERS TO EXISTING VALVES, WITH DRIP TUBING AND EMITTERS TO CREATE A FULLY OPERABLE SYSTEM DELIVERING IRRIGATION UNIFORMLY, CONSISTENT WITH THE DETAILS AND SPECIFICATIONS IN THESE DRAWINGS, AS WELL AS THE MANUFACTURER'S SPECIFICATIONS.

- THE HYDRAULIC CAPACITY (PRESSURE AND FLOW) OF THE EXISTING PIPE SYSTEM SUPPLYING THE VALVES IS ASSUMED TO BE GREATER THAN, OR EQUAL TO, THE CAPACITY NEEDED FOR THE PROPOSED NEW IRRIGATION EMITTERS. CONTACT THE OWNER PRIOR TO START OF WORK IF PRESSURE AND FLOW ARE NOT ADEQUATE.
- ALL EXISTING IRRIGATION INFRASTRUCTURE OUTSIDE OF WORK AREA TO REMAIN OPERABLE AND PROTECTED IN PLACE. IF DAMAGED DURING INSTALLATION OF THIS WORK SCOPE, THEY SHALL BE REPLACED IN-KIND IN FULLY OPERABLE CONDITION AND AT NO ADDITIONAL COST TO OWNER.

EXISTING TREE PROTECTION NOTES

- TREE PROTECTION GUIDELINES:
- ANY REQUIRED TRENCHING SHOULD BE ROUTED IN A MANNER THAT MINIMIZES ROOT DAMAGE.
  - ALL WORK CONDUCTED IN THE GROUND WITHIN THE ROOT PROTECTION AREA OF ANY PROTECTED TREE SHOULD BE ACCOMPLISHED WITH HAND TOOLS.
  - CONSTRUCTION ACTIVITY SHOULD BE DIVERTED FROM THE CRITICAL ROOT ZONE. CUTTING OF ROOTS SHOULD BE AVOIDED (I.E., PLACE PIPES AND CABLES BELOW UNICUT ROOTS).
  - THE CRITICAL ROOT ZONE SHOULD BE IRRIGATED SUFFICIENTLY WITH CLEAN, POTABLE WATER TO KEEP THE TREE IN GOOD HEALTH AND VIGOR BEFORE, DURING, AND AFTER CONSTRUCTION. THIS MAY MEAN DEEPLY SOAKING THE GROUND PERIODICALLY.
  - NO CONSTRUCTION STAGING OR DISPOSAL OF CONSTRUCTION MATERIALS OR BYPRODUCTS IS ALLOWED WITHIN THE CRITICAL ROOT ZONE.

IRRIGATION NOTES

- THE IRRIGATION POINT-OF-CONNECTION FOR THIS SCOPE OF WORK WILL TEE OFF OF THE NEARBY EXISTING IRRIGATION MAINLINE TO PROVIDE DRIP IRRIGATION TO THE SHRUBS.
- THE EXISTING TURF IRRIGATION WILL BE MODIFIED AS NEEDED TO CONTINUE TO IRRIGATE THE TURF WITHOUT OVER-SPRAYING ONTO THE NEW PLAYGROUND AND PAVING.
- THE SYSTEM WILL BE FULLY AUTOMATIC AND CONTROLLED BY AN IRRIGATION CLOCK LOCATED IN THE NEW RESTROOM CHASE.

RECYCLED WATER NOTES

REFER TO SHEET ID-1, IRRIGATION NOTES & CALCULATIONS, FOR RECYCLED WATER NOTES.

MWEO COMPLIANCE STATEMENT

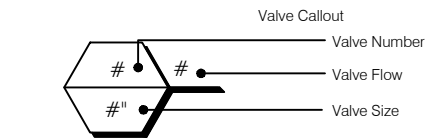
I HAVE COMPLIED WITH THE CRITERIA OF THE CALIFORNIA WATER EFFICIENT LANDSCAPE ORDINANCE 1881 AND APPLIED THEM ACCORDINGLY FOR THE EFFICIENT USE OF WATER IN THE IRRIGATION DESIGN PLAN.

*Jim Burrows*  
J. BURROWS, CLA 2737

MAY 2024

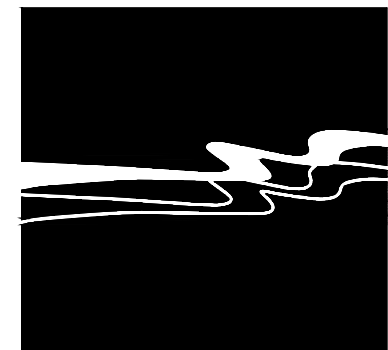
IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
	RAIN BIRD 1804-NP 5 SERIES MPR TURF SPRAY 4.0IN. POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. 1/2IN. NPT FEMALE THREADED INLET. WITH NON POTABLE PURPLE CAP.	4	30
	RAIN BIRD 1804-NP 8 SERIES MPR TURF SPRAY 4.0IN. POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. 1/2IN. NPT FEMALE THREADED INLET. WITH NON POTABLE PURPLE CAP.	6	30
	RAIN BIRD 1804-NP 10 SERIES MPR TURF SPRAY 4.0IN. POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. 1/2IN. NPT FEMALE THREADED INLET. WITH NON POTABLE PURPLE CAP.	7	30
	RAIN BIRD 1804-NP 15 SERIES MPR TURF SPRAY 4.0IN. POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. 1/2IN. NPT FEMALE THREADED INLET. WITH NON POTABLE PURPLE CAP.	26	30
	RAIN BIRD 1812-5 SERIES STREAM STREAM BUBBLER 12IN. POPUP.	111	30
SYMBOL	MANUFACTURER/MODEL	QTY	
	RAIN BIRD 3504-PC 2.0	11	
	RAIN BIRD 3504-PC 4.0	12	
	RAIN BIRD 6504-PC, FC-SS-NP 06	22	
	RAIN BIRD 6504-PC, FC-SS-NP 08	3	
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
	TORO 700K-1-MF 1" ELECTRIC DRIP ZONE VALVE KIT: 1IN. 700 ULTRAFLOW INLINE VALVE, FILTER, MEDIUM FLOW REGULATOR & FITTINGS	1	
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	
	RAIN BIRD PESSR 1-1/2" DURABLE CHLORINE-RESISTANT RECLAIMED WATER VALVE WITH SCRUBBER MECHANISM TECHNOLOGY, AND PURPLE FLOW CONTROL HANDLE. SIZE PER PLAN.	9	
	RAIN BIRD 44-NP 1" 1IN. BRASS QUICK-COUPLING VALVE, WITH CORROSION-RESISTANT STAINLESS STEEL SPRING. LOCKING NON-POTABLE PURPLE RUBBER COVER, AND 2-PIECE BODY.	5	
	LANDSCAPE PRODUCTS INC. CWV SLIP SOCKET 1/2IN., 3/4IN., 1IN., 1-1/4IN., 1-1/2IN., 2IN. SLIP SOCKET PLASTIC BALL VALVE. QUARTER-TURN SHUTOFF DESIGNED FOR IRRIGATION, SPAS, POOLS AND OTHER GENERAL COLD WATER APPLICATIONS. 125 PSI RATING. SAME SIZE AS MAINLINE. PURPLE HANDLE.	8	
	BUCKNER-SUPERIOR 3200-RW 1-1/2" NORMALLY CLOSED BRASS MASTER VALVE THAT PROVIDES DIRTY WATER PROTECTION AND NO MINIMUM FLOW FEATURE. AVAILABLE IN 3/4IN., 1IN., 1-1/4IN., 1-1/2IN., 2IN., 2-1/2IN. AND 3IN. PURPLE CROSS HANDLE FOR RECLAIMED WATER USE.	1	
	ZURN 975XL 1-1/2" REDUCED PRESSURE BACKFLOW DEVICE	1	
	IRRITROL MC-24E 24-STATION, COMMERCIAL-GRADE, INDOOR CONTROLLER. EQUIPPED IN A RUGGED, LOCKABLE, VANDAL-PROOF, WEATHER RESISTANT STEEL CABINET. WALL MOUNT INSIDE UTILITY CHASE AT RESTROOM BUILDING.	1	
	IRRITROL CL-100-WIRELESS WIRELESS WEATHER SENSING SYSTEM. 100-RECEIVE AND TRANSMITTER KIT. OUTDOOR SENSOR, AND RECEIVER ATTACHES TO IRRITROL CONTROLLER. COMPATIBLE WITH 1 RAIN DIAL-R, TOTAL CONTROL-R, KD2, AND MC-E CONTROLLERS. MONITORS WEATHER DATA FOR WATERING ADJUSTMENTS AND PROVIDES RAIN-FREEZE SHUT-DOWN.	1	
	IRRITROL FS-150 FLOW SENSOR. PVC BODY, PIPE CONNECTION SIZE IS 1-1/2IN., MAXIMUM WATER PRESSURE IS 100PSI @ 68F, SUGGESTED OPERATING RANGE IS 5GPM-100GPM, K VALUE OF .457, OFFSET VALUE OF 0.	1	
	PULL BOX TWO (2) SPARE CONTROL WIRES FOR FUTURE USE IN JUNCTION BOX. P=PILOT WIRES, C=COMMON WIRES BUNDLED. COIL WIRES IN VALVE BOX PER DETAIL, AND RUN CONTINUOUS WIRE BACK TO CONTROLLER. LABEL EACH WIRE WITH A PLASTIC I.D. TAG AT THE WIRE BUNDLE AND AT THE CONTROLLER.	2	
	ELECTRICAL POC 120 VOLT ELECTRICAL POWER WITH DEDICATED CIRCUIT, PROVIDED BY ELECTRICIAN IF NEEDED. VERIFY ACTUAL LOCATION IN FIELD	1	
	POINT OF CONNECTION 3"	1	
	IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21-NP 3/4"	2,276 L.F.	
	IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21-NP 1"	649.1 L.F.	
	IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21-NP 1 1/4"	214.9 L.F.	
	IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21-NP 1 1/2"	187.7 L.F.	
	IRRIGATION MAINLINE: PVC SCHEDULE 40-NP 1"	22.3 L.F.	
	IRRIGATION MAINLINE: PVC SCHEDULE 40-NP 1 1/4"	174.0 L.F.	
	IRRIGATION MAINLINE: PVC SCHEDULE 40-NP 1 1/2"	625.4 L.F.	
	PIPE SLEEVE: PVC SCHEDULE 40	110.2 L.F.	



RECYCLED WATER WARNING SIGNS

- RECYCLED WATER WARNING SIGNS PER IRRIGATION DETAIL SHEET



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DIRECTOR  
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CHIEF GENERAL SERVICES OFFICER

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CONSULTANT STAMP



DATE	REV	DESCRIPTION

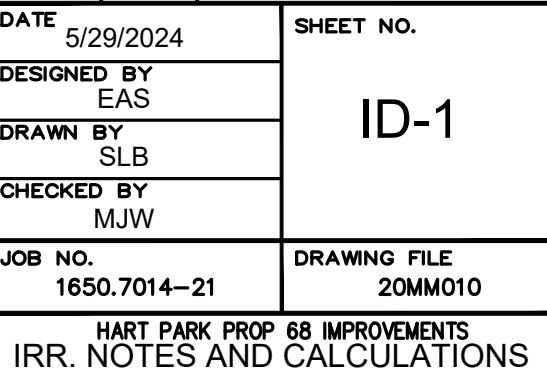
DATE 5/29/2024	SHEET NO. IP-1
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IRRIGATION PLAN

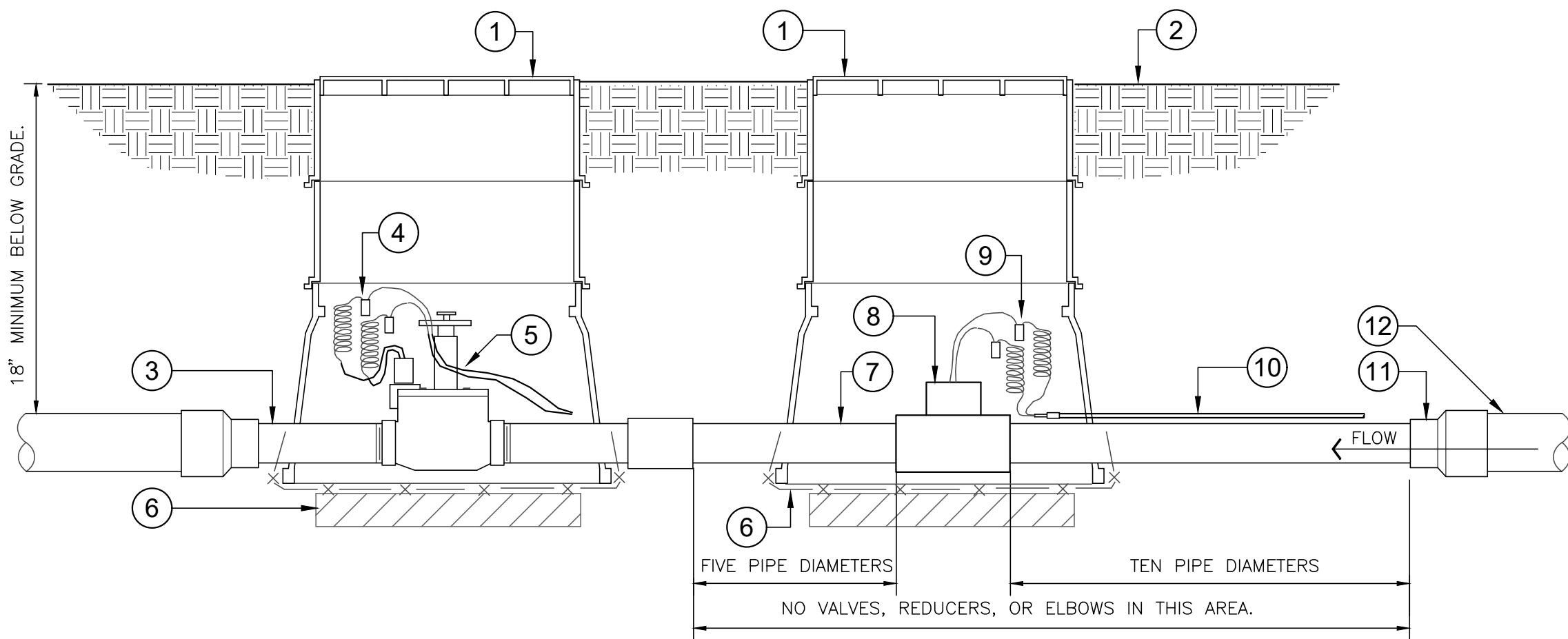


1. THE SYSTEM DESIGN SHOWN IS BASED UPON A MINIMUM PRESSURE OF 60 PSI AT A MAXIMUM DISCHARGE OF 30 GPM. VERIFY PRESSURE AND FLOW ON SITE COUNTY'S REPRESENTATIVE.
2. THE IRRIGATION SYSTEM DESIGN AND UTILITIES SHOWN ARE BASED ON THE "HART PARK BASE PLAN", PREPARED BY THE KERN COUNTY PUBLIC WORKS DEPARTMENT. ADDITIONAL INFORMATION WAS DERIVED FROM A VARIETY OF AVAILABLE RESOURCES, INFORMATION AND SCANS AND SHOULD BE USED FOR REFERENCE ONLY. WHILE EVERY EFFORT HAS BEEN MADE TO ENSURE THAT THIS DATA AND INFORMATION IS ACCURATE AND RELIABLE, WALLA GROUP DOES NOT ASSUME LIABILITY FOR ANY DAMAGES CAUSED BY ANY ERRORS OR OMISSIONS IN THE DATA AND INFORMATION PROVIDED. CONTRACTOR TO VERIFY EXACT LOCATIONS OF COMPONENTS IN THE FIELD AT THE START OF CONSTRUCTION.
3. THIS IRRIGATION SYSTEM IS DESIGNED TO REPLACE EXISTING IRRIGATION SYSTEMS WITHIN CONSTRUCTION AREA. SYSTEM INDICATED IS BASED ON COMPLETE EXISTING IRRIGATION DEMOLITION OCCURRING WITHIN CONSTRUCTION AREA AS IT PERTAINS TO MAINLINE, WIRES, VALVES AND SPRINKLERS. THE EXACT LOCATION OF EXISTING EQUIPMENT MAY BE DIFFERENT FROM THAT SHOWN HEREON. PRIOR TO CONSTRUCTION OR EXCAVATION FIELD VERIFY ALL EXISTING LOCATIONS OF IRRIGATION EQUIPMENT AND LINES.
4. CONTRACTOR SHALL COORDINATE ALL WORK WITH THE SITE SUPERVISOR DURING CONSTRUCTION. CONTACT INFORMATION: DONALD WODDARD, PLANNER, KERN COUNTY GENERAL SERVICES, PH: (661) 868-7020.
5. ALL WORK SHALL CONFORM TO LOCAL AND STATE CODES AND ORDINANCES AND THE PLANS, SPECIFICATIONS, DETAILS AND NOTES FOR THIS PROJECT. READ THOROUGHLY AND BECOME FAMILIAR WITH THE SPECIFICATIONS AND INSTALLATION DETAILS FOR THIS AND RELATED WORK PRIOR TO CONSTRUCTION.
6. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS, INCLUDING, BUT NOT LIMITED TO, UTILITIES AND UTILITIES STRUCTURES, EXISTING IRRIGATION VALVES, MAINLINE CONTROL WIRES, LATERAL LINES AND SPRINKLER HEADS AND STAKE ALL DISCONNECTED, CAPPED OR RELOCATED FACILITIES IN THE FIELD IN WORK AREA PRIOR TO START OF CONSTRUCTION. ALL WORK SHALL BE COORDINATED WITH CIVIL, MECHANICAL, AND ELECTRICAL WORK AND TRADES TO MINIMIZE CONFLICTS. IF A CONFLICT EXISTS BETWEEN SUCH OBSTACLES AND THE PROPOSED WORK, CONTRACTOR SHALL PROMPTLY NOTIFY LANDSCAPE ARCHITECT TO ARRANGE FOR RELOCATIONS IF REQUIRED WITHIN WORK AREA PRIOR TO START OF CONSTRUCTION.
7. THE WORK INCLUDES THE RESPONSIBILITY FOR THE INSTALLATION OF IRRIGATION SLEEVING. CONTRACTOR SHALL COORDINATE SLEEVE INSTALLATION AND SEQUENCE HIS WORK WITH ALL WORK AND DISCIPLINES AS REQUIRED.
8. LAYOUT SHOWN IS DIAGRAMMATIC. IRRIGATION PIPING AND COMPONENTS MAY BE SHOWN OUTSIDE PLANTING AREAS FOR CLARITY. INSTALL IRRIGATION PIPING AND WIRING IN LANDSCAPED AREAS WHENEVER POSSIBLE. INSTALL IRRIGATION VALVES IN GROUND COVER OR SHRUB AREAS WHENEVER POSSIBLE. LOCATE IRRIGATION CONTROL AND QUICK COUPLING VALVES ADJACENT TO HARDSCAPE OR TURF AREAS FOR EASY ACCESS. AVOID CONFLICTS BETWEEN THE IRRIGATION SYSTEM, PLANTING MATERIAL, AND ARCHITECTURAL FEATURES.
9. DO NOT PROCEED WITH THE INSTALLATION OF THE SYSTEM WHEN IT IS EVIDENT THAT FIELD CONDITIONS OR DIFFERENCES EXIST THAT COULD NOT HAVE BEEN CONSIDERED IN ENGINEERING OR IF DISCREPANCIES IN CONSTRUCTION DRAWINGS, DETAILS, NOTES AND SPECIFICATIONS ARE DISCOVERED. BRING ALL SUCH DIFFERING FIELD CONDITIONS AND DISCREPANCIES TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE.
10. THIS SYSTEM DOES NOT USE A BACKFLOW PREVENTION DEVICE BECAUSE IT IS A NON-POTABLE SYSTEM AND IS NOT CONNECTED TO THE PARK'S POTABLE SYSTEM.
11. SEE LEGEND FOR PIPING MATERIAL. SEE DRAWINGS AND LEGEND FOR PIPE SIZES. SIZE CALLOUTS ON DRAWINGS INDICATE NOMINAL PIPE SIZE. UNLABELED SECTIONS ARE THE NOMINAL SIZE OF THE PRECEDING CALLOUT. SUBSEQUENT CALLOUTS INDICATE CHANGE IN PIPE SIZE.
12. UNLESS OTHERWISE NOTED, TRENCHING DEPTHS FOR IRRIGATION SHALL BE 18" FOR MAINLINES IN PLANTING AREAS AND 12" FOR LATERALS. DEPTH SHALL BE MEASURED FROM THE TOP OF PIPE TO FINISHED SOIL LEVEL.
13. EXERCISE CARE WHEN TRENCHING AROUND EXISTING LANDSCAPE AND PROTECT EXISTING LANDSCAPE DURING ALL PHASES OF WORK. WHEN ENCOUNTERED, HAND TRENCH AROUND EXISTING PLANT/ TREE ROOTS OVER 2" IN DIAMETER. ALL DISTURBED AREAS SHALL MATCH APPEARANCE OF ADJACENT AREAS AT END OF WORK.
14. INSTALL CONCRETE THRUST BLOCKS ON ALL MAINLINES THREE (3) INCHES AND LARGER IN DIAMETER IN ACCORDANCE WITH LOCAL CODES AND STANDARDS OR ASAE STANDARD S376.1.
15. ALL MAINLINES, LATERALS, AND CONTROL WIRES UNDER PAVEMENT SHALL BE INSTALLED IN SCHEDULE 40 PVC SLEEVES. SLEEVES SHALL EXTEND 12" BEYOND EDGE OF PAVEMENT AND SHALL HAVE ENDS CLEARLY MARKED ABOVE GRADE DURING CONSTRUCTION.
16. IRRIGATION SYSTEMS TO REMAIN TO BE PROTECTED THROUGHOUT GRADING AND CONSTRUCTION PHASES. ANY EXISTING IRRIGATION AND PLANTING DAMAGED OR IMPACTED BY THE NEW WORK WILL BE REPLACED, REPAIRED AND/OR RETROFITTED AS NEEDED WITH MATCHING MATERIAL.
17. AT ALL TIMES, ENSURE THAT EXISTING IRRIGATION FACILITIES WHICH REMAIN AFTER GRADING, REMAIN OPERATIONAL AND ADJOINING UNDISTURBED AREAS RECEIVE ADEQUATE AND REGULAR IRRIGATION.
18. HAND IRRIGATE ALL EXISTING LANDSCAPED AREAS WHICH CANNOT BE IRRIGATED BY EXISTING FACILITIES AFFECTED BY THE IMPROVEMENTS UNTIL IRRIGATION SYSTEMS ARE RESTORED.
19. PRIOR TO BACKFILLING, FLUSH AND TEST MAINS AND LATERALS. FLUSH MAINS BEFORE INSTALLING VALVES. FLUSH LATERALS BEFORE INSTALLING SPRINKLERS. SUBJECT MAINS TO HYDROSTATIC PRESSURE OF 1.5 TIMES THE ANTICIPATED OPERATING PRESSURE (MIN. 100 PSI) FOR TWO HOURS. SUBJECT LATERALS TO HYDROSTATIC PRESSURE EQUAL TO ANTICIPATED OPERATING PRESSURE. ALL FLUSHING SHALL BE DONE IN THE PRESENCE OF THE ARCHITECT. BACKFILL WITH CLEAN MATERIAL FROM EXCAVATION. REMOVE ROCKS AND DEBRIS LARGER THAN 1" DIAMETER.
20. PRIOR TO BACKFILLING THE POTABLE AND NEW RECYCLED WATER IRRIGATION CONNECTION & CROSSING WORK AREAS, AN INSPECTION BY A CERTIFIED CROSS CONNECTION SPECIALIST SHALL OCCUR TO VERIFY NO CROSS CONNECTION BETWEEN THE POTABLE WATER AND THE RECYCLED WATER SYSTEMS. PROVIDE PHOTOS OF ALL WORK. SPECIALIST TO BE PROVIDED BY THE COUNTY.
21. IRRIGATION VALVE BOXES SHALL BE PURPLE IN COLOR. EXISTING IRRIGATION VALVE BOXES ON SITE WITHIN THE WORK AREA WHICH ARE NOT PURPLE ARE TO BE REPLACED WITH A PURPLE VALVE BOX OF SIMILAR SIZE.

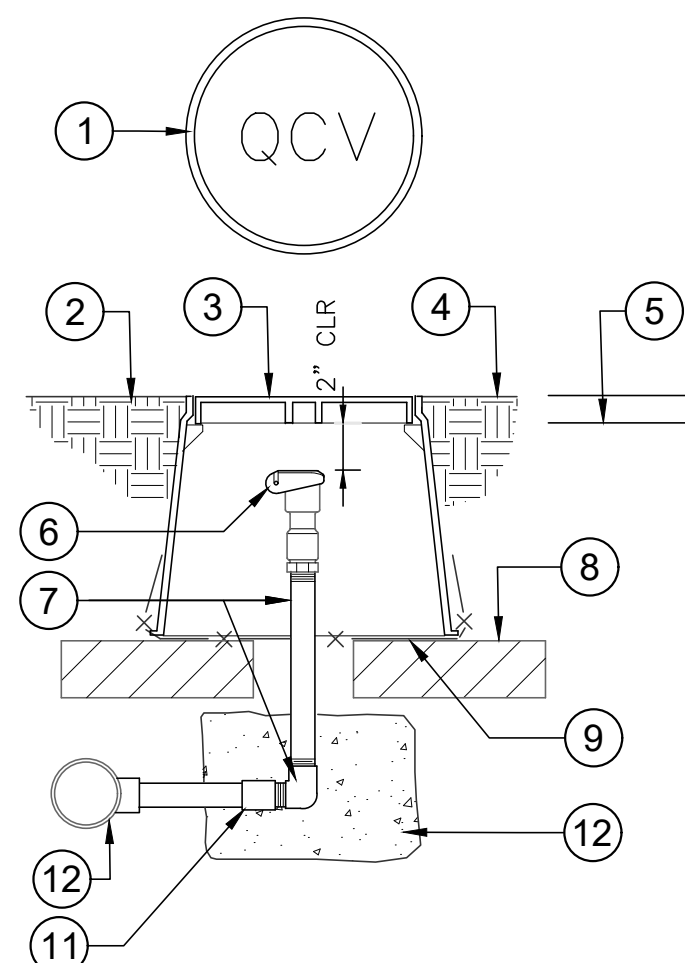
- SCALE: NTS 328419.05-05







- LEGEND:**
- 10X15 RECTANGULAR BOXES WITH 6' EXTENSIONS AS INDICATED
  - FINISHED GRADE
  - SCH 80 NIPPLES VALVE INLET SIZE
  - WATER PROOF WIRE CONNECTORS, ON 30" LOOPED WIRES
  - MASTER CONTROL VALVE AS SPECIFIED
  - EACH BOX BOTTOM: 1/2" WIRE CLOTH GOPHER SCREEN, WRAP UP SIDES, OVER 6X2X16 CONC. BLOCK CAPS, ONE EACH SIDE (TWO PER BOX).
  - SCHEDULE 80 NIPPLES, VALVE INLET SIZE
  - FLOW SENSOR AS SPECIFIED
  - WATERPROOF WIRE CONNECTORS ON 18" LOOPED WIRES
  - EV-CAB-SEN CABLE TO CONTROLLER SENSOR TERMINAL BOARD "PC-DX2ST"
  - REDUCER AS REQUIRED
  - PVC MAIN LINE TO BACKFLOW DEVICE



- LEGEND:**
- 10" DIAMETER VALVE BOX. HEAT BRAND "QCV" ON LID WITH 2" HIGH LETTERS
  - FINISHED GRADE
  - 10" DIAMETER VALVE BOX
  - FLUSH TO GRADE AT TURF
  - 1" ABOVE GRADE AT SHRUBS
  - QUICK COUPLER AS SPECIFIED
  - GALVANIZED RISER AND ELBOW, QC INLET SIZE
  - FOUR COMMON BRICKS AS SUPPORT UNDER BOX
  - 1/2" WIRE CLOTH GOPHER SCREEN, WRAP UP SIDES
  - MAIN LINE
  - PVC MALE ADAPTER
  - 60 LB CONCRETE TORQUE BLOCK

## 1 MASTER VALVE/FLOW SENSOR ASSEMBLY

1 1/2" = 1'-0"

328406.23-10

## 2 QUICK COUPLING VALVE IN BOX ASSEMBLY

1 1/2" = 1'-0"

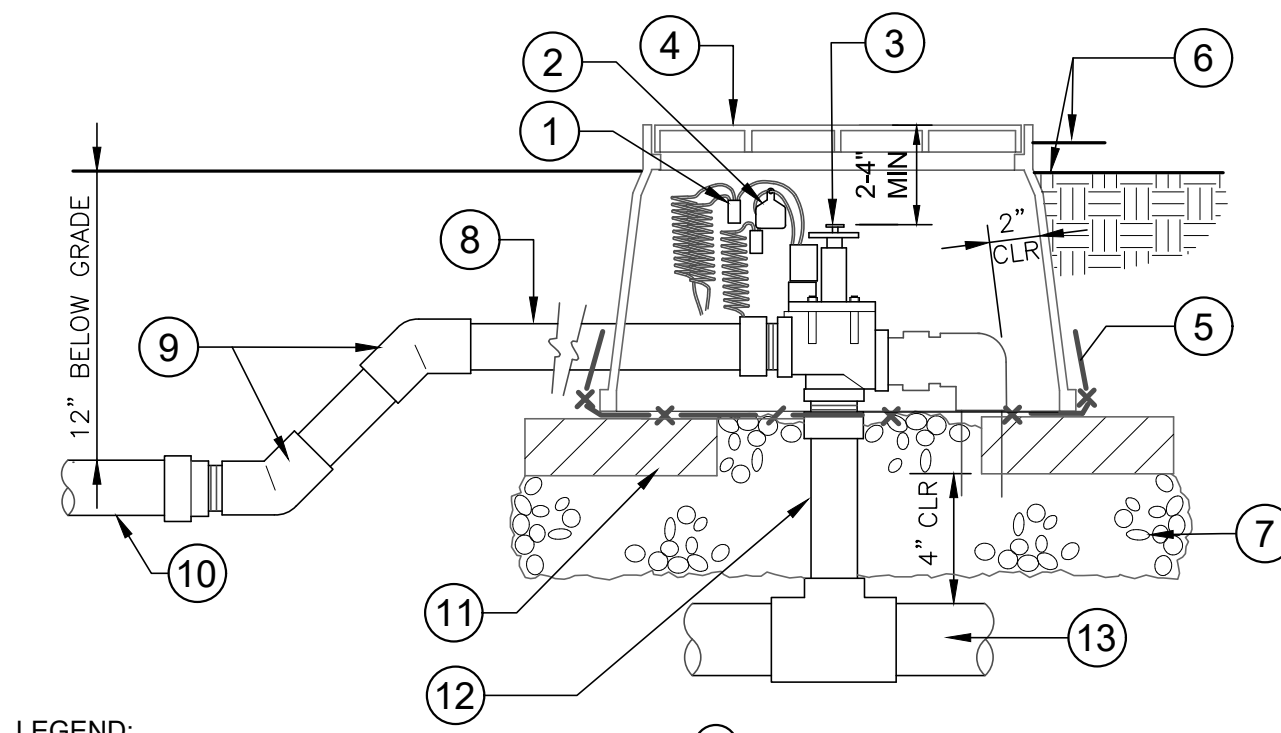
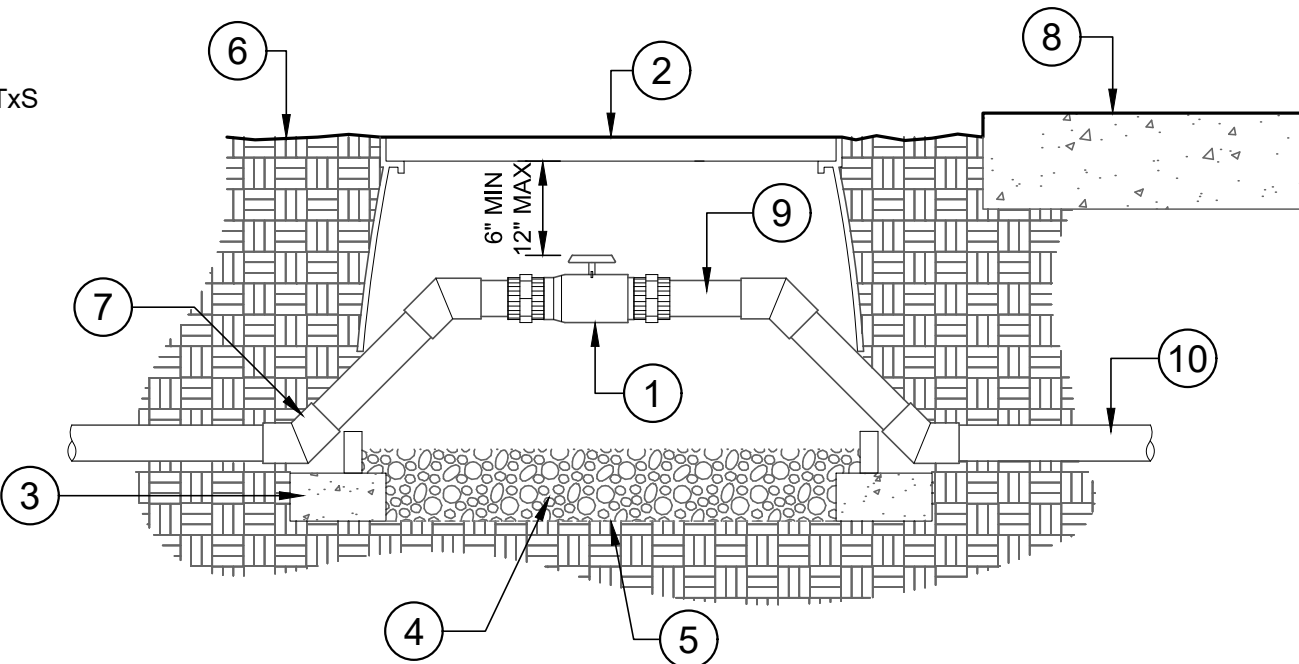
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### LEGEND:

- TRUE UNION BALL VALVE, SEE IRRIGATION SCHEDULE
- RECTANGULAR VALVE BOX WITH LOCKING LID
- FOUR (4) 4" X 8" BRICKS
- THREE (3) INCH THICK LAYER OF PEA GRAVEL
- 3/8" WELDED WIRE MESH
- FINISHED GRADE
- SCH 40 PVC 45° ELBOW
- PAVEMENT
- SCH 80 PVC NIPPLE Txs
- MAINLINE

### NOTES:

- LOCATE VALVE BOXES IN PLANTING AREAS.
- ALL THREADED CONNECTIONS TO BE MADE USING TEFLON TAPE.
- ALL CHANGES IN ELEVATION SHALL BE MADE USING SCH 40 PVC 45° ELBOWS.



### LEGEND:

- WATER PROOF WIRE CONNECTORS ON 30" LOOPED WIRES
- PLASTIC I.D. TAG AT EACH VALVE
- REMOTE CONTROL VALVE, ONE PER BOX. HEAT BRAND "RCV" AND VALVE NUMBER WITH 2" HIGH LETTERS
- 10X15 RECTANGULAR VALVE BOX
- 1/2" WIRE CLOTH GOPHER SCREEN, WRAP UP SIDES
- 3" ABOVE FINISHED GRADE AT SHRUBS, 1" ABOVE FINISHED GRADE AT LAWN
- 6" THICK LAYER OF PEA GRAVEL BASE
- OUTLET PIPE SAME SIZE AS VALVE, 24" MIN. TO FIRST FITTING
- 45 DOWN AS REQUIRED TO LATERAL PIPE DEPTH
- INCREASE LATERAL LINE AS PER IRRIGATION PLAN
- CONCRETE BRICK SUPPORT, TWO ON EACH SIDE
- SCHEDULE 80 RISER, SIZE AS NEEDED
- MAIN LINE AS SPECIFIED

## 3 TRUE UNION BALL VALVE

1 1/2" = 1'-0"

328406.33-07

## 4 ELECTRIC REMOTE CONTROL VALVE ASSEMBLY

328406.13-01

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

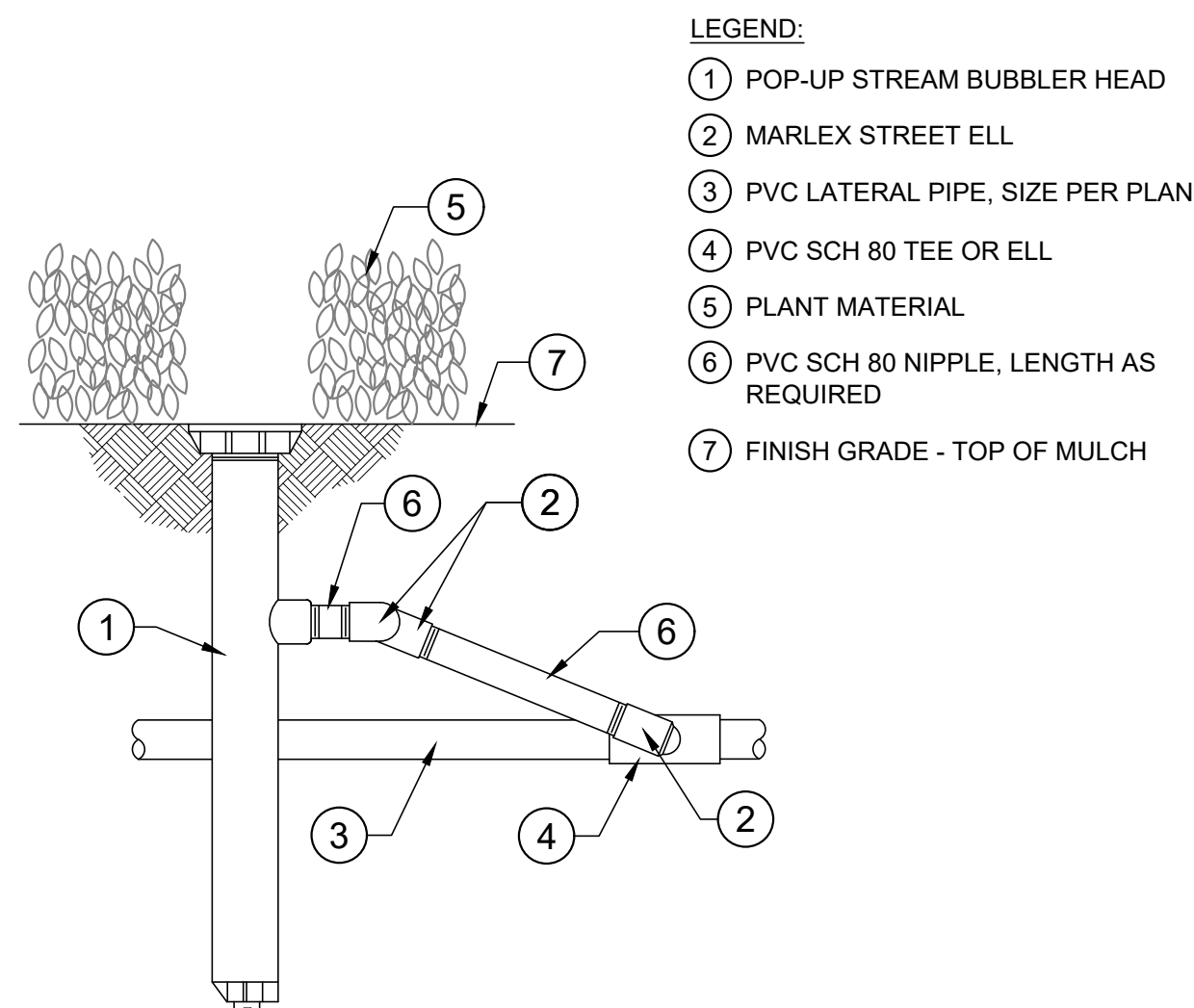
## 5 TURF SPRAY MARLEX ASSEMBLY

3" = 1'-0"

328403.13-01

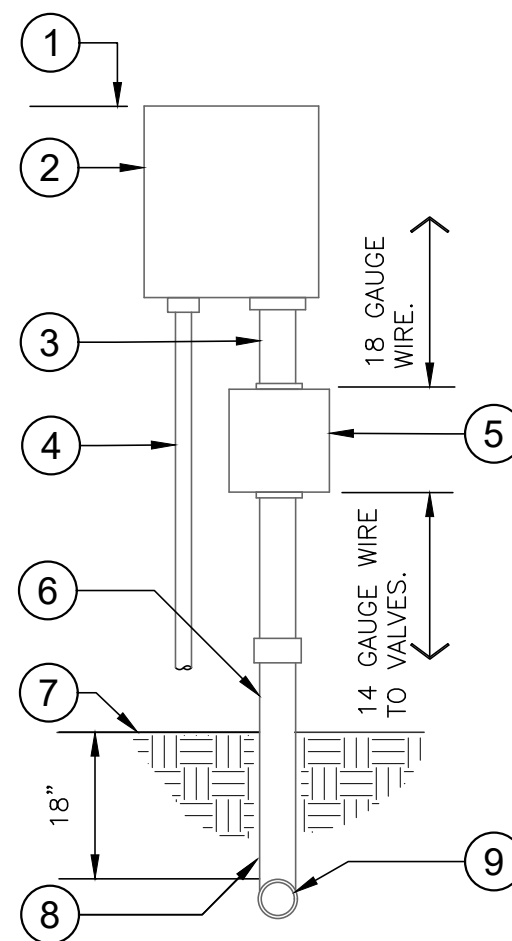
## 6 TURF ROTOR MARLEX ASSEMBLY

Scale: 3" = 1'-0"



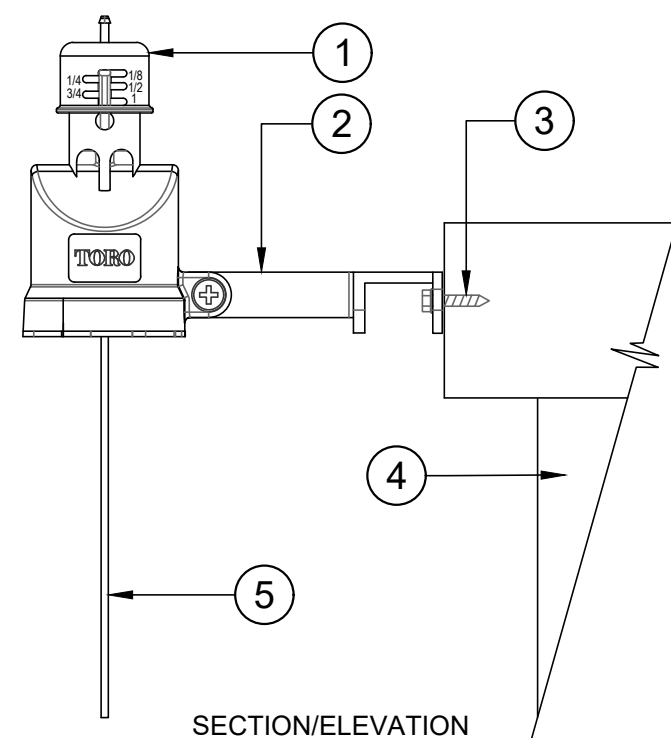
### LEGEND:

- POP-UP STREAM BUBBLER HEAD
- MARLEX STREET ELL
- PVC LATERAL PIPE, SIZE PER PLAN
- PVC SCH 80 TEE OR ELL
- PLANT MATERIAL
- PVC SCH 80 NIPPLE, LENGTH AS REQUIRED
- FINISH GRADE - TOP OF MULCH



### LEGEND:

- SET THE CONTROLLER 60" ABOVE FINISHED GRADE IN A WATERPROOF ENCLOSURE UNLESS OTHERWISE NOTED
- CONTROLLER AS SPECIFIED. SECURELY BOLT CONTROLLER TO WALL. INSTALL BACKUP BATTERIES AS REQUIRED. GROUND AS PER MANUFACTURER'S SPECIFICATIONS.
- 2" DIAMETER RIGID STEEL CONDUIT FOR RCV WIRES
- 1/2" DIA. RIGID STEEL CONDUIT FOR 110 VAC ELECTRICAL SOURCE. INSTALL AS PER LOCAL ELECTRICAL CODES
- 12" X 12" X 4" STEEL JUNCTION BOX. GROUP WIRE BUNDLES AND SPLICE TO 18 GA. WIRES WITH TERMINAL STRIP AS PER SPECIFICATIONS
- 2" DIAMETER RIGID STEEL CONDUIT FOR RCV WIRES
- FINISHED GRADE
- LONG SWEEP ELL
- USE PVC SCH. 40 BELOW GRADE



NOTE: MOUNT SENSOR VERTICALLY. AVOID PLACEMENT UNDER EYE OR TREE CANOPY. LOCATE WITHIN 300 FEET OF SENSOR RECEIVER AND CONTROLLER.

- NOTES:
- INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
  - DO NOT SCALE DRAWINGS.
  - CONTRACTOR NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT: [www.CADDdetails.com/info](http://www.CADDdetails.com/info) REFERENCE NUMBER 065-2566.

## 7 POP-UP STREAM BUBBLER

NTS

328403.56-03

## 8 WALL MOUNT CONTROLLER

1" = 1'-0"

328409.13-02

## 9 WIRELESS RAIN/FREEZE SENSOR - SURFACE MOUNT

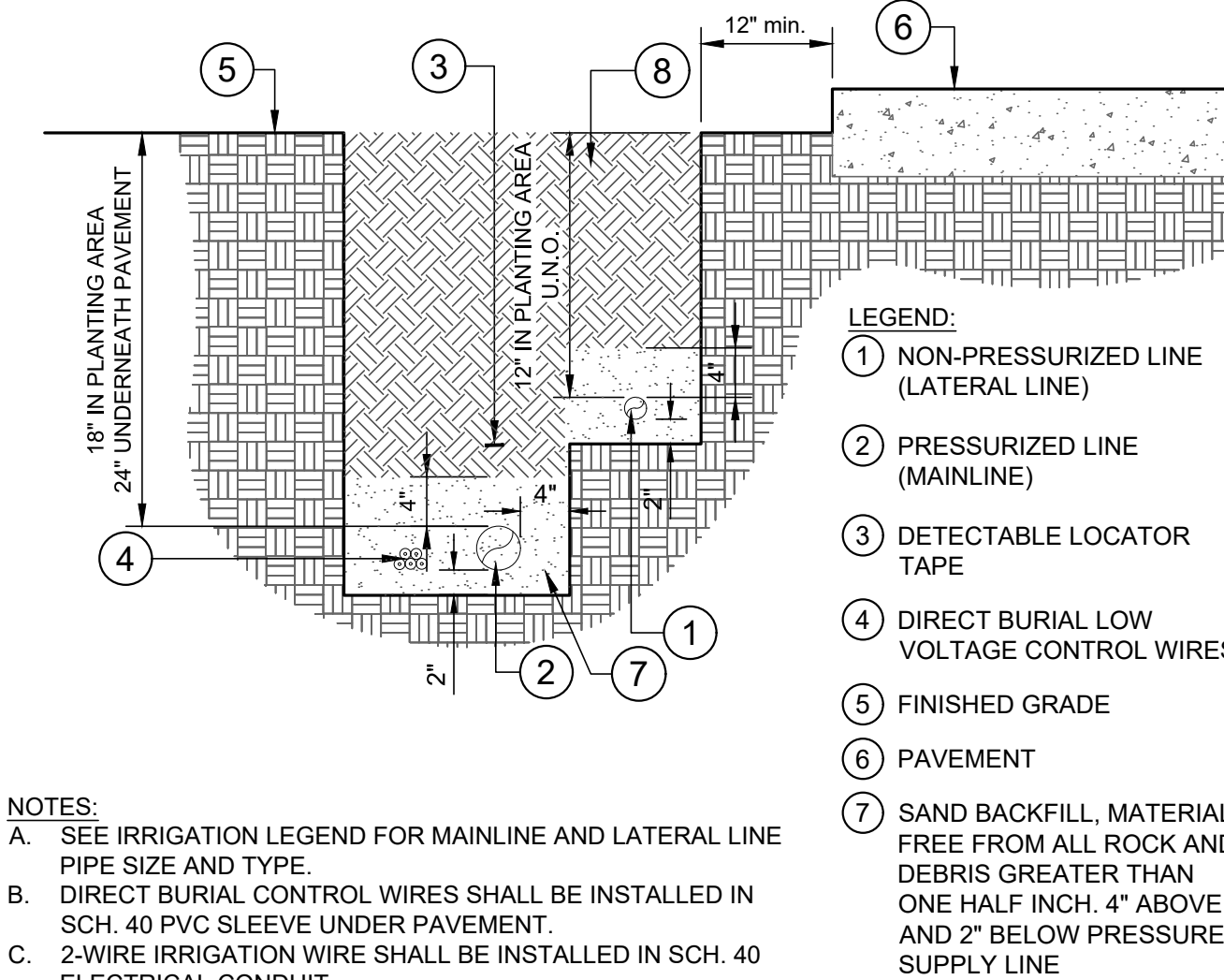
NOT TO SCALE

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## 10 IRRIGATION TRENCHING

1 1/2" = 1'-0"

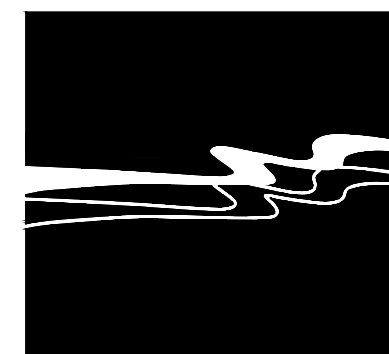
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### LEGEND:

- NON-PRESSURIZED LINE (LATERAL LINE)
- PRESSURIZED LINE (MAINLINE)
- DETECTABLE LOCATOR TAPE
- DIRECT BURIAL LOW VOLTAGE CONTROL WIRES
- FINISHED GRADE
- PAVEMENT
- SAND BACKFILL. MATERIAL FREE FROM ALL ROCK AND DEBRIS GREATER THAN ONE HALF INCH, 4" ABOVE AND 2" BELOW PRESSURE SUPPLY LINE
- BACKFILL MATERIAL, FREE FROM ALL ROCK AND DEBRIS LARGER THAN 1-INCH

- NOTES:
- SEE IRRIGATION LEGEND FOR MAINLINE AND LATERAL LINE PIPE SIZE AND TYPE.
  - DIRECT BURIAL CONTROL WIRES SHALL BE INSTALLED IN SCH. 40 PVC SLEEVE UNDER PAVEMENT.
  - 2-WIRE IRRIGATION WIRE SHALL BE INSTALLED IN SCH. 40 ELECTRICAL CONDUIT.
  - DETECTABLE LOCATOR TAPE SHALL BE LOCATED SIX INCHES (6") ABOVE THE ENTIRE MAINLINE RUN.



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COUNTY OF KERN  
GENERAL SERVICES  
DIVISION  
OF THE  
COUNTY ADMINISTRATIVE OFFICE  
1115 TRUXTUN AVENUE  
BAKERSFIELD, CALIFORNIA

### PROJECT

HART MEMORIAL  
PARK ADVENTURE  
PLAY AREA

LEVEE & LAKE ROAD  
BAKERSFIELD, CA  
93308

### APPROVED BY

COUNTY BOARD OF SUPERVISORS

### CHAIRMAN BOARD OF SUPERVISORS

RECOMMENDED FOR APPROVAL

### DIRECTOR

RECOMMENDED FOR APPROVAL

### CHIEF GENERAL SERVICES OFFICER

GENERAL SERVICES DIVISION

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### CONSULTANT STAMP



DATE	REV	DESCRIPTION

DATE 5/29/2024

DESIGNED BY EAS

DRAWN BY EAS

CHECKED BY MJW

JOB NO. 1650.7014-21

DRAWING FILE 20MM010

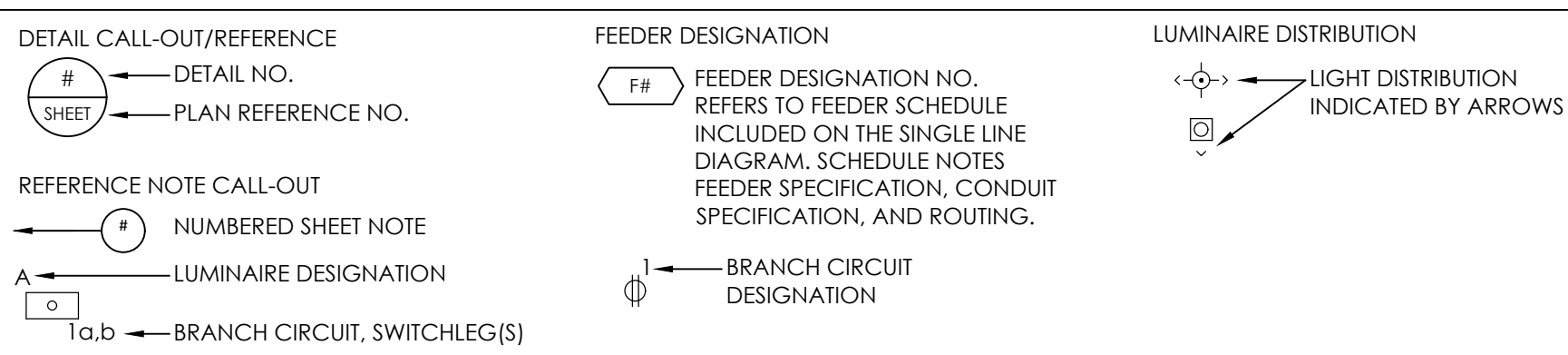
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HART PARK PROP 68 IMPROVEMENTS  
IRRIGATION DETAILS



ELECTRICAL PLAN CONVENTIONS



ELECTRICAL ABBREVIATIONS

A - AMPERE	GC - GENERAL CONTRACTOR	OPR - OWNER PROJECT REQUIREMENTS
ABV - ABOVE	GFCI - GROUND FAULT CIRCUIT INTERRUPTER	O&M - OPERATION & MAINTENANCE
AC - ALTERNATING CURRENT	GFI - GROUND FAULT CIRCUIT INTERRUPTER	OSA - OFFICE OF THE STATE ARCHITECT
ADJ - ADJACENT	GND - GROUND	OSHPO - OFFICE OF STATEWIDE HEALTH PLANNING & DEVELOPMENT
AFS - FUSED SWITCH AMPERAGE RATING	GRS - GALVANIZED RIGID STEEL	OVL - OVERLOAD
AF - ABOVE FINISH FLOOR	GWS - GANG WITH SWITCH	P - POLE
AFG - ABOVE FINISH GRADE	H - HEIGHT	PA - PUBLIC ADDRESS
AHJ - AUTHORITY HAVING JURISDICTION	HID - HIGH INTENSITY DISCHARGE	PB - PULLBOX
AIC - AMPERES INTERRUPTING CAPACITY	HO - HIGH OUTPUT	PC - PHOTOCELL
AL - ALUMINUM	HAND-OFF-AUTO - HAND-OFF-AUTO	PC - PLUMBING CONTRACTOR
APCD - AIR POLLUTION CONTROL DISTRICT	HP - HORSEPOWER	PH - PHASE
ATS - AUTOMATIC TRANSFER SWITCH	HFP - HIGH POWER FACTOR	PN - PANEL
AV - AUDIBLE/AUDIO VISUAL	HPS - HIGH PRESSURE SODIUM	POC - POINT OF CONNECTION
AWG - AMERICAN WIRE GAGE	I - IDENTIFICATION	PV - PHOTOVOLTAIC
- B - BELOW FINISH GRADE	IG - ISOLATED GROUND	- R - RELOCATE(D)
BFG - BUILDING	IBC - INTERNATIONAL BUILDING CODE	(R) - RECEPTACLE
BOD - BASIS OF DESIGN	J - JUNCTION BOX	REQD - REQUIRED
- C - CONDUIT	- K - KILO	RLA - RUNNING/RATED LOAD AMPS
CA - CALIFORNIA	KVA - KILOVOLTAMPS	RM - ROOM
CATV - CABLE TELEVISION	KW - KILOWATT	RMC - RIGID METAL CONDUIT
CB - CIRCUIT BREAKER	- L - LIGHTING CONTROL	RMV - REMOVE
CBC - CA BUILDING CODE	LC - LOCKED ROTOR AMPS	RPLC - REPLACE
CEC - CA ELECTRICAL CODE	LS - LIFE SAFETY BRANCH	RST - RAPID START
CF - COMPACT FLUORESCENT	LT - LIGHT	- S - SIGNAL CABINET
CFC - CA FIRE CODE	LTG - LIGHTING	SCC - SHORT CKT CURRENT
CLG - CEILING	LV - LOW VOLTAGE	SFM - STATE FIRE MARSHAL
CL - CENTER LINE	- M - MECHANICAL CONTRACTOR	SHT - SHEET
CKT - CIRCUIT	MC - MINIMUM CIRCUIT AMPS	SL - SWITCH LEG
CHTR - CONTRACTOR	MCA - MAIN CIRCUIT BREAKER	SPEC - SPECIFICATION
C.O. - CONDUIT ONLY (W/PULLROPE)	MCH - MECHANICAL	SPST - SINGLE POLE SINGLE THROW
CR - CRITICAL BRANCH	MECH - MECHANICAL	SQ - SQUARE
CSFM - CALIFORNIA SFM	MFR - MANUFACTURER	SVC - SURFACE SERVICE
CT - CURRENT TRANSFORMER	MFS - MAIN FUSIBLE SWITCH	SW - SWITCH
CU - COPPER	MH - METAL HALIDE	- T - TRANSFORMER
- D - DEMOLITION / DEMOLISH	MLO - MAIN LUGS ONLY	T - TO BE REMOVED
(D) - DEPTH	MOC - MAXIMUM OCP	TBR - TIME CLOCK
DSA - DEPARTMENT OF THE STATE ARCHITECT	MPOE - MAIN POINT OF ENTRY	TC - TELEPHONE
DC - DIRECT CURRENT	MSB - MAIN SWITCHBOARD	TEL - TIME SWITCH
DIA - DIAMETER	MT - MOUNT	TSP - TWISTED SHIELDED PAIR
DPST - DOUBLE POLE SINGLE THROW	MT HT - MOUNTING HEIGHT	TB - TELEPHONE TERMINAL BOARD
- E - EXISTING	MTS - MAIN TELEPHONE TERMINAL BOARD	TT - TRANSFORMER
(EXN) - EXISTING IN NEW LOCATION	MTIC - MAIN TELEPHONE TERMINAL CABINET	TYP - TYPICAL
(EXR) - EXISTING TO BE RELOCATED	(N) - NEW	UC - UNDERCABINET OR UNDERCOUNTER
EC - ELECTRICAL CONTRACTOR	N - NEUTRAL CONDUCTOR	UG - UNDERGROUND
ELEC - ELECTRICAL	N3R - NATIONAL	UGPS - UNDERGROUND PULL SECTION
EM - EMERGENCY	NATL - NATIONAL	UN - UNDERWIRE LABORATORIES
EMT - ELECTRIC METALLIC TUBING	NC - NORMALLY CLOSED	UN - UNLESS OTHERWISE NOTED
EOL - END OF LINE RESISTOR	NEC - NATIONAL ELECTRICAL CODE	US - U.S.V.C. ALERT
EOR - ENGINEER OF RECORD	NEMA - NATL ELEC MANUFACTURER'S ASSOC	- V - VOLT
- F - FUTURE	NIC - NOT IN CONTRACT	V - VOLT
FACP - FIRE ALARM CONTROL PANEL	NIGHT LIGHT	VA - VOLT AMPERES
FAT - FIRE ALARM TERMINAL	NO - NORMALLY OPEN, NUMBER	VAC - VOLT ALTERNATING CURRENT
FBO - FURNISHED BY OTHERS	NPF - NORMAL POWER FACTOR	VOLT - VOLTAGE
FLA - FULL LOAD AMPS	NTS - NOT TO SCALE	VR - VANDAL-RESISTANT
FLR - FLOOR	- O - OVERALL HEIGHT	- W - WIDTH, WIRE OR WAIT
FLUOR - FLUORESCENT	OAH - ON CENTER	WU - WHILE-IN-USE
FF - FUSES FOR	OC - OVERCURRENT PROTECTION	WP - WEATHERPROOF
FS - FUSIBLE SWITCH	OD - OUTSIDE DIAMETER	- X - TRANSFORMER
FVNR - FULL VOLTAGE NON-REVERSING	OH - OVERHEAD	
- G - GROUNDING CONDUCTOR		

ELECTRICAL SYMBOLS



ADA MOUNTING HEIGHTS

DEVICE	MOUNTING HEIGHT	NOTES
PROTRUDING OBJECT (WALL MOUNTED)	LEADING EDGE BETWEEN 27" AND 80" AFF.	OBJECT SHALL NOT PROTRUDE MORE THAN 4" INTO THE CIRCULATION PATH.
RECEPTACLE, COMMUNICATION, TELEPHONE, CATV, ETC.	+15" AFF TO THE BOTTOM OF THE OUTLET BOX.	APPLICABLE TO RECEPTACLES (30 AMPS AND LESS), CONTROLS, AND SWITCHES INTENDED TO BE USED BY THE OCCUPANT OF THE ROOM PER CBC 11B-308.1.1 (SWITCHES) AND 11B-308.1.2 (RECEPTACLES) OUTLET(S) SHALL BE INSTALLED NO LESS THAN +15" MEASURED FROM THE BOTTOM OF THE OUTLET BOX TO THE LEVEL OF THE FINISHED FLOOR OR WORKING PLATFORM.
LUMINAIRE SWITCHES	+48" AFF TO THE TOP OF THE OUTLET BOX.	
DEVICES ABOVE A 20"-25" DEEP COUNTER/OBSTRUCTION	+46" (MAX.) TO THE TOP OF THE OUTLET BOX (SIDE APPROACH). +44" (MAX.) TO THE TOP OF THE OUTLET BOX (FORWARD APPROACH).	COORDINATE WITH ARCHITECTURAL PLANS. OBSTRUCTIONS SHALL NOT EXTEND MORE THAN 25" FROM THE WALL BENEATH THE RECEPTACLE/DEVICE.
FIRE ALARM PULL STATIONS	BETWEEN +42" - 48" MAX TO THE TOP OF THE ACTIVATING HANDLE.	

- NOTES
- DEVICES SHALL MOUNT PER MATRIX ABOVE UNLESS OTHERWISE NOTED PER PLANS.
  - PRIOR TO ROUGH-IN, THE ELECTRICAL CONTRACTOR SHALL VERIFY MOUNTING HEIGHTS FOR DEVICES AND EQUIPMENT CONNECTION LOCATIONS WITH THE ARCHITECT OR OWNER, WHERE DEVICES ARE LOCATED ABOVE COUNTERS AND SHELVING. SPECIAL ATTENTION SHALL BE TO ENSURE OUTLETS AND COVER PLATES DO NOT CONFLICT WITH EDGES OF COUNTER SPLASH, SHELVING TRIM, WAJNSCOTING, ETC. CONSULT ARCHITECTURAL DETAILS AND INTERIOR ELEVATIONS, AS THEY SHALL GOVERN WHERE THERE IS CONFLICT WITH ELECTRICAL PLANS.
  - EXCEPTIONS: APPLIANCES (I.E. KITCHEN RANGES, DISHWASHERS, ETC.) WHICH DO NOT HAVE CONTROLS LOCATED ON APPLIANCE.

GENERAL POWER & COMMUNICATION PLAN NOTES

- GENERAL
- DEVICE AND EQUIPMENT FINAL LOCATION SHALL BE FIELD VERIFIED WITH ALL TRADES DURING ROUGH-IN. OBTAIN ACCEPTANCE OF EXACT LOCATIONS WITH ARCHITECT/OWNER REPRESENTATIVES TO AVOID CONFLICT WITH FURNITURE, CASEWORK, ETC.
- RECEPTACLES
- RECEPTACLES INSTALLED IN EXTERIOR LOCATIONS SHALL BE PROVIDED WITH A WEATHERPROOF WHILE-IN-USE COVER (LOCKING AS REQUIRED PER PLANS).
- WIRING
- SEPARATE NEUTRAL CONDUCTORS SHALL BE INSTALLED FOR EACH BRANCH CIRCUIT AS INDICATED PER CONSTRUCTION DOCUMENTS.
  - FEEDERS AND BRANCH CIRCUITS SHALL CARRY A GROUNDING CONDUCTOR, SHALL BE INSTALLED IN EACH CONDUIT/RACEWAY AND SHALL BE BONDED TO THE METALLIC COMPONENTS OF THE RACEWAY SYSTEM. GROUNDING CONDUCTORS SHALL BE SIZED PER THE CONSTRUCTION DOCUMENTS OR CEC REQUIREMENTS, WHICHEVER IS GREATER. MAINTAIN THE UNIFORMITY AND CONTINUITY OF THE GROUNDING SYSTEM IN CONDUIT AND RACEWAYS. GROUND CONDUCTORS SHALL BE SIZED AS INDICATED IN CEC TABLE 250.122. UNLESS OTHERWISE NOTED ON THE DRAWINGS, IT SHALL BE PERMITTED TO UTILIZE A SINGLE GROUND CONDUCTOR WHEN BRANCH CIRCUITS ARE COMBINED IN A SINGLE HOMERUN. GROUND CONDUCTOR SHALL BE SIZED FOR THE LARGEST OVERCURRENT DEVICE.
- OVERCURRENT PROTECTION
- THERMAL OVERLOAD PROTECTION SHALL BE PROVIDED FOR ALL MOTORS WHERE REQUIRED PER CEC 430. OVERLOAD PROTECTION MAY BE PROVIDED INTEGRAL TO EQUIPMENT.
  - WHERE INDICATED ON THE CONSTRUCTION DOCUMENTS, FUSIBLE DISCONNECT SWITCHES SHALL BE PROVIDED WITH DUAL ELEMENT TIME DELAY FUSES. FUSES SHALL BE SIZED AS NOTED PER THE CONSTRUCTION DOCUMENTS AND/OR PER MANUFACTURER REQUIREMENTS. VERIFY FUSE SPECIFICATION WITH EQUIPMENT NAMEPLATE INFORMATION DURING SUBMITTAL REVIEW, PRIOR TO PROCUREMENT.
- MARKING AND CLEARANCE
- ELECTRICAL EQUIPMENT SHALL BE PROVIDED WITH FIELD OR FACTORY MARKING INDICATING THE POTENTIAL ARC FLASH HAZARDS AS REQUIRED IN CEC 110.16 AND 110.21.
  - WORKING SPACE AT ELECTRICAL EQUIPMENT SHALL BE MAINTAINED AS REQUIRED PER CEC 110.

CODE COMPLIANCE

THE WORK IDENTIFIED IN THESE PLANS AND SPECIFICATIONS SHALL CONFORM TO AND BE INSTALLED IN COMPLIANCE WITH APPLICABLE CODES, STANDARDS, AND ORDINANCES ENFORCED BY THE LOCAL AUTHORITY HAVING JURISDICTION AT TIME OF PERMITTING. UNLESS OTHERWISE NOTED, CODES, STANDARDS, AND ORDINANCES SHALL BE THE LATEST EDITION WITH CALIFORNIA AND LOCAL JURISDICTION AMENDMENTS AS APPLICABLE. WORK IDENTIFIED IN THESE CONSTRUCTION DOCUMENTS SHALL NOT BE INTERPRETED TO CONFLICT WITH ANY STATE LAW, CODE OF REGULATION, LOCAL ORDINANCE, ASSEMBLY BILL, ETC.

- CALIFORNIA CODE OF REGULATIONS TITLE 24
- 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE
- 2022 CALIFORNIA ELECTRICAL CODE
- 2022 CALIFORNIA FIRE CODE
- 2022 CALIFORNIA BUILDING CODE
- CALIFORNIA ACCESSIBILITY CODE

GENERAL NOTES

- WORK PERFORMED
- FURNISH LABOR, MATERIALS, EQUIPMENT, COMPONENTS, TOOLS, TRANSPORTATION TO/FROM THE WORK SITE, AND NECESSARY SERVICES ETC. AS REQUIRED TO SUPPORT AND IMPLEMENT THE ELECTRICAL WORK SHOWN ON THE CONSTRUCTION DOCUMENTS.
  - "PROVIDE" AS USED ON THE CONSTRUCTION DOCUMENTS, IS DEFINED AS "FURNISH AND INSTALL".
  - PERMITS SHALL BE OBTAINED FOR ELECTRICAL WORK. ARRANGE INSPECTIONS WITH THE AHJ AND OBTAIN ACCEPTANCE. CONSULT WITH THE ELECTRICAL INSPECTOR PRIOR TO BEGINNING WORK.
  - ELECTRICAL WORK SHALL BE PERFORMED BY A CALIFORNIA STATE LICENSED ELECTRICIAN.
  - INSTALL EQUIPMENT AT LOCATIONS INDICATED ON THE DRAWINGS AS CLOSELY AS FIELD CONDITIONS PERMIT. OBTAIN ACCEPTANCE OF EQUIPMENT DIMENSIONS PRIOR TO INSTALLATION THROUGH SUBMITTAL REVIEW. CALIFORNIA ELECTRICAL CODE (CEC) MINIMUM WORKING CLEARANCES SHALL BE MAINTAINED.
  - ELECTRICAL DRAWINGS ARE DIAGRAMMATIC IN NATURE AND DO NOT REFLECT MINOR VARIATIONS IN EQUIPMENT ALIGNMENT/INSTALLATION THAT MAY BE NECESSARY. REVIEW EXISTING FIELD CONDITIONS AND MAKE PROPER ADJUSTMENTS AS REQUIRED TO AVOID CONFLICT WITH OTHER TRADES OR PORTIONS OF WORK. SATISFY THE DESIGN REQUIREMENTS, AND MEET CODE MINIMUMS. OBTAIN ACCEPTANCE OF ADJUSTMENTS FROM THE ARCHITECT/ENGINEER.
  - DRAWINGS DO NOT SHOW THE EXTENT OF J-BOXES AND PULL BOXES THAT ARE REQUIRED TO IMPLEMENT THE ELECTRICAL WORK. PROVIDE THE QUANTITY OF J-BOXES AND PULL BOXED AS REQUIRED TO IMPLEMENT ELECTRICAL WORK, COMPLY WITH CODE, AND MEET AHJ REQUIREMENTS.
  - NOTIFY THE ARCHITECT/ENGINEER OF DISCREPANCIES WITHIN THE DRAWINGS, THIS SPECIFICATION, AND/OR ACTUAL FIELD CONDITIONS.
  - COORDINATE ELECTRICAL WORK WITH THE WORK OF OTHER TRADES.
  - RACEWAYS WITHIN THE BUILDING SHALL BE CONCEALED, WITH THE EXCEPTION OF EXPOSED STRUCTURE AND WHERE SPECIFICALLY ALLOWED BY THE ARCHITECT/OWNER, WHERE APPROVED, EXPOSED CONDUIT SHALL BE RUN SQUARE AND PLUMB WITH BUILDING LINES AND SHALL BE PROPERLY SUPPORTED PER CODE.
  - EXPOSED CONDUIT BELOW 7' AFF, AND WHERE SUBJECT TO PHYSICAL DAMAGE, SHALL BE INSTALLED IN GRS CONDUIT.
  - WHERE CONDUIT ONLY IS SHOWN ON THE DRAWINGS AND/OR INSTALLED FOR FUTURE PROVISIONS, 1" AND LARGER, INSTALL A NYLON PUL CORD/ROPE.
  - FLUSH MOUNTED PANELBOARDS SHALL HAVE A MINIMUM OF (1) 3/4" C.O. INSTALLED FROM THE PANEL TO AN ACCESSIBLE CEILING AREA, FOR EVERY FOUR BRANCH CIRCUIT SPARES AND/OR SPACES.
- BIDDING
- PRIOR TO BIDDING, CONSULT PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. IF PROJECT SPECIFICATIONS HAVE NOT BEEN PROVIDED, REQUEST THEM FROM THE ARCHITECT AND/OR ENGINEER OF RECORD.
  - PRIOR TO THE SUBMISSION OF BID REVIEW EXISTING FIELD CONDITIONS AND MAKE PROPER ADJUSTMENTS AS OUTLINED IN THE PROJECT SPECIFICATIONS.
  - OBTAIN ENGINEERING PRE-APPROVAL FOR ALTERNATE PRODUCT AS OUTLINED IN THE PROJECT SPECIFICATIONS.
- FINAL ACCEPTANCE
- COMPLETE ACCEPTANCE TESTING AS REQUIRED PER THE PROJECT SPECIFICATIONS. SUBMIT APPROPRIATE DOCUMENTATION TO THE OWNER, ARCHITECT, AND AHJ.
  - TEST THE ELECTRICAL SYSTEM AND COMPONENTS TO ENSURE PROPER PERFORMANCE. MAKE CORRECTIONS WHERE REQUIRED. DEMONSTRATE SYSTEM PERFORMANCE TO THE OWNER AND OBTAIN ACCEPTANCE.
  - PROVIDE RECORD DRAWINGS PER THE PROJECT SPECIFICATIONS TO THE OWNER.
  - PROVIDE O&M MANUALS PER THE PROJECT SPECIFICATIONS TO THE OWNER.
- MATERIAL
- FURNISHED MATERIAL AND EQUIPMENT SHALL BE NEW UNLESS SPECIFICALLY NOTED OTHERWISE IN THE CONSTRUCTION DOCUMENTS.
  - FURNISHED MATERIAL, EQUIPMENT, AND FIRE STOP THROUGH PENETRATIONS SHALL BE LISTED BY UL OR AN EQUIVALENT NATIONALLY RECOGNIZED LISTING AGENCY. PRODUCT LISTINGS SHALL BE PROVIDED TO THE EOR AT TIME OF SUBMITTAL REVIEW.
  - FURNISHED MATERIAL AND EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE TO THE MANUFACTURER REQUIREMENTS, SUBJECT TO REVIEW, INSPECTION, AND APPROVAL BY THE AHJ.
- PENETRATIONS
- CONDUIT PENETRATIONS THROUGH FIRE RATED ASSEMBLIES SHALL MAINTAIN RATINGS AS SPECIFIED IN CBC CHAPTER 7 AND COMPLY WITH LOCAL AHJ REQUIREMENTS. PROVIDE MEANS TO MAINTAIN INTEGRITY OF THE FIRE RATED ASSEMBLY BY PROVIDING THE FOLLOWING A PHYSICAL ENCLOSURE AROUND EQUIPMENT (INCLUDING LUMINAIRES, PANELS, OUTLETS, ETC.) AS APPLICABLE. PENETRATIONS SHALL BE INSTALLED PER APPROVED MANUFACTURER THROUGH-PENETRATION FIRESTOP SYSTEM DETAILS. ELECTRICAL OUTLET BOXES INSTALLED FLUSH IN FIRE RATED ASSEMBLIES SHALL NOT EXCEED 16 SQ. IN. OR MORE THAN 100 SQ. IN. FOR ANY 100SQ. FT. OF WALL.
  - THE PROJECT STRUCTURAL ENGINEER AND ARCHITECT SHALL APPROVE PENETRATION OF STRUCTURAL MEMBERS (INCLUDING BUT NOT LIMITED TO: BEAMS, COLUMNS, FOOTINGS, ETC.), PERFORM WORK IN ACCORDANCE TO STRUCTURAL DETAILS INCLUDED IN THE CONSTRUCTION DOCUMENTS.
- EQUIPMENT ANCHORAGE
- ELECTRICAL EQUIPMENT SHALL BE ANCHORED OR BRACED TO MEET THE HORIZONTAL AND VERTICAL FORCES IDENTIFIED IN THE 2022 CBC AND A.S.C.E. 7-10.
  - WHERE ANCHORAGE DETAILS ARE NOT SHOWN ON THE DRAWINGS THE INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER AND AHJ.
  - THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURES ABILITY TO SUPPORT HANGER AND/OR BRACE LOADS DUE TO ELECTRICAL EQUIPMENT.



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CHAIRMAN, BOARD OF SUPERVISORS DATE

RECOMMENDED FOR APPROVAL  
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DIRECTOR DATE

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CHIEF, GENERAL SERVICES OFFICER DATE

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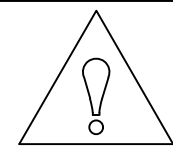
DATE	5/29/2024	SHEET NO.
DESIGNED BY	JC	E-0.1
DRAWN BY	HB	
CHECKED BY	HG	
JOB NO.	1650.7014-21	DRAWING FILE
		20MM010
HART PARK PROP 68 IMPROVEMENTS GENERAL NOTES, SYMBOLS & ABBREVIATIONS		

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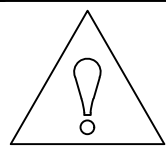
## WARNING

Arc Flash and Shock Hazard  
Appropriate PPE Required

NOTE:

ARC FLASH HAZARD WARNING - ELECTRICAL EQUIPMENT (IE, SWITCHGEAR, PANELS, CONTROL PANELS, METER SOCKED ENCLOSURES) THAT ARE LIKELY TO REQUIRE EXAMINATION, ADJUSTMENT, SERVICING OR MAINTENANCE WHILE ENERGIZED SHALL BE FIELD MARKED TO WARN QUALIFIED PERSONS OF POTENTIAL ARC FLASH HAZARDS. THE MARKING SHALL ADHERE TO NFPA 70E-2009, STANDARD FOR ELECTRICAL SAFETY IN THE WORKPLACE. IN ADDITION, ANSI Z35.4-1998, PRODUCT SAFETY SIGNS AND LABELS. REFER TO DIVISION 26 SPECIFICATION SECTION 26 05 03, "IDENTIFICATION OF ELECTRICAL SYSTEMS" FOR ADDITIONAL REQUIREMENTS.

WHEN MODIFICATIONS TO THE ELECTRICAL INSTALLATION OCCUR, THAT AFFECT THE MAXIMUM AVAILABLE FAULT CURRENT AT THE SERVICE, AND THE MAXIMUM AVAILABLE FAULT CURRENT SHALL BE VERIFIED OR RECALCULATED AS NECESSARY TO ENSURE THE SERVICE EQUIPMENT INTERRUPTING RATINGS ARE SUFFICIENT FOR THE MAXIMUM AVAILABLE FAULT CURRENT AT THE LINE TERMINALS OF THE EQUIPMENT.



## WARNING

Arc Flash and Shock Hazard  
Appropriate PPE Required

### ARC FLASH PROTECTION

FLASH HAZARD CATEGORY \_\_\_\_\_  
INCIDENT ENERGY (cal/cm<sup>2</sup>) \_\_\_\_\_  
@ WORKING DISTANCE \_\_\_\_\_  
ARC FLASH BOUNDARY \_\_\_\_\_

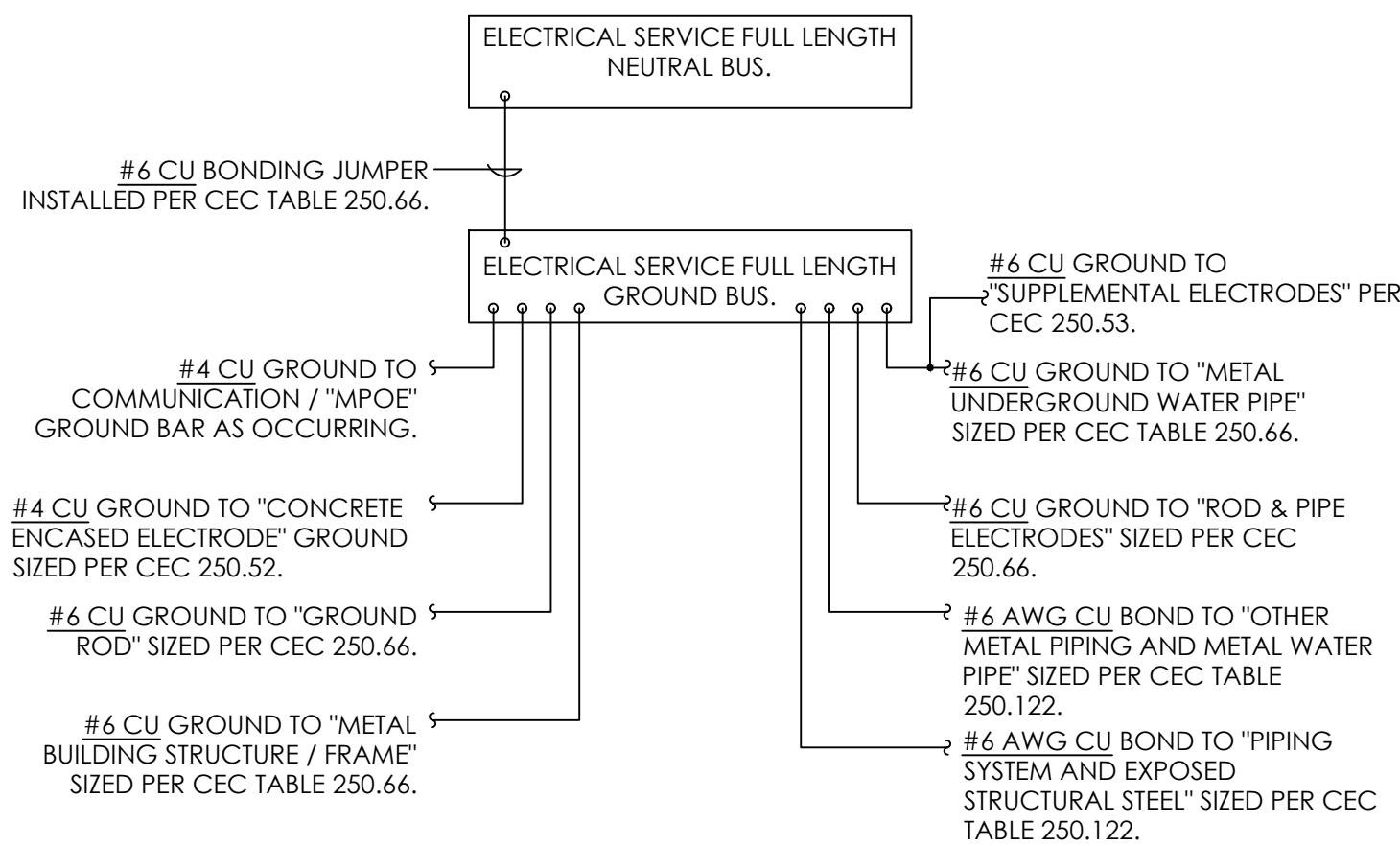
### SHOCK PROTECTION

VOLTAGE SHOCK HAZARD \_\_\_\_\_  
LIMITED APPROACH BOUNDARY \_\_\_\_\_  
RESTRICTED APPROACH BOUNDARY \_\_\_\_\_  
PROHIBITED APPROACH BOUNDARY \_\_\_\_\_  
GLOVE CLASS \_\_\_\_\_

EQUIPMENT ID: \_\_\_\_\_ DATE PREPARED: \_\_\_\_\_ BY: \_\_\_\_\_

## 1 TYPICAL ARC FLASH SIGNAGE

NOT TO SCALE

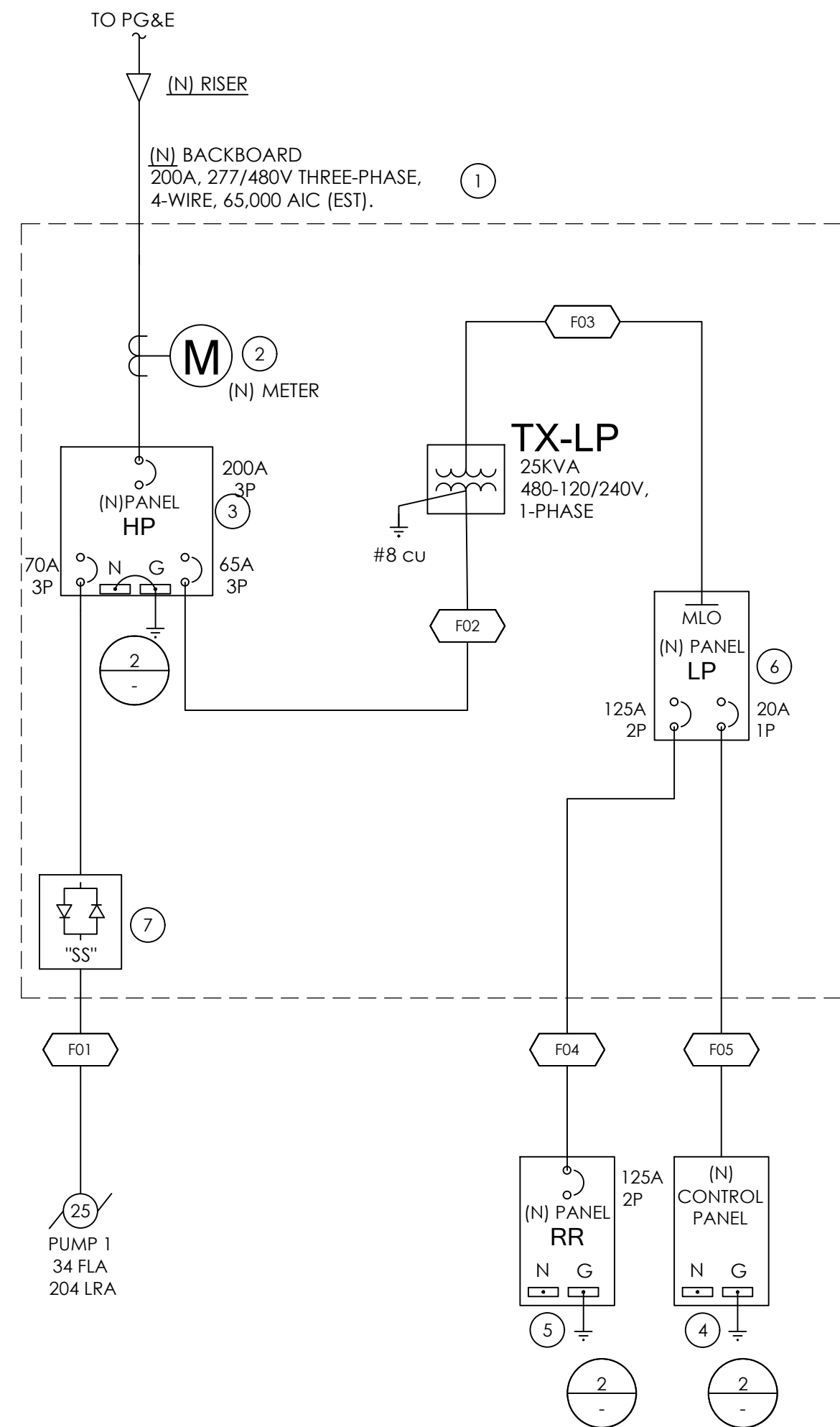


## 2 GROUND / BOND DETAIL AT NEW SERVICE

NOT TO SCALE

### GENERAL NOTES

- GROUNDING SHALL BE IN ACCORDANCE TO THE CEC, ARTICLE 250.
- GROUNDING ELECTRODES PRESENT AND STRUCTURE / BUILDING SHALL BE BONDED TOGETHER TO FORM A COMPLETE GROUNDING ELECTRODE SYSTEM, WHERE GROUNDING ELECTRODES IDENTIFIED IN THIS DETAIL AND CEC 250.52 ARE NOT PRESENT, PROVIDE ONE OR MORE CONNECTIONS TO THE ELECTRODE IDENTIFIED / PRESENT.
- CONSULT CEC ARTICLE 250 FOR GROUND RINGS, OTHER LISTED ELECTRODES, AND PLATE ELECTRODES NOT SHOWN IN THIS DETAIL.
- GROUNDING CONDUCTORS SIZED PER CEC TABLE 250.66 SHALL BE COORDINATED WITH THE UTILITY INSTALLED SECONDARY SERVICE CONDUCTOR SPECIFICATION PRIOR TO INSTALLATION.
- SEPARATELY DERIVED SYSTEMS SHALL BE GROUNDED AS PER CEC 250.30 (A) FOR GROUNDED, AND 250.30 (B) FOR UNGROUNDED SYSTEMS, AND COMPLY WITH 250.20 AND 250.26.
- ALL SERVICE FEEDERS OR BRANCH CIRCUITS SUPPLYING A BUILDING SHALL HAVE A COMMON GROUNDING ELECTRODE SYSTEM.
- ALL GROUNDING ELECTRODES THAT ARE PRESENT AT EACH BUILDING OR STRUCTURE SHALL BE BONDED TOGETHER.
- ALL EQUIPMENT FASTENED IN PLACE OR CONNECTED BY PERMANENT WIRING METHOD SHALL BE GROUNDED.

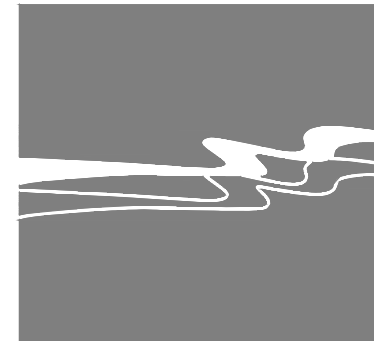


## SINGLE LINE DIAGRAM

SCALE: NTS

### REFERENCE NOTES

1. NEW UTILITY SERVICE. RATING AS INDICATED.
2. NEW METER. ENCLOSURE RATING NEMA 3R.
3. NEW DISTRIBUTION PANEL "HP". INSTALL AT EXISTING BACKBOARD OR NEAR VICINITY. ENCLOSURE RATING NEMA 3R.
4. NEW SPLASHTOP CONTROLLER (BY OTHERS).
5. NEW PANELBOARD FOR PUBLIC RESTROOM (BY OTHERS).
6. NEW PANELBOARD "LP". ENCLOSURE RATING NEMA 3R.
7. NEW SOFT-START FOR EFFLUENT PUMP.



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## SINGLE LINE DIAGRAM GENERAL NOTES

- FAULT CURRENT CALCULATION NOTE  
THE ELECTRICAL DISTRIBUTION SHALL BE PROVIDED WITH A FAULT RATING CAPABLE TO WITHSTAND THE VALUE INDICATED ON THE SINGLE LINE DIAGRAM AND / OR REFLECTED IN THE FEEDER SCHEDULE PREPARED FOR THIS PROJECT. THE FORMULAS USED IN THIS CALCULATION ARE AS FOLLOWS:

C FACTOR = 1/2 PER LF  
F FACTOR =  $[1.73 \times L \times I] / [PC \times C \times E]$   
M FACTOR =  $1 / [1 + F \text{ FACTOR}]$   
SHORT CIRCUIT AMPS AT FAULT =  $1 \times M$

### DEFINITIONS

Z PER LF = CONDUCTOR IMPEDANCE PER LINEAR FOOT  
L = CONDUCTOR LENGTH IN LINEAR FEET  
I = FAULT CURRENT RATING AVAILABLE AT THE SOURCE  
PC = QUANTITY OF PARALLEL CONDUCTORS PER PHASE  
C = C FACTOR (SEE EQUATION)  
E = LINE VOLTAGE

- THE CONTRACTOR SHALL MEET ALL SERVING UTILITY REQUIREMENTS WITH RESPECT TO PROCUREMENT AND INSTALLATION OF THE ELECTRICAL SERVICE. REQUIREMENTS INCLUDE, HOWEVER ARE NOT LIMITED TO THE FOLLOWING:
- CONDUCTORS SHALL BE THHN/THWN COPPER UNLESS OTHERWISE NOTED. AMPACITY SIZES NOTED ON THE CONSTRUCTION DOCUMENTS ARE BASED ON 75 DEG.
- TERMINALS FOR SWITCHES, CIRCUIT BREAKERS AND OTHER EQUIPMENT, AS SPECIFIED, SHALL BE LISTED AND IDENTIFIED FOR USE WITH 75 DEG. CONDUCTORS.
- FINAL TERMINATIONS OF CONDUCTORS TO ELECTRICAL EQUIPMENT AND DEVICES SHALL BE TORQUE-WRENCH TIGHTENED TO THE MANUFACTURER RECOMMENDED SPECIFICATION.
- EMERGENCY DISTRIBUTION EQUIPMENT (I.E. BOXES, CABINETS, TRANSFER SWITCHES, GENERATORS, POWER PANELS, ETC.) SHALL BE PERMANENTLY MARKED SO THEY WILL BE READILY IDENTIFIED AS A COMPONENT OF AN EMERGENCY CIRCUIT OR SYSTEM IN ACCORDANCE TO NEC 700-9(A).

SERIES RATED EQUIPMENT  
- SERIES RATED EQUIPMENT SHALL NOT BE PERMITTED.

HART PARK ADVENTURE PLAYGROUND -- FEEDER SCHEDULE													
FEEDER NO.	LOAD DESIGNATION	AMPACITY	CONDUIT SIZE		FEEDER SPECIFICATION					ESTIMATED CONDUCTOR LENGTH (LF) (SEE NOTE #1)	CALCULATED VOLTAGE DROP		AMPS INTERRUPTING CAPACITY (AIC) (SEE NOTES #1, 2)
			#	SPECIFICATION	#	SPECIFICATION	+	#	GND. SPECIFICATION		Eq.	CALCULATED PER FEEDER	
UF	METER	200A	REFER TO UTILITY HANDOUT PACKAGE							-	-	-	65,000 (EST.)
F01	PUMP 1	70A	1	1-1/4" C	3	#4 AWG THWN CU.	+	1	#8 AWG CU GND.	-	95	0.4	8,720
F02	TX-LP	70A	1	3/4" C	2	#4 AWG THWN CU.	+	1	#8 AWG CU GND.	-	5	0.1	46,671
F03	LP	125A	1	1-1/2" C	3	#1/0 AWG THWN CU.	+	1	#6 AWG CU GND.	-	5	0.1	3,848
F04	PANEL RR	125A	1	2" C	3	#1/0 AWG THWN CU.	+	1	#6 AWG CU GND.	-	275	1.8	1,793
F05	SC	40A	1	3/4" C	2	#8 AWG THWN CU.	+	1	#8 AWG CU GND.	-	185	3.8	544

NOTES:

1. CONDUCTOR LENGTH HAS BEEN PROVIDED AS THE BASIS OF DESIGN FOR BOTH VOLTAGE DROP AND AIC CALCULATION. CONDUCTOR LENGTH NOTED SHALL NOT BE USED FOR BIDDING OR PROCUREMENT PURPOSES. SHOULD THE ACTUAL CONDUCTOR LENGTH DIFFER FROM WHAT HAS BEEN SPECIFIED, THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD FOR REVIEW AND RE-CALCULATION AS MAY BE NECESSARY.

2. ELECTRICAL DISTRIBUTION EQUIPMENT SHALL BE RATED TO WITHSTAND A MIN. OF THE CALCULATED SHORT CIRCUIT CURRENT.

NOTES:

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OF THE  
COUNTY ADMINISTRATIVE OFFICE  
1115 TRUXTON AVENUE  
BAKERSFIELD, CALIFORNIA

PROJECT

HART MEMORIAL  
PARK ADVENTURE  
PLAY AREA

LEVEE & LAKE ROAD  
BAKERSFIELD, CA  
93308

APPROVED BY:  
COUNTY BOARD OF SUPERVISORS

CHAIRMAN, BOARD OF SUPERVISORS \_\_\_\_\_ DATE \_\_\_\_\_

RECOMMENDED FOR APPROVAL  
DEPARTMENT \_\_\_\_\_

DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_

RECOMMENDED FOR APPROVAL  
GENERAL SERVICES DIVISION \_\_\_\_\_

CHIEF GENERAL SERVICES OFFICER \_\_\_\_\_ DATE \_\_\_\_\_

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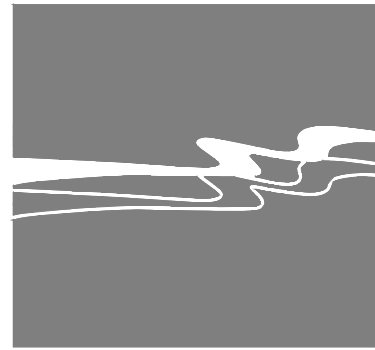
DATE 5/29/2024	SHEET NO. E-1.0
DESIGNED BY JC	
DRAWN BY HB	
CHECKED BY HG	
JOB NO. 1650.7014-21	DRAWING FILE 20MM010
HART PARK PROP 68 IMPROVEMENTS SINGLE LINE DIAGRAM	



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CHECKED BY HG	
JOB NO. 1650.7014-21	DRAWING FILE 20MM010
HART PARK PROP 68 IMPROVEMENTS ELECTRICAL SCHEDULES	

PANEL HP																				
TYPE: PANELBOARD BUS: 125A 277/480V, 3-PHASE, 4W 125A MAIN CIRCUIT BREAKER				(E-1.0) A/C PANEL & BRANCH CIRCUITS 16 FULL SIZE BOLT ON CIRCUIT BREAKER SPACES PROVIDE WITH EQUIPMENT GROUND BUS										LOCATION: BACKBOARD NEMA: 3R MOUNTING: SURFACE FEED FROM: UTILITY						
NOTES	CIRCUIT	DESCRIPTION	BREAKER	WIRE	LF	VD(%)	PF	TYPE	PHASE A	PHASE B	PHASE C	TYPE	PF	VD(%)	LF	WIRE	BREAKER	DESCRIPTION	CIRCUIT	NOTES
2	1	TX#LP	*/2	-	-	-	-	C	12580										2	
2	3	"		-	-	-	-	C		10660									4	
2	5		*/3	-	-	-	-	C											6	
2	7	PUMP 1		-	-	-	-	C	9422										8	
2	9	"		-	-	-	-	C		9422									10	
2	11	"		-	-	-	-	C			9422								12	
	13																		14	
	15																		16	
SUBTOTAL (VA)									22002	20082	9422									
CONTINUOUS									5501	5021	2356									
AMPS @ 277									99	91	43									

PANEL LP																			
TYPE: PANELBOARD BUS: 125A 120/240V, 1-PHASE, 3W MAIN LUGS ONLY					(E-1.0) A/C PANEL & BRANCH CIRCUITS 16 FULL SIZE BOLT ON CIRCUIT BREAKER SPACES PROVIDE WITH EQUIPMENT GROUND BUS										LOCATION: BACKBOARD NEMA: 3R MOUNTING: SURFACE FEED FROM: TX-LP				
NOTES	CIRCUIT	DESCRIPTION	BREAKER	WIRE	LF	VD(%)	PF	TYPE	PHASE A	PHASE B	TYPE	PF	VD(%)	LF	WIRE	BREAKER	DESCRIPTION	CIRCUIT	NOTES
2	1	RR	*/2	-	-	-	-	-	7300		-	-	-	-	-	*/1 GFI	SC	2	2
2	3	"		-	-	-	-	-	1920										
	5									7300	-	-	-	-	-	*/2	LIFT STATION/PUMP	4	2
	7									3360							"	6	2
	9																	8	
	11																	10	
	13																	12	
	15																	14	
SUBTOTAL (VA)									12580	10660									
CONTINUOUS									0	0									
AMPS @ 120									105	89									

## PANEL SCHEDULE NOTES

PANEL SCHEDULE LOAD TYPE INDEX:  
"C" = CONTINUOUS LOAD, OPERABLE FOR 3 HOURS OR MORE. LOAD CALCULATED AT  
125% OF TOTAL CONNECTED LOAD.  
"K" = KITCHEN APPLIANCE LOAD, SUBJECT TO 75% DEMAND FACTOR PER NEC 220.53 IF  
GREATER THAN/EQUAL TO FOUR APPLIANCES.  
"M" = MECHANICAL LOAD, NO DEMAND FACTOR APPLIED.  
"R" = RECEPTACLE LOAD.  
"G" = GENERAL LOAD.

- GENERAL NOTES:
- VOLTAGE DROP CALCULATIONS HAVE BEEN PREPARED IN ACCORDANCE TO  
2016 CALIFORNIA ENERGY CODE STANDARDS (TITLE 24, ELECTRICAL POWER  
DISTRIBUTION). CONDUCTOR LENGTH INDICATED SHALL NOT BE USED FOR  
BIDDING AND PROCUREMENT PURPOSES. FIELD COORDINATE CONDUCTOR  
LENGTH REQUIRED AND NOTIFY ENGINEER OF RECORD OF ANY DISCREPANCIES.
  - FOR CIRCUITS WITH MULTIPLE LOADS (I.E. RECEPTACLES, LIGHTING) THE CIRCUIT  
ESTIMATED LENGTH IS DETERMINED BY THE FURTHEST DEVICE LOCATION.
  - WHERE BRANCH CIRCUITS HAVE NOT BEEN LOADED TO THE MAXIMUM  
ALLOWABLE CIRCUIT CAPACITY, VOLTAGE DROP CALCULATIONS HAVE BEEN  
PREPARED BASED ON CONNECTED LOAD INDICATED, UNLESS OTHERWISE  
NOTED.

VOLTAGE DROP CALCULATION:

VOLTAGE DROP (%) = (2 x OHMS PER 1000 LF x CONDUCTOR LENGTH x AMPS) / (1000  
x QTY OF WIRES PER PHASE)

SCHEDULE SPECIFIC NOTES:

1. VERIFY LOAD, CIRCUIT BREAKER, AND CONDUCTOR SIZE WITH EQUIPMENT  
MANUFACTURER SPECIFICATIONS.
2. SEE SINGLE LINE DIAGRAM FOR OVERCURRENT PROTECTION DEVICE RATING  
AND FEEDER SCHEDULE FOR CONDUCTOR SPECIFICATION ON SHEET E-1.0.

## TRANSFORMER "TX-LP" LOAD SUMMARY

NOTES	DESCRIPTION	PHASE A	PHASE B	DESCRIPTION	NOTES
	PANEL "LP"	12580			
	"		10660		
		12580	10660		
TRANSFORMER LOAD SUMMARY		23.2 KVA			
TRANSFORMER RATING		25.0 KVA			
LOADING		93 %			

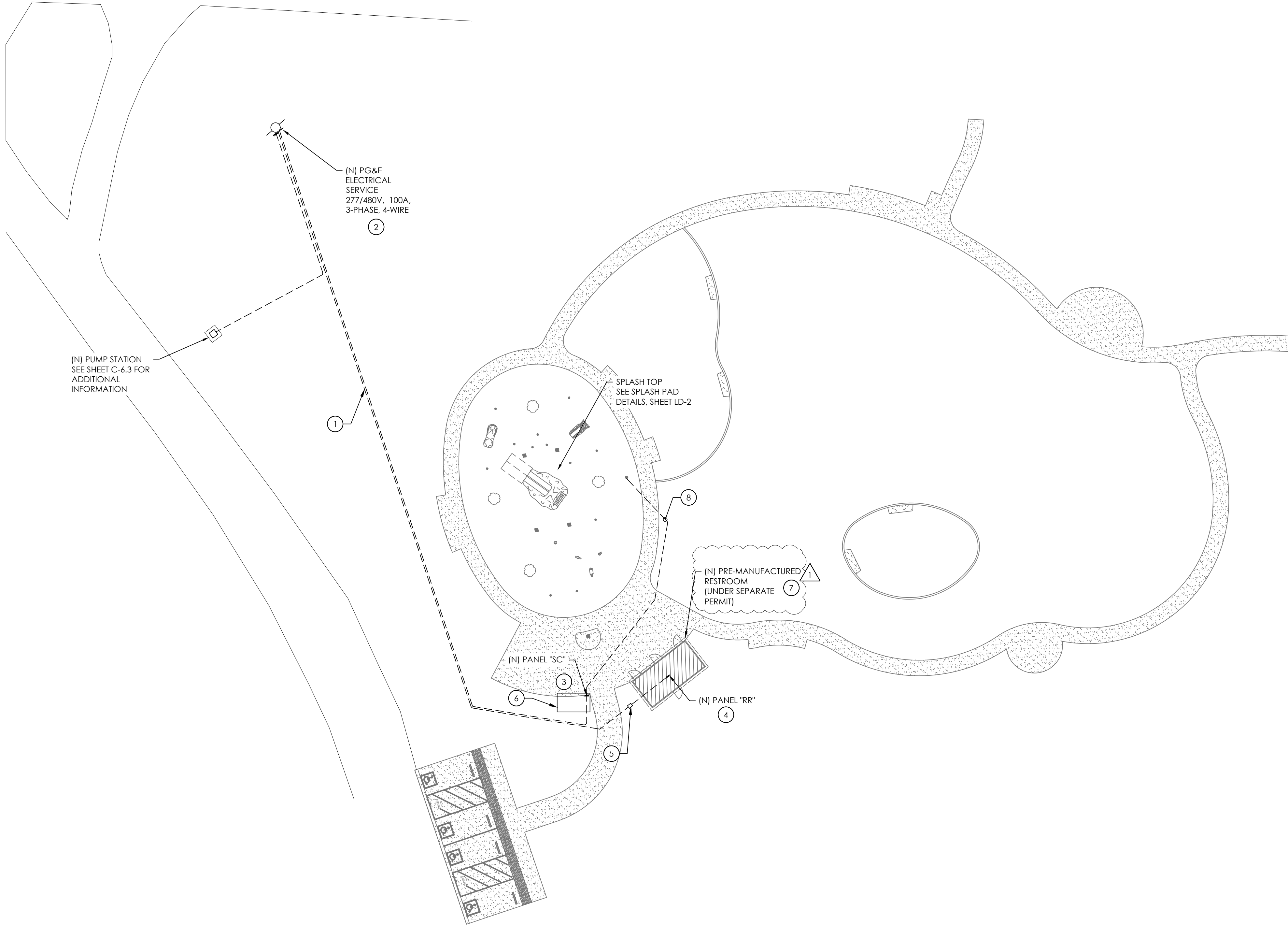
# GECE

GRAY ELECTRICAL CONSULTING + ENGINEERING, CORP

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# ELECTRICAL SITE PLAN

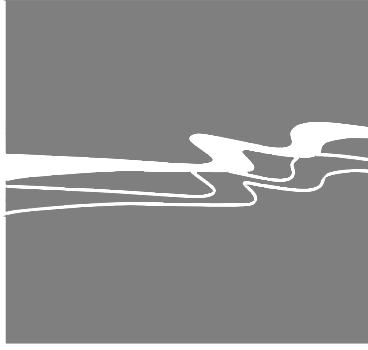
SCALE: 1" = 35' - 0"

## REFERENCE NOTES

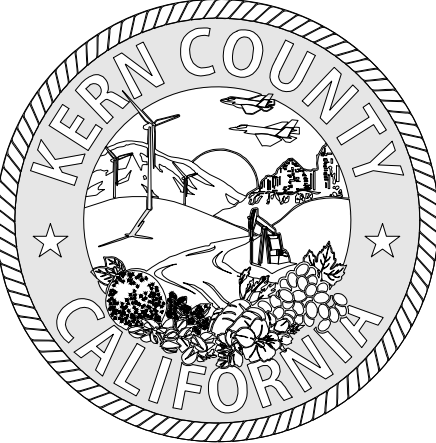
1. CONTRACTOR SHALL EXTEND (3) 2" C FROM (E) BACKBOARD TO NEW RESTROOM FACILITY. COORDINATE LOCATION PRIOR INSTALLATION.
2. CONTRACTOR SHALL PROCURE AND INSTALL NEW BACKBOARD WITH METER, PANELBOARD HP, TX-LP, AND PANEL LP.
3. SPLASH TOP CONTROLLER (BY OTHERS). CONTRACTOR SHALL EXTEND FEEDER CONNECTION AS IDENTIFY ON THE FEEDER SCHEDULE.
4. RESTROOM PANELBOARD "RR" (BY OTHERS). CONTRACTOR SHALL EXTEND FEEDER CONNECTION AS IDENTIFY ON THE FEEDER SCHEDULE.
5. CONTRACTOR SHALL INSTALL NEW PULLBOX "PB". MINIMUM DIMENSIONS: 16" X 12".
6. MANIFOLD LOCATION INCLUDING CONTROLLER LOCATION (BY OTHERS). REFER TO WATER ODYSSEY PLANS FOR ADDITIONAL INFORMATION.
7. RESTROOM ELECTRICAL (BY MANUFACTURER). REFER TO RESTROOM MANUFACTURER FOR ELECTRICAL DESIGN AND REQUIREMENTS.
8. CONTRACTOR SHALL INSTALL SUPPLIED 150' OF 18/3 TYPE SJTOW SUBMERSIBLE CABLE IN MIN 3/4" CONDUIT FROM CONTROLLER TO TOUCH N' GO EQUIPMENT.

## SPLASHPAD DEFERRED APPROVAL NOTES

1. NEW ELECTRICAL WIRING AND EQUIPMENT. CONNECTIONS MADE TO SPLASH PAD SYSTEM, INCLUDING CONNECTIONS IN AND ADJACENT TO THE SPLASH PAD, SHALL BE INSTALLED IN ACCORDANCE TO CEC ARTICLE 680, WITH SPECIAL ATTENTION MADE TO SECTION CEC 680.26 (EQUIPOTENTIAL BONDING). REFER TO SPLASH PAD VENDOR DRAWINGS FOR ADDITIONAL REQUIREMENTS.
2. UNDERGROUND WIRING SHALL NOT BE PERMITTED WITHIN 5' HORIZONTALLY OF THE SPLASH PAD UNLESS WIRING SUPPLIES SPLASH PAD SYSTEM OR EQUIPMENT.
3. SPLASH PAD SYSTEM WIRING SHALL BE INSTALLED IN RIGID, IMC, OR NON-METALLIC CONDUIT LISTED FOR DIRECT BURIAL AND INSTALLATION UNDER A MINIMUM OF 4" THICK CONCRETE EXTERIOR SLAB AND EXTENDING NOT LESS THAN 6" BEYOND THE UNDERGROUND INSTALLATION.
4. GROUNDING AND BONDING TERMINALS SHALL BE IDENTIFIED FOR USE IN WET AND CORROSIVE ENVIRONMENTS. FIELD-INSTALLED GROUNDING AND BONDING CONNECTIONS IN DAMP, WET, OR CORROSIVE ENVIRONMENT SHALL BE COMPOSED OF COPPER, COPPER ALLOY, OR STAINLESS STEEL. THEY SHALL BE LISTED FOR DIRECT BURIAL USE.
5. THE PARTS SPECIFIED BELOW SHALL BE BONDED TOGETHER WITH SOLID COPPER CONDUCTORS, INSULATED COVERED, OR BARE, NOT SMALLER THAN #8 AWG OR WITH RIGID METAL CONDUIT OF BRASS OR OTHER IDENTIFIED CORROSION-RESISTANT METAL. CONNECTIONS TO BONDED PARTS SHALL BE MADE IN ACCORDANCE WITH 250.8.
  - 5.1. CONDUCTIVE POOL SHELLS.
  - 5.2. PERIMETER SURFACES.
  - 5.3. METALLIC COMPONENTS.
  - 5.4. UNDERWATER LIGHTING.
  - 5.5. METAL FITTINGS.
  - 5.6. ELECTRICAL EQUIPMENT.
  - 5.7. FIXED METAL PARTS.



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OF THE  
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BAKERSFIELD, CALIFORNIA

PROJECT

HART MEMORIAL  
PARK ADVENTURE  
PLAY AREA  
LEVEE & LAKE ROAD  
BAKERSFIELD, CA  
93308

APPROVED BY:  
COUNTY BOARD OF SUPERVISORS

CHAIRMAN, BOARD OF SUPERVISORS \_\_\_\_\_ DATE \_\_\_\_\_

RECOMMENDED FOR APPROVAL  
DEPARTMENT \_\_\_\_\_

DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_

RECOMMENDED FOR APPROVAL  
GENERAL SERVICES DIVISION \_\_\_\_\_

CHIEF, GENERAL SERVICES OFFICER \_\_\_\_\_ DATE \_\_\_\_\_

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CONSULTANT STAMP



DATE	REV	DESCRIPTION
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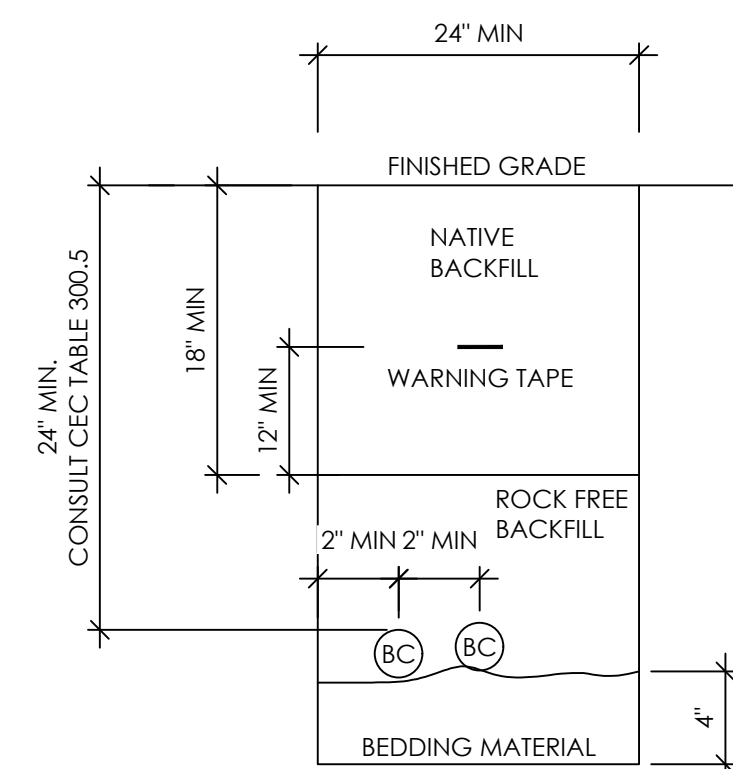
DATE 5/29/2024	SHEET NO. E-2.0
DESIGNED BY JC	
DRAWN BY HB	
CHECKED BY HG	
JOB NO. 1650.7014-21	DRAWING FILE 20MM010
HART PARK PROP 68 IMPROVEMENTS ELECTRICAL SITE PLAN	



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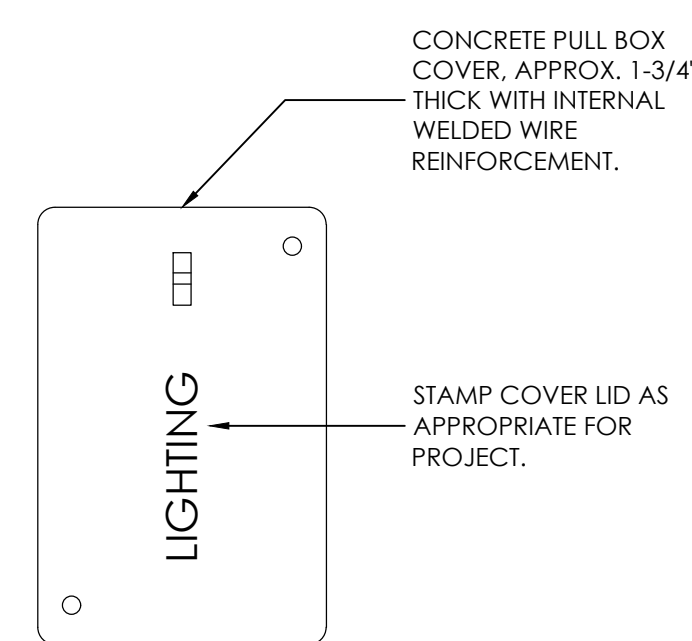
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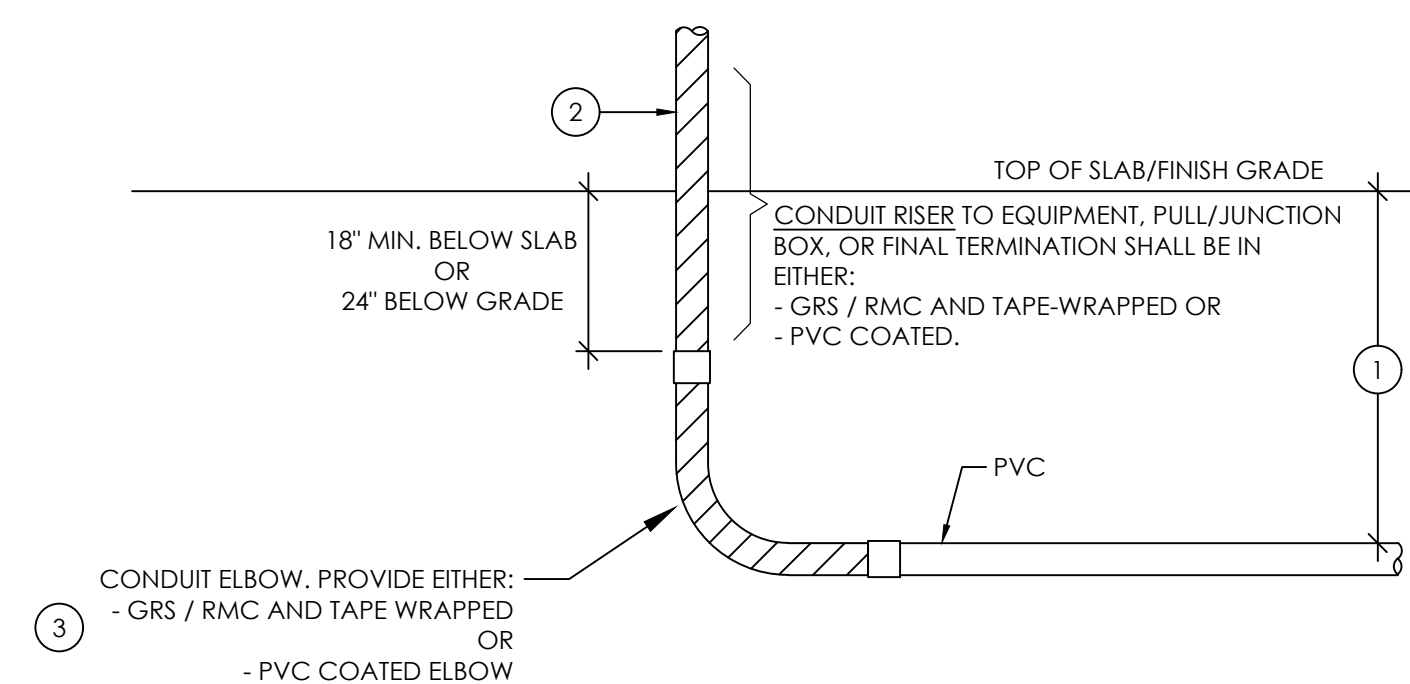


### CONDUIT LEGEND

"BC" LINE VOLTAGE BRANCH CIRCUIT  
(I.E. POWER / LIGHTING)

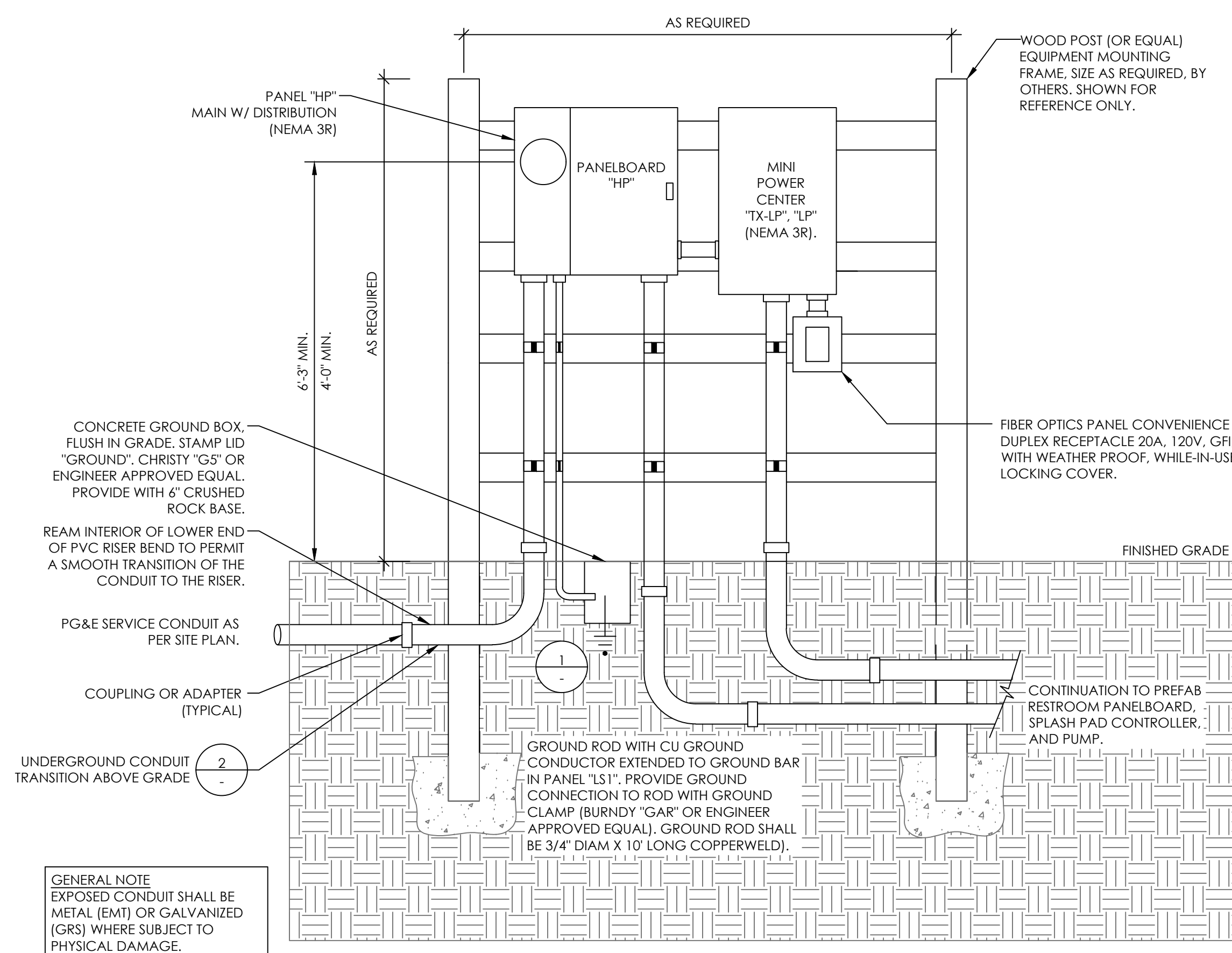


NOTE: CONTRACTOR SHALL APPLY BOX STYLE DEFINED PER EITHER "A" OR "B" AS APPLICABLE FOR PULL BOX LOCATION.



NOTES:

1. REFER TO TRENCH DETAILS FOR SPECIFICATIONS OF CONDUIT DEPTH.
2. WHEN CONDUIT IS TAPE-WRAPPED IT SHALL BE 1/2" LAPPED TO 3" ABOVE FINISHED GRADE OR TOP OF SLAB.
3. APPLICABLE FOR CONDUIT EXTENSION OF 150 FEET AND GREATER AS INDICATED PER DIVISION 26 SPECIFICATIONS.



GENERAL NOTE  
EXPOSED CONDUIT SHALL BE  
METAL (EMT) OR GALVANIZED  
(GRS) WHERE SUBJECT TO  
PHYSICAL DAMAGE.



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DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_

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GENERAL SERVICES DIVISION

CHIEF GENERAL SERVICES OFFICER DAT

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EXPIRES: 12.31.2024  
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