

GENERAL CONSTRUCTION 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. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES ALONG THE ROUTE OF THE WORK. THE OMISSION FROM OR THE INCLUSION OF UTILITY LOCATIONS ON THE PLANS IS NOT TO BE CONSIDERED AS THE NONEXISTENCE OF OR A DEFINITE LOCATION OF EXISTING UNDERGROUND UTILITIES.
3. BEFORE COMMENCING ANY EXCAVATION, CALL 811 FOR EXISTING UTILITY LOCATIONS.
4. THE CONTRACTOR WILL TAKE THE NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES FROM DAMAGE DUE TO THIS OPERATION. ANY DAMAGE TO THE UTILITIES WILL BE REPAIRED AT THE CONTRACTOR'S EXPENSE, AND ANY SERVICE DISRUPTION WILL BE SETTLED BY THE CONTRACTOR.
5. ADDITIONAL EROSION CONTROL STRUCTURES MAY BE REQUIRED AT THE TIME OF CONSTRUCTION.
6. ALL BACKFILL, SUB-BASE AND/OR BASE COURSE (CLASS 6) MATERIAL SHALL BE COMPACTED TO THE SOILS ENGINEER'S RECOMMENDATIONS, AND APPROVED BY EL PASO COUNTY DEVELOPMENT SERVICES ENGINEERING DIVISION.
7. ALL STATIONING IS CENTERLINE UNLESS OTHERWISE INDICATED. ALL ELEVATIONS ARE FLOWLINE UNLESS OTHERWISE INDICATED.
8. ALL DISTURBED PAVEMENT EDGES SHALL BE CUT TO NEAT LINES. REPAIR SHALL CONFORM TO THE EPC EGM APPENDIX K - 1.2C.
9. ALL INTERSECTION ACCESSSES TO BE CONSTRUCTED WITH A 25 FOOT SIGHT VISIBILITY TRIANGLES.
10. ALL CULVERT AND STORM DRAIN PIPES SHALL BE SMOOTH INTERIOR CORRUGATED POLYETHYLENE PIPE (HDPE), REINFORCED CONCRETE PIPE (RCP). ALL CULVERTS SHALL BE PLACED COMPLETE WITH FLARED END SECTIONS. ADEQUACY OF MATERIAL THICKNESS FOR ANY CSP INSTALLED SHALL BE VERIFIED BY OWNER'S GEOTECHNICAL ENGINEER TO SUPPORT MINIMUM 50 YEAR DESIGN LIFE. CULVERTS MUST CONFORM TO EPC EGM SECTION 3.32 - CULVERTS.
11. ASPHALT THICKNESS AND BASE COURSE THICKNESS (COMPACTED) FOR ROADS SHALL BE PER DESIGN REPORT BY OWNER'S GEOTECHNICAL ENGINEER. OWNER'S GEOTECHNICAL ENGINEER TO BE ON SITE AT TIME OF ROAD CONSTRUCTION TO EVALUATE SOIL CONDITIONS AND DETERMINE IF ADDITIONAL MEASURES ARE NECESSARY TO ASSURE STABILITY OF THE NEW ROADS. PAVEMENT DESIGN SHALL BE APPROVED BY EL PASO COUNTY DEVELOPMENT SERVICES ENGINEERING DIVISION PRIOR TO CONSTRUCTION.
12. TYPE M RIP-RAP WITH 4" OF TYPE II GRANULAR BEDDING AND MIRAFI 180N OR EQUAL MAY BE SUBSTITUTED WHERE TYPE L RIP-RAP WITH MIRAFI FW 700 OR EQUAL IS SPECIFIED.
13. ALL MATERIALS AND INSTALLATION PROCEDURES SHALL BE IN COMPLIANCE WITH ANY AND ALL APPLICABLE EL PASO COUNTY STANDARDS.
14. ALL POTABLE WATER MAINS SHALL BE AWWA C900-CLASS 200 (DR14) PVC WITH PUSH-ON SINGLE GASKET TYPE JOINTS AND SHALL MEET THE REQUIREMENTS OF ANSI/NSF 61.
15. ALL WATER MAIN FITTINGS SHALL BE MADE FROM GRAY-IRON OR DUCTILE IRON AND FURNISHED WITH MECHANICAL JOINT ENDS. ALL FITTINGS SHALL HAVE A PRESSURE RATING OF 250 PSI AND SHALL MEET THE REQUIREMENTS OF ANSI/NSF 61. ALL FITTINGS SHALL BE WRAPPED WITH A 9-MILTHICKNESS POLYETHYLENE MATERIAL PER AWWA STANDARD C105.
16. ALL WATER LINE BENDS, TEES, BLOW-OFFS AND PLUGS AT DEAD-END MAINS SHALL BE PROTECTED FROM THRUST BY USING CONCRETE THRUST BLOCKS AND/OR RODDING AND RESTRAINED PIPE.
17. MAXIMUM DEFLECTION OF 8" & 12" PVC WATER MAIN JOINTS IS 1 DEGREE OR LESS PER THE MANUFACTURERS RECOMMENDATIONS. ADDITIONAL 11.25" OR 22.5" BENDS MAY BE REQUIRED FOR PROPER ALIGNMENT.
18. CONTRACTOR IS PROVIDING DETAILED AS-BUILTS OF ALL WATER MAIN, STORM SEW AND SAN. SEW. MAIN INSTALLATIONS, INCLUDING ACCURATE DISTANCES OF MAIN LINES, VALVES, FITTINGS, MANHOLES AND LOCATIONS OF WATER AND SEWER SERVICES.
19. SANITARY SEWER PIPE AND FITTINGS: PVC 4"-8" ASTM D3034, TYPE PSM, SDR 35; PUSH-ON JOINTS AND MOLDED RUBBER GASKETS MAXIMUM HORIZONTAL DEFLECTION, AFTER INSTALLATION AND BACK FILLING SHALL NOT EXCEED 3% OF THE PIPE DIAMETER. (MINIMUM CURVE RADIUS FOR 8" PVC SANITARY SEWER MAIN MUST BE WITHIN MANUFACTURERS RECOMMENDATIONS). ALL HORIZONTAL DEFLECTIONS SHALL BE ACCOMPLISHED BY BENDING THE PIPE RATHER THAN DEFLECTING THE PIPE JOINTS.

EL PASO COUNTY GRADING AND EROSION CONTROL NOTES:

1. CONSTRUCTION MAY NOT COMMENCE UNTIL A CONSTRUCTION PERMIT IS OBTAINED FROM DEVELOPMENT SERVICES AND A PRECONSTRUCTION CONFERENCE IS HELD WITH DEVELOPMENT SERVICES 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. ANY DEVIATIONS TO REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING.
4. 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. DURING CONSTRUCTION THE SWMP IS THE RESPONSIBILITY OF THE DESIGNATED STORMWATER MANAGER, SHALL BE LOCATED ON SITE AT ALL TIMES AND SHALL BE KEPT UP TO DATE WITH WORK PROGRESS AND CHANGES IN THE FIELD.
5. ONCE THE ESQCP HAS BEEN ISSUED, THE CONTRACTOR MAY INSTALL THE INITIAL STAGE EROSION AND SEDIMENT CONTROL BMPs AS INDICATED ON THE GEC. A PRECONSTRUCTION MEETING BETWEEN THE CONTRACTOR, ENGINEER, AND 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 OSD INSPECTIONS STAFF.
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 OR FINAL EARTH DISTURBANCE HAS BEEN COMPLETED. DISTURBED AREAS AND STOCKPILES WHICH ARE NOT AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 30 DAYS SHALL ALSO BE MULCHED WITHIN 21 DAYS AFTER INTERIM GRADING. AN AREA THAT IS GOING TO REMAIN IN AN INTERIM STATE FOR MORE THAN 60 DAYS SHALL ALSO BE SEEDED. ALL TEMPORARY SOIL EROSION CONTROL MEASURES AND BMPs SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND ESTABLISHED.
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 (SWMP).
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 DETAIL 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. 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.
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. NO WASH WATER SHALL BE DISCHARGED TO OR ALLOWED TO RUNOFF TO STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES.
13. EROSION CONTROL BLANKETING IS TO 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, UNLESS IN ACCORDANCE WITH AN APPROVED TRAFFIC CONTROL PLAN. BMPs MAY BE REQUIRED BY EL PASO COUNTY ENGINEERING IF DEEMED NECESSARY, BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES.
15. VEHICLE TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF-SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFFSITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.
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 THE SITE.
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 AND STORMWATER APPURTENANCES AS A RESULT OF SITE DEVELOPMENT.
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. ALL MATERIALS STORED ON-SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER, IN THEIR ORIGINAL CONTAINERS, WITH ORIGINAL MANUFACTURER'S LABELS.
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. IN GRANTING THE USE OF SUCH CHEMICALS, SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.
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, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES.
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. ALL APPROPRIATE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION (NPDES, FLOODPLAIN, 404, FUGITIVE DUST, ETC.). IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL, STATE, OR COUNTY AGENCIES, THE MORE RESTRICTIVE LAWS, RULES, OR REGULATIONS SHALL APPLY.
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 RMG ENGINEERS GROUP, TITLED "HILLTOP SUBDIVISION SOILS AND GEOLOGIC REPORT", DATED MARCH 5, 2014, 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 (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 CHERRY CREEK DRIVE SOUTH
DENVER, CO 80246-1530
ATTN: PERMITS UNIT

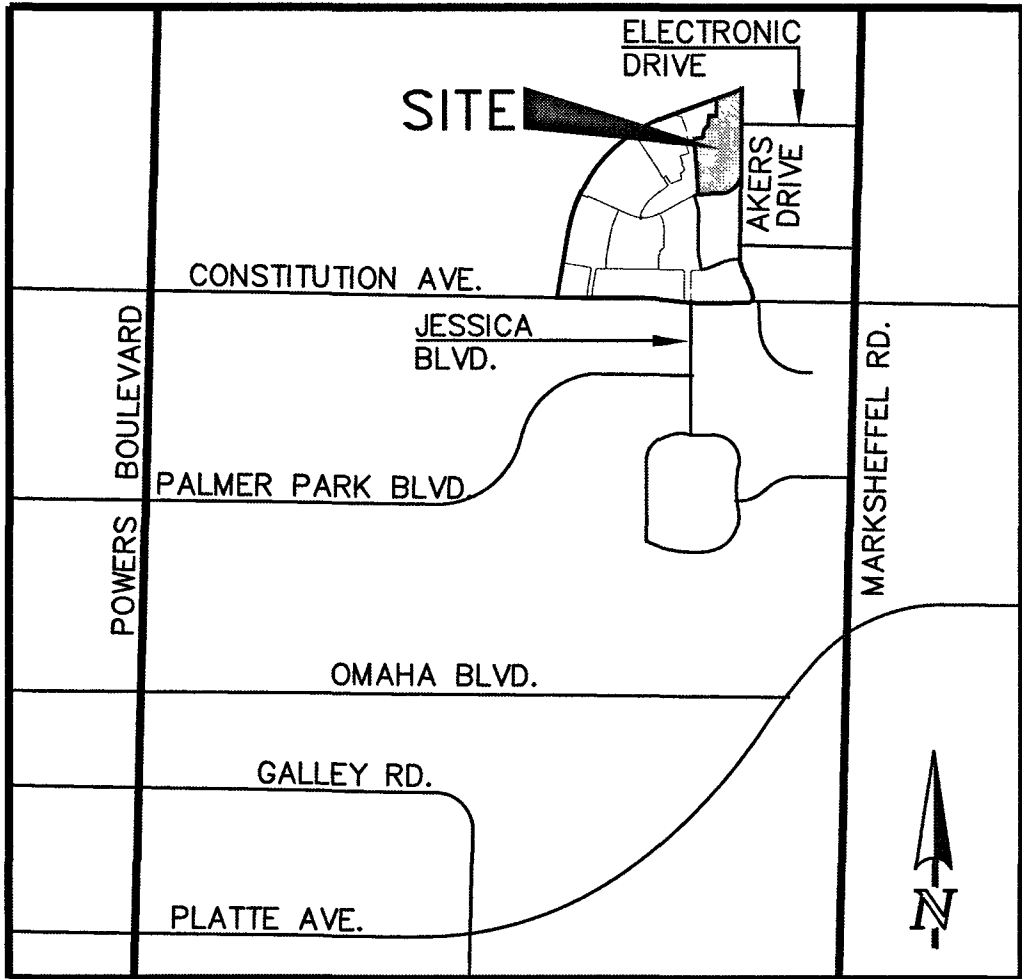
HANNAH RIDGE AT FEATHERGRASS FILING NO. 5

COUNTY OF EL PASO, STATE OF COLORADO

SECTION 32, TOWNSHIP 13
SOUTH, RANGE 65 WEST

CONSTRUCTION PLANS

OCTOBER 2018



VICINITY MAP
NOT TO SCALE

SHEET INDEX

TITLE SHEET
OVERLOT GRADING PLAN INCLUDING EROSION CONTROL
OVERLOT GRADING PLAN INCLUDING EROSION CONTROL
OVERLOT GRADING PLAN INCLUDING EROSION CONTROL
GRADING AND EROSION CONTROL DETAILS
STREET IMPROVEMENT PLAN
STREET IMPROVEMENT PLAN
STREET IMPROVEMENT SIGNAGE PLAN
STORM SEWER PLAN & PROFILE
PROPOSED TRIBUTARY DRAINAGE IMPROVEMENTS PLAN & PROFILE
BOX CULVERT AND GRASS CHANNEL DETAILS

SHEET 1 OF 11
SHEET 2 OF 11
SHEET 3 OF 11
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BENCHMARKS:

A #5 REBAR LOCATED APPROXIMATELY 170 FEET NORTHEAST OF THE NORTHEASTERLY CORNER OF TRACT JJ AS PLATTED IN HANNAH RIDGE AT FEATHERGRASS FILING NO. 1, LABELED AS PANEL POINT #11
ELEVATION = 6523.79 (NAVD 1929) (FIMS)

A 1 INCH ORANGE PLASTIC CAP STAMPED "13225" LOCATED AT THE SOUTHWESTERLY CORNER OF TRACT AA AS PLATTED IN HANNAH RIDGE AT FEATHERGRASS FILING NO. 1
ELEVATION = 6455.00 (NAVD 1929) (FIMS)

BASIS OF BEARINGS:

BEARING 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".

SIGNING AND STRIPING NOTES:

1. ALL SIGNS AND PAVEMENT MARKINGS SHALL BE IN COMPLIANCE WITH THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
2. 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.
3. ANY DEVIATION FROM THE STRIPING AND SIGNING PLAN SHALL BE APPROVED BY EL PASO COUNTY DEVELOPMENT SERVICES.
4. 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.
5. STREET NAME AND REGULATORY STOP SIGNS SHALL BE ON THE SAME POST AT INTERSECTIONS.
6. ALL REMOVED SIGNS SHALL BE DISPOSED OF IN A PROPER MANNER BY THE CONTRACTOR.
7. ALL STREET NAME SIGNS SHALL HAVE "C" SERIES LETTERS, WITH LOCAL ROADWAY SIGNS BEING 4" UPPER-LOWER CASE LETTERING ON 8" BLANK AND COLLECTOR ROADWAY SIGNS BEING 6" LETTERING, UPPER-LOWER CASE ON 12" BLANK, WITH 1/2" WHITE BORDER THAT IS NOT RECESSED.
8. ALL TRAFFIC SIGNS SHALL HAVE A MINIMUM HIGH INTENSITY PRISMATIC GRADE SHEETING.
9. 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-614-8 REGARDING USE OF THE P2 TUBULAR STEEL POST SUBBASE DESIGN.
10. ALL SIGNS SHALL BE SINGLE SHEET ALUMINUM WITH 0.100" MINIMUM THICKNESS.
11. ALL LIMIT LINES/STOP LINES, CROSSWALK LINES, PAVEMENT LEGENDS, AND ARROWS SHALL BE A MINIMUM 125 MIL THICKNESS PREFORMED 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.
12. 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-627-1.
13. THE CONTRACTOR SHALL NOTIFY EL PASO COUNTY DEVELOPMENT SERVICES (719) 520-6819 PRIOR TO AND UPON COMPLETION OF SIGNING AND STRIPING.
14. 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.

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, 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 DEVELOPMENT SERVICES 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 DOT AND MUTCD CRITERIA. [IF APPLICABLE, ADDITIONAL SIGNING AND STRIPING NOTES WILL BE PROVIDED.]
14. CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY EL PASO COUNTY DOT, 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.

48 HOURS BEFORE YOU DIG, CALL UTILITY LOCATORS 811 UTILITY NOTIFICATION CENTER OF COLORADO IT'S THE LAW	NO. REVISION	DATE
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.		

REVIEW:

PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF
CLASSIC CONSULTING ENGINEERS & SURVEYORS, LLC

KYLE R. CAMPBELL, LICENSED PROFESSIONAL ENGINEER & SURVEYOR, P.E. #29794
DATE: 6/9/19

AGENCIES:

DEVELOPER: ELITE PROPERTIES OF AMERICA, INC.
6385 CORPORATE DRIVE, SUITE 200
COLORADO SPRINGS, CO 80919
MR. JIM BOULTON (719) 592-9333

CIVIL ENGINEER: CLASSIC CONSULTING ENGINEERS & SURVEYORS
619 N. CASCADE AVENUE, SUITE 200
COLORADO SPRINGS, CO 80903
MR. KYLE R. CAMPBELL, P.E. (719) 785-0790

COUNTY ENGINEERING: DEVELOPMENT SERVICES DEPARTMENT
2880 INTERNATIONAL CIRCLE
COLORADO SPRINGS, COLORADO 80910
MR. JEFF RICE, P.E. (719) 520-7877

WATER & SANITATION DISTRICT: CHEROKEE METRO DISTRICT
6250 PALMER PARK BLVD
COLORADO SPRINGS, COLORADO 80915
MR. JEFF MUNGER, P.E. (719) 597-5080

FIRE DISTRICT: FALCON FIRE PROTECTION DISTRICT
7030 OLD MERIDIAN ROAD
FALCON, COLORADO 80831
CHIEF HARWIG (719) 495-4050

GAS COMPANY: CITY OF COLORADO SPRINGS
101 SOUTH CONEJO'S STREET
COLORADO SPRINGS, COLORADO 80903
MR. TIM BENEDICT, (719) 668-3574

ELECTRIC COMPANY: MOUNTAIN VIEW ELECTRIC
P.O. BOX 1600
LIMON, COLORADO 80828
MR. LES ULFERS, (719) 495-2283

TELEPHONE COMPANY: CENTURY LINK COMMUNICATIONS
308 E. PIKES PEAK AVENUE
COLORADO SPRINGS, COLORADO 80903
MS. MELISSA SPENCER (719) 636-4748
MELISSA.SPENCER@CENTURYLINK.COM

THE PROPOSED CHANNEL IMPROVEMENTS AND CONCRETE BOX CULVERT WILL BE INSTALLED WITHIN THE FILING NO. 5 CDS. THE PROPOSED STORMWATER QUALITY FACILITY WILL BE INSTALLED WITHIN THE FILING NO. 7 CDS. THE FILING NO. 6 CDS DO NOT INCLUDE STORM SEWER IMPROVEMENTS. FILING NO. 5, 6 AND 7 WILL BE OVERLOT GRADED CONCURRENTLY. FILING NO. 7 WILL BE CONSTRUCTED INITIALLY IN 3 SEPARATE PHASES (SWQ FACILITY INSTALLED WITHIN PHASE 1). FILING NO. 6 WILL BE CONSTRUCTED FOLLOWING PHASE 3, FILING NO. 7. FILING NO. 5 WILL BE CONSTRUCTED FOLLOWING FILING NO. 6. THE FILING NO. 7 STORMWATER QUALITY FACILITY WILL BE UTILIZED AS A SEDIMENT TRAP INITIALLY. ONCE THE SITE IS STABILIZED AND HOME BUILDING BEGINS THE STORMWATER QUALITY FACILITY WILL BE FINALIZED.

APPROVALS:

ENGINEER'S STATEMENT:

DETAILED IMPROVEMENT PLANS AND SPECIFICATIONS 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 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 BELIEF. 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.

GRADING AND EROSION CONTROL PLAN ENGINEER'S STATEMENT:
THESE GRADING AND EROSION CONTROL PLANS WERE PREPARED UNDER MY DIRECTION AND SUPERVISION AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. SAID PLAN HAS BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR GRADING AND EROSION CONTROL PLANS.

I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARING THIS PLAN

KYLE R. CAMPBELL, LICENSED PROFESSIONAL ENGINEER & SURVEYOR, P.E. #29794
FOR AND ON THE BEHALF OF CLASSIC CONSULTING ENGINEERS & SURVEYORS
DATE: 6/9/19

OWNER/DEVELOPER STATEMENT:

THE OWNER WILL COMPLY WITH THE REQUIREMENTS OF THE DRAINAGE REPORT AND PLAN AND THIS SET OF CONSTRUCTION DOCUMENTS. THE OWNER WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING AND EROSION CONTROL PLAN.

DOUGLAS W. SHIPLE
ELITE PROPERTIES OF AMERICA, INC.
DATE: 6/11/19

EL PASO COUNTY:

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, AND ENGINEERING CRITERIA MANUAL AS AMENDED.

JENNIFER IRVINE, P.E.
COUNTY ENGINEER / ECM ADMINISTRATOR
DATE:

FALCON FIRE PROTECTION DISTRICT:

ALL FIRE HYDRANTS SHALL BE INSTALLED ACCORDING TO THE FALCON FIRE PROTECTION DISTRICT SPECIFICATIONS. THE NUMBER OF FIRE HYDRANTS AND HYDRANT LOCATIONS AS SHOWN ON THIS WATER INSTALLATION PLAN ARE CORRECT AND ADEQUATE TO SATISFY THE FIRE PROTECTION REQUIREMENTS AS SPECIFIED BY THE FALCON FIRE PROTECTION DISTRICT.

N/A
FOR AND ON BEHALF OF FALCON FIRE PROTECTION DISTRICT
DATE:

CHEROKEE METROPOLITAN DISTRICT
WATER PLAN APPROVAL

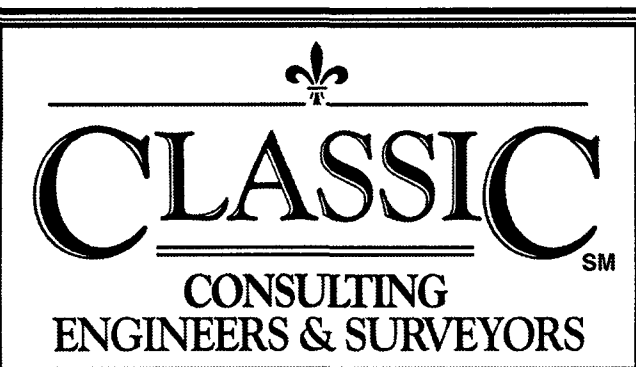
THE CHEROKEE METROPOLITAN DISTRICT RECOGNIZES THE DESIGN PROFESSIONAL OF RECORD AS THE LICENSED ENGINEER HAVING RESPONSIBILITY FOR THE SUBMITTED DESIGN AND THE DISTRICT HAS LIMITED SCOPE OF REVIEW ACCORDING, AS SUCH, THE APPROVAL GRANTED HEREIN IS FOR THE CONSTRUCTION OF THE FACILITIES AS REPRESENTED ON THESE DOCUMENTS. APPROVAL EXPIRES ONE (1) YEAR FROM THE DATE BELOW AND RESUBMITTAL OF THESE PLANS FOR REVIEW AND APPROVAL IS REQUIRED IF CONSTRUCTION DOES NOT BEGIN DURING THIS PERIOD

APPROVED BY: N/A DATE: 6/11/19

CHEROKEE METROPOLITAN DISTRICT
WASTEWATER PLAN APPROVAL

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APPROVED BY: N/A DATE: 6/11/19



HANNAH RIDGE AT FEATHERGRASS
FILING NO. 5

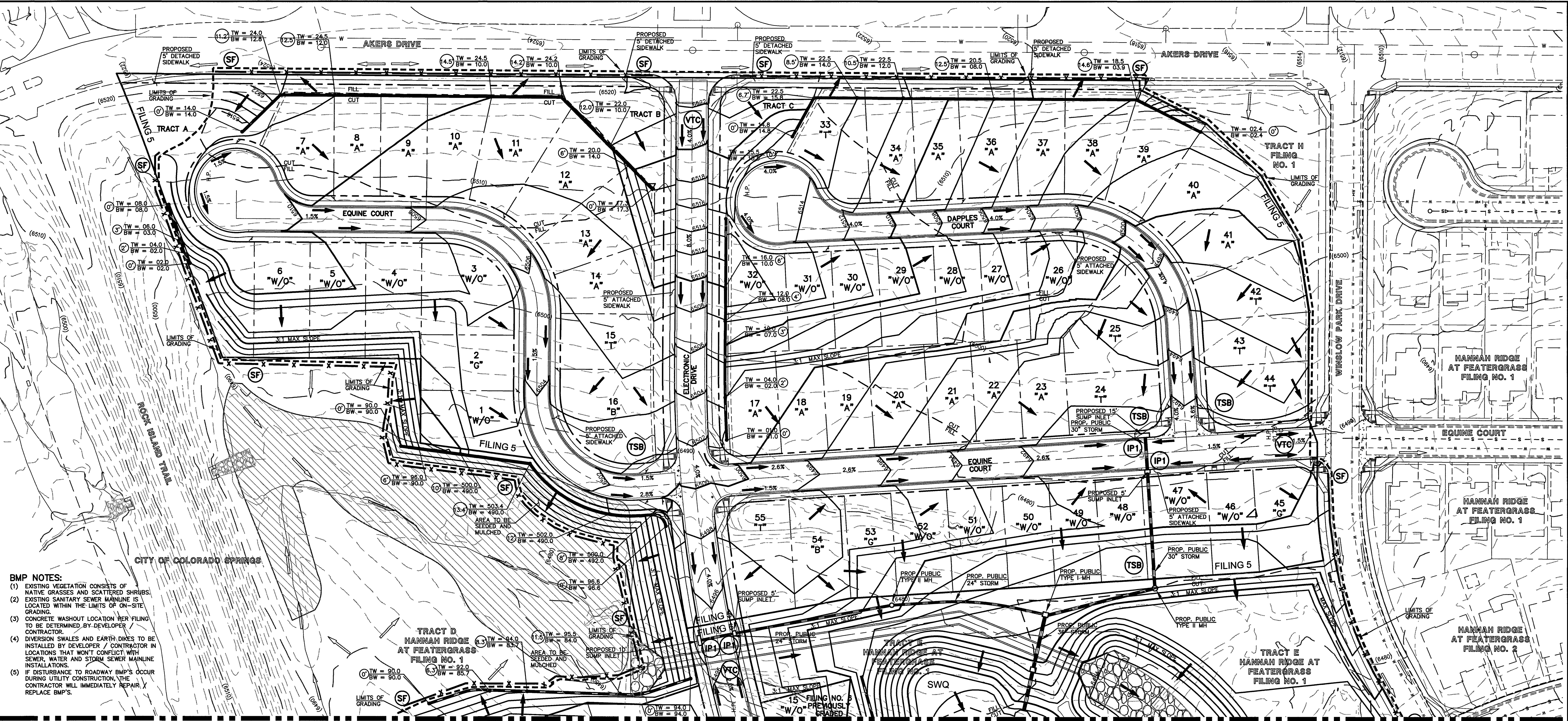
CONSTRUCTION DRAWINGS

TITLE SHEET

DESIGNED BY	KRC	SCALE	DATE	10/12/18
DRAWN BY	KC	(H) 1"=VARIES	SHEET	1 OF 11
CHECKED BY	(V) 1"= NA	JOB NO.	1116.05	

SF-18-038

N:\111605\DRAWINGS\CONSTRUCTION\5.02-111605-01.dwg, 6/7/2019 11:11:39 AM, 1:1



- BMP NOTES:**
- (1) EXISTING VEGETATION CONSISTS OF NATIVE GRASSES AND SCATTERED SHRUBS.
 - (2) EXISTING SANITARY SEWER MAINLINE IS LOCATED WITHIN THE LIMITS OF ON-SITE GRADING.
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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

NO PORTION OF THIS SITE IS LOCATED WITHIN A FLOODPLAIN AS DETERMINED BY THE FLOOD INSURANCE RATE MAPS (F.I.R.M.) MAP NUMBER 08041C0752F AND EFFECTIVE DATE, MARCH 17, 1997.

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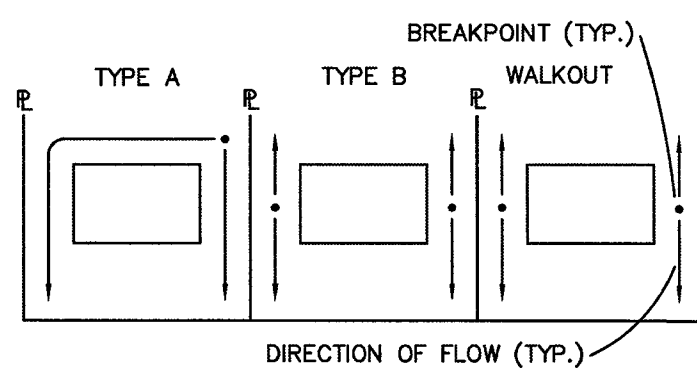
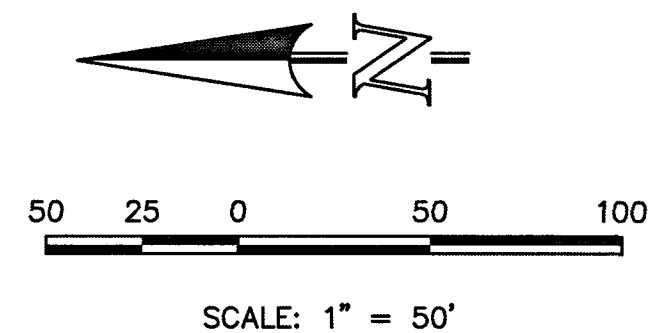
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SEE SHEET 3

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LEGEND

- | | | | |
|--------|---------------------------|--|--------------------------|
| (6770) | EXISTING CONTOUR | | PROPOSED RETAINING WALL |
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| --- | FILING LINE | | SILT FENCE |
| --- | BOUNDARY/R.O.W. LINE | | INLET PROTECTION |
| → | EXISTING FLOW DIRECTION | | VEHICLE TRACKING CONTROL |
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NOTE:
SEE SHEET 5 FOR LOT TEMPLATES
SEE SHEET 5 FOR EROSION CONTROL DETAILS
SF-18-038, 039, 040

48 HOURS BEFORE YOU DIG, CALL UTILITY LOCATORS 811 UTILITY NOTIFICATION CENTER OF COLORADO IT'S THE LAW <small>THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.</small>	NO. REVISION <table><tbody><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></tbody></table>																					DATE <table><tbody><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></tbody></table>																					REVIEW: <small>PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF CLASSIC CONSULTING ENGINEERS & SURVEYORS, LLC</small> DATE 4/9/19	 619 N. Cascade Avenue, Suite 200 Colorado Springs, Colorado 80903 (719)785-0790 (719)785-0798(Fax)	HANNAH RIDGE AT FEATHERGRASS FILING NO. 5, 6 & 7 OVERLOT GRADING AND EROSION CONTROL PLAN <table><tbody><tr><td>DESIGNED BY</td><td>KRC</td><td>SCALE</td><td>DATE</td><td>10/12/18</td></tr><tr><td>DRAWN BY</td><td>KC</td><td>(H) 1"= 50'</td><td>SHEET</td><td>2 OF 11</td></tr><tr><td>CHECKED BY</td><td>(V) 1"= NA</td><td>JOB NO.</td><td colspan="2">1116.05</td></tr></tbody></table>	DESIGNED BY	KRC	SCALE	DATE	10/12/18	DRAWN BY	KC	(H) 1"= 50'	SHEET	2 OF 11	CHECKED BY	(V) 1"= NA	JOB NO.	1116.05	
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SEE SHEET 2

SEE SHEET 4

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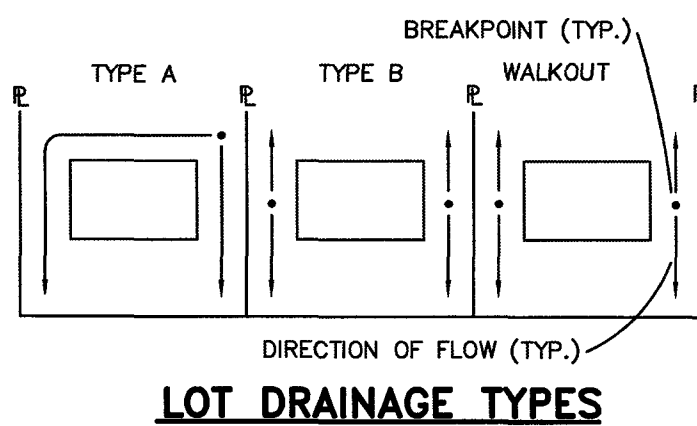
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LEGEND

- | | | | |
|--------|---------------------------|--------------------------|--------------------------|
| (6770) | EXISTING CONTOUR | TW = XX.XX
BW = XX.XX | PROPOSED RETAINING WALL |
| 6770 | PROPOSED CONTOUR | (TSB) | TEMPORARY SEDIMENT BASIN |
| --- | FILING LINE | (SF) | SILT FENCE |
| --- | BOUNDARY/R.O.W. LINE | (IP) | INLET PROTECTION |
| → | EXISTING FLOW DIRECTION | (VTC) | VEHICLE TRACKING CONTROL |
| → | PROPOSED FLOW | (SBB) | STRAW BALE BARRIER |
| "A" | A LOT | | |
| "B" | B LOT | | |
| "W/O" | WALKOUT LOT | | |
| "T" | TRANSITION LOT | | |
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NO. REVISION

DATE

REVIEW:

PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF
CLASSIC CONSULTING ENGINEERS & SURVEYORS, LLC

KYLE R. CAMPBELL, COLORADO LICENSE #29794

CLASSIC
CONSULTING
ENGINEERS & SURVEYORS

619 N. Cascade Avenue, Suite 200 (719)785-0790
Colorado Springs, Colorado 80903 (719)785-0790(Fax)

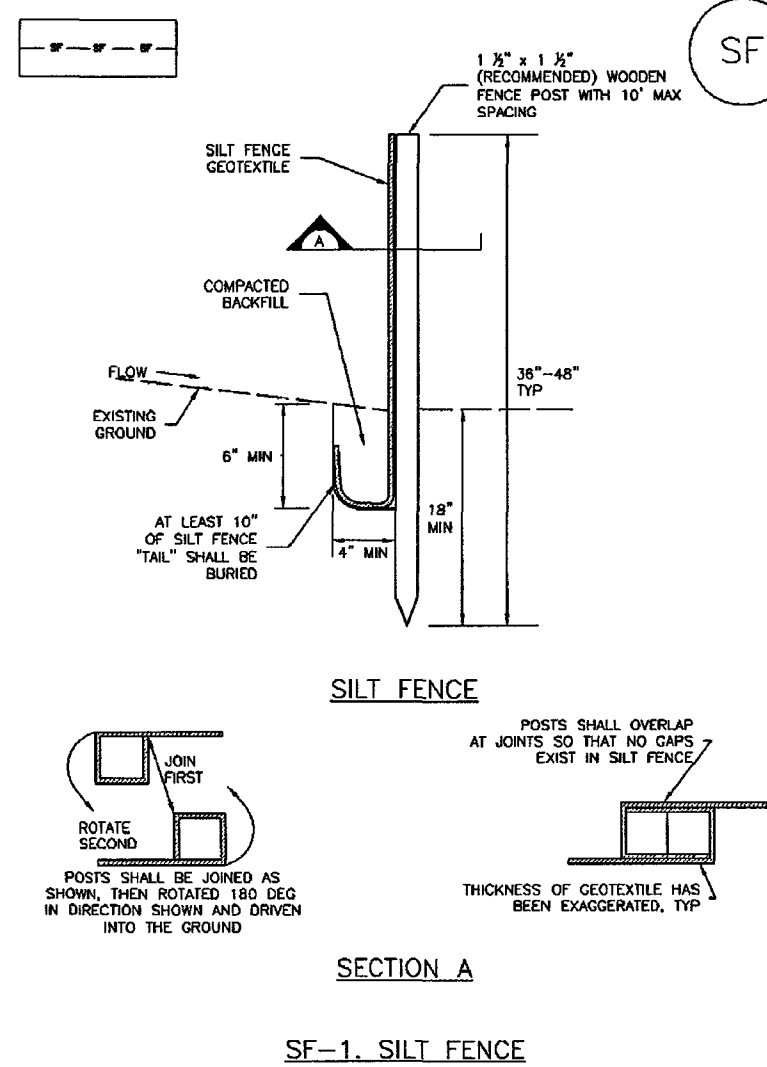
HANNAH RIDGE AT FEATHERGRASS
FILING NO. 5, 6 & 7

OVERLOT GRADING AND EROSION CONTROL PLAN

DESIGNED BY	KRC	SCALE	DATE	10/12/18
DRAWN BY	KC	(H) 1"= 50'	SHEET	3 OF 11
CHECKED BY	(V) 1"= NA	JOB NO.	1116.05	

Silt Fence (SF)

SC-1



SILT FENCE

SECTION A

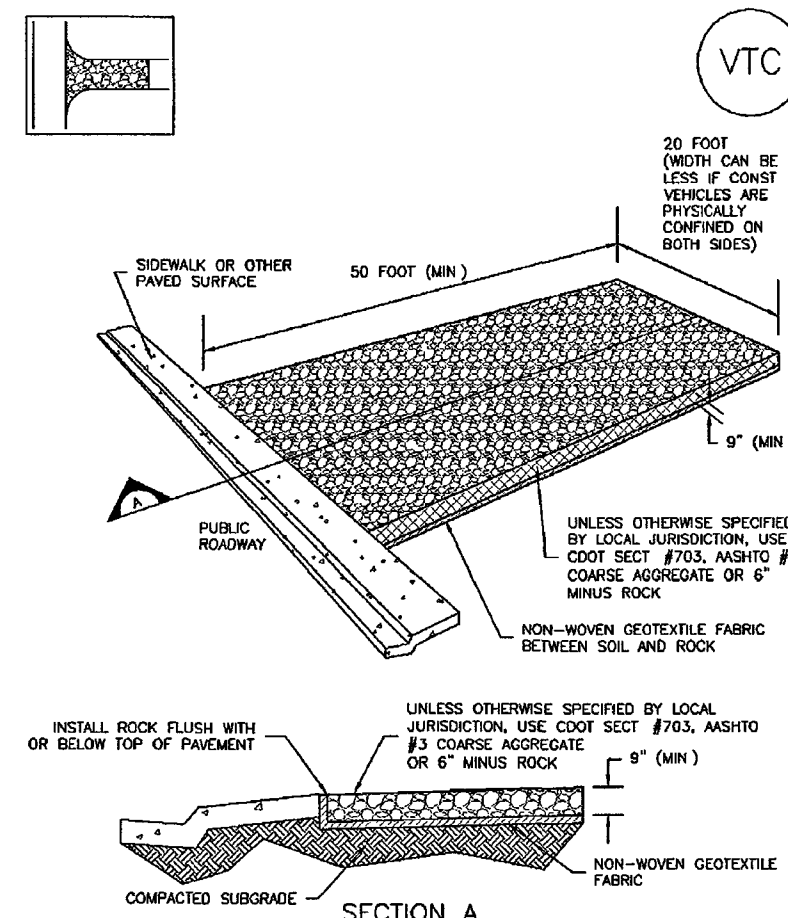
SF-1. SILT FENCE

November 2010 Urban Drainage and Flood Control District
Urban Storm Drainage Criteria Manual Volume 3

SF-3

Vehicle Tracking Control (VTC)

SM-4



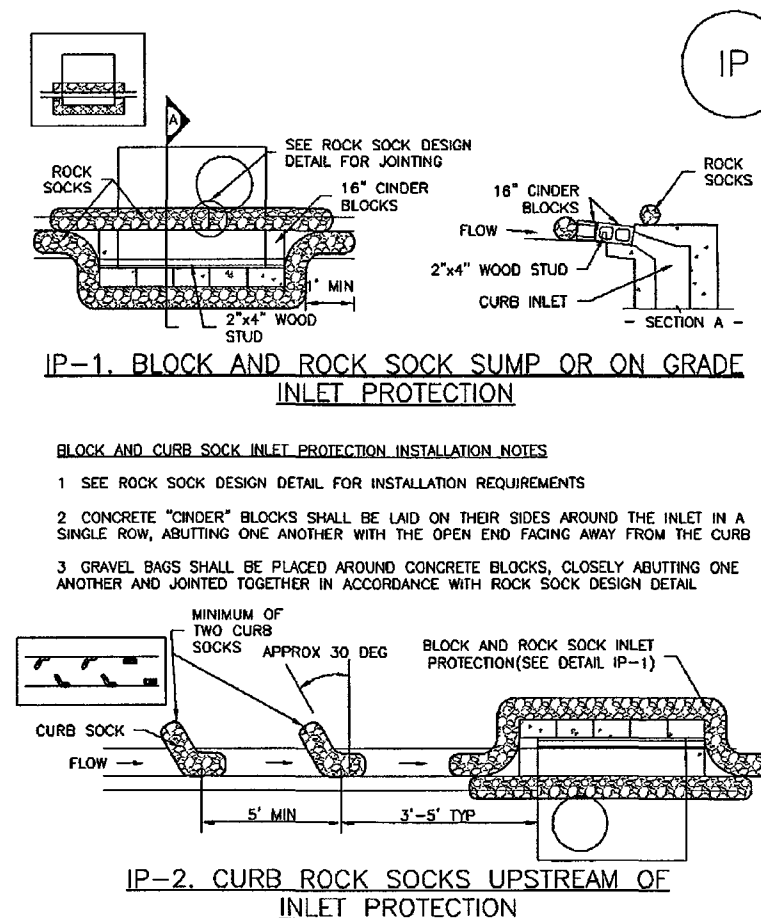
VTC-1. AGGREGATE VEHICLE TRACKING CONTROL

November 2010 Urban Drainage and Flood Control District
Urban Storm Drainage Criteria Manual Volume 3

VTC-3

SC-6

Inlet Protection (IP)

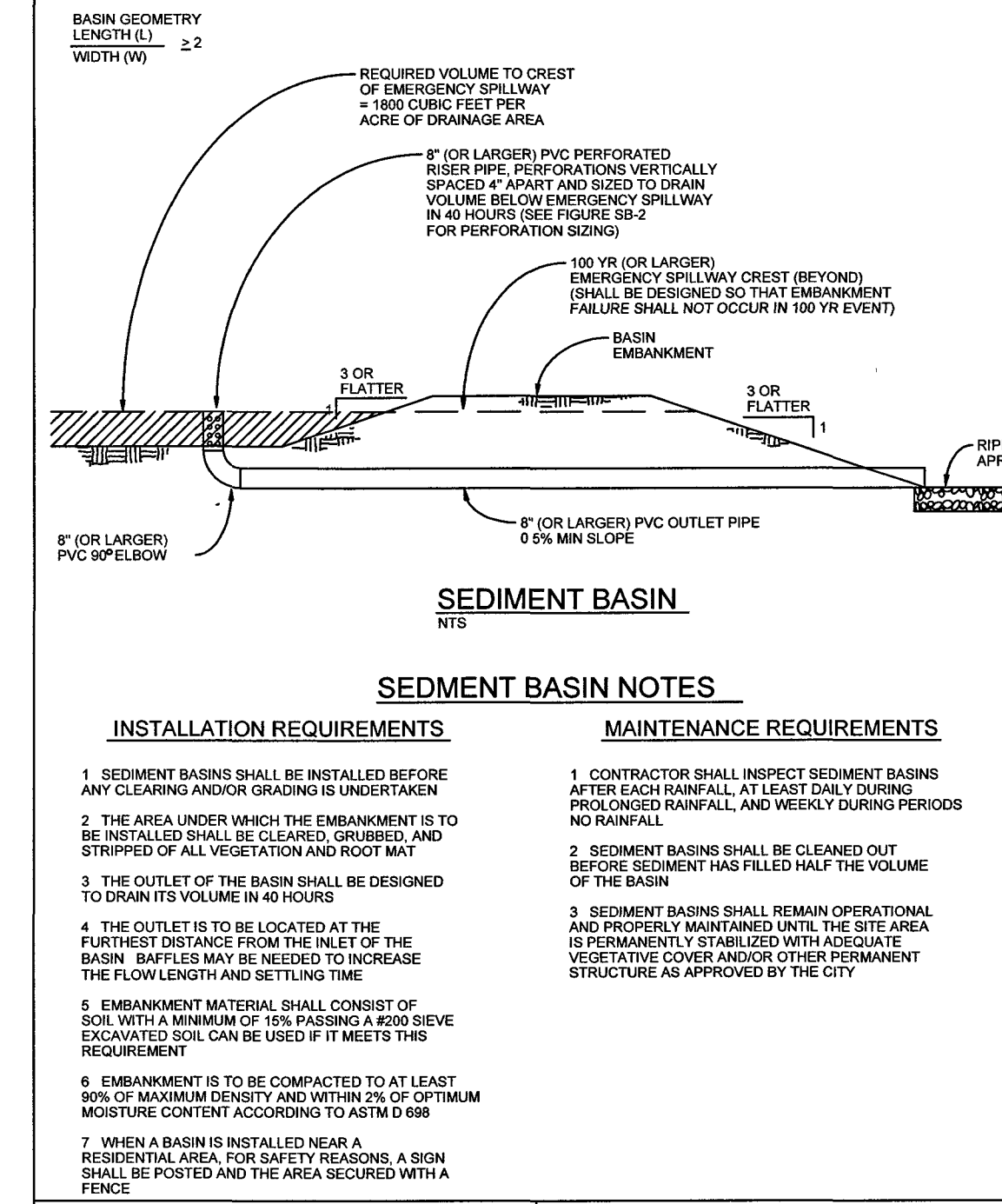


IP-1. BLOCK AND ROCK SOCK SUMP OR ON GRADE INLET PROTECTION

IP-2. CURB ROCK SOCKS UPSTREAM OF INLET PROTECTION

November 2010 Urban Drainage and Flood Control District
Urban Storm Drainage Criteria Manual Volume 3

August 2013



SEDIMENT BASIN

SEDIMENT BASIN NOTES

INSTALLATION REQUIREMENTS

MAINTENANCE REQUIREMENTS

1. SEDIMENT BASINS SHALL BE INSTALLED BEFORE ANY CLEARING AND/OR GRADING IS UNDERTAKEN

2. THE AREA UNDER WHICH THE EMBANKMENT IS TO BE INSTALLED SHALL BE CLEARED, GRUBBED, AND STRIPPED OF ALL VEGETATION AND ROOT MAT

3. THE OUTLET OF THE BASIN SHALL BE DESIGNED TO DRAIN ITS VOLUME IN 40 HOURS

4. THE OUTLET IS TO BE LOCATED AT THE FURTHEST DISTANCE FROM THE INLET OF THE BASIN. Baffles MAY BE NEEDED TO INCREASE THE FLOW LENGTH AND SETTLING TIME

5. EMBANKMENT MATERIAL SHALL CONSIST OF SOIL WITH A MINIMUM OF 1% PASSING A #200 SIEVE

6. EMBANKMENT IS TO BE COMPACTED TO AT LEAST 90% OF MAXIMUM DENSITY AND WITHIN 2% OF OPTIMUM MOISTURE CONTENT ACCORDING TO ASTM D 698

7. WHEN A BASIN IS INSTALLED NEAR A RESIDENTIAL AREA, FOR SAFETY REASONS, A SIGN SHALL BE POSTED AND THE AREA SECURED WITH A FENCE

City of Colorado Springs
Stormwater QualityFigure SB-1
Sediment Basin
Construction Detail and Maintenance Requirements

Required Area per Row (sq ft)	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5
1	15.04	7.71	5.10	3.78	2.96	2.41	2.02	1.73
2	7.52	3.86	2.55	1.89	1.48	1.21	1.01	0.87
3	5.01	2.57	1.70	1.26	0.98	0.81	0.67	0.58
4	3.76	1.92	1.28	0.94	0.74	0.61	0.50	0.43
5	3.01	1.54	1.02	0.75	0.59	0.48	0.40	0.35
6	2.51	1.28	0.85	0.62	0.49	0.40	0.33	0.29
7	2.10	1.07	0.71	0.51	0.39	0.32	0.26	0.23
8	1.79	0.90	0.59	0.42	0.32	0.26	0.21	0.19
9	1.54	0.78	0.51	0.37	0.28	0.23	0.19	0.17
10	1.35	0.68	0.44	0.32	0.24	0.20	0.16	0.15
11	1.20	0.60	0.40	0.28	0.21	0.17	0.14	0.13
12	1.08	0.53	0.35	0.25	0.20	0.16	0.13	0.12
13	0.98	0.48	0.31	0.22	0.18	0.14	0.11	0.10
14	0.90	0.43	0.28	0.20	0.16	0.13	0.10	0.09
15	0.83	0.39	0.26	0.18	0.15	0.12	0.10	0.09
16	0.77	0.36	0.24	0.17	0.14	0.11	0.09	0.08
17	0.71	0.33	0.22	0.16	0.13	0.10	0.08	0.07
18	0.66	0.31	0.20	0.15	0.12	0.10	0.08	0.07
19	0.61	0.29	0.19	0.14	0.11	0.09	0.07	0.06
20	0.57	0.27	0.18	0.13	0.10	0.08	0.06	0.05
21	0.53	0.25	0.17	0.12	0.09	0.07	0.06	0.05
22	0.50	0.23	0.16	0.11	0.09	0.07	0.06	0.05
23	0.47	0.21	0.15	0.10	0.08	0.06	0.05	0.04
24	0.44	0.20	0.14	0.09	0.07	0.06	0.05	0.04
25	0.41	0.19	0.13	0.08	0.06	0.05	0.04	0.03
26	0.39	0.18	0.12	0.07	0.05	0.04	0.03	0.03
27	0.36	0.17	0.11	0.06	0.04	0.03	0.02	0.02
28	0.34	0.16	0.10	0.05	0.04	0.03	0.02	0.02
29	0.32	0.15	0.09	0.04	0.03	0.02	0.02	0.01
30	0.30	0.14	0.08	0.03	0.02	0.01	0.01	0.01

TABLE SB-1

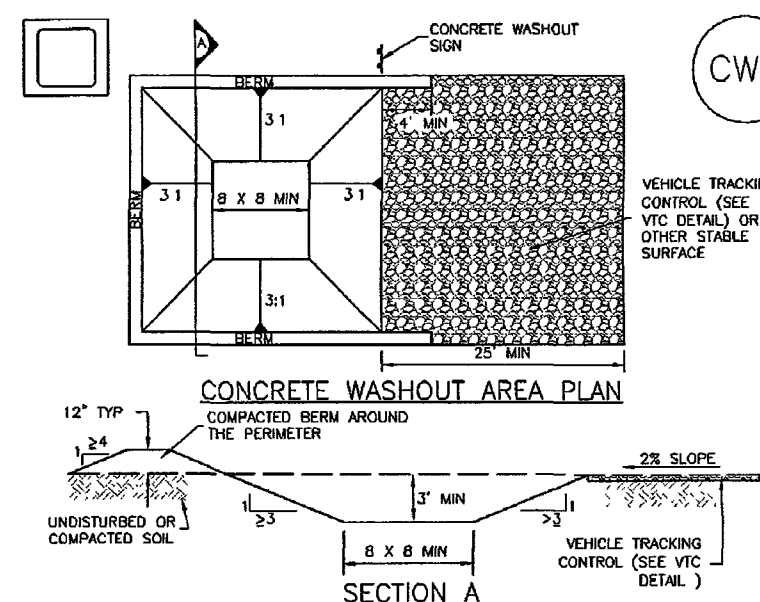
Hole Diameter (in)	Hole Diameter (mm)	Area per Row (sq ft)		
		n=1	n=2	n=3
1/4	0.250	0.05	0.10	0.15
3/8	0.375	0.08	0.15	0.23
1/2	0.500	0.11	0.22	0.33
5/8	0.625	0.15	0.30	0.45
3/4	0.750	0.20	0.39	0.59
7/8	0.875	0.25	0.50	0.75
1	1.000	0.31	0.61	0.92
1 1/8	1.125	0.37	0.74	1.11
1 1/4	1.250	0.44	0.88	1.33
1 3/8	1.375	0.51	1.03	1.55
1 1/2	1.500	0.59	1.18	1.80
1 5/8	1.625	0.68	1.35	2.06
1 3/4	1.750	0.77	1.54	2.34
1 7/8	1.875	0.87	1.75	2.63
2	2.000	0.98	1.97	2.94

TABLE SB-2

City of Colorado Springs
Stormwater QualityFigure SB-2
Outlet Sizing
Application Techniques and Maintenance Requirements

Concrete Washout Area (CWA)

MM-1



CWA-1. CONCRETE WASHOUT AREA

CWA INSTALLATION NOTES

- SEE PLAN VIEW FOR CWA INSTALLATION LOCATION
- DO NOT LOCATE AN UNSEED CWA WITHIN 400' OF ANY NATURAL DRAINAGE PATHWAY OR WATERBODY. DO NOT LOCATE WITHIN 1,000' OF ANY WELLS OR DRINKING WATER SOURCES. IF SITE CONSTRAINTS MAKE THIS UNFEASIBLE, OR IF HIGHLY PERMEABLE SOILS EXIST ON SITE, THE CWA MUST BE INSTALLED WITH AN IMPERMEABLE LINER (18 MIL MIN. THICKNESS) ON SURFACE STORAGE ALTERNATIVES USING PREFABRICATED CONCRETE WASHOUT DEVICES OR A LINED ABOVE GROUND STORAGE ARE SHOULD BE USED
- THE CWA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.
- CWA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8" BY 8" SLOPES LEADING OUT OF THE SUBSURFACE PIT SHALL BE 1:1 OR FLATTER. THE PIT SHALL BE AT LEAST 3' DEEP
- BERM SURROUNDING SIDES AND BACK OF THE CWA SHALL HAVE MINIMUM HEIGHT OF 1'
- VEHICLE TRACKING PAD SHALL BE SLOPED 2% TOWARDS THE CWA.
- SGHS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CWA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CWA TO OPERATORS OF CONCRETE TRUCKS AND PUMP TRUCKS
- USE EXCAVATED MATERIAL FOR PERMANENT BERM CONSTRUCTION

November 2010 Urban Drainage and Flood Control District
Urban Storm Drainage Criteria Manual Volume 3

CWA-3

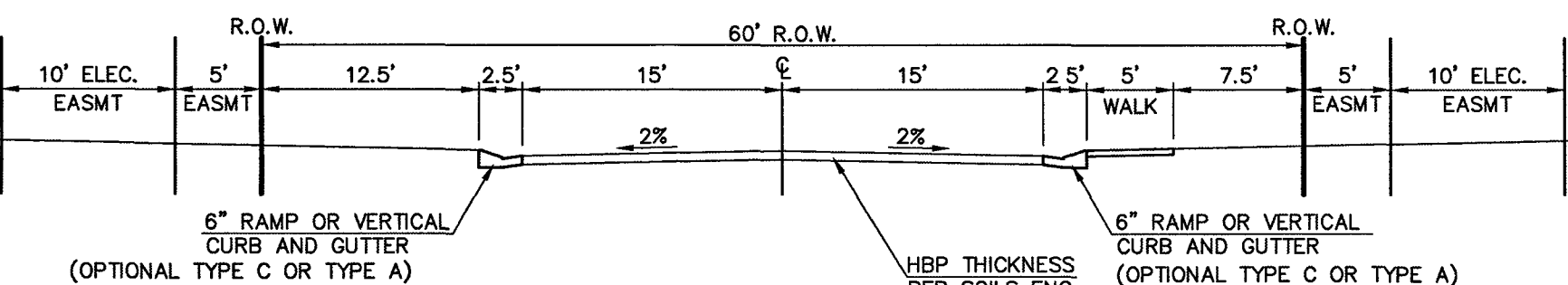
MM-1 Concrete Washout Area (CWA)

CWA MAINTENANCE NOTES

- IMPERMEDIATELY AFTER WORKING, MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BERM SHOULD BE PROTECTIVE, NOT REACTIVE. INSPECT BERM AS SOON AS POSSIBLE (AND AT LEAST TWICE) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BERM IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY
- WHERE BERM HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE
- THE CWA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE. CONCRETE MATERIALS ACCUMULATED IN PIT, SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF 2'
- 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 CWA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED
- WHEN THE CWA IS REMOVED, COVER THE DISTURBED AREA WITH TOP SOIL, SEED AND MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION

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Urban Storm Drainage Criteria Manual Volume 3

CWA-4

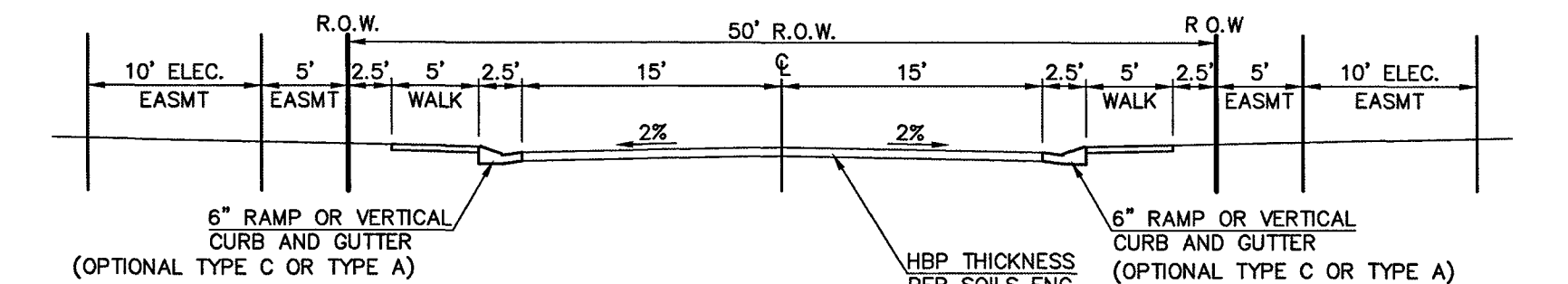


60' R.O.W. STREET SECTION

(URBAN LOCAL)

SCALE: 1" = 10'

-ELECTRONIC DRIVE

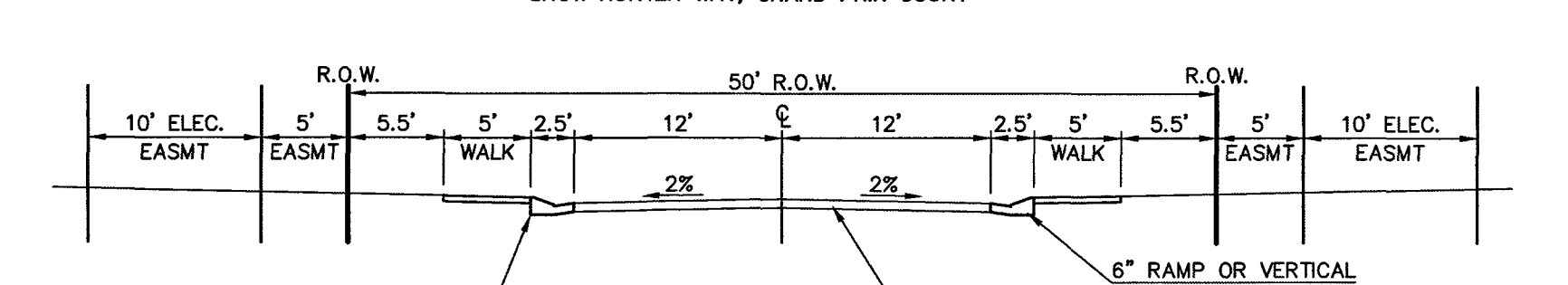


TYPICAL SECTION - 50' R.O.W.

(URBAN LOCAL)

SCALE: 1" = 10'

-EQUINE COURT, ELECTRONIC DRIVE, PONY CLUB LANE, BREACHERS WAY, SHOW HUNTER WAY, GRAND PRIX COURT

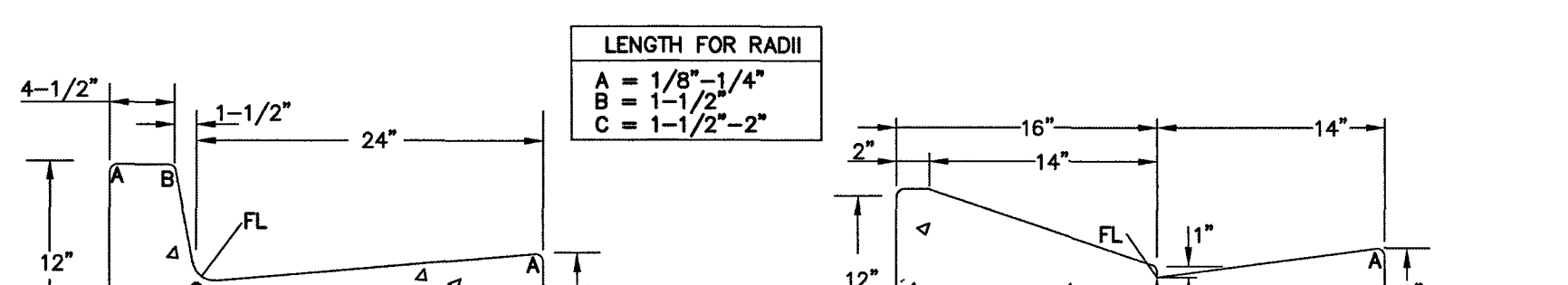


TYPICAL SECTION - 50' R.O.W.

(URBAN LOCAL-LOW VOLUME)

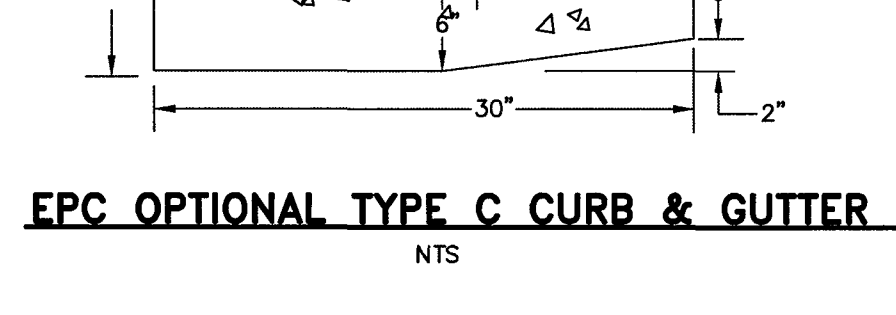
SCALE: 1" = 10'

-DAPPLES COURT & EQUINE COURT CUL-DE-SAC



EPC TYPE A CURB & GUTTER DETAIL

NTS



EPC OPTIONAL TYPE C CURB & GUTTER DETAIL

NTS

SIDEWALK NOTES:

- INSTALL 5' ATTACHED SIDEWALK ONLY WHERE IDENTIFIED ON THE CONSTRUCTION PLANS.

48 HOURS BEFORE YOU DIG,
CALL UTILITY LOCATORS
811
UTILITY NOTIFICATION CENTER OF COLORADO
IT'S THE LAW

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NO.	REVISION	DATE

REVIEW:

PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF
CLASSIC CONSULTING ENGINEERS & SURVEYORS, LLC

KYLE CAMPBELL, COLORADO REG. #29794

DATE

CLASSIC CONSULTING ENGINEERS & SURVEYORS

619 N. Cascade Avenue, Suite 200
Colorado Springs, Colorado 80903

(719)785-0790
(719)785-0790(Fax)

HANNAH RIDGE AT FEATHERGRASS

FILING NO. 5, 6 & 7

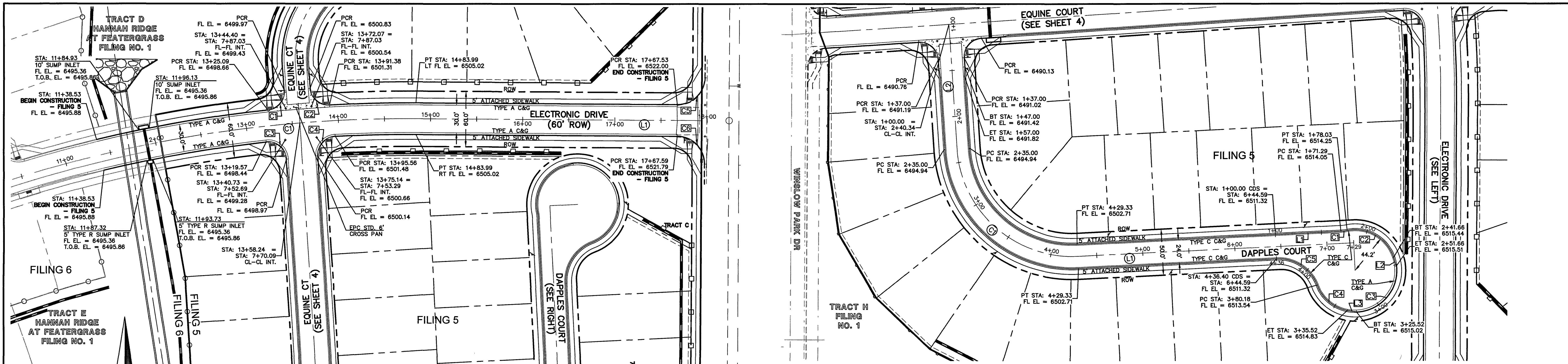
OVERLOT GRADING AND EROSION CONTROL PLAN

DETAILS

DESIGNED BY	KRC	SCALE	DATE	10/12/18
DRAWN BY	KC	(H) 1"= N/A	SHEET	5 OF 11
CHECKED BY	(V) 1"= N/A	JOB NO.	1116.05	

SF-18-038, 039, 040

CLASSIC CONSULTING ENGINEERS & SURVEYORS



ELECTRONIC DRIVE
(PUBLIC 60' ROW) DESIGN SPEED - 30mph RESIDENTIAL

DAPPLES COURT
(PUBLIC 50' ROW) DESIGN SPEED - 25mph RESIDENTIAL

STREET ABBREVIATION INDEX:
EQC EQUINE COURT
ETD ELECTRONIC DRIVE
DPC DAPPLES COURT
WPD WINSLOW PARK DRIVE

CENTERLINE CURVE TABLE			
○	LENGTH	RADIUS	DELTA
C1	278.47	1430.08	11.16

CENTERLINE LINE TABLE			
○	LENGTH	BEARING	
L1	310.08	N89° 38' 27.06"W	

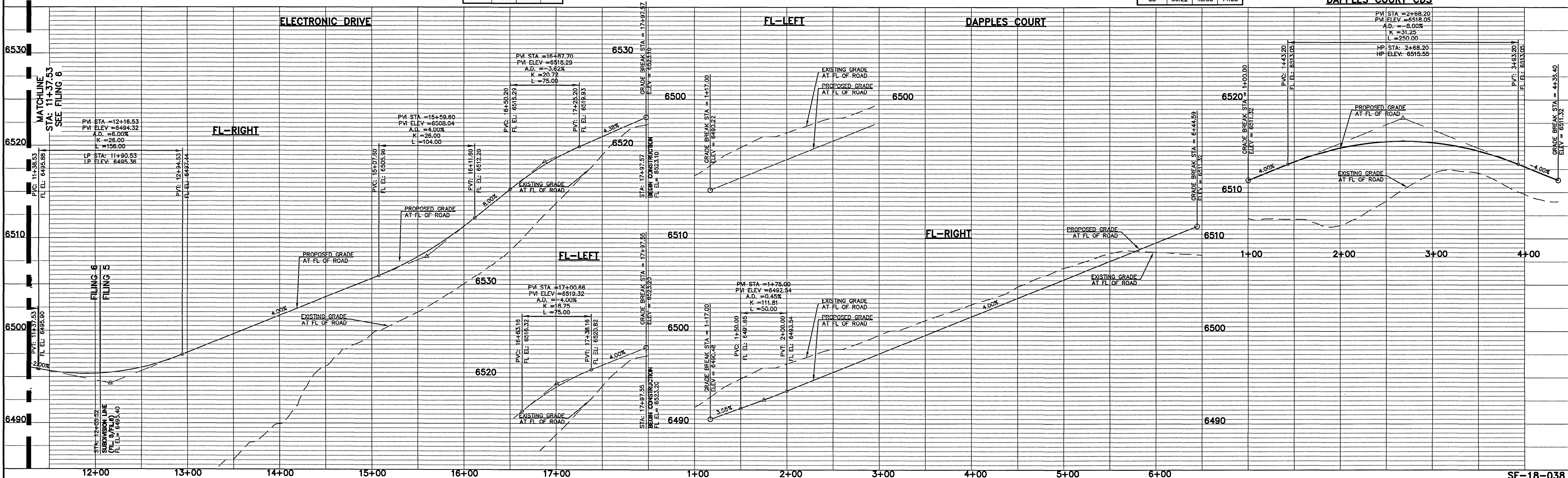
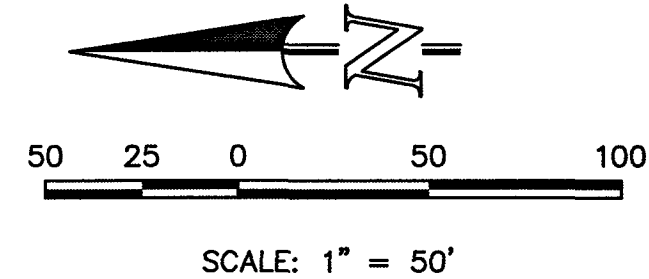
FL CURB CURVE TABLE			
○	LENGTH	RADIUS	DELTA
C1	30.95	20.00	88.67
C2	30.95	20.00	88.67
C3	32.31	20.00	92.55
C4	31.59	20.00	90.49

CENTERLINE LINE TABLE			
○	LENGTH	BEARING	
L1	292.07	S2° 44' 58.68"E	
L2	135.00	S86° 19' 34.75"W	

CENTERLINE CURVE TABLE			
○	LENGTH	RADIUS	DELTA
C1	194.33	125.00	89.08

FL CURB CURVE TABLE			
○	LENGTH	RADIUS	DELTA
C1	6.75	45.00	8.59
C2	63.62	44.17	82.53
C3	73.87	45.00	94.05
C4	44.66	44.17	57.93
C5	56.22	45.00	71.58

FL CURB LINE TABLE			
○	LENGTH	BEARING	
L1	71.29	N02° 44' 58.68"W	
L2	10.00	N72° 52' 42.23"E	
L3	10.00	S09° 13' 21.15"W	



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NO.	REVISION	DATE

REVIEW:

PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF
CLASSIC CONSULTING ENGINEERS & SURVEYORS, LLC

[Signature]
KYLE R. CAMPBELL, COLORADO LICENSE #29794

DATE: 6/19/19

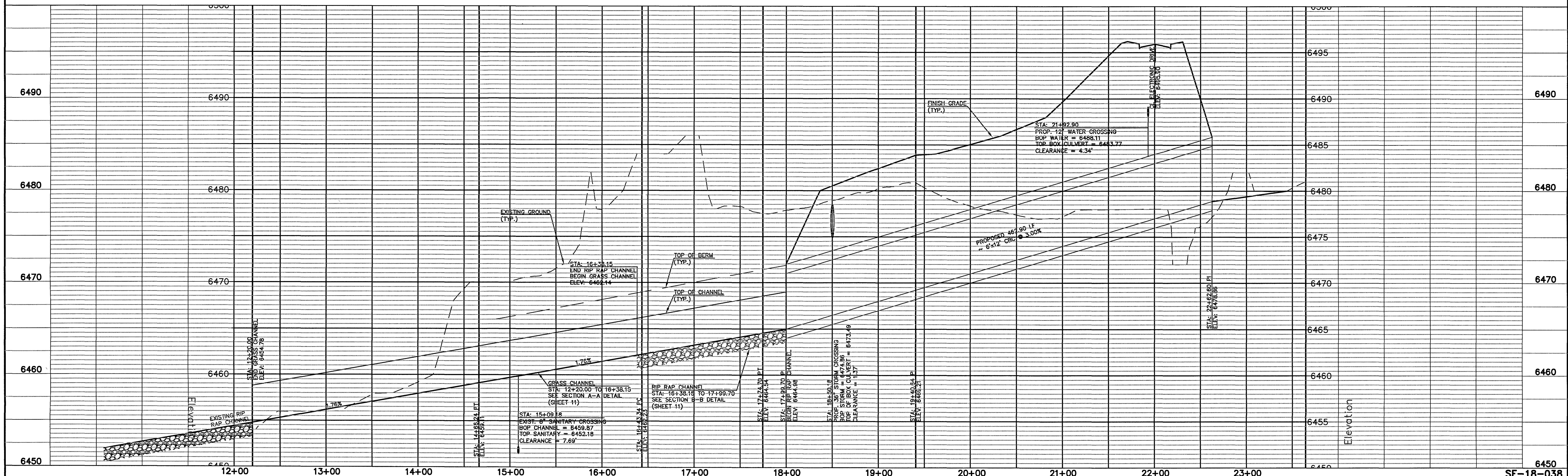
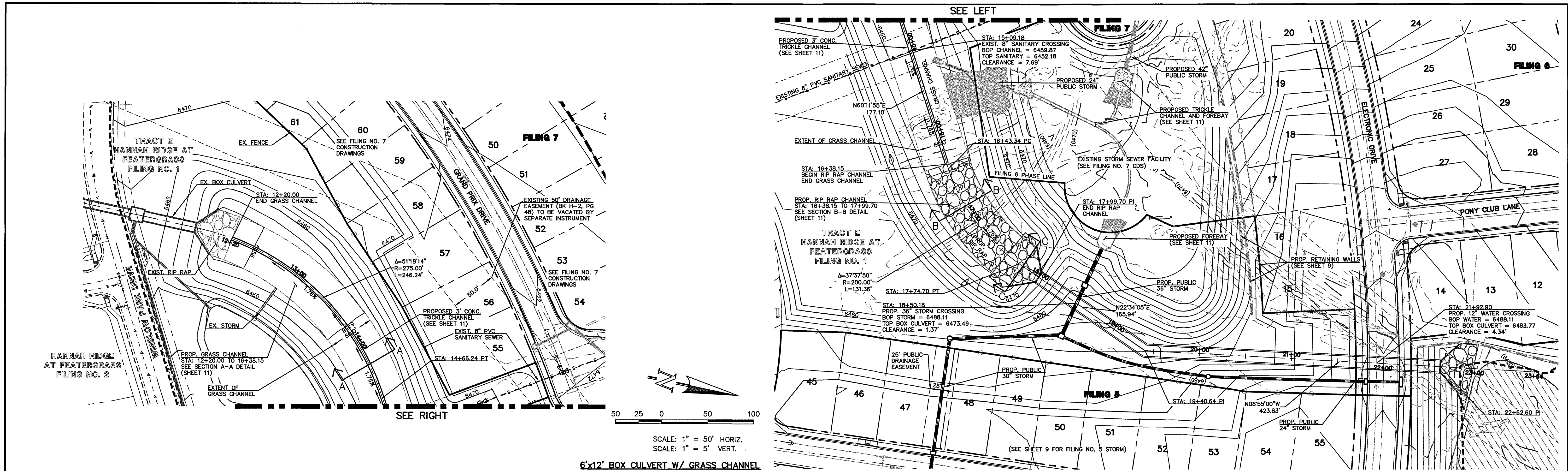
CLASSIC
CONSULTING
ENGINEERS & SURVEYORS

619 N. Cascade Avenue, Suite 200 (719)785-0790
Colorado Springs, Colorado 80903 (719)785-0799(Fax)

HANNAH RIDGE AT FEATHERGRASS
FILING NO. 5
STREET IMPROVEMENT PLANS
ELECTRONIC DRIVE/DAPPLES COURT

DESIGNED BY	KRC	SCALE	DATE
DRAWN BY	KC	(H) 1" = 50'	10/12/18
CHECKED BY	(V) 1" = NA	SHEET 7 OF 11	JOB NO. 1116.05

N:\111603\DRAWINGS\CONSTRUCTION\FLING 5\10-111605-STM-02.dwg, 6/7/2019 11:45 PM, 11



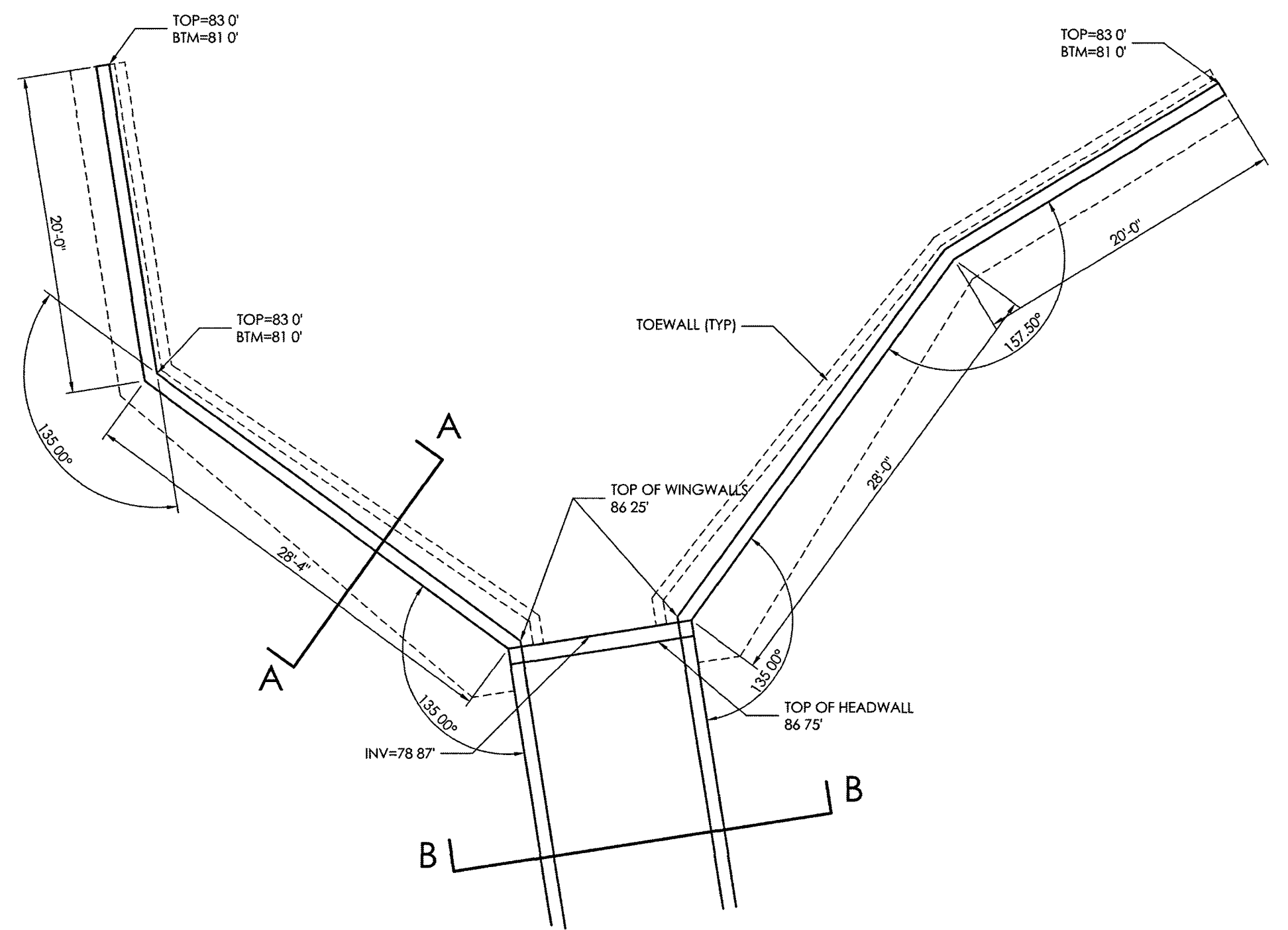
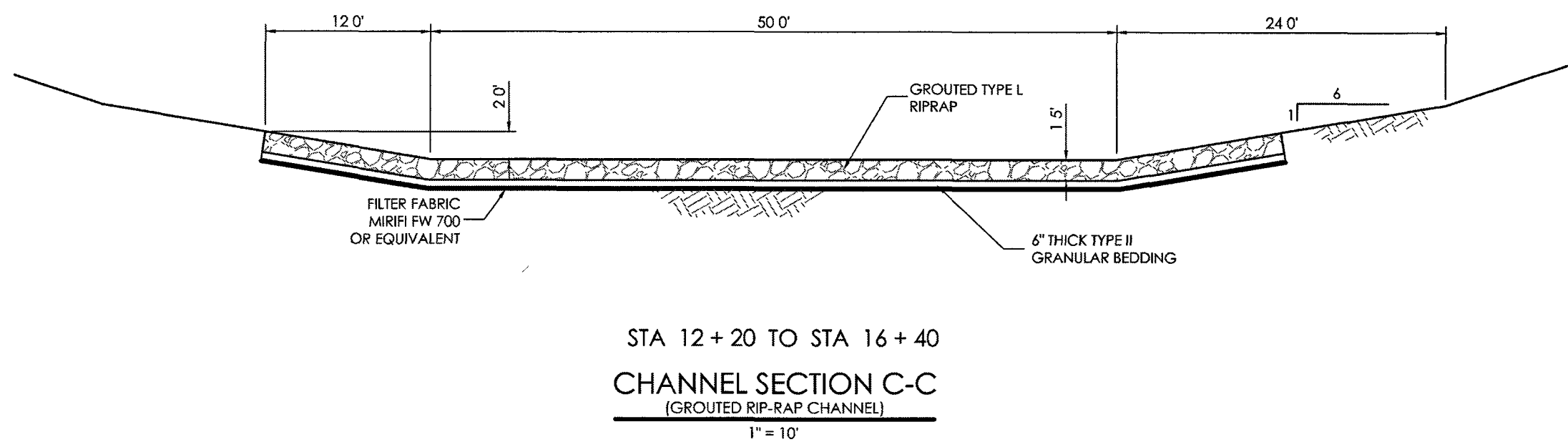
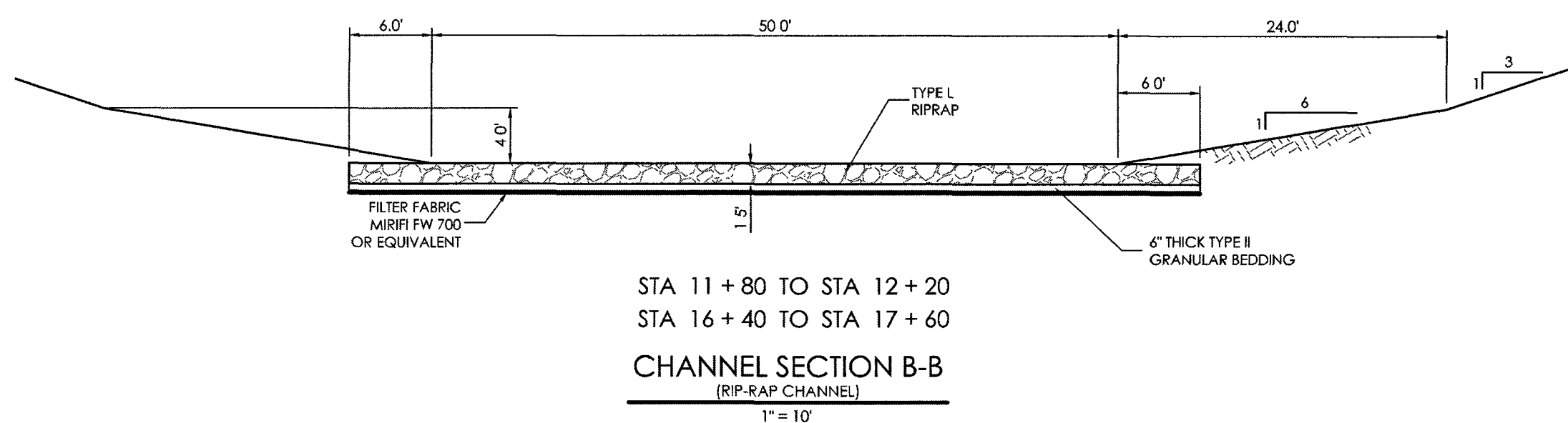
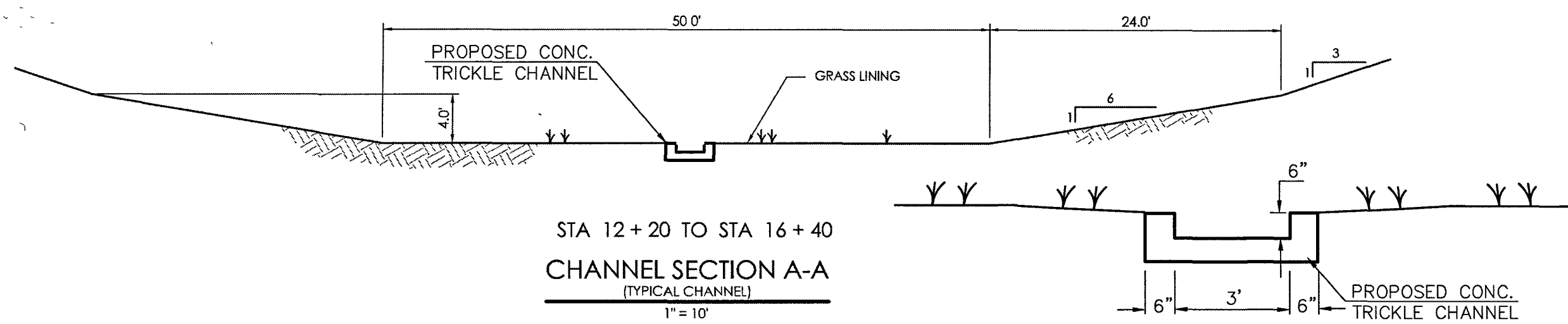
LEGEND		48 HOURS BEFORE YOU DIG, CALL UTILITY LOCATORS 811		NO. REVISION		DATE		REVIEW:		CLASSIC CONSULTING ENGINEERS & SURVEYORS		HANNAH RIDGE AT FEATHERGRASS FILING NO. 5					
PROPOSED FIRE HYDRANT	EXISTING FIRE HYDRANT	EXISTING WATER MAIN	EXISTING SANITARY SEWER MAIN	EXISTING STORM SEWER	EXISTING STORM INLET	EXISTING GAS MAIN	EXISTING ELECTRIC	THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.	PREPARED UNDER MY LICENSE FOR AND ON BEHALF OF CLASSIC CONSULTING ENGINEERS AND SURVEYORS, LLC	DESIGNED BY	KRC	SCALE	(H) 1" = 50'	SHEET	10	OF	11
PROPOSED WATER MAIN	EXISTING WATER MAIN	EXISTING SANITARY SEWER MAIN	EXISTING STORM SEWER	EXISTING STORM INLET	EXISTING GAS MAIN	EXISTING ELECTRIC	EXISTING ELECTRIC			DRAWN BY	LDB	(V) 1" = NA	JOB NO.	1116.05			
PROPOSED SANITARY SEWER MAIN	EXISTING SANITARY SEWER MAIN	EXISTING STORM SEWER	EXISTING STORM INLET	EXISTING GAS MAIN	EXISTING ELECTRIC	EXISTING ELECTRIC	EXISTING ELECTRIC			CHECKED BY							
PROPOSED STORM SEWER	EXISTING STORM SEWER	EXISTING STORM INLET	EXISTING GAS MAIN	EXISTING ELECTRIC	EXISTING ELECTRIC	EXISTING ELECTRIC	EXISTING ELECTRIC										
PROPOSED STORM INLET	EXISTING STORM INLET	EXISTING GAS MAIN	EXISTING ELECTRIC	EXISTING ELECTRIC	EXISTING ELECTRIC	EXISTING ELECTRIC	EXISTING ELECTRIC										
ROW/BOUNDARY LINE	ROW/BOUNDARY LINE	ROW/BOUNDARY LINE	ROW/BOUNDARY LINE	ROW/BOUNDARY LINE	ROW/BOUNDARY LINE	ROW/BOUNDARY LINE	ROW/BOUNDARY LINE										

DATE: 6/19/19

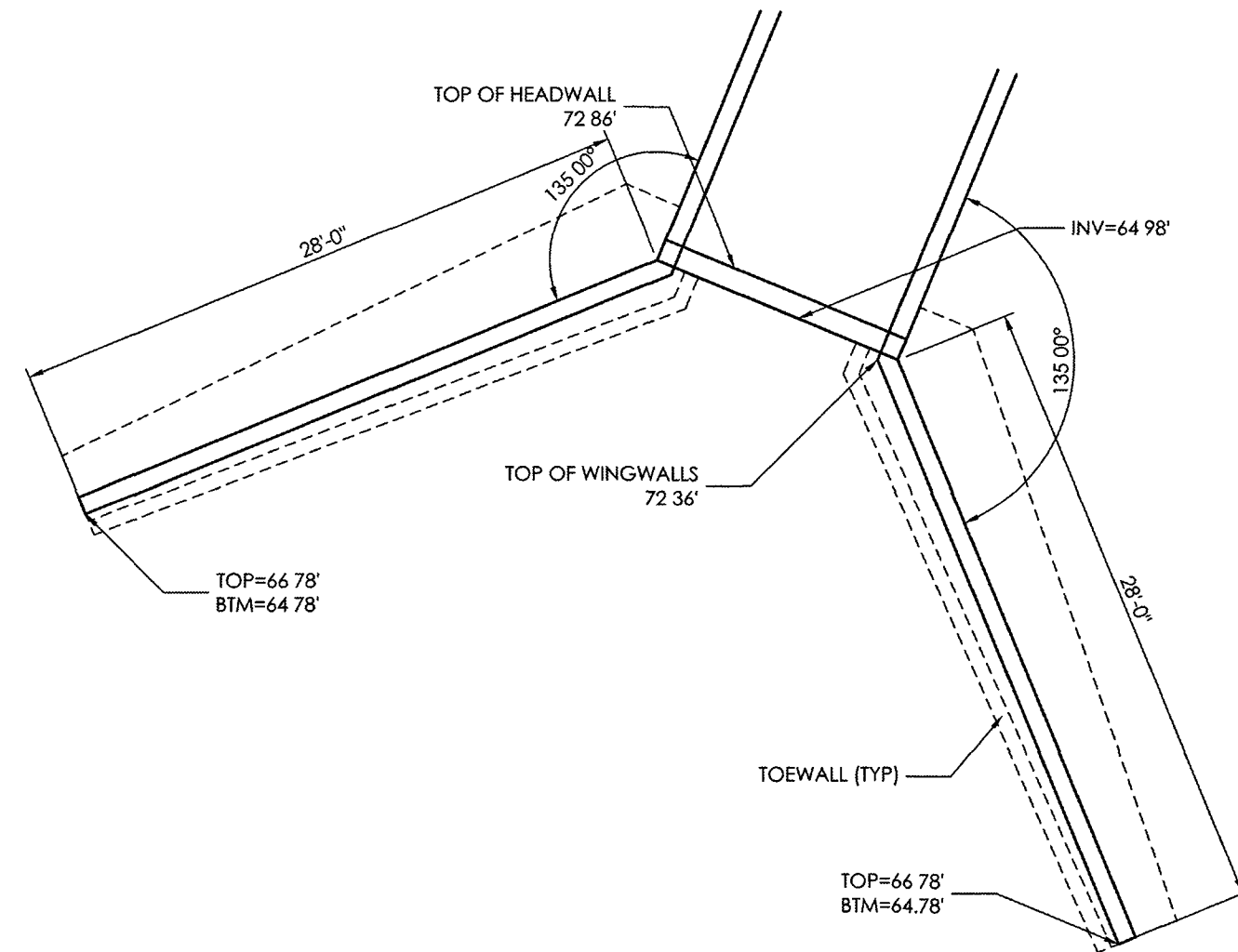
FILE: R:\CAMPELL, COLORADO P.E. #29794

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Colorado Springs, Colorado 80903

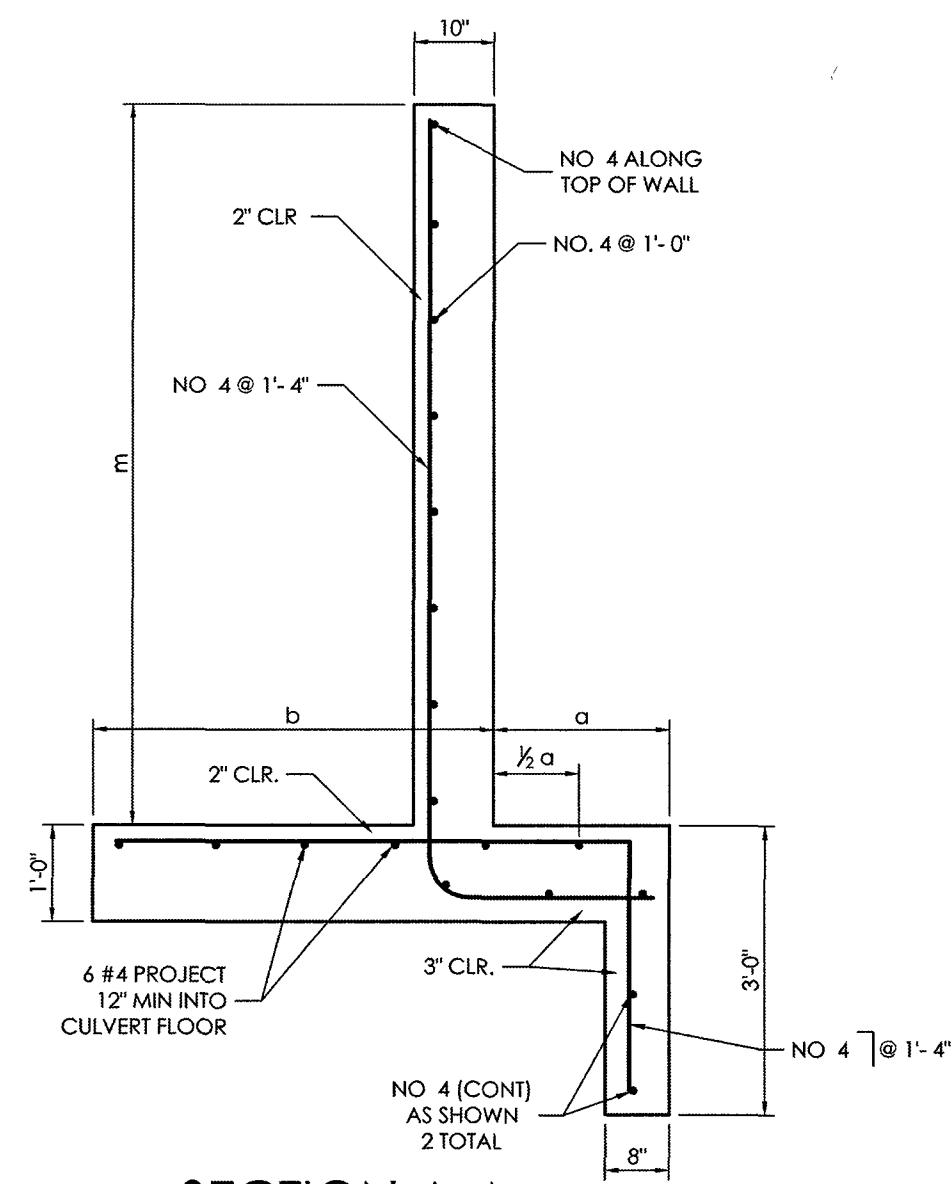
(719)785-0790
(719)785-0799(Fax)



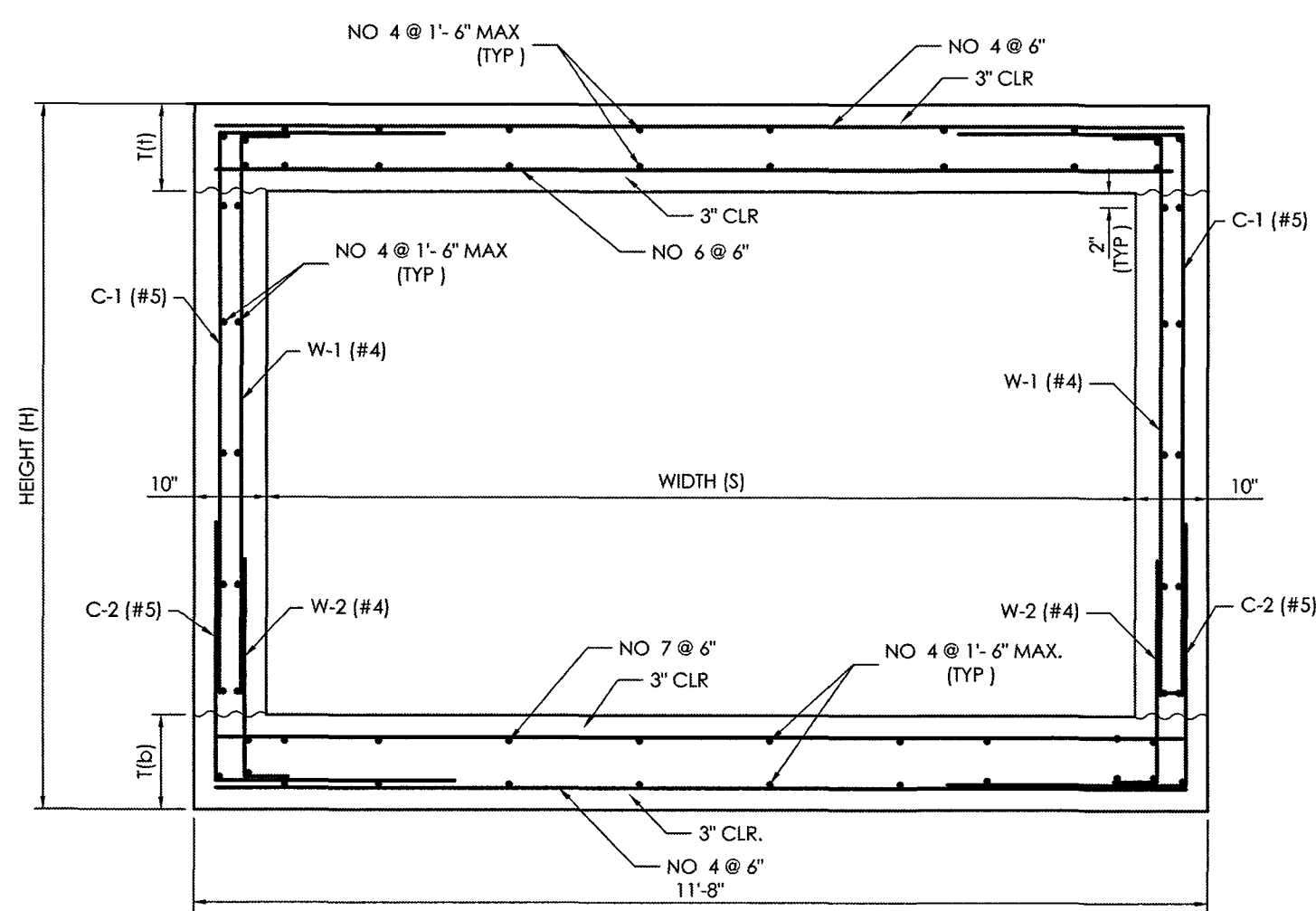
DETAIL "A"
(6' X 12' BOX CULVERT & WINGWALLS)
SCALE 1/8" = 1'-0"



DETAIL "B"
(6' X 12' BOX CULVERT & WINGWALLS)
SCALE 1/8" = 1'-0"

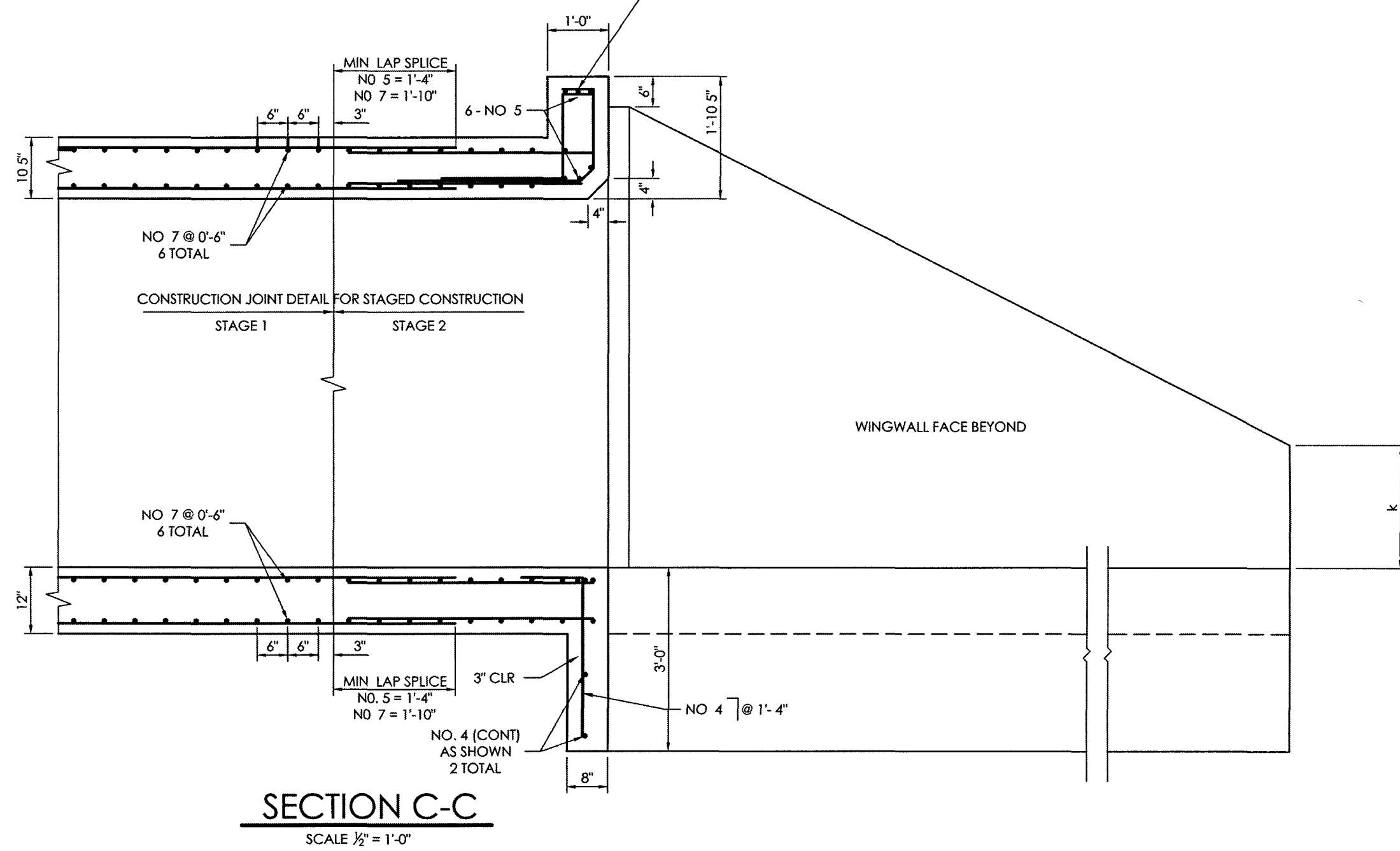
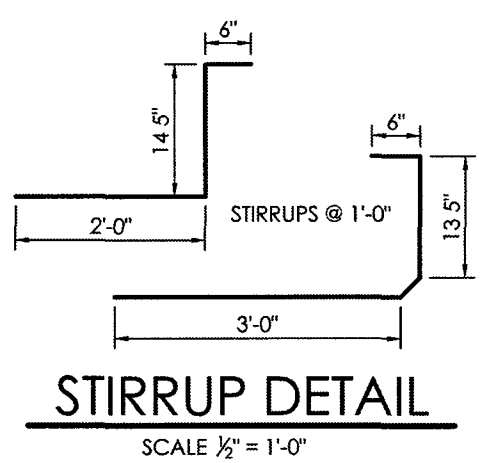
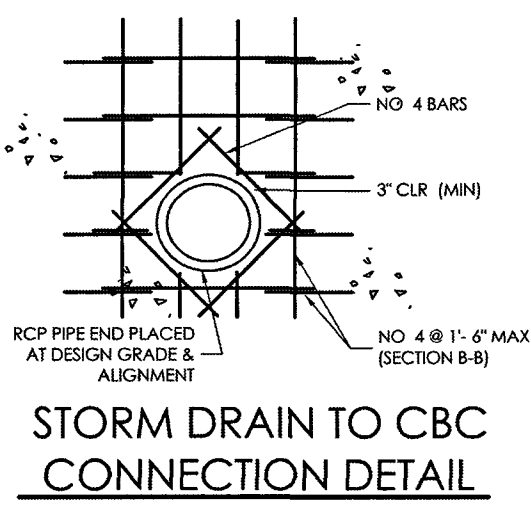
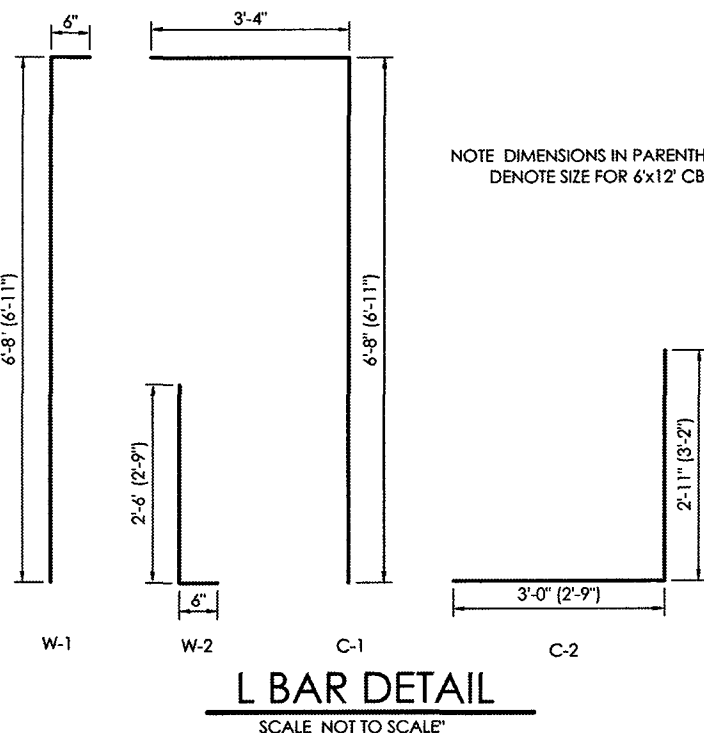


SECTION A-A
SCALE 1/2" = 1'-0"



SECTION B-B
SCALE 1/2" = 1'-0"

BOX CULVERT / HEADWALL / WINGWALL DIMENSIONS TABLE				
	A	B	C	D
HEIGHT (H)	8'-4"	8'-4"	7'-10.5"	
E	6'	6'	4'	
F	12'	12'	10'	
G	13'	13'	10.5'	
H	15'	15'	12'	
I				11'-8"
J				21'-0"
K				
L	2'	2'	2'	7'-5"
M	28'-4"	28'-0"	28'-0"	27'-5 1/2"
N	20'-0"	20'-0"	20'-0"	
O	7'-4.5"	7'-4.5"	7'-4.5"	8'-8"
P	1'-0"	1'-0"	1'-0"	2'-2"
Q (MAX)	2'-0"	2'-0"	2'-0"	2'-2"
R (MIN)	1'-8"	1'-8"	1'-8"	4'-0"
S (MAX)	3'-5"	3'-5"	3'-5"	4'-0"



SECTION C-C
SCALE 1/2" = 1'-0"

GENERAL NOTES

- 1 ALL CONCRETE SHALL BE CLASS D (BOX CULVERT)
- 2 CONSTRUCTION JOINTS ARE NOT SHOWN ON THE PLANS. CONTRACTOR SHALL PROVIDE A PLAN SHOWING LOCATION OF CONTRACTOR'S PROPOSED CONSTRUCTION JOINTS FOR STAGED CONSTRUCTION PRIOR TO THE BEGINNING OF ANY BOX CULVERT FORMING. THE CONSTRUCTION JOINT DETAIL FOR STAGED CONSTRUCTION SHALL BE AS SHOWN IN SECTION C-C AS DEPICTED ON THESE PLANS
- 3 ALL CONSTRUCTION JOINTS SHALL BE THOROUGHLY CLEANED BEFORE FRESH CONCRETE IS PLACED
- 4 THE CONTRACTOR SHALL MAINTAIN THE STABILITY OF THE STRUCTURE DURING CONSTRUCTION
- 5 STRUCTURE EXCAVATION AND BACKFILL SHALL BE IN ACCORDANCE WITH STANDARD
- 6 BACKFILL SHALL NOT BEGIN UNTIL TOP SLAB HAS REACHED DESIGN STRENGTH = F_c
- 7 REINFORCING STEEL SHALL BE GRADE 60 UNCOATED
- 8 ALL DIMENSIONS ARE PERPENDICULAR TO THE CENTERLINE OF THE BOX
- 9 ALL TRANSVERSE REINFORCING SHALL BE NORMAL TO THE CENTERLINE OF THE BOX
- 10 ALL EXPOSED CONCRETE CORNERS SHALL BE CHAMFERED 3/8"
- 11 STANDARD PLANS REFERENCED ARE COLORADO DEPARTMENT OF TRANSPORTATION
- 12 WINGWALL FOOTINGS AND FLOOR OF BOX CULVERT SHALL BE PLACED MONOLITHICALLY
- 13 WINGWALL AND APRON CONCRETE SHALL BE CONCRETE CLASS 8, OR D (BOX CULVERT) FOR CBC'S
- 14 AN ALTERNATE PRECAST CONCRETE BOX CULVERT MAY BE USED FOR THIS PROJECT IN ACCORDANCE WITH STANDARD PLAN NO. M-405.3 DATED JULY 04, 2006. TAPE SHALL BE HAND FORMED AND CONSTRUCTED ON SITE

LOAD DATA

LIVE LOAD = AASHTO, HS 20-44 AND ALTERNATE MILITARY LOADING
DEAD LOAD CASE 1 VERTICAL EARTH LOAD = 120 LBS / CU. FT.
HORIZONTAL EARTH LOAD = 30 LBS / CU. FT.
DEAD LOAD CASE 2 VERTICAL EARTH LOAD = 120 LBS / CU. FT.
HORIZONTAL EARTH LOAD = 60 LBS / CU. FT.
FUTURE HMA OVERLAY = 48 LBS / SQ. FT. BASED ON 4 IN. THICKNESS
LIVE LOAD SURCHARGE ON EXTERIOR WALLS = 2 FT. OF EARTH

DESIGN DATA

UNIT STRESS F_c = 24,000 PSI
F_s = 12,000 PSI
N = 9
EQUIVALENT FLUID PRESSURE = 34 LBS / CU. FT.
MAXIMUM TOE PRESSURE = 1 TON/CSQ. FT.

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NO.	REVISION	DATE

REVIEW:

PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF
CLASSIC CONSULTING ENGINEERS AND SURVEYORS, LLC

Kyle R. Campbell
KYLE R. CAMPBELL, COLORADO REGISTERED PROFESSIONAL ENGINEER
29794

Walter
WALTER, COLORADO REGISTERED PROFESSIONAL ENGINEER
#29794

CLASSIC
CONSULTING
ENGINEERS & SURVEYORS

619 N. Cascade Avenue, Suite 200
Colorado Springs, Colorado 80903

(719) 785-0790
(719) 785-0799 (Fax)

HANNAH RIDGE AT FEATHERGRASS
FILING NO. 5
PROPOSED TRIBUTARY DRAINAGE IMPROVEMENTS
BOX CULVERT AND GRASS CHANNEL DETAILS

DESIGNED BY	KRC	SCALE	DATE
DRAWN BY	LDB	(H) 1" = 50'	10/12/18
CHECKED BY	(V) 1" = NA		

SHEET	11	OF	11
JOB NO.	1116.05		

SF-18-038

CLASSIC
CONSULTING
ENGINEERS & SURVEYORS