

PROJECT SPECIFIC GRADING AND EROSION CONTROL NOTES

- 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 from 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. 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.
- 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 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.
- 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 11.3.3.3.
- Temporary stabilization shall be implemented on disturbed areas immediately upon completion of construction activity has permanently ceased longer than 14 days.

- 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.
- 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.
- 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 loosened 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 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.

Embankment Structures

The width of the top of the embankment structure shall be a minimum of 12 feet for embankments less than 25 feet in height. Also, side slopes on embankment structures will vary with materials types used and shall be designed to produce a stable and easily maintained structure. A slope stability analysis shall be required on all Class 1 structures.

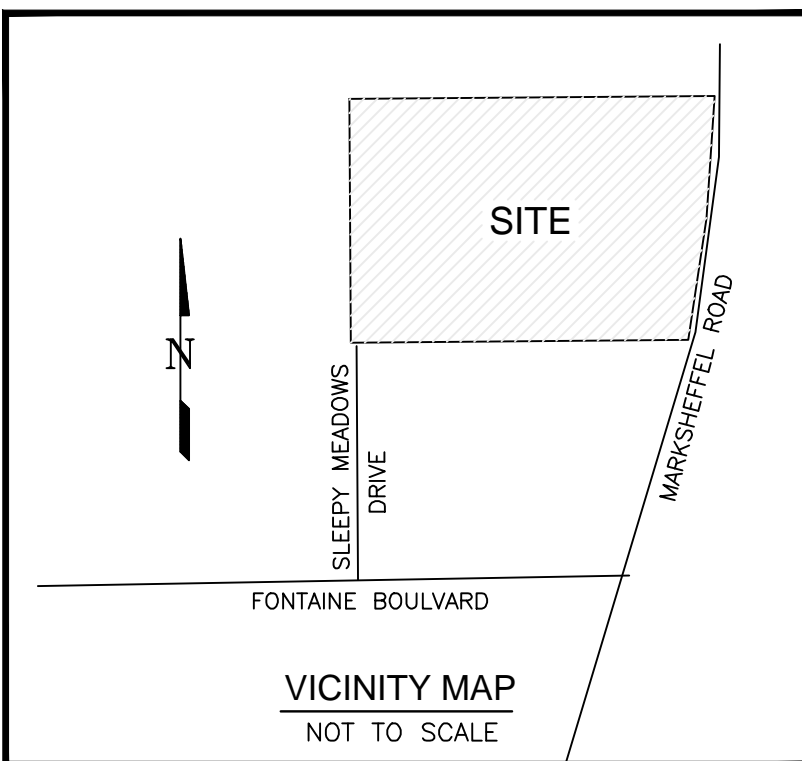
An allowance for settlement shall also be factored into the design for all embankment structures. Consideration shall also be given to limiting excessive seepage through the embankment and foundation that may lead to embankment erosion and structure instability for all Class 1 structures.

A geotechnical analysis and report prepared by a Colorado Professional Engineer with recommendations for the foundation preparation and embankment construction shall be submitted to the City/County Engineer with the complete design analysis for all permanent detention facilities.

- 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 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.
- Tracking of soils and construction debris off-site shall be minimized. Materials tracked off-site 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 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.
- 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.
- 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, DCM Volume II and the ECM Appendix A. All approved permits must be obtained by the contractor prior to construction.

- Prior to construction the permittee shall verify the location of existing utilities.
- 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.
- The soils report for this site has been prepared by Vivid Engineering Group (Dated: April 24, 2020) and 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
- Base mapping was provided by Pinnacle Land Surveying. The date of the last survey update was March 2005.
- Proposed Construction Schedule: Begin Construction: Spring 2022 End Construction: Autumn 2022 Total Site Area = 60.1 Acres
- Area to be disturbed = 57.7 Acres. Existing 100-year runoff coefficient = 0.35 Proposed 100-year runoff coefficient = 0.61 Existing Hydrologic Soil Groups: B, C & D (B-Nelson-Tassel fine sandy loams; B-Stoneham sandy loam; C-Razor-Midway Complex)
- Site is currently undeveloped and covered with native grasses on moderate to steep slopes (3%-18%).
- Site is located in the West Fork Jimmy Camp Creek Drainage Basin.
- No Asphalt Patch Plants will be utilized at the site.

This is the GEC for the EGP and should not be included with this filing



El Paso County (standalone GEC Plan): 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 of 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 Manuals 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, the plans will need to be resubmitted for approval, including payment of review fees at the Planning and Community Development Director's discretion.

County Engineer/ECM Administrator
JENNIFER IRVINE, P.E.

Engineer's Statement:
This grading and erosion control plan was prepared under my direction and supervision and is correct to the best of my knowledge and belief. Said plan has been prepared according to the criteria established by the County for grading and erosion control plans. I accept responsibility for any liability caused by any negligent acts, errors or omissions on my part in preparing this plan.

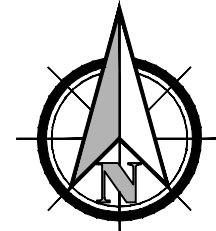
Engineer of Record Signature
ANDREW W. McCORD P.E. 25057

Owner's Statement:
I, the owner/developer have read and will comply with the requirements of the Grading and Erosion Control Plan.

Owner Signature
J. Mark Watson, President
ADDRESS: GLEN DEVELOPMENT COMPANY
3 WIDEFIELD BOULEVARD
COLORADO SPRINGS, COLORADO 80911

EROSION CONTROL INSPECTIVE AND MAINTENANCE

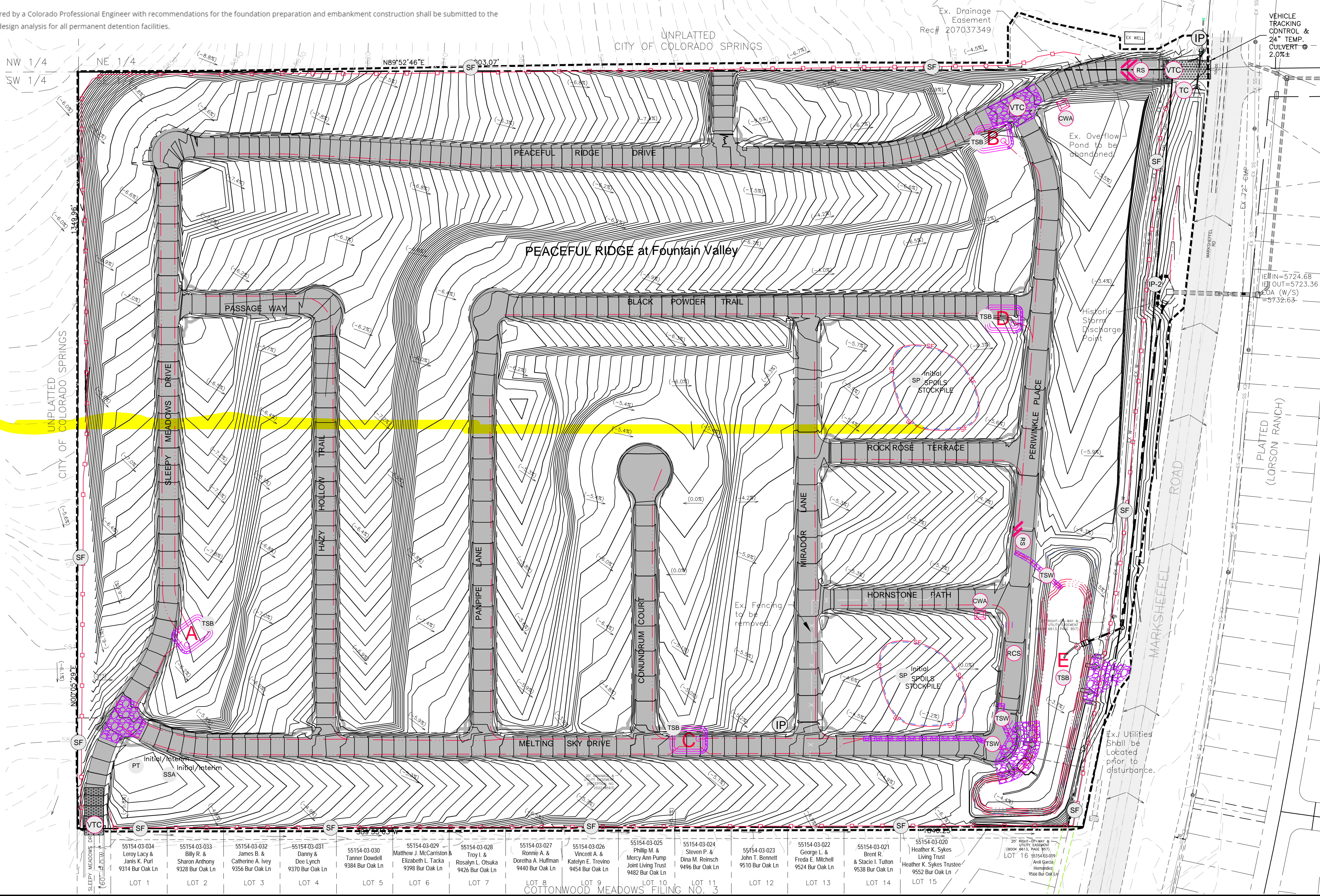
A Thorough Inspection of the Erosion Plan/Stormwater Management System performed every 14 days as well as after snowmelt event that causes Surface Erosion. When Silt Fences have been installed to a height, the silt shall be removed, final grade re-established and slopes re-seeded, if necessary. Any silt fence that has shifted or decayed shall be repaired or replaced. Any Accumulated Trash or debris shall be removed from outlets. An inspection and maintenance log shall be kept.



0 100' 200'
SCALE: 1" = 100'

INITIAL GRADING LEGEND

- Ex. Flow Direction Arrow And Slope
- Stockpile With Double Silt Fence Perimeter
- Initial Silt Fence Or Approved Alt.
- Vehicle Tracking Control
- Initial Temporary Swale Place Riprap where shown on plan
- Temporary Culvert Crossing Location
- Initial Inlet Protection
- Initial Rough-cut Street Control Initial Condition Only
- Initial Concrete Washout Area
- Initial Rock Sock(s) (count)
- Initial Stabilized Staging Area
- Initial Portable Toilet
- Initial Stock Pile Management
- Initial Temporary Sediment Basin w/ Desig. See Det. Sht. EGP-3
- Riprap Stabilization
- Initial Inlet Protection 2 (StrawBale)
- Limits Of Soil Disturbance/ Limits Of Construction
- Property Line
- 5925 Existing Contour
- Initial Emergency Overflow Path
- Existing Storm
- Existing Sanitary Sewer
- Existing Water
- Existing Gas
- Channel Flowline



PEACEFUL RIDGE AT FOUNTAIN VALLEY
EARLY GRADING PLAN
INITIAL GRADING AND EROSION CONTROL PLAN
EL PASO COUNTY, COLORADO

Project No.: 04092/21031
Date: Feb 10, 2022
Design: MJK
Drawn: MJK
Check: AWMc
Revisions:
No. "EGP-213"

SHEET

EGP-1

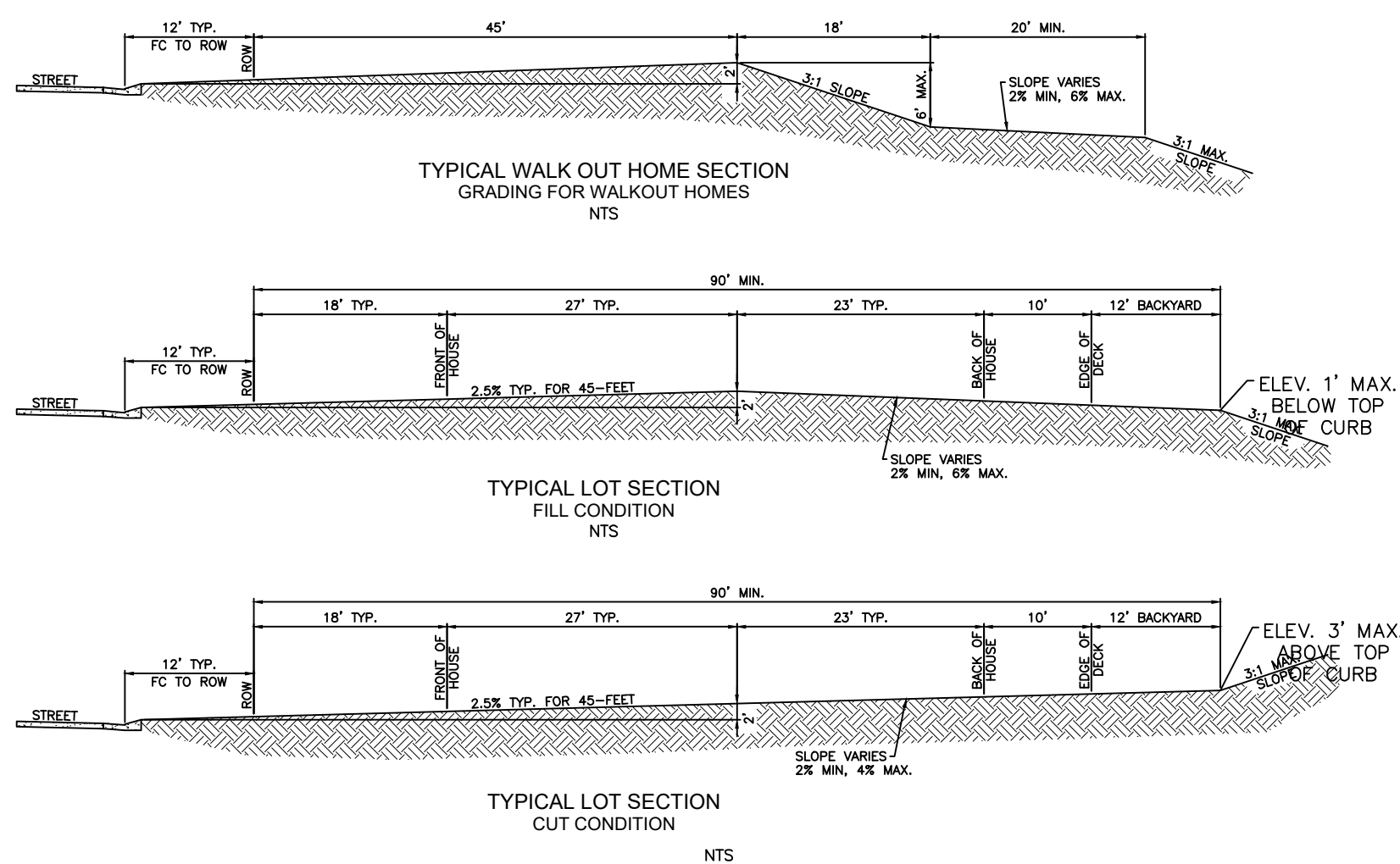
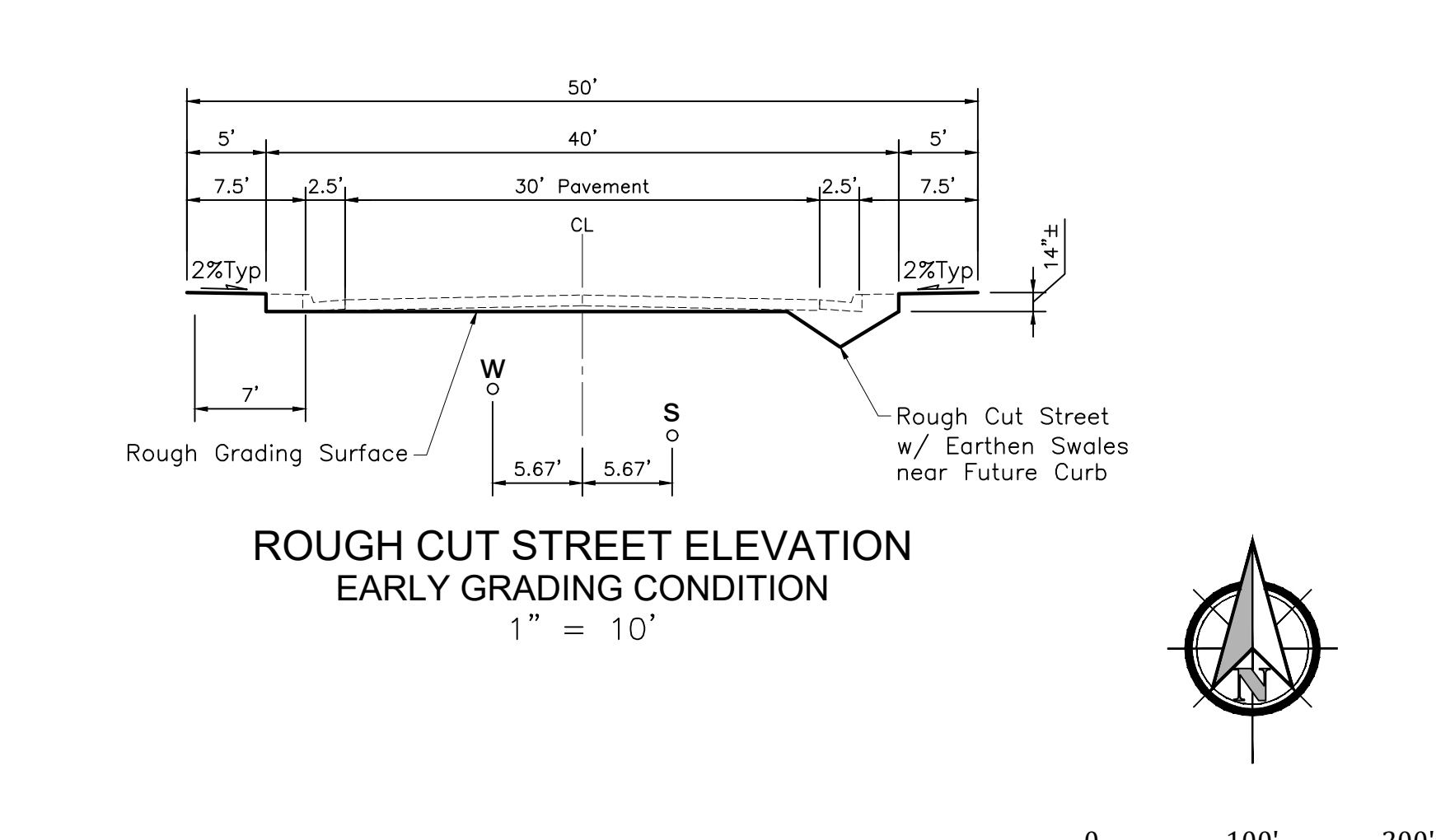
1 OF 7 SHEETS

OPINION OF COST FOR EROSION CONTROL REQUIREMENTS				
ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
VEHICLE TRACKING CONTROL	2	EA	\$2,453.00	\$4,906.00
SILT FENCE	16,532	LF	\$2.60	\$42,983.00
INLET PROTECTION	13	EA	\$173.00	\$2,249.00
CONCRETE WASH OUT	2	EA	\$932.00	\$1,864.00
EROSION CONTROL BLANKET	17,875	SY	\$6.20	\$110,825.00
TEMPORARY SEDIMENT BASIN	1	EA	\$1824.00	\$1,824.00
TEMPORARY SEEDING AND MULCH	45.2	AC	\$1605.00	\$72,546.00
MAINTENANCE (25% OF EROSION CONTROL)	1	LS	\$14,879.00	\$59,299.00
TOTAL				\$296,496.00

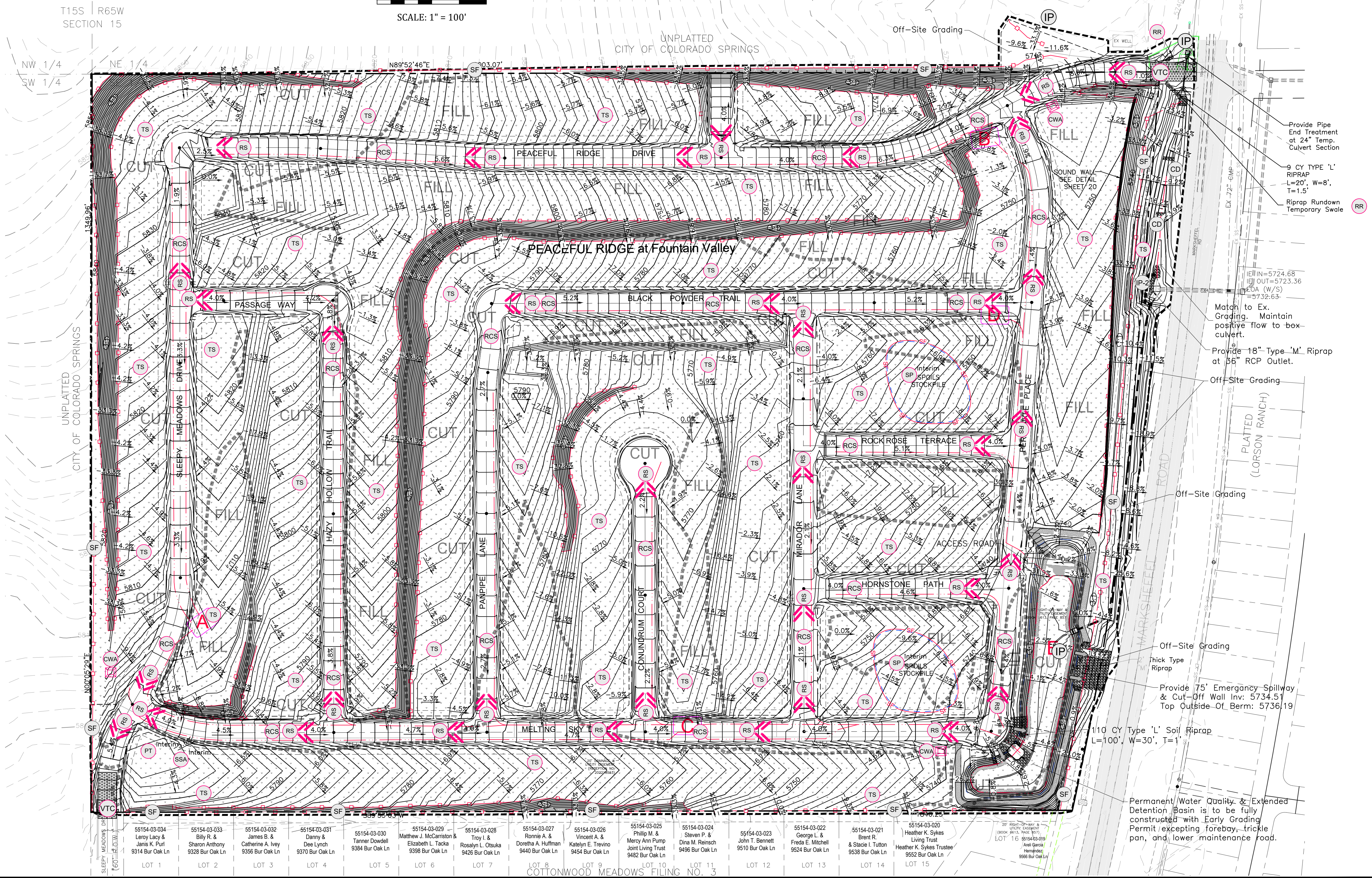
SEED MIX			
AREAS DISTURBED BY THE EARTHWORK ACTIVITIES AND NOT RECEIVING OTHER TREATMENT SHALL BE PERMANENTLY REVEGETATED WITH THE FOLLOWING SEED MIX.			
SPECIES	VARIETY	lbs./acre	
SIDCOATS GRAMA	<i>El Reno</i>	3.0	
WESTERN WHEAT GRASS	<i>Barton</i>	2.5	
SLENDER WHEAT GRASS	<i>Native</i>	2.0	
LITTLE BLUESTEM	<i>Pastura</i>	2.0	
SAND DROPSSEED	<i>Native</i>	0.5	
SWITCH GRASS	<i>Nebraska 28</i>	3.0	
WEEPING LOVE GRASS	<i>Morpha</i>	1.0	
		14.0 lbs	
SEEDING APPLICATION: DRILL SEED 1/4" TO 1/2" INTO TOPSOIL. IN AREAS UNACCESSIBLE TO A DRILL, HAND BROADCAST AT DOUBLE THE RATE AND RATE 1/4" TO 1/2" INTO THE TOPSOIL. MULCHING APPLICATION: 1-1/2 TONS NATIVE HAY PER ACRE, MECHANICALLY CRIMPED INTO THE TOPSOIL.			

EROSION CONTROL INSPECTION AND MAINTENANCE	
A Thorough inspection of the Erosion Control Plan/Stormwater Management System shall be performed every 14 days as well as after any rain or snowmelt event that causes Surface Erosion:	
* When Silt Fences have silted up to half their height, the silt shall be removed, final grade re-established and slopes re-seeded, if necessary. Any silt fence that has shifted or decayed shall be repaired or replaced.	
* Any Accumulated Trash or debris shall be removed from outlets.	
An inspection and maintenance log shall be kept.	

LEGEND	
(-30.1%)	Ex. Flow Direction Arrow And Slope
2.0%	New Flow Direction Arrow And Slope
CUT	Cut/fill Delineation
FILL	
SP	Stockpile With Double Silt Fence Perimeter
SF	Initial Interim
VT	Vehicle Tracking Control
IP	Initial Interim
IP	Inlet Protection (Existing Only)
ECB	Final Erosion Control Blanket*
RCS	Initial
CWA	Interim Concrete Washout Area
RS	Interim Rock Sock(s) (count)
SSA	Interim Stabilized Staging Area
PT	Interim Portable Toilet
SP	Interim Stock Pile Management
TS	Interim Temporary Seeding And Mulching
CD	Interim Rock Check Dam
---	Limits Of Soil Disturbance/ Limits Of Construction
---	Property Line
5925	Existing Contour
5925	Proposed Contour
Interim/Final	Emergency Overflow Path
---	Existing Storm
EX SS	Existing Sanitary Sewer
EX W	Existing Water
---	Proposed Water
---	Existing Gas
---	Channel Flowline
*Shaded area denotes permanent erosion blanket. Curlex heavy duty erosion control blanket by american excelsior or equal shall be used.	



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County Engineer/ECM Administrator JENNIFER IRVINE, P.E.	Date
Engineer's Statement: This grading and erosion control plan was prepared under my direction and supervision and is correct to the best of my knowledge and belief. Said plan has been prepared according to the criteria established by the County for grading and erosion control plans. I accept responsibility for any liability caused by any negligent acts, errors or omissions on my part in preparing this plan.	
Engineer of Record Signature ANDREW W. McCORD P.E. 25057	Date
Owner's Statement: I, the owner/developer have read and will comply with the requirements of the Grading and Erosion Control Plan.	
Owner Signature J. Mark Watson, President ADDRESS: GLEN DEVELOPMENT COMPANY 3 WIDEFIELD BOULEVARD COLORADO SPRINGS, COLORADO 80911	Date



Kiowa

Engineering Corporation

1604 South 21st Street
Colorado Springs, Colorado 80904
(719) 630-7342

W

WIDEFIELD

Investment Group

PEACEFUL RIDGE AT FOUNTAIN VALLEY

EARLY GRADING PLAN

INTERIM / FINAL GRADING AND EROSION CONTROL PLAN

EL PASO COUNTY, COLORADO

FOUNTAIN VALLEY INVESTMENT PARTNERS, LLC

Project No.: 04092/21031

Date: Feb 10, 2022

Design: MJK

Drawn: MJK

Check: AWMc

Revisions:

No. "EGP-213"

SHEET

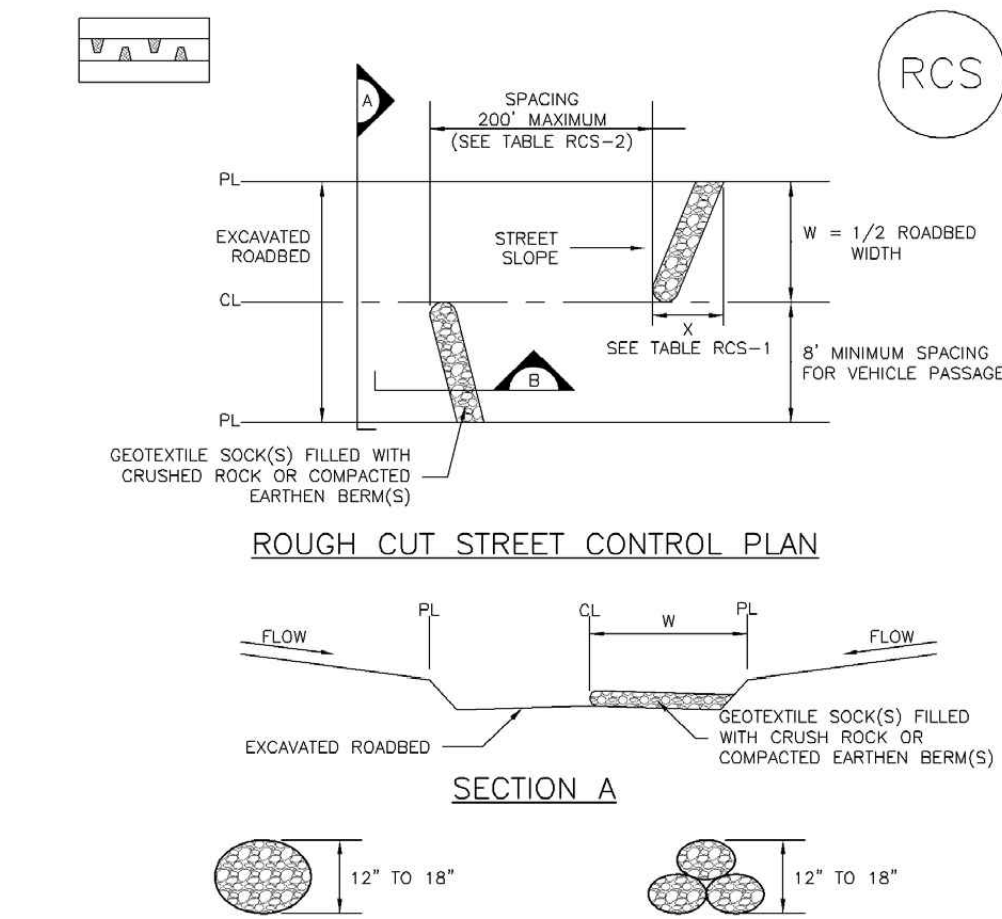
EGP-2

2 OF 7 SHEETS



TEMPORARY SEEDING

EC-9 Rough Cut Street Control (RCS)



W (FT)	X (FT)
20-30	5
31-40	7
41-50	9
51-60	10.5
61-70	12

LONGITUDINAL STREET SLOPE (%)	SPACING (FT)
<2	NOT TYPICALLY NEEDED
3	200
4	150
5	100
6	50
7	25
8	25

RCS-1. ROUGH CUT STREET CONTROL

RCS-2 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 November 2010

ROUGH-CUT STREET CONTROL NTS

Rough Cut Street Control (RCS) EC-9

ROUGH CUT STREET CONTROL INSTALLATION NOTES

- SEE PLAN VIEW FOR LOCATION OF ROUGH CUT STREET CONTROL MEASURES.
- ROUGH CUT STREET CONTROL SHALL BE INSTALLED AFTER A ROAD HAS BEEN CUT IN, AND WILL NOT BE PAID FOR MORE THAN 14 DAYS OR FOR TEMPORARY CONSTRUCTION ROADS THAT HAVE NOT RECEIVED ROAD BASE.

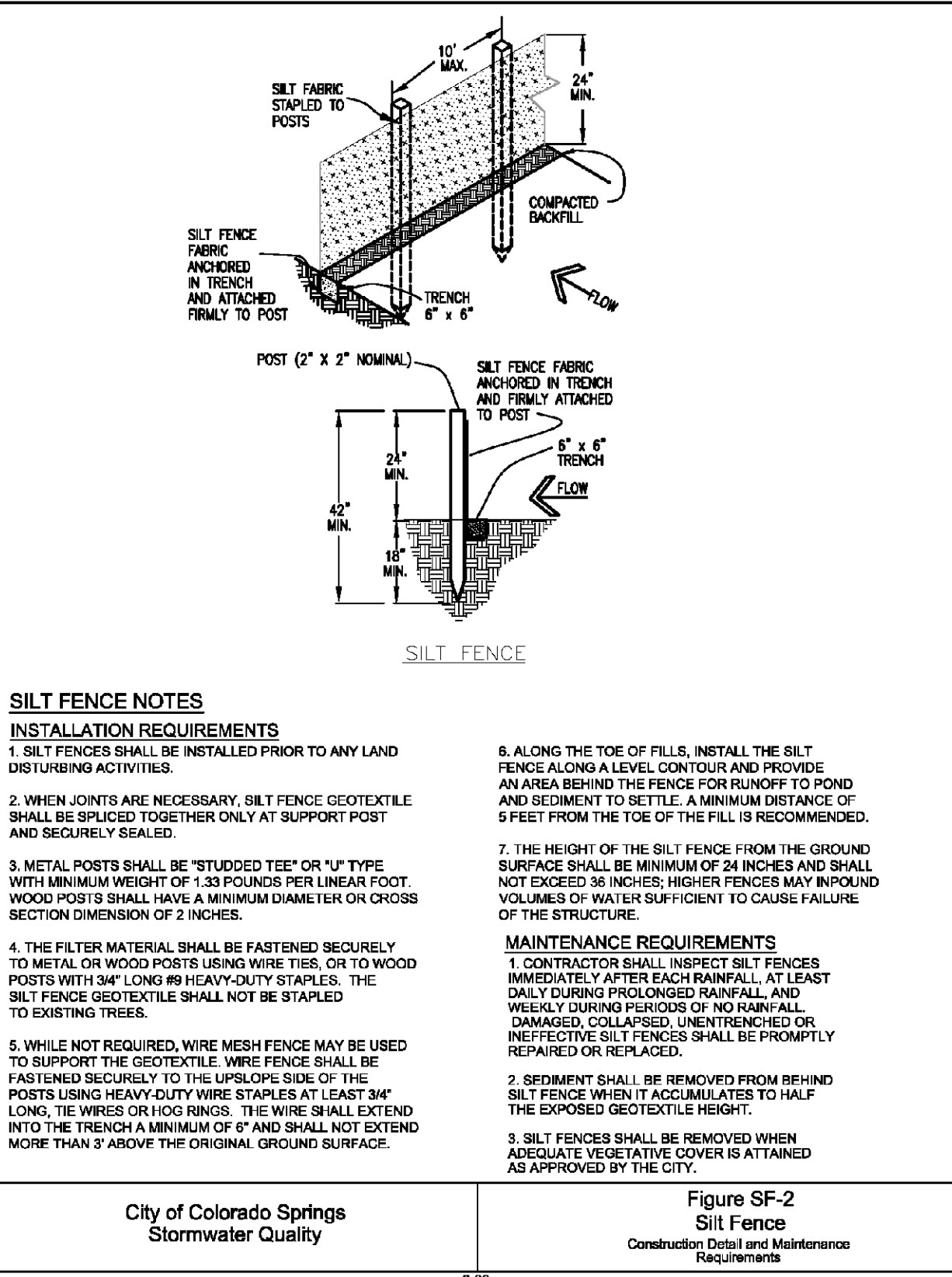
ROUGH CUT STREET CONTROL INSPECTION AND MAINTENANCE NOTES

- 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.

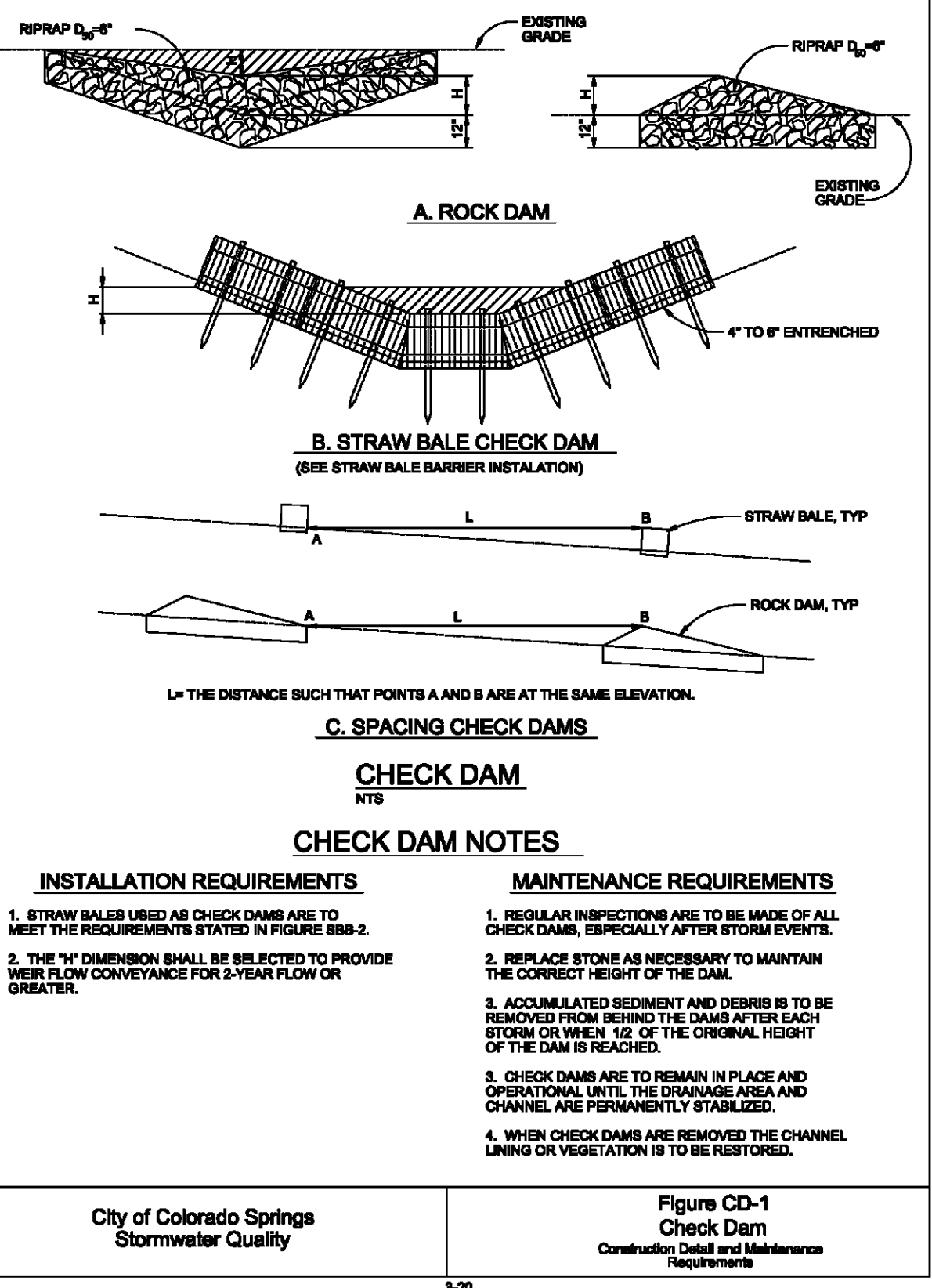
(DETAILS ADAPTED FROM AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)

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

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

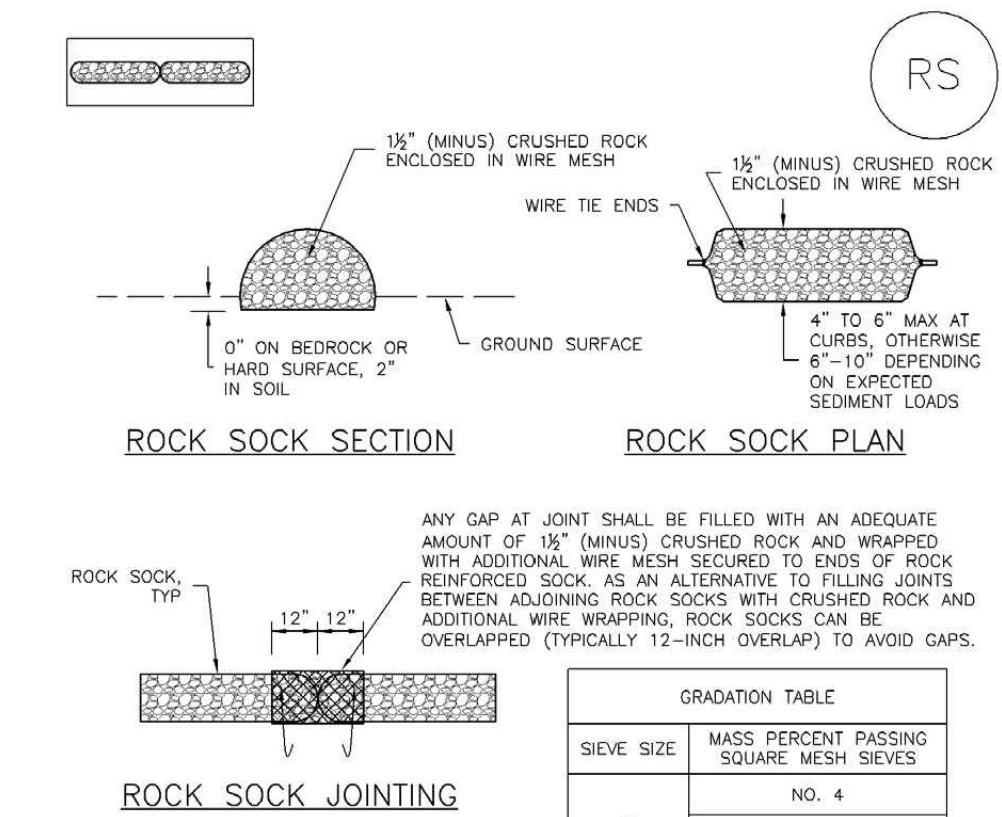


SILT FENCE NTS



CHECK DAM NTS

SC-5 Rock Sock (RS)



RS-2 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 November 2010

ROCK SOCK NTS

Rock Sock (RS) SC-5

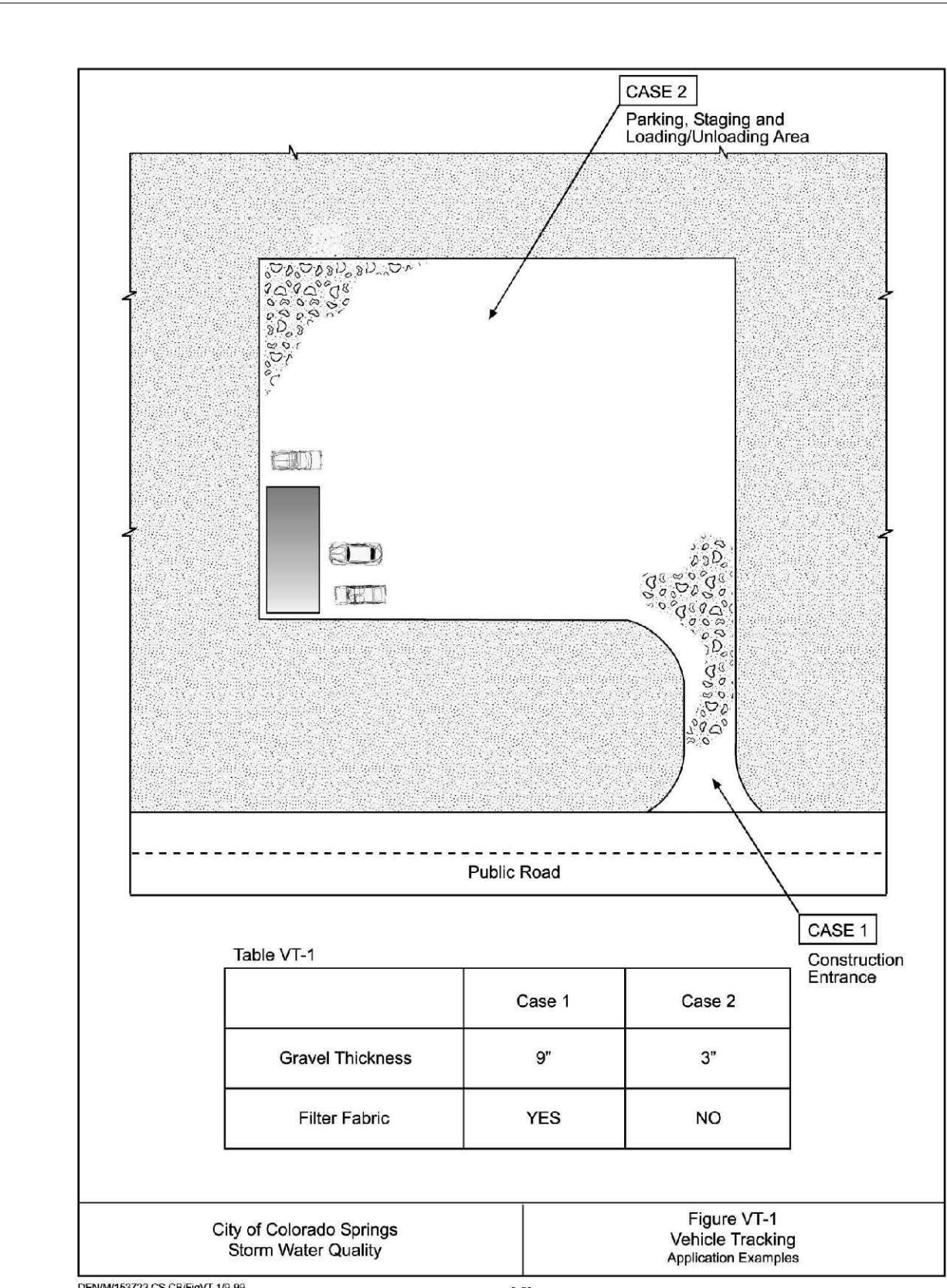
ROCK SOCK MAINTENANCE NOTES

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- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- ROCK SOCKS SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED, OR DAMAGED BEYOND REPAIR.
- SEDIMENT ACCUMULATED UPSTREAM OF ROCK SOCKS SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP. TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 1/2 OF THE HEIGHT OF THE ROCK SOCK.
- ROCK SOCKS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.
- WHEN ROCK SOCKS ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

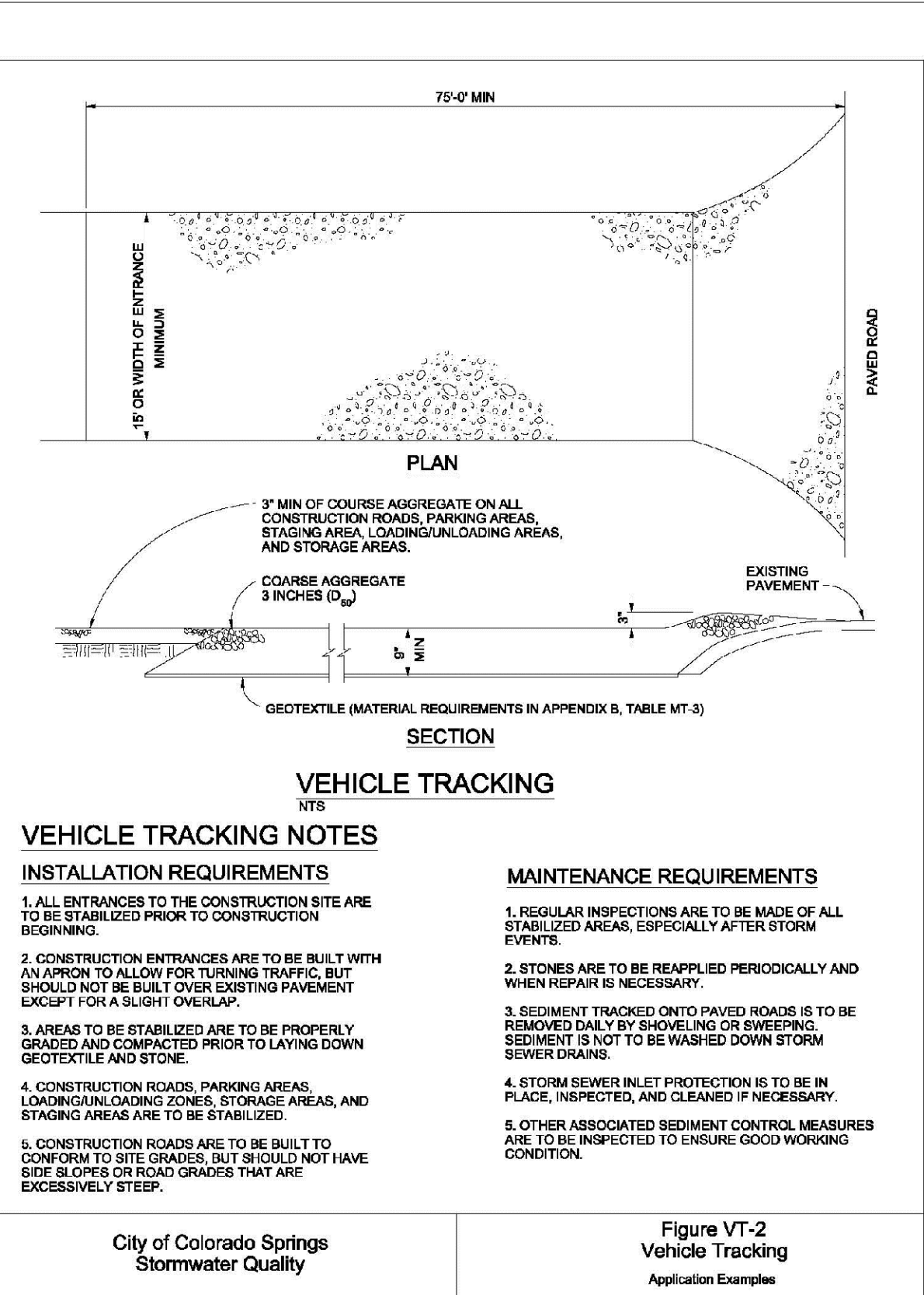
(DETAILS ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: THE DETAILS INCLUDED WITH THIS FACT SHEET SHOW COMMONLY USED, CONVENTIONAL METHODS OF ROCK SOCK INSTALLATION IN THE DENVER METROPOLITAN AREA. THERE ARE MANY OTHER SIMILAR PROPRIETARY PRODUCTS ON THE MARKET. UFGCD NEITHER ENDORSES NOR DISCOURAGES USE OF PROPRIETARY PROTECTION PRODUCTS. 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.

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

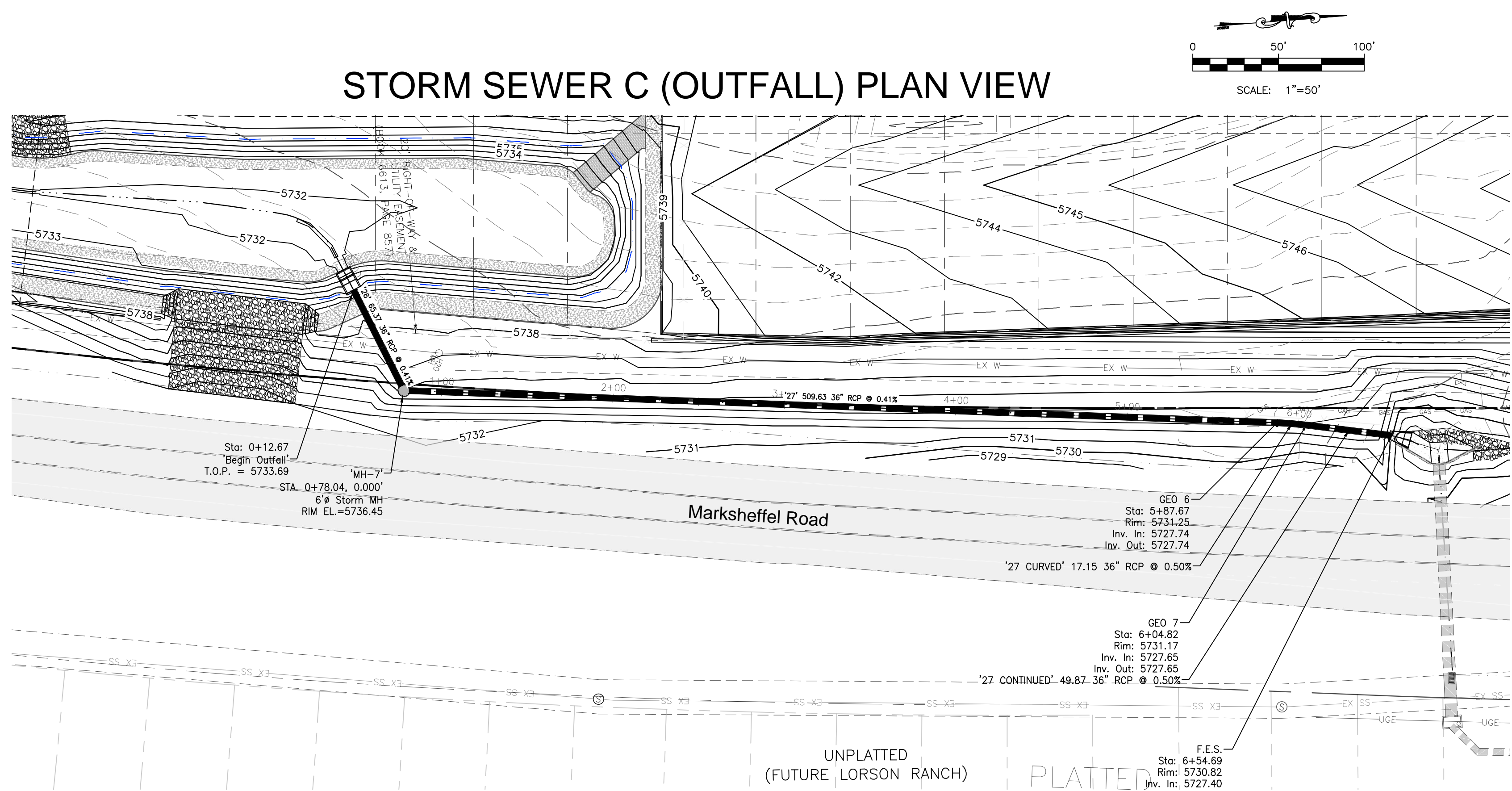


VEHICLE TRACKING CONTROL NTS

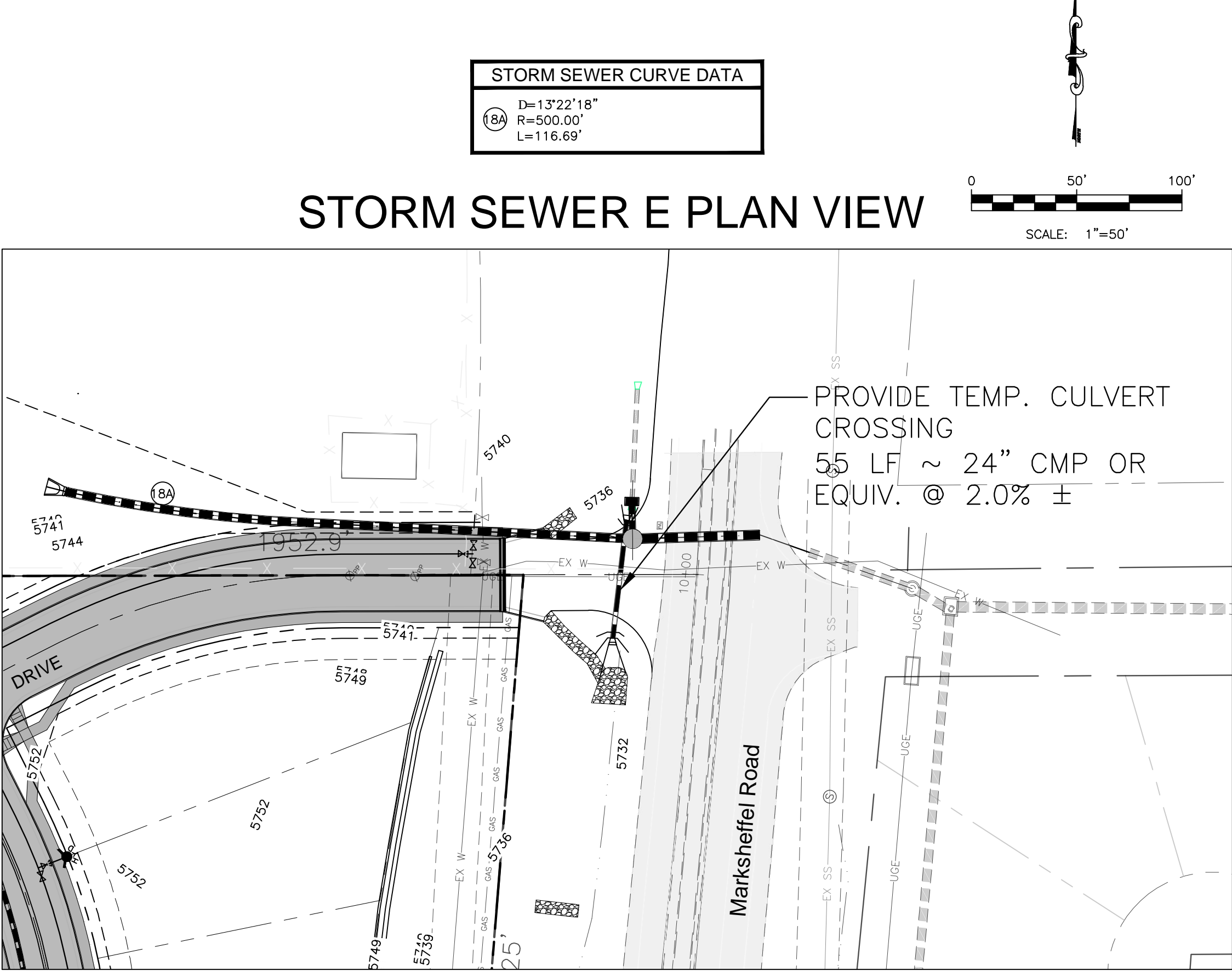


VEHICLE TRACKING CONTROL NTS

STORM SEWER C (OUTFALL) PLAN VIEW

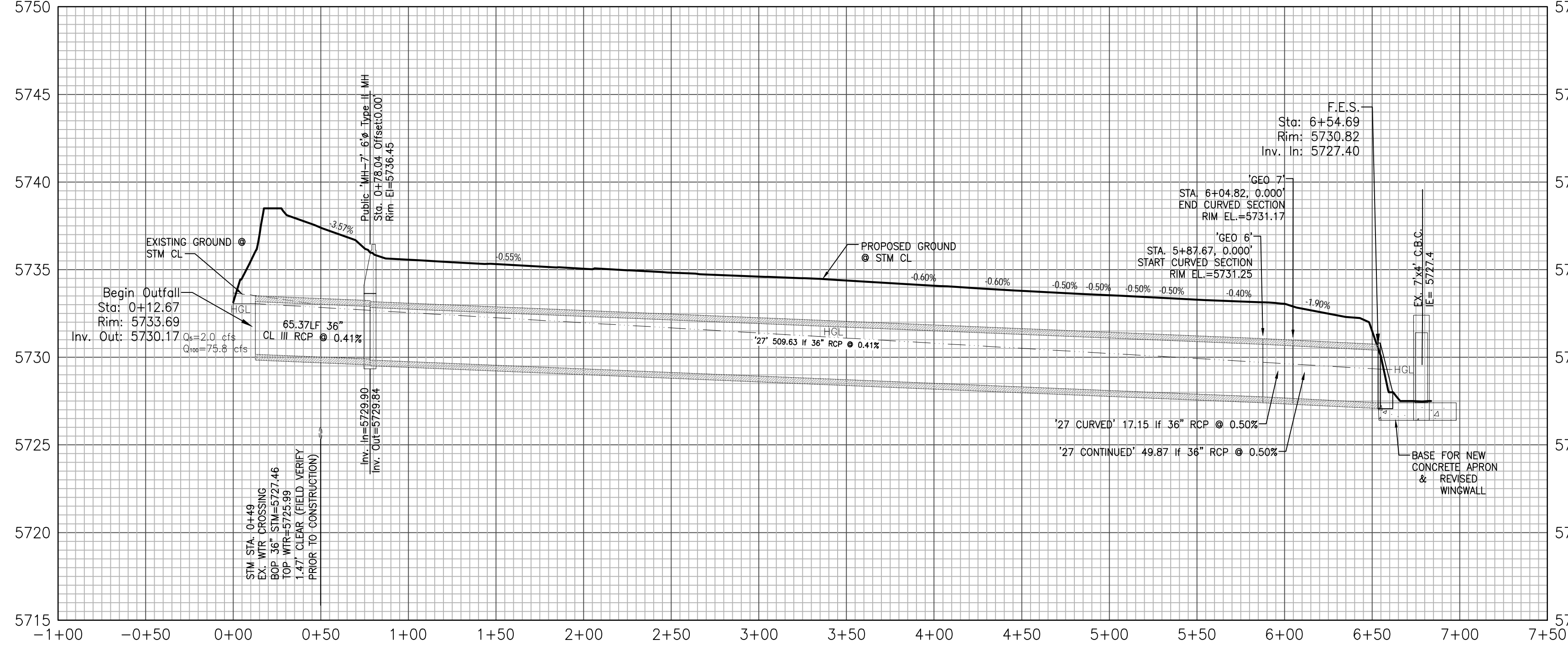


STORM SEWER E PLAN VIEW



NOTE: STORM 'E' WILL NOT BE CONSTRUCTED WITH THE EARLY GRADING PERMIT. IT IS INCLUDED HERE FOR REFERENCE AND INFORMATIONAL PURPOSES ONLY

STORM SEWER C (OUTFALL) PROFILE VIEW



STORM SEWER E PROFILE VIEW

