

STORMWATER MANAGEMENT PLAN
for
FRAZEE CONSTRUCTION WAREHOUSE

2875 E. Las Vegas Street
Colorado Springs, Colorado
EPC EDARP FILE # **PPR2425**

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1.0 STORMWATER QUALITY STATEMENT & OBJECTIVES

Stormwater quality best management practices shall be implemented to minimize soil erosion, sedimentation, increased pollutant loads and changed water flow characteristics resulting from land disturbing activity, to the maximum extent practicable, so as to minimize pollution of receiving waters.

Per Appendix A of the Colorado Department of Health, Water Quality Control Division's (the Division) "General Permit Application for Stormwater Discharge Associated with Construction Activities", the goal of the Stormwater Management Plan (SWMP) is:

"To identify possible pollutant sources that may contribute pollutants to stormwater, and identify Best Management Practices (BMPs) that, when implemented, will reduce or eliminate any possible water quality impacts. The SWMP must be completed and implemented at the time the project breaks ground, and revised if necessary as construction proceeds to accurately reflect the conditions and practices at the site."

This document is not intended to address training, site specific operational procedures, logistics, or other "means and methods" required to construct this project.

This document must be kept at the construction site at all times. Inspections are to be made at least every 14 days and after any precipitation event, or snowmelt that causes surface erosion. El Paso County requires that the inspector be contacted 48 hours prior to initial and final inspections. An inspection log entry shall be completed with each inspection performed. The inspection log shall be kept with the SWMP. The conditions of the SWMP and General Permit for Stormwater Discharges associated with the construction activity will remain in effect until final stabilization is achieved, and a notice of inactivation is sent to CDPHE Stormwater Quality Division. All pertinent records must be kept for at least 3 years from the date the site is stabilized.

This SWMP shall be viewed as a “living document” that is continuously being reviewed and modified as part of the overall process of evaluating and managing stormwater quality issues at the site. The Qualified Stormwater Manager (QSM) shall amend the SWMP when there is a change in the design, construction, Operations and Maintenance (O&M) of the site which would require the implementation of new or revised BMPs, or if the SWMP proves to be ineffective in achieving the general objectives of controlling pollutants in stormwater discharges associated with construction activity, or when BMPs are no longer necessary and are removed.

Drexel, Barrell & Co. has been retained to provide civil engineering services for the design of this project. Drexel, Barrell & Co. is not responsible for implementation and maintenance of the Stormwater Management Plan.

2.0 SITE DESCRIPTION SWMP Checklist Item 9 - Provide a description of existing vegetation at the site and percent ground cover and method used to determine ground cover

2.1 DESCRIPTION OF CONSTRUCTION ACTIVITIES

The project involves the construction of a 175' x 50' pole barn on the vacant parcel owned by Bison Investments, LLC on East Las Vegas Street in El Paso County, Colorado. The total site area consists of approximately 8.07 acres of vacant industrial storage. Area of disturbance on-site totals 39,500 square feet (less than one acre.)

2.2 EXISTING SITE CONDITIONS

The existing site is undeveloped and is surrounded by existing vacant and industrial development. There are no existing structures on the site, only existing graveled construction/storage yard with a few trees and grasses along Sand Creek, as determined by visual inspection. The project site slopes moderately from the east to west at approximately 3% to the Sand Creek bank.

2.3 ADJACENT AREAS

The site is bounded on the north and south by vacant land owned by El Paso County. To the west by Sand Creek and vacant land. To the east, East Las Vegas Street and the other parcel

owned by Bison Investments, LLC which is Frazee Construction business address. See Vicinity Map in Appendix. The surrounding areas will not be affected by the land disturbing and stabilization activities.

2.4 SOILS

From the Natural Resources Conservation Service (NRCS), the soils on the site as mapped by the Soil Conservation Service (SCS) are of the Ellicott loamy coarse sand (Soil No. 28). This soil is hydrologic group A, with moderate erosion potential. Hydrologic Soil Group A soils have a high infiltration rate 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. Potential effects of soil erosion include compaction, loss of soil structure, nutrient degradation, soil salinity and increased sediment load downstream.

2.5 AREAS AND VOLUME STATEMENT

The project consists of approximately 39,500 square feet disturbance. Unadjusted overlot earthwork volumes within the construction site are approximately 26 CY of cut and 1523 CY of fill, for a net export of approximately 1497 CY of fill.

2.6 CONTROLS AND MEASURES DURING CONSTRUCTION

Stabilization activities are anticipated to begin in the summer/fall of 2024. A construction schedule will be prepared by the contractor prior to land disturbing activities. Phasing of the installation of stabilization measures will be required. Reference the attached Grading and Erosion Control plans in the appendix for site specific locations and phasing. The general sequence of major construction activities is as follows:

1. Temporary Erosion Control Measures – Temporary erosion control measures, such as silt fence and construction of a vehicle tracking pad and staging area will be completed prior to any activity. The vehicle tracking pad will ensure a reduction of tracking of soil on and off the construction site. The staging area will house the materials, petroleum product storage (if any), trash dumpster, sanitary facilities and hazardous spill clean-up areas. These are all potential pollutants that are not sediment related.

2. Trash and Debris Removal – Existing trash and debris shall be removed from the site and hauled to designated receiving facility.
3. Site Clearing – The area to be disturbed for construction will be cleared and grubbed, as necessary to the limit of proposed building footprint. The sequence of the areas to be cleared and grubbed are subject to the contractor's means and methods of construction of the site; however, the general plan is to work from the south to north where the vehicle tracking pad is located in order to eliminate backtracking over areas that shall remain undisturbed.
4. Overlot Grading – Overlot grading will occur to bring the building site and parking area to the proposed finished grade elevations. Spoils from the site will be removed from the site and hauled to a designated receiving facility or location.
5. Utility Installation – No utility installation will occur.
6. Final Grading – Final grading around the perimeter of the proposed building and parking area will blend into existing grades.
7. Permanent Re-vegetation – No re-vegetation is required due to variance for landscaping since no irrigation is current or proposed for the site.
8. Removal of Temporary BMP's – Temporary erosion control measures may be removed once the site has achieved final 70 percent of pre disturbance levels. All permanent BMPs shall be cleaned and functioning before any temporary BMPs are removed.
9. Housekeeping – The best BMP for a job site is good housekeeping around the site.
 - 1) Routine site trash pickup and routine BMP inspection and maintenance are paramount for keeping a job site clean and tidy. Waste disposal bins shall be checked weekly for leaks and emptied weekly or as necessary to prevent overflowing capacity.

- 2) All petroleum storage areas in the staging area should be checked daily for leaks. Any leaks shall be reported to the site foreman for clean up. All personnel on site for both the contractor and subcontractors should be briefed on spill cleanup and containment procedures. Employees shall also be briefed as to where the spill cleanup materials can be found if a spill should occur. The spill plan shall be produced by the general contractor for the project and remain onsite for the duration of the project. Contractor shall coordinate with the County to obtain the necessary contacts in the case that a spill occurs.
- 3) All portable toilets shall be located a minimum of 10ft from stormwater inlets and 50ft from State Waters. Portable toilets shall be secured at all four corners to prevent overturning, cleaned on a weekly basis and inspected daily for spills.

2.7 POTENTIAL POLLUTION SOURCES

Any substances with the potential to contaminate either the ground or ground surface water shall be cleaned up immediately following discovery, or contained until appropriate cleanup methods can be employed. Manufacturer's recommended methods for cleanup shall be followed, along with proper disposal methods. All waste and debris created by construction at the site or removed from the site shall be disposed of in accordance with all laws, regulations and ordinances of the Federal, State and local agencies. The following is a summary of potential pollution sources and their associated measures intended to minimize the risk of pollution for this project.

- 4) Disturbed and stored soils: Straw wattles/fiber rolls, straw bale check dams and gravel bag check dams, seed and mulch.
- 5) Vehicle tracking and sediments: VTC and Street Sweeping
- 6) Loading and unloading operations: Stabilized staging area, materials storage area, VTC and silt fence.

- 7) Outdoor storage of materials: Stabilized staging area, materials storage area and silt fence.
- 8) Vehicle and equipment maintenance and fueling: Spill prevention procedures.
- 9) Dust or particulate generation from earthmoving activities and vehicle movement: water trucks for site watering.
- 10) On site waste management of solid wastes (construction debris): Waste container placement, covering and disposal.
- 11) Concrete truck/equipment washing: Dedicated concrete washout areas.
- 12) Worker trash and portable toilets: Container placement, covering and disposal.
- 13) Equipment repair or maintenance beyond normal fueling operations: Spill prevention procedures.
- 14) Waste disposal: Container placement, covering and regular disposal.
- 15) Off site soil tracking: Contractor to perform street sweeping following storm events and as required to keep adjoining public streets clean

The following items are not anticipated to be potential pollution sources for this project:

- 1) Management of contaminated soils.
- 2) Outdoor storage of fertilizers, chemicals or potentially polluting construction material.
- 3) Dedicated asphalt or concrete batch plants.

2.8 NON-STORMWATER DISCHARGES

Non-stormwater discharges possibly encountered during construction may include: watering down of the site, construction staging area, and excess dirt storage during high winds to minimize wind erosion and water utilized in soil compaction efforts. These will occur on a site-wide basis.

2.9 RECEIVING WATER

Runoff generated by the proposed project will continue to pass overland across the existing terrain to the west resulting in Sand Creek, where they will continue along historic routes.

Sand Creek is located on the west side of this project.

3.0 SITE MAP

Attached as part of this plan is a Grading and Erosion Control Plan (See Appendix C). The drawings identify the following:

- 1) Project area boundary and areas of disturbance
- 2) Cut-Fill delineation lines
- 3) Area used for staging
- 4) Location of erosion control facilities or structures (BMP's)
- 5) Boundaries of 100-year floodplains (if applicable)

The following items may not be indicated on the attached drawings, but will be determined by the individual contractors prior to and during construction activities:

- 1) Areas used for storage of construction materials, soils, or wastes
- 2) Location of portable toilets and waste receptacles
- 3) Location of additional BMP's that may become necessary as work progresses

These items shall be added to the Site Map by the Contractor.

4.0 BMP's FOR STORMWATER POLLUTION PREVENTION

Best management practices (BMPs) used throughout the site shall include: surface roughening, silt fence, vehicle tracking control and concrete washout.

4.1 EROSION CONTROL – STRUCTURAL PRACTICES

A list of the Structural BMP's for erosion and sediment control that may be implemented on the site to minimize erosion and sediment are as follows. Refer to the SWMP Drawings for installation and maintenance requirements and location for each structural BMP.

- a) Concrete Washout Area (CWA): A shallow excavation with a small perimeter berm to isolate concrete truck washout operations.
- b) Construction Fence (CF): Installed to delineate the perimeter of the site.
- c) Drainage Swale/Earth Dike (DS): A small earth, riprap or erosion blanket lined channel used to divert and convey runoff
- d) Erosion Control Blanket (ECB): Slopes steeper than or equal to 3 (horizontal) to 1 (vertical) shall be protected with an erosion control blanket.
- e) Inlet Protection (IP): Installed to filter stormwater before entering any watercourses.
- f) Reinforced Sock (RS): Consists of a linear mass of gravel enclosed in wire mesh to form a porous filter, able to withstand overtopping.
- g) Sediment Basin (SB): An impoundment that captures sediment laden runoff and releases it slowly, providing prolonged settling times to capture coarse and fine grained soil particles.

- h) Seeding and Mulching (SM): Temporary seeding and mulching can be used to stabilize disturbed areas that will be inactive for an extended period of time. Permanent seeding should be used to stabilize areas at final grade that will not otherwise be stabilized.
- i) Silt Fence (SF): A temporary sediment barrier constructed of woven fabric stretched across supporting posts.
- j) Stabilized Staging Area (SSA): Consists of stripping the topsoil and spreading a layer of granular material in the area to be used for a trailer, parking, storage, unloading and loading.
- k) Temporary Stockpile Areas (TS): Temporary stockpiles of excess excavated material and stockpiles for imported materials. Slopes shall not be steeper than 3 to 1.
- l) Vehicle Tracking Control (VTC): Consists of a rock pad that is intended to help strip mud from tires prior to vehicles leaving the construction site. Installed at all entrance/exit points to the site. The number of access points shall be minimized.

Minimal clearing and grubbing may be necessary prior to installing the initial erosion control features.

A pre-construction meeting with El Paso County must be held, initial BMPs installed, and a Notice to Proceed issued before any work can begin.

Once signoff and acceptance is received the approved erosion and sediment control measures must be installed before land-disturbing activities are initiated so that no adverse effect of site alteration will impact surrounding property.

4.2 EROSION CONTROL – NON-STRUCTURAL PRACTICES

Non-structural practices for erosion and sediment control to be used to minimize erosion and sediment transport are:

- a) Seeding and mulching and landscape installation in areas that will not be hard surfaced, while minimizing the amount of vegetation to be removed during construction, leaving native vegetation in place when possible.
- b) Street sweeping around the construction site will be utilized when tracking of mud occurs on paved streets. The sweeping will be required after any significant tracking has occurred; significant meaning any visible amount that cannot be completely cleaned by hand. The adjacent paved drive surfaces will be cleaned at the end of each day of construction activities. Sweeping efforts will continue as necessary until construction operations are completed.
- c) Site watering will be required to mitigate dust control and sediment and to aid in compaction.
- d) Sod placement will occur as the lots are improved by the individual lot developers. Mulching and reseeding of all lots will occur as final grade is established for each lot.

4.3 MATERIALS HANDLING & SPILL PREVENTION

The SWMP administrator will inspect daily to ensure proper use and disposal of materials on site including building materials, paints, solvents, fertilizers, chemicals, waste materials and equipment maintenance or fueling procedures. All materials stored onsite will be stored in a neat and orderly manner in the original containers with the original manufacturer's label, and if possible under a roof or other enclosure to prevent contact with stormwater. Chemicals should be stored within berms or other secondary containment devices to prevent leaks and spills from contacting stormwater runoff. Before disposing of the container, all of a product will be used up whenever possible and manufacturer's recommendations for proper disposal will be followed according to state and local regulations.

Material and equipment necessary for spill cleanup will be kept in the material storage area on site. Manufacturer's recommendations for spill cleanup will be posted and site personnel will be made aware of the procedures along with the location of the information and cleanup supplies.

The contractor shall have spill prevention and response procedures that include the following:

- a) Notification procedures to be used in the event of an accident. At the very least, the SWMP administrator should be notified. Depending on the nature of the spill and the material involved, the Colorado Department of Public Health and Environment (24-hour spill reporting line (877) 518-5608), downstream water users or other agencies may also need to be informed.
- b) Instructions for clean up procedures and identification of spill kit location(s).
- c) Provisions for absorbents to be made available for use in fuel areas and for containers to be available for used absorbents.
- d) Procedures for properly washing out concrete truck chutes and other equipment in a manner and location so that the materials and wash water cannot discharge from the site and never into a storm drain system or stream.

4.4 DEDICATED CONCRETE OR ASPHALT BATCH PLANTS

No dedicated concrete or asphalt batch plants will be used.

4.5 GROUNDWATER & STORMWATER DEWATERING

In the event that groundwater is encountered or stormwater enters an excavation and dewatering is necessary, a separate CDPHE construction discharge (dewatering) permit will be required for groundwater dewatering and shall be obtained by the SWMP administrator. During groundwater or stormwater dewatering, locations and practices to be implemented to control stormwater pollution from excavations, etc., must be noted on the SWMP. Construction dewatering cannot be discharged to surface water or to storm sewer systems without separate permit coverage. The discharge of Construction Dewatering water to the ground, under specific conditions, may be allowed by the Stormwater Construction Permit when appropriate BMP's are implemented. Refer to USDCM Volume III (UDFCD) for County acceptable means of dewatering.

5.0 TIMING SCHEDULE

The project is anticipated to begin construction in the summer/fall of 2024 with final stabilization completion by spring of 2025. The contractor shall be responsible for

producing a schedule that will show at a minimum: start and completion times including site grading operations, utility construction and the removal of the temporary erosion and sediment control measures.

SWMP Checklist Item 26 - If the site does not rely on control measures owner or operated by another entity state that

6.0 FINAL STABILIZATION AND LONG-TERM STORMWATER MANAGEMENT

Final stabilization shall not be considered complete until 70% of new or pre-existing vegetated cover condition is established on areas not to be hard-surfaced. Temporary sediment and erosion control measures installed prior to the construction phase will remain in place until this time. Any sediment that collects within the site's drainage system is considered unstabilized soil and must be removed prior to the site being considered finally stabilized.

At final stabilization, stormwater pollutants will be controlled by hard surfacing of the construction/storage yard area.

7.0 INSPECTION AND MAINTENANCE

A site inspection of all erosion control facilities will be conducted every 14 days and within 24 hours after every precipitation event, or snowmelt event that causes surface erosion. The entrance to the construction site shall be inspected daily and existing street cleaned, as necessary, of all materials tracked out of the site.

The construction site perimeter, disturbed areas, and areas used for material storage that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. Erosion and sediment control measures identified in the SWMP shall be observed to ensure that they are operating correctly.

Based on the results of the inspection, the description of potential pollutant sources and the pollution prevention and control measures that are identified in this plan shall be revised and modified as appropriate as soon as practicable after such inspection. Modification to control measures shall be implemented in a timely manner, but in no case more than seven (7) calendar days after the inspection.

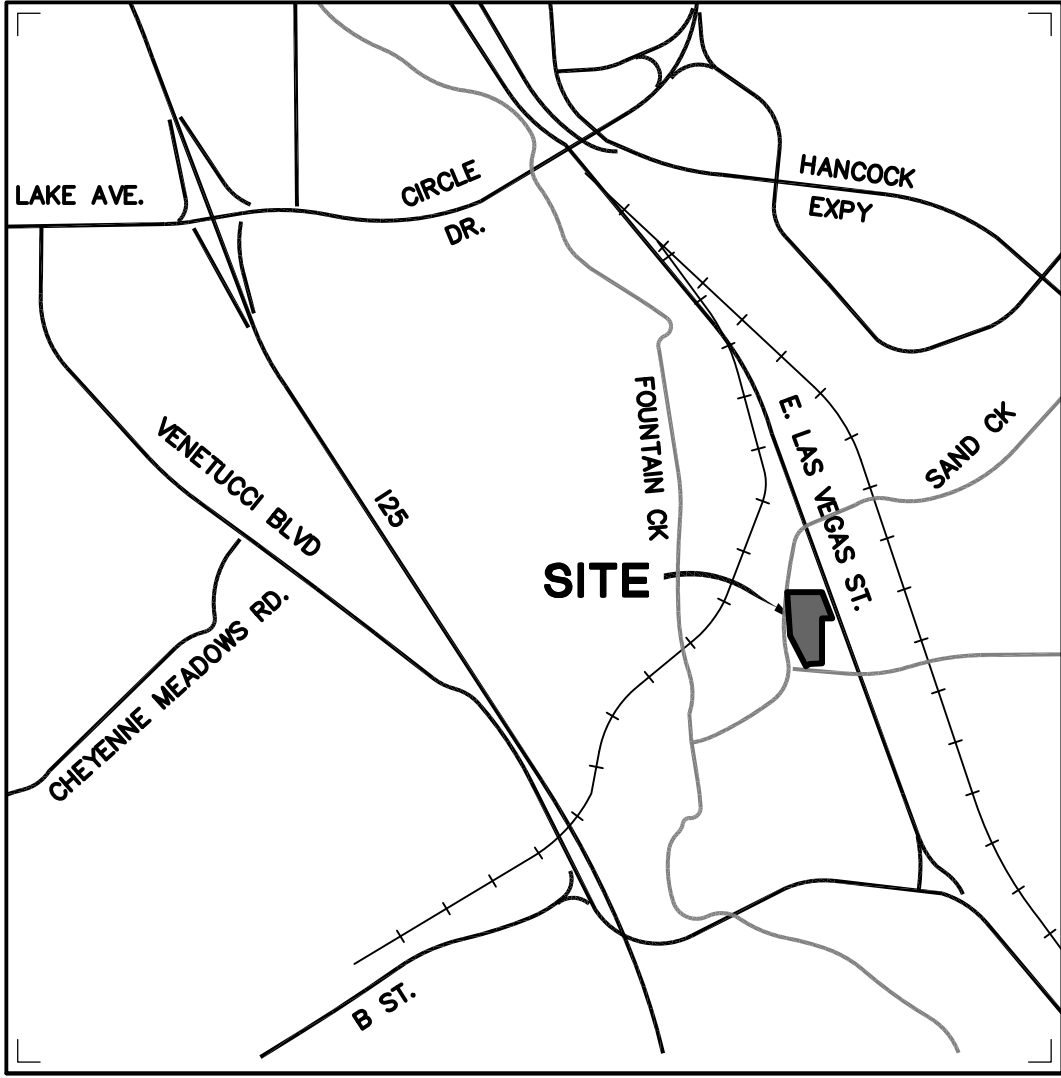
The operator shall be responsible for documenting inspections and maintaining records. Uncontrolled releases of mud or muddy water or measurable quantities of sediment found off the site shall be recorded with a brief explanation as to the measures taken to prevent future releases as well as any measure taken to clean up the sediment that has left the site. All signed inspection record/logs should be kept on site and made available to the El Paso County or CDPHE personnel upon request.

All temporary and permanent erosion and sediment control facilities shall be maintained and repaired per manufacturer's specifications to assure continued performance of their intended function. Repairs should be completed within 24 to 48 hours. Silt fences may require periodic replacement.

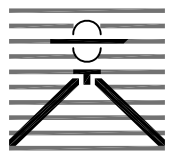
8.0 REFERENCES

- [1] General Permit Application and Stormwater Management Plan Preparation Guidance for Stormwater Discharges Associated with Construction Activities. Prepared by the Colorado Department of Health, Water Quality Control Division. Revised 7/2009.
- [2] City of Colorado Springs– Drainage Criteria Manual, Volume 2 “Stormwater Quality Procedures and Best Management Practices (BMPs). November 1, 2002, amended August 10, 2010.
- [3] NRCS Web Soil Survey, www.websoilsurvey.nrcs.usda.gov

APPENDIX A
Vicinity Map



Vicinity Map
Not to scale



**FRAZEE CONSTRUCTION
WAREHOUSE
VICINITY MAP**

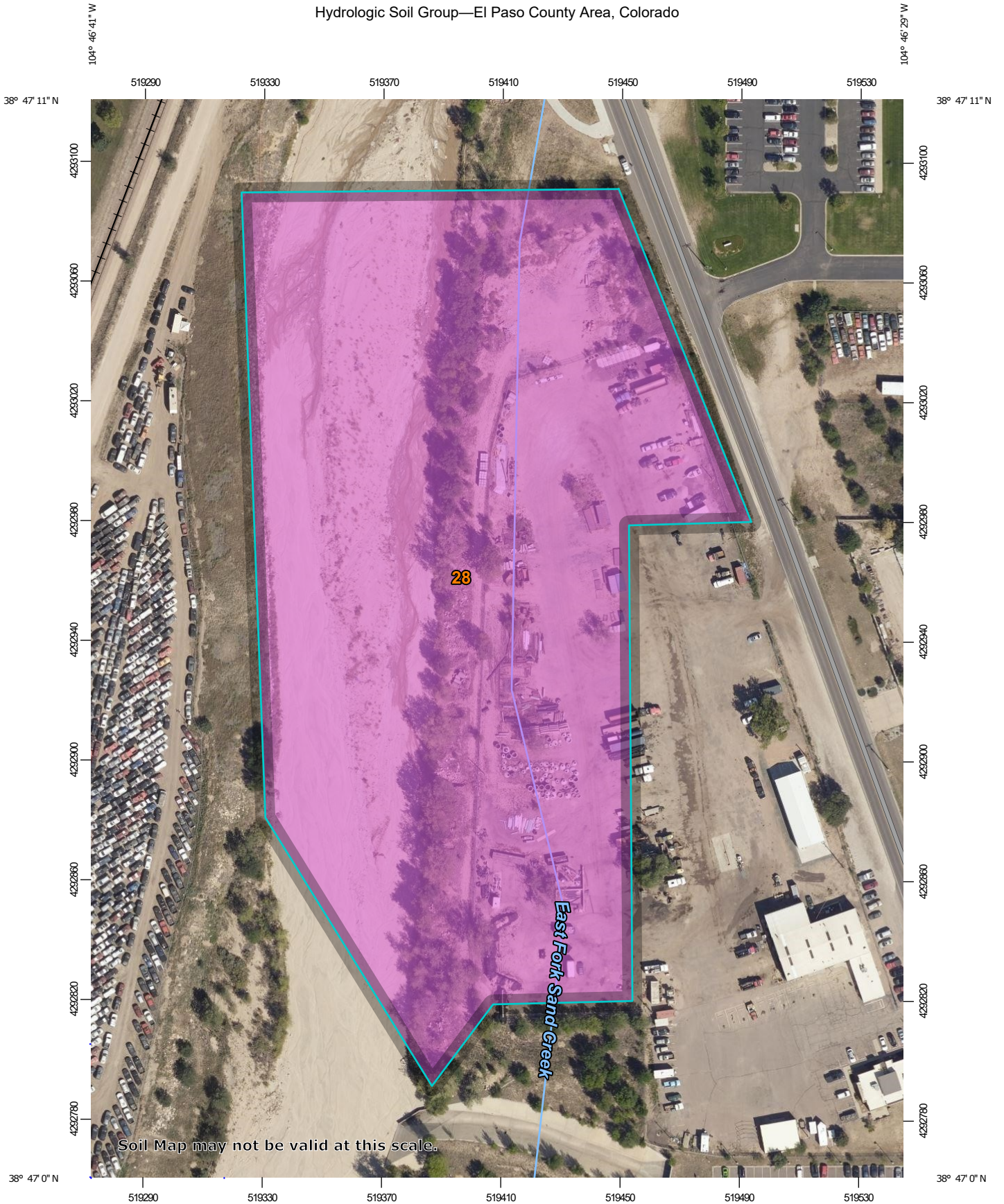
Drexel, Barrell & Co.
Engineers • Surveyors

DATE:
7-8-2024
JOB NO:
21917-00CSCV

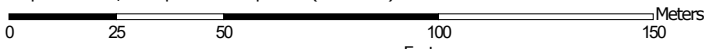
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VMAP
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APPENDIX B
SOILS INFORMATION

Hydrologic Soil Group—El Paso County Area, Colorado



Map Scale: 1:1,760 if printed on A portrait (8.5" x 11") sheet.



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



































Natural Resources Conservation Service

Web Soil Survey National Cooperative Soil Survey

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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**
 -  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 21, Aug 24, 2023

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

Date(s) aerial images were photographed: Aug 19, 2018—Sep 23, 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
28	Ellicott loamy coarse sand, 0 to 5 percent slopes	A	8.8	100.0%
Totals for Area of Interest			8.8	100.0%

Description

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

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

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

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

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

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

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

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

APPENDIX C
SITE MAP

