

# CONSTRUCTION PLANS

for

## HANNAH RIDGE AT FEATHERGRASS FILING NO. 4

### EL PASO COUNTY, COLORADO

**CONDITIONS:**

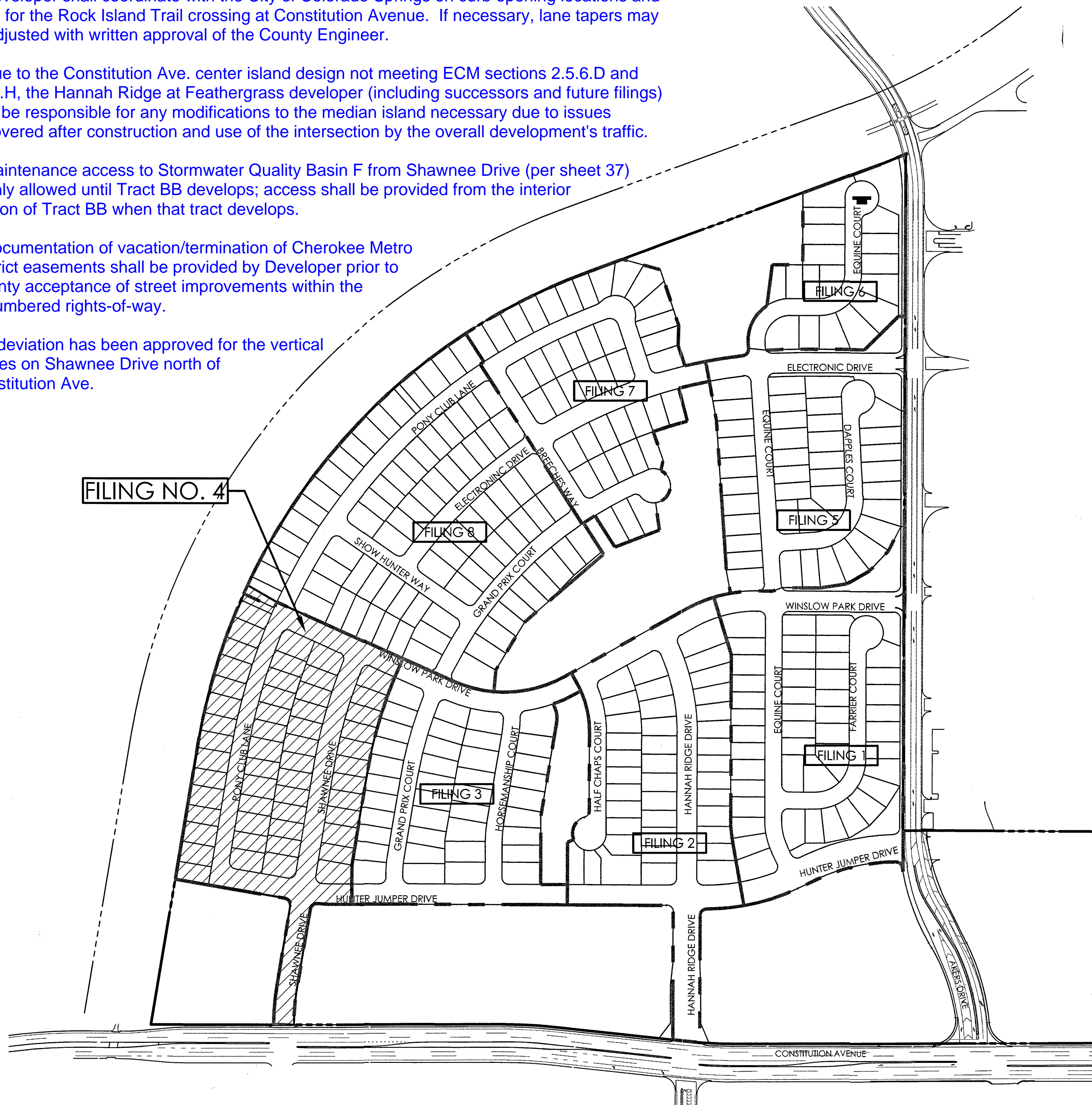
1. Developer shall coordinate with the City of Colorado Springs on curb opening locations and sizes for the Rock Island Trail crossing at Constitution Avenue. If necessary, lane tapers may be adjusted with written approval of the County Engineer.

2. Due to the Constitution Ave. center island design not meeting ECM sections 2.5.6.D and 2.5.6.H, the Hannah Ridge at Feathergrass developer (including successors and future filings) shall be responsible for any modifications to the median island necessary due to issues discovered after construction and use of the intersection by the overall development's traffic.

3. Maintenance access to Stormwater Quality Basin F from Shawnee Drive (per sheet 37) is only allowed until Tract BB develops; access shall be provided from the interior portion of Tract BB when that tract develops.

4. Documentation of vacation/termination of Cherokee Metro District easements shall be provided by Developer prior to County acceptance of street improvements within the encumbered rights-of-way.

5. A deviation has been approved for the vertical curves on Shawnee Drive north of Constitution Ave.



AS-BUILT  
12-7-2023

**COMPANIES AND AGENCIES**

**OWNER/DEVELOPER**

ELITE PROPERTIES OF AMERICA, INC  
6385 CORPORATE DRIVE, SUITE 200  
COLORADO SPRINGS, CO 80919  
(719) 592-9333

**ENGINEER**

M.V.E., INC.  
1903 LELARAY STREET, STE 200  
COLORADO SPRINGS, CO 80909  
(719) 635-5736

**EL PASO COUNTY PLANNING**

EPC PLANNING AND COMMUNITY DEVELOPMENT  
2880 INTERNATIONAL CIRCLE, SUITE 110  
COLORADO SPRINGS, CO 80910  
(719) 520-6300

**STREETS AND RIGHTS-OF-WAY**

EPC DEPARTMENT OF PUBLIC WORKS  
3275 AKERS DRIVE  
COLORADO SPRINGS, CO 80922  
(719) 520-6460

**NATURAL GAS**

COLORADO SPRINGS UTILITIES  
111 SOUTH CASCADE AVENUE  
P.O. BOX 1103  
COLORADO SPRINGS, CO 80947-1015  
(719) 226-3218

**ELECTRIC**

MOUNTAIN VIEW ELECTRIC ASSOCIATION  
11140 EAST WOODMEN ROAD  
FALCON, CO 80831  
(719) 495-2283

**WATER & WASTEWATER**

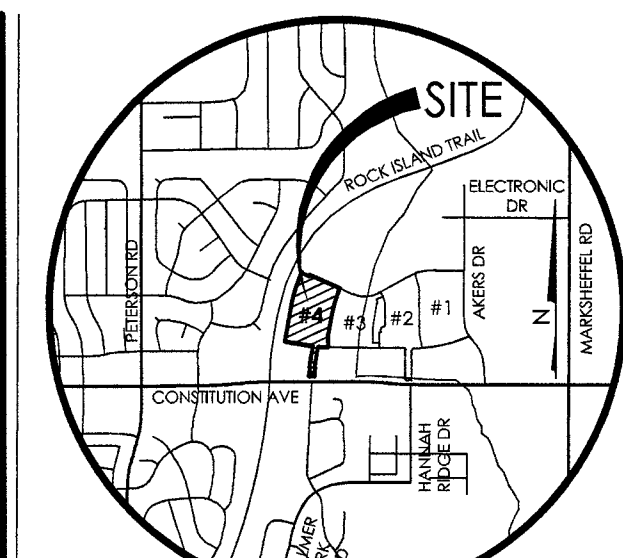
CHEROKEE METROPOLITAN DISTRICT  
6250 PALMER PARK BOULEVARD  
COLORADO SPRINGS, CO 80915  
(719) 597-5080

**TELEPHONE**

CENTURYLINK  
555 TECH CENTER DRIVE SUITE 110  
COLORADO SPRINGS, CO 80919  
866.301.9889

**SHEET INDEX** (LINED OUT SHEETS NOT INCLUDED IN THIS SET FOR FILING NO. 4)

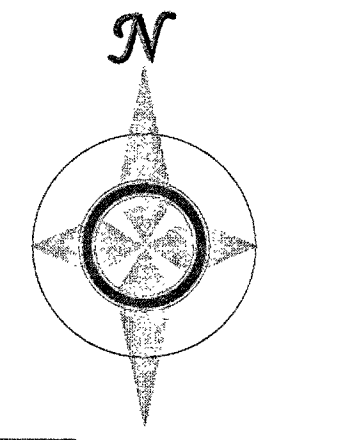
PLAN SET SHEET NO.	SHEET TITLE	MVE DRAWING NO.
1	COVER SHEET	60970030-F4
2	GENERAL NOTES & DETAILS	60970031-F4
3	GENERAL NOTES & DETAILS	60970032-F4
4	BREECHES WAY PLAN / PROFILE	60970040
5	GRAND PRIX COURT PLAN / PROFILE	60970041
6	GRAND PRIX COURT PLAN / PROFILE	60970042
7	DAPPLES COURT PLAN / PROFILE	60970043
8	EQUINE COURT PLAN / PROFILE	60970044
9	EQUINE COURT PLAN / PROFILE	60970045
10	FARRIER COURT PLAN / PROFILE	60970046
11	HALF CHAPS COURT PLAN / PROFILE	60970047
12	HANNAH RIDGE DRIVE PLAN / PROFILE	60970048
13	HORSEMANSHIP COURT PLAN / PROFILE	60970049
14	HUNTER JUMPER DRIVE PLAN / PROFILE	60970050-F4
15	HUNTER JUMPER DRIVE PLAN / PROFILE	60970051
16	PONY CLUB LANE PLAN / PROFILE	60970052-F4
17	PONY CLUB LANE PLAN / PROFILE	60970053
18	SHOW HUNTER WAY PLAN / PROFILE	60970054
19	SHAWNEE DRIVE PLAN / PROFILE	60970055-F4
20	ELECTRONIC DRIVE PLAN / PROFILE	60970056
21	ELECTRONIC DRIVE PLAN / PROFILE	60970057
22	WINSLOW PARK DRIVE PLAN / PROFILE	60970058-F4
23	WINSLOW PARK DRIVE PLAN / PROFILE	60970059
24	CONSTITUTION AVENUE IMPROVEMENTS	60970062-F4
25	MISC SANITARY SEWER PLAN / PROFILES	60970065
26	PONY CLUB / BREECHES WAY STORM DRAIN	60970100
27	HANNAH RIDGE DRIVE STORM DRAIN	60970101
28	HUNTER JUMPER DRIVE STORM DRAIN	60970102
29	SHAWNEE DRIVE STORM DRAIN	60970103-F4
30	UNDER SADDLE / WINSLOW PARK STORM DRAIN	60970104
31	MISC STORM DRAIN PLAN / PROFILES	60970068-F4
32	HANNAH RIDGE BOX CULVERT DETAILS	60970067
33	TRIBUTARY DRAINAGE IMPROVEMENTS	60970090
34	TRIBUTARY DRAINAGE IMPROVEMENTS	60970091
35	BOX CULVERT & HEADWALL DETAILS	60970093
36	STORM WATER QUALITY DETENTION BASINS	60970105
37	STORM WATER QUALITY BASIN "E" DETAILS	60970106-F4
38	STORM WATER QUALITY DETENTION BASINS	60970107
39	STREET/STORM PHASING PLAN & NOTES	60970069-F4
40	STRIPING & SIGNAGE PLAN	60970094-F4
41	WATER PLANS COVER SHEET	60970070-F4
42	WATER PLAN (CONSTITUTION)	60970071-F4
43	WATER PLAN (SOUTHWEST)	60970072-F4
44	WATER PLAN (SOUTHEAST)	60970073
45	WATER PLAN (NORTHWEST)	60970074
46	WATER PLAN (NORTHEAST)	60970075
47	WATER PLAN / PROFILE (SHAWNEE DRIVE)	60970076-F4
48	WATER PLAN / PROFILE (MISC PROFILES)	60970077-F4
49	HANNAH RIDGE WATER LINE	60970078
50	WATER PLAN / PROFILE (ELECTRONIC DRIVE)	60970079
51	WATER PLAN / PROFILE (ELECTRONIC DRIVE)	60970079B
52	UTILITY SERVICE PLAN & NOTES	60970085-F4
53	UTILITY PHASING PLAN & NOTES	60970087-F4



VICINITY MAP  
NTS

**BENCHMARK**  
THE BENCHMARK FOR THESE PLANS IS THE TOP OF #4 REBAR, PANEL POINT NO. 1, LOCATED ON THE SOUTH EDGE OF CONSTITUTION AVE AND THE WEST EDGE OF THE ROCK ISLAND TRAIL, 535 FEET WEST OF THE CENTERLINE OF SHAWNEE DR. ELEVATION = 6486.63. (EPC DATUM ELEVATION = 6485.29).

**BASIS OF BEARINGS**  
BEARING REFERRED TO HEREIN ARE BASED ON THE WEST LINE OF TRACT GG, HANNAH RIDGE AT FEATHERGRASS FILING NO. 1, ALSO BEING THE EASTERLY RIGHT-OF-WAY LINE OF CHICAGO, ROCK ISLAND AND PACIFIC RAILROAD, ASSUMED TO BEAR N09°45'59" E AND MONUMENTED AT EACH END WITH PLASTIC CAPS, 4M, LS 13225".



50 0 100 200 400  
1" = 200' 1:2,400

**MVE, INC.**  
ENGINEERS & SURVEYORS  
1903 Lelaray Street, Suite 200 Colorado Springs CO 80909 719.635.5736

**OWNERS STATEMENT**

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

*Douglas M. Stimple*  
DOUGLAS M. STIMPLE  
ELITE PROPERTIES OF AMERICA, INC  
6385 CORPORATE DRIVE, SUITE 200  
COLORADO SPRINGS, CO 80919  
12-7-2017  
DATE

**ENGINEER'S STATEMENT**

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

*David R. Gorman*  
DAVID R. GORMAN, P.E.  
FOR AND ON BEHALF OF M.V.E., INC.  
31672  
3/6/18  
DATE

**EL PASO COUNTY PUBLIC SERVICE DEPARTMENT - TRANSPORTATION DIVISION**

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, AND ENGINEERING CRITERIA MANUAL AS AMENDED.

JENNIFER E. IRVINE, P.E.  
COUNTY ENGINEER / ECM ADMINISTRATOR  
Approved  
By: Jennifer Irvine, County Engineer  
Date: 03/07/2018  
El Paso County Department of Public Works

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 MAY NEED TO BE RESUBMITTED FOR APPROVAL, INCLUDING PAYMENT OF REVIEW FEES AT THE PLANNING AND COMMUNITY DEVELOPMENT DIRECTOR'S DISCRETION.  
[SEE CONDITIONS AT TOP LEFT OF THIS SHEET](#)

**REVISIONS**

DESIGNED BY DRG  
DRAWN BY TJW  
CHECKED BY  
AS-BUILTS BY  
CHECKED BY

HANNAH RIDGE  
AT FEATHERGRASS NO. 4

COVER SHEET

MVE PROJECT 60970  
MVE DRAWING 60970030-F4

SEPTEMBER 21, 2017  
SHEET 1

**CIMARRON HILLS FIRE DEPARTMENT APPROVAL**

NOTE: FIRE FLOW DEMAND IS 1500 GPM FOR A 3 HOUR DURATION AT A 20 PSI MINIMUM RESIDUAL MAIN LINE PRESSURE DURING PEAK DEMAND.

UPON DETAILED REVIEW OF THE AVAILABLE WATER SUPPLY, FIRE HYDRANT LOCATIONS AND HOSE LAY DISTANCES, THESE PLANS ARE HEREBY CONSIDERED APPROVED.

FIRE DEPARTMENT SIGNATURE: *V. Champagne*  
DATE: January 3, 2018 / CH 2015-22-FH-1

**CHEROKEE METROPOLITAN DISTRICT APPROVAL**

THE APPROVAL DATE ON THE PLAN(S) EXPIRES IN ONE (1) YEAR AND SHALL REQUIRE RESUBMITAL AND APPROVAL IF CONSTRUCTION DOES NOT BEGIN DURING THIS PERIOD.

*Janette Smith*  
JANETTE SMITH  
CHEROKEE METROPOLITAN DISTRICT  
DATE 03/06/18

CALL BEFORE YOU DIG...  
48 HOURS BEFORE YOU DIG, CALL UTILITY LOCATING AND MARKING GAS, ELECTRIC, WATER AND WASTEWATER.  
CALL 811 OR 1-800-922-1987

EL PASO COUNTY STANDARD CONSTRUCTION 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 FIELD NOTIFICATION OF ALL EXISTING UTILITIES...
3. CONTRACTOR SHALL KEEP A COPY OF THESE APPROVED PLANS, THE GRADING AND EROSION CONTROL PLAN...
4. NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL...
5. IT IS THE DESIGN ENGINEER'S RESPONSIBILITY TO ACCURATELY SHOW EXISTING CONDITIONS, BOTH ONSITE AND OFFSITE...
6. CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT (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...
8. CONTRACTOR SHALL NOT DEVIATE FROM THE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE DESIGN ENGINEER AND PCD.
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 DOT AND MUTCD CRITERIA.
14. CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY EL PASO COUNTY PUBLIC WORKS DEPARTMENT (PWD), 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.

GENERAL NOTES

- 1. ALL CONSTRUCTION WITHIN EL PASO COUNTY PUBLIC RIGHT-WAYS SHALL BE IN ACCORDANCE WITH MOST CURRENT STANDARDS AND SPECIFICATIONS OF EL PASO COUNTY.
2. THE LOCATION OF EXISTING UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND MAY NOT INCLUDE ALL UTILITIES. THE EXCAVATING CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK.
3. BEFORE COMMENCING ANY EXCAVATION, CALL 1-800-922-1987 FOR EXISTING UTILITY LOCATIONS.
4. CONTRACTOR SHALL SCHEDULE AND HOLD A PRE-CONSTRUCTION MEETING A MINIMUM OF 48 HOURS PRIOR TO START OF CONSTRUCTION WITH CHEROKEE METROPOLITAN DISTRICT, EL PASO COUNTY, ENGINEER AND CONTRACTOR.
5. CONTRACTOR IS RESPONSIBLE FOR ALL OF HIS OPERATIONS ON THE SITE. CONTRACTOR SHALL OBSERVE ALL SAFETY AND OSHA REGULATIONS DURING CONSTRUCTION OPERATIONS.
6. ANY NECESSARY PERMITS SUCH AS SWMP, FUGITIVE DUST, ACCESS, C.O.E. 404, ESQCP PERMIT, ETC. SHALL BE OBTAINED PRIOR TO CONSTRUCTION.
7. SOIL EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN 21 CALENDAR DAYS AFTER FINAL GRADING.
8. SOIL PREPARATION, SEEDING, AND MULCHING WILL BE REQUIRED ON ALL DISTURBED AREAS NOT SURFACED. THE FOLLOWING TYPES AND RATES SHALL BE USED:
9. SEEDING APPLICATION: DRILLED TO A DEPTH OF .25" TO .50" INTO SOIL WHERE POSSIBLE. BROADCAST AND RAKED TO COVER ON STEEPER THAN 3:1 SLOPES WHERE ACCESS IS LIMITED OR UNSAFE FOR EQUIPMENT.
10. THE CONTRACTOR SHALL RESTORE ALL ROADWAYS IMPACTED BY HIS CONSTRUCTION ACTIVITY. GRAVEL ROADWAYS, TO THE EXTENT CONSTRUCTION ACTIVITY WILL IMPACT THEM, SHALL HAVE THE GRAVEL STRIPPED, STOCKPILED AND REINSTALLED.
11. GRADING OF THE PROJECT SITE SHALL BE FINALIZED SUCH THAT ALL AREAS DRAIN FREELY AWAY FROM NEW MANHOLES.
12. ANY SIGNS, DELINEATOR POSTS, MAIL BOXES, NEWSPAPER BOXES AND OTHER APPURTENANCES REMOVED DURING CONSTRUCTION SHALL BE REPLACED IN THE SAME LOCATION AND IN AN ACCEPTABLE CONDITION AT NO ADDITIONAL COST TO THE OWNER.
13. IN THE EVENT THE CONTRACTOR REMOVES EXISTING FENCING, THE FENCING SHALL BE REINSTALLED IN A CONDITION, AS GOOD AS, OR BETTER THAN ORIGINALLY FOUND AT NO ADDITIONAL COST TO THE OWNER.
14. THE CONTRACTOR SHALL RESTORE DRAINAGE CONFIGURATIONS ALTERED AS A RESULT OF HIS CONSTRUCTION ACTIVITY.
15. SUFFICIENT CLEARANCE SHALL BE MAINTAINED BETWEEN THE EXCAVATION FOR THE NEW SANITARY SEWER FACILITIES AND ANY POWER OR TELEPHONE POLE OR GUY WIRE.
16. NO EXCAVATED MATERIAL SHALL BE PLACED UNDER OVERHEAD ELECTRIC CONDUCTORS OR AROUND POLES OR TEMPORARILY STORED UNDER LINES WITHOUT FIRST CONSULTING WITH THE ELECTRIC UTILITY TO DETERMINE IF ADEQUATE CLEARANCES WILL BE RETAINED.
17. PORTIONS OF THE PROJECT LIE WITHIN COUNTY ROAD RIGHTS-OF-WAY. TRAFFIC CONTROL SHALL BE UNDERTAKEN IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND REQUIREMENTS SET FORTH BY THE EL PASO COUNTY DEPARTMENT OF TRANSPORTATION (DOT) WITHIN THEIR PERMIT PROVISIONS AS APPROPRIATE.
18. THE CONTRACTOR SHALL CONTACT THE EL PASO COUNTY DEPARTMENT OF TRANSPORTATION'S REPRESENTATIVE 48 HOURS PRIOR TO CONSTRUCTION IN COUNTY ROAD RIGHTS-OF-WAY.
19. THE CONTRACTOR SHALL PROVIDE A TRAFFIC CONTROL PLAN IN ACCORDANCE WITH THE PROVISIONS OF THE EL PASO COUNTY PWD UTILITY PERMIT.
20. COMPLETE CLOSURE OF ANY COUNTY ROAD SHALL NOT BE ALLOWED UNLESS APPROVED IN ADVANCE BY EL PASO COUNTY PWD.
21. ASPHALT DESIGN SHALL BE ACCORDING TO GEOTECHNICAL TESTING AND DESIGN TO BE COMPLETED FOLLOWING ROUGH GRADING.

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

ABBREVIATIONS

Table with 2 columns: Abbreviation and Description. Includes EL (ELEVATION), PC (POINT OF CURVATURE), PI (POINT OF INTERSECTION), PT (POINT OF TANGENCY), PCR (POINT OF CURVE RETURN), PRC (POINT OF REVERSE CURVATURE), PVC (POINT OF VERTICAL CURVATURE), PVI (POINT OF VERTICAL INTERSECTION), PVT (POINT OF VERTICAL TANGENCY), GB (GRADE BREAK), CSP (CORRUGATED STEEL PIPE), RCP (REINFORCED CONCRETE PIPE), CB (CONCRETE BOX CULVERT), TBC (TOP BACK CURB), TC (TOP OF CURB), BT (BEGIN TAPER), ET (END TAPER), EC (EDGE OF CONCRETE), ROW (RIGHT-OF-WAY), R (RADIUS), T (TANGENT), L (LENGTH), LF (LINEAR FEET), CL (CENTERLINE), X.XX' R (DIMENSION RIGHT OF CL), X.XX' L (DIMENSION LEFT OF CL), PL (PROPERTY LINE), PVRC (POINT OF VERTICAL REVERSE CURVATURE), VC (VERTICAL CURVE), AP (ANGLE POINT), STA (STATION), INV (INVERT).

EL PASO COUNTY STANDARD GRADING & EROSION CONTROL NOTES:

- 1. CONSTRUCTION MAY NOT COMMENCE UNTIL A CONSTRUCTION PERMIT IS OBTAINED FROM PLANNING AND COMMUNITY DEVELOPMENT AND A PRECONSTRUCTION CONFERENCE IS HELD WITH PLANNING AND COMMUNITY DEVELOPMENT INSPECTIONS.
2. 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.
3. 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.
4. A SEPARATE STORMWATER MANAGEMENT PLAN (SMWP) FOR THIS PROJECT SHALL BE COMPLETED AND AN EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP) ISSUED PRIOR TO COMMENCING CONSTRUCTION.
5. ONCE THE ESQCP HAS BEEN ISSUED, THE CONTRACTOR MAY INSTALL THE INITIAL STAGE EROSION AND SEDIMENT CONTROL BMPs AS INDICATED ON THE GEC.
6. SOIL EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN 21 CALENDAR DAYS AFTER FINAL GRADING.
7. TEMPORARY SOIL EROSION CONTROL FACILITIES SHALL BE REMOVED AND EARTH DISTURBANCE AREAS GRADED AND STABILIZED WITH PERMANENT SOIL EROSION CONTROL MEASURES PURSUANT TO STANDARDS AND SPECIFICATION PRESCRIBED IN THE DCM VOLUME II AND THE ENGINEERING CRITERIA MANUAL (ECM) APPENDIX I.
8. ALL PERSONS ENGAGED IN EARTH DISTURBANCE SHALL IMPLEMENT AND MAINTAIN ACCEPTABLE SOIL EROSION AND SEDIMENT CONTROL MEASURES INCLUDING BMPs IN CONFORMANCE WITH THE EROSION CONTROL TECHNICAL STANDARDS OF THE DRAINAGE CRITERIA MANUAL (DCM) VOLUME II AND IN ACCORDANCE WITH THE STORMWATER MANAGEMENT PLAN (SMWP).
9. ALL TEMPORARY EROSION CONTROL FACILITIES INCLUDING BMPs AND ALL PERMANENT FACILITIES INTENDED TO CONTROL EROSION OF ANY EARTH DISTURBANCE OPERATIONS, SHALL BE INSTALLED AS DEFINED IN THE APPROVED PLANS, THE SWMP AND THE DCM VOLUME II AND MAINTAINED THROUGHOUT THE DURATION OF THE EARTH DISTURBANCE OPERATION.
10. ANY EARTH DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER SO AS TO EFFECTIVELY REDUCE ACCELERATED SOIL EROSION AND RESULTING SEDIMENTATION.
11. ANY TEMPORARY OR PERMANENT FACILITY DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF STORMWATER AROUND, THROUGH, OR FROM THE EARTH DISTURBANCE AREA SHALL BE DESIGNED TO LIMIT THE DISCHARGE TO A NON-EROSIVE VELOCITY.
12. CONCRETE WASH WATER SHALL BE CONTAINED AND DISPOSED OF IN ACCORDANCE WITH THE SWMP.
13. EROSION CONTROL BLANKETING SHALL BE USED ON SLOPES STEEPER THAN 3:1.
14. BUILDING, CONSTRUCTION, EXCAVATION, OR OTHER WASTE MATERIALS SHALL NOT BE TEMPORARILY PLACED OR STORED IN THE STREET, ALLEY, OR OTHER PUBLIC WAY.
15. VEHICLE TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF-SITE SHALL BE MINIMIZED.
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.
17. THE OWNER, SITE DEVELOPER, CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION DEBRIS, DIRT, TRASH, ROCK, SEDIMENT, AND SAND THAT MAY ACCUMULATE IN THE STORM SEWER OR OTHER DRAINAGE CONVEYANCE SYSTEM.
18. 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.
19. NO CHEMICALS ARE TO BE USED BY THE CONTRACTOR, WHICH HAVE THE POTENTIAL TO BE RELEASED IN STORMWATER UNLESS PERMISSION FOR THE USE OF A SPECIFIC CHEMICAL IS GRANTED IN WRITING BY THE ECM ADMINISTRATOR.
20. BULK STORAGE STRUCTURES FOR PETROLEUM PRODUCTS AND OTHER CHEMICALS SHALL HAVE ADEQUATE PROTECTION SO AS TO CONTAIN ALL SPILLS AND PREVENT ANY SPILLED MATERIAL FROM ENTERING STATE WATERS.
21. NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE FLOW LINE OF THE CURB AND GUTTER OR IN THE DITCHLINE.
22. INDIVIDUALS 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 INCLUDED IN THE DCM VOLUME II AND THE ECM APPENDIX I.
23. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.
24. PRIOR TO ACTUAL CONSTRUCTION THE PERMITTEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.
25. A WATER SOURCE SHALL BE AVAILABLE ON SITE DURING EARTHWORK OPERATIONS AND UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND.
26. THE SOILS REPORT FOR THIS SITE HAS BEEN PREPARED BY ENTECH ENGINEERING, INC. DATED MARCH 22, 2013 AND SHALL BE CONSIDERED A PART OF THESE PLANS.
27. AT LEAST TEN DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB 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 (SMWP), OF WHICH THIS GRADING AND EROSION CONTROL PLAN MAY BE A PART.

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

ABBREVIATIONS

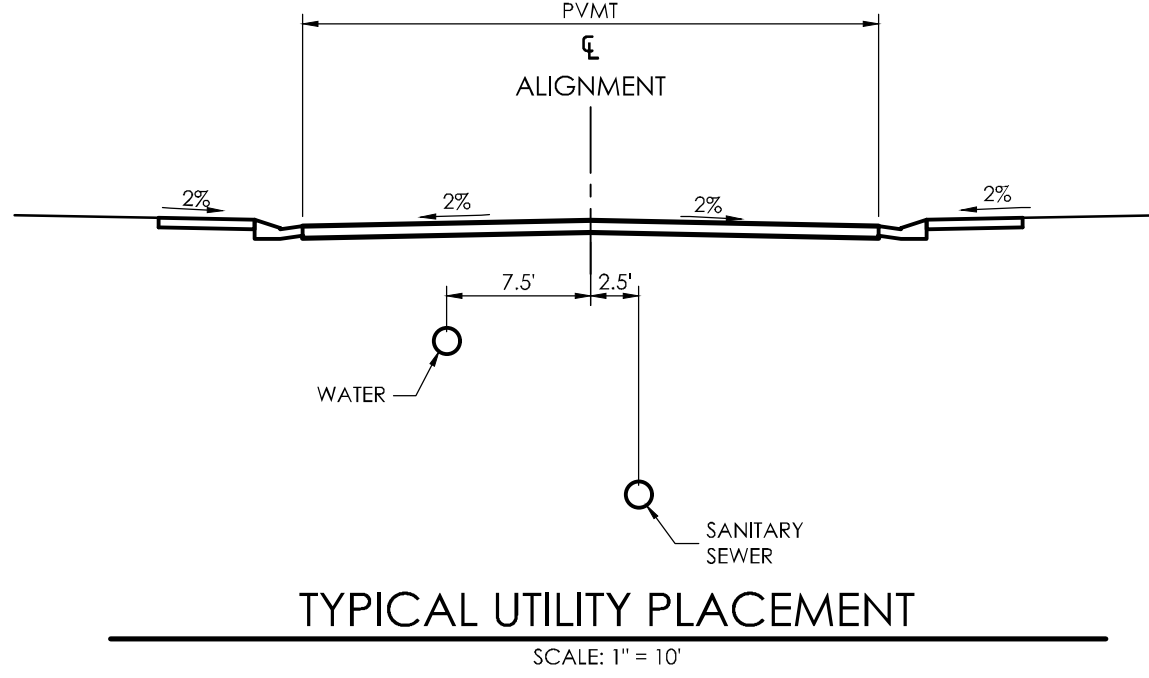
Table with 2 columns: Abbreviation and Description. Includes EL (ELEVATION), PC (POINT OF CURVATURE), PI (POINT OF INTERSECTION), PT (POINT OF TANGENCY), PCR (POINT OF CURVE RETURN), PRC (POINT OF REVERSE CURVATURE), PVC (POINT OF VERTICAL CURVATURE), PVI (POINT OF VERTICAL INTERSECTION), PVT (POINT OF VERTICAL TANGENCY), GB (GRADE BREAK), CSP (CORRUGATED STEEL PIPE), RCP (REINFORCED CONCRETE PIPE), CB (CONCRETE BOX CULVERT), TBC (TOP BACK CURB), TC (TOP OF CURB), BT (BEGIN TAPER), ET (END TAPER), EC (EDGE OF CONCRETE), ROW (RIGHT-OF-WAY), R (RADIUS), T (TANGENT), L (LENGTH), LF (LINEAR FEET), CL (CENTERLINE), X.XX' R (DIMENSION RIGHT OF CL), X.XX' L (DIMENSION LEFT OF CL), PL (PROPERTY LINE), PVRC (POINT OF VERTICAL REVERSE CURVATURE), VC (VERTICAL CURVE), AP (ANGLE POINT), STA (STATION), INV (INVERT).

SANITARY SEWER CONSTRUCTION NOTES:

- 1. ALL MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH CHEROKEE METROPOLITAN DISTRICT STANDARD AND THE CITY OF COLORADO SPRINGS CONSTRUCTION STANDARDS UNLESS NOTED OTHERWISE.
2. SANITARY SEWER PIPE SHALL CONFORM TO ASTM D3034 SDR35 PVC.
3. CONTRACTOR SHALL FIELD VERIFY LOCATION AND ELEVATION OF EXISTING INVERTS PRIOR TO INSTALLATION OF NEW SANITARY SEWER SYSTEM.
4. THE CONTRACTOR ASSUMES RESPONSIBILITY FOR THE PROTECTION OF ALL UTILITIES DURING THE WORK.
5. INFILTRATION AND EXFILTRATION TESTS CONDUCTED BY AND AT THE EXPENSE OF THE CONTRACTOR SHALL BE PERFORMED ON A REPRESENTATIVE PORTION OF THE PROJECT IN ACCORDANCE WITH SECTION 7.04 OF THE CITY OF COLORADO SPRINGS CONSTRUCTION STANDARDS.
6. ALL SANITARY SEWER MANHOLES, LIDS, BASES AND OTHER APPURTENANCES SHALL BE IN ACCORDANCE WITH (IAW) COLORADO SPRINGS DETAILS STANDARD MANHOLE DETAIL 1.
7. WHERE NECESSARY, THE CONTRACTOR SHALL PROVIDE 3 DEGREE BENDS ON ALL CURVILINEAR SANITARY SEWER PIPE.
8. SANITARY SEWER SERVICE LINES SHALL BE LOCATED PER THE DETAIL ON THE UTILITY SERVICE PLAN, OR AT THE DIRECTION OF THE CONSTRUCTION MANAGER.
9. OVERLOT GRADING AND STREET SUBGRADE MUST BE WITHIN +/- ONE (1) FOOT PRIOR TO ANY UTILITY INSTALLATION.
10. WHILE CONSTRUCTING THE SANITARY SEWER SYSTEM THE CONTRACTOR SHALL HAVE IN HIS POSSESSION AT LEAST ONE "APPROVED FOR CONSTRUCTION" SET OF UPDATED PLANS AT ALL TIMES.
11. CONTRACTOR TO CONSTRUCT ALL MANHOLES AND STRUCTURES TO FINISHED GRADE.
12. UPON COMPLETION OF CONSTRUCTION AND PRIOR TO ACCEPTANCE BY THE DISTRICT, TWO (2) COPIES OF "AS-CONSTRUCTED" PLANS AND TWO (2) SETS OF ELECTRONIC DATA FILES OF THE PLANS SHALL BE SUBMITTED TO THE DISTRICT FOR RECORD.
13. TRACER WIRE IS TO BE INSTALLED WITH ALL SANITARY SEWER MAIN LINES AND SERVICES (FROM MAIN LINE TO THE BUILDING STRUCTURE).
14. ALL NONMETALLIC PIPES SHALL HAVE A TRACER WIRE ATTACHED TO ITS TOP DURING CONSTRUCTION.
15. ALL POINTS OF CONNECTION SHALL BE PROTECTED FROM CORROSION BY AN EPOXY OR SILICON COATING.
16. THE TWO (2) COPIES SHALL BE COMPLETE WITH ALL "AS-CONSTRUCTED" INFORMATION TOGETHER WITH A CERTIFICATION BY THE PARTY RESPONSIBLE FOR CONSTRUCTION THAT ALL DATA THEREON IS ACCURATE AND REPRESENTS ACTUAL CONSTRUCTED CONDITIONS.
17. THE PLAN SET SHALL BE ON A DURABLE MEDIA THAT CAN BE RUN THROUGH PHOTOCOPIING EQUIPMENT.
18. THE TWO ELECTRONIC DATA FORMATS SHALL BE SUBMITTED.
19. NEWER FORMAT WITH NO EXTERNAL REFERENCE DRAWINGS.
20. ALL EXTERNAL REFERENCES MUST BE BOUND INTO THE DRAWING SET.
21. "AS-CONSTRUCTED" PLANS SHALL BE SUBMITTED WITHIN TWO WEEKS OF COMPLETION OF THE WATER AND/OR SANITARY SEWER UTILITIES.
22. NO AUTHORIZATION TO CONNECT TO THE SYSTEM OR DISCHARGE TO THE SYSTEM WILL BE ALLOWED UNTIL THE "AS-CONSTRUCTED" DOCUMENTS HAVE BEEN RECEIVED AND ACCEPTED BY THE DISTRICT.
23. ALL PLANS, SPECIFICATIONS AND SUPPORTING DOCUMENTS SHALL BE PREPARED BY OR UNDER THE DIRECT SUPERVISION OF A PROFESSIONAL ENGINEER LICENSED TO PRACTICE IN THE STATE OF COLORADO.

AS-BUILT 12-7-2023

FOR PIPELINES 1.04% OR LESS GRADE THE FOLLOWING ADDITIONAL INSTALLATION PRACTICES SHALL BE USED: (a) THE BOTTOM OF THE PIPE TRENCH SHALL BE PLATE TAMPED PRIOR TO THE INSTALLATION OF ANY PIPE OR BEDDING MATERIAL. (b) SELECT BEDDING MATERIAL SHALL BE INSTALLED PER CHAPTER 2 OF THE "COLORADO SPRINGS UTILITIES, WASTEWATER STANDARDS". (c) TRENCH BACKFILL MATERIAL SHALL BE INSTALLED PER CHAPTER 2 OF THE "COLORADO SPRINGS UTILITIES, WASTEWATER STANDARDS". (d) PIPELINES HAVING A SLOPE OF LESS THAN 1:100, SHALL BE "AS CONSTRUCTED" BY A LICENSED SURVEYOR OR AN APPOINTED REPRESENTATIVE UNDER HIS DIRECT SUPERVISION. THE "AS CONSTRUCTED" MANHOLE INVERTS SHALL BE RECORDED ON THE RECORD DRAWING(S) AND SUBMITTED TO CHEROKEE METROPOLITAN DISTRICT.

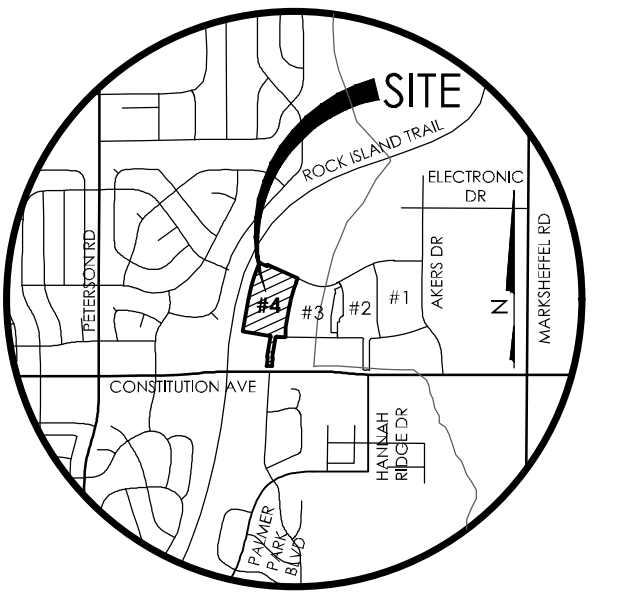


LEGEND

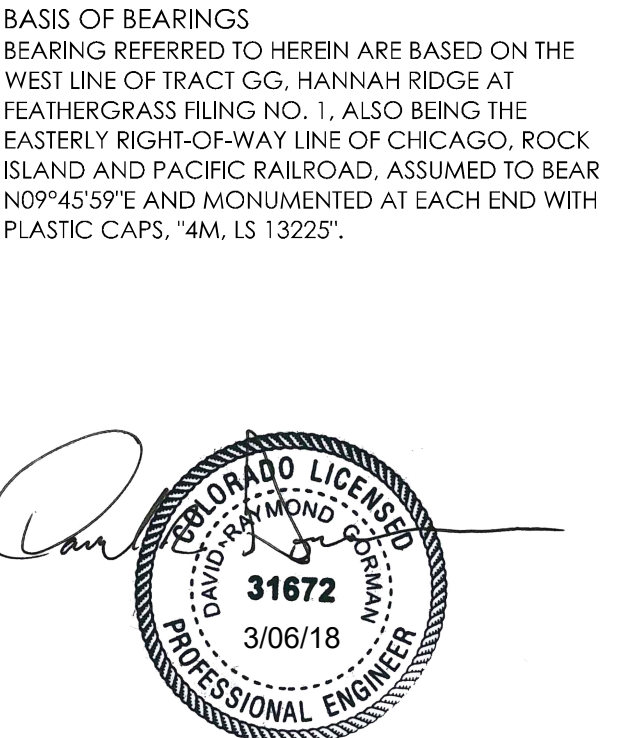
Legend table showing symbols for existing and proposed features. Existing features include property line, adjacent property line, easement line, index contour, intermediate contour, test hole location, curb and gutter, sign, fence, water main, water valve, fire hydrant, sanitary sewer main, sanitary sewer manhole, gas main, underground elec line, electric vaults, telephone line, telephone riser. Proposed features include index contour (4630), intermediate contour, slope/grade (4:1, 2.6%), spot elevation (35.0), top wall (37.0 TW), finished grade face wall (33.0 FG/FW), retaining wall, curb line, sidewalk, detention pond outlet.

EXISTING TOPOGRAPHIC MAP NOTES:

- 1.) THE EXISTING TOPOGRAPHY SHOWN ON THIS PLAN WAS PRODUCED BY CARRERA MAPPING INC. FROM AN AERIAL SURVEY FLOWN NOVEMBER 19, 2004 USING GROUND CONTROL BY M.V.E., INC. AKERS DRIVE TOPOGRAPHY IS SPICED IN FROM THE AKERS DRIVE DESIGN PLANS BY M.V.E., INC. DATED SEPTEMBER 20, 2006.
2.) ALL EXISTING UTILITIES SHOWN ON THIS SURVEY ARE FROM UTILITY MAIN LOCATION RECORD MAPS OBTAINED FROM THE RESPECTIVE UTILITY COMPANIES AND SURFACE EVIDENCE AS SURVEYED IN THE FIELD. THE LOCATION OF UTILITIES AS SHOWN ARE APPROXIMATE. ALL UTILITIES MAY NOT BE SHOWN OR MAY NOT HAVE BEEN LOCATED, BELOW GROUND UTILITY LOCATIONS WERE NOT PERFORMED.
3.) VERTICAL CONTOUR INTERVAL FOR THIS MAP IS 2 FOOT.



VICINITY MAP
THE BENCHMARK FOR THESE PLANS IS THE TOP OF #4 REBAR, PANEL POINT NO. 1, LOCATED ON THE SOUTH EDGE OF CONSTITUTION AVE AND THE WEST EDGE OF THE ROCK ISLAND TRAIL, 535 FEET WEST OF THE CENTERLINE OF SHAWNEE DR. ELEVATION = 6486.63. (EPC DATUM ELEVATION = 6485.29).



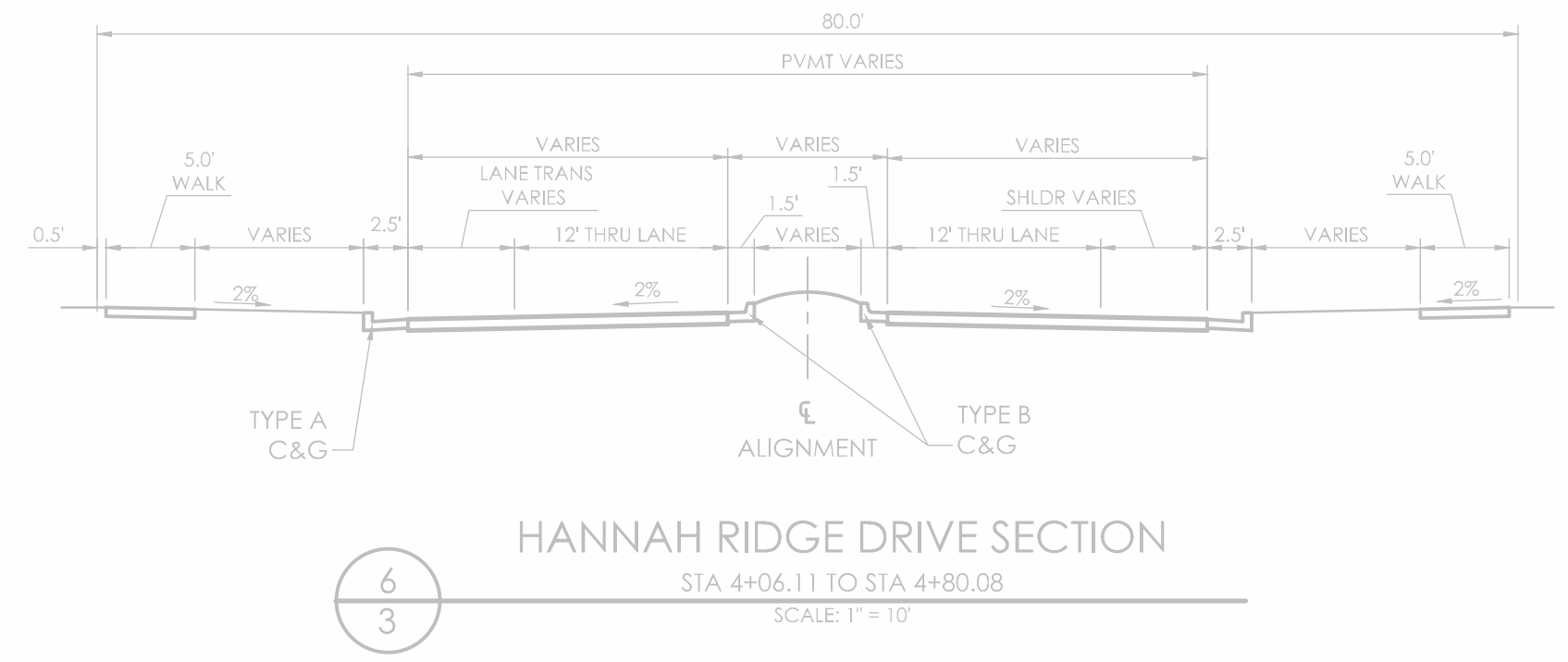
DESIGNED BY DRG, DRAWN BY TJW, CHECKED BY TJW, AS-BUILTS BY TJW, CHECKED BY TJW

HANNAH RIDGE AT FEATHERGRASS NO. 4 GENERAL NOTES & DETAILS

MVE PROJECT 60970, MVE DRAWING 60970031-F4

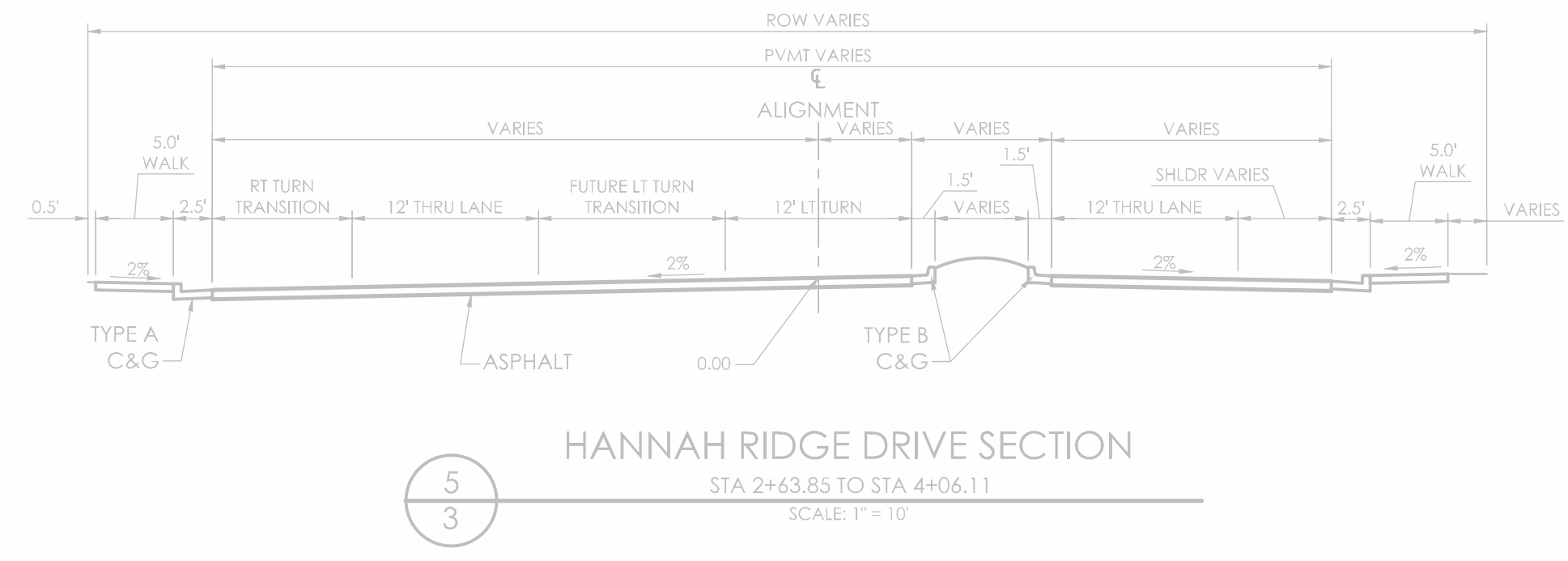
SEPTEMBER 21, 2017 SHEET 2

T:\MVE\Shawnee\DWG\60970031-F4.dwg, 3/21/18, 12:26:30 PM, DRG



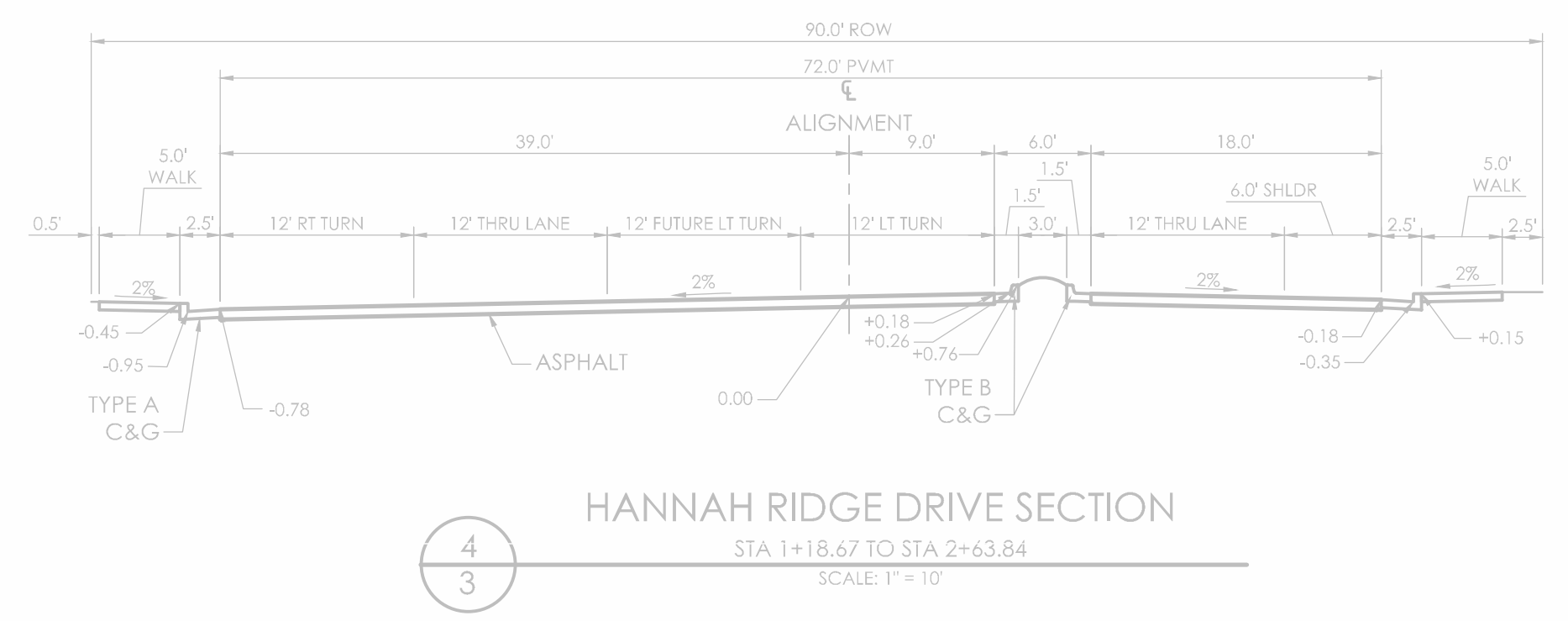
HANNAH RIDGE DRIVE SECTION  
STA 4+06.11 TO STA 4+80.08  
SCALE 1"=10'

6  
3



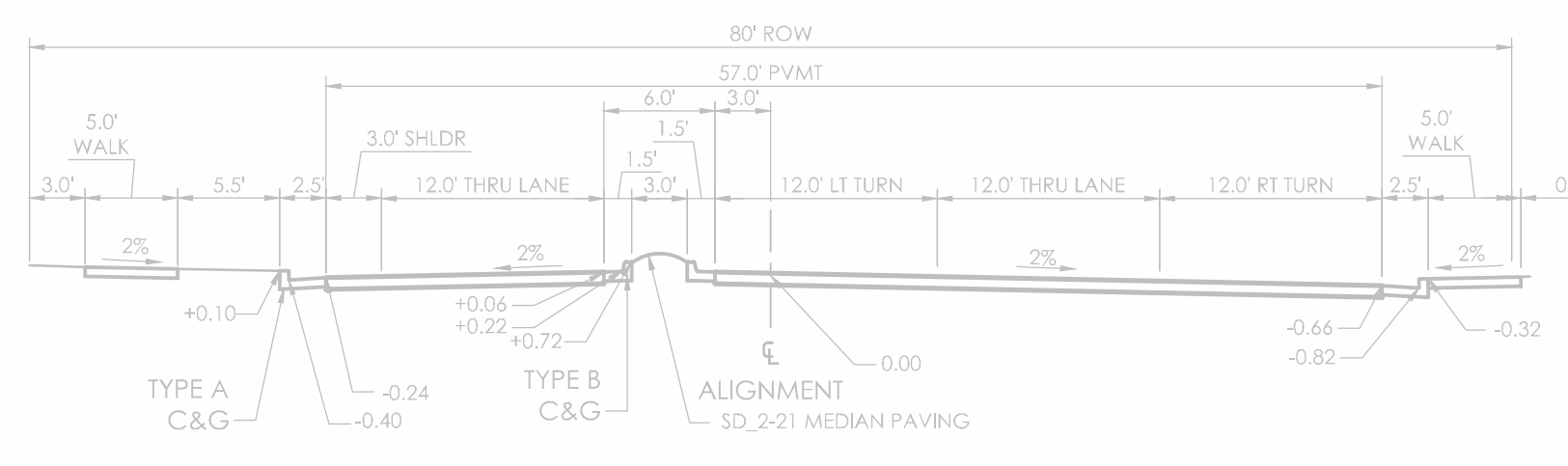
HANNAH RIDGE DRIVE SECTION  
STA 2+63.85 TO STA 4+06.11  
SCALE 1"=10'

5  
3



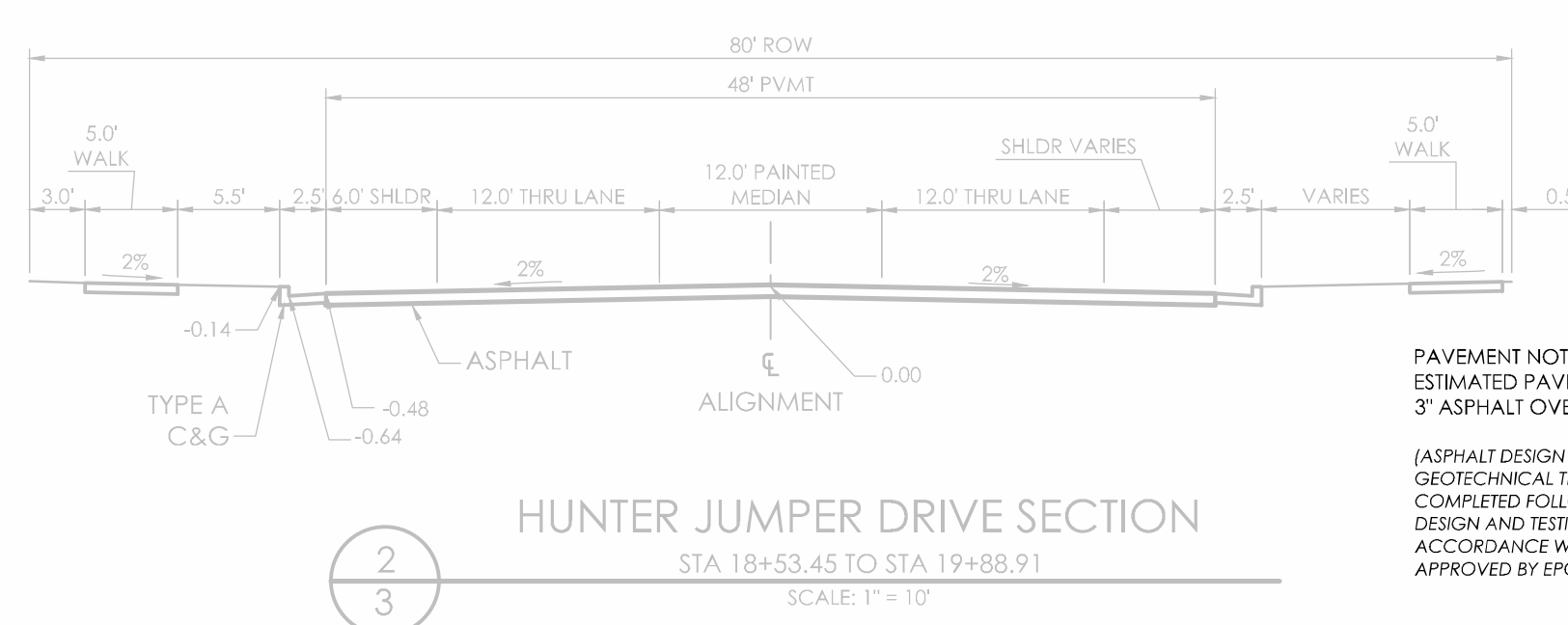
HANNAH RIDGE DRIVE SECTION  
STA 1+18.67 TO STA 2+63.84  
SCALE 1"=10'

4  
3



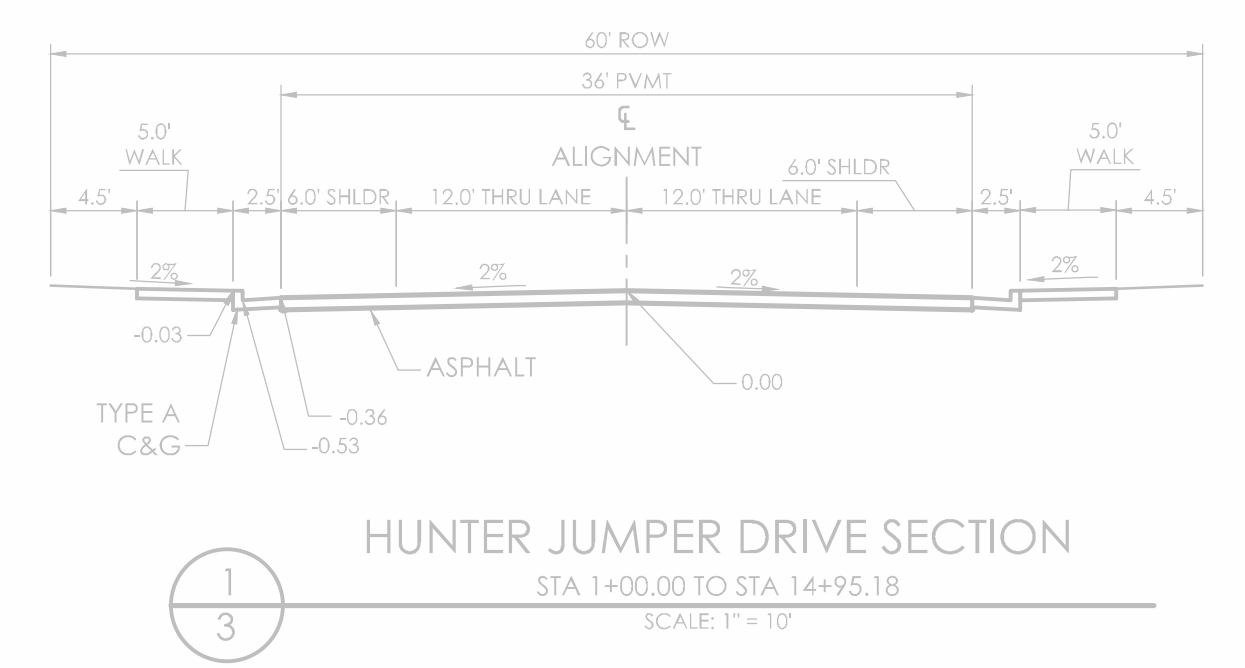
HUNTER JUMPER DRIVE SECTION  
STA 20+48.02 TO STA 21+44.34  
SCALE 1"=10'

3  
3



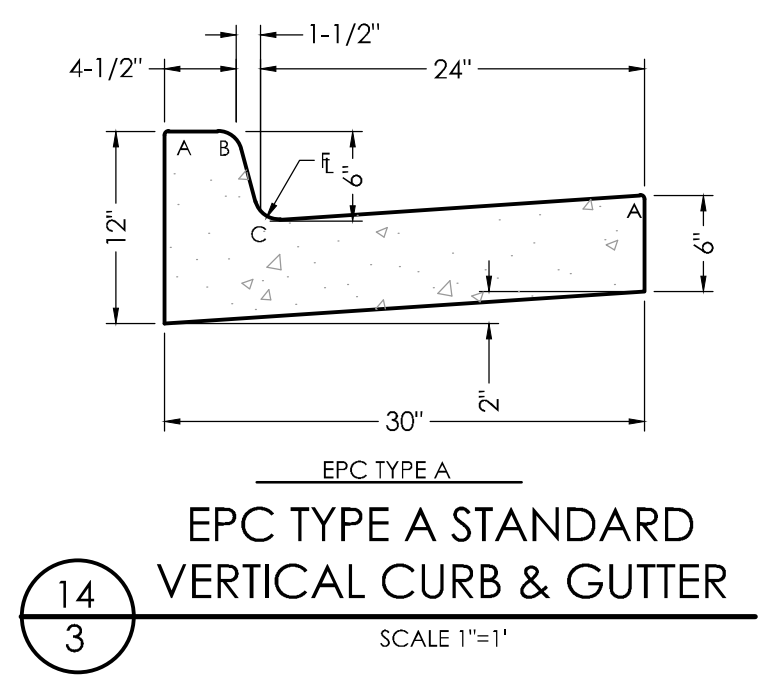
HUNTER JUMPER DRIVE SECTION  
STA 18+53.45 TO STA 19+88.91  
SCALE 1"=10'

2  
3



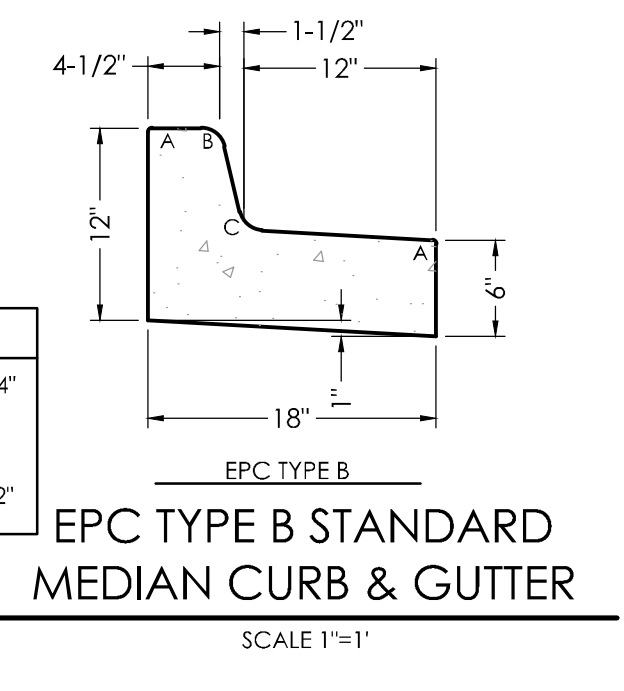
HUNTER JUMPER DRIVE SECTION  
STA 1+00.00 TO STA 1+95.18  
SCALE 1"=10'

1  
3



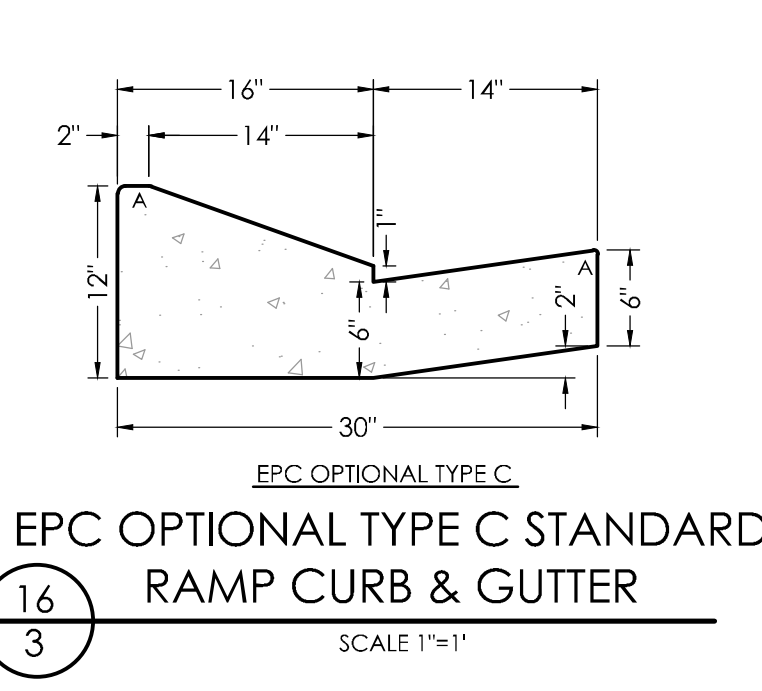
EPC TYPE A STANDARD VERTICAL CURB & GUTTER  
SCALE 1"=1"

14  
3



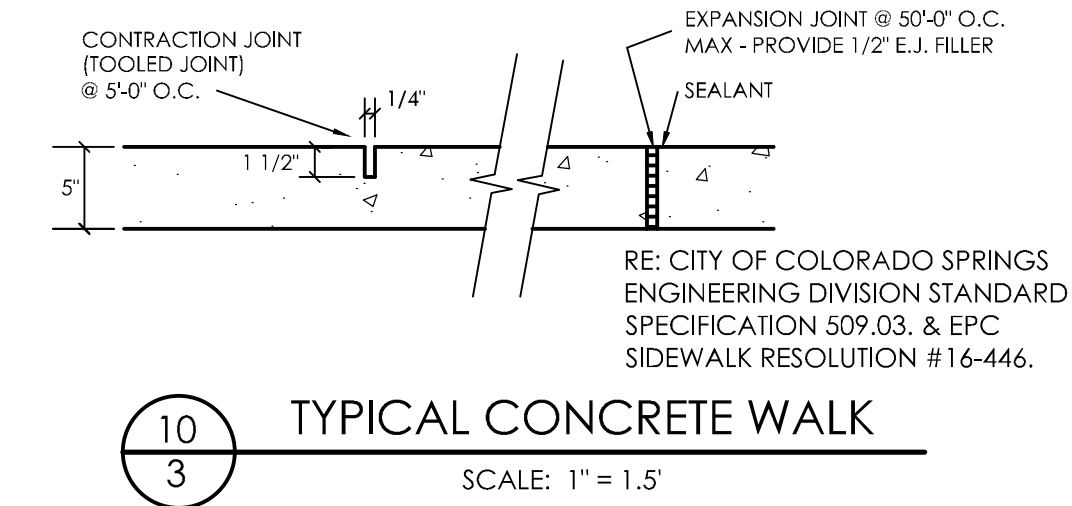
EPC TYPE B STANDARD MEDIAN CURB & GUTTER  
SCALE 1"=1"

15  
3



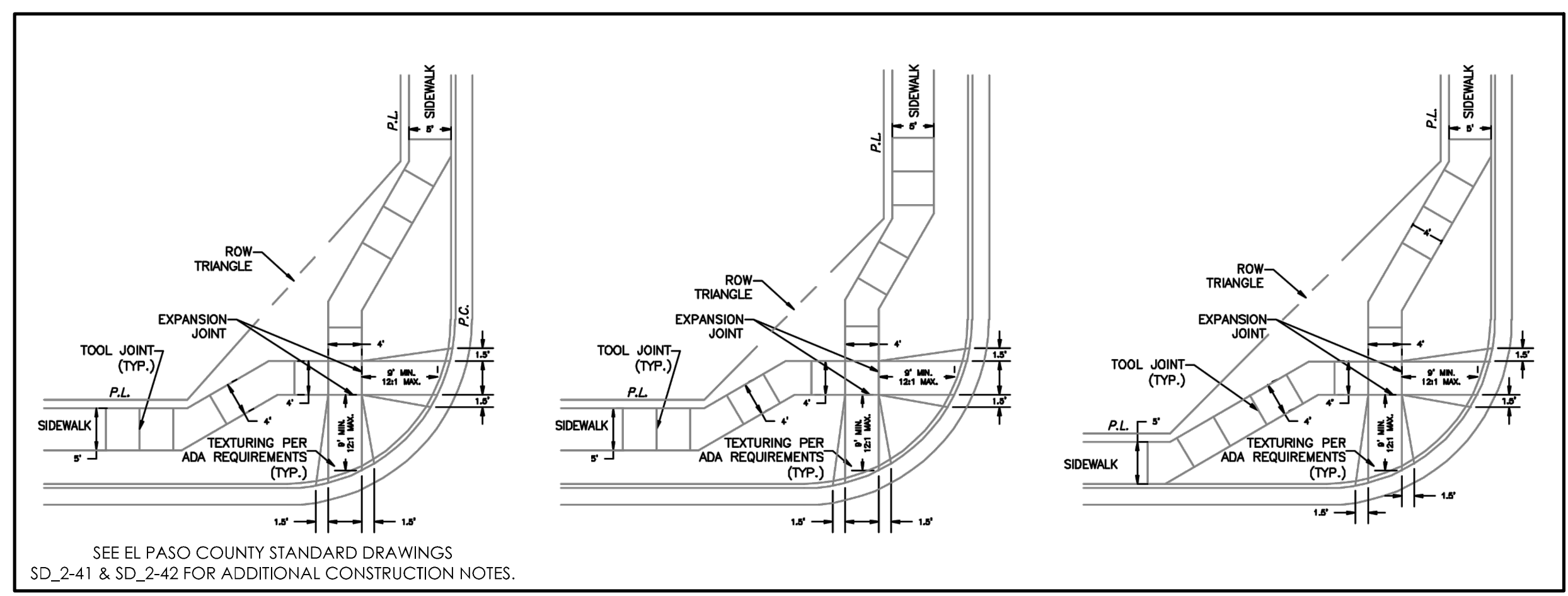
EPC OPTIONAL TYPE C STANDARD RAMP CURB & GUTTER  
SCALE 1"=1"

16  
3



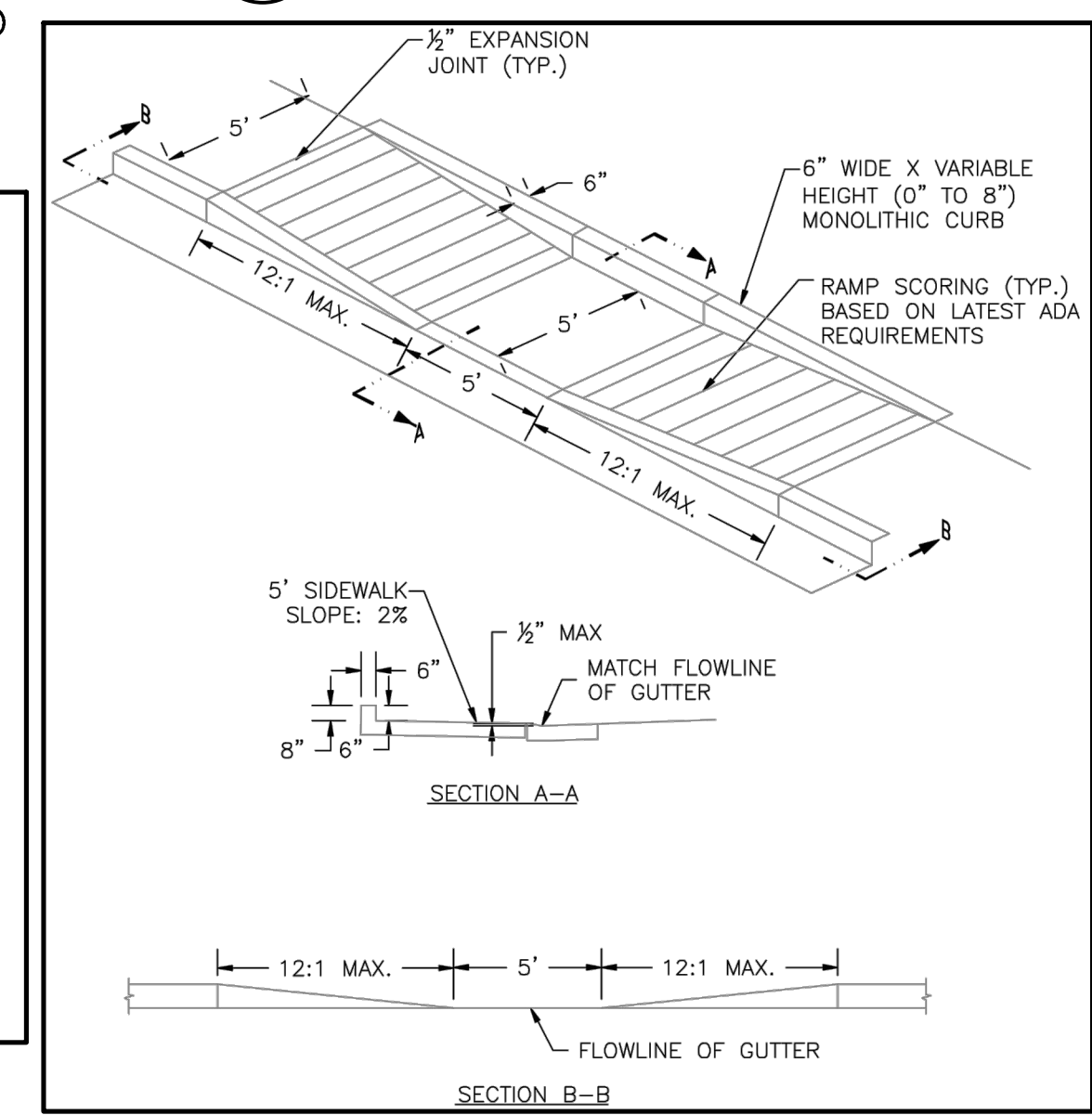
TYPICAL CONCRETE WALK  
SCALE: 1"=1.5'

10  
3



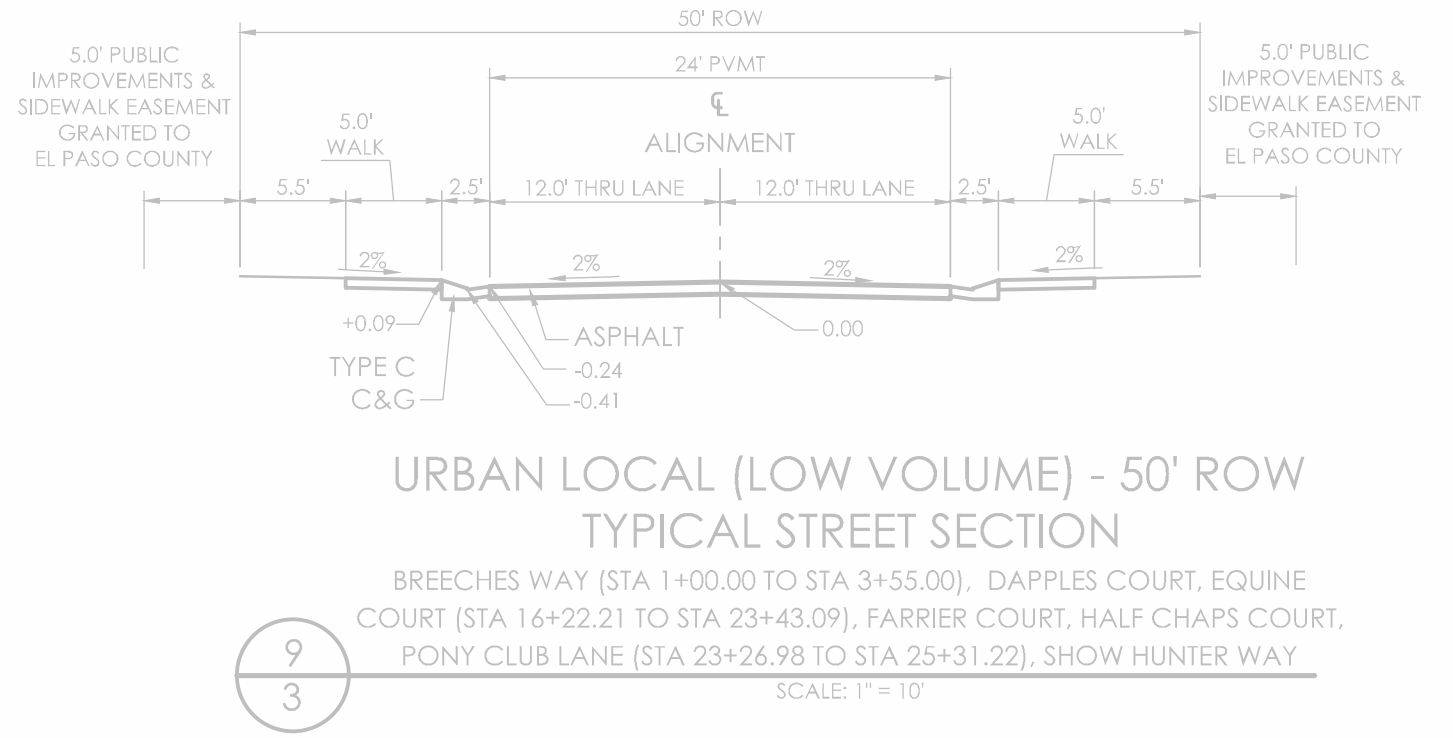
PEDESTRIAN INTERSECTION RAMP DETAIL (EPC SD\_2-40)  
SCALE: NOT TO SCALE

12  
3



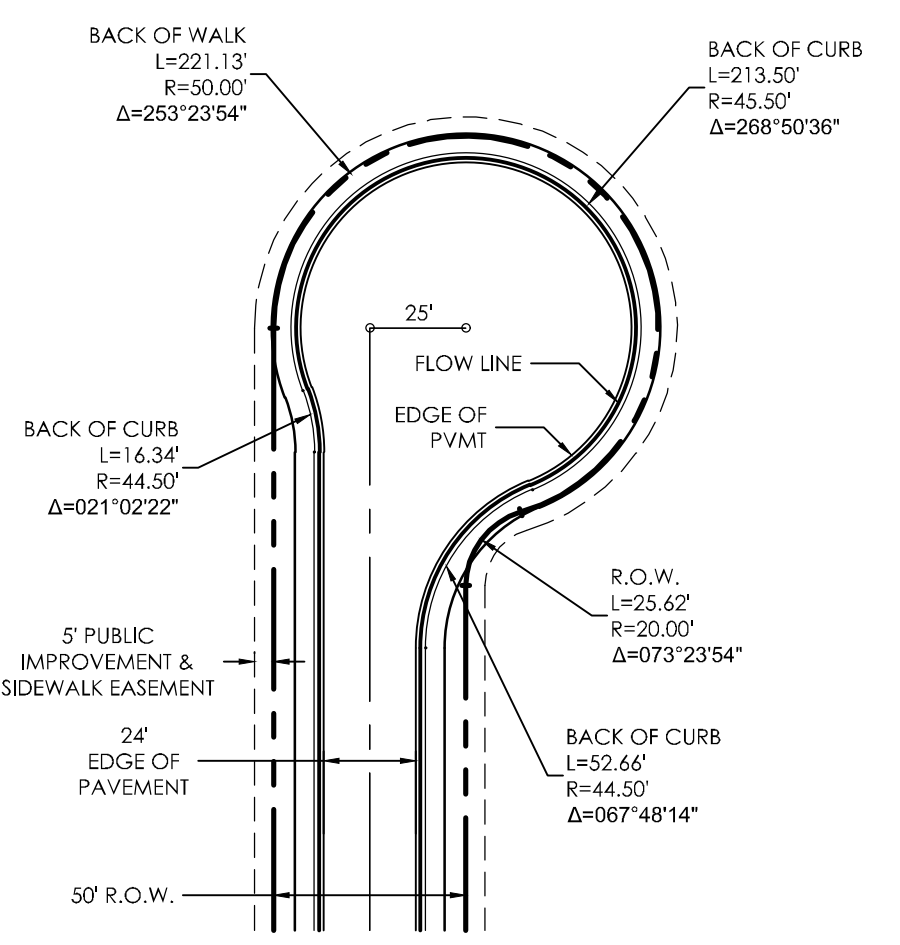
PARALLEL PEDESTRIAN RAMP DETAIL (EPC SD\_2-50)  
SCALE: NOT TO SCALE

13  
3



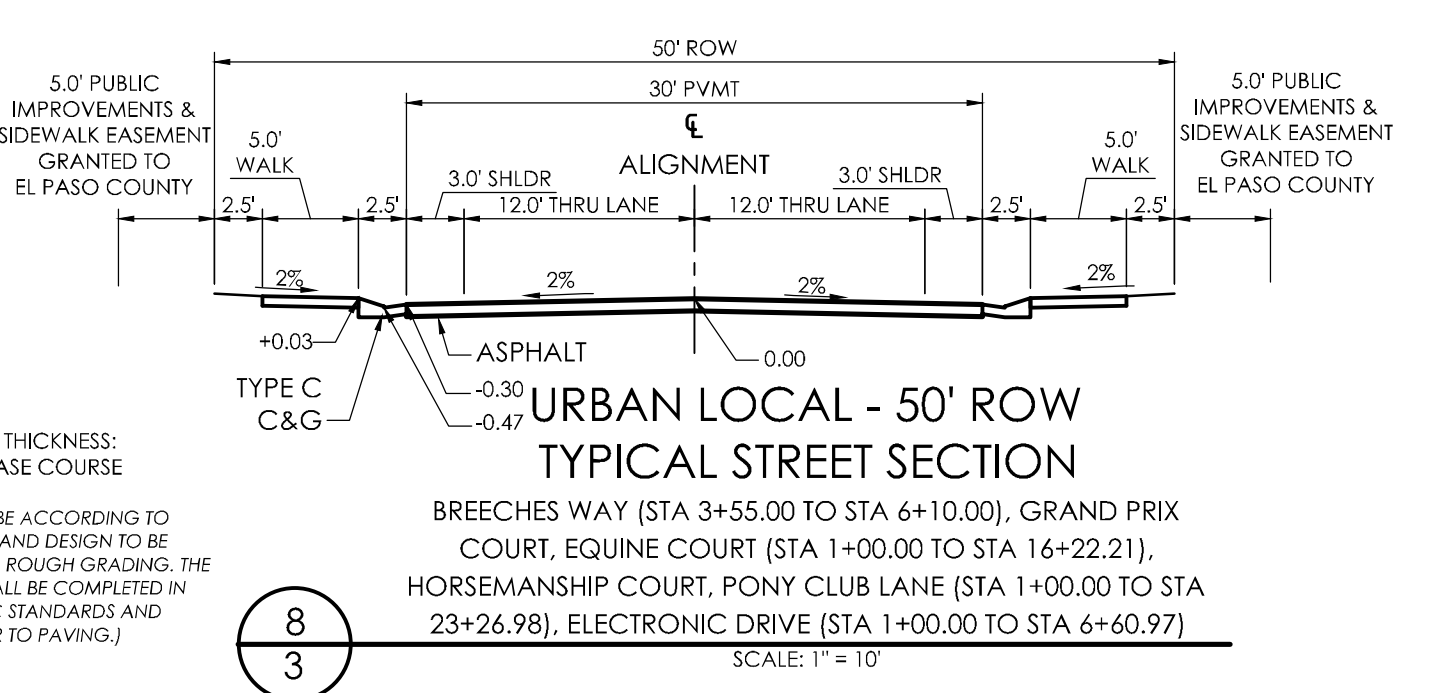
URBAN LOCAL (LOW VOLUME) - 50' ROW TYPICAL STREET SECTION  
BREECHES WAY (STA 1+00.00 TO STA 3+55.00), DAPPLES COURT, EQUINE COURT (STA 16+22.21 TO STA 23+43.09), FARRIER COURT, HALF CHAPS COURT, PONY CLUB LANE (STA 23+26.98 TO STA 25+31.22), SHOW HUNTER WAY  
SCALE 1"=10'

9  
3



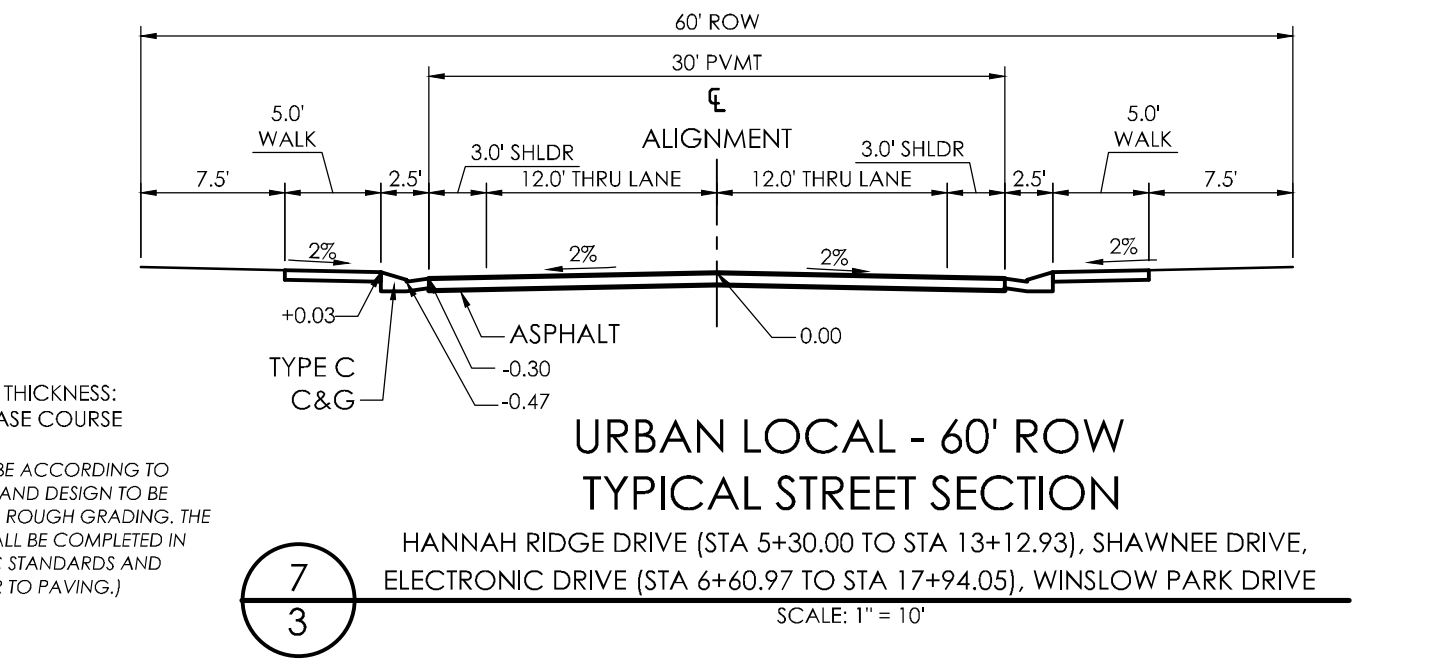
TYPICAL CUL-DE-SAC DETAIL  
SCALE: NTS

17  
3



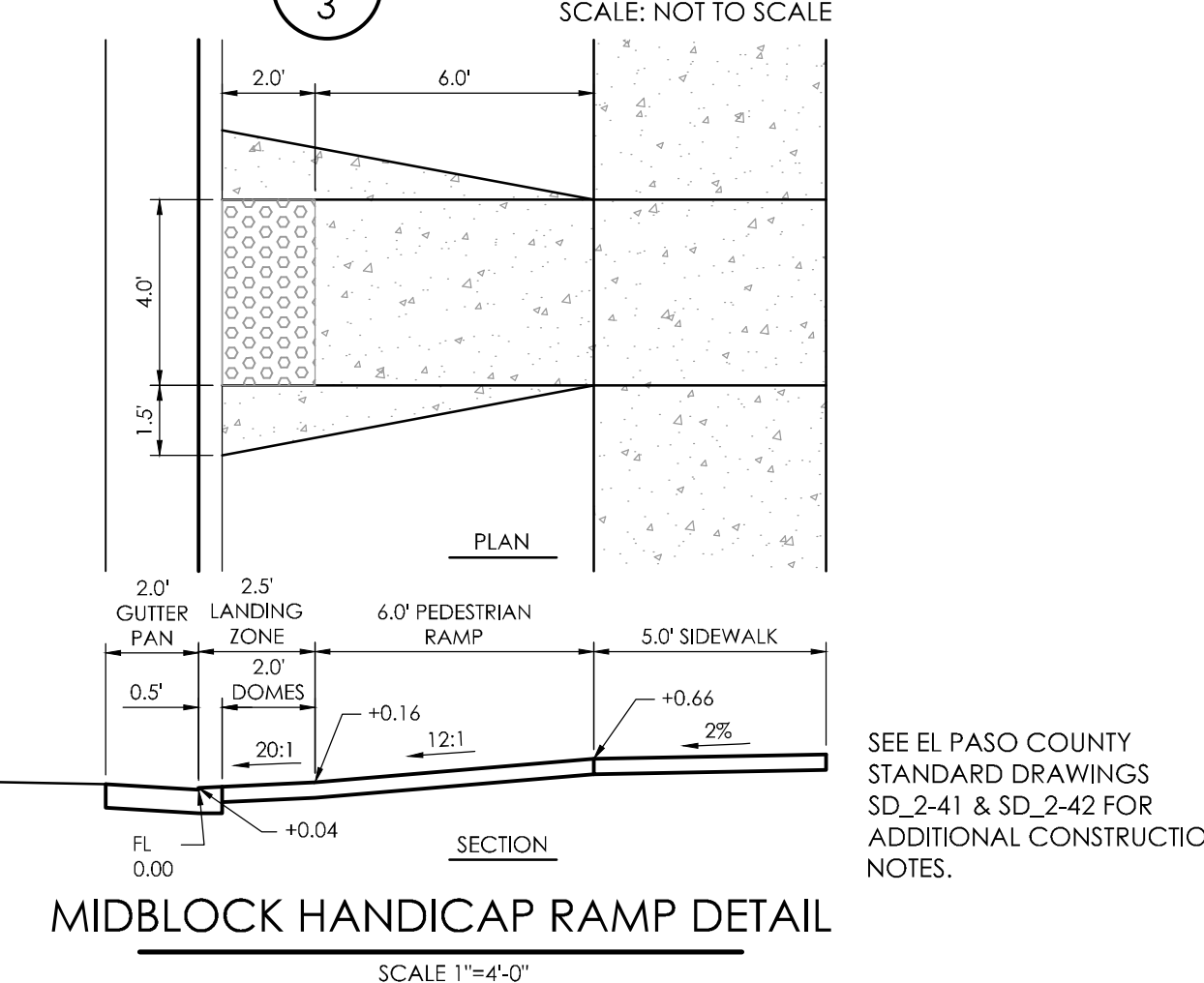
URBAN LOCAL - 50' ROW TYPICAL STREET SECTION  
BREECHES WAY (STA 3+55.00 TO STA 6+10.00), GRAND PRIX COURT, EQUINE COURT (STA 1+00.00 TO STA 16+22.21), HORSEMANSHIP COURT, PONY CLUB LANE (STA 1+00.00 TO STA 23+26.98), ELECTRONIC DRIVE (STA 1+00.00 TO STA 6+60.97)  
SCALE 1"=10'

8  
3



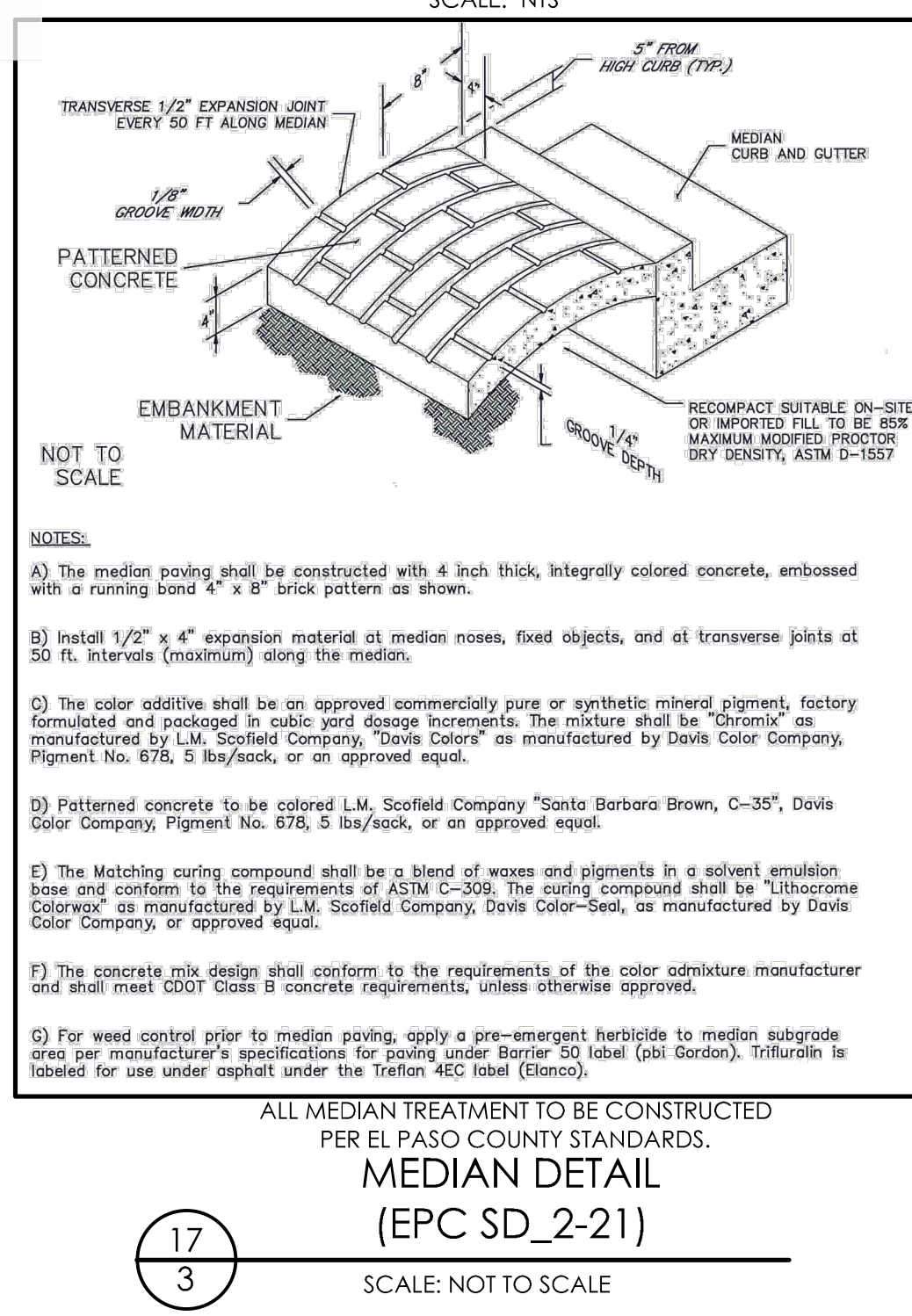
URBAN LOCAL - 60' ROW TYPICAL STREET SECTION  
HANNAH RIDGE DRIVE (STA 5+30.00 TO STA 13+12.93), SHAWNEE DRIVE, ELECTRONIC DRIVE (STA 6+60.97 TO STA 17+94.05), WINSLOW PARK DRIVE  
SCALE 1"=10'

7  
3



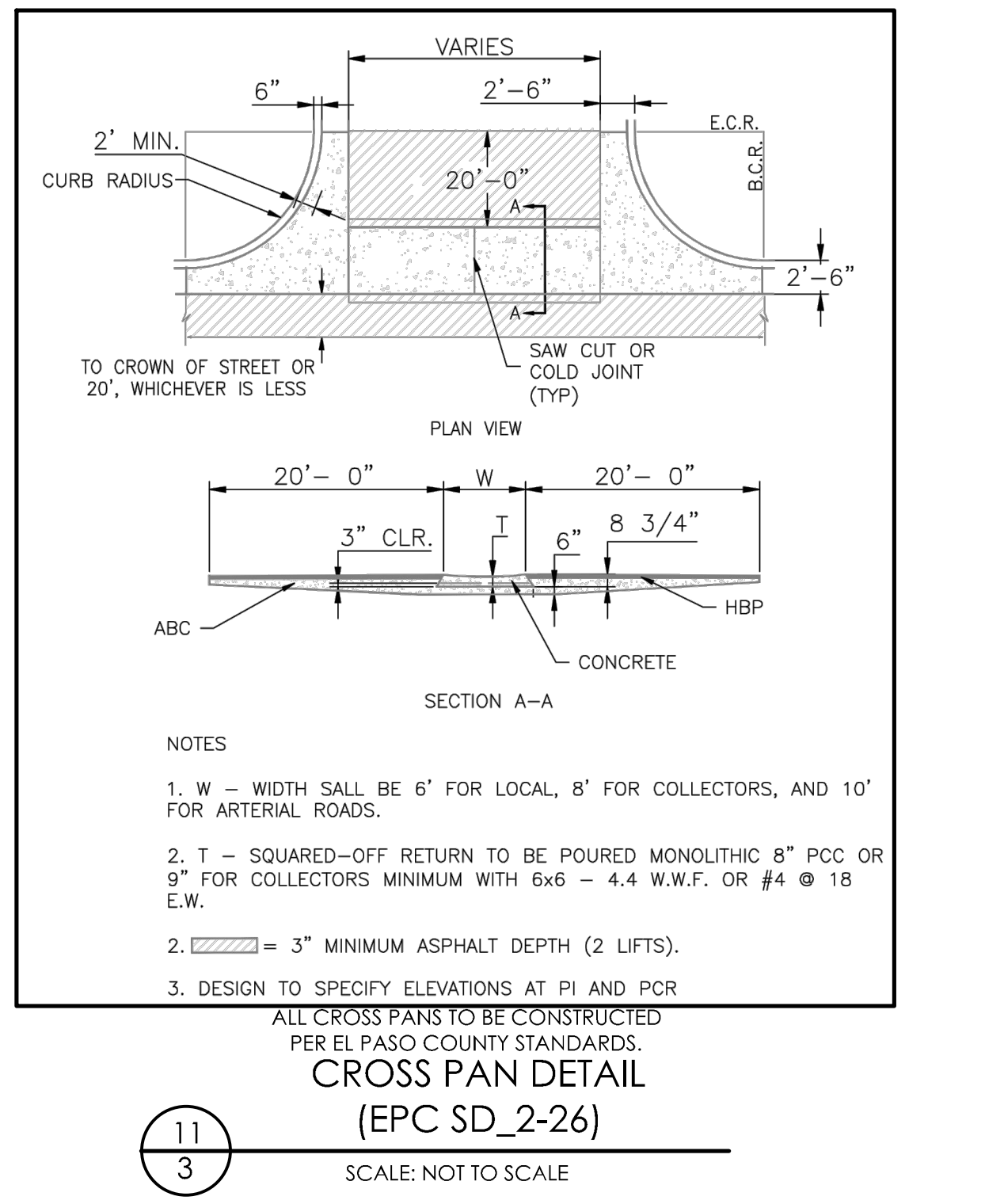
MIDBLOCK HANDICAP RAMP DETAIL  
SCALE 1"=4'-0"

11  
3



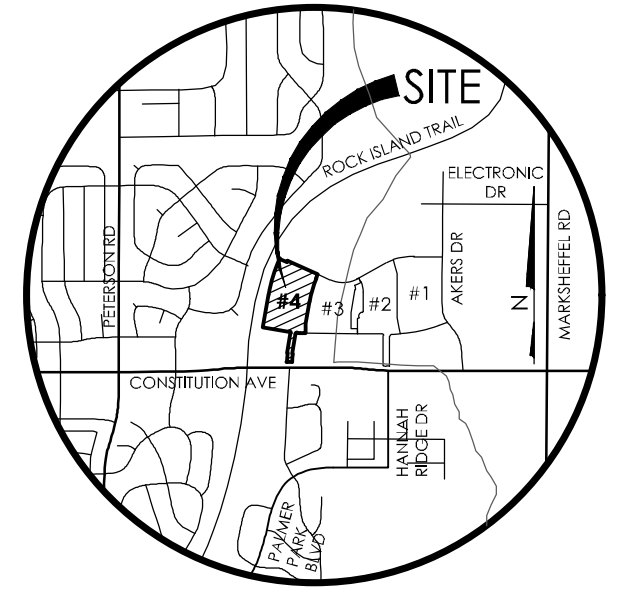
MEDIAN DETAIL (EPC SD\_2-21)  
SCALE: NOT TO SCALE

17  
3



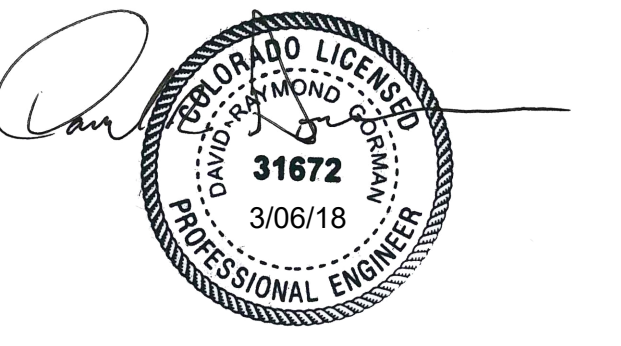
CROSS PAN DETAIL (EPC SD\_2-26)  
SCALE: NOT TO SCALE

11  
3



VICINITY MAP

BENCHMARK  
THE BENCHMARK FOR THESE PLANS IS THE TOP OF #4 REBAR, PANEL POINT NO. 1, LOCATED ON THE SOUTH EDGE OF CONSTITUTION AVE AND THE WEST EDGE OF THE ROCK ISLAND TRAIL, 535 FEET WEST OF THE CENTERLINE OF SHAWNEE DR. ELEVATION = 6486.63. (EPC DATUM ELEVATION = 6485.29).  
BASIS OF BEARINGS  
BEARING REFERRED TO HEREIN ARE BASED ON THE WEST LINE OF TRACT GG, HANNAH RIDGE AT FEATHERGRASS FILING NO. 1, ALSO BEING THE EASTERLY RIGHT-OF-WAY LINE OF CHICAGO, ROCK ISLAND AND PACIFIC RAILROAD, ASSUMED TO BEAR N09°45'59"E AND MONUMENTED AT EACH END WITH PLASTIC CAPS. 4M, LS 13225'.



**MVE, INC.**  
ENGINEERS, SURVEYORS  
1903 Kellar Street, Suite 200, Colorado Springs, CO 80909 719.635.5736

AS-BUILT  
12-7-2023

DESIGNED BY DRG  
DRAWN BY TJW  
CHECKED BY  
AS-BUILT BY  
CHECKED BY

HANNAH RIDGE  
AT FEATHERGRASS NO. 4

GENERAL NOTES  
& DETAILS

MVE PROJECT **60970**  
MVE DRAWING 60970032-F4

SEPTEMBER 21, 2017  
SHEET 3

HUNTER JUMPER DRIVE  
CENTERLINE DATA:

STA-1+00.00  
N: 11228.52  
E: 4886.61

S 80°14'01" E  
255.00'

STA-3+55.00  
N: 11185.27  
E: 5137.92

S 80°14'01" E  
28.41'

L=49.33'  
Δ=9°25'17"  
R=300.00'

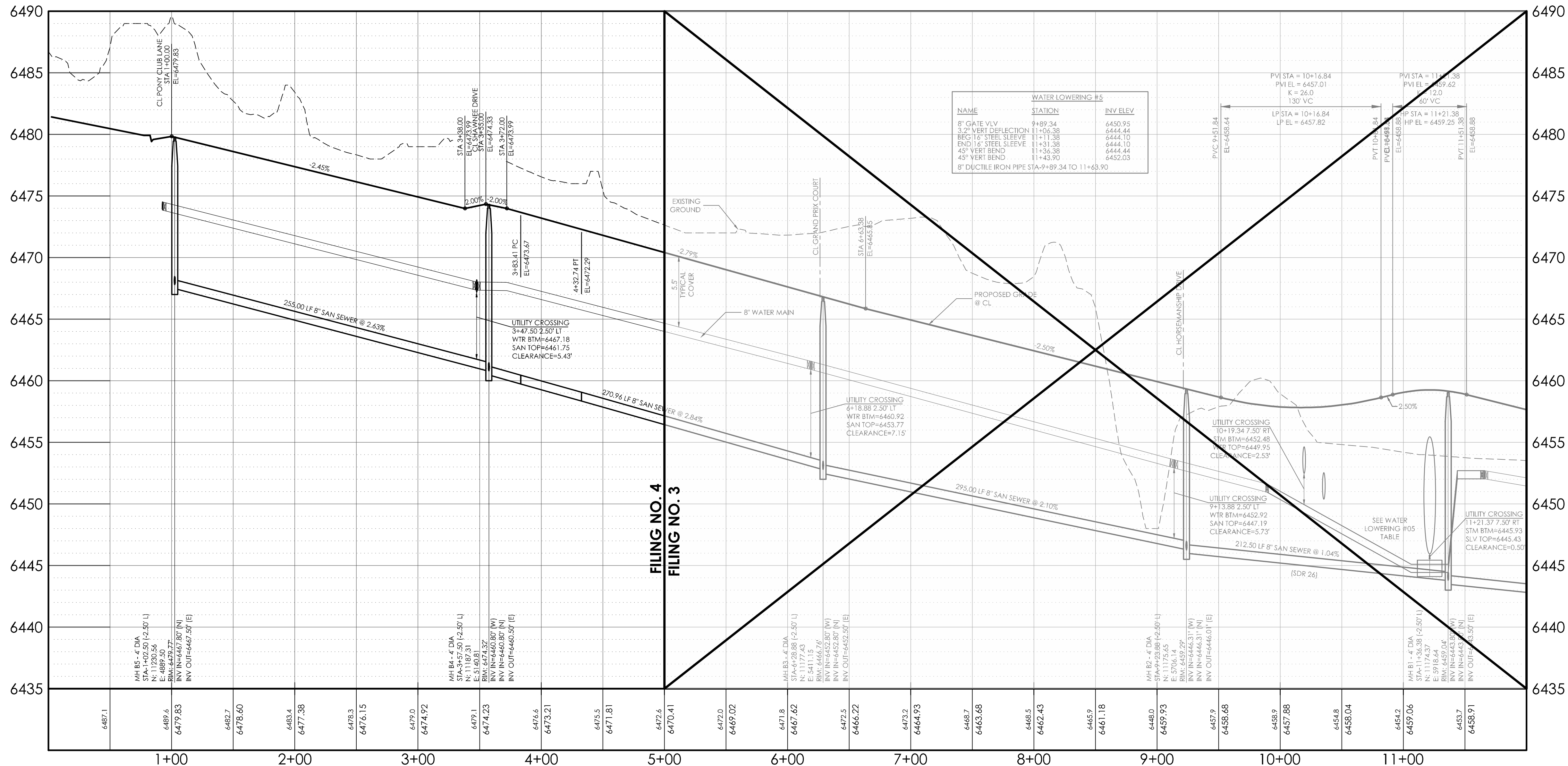
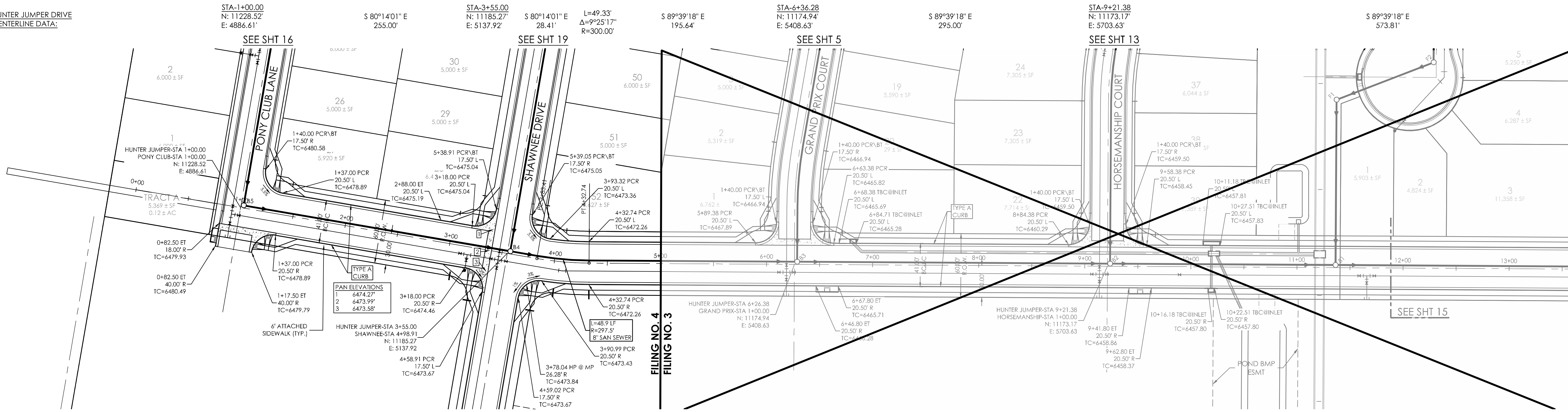
S 89°39'18" E  
195.64'

STA-6+36.28  
N: 11174.94  
E: 5703.63

S 89°39'18" E  
295.00'

STA-9+21.38  
N: 11173.17  
E: 5703.63

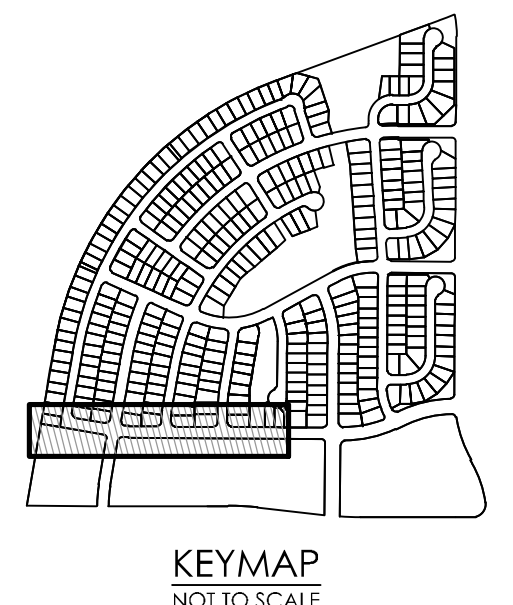
S 89°39'18" E  
573.81'



AS-BUILT  
12-7-2023

**CURB TRANSITION LEGEND**  
 ○ CURB TRANSITIONS BETWEEN TYPE A AND TYPE C (MODIFIED)

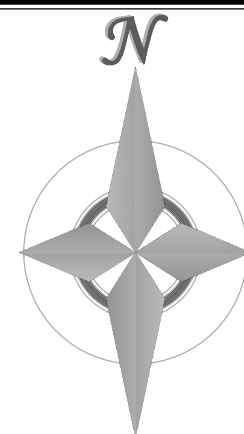
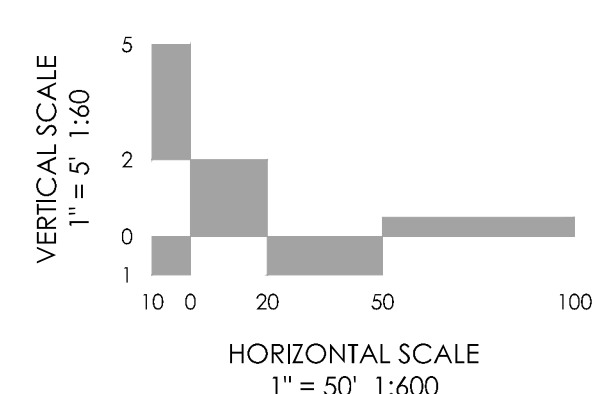
NOTES:  
 REFERENCES TO FILING NO. 3 ARE OF THE APPROVED CONSTRUCTION PLANS FOR HANNAH RIDGE AT FEATHERGRASS FILING NO. 3 PREPARED BY MVE, INC. DATED SEPTEMBER 6, 2017.  
 SEE STREET / STORM DRAIN PHASING PLAN FOR PHASED CONSTRUCTION LIMITS.  
 SEE UTILITY PHASING PLAN FOR PHASED CONSTRUCTION LIMITS AND REQUIRED INTERIM MEASURES.  
 CURVILINEAR SEWER PIPE NOTE:  
 THERE IS NO DEFLECTION ALLOWED AT THE JOINTS ON 12-INCH AND SMALLER SEWER PIPE. NOTICE: MECHANICAL MEANS SHOULD NOT BE EMPLOYED TO ACCOMPLISH THESE RADII. IT IS THE INTENT THAT THE WORKER SHOULD ACCOMPLISH THIS MANUALLY IN THE TRENCH. ON 4-INCH TO 12-INCH SEWER PIPE, THE CURVE SHOULD BE ACCOMPLISHED BY BENDING THE PIPE RATHER THAN DEFLECTING JOINTS. THERE SHALL BE NO DEFLECTION IN THE JOINTS UPON COMPLETION TO AVOID OVER-STRESSING THE BELL AND PREVENT POSSIBLE BREAKAGE AND/OR LEAKS.



THE BENCHMARK FOR THESE PLANS IS THE TOP OF #4 REBAR, PANEL POINT NO. 1, LOCATED ON THE SOUTH EDGE OF CONSTITUTION AVE AND THE WEST EDGE OF THE ROCK ISLAND TRAIL, 335 FEET WEST OF THE CENTERLINE OF SHAWNEE DR. ELEVATION = 6486.63. (EPC DATUM ELEVATION = 6485.29).  
 BASIS OF BEARINGS  
 BEARING REFERRED TO HEREIN ARE BASED ON THE WEST LINE OF TRACT CO, HANNAH RIDGE AT FEATHERGRASS FILING NO. 1, ALSO BEING THE EASTERLY RIGHT-OF-WAY LINE OF CHICAGO, ROCK ISLAND AND PACIFIC RAILROAD, ASSUMED TO BEAR N0°45'59" E AND MONUMENTED AT EACH END WITH PLASTIC CAPS, 4M, LS 13225'.

**DESIGN DATA:**  
 SIDEWALKS: WIDTH 5'  
 LOCATION: Attached  Detached   
 DESIGN SPEED 25 MPH  
 CURB TYPE:      
 ROW WIDTH: 60' FL-FL 40.00'  
 STREET TYPE: LOCAL

**PAVEMENT:**  
 TYPE: HMA  PCC   
 THICKNESS: \_\_\_\_\_  
 COMPOSITE SECTION:  
 HMA \_\_\_\_\_ BASE \_\_\_\_\_  
 SUBGRADE STABILIZATION:  
 CHEMICAL TYPE \_\_\_\_\_ MECHANICAL THICKNESS \_\_\_\_\_

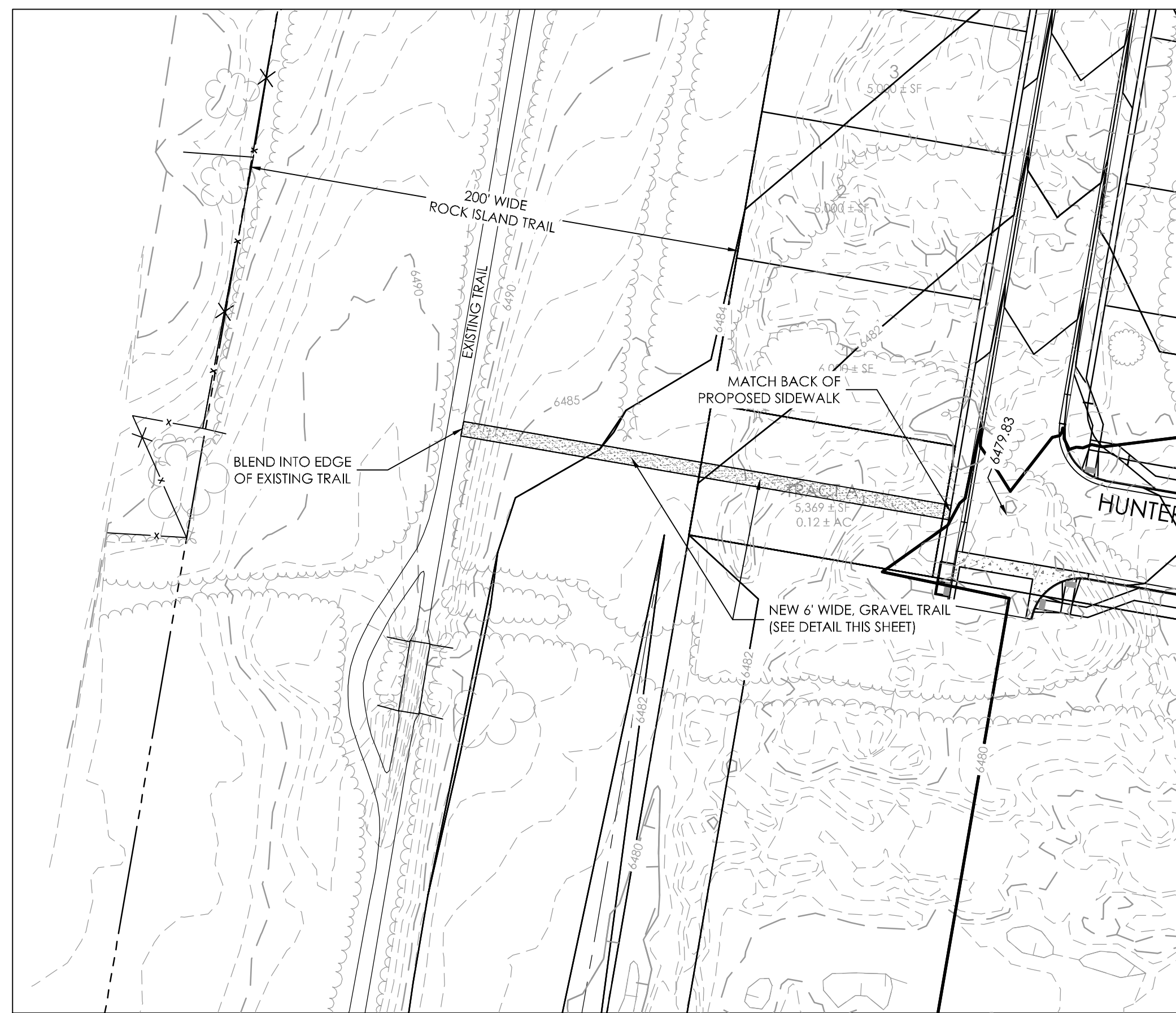


**MVE, INC.**  
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 www.mvecivil.com

REVISIONS

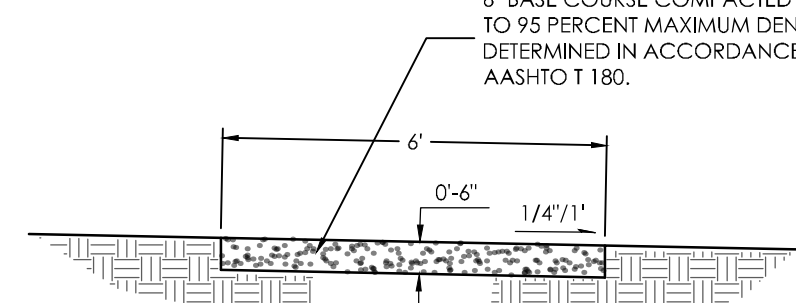
MVE PROJECT **60970**  
 MVE DRAWING **60970050-F4**  
**SEPTEMBER 21, 2017**  
 DESIGNED BY TJW  
 DRAWN BY TJW  
 CHECKED BY \_\_\_\_\_  
 AS-BUILTS BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

**HUNTER JUMPER DRIVE PLAN/ PROFILE**  
 FROM STA 1+00.00  
 TO STA 12+00.00  
 HANNAH RIDGE AT FEATHERGRASS NO. 4



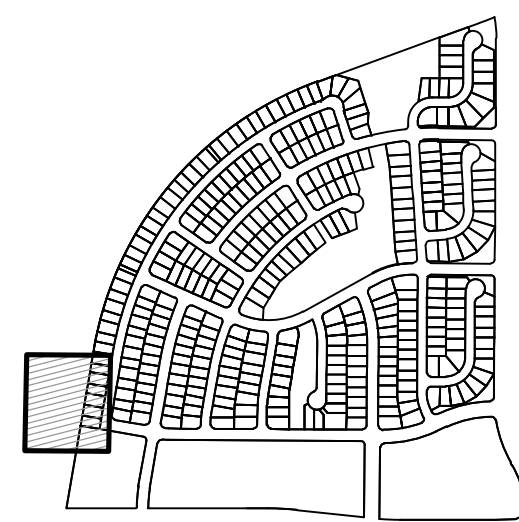
TRAIL CONNECTION PLAN

SCALE: 1" = 50'

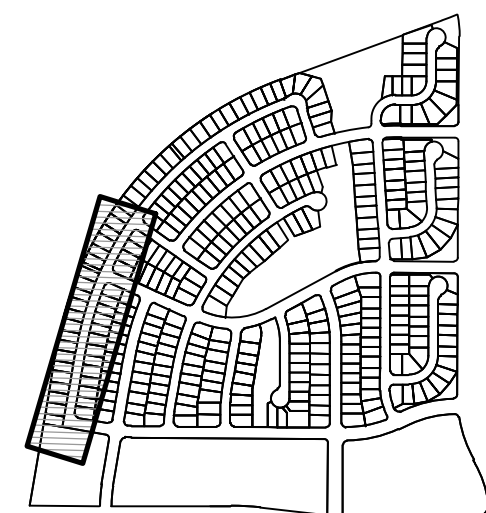


TYPICAL TRAIL SECTION

SCALE: NOT TO SCALE



KEYMAP  
NOT TO SCALE



KEYMAP  
NOT TO SCALE

NOTES:

REFERENCES TO FILING NO. 3 ARE OF THE APPROVED CONSTRUCTION PLANS FOR HANNAH RIDGE AT FEATHERGRASS FILING NO. 3 PREPARED BY MVE, INC. DATED SEPTEMBER 6, 2017.

SEE STREET / STORM DRAIN PHASING PLAN FOR PHASED CONSTRUCTION LIMITS.

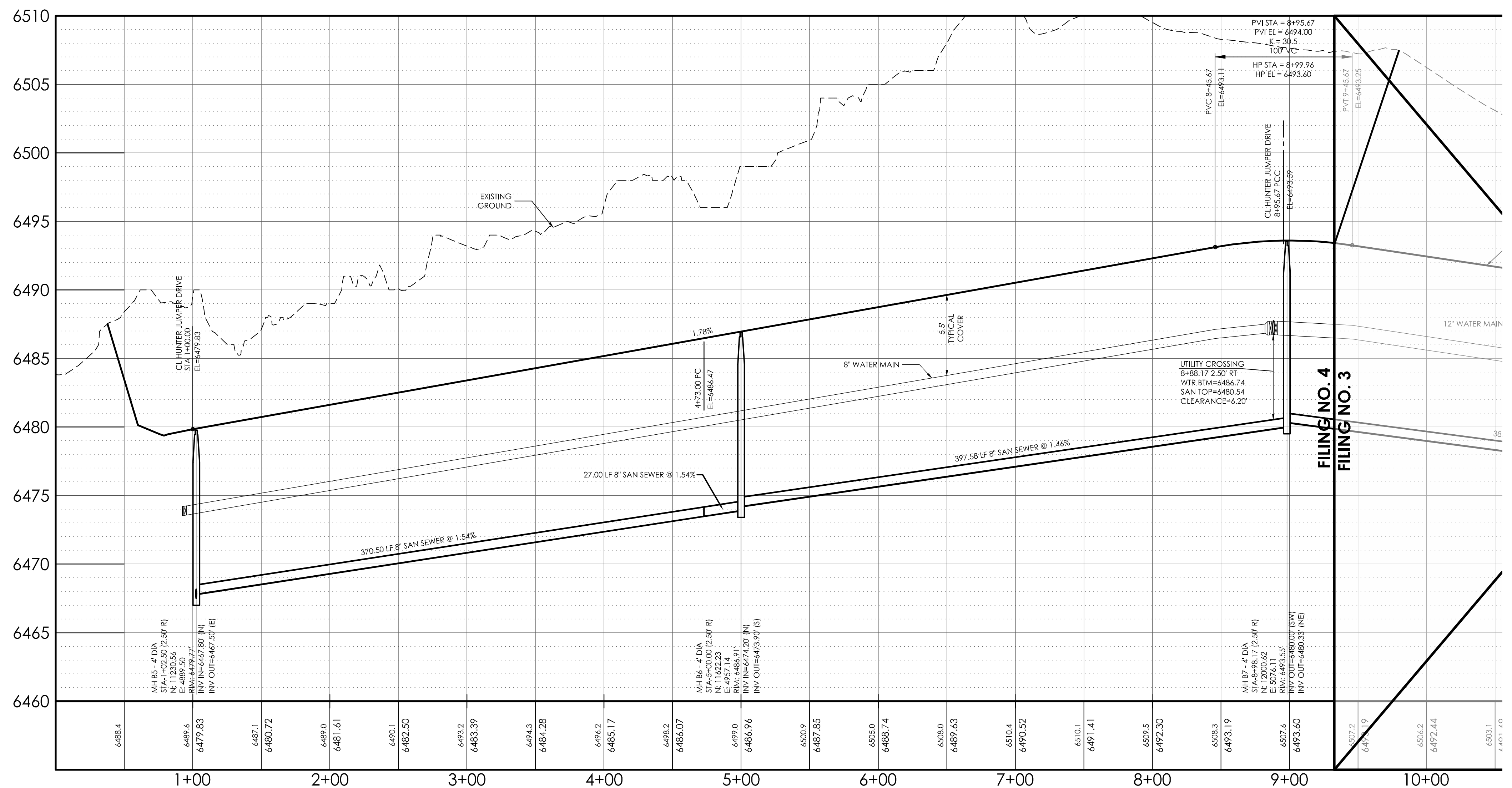
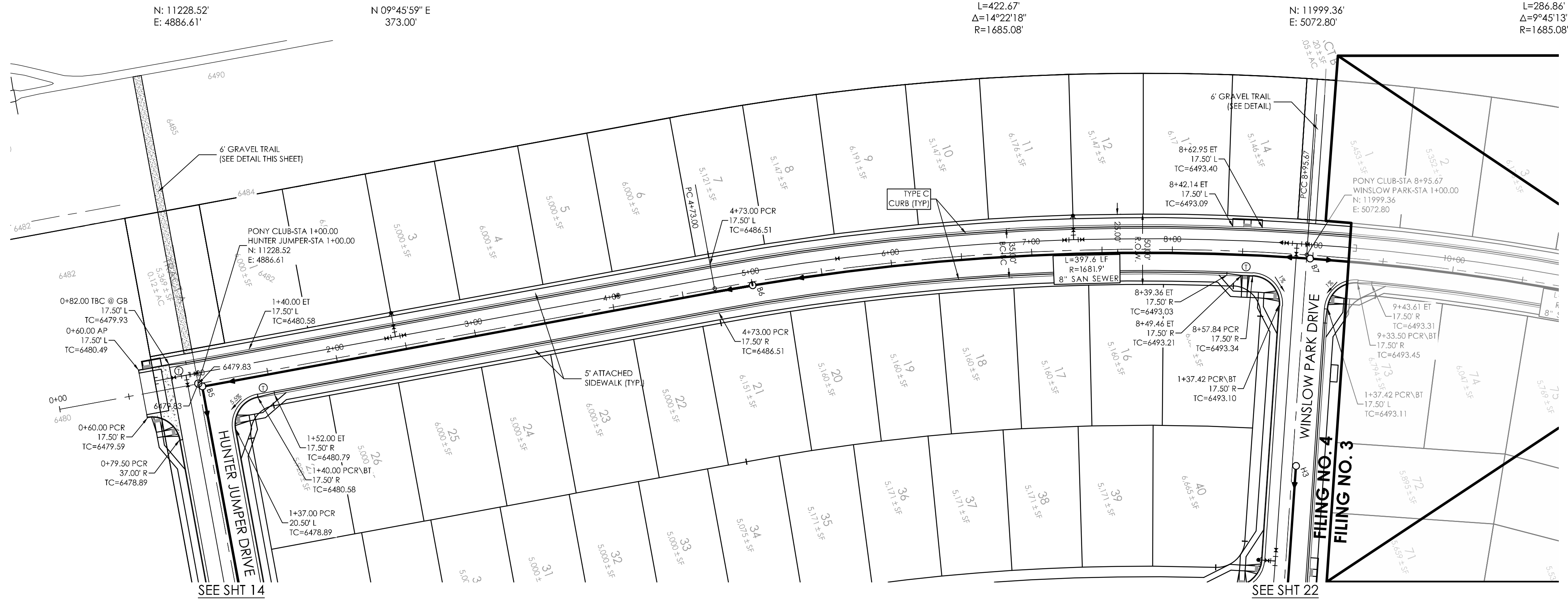
SEE UTILITY PHASING PLAN FOR PHASED CONSTRUCTION LIMITS AND REQUIRED INTERIM MEASURES.

**CURVILINEAR SEWER PIPE NOTE:**  
THERE IS NO DEFLECTION ALLOWED AT THE JOINTS ON 12-INCH AND SMALLER SEWER PIPE. NOTICE: MECHANICAL MEANS SHOULD NOT BE EMPLOYED TO ACCOMPLISH THESE RADII. IT IS THE INTENT THAT THE WORKER SHOULD ACCOMPLISH THIS MANUALLY IN THE TRENCH. ON 4-INCH TO 12-INCH SEWER PIPE, THE CURVE SHOULD BE ACCOMPLISHED BY BENDING THE PIPE RATHER THAN DEFLECTING JOINTS. THERE SHALL BE NO DEFLECTION IN THE JOINTS UPON COMPLETION TO AVOID OVER-STRESSING THE BELL AND PREVENT POSSIBLE BREAKAGE AND/OR LEAKS.

LEGEND

- ① CURB TRANSITIONS BETWEEN TYPE A AND TYPE C (MODIFIED)

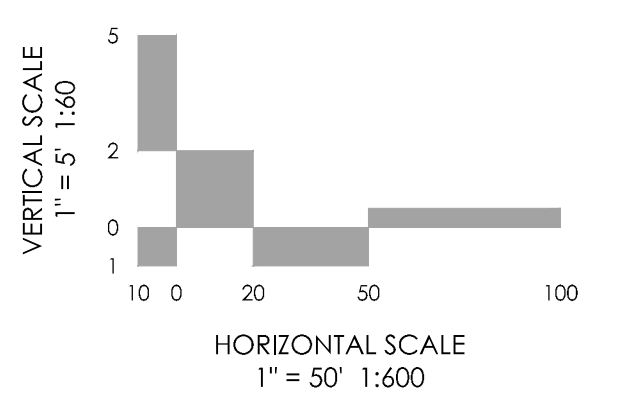
**AS-BUILT**  
**12-7-2023**



THE BENCHMARK FOR THESE PLANS IS THE TOP OF #4 REBAR, PANEL POINT NO. 1, LOCATED ON THE SOUTH EDGE OF CONSTITUTION AVE AND THE WEST EDGE OF THE ROCK ISLAND TRAIL, 535 FEET WEST OF THE CENTERLINE OF SHANNON DR. ELEVATION = 6486.63. (EPC DATUM ELEVATION = 6485.29).  
BASIS OF BEARINGS  
BEARING REFERRED TO HEREIN ARE BASED ON THE WEST LINE OF TRACT GG, HANNAH RIDGE AT FEATHERGRASS FILING NO. 1, ALSO BEING THE EASTERLY RIGHT-OF-WAY LINE OF CHICAGO, ROCK ISLAND AND PACIFIC RAILROAD, ASSUMED TO BEAR N09°45'59"E AND MONUMENTED AT EACH END WITH PLASTIC CAPS. "AM, LS 13225".

**DESIGN DATA:**  
SIDEWALKS: WIDTH 5'  
LOCATION: Attached  Detached   
DESIGN SPEED 25 MPH  
CURB TYPE:  A  B  C  D  
ROW WIDTH: 50' FL-FL 32.33'  
STREET TYPE: LOCAL

**PAVEMENT:**  
TYPE: HMA  PCC   
THICKNESS: \_\_\_\_\_  
COMPOSITE SECTION:  
HMA \_\_\_\_\_ BASE \_\_\_\_\_  
SUBGRADE STABILIZATION:  
CHEMICAL TYPE \_\_\_\_\_ MECHANICAL THICKNESS \_\_\_\_\_



**MVE, INC.**  
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REVISIONS

MVE PROJECT **60970**  
MVE DRAWING **60970052-F4**  
**SEPTEMBER 21, 2017**  
DESIGNED BY TJW  
DRAWN BY TJW  
CHECKED BY \_\_\_\_\_  
AS-BUILT BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

**PONY CLUB LANE**  
FROM STA 1+00.00  
TO STA 14+00.00  
HANNAH RIDGE AT FEATHERGRASS NO. 4  
**SHEET 16 OF**

L=108.54'  
Δ=99°40'49"  
R=642.42'

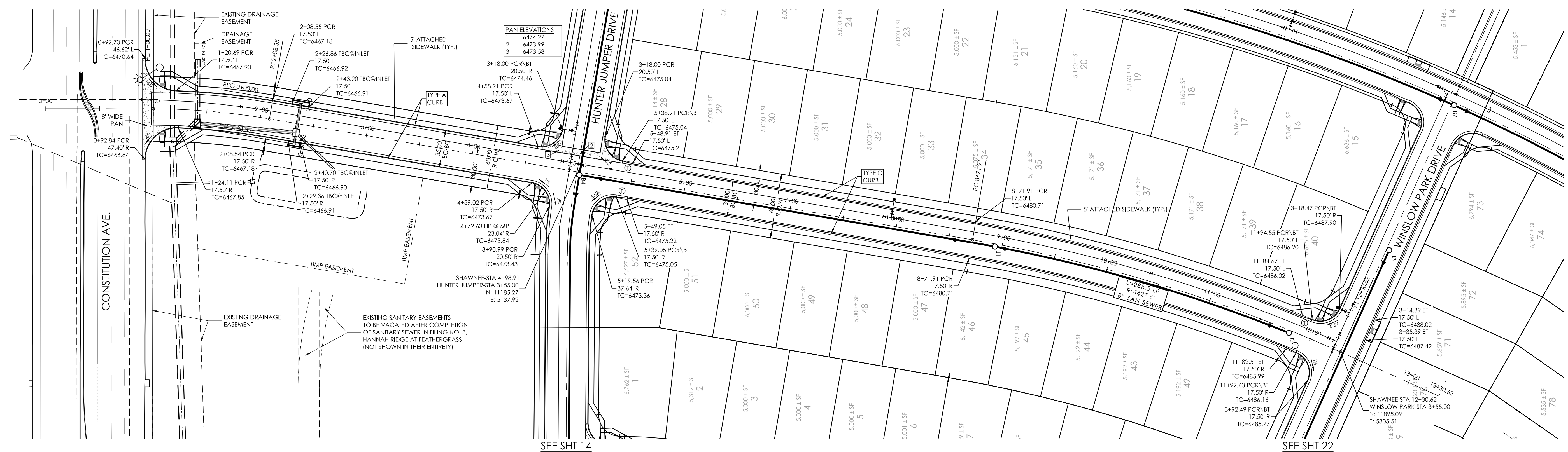
N 09°45'59" E  
290.37'

N: 11185.27'  
E: 5137.92'

N 09°45'59" E  
373.00'

L=358.71'  
Δ=142°2'18"  
R=1430.08'

N: 11895.09'  
E: 5305.51'



**AS-BUILT**  
**12-7-2023**

**LEGEND**

① CURB TRANSITIONS BETWEEN TYPE A AND TYPE C (MODIFIED)

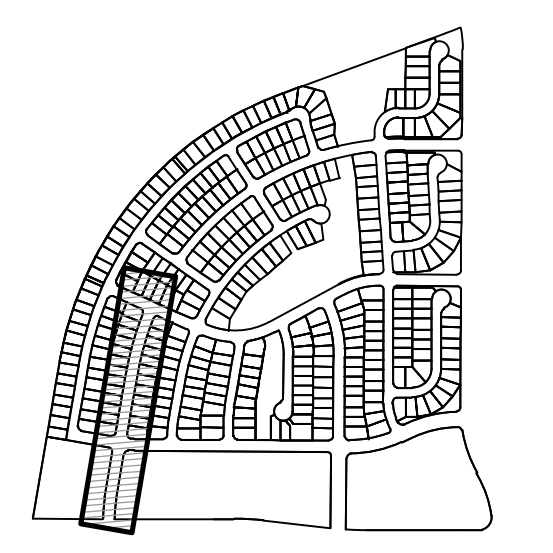
**NOTES:**

REFERENCES TO FILING NO. 3 ARE OF THE APPROVED CONSTRUCTION PLANS FOR HANNAH RIDGE AT FEATHERGRASS FILING NO. 3 PREPARED BY MVE, INC. DATED SEPTEMBER 6, 2017.

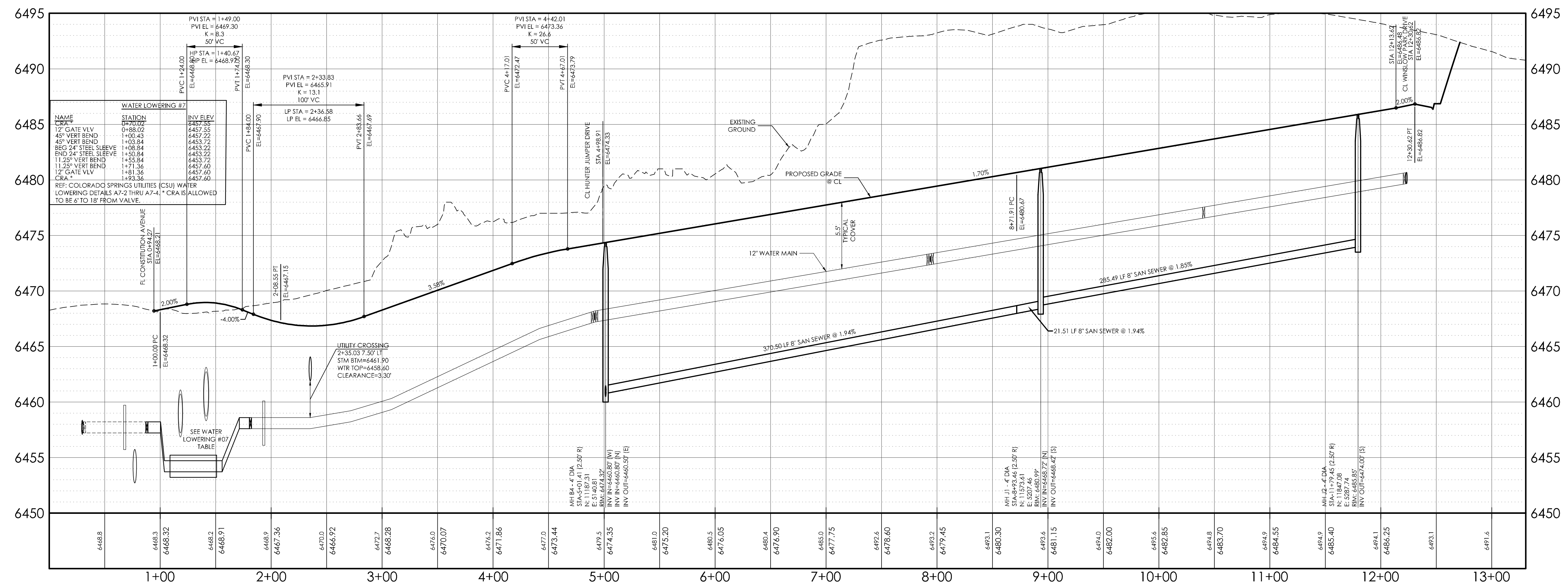
SEE STREET / STORM DRAIN PHASING PLAN FOR PHASED CONSTRUCTION LIMITS.

SEE UTILITY PHASING PLAN FOR PHASED CONSTRUCTION LIMITS AND REQUIRED INTERIM MEASURES.

**CURVILINEAR SEWER PIPE NOTE:**  
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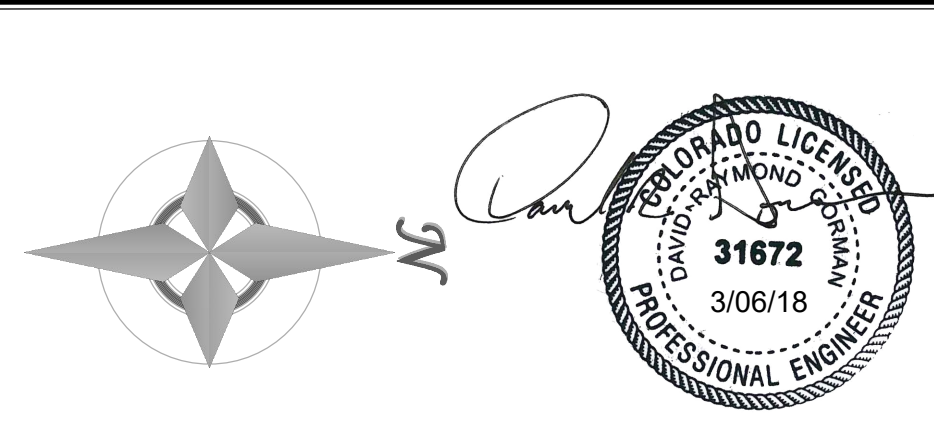
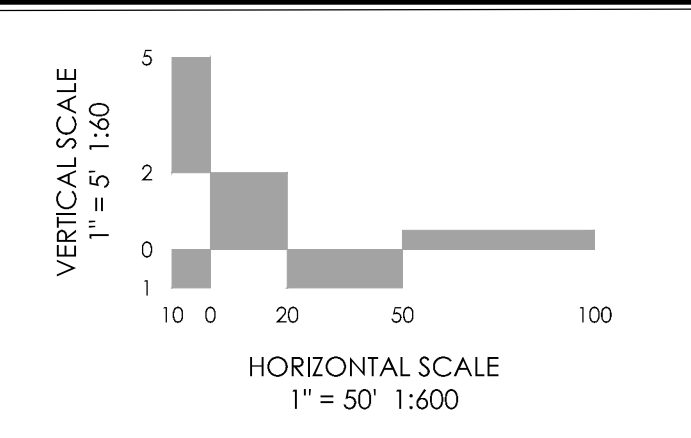
KEYMAP  
NOT TO SCALE



THE BENCHMARK FOR THESE PLANS IS THE TOP OF #4 REBAR, PANEL POINT NO. 1, LOCATED ON THE SOUTH EDGE OF CONSTITUTION AVE AND THE WEST EDGE OF THE ROCK ISLAND TRAIL, 555 FEET WEST OF THE CENTERLINE OF SHAWNEE DR. ELEVATION = 6486.63. (EPC DATUM ELEVATION = 6485.29).  
BASIS OF BEARINGS BEARING REFERRED TO HEREIN ARE BASED ON THE WEST LINE OF TRACT G.C. HANNAH RIDGE AT FEATHERGRASS FILING NO. 1, ALSO BEING THE EASTERLY RIGHT-OF-WAY LINE OF CHICAGO, ROCK ISLAND AND PACIFIC RAILROAD, ASSUMED TO BEAR N09°45'59" E AND MONUMENTED AT EACH END WITH PLASTIC CAPS. "4M, LS 13225".

**DESIGN DATA:**  
SIDEWALKS: WIDTH: 5'  
LOCATION: Attached  Detached   
DESIGN SPEED: 25 MPH  
CURB TYPE: A  B  C  D   
ROW WIDTH: 60' FL-FL VARIES  
STREET TYPE: LOCAL

**PAVEMENT:**  
TYPE: HMA  PCC   
THICKNESS: \_\_\_\_\_  
COMPOSITE SECTION:  
HMA \_\_\_\_\_ BASE \_\_\_\_\_  
SUBGRADE STABILIZATION:  
CHEMICAL TYPE \_\_\_\_\_ MECHANICAL THICKNESS \_\_\_\_\_

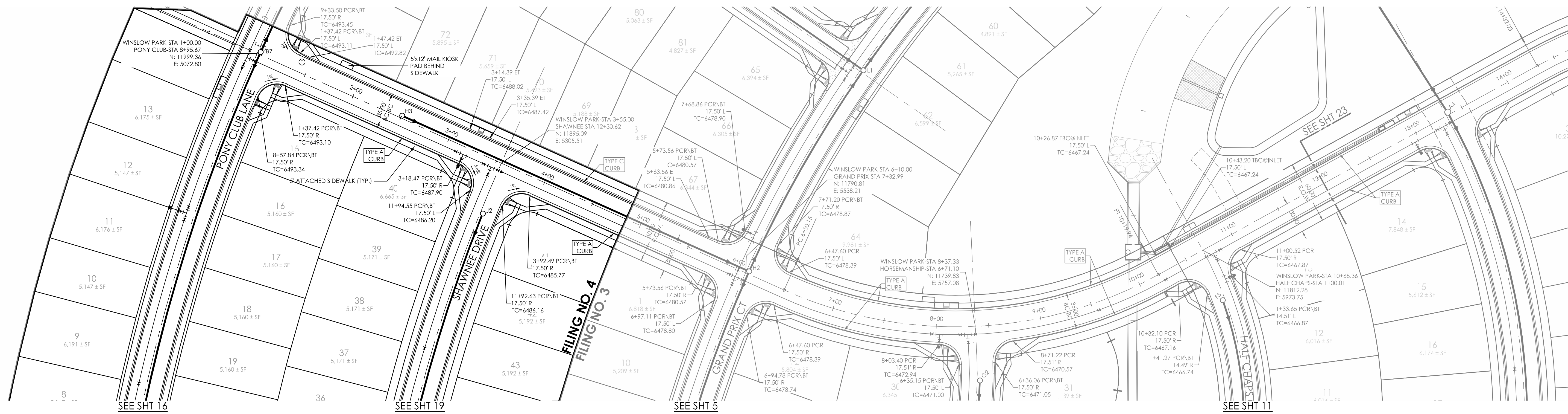


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**REVISIONS**

MVE PROJECT **60970**  
MVE DRAWING **60970055-F4**  
**SEPTEMBER 21, 2017**  
DESIGNED BY TJW  
DRAWN BY TJW  
CHECKED BY \_\_\_\_\_  
AS-BUILT BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

**SHAWNEE DRIVE**  
FROM STA 1+00.00  
TO STA 12+30.62  
HANNAH RIDGE AT FEATHERGRASS NO. 4



**AS-BUILT**  
**12-7-2023**

**LEGEND**

- ① CURB TRANSITIONS BETWEEN TYPE A AND TYPE C (MODIFIED)

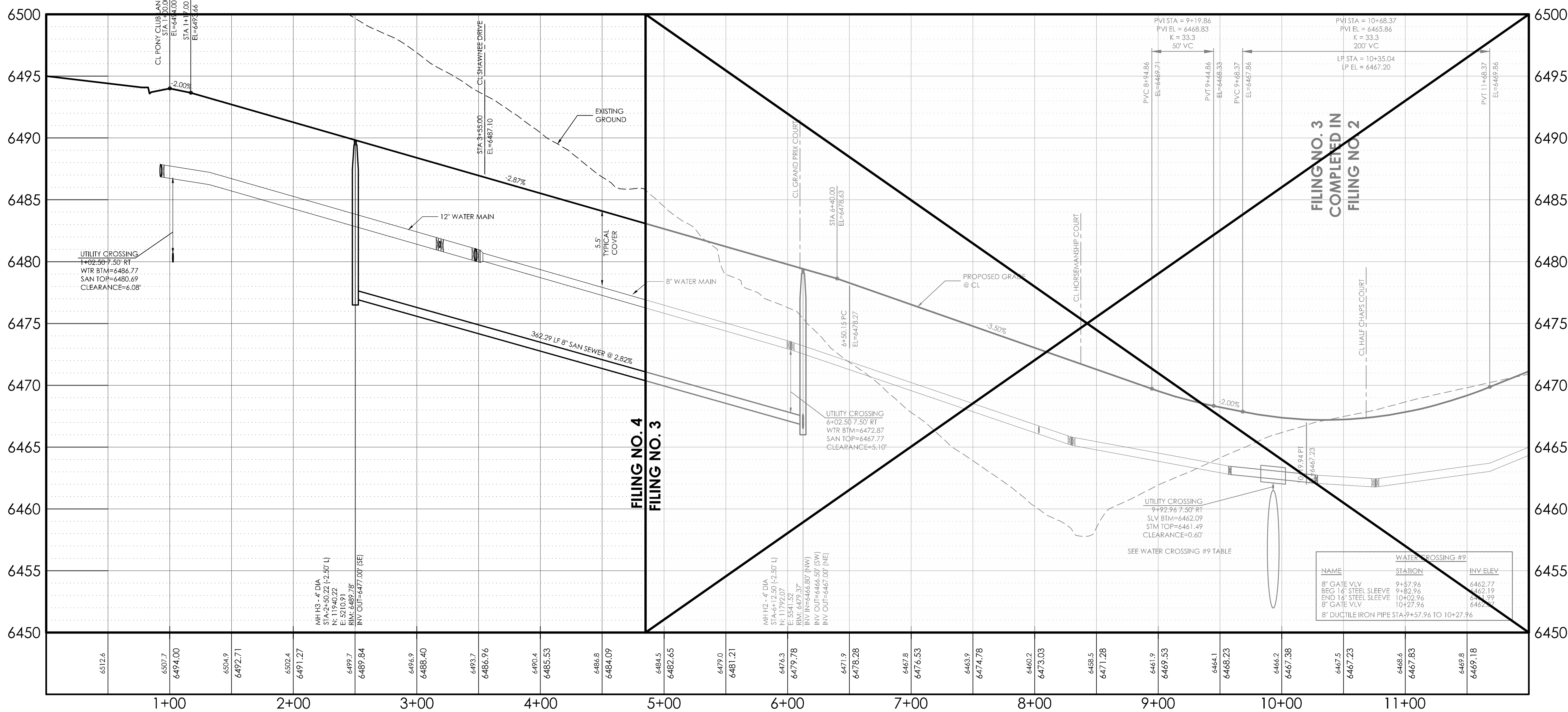
**NOTES:**

REFERENCES TO FILING NO. 3 ARE OF THE APPROVED CONSTRUCTION PLANS FOR HANNAH RIDGE AT FEATHERGRASS FILING NO. 3 PREPARED BY MVE, INC. DATED SEPTEMBER 6, 2017.

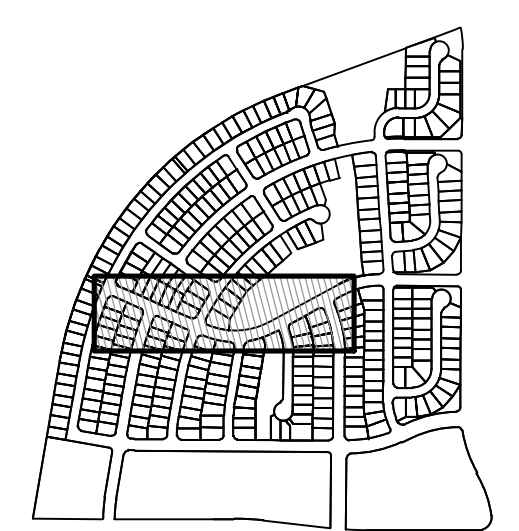
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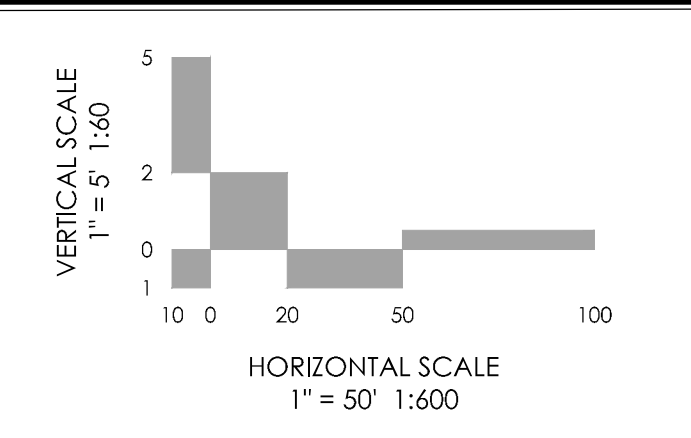
NAME	STATION	INV. ELEV.
8" GATE VALVE	9+57.96	6462.77
8" DUCTILE IRON PIPE	9+57.96	6462.19
8" GATE VALVE	9+57.96	6462.19
8" DUCTILE IRON PIPE	10+27.96	6462.19
8" DUCTILE IRON PIPE	10+27.96	6462.19
8" DUCTILE IRON PIPE	10+27.96	6462.19



KEYMAP  
NOT TO SCALE

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**DESIGN DATA:**  
SIDEWALKS: WIDTH: 5'  
LOCATION: Attached  Detached   
DESIGN SPEED: 25 MPH  
CURB TYPE:      
ROW WIDTH: 60' FL-FL VARIES  
STREET TYPE: LOCAL  
PAVEMENT:  
TYPE: HMA  PCC   
THICKNESS: \_\_\_\_\_  
COMPOSITE SECTION:  
HMA \_\_\_\_\_ BASE \_\_\_\_\_  
SUBGRADE STABILIZATION:  
CHEMICAL TYPE \_\_\_\_\_ MECHANICAL THICKNESS \_\_\_\_\_



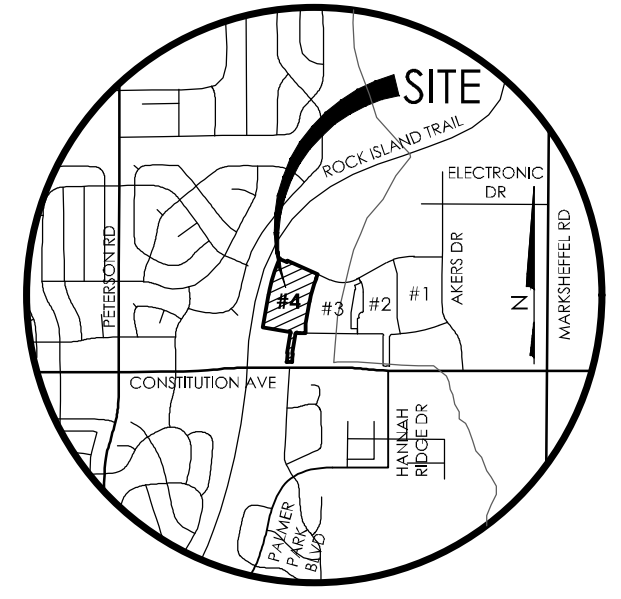
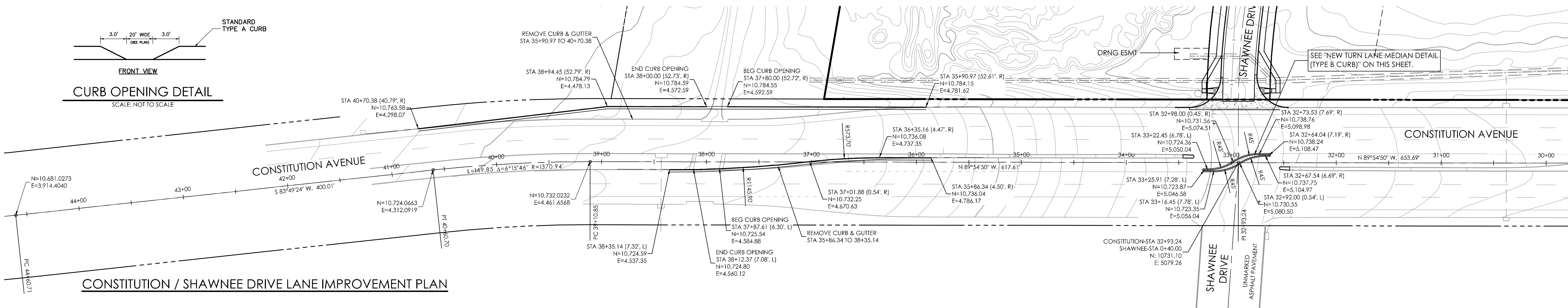
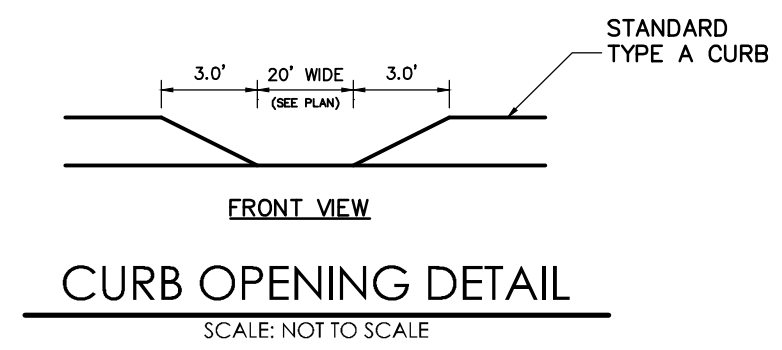
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REVISIONS

NO.	DATE	DESCRIPTION

MVE PROJECT **60970**  
MVE DRAWING **60970058-F4**  
**SEPTEMBER 21, 2017**  
DESIGNED BY TJW  
DRAWN BY TJW  
CHECKED BY \_\_\_\_\_  
AS-BUILT BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

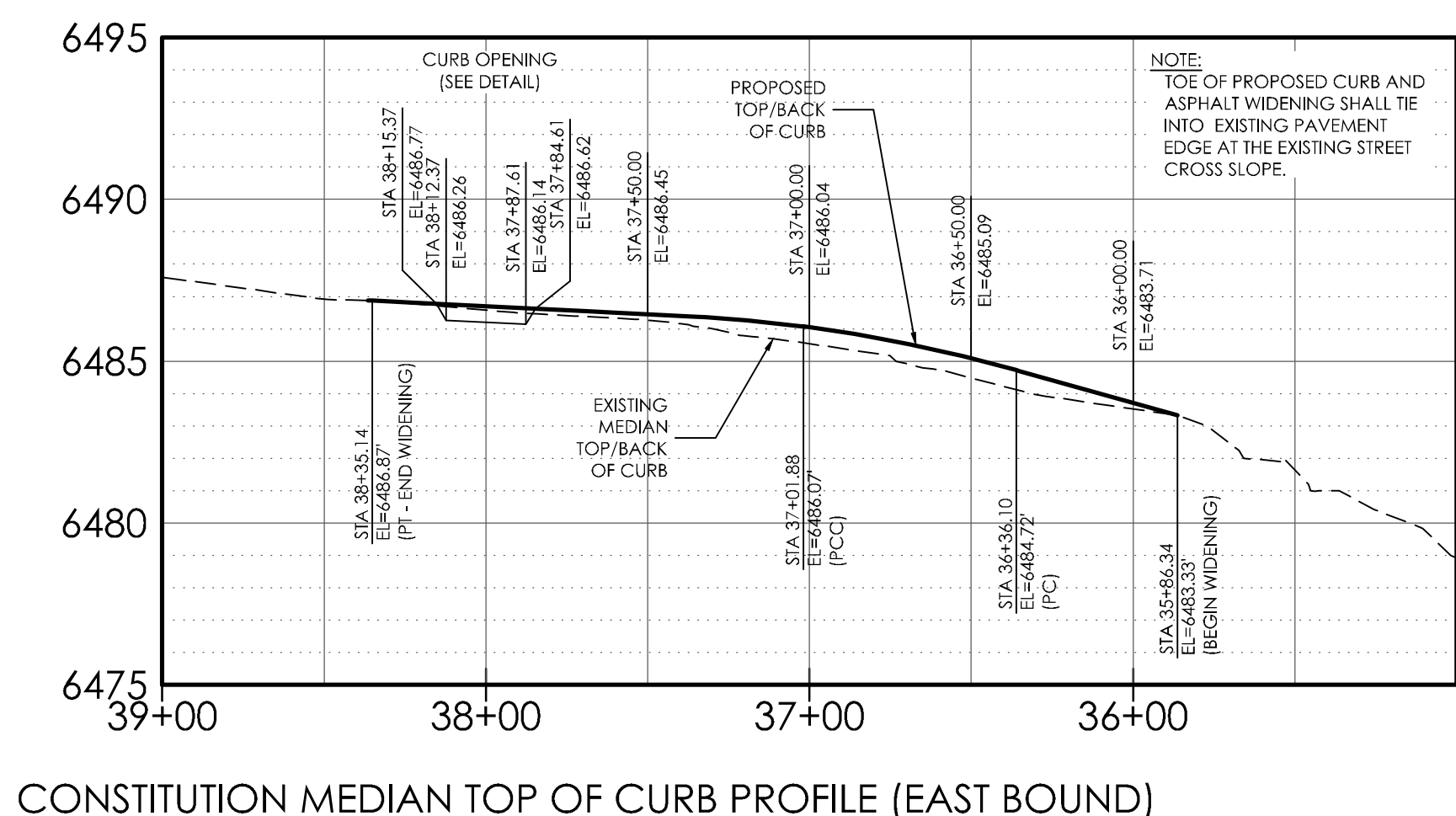
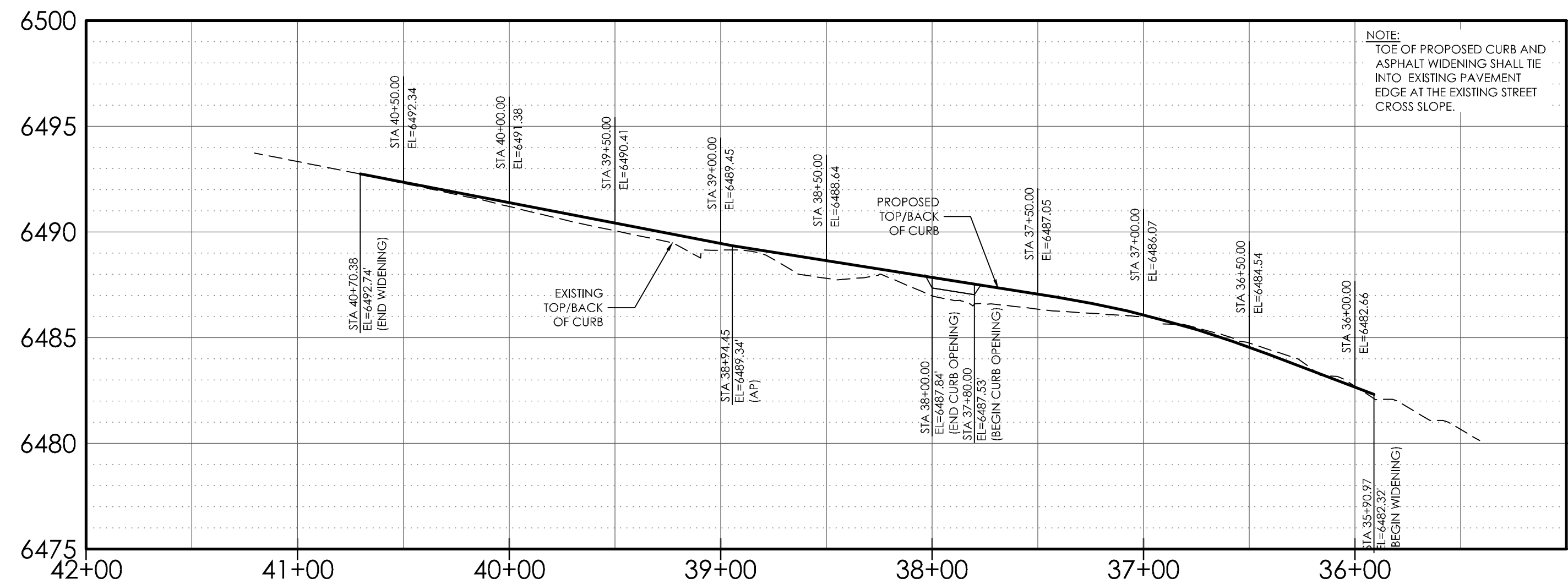
**WINSLOW PARK DRIVE PLAN/PROFILE**  
FROM STA 1+00.00  
TO STA 12+00.00  
HANNAH RIDGE AT FEATHERGRASS NO. 4  
**SHEET 22**



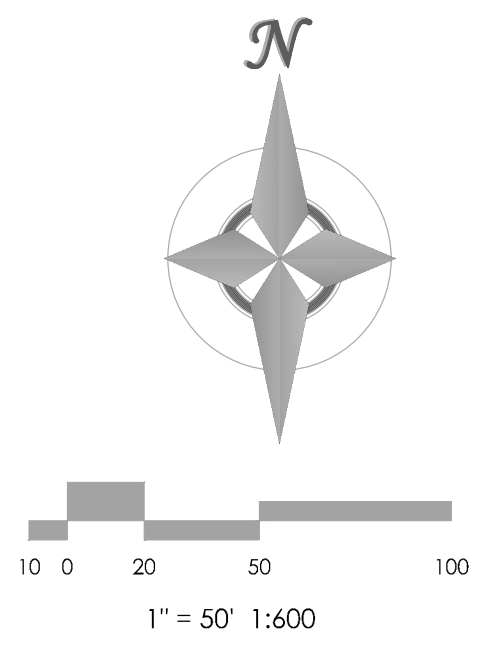
**BENCHMARK**  
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CONSTITUTION / SHAWNEE DRIVE LANE IMPROVEMENT PLAN

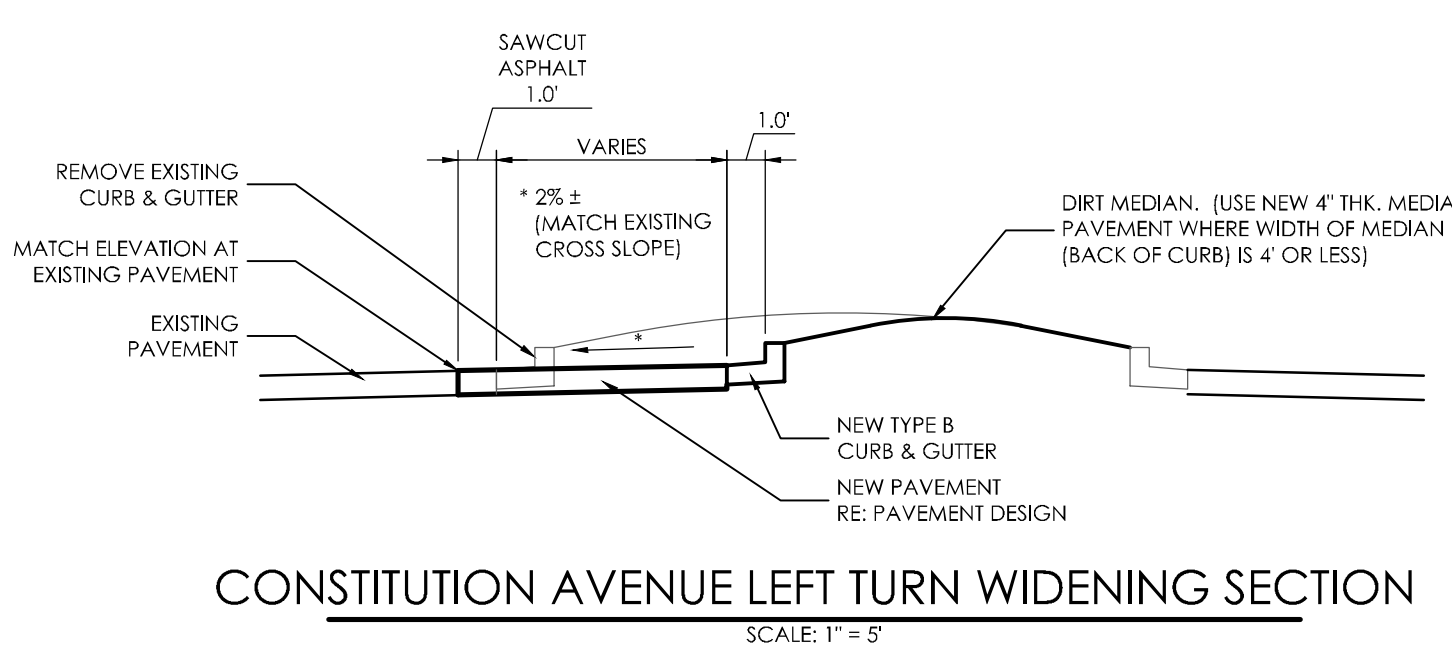


**AS-BUILT**  
**12-7-2023**

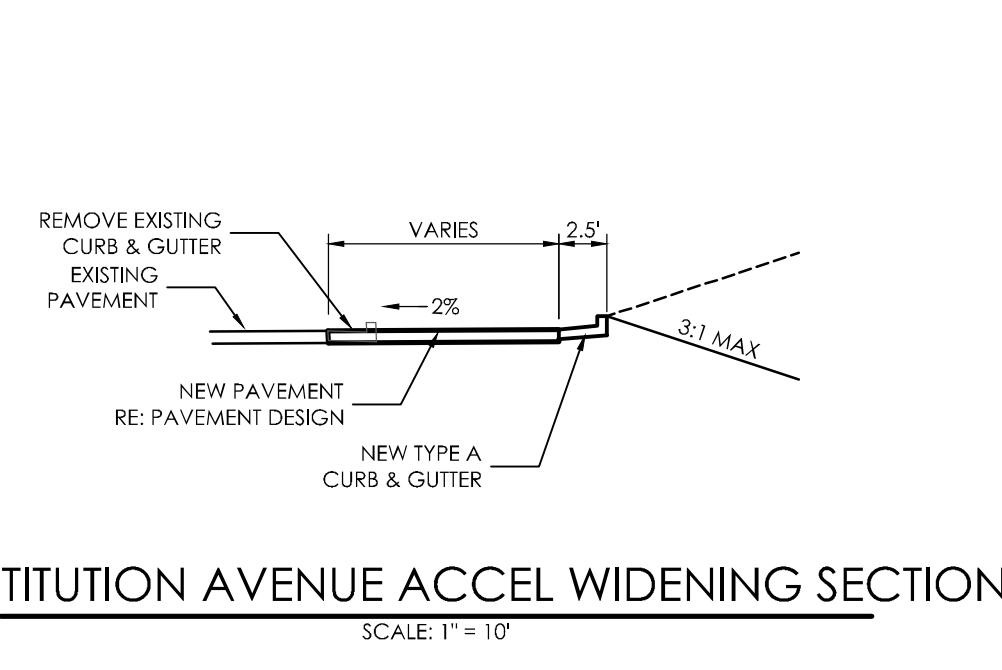


CONSTITUTION / NORTH LANE WIDENING TOP OF CURB PROFILE (WEST BOUND)

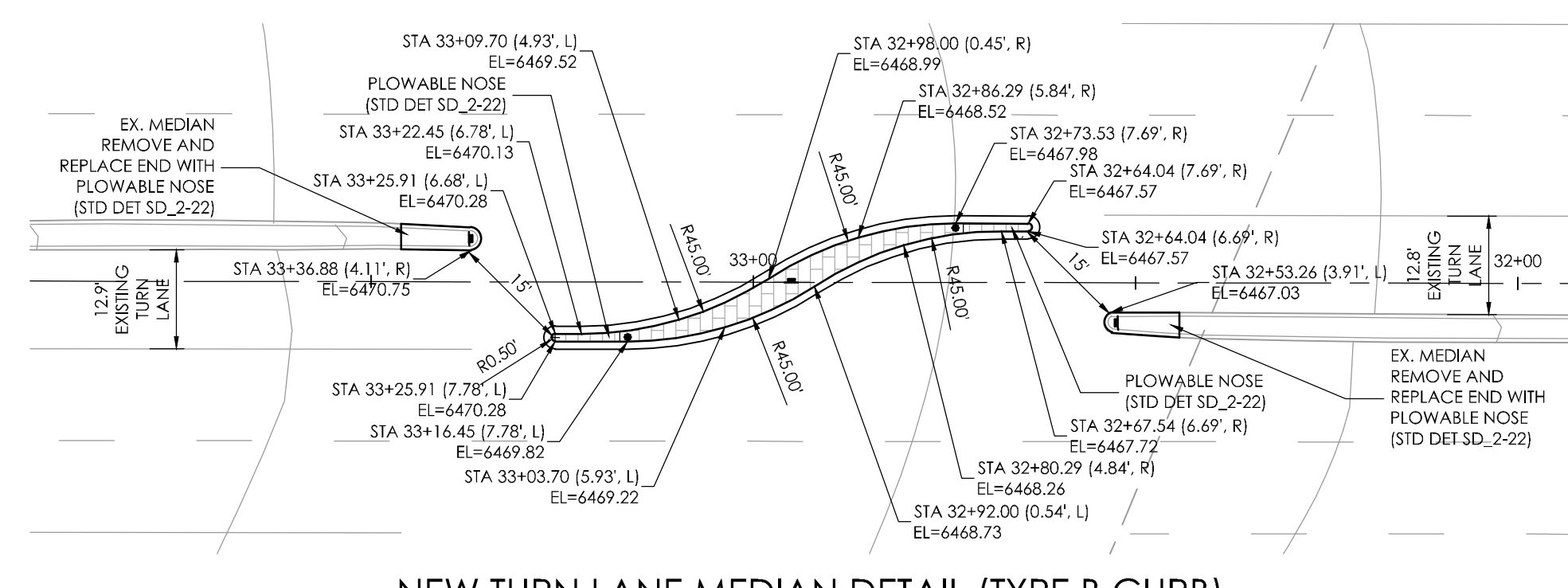
CONSTITUTION MEDIAN TOP OF CURB PROFILE (EAST BOUND)



CONSTITUTION AVENUE LEFT TURN WIDENING SECTION  
SCALE: 1" = 5'



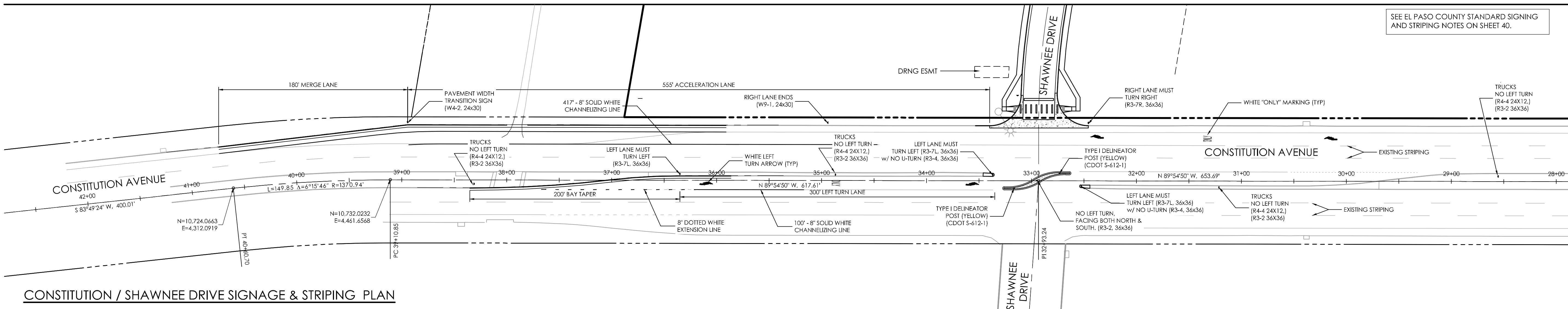
CONSTITUTION AVENUE ACCEL WIDENING SECTION  
SCALE: 1" = 10'



NEW TURN LANE MEDIAN DETAIL (TYPE B CURB)  
SCALE: 1" = 20'

**NOTES:**  
REFERENCE EL PASO COUNTY ENGINEERING CRITERIA MANUAL 2.5.6.  
CONTRACTOR TO VERIFY EXISTING GRADE AT NEW MEDIAN.  
MATCH EXISTING GRADE AND SLOPE OF EXISTING PAVEMENT.

REVISIONS



CONSTITUTION / SHAWNEE DRIVE SIGNAGE & STRIPING PLAN

DESIGNED BY TJW  
DRAWN BY TJW  
CHECKED BY TJW  
AS-BUILTS BY  
CHECKED BY

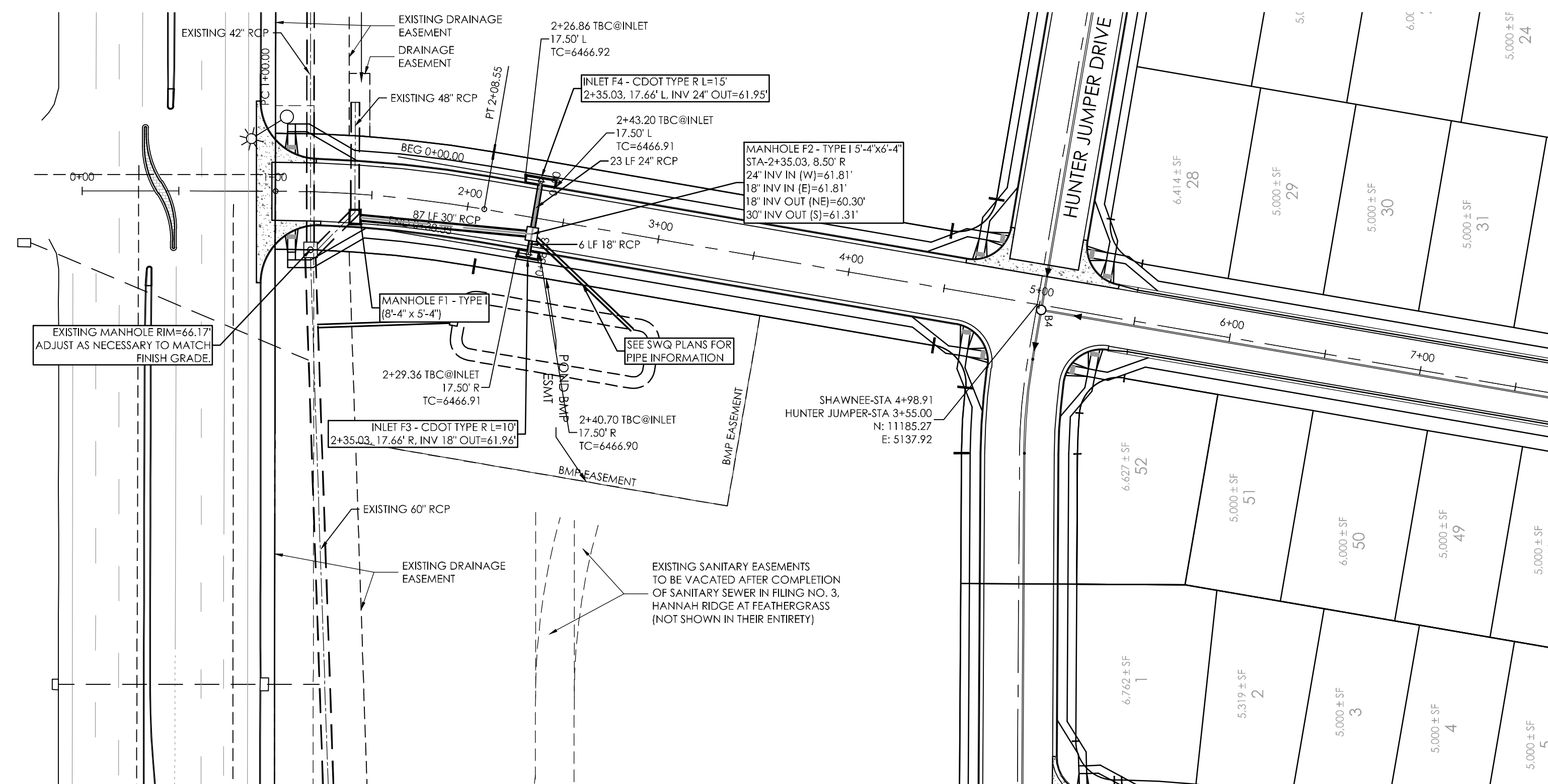
**HANNAH RIDGE**  
**AT FEATHERGRASS NO. 4**  
**CONSTITUTION**  
**AVENUE IMPROVEMENTS**

MVE PROJECT **60970**  
MVE DRAWING 60970062-F4

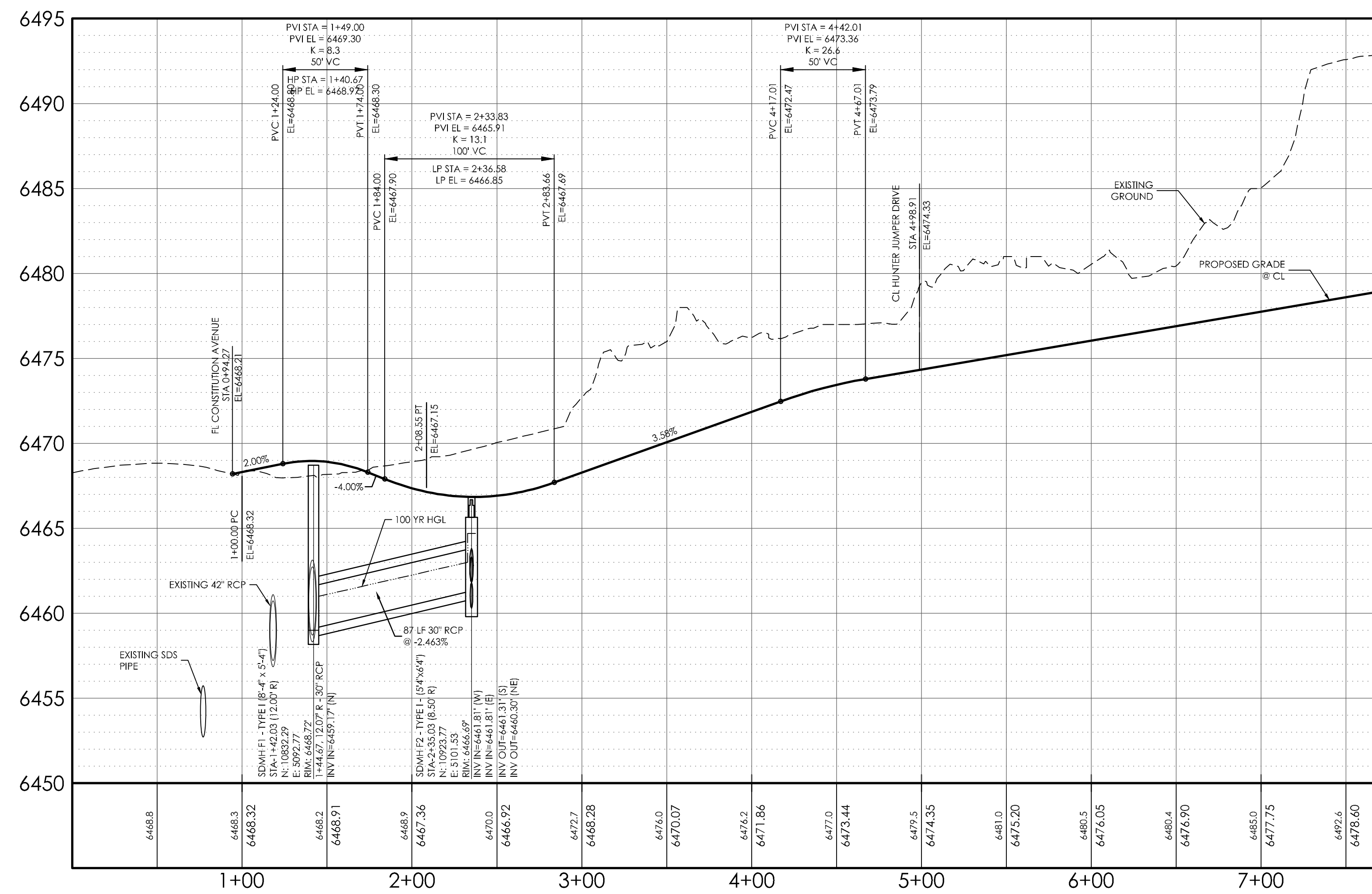
**SEPTEMBER 21, 2017**  
**SHEET 24**

Z:\MVE\Drawings\60970\062-F4.dwg, 3/21/18 12:20:58 PM, DWG

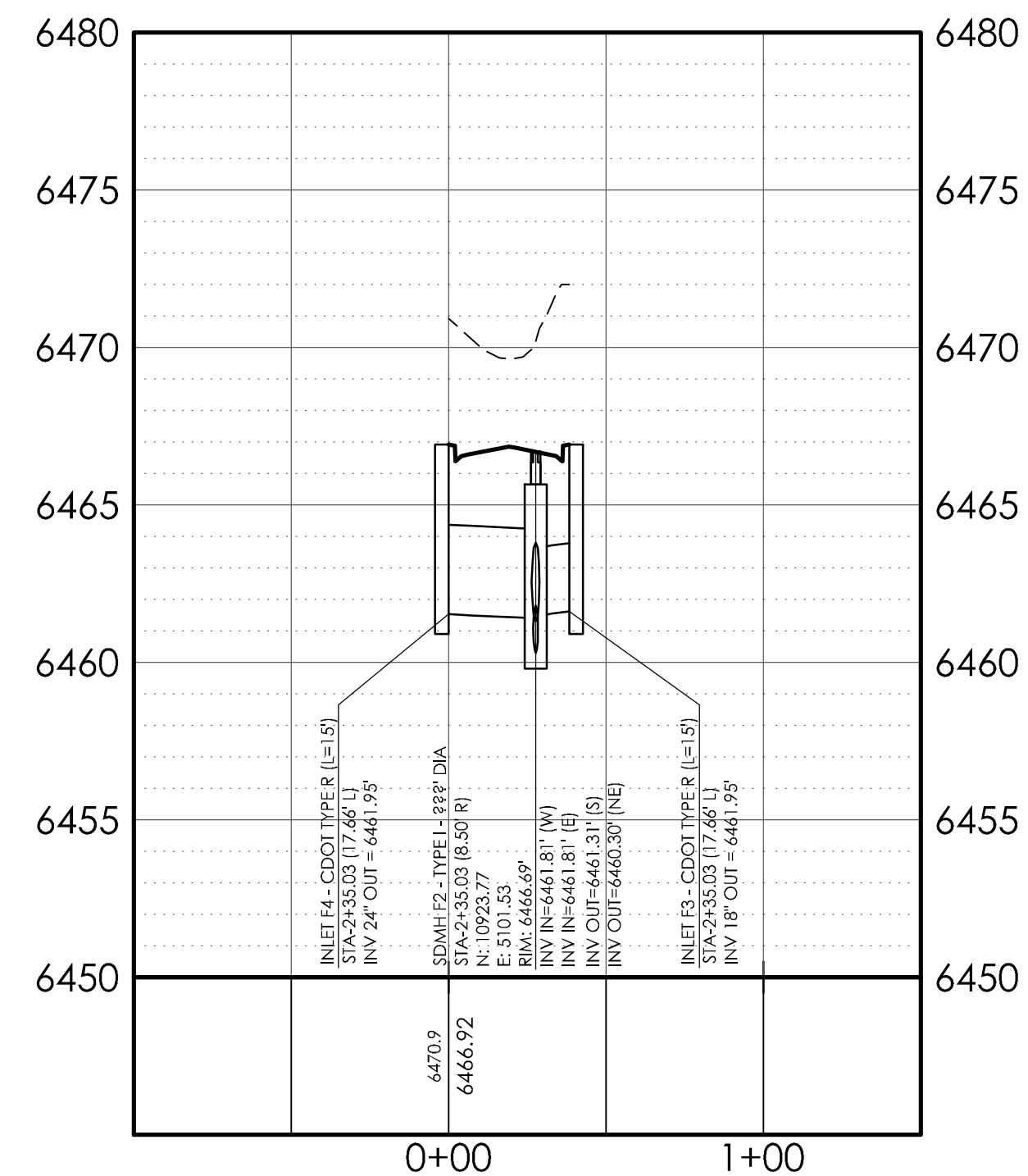




AS-BUILT  
12-7-2023



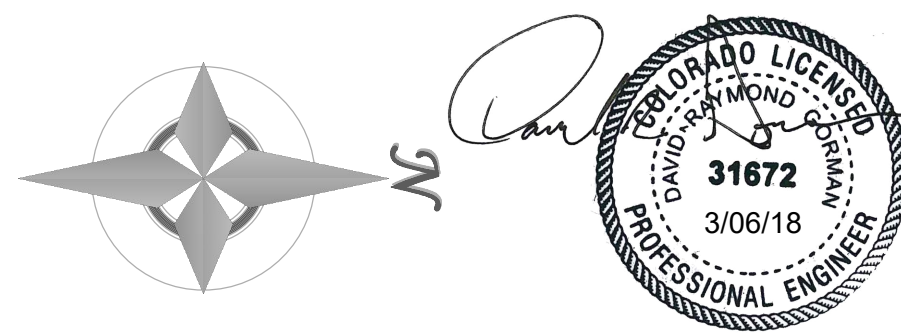
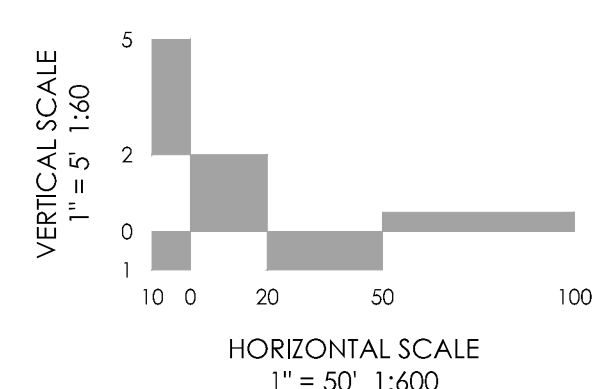
F LINE LATERAL PROFILE



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**DESIGN DATA:**  
SIDEWALKS: WIDTH 5'  
LOCATION: Attached  Detached   
DESIGN SPEED \_\_\_\_\_  
CURB TYPE:  B  C  D  E  
ROW WIDTH: 60' FL-FL 34.00'  
STREET TYPE: LOCAL

**PAVEMENT:**  
TYPE: HMA  PCC   
THICKNESS: \_\_\_\_\_  
COMPOSITE SECTION:  
HMA \_\_\_\_\_ BASE \_\_\_\_\_  
SUBGRADE STABILIZATION:  
CHEMICAL TYPE \_\_\_\_\_ MECHANICAL THICKNESS \_\_\_\_\_

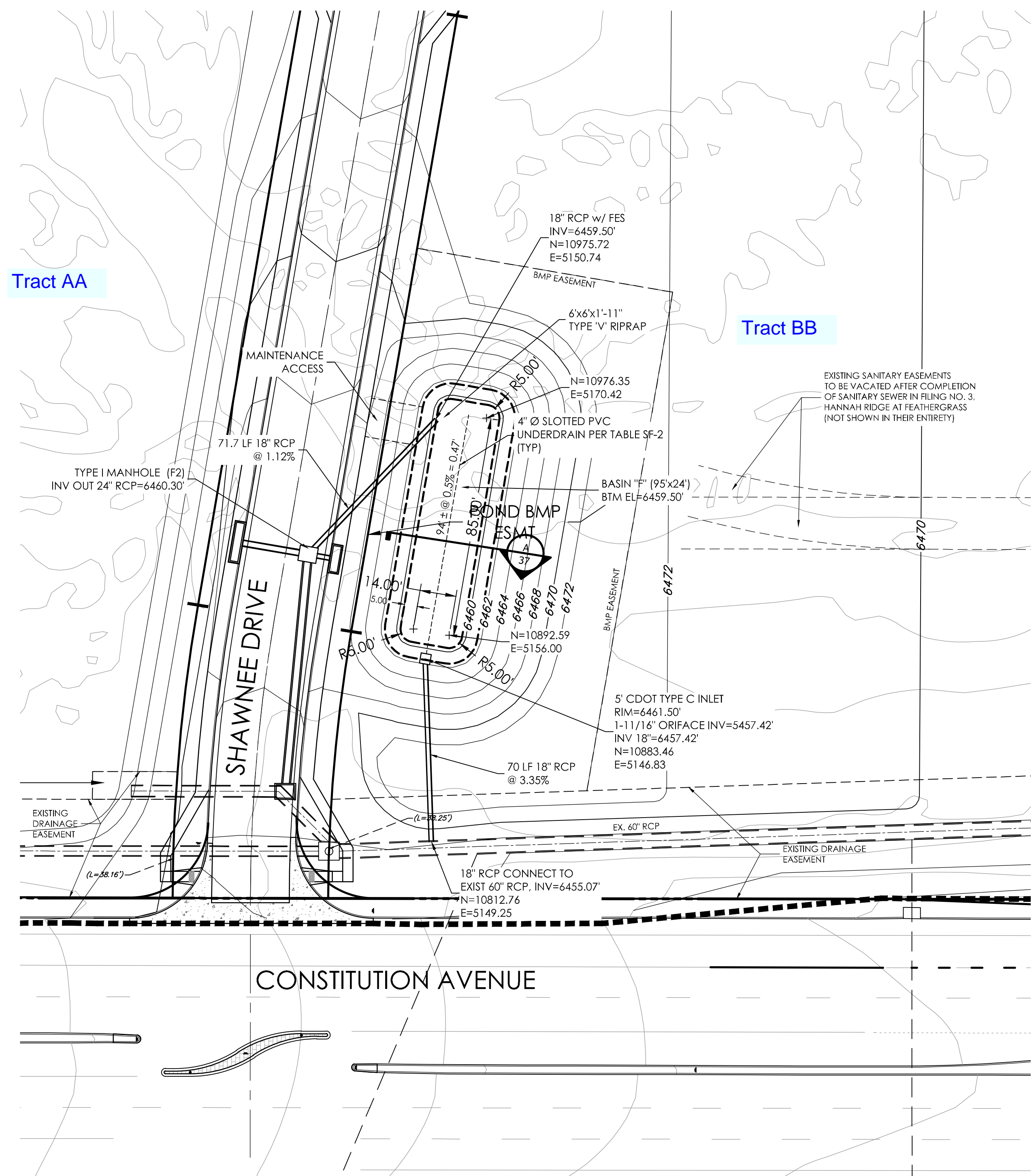


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REVISIONS

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MVE DRAWING **60970103-F4**  
**SEPTEMBER 21, 2017**  
DESIGNED BY TJW  
DRAWN BY TJW  
CHECKED BY \_\_\_\_\_  
AS-BUILT BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

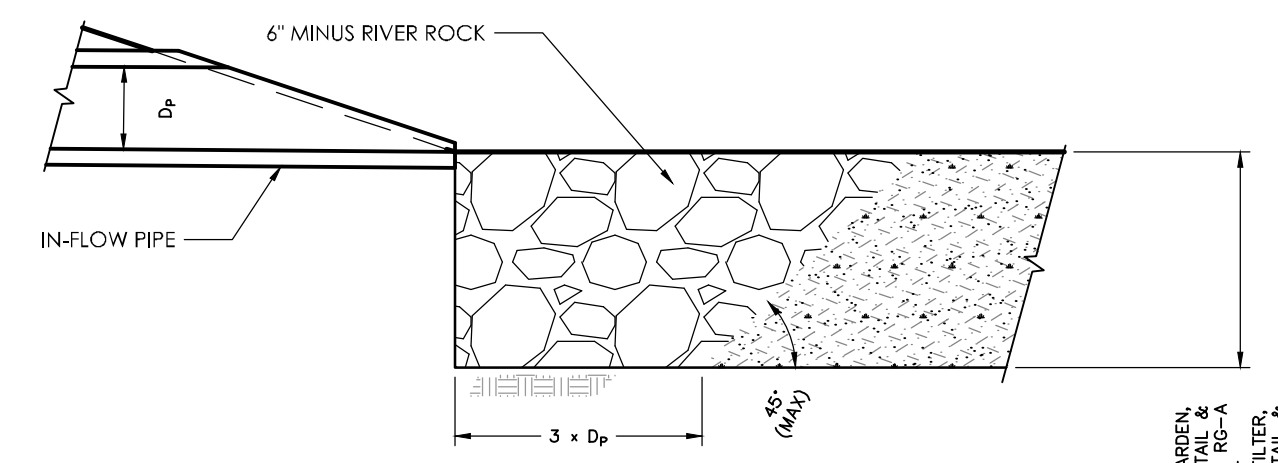
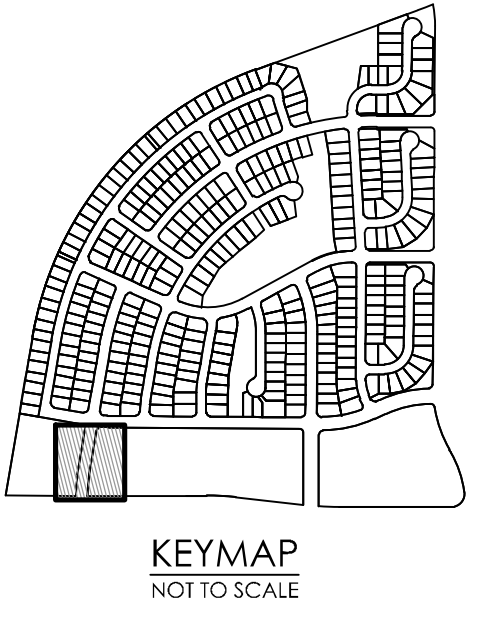
**SHAWNEE DRIVE STORM DRAIN**  
FROM STA 1+42.03  
TO STA 2+35.03  
HANNAH RIDGE AT FEATHERGRASS NO. 4



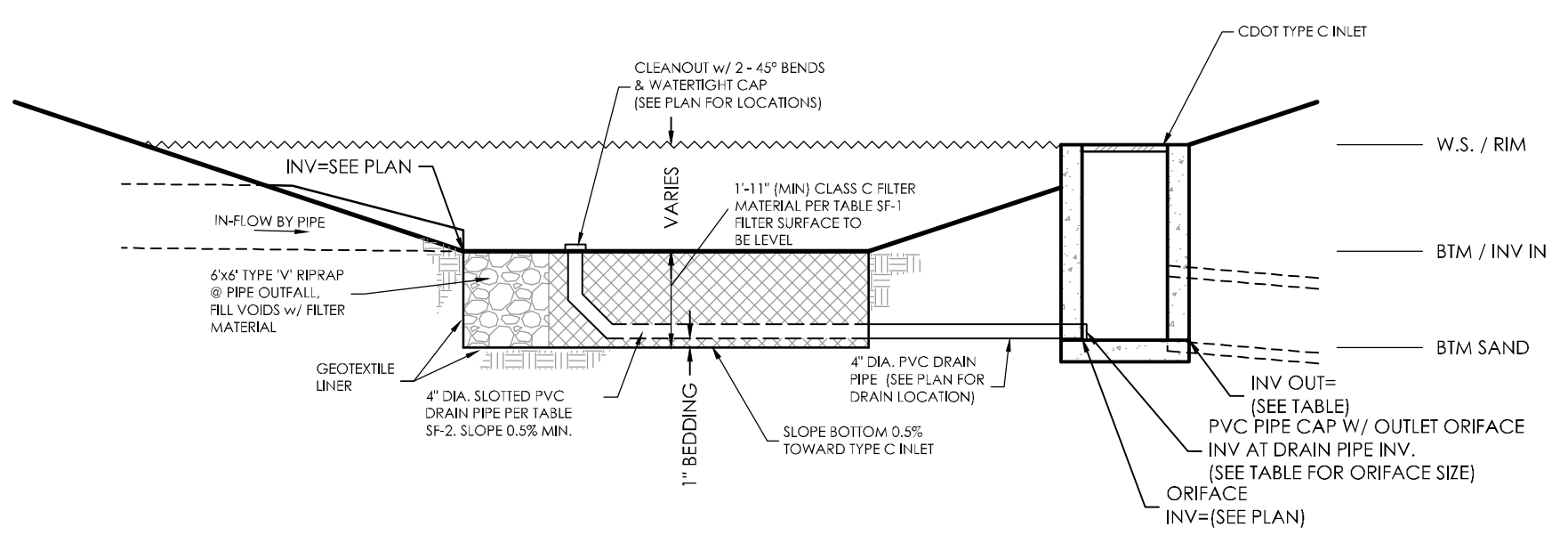
Tract AA

Tract BB

SWQC BASIN "F" (PRIVATE)  
SCALE: 1" = 30'



CONCENTRATED IN-FLOW DETAIL  
SCALE: NTS



TYPICAL SWQC BASIN (SAND FILTER)  
SCALE: N.T.S.

SAND FILTER DATA TABLE								
SAND FILTER BASIN	BASE AREA (SQUARE FEET)	FILTER BASIN VOLUME (FT <sup>3</sup> )	FILTER BASIN BTM/INV IN ELEV	POND DEPTH (FT)	TOP OF BOX ELEVATION (W.S.)	OUTLET ORIFICE DIAMETER (IN)	INV OUT ELEV	RESTRICTOR PLATE HEIGHT (FT)
F	2,259	6,007	6459.50	2.0	6461.50	1-1/16"	6457.42	8-5/32"

- SAND FILTER SPECIFICATIONS, NOTES & REFERENCES:**  
 REFERENCE URBAN DRAINAGE AND FLOOD CONTROL DISTRICT (UDFCD), URBAN STORM DRAINAGE CRITERIA MANUAL VOLUME 3, SECTION 14; FOR FULL SET OF SAND FILTER DETAILS AND SPECIFICATIONS AS IDENTIFIED.  
 - **FILTER MATERIAL** - CLASS B or CLASS C FILTER MATERIAL, PER SOIL MATERIAL GRADATION TABLE  
 - **PERMEABLE GEOTEXTILE SEPARATOR FABRIC** - TENGATE MB841170N, OR EQUAL, PER UDFCD TABLE SF-3.  
 - **CONCENTRATED INFLOW** - PER CONCENTRATED INFLOW DETAIL  
 - **SLOTTED PIPE** - CONTECH A-2000, OR EQUAL, PER PIPE SPECIFICATION TABLE

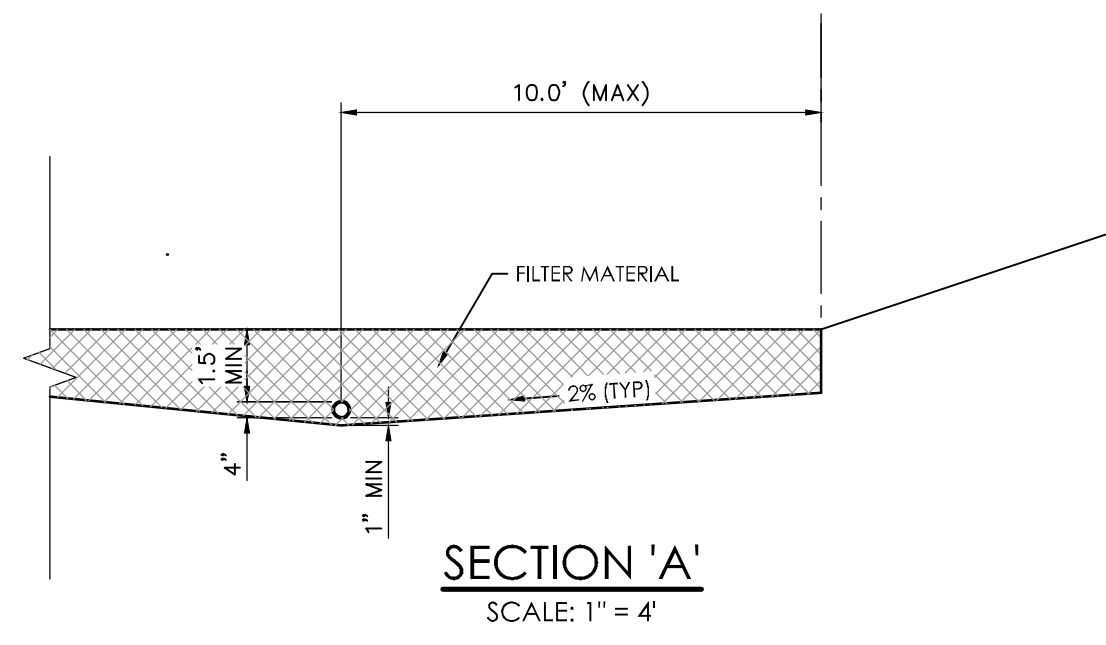
**SOIL MATERIAL GRADATION TABLE**  
 (SOURCE: UDFCD BENCHMARK (B) TABLE SF-1 & SAND FILTER BASIN (SF) TABLE SF-1)

STANDARD SIEVE SIZE	% PASSING	
	GROWING MEDIA <sup>(1)(2)</sup>	FILTER MATERIAL <sup>(3)</sup>
	CLASS B	CLASS C
1-1/2"	100	100
3/4"	100	100
NO. 4	85-100	20-60
NO. 10		60-100
NO. 50		10-30
NO. 100		0-10
NO. 200	80-90	0-3
NO. 230	3-17	0-3

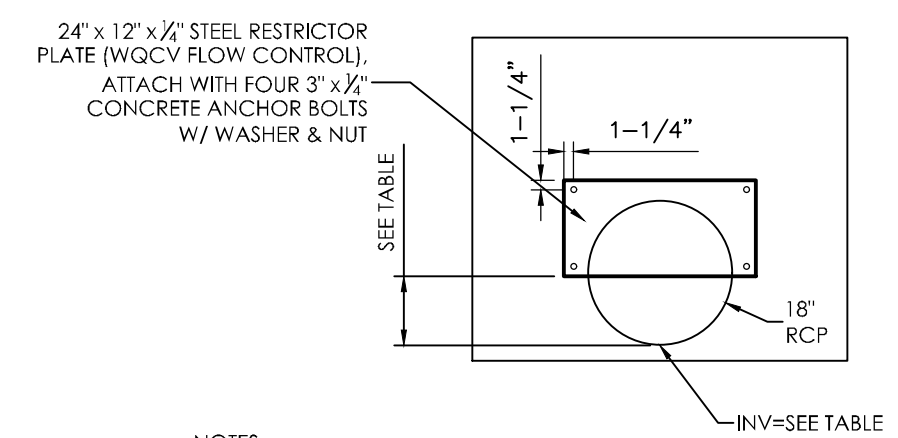
<sup>(1)</sup>RAIN GARDEN ONLY  
<sup>(2)</sup>LESS THAN 1.5% ORGANIC MATERIAL  
<sup>(3)</sup>APPLIES TO BOTH SAND FILTER BASIN AND RAIN GARDEN

**TABLE SF-2 (SLOTTED PIPE DIMENSIONS)**

PIPE Ø	SLOT LENGTH	SLOT WIDTH	SLOT CENTERS	OPEN AREA (PER SF)
4"	1-1/16"	0.032"	0.413"	1.90 SQ. IN.

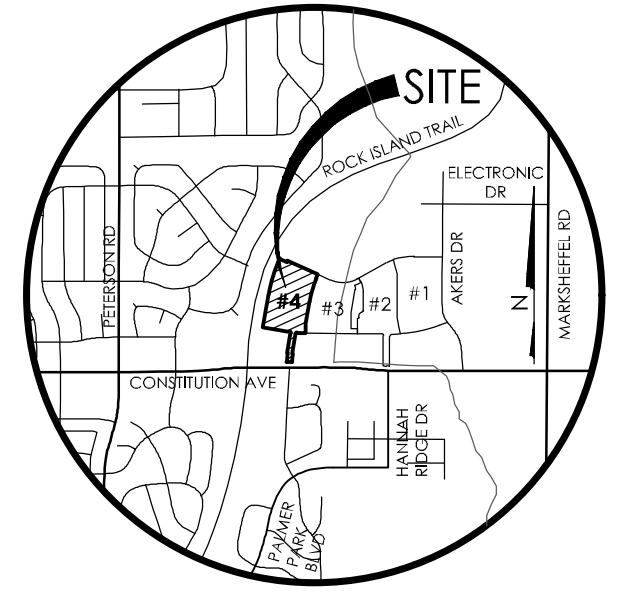


SECTION 'A'  
SCALE: 1" = 4'



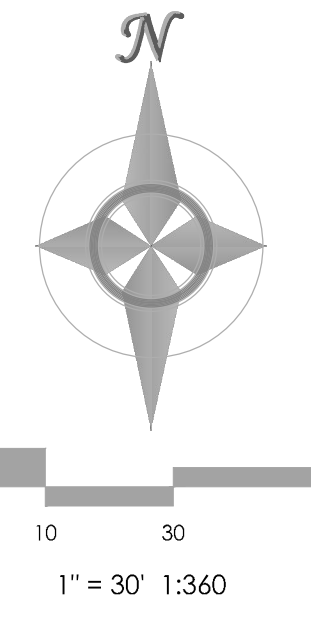
- NOTES:  
 1. ORIFICE AND RESTRICTOR PLATES SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION.  
 3. ALL ORIFICE PLATES SHALL BE MOUNTED WITH 3" x 1/2" STAINLESS STEEL CONCRETE ANCHOR BOLTS W/ WASHERS, AND NUTS AS SHOWN.

MANHOLE F2 RESTRICTOR PLATE DETAIL  
SCALE: 1" = 2.0"



VICINITY MAP  
NTS

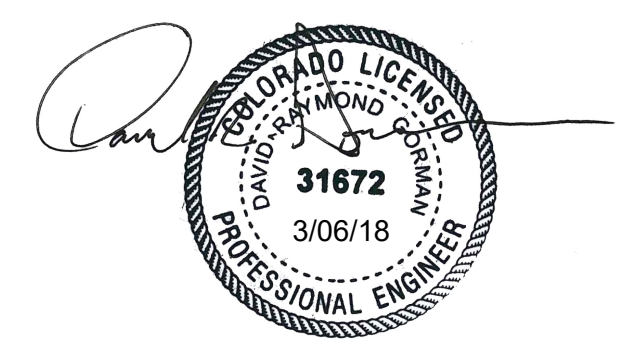
**BENCHMARK:**  
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**MVE, INC.**  
 ENGINEERS, SURVEYORS  
 1903 Kellaray Street, Suite 200 Colorado Springs, CO 80909 719.635.5736

REVISIONS

DESIGNED BY DRG  
 DRAWN BY TJW  
 CHECKED BY \_\_\_\_\_  
 AS-BUILTS BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

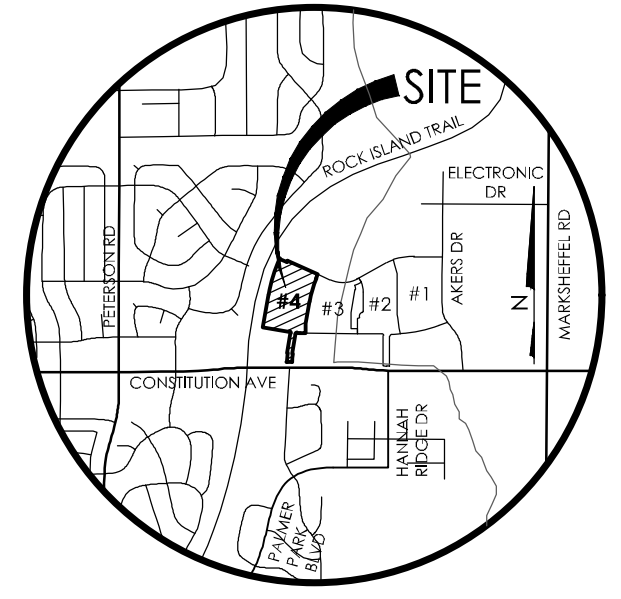
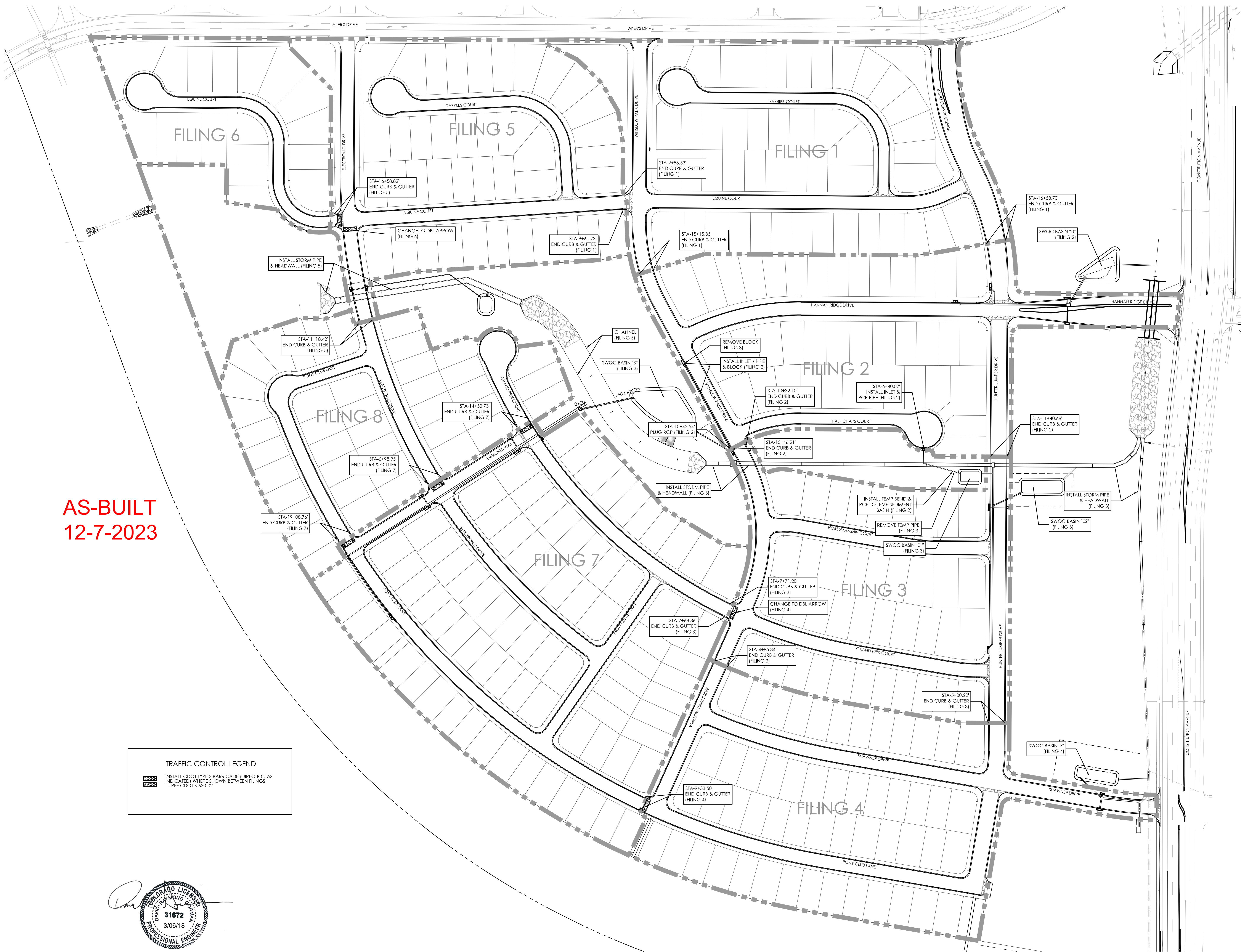


HANNAH RIDGE  
 AT FEATHERGRASS NO. 4  
**STORM WATER  
 QUALITY BASIN DETAILS**

MVE PROJECT 60970  
 MVE DRAWING 60970106-F4

SEPTEMBER 21, 2017  
 SHEET 37

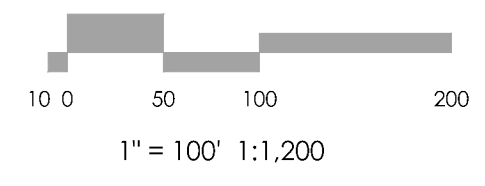
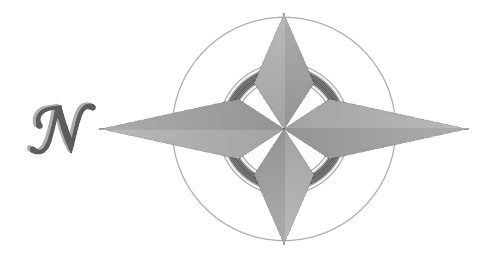
AS-BUILT  
 12-7-2023



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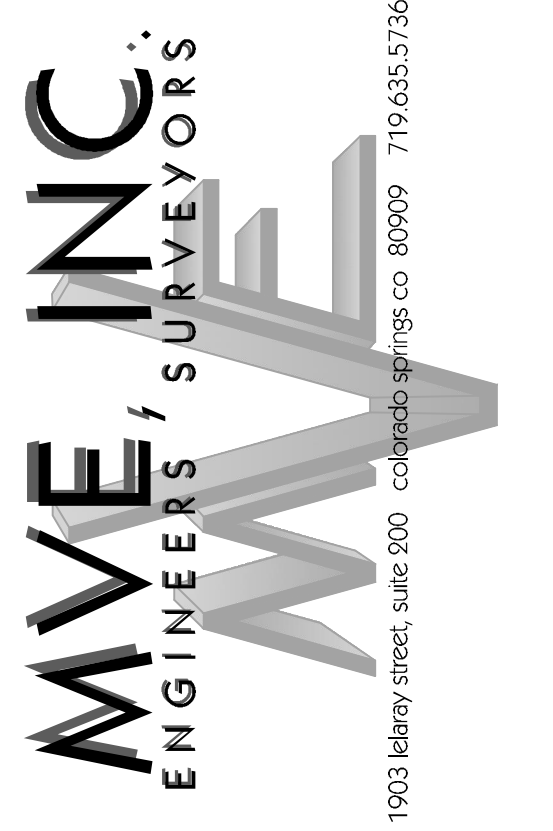
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**AS-BUILT**  
**12-7-2023**

**TRAFFIC CONTROL LEGEND**

	INSTALL CDOT TYPE 3 BARRICADE (DIRECTION AS INDICATED) WHERE SHOWN BETWEEN FILINGS.
	REF CDOT S-630-02



REVISIONS

DESIGNED BY DRG  
 DRAWN BY TJW  
 CHECKED BY \_\_\_\_\_  
 AS-BUILTS BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

**HANNAH RIDGE AT FEATHERGRASS NO. 4**

**STREET / STORM PHASING PLAN & NOTES**

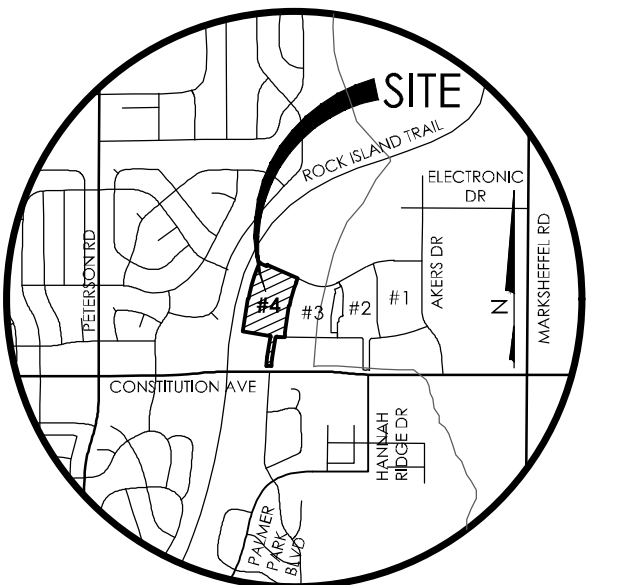
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**SEPTEMBER 21, 2017**  
**SHEET 39**

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EL PASO COUNTY STANDARD SIGNING AND STRIPING NOTES

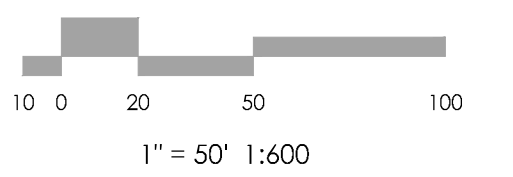
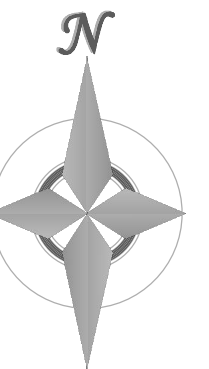
- ALL SIGNS AND PAVEMENT MARKINGS SHALL BE IN COMPLIANCE WITH THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- REMOVAL OF EXISTING PAVEMENT MARKINGS SHALL BE ACCOMPLISHED BY A METHOD THAT DOES NOT MATERIALLY DAMAGE THE PAVEMENT. THE PAVEMENT MARKINGS SHALL BE REMOVED TO THE EXTENT THAT THEY WILL NOT BE VISIBLE UNDER DAY OR NIGHT CONDITIONS. AT NO TIME WILL IT BE ACCEPTABLE TO PAINT OVER EXISTING PAVEMENT MARKINGS.
- ANY DEVIATION FROM THE STRIPING AND SIGNING PLAN SHALL BE APPROVED BY EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT.
- ALL SIGNS SHOWN ON THE SIGNING AND STRIPING PLAN SHALL BE NEW SIGNS. EXISTING SIGNS MAY REMAIN OR BE REUSED IF THEY MEET CURRENT EL PASO COUNTY AND MUTCD STANDARDS.
- STREET NAME AND REGULATORY STOP SIGNS SHALL BE ON THE SAME POST AT INTERSECTIONS.
- ALL REMOVED SIGNS SHALL BE DISPOSED OF IN A PROPER MANNER BY THE CONTRACTOR.
- ALL STREET NAME SIGNS SHALL HAVE "D" SERIES LETTERS. WITH LOCAL ROADWAY SIGNS BEING 4" UPPER-LOWER CASE LETTERING ON 8" BLANK AND NON-LOCAL ROADWAY SIGNS BEING 6" LETTERING. UPPER-LOWER CASE ON 12" BLANK. WITH A WHITE BORDER THAT IS NOT RECESSED. MULTI-LANE ROADWAYS WITH SPEED LIMITS OF 40 MPH OR HIGHER SHALL HAVE 8" UPPER-LOWER CASE LETTERING ON 18" BLANK WITH A WHITE BORDER THAT IS NOT RECESSED. THE WIDTH OF THE NON-RECESSED WHITE BORDERS SHALL MATCH PAGE 255 OF THE 2012 MUTCD "STANDARD HIGHWAY SIGNS".
- ALL TRAFFIC SIGNS SHALL HAVE A MINIMUM HIGH INTENSITY PRISMATIC GRADE SHEETING.
- ALL LOCAL RESIDENTIAL STREET SIGNS SHALL BE MOUNTED ON A 1.75" X 1.75" SQUARE TUBE SIGN POST AND STUB POST BASE. FOR OTHER APPLICATIONS, REFER TO THE CDOT STANDARD S-4148 REGARDING USE OF THE P2 TUBULAR STEEL POST SUBBASE DESIGN.
- ALL SIGNS SHALL BE SINGLE SHEET ALUMINUM WITH 0.100" MINIMUM THICKNESS.
- ALL LIMIT LINES/STOP LINES, CROSSWALK LINES, PAVEMENT LEGENDS, AND ARROWS SHALL BE A MINIMUM 125 MIL THICKNESS PERFORMED THERMOPLASTIC PAVEMENT MARKINGS WITH TAPERED LEADING EDGES PER CDOT STANDARD S-627-1. WORD AND SYMBOL MARKINGS SHALL BE THE NARROW TYPE. STOP BARS SHALL BE 24" IN WIDTH. CROSSWALKS LINES SHALL BE 12" WIDE AND 8' LONG PER CDOT S-627-1.
- ALL LONGITUDINAL LINES SHALL BE A MINIMUM 15MIL THICKNESS EPOXY PAINT. ALL NON-LOCAL RESIDENTIAL ROADWAYS SHALL INCLUDE BOTH RIGHT AND LEFT EDGE LINE STRIPING AND ANY ADDITIONAL STRIPING AS REQUIRED BY CDOT S-427-1.
- THE CONTRACTOR SHALL NOTIFY EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT (719) 520-6819 PRIOR TO AND UPON COMPLETION OF SIGNING AND STRIPING.
- THE CONTRACTOR SHALL OBTAIN A WORK IN THE RIGHT OF WAY PERMIT FROM THE EL PASO COUNTY PUBLIC SERVICE DEPARTMENT (PSD) PRIOR TO ANY SIGNAGE OR STRIPING WORK WITHIN AN EXISTING EL PASO COUNTY ROADWAY.



VICINITY MAP  
NTS

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12-7-2023



REVISIONS

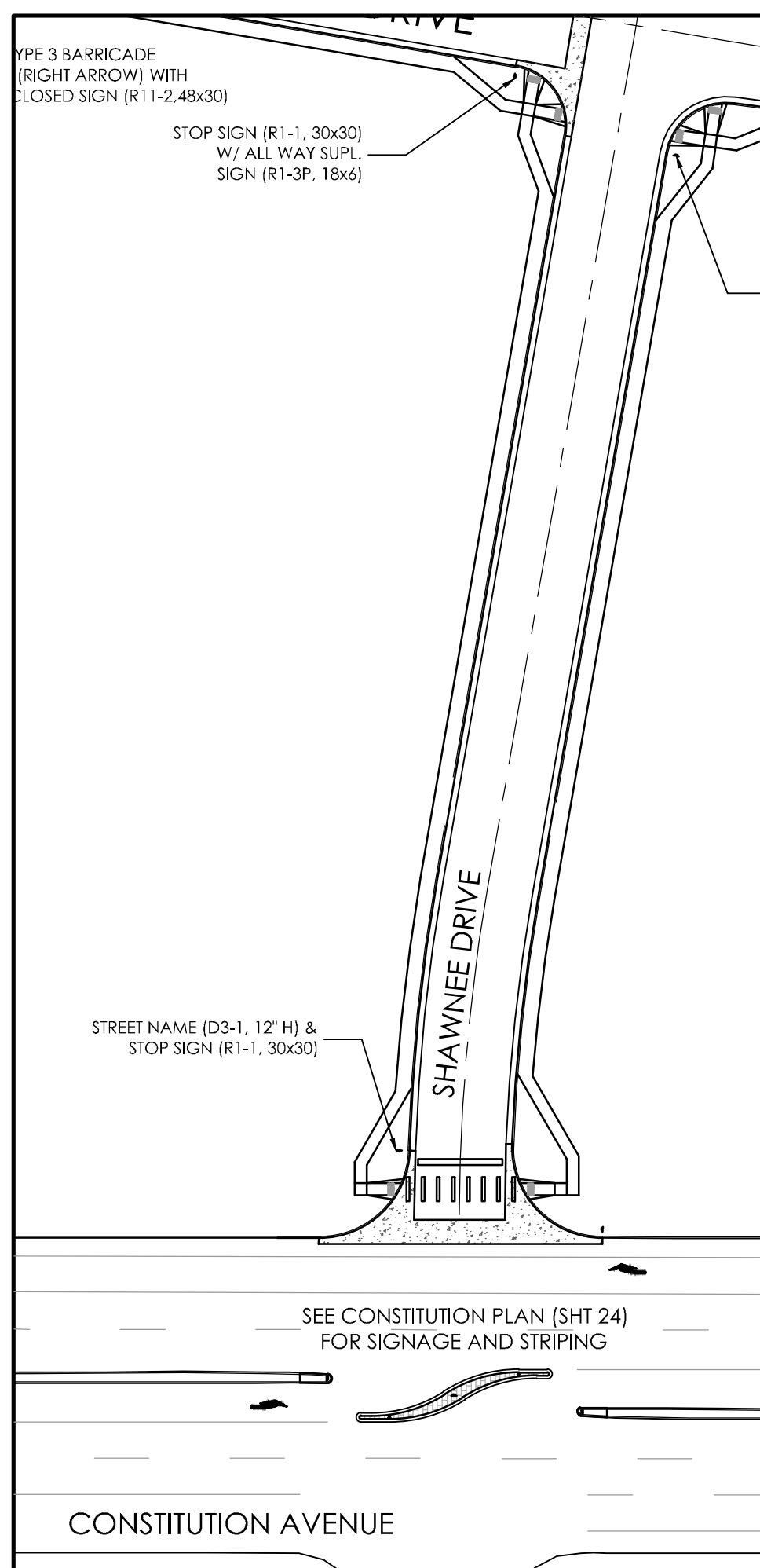
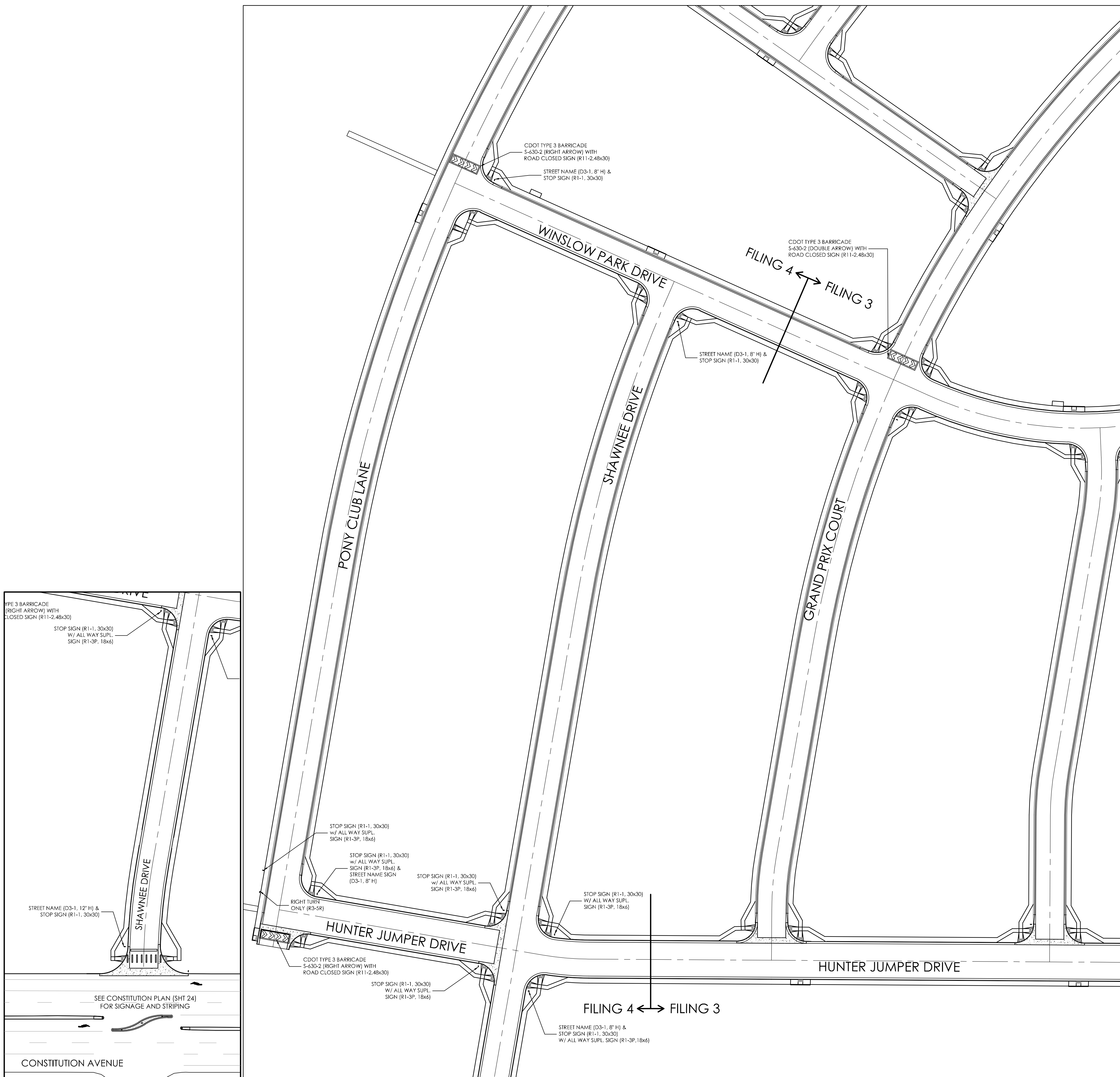
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AS-BUILTS BY \_\_\_\_\_  
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HANNAH RIDGE  
AT FEATHERGRASS NO. 4

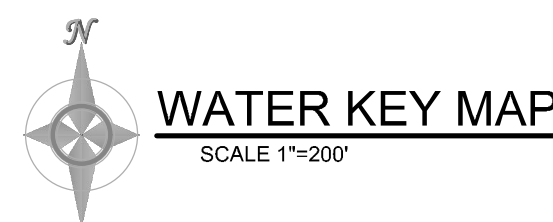
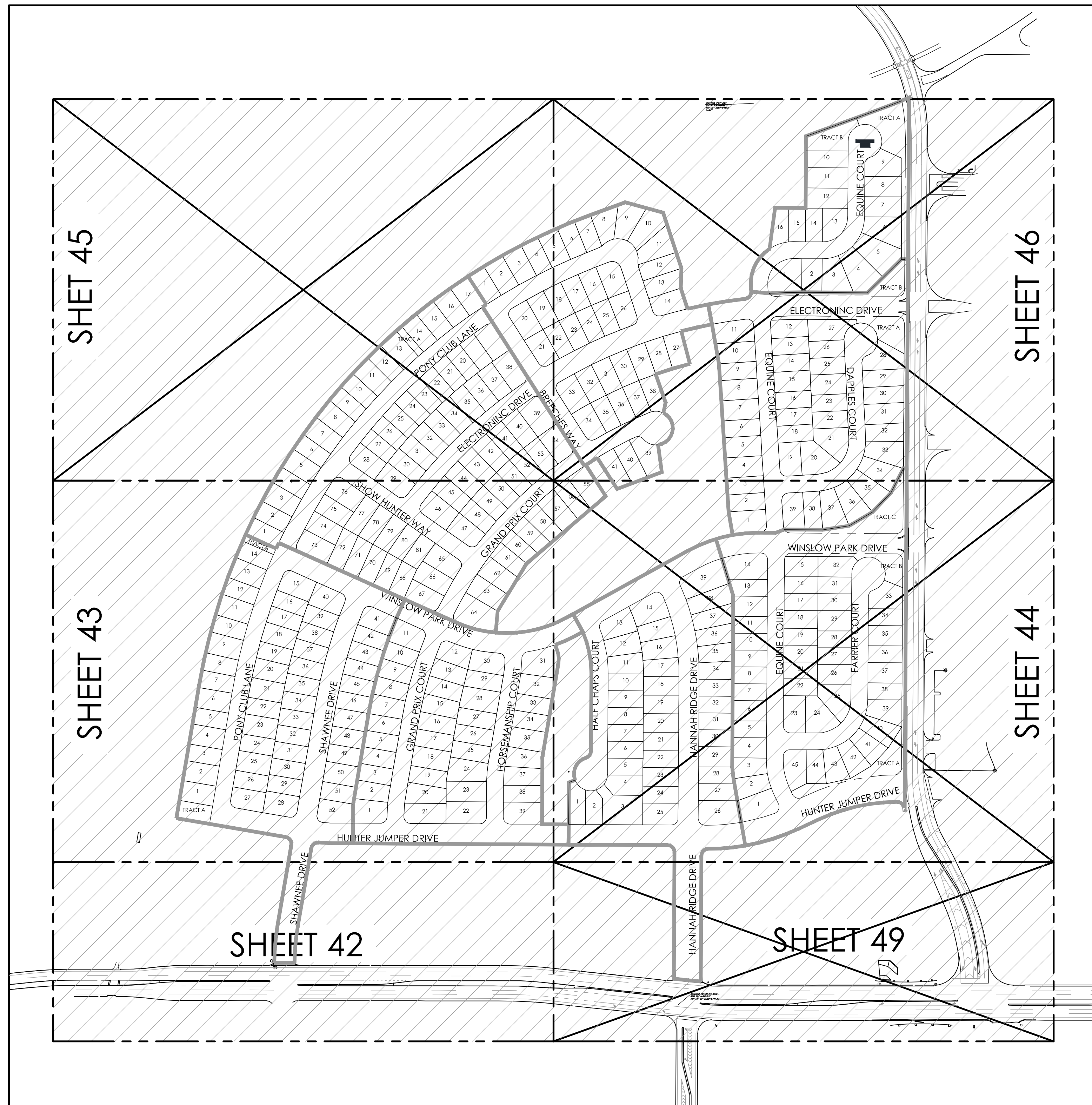
STRIPING AND  
SIGNAGE PLAN

MVE PROJECT 60970  
MVE DRAWING 60970094-F4

SEPTEMBER 21, 2017  
SHEET 40



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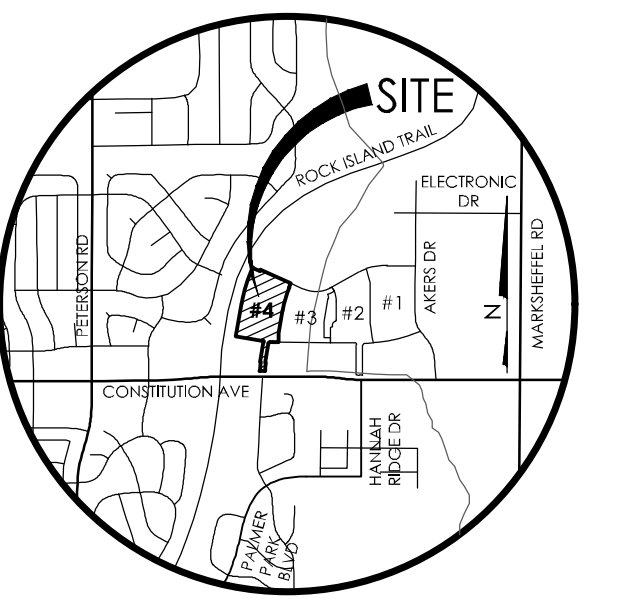


**AS-BUILT**  
**12-7-2023**

**WATER SYSTEM CONSTRUCTION NOTES:**

1. ALL MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH CHEROKEE METROPOLITAN DISTRICT STANDARDS AND THE CITY OF COLORADO SPRINGS CONSTRUCTION STANDARDS UNLESS NOTED OTHERWISE. IN THE EVENT OF CONFLICTING STANDARDS CHEROKEE METROPOLITAN DISTRICT STANDARDS SHALL GOVERN.
2. ALL WATER SYSTEM MAINS PIPE MATERIAL SHALL BE POLYVINYL CHLORIDE (PVC) CLASS 200 (DR-14) PER AWWA C-900 AND ASTM D241 SPECIFICATIONS, EXCEPT WHERE NOTED. SPECIFICALLY, SECTIONS OF WATER PIPE THAT CROSS UNDER MAJOR DRAINAGE WAYS (SAND CREEK) R MAJOR THOROUGHFARES SHALL BE DUCTILE IRON PIPE.
3. ALL FITTINGS SHALL BE CONSTRUCTED OF GRAY-IRON MATERIAL AND FURNISHED WITH MECHANICAL JOINT ENDS. ALL FITTINGS SHALL HAVE A MINIMUM PRESSURE RATING OF 250 PSI AND SHALL BE WRAPPED WITH A 9-MIL THICKNESS POLYETHYLENE MATERIAL PER AWWA STANDARD C105.
4. ALL WATER PIPES SHALL BE INSTALLED AT A MINIMUM DEPTH OF FIVE (5) FEET BELOW FINISHED GRADE.
5. ALL BENDS, TEE, FIRE HYDRANTS, BLOW-OFFS, AND PLUGS AT DEAD END MAINS SHALL BE INSTALLED WITH CONCRETE THRUST BLOCKS.
6. FIRE HYDRANT ASSEMBLIES SHALL INCLUDE ALL PIPES, FITTINGS, VALVES, APPURTENANCES, MATERIALS AND LABOR THAT ARE NECESSARY TO INSTALL A COMPLETE AND USEABLE FIRE HYDRANT. FIRE HYDRANT ASSEMBLIES SHALL BE ONE OF THE FOLLOWING TYPES:
  - A. MUELLER CENTURION, MODEL A-473
  - B. KENNEDY VALVE
  - C. AMERICAN AVK
  - D. OR ENGINEER/DISTRICT APPROVED EQUAL.
7. VALVE BOXES SHALL BE TYLER SLIP; TYPE "C" CAST IRON VALVE BOX ASSEMBLY SERIES 6860 WITH NO. 160 OVAL BASE OR APPROVED EQUAL.
8. CONTRACTOR SHALL PRESSURE TEST AND DISINFECT THE SYSTEM PRIOR TO CONNECTING TO EXISTING MAINS.
9. ALL WATER SYSTEM COMPONENTS SHALL BE FLUSHED AND CHLORINATED PER AWWA C-601, "DISINFECTING WATER MAINS" PRIOR TO ACCEPTANCE. THE CONTRACTOR SHALL PRODUCE A 25 MG/L SOLUTION BY ADHERING CHLORINE TABLETS TO THE PIPE SECTION WITH PERMATEX CLEAR TRV INSIDE THE SYSTEM. CHLORINATION SHALL OCCUR PRIOR TO HYDROSTATIC TESTING. THE CONTRACTOR SHALL OBTAIN A BACTERIOLOGICAL SAMPLE AFTER THE SYSTEM HAS BEEN FLUSHED. A CLEAN BACTERIOLOGICAL SAMPLE MUST BE OBTAINED PRIOR TO THE SYSTEM BEING PLACED INTO SERVICE.
10. HYDROSTATIC TESTING: ALL WATER SYSTEM MAINS SHALL BE FIELD PRESSURE TESTED TO A MINIMUM OF 150 PSI OR 1 1/2 TIMES THE STATIC OPERATING PRESSURE, WHICH EVER IS GREATER. MAXIMUM ALLOWABLE LEAKAGE FOR EACH SECTION OF PIPE BETWEEN LINE VALVES SHALL NOT EXCEED THE FOLLOWING: \*10 GALLONS PER INCH OF PIPE DIAMETER PER MILE PER DAY.
11. ALL VALVES SHALL CONFORM TO OPEN LEFT CONVENTION PER CHEROKEE METROPOLITAN DISTRICT STANDARDS. SERVICE LINE STOP VALVES/BOXES SHALL BE LOCATED A MINIMUM OF 7 FEET BEYOND THE PROPERTY LINE OR PER THE SERVICE DETAIL ON THE UTILITY SERVICE PLAN. ALL OTHER VALVES SHALL BE LOCATED PER THESE PLANS.
12. WHEN IT IS NECESSARY TO RAISE OR LOWER WATER MAINS AT OTHER UTILITY CROSSINGS THE CONTRACTOR SHALL INSURE A MINIMUM CLEARANCE OF 18" WHERE POSSIBLE BETWEEN THE OUTSIDE DIAMETER OF PIPES.
13. WHILE CONTRACTING THE WATER SYSTEM THE CONTRACTOR SHALL HAVE IN HIS 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 CHEROKEE METROPOLITAN DISTRICT PRIOR TO FINAL ACCEPTANCE OF THE WATER SYSTEM.
14. COMPACTION TESTING RESULTS OF ALL TRENCHES AND BEDDING MATERIAL SHALL BE SUBMITTED TO THE ENGINEER OF RECORD PRIOR TO ACCEPTANCE OF THE WATER SYSTEM.
15. PRIOR TO TAPPING ANY EXISTING WATER MAIN THE CONTRACTOR SHALL SUBMIT AND RECEIVE APPROVAL FOR SAID TAP IN ACCORDANCE WITH THE CHEROKEE METROPOLITAN DISTRICT STANDARDS.
16. PVC PIPE MUST BE PRESSURIZED PRIOR TO TAPPING.
17. THE WATER SYSTEM CONTRACTOR SHALL INSTALL ALL IRRIGATION TAPS AND METERS PER THESE PLANS.
18. FIRE FLOW DEMAND IS 1500 GPM FOR A 3 HOUR DURATION AT A 20-PSI MINIMUM RESIDUAL MAIN LINE PRESSURE.
19. ALL NONMETALLIC PIPES SHALL HAVE A TRACER WIRE ATTACHED TO ITS TOP DURING CONSTRUCTION. THE TRACER WIRE SHALL BE #12 AWG INSULATED COPPER WIRE WITH NO. 12 TYPE COPPER CONNECTORS AND SHALL BE PERMANENTLY AFFIXED TO THE TOP OF THE PIPE USING TAPE AT 4' INTERVALS. THE TRACER WIRE SHALL ALSO BE PERMANENTLY CONNECTED TO ALL FIRE HYDRANT TEE, METALLIC PIPE BENDS, MAIN VALVE AND OTHER METALLIC FITTINGS AND APPURTENANCES. ALL POINTS OF CONNECTION SHALL BE PROTECTED FROM CORROSION BY AN EPOXY OR SILICON COATING. GROUND TRACER WIRES TO SURFACE AT ALL VALVE BOXES.
20. 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 (800) 922-1987 AT LEAST TWO WORKING DAYS PRIOR TO DIGGING.
21. ALL VALVES SHALL BE INSTALLED IN ACCORDANCE WITH COLORADO SPRINGS STANDARDS EXCEPT FOR NOTE 11 ABOVE. SPACING SHALL BE EQUIDISTANT FROM TEES, ELBOWS, BENDS AND OTHER APPURTENANCES AT 3 FOOT WHERE POSSIBLE.
22. HIGH DEFLECTION COUPLINGS ARE NOT TO BE USED IN THE INSTALLATION OF CURVILINEAR WATER PIPE.
23. TAPS WILL NOT BE RELEASE UNTIL THE FOLLOWING CONDITIONS ARE MET:
  - A. WATER AND SEWER LINES ARE INSTALLED AND PRESSURE TESTED TO THE DISTRICT STANDARDS. ALL 2X4 MARKERS ARE INTACT AND PAINTED FOR SERVICES.
  - B. AS CONSTRUCTED DRAWINGS HAVE BEEN SUBMITTED TO THE DISTRICT. DRAWINGS TO INCLUDE ANY CHANGES FROM CONSTRUCTION DRAWINGS. THE LENGTH, DEPTH, GRADE AND LOCATION OF ALL SEWER SERVICES. THE LENGTH DEPTH AND LOCATION OF WATER SERVICES.
  - C. ALL ELECTRIC AND GAS UTILITIES ARE INSTALLED.
  - D. THE FIRST LIFT OF HOT MIX ASPHALT MUST BE INSTALLED.
24. CONTRACTOR IS TO NOTIFY CHEROKEE METROPOLITAN DISTRICTS' INSPECTOR 24 HOURS PRIOR TO ALL STORM SEWER CRITICAL CROSSING OVER WATER AND SEWER LINES, TO VERIFY CLEARANCE.
25. FIRE HYDRANTS MUST BE PAINTED, BLUE CAPS AND BONNETS; WHITE BARREL SECTIONS. COLOR CODES ARE AS FOLLOWS: CHEROKEE BLUE, PRODUCT NUMBER 58155; CHEROKEE WHITE, PRODUCT NUMBER 58101, BOTH GLOSS OIL BASE EXTERIOR DEVOE-BAROX. CAN BE PURCHASED AT THE PAINT SPOT 5849 PALMER PARK BLVD COLORADO SPRINGS, CO 80915, OR EQUAL BRAND.

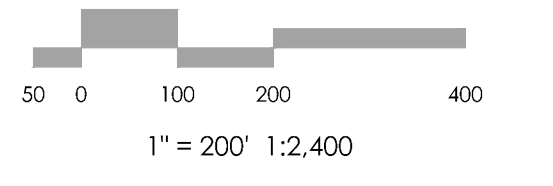
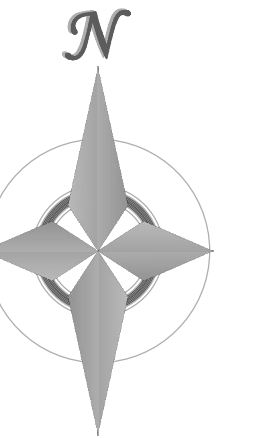
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1" = 200' 1:2,400

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1903 kellar street, suite 200 colorado springs, co 80909 719.635.5736

REVISIONS

DESIGNED BY DRG  
DRAWN BY TJW  
CHECKED BY \_\_\_\_\_  
AS-BUILTS BY \_\_\_\_\_  
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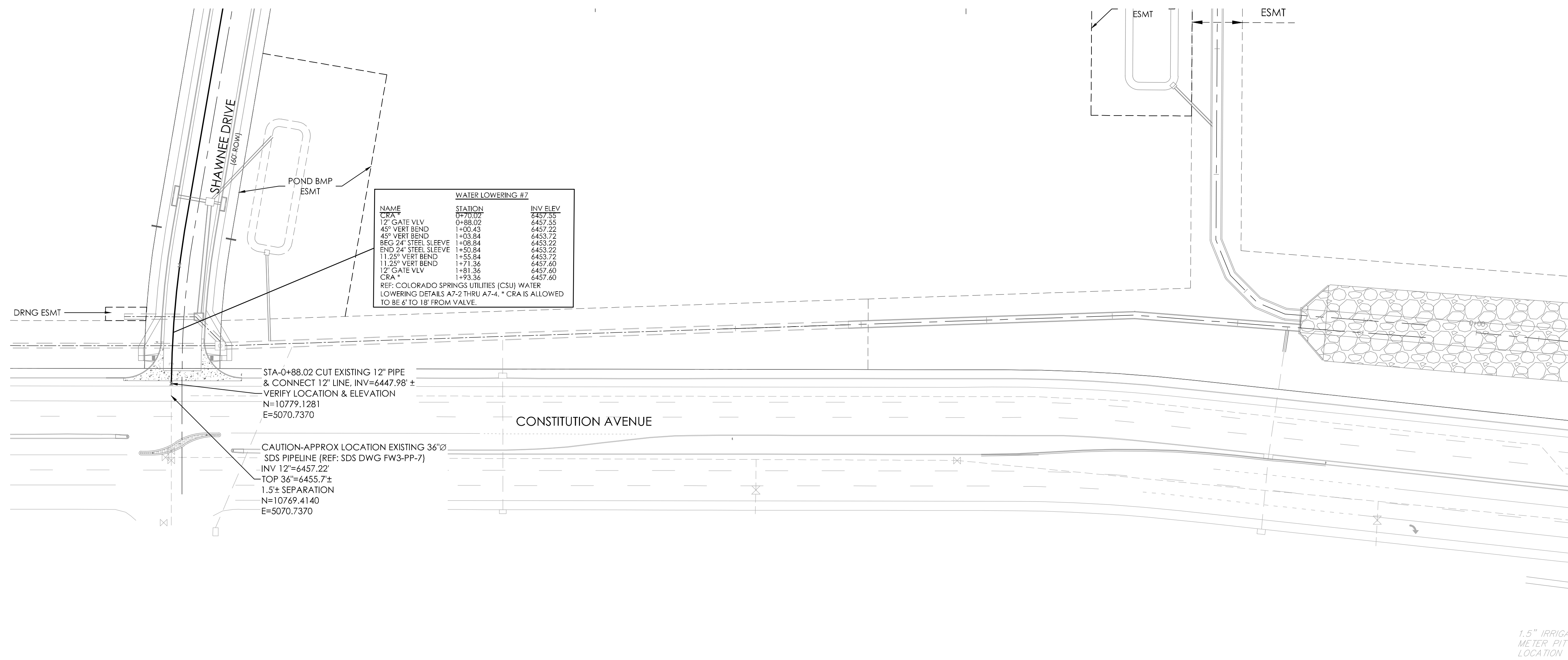


HANNAH RIDGE  
AT FEATHERGRASS NO. 4  
**WATER PLANS**  
COVER SHEET

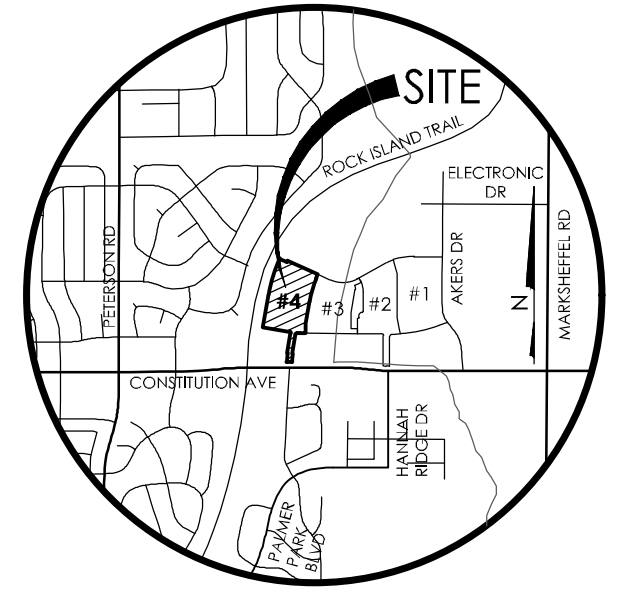
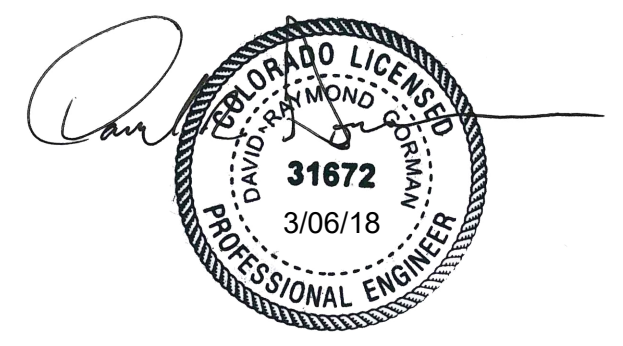
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MVE DRAWING 60970070-F4

**SEPTEMBER 21, 2017**  
**SHEET 41**

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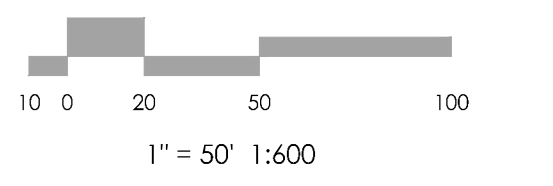
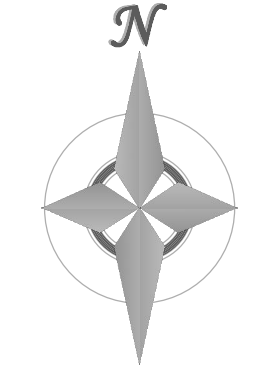
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 CHECKED BY \_\_\_\_\_  
 AS-BUILTS BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

**HANNAH RIDGE  
AT FEATHERGRASS NO. 4**

**WATER PLAN  
CONSTITUTION**

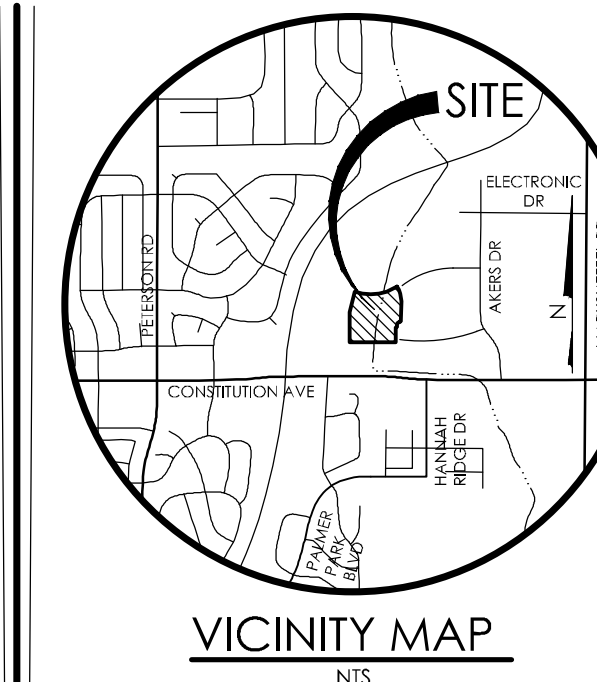
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**SEPTEMBER 21, 2017  
SHEET 42**

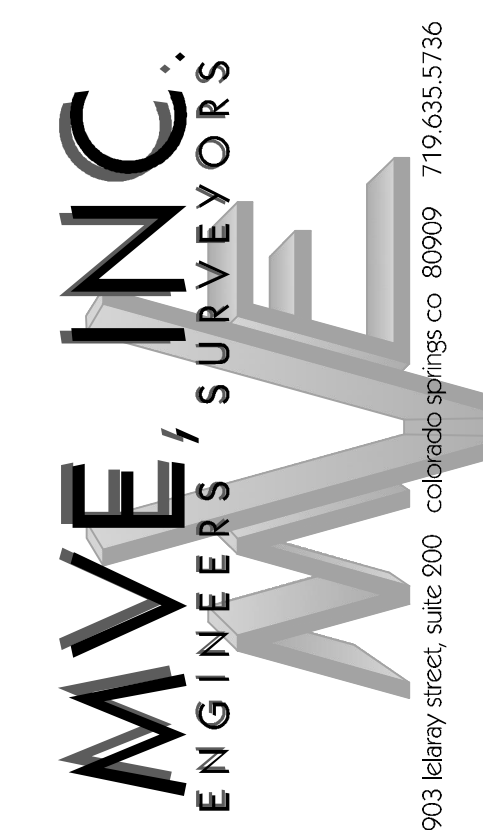
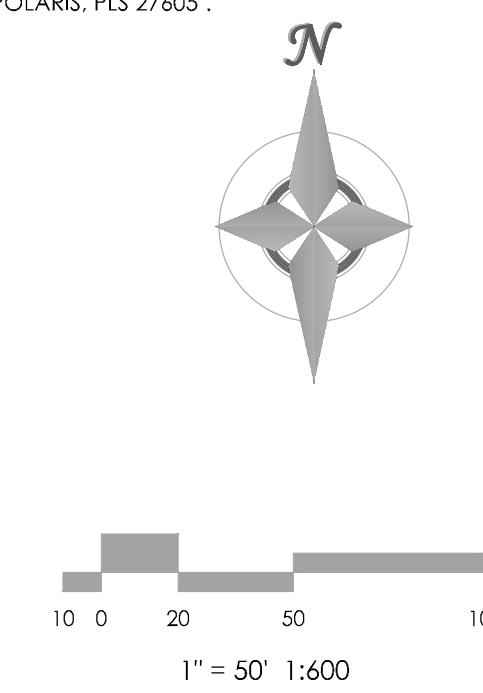
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NOTE:  
 SEE UTILITY PHASING PLAN FOR PHASED CONSTRUCTION LIMITS.

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 BEARINGS REFERRED TO HEREIN ARE BASED ON THE SOUTH LINE OF TRACT FF, HANNAH RIDGE AT FEATHERGRASS FILING NO. 1, ASSUMED TO BEAR N89°39'18"W MONUMENTED AT EACH END W/ NO. 5 REBAR W/ ALUMIN CAP MARKED "POLARIS, PLS 27605".



REVISIONS

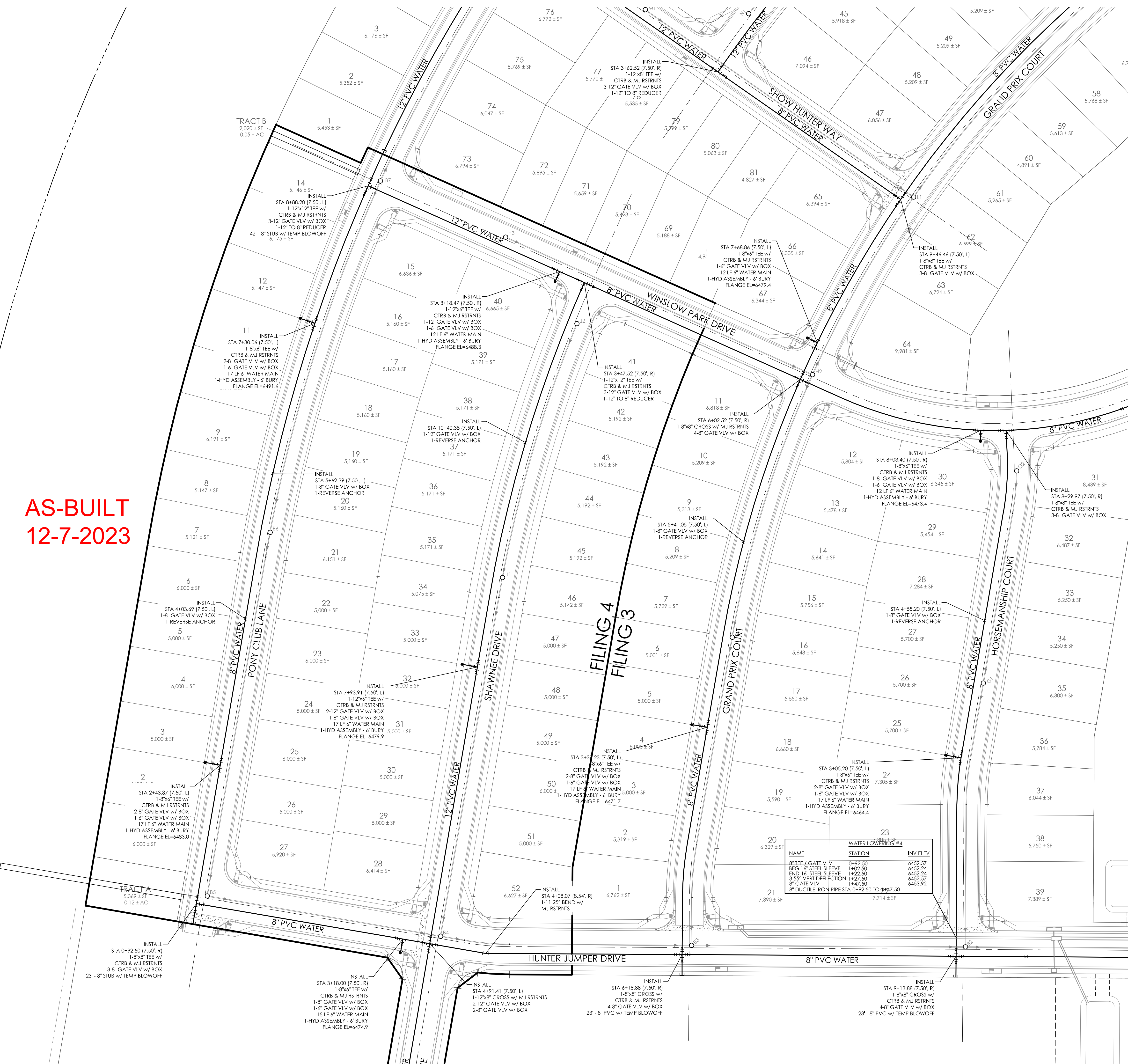
DESIGNED BY DRG  
 DRAWN BY TJW 8/22/2013  
 CHECKED BY  
 AS-BUILTS BY  
 CHECKED BY

HANNAH RIDGE  
 AT FEATHERGRASS NO. 4

**WATER PLAN  
 SOUTHWEST**

MVE PROJECT **60970**  
 MVE DRAWING 60970072-F4

**SEPTEMBER 21, 2017  
 SHEET 43**



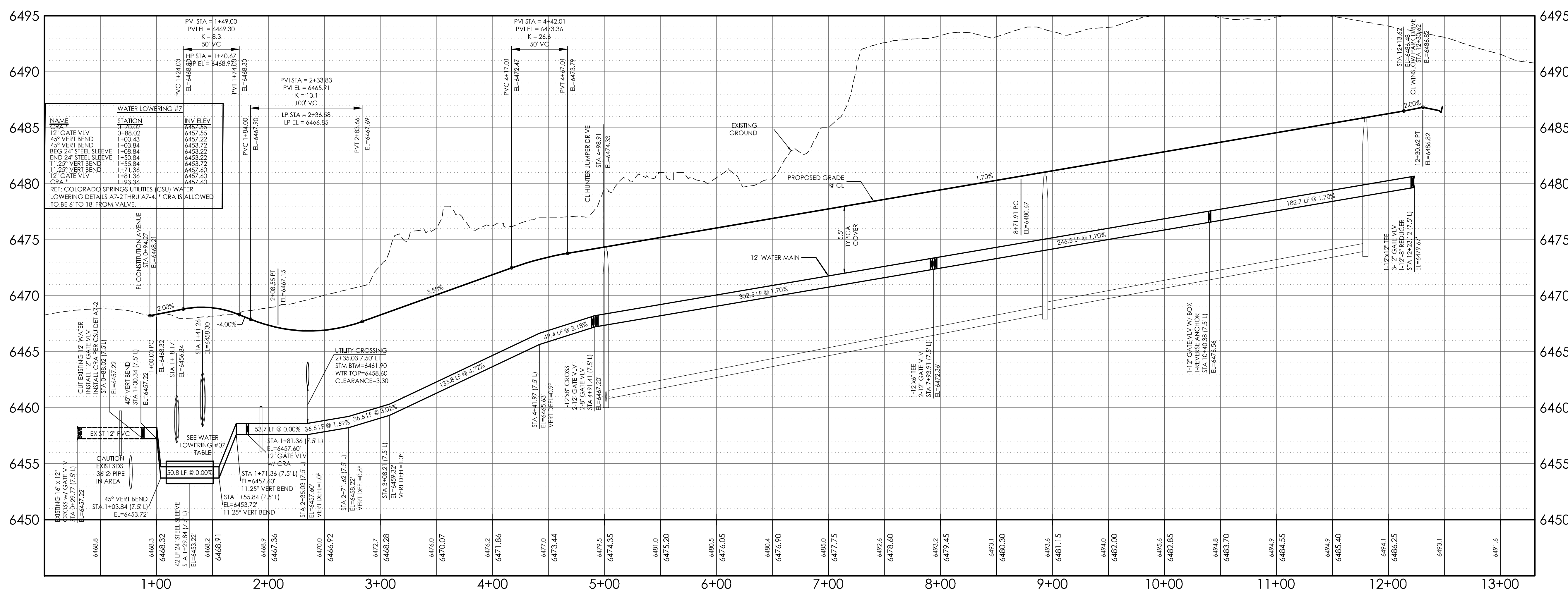
**AS-BUILT  
 12-7-2023**



**CURVILINEAR PIPE NOTE:**  
 THERE IS NO DEFLECTION ALLOWED AT THE JOINTS ON 12-INCH AND SMALLER PIPE. NOTICE: MECHANICAL MEANS SHOULD NOT BE EMPLOYED TO ACCOMPLISH THESE RADII. IT IS THE INTENT THAT THE WORKER SHOULD ACCOMPLISH THIS MANUALLY IN THE TRENCH, ON 4-INCH TO 12-INCH PIPE. THE CURVE SHOULD BE ACCOMPLISHED BY BENDING THE PIPE RATHER THAN DEFLECTING JOINTS. THERE SHALL BE NO DEFLECTION IN THE JOINTS UPON COMPLETION TO AVOID OVER-STRESSING THE BELL AND PREVENT POSSIBLE BREAKAGE AND/OR LEAKS.

**NOTE:**  
 SEE UTILITY PHASING PLAN FOR PHASED CONSTRUCTION LIMITS.

E:\MVE\Drawings\60970\072-F4.dwg, 3/21/18 12:17:28 PM, DRG



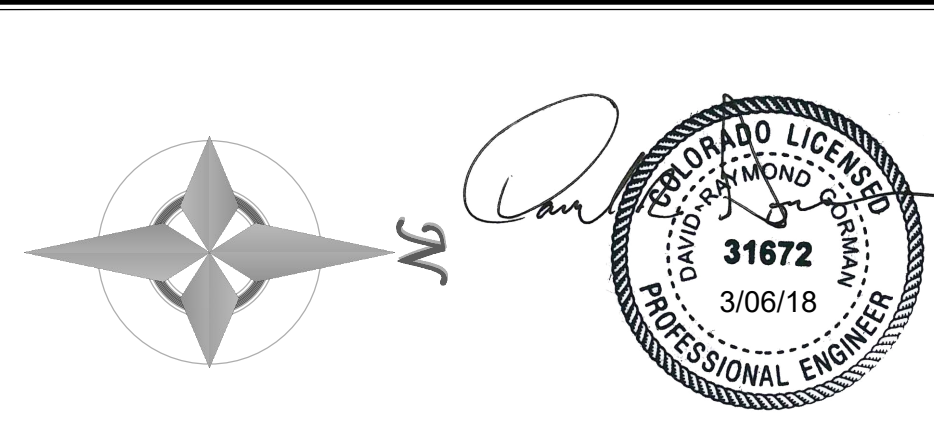
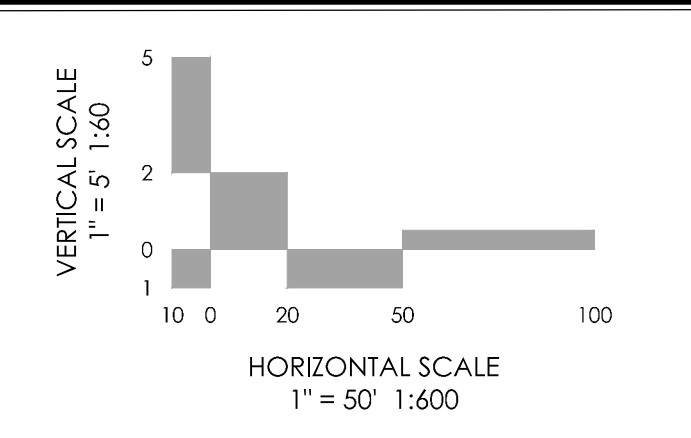
**AS-BUILT**  
**12-7-2023**

T:\MPTV\_Sheri\_Dwg\0970076-F4.dwg, 3/2/18 12:52:27 PM, DMS

THE BENCHMARK FOR THESE PLANS IS THE TOP OF #4 REBAR, PANEL POINT NO. 1, LOCATED ON THE SOUTH EDGE OF CONSTITUTION AVE AND THE WEST EDGE OF THE ROCK ISLAND TRAIL, 335 FEET WEST OF THE CENTERLINE OF SHAWNEE DR. ELEVATION = 6486.63. (EPC DATUM ELEVATION = 6485.25).  
BASIS OF BEARINGS  
BEARING REFERRED TO HEREIN ARE BASED ON THE WEST LINE OF TRACT GG, HANNAH RIDGE AT FEATHERGRASS FILING NO. 1, ALSO BEING THE EASTERLY RIGHT-OF-WAY LINE OF CHICAGO, ROCK ISLAND AND PACIFIC RAILROAD, ASSUMED TO BEAR N09°45'59"E AND MONUMENTED AT EACH END WITH PLASTIC CAPS. 4"X 1/2" 13225".

**DESIGN DATA:**  
SIDEWALKS: WIDTH: 5'  
LOCATION: Attached  Detached   
DESIGN SPEED: \_\_\_\_\_  
CURB TYPE:  2  3  4  5  
ROW WIDTH: 60' FL-FL VARIES  
STREET TYPE: LOCAL

**PAVEMENT:**  
TYPE: HMA  PCC   
THICKNESS: \_\_\_\_\_  
COMPOSITE SECTION:  
HMA \_\_\_\_\_ BASE \_\_\_\_\_  
SUBGRADE STABILIZATION:  
CHEMICAL TYPE \_\_\_\_\_ MECHANICAL THICKNESS \_\_\_\_\_



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REVISIONS

MVE PROJECT **60970**  
MVE DRAWING **60970076-F4**  
**SEPTEMBER 21, 2017**  
DESIGNED BY DRG  
DRAWN BY TJW  
CHECKED BY \_\_\_\_\_  
AS-BUILT BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

**SHAWNEE DRIVE WATERLINE**  
FROM STA 0+29.77  
TO STA 12+23.12  
HANNAH RIDGE AT FEATHERGRASS NO. 4

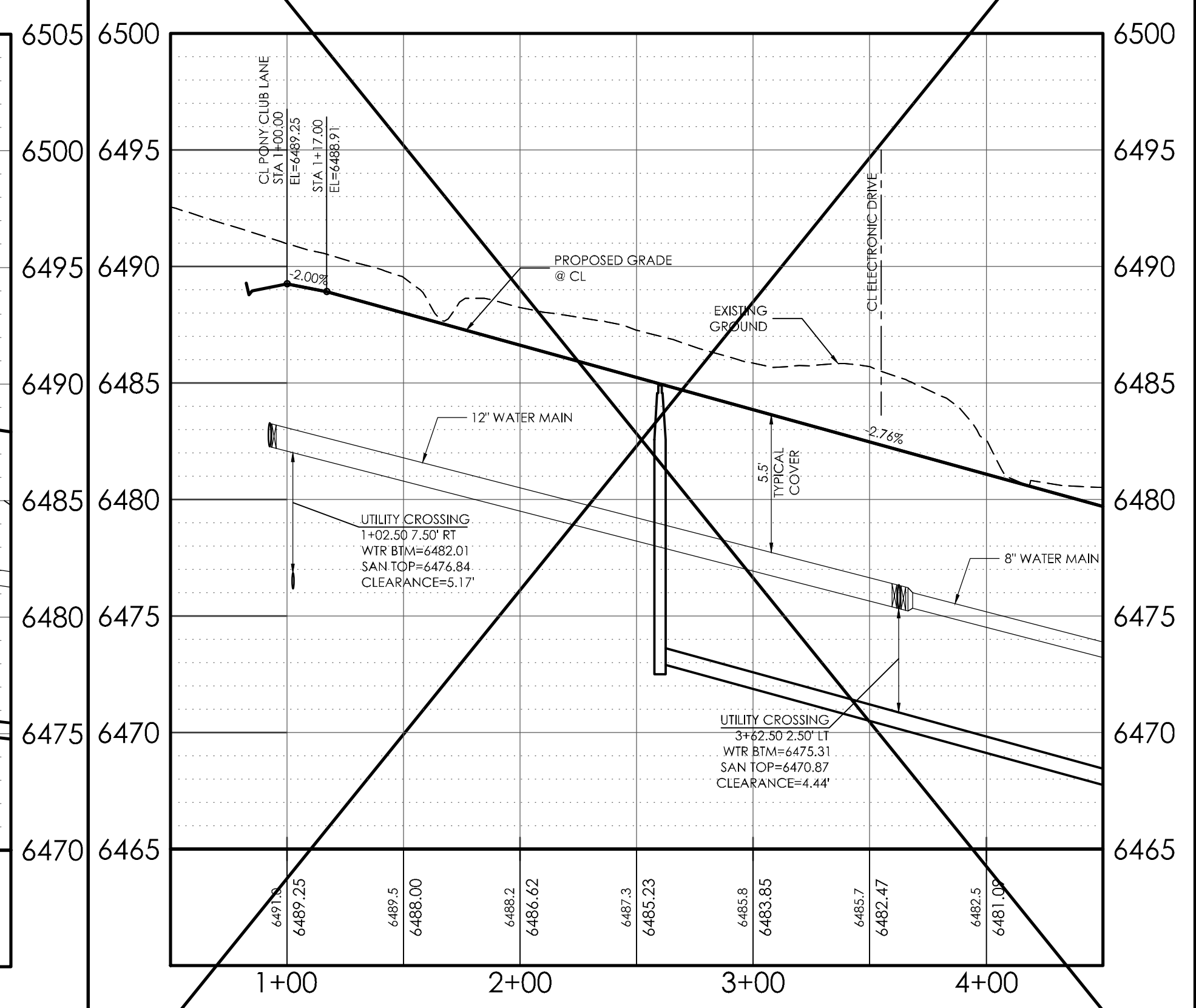
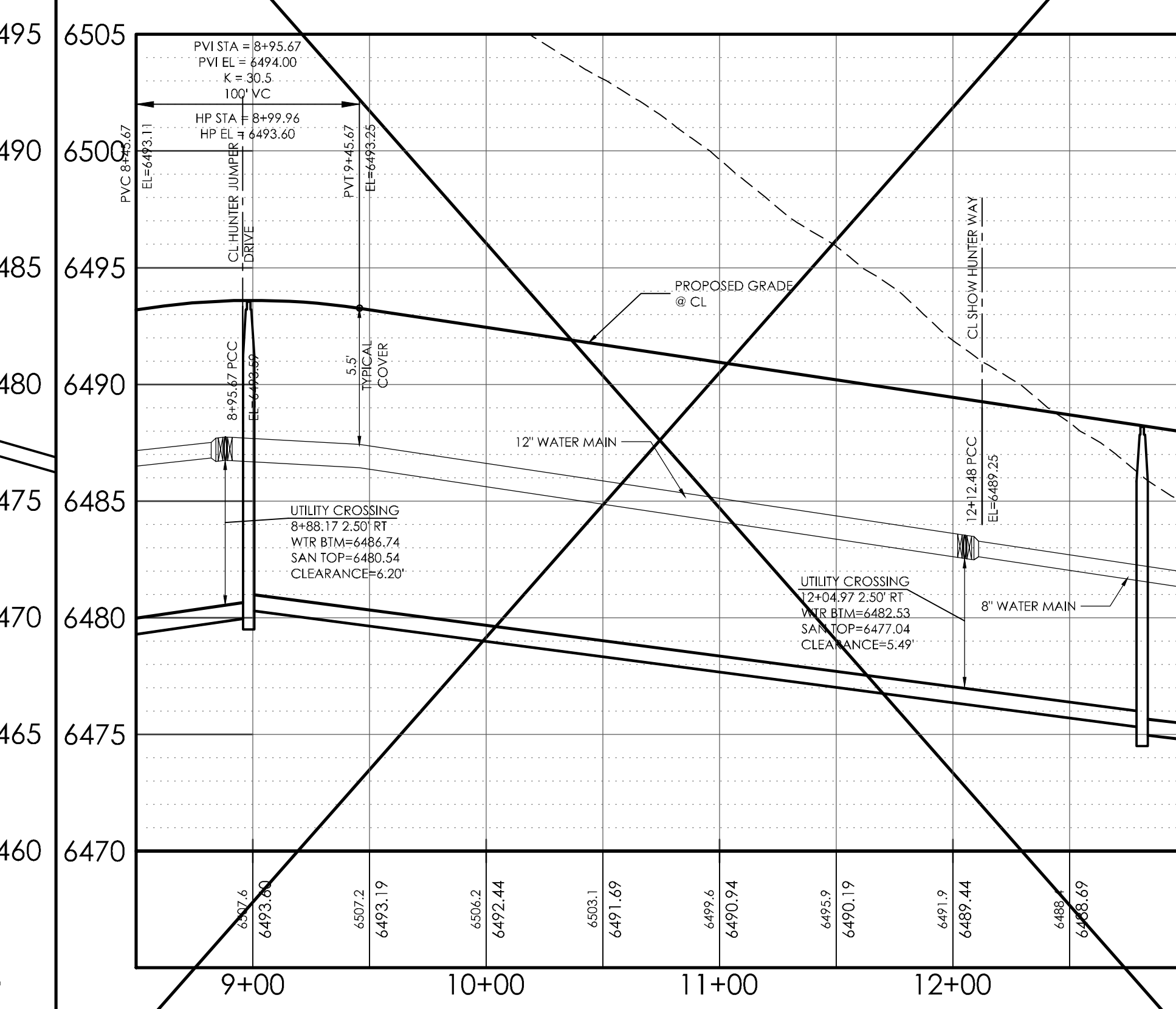
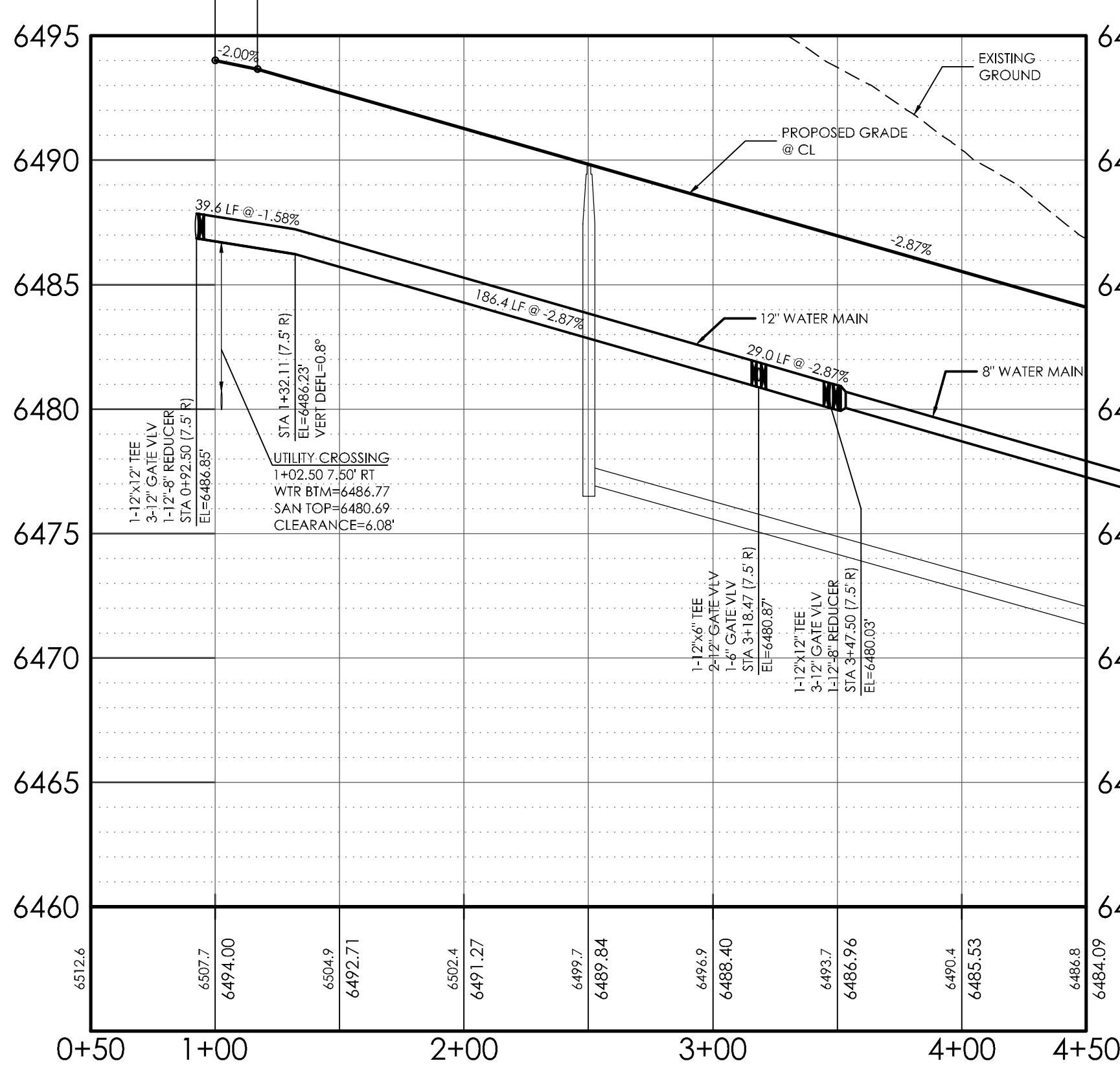




**WinslowParkDrive PROFILE**  
 SCALE: (H) 1" = 50' (V) 1" = 5'  
 START STA 0+50.00, END STA 4+50.00

**PonyClubLane PROFILE**  
 SCALE: (H) 1" = 50' (V) 1" = 5'  
 START STA 8+50.00, END STA 13+00.00

**SchoolerWay PROFILE**  
 SCALE: (H) 1" = 50' (V) 1" = 5'  
 START STA 0+50.00, END STA 4+50.00

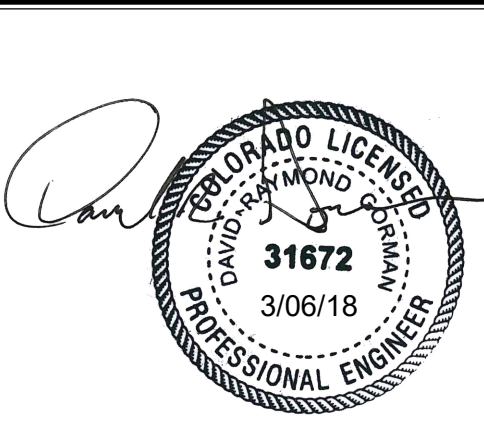
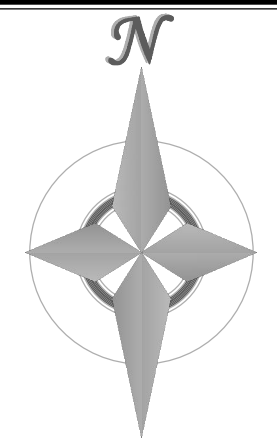
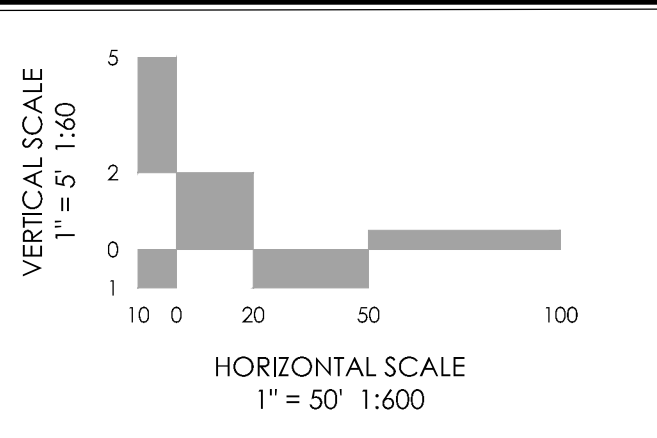


**AS-BUILT**  
**12-7-2023**

THE BENCHMARK FOR THESE PLANS IS THE TOP OF #4 REBAR, PANEL POINT NO. 1, LOCATED ON THE SOUTH EDGE OF CONSTITUTION AVE AND THE WEST EDGE OF THE ROCK ISLAND TRAIL, 535 FEET WEST OF THE CENTERLINE OF SHAWNEE DR. ELEVATION = 6486.63. (EPC DATUM ELEVATION = 6485.29).  
 BASIS OF BEARINGS  
 BEARING REFERRED TO HEREIN ARE BASED ON THE WEST LINE OF TRACT GG, HANNAH RIDGE AT FEATHERGRASS PLING NO. 1, ALSO BEING THE EASTERLY RIGHT-OF-WAY LINE OF CHICAGO, ROCK ISLAND AND PACIFIC RAILROAD, ASSUMED TO BEAR N09°45'59"E AND MONUMENTED AT EACH END WITH PLASTIC CAPS, "4M, LS 13225".

**DESIGN DATA:**  
 SIDEWALKS: WIDTH 5'  
 LOCATION: Attached  Detached   
 DESIGN SPEED \_\_\_\_\_  
 CURB TYPE: 1  2  3  4  5   
 ROW WIDTH: 60' FL-FL 34.00'  
 STREET TYPE: LOCAL

**PAVEMENT:**  
 TYPE: HMA  PCC   
 THICKNESS: \_\_\_\_\_  
 COMPOSITE SECTION:  
 HMA \_\_\_\_\_ BASE \_\_\_\_\_  
 SUBGRADE STABILIZATION:  
 CHEMICAL TYPE \_\_\_\_\_ MECHANICAL THICKNESS \_\_\_\_\_



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REVISIONS

MVE PROJECT **60970**  
 MVE DRAWING **60970077-F4**  
**SEPTEMBER 21, 2017**  
 DESIGNED BY DRG  
 DRAWN BY TJW 8/22/2013  
 CHECKED BY \_\_\_\_\_  
 AS-BUILT BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

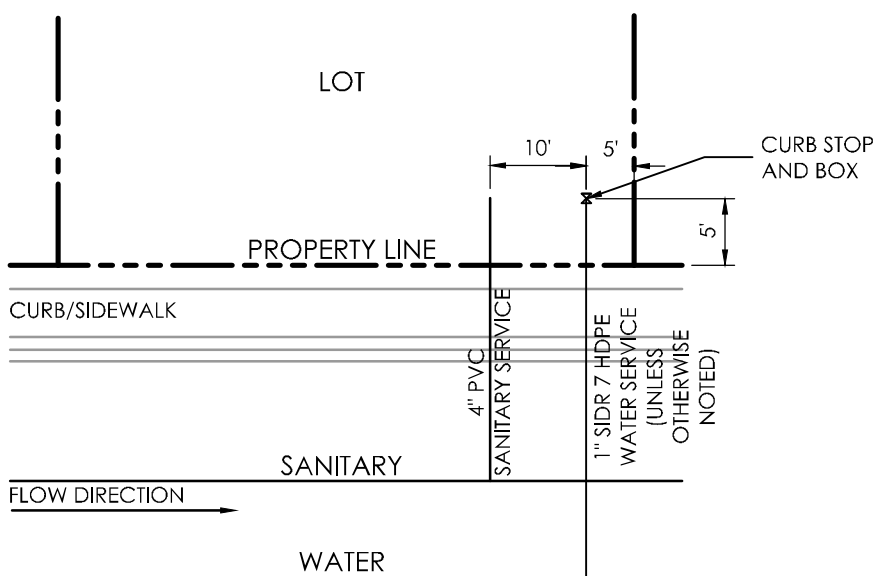
**WINSLOW PARK DRIVE WATERLINE**  
 FROM STA 3+47.50  
 TO STA 13+25.86  
 HANNAH RIDGE AT FEATHERGRASS NO. 4

**AS-BUILT  
12-7-2023**



SANITARY SEWER SERVICE LINES  
PIPE MATERIAL & MINIMUM SLOPE REQUIREMENTS:

PIPE DIA.	BURY DEPTH	MATERIAL	MIN SLOPE
4"	6'-14"	SDR 35 PVC	2.08%
4"	14'-24"	SDR 26 PVC	1.04%
4"	24'-30"	SCHEDULE 80 PVC	1.04%



**TYPICAL SERVICE LOCATION**  
SCALE: NTS

**UTILITY SERVICE NOTES:**

MINIMUM DEPTH OF SANITARY SEWER PIPE IS 6- FEET OF COVER. IF THIS MINIMUM CANNOT BE ACHIEVED THE FOLLOWING APPLIES; OTHERWISE THE SEWER PIPE MUST HAVE 6- FEET OF COVER.

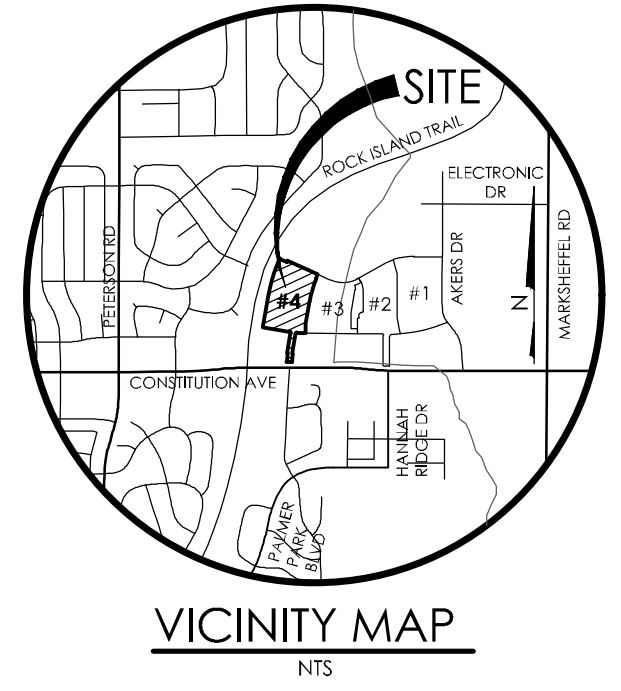
DEPTH GREATER THAN 6- FEET; MATERIAL TYPE SDR 35  
DEPTH BETWEEN 4- FEET AND 6- FEET; MATERIAL TYPE SCH 40 OR CAST IRON PIPE (CIP)  
DEPTH LESS THAN 4- FEET; MATERIAL TYPE SCH 40 OR CIP WITH CONCRETE CAP.

THREE (3) FOOT SEPARATION REQUIRED BETWEEN SERVE TAPS ON ALL MAINS.

WATER SERVICE MUST BE OVER THE SEWER AT ALL TIMES. SEWER SERVICE PIPE LOCATED WITHIN 1- FOOT OF THE WATER SERVICE LINE MUST BE CONSTRUCTED WITH SCH 40 PIPE OR CIP.

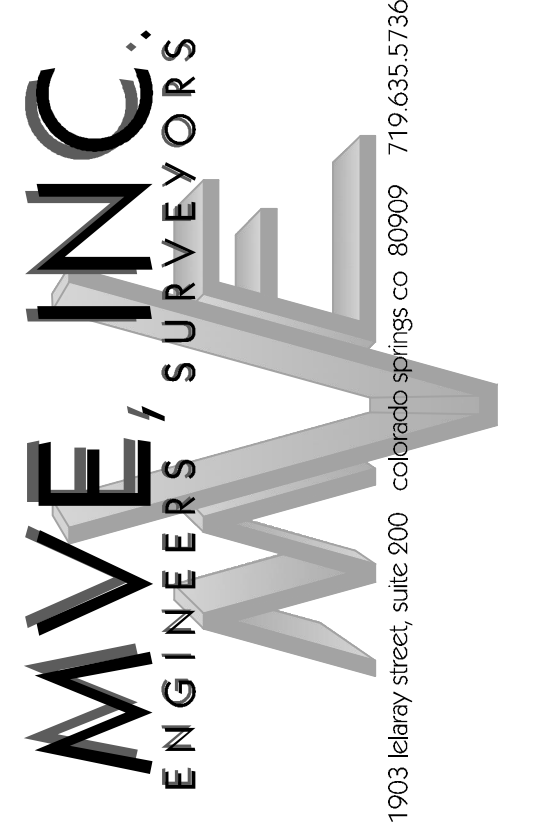
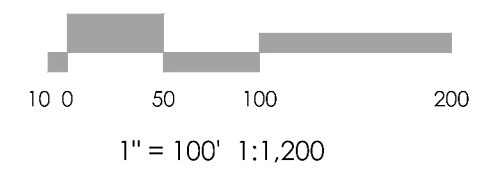
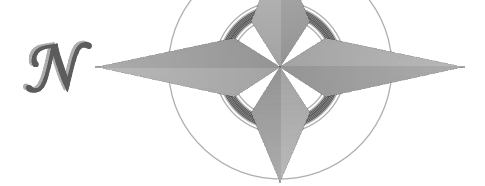
ALL EXTERIOR SEWER CLEANOUTS MUST HAVE A CAST IRON, TRAFFIC-RATED COVER, OR EQUIVALENT WITH CONCRETE COLLAR.

SEE UTILITY PHASING PLAN FOR PHASED CONSTRUCTION LIMITS.



**BENCHMARK**  
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REVISIONS

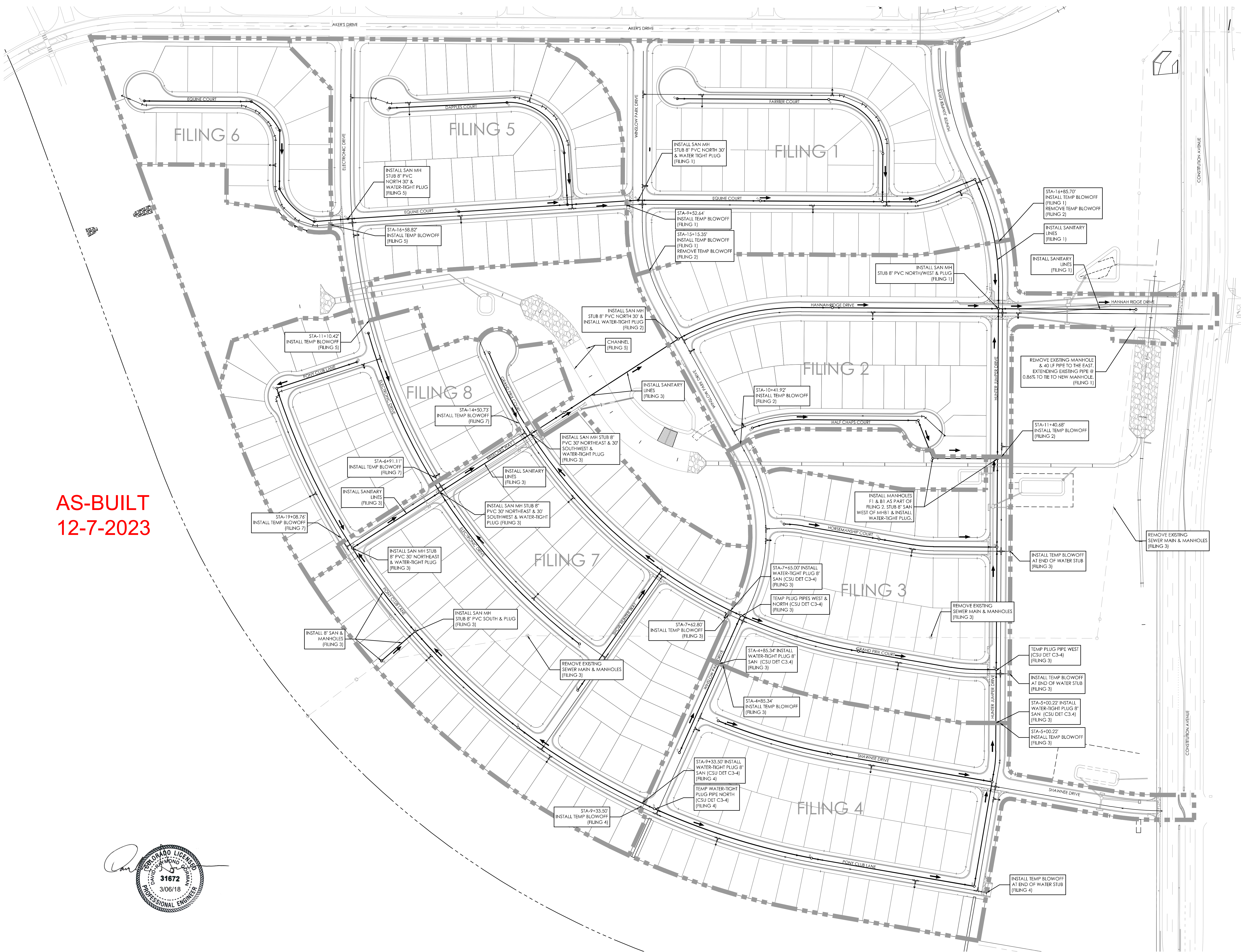
DESIGNED BY TJW  
DRAWN BY TJW  
CHECKED BY TJW  
AS-BUILT BY  
CHECKED BY

**HANNAH RIDGE  
AT FEATHERGRASS NO. 4**

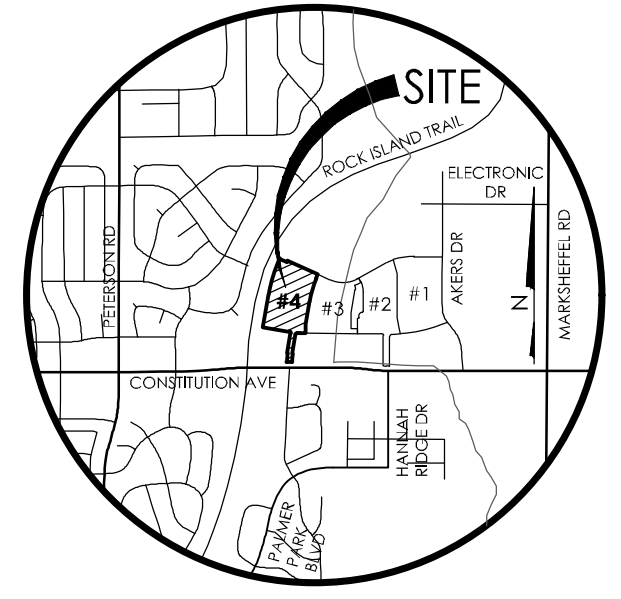
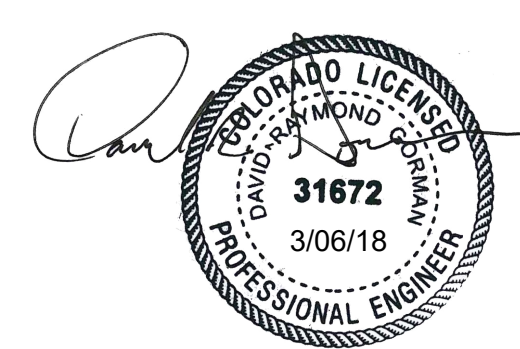
**UTILITY SERVICE  
PLAN & NOTES**

MVE PROJECT 60970  
MVE DRAWING 60970085-F4

**SEPTEMBER 21, 2017  
SHEET 52**



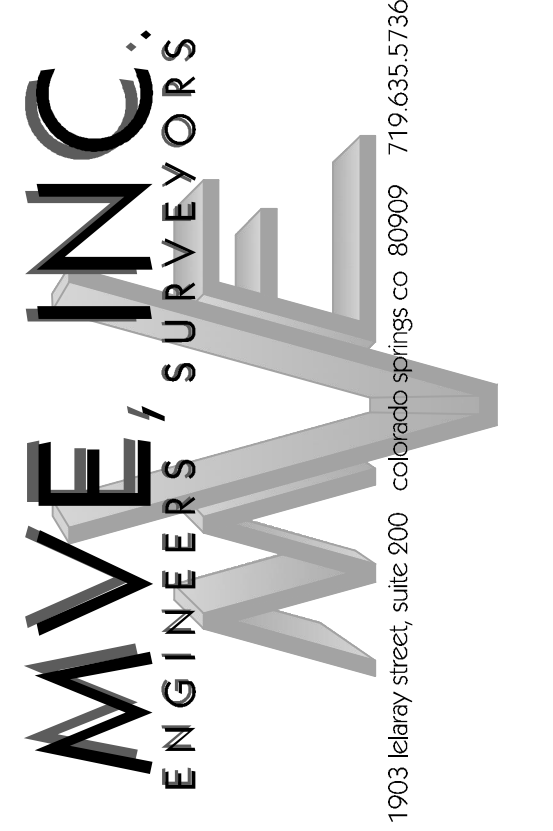
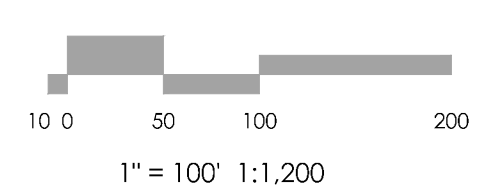
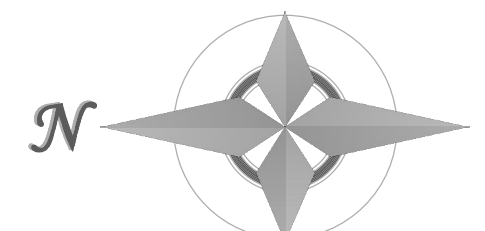
**AS-BUILT  
12-7-2023**



VICINITY MAP

BENCHMARK  
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REVISIONS

DESIGNED BY TJW  
DRAWN BY TJW  
CHECKED BY \_\_\_\_\_  
AS-BUILT BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

**HANNAH RIDGE  
AT FEATHERGRASS NO. 4**

**UTILITY PHASING  
PLAN & NOTES**

MVE PROJECT 60970  
MVE DRAWING 60970087-F4

**SEPTEMBER 21, 2017  
SHEET 53**