

Attn: Daniel Torres
Department of Public Works
3275 Akers Drive
Colorado Springs, CO 80922
O: (719) 520-6460



VARIANCE REQUEST FOR HIDDEN CREEK ESTATES (SF253)

Dear Mr. Rice,

We respectfully submit this request for a variance from the following criteria:

1. El Paso County Engineering Criteria Manual, Table 2-5: The design speed for a rural local roadway shall be 30 mph.
2. El Paso County Engineering Criteria Manual, Table 2-15: Rural local road maximum centerline slope is 8%, 10% maximum grade permitted at the discretion of the ECM Administrator.
3. El Paso County Engineering Criteria Manual, Section 2.3.3.F.3: A minimum distance of 200' is required between broken back curves.
4. El Paso County Engineering Criteria Manual, Section 2.3.4.E: Vertical curves are required when the algebraic difference in grades is equal to or greater than 1.0%.

The variance request is to allow Golden Valley View to be approved with a design speed of 15 mph with corresponding K-values, a maximum centerline slope of 12%, less than 200' between broken back curves and a grade break exceeding 1%. The variance request is based upon the following considerations:

The private roadway is restricted by existing topography and the crossing of Hay Creek. The attached construction documents demonstrate that the existing grade is steeper than 10% and requires slopes exceeding El Paso County criteria. While the roadway could be extended with longer horizontal curves and an increased distance between broken back curves, it would cause undue harm to the naturalized and vegetated land cover the developer has maintained. By extending the road to mitigate slope, the naturalized habitat would be severely impacted and decrease the effectiveness of its ability to intercept, and infiltrate developed stormwater. Furthermore, the proposed road must cross Hay Creek to access lots south of the creek. In order match existing grade at the Hay Creek crossing, slopes steeper than 10% are required.

To mitigate concerns associated with the steeper roadway, a design speed of 15 mph, posted speed of 20 mph, is utilized. By reducing the design speed to 15 mph, the proposed vertical curves meet AASHTO criteria for K-values.

Furthermore, the private roadway is a dead end road and will not see traffic volumes beyond the residential traffic associated with accessing the (4) lots south of Hay Creek.

Lastly, the private roadway design was reviewed by the Monument Fire District. The division chief

Jonathan Bradley acknowledged the substandard design criteria and has confirmed the road meets the 2015 Amended International Fire Code.

For the above reasons, I believe the private roadway will provide safe ingress and egress for residential and emergency traffic.

The approval of this variance will not result in a change in peak flows to Hay Creek or water quality in Hay Creek.

Attached exhibits are as follows:

1. Vicinity Map
2. Proposed Construction Drawings
3. Fire Commitment Letter
4. AASHTO Vertical Curve Criteria

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Nick Jokerst".

NICHOLAS JOKERST, PE

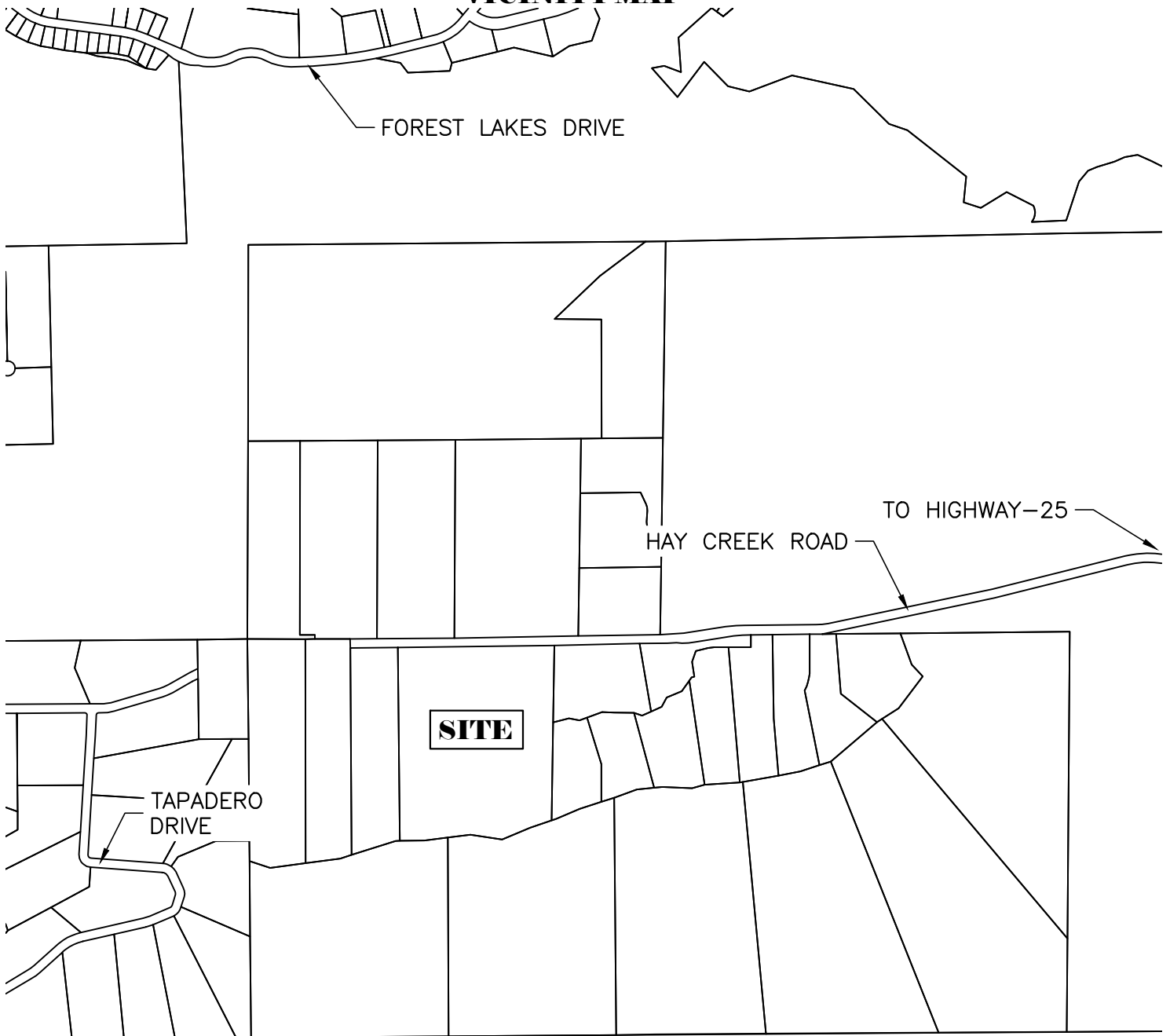
All Terrain Engineering LLC

njokerst@allterraineng.com

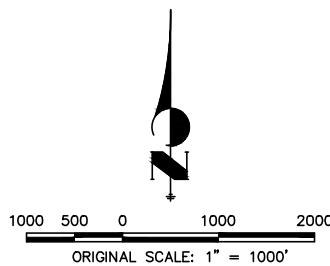
530.391.7635


HAY CREEK SUBDIVISION

VICINITY MAP



AIR FORCE ACADEMY



VICINITY MAP		 ENGINEERING 1004 WEST VAN BUREN STREET COLORADO SPRINGS, CO 80907
HAY CREEK SUBDIVISION		
JOB NO. 24008		
LOCATION: EPC	SHEET	
09/13/2024	1	

GENERAL CONSTRUCTION NOTES:

- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES ALONG THE ROUTE OF THE WORK. THE OMISSION FROM OR THE INCLUSION OF UTILITY LOCATIONS ON THE PLANS IS NOT TO BE CONSIDERED AS THE NONEXISTENCE OF OR A DEFINITE LOCATION OF EXISTING UNDERGROUND UTILITIES.
- 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.
- ADDITIONAL EROSION CONTROL STRUCTURES MAY BE REQUIRED AT THE TIME OF CONSTRUCTION.
- ALL BACKFILL, SUB-BASE, AND/OR BASE COURSE (CLASS 6) MATERIAL SHALL BE COMPACTED PER THE SOILS ENGINEER'S RECOMMENDATIONS, AND APPROVED BY EL PASO COUNTY PCD.
- ALL STATIONING IS CENTERLINE OF IMPROVEMENTS UNLESS OTHERWISE INDICATED. ALL ELEVATIONS ARE FLOW LINE UNLESS OTHERWISE INDICATED AS TOP BACK OF CURB (TBC), ASPHALT (ASP), OR TOP OF INLET OR BOX (TOB).
- ALL DISTURBED PAVEMENT EDGES SHALL BE CUT TO NEAT LINES. REPAIR SHALL CONFORM TO EPC ECM APPENDIX K – 1.2C.
- ALL INTERSECTION ACCESSSES TO BE CONSTRUCTED WITH A 25 FOOT SIGHT VISIBILITY TRIANGLES IS REQUIRED AND THERE SHALL BE NO OBSTRUCTIONS GREATER THAN 18" VERTICAL IN THIS AREA.
- ALL CULVERTS AND STORM DRAIN PIPES SHALL BE SMOOTH INTERIOR CORRUGATED POLYETHYLENE PIPE (HDPE), REINFORCED CONCRETE PIPE (RCP). ALL CULVERTS SHALL BE PLACED COMPLETE WITH FLARED END SECTIONS. ADEQUACY OF MATERIAL THICKNESS FOR ANY CSP INSTALLED SHALL BE VERIFIED BY OWNER'S GEOTECHNICAL ENGINEER TO SUPPORT MINIMUM 50 YEAR DESIGN LIFE. CULVERTS MUST CONFORM TO EPC ECM SECTION 3.32 – CULVERTS.
- 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 THE TIME OF ROAD CONSTRUCTION TO EVALUATE SOIL CONDITIONS AND DETERMINE IF ADDITIONAL MEASURES ARE NECESSARY TO ASSURE STABILITY OF THE NEW ROADS. PAVEMENT DESIGN SHALL BE APPROVED BY EL PASO COUNTY DEVELOPMENT SERVICES ENGINEERING DIVISION PRIOR TO CONSTRUCTION.
- THE CONTECH ALUMINUM BOX CULVERT SHALL BE DESIGNED TO MEET THE LOADING CRITERIA SPECIFIED WITHIN THE CURRENT ENGINEERING CRITERIA MANUAL. FINAL CONSTRUCTION AND FOUNDATION DETAILS FOR THE CONTECH BOX CULVERT SHALL BE PROVIDED TO EL PASO COUNTY FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION OR PLAT RECORDATION, WHICHEVER COMES FIRST.

SIGNING AND STRIPING NOTES:

- ALL SIGNS AND PAVEMENT MARKINGS SHALL BE IN COMPLIANCE WITH THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- REMOVAL OF EXISTING PAVEMENT MARKINGS SHALL BE ACCOMPLISHED BY A METHOD THAT DOES NOT MATERIALLY DAMAGE THE PAVEMENT. THE PAVEMENT MARKINGS SHALL BE REMOVED TO THE EXTENT THAT THEY WILL NOT BE VISIBLE UNDER DAY OR NIGHT CONDITIONS. AT NO TIME WILL IT BE ACCEPTABLE TO PAINT OVER EXISTING PAVEMENT MARKINGS.
- ANY DEVIATION FROM THE STRIPING AND SIGNING PLAN SHALL BE APPROVED BY EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT.
- ALL SIGNS SHOWN ON THE SIGNING AND STRIPING PLAN SHALL BE NEW SIGNS. EXISTING SIGNS MAY REMAIN OR BE REUSED IF THEY MEET CURRENT EL PASO COUNTY AND MUTCD STANDARDS.
- STREET NAME AND REGULATORY STOP SIGNS SHALL BE ON THE SAME POST AT INTERSECTIONS.
- ALL REMOVED SIGNS SHALL BE DISPOSED OF IN A PROPER MANNER BY THE CONTRACTOR.
- ALL STREET NAME SIGNS SHALL HAVE "D" SERIES LETTERS, WITH LOCAL ROADWAY SIGNS BEING 4" UPPER-LOWER CASE LETTERING ON 8" BLANK AND NON-LOCAL ROADWAY SIGNS BEING 6" LETTERING, UPPER-LOWER CASE ON 12" BLANK, WITH A WHITE BORDER THAT IS NOT RECESSED. MULTI-LANE ROADWAYS WITH SPEED LIMITS OF 40 MPH OR HIGHER SHALL HAVE 8" UPPER-LOWER CASE LETTERING ON 18" BLANK WITH A WHITE BORDER THAT IS NOT RECESSED. THE WIDTH OF THE NON-RECESSED WHITE BORDERS SHALL MATCH PAGE 255 OF THE 2012 MUTCD "STANDARD HIGHWAY SIGNS"
- ALL TRAFFIC SIGNS SHALL HAVE A MINIMUM HIGH INTENSITY PRISMATIC GRADE SHEETING.
- ALL LOCAL RESIDENTIAL STREET SIGNS SHALL BE MOUNTED ON A 1.75" X 1.75" SQUARE TUBE SIGN POST AND STUB POST BASE. FOR OTHER APPLICATIONS, REFER TO THE CDOT STANDARD S-614-8 REGARDING USE OF THE P2 TUBULAR STEEL POST SLIPBASE DESIGN.
- ALL SIGNS SHALL BE SINGLE SHEET ALUMINUM WITH 0.100" MINIMUM THICKNESS.
- ALL LIMIT LINES/STOP LINES, CROSSWALK LINES, PAVEMENT LEGENDS, AND ARROWS SHALL BE A MINIMUM 125 MIL THICKNESS PREFORMED THERMOPLASTIC PAVEMENT MARKINGS WITH TAPERED LEADING EDGES PER CDOT STANDARD S-627-1. WORD AND SYMBOL MARKINGS SHALL BE THE NARROW TYPE. STOP BARS SHALL BE 24" IN WIDTH. CROSSWALKS LINES SHALL BE 12" WIDE AND 8' LONG PER CDOT S-627-1.
- ALL LONGITUDINAL LINES SHALL BE A MINIMUM 15MIL THICKNESS EPOXY PAINT. ALL NON-LOCAL RESIDENTIAL ROADWAYS SHALL INCLUDE BOTH RIGHT AND LEFT EDGE LINE STRIPING AND ANY ADDITIONAL STRIPING AS REQUIRED BY CDOT S-627-1.
- THE CONTRACTOR SHALL NOTIFY EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT (719) 520-6819 PRIOR TO AND UPON COMPLETION OF SIGNING AND STRIPING.
- THE CONTRACTOR SHALL OBTAIN A WORK IN THE RIGHT OF WAY PERMIT FROM THE EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS (DPW) PRIOR TO ANY SIGNAGE OR STRIPING WORK WITHIN AN EXISTING EL PASO COUNTY ROADWAY.

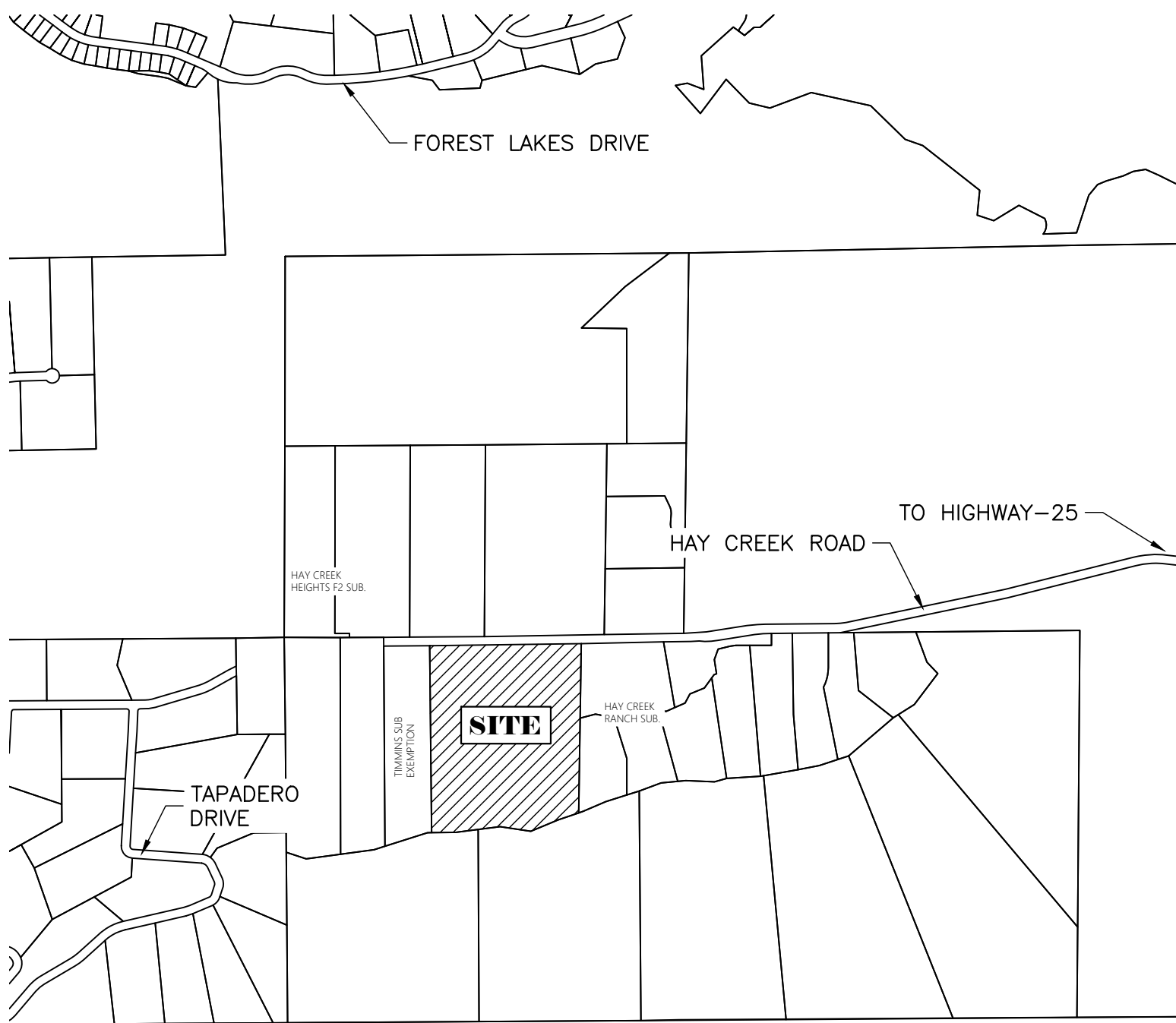
STANDARD NOTES FOR EL PASO COUNTY CONSTRUCTION PLANS:

- 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 PLANNING AND COMMUNITY DEVELOPMENT (PCD) – 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 UNLESS OTHERWISE NOTED AND APPROVED BY PCD.
- CONTRACTOR SHALL COORDINATE GEOTECHNICAL TESTING PER ECM STANDARDS. PAVEMENT DESIGN SHALL BE APPROVED BY EL PASO COUNTY PCD PRIOR TO PLACEMENT OF CURB AND GUTTER AND PAVEMENT.
- 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 DPW AND MUTCD CRITERIA. [IF APPLICABLE, ADDITIONAL SIGNING AND STRIPING NOTES WILL BE PROVIDED.]
- CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY EL PASO COUNTY DPW, 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.

HIDDEN CREEK ESTATES

EL PASO COUNTY, COLORADO

CONSTRUCTION DRAWINGS



AIR FORCE ACADEMY

VICINITY MAP
SCALE: 1"=1,000'

BASIS OF BEARINGS:

NORTHWEST AND NORTHEAST CORNERS OF 3405 HAY CREEK ROAD BEARING N89°40'46"E.

BENCHMARK:

NORTHEAST CORNER OF 3405 HAY CREEK ROAD WITH A NAVD88 ELEVATION OF 6990.22

SHEET INDEX

1	–	COVER SHEET
2	–	LEGEND
3-4	–	STREET IMPROVEMENT PLAN
5	–	INITIAL-FINAL GEC PLAN
6	–	STORM SEWER PLAN & PROFILE
7-9	–	DETAILS
9	–	TOTAL SHEETS



THE LOCATIONS OF EXISTING ABOVE GROUND AND 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 ABOVE GROUND AND UNDERGROUND UTILITIES.

CONTACTS:

OWNER/DEVELOPER	3405 HAY CREEK DRIVE, LLC 3405 HAY CREEK DRIVE COLORADO SPRINGS, CO 80921 ATTN: JAMIE HULL (719) 331-6121
ENGINEER	ALL TERRAIN ENGINEERING LLC 1004 W VAN BUREN ST COLORADO SPRINGS, CO 80907 ATTN: NICHOLAS JOKERST (530) 391-7635
SURVEYOR	POLARIS SURVEYING INC. 1903 LELARAY STREET, SUITE 102 COLORADO SPRINGS, CO 80909 (719) 448-0844
EL PASO COUNTY	EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT 2880 INTERNATIONAL CIRCLE, SUITE 110 COLORADO SPRINGS CO 80910
TRAFFIC	EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS 3275 AKERS DRIVE COLORADO SPRINGS, CO 80922
FIRE PROTECTION	TRI-LAKES MONUMENT FIRE PROTECTION DISTRICT 16055 OLD FOREST POINT, SUITE 102 MONUMENT, CO 80132 (719) 484-0911

CONDITION OF APPROVAL:

THE CONTECH ALUMINUM BOX CULVERT SHALL BE DESIGNED TO MEET THE LOADING CRITERIA SPECIFIED WITHIN THE CURRENT ENGINEERING CRITERIA MANUAL. FINAL CONSTRUCTION AND FOUNDATION DETAILS FOR THE CONTECH BOX CULVERT SHALL BE PROVIDED TO EL PASO COUNTY FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION OR PLAT RECORDATION.

EL PASO COUNTY STATEMENT

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

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

JOSHUA PALMER P.E. DATE
COUNTY ENGINEER/ECM ADMINISTRATOR

OWNER/DEVELOPER STATEMENT

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

NAME DATE

3405 HAY CREEK, LLC
3405 HAY CREEK DRIVE
COLORADO SPRINGS, 80921

ENGINEER'S STATEMENT

THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECT 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 PLAN AND SPECIFICATIONS MEET THE PURPOSES FOR WHICH THE PARTICULAR ROADWAY AND DRAINAGE FACILITIES ARE DESIGNED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARATION OF THESE DETAILED PLANS AND SPECIFICATIONS.

NICHOLAS Q. JOKERST, P.E.
COLORADO P.E. 59273
FOR AND ON BEHALF OF ALL TERRAIN ENGINEERING LLC

NICHOLAS Q. JOKERST, P.E.
530.391.7635 - ALLTERRAINENGINEERING.COM

APRIL E. BARNES, P.E.
719.577.8888 - EROSIONCONTROLTEAMING.COM

PREPARED FOR:

3405 HAY CREEK, LLC
3405 HAY CREEK
COLORADO SPRINGS, CO 80921
ATTN: JAMIE HULL
(719) 331-6121
JAMES.GOLDWEST@GMAIL.COM

UNTIL SUCH TIME AS THESE
DRAWINGS ARE APPROVED BY THE
APPROPRIATE REVIEWING
AGENCIES, ALL TERRAIN
ENGINEERING APPROVES THEIR
USE ONLY FOR THE PURPOSES
DESIGNATED BY WRITTEN
AUTHORIZATION.

JOB NO: 24008 LOCATION: ###

REV	DESCRIPTION	DATE

HIDDEN CREEK ESTATES

COVER SHEET

DESIGN: NJQ
REVIEW: REB
DATE: 5/27/2025
H-SCALE: 1" = 1000'
V-SCALE: N/A

SHEET

1 OF 9

PLANOMETRICS

EXISTING

PROPOSED

SECTION LINE

RIGHT-OF-WAY

PARCEL LINE

EASEMENT LINE

BOUNDARY LINE

CENTER LINE

CONSTRUCTION

EXISTING

PROPOSED

C&G

EDGE OF ASPHALT

CONCRETE

SIDE WALK

CROSS PAN

PARKING LOT STRIPING

ROADWAY STRIPING - DHASED

ROADWAY STRIPING - DOTTED

GUARDRAIL

FENCE

SOUNDWALL

DEMO

GRAVEL

RIPRAP

DIRT

TRAIL/PATH

RAIL LINE

GRADING

EXISTING

PROPOSED

CONTOUR INTERMEDIATE

CONTOUR INDEX

TOP OF SLOPE

TOE OF SLOPE

CUT/FILL BOUNDARY

LIMITS OF GRADING

LIMITS OF DISTURBANCE

UTILITIES

EXISTING

PROPOSED

SANITARY SEWER

SANITARY SEWER SERVICE

POTABLE WATER MAIN

POTABLE WATER SERVICE

RAW WATER MAIN

IRRIGATION MAIN

SANITARY FORCE MAIN

UNDER-DRAIN

GAS PIPE

HIGH PRESSURE GAS

OIL/PETROLEUM LINE

UNDER-GROUND

OVER-HEAD ELECTRIC

FIBER OPTIC

COMMUNICATION LINES MISC.

STORM PIPE

HGL MINOR

HGL MAJOR

DRAINAGE

EXISTING

PROPOSED

BASE FLOOD ELEVATION

100-YR FLOOD PLAIN

500-YR FLOOD PLAIN

FLOODWAY

SWALE/DITCH

THALWEG (STREAM/CREEK)

LIMITS OF WETLANDS

EDGE OF WATER

SILT FENCE

CONSTRUCTION FENCE/MARKERS

UTILITY SYMBOLS

EXISTING

PROPOSED

STORM SEWER

MANHOLE

STORM INLET

AREA INLET - SQUARE

AREA INLET - ROUND

FLARED END SECTION

TRAFFIC

EXISTING

PROPOSED

TRAFFIC SIGNAL BOX

TRAFFIC SIGNAL POLE

SIGN

STREET LIGHT

STREET LIGHT - SINGLE

STREET LIGHT - DOUBLE

LUMINAIRE

LANDSCAPE

EXISTING

PROPOSED

TREE - CONIFEROUS

TREE - DECIDUOUS

SHRUB/BUSH

SHRUBS AND BUSHES

IRRIGATION BOX

IRRIGATION SPRINKLER

IRRIGATION VALVE

BOLLARD

FLAGPOLE

UTILITY SYMBOLS

EXISTING

PROPOSED

SANITARY

LINE MARKER

SERVICE MARKER

CLEAN-OUT

MANHOLE

WATER

LINE MARKER

SERVICE MARKER

FIRE HYDRANT

FIRE CONNECTION

MANHOLE

BEND

BLOW-OFF VALVE

WELL

METER

VALVE

REDUCER

THRUST BLOCK

CROSS

PLUG W/ THRUST BLOCK

TEE

REVERSE ANCHOR

ANODE

AIR & VACUUM VALVE ASSEMBLY

GAS

MARKER

SERVICE MARKER

METER

DRY UTILITIES

CABLE TV MARKER

CABLE TELEVISION PEDESTAL

ELECTRIC MARKER

ELECTRIC SERVICE MARKER

ELECTRICAL PEDESTAL

ELECTRICAL METER

ELECTRICAL MANHOLE

FIBER-OPTIC MARKER

IRRIGATION PEDESTAL

TELEPHONE MARKER

TELEPHONE PEDESTAL

TELEPHONE MANHOLE

UTILITY POLE

GUY ANCHOR

GUY POLE

MISC. UTILITIES

VENT PIPE

TEST HOLE DESIGNATOR

GRADING AND EROSION CONTROL STANDARD NOTES

1. STORMWATER DISCHARGES FROM CONSTRUCTION SITES SHALL NOT CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR DEGRADATION OF STATE WATERS. ALL WORK AND EARTH DISTURBANCE SHALL BE DONE IN A MANNER THAT MINIMIZES POLLUTION OF ANY ON-SITE OR OFF-SITE WATERS, INCLUDING WETLANDS.

2. NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE 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.

3. A SEPARATE STORMWATER MANAGEMENT PLAN (SWMP) FOR THIS PROJECT SHALL BE COMPLETED AND AN EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP) ISSUED PRIOR TO COMMENCING CONSTRUCTION. MANAGEMENT OF THE SWMP DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE DESIGNATED QUALIFIED STORMWATER MANAGER OR CERTIFIED EROSION CONTROL INSPECTOR. THE SWMP SHALL BE LOCATED ON SITE AT ALL TIMES DURING CONSTRUCTION AND SHALL BE KEPT UP TO DATE WITH WORK PROGRESS AND CHANGES IN THE FIELD.

4. ONCE THE ESQCP IS APPROVED AND A "NOTICE TO PROCEED" HAS BEEN ISSUED, THE CONTRACTOR MAY INSTALL THE INITIAL STAGE EROSION AND SEDIMENT CONTROL MEASURES AS INDICATED ON THE APPROVED GEC. A PRECONSTRUCTION MEETING BETWEEN THE CONTRACTOR, ENGINEER, AND EL PASO COUNTY WILL BE HELD PRIOR TO ANY CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE APPLICANT TO COORDINATE THE MEETING TIME AND PLACE WITH COUNTY STAFF.

5. CONTROL MEASURES MUST BE INSTALLED PRIOR TO COMMENCEMENT OF ACTIVITIES THAT COULD CONTRIBUTE POLLUTANTS TO STORMWATER. CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, AND DISTURBED LAND AREAS SHALL BE INSTALLED IMMEDIATELY UPON COMPLETION OF THE DISTURBANCE.

6. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE MAINTAINED AND REMAIN IN EFFECTIVE 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 ARE NEEDED TO ENSURE THE CONTINUED EFFECTIVE PERFORMANCE OF THE CONTROL MEASURES. ALL CHANGES TO TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES MUST BE INCORPORATED INTO THE STORMWATER MANAGEMENT PLAN.

7. TEMPORARY STABILIZATION SHALL BE IMPLEMENTED ON DISTURBED AREAS AND STOCKPILES WHERE GROUND DISTURBING CONSTRUCTION ACTIVITY HAS PERMANENTLY CEASED OR TEMPORARILY CEASED FOR LONGER THAN 14 DAYS.

8. FINAL STABILIZATION MUST BE IMPLEMENTED AT ALL APPLICABLE CONSTRUCTION SITES. FINAL STABILIZATION IS ACHIEVED WHEN ALL GROUND DISTURBING ACTIVITIES ARE COMPLETE AND ALL DISTURBED AREAS EITHER HAVE A UNIFORM VEGETATIVE COVER WITH INDIVIDUAL PLANT DENSITY OF 70 PERCENT OF PRE-DISTURBANCE LEVELS ESTABLISHED OR EQUIVALENT PERMANENT ALTERNATIVE STABILIZATION METHOD IS IMPLEMENTED. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE REMOVED UPON FINAL STABILIZATION AND BEFORE PERMIT CLOSURE.

9. ALL PERMANENT STORMWATER MANAGEMENT FACILITIES SHALL BE INSTALLED AS DESIGNED IN THE APPROVED PLANS. ANY PROPOSED CHANGES THAT AFFECT THE DESIGN OR FUNCTION OF PERMANENT STORMWATER MANAGEMENT STRUCTURES MUST BE APPROVED BY THE ECM ADMINISTRATOR PRIOR TO IMPLEMENTATION.

10. EARTH DISTURBANCES SHALL BE CONDUCTED IN SUCH A MANNER 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.

11. 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).

12. ANY TEMPORARY OR PERMANENT FACILITY DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF STORMWATER AROUND, THROUGH, OR FROM THE EARTH DISTURBANCE AREA SHALL BE A STABILIZED CONVEYANCE DESIGNED TO MINIMIZE EROSION AND THE DISCHARGE OF SEDIMENT OFF SITE.

13. CONCRETE WASH WATER SHALL BE CONTAINED AND DISPOSED OF IN ACCORDANCE WITH THE SWMP. NO WASH WATER SHALL BE DISCHARGED TO OR ALLOWED TO ENTER STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES. CONCRETE WASHOUTS SHALL NOT BE LOCATED IN AN AREA WHERE SHALLOW GROUNDWATER MAY BE PRESENT, OR WITHIN 50 FEET OF A SURFACE WATER BODY, CREEK OR STREAM.

14. DURING DEWATERING OPERATIONS OF UNCONTAMINATED GROUND WATER MAY BE DISCHARGED ON SITE, BUT SHALL NOT LEAVE THE SITE IN THE FORM OF SURFACE RUNOFF UNLESS AN APPROVED STATE DEWATERING PERMIT IS IN PLACE.

15. EROSION CONTROL BLANKETING OR OTHER PROTECTIVE COVERING SHALL BE USED ON SLOPES STEEPER THAN 3:1.

16. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL WASTES FROM THE CONSTRUCTION SITE FOR DISPOSAL IN ACCORDANCE WITH LOCAL AND STATE REGULATORY REQUIREMENTS. NO CONSTRUCTION DEBRIS, TREE SLASH, BUILDING MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, OR DISCHARGED AT THE SITE.

17. WASTE MATERIALS SHALL NOT BE TEMPORARILY PLACED OR STORED IN THE STREET, ALLEY, OR OTHER PUBLIC WAY, UNLESS IN ACCORDANCE WITH AN APPROVED TRAFFIC CONTROL PLAN. CONTROL MEASURES MAY BE REQUIRED BY EL PASO COUNTY ENGINEERING IF DEEMED NECESSARY, BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES.

18. TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF-SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFF-SITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.

19. THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION DEBRIS, DIRT, TRASH, ROCK, SEDIMENT, SOIL, AND SAND THAT MAY ACCUMULATE IN ROADS, STORM DRAINS AND OTHER DRAINAGE CONVEYANCE SYSTEMS AND STORMWATER APPURTENANCES AS A RESULT OF SITE DEVELOPMENT.

20. THE QUANTITY OF MATERIALS STORED ON THE PROJECT SITE SHALL BE LIMITED, AS MUCH AS PRACTICAL, TO THAT QUANTITY REQUIRED TO PERFORM THE WORK IN AN ORDERLY SEQUENCE. ALL MATERIALS STORED ON-SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER, IN THEIR ORIGINAL CONTAINERS, WITH ORIGINAL MANUFACTURER'S LABELS.

21. NO CHEMICAL(S) HAVING THE POTENTIAL TO BE RELEASED IN STORMWATER ARE TO BE STORED OR USED ONSITE UNLESS PERMISSION FOR THE USE OF SUCH CHEMICAL(S) IS GRANTED IN WRITING BY THE ECM ADMINISTRATOR. IN GRANTING APPROVAL FOR THE USE OF SUCH CHEMICAL(S), SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.

22. BULK STORAGE OF ALLOWED PETROLEUM PRODUCTS OR OTHER ALLOWED LIQUID CHEMICALS IN EXCESS OF 55 GALLONS SHALL REQUIRE ADEQUATE SECONDARY 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 OTHER FACILITIES.

23. NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE CURB AND GUTTER OR DITCH EXCEPT WITH APPROVED SEDIMENT CONTROL MEASURES.

24. OWNER/DEVELOPER AND THEIR AGENTS SHALL COMPLY WITH THE "COLORADO WATER QUALITY CONTROL ACT" (TITLE 25, ARTICLE 8, CRS), AND THE "CLEAN WATER ACT" (33 USC 1344), IN ADDITION TO THE REQUIREMENTS OF THE LAND DEVELOPMENT CODE, DCM VOLUME II AND THE ECM APPENDIX I. ALL APPROPRIATE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION (1041, NPDES, FLOODPLAIN, 404, FUGITIVE DUST, ETC.). IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND OTHER LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL, STATE, LOCAL, OR COUNTY AGENCIES, THE MOST RESTRICTIVE LAWS, RULES, OR REGULATIONS SHALL APPLY.

25. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE ONLY AT APPROVED CONSTRUCTION ACCESS POINTS.

26. PRIOR TO CONSTRUCTION THE PERMITTEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.

27. A WATER SOURCE SHALL BE AVAILABLE ON SITE DURING EARTHWORK OPERATIONS AND SHALL BE UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND.

28. THE SOILS REPORT FOR THIS SITE HAS BEEN PREPARED BY ROCKY MOUNTAIN GROUP AND SHALL BE CONSIDERED A PART OF THESE PLANS.

29. 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

PREPARED FOR:

3405 HAY CREEK, LLC
3405 HAY CREEK
COLORADO SPRINGS, CO 80921
ATTN: JAMIE HULL
(719) 331-6121
JAMES.GOLDWEST@GMAIL.COM

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AUTHORIZATION.

JOB NO: 24008

LOCATION: EPC

DATE

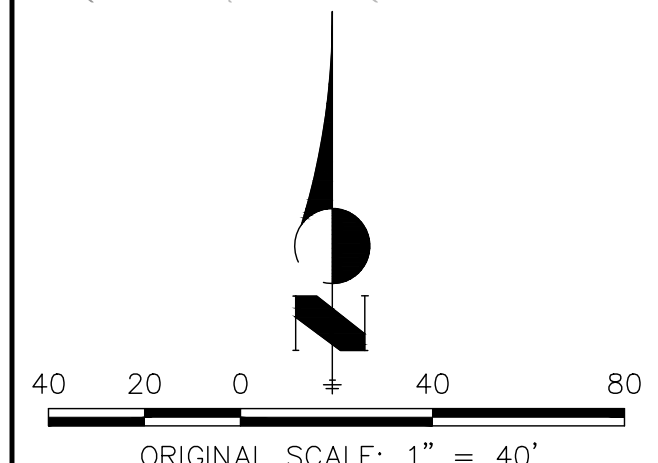
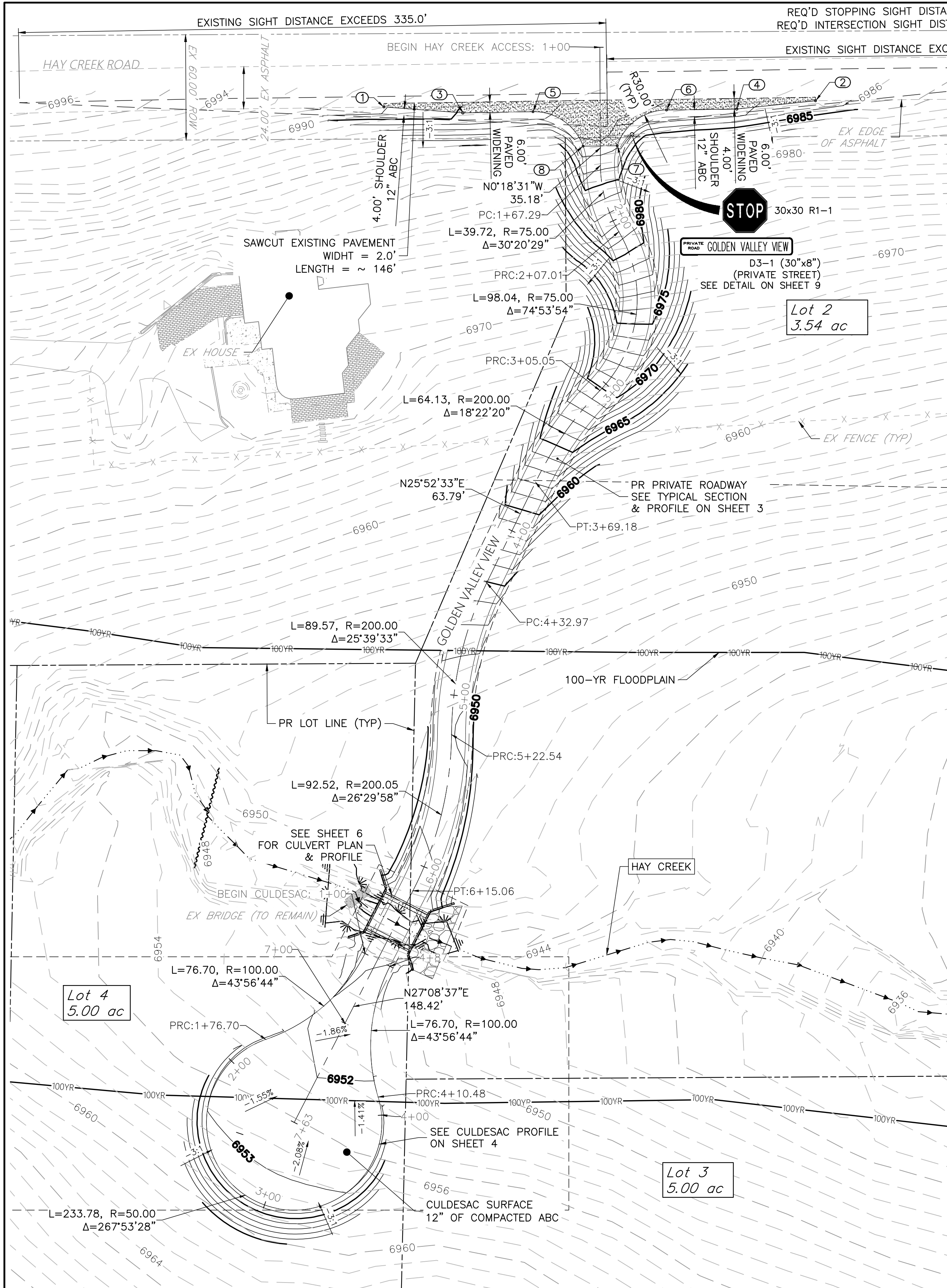
REV

DESCRIPTION

HIDDEN CREEK ESTATES

LEGEND

DESIGN: NQJ
REVIEW: REB
DATE: 5/27/2025
H-SCALE: N/A
V-SCALE: N/A
SHEET
2 OF 9

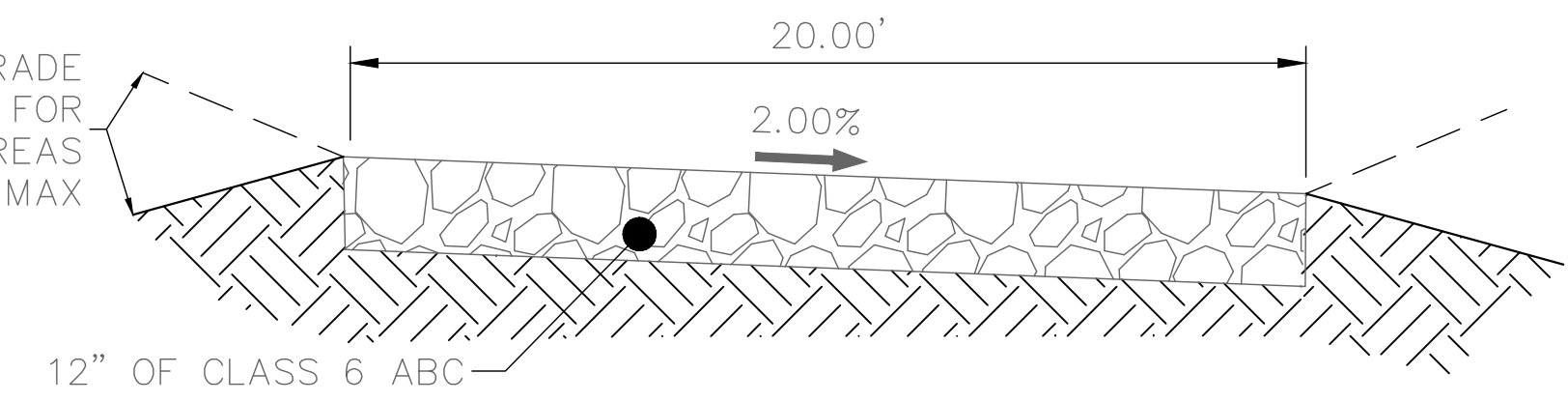


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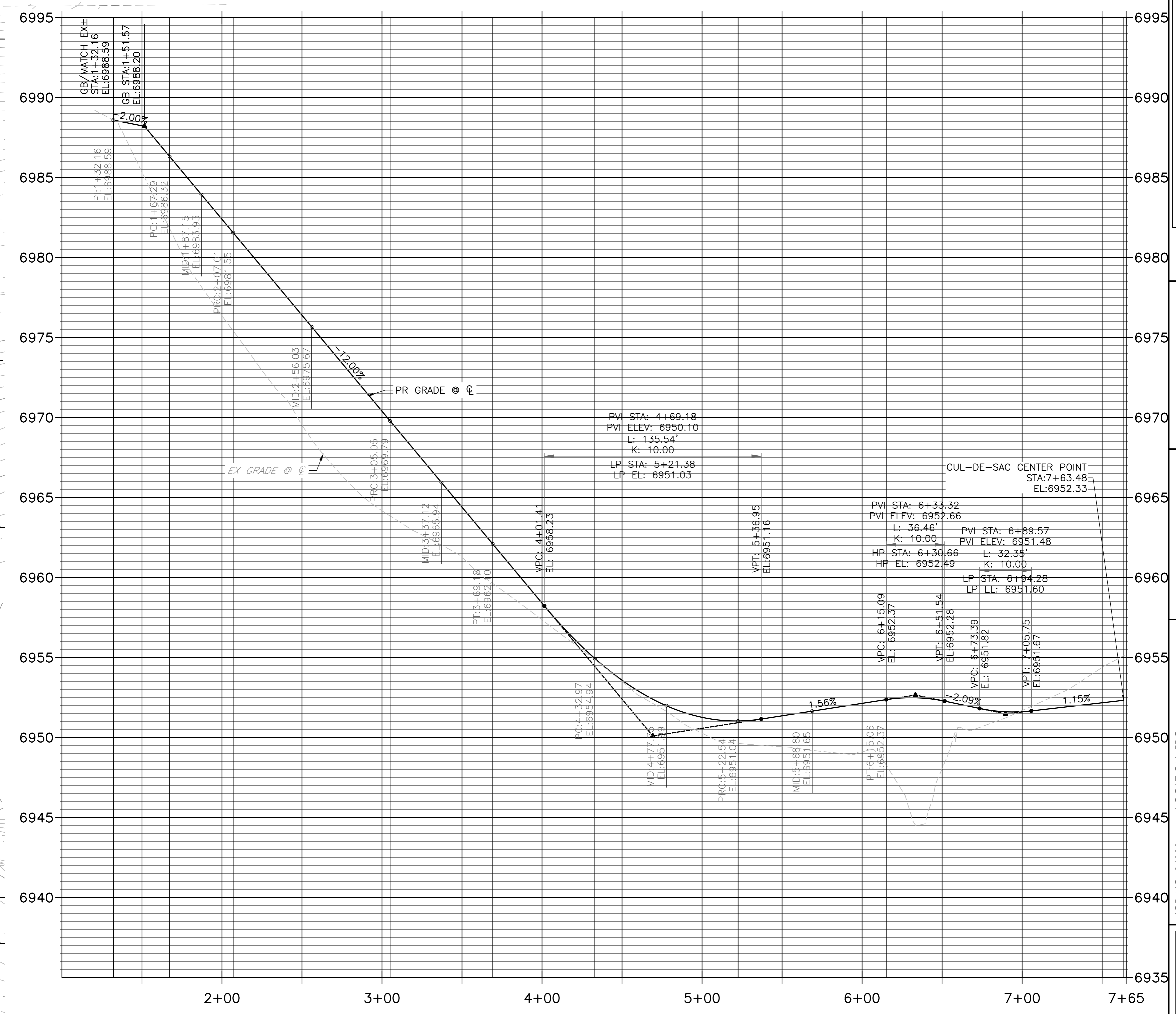
STREET GRADING POINTS				
#	DESC.	ALIGNMENT	STA & OFFSET	FL ELEV.
1	MATCH EX ±	HAY CREEK ACCESS	1+33.36 (123.28' R)	6991.05
3	PI	HAY CREEK ACCESS	1+36.96 (78.28' R)	6989.92
5	PCR	HAY CREEK ACCESS	1+36.52 (38.28' R)	6989.21
6	PCR	HAY CREEK ACCESS	1+35.94 (-37.83' L)	6987.89
8	PCR/END ASPHALT	HAY CREEK ACCESS	1+56.30 (9.79' R)	6987.56
4	PI	HAY CREEK ACCESS	1+35.61 (-77.83' L)	6987.17
7	PCR/END ASPHALT	HAY CREEK ACCESS	1+56.15 (-9.64' L)	6987.12
2	MATCH EX ±	HAY CREEK ACCESS	1+31.15 (-122.83' L)	6986.41

TIE INTO PROP. GRADE
SEE PLAN FOR
CUT & FILL AREAS
3:1 MAX



20' PRIVATE ROAD
N.T.S.
ROAD CLASSIFICATION: PRIVATE, RURAL LOCAL
DESIGN SPEED: 15 MPH

HAY CREEK ACCESS STA 1+00.00 TO 7+65.00



ENGINEER'S STATEMENT

THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECT 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 CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARATION OF THESE DETAILED PLANS AND SPECIFICATIONS.

NICHOLAS O. JOKERST, P.E.
COLORADO P.E. 59273
FOR AND ON BEHALF OF ALL TERRAIN ENGINEERING, LLC

DATE

DESIGN: NJQ
REVIEW: REB
DATE: 5/27/2025
H-SCALE: 1" = 40'
V-SCALE: 1" = 4'
SHEET
3 OF 9

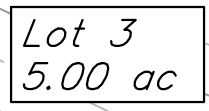
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PREPARED FOR:
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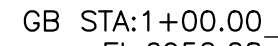
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JOB NO: 24008
LOCATION: EPC
REV DESCRIPTION
DATE

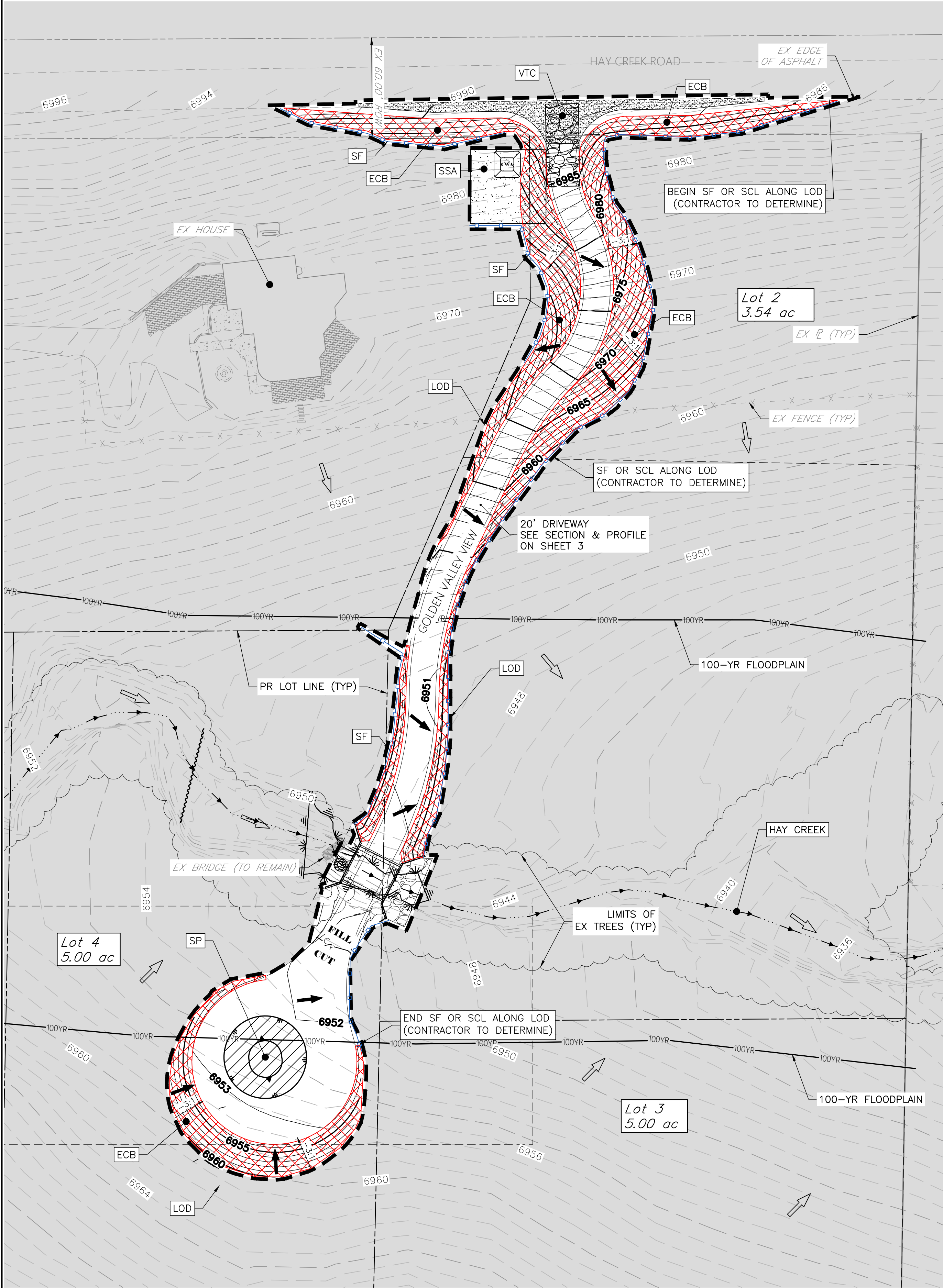
HIDDEN CREEK ESTATES
STREET IMPROVEMENT PLAN



Know what's **below**.
Call before you dig.



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GRADING AND EROSION CONTROL PLAN NOTES:

1. TOTAL DISTURBANCE AREA ~ 43,124 SQ. FT. (0.99 AC)
2. INITIAL & INTERIM TEMPORARY CONSTRUCTION CONTROL MEASURES (TCM) SHALL REMAIN THROUGH THE FINAL PHASE.
3. ALL AREAS DISTURBED DURING CONSTRUCTION, OUTSIDE OF THE PROPOSED ROADWAY, MUST BE SEEDED AND MULCHED.
4. ALL AREAS DISTURBED DURING CONSTRUCTION, OUTSIDE OF THE PROPOSED ROADWAY, MUST BE SEEDED AND MULCHED.
5. EXISTING VEGETATION CONSISTS OF NATIVE GRASSES W/ APPROXIMATELY 70% COVERAGE.

INITIAL PHASE TCM:

- VEHICLE TRACKING CONTROL
- STABILIZED STAGING AREA
- SILT FENCE/SEDIMENT CONTROL LOG

INTERIM PHASE TCM:

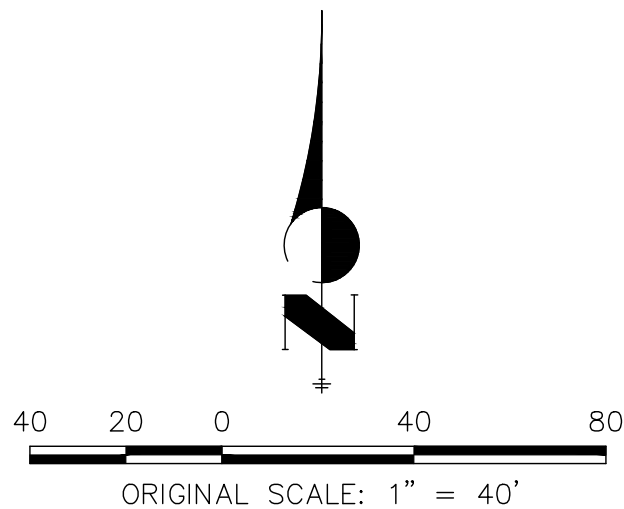
- EROSION CONTROL BLANKET
- CULVERT INLET PROTECTION

FINAL PHASE TCM:

- SEEDING AND MULCHING
- REMOVE ALL TEMPORARY BMP'S UPON FINAL STABILIZATION

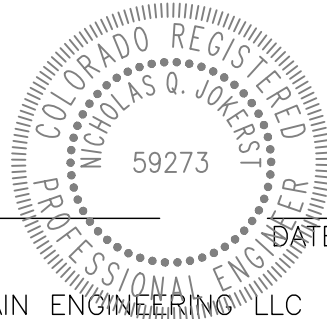
GEC LEGEND:

- CULVERT PROTECTION
- CONCRETE WASHOUT AREA
- INLET PROTECTION
- EX FLOW DIRECTION
- PR FLOW DIRECTION
- SEDIMENT CONTROL LOG
- DIVERSION DITCH
- SILT FENCE
- CUT/FILL BOUNDARY
- LIMITS OF DISTURBANCE/CONSTRUCTION
- STABILIZED STAGING AREA
- STOCKPILE PROTECTION
- VEHICLE TRACKING CONTROL
- SEEDING & MULCHING
- EROSION CONTROL BLANKET
- DO NOT DISTURB



ENGINEER'S STATEMENT

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PREPARED FOR:

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3405 HAY CREEK
COLORADO SPRINGS, CO 80921
ATTN: JAMIE HULL
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JAMES.GOLDWEST@GMAIL.COM

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HIDDEN CREEK ESTATES

INITIAL-FINAL GEC PLAN

DESIGN: NQJ
REVIEW: REB
DATE: 5/27/2025

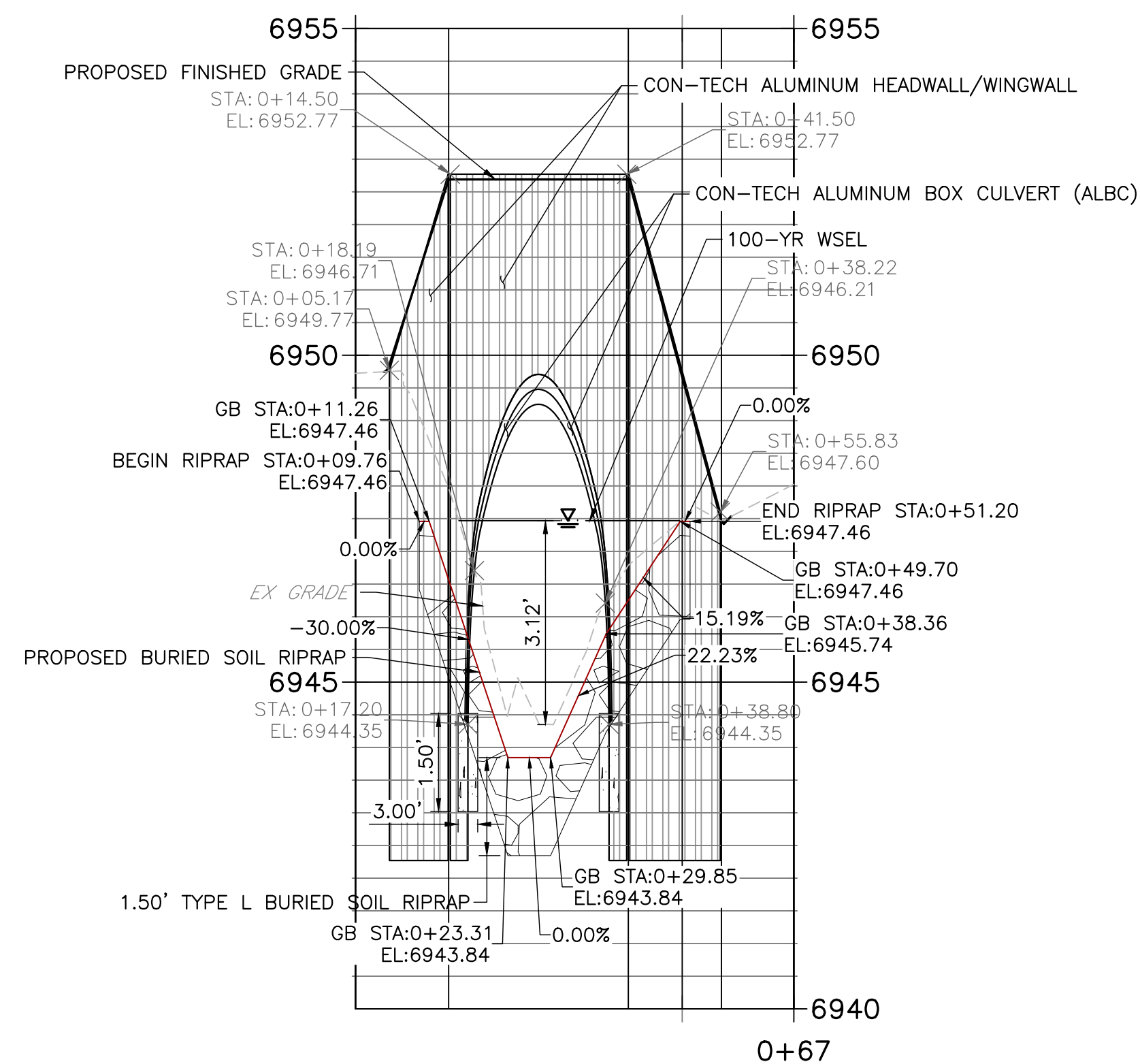
H-SCALE: 1" = 40'

V-SCALE: 1" = 4'

SHEET

5 OF 9

CHANNEL XSECTION - PROPOSED DOWNSTREAM XING



6955

PR GRADE @ ϕ

20.00' GRAVEL DRIVE

CONTECH ALUMINUM HEADWALL/WINGWALL

6950

CROWN OF CONTECH ALUMINUM 3-SIDED BOX CULVERT

100-YR WSEL

6950

6945

$\sim 0.9\%$

$\sim 1.3\%$

TYPE L SOIL RIPRAP
18" DEPTH
INSTALL 6" \pm BELOW
EXISTING CHANNEL BOTTOM

PR GRADE @ ϕ

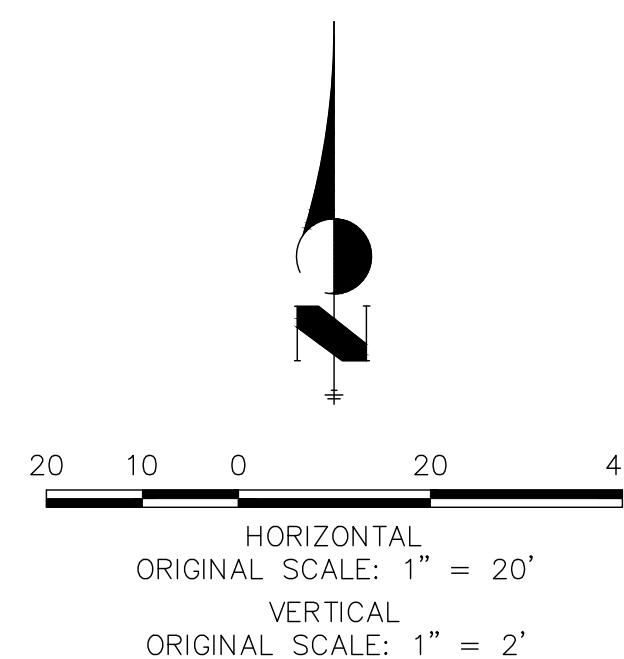
EX GRADE @ ϕ

6940

1+92

1+00

1. SEE "DY0649556 HAY CREEK CROSSING RBCB ALTERNATE" PLANS FOR ALBC ALUMINUM BOX CULVERT DETAILS AND SPECIFICATIONS.
2. ALL WORK RELATED TO THE INSTALLATION OF THE ALBC, HEADWALLS, & WINGWALLS INCLUDING EARTHWORK, BACKFILL, AND EMBANKMENT MUST BE COMPLETED IN ACCORDANCE WITH THE "DY064956 HAY CREEK CROSSING RBCB ALTERNATE" & THE "SOILS & GEOLOGY STUDY HAY CREEK ROAD LOTS 1-6" BY RMG.
3. THE CONTECH ALUMINUM BOX CULVERT SHALL BE DESIGNED TO MEET THE LOADING CRITERIA SPECIFIED WITHIN THE CURRENT ENGINEERING CRITERIA MANUAL. FINAL CONSTRUCTION AND FOUNDATION DETAILS FOR THE CONTECH BOX CULVERT SHALL BE PROVIDED TO THE PASS COUNTY FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION OR PLAT RECORDECTION, WHICHEVER COMES FIRST.
4. CONTECH ALUMINUM BOX CULVERT AND FOUNDATIONS HAVE BEEN DESIGNED TO ACCOMMODATE THE HEAVIEST FIRE SERVICE VEHICLE THAT TRI LAKES MONUMENT FIRE PROTECTION DISTRICT UTILIZES: 82,000 LBS.



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[illegible]

HIDDEN CREEK ESTATES

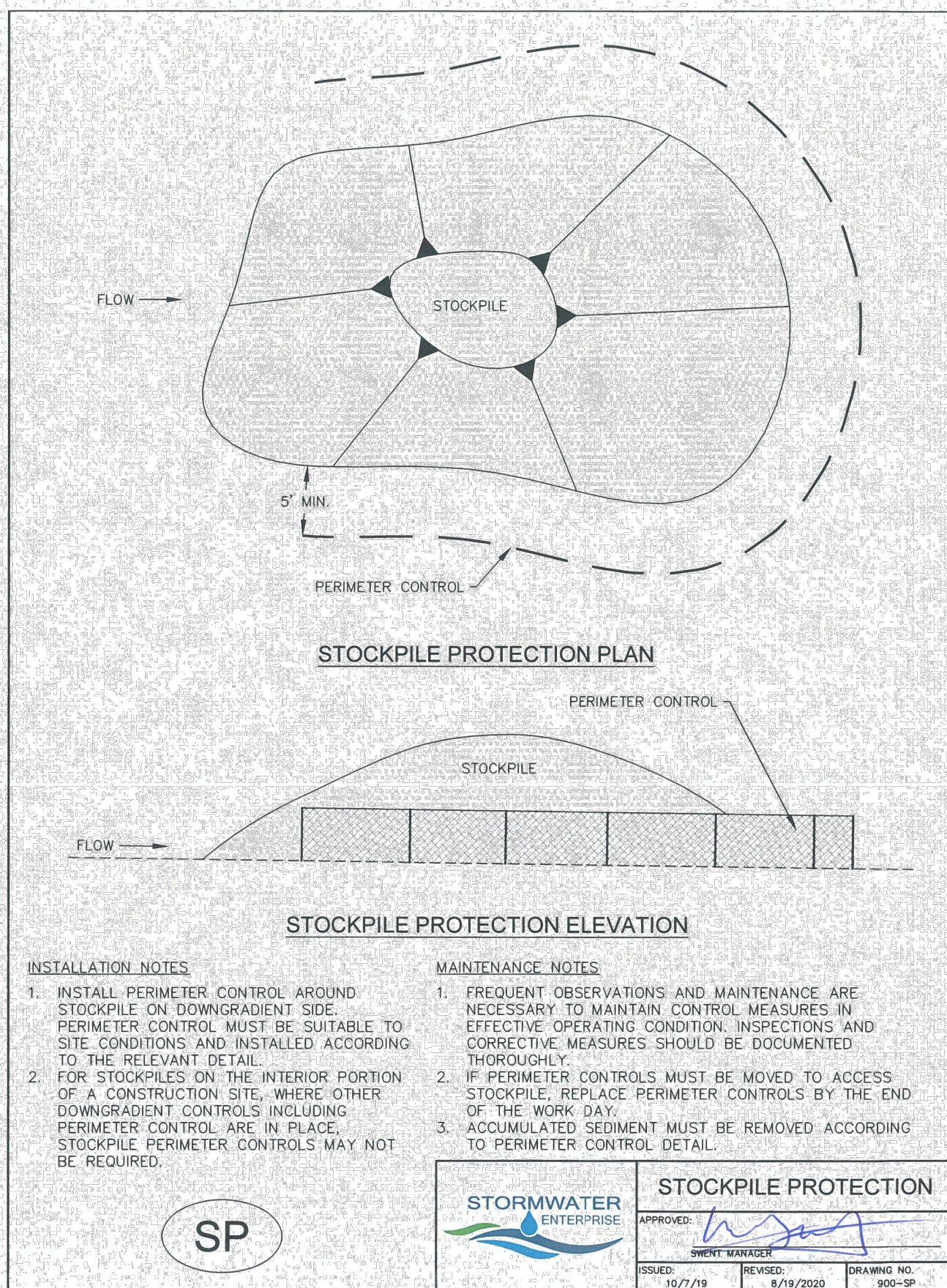
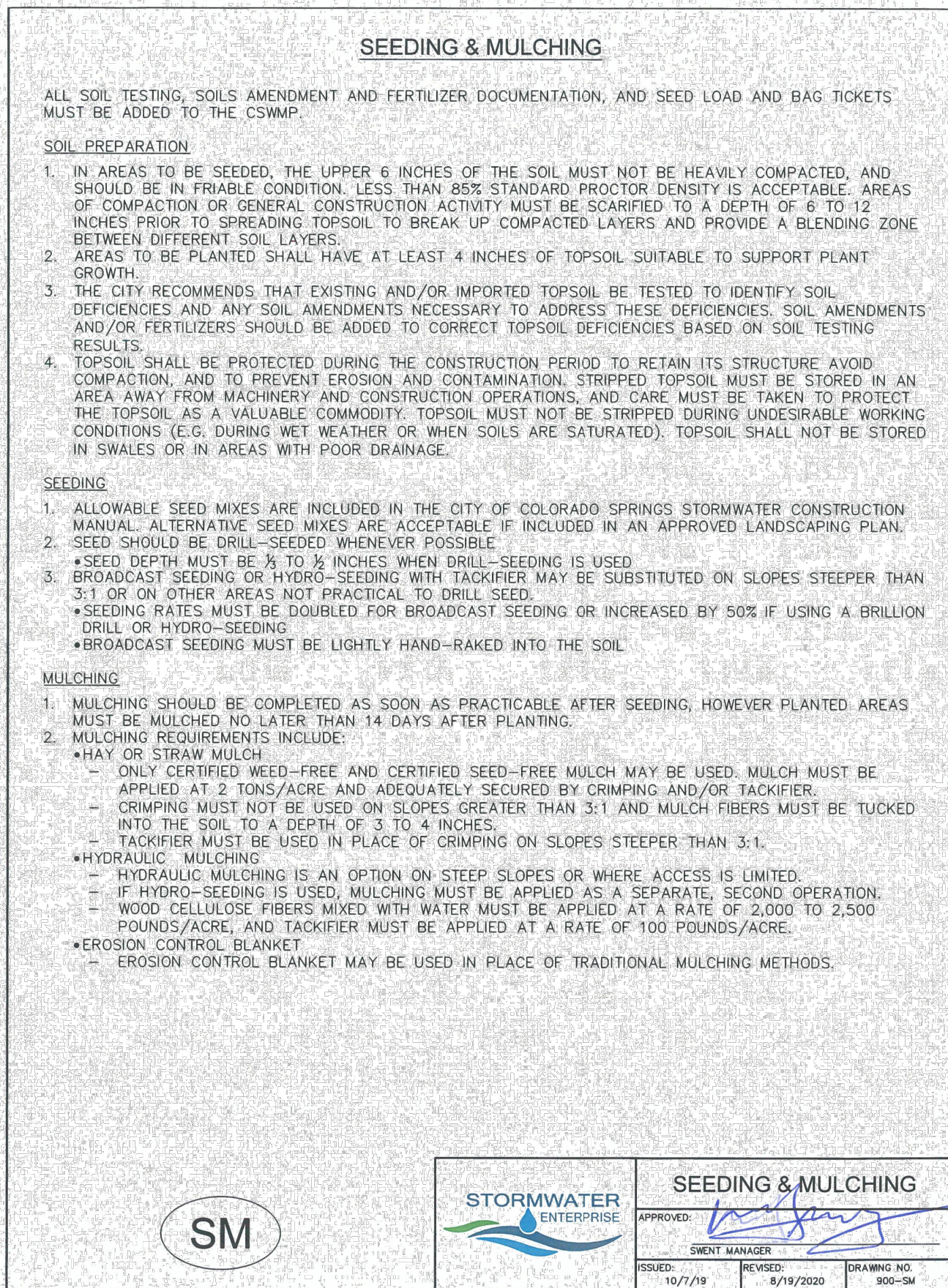
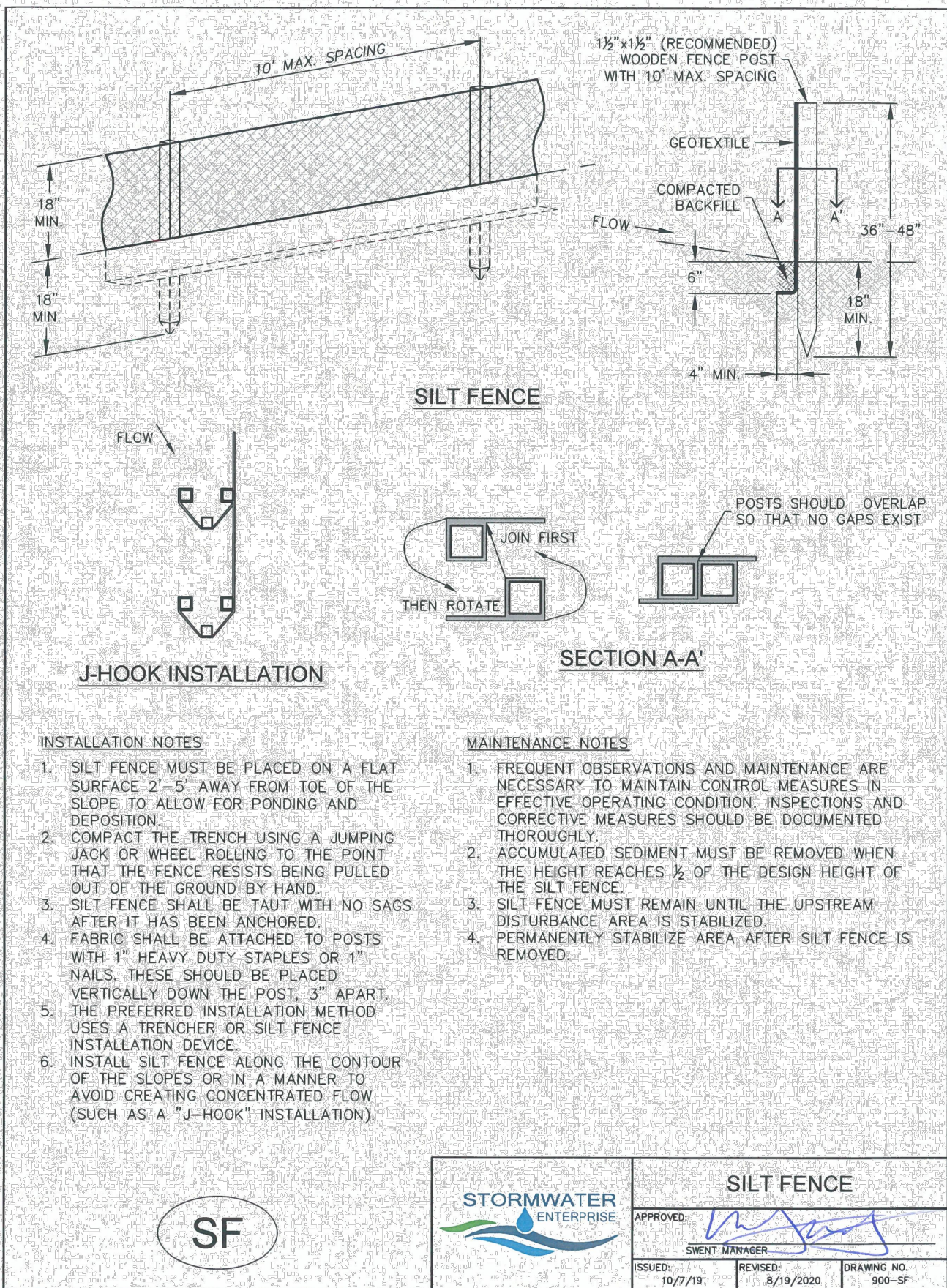
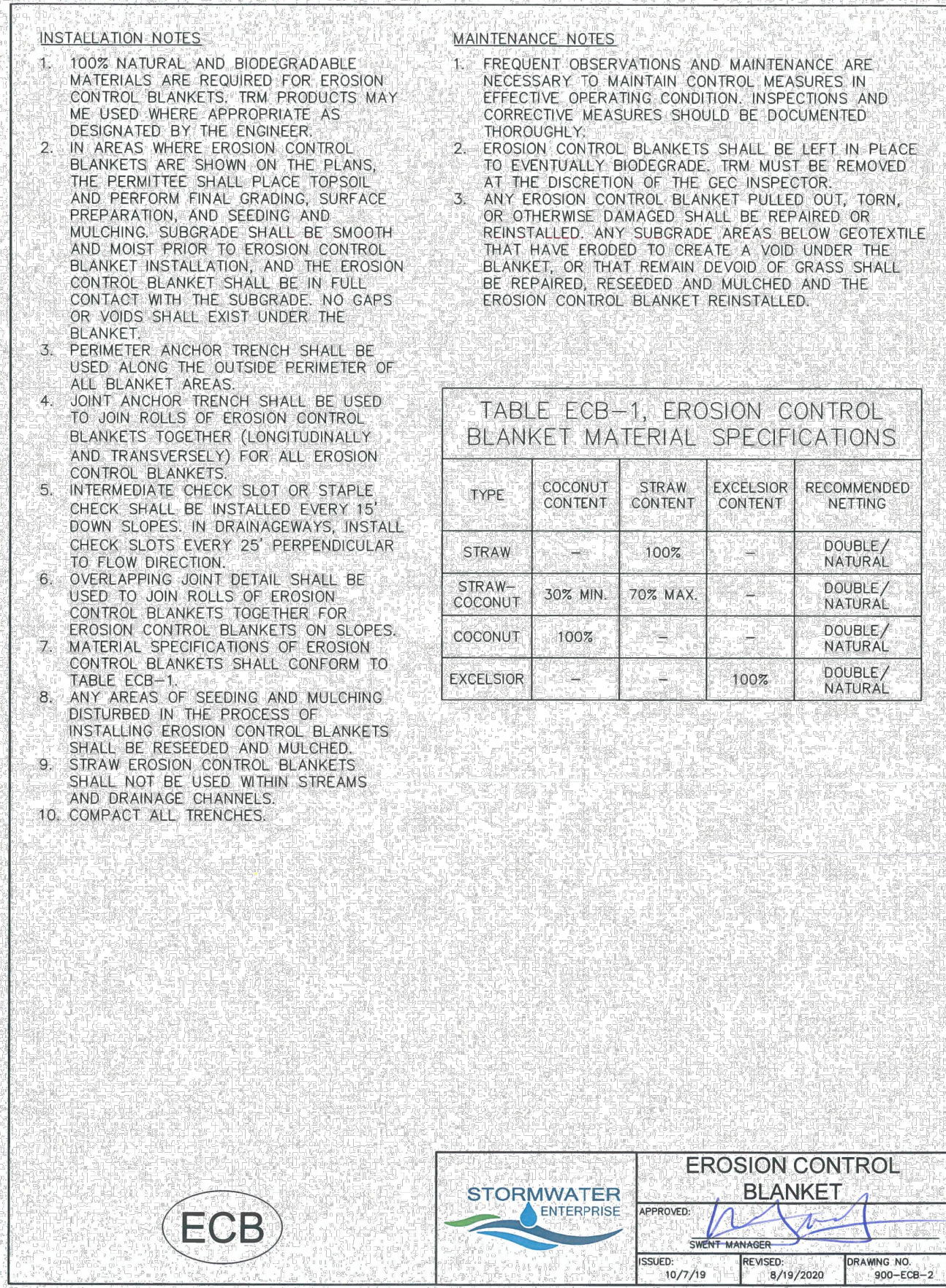
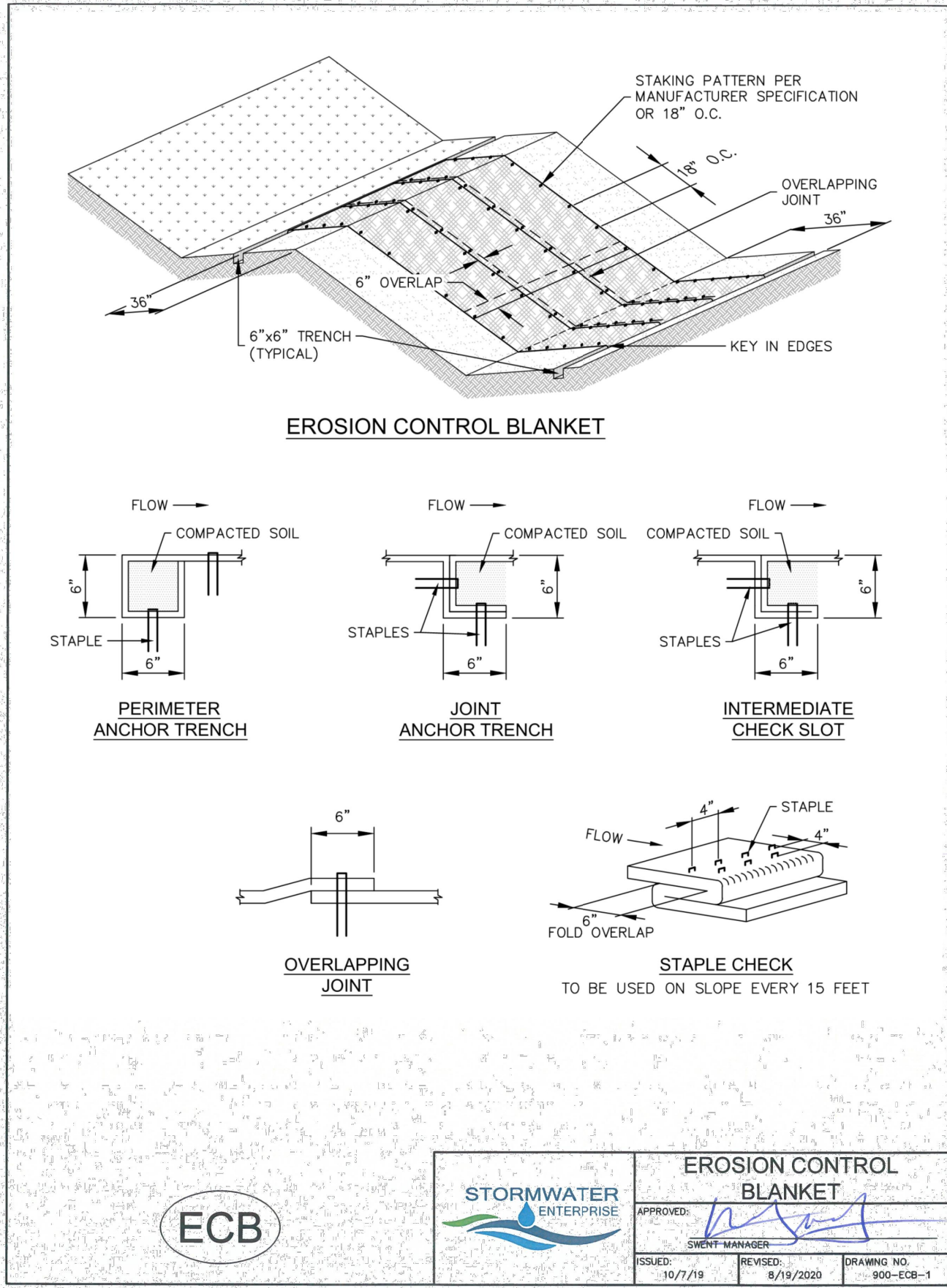
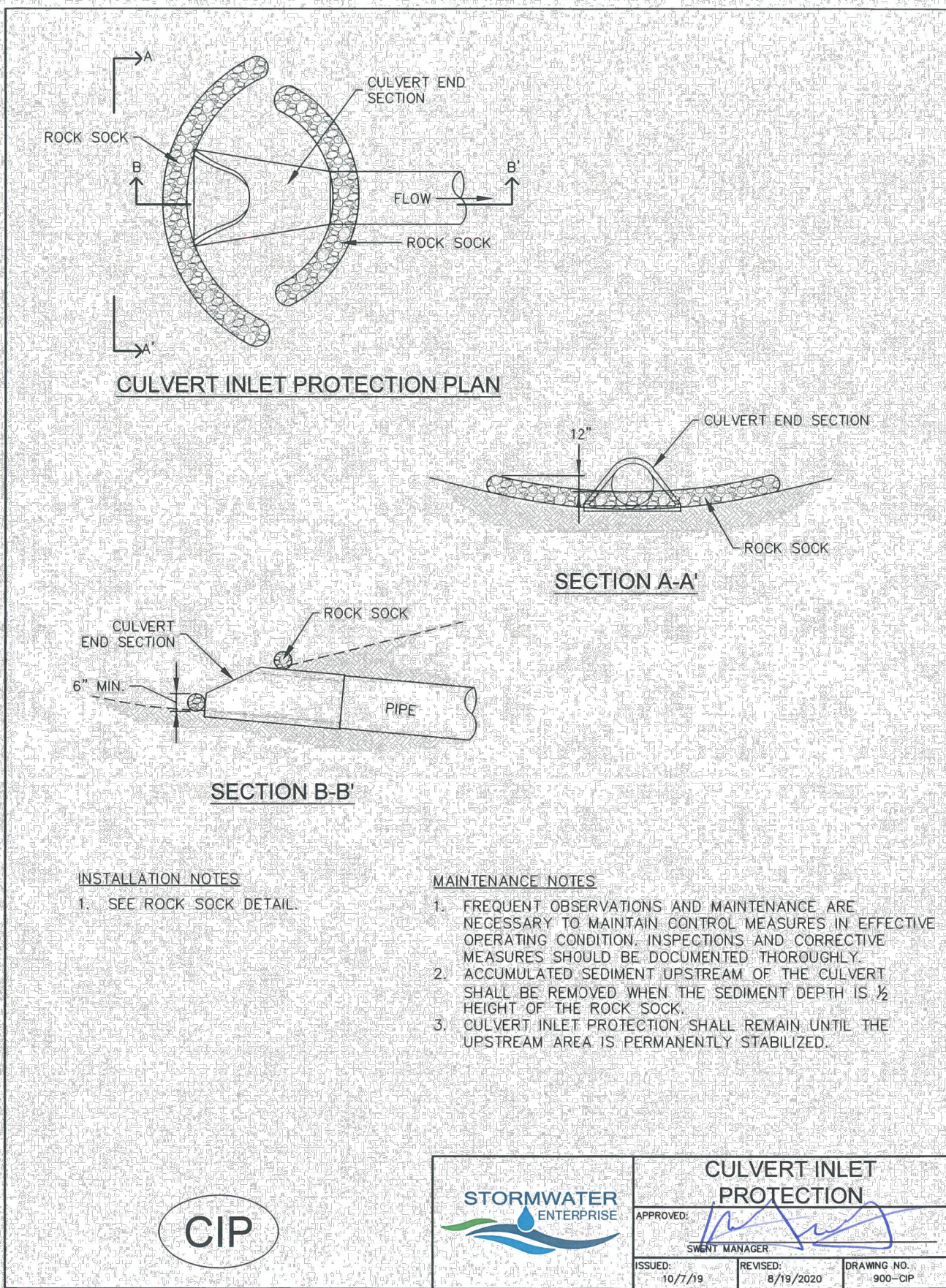
STORM SEWER PLAN & PROFILE

DESIGN: NQJ
REVIEW: REB
DATE: 5/27/2025

H-SCALE: 1" = 20'

V-SCALE: 1" = 2'

SHEET



REV	DESCRIPTION	DATE

HIDDEN CREEK ESTATES

DETAILS

DESIGN: NJJ
REVIEW: REB
DATE: 5/27/2025
H-SCALE: N/A
V-SCALE: N/A

SHEET

7 OF 9

PREPARED FOR:
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JOB NO: 24008 LOCATION: EPC

DESIGN: NJJ
REVIEW: REB
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H-SCALE: N/A

V-SCALE: N/A

SHEET


7 OF 9

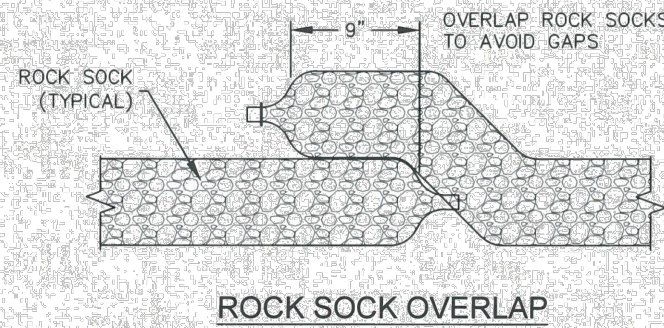
ALL TERRAIN
ENGINEERING

WILLIAM L. BARNETT, P.E.
560.991.7602 - WILLIAM@ALLTERRAIN.COM
JAMES L. BARNETT, P.E.
719.331.6121 - JAMES@ALLTERRAIN.COM

INSTALLATION NOTES	MAINTENANCE NOTES
1. FOR STANDARD BASIN, BOTTOM DIMENSION MAY BE MODIFIED AS LONG AS BOTTOM AREA IS NOT REDUCED.	1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. EMBANKMENT MATERIAL SHALL CONSIST OF SOIL FREE OF DEBRIS, ORGANIC MATERIAL, AND ROCKS OR INCLUSIONS GREATER THAN 3 INCHES, AND SHALL HAVE A MINIMUM OF 15 PERCENT BY WEIGHT PASSING THE No. 200 SIEVE.	2. SEDIMENT ACCUMULATED IN BASIN SHALL BE REMOVED AS NEEDED TO MAINTAIN CONTROL MEASURE EFFECTIVENESS, TYPICALLY WHEN SEDIMENT DEPTH REACHES ONE FOOT (I.E. TWO FEET BELOW SPILLWAY CREST).
3. EMBANKMENT MATERIAL SHALL BE COMPACTED TO AT LEAST 95 PERCENT OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D-698.	3. SEDIMENT BASINS ARE TO REMAIN IN PLACE UNTIL THE UNDERPIN DISTURBED AREA IS PERMANENTLY STABILIZED.
4. PIPE SCHEDULE 40 OR GREATER SHALL BE USED.	4. PERMANENTLY STABILIZE AREA AFTER SEDIMENT BASIN REMOVAL.
5. THE DETAILS SHOWN ON THESE SHEETS PERTAIN TO STANDARD SEDIMENT BASIN(S) FOR DRAINAGE AREAS LESS THAN 15 ACRES. 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, DESIGN CALCULATIONS MUST BE APPROVED PRIOR TO IMPLEMENTATION.	



TEMPORARY SEDIMENT BASIN		
APPROVED: 		
SWENT MANAGER		
ISSUED: 10/7/19	REVISED: 8/19/2020	DRAWING NO. 900-T5B-2



GRADATION TABLE	
SIZE OF SIEVE	MASS PERCENT PASSING SQUARE MESH SIEVES
	No. 4
2"	100
1 1/2"	90-100
1"	20-55
3/4"	0-15
3/8"	0-5
7/8"	

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


INSTALLATION NOTES

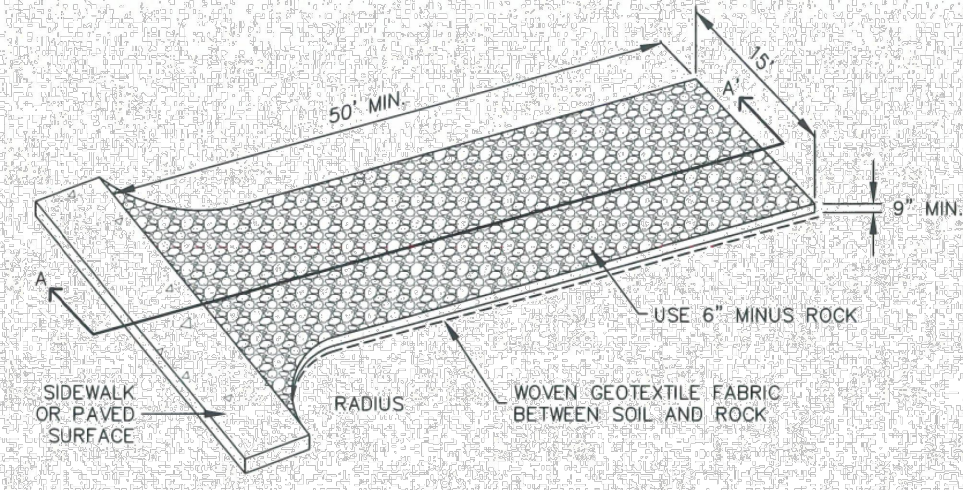
1. CRUSHED ROCK SHALL BE BETWEEN MAX. 1½" (MINUS) IN SIZE WITH A FRACTURED FACE (SIDES) AND SHALL COMPLY WITH GRADATION SHOWN ON THIS SHEET AND MIN. ¾" CRUSHED ROCK.
2. WIRE MESH SHALL HAVE OPENINGS SMALLER THAN THE SMALLEST SIZE ROCK.
3. WIRE MESH SHALL BE SECURED USING 'HOG RINGS' OR WIRE TIES AT 6" CENTERS ALONG ALL JOINTS AND AT 2' CENTERS ON ENDS OF SOCKS.

MAINTENANCE NOTES

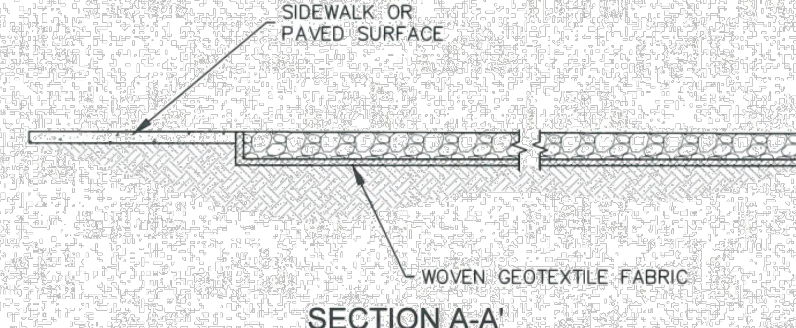
1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. ROCK SOCKS SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED OR DAMAGED BEYOND REPAIR.
3. ACCUMULATED SEDIMENT SHALL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



<h1 style="text-align: center;">ROCK SOCK</h1>		
APPROVED: 		
<u>SWENT MANAGER</u>		
ISSUED: 10/7/19	REVISED: 8/19/2020	DRAWING NO. 900-RS



AGGREGATE VEHICLE TRACKING CONTROL




INSTALLATION NOTES

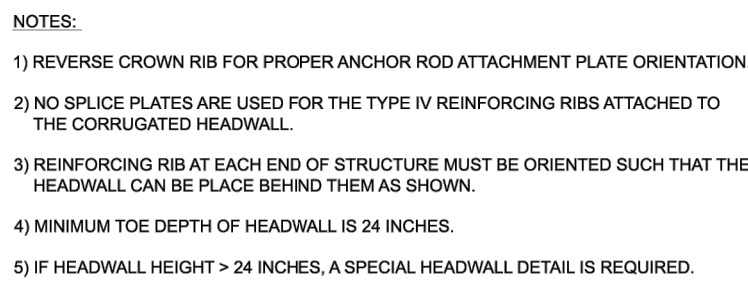
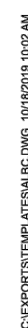
1. A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHOULD BE LOCATED AT ALL POINTS WHERE VEHICLES EXIT THE CONSTRUCTION SITE TO ADJACENT ROADWAY.
2. STABILIZED CONSTRUCTION ENTRANCE/EXITS SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
3. RADIUS MUST BE ADEQUATE FOR INTENDED CONSTRUCTION VEHICLE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

MAINTENANCE NOTES

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



VEHICLE TRACKING CONTROL		
APPROVED: 		
BRENT MANAGER		
ISSUED: 10/7/19	REVISED: 8/19/2020	DRAWING NO. 900-VTC



DF

MONUMENT FIRE DISTRICT

16055 Old Forest Point, Suite #102
Monument, CO 80132
(719) 484-0911
www.monumentfire.org
Proudly serving the Tri-Lakes Region



Jonathan Bradley, Division Chief

Planning and Community Development
El Paso County, Colorado
2880 International Circle, Suite 110
Colorado Springs, CO 80910

The Monument Fire District provides fire protection and emergency medical services to 70 square miles of northern El Paso County. Our current ISO rating is 3/3Y. The proposed Hay Creek Subdivision at

TRACT IN SE4 SEC 33-11-67 AS FOLS, COM AT E4 COR OF SD SEC, TH S 89<40'40" W 750.0 FT FOR POB, TH S 01<09"45" W 1244.54 FT, S 80<33' W 146.26 FT, S 68<03' W 197.10 FT, N 81<05' W 209.10 FT, S 78<41' W 298.40 FT, N 84<17' W 167.75 FT, N 01<09'45" E 1346.12 FT, TH N 89<40'40" E 991.14 FT TO POB -SUBJECT TO EXISTING RD-, TOG WITH R/W BY BK 3465-937, TOG W/ TR IN SE4 SD SEC 33-11-67 DESC AS FOLS: COM AT NE COR SD SEC 33 TH S 89>26'02" W ALG N LN OF SE4 750.19 FT, S 00<43'57" 1216.44 FT FOR POB, TH S 70<45'28" W 4.01 FT, N 00<55'07" E 1158.55 FT, S 00<43'57" W 1157.17 FT TO POB

is located within our current district boundaries, and we will continue providing services to the area.

Our Fire Station 4 is located at 15415 Gleneagle Drive is staffed 24 hours a day and is located 4.2 miles from the proposed subdivision, and our units will arrive within 10 minutes. Therefore, the ISO rating for the property will be 3Y.

The Fire District has reviewed the Hay Creek Subdivision proposed driveway standards of 16' drive with 2' drivable shoulders (total drivable width of 20') with a maximum of a 12% grade, and a 100 ft diameter cul-de-sac meeting fire apparatus turning standards. We have determined that this plan meets the requirements of the 2015 Amended International Fire Code for fire department access.

Please let me know if you have additional questions.

Jonathan Bradley

Division Chief / Fire Marshal

Table 3-35. Design Controls for Crest Vertical Curves Based on Stopping Sight Distance

U.S. Customary				Metric			
Design Speed (mph)	Stopping Sight Distance (ft)	Rate of Vertical Curvature, K_a		Design Speed (km/h)	Stopping Sight Distance (m)	Rate of Vertical Curvature, K_a	
		Calculated	Design			Calculated	Design
15	80	3.0	3	20	20	0.6	1
20	115	6.1	7	30	35	1.9	2
25	155	11.1	12	40	50	3.8	4
30	200	18.5	19	50	65	6.4	7
35	250	29.0	29	60	85	11.0	11
40	305	43.1	44	70	105	16.8	17
45	360	60.1	61	80	130	25.7	26
50	425	83.7	84	90	160	38.9	39
55	495	113.5	114	100	185	52.0	52
60	570	150.6	151	110	220	73.6	74
65	645	192.8	193	120	250	95.0	95
70	730	246.9	247	130	285	123.4	124
75	820	311.6	312				
80	910	383.7	384				

* Rate of vertical curvature, K , is the length of curve per percent algebraic difference in intersecting grades (A), $K = L/A$.

Table 3-37. Design Controls for Sag Vertical Curves

U.S. Customary				Metric			
Design Speed (mph)	Stopping Sight Distance (ft)	Rate of Vertical Curvature, K^s		Design Speed (km/h)	Stopping Sight Distance (m)	Rate of Vertical Curvature, K^s	
		Calculated	Design			Calculated	Design
15	80	9.4	10	20	20	2.1	3
20	115	16.5	17	30	35	5.1	6
25	155	25.5	26	40	50	8.5	9
30	200	36.4	37	50	65	12.2	13
35	250	49.0	49	60	85	17.3	18
40	305	63.4	64	70	105	22.6	23
45	360	78.1	79	80	130	29.4	30
50	425	95.7	96	90	160	37.6	38
55	495	114.9	115	100	185	44.6	45
60	570	135.7	136	110	220	54.4	55
65	645	156.5	157	120	250	62.8	63
70	730	180.3	181	130	285	72.7	73
75	820	205.6	206				
80	910	231.0	231				

* Rate of vertical curvature, K , is the length of curve (m) per percent algebraic difference intersecting grades (A), $K = L/A$.