CITY OF PERRIS

SOUTH PERRIS FIRE STATION - CIP F077

GRADING GENERAL NOTES

1. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF PERRIS STANDARD DETAILS AND SPECIFICATIONS, THE RIVERSIDE COUNTY STREET IMPROVEMENT STANDARDS AND SPECIFICATIONS AND STANDARD PLANS; COUNTY ORDINANCE NO. 461; CALTRANS STANDARD PLANS AND SPECIFICATIONS; CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MU.T.C.D); & EASTERN MUNICAPAL WATER DISTRICT (E.M.W.D) STANDARDS.
2. GRADING SHALL NOT START WITHOUT FIRST NOTFYING THE ENGINEERING INSPECTOR FORTY–EIGHT (48) HOURS IN ADVANCE AND HOLDING A PRE– CONSTRUCTION MEETING. AN ONSITE PRE–CONSTRUCTION MEETING IS REQUIRED BEFORE START OF GRADING WITH THE FOLLOWING PEOPLE PRESENT AS APPLICABLE: OWNER, GRADING CONTRACTOR, DESIGN CIVIL ENGINEER, GEOTECHNICAL ENGINEER, ENGINEERING INSPECTOR AND WHEN REQUIRED, THE ARCHAEOLOGIST AND PALEONTOLOGIST. CONTACT THE ENGINEERING DEPARTMENT AT (951) 956–2120 TO SCHEDULE THE PRE– CONSTRUCTION MEETING.
3. CONSTRUCTION ACTIVITIES ARE LIMITED TO WEEKDAYS FROM 8:00 A.M. TO 5:00 P.M. THE CONTRACTOR MUST SUBMIT A WORK REQUEST TO THE ENGINEERING INSPECTOR 48 HOURS IN ADVANCE FOR APPROVAL OF ANY WORK SCHEDULED ON WEEKENDS OR HOLIDAYS. OVERTIME INSPECTION COSTS WILL BE THE CONTRACTOR/PROPERTY OWNER/DEVELOPER'S RESPONSIBILITY.
4. A DETAILED SCHEDULE SHALL BE PROVIDED AT THE PRE–CONSTRUCITON MEETING.
5. AN APPROVED ORIGINAL WATER QUALITY MANAGEMENT PLAN (WQMP) BINDER SHALL BE ON–SITE AT ALL TIMES, IF APPLICABLE.
6. REACH OUT TO THE WQMP INSPECTOR AT THE BEGINNING OF GRADING ACTIVITY TO REVIEW REQUIREMENTS AND COORDINATE SCHEDULING.
7. CONSTRUCTION PROJECTS THAT DISTURB ONE ACRE OR MORE, OR ON SITES THAT ARE PART OF A LARGER COMMON PLAN OF DEVELOPMENT THAT DISTURB ONE ACRE OR MORE, SHALL OBTAIN A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT. DEVELOPERS/CONTRACTORS SHALL FILE A NOTICE OF INTENT (NOI) WITH THE STATE WATER RESOURCES CONTROL BOARD (SWRCB), PREPARE A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND MONITORING PLAN FOR THE SITE. THE PROJECT SHALL COMPLY WITH THE LATEST REGULATIONS SPECIFIC TO THE NPDES AT THE TIME OF PERMIT ISSUANCE. PRIOR TO CONSTRUCTION, THE PROPERTY OWNER/DEVELOPER SHALL PROVIDE TO THE CITY OF PERRIS A COPY OF THE NOI WITH A VALID WASTE DISCHARGE IDENTIFICATION (WDID) NUMBER.
8. A HAUL ROUTE PERMIT SHALL BE OBTAINED FROM THE ENGINEERING DEPARTMENT. THE PERMIT SHALL BE OBTAINED PRIOR TO THE COMMENCEMENT OF EXPORT OR IMPORT OF MATERIALS.
9. MAXIMUM CUT AND FILL SLOPE = 2:1.
10. ALL GRADING SHALL BE DONE IN CONFORMANCE WITH THE RECOMMENDATIONS OF THE PRELIMINARY SOILS INVESTIGATION BY INLAND FOUNDATION ENGINEERING, INC. DATED 09/23/25. TWO SETS OF FINAL COMPACTION REPORT SHALL BE SUBMITTED TO THE ENGINERRING DEPARTMENT, WHICH SHALL INCLUDE FOUNDATION DESIGN RECOMMENDATIONS AND CERTIFICATION THAT GRADING HAS BEEN DONE IN CONFORMANCE WITH THE RECOMMENDATIONS OF THE SITE INVESTIGATION REPORT.
11. ANY STORM DRAIN MANHOLE SHALL HAVE THE CITY OF PERRIS MANHOLE COVER.
12. ALL TRENCHES SHALL BE SECURELY COVERED WITH STEEL PLATES UNTIL PERMANENT BACKFILL AND STREET REPAIRS HAVE BEEN COMPLETED PER CITY OF PERRIS STANDARDS; TEMPORARY BACKFILL OF TRENCHES WILL NOT BE ACCEPTED.
13. PRIOR TO START OF THE GRADING ACTIVITY, LOCATION FOR STOCKPILING OF EXCESS OR OVEREXCAVATION OF MATERIAL SHALL BE APPROVED BY THE ENGINEERING INSPECTOR.
14. SANITARY FACILITIES SHALL BE PROVIDED AND MAINTAINED ON THE SITE AT ALL TIMES.
15. THE PROTECTION OF ALL UTILITIES IS THE RESPONSIBILITY OF THE PERMITTEE.
16. ALL EXISITING DRAINAGE COURSES ON THE PROJECT SITE SHALL CONTINUE TO FUNCTION UNTIL THE FACILITIES TO HANDLE STORM WATER ARE INSTALLED AND FUNCTIONAL. APPROVED PROTECTIVE MEASURES AND TEMPORARY DRAINAGE PROVISIONS SHALL BE USED TO PROTECT ADJACENT PROPERTIES DURING ALL CONSTRUCTION PHASES. IN ALL CASES, THE PERMITEE SHALL BE HELD LIABLE FOR ANY DAMAGE DUE TO THE OBSTRUCTION OF NATURAL DRAINAGE PATTERNS.
17. ANY EXISTING SEWER, CESSPOOL AND SEPTIC TANK SYSTEMS SHALL BE REMOVED AND/OR ABANDONED IN COMPLIANCE WITH THE APPLICABLE CODES AS APPROVED BY THE BUILDING OFFICIAL.
18. BEFORE THE BUILDING PERMIT IS ISSUED, A LICENSED SURVEYOR MUST SUBMIT PAD CERTIFICATION(S) TO THE ENGINEERING INSPECTOR. ADDITIONALLY, THE CIVIL ENGINEER OF RECORD SHALL PROVIDE A FINAL CERTIFICATION OF COMPLETION PER THE APPROVED GRADING PLAN BEFORE THE CERTIFICATE OF OCCUPANCY IS GRANTED.
19. WRITTEN PERMISSION AND/OR EASEMENTS IS REQUIRED FROM ANY ADJACENT PROPERTY OWNERS WHENEVER WORK ENCROACHES ONTO ADJACENT PROPERTIES INCLUDING THE ALTERATION OF WATER COURSES.
20. THE PROPERTY OWNER/CONTRACTOR SHALL CLEAN AND/OR REMOVE TRACKING OF MATERIAL DAILY WITHIN PUBLIC RIGHTS–OF–WAY TO THE SATISFACTION OF THE ENGINEERING INSPECTOR.
21. PROPOSED REVISIONS TO THE GRADING PLAN SHALL BE SUBMITTED AS A DELTA REVISION PLAN SET AND PROVIDED TO THE ENGINEERING DEPARTMENT FOR REVIEW AND APPROVAL. THE ORIGINAL APPROVED PLANS SHALL NOT BE CHANGED UNTIL THE REVISION HAS BEEN APPROVED BY THE CITY ENGINEER.
22. DEWATERING OF CONTAMINATED GROUNDWATER OR DISCHARGING CONTAMINATED SOILS VIA SURFACE EROSION IS PROHIBITED. DEWATERING OF NON–CONTAMINATED GROUNDWATER REQUIRES A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT FROM THE STATE REGIONAL WATER QUALITY CONTROL BOARD.
23. PAVEMENT SECTIONS MUST BE APPROVED BY THE CITY'S ENGINEERING DEPARTMENT. THE SOILS ENGINEER SHALL SUBMIT PAVEMENT STRUCTURAL SECTION RECCOMENDATIONS BASED ON "R" VALUE ANALYSIS OF THE SUBGRADE SOILS, AND CITY APPROVED TRAFFIC INDICES. "R" VALUE TESTS SHALL BE IN ACCORDANCE WITH STATE OF CALIFORNIA TESTING METHOD 301 OR ASTM D2844 OF THE SUBGRADE SOILS.

ESTIMATE OF EARTHWORK QUANTITIES

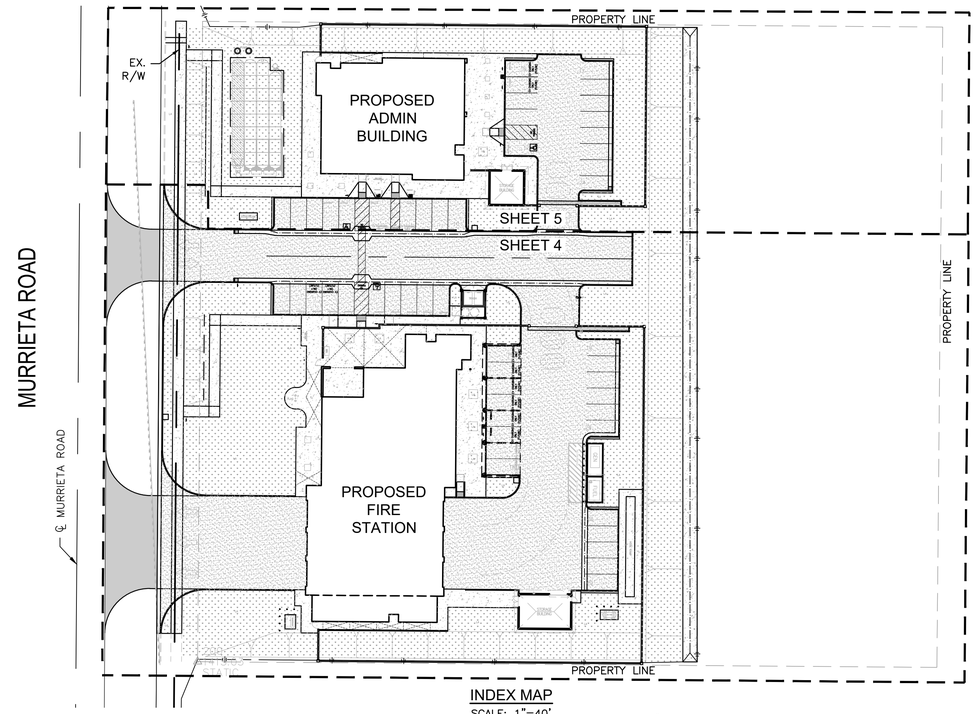
RAW CUT	60	C.Y.
RAW FILL	14,730	C.Y.
TOTAL (NET FILL)	14,670	C.Y.

NOTE: THESE QUANTITIES ARE THE ENGINEERS VOLUME CALCULATIONS AND DO NOT REFLECT ANY LOSSES. REFER TO THE SOILS ENGINEER'S REPORT FOR LOSSES DUE TO SHRINKAGE, SUBSIDENCE OR ANY OTHER FACTORS CALLED OUT BY THE SOILS ENGINEER. ANY EXCESS DIRT CREATED FROM THIS PROJECT SHALL BE SPREAD OVER THE SITE PER THE SOILS ENGINEERS RECOMMENDATIONS.

NOTIFICATIONS

NOTE: THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES FORTY–EIGHT (48) HOURS PRIOR TO STARTING CONSTRUCTION OR EXCAVATION.

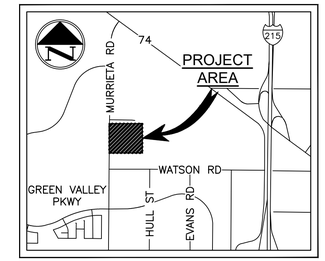
CITY OF PERRIS	1–951–943–6100
EASTERN MUNICIPAL WATER DISTRICT (E.M.W.D)	1–951–928–3777
FRONTIER TELEPHONE	1–855–679–3074
SOUTHERN CALIFORNIA GAS COMPANY	1–877–238–0092
SOUTHERN CALIFORNIA EDISON COMPANY	1–800–684–8123
AT&T	1–800–310–2355
LEVEL 3 COMMUNICATIONS/LUMEN	1–909–473–1569
UNDERGROUND SERVICE ALERT (U.S.A.)	1–800–422–4133



INDEX MAP

SCALE: 1"=40'

0 20 40 80 FEET



VICINITY MAP

N.T.S.

SITE ADDRESS

2495 MURRIETA RD
PERRIS, CA 92585

TOTAL DISTURBED AREA

2.3 ACRES

ASSESSORS PARCEL NUMBER

327–210–016

BENCHMARK

2 MILES NORTH ON MURRIETA ROAD FROM CATHOLIC CHURCH IN SUN CITY, 700' NORTH OF INTERSECTION OF MURRIETA ROAD AND ETHANAC ROAD, 40' WEST OF MURRIETA ROAD & LEVEL WITH THE ROAD, 3' NORTHEAST OF THE SOUTH EAST CORNER OF 8' CHAIN LINK FENCE OF E.M.W.D MURRIETA PUMPING STATION, 2' NORTH OF MARKER POST, SET BRASS DISK IN THE TOP OF CONCRETE POST STAMPED "600–31–68"

ELEVATION = 1416.80 NAV88 (VERTCON3)

BASIS OF BEARING

THE BEARINGS SHOWN HEREON ARE BASED UPON THE CALIFORNIA COORDINATE SYSTEM OF 1983, CCS83, ZONE 6, (2017.50) IN ACCORDANCE WITH THE CALIFORNIA PUBLIC RESOURCES CODE SECTIONS 8801–8819; SAID BEARINGS ARE BASED LOCALLY UPON FIELD–OBSERVED TIES TO THE FOLLOWING CALIFORNIA SPATIAL REFERENCE NETWORK, OR EQUIVALENT STATION:

STATION	LATITUDE	LONGITUDE	ELLIPSOID HEIGHT
MLFP	33° 55' 6.24658"	117° 19' 4.60799"	473.685(M)
BILL	33° 34' 41.66956"	117° 03' 52.52037"	470.770(M)
P584	33° 53' 33.36190"	116° 57' 5.86395"	739.474(M)

NOTE TO CONTRACTOR

THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE GEOTECHNICAL ENGINEER FOR ALL IMPORTED SOILS PRIOR TO DELIVERY TO THE SITE. ALL IMPORT MATERIAL SHALL BE TESTED, VERIFIED, AND APPROVED BY THE GEOTECHNICAL ENGINEER FOR SUITABILITY AND COMPLIANCE WITH THE PROJECT GEOTECHNICAL RECOMMENDATIONS BEFORE PLACEMENT AND COMPACTION.

SHEET INDEX

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UTILITY PLAN	C–6
UTILITY PLAN	C–7
EROSION CONTROL PLAN	C–8
EROSION CONTROL PLAN	C–9

LEGEND

CENTER LINE
RIGHT OF WAY
PROPERTY LINE
FLOWLINE
EXISTING EDGE OF PAVEMENT
EXISTING TELECOMMUNICATIONS — T —
EXISTING ELECTRIC — E —
EXISTING WATER LINE — W —
EXISTING IMPROVEMENTS
EXISTING ELEVATION CONTOURS — 1420 —
PROPOSED ELEVATION CONTOURS — (1420) —
PROPOSED IMPROVEMENTS
PROPOSED RETAINING WALL
SIDE SLOPE

TOPOGRAPHY SOURCE

ENGINEERING RESOURCES OF SOUTHERN CALIFORNIA, INC.

DATE: 08/06/2025

1861 W REDLANDS BLVD
REDLANDS, CA 92373

PH: (909) 890–1255

HATCH LEGEND

CONSTRUCT PCC SIDEWALK
CONSTRUCT PCC IMPROVEMENTS
LANDSCAPE AREA

ABBREVIATIONS

AC	ASPHALT CONCRETE
℄	CENTER LINE
C&G	CURB AND GUTTER
FF	FINISHED FLOOR
FL	FLOW LINE
FS	FINISHED SURFACE
GB	GRADE BREAK
NTS	NOT TO SCALE
PL	PROPERTY LINE
RL	RIDGE LINE
R/W	RIGHT OF WAY
SWR	SEWER
TC	TOP OF CURB
TD	TOP OF DITCH
TF	TOP OF FOOTING
TG	TOP OF GRATE
TW	TOP OF WALL
TYP.	TYPICAL

SOIL ENGINEER

INLAND FOUNDATION ENGINEERING, INC.
1310 SOUTH SANTA FE AVE. PO BOX 937
SAN JACINTO, CA. 92581

PH: (951) 654–1555

EROSION CONTROL GENERAL NOTES

1. IN CASE OF EMERGENCY CALL CITY OF PERRIS, ENGINEERING DEPARTMENT AT (951)956–2120.
   (RESPONSIBLE PERSON) (24 HR #)
2. TOTAL DISTURBED AREA 2.3 ACRES. WDID # ____. RISK LEVEL (1) 2, 3 (CIRCLE ONE AS DETERMINED BY STATE PERMIT FOR SITES GREATER THAN ONE ACRE.)
3. AS THE ENGINEER/QSD OF RECORD, I HAVE SELECTED APPROPRIATE BMPS TO EFFECTIVELY MINIMIZE THE NEGATIVE IMPACTS OF THIS PROJECT'S CONSTRUCTION ACTIVITIES ON STORMWATER QUALITY. THE PROJECT OWNER/DEVELOPER AND CONTRACTOR ARE AWARE THAT THE SELECTED BMPS MUST BE INSTALLED, MONITORED, AND MAINTAINED TO ENSURE THEIR EFFECTIVENESS. AS THE ENGINEER/QSD OF RECORD, I HAVE SELECTED APPROPRIATE BMPs TO EFFECTIVELY MINIMIZE THE NEGATIVE IMPACTS OF THIS PROJECT'S CONSTRUCTION ACTIVITIES ON STORM WATER QUALITY. THE PROJECT OWNER/DEVELOPER AND CONTRACTOR ARE AWARE THAT THE SELECTED BMPs MUST BE INSTALLED MONITORED AND MAINTAINED TO ENSURE THEIR EFFECTIVENESS.

(SIGNATURE) (DATE) (LICENSE #)

4. A STANDBY CREW FOR EMERGENCY WORK SHALL BE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON. NECESSARY EROSION AND SEDIMENT CONTROL MATERIALS SHALL BE AVAILABLE ON SITE AND STOCKPILED AT CONVENIENT LOCATIONS TO FACILITATE RAPID IMPLEMENTATION OR CONSTRUCTION OF TEMPORARY DEVICES OR TO REPAIR ANY DAMAGED EROSION CONTROL MEASURES WHEN RAIN IS IMMINENT.
5. DEVICES SHALL NOT BE MOVED OR MODIFIED WITHOUT THE APPROVAL OF THE ENGINEERING INSPECTOR. ALL DAMAGED BMP'S SHALL BE IMMEDIATELY REMOVED AND REPLACED.
6. ALL REMOVABLE PROTECTIVE DEVICES SHOWN SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN THE FIVE–DAY RAIN PROBABILITY FORECAST EXCEEDS 40 PERCENT.
7. EROSION CONTROL SHALL BE IN PLACE IN THE FIELD DURING THE RAINY SEASON (OCTOBER 15 TO MAY 31) AND ANYTIME DURING THE YEAR WHEN THE FIVE–DAY RAIN PROBABILITY FORECAST EXCEEDS 40 PERCENT.
8. AFTER EACH RAINSTORM, THE PERFORMANCE OF THE EROSION CONTROL SYSTEM SHALL BE EVALUATED AND REVISED AND REPAIRED AS DIRECTED BY THE ENGINEERING INSPECTOR.
9. CUT AND FILL SLOPES EQUAL TO OR GREATER THAN 3' IN VERTICAL HEIGHT SHALL BE PLANTED WITH GRASS OR GROUND COVER TO PROTECT THE SLOPE FROM EROSION AND INSTBAILITY IN ACCORDANCE WITH ORDINANCE NO. 457 PRIOR TO FINAL GRADING INSPECTION.
10. A GUARD SHALL BE POSTED ON THE SITE WHENEVER THE DEPTH OF WATER IN ANY DEVICE EXCEEDS TWO FEET. THE DEVICE SHALL BE DRAINED OR PUMPED DRY WITHIN 24 HOURS AFTER EACH RAINSTORM. PUMPING AND DRAINING OF ALL BASINS AND DRAINAGE DEVICES MUST COMPLY WITH THE APPROPRIATE BMP FOR DEWATERING OPERATIONS.
11. ALL SLOPES TO BE PLANTED SHALL BE COVERED WITH DROUGHT TOLERANT PLANT (OR EQUIVALENT) GROUND COVER, SPACED 12" APART. SLOPES EXCEEDING 15' IN VERTICAL HEIGHT SHALL BE PLANTED WITH APPROVED TREE SPACING NO MORE THAN 20' APART, SHRUBS NO MORE THAN 10' APART, OR A COMBINATION OF BOTH, WITH A MAXIMUM SPACING OF 15'. GRASS MIX OR GROUND COVER IS ALSO REQUIRED. SLOPES OVER 4' IN VERTICAL HEIGHT SHALL INCLUDE AN IN– GROUND IRRIGATION SYSTEM. SLOPES 4' OR LESS MAY BE IRRIGATED WITH A HOSE BIB AT THE TOP OR BOTTOM, WITH A HOSE NO LONGER THAN 40' IN LENGTH. THE IRRIGATION SYSTEM SHALL BE EQUIPPED WITH A PROPER BACKFLOW DEVICE AS PER U.P.C
12. EVERY EFFORT SHOULD BE MADE TO ELIMINATE THE DISHCHARGE OF NON– STORM WATER FROM THE PROJECT SITE AT ALL TIMES
13. DRAINAGE INLETS ADJACENT TO GRADING OPERATIONS SHALL HAVE SEDIMENT CONTROL DEVICES IN PLACE AT ALL TIMES (YEAR–ROUND) AS DIRECTED BY THE ENGINEERING INSPECTOR.
14. EXCESS OR WASTE CONCRETE MAY NOT BE WASHED INTO THE PUBLIC RIGHT OF WAY OR ANY OTHER DRAINAGE SYSTEM. PROVISIONS SHALL BE MADE TO RETAIN CONCRETE WASTES ON–SITE UNTIL THEY CAN BE DISPOSED OF AS SOLID WASTE.
15. TRASH AND CONSTRUCTION RELATED SOLID WASTES MUST BE DEPOSITED INTO A COVERED RECEPTACLE TO PREVENT CONTAIMINATION OF RAINWATER AND DISPERSAL BY WIND.

DECLARATION OF ENGINEER OF RECORD

I HEREBY DECLARE THAT IN MY PROFESSIONAL OPINION, THE DESIGN OF THE IMPROVEMENTS AS SHOWN ON THESE PLANS COMPLIES WITH THE CURRENT PROFESSIONAL ENGINEERING STANDARDS AND PRACTICES. AS THE ENGINEER IN RESPONSIBLE CHARGE OF THE DESIGN OF THESE IMPROVEMENTS, I ACCEPT FULL RESPONSIBILITY FOR SUCH DESIGN. I UNDERSTAND AND ACKNOWLEDGE THAT THE PLAN CHECK OF THESE PLANS BY THE CITY OF PERRIS IS A REVIEW FOR THE LIMITED PURPOSE OF ENSURING THAT THESE PLANS COMPLY WITH CITY PROCEDURES AND OTHER APPLICABLE CODES AND ORDINACES. THE PLAN REVIEW PROCESS IS NOT A DETERMINATION OF THE TECHNICAL ADEQUACY OF THE DESIGN OF THE IMPROVEMENTS. SUCH PLAN CHECK DOES NOT THEREFORE RELIEVE ME OF MY DESIGN RESPONSIBILITY.

AS THE ENGINEER OF RECORD, I AGREE TO DEFEND AND INDEMNIFY THE CITY OF PERRIS, ITS OFFICERS, ITS AGENTS, AND ITS EMPLOYEES FROM ANY AND ALL LIABILITY, CLAIMS, DAMAGES, OR INJURIES TO ANY PERSON OR PROPERTY ARISING FROM NEGLIGENT ACTS, ERRORS OR OMISSIONS OF THE ENGINEER OF RECORD, HIS EMPLOYEES, HIS AGENTS, OR HIS CONSULTANTS.

JOHN M. BRUDIN	41836		6/1/2026
SUPERVISING CIVIL ENGINEER	P.E. NUMBER	SIGNATURE	DATE

GEOTECHNICAL REVIEW

I HERBY CERTIFY THAT I HAVE REVIEWED THESE PRECISE GRADING PLANS AND FURTHER CERTIFY THAT THESE PLANS ARE BOTH IN CONFORMANCE WITH AND INCORPONETS THE RECOMMENDATION CONTAINED IN A REPORT PREPARED BY ME ENTITLED PROPOSED DEVELOPMENT, CITY OF PERRIS, RIVERSIDE COUNTY, CALIFORNIA, AND ALL ADDENDUMS THEREAFTER AND DATED _____.

ALLEN D. EVANS, P.E., G.E.	2060		
SUPERVISING CIVIL ENGINEER	G.E. NUMBER	SIGNATURE	DATE

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

DATE	BY	MARK	REVISIONS	APPR.	DATE
				CITY	

ENGINEER
DESIGNED BY: DRAWN BY: CHECKED BY:

PREPARED BY:
ERSG INC.COM
Engineering Resources of Southern California
1861 West Redlands Blvd.
Redlands, CA 92373
P:909.890.1255
JOHN M. BRUDIN 6/1/2026 DATE

SEAL: REGISTERED PROFESSIONAL ENGINEER JOHN M. BRUDIN No. 41836 CIVIL STATE OF CALIFORNIA

APPROVED BY: DATE: 6/9/26
J. Pourkazemi
CITY ENGINEER

CITY OF PERRIS ENGINEERING DEPARTMENT
24 S. D ST. SUITE 100
PERRIS CA 92570
951–956–2120

SCALE: AS SHOWN
DATE:
BENCHMARK: SEE ON SHEET 1

CITY OF PERRIS, CALIFORNIA
SOUTH PERRIS FIRE STATION
CIP F077
TITLE SHEET

FOR: CITY OF PERRIS W.O.

SHEET NO. C-1 OF 9 SHEETS
FILE NO.

GRADING CONSTRUCTION NOTES

1. CONSTRUCT 9-INCH PCC PAVEMENT OVER 12-INCH OF CLASS 2 AGGREGATE BASE COMPACTED 95% RELATIVE COMPACTION.
2. CONSTRUCT 12-INCH PCC PAVEMENT OVER 12-INCH OF CLASS 2 AGGREGATE BASE COMPACTED 95% RELATIVE COMPACTION, SEE SHEET C-2.
3. CONSTRUCT 6" PCC CURB PER RIVERSIDE COUNTY STD 204.
4. CONSTRUCT 6" PCC CURB AND GUTTER PER RIVERSIDE COUNTY STD 200.
5. CONSTRUCT 4" THICK PCC SIDEWALK OVER COMPACTED SUBGRADE PER RIVERSIDE COUNTY STD 400.
6. CONSTRUCT COMMERCIAL DRIVEWAY APPROACH PER RIVERSIDE COUNTY STD 207A (MODIFIED PER PLANS).
7. CONSTRUCT 4" WHITE LINE THERMOPLASTIC PARKING STRIPING PER ARCHITECT SPECIFICATIONS.
8. CONSTRUCT ADA PARKING STALL PER DETAIL "A" ON SHEET C-2.
9. CONSTRUCT CONCRETE WHEEL STOP PER DETAIL "B" ON SHEET C-2.
10. CONSTRUCT 3-FOOT CROSS GUTTER PER DETAIL "C" ON SHEET C-2.
11. INSTALL YELLOW DETECTABLE WARNING MAT PER DETAIL "D" ON SHEET C-2.
12. INSTALL PSI PACIFIC SOUTHWEST PUMP SYSTEM PER DETAIL ON SHEET C-3, OR APPROVED EQUAL.
13. CONSTRUCT CURB RAMP PER RIVERSIDE COUNTY STD 403, CASE C.
14. CONSTRUCT CURB RAMP PER RIVERSIDE COUNTY STD 403, CASE A.
15. CONSTRUCT CMU WALL PER ARCHITECTURAL PLAN, SEE DETAIL 1 ON SHEET A1.5.
16. CONSTRUCT 0.30' THICK AC OVER 6" OF CLASS 2 AGGREGATE BASE MATERIAL.
17. CONSTRUCT ABOVE GROUND FUEL TANK, GENERATOR, CONCRETE CONTAINMENT POND, SHADE CANOPY, AND PIPE BOLLARDS PER ARCHITECTURAL PLAN, SEE DETAIL 12 ON SHEET A1.2.
18. CONSTRUCT TRASH ENCLOSURE PER ARCHITECTURAL PLAN, SEE DETAIL 2 ON SHEET A1.2.
19. CONSTRUCT CANOPY PER ARCHITECTURAL PLAN, SEE SHEET A1.6.
20. CONSTRUCT MOTORIZED GATE KEYPAD ON PEDESTAL AND PIPE BOLLARDS PER ARCHITECTURAL PLAN, SEE DETAIL 12 ON SHEET A1.3. FIRE DEPARTMENT KNOX KEY SWITCH REQUIRED AT KEYPAD PEDESTAL CONTROL BOX.
21. CONSTRUCT ORNAMENTAL MOTORIZED ROLLING GATE AND COMPONENTS PER ARCHITECTURAL PLAN, SEE DETAIL 5 ON SHEET A1.3.
22. INSTALL 4'X12' ES48E ECOSTREAM BIOFILTER SOLID LID PER DETAIL ON SHEET C-2 AND WQMP REPORT, OR APPROVED EQUAL.
23. CONSTRUCT LPG TANK, CONCRETE PAD, AND PIPE BOLLARDS PER ARCHITECTURAL PLAN, SEE DETAIL 5 ON SHEET A1.1.
24. CONSTRUCT 5-INCH PCC PAVEMENT OVER 6-INCH OF CLASS 2 AGGREGATE BASE COMPACTED 95% RELATIVE COMPACTION.
25. CONSTRUCT CURB RAMP PER RIVERSIDE COUNTY STD 403, CASE D, MODIFIED PER PLANS.
26. CONSTRUCT UNDER SIDEWALK DRAIN PER RIVERSIDE COUNTY STD 309. W=3'.
27. CONSTRUCT SHOTCRETE V-DITCH W=8' PER DETAIL "E" ON SHEET C-2.
28. INSTALL ADS MC-3500 STORMTECH CHAMBER PER PLANS AND SEPARATE ADS CHAMBERS DESIGN DOCUMENTS PER DETAIL ON SHEET C-3 AND WQMP REPORT, OR APPROVED EQUAL.

STROM DRAIN NOTES

- (A) INSTALL 24"X24" JENSEN PRECAST DROP INLET BASIN MODEL 2424 WITH GRATE, OR APPROVED EQUAL.
- (B) INSTALL 6" ROUND GRATE COVER PER DETAIL "G" ON SHEET C-2.
- (C) INSTALL 4" HDPE PIPE OR APPROVED EQUAL.
- (D) INSTALL 6" HDPE PIPE OR APPROVED EQUAL.
- (E) INSTALL 9" HDPE PIPE OR APPROVED EQUAL.
- (F) INSTALL 12" HDPE PIPE OR APPROVED EQUAL.
- (G) INSTALL 18" HDPE PIPE OR APPROVED EQUAL.
- (H) 6" CLEAN OUT.
- (J) 9X12 HDPE INCREASER.
- (K) 12X18 HDPE INCREASER.
- (L) 12X12X12 HDPE TEE.
- (M) 12X12X12X12 HDPE CROSS.

EROSION CONTROL NOTES

1. STABILIZED CONSTRUCTION ENTRANCE (TC-1)
2. SILT FENCE (SE-1)
3. FIBER ROLLS (SE-5)
4. GRAVEL BAG BERM (SE-6)
5. STREET SWEEPING AND VACUUMING (SE-7)
6. STORM DRAIN INLET PROTECTION (SE-10)
7. MATERIAL DELIVERY AND STORAGE (WM-1)
8. STOCKPILE MANAGEMENT (WM-3)
9. SPILL PREVENTION AND CONTROL (WM-4)
10. SOLID WASTE MANAGEMENT (WM-5)
11. CONCRETE WASTE MANAGEMENT (WM-8)
12. VEHICLE AND EQUIPMENT FUELING (NS-9)
13. VEHICLE AND EQUIPMENT MAINTENANCE (NS-10)

UTILITY PLAN NOTES

WATER CONSTRUCTION NOTES:

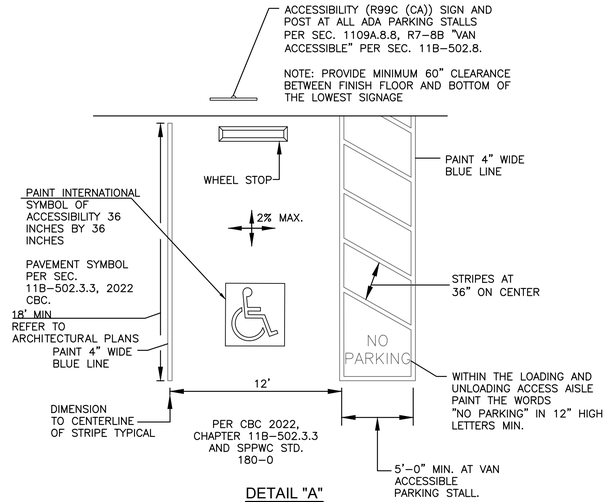
1. INSTALL 2-INCH WATER SERVICE CONNECTION AND METER PER EMWD STD DWG B-344A.
2. INSTALL 1-INCH WATER IRRIGATION SERVICE CONNECTION AND METER PER EMWD STD DWG B-590A.
3. INSTALL 2-INCH REDUCED PRESSURE BACKFLOW PREVENTER PER EMWD STD DWG B-597A.
4. INSTALL 1-INCH REDUCED PRESSURE BACKFLOW PREVENTER PER EMWD STD DWG B-597A.
5. INSTALL 2-INCH 45° ELBOW.
6. INSTALL 2-INCH PVC, SCHEDULE 40 OR APPROVED EQUAL.
7. CONNECT MANIFOLD PER EMWD MANIFOLD STANDARD DETAIL ON SHEET C-2.

SEWER CONSTRUCTION NOTES:

1. INSTALL GREASE INTERCEPTOR PER SEPTIC SYSTEM PLAN, SEE SHEET D-1.
2. INSTALL 4-INCH SCHEDULE 40 PVC OR APPROVED EQUAL.
3. INSTALL 4-INCH SEWER CLEANOUT PER SEPTIC SYSTEM PLAN, SEE SHEET D-1.

FIRE PROTECTION CONSTRUCTION NOTES:

1. INSTALL 10-INCH FIRE DOUBLE CHECK DETECTOR ASSEMBLY PER EMWD STD DWG B-657.
2. INSTALL POST INDICATOR AND FIRE DEPARTMENT CONNECTION VALVE PER DETAIL "H" ON SHEET C-2.
3. INSTALL 10-INCH PVC C900 OR APPROVED EQUAL.
4. INSTALL 6-INCH PVC C900 OR APPROVED EQUAL.
5. INSTALL 6-INCH DIA. FIRE HYDRANT PER EMWD STD DWG B-517.
6. INSTALL 6-INCH 45° ELBOW.
7. INSTALL 10-INCH 45° ELBOW.
8. INSTALL 10X6-INCH TEE.
9. INSTALL 10"X6" REDUCER.
10. CONNECT FIRE LINE PER DETAIL "J" ON SHEET C-6 AND C-7.
11. CONSTRUCT 3'X3 CONCRETE PAD PER EMWD STD DWG B-517.
12. INSTALL 10-INCH 90° ELBOW.
13. INSTALL 6-INCH 90° ELBOW.



DETAIL "A"
ADA PARKING STALL
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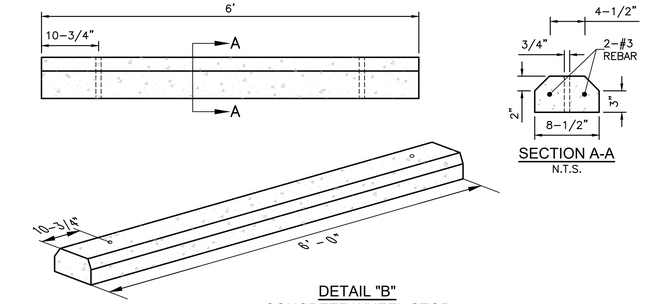
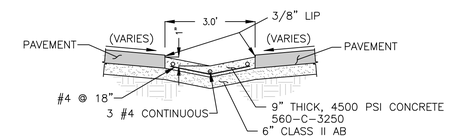
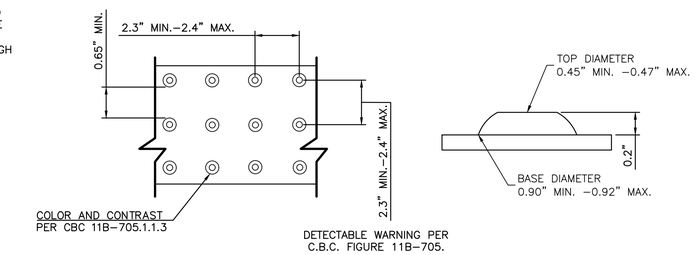


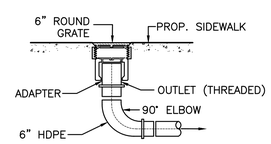
DETAIL "B"
CONCRETE WHEEL STOP
N.T.S.



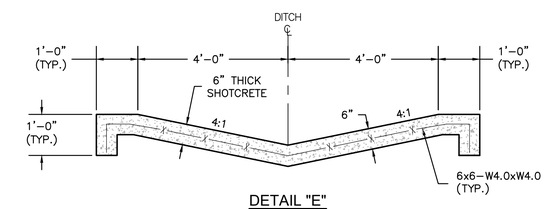
DETAIL "C"
4' CROSS GUTTER
N.T.S.



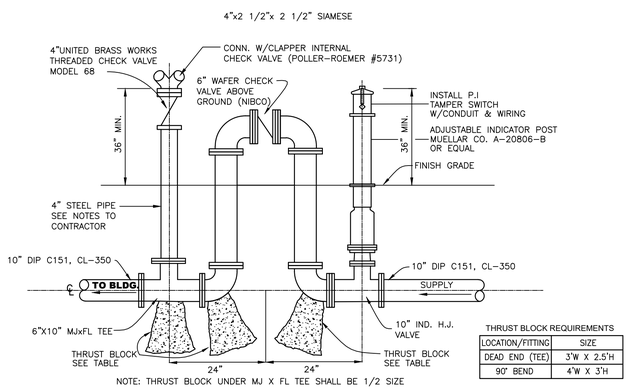
DETAIL "D"
DETECTABLE WARNING MAT
N.T.S.



DETAIL "G"
6" DIA. DRAIN
N.T.S.



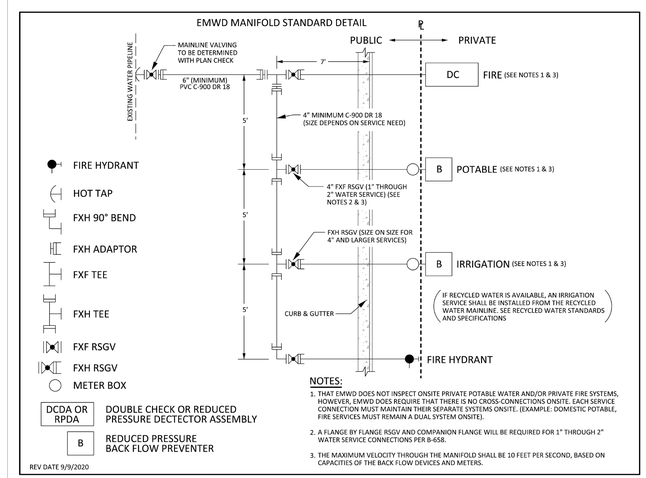
DETAIL "E"
SHOTCRETE V-DITCH
N.T.S.



THRUST BLOCK REQUIREMENTS

LOCATION/FITTING	SIZE
DEAD END (TEE)	3'W X 2.5'H
90° BEND	4'W X 3'H

DETAIL "H" - POST INDICATOR FIRE DEPARTMENT CONNECTION
N.T.S.



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

DATE	BY	MARK	REVISIONS	APPR.	DATE
				CITY	

ENGINEER
DESIGNED BY: DRAWN BY: CHECKED BY:

PREPARED BY:
ERSG INC.COM
Engineering Resources of Southern California
1861 West Redlands Blvd.
Redlands, CA 92373
P:909.890.1255
JOHN M. BRUDIN — 6/1/2026 DATE

SEAL: REGISTERED PROFESSIONAL ENGINEER JOHN M. BRUDIN No. 41836 CIVIL STATE OF CALIFORNIA

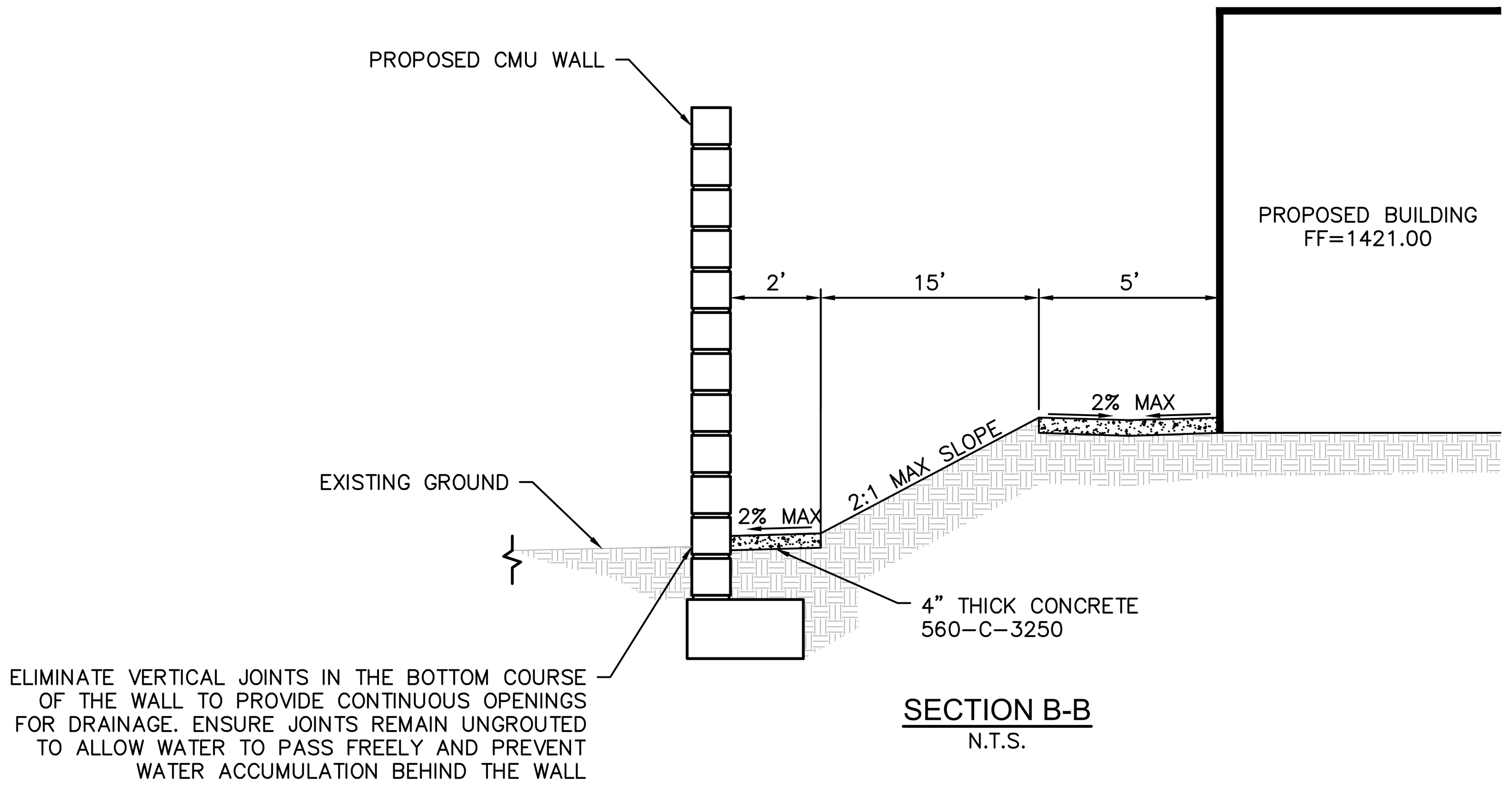
APPROVED BY: DATE: 6/9/26
J. Pourkazemi
CITY ENGINEER

CITY OF PERRIS ENGINEERING DEPARTMENT
24 S. D ST. SUITE 100
PERRIS CA 92570
951-956-2120

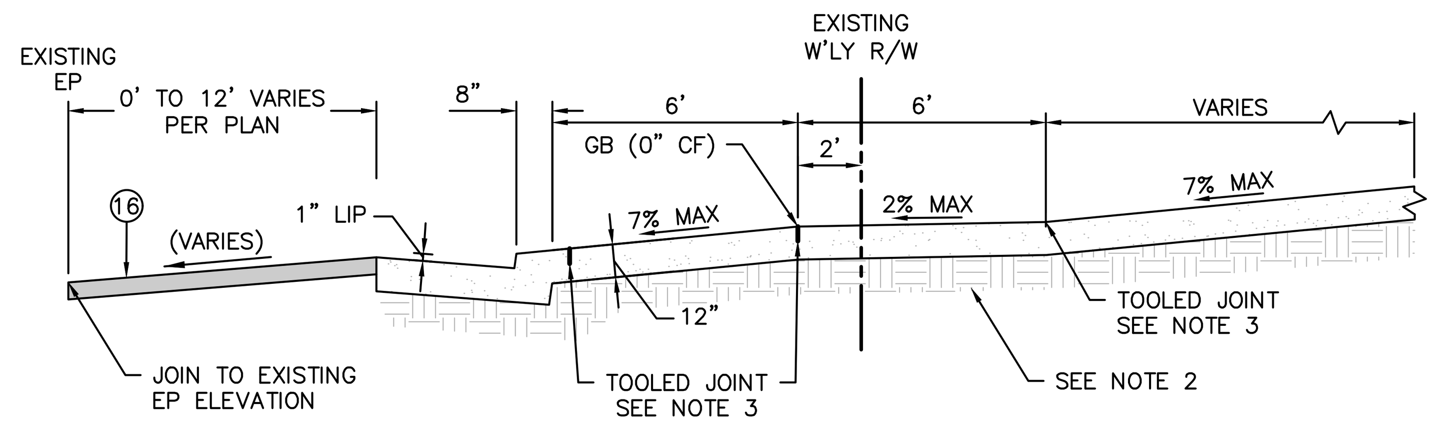
SCALE: AS SHOWN
DATE:
BENCHMARK: SEE ON SHEET 1

CITY OF PERRIS, CALIFORNIA
SOUTH PERRIS FIRE STATION
CIP F077
DETAILS
FOR: CITY OF PERRIS
W.O.

SHEET NO. C-2 OF 9 SHEETS
FILE NO.



SECTION B-B
N.T.S.



*CROSS SLOPE OF SIDEWALK SHALL BE 2.00% MAX PER PLANS.

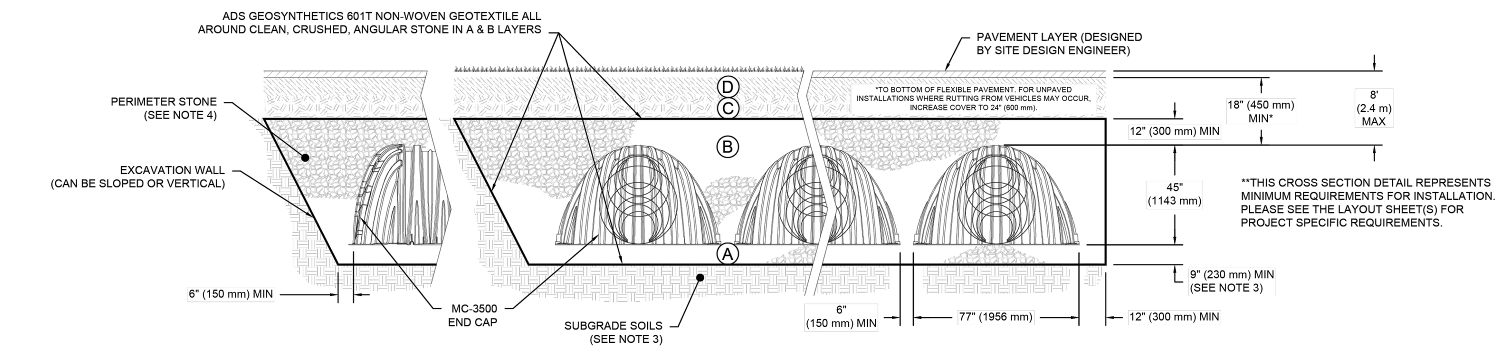
SECTION E-E
N.T.S.

NOTES:
1. DRIVEWAY APPROACH SHALL BE 8" CONCRETE WITH MINIMUM CEMENTITIOUS MATERIAL CONTENT=590 LB/CU YD.
2. RELATIVE COMPACTION OF SUBGRADE UNDER DRIVEWAY APPROACH SHALL BE 95% MIN.
3. APPROACHES SHALL HAVE 1 ½" DEEP 3⁄16 " WIDE TOOLED JOINT AT CENTER OF APPROACH AND IS SHOWN HEREON. ALL OTHER SCORE LINES SHALL BE 10'=0" MAX OC.
4. WHEN ABUTTING SOIL HAS A HIGH SULFATE CONTENT, USE A MODIFIED CONCRETE MIX AND PLACE 6" MIN CLASS 2 AGGREGATE BASE AND 6 MIL PLASTIC SHEETING UNDER AND AROUND ALL SIDES OF CONCRETE IMPROVEMENTS. FOR EXPANSIVE SOIL, PLACE 6" MIN CLASS 2 AGGREGATE BASE UNDER CONCRETE IMPROVEMENTS AS DIRECTED BY THE ENGINEER.

ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 CHAMBER SYSTEMS

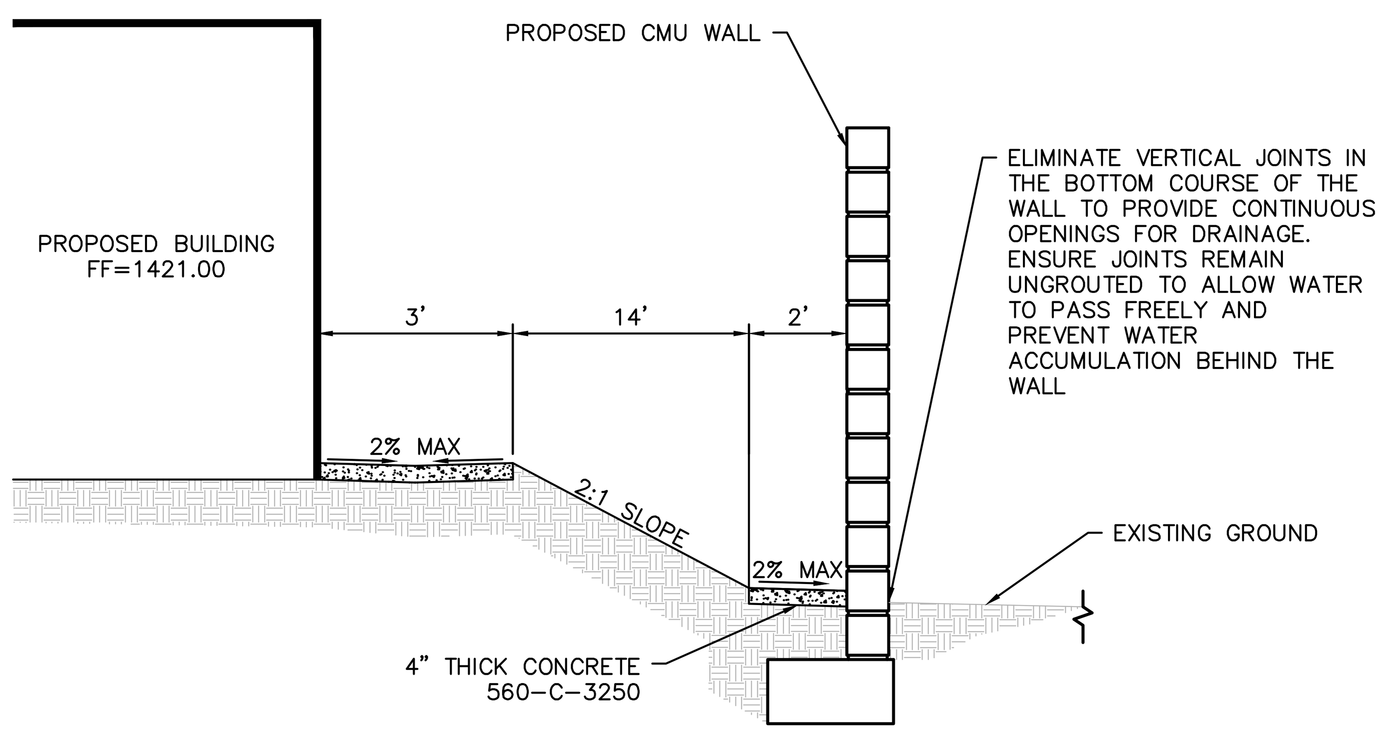
MATERIAL LOCATION		DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 18" (450 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE[5]	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE[5]	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.
5. WHERE RECYCLED CONCRETE AGGREGATE IS USED IN LAYERS 'A' OR 'B' THE MATERIAL SHOULD ALSO MEET THE ACCEPTABILITY CRITERIA OUTLINED IN TECHNICAL NOTE 6.20 "RECYCLED CONCRETE STRUCTURAL BACKFILL".



NOTES:
1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 45x76 DESIGNATION SS.
2. MC-3500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS. REFERENCE STORMTECH DESIGN MANUAL FOR BEARING CAPACITY GUIDANCE.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3" (75 mm).
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 500 LBS/FT/%. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

STANDARD CROSS SECTION MC-3500 CHAMBER
DATE: 08/04/25 DRAWN: SMW
DRAWING #: 724-320 CHECKED: JLM
DATE | DRWN | CHKD | DESCRIPTION
StormTech® Chamber System
ADS 4640 TRUEMAN BLVD HILLIARD, OH 43026
SHEET 1 OF 1



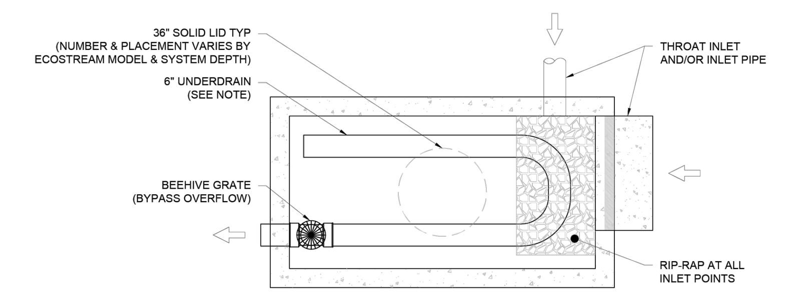
SECTION C-C
N.T.S.

THE ECOSTREAM BIOFILTER™ IS A BIOFILTRATION STORMWATER TREATMENT TECHONOLOGY THAT RELIES ON PHYSICAL, CHEMICAL AND BIOLOGICAL MECHANISMS TO REMOVE TOTAL SUSPENDED SOLIDS, TOTAL PHOSPHORUS, TOTAL NITROGEN, HEAVY METALS, OIL AND GREASE, TRASH AND BACTERIA.

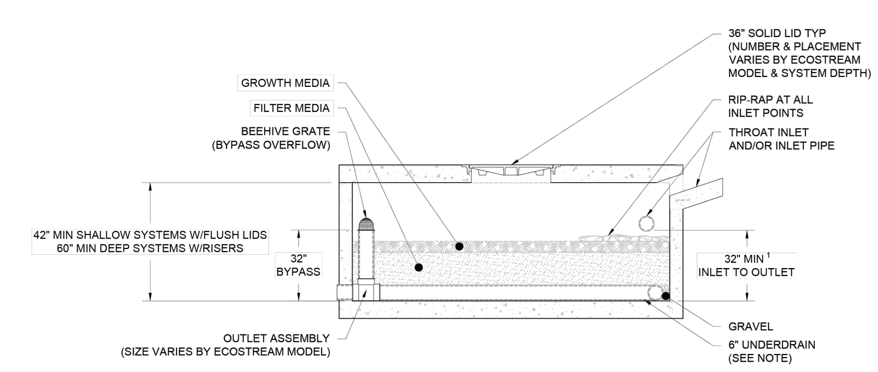
Model	Vault Size (ft)	Media Filtration Area (sf)	Min Inlet to Outlet Depth[1] (in)	Overflow to Outlet Depth (in)	Design Treatment Rate (cfs)	Bypass Standpipe (in)	Solid Lid Size & Number
ES16B	4 x 4	16	32	32	0.147	6	36 in (1x)
ES24B	4 x 6	24	32	32	0.221	6	36 in (1x)
ES32B	4 x 8	32	32	32	0.294	6	36 in (1x)
ES36B	6 x 6	36	32	32	0.331	6	36 in (1x)
ES40B	4 x 10	40	32	32	0.368	6	36 in (2x)
ES48B	4 x 12	48	32	32	0.441	6	36 in (2x)
ES48B	6 x 8	48	32	32	0.441	6	36 in (1x)
ES60B	6 x 10	60	32	32	0.551	8	36 in (1x)
ES72B	6 x 12	72	32	32	0.662	8	36 in (2x)
ES80B	8 x 10	80	32	32	0.735	8	36 in (1x)
ES96B	8 x 12	96	32	32	0.882	10	36 in (2x)
ES112B	8 x 14	112	32	32	1.029	10	36 in (2x)
ES128B	8 x 16	128	32	32	1.176	10	36 in (2x)

[1] *A min drop of 29" can be used however the design engineer must review the 3" tailwater (up to the beehive bypass) on the inlet pipe to ensure it does not affect the project's overall design.*

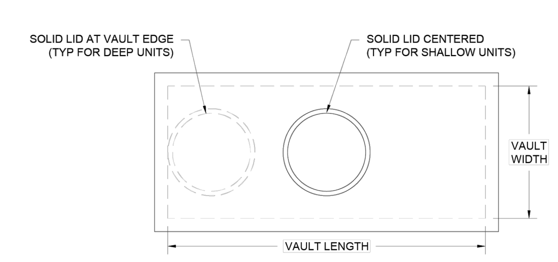
NOTES:
- UNDERDRAIN SHOWN IS SCHEMATIC ONLY. FOR DETAILS ON UNDERDRAIN SIZING AND LAYOUT SEE ECOSTREAM INSTALLATION GUIDE FOR DETAILS, KIT NUMBER AND PLACEMENT OPTIONS.



ECOSTREAM PLAN VIEW WITH SOLID LID
NOT TO SCALE



ECOSTREAM PROFILE VIEW WITH SOLID LID
NOT TO SCALE



SOLID LID PLACEMENT
SIZE AND NUMBER OF SOLID LIDS VARY BY ECOSTREAM MODEL & SYSTEM DEPTH

ADS ECOSTREAM SPECIFICATIONS

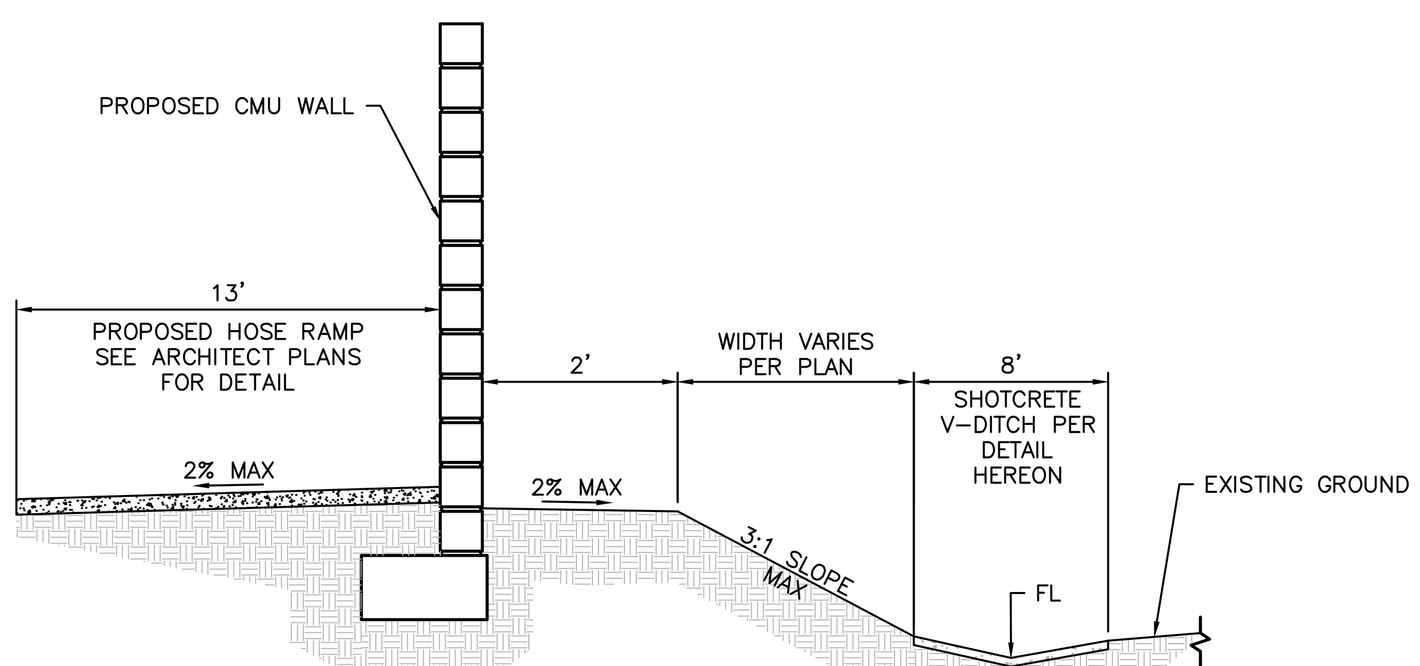
PRODUCTS
A. INTERNAL COMPONENTS: SHALL BE SUBSTANTIALLY CONSTRUCTED OF RECYCLED POLYETHYLENE OR OTHER THERMOPLASTIC MATERIAL APPROVED BY THE MANUFACTURER
B. FILTER MEDIA: FILTER MEDIA SHALL BE BY ADS AND SHALL CONSIST OF A PROPRIETARY BLEND OF FILTER MEDIA.
C. PRECAST CONCRETE VAULT: DESIGNED FOR H-20 TRAFFIC LOADING AND APPLICABLE SOIL LOADS OR AS OTHERWISE DETERMINED BY A LICENSED PROFESSIONAL ENGINEER. THE MATERIALS AND STRUCTURAL DESIGN OF THE DEVICES SHALL BE PER ASTM C478, ASTM C857 AND ASTM C858.

PERFORMANCE
A. THE STORMWATER FILTER SYSTEM SHALL BE AN ONLINE OR OFFLINE DESIGN BASED ON LOCAL REQUIREMENTS CAPABLE OF TREATING 100% OF THE REQUIRED TREATMENT FLOW AT FULL SEDIMENT LOAD CONDITIONS.
B. THE STORMWATER FILTER SYSTEM SHALL HAVE NO MOVING PARTS.
C. THE STORMWATER TREATMENT UNIT SHALL BE DESIGNED TO REMOVE AT LEAST 80% OF SUSPENDED SOLIDS.

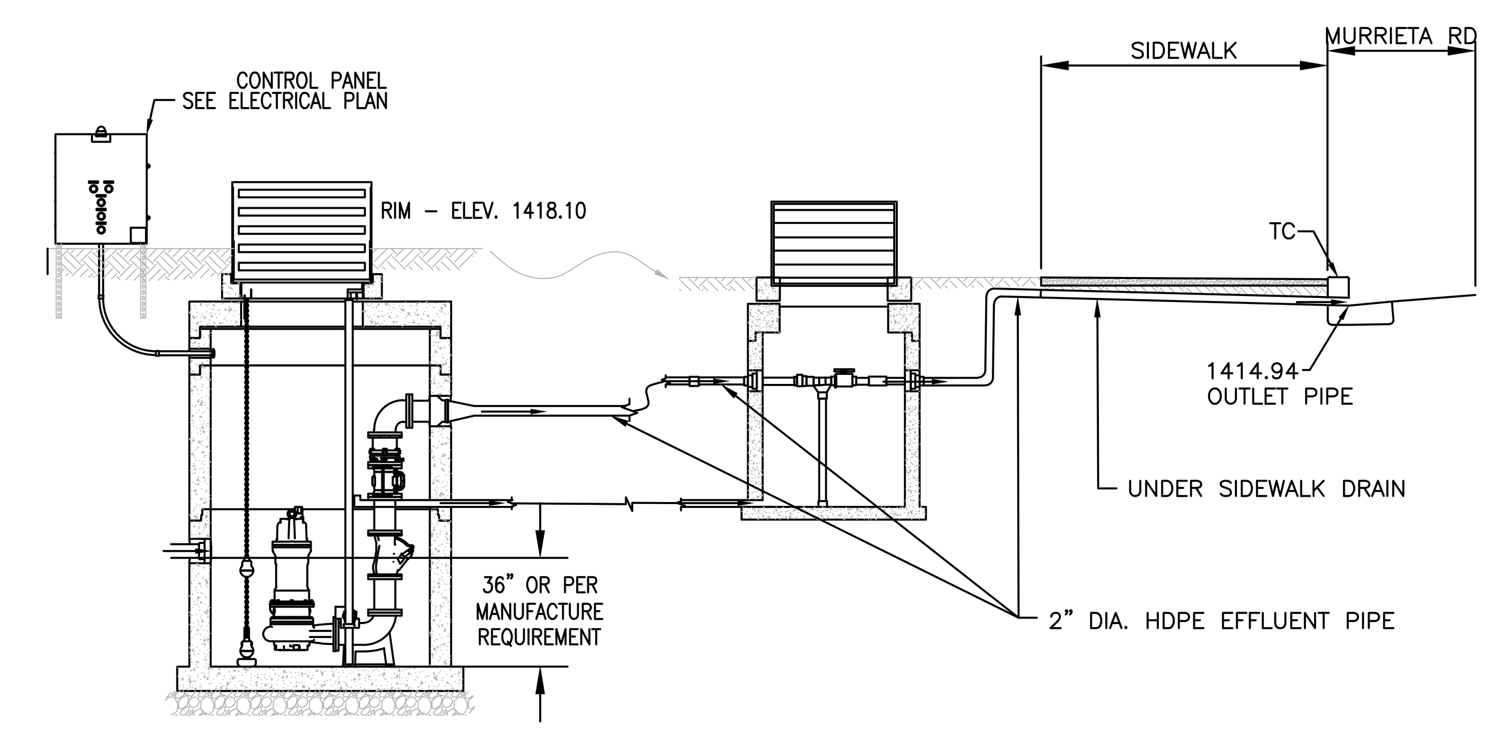
ECOSTREAM INSTALLATION NOTES

INSTALLATION OF THE STORMWATER TREATMENT UNIT(S) SHALL BE PERFORMED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. SUCH INSTRUCTIONS CAN BE OBTAINED BY CALLING ADVANCED DRAINAGE SYSTEMS AT (800) 821-6710 OR BY LOGGING ON TO WWW.ADSPIPE.COM.

ECOSTREAM BIOFILTER SOLID LID INSTALLATION BASIC MEDIA
DATE: 09/04/24 DRAWN: JLM
DRAWING #: 570-020 CHECKED: SMW
DATE | DWN | CHK
8/14/2025 | JLM | AT
EcoStream™ Biofilter Stormwater Media Filters
ADS 4640 TRUEMAN BLVD HILLIARD, OH 43026
SHEET 1 OF 1



SECTION D-D
N.T.S.



DETAIL "J"
DUPLEX PUMP SYSTEM
N.T.S.

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

DATE	BY	MARK	REVISIONS	APPR.	DATE
ENGINEER				CITY	

DESIGNED BY: DRAWN BY: CHECKED BY:

PREPARED BY:
ERSC INC.COM
Engineering Resources of Southern California
1861 West Redlands Blvd.
Redlands, CA 92373
P: 909.890.1255

JOHN M. BRUDIN 6/1/2026 DATE

SEAL
REGISTERED PROFESSIONAL ENGINEER JOHN M. BRUDIN No. 41836 CIVIL STATE OF CALIFORNIA

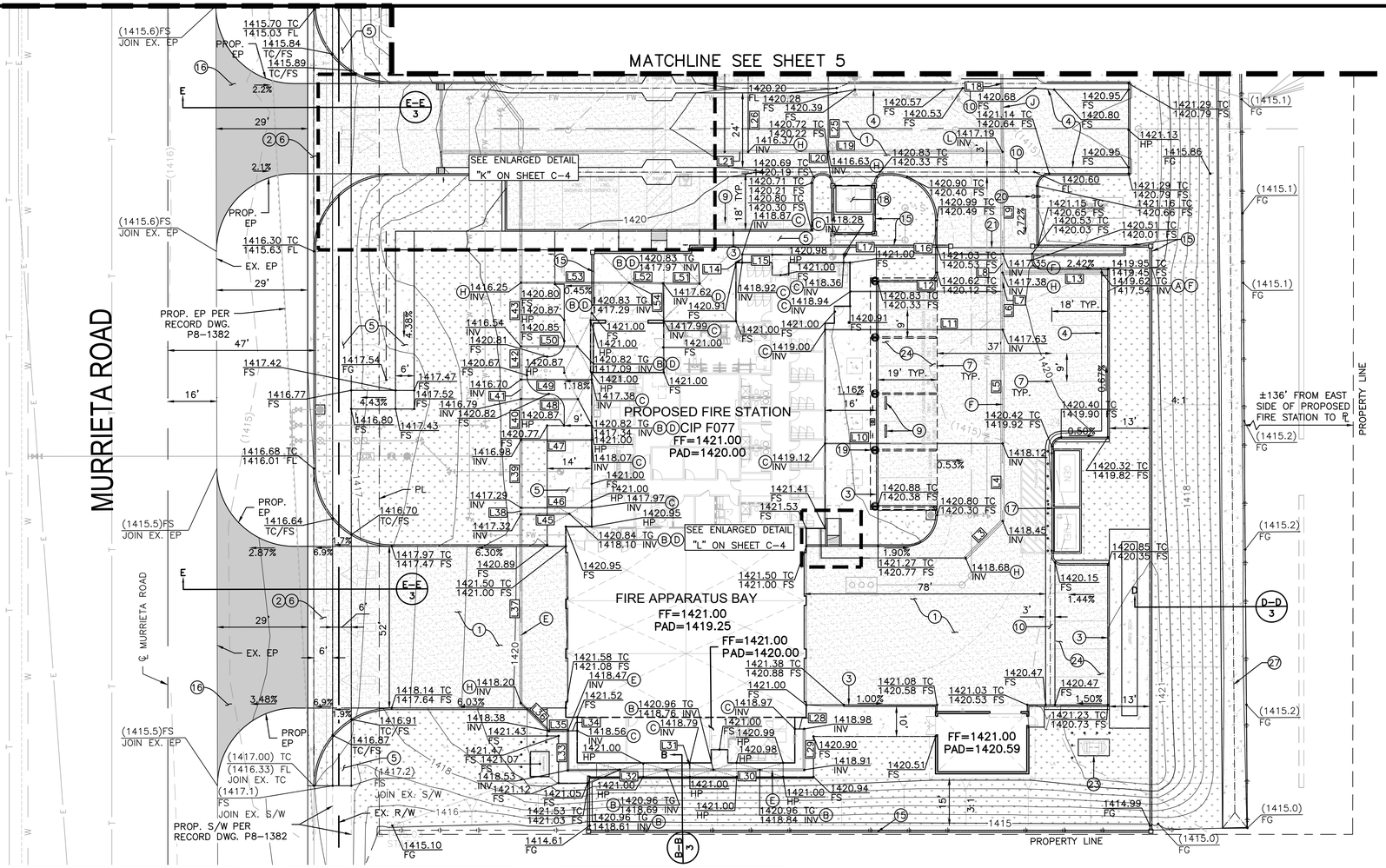
APPROVED BY: DATE: 6/9/26
J. Pourkazemi
CITY ENGINEER

CITY OF PERRIS ENGINEERING DEPARTMENT
24 S. D ST. SUITE 100
PERRIS CA 92570
951-956-2120

SCALE: AS SHOWN
DATE:
BENCHMARK: SEE ON SHEET 1

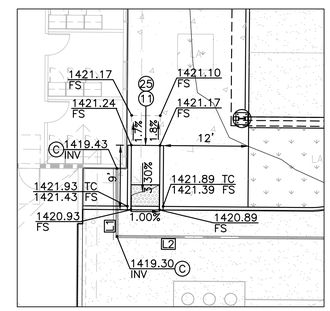
CITY OF PERRIS, CALIFORNIA
SOUTH PERRIS FIRE STATION CIP F077
SECTIONS AND DETAILS
FOR: CITY OF PERRIS W.O.

SHEET NO. C-3 OF 9 SHEETS
FILE NO.



LEGEND

- CONSTRUCT PCC SIDEWALK
- CONSTRUCT PCC IMPROVEMENTS
- LANDSCAPE AREA



ENLARGED DETAIL "L"
SCALE: 1"=10'

GRADING CONSTRUCTION NOTES

1. CONSTRUCT 9-INCH PCC PAVEMENT OVER 12-INCH OF CLASS 2 AGGREGATE BASE COMPACTED 95% RELATIVE COMPACTION.
2. CONSTRUCT 12-INCH PCC PAVEMENT OVER 12-INCH OF CLASS 2 AGGREGATE BASE COMPACTED 95% RELATIVE COMPACTION, SEE SHEET C-2.
3. CONSTRUCT 6" PCC CURB PER RIVERSIDE COUNTY STD 204.
4. CONSTRUCT 6" PCC CURB AND GUTTER PER RIVERSIDE COUNTY STD 200.
5. CONSTRUCT 4" THICK PCC SIDEWALK OVER COMPACTED SUBGRADE PER RIVERSIDE COUNTY STD 400.
6. CONSTRUCT COMMERCIAL DRIVEWAY APPROACH PER RIVERSIDE COUNTY STD 207A (MODIFIED PER PLANS).
7. CONSTRUCT 4" WHITE LINE THERMOPLASTIC PARKING STRIPING PER ARCHITECT SPECIFICATIONS.
8. CONSTRUCT ADA PARKING STALL PER DETAIL "A" ON SHEET C-2.
9. CONSTRUCT CONCRETE WHEEL STOP PER DETAIL "B" ON SHEET C-2.
10. CONSTRUCT 3-FOOT CROSS GUTTER PER DETAIL "C" ON SHEET C-2.
11. INSTALL YELLOW DETECTABLE WARNING MAT PER DETAIL "D" ON SHEET C-2.
13. CONSTRUCT CURB RAMP PER RIVERSIDE COUNTY STD 403, CASE C.
15. CONSTRUCT CMU WALL PER ARCHITECTURAL PLAN, SEE DETAIL 1 ON SHEET A1.5.
16. CONSTRUCT 0.30' THICK AC OVER 6" OF CLASS 2 AGGREGATE BASE MATERIAL.
17. CONSTRUCT ABOVE GROUND FUEL TANK, GENERATOR, CONCRETE CONTAINMENT POND, SHADE CANOPY, AND PIPE BOLLARDS PER ARCHITECTURAL PLAN, SEE DETAIL 12 ON SHEET A1.2.
18. CONSTRUCT TRASH ENCLOSURE PER ARCHITECTURAL PLAN, SEE DETAIL 2 ON SHEET A1.2.
19. CONSTRUCT CANOPY PER ARCHITECTURAL PLAN, SEE SHEET A1.6.
20. CONSTRUCT MOTORIZED GATE KEYPAD ON PEDESTAL AND PIPE BOLLARDS PER ARCHITECTURAL PLAN, SEE DETAIL 12 ON SHEET A1.3. FIRE DEPARTMENT KNOX KEY SWITCH REQUIRED AT KEYPAD PEDESTAL CONTROL BOX.
21. CONSTRUCT ORNAMENTAL MOTORIZED ROLLING GATE AND COMPONENTS PER ARCHITECTURAL PLAN, SEE DETAIL 5 ON SHEET A1.3.
23. CONSTRUCT LPG TANK, CONCRETE PAD, AND PIPE BOLLARDS PER ARCHITECTURAL PLAN, SEE DETAIL 5 ON SHEET A1.1.
24. CONSTRUCT 5-INCH PCC PAVEMENT OVER 6-INCH OF CLASS 2 AGGREGATE BASE COMPACTED 95% RELATIVE COMPACTION.
25. CONSTRUCT CURB RAMP PER RIVERSIDE COUNTY STD 403, CASE D, MODIFIED PER PLANS.
27. CONSTRUCT SHOTCRETE V-DITCH W=8' PER DETAIL "E" ON SHEET C-2.

STROM DRAIN NOTES

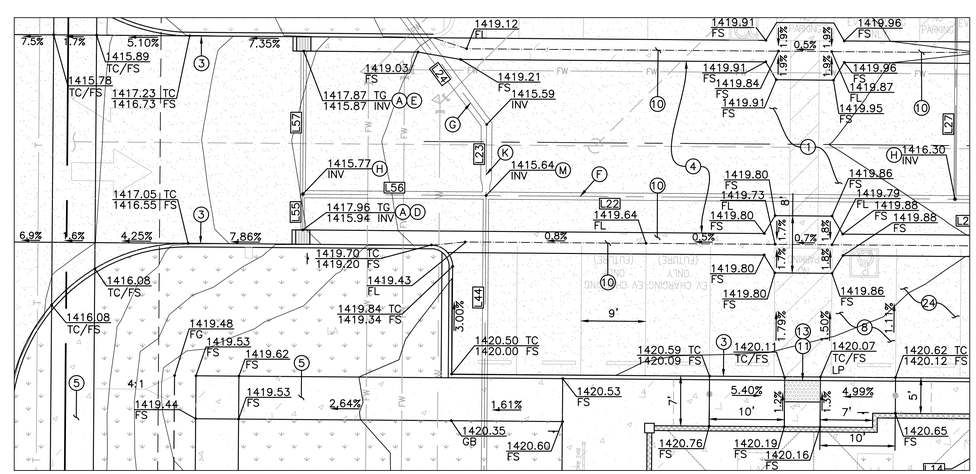
- (A) INSTALL 24"X24" JENSEN PRECAST DROP INLET BASIN MODEL 2424 WITH GRATE, OR APPROVED EQUAL.
- (B) INSTALL 6" ROUND GRATE COVER PER DETAIL "G" ON SHEET C-2.
- (C) INSTALL 4" HDPE PIPE OR APPROVED EQUAL.
- (D) INSTALL 6" HDPE PIPE OR APPROVED EQUAL.
- (E) INSTALL 9" HDPE PIPE OR APPROVED EQUAL.
- (F) INSTALL 12" HDPE PIPE OR APPROVED EQUAL.
- (G) INSTALL 18" HDPE PIPE OR APPROVED EQUAL.
- (H) 6" CLEAN OUT.
- (J) 9X12 HDPE INCREASER.
- (K) 12X18 HDPE INCREASER.
- (L) 12X12X12 HDPE TEE.
- (M) 12X12X12X12 HDPE CROSS.

SCALE 1"=20'
0 20 40 60
FEET

STORM DRAIN LINE DATA			
LINE #	LENGTH	DIRECTION	SLOPE
L1	9.5'	S0° 00' 34.66"E	1.34%
L2	46.4'	S89° 33' 24.83"E	1.34%
L3	16.8'	N45° 26' 35.17"E	1.34%
L4	25.0'	N0° 26' 35.17"E	1.34%
L5	36.6'	N0° 26' 35.17"E	1.34%
L6	12.3'	N0° 26' 35.17"E	1.34%
L7	6.1'	N0° 26' 35.17"E	1.34%
L8	5.9'	N0° 26' 35.17"E	0.50%
L9	33.0'	N0° 26' 35.54"E	0.50%
L10	57.0'	S89° 32' 17.46"E	1.76%
L11	57.0'	S89° 32' 18.70"E	2.41%
L12	49.0'	S89° 33' 24.83"E	3.02%
L13	31.9'	N89° 33' 24.83"W	0.50%
L14	2.7'	N0° 26' 35.27"E	1.82%
L15	32.6'	S89° 33' 24.81"E	1.82%
L16	51.1'	S89° 33' 24.81"E	1.82%
L17	2.7'	N0° 26' 35.23"E	3.00%
L18	25.1'	N0° 01' 08.48"W	0.57%
L19	56.0'	N89° 33' 24.73"W	1.00%

STORM DRAIN LINE DATA			
LINE #	LENGTH	DIRECTION	SLOPE
L20	25.8'	N89° 33' 24.73"W	1.00%
L21	7.6'	N89° 33' 24.67"W	1.00%
L22	65.5'	N89° 33' 24.74"W	1.00%
L23	9.9'	N0° 25' 59.64"E	1.00%
L24	19.1'	N36° 42' 22.20"W	0.50%
L25	25.1'	N0° 26' 35.17"E	3.00%
L26	25.1'	N0° 26' 35.27"E	3.00%
L27	25.1'	N0° 26' 35.32"E	3.00%
L28	3.0'	N89° 57' 57.31"E	0.50%
L29	13.2'	S0° 26' 26.45"W	0.50%
L30	36.8'	N89° 39' 15.81"W	0.50%
L31	2.3'	S0° 26' 37.36"W	3.00%
L32	39.2'	N89° 39' 15.81"W	0.50%
L33	12.7'	N0° 23' 11.86"E	0.50%
L34	3.0'	N89° 55' 20.76"W	3.00%
L35	6.1'	N89° 55' 20.76"W	1.44%
L36	12.7'	N44° 55' 20.76"W	1.44%
L37	60.8'	N0° 26' 39.19"E	1.44%
L38	2.1'	N0° 26' 47.52"E	1.44%

STORM DRAIN LINE DATA			
LINE #	LENGTH	DIRECTION	SLOPE
L39	21.8'	N0° 26' 47.52"E	1.44%
L40	13.2'	N0° 26' 47.52"E	1.44%
L41	6.3'	N0° 36' 06.76"E	1.44%
L42	10.6'	N0° 25' 59.64"E	1.44%
L43	20.5'	N0° 25' 59.64"E	1.44%
L44	42.1'	N0° 25' 59.64"E	1.44%
L45	15.6'	S89° 59' 59.00"E	3.00%
L46	22.8'	N89° 33' 12.48"W	3.00%
L47	22.7'	N89° 34' 03.08"W	3.00%
L48	18.3'	S89° 31' 15.86"E	3.00%
L49	22.7'	N89° 34' 02.43"W	3.00%
L50	18.2'	S89° 35' 26.69"E	3.00%
L51	11.8'	N88° 41' 43.41"W	3.00%
L52	10.9'	N88° 41' 43.41"W	3.00%
L53	34.8'	N89° 32' 36.43"W	3.00%
L54	12.2'	N0° 27' 39.80"W	3.00%
L55	5.0'	N0° 00' 00.00"E	3.40%
L56	25.6'	S89° 33' 24.73"E	0.50%
L57	20.0'	N0° 23' 19.53"E	0.50%



ENLARGED DETAIL "K"
SCALE: 1"=10'

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

DATE	BY	MARK	REVISIONS	APPR.	DATE

ENGINEER | CITY
DESIGNED BY: | DRAWN BY: | CHECKED BY:

PREPARED BY:
ERSC INC.COM
Engineering Resources of Southern California
1861 West Redlands Blvd.
Redlands, CA 92373
P: 909.890.1255
JOHN M. BRUDIN — 6/1/2026 DATE

SEAL: REGISTERED PROFESSIONAL ENGINEER JOHN M. BRUDIN No. 41836 CIVIL STATE OF CALIFORNIA

APPROVED BY: DATE: 6/9/26
J. Pourkazemi
CITY ENGINEER

CITY OF PERRIS ENGINEERING DEPARTMENT
24 S. D ST. SUITE 100
PERRIS CA 92570
951-956-2120

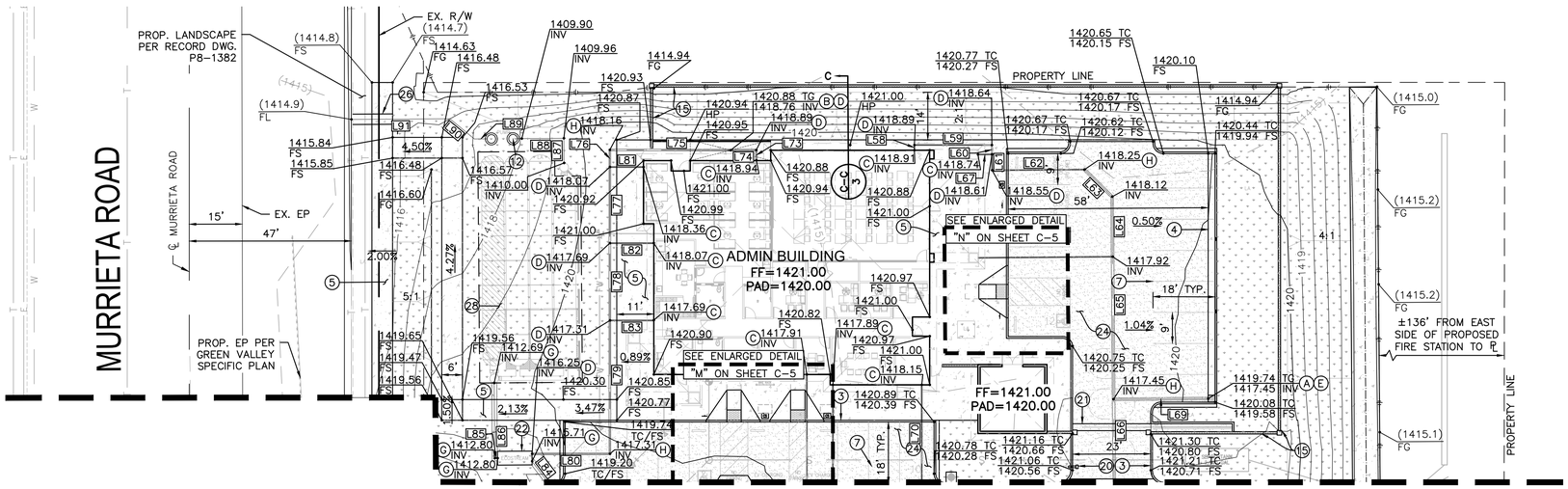
SCALE: AS SHOWN
DATE:
BENCHMARK: SEE ON SHEET 1

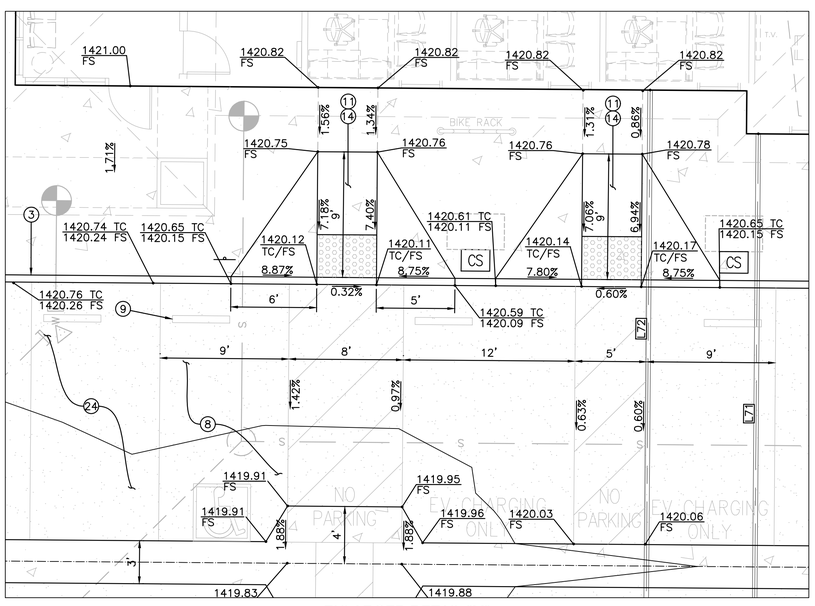
CITY OF PERRIS, CALIFORNIA
SOUTH PERRIS FIRE STATION
CIP F077
PRECISE GRADING PLAN
FOR: CITY OF PERRIS | W.O.

SHEET NO. **C-4** OF 9 SHEETS
FILE NO.

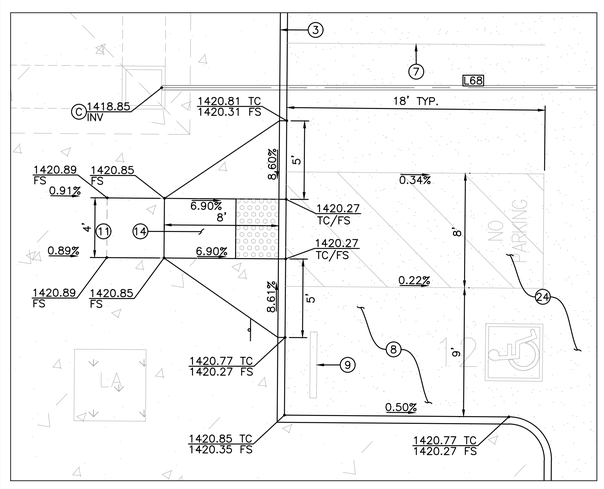
LEGEND

- CONSTRUCT PCC SIDEWALK
- CONSTRUCT PCC IMPROVEMENTS
- LANDSCAPE AREA





ENLARGED DETAIL "M"
SCALE: 1"=5'



ENLARGED DETAIL "N"
SCALE: 1"=5'

STORM DRAIN LINE DATA			
LINE #	LENGTH	DIRECTION	SLOPE
L58	1.5'	N0° 26' 35.23"E	1.14%
L59	22.5'	S89° 33' 24.77"E	1.14%
L60	2.7'	S0° 00' 00.00"E	1.14%
L61	4.6'	S0° 00' 00.00"E	1.14%
L62	26.8'	N90° 00' 00.00"E	1.14%
L63	11.3'	S45° 00' 00.00"E	1.14%
L64	17.4'	S0° 02' 23.22"W	1.14%
L65	41.3'	S0° 02' 23.22"W	1.14%
L66	24.1'	S0° 01' 08.48"E	0.57%
L67	4.1'	N90° 00' 00.00"E	3.21%
L68	39.1'	N90° 00' 00.00"E	2.37%
L69	27.4'	S89° 55' 08.98"E	0.50%
L70	28.2'	N0° 26' 36.76"E	3.00%
L71	28.3'	N0° 26' 36.86"E	3.00%
L72	31.2'	N0° 26' 36.75"E	3.00%
L73	3.0'	N0° 00' 00.00"E	1.72%
L74	7.5'	N90° 00' 00.00"W	1.72%

STORM DRAIN LINE DATA			
LINE #	LENGTH	DIRECTION	SLOPE
L75	35.0'	N89° 25' 20.86"W	1.72%
L76	5.0'	S0° 26' 35.05"W	1.72%
L77	22.1'	S0° 26' 35.05"W	1.72%
L78	22.4'	S0° 26' 35.05"W	1.72%
L79	38.7'	S0° 26' 35.05"W	1.72%
L80	22.5'	N89° 33' 24.95"W	1.72%
L81	9.7'	N89° 33' 24.95"W	3.00%
L82	12.7'	N89° 33' 24.81"W	3.00%
L83	12.7'	N89° 33' 24.81"W	3.00%
L84	7.6'	S36° 42' 22.20"E	0.50%
L85	0.8'	N90° 00' 00.00"W	0.50%
L86	21.8'	N0° 00' 00.00"E	0.50%
L87	7.2'	N0° 00' 00.00"E	0.50%
L88	13.5'	N90° 00' 00.00"W	0.50%
L89	3.7'	N90° 00' 00.00"W	0.50%
L90	9.2'	N49° 55' 15.87"W	0.50%
L91	28.6'	N89° 59' 34.00"W	0.50%

GRADING CONSTRUCTION NOTES

1. CONSTRUCT 9-INCH PCC PAVEMENT OVER 12-INCH OF CLASS 2 AGGREGATE BASE COMPACTED 95% RELATIVE COMPACTION.
2. CONSTRUCT 12-INCH PCC PAVEMENT OVER 12-INCH OF CLASS 2 AGGREGATE BASE COMPACTED 95% RELATIVE COMPACTION, SEE SHEET C-2.
3. CONSTRUCT 6" PCC CURB PER RIVERSIDE COUNTY STD 204.
4. CONSTRUCT 6" PCC CURB AND GUTTER PER RIVERSIDE COUNTY STD 200.
5. CONSTRUCT 4" THICK PCC SIDEWALK OVER COMPACTED SUBGRADE PER RIVERSIDE COUNTY STD 400.
6. CONSTRUCT COMMERCIAL DRIVEWAY APPROACH PER RIVERSIDE COUNTY STD 207A (MODIFIED PER PLANS).
7. CONSTRUCT 4" WHITE LINE THERMOPLASTIC PARKING STRIPING PER ARCHITECT SPECIFICATIONS.
8. CONSTRUCT ADA PARKING STALL PER DETAIL "A" ON SHEET C-2.
9. CONSTRUCT CONCRETE WHEEL STOP PER DETAIL "B" ON SHEET C-2.
10. CONSTRUCT 3-FOOT CROSS GUTTER PER DETAIL "C" ON SHEET C-2.
11. INSTALL YELLOW DETECTABLE WARNING MAT PER DETAIL "D" ON SHEET C-2.
12. INSTALL PSI PACIFIC SOUTHWEST PUMP SYSTEM PER DETAIL ON SHEET C-3, OR APPROVED EQUAL.
13. CONSTRUCT CURB RAMP PER RIVERSIDE COUNTY STD 403, CASE C.
14. CONSTRUCT CURB RAMP PER RIVERSIDE COUNTY STD 403, CASE A.
15. CONSTRUCT CMU WALL PER ARCHITECTURAL PLAN, SEE DETAIL 1 ON SHEET A1.5.
16. CONSTRUCT 0.30' THICK AC OVER 6" OF CLASS 2 AGGREGATE BASE MATERIAL.
17. CONSTRUCT ABOVE GROUND FUEL TANK, GENERATOR, CONCRETE CONTAINMENT POND, SHADE CANOPY, AND PIPE BOLLARDS PER ARCHITECTURAL PLAN, SEE DETAIL 12 ON SHEET A1.2.
18. CONSTRUCT TRASH ENCLOSURE PER ARCHITECTURAL PLAN, SEE DETAIL 2 ON SHEET A1.2.
19. CONSTRUCT CANOPY PER ARCHITECTURAL PLAN, SEE SHEET A1.6.
20. CONSTRUCT MOTORIZED GATE KEYPAD ON PEDESTAL AND PIPE BOLLARDS PER ARCHITECTURAL PLAN, SEE DETAIL 12 ON SHEET A1.3. FIRE DEPARTMENT KNOX KEY SWITCH REQUIRED AT KEYPAD PEDESTAL CONTROL BOX.
21. CONSTRUCT ORNAMENTAL MOTORIZED ROLLING GATE AND COMPONENTS PER ARCHITECTURAL PLAN, SEE DETAIL 5 ON SHEET A1.3.
22. INSTALL 4'X12' ES48E ECOSTREAM BIOFILTER SOLID LID PER DETAIL ON SHEET C-2 AND WQMP REPORT, OR APPROVED EQUAL.
23. CONSTRUCT LPG TANK, CONCRETE PAD, AND PIPE BOLLARDS PER ARCHITECTURAL PLAN, SEE DETAIL 5 ON SHEET A1.1.
24. CONSTRUCT 5-INCH PCC PAVEMENT OVER 6-INCH OF CLASS 2 AGGREGATE BASE COMPACTED 95% RELATIVE COMPACTION.
26. CONSTRUCT UNDER SIDEWALK DRAIN PER RIVERSIDE COUNTY STD 309. W=3'.
27. CONSTRUCT SHOTCRETE V-DITCH W=8' PER DETAIL "E" ON SHEET C-2.
28. INSTALL ADS MC-3500 STORMTECH CHAMBER PER PLANS AND SEPARATE ADS CHAMBERS DESIGN DOCUMENTS PER DETAIL ON SHEET C-3 AND WQMP REPORT, OR APPROVED EQUAL.

STROM DRAIN NOTES

- (A) INSTALL 24"X24" JENSEN PRECAST DROP INLET BASIN MODEL 2424 WITH GRATE, OR APPROVED EQUAL.
- (B) INSTALL 6" ROUND GRATE COVER PER DETAIL "G" ON SHEET C-2.
- (C) INSTALL 4" HDPE PIPE OR APPROVED EQUAL.
- (D) INSTALL 6" HDPE PIPE OR APPROVED EQUAL.
- (E) INSTALL 9" HDPE PIPE OR APPROVED EQUAL.
- (F) INSTALL 12" HDPE PIPE OR APPROVED EQUAL.
- (G) INSTALL 18" HDPE PIPE OR APPROVED EQUAL.
- (H) 6" CLEAN OUT.

SCALE 1"=20'
0 20 40 60
FEET

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

DATE	BY	MARK		APPR.	DATE
ENGINEER			REVISIONS	CITY	
DESIGNED BY:			DRAWN BY:	CHECKED BY:	

PREPARED BY:
ERSC INC.COM
Engineering Resources of Southern California
1861 West Redlands Blvd.
Redlands, CA 92373
P:909.890.1255
JOHN M. BRUDIN — 6/1/2026 DATE

SEAL: REGISTERED PROFESSIONAL ENGINEER JOHN M. BRUDIN No. 41836 CIVIL STATE OF CALIFORNIA

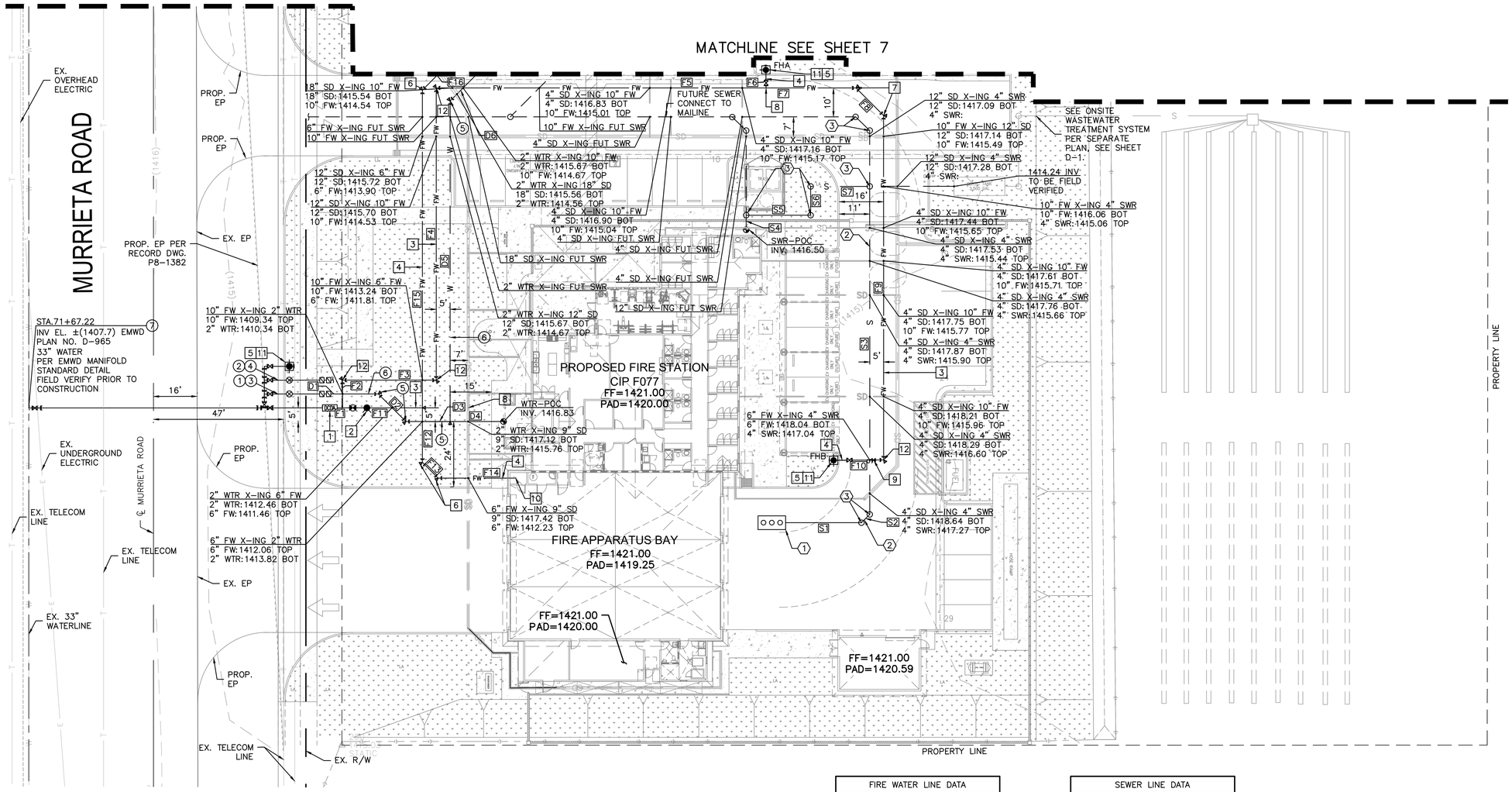
APPROVED BY: DATE: 6/9/26
J. Pourkazemi
CITY ENGINEER

CITY OF PERRIS ENGINEERING DEPARTMENT
24 S. D ST. SUITE 100
PERRIS CA 92570
951-956-2120

SCALE: AS SHOWN
DATE:
BENCHMARK: SEE ON SHEET 1

CITY OF PERRIS, CALIFORNIA
SOUTH PERRIS FIRE STATION
CIP F077
PRECISE GRADING PLAN
FOR: CITY OF PERRIS
W.O.

SHEET NO. **C-5** OF 9 SHEETS
FILE NO.



UTILITY PLAN NOTES

WATER CONSTRUCTION NOTES:

1. INSTALL 2-INCH WATER SERVICE CONNECTION AND METER PER EMWD STD DWG B-344A.
2. INSTALL 1-INCH WATER IRRIGATION SERVICE CONNECTION AND METER PER EMWD STD DWG B-590A.
3. INSTALL 2-INCH REDUCED PRESSURE BACKFLOW PREVENTER PER EMWD STD DWG B-597A.
4. INSTALL 1-INCH REDUCED PRESSURE BACKFLOW PREVENTER PER EMWD STD DWG B-597A.
5. INSTALL 2-INCH 45° ELBOW.
6. INSTALL 2-INCH PVC, SCHEDULE 40 OR APPROVED EQUAL.
7. CONNECT MANIFOLD PER EMWD MANIFOLD STANDARD DETAIL ON SHEET C-2.

SEWER CONSTRUCTION NOTES:

1. INSTALL GREASE INTERCEPTOR PER SEPTIC SYSTEM PLAN, SEE SHEET D-1.
2. INSTALL 4-INCH SCHEDULE 40 PVC OR APPROVED EQUAL.
3. INSTALL 4-INCH SEWER CLEANOUT PER SEPTIC SYSTEM PLAN, SEE SHEET D-1.

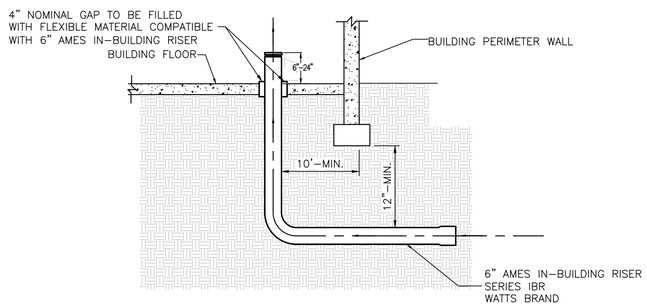
FIRE PROTECTION CONSTRUCTION NOTES:

1. INSTALL 10-INCH FIRE DOUBLE CHECK DETECTOR ASSEMBLY PER EMWD STD DWG B-657.
2. INSTALL POST INDICATOR AND FIRE DEPARTMENT CONNECTION VALVE PER DETAIL "H" ON SHEET C-2.
3. INSTALL 10-INCH PVC C900 OR APPROVED EQUAL.
4. INSTALL 6-INCH PVC C900 OR APPROVED EQUAL.
5. INSTALL 6-INCH DIA. FIRE HYDRANT PER EMWD STD DWG B-517.
6. INSTALL 6-INCH 45° ELBOW.
7. INSTALL 10-INCH 45° ELBOW.
8. INSTALL 10X6-INCH TEE.
9. INSTALL 10"X6" REDUCER.
10. CONNECT FIRE LINE PER DETAIL "J" ON SHEET C-6 AND C-7.
11. CONSTRUCT 3'X3 CONCRETE PAD PER EMWD STD DWG B-517.
12. INSTALL 10-INCH 90° ELBOW.
13. INSTALL 6-INCH 90° ELBOW.

LEGEND

- TAPPING SLEEVE
- DDCA — DOUBLE CHECK DETECTOR ASSEMBLY
- POST INDICATOR VALVE
- GATE VALVE
- FIRE HYDRANT
- BACKFLOW PREVENTER
- —FW— PROPOSED FIRELINE
- POINT OF CONNECTION
- CLEAN OUT
- F.D.C.
- WATER METER
- THRUST BLOCK
- REDUCER
- —W— PROPOSED WATERLINE
- —SD— PROPOSED STORM DRAIN
- FUTURE SEWER LATERAL

SCALE 1"=20'
0 20 40 60
FEET



DETAIL "J" - IN-BUILDING RISER
N.T.S.

FIRE WATER LINE DATA		
LINE #	LENGTH	DIRECTION
F1	2.0'	S89° 59' 59.60"E
F2	10.0'	S0° 00' 11.01"W
F3	33.8'	S89° 33' 25.03"E
F4	105.4'	N0° 26' 29.32"E
F5	119.0'	S89° 33' 24.95"E
F6	6.5'	S0° 02' 00.53"W
F7	32.5'	S89° 33' 24.95"E
F8	14.1'	N44° 33' 24.83"W
F9	124.3'	N0° 26' 35.17"E
F10	18.0'	N89° 59' 48.26"W
F11	28.8'	S89° 32' 15.19"E
F12	19.7'	S0° 26' 13.18"W
F13	8.0'	S44° 33' 24.83"E
F14	27.9'	S89° 34' 01.71"E
F15	114.6'	N0° 26' 29.32"E
F16	8.2'	N45° 23' 23.14"E

SEWER LINE DATA		
LINE #	LENGTH	DIRECTION
S1	27.4'	N89° 33' 25.03"W
S2	4.2'	S45° 26' 35.05"W
S3	118.3'	S0° 26' 35.16"W
S4	4.2'	S0° 26' 21.71"W
S5	23.2'	S89° 33' 38.29"E
S6	10.4'	S0° 26' 35.23"W
S7	51.7'	N89° 33' 24.80"W

DOMESTIC WATER LINE DATA		
LINE #	LENGTH	DIRECTION
D1	32.1'	S89° 33' 25.03"E
D2	14.1'	S44° 33' 24.83"E
D3	16.0'	S89° 33' 22.29"E
D4	18.2'	S89° 33' 22.29"E
D5	115.6'	N0° 26' 29.32"E
D6	13.7'	N45° 26' 35.05"E

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

DATE	BY	MARK	REVISIONS	APPR.	DATE
				CITY	

ENGINEER
DESIGNED BY: DRAWN BY: CHECKED BY:

PREPARED BY:
ERSC INC.COM
Engineering Resources of Southern California
1861 West Redlands Blvd.
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P: 909.890.1255
JOHN M. BRUDIN — 6/1/2026 DATE

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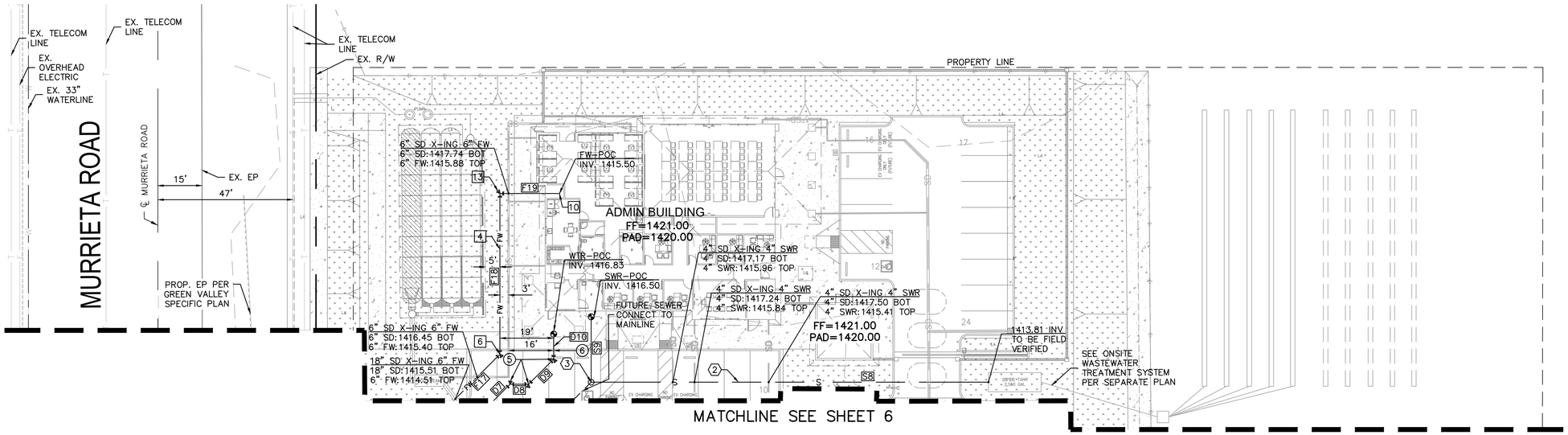
APPROVED BY: DATE: 6/9/26
J. Pourkazemi
CITY ENGINEER

CITY OF PERRIS ENGINEERING DEPARTMENT
24 S. D ST. SUITE 100
PERRIS CA 92570
951-956-2120

SCALE: AS SHOWN
DATE:
BENCHMARK: SEE ON SHEET 1

CITY OF PERRIS, CALIFORNIA
SOUTH PERRIS FIRE STATION
CIP F077
UTILITY PLAN
FOR: CITY OF PERRIS
W.O.

SHEET NO. C-6 OF 9 SHEETS
FILE NO.



UTILITY PLAN NOTES

WATER CONSTRUCTION NOTES:

(5) INSTALL 2-INCH 45° ELBOW.

(6) INSTALL 2-INCH PVC, SCHEDULE 40 OR APPROVED EQUAL.

SEWER CONSTRUCTION NOTES:

⟨2⟩ INSTALL 4-INCH SCHEDULE 40 PVC OR APPROVED EQUAL.

⟨3⟩ INSTALL 4-INCH SEWER CLEANOUT PER SEPTIC SYSTEM PLAN, SEE SHEET D-1.

FIRE PROTECTION CONSTRUCTION NOTES:

[4] INSTALL 6-INCH PVC C900 OR APPROVED EQUAL.

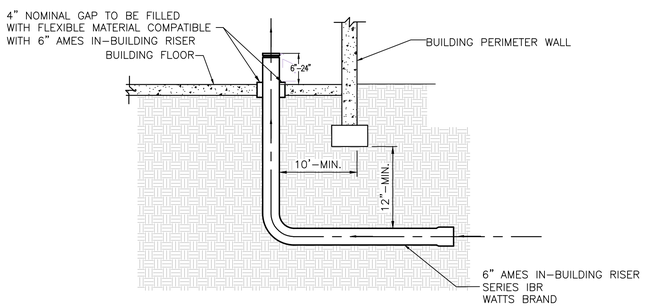
[5] INSTALL 6-INCH DIA. FIRE HYDRANT PER EMWD STD DWG B-517.

[6] INSTALL 6-INCH 45° ELBOW.

[10] CONNECT FIRE LINE PER DETAIL "J" ON SHEET C-6 AND C-7.

[11] CONSTRUCT 3'X3 CONCRETE PAD PER EMWD STD DWG B-517.

[13] INSTALL 6-INCH 90° ELBOW.



DETAIL "J" - IN-BUILDING RISER
N.T.S.

FIRE WATER LINE DATA		
LINE #	LENGTH	DIRECTION
F6	6.5'	S0° 02' 00.53"W
F17	22.9'	N45° 23' 23.14"E
F18	55.9'	N0° 26' 35.05"E
F19	20.7'	S89° 33' 24.95"E

SEWER LINE DATA		
LINE #	LENGTH	DIRECTION
S8	138.2'	N89° 33' 11.83"W
S9	23.8'	S0° 26' 48.17"W

DOMESTIC WATER LINE DATA		
LINE #	LENGTH	DIRECTION
D7	8.1'	N45° 26' 35.05"E
D8	6.5'	S89° 33' 24.95"E
D9	12.3'	N45° 26' 35.05"E
D10	8.7'	N0° 26' 35.05"E

LEGEND

- TAPPING SLEEVE
- DDCA — DOUBLE CHECK DETECTOR ASSEMBLY
- POST INDICATOR VALVE
- GATE VALVE
- FIRE HYDRANT
- BACKFLOW PREVENTER
- —FW— PROPOSED FIRELINE
- POINT OF CONNECTION
- CLEAN OUT
- F.D.C.
- WATER METER
- THRUST BLOCK
- —W— PROPOSED WATERLINE
- —SD— PROPOSED STORM DRAIN
- FUTURE SEWER LATERAL

SCALE 1"=20'
0 20 40 60
FEET

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

DATE	BY	MARK	REVISIONS	APPR.	DATE

ENGINEER — CITY
DESIGNED BY: DRAWN BY: CHECKED BY:

PREPARED BY:
ERSC INC.COM
Engineering Resources of Southern California
1861 West Redlands Blvd.
Redlands, CA 92373
P:909.890.1255
JOHN M. BRUDIN — 6/1/2026 DATE

SEAL: REGISTERED PROFESSIONAL ENGINEER JOHN M. BRUDIN No. 41836 CIVIL STATE OF CALIFORNIA

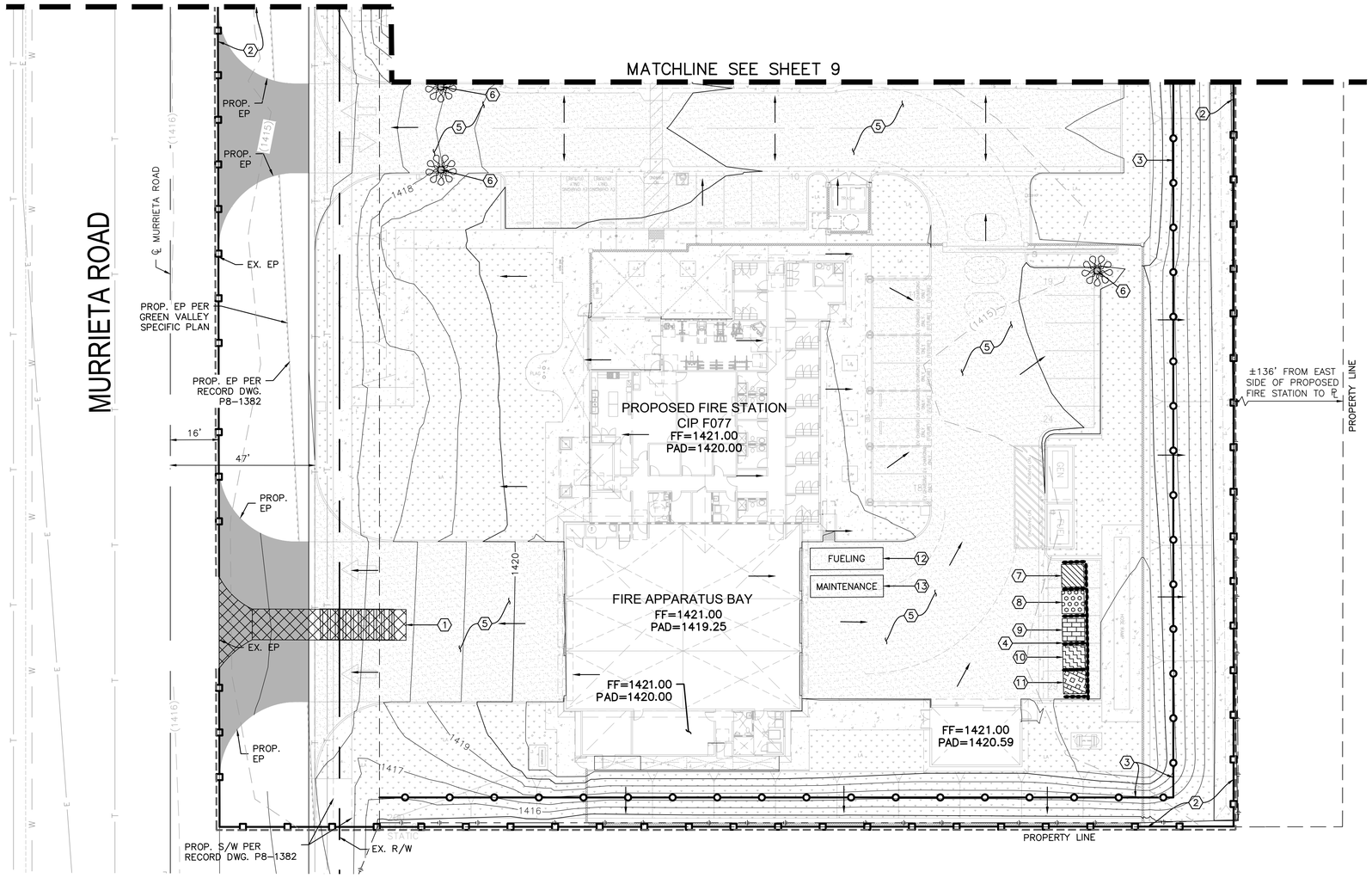
APPROVED BY: DATE: 6/9/26
J. Pourkazemi
CITY ENGINEER

CITY OF PERRIS ENGINEERING DEPARTMENT
24 S. D ST. SUITE 100
PERRIS CA 92570
951-956-2120

SCALE: AS SHOWN
DATE:
BENCHMARK: SEE ON SHEET 1

CITY OF PERRIS, CALIFORNIA
SOUTH PERRIS FIRE STATION
CIP F077
UTILITY PLAN
FOR: CITY OF PERRIS
W.O.

SHEET NO. C-7 OF 9 SHEETS
FILE NO.

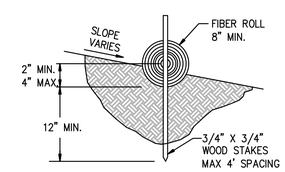


LEGEND

- STABILIZED CONSTRUCTION ENTRANCE
- MATERIAL DELIVERY/STORAGE AREA
- STOCKPILE MANAGEMENT
- SPILL PREVENTION AND CONTROL
- SOLID WASTE MANAGEMENT
- CONCRETE WASTE MANAGEMENT
- GRADING LIMITS
- GRAVEL BAGS
- SILT FENCE
- FIBER ROLLS
- FLOW PATH
- INLET PROTECTION

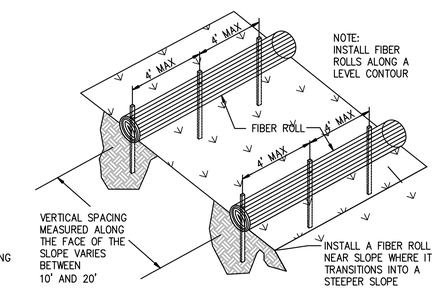
EROSION CONTROL NOTES

1. STABILIZED CONSTRUCTION ENTRANCE (TC-1)
2. SILT FENCE (SE-1)
3. FIBER ROLLS (SE-5)
4. GRAVEL BAG BERM (SE-6)
5. STREET SWEEPING AND VACUUMING (SE-7)
6. STORM DRAIN INLET PROTECTION (SE-10)
7. MATERIAL DELIVERY AND STORAGE (WM-1)
8. STOCKPILE MANAGEMENT (WM-3)
9. SPILL PREVENTION AND CONTROL (WM-4)
10. SOLID WASTE MANAGEMENT (WM-5)
11. CONCRETE WASTE MANAGEMENT (WM-8)
12. VEHICLE AND EQUIPMENT FUELING (NS-9)
13. VEHICLE AND EQUIPMENT MAINTENANCE (NS-10)



ENTRENCHMENT DETAIL

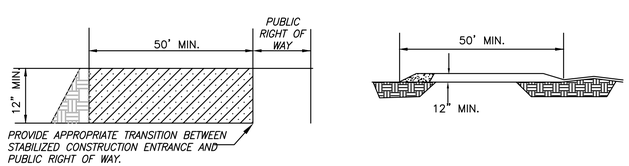
NOT TO SCALE



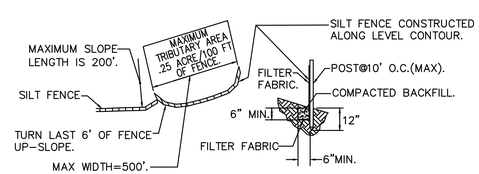
TYPICAL FIBER ROLL INSTALLATION

NOT TO SCALE

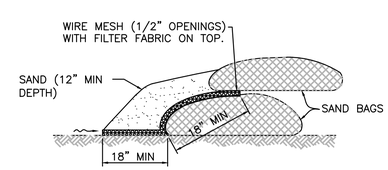
3 FIBER ROLL
N.T.S.



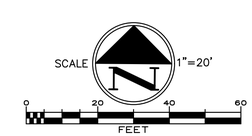
1 STABILIZED CONSTRUCTION ENTRANCE
N.T.S.



2 SILT FENCE
N.T.S.



4 GRAVEL BAG BARRIERS
N.T.S.



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DATE	BY	MARK	REVISIONS	APPR.	DATE
				CITY	

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24 S. D ST. SUITE 100
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SCALE: AS SHOWN
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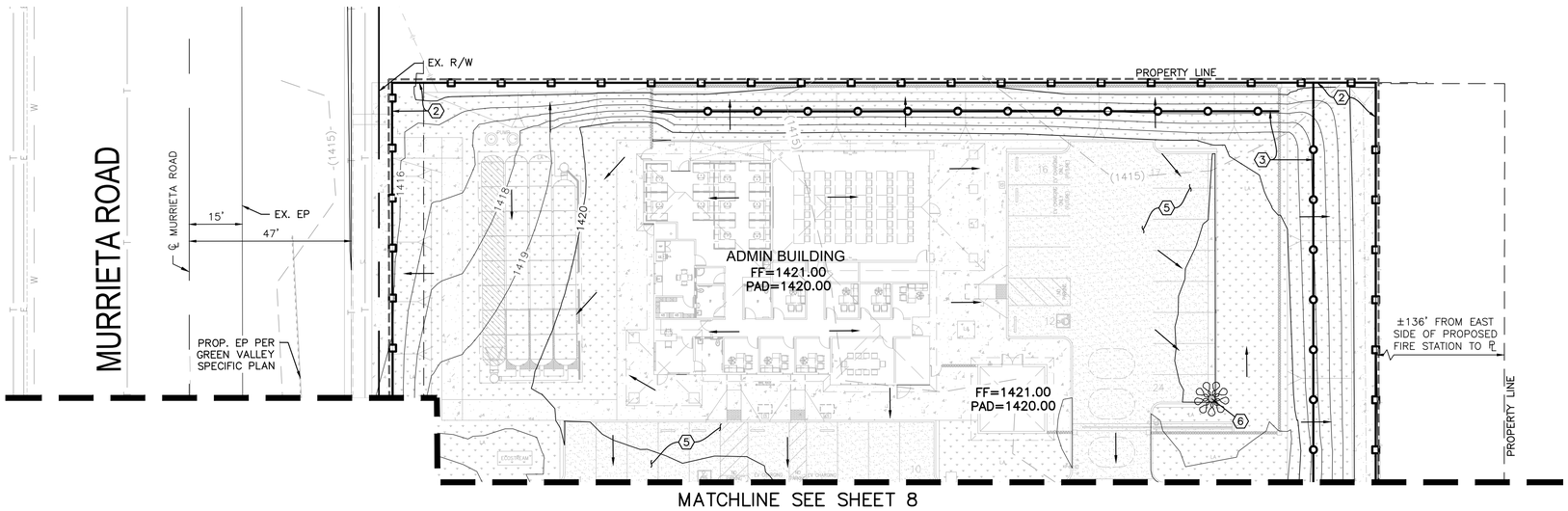
CITY OF PERRIS, CALIFORNIA
SOUTH PERRIS FIRE STATION
CIP F077
EROSION CONTROL PLAN
FOR: CITY OF PERRIS
W.O.

SHEET NO. C-8 OF 9 SHEETS
FILE NO.



LEGEND

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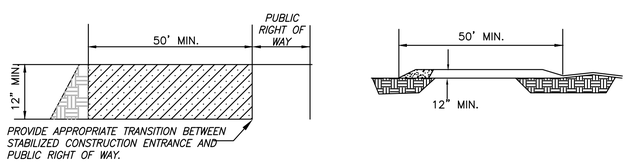
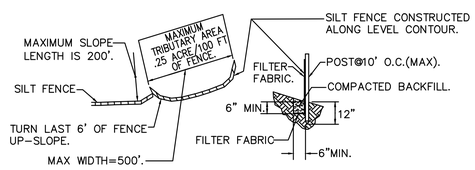
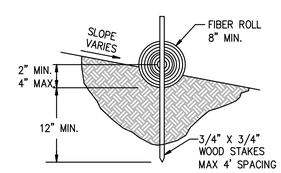


1 STABILIZED CONSTRUCTION ENTRANCE
N.T.S.



2 SILT FENCE
N.T.S.



ENTRENCHMENT DETAIL
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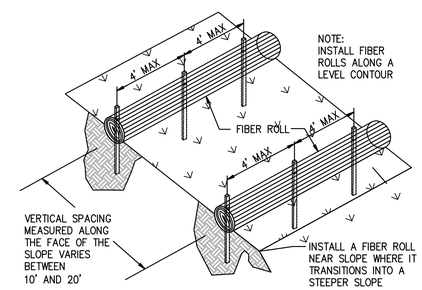

TYPICAL FIBER ROLL INSTALLATION
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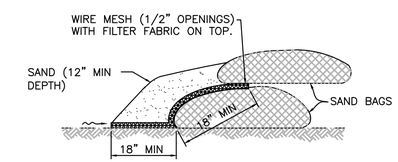
3 FIBER ROLL
N.T.S.



5 SAND BAG BARRIERS
N.T.S.

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