MONUMENT ACADEMY

THE CITY OF MONUMENT, COUNTY OF EL PASO, STATE OF COLORADO

OWNER

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MONUMENT, CO 80132
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OPERATOR/CONTRACTOR

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Add Text:

EPC's EDARP File Number: CDR2314

PREPARED: 04/24/2023
ESTIMATED PROJECT START DATE: 05/15/2023
ESTIMATED PROJECT COMPLETION DATE: 08/15/2023

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INTRODUCTION

The primary goal of the Stormwater Management Plan (SWMP) is to minimize water pollution by controlling sediment and pollutants that originate on the site and preventing them from flowing to surface waters. A successful pollution prevention program also relies upon careful inspection and adjustments during construction to enhance its effectiveness. This plan intends to implement stormwater control measures to improve the quality of stormwater discharges associated with the construction activity.

This plan must be implemented before construction begins on the site. It primarily addresses the impact of storm rainfall and runoff on areas of the ground surface disturbed during the construction process. In addition, there are recommendations for controlling other sources of pollution that could accompany significant construction activities. Applicability of this plan shall be terminated when disturbed areas are stabilized, temporary erosion controls are removed, construction activities covered herein have ceased, and the permit has been terminated.

PERMIT COVERAGE

Based upon a site disturbance area of one (1) acre or more, this site requires the issuance of a Colorado Discharge Permit System (CDPS) – Stormwater Discharge Permit through the Colorado Department of Public Health and Environment (CDPHE). Appendix B of this report will include a copy of the CDPS Stormwater Discharge Permit.

CDPHE project or permit tracking number: TBD

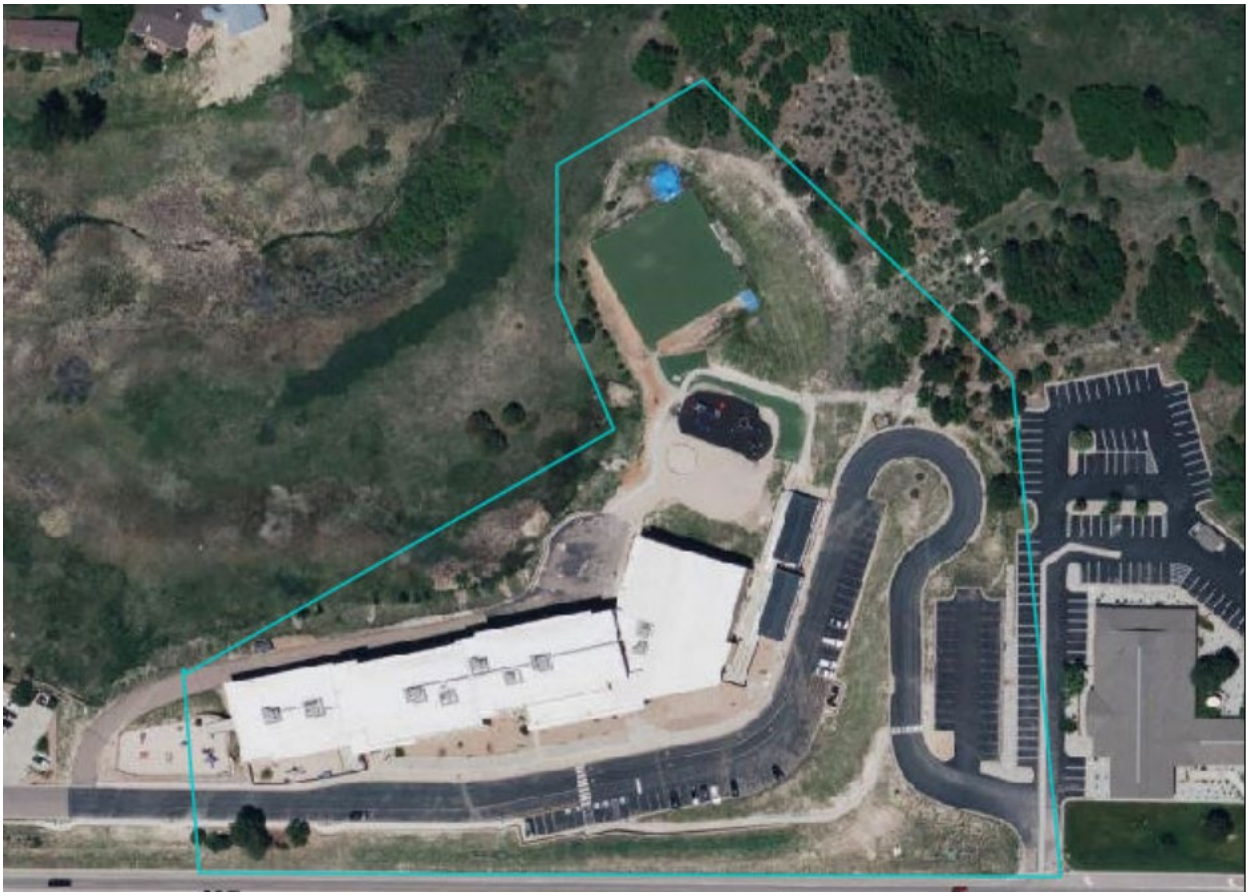
Estimated Project Start Date: 05/15/2023
Estimated Project Complete Date: 08/15/2023

GENERAL LOCATION

This project is located North of Highway 105 and east of Knollwood Drive at 1150 Village Ridge Point, Monument, CO, County of El Paso, State of Colorado (see Vicinity Map on page 5).

LATITUDE & LONGITUDE: 39.094013, -104.847006

VICINITY MAP



Adjacent areas that may be affected by the land disturbance would be vacant land, residential homes, businesses, local church, school, swales/ditches, and roads.

SITE DESCRIPTION

NATURE OF THE CONSTRUCTION ACTIVITY

i. The majority of the construction activities include the addition of new private internal roads to improve circulation of traffic within the school property. It also includes asphalt roadways with curb and gutter, retaining walls, drainage improvements and minor landscaping.

ii. The proposed schedule for the sequence of major construction activities and the planned implementation of Control Measures for each phase.

The phasing for construction as they pertain to the Construction Control Measures (CCS) for the site will occur in three separate phases – Initial, Interim, and Final.

In the Initial Phase, control measures activities shall include – Vehicle Tracking Control (VTC), Staging Area (SA), Inlet Protection (IP), Silt Fence (SF) or Sediment Control Logs (SCL), and Portable Toilet (PT).

In the Interim Phase, control measures activities shall include – Vehicle Tracking Control (VTC), Staging Area (SA), Inlet Protection (IP), Silt Fence (SF) or Sediment Control Logs (SCL), Temporary Seeding (TS), Rock Socks (RS), Concrete Washout Area (CWA), Stockpile Area (SP), Street Sweeping (SS), and Portable Toilet (PT).

In the Final Phase of control measures, activities shall include Landscaping (LS), Seed and Mulch (SM), and Street Sweeping (SS) along with all other control measures still in use.

The phasing proposed schedule for the sequence of significant construction activities:

- Phase 1 (initial) – May 15th – May 26th, clearing and grubbing. Before work is started, a vehicle tracking control, inlet protection rock socks, perimeter control, staging area, and portable toilet shall be protected in place will be implemented.
- Phase 2 (interim) – May 29th – July 31st, site grading, drainage, wall construction, roadway construction, site improvements, stripping, and signing.
- Phase 3 (final) August 1st – August 15th, landscape and permanent stabilization will be installed. All previous control measures will continue to be used and maintained during this project phase.

iii. The estimated total acreage of the site and acreage expected to be disturbed by clearing, excavation, grading, or other construction activities.

The site as a whole is roughly 3.5 acres. The total site portion to be disturbed or affected by construction is approximately 1.52 acres.

iv. A summary of any existing data used in the development of the SWMP that describes the soil or potential for soil erosion.

- The Natural Resources Conservation Service (NRCS) Web Soil Survey was used to determine the characteristics of the soil as they pertain to how the soil reacts to water.

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
1	Alamosa loam, 1 to 3 percent slopes	6.8	90.0%
92	Tomah-Crowfoot loamy sands, 3 to 8 percent slopes	0.8	10.0%
Totals for Area of Interest		**7.6**	**100.0%**

A complete soil study may be found in Appendix D.

v. A description of the percent of the existing vegetative ground cover relative to the entire site and the method for determining the percentage.

The percentage of the existing native vegetative ground cover relative to the entire site is roughly 32%. Vegetation cover was determined using the transect method by laying out a 25-foot tape measure. At every footmark, it was recorded whether vegetation was present or bare soil was encountered. If vegetation was present, 4% was counted at each location, and there was an average of 8-point locations with vegetation.

Transect #1 – 6-point locations / 40% cover
Transect #2 – 10-point locations / 24% cover
Average – 8-point locations / 32%

These two sections only describe what needs to be included in these sections, but not anything specific about the site.

vi. A description of any allowable non-stormwater discharges at the site, including those being discharged under the applicable low-risk discharge guidance policy.

vii. **Allowable Non-Stormwater Discharges**

The following non-stormwater discharges are allowable under this permit if the discharges are identified in the stormwater management plan in accordance with Part I.C. and if they have appropriate control measures in accordance with Part I.B.1.

- Discharges from uncontaminated springs that do not originate from an area of land disturbance.
- Discharges to the ground of concrete washout water are associated with washing concrete tools and concrete mixer chutes. Discharges of concrete washout water must not leave the site as surface runoff or reach receiving waters as defined by this permit.
- Discharges of landscape irrigation return flow.
- Emergency Fire Fighting
- This permit authorizes discharges resulting from emergency firefighting activities.
- If low-risk discharges, including potable water monitoring devices, potable water snowmelt, or uncontaminated groundwater to land occurs; they must be discharged in accordance with the CDPHE Low-Risk Discharge policies.

viii. A description of areas receiving discharge from the site. Including an explanation of the primary source receiving the discharge. If the stormwater discharge is to a municipal separate storm sewer system, the name of the entity owning that system, the location of the discharge, and the ultimate receiving water(s).

show/label on GEC Plans (none currently seen)

a. Names of the immediate receiving water(s): Detention Pond on the project's southeast corner.
b. Ultimate receiving water: Dirty Woman Creek
c. Municipal Separate Stormwater System: NA

ix. A description of all stream crossings located within the construction boundary.
a. There will be no stream crossings located within the construction site boundary.

EXISTING SITE CONDITIONS

The area of Monument, located at 1150 Village Ridge Point in Monument, is currently a school. The site generally slopes to the north and northwest; see flow maps for details.

Existing Vegetation Coverage: Roughly 32%

1. **General Runoff Patterns**
   Current drainage flows to the southeast and northwest. Sheet flows with existing drainage patterns over vacant land areas. See the water flow map for details. No significant changes will result from construction.

2. **FEMA Designated Floodplains**
   According to the Federal Emergency Management Agency (FEMA) FIRM MAP Number 0804C1C0278G, effective December 7, 2018, the project site lies outside the 100-year and 500-year floodplains.

3. **Hydrologic Soil Groups**

   Hydrologic Soil Group: B, and D

   For a complete study, see Appendix D

PROPOSED DEVELOPMENT

Most of the construction activities include the addition of new private internal roads to improve traffic circulation within the school property. It includes asphalt roadways with curbs and gutters, retaining walls, drainage improvements, and minor landscaping.

1. **Post-Construction Drainage**
   Overall, site patterns for the excess runoff will remain essentially unchanged.

2. **Wetland Impacts**
   Colorado_NWI: PEM1C known jurisdictional wetlands are delineated within the site disturbance or immediately adjacent.

3. **Stream Impacts**
   The proposed construction is anticipated to have no adverse impacts on any streams.

4. **Historic Designation**
   The property is not identified as historic on state or federal listings.

5. **Threatened or Endangered Species**
   The property was previously identified as a habitat for threatened or endangered species. However, no habitat for threatened or endangered species was found after further review.

POTENTIAL SOURCES OF POLLUTION

Site construction disturbs the existing stabilized cover at a given location and increases the potential for erosion and the exposure of construction-related pollutants to the environment. Listed below are the potential pollution sources anticipated to be associated with construction and the Construction Control Measures that should be installed and maintained coincident with each source.

i. **Disturbed and Stored Soils** – Earth-disturbing activities (grading, excavation, etc.) will be necessary for this project; therefore, the potential exists for disturbed site soils to contribute sediment to stormwater discharges.

ii. **Vehicle Tracking and Sediment** – Construction traffic will be entering and exiting the site; therefore, the potential exists for vehicle tracking to contribute sediment to stormwater discharges.

iii. **Management of Contaminated Soils** – Contaminated soil materials are not anticipated with the construction site.

iv. **Loading and Unloading Operations** – Construction material and equipment loading and unloading will be necessary for this project; therefore, the potential exists for pollutants associated with these activities to contribute pollutants to stormwater discharges.

v. **Outdoor Storage of Materials** (erodible building materials, fertilizers, chemicals, etc.) – Limited outdoor storage of materials is anticipated with the construction of this site.

vi. **Vehicle and Equipment Maintenance and Fueling** – Routine maintenance and fueling of equipment are anticipated with this site; therefore, the potential exists for pollutants associated with these activities to contribute pollutants to stormwater discharges.

vii. **Significant Dust or Particulate Generating Processes** – Earth-disturbing activities (grading, excavation, etc.) will be necessary for this project; therefore, the potential exists for windblown site soils to contribute sediment to stormwater discharges.

viii. **Routine Maintenance** – Routine maintenance involving fertilizers, pesticides, detergents, fuels, solvents, oils, etc., other than those identified within Vehicle and Equipment Maintenance is anticipated with this project; therefore, the potential exists for pollutants associated with these activities to contribute pollutants to stormwater discharges.

ix. **Onsite Waste Management** – Waste management consisting of solid waste piles, liquid wastes, dumpsters, etc., is anticipated onsite; therefore, the potential exists for these operations to introduce sediment and non-sediment pollutants to stormwater discharges.

x. **Concrete Truck / Equipment Washing** – Concrete truck and equipment washing, including washing of the concrete truck chute, is anticipated with the project; therefore, the potential exists for pollutants associated with these activities to contribute pollutants to stormwater discharges.

xi. **Dedicated asphalt, concrete batch plants, and masonry mixing stations** - Dedicated asphalt or concrete batch plans will not be used on this project and, therefore, do not constitute a potential source of pollution at this site.

xii. **Non-Industrial Waste Sources** – Such as worker trash and portable toilets are anticipated with this project.

IMPLEMENTATION OF CONTROL MEASURES

Structural Practices for Erosion and Sediment Control

These traditional techniques will be employed at the site to minimize erosion and sediment transport. All sediment and erosion control measures will be installed before excavation or demolition and will be coordinated with the construction schedule.

The Concrete Washout Area (CWA) will contain concrete and concrete wastewater when the chutes of concrete mixers and hoppers of concrete pumps are rinsed out after delivery. Concrete Washouts shall be installed before any concrete placement on site. Adequate signage is required. Remove concrete waste once it is filled to about two-thirds of its capacity. Excavated material shall be utilized in perimeter berm construction. At the end of construction, all concrete shall be removed from the site and disposed of at an approved waste site.

Silt Fence (SF) is used to intercept sheet flow runoff from disturbed areas. Silt fence is not designed to be used as a filter fabric. Do not install silt fences across streams, channels, swales, ditches, or other drainage ways. Install silt fence along the contour of slopes or avoid creating concentrated flow (i.e., "J-hook" installation). The maximum tributary drainage area per 100 linear feet of silt fence is 1/4 acre. A properly installed silt fence should not be easily pulled out by hand, and there should be no gaps between the ground and fabric. A silt fence is a temporary sediment barrier consisting of woven geotextile fabric attached to supporting posts and trenched into the soil.

Rock Socks (RS/CS/RRB/CD) are constructed of gravel wrapped by wire mesh or a geotextile to form an elongated cylindrical filter. Rock socks are typically used as a perimeter control or inlet protection. Rock socks are usually called curb socks or check dams when placed at angles in the curb line. Rock socks are intended to trap sediment from stormwater runoff that follows onto roadways due to construction activities. Remove sediment typically when sediment has accumulated behind the rock sock to one-half of the sock's height.

Sediment Control Logs (SCL) is a linear roll made of natural materials such as straw, coconut fiber, or other fibrous material trenched into the ground and held with wooden stakes. Sediment control logs are also often referred to as "straw wattles." There are used as a sediment barrier to intercept sheet flow runoff from disturbed areas. They will be installed as check dams, around culverts, and in sensitive areas, as needed. Removal of these control measures will occur only after a permanent access road is constructed, or once vegetation is established to a minimum of 70% pre-construction coverage. After the removal of control measures, all sediment build-ups be removed, and the area exposed shall be seeded. Remove sediment typically when sediment has accumulated behind the sediment control logs to one-half of the log's height.

Portable Toilets (PT) are brought in from a service contractor. They will be maintained in accordance with standard waste disposal practices using vacuum trucks and placed on stable ground and tied down to minimize the risk of spillage. All portable toilets will be kept at least 50' from any waterway and off any curb or sidewalk. Portable restrooms will be inspected daily for spills.

Waste Disposal (WD) If needed, roll-offs will be utilized for standard construction waste. A qualified contractor will remove waste weekly and take it off this project to an appropriate dump site.

Stockpile Protection (SP) of soil and other erodible materials will be managed using sediment control logs or rock socks so that stormwater does not encounter the pile and potentially wash pollutants into state waters. The erodible stockpiles will always be contained with a Control Measure at the toe (or within 20 feet of the toe). All stockpiles will be placed 50 feet or more from the state's waters.

Inlet Protection (IP) will be used to protect existing and new inlets, using the Stormwater Enterprise inlet protection detail. Removal of these control measures will occur only after vegetation is established to a minimum of 70% pre-construction coverage. After removal of control measures, all sediment build-up will be removed, and the area exposed shall be seeded or when asphalt/curb and gutter are complete.

Vehicle Tracking Control (VTC) shall be installed at the edge of the construction staging area where construction vehicles regularly exit onto the existing asphalt road. If sediment tracking occurs, it will be cleaned within 24 hours. If the vehicle tracking control becomes clogged and ponds water, remove and

dispose of excess sediment or replace the material with a fresh layer of aggregate as necessary. Removal of these control measures will occur only after the project entrance has been paved.

Non-structural Practices for Erosion and Sediment Control

The following control measures require mechanical means of construction or installation but, generally, their installs will not require removal and will become integral to the finished site.

Wind Erosion / Dust Control (DC) water truck will be used to control dust measures should be used on any site where dust poses a problem to air quality. Dust control is important to control the health of construction workers and surrounding waterbodies. Be careful not to overwater. Overwatering will cause construction vehicles to track mud off-site.

Street Sweeping (SS) shall be used as a pollutant source control, placed to prevent tracking of sediment tracked onto paved surfaces and to prevent sediment from entering the drainage system. Sweep daily and at the end of the construction shift as needed. Kick brooms shall not be permitted.

Mulching (MU/SM) consists of evenly applying straw, hay, shredded wood mulch, rock, bark, or compost to disturbed soils and securing the mulch by crimping, tackifiers, netting, or other measures. Mulching helps reduce erosion by protecting bare soils from rainfall impact. It can be used as temporary or permanent seeding. It can be used for temporary stabilization of areas that cannon be reseeded due to seasonal constraints. Apply promptly after final grading is reached, typically within no more than 14 days, on portions of the site not otherwise permanently stabilized.

Temporary and Permanent Seeding (TS/PS) temporary seeding can be used to stabilize disturbed areas that will be inactive for an extended period. Permanent seeding should be used to stabilize areas at the final grade that will not be overwise stabilized. The installer should refer to the specific planting information per the City Stormwater Enterprise. Protect seeded areas from construction equipment and vehicle access. Reseed and mulch these areas as needed.

USE AGREEMENT

No use agreements will be used on this project.

MATERIAL HANDLING

This section covers practices that will be implemented to prevent pollution associated with solid, liquid, and hazardous construction-related materials stored and used on-site. Practices include trash disposal, recycling, proper material handling, and clean-up measures to reduce the potential for stormwater runoff to pick up construction site wastes and discharge them to surface waters. For hazardous or toxic materials, such as solvents, petroleum products, pesticides, wood preservatives, acids, and other comprehensive sets of waste-management practices are established that include storage, handling, inventory, and cleanup procedures, in case of spills. No construction waste materials are to be buried on site.

Solid or Construction Waste Materials will be collected and disposed of in the trash dumpsters in the materials storage area. Dumpsters will be placed away from stormwater conveyances and meet all

federal, state, and municipal regulations. Only trash and construction debris from the site will be deposited in the dumpster. No construction materials will be buried on-site. All personnel will be instructed, during tailgate training sessions, regarding the correct disposal of trash and construction debris. Notices that state these practices will be posted in the office trailer, and the individual who manages day-to-day site operations will be responsible for seeing that these practices are followed. The dumpsters will be inspected biweekly and immediately after storm events. The dumpster will be emptied once capacity has reached 90% full.

Hazardous Waste Materials such as oil filters, petroleum products, solvents, pesticides, wood preservatives, acids, and equipment maintenance fluids will be stored in structurally sound and sealed shipping containers within the hazardous materials storage area. Hazardous waste materials will be stored in appropriate and clearly marked containers and segregated from other non-waste materials. Secondary containment will be provided for all waste materials in the hazardous materials storage area and will consist of commercially available spill pallets. Additionally, all hazardous waste materials will be disposed of in accordance with federal, state, and municipal regulations. Hazardous waste materials will not be disposed of in the on-site dumpsters. All personnel will be instructed, during tailgate training sessions, regarding proper procedures for hazardous waste disposal. Notices stating these procedures will be posted in the office trailer, and the individual who manages day-to-day site operations will be responsible for ensuring that these procedures are followed.

The hazardous waste material storage areas will be inspected weekly and after storm events. The storage areas will be kept clean, organized, and equipped with ample cleaning supplies appropriate for storing materials. Material safety data sheets, material inventory, and emergency contact numbers will be maintained in the office trailer.

Sanitary Waste a temporary sanitary facility (portable toilets) will be provided throughout the construction phase. The toilets will be within the construction boundaries. The portable toilets will be located away from concentrated flow paths and traffic flow and will have collection pans underneath as secondary containment.

All sanitary waste will be collected from the portable facilities a minimum of once per week. The portable toilets will be inspected daily for evidence of leaking holding tanks or spills. Toilets with leaking holding tanks will be removed from the site and replaced with new portable toilets.

Waste Disposal wood pallets, cardboard boxes, and other recyclable construction scraps will be disposed of in a designated dumpster for recycling. The dumpster will have a secure watertight lid, be placed away from stormwater conveyances, and meet all local and state solid-waste management regulations. Only solid recyclable construction scraps from the site will be deposited in the dumpster. During tailgate training sessions, all personnel will be instructed on the correct procedure for disposing of recyclable construction scraps. Notices stating these procedures will be posted in the office trailer. The individual who manages day-to-day site operations will be responsible for ensuring that these procedures are followed. If needed, Roll-offs will be utilized for standard construction waste. A qualified contractor will remove waste weekly and take it off this project to an appropriate dump site.

Building material handling and staging, the site entrance, and exit are to be clearly marked so delivery vehicles are directed in and out over the vehicle tracking controls. An effort will be made to receive and

store only enough products required to do the job. All materials stored on site will be stored in a neat, orderly manner in their appropriate containers and, if possible, under a roof or in Conex. Storage materials are to be noted on the site maps by the general contractor.

Evaluation of general sediment and non-sediment pollution sources associated with site construction activities, as outlined within the General Permit, consists of the following:

CONSTRUCTION PHASING AND SEQUENCING

Construction phasing refers to disturbing only part of a site at a time to limit the potential for erosion from dormant parts of the site. The scope, size, and time frame involved in the proposed construction project does not allow for effectiveness. All work areas within the Limits of Construction (LOC) will be disturbed simultaneously and are expected to be stabilized upon completion of the area.

Construction sequencing or scheduling refers to a specified work schedule that coordinates the timing of land-disturbing activities and the installation of erosion and sediment control practices. The general contractor provides a full and detailed schedule, with dates, addressing all major construction activities and the installation/removal of associated Construction Control Measures. The following is an outline for control measure sequencing that the general contractor shall address in their provided schedule.

Pre-Disturbance, Site Access	• Install sediment controls downgradient of access points • Install inlet protection • Establish vehicle tracking control at entrances to paved streets.
Site Clearing and Grubbing	• Limit disturbance to those areas planned for disturbance and protect undisturbed areas within the site. • Preserve vegetative buffer at the site perimeter • Locate portable toilets on flat surfaces away from drainage paths. • Construct a concrete washout area and provide signage. • Establish waste disposal areas. • Separate and stockpile topsoil; leave roughened and/or covered. • Protect stockpiles with perimeter control measures. Stockpiles should be located away from drainage paths and should be accessed from the upgradient side. • Leave the disturbed area of the site in a roughened condition to limit erosion. Consider temporary revegetation for areas of the site that have been disturbed but will be inactive for an extended period. • Water to minimize dust but not to the point that creates runoff.

Infrastructure Installation	• Close the trench as soon as possible (generally at the end of each day). • Use rough-cut street control or apply road base for streets that will not be promptly paved. • Provide inlet protection as streets are paved. • Protect and repair control measures as necessary. • Perform street sweeping as needed. • Implement material management and good housekeeping. • Install temporary seeding & mulching.
Final Grading	In addition to the above control measures. • Remove excess or waste materials. • Remove stored materials.
Final Stabilization	In addition to the above control measures. • Seed and Mulch/tackifier. • Install landscaping & irrigation. • Remove all temporary control measures once the site reaches final stabilization.

The general contractor shall include a copy of the full and detailed schedule in the SWMP Plan. When the construction schedule is altered, erosion control and sediment control measures in the SWMP Report and construction drawings should be appropriately adjusted to reflect actual "on the ground" conditions at the construction site.

INSPECTION AND MAINTENANCE

Inspection and maintenance of erosion control measures shall comply with the criteria set forth by the General Permit (COR400000) or the following, whichever is more stringent.

The stormwater inspector will routinely check all erosion control measures to determine if repairs or sediment removal is necessary. Written inspection records every seven days. When Control Measures have failed, as determined by the stormwater inspector, they must be addressed as soon as possible, immediately in most cases, to minimize the discharge of pollutants. The Permittee is responsible for ensuring and documenting that Control Measures are maintained when and where deficiencies have been noted on self-inspections.

For sites or portions where construction activities have been completed and final stabilization measures installed but final stabilization still needs to be achieved, the stormwater inspector shall thoroughly inspect their Control Measures at least once every month. The Stormwater Management Plan (SWMP) must be amended to indicate those areas where construction activities have been completed.

When snow cover exists over the entire site for an extended period, inspections are only sometimes feasible. This condition should be documented, including the date of snowfall and the date of melting

conditions to bring awareness of and preparation for areas where melting conditions may pose a risk of surface erosion.

A copy of the SWMP shall be maintained at the site or online via the cloud at all times. Any degradation of the control measures described in the SWMP or excessive accumulation of sediments shall be remedied immediately upon discovery. Inspection reports shall be retained for three years from the expiration or inactivation of permit coverage. Federal, State, and local authority reserve the right to request that a copy of the SWMP and/or inspection reports be submitted.

The SWMP is a "living document" continuously reviewed and modified. The stormwater inspector shall make changes to the SWMP, including but not limited to additions, deletions, and changing locations of control measures shall be marked in the plans, dated, and initialed at the time of occurrence.

The inspection shall include observations of:

- The Construction Site Perimeter and Discharge Points
- All Disturbed Areas
- Vehicles and Equipment
- Areas Used for Material / Waste Storage That is Exposed to Precipitation
- Other Areas Determined to Have a Significant Potential for Stormwater Pollution
- Erosion and Sediment Control Measures Identified in the SWMP and
- Any Other Structural Control Measures That May Require Maintenance

The inspection must determine if there is evidence of, or the potential for, pollutants entering the drainage system. Control measures should be reviewed to determine if they still meet the design intent and operational criteria in the SWMP and if they continue to control pollutants at the site adequately. In most cases, any control measures not operating by the SWMP must be addressed immediately. To minimize the discharge of pollutants, the SWMP must be updated, and inspections must be documented.

Examples of specific items to evaluate during site inspections are listed below. This list is not intended to be comprehensive. Ultimately, the Contractor is responsible for ensuring the adequacy of site pollutant discharge controls. Actual physical site conditions or contractor practices could make it necessary to install more controls than are shown on the plans. Assessing the need for additional controls and implementing them or adjusting existing controls will be ongoing until the site stabilizes them.

- Vehicle Tracking Control - Locations where vehicles enter and exit the site shall be inspected for evidence of offsite sediment tracking. Exits shall be maintained as necessary to prevent the release of sediment from vehicles leaving the site. Any sediment deposited on the adjacent roadway shall be removed as necessary throughout the day or at the end of every day and disposed of appropriately. Sediment shall not be washed into storm sewer systems.
- Sediment Control Devices - Sediment barriers (silt fence, sediment control logs, rock socks, etc.), traps, and basins must be inspected and cleaned out as soon as their original capacity has been reduced by 50 percent. All material excavated from behind sediment barriers or in traps and basins shall be incorporated into onsite soils or stabilized on an upland portion of the site. To minimize the potential for sediment releases from the Project, site perimeter control devices shall be inspected considering changing up-gradient conditions.
- Material Storage Areas - Material storage areas should be located to minimize exposure to weather. Inspections shall evaluate disturbed areas and areas used for storing materials exposed to rainfall for evidence of, or the potential for, pollutants entering the drainage system or discharging from the site. If necessary, the materials must be covered, or the original covers must be repaired or supplemented. Also, protective berms must be constructed, if needed, to contain

runoff from material storage areas. All state and local regulations pertaining to material storage areas shall be adhered to.

- Vegetation - Seed/Sod shall be free of weedy species and appropriate for site soils and regional climate. Seeding, sodding, tacking, and mulching shall be completed following the requirements outlined within the Project Manual and locations identified within the plans immediately after the topsoil is applied and the final grade is reached. Grassed areas shall be inspected to confirm that a healthy stand of grass is maintained. Rip-rap, mulch, gravel, decomposed granite, or other equivalent permanent stabilization measures may be employed instead of vegetation based on site-specific conditions and Owner approval.
- Discharge Points - All discharge points must be inspected to determine whether erosion and sediment control measures effectively prevent sediment discharge from the site or impacts to receiving waters.
- Erosion Control Devices - Rolled erosion control products (nets, blankets, turf reinforcement mats) and marginally vegetated areas (areas not meeting required vegetative densities for final stabilization) must be inspected frequently. Riling, rutting, and other signs of erosion indicate that the erosion control device is not functioning correctly, and additional erosion control devices are warranted.

The Qualified Stormwater Manager shall ensure that, at a minimum, the following is recorded for each inspection and kept on site for reference:

a. The inspector's name and title of the person making the inspection.
b. The date and type of the inspection (regular inspection vs. post-storm inspection)
c. Project name and location
d. Weather conditions at the time of the inspection
e. The phase of construction at the time of the inspection
f. Estimated acreage of a disturbance at the time of inspection
g. The minimum frequency of inspections chosen
h. Location(s) of sediment or other pollutants discharges from the site
i. Location(s) of control measures needing maintenance
j. Location(s) and identification of inadequate control measures
k. Location(s) and identification of additional control measures that were not in place at the time of inspection are needed.
l. Descriptions of corrective action and dates when corrective action was implemented.
m. Any corrective actions are taken.
n. After adequate corrective action(s) has been taken, or where a report does not identify any incidents requiring corrective action, the inspection form shall contain a signed statement indicating the site is in compliance with their permit(s) to the best of the signatory's knowledge and belief.

If repairs are needed to any control measures, they shall be completed immediately. After adequate corrective action(s) and maintenance have been taken, or where a report does not identify any incidents requiring corrective action or maintenance, the report shall contain a statement stating the following:

"I verify that, to the best of my knowledge and belief, all corrective action and maintenance items identified during the inspection are complete, and the site is currently in compliance with the permit."

The inspector must sign this statement. If it is infeasible to install or repair control measures immediately after discovering the deficiency, the following information must be documented and kept on record:

1. Describe why it is infeasible to initiate the installation or repair immediately; and

2. Provide a schedule for installing or repairing the control measure and returning it to an effective operating condition as soon as possible.

CONTROL MEASURE MAINTENANCE / REPLACEMENT AND FAILED

Site inspection procedures noted above must address maintenance of control measures found to no longer function as needed and designed, as well as preventive measures to ensure continued operation proactively.

The Qualified Stormwater Manager shall implement a preventative maintenance program to ensure that control measures breakdowns and failures are managed proactively. Site inspections should uncover any conditions resulting in the discharge of pollutants to storm sewers and surface waters and shall be rectified. For example, sediment shall be removed from silt fences regularly to prevent failure of the control measure. Sediment shall be removed to an appropriate location not to become an additional pollutant source.

The inspection process must also include replacing control measures when needed or adding new control measures to adequately manage the pollutant sources at the site.

Any control measure deficiencies, replacement, or additional measures that may be required shall be documented on the Stormwater Management Site Map. If amendments to the SWMP are needed, these amendments shall be documented on the SWMP Amendment Log included in Appendix E for reference and use.

QUALIFIED STORMWATER MANAGER

QUALIFIED STORMWATER MANAGER

The operator selected the Qualified Stormwater Manager for the project. The Qualified Stormwater Manager is knowledgeable in the principles and practices of erosion and sediment control and pollution prevention and with the skills to assess the effectiveness of stormwater controls implemented to meet the requirement of the General Permit. The Qualified Stormwater Manager is responsible for developing, implementing, maintaining, and revising the SWMP, including final site stabilization and filing of the state Notice of Termination. The activities and responsibilities of the Qualified Stormwater Manager shall address all aspects of the facility SWMP. The General Contractor shall designate the Qualified Stormwater Manager. A list of that individual's qualifications and certifications pertinent to construction erosion and sediment control shall be kept on file with SWMP Plan. Should an entity other than the General Contractor be listed as the "Permittee" in the application, the GC must obtain the permit holder's authorization for the execution of these duties and the appointment of the Administrator.

Contact: Dennis Good
Phone: (719) 310-5570

TEMPORARY STABILIZATION, FINAL STABILIZATION & LONG-TERM STORMWATER MANAGEMENT

TEMPORARY STABILIZATION AND SHORT-TERM STORMWATER MANAGEMENT

No disturbed area that is not actively being worked shall remain denuded for more than 14 calendar days unless authorized by the director. Temporary stabilization may be completed by temporary seeding and mulching/tackifier. It should be provided on areas exposed for more than 14 days before permanent stabilization can be achieved.

FINAL STABILIZATION AND LONG-TERM STORMWATER MANAGEMENT

Final site stabilization will be achieved when all final landscaping is installed and vegetation density exceeds 70 percent of the area's pre-disturbance density. Noxious weeds are not counted in the 70 percent. The remaining improvement areas are stabilized upon installation of the final lift of asphalt and completion of concrete placement.

DEWATERING

Groundwater is not expected to be encountered during construction if the site must be dewatered; the operator will file for appropriate dewatering permits (Permit No. COG070000) with the CDPHE. If groundwater is encountered on the project site, a State of Colorado General Permit for Construction Dewater Activities will be required. The state dewatering permit application and associated information can be found at https://www.colorado.gov/pacific/cdphe/wq-construction-general-permits. The permit application must be filled out 30 days before the anticipated discharge. Refer to the UDFCDs detail and fact sheet for additional dewatering operations information.

- In the event of groundwater, dewatering will be filtered through a rock and/or woven geotextile mesh fabric dewatering bag. All dewatering will be tested for pollutants per state guidelines weekly.
- Discharges from construction dewatering activities may be authorized, provided that.
    - The source is groundwater and/or groundwater combined with stormwater that does not contain pollutants.
    - The source and Control Measures are identified.
    - Dewatering Plan is created, and a logbook is kept.

Groundwater dewatering water can NOT be discharged to surface waters, ground, or storm sewer systems without separate permit coverage. The discharge of pumped stormwater dewatering water only, from excavations, ponds, depressions, etc., to surface waters or to a municipal separate storm sewer system is allowed by the Stormwater Construction Permit, as long as the dewatering activity and associated control measures are identified in the SWMP. The GEC Administrator must include implementation for stormwater dewatering discharge should that activity become necessary for the progression of the construction project. Note: Pumping stormwater does not render the pumped water process water, provided that the pump does not contribute additional pollutants to the discharge. A separate discharge is required if a sheen is visible on the water leaving the pump.

SPILL PREVENTION AND RESPONSE PLAN

Wildcat Construction Company, Inc. is dedicated to minimizing the possibility of hazardous material/waste spills through appropriate training methods, proper use of Control Measures, and on-site observations. All equipment will be inspected daily before use to reduce incidents and be maintained safely and operably. However, in the event of an accidental leak, spill, or uncontrolled release of hazardous material, the following actions will serve as basic guidelines for spill response. The SWMP Administrator must be notified of all spills.

SPILL RESPONSE CRITERIA:

Non-Emergency Spill	Emergency Spill
• The discharge is small (less than 25 gallons)	• The discharge is large enough (greater than 25 gallons) to spread beyond the immediate area
• The discharge can be easily contained	• The discharge cannot be contained
• The discharge is unlikely to reach a navigable waterway, storm sewer, or sanitary drain	• The discharge reaches a navigable waterway, storm sewer, or sanitary drain regardless of the amount spilled
• Cleanup procedures do not pose a health or safety hazard	• The discharge poses a hazard to human health or the environment
• Proper response equipment is available for safe cleanup	• The discharge requires special equipment or training to clean up
Response by Wildcat Construction personnel may be possible for the above types of discharges	• There is a danger of fire or explosion
	The above discharge requires a response by the fire department (call 911)

SPILL RESPONSE PROCEDURES (NON-EMERGENCY):

1. Secure the site with a priority to protect the health and safety of personnel responding to the release, bystanders, and the community.
2. Notify the supervisor immediately.
3. Stop, Control, and Contain the spill at the source.
    a. Control and contain the spill using nearby absorbent booms, socks, pads, and soil.
    b. If a line ruptures on a piece of equipment, power down the equipment safely, then control and contain the spill at the site with booms, socks, mats, or other absorbent material as needed.

4. Protect all waterways from potential contamination, including but not limited to storm drains and surface drainage.
    a. Along with control measures already in place, use containment booms, etc., to stop the spread of the contaminants.
    b. Spill kits will be available for containment and clean-up needs.
5. Clean up procedures.
    a. Use absorbent materials to contain and clean up the area.
    b. DO NOT hose down the spill area!
    c. Minimize the extraction of the earth to only that which was soiled.
    d. Contaminated material and contaminated soil shall be bagged, labeled, and stored in approved containers.
    e. Dispose of the material by local, state, and federal regulations.
6. Reporting procedures:
    a. The supervisor will notify Wildcat Construction Safety Manager immediately.
    b. The Vice-President or Safety Manager will notify the city and government agencies as needed.
    c. Supervisor will make the initial Onsite Spill Report immediately after cleaning up and gathering all initial facts.
    d. The Safety manager will investigate as needed, complete the final report and forward it to those necessary.

SPILL RESPONSE PROCEDURES (EMERGENCY):

1. Secure the site with a priority to protect the health and safety of personnel responding to the release, bystanders, and the community.
2. Notify the supervisor immediately so they can decide if onsite personnel can control and contain the spill effectively.
3. Supervisor will contact the local fire department.
4. Stop, Control, and Contain the spill at the source.
    - Control and contain the spill using nearby absorbent booms, socks, pads, and soil until the fire department arrives. Focus control measures at locations of storm sewers and nearby waterways.
5. Clean up procedures.
    - If assistance is required to clean up larger spills, contact the Vice-President or Safety Manager.
6. Reporting procedures:
    - Supervisor will notify Monument Academy Safety Manager immediately.
    - The Vice-President or Safety Manager will notify the city and government agencies as needed.

- Supervisor will make the initial Onsite Spill Report immediately after cleaning up and gathering all initial facts.

- The Safety manager will investigate as needed, complete the final report and forward it to those necessary.

APPENDIX A – SITE MAPS

MONUMENT ACADEMY

RECIRCULATION PLANS

STORMWATER MANAGEMENT PLAN (SWMP)

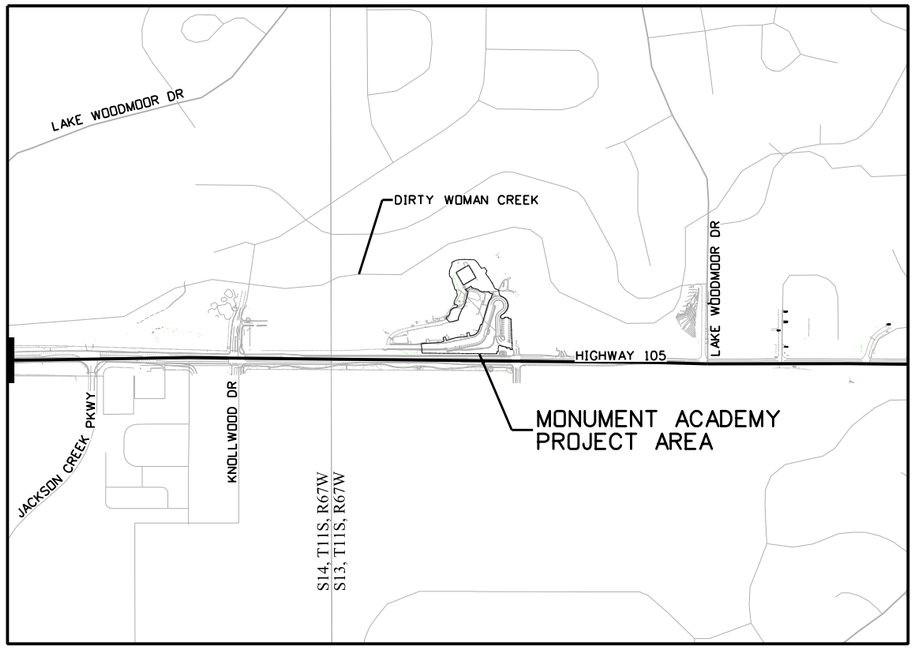
MONUMENT ACADEMY RECIRCULATION PLAN
FRONT AND BACK OF SCHOOL ACCESS
MONUMENT, EL PASO COUNTY, COLORADO

Applicant (Owner/ Designated Operator)	Name	
	Company	
	Address	
	Phone / e-mail	

SWMP Preparer	Name	Anessa Vance
	Company	HDR
	Address	5555 Tech Center Dr, Ste 310
	Address	Colorado Springs, CO 80919
	Phone / e-mail	719-272-8800 / anessa.vance@hdrinc.com

Qualified Stormwater Manager	Name	
	Company	
	Address	
	Phone / e-mail	

Contractor	Name	
	Company	
	Address	
	Phone / e-mail	



PROJECT LOCATION MAP

0' 500' 1000' 2000'

N

Index of Sheets		
Sheet Number(s)	**Title**	**Subset / # of Sheets**
	SWMP Cover	SWMP / 1 of 9
	Table of Contents	SWMP / 2 of 9
	Affidavits	SWMP / 2 of 9
	SWMP Notes	SWMP / 3 - 8 of 9
	El Paso County GEC Notes	SWMP / 9 of 9
	Site Maps	SWMP Map / 1-6 of 6
	SWMP CM Details	SWMP Det / 1-12 of 12

Print Date: 6/7/2022
File Name: School Access SWMP_Cover Sheet.dgn
Horiz. Scale: 1:1000 Vert. Scale: None

5555 TECH CENTER DRIVE, SUITE 310
COLORADO SPRINGS, CO 80919 PHONE: 719-272-8800

Sheet Revisions		
Date:	Comments	Init.

As Constructed
No Revisions:
Revised:
Void:

MONUMENT ACADEMY
SWMP / EROSION CONTROL

Designer: M. CHAVEZ
Detailer: M. CHAVEZ
Sheet Subset: SWMP
Structure Numbers:
Subset Sheets: 1 of 9

Project No./Code
19734
STA 105A-014
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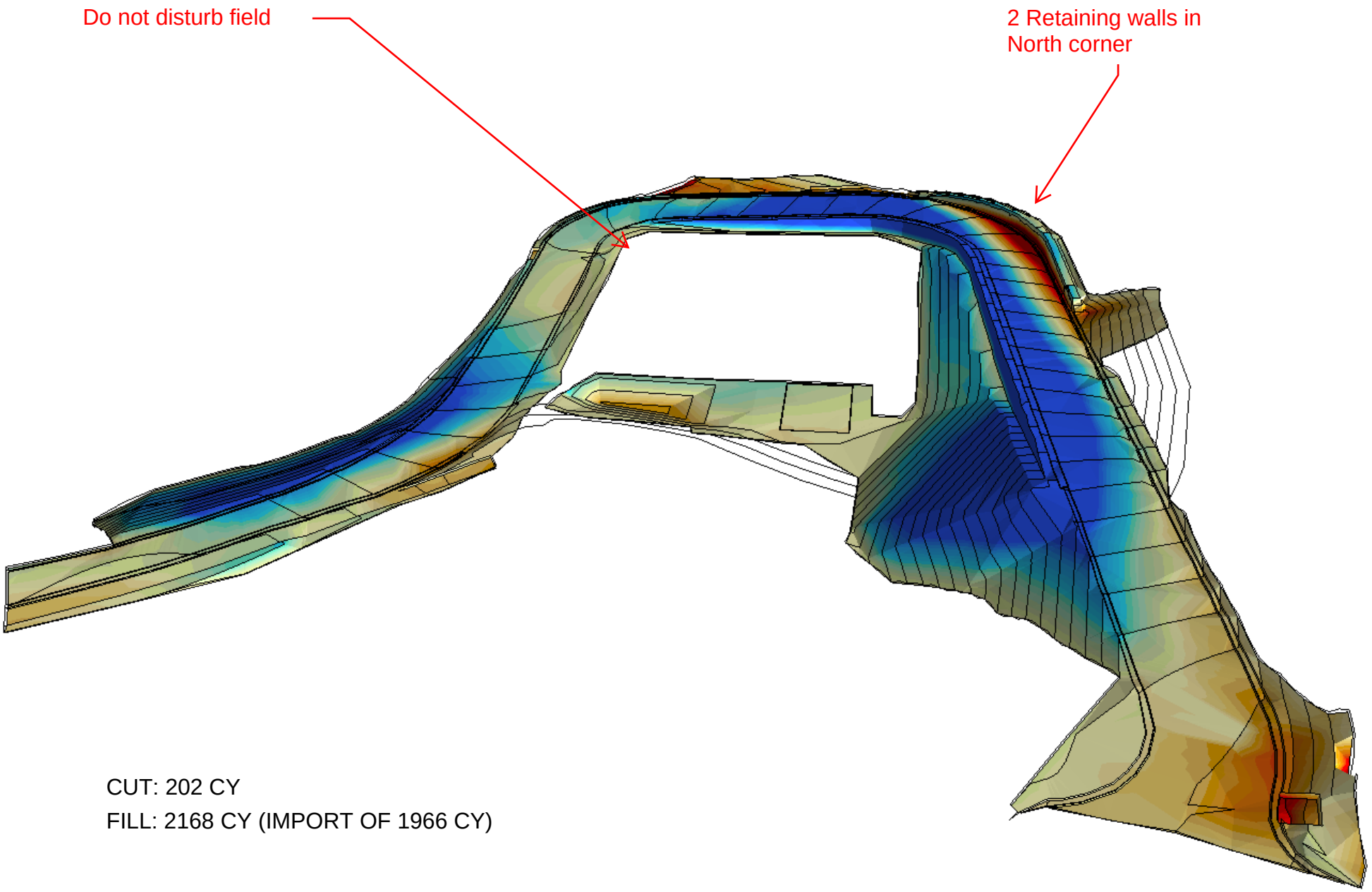

CUT: 202 CY

FILL: 2168 CY (IMPORT OF 1966 CY)

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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.

ELIZABETH V. STATEN, P.E. # 38974 — DATE: 6/7/2022

OWNER/ DEVELOPER'S STATEMENT:

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

NAME / TITLE: Ryan Graham, Board President — DATE: 5/18/23

BUSINESS NAME: Monument Academy

ADDRESS:

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.

DATE

COUNTY ENGINEER / ECM ADMINISTRATOR

5555 TECH CENTER DRIVE, SUITE 310
COLORADO SPRINGS, CO 80919 PHONE: 719-272-8800

Print Date: 6/7/2022
File Name: SchoolAccess SWMP_NOTES.dgn
Horiz. Scale: None Vert. Scale: None

Sheet Revisions		
Date:	Comments	Init.

As Constructed	MONUMENT ACADEMY SWMP / EROSION CONTROL NOTES		Project No./Code
No Revisions:			19734
Revised:	Designer: M. CHAVEZ	Structure Numbers	STA 105A-014
Void:	Detailer: M. CHAVEZ		Sheet Number 57 of 82
	Sheet Subset: SWMP	Subset Sheets: 2 of 9	

STORMWATER MANAGEMENT PLAN NOTES

All references to specification sections, subsections, and definitions are for CDOT Road and Bridge Construction Manual (2021).

1. SITE DESCRIPTION

The Contractor shall comply with all contractual requirements, and all requirements associated with the CDPS-SCP on this project. The SWMP Administrator for Construction shall update the SWMP to reflect current project site conditions.

A. PROJECT SITE LOCATION:
Location or address of construction office: Monument Academy is located in S13, T11S, R67W just outside the limits of the Town of Monument, CO. The project is located north of Highway 105, and east of Knollwood Drive at 1150 Village Ridge Point, Monument, CO.

B. PROJECT SITE DESCRIPTION: This project is for the addition of new private internal roads to improve circulation of traffic within the school property. It also includes modular block walls, and storm system extensions. Construction activities include erosion control, and re-establishing vegetation.

C. PROPOSED SCHEDULE FOR SEQUENCE FOR MAJOR CONSTRUCTION ACTIVITIES: This project will be constructed in two separate phases with the back of the school private road being constructed with the first phase during the summer of 2022, and the front of school private road being constructed with the second phase during the summer of 2023. The back of school first phase shall include installation of initial erosion control measures, clearing and grubbing, drainage, wall construction, roadway construction, site improvements, striping, signing, landscaping and permanent stabilization. The front of school second phase shall include installation of initial erosion control measures, clearing and grubbing, drainage, roadway construction, site improvements, striping, signing, landscaping and permanent stabilization.

D. ACRES OF DISTURBANCE:
1. Total area of construction site (LOC (PERMITTED AREA)): 3.50 acres
2. Total area of proposed disturbance (LDA): 1.52 acres
3. Total area of seeding: 0.68 acres

E. EXISTING SOIL DATA: Soil data for the project site is obtained from the USDA NRCS Soil Survey. Reported existing soils are in Hydrologic Soil groups B and D. Floodplain and riparian meadow areas are expected to be Alamosa loams, while upland areas and hillsides are expected to be Tomah-Crowfoot loamy sands. Each of these has slight to moderate erosion potential and may impact both the existing grades and contribute to polluted stormwater runoff flow.

F. EXISTING VEGETATION, INCLUDING PERCENT OF VEGETATIVE COVER: The SWMP Administrator for Construction shall document existing vegetation where all work will be occurring.

Pre-Construction Date of survey: _____ Percent Existing Vegetative Cover: _____
Description of existing vegetation:
Method for determining percent vegetative cover:

Include a map or table showing locations, photos documenting pre-Construction vegetative cover, and methodology used to determine existing vegetative cover to SWMP tab 17:

Post-Construction Date of survey: _____ Percent Vegetative Cover: _____
Description of vegetation:
Date of CDPS-SCP Closure: _____
The method used to determine pre-construction percent cover shall be used to determine post construction percent cover.
Include map or table showing transect locations, photos documenting post-Construction vegetative cover, and methodology used to determine existing vegetative cover in SWMP Notebook.

G. POTENTIAL POLLUTANTS SOURCES: Refer to Potential Pollutant Sources in SWMP Section 4A. The SWMP Administrator for Construction shall prepare a list of all potential pollutants and their locations in accordance with subsection 107.25.

H. RECEIVING WATER:
1. Outfall locations: See SWMP Site Maps for existing and proposed outfall locations. Stormwater system for the project is privately owned and not connected to a municipal storm sewer system. All discharges outfall overland to Dirty Woman Creek.
2. Names of immediate receiving water(s) on site: Dirty Woman Creek is located adjacent to the project site and is the receiving water for the entire site.
3. Ultimate receiving water(s): Dirty Woman Creek
4. Description of all stream crossings located within the Construction Site Boundary: No streams cross the project area.

Location	Stream Name	Description Of Any Disturbed Upland Areas
n/a		

I. ALLOWABLE NON-STORMWATER DISCHARGES:

Discharge Description	Site Map #	Method Statement (Location)
Uncontaminated Springs	t.b.d.	
Concrete Washout Water (in-ground washout structure)#	t.b.d.	
Landscape Irrigation Return Flows	t.b.d.	
Discharges from Diversions of State Waters	t.b.d.	
Emergency Fire Fighting	t.b.d.	

#Concrete washout water associated with the washing of concrete tools and concrete mixer chutes can be discharged to the ground if site is managed accordingly to prevent the water from leaving the site as surface runoff or reaching receiving waters.

J. DESCRIPTION OF DRAINAGE PATTERNS FROM THE SITE: Dirty Woman Creek is located adjacent to the project site and is the receiving water for the entire site. The site drains typically from southeast to northwest with the private storm system outfalls discharging to the fields and floodplains between the project site and Dirty Woman Creek.

K. ALTERNATIVE DIVERSION CRITERIA: When applicable, The Contractor is to provide a method statement based on data provided by the Hydraulic Engineer. The alternative diversion must be approved by CDPHE's Water Quality Control Division prior to implementation. The diversion method must be designate to minimize the discharge of pollutants and prevent the potential for pollution or degradation to state waters as a result of the diverted flow through the diversion structure. In addition, the alternative diversion method must minimize the discharge of pollutants throughout the installation, implementation and removal of the diversion.]

L. ALTERNATIVE TEMPORARY STABILIZATION SCHEDULE: [If applicable, provide a description of the alternative temporary stabilization schedule. If temporary stabilization exceeds the 14-day schedule, then the SWMP must document the constraints necessitating the alternative schedule, provide the alternative schedule, and identify all the locations where the alternative schedule is applicable on the site map.]

2. SITE MAP COMPONENTS:

Pre-construction

A. PROJECT CONSTRUCTION POTENTIAL SITE BOUNDARIES: See SWMP Site Maps

B. FLOW ARROWS THAT DEPICT STORMWATER FLOW DIRECTIONS ON-SITE, RUN-ON AND RUNOFF DIRECTION: See SWMP Site Maps

C. ALL AREAS OF GROUND SURFACE DISTURBANCE: See SWMP Site Maps

D. AREAS OF CUT AND FILL: See SWMP Site Maps

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COLORADO LICENSED
ELIZABETH A. SAYEN
38974
06/07/2022
PROFESSIONAL ENGINEER

Print Date: 6/7/2022	Sheet Revisions			As Constructed	MONUMENT ACADEMY SWMP / EROSION CONTROL NOTES
File Name: School Access SWMP_CDOT TEMP01.dgn	Date:	Comments	Init.	No Revisions:	Designer: M. CHAVEZ
Horiz. Scale: None Vert. Scale: None				Revised:	Detailer: M. CHAVEZ
5555 TECH CENTER DRIVE, SUITE 310 COLORADO SPRINGS, CO 80919 PHONE: 719-272-8800				Void:	Sheet Subset: SWMP
					Structure Numbers:
					Subset Sheets: 3 of 9

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E. AREAS USED FOR STORING AND STOCKPILING OF MATERIALS, STAGING AREAS (field trailer, fueling, etc.) and LOCATIONS OF ALL WASTE ACCUMULATION and BATCH PLANTS INCLUDING MASONRY MIXING STATIONS: See SWMP Site Maps. Project does not anticipate utilizing batch plants.

F. LOCATION OF ALL STRUCTURAL CONTROL MEASURES IDENTIFIED IN THE SWMP: See SWMP Site Maps

G. LOCATION OF NON-STRUCTURAL CONTROL MEASURES AS APPLICABLE IN THE SWMP: See SWMP Site Maps

H. SPRINGS, STREAMS, WETLANDS, DIVERSIONS, AND OTHER STATE WATERS, INCLUDING AREAS THAT REQUIRE PRE-EXISTING VEGETATION BE MAINTAINED WITHIN 50 FEET OF A RECEIVING WATER: See SWMP Site Maps

I. LOCATIONS OF ALL STREAM CROSSING LOCATED WITHIN THE CONSTRUCTION SITE BOUNDARY: See SWMP Site Maps. No streams cross the project area.

J. PROTECTION OF TREES, SHRUBS, SENSITIVE HABITAT, AND CULTURAL RESOURCES: See SWMP Site Maps

K. LOCATIONS WHERE ALTERNATIVE TEMPORARY STABILIZATION SCHEDULES APPLY: _____

3. QUALIFIED STORMWATER MANAGERS:

A. SWMP ADMINISTRATOR FOR DESIGN: CDOT Certified Individual responsible for developing SWMP Plan Sheets and SWMP Site Maps during the design phase.

Name/Title	Contact Information	CDOT Certification #
Anessa Vance Drainage Designer	(405) 301-9386 anessa.vance@hdrinc.com	4F847EC5

B. SWMP ADMINISTRATOR FOR CONSTRUCTION: (As defined in Section 208) The Contractor shall designate a SWMP Administrator for Construction upon accepting co-permittee of the permit. The SWMP Administrator for Construction shall become the operator for the SWMP and assume responsibility for all design changes to the SWMP implementation and maintenance in accordance to 208.03, the SWMP shall remain the property of CDOT. The SWMP Administrator for Construction shall be responsible for implementing, maintaining, and revising SWMP, including the title and contact information. The activities and responsibilities of the SWMP Administrator for Construction shall address all aspects of the project's SWMP. (Update the information below for each new SWMP Administrator for Construction) (A copy of TECS Certification must be included in the SWMP.)

Name/Title	Contact Information (phone & email)	Certification #	Start Date	Engineer Approval

C. EROSION CONTROL INSPECTOR: (As defined in Section 208) The Contractor may designate an Erosion Control Inspector. The Erosion Control Inspector shall complete duties in accordance with subsection 208.03 (c) (Copy of TECS Certification must also be included in the SWMP.)

Name/Title	Contact Information (phone & email)	TECS Certification #	Start Date	Engineer Approval

4. STORMWATER MANAGEMENT CONTROLS FOR FIRST CONSTRUCTION ACTIVITIES

THE CONTRACTOR SHALL PERFORM THE FOLLOWING:

A. POTENTIAL POLLUTANT SOURCES:

Evaluate, identify, locate, and describe all potential sources of pollutants at the site in accordance with subsection 107.25, CDPS-SCP and place in the SWMP. All control measures related to potential pollutants shall be shown on the SWMP Site Map by the Contractor's SWMP Administrator for Construction.

B. OFFSITE DRAINAGE (RUN ON WATER):
Describe and record control measures on the SWMP Site Map that have been implemented to address off site run-on water in accordance with subsection 208.03.

C. VEHICLE TRACKING CONTROL:
Control measures shall be implemented in accordance with subsection 208.04.

D. PERIMETER CONTROL:
1. Perimeter control shall be established as the first item on the SWMP to prevent the potential for pollutants leaving the construction site boundaries, entering the stormwater drainage system, or discharging to state waters. Perimeter control shall be in accordance with subsection 208.04
2. Perimeter control may consist of berms, silt fence, erosion logs, existing landforms, or other control measures as approved.

5. DURING CONSTRUCTION

RESPONSIBILITIES OF THE SWMP ADMINISTRATOR FOR CONSTRUCTION: Considered a "living document", the SWMP is continuously reviewed and modified throughout the construction phases as a part of the overall process of evaluating and managing stormwater quality issues at the site. During construction, SWMP Administrator for Construction shall add, update, or amend the items A-G below as needed in accordance with subsection 208.03, and/or when there is a change in design, construction, O&M of the site which would require the implementation of new or revised control measures, or if the control measure proves to be ineffective in achieving the general objective of controlling pollutants in stormwater discharges associated with construction activity, or when control measures are no longer necessary and are removed.

During construction, indicate how items that were not addressed during design are being handled in construction. If items are covered in other sections of the SWMP, indicate below what section the discussion takes place.

A. MATERIALS HANDLING AND SPILL PREVENTION AND RESPONSE PLAN: prior to construction commencing the Contractor shall submit a Spill Response Plan, see subsection 208.06. Materials handling shall be in accordance with subsection 208.06.

B. OTHER CDPS PERMITS: List applicable CDPS permits associated with the permitted site and activities.

C. STOCKPILE MANAGEMENT: Shall be done in accordance with subsections 107.25 and 208.07

D. CONCRETE WASHOUT: Concrete washout water or waste from field laboratories and paving equipment shall be contained in accordance with subsection 208.05.

E. SAW CUTTING: Shall be done in accordance with subsections 107.25, 208.04, 208.05

F. STREET SWEEPING: Shall be done in accordance with subsection 208.04

G. TOILETS: Portable toilets will be located a minimum of 10 feet from stormwater inlets and 50 feet from state waters. They will be secured at all four corners to prevent overturning and cleaned on a weekly basis. They will be inspected daily for spills.

6. INSPECTIONS

A. Water Quality Inspections shall be in accordance with subsection 208.03(c).
B. Permanent Stabilization Inspections shall be in accordance with subsections 207.03 and 212.05.

7. CONTROL MEASURE MAINTENANCE

Maintenance shall be in accordance with subsection 208.04(f).

8. RECORD KEEPING

Records shall be kept in accordance with subsection 208.03(d).

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COLORADO LICENSED
ELIZABETH M. STEIN
38974
06/07/2022
PROFESSIONAL ENGINEER

Print Date: 6/7/2022	Sheet Revisions			As Constructed	MONUMENT ACADEMY SWMP/EROSION CONTROL NOTES
File Name: School Access SWMP_CDOT TEMP02.dgn	Date:	Comments	Init.	No Revisions:	Designer: M.CHAVEZ
Horiz. Scale: None Vert. Scale: None				Revised:	Detailer: M.CHAVEZ
5555 TECH CENTER DRIVE, SUITE 310 COLORADO SPRINGS, CO 80919 PHONE: 719-272-8800				Void:	Sheet Subset: SWNOTES

Structure Numbers: | Subset Sheets: 2 of 7

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9. INTERIM, PERMANENT STABILIZATION and LONG TERM STORMWATER MANAGEMENT

The Contractor shall comply with all interim stabilization and permanent stabilization requirements in accordance with subsection 208.04(e). Final vegetative cover shall be at least 70% of pre-disturbed levels.

A. SEEDING PLAN: The following seed mix(es) and rates and seeding method as shown on the Permanent Stabilization Site Maps shall be used:

SEEDING (NATIVE) Drill

COMMON NAME	BOTANICAL NAME	LBS. PLS PER ACRE
Sideoats grama	*Bouteloua curtipendula var. Vaughn*	2.0
Blue grama	*Bouteloua gracilis var. Hachita*	1.5
Little bluestem	*Schizachyrium scoparium var. Pastura*	3.0
Western wheatgrass	*Pascopyrum smithii var. Arriba*	5.0
Green needlegrass	*Stipa viridula*	2.0
Junegrass	*Koeleria macrantha*	0.3
Indiangrass	*Sorghastrum nutans var. Holt*	3.0
Switch grass	*Panicum virgatum v. Nebraska 28*	2.0
Smooth aster	*Symphyotrichum laeve*	0.1
Purple prairie clover	*Dalea purpurea*	0.5
Blanketflower	*Gaillardia aristata*	1.0
Blue flax	*Linum lewsii*	1.0
Woods' rose	*Rosa woodsii*	1.0
Rabbitbrush	*Ericameria nauseosa*	0.1
Threeleaf sumac	*Rhus trilobata*	0.5
Snowberry	*Symphoricarpos albus*	0.5
Chokecherry	*Prunus virginiana*	0.5
Winter wheat (sterile)	*Triticum aestivum*	3.0
Common oat (sterile)	*Avena sativa*	3.0
	Total	30.0

SEEDING (WETLANDS) Broadcast

COMMON NAME	BOTANICAL NAME	PERCENT OF MIX	LBS. PLS PER ACRE
Arctic Rush	*Juncus arcticus*	15	0.05
Big bluestem	*Andropogon gerardii*	10	2.5
Canada wildrye	*Elymus canadensis*	10	3.0
Common spikerush	*Eleocharis palustris*	10	0.6
Softstem bulrush	*Schoenoplectus tabernaemontani*	10	0.6
Switchgrass	*Panicum virgatum*	10	1.0
Water sedge	*Carex aquatilis*	20	1.5
Western wheatgrass	*Pascopyrum smithii*	10	3.0
Showy milkweed	*Asclepias speciosa*	5	2.5
	Total	100	14.75

B. SEEDING APPLICATION METHOD: The following seeding methods shall be used for all areas shown on the Permanent Stabilization Site Maps. Soil compaction shall be minimized for areas where permanent stabilization will be achieved through vegetative cover.

SEEDING METHOD (subsection 212.05)	ACRE
Seeding (Native) Drill, CDOT Pay Item 212-00706	0.63
Seeding (Wetland) Broadcast, CDOT Pay Item 212-00711	0.05
TOTAL	0.68

C. SOIL STABILIZATION METHODS: Minimum soil stabilization methods (attached mulch) for all disturbances to receive seeding.

1. Apply certified weed free hay or certified weed free straw and mechanically crimp into the soil in combination with natural mulch tackifier in accordance with Section 213.
2. Install Soil Retention Blankets in accordance with Standard Plan M-216-1 and Section 216.

D. SPECIAL REQUIREMENTS:

1. Soil amendments, seedbed preparation, and permanent stabilization mulching shall be accomplished within four working days of placing the topsoil on the de-compacted civil subgrades. If placed topsoil is not mulched with permanent stabilization mulch within four working days, the Contractor shall complete interim stabilization methods in accordance with subsection 208.04(e) at no additional cost to the Department.
2. Complete permanent stabilization mulching within 24 hours of hydraulic application of native seed.
3. The Contractor shall submit a proposed Permanent Stabilization Phasing Plan to the Engineer for approval showing how implementation of SWMP Permanent Stabilization Plans will minimize damage to seeded areas.

E. SOIL AMENDMENT REQUIREMENTS: Minimum amendment material requirements for all disturbances to receive seeding.

0.63 Total Acres of Seeding (Native) Drill

	Pay Item	Description	Amount/ Acre	Units	Total For This Method
Seeding (Native) Drill Pay Item 212-00706	212-00700	Organic Fertilizer	600	Pounds	378
	212-00701	Compost (Mechanically Applied)	65	CY	41
	212-00703	Humate	200	Pounds	126
	212-00704	Mycorrhizae	0	Pounds	0
	212-00705	Elemental Sulfur	0	Pounds	0

0.05 Total Acres of Seeding (Wetland) Broadcast

	Pay Item	Description	Amount/ Acre	Units	Total For This Method
Seeding (Wetland) Broadcast Pay Item 212-00711	n/a	n/a	n/a	n/a	n/a
	Soil amendments are not anticipated to be required for wetland seeding. Existing wetland topsoils shall be salvaged by excavating up to 12" depth of topsoil and stockpiling the material in an approved area and protected from sediment transport and nutrient leaching. Storage time within the stockpile shall be as short as possible.				

F. RESEEDING OPERATIONS/CORRECTIVE STABILIZATION:

Prior to partial acceptance.

1. All seeded areas shall be reviewed during the 7-day inspections by the SWMP Administrator for Construction and or Erosion Control Inspector for bare soils caused by surface or wind erosion. Bare areas caused by surface or gully erosion, blown away mulch, etc. shall be re-graded, seeded, and have the designated mulching applied as necessary, at no additional cost to the project.
2. The Contractor shall maintain seeding/mulch/tackifier/blanket/TRM, mow to control weeds or apply herbicide to control weeds in the seeded areas until Partial Acceptance of the stormwater construction work.

10. PRIOR TO PROJECT FINAL ACCEPTANCE

A. When directed by the Engineer, removal and disposal of temporary control measures shall be included in the cost of work.
B. At the end of the project, all ditch checks shall consist of either temporary erosion logs (or equivalent) or permanent riprap.
C. Refer to Specification 208.10 for Items to be completed prior to requesting partial acceptance of water quality work.

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11. NARRATIVES

Control Measure Matrixes During Construction:

1. Control measure narratives have been included for the CDOT Standard Specifications and Standard Plan M-208 and M-216 along with any non-standard control measures approved during the design process. If a Non-Standard Control Measure not included in the SWMP is proposed and approved by the Engineer the SWMP Administrator for Construction shall do the following: Place an "X" in the column for non-standard and complete a Non-Standard Control Measure Specification and Narrative covering the what, when, where and why the control measure is being used shall be add to the SWMP. The appropriate "X" shall also be added to the implementation phase(s).
2. The SWMP Administrator for Construction shall place an "X" in the column In Use On Site when the control measure has been installed.
3. A "B" in the Initial Activities Column indicates that the control measure shall be installed **before** construction activity starts. Locations and quantities will be discussed during the Environmental Pre-Construction Conference.

STRUCTURAL Control Measures that may be potentially used on the project for erosion and sediment control; practices may include, but are not limited to the following:

APPLICATION, CONTROL MEASURE	NARRATIVE	M- 208 STANDARD or "X" for NON-STANDARD	IN USE ON SITE	CONTROL MEASURE IMPLEMENTATION PHASE		
				INITIAL ACTIVITIES	INTERIM ACTIVITIES	PERMANENT STABILIZATION
PROTECTION OF EXISTING WETLANDS *Fence (plastic) and erosion logs*	Fence (plastic) shall be placed in combination with erosion logs to prevent encroachment of construction traffic and sediment into state waters prior to start of construction disturbances. Fence (plastic) shall be placed adjacent to the wetlands; erosion logs shall be placed between the plastic fence and disturbance area. Logs shall be placed to direct flows away from or filter water running into wetlands from disturbance areas.			B	X	
PROTECTION OF EXISTING TREES/LANDSCAPING *Fence (plastic)*	Fence (plastic) shall be used in areas indicated in the plans to prevent encroachment of construction traffic and sediment for the protection of sensitive habitat, mature trees and/or existing landscaping prior to start of construction disturbances.			B	X	
CHECK DAM/DITCH CHECK *Erosion log, silt berm, silt dike, rock check dam*	Placed in ditches immediately upon completion of ditch grading to reduce velocity of runoff in ditch. For existing ditches, place prior to start of construction disturbances.	M-208		X	X	
Storm Drain Inlet Protection In Paved Roadways (Type 1, 2 and 3 as shown on M-208-1, sheet 5 of 11)	Manufactured storm drain inlet protection placed prior to construction disturbances as detailed in M-208-1, to protect existing inlets or immediately upon completion of new inlets to prevent sediment from entering the inlet throughout construction.	M-208		B	X	X
Storm Drain Inlet Protection In Native Seed Areas (M-604 Standard Inlets Type C and D)	Erosion logs or aggregate bags placed around inlet grate to prevent sediment from entering inlet. Place prior to construction disturbances to protect existing inlets or immediately upon completion of new inlets.	M-208				
CULVERT INLET/OUTLET PROTECTION *Erosion logs, aggregate bags*	Placed at mouth of culvert inlets and over top of culvert at inlet and outlet where disturbance may be occurring adjacent to pipe to prevent sediment laden water from entering pipe or drainage. Place prior to the start of construction disturbances.	M-208		B	X	X
TYPE C, TYPE D AND TYPE 13 PROTECTION *Erosion logs, aggregate bags, erosion bales*	Placed around inlet grate or slope and ditch paving to prevent sediment from entering inlet. Place prior to the start of construction disturbances.	M-208		B	X	X
STOCKPILE PROTECTION *Temporary berm, erosion logs, aggregate bags**	Placed within specified distance, in accordance with subsection 208.06, from toe to contain sediment around stockpile. *Aggregate bags are easily moved and replaced for access during the work day. Place prior to start of stockpiling, increase control as the stockpile increases size.	M-208			X	
TOE OF FILL PROTECTION *Erosion logs, temporary berm, silt fence, topsoil windrow**	Place prior to slope/embankment work to capture sediment and protect and delineate undisturbed areas. *Can be used to stockpile topsoil for salvage.	M-208		X	X	
PERIMETER CONTROL *Erosion logs, silt fence, temporary berm, topsoil windrow**	Placed prior to construction commencing to address potential run-on water from off site, and to divert around disturbed area. *Can be used to stockpile topsoil for salvage.	M-208		B	X	
SEDIMENT CONTROL/ *SLOPE CONTROL* *Silt fence, erosion logs*	Placed on the contour of a slope to contain and slow down construction runoff. Place prior to the start of construction disturbances.	M-208		X	X	
TEMPORARY SEDIMENT TRAP	Used to capture sediment laden runoff from disturbed areas < 5 acres during construction. Place prior to the start of construction disturbances. Outlets that withdraw water from or near the surface may be installed when discharging from basins and impoundments.	M-208			X	
EMBANKMENT PROTECTION OR TEMPORARY SLOPE DRAIN	Placed as a conduit or chute to drain runoff down slope and to prevent erosion of slope.	M-208			X	X
OUTLET PROTECTION *Riprap, or approved other*	Material placed as an energy dissipater to prevent erosion at outlet structure.	M-601-12			X	X
CONCRETE WASHOUT *In-ground or fabricated*	Construction control, used for waste management of concrete and concrete equipment cleaning. Place prior to the start of concrete activities.	M-208		X	X	
VEHICLE TRACKING PAD	Source control, placed to prevent tracking of sediment from disturbed area to offsite surface. Place prior to the start of construction disturbances.	M-208		B	X	

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DEWATERING (Contractor is responsible for obtaining a permit from Colorado Dept. of Health and Environment.)	Shall be done in such a manner to prevent potential pollutants from entering state waters.			X	X	
CLEAN WATER DIVERSION	Placed to divert clean surface or groundwater around the disturbance area to prevent it from mixing with construction runoff.			X	X	
OTHER						

NON-STRUCTURAL Control Measures that may be potentially used on the project for erosion and sediment control; practices may include, but are not limited to: Erosion control devices are used to limit the amount of soil loss on site. Sediment control devices are designed to capture sediment on the project site. Construction controls are control measures related to construction access and staging. Control Measure locations are indicated on the SWMP Site Map.

* **Use of vegetative buffer strip requirements.** The CDPHE Water Quality Control Division Technical Memorandum dated August 27, 2015 clarifies the requirements for utilization of existing vegetation as a buffer type of sediment control measure, while maintaining compliance with the CDPS permit for Stormwater Discharges Associated with Construction Activity – CDPS Permit No. COR4000000. In general, the division does not recommend that vegetated buffers be implemented as a sediment removal control measure for runoff from disturbed areas at construction sites, unless implemented as a "finishing" component of a treatment train comprised of additional, adequate up-gradient Control Measures. The entire memorandum can be found at: **https://www.colorado.gov/pacific/sites/default/files/Vegetative%20Buffer%20Memo.pdf**

APPLICATION, CONTROL MEASURE	NARRATIVE	M-STANDARD or "For NON-STANDARD	IN USE ON SITE	CONTROL MEASURE IMPLEMENTATION PHASE		
				INITIAL ACTIVITY	INTERIM ACTIVITIES	PERMANENT STABILIZATION
** VEGETATIVE BUFFER STRIP Fence (plastic)*	Finishing component for filtering sediment-laden runoff from disturbance area. Area within CDOT ROW or temporary easement to be identified on SWMP prior to construction starting.			X	X	X
GRADING APPLICATIONS (LANDFORM)	Existing or created landforms may be used as a control measure if they prevent sediment from entering or leaving the disturbance area. If a landform directs flow of water to a concentrated outfall point, the outfall point shall be protected to prevent erosion. Area to be identified on SWMP prior to construction starting.	M-208		X	X	
TOPSOIL MANAGEMENT STOCKPILE/SALVAGE Windrow or stockpile	Prior to any site disturbance work commencing, existing topsoil shall be scraped to a depth six inches or as specified, and placed in stockpiles or windrows. Upon completion of final grading, topsoil shall be evenly distributed over embankment to a depth of six inches or as specified.	M-208		X	X	X
SURFACE ROUGHENING / GRADING TECHNIQUES	Temporary stabilization of disturbance and to minimize wind and erosion.				X	
SEEDING (TEMPORARY)	Temporary stabilization used for over wintering of disturbance or used to control erosion for areas scheduled for future construction.				X	
BONDED FIBER MATRIX or MULCHING (HYDRAULIC)	Not to be used in areas of concentrated flows, i.e. ditch lines. To be for either Interim or Permanent Stabilization placed as a surface cover for erosion control. May be used as surface cover when work is temporarily halted and as approved by the Engineer for stockpiles.				X	
Straw or Hay MULCH/MULCH TACKIFIER	Interim or Permanent Stabilization placed as a surface cover for erosion control and or seeding establishment. To be installed as Interim Stabilization as a surface cover when work is temporarily halted and as approved by the Engineer				X	X
SPRAY-ON MULCH BLANKET (Not to be used in areas of concentrated flows, i.e. ditch lines.)	Interim or Permanent Stabilization placed as a surface cover for erosion control and or seeding establishment. To be installed as temporary surface cover when work is temporarily halted and as approved by the Engineer				X	X
SEEDING PERMANENT (NATIVE PERENNIAL)	Permanent Stabilization of disturbance and to reduce runoff and control erosion on disturbed areas.					X
SOIL RETENTION BLANKET (SRB)	Permanent Stabilization of disturbance and to reduce runoff and control erosion on disturbed areas.	M-216			X	X
TURF REINFORCEMENT MAT (TRM)	Permanent Stabilization of disturbance and to reduce runoff and control erosion on disturbed areas. Placed in channels or on slopes for erosion control, channel liner and seeding establishment.	M-216				X
Sweeping	Source control, used to remove sediment tracked onto paved surfaces and to prevent sediment from entering drcinage system. Sweep daily and at the end of the construction shift as needed. Kick brooms shall not be permitted.			X	X	X
OTHER						

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AVANCE 3:37:10 PM pw:\\PWAPPDMA001:NorthCentral_Omaha\Documents\200716\0000000000260510\6.0_CAD_BIM\6.2_Work_In_Progress\Environmental\Drawings MAschool - SWMP\School Access SWMP_CDOT TEMP05.dgn

Print Date: 6/7/2022
File Name: School Access SWMP_CDOT TEMP05.dgn
Horiz. Scale: None Vert. Scale: None

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Sheet Revisions		
Date:	Comments	Init.

As Constructed
No Revisions:
Revised:
Void:

MONUMENT ACADEMY
SWMP/EROSION CONTROL NOTES

Designer: M.CHAVEZ
Detailer: M.CHAVEZ
Sheet Subset: SWNOTES
Structure Numbers:
Subset Sheets: 5 of 7

Project No./Code: 19734
STA 105A-014
Sheet Number 62 of 82

12. TABULATION OF STORMWATER QUANTITIES

A. Control Measure sediment removal and disposal shall be paid for as: 208 Removal and Disposal of Sediment (Labor). All other control measure maintenance shall be included in the cost of the control measure.

B. This project includes pay item 214-00008 Extended Landscape Preservation. Refer to the project specifications for all work to be performed during the extended landscape maintenance period for this project.

C. CDOT Pay Item shown for information only. Item Description corresponds to pay items listed in Statement of Approximate Quantities (SoAQ).

CDOT Pay Item	Description	Pay Unit	Initial Const.	Interim Const.	Permanent Stabilization	*Total Quantity
207-00702	Topsoil (Offsite)	CY			375	375
207-00703	Topsoil (Wetland)	CY			38	38
208-00002	Erosion Log Type 1 (12 inch)	LF	1000	750		1750
208-00020	Silt Fence	LF		80		80
208-00035	Aggregate Bag	LF	150	200		350
208-00045	Concrete Washout Structure	Each		2		2
208-00070	Vehicle Tracking Pad	Each		2		2
208-00071	**Maintenance Aggregate (Vehicle Tracking Pad)	CY		10		10
212-00700	Organic Fertilizer	Pounds			500	500
212-00701	Compost (Mechanically Applied)-	CY			55	55
212-00703	Humate	Pounds			165	165
212-00704	Mycorrhizae	Pounds			1	1
212-00705	Elemental Sulfur	Pounds			1	1
212-00706	Seeding (Native) Drill	Acre		0.15	0.65	1.0
212-00709	Seeding (Wetland) Broadcast	Acre			.06	0.10
213-00003	Mulching (Weed Free)	Acre		0.2	0.8	1.0
213-00061	Mulch Tackifier	LB		40	160	200
214-00008	Extended Landscape Preservation	LS				1
216-00222	Soil Retention Blanket (Coconut) (Biodegradable Class 2)	SY		250	500	750
607-11525	Fence (Plastic)	LF	750	750		1500
700-90026	F/A Landscaping	FA			1	1

*It is anticipated that additional control measures and control measure quantities not shown on the SWMP Site Maps shall be required on the project for unforeseen conditions and replacement of items that are beyond their useful service life, see subsections 208.03 and 208.04. **Quantities for all control measures shown above are estimated, and have been increased for unforeseen conditions and normal control measure life expectancy.** Quantities shall be adjusted according to the conditions encountered in the field as directed and approved by the Engineer. Payment shall be for the actual work completed and material used.

**CDOT Pay Item 208-00071 is included for anticipated maintenance of vehicle tracking pads based on the service life of the control measure in the field. The use of the material shall be directed and approved by the Engineer.

*** F/A refers to CDOT's Force Account Pay Items.

13. BIOLOGICAL IMPACTS and DEWATERING

A. ENVIRONMENTAL IMPACTS:
1. Wetland Impacts: **YES**
2. Stream Impacts: **NO**
3. Threatened and Endangered Species: **YES**. Contractor to coordinate with the biologist or environmental specialist. Identify sensitive habitat/areas impacted by the project or areas to avoid by construction activities with orange plastic construction fencing.

B. DEWATERING: (Not covered under the *CDPHE* guidance document *Low Risk Discharge Guidance Discharges of Uncontaminated Groundwater to Land*):
https://www.colorado.gov/pacific/sites/default/files/WQ%20LOW%20RISK%20GW.pdf
1. Dewatering: Refer to other environmental permits in accordance with subsection 107.02 and the permits contained in Tab 16 of the SWMP.
2. If groundwater does not meet water quality standards for receiving water a separate CDPS Dewatering Permit shall be obtained by the Contractor from CDPHE in accordance with subsections 107.02 and 107.25.

14. NOTES

A. All references to specification sections, subsections, and definitions are for CDOT Road and Bridge Construction Manual (2021).
B. Tabulation of Quantities shown by project phase in project SoAQ.
C. Seeding and related quantities multiplied by 1.2 and rounded to account for unforeseen conditions.

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STANDARD NOTES FOR EL PASO COUNTY GRADING AND EROSION CONTROL PLANS

REVISED OCTOBER 2021

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

2. NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS TO REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING.

3. 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. DURING CONSTRUCTION THE SWMP IS THE RESPONSIBILITY OF THE DESIGNATED QUALIFIED STORMWATER MANAGER OR CERTIFIED EROSION CONTROL INSPECTOR AND SHALL BE LOCATED ON SITE AT ALL TIMES DURING CONSTRUCTION AND SHALL BE KEPT UP TO DATE WITH WORK PROGRESS AND CHANGES IN THE FIELD.

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

5. CONTROL MEASURES MUST BE INSTALLED PRIOR TO COMMENCEMENT OF ACTIVITIES THAT MAY CONTRIBUTE POLLUTANTS TO STORMWATER. TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREA SHALL BE COMPLETED IMMEDIATELY UPON COMPLETION OF THE DISTURBANCE.

6. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE MAINTAINED AND REMAIN IN EFFECTIVE OPERATING CONDITION UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND FINAL STABILIZATION IS ESTABLISHED. ALL PERSONS ENGAGED IN LAND DISTURBANCE ACTIVITIES SHALL ASSESS THE ADEQUACY OF CONTROL MEASURES AT THE SITE AND IDENTIFY IF CHANGES TO THOSE CONTROL MEASURES ARE NEEDED TO ENSURE THE CONTINUED EFFECTIVE PERFORMANCE OF THE CONTROL MEASURES. ALL CHANGES TO TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES MUST BE INCORPORATED INTO THE STORMWATER MANAGEMENT PLAN.

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

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

9. ALL PERMANENT STORMWATER MANAGEMENT FACILITIES SHALL BE INSTALLED AS DESIGNED IN THE APPROVED PLANS. ANY PROPOSED CHANGES THAT EFFECT THE HYDROLOGY OR HYDRAULICS OF A 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 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 RUNOFF TO STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES. CONCRETE WASHOUTS SHALL NOT BE LOCATED IN AN AREA WHERE SHALLOW GROUNDWATER MAY BE PRESENT, OR WITHIN 50 FEET OF A SURFACE WATER BODY, CREEK OR STREAM.

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

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

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

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

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

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

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

21. NO CHEMICAL(S) HAVING THE POTENTIAL TO BE RELEASED IN STORMWATER ARE TO BE STORED OR USED ON-SITE 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 AND PREVENT ANY SPILLED MATERIAL FROM ENTERING STATE WATERS, ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR OTHER FACILITIES.

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

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

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

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

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

28. THE SOILS REPORT FOR THIS SITE HAS BEEN PREPARED BY SHANNON & WILSON INC, FEBRUARY 2022, AND SHALL BE CONSIDERED A PART OF THESE PLANS.

29. AT LEAST TEN (10) DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB ONE (1) ACRE OR MORE, THE OWNER OR OPERATOR OF CONSTRUCTION ACTIVITY SHALL SUBMIT A PERMIT APPLICATION FOR STORMWATER DISCHARGE TO THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, WATER QUALITY DIVISION. THE APPLICATION CONTAINS CERTIFICATION OF COMPLETION OF A STORMWATER MANAGEMENT PLAN (SWMP), OF WHICH THIS GRADING AND EROSION CONTROL PLAN MAY BE A PART.

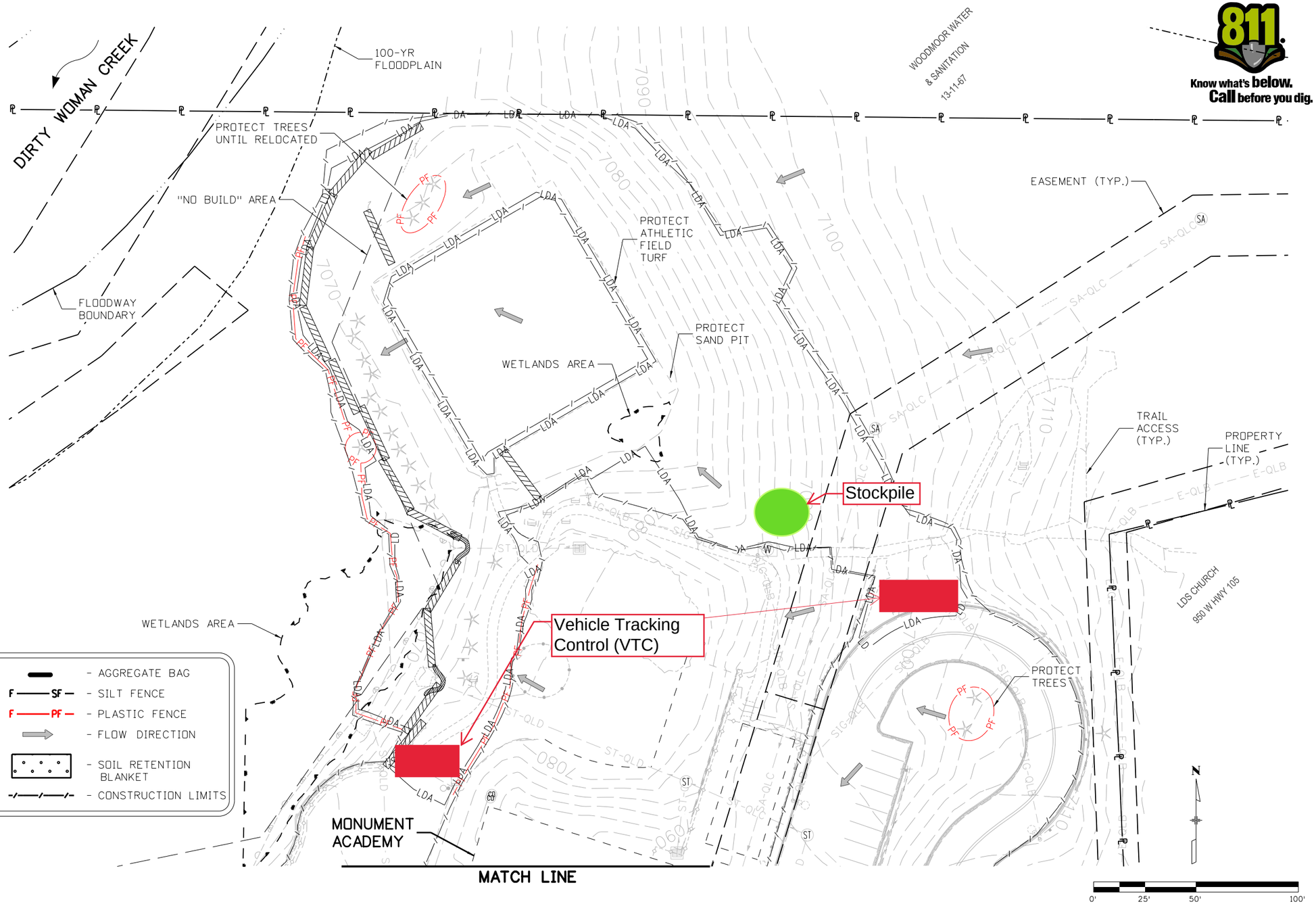
FOR INFORMATION OR APPLICATION MATERIALS CONTACT:
COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT
WATER QUALITY CONTROL DIVISION, WQCD - PERMITS
4300 CHERRY CREEK DRIVE SOUTH, DENVER, CO 80246-1530
ATTN: PERMITS UNIT

COLORADO LICENSED
ELIZABETH M. STATEN
38974
06/07/2022
PROFESSIONAL ENGINEER

Print Date: 6/7/2022	Sheet Revisions			As Constructed	MONUMENT ACADEMY SWMP / EROSION CONTROL NOTES	Project No./Code
File Name: School Access SWMP_NOTES_2.dgn	Date:	Comments	Init.	No Revisions:		19734
Horiz. Scale: None Vert. Scale: None				Revised:	Designer: M. CHAVEZ / Structure Numbers	STA 105A-014
HDR 5555 TECH CENTER DRIVE, SUITE 310 COLORADO SPRINGS, CO 80919 PHONE: 719-272-8800				Void:	Detailer: M. CHAVEZ / Sheet Subset: SWMP / Subset Sheets: 9 of 9	Sheet Number 64 of 82

NOTES:

1. SEE SWMP NOTES AND EROSION CONTROL NOTES FOR ADDITIONAL INFORMATION.
2. SEE SWMP/EROSION CONTROL BMP DETAILS FOR ADDITIONAL INFORMATION.
3. LOCATIONS FOR VEHICLE TRACKING PADS, CONCRETE WASHOUT AREA, SOIL STOCKPILES AND TEMPORARY DISPOSAL AREAS TO BE DETERMINED BY CONTRACTOR.
4. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL DOCUMENT EXISTING VEGETATION WHERE ALL WORK WILL BE OCCURRING BY DESCRIPTION AND PERCENT OF VEGETATIVE COVER.
5. NO BATCH PLANTS WILL BE UTILIZED ON SITE.



Know what's below. Call before you dig.

Print Date: 6/7/2022	Sheet Revisions		
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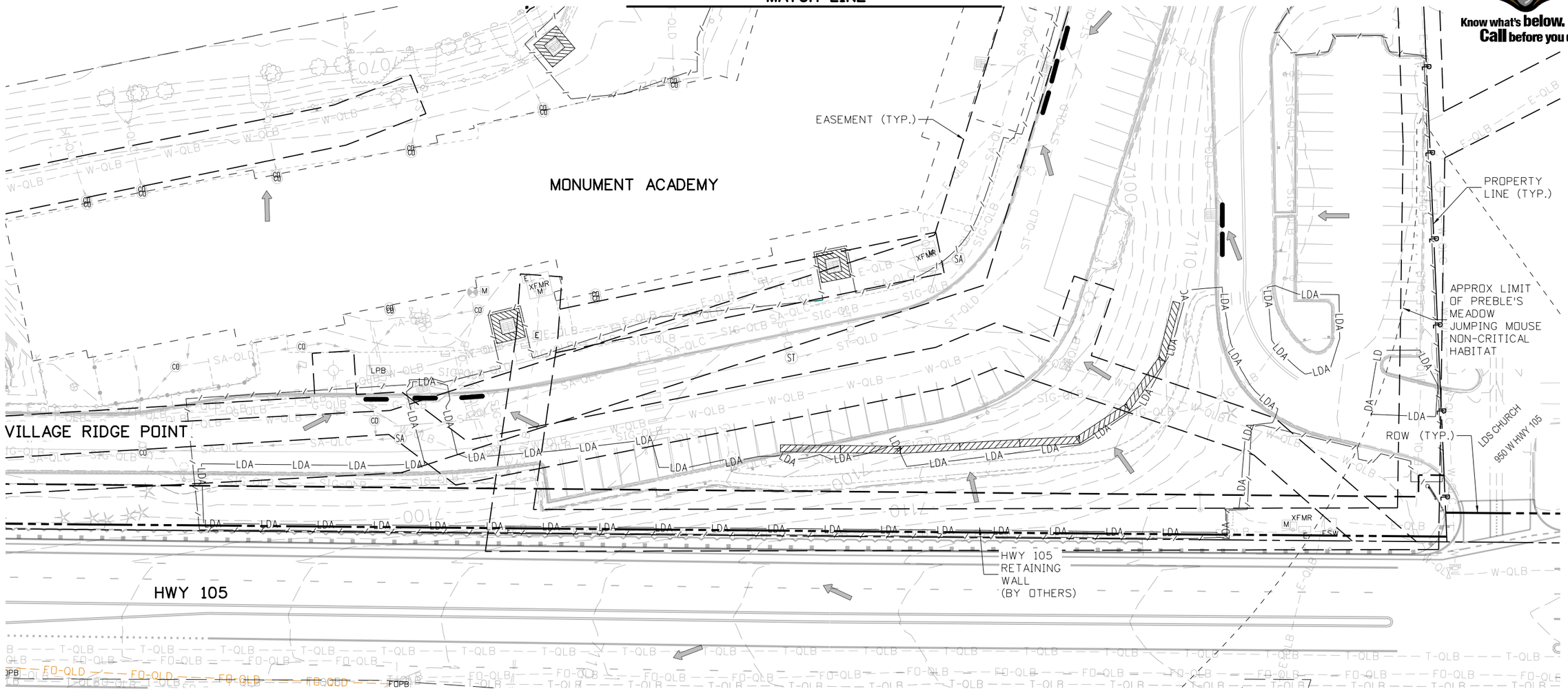
Horiz. Scale: 1:50 Vert. Scale: None			
5555 TECH CENTER DRIVE, SUITE 310 COLORADO SPRINGS, CO 80919 PHONE: 719-272-8800			

As Constructed
No Revisions:
Revised:
Void:

MONUMENT ACADEMY
SWMP / EROSION CONTROL
SITE MAP - INITIAL (1 OF 2)

Designer:	M.CHAVEZ	Structure Numbers	
Detailer:	M.CHAVEZ		
Sheet Subset:	SWMPMAP	Subset Sheets:	1 of 6

Project No./Code: 19734
STA 105A-014
Sheet Number 65 of 82



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2. SEE SWMP/EROSION CONTROL BMP DETAILS FOR ADDITIONAL INFORMATION.
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- EROSION LOG (12") CULVERT PROTECTION
- EROSION LOG (12") INLET PROTECTION
- EROSION LOG (12") SEDIMENT CONTROL
- RIPRAP, SEE DRAINAGE PLANS
- LDA — LIMITS DISTURBED AREA
- AGGREGATE BAG
- F — SF — SILT FENCE
- F — PF — PLASTIC FENCE
- FLOW DIRECTION
- SOIL RETENTION BLANKET
- CONSTRUCTION LIMITS

N

0' 25' 50' 100'

Print Date: 6/7/2022
File Name: School Access SWMP_Initial_SiteMap_02.dgn
Horiz. Scale: 1:50 Vert. Scale: None

HDR
5555 TECH CENTER DRIVE, SUITE 310
COLORADO SPRINGS, CO 80919 PHONE: 719-272-8800

Sheet Revisions		
Date:	Comments	Init.

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As Constructed
No Revisions:
Revised:
Void:

MONUMENT ACADEMY
SWMP / EROSION CONTROL
SITE MAP - INITIAL (2 OF 2)

Designer:	M.CHAVEZ	Structure Numbers	
Detailer:	M.CHAVEZ		
Sheet Subset:	SWMPMAP	Subset Sheets:	2 of 6

Project No./Code
19734
STA 105A-014
Sheet Number 66 of 82

NOTES:

1. SEE SWMP NOTES AND EROSION CONTROL NOTES FOR ADDITIONAL INFORMATION.
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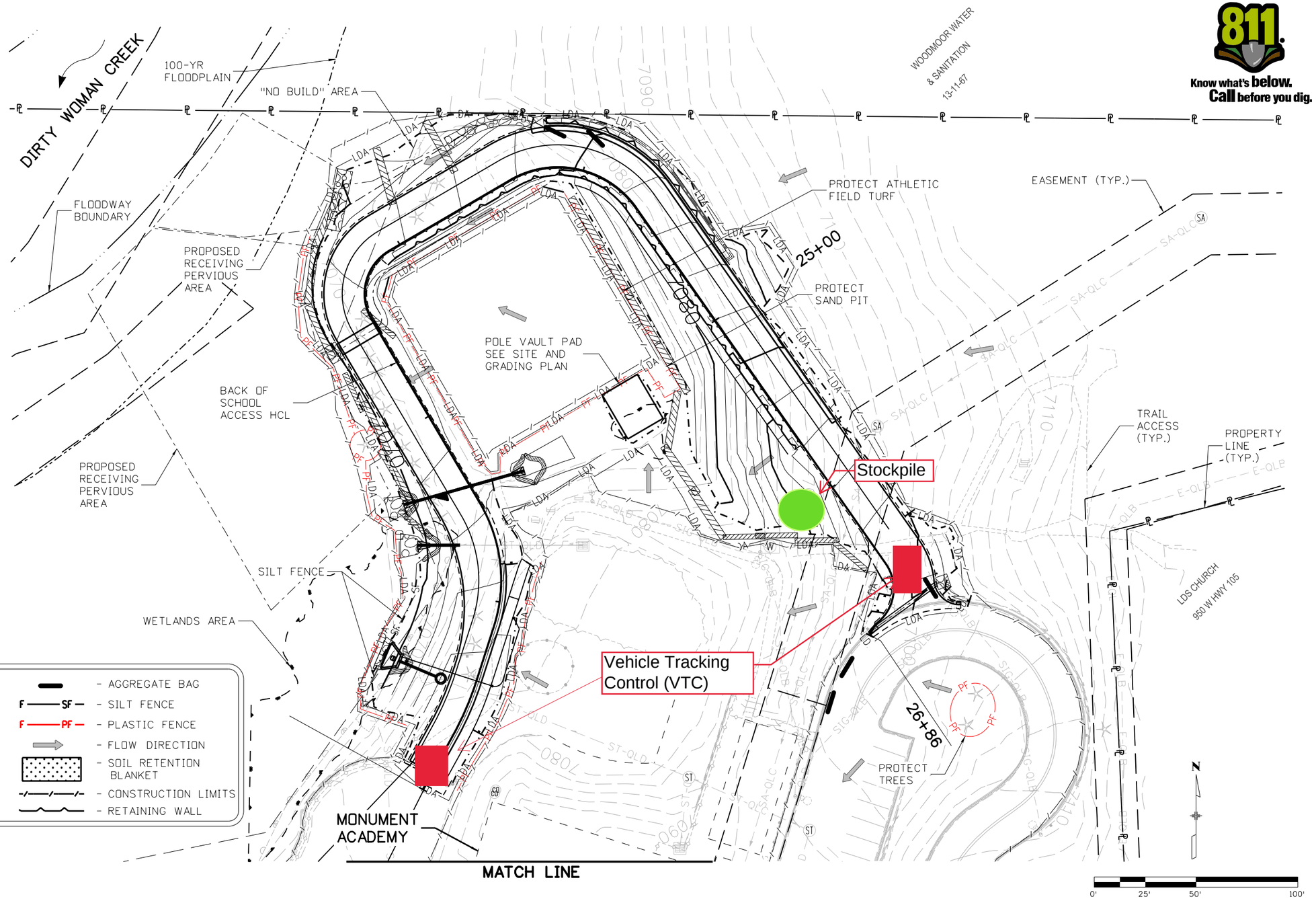

- EROSION LOG (12") CULVERT PROTECTION
- EROSION LOG (12") INLET PROTECTION
- EROSION LOG (12") SEDIMENT CONTROL
- RIPRAP, SEE DRAINAGE PLANS
- LIMITS DISTURBED AREA
- AGGREGATE BAG
- SILT FENCE
- PLASTIC FENCE
- FLOW DIRECTION
- SOIL RETENTION BLANKET
- CONSTRUCTION LIMITS
- RETAINING WALL

Know what's below. Call before you dig.

Print Date:	6/7/2022
File Name:	School Access SWMP_Interim_SiteMap_03.dgn
Horiz. Scale:	1:50
Vert. Scale:	None

5555 TECH CENTER DRIVE, SUITE 310
COLORADO SPRINGS, CO 80919 PHONE: 719-272-8800

Sheet Revisions		
Date:	Comments	Init.

As Constructed

No Revisions:	
Revised:	
Void:	

MONUMENT ACADEMY
SWMP / EROSION CONTROL
SITE MAP - INTERIM (1 OF 2)

Designer:	M.CHAVEZ	Structure Numbers	
Detailer:	M.CHAVEZ		
Sheet Subset:	SWMPMAP	Subset Sheets:	3 of 6

Project No./Code	
19734	
STA 105A-014	
Sheet Number	67 of 82

AVANCE 3:37:33 PM pw:\\PWAPPDMA001:NorthCentral_Omaha\Documents\200716\00000000002605 10\6.0_CAD_BIM\6.2_Work_In_Progress\Environmental\Drawings MAschool - SWMP\School Access SWMP_Interim_SiteMap_03.dgn

MATCH LINE

MONUMENT ACADEMY

EASEMENT (TYP.)

PROPERTY LINE (TYP.)

APPROX LIMIT OF PREBLE'S MEADOW JUMPING MOUSE NON-CRITICAL HABITAT

VILLAGE RIDGE POINT

HWY 105

LDS CHURCH
950 W HWY 105

ROW (TYP.)

11+00

15+00

17+01

7100

7110

FRONT OF SCHOOL ACCESS HCL

HWY 105 RETAINING WALL (BY OTHERS)

NOTES:

1. SEE SWMP NOTES AND EROSION CONTROL NOTES FOR ADDITIONAL INFORMATION.
2. SEE SWMP/EROSION CONTROL BMP DETAILS FOR ADDITIONAL INFORMATION.
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- AGGREGATE BAG
- F — SF — SILT FENCE
- F — PF — PLASTIC FENCE
- FLOW DIRECTION
- SOIL RETENTION BLANKET
- CONSTRUCTION LIMITS

N

0' 25' 50' 100'

Print Date: 6/7/2022
File Name: School Access SWMP_Interim_SiteMap_04.dgn
Horiz. Scale: 1:50 Vert. Scale: None

5555 TECH CENTER DRIVE, SUITE 310
COLORADO SPRINGS, CO 80919 PHONE: 719-272-8800

Sheet Revisions		
Date:	Comments	Init.

As Constructed
No Revisions:
Revised:
Void:

MONUMENT ACADEMY
SWMP / EROSION CONTROL
SITE MAP - INTERIM (2 OF 2)

Designer: M.CHAVEZ
Detailer: M.CHAVEZ
Sheet Subset: SWMPMAP
Structure Numbers:
Subset Sheets: 4 of 6

Project No./Code: 19734
STA 105A-014
Sheet Number 68 of 82

NOTES:

1. SEE SWMP NOTES AND EROSION CONTROL NOTES FOR ADDITIONAL INFORMATION.
2. SEE SWMP/EROSION CONTROL BMP DETAILS FOR ADDITIONAL INFORMATION.
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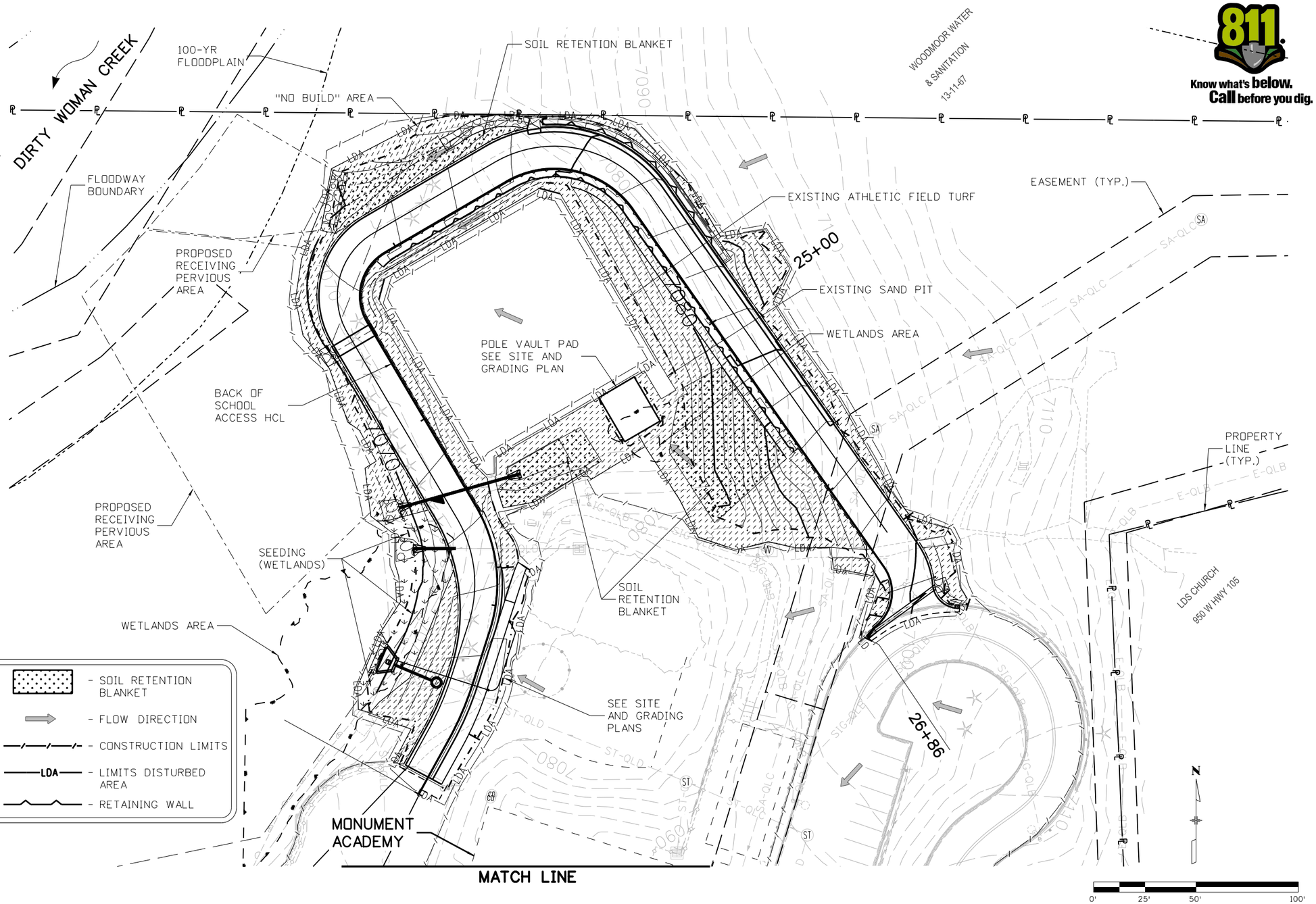
4. SEE SITE AND GRADING PLAN SHEETS FOR ADDITIONAL INFORMATION.



Know what's below. Call before you dig.

Print Date: 6/7/2022	Sheet Revisions	As Constructed
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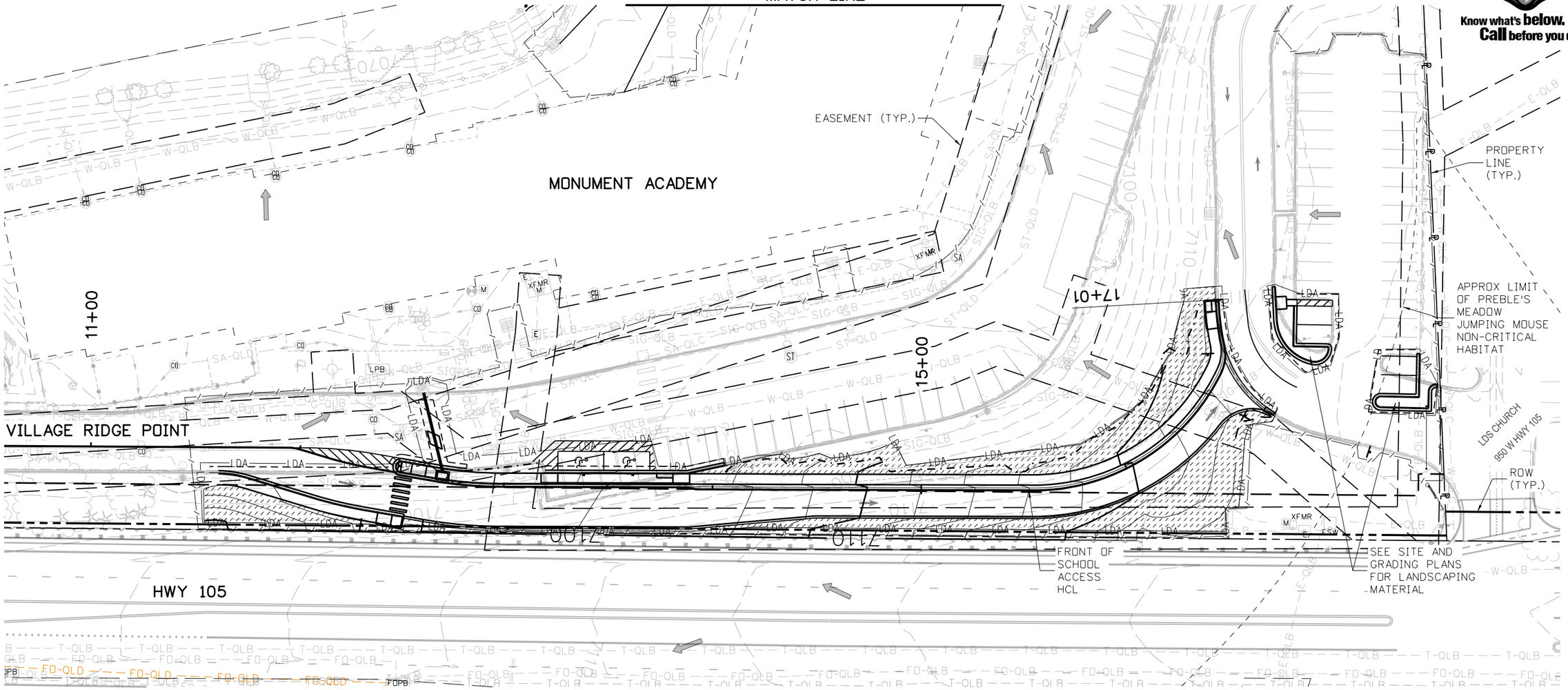
Horiz. Scale: 1:50 Vert. Scale: None		Revised:
5555 TECH CENTER DRIVE, SUITE 310 COLORADO SPRINGS, CO 80919 PHONE: 719-272-8800		Void:

MONUMENT ACADEMY
SWMP / EROSION CONTROL
SITE MAP - FINAL (1 OF 2)

Designer:	M.CHAVEZ	Structure Numbers	
Detailer:	M.CHAVEZ		
Sheet Subset:	SWMPMAP	Subset Sheets:	5 of 6

Project No./Code: 19734
STA 105A-014
Sheet Number 69 of 82



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4. SEE SITE AND GRADING PLAN SHEETS FOR ADDITIONAL INFORMATION.

- RIPRAP, SEE DRAINAGE PLANS
- SEEDING (WETLANDS)
- SEEDING (NATIVE)
- SOIL RETENTION BLANKET
- FLOW DIRECTION
- CONSTRUCTION LIMITS
- LDA — LIMITS DISTURBED AREA

N

0' 25' 50' 100'

Print Date: 6/7/2022	Sheet Revisions		
File Name: School Access SWMP_Final_SiteMap_06.dgn	Date:	Comments	Init.
Horiz. Scale: 1:50 Vert. Scale: None			
FDR 5555 TECH CENTER DRIVE, SUITE 310 COLORADO Ssprings, CO 80919 PHONE: 719-272-8800			

As Constructed	MONUMENT ACADEMY SWMP / EROSION CONTROL SITE MAP - FINAL (2 OF 2)		Project No./Code
No Revisions:			19734
Revised:	Designer: M.CHAVEZ	Structure Numbers:	STA 105A-014
Void:	Detailer: M.CHAVEZ		Sheet Number 70 of 82
	Sheet Subset: SWMPMAP	Subset Sheets: 6 of 6	

APPENDIX B – PERMITS

STATE OF COLORADO

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Water Quality Control Division

CDPS GENERAL PERMIT STORMWATER DISCHARGES ASSOCIATED WITH

CONSTRUCTION ACTIVITY AUTHORIZATION TO DISCHARGE UNDER THE COLORADO DISCHARGE PERMIT SYSTEM (CDPS)

COR400000

In compliance with the provisions of the Colorado Water Quality Control Act, (25-8-101 et seq., CRS, 1973 as amended) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq.; the "Act"), this permit authorizes the discharge of stormwater associated with construction activities (and specific allowable non-stormwater discharges in accordance with Part I.A.1. of the permit) certified under this permit, from those locations specified throughout the State of Colorado to specified waters of the State.

Such discharges shall be in accordance with the conditions of this permit. This permit specifically authorizes the facility listed on the certification to discharge in accordance with permit requirements and conditions set forth in Parts I and II hereof. All discharges authorized herein shall be consistent with the terms and conditions of this permit.

This permit becomes effective on April 1, 2019, and shall expire at midnight March 31, 2024.

Issued and signed this 28th day of January, 2021.

Meg Parish

Meg Parish, Permits Section Manager Water Quality Control Division

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Permit History
Minor Modification Issued January 28, 2021 Effective February 1, 2021
Modification Issued December 31, 2020 Effective February 1, 2021
Originally signed and issued October 31, 2018; effective April 1, 2019

Table of Contents

Part I

Note: At the first mention of terminology that has a specific connotation for the purposes of this permit, the terminology is electronically linked to the definitions section of the permit in Part I.E.

A. COVERAGE UNDER THIS PERMIT

1. Authorized Discharges

This general permit authorizes permittee(s) to discharge the following to state waters: stormwater associated with construction activity and specified non-stormwater associated with construction activity. The following types of stormwater and non-stormwater discharges are authorized under this permit:

a. Allowable Stormwater Discharges

i. Stormwater discharges associated with construction activity.

ii. Stormwater discharges associated with producing earthen materials, such as soils, sand, and gravel dedicated to providing material to a single contiguous site, or within ¼ mile of a construction site (e.g. borrow or fill areas).

iii. Stormwater discharges associated with dedicated asphalt, concrete batch plants and masonry mixing stations (Coverage under this permit is not required if alternative coverage has been obtained.)

b. Allowable Non-Stormwater Discharges

The following non-stormwater discharges are allowable under this permit if the discharges are identified in the stormwater management plan in accordance with Part I.C and if they have appropriate control measures in accordance with Part I.B.1.

i. Discharges from uncontaminated springs that do not originate from an area of land disturbance.

ii. Discharges to the ground of concrete washout water associated with the washing of concrete tools and concrete mixer chutes. Discharges of concrete washout water must not leave the site as surface runoff or reach receiving waters as defined by this permit. Concrete on-site waste disposal is not authorized by this permit except in accordance with Part I.B.1.a.ii(b).

iii. Discharges of landscape irrigation return flow.

iv. Discharges from diversions of state waters within the permitted site.

c. Emergency Fire Fighting

Discharges resulting from emergency firefighting activities during the active emergency response are authorized by this permit.

2. Limitations on Coverage

Discharges not authorized by this permit include, but are not limited to, the discharges and activities listed below. Permittees may seek individual or alternate general permit coverage for the discharges, as appropriate and available.

a. Discharges of Non-Stormwater

Discharges of non-stormwater, except the authorized non-stormwater discharges listed in Part

I.A.1.b., are not eligible for coverage under this permit.

b. Discharges Currently Covered by another Individual or General Permit

c. Discharges Currently Covered by a Water Quality Control Division (division) Low Risk Guidance Document

3. Permit Certification and Submittal Procedures

a. Duty to Apply

The following activities shall apply for coverage under this permit:

i. Construction activity that will disturb one acre or more; or

ii. Construction activity that is part of a common plan of development or sale; or

iii. Stormwater discharges that are designated by the division as needing a stormwater permit because the discharge:

(a) Contributes to a violation of a water quality standard; or

(b) Is a significant contributor of pollutants to state waters.

b. Application Requirements

To obtain authorization to discharge under this permit, applicants applying for coverage following the effective date of the renewal permit shall meet the following requirements:

i. Owners and operators submitting an application for permit coverage will be co- permittees subject to the same benefits, duties, and obligations under this permit.

ii. Signature requirements: Both the owner and operator (permittee) of the construction site, as defined in Part I.E., must agree to the terms and conditions of the permit and submit a completed application that includes the signature of both the owner and the operator. In cases where the duties of the owner and operator are managed by the owner, both application signatures may be completed by the owner. Both the owner and operator are responsible for ensuring compliance with all terms and conditions of the permit, including implementation of the stormwater management plan.

iii. The applicant(s) must develop a stormwater management plan (SWMP) in accordance with the requirements of Part I.C. The applicant(s) must also certify that the SWMP is complete, or will be complete, prior to commencement of any construction activity.

iv. In order to apply for certification under this general permit, the applicant(s) must submit a complete, accurate, and signed permit application form as provided by the division by electronic delivery at least 10 days prior to the commencement of construction activity, except those construction activities that are in response to a public emergency related site; public emergency related sites shall apply for coverage no later than 14 days after the commencement of construction activities. The provisions of this part in no way remove a violation of the Colorado Water Quality Control Act if a point source discharge occurs prior to the issuance of a CDPS permit.

v. The application in its entirety must be submitted via the division's online permitting system unless a waiver is granted by the division. If a waiver is granted, the application in its entirety, including signatures by both the owner and operator, must be submitted to:

Colorado Department of Public Health and Environment
Water Quality Control Division
Permits Section, WQCD-PS-B2
4300 Cherry Creek Drive South
Denver, CO 80246

vi. The applicant(s) must receive written notification that the division granted permit coverage prior to conducting construction activities except for construction activities that are in response to a public emergency related site.

c. Division Review of Permit Application

Within 10 days of receipt of the application, and following review of the application, the division may:

i. Issue a certification of coverage;

ii. Request additional information necessary to evaluate the discharge;

iii. Delay the authorization to discharge pending further review;

iv. Notify the applicant that additional terms and conditions are necessary; or

v. Deny the authorization to discharge under this general permit.

d. Alternative Permit Coverage

i. Division Required Alternative Permit Coverage:

The division may require an applicant or permittee to apply for an individual permit or an alternative general permit if it determines the discharge does not fall under the scope of this general permit, including if any additional terms and conditions are necessary in order to ensure that discharges authorized by this permit shall not cause, have the reasonable potential to cause, or measurably contribute to an exceedance of any applicable water quality standard, including narrative standards for water quality. In this case, the division will notify the applicant or permittee that an individual permit application is required.

ii. Permittee Request for Alternative Permit Coverage:

A permittee authorized to discharge stormwater under this permit may request to be excluded from coverage under this general permit by applying for an individual permit. In this case, the permittee must submit an individual application, with reasons supporting the request, to the division at least 180 days prior to any discharge. When an individual permit is issued, the permittee's authorization to discharge under this permit is terminated on the effective date of the individual permit.

e. Submittal Signature Requirements

Documents required for submittal to the division in accordance with this permit, including applications for permit coverage and other documents as requested by the division, must include signatures by **both** the owner and the operator, except for instances where the duties of the owner and operator are managed by the owner.

Signatures on all documents submitted to the division as required by this permit must meet the Standard Signatory Requirements in Part II.K of this permit in accordance with 40 C.F.R. 122.41(k).

i. Signature Certification

Any person(s) signing documents required for submittal to the division must make the following

certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

f. Compliance Document Signature Requirements

Documents which are required for compliance with the permit, but for which submittal to the division is not required unless specifically requested by the division, must be signed by the individual(s) designated as the Qualified Stormwater Manager, as defined in Part I.E.

i. Any person(s) signing inspection documents required for compliance with the permit per Part I.D.5.c.xiii must make the following statement and provide the date of the statement:

"I verify that, to the best of my knowledge and belief, that if any corrective action items were identified during the inspection, those corrective actions are complete, and the site is currently in compliance with the permit."

g. Field Wide Permit Coverage for Oil and Gas Construction

At the discretion of the division, a single permit certification may be issued to a single oil and gas permittee to cover construction activity related discharges from an oil and gas field at multiple locations that are not necessarily contiguous.

h. Permit Coverage without Application

Qualifying Local Program: When a small construction site is within the jurisdiction of a qualifying local program, the owner and operator of the construction activity are authorized to discharge stormwater associated with small construction activity under this general permit without the submittal of an application to the division. Sites covered by a qualifying local program are exempt from the following sections of this general permit: Part I.A.3.a.; Part I.A.3.b.; Part I.A.3.c.; Part I.A.3.d.; Part I.A.3.g.; Part I.A.3.i.; Part I.A.3.j.; Part I.A.3.k.

Sites covered by a qualifying local program are subject to the following requirements:

i. Local Agency Authority: This permit does not pre-empt or supersede the authority of local agencies to prohibit, restrict, or control discharges of stormwater to storm drain systems or other water courses within their jurisdiction.

ii. Permit Coverage Termination: When a site under a Qualifying Local Program is finally stabilized, coverage under this permit is automatically terminated.

iii. Compliance with Qualifying Local Program: Qualifying Local Program requirements that are equivalent to the requirements of this permit are incorporated by reference. Permittees authorized to discharge under this permit, must comply with the equivalent requirements of the Qualifying Local Program that has jurisdiction over the site as a condition of this permit.

iv. Compliance with Remaining Permit Conditions. Requirements of this permit that are in addition to or more stringent than the requirements of the Qualifying Local Program apply in addition to the requirements of the Qualifying Local Program.

v. Written Authorization of Coverage: The division or local municipality may require any permittee within the jurisdiction of a Qualifying Local Program covered under this permit to

apply for, and obtain written authorization of coverage under this permit. The permittee must be notified in writing that an application for written authorization of coverage is required.

i. Permittee Initiated Permit Actions

Permittee initiated permit actions, including but not limited to modifications, contact changes, transfers, and terminations, shall be conducted following Part II.L, division guidance and using appropriate division-provided forms.

j. Sale of Residence to Homeowner

Residential construction sites only: The permittee may remove residential lots from permit coverage once the lot meets the following criteria:

i. The residential lot has been sold to the homeowner(s) for private residential use;

ii. A certificate of occupancy, or equivalent, is maintained on-site and is available during division inspections;

iii. The lot is less than one acre of disturbance;

iv. All construction activity conducted on the lot by the permittee is complete;

v. The permittee is not responsible for final stabilization of the lot; and

vi. The SWMP was modified to indicate the lot is no longer part of the construction activity.

If the residential lot meets the criteria listed above then activities occurring on the lot are no longer considered to be construction activities with a duty to apply and maintain permit coverage. Therefore, the permittee is not required to meet the final stabilization requirements and may terminate permit coverage for the lot.

k. Permit Expiration and Continuation of Permit Coverage

Authorization to discharge under this general permit shall expire at midnight on March 31, 2024. While Regulation 61.4 requires a permittee to submit an application for continuing permit coverage 180 days before the permit expires, the division is requiring that permittees desiring continued coverage under this general permit must reapply at least 90 days in advance of this permit expiration. The division will determine if the permittee may continue to discharge stormwater under the terms of the general permit. An individual permit may be required for any facility not reauthorized to discharge under the reissued general permit.

If this permit is not reissued or replaced prior to the expiration date, it will be administratively continued and remain in force and effect. For permittees that have applied for continued permit coverage, discharges authorized under this permit prior to the expiration date will automatically remain covered by this permit until the earliest of:

i. An authorization to discharge under a reissued permit, or a replacement of this permit, following the timely and appropriate submittal of a complete application requesting authorization to discharge under the new permit and compliance with the requirements of the new permit; or

ii. The issuance and effect of a termination issued by the division; or

iii. The issuance or denial of an individual permit for the facility's discharges; or

iv. A formal permit decision by the division not to reissue this general permit, at which time the division will identify a reasonable time period for covered dischargers to seek coverage under

an alternative general permit or an individual permit. Coverage under this permit will cease when coverage under another permit is granted/authorized; or

v. The division has informed the permittee that discharges previously authorized under this permit are no longer covered under this permit.

B. EFFLUENT LIMITATIONS

1. Requirements for Control Measures Used to Meet Effluent Limitations

The permittee must implement control measures to minimize the discharge of pollutants from all potential pollutant sources at the site. Control measures must be installed prior to commencement of construction activities. Control measures must be selected, designed, installed and maintained in accordance with good engineering, hydrologic and pollution control practices. Control measures implemented at the site must be designed to prevent pollution or degradation of state waters.

a. Stormwater Pollution Prevention

The permittee must implement structural and/or nonstructural control measures that effectively minimize erosion, sediment transport, and the release of other pollutants related to construction activity.

i. Control Measures for Erosion and Sediment Control

Control measures for erosion and sediment control may include, but are not limited to, wattles/sediment control logs, silt fences, earthen dikes, drainage swales, sediment traps, subsurface drains, pipe slope drains, inlet protection, outlet protection, gabions, sediment basins, temporary vegetation, permanent vegetation, mulching, geotextiles, sod stabilization, slope roughening, maintaining existing vegetation, protection of trees, and preservation of mature vegetation.

Specific control measures must meet the requirements listed below.

(a) Structural and nonstructural vehicle tracking controls shall be implemented to minimize vehicle tracking of sediment from disturbed areas and may include tracking pads, minimizing site access, wash racks, graveled parking areas, maintaining vehicle traffic to paved areas, street sweeping and sediment control measures.

(b) Stormwater runoff from all disturbed areas and soil storage areas must utilize or flow to one or more control measures to minimize erosion or sediment in the discharge. The control measure(s) must be selected, designed, installed and adequately sized in accordance with good engineering, hydrologic and pollution control practices for the intended application. The control measure(s) must contain or filter flows in order to prevent the bypass of flows without treatment and must be appropriate for stormwater runoff from disturbed areas and for the expected flow rate, duration, and flow conditions (e.g. sheet or concentrated flow).

(c) Selection of control measures should prioritize the use of structural and nonstructural control measures that minimize the potential for erosion (i.e. covering materials). Selection should also prioritize phasing construction activities to minimize the amount of soil disturbance at any point in time throughout the duration of construction.

(d) Outlets that withdraw water from or near the surface shall be installed when discharging from basins and impoundments, unless infeasible.

(e) Maintain pre-existing vegetation or equivalent control measures for areas within 50 horizontal feet of receiving waters as defined by this permit, unless infeasible.

(f) Soil compaction must be minimized for areas where infiltration control measures will occur or where final stabilization will be achieved through vegetative cover.

(g) Unless infeasible, topsoil shall be preserved for those areas of a site that will utilize vegetative final stabilization.

(h) Minimize the amount of soil exposed during construction activity, including the disturbance of steep slopes.

(i) Diversion control measures must minimize soil transport and erosion within the entire diversion, minimize erosion during discharge, and minimize run-on into the diversion. The permittee must minimize the discharge of pollutants throughout the installation, implementation and removal of the diversion. Diversions must meet one or more of the following conditions:

(1) Lined or piped structures that result in no erosion in all flow conditions.

(2) Diversion channels, berms, and coffer dams must be lined or composed of a material that minimizes potential for soil loss in the entire wetted perimeter during anticipated flow conditions (e.g. vegetated swale, non-erosive soil substrate). The entire length of the diversion channel must be designed with all of the following considerations: maximum flow velocity for the type of material(s) exposed to the anticipated flows to ensure that the calculated maximum shear stress of flows in the channel is not expected to result in physical damage to the channel or liner and result in discharge of pollutants. Additionally, the conditions relied on to minimize soil loss must be maintained for the projected life of the diversion (i.e. a vegetated swale must be limited to a period of time that ensures vegetative growth, minimizes erosion and maintains stable conditions).

(3) An alternative diversion criteria, approved by the division prior to implementation. The diversion method must be designed to minimize the discharge of pollutants and to prevent the potential for pollution or degradation to state waters as a result of the diverted flow through the diversion structure. In addition, the alternative diversion method must minimize the discharge of pollutants throughout the installation, implementation and removal of the diversion.

ii. Practices for Other Common Pollutants

(a) Bulk storage, individual containers of 55 gallons or greater, for petroleum products and other liquid chemicals must have secondary containment, or equivalent protection, in order to contain spills and to prevent spilled material from entering state waters.

(b) Control measures designed for concrete washout waste must be implemented. This includes washout waste discharged to the ground as authorized under this permit and washout waste from concrete trucks and masonry operations contained on site. The permittee must ensure the washing activities do not contribute pollutants to stormwater runoff, or receiving waters in accordance Part I.A.1.b.ii. Discharges that may reach groundwater must flow through soil that has buffering capacity prior to reaching groundwater, as necessary to meet the effluent limits in this permit, including Part I.B.3.a. The concrete washout location must not be located in an area where shallow groundwater may be present and would result in buffering capacity not being adequate, such as near natural drainages, springs, or wetlands. This permit authorizes discharges to the ground of concrete washout waste, but does not authorize on-site waste disposal per Part I.B.3.d.

(c) In the event that water remains onsite and contains pollutants either from the

firefighting activities or picked up from the site (i.e. in a gutter, sediment basin, etc.) after active emergency response is complete, the permittee must ensure the remaining water containing pollutants is properly removed and disposed of in order to minimize pollutants from discharging from the site, unless infeasible.

iii. Stabilization Requirements

The following requirements must be implemented for each site.

(a) Temporary stabilization must be implemented for earth disturbing activities on any portion of the site where ground disturbing construction activity has permanently ceased, or temporarily ceased for more than 14 calendar days. Temporary stabilization methods may include, but are not limited to, tarps, soil tackifier, and hydroseed. The permittee may exceed the 14-day schedule when either the function of the specific area of the site requires it to remain disturbed or physical characteristics of the terrain and climate prevent stabilization. The SWMP must document the constraints necessitating the alternative schedule, provide the alternate stabilization schedule, and identify all locations where the alternative schedule is applicable on the site map. Minimum inspection frequency and scope, as directed in Part I.D., must be followed for temporarily stabilized areas.

(b) Final stabilization must be implemented for all construction sites covered under this permit. Final stabilization is reached when (1), (2), and (3) below are complete:

(1) All construction activities are complete.

(2) Permanent stabilization methods are complete. Permanent stabilization methods include, but are not limited to, permanent pavement or concrete, hardscape, xeriscape, stabilized driving surfaces, vegetative cover, or equivalent permanent alternative stabilization methods. The division may approve alternative final stabilization criteria for specific operations. Vegetative cover must meet the following criteria:

a. Evenly distributed perennial vegetation, and

b. Coverage, at a minimum, equal to 70 percent of what would have been provided by native vegetation in a local, undisturbed area or adequate reference site, and

(3) The permittee must ensure all temporary control measures are removed from the construction site once final stabilization is achieved, except when the control measure specifications allow the control measure to be left in place (i.e. bio-degradable control measures).

(c) Final stabilization must be designed and installed as a permanent feature. Final stabilization measures for obtaining a vegetative cover or alternative stabilization methods include, but are not limited to, the following as appropriate:

(1) Seed mix selection and application methods;

(2) Soil preparation and amendments;

(3) Soil stabilization methods to provide adequate protection to minimize erosion (e.g. crimped straw, hydro mulch or rolled erosion control products);

(4) Appropriate sediment control measures as needed until final stabilization is achieved;

(5) Permanent pavement, hardscape, xeriscape, stabilized driving surfaces;

(d) Other alternative stabilization practices as applicable.

b. Maintenance

The permittee must ensure that all control measures remain in effective operating condition and are protected from activities that would reduce their effectiveness. Control measures must be maintained in accordance with good engineering, hydrologic and pollution control practices. Observations leading to the required maintenance of control measures can be made during a site inspection, or during general observations of site conditions. The necessary repairs or modifications to a control measure requiring routine maintenance, as defined in Part I.E., must be conducted to maintain an effective operating condition. This section is not subject to the requirements in Part I.B.1.c below.

c. Corrective Actions

The permittee must assess the adequacy of control measures at the site, and the need for changes to those control measures, to ensure continued effective performance.

When an inadequate control measure, as defined in Part I.E., is identified (i.e., new or replacement control measures become necessary), the following corrective action requirements apply. The permittee is in noncompliance with the permit until the inadequate control measure is replaced or corrected and returned to effective operating condition in compliance with Part I.B.1 and the general requirements in Part I.B.3. If the inadequate control measure results in noncompliance that meets the conditions of Part II.L., the permittee must also meet the requirements of that section.

i. The permittee must take all necessary steps to minimize or prevent the discharge of pollutants from the permitted area and manage any stormwater run-on onto the site until a control measure is implemented and made operational and/or an inadequate control measure is replaced or corrected and returned to effective operating condition. If it is infeasible to install or repair the control measure immediately after discovering the deficiency, the following must be documented in the SWMP in Part I.D.5.c and kept on record in accordance with the recordkeeping requirements in Part II.

(a) Describe why it is infeasible to initiate the installation or repair immediately; and

(b) Provide a schedule for installing or repairing the control measure and returning it to an effective operating condition as soon as possible.

ii. If applicable, the permittee must remove and properly dispose of any unauthorized release or discharge within and from the permitted area (e.g., discharge of non-stormwater, untreated stormwater containing pollutants, spill, or leak not authorized by this permit.) The permittee must also clean up any contaminated surfaces, if feasible, to minimize discharges of the material in subsequent storm events, including water remaining from the response that contains pollutants after active emergency firefighting response is complete.

2. Discharges to an Impaired Waterbody

a. Total Maximum Daily Load (TMDL)

If the discharge from the site of permit coverage flows to or could reasonably be expected to flow to any water body for which a TMDL has been approved, and stormwater discharges associated with construction activity were assigned a pollutant-specific Wasteload Allocation (WLA) under the TMDL, the division may:

i. Ensure the WLA is implemented properly through alternative local requirements, such as by a

municipal stormwater permit; or

ii. Notify the permittee of the WLA and amend the permittee's certification to add specific effluent limits and other requirements, as appropriate. The permittee may be required to do the following:

(a) Under the permittee's SWMP, implement specific control measures based on requirements of the WLA, and evaluate whether the requirements are met through implementation of existing stormwater control measures or if additional control measures are necessary. Document the calculations or other evidence demonstrating that the requirements are expected to be met; and

(b) If the evaluation shows that additional or modified control measures are necessary, describe the type and schedule for the control measure additions or modifications.

iii. Discharge monitoring may also be required. The permittee may maintain coverage under the general permit provided they comply with the applicable requirements outlined above. The division reserves the right to require individual or alternate general permit coverage.

3. General Requirements

a. Discharges authorized by this permit shall not cause, have the reasonable potential to cause, or measurably contribute to an exceedance of any applicable water quality standard, including narrative standards for water quality.

b. The division may require sampling and testing, on a case-by-case basis, in the event that there is reason to suspect that the SWMP is not adequately minimizing pollutants in stormwater or in order to measure the effectiveness of the control measures in removing pollutants in the effluent. Such monitoring may include Whole Effluent Toxicity testing.

c. The permittee must comply with the lawful requirements of federal agencies, municipalities, counties, drainage districts and other local agencies including applicable requirements in Municipal Stormwater Management Programs developed to comply with CDPS permits. The permittee must comply with local stormwater management requirements, policies and guidelines including those for erosion and sediment control.

d. All construction site wastes must be properly managed to prevent potential pollution of state waters. This permit does not authorize on-site waste disposal.

e. This permit does not relieve the permittee of the reporting requirements in 40 CFR 110, 40 CFR 117 or 40 CFR 302. Any discharge of hazardous material must be handled in accordance with the division's Noncompliance Notification Requirements (see Part II.L of the permit).

C. STORMWATER MANAGEMENT PLAN (SWMP) REQUIREMENTS

1. SWMP General Requirements

a. A SWMP shall be developed for each construction site listed under Part I.A.3.a, including but not limited to, construction activity that will disturb one acre or more and/or are part of a common plan of development or sale covered by this permit. The SWMP must be prepared in accordance with good engineering, hydrologic and pollution control practices.

i. For public emergency related sites, a SWMP shall be created no later than 14 days after the commencement of construction activities.

b. The permittee must implement the provisions of the SWMP as written and updated, from commencement of construction activity until final stabilization is complete. The division may review the SWMP.

c. A copy of the SWMP must be retained onsite or be onsite when construction activities are occurring at the site unless the permittee specifies another location and obtains approval from the division.

2. SWMP Content

a. The SWMP, at a minimum, must include the following elements.

i. Qualified Stormwater Manager. The SWMP must list individual(s) by title and name who are designated as responsible for implementing the SWMP in its entirety and meet the definition of a Qualified Stormwater Manager. This role may be filled by more than one individual.

ii. Spill Prevention and Response Plan. The SWMP must have a spill prevention and response plan. The plan may incorporate by reference any part of a Spill Prevention Control and Countermeasure (SPCC) plan under section 311 of the Clean Water Act (CWA) or a Spill Prevention Plan required by a separate CDPS permit. The relevant sections of any referenced plans must be available as part of the SWMP consistent with Part I.C.4.

iii. Other CDPS Permits. The SWMP must list the applicable CDPS permits associated with the permitted site and the activities occurring on the permitted site (e.g. a CDPS Dewatering Permit).

iv. Materials Handling. The SWMP must describe handling procedures of all control measures implemented at the site to minimize impacts from handling significant materials that could contribute pollutants to runoff. These handling procedures can include control measures for pollutants and activities such as, exposed storage of building materials, paints and solvents, landscape materials, fertilizers or chemicals, sanitary waste material, trash and equipment maintenance or fueling procedures.

v. Potential Sources of Pollution. The SWMP must list all potential sources of pollution which may reasonably be expected to affect the quality of stormwater discharges associated with construction activity from the site. This may include, but is not limited to, the following pollutant sources:

(a) Disturbed and stored soils;

(b) Vehicle tracking of sediments;

(c) Management of contaminated soils, if known to be present, or if contaminated soils are found during construction;

(d) Loading and unloading operations;

(e) Outdoor storage activities (erodible building materials, fertilizers, chemicals, etc.);

(f) Vehicle and equipment maintenance and fueling;

(g) Significant dust or particulate generating processes (e.g., saw cutting material, including dust);

(h) Routine maintenance activities involving fertilizers, pesticides, herbicides, detergents, fuels, solvents, oils, etc.;

(i) On-site waste management practices (waste piles, liquid wastes, dumpsters);

(j) Concrete truck/equipment washing, including washing of the concrete truck chute and associated fixtures and equipment;

(k) Dedicated asphalt, concrete batch plants and masonry mixing stations;

(l) Non-industrial waste sources such as worker trash and portable toilets.

vi. Implementation of Control Measures. The SWMP must include design specifications that contain information on the implementation of all the structural and nonstructural control measures in use on the site in accordance with good engineering, hydrologic and pollution control practices; including, as applicable, drawings, dimensions, installation information, materials, implementation processes, control measure-specific inspection expectations, and maintenance requirements.

The SWMP must include a documented use agreement between the permittee and the owner or operator of any control measures located outside of the permitted area, that are utilized by the permittee's construction site for compliance with this permit, but not under the direct control of the permittee. The permittee is responsible for ensuring that all control measures located outside of their permitted area, that are being utilized by the permittee's construction site, are properly maintained and in compliance with all terms and conditions of the permit. The SWMP must include all information required of and relevant to any such control measures located outside the permitted area, including location, installation specifications, design specifications and maintenance requirements.

vii. Site Description. The SWMP must include a site description which includes, at a minimum, the following:

(a) The nature of the construction activity at the site;

(b) The proposed schedule for the sequence for major construction activities and the planned implementation of control measures for each phase. (e.g. clearing, grading, utilities, vertical, etc.);

(c) Estimates of the total acreage of the site, and the acreage expected to be disturbed by clearing, excavation, grading, or any other construction activities;

(d) A summary of any existing data and sources used in the development of the construction site plans or SWMP that describe the soil types found in the permitted area and the erodibility of the identified soil types;

(e) A description of the percent cover of native vegetation on the site if the site is undisturbed, or the percent cover of native vegetation in a similar, local undisturbed area or adequate reference area if the site is disturbed. Include the source or methodology for determining the percentage. If a percent cover is not appropriate for the site location (i.e. arid), describe the technique and justification for the identified cover of native vegetation;

(f) A description of any allowable non-stormwater discharges at the site, including those being discharged under a separate CDPS permit or a division low risk discharge guidance policy, and applicable control measures installed;

(g) A description of the drainage patterns from the site, including a description of the immediate source receiving the discharge and the receiving water(s) of the discharge, if different than the immediate source. If the stormwater discharge is to a municipal separate storm sewer system, include the name of the entity owning that system, the location(s) of the stormwater discharge, and the receiving water(s);

(h) A description of all stream crossings located within the construction site boundary; and

(i) A description of the alternate temporary stabilization schedule, if applicable (Part I.B.1.a.iii(a)).

(j) A description of the alternative diversion criteria as approved by the division, if applicable (Part I.B.1.a.i(i)(3)).

viii. Site Map. The SWMP must include a site map which includes, at a minimum, the following:

(a) Construction site boundaries;

(b) Flow arrows that depict stormwater flow directions on-site and runoff direction;

(c) All areas of ground disturbance including areas of borrow and fill;

(d) Areas used for storage of soil;

(e) Locations of all waste accumulation areas, including areas for liquid, concrete, masonry, and asphalt;

(f) Locations of dedicated asphalt, concrete batch plants and masonry mixing stations;

(g) Locations of all structural control measures;

(h) Locations of all non-structural control measures (e.g. temporary stabilization);

(i) Locations of springs, streams, wetlands, diversions and other state waters, including areas that require pre-existing vegetation be maintained within 50 feet of a receiving water, where determined feasible in accordance with Part I.B.1.a.i(e);

(j) Locations of all stream crossings located within the construction site boundary; and

(k) Locations where alternative temporary stabilization schedules apply.

ix. Temporary Stabilization, Final Stabilization and Long Term Stormwater Management.

(a) The SWMP must document the constraints necessitating an alternative temporary stabilization schedule, as referenced in Part I.B.1.a.iii(a), provide the alternate stabilization schedule, and identify all locations where the alternative schedule is applicable on the site map.

(b) The SWMP must describe and locate the methods used to achieve final stabilization of all disturbed areas at the site, as listed in Part I.B.1.a.iii(b).

(c) The SWMP must describe the measures used to establish final stabilization through vegetative cover or alternative stabilization method, as referenced in Part I.B.1.a.iii(c), and describe and locate any temporary control measures in place during the process of final stabilization.

(d) The SWMP must describe and locate any planned permanent control measures to control pollutants in stormwater discharges that will occur after construction operations are completed, including but not limited to, detention/retention ponds, rain gardens, stormwater vaults, etc.

x. Inspection Reports. The SWMP must include documented inspection reports in accordance with Part I.D.5.c.

3. SWMP Review and Revisions

Permittees must keep a record of SWMP changes made that includes the date and identification of the changes. The SWMP must be amended when the following occurs:

a. A change in design, construction, operation, or maintenance of the site requiring implementation

of new or revised control measures;

b. The SWMP proves ineffective in controlling pollutants in stormwater runoff in compliance with the permit conditions;

c. Control measures identified in the SWMP are no longer necessary and are removed; and

d. Corrective actions are taken onsite that result in a change to the SWMP.

e. The site or areas of the site qualifying for reduced frequency inspections under Part I.D.4.

For SWMP revisions made prior to or following a change(s) onsite, including revisions to sections addressing site conditions and control measures, a notation must be included in the SWMP that identifies the date of the site change, the control measure removed, or modified, the location(s) of those control measures, and any changes to the control measure(s). The permittee must ensure the site changes are reflected in the SWMP. The permittee is noncompliant with the permit until the SWMP revisions have been made.

4. SWMP Availability

A copy of the SWMP must be provided upon request to the division, EPA, and any local agency with authority for approving sediment and erosion plans, grading plans or stormwater management plans within the time frame specified in the request. If the SWMP is required to be submitted to any of these entities, the submission must include a signed certification in accordance with Part I.A.3.e, certifying that the SWMP is complete and compliant with all terms and conditions of the permit.

All SWMPs required under this permit are considered reports that must be available to the public under Section 308(b) of the CWA and Section 61.5(4) of the CDPS regulations. The permittee must make plans available to members of the public upon request. However, the permittee may claim any portion of a SWMP as confidential in accordance with 40 CFR Part 2.

D. SITE INSPECTIONS

Site inspections must be conducted in accordance with the following requirements. The required inspection schedules are a minimum frequency and do not affect the permittee's responsibility to implement control measures in effective operating condition as prescribed in the SWMP, Part I.C.2.a.vi, as proper maintenance of control measures may require more frequent inspections. Site inspections shall start within 7 calendar days of the commencement of construction activities on site.

1. Person Responsible for Conducting Inspections

The person(s) inspecting the site may be on the permittee's staff or a third party hired to conduct stormwater inspections under the direction of the permittee(s). The permittee is responsible for ensuring that the inspector meets the definition of a Qualified Stormwater Manager. The inspector may be different than the individual(s) listed in Part I.C.2.a.i.

2. Inspection Frequency

Permittees must conduct site inspections in accordance with on the following minimum frequencies, unless the site meets the requirements of Part I.D.3. All inspections must be recorded per Part I.D.5.c.

a. At least one inspection every 7 calendar days; or

b. At least one inspection every 14 calendar days, if post-storm event inspections are conducted within 24 hours after the end of any precipitation or snowmelt event that causes surface erosion. Post-storm inspections may be used to fulfill the 14-day routine inspection requirement.

c. When site conditions make the schedule required in this section impractical, the permittee may

petition the division to grant an alternate inspection schedule. The alternative inspection schedule must not be implemented prior to written approval by the division and incorporation into the SWMP.

3. Inspection Frequency for Discharges to Outstanding Waters

Permittees must conduct site inspections at least once every 7 calendar days for sites that discharge to a water body designated as an Outstanding Water by the Water Quality Control Commission.

4. Reduced Inspection Frequency

The permittee may perform site inspections at the following reduced frequencies when one of the following conditions exists:

a. Post-Storm Inspections at Temporarily Idle Sites

For permittees choosing an inspection frequency pursuant to Part I.D.2.b and if no construction activities will occur following a storm event, post-storm event inspections must be conducted prior to re-commencing construction activities, and no later than 72 hours following the storm event. If the post-storm event inspection qualifies under this section, the inspection delay must be documented in the inspection record per Part I.D.5.c. Routine inspections must still be conducted at least every 14 calendar days.

b. Inspections at Completed Sites/Areas

When the site, or portions of a site, are awaiting establishment of a vegetative ground cover and final stabilization, the permittee must conduct a thorough inspection of the stormwater management system at least once every 30 days. Post-storm event inspections are not required under this schedule. This reduced inspection schedule is allowed if all of the following criteria are met:

i. All construction activities resulting in ground disturbance are complete;

ii. All activities required for final stabilization, in accordance with Part I.B.1.a.iii(b) & (c) and with the SWMP, have been completed, with the exception of the application of seed that has not occurred due to seasonal conditions or the necessity for additional seed application to augment previous efforts; and

iii. The SWMP has been amended to locate those areas to be inspected in accordance with the reduced schedule allowed for in this paragraph.

c. Winter Conditions Inspections Exclusion

Inspections are not required for sites that meet all of the following conditions: construction activities are temporarily halted, snow cover exists over the entire site for an extended period, and melting conditions posing a risk of surface erosion do not exist. This inspection exception is applicable only during the period where melting conditions do not exist, and applies to the routine 7-day, 14-day and monthly inspections, as well as the post-storm-event inspections. When this inspection exclusion is implemented, the following information must be documented in accordance with the requirements in Part I.C.3 and Part I.D.5.c:

i. Dates when snow cover existed;

ii. Date when construction activities ceased; and

iii. Date melting conditions began.

5. Inspection Scope

a. Areas to Be Inspected

When conducting a site inspection the following areas, if applicable, must be inspected for evidence of, or the potential for, pollutants leaving the construction site boundaries, entering the stormwater drainage system or discharging to state waters:

i. Construction site perimeter;

ii. All disturbed areas;

iii. Locations of installed control measures;

iv. Designated haul routes;

v. Material and waste storage areas exposed to precipitation;

vi. Locations where stormwater has the potential to discharge offsite; and

vii. Locations where vehicles exit the site.

b. Inspection Requirements

i. Visually verify whether all implemented control measures are in effective operational condition and are working as designed in their specifications to minimize pollutant discharges.

ii. Determine if there are new potential sources of pollutants.

iii. Assess the adequacy of control measures at the site to identify areas requiring new or modified control measures to minimize pollutant discharges.

iv. Identify all areas of non-compliance with the permit requirements and, if necessary, implement corrective action(s) in accordance with Part I.B.1.c.

c. Inspection Reports

The permittee must keep a record of all inspections conducted for each permitted site. Inspection reports must identify any incidents of noncompliance with the terms and conditions of this permit. All inspection reports must be signed and dated in accordance with Part I.A.3.f. Inspection records must be retained in accordance with Part II.O. At a minimum, the inspection report must include:

i. The inspection date;

ii. Name(s) and title(s) of personnel conducting the inspection;

iii. Weather conditions at the time of inspection;

iv. Phase of construction at the time of inspection;

v. Estimated acreage of disturbance at the time of inspection;

vi. Location(s) and identification of control measures requiring routine maintenance;

vii. Location(s) and identification of discharges of sediment or other pollutants from the site;

viii. Location(s) and identification of inadequate control measures;

ix. Location(s) and identification of additional control measures needed that were not in place at the time of inspection;

x. Description of corrective action(s) for items vii, viii, ix, above, dates corrective action(s) were completed, including requisite changes to the SWMP, as necessary;

xi. Description of the minimum inspection frequency (either in accordance with Part I.D.2, Part I.D.3 or Part I.D.4.) utilized when conducting each inspection.

xii. Deviations from the minimum inspection schedule as required in Part I.D.2. This would include documentation of division approval for an alternate inspection schedule outlined in Part I.D.2.c;

xiii. After adequate corrective action(s) have been taken, or where a report does not identify any incidents requiring corrective action, the report shall contain a statement as required in Part I.A.3.f.

E. DEFINITIONS

For the purposes of this permit:

(1) Bypass the intentional diversion of waste streams from any portion of a treatment facility in accordance with 40 CFR 122.41(m)(1)(i) and Regulation 61.2(12).

(2) Common Plan of Development or Sale - A contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules, but remain related. The division has determined that "contiguous" means construction activities located in close proximity to each other (within ¼ mile). Construction activities are considered to be "related" if they share the same development plan, builder or contractor, equipment, storage areas, etc. "Common plan of development or sale" includes construction activities that are associated with the construction of field wide oil and gas permits for facilities that are related.

(3) Construction Activity - Ground surface disturbing and associated activities (land disturbance), which include, but are not limited to, clearing, grading, excavation, demolition, installation of new or improved haul roads and access roads, staging areas, stockpiling of fill materials, and borrow areas. Construction does not include routine maintenance to maintain the original line and grade, hydraulic capacity, or original purpose of the facility. Activities to conduct repairs that are not part of routine maintenance or for replacement are construction activities and are not routine maintenance. Repaving activities where underlying and/or surrounding soil is exposed as part of the repaving operation are considered construction activities. Construction activity is from initial ground breaking to final stabilization regardless of ownership of the construction activities.

(4) Control Measure - Any best management practice or other method used to prevent or reduce the discharge of pollutants to state waters. Control measures include, but are not limited to, best management practices. Control measures can include other methods such as the installation, operation, and maintenance of structural controls and treatment devices.

(5) Control Measure Requiring Routine Maintenance - Any control measure that is still operating in accordance with its design and the requirements of this permit, but requires maintenance to prevent a breach of the control measure. See also inadequate control measure.

(6) Dedicated Asphalt, Concrete Batch Plants and Masonry Mixing Stations – Are batch plants or mixing stations located on, or within ¼ mile of, a construction site and that provide materials only to that specific construction site.

(7) Diversion – Discharges of state waters that are temporarily routed through channels or structures (e.g. in-stream, uncontaminated springs, non-pumped groundwater, temporary rerouting of surface waters).

(8) Final Stabilization - The condition reached when construction activities at the site have been

completed, permanent stabilization methods are complete, and temporary control measures are removed. Areas being stabilized with a vegetative cover must have evenly distributed perennial vegetation. The vegetation coverage must be, at a minimum, equal to 70 percent of what would have been provided by native vegetation in a local, undisturbed area or adequate reference site.

(9) Good Engineering, Hydrologic and Pollution Control Practices: are methods, procedures, and practices that:

a. Are based on basic scientific fact(s).

b. Reflect best industry practices and standards.

c. Are appropriate for the conditions and pollutant sources.

d. Provide appropriate solutions to meet the associated permit requirements, including practice based effluent limits.

(10) Inadequate Control Measure - Any control measure that is not designed or implemented in accordance with the requirements of the permit and/or any control measure that is not implemented to operate in accordance with its design. See also Control Measure Requiring Routine Maintenance.

(11) Infeasible – Not technologically possible, or not economically practicable and achievable in light of best industry practices.

(12) Minimize - reduce or eliminate to the extent achievable using control measures that are technologically available and economically practicable and achievable in light of best industry practice.

(13) Municipality - A city, town, county, district, association, or other public body created by, or under, State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes, or a designated and approved management agency under section 208 of CWA (1987).

(14) Municipal Separate Storm Sewer System (MS4) - A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

a. Owned or operated by a State, city, town, county, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or a designated and approved management agency under section 208 of the CWA that discharges to state waters;

i. Designed or used for collecting or conveying stormwater;

ii. Are not a combined sewer; and

iii. Are not part of a Publicly Owned Treatment Works (POTW). See 5 CCR 1002-61.2(62).

(15) Municipal Stormwater Management Program - A stormwater program operated by a municipality, typically to meet the requirements of the municipalities MS4 discharge certification.

(16) Operator - The party that has operational control over day-to-day activities at a project site which are necessary to ensure compliance with the permit. This party is authorized to direct individuals at a site to carry out activities required by the permit (i.e. the general contractor).

(17) Outstanding Waters - Waters designated as outstanding waters pursuant to Regulation 31, Section 31.8(2)(a). The highest level of water quality protection applies to certain waters that constitute an outstanding state or national resource.

(18) Owner - The party that has overall control of the activities and that has funded the implementation of the construction plans and specifications. This is the party that may have ownership of, a long term lease of, or easements on the property on which the construction activity is occurring (e.g. the developer).

(19) Permittee(s) - The owner and operator named in the discharge certification issued under this permit for the construction site specified in the certification.

(20) Point Source - Any discernible, confined, and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. Point source does not include irrigation return flow. See 5 CCR 102-61.2(75).

(21) Pollutant - Dredged spoil, dirt, slurry, solid waste, incinerator residue, sewage, sewage sludge, garbage, trash, chemical waste, biological nutrient, biological material, radioactive material, heat, wrecked or discarded equipment, rock, sand, or any industrial, municipal or agricultural waste. See 5 CCR 1002-61.2(76).

(22) Presentation of credentials – a government issued form of identification, if in person; or (ii) providing name, position and purpose of inspection if request to enter is made via telephone, email or other form of electronic communication. A Permittee's non-response to a request to enter upon presentation of credentials constitutes a denial to such request, and may result in violation of the Permit.

(23) Process Water - Any water which, during manufacturing or processing, comes into contact with or results from the production of any raw material, intermediate product, finished product, by product or waste product.

(24) Public Emergency Related Site - a project initiated in response to an unanticipated emergency (e.g., mud slides, earthquake, extreme flooding conditions, disruption in essential public services), for which the related work requires immediate authorization to avoid imminent endangerment to human health or the environment, or to reestablish essential public services.

(25) Qualified Stormwater Manager - An individual knowledgeable in the principles and practices of erosion and sediment control and pollution prevention, and with the skills to assess conditions at construction sites that could impact stormwater quality and to assess the effectiveness of stormwater controls implemented to meet the requirements of this permit.

(26) Qualifying Local Program - A municipal program for stormwater discharges associated with small construction activity that was formally approved by the division as a qualifying local program.

(27) Receiving Water - Any classified or unclassified surface water segment (including tributaries) in the State of Colorado into which stormwater associated with construction activities discharges. This definition includes all water courses, even if they are usually dry, such as borrow ditches, arroyos, and other unnamed waterways.

(28) Severe Property Damage - substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. See 40 CFR 122.41(m)(1)(ii).

(29) Significant Materials - Include, but not limited to, raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in

food processing or production; hazardous substances designated under section 101(14) of CERCLA; any chemical the permittee is required to report under section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA); fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with stormwater discharges.

(30) Small Construction Activity - The discharge of stormwater from construction activities that result in land disturbance of equal to, or greater than, one acre and less than five acres. Small construction activity also includes the disturbance of less than one acre of total land area that is part of a larger common plan of development or sale, if the larger common plan ultimately disturbs equal to, or greater than, one acre and less than five acres.

(31) Spill - An unintentional release of solid or liquid material which may pollute state waters.

(32) State Waters - means any and all surface and subsurface waters which are contained in or flow in or through this state, but does not include waters in sewage systems, waters in treatment works of disposal systems, waters in potable water distribution systems, and all water withdrawn for use until use and treatment have been completed.

(33) Steep Slopes: where a local government, or industry technical manual (e.g. stormwater BMP manual) has defined what is to be considered a "steep slope", this permit's definition automatically adopts that definition. Where no such definition exists, steep slopes are automatically defined as those that are 3:1 or greater.

(34) Stormwater - Precipitation runoff, snow melt runoff, and surface runoff and drainage. See 5 CCR 1002-61.2(103).

(35) Total Maximum Daily Loads (TMDLs) -The sum of the individual wasteload allocations (WLA) for point sources and load allocations (LA) for nonpoint sources and natural background. For the purposes of this permit, a TMDL is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources. A TMDL includes WLAs, LAs, and must include a margin of safety (MOS), and account for seasonal variations. See section 303(d) of the CWA and 40 C.F.R. 130.2 and 130.7.

(36) Upset - an exceptional incident in which there is unintentional and temporary noncompliance with permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation in accordance with 40 CFR 122.41(n) and Regulation 61.2(114).

F. MONITORING

The division may require sampling and testing, on a case-by-case basis. If the division requires sampling and testing, the division will send a notification to the permittee. Reporting procedures for any monitoring data collected will be included in the notification.

If monitoring is required, the following applies:

1. The thirty (30) day average must be determined by the arithmetic mean of all samples collected during a thirty (30) consecutive-day period; and

2. A grab sample, for monitoring requirements, is a single "dip and take" sample.

G. OIL AND GAS CONSTRUCTION

Stormwater discharges associated with construction activities directly related to oil and gas exploration, production, processing, and treatment operations or transmission facilities are regulated under the Colorado Discharge Permit System Regulations (5 CCR 1002-61), and require coverage under this permit in accordance with that regulation. However, references in this permit to specific authority under the CWA do not apply to

stormwater discharges associated with these oil and gas related construction activities, to the extent that the references are limited by the federal Energy Policy Act of 2005.

Part II: Standard Permit Conditions

A. DUTY TO COMPLY

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Water Quality Control Act and is grounds for:

1. Enforcement action;

2. Permit termination, revocation and reissuance, or modification; or

3. Denial of a permit renewal application.

B. DUTY TO REAPPLY

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain authorization as required by Part I.A.3.k. of the permit.

C. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

D. DUTY TO MITIGATE

A permittee must take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

E. PROPER OPERATION AND MAINTENANCE

A permittee must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by the permittee only when the operation is necessary to achieve compliance with the conditions of this permit. This requirement can be met by meeting the requirements for Part I.B., I.C., and I.D. above. See also 40 C.F.R. § 122.41(e).

F. PERMIT ACTIONS

This permit may be modified, revoked and reissued, or terminated for cause. The permittee request for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. Any request for modification, revocation, reissuance, or termination under this permit must comply with all terms and conditions of Regulation 61.8(8).

G. PROPERTY RIGHTS

In accordance with 40 CFR 122.41(g) and 5 CCR 1002-61, 61.8(9):

1. The issuance of a permit does not convey any property or water rights in either real or personal property, or stream flows or any exclusive privilege.

2. The issuance of a permit does not authorize any injury to person or property or any invasion of personal rights, nor does it authorize the infringement of federal, state, or local laws or regulations.

3. Except for any toxic effluent standard or prohibition imposed under Section 307 of the Federal act or any standard for sewage sludge use or disposal under Section 405(d) of the Federal act, compliance with a permit during its term constitutes compliance, for purposes of enforcement, with Sections 301,

302, 306, 318, 403, and 405(a) and (b) of the Federal act. However, a permit may be modified, revoked and reissued, or terminated during its term for cause as set forth in Section 61.8(8) of the Colorado Discharge Permit System Regulations.

H. DUTY TO PROVIDE INFORMATION

The permittee shall furnish to the division, within a reasonable time, any information which the division may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the division, upon request, copies of records required to be kept by this permit in accordance with 40 CFR 122.41(h) and/or Regulation 61.8(3)(q).

I. INSPECTION AND ENTRY

The permittee shall allow the division and the authorized representative, upon the presentation of credentials as required by law, to allow for inspections to be conducted in accordance with 40 CFR 122.41(i), Regulation 61.8(3), and Regulation 61.8(4):

1. To enter upon the permittee's premises where a regulated facility or activity is located or in which any records are required to be kept under the terms and conditions of this permit;

2. At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit;

3. At reasonable times, inspect any monitoring equipment or monitoring method required in the permit; and

4. To enter upon the permittee's premises in a reasonable manner and at a reasonable time to inspect or investigate, any actual, suspected, or potential source of water pollution, or any violation of the Colorado Water Quality Control Act. The investigation may include: sampling of any discharges, stormwater or process water, taking of photographs, interviewing site staff on alleged violations and other matters related to the permit, and assessing any and all facilities or areas within the site that may affect discharges, the permit, or an alleged violation.

   The permittee shall provide access to the division or other authorized representatives upon presentation of proper credentials. A permittee's non-response to a request to enter upon presentation of credentials constitutes a denial of such request, and may result in a violation of the permit.

J. MONITORING AND RECORDS

1. Samples and measurements taken for the purpose of monitoring must be representative of the volume and nature of the monitored activity.

2. The permittee must retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date the permit expires or the date the permittee's authorization is terminated. This period may be extended by request of the division at any time.

3. Records of monitoring information must include:

   a. The date, exact place, and time of sampling or measurements;

   b. The individual(s) who performed the sampling or measurements;

   c. The date(s) analyses were performed

d. The individual(s) who performed the analyses;

e. The analytical techniques or methods used; and

f. The results of such analyses.

4. Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in the permit.

K. SIGNATORY REQUIREMENTS

1. Authorization to Sign:

All documents required to be submitted to the division by the permit must be signed in accordance with the following criteria:

a. For a corporation: by a responsible corporate officer. For the purpose of this subsection, a responsible corporate officer means:

i. A president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or

ii. The manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

c. For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this subsection, a principal executive officer of a federal agency includes

i. The chief executive officer of the agency, or

ii. A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency. (e.g. Regional Administrator of EPA)

2. Electronic Signatures

For persons signing applications for coverage under this permit electronically, in addition to meeting other applicable requirements stated above, such signatures must meet the same signature, authentication, and identity-proofing standards set forth at 40 CFR § 3.2000(b) for electronic reports (including robust second-factor authentication). Compliance with this requirement can be achieved by submitting the application using the Colorado Environmental Online Service (CEOS) system.

3. Change in Authorization to Sign

If an authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization must be submitted to the division, prior to the re-authorization, or together with any reports, information, or applications to be signed by an authorized representative.

L. REPORTING REQUIREMENTS

1. Planned Changes

The permittee shall give advance notice to the division, in writing, of any planned physical alterations or additions to the permitted facility in accordance with 40 CFR 122.41(l) and Regulation 61.8(5)(a). Notice is required only when:

a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or

b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.41(a)(1).

2. Anticipated Non-Compliance

The permittee shall give advance notice to the division, in writing, of any planned changes in the permitted facility or activity that may result in noncompliance with permit requirements. The timing of notification requirements differs based on the type of non-compliance as described in subparagraphs 5, 6, 7, and 8 below.

3. Transfer of Ownership or Control

The permittee shall notify the division, in writing, ten (10) calendar days in advance of a proposed transfer of the permit. This permit is not transferable to any person except after notice is given to the division.

a. Where a facility wants to change the name of the permittee, the original permittee (the first owner or operators) must submit a Notice of Termination.

b. The new owner or operator must submit an application. See also signature requirements in Part II.K, above.

c. A permit may be automatically transferred to a new permittee if:

i. The current permittee notifies the division in writing 30 calendar days in advance of the proposed transfer date; and

ii. The notice includes a written agreement between the existing and new permittee(s) containing a specific date for transfer of permit responsibility, coverage and liability between them; and

iii. The division does not notify the existing permittee and the proposed new permittee of its intent to modify, or revoke and reissue the permit.

iv. Fee requirements of the Colorado Discharge Permit System Regulations, Section 61.15, have been met.

4. Monitoring reports

Monitoring results must be reported at the intervals specified in this permit per the requirements of 40 CFR 122.41(l)(4).

5. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule in the permit, shall be submitted on the date listed

in the compliance schedule section. The fourteen (14) calendar day provision in Regulation 61.8(4)(n)(i) has been incorporated into the due date.

6. Twenty-four Hour Reporting

In addition to the reports required elsewhere in this permit, the permittee shall report the following circumstances orally within twenty-four (24) hours from the time the permittee becomes aware of the circumstances, and shall mail to the division a written report containing the information requested within five (5) working days after becoming aware of the following circumstances:

a. Circumstances leading to any noncompliance which may endanger health or the environment regardless of the cause of the incident;

b. Circumstances leading to any unanticipated bypass which exceeds any effluent limitations in the permit;

c. Circumstances leading to any upset which causes an exceedance of any effluent limitation in the permit;

d. Daily maximum violations for any of the pollutants limited by Part I of this permit. This includes any toxic pollutant or hazardous substance or any pollutant specifically identified as the method to control any toxic pollutant or hazardous substance.

e. The division may waive the written report required under subparagraph 6 of this section if the oral report has been received within 24 hours.

7. Other Non-Compliance

A permittee must report all instances of noncompliance at the time monitoring reports are due. If no monitoring reports are required, these reports are due at least annually in accordance with Regulation 61.8(4)(p). The annual report must contain all instances of non-compliance required under either subparagraph 5 or subparagraph 6 of this subsection.

8. Other Information

Where a permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, or in any report to the Permitting Authority, it has a duty to promptly submit such facts or information.

M. BYPASS

1. Bypass Not Exceeding Limitations

The permittees may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Part II.M.2 of this permit. See 40 CFR 122.41(m)(2).

2. Notice of Bypass

a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, the permittee must submit prior notice, if possible at least ten days before the date of the bypass. ee 40 CFR §122.41(m)(3)(i) and/or Regulation 61.9(5)(c).

b. Unanticipated bypass. The permittee must submit notice of an unanticipated bypass in accordance with Part II.L.6. See 40 CFR §122.41(m)(3)(ii).

3. Prohibition of Bypass

Bypasses are prohibited and the division may take enforcement action against the permittee for bypass, unless:

a. The bypass is unavoidable to prevent loss of life, personal injury, or severe property damage;

b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

c. Proper notices were submitted to the division.

N. UPSET

1. Effect of an upset

An upset constitutes an affirmative defense to an action brought for noncompliance with permit effluent limitations if the requirements of Part II.N.2. of this permit are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review in accordance with Regulation 61.8(3)(j).

2. Conditions Necessary for Demonstration of an Upset

A permittee who wishes to establish the affirmative defense of upset shall demonstrate through properly signed contemporaneous operating logs, or other relevant evidence that:

a. An upset occurred and the permittee can identify the specific cause(s) of the upset;

b. The permitted facility was at the time being properly operated and maintained; and

c. The permittee submitted proper notice of the upset as required in Part II.L.6.(24- hour notice); and

d. The permittee complied with any remedial measure necessary to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. In addition to the demonstration required above, a permittee who wishes to establish the affirmative defense of upset for a violation of effluent limitations based upon water quality standards shall also demonstrate through monitoring, modeling or other methods that the relevant standards were achieved in the receiving water.

3. Burden of Proof

In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

O. RETENTION OF RECORDS

1. Post-Expiration or Termination Retention

Copies of documentation required by this permit, including records of all data used to complete the application for permit coverage to be covered by this permit, must be retained for at least three years from the date that permit coverage expires or is terminated. This period may be extended by request of EPA at any time.

2. On-site Retention

The permittee must retain an electronic version or hardcopy of the SWMP at the construction site from

the date of the initiation of construction activities to the date of expiration or inactivation of permit coverage; unless another location, specified by the permittee, is approved by the division.

P. REOPENER CLAUSE

1. Procedures for Modification or Revocation

   Permit modification or revocation of this permit or coverage under this permit will be conducted according to Regulation 61.8(8).

2. Water Quality Protection

   If there is evidence indicating that the stormwater discharges authorized by this permit cause, have the reasonable potential to cause or contribute to an excursion above any applicable water quality standard, the permittee may be required to obtain an individual permit, or the permit may be modified to include different limitations and/or requirements.

Q. SEVERABILITY

The provisions of this permit are severable. If any provisions or the application of any provision of this permit to any circumstances, is held invalid, the application of such provision to other circumstances and the application of the remainder of this permit shall not be affected.

R. NOTIFICATION REQUIREMENTS

1. Notification to Parties

   All notification requirements, excluding information submitted using the CEOS portal, shall be directed as follows:

   a. Oral Notifications, during normal business hours shall be to:
      Clean Water Compliance Section
      Water Quality Control Division
      Telephone: (303) 692-3500

   b. Written notification shall be to:
      Clean Water Compliance Section
      Water Quality Control Division
      Colorado Department of Public Health and Environment
      WQCD-WQP-B2
      4300 Cherry Creek Drive South
      Denver, CO 80246-1530

S. RESPONSIBILITIES

1. Reduction, Loss, or Failure of Treatment Facility

   The permittee has the duty to halt or reduce any activity if necessary to maintain compliance with the effluent limitations of the permit. It shall not be a defense for a permittee in an enforcement action that it would be necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

T. OIL AND HAZARDOUS SUBSTANCE LIABILITY

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject to under Section 311 (Oil and Hazardous Substance Liability) of the CWA.

U. EMERGENCY POWERS

Nothing in this permit shall be construed to prevent or limit application of any emergency power of the division.

V. CONFIDENTIALITY

Any information relating to any secret process, method of manufacture or production, or sales or marketing data which has been declared confidential by the permittee, and which may be acquired, ascertained, or discovered, whether in any sampling investigation, emergency investigation, or otherwise, shall not be publicly disclosed by any member, officer, or employee of the Water Quality Control Commission or the division, but shall be kept confidential. Any person seeking to invoke the protection of this section shall bear the burden of proving its applicability. This section shall never be interpreted as preventing full disclosure of effluent data.

W. FEES

The permittee is required to submit payment of an annual fee as set forth in the 2016 amendments to the Water Quality Control Act. Section 25-8-502 (1.1) (b), and the Colorado Discharge Permit System Regulations 5 CCR 1002-61, Section 61.15 as amended. Failure to submit the required fee when due and payable is a violation of the permit and will result in enforcement action pursuant to Section 25-8-601 et. seq., C.R.S.1973 as amended.

X. DURATION OF PERMIT

The duration of a permit shall be for a fixed term and shall not exceed five (5) years. If the permittee desires to continue to discharge, a permit renewal application shall be submitted at least ninety (90) calendar days before this permit expires. Filing of a timely and complete application shall cause the expired permit to continue in force to the effective date of the new permit. The permit's duration may be extended only through administrative extensions and not through interim modifications. If the permittee anticipates there will be no discharge after the expiration date of this permit, the division should be promptly notified so that it can terminate the permit in accordance with Part I.A.3.i.

Y. SECTION 307 TOXICS

If a toxic effluent standard or prohibition, including any applicable schedule of compliance specified, is established by regulation pursuant to Section 307 of the Federal Act for a toxic pollutant which is present in the permittee's discharge and such standard or prohibition is more stringent than any limitation upon such pollutant in the discharge permit, the division shall institute proceedings to modify or revoke and reissue the permit to conform to the toxic effluent standard or prohibition

APPENDIX C – INSPECTIONS

COLORADO DEPARTMENT OF TRANSPORTATION

STORMWATER FIELD INSPECTION REPORT - ACTIVE CONSTRUCTION

(1) Project Name:	(2) Project Contractor:	(3) SWMP Administrator (Qualified Stormwater Manager) /Erosion Control Inspector:	
(4) CDOT Project Engineer/CDOT Designee:	(5) Other Attendee(s) (Name and Title):		
(6) CDOT Project Number:	(7) Project Code (Sub Account #):	(8) CDPS-SCP Certification#:	(9) CDOT Region:
(10) Date of Project Inspection:	(11) Weather at Time of Inspection:		

(12) REASON FOR INSPECTION / EXCLUSION

❑ Routine Inspection: (A routine erosion control inspection shall be conducted at a minimum, once every 7 Calendar Days)

❑ Runoff Event: (Post-storm event inspections must be conducted within 24 hours after the end of any precipitation or snowmelt event that causes surface erosion. If no construction activities will occur following a storm event, post-storm event inspections shall be conducted prior to re-commencing construction activities, but no later than 72 hours following the storm event. The occurrence of any such delayed inspection must be documented in the inspection record.) Routine inspections still must be conducted every 7 calendar days.

Storm Start Date: Approximate End Time of Storm (hrs):

❑ Third Party Request: Winter Conditions Inspections Exclusion: Inspections are not required at sites where construction activities are temporarily halted, snow cover exists over the **entire site** for an extended period, and **melting conditions posing a risk of surface erosion do not exist**. This exception is applicable only during the period where **melting conditions do not exist**, and applies to the routine 7-day inspections, as well as the post-storm-event inspections. If **visual inspection** of the site verifies that all of these conditions are satisfied, document the conditions in section 17 (General Notes) and proceed to section 18 (Inspection Certification). Documentation must include: dates when snow cover existed, date when construction activities ceased, and date when melting conditions began.

❑ Other:

(13) SWMP MANAGEMENT

	Yes	No	N/A	(g) Reason for N/A
(a) Is the SWMP located on site?	☐	☐	☐	
(b) Are changes to the SWMP documents noted and approved?	☐	☐	☐	
(c) Are the inspection reports retained in the SWMP?	☐	☐	☐	
(d) Are corrective actions from the last inspection completed?	☐	☐	☐	
(e) Is the Spill Response Plan updated in the SWMP?	☐	☐	☐	
(f) Is a list of potential pollutants updated in the SWMP?	☐	☐	☐	

(14) CURRENT CONSTRUCTION ACTIVITIES

(a)Describe current phase of construction activities

(b)Estimate of disturbed area at the time of the inspection, use guidance found in 208.04 (e):

	Acres	Notes
Temporary Stabilization (includes areas of vertically tracked and/or surface roughened temporary stabilizing surface treatments) +		
Interim Stabilization (spray on soil tackifier such as organic mulch tackifier, bonded fiber matrix, wood cellulose fiber with tackifier, etc.) +		
Permanent Stabilization (includes areas of permanent seeding that have not achieved 70% of pre-disturbance vegetation levels) +		
Other (Includes ground disturbing, clearing and grubbing, materials storage, equipment staging, haul roads) +		
Total acres of disturbance (includes cumulative total number of acres including: temporary, interim, permanent stabilized and other) =		

(c) Has the SWMP Phased Control Measure Implementation Matrix been updated? ❑ Yes ❑ No

(15) CONSTRUCTION SITE ASSESSMENT & CORRECTIVE ACTIONS *****Off-site Pollutant Discharges are a Violation of the Permit and Reason for Immediate Project Suspension*****

The Construction Site Boundary/Limits of Construction (LOC), all disturbed areas, designated haul roads, material and/or waste storage areas that are exposed to precipitation, discharge locations, and locations where vehicles exit the site shall be inspected for evidence of, or the ***potential*** *for, pollutants leaving the LOC, entering the stormwater drainage system, or discharging to State waters. If there is evidence of sediment or other pollutants discharging from the site, see section 16 (Construction Site Assessment).*

All erosion and sediment control practices identified in the SWMP shall be evaluated to ensure that they are maintained and operating correctly. Identify the condition of the control measure, using more than one letter if necessary: ***(I) Inadequate control measure; (M) Maintenance is needed; (A) Additional control measure is needed; (R) Remove*** *control measure. Keep copies of this blank page for additional room if needed.*

Continuous maintenance is required on all control measures. ***As per CDPS-SCP: "Control measures that are not operating effectively, have proven to be inadequate, or have failed must be addressed as soon as possible, immediately in most cases."***

Location	***Control Measure***	***Condition***	***Comments:*** ***Description of Corrective Action and Preventative Measure Taken***	***Date Completed & Initials***

(16) CONSTRUCTION SITE ASSESSMENT ****Off-site Pollutant Discharges are a Violation of the Permit and Reason for Immediate Project Suspension****

(a) Is there evidence of discharge of sediment or other pollutants from the site? ❑ Yes ☒ No
*If yes, explain the discharge, the location and the associated corrective actions in section 15 (Construction Site Assessment & Corrective Actions) or section 18 (General Notes).

(b) Has sediment or other pollutants discharging from the site reached State waters? ❑ Yes ☑ No
*If yes, see subsection 208.03(c) and Part I.L.6 of the permit for reporting requirements.

(17) GENERAL NOTES

(18) INSPECTION CERTIFICATION

By signing this form, I certify that I attended the inspection in accordance with specification 208.03.

Contractor's SWMP Administrator (Qualified Stormwater Manager)
Print Name: ANDREA ARAGON | Signature Required: | Date:

Contractor's Erosion Control Inspector (If Needed):
Print Name: | Signature (if needed) | Date:

(19) COMPLIANCE CERTIFICATION

I verify to the best of my knowledge and belief, all corrective actions and maintenance items identified during the inspection are complete, and the site is currently in compliance with the permit (Part I.A.3.f).

Contractor's SWMP Administrator/ECI
Print Name: | Signature Required: | Date

Contractor's Superintendent/Approved Designee
Print Name: | Signature Required: | Date:

CDOT Project Engineer/CDOT Designee
Print Name: | Signature Required: | Date:

Stormwater Management Field Inspection Report Instructions

State waters are defined to be any and all surface and subsurface waters which are contained in or flow through the state, including, streams, rivers, lakes, drainage ditches, storm drains, ground water, and wetlands, but not including waters in sewage systems, waters in treatment works of disposal systems, waters in potable water distribution systems, and all water withdrawn for use until use and treatment have been completed. (Per subsection 107.25 and 25-8-103 (19) CRS)

(3) SWMP Administrator (Qualified Stormwater Manager) and Erosion Control Inspector: Indicate the name(s) of the individual responsible for implementing, maintaining and revising the SWMP. An Erosion Control Inspector(s) may be the SWMP Administrator in projects with not more than 40 acres of disturbance (see 208.03(c)).

(4) CDOT Project Engineer/CDOT Designee: Indicate the name of the CDOT representative performing the inspection with the SWMP Administrator/Erosion Control Inspector(s). This person should be the Project Engineer or an authorized representative.

(9) CDPS-SCP Certification #: Indicate the Colorado Discharge Permit System (CDPS) Stormwater Construction Permit (SCP) (for Stormwater Discharges Associated with Construction Activities) certification number, issued by CDPHE, for the project which the report is being completed. Certification number can be found on the first page of the SCP.

(12) Reason(s) for Inspection / Exclusion: Indicate the purpose for the inspection or exclusion. These inspections are required to comply with the CDOT Specifications and the CDPS-SCP.

❑ Routine Inspections. These inspections are required at least every 7 calendar days during active construction. Suspended projects require the 7 calendar day inspection unless snow cover exists over the entire site for an extended period of time, and melting conditions do not exist (see, Winter Conditions Inspections Exclusions). ❑ Runoff Event Inspection for Active Sites. See page 1 for definition.

❑ Third Party Request. Indicate the name of the third party requesting the inspection and, if known, the reason the request was made.

❑ Winter Conditions Inspections Exclusions. See page 1 for definition. An inspection does not need to be completed, but use this form to document the conditions that meet the Exclusion. ❑ Other. Specify any other reason(s) that resulted in the inspection.

(13) SWMP Management: Review the SWMP records and documents and use a ✓ to answer the question. To comply with CDOT Standard Specifications and the CDPS-SCP, all of the items identified must be adhered to. If No is checked, indicate the necessary corrective action in section 15 (Construction Site Assessment & Corrective Actions). Specification 208.03(d).

a) A copy of the SWMP must be retained on site, unless another location (specified by the permit) is approved by the Division.
b) Indicate all changes that have been made to any portion of the SWMP documents during construction. Changes shall be dated and signed at the time of occurrence. Amendments may include items listed in subsection 208.03(d).
c) The SWMP Administrator shall keep a record of inspections. Inspection reports must identify any incidents of noncompliance with the terms and conditions of the CDOT specifications or the CDPS-SCP. Inspection records must be retained for three years from expiration or inactivation of permit coverage.
d) Are corrective actions from the last inspection completed? Is a description of the corrective action(s), the date(s) of the corrective action(s), and the measure(s) taken to prevent future violations (including changes to the SWMP, as necessary) documented?
e) Subsection 208.06(c) requires that a Spill Response Plan be developed and implemented to establish operating procedures and that the necessary employee training be provided to minimize accidental releases of pollutants that can contaminate stormwater runoff. Records of spills, leaks or overflows that result in the discharge of pollutants must be documented and maintained. Information that should be recorded for all occurrences include the time and date, weather conditions, reasons for spill, etc. Some spills may need to be reported to the Water Quality Control Division immediately.
f) (f) Subsection 107.25(b)6 requires the Erosion Control Supervisor to identify and describe all potential pollutant sources, including materials and activities, and evaluate them for the potential to contribute pollutants to stormwater discharge.
g) (g) If N/A is checked for any of the items (a) through (f), indicate why in the space provided, if additional space is needed indicate in section 17 (General Notes).

(14) Current Construction Activities:

a) Provide a short description of the current construction activities/phase at the project site; include summary of grading activities, installation of utilities, paving, excavation, landscaping, etc.

(1) Estimate of disturbed area at the time of the inspection, use guidance found in 208.04 (e). Estimate the acres of disturbed area at the time of the inspection. Include clearing, grading, excavation activities, areas receiving overburden (e.g. stockpiles), demolition areas and areas with heavy equipment/vehicle traffic, installation of new or improved haul roads and access roads, staging areas, borrow areas and storage that will disturb existing vegetative cover, (Areas that have been: hard armored or paved should not be counted for total disturbance).

b) Has the Phased control measure Implementation Matrix on the SWMP been updated? As part of the inspection the Phased control measure Implementation matrix for both the structural and non-structural control measures found at the beginning of the SWMP sheets must be reviewed to ensure that "In use on site" box is checked for control measures currently in use at the time of the inspection.

(15) Construction Site Assessment & Corrective Actions: Inspect the construction site and indicate where control measure feature(s) identified in section 13 (SWMP Management), require corrective action. Erosion and sediment control practices identified in the SWMP shall be evaluated to ensure that they are operating correctly.

- Condition. Identify the condition of the control measure, using more than one letter (identified in section 15) if necessary.
- Location. Site location (e.g., project station number, mile marker, intersection quadrant, etc.).
- Control measure. Indicate the type of control measure at this location that requires corrective action (e.g., silt fence, erosion logs, soil retention blankets, etc.).
- Date Completed & Initials. Date and initial when the corrective action was completed and the preventative measure statement finished.
- Description of Corrective Action and Preventative Measure Taken. Provide the proposed corrective action needed to bring the area or control measure into compliance. Once corrective actions are completed, state the measures taken to prevent future violations and ensure that the control measures are operating correctly, including the required changes made to the
- SWMP.

Inadequate control measure: Is any control measure that is not designed or implemented in accordance with the requirements of the permit and/or any control measure that is not implemented to operate in accordance with its design, this includes control measures that have not been implemented for pollution sources. If it is infeasible to install or repair the control measure immediately after discovering the deficiency the reason must be documented and a schedule included to return the control measure to effective operating condition as soon as possible.

Control measures requiring routine maintenance: Any control measure that is still operating in accordance with its design and the requirements of the permit, but requires maintenance to prevent a breach of the control measure. These items are not subject to the corrective action requirements as specified in Part I.b.1.c of the permit.

Additional: Any control measure inadequate for its application or an area with insufficient control measure(s). If it is infeasible to install revised or additional control measure(s) immediately after discovering the deficiency the reason must be documented and a schedule included to return the control measure to effective operating condition as soon as possible.

Remove: Control measure no longer necessary

(16) Construction Site Assessment: Was there any off site discharge of sediment at this site since the last inspection?

a) Is there evidence of discharge of sediment or other pollutants from the site? **Off-site pollutant discharges are a violation of the permit.** (The construction site perimeter, all disturbed areas, material and/or waste storage areas that are exposed to precipitation, discharge locations, and locations where vehicles access the site shall be inspected for evidence of, or the potential for, pollutants leaving the construction site boundaries, entering the stormwater drainage system).

b) Are pollutants discharging to State water?

c) Has sediment or other pollutants discharging from the site reached State waters? **Off-site pollutant discharges are a violation of the permit.** If off site discharge has occurred, explain the discharge and the corrective actions in section 15 (Construction Site Assessment & Corrective Actions) or section 17 (General Notes).

(17) General Notes: Indicate any additional notes that add detail to the inspection; this may include positive practices noted on the project.

(18) Inspection Certification: In accordance with 208.03, required personnel shall sign to verify that they were in attendance.

(19) Compliance Certification: After all corrections have been made, this signature must be completed in accordance with Part I.A.3.f of the CDPS-SCP.

APPENDIX D – SOILS MAP

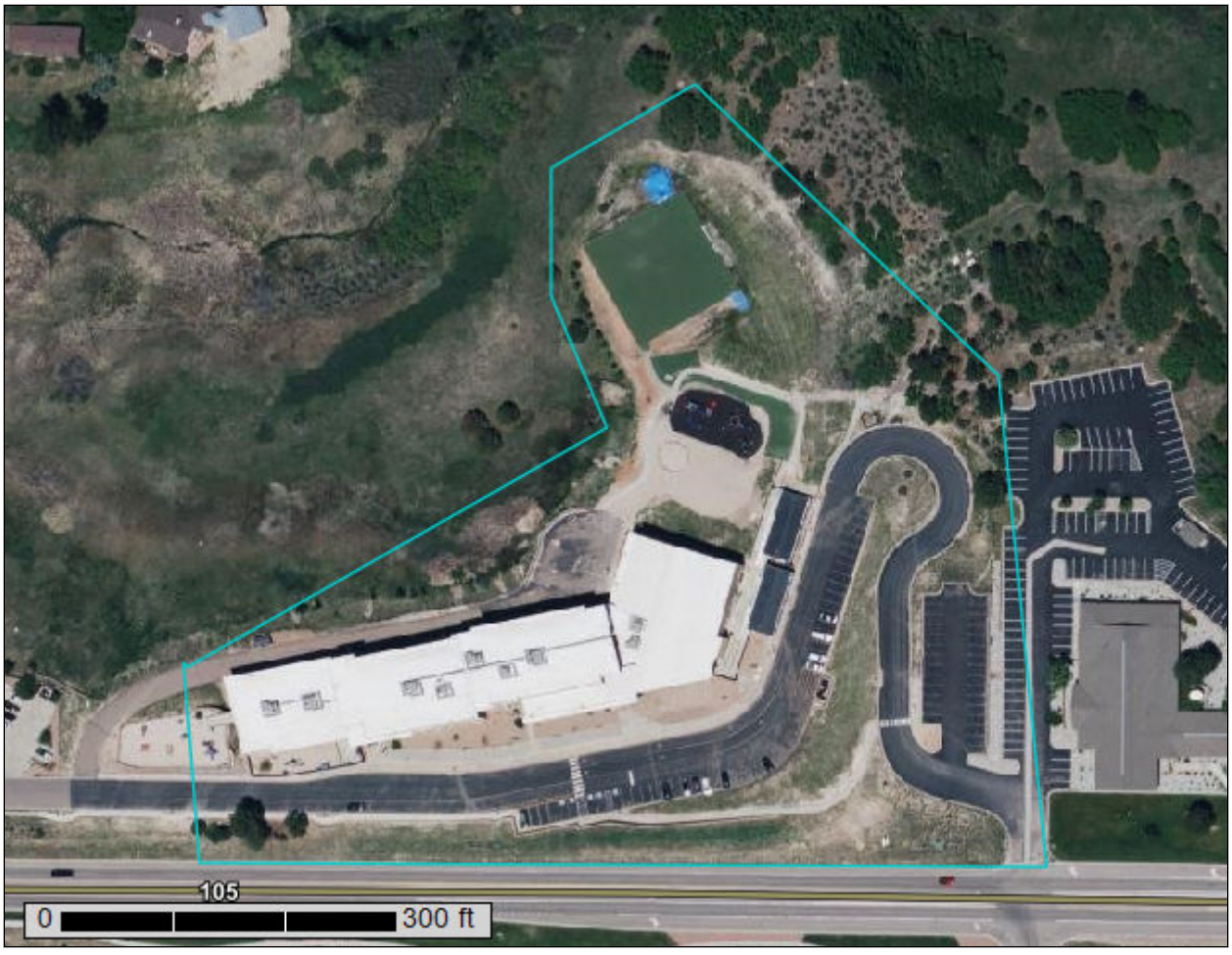
United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for El Paso County Area, Colorado



April 24, 2023

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

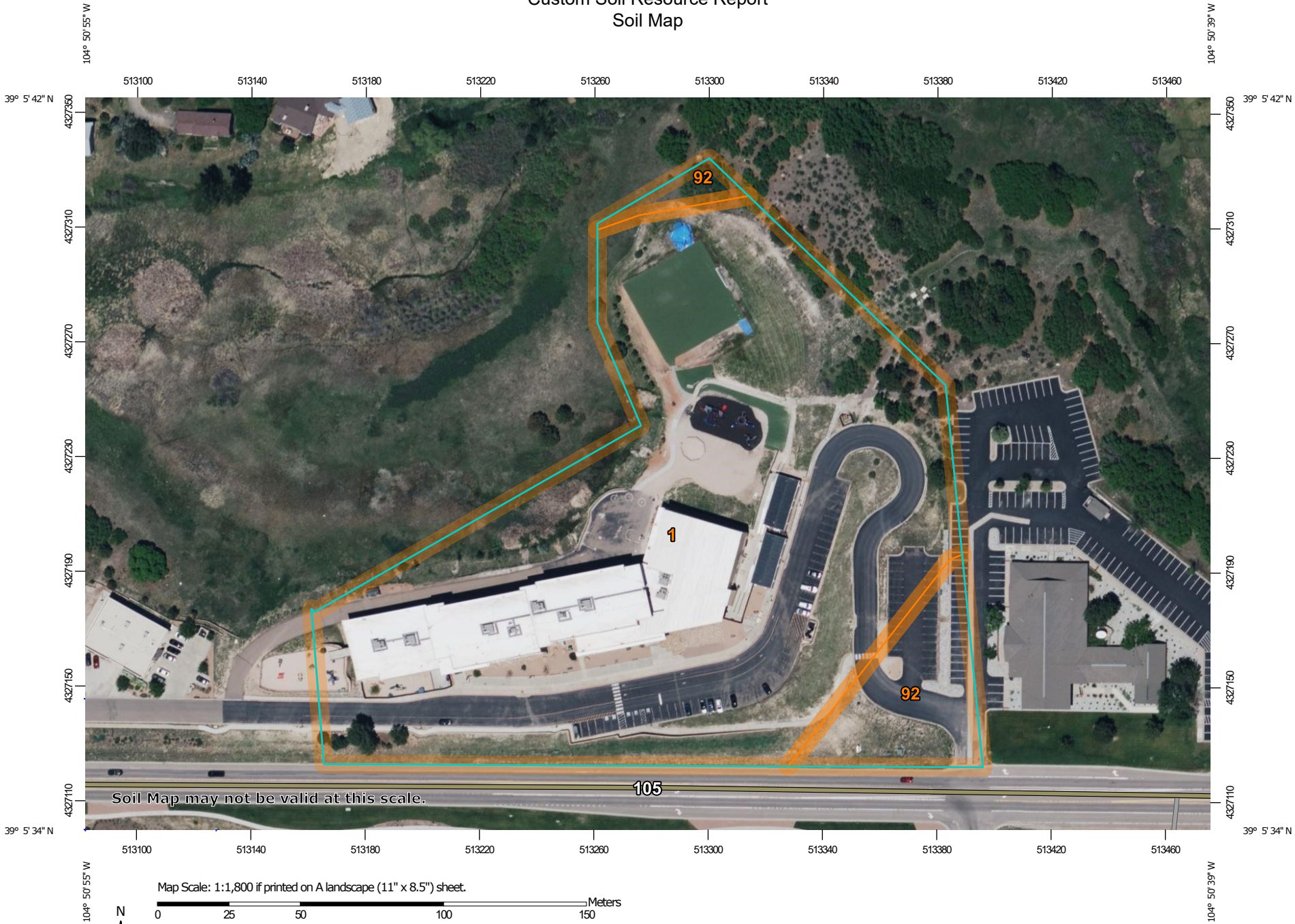
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



Map Scale: 1:1,800 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 25 50 100 150

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84

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
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- 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 20, Sep 2, 2022

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
1	Alamosa loam, 1 to 3 percent slopes	6.8	90.0%
92	Tomah-Crowfoot loamy sands, 3 to 8 percent slopes	0.8	10.0%
Totals for Area of Interest		**7.6**	**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,

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

1—Alamosa loam, 1 to 3 percent slopes

Map Unit Setting

National map unit symbol: 3670
Elevation: 7,200 to 7,700 feet
Farmland classification: Prime farmland if irrigated and reclaimed of excess salts and sodium

Map Unit Composition

Alamosa and similar soils: 85 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Alamosa

Setting

Landform: Fans, flood plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium

Typical profile

A - 0 to 6 inches: loam
Bt - 6 to 14 inches: clay loam
Btk - 14 to 33 inches: clay loam
Cg1 - 33 to 53 inches: sandy clay loam
Cg2 - 53 to 60 inches: sandy loam

Properties and qualities

Slope: 1 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: About 12 to 18 inches
Frequency of flooding: NoneFrequent
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Maximum salinity: Very slightly saline to strongly saline (2.0 to 16.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 10.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5w
Hydrologic Soil Group: D
Ecological site: R048AY241CO - Mountain Meadow
Hydric soil rating: Yes

Minor Components

Other soils

Percent of map unit:
Hydric soil rating: No

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: Alluvial fans, hills
Landform position (three-dimensional): Side slope, crest
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
Hydric soil rating: No

Description of Crowfoot

Setting

Landform: Hills, alluvial fans
Landform position (three-dimensional): Side slope, crest
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

References

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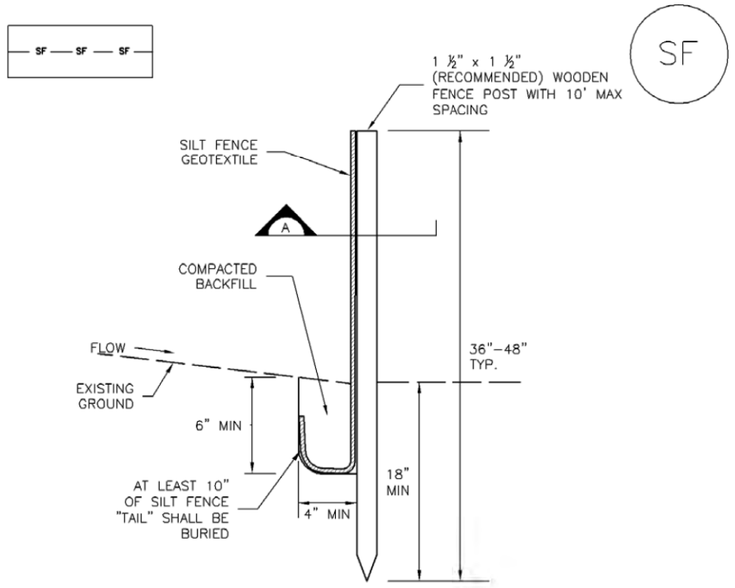
APPENDIX E – AMENDMENT LOG

SWMP Amendment Log

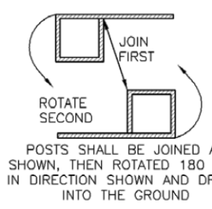
Project Name:
SWMP Contact:

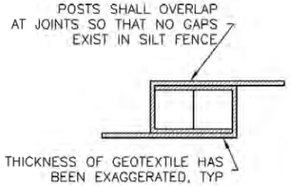
Amendment No.	Description of the Amendment	Date of Amendment	Update Drawings	Amendment Prepared by [Name(s) and Title]

APPENDIX F – CONTROL MEASURE DETAILS



SILT FENCE





SECTION A

SF–1. SILT FENCE

SILT FENCE INSTALLATION NOTES

1. SILT FENCE MUST BE PLACED AWAY FROM THE TOE OF THE SLOPE TO ALLOW FOR WATER PONDING. SILT FENCE AT THE TOE OF A SLOPE SHOULD BE INSTALLED IN A FLAT LOCATION AT LEAST SEVERAL FEET (2–5 FT) FROM THE TOE OF THE SLOPE TO ALLOW ROOM FOR PONDING AND DEPOSITION.

2. A UNIFORM 6" X 4" ANCHOR TRENCH SHALL BE EXCAVATED USING TRENCHER OR SILT FENCE INSTALLATION DEVICE. NO ROAD GRADERS, BACKHOES, OR SIMILAR EQUIPMENT SHALL BE USED.

3. COMPACT ANCHOR TRENCH BY HAND WITH A "JUMPING JACK" OR BY WHEEL ROLLING. COMPACTION SHALL BE SUCH THAT SILT FENCE RESISTS BEING PULLED OUT OF ANCHOR TRENCH BY HAND.

4. SILT FENCE SHALL BE PULLED TIGHT AS IT IS ANCHORED TO THE STAKES. THERE SHOULD BE NO NOTICEABLE SAG BETWEEN STAKES AFTER IT HAS BEEN ANCHORED TO THE STAKES.

5. SILT FENCE FABRIC SHALL BE ANCHORED TO THE STAKES USING 1" HEAVY DUTY STAPLES OR NAILS WITH 1" HEADS. STAPLES AND NAILS SHOULD BE PLACED 3" ALONG THE FABRIC DOWN THE STAKE.

6. AT THE END OF A RUN OF SILT FENCE ALONG A CONTOUR, THE SILT FENCE SHOULD BE TURNED PERPENDICULAR TO THE CONTOUR TO CREATE A "J–HOOK." THE "J–HOOK" EXTENDING PERPENDICULAR TO THE CONTOUR SHOULD BE OF SUFFICIENT LENGTH TO KEEP RUNOFF FROM FLOWING AROUND THE END OF THE SILT FENCE (TYPICALLY 10' – 20').

7. SILT FENCE SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

SILT 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 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 REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. SEDIMENT ACCUMULATED UPSTREAM OF THE SILT FENCE SHALL BE REMOVED AS NEEDED TO MAINTAIN THE FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 6".

5. REPAIR OR REPLACE SILT FENCE WHEN THERE ARE SIGNS OF WEAR, SUCH AS SAGGING, TEARING, OR COLLAPSE.

6. SILT FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION, OR IS REPLACED BY AN EQUIVALENT PERIMETER SEDIMENT CONTROL BMP.

7. WHEN SILT FENCE IS REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

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

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

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Designer: M. CHAVEZ
Detailer: M. CHAVEZ
Sheet Subset: SWMPDET
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Project No./Code: 19734
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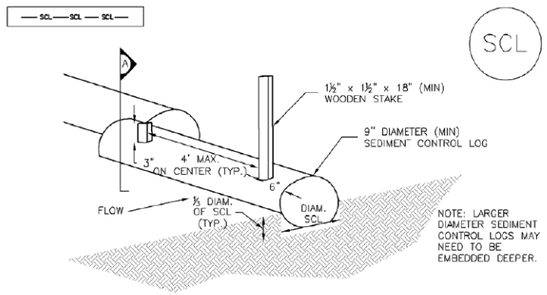
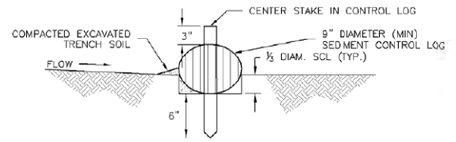
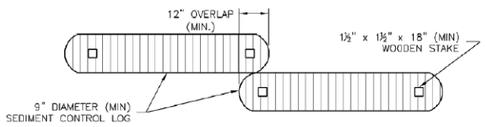
Sheet Number 71 of 82



SEDIMENT CONTROL LOG

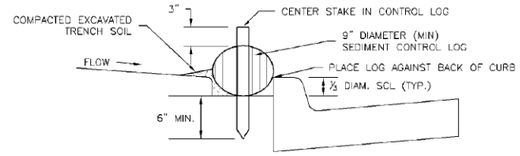


SECTION A

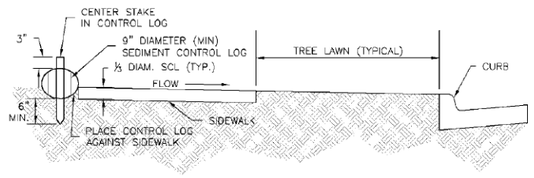


SEDIMENT CONTROL LOG JOINTS

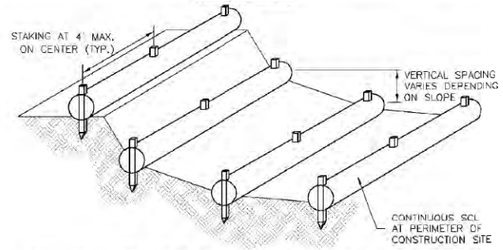
SCL-1. SEDIMENT CONTROL LOG



SCL-2. SEDIMENT CONTROL LOG AT BACK OF CURB



SCL-3. SEDIMENT CONTROL LOG AT SIDEWALK WITH TREE LAWN



SCL-4. SEDIMENT CONTROL LOGS TO CONTROL SLOPE LENGTH

SEDIMENT CONTROL LOG INSTALLATION NOTES

1. SEE PLAN VIEW FOR LOCATION AND LENGTH OF SEDIMENT CONTROL LOGS.

2. SEDIMENT CONTROL LOGS THAT ACT AS A PERIMETER CONTROL SHALL BE INSTALLED PRIOR TO ANY UPGRADIENT LAND-DISTURBING ACTIVITIES.

3. SEDIMENT CONTROL LOGS SHALL CONSIST OF STRAW, COMPOST, EXCELSIOR OR COCONUT FIBER, AND SHALL BE FREE OF ANY NOXIOUS WEED SEEDS OR DEFECTS INCLUDING RIPS, HOLES AND OBVIOUS WEAR.

4. SEDIMENT CONTROL LOGS MAY BE USED AS SMALL CHECK DAMS IN DITCHES AND SWALES. HOWEVER, THEY SHOULD NOT BE USED IN PERENNIAL STREAMS OR HIGH VELOCITY DRAINAGE WAYS.

5. IT IS RECOMMENDED THAT SEDIMENT CONTROL LOGS BE TRENCHED INTO THE GROUND TO A DEPTH OF APPROXIMATELY ⅓ OF THE DIAMETER OF THE LOG. IF TRENCHING TO THIS DEPTH IS NOT FEASIBLE AND/OR DESIRABLE (SHORT TERM INSTALLATION WITH DESIRE NOT TO DAMAGE LANDSCAPE) A LESSER TRENCHING DEPTH MAY BE ACCEPTABLE WITH MORE ROBUST STAKING

6. THE UPHILL SIDE OF THE SEDIMENT CONTROL LOG SHALL BE BACKFILLED WITH SOIL THAT IS FREE OF ROCKS AND DEBRIS. THE SOIL SHALL BE TIGHTLY COMPACTED INTO THE SHAPE OF A RIGHT TRIANGLE USING A SHOVEL OR WEIGHTED LAWN ROLLER.

7. FOLLOW MANUFACTURERS' GUIDANCE FOR STAKING. IF MANUFACTURERS' INSTRUCTIONS DO NOT SPECIFY SPACING, STAKES SHALL BE PLACED ON 4' CENTERS AND EMBEDDED A MINIMUM OF 6" INTO THE GROUND. 3" OF THE STAKE SHALL PROTRUDE FROM THE TOP OF THE LOG. STAKES THAT ARE BROKEN PRIOR TO INSTALLATION SHALL BE REPLACED.

SEDIMENT CONTROL LOG 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.

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.

4. SEDIMENT ACCUMULATED UPSTREAM OF SEDIMENT CONTROL LOG SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY ½ OF THE HEIGHT OF THE SEDIMENT CONTROL LOG.

5. SEDIMENT CONTROL LOG SHALL BE REMOVED AT THE END OF CONSTRUCTION. IF DISTURBED AREAS EXIST AFTER REMOVAL, THEY SHALL BE COVERED WITH TOP SOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

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

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

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Designer: M.CHAVEZ
Detailer: M.CHAVEZ
Sheet Subset: SWMPDET
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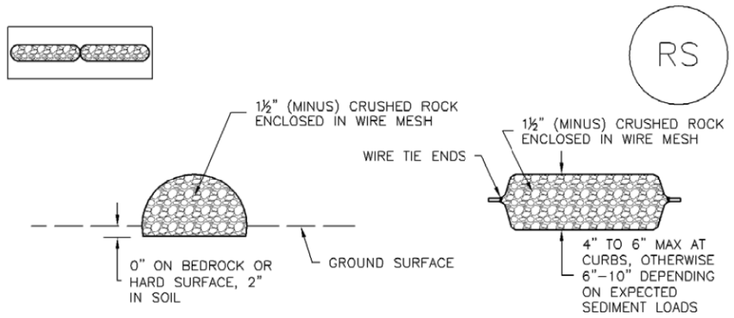
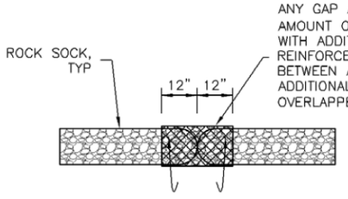


ROCK SOCK SECTION

ROCK SOCK PLAN



ROCK SOCK JOINTING

GRADATION TABLE	
SIEVE SIZE	MASS PERCENT PASSING SQUARE MESH SIEVES
	NO. 4
2"	100
1½"	90 – 100
1"	20 – 55
¾"	0 – 15
⅜"	0 – 5
MATCHES SPECIFICATIONS FOR NO. 4 COARSE AGGREGATE FOR CONCRETE PER AASHTO M43. ALL ROCK SHALL BE FRACTURED FACE, ALL SIDES.	

ROCK SOCK INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   –LOCATION(S) OF ROCK SOCKS.
2. CRUSHED ROCK SHALL BE 1½" (MINUS) IN SIZE WITH A FRACTURED FACE (ALL SIDES) AND SHALL COMPLY WITH GRADATION SHOWN ON THIS SHEET (1½" MINUS).
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"
4. WIRE MESH SHALL BE SECURED USING "HOG RINGS" OR WIRE TIES AT 6" CENTERS ALONG ALL JOINTS AND AT 2" CENTERS ON ENDS OF SOCKS.
5. SOME MUNICIPALITIES MAY ALLOW THE USE OF FILTER FABRIC AS AN ALTERNATIVE TO WIRE MESH FOR THE ROCK ENCLOSURE.

RS–1. ROCK SOCK PERIMETER CONTROL

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 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 REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. ROCK SOCKS SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED, OR DAMAGED BEYOND REPAIR.
5. SEDIMENT ACCUMULATED UPSTREAM OF ROCK SOCKS SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY ½ OF THE HEIGHT OF THE ROCK SOCK.
6. ROCK SOCKS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.
7. WHEN ROCK SOCKS ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, 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.

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. UDFCD NEITHER NDORSES NOR DISCOURAGES USE OF PROPRIETARY PROTECTION PRODUCTS; HOWEVER, IN THE EVENT PROPRIETARY METHODS ARE USED, THE APPROPRIATE DETAIL FROM THE MANUFACTURER MUST BE INCLUDED IN THE SWMP AND THE BMP MUST BE INSTALLED AND MAINTAINED AS SHOWN IN THE MANUFACTURER'S DETAILS.

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Detailer: M.CHAVEZ
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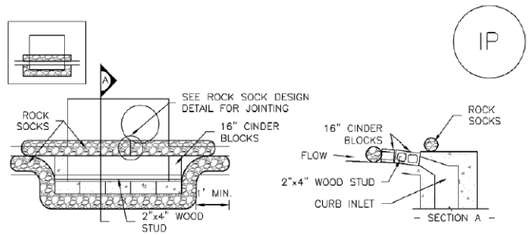
Sheet Number 73 of 82



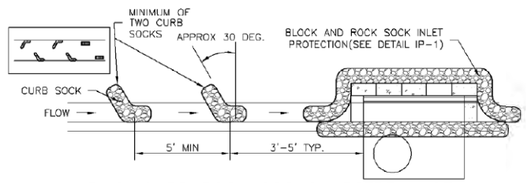
IP–1. BLOCK AND ROCK SOCK SUMP OR ON GRADE INLET PROTECTION

BLOCK AND CURB SOCK INLET PROTECTION INSTALLATION NOTES

1. SEE ROCK SOCK DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.

2. CONCRETE "CINDER" BLOCKS SHALL BE LAID ON THEIR SIDES AROUND THE INLET IN A SINGLE ROW, ABUTTING ONE ANOTHER WITH THE OPEN END FACING AWAY FROM THE CURB.

3. GRAVEL BAGS SHALL BE PLACED AROUND CONCRETE BLOCKS, CLOSELY ABUTTING ONE ANOTHER AND JOINTED TOGETHER IN ACCORDANCE WITH ROCK SOCK DESIGN DETAIL.



IP–2. CURB ROCK SOCKS UPSTREAM OF INLET PROTECTION

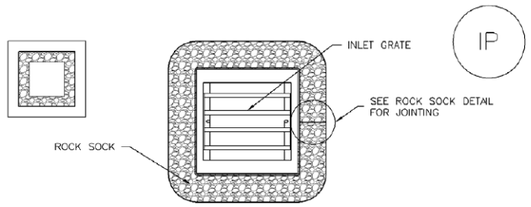
CURB ROCK SOCK INLET PROTECTION INSTALLATION NOTES

1. SEE ROCK SOCK DESIGN DETAIL INSTALLATION REQUIREMENTS.

2. PLACEMENT OF THE SOCK SHALL BE APPROXIMATELY 30 DEGREES FROM PERPENDICULAR IN THE OPPOSITE DIRECTION OF FLOW.

3. SOCKS ARE TO BE FLUSH WITH THE CURB AND SPACED A MINIMUM OF 5 FEET APART.

4. AT LEAST TWO CURB SOCKS IN SERIES ARE REQUIRED UPSTREAM OF ON–GRADE INLETS.



IP–3. ROCK SOCK SUMP/AREA INLET PROTECTION

ROCK SOCK SUMP/AREA INLET PROTECTION INSTALLATION NOTES
1. SEE ROCK SOCK DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.

2. STRAW WATTLES/SEDIMENT CONTROL LOGS MAY BE USED IN PLACE OF ROCK SOCKS FOR INLETS IN PERVIOUS AREAS. INSTALL PER SEDIMENT CONTROL LOG DETAIL.

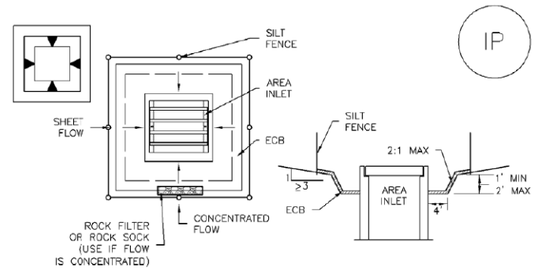
IP–4. SILT FENCE FOR SUMP INLET PROTECTION

SILT FENCE INLET PROTECTION INSTALLATION NOTES

1. SEE SILT FENCE DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.

2. POSTS SHALL BE PLACED AT EACH CORNER OF THE INLET AND AROUND THE EDGES AT A MAXIMUM SPACING OF 3 FEET.

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.



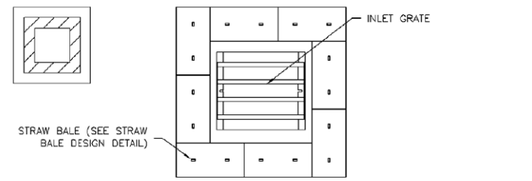
IP–5. OVEREXCAVATION INLET PROTECTION

OVEREXCAVATION INLET PROTECTION INSTALLATION NOTES

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 SMALL CONTRIBUTING DRAINAGE AREA.

2. WHEN USING FOR CONCENTRATED FLOWS, SHAPE BASIN IN 2:1 RATIO WITH LENGTH ORIENTED TOWARDS DIRECTION OF FLOW.

3. SEDIMENT MUST BE PERIODICALLY REMOVED FROM THE OVEREXCAVATED AREA.



IP–6. STRAW BALE FOR SUMP INLET PROTECTION

STRAW BALE BARRIER INLET PROTECTION INSTALLATION NOTES

1. SEE STRAW BALE DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.

2. BALES SHALL BE PLACED IN A SINGLE ROW AROUND THE INLET WITH ENDS OF BALES TIGHTLY ABUTTING ONE ANOTHER.

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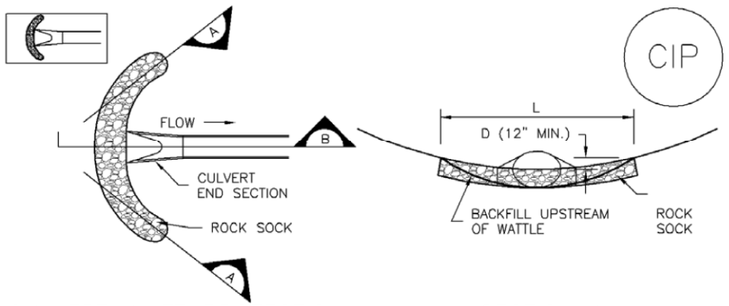
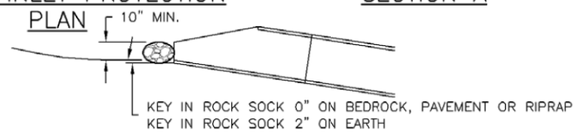


CULVERT INLET PROTECTION PLAN

SECTION A



SECTION B

CIP–1. CULVERT INLET PROTECTION

CULVERT INLET PROTECTION INSTALLATION NOTES

1. SEE PLAN VIEW FOR
   –LOCATION OF CULVERT INLET PROTECTION.

2. SEE ROCK SOCK DESIGN DETAIL FOR ROCK GRADATION REQUIREMENTS AND JOINTING DETAIL.

CULVERT INLET PROTECTION 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.

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.

4. SEDIMENT ACCUMULATED UPSTREAM OF THE CULVERT SHALL BE REMOVED WHEN THE SEDIMENT DEPTH IS ½ THE HEIGHT OF THE ROCK SOCK.

5. CULVERT INLET PROTECTION SHALL REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS PERMANENTLY STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.

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

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

GENERAL INLET PROTECTION INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   –LOCATION OF INLET PROTECTION.
   –TYPE OF INLET PROTECTION (IP.1, IP.2, IP.3, IP.4, IP.5, IP.6)

2. INLET PROTECTION SHALL BE INSTALLED PROMPTLY AFTER INLET CONSTRUCTION OR PAVING IS COMPLETE (TYPICALLY WITHIN 48 HOURS). IF A RAINFALL/RUNOFF EVENT IS FORECAST, INSTALL INLET PROTECTION PRIOR TO ONSET OF EVENT.

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

INLET PROTECTION MAINTENANCE NOTES

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.

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.

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 ¼ OF THE HEIGHT FOR STRAW BALES.

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.

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.

(DETAIL ADAPTED 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.

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

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

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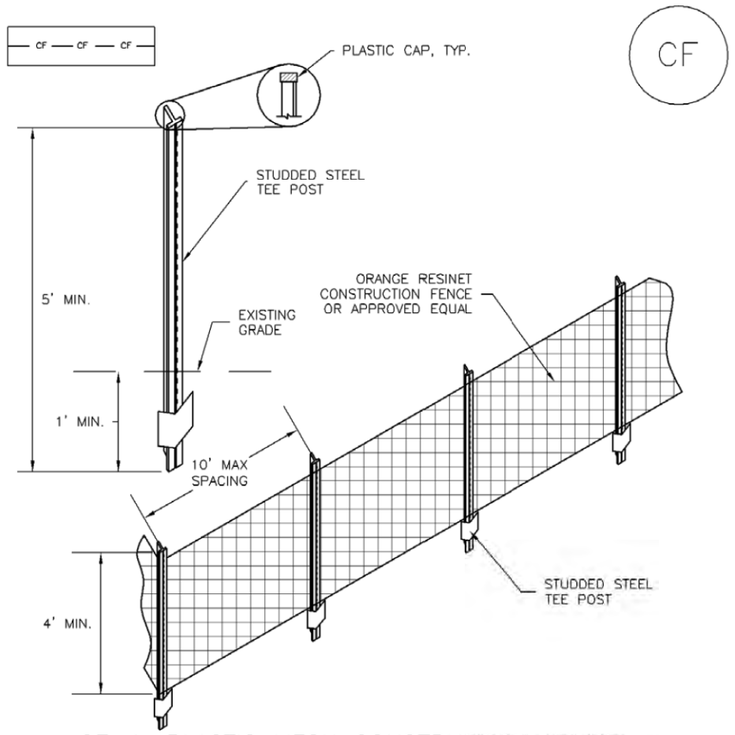

CF–1. PLASTIC MESH CONSTRUCTION FENCE

CONSTRUCTION FENCE INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   –LOCATION OF CONSTRUCTION FENCE.

2. CONSTRUCTION FENCE SHOWN SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

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'.

5. CONSTRUCTION FENCE SHALL BE SECURELY FASTENED TO THE TOP, MIDDLE, AND BOTTOM OF EACH POST.

Construction Fence (CF) SM-3

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 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 REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. CONSTRUCTION FENCE SHALL BE REPAIRED OR REPLACED WHEN THERE ARE SIGNS OF 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.

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.

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

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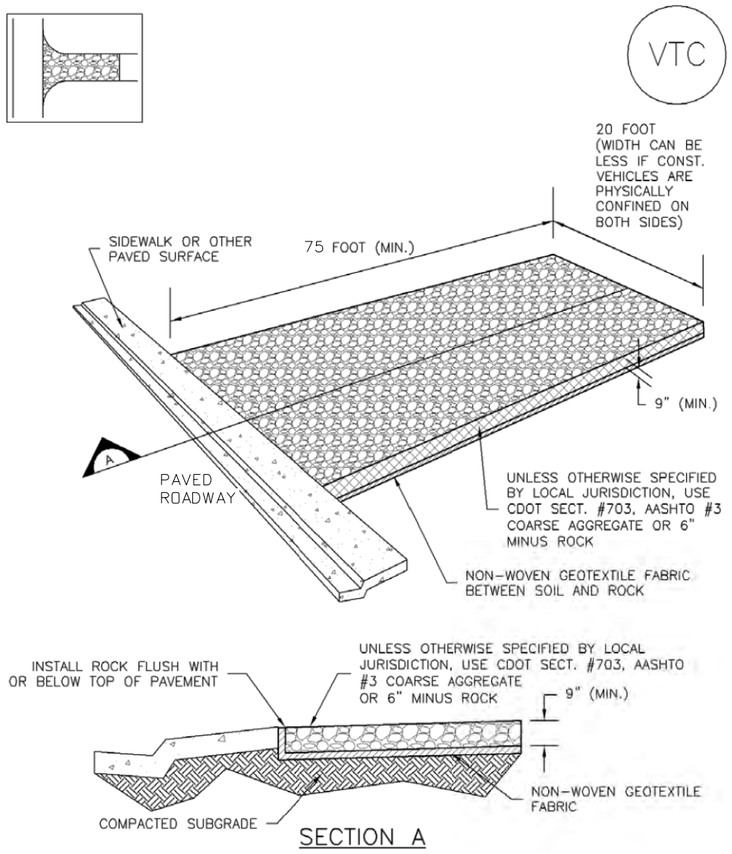
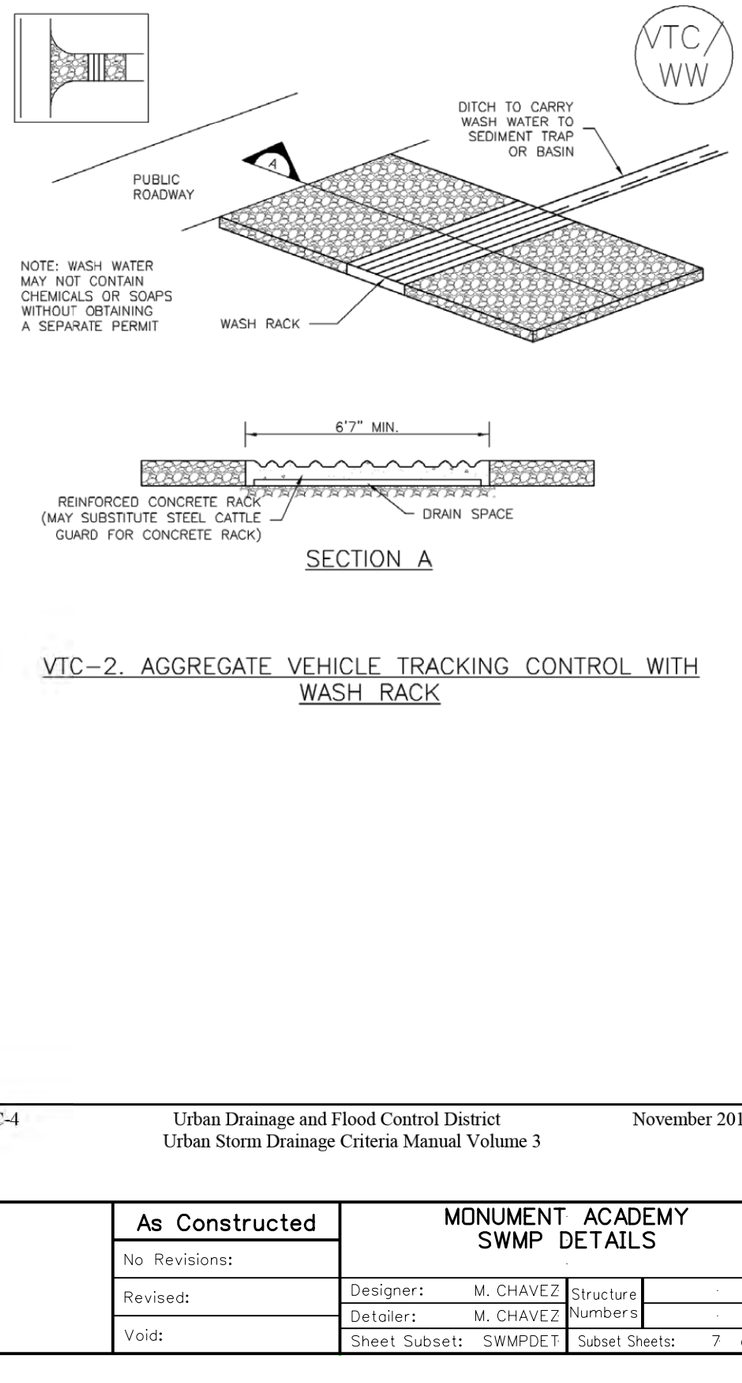


VTC-1. AGGREGATE VEHICLE TRACKING CONTROL



VTC-2. AGGREGATE VEHICLE TRACKING CONTROL WITH WASH RACK

Know what's below. Call before you dig.

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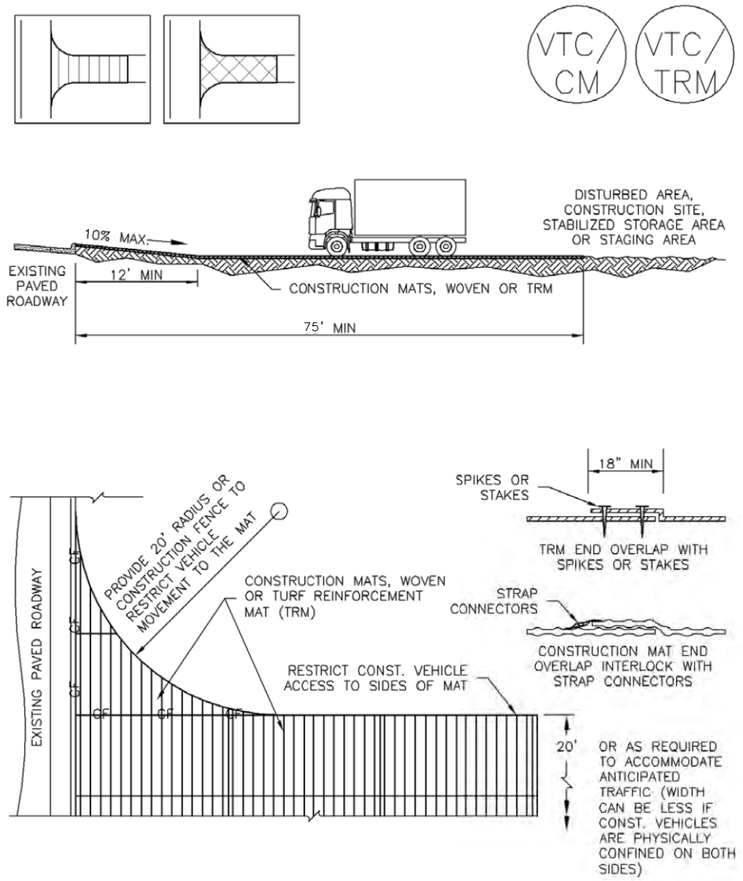

VTC–3. VEHICLE TRACKING CONTROL W/ CONSTRUCTION MAT OR TURF REINFORCEMENT MAT (TRM)

STABILIZED CONSTRUCTION ENTRANCE/EXIT INSTALLATION NOTES

1. SEE PLAN VIEW FOR
   –LOCATION OF CONSTRUCTION ENTRANCE(S)/EXIT(S).
   –TYPE OF CONSTRUCTION ENTRANCE(S)/EXITS(S) (WITH/WITHOUT WHEEL WASH, CONSTRUCTION MAT OR TRM).

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.

3. A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE LOCATED AT ALL ACCESS POINTS WHERE VEHICLES ACCESS THE CONSTRUCTION SITE FROM PAVED RIGHT–OF–WAYS.

4. STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

5. A NON–WOVEN GEOTEXTILE FABRIC SHALL BE PLACED UNDER THE STABILIZED CONSTRUCTION ENTRANCE/EXIT PRIOR TO THE PLACEMENT OF ROCK.

6. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.

STABILIZED CONSTRUCTION ENTRANCE/EXIT 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.

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.

4. ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY TO THE STABILIZED ENTRANCE/EXIT TO MAINTAIN A CONSISTENT DEPTH.

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.

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

(DETAILS ADAPTED FROM CITY OF BROOMFIELD, COLORADO, NOT AVAILABLE IN AUTOCAD)

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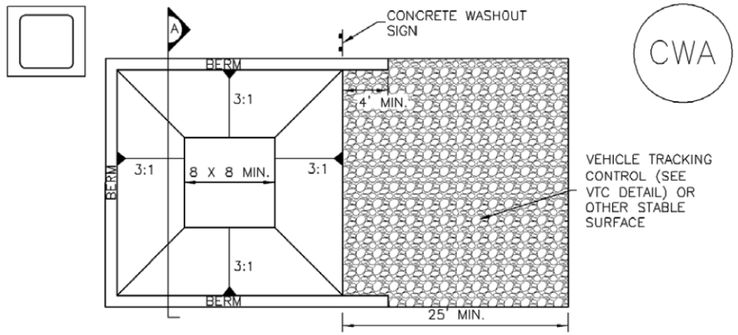
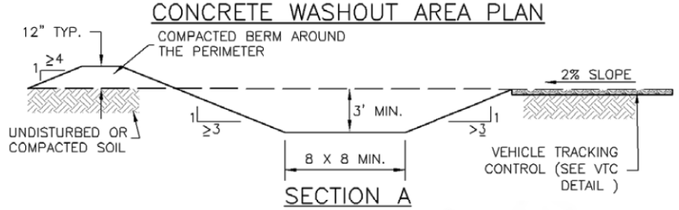


CONCRETE WASHOUT AREA PLAN



SECTION A

CWA–1. CONCRETE WASHOUT AREA

CWA INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   –CWA INSTALLATION LOCATION.

2. DO NOT LOCATE AN UNLINED CWA WITHIN 400' OF ANY NATURAL DRAINAGE PATHWAY OR WATERBODY. DO NOT LOCATE WITHIN 1,000' OF ANY WELLS OR DRINKING WATER SOURCES. IF SITE CONSTRAINTS MAKE THIS INFEASIBLE, OR IF HIGHLY PERMEABLE SOILS EXIST ON SITE, THE CWA MUST BE INSTALLED WITH AN IMPERMEABLE LINER (16 MIL MIN. THICKNESS) OR SURFACE STORAGE ALTERNATIVES USING PREFABRICATED CONCRETE WASHOUT DEVICES OR A LINED ABOVE GROUND STORAGE ARE SHOULD BE USED.

3. THE CWA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.

4. CWA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' BY 8' SLOPES LEADING OUT OF THE SUBSURFACE PIT SHALL BE 3:1 OR FLATTER. THE PIT SHALL BE AT LEAST 3' DEEP.

5. BERM SURROUNDING SIDES AND BACK OF THE CWA SHALL HAVE MINIMUM HEIGHT OF 1'.

6. VEHICLE TRACKING PAD SHALL BE SLOPED 2% TOWARDS THE CWA.

7. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CWA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CWA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.

8. USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

CWA 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.

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.

4. THE CWA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE. CONCRETE MATERIALS, ACCUMULATED IN PIT, SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF 2'.

5. CONCRETE WASHOUT WATER, WASTED PIECES OF CONCRETE AND ALL OTHER DEBRIS IN THE SUBSURFACE PIT SHALL BE TRANSPORTED FROM THE JOB SITE IN A WATER–TIGHT CONTAINER AND DISPOSED OF PROPERLY.

6. THE CWA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.

7. WHEN THE CWA IS REMOVED, COVER THE DISTURBED AREA WITH TOP SOIL, SEED AND MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

(DETAIL ADAPTED FROM DOUGLAS COUNTY, COLORADO AND THE CITY 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.

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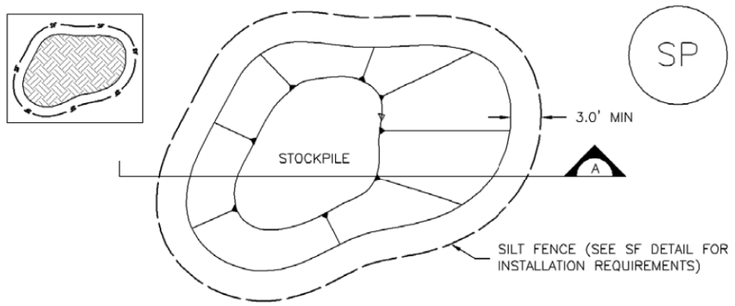
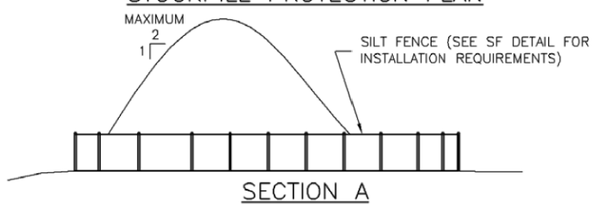


STOCKPILE PROTECTION PLAN



SECTION A

SP–1. STOCKPILE PROTECTION

STOCKPILE PROTECTION INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   –LOCATION OF STOCKPILES.
   –TYPE OF STOCKPILE PROTECTION.

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 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 IN PLACE FOR A MORE LIMITED TIME PERIOD (TYPICALLY 30–60 DAYS).

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.

STOCKPILE PROTECTION 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.

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.

STOCKPILE PROTECTION MAINTENANCE NOTES

4. IF PERIMETER PROTECTION MUST BE MOVED TO ACCESS SOIL STOCKPILE, REPLACE PERIMETER CONTROLS BY THE END OF THE WORKDAY.

5. STOCKPILE PERIMETER CONTROLS CAN BE REMOVED ONCE ALL THE MATERIAL FROM THE STOCKPILE HAS BEEN USED.

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

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

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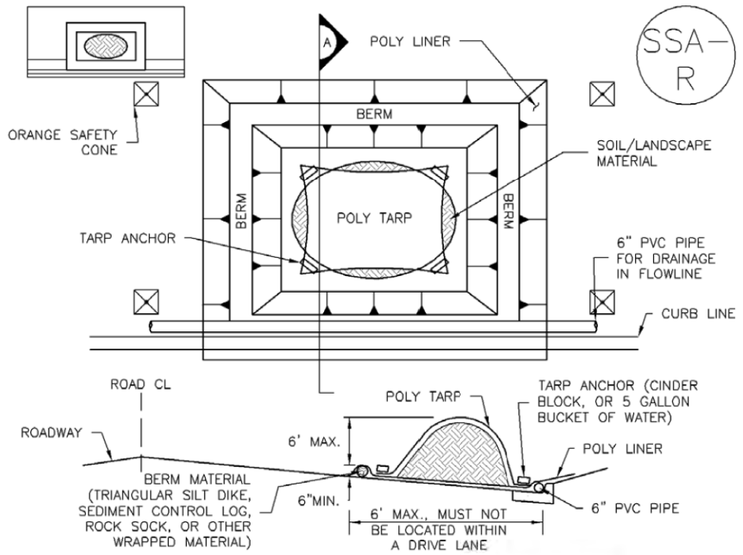

SP–2. MATERIALS STAGING IN ROADWAY

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 MATERIALS.

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 DAMAGE OR LOSS OF INTEGRITY.

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.

MATERIALS STAGING IN ROADWAY 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.

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.

4. INSPECT PVC PIPE ALONG CURB LINE FOR CLOGGING AND DEBRIS. REMOVE OBSTRUCTIONS PROMPTLY.

5. CLEAN MATERIAL FROM PAVED SURFACES BY SWEEPING OR VACUUMING.

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

(DETAILS ADAPTED FROM AURORA, COLORADO)

Print Date: 6/7/2022		Sheet Revisions			As Constructed	MONUMENT ACADEMY SWMP DETAILS	Project No./Code
File Name: School Access SWMP_Details11.dgn		Date:	Comments	Init.	No Revisions:		19734
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5555 TECH CENTER DRIVE, SUITE 310 COLORADO SPRINGS, CO 80919 PHONE: 719-272-8800					Void:	Detailer: M.CHAVEZ / Sheet Subset: SWMPDET / Subset Sheets: 10 of 10	Sheet Number 81 of 82

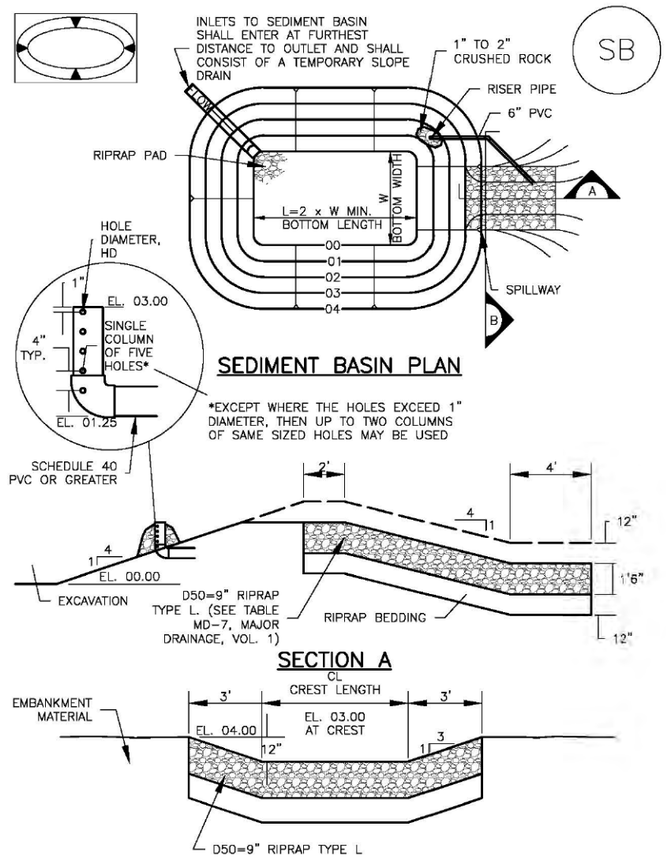

TABLE SB-1. SIZING INFORMATION FOR STANDARD SEDIMENT BASIN

Upstream Drainage Area (rounded to nearest acre), (ac)	Basin Bottom Width (W), (ft)	Spillway Crest Length (CL), (ft)	Hole Diameter (HD), (in)
1	12 ½	2	9/32
2	21	3	13/16
3	28	5	½
4	33 ½	6	9/16
5	38 ½	8	21/32
6	43	9	21/32
7	47 ¼	11	23/32
8	51	12	27/32
9	55	13	⅞
10	58 ¼	15	15/16
11	61	16	31/32
12	64	18	1
13	67 ½	19	1 1/16
14	70 ½	21	1 1/8
15	73 ¼	22	1 3/16

SEDIMENT BASIN INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   -LOCATION OF SEDIMENT BASIN.
   -TYPE OF BASIN (STANDARD BASIN OR NONSTANDARD BASIN).
   -FOR STANDARD BASIN, BOTTOM WIDTH W, CREST LENGTH CL, AND HOLE DIAMETER, HD.
   -FOR NONSTANDARD BASIN, SEE CONSTRUCTION DRAWINGS FOR DESIGN OF BASIN INCLUDING RISER HEIGHT H, NUMBER OF COLUMNS N, HOLE DIAMETER HD AND PIPE DIAMETER D.

2. FOR STANDARD BASIN, BOTTOM DIMENSION MAY BE MODIFIED AS LONG AS BOTTOM AREA IS NOT REDUCED.

3. SEDIMENT BASINS SHALL BE INSTALLED PRIOR TO ANY OTHER LAND-DISTURBING ACTIVITY THAT RELIES ON ON BASINS AS AS A STORMWATER CONTROL.

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.

5. EMBANKMENT MATERIAL SHALL BE COMPACTED TO AT LEAST 95 PERCENT OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D698.

6. 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 ANY SEDIMENT BASIN(S) THAT HAVE BEEN INDIVIDUALLY DESIGNED FOR DRAINAGE AREAS LARGER THAN 15 ACRES.

SEDIMENT BASIN 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.

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.

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 BELOW THE SPILLWAY CREST).

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.

(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.

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APPENDIX G – MISC.