

RETREAT AT TIMBERRIDGE FILING NO. 3

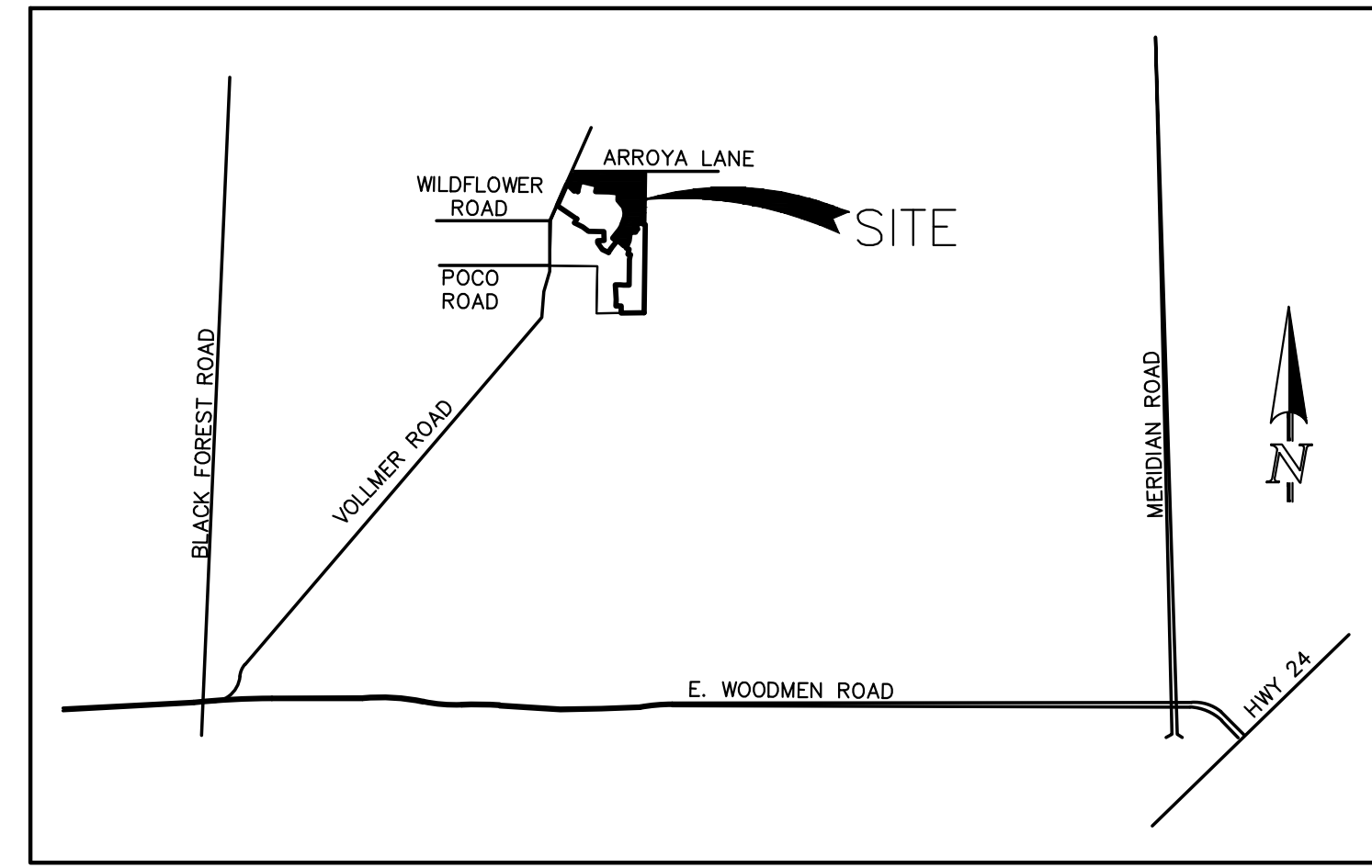
COUNTY OF EL PASO, STATE OF COLORADO

CONSTRUCTION DRAWINGS

NOVEMBER 2022

GENERAL CONSTRUCTION NOTES:

- THE LOCATION OF EXISTING UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND MAY NOT INCLUDE ALL UTILITIES. THE EXCAVATION CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UTILITIES.
- BEFORE COMMENCING ANY EXCAVATION, CALL 1-800-922-1987 FOR EXISTING UTILITY LOCATIONS.
- 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.
- 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 PLANNING AND COMMUNITY DEVELOPMENT (PCD).
- ALL STATIONING IS CENTERLINE UNLESS OTHERWISE INDICATED. ALL ELEVATIONS ARE CENTERLINE UNLESS OTHERWISE INDICATED.
- THE CONTRACTOR SHALL REVEGETATE ALL DISTURBED AREAS AS SOON AS POSSIBLE AND EROSION CONTROL SHALL BE INSTALLED AND MAINTAINED IN A FUNCTIONAL MANNER AT ALL TIMES. DEVELOPER RESPONSIBLE FOR MAINTAINING DISTURBED AREAS UNTIL REVEGETATION IS COMPLETE.
- ALL DISTURBED PAVEMENT EDGES SHALL BE CUT TO NEAT LINES. REPAIR SHALL CONFORM TO THE EPC EGM APPENDIX K - 1.2C.
- ADDITIONAL EROSION CONTROL STRUCTURES MAY BE REQUIRED AT THE TIME OF CONSTRUCTION.
- BUILDING CONTRACTORS WILL BE RESPONSIBLE FOR CONSTRUCTING POSITIVE DRAINAGE AWAY FROM ALL STRUCTURES.
- 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 PLANNING AND COMMUNITY DEVELOPMENT PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL REVEGETATE ALL DISTURBED AREAS WITHIN 21 DAYS OF SUBSTANTIAL GRADING COMPLETION. EROSION CONTROL SHALL BE INSTALLED AND MAINTAINED IN A FUNCTIONAL MANNER AT ALL TIMES. DEVELOPER IS RESPONSIBLE FOR MAINTAINING DISTURBED AREAS UNTIL REVEGETATION IS COMPLETE.
- 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.
- ALL MATERIALS AND INSTALLATION PROCEDURES SHALL BE IN COMPLIANCE WITH ANY AND ALL APPLICABLE EL PASO COUNTY STANDARDS.



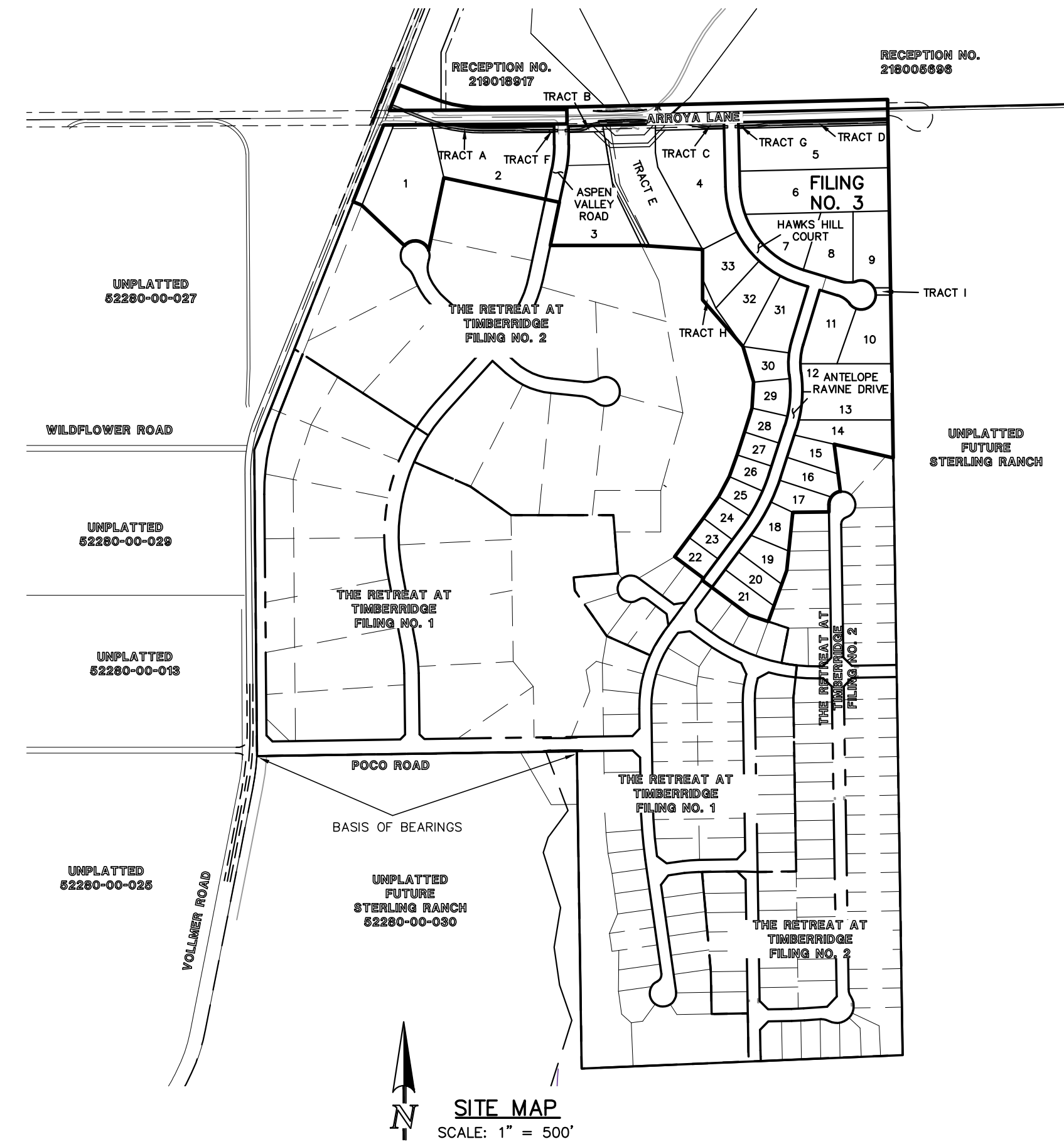
VICINITY MAP
N.T.S.

STANDARD NOTES FOR EL PASO COUNTY CONSTRUCTION PLANS:

- 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.
- 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).
- 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:
 - EL PASO COUNTY ENGINEERING CRITERIA MANUAL (ECM)
 - CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2
 - COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
 - CDOT M & S STANDARDS
- 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.
- 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.
- CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH EL PASO COUNTY - INSPECTIONS, PRIOR TO STARTING CONSTRUCTION.
- 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.
- 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.
- ALL STORM DRAIN PIPE SHALL BE CLASS III RCP OR CLASS IV WITH WATER TIGHT JOINTS WHERE CALLED OUT, UNLESS OTHERWISE NOTED AND APPROVED BY EL PASO COUNTY - INSPECTIONS.
- CONTRACTOR SHALL COORDINATE GEOTECHNICAL TESTING PER ECM STANDARDS. PAVEMENT DESIGN SHALL BE APPROVED BY EL PASO COUNTY PRIOR TO PLACEMENT OF CURB AND GUTTER AND PAVEMENT.
- ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.
- 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.
- SIGNING AND STRIPING SHALL COMPLY WITH EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS AND MUTCD CRITERIA.
- CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS, INCLUDING WORK WITHIN THE RIGHT-OF-WAY AND SPECIAL TRANSPORT PERMITS.
- 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.

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.
- 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-614-8 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 ML 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. CROSSWALK LINES SHALL BE 12" WIDE AND 8" LONG PER CDOT S-627-1.
- ALL LONGITUDINAL LINES SHALL BE A MINIMUM 15ML 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.
- THE CONTRACTOR SHALL NOTIFY EL PASO COUNTY INSPECTIONS (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 DEPARTMENT OF PUBLIC WORKS (DPW) PRIOR TO ANY SIGNAGE OR STRIPING WORK WITHIN AN EXISTING EL PASO COUNTY ROADWAY.



SITE MAP
SCALE: 1" = 500'

BASIS OF BEARINGS:

THE SOUTH LINE OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, BEING MONUMENTED AT THE WEST END WHICH IS THE SOUTHWEST CORNER OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF SAID SECTION 28, BY A 3-1/4" ALUMINUM SURVEYORS CAP STAMPED "ESI PLS 10376, 2006" AND AT THE EAST END, WHICH IS A 30" WITNESS CORNER TO THE EAST OF THE EAST QUARTER CORNER OF SAID SECTION 28, BY A 3-1/4" ALUMINUM SURVEYORS CAP STAMPED "ESI 10376, 2006", IS ASSUMED TO BEAR S89°08'28"W A DISTANCE OF 1326.68 FEET.

BENCHMARKS:

BENCHMARK #1: A 3.25 ALUMINUM SURVEYORS CAP STAMPED "WC 30/2006 PLS 10376" LOCATED 30' EAST OF THE EAST QUARTER CORNER OF SECTION 28, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN. ELEVATION: = 7168.20

BENCH MARK #2: A 3.25 ALUMINUM SURVEYORS CAP STAMPED "2006 PLS 10376" LOCATED AT THE SOUTHWEST CORNER OF SECTION 28, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN. ELEVATION: = 7141.36

AGENCIES:

- OWNER/DEVELOPER: TIMBERRIDGE DEVELOPMENT GROUP, LLC
2138 FLYING HORSE CLUB DR
COLORADO SPRINGS, CO 80921
MR. LOREN J. MORELAND, (719) 592-9333
- CIVIL ENGINEER: CLASSIC CONSULTING ENGINEERS & SURVEYORS
619 N. CASCADE AVENUE, SUITE 200
COLORADO SPRINGS, COLORADO 80903
MR. MARC A. WHORTON, P.E. (719) 785-2802
- COUNTY ENGINEERING: EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT
2880 INTERNATIONAL CIRCLE, SUITE 110
COLORADO SPRINGS, COLORADO 80910
MR. JEFF RICE (719) 520-7877
- GAS COMPANY: BLACKHILLS ENERGY
37 WIDEFIELD BOULEVARD
WIDEFIELD, COLORADO 80911
MR. GEORGE M. PETERSON, (719) 392-3491
- ELECTRIC COMPANY: MOUNTAIN VIEW ELECTRIC
P.O. BOX 1600
LIMON, COLORADO 80828
MR. LES ULFERS, (719) 495-2283
- FIRE DISTRICT: BLACK FOREST FIRE PROTECTION DISTRICT
11445 TEACOUT ROAD
COLORADO SPRINGS, CO 80908
CHIEF BRYAN JACK, (719) 495-4300
- TELEPHONE COMPANY: CENTURY LINK
(LOCATORS) 811
AT & T
(LOCATORS) 811

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APPROVALS:

DESIGN ENGINEER'S STATEMENT:

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

MARC A. WHORTON, COLORADO P.E. #37155
FOR AND ON THE BEHALF OF CLASSIC CONSULTING ENGINEERS & SURVEYORS
DATE: 2/2/2024

OWNER/DEVELOPER'S STATEMENT:

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

LOREN J. MORELAND
DATE: 11/9/2023

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 MANUAL, VOLUMES 1 AND 2 AND ENGINEERING CRITERIA MANUAL AS AMENDED.

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

JOSHUA PALMER, P.E.
COUNTY ENGINEER / EGM ADMINISTRATOR
DATE: _____

PCD NO. SF-2241

48 HOURS BEFORE YOU DIG, CALL UTILITY LOCATORS 811 UTILITY NOTIFICATION CENTER OF COLORADO IT'S THE LAW	NO. REVISION	DATE	REVIEW:
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.	1	REVISED PER EPC COMMENTS	3-07-23
	2	REVISED PER ARROYA DESIGN CHANGE	1/31/24

PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF CLASSIC CONSULTING ENGINEERS & SURVEYORS, LLC
MARC A. WHORTON, COLORADO P.E. #37155
DATE: 2/2/2024



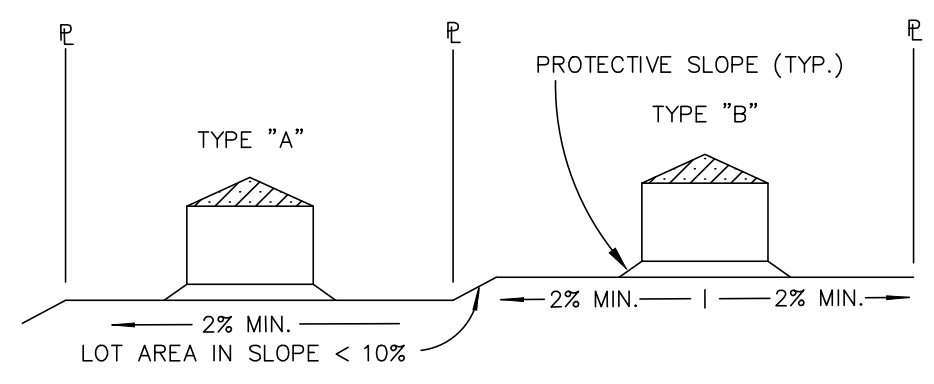
RETREAT AT TIMBERRIDGE FILING NO. 3 CONSTRUCTION DRAWINGS TITLE SHEET			
DESIGNED BY	PRA	SCALE	DATE 11-22-2022
DRAWN BY	PRA	(H) 1" = N/A	SHEET 1 OF 27
CHECKED BY		(V) 1" = N/A	JOB NO. 1185.30

V:\18530\DRAWINGS\CONSTRUCT\BOOK\01-18530-CD05-TITLE.dwg, 2/7/2024 8:10:37 AM, 1:1

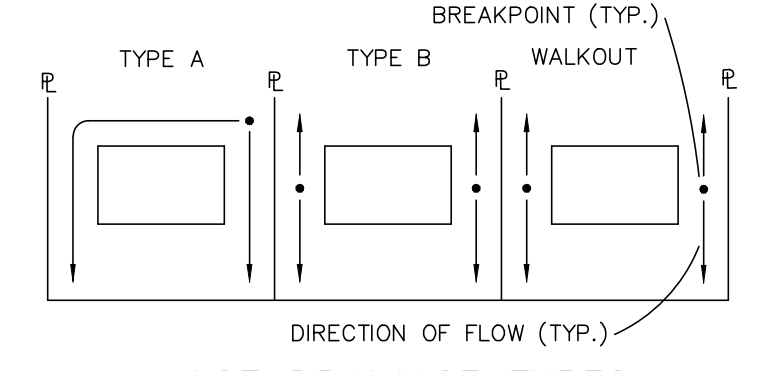
Provide a cross-section for the proposed trail.

STANDARD NOTES FOR EL PASO COUNTY GRADING AND EROSION CONTROL PLANS:

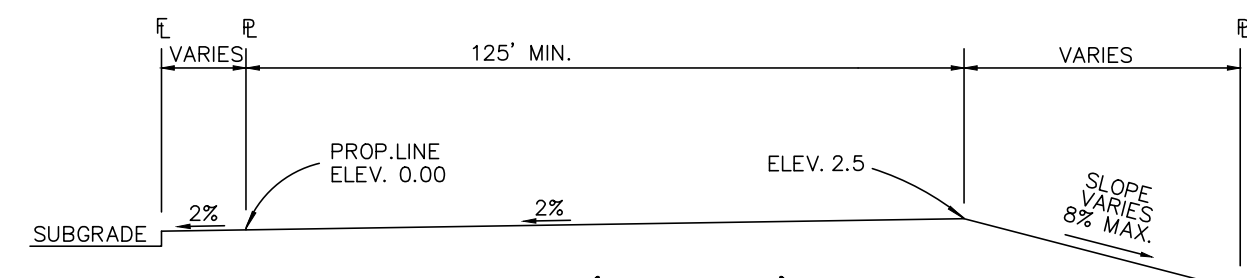
- STORMWATER DISCHARGES FROM CONSTRUCTION SITES SHALL NOT CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR DEGRADATION OF STATE WATERS. ALL WORK AND EARTH DISTURBANCE SHALL BE DONE IN A MANNER THAT MINIMIZES POLLUTION OF ANY ON-SITE OR OFF-SITE WATERS, INCLUDING WETLANDS.
- NOTWITHSTANDING ANYTHING 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.
- 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 QUALIFIED STORMWATER MANAGER OR CERTIFIED EROSION CONTROL INSPECTOR AND SHALL BE LOCATED ON SITE AT ALL TIMES DURING CONSTRUCTION AND SHALL BE KEPT UP TO DATE WITH WORK PROGRESS AND CHANGES IN THE FIELD.
- ONCE THE ESQCP IS APPROVED AND A (NOTICE TO PROCEED) HAS BEEN ISSUED, THE CONTRACTOR MAY INSTALL THE INITIAL STAGE EROSION AND SEDIMENT CONTROL MEASURES AS INDICATED ON THE APPROVED GEC. A PRECONSTRUCTION MEETING BETWEEN THE CONTRACTOR, ENGINEER, AND EL PASO COUNTY WILL BE HELD PRIOR TO ANY CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE APPLICANT TO COORDINATE THE MEETING TIME AND PLACE WITH COUNTY STAFF.
- CONTROL MEASURES MUST BE INSTALLED PRIOR TO COMMENCEMENT OF ACTIVITIES THAT MAY CONTRIBUTE POLLUTANTS TO STORMWATER. TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREA SHALL BE COMPLETED IMMEDIATELY UPON COMPLETION OF THE DISTURBANCE.
- ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE MAINTAINED AND REMAIN IN EFFECTIVE OPERATING CONDITION UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND FINAL STABILIZATION IS ESTABLISHED. ALL PERSONS ENGAGED IN LAND DISTURBANCE ACTIVITIES SHALL ASSESS THE ADEQUACY OF CONTROL MEASURES AT THE SITE AND IDENTIFY IF CHANGES TO THOSE CONTROL MEASURES IS NEEDED TO ENSURE THE CONTINUED EFFECTIVE PERFORMANCE OF THE CONTROL MEASURES. ALL CHANGES TO TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES MUST BE INCORPORATED INTO THE STORMWATER MANAGEMENT PLAN.
- TEMPORARY STABILIZATION SHALL BE IMPLEMENTED ON DISTURBED AREAS AND STOCKPILES WHERE GROUND DISTURBING CONSTRUCTION ACTIVITY HAS PERMANENTLY CEASED OR TEMPORARILY CEASED FOR LONGER THAN 14 DAYS.
- FINAL STABILIZATION MUST BE IMPLEMENTED AT ALL APPLICABLE CONSTRUCTION SITES. FINAL STABILIZATION IS ACHIEVED WHEN ALL GROUND DISTURBING AREAS EITHER HAVE A UNIFORM VEGETATIVE COVER WITH INDIVIDUAL PLAN DENSITY OF 70 PERCENT OF PRE-DISTURBANCE LEVELS ESTABLISHED OR EQUIVALENT PERMANENT ALTERNATIVE STABILIZATION METHOD IS IMPLEMENTED. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE REMOVED UPON FINAL STABILIZATION AND BEFORE PERMIT CLOSURE.
- ALL PERMANENT STORMWATER MANAGEMENT FACILITIES SHALL BE INSTALLED AS DEFINED IN THE APPROVED PLANS. ANY PROPOSED CHANGES THAT AFFECT THE HYDROLOGY OR HYDRAULICS OF A PERMANENT STORMWATER MANAGEMENT STRUCTURES MUST BE APPROVED BY THE EGM ADMINISTRATOR PRIOR TO IMPLEMENTATION.
- EARTH DISTURBANCES SHALL BE CONDUCTED IN SUCH A MANNER SO AS TO EFFECTIVELY MINIMIZE ACCELERATED SOIL EROSION AND RESULTING SEDIMENTATION. ALL DISTURBANCES SHALL BE DESIGNED, CONSTRUCTED, AND COMPLETED SO THAT THE EXPOSED AREA OF ANY DISTURBED LAND SHALL BE LIMITED TO THE SHORTEST PRACTICAL PERIOD OF TIME. PRE-EXISTING VEGETATION SHALL BE PROTECTED AND MAINTAINED WITHIN 50 HORIZONTAL FEET OF A WATERS OF THE STATE, UNLESS SHOWN TO BE INFEASIBLE AND SPECIFICALLY REQUESTED AND APPROVED.
- COMPACTION OF SOIL MUST BE PREVENTED IN AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES OR WHERE FINAL STABILIZATION WILL BE ACHIEVED BY VEGETATIVE COVER. AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES SHALL ALSO BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED. IF COMPACTION PREVENTION IS NOT FEASIBLE DUE TO SITE CONSTRAINTS, ALL AREAS DESIGNATED FOR INFILTRATION AND VEGETATION CONTROL MEASURES MUST BE LOOSENEED PRIOR TO INSTALLATION OF THE CONTROL MEASURE(S).
- ANY TEMPORARY OR PERMANENT FACILITY DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF STORMWATER AROUND, THROUGH, OR FROM THE EARTH DISTURBANCE AREA SHALL BE A STABILIZED CONVEYANCE DESIGNED TO MINIMIZE EROSION AND THE DISCHARGE OF SEDIMENT OFF SITE.
- 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. CONCRETE WASHOUTS SHALL NOT BE LOCATED IN AN AREA WHERE SHALLOW GROUNDWATER MAY BE PRESENT, OR WITHIN 50 FEET OF A SURFACE WATER BODY, CREEK OR STREAM.
- DURING DEWATERING OPERATIONS: UNCONTAMINATED GROUND WATER MAY BE DISCHARGED ON SITE, BUT SHALL NOT LEAVE THE SITE IN THE FORM OF SURFACE RUNOFF UNLESS AN APPROVED STATE DEWATERING PERMIT IS IN PLACE.
- EROSION CONTROL BLANKETING OR OTHER PROTECTIVE COVERING SHALL BE USED ON SLOPES STEEPER THAN 3:1.
- 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.
- WASTE MATERIALS SHALL NOT BE TEMPORARILY PLACED IN THE STREET, ALLEY OR OTHER PUBLIC WAY, UNLESS IN ACCORDANCE WITH AN APPROVED TRAFFIC CONTROL PLAN. CONTROL MEASURES MAY BE REQUIRED BY EL PASO COUNTY ENGINEERING IF DEEMED NECESSARY, BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES.
- TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF-SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFFSITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.
- THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION DEBRIS, DIRT, TRASH, ROCK, SEDIMENT, SOIL AND SAND THAT MAY ACCUMULATE IN ROADS, STORM DRAINS AND OTHER DRAINAGE CONVEYANCE SYSTEMS AND STORMWATER APPURTENANCES AS A RESULT OF SITE DEVELOPMENT.
- 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.
- NO CHEMICAL(S) HAVING THE POTENTIAL TO BE RELEASED IN STORMWATER ARE TO BE STORED OR USED ONSITE UNLESS PERMISSION FOR THE USE OF A SPECIFIC CHEMICAL(S) IS GRANTED IN WRITING BY THE EGM ADMINISTRATOR. IN GRANTING APPROVAL FOR THE USE OF SUCH CHEMICAL(S), SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.
- BULK STORAGE OF ALLOWED PETROLEUM PRODUCTS OR OTHER LIQUID CHEMICALS IN EXCESS OF 55 GALLONS SHALL REQUIRE ADEQUATE SECONDARY CONTAINMENT PROTECTION TO CONTAIN ALL SPILLS ONSITE AND TO PREVENT ANY SPILLED MATERIALS FROM ENTERING STATE WATERS, ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES.
- NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE CURB AND GUTTER OR DITCH EXCEPT WITH APPROVED SEDIMENT CONTROL MEASURES.
- OWNER/DEVELOPER AND THEIR AGENTS SHALL COMPLY WITH THE COLORADO WATER QUALITY CONTROL ACT (TITLE 25, ARTICLE 8, CRS), AND THE CLEAN WATER ACT (33 USC 1344), IN ADDITION TO THE REQUIREMENTS OF THE LAND DEVELOPMENT CODE, DOM VOLUME II AND THE EGM APPENDIX I. ALL APPROPRIATE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION (1041, NPDES, FLOODPLAIN, 404, FUGITIVE DUST, ETC.). IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL, STATE, OR COUNTY AGENCIES, THE MORE RESTRICTIVE LAWS, RULES, OR REGULATIONS SHALL APPLY.
- ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.
- PRIOR TO CONSTRUCTION THE PERMITEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.
- A WATER SOURCE SHALL BE AVAILABLE ON SITE DURING EARTHWORK OPERATIONS AND UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND.
- THE SOILS REPORTS FOR THIS SITE HAVE BEEN PREPARED BY ENTECH ENGINEERING, INC. TITLED "SOIL GEOLOGY, GEOLOGIC HAZARD STUDY - THE RETREAT AT TIMBERRIDGE FILING NO. 3," DATED JUNE 10, 2022, AND "SUBSURFACE SOIL INVESTIGATION RETREAT AT TIMBERRIDGE, FILING NO. 3, SAND CREEK CHANNEL IMPROVEMENTS BOX CULVERT-ARROYA LANE," DATED AUGUST 19, 2022. THESE REPORTS SHALL BE CONSIDERED A PART OF THESE PLANS.
- AT LEAST TEN (10) DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB ONE (1) ACRE OR MORE, THE OWNER OR OPERATOR OF CONSTRUCTION ACTIVITY SHALL SUBMIT A PERMIT APPLICATION FOR STORMWATER DISCHARGE TO THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, WATER QUALITY DIVISION. THE APPLICATION CONTAINS CERTIFICATION OF COMPLETION OF A STORMWATER MANAGEMENT PLAN (SWMP), OF WHICH THIS GRADING AND EROSION CONTROL PLAN MAY BE A PART. FOR INFORMATION OR APPLICATION MATERIALS CONTACT:
COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT
WATER QUALITY CONTROL DIVISION
WQCD - PERMITS
4300 CHERRY CREEK DRIVE SOUTH
DENVER, CO 80246-1530
ATTN: PERMITS UNIT



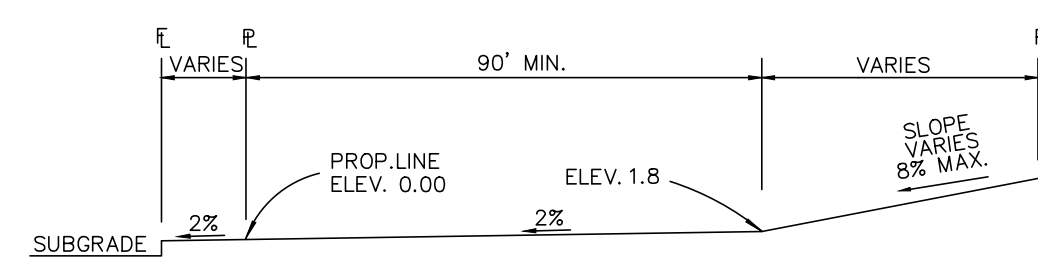
TYPICAL LOT SECTION DETAIL
N.T.S.



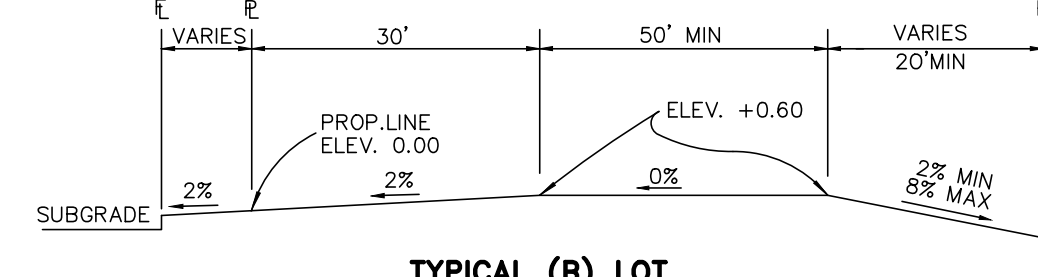
LOT DRAINAGE TYPES
N.T.S.



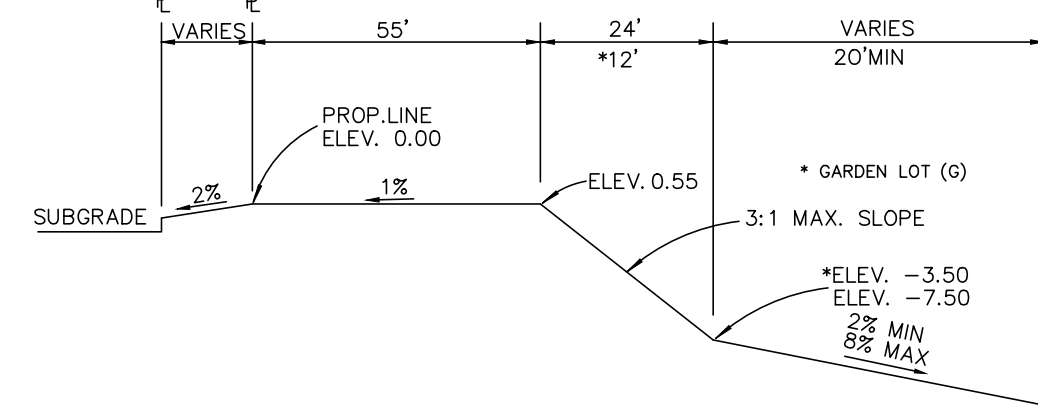
TYPICAL (MODIFIED A) LOT
N.T.S.



TYPICAL (A) LOT
N.T.S.



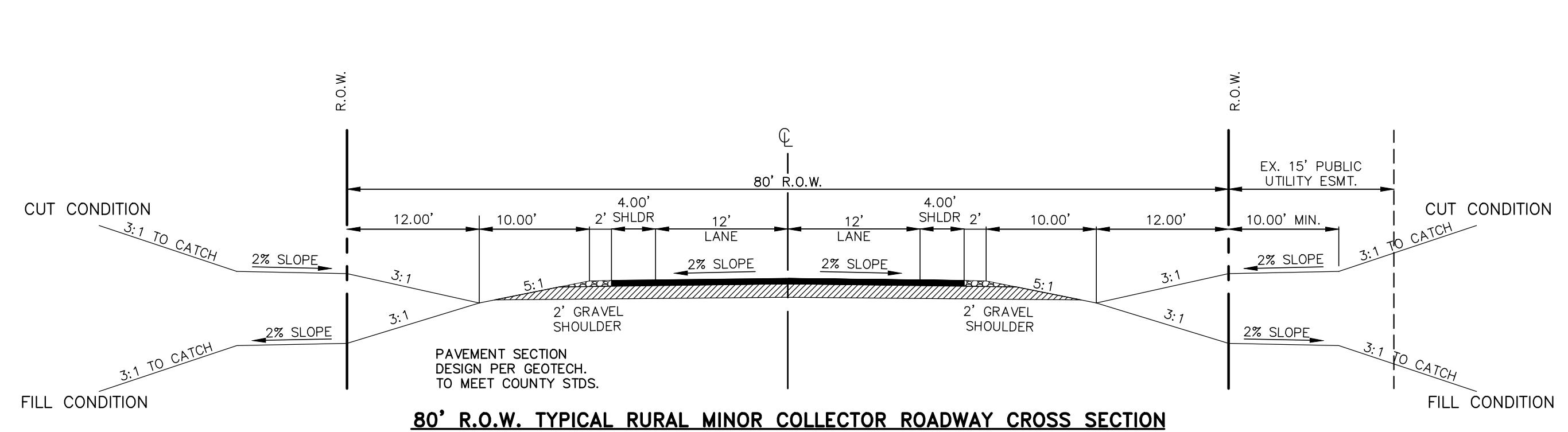
TYPICAL (B) LOT
N.T.S.



TYPICAL WALKOUT LOT (W/O) OR GARDEN (G)
N.T.S.

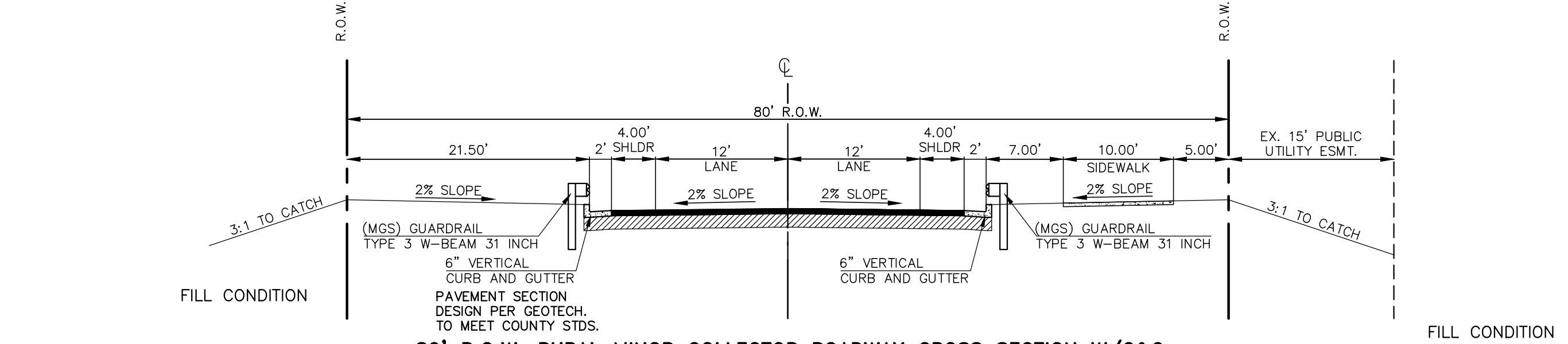
NOTES:

- BASED ON GREATER TYPICAL DEPTH OF PROPOSED LOTS, ALL LOT TEMPLATES ADJUSTED AND ADDITIONAL 5'.
- "T" LOTS OR "TRANSITION" LOTS OCCUR IN PLACES WHERE BOTH PROPERTY LINES CANNOT BE GRADED AS THE TYPICAL STANDARD LOT TEMPLATES SHOWN. THESE LOTS WILL STILL BE GRADED TO CREATE POSITIVE DRAINAGE AWAY FROM THE STRUCTURE.
- SIDE LOT SWALES ARE REQUIRED ON THE DOWNHILL LOTS, EITHER BY BUILDER OR GRADING CONTRACTOR.



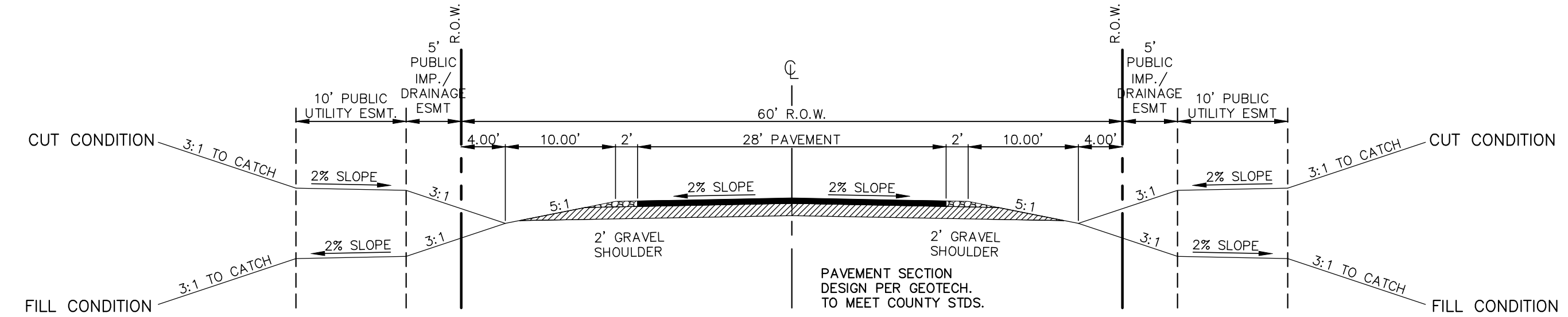
80' R.O.W. TYPICAL RURAL MINOR COLLECTOR ROADWAY CROSS SECTION
SCALE: 1" = 10'

SIGN PLACEMENT PER 2009 MUTCD
FIG. 2A-2 A AND LOCATED
8' BEHIND GRAVEL SHOULDER
-ARROYA LANE
(ALL STATIONS EXCEPT THOSE SHOWN BELOW)



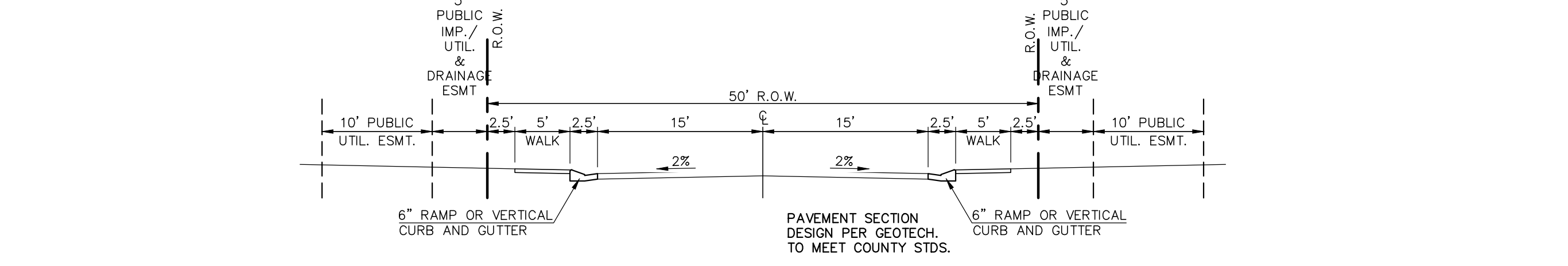
80' R.O.W. RURAL MINOR COLLECTOR ROADWAY CROSS SECTION W/C&G
SCALE: 1" = 10'

SIGN PLACEMENT PER 2009 MUTCD
FIG. 2A-2 A AND LOCATED
8' BEHIND GRAVEL SHOULDER
-ARROYA LANE
STA. 7+75.16 THROUGH STA. 13+91.87



60' R.O.W. TYPICAL RURAL LOCAL CROSS SECTION
SCALE: 1" = 10'

SIGN PLACEMENT PER 2009 MUTCD
FIG. 2A-2 A AND LOCATED
8' BEHIND GRAVEL SHOULDER
-ASPEN VALLEY ROAD AND
HAWKS HILL COURT

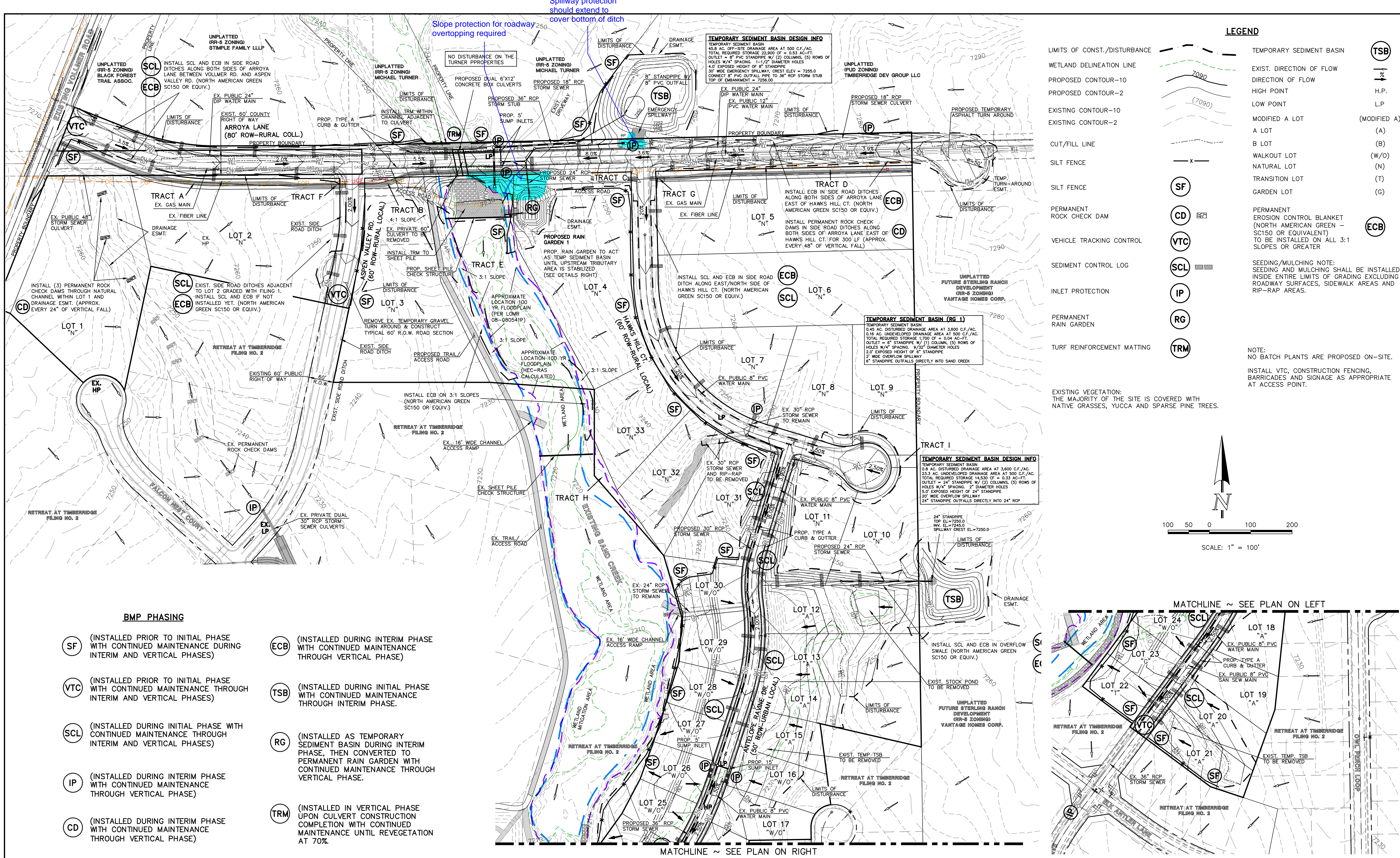


50' R.O.W. TYPICAL URBAN LOCAL CROSS SECTION
SCALE: 1" = 10'

-ANTELOPE RAVINE DRIVE

<p>48 HOURS BEFORE YOU DIG, CALL UTILITY LOCATORS 811 UTILITY NOTIFICATION CENTER OF COLORADO IT'S THE LAW</p> <p>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 MAY BE CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.</p>	<p>NO. REVISION</p> <p>1 REVISED PER EPC COMMENTS</p>	<p>DATE</p> <p>3-07-23</p>	<p>REVIEW:</p> <p>PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF CLASSIC CONSULTING ENGINEERS AND SURVEYORS, LLC</p>	<p>CLASSIC CONSULTING</p> <p>619 N. Cascade Avenue, Suite 200 Colorado Springs, Colorado 80903</p> <p>(719) 785-0790 (719) 785-0799 (Fax)</p>	<p>RETREAT AT TIMBERRIDGE FILING NO. 3 CONSTRUCTION DRAWINGS STREET SECTIONS / EROSION CONTROL NOTES</p>	
	<p>DESIGNED BY</p> <p>PRA</p>	<p>SCALE</p> <p>(H) 1" = N/A</p>	<p>DATE</p> <p>11-22-2022</p>		<p>DRAWN BY</p> <p>PRA</p>	<p>SHEET</p> <p>2 OF 27</p>

V:\118530\UPDRAWINGS\CONSTRUCT\DRAW\02-118530-GR-01.dwg, 2/17/2024 8:16:22 AM, 1-1



LEGEND

LIMITS OF CONST./DISTURBANCE	---	TEMPORARY SEDIMENT BASIN	(TSB)
WETLAND DELINEATION LINE	---	EXIST. DIRECTION OF FLOW	→
PROPOSED CONTOUR-10	---	DIRECTION OF FLOW	→
PROPOSED CONTOUR-2	---	HIGH POINT	H.P.
EXISTING CONTOUR-10	---	LOW POINT	L.P.
EXISTING CONTOUR-2	---	MODIFIED A LOT	(MODIFIED A)
CUT/FILL LINE	---	A LOT	(A)
SILT FENCE	---	B LOT	(B)
SILT FENCE	---	WALKOUT LOT	(W/O)
PERMANENT ROCK CHECK DAM	---	NATURAL LOT	(N)
VEHICLE TRACKING CONTROL	---	TRANSITION LOT	(T)
SEDIMENT CONTROL LOG	---	GARDEN LOT	(G)
INLET PROTECTION	---	PERMANENT EROSION CONTROL BLANKET (NORTH AMERICAN GREEN - SC150 OR EQUIV.)	(ECB)
PERMANENT RAIN GARDEN	---	TO BE INSTALLED ON ALL 3:1 SLOPES OR GREATER	
TURF REINFORCEMENT MATTING	---	SEEDING/MULCHING NOTE: SEEDING AND MULCHING SHALL BE INSTALLED INSIDE ENTIRE LIMITS OF GRADING EXCLUDING ROADWAY SURFACES, SIDEWALK AREAS AND RIP-RAP AREAS.	

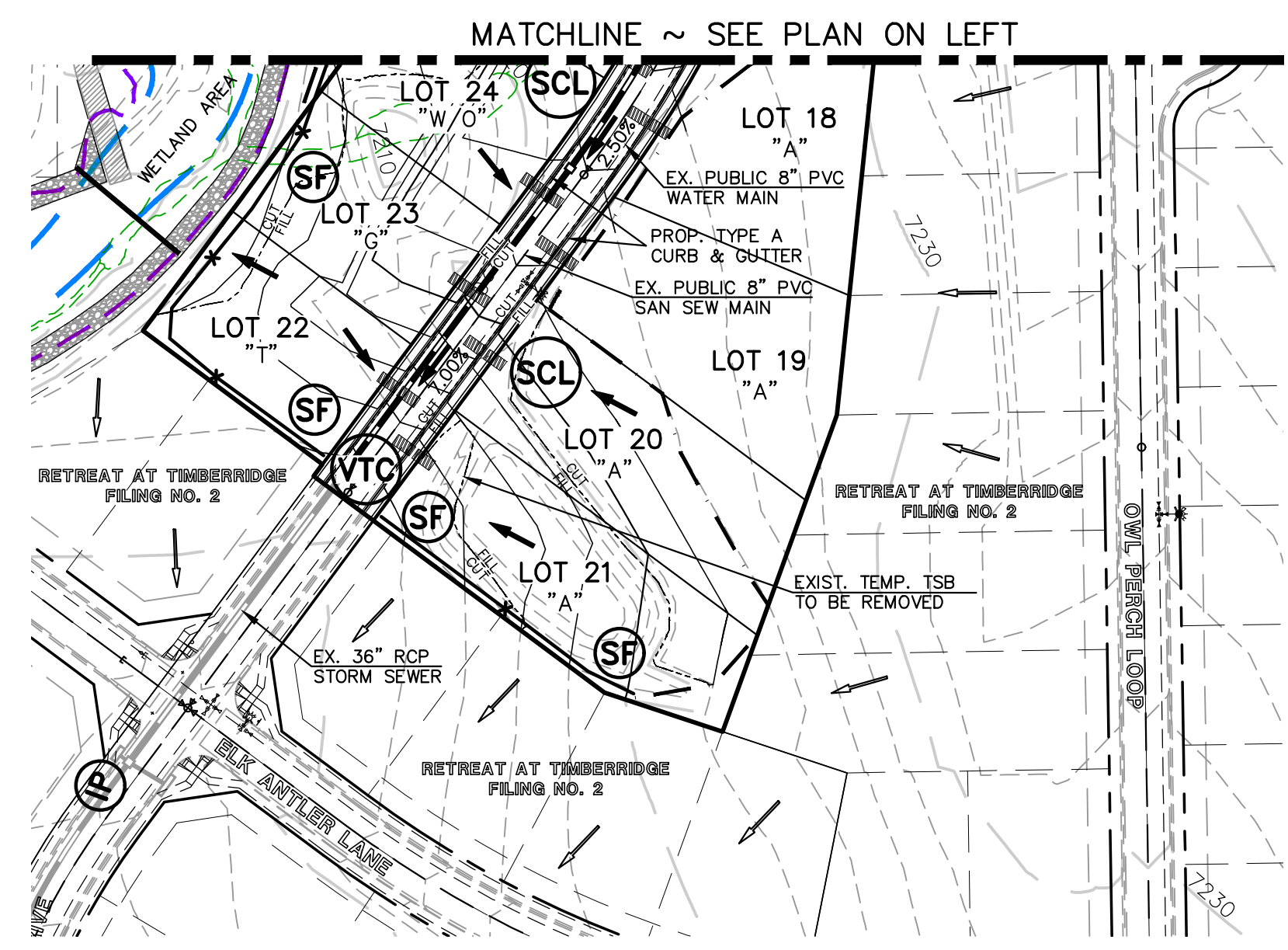
NOTE:
NO BATCH PLANTS ARE PROPOSED ON-SITE.
INSTALL VTC, CONSTRUCTION FENCING, BARRICADES AND SIGNAGE AS APPROPRIATE AT ACCESS POINT.

BMP PHASING

- | | | | |
|-------|---|-------|---|
| (SF) | (INSTALLED PRIOR TO INITIAL PHASE WITH CONTINUED MAINTENANCE DURING INTERIM AND VERTICAL PHASES) | (ECB) | (INSTALLED DURING INTERIM PHASE WITH CONTINUED MAINTENANCE THROUGH VERTICAL PHASE) |
| (VTC) | (INSTALLED PRIOR TO INITIAL PHASE WITH CONTINUED MAINTENANCE THROUGH INTERIM AND VERTICAL PHASES) | (TSB) | (INSTALLED DURING INITIAL PHASE WITH CONTINUED MAINTENANCE THROUGH INTERIM PHASE) |
| (SCL) | (INSTALLED DURING INITIAL PHASE WITH CONTINUED MAINTENANCE THROUGH INTERIM AND VERTICAL PHASES) | (RG) | (INSTALLED AS TEMPORARY SEDIMENT BASIN DURING INTERIM PHASE, THEN CONVERTED TO PERMANENT RAIN GARDEN WITH CONTINUED MAINTENANCE THROUGH VERTICAL PHASE) |
| (IP) | (INSTALLED DURING INTERIM PHASE WITH CONTINUED MAINTENANCE THROUGH VERTICAL PHASE) | (TRM) | (INSTALLED IN VERTICAL PHASE UPON CULVERT CONSTRUCTION COMPLETION WITH CONTINUED MAINTENANCE UNTIL REVEGETATION AT 70%) |
| (CD) | (INSTALLED DURING INTERIM PHASE WITH CONTINUED MAINTENANCE THROUGH VERTICAL PHASE) | | |

TEMPORARY SEDIMENT BASIN (RG 1)
 TEMPORARY SEDIMENT BASIN
 0.45 AC. DISTURBED DRAINAGE AREA AT 3,600 C.F./AC.
 0.16 AC. UNDEVELOPED DRAINAGE AREA AT 500 C.F./AC.
 TOTAL REQUIRED STORAGE 1,700 CF = 0.04 AC-FT.
 OUTLET = 6" STANDPIPE W/ (1) COLUMN, (5) ROWS OF HOLES W/4" SPACING, 1/2" DIAMETER HOLES
 5'0" EXPOSED HEIGHT OF 24" STANDPIPE
 2'0" WIDE OVERFLOW SPILLWAY
 6" STANDPIPE OUTFALLS DIRECTLY INTO SAND CREEK

TEMPORARY SEDIMENT BASIN DESIGN INFO
 TEMPORARY SEDIMENT BASIN
 0.9 AC. DISTURBED DRAINAGE AREA AT 3,600 C.F./AC.
 23.3 AC. UNDEVELOPED DRAINAGE AREA AT 500 C.F./AC.
 TOTAL REQUIRED STORAGE 14,350 CF = 0.33 AC-FT.
 OUTLET = 24" STANDPIPE W/ (2) COLUMNS, (5) ROWS OF HOLES W/4" SPACING, 1/2" DIAMETER HOLES
 5'0" EXPOSED HEIGHT OF 24" STANDPIPE
 20" WIDE OVERFLOW SPILLWAY
 24" STANDPIPE OUTFALLS DIRECTLY INTO 24" RCP



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NO.	REVISION	DATE
1	REVISED PER EPC COMMENTS	9-21-23
2	REVISED PER EPC COMMENTS	10/30/23
3	REVISED PER ARROYA DESIGN CHANGE	1/31/24
4	REVISED PER COUNTY COMMENTS	3/4/24

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

MARC A. WHORTON, COLORADO REGISTERED PROFESSIONAL ENGINEER #37155

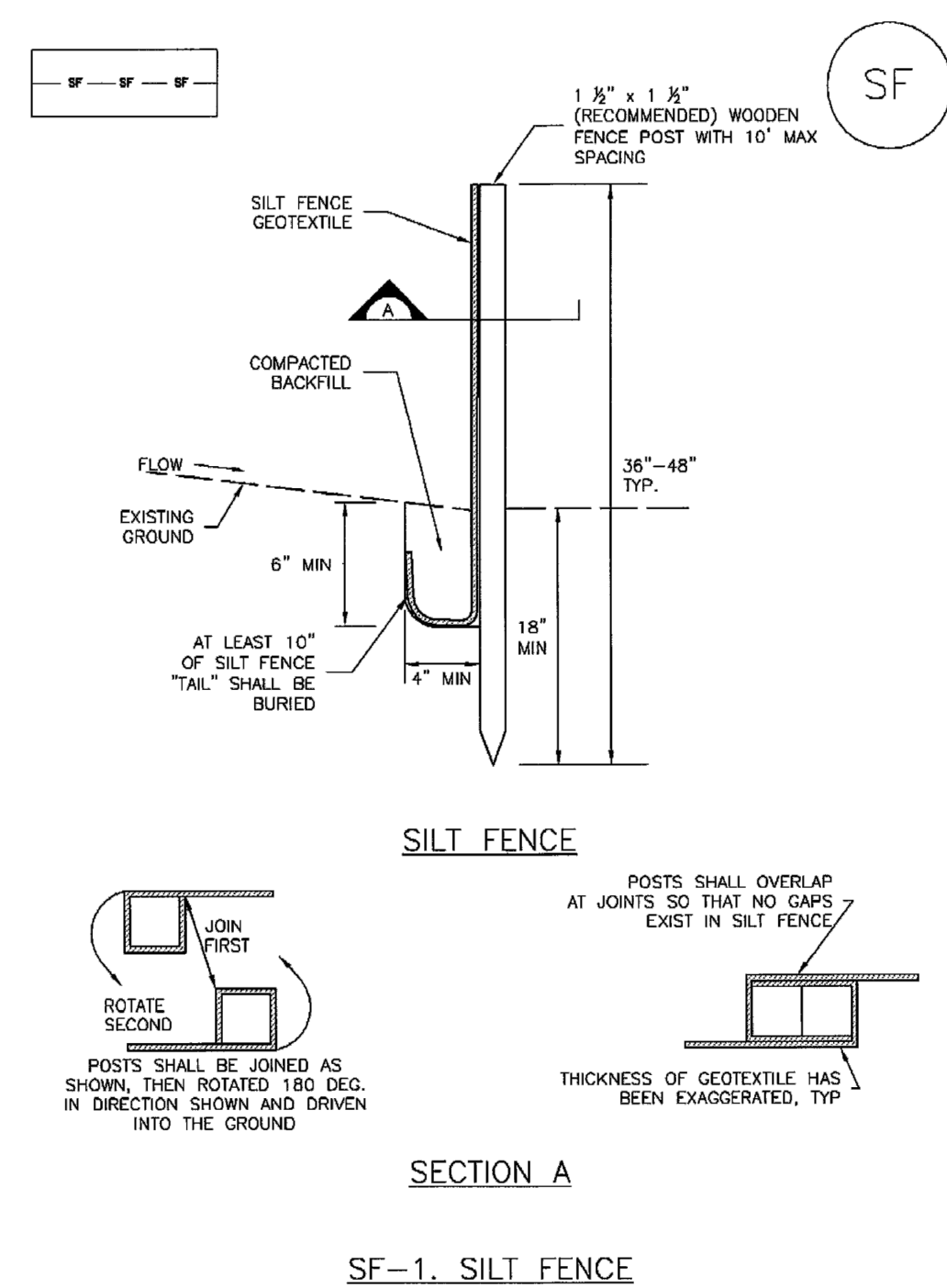
3/14/2024



RETREAT AT TIMBERRIDGE FILING NO. 3
 CONSTRUCTION PLANS
 GRADING & EROSION CONTROL PLAN

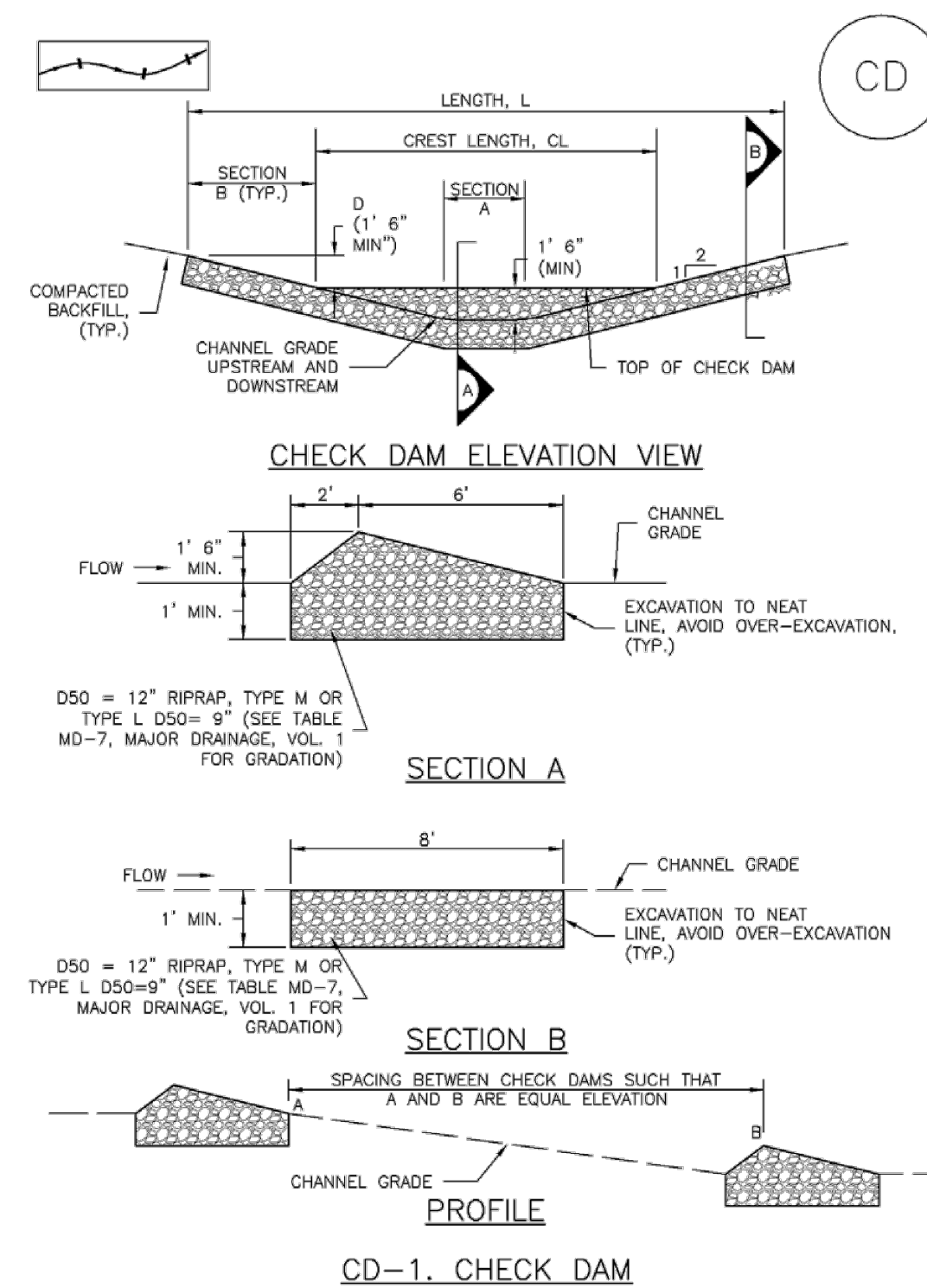
DESIGNED BY	PRA	SCALE	DATE	11-22-2022
DRAWN BY	PRA	(H) 1" = 100'	SHEET	3 OF 27
CHECKED BY	(V) 1" = N/A	JOB NO.	1185.30	

Silt Fence (SF) SC-1



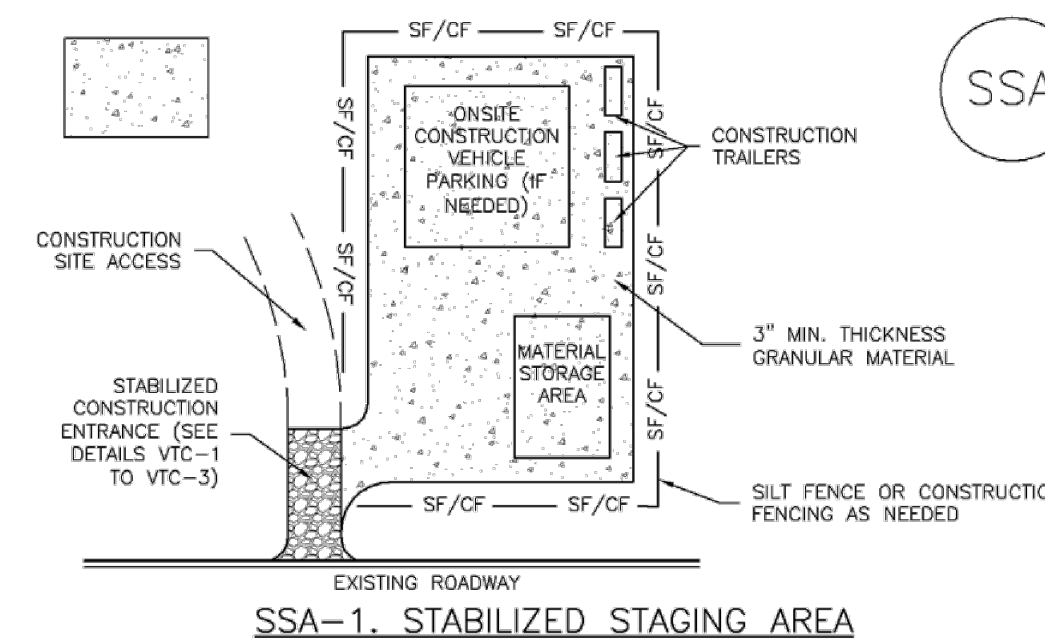
November 2010 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 SF-3

Check Dams (CD) EC-12



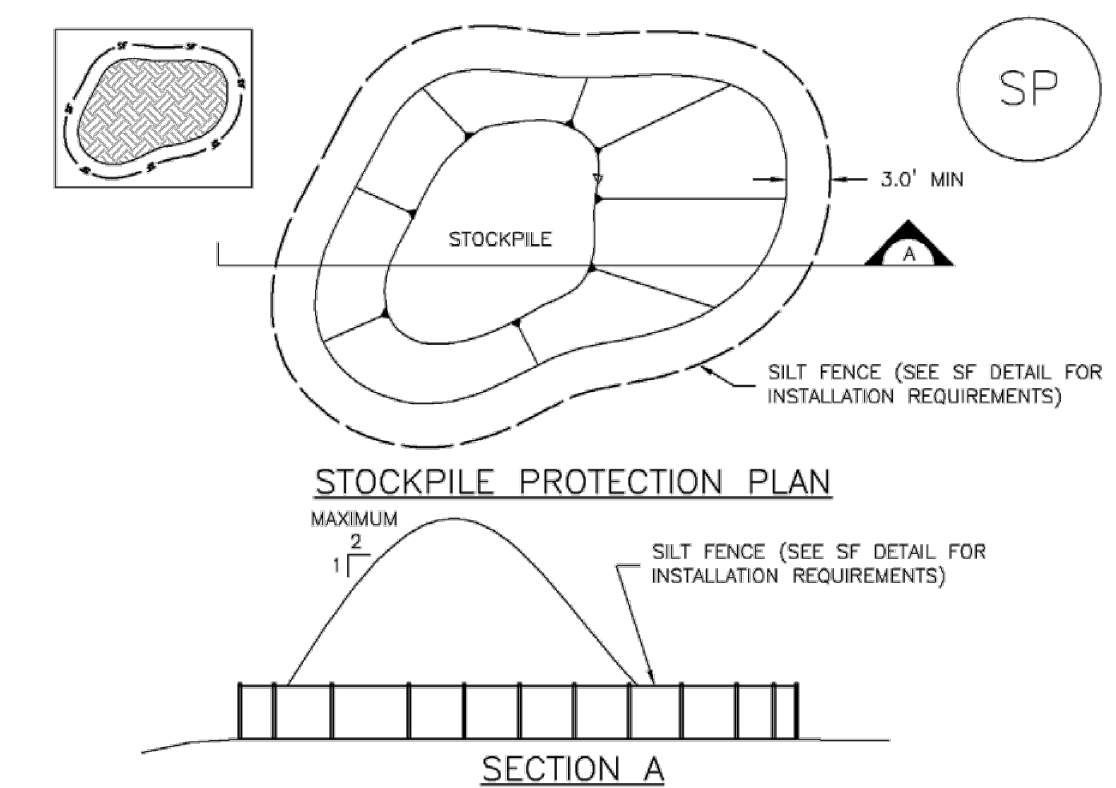
November 2010 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 CD-3

Stabilized Staging Area (SSA) SM-6



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

Stockpile Management (SP) MM-2



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

SC-1 Silt Fence (SF)

SILT FENCE INSTALLATION NOTES

- SILT FENCE MUST BE PLACED AWAY FROM THE TOE OF THE SLOPE TO ALLOW FOR WATER PONDING. SILT FENCE AT THE TOE OF A SLOPE SHOULD BE INSTALLED IN A FLAT LOCATION AT LEAST SEVERAL FEET (2-3 FT) FROM THE TOE OF THE SLOPE TO ALLOW ROOM FOR PONDING AND DEPOSITION.
- A UNIFORM 6" X 4" ANCHOR TRENCH SHALL BE EXCAVATED USING TRENCHER OR SILT FENCE INSTALLATION DEVICE. NO ROAD GRADERS, BACKHOES, OR SIMILAR EQUIPMENT SHALL BE USED.
- COMPACT ANCHOR TRENCH BY HAND WITH A "JUMPING JACK" OR BY WHEEL ROLLING. COMPACTION SHALL BE SUCH THAT SILT FENCE RESISTS BEING PULLED OUT OF ANCHOR TRENCH BY HAND.
- SILT FENCE SHALL BE PULLED TIGHT AS IT IS ANCHORED TO THE STAKES. THERE SHOULD BE NO NOTICEABLE SAG BETWEEN STAKES AFTER IT HAS BEEN ANCHORED TO THE STAKES.
- SILT FENCE FABRIC SHALL BE ANCHORED TO THE STAKES USING 1" HEAVY DUTY STAPLES OR NAILS WITH 1" HEADS. STAPLES AND NAILS SHOULD BE PLACED 3" ALONG THE FABRIC DOWN THE STAKE.
- AT THE END OF A RUN OF SILT FENCE ALONG A CONTOUR, THE SILT FENCE SHOULD BE TURNED PERPENDICULAR TO THE CONTOUR TO CREATE A "J-HOOK." THE "J-HOOK" EXTENDING PERPENDICULAR TO THE CONTOUR SHOULD BE OF SUFFICIENT LENGTH TO KEEP RUNOFF FROM FLOWING AROUND THE END OF THE SILT FENCE (TYPICALLY 10' - 20').
- SILT FENCE SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

SILT FENCE MAINTENANCE NOTES

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- SEDIMENT ACCUMULATED UPSTREAM OF THE SILT FENCE SHALL BE REMOVED AS NEEDED TO MAINTAIN THE FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 6".
- REPAIR OR REPLACE SILT FENCE WHEN THERE ARE SIGNS OF WEAR, SUCH AS SAGGING, TEARING, OR COLLAPSE.
- SILT FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION, OR IS REPLACED BY AN EQUIVALENT PERIMETER SEDIMENT CONTROL BMP.
- WHEN SILT FENCE IS REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

SF-4 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 November 2010

EC-12 Check Dams (CD)

CHECK DAM INSTALLATION NOTES

- SEE PLAN VIEW FOR:
 - LOCATION OF CHECK DAMS
 - CHECK DAM TYPE (CHECK DAM OR REINFORCED CHECK DAM)
 - LENGTH (L), CREST LENGTH (CL), AND DEPTH (D)
- CHECK DAMS INDICATED ON INITIAL SWMP SHALL BE INSTALLED AFTER CONSTRUCTION FENCE, BUT PRIOR TO ANY UPSTREAM LAND DISTURBING ACTIVITIES.
- RIPRAP UTILIZED FOR CHECK DAMS SHOULD BE OF APPROPRIATE SIZE FOR THE APPLICATION. TYPICAL TYPES OF RIPRAP USED FOR CHECK DAMS ARE TYPE M (D50 12") OR TYPE L (D50 9").
- RIPRAP PAD SHALL BE TRENCHED INTO THE GROUND A MINIMUM OF 1'.
- THE ENDS OF THE CHECK DAM SHALL BE A MINIMUM OF 1' 6" HIGHER THAN THE CENTER OF THE CHECK DAM.

CHECK DAM MAINTENANCE NOTES

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- SEDIMENT ACCUMULATED UPSTREAM OF THE CHECK DAMS SHALL BE REMOVED WHEN THE SEDIMENT DEPTH IS WITHIN 1/2 OF THE HEIGHT OF THE CREST.
- CHECK DAMS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.
- WHEN CHECK DAMS ARE REMOVED, EXCAVATIONS SHALL BE FILLED WITH SUITABLE COMPACTED BACKFILL. DISTURBED AREA SHALL BE SEEDED AND MULCHED AND COVERED WITH GEOTEXTILE OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

(DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

CD-4 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 November 2010

SM-6 Stabilized Staging Area (SSA)

STABILIZED STAGING AREA MAINTENANCE NOTES

- STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING/LOADING OPERATIONS.
- THE STABILIZED STAGING AREA SHALL BE REMOVED AT THE END OF CONSTRUCTION. THE GRANULAR MATERIAL SHALL BE REMOVED OR, IF APPROVED BY THE LOCAL JURISDICTION, USED ON SITE, AND THE AREA COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION.

NOTE: MANY MUNICIPALITIES PROHIBIT THE USE OF RECYCLED CONCRETE AS GRANULAR MATERIAL FOR STABILIZED STAGING AREAS DUE TO DIFFICULTIES WITH RE-ESTABLISHMENT OF VEGETATION IN AREAS WHERE RECYCLED CONCRETE WAS PLACED.

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

(DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO, NOT AVAILABLE IN AUTOCAD)

SSA-4 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 November 2010

MM-2 Stockpile Management (SM)

STOCKPILE PROTECTION MAINTENANCE NOTES

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- IF PERIMETER PROTECTION MUST BE MOVED TO ACCESS SOIL STOCKPILE, REPLACE PERIMETER CONTROLS BY THE END OF THE WORKDAY.
- STOCKPILE PERIMETER CONTROLS CAN BE REMOVED ONCE ALL THE MATERIAL FROM THE STOCKPILE HAS BEEN USED.

(DETAILS ADAPTED FROM PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

SP-4 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 November 2010

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NO.	REVISION	DATE
1	REVISED PER EPC COMMENTS	3-07-23

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

MARC A. WHORTON
REGISTERED PROFESSIONAL ENGINEER
37155
#37155

2/2/2024
DATE



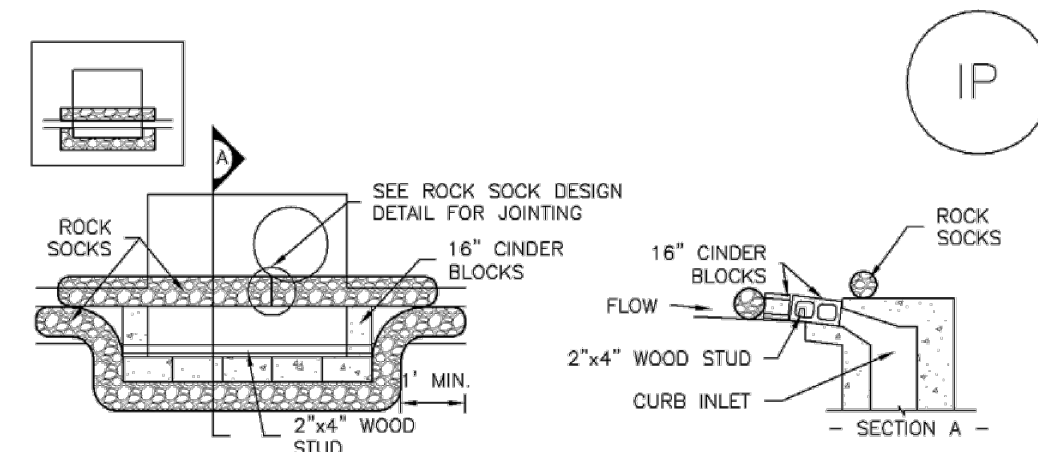
RETREAT AT TIMBERIDGE FILING NO. 3
CONSTRUCTION PLANS
GRADING & EROSION CONTROL PLAN
EROSION CONTROL DETAILS

DESIGNED BY PRA SCALE DATE 11-22-2022
DRAWN BY PRA (H) 1"= N/A SHEET 4 OF 27
CHECKED BY (V) 1"= N/A JOB NO. 1185.30



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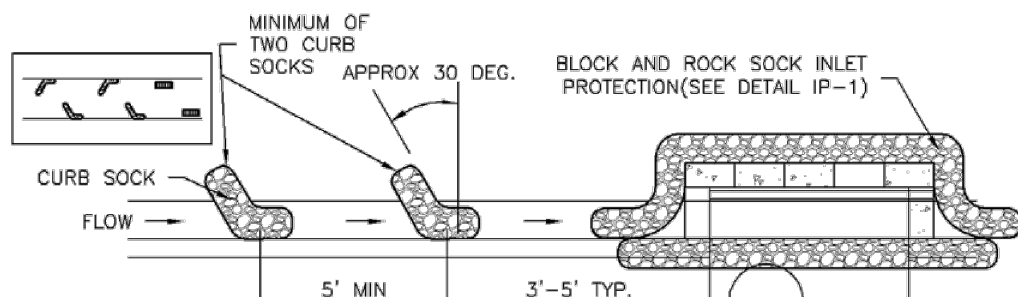
SC-6 Inlet Protection (IP)



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

BLOCK AND CURB SOCK INLET PROTECTION INSTALLATION NOTES

- SEE ROCK SOCK DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.
- CONCRETE "CINDER" BLOCKS SHALL BE LAID ON THEIR SIDES AROUND THE INLET IN A SINGLE ROW, ABUTTING ONE ANOTHER WITH THE OPEN END FACING AWAY FROM THE CURB.
- GRAVEL BAGS SHALL BE PLACED AROUND CONCRETE BLOCKS, CLOSELY ABUTTING ONE ANOTHER AND JOINED TOGETHER IN ACCORDANCE WITH ROCK SOCK DESIGN DETAIL.



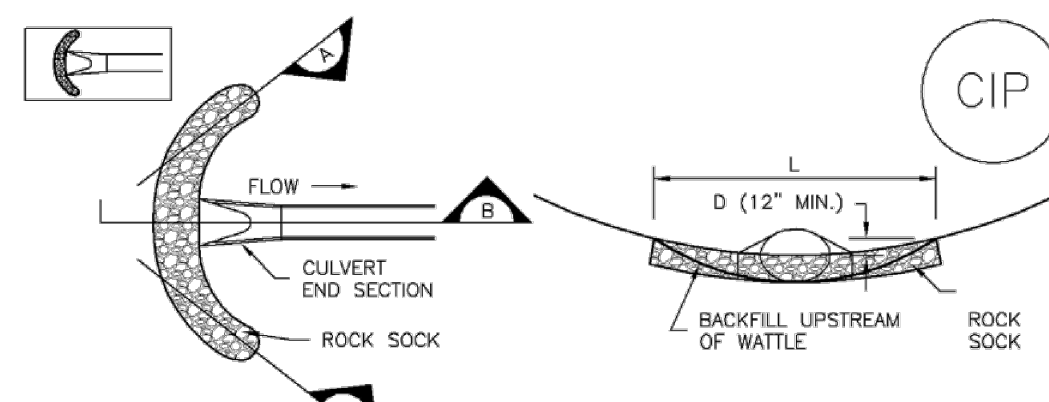
IP-2. CURB ROCK SOCKS UPSTREAM OF INLET PROTECTION

CURB ROCK SOCK INLET PROTECTION INSTALLATION NOTES

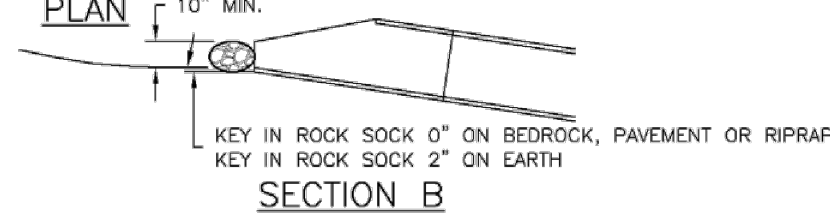
- SEE ROCK SOCK DESIGN DETAIL INSTALLATION REQUIREMENTS.
- PLACEMENT OF THE SOCK SHALL BE APPROXIMATELY 30 DEGREES FROM PERPENDICULAR IN THE OPPOSITE DIRECTION OF FLOW.
- SOCKS ARE TO BE FLUSH WITH THE CURB AND SPACED A MINIMUM OF 5 FEET APART.
- AT LEAST TWO CURB SOCKS IN SERIES ARE REQUIRED UPSTREAM OF ON-GRADE INLETS.

IP-4 Urban Drainage and Flood Control District August 2013
Urban Storm Drainage Criteria Manual Volume 3

Inlet Protection (IP) SC-6



CULVERT INLET PROTECTION SECTION A



CIP-1. CULVERT INLET PROTECTION SECTION B

CULVERT INLET PROTECTION INSTALLATION NOTES

- SEE PLAN VIEW FOR -LOCATION OF CULVERT INLET PROTECTION.
- SEE ROCK SOCK DESIGN DETAIL FOR ROCK GRADATION REQUIREMENTS AND JOINING DETAIL.

CULVERT INLET PROTECTION MAINTENANCE NOTES

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- SEDIMENT ACCUMULATED UPSTREAM OF THE CULVERT SHALL BE REMOVED WHEN THE SEDIMENT DEPTH IS $\frac{1}{2}$ THE HEIGHT OF THE ROCK SOCK.
- CULVERT INLET PROTECTION SHALL REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS PERMANENTLY STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.

(DETAILS ADAPTED FROM AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

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Urban Storm Drainage Criteria Manual Volume 3

SC-6 Inlet Protection (IP)

GENERAL INLET PROTECTION INSTALLATION NOTES

- SEE PLAN VIEW FOR: -TYPE OF INLET PROTECTION (IP-1, IP-2, IP-3, IP-4, IP-5, IP-6)
- INLET PROTECTION SHALL BE INSTALLED PROMPTLY AFTER INLET CONSTRUCTION OR PAVING IS COMPLETE. TYPICALLY WITHIN 48 HOURS. IF A RAINFALL/RUNOFF EVENT IS FORECAST, INSTALL INLET PROTECTION PRIOR TO ONSET OF EVENT.
- MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

INLET PROTECTION MAINTENANCE NOTES

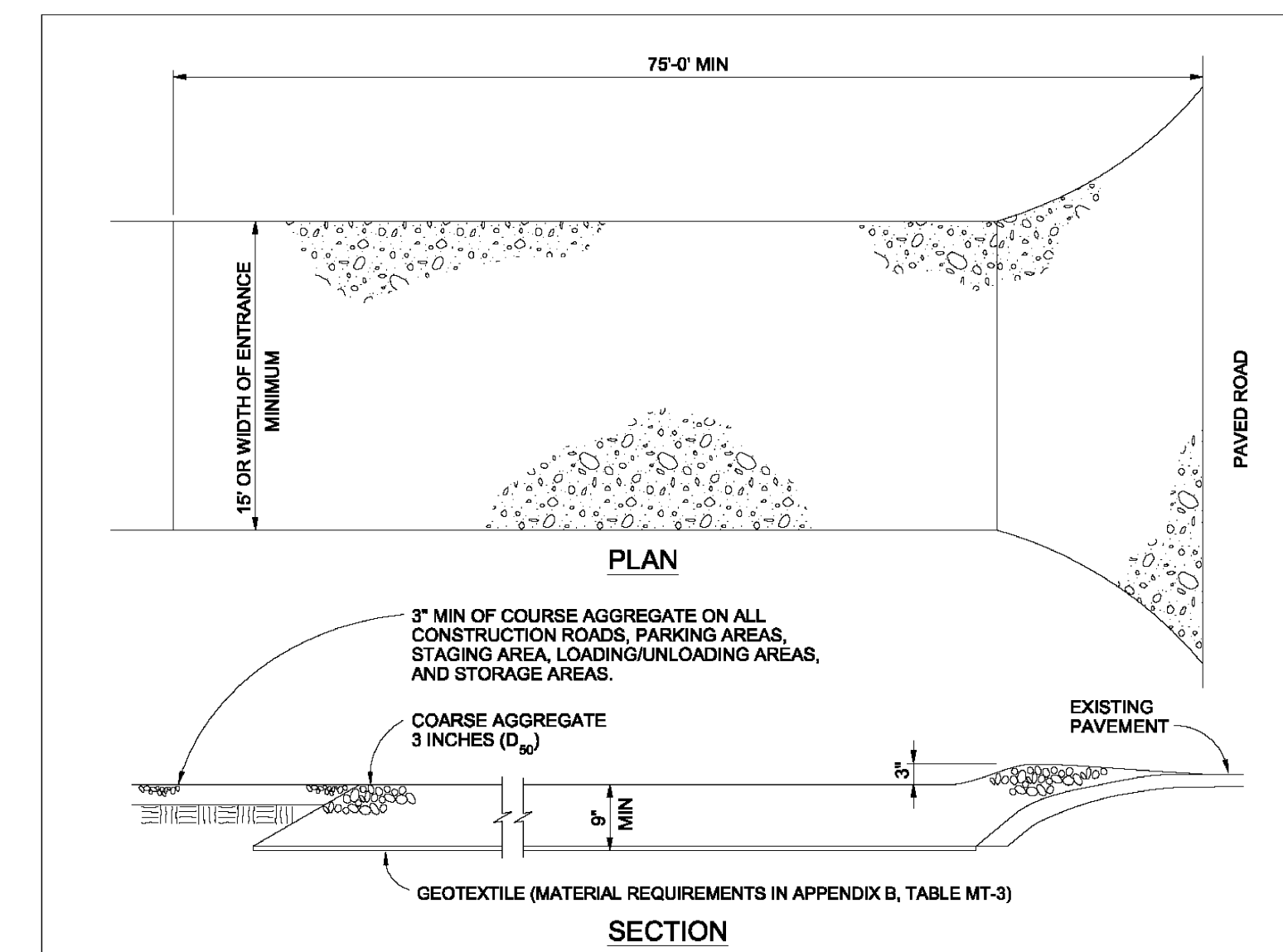
- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- SEDIMENT ACCUMULATED UPSTREAM OF INLET PROTECTION SHALL BE REMOVED AS NECESSARY TO MAINTAIN BMP EFFECTIVENESS, TYPICALLY WHEN STORAGE VOLUME REACHES 50% OF CAPACITY. A DEPTH OF 6" WHEN SILT FENCE IS USED, OR $\frac{1}{4}$ OF THE HEIGHT FOR STRAW BALES.
- INLET PROTECTION IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS PERMANENTLY STABILIZED, UNLESS THE LOCAL JURISDICTION APPROVES EARLIER REMOVAL OF INLET PROTECTION IN STREETS.
- WHEN INLET PROTECTION AT AREA INLETS IS REMOVED, THE DISTURBED AREA SHALL BE COVERED WITH TOP SOIL, SEEDED AND MULCHED, OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: THE DETAILS INCLUDED WITH THIS FACT SHEET SHOW COMMONLY USED, CONVENTIONAL METHODS OF INLET PROTECTION IN THE DENVER METROPOLITAN AREA. THERE ARE MANY PROPRIETARY INLET PROTECTION METHODS ON THE MARKET. UDFCD NEITHER ENDORSES NOR DISCOURAGES USE OF PROPRIETARY INLET PROTECTION; HOWEVER, IN THE EVENT PROPRIETARY METHODS ARE USED, THE APPROPRIATE DETAIL FROM THE MANUFACTURER MUST BE INCLUDED IN THE SWMP AND THE BMP MUST BE INSTALLED AND MAINTAINED AS SHOWN IN THE MANUFACTURER'S DETAILS.

NOTE: SOME MUNICIPALITIES DISCOURAGE OR PROHIBIT THE USE OF STRAW BALES FOR INLET PROTECTION. CHECK WITH LOCAL JURISDICTION TO DETERMINE IF STRAW BALE INLET PROTECTION IS ACCEPTABLE.

IP-8 Urban Drainage and Flood Control District August 2013
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VEHICLE TRACKING SECTION

VEHICLE TRACKING NOTES

INSTALLATION REQUIREMENTS

- ALL ENTRANCES TO THE CONSTRUCTION SITE ARE TO BE STABILIZED PRIOR TO CONSTRUCTION BEGINNING.
- CONSTRUCTION ENTRANCES ARE TO BE BUILT WITH AN APRON TO ALLOW FOR TURNING TRAFFIC, BUT SHOULD NOT BE BUILT OVER EXISTING PAVEMENT EXCEPT FOR A SLIGHT OVERLAP.
- AREAS TO BE STABILIZED ARE TO BE PROPERLY GRADED AND COMPACTED PRIOR TO LAYING DOWN GEOTEXTILE AND STONE.
- CONSTRUCTION ROADS, PARKING AREAS, LOADING/UNLOADING ZONES, STORAGE AREAS, AND STAGING AREAS ARE TO BE STABILIZED.
- CONSTRUCTION ROADS ARE TO BE BUILT TO CONFORM TO SITE GRADES, BUT SHOULD NOT HAVE SIDE SLOPES OR ROAD GRADES THAT ARE EXCESSIVELY STEEP.

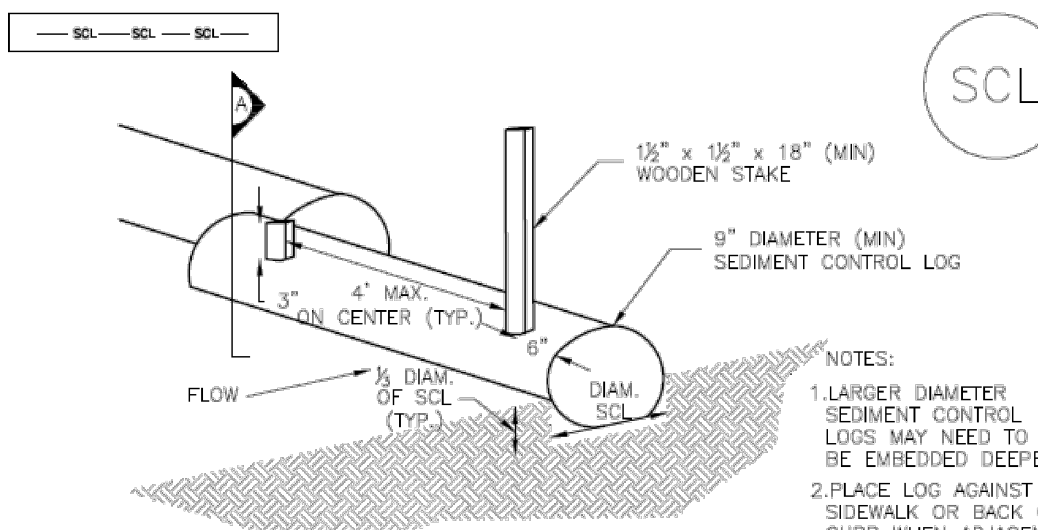
MAINTENANCE REQUIREMENTS

- REGULAR INSPECTIONS ARE TO BE MADE OF ALL STABILIZED AREAS, ESPECIALLY AFTER STORM EVENTS.
- STONES ARE TO BE REAPPLIED PERIODICALLY AND WHEN REPAIR IS NECESSARY.
- SEDIMENT TRACKED ONTO PAVED ROADS IS TO BE REMOVED DAILY BY SHOVELING OR SWEEPING. SEDIMENT IS NOT TO BE WASHED DOWN STORM SEWER DRAINS.
- STORM SEWER INLET PROTECTION IS TO BE IN PLACE, INSPECTED, AND CLEANED IF NECESSARY.
- OTHER ASSOCIATED SEDIMENT CONTROL MEASURES ARE TO BE INSPECTED TO ENSURE GOOD WORKING CONDITION.

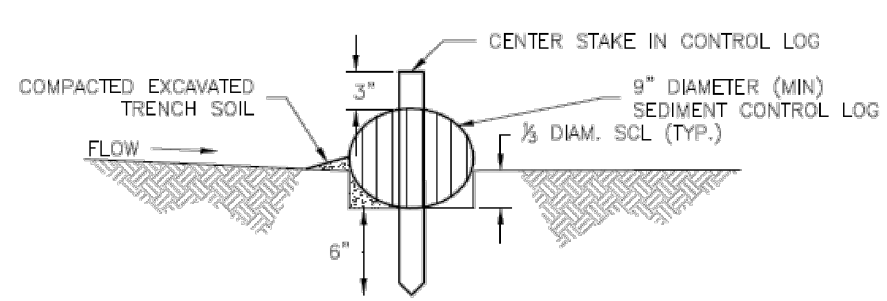
City of Colorado Springs
Stormwater Quality

Figure VT-2
Vehicle Tracking
Application Examples

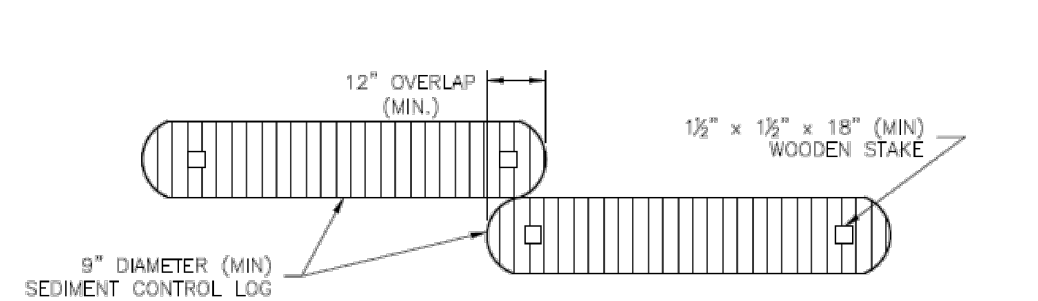
SC-2 Sediment Control Log (SCL)



TRENCHED SEDIMENT CONTROL LOG



TRENCHED SEDIMENT CONTROL LOG SECTION A

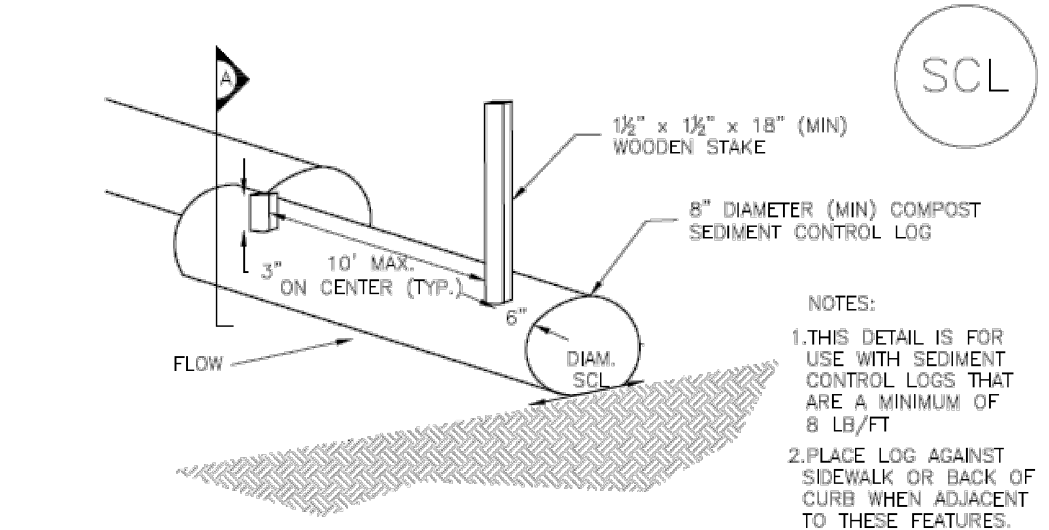


LOG JOINTS

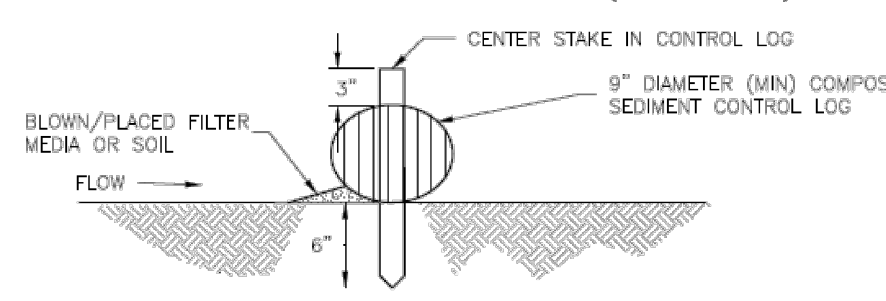
SCL-1. TRENCHED SEDIMENT CONTROL LOG

November 2015 Urban Drainage and Flood Control District November 2015 SCL-3
Urban Storm Drainage Criteria Manual Volume 3

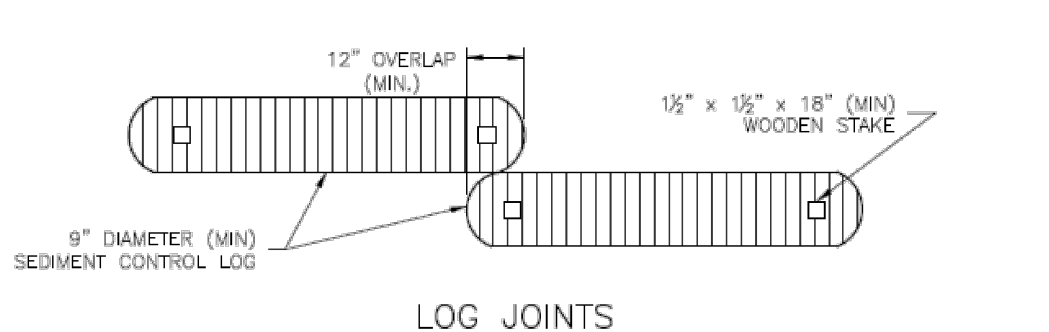
SC-2 Sediment Control Log (SCL)



COMPOST SEDIMENT CONTROL LOG (WEIGHTED)



COMPOST SEDIMENT CONTROL LOG SECTION A



LOG JOINTS

SCL-2. COMPOST SEDIMENT CONTROL LOG (WEIGHTED)

SCL-4 Urban Drainage and Flood Control District November 2015
Urban Storm Drainage Criteria Manual Volume 3

SC-2 Sediment Control Log (SCL)

SEDIMENT CONTROL LOG INSTALLATION NOTES

- SEE PLAN VIEW FOR LOCATION AND LENGTH OF SEDIMENT CONTROL LOGS.
- SEDIMENT CONTROL LOGS THAT ACT AS A PERIMETER CONTROL SHALL BE INSTALLED PRIOR TO ANY UPGRADIENT LAND-DISTURBING ACTIVITIES.
- SEDIMENT CONTROL LOGS SHALL CONSIST OF STRAW, COMPOST, EXCELSIOR OR COCONUT FIBER, AND SHALL BE FREE OF ANY NOXIOUS WEED SEEDS OR DEFECTS INCLUDING RIPS, HOLES AND OBVIOUS WEAR.
- SEDIMENT CONTROL LOGS MAY BE USED AS SMALL CHECK DAMS IN DITCHES AND SWALES. HOWEVER, THEY SHOULD NOT BE USED IN PERENNIAL STREAMS.
- IT IS RECOMMENDED THAT SEDIMENT CONTROL LOGS BE TRENCHED INTO THE GROUND TO A DEPTH OF APPROXIMATELY $\frac{1}{3}$ OF THE DIAMETER OF THE LOG. IF TRENCHING TO THIS DEPTH IS NOT FEASIBLE AND/OR DESIRABLE (SHORT TERM INSTALLATION WITH DESIRE NOT TO DAMAGE LANDSCAPE) A LESSER TRENCHING DEPTH MAY BE ACCEPTABLE WITH MORE ROBUST STAKING. COMPOST LOGS THAT ARE 8 LB/FT DO NOT NEED TO BE TRENCHED.
- THE UPHILL SIDE OF THE SEDIMENT CONTROL LOG SHALL BE BACKFILLED WITH SOIL OR FILTER MATERIAL THAT IS FREE OF ROCKS AND DEBRIS. THE SOIL SHALL BE TIGHTLY COMPACTED INTO THE SHAPE OF A RIGHT TRIANGLE USING A SHOVEL OR WEIGHTED LAWN ROLLER OR BLOWN IN PLACE.
- FOLLOW MANUFACTURERS' GUIDANCE FOR STAKING. IF MANUFACTURERS' INSTRUCTIONS DO NOT SPECIFY SPACING, STAKES SHALL BE PLACED ON 4' CENTERS AND EMBEDDED A MINIMUM OF 6" INTO THE GROUND. 3" OF THE STAKE SHALL PROTRUDE FROM THE TOP OF THE LOG. STAKES THAT ARE BROKEN PRIOR TO INSTALLATION SHALL BE REPLACED. COMPOST LOGS SHOULD BE STAKED 10' ON CENTER.

SEDIMENT CONTROL LOG MAINTENANCE NOTES

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- SEDIMENT ACCUMULATED UPSTREAM OF SEDIMENT CONTROL LOG SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY $\frac{1}{2}$ OF THE HEIGHT OF THE SEDIMENT CONTROL LOG.
- SEDIMENT CONTROL LOG SHALL BE REMOVED AT THE END OF CONSTRUCTION. COMPOST FROM COMPOST LOGS MAY BE LEFT IN PLACE AS LONG AS BAGS ARE REMOVED AND THE AREA SEEDED. IF DISTURBED AREAS EXIST AFTER REMOVAL, THEY SHALL BE COVERED WITH TOP SOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

(DETAILS ADAPTED FROM TOWN OF PARKER, COLORADO, JEFFERSON COUNTY, COLORADO, DOUGLAS COUNTY, COLORADO, AND CITY OF AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

SCL-6 Urban Drainage and Flood Control District November 2015
Urban Storm Drainage Criteria Manual Volume 3

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
1	REVISED PER EPC COMMENTS	3-07-23
2	REVISED PER EPC COMMENTS	10/30/23

REVIEW:
PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF
CLASSIC CONSULTING ENGINEERING AND SURVEYORS, LLC

MARC A. WHORTON, COLORADO PROFESSIONAL ENGINEER #37155

2/2/2024 DATE

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

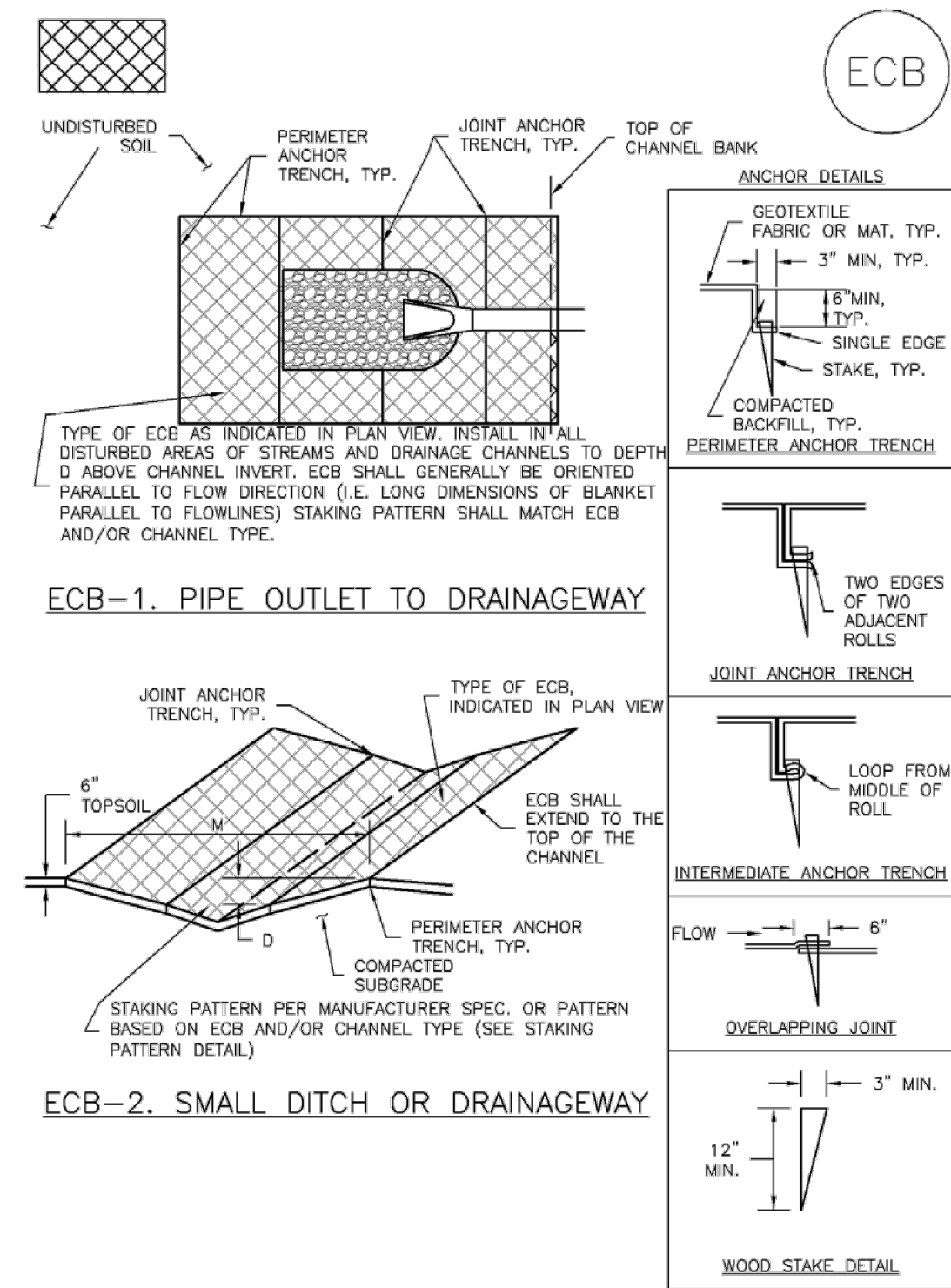
(719) 785-0790
(719) 785-0799 (Fax)

RETREAT AT TIMBERIDGE FILING NO. 3
CONSTRUCTION PLANS
GRADING & EROSION CONTROL PLAN
EROSION CONTROL DETAILS

DESIGNED BY	MAW	SCALE	DATE	11-22-2022
DRAWN BY	MAW	(H) 1" = N/A	SHEET	5 OF 27
CHECKED BY	(V)	1" = N/A	JOB NO.	1185.30

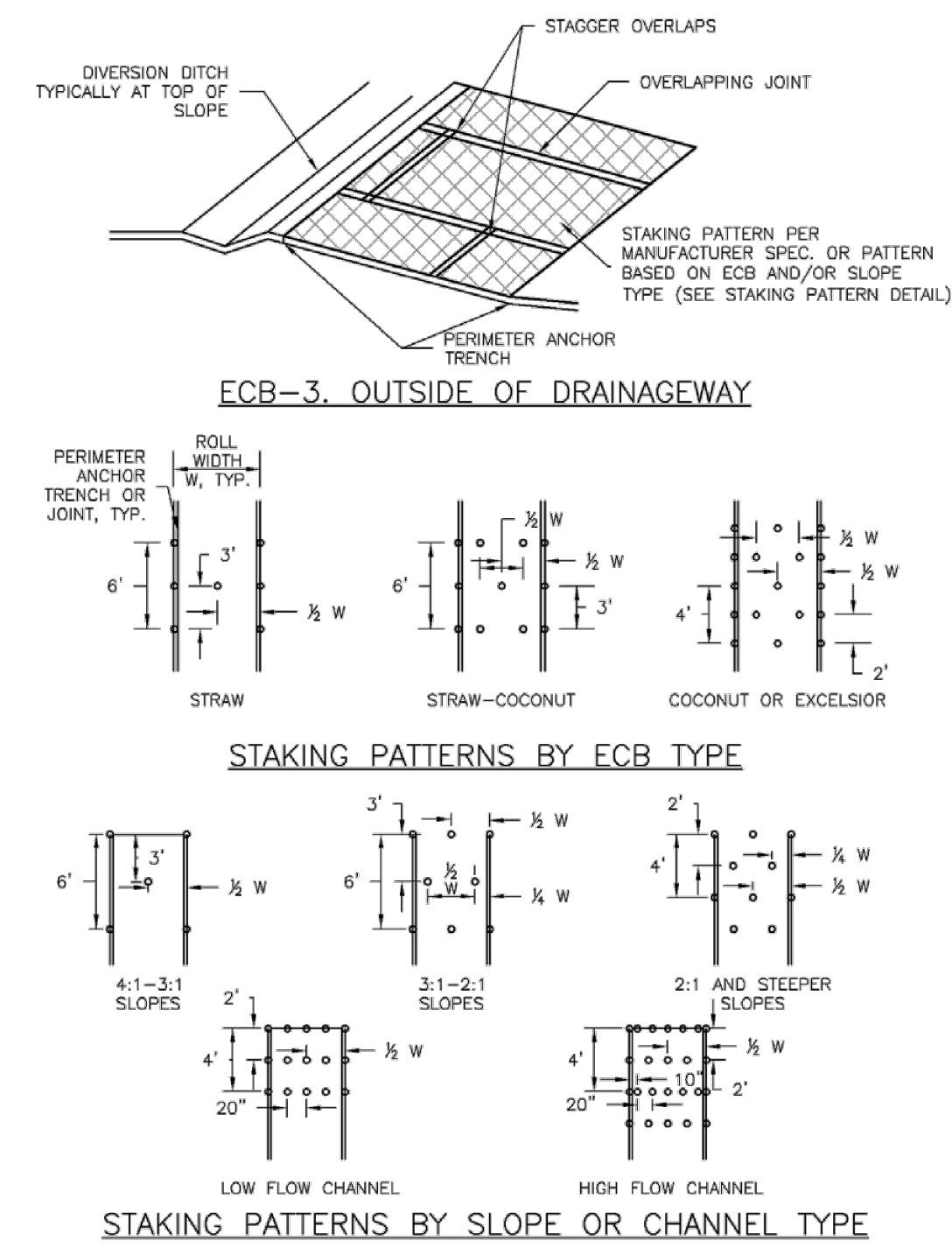
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EC-6 Rolled Erosion Control Products (RECP)



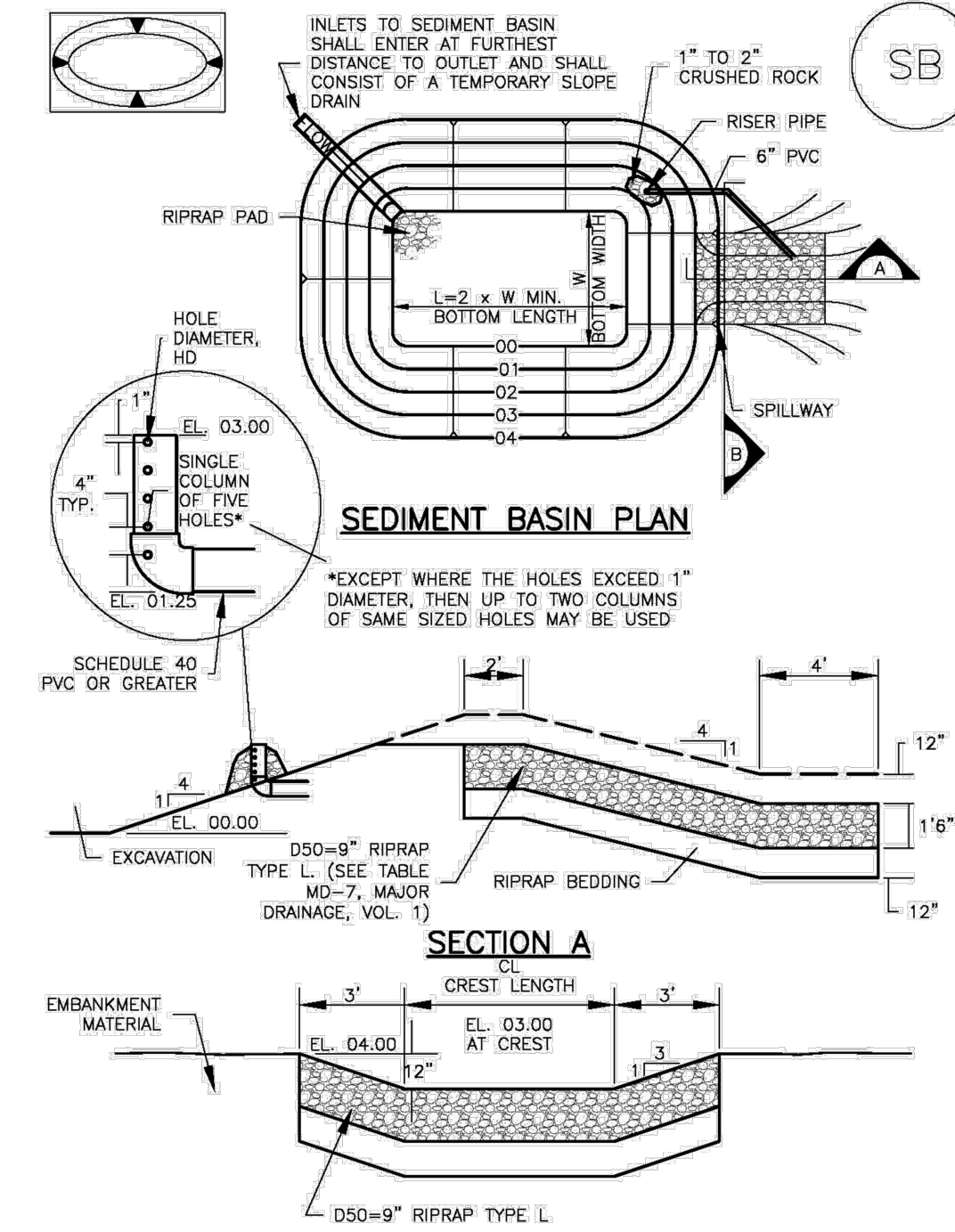
RECP-6 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 November 2010

EC-6 Rolled Erosion Control Products (RECP) EC-6



November 2010 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 RECP-7

Sediment Basin (SB) SC-7



August 2013 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 SB-5

EC-6 Rolled Erosion Control Products (RECP)

EROSION CONTROL BLANKET INSTALLATION NOTES

- SEE PLAN VIEW FOR:
 - LOCATION OF ECB.
 - TYPE OF ECB (STRAW, STRAW-COCONUT, COCONUT, OR EXCELSIOR).
 - AREA, A, IN SQUARE YARDS OF EACH TYPE OF ECB.
- 100% NATURAL AND BIODEGRADABLE MATERIALS ARE PREFERRED FOR RECPs, ALTHOUGH SOME JURISDICTIONS MAY ALLOW OTHER MATERIALS IN SOME APPLICATIONS.
- IN AREAS WHERE ECBs ARE SHOWN ON THE PLANS, THE PERMITEE SHALL PLACE TOPSOIL AND PERFORM FINAL GRADING, SURFACE PREPARATION, AND SEEDING AND MULCHING. SUBGRADE SHALL BE SMOOTH AND MOST PRIOR TO ECB INSTALLATION AND THE ECB SHALL BE IN FULL CONTACT WITH SUBGRADE. NO GAPS OR VOIDS SHALL EXIST UNDER THE BLANKET.
- PERMETER ANCHOR TRENCH SHALL BE USED ALONG THE OUTSIDE PERIMETER OF ALL BLANKET AREAS.
- JOINT ANCHOR TRENCH SHALL BE USED TO JOIN ROLLS OF ECBs TOGETHER (LONGITUDINALLY AND TRANSVERSELY) FOR ALL ECBs EXCEPT STRAW WHICH MAY USE AN OVERLAPPING JOINT.
- INTERMEDIATE ANCHOR TRENCH SHALL BE USED AT SPACING OF ONE-HALF ROLL LENGTH FOR COCONUT AND EXCELSIOR ECBs.
- OVERLAPPING JOINT DETAIL SHALL BE USED TO JOIN ROLLS OF ECBs TOGETHER FOR ECBs ON SLOPES.
- MATERIAL SPECIFICATIONS OF ECBs SHALL CONFORM TO TABLE ECB-1.
- ANY AREAS OF SEEDING AND MULCHING DISTURBED IN THE PROCESS OF INSTALLING ECBs SHALL BE RESEEDED AND MULCHED.
- DETAILS ON DESIGN PLANS FOR MAJOR DRAINAGEWAY STABILIZATION WILL GOVERN IF DIFFERENT FROM THOSE SHOWN HERE.

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

*STRAW ECBs MAY ONLY BE USED OUTSIDE OF STREAMS AND DRAINAGE CHANNELS.
**ALTERNATE NETTING MAY BE ACCEPTABLE IN SOME JURISDICTIONS.

RECP-8 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 November 2010

EC-6 Rolled Erosion Control Products (RECP) EC-6

EROSION CONTROL BLANKET MAINTENANCE NOTES

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
 - FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
 - WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
 - ECBs SHALL BE LEFT IN PLACE TO EVENTUALLY BIODEGRADE, UNLESS REQUESTED TO BE REMOVED BY THE LOCAL JURISDICTION.
 - ANY ECB PULLED OUT, TORN, OR OTHERWISE DAMAGED SHALL BE REPAIRED OR REINSTALLED. ANY SUBGRADE AREAS BELOW THE GEOTEXTILE THAT HAVE ERODED TO CREATE A VOID UNDER THE BLANKET, OR THAT REMAIN DEVOID OF GRASS SHALL BE REPAIRED, RESEEDED AND MULCHED AND THE ECB REINSTALLED.
- NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.
- (DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO AND TOWN OF PARKER COLORADO, NOT AVAILABLE IN AUTOCAD)

November 2010 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 RECP-9

SC-7 Sediment Basin (SB)

Upstream Drainage Area (rounded to nearest acre), (ac)	Basin Bottom Width (W), (ft)	Spillway Crest Length (CL), (ft)	Hole Diameter (HD), (in)
1	12 1/2	2	5/8
2	21	3	1 1/8
3	28	5	1 1/2
4	33 1/2	6	1 5/8
5	38 1/2	8	2 1/8
6	43	9	2 1/4
7	47 1/2	11	2 3/8
8	51	12	2 1/2
9	55	13	2 3/4
10	58 1/2	15	3 1/8
11	61	16	3 1/4
12	64	18	3 1/2
13	67 1/2	19	3 3/8
14	70 1/2	21	3 1/2
15	73 1/2	22	3 3/4

SEDIMENT BASIN INSTALLATION NOTES

- SEE PLAN VIEW FOR:
 - LOCATION OF SEDIMENT BASIN.
 - TYPE OF BASIN (STANDARD BASIN OR NONSTANDARD BASIN).
 - FOR STANDARD BASIN, BOTTOM WIDTH W, CREST LENGTH CL, AND HOLE DIAMETER, HD.
 - FOR NONSTANDARD BASIN, SEE CONSTRUCTION DRAWINGS FOR DESIGN OF BASIN INCLUDING RISER HEIGHT H, NUMBER OF COLUMNS N, HOLE DIAMETER HD AND PIPE DIAMETER D.
- FOR STANDARD BASIN, BOTTOM DIMENSION MAY BE MODIFIED AS LONG AS BOTTOM AREA IS NOT REDUCED.
- SEDIMENT BASINS SHALL BE INSTALLED PRIOR TO ANY OTHER LAND-DISTURBING ACTIVITY THAT RELIES ON ON BASINS AS A STORMWATER CONTROL.
- EMBANKMENT MATERIAL SHALL CONSIST OF SOIL FREE OF DEBRIS, ORGANIC MATERIAL, AND ROCKS OR CONCRETE GREATER THAN 3 INCHES AND SHALL HAVE A MINIMUM OF 15 PERCENT BY WEIGHT PASSING THE NO. 200 SIEVE.
- EMBANKMENT MATERIAL SHALL BE COMPACTED TO AT LEAST 95 PERCENT OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D698.
- PIPE SCH 40 OR GREATER SHALL BE USED.
- THE DETAILS SHOWN ON THESE SHEETS PERTAIN TO STANDARD SEDIMENT BASIN(S) FOR DRAINAGE AREAS LESS THAN 15 ACRES. SEE CONSTRUCTION DRAWINGS FOR EMBANKMENT, STORAGE VOLUME, SPILLWAY, OUTLET, AND OUTLET PROTECTION DETAILS FOR ANY SEDIMENT BASIN(S) THAT HAVE BEEN INDIVIDUALLY DESIGNED FOR DRAINAGE AREAS LARGER THAN 15 ACRES.

SB-6 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 August 2013

Sediment Basin (SB) SC-7

SEDIMENT BASIN MAINTENANCE NOTES

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
 - FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
 - WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
 - SEDIMENT ACCUMULATED IN BASIN SHALL BE REMOVED AS NEEDED TO MAINTAIN BMP EFFECTIVENESS, TYPICALLY WHEN SEDIMENT DEPTH REACHES ONE FOOT (I.E., TWO FEET BELOW THE SPILLWAY CREST).
 - SEDIMENT BASINS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS ACCEPTED BY THE LOCAL JURISDICTION.
 - WHEN SEDIMENT BASINS ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.
- (DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO)
- NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

August 2013 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 SB-7

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

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NO.	REVISION	DATE
1	REVISED PER EPC COMMENTS	3-07-23

REVIEW:

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

MARC A. WHORTON, REGISTERED PROFESSIONAL ENGINEER #37155

2/2/2024



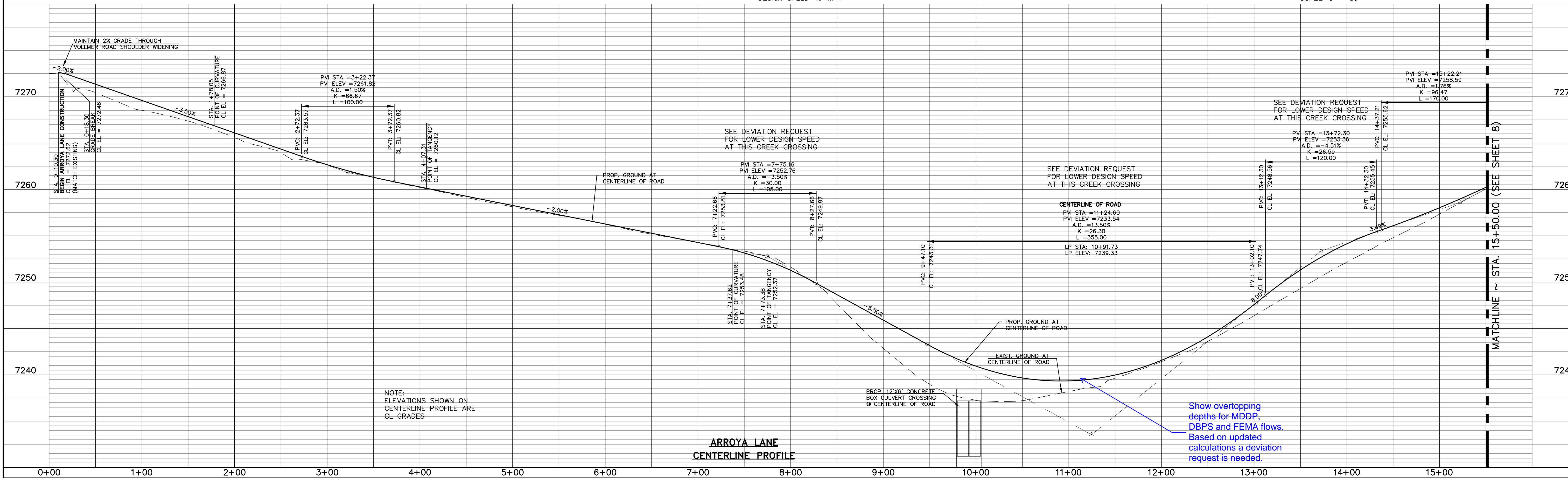
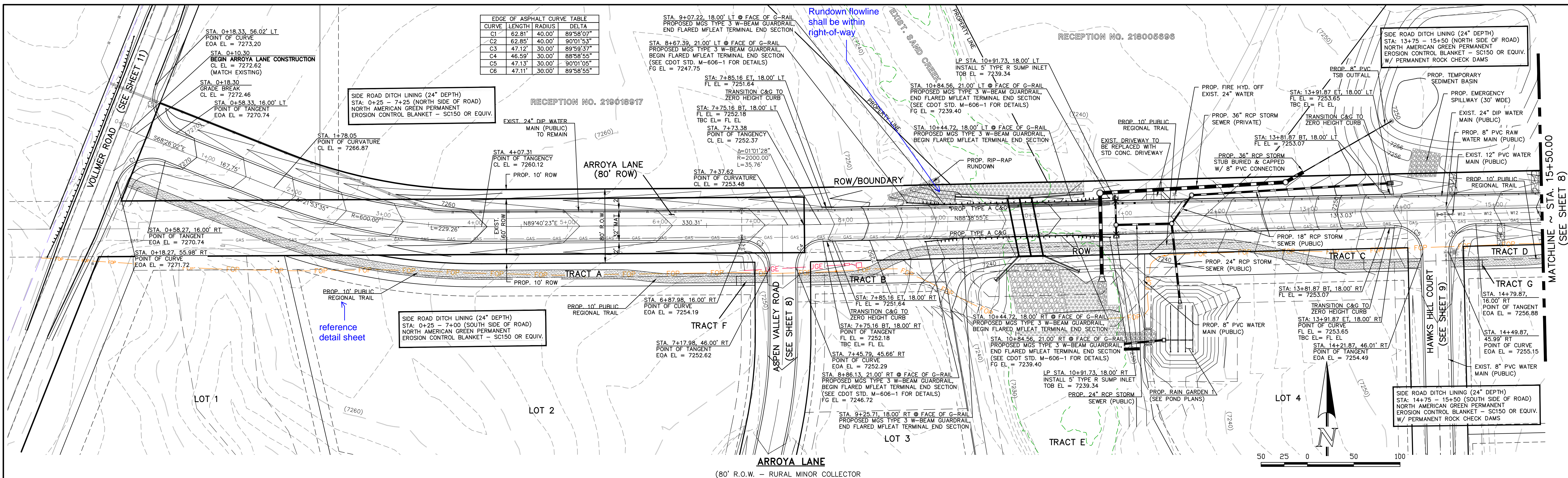
RETREAT AT TIMBERIDGE FILING NO. 3
CONSTRUCTION PLANS
GRADING & EROSION CONTROL PLAN
EROSION CONTROL DETAILS

DESIGNED BY MAW SCALE DATE 11-22-2022
DRAWN BY MAW (H) 1"= N/A SHEET 6 OF 27
CHECKED BY (V) 1"= N/A JOB NO. 1185.30



N:\118530\DRAWINGS\CONSTRUCTIVE\CONV\06-118530-GR-05 DETALS.dwg, 3/9/2023 2:04:42 PM, 1:1

CURVE	LENGTH	RADIUS	DELTA
C1	62.81'	40.00'	89°58'07"
C2	62.85'	40.00'	90°01'53"
C3	47.12'	30.00'	89°59'37"
C4	46.59'	30.00'	89°59'54"
C5	47.13'	30.00'	90°01'05"
C6	47.11'	30.00'	89°58'55"



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NO.	REVISION	DATE
1	REVISED PER EPC COMMENTS	3-07-23
2	REVISED PER COUNTY PARKS COMMENTS	12-6-23
3	REVISED ROAD GRADE PER CULVERT REVISION	1-30-24
4	REVISED PER COUNTY COMMENTS	3-14-24

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

MARC A. WHORTON
REGISTERED PROFESSIONAL ENGINEER
#37155

3/14/2024
DATE

RETREAT AT TIMBERIDGE FILING NO. 3
CONSTRUCTION PLANS
STREET IMPROVEMENT PLANS
ARROYA LANE

DESIGNED BY: PRA
DRAWN BY: PRA
CHECKED BY: (V)

SCALE: (H) 1" = 50'
(V) 1" = 5'

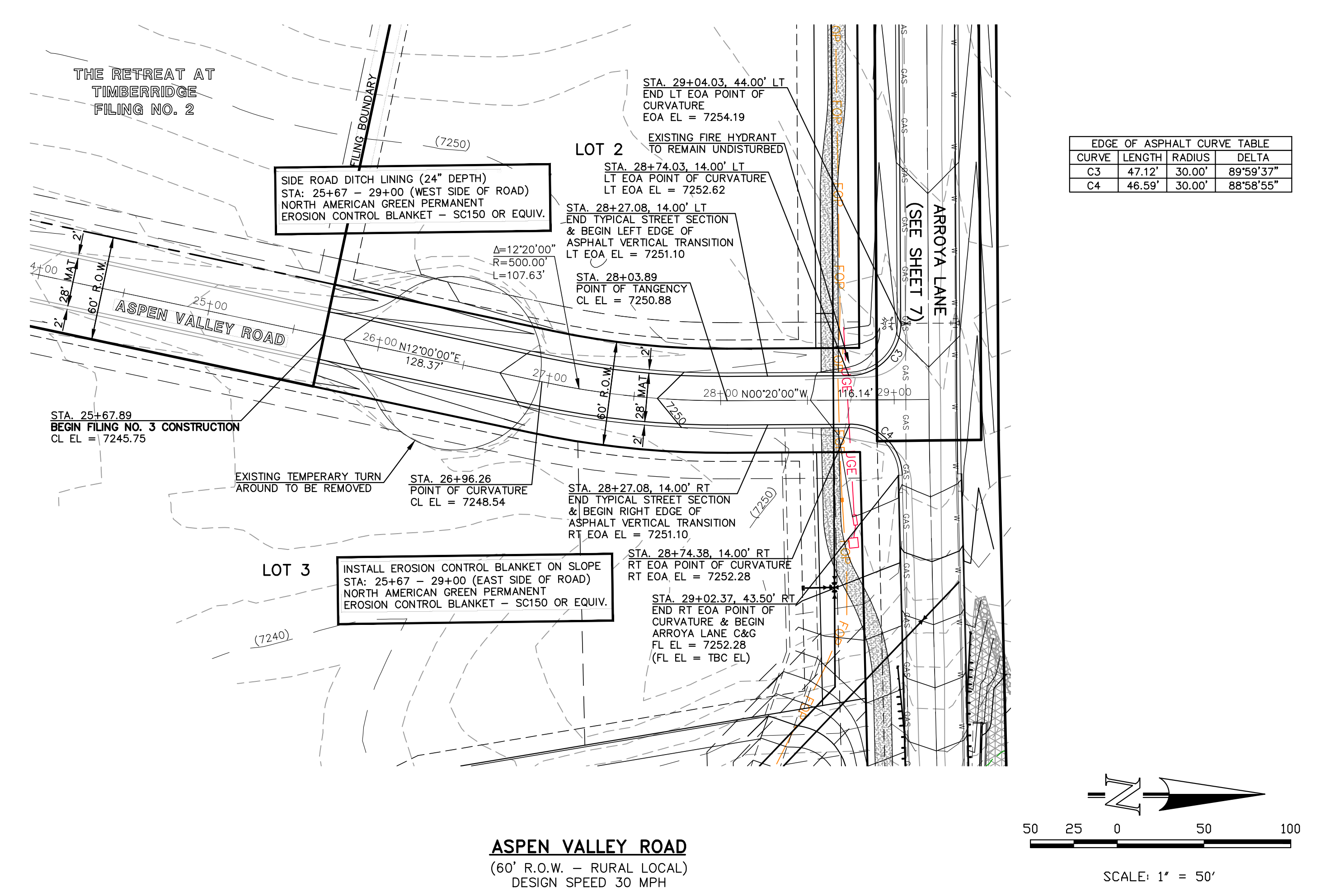
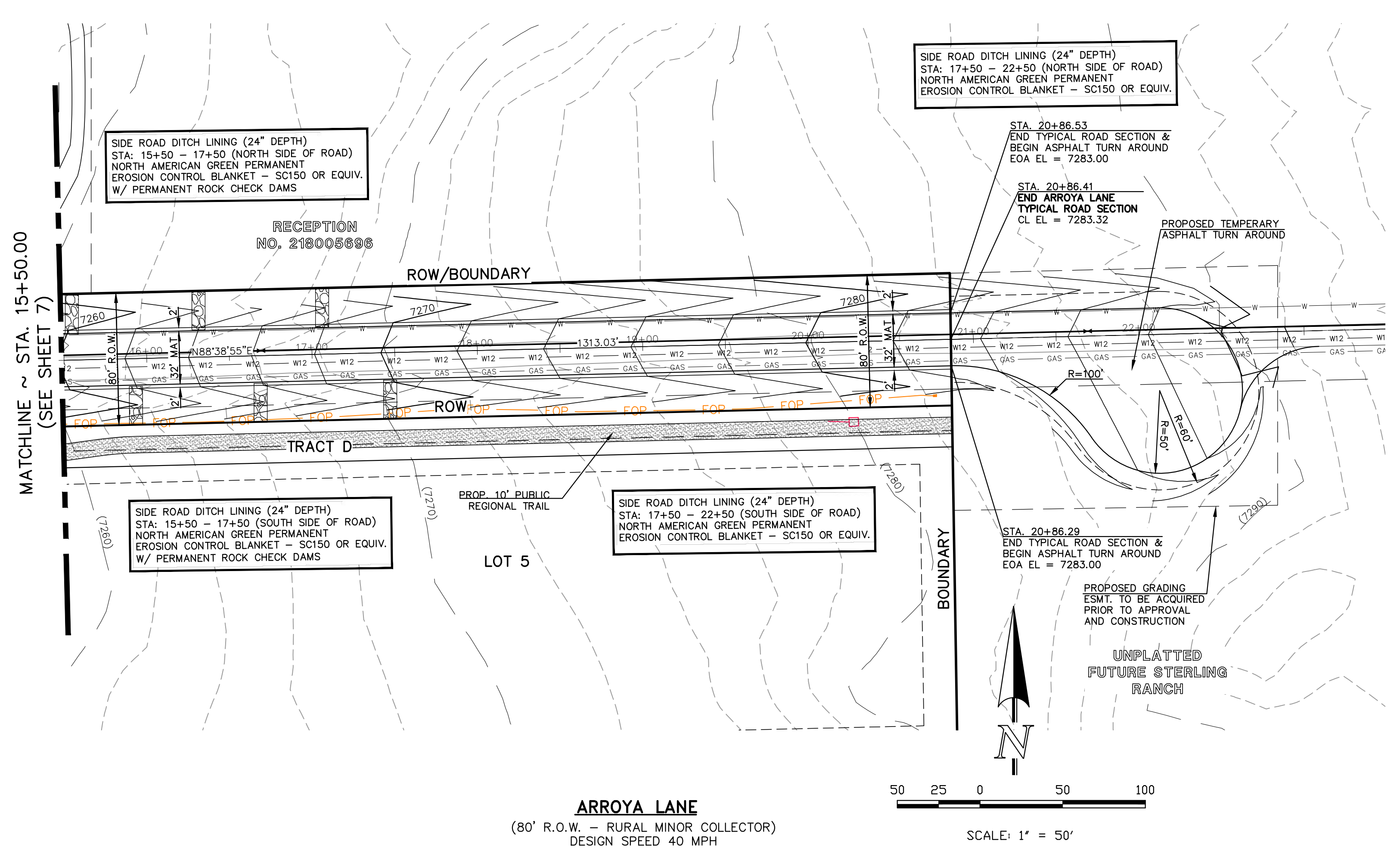
DATE: 11-22-2022
SHEET 7 OF 27
JOB NO. 1185.30

CLASSIC CONSULTING

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

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

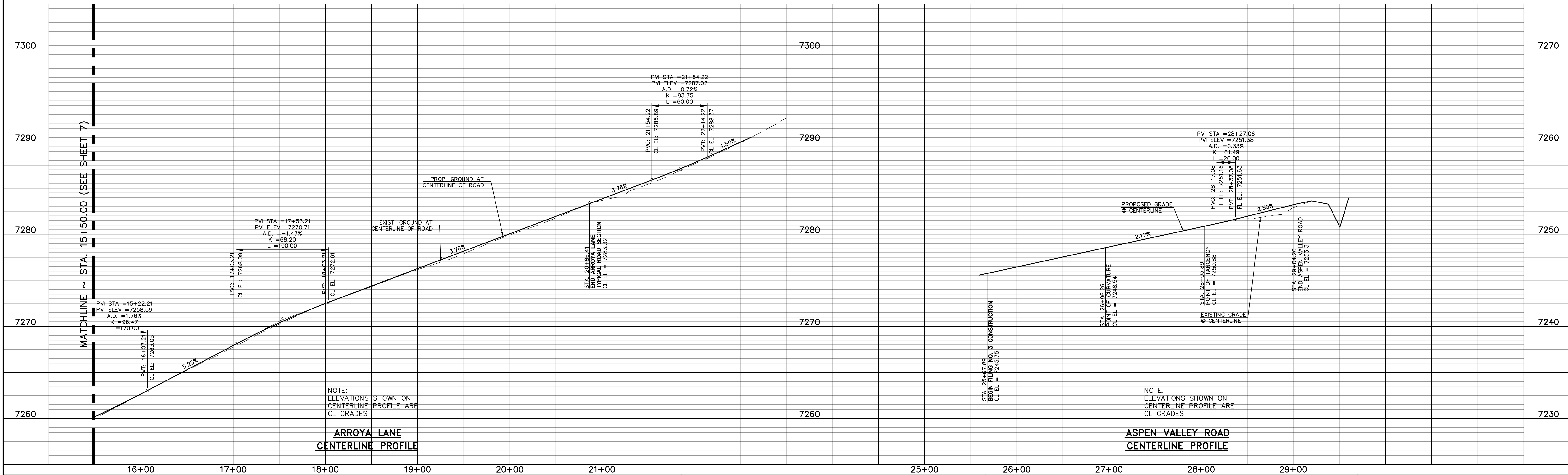
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CURVE	LENGTH	RADIUS	DELTA
C3	47.12'	30.00'	89°59'37"
C4	46.59'	30.00'	88°58'55"

ARROYA LANE
(80' R.O.W. - RURAL MINOR COLLECTOR)
DESIGN SPEED 40 MPH

ASPEN VALLEY ROAD
(60' R.O.W. - RURAL LOCAL)
DESIGN SPEED 30 MPH



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NO.	REVISION	DATE
1	REVISED PER EPC COMMENTS	3-07-23
2	REVISED PER EPC COMMENTS	10/30/23
3	REVISED PER COUNTY PARKS COMMENTS	12-6-23

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

MARC A. WHORTON, P.E., P.S.
37155
#37155

2/2/2024



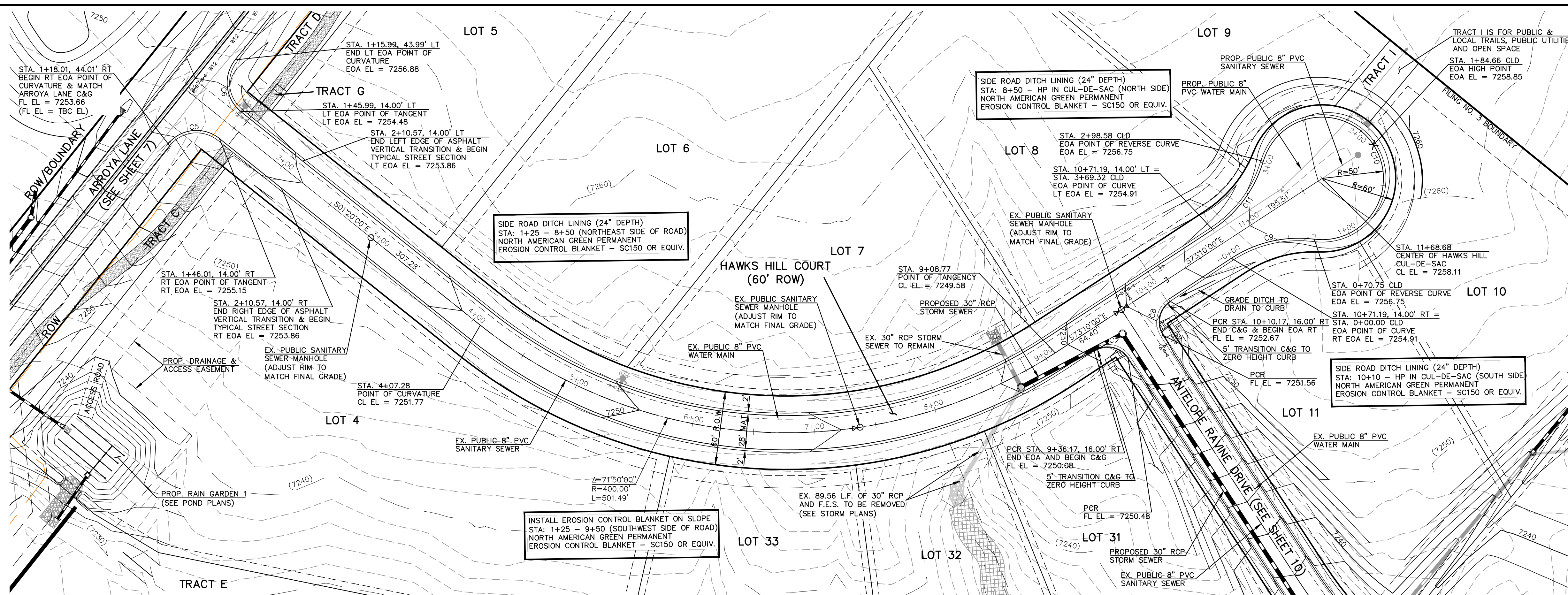
RETREAT AT TIMBERIDGE FILING NO. 3
CONSTRUCTION PLANS
STREET IMPROVEMENT PLANS
ARROYA LANE & ASPEN VALLEY ROAD

DESIGNED BY: PRA
DRAWN BY: PRA
CHECKED BY:

SCALE: (H) 1" = 50'
(V) 1" = 5'

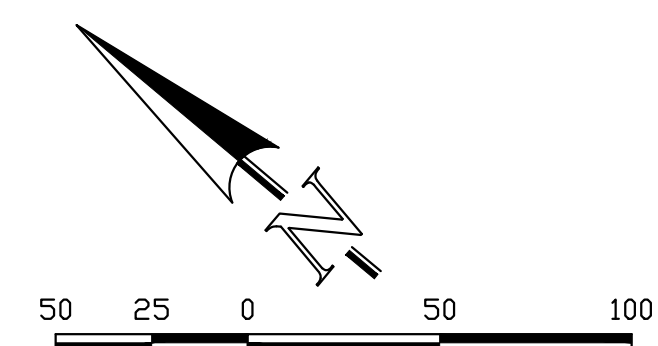
DATE: 11-22-2022
SHEET 8 OF 27
JOB NO. 1185.30

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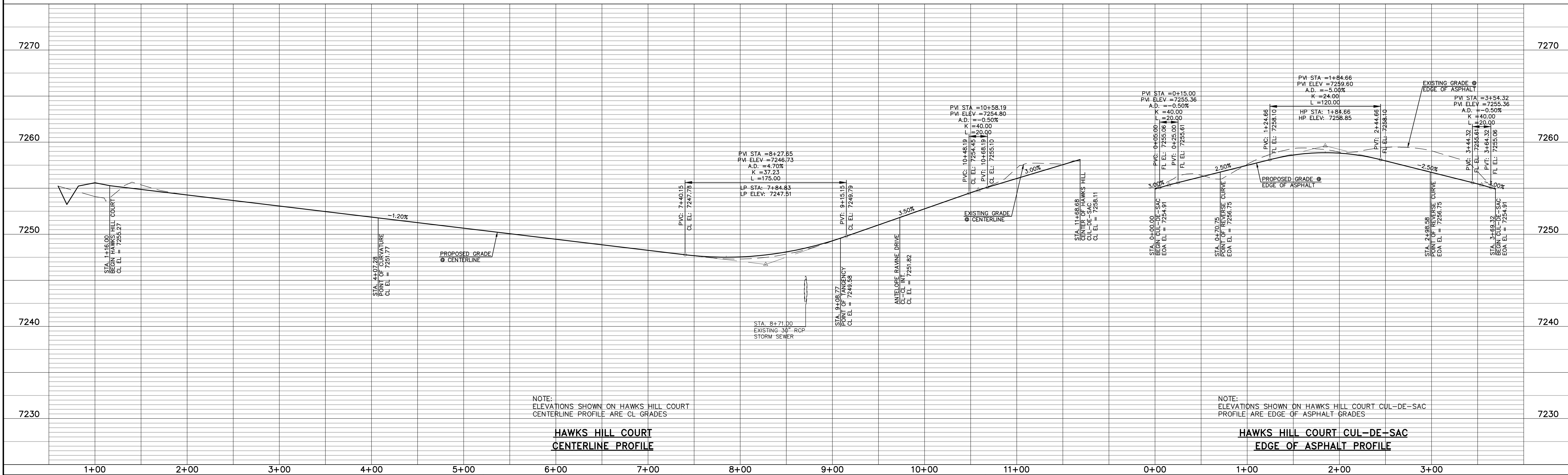


EDGE OF ASPHALT CURVE TABLE			
CURVE	LENGTH	RADIUS	DELTA
C5	47.13'	30.00'	90°01'05"
C6	47.11'	30.00'	89°58'55"
C9	70.75'	100.00'	40°32'09"
C10	227.83'	50.00'	261°04'18"
C11	70.75'	100.00'	40°32'09"

CURB FL CURVE TABLE			
CURVE	LENGTH	RADIUS	DELTA
C7	31.42'	20.00'	90°00'00"
C8	31.42'	20.00'	90°00'00"



HAWKS HILL COURT
(60' R.O.W. - RURAL LOCAL)
DESIGN SPEED 30 MPH



NOTE:
ELEVATIONS SHOWN ON HAWKS HILL COURT
CENTERLINE PROFILE ARE CL GRADES

**HAWKS HILL COURT
CENTERLINE PROFILE**

NOTE:
ELEVATIONS SHOWN ON HAWKS HILL COURT CUL-DE-SAC
PROFILE ARE EDGE OF ASPHALT GRADES

**HAWKS HILL COURT CUL-DE-SAC
EDGE OF ASPHALT PROFILE**

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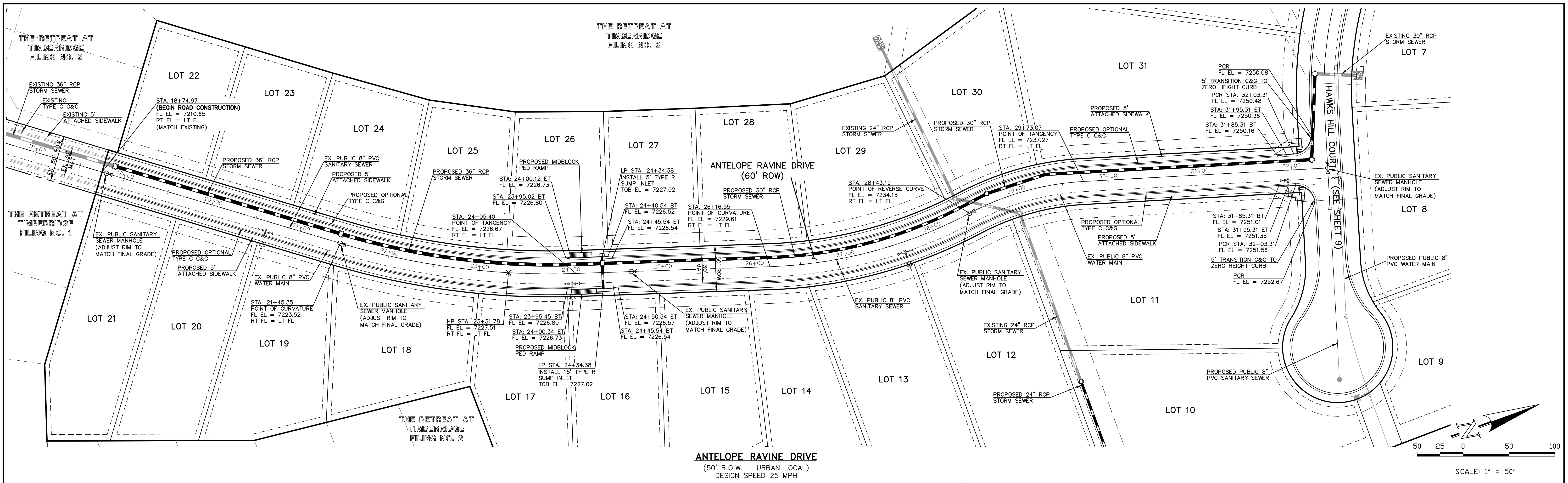
MARC A. WHORTON
#37155
DATE 2/2/2024



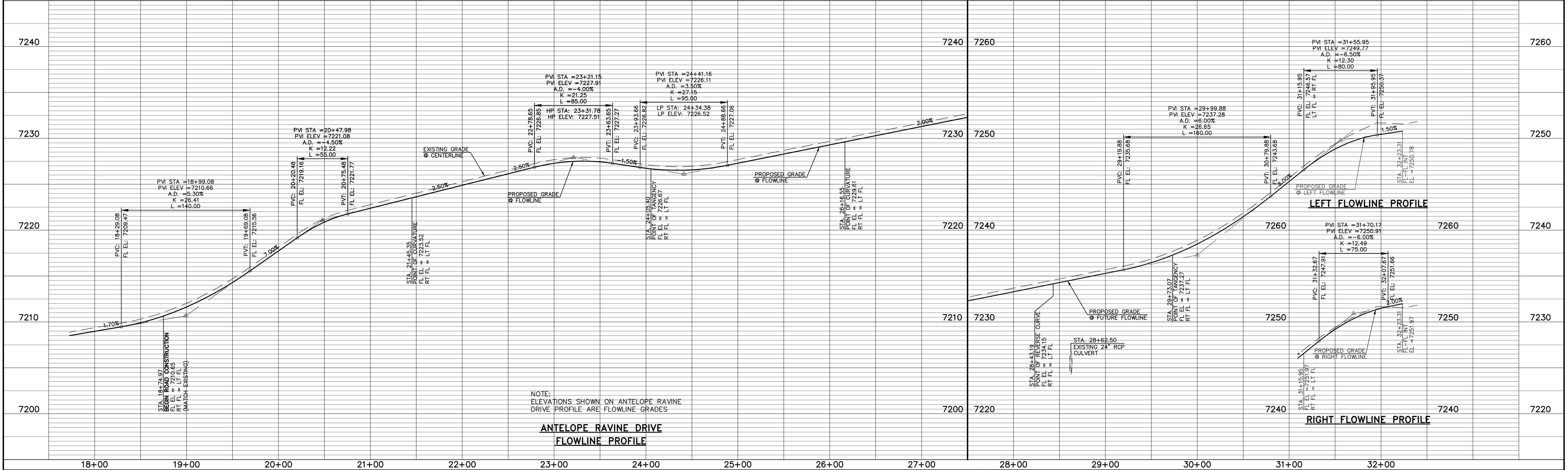
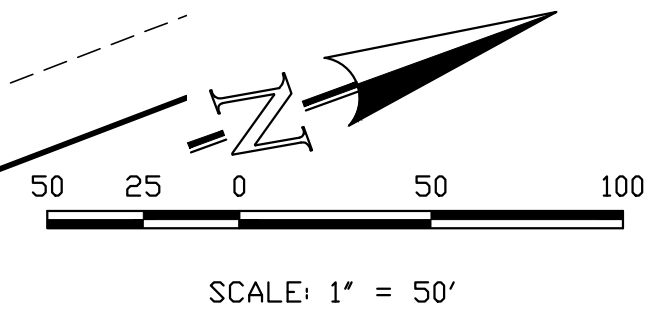
RETREAT AT TIMBERIDGE FILING NO. 3
CONSTRUCTION PLANS
STREET IMPROVEMENT PLANS
HAWKS HILL COURT

DESIGNED BY PRA SCALE DATE 11-22-2022
DRAWN BY PRA (H) 1" = 50' SHEET 9 OF 27
CHECKED BY (V) 1" = 5' JOB NO. 1185.30





ANTELOPE RAVINE DRIVE
 (50' R.O.W. - URBAN LOCAL)
 DESIGN SPEED 25 MPH



NOTE:
 ELEVATIONS SHOWN ON ANTELOPE RAVINE DRIVE PROFILE ARE FLOWLINE GRADES

ANTELOPE RAVINE DRIVE FLOWLINE PROFILE

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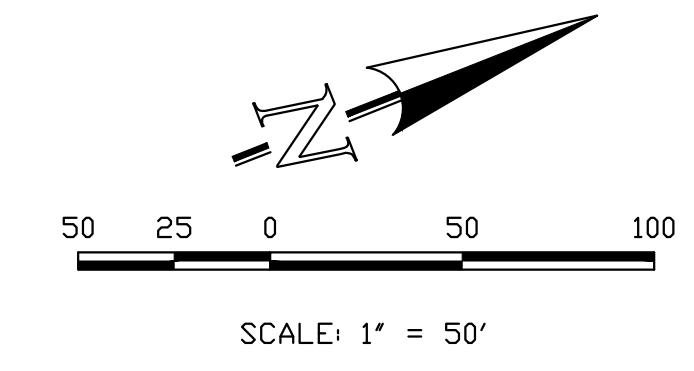
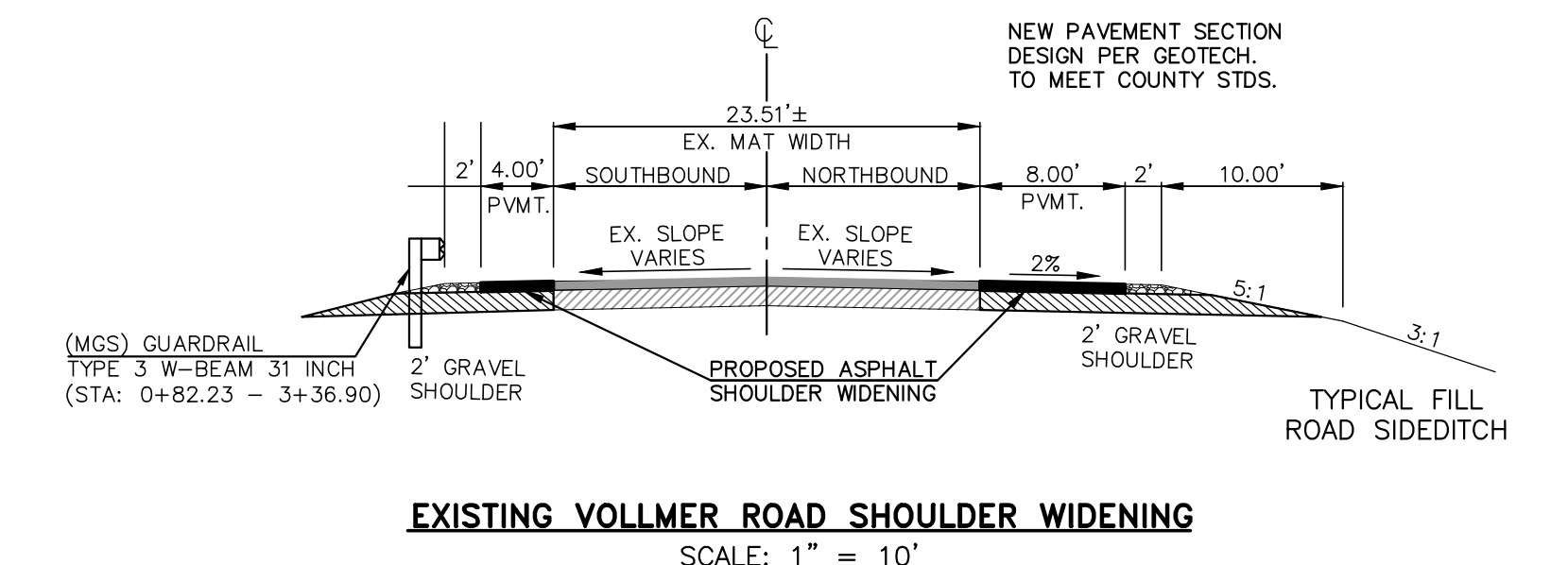
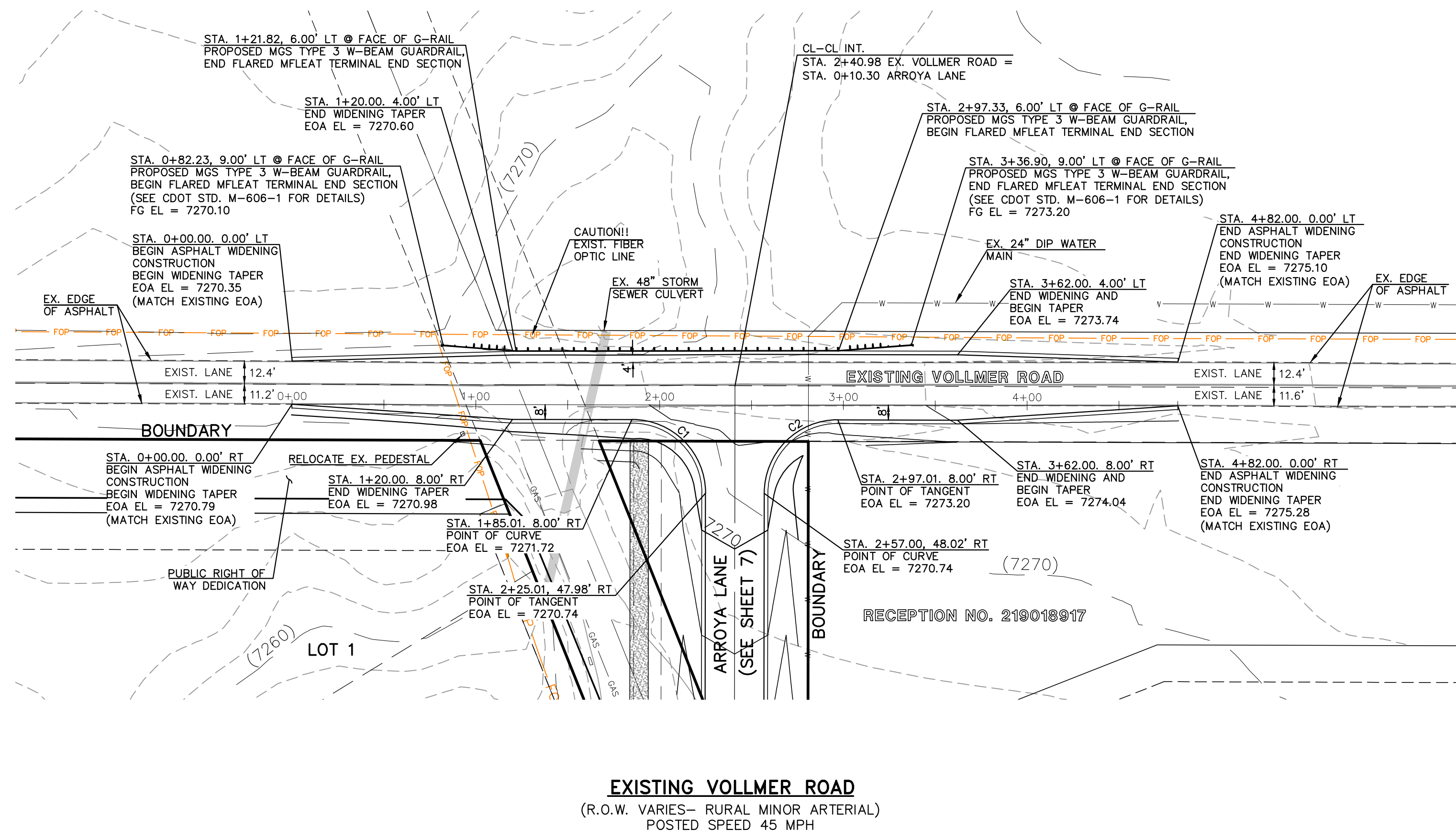
MARC A. WHORTON #37155 DATE 2/2/2024

RETREAT AT TIMBERIDGE FILING NO. 3
 CONSTRUCTION PLANS
 STREET IMPROVEMENT PLANS
 ANTELOPE RAVINE DRIVE

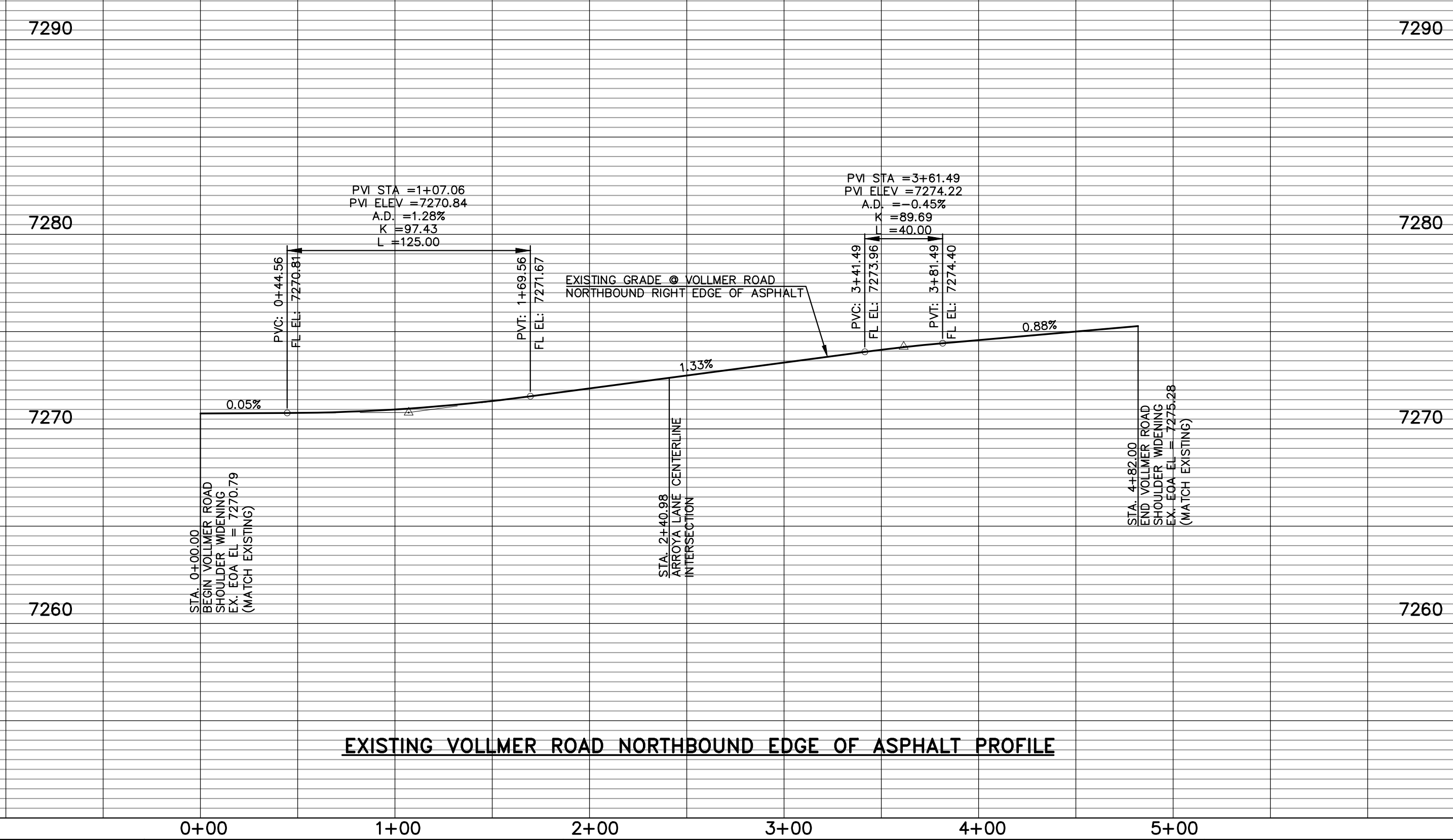
DESIGNED BY	PRA	SCALE	DATE
DRAWN BY	PRA	(H) 1" = 50'	SHEET 10 OF 27
CHECKED BY	(V) 1" = 5'	JOB NO.	1185.30

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EDGE OF ASPHALT CURVE TABLE			
CURVE	LENGTH	RADIUS	DELTA
C1	62.81'	40.00'	89°58'07"
C2	62.85'	40.00'	90°01'53"



EXISTING VOLLMER ROAD
(R.O.W. VARIES— RURAL MINOR ARTERIAL)
POSTED SPEED 45 MPH



EXISTING VOLLMER ROAD NORTHBOUND EDGE OF ASPHALT PROFILE

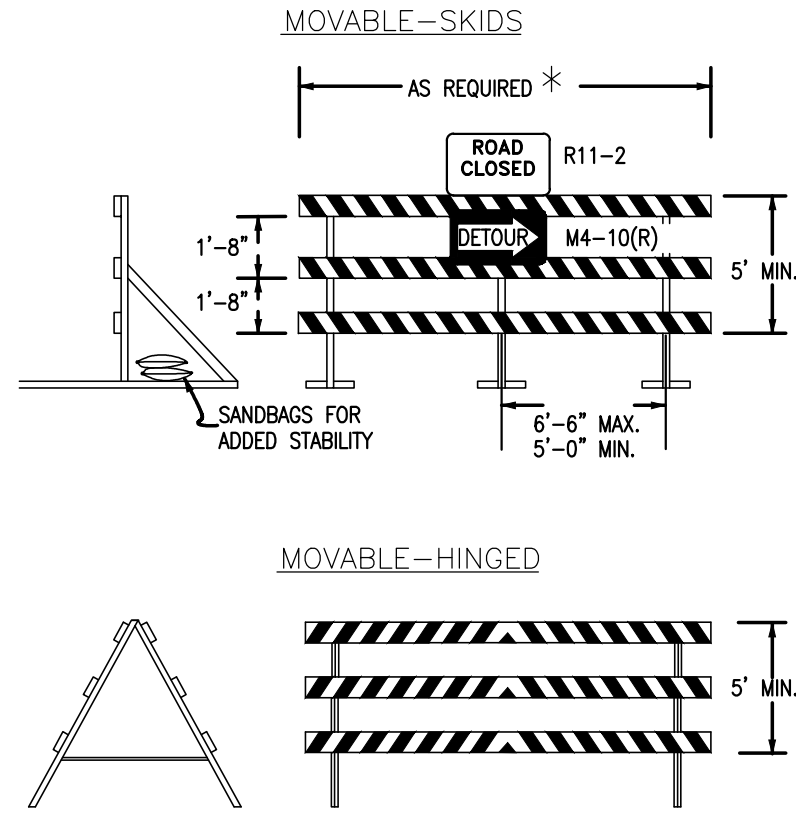
<p>48 HOURS BEFORE YOU DIG, CALL UTILITY LOCATORS 811 UTILITY NOTIFICATION CENTER OF COLORADO IT'S THE LAW</p> <p>THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE 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.</p>	<p>NO. REVISION</p> <table border="1"> <tr> <td>1</td> <td>REVISED PER EPC COMMENTS</td> <td>3-07-23</td> </tr> <tr> <td>2</td> <td>REVISED PER EPC COMMENTS</td> <td>10/31/23</td> </tr> </table>	1	REVISED PER EPC COMMENTS	3-07-23	2	REVISED PER EPC COMMENTS	10/31/23	<p>REVIEW:</p> <p>PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF CLASSIC CONSULTING AND SURVEYORS, LLC</p> <p>MARC A. WHORTON #37155</p>	<p>DATE: 2/2/2024</p>	<p>RETRAIT AT TIMBERRIDGE FILING NO. 3 CONSTRUCTION PLANS STREET IMPROVEMENT PLANS VOLLMER ROAD EAST SHOULDER WIDENING</p> <p>DESIGNED BY: PRA DRAWN BY: PRA CHECKED BY:</p> <p>SCALE: (H) 1" = 50' (V) 1" = 5'</p> <p>DATE: 11-22-2022 SHEET: 11 OF 27 JOB NO.: 1185.30</p>	<p>619 N. Cascade Avenue, Suite 200 Colorado Springs, Colorado 80903 (719) 785-0790 (719) 785-0799 (Fax)</p>
	1	REVISED PER EPC COMMENTS	3-07-23								
2	REVISED PER EPC COMMENTS	10/31/23									
<p>DATE: 2/2/2024</p>											

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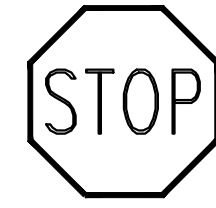
RAIL LENGTH TABLE *

TYPE 3 BARRICADE	FIXED	MOVABLE	LENGTH
F - A	M - A		8' - 14'
F - B	M - B		15' - 24'
F - C	M - C		25' - 35'
F - D	M - D		> 35'

- NOTES
- TYPE 3 BARRICADES HAVE 3 REFLECTORIZED RAIL FACES IF FACING TRAFFIC IN ONE DIRECTION AND 6 IF FACING TRAFFIC IN TWO DIRECTIONS.
 - THE PORTION OF THE POST ABOVE THE GROUND LINE SHALL BE PAINTED IN ACCORDANCE WITH THE APPROPRIATE GENERAL NOTE.
 - DETACHABLE EXTENSION WING RAILS FOR BYPASSING OF CONSTRUCTION EQUIPMENT ARE PERMITTED, WHEN NECESSARY, ON FIXED OR MOVABLE TYPE 3 BARRICADES. THE LENGTH SHALL BE ADEQUATE TO CLOSE THE SHOULDER AS REQUIRED.



TYPICAL TYPE 3 BARRICADES



STOP (R1-1)
30"X30"



Street Name (D-3)



SPEED LIMIT (R2-1)
24"X30"

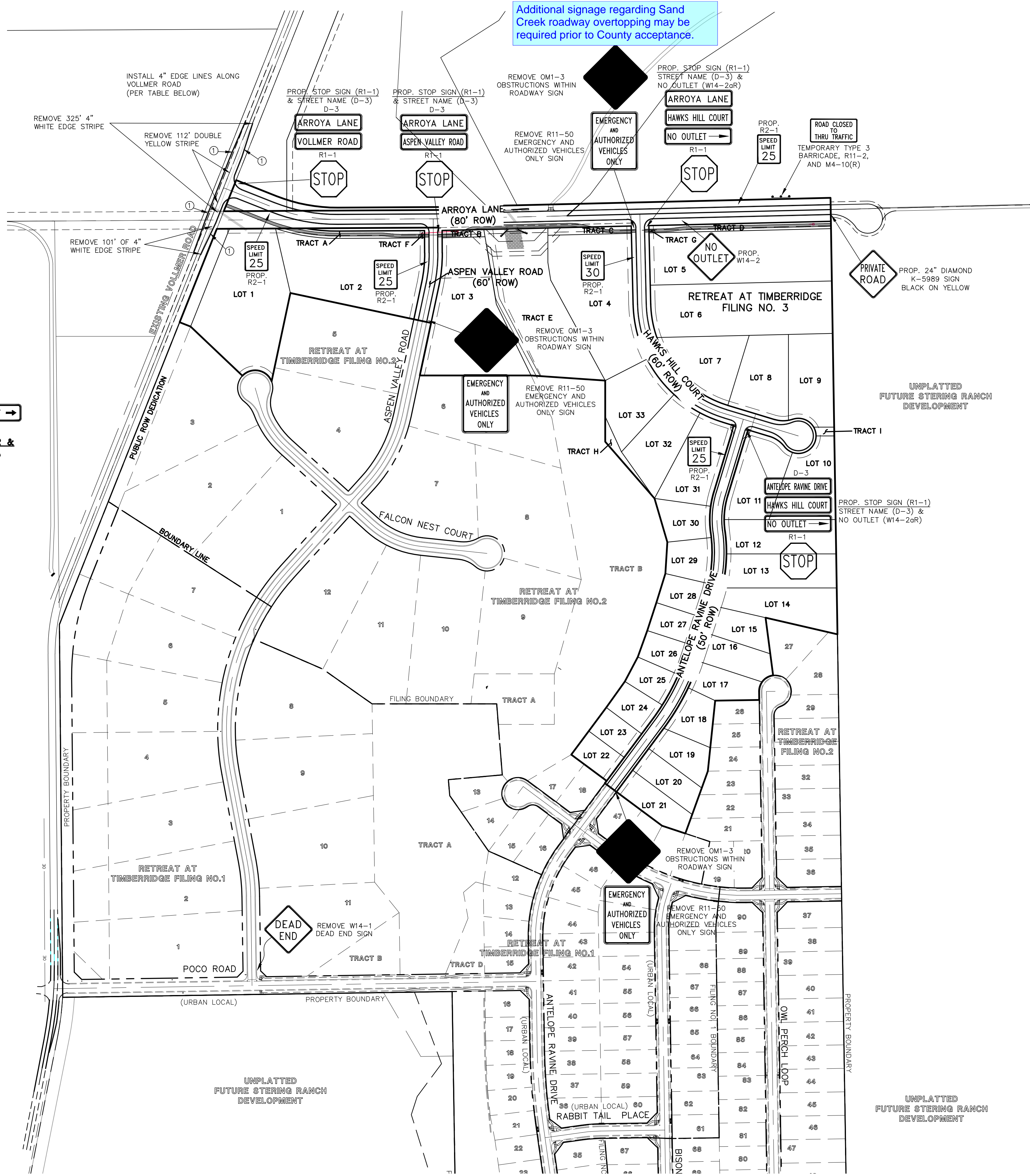


NO OUTLET (W14-2aR & W14-2aL)

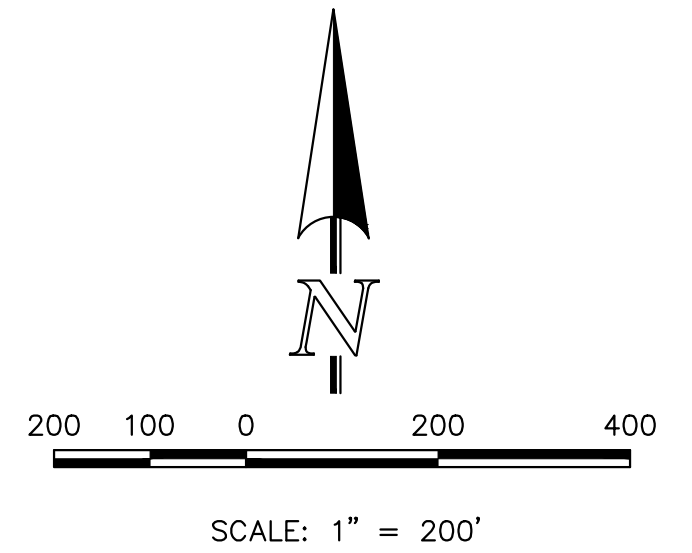
NOTE:
ALL INTERNAL SIGNS SHALL BE 4" FONT LETTER SIZE.
SIGNS AT VOLLMER INTERSECTION SHALL BE 6" FONT LETTER SIZE.

STRIPING LEGEND		
STRIPE	PAVEMENT MARKINGS	MARKING DESCRIPTION
1	EDGE LINES (EPOXY)	SOLID WHITE, 4" WIDE

*NOTE: ALL STRIPING INSTALLATION SHALL BE PER COLORADO DEPARTMENT OF TRANSPORTATION "M&S STANDARDS" STANDARD PLAN NO. S-627-1



Additional signage regarding Sand Creek roadway overtopping may be required prior to County acceptance.



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NO.	REVISION	DATE
1	REVISED PER COUNTY COMMENTS	9/22/23
2	REVISED PER ARROYA ROADWAY DESIGN CHANGE	1/30/24

REVIEW:
PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF CLASSIC CONSULTING ENGINEERING AND SURVEYORS, LLC

MARC A. WHORTON, P.E., P.S., P.L.S., P.C.E.
#37155

2/2/2024 DATE



RETREAT AT TIMBERIDGE FILING NO. 3
CONSTRUCTION PLANS

SIGNAGE & STRIPING PLAN

DESIGNED BY	PRA	SCALE	DATE	11-22-2022
DRAWN BY	PRA	(H) 1" = 200'	SHEET	12 OF 27
CHECKED BY	(V)	1" = N/A	JOB NO.	1185.30



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American Revolution LED Series 247L

PRODUCT OVERVIEW



Features:

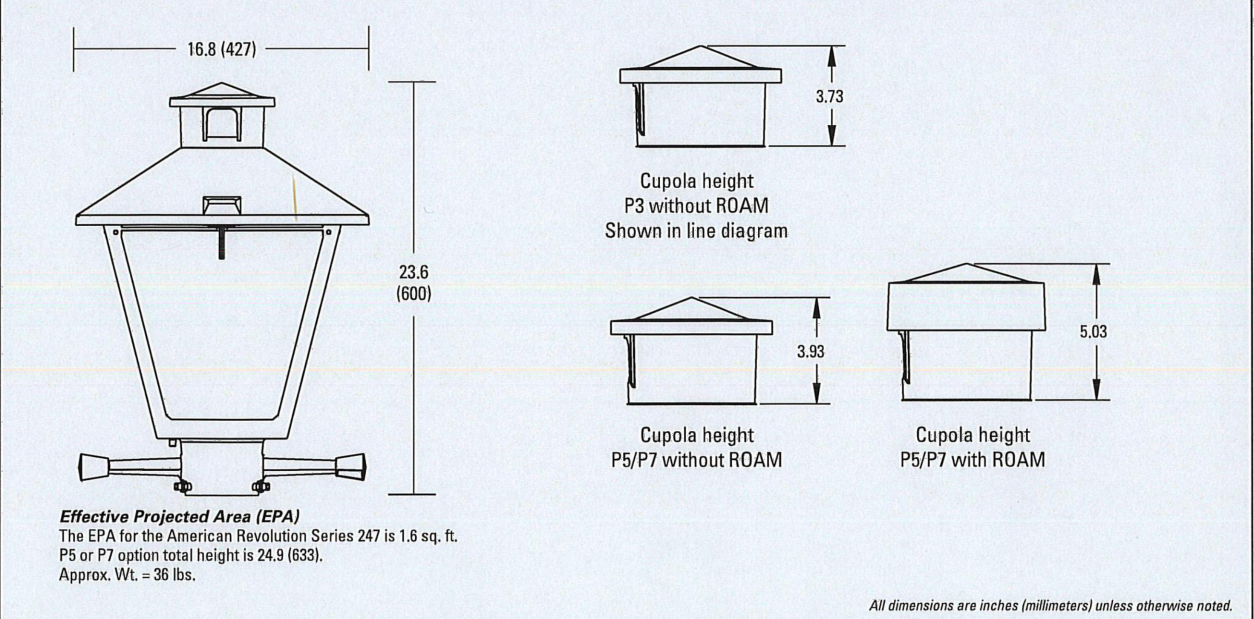
- Die-cast aluminum housing and hood for long-life performance
- Die-cast trigger latch (TL) and captive thumb screws option available for easy access to internal components
- Optical assembly designed for maximum performance, available in Type II, Type III and Type V
- Hinged hood and captive thumb screws provision afford quick, easy access to electrical and optical area for servicing
- Slipfitter with three set screws allows secure installation to pole sizes 2-3/8" or 3" O.D.
- Surge protection device (standard) exceeds ANSI C82.41 Category C1 criteria (surge tested at 10kV/5kA)
- Complies with ANSI: C136.2, C136.10, C136.15
- CSA listed and suitable for up to 30°C ambient
- Rated L70, LED life greater than 100,000 hours at 25°C
- Replaces up to 150W HPS light source incumbent models
- LED electronic 0V-10V dimmable driver
- DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/DPL to confirm which versions are qualified.

Applications:

- Streetscapes
- Walkways
- Pathways
- Parks

MVEA spec # 247L 10LEDE10 MVOLT 4K RS AY PCLL

DIMENSIONS



Note: Specifications subject to change without notice.
American Revolution Series 247L LED



American Revolution LED Series 247L

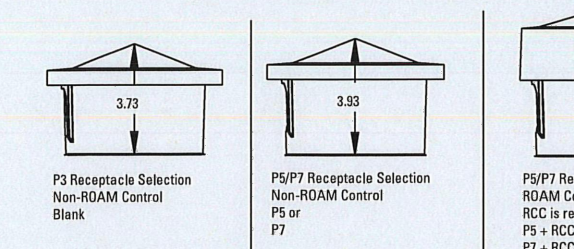
ORDERING INFORMATION

Example: 247L 20LEDE10 MVOLT 4K RS AY

Series	Performance Package	Voltage	Color Temperature (CCT)
247L American Revolution LED	20LEDE10 20 Chips, 1050 mA Driver, 72 input watts 20LEDE20 20 Chips, 700 mA Driver, 40 input watts 10LEDE10 10 Chips, 1050 mA Driver, 38 input watts 10LEDE70 10 Chips, 700 mA Driver, 25 input watts 10LEDE53 10 Chips, 525 mA Driver, 18 input watts 10LEDE36 10 Chips, 350 mA Driver, 13 input watts	MVOLT Multi-volt, 120-277V 247 247V 480 480V	3K 3000K 4K 4000K 5K 5000K

Distribution	Optics	Options	Miscellaneous
R2 Type II R3 Type III R5 Type V	AY Acrylic PV Polycarbonate CY Gray DB Dark Bronze WH White BZ Bronze	SS Black (standard) GR Gray DB Dark Bronze WH White BZ Bronze	SS Stainless steel hardware NL NEMA Label NL Not CSA Listed TL Tool-less Entry LDR Ladder Rest SH Shorting Cap SH* Not CSA Listed Shorting Cap HSB House Side Shield Black HSW House Side Shield White GR Enhanced Corrosion Resistant Finish RDC* ROAM Dimming Node Cupola Cover
		Photocell (blank) 3 pin NEMA Photocell Rearcap (standard) No Photocell Rearcap PS 5 pin NEMA Photocell Rearcap (dimming driver included) P7 7 pin NEMA Photocell Rearcap (dimming driver included) PCLL 15 Solid State Long Life Photocell PCSS 15 Not CSA Listed Solid State Long Life Photocell (120-277V)	Accessories RDC57* ROAM Dimming Node Cupola Cover

Cupola size based on type of control and receptacle

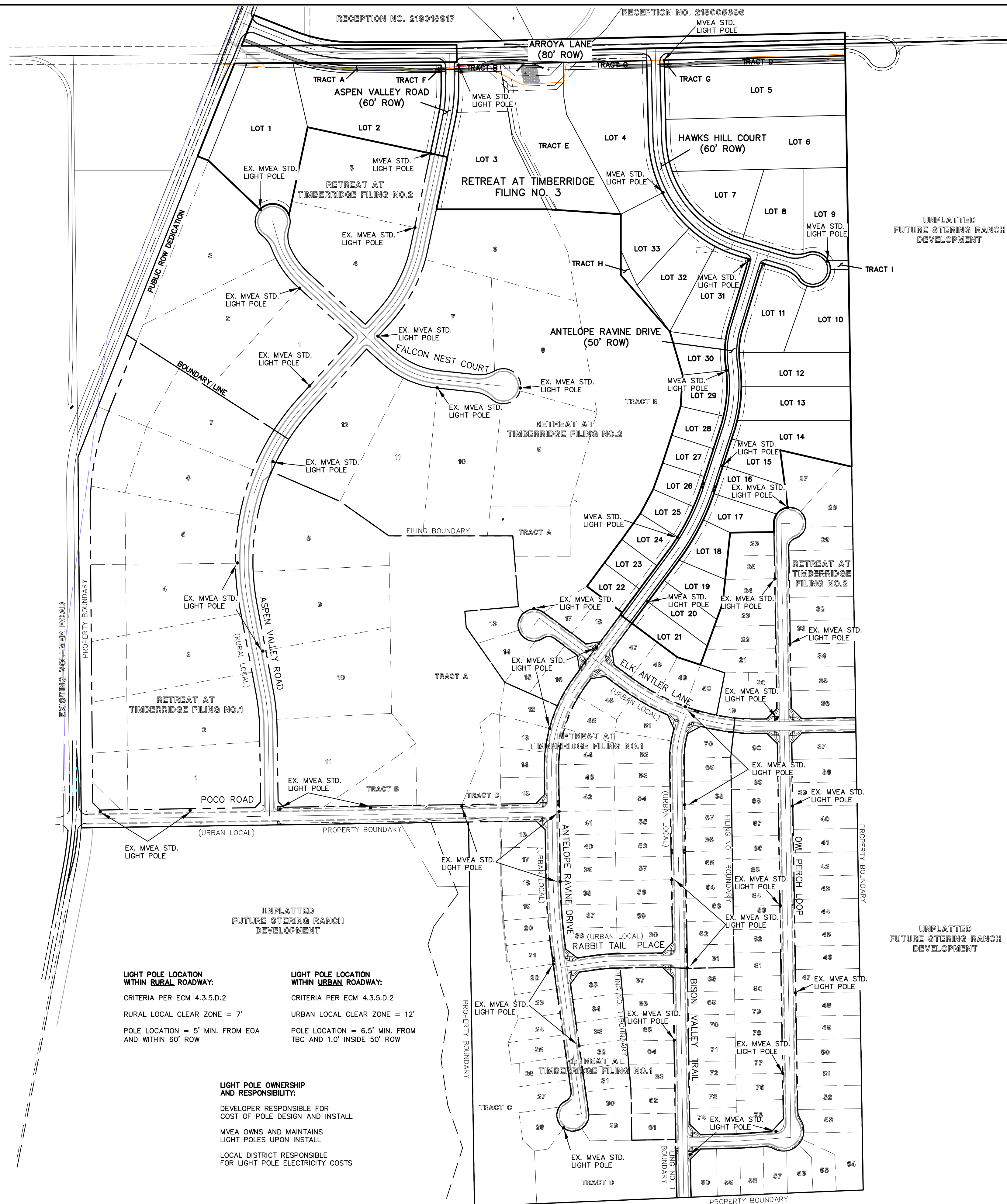


- Notes:
- Other colors available, please contact factory
 - PS and SH not available with HR option
 - Taller cupola cover (RCC) is required when used with ROAM or other similar wireless monitoring control systems
 - Standard failure mode: "Fail On"
 - Photocells supplied with ANSI Standard Turn-On levels
 - XL option is required
 - Ships with unit, field installed
 - Required when using ROAM or other similar wireless monitoring control systems



ALL Headquarters: 3025 Columbia Road, Greenville, OH 45426
www.americanrevolutionled.com
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Warranty: Five-year limited warranty. Complete warranty terms located at www.americanrevolutionled.com/customer-resources/faq. Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25°C. Specifications subject to change without notice.
Please contact your sales representative for the latest product information.



LIGHT POLE LOCATION WITHIN RURAL ROADWAY:
CRITERIA PER ECM 4.3.5.D.2
RURAL LOCAL CLEAR ZONE = 7'
POLE LOCATION = 5' MIN. FROM EOA AND WITHIN 60' ROW

LIGHT POLE LOCATION WITHIN URBAN ROADWAY:
CRITERIA PER ECM 4.3.5.D.2
URBAN LOCAL CLEAR ZONE = 12'
POLE LOCATION = 6.5' MIN. FROM TBC AND 1.0' INSIDE 50' ROW

LIGHT POLE OWNERSHIP AND RESPONSIBILITY:
DEVELOPER RESPONSIBLE FOR COST OF POLE DESIGN AND INSTALL
MVEA OWNS AND MAINTAINS LIGHT POLES UPON INSTALL
LOCAL DISTRICT RESPONSIBLE FOR LIGHT POLE ELECTRICITY COSTS

ORIENTATION VIEWED FROM TOP OF POLE

CMT 145 Wood Street East, SC 29114 803-414-4275 www.cmtpole.com		MOUNTAIN VIEW	
CAT. NO.: TB23-D-50-3-H-T23B		SPECs: WIND VEL.: 100@1.3	
QUANTITY:		JOB NUMBER:	
JOB NUMBER:		APPD BY:	
REV. DATE BY:		REMARKS:	
QUOTE:		TOTAL DEFL.:	
		DRAWN BY: PLF	
		DATE: 01/16/2017	

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MARC A. WHORTON, REGISTERED PROFESSIONAL ENGINEER #37155

2/2/2024

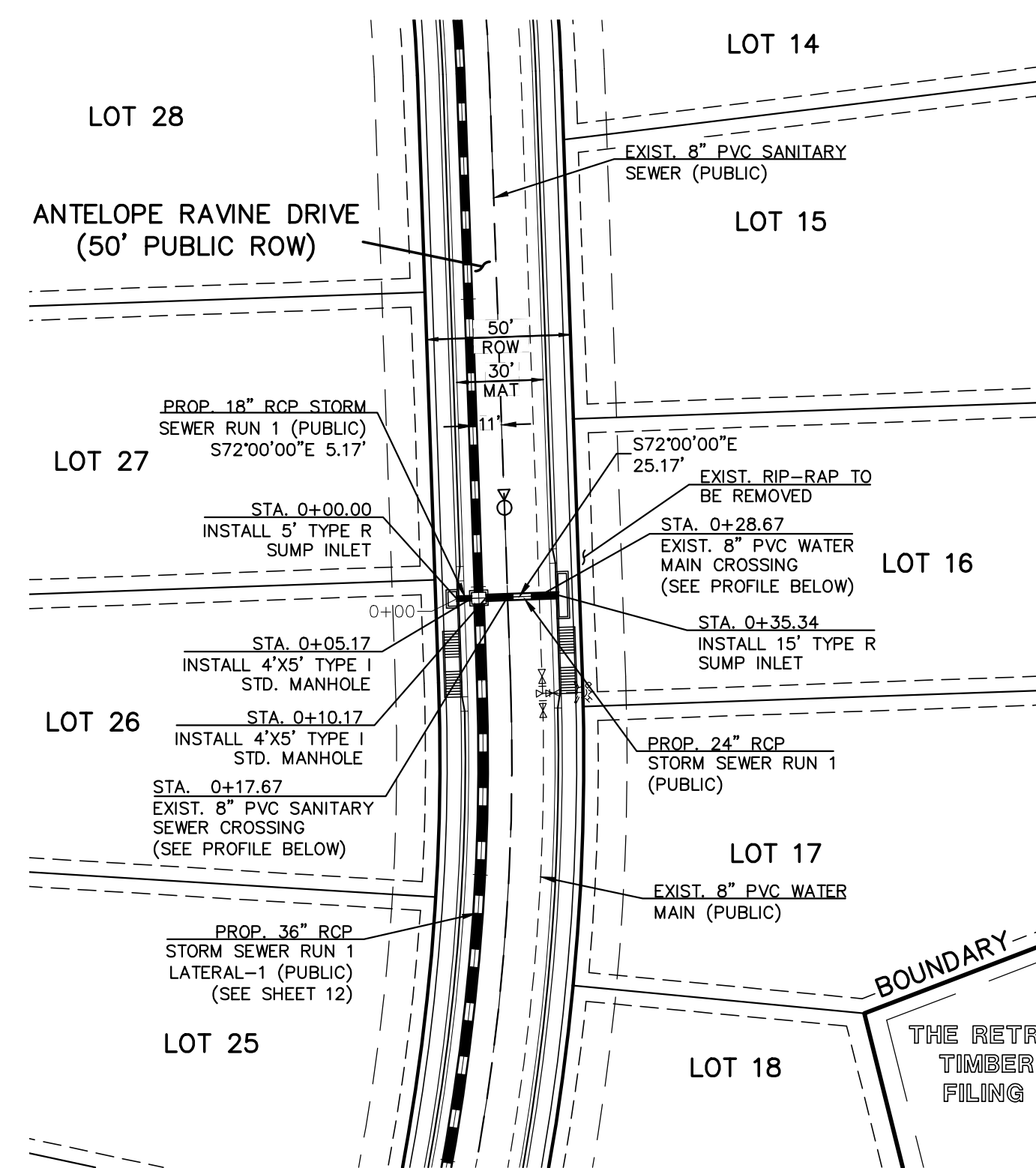
CLASSIC CONSULTING

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

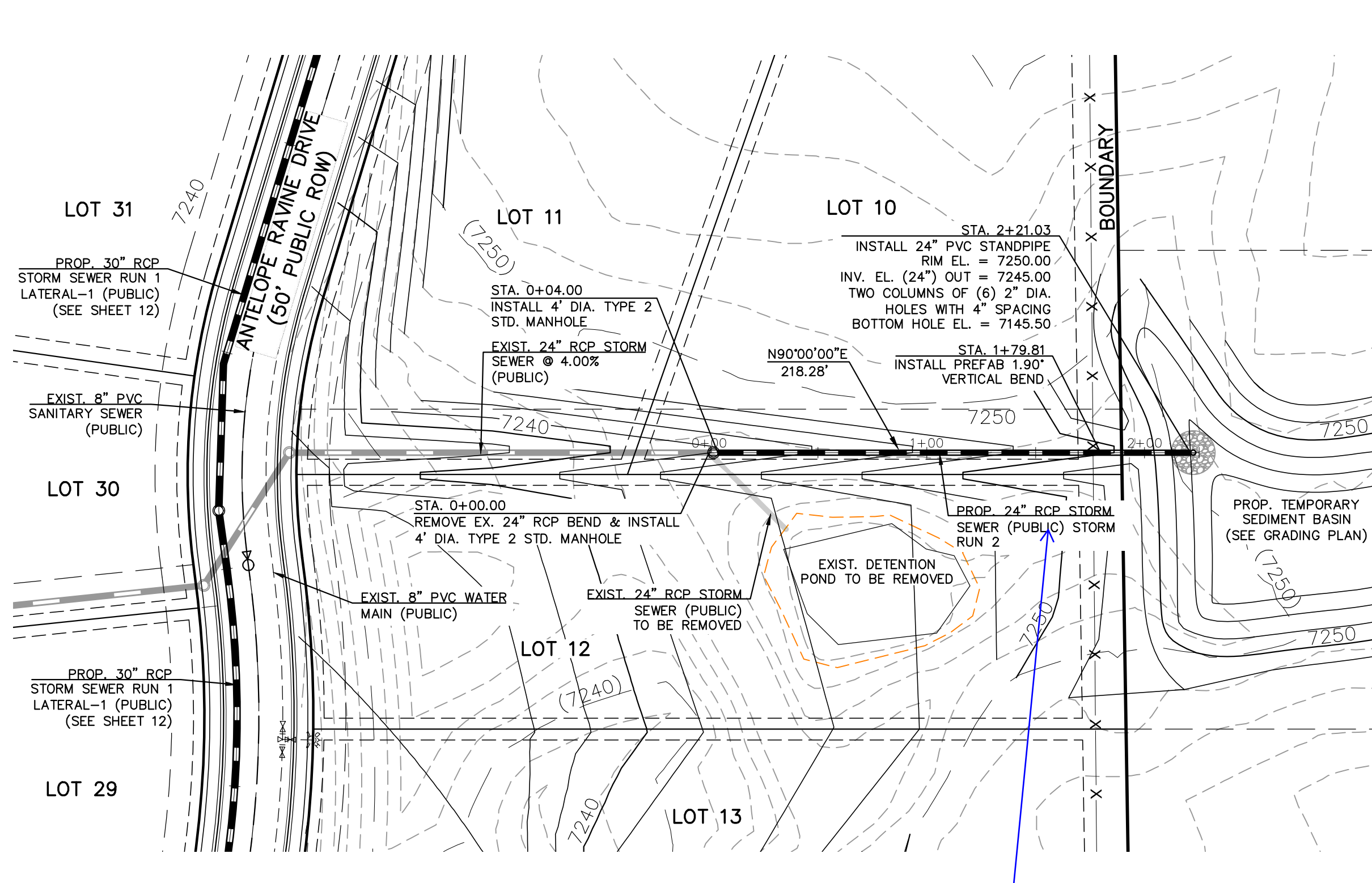
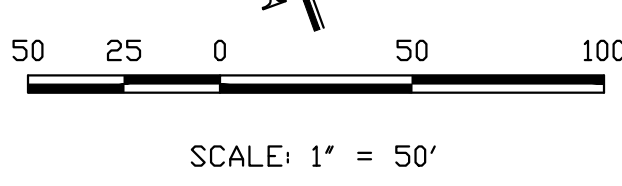
(719) 785-0790
(719) 785-0799 (Fax)

RETREAT AT TIMBERIDGE FILING NO. 3
CONSTRUCTION PLANS
STREET LIGHT POLE LOCATION PLAN

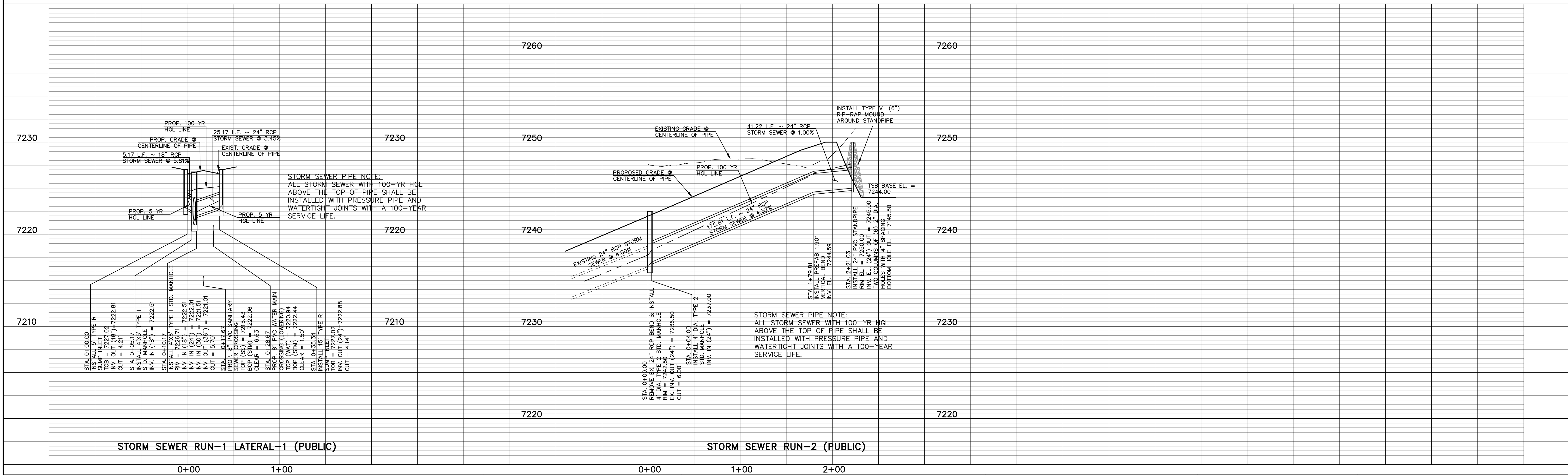
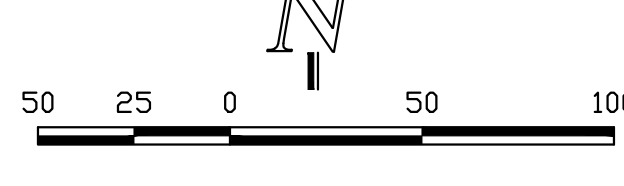
DESIGNED BY	PRA	SCALE	DATE	11-22-2022
DRAWN BY	PRA	(H) 1" = 200'	SHEET	13 OF 27
CHECKED BY	(V) 1" = N/A	JOB NO.	1185.30	



STORM SEWER RUN-1 LATERAL-1 (PUBLIC)



STORM SEWER RUN-2 (PUBLIC)



STORM SEWER RUN-1 LATERAL-1 (PUBLIC)

STORM SEWER RUN-2 (PUBLIC)

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
1	REVISED PER COUNTY COMMENTS	9/25/23
2	REVISED PER COUNTY COMMENTS	10/30/23

REVIEW:
PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF CLASSIC CONSULTING, INC., LICENSED SURVEYORS, LLC

MARC A. WHORTON, REGISTERED PROFESSIONAL ENGINEER #37155

2/2/2024

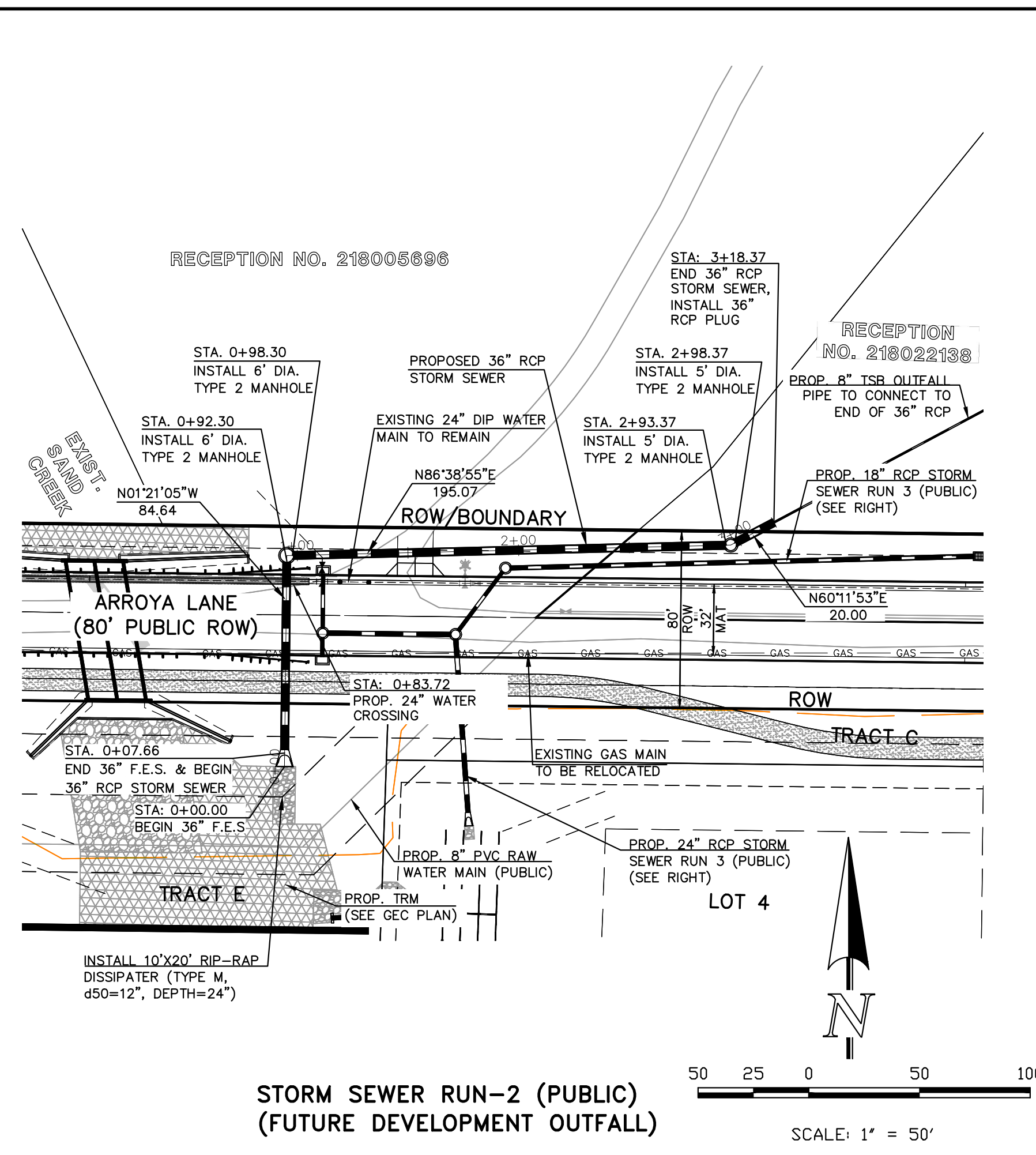
CLASSIC CONSULTING

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

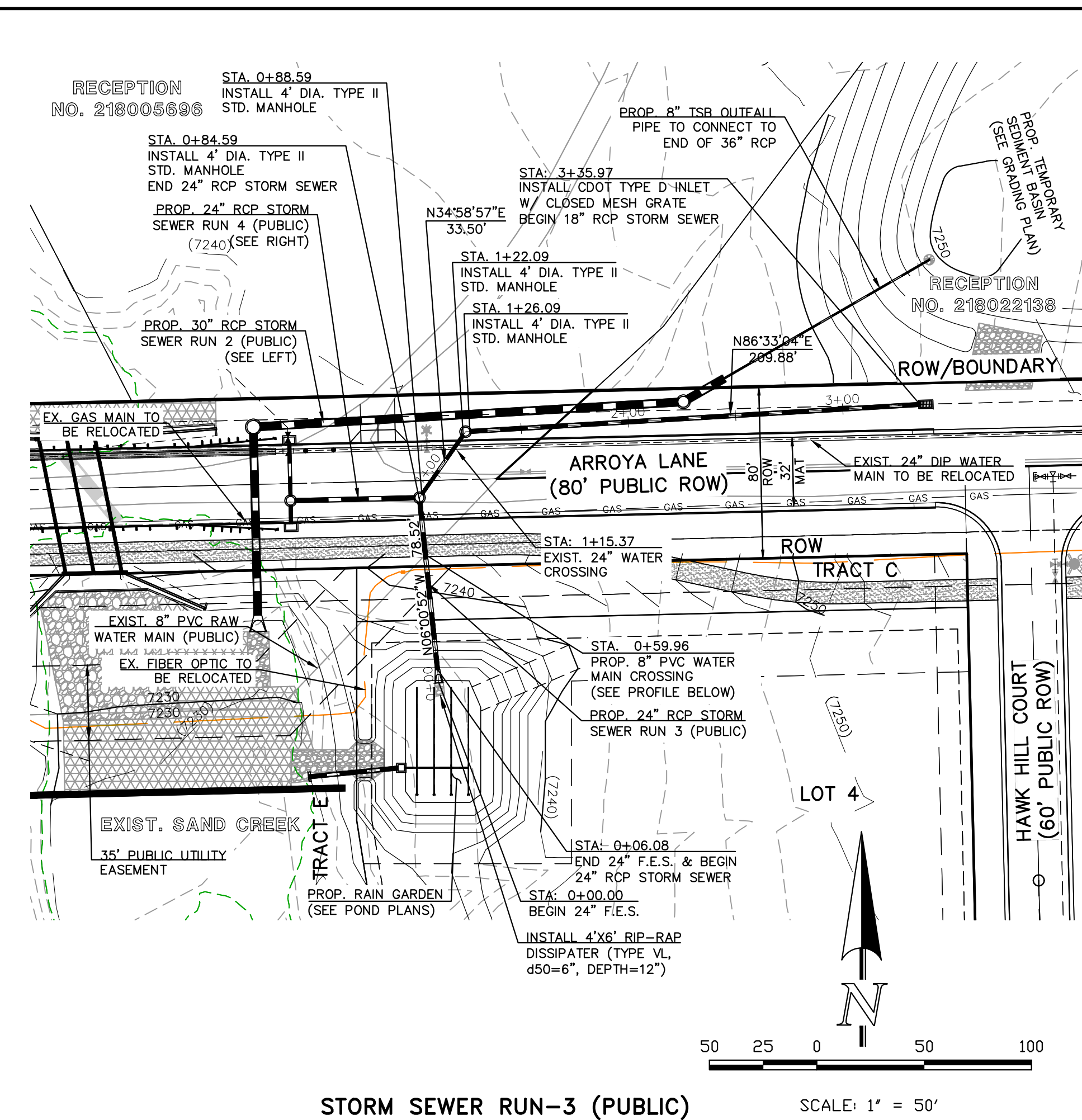
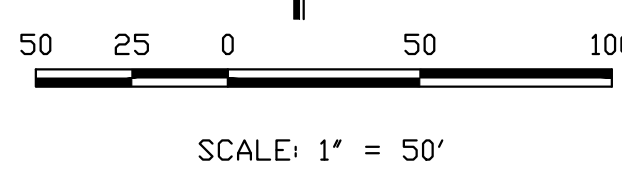
(719) 785-0790
(719) 785-0799 (Fax)

RETREAT AT TIMBERIDGE FILING NO. 3
CONSTRUCTION PLANS
PUBLIC STORM SEWER PLAN

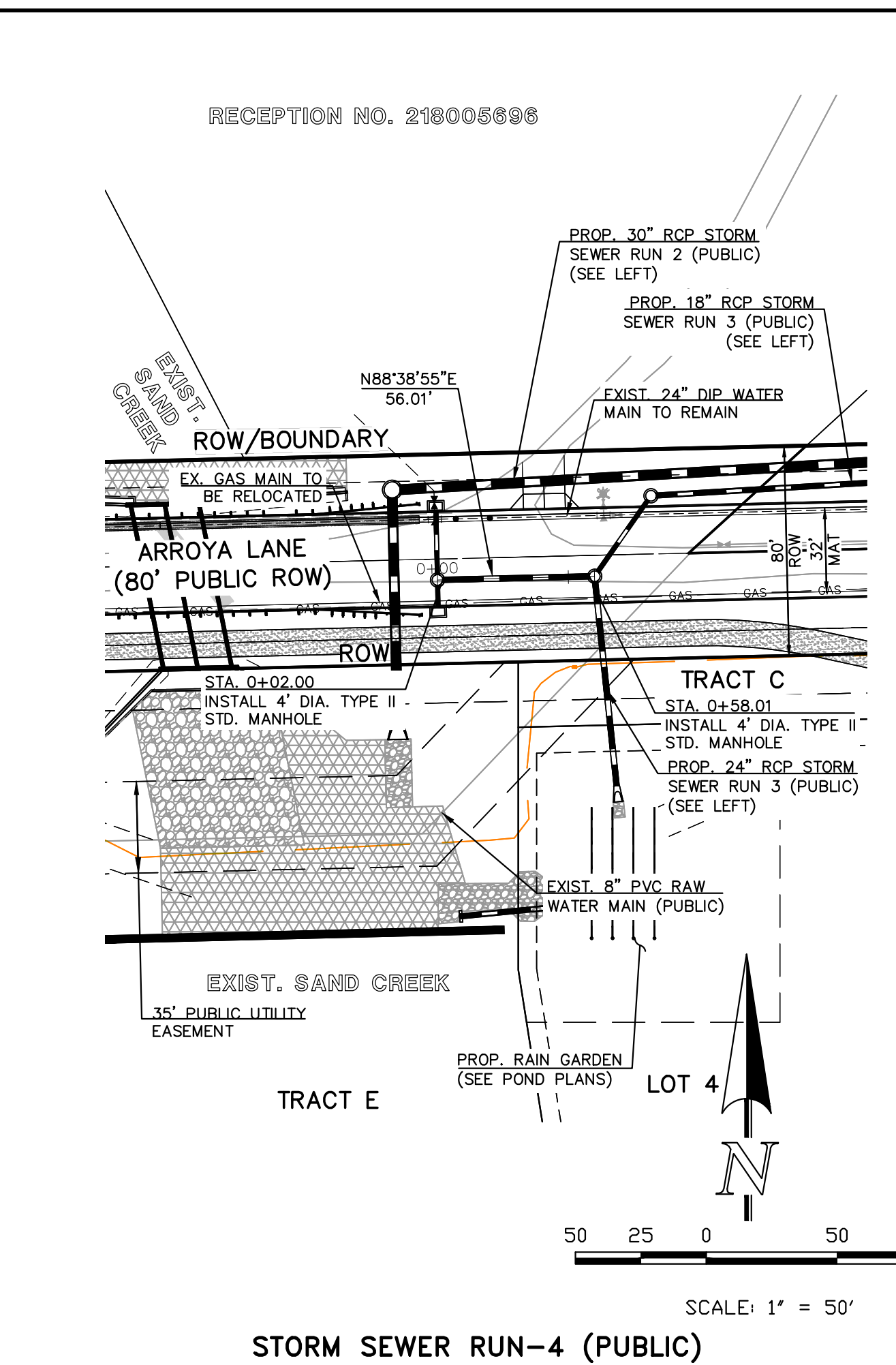
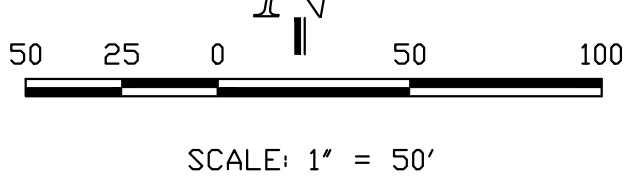
DESIGNED BY	PRA	SCALE	DATE
DRAWN BY	PRA	(H) 1" = 50'	SHEET 15 OF 27
CHECKED BY	(V) 1" = 5'	JOB NO.	1185.30



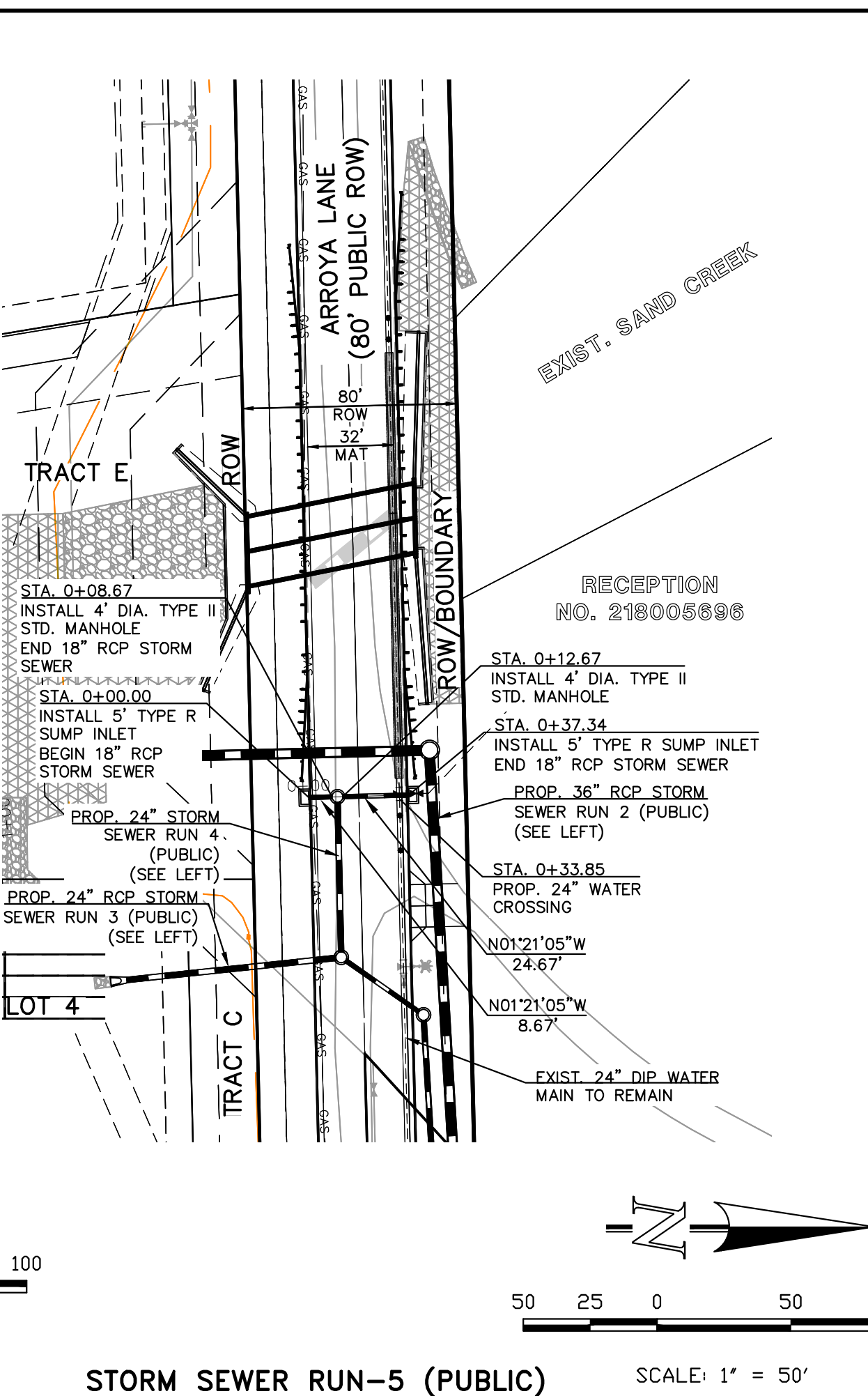
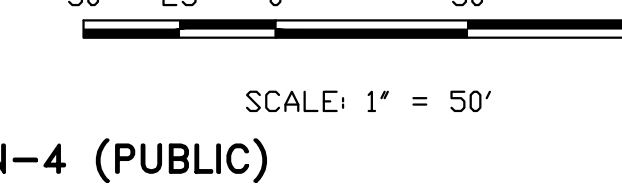
**STORM SEWER RUN-2 (PUBLIC)
(FUTURE DEVELOPMENT OUTFALL)**



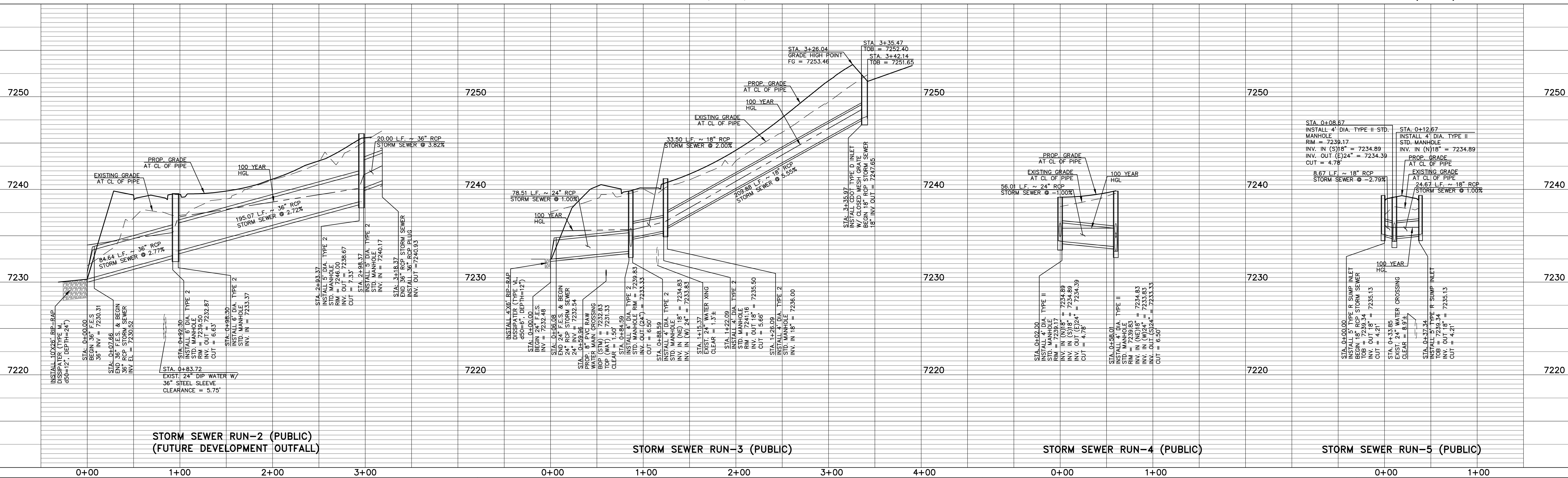
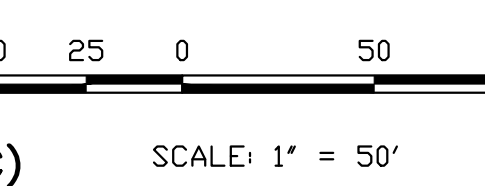
STORM SEWER RUN-3 (PUBLIC)



STORM SEWER RUN-4 (PUBLIC)



STORM SEWER RUN-5 (PUBLIC)



**STORM SEWER RUN-2 (PUBLIC)
(FUTURE DEVELOPMENT OUTFALL)**

STORM SEWER RUN-3 (PUBLIC)

STORM SEWER RUN-4 (PUBLIC)

STORM SEWER RUN-5 (PUBLIC)

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.		1	REVISED PER COUNTY COMMENTS 9/25/23
		2	REVISED STORM SEWER PER ROAD GRADE CHANGE 1/30/24
		3	REVISED STORM PROFILE PER EXIST. 24" WATER MAIN CHANGE 3/14/24

REVIEW:	DATE
PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF CLASSIC CONSULTING AND SURVEYORS, LLC	3/14/2024
MARC A. WHORTON, P.E., P.S.	DATE

CLASSIC CONSULTING

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

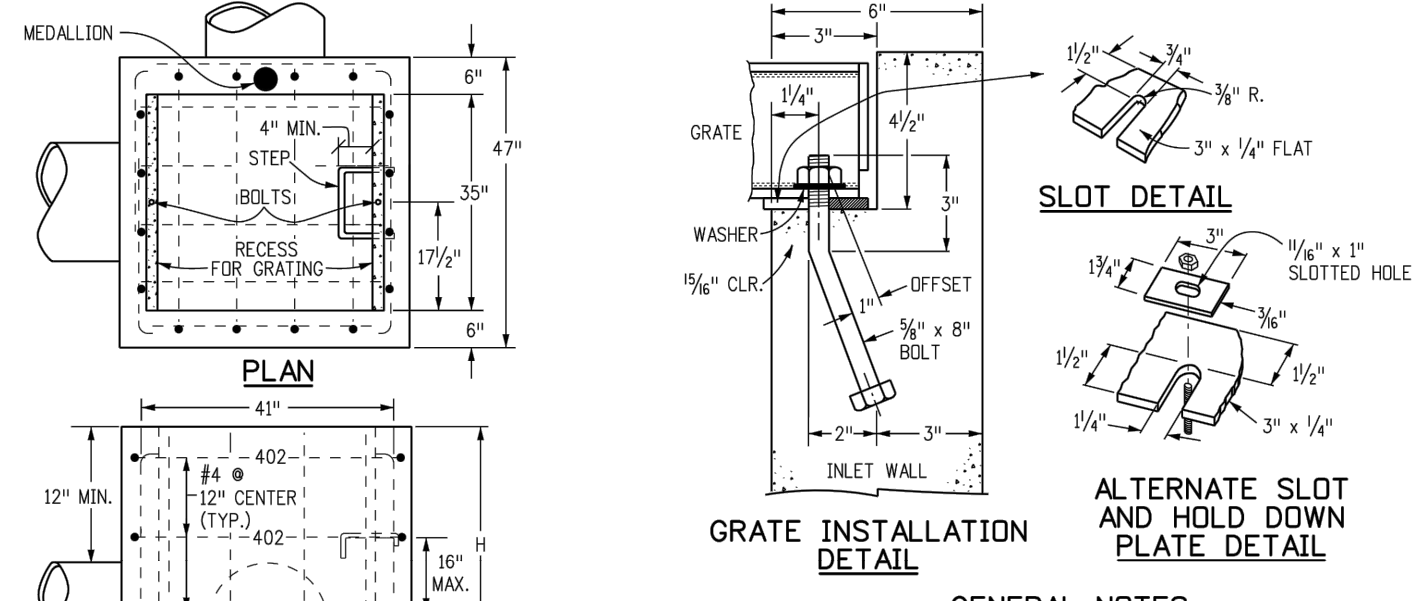
(719) 785-0790
(719) 785-0799 (Fax)

RETREAT AT TIMBERIDGE FILING NO. 3 CONSTRUCTION PLANS PUBLIC STORM SEWER PLAN			
DESIGNED BY	PRA	SCALE	DATE 11-22-2022
DRAWN BY	PRA	(H) 1" = 50'	SHEET 16 OF 27
CHECKED BY	(V) 1" = 5'	JOB NO.	1185.30

V:\18530\UPR\AWG\CONSTRUC\DRAWING-18530-SHM-03.dwg, 3/14/2024, 10:50:19 AM, 1:1

STEEL GRATE QUANTITIES

NO. PIECES	DESCRIPTION	LENGTH	WGT. PER FT. (LBS.)	TOTAL WGT. (LBS.)
4	S4 x 7.7 BEAM	40'	7.70	103
2	3/4" x 1/4" FLAT	285'	2.98	13
2	3" x 1/2" FLAT	285'	2.55	12
TOTAL LBS. = 128				



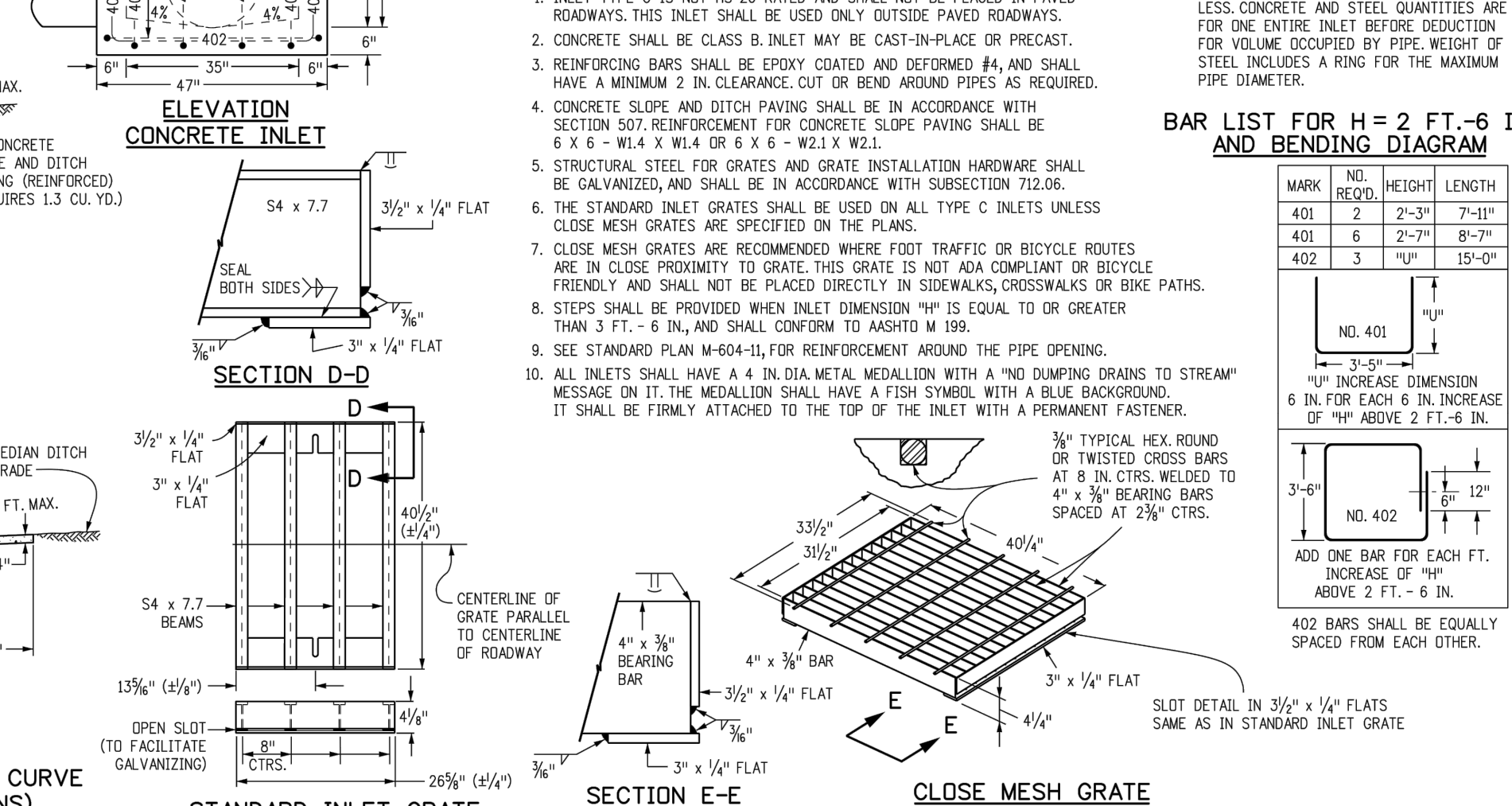
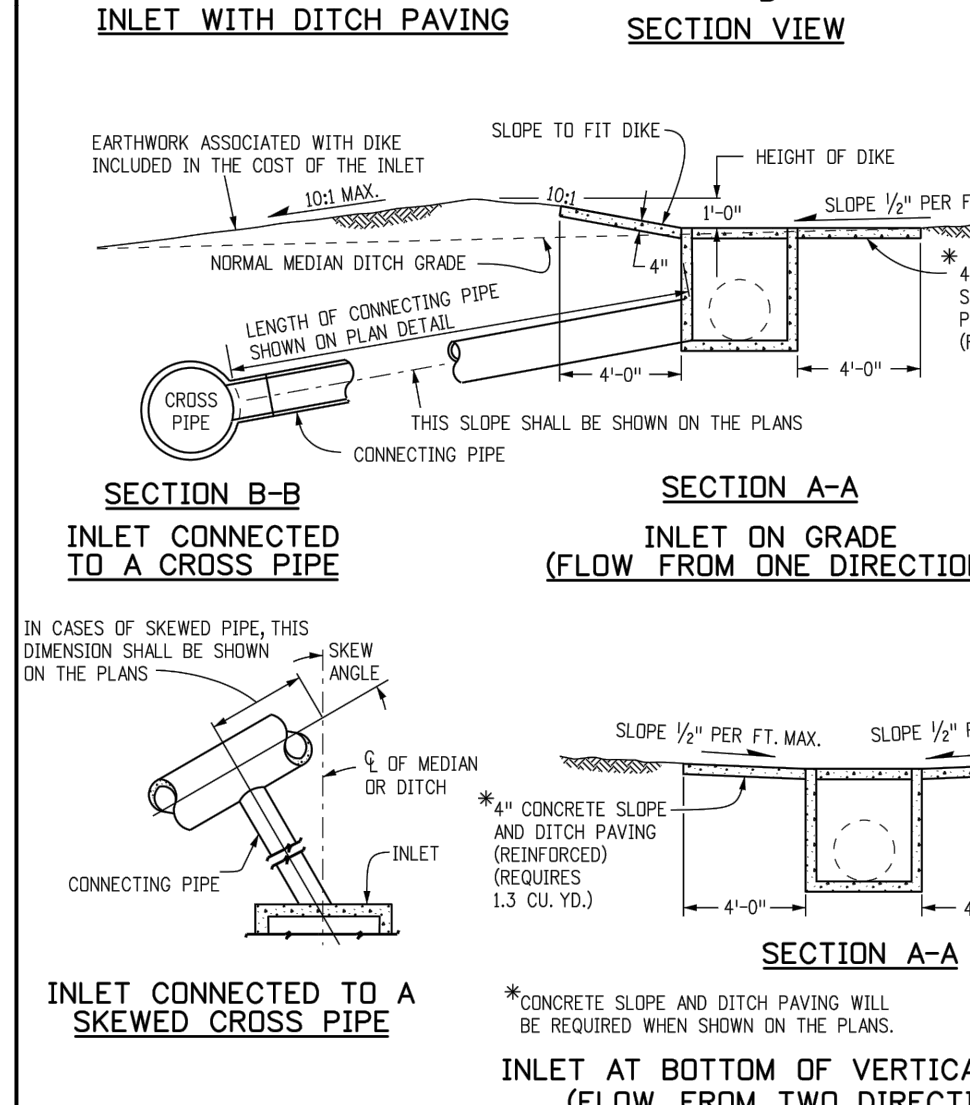
QUANTITIES FOR ONE INLET

H	CONCRETE (CU. YDS.)	STEEL (LBS.)	NO. STEPS
2'-0"	0.9	75	0
3'-0"	1.0	80	0
3'-6"	1.2	96	0
4'-0"	1.3	101	1
4'-6"	1.4	116	2
5'-0"	1.5	122	2
5'-6"	1.7	137	2
6'-0"	1.8	142	3
6'-6"	1.9	158	3
7'-0"	2.0	163	3
7'-6"	2.2	179	4
8'-0"	2.3	184	4
8'-6"	2.4	199	4
9'-0"	2.5	205	5
9'-6"	2.7	220	5
10'-0"	3.0	235	6
11'-0"	3.4	251	6

- ### GENERAL NOTES
- INLET TYPE C IS NOT H-20 RATED AND SHALL NOT BE PLACED IN PAVED ROADWAYS. THIS INLET SHALL BE USED ONLY OUTSIDE PAVED ROADWAYS.
 - CONCRETE SHALL BE CLASS B. INLET MAY BE CAST-IN-PLACE OR PRECAST.
 - REINFORCING BARS SHALL BE EPOXY COATED AND DEFORMED #4, AND SHALL HAVE A MINIMUM 2 IN. CLEARANCE CUT OR BEND AROUND PIPES AS REQUIRED.
 - CONCRETE SLOPE AND DITCH PAVING SHALL BE IN ACCORDANCE WITH SECTION 507. REINFORCEMENT FOR CONCRETE SLOPE PAVING SHALL BE 6 X 6 - W#4 X W#4 OR 6 X 6 - W#2 X W#2.
 - STRUCTURAL STEEL FOR GRATES AND GRATE INSTALLATION HARDWARE SHALL BE GALVANIZED, AND SHALL BE IN ACCORDANCE WITH SUBSECTION 712.06.
 - THE STANDARD INLET GRATES SHALL BE USED ON ALL TYPE C INLETS UNLESS CLOSE MESH GRATES ARE SPECIFIED ON THE PLANS.
 - CLOSE MESH GRATES ARE RECOMMENDED WHERE FOOT TRAFFIC OR BICYCLE ROUTES ARE IN CLOSE PROXIMITY TO GRATE. THIS GRATE IS NOT ADA COMPLIANT OR BICYCLE FRIENDLY AND SHALL NOT BE PLACED DIRECTLY IN SIDEWALKS, CROSSWALKS OR BIKE PATHS.
 - STEPS SHALL BE PROVIDED WHEN INLET DIMENSION "H" IS EQUAL TO OR GREATER THAN 3 FT. - 6 IN., AND SHALL CONFORM TO AASHTO M 199.
 - SEE STANDARD PLAN M-604-11 FOR REINFORCEMENT AROUND THE PIPE OPENING.
 - ALL INLETS SHALL HAVE A 4 IN. DIA. METAL MEDALLION WITH A "NO DUMPING DRAINS TO STREAM" MESSAGE ON IT. THE MEDALLION SHALL HAVE A FISH SYMBOL WITH A BLUE BACKGROUND. IT SHALL BE FIRMLY ATTACHED TO THE TOP OF THE INLET WITH A PERMANENT FASTENER.

BAR LIST FOR H = 2 FT.-6 IN. AND BENDING DIAGRAM

MARK	NO.	HEIGHT	LENGTH
401	2	2'-3"	7'-11"
401	6	2'-7"	8'-7"
402	3	1/4"	15'-0"



Computer File Information

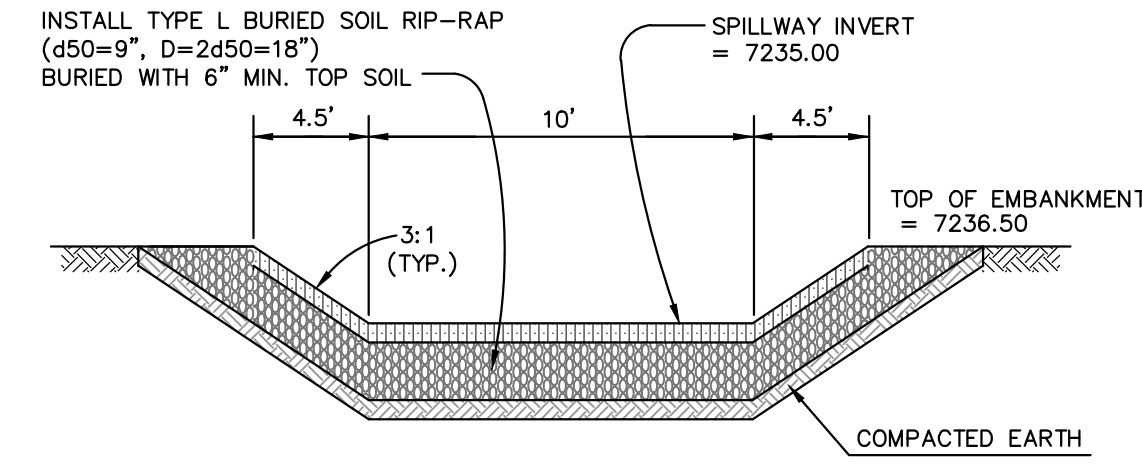
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 Full Path: www.coloradodot.info/business/designsupport/
 Drawing File Name: 6040100101.dgn
 CAD Ver: MicroStation V8 Scales: Not to Scale Units: English

Sheet Revisions

Date:	Comments:

Colorado Department of Transportation
 4201 East Arkansas Avenue
 Denver, Colorado 80222
 Phone: (303) 757-9083
 Fax: (303) 757-9920

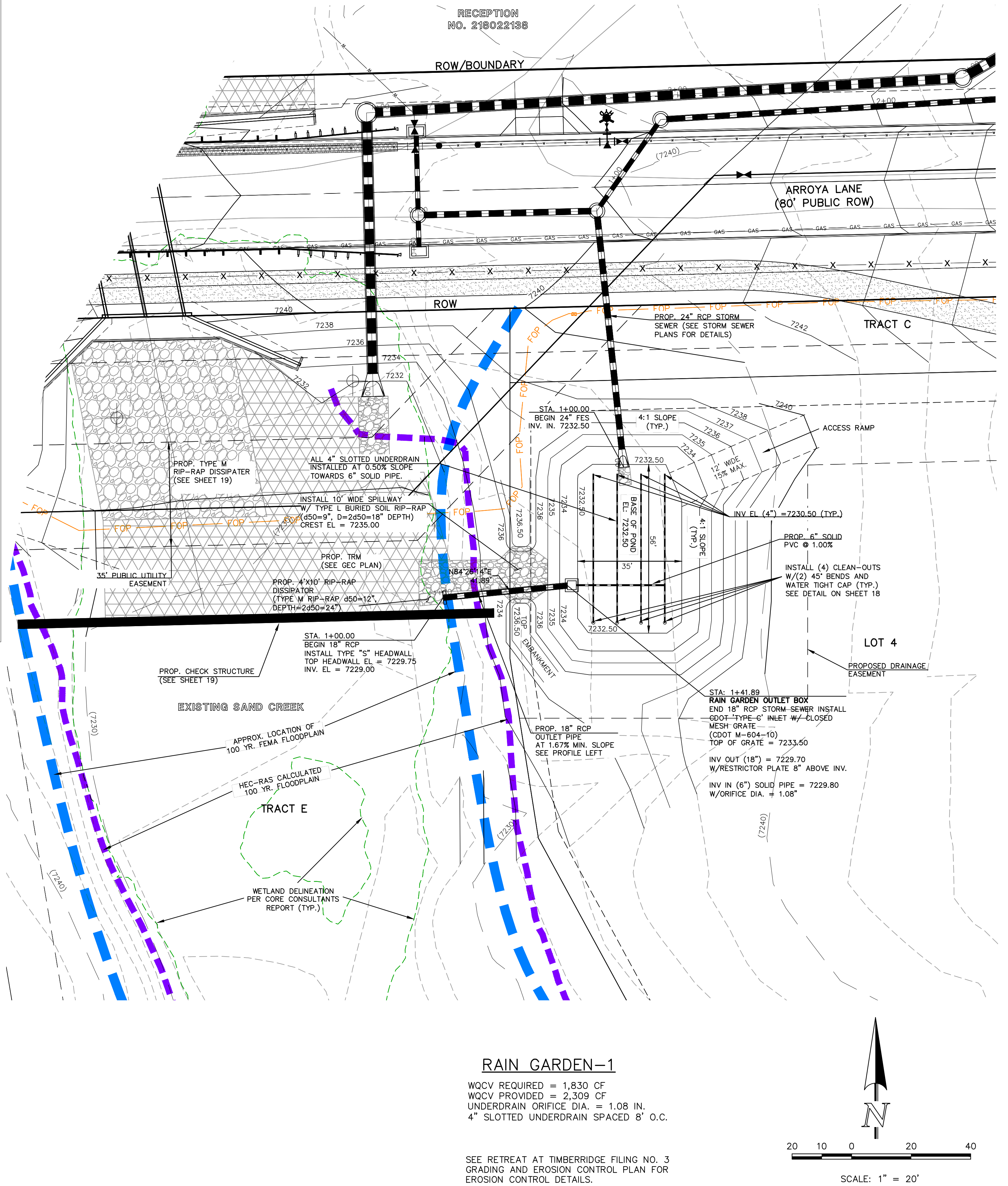
INLET, TYPE C
 STANDARD PLAN NO. M-604-10
 Sheet No. 1 of 1



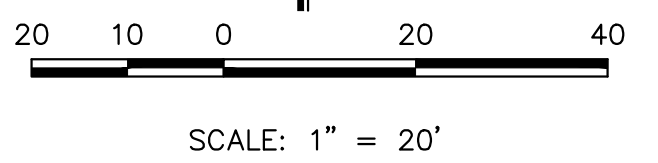
EMERGENCY SPILLWAY CROSS SECTION
 SCALE: N.T.S.

7240	7230	7220	7210
PROP. GRADE AT CL OF PIPE 41.89 I.F. ~ 18" RCP STORM SEWER @ 1.67% EXISTING GRADE AT CL OF PIPE 100 YEAR HGL BASE EL = 7232.50	INSTALL 4" X 10" RIP-RAP (d50=12", DEPTH=24") STA. 14+00.00 END 18" RCP STORM SEWER INSTALL TYPE "S" HEADWALL TOP OF HEADWALL = 7229.75 INV IN = 7229.00 STA. 14+11.89 END 18" RCP STORM SEWER INSTALL TYPE "S" INLET TOP OF GRATE = 7233.50 INV OUT = 7229.70 CUT = 3.80'	100 YEAR HGL BASE EL = 7232.50	100 YEAR HGL BASE EL = 7232.50

18" RCP STORM SEWER OUTFALL FROM RAIN GARDEN
 SCALE 1" = 50' HORZ.
 1" = 5' VERT.



RAIN GARDEN-1
 WQCV REQUIRED = 1,830 CF
 WQCV PROVIDED = 2,309 CF
 UNDERDRAIN ORIFICE DIA. = 1.08 IN.
 4" SLOTTED UNDERDRAIN SPACED 8" O.C.



SEE RETREAT AT TIMBERRIDGE FILING NO. 3
 GRADING AND EROSION CONTROL PLAN FOR
 EROSION CONTROL DETAILS.

48 HOURS BEFORE YOU DIG,
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811
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 IT'S THE LAW

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NO.	REVISION	DATE
1	REVISED PER COUNTY COMMENTS	9/22/23
2	REVISED PER COUNTY COMMENTS	10/31/23
3	REVISED ELEVATIONS PER ROADWAY CHANGE	1/26/24

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

MARC A. WHORTON
 COLORADO REGISTERED PROFESSIONAL ENGINEER #37155
 DATE 3/14/2024

RETREAT AT TIMBERRIDGE FILING NO. 3
 CONSTRUCTION PLANS
 RAIN GARDEN 1

DESIGNED BY	MAW	SCALE	DATE
			11-22-2022
DRAWN BY	MAW	(H) 1" = 30'	SHEET 17 OF 27
CHECKED BY	(V) 1" = N/A	JOB NO.	1185.30

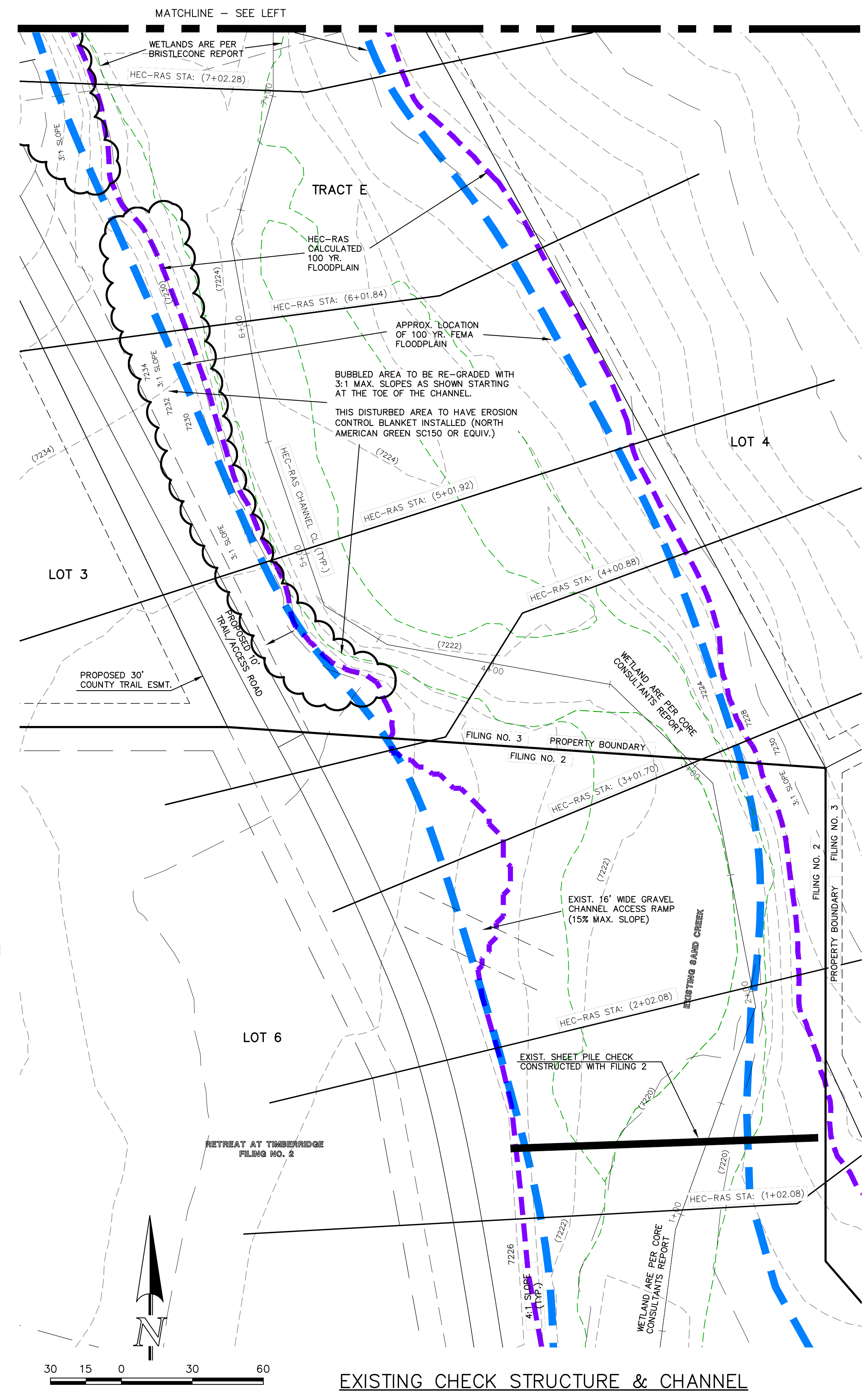
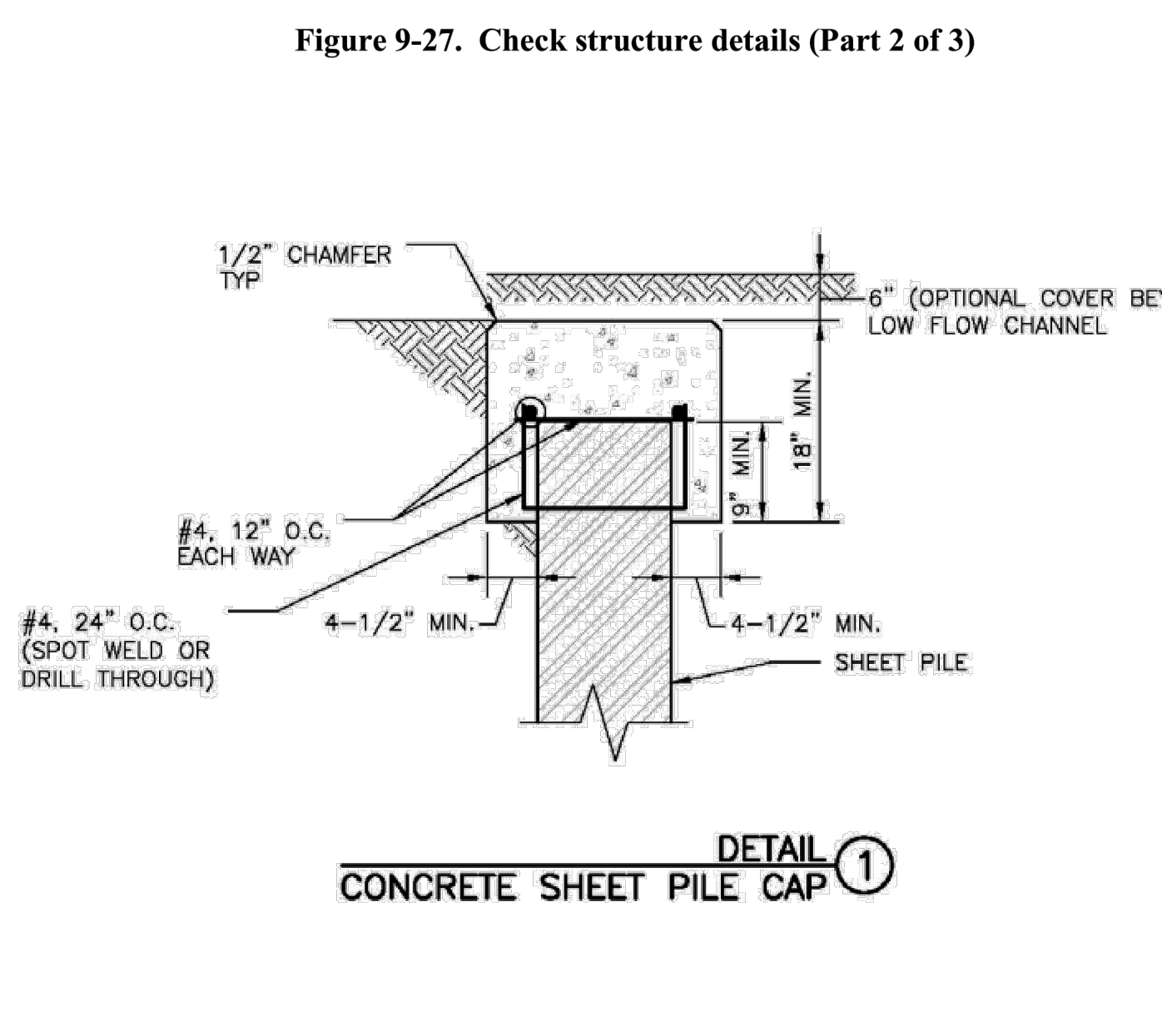
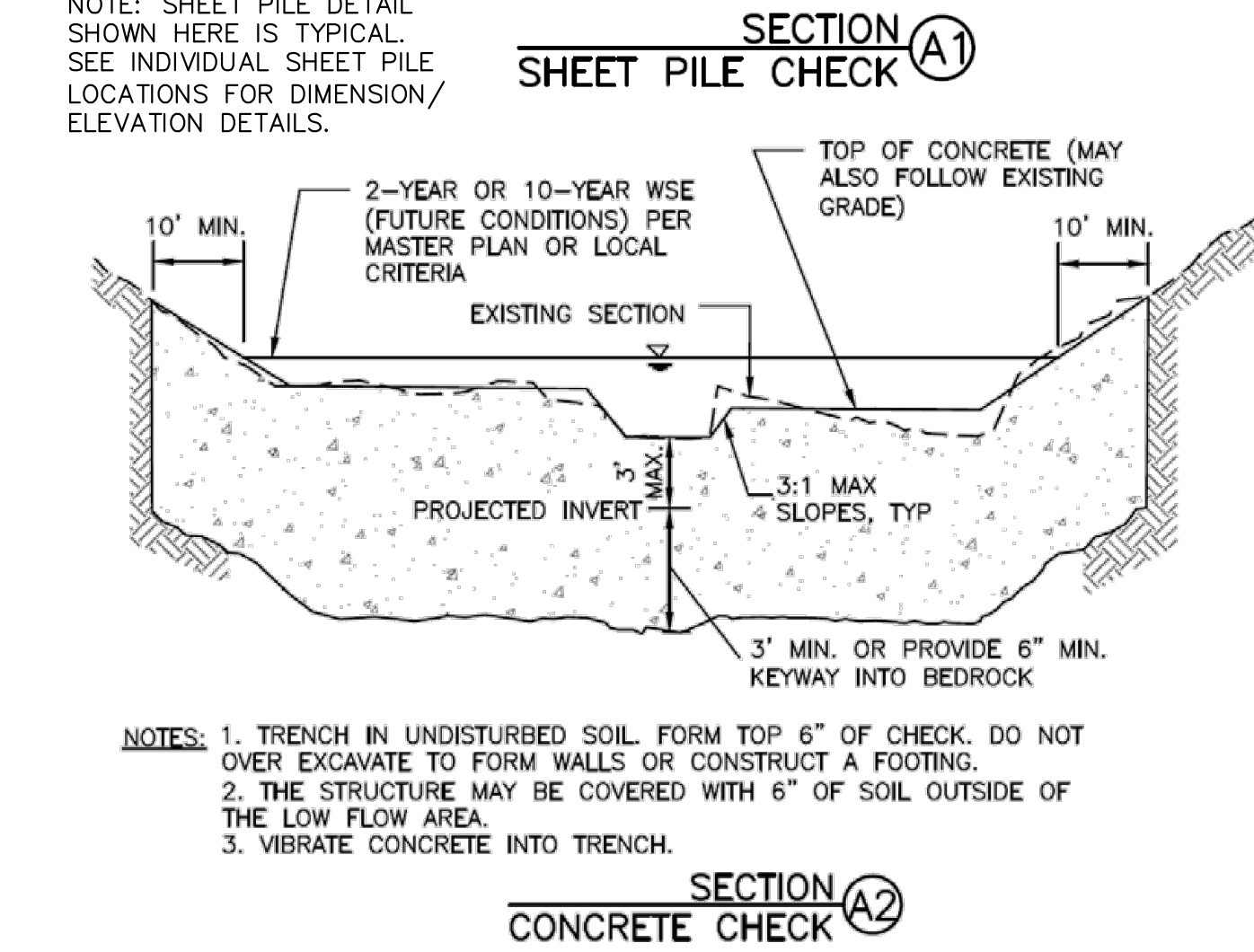
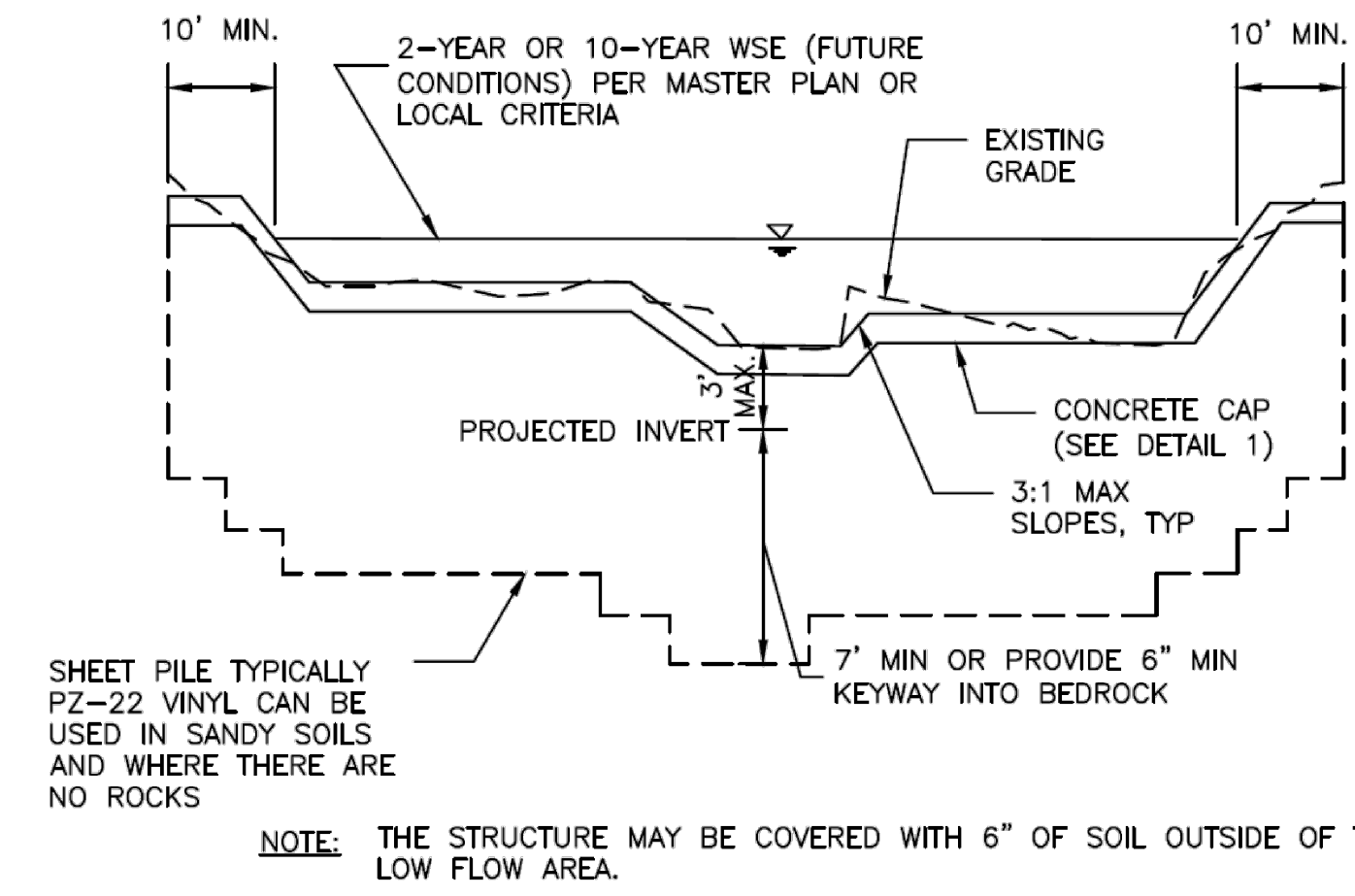
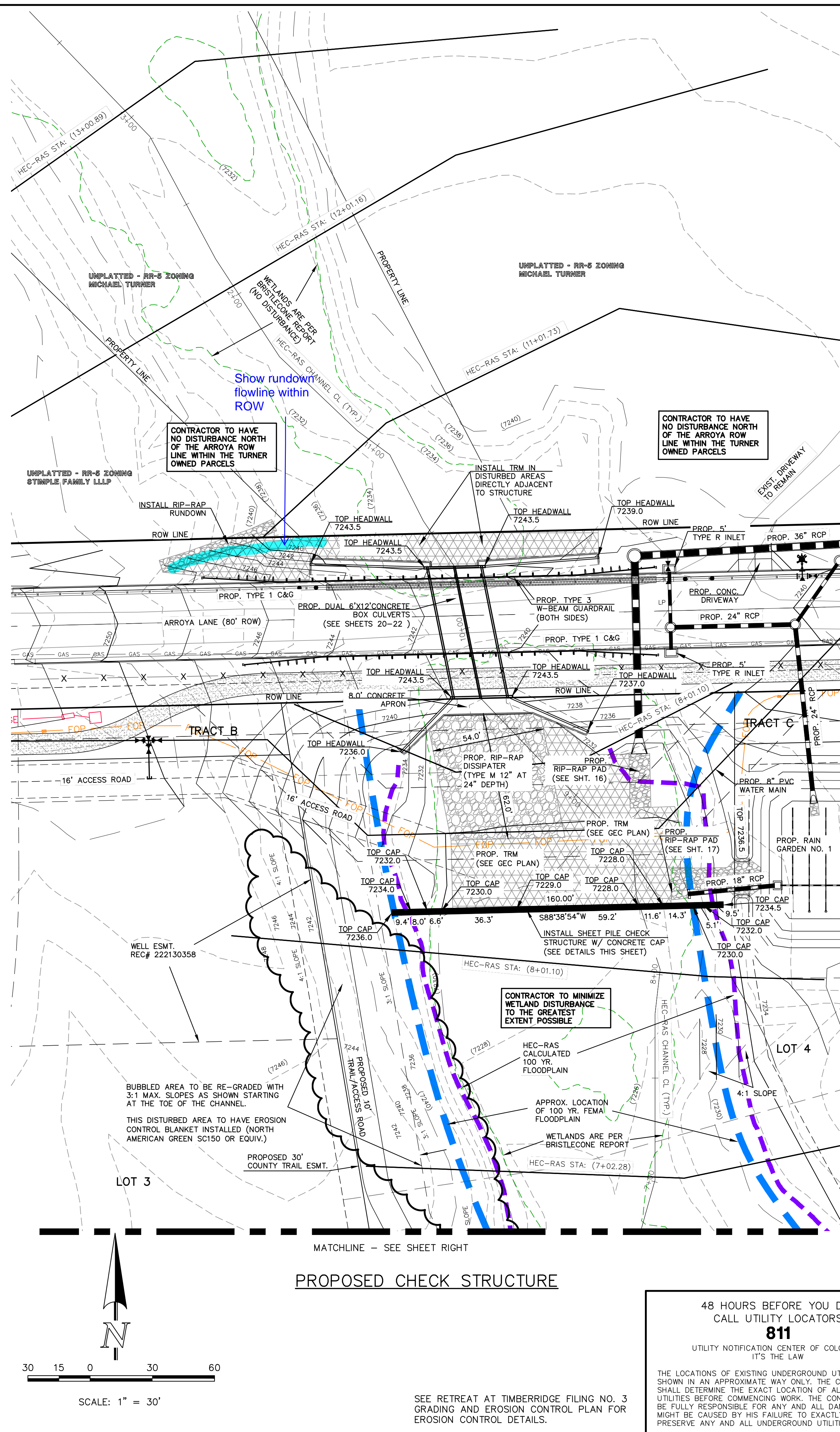


Figure 9-27. Check structure details (Part 2 of 3)

Figure 9-28. Check structure details (Part 3 of 3)

48 HOURS BEFORE YOU DIG, CALL UTILITY LOCATORS
811
UTILITY NOTIFICATION CENTER OF COLORADO
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NO.	REVISION	DATE
1	REVISED PER COUNTY COMMENTS	9/22/23
2	REVISED PER COUNTY COMMENTS	10/31/23
3	REVISED PER ROADWAY ELEVATION CHANGE	1/26/24

REVIEW:

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

MARC A. WHORTON, P.E. #37155

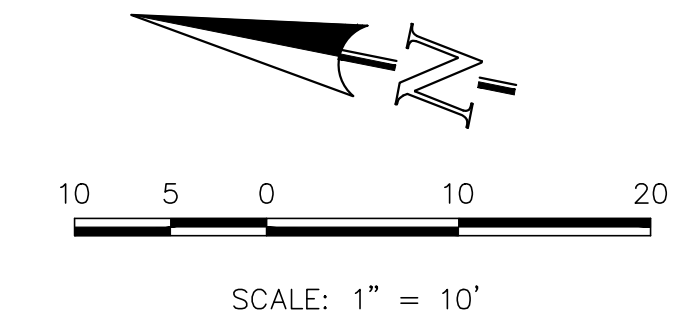
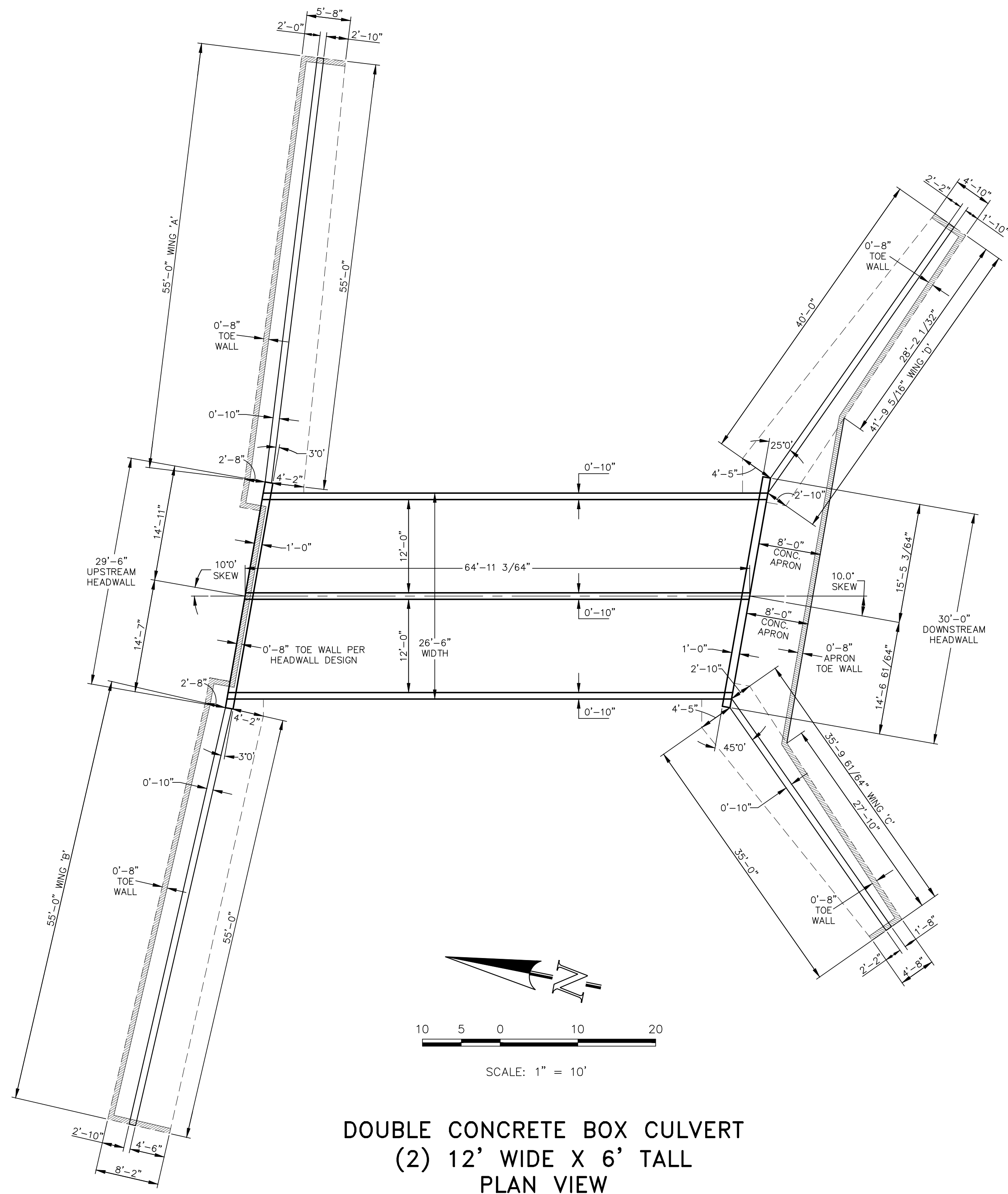
3/14/2024 DATE



RETREAT AT TIMBERIDGE FILING NO. 3
CONSTRUCTION PLANS
CHECK STRUCTURE

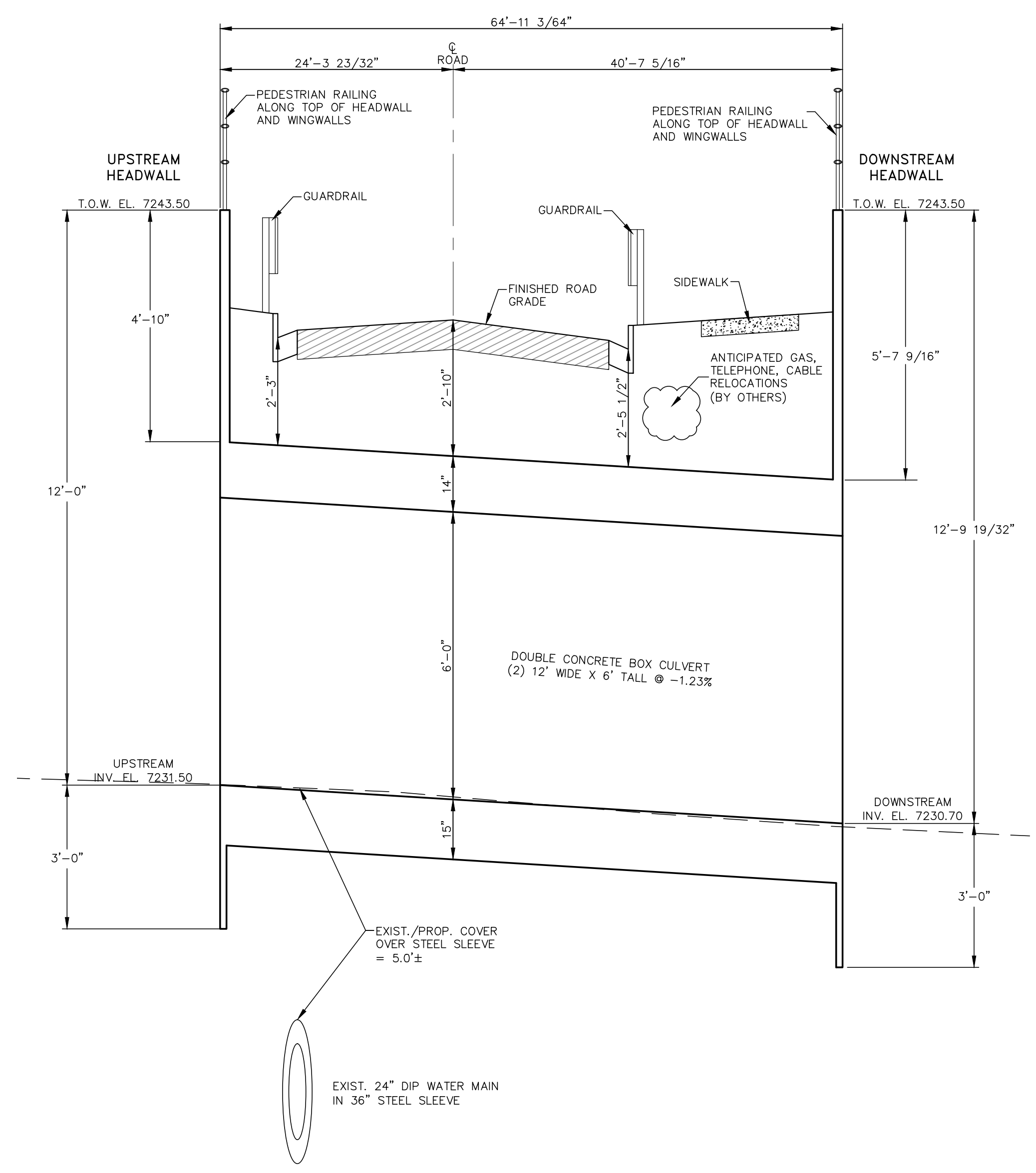
DESIGNED BY MAW SCALE DATE 4-15-21
DRAWN BY MAW (H) 1" = 30' SHEET 19 OF 27
CHECKED BY (V) 1" = N/A JOB NO. 1185.30

V:\118530\DRAWINGS\CONSTRUCT\DRAW19-118530-CHANNEL.dwg, 3/14/2024 12:04:57 PM, 1:1



**DOUBLE CONCRETE BOX CULVERT
(2) 12' WIDE X 6' TALL
PLAN VIEW**

NOTE:
SEE SHEET 22 FOR HEADWALL
AND WINGWALL DETAILS PER
CDOT M&S STANDARDS PLANS



**DOUBLE CONCRETE BOX CULVERT
(2) 12' WIDE X 6' TALL
PROFILE THROUGH CENTERLINE OF STRUCTURE
SCALE: 1"=10' (H), 1"=2' (V)**

NOTE:
ALL ELEVATIONS, LOCATIONS AND
GEOMETRY TO BE VERIFIED PRIOR
TO CONSTRUCTION.

NOTE:
SEE SHEET 22 FOR HEADWALL
AND WINGWALL DETAILS PER
CDOT M&S STANDARDS PLANS

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NO.	REVISION	DATE

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

MARC A. WHORTON, REGISTERED PROFESSIONAL ENGINEER
#37155

3/14/2024

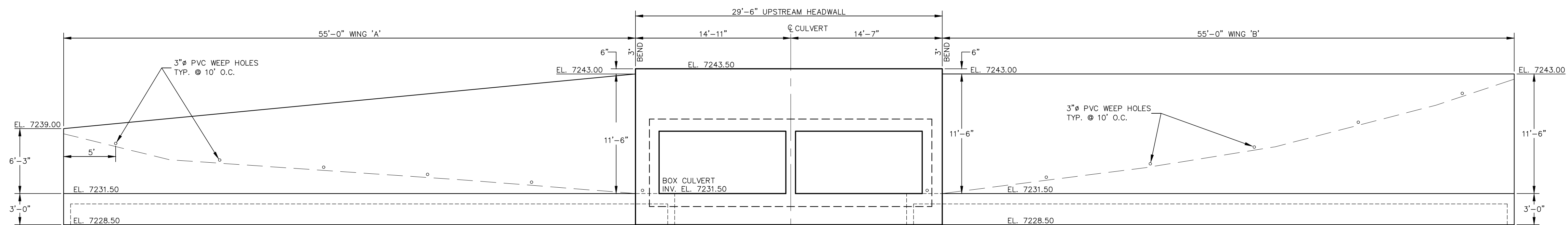
619 N. Cascade Avenue, Suite 200
Colorado Springs, Colorado 80903
(719) 785-0790
(719) 785-0799 (Fax)

RETREAT AT TIMBERRIDGE FILING NO. 3
CONSTRUCTION PLANS
ARROYA CULVERT CROSSING
PLAN AND PROFILE

DESIGNED BY	MAW	SCALE	DATE	1/26/24
DRAWN BY	PRA	(H) 1"= 10"	SHEET	20 OF 27
CHECKED BY		(V) 1"= VARIES	JOB NO.	1185.30



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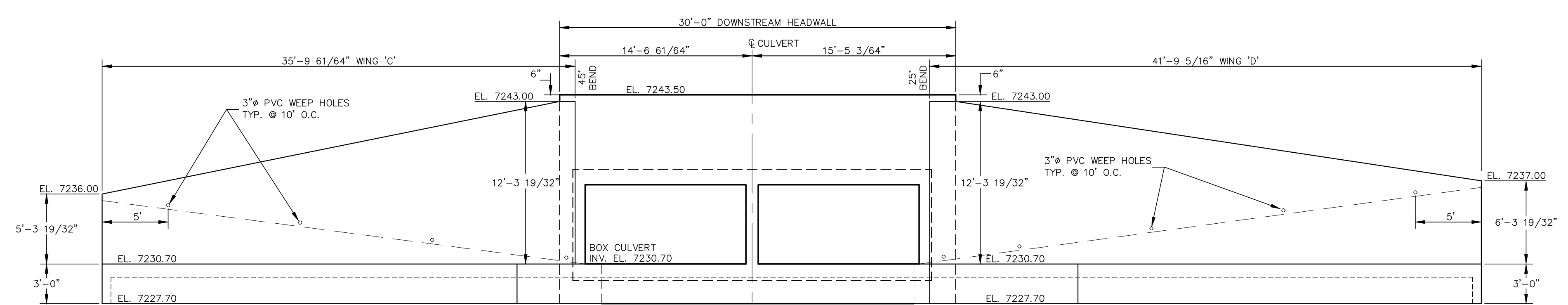


NOTE:
WINGWALLS ARE ROTATED FOR CLARITY

**DOUBLE CONCRETE BOX CULVERT
(2) 12' WIDE X 6' TALL
UPSTREAM END ELEVATION VIEW**



SCALE: 1" = 6'



NOTE:
WINGWALLS ARE ROTATED FOR CLARITY

**DOUBLE CONCRETE BOX CULVERT
(2) 12' WIDE X 6' TALL
DOWNSTREAM END ELEVATION VIEW**



SCALE: 1" = 6'

NOTE:
SEE SHEET 22 FOR HEADWALL
AND WINGWALL DETAILS PER
CDOT M&S STANDARDS PLANS

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

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NO.	REVISION	DATE

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

(Professional Seal)
MARC A. WHORTON, REGISTERED PROFESSIONAL ENGINEER #37155

DATE: 2/2/2024



RETREAT AT TIMBERRIDGE FILING NO. 3 CONSTRUCTION PLANS ARROYA CULVERT CROSSING END ELEVATION VIEWS			
DESIGNED BY	MAW	SCALE	DATE 1/26/24
DRAWN BY	PRA	(H) 1" = 6'	SHEET 21 OF 27
CHECKED BY		(V) 1" = 6'	JOB NO. 1185.30



V:\118530\DRAWINGS\CONSTRUCT\DRAW\21-118530-CROSSING-02.dwg, 2/2/2024, 11:18:04 AM, 1:1

GENERAL NOTES

- CONCRETE SHALL BE CLASS B.
- HEADWALL SHALL BE PERPENDICULAR TO THE PIPE (UNLESS OTHERWISE SHOWN ON THE PLANS). TABULATED DIMENSIONS AND QUANTITIES MUST BE ADJUSTED FOR SKEWED INSTALLATIONS.
- FOR WINGWALL DETAILS, SEE STANDARD PLAN M-601-20.
- VOLUME OCCUPIED BY PIPE HAS BEEN DEDUCTED FROM STEEL AND CONCRETE QUANTITIES.
- EXPOSED CONCRETE CORNERS SHALL BE CHAMFERED 1/4" IN.
- ALL REINFORCING BARS SHALL HAVE A 2" MINIMUM CLEARANCE.
- WHEN TWO OR MORE PIPES ARE LAID SIDE BY SIDE, THEY SHALL BE PLACED SO THAT THE ADJACENT PIPES WILL BE 1/2" INSIDE DIAMETER APART OR 1/2" INSIDE SPAN APART, OR 3 FT. APART (INCLUDING WALL THICKNESS), WHICHEVER IS LESS.
- ADD 0.89 x (X OR X₁) (L.B.) WHEN APRON IS REQUIRED.

TYPICAL BAR LAYOUT FOR CONCRETE HEADWALLS

HEADWALL FOR RIGID ROUND PIPE

HEADWALL FOR FLEXIBLE PIPE ARCH

HEADWALL FOR FLEXIBLE ROUND PIPE

HEADWALL FOR STRUCTURAL PLATE ARCH

DIMENSIONS		QUANTITIES	
Bo	Bc	CONCRETE	STEEL
IN.	IN.	CU. YD.	LBS.
40	40	1.2	150
42	42	1.4	170
44	44	1.6	190
46	46	1.8	210
48	48	2.0	230
50	50	2.2	250
52	52	2.4	270
54	54	2.6	290
56	56	2.8	310
58	58	3.0	330
60	60	3.2	350
62	62	3.4	370
64	64	3.6	390
66	66	3.8	410
68	68	4.0	430
70	70	4.2	450
72	72	4.4	470
74	74	4.6	490
76	76	4.8	510
78	78	5.0	530
80	80	5.2	550
82	82	5.4	570
84	84	5.6	590
86	86	5.8	610
88	88	6.0	630
90	90	6.2	650
92	92	6.4	670
94	94	6.6	690
96	96	6.8	710
98	98	7.0	730
100	100	7.2	750

FRONT VIEW

TOP VIEW

BAR BENDING

WINGWALL CONNECTION

INLET/OUTLET ENDS OF FLEXIBLE/RIGID PIPE

Computer File Information

Creation Date: 07/31/19
 Designer: JBC
 Last Modification Date: 07/31/19
 Detailer: LTA
 CAD Ver: MicroStation V8 Scale: Not to Scale Units: English

Sheet Revisions

Date:	Comments:

Colorado Department of Transportation

2829 West Howard Place
 COOT, HQ, 3rd Floor
 Denver, CO 80204
 Phone: 303-757-9021 FAX: 303-757-9868

Project Development Branch **JBC**

HEADWALL FOR PIPES

STANDARD PLAN NO. M-601-10

Standard Sheet No. 1 of 1

Issued by the Project Development Branch July 31, 2019 Project Sheet Number: _____

GENERAL NOTES

- CONCRETE SHALL BE CLASS B.
- EXPOSED CONCRETE CORNERS SHALL BE CHAMFERED 1/4" IN.
- IF A PRECAST HEADWALL IS USED, A PERMANENT EPOXY BOND, APPROVED BY THE ENGINEER, SHALL BE USED BETWEEN PIPE AND HEADWALL.
- HEADWALL SHALL BE PERPENDICULAR TO THE CENTERLINE UNLESS OTHERWISE SPECIFIED. TABULATED DIMENSIONS AND QUANTITIES SHALL BE ADJUSTED FOR SKEWED INSTALLATIONS.
- HEADWALL ANCHOR BOLTS SHALL CONFORM TO ASTM A193 AND SHALL BE INCLUDED IN THE COST OF PIPE.
- HEADWALL ANCHOR BOLTS SHALL BE USED ONLY WITH FLEXIBLE PIPE, BOTH ROUND AND ARCH.

TYPICAL GALVANIZED ANCHOR BOLTS

HEADWALL FOR METAL PIPE ARCH (MPA)

HEADWALL FOR ROUND PIPE

DIMENSIONS		QUANTITIES	
Bo	Bc	CONCRETE	STEEL
IN.	IN.	CU. YD.	LBS.
40	40	1.2	150
42	42	1.4	170
44	44	1.6	190
46	46	1.8	210
48	48	2.0	230
50	50	2.2	250
52	52	2.4	270
54	54	2.6	290
56	56	2.8	310
58	58	3.0	330
60	60	3.2	350
62	62	3.4	370
64	64	3.6	390
66	66	3.8	410
68	68	4.0	430
70	70	4.2	450
72	72	4.4	470
74	74	4.6	490
76	76	4.8	510
78	78	5.0	530
80	80	5.2	550
82	82	5.4	570
84	84	5.6	590
86	86	5.8	610
88	88	6.0	630
90	90	6.2	650
92	92	6.4	670
94	94	6.6	690
96	96	6.8	710
98	98	7.0	730
100	100	7.2	750

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Project Development Branch **JBC**

TYPE "S" SADDLE HEADWALLS FOR PIPE

STANDARD PLAN NO. M-601-11

Standard Sheet No. 1 of 1

Issued by the Project Development Branch July 31, 2019 Project Sheet Number: _____

GENERAL NOTES

- FOR SIZE AND LOCATION OF PIPES, SEE THE PLANS.
- ALL CONCRETE SHALL BE CLASS B.
- FOOTINGS IN ROCK SHALL BE WEARED OUT TO ROCK AND NOT FORMED IN ACCORDANCE WITH SUBSECTION 03.09(B).
- EXPOSED CONCRETE CORNERS SHALL BE CHAMFERED 1/4" IN.
- HEADWALL SHALL HAVE REINFORCING STEEL INSTALLED IN A PATTERN SIMILAR TO STANDARD PLAN M-601-10.
- THE COST OF REINFORCING STEEL SHALL BE INCLUDED IN THE WORK UNLESS THE STEEL QUANTITIES ARE LISTED IN THE PLANS AND ARE PAID FOR SEPARATELY.

CONCRETE HEADWALL INSTALLATIONS

PIPE OUTLET PAVING

PIPE TYPE	PIPE DIAMETER AND EQUIVALENT DIAMETER (IN.)								
	18	24	30	36	42	48	54	60	
CIRCULAR	RIGID	1.0	1.3	1.5	2.0	2.0	2.7	2.8	3.6
	FLEXIBLE	1.1	1.4	1.6	2.1	2.2	3.0	4.0	3.9
ELLIPTICAL	RIGID	2.3 x 1.4	3.0 x 1.9	3.8 x 2.4	4.5 x 2.9	5.3 x 3.4	6.0 x 4.4	6.8 x 4.4	7.6 x 5.0
	ARCH	2.2 x 1.5	2.9 x 1.8	3.6 x 2.2	4.3 x 2.7	5.0 x 3.1	5.8 x 3.6	6.6 x 4.4	7.4 x 5.0

CONCRETE QUANTITIES FOR ONE CONCRETE HEADWALL (CUBIC YARDS)

THICKNESS	MATERIAL	PIPE DIAMETER (IN.)					
		18	24	30	36	42	48
4"	CONCRETE	0.4	0.8	1.2	1.6	2.0	2.4
6"	CONCRETE	0.6	1.2	1.8	2.4	3.0	3.6
18"	RRIPAP	2.0	3.5	5.4	7.8	10.7	13.9

Computer File Information

Creation Date: 07/31/19
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Sheet Revisions

Date:	Comments:

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 Phone: 303-757-9021 FAX: 303-757-9868

Project Development Branch **JBC**

HEADWALLS AND PIPE OUTLET PAVING

STANDARD PLAN NO. M-601-12

Standard Sheet No. 1 of 1

Issued by the Project Development Branch July 31, 2019 Project Sheet Number: _____

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

NO.	REVISION	DATE

REVIEW:

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

MARC A. WHORTON 37155

DATE: 2/2/2024

CLASSIC CONSULTING

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

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

RETRAIT AT TIMBERIDGE FILING NO. 3
CONSTRUCTION PLANS
DETAIL SHEET

DESIGNED BY: MAW SCALE: NA DATE: 11-22-2022

DRAWN BY: MAW (H) 1" = NA SHEET: 23 OF 27

CHECKED BY: (V) 1" = NA JOB NO.: 1185.30

V:\118530\DRAWINGS\CONSTRUCT\CONV\118530-DETAILS-01.dwg, 9/26/2023 10:30:23 AM, 1:1

PLAN VIEW

SECTION A-A

SECTION B-B

NOTES

1. SURFACE TREATMENT OF DRIVEWAY TO MATCH SURFACE TREATMENT OF ROAD WITHIN THE ROW.
2. DRAIN PIPE TO BE 18" DIAMETER CMP MINIMUM.
3. PIPE SLOPE TO BE CONSISTENT WITH FLOWLINE OF DITCH, MINIMUM OF 1% PREFERRED.
4. ALL DRIVEWAYS SHALL HAVE A 4 PERCENT CROWN.
5. WHEN SLOPING TOWARDS ROAD, DRIVEWAYS SHALL HAVE A MAXIMUM GRADE OF 4 PERCENT FOR A MINIMUM OF 20 FEET WHERE THE SITE ALLOWS.

SCALE: NOT TO SCALE

DATE APPROVED: 8/11/11	Driveway Access on Rural Local Roadway Standard Drawing	FILE NAME: SD_3-14
APPROVED: André P. Brackin	REVISION DATE: 12/8/15	DEPARTMENT OF PUBLIC WORKS

Pedestrian Curb Ramp Detail Standard Drawing

SCALE: NOT TO SCALE

DATE APPROVED: 6/23/20	Jennifer E. Irvine	REVISION DATE: 6/23/20	FILE NAME: SD_2-40
DEPARTMENT OF PUBLIC WORKS			

INTERSECTION OF HAWKS HILL COURT & ANTELOPE RAVINE DRIVE 'RAMP DETAIL-01'

SCALE: 1" = 10'

Typical Cross Pan Layout Detail Standard Drawing

SCALE: NOT TO SCALE

DATE APPROVED: 8/11/11	Typical Cross Pan Layout Detail Standard Drawing	FILE NAME: SD_2-26
APPROVED: André P. Brackin	REVISION DATE: 12/8/15	DEPARTMENT OF PUBLIC WORKS

Pedestrian Curb Ramp Detail Standard Drawing

SCALE: NOT TO SCALE

DATE APPROVED: 6/23/20	Jennifer E. Irvine	REVISION DATE: 6/23/20	FILE NAME: SD_2-41
DEPARTMENT OF PUBLIC WORKS			

Detectable Warning Surface Details Standard Drawing

SCALE: NOT TO SCALE

DATE APPROVED: 6/23/20	Jennifer E. Irvine	REVISION DATE: 6/23/20	FILE NAME: SD_2-42
DEPARTMENT OF PUBLIC WORKS			

Parallel Pedestrian Curb Ramp Detail Standard Drawing

SCALE: NOT TO SCALE

DATE APPROVED: 6/23/20	Jennifer E. Irvine	REVISION DATE: 6/23/20	FILE NAME: SD_2-50
DEPARTMENT OF PUBLIC WORKS			

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NO.	REVISION	DATE

REVIEW:

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

MARC A. WHORTON, REGISTERED PROFESSIONAL SURVEYOR
37155

2/2/2024

CLASSIC CONSULTING

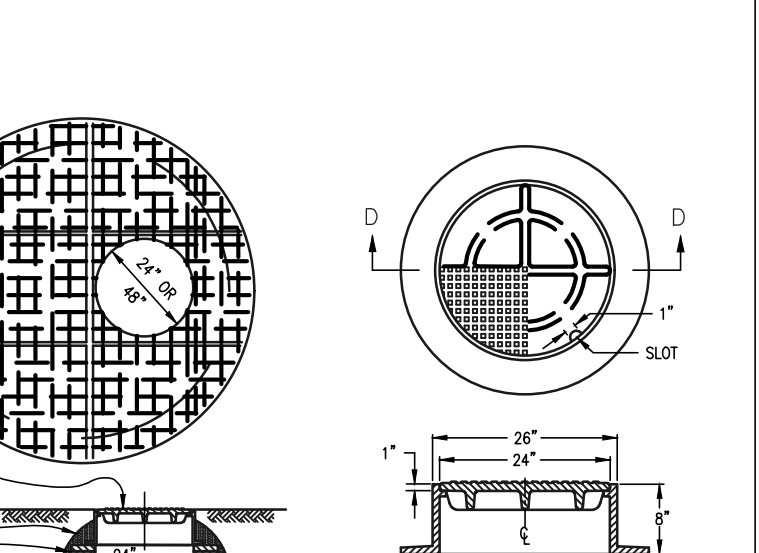
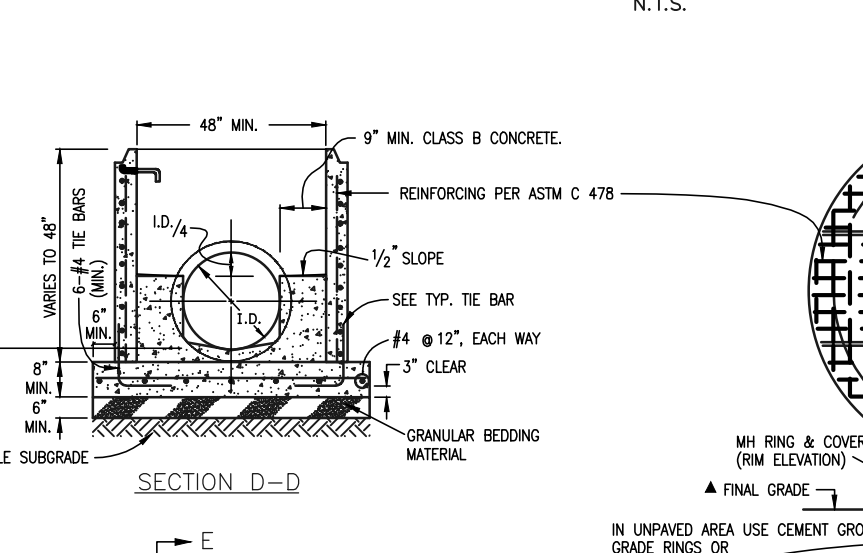
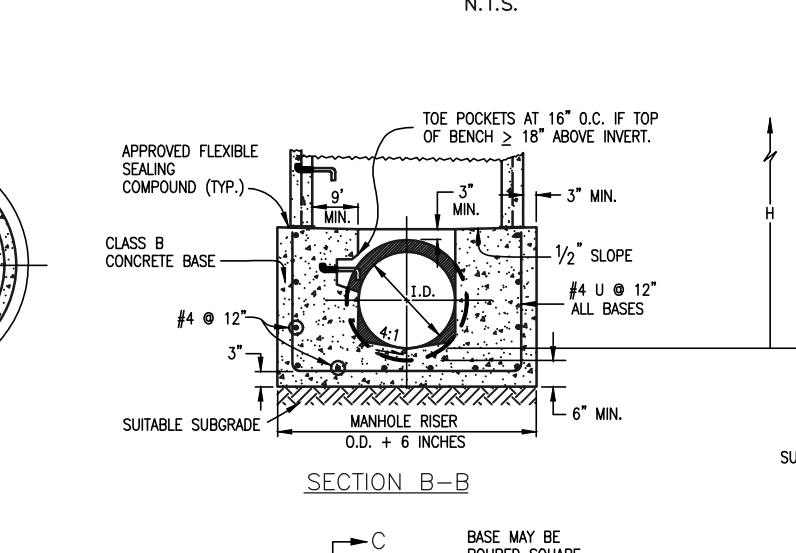
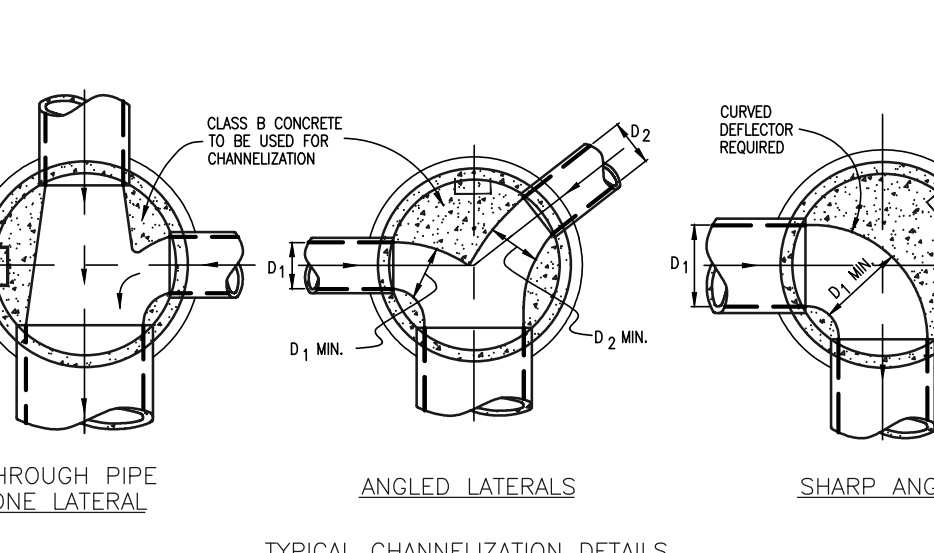
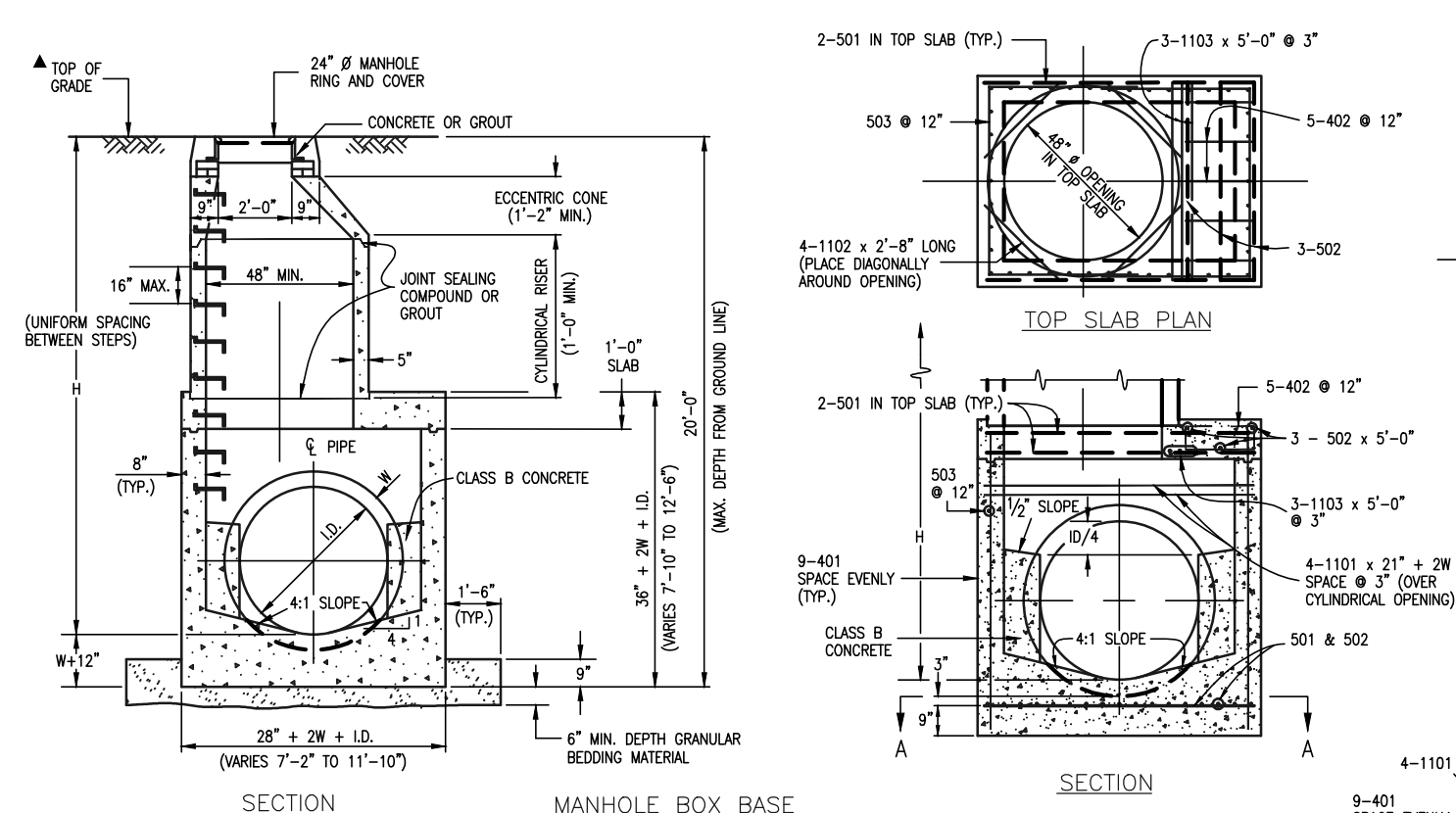
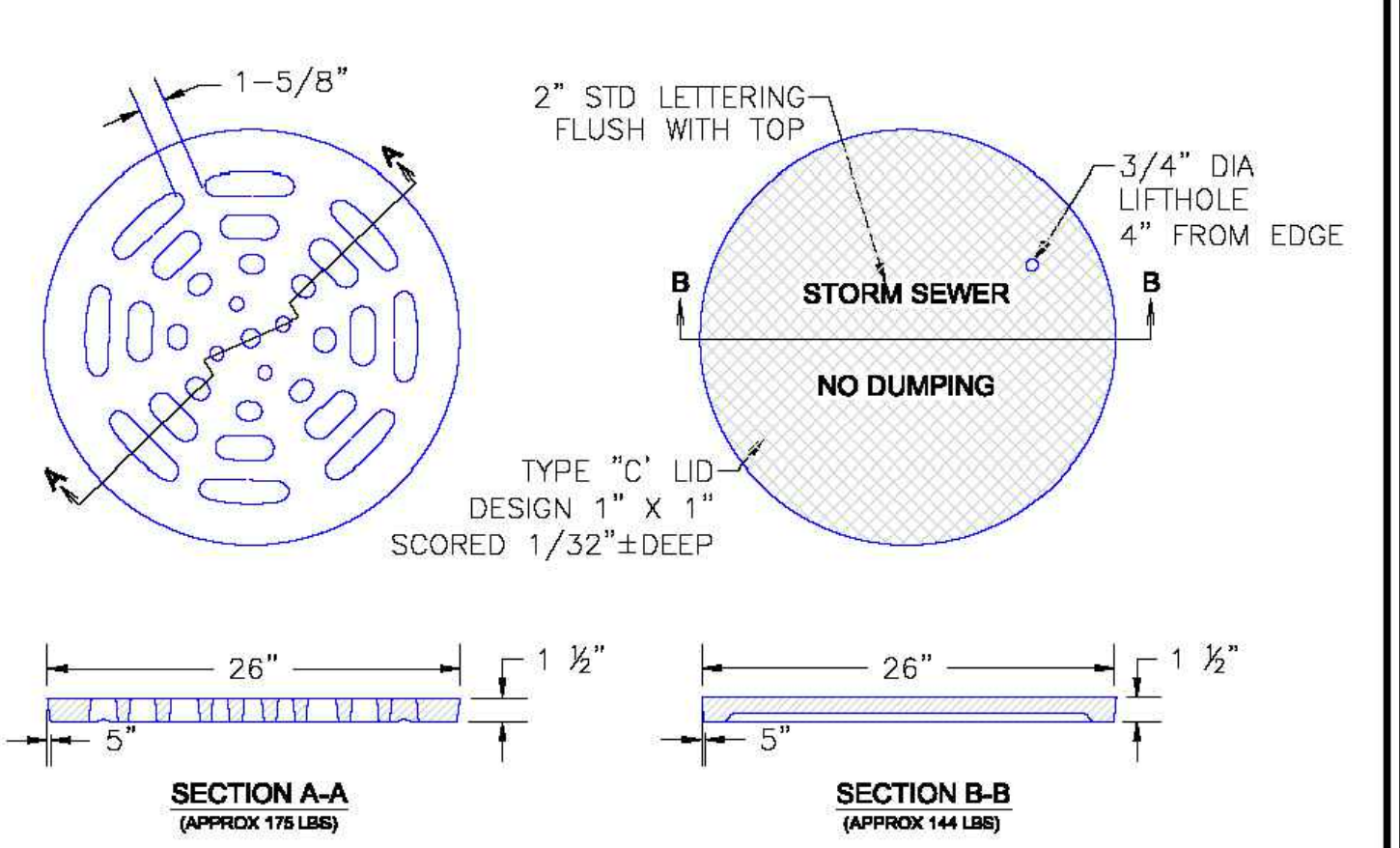
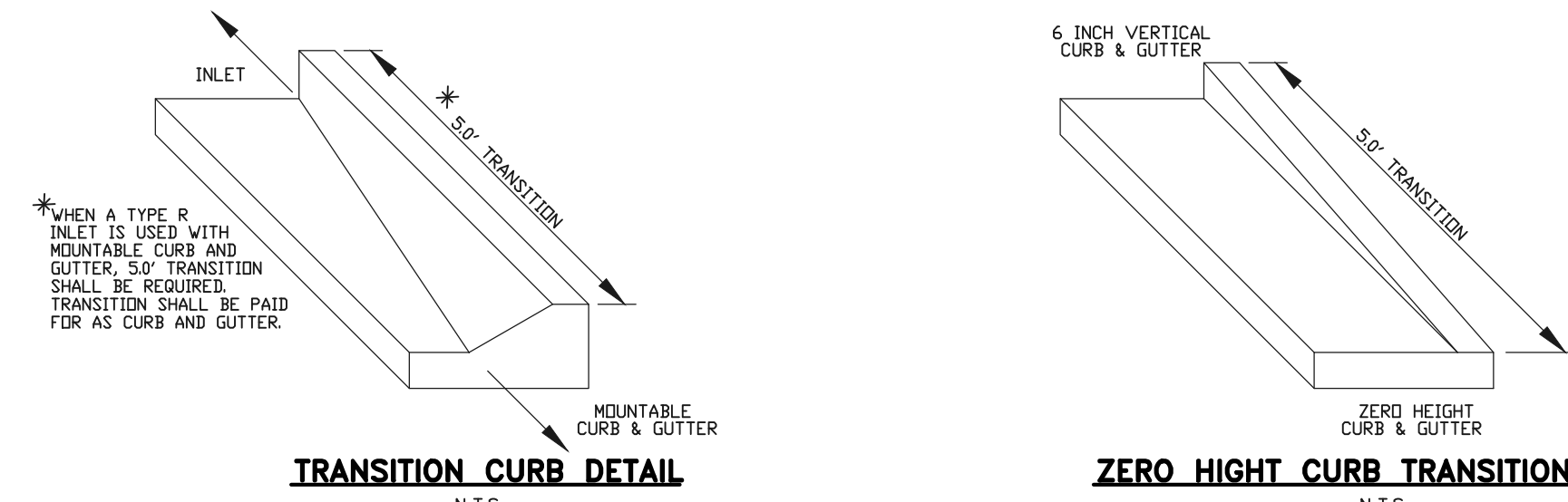
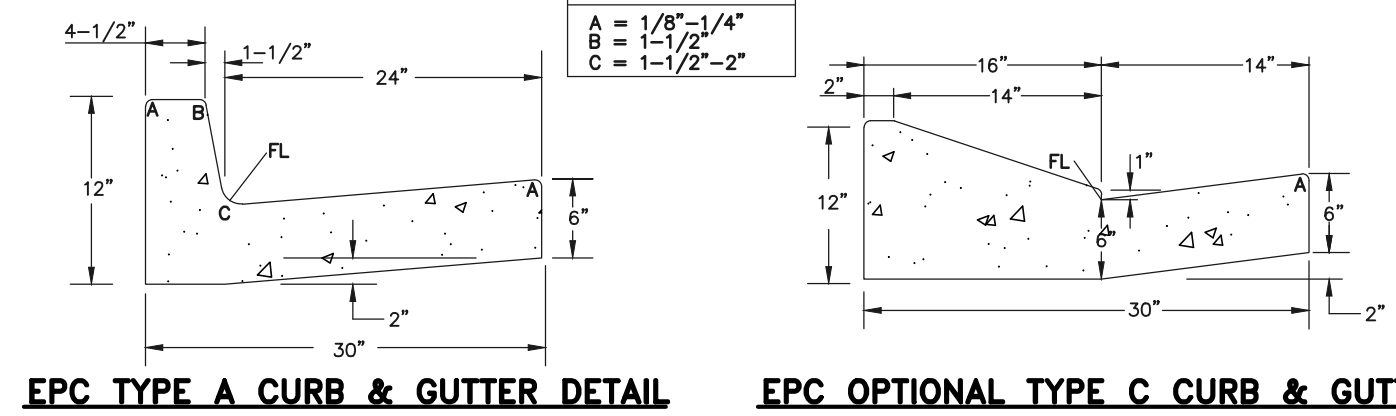
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RETREAT AT TIMBERIDGE FIL. NO. 3
CONSTRUCTION PLANS
DETAIL SHEET

DESIGNED BY	MAW	SCALE	DATE	11-22-2022
DRAWN BY	MAW	(H) 1" = NA	SHEET	24 OF 27
CHECKED BY	(V) 1" = NA	JOB NO.	1185.30	

CLASSIC CONSULTING



GENERAL NOTES

- SINCE ALL PIPE ENTRIES INTO THE BASE ARE VARIABLE, THE DIMENSIONS SHOWN ARE TYPICAL ACTUAL DIMENSIONS AND QUANTITIES FOR CONCRETE AND REINFORCEMENT SHALL BE AS REQUIRED IN THE WORK.
- THE PRECAST FLAT TOP MAY BE USED ON ANY MANHOLE, THE EXISTING CONE MAY BE USED WHEN THE MANHOLE 12" HEIGHT IS AT LEAST 8 FT.
- THE MH RING (FRAME) SHALL BE SET IN A BED OF GROUT. THE FRAME SHALL BE SURROUNDED WITH A CEMENT GROUT IN UNPAVED AREA, OR A CONCRETE COLLAR IN PAVED AREA. SEE DETAILS ON SHEETS 2 AND 3.
- DESIGN OF BOX BASE, BASED ON STRAIGHT RUNS OF CONDUIT OR CHANGING IN DIRECTION OF LESS THAN 45°. SPECIAL DESIGN IS REQUIRED FOR 45° OR GREATER.
- CAST-IN-PLACE MANHOLES SHALL BE CLASS B CONCRETE.
- STEPS SHALL BE REQUIRED WHEN THE MANHOLE DEPTH EXCEEDS 3 FT. - 6 IN. AND SHALL BE IN ACCORDANCE WITH ASHTO M 199.
- ALL REINFORCING STEEL SHALL HAVE A MINIMUM YIELD STRENGTH OF 60,000 PSI. VERTICAL STEEL SHALL BE PLACED @ 6" OF WALL. ALL BARS SHALL HAVE A 2" MINIMUM CLEARANCE.
- ALL PIPE ENTRIES INTO THE SIDES OF MANHOLE SHALL BE CONNECTED BY OPEN CHANNELIZATION ADJUSTED FOR PIPE SIZE, SHAPE, SLOPE, AND DIRECTION OF FLOW. DETAILS SHOWN ARE TYPICAL FOR INSULATIONS WITH ALL NOTES OF SAME RELATIVE ELEVATION. FOR EXCESSIVE ELEVATION DIFFERENCE BETWEEN INVERTS, SPECIAL BASE/CHANNEL DETAILS WILL BE SHOWN ON PLANS.
- FLOW CHANNELS AND INVERTS SHALL BE FORMED BY SHAPING WITH CLASS B CONCRETE OR APPROVED GROUT.
- STUB-OUTS SHALL EXTEND 2 FT. MINIMUM BEYOND OUTSIDE WALL SURFACE OF MANHOLE AND BE SATISFACTORILY FINISHED.
- CHECK WITH THE LOCAL GOVERNMENT AUTHORITY FOR ANY ADDITIONAL SANITARY SEWER SPECIFICATIONS, DETAILS, OR REGULATIONS.
- THE SLOPE OF THE MANHOLE COVER SHALL MATCH THE ROADWAY PROFILE AND CROSS SLOPE.

QUANTITIES FOR CONCRETE MANHOLE BOX BASE

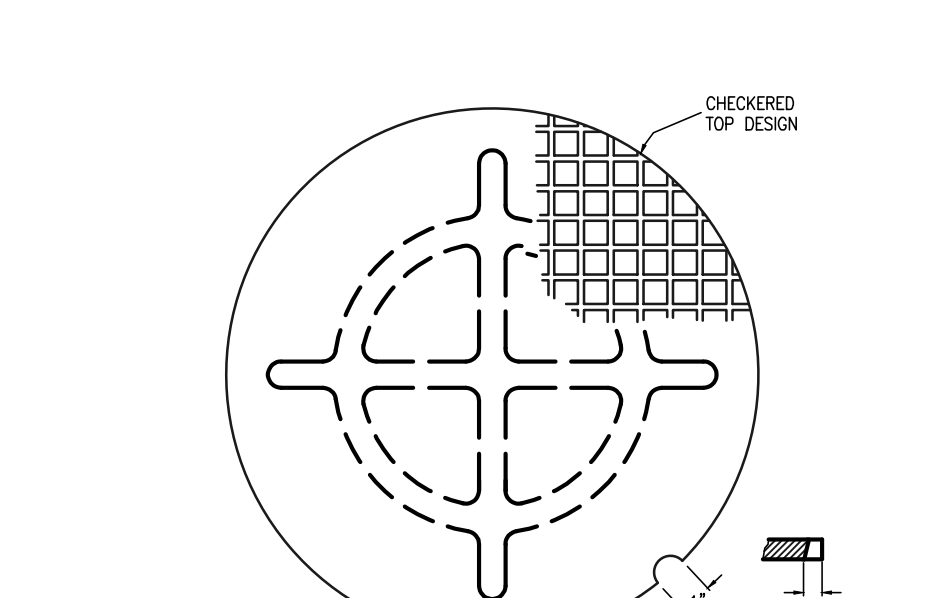
MARK	SIZE	TYPE	WT.	NO.	FORMS	NO.	FORMS	NO.	FORMS	FORMULAS
401	4	I	0.668	19	18	18	18	18	18	401 BAR LENGTH = 32" x 2W + I.D.
402	4	III	0.668	5	5	5	5	5	5	402 BAR LENGTH = I.D. + 2W
501	5	I	1.043	17	17	17	17	17	17	501 BAR LENGTH = 24" + I.D. + 2W
502	5	I	1.043	13.5	13.5	13.5	13.5	13.5	13.5	502 NUMBER BARS REQ'D. = 3 + (24 + I.D. + 2W) / 11
503	5	II	1.043	22	20	20	20	20	20	503 NUMBER BARS REQ'D. = 2(13 + I.D. + 2W) / 11
504	5	I	1.043	12	12	12	12	12	12	504 BAR LENGTH = 4" - 9" + 2(I.D. + W + I.D. / 2)
1101	11	I	5.313	4	4	4	4	4	4	1101 BAR LENGTH = 21" + I.D. + 2W
1102	11	I	5.313	4	4	4	4	4	4	1102 BAR LENGTH = 21" + I.D. + 2W
1103	11	I	5.313	3	3	3	3	3	3	1103 BAR LENGTH = 21" + I.D. + 2W

REINFORCING STEEL TOTAL: 965.8 (1037.5) (1122) (1204) (1302) (1381)

CONCRETE - CURB YARDS - TOTAL: 4.0 (4.0) (4.0) (4.0) (4.0) (4.0)

TABLE ONE - BAR LIST FOR CURB INLETS, TYPE "R"

MARK	DIA. IN.	O.C. TYPE	ALL INLETS				INLETS, H = 5'			
			NO. REQ'D.	LENGTH	NO. REQ'D.	LENGTH	NO. REQ'D.	LENGTH	NO. REQ'D.	LENGTH
401	11"	II	15	21	21	26	11	11	11	11
402	11"	II	7	13	13	18	7	7	7	7
403	9"	II	4	10	10	4	4	4	4	4
405	8"	VI	11	8	8	31	11	11	11	11
406	8"	VIII	7	8	8	18	7	7	7	7
407	7 1/2"	II	3	5	5	10	3	3	3	3
408	11"	II	3	6	6	11	3	3	3	3
409	8"	II	6	5	5	6	6	6	6	6
410	11"	VII	11	11	11	3	3	3	3	3
411	11"	II	3	3	3	3	3	3	3	3
412	11"	II	3	3	3	3	3	3	3	3
413	9"	II	7	7	7	7	7	7	7	7



GENERAL NOTES

- ALL CONCRETE SHALL BE CLASS B.
- CONCRETE WALLS SHALL BE FORMED ON BOTH SIDES AND SHALL BE 8 IN. THICK.
- INLET STEPS SHALL BE IN ACCORDANCE WITH ASHTO M 199.
- CURB FACE ASSEMBLY SHALL BE GALVANIZED AFTER WELDING.
- EXPOSED CONCRETE CORNERS SHALL BE CHAMFERED 3/4" IN. CURB AND GUTTER CORNERS SHALL BE FINISHED TO MATCH THE EXISTING CURB AND GUTTER BEYOND THE TRANSITION GUTTER.
- REINFORCING BARS SHALL BE DEFORMED AND SHALL HAVE A 2 IN. MINIMUM CLEARANCE. ALL REINFORCING BARS SHALL BE EPOXY COATED.
- DIMENSIONS AND WEIGHTS OF TYPICAL MANHOLE RING AND COVER ARE NOMINAL.
- MATERIAL FOR MANHOLE RINGS AND COVERS SHALL BE GRAY OR DUCTILE CAST IRON CONFORMING TO 712.06.
- SINCE PIPE ENTRIES INTO THE INLET ARE VARIABLE, THE DIMENSIONS SHOWN ARE TYPICAL ACTUAL DIMENSIONS AND QUANTITIES FOR CONCRETE AND REINFORCEMENT SHALL BE AS REQUIRED IN THE WORK. QUANTITIES INCLUDE VOLUMES OCCUPIED BY PIPES.
- STRUCTURAL STEEL SHALL BE GALVANIZED AND SHALL CONFORM TO THE REQUIREMENTS OF 712.06.

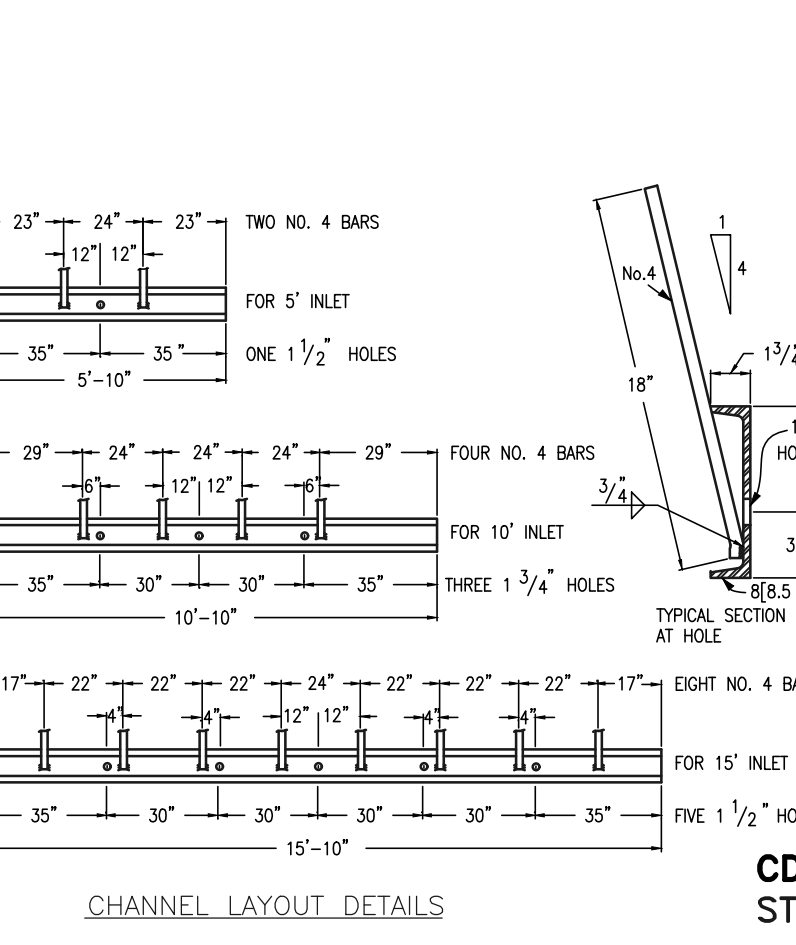
TABLE TWO - BARS AND QUANTITIES VARIABLE WITH "H"

H'	L=5'				L=10'				L=15'			
	NO. REQ'D.	LENGTH	NO. REQ'D.	LENGTH	NO. REQ'D.	LENGTH	NO. REQ'D.	LENGTH	NO. REQ'D.	LENGTH	NO. REQ'D.	LENGTH
3'-0"	2	2	10	7	3.4	3.05	5.3	4.97	7.4	7.4	7.4	7.4
3'-6"	3	2	10	7	3.7	3.26	6.0	5.59	8.4	8.4	8.4	8.4
4'-0"	4	2	12	9	3.9	3.54	6.4	5.71	8.8	8.8	8.8	8.8
5'-0"	4	2	14	11	4.1	3.54	6.7	6.02	9.3	9.3	9.3	9.3
5'-6"	5	2	16	13	4.4	3.75	6.0	6.07	7.4	7.4	7.4	7.4
6'-0"	5	2	16	13	4.6	3.82	6.2	6.16	7.6	7.6	7.6	7.6
6'-6"	6	2	18	15	4.8	4.02	6.4	6.37	7.8	7.8	7.8	7.8
7'-0"	6	2	19	17	5.0	4.23	6.6	6.54	8.0	8.0	8.0	8.0
7'-6"	7	2	20	17	5.3	4.30	6.9	6.64	8.3	8.3	8.3	8.3
8'-0"	7	2	22	19	5.5	4.51	7.1	6.84	8.5	8.5	8.5	8.5
8'-6"	8	2	23	21	5.7	4.71	7.3	7.02	8.7	8.7	8.7	8.7
9'-0"	8	2	24	21	6.0	4.79	7.6	7.11	9.0	9.0	9.0	9.0
9'-6"	9	2	26	23	6.2	4.99	7.8	7.32	9.2	9.2	9.2	9.2
10'-0"	9	2	28	25	6.7	4.92	8.0	7.49	9.4	9.4	9.4	9.4
10'-6"	10	2	30	27	6.7	5.27	8.3	7.59	9.7	9.7	9.7	9.7
11'-0"	10	2	30	27	6.9	5.47	8.5	7.79	9.9	9.9	9.9	9.9

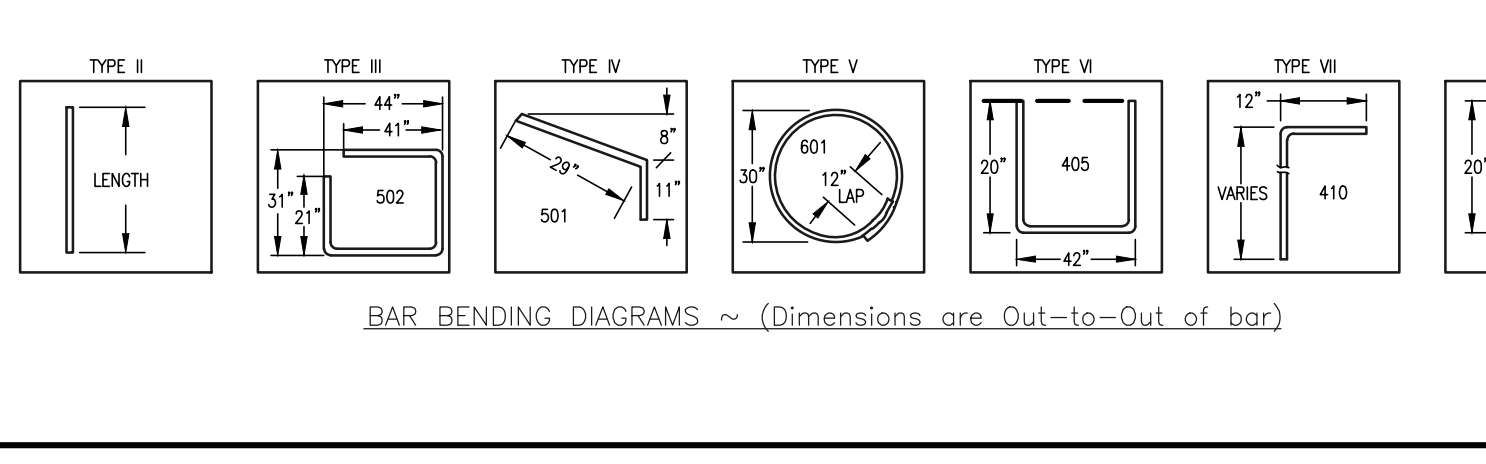
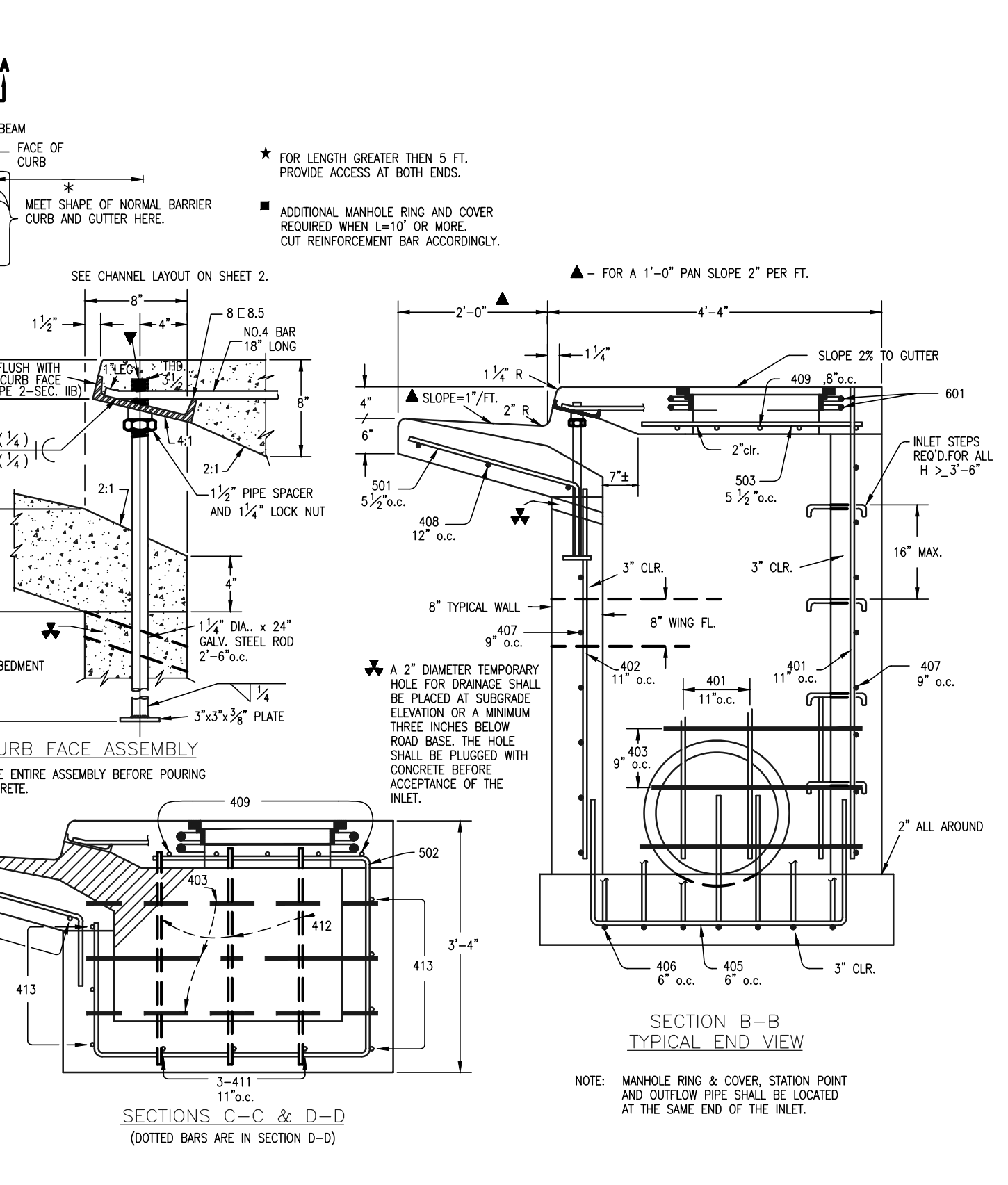
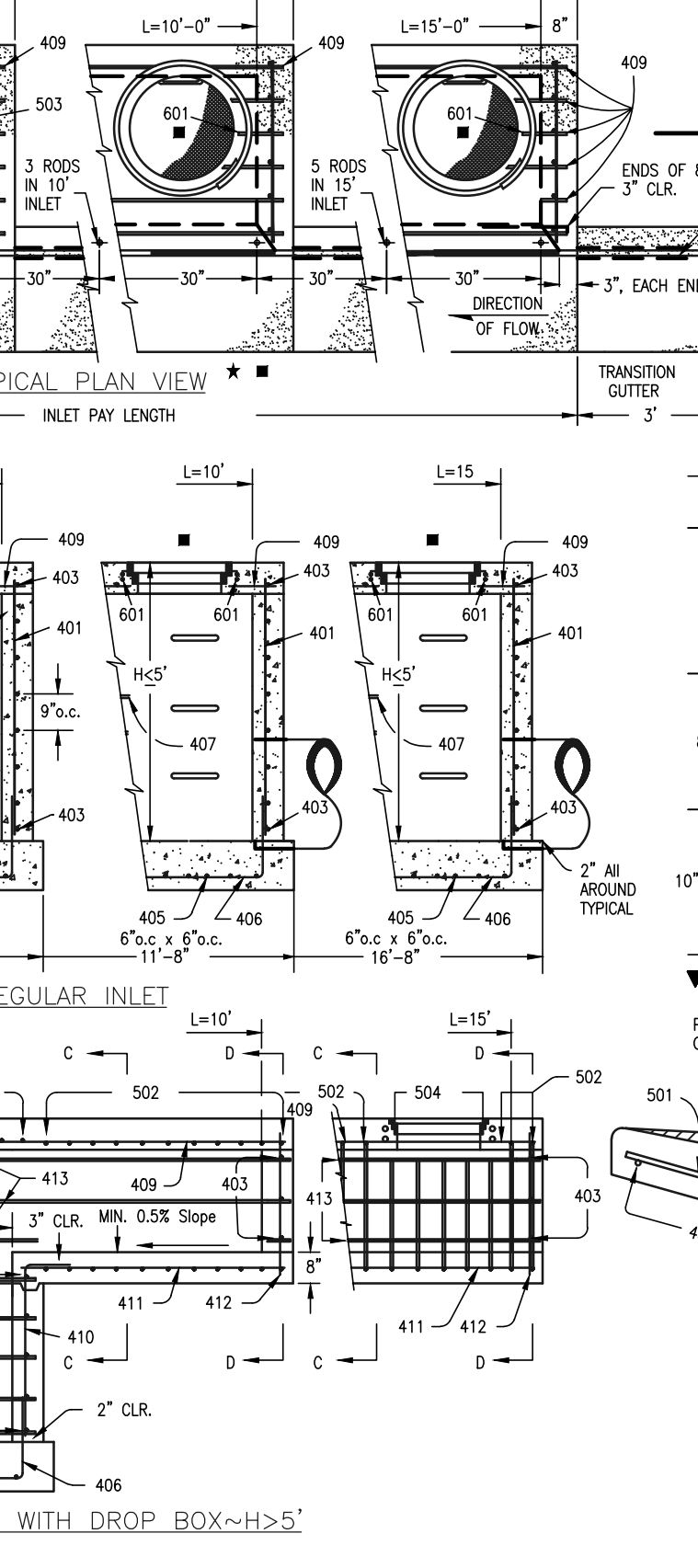
NOTE: FOR L=5', L=10' AND L=15' REGULAR INLETS TOTAL QUANTITIES NEEDED ARE OUTSIDE OF THE HEAVY BLACK LINE. DROP BOX INLETS TOTAL QUANTITIES NEEDED ARE INSIDE OF THE HEAVY BLACK LINE.

STEEL WEIGHTS DO NOT INCLUDE STRUCTURAL STEEL.

WEIGHTS: COVER = 125 LBS. RING = 125 LBS. TOTAL = 250 LBS.



CDOT TYPE R INLET STD. PLAN NO: M-604-12



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NO.	REVISION	DATE
1	REVISED PER COUNTY COMMENTS	09-20-21
2	REVISED PER COUNTY COMMENTS	2/7/22

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

MARC A. WHORTON, LICENSED PROFESSIONAL SURVEYOR, NO. 37155

DATE: 2/2/2024

CLASSIC CONSULTING

RETREAT AT TIMBERIDGE FILING NO. 3 CONSTRUCTION PLANS DETAIL SHEET

DESIGNED BY: MAW SCALE: (H) 1" = NA DATE: 04-05-21

DRAWN BY: MAW SCALE: (V) 1" = NA SHEET: 25 OF 27

CHECKED BY: (V) 1" = NA JOB NO.: 1185.20

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

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GENERAL NOTES (CONTINUE ON SHEET 2)

- ALL GUARDRAILS SHOWN ARE MASH 2016 (11-3) COMPLIANT.
- RATE OF SLOPE DEPENDS ON GUARDRAIL LOCATION:
 - FOR GUARDRAIL FACE 2 FT. OR LESS FROM THE NORMAL EDGE OF PAVED SHOULDER, CONTINUE THE RATE OF SLOPE OF THE NORMAL PAVED SHOULDER TO THE BREAKPOINT.
 - FOR GUARDRAIL FACE MORE THAN 2 FT. FROM THE NORMAL EDGE OF THE PAVED SHOULDER, THE SLOPE SHALL BE 10:1 OR FLATTER.
- WHEN SPECIFIED ON THE PLANS, EXTEND A 2 IN. MINIMUM THICKNESS PAVED SURFACE TO 1 FT. BEHIND THE GUARDRAIL POSTS OR TO THE EROSION CONTROL CURB AS SHOWN ON PLANS. ASPHALT CUTTING & PATCHING OR OTHER APPROVED METHOD SHALL BE USED TO MINIMIZE DAMAGE TO EXISTING SURFACES UNDER GUARDRAIL INSTALLATIONS. ALL REPAIRS TO THE PAVED AREA WILL NOT BE MEASURED AND PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE WORK. A MINIMUM 3 IN. THICK FIBER REINFORCED CONCRETE PAVEMENT MAY ALSO BE USED FOR PAVED AREAS UNDER GUARDRAIL INSTALLATIONS. THE POST IN A 1/2 IN. CURVED TOPPED HOLE FOR GUARDRAIL RUNS AND TERMINALS AS DIRECTED. PAYMENT FOR THIS PAVED SURFACE WILL BE MADE UNDER A PAVEMENT OR CONCRETE PAY ITEM WITH QUANTITIES SHOWN ON THE PLANS.
- THE MINIMUM GUARDRAIL OFFSET FROM PAVED SHOULDER EDGE SHALL BE:
 - 0 FT. FOR SHOULDER 8 FT. OR WIDER
 - 2 FT. FOR SHOULDER 6 FT. OR LESS
 THE GUARDRAIL OFFSET FROM PAVED INSIDE SHOULDER EDGE OF A DIVIDED HIGHWAY SHALL BE:
 - 0 FT. FOR SHOULDER 8 FT. OR WIDER
 - 2 FT. FOR SHOULDER 6 FT. OR LESS
 THE ABOVE 2 FT. GUARDRAIL TO SHOULDER OFFSET IS DESIRABLE BUT NOT REQUIRED FOR:
 - FOR AN EXISTING HIGHWAY WITH A DESIGN SPEED LESS THAN 50 MPH, THE MINIMUM OFFSET IS 4 FT. FROM THE TRAVELED WAY.
 - FOR A ONE-WAY ONE-LANE RAMP AND WHERE ONE OR MORE OF THE FOLLOWING ARE TRUE:
 - THE NON-OFFSET GUARDRAIL BEGINS AT LEAST 100 FT. BEYOND RAMP NOSE.
 - THE NON-OFFSET GUARDRAIL IS NOT LOCATED ON THE RAMP EXIT OR ENTRANCE CURVE CONNECTION TO THE MAJOR HIGHWAY.
 - THE RAMP SHOULDER ARE 4 FT. OR WIDER.
 USE OF GREATER THAN MINIMUM OFFSET DIMENSIONS IS ENCOURAGED TO MEET THE DESIRABLE GOAL OF PLACING THE GUARDRAIL AS FAR AS POSSIBLE FROM THE TRAVEL WAY, EVEN FOR SHORT DISTANCES, WHILE PROVIDING A SMOOTH CHANGE IN GUARDRAIL ALIGNMENT.
- IF 2 FT. CANNOT BE PROVIDED BETWEEN THE BACK OF THE GUARDRAIL POST AND THE BREAKPOINT, USE 7 FT. GUARDRAIL POSTS. REFER TO THE "RESTRICTIVE ROADSIDE INSTALLATION" DETAIL.
- WHEN SPECIFIED ON THE PLANS, INSTALL 4 IN. HIGH TYPE 6 CURB WITH ITS FACE AT OR BEHIND THE RAIL FACE AS AN ALTERNATE WOOD CURB. INSTALL A 2 IN. x 4 IN. TREATED (ASHITO M 133) WOOD CURB FASTENED WITH A 4 IN. LAG BOLT AND WASHER AT EACH WOOD POST, OR WITH A 3/4 IN. DIA. BOLT WITH WASHER AND NUT AT EACH STEEL POST. IF THE 2 IN. x 4 IN. WOOD CURB IS SPECIFIED, IT WILL BE INCLUDED IN THE COST OF THE GUARDRAIL. IF APPROVED BY THE ENGINEER, A 2 IN. x 4 IN. TREATED WOOD CURB MAY BE SUBSTITUTED FOR THE 2 IN. x 4 IN. WOOD CURB AND SET ON TOP OF PAVEMENT SURFACE AND ATTACHED AS DESCRIBED ABOVE. NO SPLICING SHALL BE ALLOWED IN WOOD CURBS. ADJACENT BOARDS SHALL BE BUTTED TOGETHER AND BOLTED AT A POST LOCATION. JOINTS SHALL BE LOCATED AT THE POSTS.

SECTION A-A
LEAVE-OUT AREA FOR GUARDRAIL POSTS LOCATED IN PAVEMENT
NOTE: LEAVE-OUT AREAS SHALL BE PROVIDED FOR ALL GUARDRAIL POSTS LOCATED IN PAVEMENT TO ALLOW THE POSTS TO ROTATE IN THEIR EMBEDMENT SUCH THAT VEHICLE IMPACT LOADS ARE DISTRIBUTED THROUGH THE POST INTO THE EMBEDMENT MATERIAL PRIOR TO THE POSTS BREAKING PREMATURELY.

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2829 West Howard Place
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Phone: 303-757-9021 FAX: 303-757-9868
Project Development Branch JBK

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 3 W-BEAM 31 INCHES
Issued by the Project Development Branch July 31, 2019

STANDARD PLAN NO. M-606-1
Standard Sheet No. 1 of 19
Project Sheet Number:

GENERAL NOTES (CONTINUE ON SHEET 1)

- SEE SHEETS 7 AND 8 FOR CURB TREATMENTS AT GUARDRAIL TERMINALS.
- IF THIS DIMENSION WILL BE LESS THAN 28 INCHES, RESET GUARDRAIL HEIGHT TO 28 INCHES ABOVE.
- ALL W-BEAM SPLICES AND SPLICES OF TERMINAL CONNECTORS TO W-BEAM SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC UNLESS OTHERWISE NOTED IN THE PLANS OR BY THE MANUFACTURER.
- MATERIAL TYPE AND SHAPE OF POSTS AND BLOCKS SHALL BE THE SAME THROUGHOUT THE PROJECT EXCEPT WHEN SPECIFIC POSTS AND BLOCKS ARE SPECIFIED IN AN END ANCHORAGE AND BOX CULVERTS.
- WHEN SPECIFIED IN THE CONTRACT, 7 FT. POSTS SHALL BE INSTALLED INSTEAD OF THE STANDARD 8 FT. POSTS. THE 7 FT. POSTS SHALL BE MARKED WITH THE NUMBER 7 TO ENSURE PERMANENT IDENTIFICATION. STEEL POSTS SHALL BE STAMPED PRIOR TO GALVANIZING. THE NUMBER 7 SHALL BE A MINIMUM 2 IN. TALL AND LOCATED AS SHOWN ON THE ELEVATION VIEW ON SHEET 1.
- THE STANDARD 3 IN. x 1/2 IN. x 3/8 IN. RECTANGULAR WASHER USED UNDER POST BOLT HEADS IN THE PAST MAY REMAIN IN EXISTING INSTALLATIONS BUT SHALL NOT BE USED IN NEW CONSTRUCTION. REPAIRS OR RESETS OF POSTS, EXCEPT WHEN SPECIFICALLY IDENTIFIED ON THE STANDARD PLAN.
- STANDARD GALVANIZED ROUND STEEL WASHERS SHALL BE USED UNDER ALL NUTS IN CONTACT WITH WOOD POSTS.
- AN ADDITIONAL HOLE SHALL BE PROVIDED IN THE POSTS TO FACILITATE FUTURE RAISING OF THE RAIL ELEMENTS AND BLOCKS FOR OVERLAYS. POSTS PROVIDED MAY ALSO HAVE ADDITIONAL HOLES (4 TO 4 PER FLANGE) FOR MEDIAN GUARDRAIL APPLICATION.
- RETROREFLECTOR TABS SHALL BE INSTALLED AT 25 FT. INTERVALS (SEE SHEETS 6 AND 8 FOR EXCEPTIONS). RETROREFLECTOR TABS WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE WORK. THE TABS SHALL BE INSTALLED ON SPLICE BOLTS, NOT ON POST BOLTS AND SHALL BE MOUNTED SO THE BOLT SLOT FACES AWAY FROM TRAFFIC AND THE RETROREFLECTOR SURFACE FACES THE APPROACHING TRAFFIC FOR ONE-WAY ROADS FOR TWO-WAY ROADS, BOTH SIDES OF THE ROAD. THE RETROREFLECTOR SURFACE SHALL BE ZINC-COATED TO CORROSION-RESISTANT STEEL IS USED. THE PORTION OF THE POST TO BE EMBEDDED IN SOIL SHALL BE ZINC-COATED CONFORMING TO ASHTO M 133 (ASTM A 123) AND THE PORTION ABOVE THE SOIL SHALL NOT BE ZINC-COATED, PAINTED OR OTHERWISE TREATED.
- FIELD MODIFICATION OF RAIL ELEMENTS IS ALLOWED PER MANUFACTURER'S RECOMMENDATIONS. WITH THE APPROVAL OF THE STANDARDS AND SPECIFICATIONS UNIT, POSTS SHALL NOT BE MODIFIED. COMPONENTS ON WHICH THE SPLICER COATING HAS BEEN DAMAGED SHALL BE EITHER RE-GALVANIZED OR REDOATED IN CONFORMANCE WITH ASHTO M 36, OR PAINTED WITH THE FULL BRUSH COAT OF ZINC RICH PAINT CONFORMING TO MIL-PRC SPECIFICATION 800-P-20355A.
- REFERENCES SUCH AS 60P0901, 60P0901A, AND 60P0901B IN THIS STANDARD PLAN SPECIFY HARDWARE DETAILS FROM 60A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE PREPARED BY THE ASHTO-60A-HIBA JOINT COOPERATIVE COMMITTEE.
- RAIL BLOCKS MANUFACTURED FROM SYNTHETIC MATERIAL WILL BE ACCEPTED AS ALTERNATIVES TO WOOD BLOCKS FOR USE WITH STEEL POSTS PROVIDED THAT THE BLOCKS HAVE RECEIVED FHWA APPROVAL.
- WOOD POSTS SHALL BE MADE OF TIMBER WITH AN EXTREME FIBER STRESS IN BENDING OF 1200 PSI STRESS GRADING AND POST DIMENSIONS SHALL CONFORM WITH THE RULES OF THE WEST COAST INSPECTION BUREAU OR THE SOUTHERN PINE BUREAU OR THE WESTERN WOOD PRODUCTS ASSOCIATION. TIMBER FOR POSTS SHALL BE EITHER ROUGH-SAWN (UNPLANED) OR S4S SURFACED POSTS WITH NOMINAL DIMENSIONS INDICATED. ONLY ONE TYPE OF SURFACE FINISH SHALL BE USED FOR POSTS AND BLOCKS IN ANY ONE CONTIGUOUS LENGTH OF GUARDRAIL.
- GLULAM POSTS AND BLOCKS WILL BE ACCEPTED AS ALTERNATIVES PROVIDED THAT THE SUPPLIED MATERIALS HAVE RECEIVED FHWA APPROVAL AND ARE CERTIFIED AS IDENTICAL TO THE SPECIMENS USED FOR TESTING AND APPROVAL.
- PRESSURE TREATMENT OF POSTS AND BLOCKS SHALL CONFORM TO ASHTO M 133 EXCEPT THAT BLOCKS NEED NOT BE INCISED. PRESERVATION ASHAP RETENTION REPORTS SHALL BE SUBMITTED TO THE ENGINEER. THE CONTRACTOR SHALL CERTIFY THAT THE SPECIES AND GRADE MEET THE REQUIREMENTS OF THE CONTRACT.
- W-BEAM AND THREE-BEAM GUARDRAIL POSTS SHALL BE MANUFACTURED USING ASHTO M 270 (ASTM A 709 GRADE 36 STEEL UNLESS CORROSION RESISTANT STEEL IS REQUIRED), IN WHICH CASE THE POST SHALL BE MANUFACTURED FROM ASHTO M 270 (ASTM A 709 GRADE 50 STEEL) FOR MEDIAN GUARDRAIL APPLICATION.
- THE DIMENSIONS OF THE CROSS-SECTION SHALL CONFORM TO A W6 X 9 SECTION AS DEFINED IN ASHTO M 100 (ASTM A 36) WE 6 X 8.5 WIDE FLANGE STEEL POSTS ARE AN ACCEPTABLE ALTERNATIVE TO THE W6 X 9.
- AFTER THE SECTION IS CUT AND ALL HOLES ARE DRILLED OR PUNCHED THE COMPONENT SHALL BE ZINC-COATED CONFORMING TO ASHTO M 133 (ASTM A 123) UNLESS CORROSION-RESISTANT STEEL IS USED. WHEN CORROSION-RESISTANT STEEL IS USED THE PORTION OF THE POST TO BE EMBEDDED IN SOIL SHALL BE ZINC-COATED CONFORMING TO ASHTO M 133 (ASTM A 123) AND THE PORTION ABOVE THE SOIL SHALL NOT BE ZINC-COATED, PAINTED OR OTHERWISE TREATED.
- FIELD MODIFICATION OF RAIL ELEMENTS IS ALLOWED PER MANUFACTURER'S RECOMMENDATIONS. WITH THE APPROVAL OF THE STANDARDS AND SPECIFICATIONS UNIT, POSTS SHALL NOT BE MODIFIED. COMPONENTS ON WHICH THE SPLICER COATING HAS BEEN DAMAGED SHALL BE EITHER RE-GALVANIZED OR REDOATED IN CONFORMANCE WITH ASHTO M 36, OR PAINTED WITH THE FULL BRUSH COAT OF ZINC RICH PAINT CONFORMING TO MIL-PRC SPECIFICATION 800-P-20355A.
- WOOD BLOCKS SHALL BE CUT FROM THE SAME CROSS-SECTION, SPECIES, AND GRADE AND SHALL RECEIVE THE SAME PRESERVATIVE TREATMENT AS THE POSTS WHEN WOOD POSTS ARE USED.

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MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 3 W-BEAM 31 INCHES
Issued by the Project Development Branch July 31, 2019

STANDARD PLAN NO. M-606-1
Standard Sheet No. 2 of 19
Project Sheet Number:

TERMINAL SECTION (FLARED)
TERMINAL SECTION (CONNECTOR)
THREE BEAM TERMINAL SECTION (CONNECTOR)
RETROREFLECTOR TAB
W-BEAM RAIL SECTION
W-BEAM RAIL SPLICE
THREE BEAM DETAIL
RECTANGULAR WASHER
TYPE 3B ANCHOR BLOCK DETAIL
TYPE 3D HARDWARE DETAILS
TYPE 3D ANCHOR BLOCK DETAIL
END ANCHORAGE TYPE 3B (RUB RAIL)
END ANCHORAGE TYPE 3D (RUB RAIL)

PART	MATERIAL SPEC.	GALVANIZING SPEC.	CORROSION-RESISTANT SPEC.
W-BEAM RAIL AND TERMINAL SECTIONS	ASHTO M 180, CLASS A OR B	ASHTO M 180, TYPE 1 OR 2	ASHTO M 180, TYPE 4
BASE PLATE	ASTM A 36	ASHTO M 111	N.A.
NUTS, BOLTS & STUDS FOR GENERAL USE	ASTM A 307		
HIGH STRENGTH BOLTS & NUTS	ASTM A 325	ASHTO M 232, CLASS C	
HIGH STRENGTH STUDS & NUTS	ASTM A 449	DR	
ROUND STEEL WASHERS	ASTM F 436	ASTM B 805 CLASS 50 TYPE 1	
RECTANGULAR WASHERS	ASHTO M 180		
OTHER FITTINGS	ASTM A 36	ASHTO M 111	

THE TABULATION OF GUARDRAIL WILL SPECIFY THE TYPE OF CORROSION PROTECTION: GALVANIZED OR CORROSION-RESISTANT STEEL. STEEL POSTS SHALL HAVE THE SAME CORROSION PROTECTION AS SPECIFIED FOR THE METAL BEAM RAIL PUNCHING, DRILLING, CUTTING OR WELDING OF POSTS WILL NOT BE PERMITTED AFTER GALVANIZING.

DIAMETER & TYPE (INCHES)	THREAD LENGTH (INCHES)	INTENDED USE	ASHTO-ADC-ARTRA STANDARD NUMBER	NO. BOLTS, NUTS & WASHERS
1/2"	FULL (0.16)	ALL RAIL SPLICES	F8901	8 PER SPLICE*
3/8"	MIN. 2 1/2"	SINGLE BLOCK & POST (TIMBER)	F8904	1 PER POST
3/8"	MIN. 2	DOUBLE BLOCK & POST (TIMBER)	F8905	1 PER POST
3/8"	MIN. 2	FASTEN NOTCHED BLOCK TO STEEL POST	F8903	1 PER BLOCK

* WASHERS NOT USED AT RAIL SPLICES

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MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 3 W-BEAM 31 INCHES
Issued by the Project Development Branch July 31, 2019

STANDARD PLAN NO. M-606-1
Standard Sheet No. 3 of 19
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MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 3 W-BEAM 31 INCHES
Issued by the Project Development Branch July 31, 2019

STANDARD PLAN NO. M-606-1
Standard Sheet No. 5 of 19
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MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 3 W-BEAM 31 INCHES
Issued by the Project Development Branch July 31, 2019

STANDARD PLAN NO. M-606-1
Standard Sheet No. 5 of 19
Project Sheet Number:

48 HOURS BEFORE YOU DIG, CALL UTILITY LOCATORS
811
UTILITY NOTIFICATION CENTER OF COLORADO
ITS 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 AND SURVEYORS, LLC

MARC A. WHORTON, 37155

2/2/2024

DATE

RETREAT AT TIMBERIDGE FILING NO. 3
CONSTRUCTION PLANS
DETAIL SHEET

DESIGNED BY MAW SCALE DATE 11-22-2022
DRAWN BY MAW (H) 1"= NA SHEET 26 OF 27
CHECKED BY (V) 1"= NA JOB NO. 1185.30

CLASSIC CONSULTING

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

OFFSET NOTES

- POST OFFSET DIMENSIONS ARE GIVEN TO THE CENTER OF THE TRAFFIC FACE OF POSTS.
- THE GUARDRAIL BETWEEN POST 1 THRU 8 IS ON A STRAIGHT LINE FLARE.

PLAN

ELEVATION

**DETAIL A
IMPACT HEAD CONNECTION**

**DETAIL B
POST #1 CONNECTION**

**SECTION A-A
ANCHOR BRACKET**

**SECTION B-B
POST #2**

MFLAT TERMINAL (MASH CERTIFIED)

END ANCHORAGES (FLARED)

NOTES

- THE END ANCHORAGE (FLARED) SHALL BE THE MFLAT TERMINAL, AS MANUFACTURED BY ROAD SYSTEMS INC. (TELEPHONE 8-432-283-2833). ONE END ANCHORAGE (FLARED) SHALL INCLUDE ALL POST, RAIL, AND ALL HARDWARE ITEMS REQUIRED FOR A COMPLETE UNIT. THE END ANCHORAGE (FLARED) SHALL BE INSTALLED CONFORMING TO THE MANUFACTURER'S RECOMMENDATIONS. THE CONTRACTOR SHALL PROVIDE A COPY OF THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND PARTS LIST TO THE ENGINEER PRIOR TO INSTALLATION OF THE DEVICE.
- RETROREFLECTOR TABS SHALL NOT BE USED ON END ANCHORAGE POSTS.
- DELIMITATION SHALL BE APPLIED TO THE END PIECE, AND SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE WORK.
- ESTHETIC TREATMENT OPTIONS MAY BE AVAILABLE WITH PRIOR APPROVAL OF THE PROJECT ENGINEER. CONTACT THE MANUFACTURER FOR APPROVED AESTHETIC TREATMENT OPTIONS.
- ALL BOLTS, NUTS, CABLE ASSEMBLIES, CABLE ANCHORS AND BEARING PLATES SHALL BE GALVANIZED.
- THE LOWER SECTIONS OF THE POSTS 1, 2, AND 3 SHALL NOT PROTRUDE MORE THAN 4 INCHES ABOVE THE GROUND MEASURED ALONG A 5 FOOT CIRCULAR SITE GRADING MAY BE NECESSARY TO MEET THIS REQUIREMENT.
- THE LOWER SECTIONS OF THE HINGED POSTS SHOULD NOT BE DRIVEN WITH THE UPPER POST ATTACHED. IF THE POST IS PLACED IN A DRILLED HOLE, THE DRILLED MATERIAL MUST BE SATISFACTORILY COMPACTED TO PREVENT SETTLEMENT.
- WHEN COMPETENT ROCK IS ENCOUNTERED, A 12 INCH DIA POST HOLE, DRILLED 20 INCHES DEEP INTO THE ROCK SURFACE SHALL BE USED IF APPROVED BY THE ENGINEER FOR POSTS 1 AND/OR 2. GRANULAR MATERIAL SHALL BE PLACED IN THE BOTTOM OF THE HOLE, APPROXIMATELY 2.5 INCHES DEEP TO PROVIDE DRAINAGE. THE FIRST AND/OR SECOND POST SHALL BE FIELD CUT TO LENGTH, PLACED IN THE HOLE AND BACKFILLED WITH SUITABLE BACKFILL. THE SOIL PLATE MAY BE TRIMMED IF REQUIRED.
- THE BREAKAWAY CABLE ASSEMBLY SHALL BE TAUT. A LOCKING DEVICE (VICE GRIPS OR CHANNEL LOCK PLIERS) SHOULD BE USED TO PREVENT THE CABLE FROM TWISTING WHEN TIGHTENING NUTS.

Computer File Information	Sheet Revisions	Colorado Department of Transportation	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 3 W-BEAM 31 INCHES	STANDARD PLAN NO. M-606-1
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NOTES

- PAYMENT FOR THE ADDED EMBANKMENT (APPROXIMATELY 45 CU YDS.) FOR THE FLARE SHALL BE AS FOLLOWS:
A. UNDER PAY ITEM 203 WHEN THE CONTRACT PLAN INCLUDES PAY ITEM 203 B. INCLUDED IN THE COST OF THE END ANCHORAGE (FLARED) WHEN THE CONTRACT PLAN DOES NOT INCLUDE PAY ITEM 203. THE ADDED EMBANKMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH SUBSECTION 203.07, PART 1, 99.
- WHEN THE WIDENED AREA IS PAVED, PAYMENT FOR THE PAVEMENT (APPROX. 70 SQ. YDS.) SHALL BE AS FOLLOWS:
A. UNDER PAY ITEM 403 OR 412 WHEN THE CONTRACT PLAN INCLUDES PAY ITEM 403 OR 412.
B. INCLUDED IN THE COST OF THE END ANCHORAGE (FLARED) WHEN THE CONTRACT PLAN DOES NOT INCLUDE PAY ITEM 403 OR 412. (SEE SHEET 1, NOTE 2 FOR PAVEMENT TYPES)
- CONCRETE PAVED AREAS SHALL HAVE THEIR TAPERED ENDS SQUARED OFF AS DIRECTED BY THE ENGINEER.
- WHEN OVERLAY PAVING, THE FINISHED SURFACE AT EACH POST SHALL NOT BE ABOVE THE TOP BREAKAWAY HOLE OR STRUT ASSEMBLY. THE WIDENED AREA AT THE FLARED END ANCHORAGE SHOULD NOT BE OVERLAPPED UNLESS PAVEMENT CONDITIONS WARRANT IT BEING OVERLAPPED. ANY OVERLAY PAVEMENT ADJUTING THE FLARED END ANCHORAGE SHALL BE TAPERED TO PREVENT A DROOP IN THE PAVED SURFACE BELOW THE RAIL.
- SEE SHEETS 1, 2, 3, AND 5 FOR STANDARD TYPE 3 GUARDRAIL INSTALLATION DETAILS.
- THE COST OF THE GUARDRAIL WILL BE PAID FOR AS "OUTLET TYPE 2 (2 FT.)" FOR A LENGTH OF 154 FT. OR "OUTLET TYPE 2 (3 FT.)" FOR A LENGTH OF 40 FT.
- INLETS OR RUNDOWNS MAY BE USED INSTEAD OF THE GUTTER IF SPECIFIED ON THE PLANS. NO ADDITIONAL CURB SHALL BE ADDED IN THE VICINITY OF THE END ANCHORAGE.
- 4:1 OR FLATTER SLOPES IN THE TRAVERSIBLE AREA SHALL BE USED BEHIND THE END ANCHORAGE AND IN ADVANCE OF POST (C) IF THIS IS NOT POSSIBLE, A MINIMUM 3:1 SLOPE MAY BE USED IF APPROVED BY THE ENGINEER.
- THE WIDENED AREA EXCEPT FOR CURB OPTION A SHALL HAVE THE SAME GRADING AS THE ADJACENT GUARDRAIL. CURB OR FLATTOP SHALL BE 1 FT. FROM SHOULDER OR SLOPE EQUAL TO ROADWAY SLOPE IF 2 FT. OR LESS FROM SHOULDER.
- WIDENING FOR END ANCHORAGES SHALL BE PAVED ON INTERSTATES AND FREEWAYS. FOR OTHER HIGHWAYS, PAVING SHALL BE AS SHOWN ON THE PLANS.

**PLAN VIEW
WIDENING FOR END ANCHORAGE (FLARED)
WITH CURB OPTION A***

**PLAN VIEW
WIDENING FOR END ANCHORAGE (FLARED)
WITH CURB OPTION B***

SECTION A-A

SECTION B-B

SECTION C-C

Computer File Information	Sheet Revisions	Colorado Department of Transportation	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 3 W-BEAM 31 INCHES	STANDARD PLAN NO. M-606-1
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NOTES

- POSTS 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.
- THE NUMBER OF OMITTED POSTS IS DEPENDENT ON THE LENGTH OF THE GAP.
- ONE POST MAY BE OMITTED WITHOUT ANY MODIFICATION TO THE GUARDRAIL RUN.

LONG-SPAN RAILING FOR ONE, TWO, OR THREE OMITTED POSTS AT GAP

TIMBER POST

STEEL POST

BREAKWAY TIMBER POST

Computer File Information	Sheet Revisions	Colorado Department of Transportation	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 3 W-BEAM 31 INCHES	STANDARD PLAN NO. M-606-1
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NOTES

- LOCATION AND LENGTH OF MEDIAN GUARDRAIL APPROACHES TO CULVERTS WITH FULL HEADWALL AND SIDEWALLS SHALL BE AS SHOWN FOR BRIDGES ON SHEET 15. THE GUARDRAIL TYPE 3 SHALL CONTINUE ACROSS THE CULVERT AS SHOWN ON THIS SHEET.
- RIGHT SHOULDER BOX CULVERT TREATMENT IS SHOWN ON THIS SHEET FOR CULVERTS 20 FT. OR LESS IN LENGTH.
- CONSTRUCTION AND PAYMENT FOR FILL HEIGHTS SHALL BE INCLUDED IN THE COST OF THE GUARDRAIL TYPE 3.
- ANCHORAGE 6" SIX BOLTS FOR BASE PLATE "B" WITH INSIDE MOUNT. THE BOLTS SHALL BE 7/8 IN. DIA X 10 IN. HIGH STRENGTH RODS THREADED FULL LENGTH AND ALL GALVANIZED RODS SHALL BE CAST-IN-PLACE FOR NEW STRUCTURES. FOR EXISTING STRUCTURES, THE RODS SHALL BE INSTALLED IN 1/4 IN. DIA HOLES WITH NON-SHANK GROUT OR EPOXY CONFORMING TO ASTM C 881. IF THE THICKNESS OF A CULVERT'S TOP PANEL REQUIRES BOLTS TO BE LESS THAN 10 IN. HIGH, THE BOLTS SHALL BE APPROVED BY THE ENGINEER.
- THE GUARDRAIL LENGTH DIMENSION "N" IS THE LENGTH AS DETERMINED BY THE LENGTH OF NEED COMPUTATION AND IS SHOWN ON THE PLANS. THE MINIMUM IS 12 FT. 6 IN. WHERE SITE CONDITIONS ALLOW THE OVERALL REQUIRED LENGTH OF NEED CAN INCLUDE THE LENGTH OF TRANSITION, THE LENGTH OF RAIL (N), AND ANY REDIRECTIVE LENGTH IN THE RAIL END TREATMENT.
- ALL BOLTS, BASE PLATES, AND ANCHOR BOLTS SHALL BE FABRICATED FROM ASTM A 36 STEEL. THE ABOVE MATERIAL, W-BEAM, AND ALL ANCHOR BOLTS AND MISCELLANEOUS BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED AFTER FABRICATION AND ANCHORAGE WITH SECTION 609. CONCRETE, REINFORCING STEEL, AND STRUCTURAL STEEL ELEMENTS SHALL BE IN ACCORDANCE WITH SECTIONS 601, 602, AND 509, RESPECTIVELY.
- POST ANCHORS ENCASED IN CONCRETE SHALL BE ASTM A 36 STEEL, AND NEED NOT BE GALVANIZED.
- PRIOR TO INSTALLATION OF GUARDRAIL ON CULVERTS, THREE SETS OF WORKING DRAWINGS WHICH COMPLY WITH THE REQUIREMENTS OF SECTION 105 SHALL BE SUBMITTED TO THE ENGINEER FOR INFORMATION ONLY.

GUARDRAIL FOR CULVERTS

INSIDE MOUNT ON CBC

BASE PLATE B (FOR INSIDE MOUNT)

ANCHORAGE D (FOR INSIDE MOUNT)

RAIL PLACEMENT FOR INSIDE MOUNT

Computer File Information	Sheet Revisions	Colorado Department of Transportation	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 3 W-BEAM 31 INCHES	STANDARD PLAN NO. M-606-1
Creation Date: 07/31/19 Designer Initials: JBK Last Modification Date: 03/05/20 Detailer Initials: LTA CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English	Date: 03/05/20 Comments: Revised to add culvert and inside mount details.	2829 West Howard Place CDOT HQ, 3rd Floor Denver, CO 80204 Phone: 303-757-9021 FAX: 303-757-9868	Issued by the Project Development Branch: July 31, 2019	Standard Sheet No. 19 of 19

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 AND SURVEYORS, LLC

MARC A. WHORTON, PROJECT ENGINEER, 37155

2/2/2024

CLASSIC CONSULTING

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

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

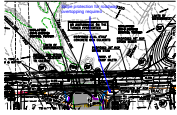
DESIGNED BY: MAW
DRAWN BY: MAW
CHECKED BY: MAW

SCALE: (H) 1" = NA
(V) 1" = NA

DATE: 11-22-2022
SHEET: 27 OF 27
JOB NO.: 1185.30

V5_Construction Drawings.pdf Markup Summary

Callout (7)



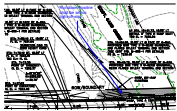
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Page Label: [1] layout
Author: Jeff Rice - EPC Engineering Review
Date: 3/25/2024 2:23:12 PM
Status:
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Layer:
Space:

Slope protection for roadway overtopping required



Subject: Callout
Page Label: [1] Layout1
Author: Jeff Rice - EPC Engineering Review
Date: 3/25/2024 2:55:23 PM
Status:
Color: ■
Layer:
Space:

Private



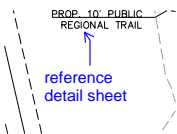
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Page Label: [1] Layout1
Author: Jeff Rice - EPC Engineering Review
Date: 3/25/2024 3:20:52 PM
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Rundown flowline shall be within right-of-way



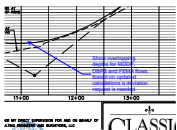
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Page Label: [1] CHANNEL 1
Author: Jeff Rice - EPC Engineering Review
Date: 3/25/2024 3:31:10 PM
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Show rundown flowline within ROW



Subject: Callout
Page Label: [1] Layout1
Author: Jeff Rice - EPC Engineering Review
Date: 3/25/2024 3:49:02 PM
Status:
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reference detail sheet



Subject: Callout
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Author: Jeff Rice - EPC Engineering Review
Date: 3/25/2024 4:36:23 PM
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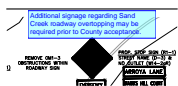
Show overtopping depths for MDDP, DBPS and FEMA flows. Based on updated calculations a deviation request is needed.



Subject: Callout
Page Label: [1] layout
Author: Jeff Rice - EPC Engineering Review
Date: 3/26/2024 10:57:44 AM
Status:
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Spillway protection should extend to cover bottom of ditch

Text Box (2)



Subject: Text Box
Page Label: [1] layout
Author: Jeff Rice - EPC Engineering Review
Date: 3/25/2024 3:06:33 PM
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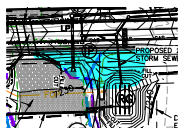
Additional signage regarding Sand Creek roadway overtopping may be required prior to County acceptance.



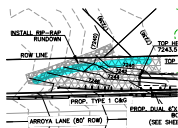
Subject: Text Box
Page Label: [1] Layout1
Author: Jeff Rice - EPC Engineering Review
Date: 3/25/2024 3:47:34 PM
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Provide a cross-section for the proposed trail.

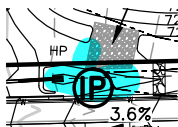
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Date: 3/25/2024 3:30:37 PM
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Subject:
Page Label: [1] layout
Author: Jeff Rice - EPC Engineering Review
Date: 3/26/2024 10:57:55 AM
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