

# **STORMWATER MANAGEMENT PLAN**

## **FOUNDATION LUTHERAN CHURCH**

TOWNERS AVE.  
TRACT C, PAINT BRUSH HILLS FILING NO. 13A

**PREPARED FOR APPLICANT:**  
COLORADO COMMERCIAL CONSTRUCTION  
12325 ORACLE BLVD., SUITE 120  
COLORADO SPRINGS, CO 80921

**GEC ADMINISTRATOR**  
ROBERT MAUNTON  
12325 ORACLE BLVD, SUITE 120  
COLORADO SPRINGS, CO 80921  
719-339-2890

**PCD FILING No. PPR2321**  
**RMG #191726**

DECEMBER 26, 2023

Prepared by  
**David G. Walker, P.E.**  
Rocky Mountain Group  
5085 List Drive, Suite 200, Colorado Springs, CO 80919



## **Table of Contents**

1.0	EXISTING CONDITIONS.....	2
2.0	CONSTRUCTION ACTIVITIES PROPOSED .....	3
3.0	TIMING SCHEDULE.....	4
4.0	SITE DISTURBANCE.....	4
5.0	STRUCTURAL EROSION AND SEDIMENT CONTROLS .....	4
6.0	NON-STRUCTURAL EROSION AND SEDIMENT CONTROLS.....	5
7.0	POTENTIAL EROSION AND DISCHARGE .....	6
8.0	NON-STORMWATER DISCHARGE.....	7
9.0	RECEIVING WATERS .....	7
10.0	FINAL STABILIZATION AND LONG-TERM STORMWATER QUALITY.....	7
11.0	OWNER INSPECTIONS AND MAINTENANCE.....	8
12.0	RECORD KEEPING PROCEDURES .....	9

## **APPENDICES**

APPENDIX A – GRADING AND EROSION CONTROL PLAN

APPENDIX B – FEMA FLOODPLAIN MAP

APPENDIX C – USDA SOIL SURVEY MAP

APPENDIX D – CDPHE REFERENCE BROCHURE

APPENDIX E – INSPECTION LOG TEMPLATE

APPENDIX F – GEC ADMINISTRATOR CERTIFICATION

APPENDIX G – PRIVATE DETENTION BASIN AGREEMENT

**ENGINEER OF RECORD:**

The Stormwater Management Plan was prepared under my direction and supervision and is correct to the best of my knowledge and belief. Said Plan has been prepared according to the criteria established by the County and State for Stormwater Management Plans.

David G. Walker  
Printed Name

12/26/23  
Date

*David G. Walker*



Signature

**REVIEW ENGINEER:**

The Stormwater Management Plan was reviewed and found to meet the checklist requirements except where otherwise noted or allowed by an approved deviation request.

\_\_\_\_\_  
Review Engineer

\_\_\_\_\_  
Date

Unresolved from Submittal 2 - State the percent ground cover for vegetation. This should be the percent of pervious area that is vegetated (how much of the non impervious area is vegetated)

## 1.0 EXISTING CONDITIONS

The proposed development of Foundation Lutheran Church is located at the address of Towners Av in Falcon, Colorado in El Paso County within the Paint Brush Hills subdivision. The parcel schedule number is 5225208001 and the legal description is currently Tract C, Paint Brush Hills Filing No. 13A. The parcel is located in the West half of Section 25, Township 12 South, Range 65 West of the 6<sup>th</sup> P.M. El Paso County, Colorado. The site is bordered to the north by Londonderry Dr, to the east by Towners Ave, and to the south and west by residential single-family homes.

The project site is approximately 4 acres +/- and consists of undeveloped natural vegetation. There is existing curb and gutter along Londonderry Drive and Towners Avenue.

The existing percent imperviousness is approximately 0 percent (per visual inspection) on Tract C. The existing vegetation consists of shrubs and native grasses.

The existing topography consists of grades between 1 and 25 percent. Drainage patterns sheet flow south across the parcel to a drainage swale that directs flow to the southwest corner.

The site is not located within a streamside zone.

The soils indicative to the site are classified as Pring coarse sandy loam by the USDA Soil Conservation Service and are listed as NRCS (National Resources Conservation Service) Hydrologic Soil Group B. These soils have a moderate infiltration rate when thoroughly wet and have a moderate rate of water transmission. The soil has a "Slight" erosion rating, this "...indicates that erosion is unlikely under ordinary climate conditions." The USDA Soil Map and Hydrologic Soil Group Description is provided in the Appendix.

This parcel is located in the Falcon Drainage Basin.

The project site does not lie within a designated flood plain according to information published in the Federal Emergency Management Agency Floodplain Map No. 08041C0551G, dated December 7, 2018. The FEMA Floodplain map is provided in the Appendix showing it lies within Zone X, a minimal flood hazard area.

There are no known non-stormwater discharges that contribute to the storm water systems on site and downstream, both private and public.

A vicinity map is provided on the following page.

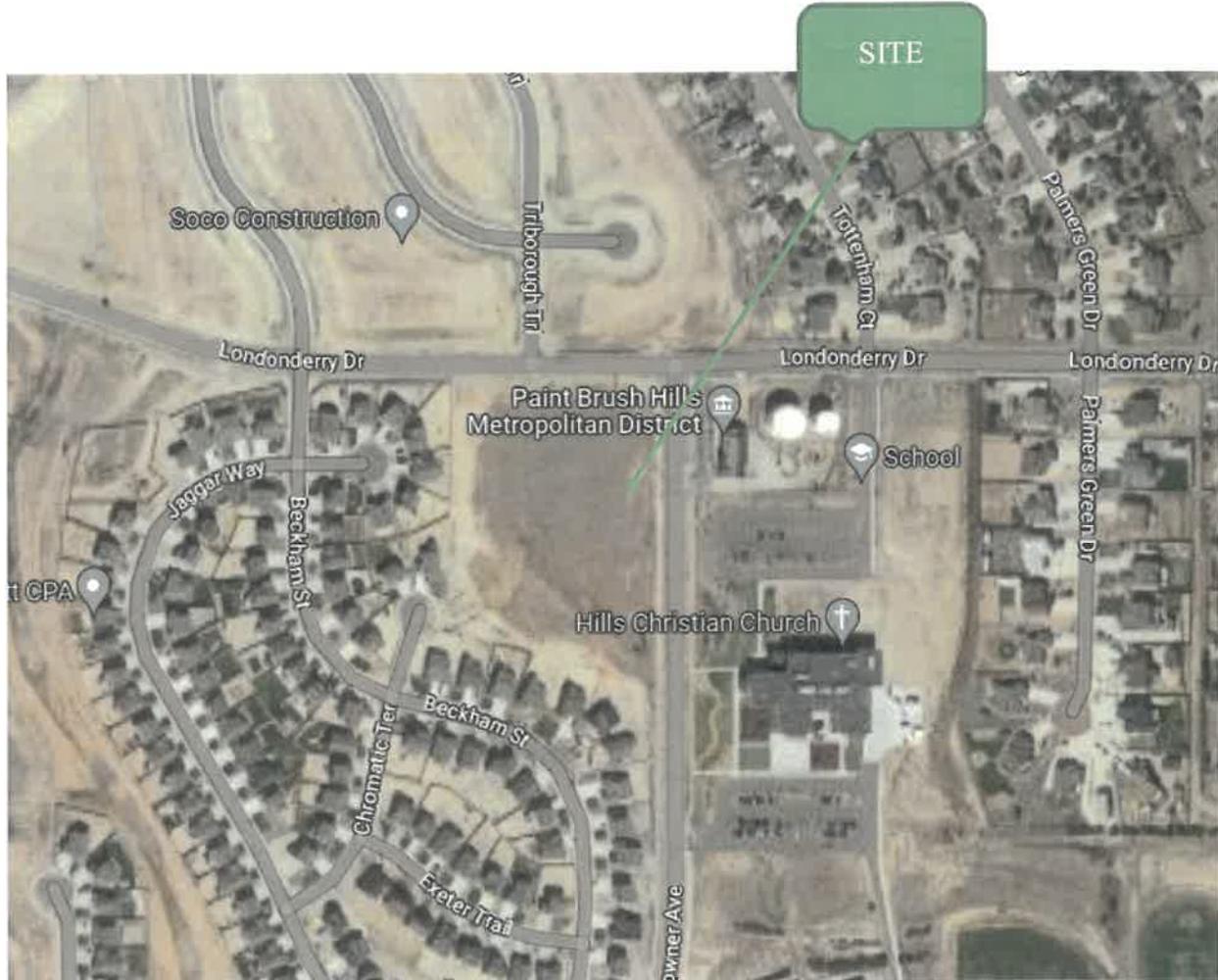


Figure 1: Vicinity Map of project location.

## 2.0 CONSTRUCTION ACTIVITIES PROPOSED

The proposed project consists of the construction of a church building, surrounding asphalt drive access and parking, and surrounding open field. The proposed project will not impact downstream facilities or neighboring developments.

The limits of disturbance are shown on the plans and noted in the cut and fill table. The maximum area of disturbance is 5.17 acres.

As part of the construction process, proper erosion control measures will be required for development of the site including silt fencing along downstream limits of disturbance to minimize off-site transport of construction sediment. Erosion control blankets will be installed

on slopes 3V:1H or greater. Other control measures such as a vehicle tracking pad at the construction entrances to the site and stock pile protection are to be installed in applicable areas. A grading and erosion control plan is provided as a guide to proper control measure placement.

The site construction consists of earthwork of undeveloped land and the construction of a church building with associated hardscapes and pavement. The grading activities include cut and fill to the areas shown on the engineering plan set. Removal of temporary control measures labelled as initial /interim on the grading and erosion control plan are to be removed according to construction phasing activities.

The grading and erosion control is a plan for stormwater quality management by using control measures with labels for initial, interim, and final. The initial phasing is to include erosion and sediment control installation, removing and stockpiling of topsoil. The interim phases include cut/fill activity according to the engineered plan set. The final phase is for final stabilization and permanent seeding.

### **3.0 TIMING SCHEDULE**

The anticipated start time period to begin construction is upon the receipt of the permit, assumed to be in October of 2023. Construction will start with site preparation beginning with the initial erosion control plan.

Final phase construction and landscape will be completed in the spring of 2024. All erosion and sediment control measures are constant throughout the construction phases. The project end date following permanent stabilization is anticipated to be the summer of 2024.

### **4.0 SITE DISTURBANCE**

The proposed project consists of the development of a church building and associated hardscapes and pavement to follow.

The stabilized staging area which includes stockpiling is shown on the plans. However, the contractor shall haul material as often as possible to retain sufficient space on site and decrease sediment runoff whenever possible. Any on-site stockpiling that is to occur over night is to be on an elevated surface relative to the existing ground elevation and not to be within 100 feet of the existing water way displayed on the plan set and FEMA maps. No stockpiling shall exceed 50 feet in height.

### **5.0 STRUCTURAL EROSION AND SEDIMENT CONTROLS**

The project will consist of any clearing and grubbing within the disturbance limits and implementation of perimeter controls at the initial stage. Perimeter controls such as silt fence are to be installed after any clearing and grubbing. At this time, traffic control is to be implemented which may include construction signs, cones, or barriers to allow the flow of traffic within the on-site roadway during mobilization of large construction vehicles. Road grading is not a part of

the scope of this project. Final grading and stabilization is to take place as soon as possible after hardscapes and pavement have been installed.

Any waste disposal is to be done off-site at the designation of the contractor. Waste disposal, spill prevention, and response procedures are to be according to CDPHE and El Paso County standards. Site specific plans and procedures are addressed in the following sections.

Inlet protection will be placed during the final phase of construction. Inlet protection reduces sediment deposition in storm drains and culverts and reduces sediment pollution in stormwater by filtering out some of the sediment carried by runoff flowing through the inlet protection. The details for the installation and maintenance of the inlet protection are shown on the plans.

Prior to construction activity, vehicle tracking control will be installed at the designated access points. Vehicle tracking control helps reduce the deposition of sediment, dirt, mud, and debris by vehicles exiting the site onto the adjacent streets.

Before any grading or other significant disturbance activities, silt fence is to be installed along any edge of an area to be disturbed where runoff would otherwise go untreated. Silt fence will be installed along those portions of the site perimeter where potentially sediment-laden runoff may flow into adjacent properties or into nearby private storm sewer grates. Silt fence is also to be installed as a perimeter around the stockpile area, especially on downstream sides. Silt fences help reduce pollution of stormwater by filtering out some of the sediment carried by runoff flowing through the fences and by facilitating deposition of sediment by slowing the runoff. The locations in which to install silt fence are shown on the plans. Silt fences can be installed wherever the contractor deems them to be necessary or helpful and these locations may not be shown on the site plan.

Prior to final stabilization, erosion control blankets are to be installed on slopes greater than 3H: 1V. Erosion control blankets are made of natural biodegradable materials that are placed on disturbed areas and are secured to the ground with staples or stakes. They are to be placed over uniform surfaces that have been properly seeded prior to installation with no large rocks or vegetation. The use of erosion control blankets will retain sediment resulting from sheet flow and protect newly seeded areas.

## **6.0 NON-STRUCTURAL EROSION AND SEDIMENT CONTROLS**

Prior to commencement of construction activities, the construction vehicle traffic areas to and around the project site including all construction roads, parking areas, loading and unloading zones, storage areas, and staging areas, are to be stabilized through proper grading, compaction, and surfacing. Stabilization of large vehicle traffic areas reduces erosion and vehicle tracking thus helping to eliminate potential pollution of stormwater by sediment. Designated construction ingress and egress with tracking control is to be used as shown on the plans. Should significant soil still be deposited on the surrounding roadways, street sweeping will be utilized to remove the soil from roadways immediately following deposition.

Mulch is to be applied to all disturbed areas that are not otherwise stabilized immediately if possible or within 14 days of completion of final grading. Additionally, mulch is to be applied to all disturbed areas that are not yet at final grade but will remain dormant or undisturbed for longer than 30 days. Mulch helps prevent erosion by protecting bare soil from rainfall impact, increasing infiltration, and reducing runoff.

When seasonally appropriate, seed is to be applied to all disturbed areas that are not otherwise stabilized immediately if possible or within 14 days of completion of final grading. Additionally, seed is to be applied to all undisturbed areas that are not yet at final grade but will remain dormant or undisturbed for longer than one year. When the season is inappropriate for seed application, surface roughening and mulch is to be applied within 14 days and seed is to be applied as soon as the appropriate seasonality commences.

## **7.0 POTENTIAL EROSION AND DISCHARGE**

Control measures shall be implemented for initial, interim, and final phases of construction to ensure that erosion and sediment runoff is minimized and that there is no negative impact on downstream water quality. There is no anticipated discharge of pollutants from the site as long as the contractor implements control measures appropriately.

Any contaminated soils are to be properly disposed of by the contractor immediately. Loading and unloading operations are to occur on-site and large vehicular mobilization will require traffic control measures. Any waste disposal is to be done off-site at the designation of the contractor at a location approved by the County. Waste disposal, spill prevention, and response procedures are to be according to the Colorado Department of Public Health and Environment (CDPHE), Hazardous Materials and Waste Management Division. Appropriate spill prevention and response measures will be implemented on the site and provided by the contractor. The details and specifications referenced within this section provide general and specific guidelines for spill prevention and response measures relating to the various potential non-sediment pollution sources.

Only chemicals and materials necessary for the described construction activities may be stored on site, and then only in the smallest amounts reasonable and for the shortest time possible. Fueling and minor preventative maintenance of vehicles and equipment may occur only on areas specifically stabilized for construction vehicle traffic. No significant maintenance of vehicles and equipment and no vehicle and equipment washing will be allowed on site.

Batch plants are not anticipated at this site. The contractor is responsible for the cleaning of trash on site and prevention of any loose trash leaving the site at all times during construction. A portable toilet is required on site.

The contractor is responsible for dust control at all times during construction. Sediment runoff is controlled by use of silt fencing on all downstream sides of the disturbance area within the lot and the contractor is to prevent sediment flow off-site at all times.

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

The contractor shall not track mud/dirt off-site and project site cleanup including sweeping and waste disposal is to occur at the end of each working day.

No groundwater and/or stormwater dewatering activities are proposed or expected for the proposed construction activities. If groundwater is discovered during construction, all work is to cease and the contractor shall contact the engineer and County to await instructions.

No significant waste generation is expected as a result of the proposed construction activities. Any minor waste that is produced is to be disposed of properly and promptly.

Appropriate spill prevention and response measures will be implemented on the site. The details and specifications referenced above in this section provide general and specific guidelines for spill prevention and response measures relating to the various potential non-sediment pollution sources.

## **8.0 NON-STORMWATER DISCHARGE**

There is no anticipated non-stormwater surface discharge to and from the site.

## **9.0 RECEIVING WATERS**

There is a flared end section (FES) outlet at the southeast corner of the site that is connected to a 24" RCP storm drain pipe that goes easterly under Towners Ave. A swale runs across the site on the south portion towards the southwest corner, where a FES inlet is connected to a 36" RCP storm drain pipe. The 36" storm drain pipe leaves the site in a southerly direction and goes to a regional detention facility located off-site. The detention facility is within a platted tract of land with ownership and maintenance by the Paint Brush Hills Metropolitan District. From our research it seems the regional detention facility was part of Paint Brush Hills – Phase 2 (Filing No. 13), the design intent of this detention facility will provide long-term stormwater quality control.

## **10.0 FINAL STABILIZATION AND LONG-TERM STORMWATER QUALITY**

All drainage measures are to be implemented according to the engineering plan set.

The site will be stabilized at final grades as indicated by the engineering plan set with compaction to the standards according to El Paso County Engineering Criteria Manual.

Final stabilization will include seeding of hydro seed and hydro mulch to revegetate the landscape of the lot and improve the site drainage.

A description of the measures used to achieve final stabilization and permanent measures to control pollutants in stormwater discharges that will occur after construction operations have been completed. Final stabilization is reached when all soil disturbing activities at the site have been completed, and uniform vegetative cover has been established with a density of at least 70 percent of pre-disturbance levels and such cover is adequate to control soil erosion, as determined by the county, or equivalent permanent, physical erosion reduction methods have been employed. The seeded areas shall be kept in good condition at all times until the project is completed. The plan shall include procedures for promptly repairing any damaged areas. For purposes of this plan, establishment of a vegetative cover capable of providing erosion control equivalent to a density of at least 70 percent of pre-existing conditions at the site and capable of adequately controlling future erosion can be considered final stabilization. The developer will be responsible for providing to the county the documentation to make this comparison. The county may, after consultation with the developer and upon good cause, amend the final stabilization criteria for specific operations. Where possible, coordination of erosion control elements and building schedule will occur so that previously seeded areas are not re-disturbed.

## **11.0 OWNER INSPECTIONS AND MAINTENANCE**

The contractor is to be familiar with all requirements of the erosion and sediment control plans and notes. The contractor shall protect the existing structures and reroute any runoff as necessary during construction activities to prevent erosion and damage. All exposed and unworked soils shall be stabilized by suitable application of best management practices such as vegetative cover, mulching, plastic covering or application of gravel surfaces in areas to be graveled. No exposed and unworked soils shall remain un-stabilized. Once construction activity is completed, permanent seeding shall be installed. All temporary and permanent erosion and sediment control facilities shall be inspected, maintained, and repaired by the contractor as needed to assure continued performance of their intended use. All on-site erosion and control measures shall be inspected at least once every seven days and within 24 hours of any storm event equal to or greater than 0.25” of rain per 24-hour period or snowmelt event that causes surface erosion. An inspection report file shall be maintained by the contractor and kept on site. The owner is responsible for inspection and maintenance after final stabilization.

The Stormwater Construction Permit requires that a thorough inspection of the stormwater management system be performed and documented at least every 14 days and after any precipitation or snowmelt event that results in stormwater running across the ground according to CDPHE App. A Section C.6 (a).

The regular inspections of the site are to include observation of the construction site perimeter and all stormwater discharge points including storm drain system inlets and culverts that may be downstream.

The regular inspections of the site will also include observation of all disturbed areas and all stabilized and revegetated areas. Inspection of these areas should be given special attention to identify any potential erosion issues.

The regular inspections of the site will also include observation of material storage areas including waste collection areas and topsoil stockpiles. Inspection of these areas require special attention for potential leaks and spills. The topsoil stockpile is to be inspected for any potential runoff.

An Inspection Log is to be maintained on site and include a record of all stormwater management system inspections along with all maintenance and repair activities. All inspection, maintenance, and repair requirements outlined in the details, will be performed as specified and will be recorded in the Inspection Log.

The Inspection Log will also include a description of any incidence of non-compliance, such as uncontrolled releases of pollutants including mud, muddy water or measurable quantities of sediment found off the site along with a description of measures to be taken to prevent future discharges. Records of any spills, leaks, or overflows of non-sediment potential pollutants, whether or not such a spill, leak, or overflow results in pollution of stormwater, will be included.

Following an inspection that does not reveal any incidents of non-compliance, or following the completion of measures taken to correct any non-compliance issues, A Certification indicating the site is in compliance will be signed and dated.

Should this project rely on control measures owned or operated by another entity other than the owner or its representative, a documented agreement must be submitted to El Paso County identifying location, installation and design specifications, and maintenance requirements and responsibility of the control measures.

## **12.0 RECORD KEEPING PROCEDURES**

The contractor and/or qualified stormwater manager (QSM), shall keep a log of all inspections as well as revisions during all construction phases. The QSM will be sufficiently qualified for the required duties per the El Paso County Engineering Criteria Manual, Appendix I.5. The records shall be kept at the job trailer or a designated location on site such as a foreman's vehicle, a specified on site lockbox, etc. This designated location is to be communicated to the County and Owner. The inspections and revisions records are to include the date, description, and the signature of the qualified stormwater manager for each respective inspection or revision. An appendix document of the logs that may be utilized for the project is provided.

This document should be viewed as a living document that is continuously being reviewed and modified as a part of the overall process of evaluating and managing Stormwater quality issues at the site.

This document shall be amended when there is a change in design, construction, operation or maintenance of the site which would require the implementation of new or revised control measures or if this document proves to be ineffective in achieving the general objectives of controlling pollutants in stormwater discharges associated with the construction activity.

GEC Administrator: Robert Maunton

Address: 12325 Oracle Blvd, Suite 120

Colorado Springs, CO 80921

Phone: 719-339-2890

## Appendix A – Grading and Erosion Control Plan

10/23/2018

10/23/2018

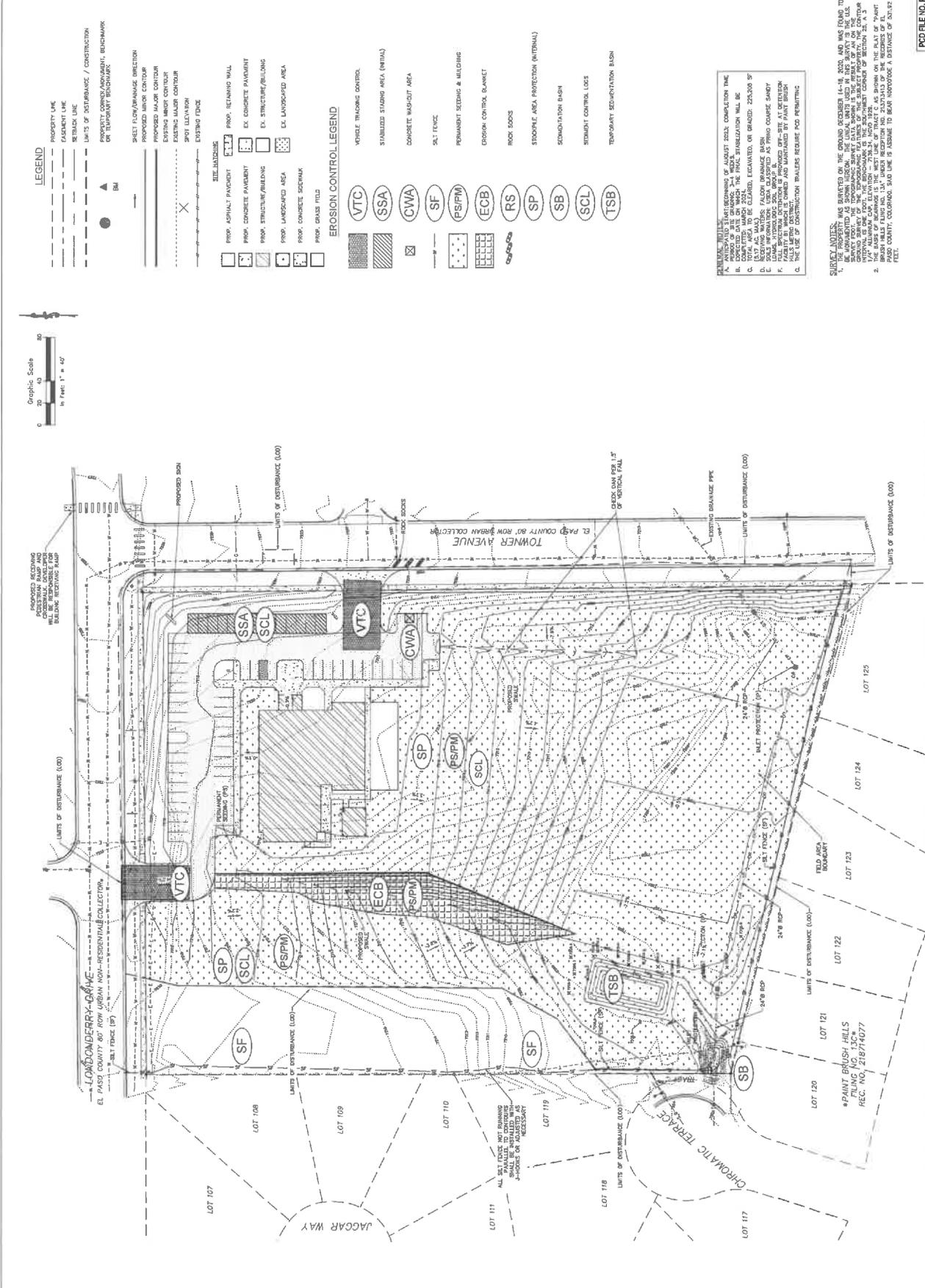




**Engineers / Architects**  
**RMG**  
 REGISTERED PROFESSIONAL ENGINEERS AND ARCHITECTS  
 1115 NORTH BROADWAY, SUITE 100, DENVER, CO 80202  
 303.733.8800

**FOUNDATION LUTHERAN CHURCH**  
 6960 TOWNERS AVE  
 FALCON, COLORADO

**CONSTRUCTION DOCUMENTS**  
**INTERIM EROSION CONTROL PLAN**  
 PROJECT NO. 191726  
 DATE: 12/20/2023

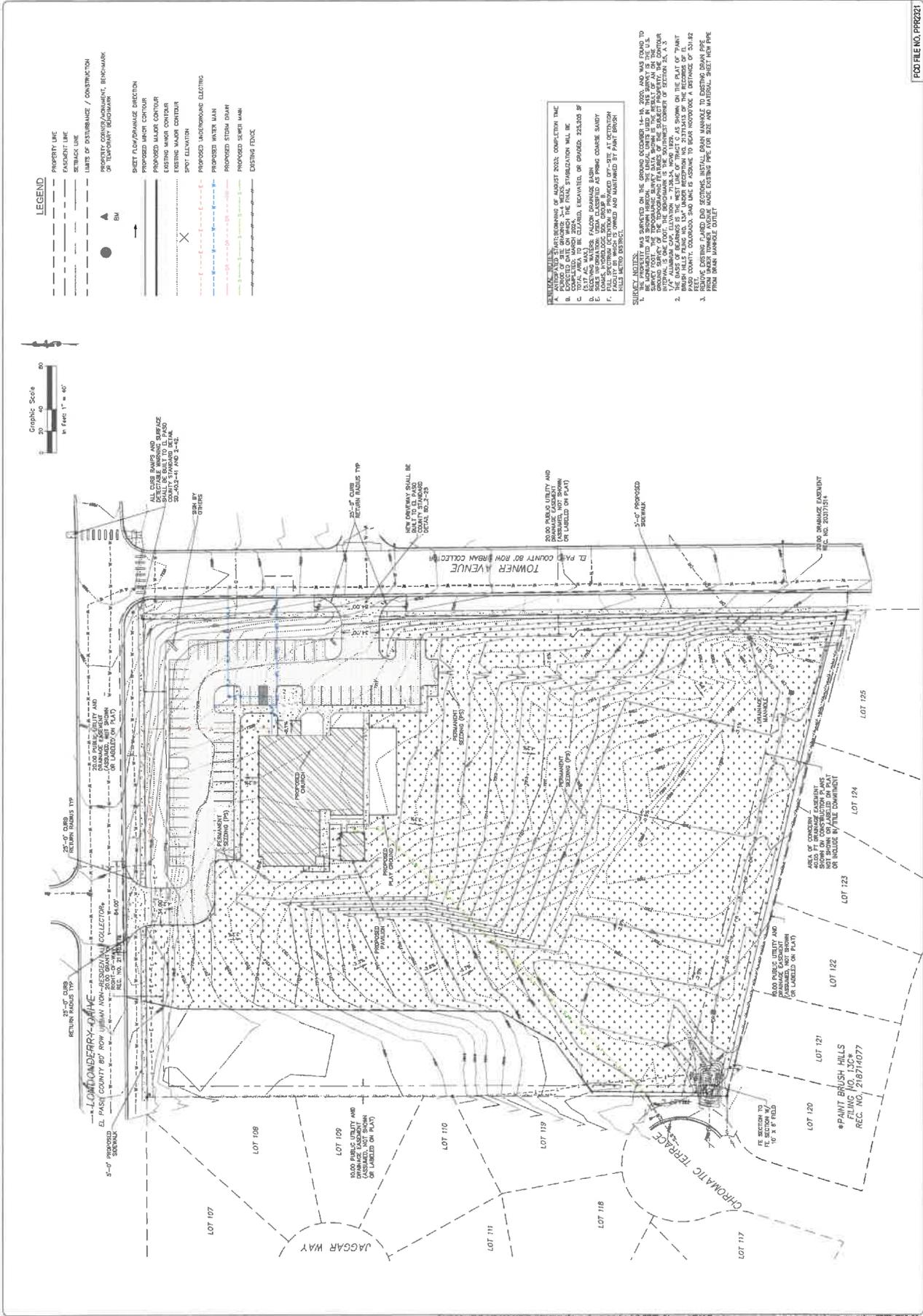


**LEGEND**  
 PROPERTY LINE  
 EASEMENT LINE  
 SETBACK LINE  
 LIMITS OF DISTURBANCE / CONSTRUCTION  
 PROPERTY CORNER/ANCHOR/BENCHMARK  
 OR TEMPORARY BENCHMARK  
 SKELT FLOW/DRAINAGE DIRECTION  
 PROPOSED MAJOR CONTOUR  
 PROPOSED MAJOR CONTOUR  
 EXISTING MAJOR CONTOUR  
 SPOT ELEVATION  
 EXISTING FENCE  
 SITE UTILITIES  
 PROP. ASPHALT PAVEMENT  
 PROP. CONCRETE PAVEMENT  
 PROP. CONCRETE PAVEMENT  
 PROP. STRUCTURE/BUILDING  
 PROP. LANDSCAPED AREA  
 PROP. CONCRETE SIDEWALK  
 PROP. GRASS FIELD  
 PROP. RETAINING WALL  
 EX. CONCRETE PAVEMENT  
 EX. STRUCTURE/BUILDING  
 EX. LANDSCAPED AREA  
 EX. CONCRETE SIDEWALK

**EROSION CONTROL LEGEND**  
 VEHICLE TRACKING CONTROL  
 STABILIZED STAGING AREA (NATURAL)  
 CONCRETE WASH-OUT AREA  
 SALT FENCE  
 PERMANENT SEEDING & MULCHING  
 EROSION CONTROL BLANKET  
 ROCK SOCKS  
 STOCKPILE AREA PROTECTION (NATURAL)  
 SEDIMENTATION BASIN  
 SEDIMENT CONTROL LOSES  
 TEMPORARY SEDIMENTATION BASIN

**PROBABLE FAILURE**  
 A. PERIOD OF RAINFALL: 10-15 INCHES PER HOUR  
 B. COMPLETED: MARCH 2024  
 C. ALL AREAS SHALL BE CLEARED, EXCAVATED, OR GRADED TO 2% SLOPE  
 D. RECEIVING WATER: FALCON WASTEWATER TREATMENT PLANT  
 E. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION  
 F. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION  
 G. THE USE OF CONSTRUCTION TRAILERS REQUIRE PVD PERMITTING

**SURVEY NOTES:**  
 THIS SURVEY WAS CONDUCTED ON THE 14th DAY OF MARCH, 2024, AND THE RESULTS TO BE MAINTAINED AS SHOWN HEREON. THE LOCAL MERIDIAN USED IN THIS SURVEY IS THE U.S. STANDARD MERIDIAN. THE SURVEY WAS CONDUCTED IN ACCORDANCE WITH THE COLORADO SURVEYING ACT OF 1968, AS AMENDED. THE SURVEY WAS CONDUCTED BY THE SURVEYOR, AND THE RESULTS ARE HEREBY CERTIFIED TO BE TRUE AND CORRECT. THE SURVEY WAS CONDUCTED IN ACCORDANCE WITH THE COLORADO SURVEYING ACT OF 1968, AS AMENDED. THE SURVEY WAS CONDUCTED BY THE SURVEYOR, AND THE RESULTS ARE HEREBY CERTIFIED TO BE TRUE AND CORRECT. THE SURVEY WAS CONDUCTED IN ACCORDANCE WITH THE COLORADO SURVEYING ACT OF 1968, AS AMENDED. THE SURVEY WAS CONDUCTED BY THE SURVEYOR, AND THE RESULTS ARE HEREBY CERTIFIED TO BE TRUE AND CORRECT.



**NOTES:**

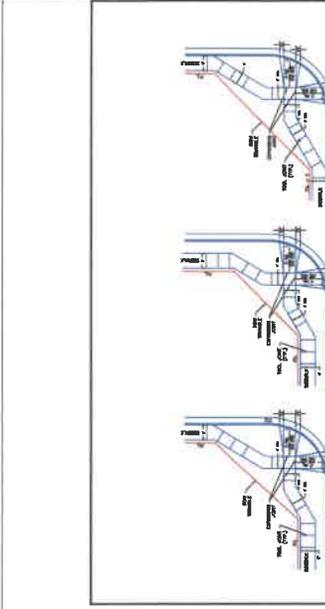
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**SURVEY NOTES:**

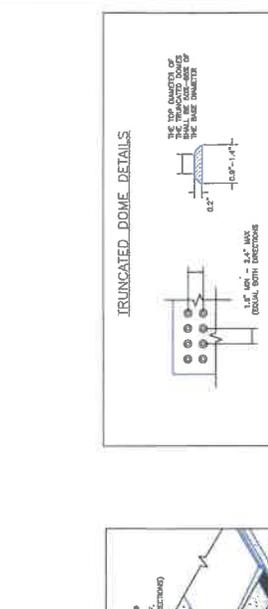
- ALL SURVEY DATA WAS OBTAINED FROM THE RECORD SURVEY OF THE SITE DATED 12/20/2023.
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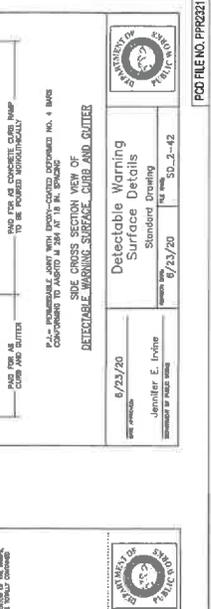




**CWA-1. CONCRETE WASHOUT AREA**  
 SEE REVISIONS NOTES  
 1. SEE PLAN FOR LOCATION  
 2. SEE PLAN FOR LOCATION  
 3. THE CWA SHALL BE INSTALLED FROM TO CONCRETE REINFORCEMENT ON BE.

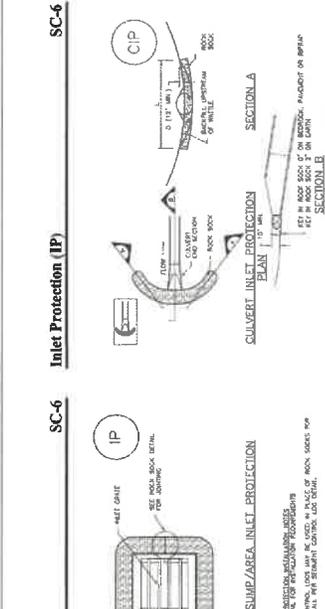


**IP-3. ROCK SOCK/SUMP/AREA INLET PROTECTION**  
 1. SEE PLAN FOR LOCATION  
 2. SEE PLAN FOR LOCATION  
 3. THE CWA SHALL BE INSTALLED FROM TO CONCRETE REINFORCEMENT ON BE.

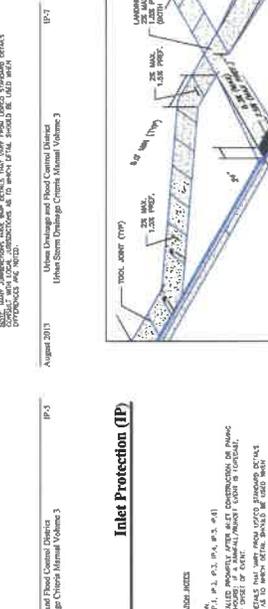


**IP-6. SILT FENCE FOR SUMP INLET PROTECTION**  
 1. SEE PLAN FOR LOCATION  
 2. SEE PLAN FOR LOCATION  
 3. THE CWA SHALL BE INSTALLED FROM TO CONCRETE REINFORCEMENT ON BE.

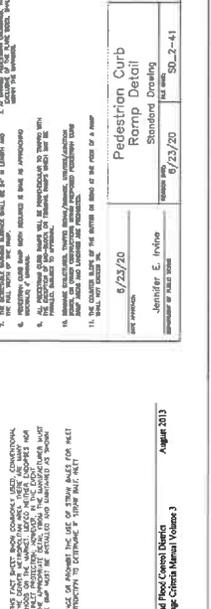
August 2013  
 Urban Drainage and Flood Control District  
 Urban Storm Drainage Criteria Manual Volume 3



**IP-1. CULVERT INLET PROTECTION**  
 1. SEE PLAN FOR LOCATION  
 2. SEE PLAN FOR LOCATION  
 3. THE CWA SHALL BE INSTALLED FROM TO CONCRETE REINFORCEMENT ON BE.

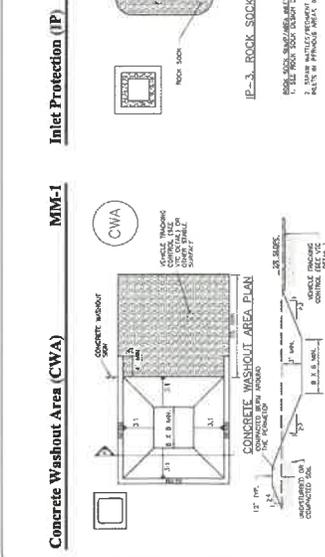


**IP-2. TRUNCATED DOME DETAILS**  
 1. SEE PLAN FOR LOCATION  
 2. SEE PLAN FOR LOCATION  
 3. THE CWA SHALL BE INSTALLED FROM TO CONCRETE REINFORCEMENT ON BE.

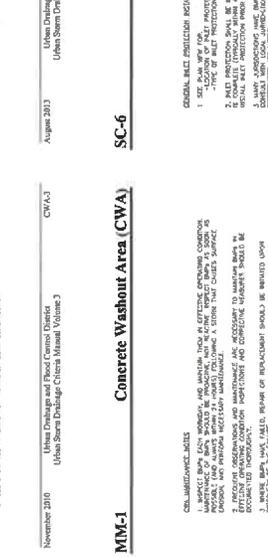


**IP-4. DETECTABLE WARNING SURFACE DETAILS**  
 1. SEE PLAN FOR LOCATION  
 2. SEE PLAN FOR LOCATION  
 3. THE CWA SHALL BE INSTALLED FROM TO CONCRETE REINFORCEMENT ON BE.

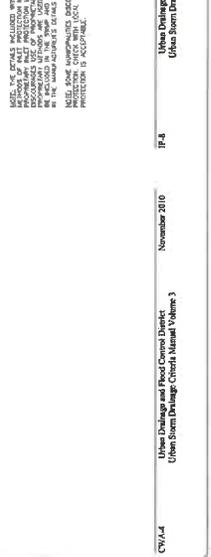
August 2013  
 Urban Drainage and Flood Control District  
 Urban Storm Drainage Criteria Manual Volume 3



**CWA-1. CONCRETE WASHOUT AREA**  
 SEE REVISIONS NOTES  
 1. SEE PLAN FOR LOCATION  
 2. SEE PLAN FOR LOCATION  
 3. THE CWA SHALL BE INSTALLED FROM TO CONCRETE REINFORCEMENT ON BE.



**IP-3. ROCK SOCK/SUMP/AREA INLET PROTECTION**  
 1. SEE PLAN FOR LOCATION  
 2. SEE PLAN FOR LOCATION  
 3. THE CWA SHALL BE INSTALLED FROM TO CONCRETE REINFORCEMENT ON BE.



**IP-6. SILT FENCE FOR SUMP INLET PROTECTION**  
 1. SEE PLAN FOR LOCATION  
 2. SEE PLAN FOR LOCATION  
 3. THE CWA SHALL BE INSTALLED FROM TO CONCRETE REINFORCEMENT ON BE.

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



**CWA-1. CONCRETE WASHOUT AREA**  
 SEE REVISIONS NOTES  
 1. SEE PLAN FOR LOCATION  
 2. SEE PLAN FOR LOCATION  
 3. THE CWA SHALL BE INSTALLED FROM TO CONCRETE REINFORCEMENT ON BE.



**IP-3. ROCK SOCK/SUMP/AREA INLET PROTECTION**  
 1. SEE PLAN FOR LOCATION  
 2. SEE PLAN FOR LOCATION  
 3. THE CWA SHALL BE INSTALLED FROM TO CONCRETE REINFORCEMENT ON BE.



**IP-6. SILT FENCE FOR SUMP INLET PROTECTION**  
 1. SEE PLAN FOR LOCATION  
 2. SEE PLAN FOR LOCATION  
 3. THE CWA SHALL BE INSTALLED FROM TO CONCRETE REINFORCEMENT ON BE.

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 Urban Drainage and Flood Control District  
 Urban Storm Drainage Criteria Manual Volume 3



**TABLE SB-1**

Design of Outlet

Outlet Diameter (in)	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0
Minimum Headwater (ft)	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0
Minimum Headwater (ft)	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0
Minimum Headwater (ft)	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0

**TABLE SB-2**

Minimum Headwater (ft)

Outlet Diameter (in)	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0
Minimum Headwater (ft)	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0
Minimum Headwater (ft)	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0
Minimum Headwater (ft)	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0

**SC-7 Sediment Basin (SB)**

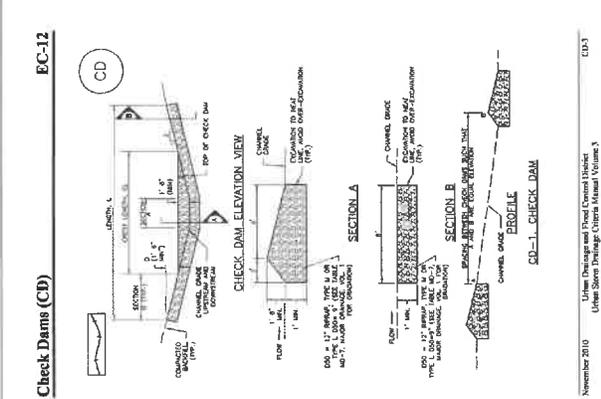
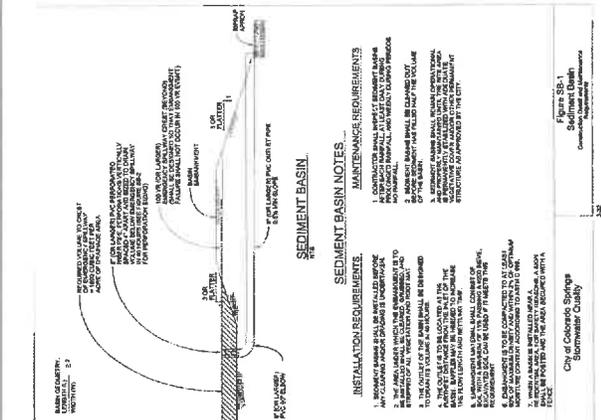
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 Urban Storm Drainage Criteria Manual Volume 3

August 2013

Figure SB-2  
 Sediment Basin  
 City of Colorado Springs  
 Stormwater Quality

APPLICABLE REQUIREMENTS AND MAINTENANCE

1. GENERAL DESIGN REQUIREMENTS AND MAINTENANCE SHALL BE AS FOLLOWS:  
 a. SEDIMENT BASINS SHALL BE DESIGNED TO CAPTURE AND REMOVE SOLIDS FROM THE FLOWING WATER.  
 b. SEDIMENT BASINS SHALL BE DESIGNED TO CAPTURE AND REMOVE SOLIDS FROM THE FLOWING WATER.  
 c. SEDIMENT BASINS SHALL BE DESIGNED TO CAPTURE AND REMOVE SOLIDS FROM THE FLOWING WATER.



**SC-7 Sediment Basin (SB)**

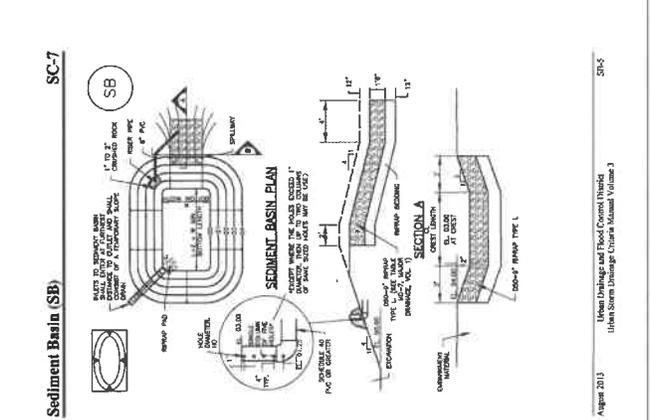
Urban Drainage and Flood Control District  
 Urban Storm Drainage Criteria Manual Volume 3

August 2013

Figure SB-2  
 Sediment Basin  
 City of Colorado Springs  
 Stormwater Quality

APPLICABLE REQUIREMENTS AND MAINTENANCE

- GENERAL DESIGN REQUIREMENTS AND MAINTENANCE SHALL BE AS FOLLOWS:  
 a. SEDIMENT BASINS SHALL BE DESIGNED TO CAPTURE AND REMOVE SOLIDS FROM THE FLOWING WATER.  
 b. SEDIMENT BASINS SHALL BE DESIGNED TO CAPTURE AND REMOVE SOLIDS FROM THE FLOWING WATER.  
 c. SEDIMENT BASINS SHALL BE DESIGNED TO CAPTURE AND REMOVE SOLIDS FROM THE FLOWING WATER.
- INSTALLATION REQUIREMENTS:  
 a. SEDIMENT BASINS SHALL BE INSTALLED UPSTREAM OF ANY CHANNEL OR STRUCTURE THAT RECEIVES FLOW FROM THE BASIN.  
 b. SEDIMENT BASINS SHALL BE DESIGNED TO CAPTURE AND REMOVE SOLIDS FROM THE FLOWING WATER.  
 c. SEDIMENT BASINS SHALL BE DESIGNED TO CAPTURE AND REMOVE SOLIDS FROM THE FLOWING WATER.
- MAINTENANCE REQUIREMENTS:  
 a. SEDIMENT BASINS SHALL BE MAINTAINED TO ENSURE PROPER OPERATION.  
 b. SEDIMENT BASINS SHALL BE MAINTAINED TO ENSURE PROPER OPERATION.  
 c. SEDIMENT BASINS SHALL BE MAINTAINED TO ENSURE PROPER OPERATION.



**EC-12 Check Dams (CD)**

Urban Drainage and Flood Control District  
 Urban Storm Drainage Criteria Manual Volume 3

November 2010

Figure EC-12  
 Check Dam  
 City of Colorado Springs  
 Stormwater Quality

APPLICABLE REQUIREMENTS AND MAINTENANCE

- GENERAL DESIGN REQUIREMENTS AND MAINTENANCE SHALL BE AS FOLLOWS:  
 a. CHECK DAMS SHALL BE DESIGNED TO CAPTURE AND REMOVE SOLIDS FROM THE FLOWING WATER.  
 b. CHECK DAMS SHALL BE DESIGNED TO CAPTURE AND REMOVE SOLIDS FROM THE FLOWING WATER.  
 c. CHECK DAMS SHALL BE DESIGNED TO CAPTURE AND REMOVE SOLIDS FROM THE FLOWING WATER.
- INSTALLATION REQUIREMENTS:  
 a. CHECK DAMS SHALL BE INSTALLED UPSTREAM OF ANY CHANNEL OR STRUCTURE THAT RECEIVES FLOW FROM THE DAM.  
 b. CHECK DAMS SHALL BE DESIGNED TO CAPTURE AND REMOVE SOLIDS FROM THE FLOWING WATER.  
 c. CHECK DAMS SHALL BE DESIGNED TO CAPTURE AND REMOVE SOLIDS FROM THE FLOWING WATER.
- MAINTENANCE REQUIREMENTS:  
 a. CHECK DAMS SHALL BE MAINTAINED TO ENSURE PROPER OPERATION.  
 b. CHECK DAMS SHALL BE MAINTAINED TO ENSURE PROPER OPERATION.  
 c. CHECK DAMS SHALL BE MAINTAINED TO ENSURE PROPER OPERATION.



**Appendix B – FEMA Floodplain Map**

# National Flood Hazard Layer FIRMette



104°37'40"W, 38°58'52"N

SEE HIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

## Legend

**SPECIAL FLOOD HAZARD AREAS**

- Without Base Flood Elevation (BFE)  
Zone A, V, A99
- With BFE or Depth Zone AE, AO, AH, VE, AR
- Regulatory Floodway

**OTHER AREAS OF FLOOD HAZARD**

- 0.2% Annual Chance Flood Hazard, Area of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile (Zone 2)
- Future Conditions 1% Annual Chance Flood Hazard (Zone X)
- Area with Reduced Flood Risk due to Levee. See Notes. (Zone X)
- Area with Flood Risk due to Levee (Zone D)

**OTHER AREAS**

- NO SCREEN
- Area of Minimal Flood Hazard (Zone X)
- Effective LOMRS
- Area of Undetermined Flood Hazard (Zone X)

**GENERAL STRUCTURES**

- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

**OTHER FEATURES**

- Cross Sections with 1% Annual Chance Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

**MAP PANELS**

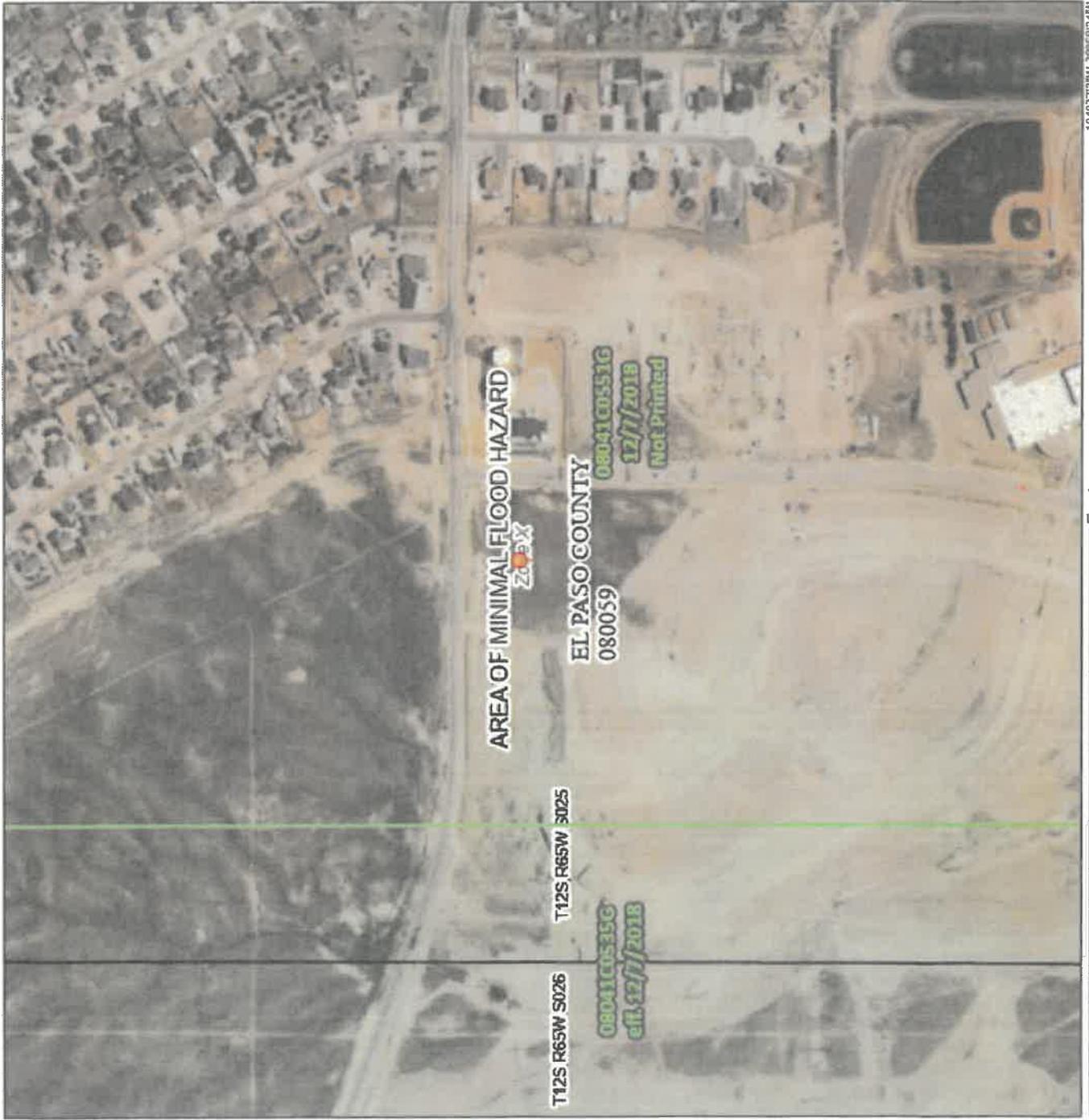
- Digital Data Available
- No Digital Data Available
- Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 2/14/2023 at 4:11 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

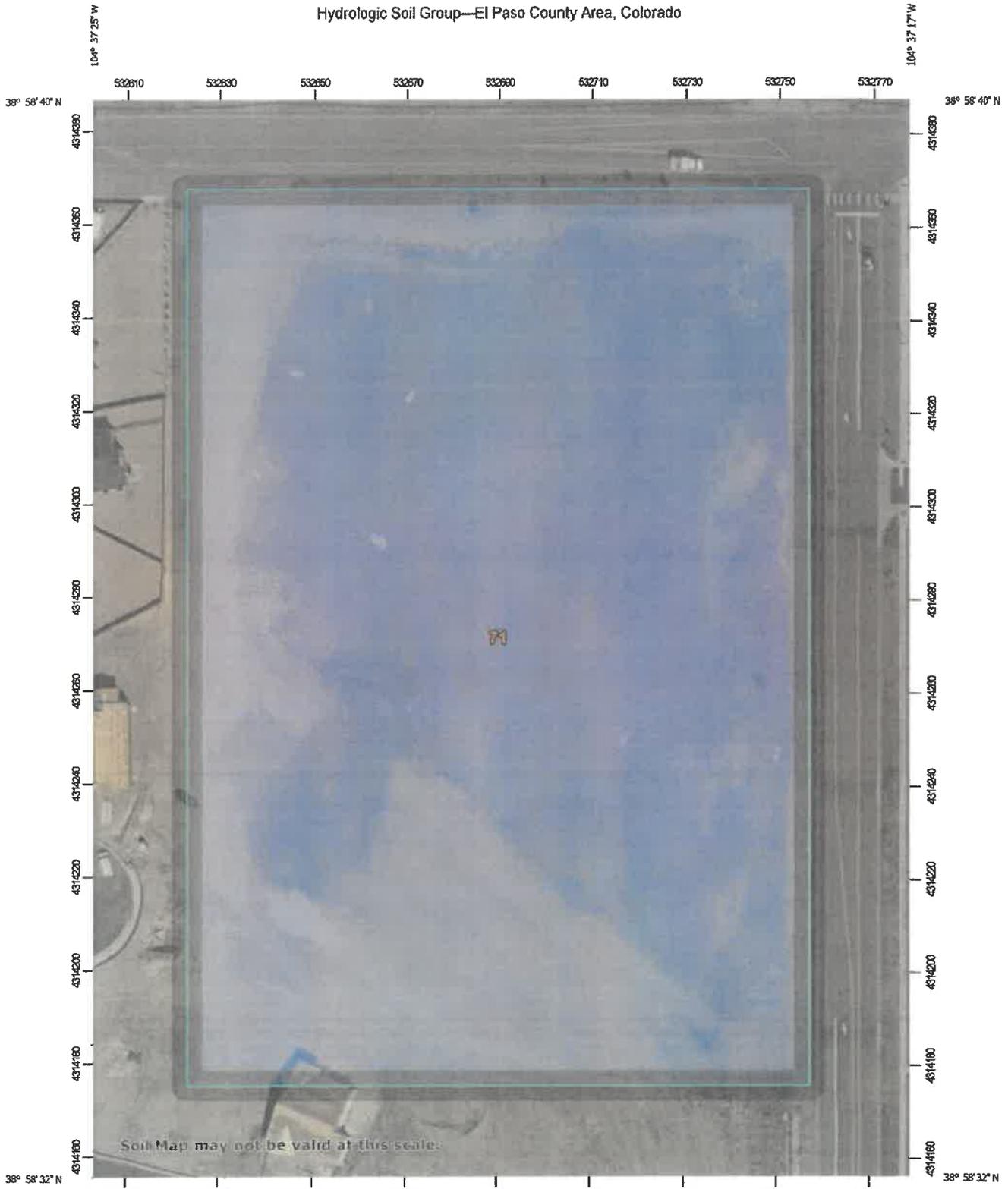
This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory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



104°37'2\"/>

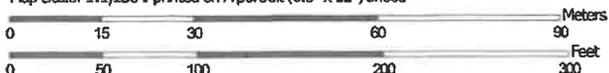
**Appendix C – USDA Soil Survey Map**

Hydrologic Soil Group—El Paso County Area, Colorado



Soil Map may not be valid at this scale.

Map Scale: 1:1,130 if printed on A portrait (8.5" x 11") sheet.



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



Hydrologic Soil Group—El Paso County Area, Colorado

**MAP LEGEND**

**Area of Interest (AOI)**  
 Area of Interest (AOI)

**Soils**

**Soil Rating Polygons**

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

**Soil Rating Lines**

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

**Soil Rating Points**

-  A
-  A/D
-  B
-  B/D

**Water Features**

-  Streams and Canals

**Transportation**

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

**Background**

-  Aerial Photography

**Other Legend Items:**

-  C
-  C/D
-  D
-  Not rated or not available

**MAP INFORMATION**

The soil surveys that comprise your AOI were mapped at 1:24,000.

**Warning:** Soil Map may not be valid at this scale.  
 Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

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

Source of Map: Natural Resources Conservation Service  
 Web Soil Survey URL:  
 Coordinate System: Web Mercator (EPSG:3857)

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

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

Soil Survey Area: El Paso County Area, Colorado  
 Survey Area Data: Version 20, Sep 2, 2022

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

Date(s) aerial images were photographed: Sep 11, 2018—Oct 20, 2018

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

## Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
71	Pring coarse sandy loam, 3 to 8 percent slopes	B	6.4	100.0%
<b>Totals for Area of Interest</b>			<b>6.4</b>	<b>100.0%</b>

### Description

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

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

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

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

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

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

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

### Rating Options

*Aggregation Method:* Dominant Condition

*Component Percent Cutoff: None Specified*

*Tie-break Rule: Higher*

## **Appendix D – CDPHE Reference Brochure**

## REPORTING CHEMICAL SPILLS AND RELEASES IN COLORADO

### General

For all hazardous substance incidents, local emergency response agencies must be notified.

### Releases from Fixed Facilities

The Superfund Amendments and Reauthorization Act (SARA) Title III, requires reporting releases from fixed facilities

Refer to the SARA Title III List of Lists, available from the Environmental Protection Agency (EPA), for the reportable quantity.

The party that owns the spilled material must immediately notify the following agencies or organizations:

- National Response Center (NRC) 1-800-424-8802;
- Colorado Emergency Planning Committee (CEPC), represented by the Colorado Department of Public Health and Environment (CDPHE) 1-877-518-5608; and
- Local Emergency Planning Committee (LEPC) 1-720-852-6600.

In addition to telephone notification, the responsible party must also send written notification describing the release and associated emergency response to both the CEPC (in this case, CDPHE) and the LEPC.

### Releases from RCRA Facilities

Emergency releases from facilities permitted under the Resource Conservation and Recovery Act (RCRA) are reportable according to the permit requirements.

The permit often requires reporting to CDPHE, even if the amount of the release is less than a reportable quantity under SARA Title III (6 CCR 1007-3 Part 264).

Permitted facilities and large quantity generators (LQGs) of hazardous waste are required to have and implement a contingency plan that describes the actions facility personnel must take in response to fires, explosions or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, surface or ground water at the facility (6 CCR 1007-3 Sections 264.52/265.52).

Whenever there is an imminent or actual emergency situation, appropriate state or local agencies, with designated response roles as described in the contingency plan, must be notified immediately.

The National Response Center or government official designated as the regional on-scene coordinator must be notified immediately if it is determined that the facility has had a release, fire or explosion that could threaten human health or the environment outside the facility (6 CCR 1007-3 Sections 264.56/265.56).

CDPHE and local authorities must be notified when the facility is back in compliance and ready to resume operations. In addition, the facility must send a written report to CDPHE within 15 days of any incident that requires implementation of the contingency plan. The contingency plan should include current contact information for notification and submittal of written reports.

Permitted facilities and LQGs that store hazardous waste in tanks must notify CDPHE within 24 hours of any release to the environment that is greater than one (1) pound and must submit a written report to CDPHE within 30 days of the release (6 CCR 1007-3 Section 264.196 (d)/265.196(d)).

### Transportation Accidents

Transportation accidents that require reporting:

- Result in a spill or release of a hazardous substance in excess of the reportable quantity (40 CFR Part 302.6)
- Cause injury or death or cause estimated property damage exceeding \$50,000.

- Cause an evacuation of the general public lasting one or more hours.

Those that close or shut down one or more major transportation arteries or facilities or result in fire, breakage, spillage, or suspected contamination from radioactive or infectious substances must immediately be reported to the National Response Center.

Refer to the EPA SARA Title III List of Lists for those substances that have reportable quantities.

In addition to the NRC being notified, the local emergency number (9-1-1) must be called and CDPHE should be notified.

Written notification of any transportation accident involving a release of hazardous materials must be provided to the U.S. Department of Transportation within 30 days (49 CFR Part 171.16)

Since hazardous waste is a subset of hazardous materials, transporters who have discharged hazardous waste must notify the NRC and provide a written report to the US Department of Transportation as noted in the above reporting requirements.

The transporter must give immediate notice to the nearest Colorado State Patrol office (8 CCR 1507-8 HMP 5) and the nearest law enforcement agency if the accident or spill involved a vehicle (42-20-113(3) CRS).

Notification and a written report detailing the ultimate disposition of the discharge of hazardous waste must also be provided to CDPHE (6 CCR 1007-2 Section 263.30). This may be a duplicate copy of the US Department of Transportation report

In the event of a spill or discharge of hazardous waste at a transfer facility, the transporter must notify CDPHE within 24 hours if the spill exceeds 55 gallons or if there is a fire or explosion.

Within 15 days of a reportable incident, the transporter must submit a written report of the incident to CDPHE, including the final disposition of the material (6 CCR 1007-2 Section 263.40).

Releases of hazardous waste at a transfer facility may also require notification to the National Response Center and a written report to the U.S. Department of Transportation.

### **Releases to Water**

A release of any chemical, oil, petroleum product, sewage, etc., which may enter waters of the State of Colorado (which include surface water, ground water and dry gullies or storm sewers leading to surface water) must be reported to CDPHE immediately (25-8-601 CRS).

Written notification to CDPHE must follow within five (5) days (5 CCR 1002-61, Section 61.8(5)(d)).

Any accidental discharge to the sanitary sewer system must be reported immediately to the local sewer authority and the affected wastewater treatment plant.

Releases of petroleum 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 to CDPHE (1-877-518-5608) as required under the Clean Water Act and the Oil Pollution Act.

### **Releases to Air**

Any unpredictable failure of air pollution control or process equipment that results in the violation of emission control regulations should be reported CDPHE by 10 a.m. of the following working day, followed by a written notice explaining the cause of the occurrence and describing action that has been or is being taken to correct the condition causing the violation and to prevent such excess emissions in the future (5 CCR 1001-2 Common Provisions Regulations Section II.E).

If emergency conditions cause excess emissions at a permitted facility, the owner/operator must provide notice to CDPHE no later than noon of the next working day following the emergency, and follow by written notice within one month of the time when emission limitations were exceeded due to the emergency (5 CCR 1001-5, Regulation 3 Part C, Section VII.C.4).

### **Releases from Oil and Gas Wells**

All spills and releases of exploration and production wastes or produced fluids which meet the reporting thresholds of the Colorado Oil and Gas Conservation Commission (COGCC) Rule 906 shall be reported verbally to the COGCC within 24 hours of discovery and on the COGCC Spill/Release Report Form 19 within 72 hours of discovery.

Spills are reportable to the COGCC in the following circumstances:

- 1) the spill or release impacts or threatens to impact any waters of the state, a residence or occupied structure, livestock or a public byway;
- 2) a spill or release in which 1 barrel or more is released outside of berms or other secondary containment; or
- 3) any spill or release of 5 barrels or more. If the spill impacts or threatens to impact waters of the state (which include surface water, ground water and dry gullies or storm sewers leading to surface water), it must also be reported immediately to CDPHE (25-8-601 CRS).

COGCC also requires reportable spills be reported to the surface owner and local government. Whether or not they are reportable, spills or releases of any size must be cleaned up as soon as practicable.

### **Releases from Storage Tanks**

Petroleum releases of 25 gallons or more (or that cause a sheen on nearby surface waters) from regulated aboveground and underground fuel storage tanks must be reported to the State Oil Inspector within 24 hours (after-hours contact CDPHE Emergency and Incident Reporting Line). This includes spills from fuel pumps.

Spills or releases of hazardous substances from regulated storage tanks in excess of the reportable quantity (40 CFR Part 302.6) must be reported to the National Response Center and the local fire authority

immediately, and to the State Oil Inspector within 24 hours. (8-20.5-208 CRS and 7 CCR 1101-14 Article 4).

Owners/operators of regulated storage tanks must contain and immediately clean up a spill or overfill of less than 25 gallons of petroleum and a spill or overfill of a hazardous substance that is less than the reportable quantity.

If cleanup cannot be accomplished within 24 hours, the State Inspector of Oils must be notified immediately (7 CCR 1101-14 Article 4-4).

CDPHE should also be notified in the case of hazardous substance releases as cleanup activities may be covered by state solid or hazardous waste requirements (6 CCR 1007-2, 6 CCR 1007-3).

Any release that has or may impact waters of the state (which include surface water, ground water and dry gullies or storm sewers leading to surface water), no matter how small, must be reported immediately to CDPHE (25-8-601 CRS).

### **Releases from Pipelines**

Releases of five or more gallons of hazardous liquids or carbon dioxide from a pipeline that result in explosion or fire, cause injury or death or cause estimated property damage (including cost of clean-up and recovery, value of lost product and property damage) exceeding \$50,000 must be reported immediately to the US Department of Transportation Office of Pipeline Safety (49 CFR Part 195 Subpart B) and the National Response Center.

Releases of five or more gallons of hazardous liquids or carbon dioxide from interstate pipelines that do not involve explosion or fire, injury or death or property damage exceeding \$50,000 should be reported to the US Department of Transportation Office of Pipeline Safety within 30 days after the incident.

Releases of natural gas from intrastate pipelines that cause injury or death, property damage in excess of \$50,000 (including the cost of lost product), closure of a public road, or evacuation of 50 or more people must be reported immediately to the Colorado Public Utilities Commission, Pipeline Safety Group (4 CCR 723-11-2).

Releases of natural gas or liquefied natural gas (LNG) from interstate pipelines that cause injury or death,

property damage in excess of \$50,000 (including the cost of lost product), or results in an emergency shutdown of the facility must be reported immediately to the National Response Center and the US Dept of Transportation Office of Pipeline Safety.

Releases of oil, petroleum products or other hazardous liquids from interstate and intrastate pipelines that have or may enter waters of the State of Colorado (which include surface water, ground water and dry gullies or storm sewers leading to surface water) must be reported to CDPHE immediately (25-8-601 CRS). CDPHE should also be notified of releases to soil bas cleanup activities may be covered by state solid or hazardous waste requirements (6 CCR 1007-2, 6 CCR 1007-3).

#### **Radiological Accidents, Incidents, and Events**

CDPHE must be notified of any condition that has caused or threatens to cause an event, which meets or exceeds the criteria specified in (6 CCR 1007-1) RH 4.51 and RH 4.52 of the State of Colorado *Rules and Regulations Pertaining to Radiation Control*. Reportable events include lost radioactive materials, lost radiation producing machines, over-exposures to persons, contamination events and fires or explosions involving radioactive materials.

Depending upon the severity of the event, notification may be required immediately, within 24 hours, or within 30 days. In most cases, a written follow-up report is also required.

If you are unsure of the proper notification requirement, please contact CDPHE immediately. During normal business hours, the Laboratory and Radiation Services Division is available to receive telephone notifications at (303) 692-3300. After hours contact the CDPHE Emergency and Incident Reporting Line **1-877- 518-5608**.

#### **NOTIFICATION NUMBERS**

Colorado Department of Public Health and Environment toll-free 24-hour environmental emergency and incident reporting line: **(877) 518-5608 (24-hour)**

National Response Center  
**(800) 424-8802 (24-hour)**

State Oil Inspector (Colorado Division of Oil & Public Safety-Above & Underground Storage Tank Regulators)  
**(303) 318-8547**



## **Colorado Department of Public Health and Environment**

**Office of Emergency  
Preparedness & Response**

**Environmental Spill Reporting**

**24-Hour Emergency and  
Incident Reporting Line  
1-877-518-5608**

Updated February 2017

**Appendix E – Inspection Log Template**



**Appendix F – GEC Administrator Certification**

# Altitude Training Associates

Awards this Certificate of Completion to

**Robert Maunton**

Who on February 14, 2023 Successfully Completed  
The Following Instructor Led Online Training Class:

**Stormwater Management and Erosion Control During  
Construction - GEC Administrator**  
Certificate Number: 275



Instructor  
Altitude Training Associates



**Appendix G – Private Detention Basin/Stormwater Quality Best Management Practice Maintenance Agreement and Easement**

Chuck Broerman  
12/20/2017 09:22:03 AM  
Doc \$0.00 9  
Rec \$0.00 Pages



El Paso County, CO



217153396

**PRIVATE DETENTION BASIN /  
STORMWATER QUALITY BEST MANAGEMENT PRACTICE  
MAINTENANCE AGREEMENT AND EASEMENT**

This PRIVATE DETENTION BASIN / STORMWATER QUALITY BEST MANAGEMENT PRACTICE MAINTENANCE AGREEMENT AND EASEMENT (Agreement) is made by and between EL PASO COUNTY by and through THE BOARD OF COUNTY COMMISSIONERS OF EL PASO COUNTY, COLORADO (Board or County) and Lorson, LLC (Developer) and Paint Brush Hills METROPOLITAN DISTRICT (Metro District), a quasi-municipal corporation and political subdivision of the State of Colorado. The above may occasionally be referred to herein singularly as “Party” and collectively as “Parties.”

Recitals

A. WHEREAS, the District provides various municipal services to certain real property in El Paso County, Colorado referred to as Paint Brush Hills; and

B. WHEREAS, Developer is the owner of certain real estate (the Property or Subdivision) in El Paso County, Colorado, which Property is legally described in Exhibit A attached hereto and incorporated herein by this reference; and

C. WHEREAS, Developer desires to plat and develop on the Property a subdivision to be known as Paint Brush Hills Filings 13B, C & D; and

D. WHEREAS, the development of this Property will substantially increase the volume of water runoff and will decrease the quality of the stormwater runoff from the Property, and, therefore, it is in the best interest of public health, safety and welfare for the County to condition approval of this subdivision on Developer’s promise to construct adequate drainage, water runoff control facilities, and stormwater quality structural Best Management Practices (“BMPs”) for the subdivision; and

E. WHEREAS, Chapter 8, Section 8.4.5 of the El Paso County Land Development Code, as periodically amended, promulgated pursuant to Section 30-28-133(1), Colorado Revised Statutes (C.R.S.), requires the County to condition approval of all subdivisions on a developer’s promise to so construct adequate drainage, water runoff control facilities, and BMPs in subdivisions; and

F. WHEREAS, the Drainage Criteria Manual, Volume 2, as amended by Appendix I of the El Paso County Engineering Criteria Manual (ECM), as each may be periodically amended, promulgated pursuant to the County’s Colorado Discharge Permit System General Permit (MS4 Permit) as required by Phase II of the National Pollutant Discharge Elimination System (NPDES), which MS4 Permit requires that the County take measures to protect the quality of stormwater from sediment and other contaminants, requires subdividers, developers, landowners, and owners of facilities located in the County’s rights-of-way or easements to provide adequate permanent stormwater quality BMPs with new development or significant redevelopment; and

G. WHEREAS, Section 2.9 of the El Paso County Drainage Criteria Manual provides for a developer’s promise to maintain a subdivision’s drainage facilities in the event the County does not assume such responsibility; and

H. WHEREAS, developers in El Paso County have historically chosen water runoff detention basins as a means to provide adequate drainage and water runoff control in subdivisions, which basins, while effective, are less expensive for developers to construct than other methods of providing drainage and water runoff control; and

I. WHEREAS, Developer desires to construct for the subdivision Paint Brush Hills Filings 13B, C & D detention basin/stormwater quality BMP(s) (“detention basin/BMP(s)”) as the means for providing adequate drainage and stormwater runoff control and to meet requirements of the County’s MS4 Permit, and to provide for operating, cleaning, maintaining and repairing such detention basin/BMP(s); and

J. WHEREAS, Developer desires to construct the detention basin/BMP(s) on property that is or will be platted as Paint Brush Hills Filings 13B, C & D, and as set forth on Exhibit B attached hereto; and

K. WHEREAS, Developer shall be charged with the duty of constructing the detention basin/BMP(s) and the Metro District shall be charged with the duties of operating, maintaining and repairing the detention basin/BMP(s) on the Property described in Exhibit B; and

L. WHEREAS, it is the County’s experience that subdivision developers and property owners historically have not properly cleaned and otherwise not properly maintained and repaired these detention basins/BMPs, and that these detention basins/BMPs, when not so properly cleaned, maintained, and repaired, threaten the public health, safety and welfare; and

M. WHEREAS, the County, in order to protect the public health, safety and welfare, has historically expended valuable and limited public resources to so properly clean, maintain, and repair these detention basins/BMPs when developers and property owners have failed in their responsibilities, and therefore, the County desires the means to recover its costs incurred in the event the burden falls on the County to so clean, maintain and repair the detention basin/BMP(s) serving this Subdivision due to the Developer’s or the Metro District’s failure to meet its obligations to do the same; and

N. WHEREAS, the County conditions approval of this Subdivision on the Developer’s promise to so construct the detention basin/BMP(s), and further conditions approval on the Metro District’s promise to reimburse the County in the event the burden falls upon the County to so clean, maintain and/or repair the detention basin/BMP(s) serving this Subdivision; and

O. WHEREAS, the County could condition subdivision approval on the Developer’s promise to construct a different and more expensive drainage, water runoff control system and BMPs than those proposed herein, which more expensive system would not create the possibility of the burden of cleaning, maintenance and repair expenses falling on the County; however, the County is willing to forego such right upon the performance of Developer’s and the Metro District’s promises contained herein; and

P. WHEREAS, the County, in order to secure performance of the promises contained herein, conditions approval of this Subdivision upon the Developer’s grant herein of a perpetual Easement over a portion of the Property for the purpose of allowing the County to periodically access, inspect, and, when so necessary, to clean, maintain and/or repair the detention basin/BMP(s); and

Q. WHEREAS, Pursuant to Colorado Constitution, Article XIV, Section 18(2) and Section 29-1-203, Colorado Revised Statutes, governmental entities may cooperate and contract with each other to provide any function, services, or facilities lawfully authorized to each.

### Agreement

NOW, THEREFORE, in consideration of the mutual Promises contained herein, the sufficiency of which are hereby acknowledged, the Parties agree as follows:

1. Incorporation of Recitals: The Parties incorporate the Recitals above into this Agreement.

2. Covenants Running with the Land: Developer and the Metro District agree that this entire Agreement and the performance thereof shall become a covenant running with the land, which land is legally described in Exhibit A attached hereto, and that this entire Agreement and the performance thereof shall be binding upon themselves, their respective successors and assigns.

3. Construction: Developer shall construct on that portion of the Property described in Exhibit B attached hereto and incorporated herein by this reference, one detention basin/BMP(s). Developer shall not commence construction of the detention basin/BMP(s) until the El Paso County Planning and Community Development Department (PCD) has approved in writing the plans and specifications for the detention basin/BMP(s) and this Agreement has been signed by all Parties and returned to the PCD. Developer shall complete construction of the detention basin/BMP(s) in substantial compliance with the County-approved plans and specifications for the detention basin/BMP(s). Failure to meet these requirements shall be a material breach of this Agreement, and shall entitle the County to pursue any remedies available to it at law or in equity to enforce the same. Construction of the detention basin/BMP(s) shall be substantially completed within one (1) year (defined as 365 days), which one year period will commence to run on the date the approved plat of this Subdivision is recorded in the records of the El Paso County Clerk and Recorder. Rough grading of the detention basin/BMP(s) must be completed and inspected by the El Paso County Planning and Community Development Department prior to commencing road construction.

In the event construction is not substantially completed within the one (1) year period, then the County may exercise its discretion to complete the project, and shall have the right to seek reimbursement from the Developer and its respective successors and assigns, for its actual costs and expenses incurred in the process of completing construction. The term actual costs and expenses shall be liberally construed in favor of the County, and shall include, but shall not be limited to, labor costs, tool and equipment costs, supply costs, and engineering and design costs, regardless of whether the County uses its own personnel, tools, equipment and supplies, etc. to correct the matter. In the event the County initiates any litigation or engages the services of legal counsel in order to enforce the Provisions arising herein, the County shall be entitled to its damages and costs, including reasonable attorney fees, regardless of whether the County contracts with outside legal counsel or utilizes in-house legal counsel for the same.

4. Maintenance: The Metro District agrees for itself and its successors and assigns, that it will regularly and routinely inspect, clean and maintain the detention basin/BMP(s), and otherwise keep

the same in good repair, all at its own cost and expense. No trees or shrubs that will impair the structural integrity of the detention basin/BMP(s) shall be planted or allowed to grow on the detention basin/BMP(s).

5. Creation of Easement: Developer hereby grants the County and the Metro District a non-exclusive perpetual easement upon and across that portion of the Property described in Exhibit B. The purpose of the easement is to allow the County and the Metro District to access, inspect, clean, repair and maintain the detention basin/BMP(s); however, the creation of the easement does not expressly or implicitly impose on the County a duty to so inspect, clean, repair or maintain the detention basin/BMP(s).

6. County's Rights and Obligations: Any time the County determines, in the sole exercise of its discretion, that the detention basin/BMP(s) is not properly cleaned, maintained and/or otherwise kept in good repair, the County shall give reasonable notice to the Developer, the Metro District and their respective successors and assigns, that the detention basin/BMP(s) needs to be cleaned, maintained and/or otherwise repaired. The notice shall provide a reasonable time to correct the problem(s). Should the responsible parties fail to correct the specified problem(s), the County may enter upon the Property to so correct the specified problem(s). Notice shall be effective to the above by the County's deposit of the same into the regular United States mail, postage pre-paid. Notwithstanding the foregoing, this Agreement does not expressly or implicitly impose on the County a duty to so inspect, clean, repair or maintain the detention basin/BMP(s).

7. Reimbursement of County's Costs / Covenant Running With the Land: The Developer and the Metro District agree and covenant, for themselves, their respective successors and assigns, that they will reimburse the County for its costs and expenses incurred in the process of completing construction of, cleaning, maintaining, and/or repairing the detention basin/BMP(s) pursuant to the provisions of this Agreement.

The term "actual costs and expenses" shall be liberally construed in favor of the County, and shall include, but shall not be limited to, labor costs, tools and equipment costs, supply costs, and engineering and design costs, regardless of whether the County uses its own personnel, tools, equipment and supplies, etc. to correct the matter. In the event the County initiates any litigation or engages the services of legal counsel in order to enforce the provisions arising herein, the County shall be entitled to its damages and costs, including reasonable attorney's fees, regardless of whether the County contracts with outside legal counsel or utilizes in-house legal counsel for the same.

8. Contingencies of Subdivision Approval: Developer's and the Metro District's execution of this Agreement is a condition of subdivision approval. Additional conditions of this Agreement include, but are not limited to, the following:

- a. Conveyance of that Tract referenced in Exhibit B, from Developer to the Metro District (which will include a reservation of easement in favor of the County for purposes of accessing, inspecting, cleaning, maintaining, and repairing the detention basin/BMP(s)), and recording of the Deed for the same; and
- b. A copy of the Covenants of the Subdivision, if applicable, establishing that the Metro District is obligated to inspect, clean, maintain, and repair the detention basin/BMP(s).

The County shall have the right, in the sole exercise of its discretion, to approve or disapprove any documentation submitted to it under the conditions of this Paragraph, including but not limited to, any separate agreement or amendment, if applicable, identifying any specific maintenance responsibilities not addressed herein. The County's rejection of any documentation submitted hereunder shall mean that the appropriate condition of this Agreement has not been fulfilled.

9. Agreement Monitored by El Paso County Planning and Community Development Department and/or El Paso County Department of Public Works: Any and all actions and decisions to be made hereunder by the County shall be made by the Director of the El Paso County Planning and Community Development Department and/or the Director of the El Paso County Department of Public Works. Accordingly, any and all documents, submissions, plan approvals, inspections, etc. shall be submitted to and shall be made by the Director of the Planning and Community Development Department and/or the Director of the El Paso County Department of Public Works.

10. Indemnification and Hold Harmless: To the extent authorized by law, Developer and the Metro District agree, for themselves, their respective successors and assigns, that they will indemnify, defend, and hold the County harmless from any and all loss, costs, damage, injury, liability, claim, lien, demand, action and causes of action whatsoever, whether at law or in equity, arising from or related to their respective intentional or negligent acts, errors or omissions or that of their agents, officers, servants, employees, invitees and licensees in the construction, operation, inspection, cleaning (including analyzing and disposing of any solid or hazardous wastes as defined by State and/or Federal environmental laws and regulations), maintenance, and repair of the detention basin/BMP(s), and such obligation arising under this Paragraph shall be joint and several. Nothing in this Paragraph shall be deemed to waive or otherwise limit the defense available to the County pursuant to the Colorado Governmental Immunity Act, Sections 24-10-101, *et seq.* C.R.S., or as otherwise provided by law.

11. Severability: In the event any Court of competent jurisdiction declares any part of this Agreement to be unenforceable, such declaration shall not affect the enforceability of the remaining parts of this Agreement.

12. Third Parties: This Agreement does not and shall not be deemed to confer upon or grant to any third party any right to claim damages or to bring any lawsuit, action or other proceeding against either the County, the Developer, the Metro District, or their respective successors and assigns, because of any breach hereof or because of any terms, covenants, agreements or conditions contained herein.

13. Solid Waste or Hazardous Materials: Should any refuse from the detention basin/BMP(s) be suspected or identified as solid waste or petroleum products, hazardous substances or hazardous materials (collectively referred to herein as "hazardous materials"), the Developer and the Metro District shall take all necessary and proper steps to characterize the solid waste or hazardous materials and properly dispose of it in accordance with applicable State and/or Federal environmental laws and regulations, including, but not limited to, the following: Solid Wastes Disposal Sites and Facilities Acts, §§ 30-20-100.5 – 30-20-119, C.R.S., Colorado Regulations Pertaining to Solid Waste Disposal Sites and Facilities, 6 C.C.R. 1007-2, *et seq.*, Solid Waste Disposal Act, 42 U.S.C. §§ 6901-6992k, and Federal Solid Waste Regulations 40 CFR Ch. I. The County shall not be responsible or liable for identifying, characterizing, cleaning up, or disposing of such solid waste or hazardous materials. Notwithstanding the previous sentence, should any refuse cleaned up and disposed of by the County be determined to be solid waste or hazardous materials, the Developer and the Metro District, but not the County, shall be

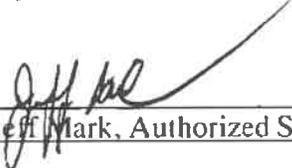
responsible and liable as the owner, generator, and/or transporter of said solid waste or hazardous materials.

14. Applicable Law and Venue: The laws, rules, and regulations of the State of Colorado and El Paso County shall be applicable in the enforcement, interpretation, and execution of this Agreement, except that Federal law may be applicable regarding solid waste or hazardous materials. Venue shall be in the El Paso County District Court.

15. Limitation on Developer's Obligation and Liability: The obligation and liability of the Developer hereunder shall only continue until such time as the Final Plat as described in Paragraph Three (3) of the Recitals set forth above is recorded and the Developer completes the construction of the detention basin/BMP(s) and transfers all applicable maintenance and operation responsibilities to the Metro District. By execution of this agreement, the Metro District agrees to accept all responsibilities and to perform all duties assigned to it, including those of the Developer, as specified herein, upon transfer of the Tract referenced in Exhibit B from Developer to the Metro District.

IN WITNESS WHEREOF, the Parties affix their signatures below.

Executed this 12<sup>th</sup> day of December, 2017, by:  
Lorson, LLC

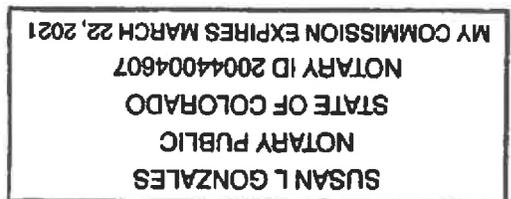
By:   
Jeff Mark, Authorized Signing Agent

The foregoing instrument was acknowledged before me this 12<sup>th</sup> day of December, 2017, by Jeff Mark, Authorized Signing Agent, Lorson, LLC

Witness my hand and official seal.

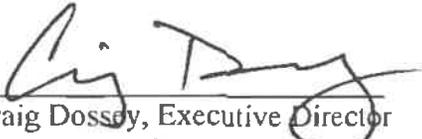
My commission expires: 3.22.21

  
Notary Public



Executed this 14<sup>th</sup> day of December, 2017, by:

BOARD OF COUNTY COMMISSIONERS  
OF EL PASO COUNTY, COLORADO

By:   
Craig Dossey, Executive Director  
Planning and Community Development Department  
Authorized signatory pursuant to LDC

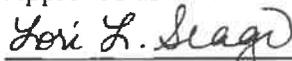
The foregoing instrument was acknowledged before me this 14 day of December, 2017, by Craig Dossey, Executive Director of El Paso County Planning and Community Development Department.

Witness my hand and official seal.

My commission expires: 09/02/2020

  
Notary Public

Approved as to Content and Form:

  
Assistant County Attorney

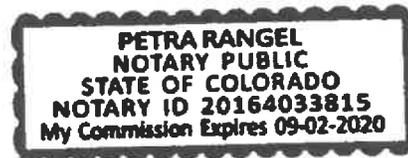


Exhibit A

Paint Brush Hills Filing No. 13B, El Paso County, Colorado

Paint Brush Hills Filing No. 13C, El Paso County, Colorado

Paint Brush Hills Filing No. 13D, El Paso County, Colorado

**Exhibit B**

**Tract B, Paint Brush Hills Filing No. 13B, El Paso County, Colorado**