

STORMWATER MANAGEMENT PLAN (SWMP)

Skye Vista El Paso County, Colorado

> Skye Vista LLC 13144 Thumbprint Ct Colorado Springs, CO 80921

> > **November 2024**



EPC Project Number:

SF2434

STORMWATER MANAGEMENT PLAN (SWMP)

Skye Vista El Paso County, Colorado

Applicant (Owner/Developer):

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SWMP Prepared By:

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Qualified Stormwater Manager / GEC Administrator:

Engineer Information:



Matrix Design Group, Inc. 2435 Research Parkway, Suite 300 Colorado Springs, CO 80920 (719) 575-0100

Item Numbers refer to SWMP Checklist

Item 1. Add Qualified Stormwater Manager and
Contractor Information to cover/title sheet. If
Contractor Information to cover/title sheet. If unknown, add a placeholder to be updated prior
to the pre-construction meeting:
QUALIFIED STORMWATER MANAGER
Name:
Company.

CONTRACTOR

Address: ___

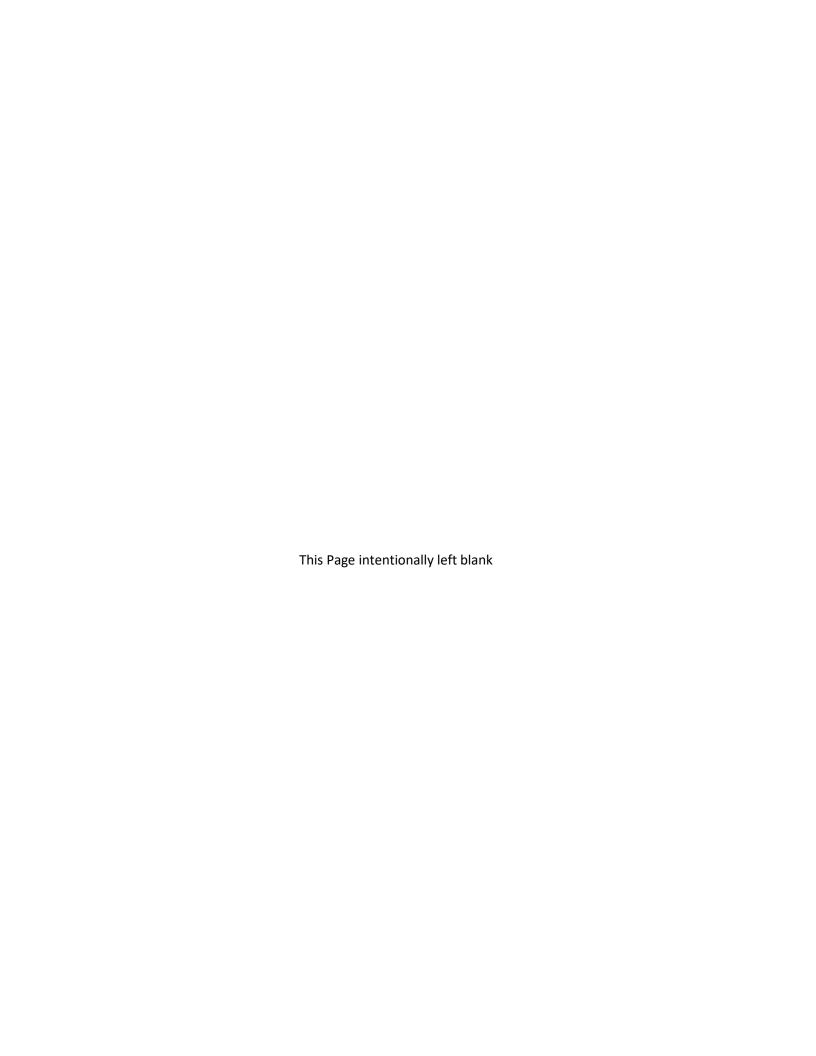


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Attachments

- Grading & Erosion Control Plans
- SWMP Inspection and Maintenance Log
- Soil Survey of El Paso County Area Soils Map
- FEMA FIRM Floodplain Maps
- CDPHE General Permit
- Qualified Stormwater Manager / GEC Administrator Certificate



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1. GENERAL INFORMATION

This Stormwater Management Plan (SWMP) is being submitted on behalf of Skye Vista LLC for the proposed development known as Skye Vista, located in El Paso County, Colorado. The proposed development will include construction of 13 residential lots, stormwater detention, paved roadways, and landscaping. The purpose of this SWMP is to identify potential source areas that may contribute pollutants to stormwater and to identify Construction Control Measures (CCM)s that will reduce or eliminate adverse water quality impacts. Development, implementation, and maintenance of this SWMP will provide the general contractor with the framework for reducing soil erosion and minimizing pollutants in stormwater during construction of the project site.

This SWMP has been prepared in accordance with engineering, hydrologic and pollution control practices and will cover the extents of the Project Area using CCMs to reduce the pollutants in stormwater discharges as described in Section 2 of this SWMP. The SWMP will be administrated by the Qualified Stormwater Manager identified in Section 1.2. The Qualified Stormwater Manager's duties include the following:

- Implement the SWMP
- Oversee installation and maintenance of CCMs as identified in the SWMP
- Implement and oversee employee training
- Conduct or provide for inspection and monitoring activities
- Identify potential pollutant sources and make sure they are included in the SWMP
- Identify any deficiencies in the SWMP and make sure they are corrected
- Ensure that any changes in construction plans, phasing, or use of CCM's are addressed in the SWMP

The provisions of this SWMP must be implemented as they are written and updated, from the initiation of construction until final stabilization is complete. The Water Quality Control Division reserves the right to review the SWMP, and to require the permittee to develop and implement additional measures to prevent and control pollution as is needed.

1.1 Site Description

The project parcel is located in the southeast quarter of section 23, township 11 south, range 66 west of the 6th principal meridian in El Paso County, Colorado. The proposed project site is currently a residential parcel which is to be subdivided into 13 lots. The site is bounded on all the east, south and west sides by residential parcels. Settlers Ranch Road forms the northwest boundary of the site. To the east is Steppler Road and to the south is Hodgen Road. The site has historically been grassland and currently has sparse vegetation consisting of native weeds/grasses with some residential and farm infrastructure. Existing infrastructure to be demolished includes a riding arena, a round pen, and a barn. The existing topography on the site generally drains west to east with slopes ranging from 3-9%. See the proposed Grading & Erosion Control drawings for adjacent parcel ownership information. No construction activity is currently taking place at the site.



Stormwater Management Plan

Coordinates for the development area are as follows:

Latitude: 39°04'34" N

• Longitude: 104°44'24" W

Exhibit 1.1 Site Location





1.2 Project Contact Information

Contact Information	/Responsible Parties		
Owner	Skye Vista LLC 13144 Thumbprint Ct Colorado Springs, CO 80921	(719) 598-5190	
Developer/Project Manager	Skye Vista LLC 13144 Thumbprint Ct Colorado Springs, CO 80921	(719) 598-5190	
Qualified Stormwater Manager			
SWMP Preparer	Luke Bonner, PE Matrix Design Group 2435 Research Pkwy, Suite 300 Colorado Springs, CO 80920	(719) 575-0100	Luke.Bonner@matrixdesigngroup.com

1.3 Disturbance Area and Import/Export Volume

The following is the total site area and the expected area of disturbance. Any changes to the area of disturbance (current disturbance) must be updated as changes occur.

Total Site Area	36.03 acres	Date: 11/26/2024
Initial Estimate of Disturbance Area	6.44 acres	Date: 11/26/2024
Import/Export Volume Estimate	9,559 CY	☐ Import ⊠ Export
Updated Disturbance Area		
Updated Disturbance Area		
Updated Disturbance Area		

1.4 Construction Activities

This SWMP has been prepared for site development activities including clearing and grubbing, overlot grading, storm drain installation temporary stabilization methods (CCMs), paving operations, and landscaping. The site development is proposed to be 13 residential lots. There will be no concrete or asphalt batch plant onsite. All concrete and asphalt will be imported from off-site batch plants. Final stabilization and removal of temporary control measures will be completed following placement of permanent landscaping and hardscaping.

Item 4. Include construction of detention pond in the narrative description of construction activities.



1.5 Construction Sequencing and Phasing

Construction Schedule		Estimated Start Date	Estimated Completion Date	
Anticipated Project Start Date		Spring 2025		
 Install Initial CCMs Clearing and Grubbing Temporary Stabilization CCMs Road Grading Site Grading Paving Final Stabilization Removal of Temporary Control Measures 		Spring 2025 Spring 2025 Spring 2025 Spring 2025 Summer 2025 Summer 2025 Fall 2025 Spring 2026	Spring 2025 Spring 2025 Summer 2025 Summer 2025 Summer 2025 Fall 2025 Winter 2025 Spring 2026	
Anticipated Project End Dat	e		Spring 2026	
Construction Phase	Description and Conserva	tion Measures		
logs will be installed at de Control Plan details) as ou be installed at the entran progresses as outlined in enter/exit the site at appul basins shall be installed p		cM) and perimeter control sediment control signated locations (see Grading and Erosion at lined in Section 2. Vehicle tracking control will ce/exit to any disturbed areas as work Section 2. All construction traffic must coved construction access points. Sediment rior to any land-disturbing activities that will mwater control (Section 2).		
Clearing and Grubbing Clearing and Grubbing of CCMs outlined in Section runoff.				
Temporary Stabilization Temporary stabilization recCMs runoff will be implemented.				
Road Grading Road grading will be compounted erosion and sedim		pleted using CCMs outlined in Section 2 to nent runoff.		
Site Grading	Erosion and sediment runoff during site grading will be controlled by CCMs outlined in Section 2.		ill be controlled by	
Final Grading	Final grading will be compoutlined in Section 2 will be			
Paving	Streets will be paved follo in Section 2 will be used to			



Final Stabilization and	Once construction activity ceases, the area shall be stabilized with
Removal of Temporary	permanent landscaping and/or seed and mulch as outlined in Section 3.
CCMs	Final stabilization is complete when all ground disturbing activities are
	complete and all disturbed areas have either a uniform vegetative cover
	with an individual plant density of 70% of pre-disturbance levels (not
	including noxious weeds), permanent hardscaping or paving is in place,
	or an equivalent permanent alternative stabilization method is
	implemented. Once stabilization is complete, all temporary sediment
	and erosion control measures shall be removed.

1.6 Soils

The United States Department of Agriculture, Natural Resources Conservation Service (NRCS); Custom Soil Resource Report of El Paso County Area, Colorado, published by the United States Department of Agriculture, dated June 2024, was utilized to investigate the existing general soil types within and surrounding the Project area. A soil map for this area is provided in the Attachments. Per the information given within the Soil Conservation Survey, the study area includes hydrologic soil groups A and D as described in the following table. Hydraulic Group "A" is characterized by having a high infiltration rate. This group consists chiefly of somewhat excessively drained soils with a gravelly sandy loam and a moderate rate of water transmission. Hydraulic Group "D" is characterized by having a moderately low to moderately high infiltration rate. The group consist chiefly of well drained soils with a clay loam and a moderate rate of water transmission.

Soil borings were completed for this project per the Preliminary Soils Report and Investigation completed by A Better Soil Solution on June 23, 2024. Groundwater was not encountered in any of the borings at the time of drilling and groundwater conditions are not expected to affect the project.

Soil ID Number	Soil Type	Soil Description	Hydrologic Classification
67	Peyton Sandy Loam (5% to 9% slopes)	The Peyton series consists of very deep, well drained soils formed in thick alluvial fan materials derived from formations with arkosic properties. Runoff is medium.	В
92	Tomah-Crowfoot Loamy Sands (3% to 8% slopes)	The Tomah series consists of deep, well drained soils that formed in materials weathered from arkose beds. The Crowfoot series consists of well drained soils formed in parent sediments weathered residually or locally transported from arkosic beds. Runoff is medium.	В

All exposed soil throughout the project site will be landscaped with permanent landscaping or seeded with a locally approved seed mix as described in Section 2.2.



1.7 Vegetation

The existing vegetation is compromised of native weeds/grasses in fair condition throughout. Based on a review of aerial photography, the current vegetative cover at the project site is visually estimated to be at approximately 80%.

1.8 Allowable Non-Stormwater Discharges

No non-stormwater discharge is expected within the Project Area, however, if groundwater is encountered during site grading activities, uncontaminated groundwater may be discharged onsite, but may not leave the site in the form of surface runoff. A concrete washout area will be completed to support construction activities.

Item 14. Discharge of concrete wash water to groundwater.

1.9 Receiving Waters

Ultimate Receiving Water(s): Cherry Creek

Item 14. Discharge of concrete wash water to ground (e.g. a concrete washout area) is an allowable non-stormwater discharge per the COR400000 Permit if properly identified in the SWMP and if the appropriate control measures are implemented. Revise discussion. Reference COR400000 Part I.A.1.b.ii for more information if needed.

As part of the proposed development, developed surface flow within the development area will be collected via culverts and conveyed to a proposed detention pond. A FEMA flood insurance rate map for this area is provided in the Attachments.

1.10 Stream Crossings within the Project Area

There are no stream crossings within the project area.

1.11 Potential Pollutant Sources

Pollutants that result from clearing, grading, maintenance, operations, and excavation have the potential to be present in stormwater runoff and are potential sources for stormwater contamination. The following is a description of potential source areas for pollutant that may be released during construction, maintenance, operation, and excavation activities:

Source Area:

- 1. Disturbed and stored soils, erosion.
- 2. Vehicle tracking of sediments.
- 3. Management of contaminated soils.
- 4. Loading and unloading operations.
- 5. Outdoor storage activities (erodible building materials, fertilizers, chemicals, etc.).
- 6. Vehicle and equipment maintenance, cleaning, and fueling operations.
- 7. Significant dust or particulate generation activities (e.g., saw cutting material, including dust).
- 8. Routine maintenance activities involving fertilizers, pesticides, herbicides, detergents, fuels, solvents, oils, etc.
- 9. Onsite waste management practices (waste piles, liquid wastes, dumpsters, chemical containers etc.).
- 10. Concrete truck/equipment washing including washing of the concrete truck chute and associated fixtures & equipment.



- 11. Non-industrial waste sources (trash, portable toilets)
- 12. Dedicated asphalt, concrete batch plants and masonry mixing stations.

The following pollutants may impact stormwater runoff for each of the source areas listed above.

Potential Pollutant	Chemical/Physical Description	Stormwater Impacts	Potential Source Area (listed above)
Pesticides (insecticides, fungicides, herbicides, rodenticides)	Various colored to colorless liquid, powder, pellets, or grains	Chlorinated hydrocarbons, organophosphates, carbamates, arsenic	3, 4, 5, 8, 9
Fertilizer	Liquid or solid grains	Nitrogen, phosphorous	3, 4, 5, 8, 9
Cleaning solvents	Colorless, blue, or yellow-green liquid	Perchloroethylene, methylene chloride, trichloroethylene, petroleum distillates	3, 4, 5, 6, 8, 9, 10, 11
Concrete	White solid	Limestone, sand	3, 5, 9, 10, 11, 12
Paints	Various colored liquid	Metal oxides, stoddard solvent, talc, calcium carbonate, arsenic	3, 5, 6, 9
Wood preservatives	Clear amber or dark brown liquid	Stoddard solvent, petroleum distillates, arsenic, copper, chromium	3, 5, 8
Hydraulic oil/fluids	Brown oily petroleum hydrocarbon	Mineral oil	3, 4, 5, 6, 8, 9, 11, 12
Gasoline	Colorless, pale brown or pink petroleum hydrocarbon	Benzene, ethyl benzene, toluene, xylene, MTBE	2, 3, 4, 5, 6, 8, 9, 10
Diesel Fuel	Clear, blue-green to yellow liquid	Petroleum distillate, oil & grease, naphthalene, xylenes	2, 3, 4, 5, 6, 8, 9, 10
Kerosene	Pale yellow liquid petroleum hydrocarbon	Coal oil, petroleum distillates	5, 6, 8, 9
Antifreeze/coolant	Clear green/yellow liquid	Ethylene glycol, propylene glycol, heavy metals (copper, lead, zinc)	2, 3, 4, 5, 6, 8, 9, 10
Particulates	Dust, airborne particulates	Sediment	1, 2, 4, 5, 6, 10, 11, 12
Biological	Human/animal waste	Bacterial	11

The largest possible sources of non-stormwater pollution will be from trucks during equipment maintenance and refueling operations. The contractor shall be responsible for any spill cleanup during



refueling operations in accordance with applicable county and state regulations. The contractor will also be responsible for cleanup of any off-site vehicle tracking on paved roads. Other sources of pollution such as vehicle washing, chemical storage or waste disposal are not anticipated. No recognized environmental conditions (RECs) have been identified within Project site.

1.12 Spill Prevention and Response Plan

The Spill Prevention and Response Plan (SPRP) is designed to outline requirements for the handling and management of hazardous substances (pesticides, herbicides, fuels, cleaners, etc.) stored or used at the Project Area.

Spill Prevention - Materials Management and Handling

- Chemicals that have the potential to be released in stormwater are to be used only where necessary and, in a manner, consistent with industry-standard uses and handling procedures.
- Ensure all hazardous materials are properly labeled.
- Store, dispense, and/or use hazardous substances in a way that prevents releases.
- Provide secondary containment when storing hazardous substances in bulk quantities (greater than 55-gallons).
- Maintain good housekeeping practices for chemicals stored onsite.
- Complete routine checks of hazardous substance storage areas.
- Provide monthly inspections of hazardous substance storage areas, secondary containment, and above ground and/or underground storage tanks.
- Maintenance CCMs as listed below in Section 2.2 should also be utilized in materials handling to minimize impacts from potential pollutants.

Spill Response - Containment and Reporting

A release of any chemical, oil, petroleum product, sewage, etc. that has the potential to enter surface water, groundwater, dry gullies, or storm sewers leading to surface water must be reported to the CDPHE immediately (25-8-601 CRS). When a spill is identified, the proper spill response should be implemented:

- 1. Assess the area for any immediate dangers or health and safety concerns. If any immediate dangers are present, call 911.
- 2. Contain any spilled materials. Assess the size of the leak and immediate threat of the spill reaching storm drains or permeable surfaces. If there is an immediate threat and no safety concerns, attempt to block the spill from reaching storm drains or other impermeable surfaces.
- 3. Stop the source of the spill if possible.
- 4. Cleanup spill in a timely manner. Use adsorbent materials (cat litter) and/or sock booms or rags to clean up the spill. Dispose of used materials appropriately.
- 5. Report and record spills to Qualified Stormwater Manager. Once the spill has been contained and any immediate threat to storm drains or permeable surfaces has been minimized, contact the Qualified Stormwater Manager. If necessary, a specialized cleanup contractor should be used to clean up the remaining contamination.



- 6. Follow applicable Colorado Discharge Permit System (CDPS) terms and conditions regarding spill reporting and response.
- 7. Report spills to the Colorado Department of Public Health and Environment (CDPHE). For non-permitted activities or in the case of an activity where a permit does not address reporting of or response to a spill which may cause pollution of surface or subsurface waters of the State, notify the Environmental Release and Incident Reporting Line within 24 hours at (877) 518-5608. Reporting should include:
 - a. Name of responsible person or name of Qualified Stormwater Manager
 - b. An estimate of the date and time of the release
 - c. The location of the spill and its source (saddle tank, manhole, storage container, etc.),
 - d. The type of material spilled (untreated wastewater, petroleum products, etc.)
 - e. The estimated volume of the spill
 - f. The time and date the spill was controlled or stopped
 - g. If the spill is ongoing, the estimated rate of flow and when the spill is expected to be controlled/contained
 - h. Measures being taken to contain, reduce, and/or clean the spill
 - i. A list of potentially impacted areas and known downstream water uses that will be or have been notified
 - j. The phone number and email of the Qualified Stormwater Manager.
- 8. Any accidental discharge to the sanitary sewer system must be reported immediately to the local sewer authority and the affected wastewater treatment plant.
- 9. Written notification following a reportable spill shall be submitted to the CDPHE within five days (5 CCR 1002-31, Section 61.8(5)(d)). Item 26. Add a note stating that this project does not rely on control measures owned or operated by another entity.

2. IMPLEMENTATION OF CONSTRUCTION CONTROL MEASURES

Construction Control Measures (CCMs) encompass a wide range of erosion and sediment control practices, both structural and non-structural in nature, that are intended to reduce or eliminate any possible water quality impacts from stormwater leaving a construction site. The individual CCM's appropriate for a particular construction site are largely dependent on the types of potential pollutant sources present, the nature of the construction activity, and specific-site conditions.

Most of the CCMs referenced herein are widely used in the construction industry. They generally involve a simple and low-cost approach and can be very effective when properly installed and maintained. To prevent soil from washing into the public right-of way or the undisturbed areas of the site, the following is a discussion of CCMs and an indication of which CCMs are expected to be implemented as part of this Project.

CCMs for all slopes, channels, ditches, or any disturbed land area shall be completed immediately after grading or earth disturbance has occurred. All temporary soil erosion control measures and CCM's shall be maintained until site reaches final stabilization and permanent soil erosion control measures are implemented.



The Stormwater Manager may modify the planned CCMs based on construction sequencing, site conditions, and/or other factors. The SWMP should be modified by field notes including dates of modifications and the purpose of the modification. The Grading and Erosion Control Plan should reflect what has been constructed or modified onsite. The Stormwater Manager will be responsible for documenting CCM's (including phasing of CCM implementation).

2.1 Structural CCMs

Structural CCMs are used to minimize erosion and sediment transport and include but are not limited to: silt fencing, erosion control blankets, turf reinforcement mat, wattles/sediment control logs, earth dikes, drainage swales, sediment traps, gravel inlet protection, inlet protection, culvert inlet protection, straw bales, concrete washout areas, and temporary or permanent sediment basins. Structural CCMs shall be coordinated with construction activities so the CCM is in place before construction begins. The structural CCMs outlined below are general definitions and guidelines. Project-specific specifications for selected CCMs are detailed in the Grading and Erosion Control Drawings.

• <u>Silt Fencing</u>: A silt fence is a structural sediment control device that typically consists of a geotextile fabric attached to wooden stakes inserted into a ground trench and rising to a vertical height of approximately 18-inches. The silt fence is generally used as perimeter sediment control and as a primary containment around storage areas, staging areas, stockpiles, etc.

Used for this project? ⊠ Yes ☐ No

Application notes: Temporary perimeter controls (e.g. silt fences) will be installed *before* any land disturbance including clearing and grading begins. The use of rebar, steel stakes, or steel fence posts to anchor silt fencing is prohibited. Once the site is developed and unpaved disturbed areas are 70% established with vegetation (not including noxious weeds) or permanent landscaping, the silt fences around the Project site can be removed. Onsite soil stockpiles will be managed under a Stockpile Protection Plan that includes stockpile perimeter silt fencing.

• <u>Erosion Control Blanket</u>: An erosion control blanket (ECB), also known as a rolled erosion control product (RECP), is a rolled-fiber product typically made up of straw, coconut, or synthetic fibers that are used to prevent scour erosion, stabilize slopes, and to aid revegetation by providing a protective layer over seeded areas. Turf reinforcement mats are similar to ECBs and are made to withstand greater stress such as traffic, extended life, or continuous and frequent water flow. ECBs are available in both biodegradable and photodegradable varieties.

Used for this project? extstyle extstyle

Application Notes: Exposed slopes greater than 3:1 will be temporarily mulched and seeded and protected with ECBs. A Qualified Stormwater Manager inspector shall re-inspect the blanket within 24-months after installation.



• <u>Sediment Control Logs</u> : SCLs are log-shaped, rolled straw products encased in a polypropylene monofilament filter fabric. SCLs are used for sediment control usually at the perimeter of a disturbance or as a channel check in low flow areas. SCLs can also be used for slope length reduction.
Used for this project? $\ \square$ Yes $\ \boxtimes$ No
Application Notes: SCLs that at as perimeter control shall be installed prior to any upgradient land disturbance.
• <u>Inlet Protection</u> : Storm sewer inlet protection is typically comprised of 1.5-inch angular rock (gravel) wrapped in a chicken wire mesh to form an approximate 6-inch diameter roll in varying lengths. The gravel roll should be firmly secured in front of the inlet opening with a spacing device to prevent the roll from entering the inlet. A sufficiently-sized overflow opening should be left to prevent flooding during high surface water flow volumes. The basic design applies to curb and drop-style inlets. Over-excavation inlet protection is primarily applicable for sites that have not yet reached final grade and should only be used for inlets with a relatively small contributing drainage area.
Used for this project? $\ oxtimes$ Yes $\ oxtimes$ No
Application Notes: Inlet protection measures shall be installed before clearing and grading is initiated. This form of inlet protection should be used only for inlets with a relatively small contributing drainage area.
• <u>Culvert Inlet Protection</u> : Culvert inlet protection can be composed of 4 to 6-inch rock (rip rap) underlain with geotextile fabric placed at the outlet or inlet of a drainage pipe, culvert, or other areas where high surface water flow may be encountered. Geotextile socks filled with gravel or haybales may also be used as a temporary protection CCM. This CCM is used to reduce erosion sediment transport by reducing flow velocity.
Used for this project? ⊠ Yes □ No
• <u>Straw Bale Barriers</u> : Bound straw bale barriers (SBB) are typically used for inlet protection or as drainage swale check dams. Installation of the bales is critical to avoid erosion at the ends of the bales.
Used for this project? ☐ Yes ☒ No
Application Notes: Straw bale for sump inlet protection will be installed promptly (typically within 48 hours) after inlet construction or paving is complete.
• <u>Temporary Compacted Berms</u> : Temporary compacted berms can be used as temporary or permanent solutions for sediment and erosion control. The berms are typically designed to control the flow path of runoff by diverting surface water around areas prone to erosion such as steep slopes or other preferential flow pathways.
Used for this project? $\ \square$ Yes $\ \boxtimes$ No



• <u>Check Dams</u> : A check dam is a small, sometimes temporary, grade control mechanism constructed across a swale, drainage ditch, or waterway to counteract erosion by reducing water flow velocities.
Used for this project? ⊠ Yes □ No
Application Notes: Rip rap will line the designed drainage swales and will decrease water flow velocity in steep areas.
• <u>Drainage Swales</u> : Drainage swales, including temporary earth dikes, can be permanent or temporary and are typically designed to control storm water runoff in a non-erosive manner to a destination such as a detention pond or other stormwater collection facility. Drainage swales can also be designed with velocity control devices and can be made of concrete or lined with materials such as rock or grass.
Used for this project? ⊠ Yes □ No
• <u>Temporary Sediment/Detention Basins</u> : Temporary Sediment/Detention basins are designed according to project size and runoff volume and are used for flood control and to aid in temporary retention of runoff to aid in sediment deposition. A release point for runoff water is typically present and consists of an emergency overflow or regulating structure.
Used for this project? $\ oxtimes$ Yes $\ oxtimes$ No
Application Notes: Temporary sediment basins are proposed to collect and treat disturbed area during construction activities. The basins will be designed to release surface water runoff at historical rates.
• <u>Vehicle Tracking Control</u> : VTC is used to limit off-site tracking of sediment from disturbed or unpaved areas to paved areas. VTC can include: TRM or mud mats installed at the point of access from unpaved areas (used when traffic is limited or light), a 1.5-inch diameter rock gravel access paccombined with pavement sweeping (used when traffic is limited or light), or a 3+-inch rock with geotextile underlayment combined with street sweeping (used for heavy construction traffic or at the main access point to a development site).
Used for this project? ⊠ Yes □ No
Application Notes: VTC Entrances to disturbed areas will be constructed before clearing and grading begins.
• <u>Stabilized Staging Area</u> : A staging area for equipment and material storage, parking, and loading/unloading operations should be sized appropriately for the needs of the site and should be constructed prior to the onset of construction activities. Site stabilization may include structural CCMs (e.g. perimeter fencing, gravel laydown, VTC) and housekeeping CCMs and should be maintained appropriately.
Used for this project? ⊠ Yes □ No



Application Notes: A stabilized staging area will be constructed prior to other operations for parking, construction trailers, portable toilet facilities, storage, and construction equipment.

• <u>Rock Socks</u>: A rock sock, also known as a curb sock, is constructed of gravel that has been wrapped by wire mesh or a geotextile to form an elongated cylindrical filter. Rock Socks are used in flowlines of gutters and inlets to slow down the velocity of runoff and promote sedimentation.

Used for this project? \square Yes \boxtimes No

Application Notes: Rock socks should be installed as needed to prevent excess sediment from exiting the site.

• <u>Temporary Slope Drain</u>: A temporary slope drain is a flexible stormwater drain that extends down the length of disturbed slopes to divert stormwater. At the top of the slope, a channel or swale diverts flow to the pipe entrance for conveyance down the slope. The discharge end of the pipe requires outlet protection.

Used for this project? \square Yes \boxtimes No

Application Notes: The drain outlet should have suitable erosion protection or be in an erosion-resistant location.

2.2 Non-Structural CCMs

Non-structural CCMs are implemented at the site to minimize erosion and sediment transport and may include temporary or permanent vegetation, mulching, landscaping, geotextiles, sod stabilization, surface roughening, vegetative buffer strips (VBS), and protection/preservation of trees and other mature vegetation. The non-structural CCMs outlined below are general definitions and guidelines. Project-specific specifications for selected CCMs are detailed in the Grading and Erosion Control Drawings.

• <u>Temporary and permanent seeding</u>: Seeding of disturbed areas provides soil stabilization and helps prevent erosion and sediment transport. Seeding is usually performed by ripping the area, spreading the appropriate seed mix, and applying straw mulch at a rate of two tons per acre over the seeded area. In some cases, a tackifier may be used to anchor the straw mulch. Managing and applying the proper seed mix and following the specified maintenance procedures are very important in promoting timely growth of grasses while minimizing weed growth. This CCM is effective on slopes up to 4:1 and where soil conditions are adequate. Seeding shall be placed in areas designated as being in an interim state.

Used for this project? \boxtimes Yes \square No

Application Notes: A seed mixture developed for elevations between 3,000 and 8,000 feet will provide natural cover under dryland conditions. The seed mix will contain both cool and warm seasonal grasses adapted to the Western Great Plains and Southwest region. Temporary seeding will be completed in disturbed areas as indicated in the attached Grading and Erosion Control Plan following initial grading activities to stabilize the site prior to final site completion and permanent



landscaping. Seeding on slopes greater than 4:1 will be protected by ECBs. See tables 5-1 and 5-1 of the City of Colorado Springs SCM for seed mixes. If the area is to remain in an interim state for more than 60 days, seeding BMPs shall be used.

• <u>Mulching</u> : A layer of suitable mulch is typically applied at a rate of two tons per acre and can be tacked or fastened by an approved method suitable for the type of mulch used. Rough cut streets can be mulched in lieu of a layer of aggregate road base or asphalt paving. Seeding shall be placed in areas designated as being in an interim state.
Used for this project? $oximes$ Yes $oximes$ No
Application Notes: A temporary layer of suitable mulch shall be applied at a rate of two tons per acre to all disturbed portions of the site within 21 days of the completion of grading. If the area is to remain in an interim sate for more than 60 days, seeding CCMs shall be used. Mulch can be used in areas of rough cut streets unless a layer of road base or asphalt paving is planned within 21 days.
• <u>Landscaping</u> : Landscaping includes rock, mulch, sod, trees, bushes, geofabrics, hardscaping, etc. as identified in the final stabilization specifications. Landscaping may be done by the metro district or by developers.
Used for this project? ⊠ Yes □ No
Application Notes: Permanent landscaping per landscape architectural designs will be completed following vertical construction during or after the final phase of vertical site construction. CCMs can be removed immediately prior to permanent landscaping activities. All landscaping to follow approved landscaping plans.
• <u>Surface Roughening</u> : Surface roughening is the mechanical breaking up of soils as a short-term method of temporary stabilization in areas where temporary seeding is not practical or in areas where active construction is ongoing. Surface roughening is achieved through ripping or tilling the surface to increase surface area and infiltration.
Used for this project? $oxtimes$ Yes $oxtimes$ No
Application Notes: Surface roughening using scarifying methods such as disking or dragging bucket teeth over areas of disturbed soils parallel to slope contours may be used in areas where temporary seeding is not practical.
• <u>Slope Tracking</u> : Slope tracking is the creating of groves and depressions that run parallel to the contour of land on slopes, using construction equipment. The purpose is to create variations in the soil surface that slow down the velocity of runoff, increase infiltration, reduce erosion, and trap soil on slopes 3:1 or steeper.
Used for this project? ⊠ Yes □ No



• <u>Vegetative Buffer Strips</u> : VBS are areas of original vegetation kept in place during
construction that are preserved and maintained to filter sediment deposited from sheet flow.
Maintenance includes cleanup of sediment and re-vegetation of VBS as necessary. Maintaining
vegetative buffers is important around sensitive areas such as wetlands, waterways, etc.

Used for this project? \square Yes \boxtimes No

2.3 Housekeeping CCMs

Housekeeping CCMs are maintenance practices implemented to keep the site clean, reduce potential chemical or biological exposures, and to minimize the tracking of soils to hard surfaces and airborne particles. Maintenance CCMs include street sweeping, dust suppression techniques, spill prevention and response (Section 1.12), waste management and disposal, and materials handling and management. Project-specific specifications for selected CCMs are detailed in the Grading and Erosion Control Drawings.

• <u>Street Sweeping</u>: Street sweeping is the practice of removing soil clumps, scraping packed dirt/mud, and sweeping loose soils tracked onto paved surfaces to prevent sediment transport in runoff water. Materials removed as part of this CCM should be deposited in an area contained by perimeter CCMs or disposed offsite.

Used for this project?

✓ Yes

✓ No

Application Notes: Street sweeping methods will be employed in areas of ingress/egress from paved areas to the construction site. Vehicle tracking of soils and construction debris off-site shall be minimized. Materials tracked offsite shall be cleaned up and properly disposed immediately. The owner, site developer, contractor, and their agents shall be responsible for the removal of dirt, rock, construction debris, trash, sediment, and sand that accumulates in public right of ways, storm sewers, or other drainage conveyance system and stormwater appurtenances.

• <u>Stockpile Protection</u>: Management of onsite soil stockpiles will be in accordance with a Stockpile Protection Plan. Structural CCMs (e.g. silt fencing, ECBs, SCLs) and non-structural CCMs (e.g. surface roughening, temporary seeding and mulching, soil binders) may be used for stockpile stabilization and to prevent erosion and sediment transport at the piles. Consideration for determining the appropriate type of perimeter control includes stockpile location, the relative heights of the perimeter control and stockpile, the ability of the perimeter control to contain the stockpile without failing in the event the stockpile shifts or slumps against the perimeter, and other factors. Perimeter controls must remain in place and routine maintenance must be performed including routine inspections to maintain effective operating condition of each CCM.

Used for this project? \boxtimes Yes \square No

Application Notes: At this time, soil stockpiles are not expected to be onsite for more than 14 days. If long-term storage of soils is necessary, perimeter controls (e.g. silt fencing, sediment control logs) and surface stabilization (e.g. surface roughening, erosion control blankets) shall be



in place for soil stockpiles. Stockpiles that will remain onsite for longer than 60 days should be seeded and mulched within 14 days of placing the stockpile.

• <u>Dust Suppression</u> : Dust suppression CCMs are typically used to minimize the transport of fine particles through the air. Dust suppression techniques may include keeping the site wet using water trucks or other wetting methods or covering of loose soils in disturbance areas. During periods of high wind, the following activities should be monitored: limited street sweeping, restriction of major grading activities, restriction of soil stockpiling, controlling vehicular speed.	
Used for this project? ⊠ Yes □ No	
Application Notes: A water source shall be available onsite during earthwork operations and utilized as required to minimize dust from earth working operations and wind.	
• <u>Load Covering</u> : Trucks or other vehicles carrying cut or fill materials to or from the site should be covered to prevent accidental loss of material during transport onto public right of ways Used for this project? ☑ Yes ☐ No Please add statement that voused for dust suppression was used for dust suppression was not considered.	
Application Notes: Loads of cut and fill must be properly covered.	
• <u>Site Waste Management and Disposal</u> : Construction waste disposal and trash generated by onsite personnel should be collected in dumpsters or similar trash containers and emptied on a regular basis. Construction waste and trash should be kept in a secure area (the stabilized staging area) and lidded if required to avoid accidental spreading of waste. Trash containers should be kept on permeable surfaces within perimeter CCMs. Loose trash should be collected daily and disposal services should be on a regular schedule to avoid overfilling of containers. Hazardous materials may not be disposed in trash containers and no waste materials should be buried onsite.	
Used for this project? ⊠ Yes □ No	
Application Notes: Trash at the site will be cleared daily and kept in secured and/or covered receptacles. Waste disposal will be managed through a licensed contractor.	
• Portable Toilet Facilities: A proper number of portable toilets should be located within the stabilized staging area at the Project Site and should be kept within the perimeter CCMs on permeable surfaces. Portable toilets should be anchored to prevent tipping and should be at least five feet behind curbs and at least 50 feet from any storm sewer inlets. Toilets should also be kept away from preferential flow pathways and from all water bodies. Regularly scheduled maintenance should be in place to empty and clean the receptacles to prevent overflow and waste collecting. Used for this project? ☑ Yes ☐ No	



Application Notes: Portable toilets will be provided and maintained through a private contractor.

• <u>Concrete Washout Area</u>: Concrete washout areas typically consist of an unlined pit in the ground with a vehicle tracking control (VTC) entrance and are designed to capture and contain concrete washout water. In areas with a high groundwater table, poly-lined pits or a portable waste bin may be used. Pits should be placed to minimize the potential for pollutant discharge. Washout basin deposits (hardened concrete waste) should be removed and properly disposed offsite as solid waste on a regular basis after liquids have evaporated.

Used for this project? ⊠ Yes □ No

Application Notes: A concrete washout area will be constructed to support detention pond construction activities.

3. FINAL STABILIZATION AND LONG-TERM STORMWATER MANAGEMENT

Once construction activity ceases permanently in an area, the area shall be stabilized with permanent landscaping and/or seed and mulch as designated below. Final stabilization is complete when all ground disturbing activities are complete and all disturbed areas have either a uniform vegetative cover with an individual plant density of 70% of pre-disturbance conditions of area (noxious weeds do not count towards plant density), permanent hardscaping or paving is in place, or an equivalent permanent alternative stabilization method is implemented. Once stabilization is complete, all temporary sediment and erosion control measures shall be removed.

Final Stabilization for this site will consist of a combination of landscaping and permanent seeding including the following:

- Landscaping. Disturbed areas around finished units that are not paved should be landscaped on
 completion of the vertical structure. Weather may delay landscaping which may be offset by
 temporary measures such as erosion control blankets, wattles, inlet protection, or other CCMs
 outlined in Section 2. Please reference Final Landscape Plans produced by Matrix Design Group,
 pending submittal and approval for further information.
- *Paving*. Areas not planned for landscaping should be paved or hardscaped including roadways, driveways, etc.
- Temporary controls. Temporary erosion and sediment control measures should be maintained on un-stabilized areas until landscaping or hardscaping activities are complete. Disturbed areas should be surface-roughened and slopes steeper than 3:1 should be covered with erosion control blankets. Temporary controls may be removed once stabilization is complete.
- Permanent CCMs. Permanent post-construction CCMs should remain onsite after construction activities have been completed and the site is stabilized. These CCMs may include detention facilities, storm drain systems, swales, and natural depressions.



**Note: EPC does not currently have specific criteria regarding the scope of self-inspections, however this does not meet the COR400000 Permit Part I.D.5.a requirements for inspection scope regarding areas to be inspected. No change is required for purposes of satisfying the EPC SWMP Checklist.

3.1 Inspection and Maintenance

Visual inspections of all cleared and graded areas of the construction site will be performed on a minimum occurrence of once per week and/or within 24 hours of the end of any precipitation or snowmelt event that causes surface erosion. The inspection will be the responsibility of the Qualified Stormwater Manager. An inspection report form has been provided in the Attachments. The inspection will verify that the structural CCMs described in Section 2.1 of this SWMP are functioning properly, in good condition, up to date and continue to minimize erosion. The inspection will also verify that the procedures used to prevent stormwater contamination from construction materials and petroleum products are effective. The following inspection and maintenance practices will be used to maintain erosion and sediment controls:

- Accumulated sediment and debris shall be removed from a CCM when the sediment/debris level reaches one half the height of the CCM or at any time that sediment or debris adversely impacts the functioning CCM.
- Built up sediment will be removed from silt fencing when it has reached one-third the height of
- Silt fences will be inspected for depth of sediment, for tears, to see if the fabric is securely attached to the fence posts, and to see that the fence posts are firmly in the ground.
- Temporary and permanent seeding will be inspected and noted for bare spots, washouts, and healthy growth. Final stabilization will be reached when vegetative cover has been established with an individual plant density of at least 70% of pre-disturbance levels as determined from photographs. Noxious weeds will not be counted towards the 70% plant density requirement. All landscaping to follow approved landscaping plans.
- The stabilized construction entrances will be inspected for sediment tracked on the road, for clean gravel, and to make sure that all traffic uses the stabilized entrance when leaving the site.
- The maintenance inspection report will be made after each inspection. A copy of the report form to be completed by the Qualified Stormwater Manager is provided in the Attachments. Completed forms will be maintained on-site during the entire construction project. Following construction and the expiration or inactivation of the permit, the completed forms will be retained at the general contractor's office for a minimum of 3 years.
- If construction activities or design modifications are made to the site plan which could impact stormwater, this SWMP will be amended appropriately. The amended SWMP will have a description of the new activities that contribute to the increased pollutant loading and the Item 25. Add statement regarding the planned source control activities. required QSM signature on completed reports.

3.2 Self Inspection

The purpose of these inspections is to ensure that all Control Measures are installed according to the approved plans, appropriate as to the intended use, operating effectively, and being properly maintained.



Please replace occurrences of "GEC Administrator" with "Qualified Stormwater Manager" for consistency throughout SWMP and consistency with EPC Criteria

Skye Vista

Update reference applicable to EPC Criteria (ECM Appendix I.5.2.A)

Stormwater Management Flan

The GEC Administrator must be qualified according to Chapter 2, Section 5.0 of the Stormwater Construction Manual.

The GEC Administrator shall, at a minimum, make a thorough inspection at least once every 14 calendar days. Also, post-storm event inspections must be conducted within 24 hours following the end of any precipitation or snowmelt event that causes surface erosion. Provided the timing is appropriate, the post-storm inspections may be used to fulfill the 14-day routine inspection requirement. Alternatively, the GEC Administrator may choose to perform self-inspections every 7 calendar days and forego post-storm event inspections. The self inspection schedule must be identified in the GEC Administrator's most recent self-inspection. A more frequent inspection schedule than the minimum described may be necessary to ensure that Control Measures continue to operate as needed to comply with the GEC Plan. Site conditions such as steep grades and close proximity to a state water are reasons for increasing the frequency of self-inspections.

The GEC Administrator shall keep documentation of self-inspections available either physically or electronically at the construction site at all times throughout the duration of the project. GEC Inspectors will review self-inspections during compliance inspections. The use of a third-party inspection program does not remove this requirement. Additionally, the use of a third-party inspection program does not relieve the Permittee of the requirement to comply with all compliance inspections.

For sites or portions of sites where construction activities have been completed and final stabilization measures installed but final stabilization has not yet been achieved, the GEC Administrator shall make a thorough inspection of their Control Measures at least once every month. Post-storm event inspections must be conducted within 72 hours following the end of any precipitation or snowmelt event that causes surface erosion. The GEC Plan must be amended to indicate those areas where construction activities have been completed but final stabilization has not yet been achieved that will be inspected once a month. The Permittee is responsible to confirm that the frequency of inspections is sufficient to ensure that Control Measures remain in good working condition at all times.

Refer to the Grading & Erosion Control Plans for details or specifications.

Should be at least once every 30 days for compliance with EPC Criteria and COR400000 Permit requirements

3.3 CCM Replacement and Failed CCMs

At a minimum, the contractor shall inspect and keep a log of all CCMs on a weekly basis and after a significant precipitation event. CCMs should be assessed by a qualified inspector to determine if new or replacement CCMs are necessary. Where CCMs have failed, the failure must be addressed as soon as possible to minimize discharge of additional pollutants. As new CCMs are installed and/or replaced, this SWMP should be updated to reflect the change(s).

3.4 Qualified Inspectors

Qualified inspectors should be knowledgeable in the principals and practices of erosion and sediment control and should have a good working knowledge of the regulation and CCMs included in this SWMP. Inspectors should also be able to anticipate site conditions and assess CCM functionality that could impact stormwater runoff.



3.5 Additional SWMP and CCM Practices

An employee training program should be developed and implemented to educate employees about the requirements of the SWMP. This education program will include background on the components and goals of the SWMP and hands-on training in erosion controls, spill prevention and response, good housekeeping, proper material handling, disposal and control of waste, equipment fueling, and proper storage, washing, and inspection procedures.

This plan was prepared in accordance with the CDPS General Permit. A copy of this permit is provided in the Attachments.

Item 21. Add text stating that the SWMP should be viewed as a "living document" that is continuously being reviewed and modified as a part of the overall process of evaluating and managing SW quality issues at the site. The QSM shall amend the SWMP when there is a change in design, construction, O&M of the site which would require the implementation of new or revised CCMs or if the SWMP proves to be ineffective in achieving the general objectives of controlling pollutants in SW discharges associated with construction activity or when BMPs are no longer necessary and are removed. The QSM shall maintain a record of amendments made to the SWMP that includes the date and identification of the changes.



Attachments



Grading & Erosion Control Plans

SKYE VISTA

EL PASO COUNTY, COLORADO **GRADING & EROSION CONTROL PLANS**

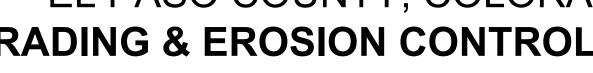
NOVEMBER 2024

6124005001

HODGEN SETTLERS RANCH LLC

SETTLERS RANCH FILING NO. 2C

TRACT A-3





GN01 GENERAL GRADING & EROSION CONTROL NOTES DT01 **GRADING DETAILS** GEC01-GEC04 INITIAL GRADING & EROSION CONTROL PLAN 4-7 GEC05-GEC08 INTERIM/FINAL EROSION CONTROL PLAN 8-11 ECN01-ECN06 EROSION CONTROL DETAILS 12-17

CONTACT LIST

OWNER/DEVELOPER **BILL HEREBIC** SKYE VISTA LLC 13144 THUMBPRINT CT. COLORADO SPRINGS, CO 80921 (719) 598-5190

CIVIL ENGINEER MATRIX DESIGN GROUP 2435 RESEARCH PARKWAY, SUITE 300 COLORADO SPRINGS, CO 80920 LUKE C. BONNER (719) 575-0100

LAND SURVEYOR MATRIX DESIGN GROUP 2435 RESEARCH PARKWAY, SUITE 300 COLORADO SPRINGS, CO 80920 **WYATT WEISS** (719) 575-0100

ELECTRICAL SERVICE MOUNTAIN VIEW ELECTRIC ASSOCIATION 11140 E. WOODMEN ROAD FALCON, CO 80131 **GINA PERRY** (719) 494-2636

MONUMENT FIRE DISTRICT 16055 OLD FOREST POINT. SUITE 102 MONUMENT, CO 80132 JONATHAN BRADLEY (719) 484-0911

ENGINEERING

EL PASO COUNTY PUBLIC WORKS DEPARTMENT

3275 AKERS DRIVE COLORADO SPRINGS, CO 80922

(719) 520-6460

EL PASO COUNTY PUBLIC WORKS DEPARTMENT 3275 AKERS DRIVE COLORADO SPRINGS, CO 80922

(719) 520-6460

EL PASO COUNTY PUBLIC WORKS DEPARTMENT 3275 AKERS DRIVE

COLORADO SPRINGS, CO 80922 (719) 520-6460

(719) 728-9700

BLACK HILLS ENERGY 198 COUNTY LINE RD PALMER LAKE, CO 80133 RICHIE BAILEY

SITE NOTES

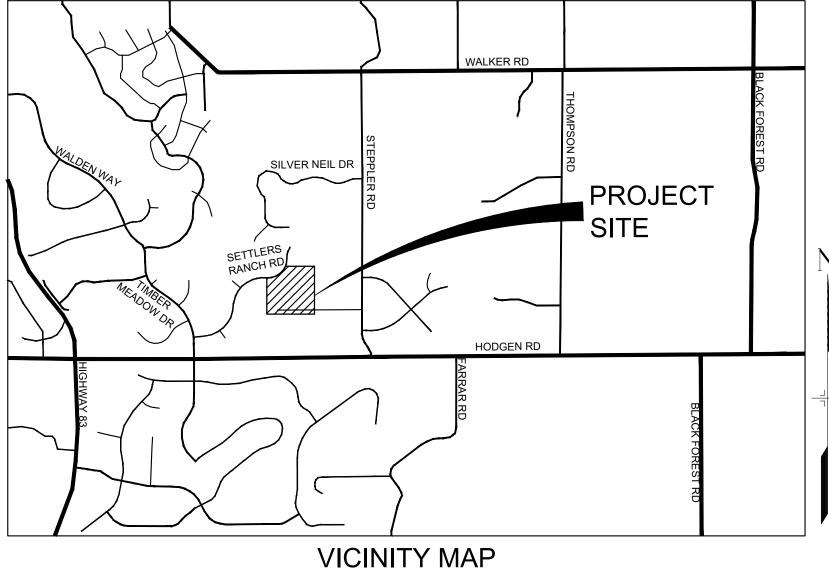
THE FOLLOWING ITEMS ARE NOT APPLICABLE TO THESE PLANS:

- NO BUILD AREAS ARE NOT PRESENT WITHIN PROPERTY BOUNDARY, NO GEOHAZARDS ARE LOCATED WITHIN THE PROJECT SITE
- NO ASPHALT, CONCRETE BATCH PLANTS AND/OR MASONRY MIX STATIONS
- NO PRESERVATION EASEMENTS WITHIN PROPERTY BOUNDARY
- THIS PROJECT IS NOT IMPACTED BY AREAS DESIGNATED AS STREAMSIDE OVERLAY OR 100 YEAR FLOODPLAIN

THIS IS AN OVERLOT GRADING AND EROSION CONTROL PLAN ONLY. THIS PLAN DOES NOT REFLECT DETAILED/FINE GRADING ELEMENTS THAT WILL BE PART OF FINAL CONSTRUCTION DOCUMENTS FOR SITE DEVELOPMENT, PAVING OPERATIONS, AND LANDSCAPING. BUILDING AND LOT LOCATIONS ARE PROVIDED FOR REFERENCE ONLY AND ARE SUBJECT TO CHANGE.

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 THEIR FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL ABOVE GROUND AND UNDERGROUND UTILITIES.

6123004044 6123004045 PATERSON LLC STILLS FAMILY TRUST LOT 12 LOT 11 SETTLERS SETTLERS RANCH RANCH FILING FILING NO. 2C NO. 2C LOT 7 LOT 6 LOT 13 SETTLERS RANCH RD 6124000015 CROSS BAR P LAND & CATTLE 6123004047 4650 HODGEN RD LOT 1 DAVIS FAMILY UNPLATTED TRUST **SETTLERS** RANCH FILING NO. 2C LOT 11 LOT 2 LOT 3 LOT 8 6123004048 **HODGEN SETTLERS** LOT 6 LOT 4 RANCH LLC LOT 5 LOT 7 SETTLERS RANCH FILING NO. 2C TRACT B 6124000015 CROSS BAR P LAND & 6100000507 CATTLE SUSAN E KOCH 4650 HODGEN RD 4650 HODGEN RD UNPLATTED UNPLATTED SITE MAP 1" = 200'



OWNER/DEVELOPER'S STATEMENT

I, THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING AND EROSION CONTROL PLAN.

SHEET No.

Call before you dig.

NAME DATE

BILL HEREBIC SKYE VISTA LLC 13144 THUMBPRINT CT. COLORADO SPRINGS, CO 80921

DESIGN 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.

DATE:

LUKE C. BONNER, PE #63474 FOR AND ON BEHALF OF MATRIX DESIGN GROUP, INC.

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 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 DIRECTORS DISCRETION.

JOSHUA PALMER, P.E.

COUNTY ENGINEER / ECM ADMINISTRATOR

THE PARTIES RESPONSIBLE FOR THIS PLAN HAVE FAMILIARIZED THEMSELVES WITH ALL CURRENT ACCESSIBILITY CRITERIA AND SPECIFICATIONS AND THE PROPOSED PLAN REFLECTS ALL SITE ELEMENTS REQUIRED BY THE APPLICABLE ADA DESIGN STANDARDS AND GUIDELINES AS PUBLISHED BY THE UNITED STATES DEPARTMENT OF JUSTICE. APPROVAL OF THIS PLAN BY EL PASO COUNTY DOES NOT ASSURE COMPLIANCE WITH THE ADA OR ANY REGULATIONS OR GUIDELINES ENACTED OR PROMULGATED UNDER OR WITH RESPECT TO SUCH LAWS.

PCD FILE # XXXXXX

REFERENCE DRAWINGS -1676-SKVSTA-TITLE-GEC_22X X-1676-SKVSTA-PR-SITE X-1676-SKVSTA-EX-SITE X-1676-SKVSTA-EX-MAP DESCRIPTION No. DATE **REVISIONS** COMPUTER FILE MANAGEMENT FILE NAME: s:\24.1676.001 skye vista\500 CADD\504 plan sets\GEC\GEC-A.dwg CTB FILE: Matrix.ctb PLOT DATE: 12/2/2024 11:21 AM THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE.

FIMS MONUMENT F 56 IS A 3.25 ALUMINUM CAP STAMPED "MKD 56" IN RANGE BOX, ON THE EAST SIDE OF ROLLE COASTER RD AND SOUTH OF MOUNTAIN PINE LANE. ELEVATION WAS ESTABLISHED BY GPS OBSERVATION (GEOID 18) AND IS REFERENCED TO NAVD88 (US SURVEY FEET) WITH AND ELEVATION OF 7318.65. COORDINATE SYSTEM: NAD83, COLORADO SATE PLANE, CENTRAL ZONE, US SURVEY FEET

THE BEARINGS SHOWN HEREON AND BASED ON GPS OBSERVATIONS AND REFERENCED THE EAST LINE OF THI SOUTHEAST QUARTER OF SECTION 23, TOWNSHIP 11 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO, BEING MONUMENTED AT THE EAST QUARTER CORNER OF SAID SECTION BY A NO. 6 REBAR WITH 3-1/4" ALUMINUM CAP STAMPED "LS 9477" AND MONUMENTED AT THE SOUTHEAST CORNER OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SAID SECTION BY A NO. REBAR WITH 2-1/2" ALUMINUM CAP STAMPED "LS 9477", AS BEARING OF SOUTH 00°22'42" EAST, A DISTANCE OF



PRELIMINARY THIS DRAWING HAS NOT BEEN APPROVED BY

GOVERNING AGENCIES AND

MATRIX DESIGN GROUP, INC.

PROJECT No. 24.1676.001

IS SUBJECT TO CHANGE

EL PASO COUNTY, COLORADO **GRADING & EROSION CONTROL PLANS**

SKYE VISTA

TITLE SHEET

SCALE NOVEMBER 2024 DRAWING No.

DESIGNED BY: LCB DRAWN BY: LCB HORIZ. 1 OF 17 CHECKED BY:

EL PASO COUNTY STANDARD GEC 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.
- 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 (SMWP) 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 23. NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE CURB AND 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
- 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.
- 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 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.
- 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 LOOSENED 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 5. 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 9. 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**
- 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.
- 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.
- 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
- 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 GEOLOGY AND SOILS EVALUATION REPORT PREPARED BY VIVID ENGINEERING GROUP ON NOVEMBER 6, 2024 SHALL BE CONSIDERED A PART OF THESE PLANS. ADDITIONAL GEOTECHNICAL REPORTS WILL BE REQUIRED FOR PAVEMENT RECOMMENDATIONS AND LOT SPECIFIC 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

GENERAL GRADING NOTES

REGULATIONS SHALL APPLY.

- THE SITE SHALL BE STRIPPED A MINIMUM OF 0.5' BELOW EXISTING GRADE AND STOCKPILED IN CONFORMANCE WITH THE SWMP MANAGEMENT DIRECTION.
- MAXIMUM CUT/FILL SLOPES SHALL NOT EXCEED 3:1. UNLESS OTHERWISE NOTED. ALL SLOPES MUST BE PROTECTED FROM EROSION.
- IF DURING THE OVERLOT GRADING PROCESS, CONDITIONS ARE ENCOUNTERED WHICH COULD INDICATE AN UNIDENTIFIED SITUATION IS PRESENT, THE SOILS ENGINEER SHALL
- BE CONTACTED FOR RECOMMENDATIONS. THE CONTRACTOR SHALL PROTECT ALL WORK AREAS AND FACILITIES FROM FLOODING AT ALL TIMES. AREAS AND FACILITIES SUBJECTED TO FLOODING, REGARDLESS OF THE SOURCE OF WATER, SHALL BE PROMPTLY DEWATERED AND RESTORED.
- THE CONTRACTOR IS RESPONSIBLE FOR PREVENTING AND CONTROLLING EROSION DURING CONSTRUCTION ACTIVITIES AT ALL TIMES DURING GRADING AND CONSTRUCTION
- SPOT ELEVATIONS SHALL TAKE PRECEDENCE OVER CONTOURS AND SLOPES SHOWN. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF THE SPOT ELEVATIONS THAT DO NOT APPEAR TO BE CONSISTENT WITH THE CONTOURS AND SLOPES.
- NOTED. EXISTING AND PROPOSED GRADE CONTOUR INTERVALS SHOWN AT 1 FOOT INTERVALS

SPOT ELEVATIONS REPRESENT FLOW LINE OR FINISH GRADE UNLESS OTHERWISE

- UNLESS OTHERWISE NOTED.
- LOCATION OF SOILS STOCKPILES, DESIGNATED FOR TOPSOIL AND SUBSOIL STORAGE AREAS, WILL BE DETERMINED IN THE FIELD AT THE START OF CONSTRUCTION ACTIVITY AND INDICATED ON THE PLAN BY THE CONTRACTOR WHEN REQUIRED
- SILT FENCE NOT INSTALLED ALONG A CONTOUR SHOULD BE INSTALLED WITH A J-HOOK TO AVOID CONCENTRATED FLOW.

TRAFFIC NOTES

- 1. THE CONTRACTOR SHALL PREPARE A DETAILED TRAFFIC CONTROL PLAN, SUBMIT TO EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS FOR APPROVAL, AND OBTAIN APPROPRIATE PERMITS IN ACCORDANCE WITH THE M.U.T.C.D.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK ZONE TRAFFIC CONTROL, INCLUDING PEDESTRIAN DETOURS. CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, INSTALLING, AND MAINTAINING THE TEMPORARY TRAFFIC CONTROL DEVICES THROUGHOUT THE DURATION OF THE PROJECT.
- 3 APPROVAL OF THESE PLANS BY THE COUNTY ENGINEER DOES NOT AUTHORIZE ANY WORK TO BE PERFORMED UNTIL A PERMIT HAS BEEN ISSUED.
- 4. THE APPROVAL OF THESE PLANS OR ISSUANCE OF A PERMIT BY EL PASO COUNTY DOES CITY LAWS, ORDINANCES, REGULATIONS, OR POLICIES.
- 5. ALL TRAFFIC SIGNS, PAVEMENT MARKINGS, AND TRAFFIC SIGNALS SHALL MEET OR EXCEED M.U.T.C.D. STANDARDS.
- OR TRAFFIC SIGNALS DURING THE PROJECT WITHOUT SIGNED AUTHORIZATION OF THE EL PASO COUNTY INSPECTOR ASSIGNED TO THE PROJECT.

CONSTRUCTION NOTES

- 1. ALL DRAINAGE AND ROADWAY CONSTRUCTION SHALL MEET THE STANDARDS AND SPECIFICATIONS OF THE EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND THE EL PASO COUNTY ENGINEERING CRITERIA MANUAL
- 2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION AND FIELD NOTIFICATION OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, BEFORE BEGINNING CONSTRUCTION. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CALL 811 TO CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC).
- CONTRACTOR SHALL KEEP A COPY OF THESE APPROVED PLANS, THE GRADING AND EROSION CONTROL PLAN, THE STORMWATER MANAGEMENT PLAN (SWMP), THE SOILS AND GEOTECHNICAL REPORT, AND THE APPROPRIATE DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS AT THE JOB SITE AT ALL TIMES, INCLUDING THE **FOLLOWING:**
 - a. EL PASO COUNTY ENGINEERING CRITERIA MANUAL (ECM)
 - b. EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2
 - c. COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
- d. CDOT M & S STANDARDS 4. NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING. ANY MODIFICATIONS NECESSARY TO MEET CRITERIA AFTER-THE-FACT WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO
- 5. IT IS THE DESIGN ENGINEER'S RESPONSIBILITY TO ACCURATELY SHOW EXISTING CONDITIONS, BOTH ONSITE AND OFFSITE, ON THE CONSTRUCTION PLANS, ANY MODIFICATIONS NECESSARY DUE TO CONFLICTS, OMISSIONS, OR CHANGED CONDITIONS WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.
- CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT (PCD) - INSPECTIONS, PRIOR TO STARTING CONSTRUCTION.
- 7. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE AND LOCATION OF ALL UNDERGROUND AND ABOVE GROUND UTILITIES WITHIN AND ADJACENT TO THE SITE. PRIOR TO ANY EXCAVATION, CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO AT 811 AT LEAST TWO WORKING DAYS PRIOR TO DIGGING. 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 ASSUMES RESPONSIBILITY FOR THE PROTECTION OF ALL UTILITIES DURING THE WORK. ANY DAMAGE TO THE EXISTING UTILITIES WILL BE REPAIRED AT THE CONTRACTOR'S EXPENSE AND ANY SERVICE DISRUPTION WILL BE SETTLED BY THE CONTRACTOR.
- THE PLAN SHALL NOT SUBSTANTIALLY CHANGE THE DEPTH OF COVER, OR ACCESS TO EXISTING UTILITY FACILITIES. ACCEPTANCE OF THIS PLAN DOES NOT CONSTITUTE APPROVAL TO GRADE IN ANY UTILITY EASEMENT OR RIGHT OF WAY. APPROVALS TO GRADE WITHIN UTILITY EASEMENTS MUST BE OBTAINED FROM THE APPROPRIATE UTILITY COMPANY. IT IS NOT PERMISSIBLE FOR ANY PERSON TO MODIFY THE GRADE OF THE EARTH ON ANY COLORADO SPRINGS UTILITIES EASEMENT OR UTILITY RIGHT-OF-WAY WITHOUT THEIR WRITTEN APPROVAL. THE PLAN SHALL NOT INCREASE OR DIVERT WATER TOWARDS UTILITY FACILITIES. ANY CHANGES TO EXISTING UTILITY FACILITIES TO ACCOMMODATE THE PLAN MUST BE APPROVED BY THE AFFECTED UTILITY OWNER PRIOR TO IMPLEMENTING THE PLAN. THE RESULTING COST TO RELOCATE OR PROTECT EXISTING UTILITIES OR TO PROVIDE INTERIM ACCESS IS AT THE EXPENSE OF THE PLAN APPLICANT.

BENCHMARK AND SURVEY CONTROL NOTES

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION STAKING OF BOTH HORIZONTAL AND VERTICAL LAYOUT ON THIS PROJECT. COORDINATES ARE REFERENCED IN THE COORDINATE LIST SHOWN ON THESE PLANS. THE CONTRACTOR SHALL COORDINATE WITH THE PROJECT ENGINEER FOR INTERPRETATION AND INFORMATION IN STAKING OF THE PROJECT FOR CONSTRUCTION.
- PRIOR TO PROJECT COMPLETION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF ANY PROPERTY MONUMENTATION DISTURBED OR REMOVED BY CONSTRUCTION OPERATIONS. THIS WORK SHALL BE PERFORMED BY A LAND SURVEYOR LICENSED IN THE STATE OF COLORADO. PROPERTY CORNERS WHICH FALL WITHIN NEW CONCRETE FLATWORK SHALL BE DURABLE AND SET FLUSH. THIS SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.

NPDES NOTES

NOT AUTHORIZE THE OWNER OR CONTRACTOR TO VIOLATE ANY FEDERAL, STATE OR 1. THE CONTRACTOR SHALL REMOVE ALL SEDIMENT, MUD. AND CONSTRUCTION DEBRIS THAT MAY ACCUMULATE IN THE FLOWLINES AND PUBLIC RIGHTS OF WAYS AS RESULT OF THIS CONSTRUCTION PROJECT. SAID REMOVAL SHALL BE CONDUCTED IN ATIMELY MANNER, OR AS DIRECTED BY THE ENGINEER.

SHEET No.

Know what's below.

Call before you dig.

- 6. THE CONTRACTOR SHALL NOT REMOVE ANY EXISTING SIGNS, PAVEMENT MARKINGS, 2. THIS CONSTRUCTION ACTIVITIES STORMWATER MANAGEMENT PLAN (SWMP) HAS BEEN SUBMITTED AS PART OF AN APPLICATION FOR AN EROSION AND SEDIMENT CONTROL PERMIT FILED WITH EL PASO COUNTY AND AS INCLUSION BY REFERENCE TO THE CDPHE CONSTRUCTION ACTIVITY PERMIT. THE SWMP IS A LIVING DOCUMENT AND ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED OF THE CONTRACTOR DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT FUNCTION AS INTENDED. THE REQUIREMENTS OF THIS PLAN SHALL BE THE OBLIGATION OF THE LAND OWNER AND/OR HIS SUCCESSORS OR HEIRS; UNTIL SUCH TIME AS THE PLAN IS PROPERLY COMPLETED, MODIFIED, OR VOIDED.
 - THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR REMEDIATION OF ANY ADVERSE IMPACTS TO ADJACENT WATERWAYS, WETLANDS, ETC., RESULTING FROM WORK DONE AS PART OF THIS PROJECT.
 - 4. THE CONTRACTOR SHALL PREVENT SEDIMENT, DEBRIS AND ALL OTHER POLLUTANTS FROM ENTERING THE STORM SEWER SYSTEM DURING ALL DEMOLITION, EXCAVATION, TRENCHING, BORING, GRADING OR OTHER CONSTRUCTION OPERATIONS THAT ARE PART OF THIS PROJECT
 - A LAYER OF SUITABLE MULCH SHALL BE APPLIED TO ALL DISTURBED PORTIONS OF THE SITE WITHIN 14 DAYS OF THE COMPLETION OF GRADING. SAID MULCH SHALL BE APPLIED AT A RATE OF 2 TONS PER ACRE AND SHALL BE TACKED OR FASTENED BY AN APPROVED METHOD SUITABLE FOR THE TYPE OF MULCH USED. ROUGH-CUT STREETS SHALL BE MULCHED UNLESS A LAYER OF AGGREGATE ROAD BASE OR ASPHALT PAVING IS TO BE APPLIED TO SAID ROUGH-CUT STREETS WITHIN THE 14 DAY PERIOD AFTER COMPLETION OF OVERLOT GRADING. AN AREA THAT IS GOING TO REMAIN IN AN INTERIM STATE FOR MORE THEN SIXTY (60) DAYS SHALL ALSO BE SEEDED. ALL TEMPORARY SOIL EROSION CONTROL MEASURES AND CCM'S SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED.
 - THE CONTRACTOR SHALL LOCATE, INSTALL, AND MAINTAIN ALL EROSION CONTROL AND WATER QUALITY "CONSTRUCTION CONTROL MEASURES" AS INDICATED IN THE APPROVED CONSTRUCTION ACTIVITIES STORMWATER MANAGEMENT PLAN. CCM'S SHALL BE MAINTAINED AND KEPT IN GOOD REPAIR FOR THE DURATION OF THIS
 - 7. AT A MINIMUM, THE CONTRACTOR SHALL INSPECT, AND KEEP A LOG OF, ALL CCM'S WEEKLY AND AFTER SIGNIFICANT PRECIPITATION EVENTS. ALL NECESSARY MAINTENANCE AND REPAIR SHALL BE COMPLETED IN A TIMELY MANNER ACCUMULATED SEDIMENT AND DEBRIS SHALL BE REMOVED FROM A CCM WHEN THE SEDIMENT LEVEL REACHES ONE-HALF THE HEIGHT OF THE CCM, OR, AT ANY TIME THAT SEDIMENT OR DEBRIS ADVERSELY IMPACTS THE FUNCTIONING OF THE CCM.
 - THE CONTRACTOR SHALL PROPERLY COVER ALL LOADS OF CUT AND FILL MATERIAL IMPORTED TO OR EXPORTED FROM THIS SITE TO PREVENT LOSS OF THE MATERIAL DURING TRANSPORT WITHIN PUBLIC RIGHTS OF WAY.
 - THE USE OF REBAR, STEEL STAKES, OR STEEL FENCE POSTS TO STAKE DOWN STRAW OR HAY BALES: OR TO SUPPORT SILT FENCING USED AS AN EROSION CONTROL MEASURE; IS PROHIBITED. THE USE OF OSHA APPROVED COLORED WARNING CAPS ON REBAR OR FENCE POSTS USED WITH EROSION CONTROL MEASURES IS NOT **ACCEPTABLE**
 - 10. SOILS THAT WILL BE STOCKPILED FOR MORE THAN 30 DAYS SHALL BE MULCHED AND SEEDED WITH A TEMPORARY OR PERMANENT GRASS COVER WITHIN 21 DAYS OF STOCKPILE CONSTRUCTION. IF STOCKPILES ARE LOCATED WITHIN 100 FEET OF A DRAINAGEWAY, ADDITIONAL SEDIMENT CONTROLS SUCH AS TEMPORARY DIKES OR SILT FENCE SHALL BE REQUIRED.
 - 11. MODIFICATION OF AN ACTIVE GRADING AND EROSION CONTROL PERMIT BY THE CONTRACTOR SHALL REQUIRE TIMELY NOTIFICATION OF AND APPROVAL BY EL PASO COUNTY. TERMINATION OF AN ACTIVE GRADING AND EROSION CONTROL PERMIT UPON COMPLETION OF THE PROJECT REQUIRES NOTIFICATION OF AND APPROVAL BY EL PASO COUNTY.
 - 12. UNLESS CONFINED IN A PREDEFINED, BERMED CONTAINMENT AREA, THE CLEANING OF CONCRETE TRUCK DELIVERY CHUTES IS PROHIBITED AT THE JOB SITE. THE DISCHARGE OF WATER CONTAINING WASTE CEMENT TO THE STORM SEWER SYSTEM IS PROHIBITED.
 - 13. THE CONTRACTOR SHALL PROTECT ALL STORM SEWER FACILITIES ADJACENT TO ANY LOCATION WHERE PAVEMENT CUTTING OPERATIONS INVOLVING WHEEL CUTTING, SAW CUTTING OR ABRASIVE WATER JET CUTTING ARE TO TAKE PLACE. THE DISCHARGE OF ANY WATER CONTAMINATED BY WASTE PRODUCTS FROM CUTTING OPERATIONS TO THE STORM SEWER SYSTEM IS PROHIBITED. THE CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF ALL WASTE PRODUCTS GENERATED BY SAID CUTTING OPERATIONS ON A DAILY BASIS.
 - LOCATION OF STAGING, STORAGE, EQUIPMENT MAINTENANCE, TEMPORARY DISPOSAL VEHICLE TRACKING CONTROL AND CONCRETE TRUCK WASHOUT AREAS WILL BE DETERMINED IN THE FIELD AT THE START OF CONSTRUCTION ACTIVITY AND DELINEATED ON THIS PLAN.
 - 15. EXISTING VEGETATION CONSISTS OF NATIVE GRASSES WITH APPROXIMATELY 95% COVERAGE THROUGHOUT THE PROJECT SITE
 - 16. NON-STRUCTURAL EROSION CONTROL MEASURES THAT ARE NOT DESIGNATED WITHIN THE PLAN SET ARE STREET SWEEPING AND FINAL LANDSCAPING. REFER TO CITY APPROVED FINAL LANDSCAPE PLANS FOR FINAL STABILIZATION MEASURES.

PCD FILE # XXXXXX

REFERENCE DRAWINGS -1676-SKVSTA-TITLE-GEC_22> X-1676-SKVSTA-PR-SITE X-1676-SKVSTA-EX-SITE X-1676-SKVSTA-EX-MAP DESCRIPTION No. DATE REVISIONS COMPUTER FILE MANAGEMENT FILE NAME: s:\24.1676.001 skye vista\500 CADD\504 plan sets\GEC\GEC-A.dwg CTB FILE: Matrix.ctb PLOT DATE: 12/2/2024 11:21 AM THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE.

FIMS MONUMENT F 56 IS A 3.25 ALUMINUM CAP STAMPED "MKD 56" IN RANGE BOX. ON THE EAST SIDE OF ROLLE COASTER RD AND SOUTH OF MOUNTAIN PINE LANE. ELEVATION WAS ESTABLISHED BY GPS OBSERVATION (GEOID 18) AND IS REFERENCED TO NAVD88 (US SURVEY FEET) WITH AND ELEVATION OF 7318.65. COORDINATE . SYSTEM: NAD83, COLORADO SATE PLANE, CENTRAL ZONE, US SURVEY FEET

THE BEARINGS SHOWN HEREON AND BASED ON GPS OBSERVATIONS AND REFERENCED THE EAST LINE OF TH SOUTHEAST QUARTER OF SECTION 23, TOWNSHIP 11 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO, BEING MONUMENTED AT THE EAST QUARTER CORNER OF SAID SECTION BY A NO. 6 REBAR WITH 3-1/4" ALUMINUM CAP STAMPED "LS 9477" AND MONUMENTED AT THE SOUTHEAST CORNER OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SAID SECTION BY A NO. REBAR WITH 2-1/2" ALUMINUM CAP STAMPED "LS 9477", AS BEARING OF SOUTH 00°22'42" EAST, A DISTANCE OF



PRELIMINARY THIS DRAWING HAS NOT BEEN APPROVED BY **GOVERNING AGENCIES AND** IS SUBJECT TO CHANGE

SEAL

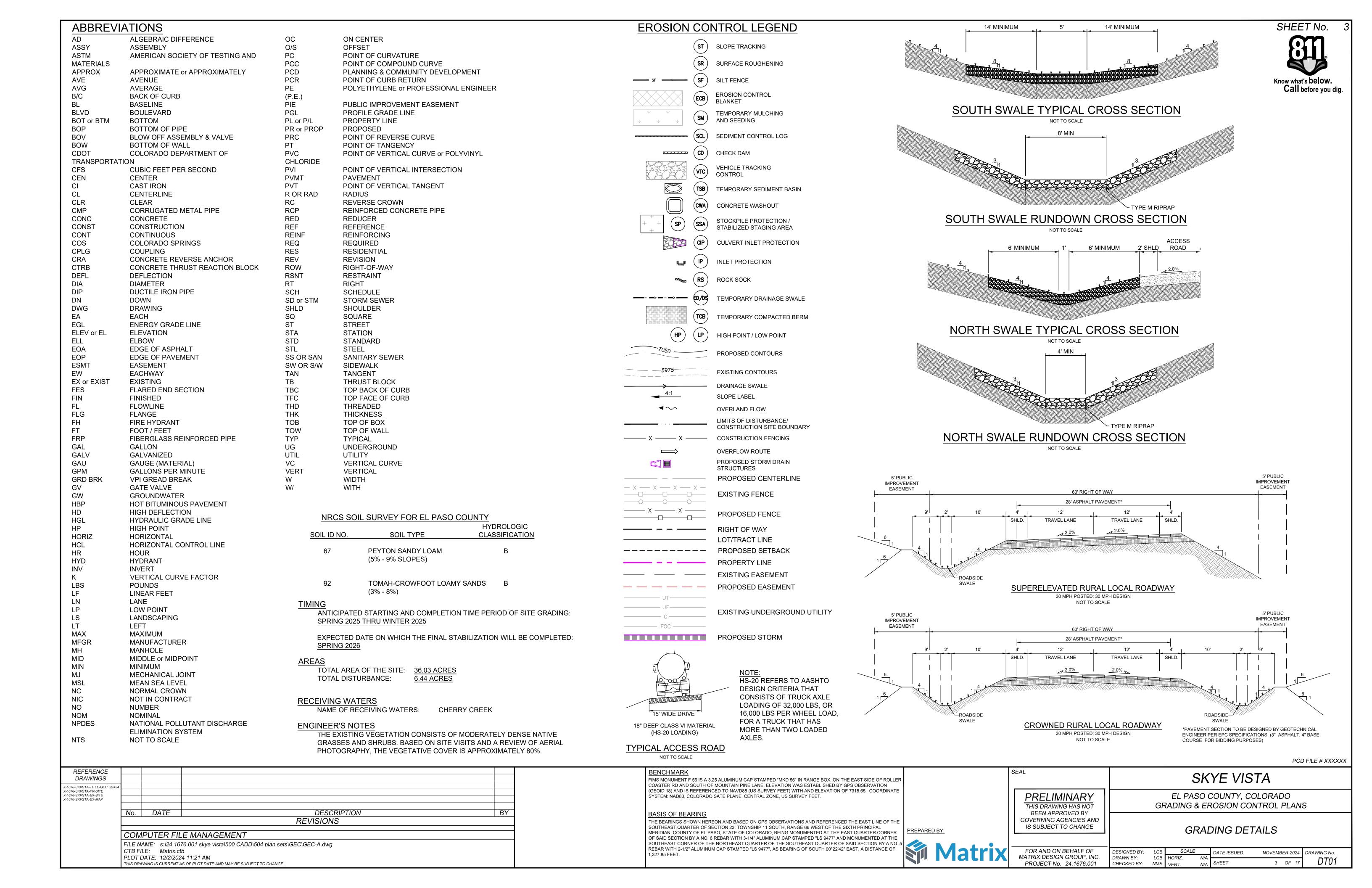
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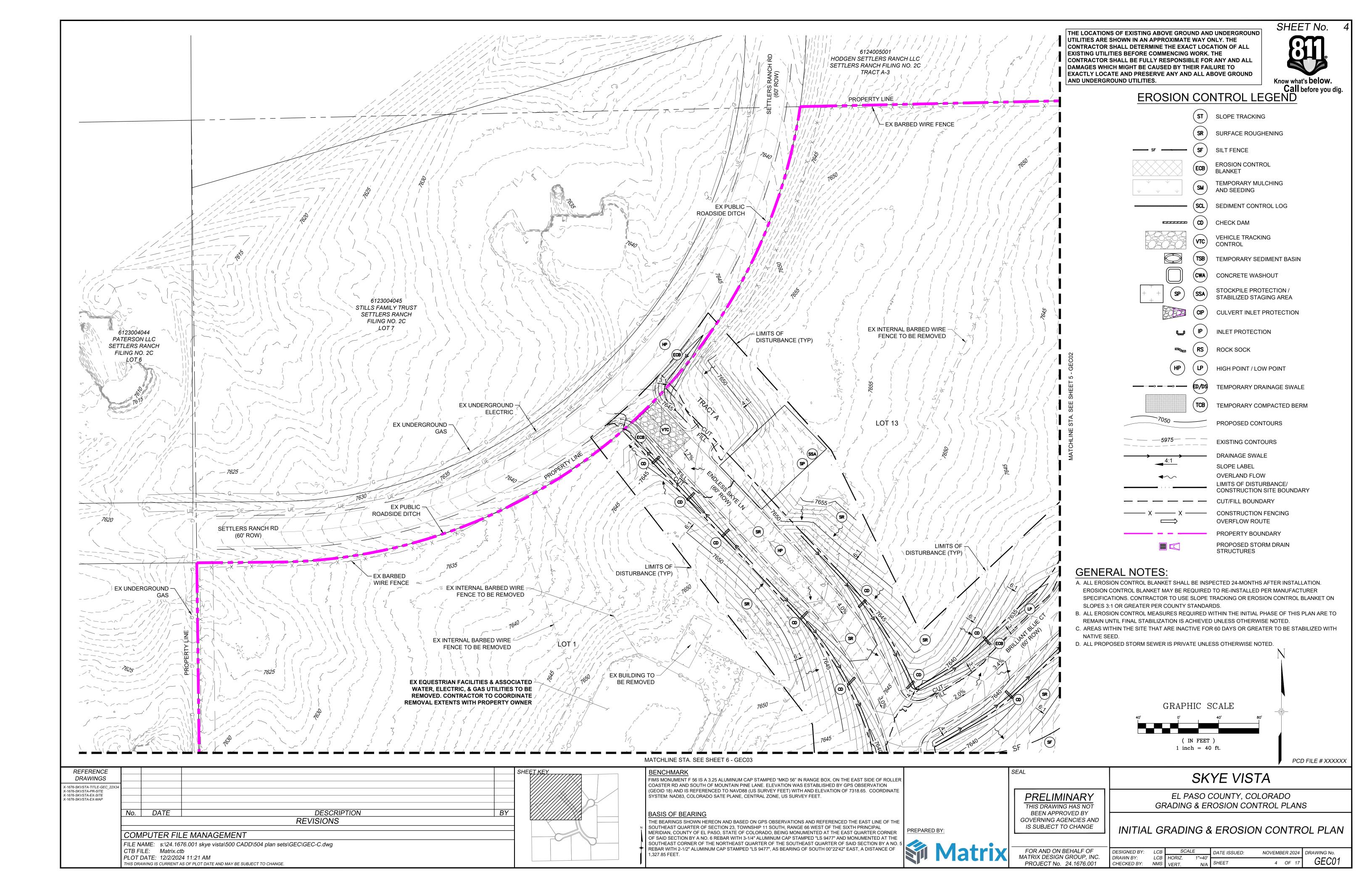
GRADING & EROSION CONTROL PLANS

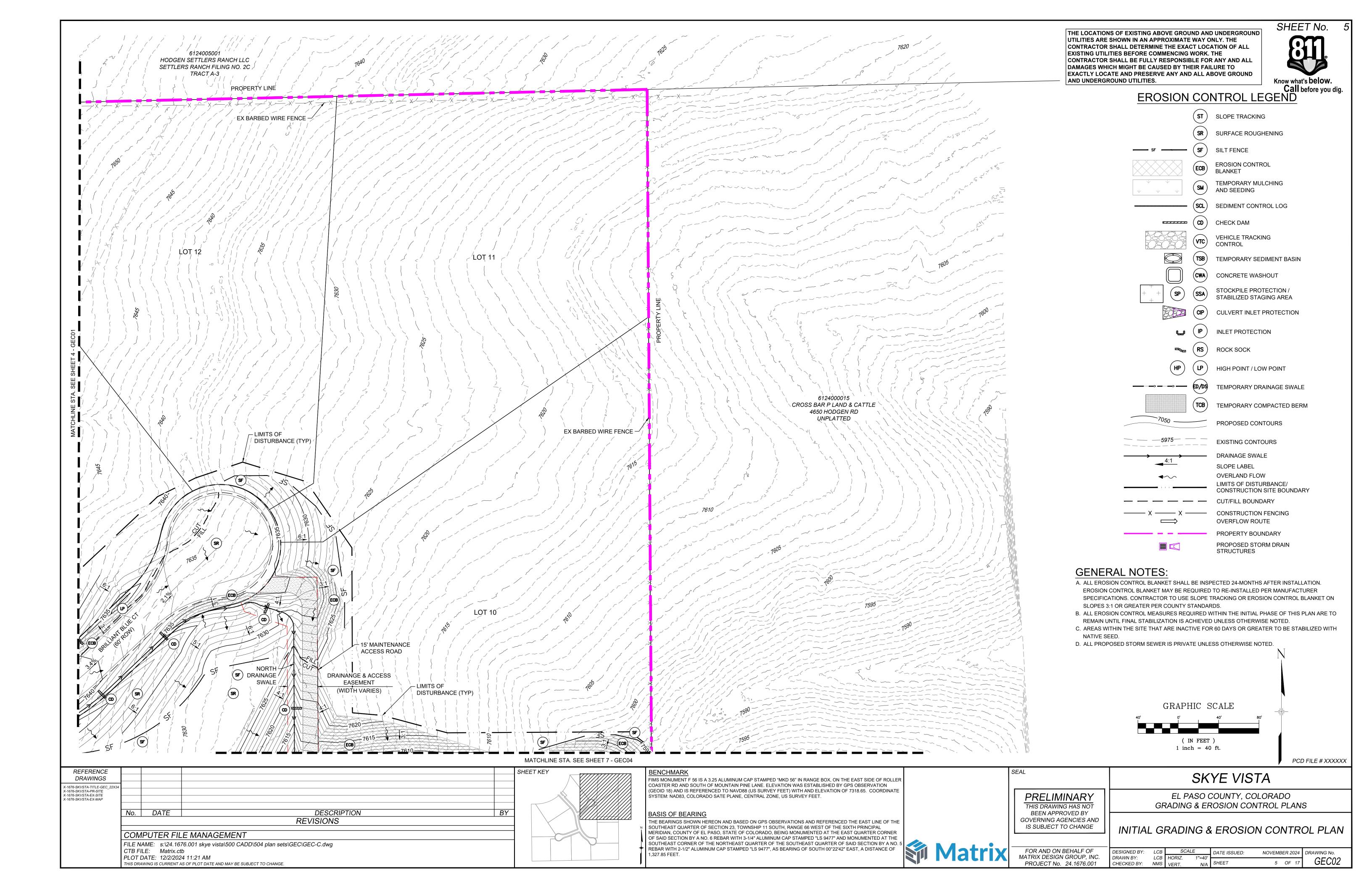
GENERAL GRADING & EROSION CONTROL NOTES

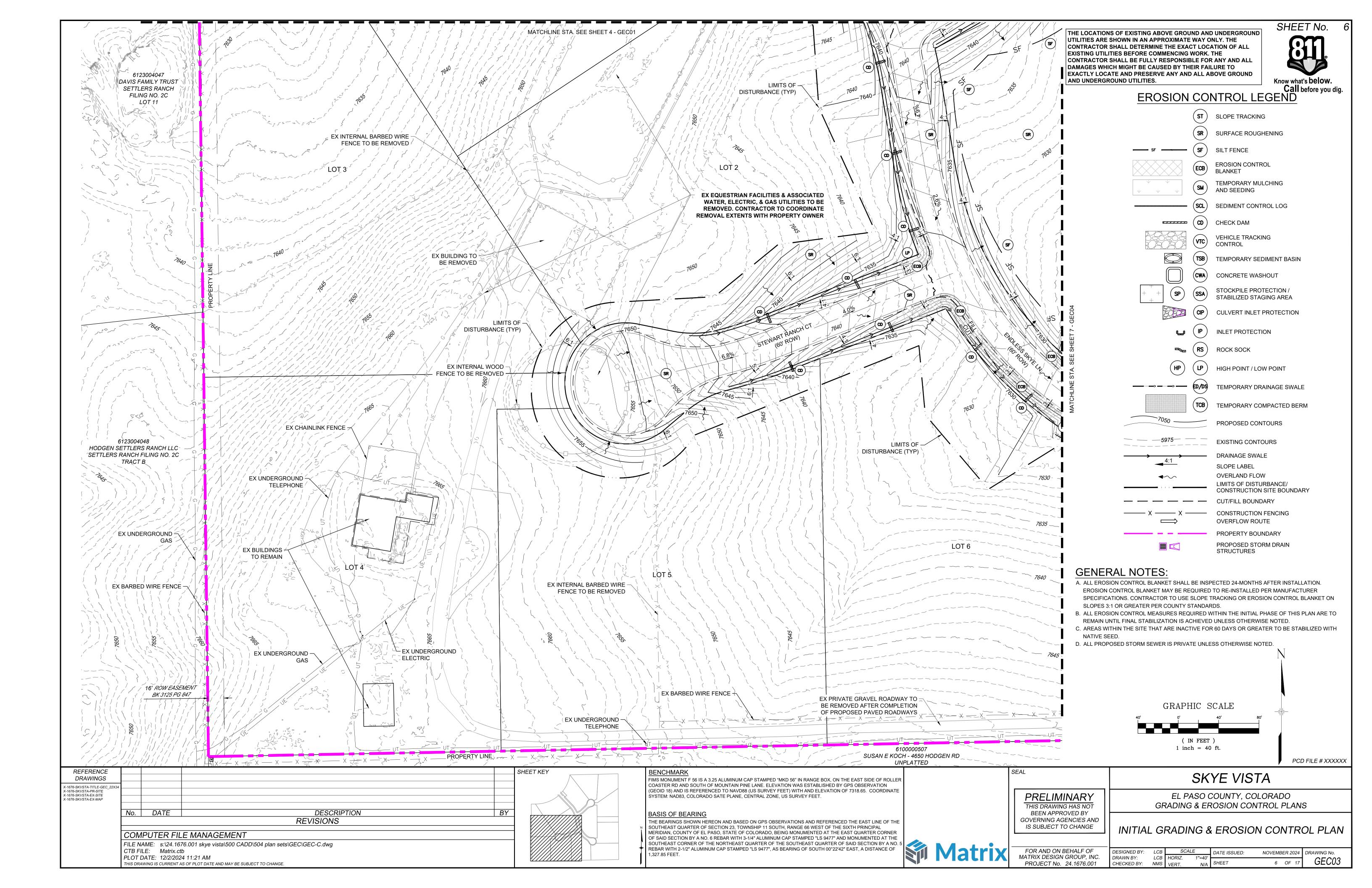
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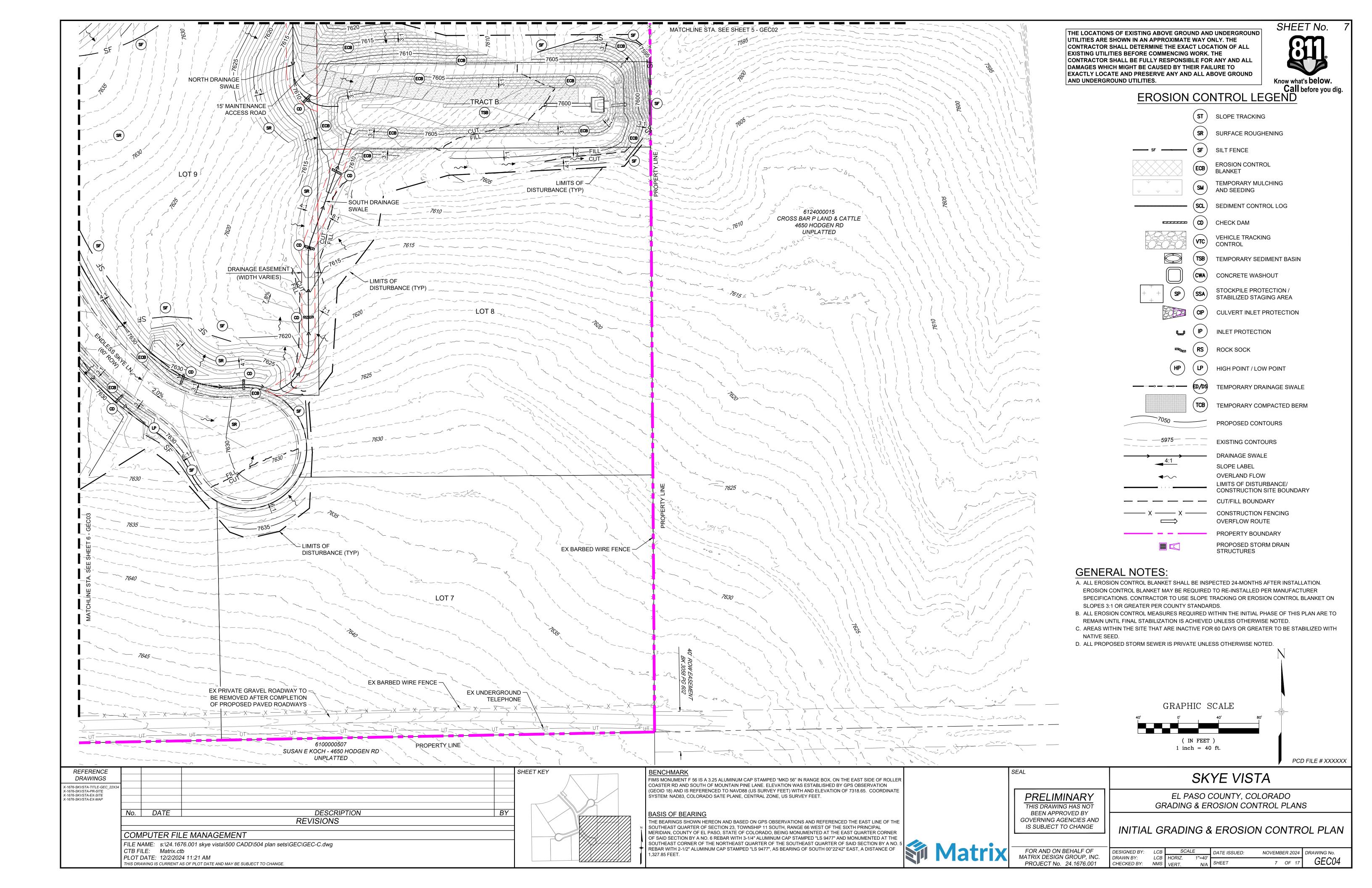


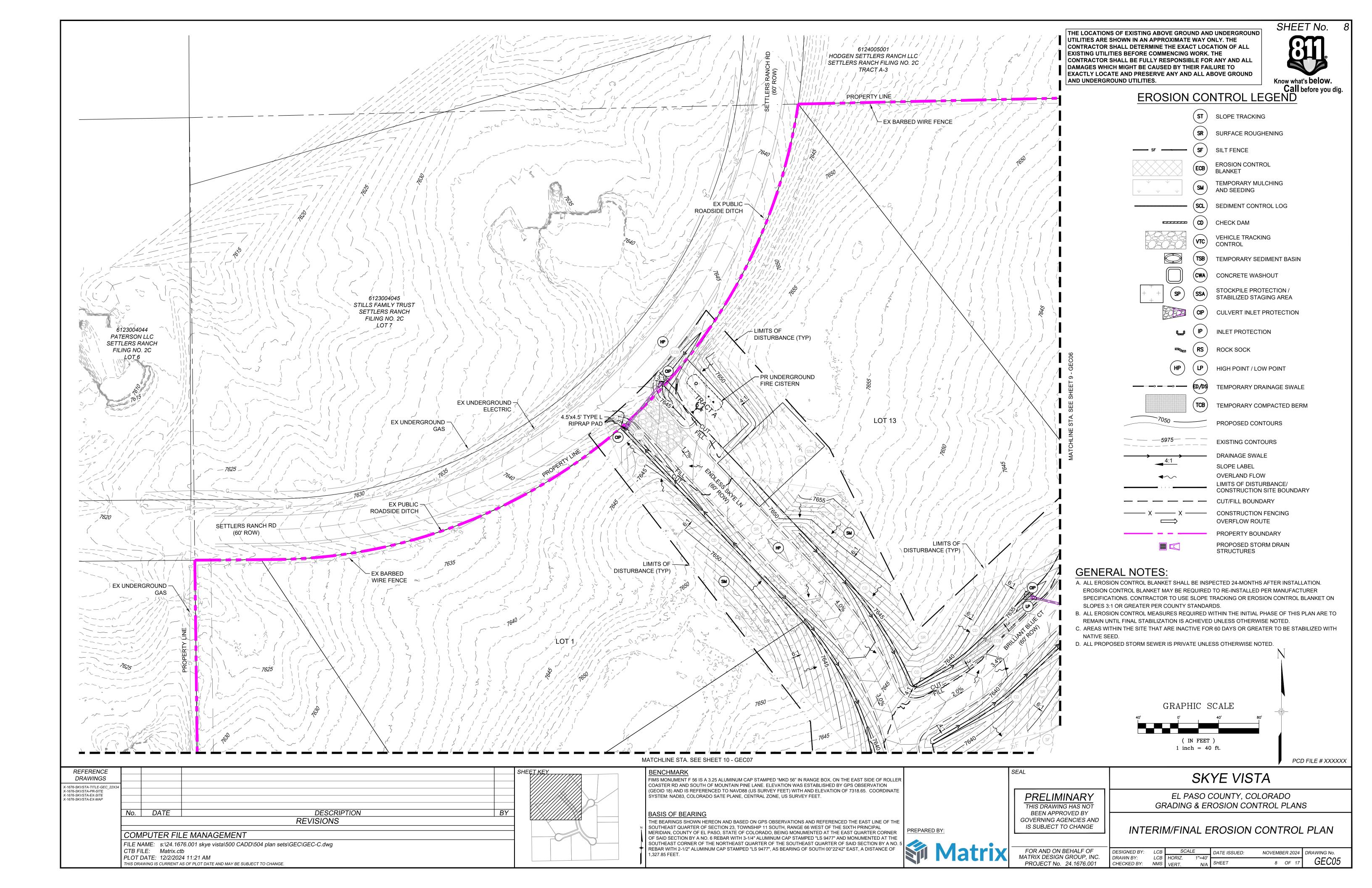


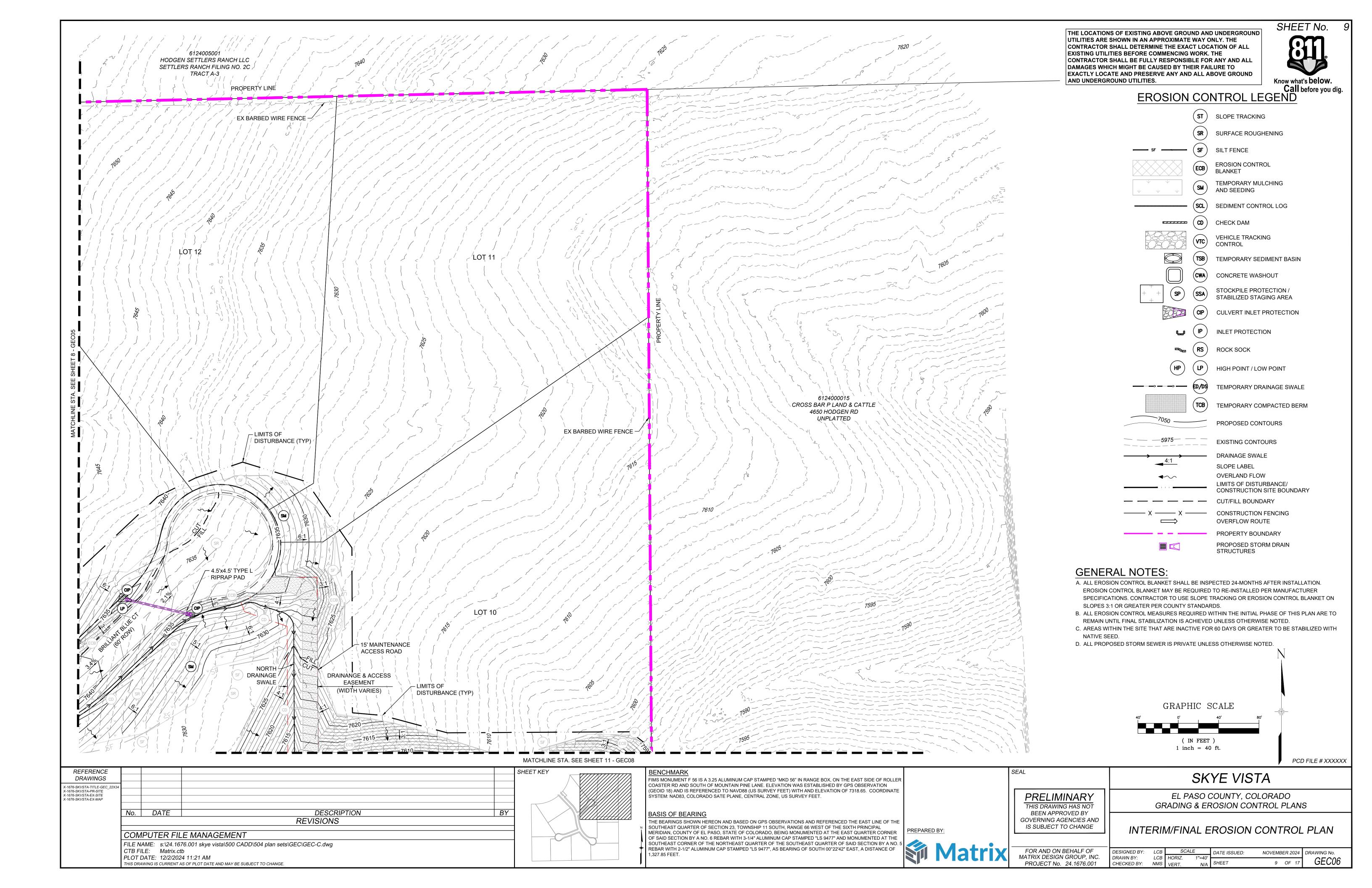


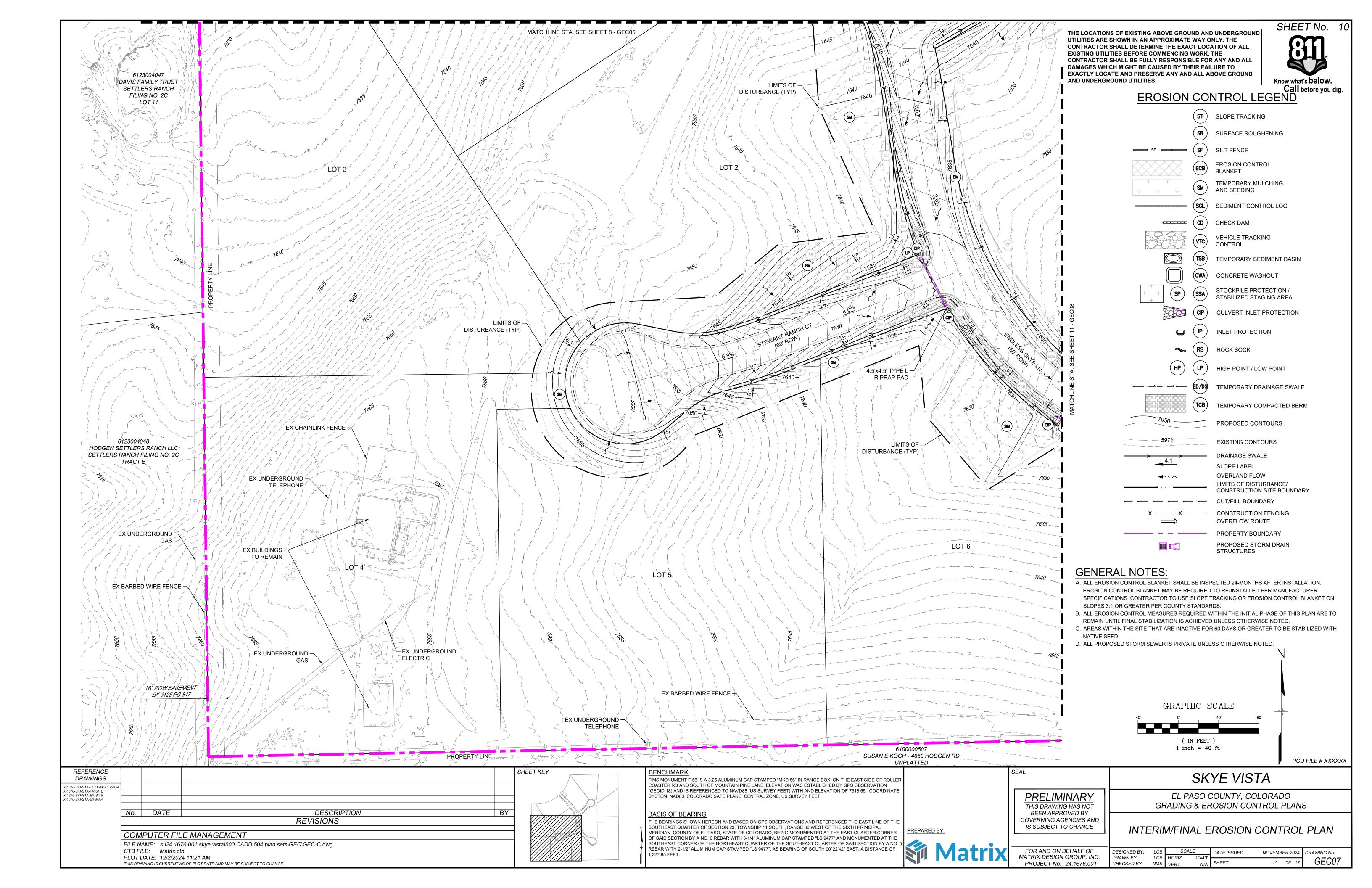


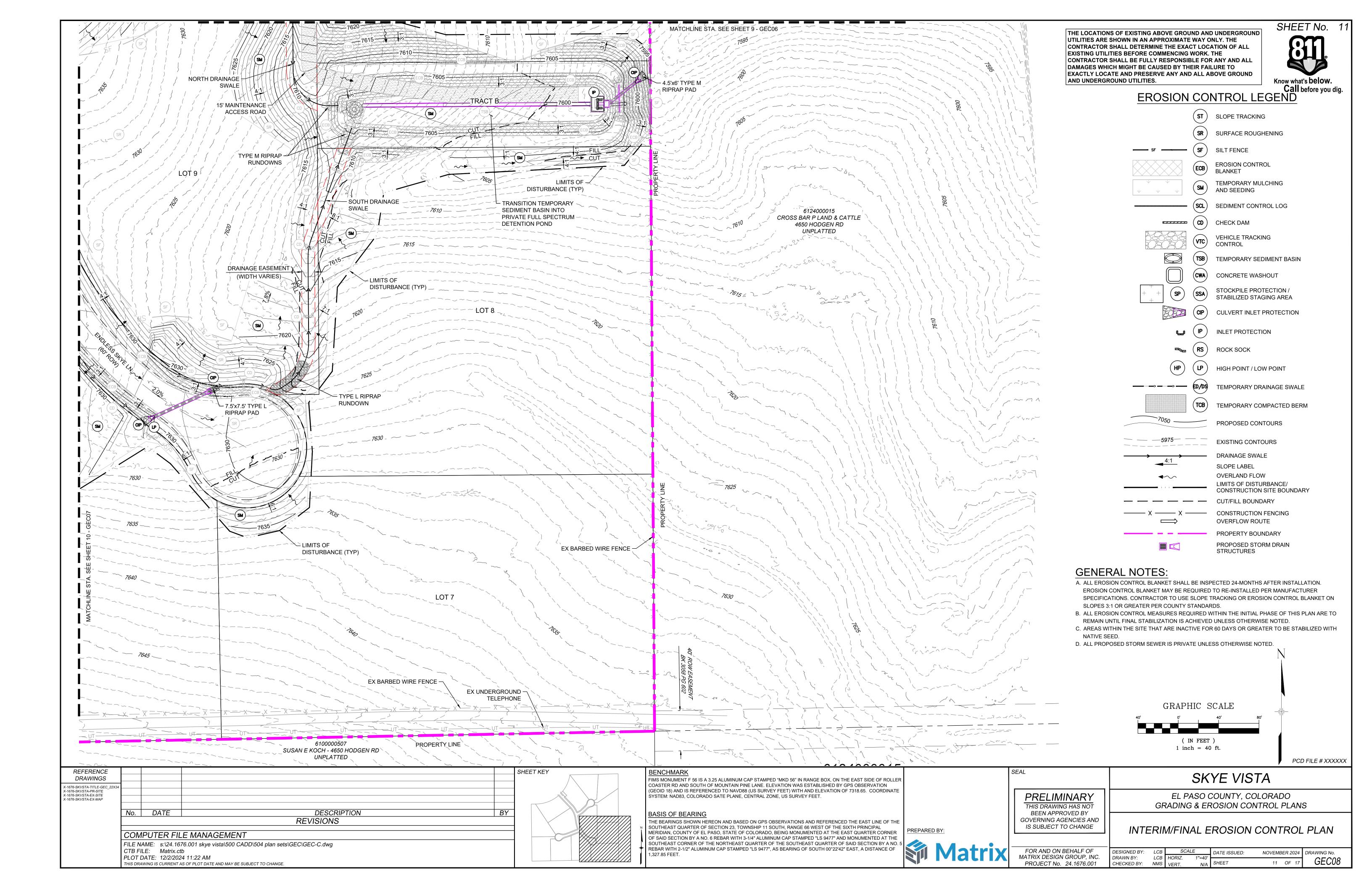












TS/PS-3

Surface Roughening (SR)

November 2010

EC-1

(SR)

FURROWS 2" TO 4" DEEP

WITH 6" MAXIMUM SPACING

ROUGHENED ROWS SHALL BE 4" TO 6"

Temporary and Permanent Seeding (TS/PS)

Pure Live Seed

(PLS)/acre^c

25 - 35

10 - 15

3 - 15

20-35

20-35

20-35

25-40

Planting

Depth

1 - 2

1 - 2

1 - 2

SR-2. SURFACE ROUGHENING

Urban Drainage and Flood Control District

Urban Storm Drainage Criteria Manual Volume 3

Table TS/PS-1. Minimum Drill Seeding Rates for Various Temporary Annual Grasses

Growth

Cool

Warm

Cool

Cool

is not disturbed or mowed closer than 8 inches.

Successful seeding of annual grass resulting in adequate plant growth will

wind and water erosion for an additional year. This assumes that the cover

Hydraulic seeding may be substituted for drilling only where slopes are

operation, when practical, to prevent the seeds from being encapsulated in

See Table TS/PS-2 for seeding dates. Irrigation, if consistently applied,

may extend the use of cool season species during the summer months.

Seeding rates should be doubled if seed is broadcast, or increased by 50

percent if done using a Brillion Drill or by hydraulic seeding.

Urban Drainage and Flood Control District

Urban Storm Drainage Criteria Manual Volume 3

steeper than 3:1 or where access limitations exist. When hydraulic

seeding is used, hydraulic mulching should be applied as a separate

usually produce enough dead-plant residue to provide protection from

Common name)

Spring wheat

Spring barley

Annual ryegrass

Winter wheat

Winter rve

Triticale

TS/PS-4

Winter barley

Oats

. Millet

FOR LOW SLOPES (LESS THAN 3:1)

DEEP WITH 6" MAXIMUM SPACING PARALLEL

FOR STEEP SLOPES (3:1 OR STEEPER)

Surface Roughening (SR)

SURFACE ROUGHENING INSTALLATION NOTES

-LOCATION(S) OF SURFACE ROUGHENING.

2 SURFACE ROUGHENING SHALL BE PROVIDED PROMPTLY AFTER COMPLETION OF FINISHED GRADING (FOR AREAS NOT RECEIVING TOPSOIL) OR PRIOR TO TOPSOIL PLACEMENT OR ANY FORECASTED RAIN EVENT.

3. AREAS WHERE BUILDING FOUNDATIONS, PAVEMENT, OR SOD WILL BE PLACED WITHOUT DELAY IN THE CONSTRUCTION SEQUENCE, SURFACE ROUGHENING IS NOT REQUIRED.

4. DISTURBED SURFACES SHALL BE ROUGHENED USING RIPPING OR TILLING EQUIPMENT ON THE CONTOUR OR TRACKING UP AND DOWN A SLOPE USING EQUIPMENT TREAD

5. A FARMING DISK SHALL NOT BE USED FOR SURFACE ROUGHENING. SURFACE ROUGHENING 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.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACE UPON DISCOVERY OF THE FAILURE. 4. VEHICLES AND EQUIPMENT SHALL NOT BE DRIVEN OVER AREAS THAT HAVE BEEN SURFACE ROUGHENED.

5. IN NON-TURF GRASS FINISHED AREAS, SEEDING AND MULCHING SHALL TAKE PLACE DIRECTLY OVER SURFACE ROUGHENED AREAS WITHOUT FIRST SMOOTHING OUT THE SURFACE. 6. IN AREAS NOT SEEDED AND MULCHED AFTER SURFACE ROUGHENING, SURFACES SHALL BE RE-ROUGHENED AS NECESSARY TO MAINTAIN GROOVE DEPTH AND SMOOTH OVER RILL

(DETAILS ADAPTED FROM TOWN OF 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.

March 16-April 30

May 1–May 15

May 16-June 30

July 16-August 31

October 1-December 31

September 1-September 30

Maintenance and Removal

and mulch these areas, as needed.

also be necessary.

July 1-July 15

Mulch

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Temporary and Permanent Seeding (TS/PS)

Table TS/PS-2. Seeding Dates for Annual and Perennial Grasses

Annual Grasses

species in Table TS/PS-1)

Cover seeded areas with mulch or an appropriate rolled erosion control product to promote establishment

Monitor and observe seeded areas to identify areas of poor growth or areas that fail to germinate. Reseed

If a temporary annual seed was planted, the area should be reseeded with the desired perennial mix when

there will be no further work in the area. To minimize competition between annual and perennial species

the annual mix needs time to mature and die before seeding the perennial mix. To increase success of the

perennial mix, it should be seeded during the appropriate seeding dates the second year after the

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heads should be removed and then the area seeded with the perennial mix.

the site that fail to germinate or remain bare after the first growing season.

Protect seeded areas from construction equipment and vehicle access.

temporary annual mix was seeded. Alternatively, if this timeline is not feasible, the annual mix seed

An area that has been permanently seeded should have a good stand of vegetation within one growing

season if irrigated and within three growing seasons without irrigation in Colorado. Reseed portions of

Seeded areas may require irrigation, particularly during extended dry periods. Targeted weed control may

of vegetation. Anchor mulch by crimping, netting or use of a non-toxic tackifier. See the USDCM

Volume 2 Revegetation Chapter and Volume 3 Mulching BMP Fact Sheet (EC-04) for additional

Warm Cool

6, 7, 8, 9

November 2010

TS/PS-5

Perennial Grasses

Warm Cool

Mulching (MU)

Temporary and Permanent Seeding (TS/PS)

stabilization measures, including planting a temporary seed mix, should be implemented. If the inactive

provide effective erosion control. Permanent seeding should be used on finished areas that have not been

The USDCM Volume 2 Revegetation Chapter contains suggested annual grains and native seed mixes to

Effective seeding requires proper seedbed preparation, selecting an appropriate seed mixture, using

The USDCM Volume 2 Revegetation Chapter contains detailed seed mixes, soil preparation practices,

and seeding and mulching recommendations that should be referenced to supplement this Fact Sheet.

Drill seeding is the preferred seeding method. Hydroseeding is not recommended except in areas where

steep slopes prevent use of drill seeding equipment, and even in these instances it is preferable to hand

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appropriate seeding equipment to ensure proper coverage and density, and protecting seeded areas with

use for temporary seeding. Alternatively, local governments may have their own seed mixes and timelines

period is short-lived (on the order of two weeks), techniques such as surface roughening may be

for seeding. Check jurisdictional requirements for seeding and temporary stabilization.

appropriate. For longer periods of inactivity of up to one year, temporary seeding and mulching can

Photograph TS/PS -1. Equipment used to drill seed. Photo courtesy of

Temporary and Permanent Seeding

TS/PS-1

EC-4

Erosion Control

Sediment Control

Site/Material Management

Photograph MU-1. An area that was recently seeded, mulched,

Description

Temporary seeding can be used to

inactive for an extended period.

stabilize disturbed areas that will be

Permanent seeding should be used to

stabilize areas at final grade that will not

appropriate seed mixture, using proper

planting techniques, and protecting the

seeded area with mulch, geotextiles, or

When the soil surface is disturbed and

period (typically determined by local

government requirements), proactive

Design and Installation

hydroseeding or hydromulching.

Seedbed Preparation

Description

mulch or fabric until plants are established.

seed and mulch. Some jurisdictions do not allow

Prior to seeding, ensure that areas to be revegetated have

grading can result in loss of topsoil and compaction,

soil conditions capable of supporting vegetation. Overlot

resulting in poor quality subsoils at the ground surface that

will remain inactive for an extended

other appropriate measures.

Appropriate Uses

otherwise stabilized.

be otherwise stabilized. Effective seeding

includes preparing a seedbed, selecting an

Mulching consists of evenly applying straw, hay, shredded wood mulch, rock. bark or compost to disturbed soils and securing the mulch by crimping, tackifiers, reduce erosion by protecting bare soil from rainfall impact, increasing infiltration, and reducing runoff

with temporary or permanent seeding, it can also be used for temporary stabilization of areas that cannot be reseeded due to seasonal constraints. Mulch can be applied either using standard mechanical dry application methods or using hydromulching equipment

Although often applied in conjunction

that hydraulically applies a slurry of water, wood fiber mulch, and often a tackifier.

Appropriate Uses

Use mulch in conjunction with seeding to help protect the seedbed and stabilize the soil. Mulch can also be used as a temporary cover on low to mild slopes to help temporarily stabilize disturbed areas where growing season constraints prevent effective reseeding. Disturbed areas should be properly mulched and tacked, or seeded, mulched and tacked promptly after final grade is reached (typically within no longer than 14 days) on portions of the site not otherwise permanently stabilized.

Standard dry mulching is encouraged in most jurisdictions; however, hydromulching may not be allowed in certain jurisdictions or may not be allowed near waterways.

Do not apply mulch during windy conditions.

Design and Installation

Prior to mulching, surface-roughen areas by rolling with a crimping or punching type roller or by track walking. Track walking should only be used where other methods are impractical because track walking with heavy equipment typically compacts the soil.

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A variety of mulches can be used effectively at construction sites. Consider the following:

EC-2 Temporary and Permanent Seeding (TS/PS)

have low nutrient value, little organic matter content, few soil microorganisms, rooting restrictions, and conditions less conducive to infiltration of precipitation. As a result, it is typically necessary to provide stockpiled topsoil, compost, or other soil amendments and rototill them into the soil to a depth of 6 inches

Topsoil should be salvaged during grading operations for use and spread on areas to be revegetated later. Topsoil should be viewed as an important resource to be utilized for vegetation establishment, due to its water-holding capacity, structure, texture, organic matter content, biological activity, and nutrient content The rooting depth of most native grasses in the semi-arid Denver metropolitan area is 6 to 18 inches. If present, at a minimum of the upper 6 inches of topsoil should be stripped, stockpiled, and ultimately respread across areas that will be revegetated.

Where topsoil is not available, subsoils should be amended to provide an appropriate plant-growth medium. Organic matter, such as well digested compost, can be added to improve soil characteristics conducive to plant growth. Other treatments can be used to adjust soil pH conditions when needed. Soil testing, which is typically inexpensive, should be completed to determine and optimize the types and amounts of amendments that are required.

If the disturbed ground surface is compacted, rip or rototill the upper 12 inches of the surface prior to placing topsoil. If adding compost to the existing soil surface, rototilling is necessary. Surface roughening will assist in placing a stable topsoil layer on steeper slopes, and allow infiltration and root penetration to greater depth. Topsoil should not be placed when either the salvaged topsoil or receiving ground are frozen or snow covered.

nor compacted. The upper layer of soil should be in a condition suitable for seeding at the proper depth and conducive to plant growth. Seed-to-soil contact is the key to good germination.

Prior to seeding, the soil surface should be rough and the seedbed should be firm, but neither too loose

Refer to MHFD's Topsoil Management Guidance for detailed information on topsoil assessment, design, and construction.

Temporary Vegetation

To provide temporary vegetative cover on disturbed areas which will not be paved, built upon, or fully landscaped or worked for an extended period (typically 30 days or more), plant an annual grass appropriate for the time of planting and mulch the planted areas. Temporary grain seed mixes suitable for the Denver metropolitan area are listed in Table TS/PS-1. Native temporary seed mixes are provided in USDCM Volume 2, Chapter 13, Appendix A. These are to be considered only as general recommendations when specific design guidance for a particular site is not available. Local governments typically specify seed mixes appropriate for their jurisdiction.

Permanent Revegetation

To provide vegetative cover on disturbed areas that have reached final grade, a perennial grass mix should be established. Permanent seeding should be performed promptly (typically within 14 days) after reaching final grade. Each site will have different characteristics and a landscape professional or the local jurisdiction should be contacted to determine the most suitable seed mix for a specific site. In lieu of a specific recommendation, one of the perennial grass mixes appropriate for site conditions and growth season listed in seed mix tables in the USDCM Volume 2 Revegetation Chapter can be used. The pure live seed (PLS) rates of application recommended in these tables are considered to be absolute minimum rates for seed applied using proper drill-seeding equipment. These are to be considered only as general

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January 2021

Mulching (MU)

- Clean, weed-free and seed-free cereal grain straw should be applied evenly at a rate of 2 tons per acre and must be tacked or fastened by a method suitable for the condition of the site. Straw mulch must be anchored (and not merely placed) on the surface. This can be accomplished mechanically by crimping or with the aid of tackifiers or nets. Anchoring with a crimping implement is preferred, and is the recommended method for areas flatter than 3:1. Mechanical crimpers must be capable of tucking the long mulch fibers into the soil to a depth of 3 inches without cutting them. An agricultural disk, while not an ideal substitute, may work if the disk blades are dull or blunted and set vertically; however, the frame may have to be weighted to afford proper soil penetration.
- Grass hay may be used in place of straw; however, because hay is comprised of the entire plant including seed, mulching with hay may seed the site with non-native grass species which might in turn out-compete the native seed. Alternatively, native species of grass hay may be purchased, but can be difficult to find and are more expensive than straw. Purchasing and utilizing a certified weed-free straw is an easier and less costly mulching method. When using grass hay, follow the same guidelines as for straw (provided
- On small areas sheltered from the wind and heavy runoff, spraying a tackifier on the mulch is satisfactory for holding it in place. For steep slopes and special situations where greater control is needed, erosion control blankets anchored with stakes should be used instead of mulch.
- Hydraulic mulching consists of wood cellulose fibers mixed with water and a tackifying agent and should be applied at a rate of no less than 1,500 pounds per acre (1,425 lbs of fibers mixed with at least 75 lbs of tackifier) with a hydraulic mulcher. For steeper slopes, up to 2000 pounds per acre may be required for effective hydroseeding. Hydromulch typically requires up to 24 hours to dry; therefore, it should not be applied immediately prior to inclement weather. Application to roads, waterways and existing vegetation should be avoided.
- Erosion control mats, blankets, or nets are recommended to help stabilize steep slopes (generally 3:1 and steeper) and waterways. Depending on the product, these may be used alone or in conjunction with grass or straw mulch. Normally, use of these products will be restricted to relatively small areas. Biodegradable mats made of straw and jute, straw-coconut, coconut fiber, or excelsior can be used instead of mulch. (See the ECM/TRM BMP for more information.)
- · Some tackifiers or binders may be used to anchor mulch. Check with the local jurisdiction for allowed tackifiers. Manufacturer's recommendations should be followed at all times. (See the Soil Binder BMP for more information on general types of tackifiers.)
- Rock can also be used as mulch. It provides protection of exposed soils to wind and water erosion and allows infiltration of precipitation. An aggregate base course can be spread on disturbed areas for temporary or permanent stabilization. The rock mulch layer should be thick enough to provide full coverage of exposed soil on the area it is applied.

Maintenance and Removal

After mulching, the bare ground surface should not be more than 10 percent exposed. Reapply mulch, as needed, to cover bare areas.

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Temporary and Permanent Seeding (TS/PS)

recommendations when specific design guidance for a particular site is not available. Local governments typically specify seed mixes appropriate for their jurisdiction.

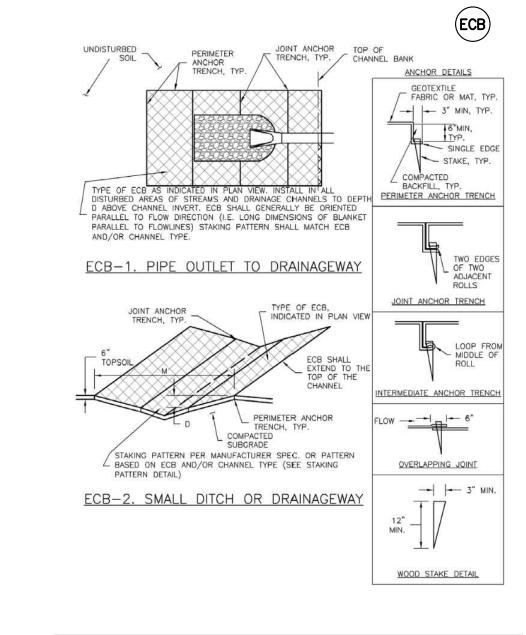
If desired for wildlife habitat or landscape diversity, shrubs such as rubber rabbitbrush (Chrysothamnus nauseosus), fourwing saltbush (Atriplex canescens) and skunkbrush sumac (Rhus trilobata) could be added to the upland seed mixes at 0.25, 0.5 and 1 pound PLS/acre, respectively. In riparian zones, planting root stock of such species as American plum (Prunus americana), woods rose (Rosa woodsii), plains cottonwood (*Populus sargentii*), and willow (*Salix spp.*) may be considered. On non-topsoiled upland sites, a legume such as Ladak alfalfa at 1 pound PLS/acre can be included as a source of nitrogen

Timing of seeding is an important aspect of the revegetation process. For upland and riparian areas on the Colorado Front Range, the suitable timing for seeding is from October through May. The most favorable time to plant non-irrigated areas is during the fall, so that seed can take advantage of winter and spring moisture. Seed should not be planted if the soil is frozen, snow covered, or wet.

Seeding dates for the highest success probability of perennial species along the Front Range are generally in the spring from April through early May and in the fall after the first of September until the ground freezes. If the area is irrigated, seeding may occur in summer months, as well. See Table TS/PS-2 for appropriate seeding dates.

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Rolled Erosion Control Products (RECP)



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

PCD FILE # XXXXXX

REFERENCE DRAWINGS				
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January 2021

FIMS MONUMENT F 56 IS A 3.25 ALUMINUM CAP STAMPED "MKD 56" IN RANGE BOX, ON THE EAST SIDE OF ROLLER COASTER RD AND SOUTH OF MOUNTAIN PINE LANE. ELEVATION WAS ESTABLISHED BY GPS OBSERVATION (GEOID 18) AND IS REFERENCED TO NAVD88 (US SURVEY FEET) WITH AND ELEVATION OF 7318.65. COORDINATE SYSTEM: NAD83, COLORADO SATE PLANE, CENTRAL ZONE, US SURVEY FEET.

BASIS OF BEARING

THE BEARINGS SHOWN HEREON AND BASED ON GPS OBSERVATIONS AND REFERENCED THE EAST LINE OF THI SOUTHEAST QUARTER OF SECTION 23, TOWNSHIP 11 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO, BEING MONUMENTED AT THE EAST QUARTER CORNER OF SAID SECTION BY A NO. 6 REBAR WITH 3-1/4" ALUMINUM CAP STAMPED "LS 9477" AND MONUMENTED AT THE SOUTHEAST CORNER OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SAID SECTION BY A NO. REBAR WITH 2-1/2" ALUMINUM CAP STAMPED "LS 9477", AS BEARING OF SOUTH 00°22'42" EAST, A DISTANCE OF

PRELIMINARY THIS DRAWING HAS NOT BEEN APPROVED BY GOVERNING AGENCIES AND

EL PASO COUNTY, COLORADO **GRADING & EROSION CONTROL PLANS**

SKYE VISTA

EROSION CONTROL DETAILS

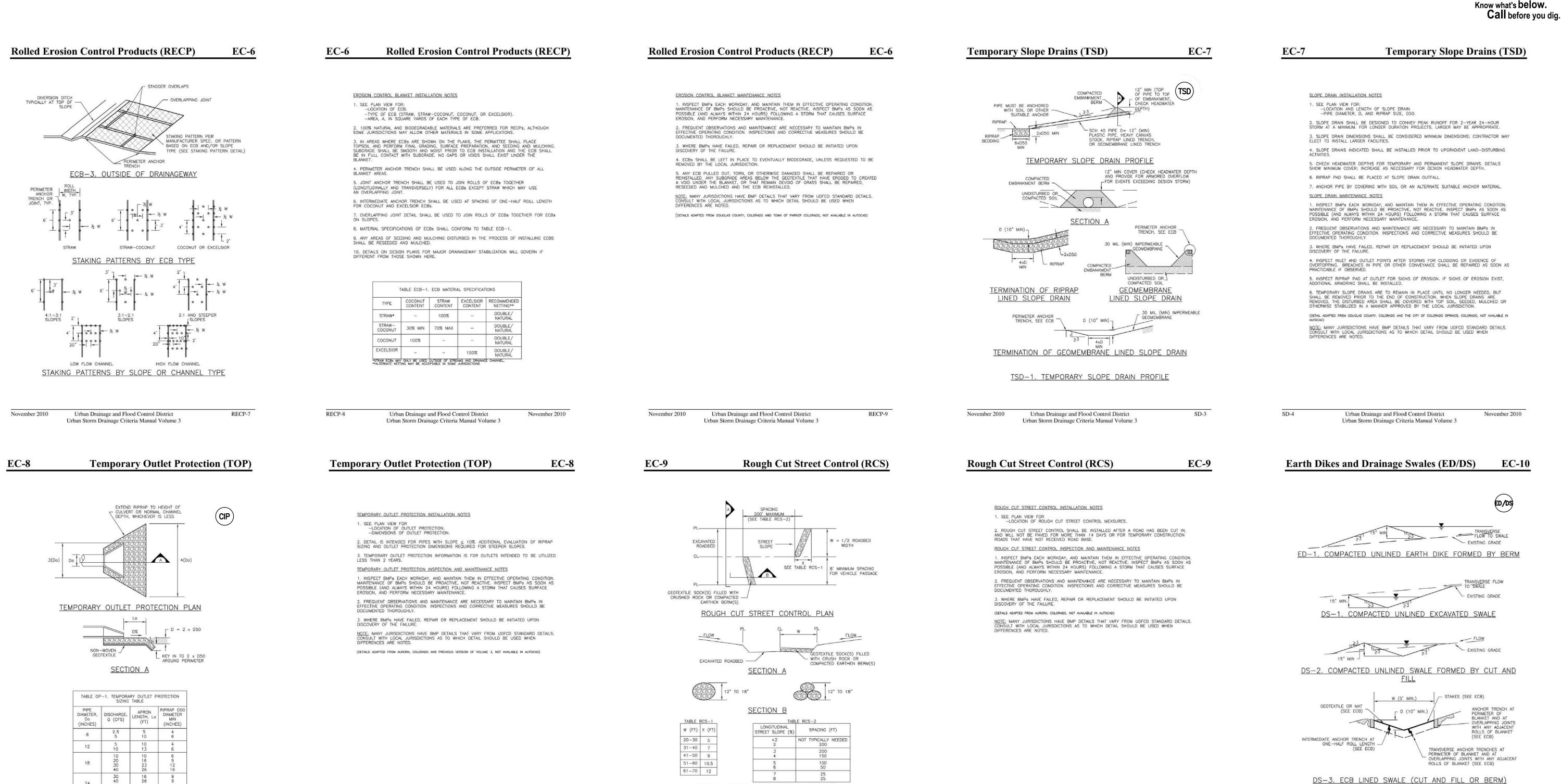
SCALE NOVEMBER 2024 DRAWING No. ECN01 12 OF 17

FOR AND ON BEHALF OF MATRIX DESIGN GROUP, INC. PROJECT No. 24.1676.001

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November 2010

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November 2010

OP-1. TEMPORARY OUTLET PROTECTION

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TOP-2

FIMS MONUMENT F 56 IS A 3.25 ALUMINUM CAP STAMPED "MKD 56" IN RANGE BOX, ON THE EAST SIDE OF ROLLER COASTER RD AND SOUTH OF MOUNTAIN PINE LANE. ELEVATION WAS ESTABLISHED BY GPS OBSERVATION (GEOID 18) AND IS REFERENCED TO NAVD88 (US SURVEY FEET) WITH AND ELEVATION OF 7318.65. COORDINATE SYSTEM: NAD83, COLORADO SATE PLANE, CENTRAL ZONE, US SURVEY FEET.

November 2010

BASIS OF BEARING

RCS-2

TOP-3

RCS-1. ROUGH CUT STREET CONTROL

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THE BEARINGS SHOWN HEREON AND BASED ON GPS OBSERVATIONS AND REFERENCED THE EAST LINE OF THE SOUTHEAST QUARTER OF SECTION 23, TOWNSHIP 11 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO, BEING MONUMENTED AT THE EAST QUARTER CORNER OF SAID SECTION BY A NO. 6 REBAR WITH 3-1/4" ALUMINUM CAP STAMPED "LS 9477" AND MONUMENTED AT THE SOUTHEAST CORNER OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SAID SECTION BY A NO. 5 REBAR WITH 2-1/2" ALUMINUM CAP STAMPED "LS 9477", AS BEARING OF SOUTH 00°22'42" EAST, A DISTANCE OF 1,327.85 FEET.

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PRELIMINARY THIS DRAWING HAS NOT BEEN APPROVED BY GOVERNING AGENCIES AND

SEAL

RCS-3

IS SUBJECT TO CHANGE

SKYE VISTA

ED/DS-3

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ECN02

	EL PASO COUNTY, COLORADO
	GRADING & EROSION CONTROL PLANS
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EROSION CONTROL DETAILS

FOR AND ON BEHALF OF SCALE DESIGNED BY: LCB DATE ISSUED: NOVEMBER 2024 DRAWING No. MATRIX DESIGN GROUP, INC. DRAWN BY: LCB HORIZ. CHECKED BY: NMS VERT. 13 OF 17 PROJECT No. 24.1676.001

EC-12

(CD)

Earth Dikes and Drainage Swales (ED/DS) W (5' MIN.) ANCHOR TRENCH AT PERIMETER OF BLANKET AND AT OVERLAPPING JOINTS WITH ANY RANSVERSE ANCHOR TRENCHES AT PERIMETER OF BLANKET AND AT OVERLAPPING JOINTS WITH ANY ADJACENT ROLLS OF BLANKET, SIMILAR TO ECB, BUT DS-4. SYNTHETIC LINED SWALE THICKNESS=2 X D50 - W (5' MIN.) rD (10" MIN.) LINE WITH AASHTO DS-5. RIPRAP LINED SWALE EARTH DIKE AND DRAINAGE SWALE INSTALLATION NOTES EE SITE PLAN FOR: - LOCATION OF DIVERSION SWALE - TYPE OF SWALE (UNLINED, COMPACTED AND/OR LINED). - LENGTH OF EACH SWALE. - DEPTH, D, AND WIDTH, W DIMENSIONS. - FOR RIPRAP LINED DITCH, SIZE OF RIPRAP, D50. 2. SEE DRAINAGE PLANS FOR DETAILS OF PERMANENT CONVEYANCE FACILITIES AND/OR DIVERSION SWALES EXCEEDING 2-YEAR FLOW RATE OR 10 CFS. 3. EARTH DIKES AND SWALES INDICATED ON SWMP PLAN SHALL BE INSTALLED PRIOR TO LAND-DISTURBING ACTIVITIES IN PROXIMITY. EMBANKMENT IS TO BE COMPACTED TO 90% OF MAXIMUM DENSITY AND WITHIN 2% OF OPTIMUM MOISTURE CONTENT ACCORDING TO ASTM D698. 5. SWALES ARE TO DRAIN TO A SEDIMENT CONTROL BMP. 6. FOR LINED DITCHES, INSTALLATION OF ECB/TRM SHALL CONFORM TO THE REQUIREMENTS OF THE ECB DETAIL. 7. WHEN CONSTRUCTION TRAFFIC MUST CROSS A DIVERSION SWALE, INSTALL A TEMPORARY CULVERT WITH A MINIMUM DIAMETER OF 12 INCHES. ED/DS-4 Urban Drainage and Flood Control District November 2010 Urban Storm Drainage Criteria Manual Volume 3 Check Dams (CD) REINFORCED CHECK DAM MAINTENANCE NOTES 1. 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 II EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY. 3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE. 4. SEDIMENT ACCUMULATED UPSTREAM OF REINFORCED CHECK DAMS SHALL BE REMOVED AS NEEDED TO MAINTAIN THE EFFECTIVENESS OF BMP, TYPICALLY WHEN THE UPSTREAM SEDIMENT DEPTH IS WITHIN ½ THE HEIGHT OF THE CREST. 5. REPAIR OR REPLACE REINFORCED CHECK DAMS WHEN THERE ARE SIGNS OF DAMAGE SUCH AS HOLES IN THE GABION OR UNDERCUTTING. 6. REINFORCED CHECK DAMS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION. 7. WHEN REINFORCED CHECK DAMS ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED, AND COVERED WITH A GEOTEXTILE BLANKET, OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

(DETAIL ADAPTED FROM DOUGLAS COUNTY, COLORADO AND CITY OF AURORA, CÓLORADO, NOT AVAILABLE IN AUTOCAD)

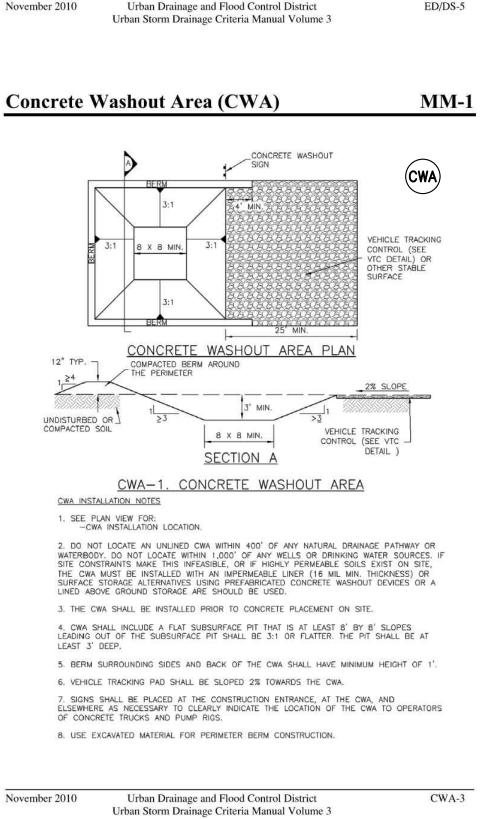
CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

Urban Drainage and Flood Control District

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CD-6

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS.



Earth Dikes and Drainage Swales (ED/DS)

1. 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

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. SWALES SHALL REMAIN IN PLACE UNTIL THE END OF CONSTRUCTION; IF APPROVED BY

5. WHEN A SWALE IS REMOVED, THE DISTURBED AREA SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION.

(DETAIL ADAPTED FROM DOUGLAS COUNTY, COLORADO AND THE CITY OF COLORADO SPRINGS, COLORADO, NOT AVAILABLE IN

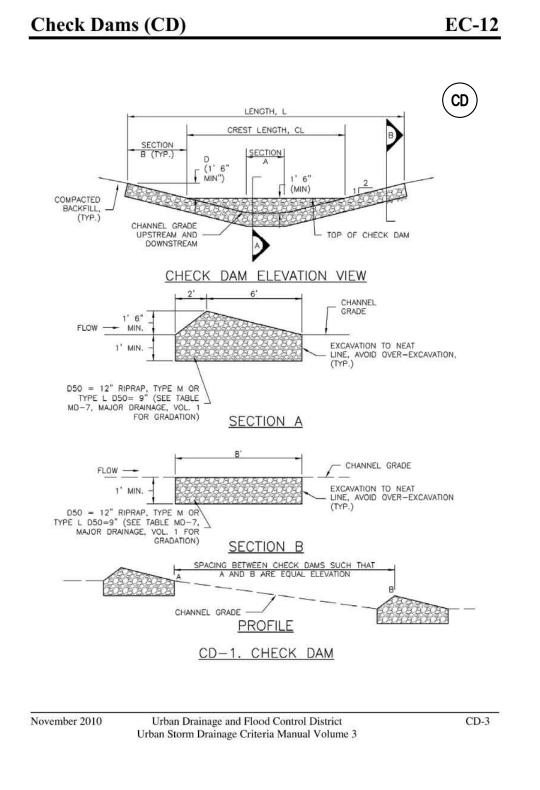
NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

EARTH DIKE AND DRAINAGE SWALE MAINTENANCE NOTES

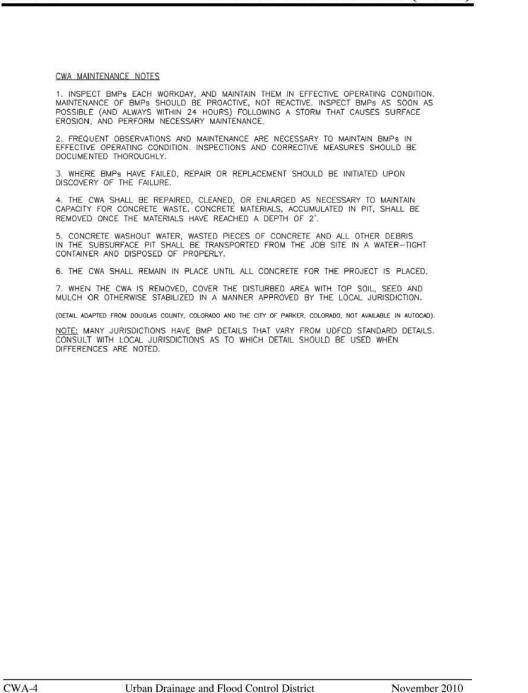
EROSION, AND PERFORM NECESSARY MAINTENANCE.

LOCAL JURISDICTION, SWALES MAY BE LEFT IN PLACE.

DOCUMENTED THOROUGHLY.



MM-1



Concrete Washout Area (CWA)

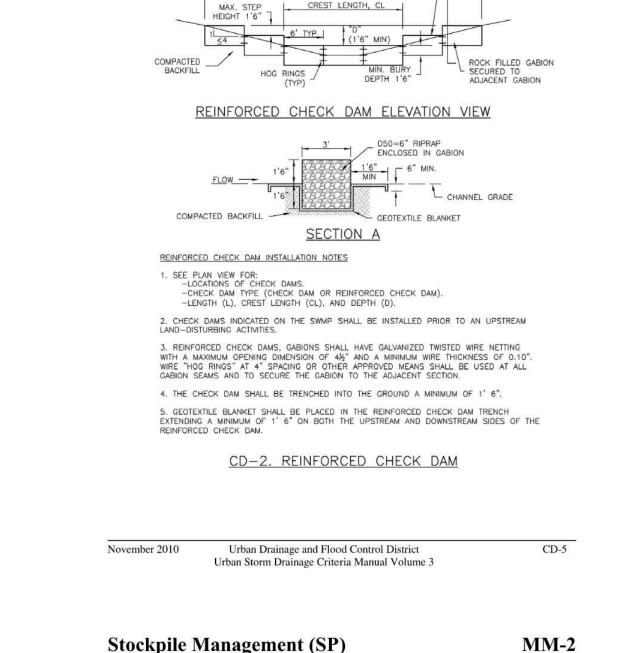
-LENGTH (L), CREST LENGTH (CL), AND DEPTH (D). 2. CHECK DAMS INDICATED ON INITIAL SWMP SHALL BE INSTALLED AFTER CONSTRUCTION FENCE, BUT PRIOR TO ANY UPSTREAM LAND DISTURBING ACTIVITIES. 3. RIPRAP UTILIZED FOR CHECK DAMS SHOULD BE OF APPROPRIATE SIZE FOR THE APPLICATION. TYPICAL TYPES OF RIPRAP USED FOR CHECK DAMS ARE TYPE M (D50 12") OR TYPE L (D50 9"). 4. RIPRAP PAD SHALL BE TRENCHED INTO THE GROUND A MINIMUM OF 1'. 5. THE ENDS OF THE CHECK DAM SHALL BE A MINIMUM OF 1 $^{\circ}$ 6 HIGHER THAN THE CENTER OF THE CHECK DAM. CHECK DAM MAINTENANCE NOTES 1. 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 2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN FECTIVE OPERATING CONDITION, INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY. 3. WHERE $\ensuremath{\mathsf{BMPs}}$ HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE. 4. SEDIMENT ACCUMULATED UPSTREAM OF THE CHECK DAMS SHALL BE REMOVED WHEN THE SEDIMENT DEPTH IS WITHIN 1/2 OF THE HEIGHT OF THE CREST. 5. CHECK DAMS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION. 6. 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 November 2010 Urban Storm Drainage Criteria Manual Volume 3

EC-12

CHECK DAM INSTALLATION NOTES

(SP

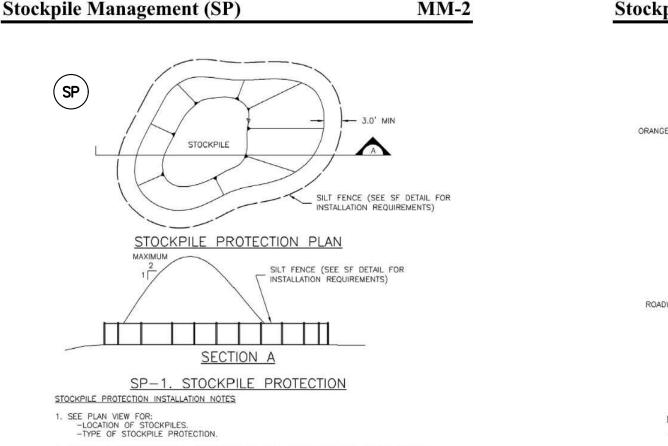
1. SEE PLAN VIEW FOR:
-LOCATION OF CHECK DAMS.
-CHECK DAM TYPE (CHECK DAM OR REINFORCED CHECK DAM).



ALTERNATIVE TO STEPS ON BANKS ABOVE CREST:

LENGTH, I

Check Dams (CD)



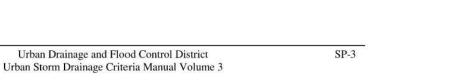
Check Dams (CD)

STOCKPILE PROTECTION INSTALLATION NOTES

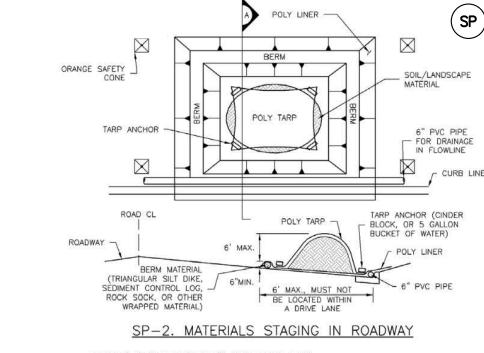
2. INSTALL PERIMETER CONTROLS IN ACCORDANCE WITH THEIR RESPECTIVE DESIGN DETAILS. SILT FENCE IS SHOWN IN THE STOCKPILE PROTECTION DETAILS; HOWEVER, OTHER TYPES OF PERIMETER CONTROLS INCLUDING SEDIMENT CONTROL LOGS OR ROCK SOCKS MAY BE SUITABLE IN SOME CIRCUMSTANCES. CONSIDERATIONS FOR DETERMINING THE APPROPRIATE SUITABLE IN SOME CIRCUMSTANCES. CONSIDERATIONS FOR DETERMINING THE APPROPRIATE TYPE OF PERIMETER CONTROL FOR A STOCKPILE INCLUDE WHETHER THE STOCKPILE IS LOCATED ON A PERVIOUS OR IMPERVIOUS SURFACE, THE RELATIVE HEIGHTS OF THE PERIMETER CONTROL AND STOCKPILE, THE ABILITY OF THE PERIMETER CONTROL TO CONTAIN THE STOCKPILE WITHOUT FAILING IN THE EVENT THAT MATERIAL FROM THE STOCKPILE SHIFTS OR SLUMPS AGAINST THE PERIMETER, AND OTHER FACTORS.

3. STABILIZE THE STOCKPILE SURFACE WITH SURFACE ROUGHENING, TEMPORARY SEEDING AND MULCHING, EROSION CONTROL BLANKETS, OR SOIL BINDERS. SOILS STOCKPILED FOR AN EXTENDED PERIOD (TYPICALLY FOR MORE THAN 60 DAYS) SHOULD BE SEEDED AND MULCHED WITH A TEMPORARY GRASS COVER ONCE THE STOCKPILE IS PLACED (TYPICALLY WITHIN 14 DAYS). USE OF MULCH ONLY OR A SOIL BINDER IS ACCEPTABLE IF THE STOCKPILE WILL BE

4. FOR TEMPORARY STOCKPILES ON THE INTERIOR PORTION OF A CONSTRUCTION SITE, WHERE OTHER DOWNGRADIENT CONTROLS, INCLUDING PERIMETER CONTROL, ARE IN PLACE, STOCKPILE PERIMETER CONTROLS MAY NOT BE REQUIRED.



SEAL



MATERIALS STAGING IN ROADWAYS INSTALLATION NOTES

1. SEE PLAN VIEW FOR

LOCATION OF MATERIAL STAGING AREA(S) -CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM THE LOCAL JURISDICTION. 2. FEATURE MUST BE INSTALLED PRIOR TO EXCAVATION, EARTHWORK OR DELIVERY OF

3. MATERIALS MUST BE STATIONED ON THE POLY LINER, ANY INCIDENTAL MATERIALS DEPOSITED ON PAVED SECTION OR ALONG CURB LINE MUST BE CLEANED UP PROMPTLY.

4. POLY LINER AND TARP COVER SHOULD BE OF SIGNIFICANT THICKNESS TO PREVENT 5. SAND BAGS MAY BE SUBSTITUTED TO ANCHOR THE COVER TARP OR PROVIDE BERMING

UNDER THE BASE LINER. 6. FEATURE IS NOT INTENDED FOR USE WITH WET MATERIAL THAT WILL BE DRAINING AND/OR SPREADING OUT ON THE POLY LINER OR FOR DEMOLITION MATERIALS.

7. THIS FEATURE CAN BE USED FOR:

-UTILITY REPAIRS.

-WHEN OTHER STAGING LOCATIONS AND OPTIONS ARE LIMITED.

-OTHER LIMITED APPLICATION AND SHORT DURATION STAGING.

Urban Storm Drainage Criteria Manual Volume 3

Urban Drainage and Flood Control District

PCD FILE # XXXXXX

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SP-5

REFERENCE DRAWINGS				
X-1676-SKVSTA-TITLE-GEC_22X34 X-1676-SKVSTA-PR-SITE X-1676-SKVSTA-EX-SITE X-1676-SKVSTA-EX-MAP				
	No.	DATE	DESCRIPTION REVISIONS	BY
	COM	PUTER FIL	E MANAGEMENT	
	CTB FI	LE: Matrix.ci DATE: 12/2/202		

November 2010

FIMS MONUMENT F 56 IS A 3.25 ALUMINUM CAP STAMPED "MKD 56" IN RANGE BOX, ON THE EAST SIDE OF ROLLER COASTER RD AND SOUTH OF MOUNTAIN PINE LANE. ELEVATION WAS ESTABLISHED BY GPS OBSERVATION (GEOID 18) AND IS REFERENCED TO NAVD88 (US SURVEY FEET) WITH AND ELEVATION OF 7318.65. COORDINATE SYSTEM: NAD83, COLORADO SATE PLANE, CENTRAL ZONE, US SURVEY FEET.

BASIS OF BEARING

Urban Storm Drainage Criteria Manual Volume 3

THE BEARINGS SHOWN HEREON AND BASED ON GPS OBSERVATIONS AND REFERENCED THE EAST LINE OF THE SOUTHEAST QUARTER OF SECTION 23, TOWNSHIP 11 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO, BEING MONUMENTED AT THE EAST QUARTER CORNER OF SAID SECTION BY A NO. 6 REBAR WITH 3-1/4" ALUMINUM CAP STAMPED "LS 9477" AND MONUMENTED AT THE SOUTHEAST CORNER OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SAID SECTION BY A NO. 5 REBAR WITH 2-1/2" ALUMINUM CAP STAMPED "LS 9477", AS BEARING OF SOUTH 00°22'42" EAST, A DISTANCE OF

PRELIMINARY THIS DRAWING HAS NOT BEEN APPROVED BY

GOVERNING AGENCIES AND IS SUBJECT TO CHANGE

PROJECT No. 24.1676.001

EL PASO COUNTY, COLORADO **GRADING & EROSION CONTROL PLANS**

SKYE VISTA

EROSION CONTROL DETAILS

FOR AND ON BEHALF OF SCALE DESIGNED BY: LCB DATE ISSUED: NOVEMBER 2024 DRAWING No. MATRIX DESIGN GROUP, INC. DRAWN BY: LCB HORIZ. ECN03

NMS VERT.

CHECKED BY:

FOR AND ON BEHALF OF

MATRIX DESIGN GROUP, INC.

PROJECT No. 24.1676.001

SCALE

LCB HORIZ.

NMS VERT.

DATE ISSUED:

NOVEMBER 2024 DRAWING No.

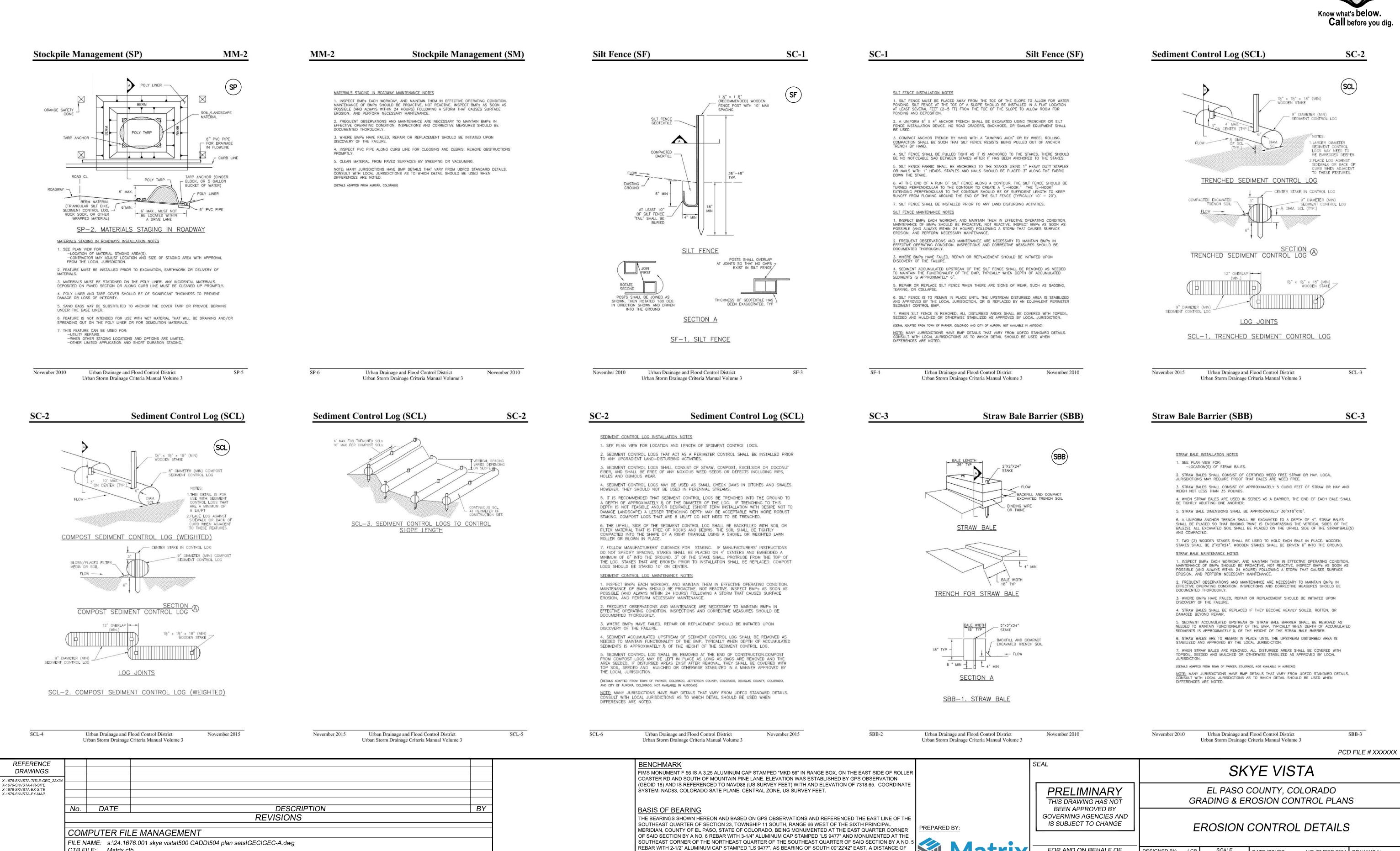
15 OF 17

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DESIGNED BY: LCB

DRAWN BY:

CHECKED BY:



CTB FILE: Matrix.ctb

PLOT DATE: 12/2/2024 11:22 AM

THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE.

Know what's below. Call before you dig. SC-5 SC-5 Rock Sock (RS) Rock Sock (RS) **Inlet Protection (IP) Inlet Protection (IP)** SC-6 **Inlet Protection (IP)** (RS) (IP)(IP) INLET GRATE ROCK SOCK MAINTENANCE NOTES 1. 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 SEE ROCK SOCK DESIGN SEE ROCK SOCK DETAIL ENCLOSED IN WIRE MESH DETAIL FOR JOINTING WIRE TIE ENDS -16" CINDER 2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE ROCK SOCK -DOCUMENTED THOROUGHLY. 3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE. 2"x4" WOOD STUD -- GROUND SURFACE CURB INLET 4. ROCK SOCKS SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED, OR DAMAGED HARD SURFACE, 2 ON EXPECTED SEDIMENT LOADS 5. SEDIMENT ACCUMULATED UPSTREAM OF ROCK SOCKS SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS ROCK SOCK SECTION ROCK SOCK PLAN IP-3. ROCK SOCK SUMP/AREA INLET PROTECTION IS APPROXIMATELY & OF THE HEIGHT OF THE ROCK SOCK. IP-5. OVEREXCAVATION INLET PROTECTION $6.\ \text{ROCK}$ SOCKS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION. ANY GAP AT JOINT SHALL BE FILLED WITH AN ADEQUATE AMOUNT OF 13" (MINUS) CRUSHED ROCK AND WRAPPED WITH ADDITIONAL WIRE MESH SECURED TO ENDS OF ROCK REINFORCED SOCK. AS AN ALTERNATIVE TO FILLING JOINTS BETWEEN ADJOINING ROCK SOCKS WITH CRUSHED ROCK AND BLOCK AND CURB SOCK INLET PROTECTION INSTALLATION NOTES OVEREXCAVATION INLET PROTECTION INSTALLATION NOTES 7. WHEN ROCK SOCKS ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH ROCK SOCK, TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION. 1. THIS FORM OF INLET PROTECTION IS PRIMARILY APPLICABLE FOR SITES THAT HAVE NOT YET REACHED FINAL GRADE AND SHOULD BE USED ONLY FOR INLETS WITH A RELATIVELY 1. SEE ROCK SOCK DESIGN DETAIL FOR INSTALLATION REQUIREMENTS. 2. CONCRETE "CINDER" BLOCKS SHALL BE LAID ON THEIR SIDES AROUND THE INLET IN A SMALL CONTRIBUTING DRAINAGE AREA. ADDITIONAL WIRE WRAPPING, ROCK SOCKS CAN BE SINGLE ROW, ABUTTING ONE ANOTHER WITH THE OPEN END FACING AWAY FROM THE CURB OVERLAPPED (TYPICALLY 12-INCH OVERLAP) TO AVOID GAPS. (DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD) 2. WHEN USING FOR CONCENTRATED FLOWS, SHAPE BASIN IN 2:1 RATIO WITH LENGTH ORIENTED TOWARDS DIRECTION OF FLOW. 3. GRAVEL BAGS SHALL BE PLACED AROUND CONCRETE BLOCKS, CLOSELY ABUTTING ONE ANOTHER AND JOINTED TOGETHER IN ACCORDANCE WITH ROCK SOCK DESIGN DETAIL. NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN GRADATION TABLE 3. SEDIMENT MUST BE PERIODICALLY REMOVED FROM THE OVEREXCAVATED AREA. SIEVE SIZE MASS PERCENT PASSIN SQUARE MESH SIEVES 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, UDFOD NEITHER NDORSES NOR DISCOURAGES USE OF PROPRIETARY PROTECTION PRODUCTS; HOWEVER, IN THE EVENT PROPRIETARY METHODS ARE USED, THE APPROPRIATE DETAIL FROM THE MANUFACTURER MUST APPROX 30 DEG. BLOCK AND ROCK SOCK INLET ROCK SOCK JOINTING PROTECTION(SEE DETAIL IP-1) NO. 4 _____ FENCE DESIGN DETAIL) INCLUDED IN THE SWMP AND THE BMP MUST BE INSTALLED AND MAINTAINED AS SHOWN CURB SOCK -IN THE MANUFACTURER'S DETAILS. FLOW --MATCHES SPECIFICATIONS FOR NO. 4 COARSE AGGREGATE FOR CONCRETE PER AASHTO M43. ALL ROCK SHALL BE FRACTURED FACE, ALL SIDES. IP-4. SILT FENCE FOR SUMP INLET PROTECTION ROCK SOCK INSTALLATION NOTES STRAW BALE (SEE STRAW 5' MIN 3'-5' TYP. 1. SEE PLAN VIEW FOR LOCATION(S) OF ROCK SOCKS. IP-2. CURB ROCK SOCKS UPSTREAM OF 2. CRUSHED ROCK SHALL BE 1/2" (MINUS) IN SIZE WITH A FRACTURED FACE (ALL SIDES) SILT FENCE INLET PROTECTION INSTALLATION NOTES AND SHALL COMPLY WITH GRADATION SHOWN ON THIS SHEET (11/2" MINUS). INLET PROTECTION IP-6. STRAW BALE FOR SUMP INLET PROTECTION 1. SEE SILT FENCE DESIGN DETAIL FOR INSTALLATION REQUIREMENTS. 3. WIRE MESH SHALL BE FABRICATED OF 10 GAGE POULTRY MESH, OR EQUIVALENT, WITH A MAXIMUM OPENING OF ½", RECOMMENDED MINIMUM ROLL WIDTH OF 48" CURB ROCK SOCK INLET PROTECTION INSTALLATION NOTES 2. POSTS SHALL BE PLACED AT EACH CORNER OF THE INLET AND AROUND THE EDGES AT A MAXIMUM SPACING OF 3 FEET. 1. SEE ROCK SOCK DESIGN DETAIL INSTALLATION REQUIREMENTS. STRAW BALE BARRIER INLET PROTECTION INSTALLATION NOTES 4. WIRE MESH SHALL BE SECURED USING "HOG RINGS" OR WIRE TIES AT 6" CENTERS 3. STRAW WATTLES/SEDIMENT CONTROL LOGS MAY BE USED IN PLACE OF SILT FENCE FOR INLETS IN PERVIOUS AREAS. INSTALL PER SEDIMENT CONTROL LOG DETAIL. 2. PLACEMENT OF THE SOCK SHALL BE APPROXIMATELY 30 DEGREES FROM PERPENDICULAR IN THE OPPOSITE DIRECTION OF FLOW. 1. SEE STRAW BALE DESIGN DETAIL FOR INSTALLATION REQUIREMENTS. 5. SOME MUNICIPALITIES MAY ALLOW THE USE OF FILTER FABRIC AS AN ALTERNATIVE TO WIRE MESH FOR THE ROCK ENCLOSURE. 2. BALES SHALL BE PLACED IN A SINGLE ROW AROUND THE INLET WITH ENDS OF BALES TIGHTLY ABUTTING ONE ANOTHER. 3. SOCKS ARE TO BE FLUSH WITH THE CURB AND SPACED A MINIMUM OF 5 FEET APART. RS-1. ROCK SOCK PERIMETER CONTROL 4. AT LEAST TWO CURB SOCKS IN SERIES ARE REQUIRED UPSTREAM OF ON-GRADE INLETS. Urban Drainage and Flood Control District November 2010 Urban Drainage and Flood Control District RS-3 IP-4 Urban Drainage and Flood Control District August 2013 Urban Drainage and Flood Control District IP-5 Urban Drainage and Flood Control District August 2013 Urban Storm Drainage Criteria Manual Volume 3 SC-7 **Sediment Basin (SB) Inlet Protection (IP) Sediment Basin (SB) Sediment Basin (SB)** Sediment Trap (ST) CRUSHED ROCK GENERAL INLET PROTECTION INSTALLATION NOTES SEDIMENT BASIN MAINTENANCE NOTES TABLE SB-1. SIZING INFORMATION FOR STANDARD SEDIMENT BASIN RIPRAP, TYPE M (D50=12") TYP.SMALLER ROCK SIZE MAY BE ALLOWABLE FOR SMALLER TRAPS — IF APPROVED BY LOCAL JURISDICTION 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. SEE PLAN VIEW FOR:
 -LOCATION OF INLET PROTECTION.
 -TYPE OF INLET PROTECTION (IP.1, IP.2, IP.3, IP.4, IP.5, IP.6) pstream Drainage Basin Bottom Width Spillway Crest Area (rounded to nearest acre), (ac 2. INLET PROTECTION SHALL BE INSTALLED PROMPTLY AFTER INLET CONSTRUCTION OR PAVING RIPRAP PAD 2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY. - TOP OF EARTHEN BERM IS COMPLETE (TYPICALLY WITHIN 48 HOURS). IF A RAINFALL/RUNOFF EVENT IS FORECAST, INSTALL INLET PROTECTION PRIOR TO ONSET OF EVENT. 2:1 MAX. 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. 3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE. HOLE DIAMETER, 2:1 MAX. 4. SEDIMENT ACCUMULATED IN BASIN SHALL BE REMOVED AS NEEDED TO MAINTAIN BMP EFFECTIVENESS, TYPICALLY WHEN SEDIMENT DEPTH REACHES ONE FOOT (I.E., TWO FEET 47 1/4 INLET PROTECTION MAINTENANCE NOTES TRANSITION EXISTING CHANNEL INTO SEDIMENT TRAP 1. 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. BELOW THE SPILLWAY CREST). 58 1/4 5. SEDIMENT BASINS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS ACCEPTED BY THE LOCAL JURISDICTION. 6. WHEN SEDIMENT BASINS ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION. 2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY. SEDIMENT BASIN PLAN 2:1 MAX. 3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON (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. SEDIMENT BASIN INSTALLATION NOTES SEDIMENT TRAP PLAN 4. 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 1/4, OF THE HEIGHT FOR STRAW BALLSO. 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 6" (CENTER OF RIPRAP 6" 5. 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. LOWER THAN ENDS 12' MIN. 6. 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. EL. 00.00 2. FOR STANDARD BASIN, BOTTOM DIMENSION MAY BE MODIFIED AS LONG AS BOTTOM AREA IS NOT REDUCED. TYPE L. (SEE TABLE MD-7, MAJOR RIPRAP BEDDING SECTION A 3. SEDIMENT BASINS SHALL BE INSTALLED PRIOR TO ANY OTHER LAND-DISTURBING ACTIVITY THAT RELIES ON ON BASINS AS A STORMWATER CONTROL. (DETAIL ADIAPTED FROM TOWN OF PARKER, 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. 4. 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. CREST LENGTH CHANNEL GRADE -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. EL. 03.00 AT CREST 5. 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. 7. 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 IN THE MANUFACTURER'S DETAILS. RIPRAP, TYPE M (D50=12") TYP. 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. ANY SEDIMENT BASIN(S) THAT HAVE BEEN INDIVIDUALLY DESIGNED FOR DRAINAGE AREAS LARGER THAN 15 ACRES. SMALLER ROCK SIZE MAY BE ALLOWABLE FOR SMALLER TRAPS IF D50=9" RIPRAP TYPE L SECTION B ST-1. SEDIMENT TRAP ST-2 IP-8 SB-6 SB-7 Urban Drainage and Flood Control District August 2013 Urban Drainage and Flood Control District SB-5 Urban Drainage and Flood Control District August 2013 Urban Drainage and Flood Control District Urban Drainage and Flood Control District November 2010 Urban Storm Drainage Criteria Manual Volume 3 PCD FILE # XXXXXX REFERENCE SEAL SKYE VISTA DRAWINGS FIMS MONUMENT F 56 IS A 3.25 ALUMINUM CAP STAMPED "MKD 56" IN RANGE BOX, ON THE EAST SIDE OF ROLLER COASTER RD AND SOUTH OF MOUNTAIN PINE LANE. ELEVATION WAS ESTABLISHED BY GPS OBSERVATION -1676-SKVSTA-TITLE-GEC_22X (GEOID 18) AND IS REFERENCED TO NAVD88 (US SURVEY FEET) WITH AND ELEVATION OF 7318.65. COORDINATE X-1676-SKVSTA-PR-SITE

SYSTEM: NAD83, COLORADO SATE PLANE, CENTRAL ZONE, US SURVEY FEET.

THE BEARINGS SHOWN HEREON AND BASED ON GPS OBSERVATIONS AND REFERENCED THE EAST LINE OF THE

MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO, BEING MONUMENTED AT THE EAST QUARTER CORNER

OF SAID SECTION BY A NO. 6 REBAR WITH 3-1/4" ALUMINUM CAP STAMPED "LS 9477" AND MONUMENTED AT THE SOUTHEAST CORNER OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SAID SECTION BY A NO. 5

REBAR WITH 2-1/2" ALUMINUM CAP STAMPED "LS 9477", AS BEARING OF SOUTH 00°22'42" EAST, A DISTANCE OF

SOUTHEAST QUARTER OF SECTION 23, TOWNSHIP 11 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL

BASIS OF BEARING

X-1676-SKVSTA-EX-SITE X-1676-SKVSTA-EX-MAP

No. DATE

CTB FILE: Matrix.ctb

PLOT DATE: 12/2/2024 11:22 AM

COMPUTER FILE MANAGEMENT

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FILE NAME: s:\24.1676.001 skye vista\500 CADD\504 plan sets\GEC\GEC-A.dwg

DESCRIPTION

REVISIONS

FOR AND ON BEHALF OF MATRIX DESIGN GROUP, INC. PROJECT No. 24.1676.001

DESIGNED BY: LCB SCALE DATE ISSUED: NOVEMBER 2024 DRAWING No. PROJECT No. 24.1676.001

DESIGNED BY: LCB HORIZ. N/A VERT. N/A SHEET 16 OF 17 ECNO5

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GOVERNING AGENCIES AND

IS SUBJECT TO CHANGE

EL PASO COUNTY, COLORADO

GRADING & EROSION CONTROL PLANS

VTC

November 2010

PCD FILE # XXXXXX

OR BASIN

- DRAIN SPACE

SC-8 SM-3 SM-3 SM-4 Sediment Trap (ST) **Construction Fence (CF) Construction Fence (CF) Vehicle Tracking Control (VTC) SM-4 Vehicle Tracking Control (VTC)** VTC PLASTIC CAP, TYP. SEDIMENT TRAP INSTALLATION NOTES CONSTRUCTION FENCE MAINTENANCE NOTES 1. 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 SEE PLAN VIEW FOR:
 -LOCATION, LENGTH AND WIDTH OF SEDIMENT TRAP. (WIDTH CAN BE LESS IF CONST. VEHICLES ARE PHYSICALLY CONFINED ON 2. ONLY USE FOR DRAINAGE AREAS LESS THAN 1 ACRE. EROSION, AND PERFORM NECESSARY MAINTENANCE 3. SEDIMENT TRAPS SHALL BE INSTALLED PRIOR TO ANY UPGRADIENT LAND-DISTURBING FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY. 4. SEDIMENT TRAP BERM SHALL BE CONSTRUCTED FROM MATERIAL FROM EXCAVATION, TH BERM SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D698. 3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE. SIDEWALK OR OTHER PAVED SURFACE 50 FOOT (MIN.) 5. SEDIMENT TRAP OUTLET TO BE CONSTRUCTED OF RIPRAP, TYPE M (D50=12") TYP.SMALLER 4. CONSTRUCTION FENCE SHALL BE REPAIRED OR REPLACED WHEN THERE ARE SIGNS OF MAY NOT CONTAIN CHEMICALS OR SOAPS WITHOUT OBTAINING A SEPARATE PERMIT ROCK SIZE MAY BE ALLOWABLE FOR SMALLER TRAPS IF APPROVED BY LOCAL JURISDICTION. DAMAGE SUCH AS RIPS OR SAGS. CONSTRUCTION FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION. 6. THE TOP OF THE EARTHEN BERM SHALL BE A MINIMUM OF 6" HIGHER THAN THE TOP OF 5. WHEN CONSTRUCTION FENCES ARE REMOVED, ALL DISTURBED AREAS ASSOCIATED WITH THE INSTALLATION, MAINTENANCE, AND/OR REMOVAL OF THE FENCE SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED, OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION. 7. THE ENDS OF THE RIPRAP OUTLET STRUCTURE SHALL BE A MINIMUM OF 6" HIGHER THAN THE CENTER OF THE OUTLET STRUCTURE. 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. 1' MIN. 6'7" MIN. 1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS REINFORCED CONCRETE RACK UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, USE CDOT SECT. #703, AASHTO #3 (DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD) POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE. (MAY SUBSTITUTE STEEL CATTLE -2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN COARSE AGGREGATE OR 6" GUARD FOR CONCRETE RACK) FFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE MINUS ROCK DOCUMENTED THOROUGHLY. SECTION A NON-WOVEN GEOTEXTILE FABRIC STUDDED STEEL TEE POST 3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON BETWEEN SOIL AND ROCK 4. REMOVE SEDIMENT ACCUMULATED IN TRAP AS NEEDED TO MAINTAIN THE FUNCTIONALITY OF THE BMP, TYPICALLY WHEN THE SEDIMENT DEPTH REACHES & THE HEIGHT OF THE RIPRAP OUTLET. JURISDICTION, USE CDOT SECT. #703, AASHTO #3 COARSE AGGREGATE VTC-2. AGGREGATE VEHICLE TRACKING CONTROL WITH 5. SEDIMENT TRAPS SHALL REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION. WASH RACK OR 6" MINUS ROCK 6. WHEN SEDIMENT TRAPS ARE REMOVED, THE DISTURBED AREA SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION. CF-1. PLASTIC MESH CONSTRUCTION FENCE CONSTRUCTION FENCE INSTALLATION NOTES NON-WOVEN GEOTEXTILE FABRIC (DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO, NOT AVAILABLE IN AUTOCAD) SEE PLAN VIEW FOR:

 LOCATION OF CONSTRUCTION FENCE.

 NOIE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN COMPACTED SUBGRADE SECTION A 2. CONSTRUCTION FENCE SHOWN SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES. DIFFERENCES ARE NOTED. 3. CONSTRUCTION FENCE SHALL BE COMPOSED OF ORANGE, CONTRACTOR—GRADE MATERIAL THAT IS AT LEAST 4' HIGH. METAL POSTS SHOULD HAVE A PLASTIC CAP FOR SAFETY. 4. STUDDED STEEL TEE POSTS SHALL BE UTILIZED TO SUPPORT THE CONSTRUCTION FENCE. MAXIMUM SPACING FOR STEEL TEE POSTS SHALL BE 10'. VTC-1. AGGREGATE VEHICLE TRACKING CONTROL 5. CONSTRUCTION FENCE SHALL BE SECURELY FASTENED TO THE TOP, MIDDLE, AND BOTTOM OF EACH POST. CF-2 November 2010 Urban Drainage and Flood Control District ST-3 Urban Drainage and Flood Control District November 2010 Urban Drainage and Flood Control District CF-3 Urban Drainage and Flood Control District VTC-3 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 SM-4 **Vehicle Tracking Control (VTC) SM-6 SM-6 Vehicle Tracking Control (VTC)** SM-4 Stabilized Staging Area (SSA) Stabilized Staging Area (SSA) ____ SF/CF ____ SF/CF ___ ONSITE CONSTRUCTION VEHICLE PARKING (IF NEEDED) (VTC) STABILIZED CONSTRUCTION ENTRANCE/EXIT INSTALLATION NOTES STABILIZED STAGING AREA MAINTENANCE NOTES (VTC) 5. STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, -LOCATION OF CONSTRUCTION ENTRANCE(S)/EXIT(S). STORAGE, AND UNLOADING/LOADING OPERATIONS. -TYPE OF CONSTRUCTION ENTRANCE(S)/EXITS(S) (WITH/WITHOUT WHEEL WASH, 6 THE STABILIZED STAGING AREA SHALL BE REMOVED AT THE END OF CONSTRUCTION THE CONSTRUCTION MAT OR TRM). CONSTRUCTION SITE ACCESS 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. 2. CONSTRUCTION MAT OR TRM STABILIZED CONSTRUCTION ENTRANCES ARE ONLY TO BE USED ON SHORT DURATION PROJECTS (TYPICALLY RANGING FROM A WEEK TO A MONTH) WHERE THERE WILL BE LIMITED VEHICULAR ACCESS. 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. _ 3" MIN. THICKNESS GRANULAR MATERIAL 3. A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE LOCATED AT ALL ACCESS POINTS WHERE VEHICLES ACCESS THE CONSTRUCTION SITE FROM PAVED RIGHT-OF-WAYS. STABILIZED CONSTRUCTION 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. ENTRANCE (SEE DETAILS VTC-1 TO VTC-3) 4. STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE INSTALLED PRIOR TO ANY LAND 12' MIN - CONSTRUCTION MATS, WOVEN OR TRM SILT FENCE OR CONSTRUCTION 5. A NON-WOVEN GEOTEXTILE FABRIC SHALL BE PLACED UNDER THE STABILIZED CONSTRUCTION ENTRANCE/EXIT PRIOR TO THE PLACEMENT OF ROCK. (DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO, NOT AVAILABLE IN AUTOCAD) 6. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK. EXISTING ROADWAY SSA-1. STABILIZED STAGING AREA STABILIZED CONSTRUCTION ENTRANCE/EXIT MAINTENANCE NOTES STABILIZED STAGING AREA INSTALLATION NOTES 1. 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 1. SEE PLAN VIEW FOR -LOCATION OF STAGING AREA(S).
-CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM THE LOCAL JURISDICTION. 2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY. 2. STABILIZED STAGING AREA SHOULD BE APPROPRIATE FOR THE NEEDS OF THE SITE. OVERSIZING RESULTS IN A LARGER AREA TO STABILIZE FOLLOWING CONSTRUCTION. 3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE. CONSTRUCTION MATS, WOVEN 3. STAGING AREA SHALL BE STABILIZED PRIOR TO OTHER OPERATIONS ON THE SITE. 4. THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM 3" THICK GRANULAR 4. ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY TO THE STABILIZED ENTRANCE/EXIT TO MAINTAIN A CONSISTENT DEPTH. 5. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT-SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK. 5. SEDIMENT TRACKED ONTO PAVED ROADS IS TO BE REMOVED THROUGHOUT THE DAY AND AT THE END OF THE DAY BY SHOVELING OR SWEEPING, SEDIMENT MAY NOT BE WASHED DOWN STORM SEWER DRAINS. 6. ADDITIONAL PERIMETER BMPs MAY BE REQUIRED INCLUDING BUT NOT LIMITED TO SILT 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. FENCE AND CONSTRUCTION FENCING. STABILIZED STAGING AREA MAINTENANCE NOTES 1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS (DETAILS ADAPTED FROM CITY OF BROOMFIELD, COLORADO, NOT AVAILABLE IN AUTOCAD) CAN BE LESS IF CONST. VEHICLES ARE PHYSICALLY POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE. CONFINED ON BOTH SIDES) 2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY. 3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE. VTC-3. VEHICLE TRACKING CONTROL W/ CONSTRUCTION MAT OR TURF REINFORCEMENT MAT (TRM) 4. ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY IF RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.

REFERENCE				
DRAWINGS				
X-1676-SKVSTA-TITLE-GEC_22X34				
X-1676-SKVSTA-PR-SITE X-1676-SKVSTA-EX-SITE				
X-1676-SKVSTA-EX-MAP				
	No.	DATE	DESCRIPTION	BY
			REVISIONS	
	COM	IPUTER FIL	E MANAGEMENT	
	FILE N	AME: s:\24.167	76.001 skye vista\500 CADD\504 plan sets\GEC\GEC-A.dwg	
	CTB FI			
		DATE: 12/2/202		
	THIS DRA	AWING IS CURRENT A	S OF PLOT DATE AND MAY BE SUBJECT TO CHANGE.	

VTC-5

November 2010

Urban Drainage and Flood Control District

Urban Storm Drainage Criteria Manual Volume 3

VTC-6

Urban Drainage and Flood Control District

Urban Storm Drainage Criteria Manual Volume 3

November 2010

FIMS MONUMENT F 56 IS A 3.25 ALUMINUM CAP STAMPED "MKD 56" IN RANGE BOX, ON THE EAST SIDE OF ROLLER COASTER RD AND SOUTH OF MOUNTAIN PINE LANE. ELEVATION WAS ESTABLISHED BY GPS OBSERVATION (GEOID 18) AND IS REFERENCED TO NAVD88 (US SURVEY FEET) WITH AND ELEVATION OF 7318.65. COORDINATE SYSTEM: NAD83, COLORADO SATE PLANE, CENTRAL ZONE, US SURVEY FEET.

BASIS OF BEARING

Urban Drainage and Flood Control District

Urban Storm Drainage Criteria Manual Volume 3

THE BEARINGS SHOWN HEREON AND BASED ON GPS OBSERVATIONS AND REFERENCED THE EAST LINE OF THE SOUTHEAST QUARTER OF SECTION 23, TOWNSHIP 11 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO, BEING MONUMENTED AT THE EAST QUARTER CORNER OF SAID SECTION BY A NO. 6 REBAR WITH 3-1/4" ALUMINUM CAP STAMPED "LS 9477" AND MONUMENTED AT THE SOUTHEAST CORNER OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SAID SECTION BY A NO. 5 REBAR WITH 2-1/2" ALUMINUM CAP STAMPED "LS 9477", AS BEARING OF SOUTH 00°22'42" EAST, A DISTANCE OF 1,327.85 FEET.

SSA-3

PREPARED BY:

Urban Drainage and Flood Control District

Urban Storm Drainage Criteria Manual Volume 3

SSA-4

PRELIMINARY THIS DRAWING HAS NOT BEEN APPROVED BY

GOVERNING AGENCIES AND

IS SUBJECT TO CHANGE

SEAL

November 2010

SKYE VISTA EL PASO COUNTY, COLORADO **GRADING & EROSION CONTROL PLANS**

EROSION CONTROL DETAILS

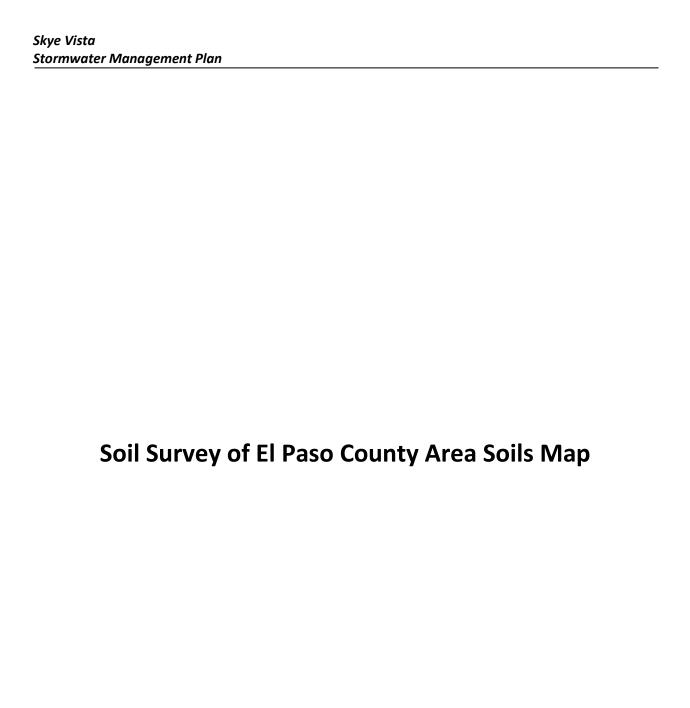
FOR AND ON BEHALF OF SCALE DESIGNED BY: LCB DATE ISSUED: NOVEMBER 2024 DRAWING No. MATRIX DESIGN GROUP, INC. DRAWN BY: LCB HORIZ. ECN06 NMS VERT. 17 OF 17 PROJECT No. 24.1676.001 CHECKED BY:

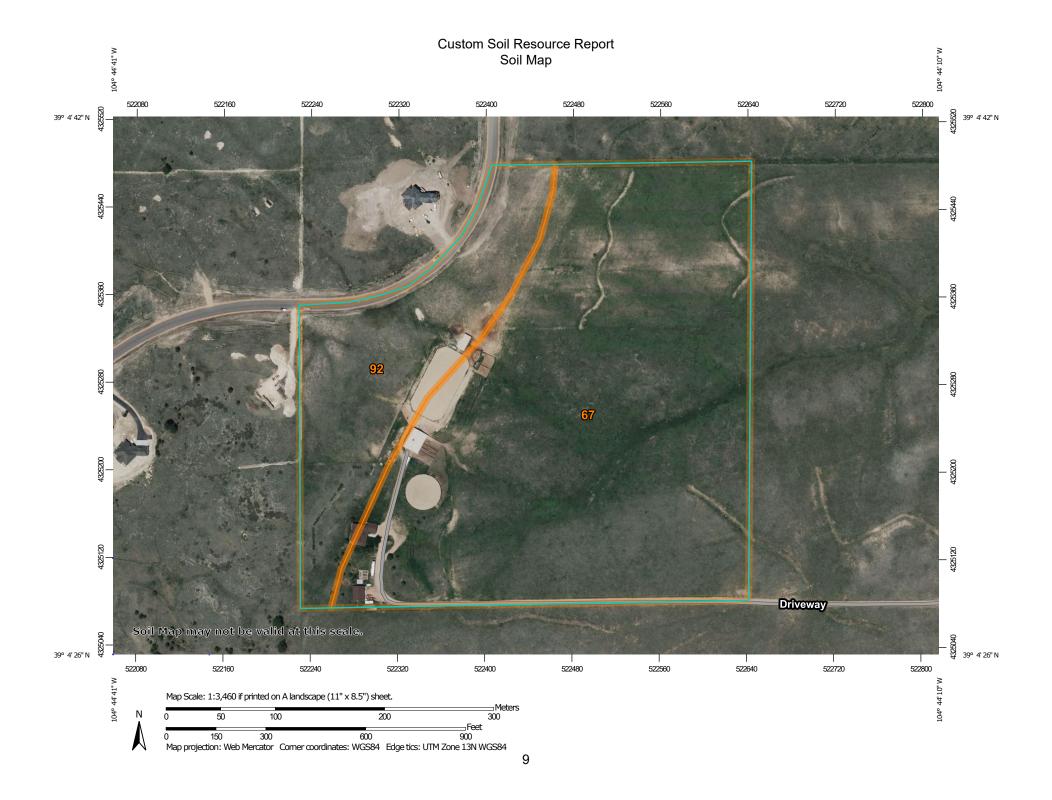
SWMP Inspection & Maintenance Log

Stormwater Management Plan Inspection and Maintenance Log Skye Vista El Paso County, CO

(Record inspections, items found maintenance and corrective actions taken. Also, record any training received by Contractor personnel with regard to erosion control, materials handling and any inspections by outside agencies)

DATE	ITEM	SIGNATURE OF PERSON MAKING
DATE	TTE LVI	ENTRY





MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Map Unit Polygons

-

Soil Map Unit Lines

Soil Map Unit Points

Special Point Features

(0)

Blowout

 \boxtimes

Borrow Pit

Ж

Clay Spot

 \Diamond

Closed Depression

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Gravel Pit

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Gravelly Spot

(2)

Landfill Lava Flow

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Marsh or swamp

@

Mine or Quarry

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Miscellaneous Water

0

Perennial Water
Rock Outcrop

.

Saline Spot

. .

Sandy Spot

0 0

Severely Eroded Spot

Λ

Sinkhole

Ø

Sodic Spot

Slide or Slip

-

Spoil Area



Stony Spot



Very Stony Spot



Wet Spot Other



Special Line Features

Water Features

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Streams and Canals

Transportation

ransp

Rails

~

Interstate Highways

~

US Routes

 \sim

Major Roads

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Local Roads

Background

Marie Contract

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24.000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: El Paso County Area, Colorado Survey Area Data: Version 21, Aug 24, 2023

Soil map units are labeled (as space allows) for map scales 1:50.000 or larger.

Date(s) aerial images were photographed: Jun 9, 2021—Jun 12, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
67	Peyton sandy loam, 5 to 9 percent slopes	27.9	75.6%
92	Tomah-Crowfoot loamy sands, 3 to 8 percent slopes	9.0	24.4%
Totals for Area of Interest	•	36.9	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

Custom Soil Resource Report

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An association is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

El Paso County Area, Colorado

67—Peyton sandy loam, 5 to 9 percent slopes

Map Unit Setting

National map unit symbol: 369d Elevation: 6,800 to 7,600 feet

Mean annual air temperature: 43 to 45 degrees F

Frost-free period: 115 to 125 days

Farmland classification: Not prime farmland

Map Unit Composition

Peyton and similar soils: 85 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Peyton

Setting

Landform: Hills

Landform position (three-dimensional): Side slope

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Arkosic alluvium derived from sedimentary rock and/or arkosic

residuum weathered from sedimentary rock

Typical profile

A - 0 to 12 inches: sandy loam

Bt - 12 to 25 inches: sandy clay loam

BC - 25 to 35 inches: sandy loam

C - 35 to 60 inches: sandy loam

Properties and qualities

Slope: 5 to 9 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20

to 0.60 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water supply, 0 to 60 inches: Moderate (about 7.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: B

Ecological site: R049XY216CO - Sandy Divide

Hydric soil rating: No

Minor Components

Other soils

Percent of map unit: Hydric soil rating: No

Pleasant

Percent of map unit: Landform: Depressions Hydric soil rating: Yes

92—Tomah-Crowfoot loamy sands, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 36b9 Elevation: 7,300 to 7,600 feet

Farmland classification: Not prime farmland

Map Unit Composition

Tomah and similar soils: 50 percent Crowfoot and similar soils: 30 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Tomah

Setting

Landform: Hills, alluvial fans

Landform position (three-dimensional): Crest, side slope

Down-slope shape: Linear Across-slope shape: Linear

Parent material: Alluvium derived from arkose and/or residuum weathered from

arkose

Typical profile

A - 0 to 10 inches: loamy sand E - 10 to 22 inches: coarse sand

Bt - 22 to 48 inches: stratified coarse sand to sandy clay loam

C - 48 to 60 inches: coarse sand

Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.60 to 2.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 4.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: B

Ecological site: R049XY216CO - Sandy Divide

Custom Soil Resource Report

Hydric soil rating: No

Description of Crowfoot

Setting

Landform: Alluvial fans, hills

Landform position (three-dimensional): Crest, side slope

Down-slope shape: Linear Across-slope shape: Linear Parent material: Alluvium

Typical profile

A - 0 to 12 inches: loamy sand E - 12 to 23 inches: sand

Bt - 23 to 36 inches: sandy clay loam C - 36 to 60 inches: coarse sand

Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.60 to 2.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 4.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: B

Ecological site: R049XY216CO - Sandy Divide

Hydric soil rating: No

Minor Components

Other soils

Percent of map unit: Hydric soil rating: No

Pleasant

Percent of map unit: Landform: Depressions Hydric soil rating: Yes

Soil Information for All Uses

Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

Soil Qualities and Features

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

Hydrologic Soil Group

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

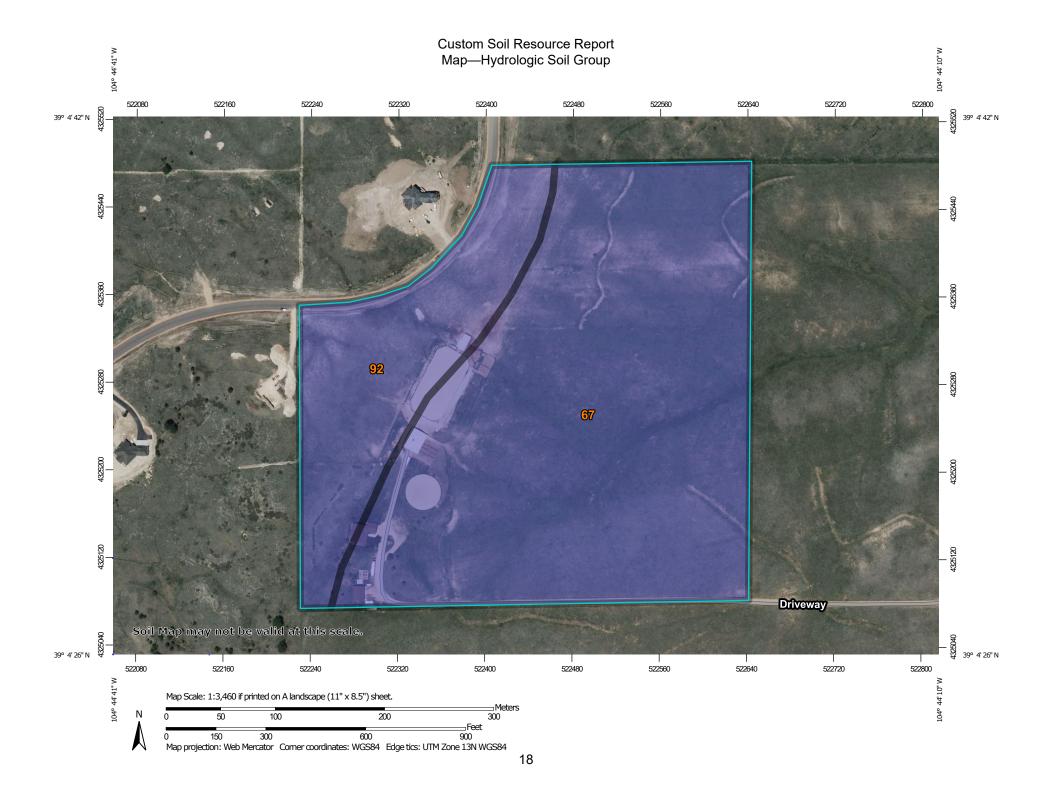
Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Custom Soil Resource Report

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.



MAP LEGEND MAP INFORMATION Area of Interest (AOI) The soil surveys that comprise your AOI were mapped at С 1:24.000. Area of Interest (AOI) C/D Soils D Warning: Soil Map may not be valid at this scale. Soil Rating Polygons Not rated or not available Α Enlargement of maps beyond the scale of mapping can cause **Water Features** A/D misunderstanding of the detail of mapping and accuracy of soil Streams and Canals line placement. The maps do not show the small areas of В contrasting soils that could have been shown at a more detailed Transportation scale. B/D Rails ---Interstate Highways Please rely on the bar scale on each map sheet for map C/D **US Routes** measurements. Major Roads Source of Map: Natural Resources Conservation Service Not rated or not available Local Roads Web Soil Survey URL: -Coordinate System: Web Mercator (EPSG:3857) Soil Rating Lines Background Aerial Photography Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required. This product is generated from the USDA-NRCS certified data as of the version date(s) listed below. Soil Survey Area: El Paso County Area, Colorado Not rated or not available Survey Area Data: Version 21, Aug 24, 2023 **Soil Rating Points** Soil map units are labeled (as space allows) for map scales Α 1:50.000 or larger. A/D Date(s) aerial images were photographed: Jun 9, 2021—Jun 12, 2021 B/D The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
67	Peyton sandy loam, 5 to 9 percent slopes	В	27.9	75.6%
92	Tomah-Crowfoot loamy sands, 3 to 8 percent slopes	В	9.0	24.4%
Totals for Area of Interes	st		36.9	100.0%

Rating Options—Hydrologic Soil Group

Aggregation Method: Dominant Condition
Component Percent Cutoff: None Specified

Tie-break Rule: Higher

FEMA FIRM Floodplain Maps

National Flood Hazard Layer FIRMette



Legend SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT Without Base Flood Elevation (BFE) With BFE or Depth Zone AE, AO, AH, VE, AR SPECIAL FLOOD **HAZARD AREAS** Regulatory Floodway 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X **Future Conditions 1% Annual** Chance Flood Hazard Zone X Area with Reduced Flood Risk due to Levee. See Notes. Zone X OTHER AREAS OF FLOOD HAZARD Area with Flood Risk due to Levee Zone D NO SCREEN Area of Minimal Flood Hazard Zone X Effective LOMRs OTHER AREAS Area of Undetermined Flood Hazard Zone D - - - Channel, Culvert, or Storm Sewer **GENERAL** STRUCTURES | LILLI Levee, Dike, or Floodwall 20.2 Cross Sections with 1% Annual Chance 17.5 Water Surface Elevation **Coastal Transect** ₩ 513 W Base Flood Elevation Line (BFE) Limit of Study Jurisdiction Boundary **Coastal Transect Baseline** OTHER **Profile Baseline FEATURES** Hydrographic Feature Digital Data Available No Digital Data Available MAP PANELS Unmapped The pin displayed on the map is an approximate

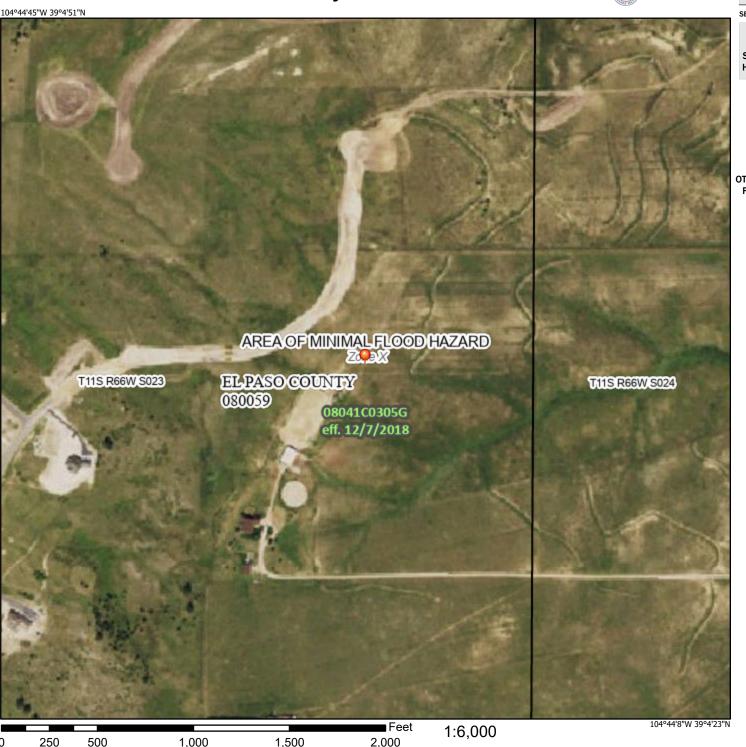
an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

point selected by the user and does not represent

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 11/6/2024 at 10:45 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



Basemap Imagery Source: USGS National Map 2023

CDPHE General Permit

STATE OF COLORADO

Dedicated to protecting and improving the health and environment of the people of Colorado

4300 Cherry Creek Dr. S. Denver, Colorado 80246-1530 Phone (303) 692-2000 TDD Line (303) 691-7700 Located in Glendale, Colorado

Located in Glendale, Colorado http://www.cdphe.state.co.us



For Agency Use Only
Permit Number Assigned
COR03-
Date Received// Month Day Year

COLORADO DISCHARGE PERMIT SYSTEM (CDPS)

STORMWATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES APPLICATION PHOTO COPIES, FAXED COPIES, PDF COPIES OR EMAILS WILL NOT BE ACCEPTED.

Please print or type. Original signatures are required. All items must be completed accurately and in their entirety for the application to be deemed complete. Incomplete applications will not be processed until all information is received which will ultimately delay the issuance of a permit. If more space is required to answer any question, please attach additional sheets to the application form. Applications must be submitted by mail or hand delivered to:

Colorado Department of Public Health and Environment

Water Quality Control Division 4300 Cherry Creek Drive South WQCD-P-B2

Denver, Colorado 80246-1530

Any additional information that you would like the Division to consider in developing the permit should be provided with the application. Examples include effluent data and/or modeling and planned pollutant removal strategies.

	• • • • • • • • • • • • • • • • • • • •		• .		
	RMIT INFORMATION ason for Application	□ NEW CERT	EXISTING CERT #		
	Applicant is:	☐ Property Owner ☐ 0	Contractor/Operator		
A.	CONTACT INFOR	MATION - NOT ALL CO	ONTACT TYPES MAY APPL	Y * indicates required	
*P	ERMITTEE (If more	e than one please add	additional pages)		
*0	RGANIZATION FO	RMAL NAME:			
1)	•		certify the permit application. consible for compliance with the	•	
	Responsible Pos	ition (Title):			
	Currently Held B	y (Person):			
	Telephone No:_				
	email address_				
	Organization:				
	Mailing Address	:			
	City:	State:	Zip:		

This form must be signed by the Permittee (listed in item 1) to be considered complete.

Per Regulation 61 In all cases, it shall be signed as follows:

- a) In the case of corporations, by a responsible corporate officer. For the purposes of this section, the responsible corporate officer is responsible for the overall operation of the facility from which the discharge described in the application originates.
- b) In the case of a partnership, by a general partner.
- c) In the case of a sole proprietorship, by the proprietor.
- d) In the case of a municipal, state, or other public facility, by either a principal executive officer or ranking elected official

<u>2)</u>	by the Division including Discha	rge Monitoring Report by the Division. The I	ts *DMR's, Annual Reports Division will transmit pre-	ized to sign and certify reports required s, Compliance Schedule submittals, printed reports (ie. DMR's) to this person.
	Responsible Position (Title):		_	
	Currently Held By (Person):			
	Telephone No:			
	email address			
	Organization:			
	Mailing Address:			
	City:			
3)	regulated facility or activity sposition of equivalent responsor the company. (A duly aut named position); and (iii) The written authorization	such as the position of nsibility, or an individu horized representativ tion is submitted to	plant manager, operator ial or position having over e may thus be either a na o the Division	consibility for the overall operation of the of a well or a well field, superintendent, rall responsibility for environmental matters med individual or any individual occupying a thorized by this permit
	Responsible Position (Title):			
	Currently Held By (Person):			
	Telephone No:			
	email address			
	Organization:			
	Mailing Address:			
	City:	State:	Zip:	<u> </u>
	Currently Held By (Persor Telephone No:email addressOrganization:	le):		<u> </u>
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Telephone No:		
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Organization:		
Mailing Address:		
City:	State: Zip:	<u></u>
Pretreatment Coordinator	Inspection Facility ContactConsultant	☐ Stormwater MS4 Responsible Person
Environmental Contact Biosolids Posponsible	☐ Compliance Contact	
 Biosolids Responsible Party 		Representative Other
 Property Owner 		
nitted Project/Facility Infor	mation	
-		
the route of the project should be	pe described as best as possible with the	e location of the project is <u>not</u> adequate. For linear proje location more accurately indicated by a map.)
		ounty
Facility Latitude/Longitude— (following formats	approximate center of site to near	est 15 seconds using one of
001A Latitude	Longitude	_ . (e.g., 39.703°, 104.933°')
001A Latitude degrees (to 3 dec	Longitude imal places) or	(e.g., 39.703°, 104.933°') degrees (to 3 decimal places)
001A Latitude °	or	" (e.g., 39°46'11"N, 104°53'11"W)
O01A Latitude o degrees minut For the approximate center p either degrees, minutes, and a variety of sources, including	or	es seconds conds. The latitude and longitude must be provided as e decimal places. This information may be obtained from
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(i.e., total, including all phases, filings, lots, and infrastructure not covered by this application) Provide both the total area of the construction site, and the area that will undergo disturbance, in acres. Note: aside from clearing, grading and excavation activities, disturbed areas also include areas receiving overburden (e.g., stockpiles), demolition areas, and areas with heavy equipment/vehicle traffic and storage that disturbe asising vegetative cover (see construction activity description under the APPLICABILITY section on page 1). If the project is part of a larger common plan of development or sale (see the definition under the APPLICABILITY section on page 1), the disturbed area of the total plan must also be included. F. NATURE OF CONSTRUCTION ACTIVITY Check the appropriate box(s) or provide a brief description that indicates the general nature of the construction activities. (The full description of activities must be included in the Stormwater Management Plan.) Single Family Residential Development Multi-Family Residential Development Multi-Family Residential Development Oil and Gas Production and/or Exploration (including pad sites and associated infrastructure) Highway/Road Development (not including roadways associated with commercial or residential development) Other – Description: G. ANTICIPATED CONSTRUCTION SCHEDULE Construction Start Date: Final Stabilization Date: Final	overburden (e.g., stockpiles),	demolition areas, and areas with heavy equipment/vehicle traffic and storage
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 Construction Start Date - This is the day you expect to begin ground disturbing activities, including grubbing, stockpiling, excavating, demolition, and grading activities. Final Stabilization Date - in terms of permit coverage, this is when the site is finally stabilized. This means that all ground surface disturbing activities at the site have been completed, and all disturbed areas have been either built on, paved, or a uniform vegetative cover has been established with an individual plant density of at least 70 percent of pre-disturbance levels. Permit coverage must be maintained until the site is finally stabilized. Even if you are only doing one part of the project, the estimated final stabilization date must be for the overall project. If permit coverage is still required once your part is completed, the permit certification may be transferred or reassigned to a new responsible entity(s). H. RECEIVING WATERS (If discharge is to a ditch or storm sewer, include the name of the ultimate receiving waters) 		<u>'</u>
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Identify the receiving water of the stormwater from your site. Receiving waters are any waters of the State of Colorado. This includes all water courses, even if they are usually dry. If stormwater from the construction site enters a ditch or storm sewer system, identify that system and indicate the ultimate receiving water for the ditch or storm sewer. **Note:** a stormwater discharge permit does <u>not</u> allow a discharge into a ditch or storm sewer system without the approval of the owner/operator of that system.

I. REQUIRED SIGNATURES (Both parts i. and ii. must be signed)

Signature of Applicant: The applicant must be either the owner and/or operator of the construction site. Refer to Part B of the instructions for additional information.

The application must be signed by the applicant to be considered complete. In all cases, it shall be signed as follows: (Regulation 61.4 (1ei)

- a) In the case of corporations, by the responsible corporate officer is responsible for the overall operation of the facility from which the discharge described in the form originates
- b) In the case of a partnership, by a general partner.
- c) In the case of a sole proprietorship, by the proprietor.
- d) In the case of a municipal, state, or other public facility, by either a principal executive officer, ranking elected official, (a principal executive officer has responsibility for the overall operation of the facility from which the discharge originates).

STOP!: A Stormwater Management Plan must be completed prior to signing the following certifications!

STORMWATER MANAGEMENT PLAN CERTIFICATION

"I certify under penalty of law that a complete Stormwater Management Plan, has been prepared for my activity. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the Stormwater Management Plan is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for falsely certifying the completion of said SWMP, including the possibility of fine and imprisonment for knowing violations."

XX		
Signature of Legally Responsible Person or Author	rized Agent (submission must include original signature)	Date Signed
Name (printed)	Title	
Name (printed)	Title	
ii. SIGNATURE OF PERMIT LEGAL C	ONTACT	
designed to assure that qualified personnel prope who manage the system, or those persons directly	and all attachments were prepared under my direction or superviolatly gather and evaluate the information submitted. Based on my it y responsible for gathering the information, the information submite. I am aware that there are significant penalties for submitting faviolations."	nquiry of the person or persons itted is to the best of my
• • • • • • • • • • • • • • • • • • • •	for coverage under the State of Colorado General Permit for Storn truction site/project described and applied for, until such time as d."	•
XX		
Signature of Legally Responsible Person (submissi	on must include original signature)	Date Signed

Name (printed Title

DO NOT INCLUDE A COPY OF THE STORMWATER MANAGEMENT PLAN
DO NOT INCLUDE PAYMENT – AN INVOICE WILL BE SENT AFTER THE CERTIFICATION IS ISSUED.

page 5 of 5 revised April 2011

Qualified Stormwater Manager / GEC AdministratorCertification