

Storm Water Management Plan for:

Water System Improvements Cascade, Colorado

Owner(s):

Cascade Metropolitan District No. 1
4450 Fountain Ave
Cascade, CO 80809
(719) 447-1777

Operator(s):

RMS Utilities, Inc.
6349 County Road 106.65 S
Alamosa, CO 81101
(719) 589-4263

SWMP Contact(s):

Steel City Enviro, LLC
P.O. Box 9772
Pueblo, CO 81008
(719) 3251-3851

SWMP Preparation Date:

03/25/2018

SWMP Revision Date:

Estimated Project Dates:

Project Start Date: 04/05/2018

Project Completion Date: 11/01/2018

Table of Contents

SECTION 1: SITE EVALUATION, ASSESSMENT, AND PLANNING

- 1.1 Project/Site Information
- 1.2 Contact Information/Responsible Parties
- 1.3 Nature and Sequence of Construction Activity
- 1.4 Soils, Slopes, Vegetation, and Current Drainage Patterns
- 1.5 Construction Site Estimates
- 1.6 Receiving Waters
- 1.7 Site Features and Sensitive Areas to be Protected
- 1.8 Potential Sources of Pollution
- 1.9 Endangered Species Certification
- 1.10 Maps

SECTION 2: EROSION AND SEDIMENT CONTROL BMPs

Also refer to attached Erosion and Sediment Control notes and plans included in the site plans (Appendix B).

- 2.1 Minimize Disturbed Area and Protect Natural Features and Soil
- 2.2 Phase Construction Activity
- 2.3 Control Stormwater Flowing onto and through the Project
- 2.4 Stabilize Soils
- 2.5 Protect Slopes
- 2.6 Protect Culverts
- 2.7 Establish Perimeter Controls and Sediment Barriers
- 2.8 Retain Sediment On-Site
- 2.9 Establish Stabilized Construction Exits
- 2.10 Additional BMPs

SECTION 3: GOOD HOUSEKEEPING BMPs

- 3.1 Material Handling and Waste Management
- 3.2 Establish Proper Building Material Staging Areas
- 3.3 Designate Washout Areas
- 3.4 Establish Proper Equipment/Vehicle Fueling and Maintenance Practices
- 3.5 Control Equipment/Vehicle Washing
- 3.6 Spill Prevention and Control Plan
- 3.7 Any Additional BMPs
- 3.8 Allowable Non-Stormwater Discharge Management

SECTION 4: SELECTING POST-CONSTRUCTION BMPs

SECTION 5: INSPECTIONS

- 5.1 Inspections
- 5.2 Delegation of Authority

SECTION 6: RECORDKEEPING AND TRAINING

- 6.1 Recordkeeping
- 6.2 Log of Changes to the SWMP
- 6.3 Training

SECTION 7: FINAL STABILIZATION

SECTION 8: CERTIFICATION AND NOTIFICATION

SWMP APPENDICES

- Appendix A – General Location Map and Water Flow Maps
- Appendix B – Site Maps and Erosion Control Plan
- Appendix C – BMP Details
- Appendix D – Construction General Permit
- Appendix E – SWMP Permitting Applications & Acknowledgement Letter for State & County.
- Appendix F – Inspection Reports
- Appendix G – SWMP Amendment Log
- Appendix H – Contractor Certifications/Agreements
- Appendix I – SWMP Training Log
- Appendix J – Delegation of Authority
- Appendix K – Project Schedule
- Appendix L – Letter for Historic and Endangered Species
- Appendix M – Spill Emergency Plan
- Appendix N – Misc. Info.
- Appendix O – Corrective Action Report
- Appendix P – Dewatering Permit

Project Narrative

The project consists of approximately 17,000 linear feet of waterline replacement trenched and backfilled throughout roads in Cascade, CO. Roads are currently both asphalt and gravel. Additional work includes bore, curb stops, grading, asphalt patching, asphalt street replacement, chip seal on new and existing asphalt, tank improvements and seeding and mulching.

Adjacent areas that will may be affected by the land disturbance will be residential homes, commercial businesses, vacant land, swales/ditches, Fountain Creek and Cascade Creek.

The total area of the site is approximately 32 acres, in which 13 acres area will be cleared, excavated or graded. The current project will not consist of earthwork cut and fill.

Timing schedule is anticipated to start around April 5, 2018 and be completed by November 1, 2018, with final stabilization for fall of 2019.

Structural BMP's to be used will mostly be rock socks that will be used around open trenches, and temporary stockpiles. If, needed we will add sediment control logs to the perimeter of the location that needs additional protection.

Non-structural BMP's that will be used will include seeding and mulching, vegetation buffer, and watering for dust control.

General provisions, location maps, site plan, narrative description of construction activities, potential pollutant sources, BMP details, final stabilization after construction is complete, may all be found in the stormwater management plan for reference.

SECTION 1: SITE EVALUATION, ASSESSMENT, AND PLANNING

1.1 Project/Site Information

Project/Site Name: Water System Improvements Project

Project Street/Location: Various Roads throughout Cascade, CO.

City: Cascade State: CO ZIP Code: 80809

County or Similar Subdivision: El Paso

Latitude/Longitude (Use **one** of three possible formats, and specify method)

Latitude:

Longitude:

1. *N*

1. *W*

2. ° ' N (degrees, minutes, decimal)

2. ° ' W (degrees, minutes, decimal)

3. 38.901711 (decimal)

3. -104.973134 (decimal)

Method for determining latitude/longitude:

☐ USGS topographic map (specify scale: _____)

☐ EPA Web site ☐ GPS

☒ Other (please specify): iTouchMap.com

Is the project located in Indian country? ☐ Yes ☒ No

If yes, name of Reservation, or if not part of a Reservation, indicate "not applicable." N/A _____

Is this project considered, a federal facility? Part of it only ☐ Yes ☒ No

CDPHE project or permit tracking number*: TBD

**(This is the unique identifying number assigned to your project by your permitting authority after you have applied for coverage under the appropriate National Pollutant Discharge Elimination System (NPDES) construction general permit.)*

1.2 Contact Information/Responsible Parties

Operator(s):

RMS Utilities, Inc.
6349 County Road 106.65 S
Cascade, CO 81101
(719) 589-4263

Project Manager:

RMS Utilities, Inc.
Bryan Malouff
6349 County Road 106.65 S
Cascade, CO 81101
(719) 589-4263

Site Supervisor(s):

RMS Utilities, Inc.
Lenny Atencio
6349 County Road 106 65 S
Cascade, CO 81101
(719) 588-2380

SWMP Contact(s):

Steel City Enviro, LLC
Andrea Aragon
P.O. Box 9772
Pueblo, CO 81008
(719) 3251-3851

SWMP Administrator:

Steel City Enviro, LLC
Andrea Aragon
P.O. Box 9772
Pueblo, CO 81008
(719) 3251-3851

This SWMP was Prepared by:

Steel City Environmental
PO BOX 9772
Pueblo, CO 81008
(719) 251-3851

1.3 Nature and Sequence of Construction Activity

Describe the general scope of the work for the project, major phases of construction, etc:

The project consists of approximately 17,000 linear feet of waterline replacement trenched and backfilled throughout roads in Cascade, CO. Additional work includes bore, curb stops, grading, asphalt patching, asphalt street replacement, and chip seal on new and existing asphalt, tank improvements and seeding and mulching.

What is the function of the construction activity?

☐ Residential ☐ Commercial ☐ Industrial ☐ Road Construction ☒ Linear Utility
☐ Other (please specify):

Actual Project Start Date: 04/05/2018

Estimated Project Completion Date: 11/01/2018

1.4 Soils, Slopes, Vegetation, and Current Drainage Patterns

Soil type(s):

Sandy, Loam and Clay soil mix in previously disturbed areas.

Slopes (describe current slopes and note any changes due to grading or fill

activities): Mostly steep terrain work – construction will not change current grades.

Drainage Patterns (describe current drainage patterns and note any changes due to

grading or fill activities): Current drainage flows to the South/Southeast. Flows with existing drainage patterns along existing roads, within both residential and commercial areas. See water flow map for details. No changes will result from construction.

Vegetation: Native Short grass, prairie grasses, 70% average existing vegetation coverage in undisturbed areas in Cascade, Colorado.

1.5 Construction Site Estimates

The following are estimates of the construction site.

Total project area:	32 acres
Construction site area to be disturbed :	up to 13 acres
Percentage impervious area before construction:	80 %
Runoff coefficient before construction:	Unimproved .10 to .30
Percentage impervious area after construction:	80 %
Runoff coefficient after construction	Unimproved .10 to .30

1.6 Receiving Waters

Fountain Creek and Cascade Creek

Description of receiving waters: Storm water will flow to Cascade Creek and Fountain Creek. There are no storm drains near project. SEE FLOW MAP APPENDIX A

Description of storm sewer systems: No discharge will go into Municipal storm sewers.

Description of impaired waters or waters subject to TMDLs: The site contains no TMDL impaired waters and the ultimate receiving water is not listed as impaired water other than pathogens.

Other

Description of unique features that are to be preserved: There is no protected plant species within the project limits. If, available additional information will be included in Appendix L.

Describe measures to protect these features: N/A

1.7 Site Features and Sensitive Areas to be Protected

Area to be disturbed will include: N/A

1.8 Potential Sources of Pollution & Control Strategies

Potential sources of sediment to stormwater runoff:

Earth moving, concrete and asphalt activities associated with grading and pipe installation.

Potential pollutants and sources, other than sediment, to stormwater runoff:

Trash, debris, line transfer, fueling and equipment failure.

Dewatering is not expected to be needed. No pumps will be used!!!

Construction activities produce many different kinds of pollutants which may cause storm water contamination problems. Grading activities remove rocks, vegetation and other erosion controlling surfaces, resulting in the exposure of underlying soil to the elements. Because the soil surface is unprotected, soil and sand particles are easily picked up by wind and/or washed away by rain or other water sources.

No dedicated asphalt / concrete plants will be used on this project.

The following sections highlight the potential sources of pollution at the Project Site and list the “Best Management” strategies that will be used to prevent migration of pollution offsite. Chemical materials stored indoors or that have no reasonable chance of impacting storm water quality will not be discussed in this plan. Materials of significance stored on the project site include:

- Sediment
- Fertilizer
- Asphalt
- Concrete
- Trash & Debris
- Sanitary Wastes
- Fuels & Oils

1.8.1 Wind Erosion & Dust Control

Pollutant: Sediment

Best Management Strategies:

- Daily inspections will occur for areas experiencing excessive winds, vehicle traffic, or precipitation events.
- Water trucks will spray down dust on the project Site as needed to not impact adjacent properties.
- Attention will be given to prevent the over use of water in dust control operations to minimize any muddying of the surface and possible sediment transportation.

1.8.2 Stockpiles

Pollutant: Sediment

Best Management Strategies:

- Locate stockpiles clear of any water flow paths.
- Locate stockpiles within the property boundary.
- Stockpiles will have erosion control devices as needed installed around the base to prevent the migration of soil.
- Topsoil stock piles and disturbed portions of the site where construction activity temporarily ceases for at least 14 days will be stabilized with temporary seed and mulch no later than 14 days from the last construction activity in the area.

1.8.3 Grading, Trenching, Export/Import

Pollutant: Sediment

Best management Strategies:

- Earth moving will be minimized by the engineering balancing of the site.
- Disturbed portions of the site where construction activity temporarily ceases for at least 14 days will be stabilized with temporary seed and mulch no later than 14 days from the last construction activity in the area.
- Seed bed preparation is not required if soil is in loose condition.
- Prior to seeding, fertilizer shall be applied to each acre to be stabilized in accordance with the manufacturer's specifications.
- If required seeding areas shall be mulched with straw to a uniformed cover. The straw mulch is to be tacked into place by a disk with blades set nearly straight.
- A site specific erosion control drawing has been developed showing the location of Best Management practices to be used during site construction.
- Where indicated on the erosion control plan, Best Management Practices will be installed.
- Material shall be in accordance with the plans and specifications and all construction shall be provided in accordance with the manufacturer's specifications.
- All BMP's will be inspected bi-weekly and cleaned/maintained as required.

1.8.4 Waste, Residual Concrete

Pollutant: Concrete, paint, and Phosphoric Acid

Best Management Strategies:

- A cleanup and washout area will be designated and posted.
- Subcontractors will be instructed on the locations and importance of the washout and cleanup areas.
- Instruct subcontractors to remove waste for which proper onsite disposal facilities are not provided back to their own facilities for ultimate transport, storage & disposal.
- Subcontractors and subcontractor employees are held responsible for improper washout.

1.8.5 Sanitary Facilities, Trash Containers & Littering

Pollutant: Bacteria, Ammonia, Trash

Best Management Strategies:

- Portable facilities will be regularly serviced to prevent excessive waste containment and overflow. Portable facilities must be tie down.
- All waste materials will be collected and stored in a container which will meet all local and any state solid waste management regulations.
- Trash dumpsters will be emptied prior to becoming 90% full or when debris control becomes an issue.
- Employees will be instructed on the importance of recycling and waste management and will be held responsible for improper waste management.

1.8.6 Fueling, Hazardous Materials, Equipment Leakage, Fertilizer

Pollutant: Petroleum Hydrocarbons, Ethylene Glycol, Sediment

Best Management Strategies:

- MSDS sheets will be maintained in the project trailer for all onsite materials
- All dry materials such as cement will be covered and protected from rain.
- Secondary containment will be provided for stored fuel, oil, paint and any material classified as hazardous. Stored fuel will be in the staging area only. Fueling onsite will be completed by a professional third party at the location needed or in the staging yard.
- Subcontractors are responsible for hazardous waste removal back to their own facilities for ultimate transportation, storage and disposal.
- Supplies will be kept onsite as necessary to control any potential spill.
- Employees will be held responsible for any illegal dumping.
- Seals will be checked by a qualified professional on all equipment and containers containing significant materials that could contribute potential pollutants and will be replaced as necessary.
- Equipment will be inspected by a qualified professional.
- Drip pans will be available for minor leaks and during fueling operations.
- Fueling nozzles, gauges, hoses, seals, and emergency shutoff valves will be inspected for leaks prior to use.
- Under no circumstances during fueling will the fueling hose/nozzle be left unattended.
- Fertilizers used will be applied only in the minimum amounts recommended by soil tests.
- Once applied, fertilizers will be worked into the soil to limit exposure to storm water.
- Stored fertilizer will be protected from exposure to precipitation and storm water runoff.

1.8.7 Dewatering (not expected)

Pollutant: Sediment, Oil and/or Grease and Phosphoric Acid

Best Management Strategies:

- All dewatering will be filtered through rock and/or woven geo mesh fabric.
- All dewatering will be tested for Pollutants per state guidelines weekly.

1.9 Endangered Species Certification

Are endangered or threatened species and critical habitats on or near the project area?

☐ Yes ☒ No

Describe how this determination was made: This is all inside previously disturbed areas and city did not reference any special consideration in project scope

1.10 Maps

General location, and Flow Maps are included in Appendix A and Site and Erosion Control maps are included in Appendix B.

SECTION 2: EROSION AND SEDIMENT CONTROL BMPS

Also refer to attached Erosion and Sediment Control notes and plans included in the site plans (Appendix B).

2.1 Minimize Disturbed Area and Protect Natural Features and Soil

All work will occur inside the limits of construction per the Erosion Control Site Plan. Appendix B

2.2 Phase Construction Activity

The sequence for the installation and removal of erosion and sediment control measures is as follows: BMP measures installed, cleaning of street surfaces during construction if applicable, site grading, installation of utilities, paving final grading, installation of vegetation, removal of temporary practices and perimeter controls, and site cleanup. Project Schedule is attached in Appendix K.

Phase I

- Operations are to control erosion and sediment associated with initial clearing and grading.
- Attend pre-construction meeting with the inspector prior to starting any land disturbing activities.

Rock socks and/or erosion control logs will be used to control pollutants, millings, excavation fill, gravel, stockpiles, and sediment. On all open cuts, pipe installation, service connections (detail of location to follow). Note: asphalt repair will follow the installation of lines.

- Open cut asphalt, STA 11+75 to 27+90 (sheet 9 & 10).
- Service Connections on Fountain Ave / Chipita Park, at STA 11+75 to 0+10 (sheet 8 & 9).
- Open cut asphalt Chipita Park at STA 0+03 to 8+66 (sheet 6).
- Fountain Ave / Chipita Park service connections (sheets 6, 8, 9, 10).
- Open cut home owners to place asphalt and utilities at STA 0+00 to 4+22 (sheet 6).
- Pikes Peak Hwy open cut in asphalt, at STA 0+00-7+73 (sheet 8 & 9).
- Service lines on Crystal Circle.
- Service Taps on Pikes Peak Hwy (sheet 8 & 9).
- Open cut asphalt on Popular STA 0+00 to 3+68 (sheet 7).
- Rampart Terrace Alley open cut on gravel at STA 0+00 to 4+38 (sheet 7).
- Popular Street and Rampart service taps.

- Open cut asphalt to end Popular at STA 0+00 to 2+64 (sheet 7).
- Rampart Terrace open cut asphalt at STA 0+00 to 7+01 (sheet 7).
- Open cut asphalt on Martin Dale Ave at STA 0+00 to 3+56 (sheet 9).
- Rampart Alley Service Taps (sheet 7).
- Rampart Alley open cut gravel at STA 4+46 to 6+29 (sheet 7).
- Obtain Phase I erosion and sediment control approval from the site inspector before proceeding with the Phase II controls.
- Open field between Oak and Fountain Seeding to be placed as noted STA 0+00 to STA 3+00 (sheet 21).
- Hagerman Ave open cut asphalt STA 0+00 to 9+40 (sheet 14)
- Martin Dale open cut asphalt STA 0+00 to 9+31 (sheet 11)
- Hagerman Service Taps (sheet 14)
- Martin Dale Service Taps (sheet 11)
- Forest Road open cut asphalt STAA 0+00 to 7+59 (sheet 14)
- Oak/Prairie open cut asphalt/ seeding as needed STA 19+74 to 9+31 (sheet 11)
- Forest Road service taps (sheet 14)
- Oak / Prairie service taps (sheet 11)
- Gardiner Road open cut asphalt STA 3+33 to 8+62 (sheet 17)
- Bore and open cute STA 24 to 0+00. Seeding and temporary BMP's to be placed as needed, with a minimum of rock socks around open trench (sheet 21).
- Mariposa Lane open cut STA 3+33 to 0+00 (sheet 17)
- Open cut on gravel and asphalt STA 0+00 to 7+63 (sheet 18 and 19)
- Gardiner Road service taps (sheet 17)
- Mariposa Lane service taps (sheet 17)
- Pyramid Mountain Road open cut asphalt STA 0+00 to STA 23+03 (sheet 15, 16, 17)
- Pyramid Mountain Road service taps (sheet 15, 16, 17)
- Marriott Road open cut asphalt STA 0+19 to 11+27 (sheet 19)
- Marriott Road service lines
- Heizer open cut asphalt STA 0+00 to 5+89 (sheet 18)
- Post Road open cut STA 0+00 to 10+00 (sheet 19, 20)

- Heizer Road service lines (sheet 18)
- Post Road service lines (sheet 19, 20)
- Outpost to Heizer open cut STA 0+00 to 6+60 (sheet 18, 19)
- Topeka Ave open cut asphalt (sheet 18)
- Ute Pass Ave open cut asphalt STA 0+00 to 12+50 (sheets 10, 12)
- Ute Pass open cut asphalt STA 12+50 to 25+11 (sheets 12, 13)
- Heizer service taps (sheet 20)
- Topeka service taps (sheet 18)
- Ute Pass service taps (sheets 10, 12, 13)
- Crew Clean Up.

Phase II

- Sediment control measures are intended to provide control during the final stages of site development. Phase I control Measures, which are not in conflict with final construction and provide effective control may remain in place for final development.

Final Phase

- Stabilize all disturbed areas the plan is to for the area to be seeded and mulched for final stabilization and accordance with the project specifications.
- After all the slopes and graded areas are temporarily stabilized; erosion and sediment control measures may be removed with the approval of the inspector.

SEE APPENDIX K FOR PROJECT SCHEDULE

2.3 Control Stormwater Flowing onto and through the Project

There are currently no diversion ditches or berms designed to direct runoff away from site. Roads are sloping and will have no large topography changes. The surrounding off site areas are vegetated.

2.4 Stabilize Soils

No disturbed area which is not actively being worked shall remain denuded for more than 14 calendar days unless otherwise authorized by the director. Temporary cover by seeding or mulching should be provided on areas which will be exposed for a period greater than 14 days before permanent stabilization can be achieved. Permanent cover should be provided on all areas as soon as possible, by means of seeding and mulching, straw or hay mulch is required. All soil stock piles and borrow areas must protected with silt fence within 14 days after grading. All slopes within the project limits that are found to be eroding excessively within two years of permanent stabilization shall be provided additional slope stabilization methods such as seeding and mulching.

Water is to be used for dust control. The Contractor will prevent the escape of this water and any sediment it may carry from the construction site.

2.5 Protect Slopes

Temporary stabilization will include the installation of silt fences on level contours spaces at 10-20-foot intervals. Slopes will be seeded and covered with hay, straw or erosion control blankets on slopes greater than 3:1 as needed to provide for temporary stabilization until vegetation is permanently established.

All slopes within the project limits that are found to be eroding excessively within two years of permanent stabilization shall be provided additional slope stabilization methods such as seeding and mulching. Where slopes are steeper than 3:1 erosion control blankets (per specification requirements) will be utilized for final stabilization.

2.6 Culvert Protection

Culvert protection will be installed before land-disturbance activities begin in areas.

At the Contractor's discretion, additional temporary erosion control practices to include rock bags and sand bag barriers may be installed to prevent sediment movement. Inlet protection will include rock bags or erosion logs will be used as necessary to prevent sediment impacting the culvert.

Culvert protection devices will be inspected, and accumulated sediment will be removed as needed.

2.7 Establish Perimeter Controls and Sediment Barriers

Temporary stabilization will include the installation of rock socks on the downslope perimeter of the project area of the area that will be disturbed. Rock socks can be used at the perimeter of a disturbed area to control localized sediment loading and or around stock piles. A benefit of rock socks as opposed to other perimeter controls is that they do not have to be trenched or staked into the ground; therefore, they are often used on roadway construction projects where paved surfaces are present. Appendix C. Sediment will be removed when it reaches 1/2 the height of the rock sock. Rock Sock will be inspected and replaced or repaired as needed.

2.8 Retain Sediment On-Site

Temporary sediment traps should not be needed on this site it is a small discharge area. For small drainage locations smaller sediment traps should be used. At a minimum, vegetative buffer strips or equivalent sediment controls are required for all down-slope boundaries of the construction. Stockpiles will be protected. The use of a combination of sediment and erosion control measures to achieve maximum pollutant removal will be utilized. Sediment shall be disposed in suitable areas and in such a manner that will not erode or cause sedimentation problems. If silt fence is impacted by sediment, it shall be removed and cleaned or repaired as needed.

2.9 Establish Construction Exits

The construction entrance will be established in the entry points of roads.

2.10 Additional BMPs

BMP Schedule: All Sediment and Erosion control BMP's will be installed prior to any excavation or demolition and will be coordinated with the construction schedule.

As construction changes and new temporary BMP's are needed to control sediment and erosion temporary BMP's will be installed within 24 hours of inspection report.

Recommended BMP's:

ALL RECOMMENDED BMP'S WILL BE INSTALLED PRIOR TO EXCAVATION NEAR ANY SENSITIVE AREAS.

Culvert Inlet Protection will be used to protect existing and new culvert inlets. Inlet Protection Detail will be included in Appendix C before using onsite. Removal of this BMP will occur only after vegetation is established to a minimum of 70% pre-construction coverage and after removal of BMP all sediment build up will be removed and the area exposed shall be seeded.

Rock Socks will be used as a perimeter control around open trenches and to around stockpiles. To help with runoff from pipeline excavation. Removal of this BMP will occur only after permanent access road is constructed or once vegetation is established to a minimum of 70% pre-construction coverage and after removal of BMP all sediment build up will be removed and the area exposed shall be seeded.

Temporary Stockpiles of soil and other erodible materials will be managed so that stormwater does not come in contact with the pile and potentially wash pollutants into state waters including wetlands. The erodible stockpiles will be contained with a BMP at the toe (or within 20 feet of the toe) at all times. All stockpiles will be placed 50 feet or more from waters of the state.

Concrete Washout structures will be used to contain concrete and concrete waste water when the chutes of concrete mixers and hoppers of concrete pumps are rinsed out after delivery. Concrete Washouts shall be installed prior to any concrete placement on site. 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.

Erosion Control Logs/Wattles is to be installed in sensitive areas or as perimeter control as needed. Removal of this BMP will occur only after permanent access road is constructed or once vegetation is established to a minimum of 70% pre-construction coverage and after removal of BMP all sediment build up will be removed and the area exposed shall be seeded.

Temporary Diversion Channel and Berm - if needed will be installed in sensitive areas. On this site it will be used to protect runoff from pipeline excavation. See Detail on Detail in Appendix C. Removal of this BMP will occur only after vegetation is established to a minimum of 70% pre-construction coverage and after removal of BMP all sediment build-up will be removed, and the area exposed shall be seeded.

Portable Toilets: Portable toilets are brought in from a service contractor and will be maintained in accordance with standard waste disposal practices using vacuum trucks and place on stable ground and tied down to minimize risk of spillage. All portable toilets will be kept a minimum of 50' from any waterway.

Waste Disposal: If needed Roll offs will be utilized for standard construction waste. A qualified contractor will remove waste weekly and take to an appropriate dump site off this project.

PERMANENT BMP'S :

Re-vegetation:

During construction any disturbed area not being currently worked left dormant longer than 14 days will be re-vegetated per specification with native seed and mulched and crimped with weed free straw.

Final Stabilization will include seeding and mulch and will be considered complete when all disturbed areas have a minimum of 70% pre-construction coverage for the specification requirements. Then all temporary BMP's will be removed and the exposed areas left behind will be seeded.

SECTION 3: GOOD HOUSEKEEPING BMPS

3.1 Material Handling and Waste Management

The site will use a private refuse collector that will remove litter twice weekly. No less than one litter receptacle will be present at the construction site. In the event that unusual items such as tanks, cylinders, unidentified containers, etc. which could contain potentially hazardous materials are discovered or disturbed, the Fire and Rescue services will be notified.

Litter and debris will be picked up and disposed of properly daily. Temporary toilet facilities will be located 500 feet away from any storm drain inlets and all waters of the state.

3.2 Establish Proper Building Material Staging Areas

A designated staging area will be used, location to be determined based on available space in the field and plans will be redlined. The staging area will be contained per SWMP guidelines. All Equipment and Materials will be brought into the site as needed.

3.3 Designate Washout Areas

This is a moving project along a pipeline, if concrete is used each washout will be installed to detail as shown in APPENDIX C and will be placed more than 50 feet away from any waters of the state.

3.4 Establish Proper Equipment/Vehicle Fueling and Maintenance Practices

During construction the site will be exposed to operation and maintenance of construction equipment. The contractor shall be responsible for all activities such as fueling, oil changing, lubrication and repair which require use of petroleum products. Such products shall be transported to and from the site in special trucks equipped for that purpose. No waste petroleum products, rags, residue, or equipment parts shall be left on site. In the event of a spill or leak, causing soil to be contaminated, that soil shall be excavated placed in sealed barrels and removed from the site for transport to an approved location for disposal. See section 3.6 for the Spill Plan. No temporary fueling tanks will be left on-site.

3.5 Control Equipment/Vehicle Washing

N/A WILL NOT BE ALLOWED ONSITE

3.6 Spill Prevention and Control Plan

RMS Utilities, Inc. is dedicated to minimizing the possibility of hazardous material/ hazardous waste spills through appropriate methods of training, proper use of BMP's and on-site observations. To assist in minimizing incidents,

all equipment will be inspected daily, before use and maintained in a safe and operable condition. However, in the event of an accidental leak, spill or uncontrolled release of hazardous material the following actions will serve as basic guidelines to spill response.

SPILL RESPONSE CRITERIA:

Non-Emergency Spill	Emergency Spill
<ul style="list-style-type: none"> The discharge is small (less than 25 gallons) 	<ul style="list-style-type: none"> The discharge is large enough (greater than 25 gallons) to spread beyond the immediate area
<ul style="list-style-type: none"> The discharge can be easily contained 	<ul style="list-style-type: none"> The discharge cannot be contained
<ul style="list-style-type: none"> The discharge is unlikely to reach a navigable waterway, storm sewer or sanitary drain 	<ul style="list-style-type: none"> The discharge reaches a navigable waterway, storm sewer, or sanitary drain regardless of amount spilled
<ul style="list-style-type: none"> Cleanup procedures do not pose a health or safety hazard 	<ul style="list-style-type: none"> The discharge poses a hazard to human health or the environment
<ul style="list-style-type: none"> Proper response equipment is available for safe cleanup 	<ul style="list-style-type: none"> The discharge requires special equipment or training to cleanup
<p>Response by RMS Utilities, Inc. personnel may be possible for the above types of discharges</p>	<ul style="list-style-type: none"> There is a danger of fire or explosion
	<p>The above discharge requires response by the fire department (call 911)</p>

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 community.
2. Notify 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/or soil.
 - b. If a line ruptures on a piece of equipment, power down the equipment in a safe manner, 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, surface drainage.
 - a. Along with BMP's 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 spill area!
 - c. Minimize the extraction of 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 in accordance with local, state and federal regulations.
6. Reporting procedures:
 - a. Supervisor will notify RMS Utilities, Inc. Safety Manager immediately.
 - b. The President or Safety Manager will notify city and/or government agencies as needed.
 - c. Supervisor will make the initial Onsite Spill Report immediately after clean up and all initial facts are gathered.
 - d. Safety manager will conduct an investigation as needed, complete the final report and forward 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 community.
2. Notify 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/or soil until the fire department arrives. Focus control measures at locations of storm sewers and/or nearby waterways.
5. Clean up procedures.
 - If assistance is required for the cleanup of larger spills, contact the President or Safety Manager.
6. Reporting procedures:
 - Supervisor will notify RMS Utilities, Inc. Safety Manager immediately.
 - The President or Safety Manager will notify city and/or government agencies as needed.
 - Supervisor will make the initial Onsite Spill Report immediately after cleaning up and all initial facts are gathered.
 - Safety manager will conduct an investigation as needed, complete the final report and forward to those necessary.

3.7 Any Additional BMPs

N/A

3.8 Allowable Non-Stormwater Discharge Management

Construction Dewatering Not Expected . Fountain Creek & Cascade Creek adjacent to the project.

SECTION 4: SELECTING POST-CONSTRUCTION BMPs

Post Construction BMPs. Rock and re-vegetation including seeding and mulching will be final BMP's. Permanent stabilization will be achieved with 70% pre-construction vegetative establishment.

SECTION 5: INSPECTIONS

5.1 Inspections

Inspections will occur at least every 14 days and within 24 hours of a precipitation event producing erosion, which from past experience this occurs with precipitation of 1/4 inch of rain or more, the primary site for tracking weather data and rainfall measurements will be taken from Weather Underground and a rain gauge will be onsite for verification only.

1. Inspection Personnel:

The contract Stormwater Inspector will conduct the site inspections as mentioned above.

2. Inspection Schedule and Procedures:

The inspection schedule will be routinely accomplished every 14 days and after every storm event for the entire site with all BMP's evaluated for performance and need. Any BMP found to be ineffective will be re-accomplished or replaced with a new BMP to provide the level of protection needed. BMP's found to be no longer needed will be removed. Inspections will also be accomplished as soon as practical, but within 24 hours of the end of a precipitation event causing surface erosion, over 1/4" or more.

The general procedures for correcting problems when they are identified will be to document the problem in the log and devise a solution utilizing all resources available to formulate BMP's that will correct the problem as soon as possible.

A copy of the inspection report to be used for the site is attached. See Appendix F.

5.2 Delegation of Authority

Duly Authorized Representative(s) or Position(s):

Authorized representatives for the SWMP plan will be: Andrea Aragon – Primary SWMP INSPECTOR – back up inspector will be Steven Aragon for SWMP.

SECTION 6: RECORDKEEPING, TRAINING, AND SWMP REVISIONS

6.1 Recordkeeping

It is imperative that documentation of the inspection and maintenance of all erosion and sediment control measures be completed as soon as possible after the inspection and/or maintenance is concluded but no more than 2 hours after conclusion of any inspection or maintenance activity. The inspection reports shall include the date and time of inspection, the inspector, a summary of the inspection, rain gauge readings, and identify any incidents of noncompliance with the permit conditions. Where a report does not identify any incidents of noncompliance, the report must contain a certification that the Project is in compliance with the Construction General Permit. The report must be signed in accordance with Discharge Permit System General Permit.

These records are used to prove that the required inspection and maintenance were performed and shall be printed and placed in the SWMP Appendix F and kept onsite in the job trailer. In addition to inspection and maintenance reports, records should be kept of the Construction Activities that occur on the site. Records will be retained for a minimum period of at least 3 years after the permit is terminated.

Major grading activities will start on 04/05/2018.

Date(s) when construction activities permanently cease on a portion of the site: 11/01/2018.

Date(s) when an area is either temporarily or permanently stabilized: Fall 2019.

6.2 Log of Changes to the SWMP

The SWMP is meant to be a living document that shall be maintained by the General Contractor or SWMP Administrator at the site of the Construction Activities at all times throughout the Project and readily available for review by the Owner, federal, state, or local officials. At any time, changes are needed in the field, the update will be logged in the SWMP in APPENDIX G. And revised in the correct area of the SWMP or Map. BMPs that do not impact the hydraulic design of the site may be modified or added by the General Contractor or SWMP Administrator and reflected on site maps accordingly, as needs arise. Examples of BMPs that do not typically impact the hydraulic design of the site include silt fence, silt dike, wattles, construction exit, and

(continued on next page).

various forms of temporary and permanent erosion controls (blankets, nets, seed, sod, etc.). Examples of BMPs that commonly impact hydraulic design include storm water basins, diversions, check dams, inlet protection or any product, process or system that changes the storm water flow path or storm water storage capacity of the site or is located in an area of concentrated flow.

6.3 Training

Individual(s) Responsible for Training: All personnel on site will be trained on the site specific SWMP requirements to be conducted by the SWMP Inspector and/or the site superintendent.


SECTION 7 FINAL STABILIZATION

Final stabilization will be accomplished by a hired re-vegetation contractor. The re-vegetate the area of disturbance per the approved plans and specifications. Once 70% of the vegetative cover has been established and have been accepted as the final BMP's all temporary BMP's will be removed and permit termination will be filed.

SECTION 8 CERTIFICATION AND NOTIFICATION

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 gathered and evaluated 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.

Name: Bryan Malouff Title: President

Signature:  Date: 04/03/2018

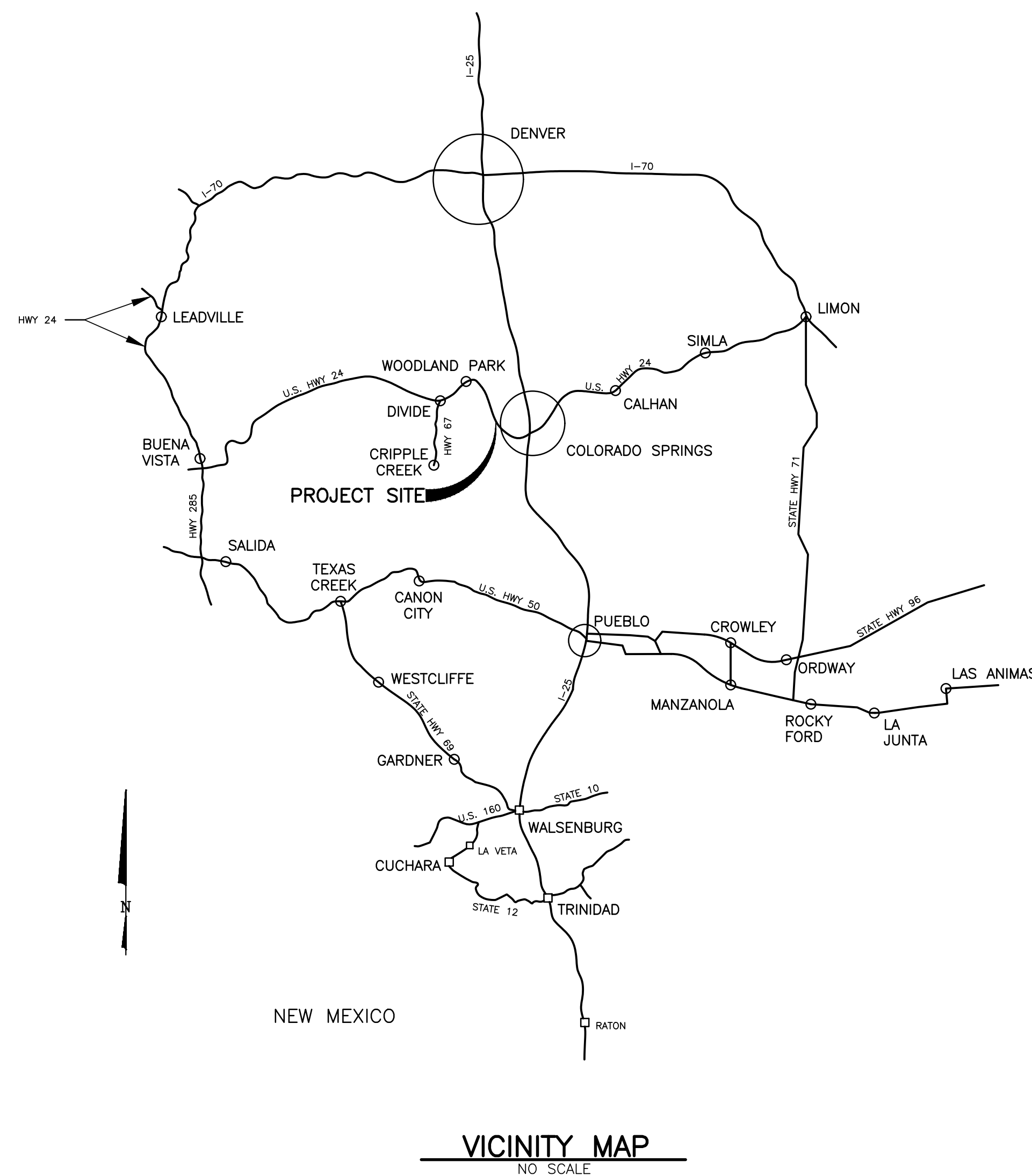
Appendix A - General Location and Water Flow Maps

WATER SYSTEM IMPROVEMENTS

FOR THE

CASCADE METROPOLITAN DISTRICT NO. 1

APRIL 2017



SITE MAP
N.T.S.

GMS, INC.
611 NORTH WEBER, SUITE 300
COLORADO SPRINGS, COLORADO 80903

© 2017 GMS, INC.

DRAWING INDEX

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
1	TITLE SHEET, VICINITY MAPS, DRAWING INDEX AND APPROVAL
2	GENERAL NOTES
3	LEGEND AND COORDINATE DATA
4	SHEET INDEX MAP NO. 1
5	SHEET INDEX MAP NO. 2 AND PRESSURE ZONE MAP
6	SEGMENTS 1, 2b AND 2c
7	SEGMENT 2a
8	SEGMENTS 3a AND 3b
9	SEGMENTS 3a, 3b, 6a, 6b, AND 6c
10	SEGMENTS 3a AND 8a
11	SEGMENTS 3c AND 7a
12	SEGMENT 8a AND DETAIL
13	SEGMENT 8a
14	SEGMENTS 4a AND 4b
15	SEGMENT 5
16	SEGMENTS 5 AND 4c
17	SEGMENTS 4d AND 5
18	SEGMENTS 9b, 10a AND 11a
19	SEGMENTS 9a, 9b AND 12
20	SEGMENTS 10b, 12 AND DETAIL
21	SEGMENTS 3c AND 7b
22	SEGMENT 18 (NOT IN CONTRACT)
23	SEGMENT 18 (NOT IN CONTRACT)
24	SEGMENT 18 (NOT IN CONTRACT)
25	METERS AND CURB STOPS MAP 1
26	METERS AND CURB STOPS MAP 2
27	ASPHALT REPLACEMENT MAP 1
28	ASPHALT REPLACEMENT MAP 2
29	EASEMENT MAP 1
30	EASEMENT MAP 2

APPROVED FOR BIDDING AND CONSTRUCTION

THIS PLAN APPROVED FOR BIDDING AND CONSTRUCTION. IN THE EVENT OF ROAD IMPROVEMENTS, ADJUSTMENTS OF THIS UTILITY WILL BE AT THE OWNER'S EXPENSE. COUNTY PLAN REVIEW IS ONLY PROVIDED 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.

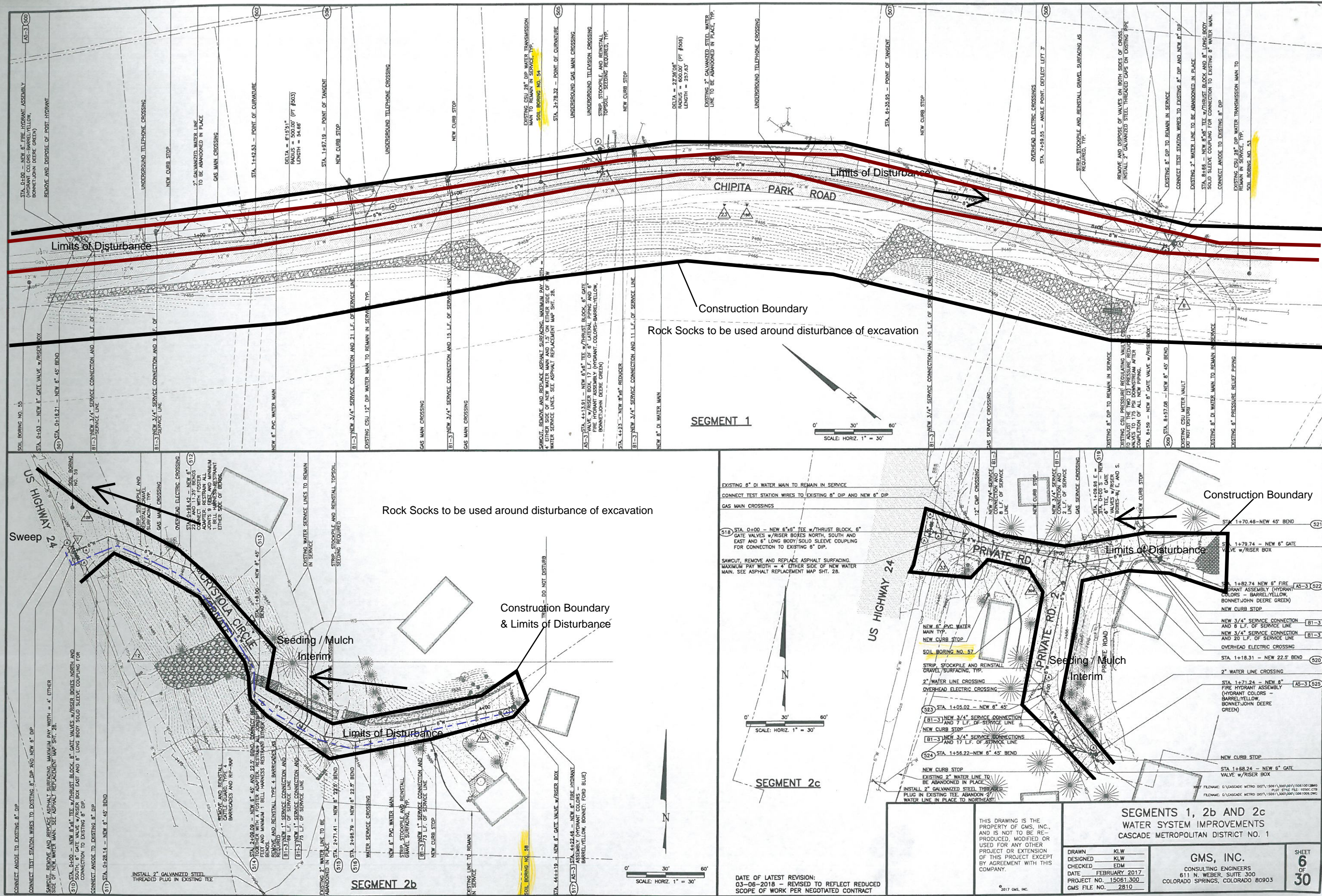
BY: _____ DATE: _____
JENNIFER E. IRVINE, P.E.,
COUNTY ENGINEER / ECM ADMINISTRATOR

COLORADO SPRINGS UTILITIES CONSTRUCTION PLAN APPROVAL	
APPROVED BY: _____	DATE: _____
PROJECT NUMBER: _____ WORK ORDER NUMBER: _____	
CSU SHEET _____	OF _____
APPROVAL EXPIRES ONE (1) YEAR FROM THE DATE ABOVE AND RESUBMITTAL OF THESE PLANS FOR REVIEW AND APPROVAL IS REQUIRED IF CONSTRUCTION DOES NOT BEGIN DURING THIS PERIOD.	

BY: MICHAEL WHITTEMORE, DISTRICT PRESIDENT DATE: _____

DATE OF LATEST REVISION:
03-06-2018 – REVISED TO REFLECT REDUCED
SCOPE OF WORK PER NEGOTIATED CONTRACT

SHEET 1 OF 30
GMS FILE No. 2810
PLOT CONFIGURATION: GMS-STANDARD(NO SCREEN)
CAD FILENAME: G:\CASCADE METRO DISTRICT\1506\1300\002\15061002.DWG\13054002.DWG



THIS DRAWING IS THE PROPERTY OF GMS, INC., AND IS NOT TO BE REPRODUCED, MODIFIED OR USED FOR ANY OTHER PROJECT OR EXTENSION OF THIS PROJECT EXCEPT BY AGREEMENT WITH THIS COMPANY.

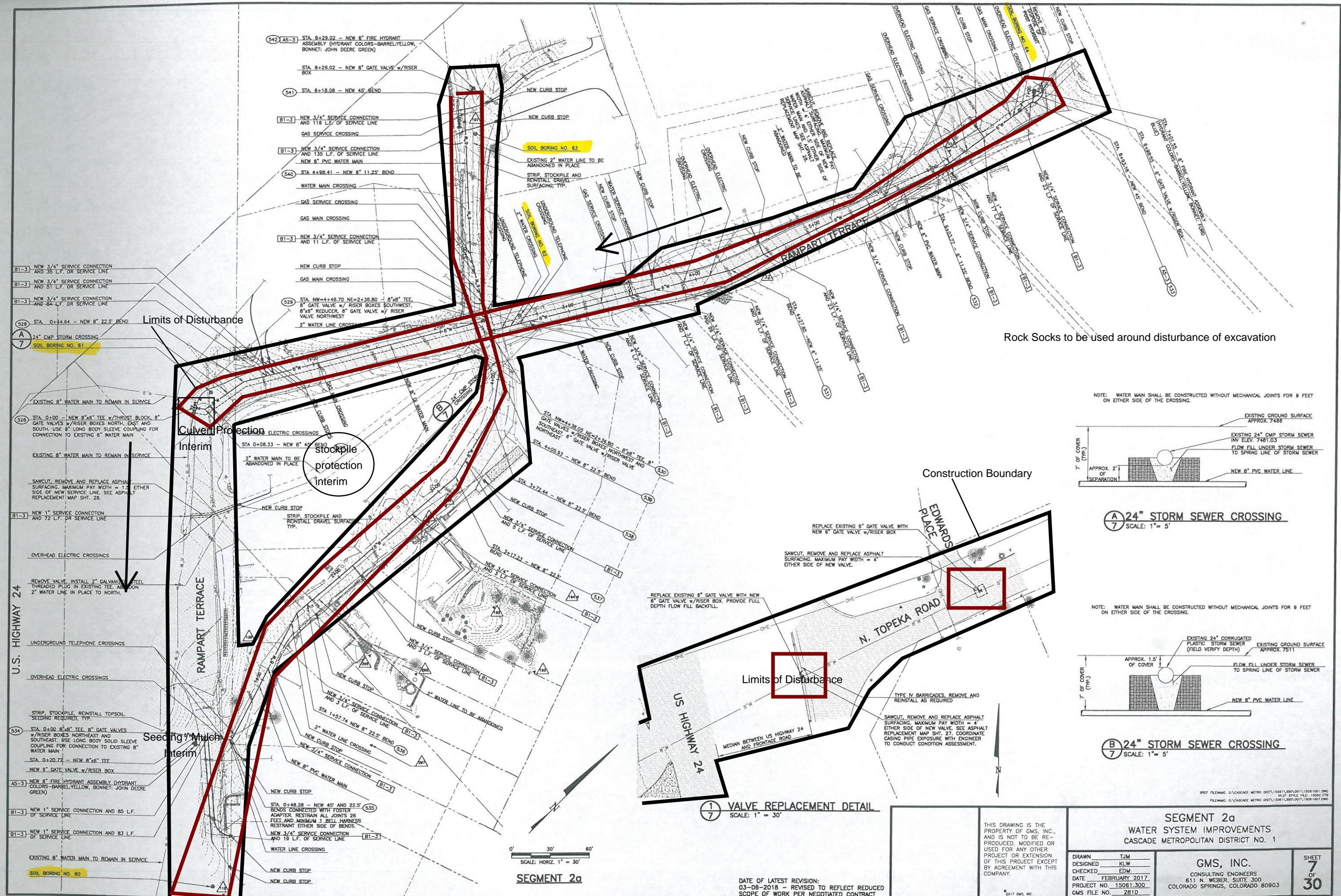
DATE OF LATEST REVISION:
03-08-2018 - REVISED TO REFLECT REDUCED SCOPE OF WORK PER NEGOTIATED CONTRACT

SEGMENTS 1, 2b AND 2c
WATER SYSTEM IMPROVEMENTS
CASCADE METROPOLITAN DISTRICT NO. 1

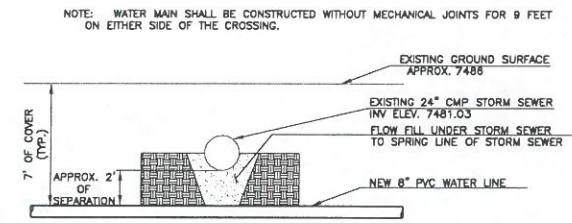
DRAWN KIW
DESIGNED KIW
CHECKED EDM
DATE FEBRUARY 2017
PROJECT NO. 15061.300
GMS FILE NO. 2810

GMS, INC.
CONSULTING ENGINEERS
611 N. WEBER, SUITE 300
COLORADO SPRINGS, COLORADO 80903

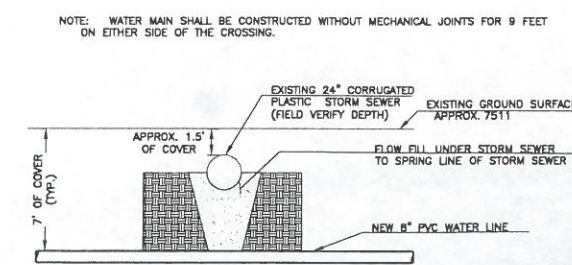
SHEET
6
OF
30



Rock Socks to be used around disturbance of excavation



A 24" STORM SEWER CROSSING
SCALE: 1" = 5'



B 24" STORM SEWER CROSSING
SCALE: 1" = 5'

1 VALVE REPLACEMENT DETAIL
SCALE: 1" = 30'

SCALE: HORIZ. 1" = 30'

SEGMENT 2a

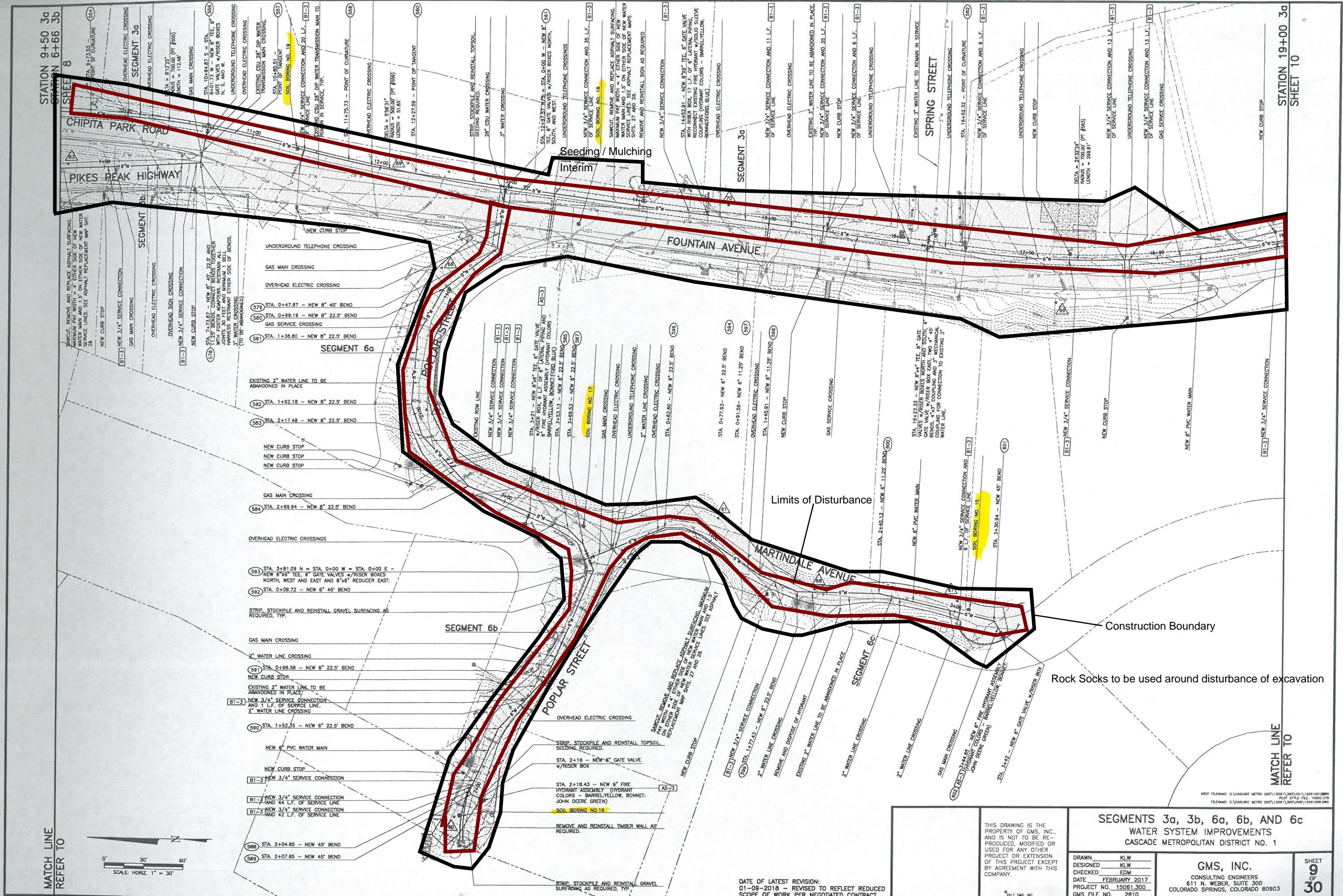
DATE OF LATEST REVISION:
01-09-2018 - REVISED TO REFLECT REDUCED
SCOPE OF WORK PER NEGOTIATED CONTRACT

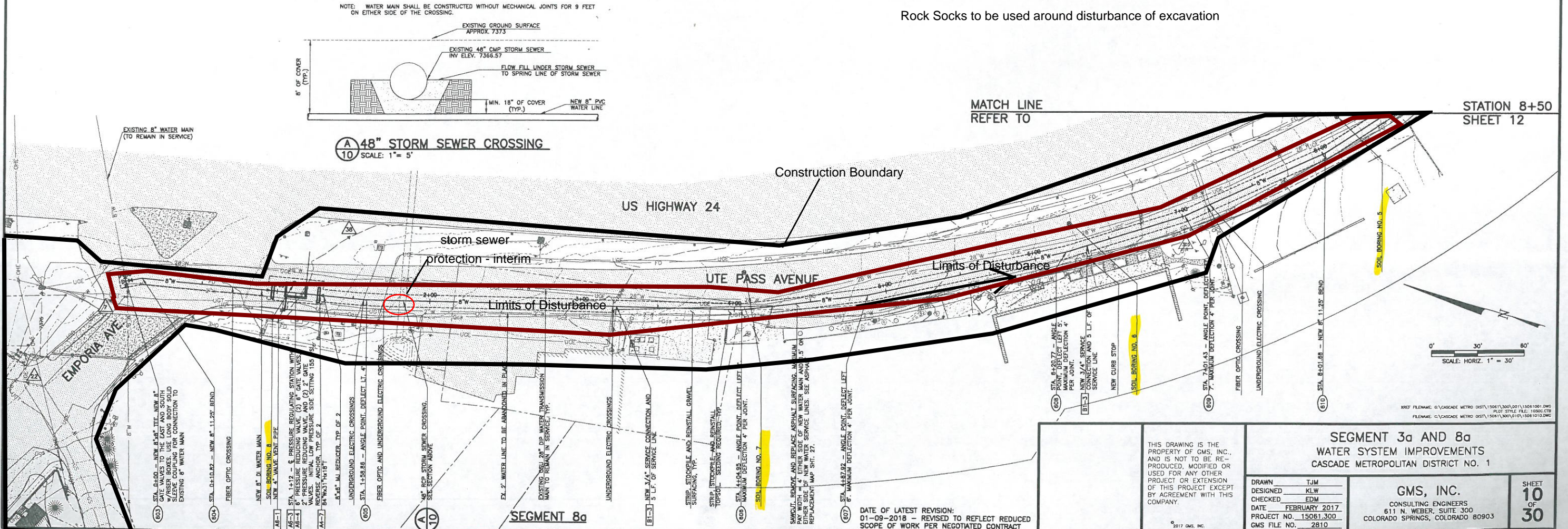
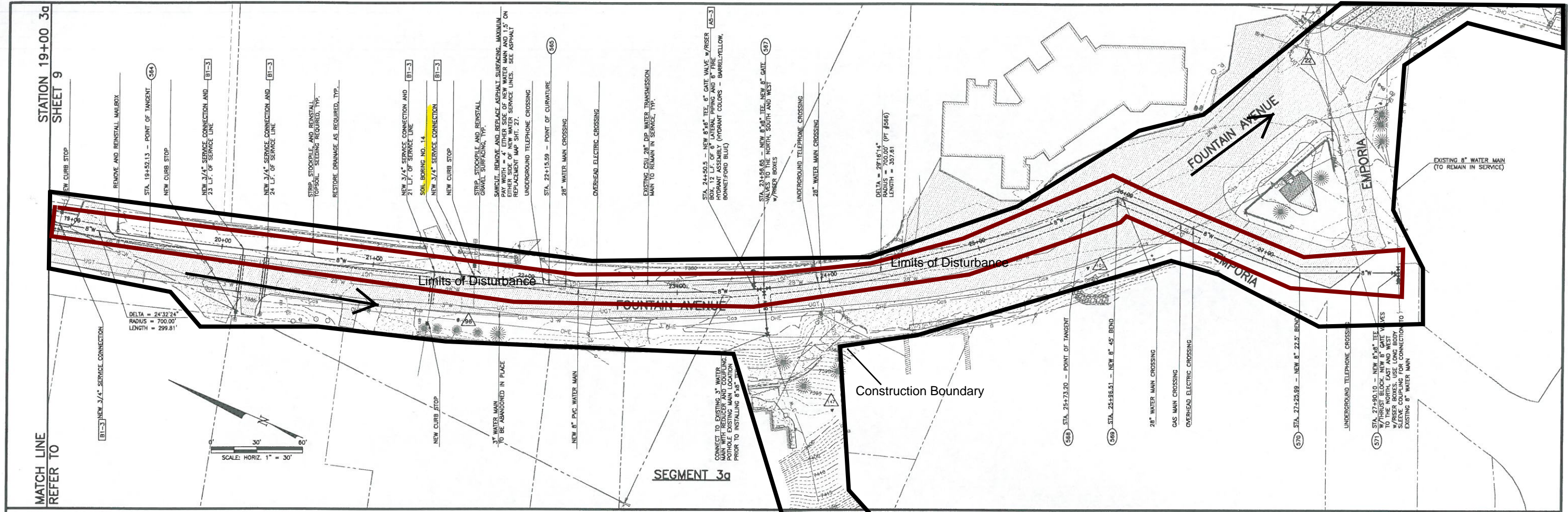
THIS DRAWING IS THE PROPERTY OF GMS, INC., AND IS NOT TO BE REPRODUCED, MODIFIED OR USED FOR ANY OTHER PROJECT OR EXTENSION OF THIS PROJECT EXCEPT BY AGREEMENT WITH THIS COMPANY.

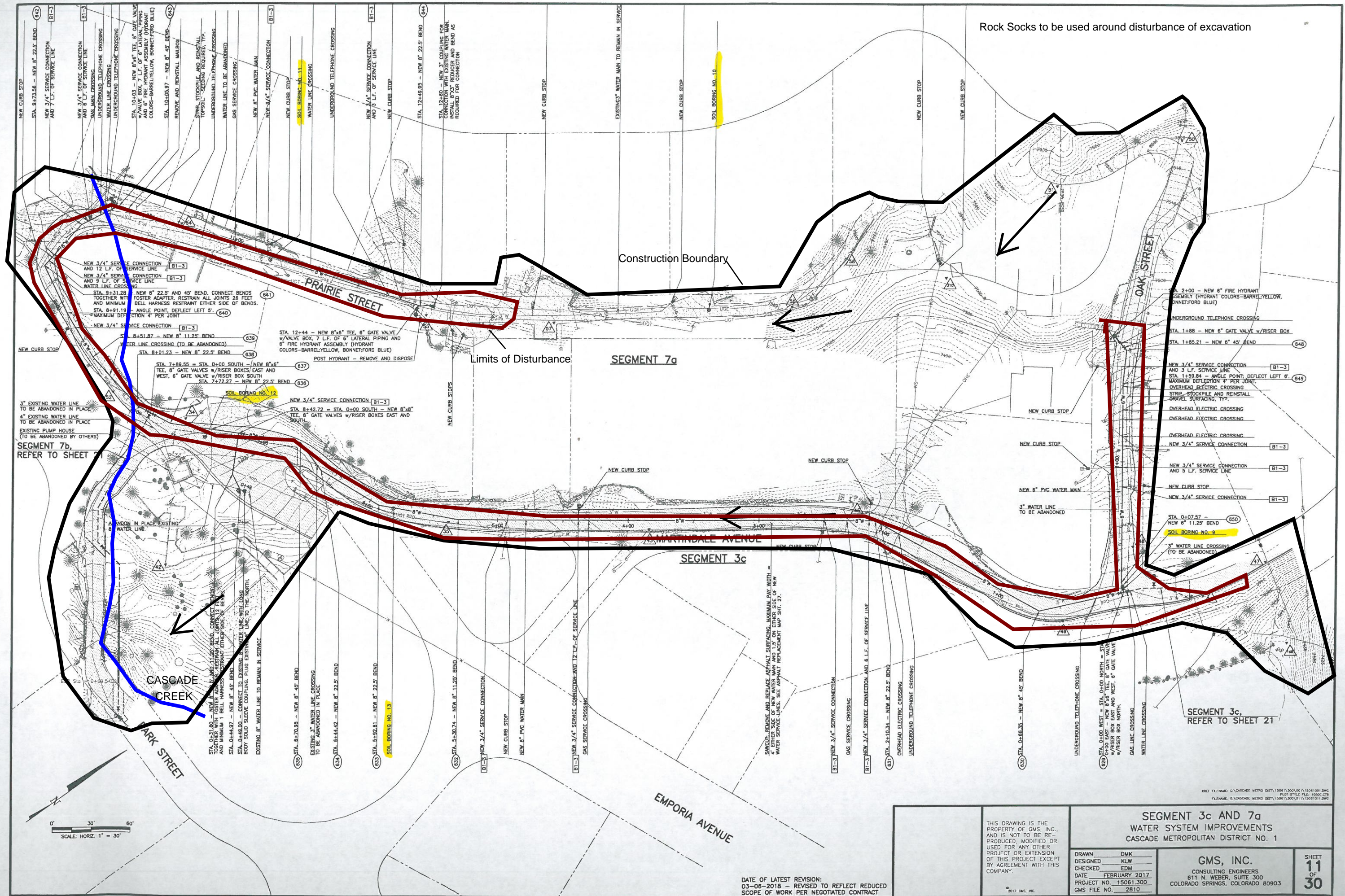
SEGMENTS 3a AND 3b
WATER SYSTEM IMPROVEMENTS
CASCADE METROPOLITAN DISTRICT NO. 1

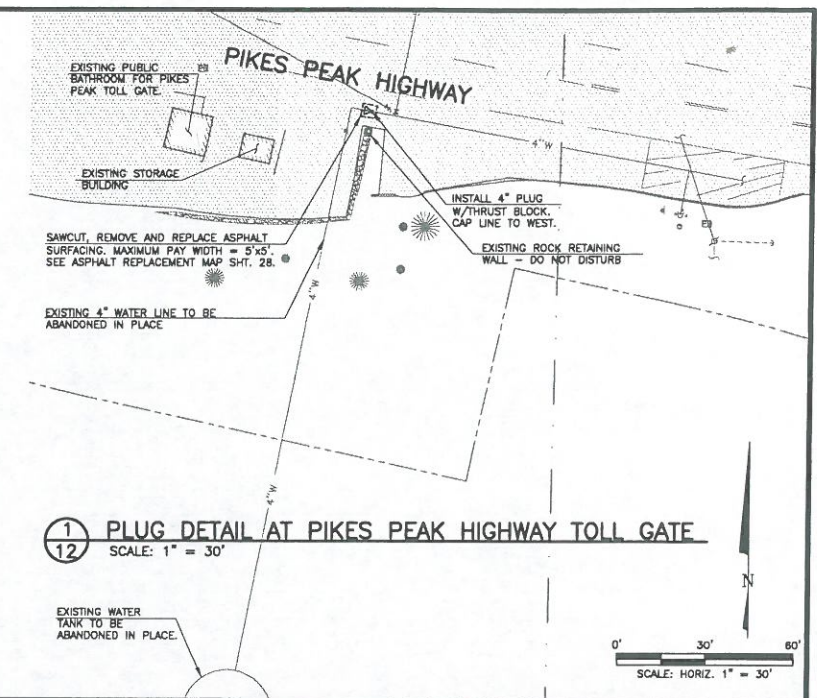
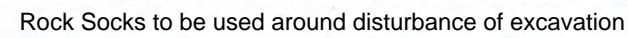
GMS, INC.
CONSULTING ENGINEERS
611 N. WEBER, SUITE 300
COLORADO SPRINGS, COLORADO 80903

SHEET
8
OF
30









THIS DRAWING IS THE PROPERTY OF GMS, INC., AND IS NOT TO BE REPRODUCED, MODIFIED OR USED FOR ANY OTHER PROJECT OR EXTENSION OF THIS PROJECT EXCEPT BY AGREEMENT WITH THIS COMPANY.

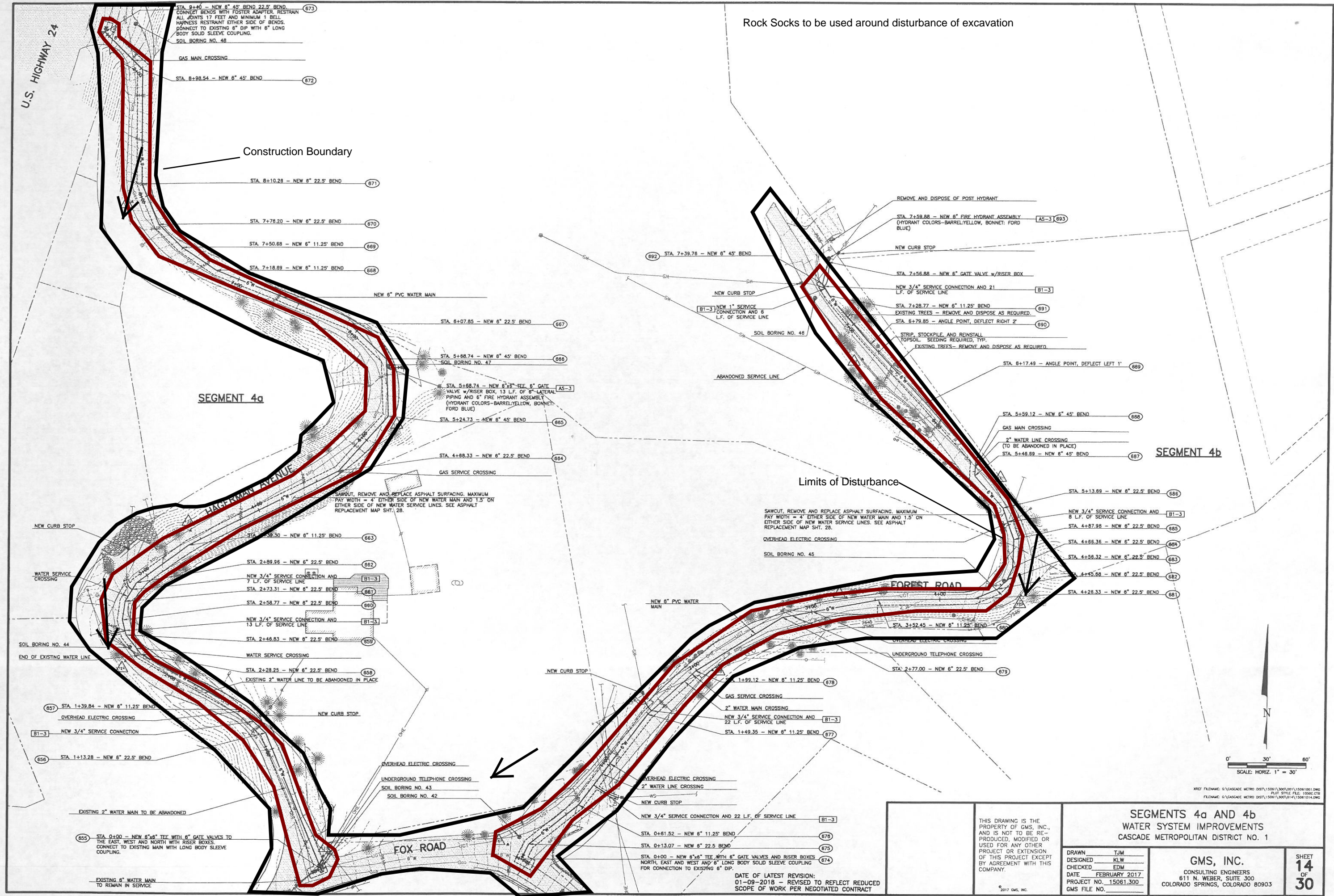
DRAWN	KLW
DESIGNED	KLW
CHECKED	EDM
DATE	FEBRUARY 2017
PROJECT NO.	15061.300
GMS FILE NO.	2810

SEGMENT 8a AND DETAIL
WATER SYSTEM IMPROVEMENTS
CASCADE METROPOLITAN DISTRICT NO. 1

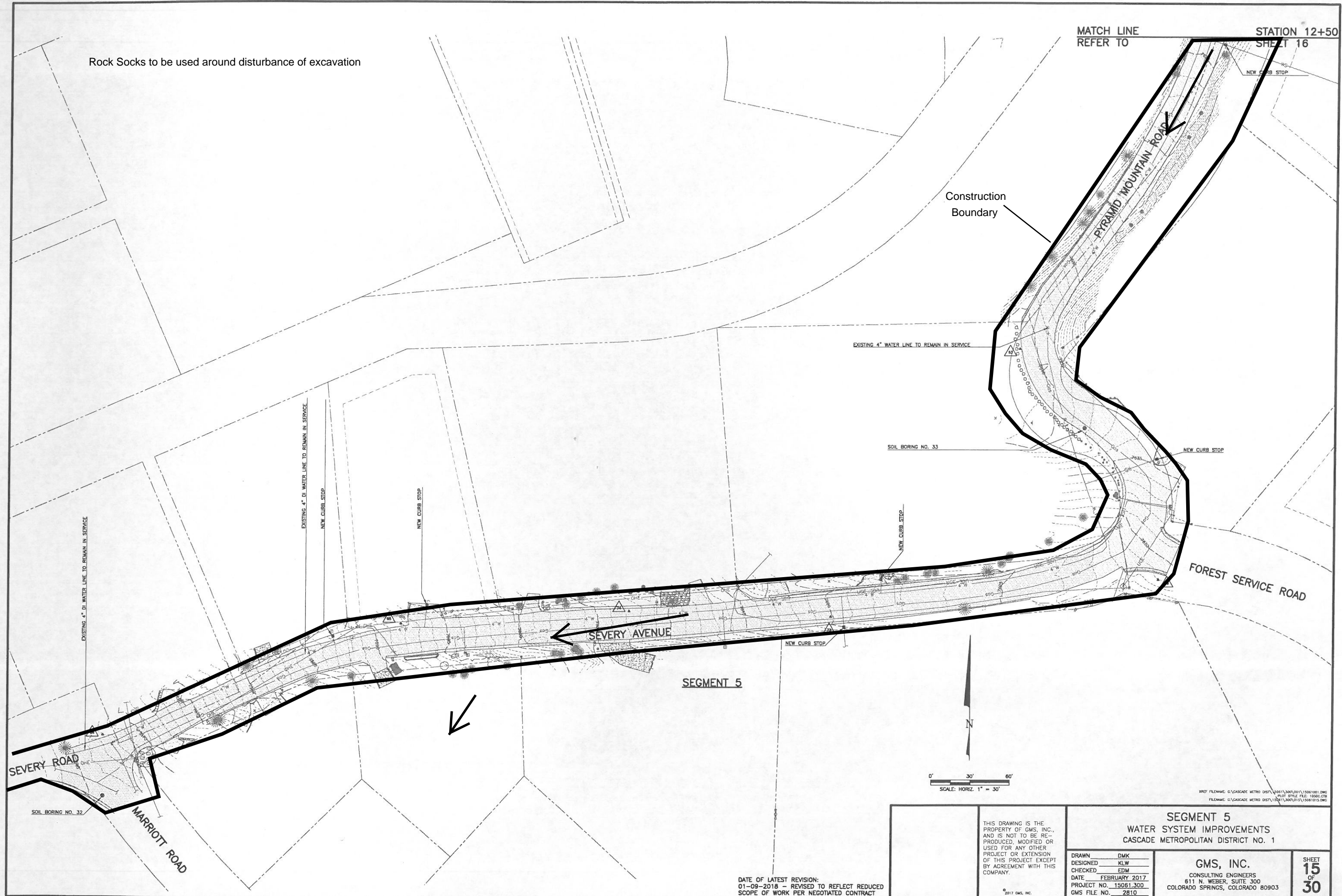
GMS, INC.
CONSULTING ENGINEERS
611 N. WEBER, SUITE 300
COLORADO SPRINGS, COLORADO 80903

SHEET
12
OF
30

G:\CASCADE\METRO DIST\1506130001014\15061014.dwg, 24x36, 3/8/2018 9:35:27 AM, sc, Xerox Altalink C8035, 1:2.2



G:\CASCADE METRO DIST\1506130001015\15061015.DWG, SHEET 15, 3/8/2018 9:36:07 AM, sc, Xerox Altalink C8035, 1:2.2



DATE OF LATEST REVISION:
01-09-2018 - REVISED TO REFLECT REDUCED
SCOPE OF WORK PER NEGOTIATED CONTRACT

THIS DRAWING IS THE
PROPERTY OF GMS, INC.,
AND IS NOT TO BE RE-
PRODUCED, MODIFIED OR
USED FOR ANY OTHER
PROJECT OR EXTENSION
OF THIS PROJECT EXCEPT
BY AGREEMENT WITH THIS
COMPANY.

© 2017 GMS, INC.

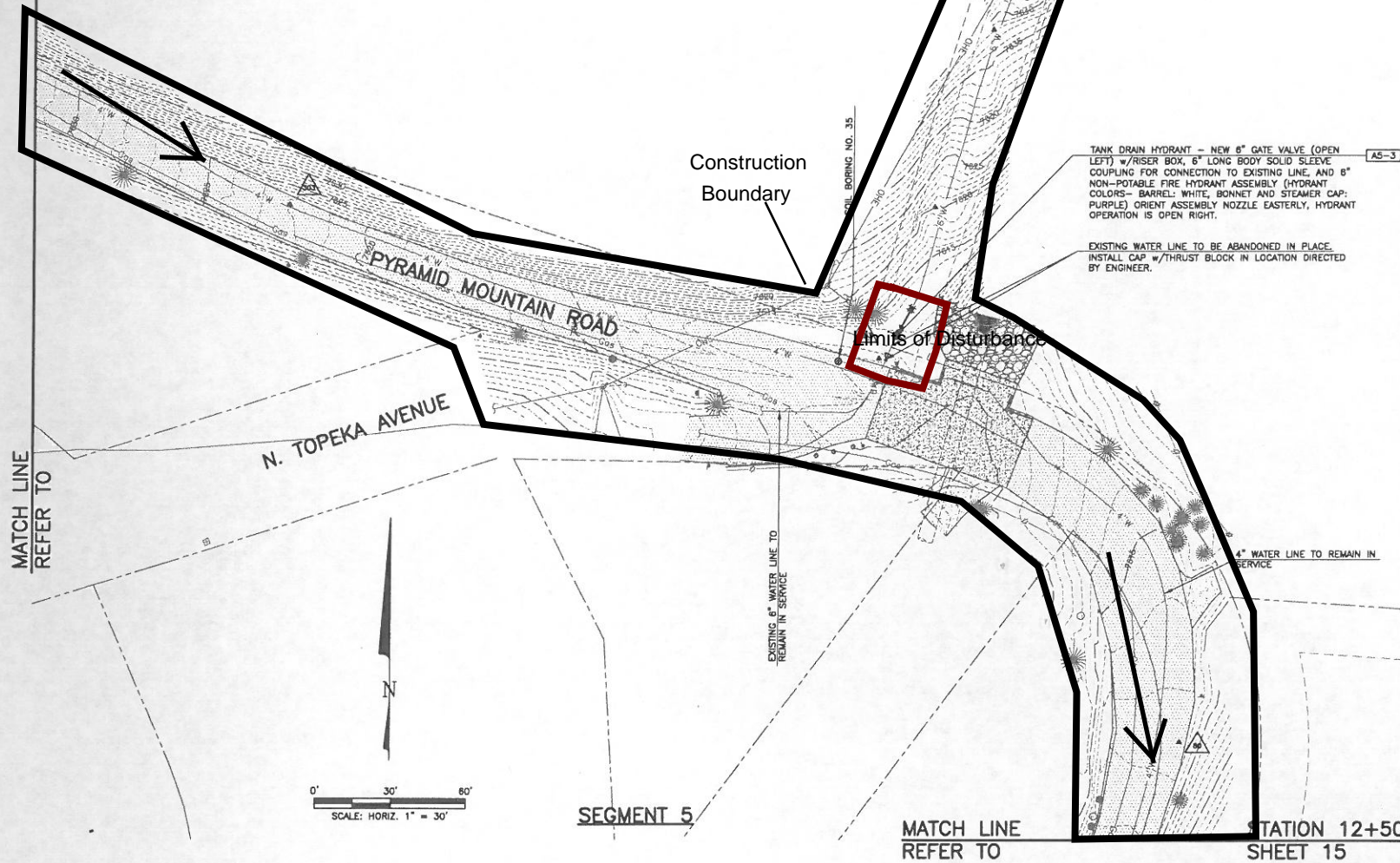
SEGMENT 5
WATER SYSTEM IMPROVEMENTS
CASCADE METROPOLITAN DISTRICT NO. 1

DRAWN DMK
DESIGNED KIW
CHECKED EDM
DATE FEBRUARY 2017
PROJECT NO. 15061.300
GMS FILE NO. 2810

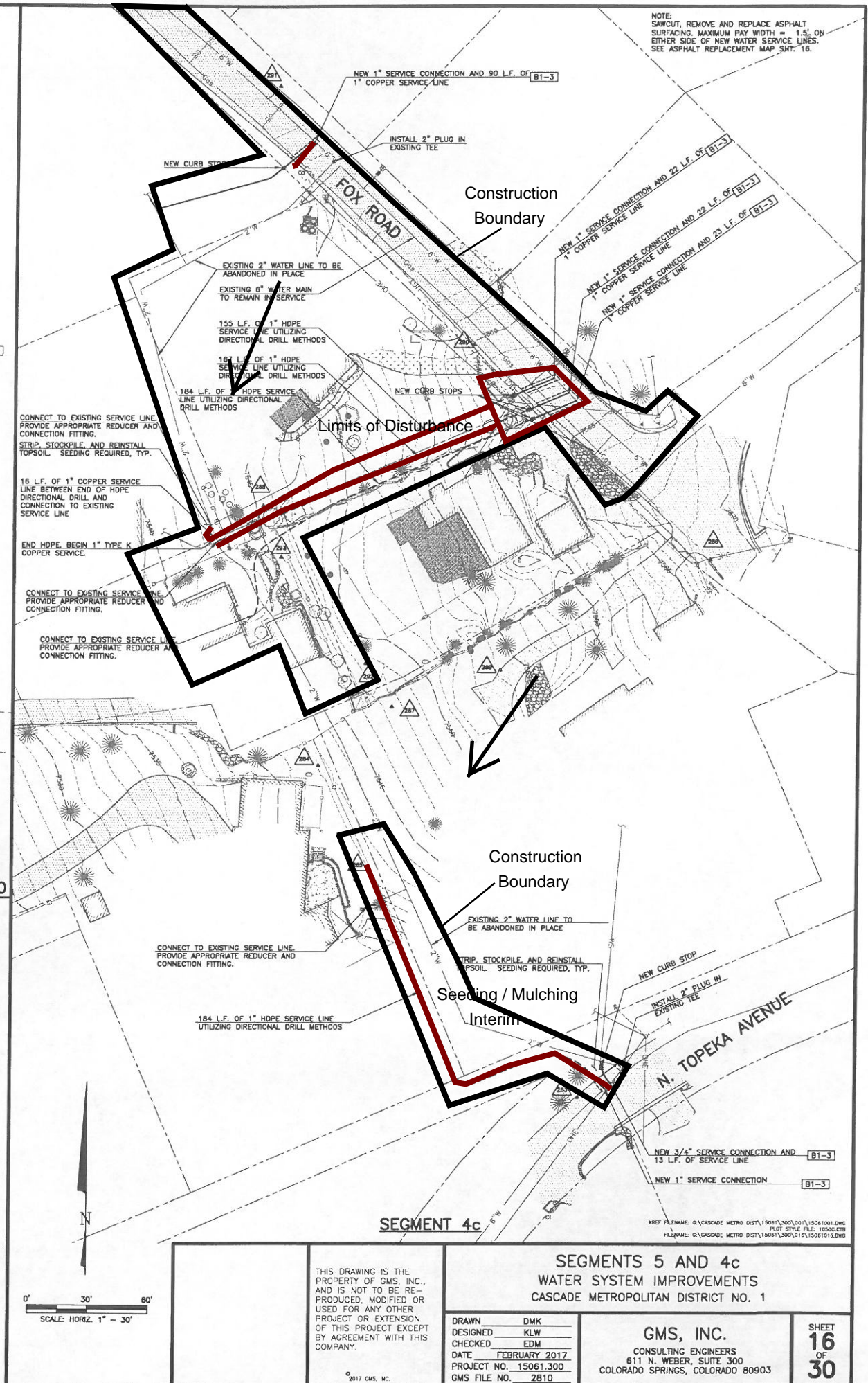
GMS, INC.
CONSULTING ENGINEERS
611 N. WEBER, SUITE 300
COLORADO SPRINGS, COLORADO 80903

SHEET
15
OF
30

MATCH LINE	
REFER TO	
1	2
3	4
5	6
7	8
9	10
11	12
13	14
15	16
17	18
19	20
21	22
23	24
25	26
27	28
29	30
31	32
33	34
35	36
37	38
39	40
41	42
43	44
45	46
47	48
49	50
51	52
53	54
55	56
57	58
59	60
61	62
63	64
65	66
67	68
69	70
71	72
73	74
75	76
77	78
79	80
81	82
83	84
85	86
87	88
89	90
91	92
93	94
95	96
97	98
99	100



DATE OF LATEST REVISION:
03-06-2018 - REVISED TO REFLECT REDUCED
SCOPE OF WORK PER NEGOTIATED CONTRACT

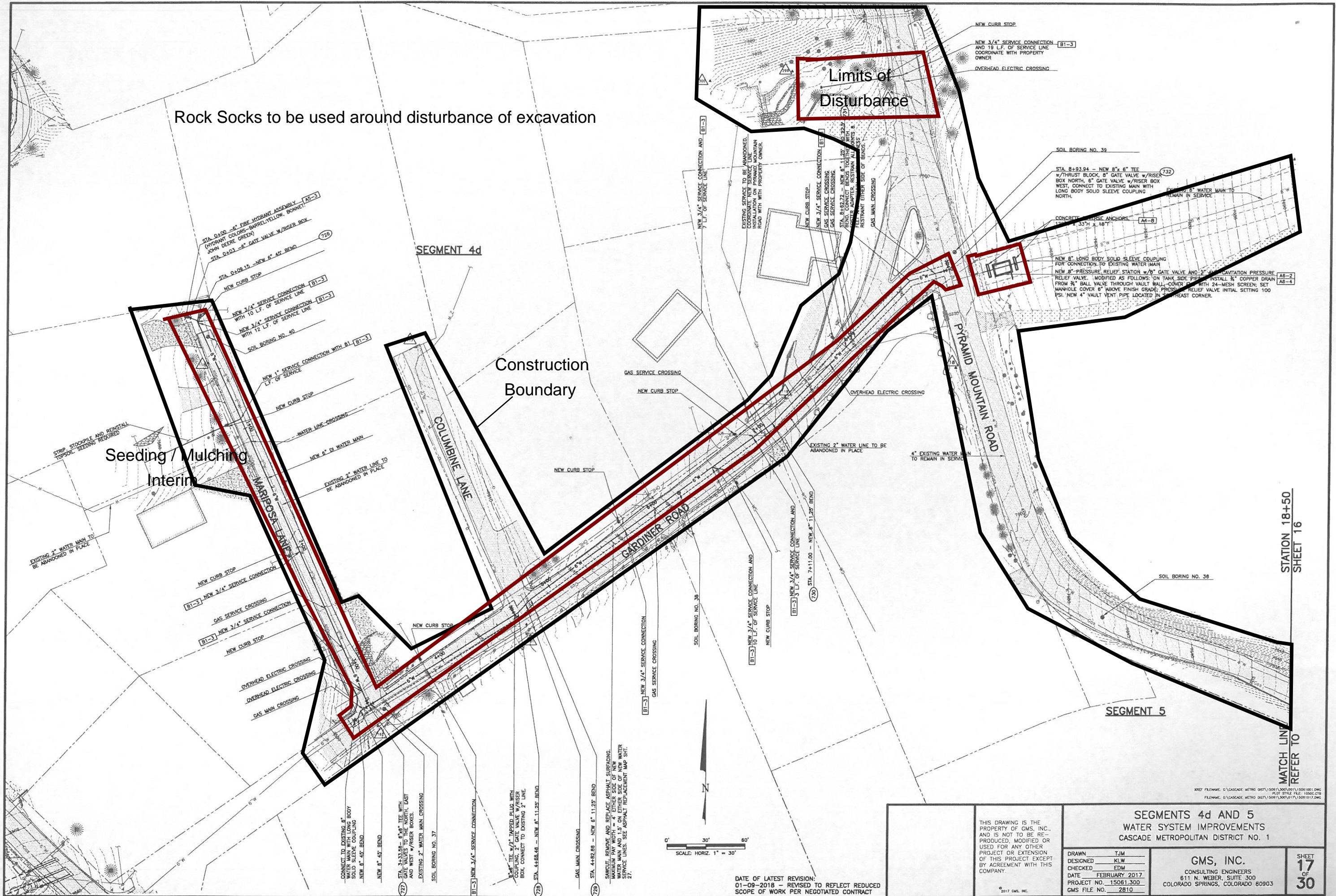


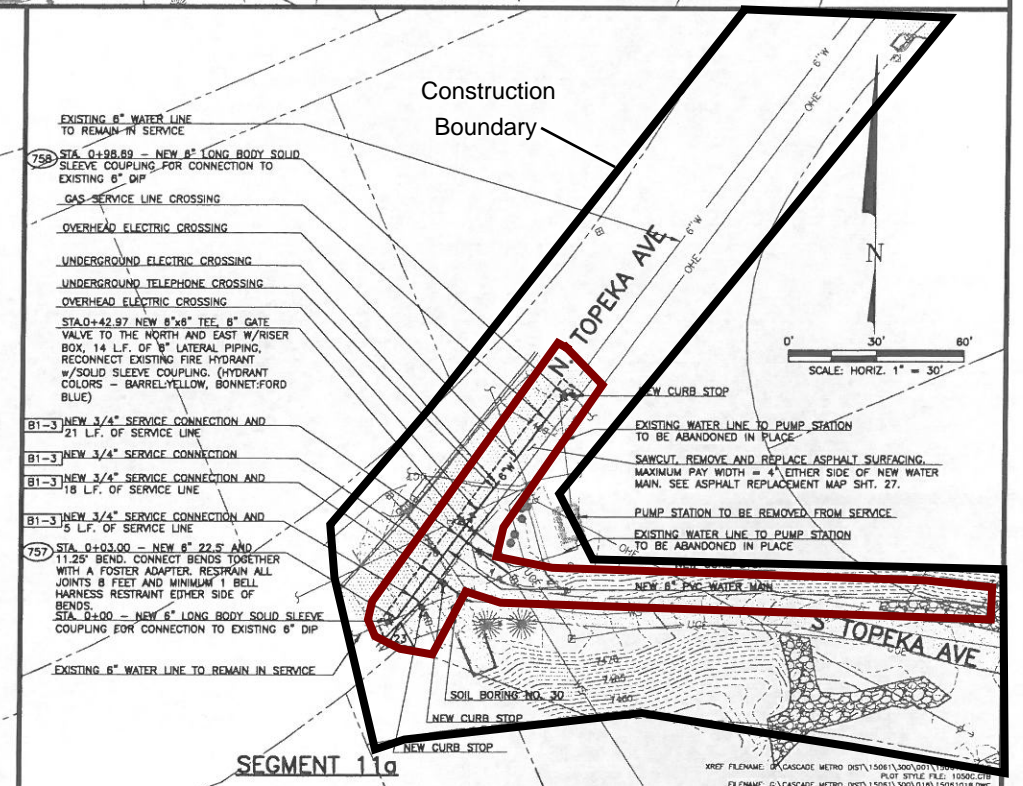
SEGMENTS 5 AND 4c
WATER SYSTEM IMPROVEMENTS
CASCADE METROPOLITAN DISTRICT NO. 1

DRAWN _____ DMK
DESIGNED _____ KLW
CHECKED _____ EDM
DATE _____ FEBRUARY 2017
PROJECT NO. 15061.300
GMS FILE NO. 2810

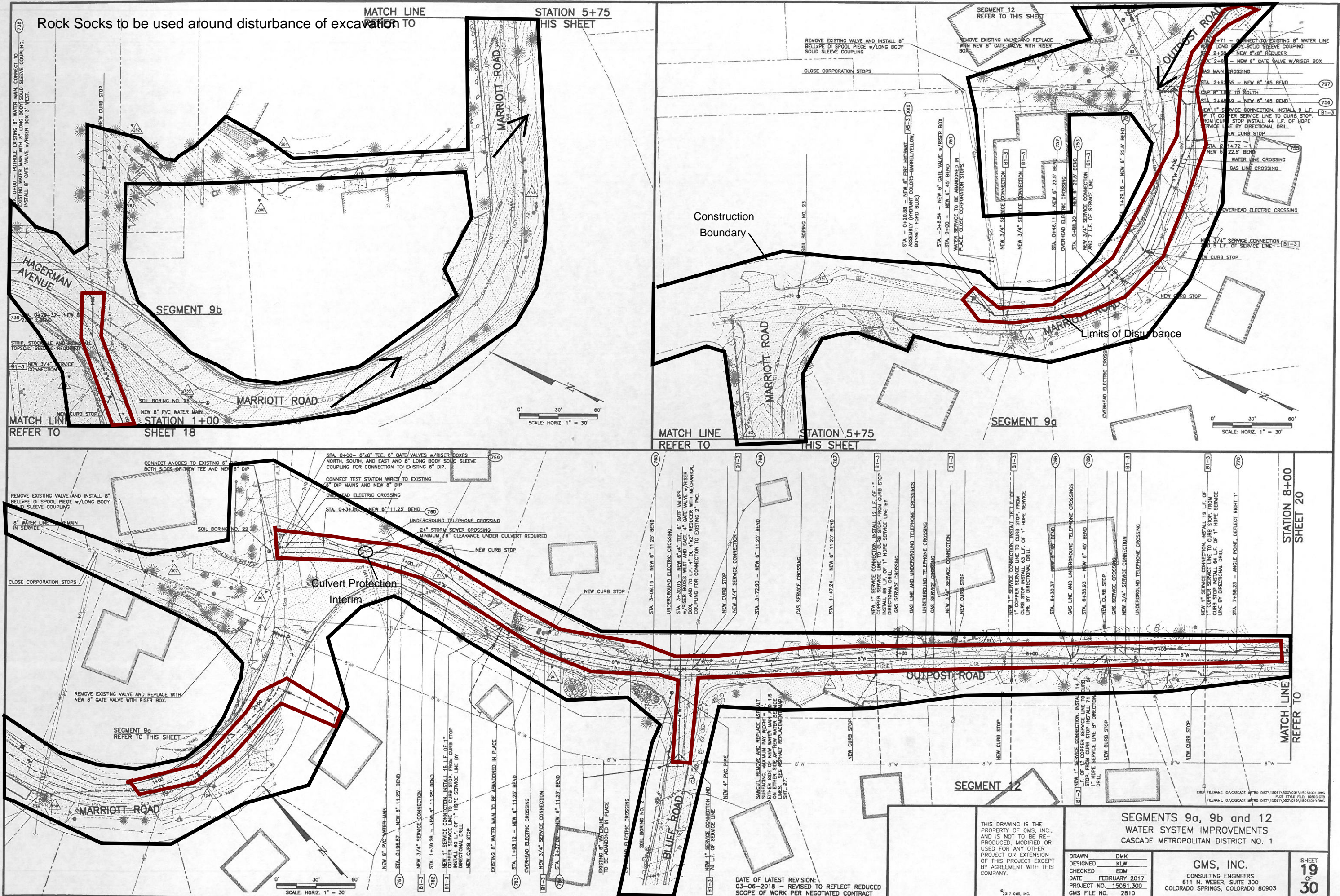
GMS, INC.
CONSULTING ENGINEERS
611 N. WEBER, SUITE 300
COLORADO SPRINGS, COLORADO 80903

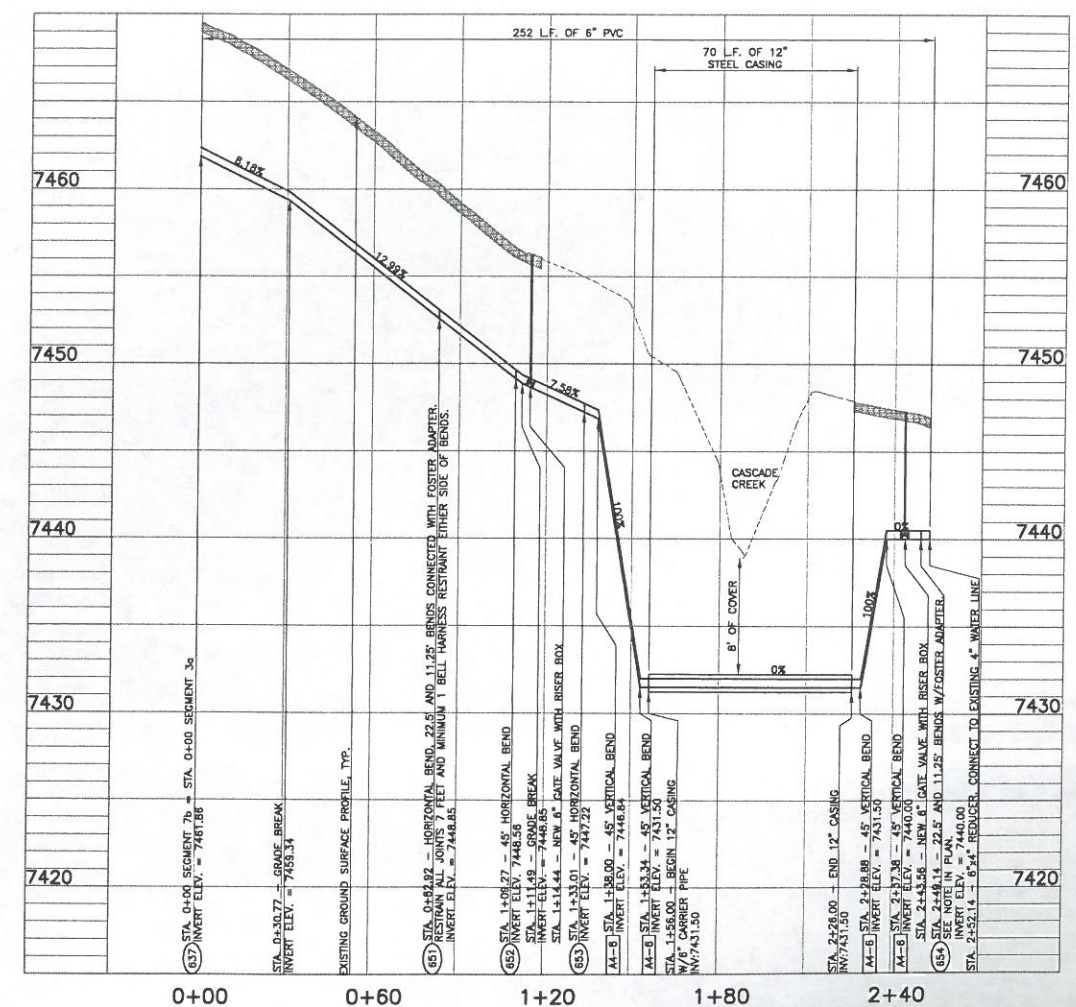
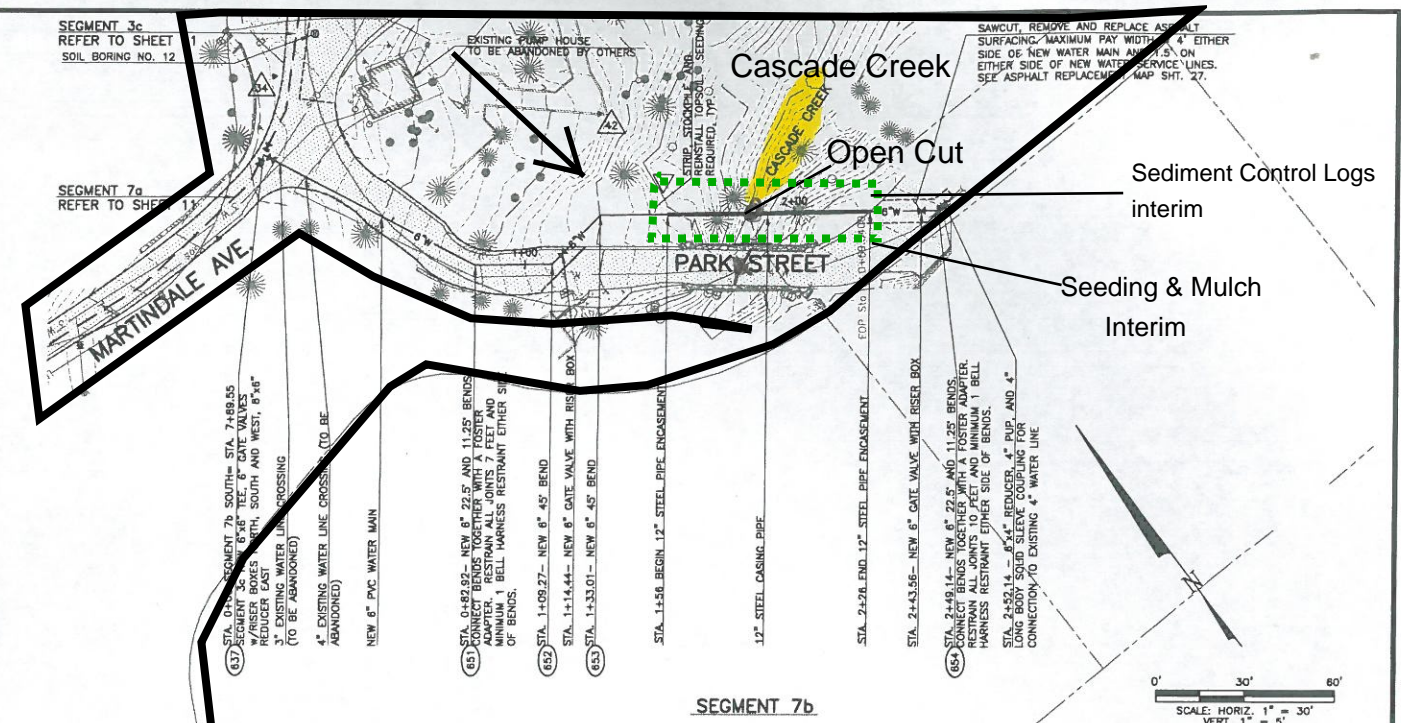
SHEET
16
OF
30





<p>THIS DRAWING IS THE PROPERTY OF GMS, INC., AND IS NOT TO BE RE-PRODUCED, MODIFIED OR USED FOR ANY OTHER PROJECT OR EXTENSION OF THIS PROJECT EXCEPT BY AGREEMENT WITH THIS COMPANY.</p> <p>© 2017 GMS, INC.</p>	<p>SEGMENTS 9b, 10a AND 11a WATER SYSTEM IMPROVEMENTS CASCADE METROPOLITAN DISTRICT NO. 1</p>		<p>SHEET 18 OF 30</p>
	<p>DRAWN <u>DMK</u> DESIGNED <u>KLW</u> CHECKED <u>EDM</u> DATE <u>FEBRUARY 2017</u> PROJECT NO. <u>15061.300</u> GMS FILE NO. <u>2810</u></p>	<p>GMS, INC. CONSULTING ENGINEERS 611 N. WEBER, SUITE 300 COLORADO SPRINGS, COLORADO 80903</p>	





DATE OF LATEST REVISION:
03-06-2018 - REVISED TO REFLECT REDUCED
SCOPE OF WORK PER NEGOTIATED CONTRACT

THIS DRAWING IS THE PROPERTY OF GMS, INC., AND IS NOT TO BE REPRODUCED, MODIFIED OR USED FOR ANY OTHER PROJECT OR EXTENSION OF THIS PROJECT EXCEPT BY AGREEMENT WITH THIS COMPANY.

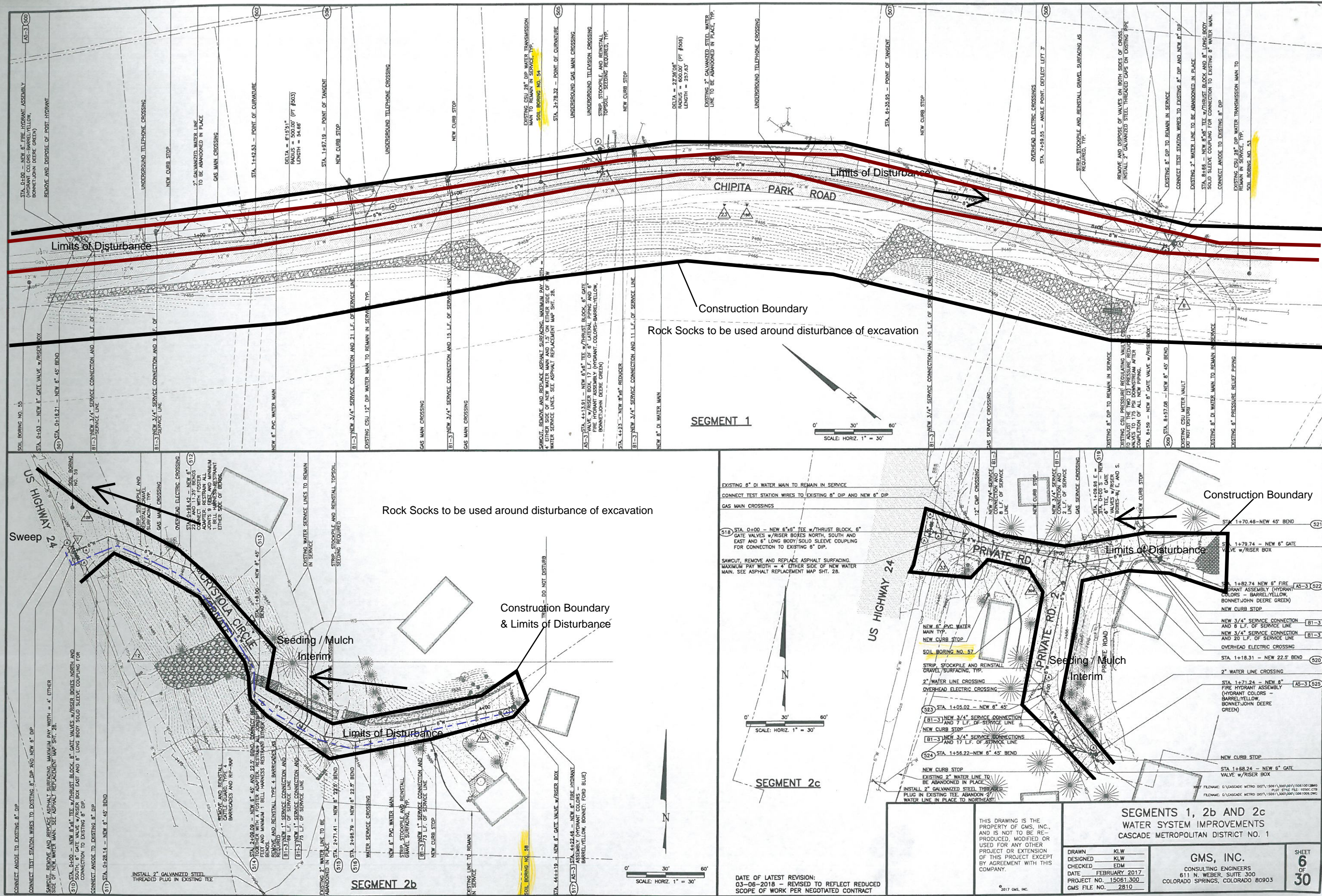
© 2017 CMS, INC.

SEGMENTS 3c AND 7b
WATER SYSTEM IMPROVEMENTS
CASCADE METROPOLITAN DISTRICT NO. 1

GMS, INC.
CONSULTING ENGINEERS
611 N. WEBER, SUITE 300
COLORADO SPRINGS, COLORADO 80903

SHEET
21
OF
30

Appendix B - Site Maps and Erosion Control Plan



DATE OF LATEST REVISION:
03-06-2018 - REVISED TO REFLECT REDUCED
SCOPE OF WORK PER NEGOTIATED CONTRACT

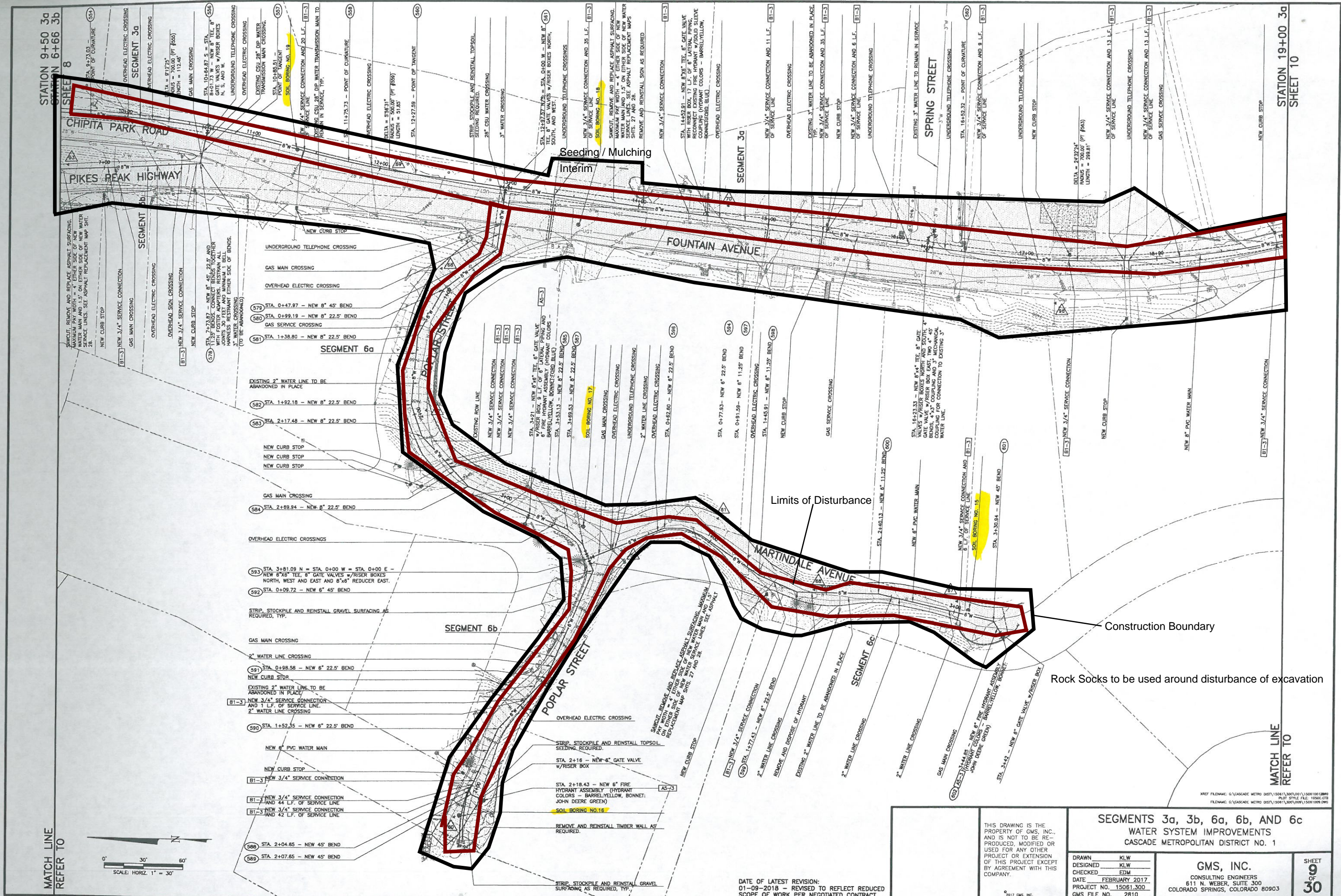
DATE OF LATEST REVISION:
01-09-2018 - REVISED TO REFLECT REDUCED
SCOPE OF WORK PER NEGOTIATED CONTRACT

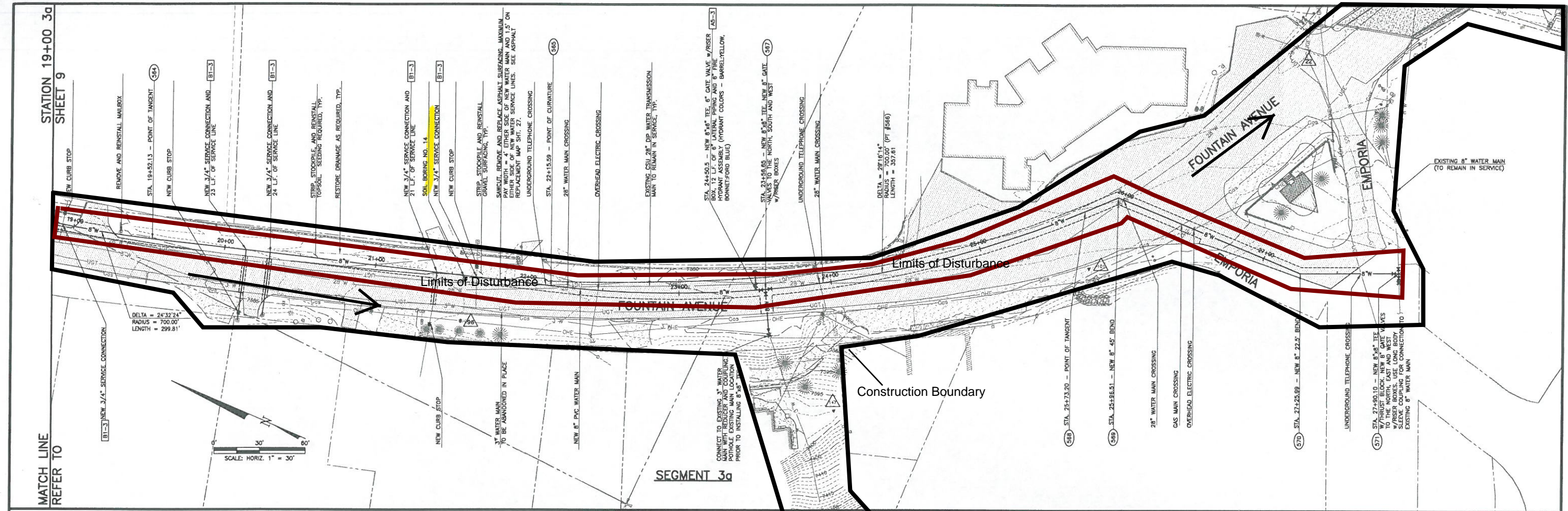
THIS DRAWING IS THE PROPERTY OF GMS, INC., AND IS NOT TO BE REPRODUCED, MODIFIED OR USED FOR ANY OTHER PROJECT OR EXTENSION OF THIS PROJECT EXCEPT BY AGREEMENT WITH THIS COMPANY.

SEGMENTS 3a AND 3b
WATER SYSTEM IMPROVEMENTS
CASCADE METROPOLITAN DISTRICT NO. 1

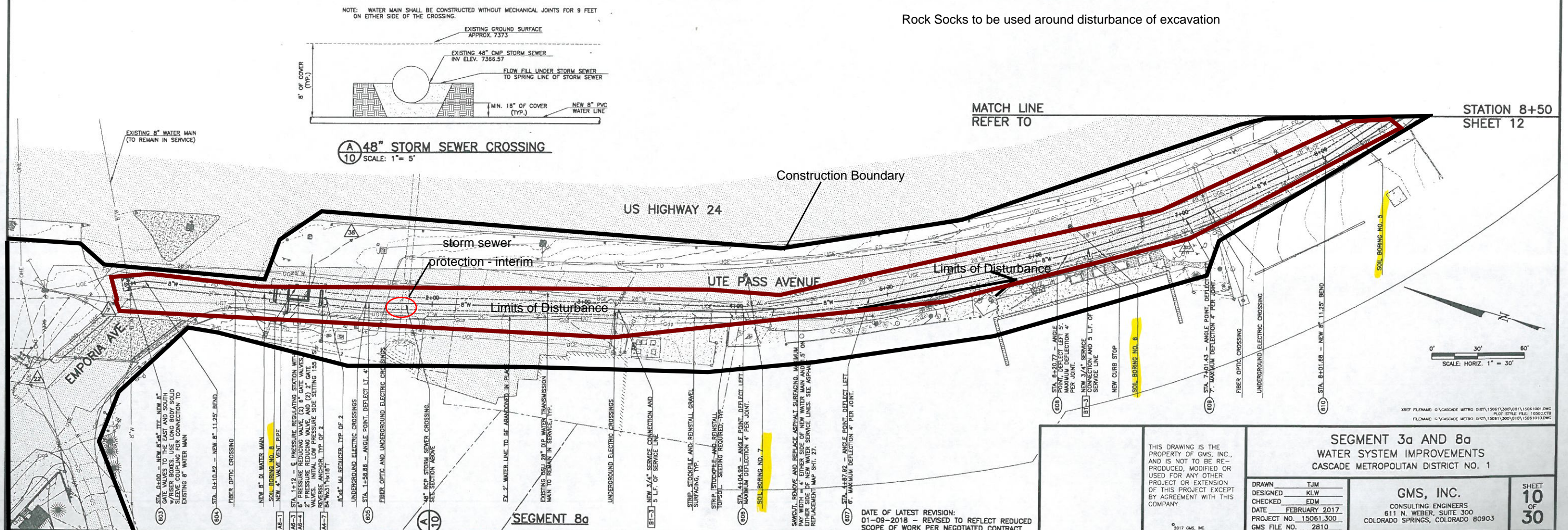
GMS, INC.
CONSULTING ENGINEERS
611 N. WEBER, SUITE 300
COLORADO SPRINGS, COLORADO 80903

SHEET
8
OF
30





Rock Socks to be used around disturbance of excavation



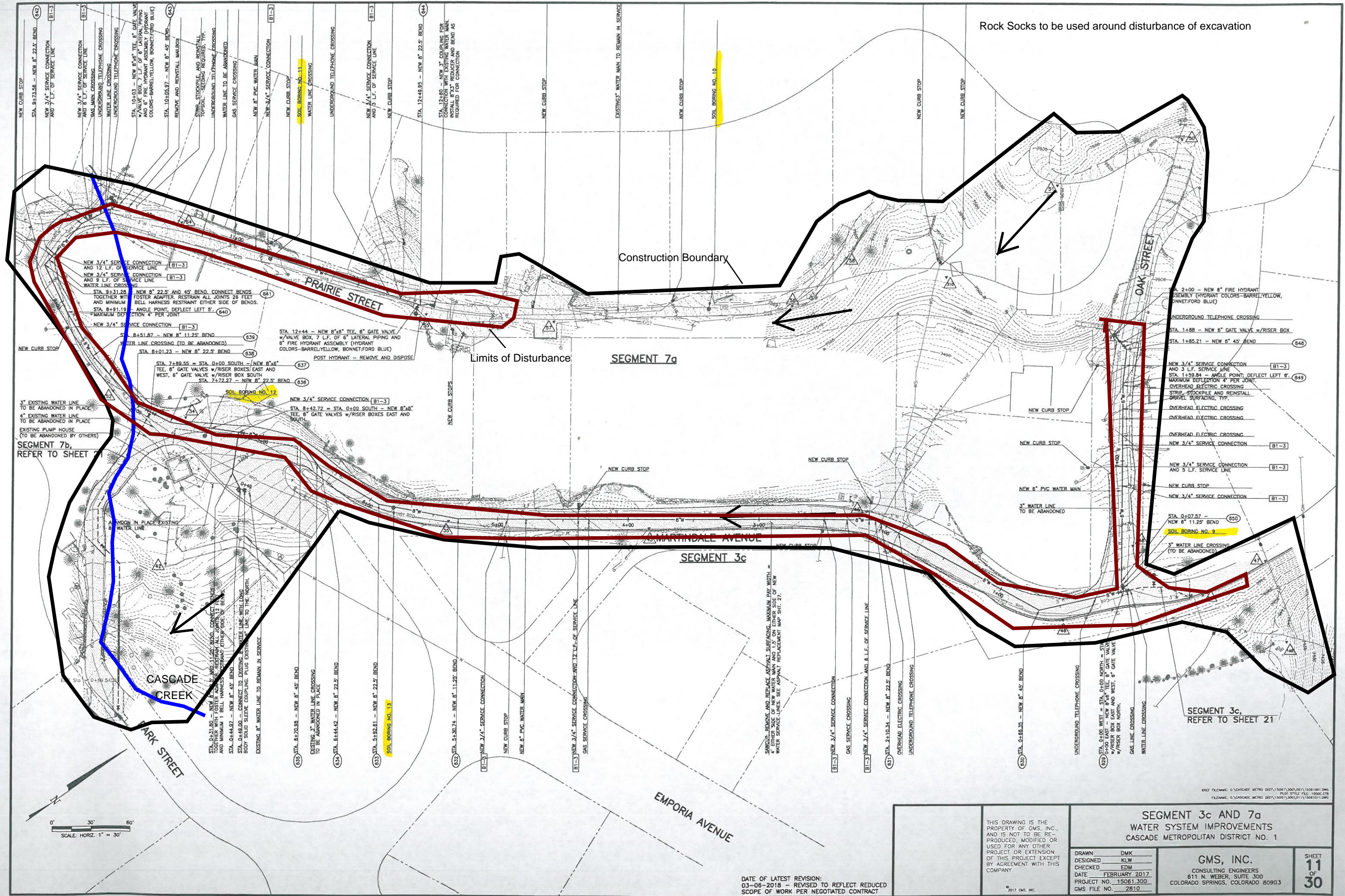
DATE OF LATEST REVISION:
01-09-2018 - REVISED TO REFLECT REDUCED
SCOPE OF WORK PER NEGOTIATED CONTRACT

THIS DRAWING IS THE
PROPERTY OF GMS, INC.,
AND IS NOT TO BE RE-
PRODUCED, MODIFIED OR
USED FOR ANY OTHER
PROJECT OR EXTENSION
OF THIS PROJECT EXCEPT
BY AGREEMENT WITH THIS
COMPANY.

SEGMENT 3a AND 8a
WATER SYSTEM IMPROVEMENTS
CASCADE METROPOLITAN DISTRICT NO. 1

GMS, INC.
CONSULTING ENGINEERS
611 N. WEBER, SUITE 300
COLORADO SPRINGS, COLORADO 80903

SHEET
10
OF
30



Rock Socks to be used around disturbance of excavation

Construction Boundary

Limits of Disturbance

SEGMENT 7a

SEGMENT 3c

SEGMENT 3c,
REFER TO SHEET 21

SEGMENT 3c AND 7a
WATER SYSTEM IMPROVEMENTS
CASCADE METROPOLITAN DISTRICT NO.

GMS, INC.
CONSULTING ENGINEERS
N. WEBER, SUITE 300
D SPRINGS, COLORADO 80903

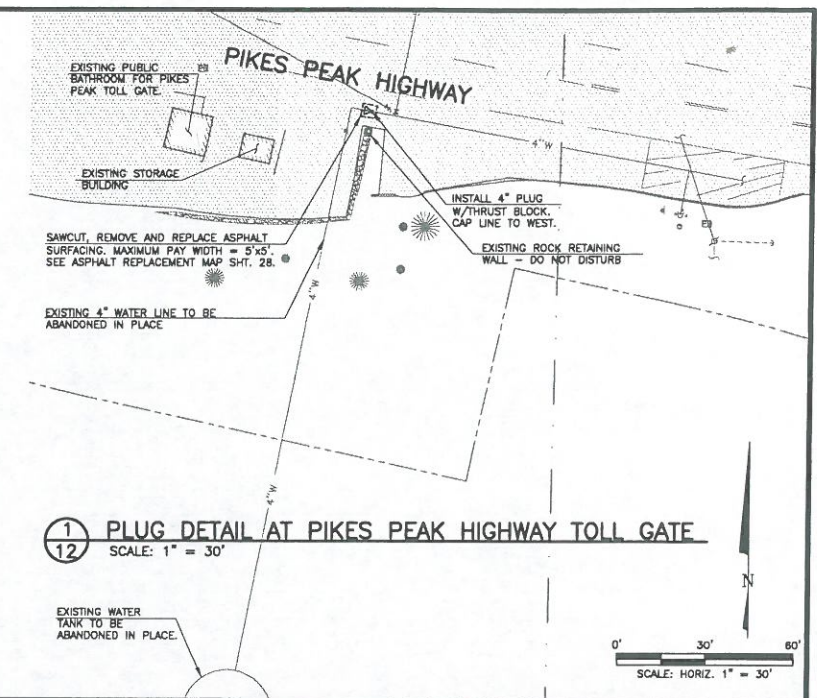
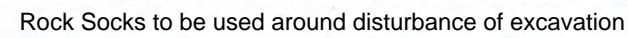
SHEET
11
OF
30

DATE OF LATEST REVISION:
03-06-2018 - REVISED TO REFLECT REDUCED
SCOPE OF WORK PER NEGOTIATED CONTRACT

THIS DRAWING IS THE
PROPERTY OF GMS, INC.,
AND IS NOT TO BE RE-
PRODUCED, MODIFIED OR
USED FOR ANY OTHER
PROJECT OR EXTENSION
OF THIS PROJECT EXCEPT
BY AGREEMENT WITH THIS
COMPANY.

DRAWN	DMK
DESIGNED	KLW
CHECKED	EDM
DATE	FEBRUARY 2017
PROJECT NO.	15061.300
GMS FILE NO.	2810

© 2017 CMS, INC



DATE OF LATEST REVISION:
01-09-2018 - REVISED TO REFLECT REDUCED
SCOPE OF WORK PER NEGOTIATED CONTRACT

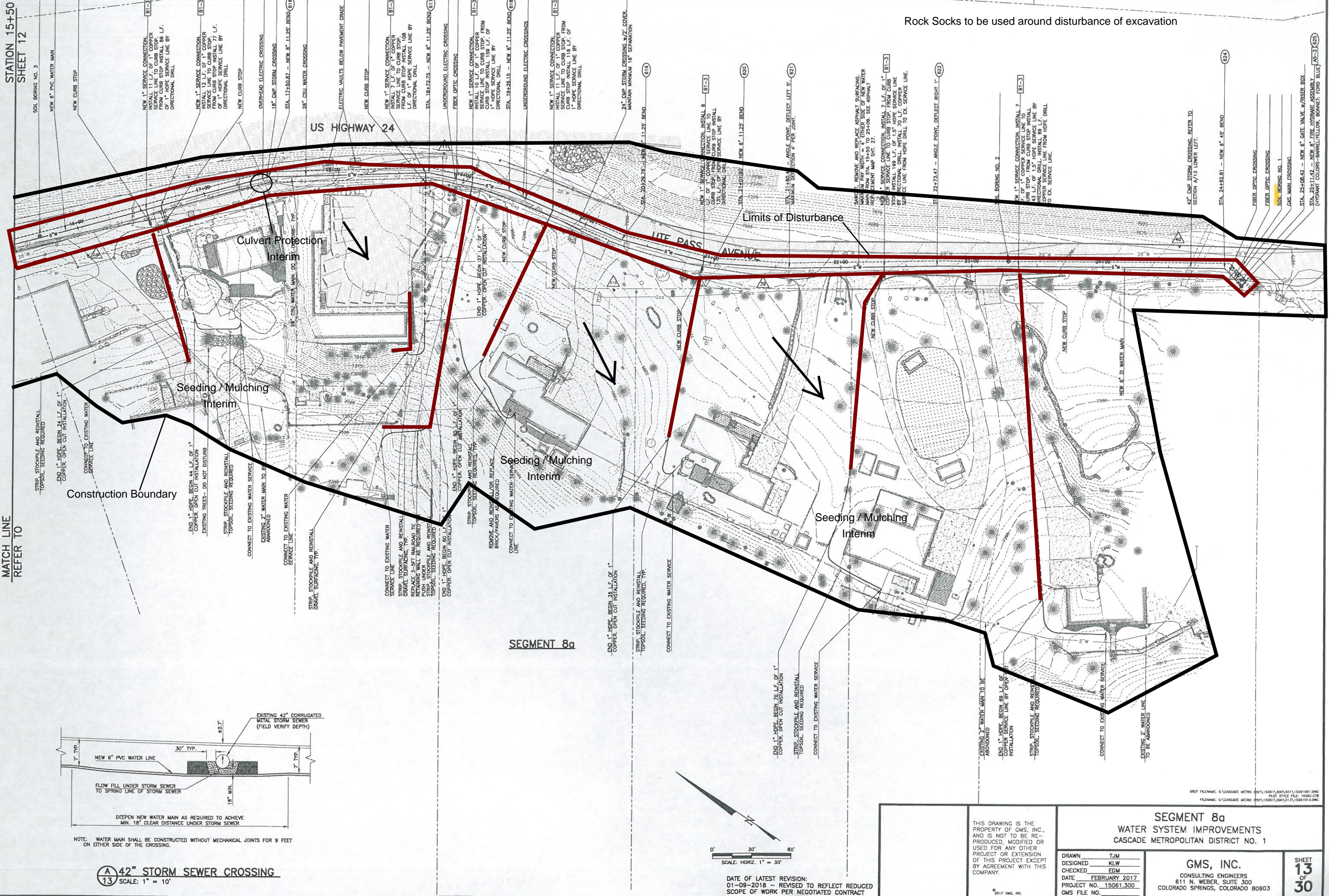
THIS DRAWING IS THE PROPERTY OF GMS, INC., AND IS NOT TO BE REPRODUCED, MODIFIED OR USED FOR ANY OTHER PROJECT OR EXTENSION OF THIS PROJECT EXCEPT BY AGREEMENT WITH THIS COMPANY.

DRAWN _____ KLW
DESIGNED _____ KLW
CHECKED _____ EDM
DATE _____ FEBRUARY 2017
PROJECT NO. 15061.300
GMS FILE NO. 2810

SEGMENT 8a AND DETAIL
WATER SYSTEM IMPROVEMENTS
CASCADE METROPOLITAN DISTRICT NO. 1

GMS, INC.
CONSULTING ENGINEERS
611 N. WEBER, SUITE 300
COLORADO SPRINGS, COLORADO 80903

SHEET
12
OF
30



Rock Socks to be used around disturbance of excavation

Limits of Disturbance

Culvert Protection Interim

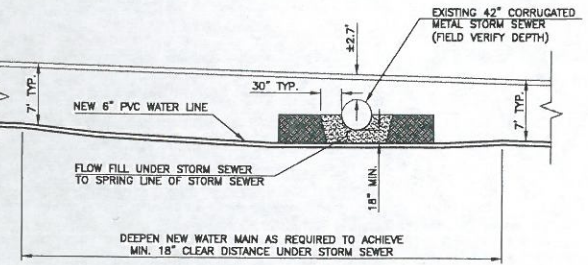
Seeding / Mulching Interim

Construction Boundary

Seeding / Mulching Interim

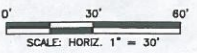
Seeding / Mulching Interim

SEGMENT 8a



NOTE: WATER MAIN SHALL BE CONSTRUCTED WITHOUT MECHANICAL JOINTS FOR 9 FEET ON EITHER SIDE OF THE CROSSING.

42" STORM SEWER CROSSING
SCALE: 1" = 10'



DATE OF LATEST REVISION:
01-09-2018 - REVISED TO REFLECT REDUCED SCOPE OF WORK PER NEGOTIATED CONTRACT

THIS DRAWING IS THE PROPERTY OF GMS, INC., AND IS NOT TO BE REPRODUCED, MODIFIED OR USED FOR ANY OTHER PROJECT OR EXTENSION OF THIS PROJECT EXCEPT BY AGREEMENT WITH THIS COMPANY.

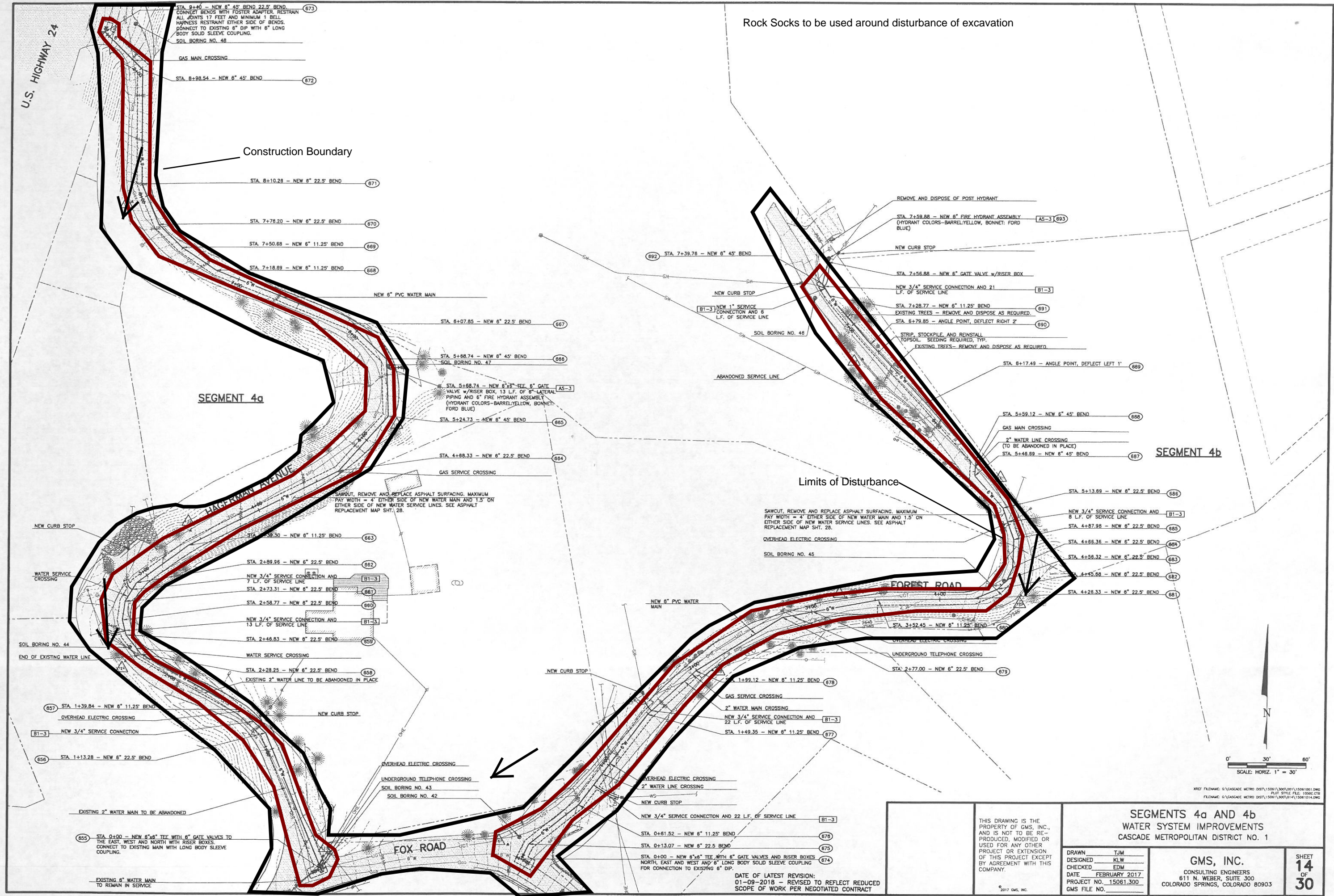
DRAWN	TJM
DESIGNED	KLW
CHECKED	EDM
DATE	FEBRUARY 2017
PROJECT NO.	15061.300
GMS FILE NO.	

SEGMENT 8a
WATER SYSTEM IMPROVEMENTS
CASCADE METROPOLITAN DISTRICT NO. 1

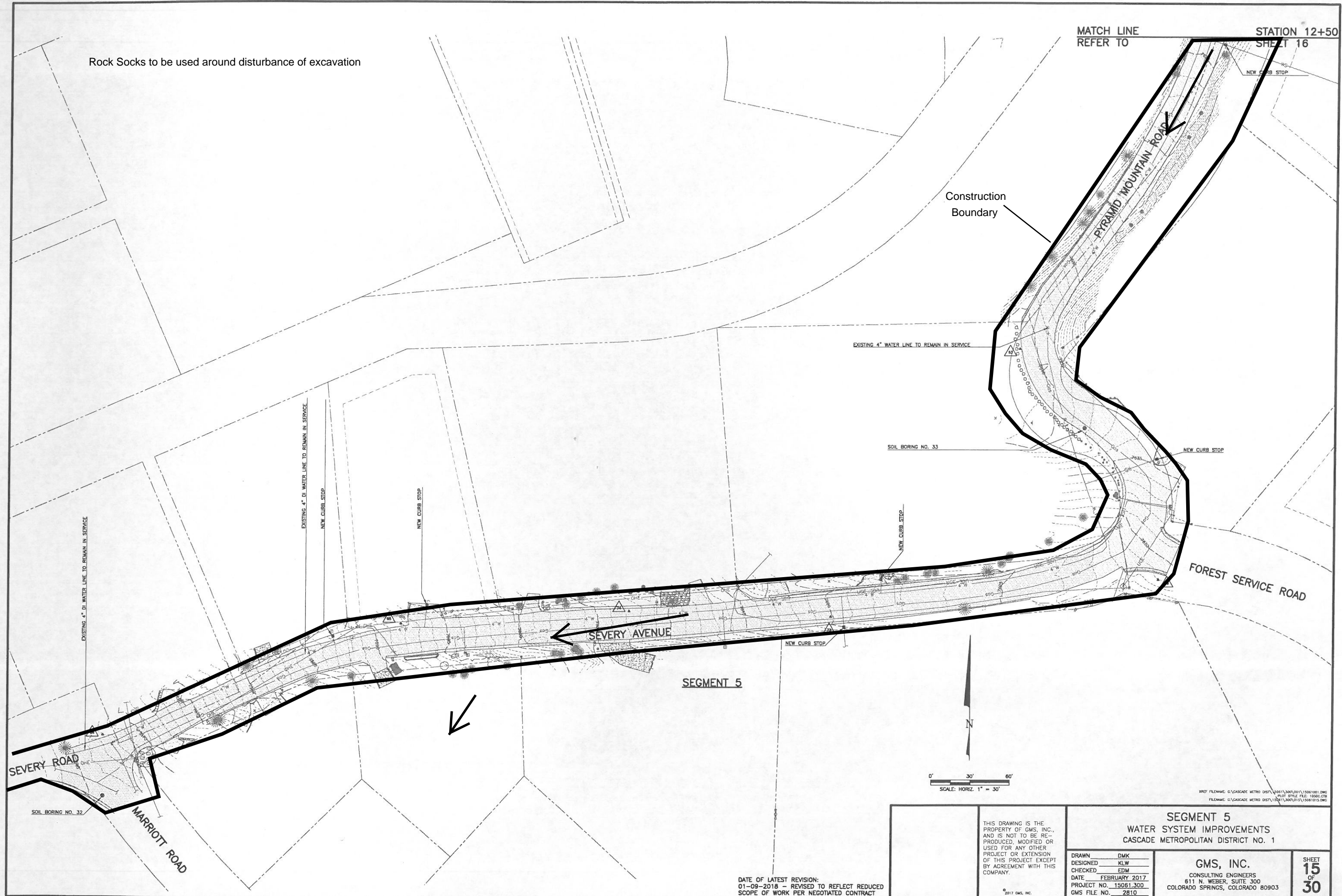
GMS, INC.
CONSULTING ENGINEERS
611 N. WEBER, SUITE 300
COLORADO SPRINGS, COLORADO 80903

SHEET 13 OF 30

G:\CASCADE\METRO DIST\1506130001014\15061014.dwg, 24x36, 3/8/2018 9:35:27 AM, sc, Xerox Altalink C8035, 1:2.2



G:\CASCADE METRO DIST\150613001015\15061015.DWG, SHEET 15, 3/8/2018 9:36:07 AM, sc, Xerox Altalink C8035, 1:2.2



DATE OF LATEST REVISION:
01-09-2018 - REVISED TO REFLECT REDUCED
SCOPE OF WORK PER NEGOTIATED CONTRACT

THIS DRAWING IS THE
PROPERTY OF GMS, INC.,
AND IS NOT TO BE RE-
PRODUCED, MODIFIED OR
USED FOR ANY OTHER
PROJECT OR EXTENSION
OF THIS PROJECT EXCEPT
BY AGREEMENT WITH THIS
COMPANY.

© 2017 GMS, INC.

SEGMENT 5
WATER SYSTEM IMPROVEMENTS
CASCADE METROPOLITAN DISTRICT NO. 1

DRAWN DMK
DESIGNED KIW
CHECKED EDM
DATE FEBRUARY 2017
PROJECT NO. 15061.300
GMS FILE NO. 2810

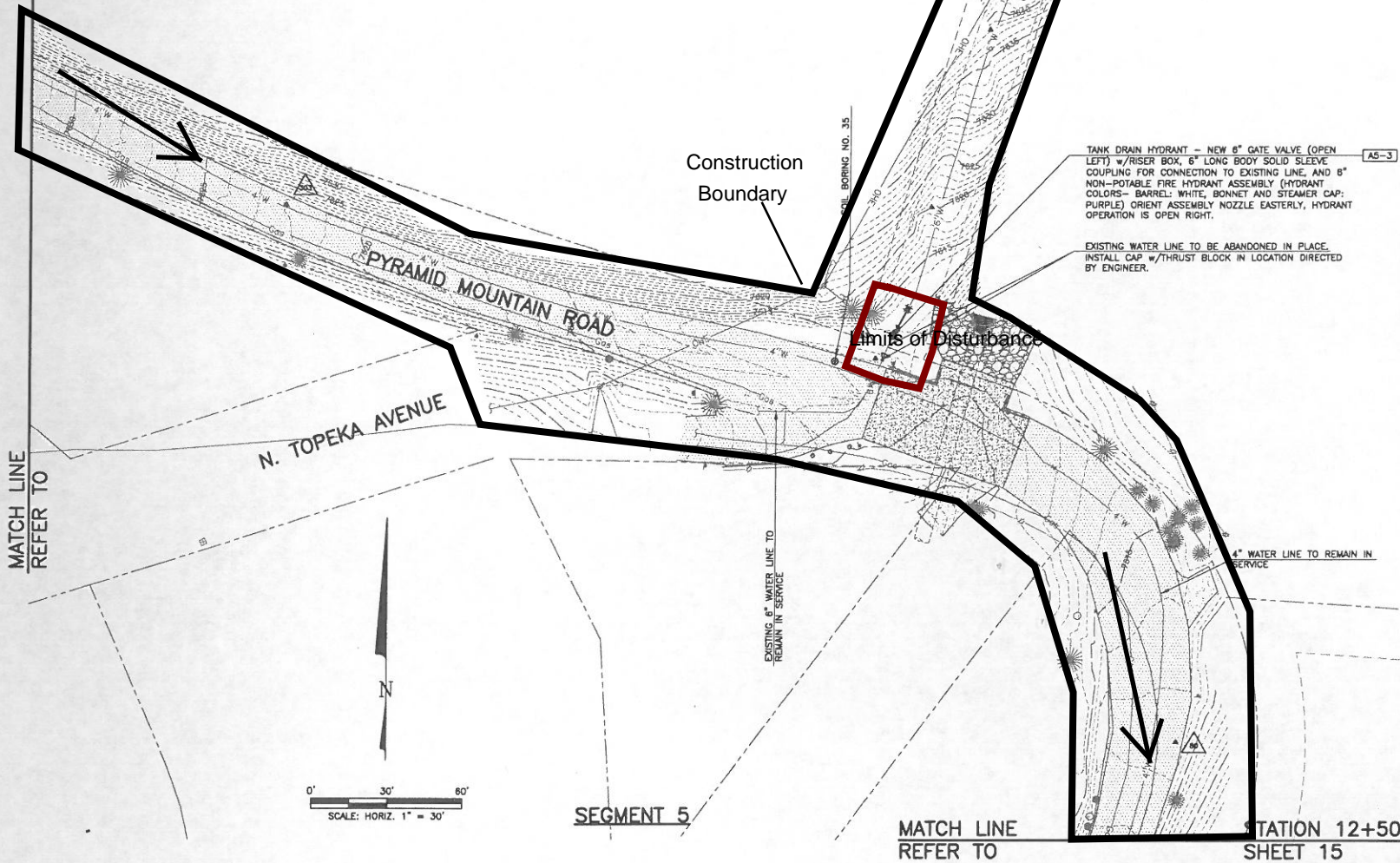
GMS, INC.
CONSULTING ENGINEERS
611 N. WEBER, SUITE 300
COLORADO SPRINGS, COLORADO 80903

SHEET
15
OF
30

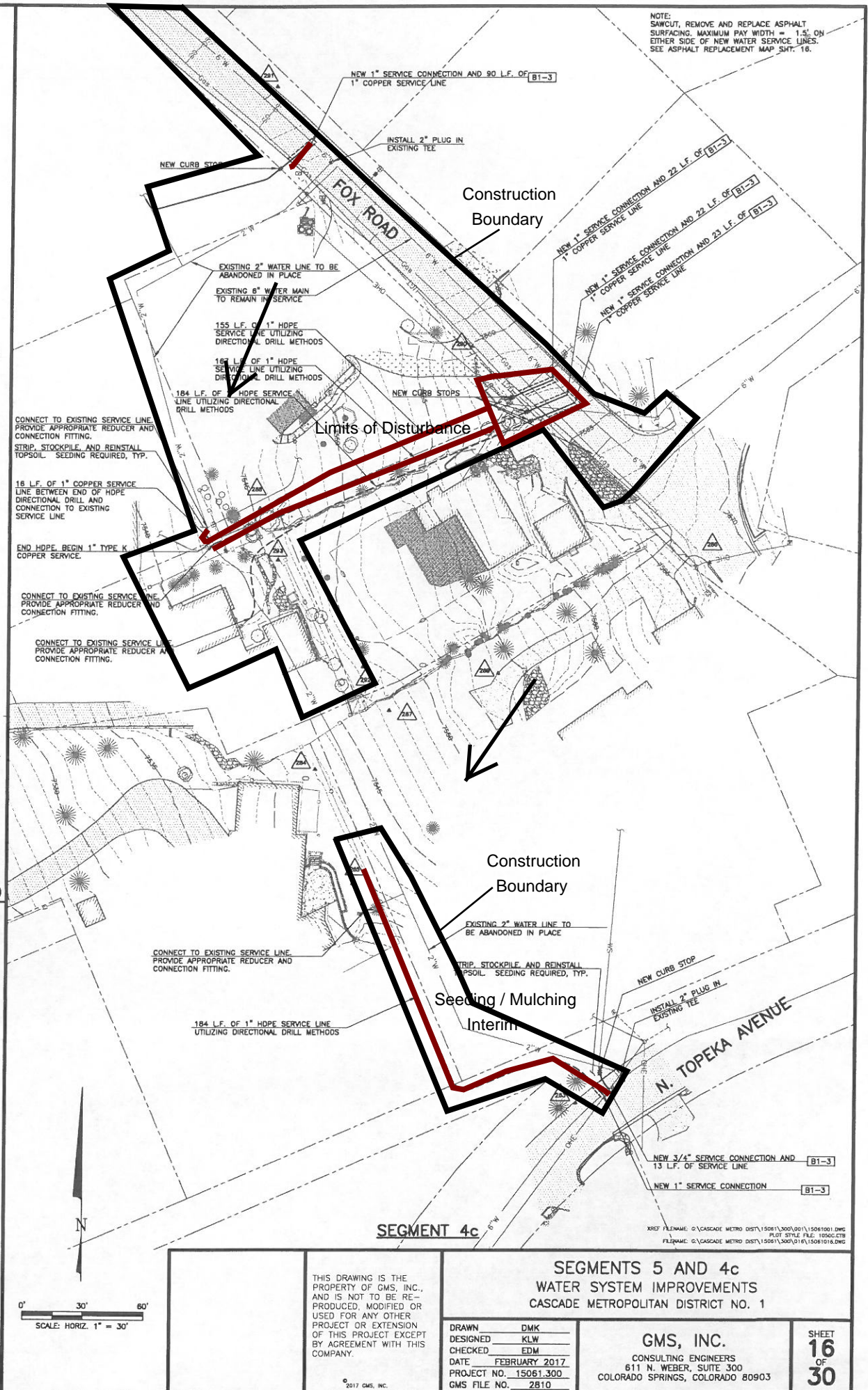
G:\CASCADE METRO DIST\150613000\016\15061016.DWG, SHEET 16, 3/8/2018 9:36:46 AM, sc, Xerox Altairink C8035, 1:2.2

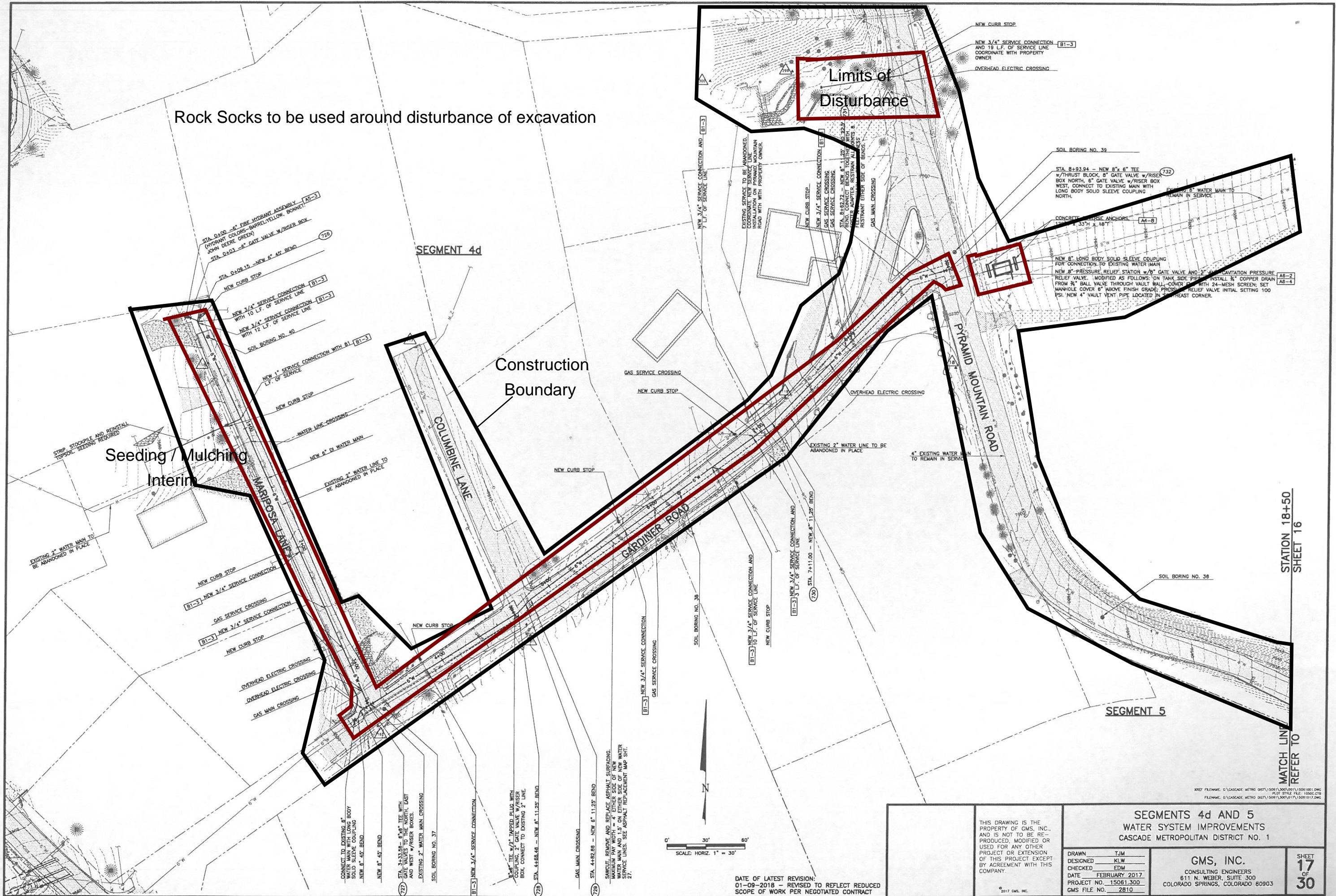
STATION 18+50
SHEET 17

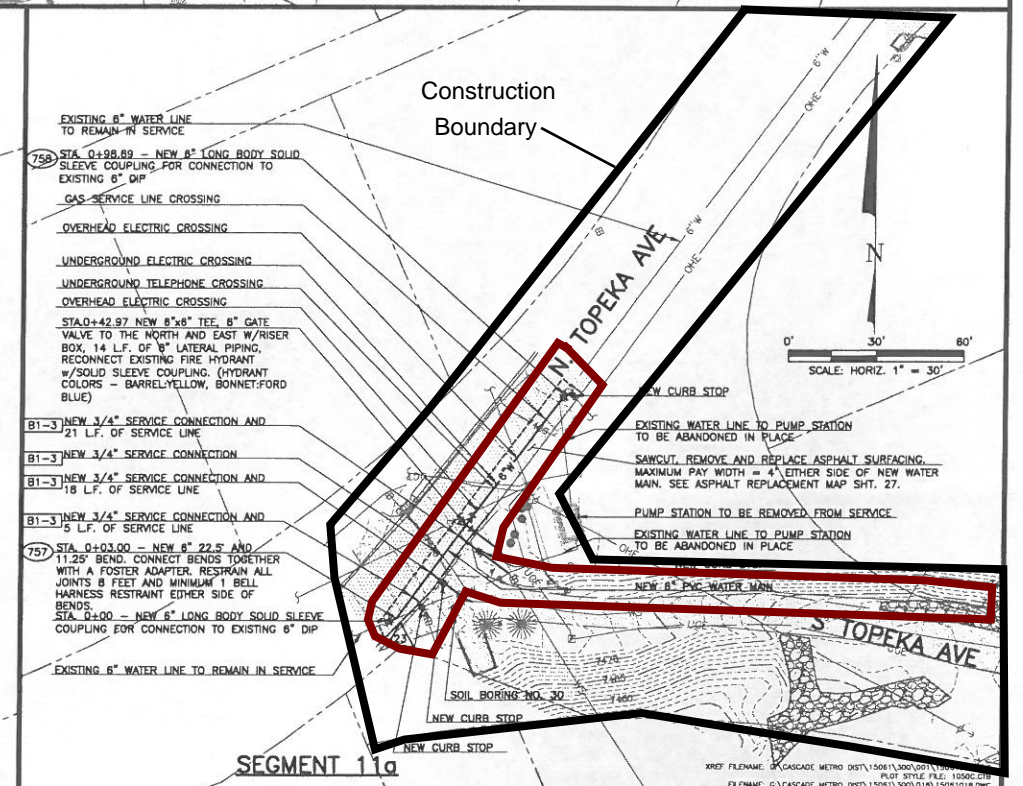
Rock Socks to be used around disturbance of excavation



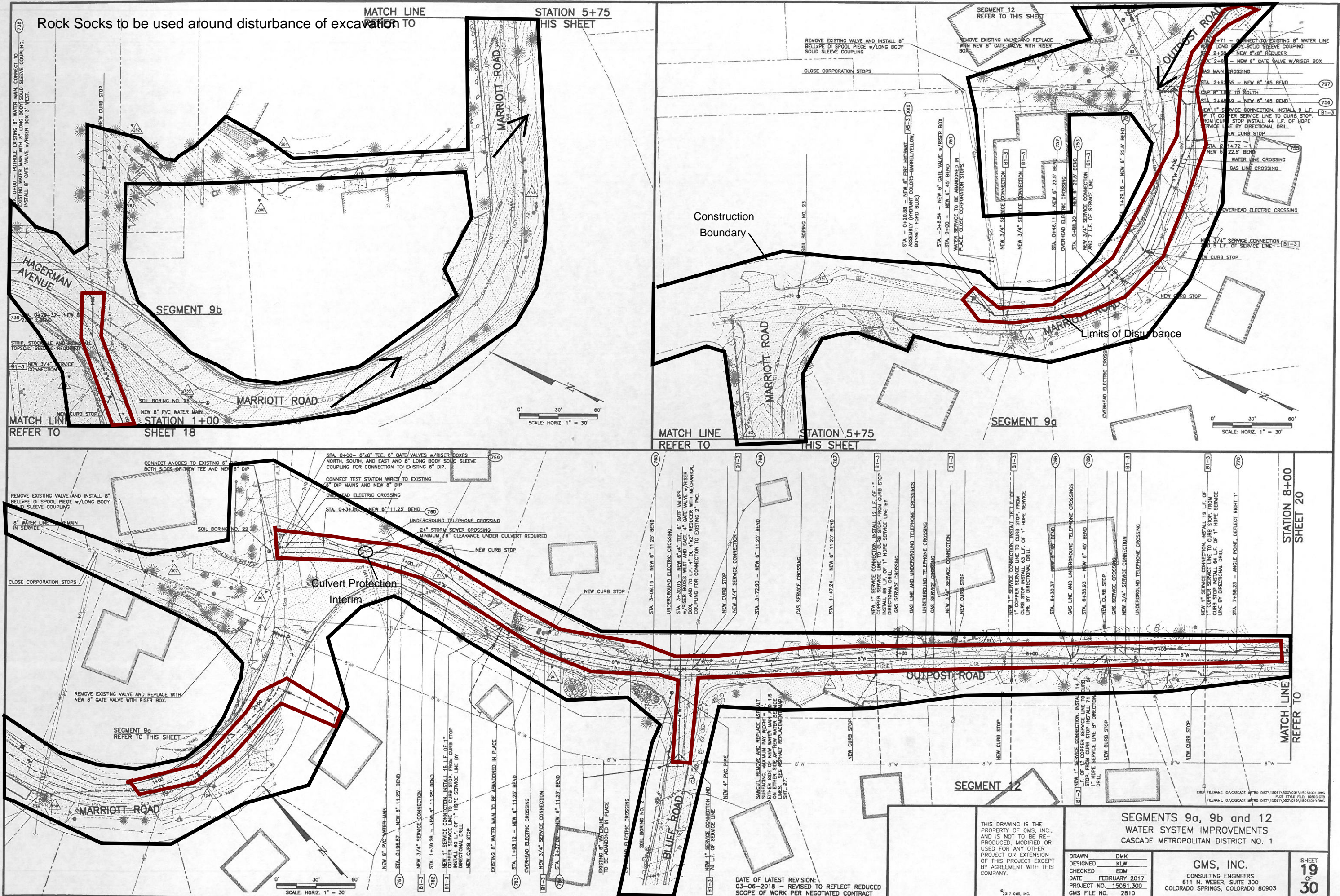
DATE OF LATEST REVISION:
03-08-2018 - REVISED TO REFLECT REDUCED
SCOPE OF WORK PER NEGOTIATED CONTRACT

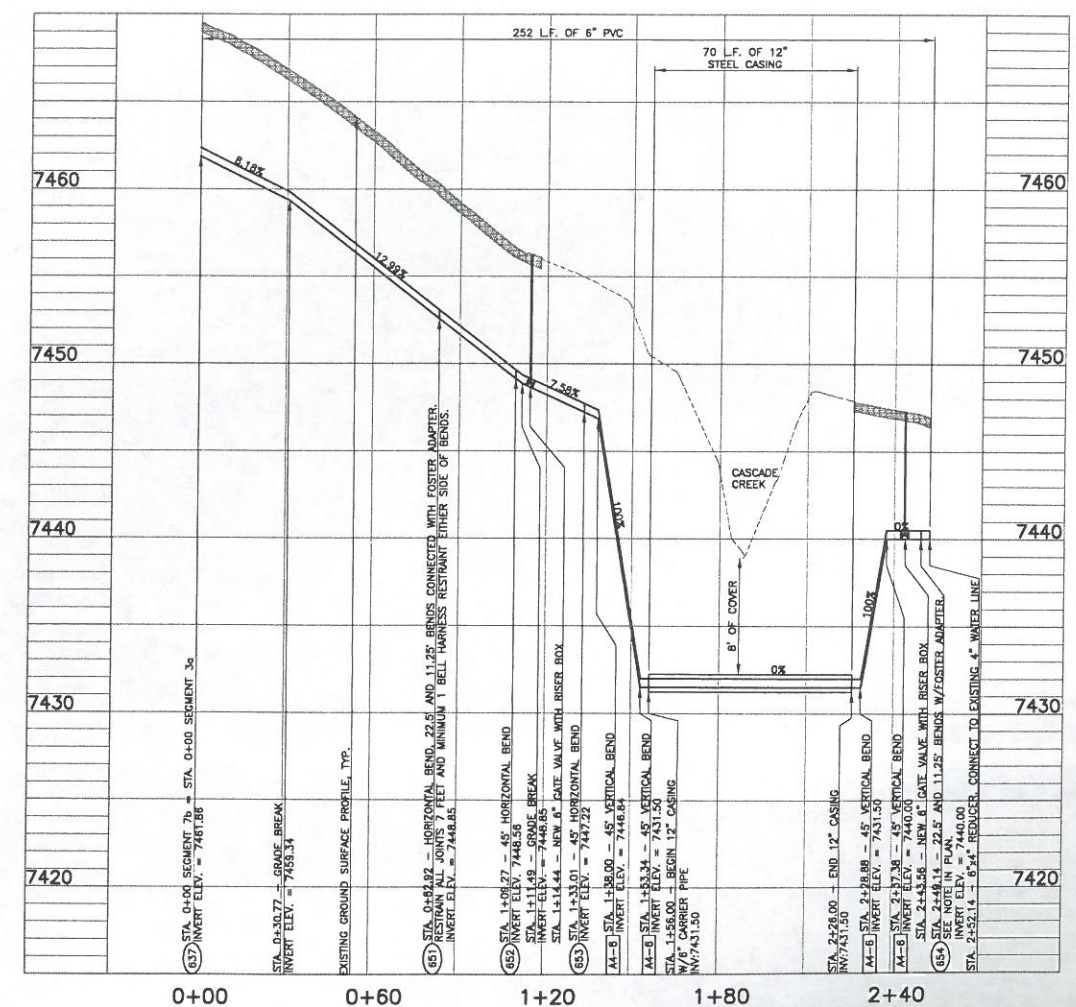
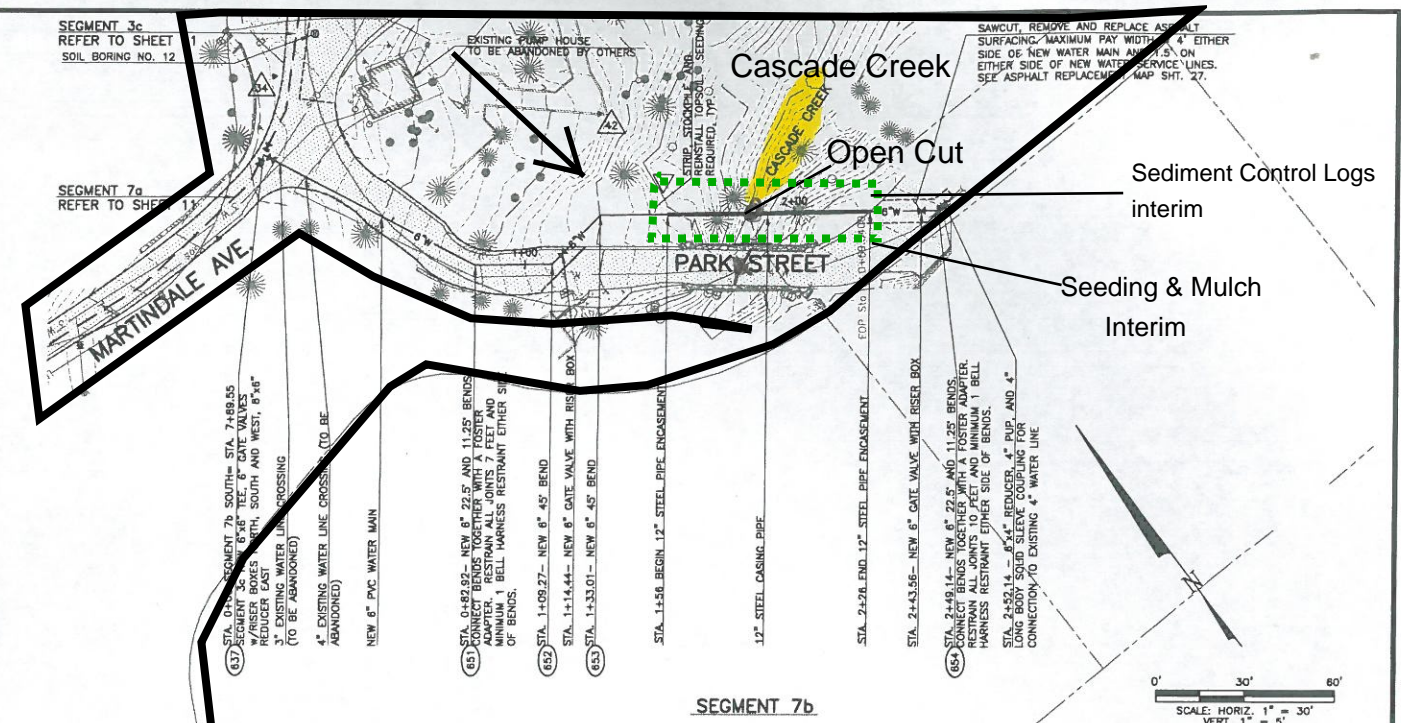






<p>THIS DRAWING IS THE PROPERTY OF GMS, INC., AND IS NOT TO BE RE-PRODUCED, MODIFIED OR USED FOR ANY OTHER PROJECT OR EXTENSION OF THIS PROJECT EXCEPT BY AGREEMENT WITH THIS COMPANY.</p> <p>© 2017 GMS, INC.</p>	<p>SEGMENTS 9b, 10a AND 11a WATER SYSTEM IMPROVEMENTS CASCADE METROPOLITAN DISTRICT NO. 1</p>		<p>SHEET 18 OF 30</p>
	<p>DRAWN <u>DMK</u> DESIGNED <u>KLW</u> CHECKED <u>EDM</u> DATE <u>FEBRUARY 2017</u> PROJECT NO. <u>15061300</u> GMS FILE NO. <u>2810</u></p>	<p>GMS, INC. CONSULTING ENGINEERS 611 N. WEBER, SUITE 300 COLORADO SPRINGS, COLORADO 80903</p>	

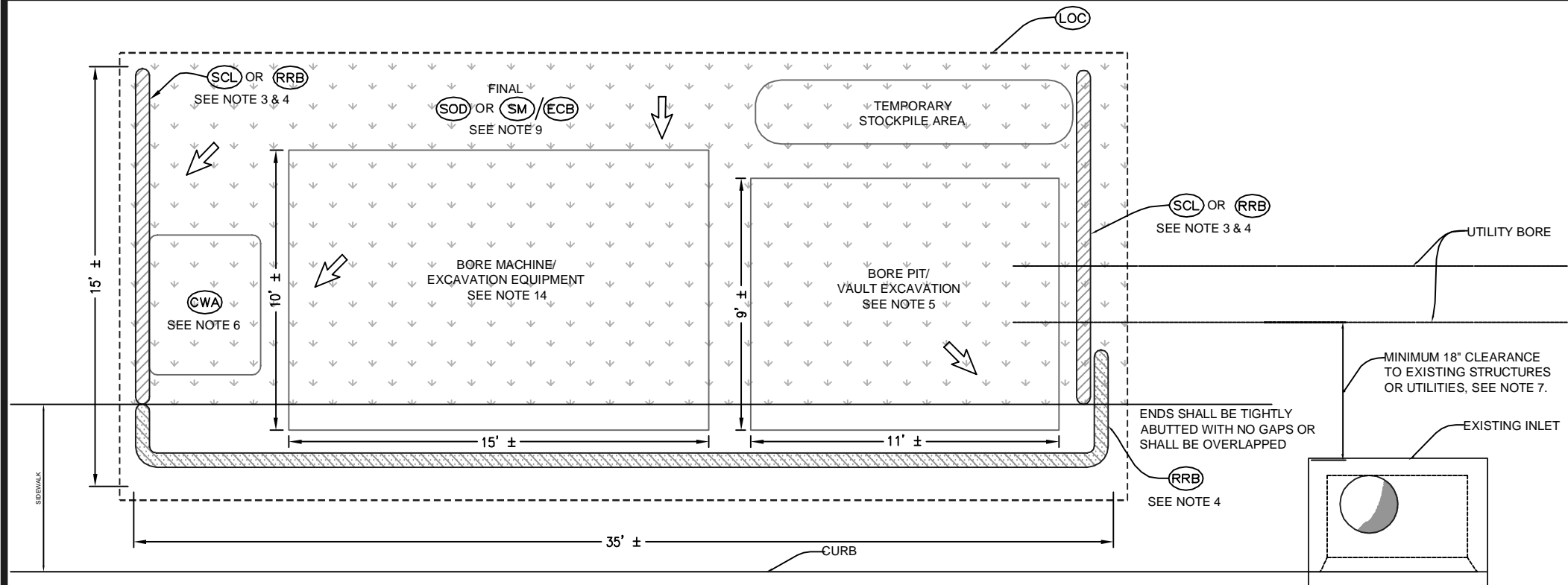




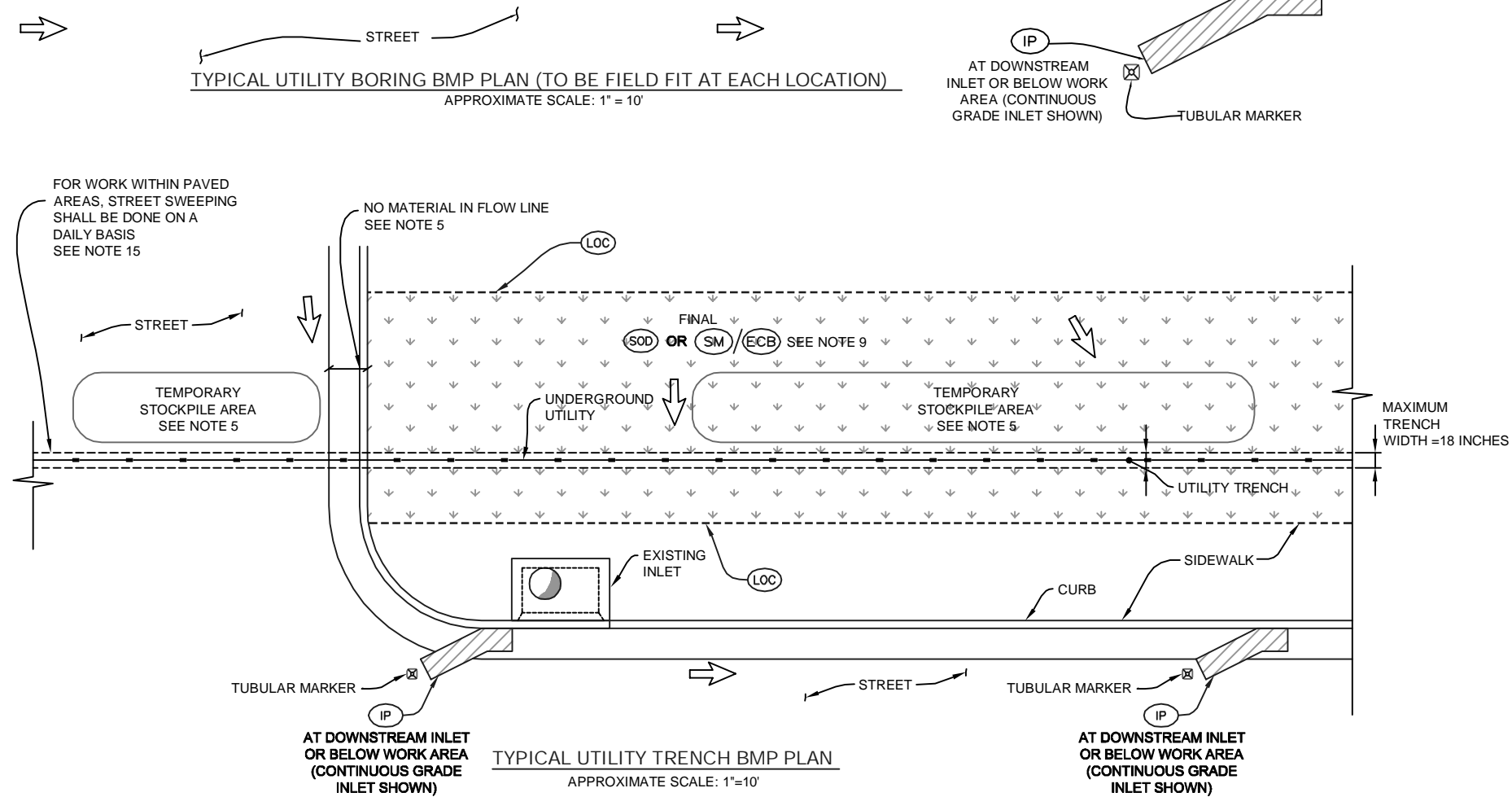
SHEET
21
OF
30

Appendix C - BMP Details

NAME: P-109-002.01 SEMSWA Misc Task Orders\01 GESC Permit for Xcel\CA000002.01-BORE PIT GESC-PINDING DATE: FEB 24, 2010 TIME: 6:09 PM



TYPICAL UTILITY BORING BMP PLAN (TO BE FIELD FIT AT EACH LOCATION)
APPROXIMATE SCALE: 1" = 10'



TYPICAL UTILITY TRENCH BMP PLAN
APPROXIMATE SCALE: 1" = 10'

TYPICAL DETAIL NOTES:

1. THIS DRAWING HAS BEEN PREPARED FOR USE WITH A GESC PERMIT FOR DIRECTIONAL BORING AND/OR TRENCHING OPERATIONS ASSOCIATED WITH DRY UTILITY INSTALLATION OR REPLACEMENT OPERATIONS.
2. DIMENSIONS SHOWN AND ARRANGEMENT OF SITE ARE APPROXIMATE AND MAY BE VARIED BASED ON WORK REQUIREMENTS AND/OR SITE CHARACTERISTICS.
3. PERIMETER CONTROL BMP'S (AS REQUIRED IN DETAILS) MUST BE INSTALLED AND FUNCTIONAL BEFORE ANY EARTH DISTURBANCE ACTIVITIES BEGIN. BMP'S SHALL BE PLACED ALONG THE DOWN SLOPE SIDE OF SITE AND SHALL BE TIGHTLY ABUTTED WITH NO GAPS OR SHALL BE OVERLAPPED. BMP'S SHALL REMAIN IN PLACE UNTIL FULL RESTORATION OF LANDSCAPE OR ACCEPTABLE VEGETATION LEVELS HAVE BEEN REACHED.
4. SEDIMENT CONTROL LOGS (SCL) SHALL NOT BE USED IN PAVED OR IMPERVIOUS AREAS.
5. MATERIAL GENERATED FROM VAULT EXCAVATIONS OR TRENCHING SHALL BE HAULED AWAY IMMEDIATELY OR STOCKPILED ON THE UPHILL SIDE OF EXCAVATIONS OR TRENCHES. PERIMETER CONTROL REQUIREMENTS PERTAIN TO ALL STOCKPILES NOT ABLE TO BE BACKFILLED BY END OF DAY OR BEFORE STORM EVENTS. EXCAVATED MATERIAL SHALL NOT BE PLACED IN THE CURB, GUTTER, OR FLOWLINE.
6. THE CLEANING OF CONCRETE DELIVERY TRUCK CHUTES IS RESTRICTED TO APPROVED CONCRETE WASH OUT LOCATIONS ON THE JOB SITE. THE DISCHARGE OF WATER CONTAINING CONCRETE TO THE STORM SEWER SYSTEM IS PROHIBITED. ALL CONCRETE WASTE SHALL BE PROPERLY CLEANED AND DISPOSED AT AN APPROPRIATE LOCATION. CWA TO BE EXCLUDED IF NO CONCRETE RESTORATION WORK IS REQUIRED.
7. UTILITY BORE AND BORE PITS SHALL MAINTAIN A MINIMUM OF 18" CLEARANCE FROM ALL STORMWATER STRUCTURES INCLUDING, BUT NOT LIMITED TO, INLETS, MANHOLES, STORM SEWERS, AND OTHER INFRASTRUCTURE. PLEASE CONTACT SEMSWA FOR STORM SEWER LOCATES WITHIN THE PUBLIC RIGHT OF WAY.
8. PERMITTEE IS RESPONSIBLE FOR REPAIR OF ANY DAMAGE TO EXISTING FACILITIES RESULTING FROM WORK COMPLETED UNDER THIS PERMIT. EXISTING FEATURES DISTURBED DURING CONSTRUCTION, INCLUDING SILT FENCE, EROSION CONTROL BLANKET, OR OTHER CONSTRUCTION BMP'S, SHALL BE RESTORED UPON COMPLETION OF UTILITY WORK.
9. FINAL SITE STABILIZATION SHALL BE BASED ON PREVIOUS CONDITIONS: SEED AND MULCH IN NATIVE AREAS, SOD IN LANDSCAPED AREAS, CONCRETE OR ASPHALT IN IMPROVED AREAS, ETC. FINAL SITE CONDITION SHALL BE EQUAL OR EXCEED THE CONDITION OF THE SITE PRIOR TO THE WORK. IF THE SITE CANNOT BE PROPERLY SEEDED AND MULCHED (INCLUDING CRIMPING), EROSION CONTROL BLANKET SHALL BE INSTALLED OVER SEED.
10. ALL DISTURBANCE ACTIVITIES SHALL BE LOCATED OUTSIDE OF THE 100-YEAR FLOODPLAIN. IF WORK WITHIN THE FLOODPLAIN IS UNAVOIDABLE, CONTACT MUST BE MADE TO THE SEMSWA FLOODPLAIN DEPARTMENT PRIOR TO DISTURBANCE WITHIN THE FLOODPLAIN.
11. USE OF THIS GESC PERMIT DOES NOT RELIEVE THE PERMITTEE AND/OR CONTRACTOR FROM MEETING THE FULL INTENT OF THE GESC MANUAL CRITERIA. DIFFERING SITE CONDITIONS MAY REQUIRE ADDITIONAL GESC MEASURES NOT SHOWN.
12. ADDITIONAL BMP'S SHALL BE INSTALLED AS NECESSARY OR AS REQUIRED BY THE SEMSWA GESC INSPECTOR. THE USE OF ALTERNATIVE BMP'S MUST BE COORDINATED AND APPROVED WITH THE GESC INSPECTOR PRIOR TO INSTALLATION AND THE CONTRACTOR ASSUMES ALL LIABILITY IF THERE IS AN ALTERNATIVE BMP FAILURE (INCLUDING COMPLIANCE ENFORCEMENT).
13. A SELECTION OF THE SEMSWA GESC STANDARD NOTES AND DETAILS HAVE BEEN INCLUDED IN THIS PLAN. THE FULL SET OF NOTES AND DETAILS CAN BE FOUND ON THE SEMSWA WEBSITE, WWW.SEMSWA.ORG.
14. ALL BORE MACHINES, EXCAVATION AND TRENCHING EQUIPMENT, AND SUPPORT EQUIPMENT INCLUDING BUT NOT LIMITED TO, POTHOLING MACHINES, VAC TRUCKS, WATER TRUCKS, OR OTHER STORAGE VEHICLES, SHALL BE IN GOOD WORKING ORDER. ANY LEAKING EQUIPMENT AT A MINIMUM SHALL HAVE CONTAINMENT ON THE DOWN SLOPE SIDE. FAILURE TO CONTAIN OR REMEDY ISSUE MAY RESULT IN ENFORCEMENT.
15. THE GESC MANAGER IS RESPONSIBLE FOR CLEANUP OF SEDIMENT OR CONSTRUCTION DEBRIS TRACKED ONTO ADJACENT PAVED AREAS. PAVED AREAS INCLUDING STREETS ARE TO BE KEPT CLEAN THROUGHOUT BUILD-OUT AND SHALL BE CLEANED, WITH A STREET SWEEPER OR SIMILAR DEVICE, AT FIRST NOTICE OF ACCIDENTAL TRACKING OR AT THE DISCRETION OF THE SEMSWA INSPECTOR. STREET WASHING IS NOT ALLOWED. SEMSWA RESERVES THE RIGHT TO REQUIRE ADDITIONAL MEASURES TO ENSURE AREA STREETS ARE KEPT FREE OF SEDIMENT AND/OR CONSTRUCTION DEBRIS.
16. ALL CHEMICAL OR HAZARDOUS MATERIAL SPILLS THAT MAY ENTER WATERS OF THE STATE OF COLORADO, WHICH INCLUDE BUT ARE NOT LIMITED TO, SURFACE WATER, GROUND WATER AND DRY GULLIES OR STORM SEWER LEADING TO SURFACE WATER, SHALL BE IMMEDIATELY REPORTED TO THE CDPHE PER CRS 25-8-601, AND SEMSWA. RELEASES OF PETROLEUM PRODUCTS PRODUCTS AND CERTAIN HAZARDOUS SUBSTANCES LISTED UNDER THE FEDERAL CLEAN WATER ACT (40 CFR PART 116) MUST BE REPORTED TO THE NATIONAL RESPONSE CENTER AS WELL AS THE CDPHE. CONTACT INFORMATION FOR CDPHE AND THE NATIONAL RESPONSE CENTER CAN BE FOUND IN APPENDIX A OF THE GESC MANUAL. SPILLS THAT POSE AN IMMEDIATE RISK TO HUMAN LIFE SHALL BE REPORTED TO 911. FAILURE TO REPORT AND CLEAN UP ANY SPILL SHALL RESULT IN ISSUANCE OF A STOP WORK ORDER.
17. THE USE OF HOSES AND WATER TO FLUSH OR WASH ANY MATERIAL INTO A STORM SEWER IS PROHIBITED. THE MATERIAL MUST BE RECOVERED USING DRY RECOVERY METHODS. ANY MATERIAL RESULTING FROM SAW CUTTING OR POTHOLING MUST BE DRY RECOVERED USING DRY RECOVERY TECHNIQUES (NOT FLUSHING). VACUUMING WHILE SAW CUTTING IS RECOMMENDED.

REFERENCE:

SCALE:

Standard Plan Revision

No.	Date	Description
1	1/2012	REVISED/UPDATED
2	6/2012	REVISED/UPDATED



76 INVERNESS DRIVE EAST, SUITE A
ENGLEWOOD CO, 80112
PHONE (303) 858-8844
FAX (303) 267-9565

TYPICAL DETAIL FOR DRY UTILITY
BORING AND UTILITY TRENCH

SHEET
1 OF 4

Description

A rock sock is constructed of gravel that has been wrapped by wire mesh or a geotextile to form an elongated cylindrical filter. Rock socks are typically used either as a perimeter control or as part of inlet protection. When placed at angles in the curb line, rock socks are typically referred to as curb socks. Rock socks are intended to trap sediment from stormwater runoff that flows onto roadways as a result of construction activities.



Photograph RS-1. Rock socks placed at regular intervals in a curb line can help reduce sediment loading to storm sewer inlets. Rock socks can also be used as perimeter controls.

Appropriate Uses

Rock socks can be used at the perimeter of a disturbed area to control localized sediment loading. A benefit of rock socks as opposed to other perimeter controls is that they do not have to be trenched or staked into the ground; therefore, they are often used on roadway construction projects where paved surfaces are present.

Use rock socks in inlet protection applications when the construction of a roadway is substantially complete and the roadway has been directly connected to a receiving storm system.

Design and Installation

When rock socks are used as perimeter controls, the maximum recommended tributary drainage area per 100 linear feet of rock socks is approximately 0.25 acres with disturbed slope length of up to 150 feet and a tributary slope gradient no steeper than 3:1. A rock sock design detail and notes are provided in Detail RS-1. Also see the Inlet Protection Fact Sheet for design and installation guidance when rock socks are used for inlet protection and in the curb line.

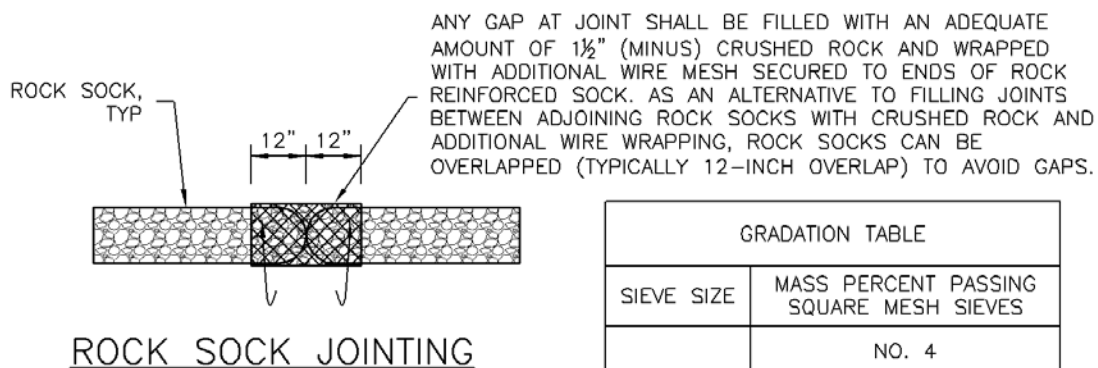
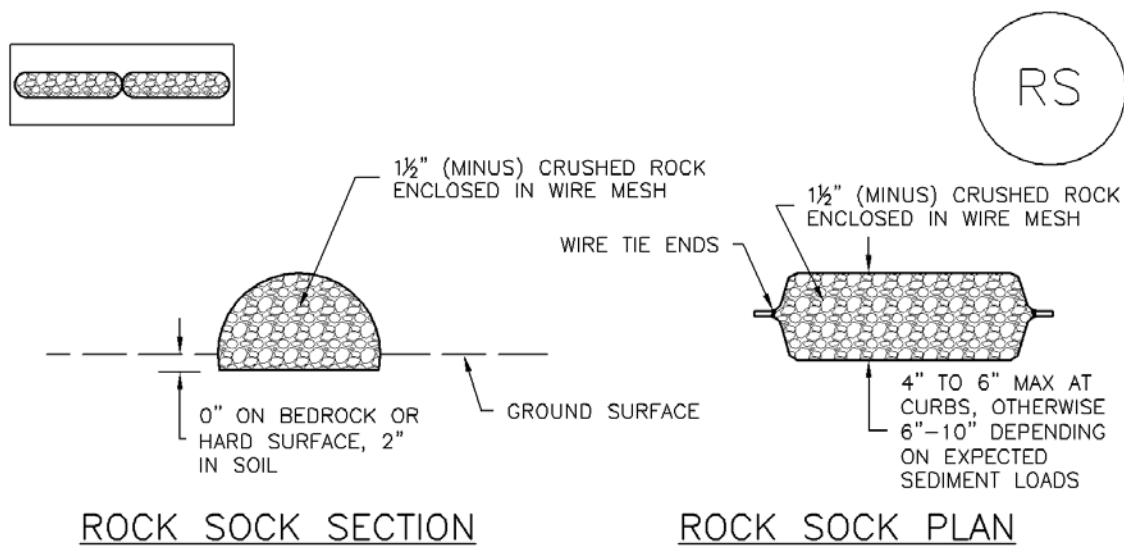
When placed in the gutter adjacent to a curb, rock socks should protrude no more than two feet from the curb in order for traffic to pass safely. If located in a high traffic area, place construction markers to alert drivers and street maintenance workers of their presence.

Maintenance and Removal

Rock socks are susceptible to displacement and breaking due to vehicle traffic. Inspect rock socks for damage and repair or replace as necessary. Remove sediment by sweeping or vacuuming as needed to maintain the functionality of the BMP, typically when sediment has accumulated behind the rock sock to one-half of the sock's height.

Once upstream stabilization is complete, rock socks and accumulated sediment should be removed and properly disposed.

Rock Sock	
Functions	
Erosion Control	No
Sediment Control	Yes
Site/Material Management	No



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

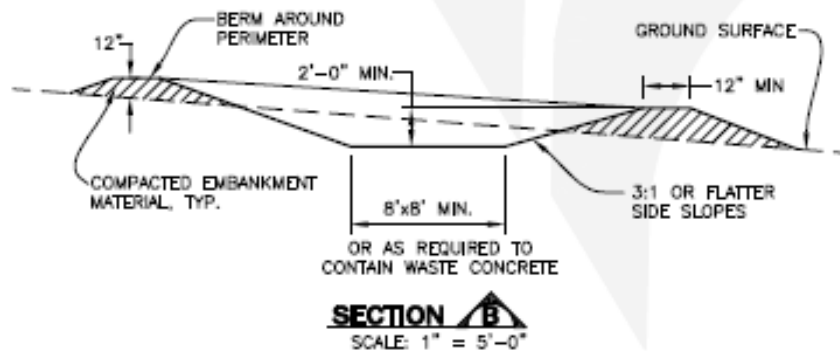
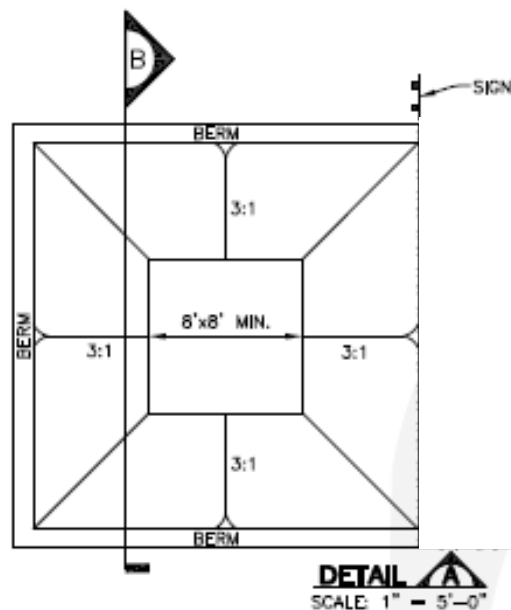
ROCK SOCK MAINTENANCE NOTES

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 $\frac{1}{2}$ 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.



CONCRETE WASHOUT AREA INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
- LOCATIONS OF CONCRETE WASHOUT AREA.
2. THE CONCRETE WASHOUT AREA SHALL BE INSTALLED PRIOR TO ANY CONCRETE PLACEMENT ON SITE.
- 3.
4. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE WASHOUT AREA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CONCRETE WASHOUT AREA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.
5. EXCAVATED MATERIAL SHALL BE UTILIZED IN PERIMETER BERM CONSTRUCTION.

CONCRETE WASHOUT AREA MAINTENANCE NOTES

1. THE CONCRETE WASHOUT AREA SHALL BE REPAIRED AND ENLARGED OR CLEANED OUT AS NECESSARY TO MAINTAIN CAPACITY FOR WASTED CONCRETE.
2. AT THE END OF CONSTRUCTION, ALL CONCRETE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF AT AN APPROVED WASTE SITE.
3. WHEN THE CONCRETE WASHOUT AREA IS REMOVED, THE DISTURBED AREA SHALL BE DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE COUNTY.



**CONCRETE
WASHOUT AREA**

Description

Implement construction site good housekeeping practices to prevent pollution associated with solid, liquid and hazardous construction-related materials and wastes. Stormwater Management Plans (SWMPs) should clearly specify BMPs including these good housekeeping practices:

- Provide for waste management.
- Establish proper building material staging areas.
- Designate paint and concrete washout areas.
- Establish proper equipment/vehicle fueling and maintenance practices.
- Control equipment/vehicle washing and allowable non-stormwater discharges.
- Develop a spill prevention and response plan.

Acknowledgement: This Fact Sheet is based directly on EPA guidance provided in *Developing Your Stormwater Pollution Prevention Plan* (EPA 2007).

Appropriate Uses

Good housekeeping practices are necessary at all construction sites.

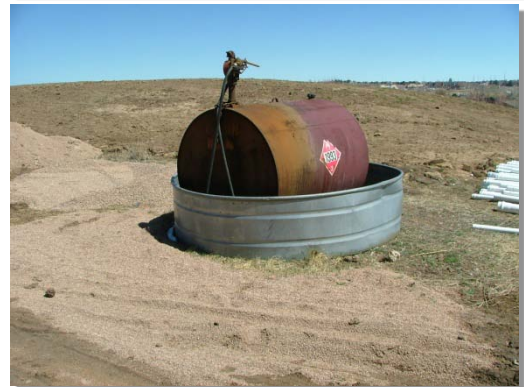
Design and Installation

The following principles and actions should be addressed in SWMPs:

- **Provide for Waste Management.** Implement management procedures and practices to prevent or reduce the exposure and transport of pollutants in stormwater from solid, liquid and sanitary wastes that will be generated at the site. Practices such as trash disposal, recycling, proper material handling, and cleanup measures can reduce the potential for stormwater runoff to pick up construction site wastes and discharge them to surface waters. Implement a comprehensive set of waste-management practices for hazardous or toxic materials, such as paints, solvents, petroleum products, pesticides, wood preservatives, acids, roofing tar, and other materials. Practices should include storage, handling, inventory, and cleanup procedures, in case of spills. Specific practices that should be considered include:

Solid or Construction Waste

- Designate trash and bulk waste-collection areas on-site.



Photographs GH-1 and GH-2. Proper materials storage and secondary containment for fuel tanks are important good housekeeping practices. Photos courtesy of CDOT and City of Aurora.

Good Housekeeping	
Functions	
Erosion Control	No
Sediment Control	No
Site/Material Management	Yes

- Recycle materials whenever possible (e.g., paper, wood, concrete, oil).
- Segregate and provide proper disposal options for hazardous material wastes.
- Clean up litter and debris from the construction site daily.
- Locate waste-collection areas away from streets, gutters, watercourses, and storm drains. Waste-collection areas (dumpsters, and such) are often best located near construction site entrances to minimize traffic on disturbed soils. Consider secondary containment around waste collection areas to minimize the likelihood of contaminated discharges.
- Empty waste containers before they are full and overflowing.

Sanitary and Septic Waste

- Provide convenient, well-maintained, and properly located toilet facilities on-site.
- Locate toilet facilities away from storm drain inlets and waterways to prevent accidental spills and contamination of stormwater.
- Maintain clean restroom facilities and empty portable toilets regularly.
- Where possible, provide secondary containment pans under portable toilets.
- Provide tie-downs or stake-downs for portable toilets.
- Educate employees, subcontractors, and suppliers on locations of facilities.
- Treat or dispose of sanitary and septic waste in accordance with state or local regulations. Do not discharge or bury wastewater at the construction site.
- Inspect facilities for leaks. If found, repair or replace immediately.
- Special care is necessary during maintenance (pump out) to ensure that waste and/or biocide are not spilled on the ground.

Hazardous Materials and Wastes

- Develop and implement employee and subcontractor education, as needed, on hazardous and toxic waste handling, storage, disposal, and cleanup.
- Designate hazardous waste-collection areas on-site.
- Place all hazardous and toxic material wastes in secondary containment.



Photograph GH-3. Locate portable toilet facilities on level surfaces away from waterways and storm drains. Photo courtesy of WWE.

- Hazardous waste containers should be inspected to ensure that all containers are labeled properly and that no leaks are present.
- **Establish Proper Building Material Handling and Staging Areas.** The SWMP should include comprehensive handling and management procedures for building materials, especially those that are hazardous or toxic. Paints, solvents, pesticides, fuels and oils, other hazardous materials or building materials that have the potential to contaminate stormwater should be stored indoors or under cover whenever possible or in areas with secondary containment. Secondary containment measures prevent a spill from spreading across the site and may include dikes, berms, curbing, or other containment methods. Secondary containment techniques should also ensure the protection of groundwater. Designate staging areas for activities such as fueling vehicles, mixing paints, plaster, mortar, and other potential pollutants. Designated staging areas enable easier monitoring of the use of materials and clean up of spills. Training employees and subcontractors is essential to the success of this pollution prevention principle. Consider the following specific materials handling and staging practices:
 - Train employees and subcontractors in proper handling and storage practices.
 - Clearly designate site areas for staging and storage with signs and on construction drawings. Staging areas should be located in areas central to the construction site. Segment the staging area into sub-areas designated for vehicles, equipment, or stockpiles. Construction entrances and exits should be clearly marked so that delivery vehicles enter/exit through stabilized areas with vehicle tracking controls (See Vehicle Tracking Control Fact Sheet).
 - Provide storage in accordance with Spill Protection, Control and Countermeasures (SPCC) requirements and plans and provide cover and impermeable perimeter control, as necessary, for hazardous materials and contaminated soils that must be stored on site.
 - Ensure that storage containers are regularly inspected for leaks, corrosion, support or foundation failure, or other signs of deterioration and tested for soundness.
 - Reuse and recycle construction materials when possible.
- **Designate Concrete Washout Areas.** Concrete contractors should be encouraged to use the washout facilities at their own plants or dispatch facilities when feasible; however, concrete washout commonly occurs on construction sites. If it is necessary to provide for concrete washout areas on-site, designate specific washout areas and design facilities to handle anticipated washout water. Washout areas should also be provided for paint and stucco operations. Because washout areas can be a source of pollutants from leaks or spills, care must be taken with regard to their placement and proper use. See the Concrete Washout Area Fact Sheet for detailed guidance.

Both self-constructed and prefabricated washout containers can fill up quickly when concrete, paint, and stucco work are occurring on large portions of the site. Be sure to check for evidence that contractors are using the washout areas and not dumping materials onto the ground or into drainage facilities. If the washout areas are not being used regularly, consider posting additional signage, relocating the facilities to more convenient locations, or providing training to workers and contractors.

When concrete, paint, or stucco is part of the construction process, consider these practices which will help prevent contamination of stormwater. Include the locations of these areas and the maintenance and inspection procedures in the SWMP.

- Do not washout concrete trucks or equipment into storm drains, streets, gutters, uncontained areas, or streams. Only use designated washout areas.
- Establish washout areas and advertise their locations with signs. Ensure that signage remains in good repair.
- Provide adequate containment for the amount of wash water that will be used.
- Inspect washout structures daily to detect leaks or tears and to identify when materials need to be removed.
- Dispose of materials properly. The preferred method is to allow the water to evaporate and to recycle the hardened concrete. Full service companies may provide dewatering services and should dispose of wastewater properly. Concrete wash water can be highly polluted. It should not be discharged to any surface water, storm sewer system, or allowed to infiltrate into the ground in the vicinity of waterbodies. Washwater should not be discharged to a sanitary sewer system without first receiving written permission from the system operator.
- **Establish Proper Equipment/Vehicle Fueling and Maintenance Practices.** Create a clearly designated on-site fueling and maintenance area that is clean and dry. The on-site fueling area should have a spill kit, and staff should know how to use it. If possible, conduct vehicle fueling and maintenance activities in a covered area. Consider the following practices to help prevent the discharge of pollutants to stormwater from equipment/vehicle fueling and maintenance. Include the locations of designated fueling and maintenance areas and inspection and maintenance procedures in the SWMP.
 - Train employees and subcontractors in proper fueling procedures (stay with vehicles during fueling, proper use of pumps, emergency shutoff valves, etc.).
 - Inspect on-site vehicles and equipment regularly for leaks, equipment damage, and other service problems.
 - Clearly designate vehicle/equipment service areas away from drainage facilities and watercourses to prevent stormwater run-on and runoff.
 - Use drip pans, drip cloths, or absorbent pads when replacing spent fluids.
 - Collect all spent fluids, store in appropriate labeled containers in the proper storage areas, and recycle fluids whenever possible.
- **Control Equipment/Vehicle Washing and Allowable Non-Stormwater Discharges.** Implement practices to prevent contamination of surface and groundwater from equipment and vehicle wash water. Representative practices include:
 - Educate employees and subcontractors on proper washing procedures.
 - Use off-site washing facilities, when available.
 - Clearly mark the washing areas and inform workers that all washing must occur in this area.
 - Contain wash water and treat it using BMPs. Infiltrate washwater when possible, but maintain separation from drainage paths and waterbodies.

- Use high-pressure water spray at vehicle washing facilities without detergents. Water alone can remove most dirt adequately.
- Do not conduct other activities, such as vehicle repairs, in the wash area.
- Include the location of the washing facilities and the inspection and maintenance procedures in the SWMP.
- **Develop a Spill Prevention and Response Plan.** Spill prevention and response procedures must be identified in the SWMP. Representative procedures include identifying ways to reduce the chance of spills, stop the source of spills, contain and clean up spills, dispose of materials contaminated by spills, and train personnel responsible for spill prevention and response. The plan should also specify material handling procedures and storage requirements and ensure that clear and concise spill cleanup procedures are provided and posted for areas in which spills may potentially occur. When developing a spill prevention plan, include the following:
 - Note the locations of chemical storage areas, storm drains, tributary drainage areas, surface waterbodies on or near the site, and measures to stop spills from leaving the site.
 - Provide proper handling and safety procedures for each type of waste. Keep Material Safety Data Sheets (MSDSs) for chemical used on site with the SWMP.
 - Establish an education program for employees and subcontractors on the potential hazards to humans and the environment from spills and leaks.
 - Specify how to notify appropriate authorities, such as police and fire departments, hospitals, or municipal sewage treatment facilities to request assistance. Emergency procedures and contact numbers should be provided in the SWMP and posted at storage locations.
 - Describe the procedures, equipment and materials for immediate cleanup of spills and proper disposal.
 - Identify personnel responsible for implementing the plan in the event of a spill. Update the spill prevention plan and clean up materials as changes occur to the types of chemicals stored and used at the facility.

Spill Prevention, Control, and Countermeasure (SPCC) Plan

Construction sites may be subject to 40 CFR Part 112 regulations that require the preparation and implementation of a SPCC Plan to prevent oil spills from aboveground and underground storage tanks. The facility is subject to this rule if it is a non-transportation-related facility that:

- Has a total storage capacity greater than 1,320 gallons or a completely buried storage capacity greater than 42,000 gallons.
- Could reasonably be expected to discharge oil in quantities that may be harmful to navigable waters of the United States and adjoining shorelines.

Furthermore, if the facility is subject to 40 CFR Part 112, the SWMP should reference the SPCC Plan. To find out more about SPCC Plans, see EPA's website on SPCC at www.epa.gov/oilspill/spcc.htm.

Reporting Oil Spills

In the event of an oil spill, contact the National Response Center toll free at 1-800-424- 8802 for assistance, or for more details, visit their website: www.nrc.uscg.mil.

Maintenance and Removal

Effective implementation of good housekeeping practices is dependent on clear designation of personnel responsible for supervising and implementing good housekeeping programs, such as site cleanup and disposal of trash and debris, hazardous material management and disposal, vehicle and equipment maintenance, and other practices. Emergency response "drills" may aid in emergency preparedness.

Checklists may be helpful in good housekeeping efforts.

Staging and storage areas require permanent stabilization when the areas are no longer being used for construction-related activities.

Construction-related materials, debris and waste must be removed from the construction site once construction is complete.

Design Details

See the following Fact Sheets for related Design Details:

MM-1 Concrete Washout Area

MM-2 Stockpile Management

SM-4 Vehicle Tracking Control

Design details are not necessary for other good housekeeping practices; however, be sure to designate where specific practices will occur on the appropriate construction drawings.

Description

Protection of existing vegetation on a construction site can be accomplished through installation of a construction fence around the area requiring protection. In cases where upgradient areas are disturbed, it may also be necessary to install perimeter controls to minimize sediment loading to sensitive areas such as wetlands. Existing vegetation may be designated for protection to maintain a stable surface cover as part of construction phasing, or vegetation may be protected in areas designated to remain in natural condition under post-development conditions (e.g., wetlands, mature trees, riparian areas, open space).



Photograph PV-1. Protection of existing vegetation and a sensitive area. Photo courtesy of CDOT.

Appropriate Uses

Existing vegetation should be preserved for the maximum practical duration on a construction site through the use of effective construction phasing. Preserving vegetation helps to minimize erosion and can reduce revegetation costs following construction.

Protection of wetland areas is required under the Clean Water Act, unless a permit has been obtained from the U.S. Army Corps of Engineers (USACE) allowing impacts in limited areas.

If trees are to be protected as part of post-development landscaping, care must be taken to avoid several types of damage, some of which may not be apparent at the time of injury. Potential sources of injury include soil compaction during grading or due to construction traffic, direct equipment-related injury such as bark removal, branch breakage, surface grading and trenching, and soil cut and fill. In order to minimize injuries that may lead to immediate or later death of the tree, tree protection zones should be developed during site design, implemented at the beginning of a construction project, as well as continued during active construction.

Design and Installation

General

Once an area has been designated as a preservation area, there should be no construction activity allowed within a set distance of the area. Clearly mark the area with construction fencing. Do not allow stockpiles, equipment, trailers or parking within the protected area. Guidelines to protect various types of existing vegetation follow.

Protection of Existing Vegetation	
Functions	
Erosion Control	Yes
Sediment Control	Moderate
Site/Material Management	Yes

Surface Cover During Phased Construction

Install construction fencing or other perimeter controls around areas to be protected from clearing and grading as part of construction phasing.

Maintaining surface cover on steep slopes for the maximum practical duration during construction is recommended.

Open Space Preservation

Where natural open space areas will be preserved as part of a development, it is important to install construction fencing around these areas to protect them from compaction. This is particularly important when areas with soils with high infiltration rates are preserved as part of LID designs. Preserved open space areas should not be used for staging and equipment storage.

Wetlands and Riparian Areas

Install a construction fence around the perimeter of the wetland or riparian (streamside vegetation) area to prevent access by equipment. In areas downgradient of disturbed areas, install a perimeter control such as silt fence, sediment control logs, or similar measure to minimize sediment loading to the wetland.

Tree Protection¹

- Before beginning construction operations, establish a tree protection zone around trees to be preserved by installing construction fences. Allow enough space from the trunk to protect the root zone from soil compaction and mechanical damage, and the branches from mechanical damage (see Table PV-1). If low branches will be kept, place the fence outside of the drip line. Where this is not possible, place fencing as far away from the trunk as possible. In order to maintain a healthy tree, be aware that about 60 percent of the tree's root zone extends beyond the drip line.

Table PV-1
Guidelines for Determining the Tree Protection Zone
 (Source: Matheny and Clark, 1998; as cited in GreenCO and WWE 2008)

Species Tolerance to Damage	Distance from Trunk (ft) per inch of DBH		
	Young	Mature	Over mature
Good	0.5'	0.75'	1.0'
Moderate	0.75'	1.0'	1.25'
Poor	1.0'	1.25'	1.5'
Notes: DBH = diameter at breast height (4.5 ft above grade); Young = <20% of life expectancy; Mature = 20%-80% of life expectancy; Over mature =>80% of life expectancy			

- Most tree roots grow within the top 12 to 18 inches of soil. Grade changes within the tree protection zone should be avoided where possible because seemingly minor grade changes can either smother

¹ Tree Protection guidelines adapted from GreenCO and WWE (2008). *Green Industry Best Management Practices (BMPs) for the Conservation and Protection of Water Resources in Colorado: Moving Toward Sustainability, Third Release*. See www.greenco.org for more detailed guidance on tree preservation.

roots (in fill situations) or damage roots (in cut situations). Consider small walls where needed to avoid grade changes in the tree protection zone.

- Place and maintain a layer of mulch 4 to 6-inch thick from the tree trunk to the fencing, keeping a 6-inch space between the mulch and the trunk. Mulch helps to preserve moisture and decrease soil compaction if construction traffic is unavoidable. When planting operations are completed, the mulch may be reused throughout planting areas.
- Limit access, if needed at all, and appoint one route as the main entrance and exit to the tree protection zone. Within the tree protection zone, do not allow any equipment to be stored, chemicals to be dumped, or construction activities to take place except fine grading, irrigation system installation, and planting operations. These activities should be conducted in consultation with a landscaping professional, following Green Industry BMPs.
- Be aware that soil compaction can cause extreme damage to tree health that may appear gradually over a period of years. Soil compaction is easier to prevent than repair.

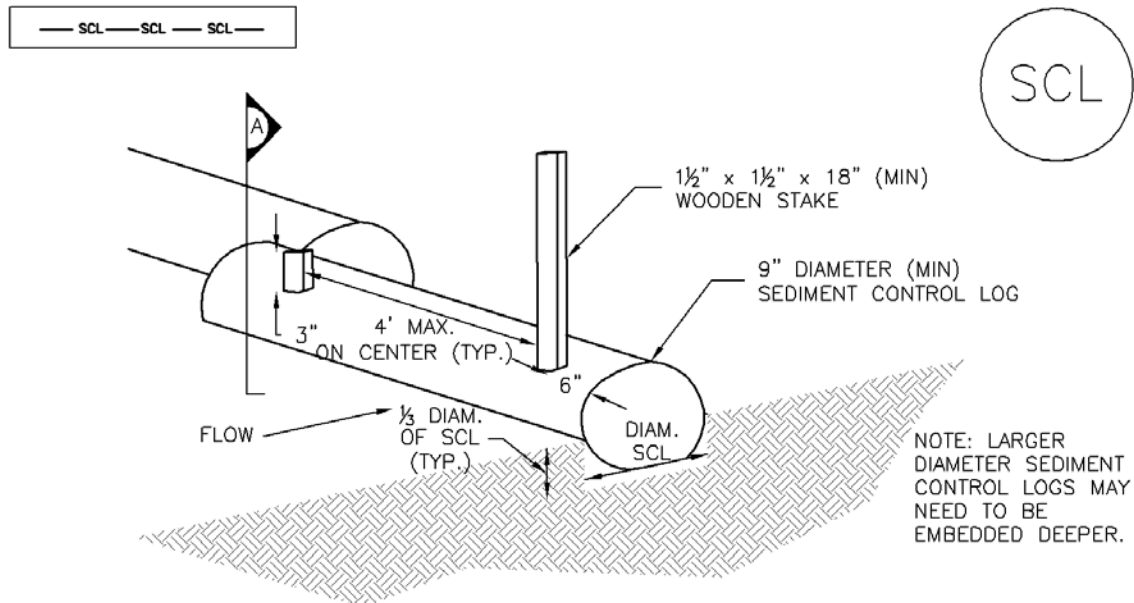
Maintenance and Removal

Repair or replace damaged or displaced fencing or other protective barriers around the vegetated area.

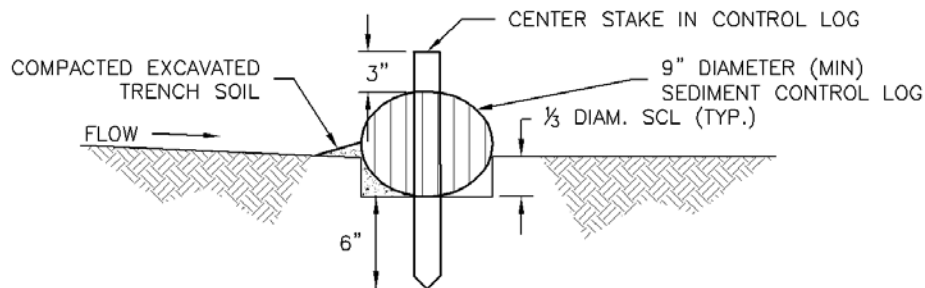
If damage occurs to a tree, consult an arborist for guidance on how to care for the tree. If a tree in a designated preservation area is damaged beyond repair, remove and replace with a 2-inch diameter tree of the same or similar species.

Construction equipment must not enter a wetland area, except as permitted by the U.S. Army Corps of Engineers (USACE). Inadvertent placement of fill in a wetland is a 404 permit violation and will require notification of the USACE.

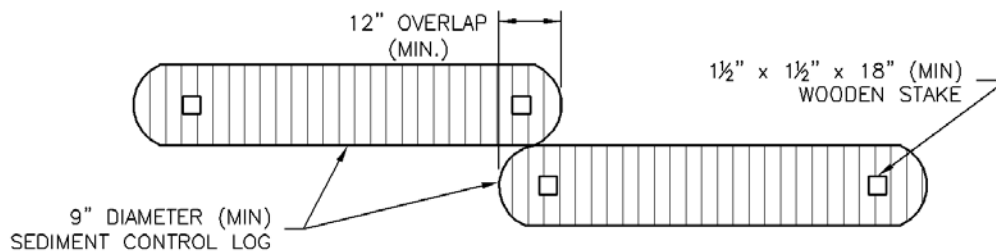
If damage to vegetation occurs in a protected area, reseed the area with the same or similar species, following the recommendations in the USDCM *Revegetation* chapter.



SEDIMENT CONTROL LOG

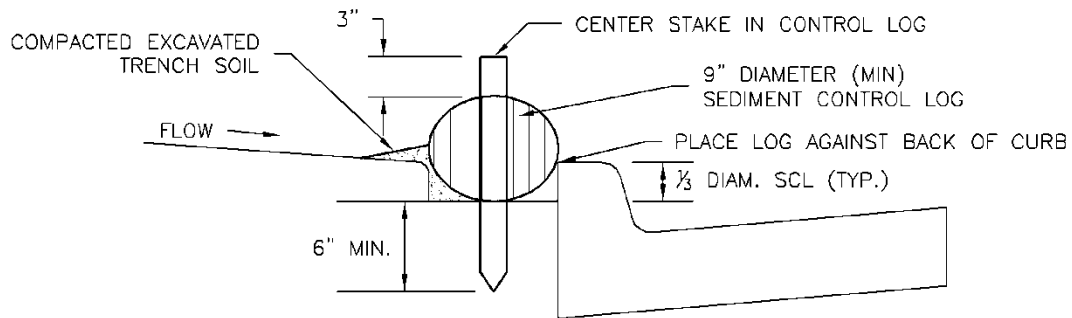


SECTION A

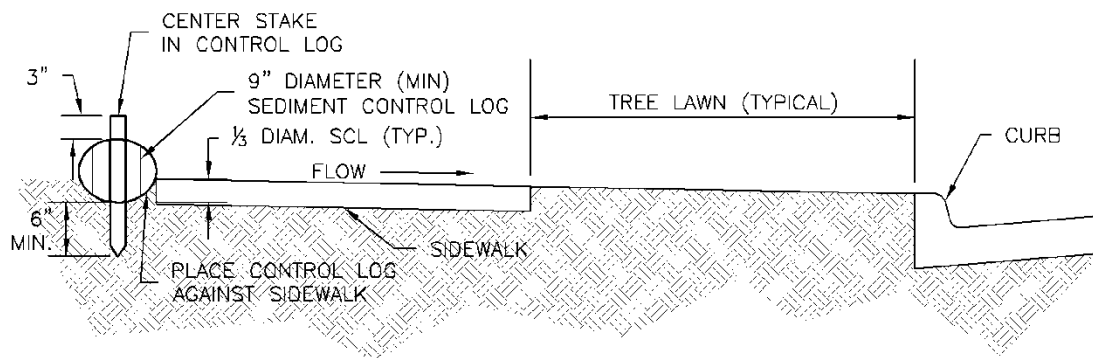


SEDIMENT CONTROL LOG JOINTS

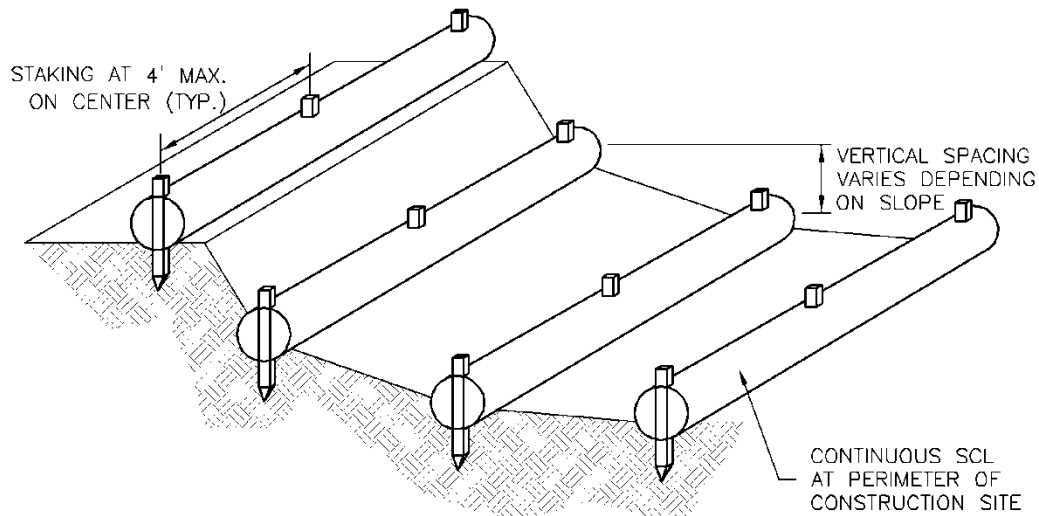
SCL-1. SEDIMENT CONTROL LOG



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 UPGRADE 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 $\frac{1}{2}$ 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 $\frac{1}{2}$ 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.

Description

Stockpile management includes measures to minimize erosion and sediment transport from soil stockpiles.

Appropriate Uses

Stockpile management should be used when soils or other erodible materials are stored at the construction site. Special attention should be given to stockpiles in close proximity to natural or manmade storm systems.



Photograph SP-1. A topsoil stockpile that has been partially revegetated and is protected by silt fence perimeter control.

Design and Installation

Locate stockpiles away from all drainage system components including storm sewer inlets. Where practical, choose stockpile locations that that will remain undisturbed for the longest period of time as the phases of construction progress. Place sediment control BMPs around the perimeter of the stockpile, such as sediment control logs, rock socks, silt fence, straw bales and sand bags. See Detail SP-1 for guidance on proper establishment of perimeter controls around a stockpile. For stockpiles in active use, provide a stabilized designated access point on the upgradient side of the stockpile.

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). Timeframes for stabilization of stockpiles noted in this fact sheet are "typical" guidelines. Check permit requirements for specific federal, state, and/or local requirements that may be more prescriptive.

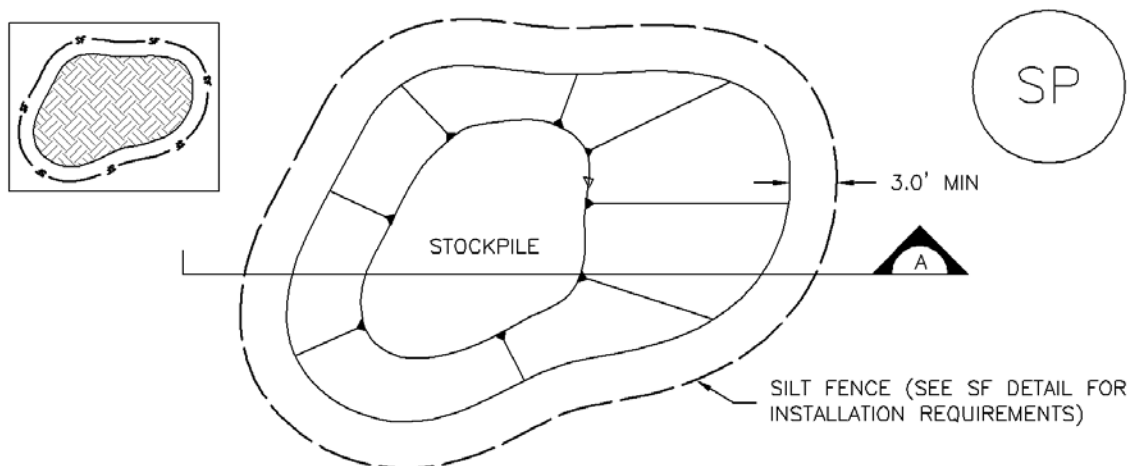
Stockpiles should not be placed in streets or paved areas unless no other practical alternative exists. See the Stabilized Staging Area Fact Sheet for guidance when staging in roadways is unavoidable due to space or right-of-way constraints. For paved areas, rock socks must be used for perimeter control and all inlets with the potential to receive sediment from the stockpile (even from vehicle tracking) must be protected.

Maintenance and Removal

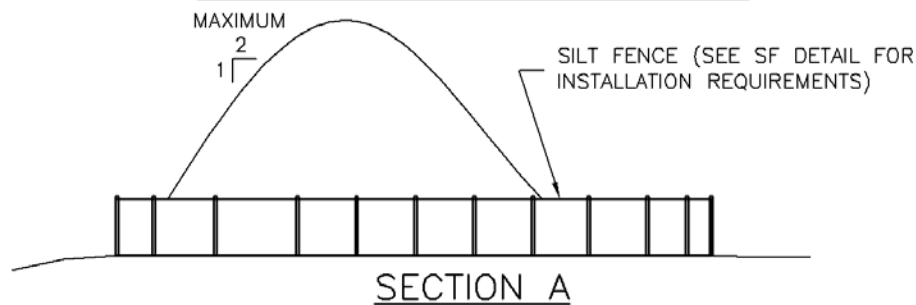
Inspect perimeter controls and inlet protection in accordance with their respective BMP Fact Sheets. Where seeding, mulch and/or soil binders are used, reseeding or reapplication of soil binder may be necessary.

When temporary removal of a perimeter BMP is necessary to access a stockpile, ensure BMPs are reinstalled in accordance with their respective design detail section.

Stockpile Management	
Functions	
Erosion Control	Yes
Sediment Control	Yes
Site/Material Management	Yes



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 SEEDDED 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.

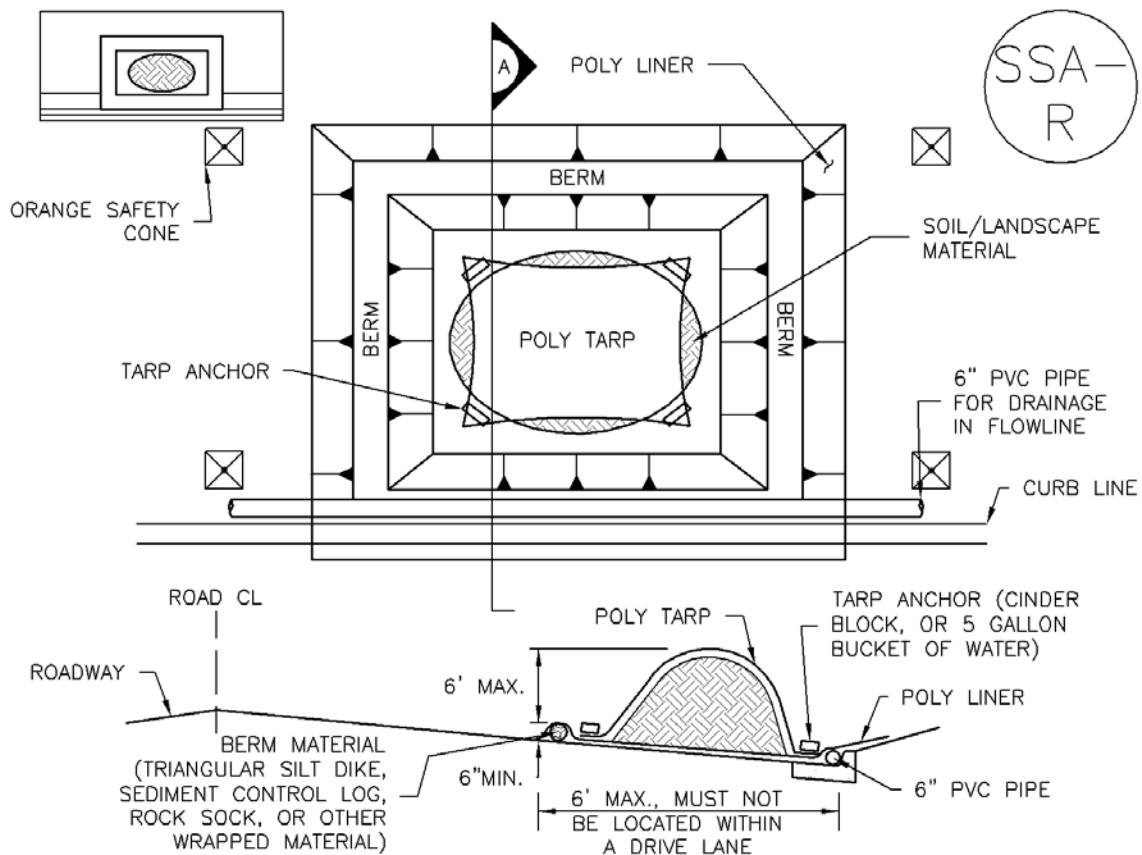
STOCKPILE PROTECTION MAINTENANCE NOTES

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.



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)

Description

Wind erosion and dust control BMPs help to keep soil particles from entering the air as a result of land disturbing construction activities. These BMPs include a variety of practices generally focused on either graded disturbed areas or construction roadways. For graded areas, practices such as seeding and mulching, use of soil binders, site watering, or other practices that provide prompt surface cover should be used. For construction roadways, road watering and stabilized surfaces should be considered.



Photograph DC-1. Water truck used for dust suppression. Photo courtesy of Douglas County.

Appropriate Uses

Dust control measures should be used on any site where dust poses a problem to air quality. Dust control is important to control for the health of construction workers and surrounding waterbodies.

Design and Installation

The following construction BMPs can be used for dust control:

- An irrigation/sprinkler system can be used to wet the top layer of disturbed soil to help keep dry soil particles from becoming airborne.
- Seeding and mulching can be used to stabilize disturbed surfaces and reduce dust emissions.
- Protecting existing vegetation can help to slow wind velocities across the ground surface, thereby limiting the likelihood of soil particles to become airborne.
- Spray-on soil binders form a bond between soil particles keeping them grounded. Chemical treatments may require additional permitting requirements. Potential impacts to surrounding waterways and habitat must be considered prior to use.
- Placing rock on construction roadways and entrances will help keep dust to a minimum across the construction site.
- Wind fences can be installed on site to reduce wind speeds. Install fences perpendicular to the prevailing wind direction for maximum effectiveness.

Maintenance and Removal

When using an irrigation/sprinkler control system to aid in dust control, be careful not to overwater. Overwatering will cause construction vehicles to track mud off-site.

Wind Erosion Control/ Dust Control	
Functions	
Erosion Control	Yes
Sediment Control	No
Site/Material Management	Moderate

Appendix D - Construction General Permit

CDPS GENERAL PERMIT
STORMWATER DISCHARGES ASSOCIATED WITH
CONSTRUCTION ACTIVITY
AUTHORIZATION TO DISCHARGE UNDER THE
COLORADO DISCHARGE PERMIT SYSTEM

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.D.3 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 page 1 of this permit to discharge, as of this date, 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 and the authorization to discharge shall expire at midnight, **June 30, 2012**.

Issued and Signed this 31st day of May, 2007

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT



Janet S. Kieler
Permits Section Manager
Water Quality Control Division

SIGNED AND ISSUED MAY 31, 2007

EFFECTIVE JULY 1, 2007

ADMINISTRATIVELY
CONTINUED EFFECTIVE
JULY 1, 2012

TABLE OF CONTENTS

PART I

A.	COVERAGE UNDER THIS PERMIT	3
1.	Authority to Discharge	3
a)	Applicable Sections.....	3
b)	Oil and Gas Construction	3
2.	Definitions.....	3
3.	Permit Coverage Without Application – Qualifying Local Programs.....	3
a)	Applicable Sections.....	3
b)	Local Agency Authority.....	4
c)	Permit Coverage Termination	4
d)	Compliance with Qualifying Local Program	4
e)	Full Permit Applicability.....	4
4.	Application, Due Dates	4
a)	Application Due Dates	4
b)	Summary of Application	4
5.	Permit Certification Procedures	4
a)	Request for Additional Information	4
b)	Automatic Coverage.....	5
c)	Individual Permit Required	5
d)	General vs. Individual Permit Coverage	5
e)	Local Agency Authority.....	5
6.	Inactivation Notice	5
7.	Transfer of Permit	5
8.	Reassignment of Permit.....	5
9.	Sale of Residence to Homeowners	6
10.	Permit Expiration Date.....	6
11.	Individual Permit Criteria.....	6
B.	STORMWATER MANAGEMENT PLAN – GENERAL REQUIREMENTS	6
C.	STORMWATER MANAGEMENT PLAN – CONTENTS.....	7
1.	Site Description	7
2.	Site Map	7
3.	Stormwater Management Controls.....	8
a)	SWMP Administrator.....	8
b)	Identification of Potential Pollutant Sources.....	8
c)	Best Management Practices (BMPs) for Stormwater Pollution Prevention.	8
4.	Final Stabilization and Long-term Stormwater Management.....	9
5.	Inspection and Maintenance	10
D.	TERMS AND CONDITIONS	10
1.	General Limitations.....	10
2.	BMP Implementation and Design Standards.....	10
3.	Prohibition of Non-Stormwater Discharges	11
4.	Releases in Excess of Reportable Quantities.....	11
5.	SWMP Requirements.....	11
a)	SWMP Preparation and Implementation.....	11
b)	SWMP Retention Requirements	11
c)	SWMP Review/Changes	11
d)	Responsive SWMP Changes.....	12
6.	Inspections.....	12
a)	Minimum Inspection Schedule.....	12
b)	Inspection Requirements	13
c)	Required Actions Following Site Inspections	13
7.	BMP Maintenance	13
8.	Replacement and Failed BMPs	14
9.	Reporting	14

TABLE OF CONTENTS (cont.)

10.	SWMP Availability	14
11.	Total Maximum Daily Load (TMDL)	14
E.	ADDITIONAL DEFINITIONS	15
F.	GENERAL REQUIREMENTS	16
1.	Signatory Requirements	16
2.	Retention of Records	16
3.	Monitoring.....	16

PART II

A.	MANAGEMENT REQUIREMENTS	17
1.	Amending a Permit Certification.....	17
2.	Special Notifications - Definitions	17
3.	Noncompliance Notification	17
4.	Submission of Incorrect or Incomplete Information	18
5.	Bypass	18
6.	Upsets	18
7.	Removed Substances.....	18
8.	Minimization of Adverse Impact.....	18
9.	Reduction, Loss, or Failure of Stormwater Controls.....	19
10.	Proper Operation and Maintenance	19
B.	RESPONSIBILITIES	19
1.	Inspections and Right to Entry	19
2.	Duty to Provide Information	19
3.	Transfer of Ownership or Control.....	19
4.	Modification, Suspension, or Revocation of Permit By Division	20
5.	Permit Violations.....	21
6.	Legal Responsibilities	21
7.	Severability	21
8.	Renewal Application	21
9.	Confidentiality.....	21
10.	Fees	21
11.	Requiring an Individual CDPS Permit	22

PART I

A. COVERAGE UNDER THIS PERMIT

1. **Authority to Discharge**

Under this permit, facilities are granted authorization to discharge stormwater associated with construction activities into waters of the state of Colorado. This permit also authorizes the discharge of specific allowable non-stormwater discharges, in accordance with Part I.D.3 of the permit, which includes discharges to the ground. This includes stormwater discharges from areas that are dedicated to producing earthen materials, such as soils, sand and gravel, for use at a single construction site (i.e., borrow or fill areas). This permit also authorizes stormwater discharges from dedicated asphalt batch plants and dedicated concrete batch plants. (Coverage under the construction site permit is not required for batch plants if they have alternate CDPS permit coverage.) This permit does not authorize the discharge of mine water or process water from such areas.

- a) **Applicable Sections:** In accordance with Part I.A.3 of this permit, some parts of this permit do not apply to sites covered under a Qualifying Local Program, as defined in I.A.2.d. For sites not covered by a Qualifying Local Program, all parts of the permit apply except Part I.A.3. The permittee will be responsible for determining and then complying with the applicable sections.
- b) **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 (5CCR 1002-61), and require coverage under this permit in accordance with that regulation. However, references in this permit to specific authority under the Federal Clean Water Act (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.

2. **Definitions**

- a) **Stormwater:** Stormwater is precipitation-induced surface runoff.
- b) **Construction activity:** Construction activity refers to ground surface disturbing activities, 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 original line and grade, hydraulic capacity, or original purpose of the facility.
- c) **Small construction activity:** Stormwater discharge associated with small construction activity means 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 will ultimately disturb equal to or greater than one and less than five acres.
- d) **Qualifying Local Program:** This permit includes conditions that incorporate qualifying local erosion and sediment control program (Qualifying Local Program) requirements by reference. A Qualifying Local Program is a municipal stormwater program for stormwater discharges associated with small construction activity that has been formally approved by the Division.

Other Definitions: Definitions of additional terms can be found in Part I.E. of this permit.

3. **Permit Coverage Without Application – for small construction activities under a Qualifying Local Program only**

If a small construction site is within the jurisdiction of a Qualifying Local Program, the operator of the construction activity is authorized to discharge stormwater associated with small construction activity under this general permit without the submittal of an application to the Division.

- a) **Applicable Sections:** For sites covered by a Qualifying Local Program, only Parts 1.A.1, 1.A.2, 1.A.3, I.D.1, I.D.2, I.D.3, I.D.4, I.D.7, I.D.8, I.D.11, I.E and Part II of this permit, with the exception of Parts II.A.1, II.B.3, II.B.8, and II.B10, apply.

A. COVERAGE UNDER THIS PERMIT (cont.)

- b) **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.
- c) **Permit Coverage Termination:** When a site under a Qualifying Local Program has been finally stabilized, coverage under this permit is automatically terminated.
- d) **Compliance with Qualifying Local Program:** A construction site operator that has authorization to discharge under this permit under Part I.A.3 shall comply with the requirements of the Qualifying Local Program with jurisdiction over the site.
- e) **Full Permit Applicability:** The Division may require any operator within the jurisdiction of a Qualifying Local Program covered under this permit to apply for and obtain coverage under the full requirements of this permit. The operator must be notified in writing that an application for full coverage is required. When a permit certification under this permit is issued to an operator that would otherwise be covered under Part I.A.3 of this permit, the full requirements of this permit replace the requirements as per Part I.A.3 of this permit, upon the effective date of the permit certification. A site brought under the full requirements of this permit must still comply with local stormwater management requirements, policies or guidelines as required by Part I.D.1.g of this permit.

4. **Application, Due Dates**

- a) **Application Due Dates:** At least **ten calendar days** prior to the commencement of construction activities, the applicant shall submit an application form as provided by the Division, with a certification that the Stormwater Management Plan (SWMP) is complete.

One original completed discharge permit application shall be submitted, by mail or hand delivery, to:

Colorado Department of Public Health and Environment
Water Quality Control Division
WQCD-Permits-B2
4300 Cherry Creek Drive South
Denver, Colorado 80246-1530

- b) **Summary of Application:** The application requires, at a minimum, the following:
 - 1) The applicant's company name; address; telephone number; and email address (if available); whether the applicant is the owner, developer, or contractor; and local contact information;
 - 2) Project name, address, county and location of the construction site, including the latitude and longitude to the nearest 15 seconds of the approximate center of the construction activity;
 - 3) Legal description or map of the construction site;
 - 4) Estimates of: the total area of the site, the area of the site that is expected to be disturbed, and the total area of the larger common plan of development or sale to undergo disturbance;
 - 5) The nature of the construction activity;
 - 6) The anticipated start date and final stabilization date for the project;
 - 7) The name of the receiving water(s), or the municipal separate storm sewer system and the ultimate (i.e., named) receiving water(s);
 - 8) Certification that the SWMP for the construction site is complete (see Part I.C. below); and
 - 9) The signature of the applicant, signed in accordance with Part I.F.1 of this permit.

5. **Permit Certification Procedures**

If this general permit is appropriate for the applicant's operation, then a certification will be developed and the applicant will be authorized to discharge stormwater under this general permit.

- a) **Request for Additional Information:** The Division shall have up to **ten calendar days** after receipt of the above information to request additional data and/or deny the authorization for any particular discharge. Upon receipt of additional information, the Division shall have an additional **ten calendar days** to issue or deny authorization for the particular discharge. (Notification of denial shall be by letter, in cases where coverage under an alternate general permit or an individual permit is required, instead of coverage under this permit.)

A. COVERAGE UNDER THIS PERMIT (cont.)

- b) **Automatic Coverage:** If the applicant does not receive a request for additional information or a notification of denial from the Division dated within ten calendar days of receipt of the application by the Division, authorization to discharge in accordance with the conditions of this permit shall be deemed granted.
- c) **Individual Permit Required:** If, after evaluation of the application (or additional information, such as the SWMP), it is found that this general permit is not appropriate for the operation, then the application will be processed as one for an individual permit. The applicant will be notified of the Division's decision to deny certification under this general permit. For an individual permit, additional information may be requested, and 180 days may be required to process the application and issue the permit. At the Division's discretion, temporary coverage under this general permit may be allowed until the individual permit goes into effect.
- d) **General vs. Individual Permit Coverage:** Any permittee authorized by this permit may request to be excluded from the coverage of this permit by applying for an individual CDPS permit. The permittee shall submit an individual application, with reasons supporting the request, to the Division at least 180 days prior to any discharge.
- e) **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.

6. **Inactivation Notice**

When a site has been finally stabilized in accordance with the SWMP, the permittee must submit an **Inactivation Notice** form that is signed in accordance with Part I.F.1. of this permit. The Inactivation Notice form is available from the Division and includes:

- a) Permit certification number;
- b) The permittee's name, address, telephone number;
- c) Name, location, and county for the construction site for which the inactivation notice is being submitted; and
- d) Certification that the site has been finally stabilized, and a description of the final stabilization method(s).

7. **Transfer of Permit**

When responsibility for stormwater discharges at a construction site changes from one entity to another, the permittee shall submit a completed **Notice of Transfer and Acceptance of Terms** form that is signed in accordance with Part I.F.1. of this permit. The Notice of Transfer form is available from the Division and includes:

- a) Permit certification number;
- b) Name, location, and county for the construction site for which the Notice of Transfer is being submitted;
- c) Identifying information for the new permittee;
- d) Identifying information for the current permittee; and
- e) Effective date of transfer.

If the new responsible party will not complete the transfer form, the permit may be inactivated upon written request to the Division and completion of the Inactivation Notice if the permittee has no legal responsibility, through ownership or contract, for the construction activities at the site. In this case, the new owner or operator would be required to obtain permit coverage separately.

8. **Reassignment of Permit**

When a permittee no longer has control of a specific portion of a permitted site, and wishes to transfer coverage of that portion of the site to a second party, the permittee shall submit a completed **Notice of Reassignment of Permit Coverage** form that is signed in accordance with Part I.F.1. of this permit. The Notice of Reassignment of Permit Coverage form is available from the Division and includes:

- a) Current permit certification number;
- b) Identifying information and certification as required by Part I.A.4.b for the new permittee;
- c) Identifying information for the current permittee, revised site information and certification for reassignment; and
- d) Effective date of reassignment.

A. COVERAGE UNDER THIS PERMIT (cont.)

If the new responsible party will not complete the reassignment form, the applicable portion of the permitted site may be removed from permit coverage upon written request to the Division if the permittee has no legal responsibility, through ownership or contract, for the construction activities at the portion of the site. In this case, the new owner or operator would be required to obtain permit coverage separately.

9. **Sale of Residence to Homeowners**

For residential construction only, when a residential lot **has been conveyed to a homeowner** and all criteria in paragraphs a through e, below, are met, coverage under this permit is no longer required and the conveyed lot may be removed from coverage under the permittee's certification. At such time, the permittee is no longer responsible for meeting the terms and conditions of this permit for the conveyed lot, including the requirement to transfer or reassign permit coverage. The permittee remains responsible for inactivation of the original certification.

- a) The lot has been sold to the homeowner(s) for private residential use;
- b) the lot is less than one acre of disturbed area;
- c) all construction activity conducted by the permittee on the lot is completed;
- d) a certificate of occupancy (or equivalent) has been awarded to the home owner; and
- e) the SWMP has been amended to indicate the lot is no longer covered by permit.

Lots not meeting all of the above criteria require continued permit coverage. However, this permit coverage may be transferred (Part I.A.7, above) or reassigned (Part I.A.8, above) to a new owner or operator.

10. **Permit Expiration Date**

Authorization to discharge under this general permit shall expire on June 30, 2012. The Division must evaluate and reissue this general permit at least once every five years and must recertify the permittee's authority to discharge under the general permit at such time. Therefore, a permittee desiring continued coverage under the general permit must reapply by March 31, 2012. The Division will initiate the renewal process; however, it is ultimately the permittee's responsibility to ensure that the renewal is submitted. The Division will determine if the permittee may continue to operate 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.

11. **Individual Permit Criteria**

Various criteria can be used in evaluating whether or not an individual (or alternate general) permit is required instead of this general permit. This information may come from the application, SWMP, or additional information as requested by the Division, and includes, but is not limited to, the following:

- a) the quality of the receiving waters (i.e., the presence of downstream drinking water intakes or a high quality fishery, or for preservation of high quality water);
- b) the size of the construction site;
- c) evidence of noncompliance under a previous permit for the operation;
- d) the use of chemicals within the stormwater system; or
- e) discharges of pollutants of concern to waters for which there is an established Total Maximum Daily Load (TMDL).

In addition, an individual permit may be required when the Division has shown or has reason to suspect that the stormwater discharge may contribute to a violation of a water quality standard.

B. STORMWATER MANAGEMENT PLAN (SWMP) – **GENERAL REQUIREMENTS**

- 1. A SWMP shall be developed for each facility covered by this permit. The SWMP shall be prepared in accordance with good engineering, hydrologic and pollution control practices. (The SWMP need not be prepared by a registered engineer.)

B. STORMWATER MANAGEMENT PLAN (SWMP) – **GENERAL REQUIREMENTS** (cont.)

2. The SWMP shall:
 - a) Identify all potential sources of pollution which may reasonably be expected to affect the quality of stormwater discharges associated with construction activity from the facility;
 - b) Describe the practices to be used to reduce the pollutants in stormwater discharges associated with construction activity at the facility; and ensure the practices are selected and described in accordance with good engineering practices, including the installation, implementation and maintenance requirements; and
 - c) Be properly prepared, and updated in accordance with Part I.D.5.c, to ensure compliance with the terms and conditions of this permit.
3. Facilities must implement the provisions of the SWMP as written and updated, from commencement of construction activity until final stabilization is complete, as a condition of this permit. The Division reserves the right to review the SWMP, and to require the permittee to develop and implement additional measures to prevent and control pollution as needed.
4. The SWMP may reflect requirements for Spill Prevention Control and Countermeasure (SPCC) plans under section 311 of the CWA, or Best Management Practices (BMPs) Programs otherwise required by a separate CDPS permit, and may incorporate any part of such plans into the SWMP by reference, provided that the relevant sections of such plans are available as part of the SWMP consistent with Part I.D.5.b.
5. For any sites with permit coverage before June 30, 2007, the permittee's SWMP must meet the new SWMP requirements as summarized in Section II.I of the rationale. Any needed changes must be made by **October 1, 2007**.

C. STORMWATER MANAGEMENT PLAN (SWMP) – **CONTENTS**

The SWMP shall include the following items, at a minimum.

1. **Site Description.** The SWMP shall clearly describe the construction activity, to include:
 - a) The nature of the construction activity at the site.
 - b) The proposed sequence for major activities.
 - c) Estimates of the total area of the site, and the area and location expected to be disturbed by clearing, excavation, grading, or other construction activities.
 - d) A summary of any existing data used in the development of the site construction plans or SWMP that describe the soil or existing potential for soil erosion.
 - e) A description of the existing vegetation at the site and an estimate of the percent vegetative ground cover.
 - f) The location and description of all potential pollution sources, including ground surface disturbing activities (see Part I.A.2.b), vehicle fueling, storage of fertilizers or chemicals, etc.
 - g) The location and description of any anticipated allowable sources of non-stormwater discharge at the site, e.g., uncontaminated springs, landscape irrigation return flow, construction dewatering, and concrete washout.
 - h) The name of the receiving water(s) and the size, type and location of any outfall(s). If the stormwater discharge is to a municipal separate storm sewer system, the name of that system, the location of the storm sewer discharge, and the ultimate receiving water(s).
2. **Site Map.** The SWMP shall include a legible site map(s), showing the entire site, identifying:
 - a) construction site boundaries;
 - b) all areas of ground surface disturbance;
 - c) areas of cut and fill;
 - d) areas used for storage of building materials, equipment, soil, or waste;
 - e) locations of dedicated asphalt or concrete batch plants;
 - f) locations of all structural BMPs;
 - g) locations of non-structural BMPs as applicable; and
 - h) locations of springs, streams, wetlands and other surface waters.

C. STORMWATER MANAGEMENT PLAN (SWMP) – CONTENTS (cont.)

3. **Stormwater Management Controls.**

The SWMP must include a description of all stormwater management controls that will be implemented as part of the construction activity to control pollutants in stormwater discharges. The appropriateness and priorities of stormwater management controls in the SWMP shall reflect the potential pollutant sources identified at the facility.

The description of stormwater management controls shall address the following components, at a minimum:

- a) **SWMP Administrator** - The SWMP shall identify a specific individual(s), position or title who is responsible for developing, implementing, maintaining, and revising the SWMP. The activities and responsibilities of the administrator shall address all aspects of the facility's SWMP.
- b) **Identification of Potential Pollutant Sources** - All potential pollutant sources, including materials and activities, at a site must be evaluated for the potential to contribute pollutants to stormwater discharges. The SWMP shall identify and describe those sources determined to have the potential to contribute pollutants to stormwater discharges, and the sources must be controlled through BMP selection and implementation, as required in paragraph (c), below.

At a minimum, each of the following sources and activities shall be evaluated for the potential to contribute pollutants to stormwater discharges, and identified in the SWMP if found to have such potential:

- 1) all disturbed and stored soils;
 - 2) vehicle tracking of sediments;
 - 3) management of contaminated soils;
 - 4) loading and unloading operations;
 - 5) outdoor storage activities (building materials, fertilizers, chemicals, etc.);
 - 6) vehicle and equipment maintenance and fueling;
 - 7) significant dust or particulate generating processes;
 - 8) routine maintenance activities involving fertilizers, pesticides, detergents, fuels, solvents, oils, etc.;
 - 9) on-site waste management practices (waste piles, liquid wastes, dumpsters, etc.);
 - 10) concrete truck/equipment washing, including the concrete truck chute and associated fixtures and equipment;
 - 11) dedicated asphalt and concrete batch plants;
 - 12) non-industrial waste sources such as worker trash and portable toilets; and
 - 13) other areas or procedures where potential spills can occur.
- c) **Best Management Practices (BMPs) for Stormwater Pollution Prevention** - The SWMP shall identify and describe appropriate BMPs, including, but not limited to, those required by paragraphs 1 through 8 below, that will be implemented at the facility to reduce the potential of the sources identified in Part I.C.3.b to contribute pollutants to stormwater discharges. The SWMP shall clearly describe the installation and implementation specifications for each BMP identified in the SWMP to ensure proper implementation, operation and maintenance of the BMP.
 - 1) **Structural Practices for Erosion and Sediment Control**. The SWMP shall clearly describe and locate all structural practices implemented at the site to minimize erosion and sediment transport. Practices may include, but are not limited to: straw bales, wattles/sediment control logs, silt fences, earth dikes, drainage swales, sediment traps, subsurface drains, pipe slope drains, inlet protection, outlet protection, gabions, and temporary or permanent sediment basins.
 - 2) **Non-Structural Practices for Erosion and Sediment Control**. The SWMP shall clearly describe and locate, as applicable, all non-structural practices implemented at the site to minimize erosion and sediment transport. Description must include interim and permanent stabilization practices, and site-specific scheduling for implementation of the practices. The SWMP should include practices to ensure that existing vegetation is preserved where possible. Non-structural practices may include, but are not limited to: temporary vegetation, permanent vegetation, mulching, geotextiles, sod stabilization, slope roughening, vegetative buffer strips, protection of trees, and preservation of mature vegetation.

C. STORMWATER MANAGEMENT PLAN (SWMP) – CONTENTS (cont.)

- 3) Phased BMP Implementation. The SWMP shall clearly describe the relationship between the phases of construction, and the implementation and maintenance of both structural and non-structural stormwater management controls. The SWMP must identify the stormwater management controls to be implemented during the project phases, which can include, but are not limited to, clearing and grubbing; road construction; utility and infrastructure installation; vertical construction; final grading; and final stabilization.
- 4) Materials Handling and Spill Prevention. The SWMP shall clearly describe and locate all practices implemented at the site to minimize impacts from procedures or significant materials (see definitions at Part I.E.) that could contribute pollutants to runoff. Such procedures or significant materials could include: exposed storage of building materials; paints and solvents; fertilizers or chemicals; waste material; and equipment maintenance or fueling procedures.

Areas or procedures where potential spills can occur must have spill prevention and response procedures identified in the SWMP.

- 5) Dedicated Concrete or Asphalt Batch Plants. The SWMP shall clearly describe and locate all practices implemented at the site to control stormwater pollution from dedicated concrete batch plants or dedicated asphalt batch plants covered by this certification.
- 6) Vehicle Tracking Control. The SWMP shall clearly describe and locate all practices implemented at the site to control potential sediment discharges from vehicle tracking. Practices must be implemented for all areas of potential vehicle tracking, and can include: minimizing site access; street sweeping or scraping; tracking pads; graveled parking areas; requiring that vehicles stay on paved areas on-site; wash racks; contractor education; and/or sediment control BMPs, etc.
- 7) Waste Management and Disposal, Including Concrete Washout.
 - i) The SWMP shall clearly describe and locate the practices implemented at the site to control stormwater pollution from all construction site wastes (liquid and solid), including concrete washout activities.
 - ii) The practices used for concrete washout must ensure that these activities do not result in the contribution of pollutants associated with the washing activity to stormwater runoff.
 - iii) Part I.D.3.c of the permit authorizes the conditional discharge of concrete washout water to the ground. The SWMP shall clearly describe and locate the practices to be used that will ensure that no washout water from concrete washout activities is discharged from the site as surface runoff or to surface waters.
- 8) Groundwater and Stormwater Dewatering.
 - i) The SWMP shall clearly describe and locate the practices implemented at the site to control stormwater pollution from the dewatering of groundwater or stormwater from excavations, wells, etc.
 - ii) Part I.D.3.d of the permit authorizes the conditional discharge of construction dewatering to the ground. For any construction dewatering of groundwater not authorized under a separate CDPS discharge permit, the SWMP shall clearly describe and locate the practices to be used that will ensure that no groundwater from construction dewatering is discharged from the site as surface runoff or to surface waters.

4. Final Stabilization and Long-term Stormwater Management

- a) The SWMP shall clearly describe the practices used to achieve final stabilization of all disturbed areas at the site, and any planned practices to control pollutants in stormwater discharges that will occur after construction operations have been completed at the site.
- b) Final stabilization practices for obtaining a vegetative cover should include, as appropriate: seed mix selection and application methods; soil preparation and amendments; soil stabilization practices (e.g., crimped straw, hydro mulch or rolled erosion control products); and appropriate sediment control BMPs as needed until final stabilization is achieved; etc.

C. STORMWATER MANAGEMENT PLAN (SWMP) – CONTENTS (cont.)

- c) Final stabilization is reached when all ground surface 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.

The Division may, after consultation with the permittee and upon good cause, amend the final stabilization criteria in this section for specific operations.

5. **Inspection and Maintenance**

Part I.D.6 of the permit includes requirements for site inspections. Part I.D.7 of the permit includes requirements for BMP maintenance. The SWMP shall clearly describe the inspection and maintenance procedures implemented at the site to maintain all erosion and sediment control practices and other protective practices identified in the SWMP, in good and effective operating condition.

D. TERMS AND CONDITIONS

1. **General Limitations**

The following limitations shall apply to all discharges covered by this permit:

- a) Stormwater discharges from construction activities shall not cause, have the reasonable potential to cause, or measurably contribute to an exceedance of any water quality standard, including narrative standards for water quality.
- b) Concrete washout water shall not be discharged to state surface waters or to storm sewer systems. On-site permanent disposal of concrete washout waste is not authorized by this permit. Discharge to the ground of concrete washout waste that will subsequently be disposed of off-site is authorized by this permit. See Part I.D.3.c of the permit.
- c) Bulk storage structures for petroleum products and any other chemicals shall have secondary containment or equivalent adequate protection so as to contain all spills and prevent any spilled material from entering State waters.
- d) No chemicals are to be added to the discharge unless permission for the use of a specific chemical is granted by the Division. In granting the use of such chemicals, special conditions and monitoring may be addressed by separate correspondence.
- e) The Division reserves the right to require sampling and testing, on a case-by-case basis, in the event that there is reason to suspect that compliance with the SWMP is a problem, or to measure the effectiveness of the BMPs in removing pollutants in the effluent. Such monitoring may include Whole Effluent Toxicity testing.
- f) All site wastes must be properly managed to prevent potential pollution of State waters. This permit does not authorize on-site waste disposal.
- g) All dischargers must comply with the lawful requirements of federal agencies, municipalities, counties, drainage districts and other local agencies regarding any discharges of stormwater to storm drain systems or other water courses under their jurisdiction, including applicable requirements in municipal stormwater management programs developed to comply with CDPS permits. Dischargers must comply with local stormwater management requirements, policies or guidelines including erosion and sediment control.

2. **BMP Implementation and Design Standards**

Facilities must select, install, implement, and maintain appropriate BMPs, following good engineering, hydrologic and pollution control practices. BMPs implemented at the site must be adequately designed to provide control for all potential pollutant sources associated with construction activity to prevent pollution or degradation of State waters.

D. TERMS AND CONDITIONS (cont.)

3. **Prohibition of Non-Stormwater Discharges**

- a) Except as provided in paragraphs b, c, and d below, **all discharges covered by this permit shall be composed entirely of stormwater associated with construction activity.** Discharges of material other than stormwater must be addressed in a separate CDPS permit issued for that discharge.
- b) Discharges from the following sources that are combined with stormwater discharges associated with construction activity may be authorized by this permit, provided that the non-stormwater component of the discharge is identified in the SWMP (see Part I.C.1.g of this permit):
 - emergency fire fighting activities
 - landscape irrigation return flow
 - uncontaminated springs
- c) Discharges to the ground of concrete washout water from washing of tools and concrete mixer chutes may be authorized by this permit, provided that:
 - 1) the source is identified in the SWMP;
 - 2) BMPs are included in the SWMP in accordance with Part I.C.3(c)(7) and to prevent pollution of groundwater in violation of Part I.D.1.a; and
 - 3) these discharges do not leave the site as surface runoff or to surface waters
- d) Discharges to the ground of water from construction dewatering activities may be authorized by this permit, provided that:
 - 1) the source is groundwater and/or groundwater combined with stormwater that does not contain pollutants in concentrations exceeding the State groundwater standards in Regulations 5 CCR 1002-41 and 42;
 - 2) the source is identified in the SWMP;
 - 3) BMPs are included in the SWMP, as required by Part I.C.3(c)(8); and
 - 4) these discharges do not leave the site as surface runoff or to surface waters.

Discharges to the ground from construction dewatering activities that do not meet the above criteria must be covered under a separate CDPS discharge permit. Contaminated groundwater requiring coverage under a separate CDPS discharge permit may include groundwater contaminated with pollutants from a landfill, mining activity, industrial pollutant plume, underground storage tank, or other source.

4. **Releases in Excess of Reportable Quantities**

This permit does not relieve the permittee of the reporting requirements of 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.A.3 of the permit).

5. **SWMP Requirements**

- a) **SWMP Preparation and Implementation:** The SWMP shall be prepared prior to applying for coverage under the general permit, and certification of its completion submitted with the application. The SWMP shall be implemented prior to commencement of construction activities. The plan shall be updated as appropriate (see paragraph c, below), below). SWMP provisions shall be implemented until expiration or inactivation of permit coverage.
- b) **SWMP Retention Requirements:** A copy of the SWMP must be retained on site unless another location, specified by the permittee, is approved by the Division.
- c) **SWMP Review/Changes:** The permittee shall amend the SWMP:
 - 1) when there is a change in design, construction, operation, or maintenance of the site, which would require the implementation of new or revised BMPs; or
 - 2) if the SWMP proves to be ineffective in achieving the general objectives of controlling pollutants in stormwater discharges associated with construction activity; or

D. TERMS AND CONDITIONS (cont.)

- 3) when BMPs are no longer necessary and are removed.

SWMP changes shall be made prior to changes in the site conditions, except as allowed for in paragraph d, below. SWMP revisions may include, but are not limited to: potential pollutant source identification; selection of appropriate BMPs for site conditions; BMP maintenance procedures; and interim and final stabilization practices. The SWMP changes may include a schedule for further BMP design and implementation, provided that, if any interim BMPs are needed to comply with the permit, they are also included in the SWMP and implemented during the interim period.

- d) **Responsive SWMP Changes:** SWMP changes addressing BMP installation and/or implementation are often required to be made in response to changing conditions, or when current BMPs are determined ineffective. The majority of SWMP revisions to address these changes can be made immediately with quick in-the-field revisions to the SWMP. In the less common scenario where more complex development of materials to modify the SWMP is necessary, SWMP revisions shall be made in accordance with the following requirements:
 - 1) the SWMP shall be revised as soon as practicable, but in no case more than 72 hours after the change(s) in BMP installation and/or implementation occur at the site, and
 - 2) a notation must be included in the SWMP prior to the site change(s) that includes the time and date of the change(s) in the field, an identification of the BMP(s) removed or added, and the location(s) of those BMP(s).

6. **Inspections**

Site inspections must be conducted in accordance with the following requirements and minimum schedules. The required minimum inspection schedules do not reduce or eliminate the permittee's responsibility to implement and maintain BMPs in good and effective operational condition, and in accordance with the SWMP, which could require more frequent inspections.

- a) **Minimum Inspection Schedule:** The permittee shall, at a minimum, make a thorough inspection, in accordance with the requirements in I.D.6.b below, at least once every 14 calendar days. Also, post-storm event inspections must be conducted within 24 hours after the end of any precipitation or snowmelt event that causes surface erosion. Provided the timing is appropriate, the post-storm inspections may be used to fulfill the 14-day routine inspection requirement. A more frequent inspection schedule than the minimum inspections described may be necessary, to ensure that BMPs continue to operate as needed to comply with the permit. The following conditional modifications to this Minimum Inspection Schedule are allowed:
 - 1) **Post-Storm Event Inspections at Temporarily Idle Sites** – 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 at least every 14 calendar days.
 - 2) **Inspections at Completed Sites/Areas** – For sites or portions of sites that meet the following criteria, but final stabilization has not been achieved due to a vegetative cover that has not become established, the permittee shall make a thorough inspection of their stormwater management system at least once every month, and post-storm event inspections are not required. This reduced inspection schedule is *only* allowed if:
 - i) all construction activities that will result in surface ground disturbance are completed;
 - ii) all activities required for final stabilization, in accordance 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 indicate those areas that will be inspected in accordance with the reduced schedule allowed for in this paragraph.

D. TERMS AND CONDITIONS (cont.)

- 3) **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 14-day and monthly inspections, as well as the post-storm-event inspections. The following information must be documented in the inspection record for use of this exclusion: dates when snow cover occurred, date when construction activities ceased, and date melting conditions began. Inspections, as described above, are required at all other times.

When site conditions make the schedule required in this section impractical, the permittee may petition the Division to grant an alternate inspection schedule.

b) **Inspection Requirements**

- 1) **Inspection Scope** - 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, or discharging to state waters. All erosion and sediment control practices identified in the SWMP shall be evaluated to ensure that they are maintained and operating correctly.
- 2) **Inspection Report/Records** - The permittee shall keep a record of inspections. Inspection reports must identify any incidents of non-compliance with the terms and conditions of this permit. Inspection records must be retained for three years from expiration or inactivation of permit coverage. At a minimum, the inspection report must include:
- i) The inspection date;
 - ii) Name(s) and title(s) of personnel making the inspection;
 - iii) Location(s) of discharges of sediment or other pollutants from the site;
 - iv) Location(s) of BMPs that need to be maintained;
 - v) Location(s) of BMPs that failed to operate as designed or proved inadequate for a particular location;
 - vi) Location(s) where additional BMPs are needed that were not in place at the time of inspection;
 - vii) Deviations from the minimum inspection schedule as provided in Part I.D.6.a above;
 - vii) Description of corrective action for items iii, iv, v, and vi, above, dates corrective action(s) taken, and measures taken to prevent future violations, including requisite changes to the SWMP, as necessary; and
 - viii) After adequate corrective action(s) has been taken, or where a report does not identify any incidents requiring corrective action, the report shall contain a signed statement indicating the site is in compliance with the permit to the best of the signer's knowledge and belief.
- c) **Required Actions Following Site Inspections** – Where site inspections note the need for BMP maintenance activities, BMPs must be maintained in accordance with the SWMP and Part I.D.7 of the permit. Repair, replacement, or installation of new BMPs determined necessary during site inspections to address ineffective or inadequate BMPs must be conducted in accordance with Part I.D.8 of the permit. SWMP updates required as a result of deficiencies in the SWMP noted during site inspections shall be made in accordance with Part I.D.5.c of the permit.

7. **BMP Maintenance**

All erosion and sediment control practices and other protective measures identified in the SWMP must be maintained in effective operating condition. Proper selection and installation of BMPs and implementation of comprehensive Inspection and Maintenance procedures, in accordance with the SWMP, should be adequate to meet this condition. BMPs that are not adequately maintained in accordance with good engineering, hydrologic and pollution control practices, including removal of collected sediment outside the acceptable tolerances of the BMPs, are considered to be no longer operating effectively and must be addressed in accordance with Part I.D.8, below. A specific timeline for implementing maintenance procedures is not included in this permit because BMP maintenance is expected to be proactive, not responsive. Observations resulting in BMP maintenance activities can be made during a site inspection, or during general observations of site conditions.

D. TERMS AND CONDITIONS (cont.)

8. **Replacement and Failed BMPs**

Adequate site assessment must be performed as part of comprehensive Inspection and Maintenance procedures, to assess the adequacy of BMPs at the site, and the necessity of changes to those BMPs to ensure continued effective performance. Where site assessment results in the determination that new or replacement BMPs are necessary, the BMPs must be installed to ensure on-going implementation of BMPs as per Part I.D.2.

Where BMPs have failed, resulting in noncompliance with Part I.D.2, they must be addressed as soon as possible, immediately in most cases, to minimize the discharge of pollutants.

When new BMPs are installed or BMPs are replaced, the SWMP must be updated in accordance with Part I.D.5(c).

9. **Reporting**

No scheduled reporting requirements are included in this permit; however, the Division reserves the right to request that a copy of the inspection reports be submitted.

10. **SWMP Availability**

A copy of the SWMP shall be provided upon request to the Division, EPA, or any local agency in charge of approving sediment and erosion plans, grading plans or stormwater management plans, and within the time frame specified in the request. If the SWMP is required to be submitted to any of these entities, it must include a signed certification in accordance with Part I.F.1 of the permit, certifying that the SWMP is complete and meets all permit requirements.

All SWMPs required under this permit are considered reports that shall be available to the public under Section 308(b) of the CWA and Section 61.5(4) of the Colorado Discharge Permit System Regulations. The permittee shall 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.

11. **Total Maximum Daily Load (TMDL)**

If a TMDL has been approved for any waterbody into which the permittee discharges, and stormwater discharges associated with construction activity have been assigned a pollutant-specific Wasteload Allocation (WLA) under the TMDL, the Division will either:

- a) Ensure that the WLA is being implemented properly through alternative local requirements, such as by a municipal stormwater permit; or
- b) Notify the permittee of the WLA, and amend the permittee's certification to add specific BMPs and/or other requirements, as appropriate. The permittee may be required to do the following:
 - 1) Under the permittee's SWMP, implement specific management practices based on requirements of the WLA, and evaluate whether the requirements are being met through implementation of existing stormwater BMPs or if additional BMPs are necessary. Document the calculations or other evidence that show that the requirements are expected to be met; and
 - 2) If the evaluation shows that additional or modified BMPs are necessary, describe the type and schedule for the BMP additions/revisions.

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.

E. ADDITIONAL DEFINITIONS

For the purposes of this permit:

1. **Best Management Practices (BMPs):** schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the State. BMPs also include treatment requirements, operating procedures, pollution prevention, and practices to control site runoff, spillage or leaks, waste disposal, or drainage from material storage.
2. **Dedicated asphalt plants and concrete plants:** portable asphalt plants and concrete plants that are located on or adjacent to a construction site and that provide materials only to that specific construction site.
3. **Final stabilization:** when all ground surface 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. For purposes of this permit, establishment of a vegetative cover capable of providing erosion control equivalent to pre-existing conditions at the site will be considered final stabilization.
4. **Municipal separate storm sewer system:** a conveyance or system of conveyances (including: roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains), owned or operated by a State, city, town, county, district, or other public body (created by state law), having jurisdiction over disposal of sewage, industrial waste, stormwater, or other wastes; designed or used for collecting or conveying stormwater.
5. **Operator:** the entity that has day-to-day supervision and control of activities occurring at the construction site. This can be the owner, the developer, the general contractor or the agent of one of these parties, in some circumstances. It is anticipated that at different phases of a construction project, different types of parties may satisfy the definition of 'operator' and that the permit may be transferred as the roles change.
6. **Outfall:** a point source at the point where stormwater leaves the construction site and discharges to a receiving water or a stormwater collection system.
7. **Part of a larger 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.
8. **Point source:** any discernible, confined and discrete conveyance from which pollutants are or may be discharged. Point source discharges of stormwater result from structures which increase the imperviousness of the ground which acts to collect runoff, with runoff being conveyed along the resulting drainage or grading pattern.
9. **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.
10. **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. This definition includes mine drainage.
11. **Receiving Water:** any classified stream segment (including tributaries) in the State of Colorado into which stormwater related to construction activities discharges. This definition includes all water courses, even if they are usually dry, such as borrow ditches, arroyos, and other unnamed waterways.
12. **Significant Materials** include, but are 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 facility is required to report pursuant to section 313 of title III of SARA; fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with stormwater discharge.
13. **Stormwater:** precipitation-induced surface runoff.

F. GENERAL REQUIREMENTS

1. **Signatory Requirements**

- a) All reports required for submittal shall be signed and certified for accuracy by the permittee in accordance with the following criteria:
 - 1) In the case of corporations, by a principal executive officer of at least the level of vice-president or his or her duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge described in the form originates;
 - 2) In the case of a partnership, by a general partner;
 - 3) In the case of a sole proprietorship, by the proprietor;
 - 4) In the case of a municipal, state, or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee, if such representative is responsible for the overall operation of the facility from which the discharge described in the form originates.
- b) **Changes to authorization.** If an authorization under paragraph a) of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph a) of this section must be submitted to the Division, prior to or together with any reports, information, or applications to be signed by an authorized representative.
- c) **Certification.** Any person signing a document under paragraph a) of this section shall 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.”

2. **Retention of Records**

- a) The permittee shall retain copies of the SWMP and all reports required by this permit and records of all data used to complete the application to be covered by this permit, for three years after expiration or inactivation of permit coverage.
- b) The permittee shall retain a copy of the SWMP required by this permit at the construction site from the date of project initiation to the date of expiration or inactivation of permit coverage, unless another location, specified by the permittee, is approved by the Division.

3. **Monitoring**

The Division reserves the right to require sampling and testing, on a case-by-case basis (see Part I.D.1.e), for example to implement the provisions of a TMDL (see Part I.D.11 of the permit). Reporting procedures for any monitoring data collected will be included in the notification by the Division of monitoring requirements.

If monitoring is required, the following definitions apply:

- a) The **thirty (30) day average** shall be determined by the arithmetic mean of all samples collected during a thirty (30) consecutive-day period.
- b) A **grab** sample, for monitoring requirements, is a single “dip and take” sample.

PART II

A. MANAGEMENT REQUIREMENTS

1. Amending a Permit Certification

The permittee shall inform the Division (Permits Section) in writing of changes to the information provided in the permit application, including the legal contact, the project legal description or map originally submitted with the application, or the planned total disturbed acreage. The permittee shall furnish the Division with any plans and specifications which the Division deems reasonably necessary to evaluate the effect on the discharge and receiving stream. If applicable, this notification may be accomplished through submittal of an application for a CDPS process water permit authorizing the discharge. The SWMP shall be updated and implemented prior to the changes (see Part I.D.5.c).

Any discharge to the waters of the State from a point source other than specifically authorized by this permit or a different CDPS permit is prohibited.

2. Special Notifications - Definitions

- a) **Spill:** An unintentional release of solid or liquid material which may cause pollution of state waters.
- b) **Upset:** An exceptional incident in which there is unintentional and temporary noncompliance with permit discharge 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.

3. Noncompliance Notification

- a) The permittee shall report the following instances of noncompliance:
 - 1) Any noncompliance which may endanger health or the environment;
 - 2) Any spill or discharge of hazardous substances or oil which may cause pollution of the waters of the state.
 - 3) Any discharge of stormwater which may cause an exceedance of a water quality standard.
- b) For all instances of noncompliance based on environmental hazards and chemical spills and releases, all needed information must be provided orally to the Colorado Department of Public Health and Environment spill reporting line (24-hour number for environmental hazards and chemical spills and releases: 1-877-518-5608) within 24 hours from the time the permittee becomes aware of the circumstances.

For all other instances of noncompliance as defined in this section, all needed information must be provided orally to the Water Quality Control Division within 24 hours from the time the permittee becomes aware of the circumstances.

For all instances of noncompliance identified here, a written submission shall also be provided within 5 calendar days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of:

- 1) The noncompliance and its cause;
- 2) The period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue;
- 3) Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

A. MANAGEMENT REQUIREMENTS (cont.)

4. **Submission of Incorrect or Incomplete Information**

Where the permittee failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or report to the Division, or relevant new information becomes available, the permittee shall promptly submit the relevant application information which was not submitted or any additional information needed to correct any erroneous information previously submitted.

5. **Bypass**

- a) A bypass, which causes effluent limitations (i.e., requirements to implement BMPs in accordance with Parts I.B.3 and I.D.2 of the permit) to be exceeded is prohibited, and the Division may take enforcement action against a permittee for such a bypass, unless:
 - 1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - 2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities (e.g., alternative BMPs), retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if the permittee could have installed adequate backup equipment (e.g., implemented additional BMPs) to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and
 - 3) The permittee submitted notices as required in "Non-Compliance Notification," Part II.A.3.

6. **Upsets**

- a) **Effect of an Upset:** An upset constitutes an affirmative defense to an action brought for noncompliance with permit limitations and requirements if the requirements of paragraph b of this section 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.)
- b) **Conditions Necessary for a Demonstration of 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:
 - 1) An upset occurred and that the permittee can identify the specific cause(s) of the upset;
 - 2) The permitted facility was at the time being properly operated;
 - 3) The permittee submitted notice of the upset as required in Part II.A.3. of this permit (24-hour notice); and
 - 4) The permittee complied with any remedial measures required under 40 CFR Section 122.41(d) of the federal regulations or Section 61.8(3)(h) of the Colorado Discharge Permit System Regulations.
- c) **Burden of Proof:** In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

7. **Removed Substances**

Solids, sludges, or other pollutants removed in the course of treatment or control of discharges shall be properly disposed of in a manner such as to prevent any pollutant from such materials from entering waters of the State.

8. **Minimization of Adverse Impact**

The permittee shall take all reasonable steps to minimize any adverse impact to waters of the State resulting from noncompliance with any terms and conditions specified in this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

A. MANAGEMENT REQUIREMENTS (cont.)

9. **Reduction, Loss, or Failure of Stormwater Controls**

The permittee has the duty to halt or reduce any activity if necessary to maintain compliance with the permit requirements. Upon reduction, loss, or failure of any stormwater controls, the permittee shall, to the extent necessary to maintain compliance with its permit, control production, or remove all pollutant sources from exposure to stormwater, or both, until the stormwater controls are restored or an alternative method of treatment/control is provided.

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.

10. **Proper Operation and Maintenance**

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

B. RESPONSIBILITIES

1. **Inspections and Right to Entry**

The permittee shall allow the Director of the State Water Quality Control Division, the EPA Regional Administrator, and/or their authorized representative(s), upon the presentation of credentials:

- a) 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;
- b) At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit and to inspect any monitoring equipment or monitoring method required in the permit; and
- c) To enter upon the permittee's premises to investigate, within reason, any actual, suspected, or potential source of water pollution, or any violation of the Colorado Water Quality Control Act. The investigation may include, but is not limited to, the following: sampling of any discharge and/or process waters, the taking of photographs, interviewing permittee staff on alleged violations and other matters related to the permit, and access to any and all facilities or areas within the permittee's premises that may have any effect on the discharge, permit, or any alleged violation.

2. **Duty to Provide Information**

The permittee shall furnish to the Division, within the time frame specified by the Division, any information which the Division may request to determine whether cause exists for modifying, revoking and reissuing, or inactivating coverage under 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.

3. **Transfer of Ownership or Control**

Certification under this permit may be transferred to a new permittee if:

- a) The current permittee notifies the Division in writing when the transfer is desired as outlined in Part I.A.7; and
- b) The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage and liability between them; and
- c) The current permittee has met all fee requirements of the Colorado Discharge Permit System Regulations, Section 61.15.

B. RESPONSIBILITIES (cont.)

4. **Modification, Suspension, or Revocation of Permit By Division**

All permit modification, inactivation or revocation and reissuance actions shall be subject to the requirements of the Colorado Discharge Permit System Regulations, Sections 61.5(2), 61.5(3), 61.7 and 61.15, 5 C.C.R. 1002-61, except for minor modifications.

- a) This permit, and/or certification under this permit, may be modified, suspended, or revoked in whole or in part during its term for reasons determined by the Division including, but not limited to, the following:
 - 1) Violation of any terms or conditions of the permit;
 - 2) Obtaining a permit by misrepresentation or failing to disclose any fact which is material to the granting or denial of a permit or to the establishment of terms or conditions of the permit;
 - 3) Materially false or inaccurate statements or information in the application for the permit;
 - 4) Promulgation of toxic effluent standards or prohibitions (including any schedule of compliance specified in such effluent standard or prohibition) which are established under Section 307 of the Clean Water Act, where such a toxic pollutant is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit.
- b) This permit, and/or certification under this permit, may be modified in whole or in part due to a change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge, such as:
 - 1) Promulgation of Water Quality Standards applicable to waters affected by the permitted discharge; or
 - 2) Effluent limitations or other requirements applicable pursuant to the State Act or federal requirements; or
 - 3) Control regulations promulgated; or
 - 4) Other available information indicates a potential for violation of adopted Water Quality Standards or stream classifications.
- c) This permit, or certification under this permit, may be modified in whole or in part to include new effluent limitations and other appropriate permit conditions where data submitted pursuant to Part I indicate that such effluent limitations and permit conditions are necessary to ensure compliance with applicable water quality standards and protection of classified uses.
- d) At the request of the permittee, the Division may modify or inactivate certification under this permit if the following conditions are met:
 - 1) In the case of inactivation, the permittee notifies the Division of its intent to inactivate the certification, and certifies that the site has been finally stabilized;
 - 2) In the case of inactivation, the permittee has ceased any and all discharges to state waters and demonstrates to the Division there is no probability of further uncontrolled discharge(s) which may affect waters of the State.
 - 3) The Division finds that the permittee has shown reasonable grounds consistent with the Federal and State statutes and regulations for such modification, amendment or inactivation;
 - 4) Fee requirements of Section 61.15 of the Colorado Discharge Permit System Regulations have been met; and
 - 5) Applicable requirements of public notice have been met.

For small construction sites covered by a Qualifying Local Program, coverage under this permit is automatically terminated when a site has been finally stabilized.

B. RESPONSIBILITIES (cont.)

5. **Permit Violations**

Failure to comply with any terms and/or conditions of this permit shall be a violation of this permit.

Dischargers of stormwater associated with industrial activity, as defined in the EPA Stormwater Regulation (40 CFR 122.26(b)(14) and Section 61.3(2) of the Colorado Discharge Permit System Regulations, which do not obtain coverage under this or other Colorado general permits, or under an individual CDPS permit regulating industrial stormwater, will be in violation of the federal Clean Water Act and the Colorado Water Quality Control Act, 25-8-101, as amended. Failure to comply with CDPS permit requirements will also constitute a violation.

6. **Legal Responsibilities**

The issuance of this permit does not convey any property or water rights in either real or personal property, or stream flows, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

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 established pursuant to any applicable State law or regulation under authority granted by Section 510 of the Clean Water Act.

7. **Severability**

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

8. **Renewal Application**

If the permittee desires to continue to discharge, a permit renewal application shall be submitted at least ninety (90) days before this permit expires. If the permittee anticipates that there will be no discharge after the expiration date of this permit, the Division should be promptly notified so that it can inactivate the certification in accordance with Part II.B.4.d.

9. **Confidentiality**

Except for data determined to be confidential under Section 308 of the Federal Clean Water Act and Colorado Discharge Permit System Regulations, Section 61.5(4), all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Division. The permittee must state what is confidential at the time of submittal.

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 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.

10. **Fees**

The permittee is required to submit payment of an annual fee as set forth in the Water Quality Control Act. 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.

B. RESPONSIBILITIES (cont.)

11. **Requiring an Individual CDPS Permit**

The Director may require the permittee to apply for and obtain an individual or alternate general CDPS permit if:

- a) The discharger is not in compliance with the conditions of this general permit;
- b) Conditions or standards have changed so that the discharge no longer qualifies for a general permit; or
- c) Data/information become available which indicate water quality standards may be violated.

The permittee must be notified in writing that an application for an individual or alternate general CDPS permit is required. When an individual or alternate general CDPS permit is issued to an operator otherwise covered under this general permit, the applicability of this general permit to that operator is automatically inactivated upon the effective date of the individual or alternate general CDPS permit.

RATIONALE

STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY

GENERAL PERMIT IN COLORADO THIRD RENEWAL COLORADO DISCHARGE PERMIT NUMBER COR-030000

	CONTENTS	PAGE
I.	<i>Introduction</i>	<i>1</i>
II.	<i>Changes in this General Permit</i>	<i>1</i>
III.	<i>Background</i>	<i>8</i>
IV.	<i>Stormwater Discharges Associated with Construction Activity</i>	<i>9</i>
V.	<i>Coverage Under this Permit</i>	<i>10</i>
VI.	<i>Application and Certification</i>	<i>10</i>
VII.	<i>Qualifying Local Programs</i>	<i>11</i>
VIII.	<i>Terms and Conditions of Permit</i>	<i>11</i>
IX.	<i>Public Notice – 12/22/06</i>	<i>15</i>
X.	<i>Public Notice – 3/23/07</i>	<i>15</i>

I. INTRODUCTION

This permit is for the regulation of stormwater runoff from construction activities, and specific allowable non-stormwater discharges in accordance with Part I.D.3 of the permit. The term "construction activity" includes ground surface disturbing activities, including, but not limited to, clearing, grading, excavation, demolition, installation of new or improved haul and access roads, staging areas, stockpiling of fill materials, and borrow areas. "Stormwater" is precipitation-induced surface runoff. This rationale will explain the background of the Stormwater program, activities which are covered under this permit, how to apply for coverage under this permit, and the requirements of this permit.

The forms discussed in the rationale and permit are available on the Water Quality Control Division's website at: www.cdphe.state.co.us/wq/PermitsUnit

II. CHANGES IN THIS GENERAL PERMIT

Several notable changes from the previous General Permit for Construction Activities have been incorporated into this permit. Significant changes are listed below. Numerous other minor changes were made for clarification purposes only.

A. Authority to Discharge

This section has been restructured to list all of the types of activities covered by this permit, and to be consistent with the definition of "construction activity." The definition of construction activity has been expanded to provide clarification. See Part I.A.1 of the permit.

II. CHANGES IN THIS GENERAL PERMIT (cont.)

B. Authority to Discharge – Oil and Gas Construction

This section has been added, to take into account a regulatory change. The federal Energy Policy Act of 2005 exempts nearly all oil and gas construction activities from federal requirements under the Clean Water Act's NPDES stormwater discharge permit program. In January 2006, the Colorado Water Quality Control Commission held a hearing to determine what effects, if any, the change in federal law would have upon Colorado's stormwater regulations. The Commission determined that oil and gas construction sites in Colorado that disturb one or more acres are still required to be covered under Colorado's stormwater permitting regulations (Colorado Discharge Permit System (CDPS) regulations (5CCR 1002-61)). In practice, oil and gas construction sites have the same requirements under this permit as do other types of construction. However, this permit contains some references to the federal Clean Water Act; generally these references are not applicable to oil and gas construction sites to the extent that the references are limited by the federal Energy Policy Act of 2005. See Part I.A.1(b) of the permit.

C. Application Requirements

The permit application requirements have changed slightly, including the addition of an email address, if available. See Part I.A.4(b).

The applicant must be either the owner and/or operator of the construction site. An operator at a construction site that is not covered by a certification held by an appropriate entity may be held liable for operating without the necessary permit coverage.

D. Temporary Coverage

Part I.A.5(d) of the previous permit (effective July 1, 2002) dealt with temporarily covering a facility under the general permit even if an individual permit is more appropriate. This permit section essentially duplicated the previous section (see Part I.A.5(c)), and so it has been deleted.

E. Reassignment of Permit Coverage

Procedures have been added to clarify the requirements for the transfer of coverage of specific portions of a permitted site to a second party. See Section VIII.I.3 of the rationale and Part I.A.8 of the permit.

F. Individual Permit Criteria

This section has been modified to include situations involving a Total Maximum Daily Load (TMDL). See Part I.A.11 of the permit.

G. Stormwater Management Plan (SWMP)

The Stormwater Management Plan section has been divided into two parts: Stormwater Management Plan (SWMP) – General Requirements, which provides the basic framework and general requirements for the SWMP, and Stormwater Management Plan (SWMP) – Contents, which specifically identifies each item that must be addressed in the SWMP. See Parts I.B and I.C of the permit.

H. Stormwater Management Plan (SWMP) – General Requirements

The SWMP General Requirements section has been modified to require that the SWMP be updated in accordance with Parts I.D.5(c) and I.D.5(d) of the permit (SWMP Review/Changes). This additional requirement ensures that the SWMP provisions reflect current site conditions. See Part I.B.2(c) of the permit.

II. CHANGES IN THIS GENERAL PERMIT (cont.)

I. Stormwater Management Plan (SWMP) – Contents

The SWMP Contents section has been modified. Some of the changes are limited to organization of information, which does not require modification of an existing permittee's current SWMP. Most of the SWMP changes involve either clarifications, reformatting, or taking recommendations from the Division's SWMP guide and making them permit requirements (e.g., vehicle tracking controls, BMP installation specifications). If an **existing permittee (i.e., those with permit coverage before June 30, 2007)** followed the recommendations in the SWMP guide (Appendix A of the permit application), then their SWMP will presumably meet the new requirements. However, for any existing permittees who did not follow the applicable SWMP guide recommendations, their SWMP must be amended to include the new required items:

-SWMP Administrator

-Identification of potential pollutant sources

-Best Management Practices descriptions and installation specifications, including dedicated concrete or asphalt batch plants; vehicle tracking control; and waste management and disposal (including concrete washout activities).

For existing permittees, any SWMP changes based on the change in permit requirements must be completed by **October 1, 2007**. The plan is not to be submitted to the Division unless requested, but must be available on site as outlined in Part I.D.5(b) of the permit.

The BMP requirement clarifications included in this renewed permit in no way imply that adequate BMPs to address all pollutant sources at a permitted site were not required in previous permits. The revised requirements are intended only to better clarify SWMP content requirements and provide improved direction to permittees.

The SWMP changes are listed below. All new applicants (after June 30, 2007) for permit coverage for their sites must fully comply with the new SWMP organization, plan requirements, and implementation.

1. **Site Description:** The requirement to provide an estimate of the run-off coefficient has been removed. The run-off coefficient as currently utilized in the SWMP may not contribute sufficiently to permit compliance to justify the effort in determining accurate values. See Part I.C.1 of the permit. However, the Division still encourages use of the coefficient as needed to adequately evaluate site-specific BMP selection and design criteria (e.g., pond capacities, BMP location, etc.) See Section C.2 of the SWMP guidance (Appendix A of the permit application).
2. **Site Map:** The requirement to identify boundaries of the 100-year flood plain has been removed. The boundaries as currently utilized in the SWMP may not contribute sufficiently to permit compliance to justify the effort in determining their location. See Part I.C.2 of the permit.
3. **Stormwater Management Controls:** This section has been modified to require identification of a SWMP Administrator and all potential pollutants sources in the SWMP. See Part I.C.3 of the permit.
 - a) The SWMP Administrator is a specific individual(s), position or title who is responsible for the process of developing, implementing, maintaining, and revising the SWMP. This individual serves as the comprehensive point of contact for all aspects of the facility's SWMP. **This requirement may necessitate changes to existing permittees' SWMPs.**

II. CHANGES IN THIS GENERAL PERMIT (cont.)

- b) *The requirement to identify Potential Pollutant Sources has been expanded to include more details for the evaluation of such sources. This evaluation allows for the appropriate selection of BMPs for implementation at a facility or site. Additionally, this section was added to be consistent with the SWMP guide. **This requirement may necessitate changes to existing permittees' SWMPs.***
- c) *Best Management Practices (BMPs) for Stormwater Pollution Prevention: This section was modified to require the following items to be addressed in the SWMP. **These requirements may necessitate changes to existing permittees' SWMPs.** This section also requires that the SWMP provide installation and implementation specifications for each BMP identified in the SWMP. For structural BMPs, in most cases, this must include a technical drawing to provide adequate installation specifications. See Part I.C.3(c).*
 - i) *Dedicated concrete or asphalt batch plants. This section requires that the practices used to reduce the pollutants in stormwater discharges associated with dedicated concrete or asphalt batch plants be identified in the SWMP. (Coverage under the construction site SWMP and permit is not required for batch plants if they have alternate CDPS permit coverage.)*
 - ii) *Vehicle tracking control. This section requires that practices be implemented to control sediment from vehicle tracking, and that all such practices implemented at the site be clearly described in the SWMP.*
 - iii) *Waste management and disposal. This section requires that the practices implemented at the site to control stormwater pollution from construction site waste, including concrete washout activities, be clearly described in the SWMP. It also requires that concrete washout activities be conducted in a manner that does not contribute pollutants to surface waters or stormwater runoff.*
 - iv) *Concrete Washout Water. Part I.D.3(c) of the permit has been revised to conditionally authorize discharges to the ground of concrete wash water from washing of tools and concrete mixer chutes when appropriate BMPs are implemented. The permit prohibits the discharge of concrete washout water to surface waters and to storm sewer systems. Part I.C.3(c)(7) of the permit requires that BMPs be in place to prevent surface discharges of concrete washout water from the site.*

The use of unlined pits to contain concrete washout water is a common practice in Colorado. The Division has further evaluated the need for a permit for discharge of concrete washout water to the ground. The Division has determined that the use of appropriate BMPs for on-site washing of tools and concrete mixer chutes would prevent any significant discharge to groundwater. BMPs to protect groundwater are required by Part I.C.3(c)(7) of the permit. Because pH is a pollutant of concern for washout activities, the soil must have adequate buffering capacity to result in protection of the groundwater standard, or a liner/containment must be used. The following management practices are recommended to prevent an impact from unlined pits to groundwater:

- (1) the use of the washout site should be temporary (less than 1 year), and*
- (2) the washout site should be not be located in an area where shallow groundwater may be present, such as near natural drainages, springs, or wetlands.*

II. CHANGES IN THIS GENERAL PERMIT (cont.)

Where adequate management practices are not followed to protect groundwater quality, the Department may require discharges to unlined pits to cease, or require the entity to obtain alternate regulatory approval through notice from either the Water Quality Control Division or the Hazardous Materials and Waste Management Division.

In addition, Part I.D.1(b) of the permit has been revised to clearly state that the permit does not authorize on-site permanent disposal of concrete washout waste, only temporary containment of concrete washout water from washing of tools and concrete mixer chutes. Upon termination of use of the washout site, accumulated solid waste, including concrete waste and any contaminated soils, must be removed from the site to prevent on-site disposal of solid waste.

- v) *Construction Dewatering. Part I.D.3(d) of the permit has been revised to conditionally authorize discharges to the ground of water from construction dewatering activities when appropriate BMPs are implemented. The permit does not authorize the discharge of groundwater from construction dewatering to surface waters or to storm sewer systems. Part I.C.3(c)(8) of the permit requires that BMPs be in place to prevent surface discharges. The permittee may apply for coverage under a separate CDPS discharge permit, such as the Construction Dewatering general permit, if there is a potential for discharges to surface waters.*

The Division has determined that potential pollutant sources introduced into groundwater from construction dewatering operations do not have a reasonable potential to result in exceedance of groundwater standards when the discharge is to the ground. The primary pollutant of concern in uncontaminated groundwater is sediment. Although technology-based standards for sediment do exist in 5 CCR 1002-41, the discharge of sediment to the ground as part of construction dewatering does not have the reasonable potential to result in transport of sediment to the groundwater table so as to result in an exceedance of those standards.

For a discharge of water contaminated with other pollutants that are present in concentrations that may cause an exceedance of groundwater standards, separate CDPS discharge permit coverage is required. Contaminated groundwater may include that contaminated with pollutants from a landfill, mining activity, industrial pollutant plume, underground storage tank, or other source of human-induced groundwater pollution and exceeding the State groundwater standards in Regulations 5 CCR 1002-41 and 42.

J. Terms and Conditions, General Limitations and Design Standards

This section reiterates the requirement that facilities select, install, implement, and maintain appropriate BMPs, following good engineering, hydrologic and pollution control practices. In addition, requirements for protection of water quality standards (see Part I.D.1.(a) of the permit) and requirements to adequately design BMPs to prevent pollution or degradation of State waters (see Part I.D.2 of the permit) have been revised and are fully discussed in Part III.B of the rationale, below. Additional language was also added to Section III.B of the rationale further clarifying the expectations for compliance with this permit.

1. Management of Site Waste

This section has been modified to clarify that on-site waste must be properly managed to prevent potential pollution of State waters, and that this permit does not authorize on-site waste disposal. Solid waste disposal is regulated by the Hazardous Materials and Waste Management Division.

II. CHANGES IN THIS GENERAL PERMIT (cont.)

K. Terms and Conditions, SWMP Requirements

1. **SWMP Review/Changes:** *This section now requires that when changes are made to site conditions, the SWMP must be revised immediately, except for some BMP description changes which conditionally may occur within 72 hours. This requirement is included to both ensure that the SWMP be kept accurate and up-to-date, and to clarify that stormwater management at a site typically should be proactive instead of responsive, and be integrated into site management to ensure it is calibrated with those changes. The section was also clarified to state that only changes in site conditions that do not require new or modified BMPs do not need to be addressed in the SWMP. See Part I.D.5(c) of the permit.*
2. **SWMP Certification:** *The previous permit was unclear on a requirement that the copy of SWMP that remains at the facility had to be signed in accordance with permit signatory requirements. This requirement has been deleted. The signatory requirement of Part I.F.1 only applies to the SWMP if it is to be submitted to the Division or to EPA. See Part I.F.1 of the permit.*

L. Terms and Conditions, Post-Storm Inspections

The previous permit required post-storm inspections, but did not specify the timing of inspections. This section now requires that post-storm event inspections generally be conducted within 24 hours of the event. An alternative timeline has been allowed, only for sites where there are no construction activities occurring following a storm event. For this condition, post-storm event inspections shall instead be conducted prior to commencing construction activities, but no later than 72 hours following the storm event, and the delay noted in the inspection report.

Any exception from the minimum inspection schedule is temporary, and does not eliminate the requirement to perform routine maintenance due to the effects of a storm event, including maintaining vehicle tracking controls and removing sediment from impervious areas. In many cases, maintenance needs will require a more frequent inspection schedule than the minimum inspections required in the permit, to ensure that BMPs continue to operate as needed to comply with the permit. See Part I.D.6(a) of the permit.

M. Terms and Conditions, Inspections

1. *The Winter Conditions Inspection Exclusion section has been modified to include documentation requirements for this exclusion. See Part I.D.6(a) of the permit. The Inspection Scope has been modified to include the requirement to inspect waste storage areas during inspections conducted in accordance with the permit. See Part I.D.6(b) of the permit.*
2. *The requirements for sites to qualify for reduced inspection frequencies for completed sites have been slightly modified (see Part I.D.6(a)(2) of the permit,). The requirement now is that only construction activities that disturb the ground surface must be completed. Construction activities that can be conducted without disturbance of the ground surface; for example, interior building construction, and some oil well activities, would not prohibit a site from otherwise qualifying for the reduced inspection frequency. In addition, the requirement for the site to be prepared for final stabilization has been slightly modified to allow for sites that have not yet been seeded to qualify, as long as the site has otherwise been prepared for final stabilization, including completion of appropriate soil preparation, amendments and stabilization practice. This will allow for sites with seasonal seeding limitations or where additional seed application may be needed in the future to still qualify.*

II. CHANGES IN THIS GENERAL PERMIT (cont.)

3. *The Inspection Report/Records section (Part I.D.6(b)(2)) was added to clarify requirements for inspection reports generated during an inspection conducted in accordance with Part I.D.6 of the permit. Inspection reports must be signed by the inspector, or the individual verifying the corrective action indicated in the inspection report, on behalf of the permittee. Inspection reports are not typically required to be submitted to the Division, and therefore, are not required to be signed and certified for accuracy in accordance with Part I.F.1 of the permit. However, any inspection reports that are submitted to the Division must follow the signatory requirements contained in that section.*

N. Terms and Conditions, Maintenance, Repair, and Replacement of Control Practices

These sections have been added to clarify requirements for maintaining the BMPs identified in the SWMP and for addressing ineffective or failed BMPs. BMP maintenance and site assessment to determine the overall adequacy of stormwater quality management at the site must occur proactively, in order to ensure adequate control of pollutant sources at the site. In most cases, if BMPs are already not operating effectively, or have failed, the issue must be addressed immediately, to prevent discharge of pollutants. See Parts I.D.7 and I.D.8 of the permit.

O. Total Maximum Daily Load (TMDL)

A section on TMDLs has been added. This section gives a general outline of the additional requirements that may be imposed by the Division if the facility discharges to a waterbody for which a stormwater-related TMDL is in place. See Section VIII.C of the rationale and Part I.D.11 of the permit.

P. Additional Definitions

Part I.E of the permit has been modified to remove the definition of runoff coefficient, as it is no longer a permit requirement. The definition for state waters has also been deleted, but can be found in Regulation 61.

Q. Changes in Discharge

The section on the types of discharge or facility changes that necessitate Division notification has been clarified. See Part II.A.1 of the permit.

R. Non-Compliance Notification

The section on notification to the Division regarding instances of non-compliance has been amended to clarify which types of noncompliance require notification. See Part II.A.3 of the permit.

S. Short Term Certifications

The previous permit allowed small short-term construction activities to be authorized for a predetermined period from 3 to 12 months, and then automatically expire (an inactivation request did not need to be submitted). The issuance of these certifications has led to significant confusion and incidents of noncompliance resulting from permittees unintentionally letting their certifications expire prior to final stabilization, as well as issues regarding billing. Therefore, the provisions for short-term certifications have been deleted.

T. Bypass

The Division has revised the Bypass conditions in Part II.A.5 of the permit to be consistent with the requirements of Regulation 61.8(3)(i). The revised language addresses under what rare occurrences BMPs may be bypassed at a site.

III. BACKGROUND

As required under the Clean Water Act amendments of 1987, the Environmental Protection Agency (EPA) has established a framework for regulating municipal and industrial stormwater discharges. This framework is under the National Pollutant Discharge Elimination System (NPDES) program (Note: The Colorado program is referred to as the Colorado Discharge Permit System, or CDPS, instead of NPDES.) The Water Quality Control Division ("the Division") has stormwater regulations (5CCR 1002-61) in place. These regulations require specific types of industrial facilities that discharge stormwater associated with industrial activity (industrial stormwater), to obtain a CDPS permit for such discharge. The regulations specifically include construction activities that disturb one acre of land or more as industrial facilities. Construction activities that are part of a larger common plan of development which disturb one acre or more over a period of time are also included.

A. General Permits

The Division has determined that the use of general permits is the appropriate procedure for handling most of the thousands of industrial stormwater applications within the State.

B. Permit Requirements

This permit does not impose numeric effluent limits or require submission of effluent monitoring data in the permit application or in the permit itself. The permit instead imposes practice-based effluent limitations for stormwater discharges through the requirement to develop and implement a Stormwater Management Plan (SWMP). The narrative permit requirements include prohibitions against discharges of non-stormwater (e.g., process water). See Part I.D.3 of the permit.

The permit conditions for the SWMP include the requirement for dischargers to select, implement and maintain Best Management Practices (BMPs) at a permitted construction site that adequately minimize pollutants in the discharges to assure compliance with the terms and conditions of the permit. Part I.D.2 of the permit includes basic design standards for BMPs implemented at the site. Facilities must select, install, implement, and maintain appropriate BMPs, following good engineering, hydrologic and pollution control practices. BMPs implemented at the site must be adequately designed to control all potential pollutant sources associated with construction activity to prevent pollution or degradation of State waters. Pollution is defined in CDPS regulations (5CCR 1002-61) as man-made or man-induced, or natural alteration of the physical, chemical, biological, and radiological integrity of water. Utilizing industry-accepted standards for BMP selection that are appropriate for the conditions and pollutant sources present will typically be adequate to meet these criteria, since construction BMPs are intended to prevent the discharge of all but minimal amounts of sediment or other pollutants that would not result in actual pollution of State waters, as defined above. However, site-specific design, including ongoing assessment of BMPs and pollutant sources, is necessary to ensure that BMPs operate as intended.

The permit further requires that stormwater discharges from construction activities shall not cause, have the reasonable potential to cause, or measurably contribute to an excursion above any water quality standard, including narrative standards for water quality. This condition is the basis for all CDPS Discharge permits, and addresses the need to ensure that waters of the State maintain adequate water quality, in accordance with water quality standards, to continue to meet their designated uses. It is believed that, in most cases, BMPs can be adequate to meet applicable water quality standards. If water quality impacts are noted, or the Division otherwise determines that additional permit requirements are necessary, they are typically imposed as follows: 1) at the renewal of this general permit or through a general permit specific to an industrial sector (if the issue is sector-based); 2) through direction from the Division based on the implementation of a TMDL (if the issue is watershed-based); or 3) if the issue is site-specific, through a revision to the certification from the Division based on an inspection or SWMP review, or through an individual permit.

III. BACKGROUND (cont.)

Some construction sites may be required to comply with a Qualifying Local Program in place of meeting several of the specific requirements in this permit. Sites covered by a Qualifying Local Program may not be required to submit an application for coverage or a notice of inactivation and may not be required to pay the Division's annual fee. See Section VII of the rationale.

C. Violations/Penalties

Dischargers of stormwater associated with industrial activity, as defined in the CDPS regulations (5CCR 1002-61), that do not obtain coverage under this or other Colorado general permits, or under an individual CDPS permit regulating industrial stormwater, will be in violation of the Federal Clean Water Act and the Colorado Water Quality Control Act, 25-8-101. For facilities covered under a CDPS permit, failure to comply with any CDPS permit requirement constitutes a violation. As of the time of permit issuance, civil penalties for violations of the Act or CDPS permit requirements may be up to \$10,000 per day, and criminal pollution of state waters is punishable by fines of up to \$25,000 per day.

IV. STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY

The stormwater regulations (CDPS regulations (5CCR 1002-61)), require that stormwater discharges associated with certain industrial activities be covered under the permit program. Construction activity that disturbs one acre or more during the life of the project is specifically included in the listed industrial activities. This permit is intended to cover most stormwater discharges from construction facilities required by State regulation to obtain a permit.

A. Construction Activity

Construction activity includes ground surface disturbing activities including, but not limited to, clearing, grading, excavation, demolition, installation of new or improved haul and access roads, staging areas, stockpiling of fill materials, and dedicated borrow/fill areas. Construction does not include routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of the facility. (The maintenance exclusion is intended for projects such as road resurfacing, and where there will be less than one acre of additional ground disturbed. Improvements or upgrades to existing facilities or roads, where at least one acre is disturbed, would not qualify as "routine maintenance.")

Definitions of additional terms can be found in Part I.E of the permit.

Stormwater discharges from all construction activity require permit coverage, except for operations that result in the disturbance of less than one acre of total land area and which are not part of a larger common plan of development or sale. A "larger common plan of development or sale" is a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules.

B. Types of Discharges/Activities Covered

1. **Stormwater:** *This permit is intended to cover most new or existing discharges composed **entirely** of stormwater from construction activities that are required by State regulation to obtain a permit. This includes stormwater discharges associated with areas that are dedicated to producing earthen materials, such as soils, sand, and gravel, for use at a single construction site. These areas may be located at the construction site or at some other location. This permit does not authorize the discharge of mine water or process water from borrow areas. This permit may also cover stormwater discharges associated with dedicated asphalt plants and concrete plants located at a specific construction site.*

IV. *STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY (cont.)*

2. **Process water:** *Under certain restrictions, discharges to the ground from construction dewatering, and from concrete washout activities, are also covered (see Parts I.C.3(c)(7), I.C.3(c)(8), I.D.3(c) and I.D.3(d) of the permit).*

C. *Types of Activities NOT Covered*

1. **Stormwater:** *Aside from the sources listed in subparagraph B.1, above, this permit does not cover stormwater discharged from construction sites that is mixed with stormwater from other types of industrial activities, or process water of any kind. Other types of industrial activities that require stormwater discharge permits pursuant to different sections of the regulations (Regulation 5 CCR 1002-61, Section 61.2(e)(iii)(A-I, K)], are not covered by this permit.*
2. **Process water:** *This permit also does not cover any discharge of process water to surface waters. If the construction activity encounters groundwater, in order to discharge this groundwater to surface waters, a Construction Dewatering Discharge Permit (permit number COG-070000) must also be obtained. An application for this permit can be obtained from the Division at the address listed in Part I.A.4(a) of the permit, or at the website in Section I of the rationale.*

V. *COVERAGE UNDER THIS GENERAL PERMIT*

Under this general permit, owners or operators of stormwater discharges associated with construction activity may be granted authorization to discharge stormwater into waters of the State of Colorado. This includes stormwater discharges associated with industrial activity from areas that are dedicated to producing earthen materials, such as soils, sand and gravel, for use at a single construction site, and dedicated asphalt plants and dedicated concrete plants.

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

Authorization to discharge under the permit requires submittal of a completed application form and a certification that the SWMP is complete, unless the site is covered by a Qualifying Local Program. Upon receipt of all required information, the Division may allow or disallow coverage under the general permit.

VI. *APPLICATION AND CERTIFICATION*

*At least **ten days** prior to the commencement of construction activities, the owner or operator of the construction site shall submit an original completed application which includes the signed certification that the SWMP is complete. Original signatures are required for the application to be considered complete. For small construction sites only, if the site is covered by a Qualifying Local Program (see below), submittal of an application is not required.*

For the purposes of this permit, the “operator” is the person who has day-to-day control over the project. This can be the owner, the developer, the general contractor or the agent of one of these parties, in some circumstances. At different times during a construction project, different types of parties may satisfy the definition of “operator” and the certification may be transferred as roles change.

(Note - Under the Federal regulations, this application process is referred to as a Notice of Intent, or NOI. For internal consistency with its current program, the Division will continue to use the term “application.”) A summary of the permit application requirements is found in the permit at Part I.A.4(b).

If coverage under this general permit is appropriate, then a certification will be developed and the applicant will be certified under this general permit.

VII. QUALIFYING LOCAL PROGRAMS

For stormwater discharges associated with small construction activity (i.e., one to five acre disturbed area sites), the permit includes conditions that incorporate approved qualifying local erosion and sediment control program (Qualifying Local Program) requirements by reference. A Qualifying Local Program is a municipal stormwater program for stormwater discharges associated with small construction activity that has been formally approved by the Division. The requirements for Qualifying Local Programs are outlined in Part 61.8(12) of the Colorado Discharger Permit System Regulations (also see the Division's "Qualifying Local Programs for Small Construction Sites - Application Guidance"). Such programs must impose requirements to protect water quality that are at least as stringent as those required in this permit.

A. Approval Termination

A Qualifying Local Program may be terminated by either the Division or the municipality. Upon termination of Division approval of a Qualifying Local Program, any small construction activity required to obtain permit coverage under Section 61.3(2)(h) of the CDPS regulations (5CCR 1002-61), shall submit an application form as provided by the Division, with a certification that the Stormwater Management Plan (SWMP) is complete as required by Part I.A.3 of the permit, within 30 days of Division notification.

B. Approval Expiration

Division approval of a Qualifying Local Program will expire with this general permit on June 30, 2012. Any municipality desiring to continue Division approval of their program must reapply by March 31, 2012. The Division will determine if the program may continue as a approved Qualifying Local Program.

VIII. TERMS AND CONDITIONS OF PERMIT

A. Coverage under a Qualifying Local Program – For Small Construction Sites Only

For small construction sites (disturbing less than 5 acres) covered under a Qualifying Local Program (see Section VII, above), only certain permit requirements apply, as outlined below. The local program must have been formally designated by the Division to qualify. Most municipalities have some type of local program and may require permits and fees. However, simply having a program in place does not necessarily mean that it is a qualifying program and that a State permit is not required. The local municipality is responsible for notifying operators and/or owners that they are covered by a Qualifying Local Program. As of May 31, 2007, the only approved Qualifying Local Programs within the state are for Golden, Durango and Lakewood. An updated list of municipalities with Qualifying Local Programs, including contact information, is available on the Division's website at: <http://www.cdphe.state.co.us/wq/PermitsUnit/stormwater/construction.html>.

The Division reserves the right to require any construction owner or operator within the jurisdiction of a Qualifying Local Program covered under this permit to apply for and obtain coverage under the full requirements of this permit.

1. **Permit Coverage:** *If a construction site is within the jurisdiction of a Qualifying Local Program, the owner or operator of the construction activity is authorized to discharge stormwater associated with small construction activity under this general permit **without** the submittal of an application to the Division. The permittee also is not required to submit an inactivation notice or payment of an annual fee to the Division.*

VIII. TERMS AND CONDITIONS OF PERMIT (cont.)

2. **Permit Terms and Conditions:** *The permittee covered by a Qualifying Local Program must comply with the requirements of that Qualifying Local Program. In addition, the following permit sections are applicable:*
- a) *Parts 1.A.1, 1.A.2, and 1.A.3: Authorization to discharge and discussion of coverage under the permit.*
 - b) *Part I.D.1: General limitations that must be met in addition to local requirements.*
 - c) *Parts I.D.2, I.D.3, I.D.4: BMP implementation, prohibition of non-stormwater discharges unless addressed in a separate CDPS permit, and requirements related to releases of reportable quantities.*
 - d) *Part I.D.11: Potential coverage under a Total Maximum Daily Load (TMDL).*
 - e) *Part I.E: Additional definitions.*
 - f) *Part II (except for Parts II.A.1, II.B.3, II.B.8, and II.B.10): Specifically includes, but is not limited to, provisions applicable in the case of noncompliance with permit requirements, and requirements to provide information and access.*

B. Stormwater Management Plans (SWMPs)

Prior to commencement of construction, a stormwater management plan (SWMP) shall be developed and implemented for each facility covered by this permit. A certification that the SWMP is complete must be submitted with the permit application. The SWMP shall identify potential sources of pollution (including sediment) which may reasonably be expected to affect the quality of stormwater discharges associated with construction activity from the facility. In addition, the plan shall describe the Best Management Practices (BMPs) which will be used to reduce the pollutants in stormwater discharges from the construction site. (Note that permanent stormwater controls, such as ponds, that are used as temporary construction BMPs must be adequately covered in the SWMP.) Facilities must implement the provisions of their SWMP as a condition of this permit. The SWMP shall include the following items:

- 1. *Site Description*
- 2. *Site Map*
- 3. *Stormwater Management Controls*
- 4. *Long-term Stormwater Management*
- 5. *Inspection and Maintenance*

(See Parts I.B. and I.C of the permit for a more detailed description of SWMP requirements.) The Division has a guidance document available on preparing a SWMP. The document is included as Appendix A of the permit application, and is available on the Division's website at www.cdphe.state.co.us/wq/PermitsUnit.

Some changes have been made to the SWMP requirements. See Section II.I of the rationale for a discussion on permittee responsibilities regarding those changes.

VIII. TERMS AND CONDITIONS OF PERMIT (cont.)

Master SWMP

Often, a large construction project will involve multiple smaller construction sites that are within a common plan of development, or multiple well pads under construction within an oil and gas well field. Pollutant sources and the types of BMPs used can be relatively consistent in such cases. A permittee could significantly streamline the SWMP development process through the use of a master SWMP. SWMP information must be developed and maintained for all construction activities that exceed one acre (or are part of a common plan of development exceeding one acre) conducted within the permitted area. By developing a single master plan, the permittee can eliminate the need to develop repetitive information in separate plans. Such a plan could include two sections, one containing a reference section with information applicable to all sites (e.g., installation details and maintenance requirements for many standard BMPs, such as silt fence and erosion blankets), and the second containing all of the information specific to each site (e.g., site BMP map, drainage plans, details for BMPs requiring site specific design, such as retention ponds).

As new activities begin, information required in the SWMP is added to the plan, and as areas become finally stabilized, the related information is removed. Records of information related to areas that have been finally stabilized that are removed from the active plan must be maintained for a period of at least three years from the date that the associated site is finally stabilized.

C. Total Maximum Daily Load (TMDL)

If the designated use of a stream or water body has been impaired by the presence of a pollutant(s), development of a Total Maximum Daily Load (TMDL) may be required. A TMDL is an estimate of allowable loading in the waterbody for the pollutant in question. Types of discharges that are or have the potential to be a significant source of the pollutant are also identified. If a TMDL has been approved for any waterbody into which the permittee discharges, and stormwater discharges associated with construction activity have been assigned a pollutant-specific Wasteload Allocation (WLA) under the TMDL, the Division will either:

- 1. Notify the permittee of the TMDL, and amend the permittee's certification to add specific BMPs and/or other requirements, as appropriate; or*
- 2. Ensure that the TMDL is being implemented properly through alternative local requirements, such as by a municipal stormwater permit. (The only current example of this is the Cherry Creek Reservoir Control Regulation (72.0), which mandates that municipalities within the basin require specific BMPs for construction sites.)*

See Part I.D.11 of the permit for further information.

D. Monitoring

Sampling and testing of stormwater for specific parameters is not required on a routine basis under this permit. However, the Division reserves the right to require sampling and testing on a case-by-case basis, in the event that there is reason to suspect that compliance with the SWMP is a problem, or to measure the effectiveness of the BMPs in removing pollutants in the effluent. See Part I.D.1(e) of the permit.

E. Facility Inspections

Construction sites typically must inspect their stormwater management controls at least every 14 days and within 24 hours after the end of any precipitation or snowmelt event that causes surface erosion. At sites or portions of sites where ground-disturbing construction has been completed but a vegetative cover has not been established, these inspections must occur at least once per month. (At sites where persistent snow cover conditions exist, inspections are not required during the period that melting conditions do not exist. These

VIII. TERMS AND CONDITIONS OF PERMIT (cont.)

conditions are only expected to occur at high elevations within the Colorado mountains.) For all of these inspections, records must be kept on file. Exceptions to the inspection requirements are detailed in Part I.D.6 of the permit.

F. SWMP Revisions

The permittee shall amend the SWMP whenever there is a change in design, construction, operation, or maintenance of the site, which would require the implementation of new or revised BMPs. The SWMP shall also be amended if it proves to be ineffective in achieving the general objectives of controlling pollutants in stormwater discharges associated with construction activity. The timing for completion of SWMP changes is detailed in Parts I.D.5(c) and I.D.5(d) of the permit.

SWMP revisions shall be made prior to change in the field, or in accordance with Part I.D.5(d) of the permit.

G. Reporting

The inspection record shall be made available to the Division upon request. Regular submittal of an annual report is not required in this permit. See Part I.D.9 of the permit.

H. Annual Fee

The permittee is required to submit payment of an annual fee as set forth in the Water Quality Control Act. Permittees will be billed for the initial permit fee within a few weeks of permit issuance and then annually, based on a July 1 through June 30 billing cycle.

I. Responsibility for Permit

*The permit certification for a site may be inactivated, once coverage is no longer needed. The certification may be transferred, if another party is assuming responsibility for the entire area covered by the certification. In addition, permit responsibility for **part** of the area covered by the certification may be reassigned to another party. These actions are summarized below. The Stormwater Program construction fact sheet explains these actions in further detail under the section on Multiple Owner/Developer Sites, and is available on the Division website at*

<http://www.cdphe.state.co.us/wq/PermitsUnit/stormwater/ConstFactSheet.PDF>, Section F.

1. **Inactivation Notice:** *When a site has been finally stabilized in accordance with the SWMP, the permittee shall submit an **Inactivation Notice** that is signed in accordance with Part I.F.1 of the permit. A summary of the Inactivation Notice content is described in Part I.A.6 of the permit. A copy of the Inactivation Notice form will be mailed to the permittee along with the permit certification. Additional copies are available from the Division.*

For sites where all areas have been removed from permit coverage, the permittee may submit an inactivation notice and terminate permit coverage. In such cases the permittee would no longer have any land covered under their permit certification, and therefore there would be no areas remaining to finally stabilize. Areas may be removed from permit coverage by:

- reassignment of permit coverage (Part I.A.8 of the permit);*
- sale to homeowner(s) (Part I.A.9 of the permit); or*
- amendment by the permittee, in accordance with Division guidance for areas where permit coverage has been obtained by a new operator or returned to agricultural use.*

VIII. TERMS AND CONDITIONS OF PERMIT (cont.)

2. **Transfer of Permit:** When responsibility for stormwater discharges for an *entire* construction site changes from one individual to another, the permit shall be transferred in accordance with Part I.A.7 of the permit. The permittee shall submit a completed **Notice of Transfer form**, which is available from the Division, and at www.cdphe.state.co.us/wq/PermitsUnit. If the new responsible party will not complete the transfer form, the permit may be inactivated if the permittee has no legal responsibility, through ownership or contract, for the construction activities at the site. In this case, the new owner or operator would be required to obtain permit coverage separately.
3. **Reassignment of Permit:** When a permittee no longer has control of a specific portion of a permitted site, and wishes to transfer coverage of that portion of the site to a second party, the permittee shall submit a completed **Notice of Reassignment of Permit Coverage form**, which is available from the Division, and at www.cdphe.state.co.us/wq/PermitsUnit. The form requires that both the existing permittee and new permittee complete their respective sections. See Part I.A.8 of the permit.

J. Duration of Permit

The general permit will expire on June 30, 2012. The permittee's authority to discharge under this permit is approved until the expiration date of the general permit. Any permittee desiring continued coverage under the general permit past the expiration date must apply for recertification under the general permit at least 90 days prior to its expiration date.

Kathleen Rosow
December 18, 2006

IX. PUBLIC NOTICE – 12/22/06

The permit was sent to public notice on December 22, 2006. A public meeting was requested, and was held on February 2, 2007. Numerous comments were received on the draft permit. Responses to those comments, and a summary of changes made to the draft permit, are in a separate document entitled "Division Response To Public Comments." The permit will be sent to a second public notice on March 23, 2007. Any changes resulting from the second public notice will be summarized in the rationale.

Kathleen Rosow
March 22, 2007

X. PUBLIC NOTICE – 3/23/07

The permit was sent to public notice for a second time on March 23, 2007. Numerous comments were received on the second draft permit. Responses to those comments, and a summary of the additional changes made to the draft permit, are contained in a separate document entitled "Division Response To Public Comments Part II". This document is part of the rationale. Any changes based on the Division response are incorporated into the rationale and permit. The response document is available online at <http://www.cdphe.state.co.us/wq/PermitsUnit/stormwater/construction.html>, or by emailing cdphe.wqstorm@state.co.us, or by calling the Division at 303-692-3517.

Kathleen Rosow
May 31, 2007

Appendix E - SWMP Permitting Applications &
Acknowledgement Letter from State and County



COLORADO

Department of Public
Health & Environment

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

ASSIGNED PERMIT NUMBER

Date Received ____/____/____
MM DD YYYY
Revised: 3-2016

STORMWATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES APPLICATION COLORADO DISCHARGE PERMIT SYSTEM (CDPS)

PHOTO COPIES, FAXED COPIES, PDF COPIES OR EMAILS WILL NOT BE ACCEPTED.

For Applications submitted on paper - Please print or type. Original signatures are required.

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

Colorado Department of Public Health and Environment, 4300 Cherry Creek Drive South, WQCD-P-B2, Denver, CO 80246-1530

For Applications submitted electronically

Please note that you can ONLY complete the feedback form by downloading it to a PC or Mac/Apple computer and opening the Application with Adobe Reader or a similar PDF reader. The form will NOT work with web browsers, Google preview, Mac preview software or on mobile devices using iOS or Android operating systems.

If application is submitted electronically, processing of the application will begin at that time and not be delayed for receipt of the signed document.

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

Beginning July 1, 2016, invoices will be based on acres disturbed.

DO NOT PAY THE FEES NOW - Invoices will be sent after the receipt of the application.

Disturbed Acreage for this application (see page 4)

- ☐ Less than 1 acre (\$83 initial fee, \$165 annual fee)
☐ 1-30 acres (\$175 initial fee, \$350 annual fee)
☐ Greater than 30 acres (\$270 initial fee, \$540 annual fee)

PERMIT INFORMATION

Reason for Application: ☐ NEW CERT ☐ RENEW CERT EXISTING CERT# _____
Applicant is: ☐ Property Owner ☐ Contractor/Operator

A. CONTACT INFORMATION - *indicates required

*** PERMITTED ORGANIZATION FORMAL NAME:** _____

1) * PERMIT OPERATOR - the party that has operational control over day to day activities - may be the same as owner.

Responsible Person (Title): _____
Currently Held By (Person): FirstName: _____ LastName: _____
Telephone: _____ Email Address: _____
Organization: _____
Mailing Address: _____
City: _____ State: _____ Zip Code: _____

Per Regulation 61 : All reports required by permits, and other information requested by the Division shall be signed by the permittee or by a duly authorized representative of that person. A person is a duly authorized representative only if:

- (i) The authorization is made in writing by the permittee
- (ii) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and
- (iii) The written authorization is submitted to the Division

2) **OWNER - party has ownership or long term lease of property - may be the same as the operator.**

☐ Same as 1) Permit Operator

Responsible Person (Title): _____

Currently Held By (Person): FirstName: _____ LastName: _____

Telephone: _____ Email Address: _____

Organization: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Per Regulation 61 : All reports required by permits, and other information requested by the Division shall be signed by the permittee or by a duly authorized representative of that person. A person is a duly authorized representative only if:

- i. The authorization is made in writing by the permittee.
- ii. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a **named individual** or any individual occupying a **named position**); and
- iii. The written authorization is submitted to the Division.

3) ***SITE CONTACT** local contact for questions relating to the facility & discharge authorized by this permit for the facility

☐ Same as 1) Permit Operator

Responsible Person (Title): _____

Currently Held By (Person): FirstName: _____ LastName: _____

Telephone: _____ Email Address: _____

Organization: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

4) ***BILLING CONTACT** if different than the permittee.

☐ Same as 1) Permit Operator

Responsible Person (Title): _____

Currently Held By (Person): FirstName: _____ LastName: _____

Telephone: _____ Email Address: _____

Organization: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

5) **OTHER CONTACT TYPES (check below) Add pages if necessary:**

Responsible Person (Title): _____

Currently Held By (Person): FirstName: _____ LastName: _____

Telephone: _____ Email Address: _____

Organization: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

☐ Environmental Contact

☐ Consultant

☐ Stormwater MS4 Responsible Person

☐ Inspection Facility Contact

☐ Compliance Contact

☐ Stormwater Authorized Representative

B) PERMITTED PROJECT/FACILITY INFORMATION

Project/Facility Name _____

Street Address or Cross Streets _____

(e.g., Park St and 5 Ave; CR 21 and Hwy 10; 44 Ave and Clear Creek) ; A street name without an address, intersection, mile marker, or other identifying information describing the location of the project is not adequate. For **linear projects**, the route of the project should be described as best as possible using the starting point for the address and latitude and longitude - more clearly defined in the required map)

City: _____ County: _____ Zip Code: _____

Facility Latitude/Longitude - List the latitude and longitude of the excavation(s) resulting in the discharge(s). If the exact soil disturbing location(s) are not known, list the latitude and longitude of the center point of the construction project. If using the center point, be sure to specify that it is the center point of construction activity. The preferred method is GPS and Decimal Degrees.

Latitude _____ Longitude _____ (e.g., 39.70312°, 104.93348°)
Decimal Degrees (to 5 decimal places) Decimal Degrees (to 5 decimal places)

This information may be obtained from a variety of sources, including:

- **Surveyors or engineers** for the project should have, or be able to calculate, this information.
- **U.S. Geological Survey topographical map(s)**, available at area map stores.
- Using a **Global Positioning System (GPS) unit** to obtain a direct reading.
- **Google** - enter address in search engine, select the map, right click on location, and select "what's here".

Note: the latitude/longitude required above is not the directional degrees, minutes, and seconds provided on a site legal description to define property boundaries.

C) MAP (Attachment) If no map is submitted, the application cannot be submitted.

Map: Attach a map that indicates the site location and that CLEARLY shows the boundaries of the area that will be disturbed. A vicinity map is not adequate for this purpose.

D) LEGAL DESCRIPTION - only for Subdivisions

Legal description: If subdivided, provide the legal description below, or indicate that it is not applicable (**do not** supply Township/Range/Section or metes and bounds description of site)

Subdivision(s): _____ Lot(s): _____ Block(s) _____

OR ☐ Not applicable (site has not been subdivided)

E) AREA OF CONSTRUCTION SITE - SEE PAGE 1 - WILL DETERMINE FEE

Provide both the total area of the construction site, and the area that will undergo disturbance, in acres.

Total area of project disturbance site (acres): _____

Note: aside from clearing, grading and excavation activities, disturbed areas also include areas receiving overburden (e.g., stockpiles), demolition areas, and areas with heavy equipment/vehicle traffic and storage that disturb existing vegetative cover.

☐ Part of Larger Common Plan of Development or Sale, (i.e., total, including all phases, filings, lots, and infrastructure not covered by this application)

F) NATURE OF CONSTRUCTION ACTIVITY

Check the appropriate box(es) or provide a brief description that indicates the general nature of the construction activities. (The full description of activities must be included in the Stormwater Management Plan.)

- ☐ Commercial Development
- ☐ Residential Development
- ☐ Highway and Transportation Development
- ☐ Pipeline and Utilities (including natural gas, electricity, water, and communications)
- ☐ Oil and Gas Exploration and Well Pad Development
- ☐ Non-structural and other development (i.e. parks, trails, stream realignment, bank stabilization, demolition, etc.)

G) ANTICIPATED CONSTRUCTION SCHEDULE

Construction Start Date: _____ Final Stabilization Date: _____

- *Construction Start Date* - This is the day you expect to begin ground disturbing activities, including grubbing, stockpiling, excavating, demolition, and grading activities.
- *Final Stabilization Date* - in terms of permit coverage, this is when the site is finally stabilized. This means that all ground surface disturbing activities at the site have been completed, and all disturbed areas have been either built on, paved, or a uniform vegetative cover has been established with an individual plant density of at least 70 percent of pre-disturbance levels. **Permit coverage must be maintained until the site is finally stabilized. Even if you are only doing one part of the project, the estimated final stabilization date must be for the overall project.** If permit coverage is still required once your part is completed, the permit certification may be transferred or reassigned to a new responsible entity(s).

H) RECEIVING WATERS (If discharge is to a ditch or storm sewer, include the name of the ultimate receiving waters)

Immediate Receiving Water(s): _____

Ultimate Receiving Water(s): _____

Identify the receiving water of the stormwater from your site. Receiving waters are any waters of the State of Colorado. This includes all water courses, even if they are usually dry. If stormwater from the construction site enters a ditch or storm sewer system, identify that system and indicate the ultimate receiving water for the ditch or storm sewer. **Note:** a stormwater discharge permit does not allow a discharge into a ditch or storm sewer system without the approval of the owner/operator of that system.

I) SIGNATURE PAGE

1. You may print and sign this document and mail the hard copy to the State along with required documents (address on page one).

2. Electronic Submission Signature

You may choose to submit your application electronically, along with required attachments. To do so, click the SUBMIT button below which will direct you, via e-mail, to sign the document electronically using the DocuSign Electronic Signature process. Once complete, you will receive via e-mail, an electronically stamped Adobe pdf of this application. Print the signature page from the electronically stamped pdf, sign it and mail it to the WQCD Permits Section to complete the application process (address is on page one of the application).

- The Division encourages use of the electronic submission of the application and electronic signature. This method meets signature requirements as required by the State of Colorado.
- The ink signed copy of the electronically stamped pdf signature page is also required to meet Federal EPA Requirements.
- Processing of the application will begin with the receipt of the valid electronic signature.

☐ STORMWATER MANAGEMENT PLAN CERTIFICATION

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

"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."

"I understand that submittal of this application is for coverage under the State of Colorado General Permit for Stormwater Discharges Associated with Construction Activity for the entirety of the construction site/project described and applied for, until such time as the application is amended or the certification is transferred, inactivated, or expired." [Reg 61.4(1)(h)]

For DocuSign

Electronic Signature _____ Ink Signature _____ Date: _____

Signature of Legally Responsible Person or Authorized Agent (submission must include original signature)

Name (printed)

Title

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

The application must be signed by the applicant to be considered complete. In all cases, it shall be signed as follows:

(Regulation 61.4 (1e))

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

3rd Party Preparer: If this form was prepared by an authorized agent on behalf of the Permittee, please complete the field below.

Preparer Name (printed)

Email Address

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

Appendix F - Inspection Reports

COLORADO DEPARTMENT OF TRANSPORTATION

STORMWATER FIELD INSPECTION REPORT - ACTIVE CONSTRUCTION

(1) Project Name:	(2) Project Contractor:	(3) Erosion Control Supervisor/SWMP Administrator:	
(4) CDOT Project Engineer/Representative:	(5) Inspector(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:** (minimum every 14 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 14 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 14-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 18 (General Notes) and proceed to section 19 (Inspection Certification). Documentation must include: dates when snow cover occurred, date when construction activities ceased, and date when melting conditions began.
- ☐ **Other:**

(13) SWMP MANAGEMENT

(14) CURRENT CONSTRUCTION ACTIVITIES:

	Yes	No	NA	
(a) Is the SWMP notebook located on site?				Estimate of disturbed area at the time of the inspection: _____ Acres
(b) Are changes to the SWMP documents noted and approved?				
(c) Are the inspection reports retained in the SWMP notebook?				
(d) Are corrective actions from the last inspection completed?				
(e) Is a Spill Prevention Control and Countermeasure Plan retained at the project site?				
(f) Is a list of potential pollutants retained at the site?				

(15) BMPs ON SITE AT TIME OF INSPECTION

**See Inspection Report instructions for more detail.*

	In SWMP	Used	Not Needed at this time		In SWMP	Used	Not Needed at this time
(a) EROSION CONTROL BMPs ON SITE				(b) SEDIMENT CONTROL BMPs ON SITE			
Seeding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Stabilized Const. Entrance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mulching/Mulch Tackifier	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sediment Trap	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Soil Binder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Inlet Protection*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Soil Retention Blankets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sediment Basin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Embankment Protector*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Perimeter Control*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Grading Techniques*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Berm/Diversion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(d) MATERIALS HANDLING, SPILL PREVENTION, WASTE MANAGEMENT AND GENERAL POLLUTION PREVENTION			
Check Dams*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Outlet Protection*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Stockpile Management*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Materials Management*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c) BMPs FOR SPECIAL CONDITIONS				Concrete Waste Management*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dewatering Structure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Saw Water Management*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Temp. Stream Crossing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Solid Waste/Trash Management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clear Water Diversion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Street Sweeping	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sensitive Area Fencing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sanitary Facility*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Vehicle and Equip. Management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

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, or discharging to state waters. If there is evidence of sediment or other pollutants discharging from the site, see section 17 (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 BMP, using more than one letter if necessary: **(I)** Incorrect Installation; **(M)** Maintenance is needed; **(F)** BMP failed to operate; **(A)** Additional BMP is needed; **(R)** Remove BMP. Keep copies of this blank page for additional room if needed.

Continuous maintenance is required on all BMPs. **BMPs 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	BMP	Condition	Comments: Description of Corrective Action and Preventative Measure Taken	Date Completed & Initials

(17) 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 and the corrective actions in section 16 (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 II A.2 and 3 of the permit for reporting requirements.

(18) GENERAL NOTES

--

(19) INSPECTION 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.

Contractor's Erosion Control Supervisor/SWMP Administrator (Signature Required)	Date:
CDOT Project Engineer/CDOT Designee (Signature Required)	Date:

(20) COMPLIANCE CERTIFICATION

Corrective action(s) has been taken, or where a report does not identify any incidents requiring corrective action, the report shall contain a signed statement indicating the site is in compliance with the permit to the best of the signer's knowledge and belief.

Contractor's Erosion Control Supervisor/SWMP Administrator (Signature Required)	Date:
CDOT Project Engineer/CDOT Designee (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 or 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) Erosion Control Supervisor/SWMP Administrator: Indicate the name of the individual responsible for implementing, maintaining and revising the SWMP.

(4) CDOT Project Engineer/Representative: Indicate the name of the CDOT representative performing the inspection with the ECS/SWMP Administrator. 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 14 calendar days during active construction. Suspended projects require the 14 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, document the reason and indicate the necessary corrective action in section 16 (Construction Site Assessment & Corrective Actions). If NA is checked, indicate why in the space provided or indicate in section 18 (General Notes).

(a) Is the SWMP notebook located on site? A copy of the SWMP notebook must be retained on site, unless another location, specified by the permit, is approved by the Division.

(b) Are changes to the SWMP documents noted and approved? Indicate all changes that have been made to any portion of the SWMP notebook documents during construction. Changes shall be dated and signed at the time of occurrence. Amendments may include items listed in subsection 208.03(c).

(c) Are the inspection reports retained in the SWMP notebook? The ECS/Engineer shall keep a record of inspections. Inspection reports must identify any incidents of non-compliance 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? Have corrective actions from the last inspection been addressed? 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) Is a Spill Prevention Control and Countermeasure (SPCC) Plan retained in the SWMP notebook? Subsection 208.06(c) requires that a SPCC 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) Is a list of potential pollutants retained at the site? 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.

(14) Current Construction Activities: 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.

- 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.

(15) BMPs On Site at Time of Inspection: Indicate the BMPs that are installed on-site at the time of inspection. All BMP details (e.g., Standard Plan M-208-1) shall be included with the SWMP documents.

Stormwater Management Field Inspection Report Instructions (continued)

BMPs In SWMP/Used/Not Needed at this Time. This section can be used as follows:

- ☐ If the BMP is required by the SWMP and implemented, indicate by placing a ✓ in both the "In SWMP" and "Used" columns.
- ☐ If the BMP is required by the SWMP, but not implemented, indicate by placing a ✓ in the "In SWMP" and "Not Needed at this Time" columns.

(a) Erosion Control BMPs On Site

- Embankment Protector (e.g., temporary slope drains, open-chute drains, etc.)
- Grading Techniques (e.g., vertical tracking, scarifying, or disking the surface on the contour, etc.)
- Check Dams (e.g., rock check, erosion logs, erosion bales, silt berms, etc.)
- Outlet Protection (e.g., riprap, erosion log around top of headwall, etc.)

(b) Sediment Control BMPs On Site

- Inlet Protection (e.g., erosion logs, erosion bales, sand bags, gravel bags, etc.)
- Perimeter Control (e.g., silt fence, erosion logs, berms, etc.)

(d) Materials Handling, Spill Prevention, Waste Management and General Pollution Prevention

- Stockpile Management. Stockpiles shall be located away from sensitive areas. All erodible stockpiles (including topsoil) shall be contained by silt fence, berms or other sediment control devices throughout construction (also see subsection 208.07).
- Materials Management. Material that could contribute pollutants to stormwater shall have secondary containment or other equivalent protection (also see subsection 208.06(a)).
- Concrete Waste Management. All concrete residue shall be contained in a signed structure as designed per subsection 208.02(j) and subsection 208.05(n). It shall be located a minimum of 50 feet from state waters.
- Saw Water Containment (e.g., pick-up broom or vacuum). Street washing is *not* allowed.
- Sanitary Facility. Temporary sanitary facilities shall be located 50 feet away from drainage ways, inlets, receiving waters, and located away from areas of high traffic, and areas susceptible to flooding or damage by construction equipment.

(16) Construction Site Assessment & Corrective Actions: Inspect the construction site and indicate where BMP feature(s) identified in section 15 (BMPs On Site at Time of Inspection), require corrective action. Erosion and sediment control practices identified in the SWMP shall be evaluated to ensure that they are operating correctly.

- Location. Site location (e.g., project station number, mile marker, intersection quadrant, etc.).
- BMP. Indicate the type of BMP at this location that requires corrective action (e.g., silt fence, erosion logs, soil retention blankets, etc.).
- Condition. Identify the condition of the BMP, using more than one letter (identified in section 16) if necessary.
- Description of Corrective Action and Preventative Measure Taken. Provide the proposed corrective action needed to bring the area or BMP into compliance. Once corrective actions are completed, state the measures taken to prevent future violations and ensure that the BMPs are operating correctly, including the required changes made to the SWMP.
- Date Completed & Initials. Date and initial when the corrective action was completed and the preventative measure statement finished.

(17) 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, or discharging to state water.

(b) 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 16 (Construction Site Assessment & Corrective Actions) or section 18 (General Notes).

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

(19) Inspection Certification: In accordance with Part I, F.1.c of the CDPS-SCP, all reports for submittal shall be signed and certified for accuracy.

(20) Compliance Certification: In accordance with Part I, D.6.b.2.viii of the CDPS-SCP, compliance shall be certified through signature.

Appendix G - SWMP Amendment Log

SWMP Amendment Log

Project Name:
SWMP Contact:

[illegible]

Appendix H – Contractor Certifications/Agreements

STORM WATER MANAGEMENT PLAN (SWMP)
Water System Improvements Project

SUBCONTRACTOR CERTIFICATION
STORM WATER MANAGEMENT PLAN

Project Number: _____

Project Title: Cascade Metropolitan District No 1 Water System Improvements

Operator(s): Rms Utilities Inc.

As a subcontractor, you are required to comply with the Storm Water Management Plan (SWMP) for any work that you perform on-site. Any person or group who violates any condition of the SWMP may be subject to substantial penalties or loss of contract. You are encouraged to advise each of your employees working on this project of the requirements of the SWMP. A copy of the SWMP is available for your review at the office trailer.

Each subcontractor engaged in activities at the construction site that could impact stormwater must be identified and sign the following certification statement:

I certify under the penalty of law that I have read and understand the terms and conditions of the SWMP for the above designated project and agree to follow the BMPs and practices described in the SWMP.

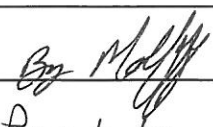
This certification is hereby signed in reference to the above named project:

Company: Rms Utilities, Inc.

Address: 6349 C.R. 106.65 S., Alamosa CO 81101

Telephone Number: 719-589-4263

Type of construction service to be provided: water main replacement

Signature: 

Title: President

Date: 4/3/18

SUBCONTRACTOR CERTIFICATION
STORM WATER MANAGEMENT PLAN

Project Number: _____

Project Title: _____

Operator(s): _____

As a subcontractor, you are required to comply with the Storm Water Management Plan (SWMP) for any work that you perform on-site. Any person or group who violates any condition of the SWMP may be subject to substantial penalties or loss of contract. You are encouraged to advise each of your employees working on this project of the requirements of the SWMP. A copy of the SWMP is available for your review at the office trailer.

Each subcontractor engaged in activities at the construction site that could impact stormwater must be identified and sign the following certification statement:

I certify under the penalty of law that I have read and understand the terms and conditions of the SWMP for the above designated project and agree to follow the BMPs and practices described in the SWMP.

This certification is hereby signed in reference to the above named project:

Company: _____

Address: _____

Telephone Number: _____

Type of construction service to be provided: _____

Signature: _____

Title: _____

Date: _____

Appendix I - SWMP Training Log

Stormwater Management Training Log

Project Name:

Project Location:

Instructor's Name(s):

Instructor's Title(s):

Course Location: _____ Date: _____

Course Length (hours): _____

Stormwater Training Topic: *(check as appropriate)*

- ☐ Erosion Control BMPs ☐ Emergency Procedures
☐ Sediment Control BMPs ☐ Good Housekeeping BMPs
☐ Non-Stormwater BMPs

Specific Training Objective: _____

Attendee Roster: *(attach additional pages as necessary)*

No.	Name of Attendee	Company
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

Appendix J – Delegation of Authority

Delegation of Authority

I, Bryan Malouff, hereby designate the person or specifically described position below to be a duly authorized representative for the purpose of overseeing compliance with environmental requirements, including the Storm Water Management Plan, for the Cascade Water System Improvements project, to sign any reports, Storm Water Management Plans and all other documents required by the permit.

Andrea Aragon
Environmental Control Supervisor

Steel City Enviro, LLC

P.O. Box 9772

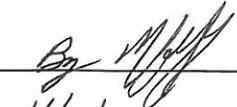
Pueblo, CO 81006

(719) 251-3851

By signing this authorization, I confirm that I meet the requirements to make such a designation as set forth in the CDPHE General Permit, and that the designee above meets the definition of a "duly authorized representative" as set forth in the CDPHE General Permit.

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 gathered and evaluated 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.

Name: Bryan Malouff
Company: RMS Utilities, Inc.
Title: President

Signature: 
Date: 4/3/18

Appendix K – Project Schedule

ID	Task Mode	Task Name	Duration	Start	25, '18		Mar 18, '18		Apr 8, '18		Apr 29, '18		May 20, '18		Jun 10, '18		Jul 1, '18		Jul 22, '18		Aug 12, '18		Sep 2, '18		Sep 23, '18		Oct 14, '18		Nov 4, '18	
					S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	
1																														
2		Crew one Fountain Ave sheet 9, this will all be open cut in asphalt STA.11+75 to 19+80	14 days	Mon 4/2/18																										
3		Crew two sheet 10, Fountain Ave This will be open cut in asphalt STA 19 +80 to 27 +90	14 days	Mon 4/2/18																										
4		Crew one sheet 8,9 Fountain Ave/ Chipita Park Open cut in asphalt STA 11+75 to 0+10	11 days	Mon 4/23/18																										
5		Crew Two sheet 6 Open cut asphalt Chipita Park Sta 0+03 to 8+66	11 days	Mon 4/23/18																										
6		Crew Three sheet 6,8,9,10 Fountain Ave/Chipita Park service connections	16 days	Mon 4/23/18																										
7		Crew two sheet 6 Crystal Circle Open cut Home owners to place asphalt and new .Sta. 0+00 to Sta. 4+22	5 days	Tue 5/15/18																										
8		Crew one Sheets 8,9 Pikes peak HWY open cut in asphalt 0+00 to 7+73	10 days	Mon 5/7/18																										
9		Crew three Crystal Circle service lines	2 days	Tue 5/15/18																										
10		Crew Three Sheets 8,9 pikes peak HWY Service taps	5 days	Thu 5/17/18																										
11		Crew one sheet 7 Popular Open Cut Asphalt 0+00 3+68	5 days	Mon 5/21/18																										
12		Crew Two sheet 7 Rampart Terrace alley open cut gravel Sta. 0=00 to 4+38	6 days	Tue 5/22/18																										
13		Crew three, sheet 7 Popular and rampart service taps	6 days	Thu 5/24/18																										

Project: CSU schedule 2018
Date: Tue 4/3/18

Task

Split

Milestone

Summary

Project Summary

External Tasks

External Milestone

Inactive Task

Inactive Milestone

Inactive Summary

Manual Task

Duration-only

Manual Summary Rollup

Manual Summary



Start-only

Finish-only

Deadline

Progress

Page 1

ID		Task Mode	Task Name	Duration	Start	25, '18		Mar 18, '18		Apr 8, '18			Apr 29, '18			May 20, '18			Jun 10, '18			Jul 1, '18			Jul 22, '18			Aug 12, '18			Sep 2, '18		Sep 23, '18			Oct 14, '18			Nov 4, '18																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
						S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
14			Crew one sheet 7 to end of Popular street open cut asphalt 0+00 to 2+64	4 days	Mon 5/28/18																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							</

Project: CSU schedule 2018

Date: Tue 4/3/18

Task

Split

Milestone

Summary

Project Summary

External Tasks

External Milestone

Inactive Task

Inactive Milestone

Inactive Summary

Manual Task

Duration-only

Manual Summary Rollup

Manual Summary

Start-only

Finish-only

Deadline

Progress

Page 2

ID	Task Mode	Task Name	Duration	Start	25, '18		Mar 18, '18		Apr 8, '18			Apr 29, '18		May 20, '18			Jun 10, '18			Jul 1, '18			Jul 22, '18			Aug 12, '18			Sep 2, '18		Sep 23, '18			Oct 14, '18		Nov 4, '18	
					S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	
27		Crew three service taps sheet 11 Oak/ Prairie	4 days	Mon 7/16/18																																	
28		Crew two Sheet 17 Gardiner Rd. open cut asphalt sta 3+33 to 8+62	6 days	Mon 7/16/18																																	
29		Crew One sheet 21 Bore and open cut Sta 240 to 0+00 Note seeding and BMP's placed as needed	8 days	Thu 7/12/18																																	
30		Crew two sheet 17 Mariposa lane Open cut Sta 3+33 to 0+00	5 days	Tue 7/24/18																																	
31		Crew one sheet 18 and 19 Open cut gravel and asphalt sta 0+00 to 7+63	8 days	Tue 7/24/18																																	
32		Crew three sheet 11 Gardiner Rd service taps	2 days	Mon 7/23/18																																	
33		Crew three sheet 17 Mariposa lane Service taps	3 days	Wed 7/25/18																																	
34		Crew two sheet 15,16,17 Pyramid mountain rd. open cut asphalt sta 0+00 to Sta 2303	15 days	Tue 7/31/18																																	
35		Crew three sheet 15,16,17 service taps Pyramid mountain road	4 days	Mon 8/20/18																																	
36		Crew one sheet 19 Marriott Rd. Open cut asphalt Sta 19 0+19 to 11+27	11 days	Mon 8/6/18																																	
37		Crew three service lines Marriott rd.	3 days	Tue 8/21/18																																	
38		Crew two sheet 18 Heizer Open cut asphalt 0+00 TO 5+89	8 days	Mon 8/27/18																																	
39		Crew one sheet 19,20 Out post Rd 0+00 to 10+00	10 days	Tue 8/21/18																																	
40		Crew three Service lines sheet 18 Heizer Rd	3 days	Mon 9/3/18																																	
Project: CSU schedule 2018 Date: Tue 4/3/18			Task		Project Summary		Inactive Milestone		Manual Summary Rollup		Deadline																										
			Split		External Tasks		Inactive Summary		Manual Summary		Progress																										
			Milestone		External Milestone		Manual Task		Start-only		Finish-only																										
			Summary		Inactive Task		Duration-only		Finish-only		Finish-only																										
Page 3																																					

ID	Task Mode	Task Name	Duration	Start	25, '18		Mar 18, '18		Apr 8, '18			Apr 29, '18			May 20, '18			Jun 10, '18			Jul 1, '18			Jul 22, '18			Aug 12, '18			Sep 2, '18		Sep 23, '18			Oct 14, '18			Nov 4, '18	
					S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T			
41		Crew three service lines Sheet 19,20 Out post Rd.	4 days	Thu 9/6/18																																			
42		Crew two sheet 20 Out post to Heizer Sta 0+00 to 6+60	7 days	Wed 9/5/18																																			
43		Crew one sheet 18 Topeka ave Open cut asphalt	3 days	Tue 9/4/18																																			
44		Crew two Ute pass ave Sheets 10,12 open cut asphalt Sta 0+00 to 12+50	10 days	Thu 9/13/18																																			
45		Crew one Ute pass ave Sheets 12,13 Open cut asphalt sta 12+50 to Sta 25+11	11 days	Mon 9/10/18																																			
46		Crew 3 Service taps sheet 20 Heizer	3 days	Mon 9/17/18																																			
47		Crew three sheet 18 Topeka service taps	2 days	Thu 9/20/18																																			
48		Crew three service taps sheets 10,12,13 Ute pass	4 days	Fri 9/21/18																																			
49		Crew one Misc. clean up	27 days	Tue 9/25/18																																			
50		Crew two Misc. clean up	25 days	Thu 9/27/18																																			
51		NOTE ASPHALT REPAIR WILL FOLLOW THE INSTALLATION OF LINES																																					

Project: CSU schedule 2018
Date: Tue 4/3/18

Task

Split

Milestone

Summary

Project Summary

External Tasks

External Milestone

Inactive Task

Inactive Milestone

Inactive Summary

Manual Task

Duration-only

Manual Summary Rollup

Manual Summary

Start-only

Finish-only

Deadline

Progress

Page 4

Appendix L – Letter for Historic and Endangered Species

AT THE TIME OF SWMP DEVELOPMENT NO OFFICIAL SHPO OR CDOW STUDIES HAD BEEN CONDUCTED, AREA ADJACENT TO SITE WAS PREVIOUSLY DISTURBED TO INSTALL ROADS BY ANOTHER PROJECT. IF, ENCOUNTERED DURING CONSTRUCTION A FULL STOP ORDER WILL BE INITIATED.

Appendix M – Spill Plan

RMS Utilities, Inc. is dedicated to minimizing the possibility of hazardous material/ hazardous waste spills through appropriate methods of training, proper use of BMP's and on-site observations. To assist in minimizing incidents, all equipment will be inspected daily, before use and maintained in a safe and operable condition. However, in the event of an accidental leak, spill or uncontrolled release of hazardous material the following actions will serve as basic guidelines to spill response.

SPILL RESPONSE CRITERIA:

Non-Emergency Spill	Emergency Spill
<ul style="list-style-type: none">The discharge is small (less than 25 gallons)	<ul style="list-style-type: none">The discharge is large enough (greater than 25 gallons) to spread beyond the immediate area
<ul style="list-style-type: none">The discharge can be easily contained	<ul style="list-style-type: none">The discharge cannot be contained
<ul style="list-style-type: none">The discharge is unlikely to reach a navigable waterway, storm sewer or sanitary drain	<ul style="list-style-type: none">The discharge reaches a navigable waterway, storm sewer, or sanitary drain regardless of amount spilled
<ul style="list-style-type: none">Cleanup procedures do not pose a health or safety hazard	<ul style="list-style-type: none">The discharge poses a hazard to human health or the environment
<ul style="list-style-type: none">Proper response equipment is available for safe cleanup	<ul style="list-style-type: none">The discharge requires special equipment or training to cleanup
Response by RMS Utilities, Inc. personnel may be possible for the above types of discharges	<ul style="list-style-type: none">There is a danger of fire or explosion
	The above discharge requires response by the fire department (call 911)

SPILL RESPONSE PROCEDURES (NON-EMERGENCY):

7. Secure the site with a priority to protect the health and safety of personnel responding to the release, bystanders, and community.
8. Notify supervisor immediately.
9. Stop, Control and Contain the spill at the source.
 - a. Control and contain the spill using nearby absorbent booms, socks, pads, and/or soil.

- b. If a line ruptures on a piece of equipment, power down the equipment in a safe manner, then control and contain the spill at the site with booms, socks, mats or other absorbent material as needed.
- 10. Protect all waterways from potential contamination including but not limited to, storm drains, surface drainage.
 - a. Along with BMP's 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.
- 11. Clean up procedures.
 - a. Use absorbent materials to contain and clean up the area.
 - b. DO NOT hose down spill area!
 - c. Minimize the extraction of 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 in accordance with local, state and federal regulations.
- 12. Reporting procedures:
 - a. Supervisor will notify RMS Utilities, Inc. Safety Manager immediately.
 - b. The President or Safety Manager will notify city and/or government agencies as needed.
 - c. Supervisor will make the initial Onsite Spill Report immediately after clean up and all initial facts are gathered.
 - d. Safety manager will conduct an investigation as needed, complete the final report and forward to those necessary.

SPILL RESPONSE PROCEDURES (EMERGENCY):

- 7. Secure the site with a priority to protect the health and safety of personnel responding to the release, bystanders, and community.
- 8. Notify supervisor immediately so they can decide if onsite personnel can control and contain the spill effectively.
- 9. Supervisor will contact the local fire department.
- 10. Stop, Control and Contain the spill at the source.
 - Control and contain the spill using nearby absorbent booms, socks, pads, and/or soil until the fire department arrives. Focus control measures at locations of storm sewers and/or nearby waterways.
- 11. Clean up procedures.
 - If assistance is required for the cleanup of larger spills, contact the President or Safety Manager.
- 12. Reporting procedures:
 - Supervisor will notify RMS Utilities, Inc. Safety Manager immediately.

STORM WATER MANAGEMENT PLAN (SWMP)
Water System Improvements Project

- The President or Safety Manager will notify city and/or government agencies as needed.
- Supervisor will make the initial Onsite Spill Report immediately after cleaning up and all initial facts are gathered.
- Safety manager will conduct an investigation as needed, complete the final report and forward to those necessary.

Appendix N – Misc. Info.

Appendix O – Corrective Action Report

CGP - CORRECTIVE ACTION REPORT

CAR # _____

Conditions requiring a report (check ONE)

- _____ Major repair, modification, or replacement of any stormwater control on site
- _____ Clean up and proper disposal of spills, releases, or other deposits
- _____ Permit violation remedy

A separate report must be filled out for each corrective action taken.

WITHIN 24 HOURS OF THE DISCOVERY OF A CONDITION REQUIRING CORRECTIVE ACTION, COMPLETE THE FOLLOWING:

Condition description:

Date and time of discovery:

How was the condition identified?

Describe any steps taken to immediately correct the problem:

WITHIN 7 CALENDAR DAYS OF DISCOVERY, COMPLETE THE FOLLOWING:

Description of corrective action taken:

Schedule of modification, installation, repair, or date and time of clean up or other remedy:
(attach separate documentation if needed)

List any follow-up actions, such as stormwater design, installation and maintenance review:

IF INFEASIBLE TO COMPLETE WITHIN 7 DAYS OF DISCOVERY, EXPLAIN:

If corrective action taken was to clean up a spill, has an illicit discharge report been filed?

_____ YES _____ NO (Explain) _____

If the corrective action taken or the condition discovered requires a SWPPP modification, has this been completed? _____ YES _____ NO

CERTIFICATION STATEMENT

"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 gathered and evaluated the information contained therein. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information contained 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."

Name

Title

Print Name

Date

Appendix P – Dewatering Permit

No Dewatering Expected.