

STORMWATER MANAGEMENT PLAN FOR TAMLIN ROAD RV STORAGE

Prepared For:

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12748 Barossa Valley Road
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JR Project No. 25134.00

June, 2019

Please add PCD File No. PPR1945

ENGINEER'S CERTIFICATION

I hereby certify that this Stormwater Management Plan for Tamlin Road RV Storage was prepared under my direct supervision in accordance with the provisions of the Colorado Water Quality Control Act, and the El Paso County Drainage Criteria Manual. JR Engineering does not and will not assume liability for the implementation of the methods, requirements, and standards set forth in this report.

Mike Bramlett, P.E.
Registered Professional Engineer
State of Colorado No. 32314
For and on behalf of JR Engineering, LLC.

TABLE OF CONTENTS

| | | |
|----|--|---|
| 1. | Applicant / Contact Information | 1 |
| 2. | Site Description and Location | 1 |
| 3. | Proposed Sequence of Major Activities | 2 |
| 4. | BMPs for Stormwater Pollution Prevention | 2 |
| 5. | Final Stabilization and Long-Term Stormwater Management..... | 5 |
| 6. | Inspection and Maintenance..... | 6 |

Appendices

- A. Vicinity Map
- B. Soils Map
- C. GEC Plans and Details
- D. SWMP Checklist

1. Applicant / Contact Information

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SWMP Administrator: Contractor

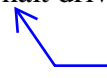
Contractor: To Be Determined

2. Site Description and Location

Tamlin Road Storage Yard, known as 'the site' from herein, is currently vacant land located in a portion of Section 20, Township 13 South, Range 65 West of the Sixth Principal Meridian in unincorporated El Paso County, Colorado. The site is located northeast of the Tamlin Road and Marksheffel Road intersection. The site is bound by Tamlin Road to the west and north, vacant land owned by Norwood to the east and south. Stetson Hills Filing No. 3 and 4 is located adjacent to the site on the west side of Marksheffel Road. A vicinity map has been presented in Appendix A.

Sand Creek East Fork tributary is located approximately ¼ mile east of the site. The ultimate outfall of this drainageway is Fountain Creek. However, there are no existing stormwater facilities located on site.

The site is approximately 16.5 acres and is covered with sparse trees and native vegetation. There are no existing structures on the site. An existing dirt road proceeds southeast from Tamlin Road through the site to service an existing water tank, located south of the site. In the developed condition, the site will be asphalt drive aisles, parking stalls and a small kiosk.



gravel?

Site details:

- a. Estimated area to undergo disturbance: 14.7 acres (Total Area = 16.5 acres)
- b. Soil erosion potential and potential impacts upon discharge: The site is comprised solely of Truckton sandy loam, which is classified as a Type A soil by the NRCS. Group A soils exhibit a high infiltration rate when thoroughly wet and consist chiefly of deep, well drained to excessively drained gravelly sands. These soils have a high rate of water transmission. A NRCS soil survey map is presented in Appendix B. Eroded soil may adversely impact downstream drainageways. BMPs

- will be installed and maintained to mitigate adverse impacts due to soil erosion.
- c. Existing vegetation: Native meadow grasses (approximately 99% coverage).
 - d. Location and description of potential pollution sources: Potential sources of pollution include: onsite vehicle fueling, portable toilets, and temporary stock pile. The locations of these sources are shown in the GEC plans in Appendix C or will be determined by the contractor.
 - e. Spill prevention and pollution controls for dedicated batch plants: Not applicable for this site since there will be no dedicated batch plants.
 - f. Location and description of anticipated non-stormwater components of discharge: A potential source of non-stormwater discharge could be the irrigation of permanent seeding (PS). Irrigation will be kept at a rate so as to not create runoff.
 - g. Ultimate receiving waters: There is a ridge that divides the drainage patterns on the site. Roughly 6.5 acres drains southwest with slopes between 3-10% while the remaining 10 acres drains northeast with slopes up to 8%. Both onsite drainage basins ultimately discharge to Fountain Creek.

Please update the dates accordingly as we are in October.

3. Proposed Sequence of Major Activities

The project will follow standard construction sequences for construction, i.e., clearing and grubbing, over excavation, overlot grading, utility installation, and street paving.

The contractor will be responsible for implementing and maintaining the erosion and sediment control measures described in this document and the accompanying design drawings. The contractor may designate these tasks to certain subcontractors as they see fit, but the ultimate responsibility for implementing these controls and their proposed function at each phase of the project remains with the contractor.

The order of major activities (with estimated completion dates) will be as follows:

1. Install VTC and other perimeter soil erosion control measures (September 2019).
2. Clear and rough grade for improvements (September 2019).
3. Excavate and install improvements including underground piping and drainage structures (September 2019).
4. Fine grading and placement of gravel drive aisles (October 2019).
5. Install landscaping (November 2020).
6. Clean up and final stabilization (November 2020).

4. BMPs for Stormwater Pollution Prevention

See GEC plans in Appendix C for BMP locations and detail sheets.

a. Erosion and Sediment Controls

i. Structural BMPs:

1. Sediment basins (SBs) to collect runoff before it enters receiving waters
2. Silt fence (SF) along downstream limits of disturbed areas to filter

The concrete washout area location has not been shown on the the GEC plan. Revise accordingly.

This has not been included in the GEC plan. Either remove from this list or show it on the GEC plan

- sediment from runoff
- 3. Stabilized staging area (SSA) near site entrance to consolidate construction equipment in a stabilized location
- 4. Construction marker (CM) to identify limits of construction (LOC)
- 5. Vehicle tracking control (VTC) at site entrance to prevent sediment from leaving the site via vehicle tires
- 6. Temporary stock pile (TSP) to consolidate materials such as topsoil in a controlled area bounded by silt fence
- 7. Erosion control blanket (ECB) placed on any slopes of 3:1 or greater, including the sides of sediment basins
- 8. Inlet protection (IP) around culvert entrances
- 9. Outlet protection (OP) at culvert outlets
- 10. Diversion ditch (DD) to convey runoff to sediment basins
- 11. Concrete washout area (CWA) to allow a controlled area for concrete trucks to be washed
- 12. Reinforced rock berm (RRB) in Tributary 6 to slow and filter sediment from runoff
- ii. Non-structural BMPs:
 - 1. Mulching (MU) to stabilize soils and promote seed growth
 - 2. Permanent seeding (PS) to stabilize disturbed areas
- b. Materials Handling and Spill Prevention
 - i. General Materials Handling Practices:
 - 1. Potential pollutants shall be stored and used in a manner consistent with the manufacturer's instructions in a secure location. To the extent practical, material storage areas should not be located near storm drain inlets and should be equipped with covers, roofs, or secondary containment as required to prevent storm water from contacting stored materials. Chemicals that are not compatible shall be stored in segregated areas so that spilled materials cannot combine and react.
 - 2. Disposal of materials shall be in accordance with the manufacturer's instructions and applicable local, state, and federal regulations.
 - 3. Materials no longer required for construction shall be removed from the site as soon as possible.
 - 4. Adequate garbage, construction waste, and sanitary waste handling and disposal facilities shall be provided as necessary to keep the site clear of obstruction and BMPs clear and functional.
 - ii. Specific Materials Handling Practices
 - 1. All pollutants, including waste materials and demolition debris, that occur onsite during construction shall be handled in a way that does not contaminate storm water.
 - 2. All chemicals including liquid products, petroleum products, water treatment chemicals, and wastes stored onsite shall be covered and protected from vandalism.
 - 3. Maintenance, fueling, and repair of all equipment and vehicles involving oil changes, hydraulic system drain down, degreasing

operations, fuel tank drain down and removal, and other activities which may result in the accidental release of contaminants, shall be conducted under cover during wet weather and on an impervious surface to prevent release of contaminants onto the ground. Materials spilled during maintenance operations shall be cleaned up immediately and properly disposed of.

4. Wheel wash water shall be settled and discharged onsite by infiltration.
5. Application of agricultural chemicals, including fertilizers and pesticides, shall be conducted in a manner and at application rates that will not result in loss of chemical to storm water runoff. Follow manufacturer's recommendations for application rates and procedures.
6. pH-modifying sources shall be managed to prevent contamination of runoff and storm water collected onsite. The most common sources of pH-modifying materials are bulk cement, cement kiln dust (CKD), fly ash, new concrete washing and curing waters, waste streams generated from concrete grinding and sawing, exposed aggregate processes, and concrete pumping and mixer washout waters.

iii. Spill Prevention and Response Procedures

1. The primary objective in responding to a spill is to quickly contain the material(s) and prevent or minimize their migration into storm water runoff and conveyance systems. If the release has impacted onsite storm water, it is critical to contain the released materials onsite and prevent their release into receiving waters.
2. Spill Response Procedures:
 - a. Notify site superintendent immediately when a spill, or the threat of a spill, is observed. The superintendent shall assess the situation and determine the appropriate response.
 - b. If spills represent an imminent threat of escaping onsite facilities and entering the receiving waters, site personnel shall respond immediately to contain the release and notify the superintendent after the situation has stabilized.
 - c. The site superintendent, or his/her designee, shall be responsible for completing a spill reporting form and for reporting the spill to the appropriate agency.
 - d. Spill response equipment shall be inspected and maintained as necessary to replace any materials used in spill response activities.
3. Spill kits shall be on-hand at all fueling sites. Spill kit location(s) shall be reported to the SWMP administrator.
4. Absorbent materials shall be on-hand at all fueling areas for use in containing inadvertent spills. Containers shall be on-hand at all fueling sites for disposal of used absorbents.
5. Recommended components of spill kits include the following:

- a. Oil absorbent pads (one bale)
- b. Oil absorbent booms (40 feet)
- c. 55-gallon drums (2)
- d. 9-mil plastic bags (10)
- e. Personal protective equipment including gloves and goggles
- 6. Concrete wash water: unless confined in a pre-defined, bermed containment area, the cleaning of concrete truck delivery chutes is prohibited at the job site.
- 7. Notification procedures:
 - a. In the event of an accident or spill, the SWMP administrator shall be notified.
 - b. Depending on the nature of the spill material involved, the Colorado Department of Public Health and Environment (24-hour spill reporting line: 887-518-5608), downstream water users, or other agencies may also need to be notified.
 - c. Any spill of oil which 1) violates water quality standards, 2) produces a "sheen" on a surface water, or 3) causes a sludge or emulsion, or any hazardous substance release, or hazardous waste release which exceeds the reportable quantity, must be reported immediately by telephone to the National Response Center Hotline at (800) 424-8802.

5. Final Stabilization and Long-Term Stormwater Management

- a. Permanent seeding will be provided to achieve long-term stabilization of the site.
- b. Seed Mix: "Foothills" or approved equal.
- c. Seeding Application Rate: Drill seed 0.25" to 0.5" into the soil. In small areas not accessible to a drill, hand broadcast at double the rate and rake 0.25" to 0.5" into the soil. Apply seed at the following rates:
 - i. Dryland: 20-25 lbs/acre
 - ii. Irrigated: 40 lbs/acre
- d. Soil stabilization Practices:
 - i. Mulching Application: Apply 1-1/2 tons of certified weed free hay per acre mechanically crimped into the soil in combination with an organic mulch tackifier. On slopes and ditches requiring a blanket, the blanket shall be placed in lieu of mulch and mulch tackifier.
- e. Soil Conditioning and Fertilization Requirements:
 - i. Soil conditioner, organic amendment shall be applied to all seeded areas at 3 CY / 1000 SF.
 - ii. Fertilizer shall consist of 90% fungal biomass (mycelium) and 10% potassium-magnesia with a grade of 6-1-3 or approved equal. Fertilizer shall be applied as recommended by seed supplier.
- f. Final stabilization is reached when all soil-disturbing activities at the site have been completed, and uniform vegetative cover has been established with an individual plant density of at least 70 percent of pre-disturbance levels, or equivalent permanent, physical erosion reduction methods have been employed.

6. Inspection and Maintenance

a. Inspection Schedules:

- i. The contractor shall inspect BMPs once every 14 days at a minimum, and immediately (within 24 hours) after any precipitation or snowmelt event that causes surface erosion (i.e. that results in storm water running across the ground), to ensure that BMPs are maintained in effective operating condition.

b. Inspection Procedures:

i. Site Inspection / Observation Items:

1. Construction site perimeter and discharge points
2. All disturbed areas
3. Areas used for material / waste storage that are exposed to precipitation
4. Other areas having a significant potential for storm water pollution, such as demolition areas or concrete washout areas, or locations where vehicles enter or leave the site
5. Erosion and sediment control measures identified in the SWMP
6. Any other structural BMPs that may require maintenance, such as secondary containment around fuel tanks, or the conditions of spill response kits.

ii. Inspection Requirements:

1. Determine if there is any evidence of, or potential for, pollutants entering the receiving waters.
2. Review BMPs to determine if they still meet design and operational criteria in the SWMP, and if they continue to adequately control pollutants at the site.
3. Upgrade and/or revise any BMPs not operating in accordance with the SWMP and update the SWMP to reflect any revisions.

iii. BMP Maintenance / Replacement and Failed BMPs:

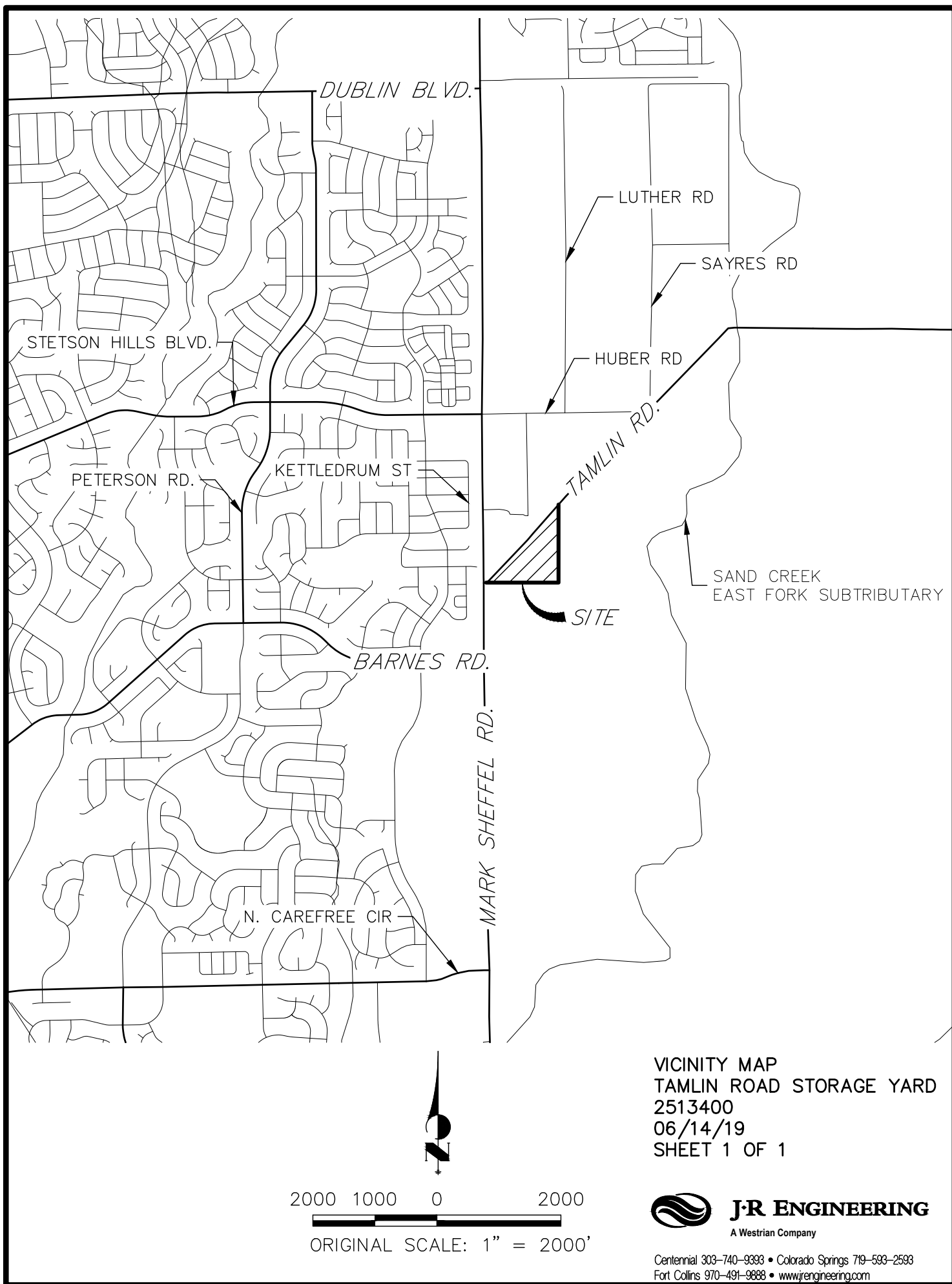
1. The contractor shall remove sediment that has been collected by perimeter controls, such as silt fence and inlet protection, on a regular basis to prevent failure of BMPs, and remove potential of sediment from being discharged from the site in the event of BMP failure.
2. Removed sediment must be moved to an appropriate location where it will not become an additional pollutant source, and should never be placed in ditches or streams.
3. The contractor shall update the GEC as required with any new BMPs added during the construction period.
4. The contractor shall address BMPs that have failed or have the potential to fail without maintenance or modifications, as soon as possible, immediately in most cases, to prevent discharge of pollutants.

iv. Record Keeping and Documenting Inspections:

1. The contractor shall maintain records of all inspection reports, including signed inspection logs, at the project site.
2. The permittee shall document inspection results and maintain a record of the results for a period of 3 years following expiration or inactivation of permit coverage.
3. Site inspection records shall include the following:
 - a. Inspection date
 - b. Name and title of personnel making the inspection
 - c. Location of discharges of sediment or other pollutants from the site
 - d. Location(s) of BMPs in need of maintenance
 - e. Location(s) of BMPs that failed to operate as designed or proved inadequate for a particular location
 - f. Location(s) where additional BMPs are needed that were not in place at the time of inspection
 - g. Deviations from the minimum inspection schedule

APPENDIX A – VICINITY MAP

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APPENDIX B – SOILS MAP

Hydrologic Soil Group—El Paso County Area, Colorado



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

Soil Rating Polygons

 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Lines


 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Points

 A
 A/D
 B
 B/D

 C
 C/D
 D
 Not rated or not available

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 16, Sep 10, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 15, 2011—Aug 17, 2017

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.

Hydrologic Soil Group

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|------------------------------------|--|--------|--------------|----------------|
| 97 | Truckton sandy loam, 3 to 9 percent slopes | A | 17.9 | 100.0% |
| Totals for Area of Interest | | | 17.9 | 100.0% |

Description

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

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

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

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

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

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

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

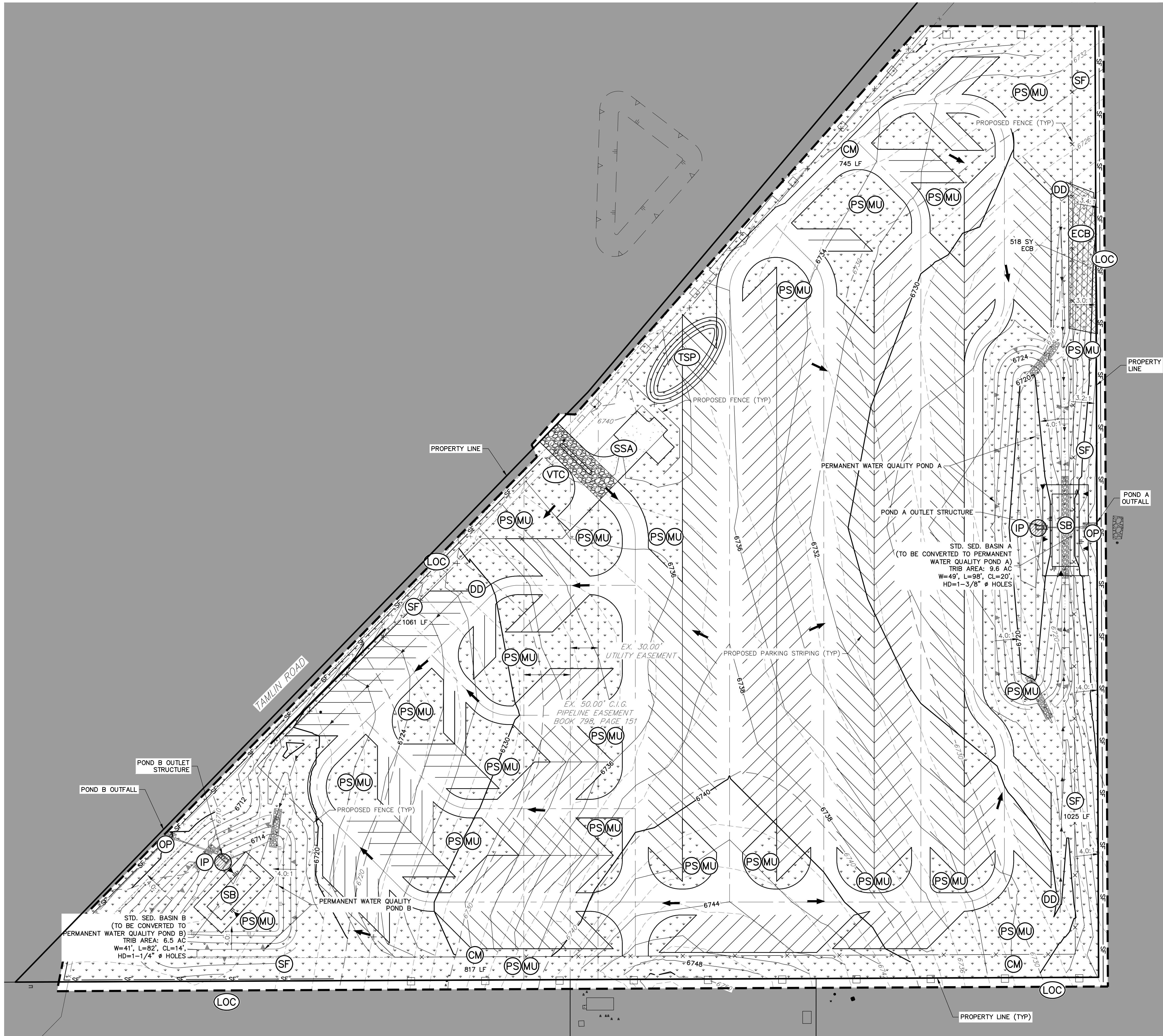
Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

APPENDIX C – GEC PLANS AND DETAILS

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LEGEND

| | | |
|-------------------------------------|-------|--|
| SEDIMENT BASIN | (SB) | |
| SILT FENCE | (SF) | |
| STABILIZED STAGING AREA | (SSA) | |
| CONSTRUCTION MARKER | (CM) | |
| VEHICLE TRACKING CONTROL | (VTC) | |
| TEMPORARY STOCK PILE | (TSP) | |
| EROSION CONTROL BLANKET | (ECB) | |
| INLET PROTECTION | (IP) | |
| OUTLET PROTECTION | (OP) | |
| DIVERSION DITCH AND DIKE, TEMPORARY | (DD) | |
| CUT AND FILL LINE | | |
| LIMITS OF CONSTRUCTION | (LOC) | |
| CONCRETE WASHOUT AREA | (CWA) | |
| PERMANENT SEEDING/MULCHING | (MU) | |

EROSION CONTROL NOTES

1. THE REQUIRED SEEDING AND MULCHING AREA FOR THE SITE TOTALS 7.61 ACRES. ALL AREAS NOT PAVED OR GRAVEL, SHALL BE SEEDDED AND MULCHED. SEE EROSION CONTROL PLAN FOR AREAS REQUIRING SEEDING AND MULCHING.



50 25 0 50 100
ORIGINAL SCALE: 1" = 50'



TAMLIN ROAD RV STORAGE

GRADING AND EROSION
CONTROL PLAN

SHEET 4 OF 14

JOB NO. 25134.00

BY DATE

BY DATE

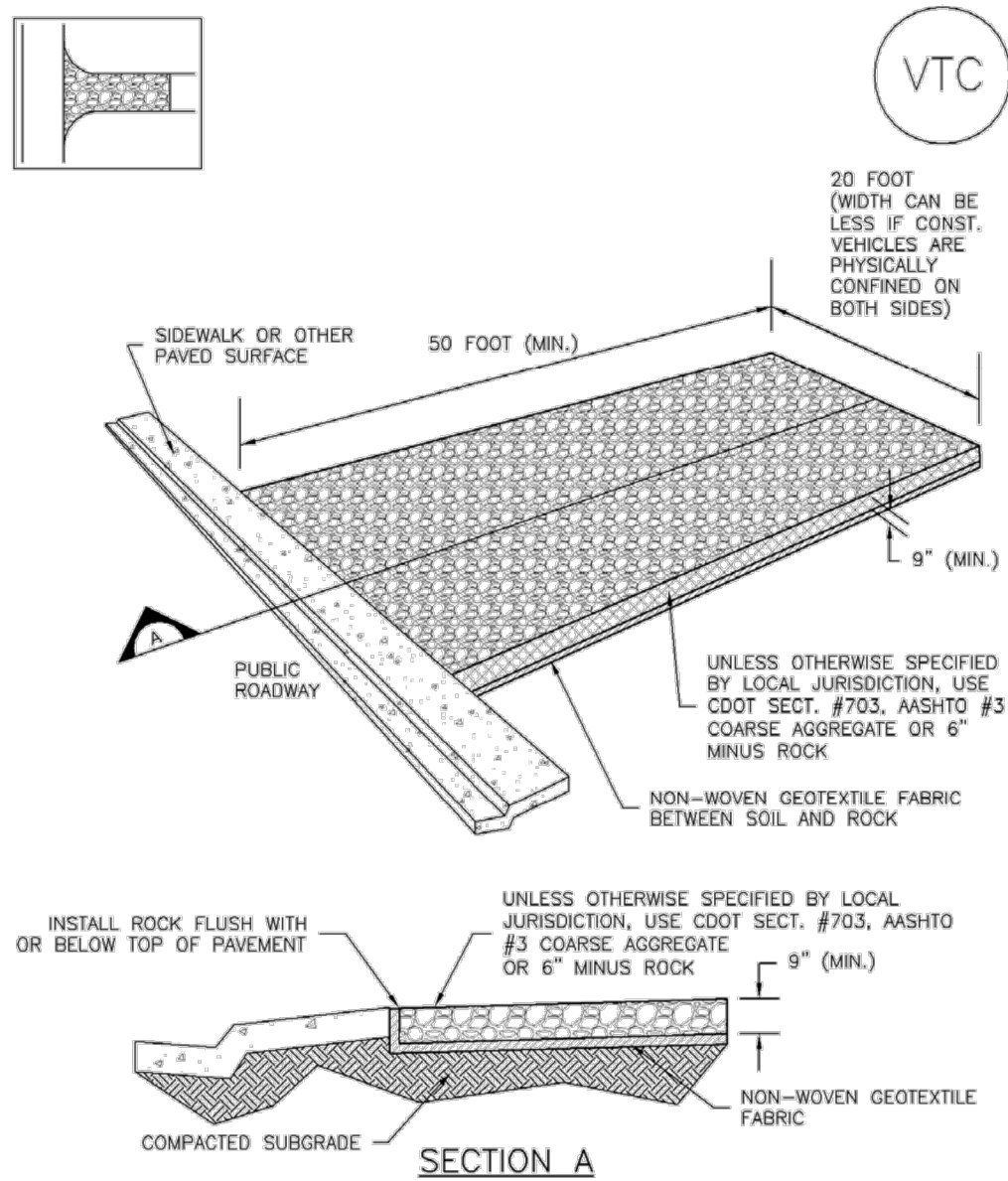
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UNTIL SUCH TIME AS
THESE DRAWINGS ARE
APPROVED BY THE
APPROPRIATE REVIEWING
AGENCIES, OR ENGINEERING
APPROVES THEIR USE,
THESE DRAWINGS ARE
DESIGNATED BY WRITTEN
AUTHORIZATION.

Vehicle Tracking Control (VTC)

SM-4

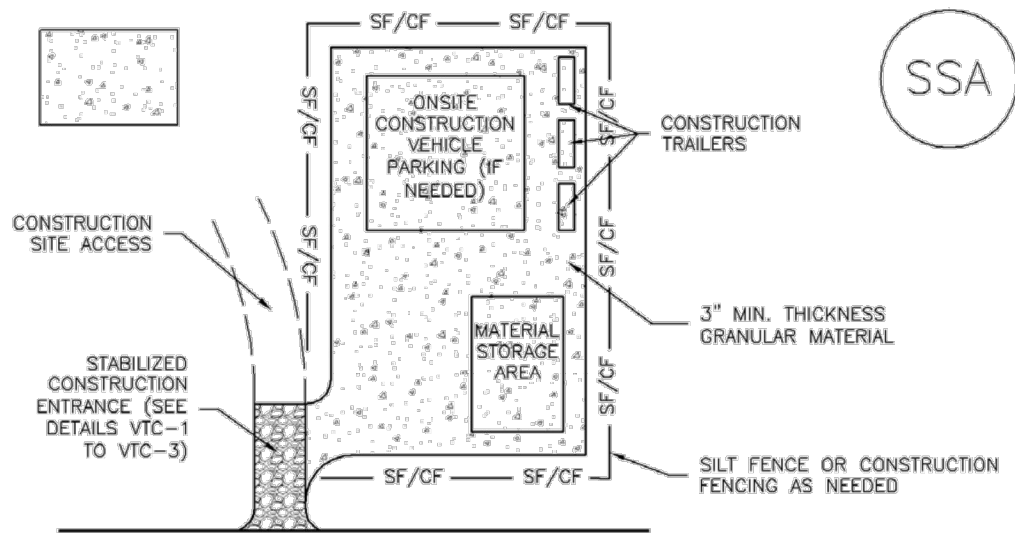


VTC-1. AGGREGATE VEHICLE TRACKING CONTROL

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Stabilized Staging Area (SSA)

SM-6



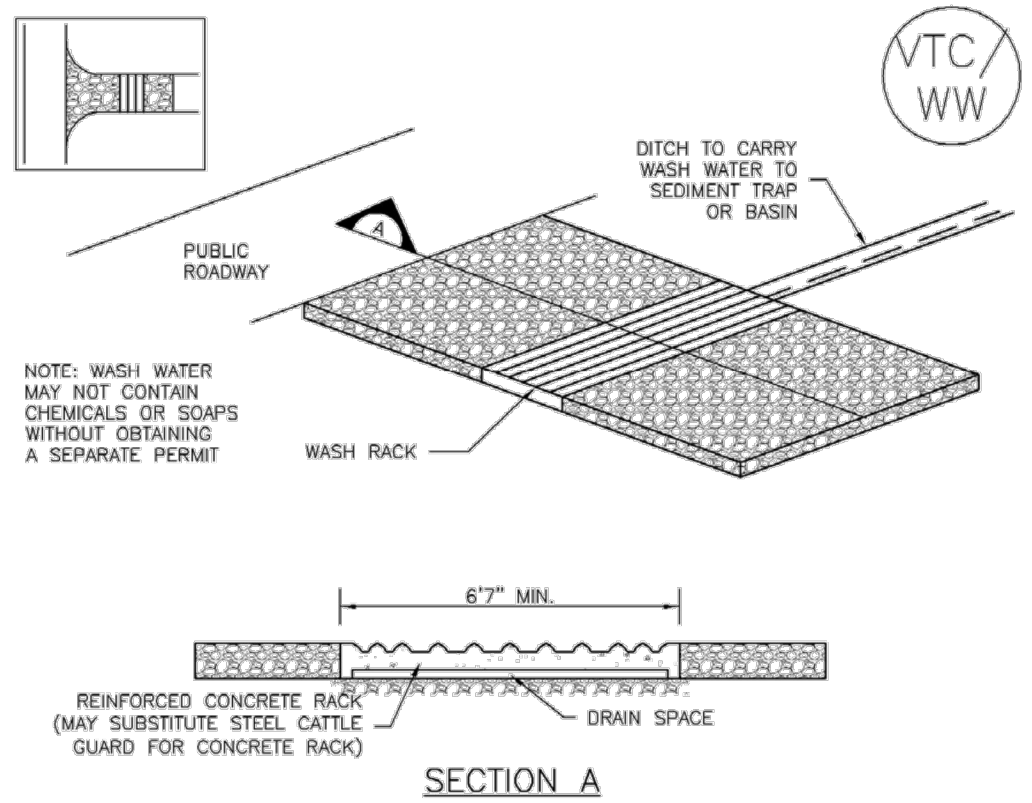
SSA-1. STABILIZED STAGING AREA

- STABILIZED STAGING AREA INSTALLATION NOTES**
- SEE PLAN VIEW FOR
-LOCATION OF STAGING AREA(S).
-CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM THE LOCAL JURISDICTION.
 - STABILIZED STAGING AREA SHOULD BE APPROPRIATE FOR THE NEEDS OF THE SITE. OVERSIZING RESULTS IN A LARGER AREA TO STABILIZE FOLLOWING CONSTRUCTION.
 - STAGING AREA SHALL BE STABILIZED PRIOR TO OTHER OPERATIONS ON THE SITE.
 - THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM 3" THICK GRANULAR MATERIAL.
 - UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.
 - ADDITIONAL PERIMETER BMPs MAY BE REQUIRED INCLUDING BUT NOT LIMITED TO SILT FENCE AND CONSTRUCTION FENCING.
- STABILIZED STAGING AREA MAINTENANCE NOTES**
- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
 - FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
 - WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
 - ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY IF RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.

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

SM-4

Vehicle Tracking Control (VTC)



VTC-2. AGGREGATE VEHICLE TRACKING CONTROL WITH WASH RACK

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

SM-6

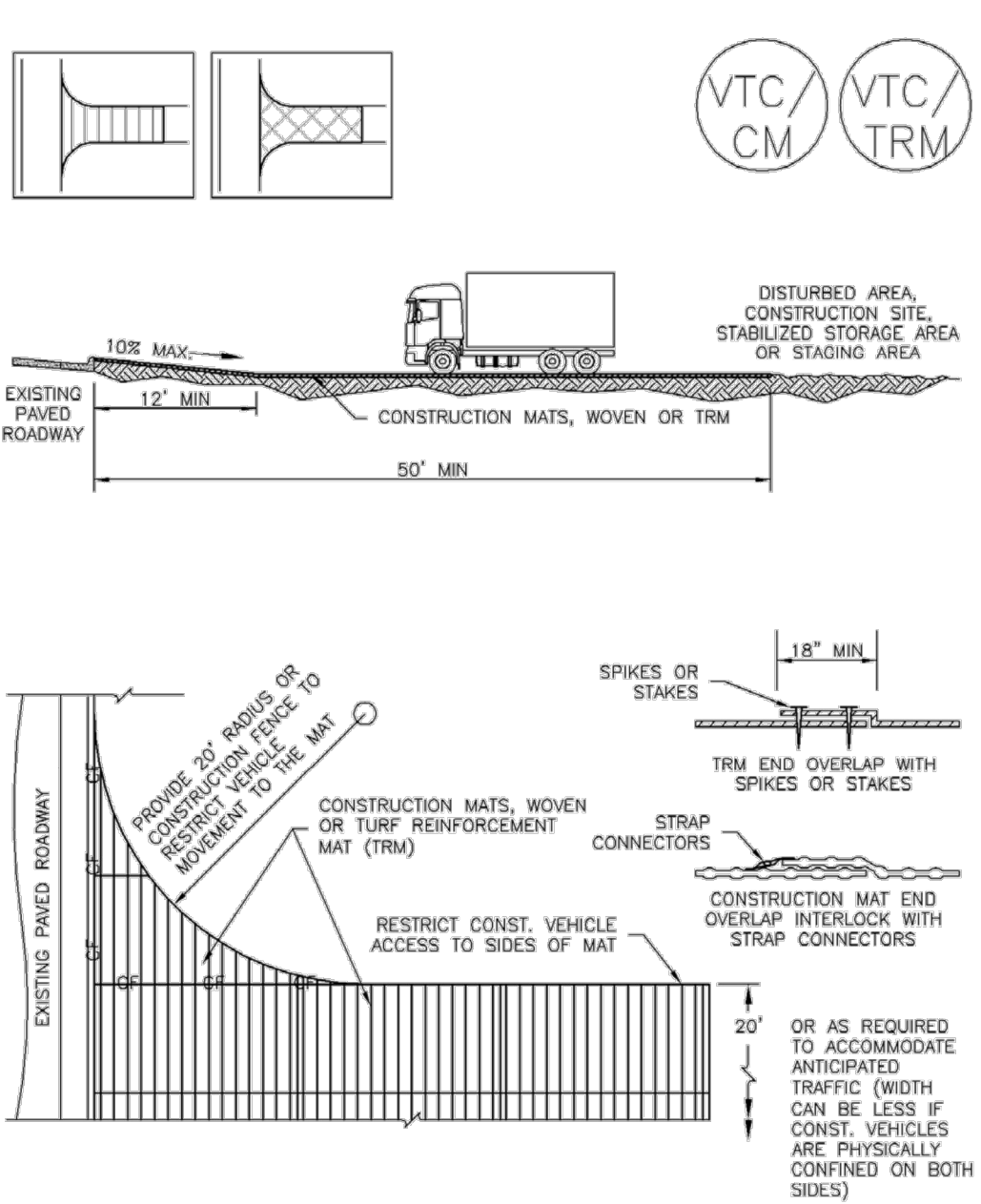
Stabilized Staging Area (SSA)

- STABILIZED STAGING AREA MAINTENANCE NOTES**
- STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING/LOADING OPERATIONS.
 - THE STABILIZED STAGING AREA SHALL BE REMOVED AT THE END OF CONSTRUCTION. THE GRANULAR MATERIAL SHALL BE REMOVED OR, IF APPROVED BY THE LOCAL JURISDICTION, USED ON SITE, AND THE AREA COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION.
- NOTE:** MANY MUNICIPALITIES PROHIBIT THE USE OF RECYCLED CONCRETE AS GRANULAR MATERIAL FOR STABILIZED STAGING AREAS DUE TO DIFFICULTIES WITH RE-ESTABLISHMENT OF VEGETATION IN AREAS WHERE RECYCLED CONCRETE WAS PLACED.
- NOTE:** MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.
- (DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO, NOT AVAILABLE IN AUTOCAD)

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

Vehicle Tracking Control (VTC)

SM-4

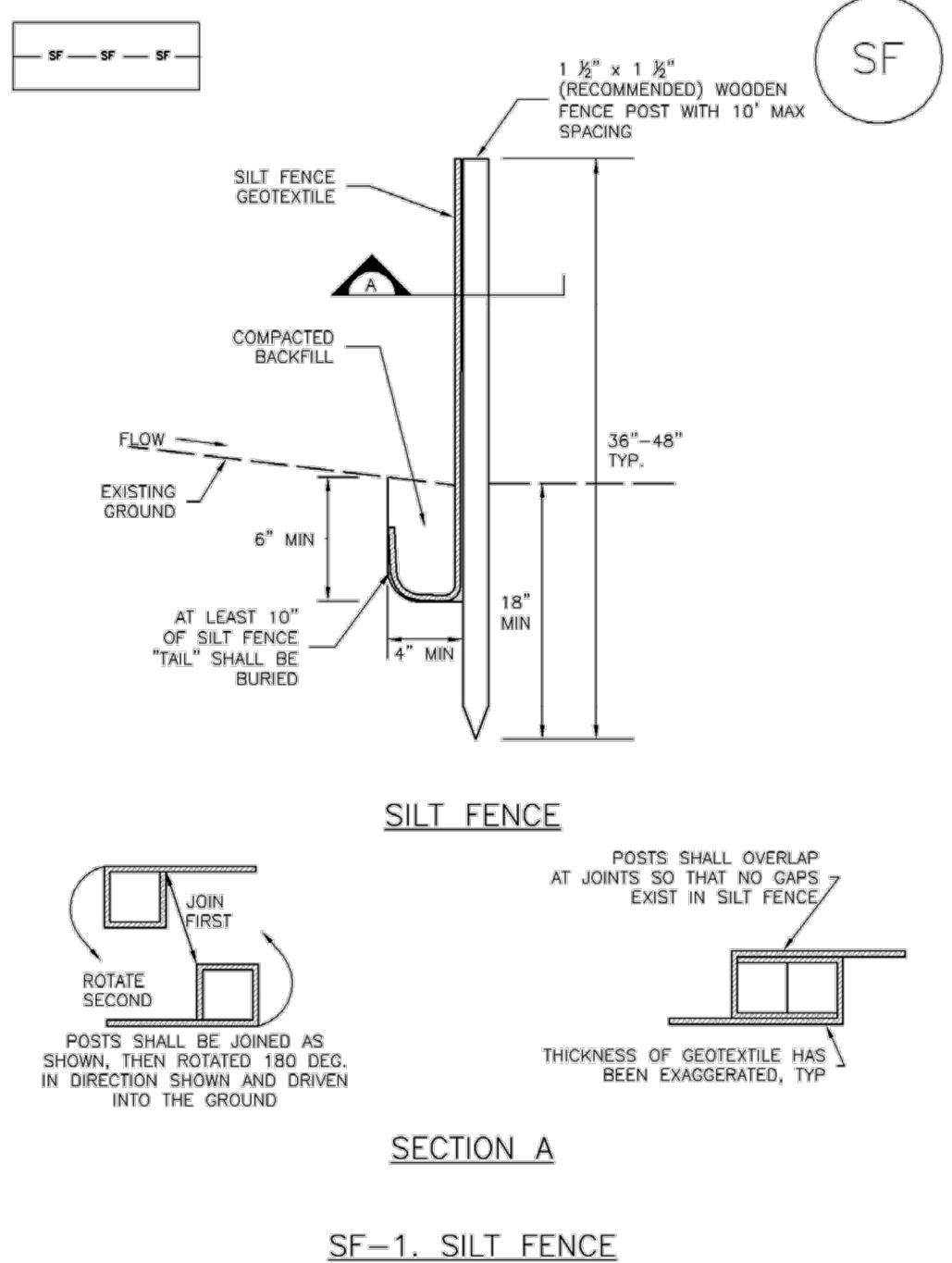


VTC-3. VEHICLE TRACKING CONTROL W/ CONSTRUCTION MAT OR TURF REINFORCEMENT MAT (TRM)

November 2010 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 VTC-5

Silt Fence (SF)

SC-1



SF-1. SILT FENCE

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

SM-4

Vehicle Tracking Control (VTC)

- STABILIZED CONSTRUCTION ENTRANCE/EXIT INSTALLATION NOTES**
- SEE PLAN VIEW FOR
-LOCATION OF CONSTRUCTION ENTRANCE(S)/EXIT(S).
-TYPE OF CONSTRUCTION ENTRANCE(S)/EXIT(S) (WITH/WITHOUT WHEEL WASH, CONSTRUCTION MAT OR TRM).
 - 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.
 - A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE LOCATED AT ALL ACCESS POINTS WHERE VEHICLES ACCESS THE CONSTRUCTION SITE FROM PAVED RIGHT-OF-WAYS.
 - STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
 - A NON-WOVEN GEOTEXTILE FABRIC SHALL BE PLACED UNDER THE STABILIZED CONSTRUCTION ENTRANCE/EXIT PRIOR TO THE PLACEMENT OF ROCK.
 - 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**
- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
 - FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
 - WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
 - ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY TO THE STABILIZED ENTRANCE/EXIT TO MAINTAIN A CONSISTENT DEPTH.
 - 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)

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

SC-1

Silt Fence (SF)

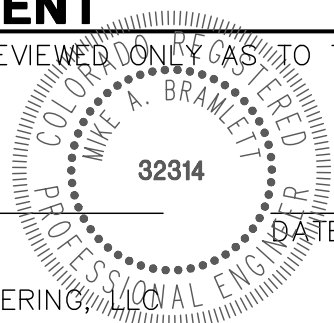
- SILT FENCE INSTALLATION NOTES**
- SILT FENCE MUST BE PLACED AWAY FROM THE TOE OF THE SLOPE TO ALLOW FOR WATER PONDING. SILT FENCE AT THE TOE OF A SLOPE SHOULD BE INSTALLED IN A FLAT LOCATION AT LEAST SEVERAL FEET (2-5 FT) FROM THE TOE OF THE SLOPE TO ALLOW ROOM FOR PONDING AND DEPOSITION.
 - A UNIFORM 6" X 4" ANCHOR TRENCH SHALL BE EXCAVATED USING TRENCHER OR SILT FENCE INSTALLATION DEVICE. NO ROAD GRADERS, BACKHOES, OR SIMILAR EQUIPMENT SHALL BE USED.
 - COMPACT ANCHOR TRENCH BY HAND WITH A "JUMPING JACK" OR BY WHEEL ROLLING. COMPACTION SHALL BE SUCH THAT SILT FENCE RESISTS BEING PULLED OUT OF ANCHOR TRENCH BY HAND.
 - SILT FENCE SHALL BE PULLED TIGHT AS IT IS ANCHORED TO THE STAKES. THERE SHOULD BE NO NOTICEABLE SAG BETWEEN STAKES AFTER IT HAS BEEN ANCHORED TO THE STAKES.
 - SILT FENCE FABRIC SHALL BE ANCHORED TO THE STAKES USING 1" HEAVY DUTY STAPLES OR NAILS WITH 1" HEADS. STAPLES AND NAILS SHOULD BE PLACED 3" ALONG THE FABRIC DOWN THE STAKE.
 - AT THE END OF A RUN OF SILT FENCE ALONG A CONTOUR, THE SILT FENCE SHOULD BE TURNED PERPENDICULAR TO THE CONTOUR TO CREATE A "J-HOOK." THE "J-HOOK" EXTENDING PERPENDICULAR TO THE CONTOUR SHOULD BE OF SUFFICIENT LENGTH TO KEEP RUNOFF FROM FLOWING AROUND THE END OF THE SILT FENCE (TYPICALLY 10' - 20').
 - SILT FENCE SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
- SILT FENCE MAINTENANCE NOTES**
- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
 - FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
 - WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
 - SEDIMENT ACCUMULATED UPSTREAM OF THE SILT FENCE SHALL BE REMOVED AS NEEDED TO MAINTAIN THE FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 6".
 - REPAIR OR REPLACE SILT FENCE WHEN THERE ARE SIGNS OF WEAR, SUCH AS SAGGING, TEARING, OR COLLAPSE.
 - WHEN SILT FENCE IS REMOVED, ALL DISTURBED AREAS 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.
- (DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, NOT AVAILABLE IN AUTOCAD)

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

ENGINEER'S STATEMENT

STANDARD DETAILS SHOWN WERE REVIEWED ONLY AS TO THEIR APPLICATION ON THIS PROJECT

MIKE A. BRAMLETT, P.E.
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING



TAMLIN ROAD RV STORAGE

GRADING AND EROSION
CONTROL DETAILS

SHEET 11 OF 14

JOB NO. 25134.00

BY DATE

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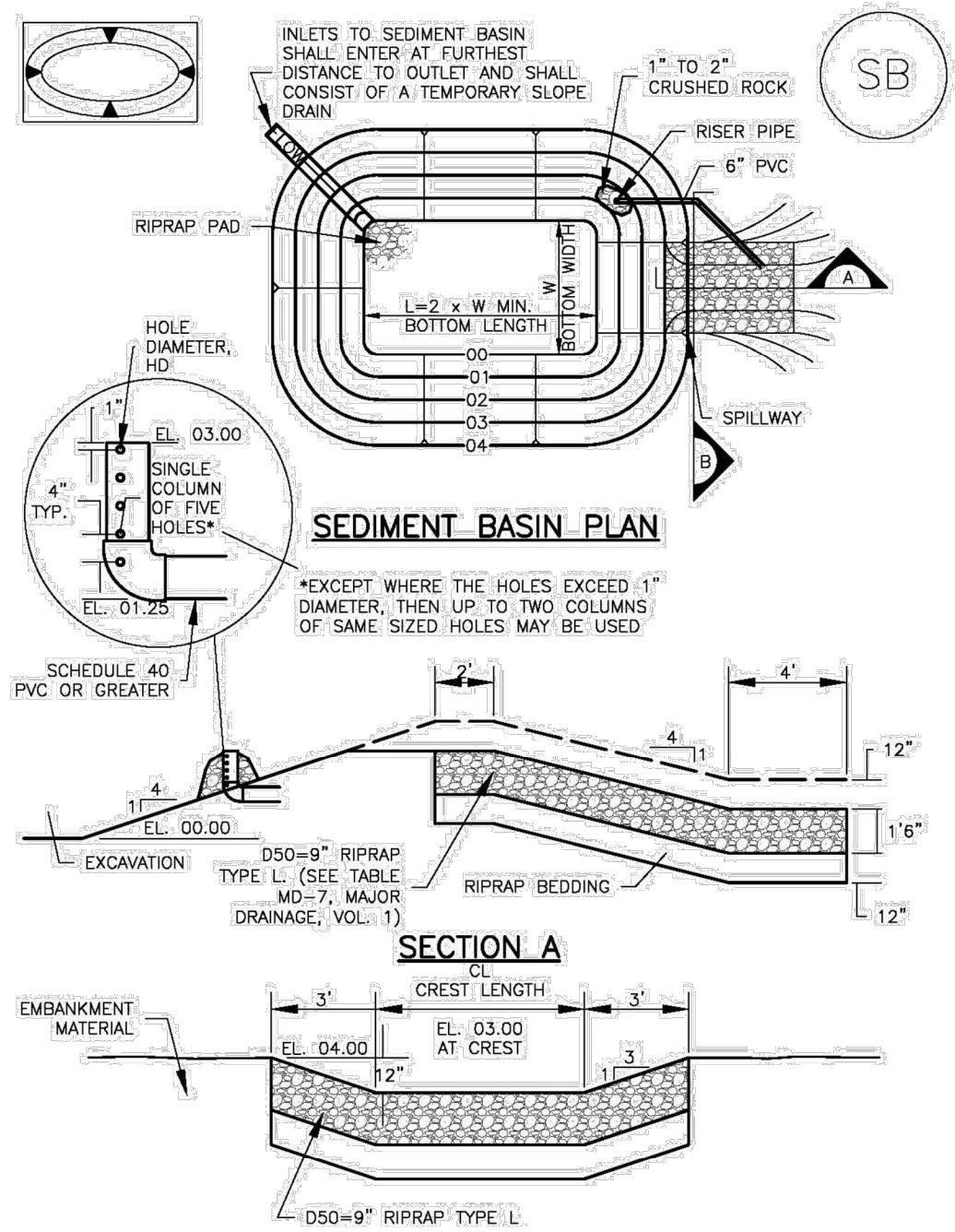
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Sediment Basin (SB)

SC-7

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

SC-7

Sediment Basin (SB)

| 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 1/2 | 2 | 9 1/2 |
| 2 | 21 | 3 | 13 1/2 |
| 3 | 28 | 5 | 15 |
| 4 | 33 1/2 | 6 | 16 1/2 |
| 5 | 43 | 8 | 18 1/2 |
| 6 | 47 1/2 | 9 | 19 1/2 |
| 7 | 51 | 11 | 21 1/2 |
| 8 | 55 | 12 | 22 1/2 |
| 9 | 58 1/2 | 13 | 23 1/2 |
| 10 | 61 | 15 | 25 1/2 |
| 11 | 64 | 16 | 26 1/2 |
| 12 | 67 1/2 | 18 | 28 1/2 |
| 13 | 70 1/2 | 19 | 29 1/2 |
| 14 | 73 1/2 | 21 | 31 1/2 |
| 15 | | 22 | 32 1/2 |

SEDIMENT BASIN INSTALLATION NOTES

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

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

Sediment Basin (SB)

SC-7

SEDIMENT BASIN MAINTENANCE NOTES

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

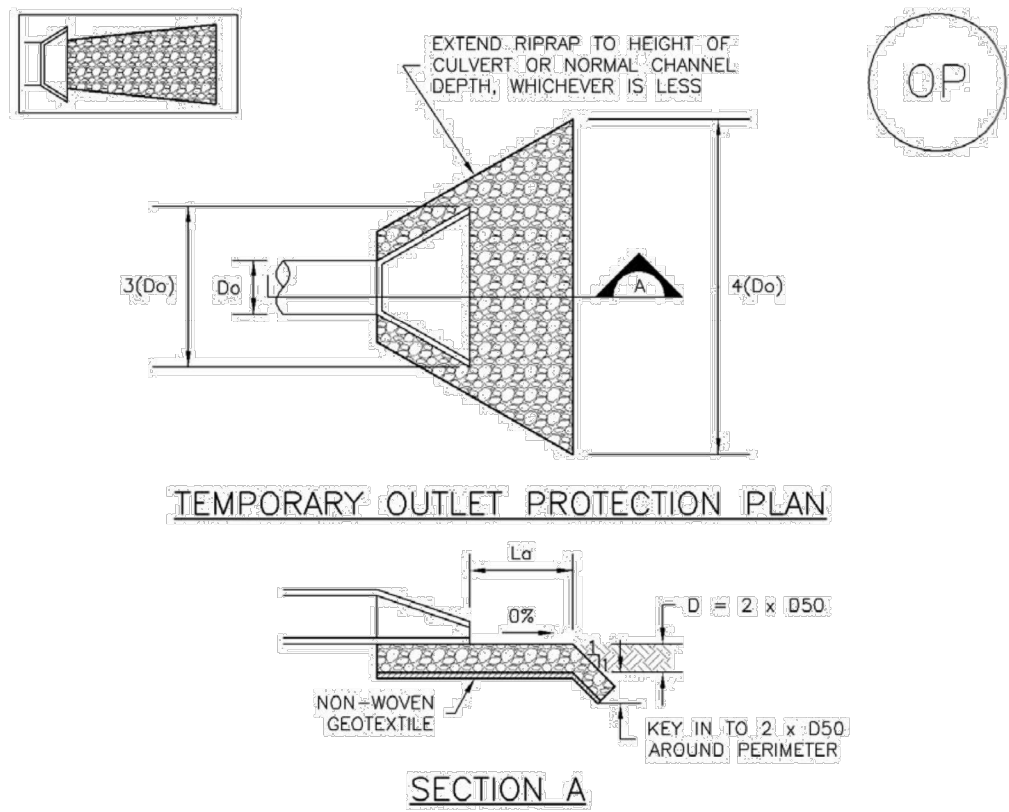
(DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO)

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

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EC-8

Temporary Outlet Protection (TOP)

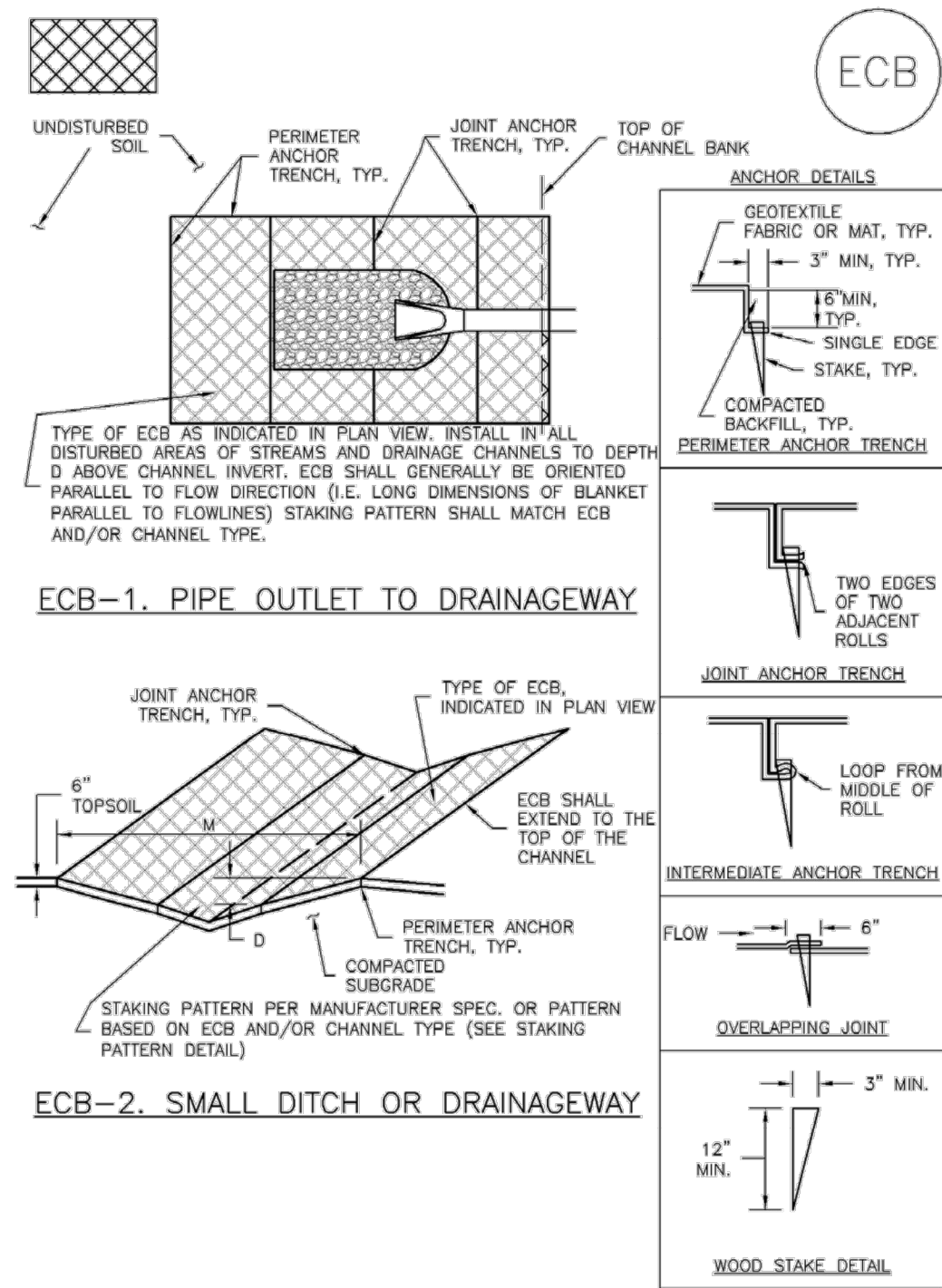


| TABLE OP-1: TEMPORARY OUTLET PROTECTION SIZING TABLE | | | |
|--|--------------------|-----------------------|----------------------------------|
| PIPE DIAMETER, Dp (INCHES) | DISCHARGE, Q (CFS) | APRON LENGTH, Lp (FT) | RIPRAP D50 DIAMETER MIN (INCHES) |
| 8 | 2.5 | 5 | 4 |
| | 5 | 10 | 6 |
| 12 | 5 | 10 | 4 |
| | 10 | 13 | 6 |
| | 10 | 10 | 6 |
| 18 | 20 | 16 | 9 |
| | 30 | 23 | 12 |
| | 40 | 26 | 16 |
| 24 | 30 | 16 | 9 |
| | 40 | 26 | 9 |
| | 50 | 26 | 12 |
| | 60 | 30 | 16 |

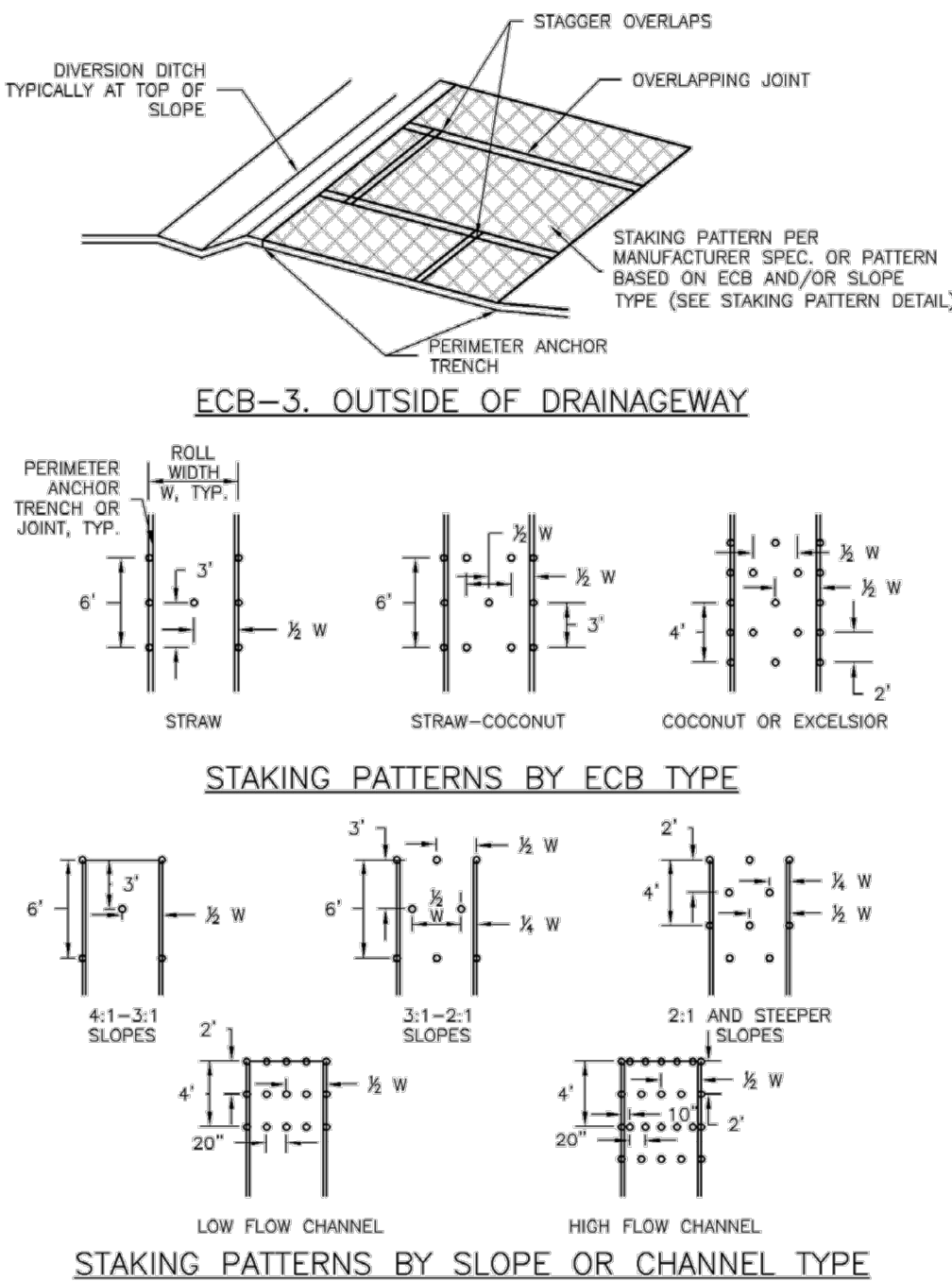
OP-1. TEMPORARY OUTLET PROTECTION

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

EC-6 Rolled Erosion Control Products (RECP)

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

Rolled Erosion Control Products (RECP) EC-6

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

EC-6 Rolled Erosion Control Products (RECP)

EROSION CONTROL BLANKET INSTALLATION NOTES

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

| TABLE ECB-1: ECB MATERIAL SPECIFICATIONS | | | |
|--|-----------------|---------------|-------------------|
| TYPE | COCONUT CONTENT | STRAW CONTENT | EXCELSIOR CONTENT |
| STRAW* | — | 100% | — |
| STRAW-COCONUT | 30% MIN | 70% MAX | — |
| COCONUT | 100% | — | — |
| EXCELSIOR | — | — | 100% |

*STRAW ECBs MAY ONLY BE USED OUTSIDE OF STREAMS AND DRAINAGE CHANNELS.

*ALTERNATE NETTING MAY BE ACCEPTABLE IN SOME JURISDICTIONS.

EROSION CONTROL BLANKET MAINTENANCE NOTES

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- ECBs SHALL BE LEFT IN PLACE TO EVENTUALLY BIODEGRADE, UNLESS REQUESTED TO BE REMOVED BY THE LOCAL JURISDICTION.
- ANY ECB PULLED OUT, TORN, OR OTHERWISE DAMAGED SHALL BE REPAIRED OR REINSTALLED. ANY SUBGRADE AREAS BELOW THE GEOTEXTILE THAT HAVE ERODED TO CREATED A VOID UNDER THE BLANKET, OR THAT REMAIN DEVOID OF GRASS SHALL BE REPAIRED, RESEEDED AND MULCHED AND THE ECB REINSTALLED.

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

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

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

ENGINEER'S STATEMENT

STANDARD DETAILS SHOWN WERE REVIEWED ONLY AS TO THEIR APPLICATION ON THIS PROJECT

MIKE A. BRAMLETT, P.E.
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING32314
DATE

TAMLIN ROAD RV STORAGE

GRADING AND EROSION
CONTROL DETAILS (CONT.)

SHEET 12 OF 14

JOB NO. 25134.00

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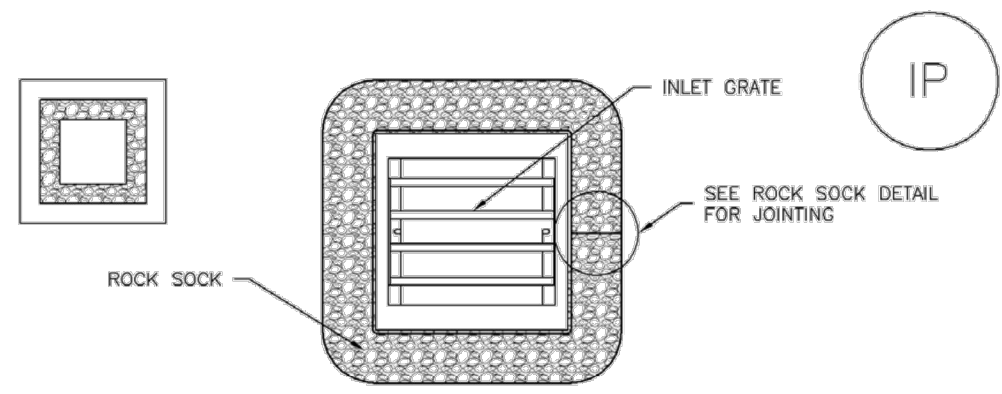
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Inlet Protection (IP)

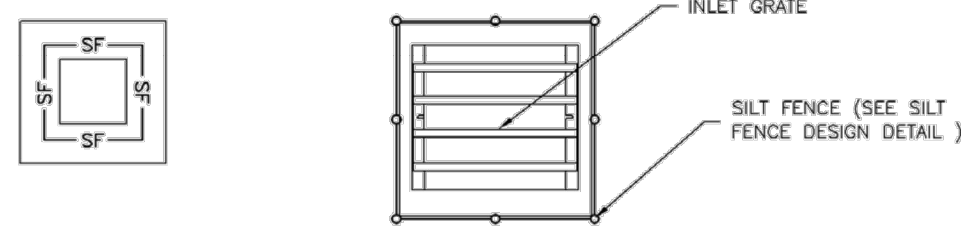
SC-6



IP-3. ROCK SOCK SUMP/AREA INLET PROTECTION

ROCK SOCK SUMP/AREA INLET PROTECTION INSTALLATION NOTES

- SEE ROCK SOCK DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.
- STRAW WATTLES/SEDIMENT CONTROL LOGS MAY BE USED IN PLACE OF ROCK SOCKS FOR INLETS IN PERVIOUS AREAS. INSTALL PER SEDIMENT CONTROL LOG DETAIL.



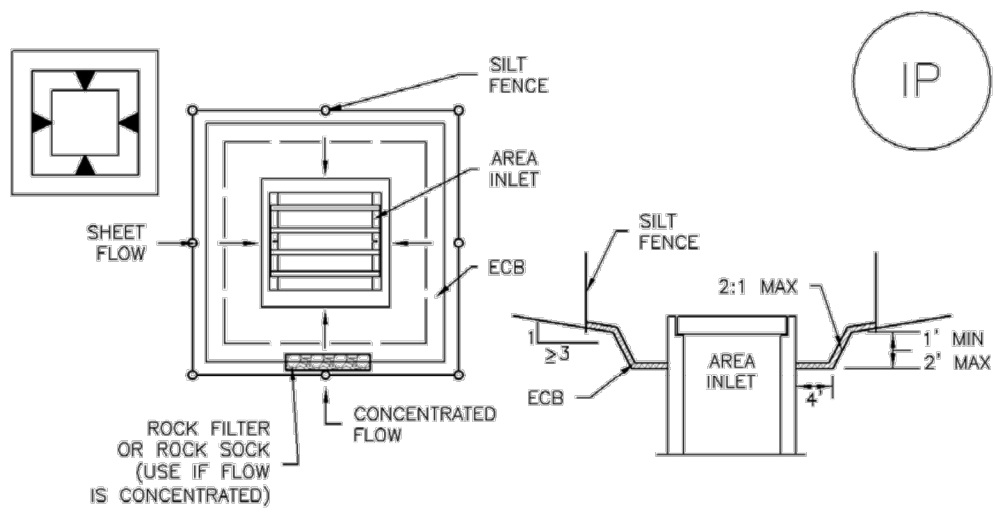
IP-4. SILT FENCE FOR SUMP INLET PROTECTION

SILT FENCE INLET PROTECTION INSTALLATION NOTES

- SEE SILT FENCE DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.
- POSTS SHALL BE PLACED AT EACH CORNER OF THE INLET AND AROUND THE EDGES AT A MAXIMUM SPACING OF 3 FEET.
- STRAW WATTLES/SEDIMENT CONTROL LOGS MAY BE USED IN PLACE OF SILT FENCE FOR INLETS IN PERVIOUS AREAS. INSTALL PER SEDIMENT CONTROL LOG DETAIL.

SC-6

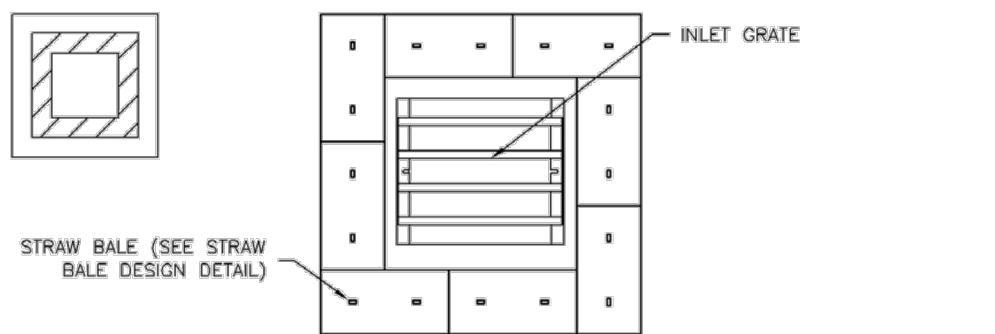
Inlet Protection (IP)



IP-5. OVEREXCAVATION INLET PROTECTION

OVEREXCAVATION INLET PROTECTION INSTALLATION NOTES

- 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.
- WHEN USING FOR CONCENTRATED FLOWS, SHAPE BASIN IN 2:1 RATIO WITH LENGTH ORIENTED TOWARDS DIRECTION OF FLOW.
- SEDIMENT MUST BE PERIODICALLY REMOVED FROM THE OVEREXCAVATED AREA.



IP-6. STRAW BALE FOR SUMP INLET PROTECTION

STRAW BALE BARRIER INLET PROTECTION INSTALLATION NOTES

- SEE STRAW BALE DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.
- BALES SHALL BE PLACED IN A SINGLE ROW AROUND THE INLET WITH ENDS OF BALES TIGHTLY ABUTTING ONE ANOTHER.

SC-6

Inlet Protection (IP)

GENERAL INLET PROTECTION INSTALLATION NOTES

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

INLET PROTECTION MAINTENANCE NOTES

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- SEDIMENT ACCUMULATED UPSTREAM OF INLET PROTECTION SHALL BE REMOVED AS NECESSARY TO MAINTAIN BMP EFFECTIVENESS, TYPICALLY WHEN STORAGE VOLUME REACHES 50% OF CAPACITY, A DEPTH OF 6" WHEN SILT FENCE IS USED, OR ¼ OF THE HEIGHT FOR STRAW BALES.
- INLET PROTECTION IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS PERMANENTLY STABILIZED, UNLESS THE LOCAL JURISDICTION APPROVES EARLIER REMOVAL OF INLET PROTECTION IN STREETS.
- WHEN INLET PROTECTION AT AREA INLETS IS REMOVED, THE DISTURBED AREA SHALL BE COVERED WITH TOP SOIL, SEEDED AND MULCHED, OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

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

NOTE: 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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| August 2013 | Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 | IP-5 |
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| IP-6 | Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 | August 2013 |
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| IP-8 | Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 | August 2013 |
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Temporary and Permanent Seeding (TS/PS)

EC-2

Seeding dates for the highest success probability of perennial species along the Front Range are generally in the spring from April through early May and in the fall after the first of September until the ground freezes. If the area is irrigated, seeding may occur in summer months, as well. See Table TS/PS-3 for appropriate seeding dates.

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

| Species* (Common name) | Growth Season ^a | Pounds of Pure Live Seed (PLS)/acre | Planting Depth (inches) |
|---------------------------|----------------------------|-------------------------------------|-------------------------|
| 1. Oats | Cool | 35 - 50 | 1 - 2 |
| 2. Spring wheat | Cool | 25 - 35 | 1 - 2 |
| 3. Spring barley | Cool | 25 - 35 | 1 - 2 |
| 4. Annual ryegrass | Cool | 10 - 15 | ½ |
| 5. Millet | Warm | 3 - 15 | ½ - ¾ |
| 6. Sudangrass | Warm | 5 - 10 | ½ - ¾ |
| 7. Sorghum | Warm | 5 - 10 | ½ - ¾ |
| 8. Winter wheat | Cool | 20 - 35 | 1 - 2 |
| 9. Winter barley | Cool | 20 - 35 | 1 - 2 |
| 10. Winter rye | Cool | 20 - 35 | 1 - 2 |
| 11. Triticale | Cool | 25 - 40 | 1 - 2 |

^a Successful seeding of annual grass resulting in adequate plant growth will usually produce enough dead-plant residue to provide protection from wind and water erosion for an additional year. This assumes that the cover is not disturbed or moved closer than 8 inches.

Hydraulic seeding may be substituted for drilling only where slopes are steeper than 3:1 or where access limitations exist. When hydraulic seeding is used, hydraulic mulching should be applied as a separate operation, when practical, to prevent the seeds from being encapsulated in the mulch.

^b See Table TS/PS-3 for seeding dates. Irrigation, if consistently applied, may extend the use of cool season species during the summer months.

^c Seeding rates should be doubled if seed is broadcast, or increased by 50 percent if done using a Brillion Drill or by hydraulic seeding.

EC-2

Temporary and Permanent Seeding (TS/PS)

Table TS/PS-2. Minimum Drill Seeding Rates for Perennial Grasses

| Common ^a Name | Botanical Name | Growth Season ^a | Growth Form | Seeds/ Pound | Pounds of PLS/acre |
|---|--------------------------------------|----------------------------|-------------|--------------|--------------------|
| Alkalali Soil Seed Mix | | | | | |
| Alkali sacaton | <i>Sporobolus airoides</i> | Cool | Bunch | 1,750,000 | 0.25 |
| Basin wildrye | <i>Elymus cinereus</i> | Cool | Bunch | 165,000 | 2.5 |
| Sodar streambank wheatgrass | <i>Agropyron riparium 'Sodar'</i> | Cool | Sod | 170,000 | 2.5 |
| Jose tall wheatgrass | <i>Agropyron elongatum 'Jose'</i> | Cool | Bunch | 79,000 | 7.0 |
| Arriba western wheatgrass | <i>Agropyron smithii 'Arriba'</i> | Cool | Sod | 110,000 | 5.5 |
| Total | | | | | 17.75 |
| Fertile Loamy Soil Seed Mix | | | | | |
| Ephriam crested wheatgrass | <i>Agropyron cristatum 'Ephriam'</i> | Cool | Sod | 175,000 | 2.0 |
| Dural hard fescue | <i>Festuca ovina 'duriuscula'</i> | Cool | Bunch | 565,000 | 1.0 |
| Lincoln smooth brome | <i>Bromus inermis leys 'Lincoln'</i> | Cool | Sod | 130,000 | 3.0 |
| Sodar streambank wheatgrass | <i>Agropyron riparium 'Sodar'</i> | Cool | Sod | 170,000 | 2.5 |
| Arriba western wheatgrass | <i>Agropyron smithii 'Arriba'</i> | Cool | Sod | 110,000 | 7.0 |
| Total | | | | | 15.5 |
| High Water Table Soil Seed Mix | | | | | |
| Meadow foxtail | <i>Alopecurus pratensis</i> | Cool | Sod | 900,000 | 0.5 |
| Redtop | <i>Agrostis alba</i> | Warm | Open sod | 5,000,000 | 0.25 |
| Reed canarygrass | <i>Phalaris arundinacea</i> | Cool | Sod | 68,000 | 0.5 |
| Lincoln smooth brome | <i>Bromus inermis leys 'Lincoln'</i> | Cool | Sod | 130,000 | 3.0 |
| Pathfinder switchgrass | <i>Panicum virgatum 'Pathfinder'</i> | Warm | Sod | 389,000 | 1.0 |
| Alkar tall wheatgrass | <i>Agropyron elongatum 'Alkar'</i> | Cool | Bunch | 79,000 | 5.5 |
| Total | | | | | 10.75 |
| Transition Turf Seed Mix^c | | | | | |
| Ruebens Canadian bluegrass | <i>Poa compressa 'Ruebens'</i> | Cool | Sod | 2,500,000 | 0.5 |
| Dural hard fescue | <i>Festuca ovina 'duriuscula'</i> | Cool | Bunch | 565,000 | 1.0 |
| Citation perennial ryegrass | <i>Lolium perenne 'Citation'</i> | Cool | Sod | 247,000 | 3.0 |
| Lincoln smooth brome | <i>Bromus inermis leys 'Lincoln'</i> | Cool | Sod | 130,000 | 3.0 |
| Total | | | | | 7.5 |

Table TS/PS-2. Minimum Drill Seeding Rates for Perennial Grasses (cont.)

| Common Name | Botanical Name | Growth Season ^a | Growth Form | Seeds/ Pound | Pounds of PLS/acre |
|--|---|----------------------------|------------------------|--------------|--------------------|
| Sandy Soil Seed Mix | | | | | |
| Blue grama | <i>Bouteloua gracilis</i> | Warm | Sod-forming bunchgrass | 825,000 | 0.5 |
| Camper little bluestem | <i>Schizachyrium scoparium 'Camper'</i> | Warm | Bunch | 240,000 | 1.0 |
| Prairie sandreed | <i>Calamovilfa longifolia</i> | Warm | Open sod | 274,000 | 1.0 |
| Sand dropseed | <i>Sporobolus cryptandrus</i> | Cool | Bunch | 5,298,000 | 0.25 |
| Vaughn sideoats grama | <i>Bouteloua curtipendula 'Vaughn'</i> | Warm | Sod | 191,000 | 2.0 |
| Arriba western wheatgrass | <i>Agropyron smithii 'Arriba'</i> | Cool | Sod | 110,000 | 5.5 |
| Total | | | | | 10.25 |
| Heavy Clay, Rocky Foothill Seed Mix | | | | | |
| Ephriam crested wheatgrass ^d | <i>Agropyron cristatum 'Ephriam'</i> | Cool | Sod | 175,000 | 1.5 |
| Oahe Intermediate wheatgrass | <i>Agropyron intermedium 'Oahe'</i> | Cool | Sod | 115,000 | 5.5 |
| Vaughn sideoats grama ^e | <i>Bouteloua curtipendula 'Vaughn'</i> | Warm | Sod | 191,000 | 2.0 |
| Lincoln smooth brome | <i>Bromus inermis leys 'Lincoln'</i> | Cool | Sod | 130,000 | 3.0 |
| Arriba western wheatgrass | <i>Agropyron smithii 'Arriba'</i> | Cool | Sod | 110,000 | 5.5 |
| Total | | | | | 17.5 |

^a All of the above seeding mixes and rates are based on drill seeding followed by crimped straw mulch. These rates should be doubled if seed is broadcast and should be increased by 50 percent if the seeding is done using a Brillion Drill or is applied through hydraulic seeding. Hydraulic seeding may be substituted for drilling only where slopes are steeper than 3:1. If hydraulic seeding is used, hydraulic mulching should be done as a separate operation.

^b See Table TS/PS-3 for seeding dates.

^c If site is to be irrigated, the transition turf seed rates should be doubled.

^d Crested wheatgrass should not be used on slopes steeper than 6H to 1V.

^e Can substitute 0.5 lbs PLS of blue grama for the 2.0 lbs PLS of Vaughn sideoats grama.

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| June 2012 | Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 | TS/PS-3 |
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| TS/PS-4 | Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 | June 2012 |
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| June 2012 | Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 | TS/PS-5 |
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EC-4

Mulching (MU)

- Clean, weed-free and seed-free cereal grain straw should be applied evenly at a rate of 2 tons per acre and must be tacked or fastened by a method suitable for the condition of the site. Straw mulch must be anchored (and not merely placed) on the surface. This can be accomplished mechanically by crimping or with the aid of tackifiers or nets. Anchoring with a crimping implement is preferred, and is the recommended method for areas flatter than 3:1. Mechanical crimpers must be capable of tucking the long mulch fibers into the soil to a depth of 3 inches without cutting them. An agricultural disk, while not an ideal substitute, may work if the disk blades are dull or blunted and set vertically; however, the frame may have to be weighted to afford proper soil penetration.

- Grass hay may be used in place of straw; however, because hay is comprised of the entire plant including seed, mulching with hay may seed the site with non-native grass species which might in turn out-compete the native seed. Alternatively, native species of grass hay may be purchased, but can be difficult to find and are more expensive than straw. Purchasing and utilizing a certified weed-free straw is an easier and less costly mulching method. When using grass hay, follow the same guidelines as for straw (provided above).

- On small areas sheltered from the wind and heavy runoff, spraying a tackifier on the mulch is satisfactory for holding it in place. For steep slopes and special situations where greater control is needed, erosion control blankets anchored with stakes should be used instead of mulch.

- Hydraulic mulching consists of wood cellulose fibers mixed with water and a tackifying agent and should be applied at a rate of no less than 1,500 pounds per acre (1,425 lbs of fibers mixed with at least 75 lbs of tackifier) with a hydraulic mulcher. For steep slopes, up to 2000 pounds per acre may be required for effective hydrosceding. Hydromulch typically requires up to 24 hours to dry; therefore, it should not be applied immediately prior to inclement weather. Application to roads, waterways and existing vegetation should be avoided.

- Erosion control mats, blankets, or nets are recommended to help stabilize steep slopes (generally 3:1 and steeper) and waterways. Depending on the product, these may be used alone or in conjunction with grass or straw mulch. Normally, use of these products will be restricted to relatively small areas. Biodegradable mats made of straw and jute, straw-coconut, coconut fiber, or excelsior can be used instead of mulch. (See the ECM/TRM BMP for more information.)

- Some tackifiers or binders may be used to anchor mulch. Check with the local jurisdiction for allowed tackifiers. Manufacturer's recommendations should be followed at all times. (See the Soil Binder BMP for more information on general types of tackifiers.)

- Rock can also be used as mulch. It provides protection of exposed soils to wind and water erosion and allows infiltration of precipitation. An aggregate base course can be spread on disturbed areas for temporary or permanent stabilization. The rock mulch layer should be thick enough to provide full coverage of exposed soil on the area it is applied.

Maintenance and Removal

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

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| MU-2 | Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 | June 2012 |
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EC-2 Temporary and Permanent Seeding (TS/PS)

Table TS/PS-3. Seeding Dates for Annual and Perennial Grasses

| Seeding Dates | Annual Grasses (Numbers in table reference species in Table TS/PS-1) | | Perennial Grasses | |
|--------------------------|---|-----------|-------------------|------|
| | Warm | Cool | Warm | Cool |
| January 1–March 15 | | | ✓ | ✓ |
| March 16–April 30 | 4 | 1,2,3 | ✓ | ✓ |
| May 1–May 15 | 4 | | ✓ | |
| May 16–June 30 | 4,5,6,7 | | | |
| July 1–July 15 | 5,6,7 | | | |
| July 16–August 31 | | | | |
| September 1–September 30 | | 8,9,10,11 | | |
| October 1–December 31 | | | ✓ | ✓ |

Mulch

Cover seeded areas with mulch or an appropriate rolled erosion control product to promote establishment of vegetation. Anchor mulch by crimping, netting or use of a non-toxic tackifier. See the Mulching BMP Fact Sheet for additional guidance.

Maintenance and Removal

Monitor and observe seeded areas to identify areas of poor growth or areas that fail to germinate. Reseed and mulch these areas, as needed.

An area that has been permanently seeded should have a good stand of vegetation within one growing season if irrigated and within three growing seasons without irrigation in Colorado. Reseed portions of the site that fail to germinate or remain bare after the first growing season.

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

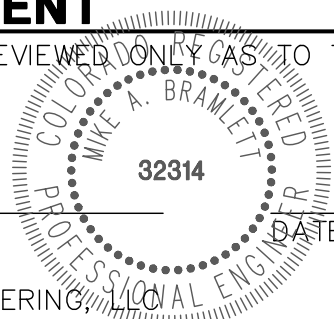
Protect seeded areas from construction equipment and vehicle access.

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| TS/PS-6 | Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 | June 2012 |
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ENGINEER'S STATEMENT

STANDARD DETAILS SHOWN WERE REVIEWED ONLY AS TO THEIR APPLICATION ON THIS PROJECT

MIKE A. BRAMLETT, P.E.
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING



BY

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REVISION

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


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APPENDIX D – SWMP CHECKLIST

El Paso County Stormwater Management Plan Checklist

Project Name: TAMLIN ROAD RV STORAGE Date and Reviewed By: _____












1. Applicant (owner/designated operator), SWMP Prepared By, Qualified Stormwater Manager, and Contractor Information. 
2. Table of Contents 
3. Site description and location to include: a vicinity map (not just Section, Township, Range); 
4. Narrative description of construction activities proposed (e.g., may include clearing and grubbing, temporary stabilization, road grading, utility / storm installation, final grading, final stabilization, and removal of temporary control measures). 
5. Phasing plan – may require separate drawings indicating initial, interim, and final site phases for larger projects. Provide “living maps” that can be revised in the field as conditions dictate. **THE SITE DOES NOT REQUIRE PHASED** 
6. Proposed sequence for major activities: Provide a construction schedule of anticipated starting and completion dates for each stage of land-disturbing activity depicting conservation measures anticipated, including the expected date on which the final stabilization will be completed. 
7. Estimates of the total site area and area to undergo disturbance. 
8. Soil erosion potential and impacts on discharge that includes a summary of the data used to determine soil erosion potential. 
9. A description of existing vegetation at the site and percent ground cover and method used to determine. 
10. The location and description of all potential pollution sources including but not limited to: disturbed and stored soils; vehicle tracking; management of contaminated soils; loading and unloading operations; outdoor storage of materials; vehicle and equipment maintenance and fueling; significant dust generating process; routine maintenance activities involving fertilizers, pesticides, herbicides, detergents, fuels, solvents, oils, etc.; on-site waste management; concrete truck/equipment washing; dedicated asphalt, concrete batch plants and masonry mixing stations; non-industrial waste such as trash and portable toilets. 
11. Material handling to include spill prevention and response procedures. 
12. Spill prevention and pollution controls for dedicated batch plants. 
13. Other SW pollutant control measures to include waste disposal and off site soil tracking. 
14. The location and description of any anticipated allowable non-stormwater discharge (ground water, springs, irrigation, discharge covered by Division Low Risk Guidance, etc.). 
15. The name of ultimate receiving waters; size, type and location of stormwater outfall or storm sewer system discharge. 
16. Description of all stream crossings located within the project area 
17. SWMP Map to include:
 - a. construction boundaries;
 - b. flow arrows to depict stormwater flow directions
 - c. all areas of disturbance;
 - d. areas of cut and fill;
 - e. areas used for storage of building materials, soils (st
 - f. location of any dedicated asphalt / concrete batch pl
 - g. location of all structural control measures;

**NO STREAM CROSSINGS
WITHIN PROJECT AREA**

**NO ASPHALT OR
CONCRETE PLANTS
NECESSARY FOR
CONSTRUCTION**

Per the SWMP checklist approved by the BOCC, please provide a statement in the SWMP report that no streams cross the project area. The fill out the latest SWMP checklist and submit in the appropriate slot.



- h. location of all non-structural control measures; 
- i. springs, streams, wetlands and other surface waters, including areas that require maintenance of pre-existing vegetation within 50 feet of a receiving water. THERE ARE NOT WETLANDS OR STREAMS NEARBY THE SITE. 
- 18. Narrative description of all structural control measures to be used. Ensure method is County approved. 
- 19. Description of all non-structural control measures to be used including seeding, mulching, protection of existing vegetation, site watering, sod placement, etc. 
- 20. Technical drawing details for all control measure installation and maintenance. 
- 21. Procedure for how the SWMP will be revised 
- 22. Description of Final Stabilization and Long-term Stormwater Quality (describe nonstructural and structural measures to control SW pollutants after construction operations have been completed, including detention, water quality control measure etc.) 
- 23. Provide for vegetative cover density to be 70% of pre-disturbed levels. 
- 24. Outline of permit holder inspection procedures to install, maintain, and effectively operate BMPs, to manage erosion and sediment. 
- 25. Record keeping procedures identified to include signature on inspection logs and location of SWMP records on-site. 
- 26. Check if this project relies on control measures owned and operated by another entity. A documented use agreement must be included in the SWMP that includes location, installation and design specifications, and maintenance requirements of the control measure(s) 

Please note: all items above must be addressed. If not applicable, explain why, simply identifying “not applicable” will not satisfy CDPHE requirement of explanation.

NOTES: _____

Storm Water Management Plan_v1.pdf Markup Summary

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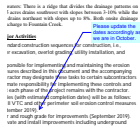


Subject: Accepted
Page Label: 24
Author: CS
Date: 7/10/2019 3:53:19 PM
Color: ■



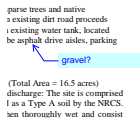
Subject: Accepted
Page Label: 24
Author: CS
Date: 7/10/2019 3:53:23 PM
Color: ■

Callout (7)



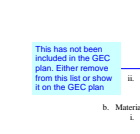
Subject: Callout
Page Label: 5
Author: dsdrtorres
Date: 10/17/2019 10:07:49 AM
Color: ■

Please update the dates accordingly as we are in October.



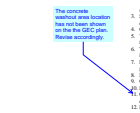
Subject: Callout
Page Label: 4
Author: dsdrtorres
Date: 10/17/2019 10:08:14 AM
Color: ■

gravel?



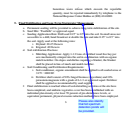
Subject: Callout
Page Label: 6
Author: dsdrtorres
Date: 10/17/2019 10:16:07 AM
Color: ■

This has not been included in the GEC plan. Either remove from this list or show it on the GEC plan



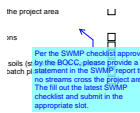
Subject: Callout
Page Label: 6
Author: dsdrtorres
Date: 10/17/2019 10:16:44 AM
Color: ■

The concrete washout area location has not been shown on the the GEC plan. Revise accordingly.



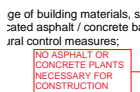
Subject: Callout
Page Label: 8
Author: dsdrtorres
Date: 10/17/2019 10:21:18 AM
Color: ■

Please also identify that full spectrum detention ponds will be provided.



Subject: Callout
Page Label: 23
Author: dsdrtorres
Date: 10/17/2019 10:28:14 AM
Color: ■

Per the SWMP checklist approved by the BOCC, please provide a statement in the SWMP report that no streams cross the project area. The fill out the latest SWMP checklist and submit in the appropriate slot.



Subject: Callout
Page Label: 23
Author: CS
Date: 7/10/2019 3:49:39 PM
Color: ■

NO ASPHALT OR CONCRETE PLANTS NECESSARY FOR CONSTRUCTION

File Attachment (1)



Subject: File Attachment
Page Label: 23
Author: dsdrtorres
Date: 10/17/2019 10:27:45 PM
Color: ■

the field



ng  ethed

Text Box (5)

Please add PCD File No. PPR1945

Please add PCD File No. PPR1945

tion of construction activities proposed (e.g., mass stabilization, road grading, utility/storm stabilization, and removal of temporary control measures) require separate drawings indicating initial, intermediate, and final site conditions that can be attained. **THE SITE DOES NOT REQUIRE** a PHASE BMPs, since for major activities. Provide a construction schedule and completion dates for each stage of land-use measures anticipated, including the expectation that the site will be completed.

TAMLIN ROAD RV STORAGE

ation of stormwater outfall ☐

ect area ☐

**NO STREAM CROSSINGS
WITHIN PROJECT AREA**

ackpiles) or wastes: ☐
☐
☐
☐

NO STREAM CROSSINGS WITHIN PROJECT AREA

| | |
|---|---|
| on all non-structural control measures: grasses, weeds and other surface vegetation, including areas that are mowed or grazed, and any other vegetation on or adjacent to the SWMP | 0 |
| Descriptive list of structural control measures to be used. Ensure method approved. | 0 |
| n of all non-structural control measures to be used including seeding, protection of existing vegetation, site watering, and placement, etc. timing details for all control measures installation and maintenance, for how the SWMP will be revised | 0 |
| n of Final Stabilization and Long-term Stormwater Quality (describe list and structural measures to control SW pollutants after construction have been completed, including denitrification, water quality control measures) | 0 |

THERE ARE NOT WETLANDS OR STREAMS
NEARBY THE SITE.