

**THE COTTAGES AT MESA RIDGE**  
**CONSTRUCTION DRAWING**  
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(FOR REFERENCE ONLY – FINAL PLAN TO BE APPROVED BY CITY)



LEGAL DESCRIPTION:

THAT PORTION OF THE NORTHWEST QUARTER OF SECTION 28 AND THE NORTHEAST QUARTER OF SECTION 29, TOWNSHIP 15 SOUTH, RANGE 65 WEST OF THE 6TH P.M., COUNTY OF EL PASO, STATE OF COLORADO, DESCRIBED AS FOLLOWS:

BASIS OF BEARINGS: BEARINGS ARE BASED UPON THE NORTH LINE OF THE NORTHEAST QUARTER OF SAID SECTION 29, MONUMENTED AT THE WEST END WITH A 3.25" ALUMINUM CAP IN CONCRETE STAMPED "PLS 4842" AND MONUMENTED AT THE EAST END WITH A #6 REBAR AND 3.25" ALUMINUM CAP STAMPED "PLS 38141" AND ASSUMED TO BEAR S 89°57'13" E A FIELD MEASURED DISTANCE OF 2,652.37 FEET.

BENCHMARK: ELEVATIONS ARE BASED UPON THE FOUNTAIN SANITATION DISTRICT POINT N-1, BEING A 2" BRASS CAP IN CONCRETE AT THE NORTHEAST CORNER OF MESA RIDGE PARKWAY AND FOUNTAIN MESA ROAD. (ELEVATION=5750.57 NGVD 29).

BEGINNING AT THE NORTHWEST CORNER OF THE NORTHWEST QUARTER OF SAID SECTION 28; THENCE N 89°41'59" E ALONG THE NORTH LINE OF SAID NORTHWEST QUARTER, A DISTANCE OF 117.50 FEET TO A POINT ON THE WEST LINE OF POWERS BOULEVARD AS RECORDED UNDER BOOK 6788 AT PAGE 531 OF THE RECORDS OF THE EL PASO COUNTY CLERK AND RECORDERS OFFICE; THENCE ALONG THE WEST LINE OF SAID POWERS BOULEVARD, 933.14 FEET ALONG THE ARC OF A 1,096.98 FOOT RADIUS CURVE TO THE RIGHT, HAVING A CENTRAL ANGLE OF 48°44'17" AND A CHORD THAT BEARS S 12°56'23" W, 905.26 FEET TO A POINT ON THE NORTHERLY LINE OF THAT PARCEL OF LAND DESCRIBED UNDER BOOK 5506 AT PAGE 1290 OF SAID RECORDS; THENCE OF THE FOLLOWING EIGHT (8) COURSES ALONG SAID NORTHERLY LINES AND EASTERLY LINES OF SAID PARCEL OF LAND DESCRIBED UNDER BOOK 5506 AT PAGE 1290:

- 1) N 84°16'00" W, A DISTANCE OF 198.99 FEET;
  - 2) 46.11 FEET ALONG THE ARC OF A 540.00 FOOT RADIUS TANGENT CURVE TO THE LEFT, HAVING A CENTRAL ANGLE OF 04°53'33" AND A CHORD THAT BEARS N 86°42'46" W, 46.10 FEET;
  - 3) N 89°09'33" W, A DISTANCE OF 124.09 FEET;
  - 4) 100.02 FEET ALONG THE ARC OF A 140.00 FOOT RADIUS TANGENT CURVE TO THE RIGHT, HAVING A CENTRAL ANGLE OF 40°56'07" AND A CHORD THAT BEARS N 68°41'30" W, 97.91 FEET;
  - 5) N 48°13'27" W, A DISTANCE OF 126.77 FEET;
  - 6) 6.49 FEET ALONG THE ARC OF AN 8.00 FOOT RADIUS TANGENT CURVE TO THE RIGHT, HAVING A CENTRAL ANGLE OF 46°29'23" AND A CHORD THAT BEARS N 24°58'45" W, 6.31 FEET;
  - 7) N 01°44'04" W, A DISTANCE OF 137.18 FEET;
  - 8) 87.71 FEET ALONG THE ARC OF A 135.00 FOOT RADIUS TANGENT CURVE TO THE LEFT, HAVING A CENTRAL ANGLE OF 37°13'35" AND A CHORD THAT BEARS N 20°21'02" W, 86.18 FEET TO THE SOUTHWEST CORNER OF LOT 15, BLOCK 3, SUNRISE RIDGE SUBDIVISION FILING NO. 8 AS RECORDED UNDER RECEPTION NO. 1722613 OF SAID RECORDS;
- THENCE THE FOLLOWING TWO (2) COURSES ALONG THE EASTERLY LINE OF SAID SUNRISE RIDGE SUBDIVISION FILING NO. 8: 1) 511.39 FEET ALONG THE ARC OF A 1,034.60 FOOT RADIUS CURVE TO THE LEFT, HAVING A CENTRAL ANGLE OF 28°19'14" AND A CHORD THAT BEARS N 58°13'41" E, 506.20 FEET TO A POINT OF COMPOUND CURVATURE;
- 2) 283.12 FEET ALONG THE ARC OF A 500.00 FOOT RADIUS CURVE TO THE LEFT, HAVING A CENTRAL ANGLE OF 32°26'36" AND A CHORD THAT BEARS N 27°50'47" E, 279.35 FEET TO A POINT ON THE NORTH LINE OF SAID NORTHEAST QUARTER;
- THENCE N 89°57'13" E ALONG THE NORTH LINE OF SAID NORTHEAST QUARTER, A DISTANCE OF 115.21 FEET TO THE POINT OF BEGINNING.

CONTAINING A CALCULATED AREA OF 445,104 SQUARE FEET (10.218 ACRES) OF LAND, MORE OR LESS.

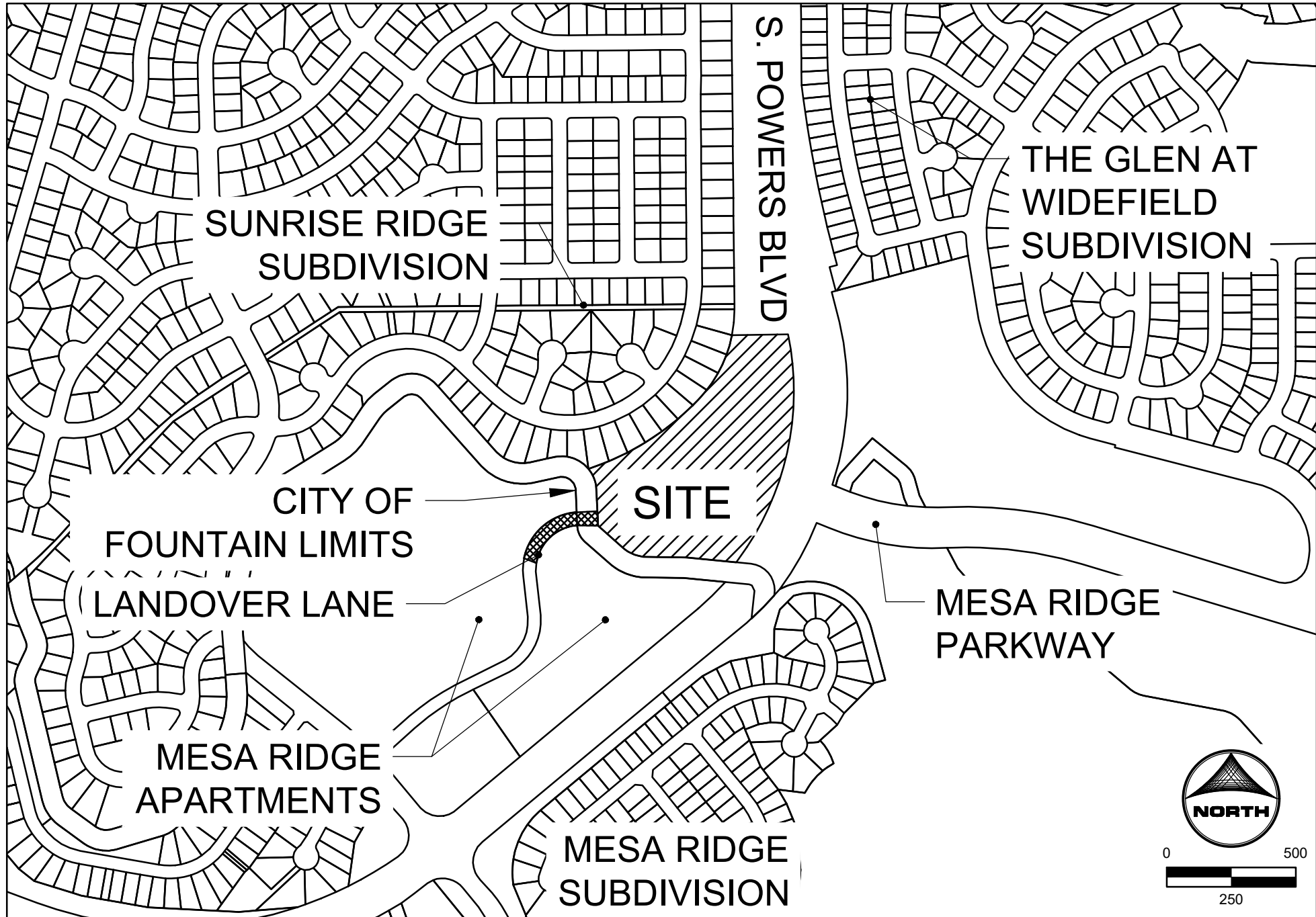
TO BE PLATTED AS "COTTAGES AT MESA RIDGE"

STANDARD NOTES:

1. ALL DRAINAGE AND ROADWAY CONSTRUCTION SHALL MEET THE STANDARDS AND SPECIFICATIONS OF THE CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND THE EL PASO COUNTY ENGINEERING CRITERIA MANUAL
2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION AND FILED NOTIFICATION OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, BEFORE BEGINNING CONSTRUCTION. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CALL 811 TO CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC)
3. CONTRACTOR SHALL KEEP A COPY OF THESE APPROVED PLANS, THE GRADING AND EROSION CONTROL PLAN, THE STORMWATER MANAGEMENT PLAN (SWMP), THE SOILS AND GEOTECHNICAL REPORT, AND THE APPROPRIATE DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS AT THE JOB SITE AT ALL TIMES, INCLUDING THE FOLLOWING:
  - A. EL PASO COUNTY ENGINEERING CRITERIA MANUAL (ECM)
  - B. CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2
  - C. COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
  - D. CDOT M & S STANDARDS
4. NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING. ANY MODIFICATIONS NECESSARY TO MEET CRITERIA AFTER-THE-FACT WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.
5. IT IS THE DESIGN ENGINEER'S RESPONSIBILITY TO ACCURATELY SHOW EXISTING CONDITIONS, BOTH ONSITE AND OFFSITE, ON THE CONSTRUCTION PLANS. ANY MODIFICATIONS NECESSARY DUE TO CONFLICTS, OMISSIONS, OR CHANGED CONDITIONS WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.
6. CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT (PCD) - INSPECTIONS, PRIOR TO STARTING CONSTRUCTION.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO UNDERSTAND THE REQUIREMENTS OF ALL JURISDICTIONAL AGENCIES AND TO OBTAIN ALL REQUIRED PERMITS, INCLUDING BUT NOT LIMITED TO EL PASO COUNTY EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP), REGIONAL BUILDING FLOODPLAIN DEVELOPMENT PERMIT, U.S. ARMY CORPS OF ENGINEERS-ISSUED 401 AND/OR 404 PERMITS, AND COUNTY AND STATE FUGITIVE DUST PERMITS.
8. CONTRACTOR SHALL NOT DEVIATE FROM THE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE DESIGN ENGINEER AND PCD. CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY ERRORS OR INCONSISTENCIES.
9. ALL STORM DRAIN PIPE SHALL BE CLASS III RCP UNLESS OTHERWISE NOTED AND APPROVED BY PCD.
10. CONTRACTOR SHALL COORDINATE GEOTECHNICAL TESTING PER ECM STANDARDS. PAVEMENT DESIGN SHALL BE APPROVED BY EL PASO COUNTY PCD PRIOR TO PLACEMENT OF CURB AND GUTTER AND PAVEMENT.
11. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.
12. SIGHT VISIBILITY TRIANGLES AS IDENTIFIED IN THE PLANS SHALL BE PROVIDED AT ALL INTERSECTIONS. OBSTRUCTIONS GREATER THAN 18 INCHES ABOVE FLOWLINE ARE NOT ALLOWED WITHIN SIGHT TRIANGLES.
13. SIGNING AND STRIPING SHALL COMPLY WITH EL PASO COUNTY AND MUTCD CRITERIA. [IF APPLICABLE, ADDITIONAL SIGNING AND STRIPING NOTES WILL BE PROVIDED.]
14. CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY EL PASO COUNTY DPW, INCLUDING WORK WITHIN THE RIGHT-OF-WAY AND SPECIAL TRANSPORT PERMITS.
15. THE LIMITS OF CONSTRUCTION SHALL REMAIN WITHIN THE PROPERTY LINE UNLESS OTHERWISE NOTED. THE OWNER/DEVELOPER SHALL OBTAIN WRITTEN PERMISSION AND EASEMENTS, WHERE REQUIRED, FROM ADJOINING PROPERTY OWNER(S) PRIOR TO ANY OFF-SITE DISTURBANCE, GRADING, OR CONSTRUCTION.

THE COTTAGES AT MESA RIDGE  
EL PASO COUNTY CONSTRUCTION DOCUMENTS  
AND GRADING AND EROSION CONTROL PLANS

A PORTION OF THE NORTHEAST QUARTER OF SECTION 29, THE SOUTHEAST QUARTER OF SECTION 20, THE SOUTHWEST QUARTER OF SECTION 21, & THE NORTHWEST QUARTER OF SECTION 28, TOWNSHIP 13 SOUTH, RANGE 65 WEST OF THE 6TH P.M., COUNTY OF EL PASO, STATE OF COLORADO



VICINITY MAP  
SCALE: 1"=500'

LEGEND

		EXISTING	PROPOSED		
MATCH LINE				STORM SEWER	
PHASE LINE				EXISTING	
SECTION LINE				PROPOSED	
PROPERTY LINE				MANHOLE	
EASEMENT LINE				STORM INLET	
RIGHT-OF-WAY				FLARED END SECTION	
CENTERLINE				RIPRAP	
CHAIN LINK FENCE				SANITARY SEWER	
WOODEN FENCE				CLEAN OUT	
ROD IRON FENCE				MANHOLE	
GUARDRAIL				PLUG	
CABLE TV				WATER	
U.G. ELECTRIC				FIRE HYDRANT	
OVERHEAD ELECTRIC				FIRE DEPT. CONNECTION	
FIBER OPTIC				GATE VALVE	
GAS MAIN				MANHOLE	
SANITARY SEWER				METER	
STORM DRAIN				TEE	
TELEPHONE				REDUCER	
WATER MAIN				DRY UTILITIES	
SWALE				ELECTRIC METER	
TRAIL				ELECTRIC PEDESTAL	
CURB & GUTTER				ELECTRIC CABINET	
DRAINAGE BASIN				FIBER OPTIC PULL BOX	
INDEX CONTOUR				FIBER OPTIC MANHOLE	
INTER. CONTOUR				FIBER OPTIC PEDESTAL	
100-YR FLOODPLAIN				FIBER OPTIC SIGN	
FLOODWAY				FIBER OPTIC VAULT	
EDGE OF WETLANDS				GAS METER	
DRAINAGE				GAS SIGN	
EXISTING				GAS VAULT	
PROPOSED				TELEPHONE CABINET	
DRAINAGE BASIN				TELEPHONE MANHOLE	
BASIN TAG				TELEPHONE SIGNALMAST	
DESIGN POINT				TELEPHONE SIGN	
				TELEPHONE PEDESTAL	
				TRANSFORMER	
				LIGHT POLE	
				FIBER OPTIC VAULT	
				MISCELLANEOUS	
				SIGN	
				BOLLARD	
				ACCESSIBLE PARKING	

GENERAL PROVISIONS:

1. STATEMENT OF INTENT: THE PURPOSE AND INTENT OF THE PUD ZONING DISTRICT IS TO CREATE A COHESIVE WELL PLANNED COMMUNITY THAT WILL ALLOW FOR A MAXIMUM OF 122 DWELLING UNITS, SINGLE FAMILY ATTACHED UNITS FOR RENT ONLY, AN AMENITY CENTER, AND OPEN SPACE.
2. AUTHORITY: THIS PUD IS AUTHORIZED BY CHAPTER 4 OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, ADOPTED PURSUANT TO THE COLORADO PLANNED UNIT DEVELOPMENT ACT OF 1972, AS AMENDED.
3. APPLICABILITY: THE PROVISIONS OF THIS PUD SHALL RUN WITH THE LAND. THE LANDOWNERS, THEIR SUCCESSORS, HEIRS, OR ASSIGNS SHALL BE BOUND BY THE DEVELOPMENT PLAN, AS AMENDED AND APPROVED BY THE PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT DIRECTOR OR BOARD OF COUNTY COMMISSIONERS.
4. ADOPTION: THE ADOPTION OF THIS DEVELOPMENT PLAN SHALL EVIDENCED THE FINDINGS AND DECISIONS OF THE EL PASO COUNTY BOARD OF COUNTY COMMISSIONS THAT THIS DEVELOPMENT PLAN FOR THE COTTAGES AT MESA RIDGE IS IN GENERAL CONFORMITY WITH THE EL PASO COUNTY MASTER PLAN, EL PASO COUNTY POLICY PLAN, AND APPLICABLE SMALL AREA PLAN(S); IS AUTHORIZED UNDER THE PROVISIONS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE; AND THAT THE EL PASO COUNTY LAND DEVELOPMENT CODE AND THIS DEVELOPMENT PLAN COMPLIES WITH THE COLORADO PLANNED UNIT DEVELOPMENT ACT OF 1972, AS AMENDED.
5. RELATIONSHIP TO COUNTY REGULATIONS: THE PROVISIONS OF THIS DEVELOPMENT PLAN SHALL PREVAIL AND GOVERN THE DEVELOPMENT OF THE COTTAGES AT MESA RIDGE, PROVIDED, HOWEVER, THAT WHERE THE PROVISIONS OF THIS DEVELOPMENT PLAN DO NOT ADDRESS A PARTICULAR SUBJECT THE RELEVANT PROVISIONS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, AS AMENDED AND IN EFFECT AT THE TIME OF THE PUD PLAN APPROVAL (OR OWNER ACKNOWLEDGE THE PUD CHANGES WITH THE CODE), OR ANY OTHER APPLICABLE RESOLUTIONS OR REGULATIONS OF EL PASO COUNTY, SHALL BE APPLICABLE.
6. ENFORCEMENT: TO FURTHER THE MUTUAL INTEREST OF THE RESIDENTS, OCCUPANTS, AND OWNERS OF THE PUD AND OF THE PUBLIC IN PRESERVATION OF THE INTEGRITY OF THIS DEVELOPMENT PLAN, THE PROVISIONS OF THIS PLAN RELATING TO THE USE OF LAND AND THE LOCATION OF COMMON SPACE SHALL RUN IN FAVOR OF EL PASO COUNTY AND SHALL BE ENFORCEABLE AT LAW OR IN EQUITY BY THE COUNTY WITHOUT LIMITATION ON ANY POWER OR REGULATION OTHERWISE GRANTED BY LAW, WHERE THERE IS MORE THAN ONE PROVISIONS WITHIN THE DEVELOPMENT PLAN THAT COVERS THE SAME SUBJECT MATTER, THE PROVISIONS WHICH IS MORE RESTRICTIVE OR IMPOSES THE HIGHER STANDARDS OR REQUIREMENTS SHALL GOVERN.

SHEET INDEX:

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- 3 - GEC- INITIAL PLAN
- 4 - GEC- INTERIM PLAN
- 5 - GEC- VERTICAL PLAN
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- 9 - 10 - CURB RAMP GRADING
- 11 - 19 - DETAILED GRADING
- 20 - NOTES WATER AND SANITARY SEWER
- 21 - 24 - SANITARY PLAN & PROFILE
- 25 - 26 - WATER DISTRIBUTION PLAN
- 27 - UTILITY SERVICE PLAN
- 28 - STORM SEWER PLAN AND PROFILE
- 29 - 33 - DETAILS

STAKEHOLDERS:

OWNER:	GOODWIN KNIGHT, LLC 8605 EXPLORER DRIVE, SUITE 250 COLORADO SPRINGS, CO 80920 Brandon Loveridge, Manager
DEVELOPER:	GOODWIN KNIGHT 8605 EXPLORER DRIVE, SUITE 250 COLORADO SPRINGS, CO 80920 DAVE MORRISON
ATTN:	
APPLICANT:	HR GREEN DEVELOPMENT, LLC 1975 RESEARCH PKWY, SUITE 230 COLORADO SPRINGS, CO 80920 PHIL STUEPFERT, KEN HUHN
ATTN:	
SURVEYOR:	BARRON LAND, LLC 2790 N ACADEMY BLVD #311 COLORADO SPRINGS, CO 80917 ATTN: SPENCER BARRON

DEVELOPERS STATEMENT - FOUNTAIN SANITATION DISTRICT

THE OWNER WILL COMPLY WITH THE REQUIREMENTS OF FOUNTAIN SANITATION DISTRICT REGULATIONS AND STANDARD SPECIFICATIONS. OWNER WILL COMPLY WITH THE CONSTRUCTION DRAWINGS PREPARED BY HIS/HER CIVIL ENGINEER.

DEVELOPER/OWNER SIGNATURE: *Brandon Loveridge* DATE: 2/13/23

NAME OF DEVELOPER/OWNER: GOODWIN KNIGHT, LLC

TITLE: Brandon Loveridge, Manager

PHONE: 719-598-5190

ADDRESS: 8605 Explorer Dr., Suite 250, Colorado Springs, CO 80920

FOUNTAIN SANITATION DISTRICT

PLANS ARE RECOMMENDED FOR USE IN CONSTRUCTION OF WASTEWATER COLLECTION SYSTEM FOR THIS PROJECT. DESIGN ENGINEER OF RECORD TAKES SOLE RESPONSIBILITY FOR ALL DESIGN ASPECTS OF THE PROJECT.

JONATHAN MOORE, P.E. DATE  
FOUNTAIN SANITATION DISTRICT - DISTRICT ENGINEER

OWNER'S STATEMENT

I, THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING AND EROSION CONTROL PLAN AND ALL OF THE REQUIREMENTS SPECIFIED IN THESE DETAILED PLANS AND SPECIFICATIONS.

*Brandon Loveridge* DATE: 2/13/23

OWNER SIGNATURE  
Brandon Loveridge, Manager Goodwin Knight, LLC

OWNER NAME

ENGINEER'S STATEMENT

THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECTION AND SUPERVISION. SAID PLANS AND SPECIFICATIONS HAVE BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR DETAILED ROADWAY, DRAINAGE, GRADING AND EROSION CONTROL PLANS AND SPECIFICATIONS, AND SAID PLANS AND SPECIFICATIONS ARE IN CONFORMITY WITH APPLICABLE MASTER DRAINAGE PLANS AND MASTER TRANSPORTATION PLANS. SAID PLANS AND SPECIFICATIONS MEET THE PURPOSES FOR WHICH THE PARTICULAR ROADWAY AND DRAINAGE FACILITIES ARE DESIGNED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS OR OMISSIONS ON MY PART IN PREPARATION OF THESE DETAILED PLANS AND SPECIFICATIONS.

*Kenneth M. Huhn* 0054022

1/6/23 01/06/23

KENNETH M. HUHN, P.E. DATE

KHUHN@HGREEN.COM PROFESSIONAL ENGINEER

COLORADO P.E. 0054022

PCD FILNE NO.: SF2214 FOR CONSTRUCTION

DRAWN BY: CBM JOB DATE: 1/6/2023  
APPROVED: KMH JOB NUMBER: 200541  
CAD DATE: 1/24/2023  
CAD FILE: J:\2020\200541\CAD\DWG\IC\CDIE\El\_Paso\_Col\Cover

BAR IS ONE INCH ON  
OFFICIAL DRAWINGS.  
0" = 1" IF NOT ONE INCH,  
ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION



HR GREEN - COLORADO SPRINGS  
7222 COMMERCE CENTER DR SUITE 220  
COLORADO SPRINGS CO 80919  
PHONE: 719.300.4140 TOLL FREE: 800.728.7805  
FAX: 844.273.1057 | HRGreen.com

THE COTTAGES AT MESA RIDGE  
GOODWIN KNIGHT  
EL PASO COUNTY, COLORADO



EL PASO COUNTY CONSTRUCTION DOCUMENTS  
COVER

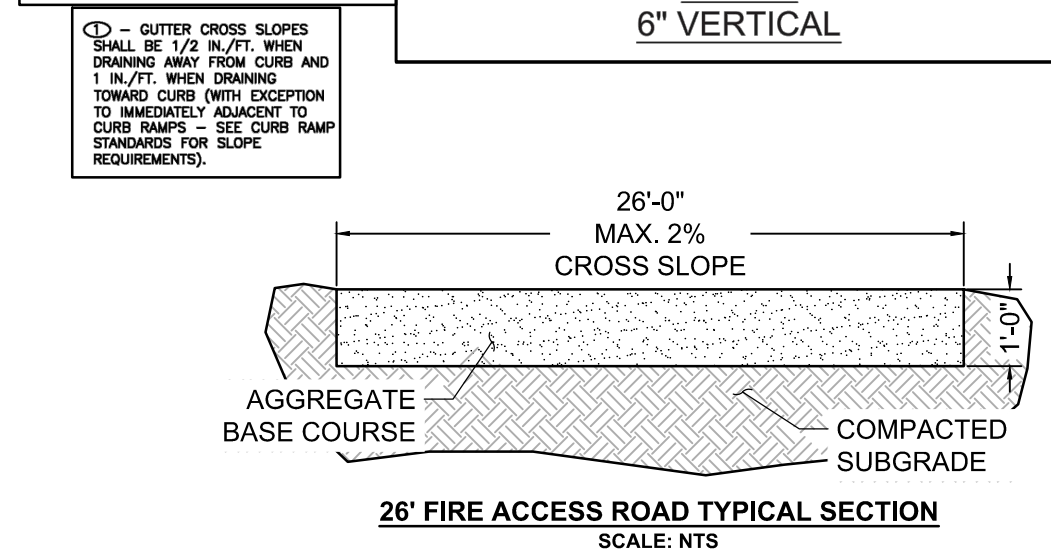
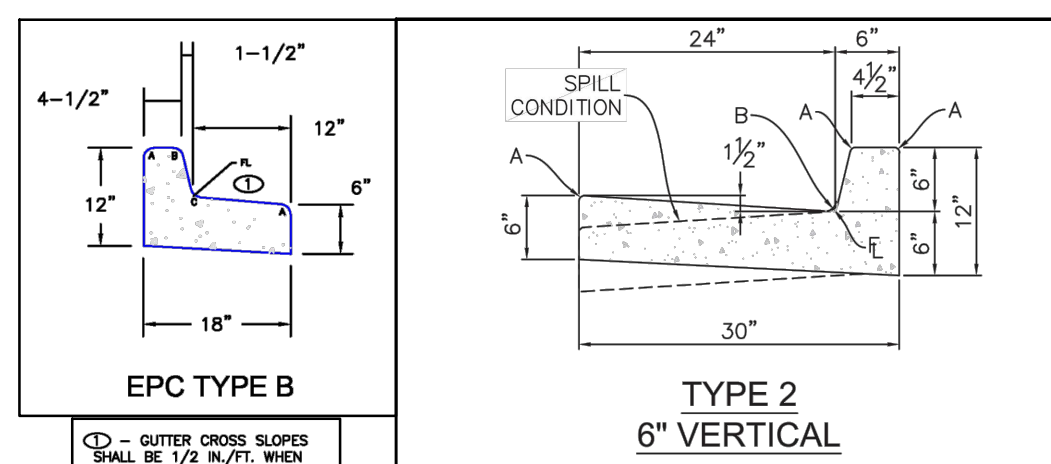
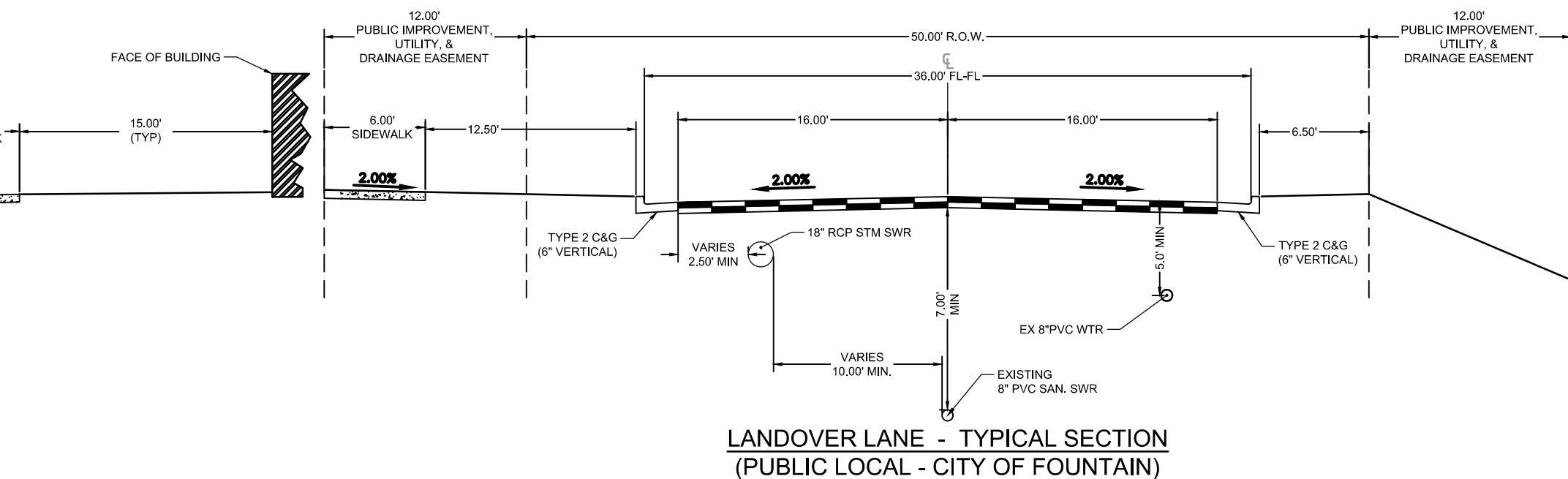
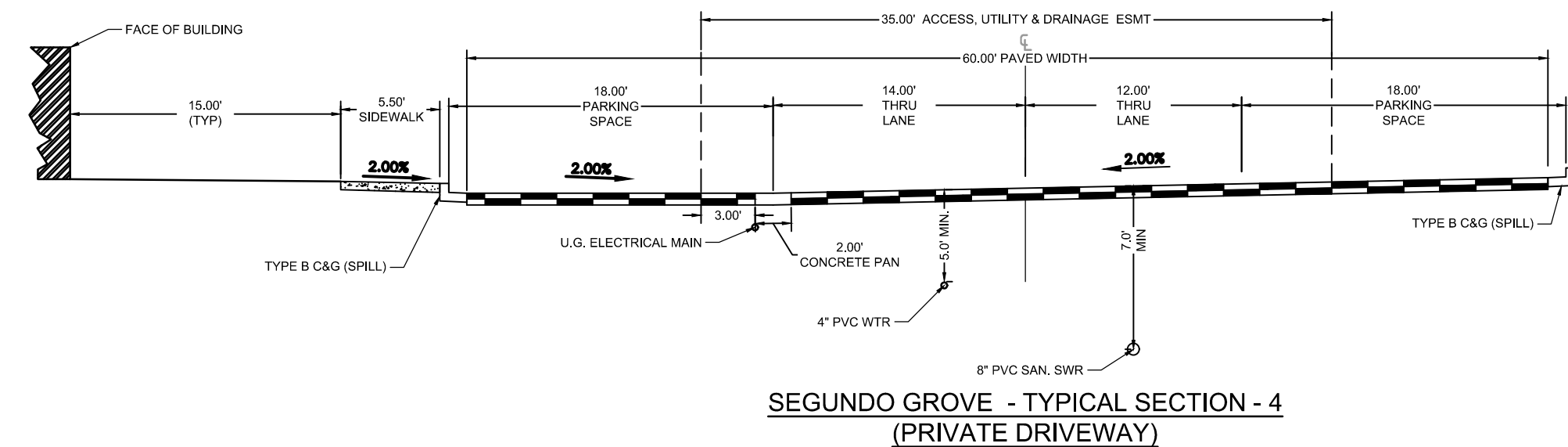
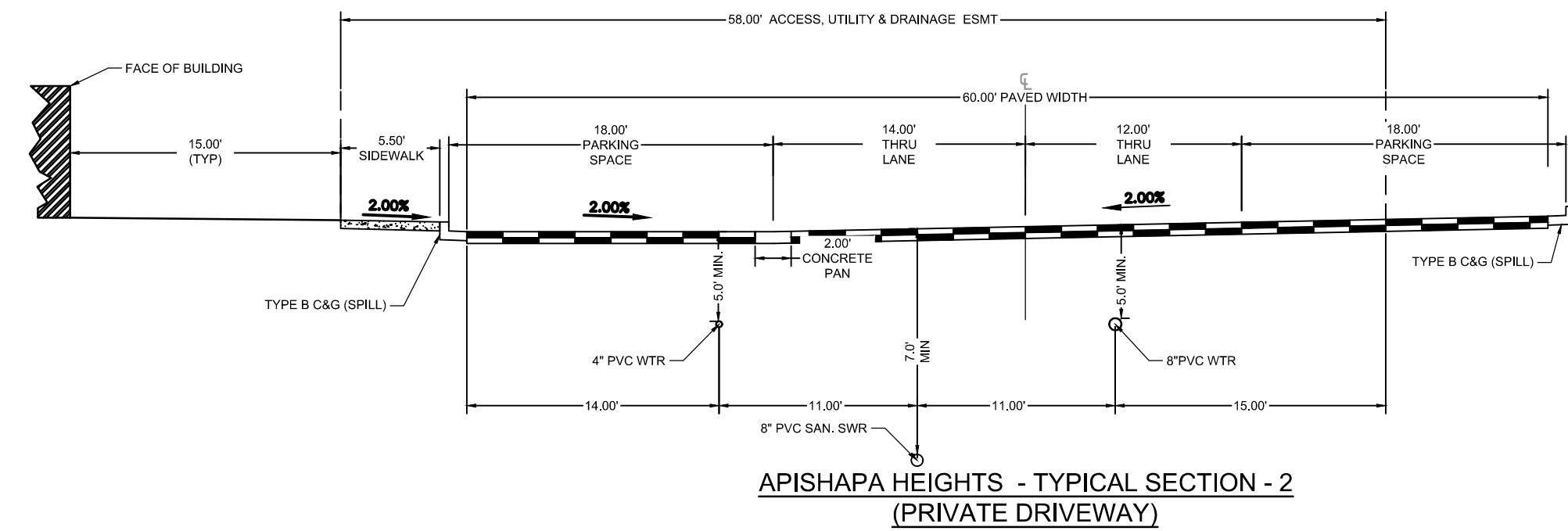
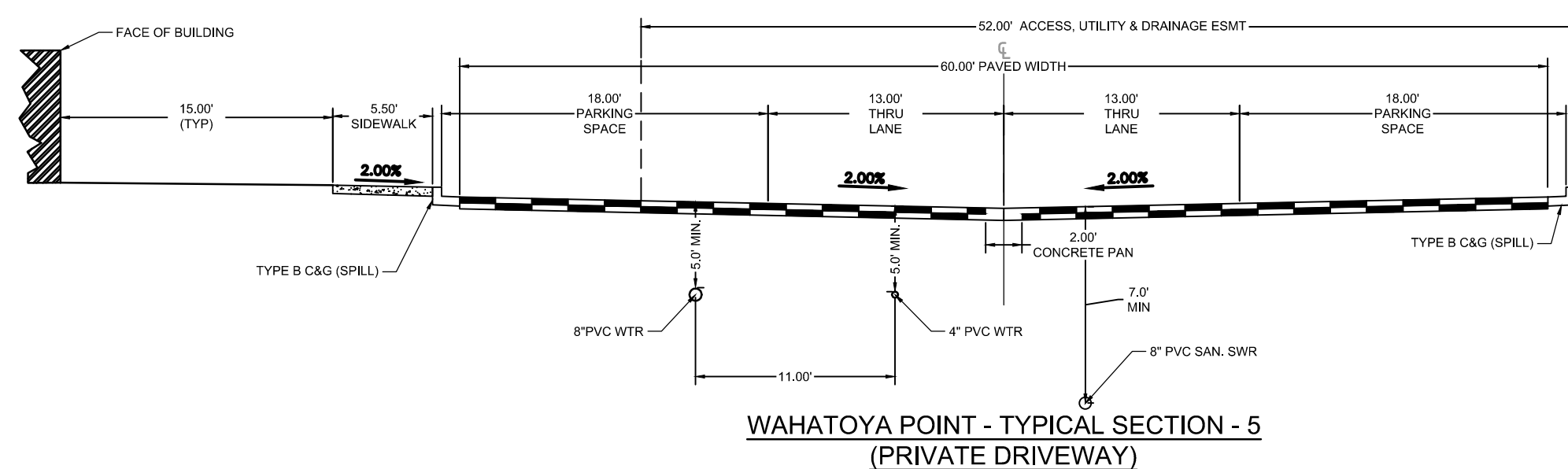
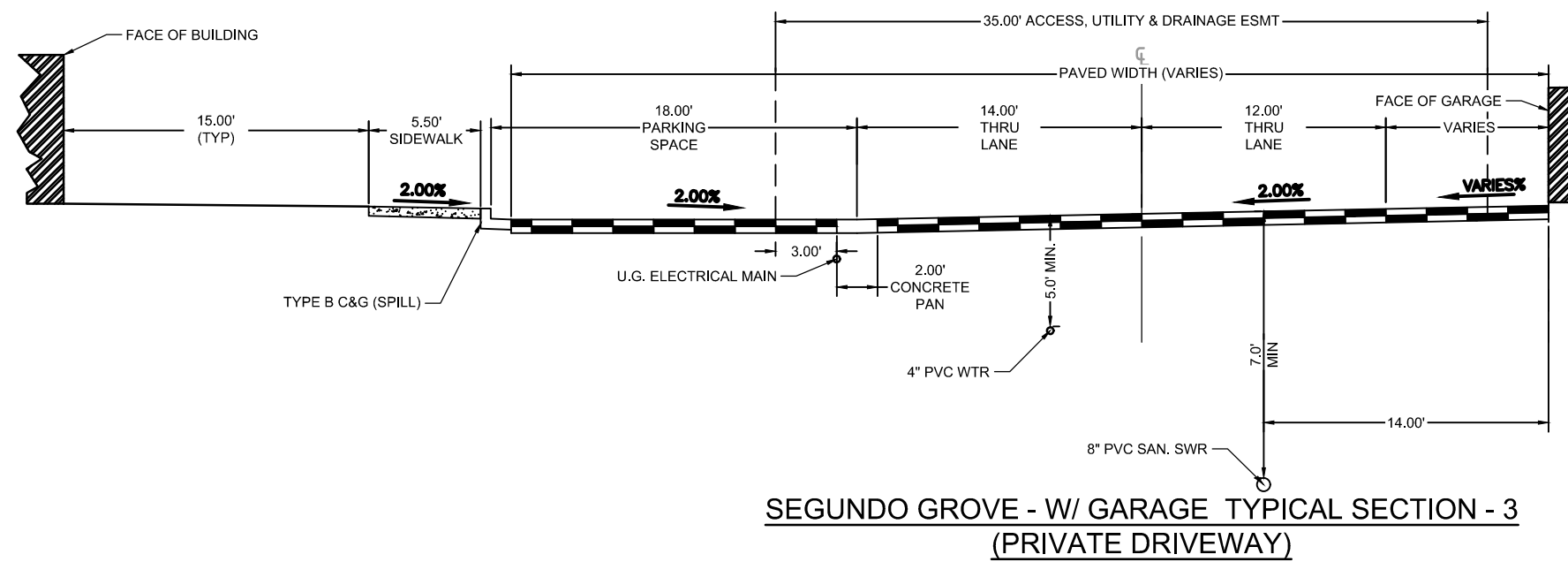
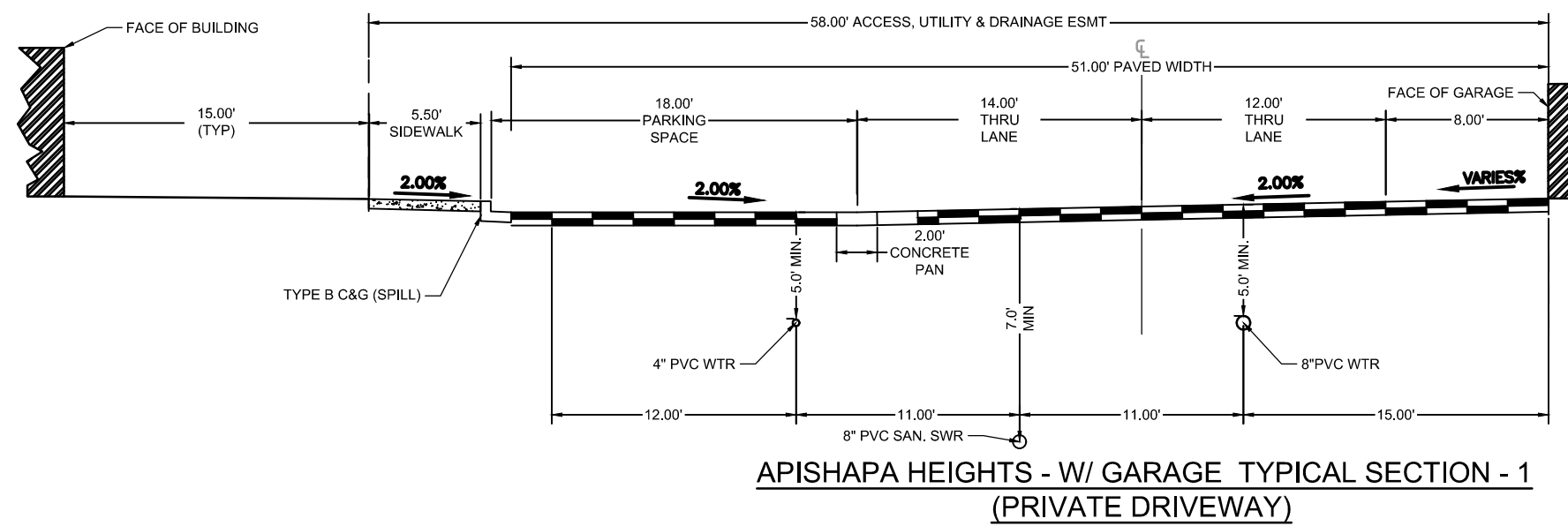
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### GRADING AND EROSION CONTROL NOTES:

3. STORMWATER DISCHARGES FROM CONSTRUCTION SITES SHALL NOT CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR DEGRADATION OF STATE WATERS, ALL WORK AND EARTH DISTURBANCE SHALL BE DONE IN A MANNER THAT MINIMIZES POLLUTION OF ANY ON-SITE OR OFF-SITE WATERS, INCLUDING WETLANDS.
2. NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE, AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING.
3. A SEPARATE STORMWATER MANAGEMENT PLAN (SWMP) FOR THIS PROJECT SHALL BE COMPLETED AND AN EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP) ISSUED PRIOR TO COMMENCING CONSTRUCTION. MANAGEMENT OF THE SWMP DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE DESIGNATED QUALIFIED STORMWATER MANAGER OF CERTIFIED EROSION CONTROL INSPECTOR. THE SWMP SHALL BE LOCATED ON SITE AT ALL TIMES DURING CONSTRUCTION AND SHALL BE KEPT UP TO DATE WITH WORK PROGRESS AND CHANGES IN THE FIELD.
4. ONCE THE ESQCP IS APPROVED AND A "NOTICE TO PROCEED" HAS BEEN ISSUED, THE CONTRACTOR MAY INSTALL THE INITIAL STAGE EROSION AND SEDIMENT CONTROL MEASURES AS INDICATED ON THE APPROVED GEC. A PRECONSTRUCTION MEETING BETWEEN THE CONTRACTOR, ENGINEER, AND THE EL PASO COUNTY WILL BE HELD PRIOR TO ANY CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE APPLICANT TO COORDINATE THE MEETING TIME AND PLACE WITH COUNTY STAFF.
5. CONTROL MEASURES MUST BE INSTALLED PRIOR TO COMMENCEMENT OF ACTIVITIES THAT COULD CONTRIBUTE POLLUTANTS TO STORMWATER. CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, AND DISTURBED LAND AREAS SHALL BE INSTALLED IMMEDIATELY UPON COMPLETION OF THE DISTURBANCE.
6. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE MAINTAINED AND REMAIN IN EFFECTIVE OPERATION CONDITION UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND FINAL STABILIZATION IS ESTABLISHED. ALL PERSONS ENGAGED IN LAND DISTURBANCE ACTIVITIES SHALL ASSESS THE ADEQUACY OF CONTROL MEASURES AT THE SITE AND IDENTIFY IF CHANGES TO THOSE CONTROL MEASURES ARE NEEDED TO ENSURE THE CONTINUED EFFECTIVE PERFORMANCE OF THE CONTROL MEASURES. ALL CHANGES TO TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES MUST BE INCORPORATED INTO THE STORMWATER MANAGEMENT PLAN.
7. TEMPORARY STABILIZATION SHALL BE IMPLEMENTED ON DISTURBED AREAS AND STOCKPILES WHERE GROUND DISTURBING ACTIVITY HAS PERMANENTLY CEASED OR TEMPORARILY CEASED FOR LONGER THAN 14 DAYS.
8. FINAL STABILIZATION MUST BE IMPLEMENTED AT ALL APPLICABLE CONSTRUCTION SITES. FINAL STABILIZATION IS ACHIEVED WHEN ALL GROUND DISTURBING ACTIVITIES ARE COMPLETE AND ALL DISTURBED AREAS EITHER HAVE A UNIFORM VEGETATIVE COVER WITH INDIVIDUAL PLANT DENSITY OF 70 PERCENT OF PRE-DISTURBANCE LEVELS ESTABLISHED OR EQUIVALENT PERMANENT ALTERNATIVE STABILIZATION METHOD IS IMPLEMENTED. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE REMOVED UPON FINAL STABILIZATION AND BEFORE PERMIT CLOSURE.
9. ALL PERMANENT STORMWATER FACILITIES SHALL BE INSTALLED AS DESIGNED IN THE APPROVED PLANS. ANY PROPOSED CHANGES THAT EFFECT THE DESIGN OF FUNCTION OF PERMANENT STORMWATER MANAGEMENT STRUCTURES MUST BE APPROVED BY THE ECM ADMINISTRATOR PRIOR TO IMPLEMENTATION.
10. EARTH DISTURBANCES SHALL BE CONDUCTED IN SUCH A MANNER AS TO EFFECTIVELY MINIMIZE ACCELERATED SOIL EROSION AND RESULTING SEDIMENTATION. ALL DISTURBANCES SHALL BE DESIGNED, CONSTRUCTED, AND COMPLETED SO THAT THE EXPOSED AREA OF ANY DISTURBED LAND SHALL BE LIMITED TO THE SHORTEST PRACTICAL PERIOD OF TIME. PRE-EXISTING VEGETATION SHALL BE PROTECTED AND MAINTAINED WITHIN 50 HORIZONTAL FEET OF A WATERS OF THE STATE UNLESS SHOWN TO BE INFEASIBLE AND SPECIFICALLY REQUESTED AND APPROVED.
11. COMPACTION OF SOIL MUST BE PREVENTED IN AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES OF WHERE FINAL STABILIZATION WILL BE ACHIEVED BY VEGETATIVE COVER. AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES SHALL ALSO BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED. IF COMPACTION PREVENTION IS NOT FEASIBLE DUE TO SITE CONSTRAINTS, ALL AREAS DESIGNATED FOR INFILTRATION AND VEGETATION CONTROL MEASURES MUST BE LOOSENED PRIOR TO INSTALLATION OF THE CONTROL MEASURE(S).
12. ANY TEMPORARY OR PERMANENT FACILITY DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF STORMWATER AROUND, THROUGH, OR FROM THE EARTH DISTURBANCE AREA SHALL BE A STABILIZED CONVEYANCE DESIGNED TO MINIMIZE EROSION AND THE DISCHARGE OF SEDIMENT OFF SITE.
13. CONCRETE WASH WATER SHALL BE CONTAINED AND DISPOSED OF IN ACCORDANCE WITH THE SWMP. NO WASH WATER SHALL BE DISCHARGED TO OR ALLOWED TO ENTER STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES. CONCRETE WASHOUTS SHALL NOT BE LOCATED IN AN AREA WHERE SHALLOW GROUNDWATER MAY BE PRESENT, OR WITHIN 50 FEET OF A SURFACE WATER BODY, CREEK OR STREAM.
14. DURING DEWATERING OPERATIONS OF UNCONTAMINATED GROUND WATER MAY BE DISCHARGED ON SITE, BUT SHALL NOT LEAVE THE SITE IN THE FORM OF SURFACE RUNOFF UNLESS AN APPROVED STATE DEWATERING PERMIT IS IN PLACE.
15. EROSION BLANKET OR OTHER PROTECTIVE COVERING SHALL BE USED ON SLOPES STEEPER THAN 3:1.
16. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL WASTES FROM THE CONSTRUCTION SITE FOR DISPOSAL IN ACCORDANCE WITH LOCAL AND STATE REGULATORY REQUIREMENTS. NO CONSTRUCTION DEBRIS, TREE SLASH, BUILDING MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED OR DISCHARGED AT THIS SITE.
17. WASTE MATERIALS SHALL NOT BE TEMPORARILY PLACED OR STORED IN THE STREET, ALLEY OR OTHER PUBLIC WAY, UNLESS IN ACCORDANCE WITH AN APPROVED TRAFFIC CONTROL PLAN. CONTROL MEASURES MAY BE REQUIRED BY EL PASO COUNTY ENGINEERING IF DEEMED NECESSARY, BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES.
18. TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF-SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFF-SITE SHALL BE CLEANED UP PROPERLY AND PROPERLY DISPOSED OF IMMEDIATELY.
19. THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION, DEBRIS, DIRT, TRASH, ROCK, SEDIMENT, SOIL AND SAND THAT MAY ACCUMULATE IN ROADS, STORM DRAINS AND OTHER DRAINAGE CONVEYANCE SYSTEMS AND STORMWATER APPURTENANCES AS A RESULT OF THE SITE DEVELOPMENT.
20. THE QUANTITY OF MATERIALS STORED ON THE PROJECT SITE SHALL BE LIMITED, AS MUCH AS PRACTICAL, TO THAT QUANTITY REQUIRED TO PERFORM THE WORK IN AN ORDERLY SEQUENCE. ALL MATERIALS STORED ON-SITE SHALL BE STORED IN AN EAT, ORDERLY MANNER, IN THEIR ORIGINAL CONTAINERS, WITH ORIGINAL MANUFACTURER'S LABEL.
21. NO CHEMICAL(S) HAVING THE POTENTIAL TO BE RELEASED IN STORMWATER ARE TO BE STORED OR USED ONSITE UNLESS PERMISSION FOR THE USE OF SUCH CHEMICAL(S) IS GRANTED IN WRITING BY THE ECM ADMINISTRATOR. IN GRANTING APPROVAL FOR THE USE OF SUCH CHEMICAL(S) SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.
22. BULK STORAGE OF ALLOWED PETROLEUM PRODUCTS OR OTHER ALLOWED LIQUID CHEMICALS IN EXCESS OF 55 GALLONS SHALL REQUIRE ADEQUATE SECONDARY PROTECTION TO CONTAIN ALL SPILLS ONSITE AND TO PREVENT ANY SPILLED MATERIALS FROM ENTERING STATE WATERS, ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR OTHER FACILITIES.
23. NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE CURB AND GUTTER OR DITCH EXCEPT WITH APPROVED SEDIMENT CONTROL MEASURES.
24. OWNER/DEVELOPER AND THEIR AGENTS SHALL COMPLY WITH THE "COLORADO WATER QUALITY CONTROL ACT" (TITLE 25, ARTICLE 8, CRS) AND THE "CLEAN WATER ACT" (33 USC 1344), IN ADDITION TO THE REQUIREMENTS OF THE LAND DEVELOPMENT CODE, DCM VOLUME II AND ECM APPENDIX I. ALL APPROPRIATE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION (1041, NPDES, FLOODPLAIN, 404, FUGITIVE DUST, ETC). IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND OTHER LAWS RULES OR REGULATIONS OF OTHER FEDERAL, STATE, LOCAL OR COUNTY AGENCIES, THE MOST RESTRICTIVE LAWS, RULES OR REGULATIONS SHALL APPLY.
25. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE ONLY AT APPROVED CONSTRUCTION ACCESS POINTS.
26. PRIOR TO CONSTRUCTION THE PERMITTEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.
27. A WATER SOURCE SHALL BE AVAILABLE ON SITE DURING EARTHWORK OPERATIONS AND SHALL BE UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND.
28. THE SOILS REPORT FOR THE SITE HAS BEEN PREPARED BY ENTECH ENGINEERING, INC. AND SHALL BE CONSIDERED A PART OF THESE PLANS.
29. AT LEAST (10) DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB ONE (1) ACRE OR MORE, THE OWNER OR OPERATOR OF CONSTRUCTION ACTIVITY SHALL SUBMIT A PERMIT APPLICATION FOR STORMWATER DISCHARGE TO THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, WATER QUALITY DIVISION. THE APPLICATION CONTAINS CERTIFICATION OF COMPLETION OF A STORMWATER MANAGEMENT PLAN (SWMP), OF WHICH THIS GRADING AND EROSION CONTROL PLAN MAY BE A PART. FOR INFORMATION OR APPLICATION MATERIALS CONTACT:

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT  
WATER QUALITY CONTROL DIVISION  
WQCD - PERMITS  
4300 CHERR CREEK DRIVE SOUTH  
DENVER, CO 80246-1530  
ATTN: PERMITS UNIT



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CAD DATE: 1/24/2023 IF NOT ONE INCH.  
CAD FILE: J:\2020\200541\CAD\Draws\C\CD\EI Paso\_ColCover ADJUST SCALE ACCORDINGLY

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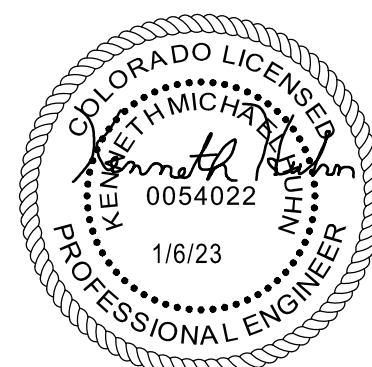
THE COTTAGES AT MESA RIDGE  
GOODWIN KNIGHT  
EL PASO COUNTY, COLORADO



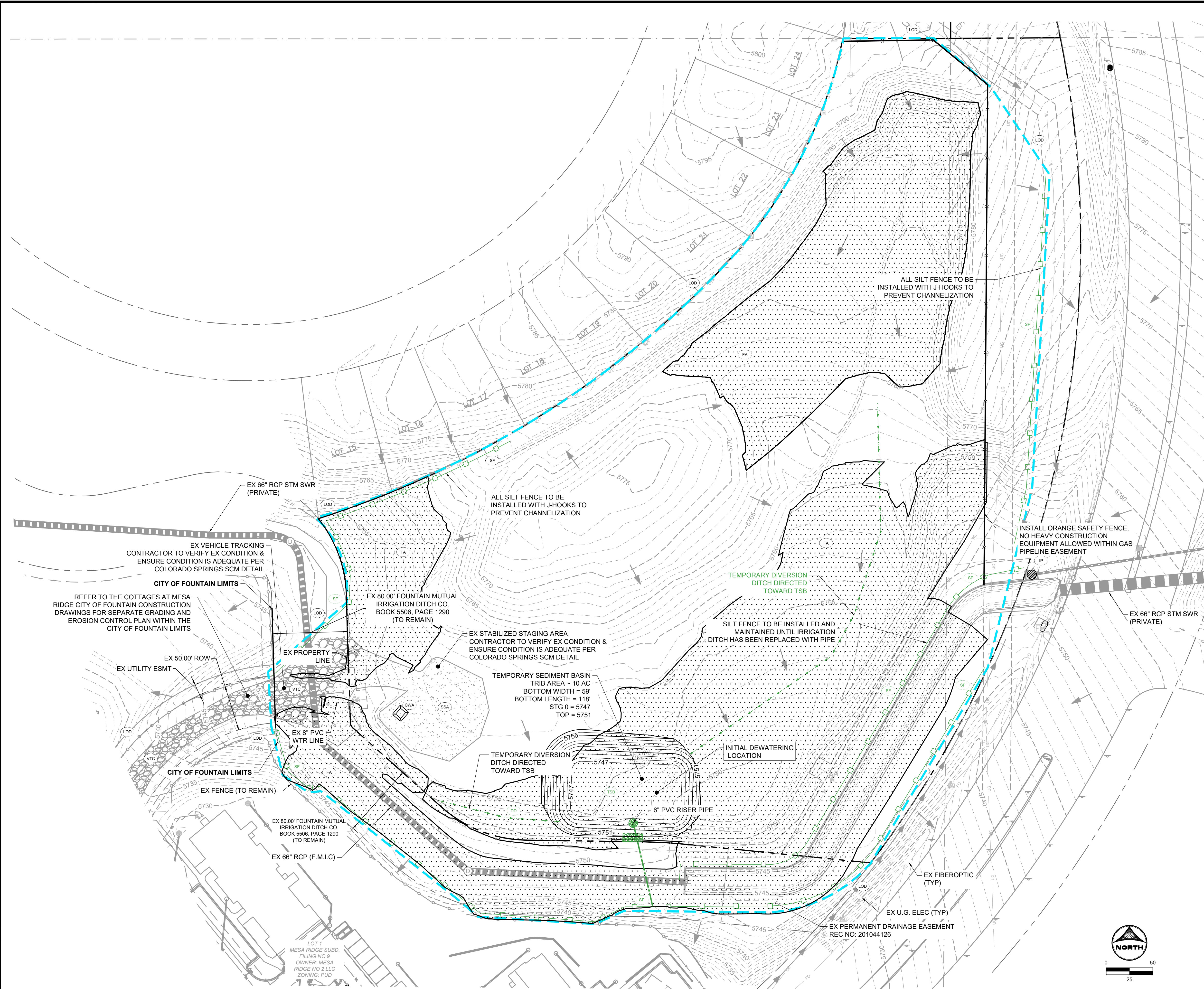
EL PASO COUNTY CONSTRUCTION DOCUMENTS  
GEC NOTES & TYPICAL SECTIONS

SHEET  
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2







GRADING & EROSION CONTROL PLAN NOTES:

1. SEE SHEETS 29 – 32 FOR CITY OF COLORADO SPRINGS GRADING AND EROSION CONTROL DETAILS.
2. ALL STORMWATER MANAGEMENT MEASURES SHOWN ON THIS PLAN MUST BE INSTALLED AND MAINTAINED PER THE COLORADO SPRINGS STORMWATER CONSTRUCTION MANUAL; LATEST REVISIONS.
3. AREA WITHIN LIMITS OF DISTURBANCE TO BE CLEARED, GRUBBED AND STOCKPILED PRIOR TO IMPORT OF ANY FILL.
4. ALL 3:1 SLOPES MUST BE RECEIVE SLOPE TRACKING TREATMENT AND EROSION CONTROL BLANKET.
5. STOCKPILES REQUIRED DURING ONSITE CONSTRUCTION ACTIVITIES WILL BE PLACED AT THE DISCRETION OF THE CONTRACTOR. STOCKPILING OF MATERIAL MUST NOT OCCUR OUTSIDE THE LIMITS OF DISTURBANCE SHOWN ON THIS PLAN.
6. NON-STRUCTURAL CONTROLS (I.E. STREET SWEEPING) WILL BE AT THE DISCRETION OF THE PROJECT'S CERTIFIED GEC ADMINISTRATOR THROUGHOUT THE DURATION OF LAND DISTURBING ACTIVITIES.
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8. THERE ARE NO EXISTING PRESERVATION EASEMENTS LOCATED ON SITE.
9. THE SITE IS NOT LOCATED IN THE FEMA 100-YR FLOODPLAIN
10. ONSITE EXISTING VEGETATION IS NATIVE GRASSES AND WEEDS. THERE IS NO NOTABLE VEGETATION OTHERWISE.
11. PROPOSED VEGETATION IS FOUND IN LANDSCAPE PLANS OF THE CONSTRUCTION DRAWINGS

PROJECT INFO:

TOTAL DISTURBANCE AREA = 11.33 AC  
RECEIVING WATERS: JIMMY CAMP CREEK  
ANTICIPATED START OF CONSTRUCTION: SPRING 2023  
ANTICIPATED END OF LAND DISTURBANCE: WINTER 2023  
ANTICIPATED STABILIZATION: SPRING 2024

LEGEND:

- |  |       |                                     |
|--|-------|-------------------------------------|
|  | CWA   | CONCRETE WASHOUT AREA               |
|  | CF    | CONSTRUCTION FENCE                  |
|  | DD    | DIVERSION DITCH                     |
|  | IP    | INLET PROTECTION                    |
|  | CIP   | CULVERT INLET PROTECTION            |
|  | SCL   | SEDIMENT CONTROL LOG                |
|  | SF    | SILT FENCE                          |
|  | SSA   | STABILIZED STAGING AREA             |
|  | SP    | STOCKPILE MANAGEMENT                |
|  | VTC   | VEHICLE TRACKING CONTROL            |
|  | LOD   | LIMITS OF CONSTRUCTION/ DISTURBANCE |
|  | SM    | SEEDING AND MULCHING                |
|  | FA    | FILL AREA (ALL OTHER AREAS ARE CUT) |
|  | RS    | ROCK SOCK                           |
|  | TSB   | TEMPORARY SEDIMENT BASIN            |
|  | ECB   | EROSION CONTROL BLANKET             |
|  | TW/BW | ELEVATION OF TOP/BOTTOM OF WALL     |
|  |       | PROP FLOW DIRECTION                 |
|  |       | EX FLOW DIRECTION                   |
|  |       | EX PROPERTY LINE                    |
|  |       | EX RIGHT OF WAY                     |

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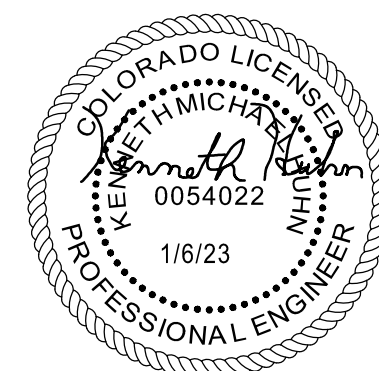
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THE COTTAGES AT MESA RIDGE  
GOODWIN KNIGHT  
EL PASO COUNTY, COLORADO



PCD FILNE NO.: SF2214 FOR CONSTRUCTION

EL PASO COUNTY CONSTRUCTION DOCUMENTS	SHEET EC	3
GEC- INITIAL PLAN		







GRADING & EROSION CONTROL PLAN NOTES:

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PROJECT INFO:

TOTAL DISTURBANCE AREA = 11.33 AC

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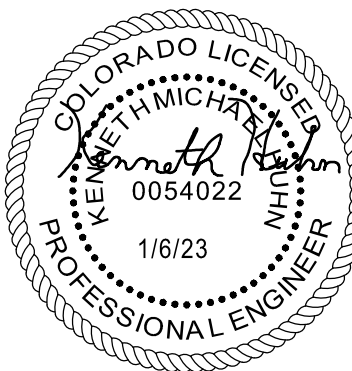
ANTICIPATED START OF CONSTRUCTION: SPRING 2023

ANTICIPATED END OF LAND DISTURBANCE: WINTER 2023

ANTICIPATED FINAL STABILIZATION: SPRING 2024

GEC LEGEND:

- |  |       |                                     |
|--|-------|-------------------------------------|
|  | CWA   | CONCRETE WASHOUT AREA               |
|  | CF    | CONSTRUCTION FENCE                  |
|  | DD    | DIVERSION DITCH                     |
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|  | SCL   | SEDIMENT CONTROL LOG                |
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|  |       | EX PROPERTY LINE                    |
|  |       | EX RIGHT OF WAY                     |



PCD FILNE NO.: SF2214

FOR CONSTRUCTION

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APPROVED: KMH JOB NUMBER: 200541  
CAD DATE: 1/24/2023  
CAD FILE: J:\2020\200541\CAD\Drawings\C\CDIEI\_Paso\_Co\GEC\GEC\_Interim

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GOODWIN KNIGHT  
EL PASO COUNTY, COLORADO



EL PASO COUNTY CONSTRUCTION DOCUMENTS  
GEC- INTERIM PLAN

SHEET  
EC  
4





GRADING & EROSION CONTROL PLAN NOTES:

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PROJECT INFO:

TOTAL DISTURBANCE AREA = 11.33 AC

RECEIVING WATERS: JIMMY CAMP CREEK

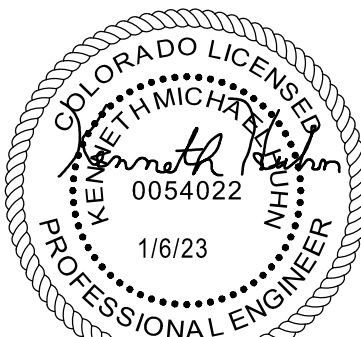
ANTICIPATED START OF CONSTRUCTION: SPRING 2023

ANTICIPATED END OF LAND DISTURBANCE: WINTER 2023

ANTICIPATED FINAL STABILIZATION: SPRING 2024

GEC LEGEND:

- CWA CONCRETE WASHOUT AREA
- CF CONSTRUCTION FENCE
- DD DIVERSION DITCH
- IP INLET PROTECTION
- CIP CULVERT INLET PROTECTION
- SCL SEDIMENT CONTROL LOG
- SF SILT FENCE
- SSA STABILIZED STAGING AREA
- SP STOCKPILE MANAGEMENT
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- LOD LIMITS OF CONSTRUCTION/DISTURBANCE
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- TW/BW ELEVATION OF TOP/BOTTOM OF WALL
- PROP FLOW DIRECTION
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- EX PROPERTY LINE
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PCD FILNE NO.: SF2214 FOR CONSTRUCTION

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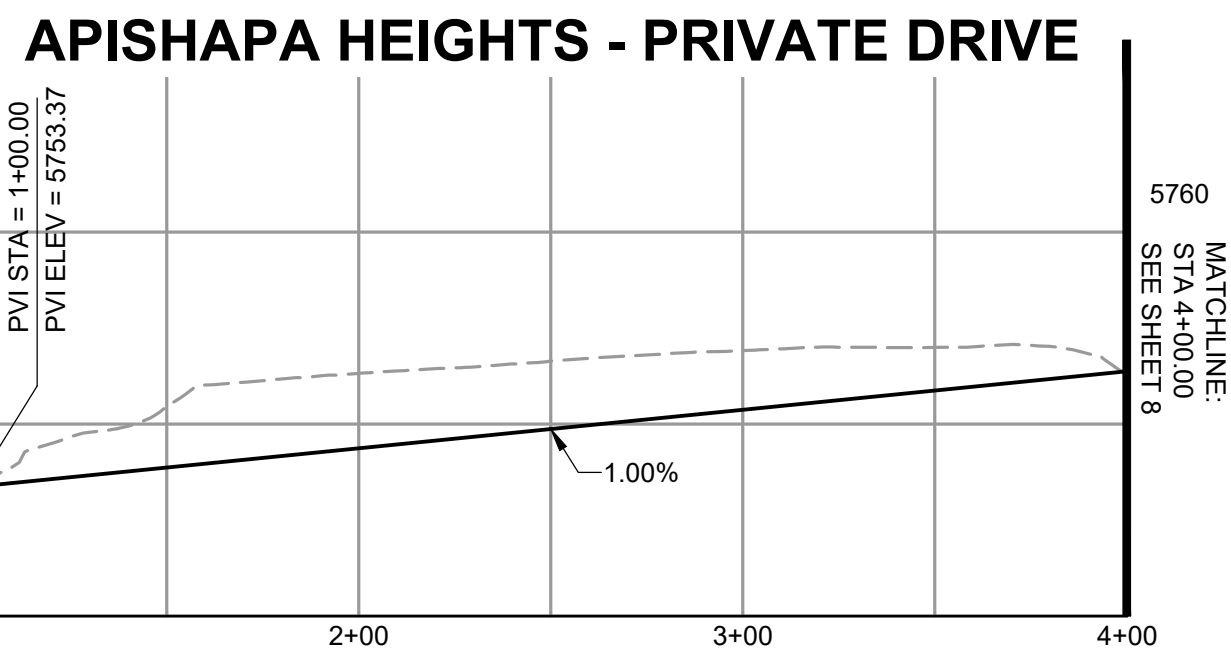
EL PASO COUNTY CONSTRUCTION DOCUMENTS

GEC- VERTICAL PLAN

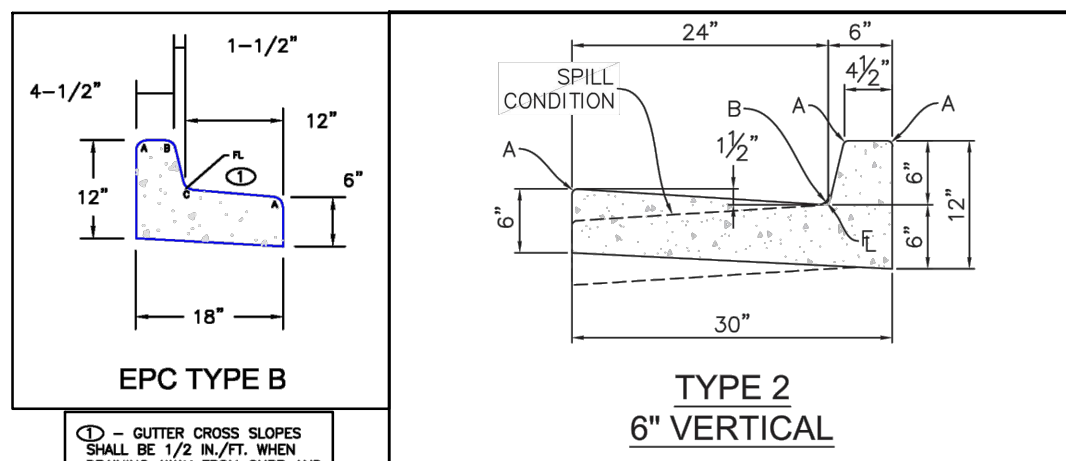
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5



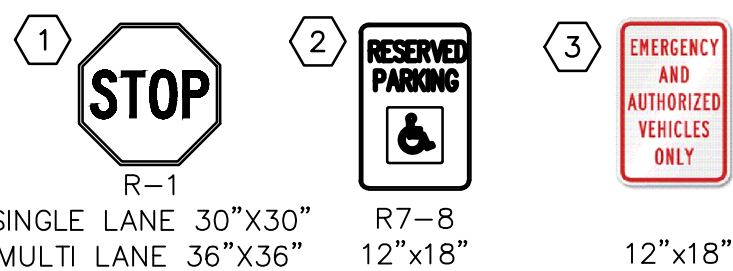


POINT TABLE					
No.	DESC.	ALIGNMENT	STATION	OFFSET	FL EL.
65	PI	SEGUNDO GROVE	STA 2+04.01	29.0' R	5755.02
66	PI	SEGUNDO GROVE	STA 2+44.56	29.0' R	5755.41
67	PC	SEGUNDO GROVE	STA 2+44.56	15.0' R	5755.20
68	PI	SEGUNDO GROVE	STA 2+08.11	32.0' L	5754.58
69	PT	SEGUNDO GROVE	STA 2+47.17	12.0' R	5755.10
70	PC	SEGUNDO GROVE	STA 3+03.57	12.0' R	5755.67
71	PT	SEGUNDO GROVE	STA 3+08.51	17.0' R	5755.85
72	PI	SEGUNDO GROVE	STA 3+58.87	32.0' L	5756.05
73	PI	SEGUNDO GROVE	STA 3+08.51	30.0' R	5756.09
74	PI	SEGUNDO GROVE	STA 3+62.04	30.0' R	5756.60
75	PC	SEGUNDO GROVE	STA 3+62.04	15.0' R	5756.38
76	PT	SEGUNDO GROVE	STA 3+65.01	12.0' R	5756.28
77	PC	SEGUNDO GROVE	STA 3+58.87	17.0' L	5755.77
78	PT	SEGUNDO GROVE	STA 3+61.91	14.0' L	5755.69
79	PC	SEGUNDO GROVE	STA 3+73.97	14.0' L	5755.81
80	PC	SEGUNDO GROVE	STA 3+73.06	12.0' R	5756.36
81	PT	SEGUNDO GROVE	STA 3+76.02	15.0' R	5756.49
82	PT	SEGUNDO GROVE	STA 3+77.00	17.0' L	5755.98
83	PI	SEGUNDO GROVE	STA 3+77.00	32.0' L	5756.26
84	PI	SEGUNDO GROVE	STA 3+75.97	30.0' R	5756.75
85	PI	SEGUNDO GROVE	STA 4+19.28	30.0' R	5756.87
86	PC	SEGUNDO GROVE	STA 4+19.28	15.0' R	5756.95
87	PT	SEGUNDO GROVE	STA 4+22.25	12.0' R	5756.86
88	PC	SEGUNDO GROVE	STA 4+41.55	12.0' R	5757.05
89	HC RAMP MP	SEGUNDO GROVE	STA 2+28.22	32.0' L	5754.75
90	HC RAMP MP	SEGUNDO GROVE	STA 1+52.86	14.0' L	5753.57
91	HC RAMP MP	SEGUNDO GROVE	STA 1+52.86	12.0' R	5754.01
92	HC RAMP MP	SEGUNDO GROVE	STA 3+69.03	12.0' R	5756.32
93	HC RAMP MP	SEGUNDO GROVE	STA 3+69.10	14.0' L	5755.79
187	BEGIN TYPE B C&G (SPILL)	SEGUNDO GROVE	STA 1+47.35	12.0' R	5753.88
188	END T2 C&G (CATCH) & BEGIN FL TRANS	SEGUNDO GROVE	STA 1+19.13	13.0' R	5753.21
189	BEGIN SUPERELEVATED SECTION/END FL TRANS	SEGUNDO GROVE	STA 1+75.00	12.0' R	5754.40
190	BEGIN TYPE B C&G (END CATCH CURB)	SEGUNDO GROVE	STA 1+34.26	12.0' R	5753.52
197	LOW PT	APISHAPA HEIGHTS	STA 3+07.74	14.9' L	5761.34
202	LOW PT	SEGUNDO GROVE	STA 3+59.76	14.9' L	5755.68
206	LOW PT	SEGUNDO GROVE	STA 1+15.42	20.4' L	5753.15

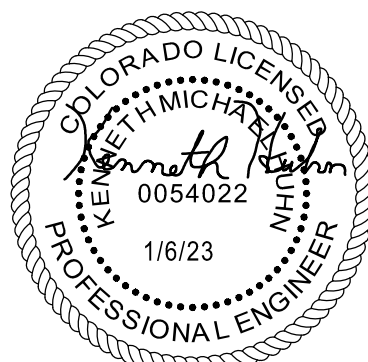


1. ALL TYPE B C&G IS IN SPILL CONDITION UNLESS OTHERWISE NOTED.

SIGN LOCATION AS NOTED ON PLAN



Curve Table				
Curve #	Length	Radius	Delta	Centerline/Flowline
C1	37.00	28.00	75°42'56"	Flowline
C2	39.17	28.00	80°08'56"	Flowline
C3	4.71	3.00	90°0'00"	Flowline
C4	4.91	3.00	93°40'48"	Flowline
C5	4.72	3.00	90°08'58"	Flowline
C6	4.72	3.00	90°08'58"	Flowline
C7	4.65	3.00	88°51'25"	Flowline
C8	4.65	3.00	88°45'05"	Flowline
C9	4.71	3.00	89°52'44"	Flowline
C10	4.65	3.00	88°45'05"	Flowline
C27	4.82	3.00	92°04'17"	Flowline
C28	4.63	3.00	88°30'19"	Flowline
C29	4.63	3.00	88°30'19"	Flowline
C30	7.84	5.00	89°47'18"	Flowline
C31	4.71	3.00	89°52'22"	Flowline
C32	4.72	3.00	90°07'49"	Flowline
C33	4.72	3.00	90°03'49"	Flowline
C34	4.72	3.00	90°07'49"	Flowline



PCD FILNE NO.: SF2214 FOR CONSTRUCTION

NO.	DATE	BY	REVISION DESCRIPTION

HR GREEN - COLORADO SPRINGS  
7222 COMMERCE CENTER DR SUITE 220  
COLORADO SPRINGS CO 80919  
PHONE: 719.300.4140 TOLL FREE: 800.728.7805  
FAX: 844.273.1057 | [HRGreen.com](http://HRGreen.com)



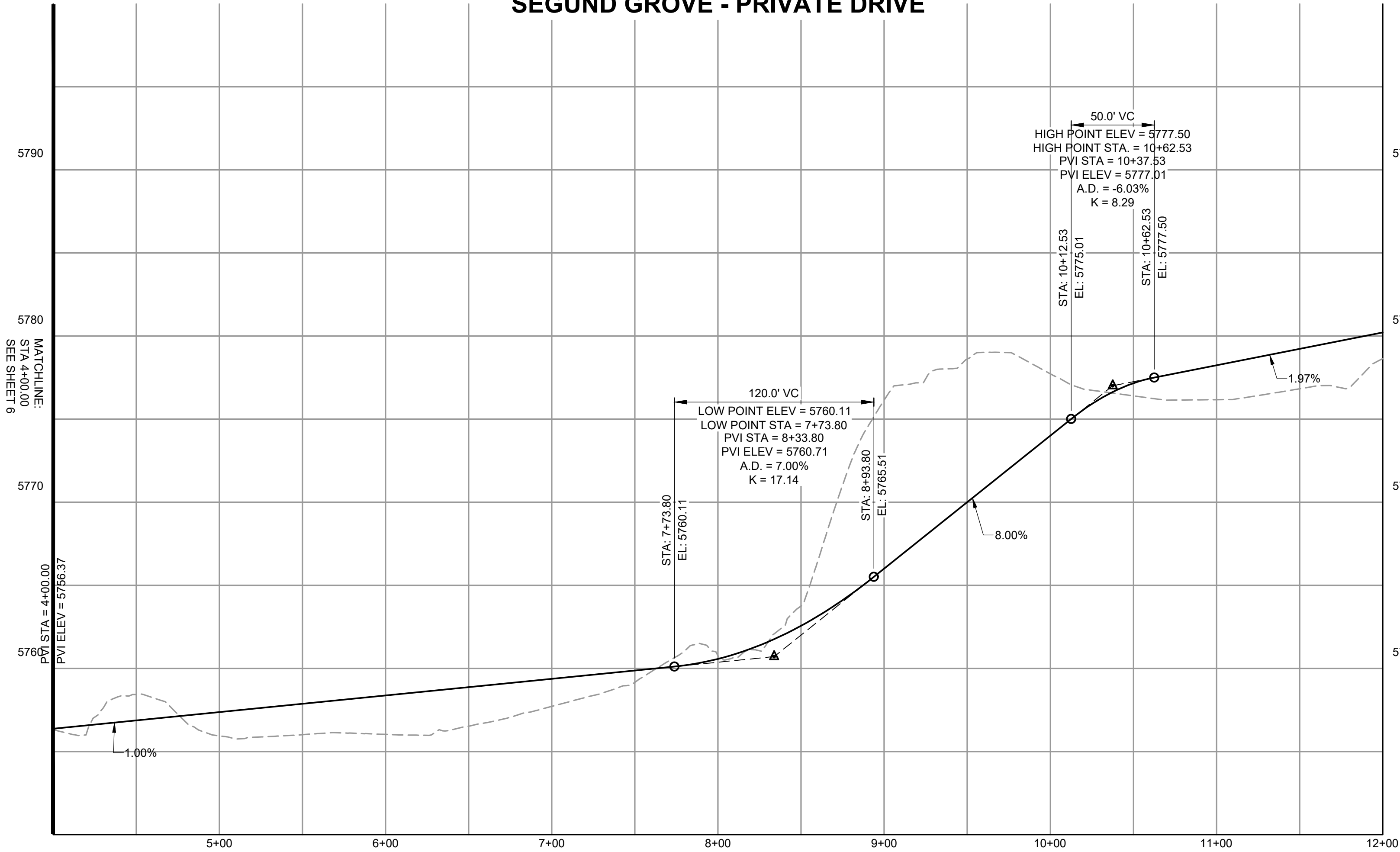
EL PASO COUNTY CONSTRUCTION DOCUMENTS  
ROADWAY PLAN & PROFILE

SHEET  
RD

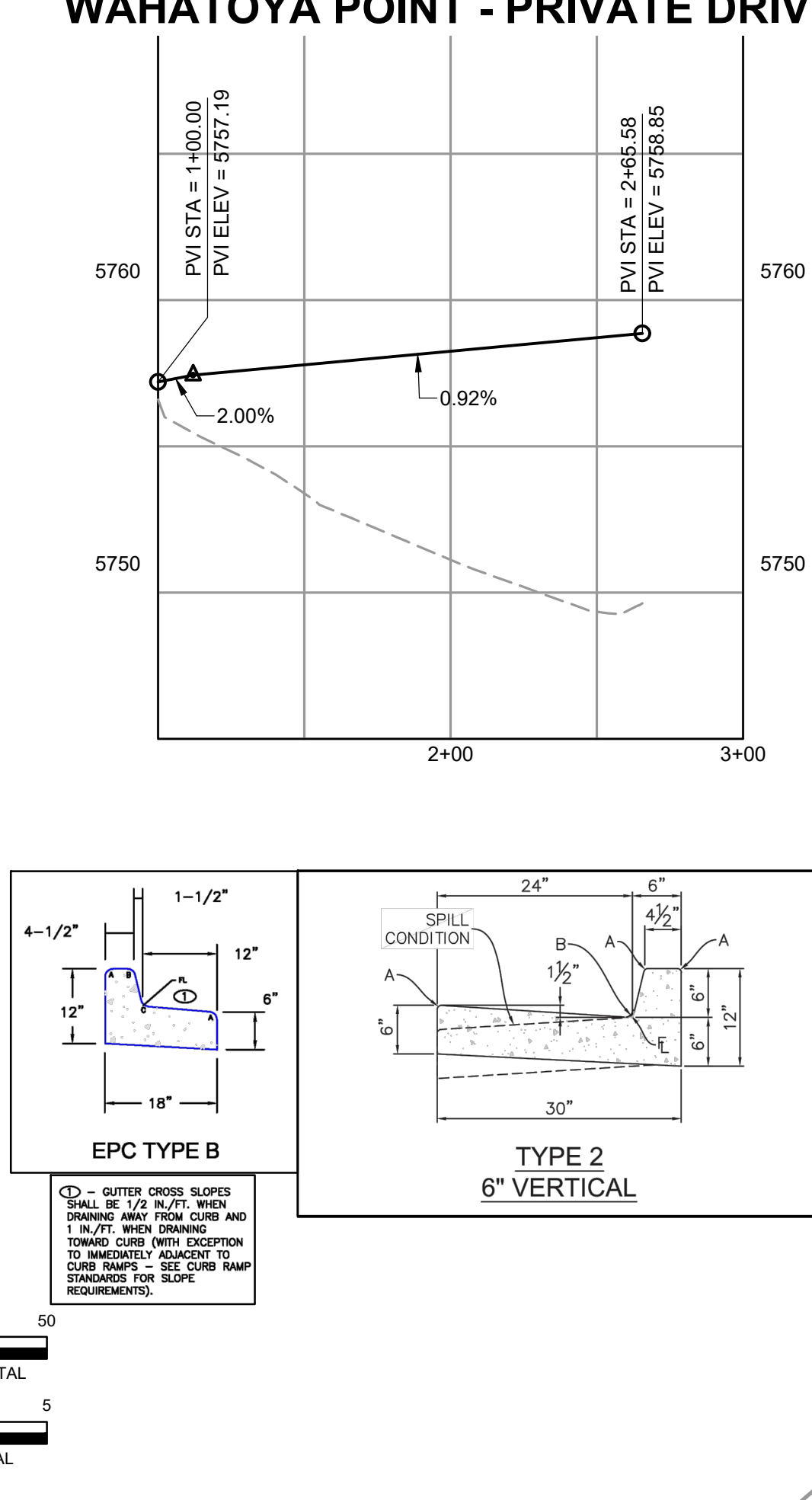
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SEGUNDO GROVE - PRIVATE DRIVE



WAHATOYA POINT - PRIVATE DRIVE



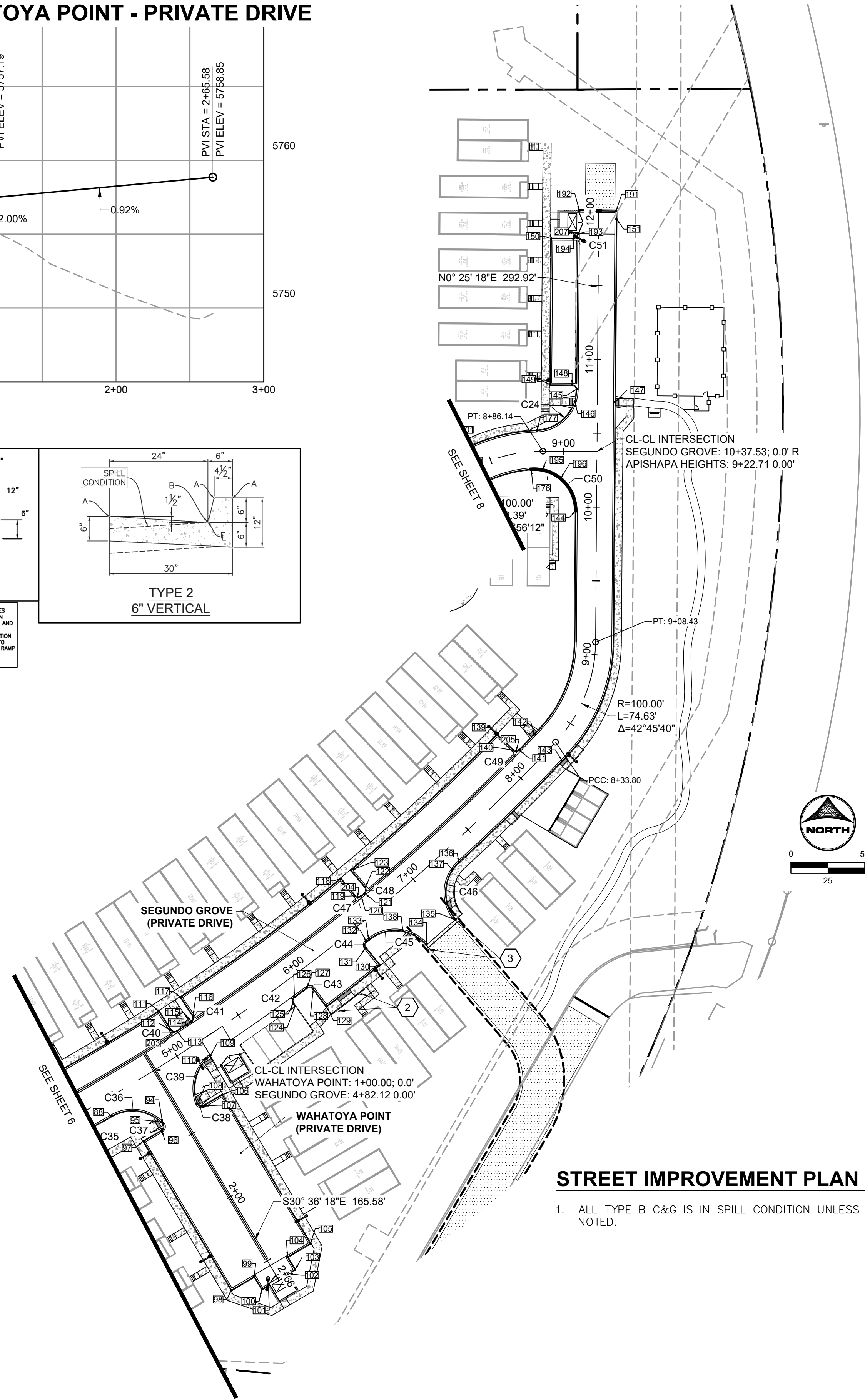
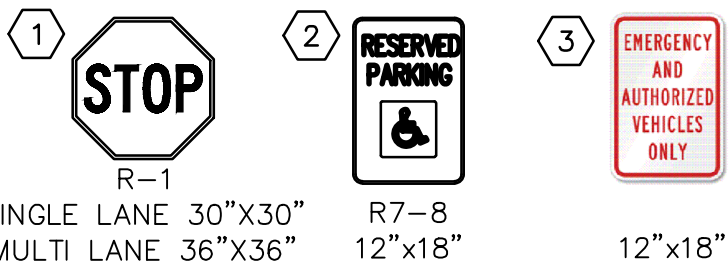
POINT TABLE					
No.	DESC.	ALIGNMENT	STATION	OFFSET	FL EL.
88	PC	SEGUNDO GROVE	STA 4+41.55	12.0' R	5757.05
94	PCC	SEGUNDO GROVE	STA 4+68.15	33.9' R	5757.93
95	HC RAMP MP	SEGUNDO GROVE	STA 4+67.77	32.3' R	5757.90
96	PT	SEGUNDO GROVE	STA 4+65.26	37.6' R	5758.10
97	PI	SEGUNDO GROVE	STA 4+51.25	37.5' R	5758.37
98	PI	WAHATOYA POINT	STA 2+54.80	31.0' R	5759.52
99	PI	WAHATOYA POINT	STA 2+54.80	13.0' R	5759.15
100	PI	WAHATOYA POINT	STA 2+64.80	13.0' R	5759.25
101	END TYPE B C&G	WAHATOYA POINT	STA 2+64.80	7.8' R	5759.15
102	BEGIN TYPE B C&G	WAHATOYA POINT	STA 2+64.80	7.8' L	5759.15
103	PI	WAHATOYA POINT	STA 2+64.80	13.0' L	5759.25
104	PI	WAHATOYA POINT	STA 2+54.80	13.0' L	5759.15
105	PI	WAHATOYA POINT	STA 2+54.80	31.0' L	5759.51
106	PI	SEGUNDO GROVE	STA 5+11.52	38.7' R	5758.36
107	PC	SEGUNDO GROVE	STA 4+97.23	38.2' R	5758.10
108	PCC	SEGUNDO GROVE	STA 4+94.45	34.7' R	5757.96
109	END TYPE B C&G	SEGUNDO GROVE	STA 5+19.07	12.1' R	5758.32
110	HC RAMP MP	SEGUNDO GROVE	STA 5+15.83	12.5' R	5757.79
111	PI	SEGUNDO GROVE	STA 5+06.10	32.0' L	5757.52
112	PC	SEGUNDO GROVE	STA 5+06.10	17.0' L	5757.24
113	PT	SEGUNDO GROVE	STA 5+09.13	14.0' L	5757.16
114	HC RAMP MP	SEGUNDO GROVE	STA 5+17.06	14.0' L	5757.24
115	PC	SEGUNDO GROVE	STA 5+21.08	14.0' L	5757.28
116	PT	SEGUNDO GROVE	STA 5+24.12	17.0' L	5757.44
117	PI	SEGUNDO GROVE	STA 5+24.12	32.0' L	5757.72
118	PI	SEGUNDO GROVE	STA 6+62.37	32.0' L	5759.09
119	PC	SEGUNDO GROVE	STA 6+62.37	17.0' L	5758.81
120	PT	SEGUNDO GROVE	STA 6+65.41	14.0' L	5758.72
121	PC	SEGUNDO GROVE	STA 6+68.55	14.0' L	5758.75
122	PT	SEGUNDO GROVE	STA 6+71.59	17.0' L	5758.92
123	PI	SEGUNDO GROVE	STA 6+71.59	32.0' L	5759.20
124	BEGIN TYPE B C&G	SEGUNDO GROVE	STA 5+84.69	17.2' R	5758.56
125	PC	SEGUNDO GROVE	STA 5+84.73	14.9' R	5758.55
126	PT	SEGUNDO GROVE	STA 5+87.70	12.0' R	5758.51
127	PC	SEGUNDO GROVE	STA 5+98.26	12.0' R	5758.62

POINT TABLE					
No.	DESC.	ALIGNMENT	STATION	OFFSET	FL EL.
129	PI	SEGUNDO GROVE	STA 6+01.23	30.0' R	5758.99
130	PI	SEGUNDO GROVE	STA 6+45.82	30.0' R	5759.53
131	PC	SEGUNDO GROVE	STA 6+45.82	15.0' R	5759.25
132	PT	SEGUNDO GROVE	STA 6+48.79	12.0' R	5759.12
133	PCR	SEGUNDO GROVE	STA 6+51.00	12.0' R	5759.14
134	END TYPE B C&G	SEGUNDO GROVE	STA 6+78.19	39.6' R	5758.87
135	BEGIN TYPE B C&G	SEGUNDO GROVE	STA 7+03.45	39.3' R	5759.39
136	PCR	SEGUNDO GROVE	STA 7+30.63	12.0' R	5759.94
137	HC RAMP MP	SEGUNDO GROVE	STA 7+23.96	12.8' R	5759.85
138	HC RAMP MP	SEGUNDO GROVE	STA 6+72.17	22.3' R	5758.99
139	PI	SEGUNDO GROVE	STA 8+09.90	32.0' L	5760.92
140	PC	SEGUNDO GROVE	STA 8+09.90	17.0' L	5760.64
141	PT/ BEGIN CATCH CURB	SEGUNDO GROVE	STA 8+12.94	14.0' L	5760.65
142	HC RAMP MP	SEGUNDO GROVE	STA 8+27.83	14.0' L	5761.25
143	HC RAMP MP	SEGUNDO GROVE	STA 8+27.77	12.0' R	5761.84
144	PCR/ END CATCH CURB	SEGUNDO GROVE	STA 9+97.28	14.0' L	5773.47
145	PCR	SEGUNDO GROVE	STA 10+79.52	14.0' L	5777.51
146	HC RAMP MP	SEGUNDO GROVE	STA 10+71.05	15.3' L	5777.07
147	HC RAMP MP	SEGUNDO GROVE	STA 10+71.05	12.0' R	5777.94
148	PT	SEGUNDO GROVE	STA 10+82.51	17.0' L	5777.75
149	PI	SEGUNDO GROVE	STA 10+82.51	32.0' L	5778.03
150	PI	SEGUNDO GROVE	STA 11+81.51	32.0' L	5779.97
151	END TYPE B C&G (END CATCH CURB)	SEGUNDO GROVE	STA 11+94.86	12.0' R	5780.40
176	PCR	APISHAPA HEIGHTS	STA 8+77.07	12.0' R	5775.00
191	BEGIN TYPE E C&G	SEGUNDO GROVE	STA 12+00.53	11.7' R	5780.49
192	END TYPE E C&G	SEGUNDO GROVE	STA 12+00.53	13.0' L	5780.01
193	PT/END TYPE B C&G	SEGUNDO GROVE	STA 11+84.86	14.0' L	5779.63
194	PC	SEGUNDO GROVE	STA 11+81.51	17.0' L	5779.69
195	HP/END TYPE B (SPILL)	APISHAPA HEIGHTS	STA 8+85.93	12.7' R	5775.47
196	CATCH V. SPILL HINGE POINT	APISHAPA HEIGHTS	STA 8+98.21	18.4' R	5775.13
203	LOW PT	SEGUNDO GROVE	STA 5+06.99	14.9' L	5757.15
204	LOW PT	SEGUNDO GROVE	STA 6+63.26	14.9' L	5758.71
205	LOW PT	SEGUNDO GROVE	STA 8+10.80	14.9' L	5760.63
207	LOW PT	SEGUNDO GROVE	STA 11+82.39	14.9' L	5779.61

Curve Table				
Curve #	Length	Radius	Delta	
C36	37.60	28.00	76°56'16"	
C37	5.37	3.00	102°38'48"	
C38	5.17	3.00	98°45'33"	
C39	36.19	28.00	74°03'36"	
C40	4.72	3.00	90°07'49"	
C41	4.72	3.00	90°07'49"	
C42	4.66	3.00	88°54'28"	
C43	4.71	3.00	89°52'22"	
C44	4.71	3.00	89°52'22"	
C45	43.27	28.00	88°32'23"	
C46	43.03	28.00	88°02'44"	
C47	4.72	3.00	90°07'49"	
C48	4.72	3.00	90°07'49"	
C49	4.72	3.00	90°07'49"	
C50	46.52	28.00	95°11'48"	
C51	5.06	3.03	95°45'36"	

LEGEND

SIGN LOCATION AS NOTED ON PLAN



STREET IMPROVEMENT PLAN NOTES:

- ALL TYPE B C&G IS IN SPILL CONDITION UNLESS OTHERWISE NOTED.

DRAWN BY: CBM JOB DATE: 1/6/2023  
APPROVED: KMH JOB NUMBER: 200541  
CAD DATE: 1/24/2023  
CAD FILE: J:\2020\200541\CAD\DWG\CD\CDIEI\_Paso\_Co\Roadway

BAR IS ONE INCH ON OFFICIAL DRAWINGS.  
IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

HR GREEN - COLORADO SPRINGS  
7222 COMMERCE CENTER DR SUITE 220  
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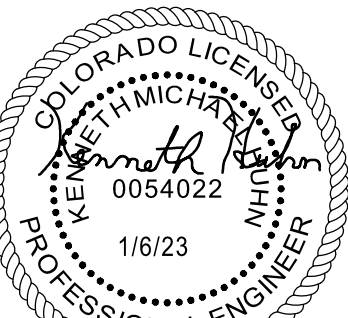
THE COTTAGES AT MESA RIDGE  
GOODWIN KNIGHT  
EL PASO COUNTY, COLORADO



EL PASO COUNTY CONSTRUCTION DOCUMENTS  
ROADWAY PLAN & PROFILE

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7

PCD FILNE NO.: SF2214 FOR CONSTRUCTION



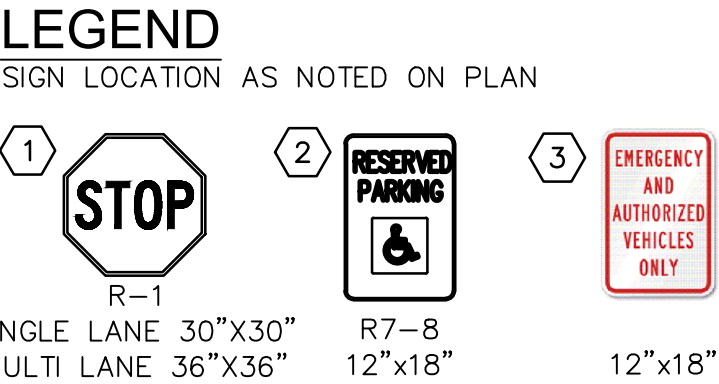
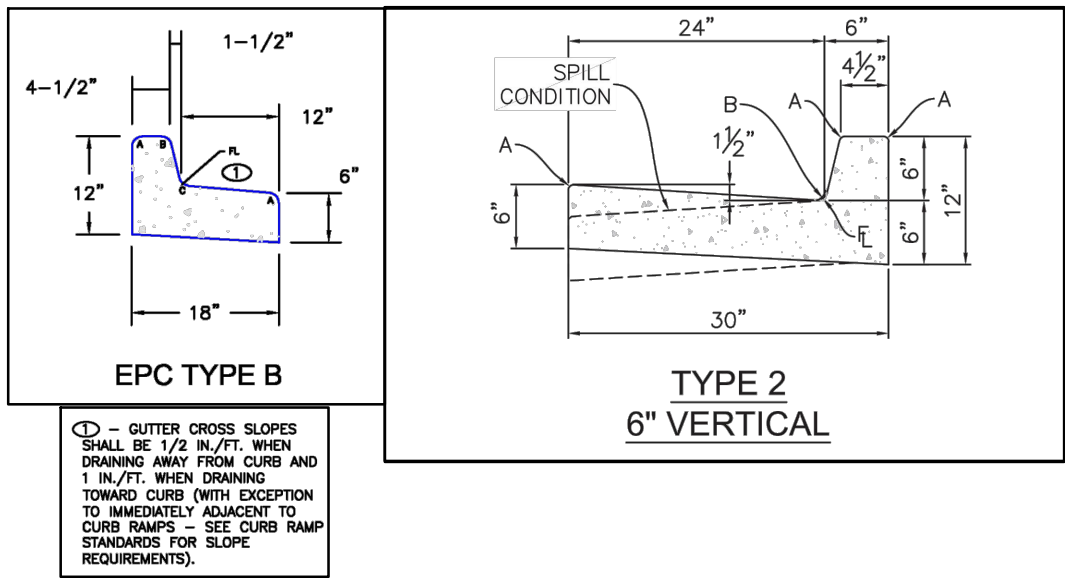
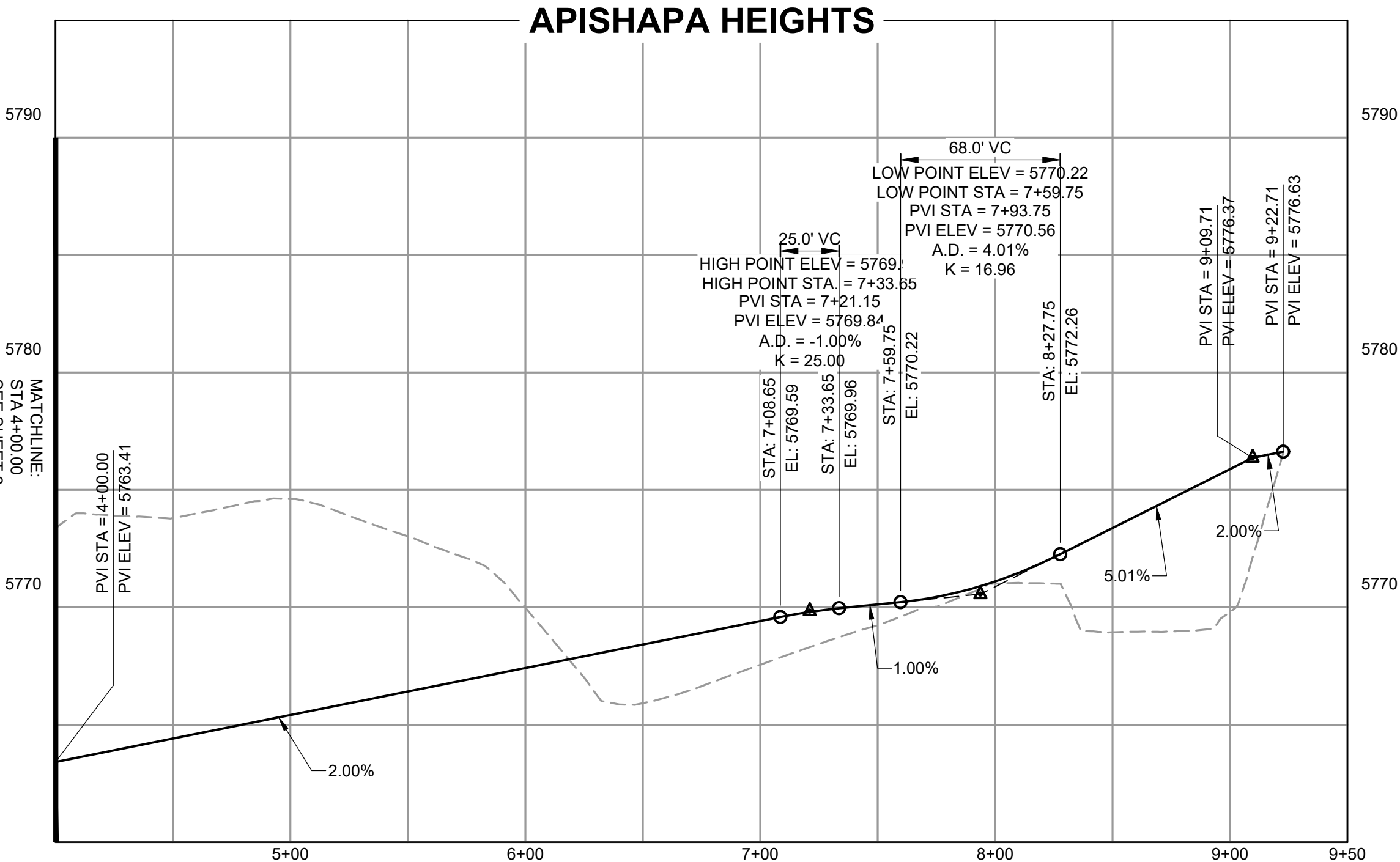


POINT TABLE					
No.	DESC.	ALIGNMENT	STATION	OFFSET	FL EL.
16	PI	APISHAPA HEIGHTS	STA 4+35.17	32.0' L	5764.19
17	PC	APISHAPA HEIGHTS	STA 4+35.22	17.0' L	5763.91
18	PT	APISHAPA HEIGHTS	STA 4+38.27	14.0' L	5763.93
36	BEGIN TYPE B C&G	APISHAPA HEIGHTS	STA 4+35.92	27.6' R	5764.62
37	PC	APISHAPA HEIGHTS	STA 4+36.32	14.9' R	5764.52
38	PT	APISHAPA HEIGHTS	STA 4+39.28	12.0' R	5764.43
39	HC RAMP MP	APISHAPA HEIGHTS	STA 4+41.83	12.0' R	5764.50
40	PC	APISHAPA HEIGHTS	STA 4+53.20	12.0' R	5764.72
41	PT	APISHAPA HEIGHTS	STA 4+56.16	15.0' R	5764.90
42	HC RAMP MP	APISHAPA HEIGHTS	STA 4+41.81	14.0' L	5764.00
43	PC	APISHAPA HEIGHTS	STA 4+51.48	14.0' L	5764.19
44	PT	APISHAPA HEIGHTS	STA 4+54.53	17.0' L	5764.34
45	PI	APISHAPA HEIGHTS	STA 4+54.53	32.0' L	5764.62
46	PI	APISHAPA HEIGHTS	STA 4+56.16	29.0' R	5765.11
47	PI	APISHAPA HEIGHTS	STA 5+63.15	29.0' R	5767.26
48	PC	APISHAPA HEIGHTS	STA 5+63.15	15.0' R	5767.08
49	PT	APISHAPA HEIGHTS	STA 5+66.11	12.0' R	5766.99
50	PC	APISHAPA HEIGHTS	STA 5+69.10	12.0' R	5767.05
51	PT	APISHAPA HEIGHTS	STA 5+72.07	15.0' R	5767.21
52	PI	APISHAPA HEIGHTS	STA 5+72.07	29.0' R	5767.47
53	PI	APISHAPA HEIGHTS	STA 5+84.08	32.0' L	5767.17
54	PC	APISHAPA HEIGHTS	STA 5+84.08	17.0' L	5766.89

POINT TABLE					
No.	DESC.	ALIGNMENT	STATION	OFFSET	FL EL.
55	PT	APISHAPA HEIGHTS	STA 5+87.12	14.0' L	5766.85
56	PC	APISHAPA HEIGHTS	STA 5+90.29	14.0' L	5766.91
57	PT	APISHAPA HEIGHTS	STA 5+93.33	17.0' L	5767.12
58	PI	APISHAPA HEIGHTS	STA 5+93.33	32.0' L	5767.40
150	PI	SEGUNDO GROVE	STA 11+81.51	32.0' L	5779.97
151	END TYPE B C&G (END CATCH CURB)	SEGUNDO GROVE	STA 11+94.86	12.0' R	5780.40
152	PI	APISHAPA HEIGHTS	STA 6+61.09	29.0' R	5769.21
153	PC	APISHAPA HEIGHTS	STA 6+61.09	15.0' R	5769.08
154	PT	APISHAPA HEIGHTS	STA 6+64.05	12.0' R	5768.95
155	PC	APISHAPA HEIGHTS	STA 6+73.94	12.0' R	5769.15
156	PT	APISHAPA HEIGHTS	STA 6+76.90	14.9' R	5769.70
157	END TYPE B C&G	APISHAPA HEIGHTS	STA 6+76.99	20.2' R	5770.13
158	PI	APISHAPA HEIGHTS	STA 7+32.41	32.0' L	5770.04
159	PC	APISHAPA HEIGHTS	STA 7+32.41	17.0' L	5769.76
160	PT	APISHAPA HEIGHTS	STA 7+35.49	14.0' L	5769.68
161	HC RAMP MP	APISHAPA HEIGHTS	STA 7+39.69	14.0' L	5769.72
162	PC	APISHAPA HEIGHTS	STA 7+50.07	14.0' L	5769.82
163	PT	APISHAPA HEIGHTS	STA 7+53.15	17.0' L	5769.99
164	PI	APISHAPA HEIGHTS	STA 7+53.15	32.0' L	5770.27
165	BEGIN TYPE B C&G	APISHAPA HEIGHTS	STA 7+32.37	27.8' R	5770.60
166	PC	APISHAPA HEIGHTS	STA 7+32.86	14.9' R	5770.34
167	PT	APISHAPA HEIGHTS	STA 7+35.79	12.0' R	5770.26

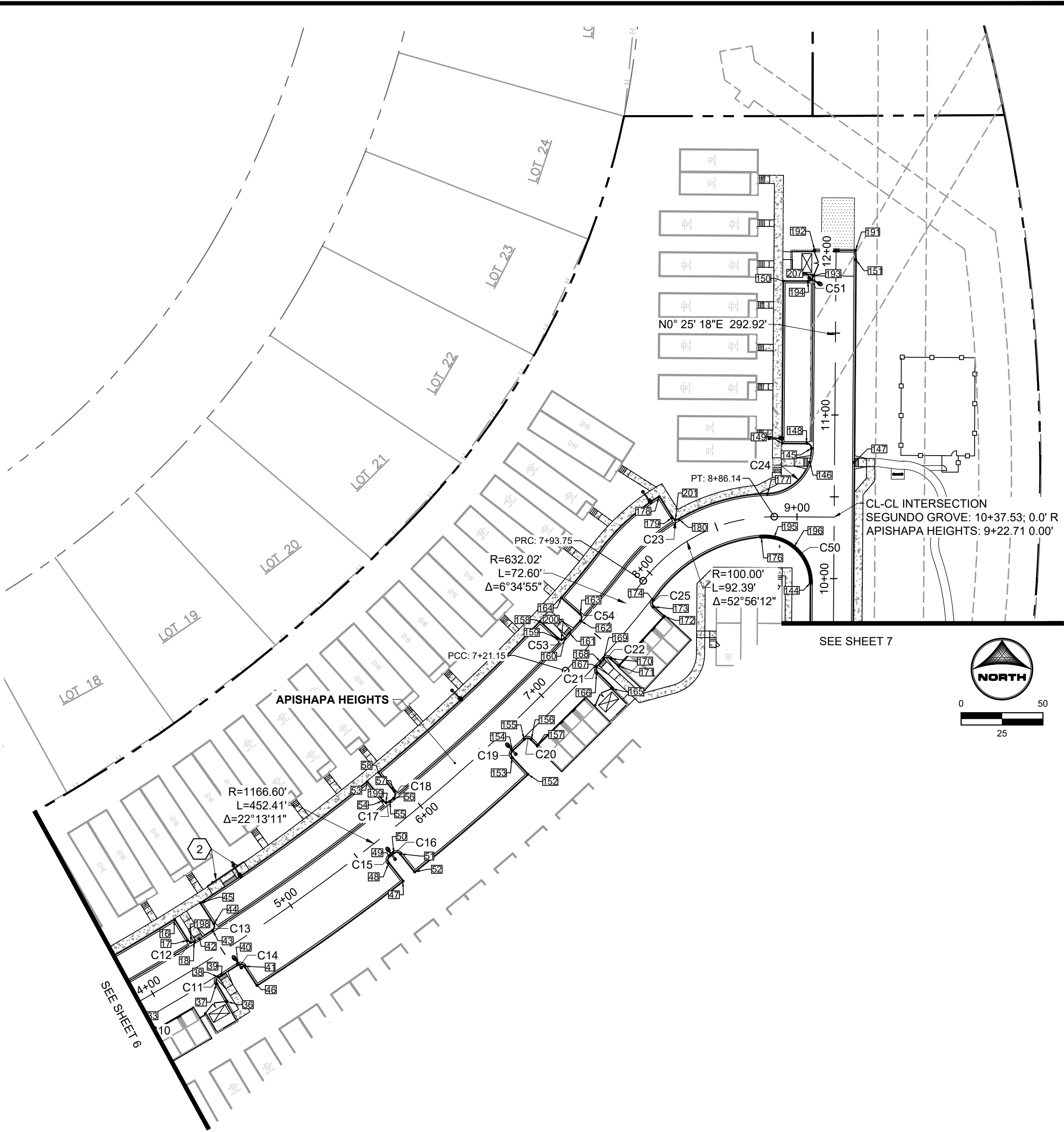
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169	PC	APISHAPA HEIGHTS	STA 7+42.10	12.0' R	5770.31
170	PT	APISHAPA HEIGHTS	STA 7+45.03	15.0' R	5770.69
171	END TYPE B C&G	APISHAPA HEIGHTS	STA 7+44.96	21.6' R	5771.06
172	BEGIN TYPE B C&G	APISHAPA HEIGHTS	STA 7+84.63	23.4' R	5771.08
173	PC	APISHAPA HEIGHTS	STA 7+85.27	14.8' R	5771.01
174	PT	APISHAPA HEIGHTS	STA 7+88.19	12.0' R	5771.01
176	PCR	APISHAPA HEIGHTS	STA 8+77.07	12.0' R	5775.00
177	PCR	APISHAPA HEIGHTS	STA 8+82.31	14.0' L	5774.76
178	PI	APISHAPA HEIGHTS	STA 8+29.95	32.0' L	5772.43
179	PC	APISHAPA HEIGHTS	STA 8+29.95	17.0' L	5772.15
180	PT	APISHAPA HEIGHTS	STA 8+32.51	14.0' L	5772.16
191	BEGIN TYPE E C&G	SEGUNDO GROVE	STA 12+00.53	11.7' R	5780.49
192	END TYPE E C&G	SEGUNDO GROVE	STA 12+00.53	13.0' L	5780.01
193	PT/END TYPE B C&G	SEGUNDO GROVE	STA 11+84.86	14.0' L	5779.63
194	PC	SEGUNDO GROVE	STA 11+81.51	17.0' L	5779.69
198	LOW PT	APISHAPA HEIGHTS	STA 4+36.12	14.9' L	5763.90
199	LOW PT	APISHAPA HEIGHTS	STA 5+84.97	14.9' L	5766.88
200	LOW PT	APISHAPA HEIGHTS	STA 7+33.31	14.9' L	5769.67
201	LOW PT	APISHAPA HEIGHTS	STA 8+30.69	14.9' L	5772.15
207	LOW PT	SEGUNDO GROVE	STA 11+82.39	14.9' L	5779.61

Curve Table				
Curve #	Length	Radius	Delta	
C11	4.61	3.00	87°59'29"	
C12	4.71	3.00	89°57'01"	
C13	4.72	3.00	90°08'58"	
C14	4.70	3.00	89°51'16"	
C15	4.70	3.00	89°51'16"	
C16	4.70	3.00	89°51'16"	
C17	4.72	3.00	90°08'58"	
C18	4.72	3.00	90°08'58"	
C19	4.70	3.00	89°51'16"	
C20	4.65	3.00	88°51'27"	
C21	4.58	3.00	87°29'50"	
C22	4.74	3.00	90°26'34"	
C23	4.64	3.00	88°31'51"	
C24	43.01	28.00	88°00'41"	
C25	4.47	3.00	85°22'45"	
C50	46.52	28.00	95°11'48"	
C53	4.73	3.00	90°16'46"	
C54	4.73	3.00	90°16'46"	



STREET IMPROVEMENT PLAN NOTES:

1. ALL TYPE B C & G IS IN SPILL CONDITION UNLESS OTHERWISE NOTED.



DRAWN BY: CBM	JOB DATE: 1/6/2023	BAR IS ONE INCH ON OFFICIAL DRAWINGS.
APPROVED: KMH	JOB NUMBER: 200541	0" = 1"
CAD DATE: 1/24/2023		IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.
CAD FILE: J:\2020\200541\CAD\DWG\CD\CDIE_Paso_Co\Roadway		

NO.	DATE	BY	REVISION DESCRIPTION

HR GREEN - COLORADO SPRINGS

7222 COMMERCE CENTER DR SUITE 220  
COLORADO SPRINGS CO 80919

PHONE: 719.300.4140 TOLL FREE: 800.728.7805  
FAX: 844.273.1057 | HRGreen.com

THE COTTAGES AT MESA RIDGE

GOODWIN KNIGHT

EL PASO COUNTY, COLORADO

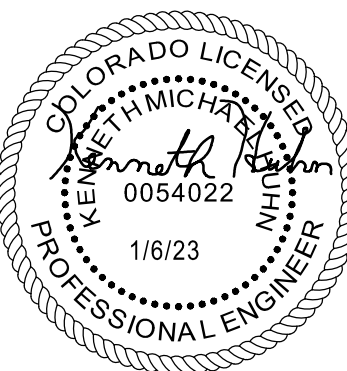
GOODWIN KNIGHT

EL PASO COUNTY CONSTRUCTION DOCUMENTS

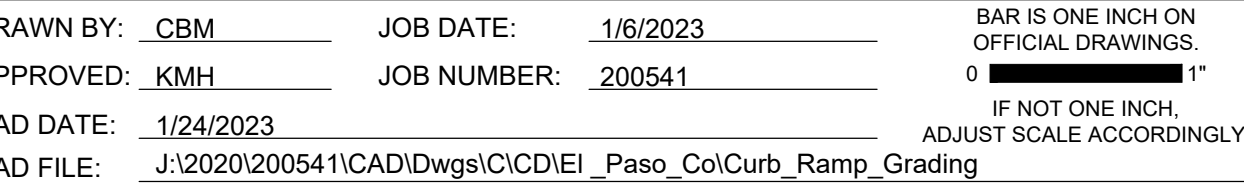
ROADWAY PLAN & PROFILE

SHEET RD 8

PCD FILNE NO.: SF2214 FOR CONSTRUCTION







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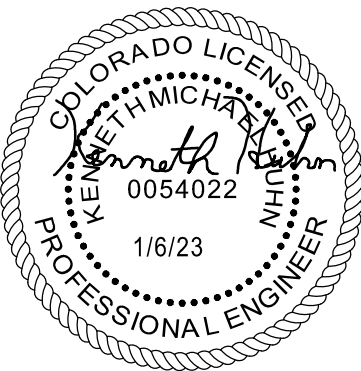
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7222 COMMERCE CENTER DR SUITE 220  
COLORADO SPRINGS CO 80919  
PHONE: 719.300.4140 TOLL FREE: 800.728.7805  
FAX: 844.273.1057 | [HRGreen.com](http://HRGreen.com)

THE COTTAGES AT MESA RIDGE  
GOODWIN KNIGHT  
EL PASO COUNTY, COLORADO



EL PASO COUNTY CONSTRUCTION DOCUMENTS  
CURB RAMP GRADING

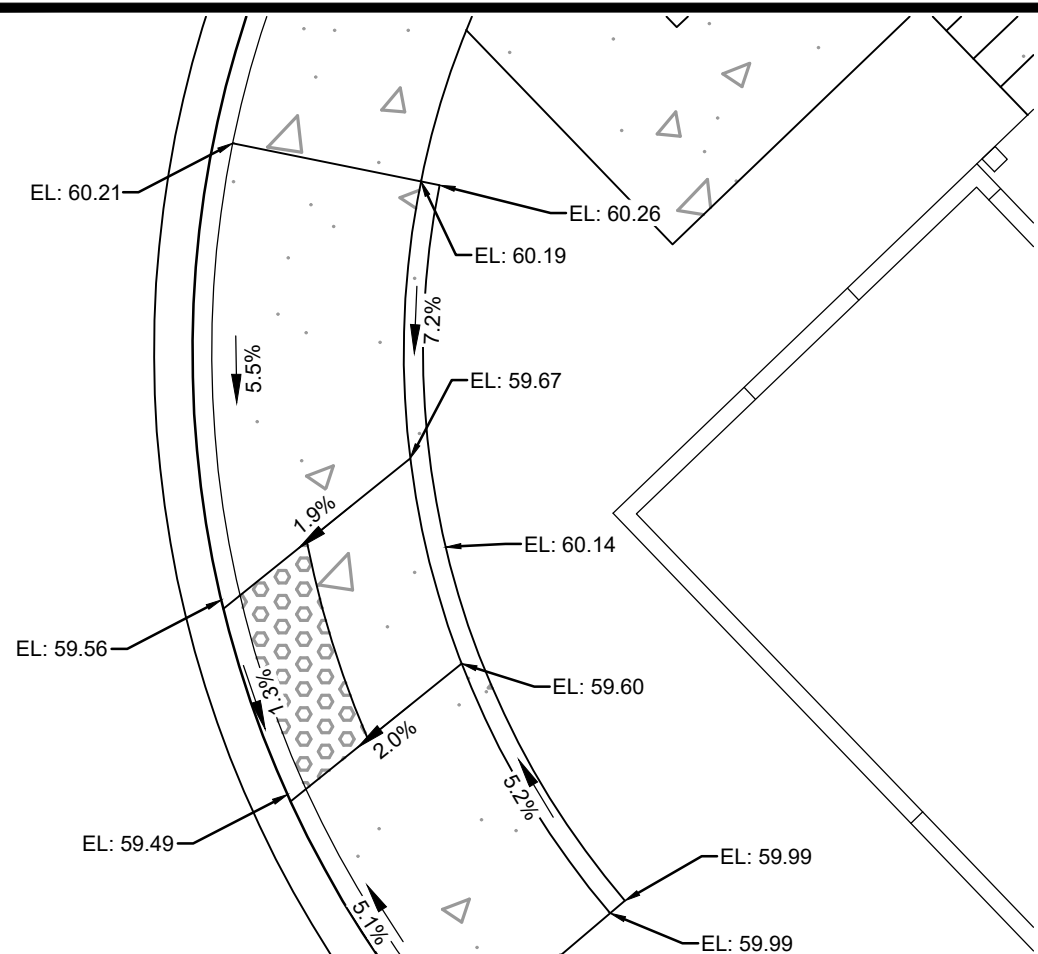
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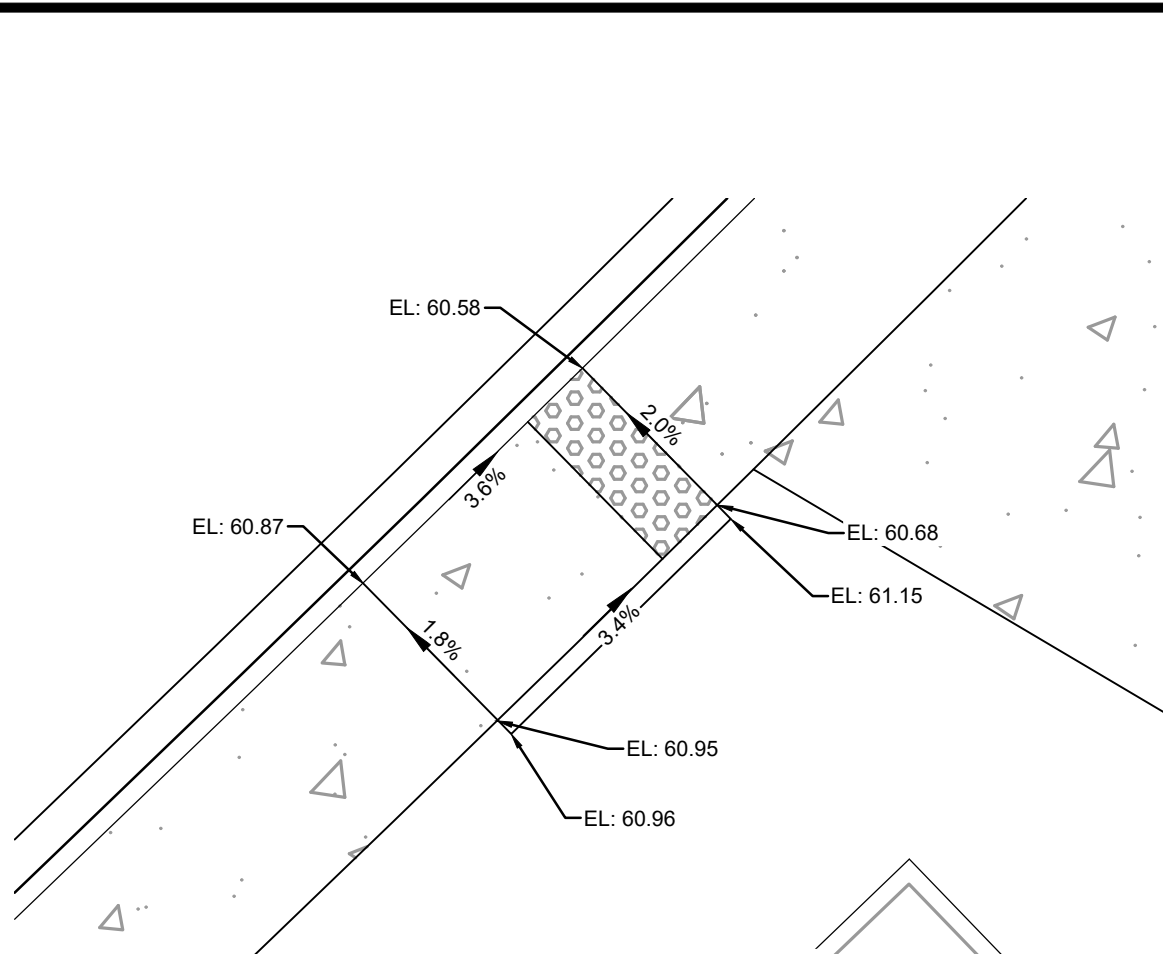
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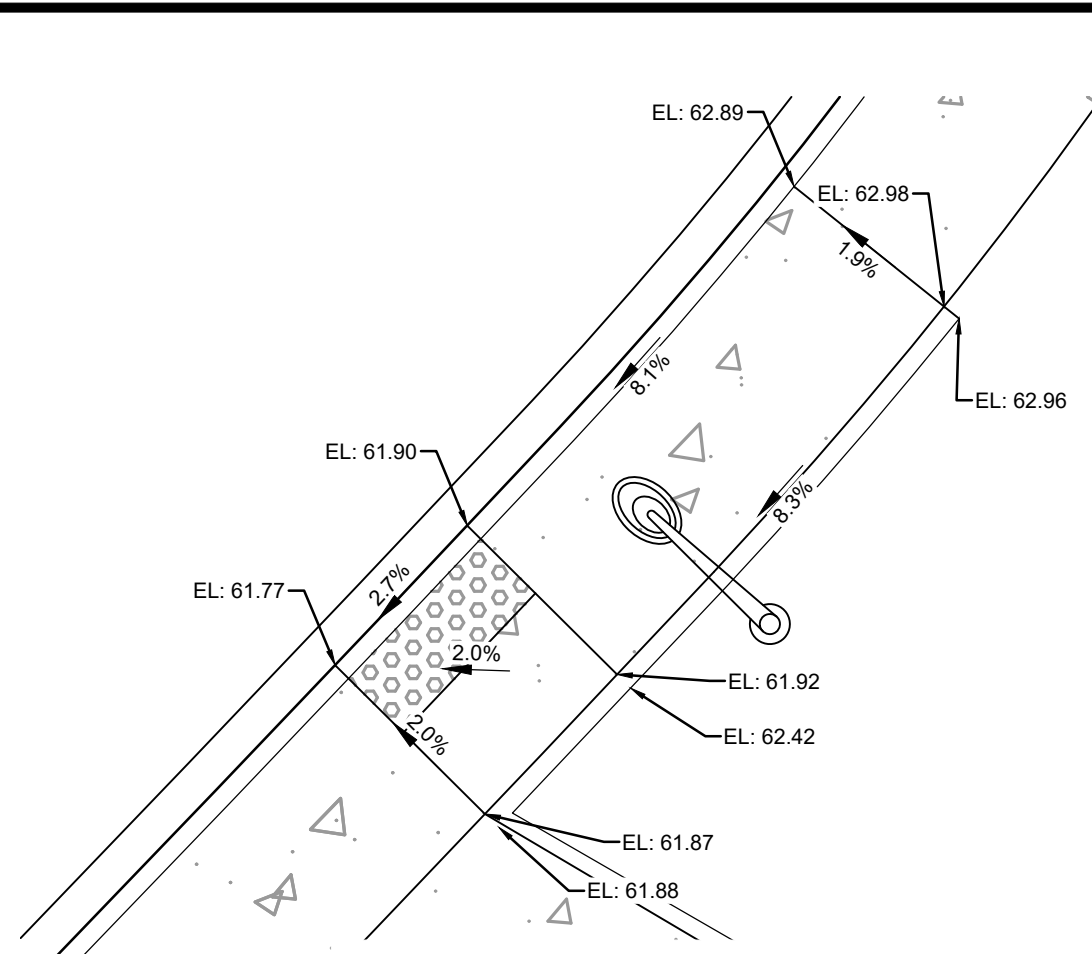




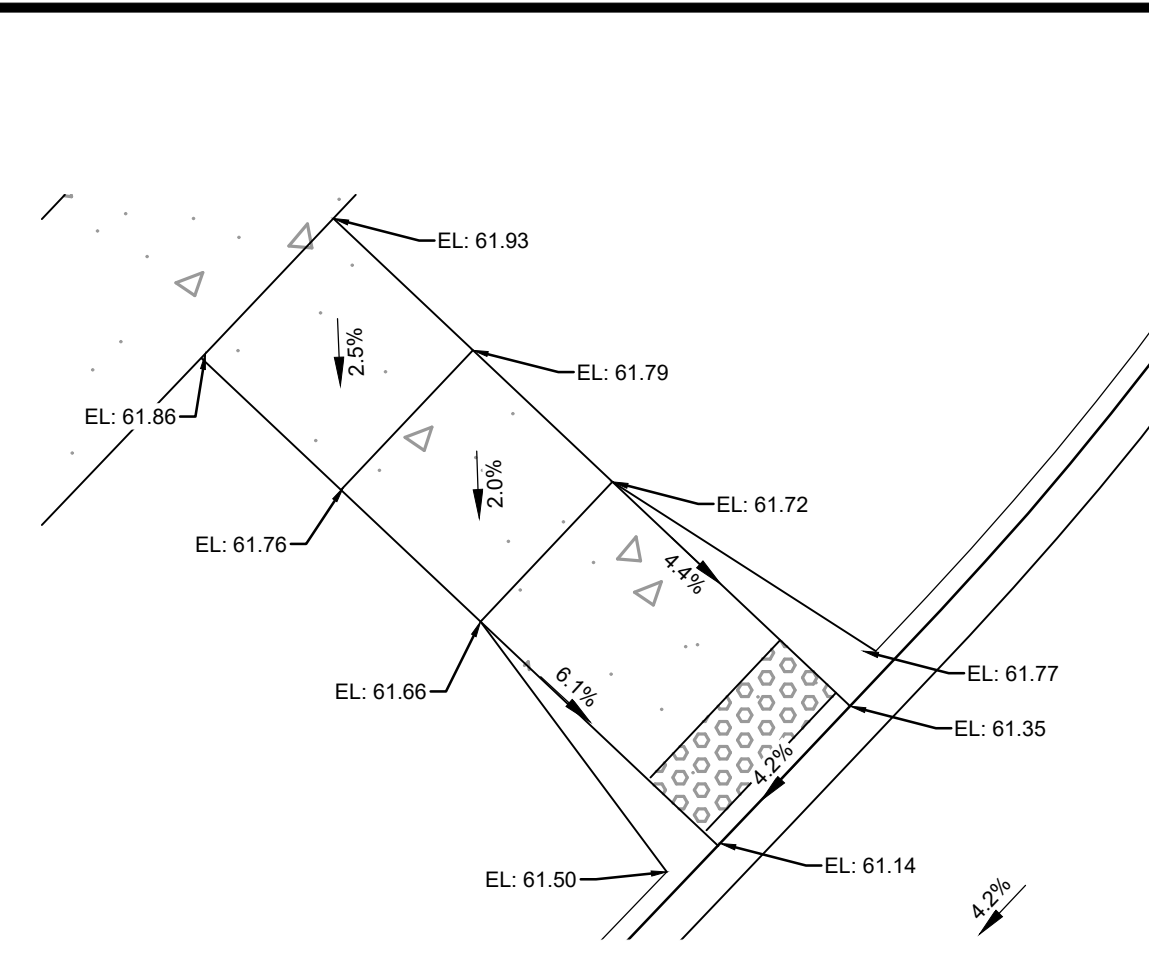
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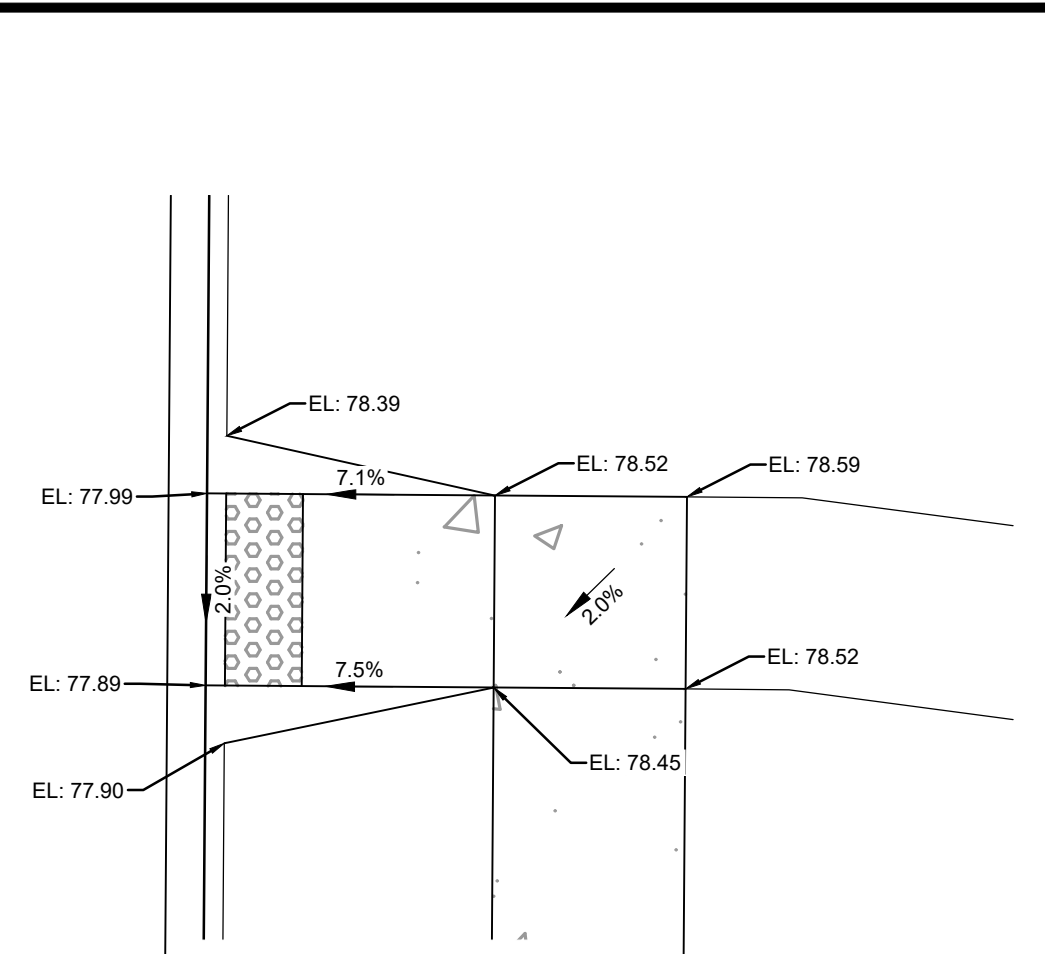
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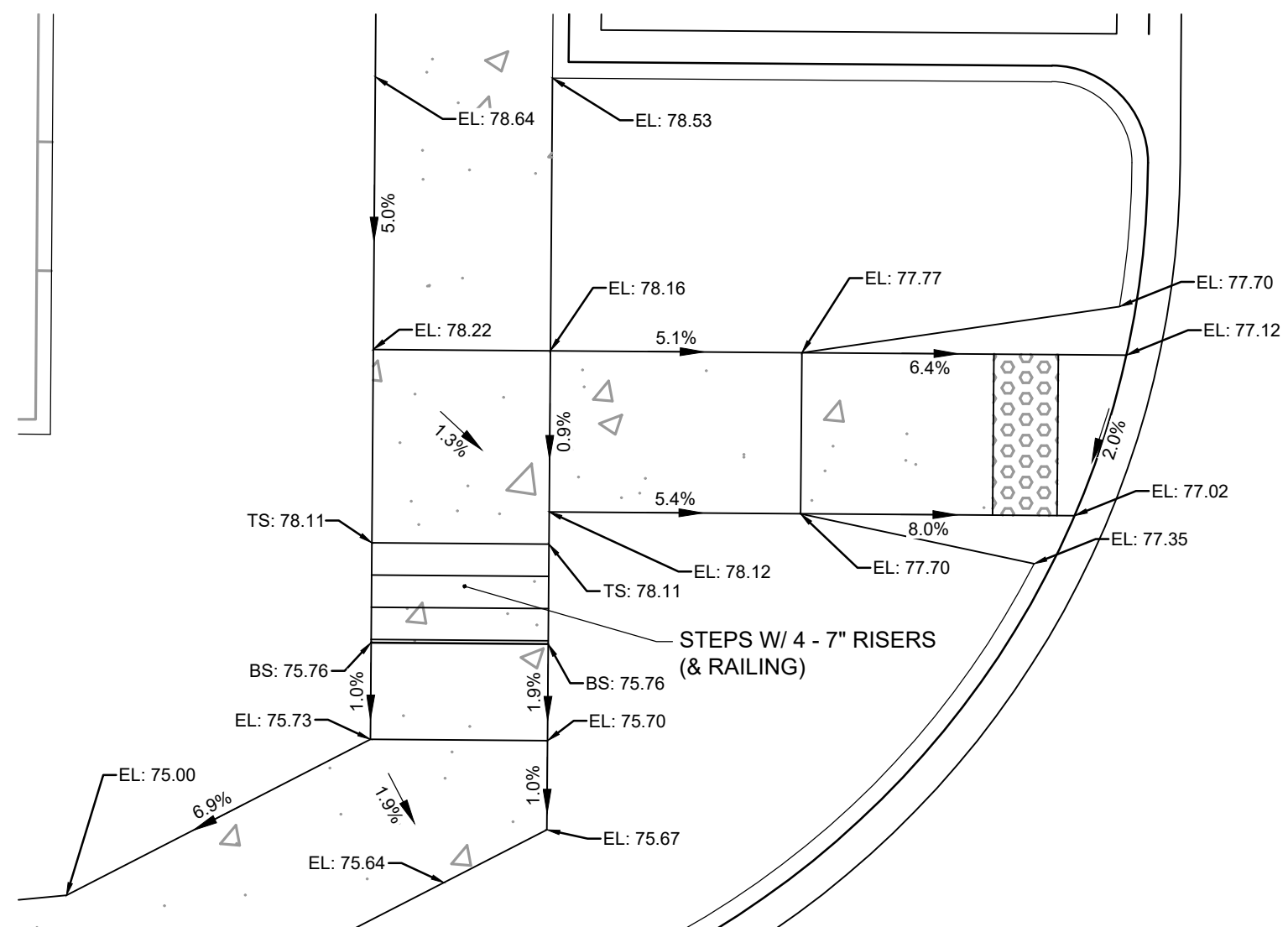
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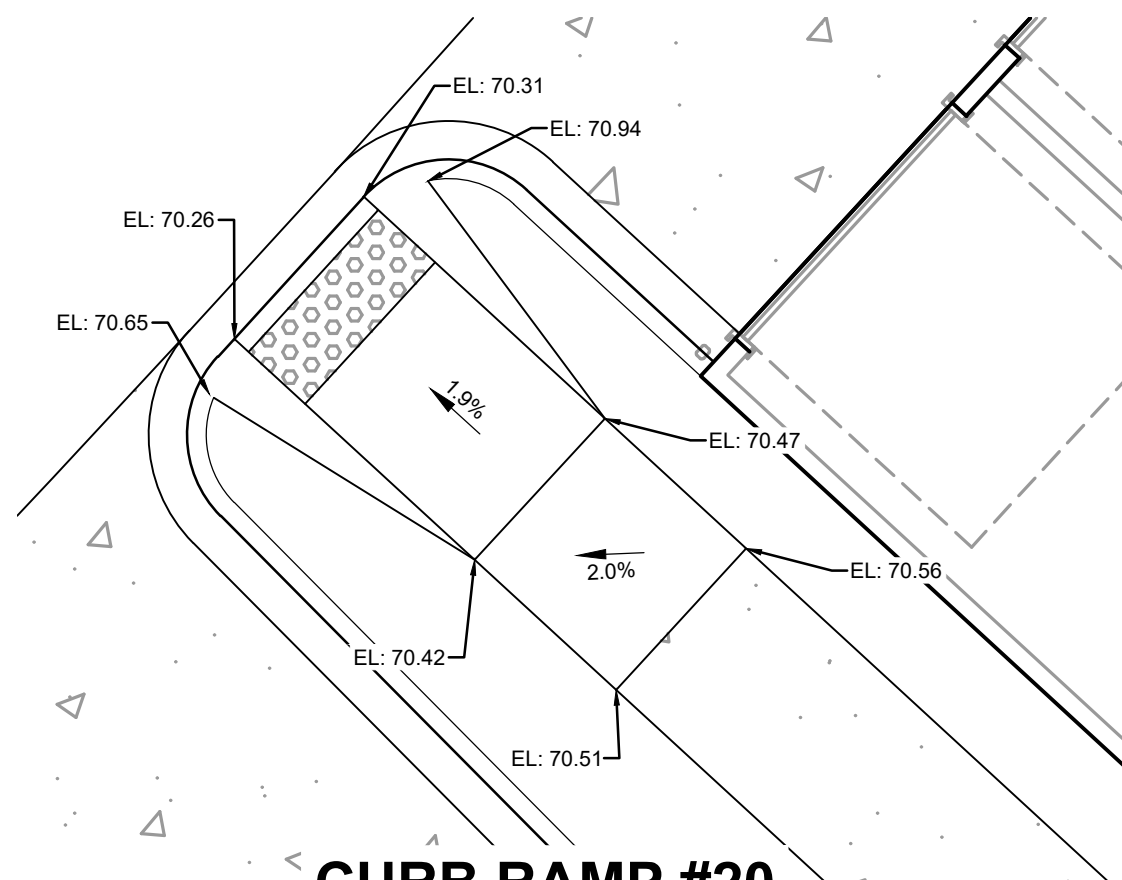
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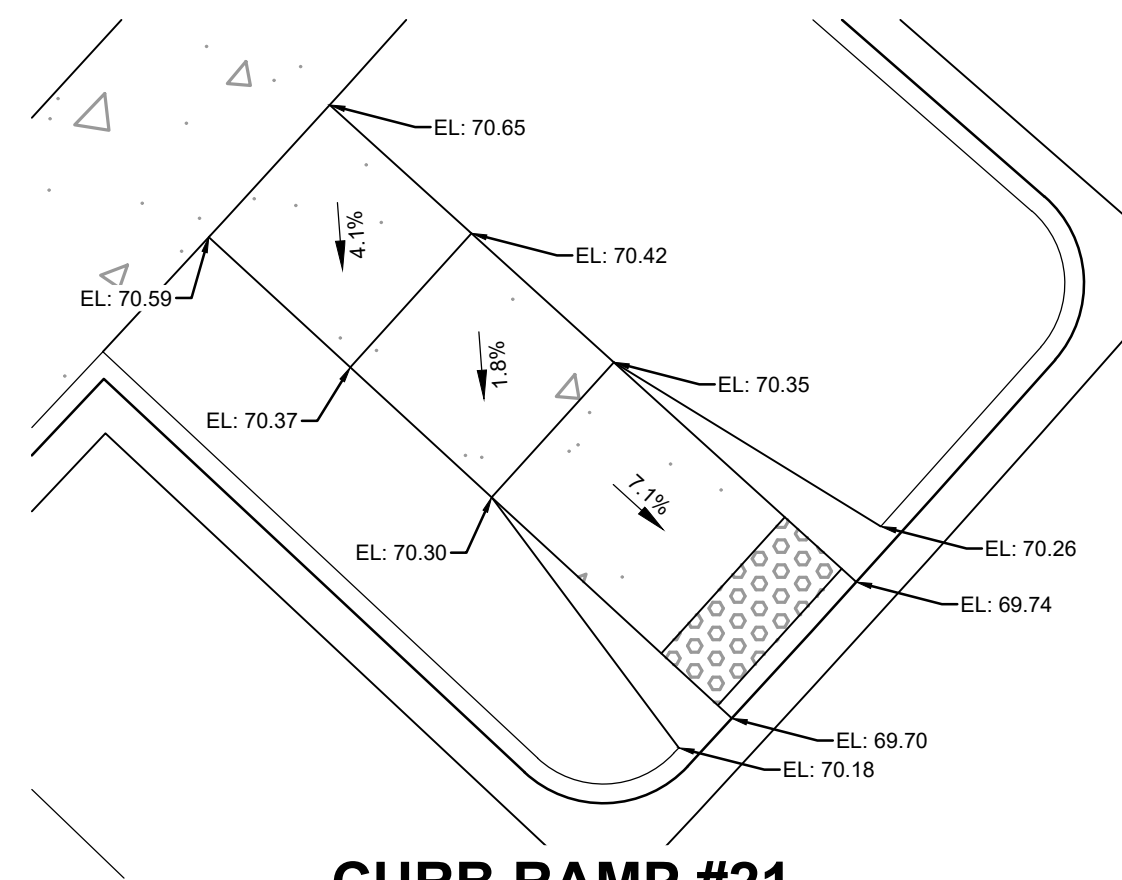
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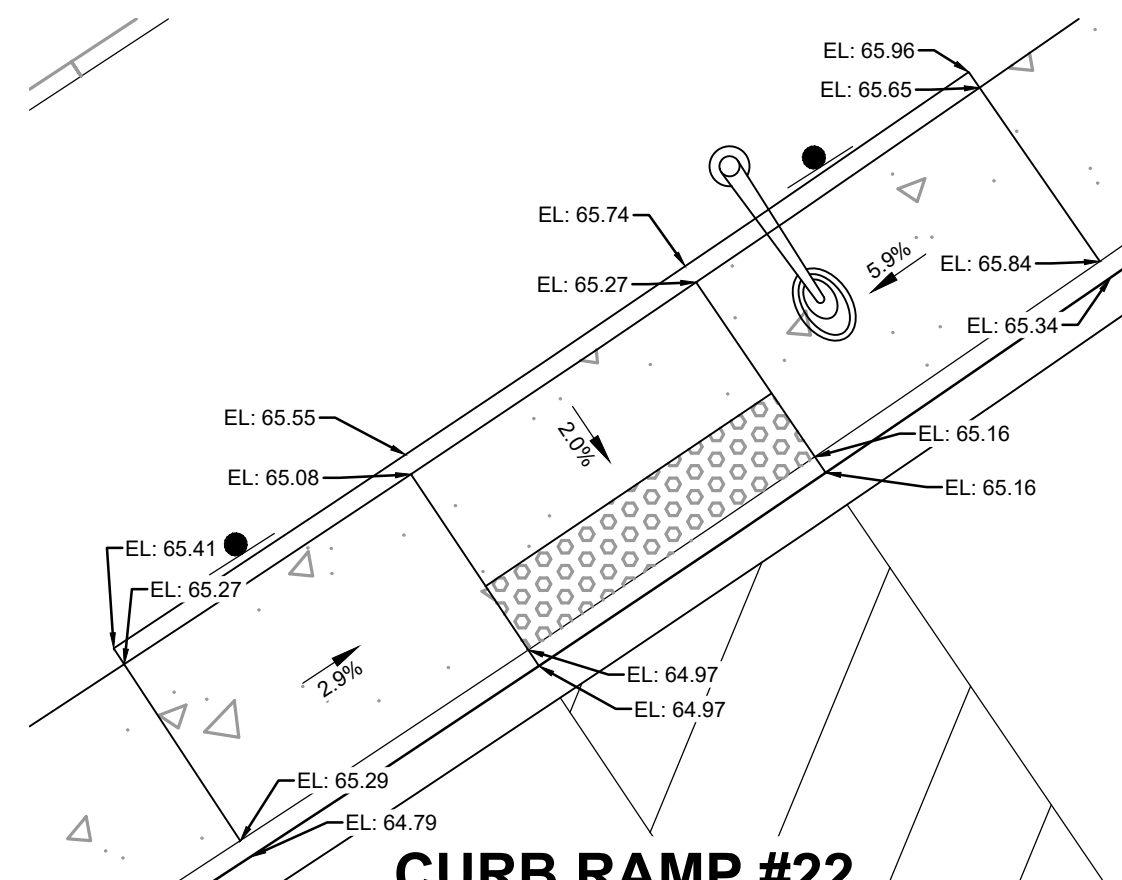
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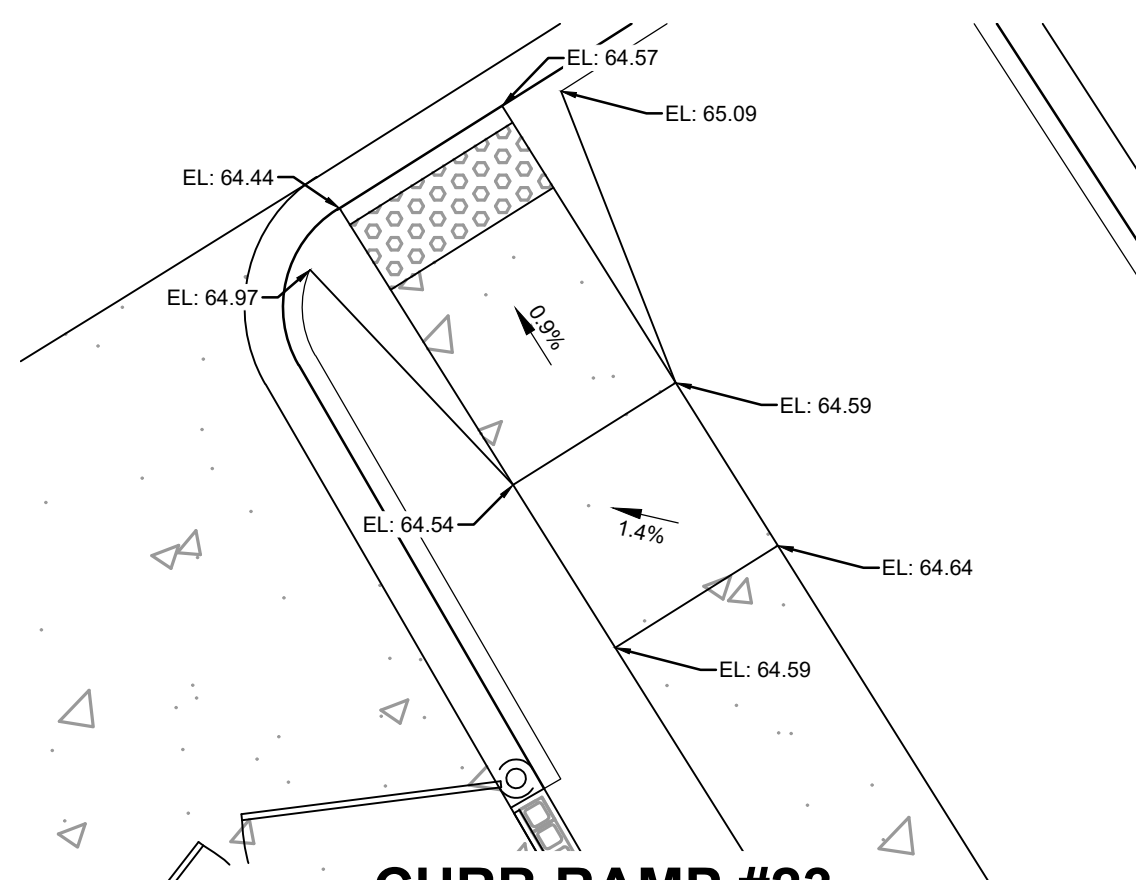
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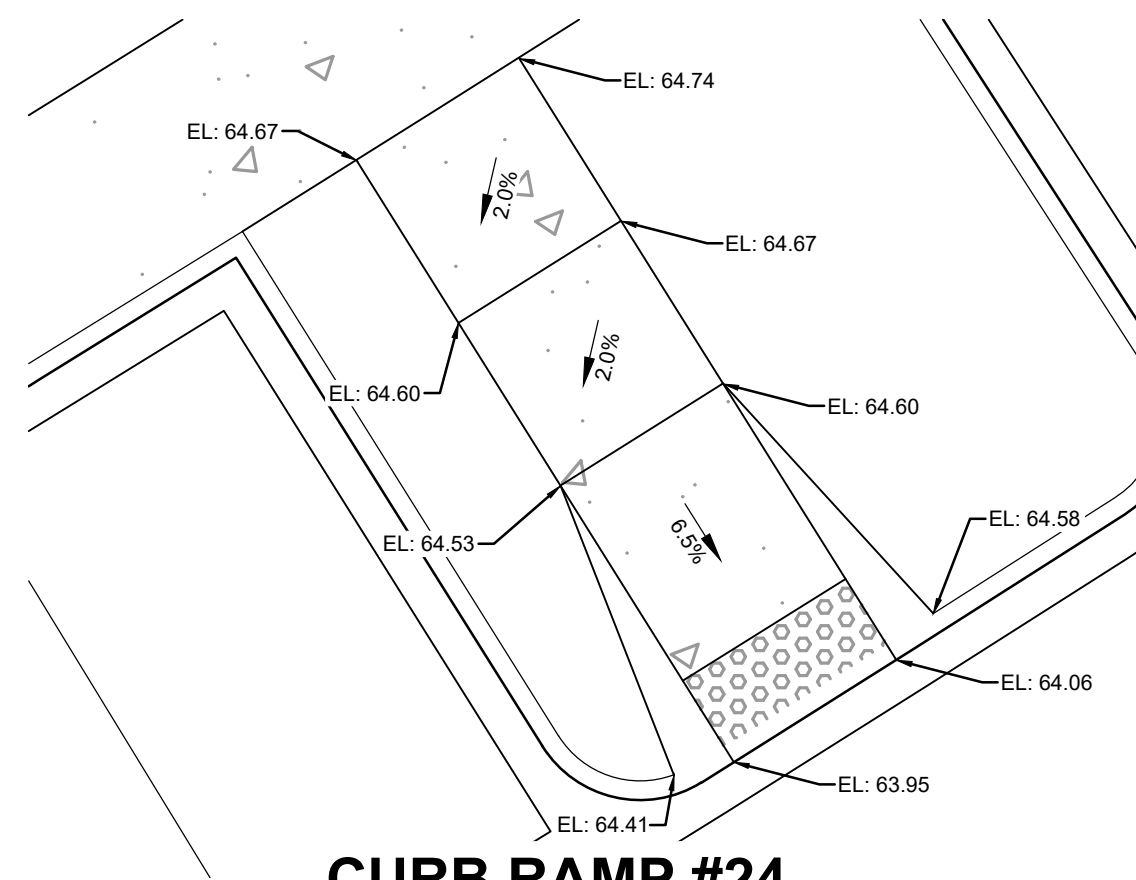
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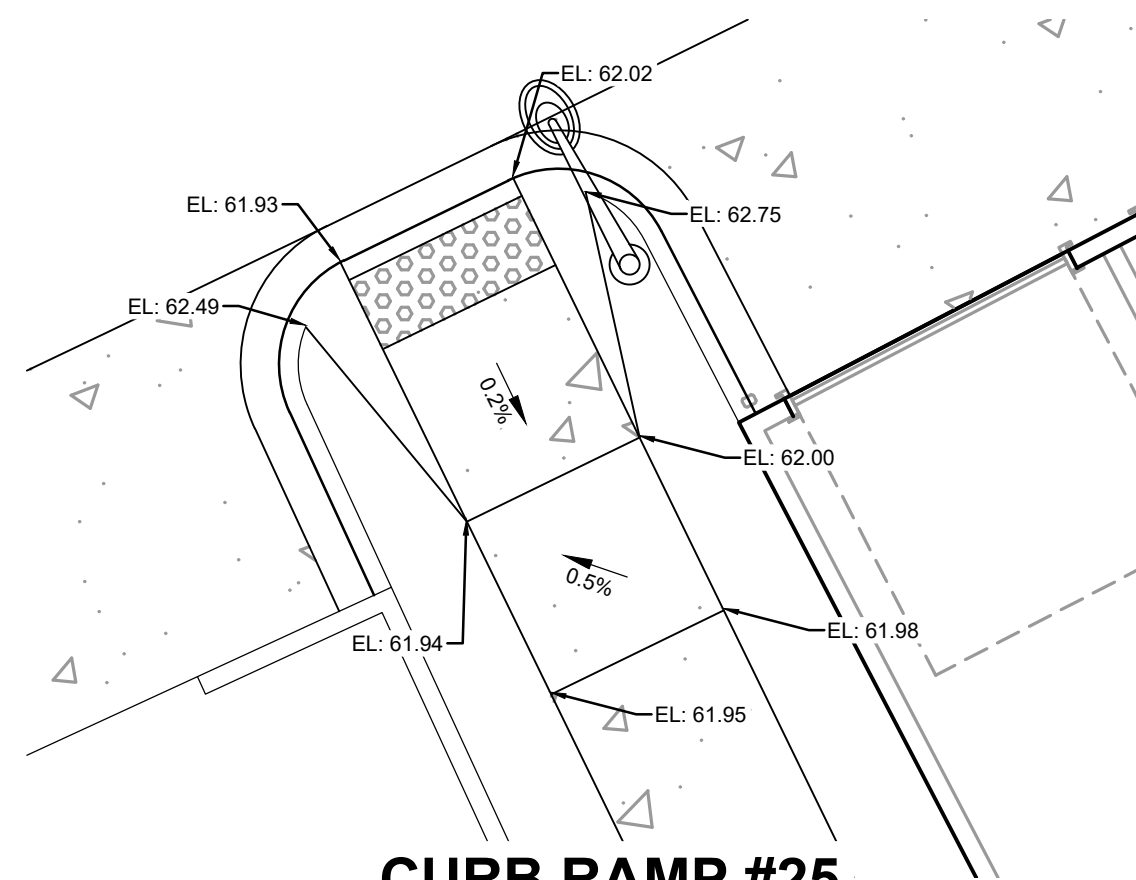
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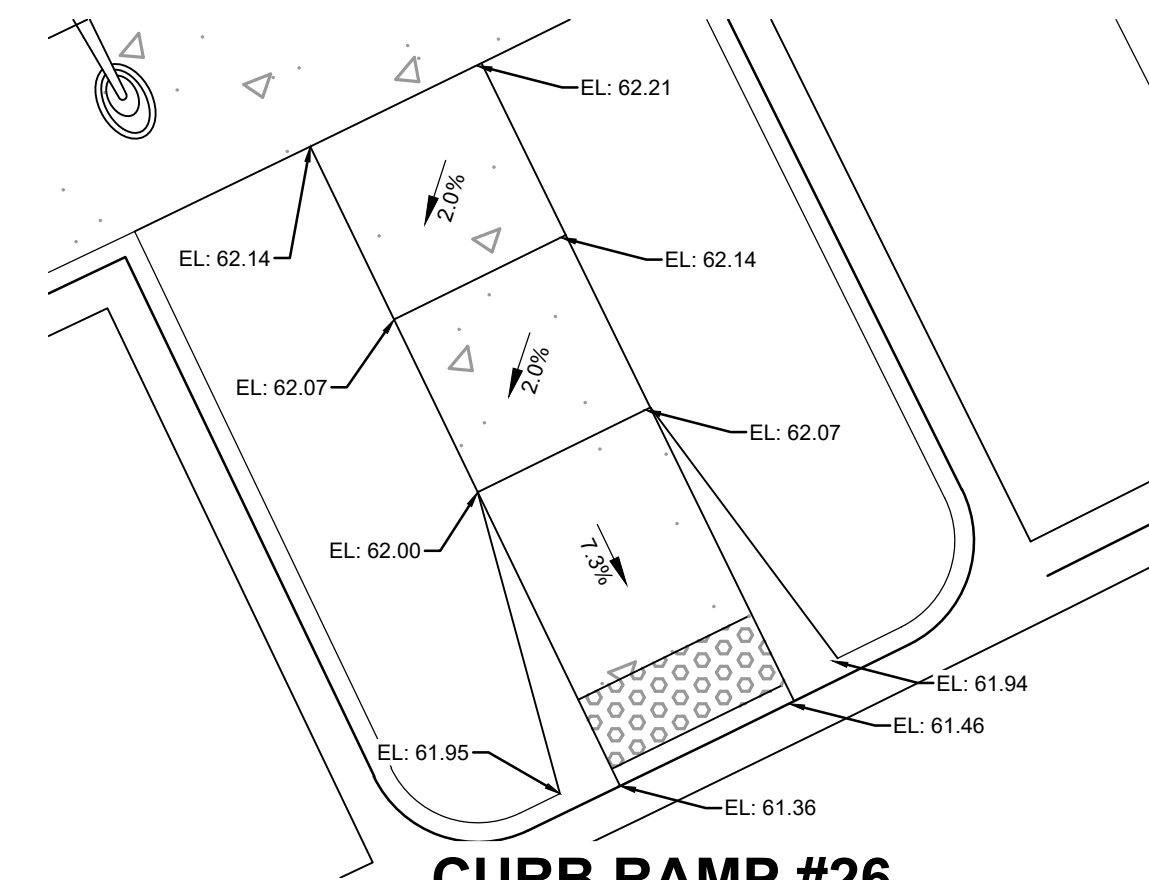
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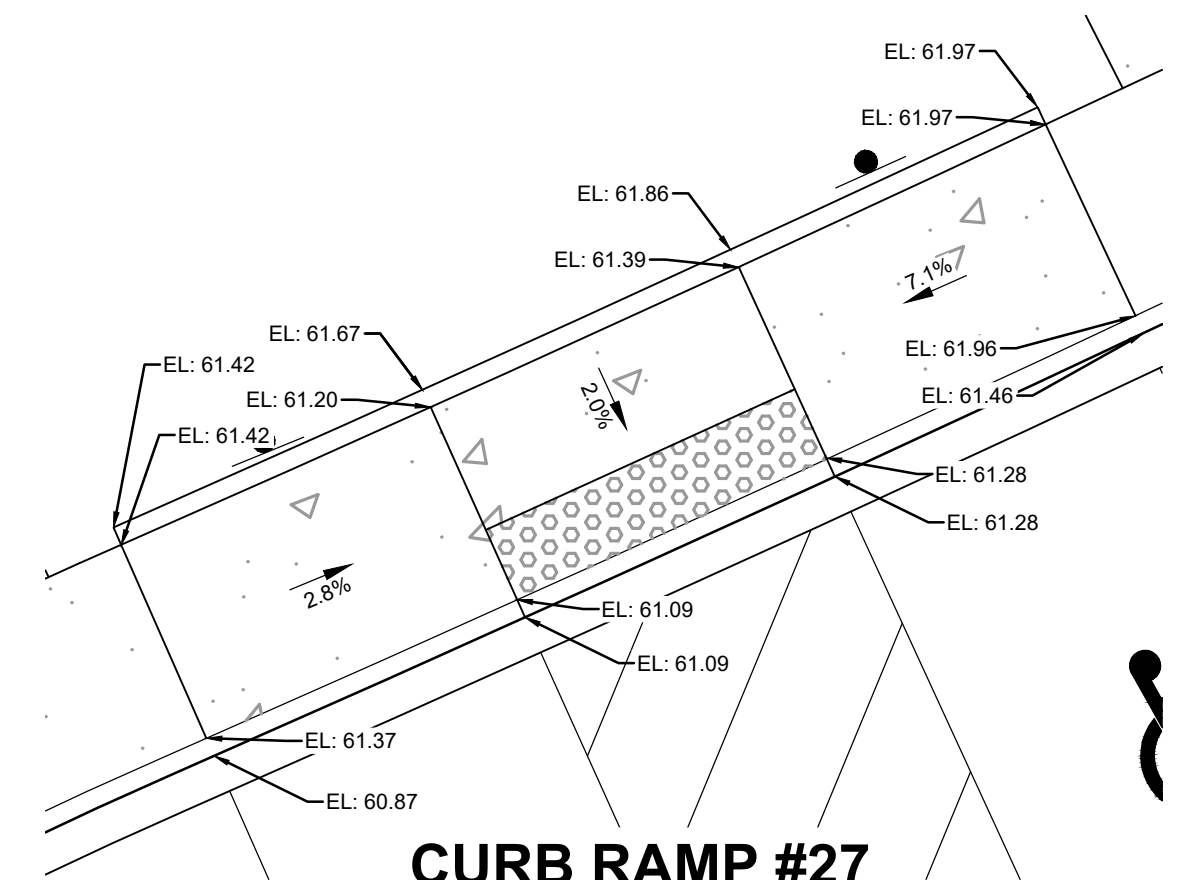
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CURB RAMP #25



CURB RAMP #26



CURB RAMP #27



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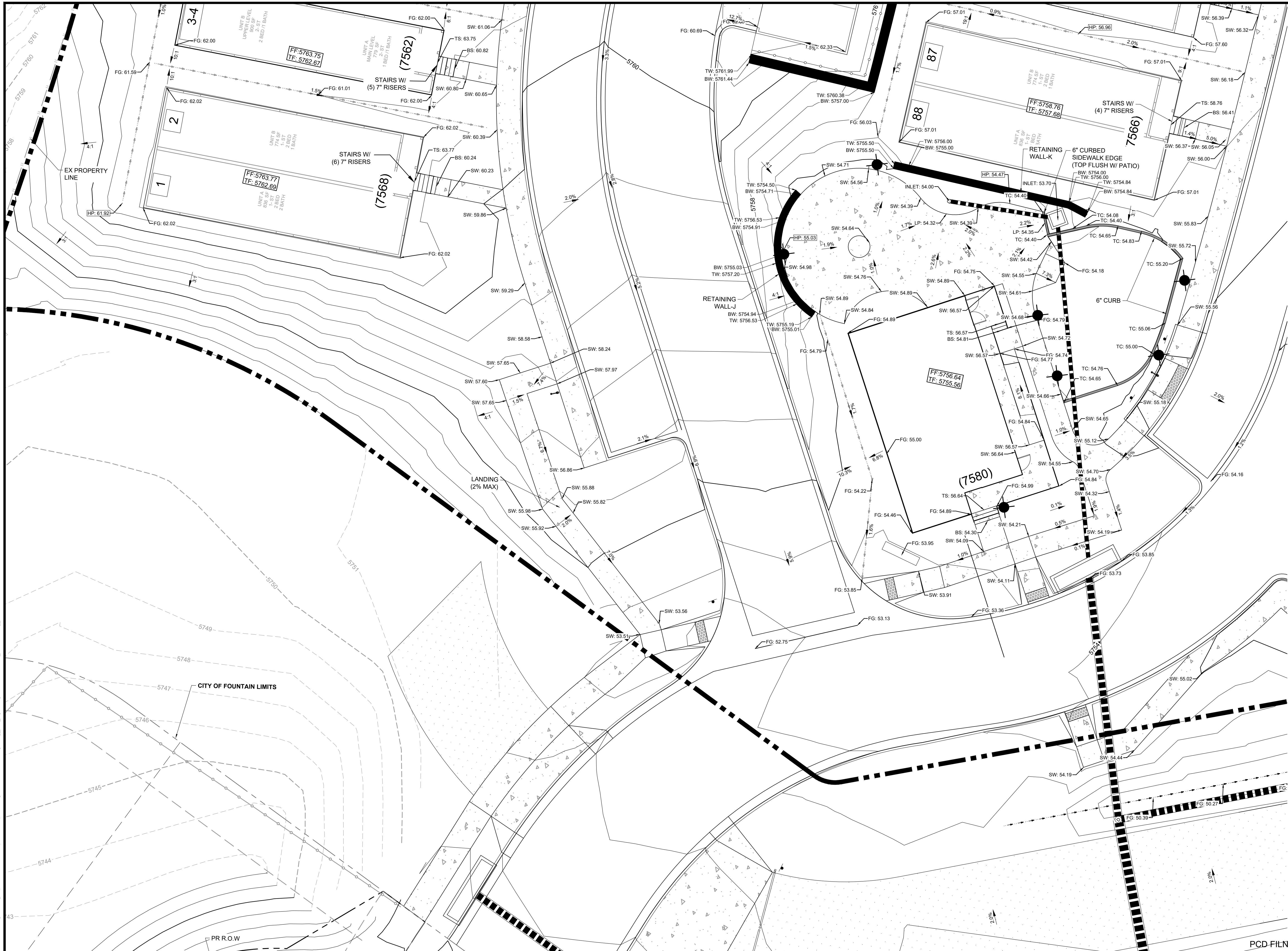


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CURB RAMP GRADING

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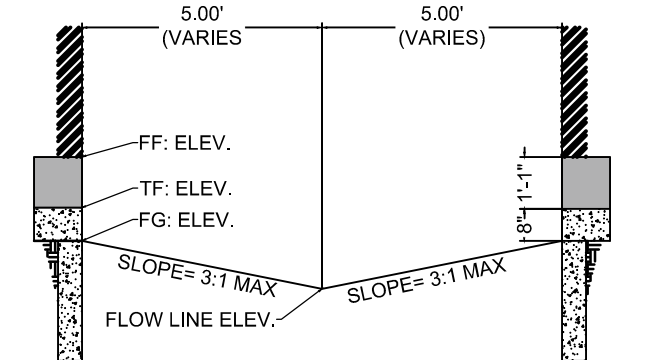
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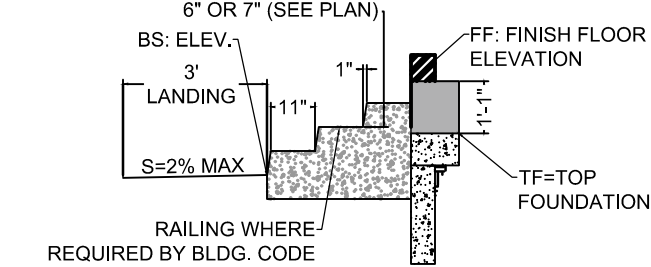
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NORTH

HP = HIGH POINT ELEV.  
LP = LOW POINT ELEV.  
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**TYPICAL STAIRS DETAIL**  
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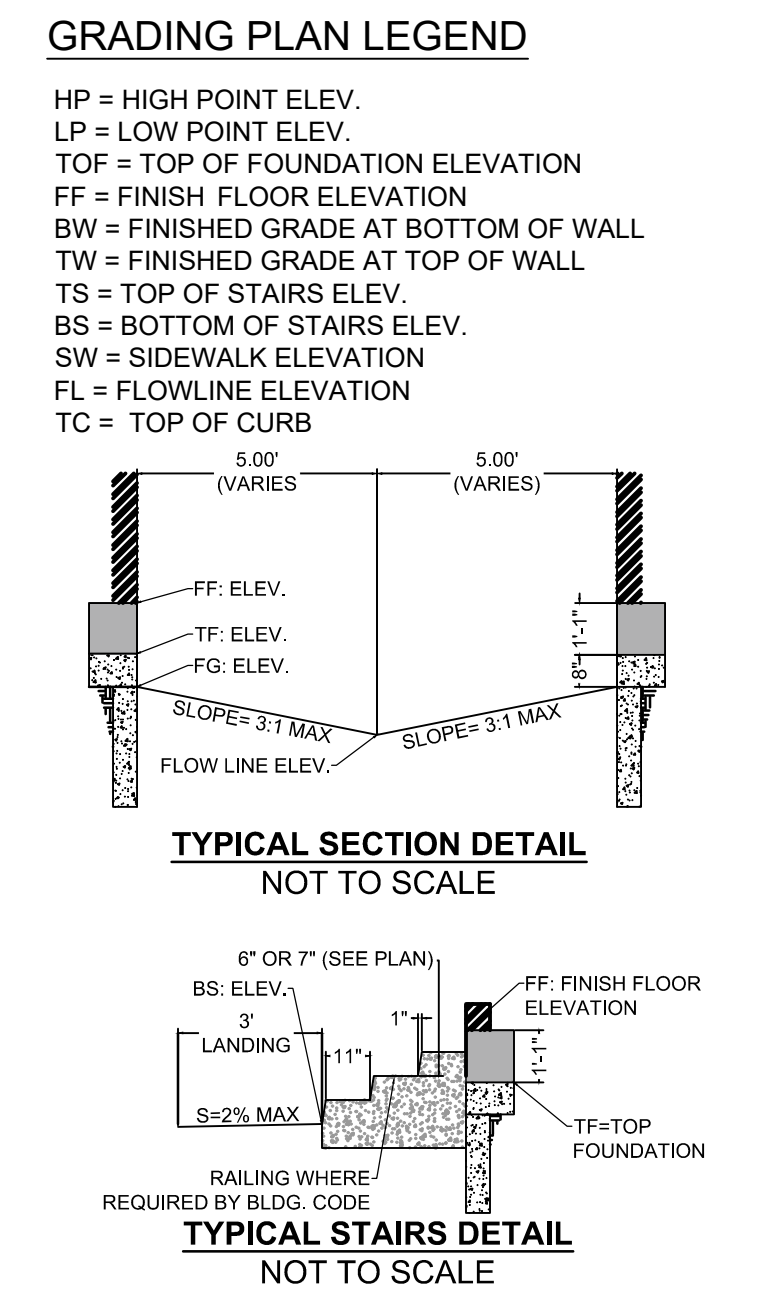
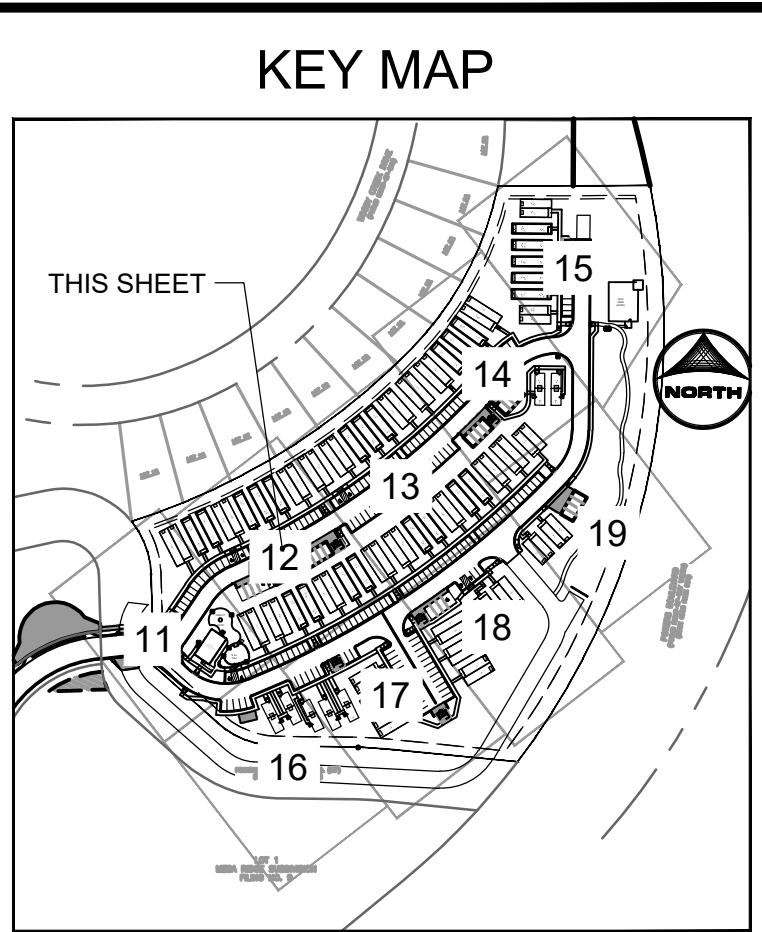


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**GOODWIN KNIGHT**  
**EL PASO COUNTY, COLORADO**

**GOODWIN KNIGHT**

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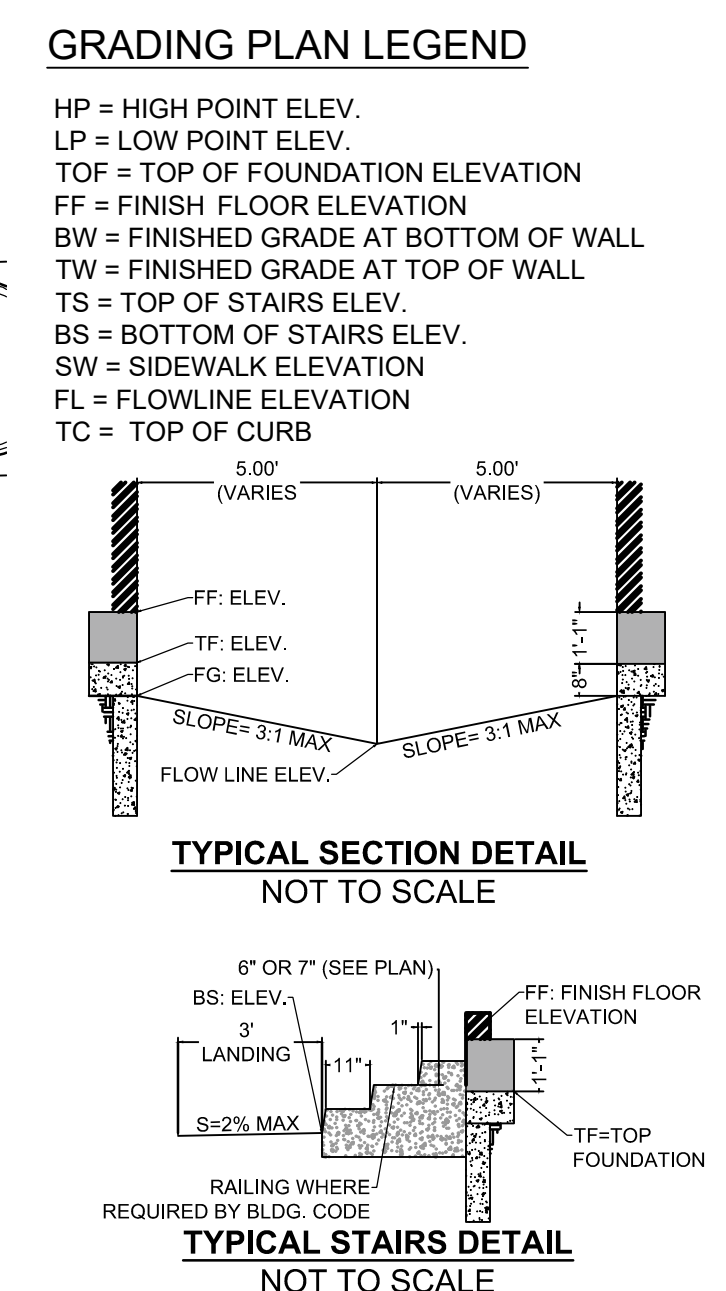
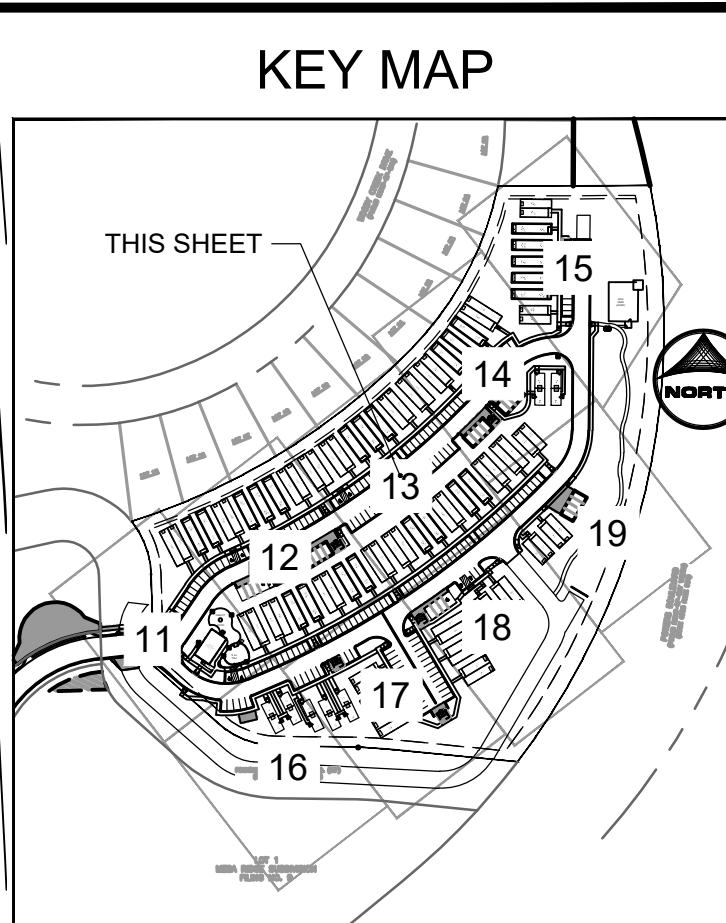
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SHEET GR 12

1/6/23





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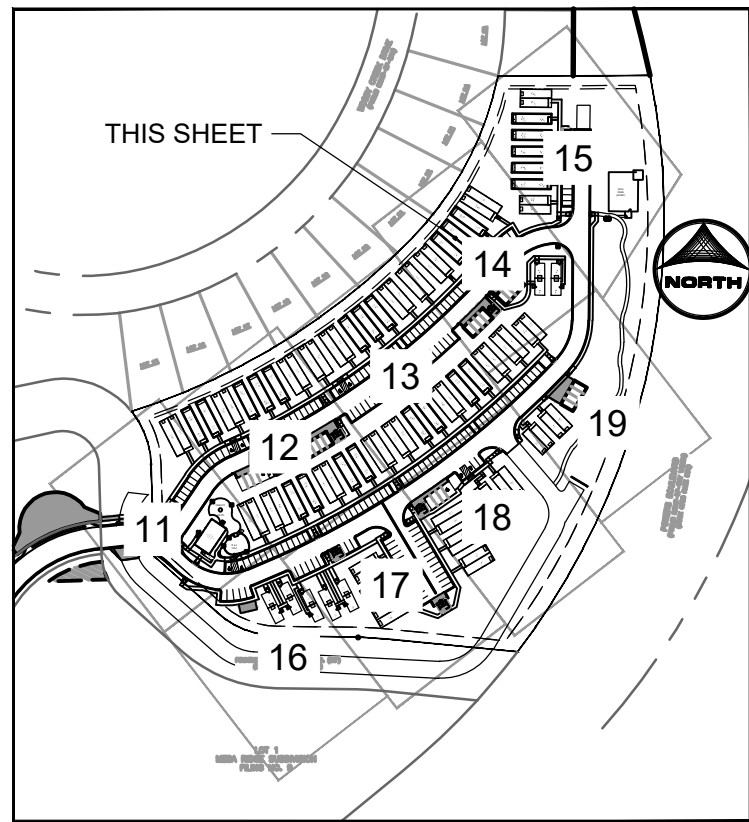
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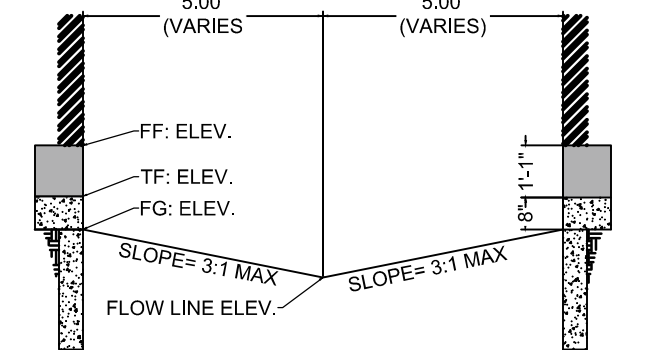
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SHEET GR 13





HP = HIGH POINT ELEV.  
LP = LOW POINT ELEV.  
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BS = BOTTOM OF STAIRS ELEV.  
SW = SIDEWALK ELEVATION  
FL = FLOWLINE ELEVATION  
TC = TOP OF CURB



6" OR 7" (SEE PLAN)

BS: ELEV.

3' LANDING

S=2% MAX

11"

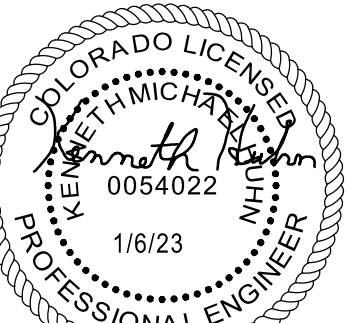
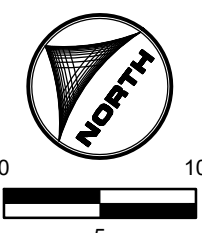
1"


FF: FINISH FLOOR ELEVATION

1"

TF=TOP OF FOUNDATION

RAILING WHERE REQUIRED BY BLDG. CODE



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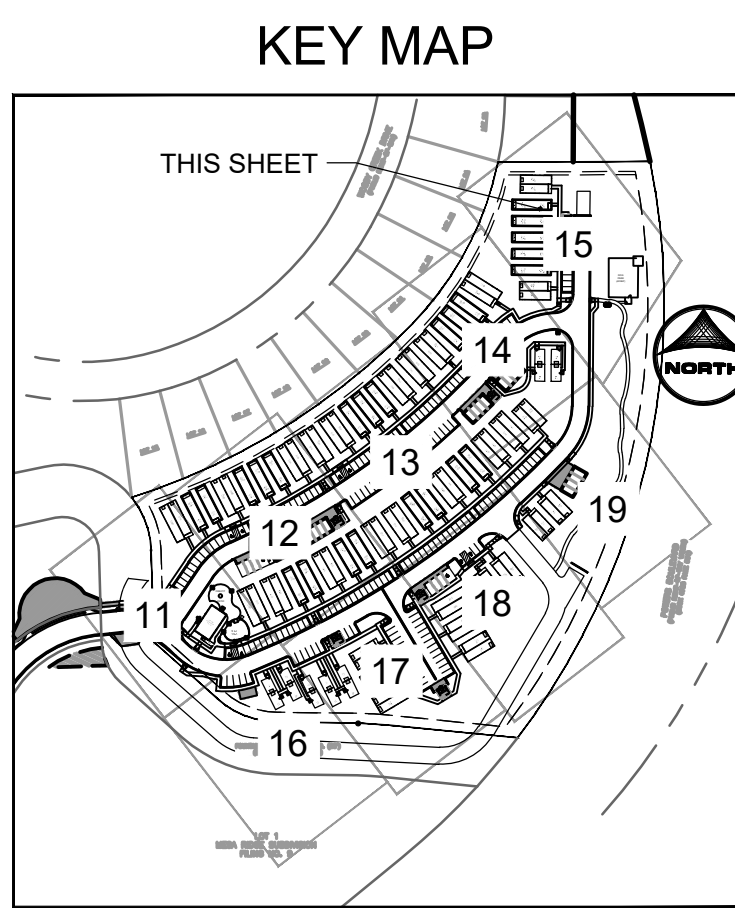


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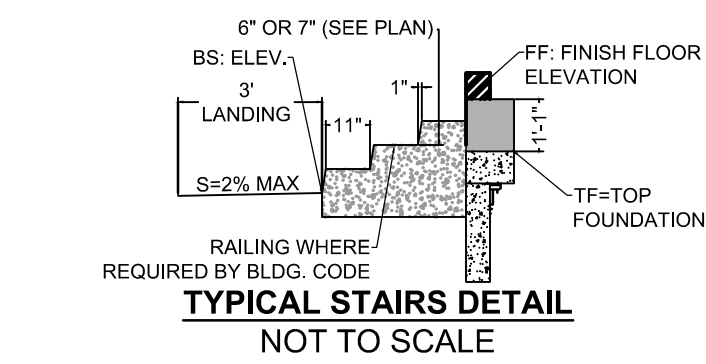
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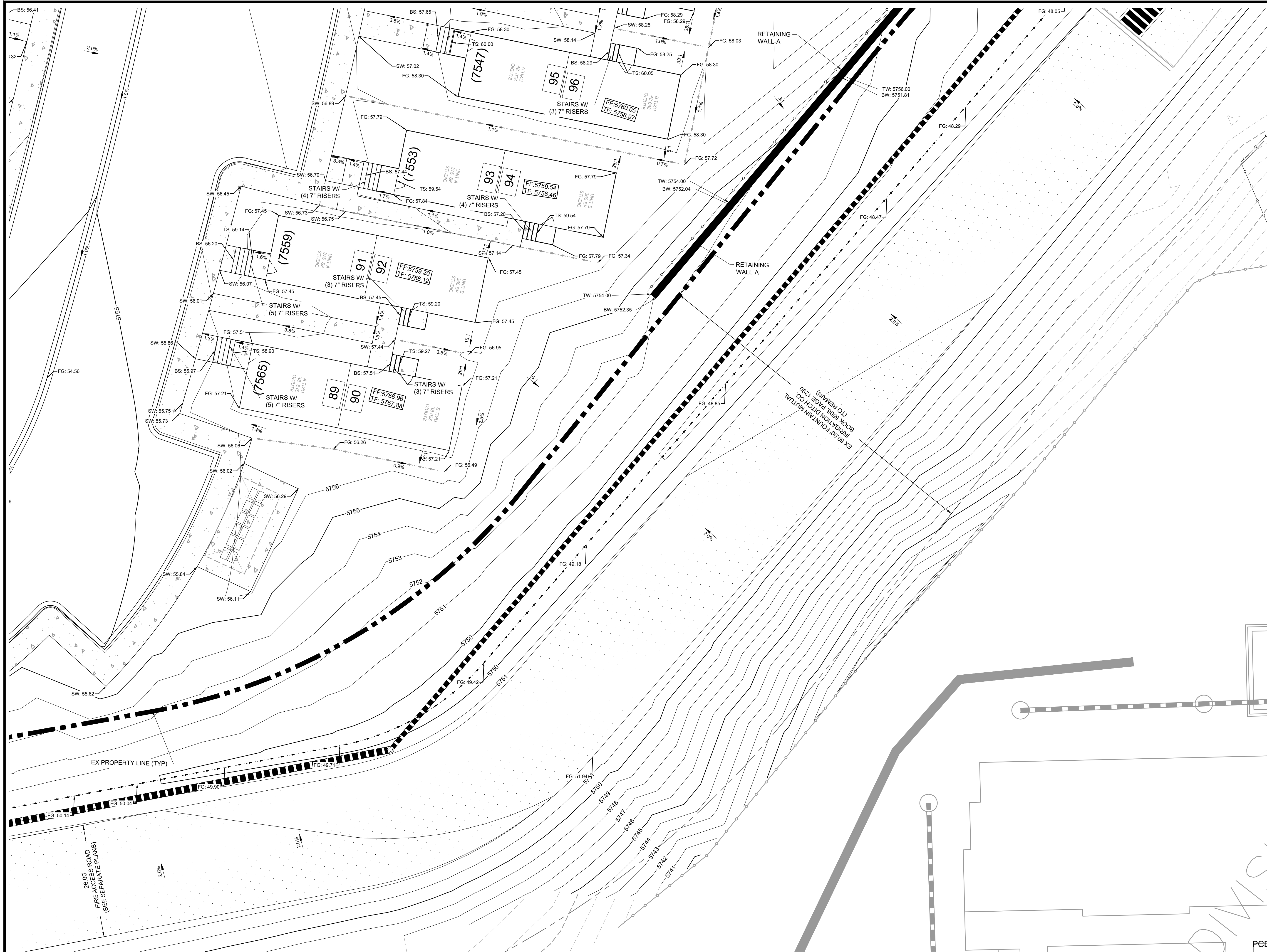


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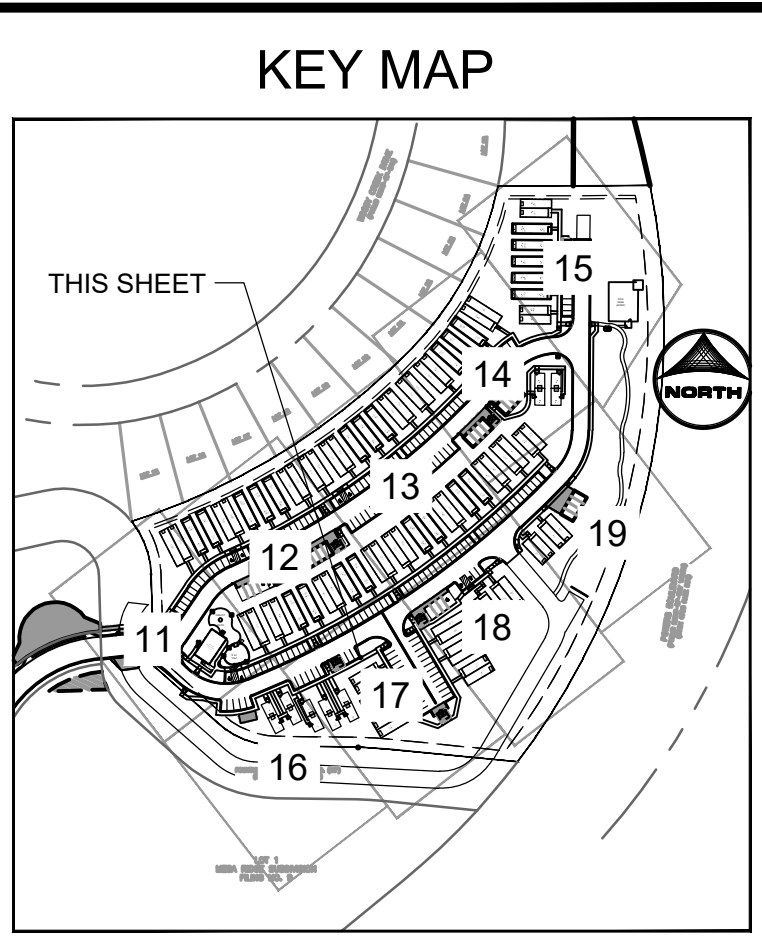
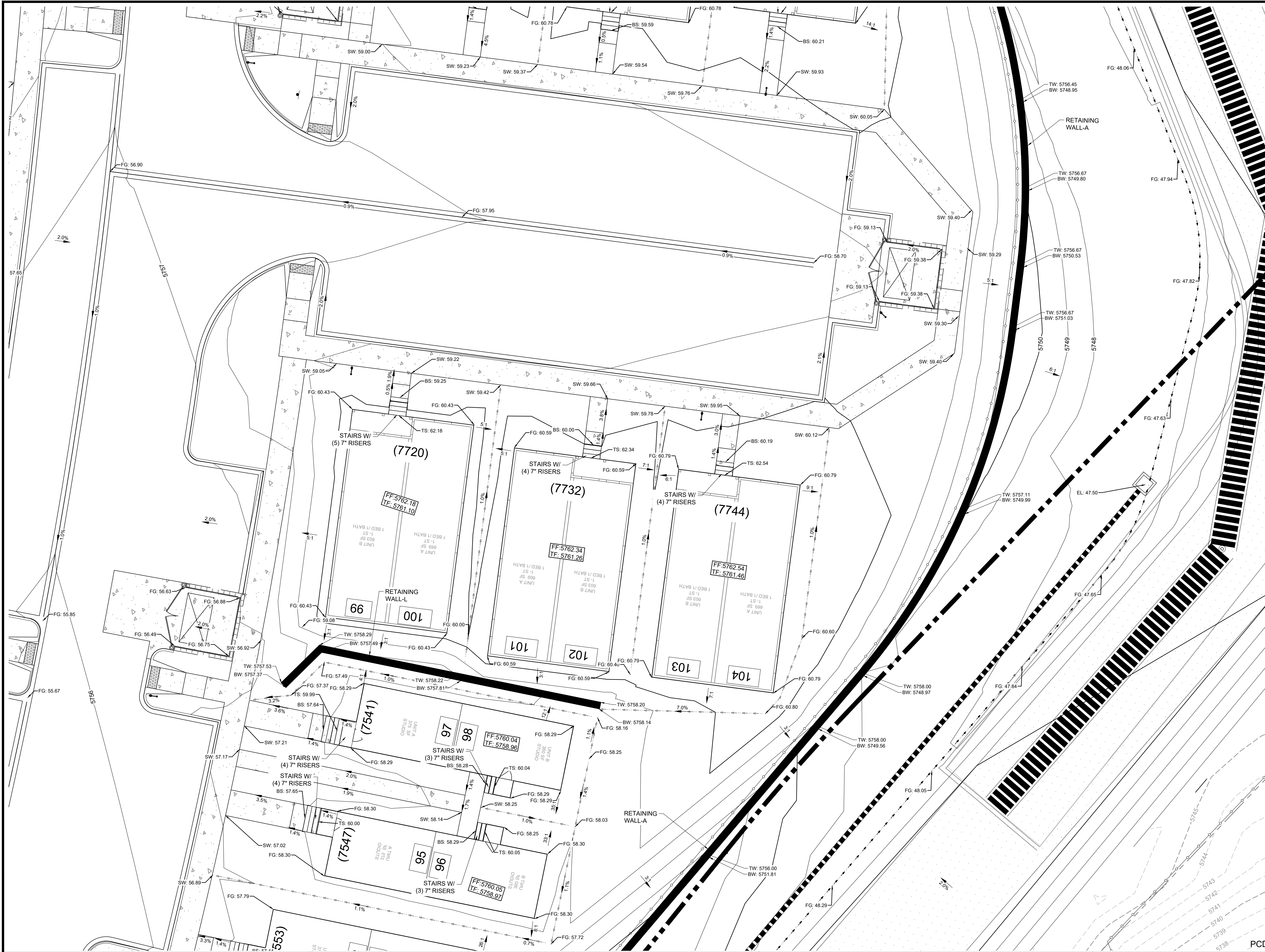


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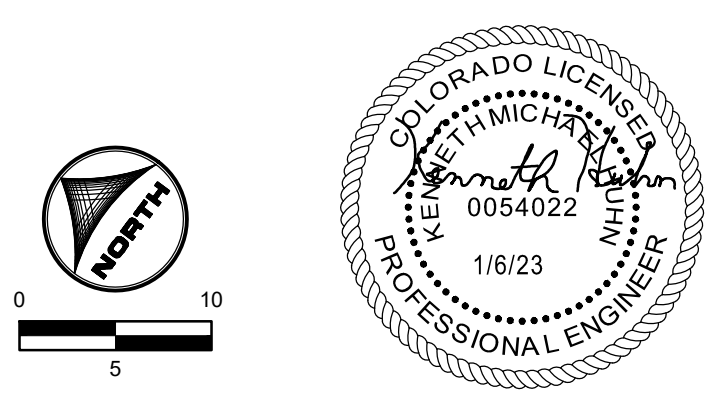
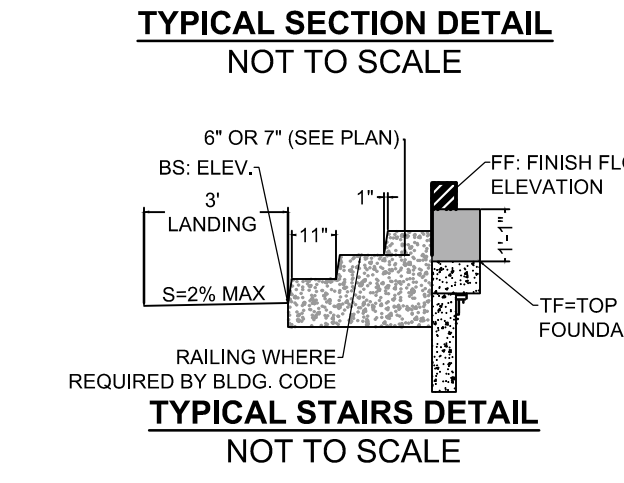
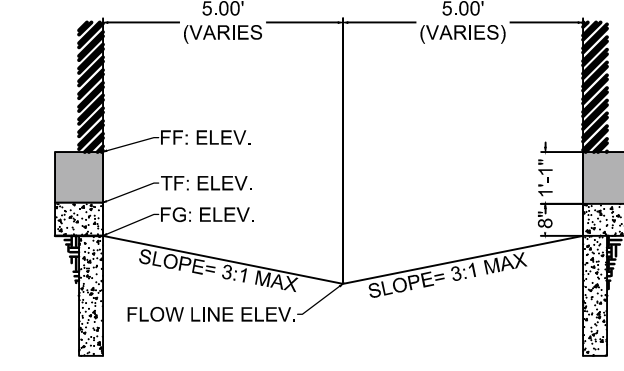






**GRADING PLAN LEGEND**

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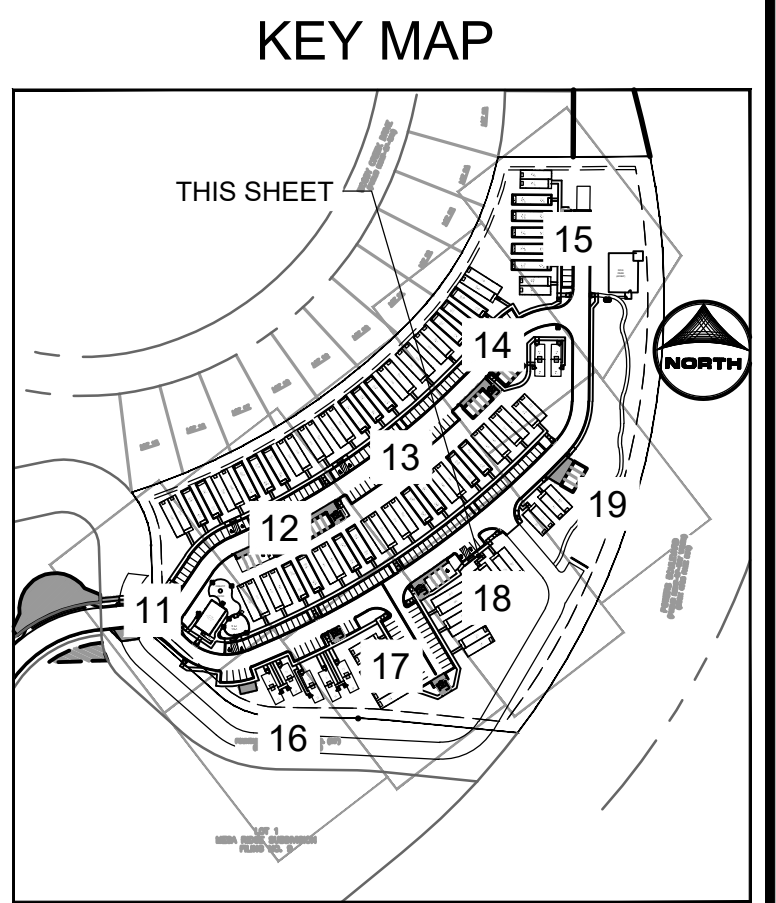
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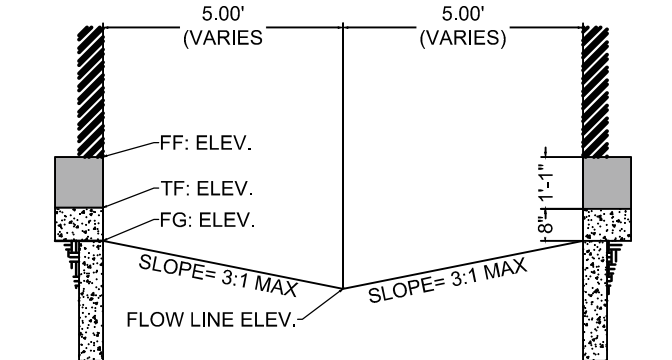
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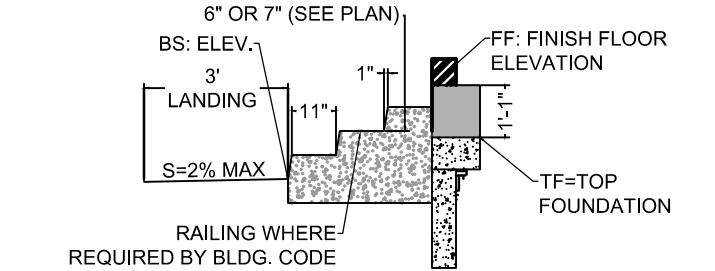




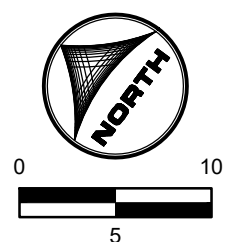
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**TYPICAL STAIRS DETAIL**  
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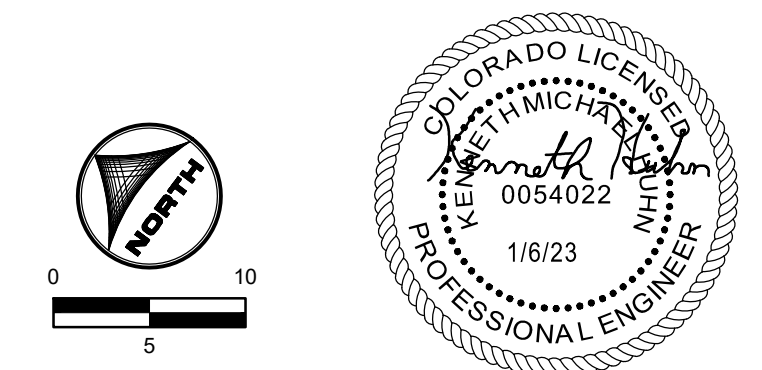
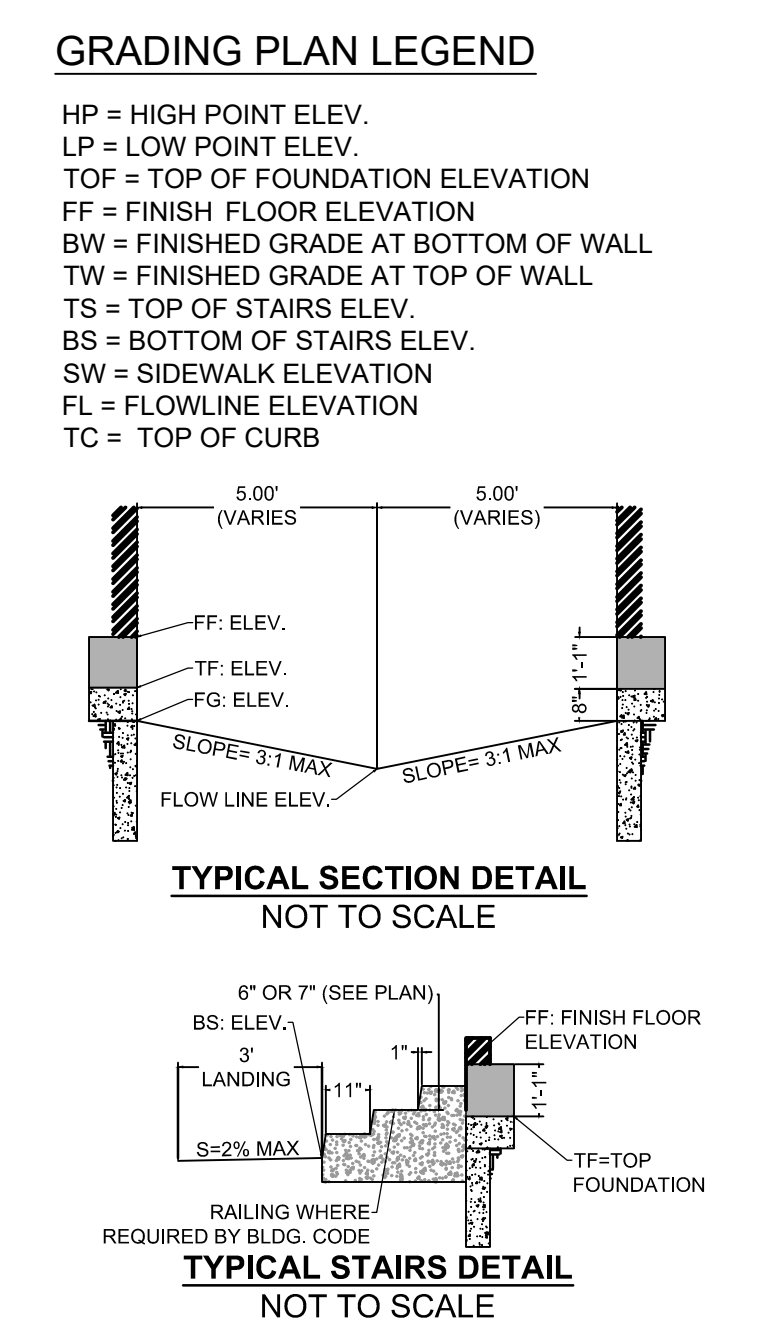
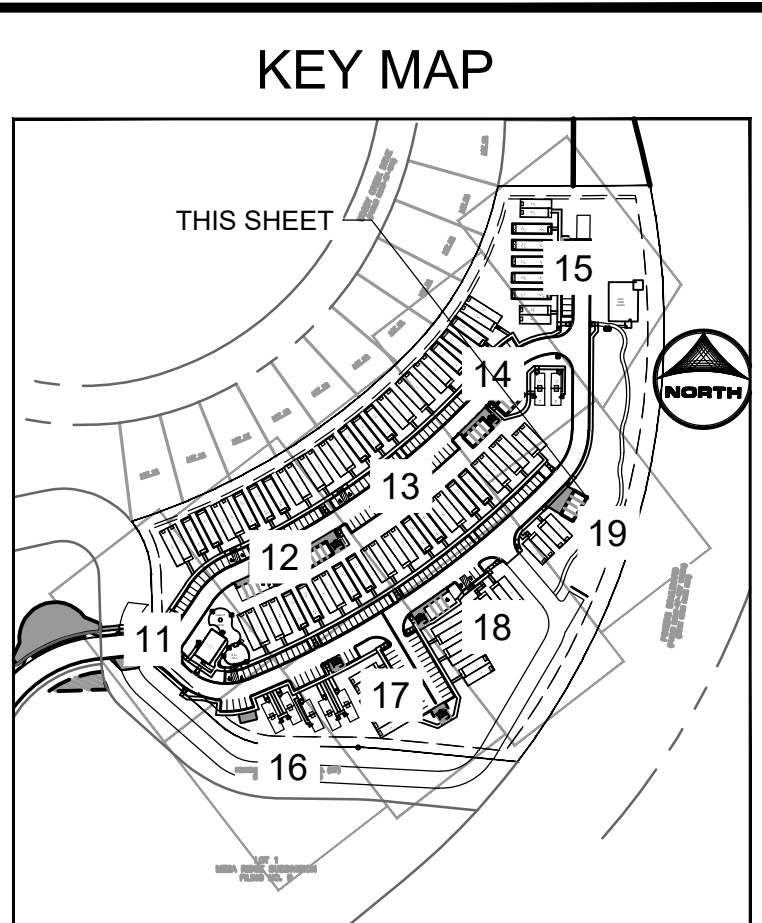


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GOODWIN KNIGHT

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SHEET GR 19



FSD SANITARY SEWER CONSTRUCTION NOTES:

- ALL MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH FOUNTAIN SANITATION DISTRICT DESIGN CRITERIA AND CONSTRUCTION SPECIFICATIONS.
- CONTRACTOR SHALL FIELD VERIFY LOCATION AND ELEVATION OF EXISTING PIPE INVERTS PRIOR TO INSTALLATION OF NEW SANITARY SEWER SYSTEM.
- THE CONTRACTOR ASSUMES RESPONSIBILITY FOR THE PROTECTION OF ALL UTILITIES DURING THE WORK. PRIOR TO ANY EXCAVATION, CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO AT 811 AT LEAST TWO WORKING DAYS PRIOR TO DIGGING.
- ALL PROPOSED SANITARY SEWER PIPELINES WITHIN THIS PROJECT SHALL BE AIR TESTED AND VIDEO INSPECTED PER THE FOUNTAIN SANITATION DISTRICT (FSD) STANDARD SPECIFICATIONS,
- ALL AS-CONSTRUCTED RECORDS AND OTHER REQUIREMENTS OF THE SUBDIVISION PUBLIC IMPROVEMENTS AGREEMENT SHALL BE COMPLETED PRIOR TO CONSIDERATION OF ACCEPTANCE OF THE SYSTEM BY THE DISTRICT,
- DURING THE CONSTRUCTION OF THE SANITARY SEWER SYSTEM THE CONTRACTOR SHALL HAVE IN HIS/HER POSSESSION AT LEAST ONE "APPROVED FOR CONSTRUCTION" SET OF UPDATED PLANS AT ALL TIMES. APPROVED FIELD MODIFICATIONS TO PLAN SETS SHALL BE CLEARLY IDENTIFIED IN RED INK ON THE PLANS BY THE CONTRACTOR PER FIELD CONSTRUCTION. THESE AS-BUILT CHANGES SHALL BE DATED AND SUBMITTED TO THE ENGINEER OF RECORD. THE ENGINEER OF RECORD SHALL PREPARE A COMPLETE SET OF "AS CONSTRUCTED" DRAWINGS AND DELIVER THE SETS TO THE FOUNTAIN SANITATION DISTRICT PRIOR TO FINAL ACCEPTANCE OF THE SANITARY SEWER SYSTEM.
- WITH PRIOR APPROVAL, THE CONTRACTOR SHALL PROVIDE 3 DEGREE BENDS ON ALL CURVILINEAR SANITARY SEWER PIPE AT THE LOCATIONS DETAILED ON THE APPROVED CONSTRUCTION PLANS.
- SANITARY SEWER SERVICE LINES SHALL BE LOCATED PER THE DETAIL ON THE UTILITY SERVICE PLAN, THE DIMENSIONS GIVEN AT EACH LOT WHERE A TYPICAL INSTALLATION IS REQUIRED OR AT THE DIRECTION OF THE FOUNTAIN SANITATION DISTRICT REPRESENTATIVE.
- SERVICE STUBS SHALL BE INSTALLED A MINIMUM OF TEN (10) FEET INTO THE PROPERTY, UNLESS OTHERWISE SHOWN, AND THE END OF THE STUB SHALL BE MARKED WITH A 2"x4"x12' STEEL OR WOODEN POST PAINTED GREEN.
- OVERLOT GRADING AND STREET SUBGRADE MUST BE WITHIN ± ONE (1) FOOT PRIOR TO ANY UTILITY INSTALLATION.
- CONTRACTOR TO CONSTRUCT ALL MANHOLES AND STRUCTURES TO FINISHED GRADE.
- ALL SANITARY SERVICE PIPE TO BE GREEN GASKET SDR35.
- ALL 3' BENDS SHALL BE A SPIGOT X BELL FITTING. THE SPIGOT END OF EACH BEND FITTING SHALL BE INSERTED IN THE BELL OF A FULL PIECE (13 FEET) OF ASTM D3034 FOR PVC, SDR 26 OR 35 PIPE WITH THE SUBSEQUENT UPSTREAM PIPE SEGMENT BEING A FULL PIECE OF PIPE. EACH JOINT OF PIPE MAY BE DEFLECTED TO A MINIMUM RADIUS OF 200 FEET IN CONFORMANCE WITH THE MANUFACTURER'S SPECIFICATIONS BETWEEN EACH BEND FITTING. THE CONTRACTOR SHALL USE EXTREME CARE AND EXPERT WORKMANSHIP TO PROVIDE PROPER HORIZONTAL AND VERTICAL ALIGNMENT THROUGH SECTIONS WITH 3' BENDS.
- MINIMUM RADIUS FOR SANITARY SEWER WITHOUT JOINT FITTINGS IS 267 FEET USING A 14-FOOT-LONG PIPE SEGMENT.
- CONTRACTOR SHALL BE AWARE THAT WHEN DEBRIS IS DROPPED INTO MANHOLES AND OTHER STRUCTURES, THEY ARE TO IMMEDIATELY REMOVE THIS TO ELIMINATE THE POSSIBILITY OF PROPERTY DAMAGE DUE TO THE DEBRIS-CAUSING BACKUP INTO PRIVATE PROPERTIES. IF AND WHEN IT IS DETERMINED THAT DEBRIS CAUSED A BACKUP, THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR DAMAGES.
- NO TREES ARE TO BE PLANTED WITHIN ANY SEWER EASEMENT OR WITHIN FIFTEEN (15) FEET OF ANY MANHOLE OR PIPE.
- ACCESS TO MANHOLES AND INLETS SHALL BE MADE AVAILABLE FOR MAINTENANCE PURPOSES.
- ALL MANHOLES SHALL RECEIVE AN EXTERIOR WATERPROOF COATING OF COAL TAR EPOXY, ICS DEVCOE "DEV TAR," OR APPROVED EQUIVALENT.
- ALL MANHOLES SHALL RECEIVE AN EXTERIOR JOINT WRAP TO BEST ASSURE WATERTIGHTNESS. REFER TO THE FOUNTAIN SANITATION DISTRICT STANDARD SPECIFICATIONS FOR MATERIALS AND INSTALLATION REQUIREMENTS.
- ALL SANITARY SEWER MANHOLES ON THIS PROJECT SHALL BE SUBJECT TO VACUUM TESTING PRIOR TO THE CONSIDERATION OF ACCEPTANCE BY THE DISTRICT. AT THE DISTRICT'S SOLE OPTION, ADDITIONAL VACUUM TESTING MAY BE REQUIRED DURING AND PRIOR TO THE CONCLUSION OF THE WARRANTY PERIOD FOR THIS WORK. REFER TO THE FOUNTAIN SANITATION DISTRICT STANDARD SPECIFICATIONS FOR TESTING REQUIREMENTS.
- CLASS "B" GRANULAR BEDDING SHALL BE UTILIZED FOR ALL WASTEWATER PIPELINE CONSTRUCTION ON THIS PROJECT. AS A MINIMUM, THE CLASS "B" BEDDING SHALL BE COMPRISED OF 3/4-INCH CRUSHED ROCK. LARGER AGGREGATE AND/OR ALTERNATIVE GRADATIONS MAY BE NECESSARY IN ORDER TO ADDRESS TRENCH SUBGRADE STABILIZATION CONDITIONS FOUND UPON EXCAVATION OF THE TRENCH IN ADDITION TO THE SPECIFIED CLASS "B" PIPE BEDDING.
- WHERE NECESSARY, THE CONTRACTOR SHALL PROVIDE 3' BENDS ON ALL CURVILVEAR SANITARY SEWER PIPE AT THE LOCATIONS SHOWN ON THE PLANS.
- SANITARY SEWER PIPE SHALL BE POLYVINYL CHLORIDE (PVC), SDR 35, IN ACCORDANCE WITH ASTM D3034 FOR DEPTHS UP TO SIXTEEN (16) FEET. SANITARY SEWER LINES WITH COVER EXCEEDING SIXTEEN (16) FEET FROM FINISHED GRADE SHALL BE POLYVINYL CHLORIDE (PVC), SDR 26, IN ACCORDANCE WITH ASTM D3034. ALL SDR 26 PIPE SHALL BE BEDDED IN CLASS B BEDDING MATERIAL OR WITH RECLAIMED CONCRETE MATERIAL MEETING SANITATION DISTRICT STANDARD.
- MANHOLES SHALL BE STANDARD PRECAST CONCRETE.
- ALL SANITARY SEWER MANHOLES SHALL NOT HAVE ANY ACCESS STEPS INSTALLED INSIDE THE MANHOLE. ANY PRECAST SANITARY MANHOLES WITH STEPS SHALL HAVE THE STEPS REMOVED BY SAW CUTTING STEPS FLUSH TO THE MANHOLE AND ADDING EPOXY TO THE CUT ENDS OF THE STEPS.
- SANITARY SEWER MH COVERS SHALL BE LOCATED ALONG THE CENTERLINE OF THE STREET OR AS CLOSE TO THE CENTERLINE AS IS PRACTICAL.
- IF GROUNDWATER IS ENCOUNTERED DURING TRENCHING THEN THE TRENCH SHALL BE OVEREXCAVATED AND DEWATERED. WELL POINTS SHALL BE PLACED AS NECESSARY TO PREVENT WATER IN THE TRENCH. THE GROUNDWATER LEVEL SHALL BE KEPT 12-INCHES OR MORE BELOW THE UTILITY BEING INSTALLED. OVEREXCAVATED TRENCH DEPTH SHALL BE BACKFILLED WITH 2-INCH MINUS ROCK WITH <5% PASSING NO. 4 SIEVE. DEWATERING SHALL CONTINUE UNTIL SUCH TIME AS IT IS SAFE TO ALLOW THE WATER TABLE TO RISE IN THE EXCAVATION. PIPE TRENCHES SHALL CONTAIN ENOUGH BACKFILL TO PREVENT PIPE FLOATATION.
- IN AREAS WHERE SANITARY SEWER WILL BE PLACED ON FILL THE CONTRACTOR SHALL SUPPLY THE FOUNTAIN SANITATION DISTRICT WITH SOIL DENSITY REPORTS PRIOR TO COMMENCING CONSTRUCTION OF THE PIPELINES. THE DENSITY REPORTS SHALL DEMONSTRATE THAT ALL FILLS PLACED WITHIN PIPELINE CONSTRUCTION SHALL BE COMPACTED TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY OR PER GEOTECHNICAL RECOMMENDATION, WHICHEVER STANDARD IS STRICTER. ADDITIONALLY, FILLS SHALL BE PLACED TO A MINIMUM OF 6' ABOVE THE TOP OF THE PROPOSED PIPE PRIOR TO CONSTRUCTION OF THE PIPELINES.
- THE SANITARY SEWER SERVICES TO BE CONSTRUCTED IN THIS PROJECT SHALL BE CONNECTED TO THE MAIN WITH IN-LINE WYE FITTINGS IN ACCORDANCE WITH FOUNTAIN SANITATION DISTRICT DESIGN CRITERIA AND CONSTRUCTION SPECIFICATIONS. EACH WYE FITTING WILL BE LOCATED NO LESS THAN 3- FEET CLEAR FROM AN ADJACENT SERVICE LINE WYE FITTING. IF TWO (2) SERVICE LINES ARE LOCATED ON THE SAME SIDE OF THE WASTEWATER COLLECTION SYSTEM MAIN, THERE SHALL BE NO LESS THAN 4 FEET OF SPACE BETWEEN THE TWO SEPARATE SEWER SERVICE PIPELINES TO FACILITATE FUTURE EXCAVATION OF EACH WITHOUT DISTURBANCE.
- ALL SANITARY SEWER MAINS AND PIPELINES SHALL BE CONSTRUCTED WITH COPPER TRACER WIRE, 6 GAUGE SOLID COPPER, EXTENDING FROM THE MANHOLE-TO-MANHOLE ON THE MAIN LINES. IN ADDITION, A COPPER TRACER WIRE SHALL EXTEND ALONG EACH SERVICE LINE, CONNECTED TO THE MAIN LINE COPPER TRACER WIRE, TO A LOCATION NO LESS THAN 10 FEET INSIDE THE LOT FRONTAGE. THE TRACER WIRES WILL BE CONTINUED AT THE TIME OF BUILDING SEWER CONSTRUCTION SUBJECT TO THE INSPECTION OF THE FOUNTAIN SANITATION DISTRICT.
- THE TRACER WIRE WILL EXTEND UP THE OUTSIDE OF EACH MANHOLE AND BE INSERTED INTO THE MANHOLE INTERIOR UNDER ADJUSTING RINGS SET ON THE CONE WITH NO LESS THAN 1.5 FEET OF CONDUCTOR COILED AT THE MANHOLE INTERIOR.

FSD SANITARY SERVICE PLAN NOTES:

- ALL CONSTRUCTION METHODS AND MATERIALS SHALL MEET FOUNTAIN SANITATION DISTRICT STANDARD SPECIFICIATIONS.
- FINAL LOCATION OF ALL SEWER, WATER AND GAS SERVICES TO BE APPROVED IN THE FIELD BY THE CONSTRUCTION MANAGER AND DISTRICT INSPECTOR PRIOR TO INSTALLATION.
- PROPERTY END OF ALL SEWER SERVICES TO BE MARKED WITH A 12"x2"x4" STEEL OR WOODEN POST EXTENDING VERTICALLY FROM THE FLOWLINE.
- UTILITY LOCATIONS, WHETHER OR NOT SHOWN ON THIS PLAN, IN NO WAY RELIEVES THE CONTRACTOR FROM THE RESPONSIBILITY FOR CALLING FOR UTILITY LOCATIONS FROM THE APPROPRIATE AUTHORITIES PRIOR TO BEGINNING EXCAVATION. THE CONTRACTOR SHALL BE RESPONSIBLE TO LOCATE AND PROTECT ALL EXISTING UTILITIES WITHIN THE PROJECT. ANY DAMAGE TO EXISTING UTILITIES SHALL BE IMMEDIATELY REPAIRED AT THE CONTRACTOR'S SOLE EXPENSE.
- REUSE OF ANY MATERIAL IS AT THE DISCRETION OF THE DISTRICT INSPECTOR.
- ALL SANITARY SERVICES TO BE INSTALLED AT THE MINIMUM PERMISSIBLE GRADE OF 2.08% UNLESS OTHERWISE PRE-APPROVED BY THE FOUNTAIN SANITATION DISTRICT.
- ALL SANITARY SERVICE PIPE SHALL BE GREEN GASKETED SDR35.
- SANITARY SEWER SERVICE CONNECTIONS ARE TO BE A MINIMUM OF 5' FROM THE MANHOLE.
- THE CONTRACTOR SHALL NOTIFY FOUNTAIN SANITATION DISTRICT'S INSPECTOR (382- 5303) 48 HOURS PRIOR TO THE START OF CONSTRUCTION TO OUTLINE METHODS OF CONSTRUCTION, MATERIALS TO BE USED AND CONSTRUCTION STAKING.
- ALL SANITARY SEWER SERVICE LINES TO THE RESIDENTIAL LOTS SHALL BE 4-INCH DIAMETER PIPE. SEWER SERVICES SHALL BE EXTENDED 10' INTO THE RESIDENTIAL LOTS TO AVOID GAS, ELECTRIC AND WATER EASEMENTS ADJACENT TO THE RIGHT OF WAY.
- ALL TRENCH BACKFILL AND COMPACTION SHALL BE IN ACCORDANCE WITH SECTION PART C, ARTICLE II OF THE FOUNTAIN SANITATION DISTRICT STANDARD SPECIFICATIONS MANUAL.

FSD GENERAL SERVICE PLAN NOTES

THE CONTRACTOR SHALL NOTIFY THE FOUNTAIN SANITATION DISTRICT OFFICE (719-382-5303) A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION.

GENERAL:

- ALL CONSTRUCTION METHODS AND MATERIALS SHALL MEET FOUNTAIN SANITATION DISTRICT STANDARD SPECIFICIATIONS.
- FOUNTAIN SANITATION DISTRICT DOES NOT GUARANTEE THE ACCURACY OF LOCATIONS OF EXISTING PIPELINES, MANHOLES, AND SERVICE LINES. IF FIELD CONDITIONS ARE FOUND TO BE DIFFERENT THAN SHOWN ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE DISTRICT INSPECTOR AND THE DESIGN ENGINEER IMMEDIATELY.
- THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO ANY UTILITY FACILITIES AS A RESULT OF THEIR ACTIONS. THE CONTRACTOR SHALL MAKE ALL THE REQUIRED REPAIRS IMMEDIATELY TO THE SATISFACTION OF FOUNTAIN SANITATION DISTRICT.
- ALL FIELD STAKING SHALL COMPLY WITH THE WASTEWATER STANDARD SPECIFICATIONS.
- FINAL LOCATION OF ALL WASTEWATER SERVICES SHALL BE APPROVED IN THE FIELD BY THE DISTRICT INSPECTOR.
- ALL TRENCH BACKFILL AND COMPACTION SHALL BE IN ACCORDANCE WITH SECTION PART C, ATRICLE II OF THE FOUNTAIN SANITATION DISTRICT STANDARD SPECIFICATIONS MANUAL.

WIDEFIELD WATER AND SANITATION DISTRICT GENERAL NOTES

- ALL UTILITY CONSTRUCTION TO BE CONDUCTED IN CONFORMANCE WITH THE CURRENT WIDEFIELD WATER AND SANITATION DISTRICT SPECIFICATIONS. COMPACTION REQUIREMENTS SHALL BE 95% STANDARD PROCTOR AS DETERMINED BY ASTM D698, UNLESS OTHERWISE APPROVED BY THE WIDEFIELD WATER AND SANITATION DISTRICT OR A HIGHER STANDARD IS IMPOSED BY ANOTHER AGENCY HAVING RIGHT-OF-WAY JURISDICTION.
- ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY THE WIDEFIELD WATER AND SANITATION DISTRICT. THE WIDEFIELD WATER AND SANITATION DISTRICT RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO ITS STANDARDS AND SPECIFICATIONS.
- THE DEVELOPER OR HIS ENGINEER HAS LOCATED ALL FIRE HYDRANTS AND FUTURE SERVICE STUBS. ANY REQUIRED REALIGNMENT, EITHER HORIZONTAL OR VERTICAL, SHALL BE AT THE EXPENSE OF THE DEVELOPER.
- ALL DUCTILE IRON PIPE, TO INCLUDE FITTINGS, VALVES AND FIRE HYDRANTS WILL BE WRAPPED WITH POLYETHYLENE TUBING, AND ELECTRICALLY ISOLATED.
- ALL DUCTILE IRON PIPE AND FITTINGS SHALL BE DOUBLE BONDED. SPECIFICATIONS FOR CATHODIC PROTECTION ON BOTH DIP MAINS AND PVC MAINS IS SPECIFIED IN THE STANDARDS AND SPECIFICATIONS.
- PVC MAIN LINES SHALL BE INSTALLED WITH COATED NO. 12 TRACER WIRE.
- THE CONTRACTOR IS REQUIRED TO NOTIFY THE WIDEFIELD WATER AND SANITATION DISTRICT (390-7111) A MINIMUM OF 48 HOURS AND A MAXIMUM OF 96 HOURS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL ALSO NOTIFY AFFECTED UTILITY COMPANIES 48 HOURS PRIOR TO CONSTRUCTION ADJACENT TO THE KNOWN UTILITY LINES.
- THE LOCATION OF ALL UTILITIES AS SHOWN ON THESE DRAWINGS ARE APPROXIMATE ONLY. THE LOCATION OF ALL UTILITIES SHALL BE VERIFIED PRIOR TO CONSTRUCTION BY THE CONTRACTOR.
- THE CONTRACTOR SHALL FIELD EXCAVATE AND VERIFY THE VERTICAL AND HORIZONTAL LOCATION OF ALL TIE-INS. CONTRACTOR SHALL NOTIFY THE WIDEFIELD WATER AND SANITATION DISTRICT AND THE ENGINEER OF THE FIELD VERIFIED INFORMATION PRIOR TO CONSTRUCTION.
- ALL BENDS SHALL BE FIELD STAKED PRIOR TO CONSTRUCTION.
- ANY WATER UTILITY MATERIAL REMOVED AND NOT REUSED SHALL BE RETURNED TO THE WIDEFIELD WATER AND SANITATION DISTRICT IF THE DISTRICT SO REQUESTS.
- THE CONTRACTOR SHALL AT HIS EXPENSE SUPPORT AND PROTECT ALL UTILITY MAINS SO THAT THEY WILL FUNCTION CONTINUOUSLY DURING CONSTRUCTION. SHOULD A UTILITY MAIN FAIL AS A RESULT OF THE CONTRACTOR'S OPERATION, IT WILL BE REPLACED IMMEDIATELY BY EITHER THE CONTRACTOR OR THE WIDEFIELD WATER AND SANITATION DISTRICT AT FULL COST OF LABOR AND MATERIALS TO THE CONTRACTOR.
- ANY PUMPING OR BYPASS OPERATIONS MUST BE REVIEWED AND APPROVED PRIOR TO EXECUTION BY BOTH THE WIDEFIELD WATER AND SANITATION DISTRICT AND THE ENGINEER.
- CONTRACTOR MUST REPLACE OR REPAIR ANY DAMAGE TO ALL SURFACE IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO FENCES, CURB AND GUTTER AND/OR ASPHALT THAT MAY BE CAUSED DURING CONSTRUCTION.
- ALL WATER LINES 6" AND LARGER, AND ALL SEWER LINES 8" AND LARGER, SHALL HAVE AS "AS-BUILT" PLANS PREPARED AND APPROVED PRIOR TO FINAL ACCEPTANCE BY THE WIDEFIELD WATER AND SANITATION DISTRICT.
- PRIOR TO CONSTRUCTION, A PRE-CONSTRUCTION CONFERENCE IS REQUIRED A MINIMUM OF 72 HOURS IN ADVANCE OF COMMENCEMENT OF WORK. TO SET THE PRE-CONSTRUCTION CONFERENCE, CONTACT BRANDON BERNARD-WATER DIVISION MANAGER AND/OR JASON DREESSEN, WASTEWATER DIVISION MANAGER AT (719)955-0548 OF THE WIDEFIELD WATER AND SANITATION DISTRICT FOR A TIME. NO PRE-CONSTRUCTION CONFERENCE TIMES WILL BE SET UNTIL 4 SETS OF SIGNED DRAWINGS ARE RECEIVED BY THE WIDEFIELD W & S DISTRICT. PRE-CONSTRUCTION DATE/INITIALS ----- .

DRAWN BY: CBM

APPROVED: KMH

CAD DATE: 1/24/2023

CAD FILE: J:\2020\200541\CAD\DWgs\IC\CDIEI\_Paso\_ColNotes

JOB DATE: 1/6/2023


JOB NUMBER: 200541

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NO.	DATE	BY	REVISION DESCRIPTION

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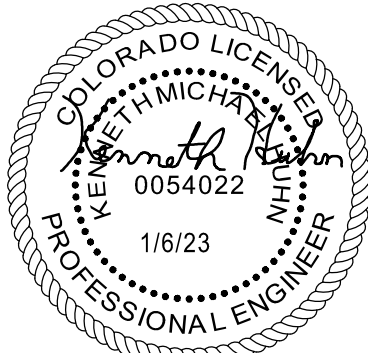
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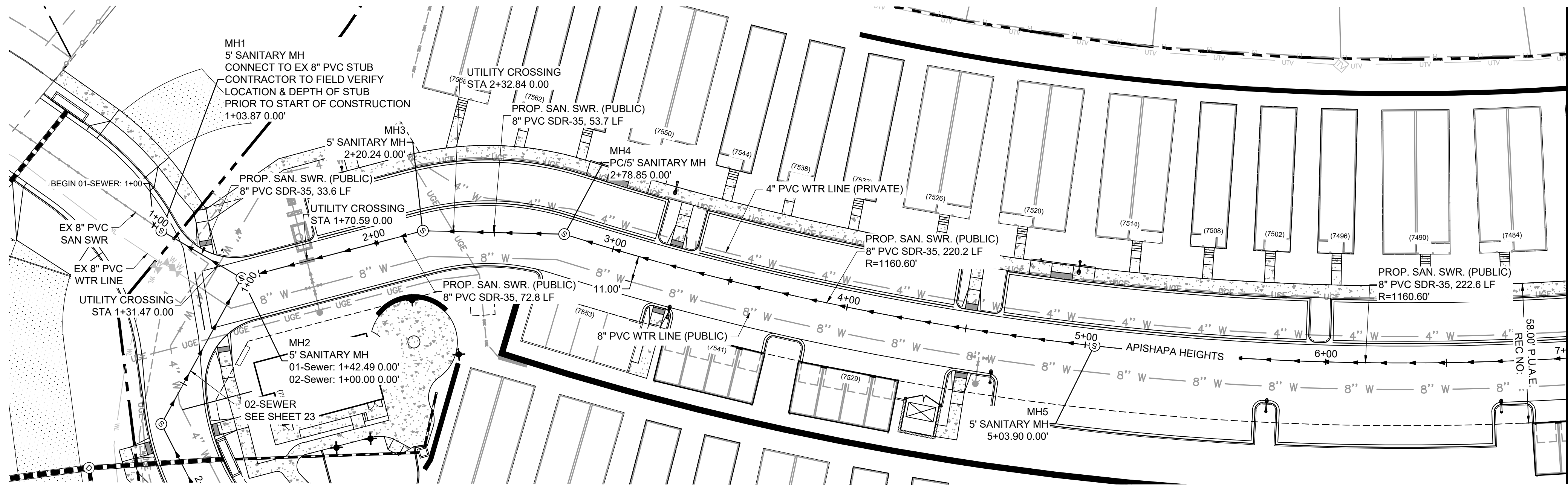
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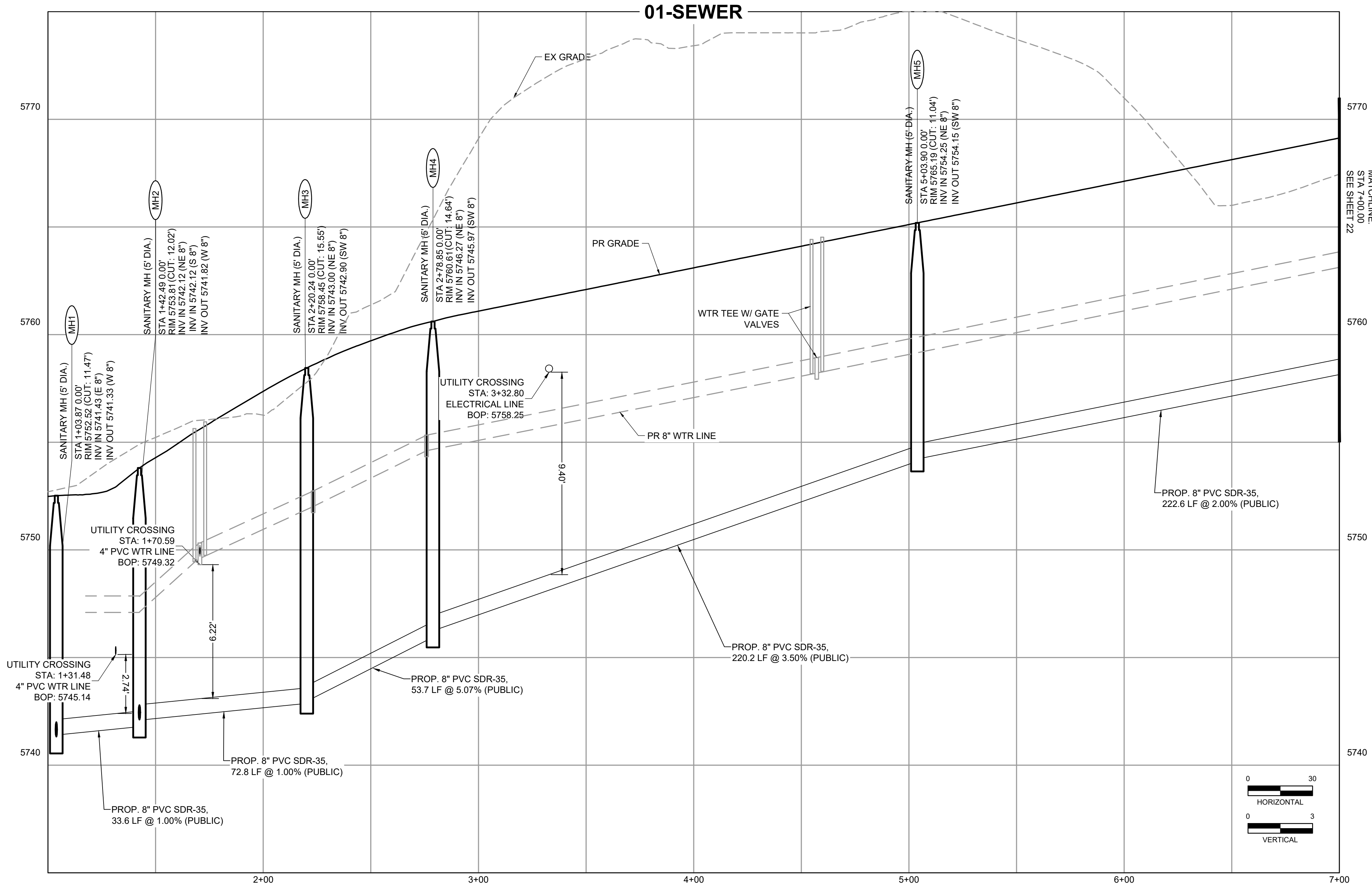
FOR CONSTRUCTION







MATCHLINE:  
STA 7+00.00  
SEE SHEET 22



MATCHLINE:  
STA 7+00.00  
SEE SHEET 22

**DEVELOPERS STATEMENT - FOUNTAIN SANITATION DISTRICT**

THE OWNER WILL COMPLY WITH THE REQUIREMENTS OF FOUNTAIN SANITATION DISTRICT REGULATIONS AND STANDARD SPECIFICATIONS. OWNER WILL COMPLY WITH THE CONSTRUCTION DRAWINGS PREPARED BY HIS/HER CIVIL ENGINEER.

DEVELOPER/OWNER SIGNATURE: Brandon Loveridge DATE: 2/13/23

NAME OF DEVELOPER/OWNER: GOODWIN KNIGHT, LLC

TITLE: Brandon Loveridge Manager

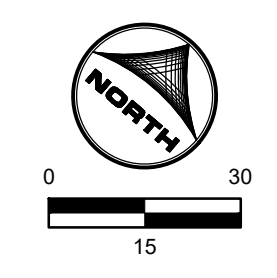
PHONE: 719-598-5190

ADDRESS: 8605 Explorer Dr., Suite 250, Colorado Springs, CO 80920

**FOUNTAIN SANITATION DISTRICT**

PLANS ARE RECOMMENDED FOR USE IN CONSTRUCTION OF WASTEWATER COLLECTION SYSTEM FOR THIS PROJECT. DESIGN ENGINEER OF RECORD TAKES SOLE RESPONSIBILITY FOR ALL DESIGN ASPECTS OF THE PROJECT.

JONATHAN MOORE, P.E. DATE \_\_\_\_\_  
FOUNTAIN SANITATION DISTRICT - DISTRICT ENGINEER



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APPROVED: KMH JOB NUMBER: 200541  
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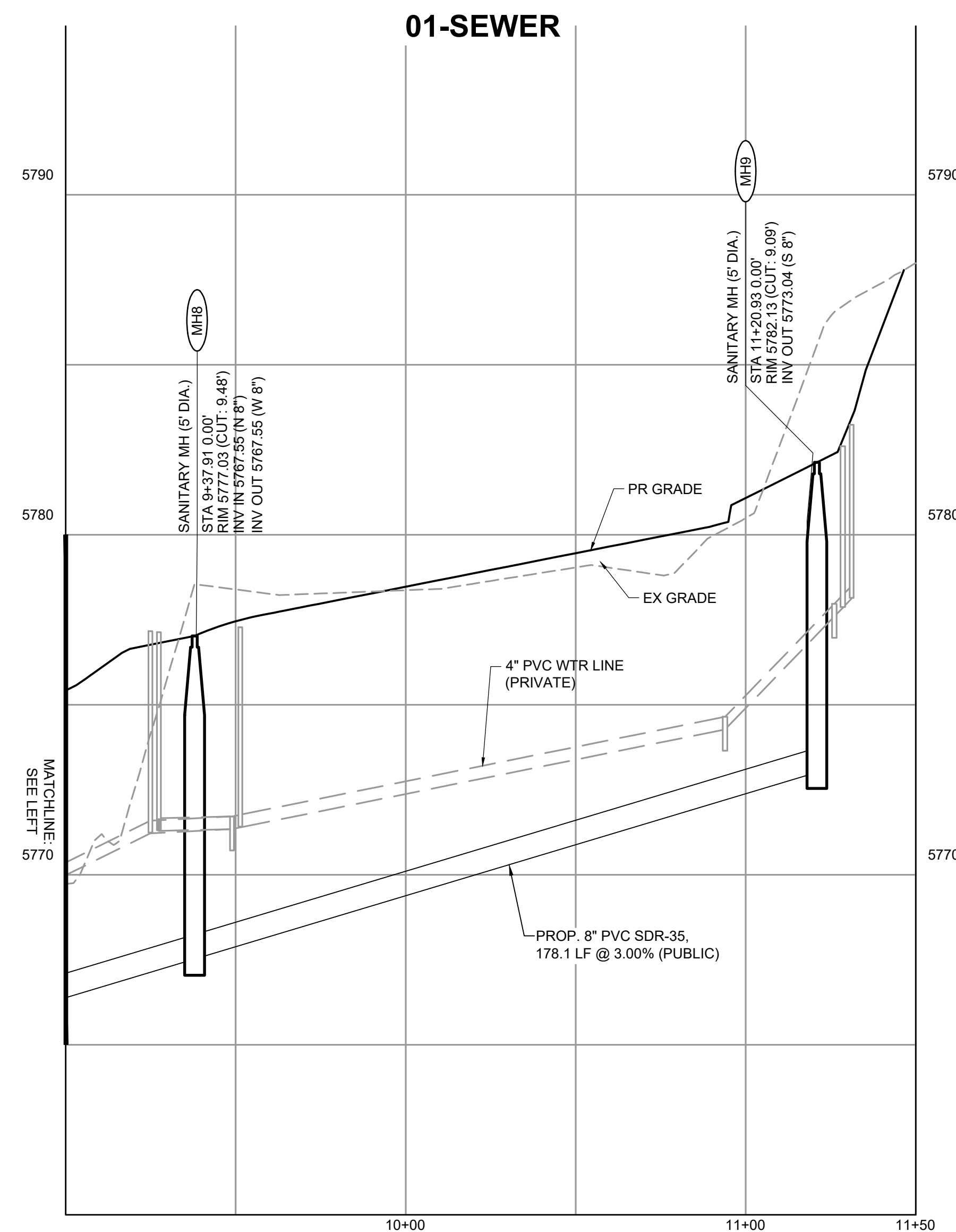
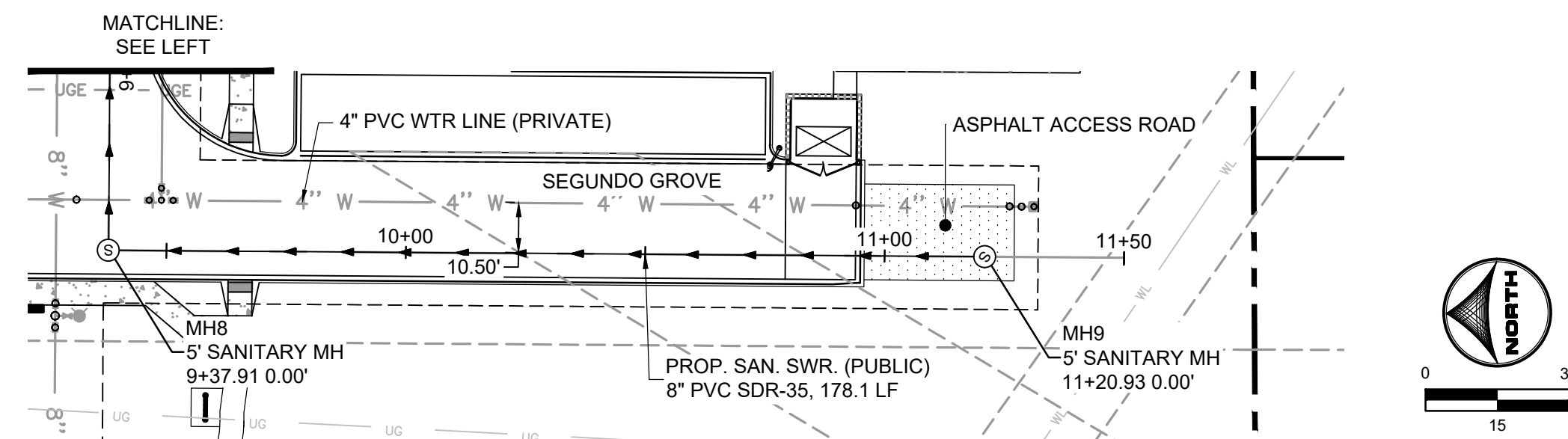
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SANITARY PLAN & PROFILE

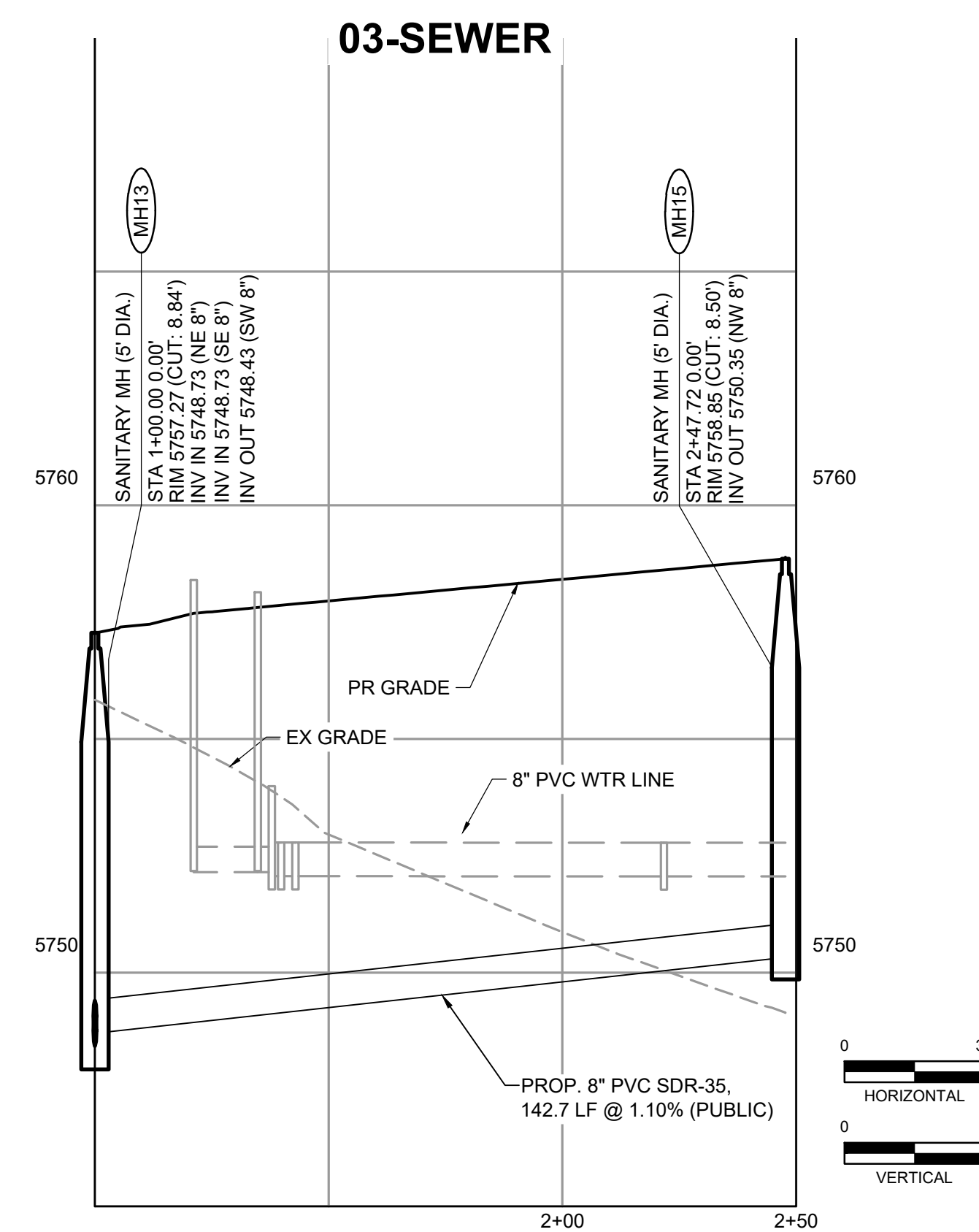
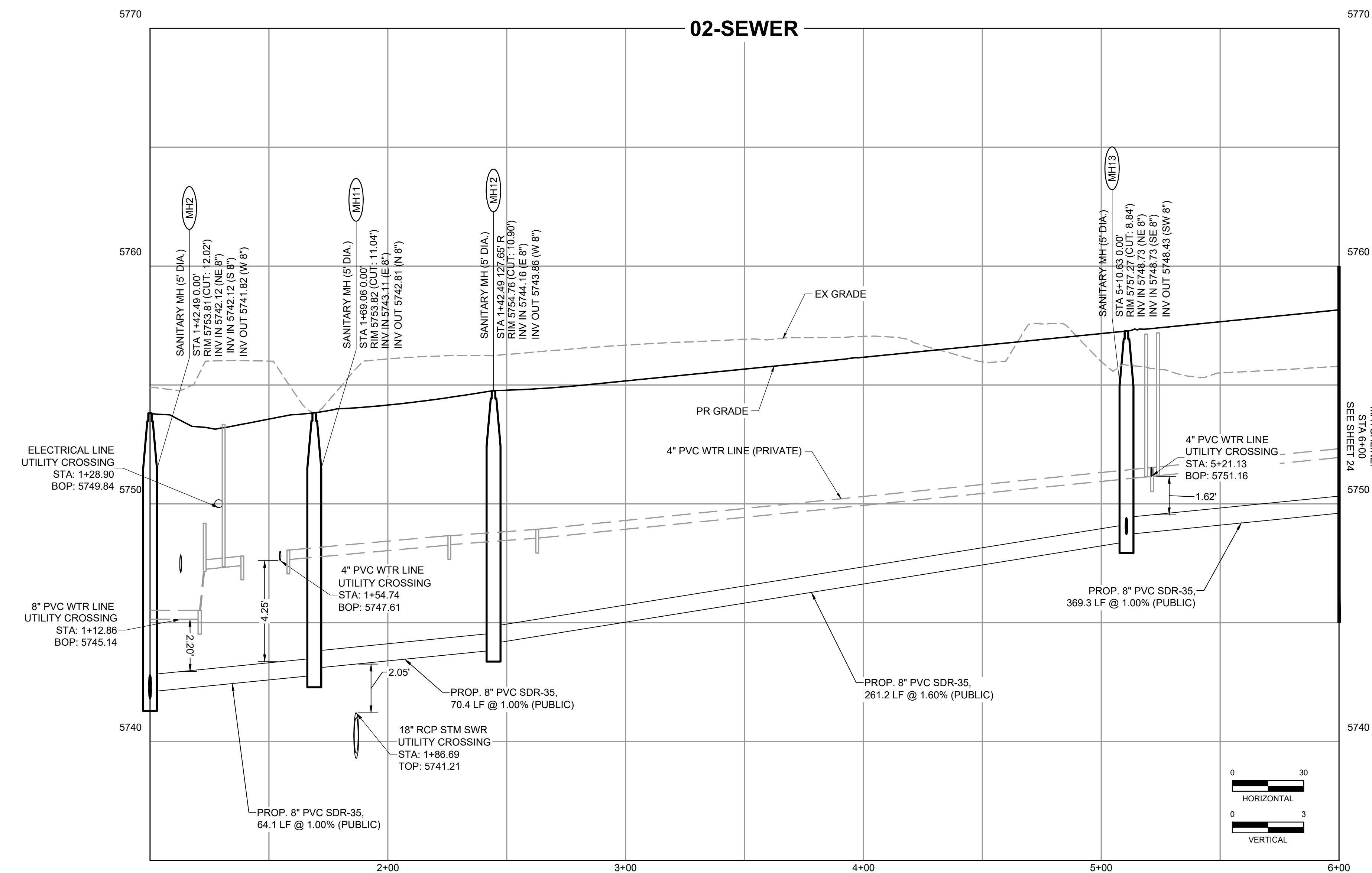
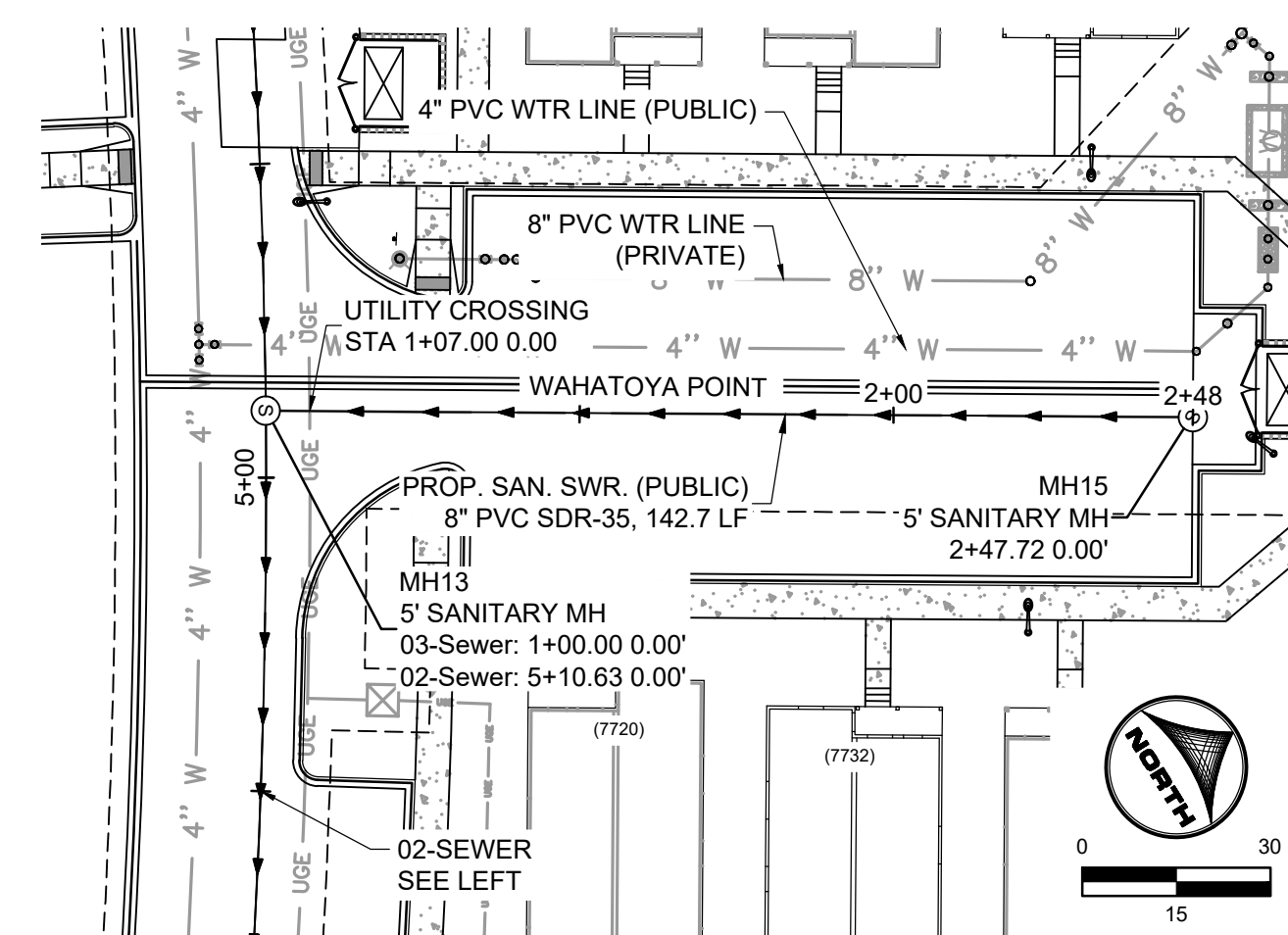
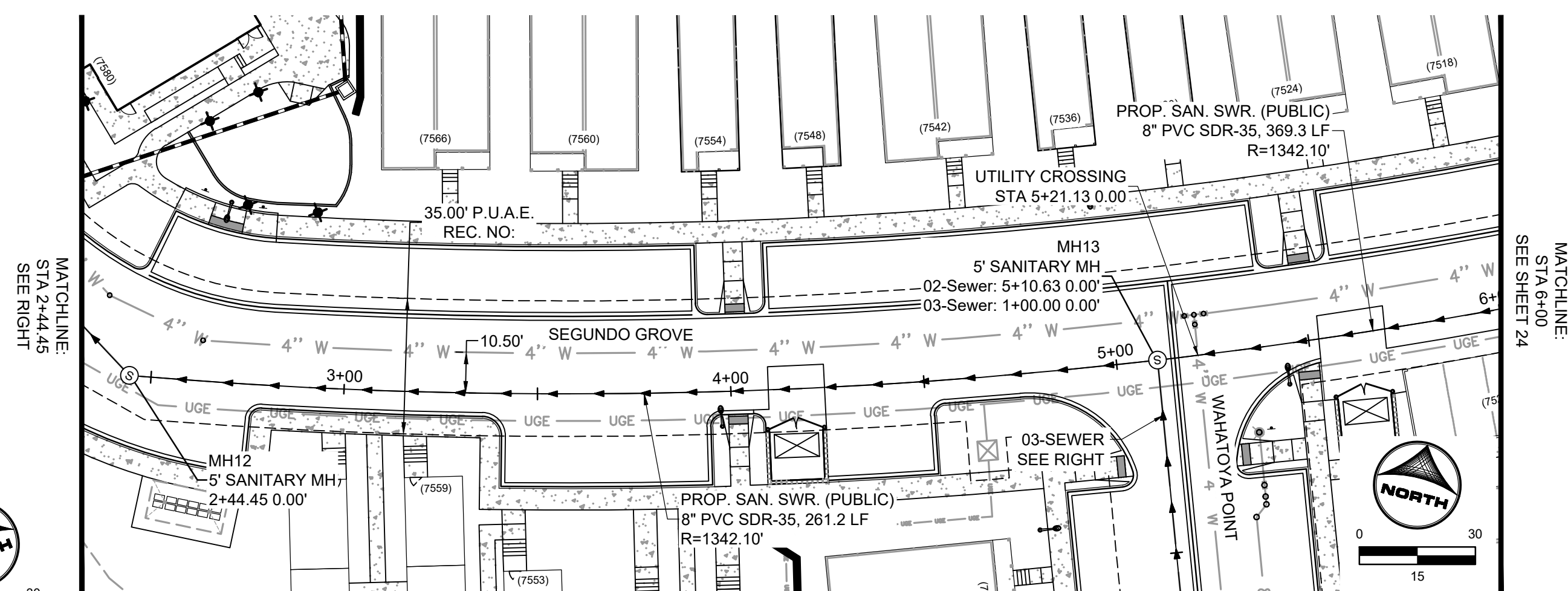
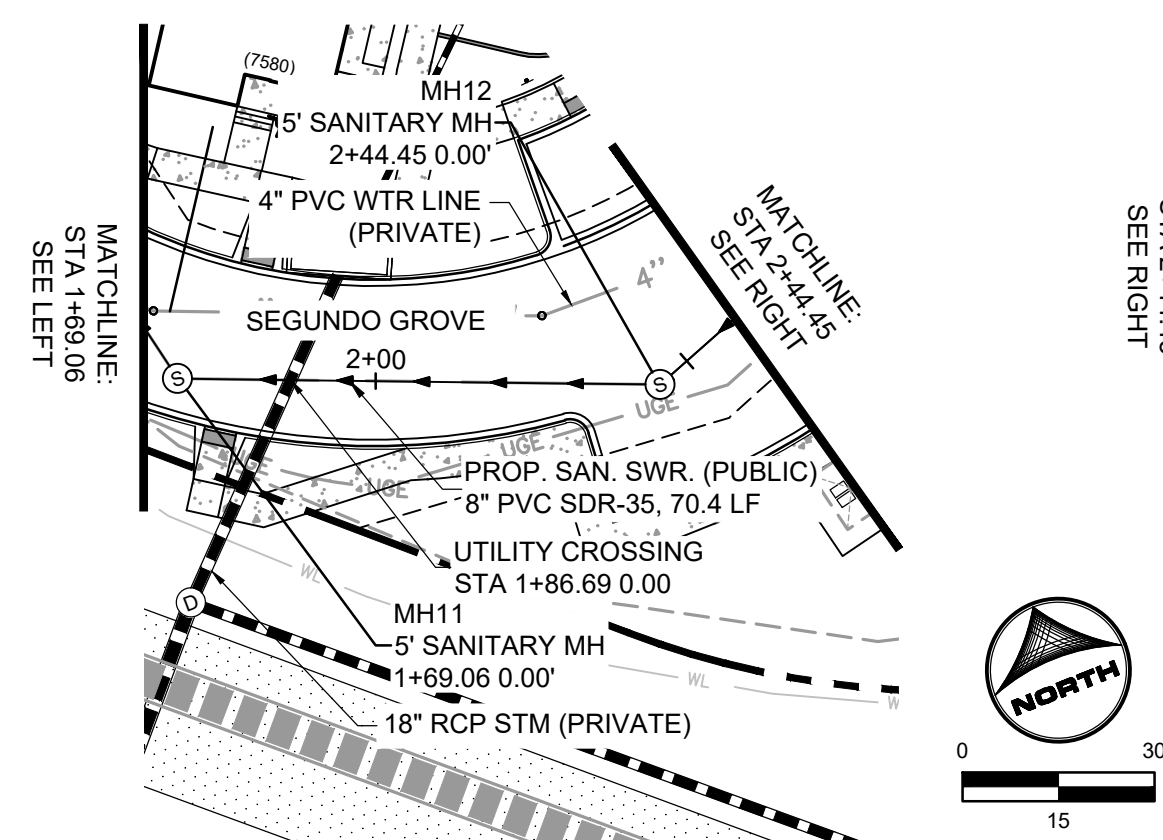




OR CONSTRUCTION

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THE OWNER WILL COMPLY WITH THE REQUIREMENTS OF FOUNTAIN SANITATION DISTRICT REGULATIONS AND STANDARD SPECIFICATIONS. OWNER WILL COMPLY WITH THE CONSTRUCTION DRAWINGS PREPARED BY HIS/HER CIVIL ENGINEER.

DEVELOPER/OWNER SIGNATURE: Brandon Lovegrove DATE: 2/13/23

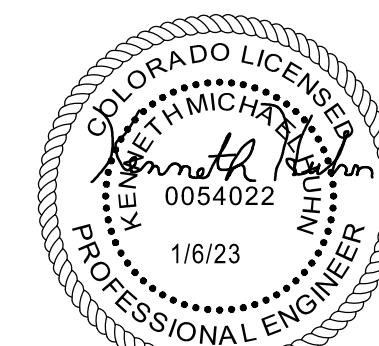
NAME OF DEVELOPER/OWNER: GOODWIN KNIGHT, LLC

TITLE: Brandon Lovegrove Manager

PHONE: 719-598-5190

ADDRESS: 8605 Explorer Dr. Suite 250, Colorado Springs, CO 80920

\_\_\_\_\_  
JONATHAN MOORE, P.E.  
FOUNTAIN SANITATION DISTRICT – DISTRICT ENGINEER



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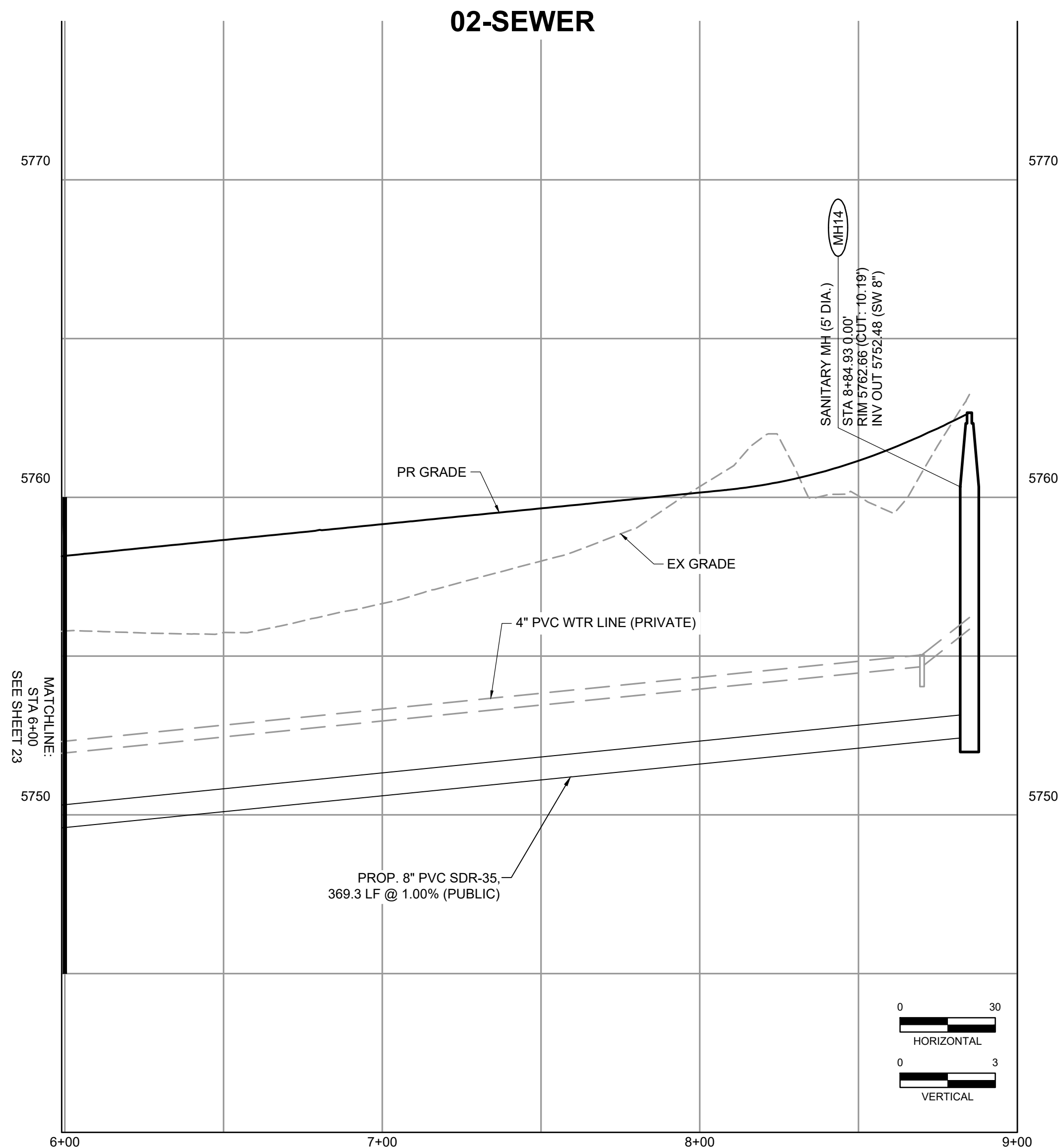
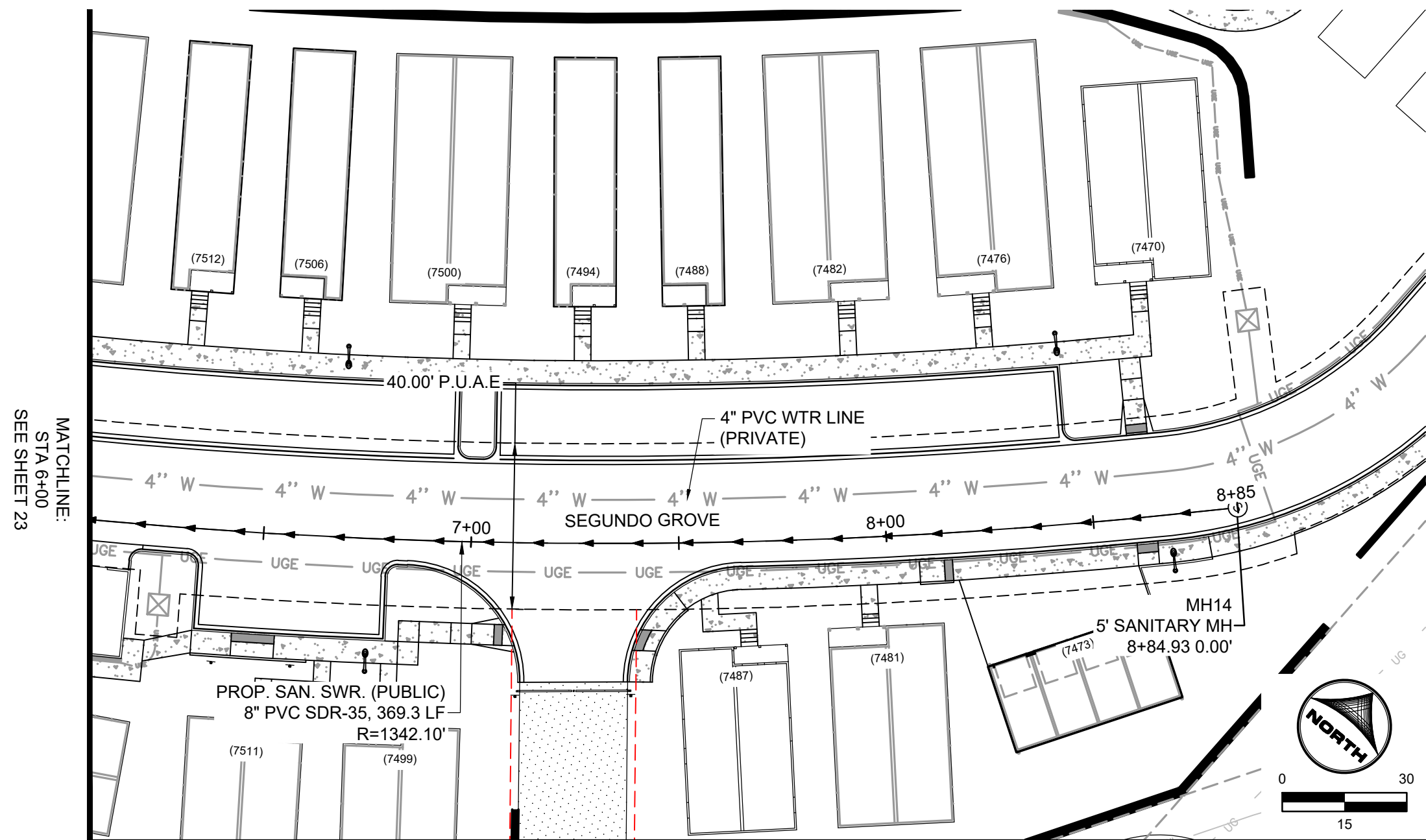


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SANITARY PLAN & PROFILE

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DEVELOPERS STATEMENT - FOUNTAIN SANITATION DISTRICT

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DEVELOPER/OWNER SIGNATURE: Brandon Loveridge DATE: 2/13/23

NAME OF DEVELOPER/OWNER: GOODWIN KNIGHT, LLC

TITLE: Brandon Loveridge Manager

PHONE: 719-598-5190

ADDRESS: 8605 Explorer Dr, Suite 250, Colorado Springs, CO 80920

FOUNTAIN SANITATION DISTRICT

PLANS ARE RECOMMENDED FOR USE IN CONSTRUCTION OF WASTEWATER COLLECTION SYSTEM FOR THIS PROJECT. DESIGN ENGINEER OF RECORD TAKES SOLE RESPONSIBILITY FOR ALL DESIGN ASPECTS OF THE PROJECT.

JONATHAN MOORE, P.E. DATE: 1/6/23  
FOUNTAIN SANITATION DISTRICT - DISTRICT ENGINEER



PCD FILNE NO.: SF2214

FOR CONSTRUCTION

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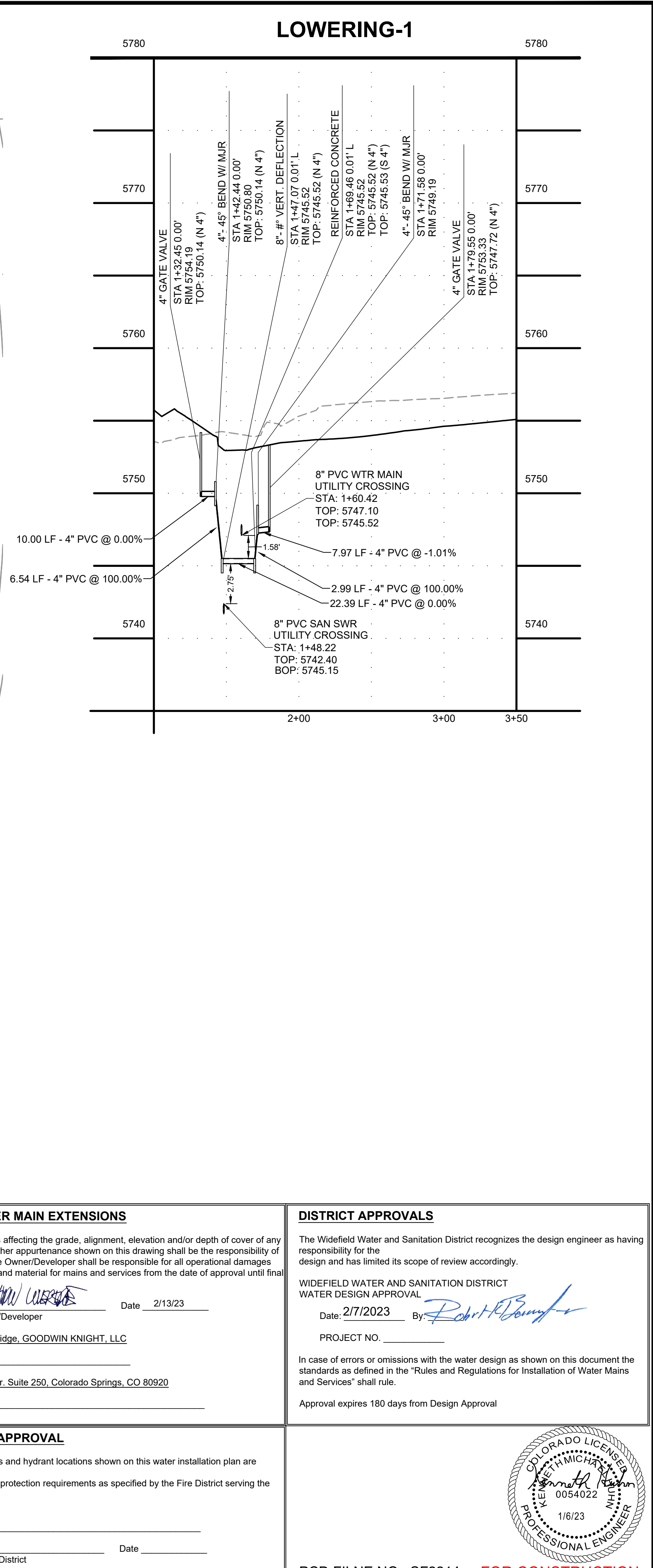
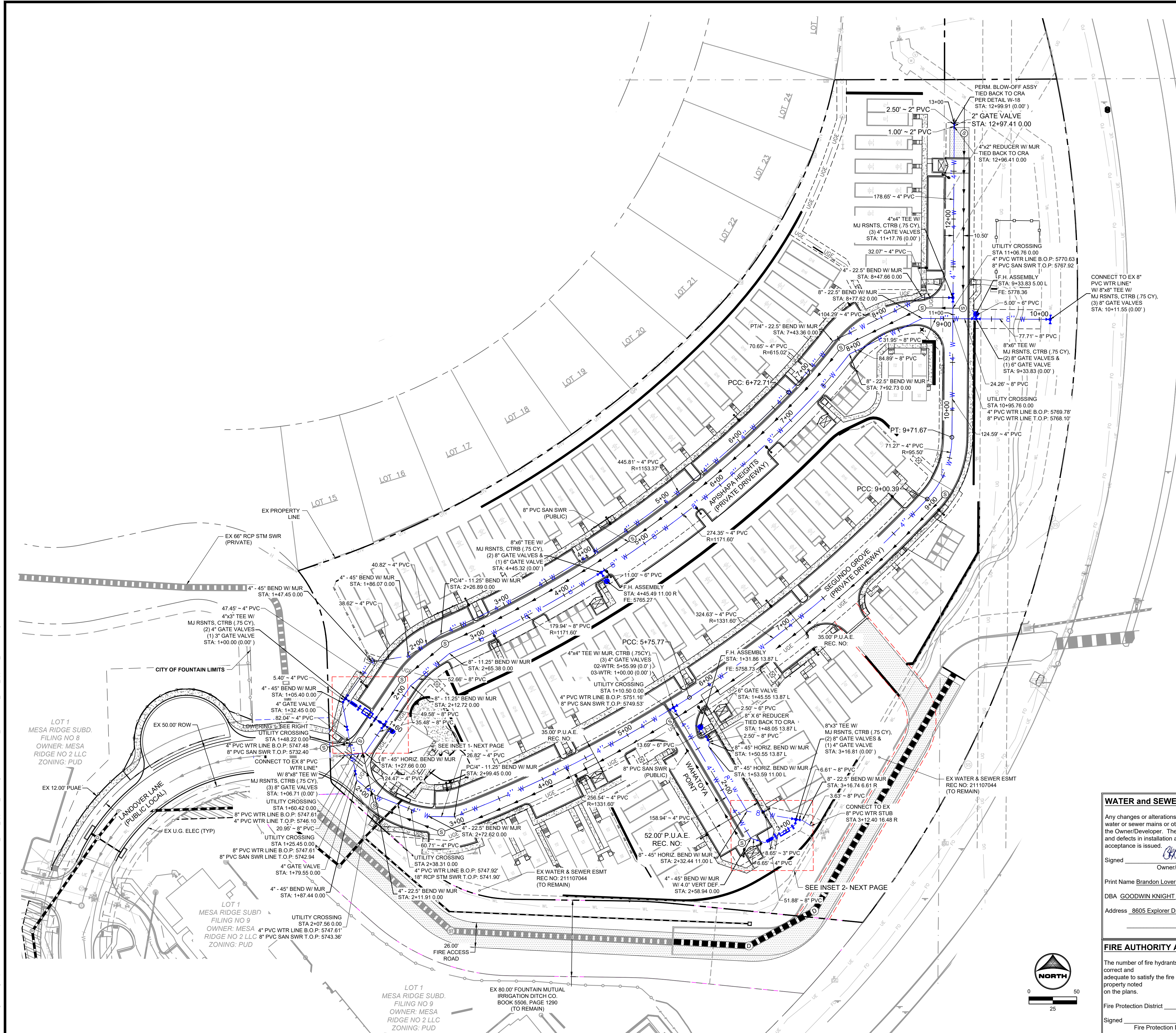


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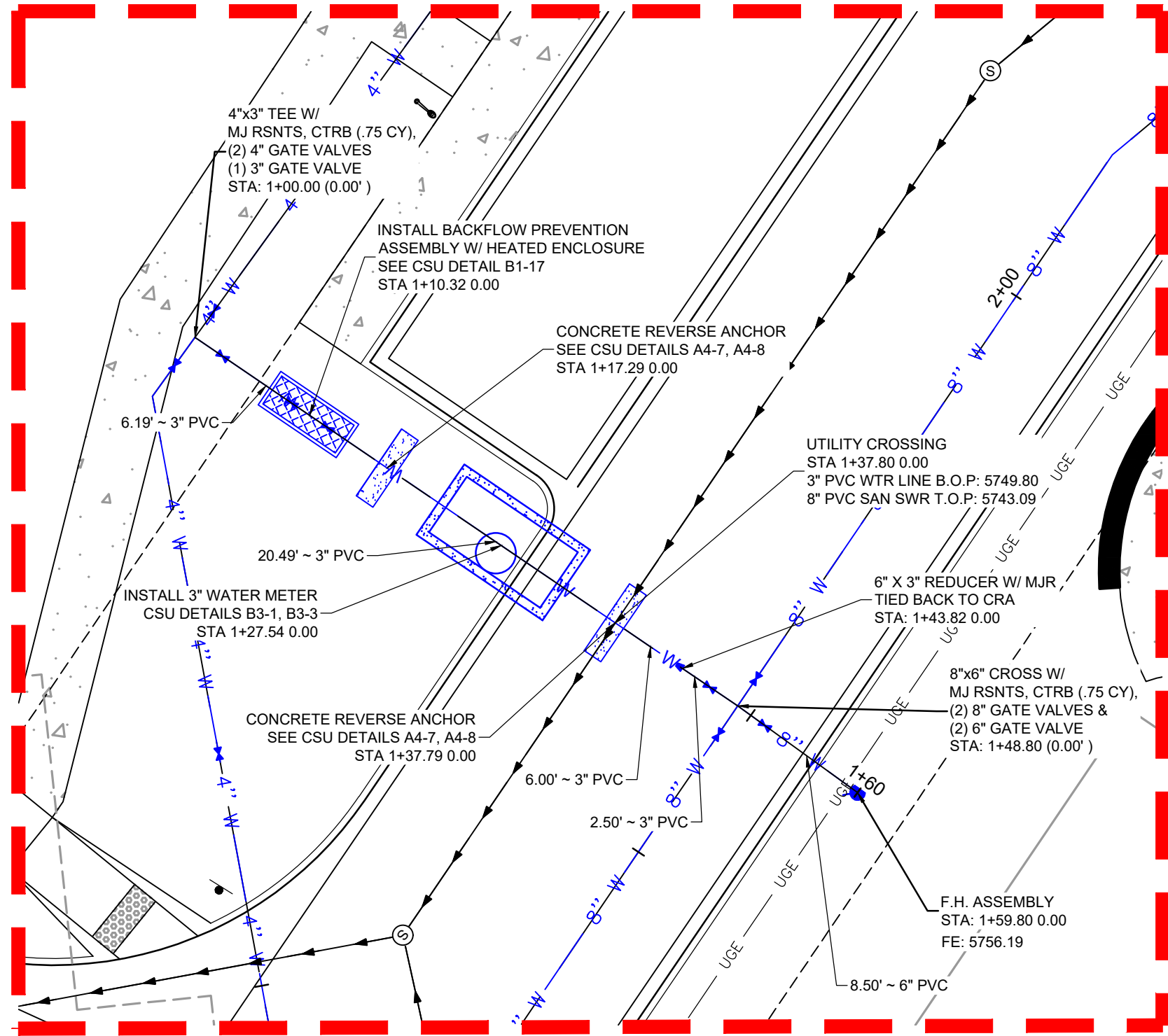
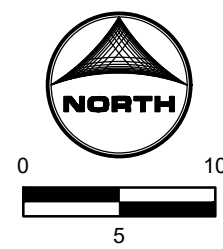
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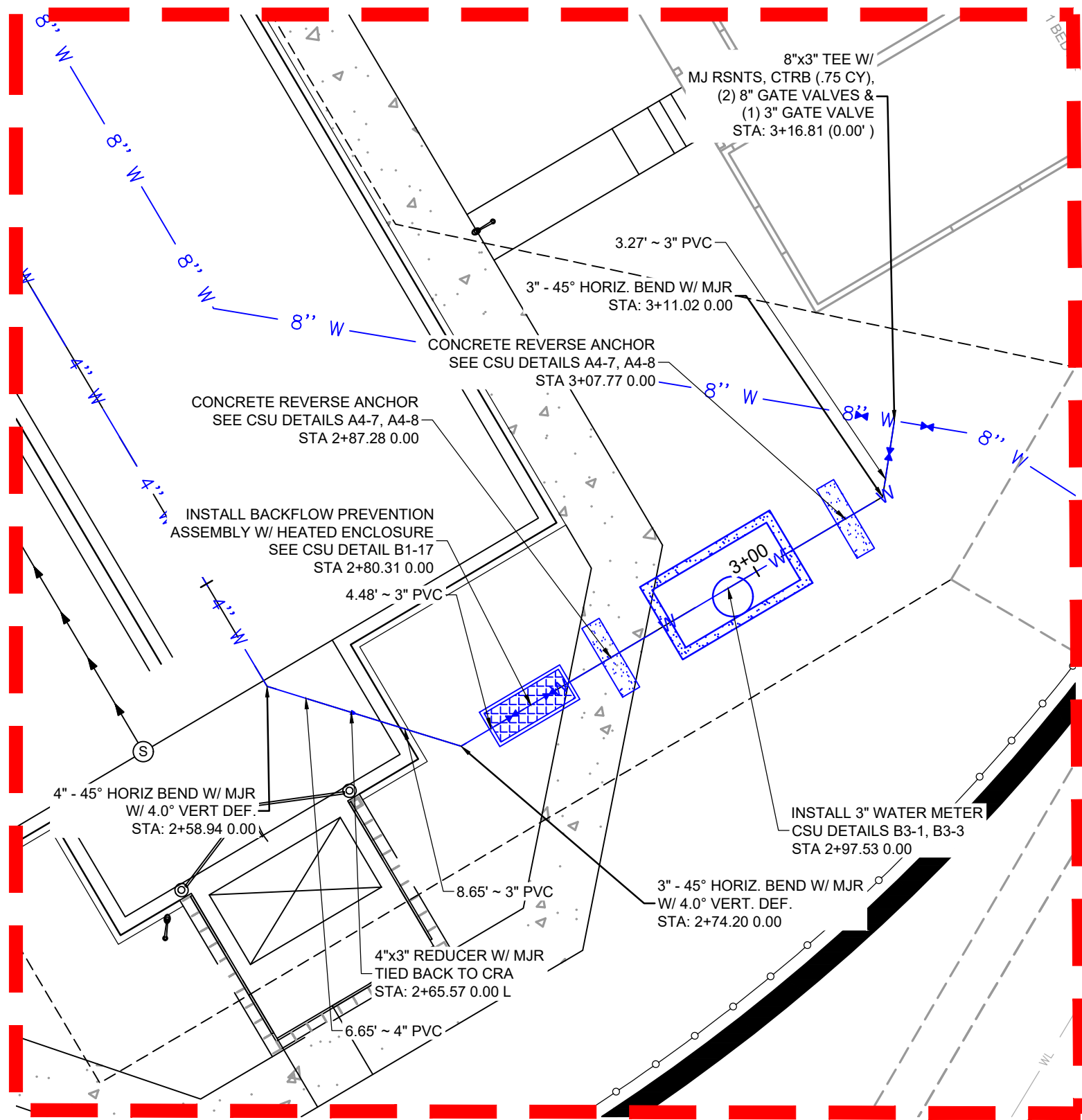
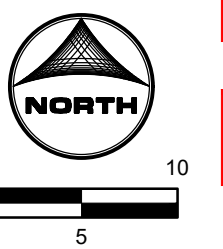






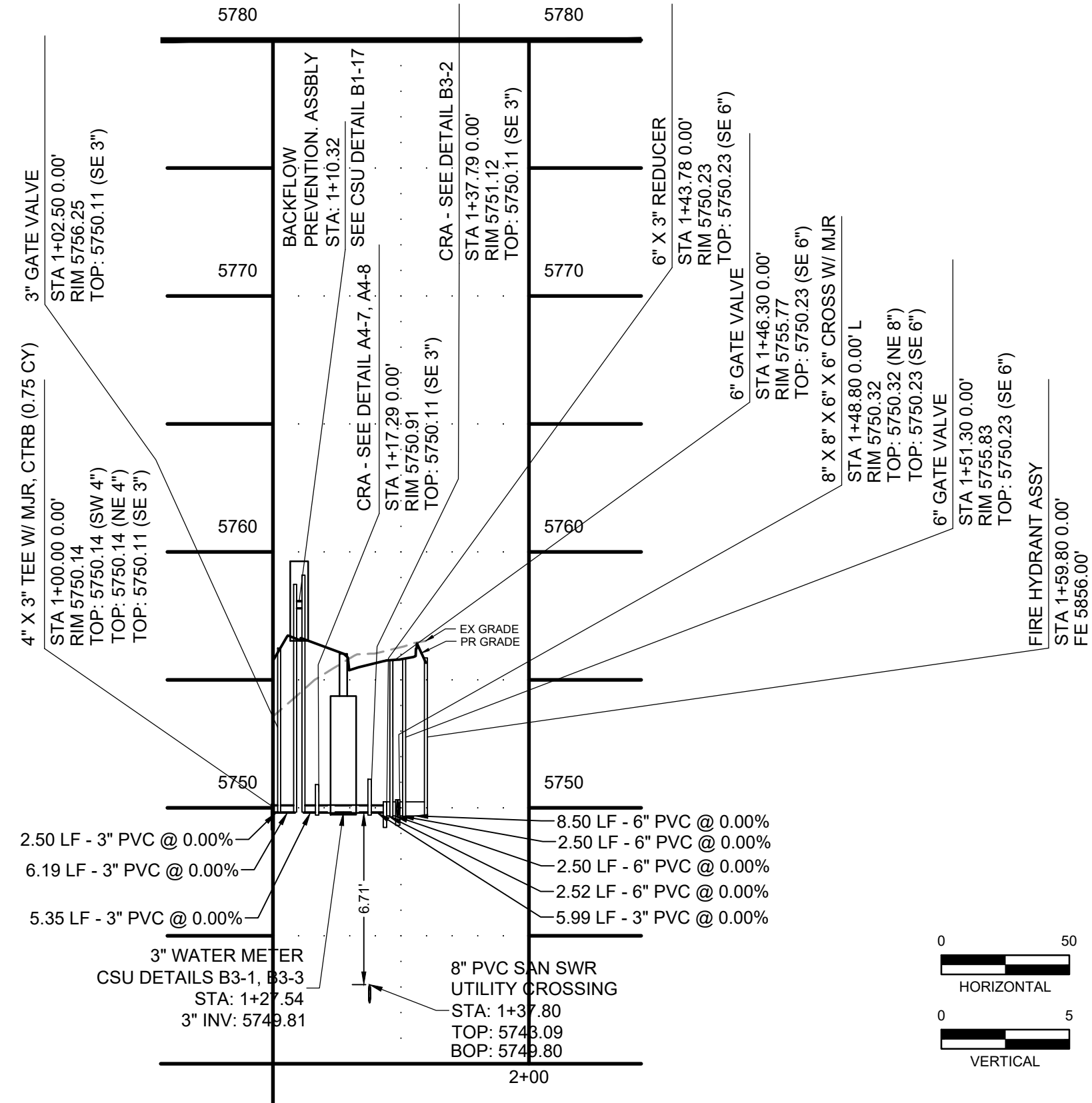


INSET 1

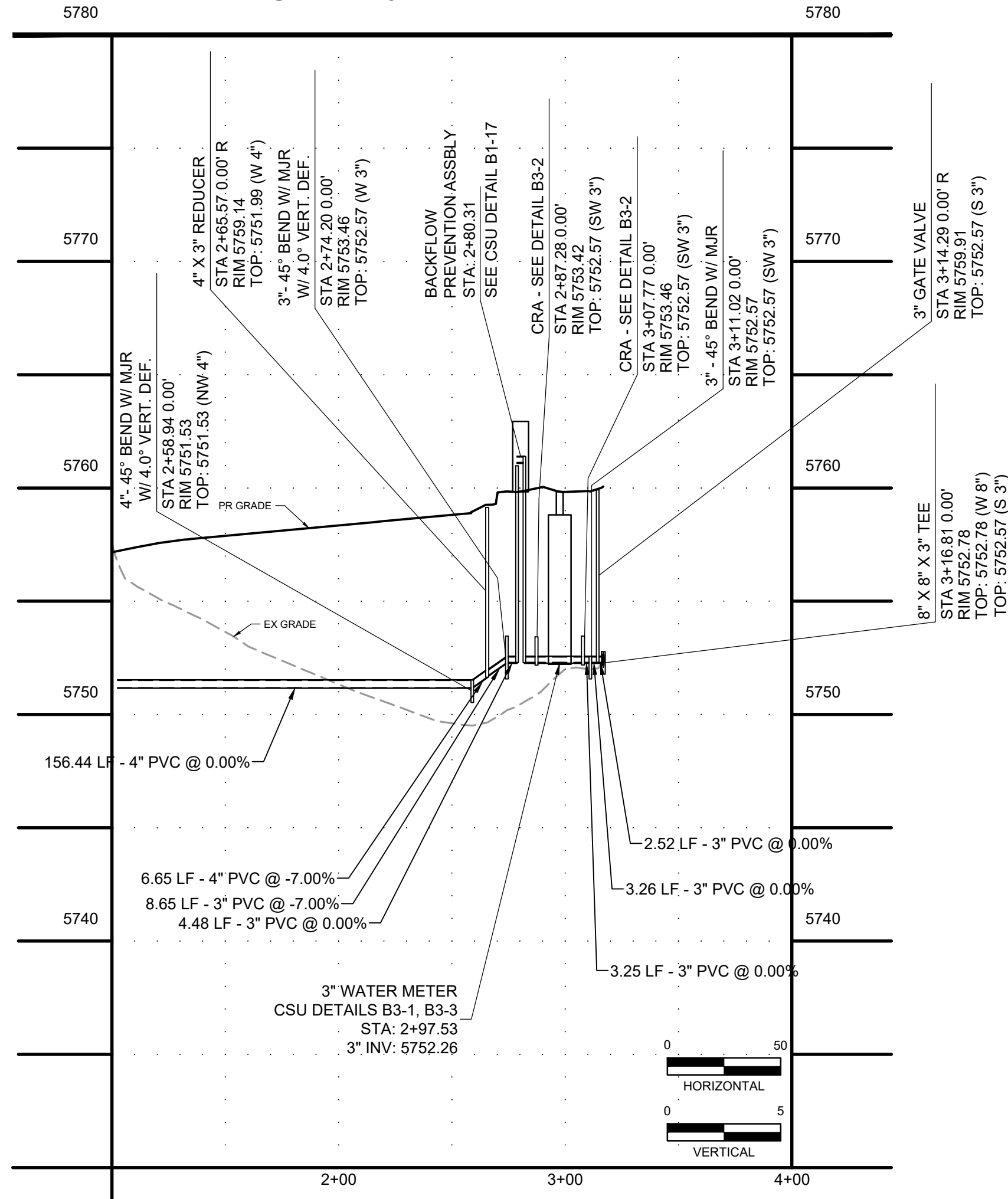


INSET 2

INSET 1- 3" WATER METER



INSET 2- 3" WATER METER



WATER and SEWER MAIN EXTENSIONS

Any changes or alterations affecting the grade, alignment, elevation and/or depth of cover of any water or sewer mains or other appurtenance shown on this drawing shall be the responsibility of the Owner/Developer. The Owner/Developer shall be responsible for all operational damages and defects in installation and material for mains and services from the date of approval until final acceptance is issued.

Signed Brandon Loveridge Date 2/13/23  
Owner/Developer

Print Name Brandon Loveridge, GOODWIN KNIGHT, LLC

DBA GOODWIN KNIGHT

Address 8605 Explorer Dr. Suite 250, Colorado Springs, CO 80920

FIRE AUTHORITY APPROVAL

The number of fire hydrants and hydrant locations shown on this water installation plan are correct and adequate to satisfy the fire protection requirements as specified by the Fire District serving the property noted on the plans.

Fire Protection District \_\_\_\_\_  
Signed \_\_\_\_\_ Date \_\_\_\_\_  
Fire Protection District

DISTRICT APPROVALS

The Widefield Water and Sanitation District recognizes the design engineer as having responsibility for the design and has limited its scope of review accordingly.

WIDEFIELD WATER AND SANITATION DISTRICT  
WATER DESIGN APPROVAL

Date: 2/7/2023 By: Robert A. Bandy

PROJECT NO. \_\_\_\_\_

In case of errors or omissions with the water design as shown on this document the standards as defined in the "Rules and Regulations for Installation of Water Mains and Services" shall rule.

Approval expires 180 days from Design Approval



PCD FILNE NO.: SF2214 FOR CONSTRUCTION

DRAWN BY: CBM	JOB DATE: 1/12/2023
APPROVED: KMH	JOB NUMBER: 200541
CAD DATE: 1/24/2023	
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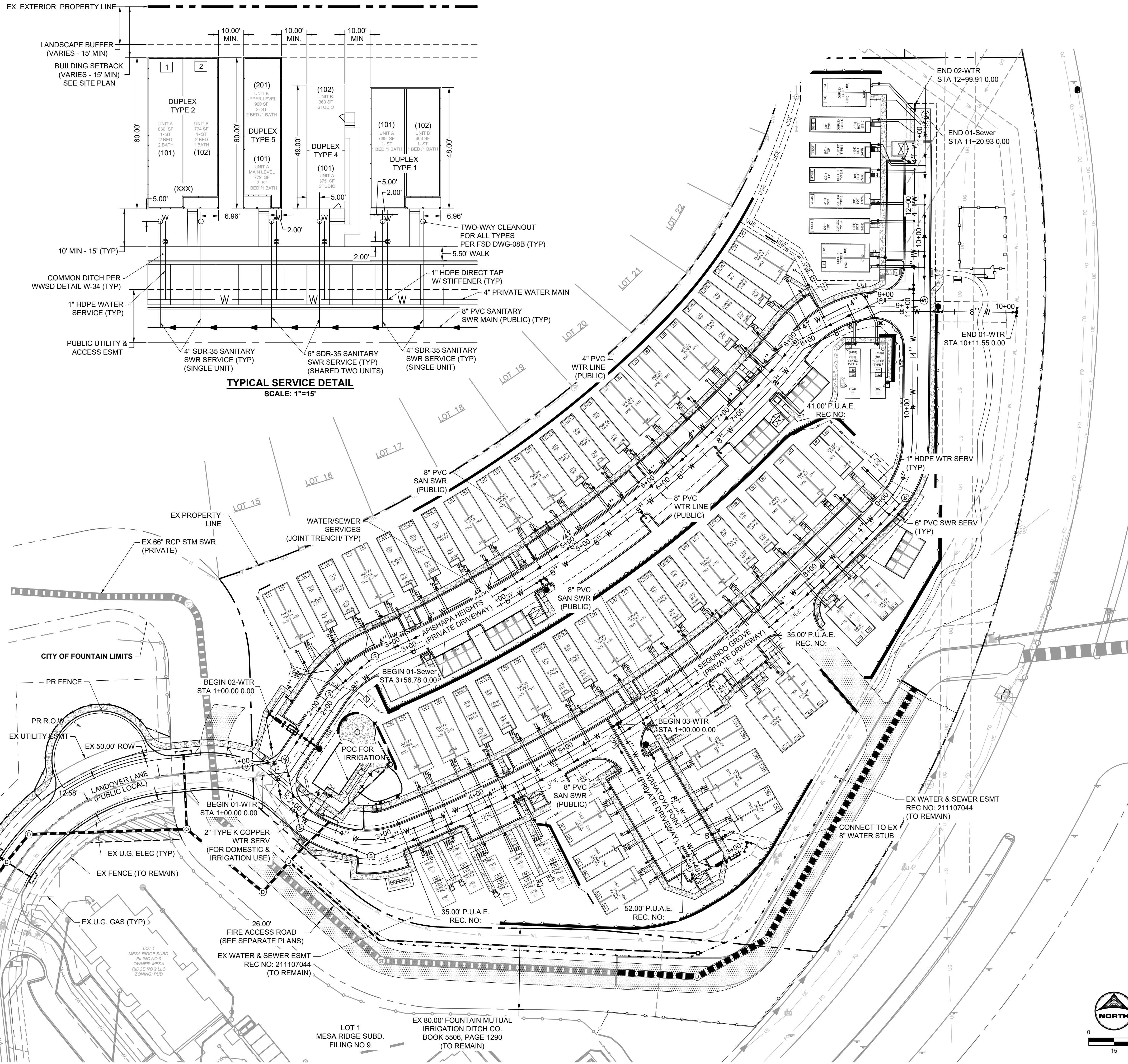
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GOODWIN KNIGHT  
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SEWER SERVICES

LOT	ALIGNMENT	STATION	OFFSET	LOT	ALIGNMENT	STATION	OFFSET	LOT	ALIGNMENT	STATION	OFFSET
CH	02-Sewer	STA 1+38.37	0.0'	41	01-Sewer	STA 9+70.23	0.0' R	83-84	02-Sewer	STA 3+90.68	0.0'
1	01-Sewer	STA 2+13.72	0.0'	42	01-Sewer	STA 9+86.27	0.0'	85	02-Sewer	STA 3+69.35	0.0'
2	01-Sewer	STA 2+37.90	0.0'	43-44	01-Sewer	STA 10+14.23	0.0'	86	02-Sewer	STA 3+55.30	0.0' L
3-4	01-Sewer	STA 2+49.75	0.0'	45-46	01-Sewer	STA 10+32.23	0.0'	87	02-Sewer	STA 3+30.96	0.0' L
5-6	01-Sewer	STA 2+71.44	0.0' L	47-48	01-Sewer	STA 10+64.23	0.0'	88	02-Sewer	STA 3+13.00	0.0' L
7	01-Sewer	STA 2+99.91	0.0'	49-50	01-Sewer	STA 10+70.90	0.0' R	89-90	02-Sewer	STA 2+91.75	0.0'
8	01-Sewer	STA 3+15.96	0.0'	51-52	01-Sewer	STA 11+03.11	0.0'	91-92	02-Sewer	STA 3+24.33	0.0'
9-10	01-Sewer	STA 3+43.92	0.0'	53	01-Sewer	STA 11+10.78	0.0'	93-94	02-Sewer	STA 3+49.35	0.0'
11-12	01-Sewer	STA 3+61.64	0.0'	54	01-Sewer	STA 11+13.28	0.0'	95-96	02-Sewer	STA 3+71.85	0.0' R
13-14	01-Sewer	STA 3+98.98	0.0'	55	02-Sewer	STA 8+76.31	0.0'	97-98	02-Sewer	STA 4+02.65	0.0'
15	01-Sewer	STA 4+08.40	0.0'	56	02-Sewer	STA 8+61.57	0.0'	99	03-Sewer	STA 1+49.08	0.0'
16	01-Sewer	STA 4+36.70	0.0'	57	02-Sewer	STA 8+38.01	0.0' L	100	03-Sewer	STA 1+63.12	0.0'
17	01-Sewer	STA 4+64.42	0.0'	58	02-Sewer	STA 8+23.57	0.0'	101	03-Sewer	STA 1+85.12	0.0'
18	01-Sewer	STA 4+78.08	0.0' L	59	02-Sewer	STA 7+96.15	0.0'	102	03-Sewer	STA 2+01.17	0.0'
19	01-Sewer	STA 4+97.10	0.0'	60	02-Sewer	STA 7+79.72	0.0'	103	03-Sewer	STA 2+25.08	0.0'
20	01-Sewer	STA 5+20.54	0.0'	61-62	02-Sewer	STA 7+58.19	0.0'	104	03-Sewer	STA 2+40.72	0.0'
21-22	01-Sewer	STA 5+51.56	0.0'	63-64	02-Sewer	STA 7+21.44	0.0'	105	03-Sewer	STA 2+36.62	0.0'
23-24	01-Sewer	STA 5+69.76	0.0' L	65	02-Sewer	STA 6+99.70	0.0'	106	03-Sewer	STA 2+20.43	0.0' L
25-26	01-Sewer	STA 6+05.35	0.0' L	66	02-Sewer	STA 6+83.29	0.0'	107	03-Sewer	STA 2+05.05	0.0'
27	01-Sewer	STA 6+28.50	0.0'	67-68	02-Sewer	STA 6+61.88	0.0'	108	03-Sewer	STA 1+82.44	0.0'
28	01-Sewer	STA 6+44.96	0.0'	69-70	02-Sewer	STA 6+25.13	0.0'	109	03-Sewer	STA 1+61.12	0.0'
29	01-Sewer	STA 6+72.73	0.0'	71	02-Sewer	STA 6+03.70	0.0'	110	03-Sewer	STA 1+46.05	0.0'
30	01-Sewer	STA 6+85.67	0.0'	72	02-Sewer	STA 5+89.30	0.0'	111-112	02-Sewer	STA 6+39.69	0.0'
31	01-Sewer	STA 7+12.19	0.0'	73	02-Sewer	STA 5+61.75	0.0'	113-114	02-Sewer	STA 6+91.44	0.0'
32	01-Sewer	STA 7+28.94	0.0'	74	02-Sewer	STA 5+45.35	0.0'	115	02-Sewer	STA 7+53.80	0.0'
33-34	01-Sewer	STA 7+62.32	0.0'	75-76	02-Sewer	STA 5+23.84	0.0'	116	02-Sewer	STA 7+68.90	0.0'
35-36	01-Sewer	STA 7+81.29	0.0'	77-78	02-Sewer	STA 4+87.09	0.0'	117	02-Sewer	STA 7+89.92	0.0' L
37-38	01-Sewer	STA 8+09.57	0.0'	79	02-Sewer	STA 4+65.34	0.0' L	118	02-Sewer	STA 8+06.90	0.0'
39	01-Sewer	STA 8+20.55	0.0' R	80	02-Sewer	STA 4+48.94	0.0'	119-120	01-Sewer	STA 8+61.59	0.0' R
40	01-Sewer	STA 8+35.52	0.0' L	81-82	02-Sewer	STA 4+27.43	0.0' L	121-122	01-Sewer	STA 8+80.68	0.0' R

WATER SERVICES

LOT	ALIGNMENT	STATION	OFFSET	LOT	ALIGNMENT	STATION	OFFSET	LOT	ALIGNMENT	STATION	OFFSET
CH	02-WTR	STA 2+14.48	0.0'	41-42	02-WTR	STA 11+41.08	0.0'	83-84	02-WTR	STA 4+28.31	0.0'
1-2	01-WTR	STA 2+12.72	39.5' L	43-44	02-WTR	STA 11+85.08	0.0'	85-86	02-WTR	STA 4+07.44	0.0'
3-4	01-WTR	STA 2+41.41	24.2' L	45-46	02-WTR	STA 12+03.08	0.0' R	87-88	02-WTR	STA 3+51.24	0.0'
5-6	01-WTR	STA 2+68.80	21.9' L	47-48	02-WTR	STA 12+41.74	0.0'	89-90	02-WTR	STA 3+30.15	0.0' L
7-8	01-WTR	STA 2+88.16	22.0' L	49-50	02-WTR	STA 12+93.48	0.0'	91-92	02-WTR	STA 3+62.46	0.0' R
9-10	01-WTR	STA 3+33.01	22.0' L	51-52	02-WTR	STA 12+85.08	0.0' R	93-94	02-WTR	STA 3+87.30	0.0'
11-12	01-WTR	STA 3+51.07	22.0' L	53-54	02-WTR	STA 12+35.08	0.0' R	95-96	02-WTR	STA 4+09.94	0.0' R
13-14	01-WTR	STA 3+88.62	22.0' L	55-56	02-WTR	STA 9+10.38	0.0'	97-98	02-WTR	STA 4+40.19	0.0'
15-16	01-WTR	STA 4+10.38	22.0' L	57-58	02-WTR	STA 8+72.12	0.0' L	99-100	03-WTR	STA 1+75.84	0.0'
17-18	01-WTR	STA 4+68.51	22.0' L	59-60	02-WTR	STA 8+14.30	0.0'	101-102	03-WTR	STA 1+97.84	0.0'
19-20	01-WTR	STA 4+95.40	22.0' L	61-62	02-WTR	STA 7+92.95	0.0'	103-104	03-WTR	STA 2+49.84	0.0'
21-22	01-WTR	STA 5+42.64	22.0' L	63-64	02-WTR	STA 7+56.48	0.0'	105-106	03-WTR	STA 2+45.34	0.0'
23-24	01-WTR	STA 5+61.02	22.0' L	65-66	02-WTR	STA 7+18.63	0.0'	107-108	03-WTR	STA 2+17.77	0.0'
25-26	01-WTR	STA 5+97.29	22.0' L	67-68	02-WTR	STA 6+97.39	0.0'	109-110	03-WTR	STA 1+58.77	0.0' R
27-28	01-WTR	STA 6+20.62	22.0' L	69-70	02-WTR	STA 6+60.92	0.0'	111-112	02-WTR	STA 6+75.37	0.0'
29-30	01-WTR	STA 6+79.22	22.0' L	71-72	02-WTR	STA 6+39.66	0.0'	113-114	02-WTR	STA 7+26.63	0.0'
31-32	01-WTR	STA 7+05.69	22.0' L	73-74	02-WTR	STA 5+81.77	0.0'	115-116	02-WTR	STA 7+88.23	0.0'
33-34	01-WTR	STA 7+55.71	22.0' L	75-76	02-WTR	STA 5+60.99	0.0'	117-118	02-WTR	STA 8+24.35	0.0'
35-36	01-WTR	STA 7+75.36	22.0' L	77-78	02-WTR	STA 5+23.96	0.0'	119-120	01-WTR	STA 8+50.86	19.7' L
37-38	01-WTR	STA 7+98.28	19.7' L	79-80	02-WTR	STA 4+86.11	0.0'	121-122	01-WTR	STA 8+69.75	19.7' L
39-40	01-WTR	STA 8+24.59	19.7' L	81-82	02-WTR	STA 4+64.77	0.0'				



PCD FILNE NO.: SF2214 FOR CONSTRUCTION

DRAWN BY: CBM JOB DATE: 1/6/2023  
APPROVED: KMH JOB NUMBER: 200541  
CAD DATE: 1/24/2023  
CAD FILE: J:\2020\200541\CAD\DWG\CD\CDIE\_Paso\_Co\Util Service Plan

NO.	DATE	BY	REVISION DESCRIPTION

HR GREEN - COLORADO SPRINGS  
7222 COMMERCE CENTER DR SUITE 220  
COLORADO SPRINGS CO 80919  
PHONE: 719.300.4140 TOLL FREE: 800.728.7805  
FAX: 844.273.1057 | HRGreen.com

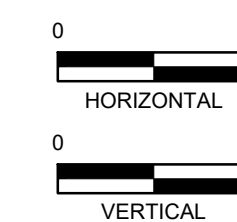
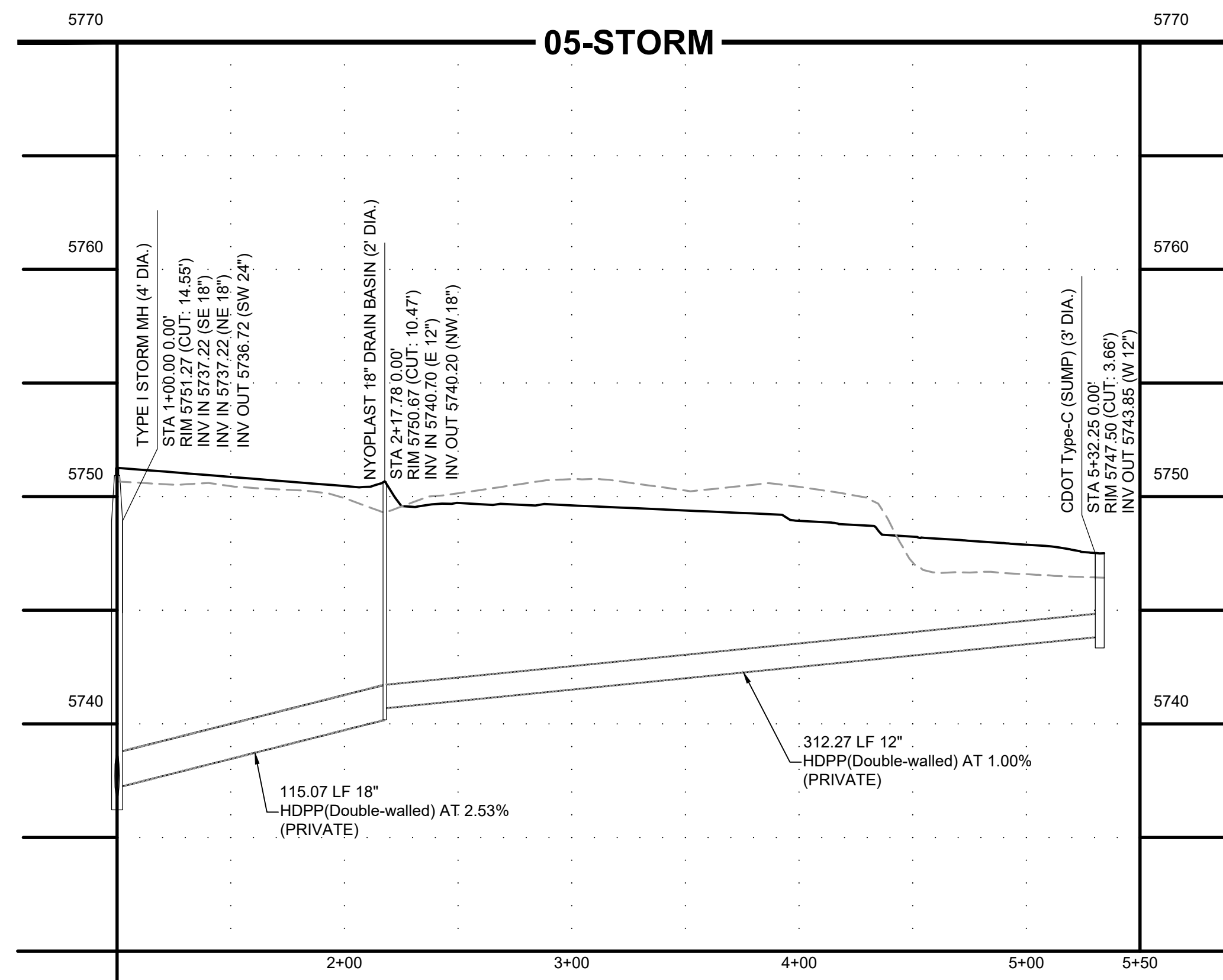
THE COTTAGES AT MESA RIDGE  
GOODWIN KNIGHT  
EL PASO COUNTY, COLORADO



EL PASO COUNTY CONSTRUCTION DOCUMENTS  
UTILITY SERVICE PLAN

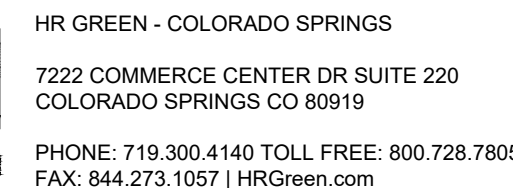
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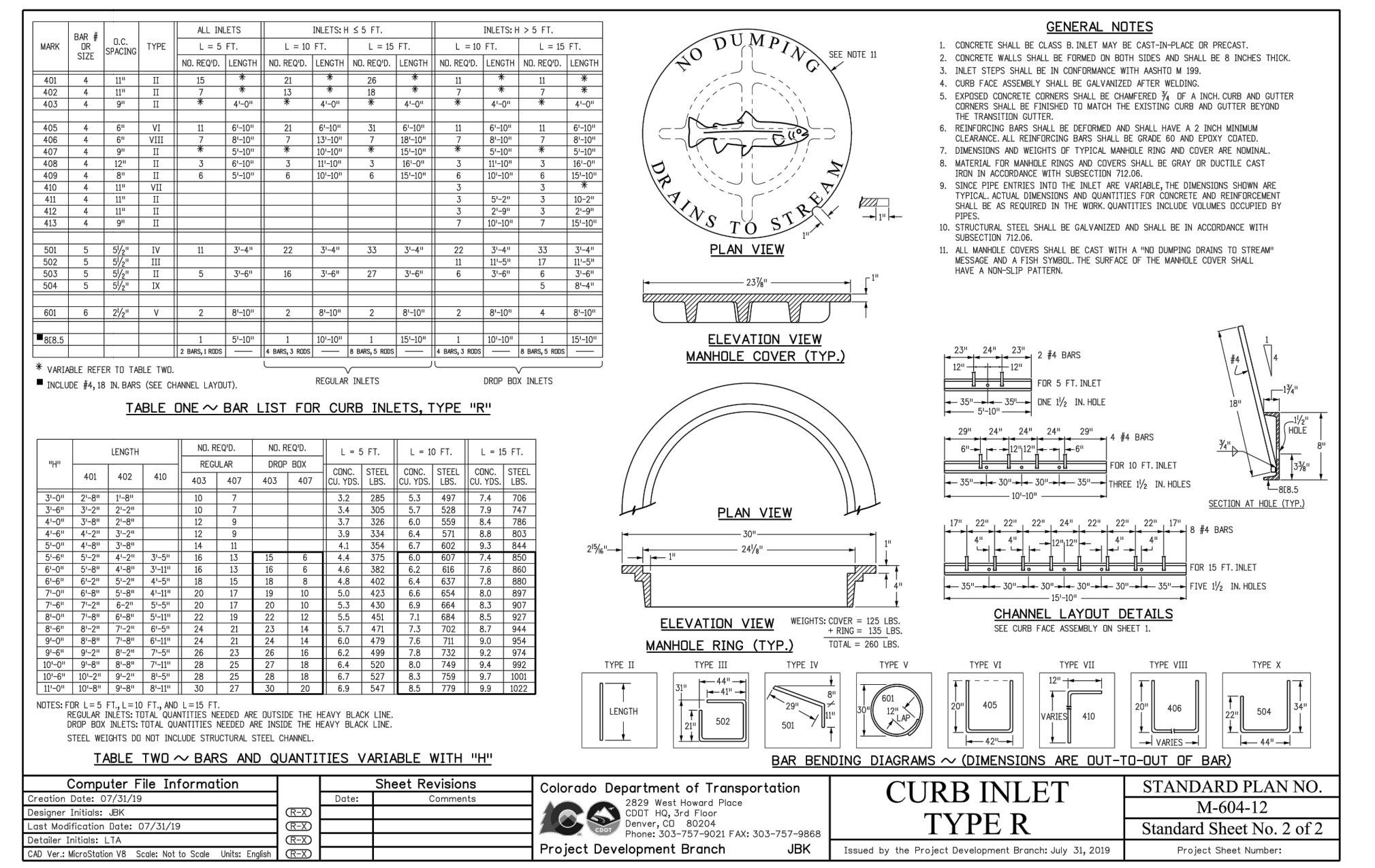
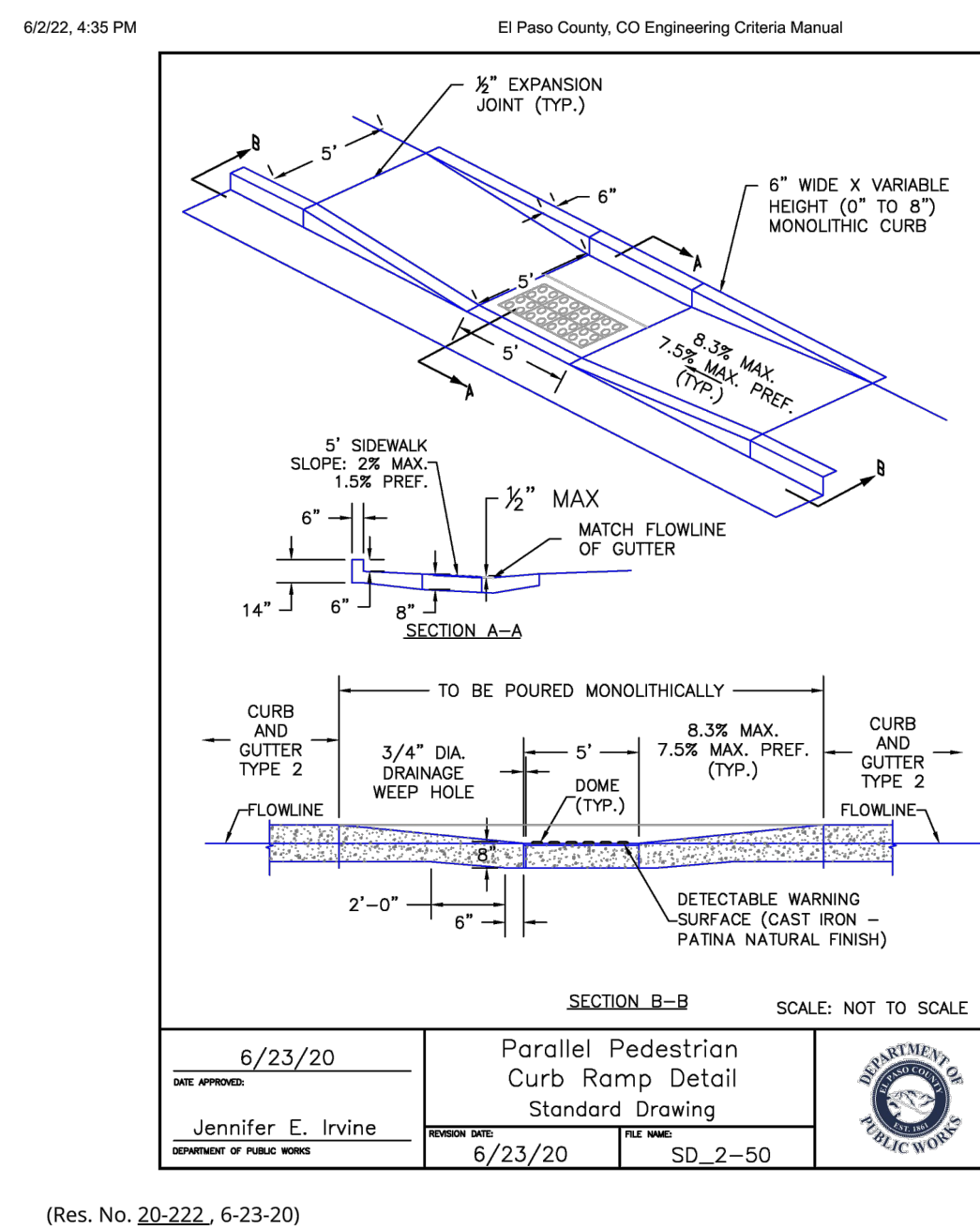
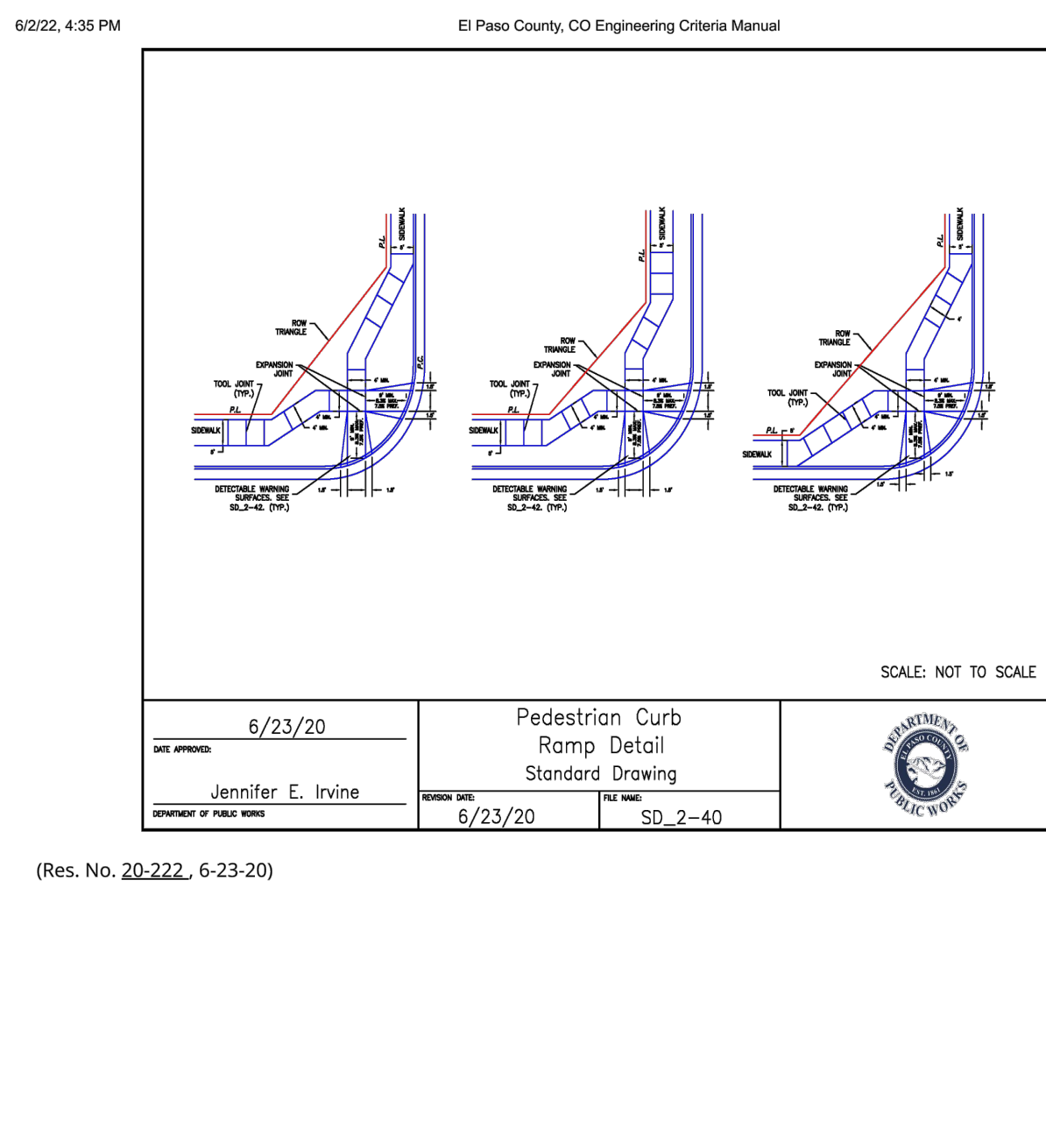
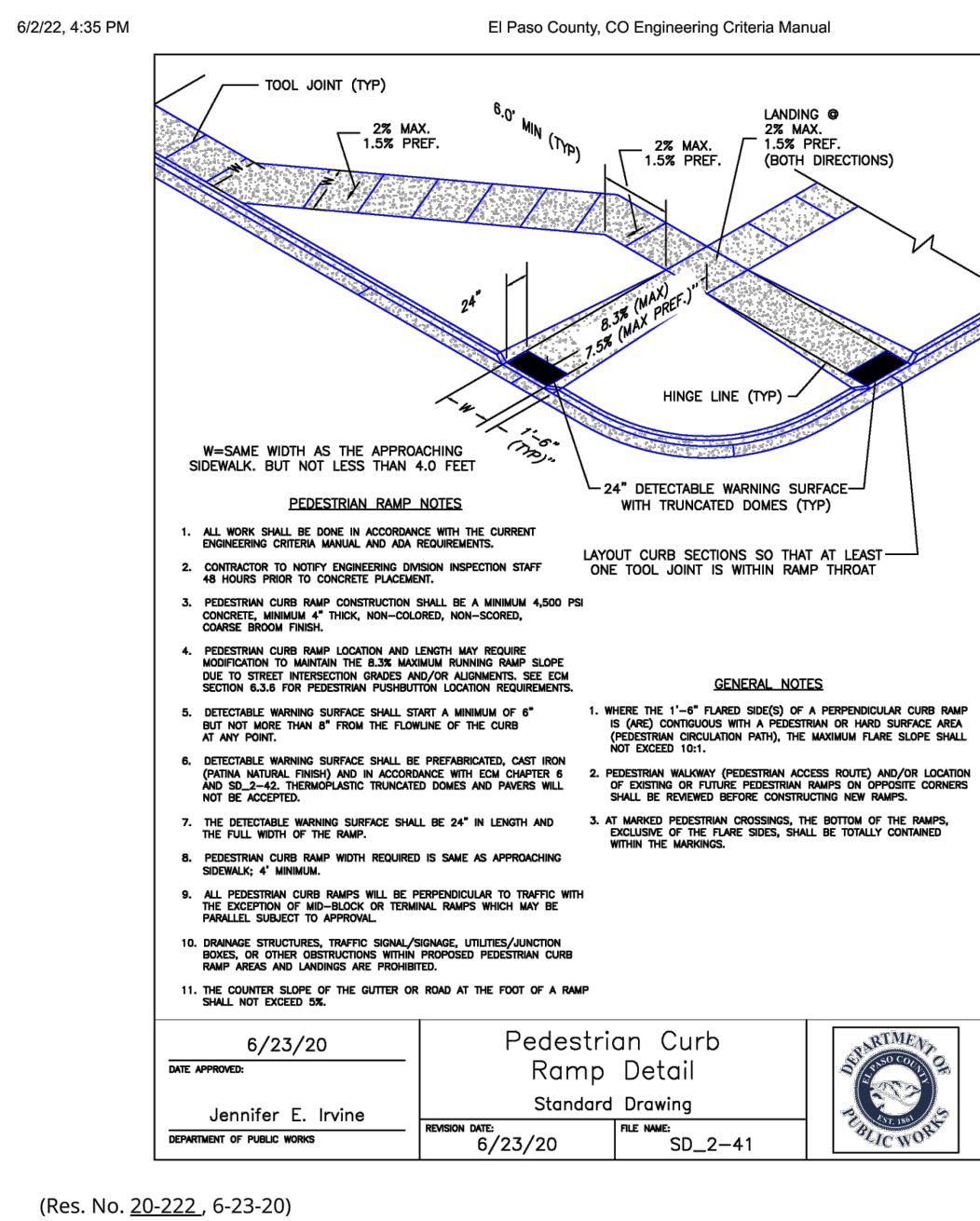
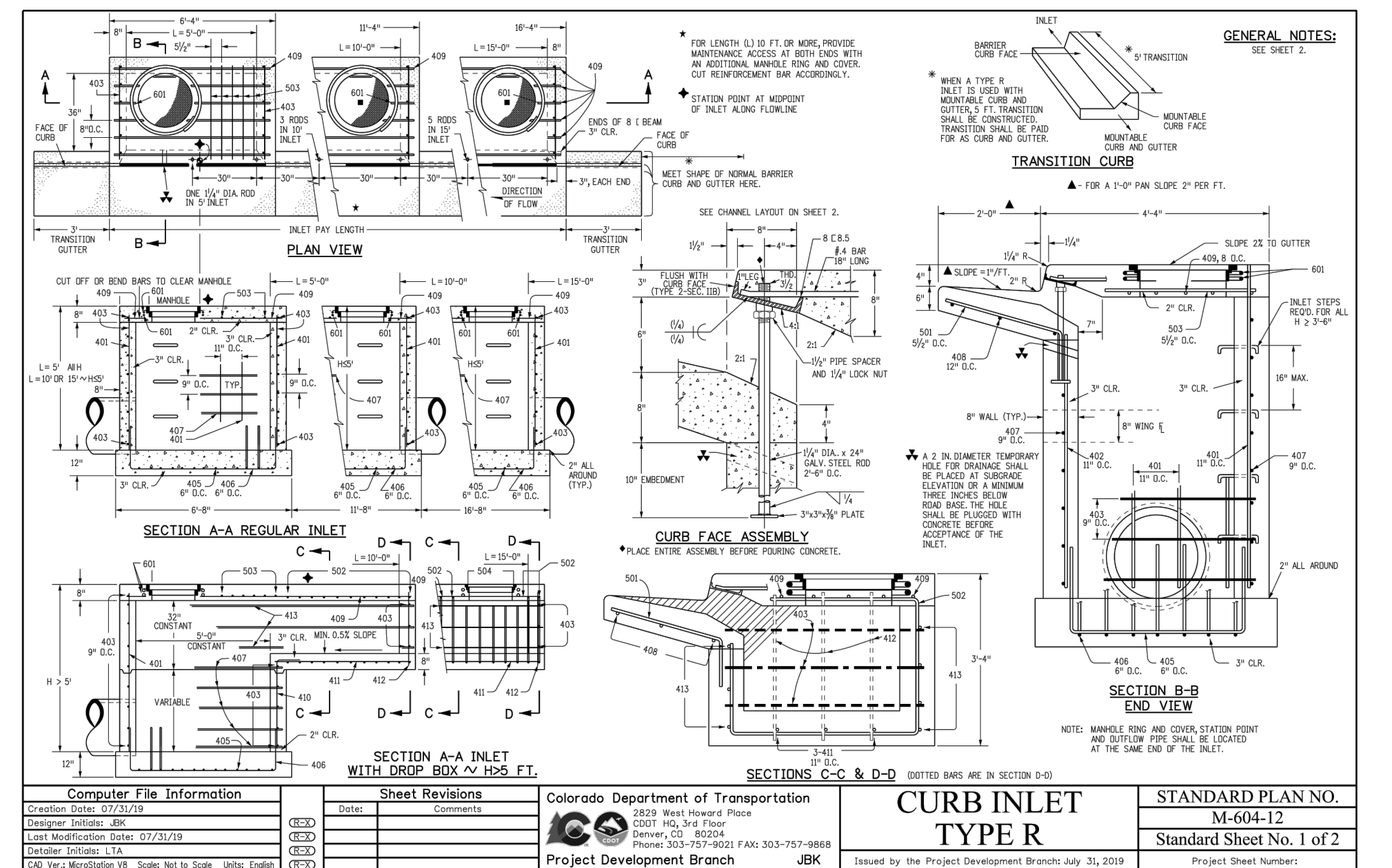
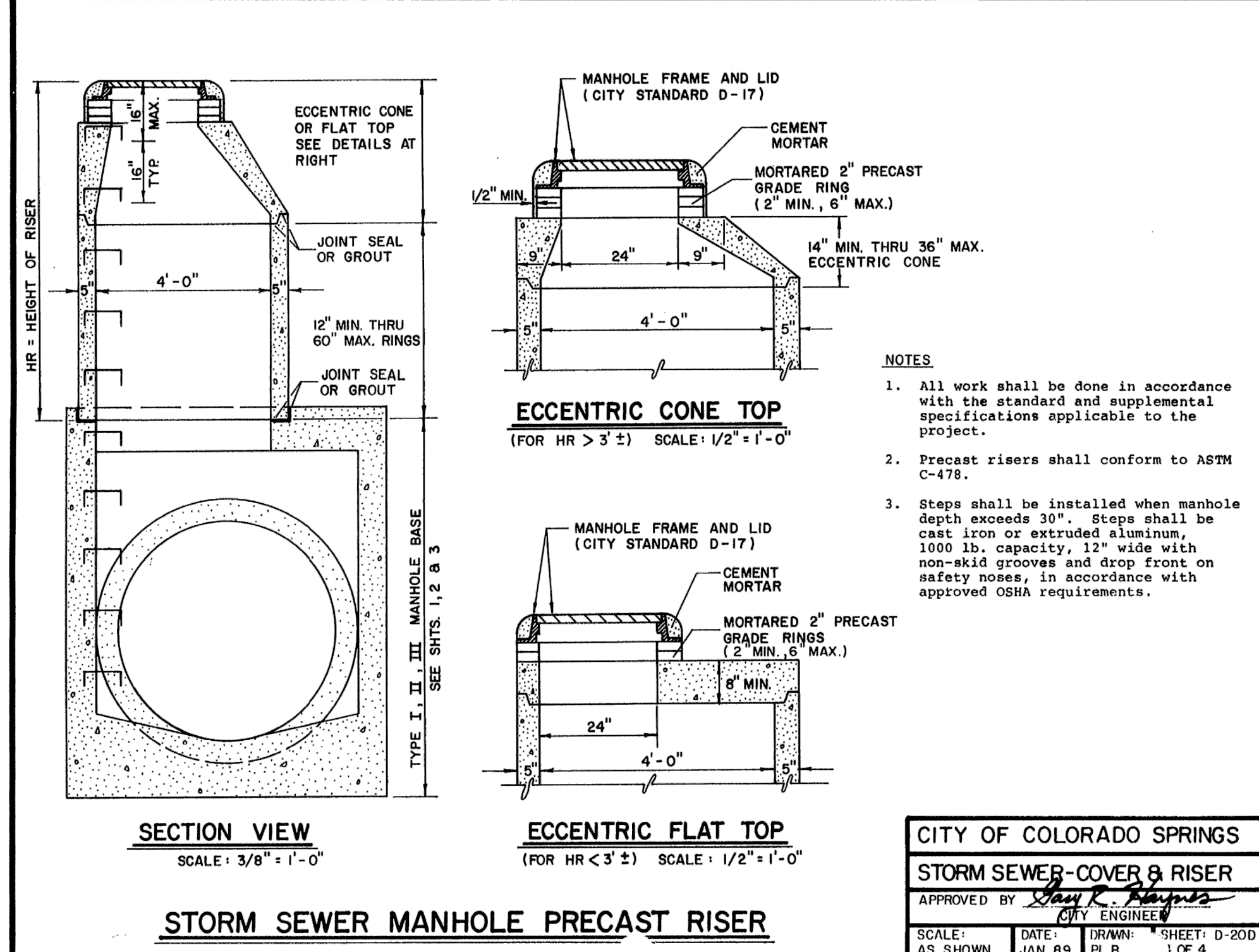
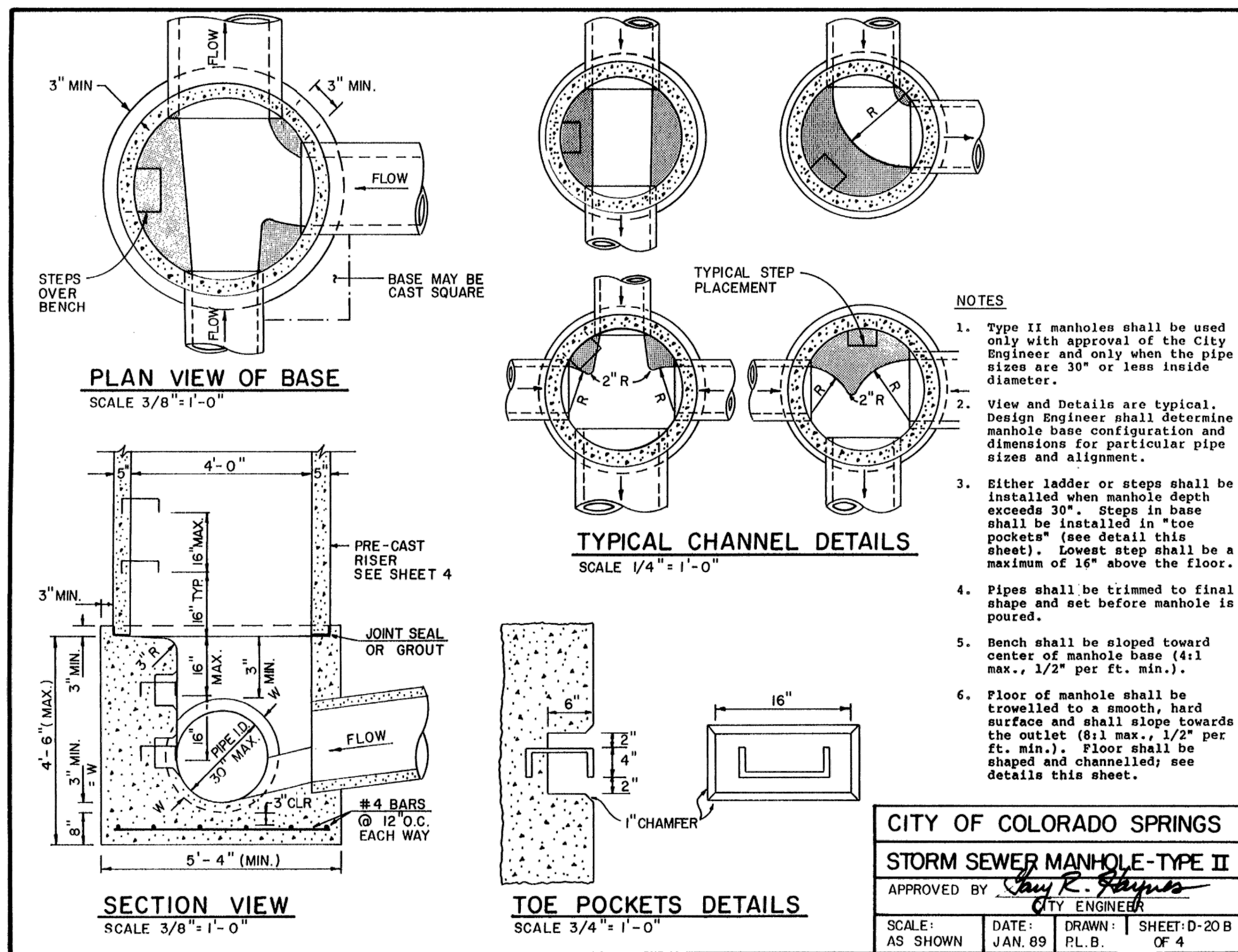
1. ALL RCP STORM SEWER SHALL BE CLASS III UNLESS OTHERWISE NOTED.
2. CONTRACTOR SHALL POTHOLE AND VERIFY DEPTH OF EXISTING UTILITY PRIOR TO THE START OF CONSTRUCTION. IF CONFLICTS ARE IDENTIFIED THE CONTRACTOR SHALL CONTACT THE ENGINEER IMMEDIATELY.
3. IT IS ASSUMED THAT THE CONTRACTOR SHALL UTILIZE TRENCH BOXES DURING CONSTRUCTION OF THE STORM SEWER. THE PROPOSED EASEMENTS HAVE NOT BEEN DESIGNED OR SHIELDED BASED ON THIS ASSUMPTION. IF ALTERNATIVE METHODS ARE MORE COST EFFECTIVE THAN THE CONTRACTOR SHALL NOTIFY THE OWNER DURING THE BIDDING PROCESS AND REQUEST ANY TEMPORARY CONSTRUCTION EASEMENTS THAT MAY BE NECESSARY.

NO.	DATE	BY	REVISION DESCRIPTION



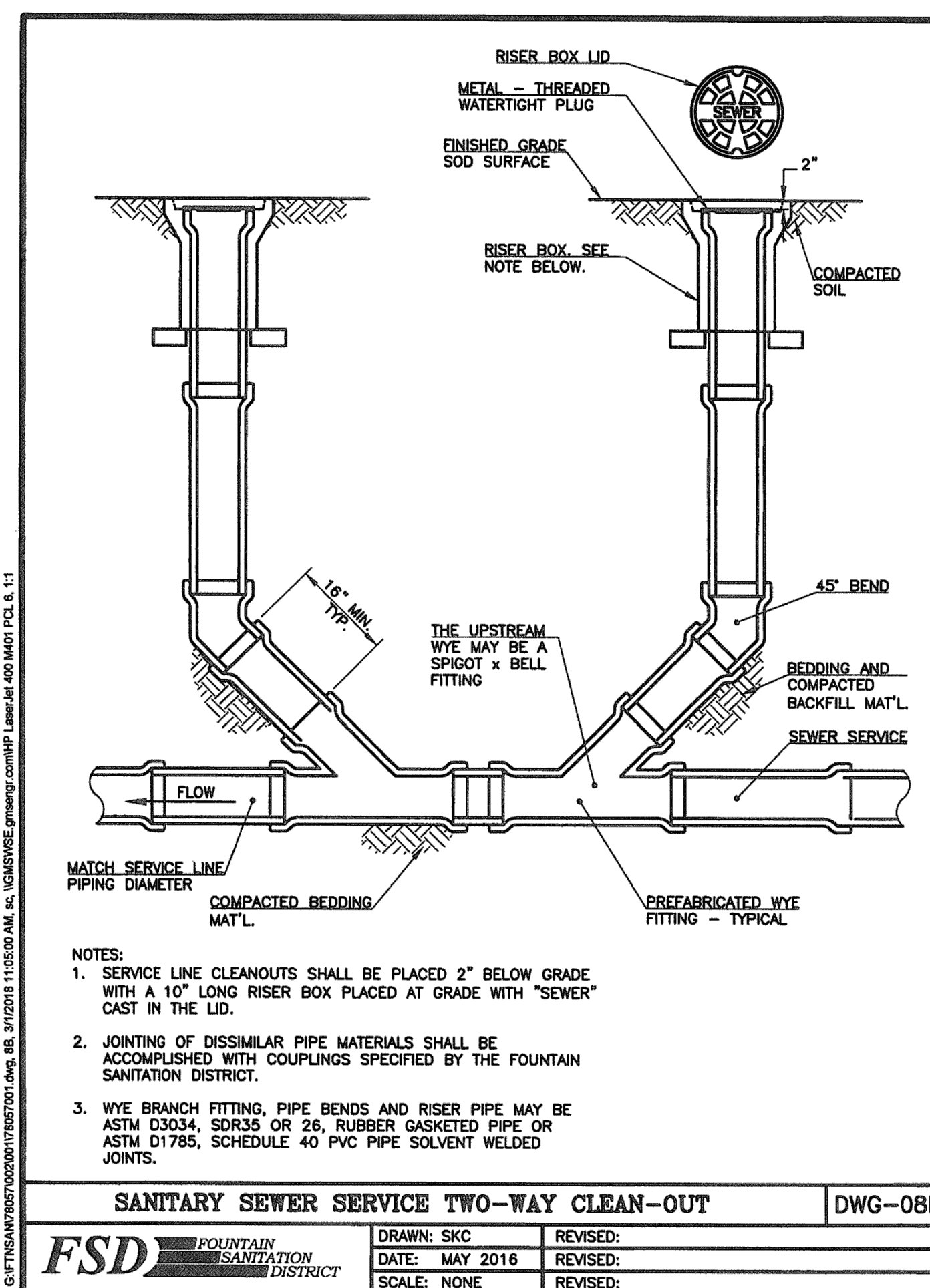
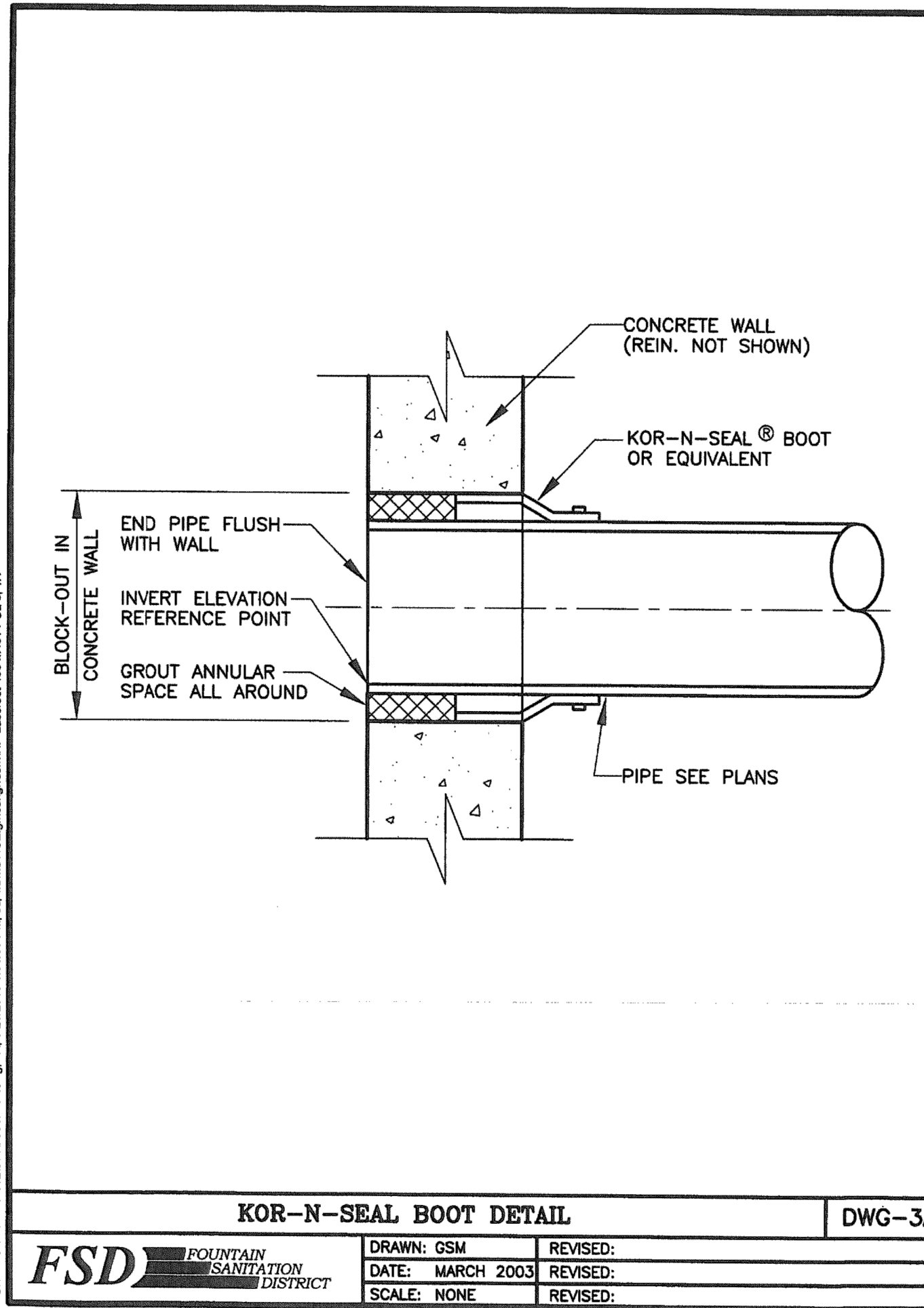
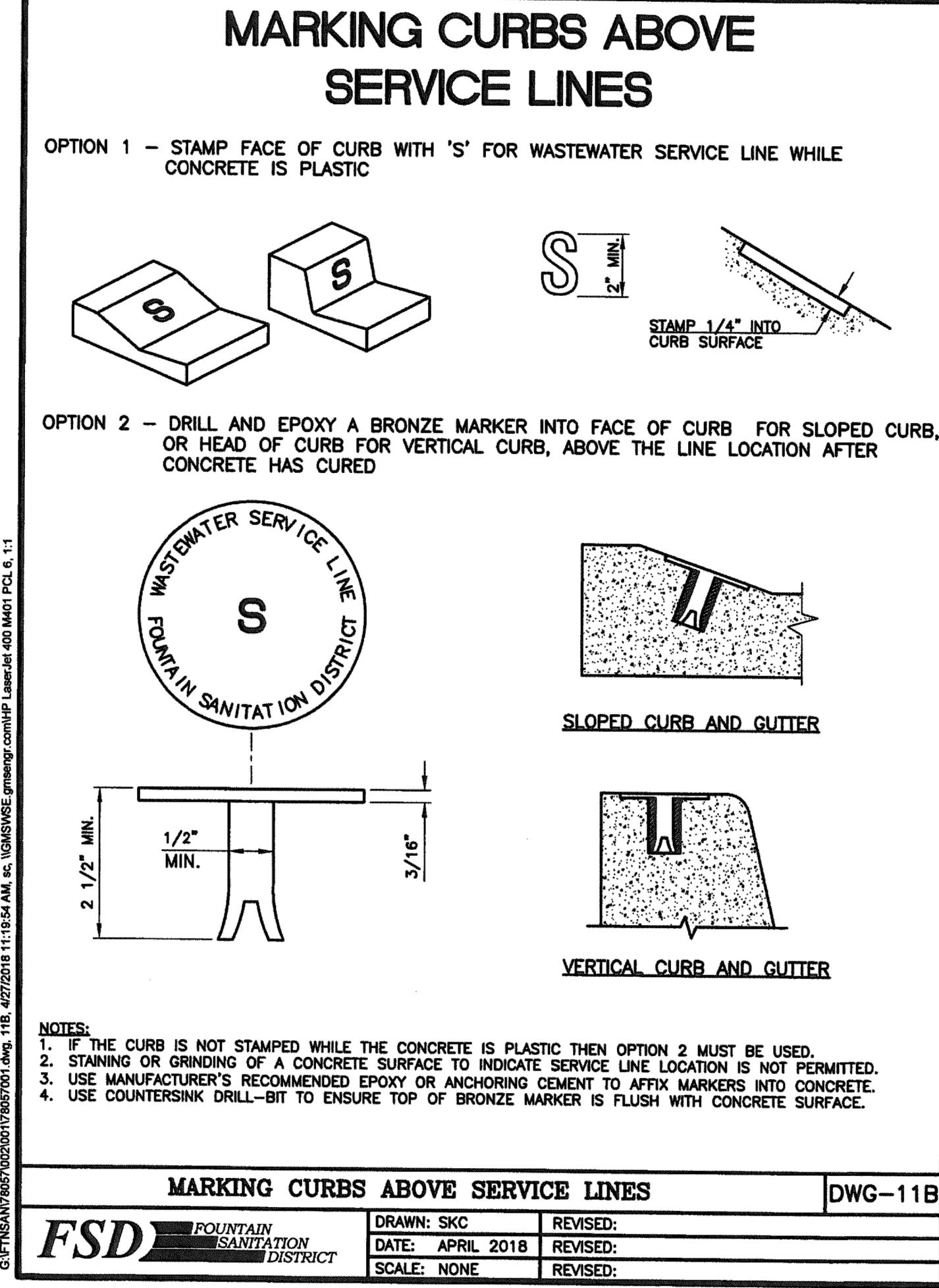
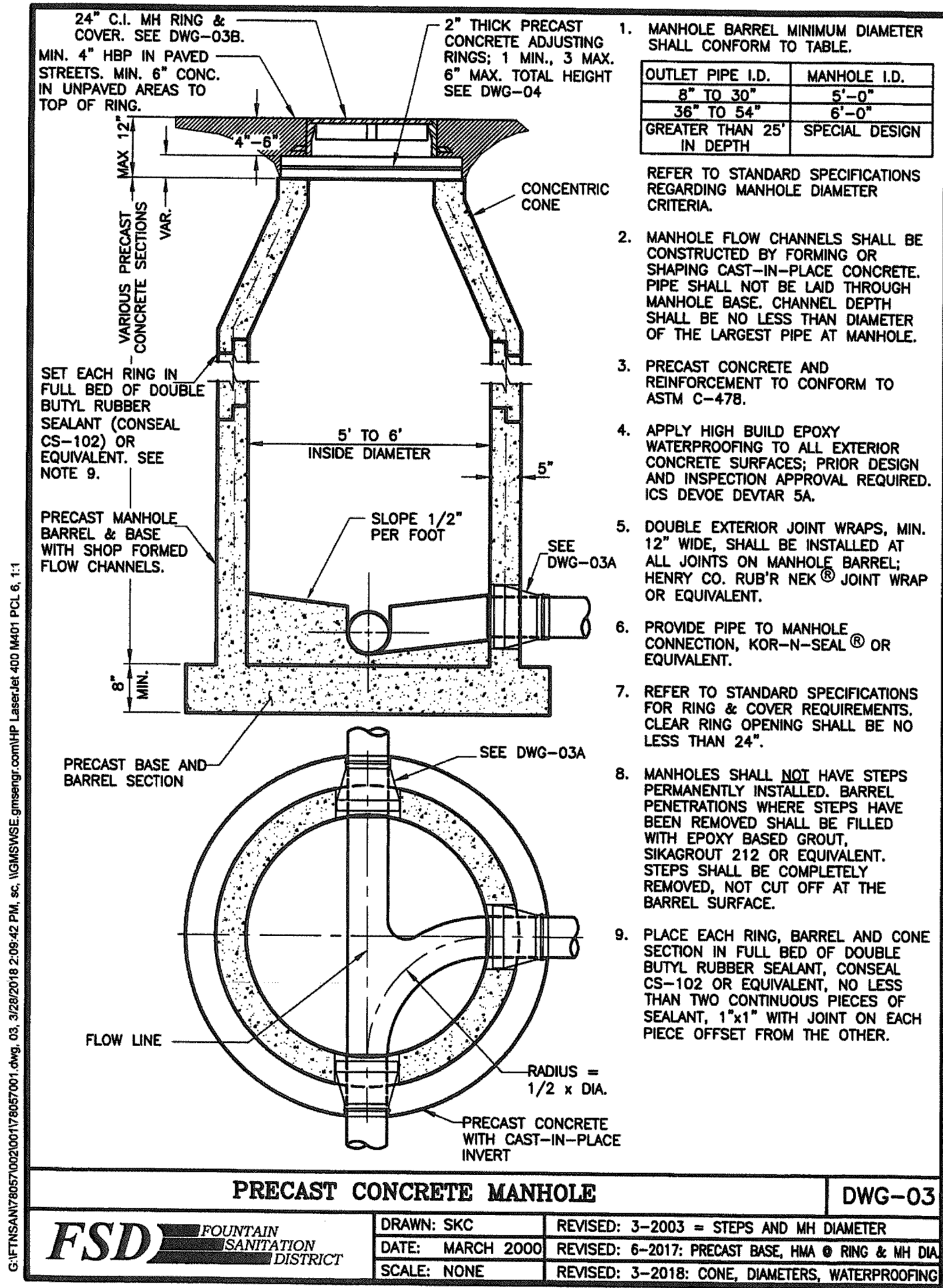
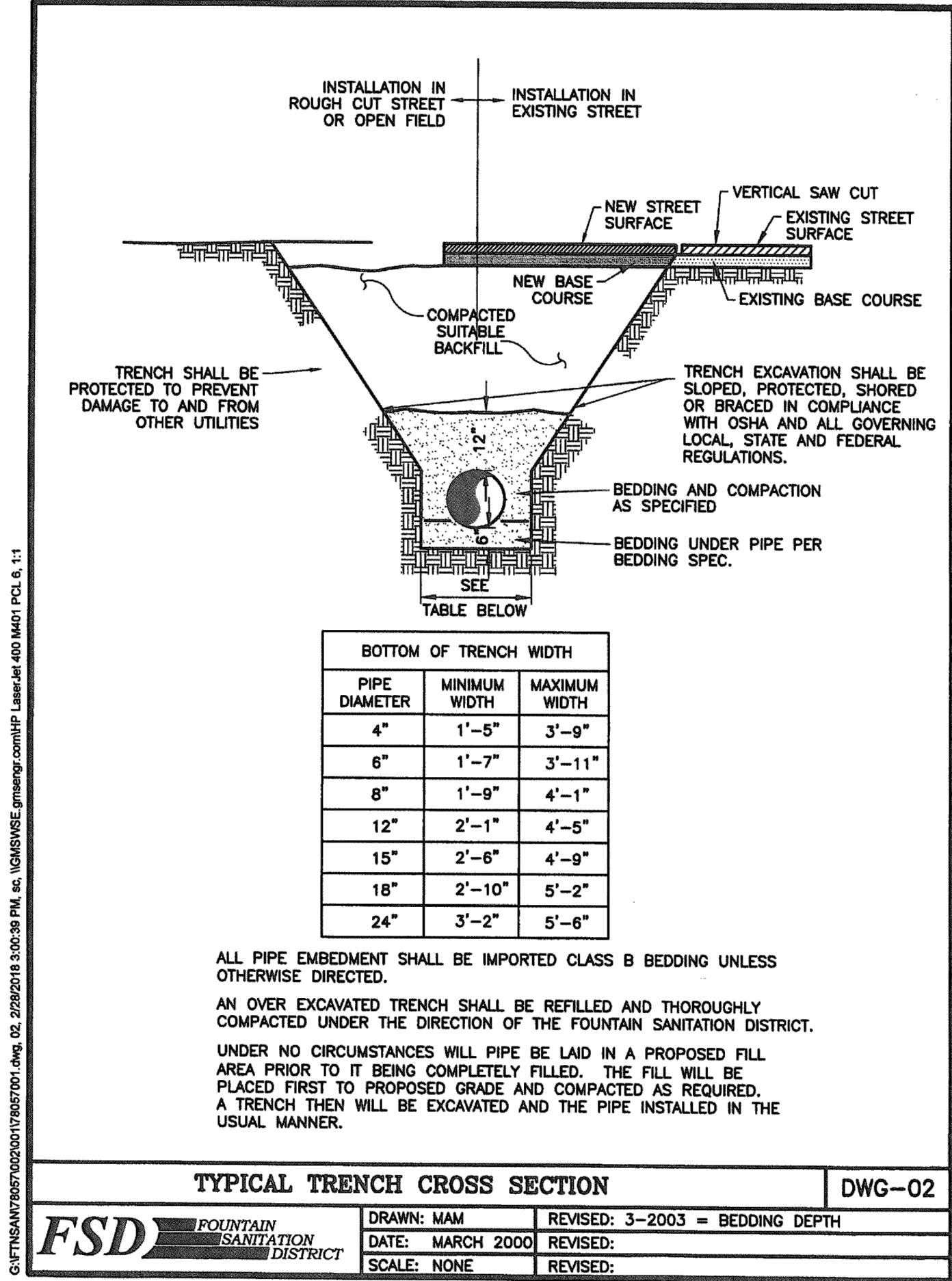
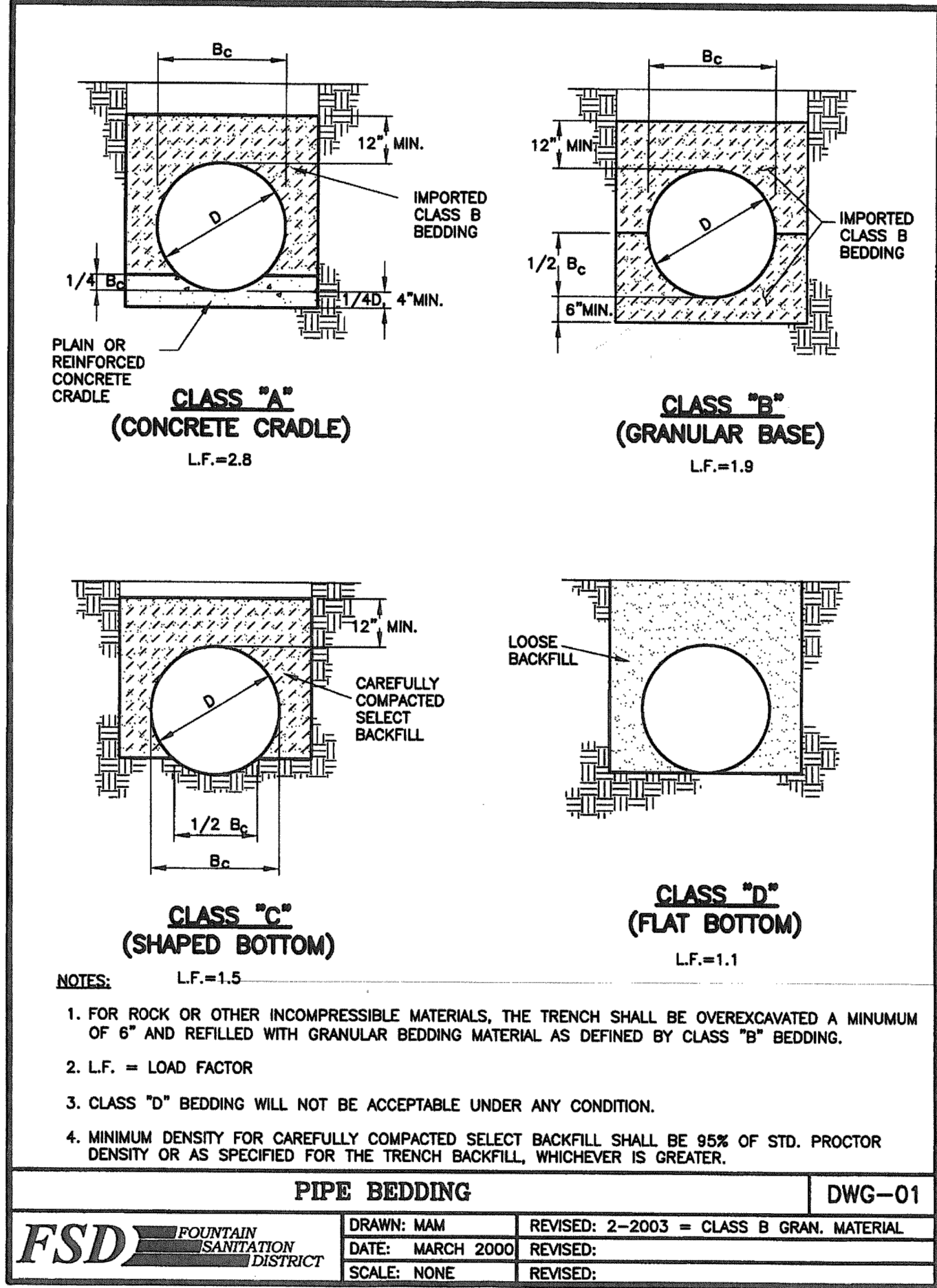
SHEET  
STM 28





NO.	DATE	BY	REVISION DESCRIPTION

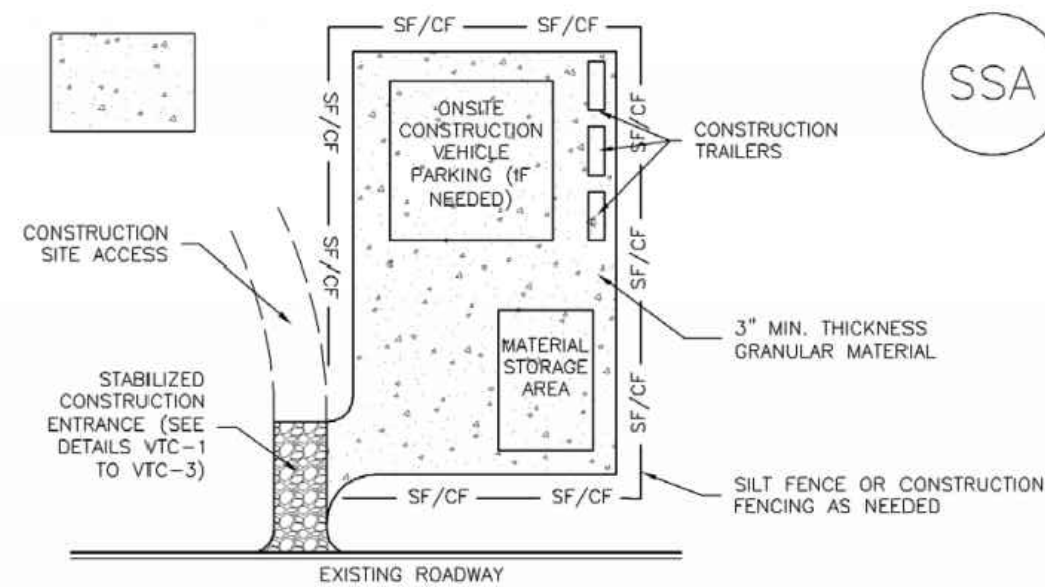






# Stabilized Staging Area (SSA)

SM-6



SSA-1. STABILIZED STAGING AREA

## STABILIZED STAGING AREA INSTALLATION NOTES

- SEE PLAN VIEW FOR:
  - LOCATION OF STAGING AREA(S).
  - CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM THE LOCAL JURISDICTION.
- STABILIZED STAGING AREA SHOULD BE APPROPRIATE FOR THE NEEDS OF THE SITE. OVERSIZING RESULTS IN A LARGER AREA TO STABILIZE FOLLOWING CONSTRUCTION.
- STAGING AREA SHALL BE STABILIZED PRIOR TO OTHER OPERATIONS ON THE SITE.
- THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM 3\"/>

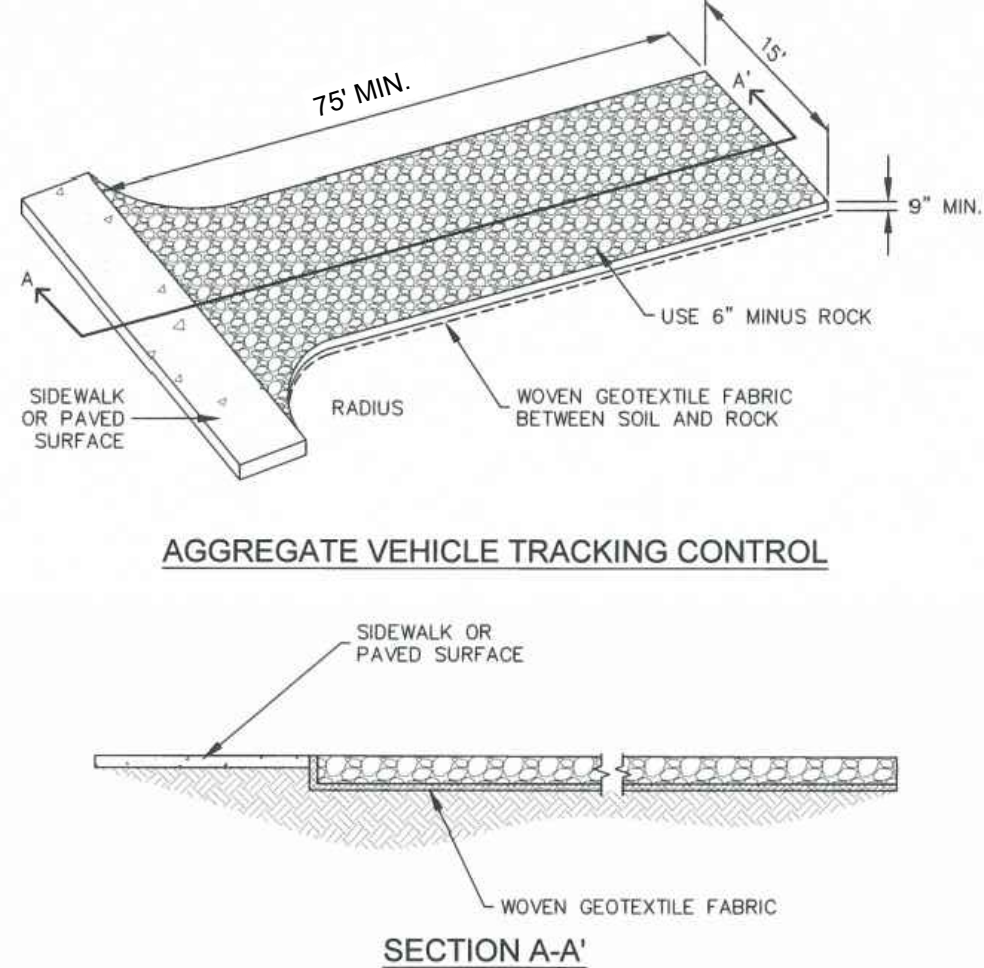
## STABILIZED STAGING AREA MAINTENANCE NOTES

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY IF RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.

November 2010

Urban Drainage and Flood Control District  
Urban Storm Drainage Criteria Manual Volume 3

SSA-3



AGGREGATE VEHICLE TRACKING CONTROL

## SECTION A-A'

## INSTALLATION NOTES

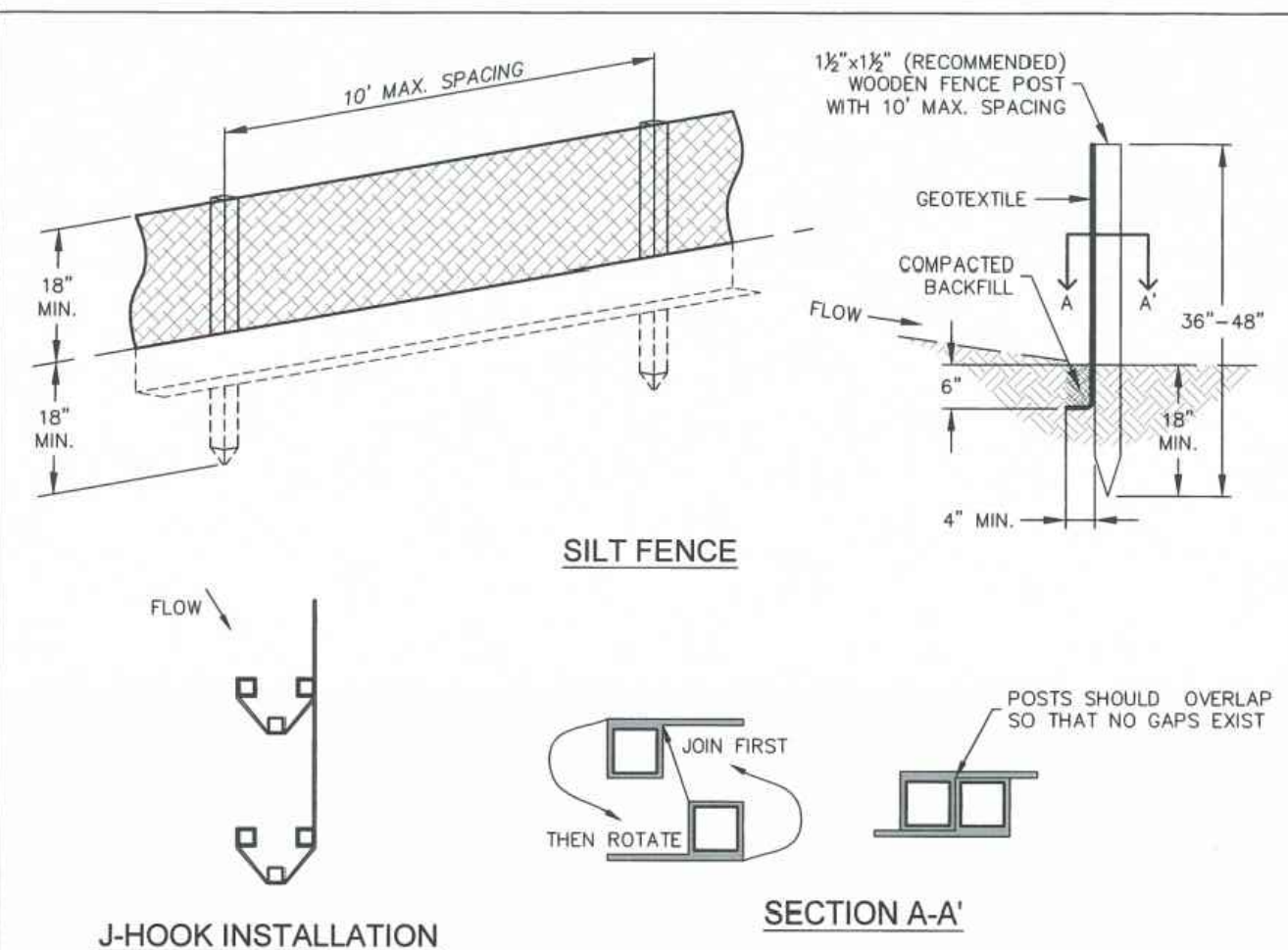
- A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHOULD BE LOCATED AT ALL POINTS WHERE VEHICLES EXIT THE CONSTRUCTION SITE TO ADJACENT ROADWAY.
- STABILIZED CONSTRUCTION ENTRANCE/EXITS SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
- RADIUS MUST BE ADEQUATE FOR INTENDED CONSTRUCTION VEHICLE TURNING.
- ROCK SHOULD CONSIST OF 6\"/>

## MAINTENANCE NOTES

- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- SEDIMENT TRACKED ONTO THE ADJACENT ROAD SHALL BE REMOVED DAILY, BY SWEEPING OR SHOVELING, AND NEVER WASHED DOWN STORM DRAINS.
- ROUGHEN, REPLACE AND/OR ADD ROCK AS NEEDED TO MAINTAIN CONSISTENT DEPTH AND TO PREVENT SEDIMENT TRACKING ONTO ADJACENT STREET.
- PERMANENTLY STABILIZE AREA AFTER VEHICLE TRACKING CONTROL IS REMOVED.

VTC

STORMWATER ENTERPRISE		VEHICLE TRACKING CONTROL	
APPROVED:	ISSUED:	REVISOR:	DRAWING NO.
	10/7/19	8/19/2020	900-VTC



SILT FENCE

## J-HOOK INSTALLATION

## SECTION A-A'

## INSTALLATION NOTES

- SILT FENCE MUST BE PLACED ON A FLAT SURFACE 2\"/>

## MAINTENANCE NOTES

- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES 1/2 OF THE DESIGN HEIGHT OF THE SILT FENCE.
- SILT FENCE MUST REMAIN UNTIL THE UPSTREAM DISTURBANCE AREA IS STABILIZED.
- PERMANENTLY STABILIZE AREA AFTER SILT FENCE IS REMOVED.

SF

STORMWATER ENTERPRISE		SILT FENCE	
APPROVED:	ISSUED:	REVISOR:	DRAWING NO.
	10/7/19	8/19/2020	900-SF



SLOPE TRACKING

## INSTALLATION NOTES

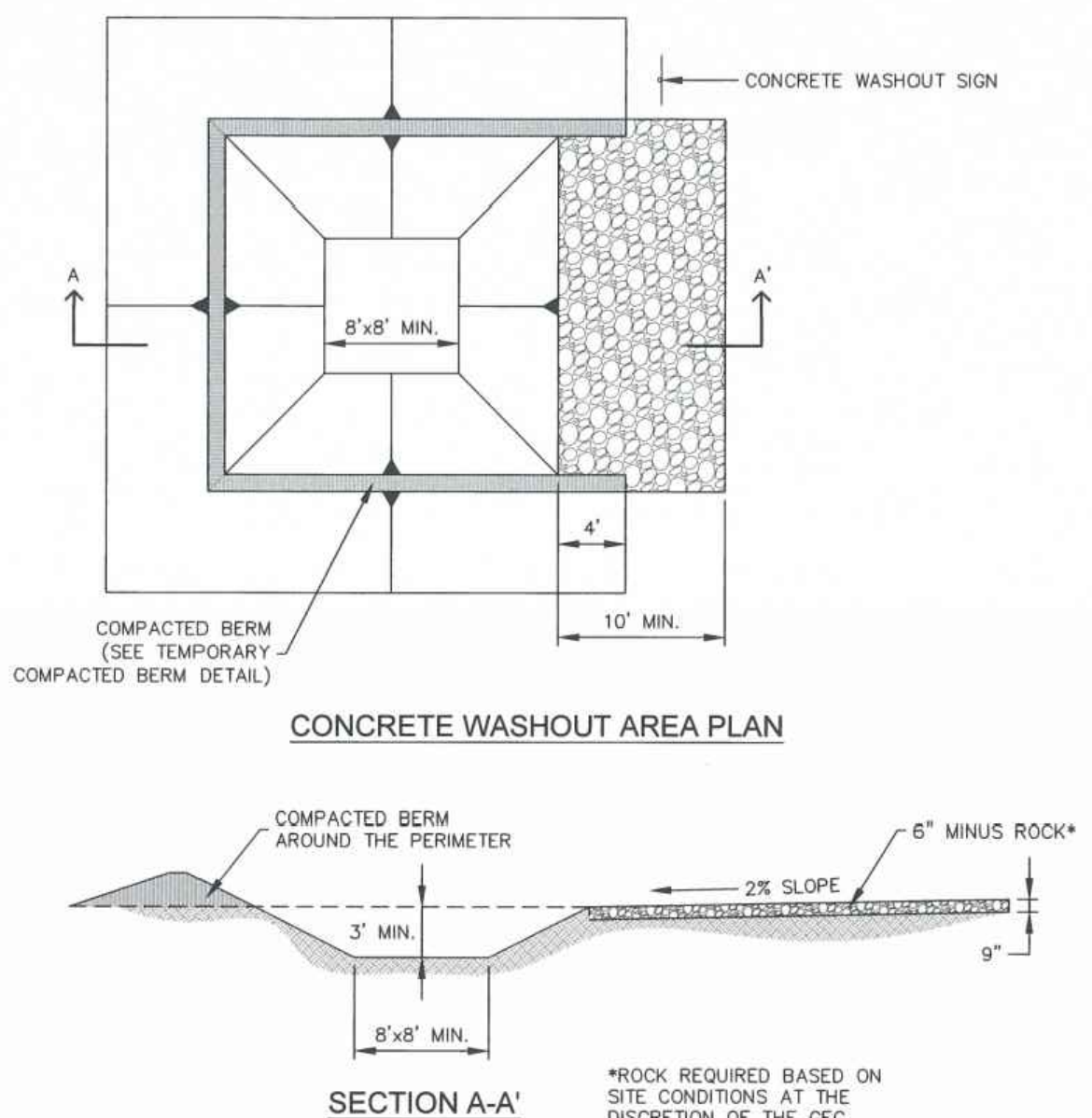
- SLOPE TRACKING MAY BE USED ON SLOPES 3:1 OR STEEPER.
- TRACKING GROOVES SHALL BE PERPENDICULAR TO THE SLOPE.
- SLOPE TRACKING SHALL NOT BE USED ON EXTREMELY SANDY OR ROCKY SOILS.

## MAINTENANCE NOTES

- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- VEHICLES AND EQUIPMENT SHALL NOT BE DRIVEN OVER AREAS THAT HAVE BEEN SLOPE TRACKED.

ST

STORMWATER ENTERPRISE		SLOPE TRACKING	
APPROVED:	ISSUED:	REVISOR:	DRAWING NO.
	10/7/19	8/19/2020	900-ST



CONCRETE WASHOUT AREA PLAN

## SECTION A-A'

\*ROCK REQUIRED BASED ON SITE CONDITIONS AT THE DISCRETION OF THE DEC INSPECTOR

CWA

STORMWATER ENTERPRISE		CONCRETE WASHOUT AREA	
APPROVED:	ISSUED:	REVISOR:	DRAWING NO.
	10/7/19	8/19/2020	900-CWA-1

## INSTALLATION NOTES

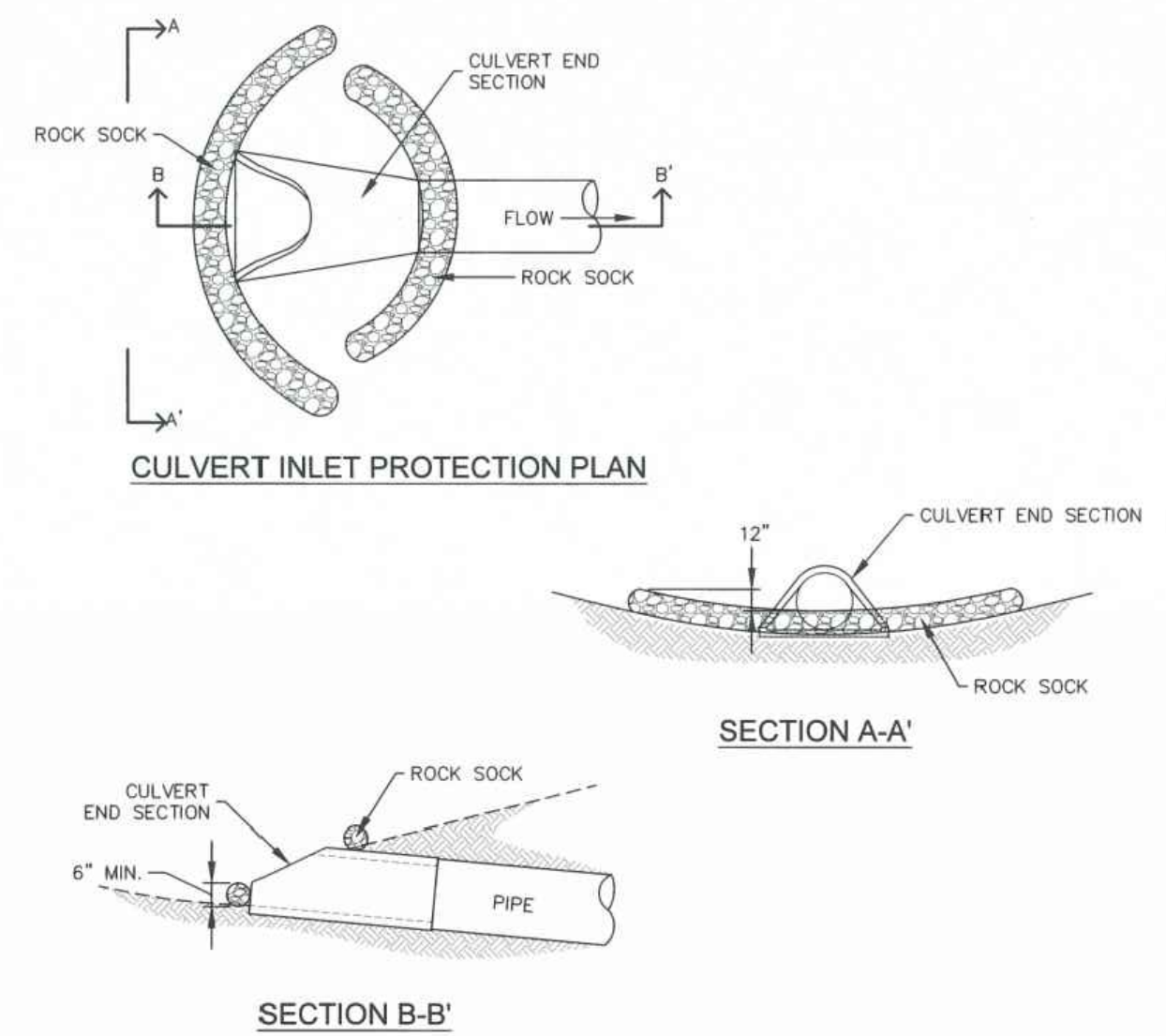
- SEE PLAN VIEW FOR:
  - LOCATION OF CONCRETE WASHOUT AREA
  - LOCATE AT LEAST 50' AWAY FROM STATE WATERS MEASURED HORIZONTALLY.
- AN IMPERMEABLE LINER (16 MIL. MINIMUM THICKNESS) IS REQUIRED IF CONCRETE WASH AREA IS LOCATED WITHIN 400' OF STATE WATERS OR 1000' OF WELLS OR DRINKING WATER SOURCES.
- DO NOT LOCATE IN AREAS WHERE SHALLOW GROUNDWATER MAY BE PRESENT.
- THE CONCRETE WASH AREA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.
- CONCRETE WASH AREA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' BY 8'.
- BERM SURROUNDING SIDES AND BACK OF CONCRETE WASH AREA SHALL HAVE A MINIMUM HEIGHT OF 2 FEET.
- CONCRETE WASH AREA ENTRANCE SHALL BE SLOPED 2% TOWARDS THE CONCRETE WASH AREA.
- SIGNS SHALL BE PLACED AT THE CONCRETE WASH AREA.
- USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

## MAINTENANCE NOTES

- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- THE CONCRETE WASH AREA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE. CONCRETE MATERIALS ACCUMULATED IN THE PIT SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF 1/2 THE HEIGHT OF THE CONCRETE WASH AREA.
- CONCRETE WASHOUT WATER, WASTED PIECES OF CONCRETE, AND ALL OTHER DEBRIS IN THE SUBSURFACE PIT SHALL BE TRANSPORTED FROM THE JOB SITE IN A WATER-TIGHT CONTAINER AND DISPOSED OF PROPERLY.
- THE CONCRETE WASH AREA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.
- PERMANENTLY STABILIZE AREA AFTER CONCRETE WASH AREA IS REMOVED.

CWA

STORMWATER ENTERPRISE		CONCRETE WASHOUT AREA	
APPROVED:	ISSUED:	REVISOR:	DRAWING NO.
	10/7/19	8/19/2020	900-CWA-2



CULVERT INLET PROTECTION PLAN

## SECTION A-A'

## SECTION B-B'

## INSTALLATION NOTES

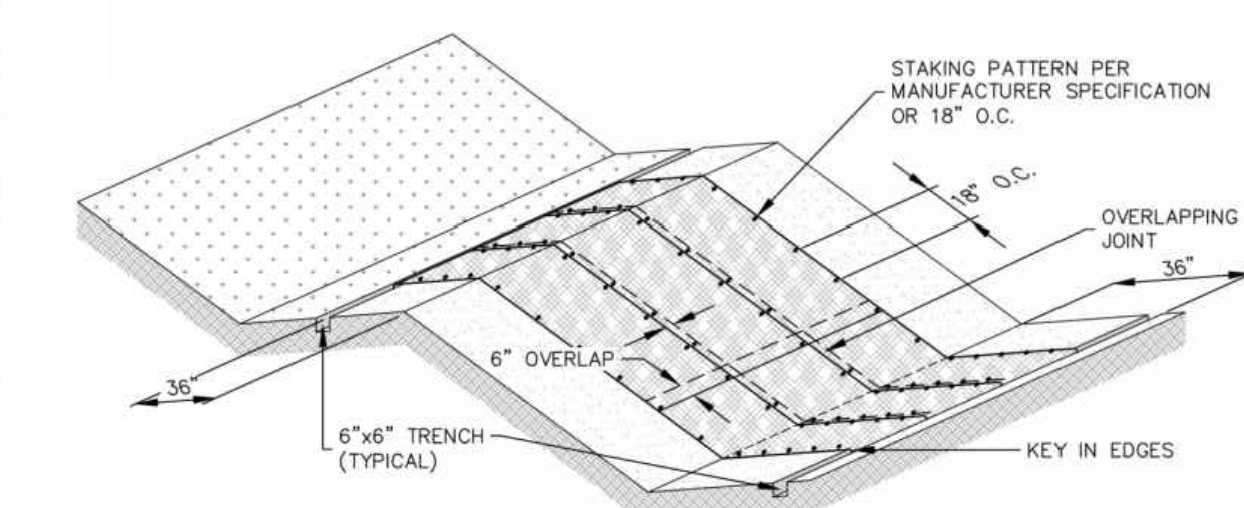
- SEE ROCK SOCK DETAIL.

## MAINTENANCE NOTES

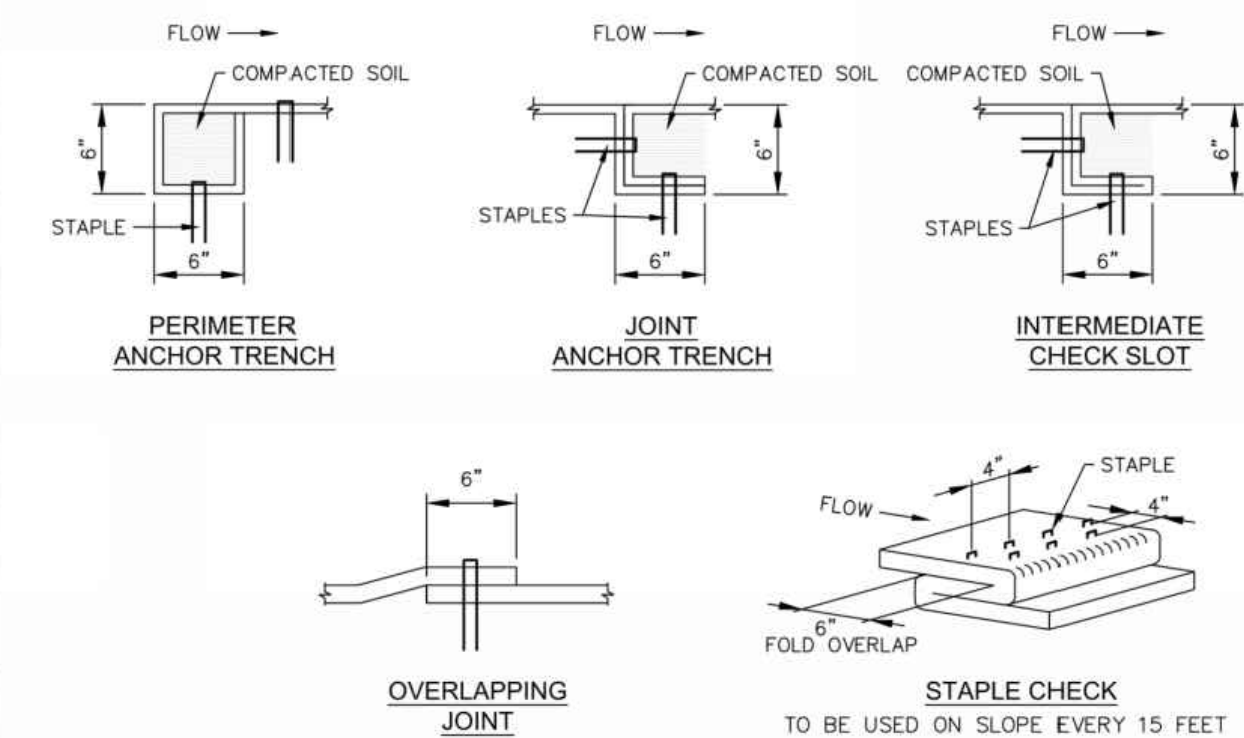
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- ACCUMULATED SEDIMENT UPSTREAM OF THE CULVERT SHALL BE REMOVED WHEN THE SEDIMENT DEPTH IS 1/2 HEIGHT OF THE ROCK SOCK.
- CULVERT INLET PROTECTION SHALL REMAIN UNTIL THE UPSTREAM AREA IS PERMANENTLY STABILIZED.

CIP

STORMWATER ENTERPRISE		CULVERT INLET PROTECTION	
APPROVED:	ISSUED:	REVISOR:	DRAWING NO.
	10/7/19	8/19/2020	900-CIP



EROSION CONTROL BLANKET



ECB

STORMWATER ENTERPRISE		EROSION CONTROL BLANKET	
APPROVED:	ISSUED:	REVISOR:	DRAWING NO.
	10/7/19	8/19/2020	900-ECB

DRAWN BY: CBM	JOB DATE: 1/6/2023	BAR IS ONE INCH ON OFFICIAL DRAWINGS.
APPROVED: KMH	JOB NUMBER: 200541	0" = 1"
CAD DATE: 1/24/2023		IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.
CAD FILE: J:\2020\200541\CAD\DWG\CID\IEI_Paso_CoDetails		

NO.	DATE	BY	REVISION DESCRIPTION

HR GREEN - COLORADO SPRINGS	
7222 COMMERCE CENTER DR SUITE 220	COLORADO SPRINGS CO 80919
PHONE: 719.300.4140 TOLL FREE: 800.728.7805	FAX: 844.273.1057   HRGreen.com

THE COTTAGES AT MESA RIDGE
GOODWIN KNIGHT
EL PASO COUNTY, COLORADO

GOODWIN KNIGHT
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EL PASO COUNTY CONSTRUCTION DOCUMENTS	SHEET DT	31
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PCD FILNE NO.: SF2214 FOR CONSTRUCTION



### INSTALLATION NOTES

- 100% NATURAL AND BIODEGRADABLE MATERIALS ARE REQUIRED FOR EROSION CONTROL BLANKETS. TRM PRODUCTS MAY BE USED WHERE APPROPRIATE AS DESIGNATED BY THE ENGINEER.
- IN AREAS WHERE EROSION CONTROL BLANKETS ARE SHOWN ON THE PLANS, THE PERMITTEE SHALL PLACE TOPSOIL AND PERFORM FINAL GRADING, SURFACE PREPARATION, AND SEEDING AND MULCHING. SUBGRADE SHALL BE SMOOTH AND MOIST PRIOR TO EROSION CONTROL BLANKET INSTALLATION, AND THE EROSION CONTROL BLANKET SHALL BE IN FULL CONTACT WITH THE SUBGRADE. NO GAPS OR VOIDS SHALL EXIST UNDER THE BLANKET.
- PERIMETER ANCHOR TRENCH SHALL BE USED ALONG THE OUTSIDE PERIMETER OF ALL BLANKET AREAS.
- JOINT ANCHOR TRENCH SHALL BE USED TO JOIN ROLLS OF EROSION CONTROL BLANKETS TOGETHER (LONGITUDINALLY AND TRANSVERSELY) FOR ALL EROSION CONTROL BLANKETS.
- INTERMEDIATE CHECK SLOT OR STAPLE CHECK SHALL BE INSTALLED EVERY 15' DOWN SLOPES. IN DRAINAGEWAYS, INSTALL CHECK SLOTS EVERY 25' PERPENDICULAR TO FLOW DIRECTION.
- OVERLAPPING JOINT DETAIL SHALL BE USED TO JOIN ROLLS OF EROSION CONTROL BLANKETS TOGETHER FOR EROSION CONTROL BLANKETS ON SLOPES.
- MATERIAL SPECIFICATIONS OF EROSION CONTROL BLANKETS SHALL CONFORM TO TABLE ECB-1.
- ANY AREAS OF SEEDING AND MULCHING DISTURBED IN THE PROCESS OF INSTALLING EROSION CONTROL BLANKETS SHALL BE RESEEDED AND MULCHED.
- STRAW EROSION CONTROL BLANKETS SHALL NOT BE USED WITHIN STREAMS AND DRAINAGE CHANNELS.
- COMPACT ALL TRENCHES.

### MAINTENANCE NOTES

- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- EROSION CONTROL BLANKETS SHALL BE LEFT IN PLACE TO EVENTUALLY BIODEGRADE. TRM MUST BE REMOVED AT THE DISCRETION OF THE GEC INSPECTOR.
- ANY EROSION CONTROL BLANKET PULLED OUT, TORN, OR OTHERWISE DAMAGED SHALL BE REPAIRED OR REINSTALLED. ANY SUBGRADE AREAS BELOW GEOTEXTILE THAT HAVE ERODED TO CREATE A VOID UNDER THE BLANKET, OR THAT REMAIN DEVOID OF GRASS SHALL BE REPAIRED, RESEEDED AND MULCHED, AND THE EROSION CONTROL BLANKET REINSTALLED.

### TABLE ECB-1, EROSION CONTROL BLANKET MATERIAL SPECIFICATIONS

TYPE	COCONUT CONTENT	STRAW CONTENT	EXCELSIOR CONTENT	RECOMMENDED NETTING
STRAW	—	100%	—	DOUBLE/NATURAL
STRAW-COCONUT	30% MIN.	70% MAX.	—	DOUBLE/NATURAL
COCONUT	100%	—	—	DOUBLE/NATURAL
EXCELSIOR	—	—	100%	DOUBLE/NATURAL

### EROSION CONTROL BLANKET

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DESIGN MANAGER

ISSUED: 10/7/19 REVISED: 8/19/2020 DRAWING NO. 900-ECB-2

### CURB INLET PROTECTION PLAN

### SECTION A-A'

### CURB ROCK SOCKS UPSTREAM OF INLET PROTECTION

### INSTALLATION NOTES

- SEE ROCK SOCK DETAIL FOR INSTALLATION REQUIREMENTS.
- PLACEMENT OF THE ROCK SOCK SHALL BE APPROXIMATELY 40 DEGREES FROM THE CURB.
- ROCK SOCKS ARE TO BE FLUSH WITH THE CURB AND SPACED A MINIMUM OF 5' APART.
- AT LEAST TWO CURB ROCK SOCKS IN SERIES ARE REQUIRED UPSTREAM OF ON-GRADE INLETS.
- ADDITIONAL ROCK SOCKS MAY BE REQUIRED AT GEC INSPECTOR'S DISCRETION.

### MAINTENANCE NOTES

- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES 1/2 OF THE DESIGN DEPTH OF THE INLET BARRIER.
- ROCK SOCKS MUST REMAIN UNTIL THE UPSTREAM DISTURBANCE AREA IS STABILIZED.
- PERMANENTLY STABILIZE AREA BEHIND INLET AFTER ROCK SOCKS ARE REMOVED WHEN REMOVAL IS APPROPRIATE.

### ON-GRADE INLET PROTECTION

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DESIGN MANAGER

ISSUED: 10/7/19 REVISED: 8/19/2020 DRAWING NO. 900-IP-1

### ROCK SOCK SUMP INLET PROTECTION PLAN

### SECTION A-A'

### INSTALLATION NOTES

- SEE ROCK SOCK DETAIL FOR INSTALLATION REQUIREMENTS.
- SEDIMENT CONTROL LOGS MAY BE USED IN PLACE OF ROCK SOCKS IN PERVIOUS AREAS. INSTALL PER SEDIMENT CONTROL LOG DETAIL.
- CONTROL MEASURES MUST BE WRAPPED AROUND INLET AS TIGHTLY AS POSSIBLE.

### MAINTENANCE NOTES

- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES 1/2 OF THE DESIGN DEPTH OF THE INLET BARRIER.
- ROCK SOCKS MUST REMAIN UNTIL THE UPSTREAM DISTURBANCE AREA IS STABILIZED.
- PERMANENTLY STABILIZE AREA AROUND INLET AFTER ROCK SOCKS ARE REMOVED WHEN REMOVAL IS APPROPRIATE.

### SUMP INLET PROTECTION

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ISSUED: 10/7/19 REVISED: 8/19/2020 DRAWING NO. 900-IP-2

### SEEDING & MULCHING

ALL SOIL TESTING, SOILS AMENDMENT AND FERTILIZER DOCUMENTATION, AND SEED LOAD AND BAG TICKETS MUST BE ADDED TO THE CSWMP.

### SOIL PREPARATION

- IN AREAS TO BE SEEDDED, THE UPPER 6 INCHES OF THE SOIL MUST NOT BE HEAVILY COMPACTED, AND SHOULD BE IN FRIABLE CONDITION. LESS THAN 85% STANDARD PROCTOR DENSITY IS ACCEPTABLE. AREAS OF COMPACTION OR GENERAL CONSTRUCTION ACTIVITY MUST BE SCARIFIED TO A DEPTH OF 6 TO 12 INCHES PRIOR TO SPREADING TOPSOIL TO BREAK UP COMPACTED LAYERS AND PROVIDE A BLENDING ZONE BETWEEN DIFFERENT SOIL LAYERS.
- AREAS TO BE PLANTED SHALL HAVE AT LEAST 4 INCHES OF TOPSOIL SUITABLE TO SUPPORT PLANT GROWTH.
- THE CITY RECOMMENDS THAT EXISTING AND/OR IMPORTED TOPSOIL BE TESTED TO IDENTIFY SOIL DEFICIENCIES AND ANY SOIL AMENDMENTS NECESSARY TO ADDRESS THESE DEFICIENCIES. SOIL AMENDMENTS AND/OR FERTILIZERS SHOULD BE ADDED TO CORRECT TOPSOIL DEFICIENCIES BASED ON SOIL TESTING RESULTS.
- TOPSOIL SHALL BE PROTECTED DURING THE CONSTRUCTION PERIOD TO RETAIN ITS STRUCTURE AVOID COMPACTION, AND TO PREVENT EROSION AND CONTAMINATION. STRIPPED TOPSOIL MUST BE STORED IN AN AREA AWAY FROM MACHINERY AND CONSTRUCTION OPERATIONS, AND CARE MUST BE TAKEN TO PROTECT THE TOPSOIL AS A VALUABLE COMMODITY. TOPSOIL MUST NOT BE STRIPPED DURING UNDESIRABLE WORKING CONDITIONS (E.G. DURING WET WEATHER OR WHEN SOILS ARE SATURATED). TOPSOIL SHALL NOT BE STORED IN SWALES OR IN AREAS WITH POOR DRAINAGE.

### SEEDING

- ALLOWABLE SEED MIXES ARE INCLUDED IN THE CITY OF COLORADO SPRINGS STORMWATER CONSTRUCTION MANUAL. ALTERNATIVE SEED MIXES ARE ACCEPTABLE IF INCLUDED IN AN APPROVED LANDSCAPING PLAN.
- SEED SHOULD BE DRILL-SEEDDED WHENEVER POSSIBLE.
- SEED DEPTH MUST BE 1/2 TO 3/4 INCHES WHEN DRILL-SEEDING IS USED.
- BROADCAST SEEDING OR HYDRO-SEEDING MAY BE SUBSTITUTED ON SLOPES STEEPER THAN 3:1 OR ON OTHER AREAS NOT PRACTICAL TO DRILL SEED.
- SEEDING RATES MUST BE DOUBLED FOR BROADCAST SEEDING OR INCREASED BY 50% IF USING A BRILLIUM DRILL OR HYDRO-SEEDING.
- BROADCAST SEEDING MUST BE LIGHTLY HAND-RAKED INTO THE SOIL.

### MULCHING

- MULCHING SHOULD BE COMPLETED AS SOON AS PRACTICABLE AFTER SEEDING, HOWEVER PLANTED AREAS MUST BE MULCHED NO LATER THAN 14 DAYS AFTER PLANTING.
- MULCHING REQUIREMENTS INCLUDE:
  - HAY OR STRAW MULCH
    - ONLY CERTIFIED WEED-FREE AND CERTIFIED SEED-FREE MULCH MAY BE USED. MULCH MUST BE APPLIED AT 2 TONS/ACRE AND ADEQUATELY SECURED BY CRIMPING AND/OR TACKIFIER.
    - CRIMPING MUST NOT BE USED ON SLOPES GREATER THAN 3:1 AND MULCH FIBERS MUST BE TUCKED INTO THE SOIL TO A DEPTH OF 3 TO 4 INCHES.
    - TACKIFIER MUST BE USED IN PLACE OF CRIMPING ON SLOPES STEEPER THAN 3:1.
  - HYDRAULIC MULCHING
    - HYDRAULIC MULCHING IS AN OPTION ON STEEP SLOPES OR WHERE ACCESS IS LIMITED.
    - IF HYDRO-SEEDING IS USED, MULCHING MUST BE APPLIED AS A SEPARATE, SECOND OPERATION.
    - WOOD CELLULOSE FIBERS MIXED WITH WATER MUST BE APPLIED AT A RATE OF 2,000 TO 2,500 POUNDS/ACRE, AND TACKIFIER MUST BE APPLIED AT A RATE OF 100 POUNDS/ACRE.
- EROSION CONTROL BLANKET
  - EROSION CONTROL BLANKET MAY BE USED IN PLACE OF TRADITIONAL MULCHING METHODS.

### SEEDING & MULCHING

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DESIGN MANAGER

ISSUED: 10/7/19 REVISED: 8/19/2020 DRAWING NO. 900-SM

### SILT FENCE SUMP INLET PROTECTION PLAN

### SECTION A-A'

### INSTALLATION NOTES

- SEE SILT FENCE DETAIL FOR INSTALLATION REQUIREMENTS.
- POSTS SHALL BE PLACED AT EACH CORNER OF THE INLET AND AROUND THE EDGES AT A MAXIMUM SPACING OF THREE FEET.
- SILT FENCE FABRIC SHOULD HAVE A FLOW RATE IN EXCESS OF 30 GALLONS PER MINUTE PER SQUARE YARD SO AS TO ALLOW SOME WATER FLOW AND NOT DAM THE WATER. STANDARD, LOW-FLOW SILT FENCE FABRIC WILL NOT BE ALLOWED.

### MAINTENANCE NOTES

- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES 1/2 OF THE DESIGN DEPTH OF THE INLET BARRIER.
- SILT FENCE MUST REMAIN UNTIL THE UPSTREAM DISTURBANCE AREA IS STABILIZED.
- PERMANENTLY STABILIZE AREA AROUND INLET AFTER SILT FENCE IS REMOVED WHEN REMOVAL IS APPROPRIATE.

### SUMP INLET PROTECTION

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DESIGN MANAGER

ISSUED: 10/7/19 REVISED: 8/19/2020 DRAWING NO. 900-IP-3

### STRAW BALE SUMP INLET PROTECTION PLAN

### SECTION A-A'

### INSTALLATION NOTES

- BALES SHALL BE PLACED IN A SINGLE ROW AROUND THE INLET WITH THE ENDS OF THE BALES TIGHTLY ABUTTING ONE ANOTHER.
- STRAW BALES SHALL CONSIST OF CERTIFIED WEED FREE STRAW OR HAY. LOCAL JURISDICTIONS MAY REQUIRE PROOF THAT BALES ARE WEED FREE.
- STRAW BALES SHALL CONSIST OF APPROXIMATELY 5 CUBIC FEET OF STRAW OR HAY AND WEIGH NOT LESS THAN 35 POUNDS.
- STRAW BALE DIMENSIONS SHALL BE APPROXIMATELY 36"x18"x18".
- A UNIFORM ANCHOR TRENCH SHALL BE EXCAVATED TO A DEPTH OF 4". STRAW BALES SHALL BE PACED SO THAT THE BINDING TWINE IS ENCOMPASSING THE VERTICAL SIDES OF THE BALES.
- TWO (2) WOODEN STAKES SHALL BE USED TO HOLD EACH BALE IN PLACE. WOODEN STAKES SHALL BE DRIVEN A MINIMUM OF 6" INTO THE GROUND.

### MAINTENANCE NOTES

- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES 1/2 OF THE DESIGN DEPTH OF THE INLET BARRIER.
- STRAW BALES MUST REMAIN UNTIL THE UPSTREAM DISTURBANCE AREA IS STABILIZED.
- PERMANENTLY STABILIZE AREA AROUND INLET AFTER STRAW BALES ARE REMOVED WHEN REMOVAL IS APPROPRIATE.
- STRAW BALES SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED, ROTTEN OR DAMAGED BEYOND REPAIR.

### SUMP INLET PROTECTION

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ISSUED: 10/7/19 REVISED: 8/19/2020 DRAWING NO. 900-IP-4

### ROCK SOCK PLAN

### ROCK SOCK SECTION

### ROCK SOCK OVERLAP

### GRADATION TABLE

	MASS PERCENT PASSING SQUARE MESH SIEVES
No. 4	100
10	90-100
20	20-55
40	0-15
60	0-5

MATCHES SPECIFICATIONS FOR No. 4 COARSE AGGREGATE FOR CONCRETE PER AASHTO M-43. ALL ROCK SHALL BE FRACTURED FACE, ALL SIDES.

### INSTALLATION NOTES

- CRUSHED ROCK SHALL BE BETWEEN MAX. 1 1/2" (MINUS) IN SIZE WITH A FRACTURED FACE (ALL SIDES) AND SHALL COMPLY WITH GRADATION SHOWN ON THIS SHEET AND MIN. 3/4" CRUSHED ROCK.
- WIRE MESH SHALL HAVE OPENINGS SMALLER THAN THE SMALLEST SIZE ROCK.
- WIRE MESH SHALL BE SECURED USING "HOG RINGS" OR WIRE TIES AT 6" CENTERS ALONG ALL JOINTS AND AT 2" CENTERS ON ENDS OF SOCKS.

### MAINTENANCE NOTES

- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- ROCK SOCKS SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED OR DAMAGED BEYOND REPAIR.
- ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN THE DEPTH REACHES 1/2 OF THE HEIGHT OF THE ROCK SOCK.
- ROCK SOCKS ARE TO REMAIN IN PLACE UNTIL DISTURBED AREA IS STABILIZED.
- PERMANENTLY STABILIZE AREA AFTER ROCK SOCKS HAVE BEEN REMOVED.

### ROCK SOCK

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DESIGN MANAGER

ISSUED: 10/7/19 REVISED: 8/19/2020 DRAWING NO. 900-RS

### SEDIMENT CONTROL LOG

### SECTION A-A'

### SEDIMENT CONTROL LOG JOINTS

### INSTALLATION NOTES

- ALL SEDIMENT CONTROL LOGS MUST BE EMBEDDED TO 1/2 OF THE HEIGHT OF THE LOG.
- LARGER DIAMETER SEDIMENT CONTROL LOGS NEED TO BE EMBEDDED DEEPER.
- PLACE SEDIMENT CONTROL LOG AGAINST SIDEWALK OR BAG OF CURB WHEN ADJACENT TO THESE FEATURES.
- SEDIMENT CONTROL LOGS SHALL CONSIST OF STRAW, COMPOST, EXCELSIOR, COCONUT FIBER, AND SHALL BE FREE FROM ANY NOXIOUS WEED SEEDS OR DEFECTS INCLUDING RIPS, HOLES AND OBVIOUS WEAR.
- IF USING AS SLOPE PROTECTION, INSTALL SEDIMENT CONTROL LOGS ALONG THE CONTOUR.

### MAINTENANCE NOTES

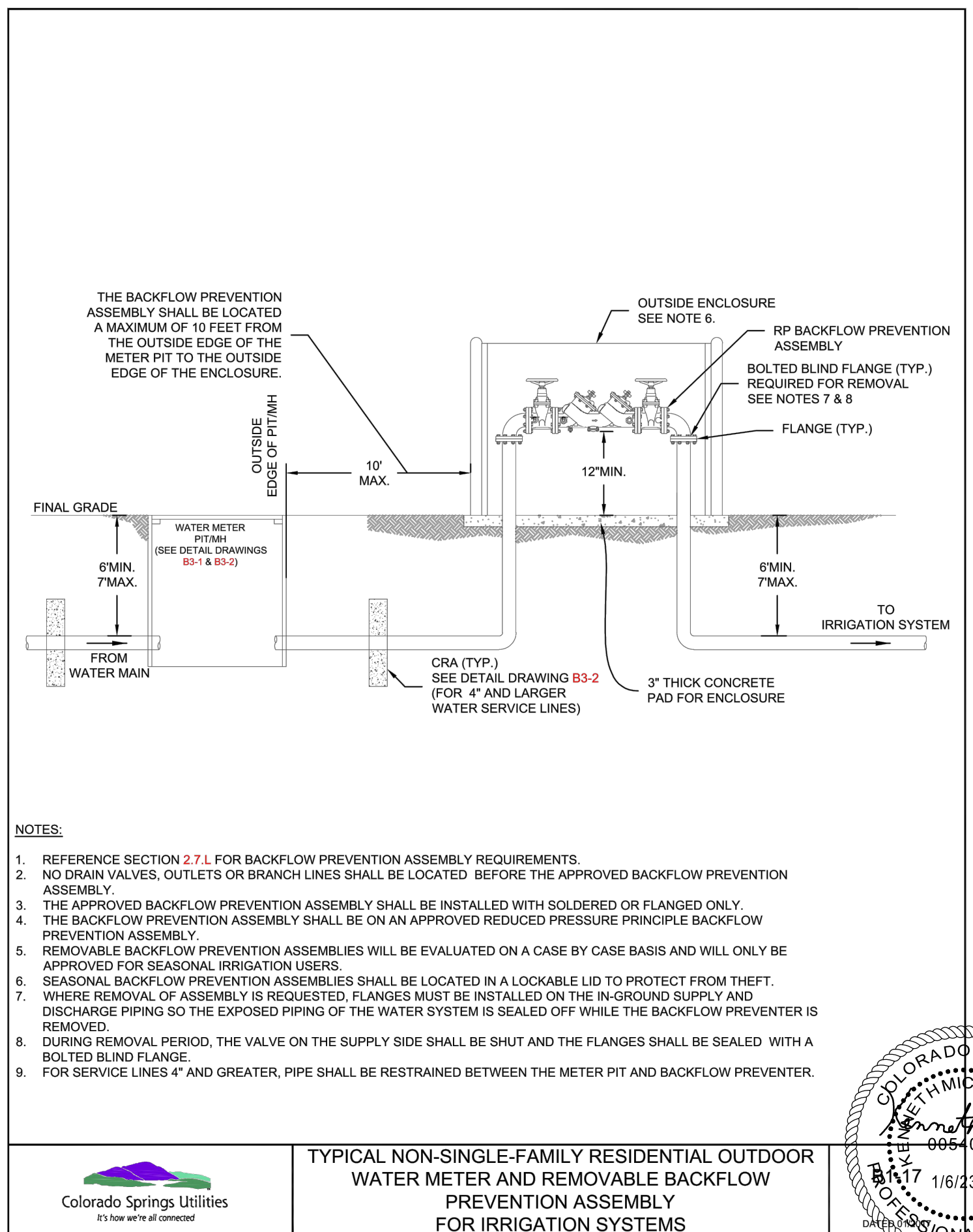
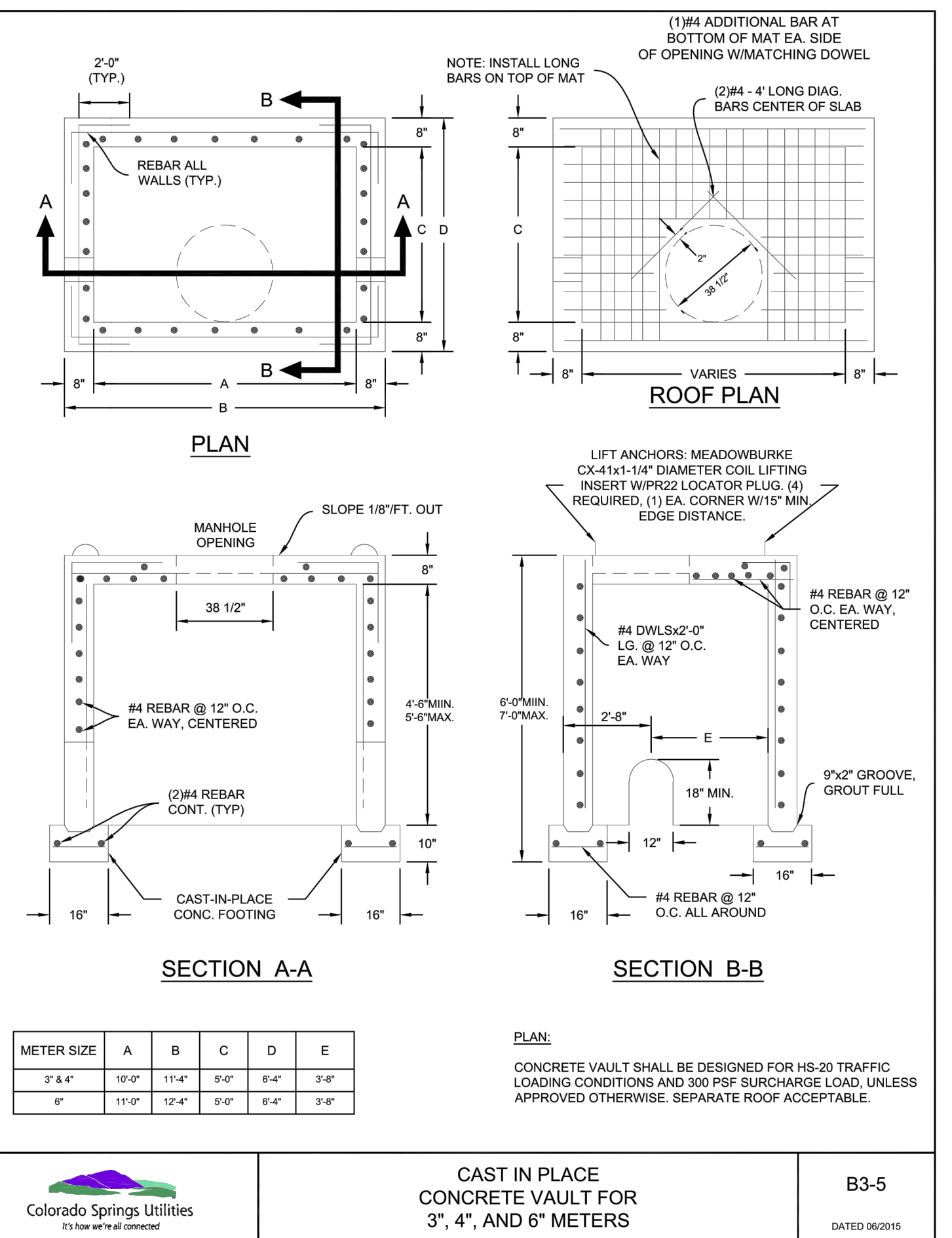
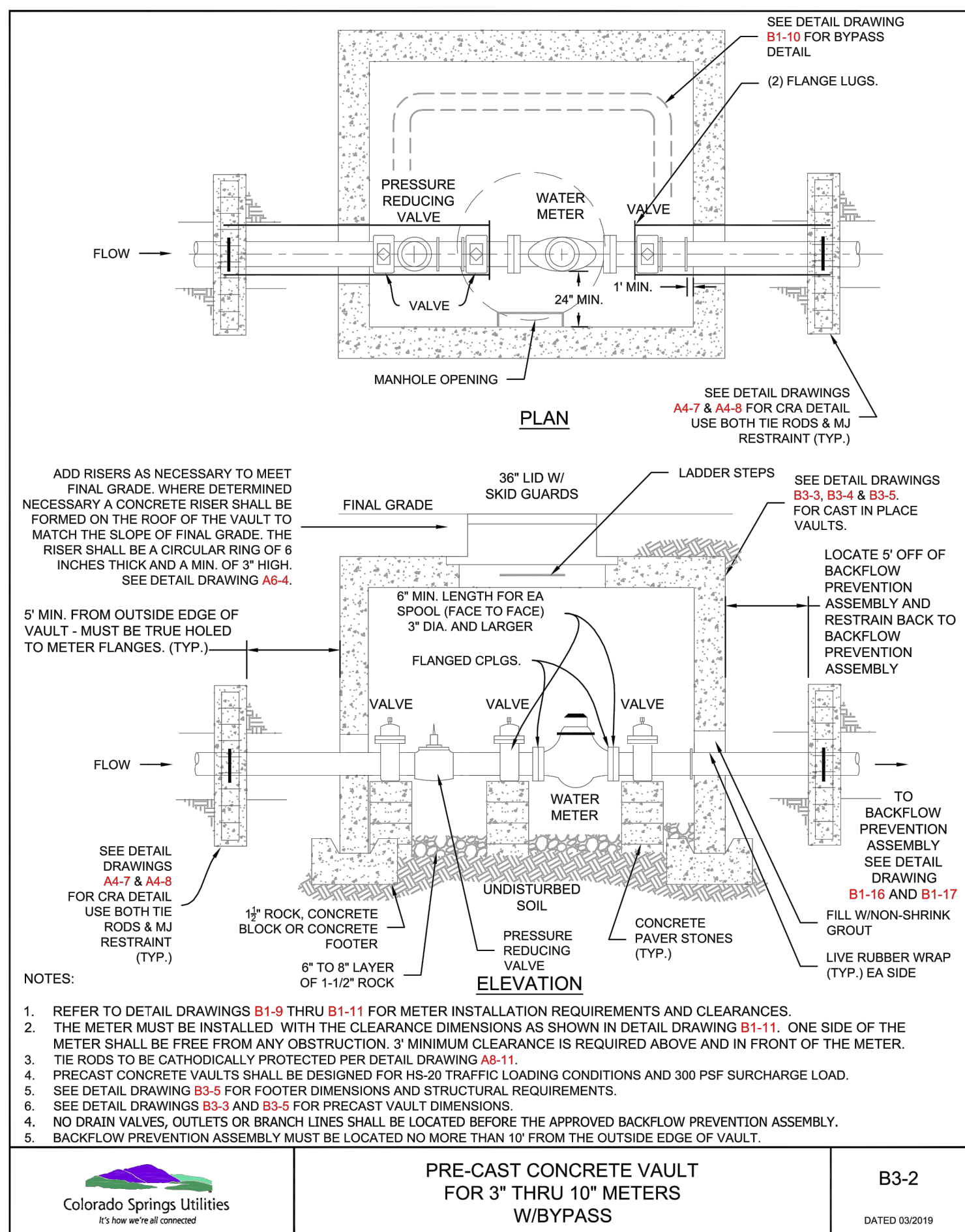
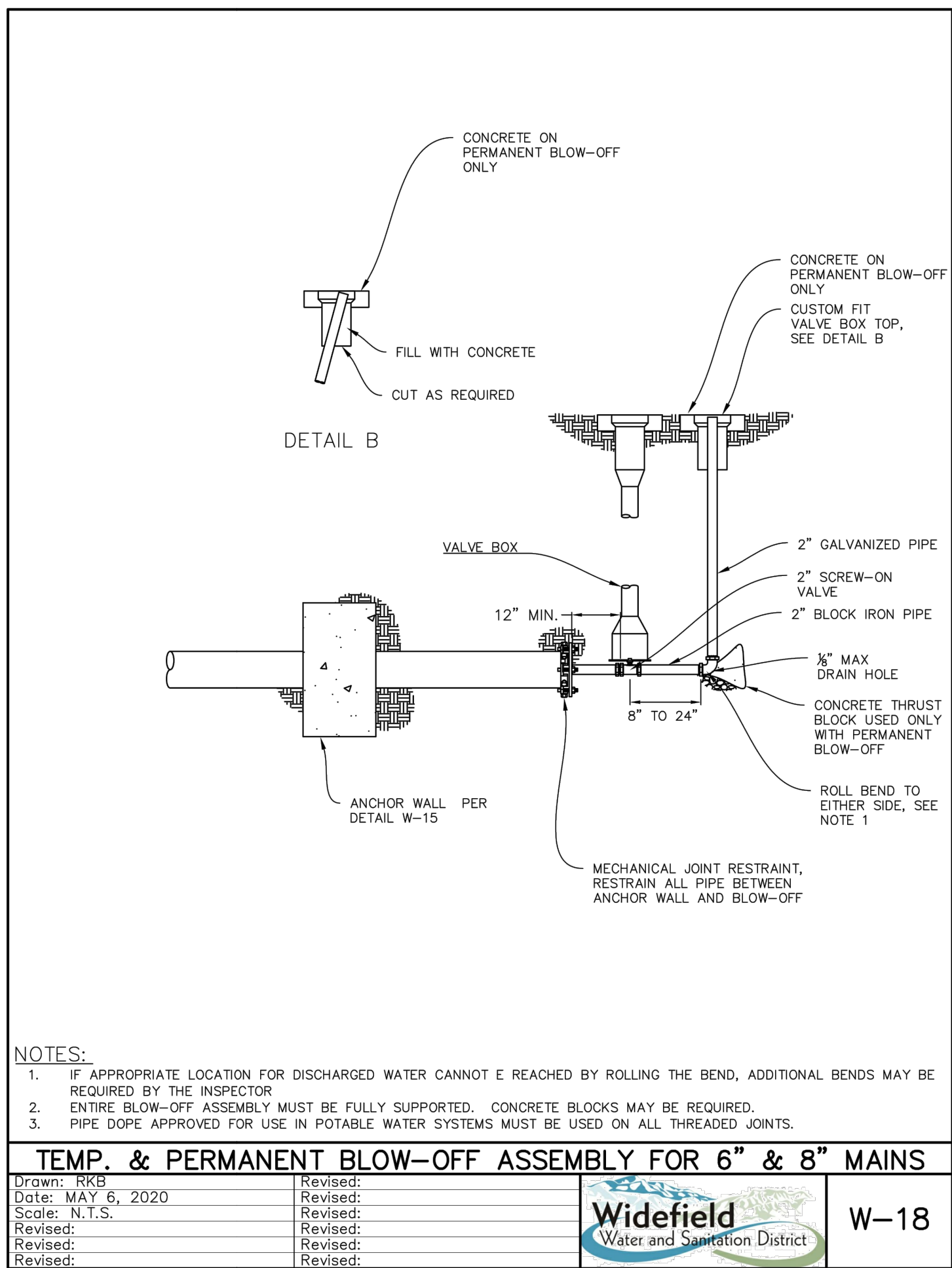
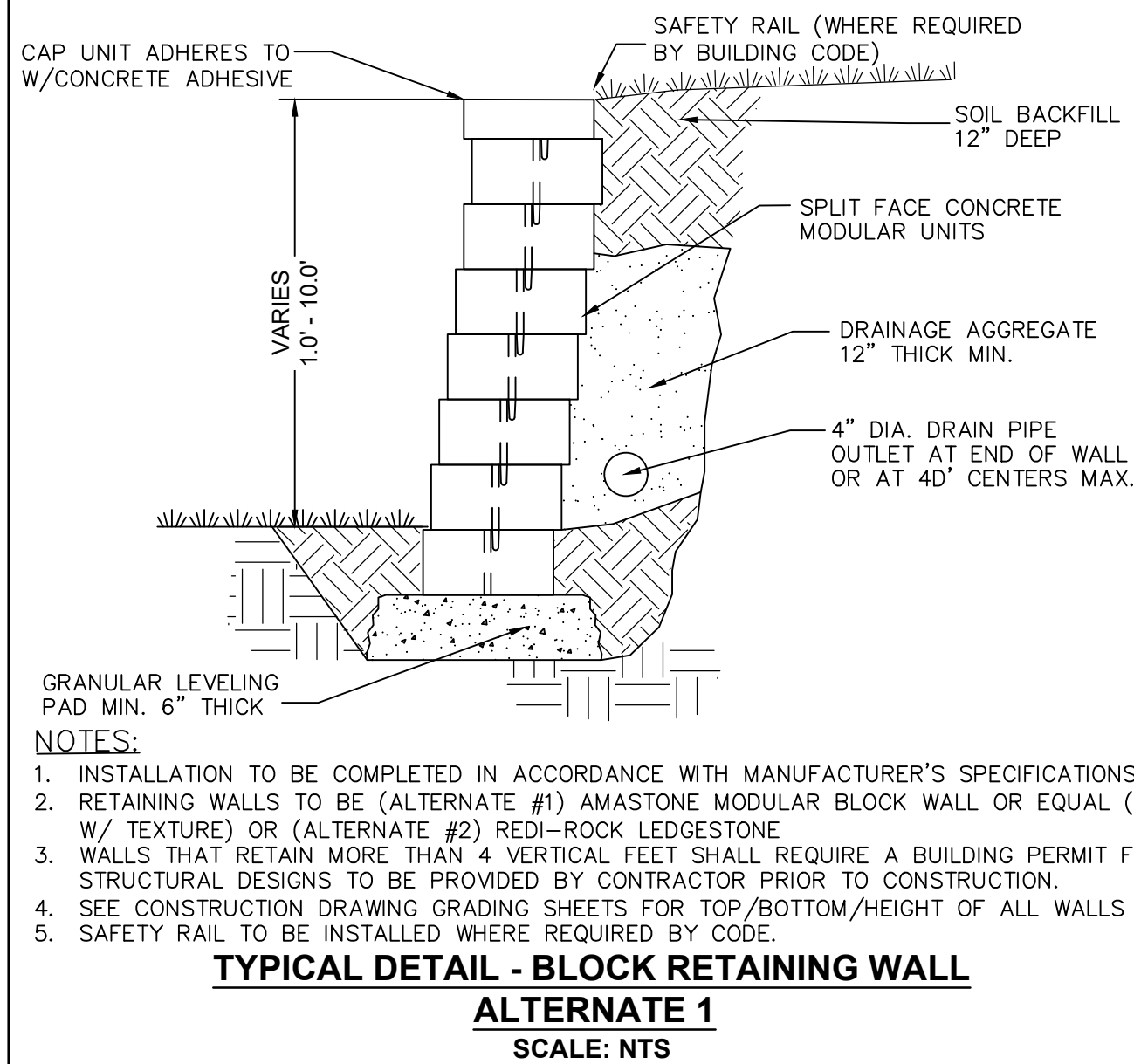
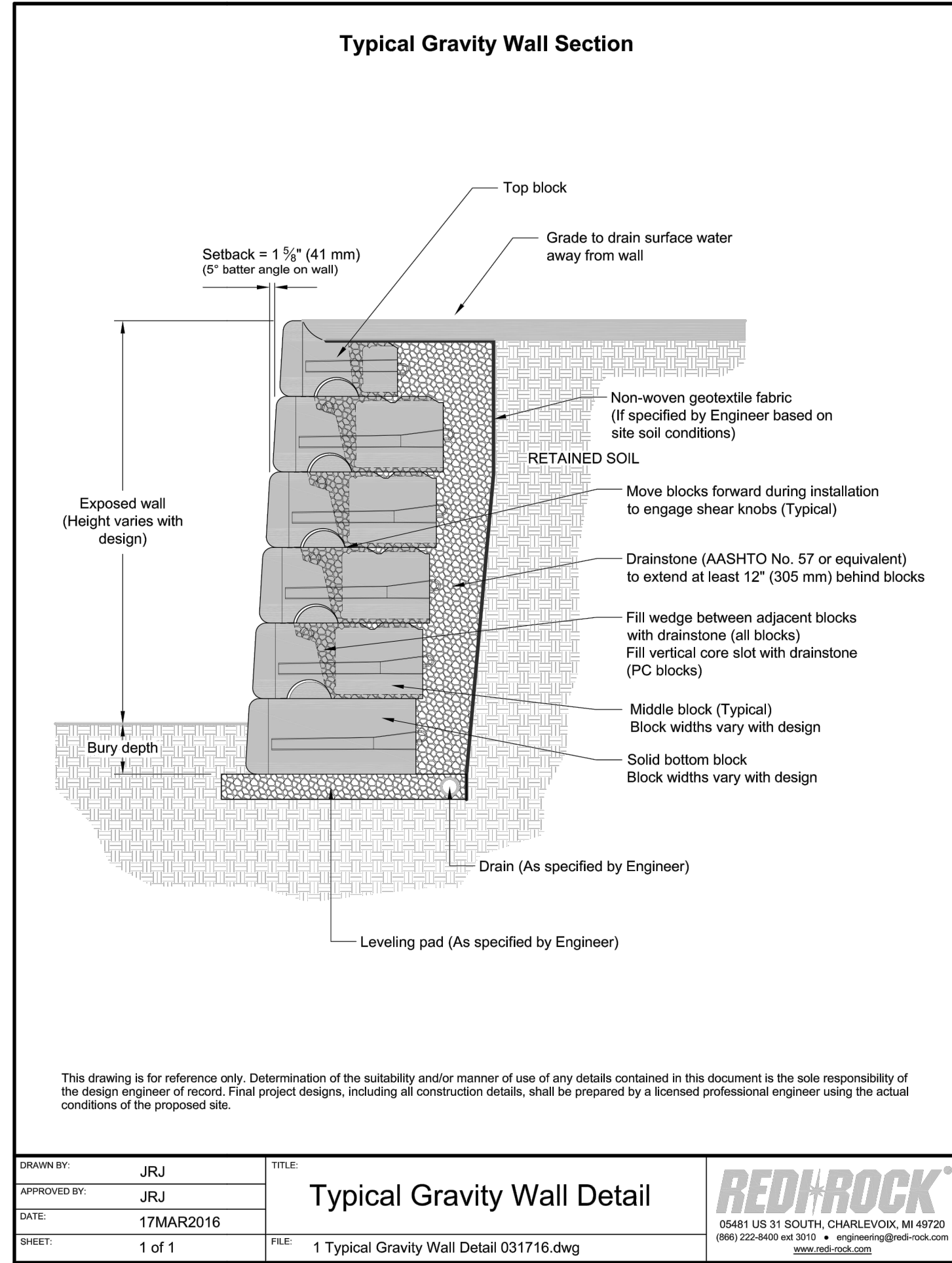
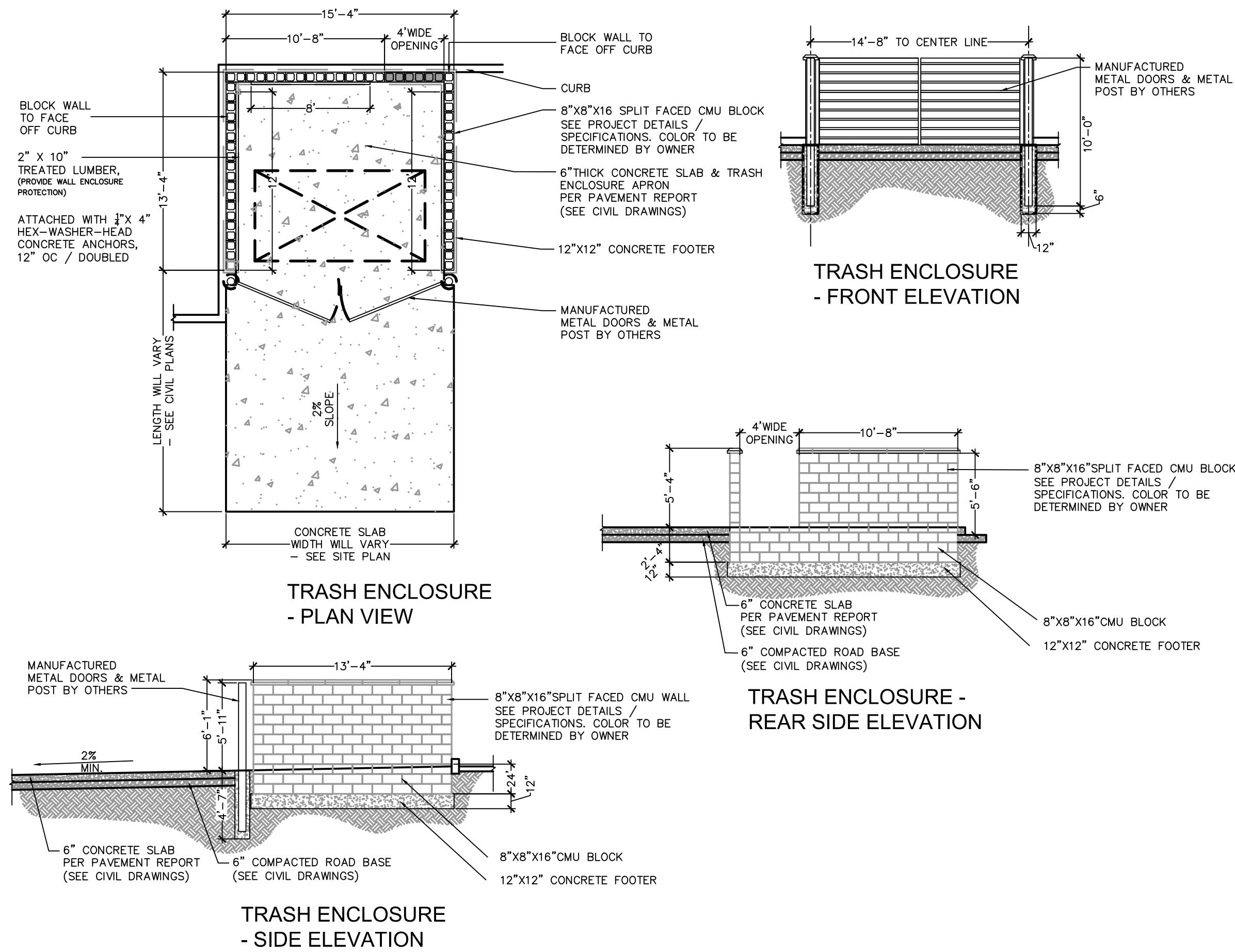
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- ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES 1/2 OF THE HEIGHT OF THE SEDIMENT CONTROL LOG.
- PERMANENTLY STABILIZE AREA AFTER SEDIMENT CONTROL LOGS HAVE BEEN REMOVED.

### SEDIMENT CONTROL LOGS

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DESIGN MANAGER

ISSUED: 10/7/19 REVISED: 8/19/2020 DRAWING NO. 900-SCL







# THE COTTAGES AT MESA RIDGE FOUNTAIN MUTUAL IRRIGATION COMPANY IRRIGATION PIPE CONSTRUCTION DRAWINGS

A PORTION OF THE NORTHEAST QUARTER OF SECTION 29, THE SOUTHEAST QUARTER  
OF SECTION 20, THE SOUTHWEST QUARTER OF SECTION 21, & THE NORTHWEST  
QUARTER OF SECTION 28 TOWNSHIP 15 SOUTH, RANGE 65 WEST OF THE 6TH P.M.  
COUNTY OF EL PASO, STATE OF COLORADO

## BASIS OF BEARINGS:

BEARINGS ARE BASED UPON THE NORTH LINE OF THE NORTHEAST QUARTER OF SAID SECTION 29, MONUMENTED AT THE WEST END WITH A 3.25" ALUMINUM CAP IN CONCRETE STAMPED "PLS 4842" AND MONUMENTED AT THE EAST END WITH A #6 REBAR AND 3.25" ALUMINUM CAP STAMPED "PLS 38141" AND ASSUMED TO BEAR S 89°57'13" E A FIELD MEASURED DISTANCE OF 2,652.37 FEET.

## BENCHMARK:

ELEVATIONS ARE BASED UPON THE FOUNTAIN SANITATION DISTRICT POINT N-1, BEING A 2" BRASS CAP IN CONCRETE AT THE NORTHEAST CORNER OF MESA RIDGE PARKWAY AND FOUNTAIN MESA ROAD. (ELEVATION=5750.57 NGVD 29).

## LEGAL DESCRIPTION:

THAT PORTION OF THE NORTHWEST QUARTER OF SECTION 28 AND THE NORTHEAST QUARTER OF SECTION 29, TOWNSHIP 15 SOUTH, RANGE 65 WEST OF THE 6TH P.M., COUNTY OF EL PASO, STATE OF COLORADO, DESCRIBED AS FOLLOWS:

BASIS OF BEARINGS: BEARINGS ARE BASED UPON THE NORTH LINE OF THE NORTHEAST QUARTER OF SAID SECTION 29, MONUMENTED AT THE WEST END WITH A 3.25" ALUMINUM CAP IN CONCRETE STAMPED "PLS 4842" AND MONUMENTED AT THE EAST END WITH A #6 REBAR AND 3.25" ALUMINUM CAP STAMPED "PLS 38141" AND ASSUMED TO BEAR S 89°57'13" E A FIELD MEASURED DISTANCE OF 2,652.37 FEET.

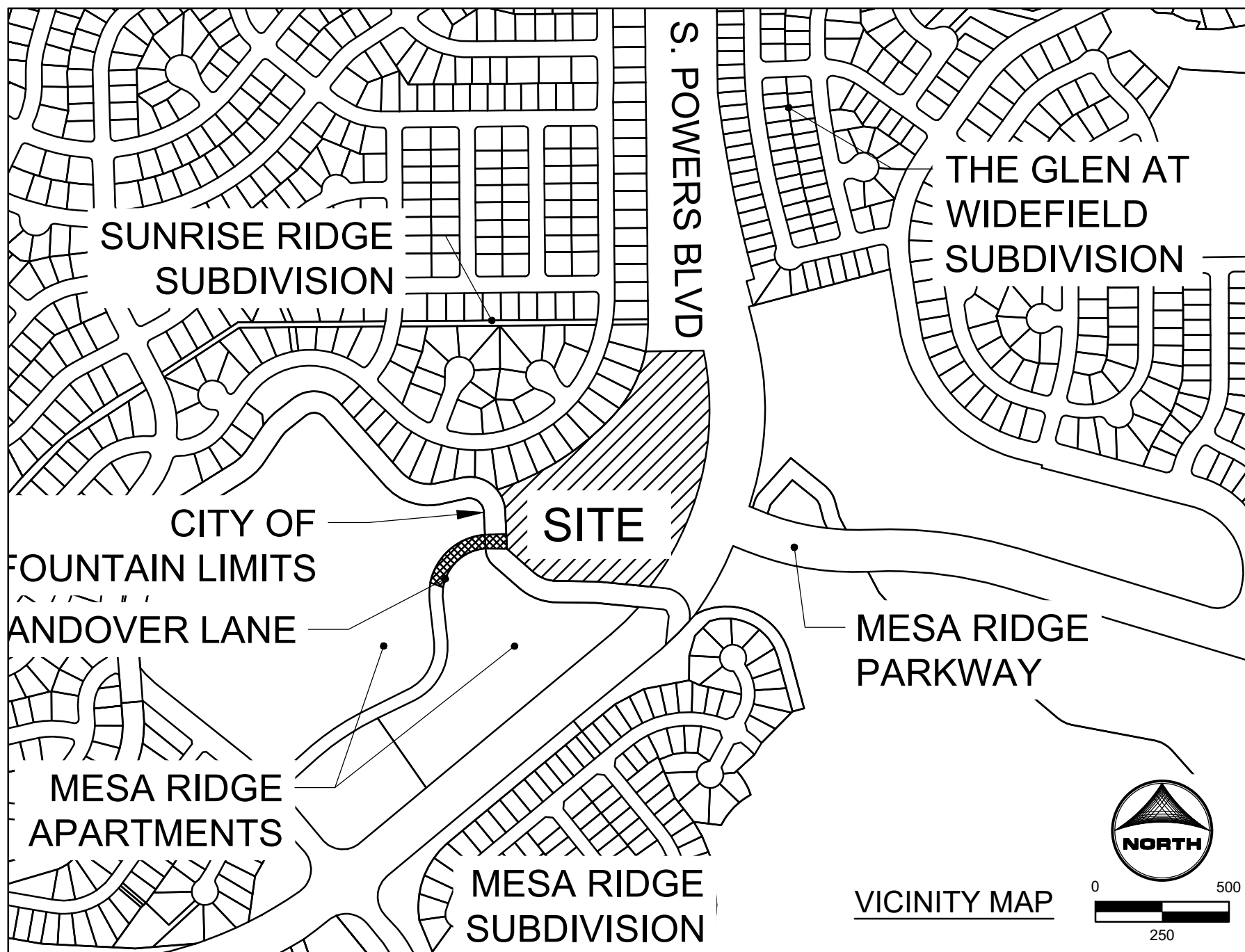
BENCHMARK: ELEVATIONS ARE BASED UPON THE FOUNTAIN SANITATION DISTRICT POINT N-1, BEING A 2" BRASS CAP IN CONCRETE AT THE NORTHEAST CORNER OF MESA RIDGE PARKWAY AND FOUNTAIN MESA ROAD. (ELEVATION=5750.57 NGVD 29).

BEGINNING AT THE NORTHWEST CORNER OF THE NORTHWEST QUARTER OF SAID SECTION 28; THENCE N 89°41'59" E ALONG THE NORTH LINE OF SAID NORTHWEST QUARTER, A DISTANCE OF 117.30 FEET TO A POINT ON THE WEST LINE OF POWERS BOULEVARD AS RECORDED UNDER BOOK 6788 AT PAGE 531 OF THE RECORDS OF THE EL PASO COUNTY CLERK AND RECORDERS OFFICE; THENCE ALONG THE WEST LINE OF SAID POWERS BOULEVARD, 933.14 FEET ALONG THE ARC OF A 1,096.98 FOOT RADIUS CURVE TO THE RIGHT, HAVING A CENTRAL ANGLE OF 48°44'17" AND A CHORD THAT BEARS S 12°56'23" W, 905.26 FEET TO A POINT ON THE NORTHERLY LINE OF THAT PARCEL OF LAND DESCRIBED UNDER BOOK 5506 AT PAGE 1290 OF SAID RECORDS; THENCE OF THE FOLLOWING EIGHT (8) COURSES ALONG SAID NORTHERLY LINES AND EASTERLY LINES OF SAID PARCEL OF LAND DESCRIBED UNDER BOOK 5506 AT PAGE 1290:

- 1) N 84°16'00" W, A DISTANCE OF 198.99 FEET;
- 2) 46.11 FEET ALONG THE ARC OF A 540.00 FOOT RADIUS TANGENT CURVE TO THE LEFT, HAVING A CENTRAL ANGLE OF 04°53'33" AND A CHORD THAT BEARS N 86°42'46" W, 46.10 FEET;
- 3) N 89°09'33" W, A DISTANCE OF 124.09 FEET;
- 4) 100.02 FEET ALONG THE ARC OF A 140.00 FOOT RADIUS TANGENT CURVE TO THE RIGHT, HAVING A CENTRAL ANGLE OF 40°56'07" AND A CHORD THAT BEARS N 68°41'30" W, 97.91 FEET;
- 5) N 48°13'27" W, A DISTANCE OF 126.77 FEET;
- 6) 6.49 FEET ALONG THE ARC OF AN 8.00 FOOT RADIUS TANGENT CURVE TO THE RIGHT, HAVING A CENTRAL ANGLE OF 46°29'23" AND A CHORD THAT BEARS N 24°58'45" W, 6.31 FEET;
- 7) N 01°44'04" W, A DISTANCE OF 137.18 FEET;
- 8) 87.71 FEET ALONG THE ARC OF A 135.00 FOOT RADIUS TANGENT CURVE TO THE LEFT, HAVING A CENTRAL ANGLE OF 37°13'35" AND A CHORD THAT BEARS N 20°21'02" W, 86.18 FEET TO THE SOUTHWEST CORNER OF LOT 15, BLOCK 3, SUNRISE RIDGE SUBDIVISION FILING NO. 8 AS RECORDED UNDER RECEPTION NO. 1722613 OF SAID RECORDS; THENCE THE FOLLOWING TWO (2) COURSES ALONG THE EASTERLY LINE OF SAID SUNRISE RIDGE SUBDIVISION FILING NO. 8: 1) 511.39 FEET ALONG THE ARC OF A 1,034.60 FOOT RADIUS CURVE TO THE LEFT, HAVING A CENTRAL ANGLE OF 28°19'14" AND A CHORD THAT BEARS N 58°13'41" E, 506.20 FEET TO A POINT OF COMPOUND CURVATURE;
- 2) 283.12 FEET ALONG THE ARC OF A 500.00 FOOT RADIUS CURVE TO THE LEFT, HAVING A CENTRAL ANGLE OF 32°26'36" AND A CHORD THAT BEARS N 27°50'47" E, 279.35 FEET TO A POINT ON THE NORTH LINE OF SAID NORTHEAST QUARTER; THENCE N 89°57'13" E ALONG THE NORTH LINE OF SAID NORTHEAST QUARTER, A DISTANCE OF 115.21 FEET TO THE POINT OF BEGINNING.

CONTAINING A CALCULATED AREA OF 445,104 SQUARE FEET (10.218 ACRES) OF LAND, MORE OR LESS.

TO BE PLATTED AS "COTTAGES AT MESA RIDGE"



## SHEET INDEX:

- 1 - COVER SHEET
- 2 - STORM PLAN
- 3 - STORM SEWER - PLAN & PROFILE
- 4 - CONSTRUCTION DETAILS

## LEGEND

	EXISTING	PROPOSED
MATCH LINE		
PHASE LINE		
SECTION LINE		
PROPERTY LINE		
EASEMENT LINE		
RIGHT OF WAY		
CENTERLINE		
CHAIN LINK FENCE		
WOODEN FENCE		
ROD IRON FENCE		
GUARDRAIL		
CABLE TV		
U.G. ELECTRIC		
OVERHEAD ELECTRIC		
FIBER OPTIC		
GAS MAIN		
SANITARY SEWER		
STORM DRAIN		
TELEPHONE		
WATER MAIN		
SWALE		
TRAIL		
CURB & GUTTER		
DRAINAGE BASIN		
INDEX CONTOUR		
INTER. CONTOUR		
100-YR FLOODPLAIN		
FLOODWAY		
EDGE OF WETLANDS		
DRAINAGE		
DRAINAGE BASIN		
BASIN TAG		
DESIGN POINT		
STORM SEWER		
MANHOLE		
STORM INLET		
FLARED END SECTION		
RIPRAP		
SANITARY SEWER		
CLEAN OUT		
MANHOLE PLUG		
WATER		
FIRE HYDRANT		
FIRE DEPT. CONNECTION		
GATE VALVE		
MANHOLE		
METER		
TEE		
REDUCER		
DRY UTILITIES		
ELECTRIC METER		
ELECTRIC PEDESTAL		
ELECTRICAL CABINET		
ELECTRIC VAULT		
FIBER OPTIC PULL BOX		
FIBER OPTIC MANHOLE		
FIBER OPTIC PEDESTAL		
FIBER OPTIC SIGN		
FIBER OPTIC VAULT		
GAS METER		
GAS SIGN		
GAS VAULT		
TELEPHONE CABINET		
TELEPHONE MANHOLE		
TELEPHONE SIGNALMAST		
TELEPHONE SIGN		
TELEPHONE PEDESTAL		
TRANSFORMER		
LIGHT POLE		
FIBER OPTIC VAULT		
MISCELLANEOUS		
SIGN		
BOLLARD		
ACCESSIBLE PARKING		

## STAKEHOLDERS:

OWNER:	GOODWIN KNIGHT, LLC 8605 EXPLORER DRIVE, SUITE 250 COLORADO SPRINGS, CO 80920 Brandon Loveridge, Manager
DEVELOPER:	GOODWIN KNIGHT 8605 EXPLORER DRIVE, SUITE 250 COLORADO SPRINGS, CO 80920 DAVE MORRISON
ATTN:	
APPLICANT:	HR GREEN DEVELOPMENT, LLC 1975 RESEARCH PKWY, SUITE 230 COLORADO SPRINGS, CO 80920 PHIL STUEPFERT, KEN HUHN
ATTN:	
SURVEYOR:	BARRON LAND, LLC 2790 N ACADEMY BLVD #311 COLORADO SPRINGS, CO 80917 ATTN: SPENCER BARRON

## GENERAL NOTES:

1. ALL CONSTRUCTION WORK SHALL BE COORDINATED WITH FMIC PERSONNEL DURING THE SUMMER MONTHS TO NOT INTERFERE WITH OPERATION OF THE DITCH.
2. THE FOLLOWING ITEMS PROPOSED WITHIN THE FMIC RIGHT OF WAY SHALL BE PERMANENTLY MAINTAINED BY THE APPLICANT:
  - A. PRIVATE STORM SEWER
  - B. EMERGENCY ACCESS ROAD
  - C. PRIVATE ACCESS ROAD (LANDOVER LANE EXTENSION SITE ENTRANCE)
  - D. LANDSCAPING AND IRRIGATION ITEMS
  - E. FENCES & GATES
3. THE FOLLOWING ITEMS PROPOSED WITHIN THE FMIC RIGHT OF WAY SHALL BE PERMANENTLY MAINTAINED BY THE NOTED AGENCIES NOTED:
  - A. SANITARY SEWER WITHIN LANDOVER LANE (FOUNTAIN SANITATION DISTRICT)
  - B. WATER LINE WITHIN LANDOVER LANE (EXISTING WATER LINE SUBJECT TO PRIOR AGREEMENTS WITH WIDEFIELD WATER AND SANITATION DISTRICT)

## EL PASO COUNTY STATEMENT

COUNTY PLAN REVIEW IS PROVIDED ONLY FOR GENERAL CONFORMANCE WITH COUNTY DESIGN CRITERIA. THE COUNTY IS NOT RESPONSIBLE FOR THE ACCURACY AND ADEQUACY OF THE DESIGN, DIMENSIONS, AND/OR ELEVATIONS WHICH SHALL BE CONFIRMED AT THE JOB SITE. THE COUNTY THROUGH THE APPROVAL OF THIS DOCUMENT ASSUMES NO RESPONSIBILITY FOR COMPLETENESS AND/OR ACCURACY OF THIS DOCUMENT.

FILED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, DRAINAGE CRITERIA MANUAL VOLUMES 1 AND 2 & ENGINEERING CRITERIA MANUAL AS AMENDED.

IN ACCORDANCE WITH ECM SECTION 1.12, THESE CONSTRUCTION DOCUMENTS WILL BE VALID FOR CONSTRUCTION FOR A PERIOD OF 2 YEARS FROM THE DATE SIGNED BY THE EL PASO COUNTY ENGINEER. IF CONSTRUCTION HAS NOT STARTED WITHIN THOSE 2 YEARS, THE PLANS WILL NEED TO BE RESUBMITTED FOR APPROVAL, INCLUDING PAYMENT OF REVIEW FEES AT THE PLANNING AND COMMUNITY DEVELOPMENT DIRECTORS DISCRETION.

JOSHUA PALMER, P.E. \_\_\_\_\_ DATE \_\_\_\_\_  
COUNTY ENGINEER/ECM ADMINISTRATOR

## OWNER'S STATEMENT

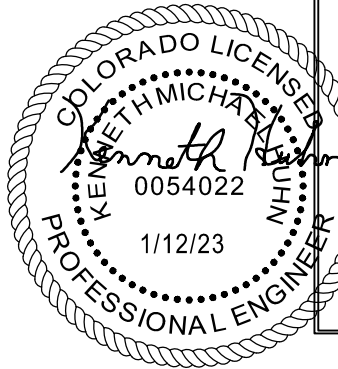
I, THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING AND EROSION CONTROL PLAN AND ALL OF THE REQUIREMENTS SPECIFIED IN THESE DETAILED PLANS AND SPECIFICATIONS.

OWNER SIGNATURE \_\_\_\_\_ DATE 2/13/23  
Brandon Loveridge, Manager Goodwin Knight, LLC  
OWNER NAME

## ENGINEER'S STATEMENT

THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECTION AND SUPERVISION. SAID PLANS AND SPECIFICATIONS HAVE BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR DETAILED ROADWAY, DRAINAGE, GRADING AND EROSION CONTROL PLANS AND SPECIFICATIONS, AND SAID PLANS AND SPECIFICATIONS ARE IN CONFORMITY WITH APPLICABLE MASTER DRAINAGE PLANS AND MASTER TRANSPORTATION PLANS. SAID PLANS AND SPECIFICATIONS MEET THE PURPOSES FOR WHICH THE PARTICULAR ROADWAY AND DRAINAGE FACILITIES ARE DESIGNED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARATION OF THESE DETAILED PLANS AND SPECIFICATIONS.

KENNETH M. HUHN, P.E. \_\_\_\_\_ DATE 01/12/23  
KHUHN@HGREEN.COM  
COLORADO P.E. 0054022



FOR CONSTRUCTION

DRAWN BY: NQJ	JOB DATE: 1/12/2023	BAR IS ONE INCH ON OFFICIAL DRAWINGS.
APPROVED: KMH	JOB NUMBER: 200541	0" = 1"
CAD DATE: 1/12/2023		IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.
CAD FILE: J:\2020\200541\CAD\DWG\IC\CD\FM\IC\FMIC_Cover		

NO.	DATE	BY	REVISION DESCRIPTION

HR GREEN - COLORADO SPRINGS
7222 COMMERCE CENTER DR SUITE 220 COLORADO SPRINGS CO 80919
PHONE: 719.300.4140 TOLL FREE: 800.728.7805 FAX: 844.273.1057   HRGreen.com

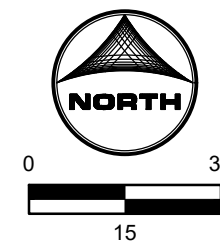
THE COTTAGES AT MESA RIDGE  
GOODWIN KNIGHT  
EL PASO COUNTY, COLORADO



IRRIGATION PIPE CONSTRUCTION DRAWINGS  
COVER SHEET

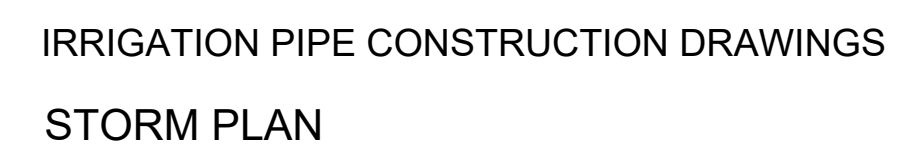
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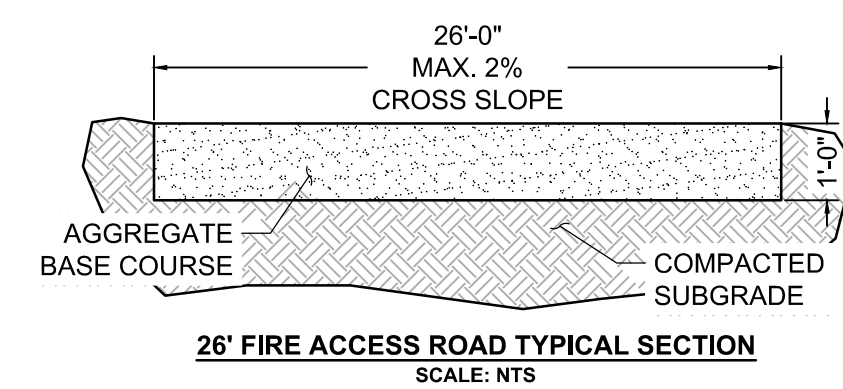
NO.	DATE	BY	REVISION DESCRIPTION

THE COTTAGES AT MESA RIDGE  
GOODWIN KNIGHT  
EL PASO COUNTY, COLORADO



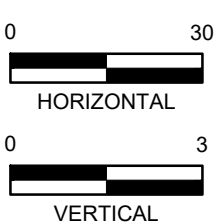
SHEET  
STM 2





3

EMERGENCY  
AND  
AUTHORIZED  
VEHICLES  
ONLY



NO.	DATE	BY	REVISION DESCRIPTION

HR GREEN - COLORADO SPRINGS  
7222 COMMERCE CENTER DR SUITE 220  
COLORADO SPRINGS CO 80919  
PHONE: 719.300.4140 TOLL FREE: 800.728.7805  
FAX: 844.273.1057 | [HRGreen.com](http://HRGreen.com)

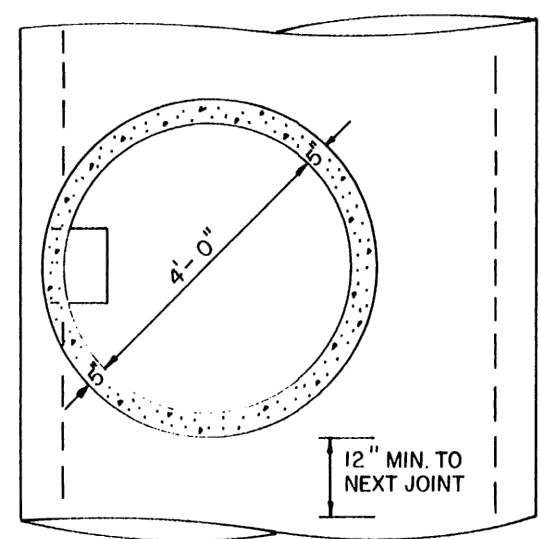


**GOODWIN**  
KNIGHT

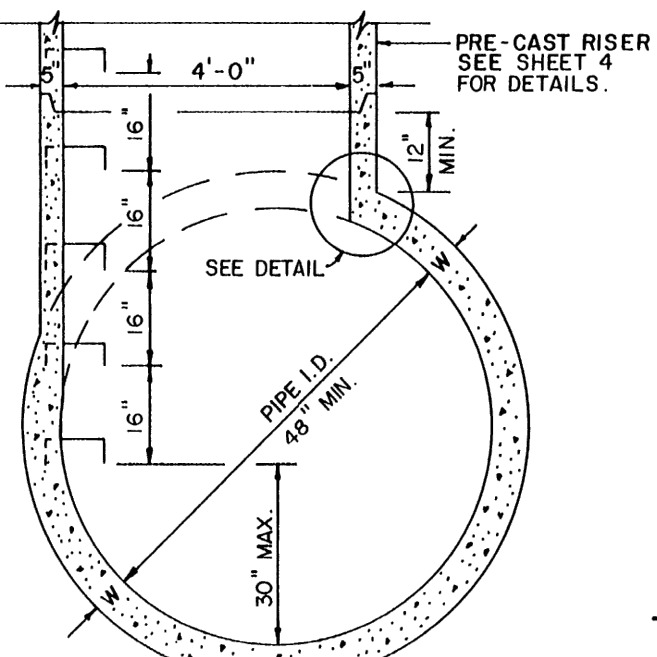
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STM

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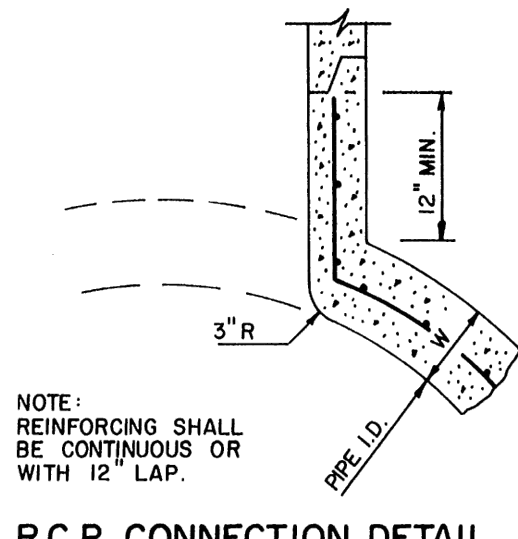




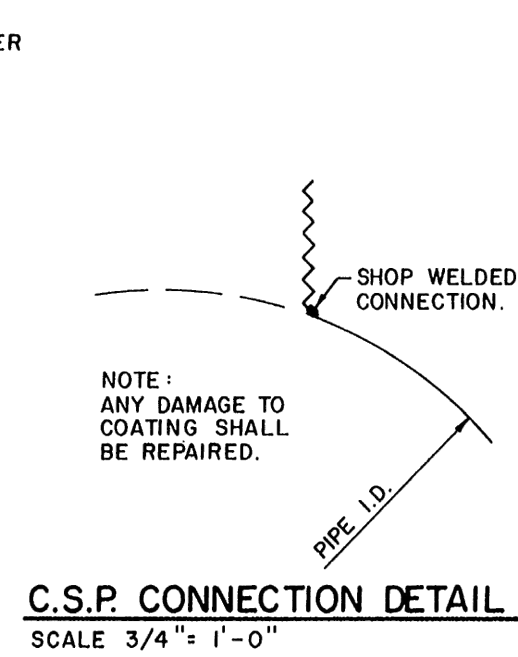
PLAN VIEW  
SCALE 3/8" = 1'-0"



SECTION VIEW  
SCALE 3/8" = 1'-0"



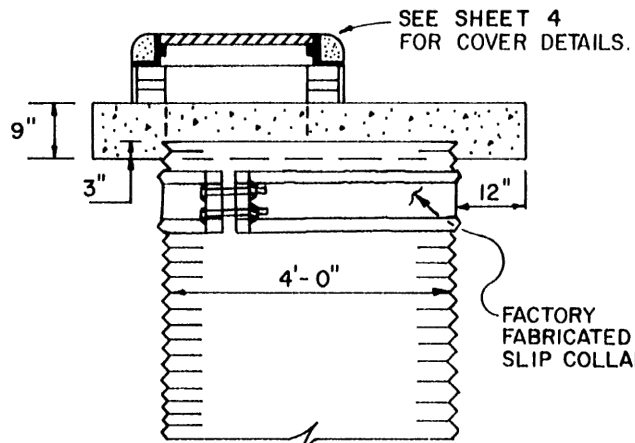
R.C.P. CONNECTION DETAIL  
SCALE 3/4" = 1'-0"



C.S.P. CONNECTION DETAIL  
SCALE 3/4" = 1'-0"

NOTES:

- Type III manholes shall be used only with approval by the City Engineer and only when all of the following conditions are met:
  - Pipe is 48" or larger inside diameter.
  - No change in pipe size.
  - No change in pipe material.
  - No change in horizontal alignment.
  - Slope is flat and continuous.
- Type III manholes shall be fabricated by the manufacturer/supplier and delivered to the site as a single unit. Field fabrication shall not be permitted.
- Either ladder or steps shall be installed. Lowest step shall be a maximum of 30" above the invert of the pipe.

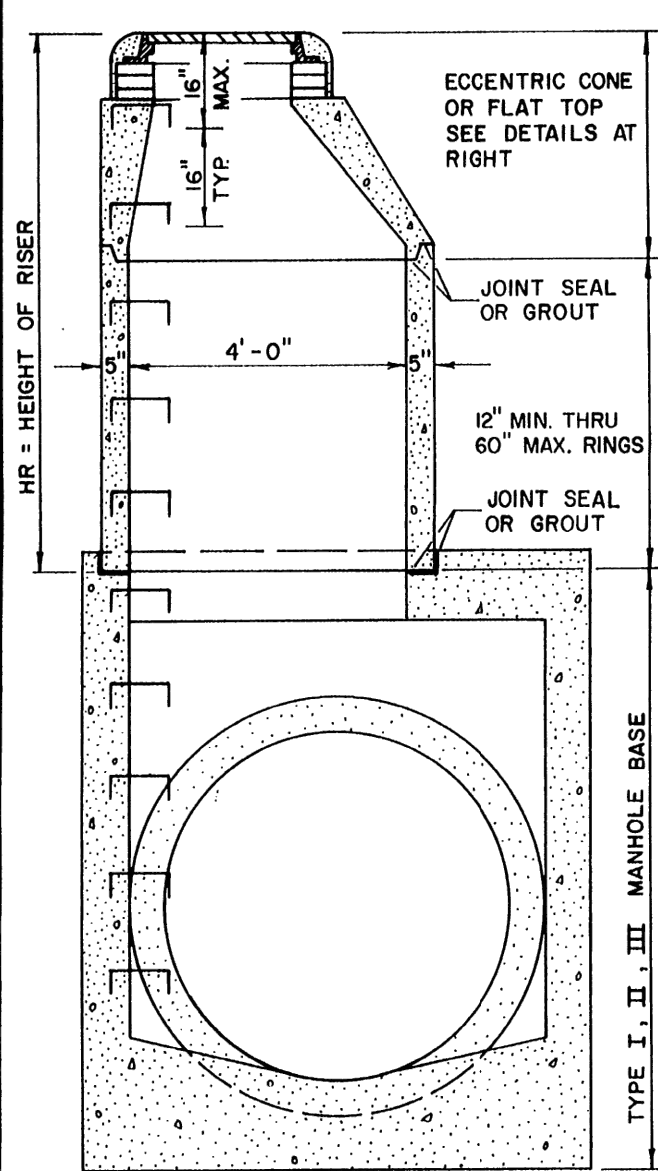


SPECIAL LID FOR USE WITH C.S.P. RISER  
SCALE 3/8" = 1'-0"

CITY OF COLORADO SPRINGS

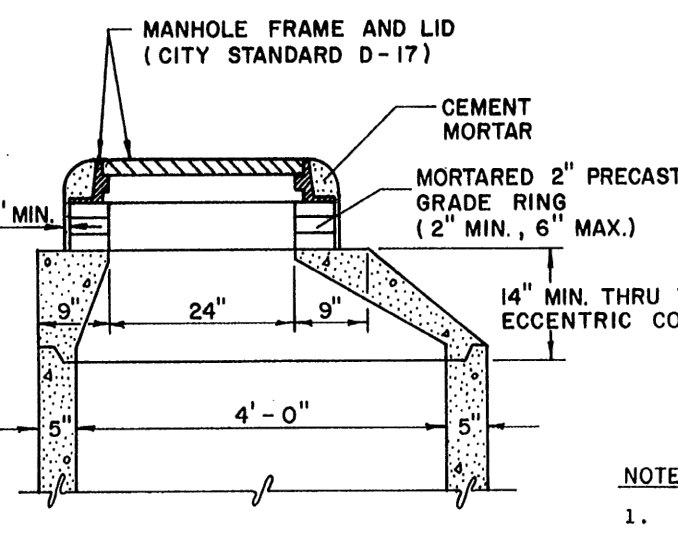
STORM SEWER MANHOLE-TYPE III

APPROVED BY: *Ray R. Haynes*  
CITY ENGINEER  
SCALE: DATE: DRAWN: SHEET D-20C  
AS SHOWN JAN. 89 PL. B 3 OF 4

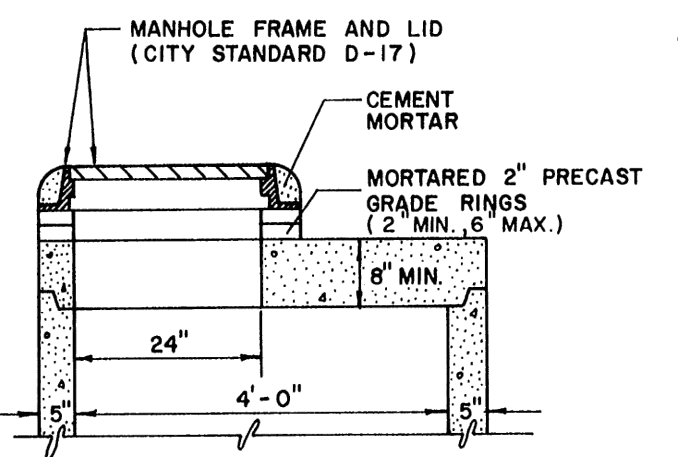


SECTION VIEW  
SCALE 3/8" = 1'-0"

STORM SEWER MANHOLE PRECAST RISER



ECCENTRIC CONE TOP  
(FOR HR > 3') SCALE: 1/2" = 1'-0"



ECCENTRIC FLAT TOP  
(FOR HR < 3') SCALE: 1/2" = 1'-0"

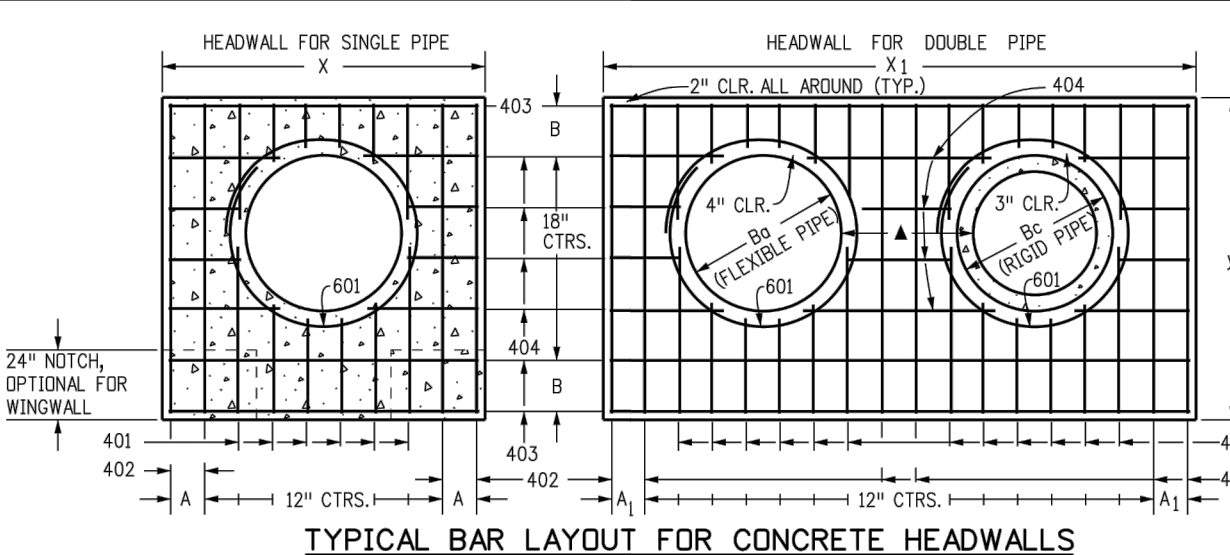
NOTES:

- All work shall be done in accordance with the standard and supplemental specifications applicable to the project.
- Precast risers shall conform to ASTM C-478.
- Steps shall be installed when manhole depth exceeds 30". Steps shall be cast iron or extruded aluminum, 1000 lb. capacity, 12" wide with non-skid grooves and drop front on safety noses, in accordance with approved OSHA requirements.

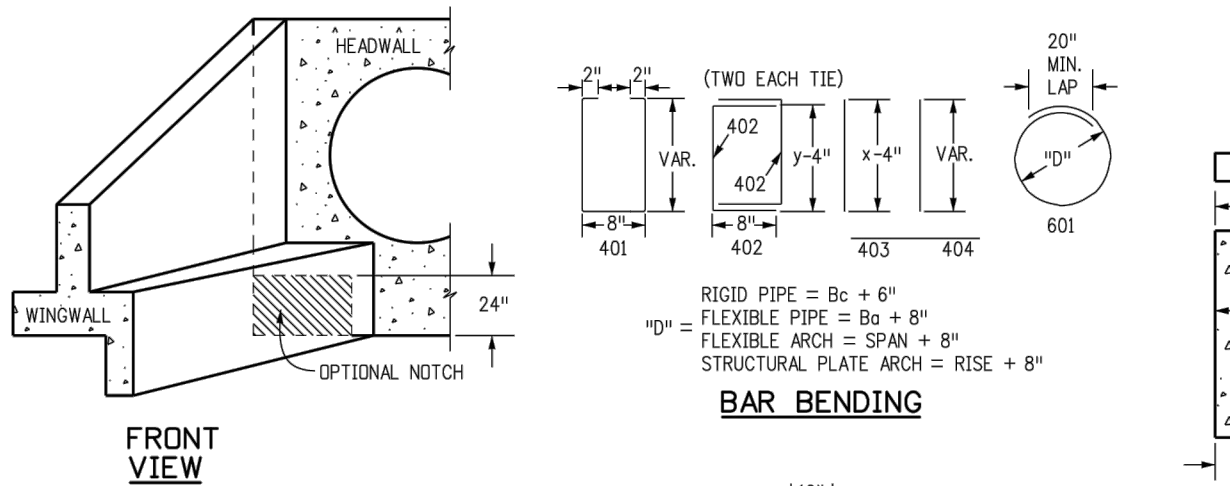
CITY OF COLORADO SPRINGS

STORM SEWER-COVER & RISER

APPROVED BY: *Ray R. Haynes*  
CITY ENGINEER  
SCALE: DATE: DRAWN: SHEET D-20D  
AS SHOWN JAN. 89 PL. B 1 OF 4

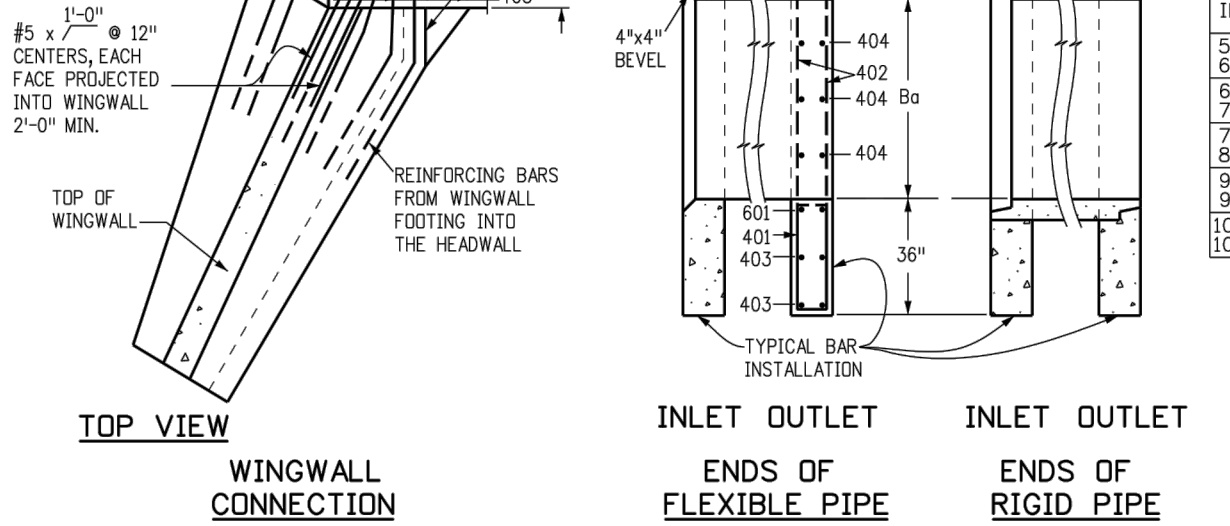


TYPICAL BAR LAYOUT FOR CONCRETE HEADWALLS

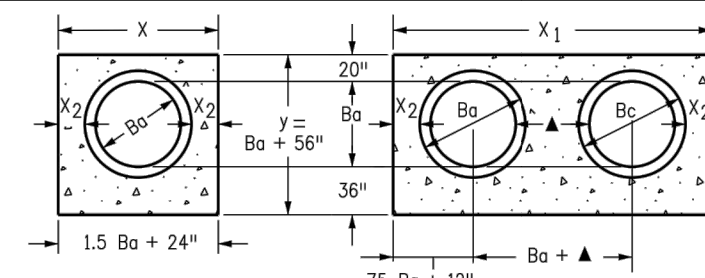


FRONT VIEW

TOP VIEW

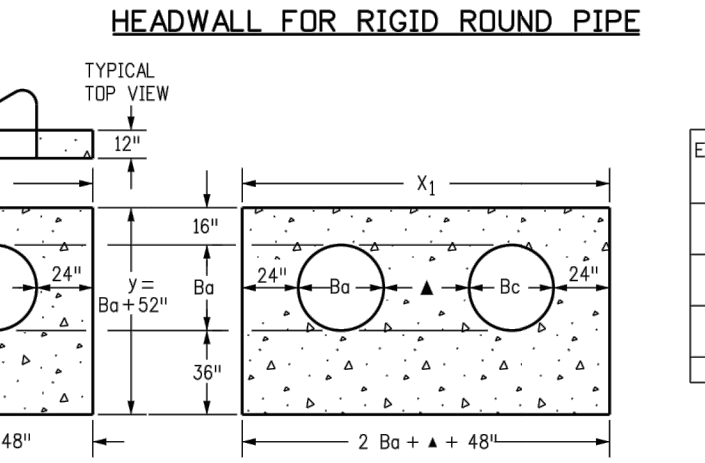


WINGWALL CONNECTION



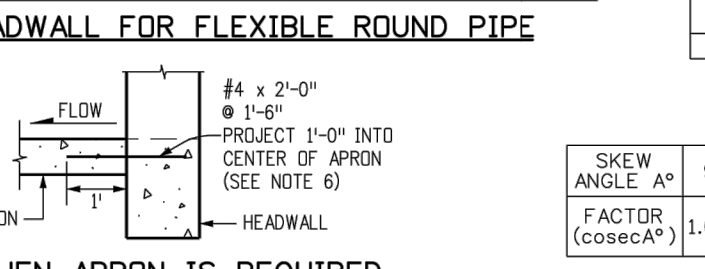
HEADWALL FOR RIGID ROUND PIPE

DIMENSIONS										QUANTITIES									
B <sub>o</sub>	X	A	X <sub>1</sub>	A <sub>1</sub>	Y	B	CONCRETE	STEEL		B <sub>o</sub>	X	A	X <sub>1</sub>	A <sub>1</sub>	Y	B	CONCRETE	STEEL	
IN.	IN.	IN.	IN.	IN.	IN.	IN.	CU. YD.	DBL. LBS.		IN.	IN.	IN.	IN.	IN.	IN.	IN.	CU. YD.	DBL. LBS.	
54	65	8-9	8 1/2	15-6	7	9-2	17	20	2.12	3.55	209	364							
60	72	9-6	9	10	8-8	11	21	35	3.99	236	414								
66	79	10-3	11 1/2	18-6	7	10-2	14	22	2.60	4.44	249	453							
72	86	11-0	12	22-0	8	10-8	17	23	3.85	4.91	270	476							
78	93	11-9	12 1/2	21-3	11	11-2	11	24	3.11	5.29	306	527							
84	100	12-6	13 1/2	22-6	11	11-8	14	25	3.38	5.68	333	572							
90	107	13-3	14 1/2	23-9	12	12-2	17	26	3.68	6.08	358	603							
96	114	14-0	15	25-0	10	12-8	11	27	3.94	6.48	379	649							
102	121	14-9	15 1/2	26-3	11	13-2	14	28	4.24	6.89	400	664							
108	128	15-6	16 1/2	27-6	12	13-8	17	29	4.54	7.30	424	707							



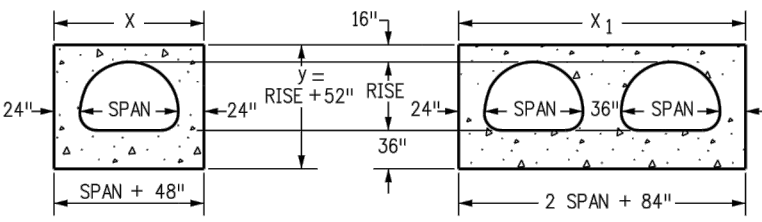
HEADWALL FOR FLEXIBLE ROUND PIPE

DIMENSIONS										QUANTITIES									
B <sub>o</sub>	X	A	X <sub>1</sub>	A <sub>1</sub>	Y	B	CONCRETE	STEEL		B <sub>o</sub>	X	A	X <sub>1</sub>	A <sub>1</sub>	Y	B	CONCRETE	STEEL	
IN.	IN.	IN.	IN.	IN.	IN.	IN.	CU. YD.	DBL. LBS.		IN.	IN.	IN.	IN.	IN.	IN.	IN.	CU. YD.	DBL. LBS.	
54	8-6	7	15-3	11 1/2	8-10	15	2.19	3.81	211	358									
60	9-0	10	16-6	12	8-8	18	2.58	4.25	217	396									
66	9-6	7	17-9	13 1/2	9-10	12	2.58	4.70	252	454									
72	10-0	10	19-0	14	10-4	15	2.78	5.17	255	472									
78	10-6	7	20-0	10	10-10	18	2.98	5.56	275	499									
84	11-0	10	21-0	11-4	12	3.19	5.95	297	553										
90	11-6	7	22-0	10	11-10	15	3.40	6.36	317	517									
96	12-0	10	23-0	12-4	18	3.62	6.79	321	597										
102	12-6	7	24-0	10	12-10	12	3.84	7.21	364	663									
108	13-0	10	25-0	10	13-4	15	4.06	7.63	362	678									



HEADWALL FOR STRUCTURAL PLATE ARCH

- GENERAL NOTES
- CONCRETE SHALL BE CLASS B.
  - HEADWALL SHALL BE PERPENDICULAR TO THE PIPE & UNLESS OTHERWISE SHOWN ON THE PLANS, TABULATED DIMENSIONS AND QUANTITIES MUST BE ADJUSTED FOR SKEWED INSTALLATIONS.
  - FOR WINGWALL DETAILS, SEE STANDARD PLAN M-601-20.
  - VOLUME OCCUPIED BY PIPE HAS BEEN DEDUCTED FROM STEEL AND CONCRETE QUANTITIES.
  - EXPOSED CONCRETE CORNERS SHALL BE CHAMFERED 3/4" IN.
  - ALL REINFORCING BARS SHALL HAVE A 2 IN. MINIMUM CLEARANCE.
- ▲ WHEN TWO OR MORE PIPES ARE LAID SIDE BY SIDE, THEY SHALL BE PLACED SO THAT THE ADJACENT PIPES WILL BE 1/2" INSIDE DIAMETER APART, OR 1/2" INSIDE SPAN APART, OR 3 FT. APART (INCLUDING WALL THICKNESS), WHICHEVER IS LESS.
- ADD 0.69 x (X OR X<sub>1</sub>) (LBS.) WHEN APRON IS REQUIRED.



HEADWALL FOR FLEXIBLE PIPE ARCH

DIMENSIONS										QUANTITIES									
EQUIV.	SPAN	RISE	X		A	X <sub>1</sub>		A <sub>1</sub>	Y		B	CONCRETE				STEEL			
			IN.	FT.		IN.	FT.		IN.	FT.		CU. YD.	DBL. LBS.	CU. YD.	DBL. LBS.				
72	81	59	63	10-9	8 1/2	20-6	21-6	7	9-3	17 1/2	2.72	5.10	250	467					
78	87	63	71	11-3	11 1/2	21-6	21-6	7	9-7	19 1/2	2.85	5.34	273	531					
84	93	67	79	11-9	12 1/2	22-10	24-2	11	9-11	21 1/2	3.08	5.79	290	547					
90	103	71	87	12-7	13 1/2	24-2	24-2	11	10-3	23 1/2	3.30	6.21	321	591					
96	112	75	93	13-4	14 1/2	25-8	26-6	8	10-7	25 1/2	3.52	6.65	314	606					
102	117	79	101	13-9	15 1/2	26-6	28-4	8	10-11	27 1/2	3.83	6.86	356	672					
108	128	83	114	14-8	16 1/2	28-4	28-4	12	11-3	29 1/2	3.96	7.51	376	699					

HEADWALL FOR FLEXIBLE PIAT ARCH																					
DIMENSIONS										QUANTITIES											
EQUIV.	SPAN	RISE	X	A	X <sub>1</sub>	A <sub>1</sub>	Y	B	CONCRETE	STEEL	EQUIV.	SPAN	RISE	X	A	X <sub>1</sub>	A <sub>1</sub>	Y	B	CONCRETE	STEEL
B <sub>o</sub>	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	CU. YD.	DBL. LBS.	B <sub>o</sub>	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	CU. YD.	DBL. LBS.
66	6-1	4-7	10-1	10 1/2	19-2	11	8-11	15 1/2	2.52	4.70	232	424									
75	7-0	5-1	11-0	11	21-0	10	9-5	16 1/2	2.80	5.25	282	509									
84	7-11	5-7	11-11	11 1/2	22-10	9	9-11	17 1/2	3.08	5.79	290	547									
93	8-10	6-1	12-10	12	24-8	8	10-5	19 1/2	3.36	6.33	309	622									
102	9-9	6-7	13-9	13 1/2	26-6	7	10-11	21 1/2	3.63	6.86	379	673									
111	10-11	7-1	14-11	14 1/2	28-10	9	11-5	22 1/2	4.05	7.67	377	711									
120	11-10	7-7	15-10	15 1/2	30-8	8	11-11	24 1/2	4.36	8.28	395	731									
132	12-10	8-4	16-10	16 1/2	32-8	8	12-8	26 1/2	4.75	9.03	441	839									
141	14-1	8-9	18-1	18 1/2	35-2	11	13-1	28 1/2	5.17	9.86	448	931									
150	15-4	9-3	19-4	19 1/2	37-8	8	13-7	30 1/2	5.59	10.88	490	953									
159	15-10	9-10	19-10	19 1/2	38-8	8	14-2	31 1/2	5.89	11.25	534	1019									

HEADWALL FOR STRUCTURAL PIAT ARCH									
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SKEW FACTOR TABLE										
80	75	70	65	60	55	50	45	40	35	30
1.015	1.035	1.064	1.103	1.155	1.221	1.305	1.414	1.556	1.743	2.000

HEADWALL FOR PIPES  
STANDARD PLAN NO. M-601-10  
Standard Sheet No. 1 of 1  
Issued by the Project Development Branch: July 31, 2019

Computer File Information		Sheet Revisions		Colorado Department of Transportation	
Creation Date: 07/31/19		Date:	Comments:	2829 West Howard Place	
Designer Initials: JBK				CDOT HQ, 3rd Floor	
Last Modification Date: 07/31/19				Denver, CO 80204	
Draftsman Initials: LTA				Phone: 303-757-9021 FAX: 303-757-9868	
CAD Ver: MicroStation V8 Scale: Not to Scale Units: English				Project Development Branch	JBK

DRAWN BY: NQJ JOB DATE: 1/12/2023  
APPROVED: KMH JOB NUMBER: 200541  
CAD DATE: 1/12/2023  
CAD FILE: J:\2020\200541\CAD\DWG\ICD\IFM\ICM\ICM\_Storm

NO.	DATE	BY	REVISION DESCRIPTION

HR GREEN - COLORADO SPRINGS  
7222 COMMERCE CENTER DR SUITE 220  
COLORADO SPRINGS CO 80919  
PHONE: 719.300.4140 TOLL FREE: 800.728.7805  
FAX: 844.273.1057 | HRGreen.com

THE COTTAGES AT MESA RIDGE  
GOODWIN KNIGHT  
EL PASO COUNTY, COLORADO



IRRIGATION PIPE CONSTRUCTION DRAWINGS  
CONSTRUCTION DETAILS

SHEET  
DT  
4



FOR CONSTRUCTION



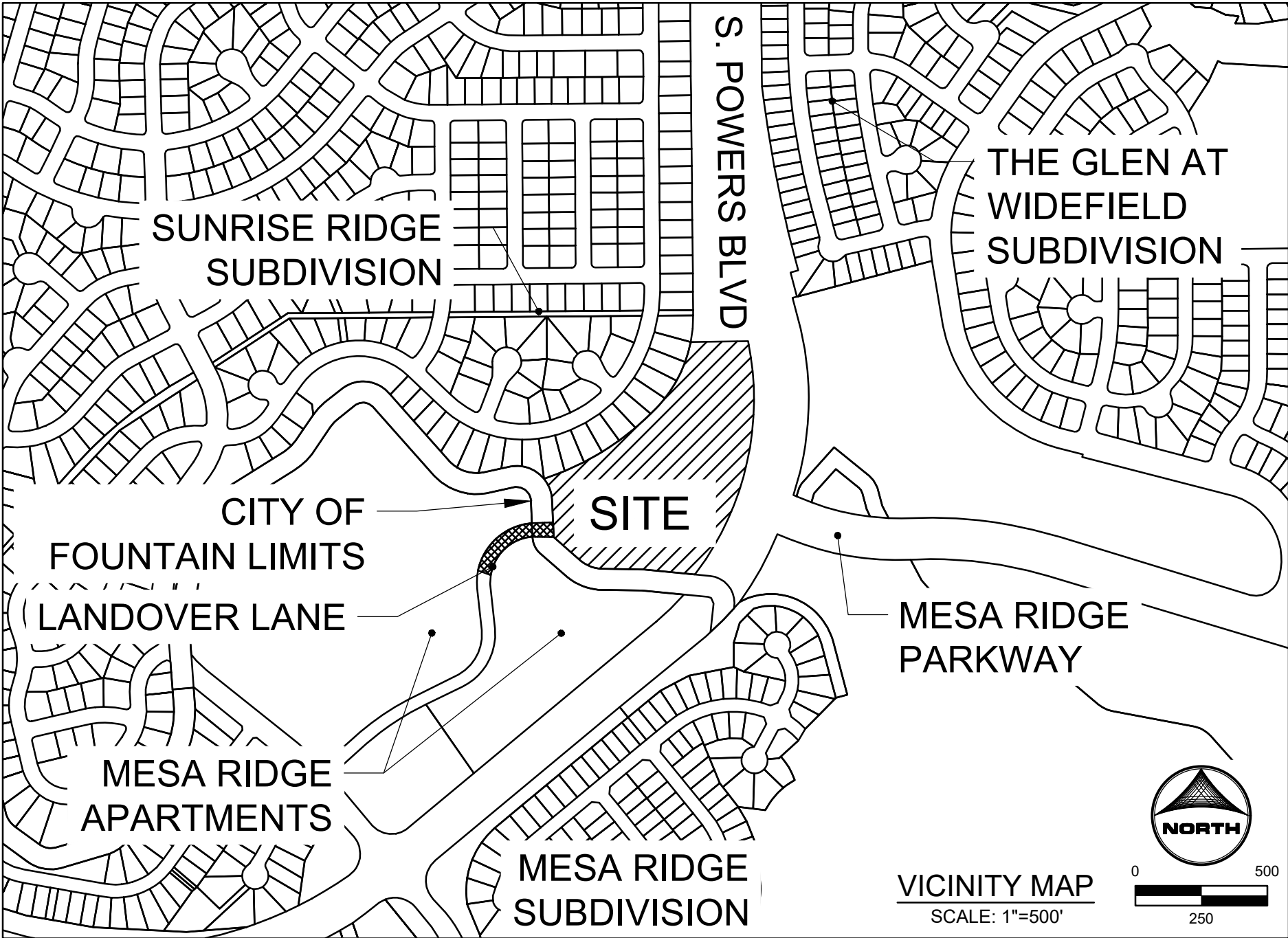
THE COTTAGES AT MESA RIDGE  
CITY OF FOUNTAIN CONSTRUCTION DOCUMENTS

A PORTION OF THE NORTHEAST QUARTER OF SECTION 29, THE SOUTHEAST QUARTER  
OF SECTION 20, THE SOUTHWEST QUARTER OF SECTION 21, & THE NORTHWEST  
QUARTER OF SECTION 28, TOWNSHIP 13 SOUTH, RANGE 65 WEST OF THE 6TH P.M.,  
COUNTY OF EL PASO, STATE OF COLORADO

FOR REFERENCE ONLY TO BE  
APPROVED BY THE CITY OF  
FOUNTAIN

COLORADO SPRINGS STANDARD GRADING, EROSION AND STORMWATER  
QUALITY CONTROL PLAN NOTES:

- NO CLEARING, GRADING OR OTHER LAND DISTURBING ACTIVITIES SHALL BE ALLOWED (EXCEPT FOR WORK RELATED TO THE INSTALLATION OF INITIAL CONTROL MEASURES) UNTIL A CITY PERMIT HAS BEEN ISSUED.
- ALL LAND DISTURBING ACTIVITIES MUST BE PERFORMED IN ACCORDANCE WITH THE APPROVED GEC PLAN AND CSWMP.
- INITIAL CONTROL MEASURES SHALL BE INSTALLED AND INSPECTED PRIOR TO ANY LAND DISTURBANCE ACTIVITIES TAKING PLACE. AN INITIAL SITE INSPECTION WILL NOT BE SCHEDULED UNTIL A CITY GEC PERMIT HAS BEEN "CONDITIONALLY APPROVED." CALL CITY STORMWATER INSPECTIONS, 385-5980, AT LEAST 48 HOURS PRIOR TO CONSTRUCTION TO SCHEDULE AN INITIAL INSPECTION AND OBTAIN FULL PERMIT APPROVAL.
- INDIVIDUALS SHALL COMPLY WITH "COLORADO WATER QUALITY CONTROL ACT" (TITLE 25, ARTICLE 8, CRS) AND THE "CLEAN WATER ACT" (33 USC 1344), INCLUDING REGULATIONS PROMULGATED AND CERTIFICATIONS OR PERMITS ISSUED, IN ADDITION TO THE REQUIREMENTS INCLUDED IN THE CITY'S MS4 PERMIT, STORMWATER CONSTRUCTION MANUAL. IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND WATER QUALITY CONTROL LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL OR STATE AGENCIES, THE MORE RESTRICTIVE LAWS, RULES, OR REGULATIONS SHALL APPLY.
- STORMWATER DISCHARGES FROM CONSTRUCTION SITES SHALL NOT CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR DEGRADATION OF STATE WATERS.
- ALL CONSTRUCTION CONTROL MEASURES SHALL BE MAINTAINED UNTIL PERMANENT STABILIZATION MEASURES ARE IMPLEMENTED. TEMPORARY CONSTRUCTION CONTROL MEASURES MUST BE REMOVED PRIOR TO PERMIT CLOSE OUT.
- CONCRETE WASH WATER SHALL NOT BE DISCHARGED OR ALLOWED TO RUNOFF TO STATE WATERS OR ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES.
- BUILDING, CONSTRUCTION, EXCAVATION OR OTHER WASTER MATERIALS SHALL NOT BE TEMPORARILY PLACED OR STORED IN THE STREET, ALLEY OR OTHER PUBLIC WAY UNLESS IN ACCORDANCE WITH AN APPROVED TRAFFIC CONTROL PLAN. CONSTRUCTION CONTROL MEASURES MAY BE REQUIRED BY THE GEC INSPECTOR IF DEEMED NECESSARY BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES (E.G. ESTIMATED TIME OF EXPOSURE, SEASON OF THE YEAR, ETC.)
- ALL WASTES COMPOSED OF BUILDING MATERIALS MUST BE REMOVED FROM THE CONSTRUCTION SITE FOR DISPOSAL IN ACCORDANCE WITH LOCAL AND STATE REGULATORY REQUIREMENTS. NO BUILDING MATERIALS WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED OR DISCHARGED AT THE SITE.
- THE PERMITEE SHALL BE RESPONSIBLE FOR REMOVAL OF ALL CONSTRUCTION DEBRIS, DIRT, TRASH, ROCK, SEDIMENT, AND SAND THAT MAY ACCUMULATE IN THE STORM SEWER OR OTHER DRAINAGE CONVEYANCE SYSTEM AS A RESULT OF CONSTRUCTION ACTIVITIES.
- THE QUANTITY OF MATERIALS STORED ON THE PROJECT SITE SHALL BE LIMITED, AS MUCH AS PRACTICAL, TO THAT QUANTITY REQUIRED TO PERFORM THE WORK IN AN ORDERLY SEQUENCE. ALL MATERIALS STORED ON-SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER, IN THEIR ORIGINAL CONTAINERS, WITH ORIGINAL MANUFACTURERS LABELS. MATERIALS SHALL NOT BE STORED IN A LOCATION WHERE THEY MAY BE CARRIED BY STORMWATER RUNOFF INTO THE STORM SEWER SYSTEM AT ANY TIME.
- SPILL PREVENTION AND CONTAINMENT MEASURES SHALL BE USED AT ALL STORAGE, EQUIPMENT FUELING, AND EQUIPMENT SERVICING AREAS OS AS TO CONTAIN ALL SPILLS AND PREVENT ANY SPILLED MATERIAL FROM ENTERING THE MS4, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITY. BULK STORAGE STRUCTURES FOR PETROLEUM PRODUCTS AND OTHER CHEMICALS SHALL HAVE SECONDARY CONTAINMENT OR EQUIVALENT ADEQUATE PROTECTION. ALL SPILLS SHALL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY, OR CONTAINED UNTIL APPROPRIATE CLEANUP METHODS CAN BE EMPLOYED. MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP SHALL BE FOLLOWED, ALONG WITH PROPER DISPOSAL METHODS.
- SEDIMENT (MUD AND DIRT) TRANSPORTED ONTO A PUBLIC ROAD, REGARDLESS OF THE SIZE OF THE SITE, SHALL BE CLEANED AS SOON AS POSSIBLE AFTER DISCOVERY.
- NO CHEMICALS ARE TO BE ADDED TO THE DISCHARGE UNLESS PERMISSION FOR USE OF A SPECIFIC CHEMICAL IS GRANTED BY THE STATE. IN GRANTED THE USE OF SUCH CHEMICALS, SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.
- CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN FOURTEEN (14) CALENDAR DAYS AFTER FINAL GRADING OR FINAL LAND DISTURBANCE HAS BEEN COMPLETED. DISTURBED AREAS WHICH ARE NOT AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN FOURTEEN (14) DAYS SHALL BE ROUGHENED, MULCHED, TACKIFIED, OR STABILIZED WITH TARPS WITHIN FOURTEEN (14) DAYS AFTER INTERIM GRADING. AN AREA THAT IS GOING TO REMAIN IN AN INTERIM STATE FOR MORE THAN SIXTY (60) DAYS SHALL ALSO BE SEEDED, UNLESS AL ALTERNATIVE STABILIZING MEASURE IS ACCEPTED AT THE INSPECTOR'S DISCRETION. ALL TEMPORARY CONSTRUCTION CONTROL MEASURES SHALL BE MAINTAINED UNTIL FINAL STABILIZATION IS ACHIEVED.
- THE GEC PLAN WILL BE SUBJECT TO RE-REVIEW AND RE-ACCEPTANCE BY THE STORMWATER ENTERPRISE SHOULD ANY OF THE FOLLOWING OCCUR: GRADING DOES NOT COMMENCE WITHIN TWELVE (12) MONTHS OF THE CITY'S ACCEPTANCE OF THE PLAN, THE CONSTRUCTION SITE IS IDLE FOR TWELVE (12) CONSECUTIVE MONTHS, A CHANGE IN PROPERTY OWNERSHIP OCCURS, THE PLANNED DEVELOPMENT CHANGES, OR ANY OTHER MAJOR MODIFICATIONS ARE PROPOSED AS DEFINED IN THE STORMWATER CONSTRUCTION MANUAL.
- IT IS NOT PERMISSIBLE FOR ANY PERSON TO MODIFY THE GRADE OF THE EARTH ON ANY UTILITY EASEMENT OR UTILITY RIGHT-OF-WAY WITHOUT WRITTEN APPROVAL FROM THE UTILITY OWNER. CITY ACCEPTANCE OF THE GEC PLAN AND CSWMP DOES NOT SATISFY THIS REQUIREMENT. THE PLAN SHALL NOT INCREASE OR DIVERT WATER TOWARD UTILITY FACILITIES. ANY CHANGES TO EXISTING UTILITY FACILITIES TO ACCOMMODATE THE PLAN MUST BE APPROVED BY THE AFFECTED UTILITY OWNER PRIOR TO IMPLEMENTING THE PLAN. THE COST TO RELOCATE OR PROTECT EXISTING UTILITIES OR TO PROVIDE INTERIM ACCESS SHALL BE AT THE APPLICANT'S EXPENSE.
- APPLICANT REPRESENTS AND WARRANTS THAT THEY HAVE THE LEGAL AUTHORITY TO GRADE AND/OR CONSTRUCT IMPROVEMENTS ON ADJACENT PROPERTY. THE CITY HAS NOT REVIEWED THE DEVELOPER'S AUTHORITY TO MODIFY ADJACENT PROPERTY AN APPROVED GEC PERMIT DOES NOT PROVIDE APPROVAL FOR THE APPLICATION TO PERFORM WORK ON ADJACENT PROPERTY.
- ALL UTILITY INSTALLATIONS WITHIN THE LIMITS OF DISTURBANCE SHOWN ON THIS PLAN ARE COVERED UNDER THIS PLAN. LOCATION OF UTILITIES WITHIN THE LIMITS OF DISTURBANCE MAY BE MODIFIED AFTER PLAN APPROVAL ASA FIELD CHANGE. UTILITY INSTALLATIONS RELATED TO THE PROVIDE DEVELOPMENT THAT EXTEND BEYOND THE LIMITS OF DISTURBANCE SHOWN ON THOSE PLAN ARE CONSIDERED TO BE PART OF THE LARGER DEVELOPMENT, AND THEREFORE REQUIRE A PLAN MODIFICATION OR SEPARATE PLAN FOR THE ADDITIONAL DISTURBANCE AREA.



STAKEHOLDERS:

OWNER:	GOODWIN KNIGHT, LLC 8605 EXPLORER DRIVE, SUITE 250 COLORADO SPRINGS, CO 80920 Brandon Loveridge, Manager
DEVELOPER:	GOODWIN KNIGHT 8605 EXPLORER DRIVE, SUITE 250 COLORADO SPRINGS, CO 80920 DAVE MORRISON
ATTN:	
APPLICANT:	HR GREEN DEVELOPMENT, LLC 1975 RESEARCH PKWY, SUITE 230 COLORADO SPRINGS, CO 80920
ATTN:	PHIL STUEPFERT, KEN HUHN
SURVEYOR:	BARRON LAND, LLC 2790 N ACADEMY BLVD #311 COLORADO SPRINGS, CO 80917 ATTN: SPENCER BARRON

SHEET INDEX:

- COVER
- LEGEND & TYPICAL SECTIONS
- DEMOLITION PLAN
- DETAILED GRADING
- GEC - INITIAL PLAN
- GEC - INTERIM-FINAL PLAN
- LANDOVER LANE - PLAN & PROFILE
- STORM PLAN & PROFILE
- STORM PLAN & PROFILE
- OUTLET STRUCTURE MODIFICATION PLAN
- STRUCTURAL NOTES & DETAILS
- DETAILS
- DETAILS
- DETAILS

DETAILED DRAINAGE CONSTRUCTION PLANS AND  
SPECIFICATIONS ENGINEER'S STATEMENT:

THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECT SUPERVISION. SAID DETAILED PLANS AND SPECIFICATIONS HAVE BEEN PREPARED ACCORDING TO THE ESTABLISHED CRITERIA FOR DETAILED DRAINAGE PLANS AND SPECIFICATIONS, AND SAID DETAILED PLANS AND SPECIFICATIONS ARE IN CONFORMITY WITH THE MASTER PLAN OF THE DRAINAGE BASIN. SAID DRAINAGE PLANS AND SPECIFICATIONS MEET THE PURPOSES FOR WHICH THE PARTICULAR DRAINAGE FACILITY(S) IS DESIGNED. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARATION OF THE DETAILED PLANS AND SPECIFICATIONS.

SIGNATURE (AFFIX SEAL): \_\_\_\_\_ DATE: 01/11/23  
COLORADO PROFESSIONAL ENGINEER NO: 0054022

CITY OF FOUNTAIN DETAILED DRAINAGE CONSTRUCTION PLANS  
AND SPECIFICATIONS REVIEW:

PLAN REVIEW BY THE CITY OF FOUNTAIN IS PROVIDED ONLY FOR GENERAL CONFORMANCE WITH THE DESIGN CRITERIA. THE CITY OF FOUNTAIN IS NOT RESPONSIBLE FOR THE ACCURACY AND ADEQUACY OF THE DESIGN, DIMENSIONS, AND/OR ELEVATIONS WHICH SHALL BE CONFIRMED AT THE JOB SITE. THE CITY OF FOUNTAIN, THROUGH THE APPROVAL OF THIS DOCUMENT, ASSUMED NO RESPONSIBILITY FOR COMPLETENESS AND/OR ACCURACY OF THIS DOCUMENT.

BENJAMIN E SHEETS, P.E., CITY ENGINEER DATE: \_\_\_\_\_

DRAWN BY: NQJ	JOB DATE: 1/11/2023	BAR IS ONE INCH ON OFFICIAL DRAWINGS. IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.
APPROVED: KMH	JOB NUMBER: 200541	
CAD DATE: 1/12/2023		
CAD FILE: J:\2020\200541\CAD\DWG\IC\CDIC.O.F\Cover		

NO.	DATE	BY	REVISION DESCRIPTION

HR GREEN - COLORADO SPRINGS

7222 COMMERCE CENTER DR SUITE 220  
COLORADO SPRINGS CO 80919

PHONE: 719.300.4140 TOLL FREE: 800.728.7805  
FAX: 844.273.1057 | HRGreen.com

THE COTTAGES AT MESA RIDGE  
GOODWIN KNIGHT  
FOUNTAIN, COLORADO



CITY OF FOUNTAIN CONSTRUCTION DOCUMENTS  
COVER

SHEET  
CV  
1

FOR CONSTRUCTION



LEGEND

EXISTING

PROPOSED

MATCH LINE

PHASE LINE

SECTION LINE

PROPERTY LINE

EASEMENT LINE

RIGHT OF WAY

CENTERLINE

CHAIN LINK FENCE

WOODEN FENCE

ROD IRON FENCE

GUARDRAIL

CABLE TV

U.G. ELECTRIC

OVERHEAD ELECTRIC

FIBER OPTIC

GAS MAIN

SANITARY SEWER

STORM DRAIN

TELEPHONE

WATER MAIN

SWALE

TRAIL

CURB & GUTTER

DRAINAGE BASIN

INDEX CONTOUR

INTER. CONTOUR

100-YR FLOODPLAIN

FLOODWAY

EDGE OF WETLANDS

DRAINAGE

DRAINAGE BASIN

BASIN TAG

DESIGN POINT

STORM SEWER

SANITARY SEWER

WATER

DRY UTILITIES

MISCELLANEOUS

MANHOLE

STORM INLET

FLARED END SECTION

RIPRAP

CLEAN OUT

MANHOLE

PLUG

FIRE HYDRANT

FIRE DEPT. CONNECTION

GATE VALVE

MANHOLE

METER

TEE

REDUCER

ELECTRIC METER

ELECTRIC PEDESTAL

ELECTRICAL CABINET

ELECTRIC VAULT

FIBER OPTIC PULL BOX

FIBER OPTIC MANHOLE

FIBER OPTIC PEDESTAL

FIBER OPTIC SIGN

FIBER OPTIC VAULT

GAS METER

GAS SIGN

GAS VAULT

TELEPHONE CABINET

TELEPHONE MANHOLE

TELEPHONE SIGNAL/MAST

TELEPHONE SIGN

TELEPHONE PEDESTAL

TRANSFORMER

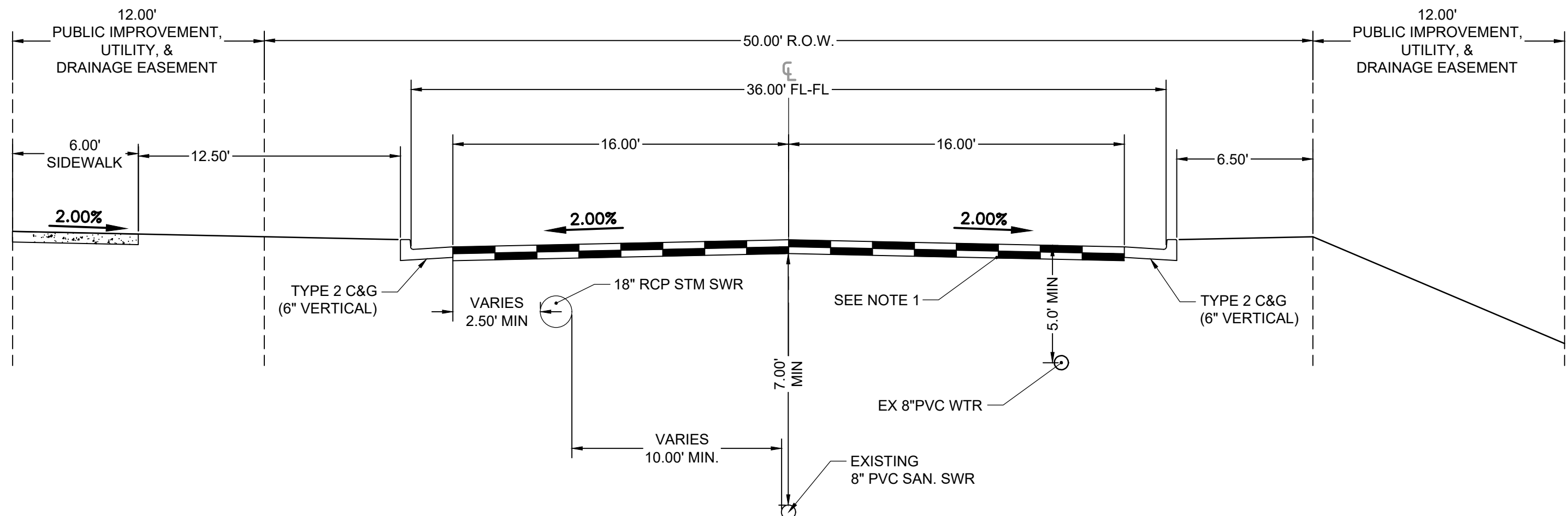
LIGHT POLE

FIBER OPTIC VAULT

SIGN

BOLLARD

ACCESSIBLE PARKING



LANDOVER LANE - TYPICAL SECTION  
(PUBLIC LOCAL - CITY OF FOUNTAIN)

NOTE 1: PAVEMENT DESIGN TO BE PROVIDED TO THE CITY BY THE GEOTECHNICAL ENGINEER FOR REVIEW PRIOR TO THE START OF PAVEMENT CONSTRUCTION. THE PAVEMENT DESIGN MUST MEET THE FIRE DEPARTMENT REQUIREMENTS AND SUPPORT THE LOAD OF A FIRE APPARATUS WEIGHING 80,000 LBS WITH A SINGLE AXEL WIGHT OF 28,000 POUNDS.

FOR CONSTRUCTION

DRAWN BY: NQJ

JOB DATE: 1/11/2023

APPROVED: KMH

JOB NUMBER: 200541

CAD DATE: 1/12/2023

CAD FILE: J:\2020\200541\CAD\Drawings\CIDIC.O.F\Cover

BAR IS ONE INCH ON OFFICIAL DRAWINGS.

0 1"

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THE COTTAGES AT MESA RIDGE

GOODWIN KNIGHT

FOUNTAIN, COLORADO

GOODWIN KNIGHT

CITY OF FOUNTAIN CONSTRUCTION DOCUMENTS

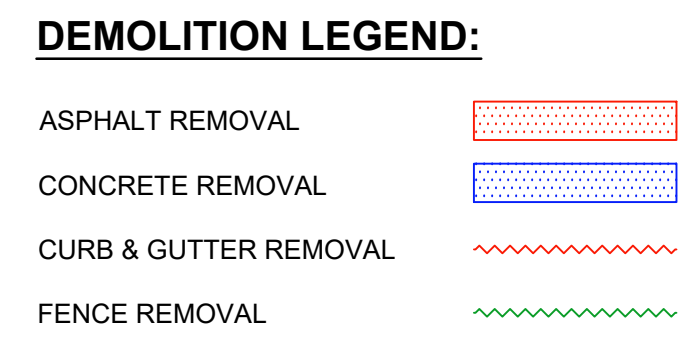
LEGEND & TYPICAL SECTIONS

SHEET

LG

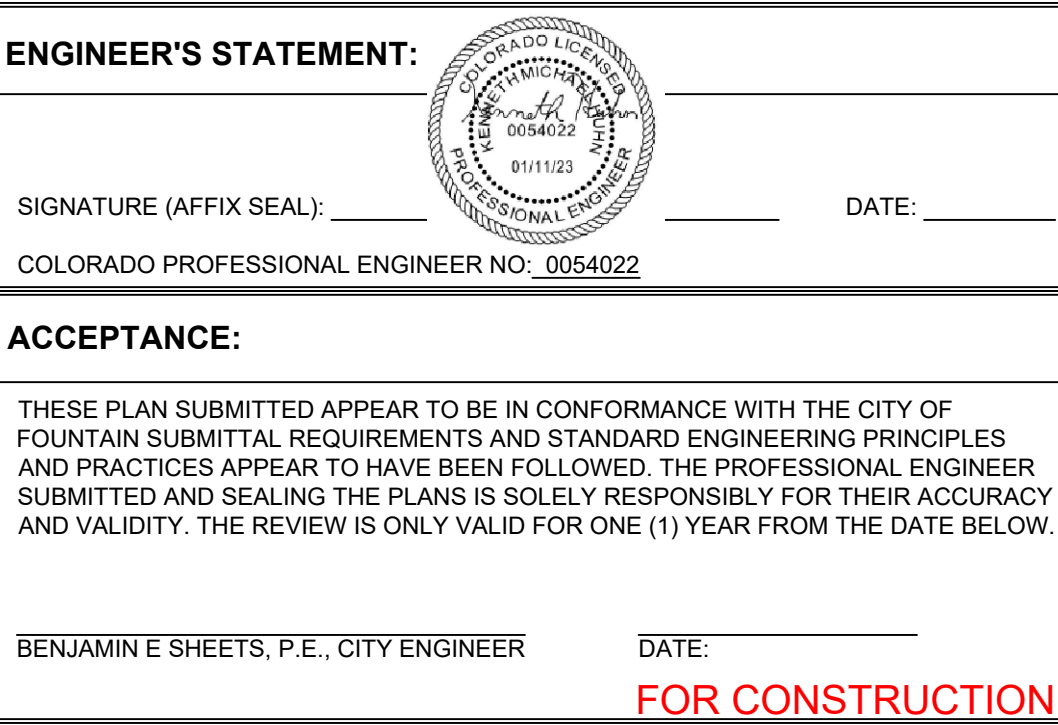
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FOR CONSTRUCTION



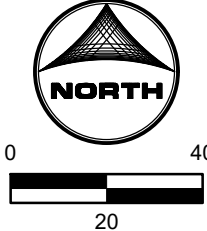


NO.	DATE	BY	REVISION DESCRIPTION



CITY OF FOUNTAIN CONSTRUCTION DOCUMENTS	SHEET	
DETAILED GRADING	----	4





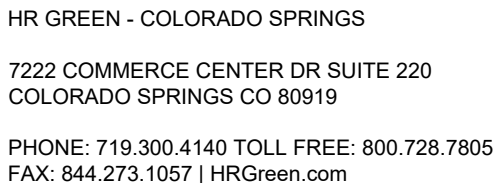
- SEE SHEETS 7-9 FOR CITY OF COLORADO SPRINGS GRADING AND EROSION CONTROL DETAILS.
- ALL STORMWATER MANAGEMENT MEASURES SHOWN ON THIS PLAN MUST BE INSTALLED AND MAINTAINED PER THE COLORADO SPRINGS GRADING AND EROSION CONTROL DETAILS.
- AREA WITHIN LIMITS OF DISTURBANCE TO BE CLEARED, GRUBBED AND STOCKPILED PRIOR TO IMPORT OF ANY FILL.
- ALL 3:1 SLOPES MUST BE RECEIVE SLOPE TRACKING TREATMENT AND EROSION CONTROL BLANKET.
- STOCKPILES REQUIRED DURING ONSITE CONSTRUCTION ACTIVITIES WILL BE PLACED AT THE DISCRETION OF THE CONTRACTOR. STOCKPILING OF MATERIAL MUST NOT OCCUR OUTSIDE THE LIMITS OF DISTURBANCE SHOWN ON THIS PLAN.
- NON-STRUCTURAL CONTROLS (I.E. STREET SWEEPING) WILL BE AT THE DISCRETION OF THE PROJECT'S CERTIFIED GEC ADMINISTRATOR THROUGHOUT THE DURATION OF LAND DISTURBING ACTIVITIES.
- THERE ARE NO ANTICIPATED ASPHALT AND/OR CONCRETE BATCH PLANTS, OR MASONRY MIX STATIONS ASSOCIATED WITH THIS PROJECT. IF THE CONTRACTOR REQUIRES A ASPHALT/CONCRETE BATCH PLANTS OR MASONRY MIX STATIONS, THESE PLANS WILL BE AMENDED AS REQUIRED.
- THERE ARE NO EXISTING PRESERVATION EASEMENTS LOCATED ON SITE.
- ALL RIPRAP TO BE INSTALLED PER SOIL RIPRAP DETAIL ON SHEET 9.

TOTAL DISTURBANCE AREA = 25.6 AC  
RECEIVING WATERS: JIMMY CAMP CREEK  
ANTICIPATED START OF CONSTRUCTION: SPRING 2023  
ANTICIPATED END OF LAND DISTURBANCE: WINTER 2023  
ANTICIPATED FINAL STABILIZATION: WINTER 2023

FAX

## NOTES

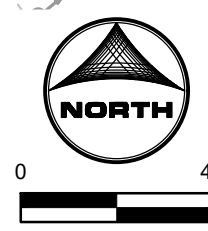
NO.	DATE	BY	REVISION DESCRIPTION



5

FOR CONSTRUCTION





1. SEE SHEETS 7-9 FOR CITY OF COLORADO SPRINGS GRADING AND EROSION CONTROL DETAILS.
2. ALL STORMWATER MANAGEMENT MEASURES SHOWN ON THIS PLAN MUST BE INSTALLED AND MAINTAINED PER THE COLORADO SPRINGS GRADING AND EROSION CONTROL DETAILS.
3. AREA WITHIN LIMITS OF DISTURBANCE TO BE CLEARED, GRUBBED AND STOCKPILED PRIOR TO IMPORT OF ANY FILL.
4. ALL 3:1 SLOPES MUST BE RECEIVE SLOPE TRACKING TREATMENT AND EROSION CONTROL BLANKET.
5. STOCKPILES REQUIRED DURING ONSITE CONSTRUCTION ACTIVITIES WILL BE PLACED AT THE DISCRETION OF THE CONTRACTOR. STOCKPILING OF MATERIAL MUST NOT OCCUR OUTSIDE THE LIMITS OF DISTURBANCE SHOWN ON THIS PLAN.
6. NON-STRUCTURAL CONTROLS (I.E. STREET SWEEPING) WILL BE AT THE DISCRETION OF THE PROJECT'S CERTIFIED GEC ADMINISTRATOR THROUGHOUT THE DURATION OF LAND DISTURBING ACTIVITIES.
7. THERE ARE NO ANTICIPATED ASPHALT AND/OR CONCRETE BATCH PLANTS, OR MASONRY MIX STATIONS ASSOCIATED WITH THIS PROJECT. IF THE CONTRACTOR REQUIRES A ASPHALT/CONCRETE BATCH PLANTS OR MASONRY MIX STATIONS, THESES PLANS WILL BE AMENDED AS REQUIRED.
8. THERE ARE NO EXISTING PRESERVATION EASEMENTS LOCATED ON SITE.
9. ALL BIPRAP TO BE INSTALLED PER SOI BIPRAP DETAIL ON SHEET 9.

TOTAL DISTURBANCE AREA = 25.6 AC  
RECEIVING WATERS: JIMMY CAMP CREEK  
ANTICIPATED START OF CONSTRUCTION: SPRING 2023  
ANTICIPATED END OF LAND DISTURBANCE: WINTER 2023  
ANTICIPATED FINAL STABILIZATION: WINTER 2023

THIS GRADING AND EROSION CONTROL PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. IF SUCH WORK IS PERFORMED IN ACCORDANCE WITH THE GRADING AND EROSION CONTROL PLAN, THE WORK WILL NOT BECOME A HAZARD TO LIFE AND LIMB, ENDANGER PROPERTY, OR ADVERSELY AFFECT THE SAFETY, USE OR STABILITY OF A PUBLIC WAY, DRAINAGE CHANNEL, OR OTHER PROPERTY.



THE OWNER WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING AND EROSION CONTROL PLAN INCLUDING TEMPORARY CONTROL MEASURE INSPECTION REQUIREMENTS AND FINAL STABILIZATION REQUIREMENTS, ACCORDING TO THE CITY OF COLORADO SPRINGS STORMWATER CONSTRUCTION MANUAL. I ACKNOWLEDGE THE RESPONSIBILITY TO DETERMINE WHETHER THE CONSTRUCTION ACTIVITIES ON THESE PLANS REQUIRE COLORADO DISCHARGE PERMIT SYSTEM (DPS) PERMITTING FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY.


NAME OF DEVELOPER/OWNER: Brandon Loveridge, GOODWIN KNIGHT, LLC

TITLE: MANAGER EMAIL: \_\_\_\_\_

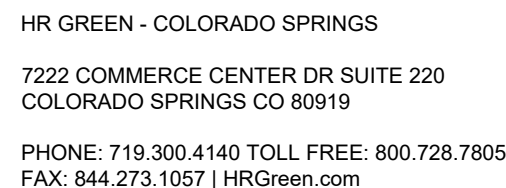
FAX: \_\_\_\_\_

THIS GRADING PLAN AND EROSION CONTROL PLAN IS FILED IN ACCORDANCE WITH SECTION 12.04.160 OF THE CODE OF THE CITY OF FOUNTAIN. THIS PLAN IS REVIEWED WITH THE DRAINAGE CRITERIA MANUAL, VOL. I (JANUARY 2021) AND VOL. II (DECEMBER 2020): STORMWATER CONSTRUCTION MANUAL: LATEST REVISIONS.

NOTES:

BAR IS ONE INCH ON  
OFFICIAL DRAWINGS.  
0  1"  
IF NOT ONE INCH,  
JUST SCALE ACCORDINGLY

NO.	DATE	BY	REVISION DESCRIPTION



SHEET  
GEC 6



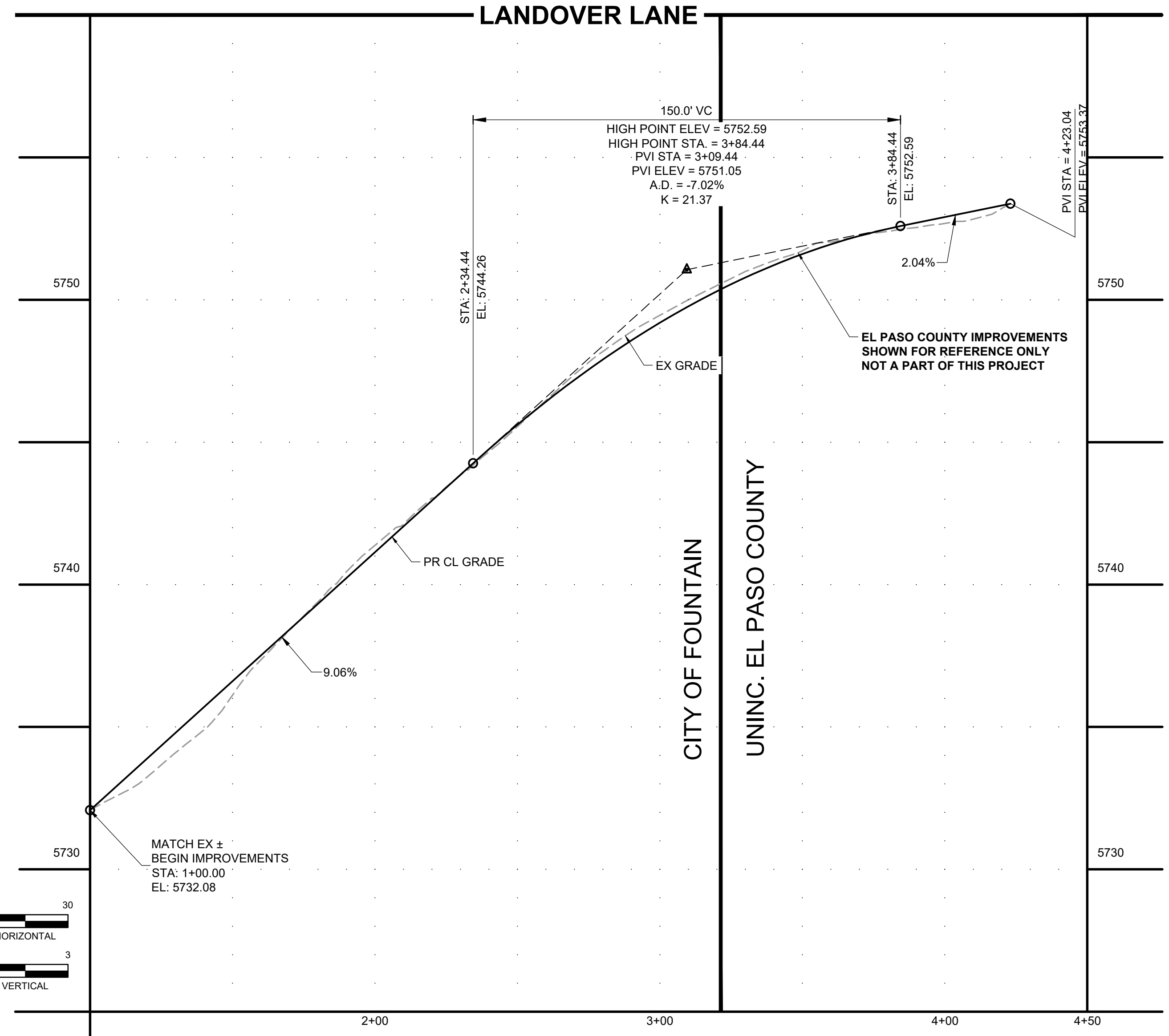
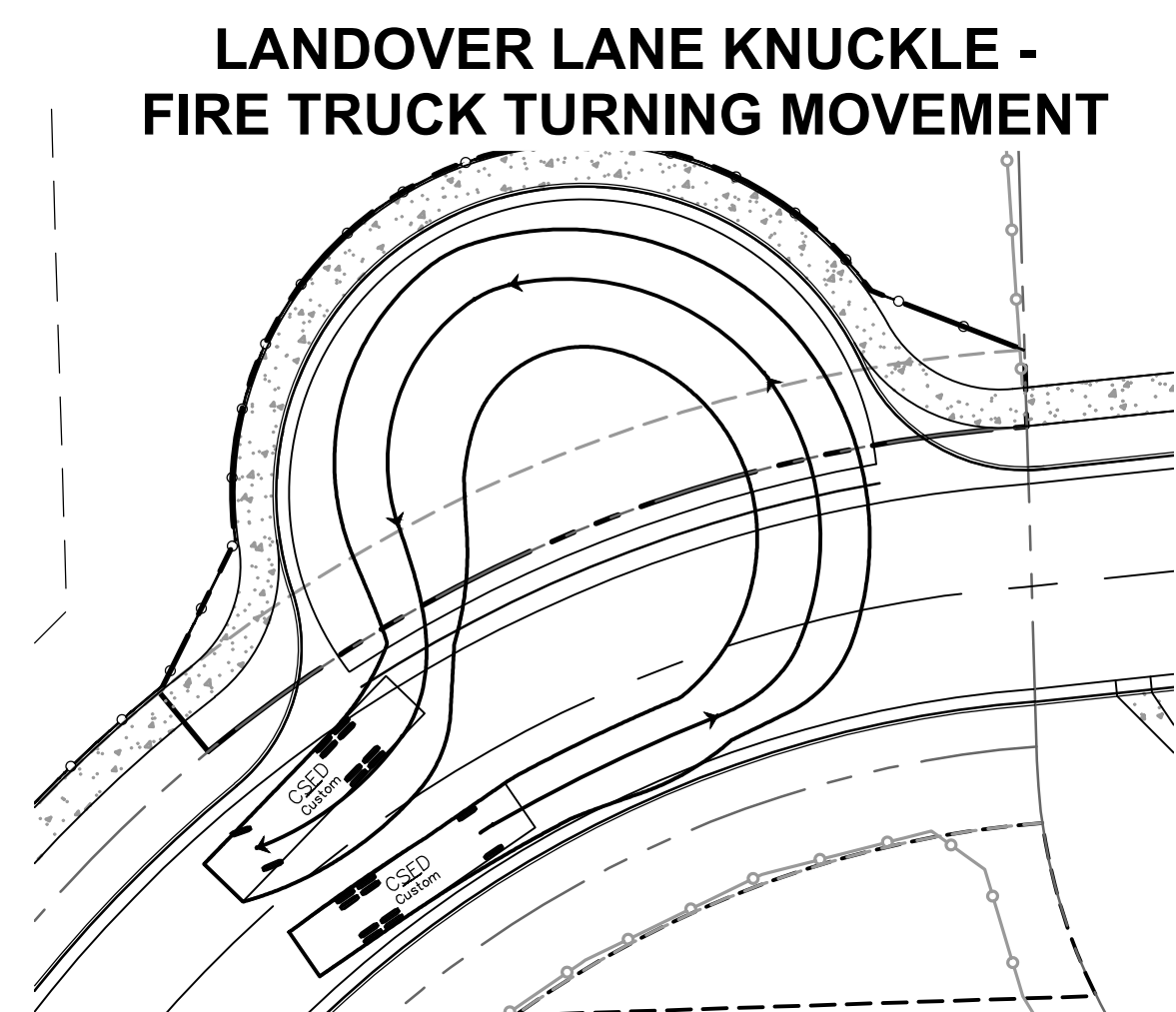
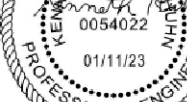
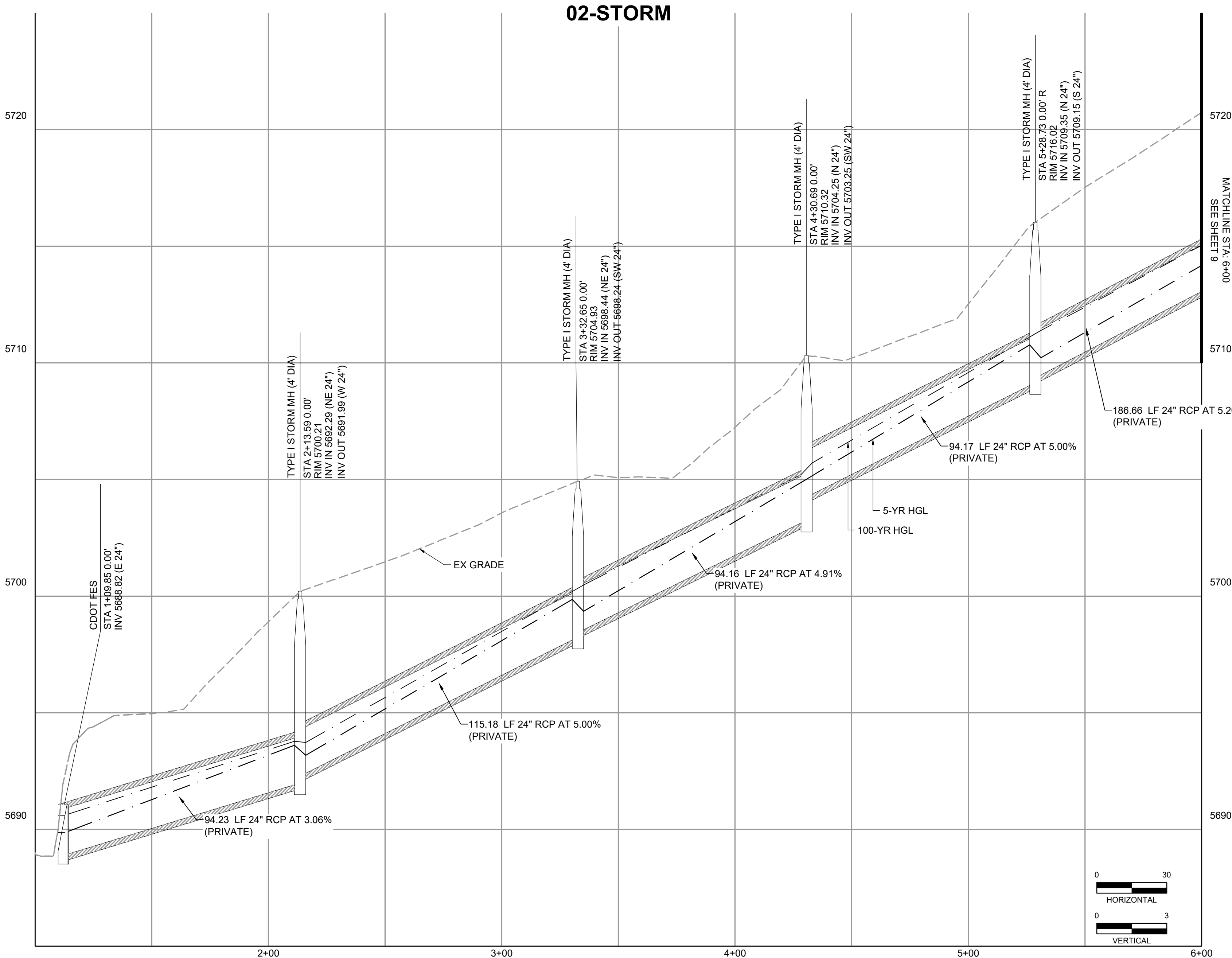
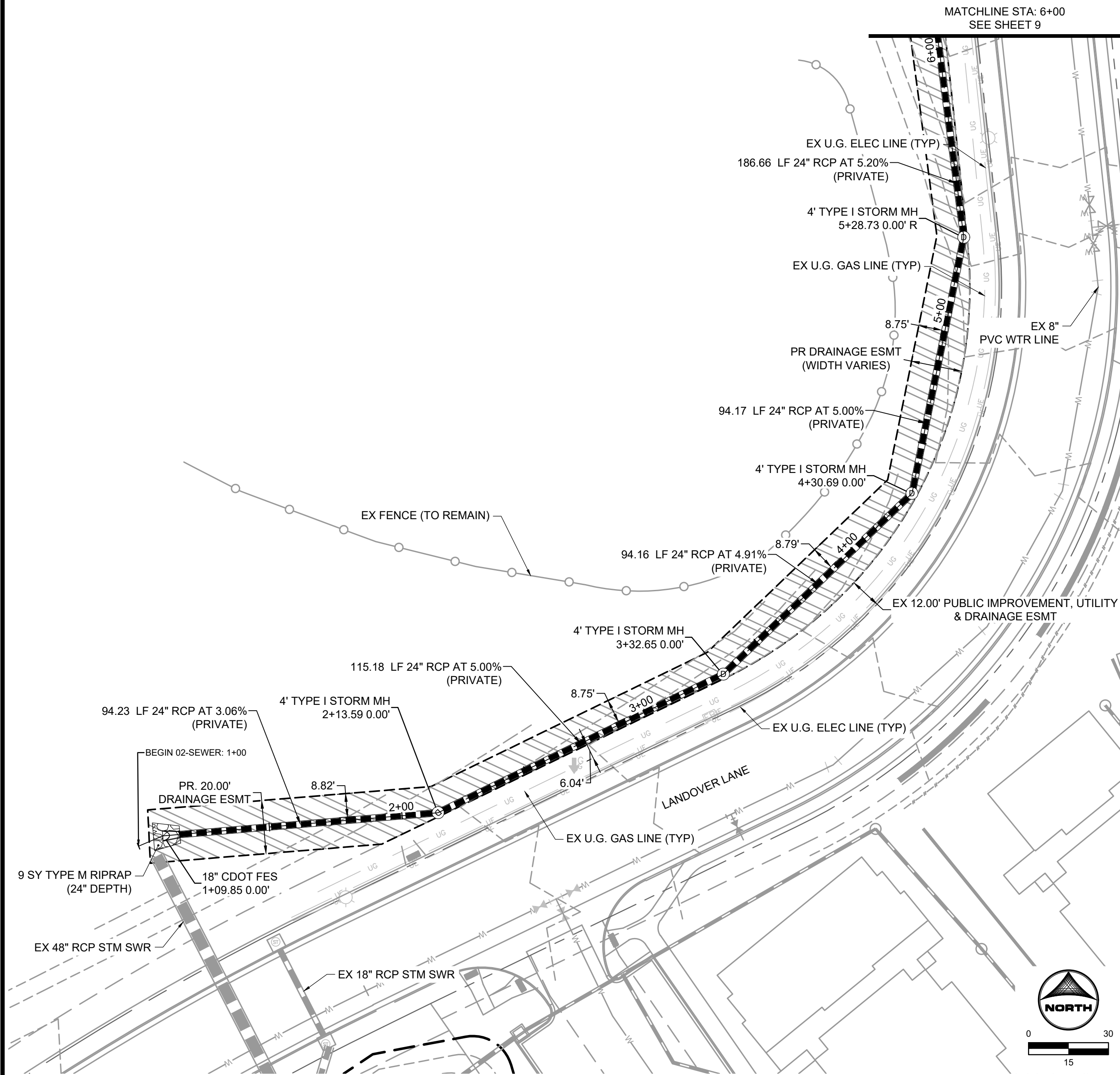


Diagram illustrating a Type 2 6 inch Vertical spill condition. The diagram shows a rectangular spill area with a width of 24 inches and a height of 6 inches. A 1 1/2 inch vertical dimension is indicated for the spill area. The spill area is labeled "SPILL CONDITION". The diagram also shows a 30 inch horizontal dimension for the base of the spill area. The diagram is labeled "TYPE 2" and "6 inch VERTICAL".



<b>ENGINEER'S STATEMENT:</b>	
	
SIGNATURE (AFFIX SEAL): _____	DATE: _____
COLORADO PROFESSIONAL ENGINEER NO: <u>0054022</u>	
<b>ACCEPTANCE:</b>	
THESE PLAN SUBMITTED APPEAR TO BE IN CONFORMANCE WITH THE CITY OF FOUNTAIN SUBMITTAL REQUIREMENTS AND STANDARD ENGINEERING PRINCIPLES AND PRACTICES APPEAR TO HAVE BEEN FOLLOWED. THE PROFESSIONAL ENGINEER SUBMITTED AND SEALING THE PLANS IS SOLELY RESPONSIBLY FOR THEIR ACCURACY AND VALIDITY. THE REVIEW IS ONLY VALID FOR ONE (1) YEAR FROM THE DATE BELOW.	
BENJAMIN E SHEETS, P.E., CITY ENGINEER	DATE: _____





STORM SEWER CONSTRUCTION NOTES:

1. ALL RCP STORM SEWER TO BE CLASS III UNLESS OTHERWISE NOTED.
2. CONTRACTOR SHALL POTHOLE AND VERIFY DEPTH OF EXISTING UTILITY PRIOR TO THE START OF CONSTRUCTION. IF CONFLICTS ARE IDENTIFIED THE CONTRACTOR SHALL CONTACT THE ENGINEER IMMEDIATELY.
3. IT IS ASSUMED THAT THE CONTRACTOR SHALL UTILIZE TRENCH BOXES DURING CONSTRUCTION OF THE STORM SEWER. THE PROPOSED EASEMENT WIDTHS HAVE BEEN ESTABLISHED BASED ON THIS ASSUMPTION. IF ALTERNATIVE METHODS ARE MORE COST EFFECTIVE THAN THE CONTRACTOR SHALL NOTIFY THE OWNER DURING THE BIDDING PROCESS AND REQUEST ANY TEMPORARY CONSTRUCTION EASEMENTS THAT MAY BE NECESSARY.

DETAILED DRAINAGE CONSTRUCTION PLANS AND SPECIFICATIONS ENGINEER'S STATEMENT:

THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECT SUPERVISION. SAID DETAILED PLANS AND SPECIFICATIONS HAVE BEEN PREPARED ACCORDING TO THE ESTABLISHED CRITERIA FOR DETAILED DRAINAGE PLANS AND SPECIFICATIONS, AND SAID DETAILED PLANS AND SPECIFICATIONS ARE IN CONFORMITY WITH THE MASTER PLAN OF THE DRAINAGE BASIN. SAID DRAINAGE PLANS AND SPECIFICATIONS MEET THE PURPOSES FOR WHICH THE PARTICULAR DRAINAGE FACILITY(S) IS DESIGNED. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARATION OF THE DETAILED PLANS AND SPECIFICATIONS.

SIGNATURE (AFFIX SEAL): \_\_\_\_\_ DATE: 01/11/23

COLORADO PROFESSIONAL ENGINEER NO. 0054022

CITY OF FOUNTAIN DETAILED DRAINAGE CONSTRUCTION PLANS AND SPECIFICATIONS REVIEW:

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BENJAMIN E SHEETS, P.E., CITY ENGINEER

DATE: \_\_\_\_\_

FOR CONSTRUCTION

DRAWN BY: NQJ JOB DATE: 1/11/2023  
APPROVED: KMH JOB NUMBER: 200541  
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CAD FILE: J:\2020\200541\CAD\DWG\CDIC.O.F\Storm

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HR GREEN - COLORADO SPRINGS  
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COLORADO SPRINGS CO 80919  
PHONE: 719.300.4140 TOLL FREE: 800.728.7805  
FAX: 844.273.1057 | HRGreen.com

THE COTTAGES AT MESA RIDGE  
GOODWIN KNIGHT  
FOUNTAIN, COLORADO

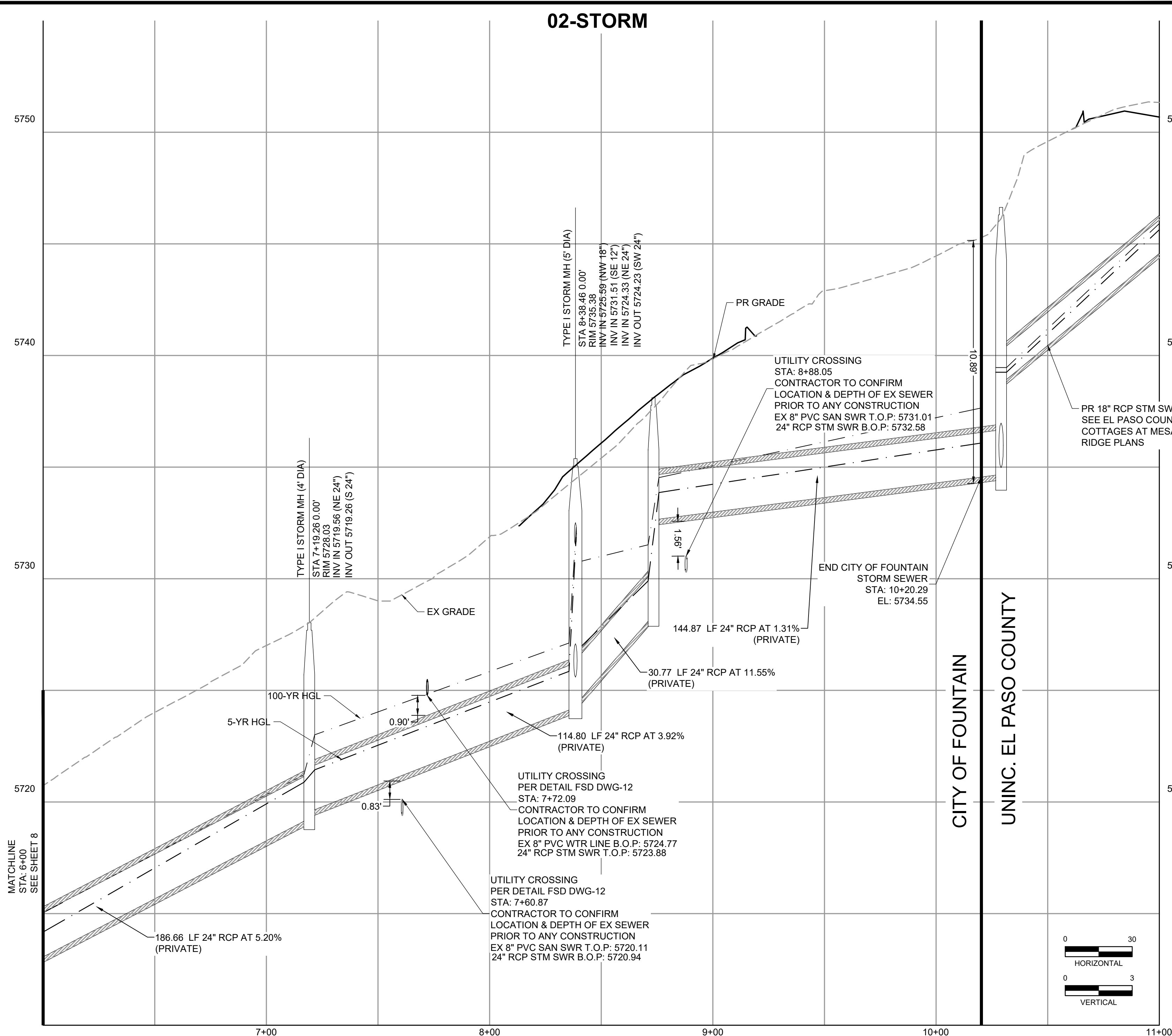


CITY OF FOUNTAIN CONSTRUCTION DOCUMENTS  
STORM PLAN & PROFILE


SHEET  
STM

8



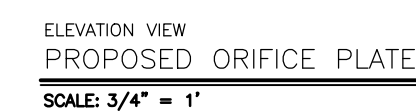
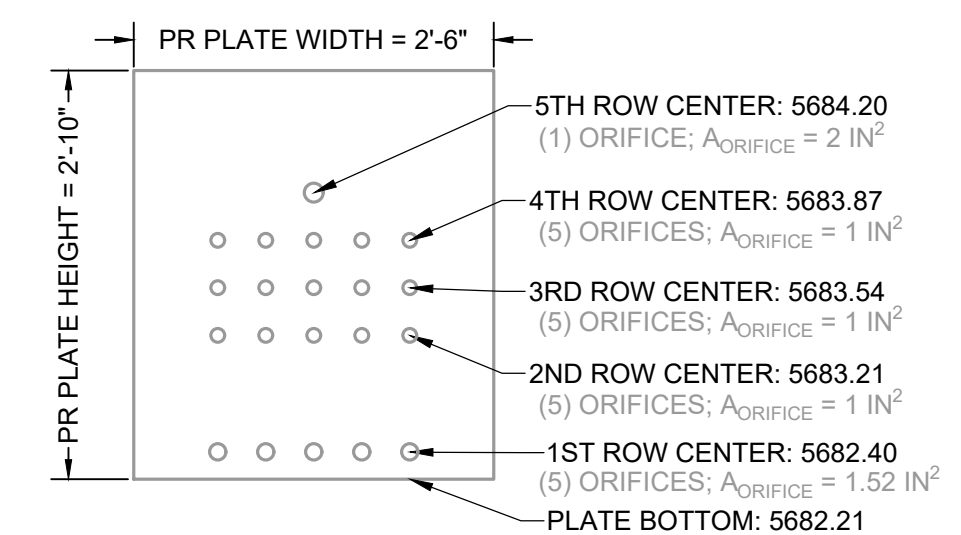
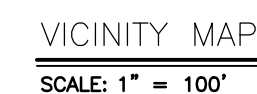


- STORM SEWER CONSTRUCTION NOTES:**
1. ALL RCP STORM SEWER TO BE CLASS III UNLESS OTHERWISE NOTED.
2. CONTRACTOR SHALL POTHOLE AND VERIFY DEPTH OF EXISTING UTILITY PRIOR TO THE START OF CONSTRUCTION. IF CONFLICTS ARE IDENTIFIED, THE CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY.
3. IT IS ASSUMED THAT THE CONTRACTOR SHALL UTILIZE TRENCH BOXES DURING CONSTRUCTION OF THE STORM SEWER. THE PROPOSED EASEMENT WIDTHS HAVE BEEN ESTABLISHED BASED ON THIS ASSUMPTION. IF ALTERNATIVE METHODS ARE MORE COST EFFECTIVE, THEN THE CONTRACTOR SHALL NOTIFY THE OWNER DURING THE BIDDING PROCESS AND REQUEST ANY TEMPORARY CONSTRUCTION EASEMENTS THAT MAY BE NECESSARY.

<b>ENGINEER'S STATEMENT:</b>	
	
SIGNATURE (AFFIX SEAL): _____	DATE: _____
COLORADO PROFESSIONAL ENGINEER NO: <u>0054022</u>	
<hr/>	
<b>ACCEPTANCE:</b>	
<p>THESE PLAN SUBMITTED APPEAR TO BE IN CONFORMANCE WITH THE CITY OF FOUNTAIN SUBMITTAL REQUIREMENTS AND STANDARD ENGINEERING PRINCIPLES AND PRACTICES APPEAR TO HAVE BEEN FOLLOWED. THE PROFESSIONAL ENGINEER SUBMITTED AND SEALING THE PLANS IS SOLELY RESPONSIBLE FOR THEIR ACCURACY AND VALIDITY. THE REVIEW IS ONLY VALID FOR ONE (1) YEAR FROM THE DATE BELOW.</p>	
BENJAMIN E SHEETS, P.E., CITY ENGINEER	DATE: _____

FOR CONSTRUCTION





<b>MESA RIDGE METROPOLITAN DISTRICT NO. 1 APPROVAL:</b>
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%; border-top: 1px solid black;"></div> <div style="width: 45%; border-top: 1px solid black; text-align: right;">DATE: _____</div> </div>

NOTES:  
1. 3'-4" DIAMETER BOULDER WING-WALLS NOT SHOWN FOR CLARITY. BUT BOULDERS MUST REMAIN IN CONTACT WITH POND OUTLET STRUCTURE TO RESIST SLIDING DUE TO LATERAL FORCES.

**SCALE:**  
            
 $\frac{3}{4}'' = 1'$

FOR CONSTRUCTION

DRAWN BY: NQJ JOB DATE: 1/11/2023 BAR IS ONE INCH ON  
OFFICIAL DRAWINGS.  
APPROVED: KMH JOB NUMBER: 200541 0 \_\_\_\_\_ 1"  
IF NOT ONE INCH,  
CAD DATE: 1/12/2023 ADJUST SCALE ACCORDINGLY  
CAD FILE: J:\2020\200541\CAD\dwgs\C\CD\IC.O.F\Outlet\_Structure\_Details

NO.	DATE	BY	REVISION DESCRIPTION



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7222 COMMERCE CENTER DR SUITE 220  
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THE COTTAGES AT MESA RIDGE  
GOODWIN KNIGHT  
FOUNTAIN, COLORADO



CITY OF FOUNTAIN CONSTRUCTION DOCUMENTS  
OUTLET STRUCTURE MODIFICATION PLAN

SHEET  
DT

10



GENERAL STRUCTURAL NOTES:

- G1. SCOPE  
THE NOTES ON THIS SHEET AND DETAILS ON THIS SHEET ARE TYPICAL AND APPLY TO ALL CONCRETE POND STRUCTURES WHETHER SPECIFICALLY CALLED OUT OR NOT, EXCEPT WHERE THERE ARE SPECIFIC INDICATIONS TO THE CONTRARY ON STRUCTURAL SHEETS IF THERE ARE QUESTIONS, THEY SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER AND ANSWERED IN WRITING PRIOR TO CONSTRUCTION.
- G2. APPLICABLE SPECIFICATIONS AND CODE  
A. COLORADO BUILDING CODE 2021: 2021 INTERNATIONAL BUILDING CODE WITH AMENDMENTS.  
B. ACI 308-20  
C. ACI 318-19  
D. AISC STEEL MANUAL 15TH EDITION  
E. AWS D1.1 - STRUCTURAL WELDING CODE - STEEL  
F. ASCE - 7-16 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES
- G3. DESIGN CRITERIA  
APPLIES TO ALL STRUCTURES (UNO)  
1. DEAD LOAD:  
1.1.1. ACTUAL TRIBUTARY STRUCTURE WEIGHT  
2. LIVE LOAD:  
2.1. WALKWAYS, STAIRS, GRATING 100 PSF  
3. WIND  
3.1.1. BASIC WIND SPEED (ULTIMATE): SPECIAL REGION  
3.1.2. EXPOSURE: C  
3.1.3. IMPORTANCE FACTOR, Iw: 1.0  
3.1.4. RISK CATEGORY: II  
4. SEISMIC:  
4.1. ABOVE GRADE STRUCTURES AND BELOW GRADE WATER BEARING STRUCTURES:  
4.1.1. RISK CATEGORY: II  
4.1.2. IMPORTANCE FACTOR, Ie: 1.00  
4.1.3. SPECTRAL RESPONSE ACCELERATION, SS: 0.186  
4.1.4. SPECTRAL RESPONSE ACCELERATION, S1: 0.057  
4.1.4.1. SITE CLASS: D  
4.1.4.2. SEISMIC DESIGN CATEGORY: B  
4.1.4.3. SPECTRAL RESPONSE COEFFICIENT, SD: 0.199  
4.1.4.4. SPECTRAL RESPONSE COEFFICIENT, SD1: 0.09  
5. SNOW LOAD:  
5.1. GROUND SNOW LOAD, Pg: SPECIAL REGION  
6. HYDROSTATIC LOAD: 63 PSF / FT
- G4. THE FOLLOWING GEOTECHNICAL VALUES IN SECTION G5 ARE THE BASIS OF THIS STRUCTURAL DESIGN, CONTRACTOR MUST VERIFY THE REQUIRED VALUES COMPLY WITH THE SOILS ADJACENT AND UNDERNEATH THE STRUCTURES. THIS MUST BE VALIDATED WITH A SITE GEOTECHNICAL REPORT AND/OR LOCAL GEOTECHNICAL INSPECTION FOR EACH STRUCTURE. DO NOT BEAR FOUNDATIONS ON UNSUITABLE FILL INCLUDING, BUT NOT LIMITED TO: MUD, ORGANIC SILT, ORGANIC CLAYS, PEAT, UNPREPARED FILL, OR EXPANSIVE SOILS. VALIDATE SUITABLE SUBGRADE WITH GEOTECHNICAL FIRM. OVEREXCAVATE AND REPLACE WITH SUITABLE STRUCTURAL FILL AS DIRECTED BY THE GEOTECHNICAL FIRM. ALL GEOTECHNICAL WORK MUST BE PERFORMED BY A GEOTECHNICAL ENGINEER LICENSED WITHIN THE STATE OF COLORADO.  
1. REFERENCE SITE GEOTECHNICAL REPORT: ENTECH ENGINEERING, INC. JOB NO. 211100: DATED DECEMBER 22, 2021.  
FOLLOW ALL GEOTECHNICAL RECOMMENDATIONS. IN THE EVENT OF CONFLICT WITH DESIGN DOCUMENTS THEN FOLLOW THE MOST STRINGENT DESIGN CRITERIA AND VERIFY WITH ENGINEER IN WRITING PER NOTE G1.
- G5. SOIL CHARACTERISTICS  
1. NET ALLOWABLE SOIL BEARING CAPACITY: 1,500 PSF (MIN)  
2. ALLOWABLE LATERAL EARTH PRESSURE (EFP): 115 PSF (MAX) / FT (SAT)  
3. ALLOWABLE LATERAL HYDROSTATIC PRESSURE: 63 PSF / FT  
4. SOIL UNIT WEIGHT: 120 PCF  
5. ALL BACKFILL ADJACENT TO AND UNDERNEATH STRUCTURES MUST BE: CDOT CLASS 6 AGG BASE  
6. ALL BACKFILL UNDERNEATH STRUCTURES MUST BE COMPACTED TO: 98% STANDARD PROCTOR  
7. ALL BACKFILL ADJACENT TO STRUCTURES MUST BE COMPACTED TO: 95% STANDARD PROCTOR  
8. MAXIMUM BACKFILL LIFT HEIGHT: 8"
- G6. SAFETY  
SAFETY AND STRUCTURE STABILITY DURING CONSTRUCTION ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. STRUCTURES HAVE BEEN DESIGNED TO RESIST THE DESIGN LIVE LOADS ONLY AS A COMPLETED STRUCTURE. CONTRACTOR MUST LOCATE ALL UNDERGROUND UTILITIES, PER OSHA REQUIREMENTS, TO ENSURE ALL UTILITIES ARE NOT DAMAGED.
- G7. DO NOT BACKFILL AGAINST WALLS PRIOR TO GROUND LEVEL CONCRETE FRAMING AND SLAB HAVE REACHED THEIR 28-DAY DESIGN STRENGTH.
- G8. OPENINGS  
OPENINGS FOR PIPES, DUCTS, CONDUITS, ETC, ARE NOT ALL SHOWN ON THE STRUCTURAL DRAWINGS. COORDINATE AND PROVIDE OPENINGS AS REQUIRED TO ACCOMMODATE ALL WORK SHOWN OR SPECIFIED IN THE CONTRACT DOCUMENTS AND OTHERWISE REQUIRED FOR THE FURNISHING OF A FUNCTIONALLY COMPLETE PROJECT. REINFORCE AROUND OPENINGS PER STANDARD STRUCTURAL DETAILS.
- G9. SPECIAL INSPECTIONS  
THE FOLLOWING SPECIAL STRUCTURAL INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH CHAPTER 17 OF THE 2021 INTERNATIONAL BUILDING CODE AND THE SPECIFICATIONS. THE CONTRACTOR SHALL NOTIFY AND ACCOMMODATE THE APPLICABLE INSPECTOR DURING APPROPRIATE PHASES OF THE WORK AS REQUIRED BY EACH INSPECTION.  
  
STRUCTURAL FILL PLACEMENT, EXISTING SITE CONDITIONS PER IBC TABLE 1704.7.  
CONCRETE, REINFORCING STEEL AND BOLTS INSTALLED IN CONCRETE PER IBC TABLE 1704.4.  
CONTINUOUS CONCRETE PLACEMENT AND CURING PER IBC TABLE 1704.4.  
CONCRETE ROUGHEN AND KEYED CONSTRUCTION JOINTS  
EXPANSION ANCHORS AND ADHESIVE BOLT / DOWEL / ROD INSTALLATION
- G10. TYPICAL DETAILS  
THE TYPICAL DETAILS DEPICT TYPICAL DETAILING TO BE USED ON THIS PROJECT, IF CONDITIONS ARE NOT EXPLICITLY SHOWN ON THE DRAWINGS THEY SHALL BE MADE SIMILAR TO THE TYPICAL DETAILS. OBTAIN APPROVAL OF ENGINEER IN WRITING FOR SIMILAR CONDITIONS PRIOR TO CONSTRUCTION.
- G11. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS OF EXISTING CONSTRUCTION AS REQUIRED TO COORDINATE NEW CONSTRUCTION. SUBMIT REQUIRED CHANGES FOR APPROVAL.
- CONCRETE  
C1. DESIGN STRENGTHS:  
CONCRETE  
GENERAL USE STRUCTURAL CONCRETE: F<sub>c</sub> = 4,500 PSI  
  
REINFORCING  
F<sub>y</sub> = 60,000 PSI
- C2. CONCRETE MATERIAL SCHEDULE  
1. GENERAL USE STRUCTURAL CONCRETE:  
PORTLAND CEMENT - ASTM C150: TYPE III  
FLY ASH - ASTM C618: 15% MAX  
AGGREGATE - COARSE - ASTM C33: 1" MAX  
AIR ENTRAINMENT - ASTM C260: 6% ± 1%  
SUPERPLASTICIZER - ASTM C494: TYPE F  
WATER TO CEMENT RATIO - MAXIMUM: 0.42  
SLUMP: 2"-4"  
PLACEMENT BY PUMP:  
AT PUMP: 2'-6"  
AT DISCHARGE OF LINE: 1'-4"
- C3. CONCRETE COVER  
FOR CAST-IN-PLACE CONCRETE, PROVIDE CONCRETE COVER FOR REINFORCING AS FOLLOWS, UNLESS NOTED OTHERWISE:  
CONCRETE DEPOSITED AGAINST EARTH: 3"  
ALL OTHER: 2"  
SEE DRAWINGS FOR EXCEPTIONS.
- C4. REINFORCING PLACEMENT REQUIREMENTS TO BE WITH ACI 117 TOLERANCES.
- C5. REFER TO OTHER DISCIPLINE DRAWINGS PRIOR TO CONSTRUCTION FOR EMBEDDED ITEMS AND PENETRATIONS NOT SHOWN ON STRUCTURAL DRAWINGS. AS REQUIRED TO ACCOMMODATE ALL WORK SHOWN OR SPECIFIED IN THE CONTRACT DOCUMENTS AND OTHERWISE REQUIRED FOR THE FURNISHING OF A FUNCTIONALLY COMPLETE PROJECT. REINFORCE AROUND OPENINGS PER STANDARD STRUCTURAL DETAILS UNLESS OTHERWISE SHOWN.
- C6. PROVIDE 3/4" CHAMFERS AT ALL EXPOSED EDGES UNLESS NOTED OTHERWISE. NOT ALL CHAMFERS MAY BE SHOWN ON DRAWINGS.
- C7. FIELD ADJUST REINFORCING AT OPENINGS AND EMBEDDED ITEMS AS INDICATED.

- C8. ANCHOR BOLTS NOT SPECIFIED BY ENGINEER SHALL BE DESIGNED AND CERTIFIED BY A REGISTERED PROFESSIONAL ENGINEER, RETAINED BY THE CONTRACTOR, IN ACCORDANCE WITH APPLICABLE PROJECT AND CODE REQUIREMENTS. SUBMIT AS A SHOP DRAWING FOR REVIEW AND APPROVAL BY THE ENGINEER. COORDINATE LOCATION, SIZE AND EMBEDMENT PRIOR TO CASTING CONCRETE.
- C9. CONTINUOUS WATERSTOP SHALL BE INSTALLED IN JOINTS SUBJECT TO STATIC WATER PRESSURE. ALL WATERSTOPS SHALL BE SELF-ADHERED NON-SWELL STRIP APPLIED WATERSTOP THAT COMPLY WITH FEDERAL SPECIFICATION SS-S-210. SEE TYPICAL DETAILS FOR LOCATIONS.
- C10. ABSOLUTELY NO WELDING OF REINFORCING BARS OR TORCHING TO BEND OR CUT REINFORCING BARS SHALL BE ALLOWED.
- C11. CONTRACTOR SHALL SUBMIT A CONCRETE PLACEMENT PLAN IDENTIFYING JOINT TYPES, JOINT LOCATIONS AND CONCRETE PLACEMENT SEQUENCE. CONTRACTOR SHALL ALSO SUBMIT "ACI COMPLIANT" CONCRETE MIX DESIGN (WITH HISTORICAL COMPRESSION BREAK RESULTS) AND REBAR SHOP DRAWINGS FOR REVIEW PRIOR TO CONSTRUCTION.
- C12. ALL CAST-IN-PLACE AND POST-INSTALLED ANCHORS INDICATED IN THE STRUCTURAL DOCUMENTS SHALL COMPLY WITH APPENDIX D OF ACI 318 AND CHAPTER 19 OF THE IBC. ALL EXPANSION AND ADHESIVE ANCHORS SHALL HAVE THE ICC REPORT SHOWING EQUIVALENT LOAD CAPACITY. SUBMIT AND INSTALL PER THE ICC EVALUATION REPORT.
- C13. CONCRETE CYLINDERS MUST BE TAKEN FOR TESTING TO VALIDATE ADEQUATE COMPRESSION STRENGTH. AT LEAST ONE SET OF CYLINDERS SHALL BE TAKEN FOR EACH STRUCTURE. STRUCTURES GREATER THAN 50 CY OF CONCRETE MUST HAVE AN ADDITIONAL SET OF CYLINDER TAKEN FOR EACH ADDITIONAL 50 CY OF CONCRETE. A SET OF CYLINDERS WILL CONSIST OF THREE CYLINDERS TO TEST AT 7-DAY AND 28-DAY; WITH ONE RESERVE CYLINDER TO BE TESTED IF THE 28-DAY TEST IS NOT ADEQUATE. RESULTS OF THE COMPRESSION TESTS MUST BE SUBMITTED FOR OWNER AND ENGINEER REVIEW.
- C14. ALL REINFORCING CONTINUOUS THROUGH CONSTRUCTION JOINTS UNLESS NOTED OTHERWISE.
- C15. ALL BARS INDICATED AS BEING HOOKED SHALL HAVE AN ACI STANDARD 90 DEGREE OR 180 DEGREE HOOKS AS SHOWN.
- C16. CONCRETE PLACEMENT AND CURING MUST FOLLOW ALL APPLICABLE ACI STANDARDS INCLUDING, BUT NOT LIMITED TO ACI 305R "GUIDE TO HOT WEATHER CONCRETING" AND ACI 306.1 "GUIDE TO COLD WEATHER CONCRETING". NO WATER MAY BE ADDED ON SITE UNLESS IT HAS BEEN ACCOUNTED FOR IN THE APPROVED MIX DESIGN SUBMITTAL.
- C17. CONCRETE FORMS MUST BE CLEAR OF DEBRIS AND CONCRETE MUST BE PROPERLY VIBRATED DURING PLACEMENT TO PREVENT HONEYCOMBS, CRACKS, DEFLECTS, EMBEDDED DEBRIS, OR VOIDS, AS DEFINED BY ACI CT-13. CONTRACTOR WILL BE REQUIRED TO FIX ALL DEFECTIVE AREAS TO THE SATISFACTION OF THE ENGINEER AND OWNER.

POST-INSTALLED ANCHORS:

- PA1. POST-INSTALLED ANCHORS SHALL ONLY BE USED WHERE SPECIFIED ON THE CONTRACT DRAWINGS. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ENGINEER OF RECORD (EOR) BEFORE INSTALLING POST-INSTALLED ANCHORS FOR MISSING OR MISPLACED CAST-IN-PLACE ANCHORS.
- PA2. CARE SHALL BE TAKEN IN PLACING POST-INSTALLED ANCHORS TO AVOID CONFLICTS WITH EXISTING REBAR. HOLES SHALL BE DRILLED AND CLEANED IN ACCORDANCE WITH THE MANUFACTURER WRITTEN INSTRUCTIONS.
- PA3. SPECIAL INSPECTION SHALL BE PROVIDED FOR ALL ADHESIVE AND MECHANICAL ANCHOR INSTALLATIONS AS REQUIRED BY THE BUILDING CODE. INDEPENDENT ON-SITE PROOF LOAD TESTING SHALL BE PERFORMED AS REQUIRED BY THE EOR. CONTACT THE EOR FOR AMOUNT OF ANCHORS REQUIRED TO BE TESTED AND REQUIRED PROOF LOAD MAGNITUDE.
- PA4. SUBSTITUTION REQUESTS, FOR PRODUCTS OTHER THAN THOSE SPECIFIED BELOW, SHALL BE SUBMITTED BY THE CONTRACTOR TO THE EOR ALONG WITH CALCULATIONS THAT ARE PREPARED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER. THE CALCULATIONS SHALL DEMONSTRATE THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERTINENT EQUIVALENT PERFORMANCE VALUES (MINIMUM) OF THE SPECIFIED PRODUCT USING THE APPROPRIATE DESIGN PROCEDURE AND/OR STANDARD(S) AS REQUIRED BY THE BUILDING CODE. PRODUCT ICC-ES REPORTS SHALL BE INCLUDED WITH THE SUBMITTAL PACKAGE.
- PA5. UNLESS NOTED OTHERWISE ON PLANS, ACCEPTABLE CONCRETE ANCHOR PRODUCTS SHALL BE:

1. MECHANICAL ANCHORS FOR USE IN CRACKED AND UNCRACKED CONCRETE SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 308.2 AND ICC-ES AC1093. PRE-APPROVED MECHANICAL ANCHORS INCLUDE:  
1.1. KWIK BOLT TZ (ICC-ES ESR-1917) BY HILTI, INC.  
1.2. STRONG BOLT 2 (ICC-ES ESR-3037) BY SIMPSON.  
1.3. OR ENGINEER APPROVED EQUAL.
2. ADHESIVE ANCHORS FOR USE IN CRACKED AND UNCRACKED CONCRETE SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ICC-ES AC308. PRE-APPROVED ADHESIVE ANCHORS INCLUDE:  
2.1. HIT HY-200 (ICC-ES ESR-3187) SYSTEM ADHESIVE ANCHORS BY HILTI.  
2.2. SIMPSON SET-3G (ICC-ES ESR-4057) BY SIMPSON STRONG TIE ANCHOR SYSTEMS.  
2.3. OR ENGINEER APPROVED EQUAL.
3. CONCRETE SCREW TYPE ANCHORS FOR USE IN CRACKED AND UNCRACKED CONCRETE SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 308.2 AND ICC-ES AC1093. PRE-APPROVED SCREW TYPE ANCHORS INCLUDE:  
3.1. KWIK HUS-EZ (ICC-ES ESR-3027) BY HILTI, INC.  
3.2. TITEN HD (ICC-ES ESR-2713) BY SIMPSON STRONG TIE ANCHOR SYSTEMS.  
3.3. OR ENGINEER APPROVED EQUAL.

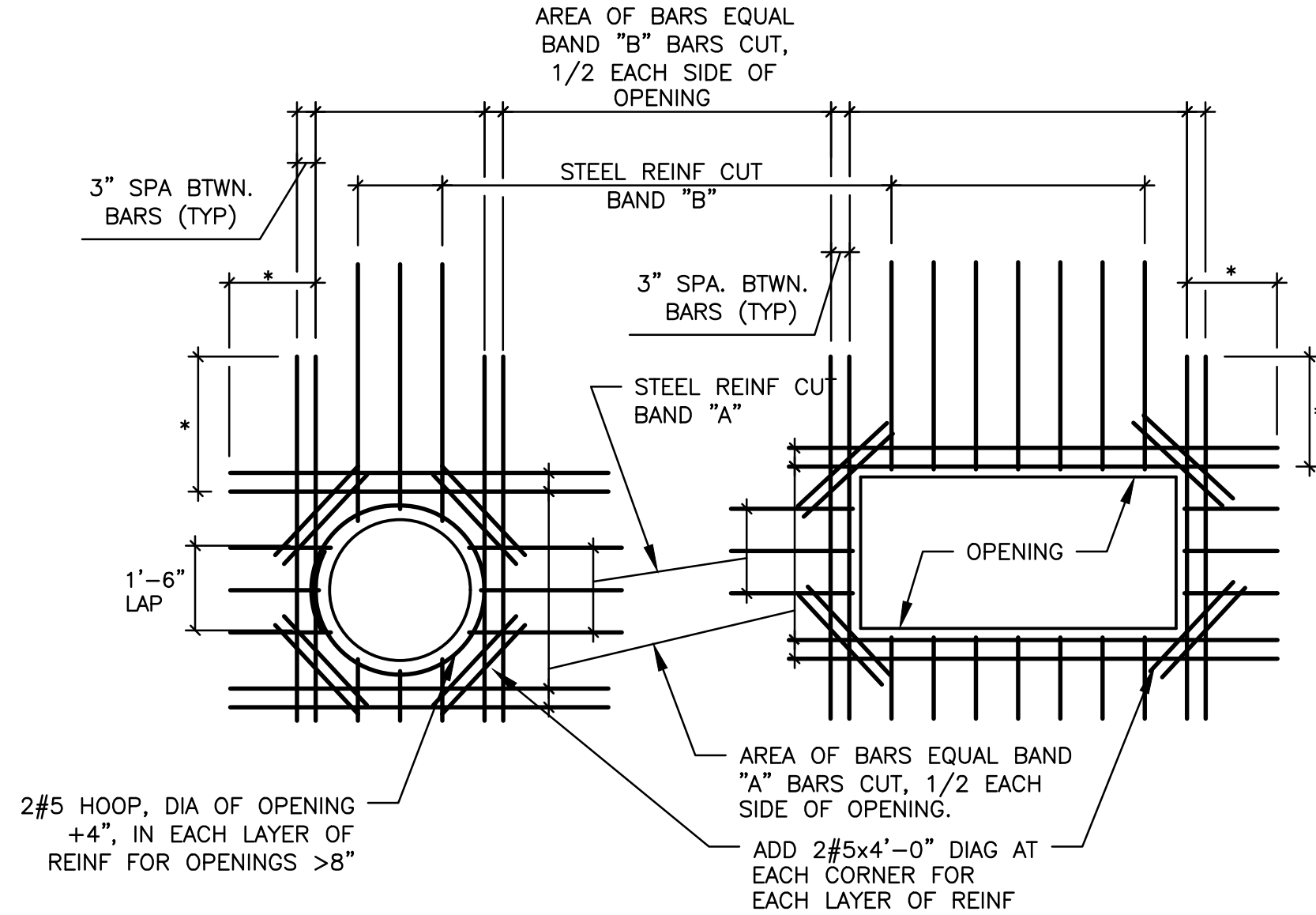
STEEL:

- S1. ALL STEEL SHALL BE HOT DIP GALVANIZED, UNLESS NOTED OTHERWISE.  
S2. STEEL SHAPES SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:  
1. W-SHAPES & WT-SHAPES: ASTM A992  
2. S-SHAPES, CHANNELS, ANGLES & PLATES: ASTM A36  
3. SMOOTH & THREADED RODS: ASTM A36  
4. HSS-SHAPES: ASTM A500 GR. B  
5. PIPE: ASTM A53 GR. B  
6. HIGH-STRENGTH STRUCTURAL BOLTS: ASTM A325  
7. HARDENED WASHERS: ASTM F436  
8. HEAVY HEX NUTS: ASTM F594  
9. SHEAR STUDS AND HEADED STUDS: ASTM A108 GR. 1015 TO102.  
S3. STEEL WELDS SHALL BE E70XX ELECTRODES, UNLESS NOTED OTHERWISE.  
S4. GUARDRAIL MUST BE DESIGNED AND DETAILED BY THE FABRICATOR TO MEET OSHA REQUIREMENTS.

REINF LAP SPlice TABLE - CONCRETE						HOOKS
BAR SIZE	CONDITION 1		CONDITION 2		CONDITION 3	
	CLEAR COVER >= 2 DIA. AND C-TO-C SPACING >= 5 DIA.		CLEAR COVER >= 1 DIA. AND C-TO-C SPACING >= 3 DIA.		NEITHER CONDITION 1 NOR 2 IS MET	
	TOP (SEE NOTE 2)	OTHER	TOP (SEE NOTE 2)	OTHER	ALL BARS	
#3	1'-4"	1'-4"	2'-0"	1'-6"	SEE NOTE 3	0'-6"
#4	1'-7"	1'-4"	2'-8"	2'-1"		0'-8"
#5	2'-0"	1'-6"	3'-4"	2'-8"		0'-10"
#6	2'-6"	1'-10"	4'-0"	3'-1"		1'-0"
#7	3'-6"	2'-9"	5'-10"	4'-7"		1'-2"
#8	4'-0"	3'-1"	6'-8"	5'-2"		1'-4"
#9	4'-6"	3'-6"	7'-7"	5'-10"		1'-7"
#10	5'-1"	3'-11"	8'-6"	6'-6"		1'-10"
#11	5'-8"	4'-4"	9'-5"	7'-4"		2'-0"

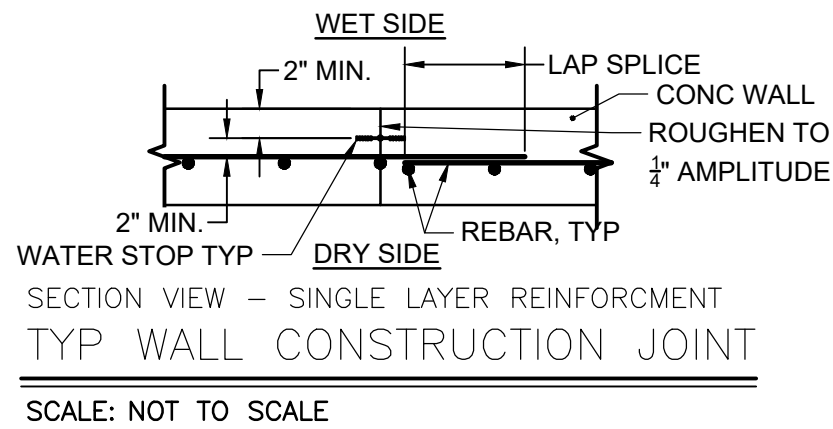
- NOTES:  
1. BAR COVER AND SPACING MUST BOTH MEET THE CRITERIA OF CONDITION 1 OR 2 IN ORDER TO USE THAT PARTICULAR LAP LENGTH.  
2. TOP BARS SHALL BE DEFINED AS ANY HORIZONTAL BARS PLACED SUCH THAT MORE THAN 12" OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE BAR IN ANY SINGLE POUR. HORIZONTAL WALL BARS ARE CONSIDERED TOP BARS.  
3. FOR BARS THAT DO NOT SATISFY EITHER CONDITION, LAP LENGTH SHALL BE THE LENGTH FROM THE APPROPRIATE CATEGORY ("TOP" OR "OTHER") OF CONDITION 2 MULTIPLIED BY 1.5  
4. FOR EPOXY-COATED BARS, MULTIPLY FINAL LAP LENGTH BY 1.5.

TABLE  
TYPICAL REINFORCEMENT SPlice AND HOOK TABLE  
SCALE: NOT TO SCALE

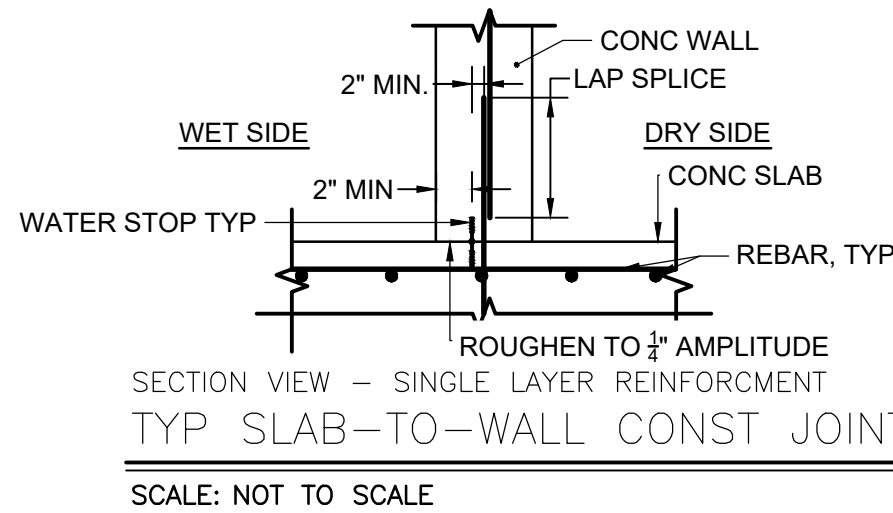


- NOTES:  
1. \* TOP BAR LAP LENGTH-CONDITION #2, UNLESS NOTED OTHERWISE ON PLANS.  
2. DO NOT WELD REIN TO PIPE SLEEVES AND INSERTS.  
3. TYP FOR ALL OPENING IN CONCRETE WALLS AND SLABS UNLESS INDICATED OTHERWISE ON PLANS.  
4. COORDINATE WALL OPENINGS WITH ALL DISCIPLINES.

SECTION VIEW  
TYPICAL SLAB/WALL OPENING REINFORCEMENT  
SCALE: NOT TO SCALE



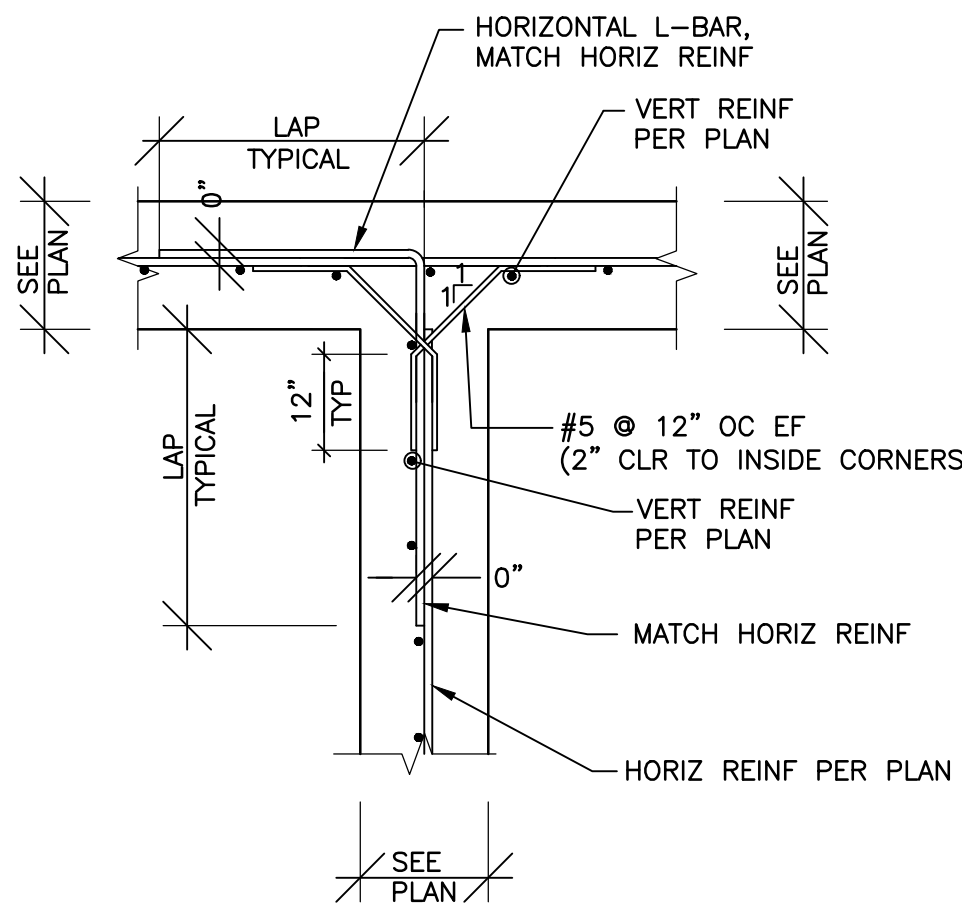
SECTION VIEW - SINGLE LAYER REINFORCEMENT  
TYP WALL CONSTRUCTION JOINT  
SCALE: NOT TO SCALE



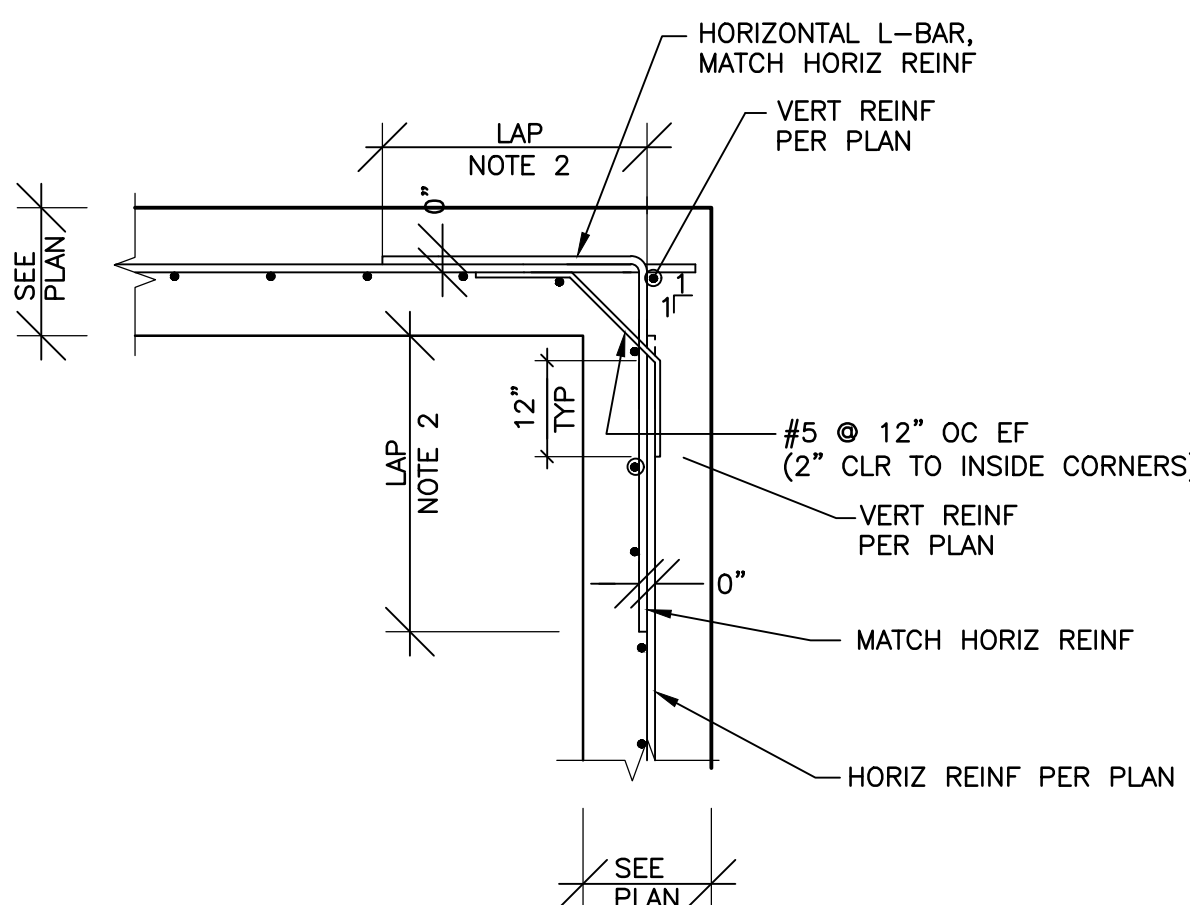
SECTION VIEW - SINGLE LAYER REINFORCEMENT  
TYP SLAB-TO-WALL CONST JOINT  
SCALE: NOT TO SCALE

MESA RIDGE METROPOLITAN DISTRICT NO. 1 APPROVAL:

DATE: \_\_\_\_\_



SECTION VIEW - SINGLE LAYER REINFORCEMENT  
TYPICAL WALL TEE INTERSECTION REBAR  
SCALE: NOT TO SCALE



SECTION VIEW - SINGLE LAYER REINFORCEMENT  
TYPICAL WALL CORNER INTERSECTION REBAR  
SCALE: NOT TO SCALE

FOR CONSTRUCTION

DRAWN BY: NJQ JOB DATE: 1/11/2023 BAR IS ONE INCH ON OFFICIAL DRAWINGS.  
APPROVED: KMH JOB NUMBER: 200541 0  
CAD DATE: 1/12/2023 IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.  
CAD FILE: J:\2020\200541\CAD\Draws\IC\CDIC.O.F\Outlet\_Structure\_Details

NO.	DATE	BY	REVISION DESCRIPTION



HR GREEN - COLORADO SPRINGS  
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THE COTTAGES AT MESA RIDGE  
GOODWIN KNIGHT  
FOUNTAIN, COLORADO

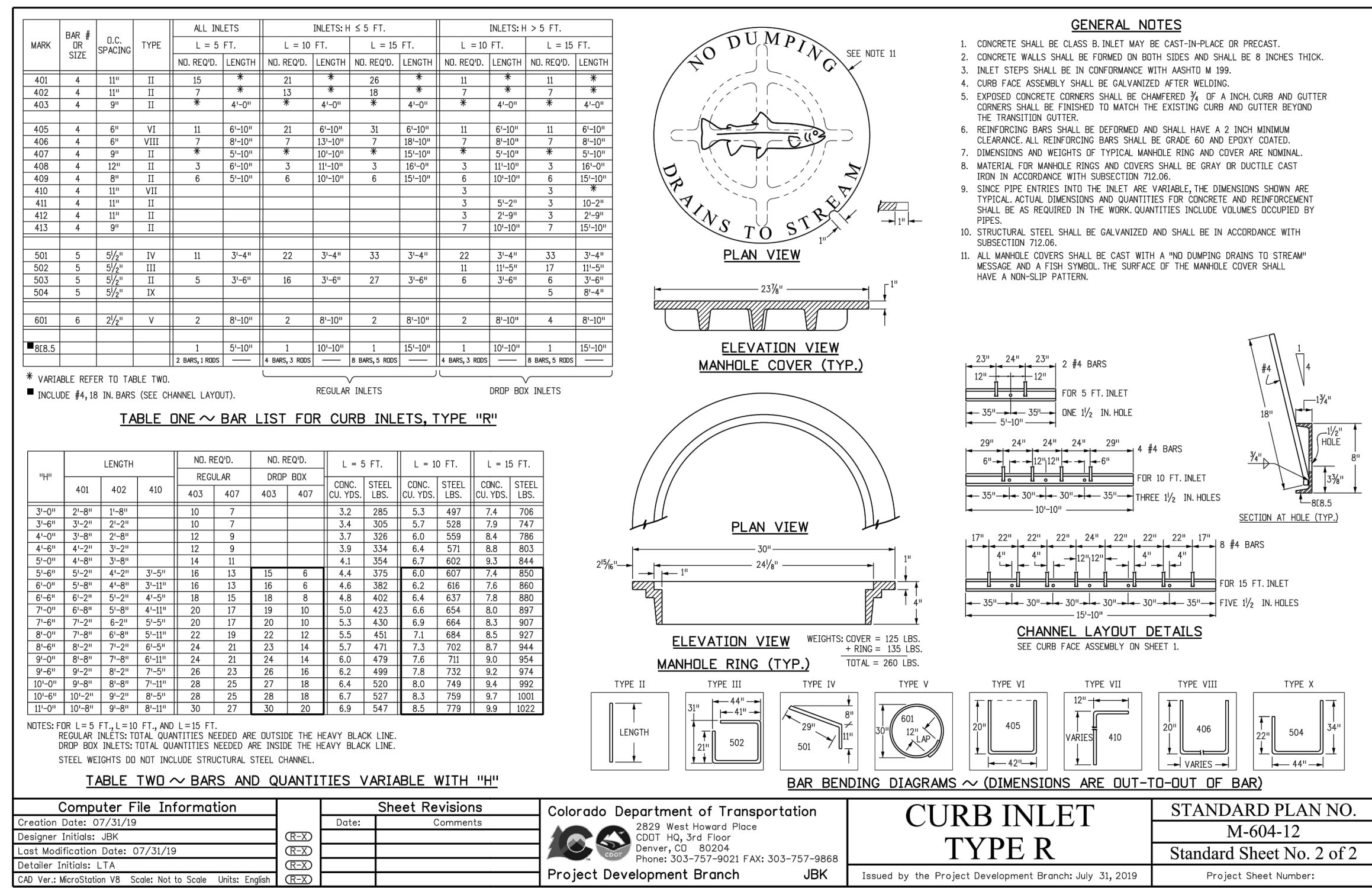
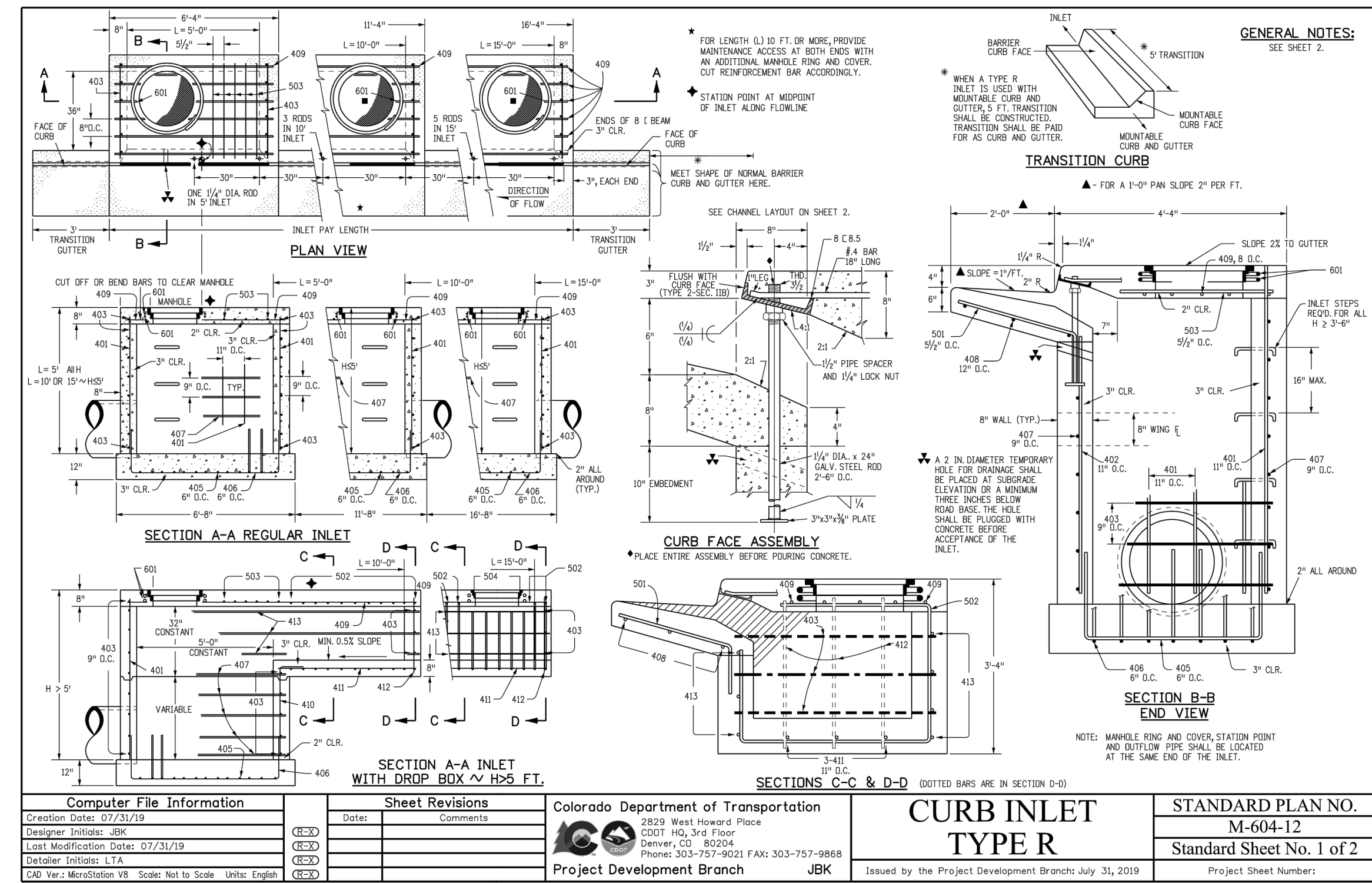
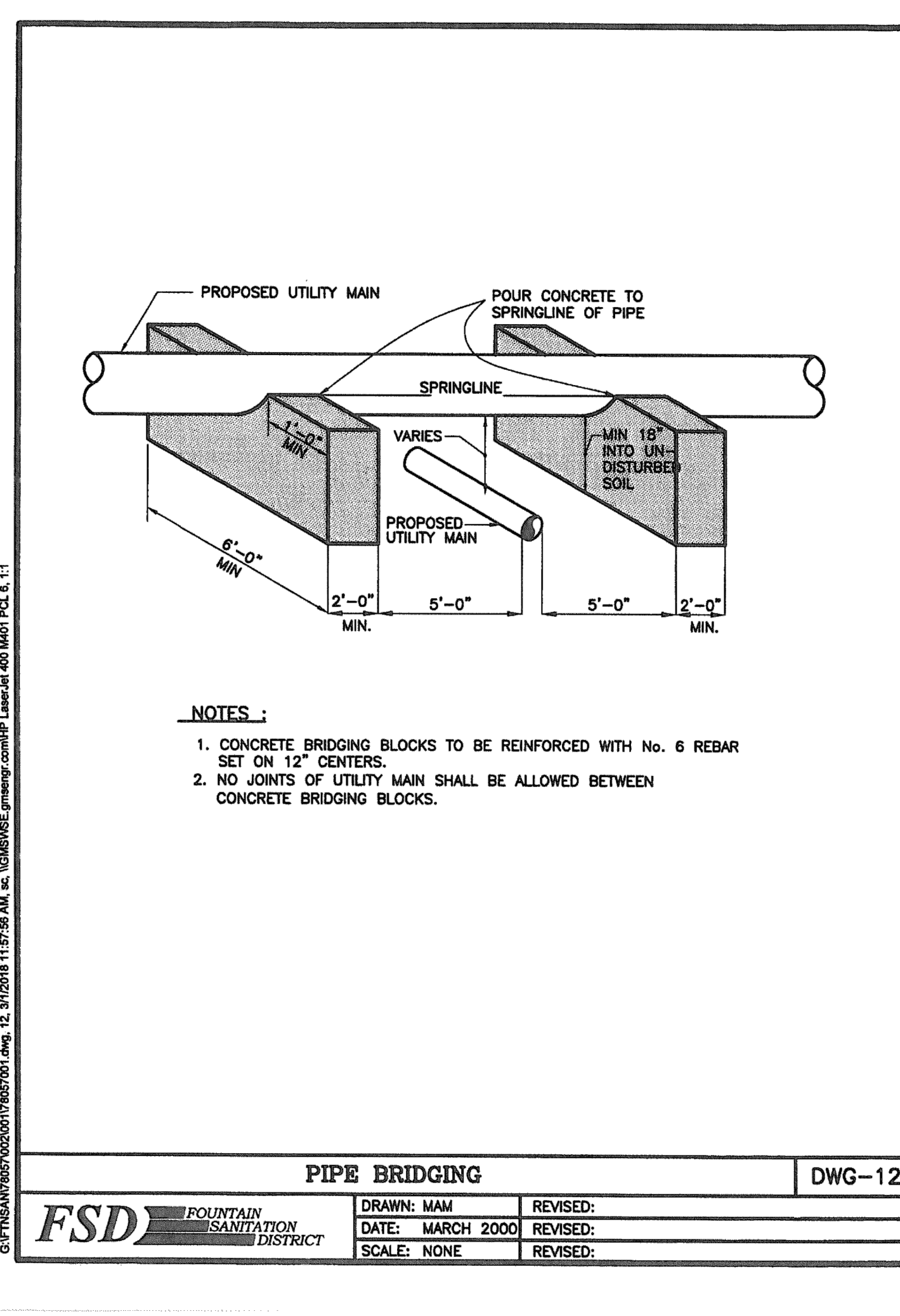
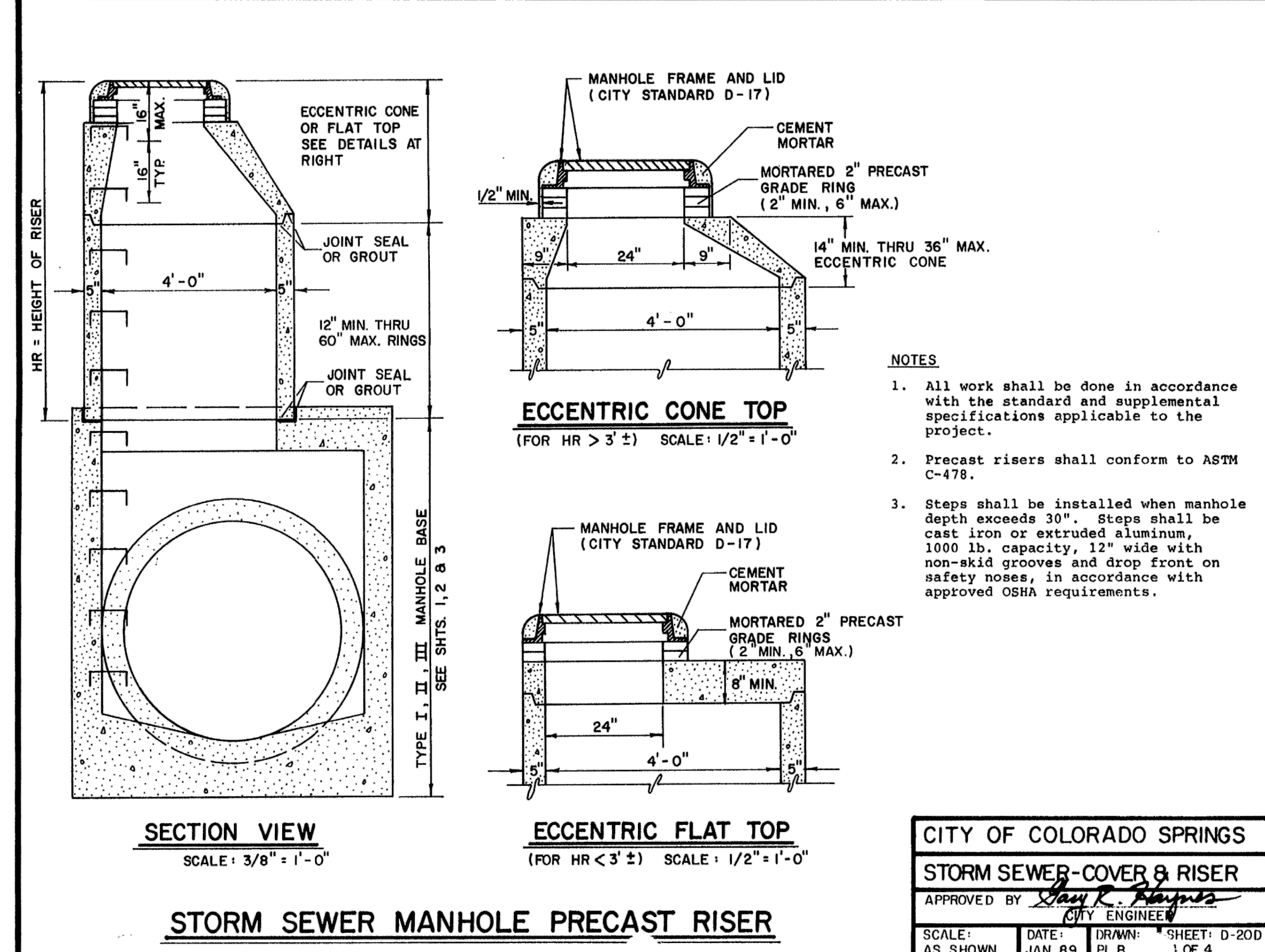
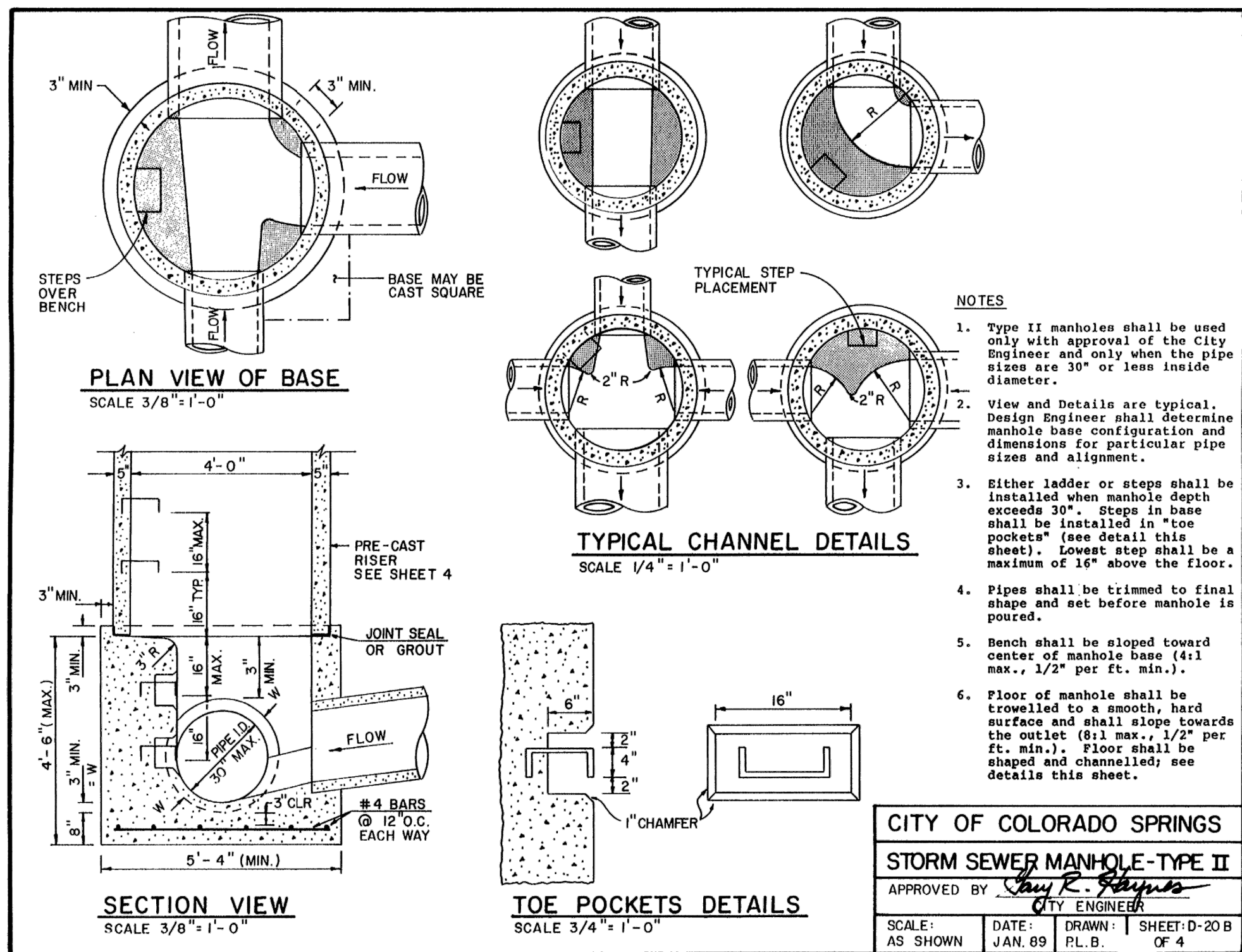


CITY OF FOUNTAIN CONSTRUCTION DOCUMENTS  
STRUCTURAL NOTES & DETAILS

SHEET  
DT

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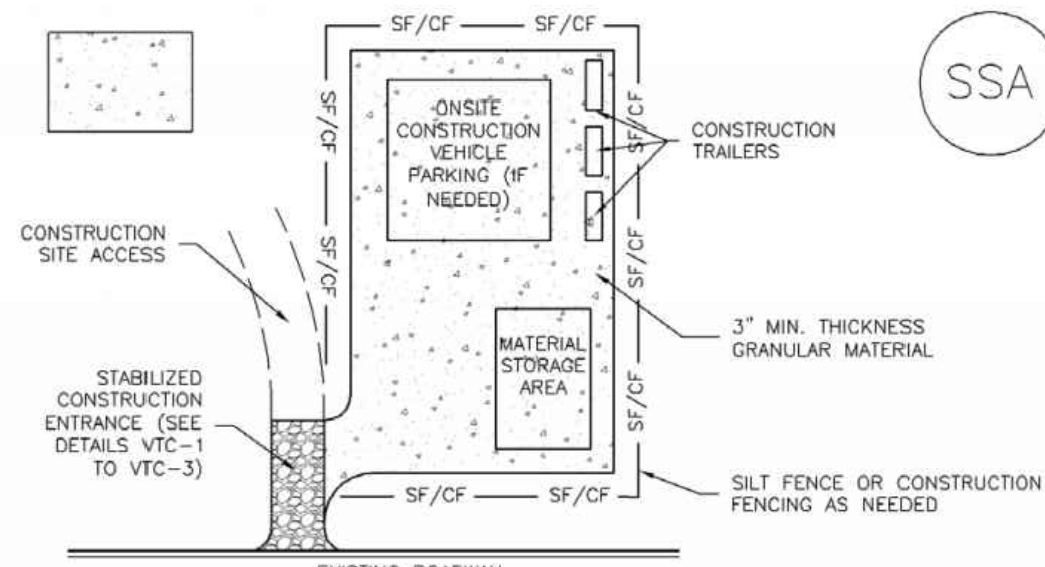






Stabilized Staging Area (SSA)

SM-6



SSA-1. STABILIZED STAGING AREA

STABILIZED STAGING AREA INSTALLATION NOTES

1. SEE PLAN VIEW FOR:  
-LOCATION OF STAGING AREA(S).  
-CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM THE LOCAL JURISDICTION.

2. STABILIZED STAGING AREA SHOULD BE APPROPRIATE FOR THE NEEDS OF THE SITE. OVERSIZING RESULTS IN A LARGER AREA TO STABILIZE FOLLOWING CONSTRUCTION.

3. STAGING AREA SHALL BE STABILIZED PRIOR TO OTHER OPERATIONS ON THE SITE.

4. THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM 3" THICK GRANULAR MATERIAL.

5. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.

6. ADDITIONAL PERIMETER BMPs MAY BE REQUIRED INCLUDING BUT NOT LIMITED TO SILT FENCE AND CONSTRUCTION FENCING.

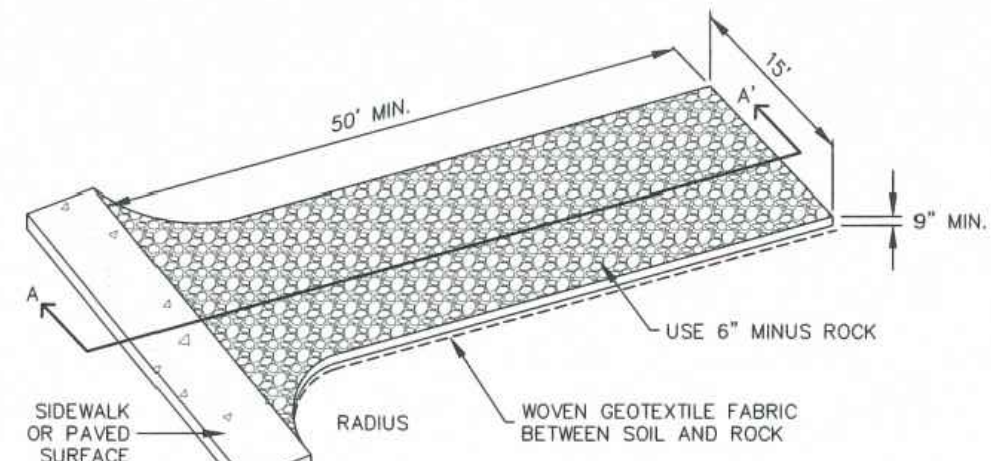
STABILIZED STAGING AREA MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

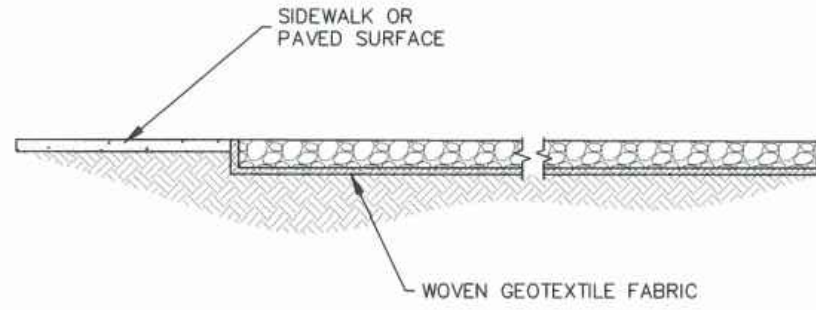
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY IF RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.



AGGREGATE VEHICLE TRACKING CONTROL



SECTION A-A'

INSTALLATION NOTES

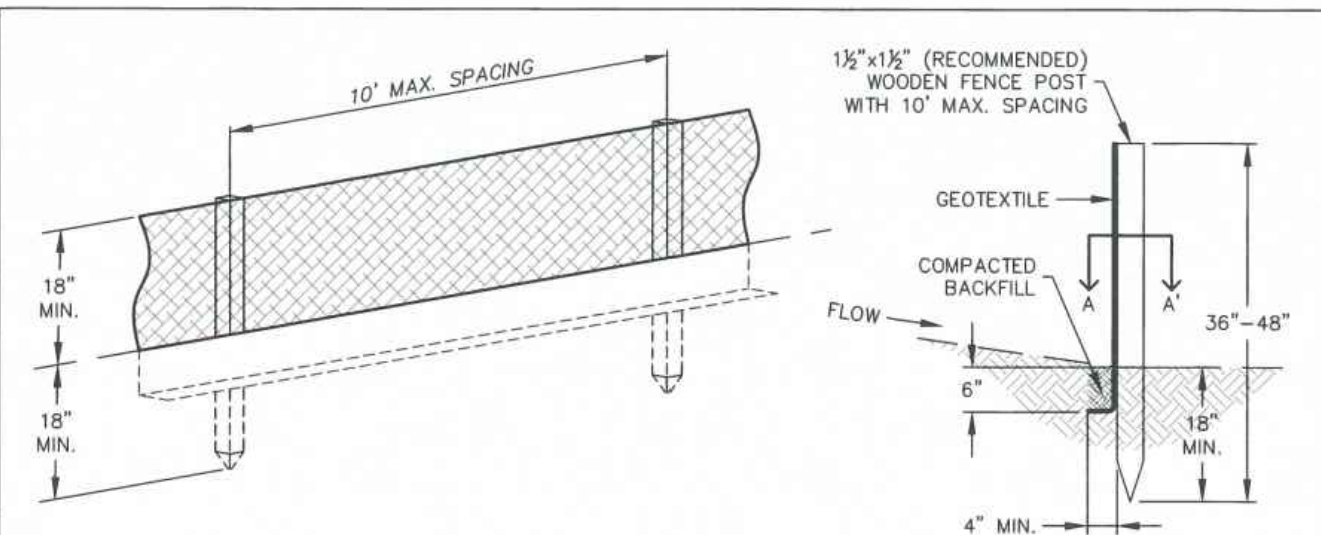
1. A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHOULD BE LOCATED AT ALL POINTS WHERE VEHICLES EXIT THE CONSTRUCTION SITE TO ADJACENT ROADWAY.
2. STABILIZED CONSTRUCTION ENTRANCE/EXITS SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
3. RADIUS MUST BE ADEQUATE FOR INTENDED CONSTRUCTION VEHICLE TURNING.
4. ROCK SHOULD CONSIST OF 6" MINUS ROCK.
5. INSTALL CONSTRUCTION FENCE ON BOTH SIDES OF VEHICLE TRACKING CONTROL PAD WHEN NEEDED OR REQUIRED BY INSPECTOR.

MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. SEDIMENT TRACKED ONTO THE ADJACENT ROAD SHALL BE REMOVED DAILY, BY SWEEPING OR SHOVELING, AND NEVER WASHED DOWN STORM DRAINS.
3. ROUGHEN, REPLACE AND/OR ADD ROCK AS NEEDED TO MAINTAIN CONSISTENT DEPTH AND TO PREVENT SEDIMENT TRACKING ONTO ADJACENT STREET.
4. PERMANENTLY STABILIZE AREA AFTER VEHICLE TRACKING CONTROL IS REMOVED.

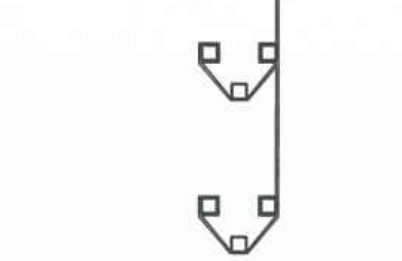
VTC

STORMWATER ENTERPRISE		VEHICLE TRACKING CONTROL	
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ISSUED: 10/7/19	REVISOR: 8/19/2020	ISSUED: 10/7/19	REVISOR: 8/19/2020
DRAWING NO. 900-VTC		DRAWING NO. 900-VTC	



SILT FENCE

J-HOOK INSTALLATION



J-HOOK INSTALLATION

SECTION A-A'



SECTION A-A'

INSTALLATION NOTES

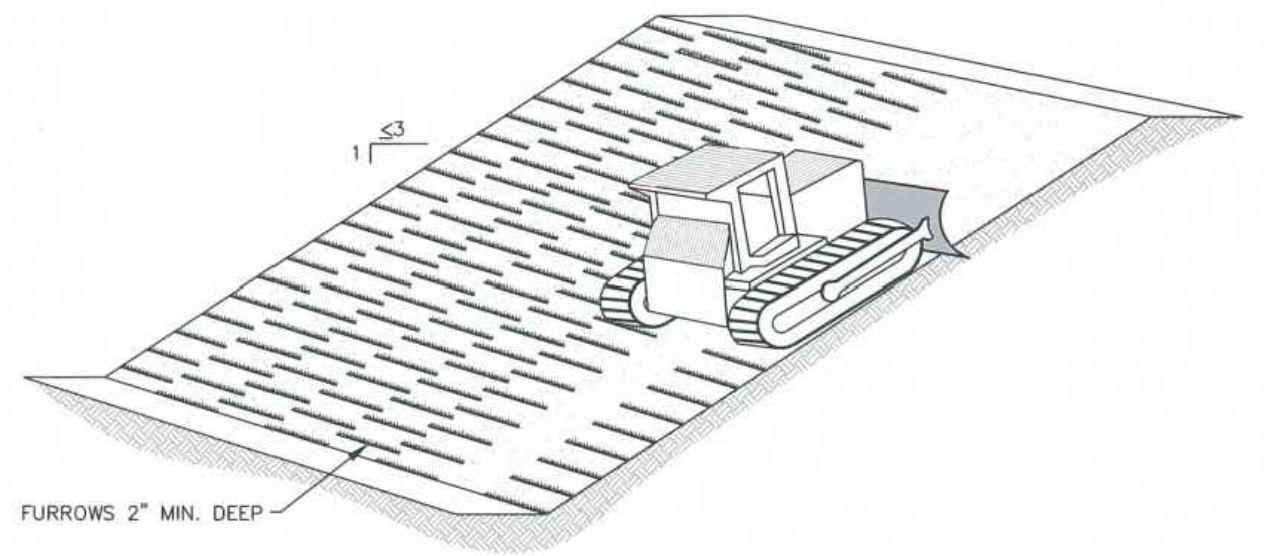
1. SILT FENCE MUST BE PLACED ON A FLAT SURFACE 2'-5' AWAY FROM TOE OF THE SLOPE TO ALLOW FOR FLOWING AND DEPOSITION.
2. COMPACT THE TRENCH USING A JUMPING JACK OR WHEEL ROLLING TO THE POINT THAT THE FENCE RESISTS BEING PULLED OUT OF THE GROUND BY HAND.
3. SILT FENCE SHALL BE TAUT WITH NO SAGS AFTER IT HAS BEEN ANCHORED.
4. FABRIC SHALL BE ATTACHED TO POSTS WITH 1" HEAVY DUTY STAPLES OR 1" NAILS. THESE SHOULD BE PLACED VERTICALLY DOWN THE POST, 3" APART.
5. THE PREFERRED INSTALLATION METHOD USES A TRENCHER OR SILT FENCE INSTALLATION DEVICE.
6. INSTALL SILT FENCE LONG THE CONTOUR OF THE SLOPES OR IN A MANNER TO AVOID CREATING CONCENTRATED FLOW (SUCH AS A "J-HOOK" INSTALLATION).

MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES 1/2 OF THE DESIGN HEIGHT OF THE SILT FENCE.
3. SILT FENCE MUST REMAIN UNTIL THE UPSTREAM DISTURBANCE AREA IS STABILIZED.
4. PERMANENTLY STABILIZE AREA AFTER SILT FENCE IS REMOVED.

SF

STORMWATER ENTERPRISE		SILT FENCE	
APPROVED: [Signature]		APPROVED: [Signature]	
ISSUED: 10/7/19	REVISOR: 8/19/2020	ISSUED: 10/7/19	REVISOR: 8/19/2020
DRAWING NO. 900-SF		DRAWING NO. 900-SF	



SLOPE TRACKING

INSTALLATION NOTES

1. SLOPE TRACKING MAY BE USED ON SLOPES 3:1 OR STEEPER.
2. TRACKING GROOVES SHALL BE PERPENDICULAR TO THE SLOPE.
3. SLOPE TRACKING SHALL NOT BE USED ON EXTREMELY SANDY OR ROCKY SOILS.

MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. VEHICLES AND EQUIPMENT SHALL NOT BE DRIVEN OVER AREAS THAT HAVE BEEN SLOPE TRACKED.

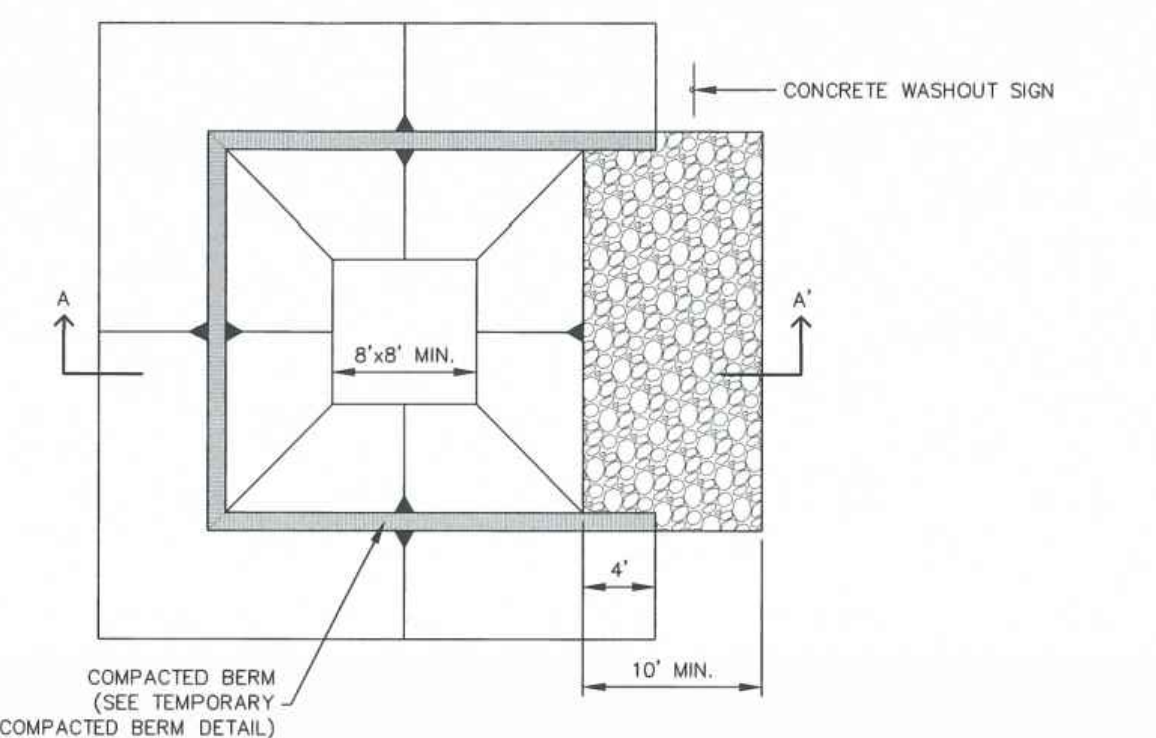
ST

STORMWATER ENTERPRISE		SLOPE TRACKING	
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ISSUED: 10/7/19	REVISOR: 8/19/2020	ISSUED: 10/7/19	REVISOR: 8/19/2020
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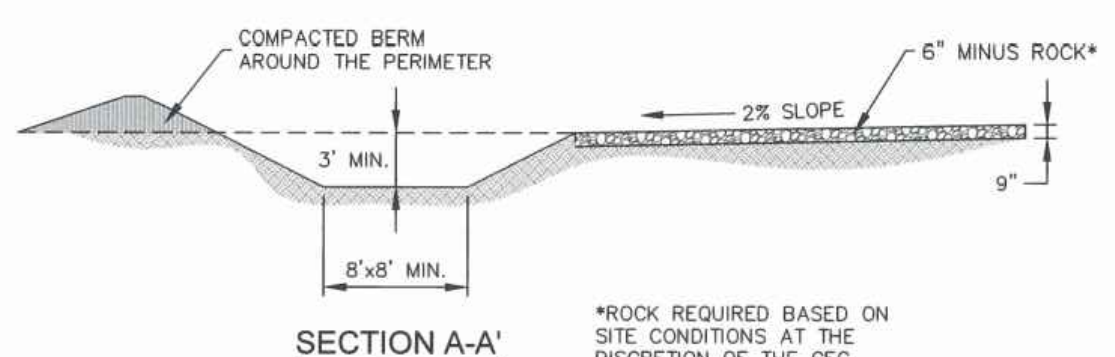
November 2010

Urban Drainage and Flood Control District  
Urban Storm Drainage Criteria Manual Volume 3

SSA-3



CONCRETE WASHOUT AREA PLAN



SECTION A-A'

\*ROCK REQUIRED BASED ON SITE CONDITIONS AT THE DISCRETION OF THE GEC INSPECTOR

CWA

STORMWATER ENTERPRISE		CONCRETE WASHOUT AREA	
APPROVED: [Signature]		APPROVED: [Signature]	
ISSUED: 10/7/19	REVISOR: 8/19/2020	ISSUED: 10/7/19	REVISOR: 8/19/2020
DRAWING NO. 900-CWA-1		DRAWING NO. 900-CWA-1	

INSTALLATION NOTES

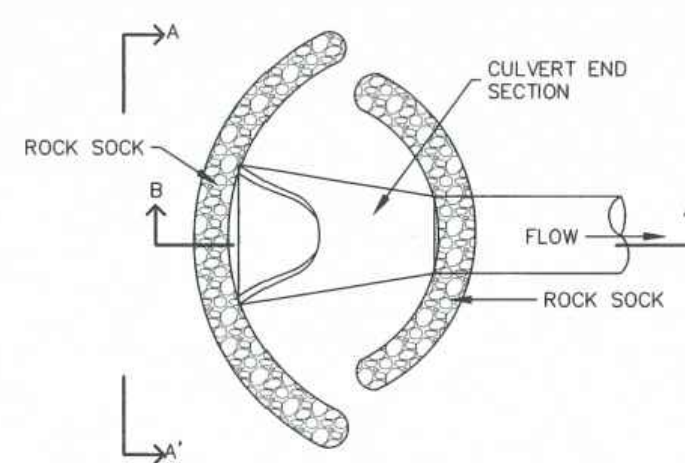
1. SEE PLAN VIEW FOR:  
-LOCATION OF CONCRETE WASHOUT AREA  
-LOCATE AT LEAST 50' AWAY FROM STATE WATERS MEASURED HORIZONTALLY
3. AN IMPERMEABLE LINER (16 MIL. MINIMUM THICKNESS) IS REQUIRED IF CONCRETE WASH AREA IS LOCATED WITHIN 400' OF STATE WATERS OR 1000' OF WELLS OR DRINKING WATER SOURCES.
4. DO NOT LOCATE IN AREAS WHERE SHALLOW GROUNDWATER MAY BE PRESENT.
5. THE CONCRETE WASH AREA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.
6. CONCRETE WASH AREA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' BY 8'.
7. BERM SURROUNDING SIDES AND BACK OF CONCRETE WASH AREA SHALL HAVE A MINIMUM HEIGHT OF 2 FEET.
8. CONCRETE WASH AREA ENTRANCE SHALL BE SLOPED 2% TOWARDS THE CONCRETE WASH AREA.
9. SIGNS SHALL BE PLACED AT THE CONCRETE WASH AREA.
10. USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

MAINTENANCE NOTES

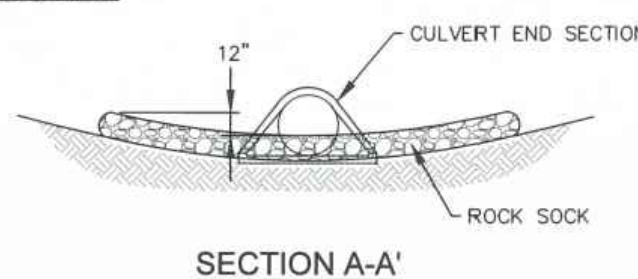
1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. THE CONCRETE WASH AREA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE. CONCRETE MATERIALS ACCUMULATED IN THE PIT SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF 1/2 THE HEIGHT OF THE CONCRETE WASH AREA.
3. CONCRETE WASHOUT WATER, WASTED PIECES OF CONCRETE, AND ALL OTHER DEBRIS IN THE SUBSURFACE PIT SHALL BE TRANSPORTED FROM THE JOB SITE IN A WATER-TIGHT CONTAINER AND DISPOSED OF PROPERLY.
4. THE CONCRETE WASH AREA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.
5. PERMANENTLY STABILIZE AREA AFTER CONCRETE WASH AREA IS REMOVED.

CWA

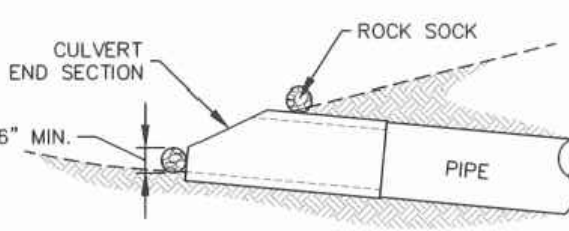
STORMWATER ENTERPRISE		CONCRETE WASHOUT AREA	
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ISSUED: 10/7/19	REVISOR: 8/19/2020	ISSUED: 10/7/19	REVISOR: 8/19/2020
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CULVERT INLET PROTECTION PLAN



SECTION A-A'



SECTION B-B'

INSTALLATION NOTES

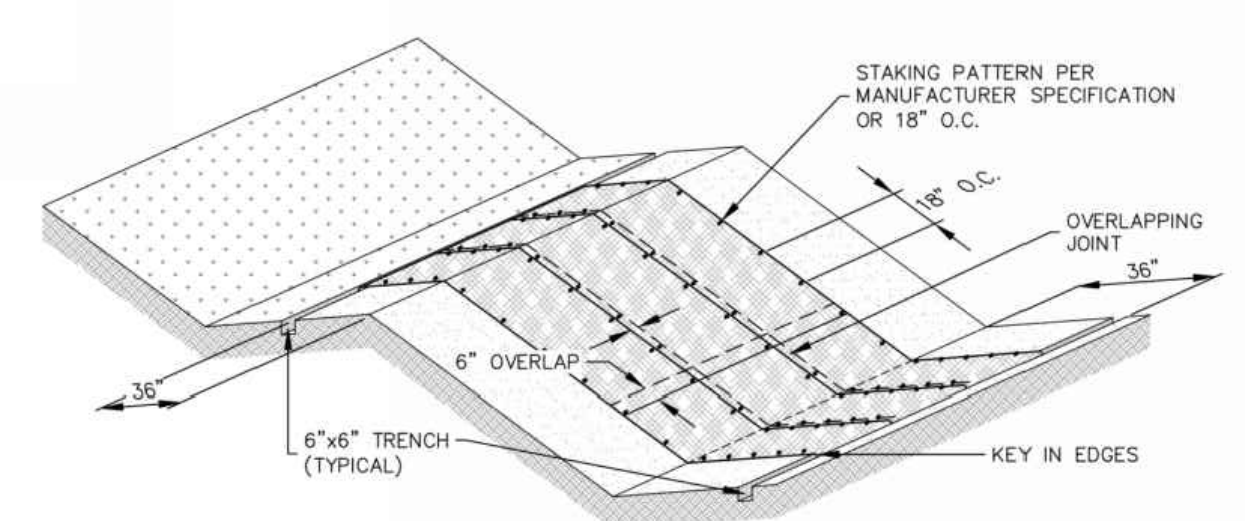
1. SEE ROCK SOCK DETAIL.

MAINTENANCE NOTES

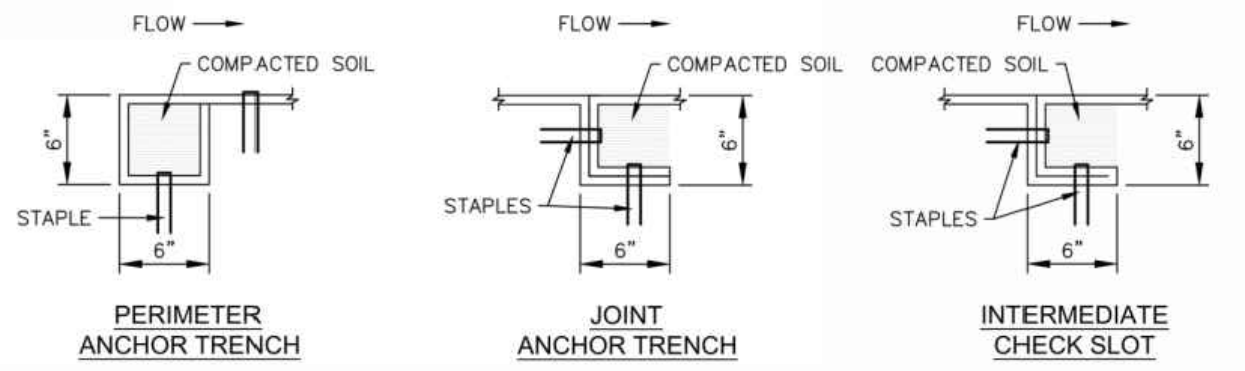
1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. ACCUMULATED SEDIMENT UPSTREAM OF THE CULVERT SHALL BE REMOVED WHEN THE SEDIMENT DEPTH IS 1/2 HEIGHT OF THE ROCK SOCK.
3. CULVERT INLET PROTECTION SHALL REMAIN UNTIL THE UPSTREAM AREA IS PERMANENTLY STABILIZED.

CIP

STORMWATER ENTERPRISE		CULVERT INLET PROTECTION	
APPROVED: [Signature]		APPROVED: [Signature]	
ISSUED: 10/7/19	REVISOR: 8/19/2020	ISSUED: 10/7/19	REVISOR: 8/19/2020
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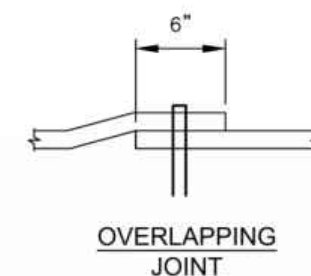
EROSION CONTROL BLANKET



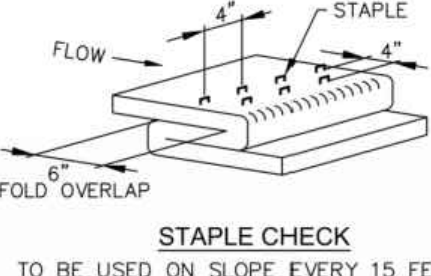
PERIMETER ANCHOR TRENCH

JOINT ANCHOR TRENCH

INTERMEDIATE CHECK SLOT



OVERLAPPING JOINT



STAPLE CHECK TO BE USED ON SLOPE EVERY 15 FEET

ECB

STORMWATER ENTERPRISE		EROSION CONTROL BLANKET	
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ISSUED: 10/7/19	REVISOR: 8/19/2020	ISSUED: 10/7/19	REVISOR: 8/19/2020
DRAWING NO. 900-ECB-1		DRAWING NO. 900-ECB-1	



**INSTALLATION NOTES**

- 100% NATURAL AND BIODEGRADABLE MATERIALS ARE REQUIRED FOR EROSION CONTROL BLANKETS. TRM PRODUCTS MAY BE USED WHERE APPROPRIATE AS DESIGNATED BY THE ENGINEER.
- IN AREAS WHERE EROSION CONTROL BLANKETS ARE SHOWN ON THE PLANS, THE PERMITTEE SHALL PLACE TOPSOIL AND PERFORM FINAL GRADING, SURFACE PREPARATION, AND SEEDING AND MULCHING. SUBGRADE SHALL BE SMOOTH AND MOST PRIOR TO EROSION CONTROL BLANKET INSTALLATION, AND THE EROSION CONTROL BLANKET SHALL BE IN FULL CONTACT WITH THE SUBGRADE. NO GAPS OR VOIDS SHALL EXIST UNDER THE BLANKET.
- PERIMETER ANCHOR TRENCH SHALL BE USED ALONG THE OUTSIDE PERIMETER OF ALL BLANKET AREAS.
- JOINT ANCHOR TRENCH SHALL BE USED TO JOIN ROLLS OF EROSION CONTROL BLANKETS TOGETHER (LONGITUDINALLY AND TRANSVERSELY) FOR ALL EROSION CONTROL BLANKETS.
- INTERMEDIATE CHECK SLOT OR STAPLE CHECK SHALL BE INSTALLED EVERY 15' DOWN SLOPES. IN DRAINAGEWAYS, INSTALL CHECK SLOTS EVERY 25' PERPENDICULAR TO FLOW DIRECTION.
- OVERLAPPING JOINT DETAIL SHALL BE USED TO JOIN ROLLS OF EROSION CONTROL BLANKETS TOGETHER FOR EROSION CONTROL BLANKETS ON SLOPES.
- MATERIAL SPECIFICATIONS OF EROSION CONTROL BLANKETS SHALL CONFORM TO TABLE ECB-1.
- ANY AREAS OF SEEDING AND MULCHING DISTURBED IN THE PROCESS OF INSTALLING EROSION CONTROL BLANKETS SHALL BE RESEEDED AND MULCHED.
- STRAW EROSION CONTROL BLANKETS SHALL NOT BE USED WITHIN STREAMS AND DRAINAGE CHANNELS.
- COMPACT ALL TRENCHES.

**MAINTENANCE NOTES**

- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- EROSION CONTROL BLANKETS SHALL BE LEFT IN PLACE TO EVENTUALLY BIODEGRADE. TRM MUST BE REMOVED AT THE DISCRETION OF THE GEC INSPECTOR.
- ANY EROSION CONTROL BLANKET PULLED OUT, TORN, OR OTHERWISE DAMAGED SHALL BE REPAIRED OR REINSTALLED. ANY SUBGRADE AREAS BELOW GEOTEXTILE THAT HAVE ERODED TO CREATE A VOID UNDER THE BLANKET, OR THAT REMAIN DEVOID OF GRASS, SHALL BE REPAIRED, RESEEDED AND MULCHED AND THE EROSION CONTROL BLANKET REINSTALLED.

**TABLE ECB-1, EROSION CONTROL BLANKET MATERIAL SPECIFICATIONS**

TYPE	COCONUT CONTENT	STRAW CONTENT	EXCELSIOR CONTENT	RECOMMENDED NETTING
STRAW	—	100%	—	DOUBLE/NATURAL
STRAW-COCONUT	30% MIN.	70% MAX.	—	DOUBLE/NATURAL
COCONUT	100%	—	—	DOUBLE/NATURAL
EXCELSIOR	—	—	100%	DOUBLE/NATURAL

**EROSION CONTROL BLANKET**

APPROVED: *[Signature]*

ISSUED: 10/7/19 REVISED: 8/19/2020 DRAWING NO. 900-ECB-2

**CURB INLET PROTECTION PLAN**

**CURB ROCK SOCKS UPSTREAM OF INLET PROTECTION**

**INSTALLATION NOTES**

- SEE ROCK SOCK DETAIL FOR INSTALLATION REQUIREMENTS.
- PLACEMENT OF THE ROCK SOCK SHALL BE APPROXIMATELY 40 DEGREES FROM THE CURB.
- ROCK SOCKS ARE TO BE FLUSH WITH THE CURB AND SPACED A MINIMUM OF 5' APART.
- AT LEAST TWO CURB ROCK SOCKS IN SERIES ARE REQUIRED UPSTREAM OF ON-GRADE INLETS.
- ADDITIONAL ROCK SOCKS MAY BE REQUIRED AT GEC INSPECTOR'S DISCRETION.

**MAINTENANCE NOTES**

- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES 1/2 OF THE DESIGN DEPTH OF THE INLET BARRIER.
- ROCK SOCKS MUST REMAIN UNTIL THE UPSTREAM DISTURBANCE AREA IS STABILIZED.
- PERMANENTLY STABILIZE AREA BEHIND INLET AFTER ROCK SOCKS ARE REMOVED WHEN REMOVAL IS APPROPRIATE.

**ON-GRADE INLET PROTECTION**

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ISSUED: 10/7/19 REVISED: 8/19/2020 DRAWING NO. 900-IP-1

**ROCK SOCK SUMP INLET PROTECTION PLAN**

**SECTION A-A'**

**INSTALLATION NOTES**

- SEE ROCK SOCK DETAIL FOR INSTALLATION REQUIREMENTS.
- SEDIMENT CONTROL LOGS MAY BE USED IN PLACE OF ROCK SOCKS IN PERVIOUS AREAS. INSTALL PER SEDIMENT CONTROL LOG DETAIL.
- CONTROL MEASURES MUST BE WRAPPED AROUND INLET AS TIGHTLY AS POSSIBLE.

**MAINTENANCE NOTES**

- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES 1/2 OF THE DESIGN DEPTH OF THE INLET BARRIER.
- ROCK SOCKS MUST REMAIN UNTIL THE UPSTREAM DISTURBANCE AREA IS STABILIZED.
- PERMANENTLY STABILIZE AREA AROUND INLET AFTER ROCK SOCKS ARE REMOVED WHEN REMOVAL IS APPROPRIATE.

**SUMP INLET PROTECTION**

APPROVED: *[Signature]*

ISSUED: 10/7/19 REVISED: 8/19/2020 DRAWING NO. 900-IP-2

**SEEDING & MULCHING**

ALL SOIL TESTING, SOILS AMENDMENT AND FERTILIZER DOCUMENTATION, AND SEED LOAD AND BAG TICKETS MUST BE ADDED TO THE CSWMP.

**SOIL PREPARATION**

- IN AREAS TO BE SEED, THE UPPER 6 INCHES OF THE SOIL MUST NOT BE HEAVILY COMPACTED, AND SHOULD BE IN FRABLE CONDITION. LESS THAN 85% STANDARD PROCTOR DENSITY IS ACCEPTABLE. AREAS OF COMPACTION OR GENERAL CONSTRUCTION ACTIVITY MUST BE SCARIFIED TO A DEPTH OF 6 TO 12 INCHES PRIOR TO SPREADING TOPSOIL TO BREAK UP COMPACTED LAYERS AND PROVIDE A BLENDING ZONE BETWEEN DIFFERENT SOIL LAYERS.
- AREAS TO BE PLANTED SHALL HAVE AT LEAST 4 INCHES OF TOPSOIL SUITABLE TO SUPPORT PLANT GROWTH.
- THE CITY RECOMMENDS THAT EXISTING AND/OR IMPORTED TOPSOIL BE TESTED TO IDENTIFY SOIL DEFICIENCIES AND ANY SOIL AMENDMENTS NECESSARY TO ADDRESS THESE DEFICIENCIES. SOIL AMENDMENTS AND/OR FERTILIZERS SHOULD BE ADDED TO CORRECT TOPSOIL DEFICIENCIES BASED ON SOIL TESTING RESULTS.
- TOPSOIL SHALL BE PROTECTED DURING THE CONSTRUCTION PERIOD TO RETAIN ITS STRUCTURE AVOID COMPACTION, AND TO PREVENT EROSION AND CONTAMINATION. STRIPPED TOPSOIL MUST BE STORED IN AN AREA AWAY FROM MACHINERY AND CONSTRUCTION OPERATIONS, AND CARE MUST BE TAKEN TO PROTECT THE TOPSOIL AS A VALUABLE COMMODITY. TOPSOIL MUST NOT BE STRIPPED DURING UNDESIRABLE WORKING CONDITIONS (E.G. DURING WET WEATHER OR WHEN SOILS ARE SATURATED). TOPSOIL SHALL NOT BE STORED IN SWALES OR IN AREAS WITH POOR DRAINAGE.

**SEEDING**

- ALLOWABLE SEED MIXES ARE INCLUDED IN THE CITY OF COLORADO SPRINGS STORMWATER CONSTRUCTION MANUAL. ALTERNATIVE SEED MIXES ARE ACCEPTABLE IF INCLUDED IN AN APPROVED LANDSCAPING PLAN.
- SEED SHOULD BE DRILL-SEEDED WHENEVER POSSIBLE.
  - SEED DEPTH MUST BE 1/2 TO 3/4 INCHES WHEN DRILL-SEEDED IS USED.
- BROADCAST SEEDING OR HYDRO-SEEDED WITH TACKIFIER MAY BE SUBSTITUTED ON SLOPES STEEPER THAN 3:1 OR ON OTHER AREAS NOT PRACTICAL TO DRILL SEED.
  - SEEDING RATES MUST BE DOUBLED FOR BROADCAST SEEDING OR INCREASED BY 50% IF USING A BRILLION DRILL OR HYDRO-SEEDED.
  - BROADCAST SEEDINGS MUST BE LIGHTLY HAND-RAKED INTO THE SOIL.

**MULCHING**

- MULCHING SHOULD BE COMPLETED AS SOON AS PRACTICABLE AFTER SEEDING, HOWEVER PLANTED AREAS MUST BE MULCHED NO LATER THAN 14 DAYS AFTER PLANTING.
- MULCHING REQUIREMENTS INCLUDE:
  - HAY OR STRAW MULCH
    - ONLY CERTIFIED WEED-FREE AND CERTIFIED SEED-FREE MULCH MAY BE USED. MULCH MUST BE APPLIED AT 2 TONS/ACRE AND ADEQUATELY SECURED BY CRIMPING AND/OR TACKIFIER.
    - CRIMPING MUST NOT BE USED ON SLOPES GREATER THAN 3:1 AND MULCH FIBERS MUST BE TUCKED INTO THE SOIL TO A DEPTH OF 3 TO 4 INCHES.
  - TACKIFIER MUST BE USED IN PLACE OF CRIMPING ON SLOPES STEEPER THAN 3:1.
- HYDRAULIC MULCHING
  - HYDRAULIC MULCHING IS AN OPTION ON STEEP SLOPES OR WHERE ACCESS IS LIMITED.
  - IF HYDRO-SEEDED IS USED, MULCHING MUST BE USED AS A SEPARATE, SECOND OPERATION.
  - WOOD CELLULOSE FIBERS MIXED WITH WATER MUST BE APPLIED AT A RATE OF 2,000 TO 2,500 POUNDS/ACRE, AND TACKIFIER MUST BE APPLIED AT A RATE OF 100 POUNDS/ACRE.

**EROSION CONTROL BLANKET**

- EROSION CONTROL BLANKET MAY BE USED IN PLACE OF TRADITIONAL MULCHING METHODS.

**SEEDING & MULCHING**

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ISSUED: 10/7/19 REVISED: 8/19/2020 DRAWING NO. 900-SM

**SILT FENCE SUMP INLET PROTECTION PLAN**

**SECTION A-A'**

**INSTALLATION NOTES**

- SEE SILT FENCE DETAIL FOR INSTALLATION REQUIREMENTS.
- POSTS SHALL BE PLACED AT EACH CORNER OF THE INLET AND AROUND THE EDGES AT A MAXIMUM SPACING OF THREE FEET.
- SILT FENCE FABRIC SHOULD HAVE A FLOW RATE IN EXCESS OF 30 GALLONS PER MINUTE PER SQUARE YARD SO AS TO ALLOW SOME WATER FLOW AND NOT DAM THE WATER. STANDARD, LOW-FLOW SILT FENCE FABRIC WILL NOT BE ALLOWED.

**MAINTENANCE NOTES**

- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES 1/2 OF THE DESIGN DEPTH OF THE INLET BARRIER.
- SILT FENCE MUST REMAIN UNTIL THE UPSTREAM DISTURBANCE AREA IS STABILIZED.
- PERMANENTLY STABILIZE AREA AROUND INLET AFTER SILT FENCE IS REMOVED WHEN REMOVAL IS APPROPRIATE.

**SUMP INLET PROTECTION**

APPROVED: *[Signature]*

ISSUED: 10/7/19 REVISED: 8/19/2020 DRAWING NO. 900-IP-3

**STRAW BALE SUMP INLET PROTECTION PLAN**

**SECTION A-A'**

**INSTALLATION NOTES**

- BALES SHALL BE PLACED IN A SINGLE ROW AROUND THE INLET WITH THE ENDS OF THE BALES TIGHTLY ADJUTING ONE ANOTHER.
- STRAW BALES SHALL CONSIST OF CERTIFIED WEED FREE STRAW OR HAY. LOCAL JURISDICTIONS MAY REQUIRE PROOF THAT BALES ARE WEED FREE.
- STRAW BALES SHALL CONSIST OF APPROXIMATELY 5 CUBIC FEET OF STRAW OR HAY AND WEIGH NOT LESS THAN 35 POUNDS.
- STRAW BALE DIMENSIONS SHALL BE APPROXIMATELY 36"x18"x18".
- A UNIFORM ANCHOR TRENCH SHALL BE EXCAVATED TO A DEPTH OF 4". STRAW BALES SHALL BE PACED SO THAT THE BINDING TWINE IS ENCOMPASSING THE VERTICAL SIDES OF THE BALE(S).
- TWO (2) WOODEN STAKES SHALL BE USED TO HOLD EACH BALE IN PLACE. WOODEN STAKES SHALL BE 2"x2"x24" (MIN.), WOODEN STAKES SHALL BE DRIVEN A MINIMUM OF 6" INTO THE GROUND.

**MAINTENANCE NOTES**

- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES 1/2 OF THE DESIGN DEPTH OF THE INLET BARRIER.
- STRAW BALES MUST REMAIN UNTIL THE UPSTREAM DISTURBANCE AREA IS STABILIZED.
- PERMANENTLY STABILIZE AREA AROUND INLET AFTER STRAW BALES ARE REMOVED WHEN REMOVAL IS APPROPRIATE.
- STRAW BALES SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED, ROTTEN OR DAMAGED BEYOND REPAIR.

**SUMP INLET PROTECTION**

APPROVED: *[Signature]*

ISSUED: 10/7/19 REVISED: 8/19/2020 DRAWING NO. 900-IP-4

**ROCK SOCK SECTION**

**ROCK SOCK OVERLAP**

**ROCK SOCK PLAN**

**GRADATION TABLE**

	MASS PERCENT PASSING SQUARE MESH SIEVES
	No. 4
2"	100
1 1/2"	90-100
1"	20-55
3/4"	0-15
3/8"	0-5

MATCHES SPECIFICATIONS FOR No. 4 COARSE AGGREGATE FOR CONCRETE PER AASHTO M-43. ALL ROCK SHALL BE FRACTURED FACE, ALL SIDES

**INSTALLATION NOTES**

- CRUSHED ROCK SHALL BE BETWEEN MAX. 1 1/2" (MINUS) IN SIZE WITH A FRACTURED FACE (ALL SIDES) AND SHALL COMPLY WITH GRADATION SHOWN ON THIS SHEET AND MIN. 3/4" CRUSHED ROCK.
- WIRE MESH SHALL HAVE OPENINGS SMALLER THAN THE SMALLEST SIZE ROCK.
- WIRE MESH SHALL BE SECURED USING 'HOG RINGS' OR WIRE TIES AT 6" CENTERS ALONG ALL JOINTS AND AT 2" CENTERS ON ENDS OF SOCKS.

**MAINTENANCE NOTES**

- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- ROCK SOCKS SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED OR DAMAGED BEYOND REPAIR.
- ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN THE DEPTH REACHES 1/2 OF THE HEIGHT OF THE ROCK SOCK.
- ROCK SOCKS ARE TO REMAIN IN PLACE UNTIL DISTURBANCE AREA IS STABILIZED.
- PERMANENTLY STABILIZE AREA AFTER ROCK SOCKS HAVE BEEN REMOVED.

**ROCK SOCK**

APPROVED: *[Signature]*

ISSUED: 10/7/19 REVISED: 8/19/2020 DRAWING NO. 900-RS

**SEDIMENT CONTROL LOG**

**SECTION A-A'**

**SEDIMENT CONTROL LOG JOINTS**

**INSTALLATION NOTES**

- ALL SEDIMENT CONTROL LOGS MUST BE EMBEDDED TO 1/2 OF THE HEIGHT OF THE LOG.
- LARGER DIAMETER SEDIMENT CONTROL LOGS NEED TO BE EMBEDDED DEEPER.
- PLACE SEDIMENT CONTROL LOG AGAINST SIDEWALK OR CURB OF CURB WHEN ADJACENT TO THESE FEATURES.
- SEDIMENT CONTROL LOGS SHALL CONSIST OF STRAW, COMPOST, EXCELSIOR OR COCONUT FIBER, AND SHALL BE FREE FROM ANY NOXIOUS WEED SEEDS OF DEFECTS INCLUDING RIPS, HOLES AND OBVIOUS WEAR.
- IF USING AS SLOPE PROTECTION, INSTALL SEDIMENT CONTROL LOGS ALONG THE CONTOUR.

**MAINTENANCE NOTES**

- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES 1/2 OF THE HEIGHT OF THE SEDIMENT CONTROL LOG.
- PERMANENTLY STABILIZE AREA AFTER SEDIMENT CONTROL LOGS HAVE BEEN REMOVED.

**SEDIMENT CONTROL LOGS**

APPROVED: *[Signature]*

ISSUED: 10/7/19 REVISED: 8/19/2020 DRAWING NO. 900-SCL