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Hillpointe Apartments at Peterson Road
Stormwater Management Plan (SWMP)

May 2026

HR Green Project No: 2502477

El Paso County No. PPR2613

Prepared For (Applicant/Owner):

Hillpointe, LLC.

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Denver, CO 80209

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Prepared By:

HR Green Development, LLC

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[TBD Company Name]

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Contractor/Operator:

[TBD Name]

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Appendices

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Contact:

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Title:

Phone Number:

Address:

Engineer's Statement

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.

Name: Richard D. Lyon, P.E. Date: 6/18/2026

Phone Number: 719-394-2435

Seal

I. Site Location & Description

Location

The Hillpointe Apartments at Peterson, legally described as Lot 1 Cimarron Hills Southeast Mixed Use Filing No. 1, totals 14.09 acres and referred to as 'the site' herein, is a portion of the west half of the southwest quarter of Section 8, Township 14 South, Range 65 West of the 6th P.M., El Paso County, Colorado. The subdivision is described in the *Cimmaron Hills Southeast Mixed Use Filing No. 1 Final Drainage Report* prepared by Matrix Design Group dated September 2025. The site is bound to the north by the 80' wide public right-of-way of Meadowbrook Parkway and across the roadway is Tract A which is designated as future development. To the east of the site is the Aura Crossroads apartment complex, legally described as Lot 1 Crossroads Mixed Use Filing No. 1. To the south of the site is the public right-of-way of US Highway 24 which varies in width. Adjacent to the southwest corner of the site is Tract C, which is dedicated to detention facilities. Immediately west of the site is Tract B which is designated as future development and further west is the 100' wide public right-of-way of Peterson Road. There are no existing or proposed public roadways internal to the site. The assessor's parcel numbers for this development are currently 5408007001 and 5408007004. The property is not within a Streamside Zone or Hillside Zone. There are no no-build or preservation easements or areas within the platted parcel.

Legal Description

Parcel A:

Lot 1, Cimmaron Hills Southeast Mixed Use Filing No. 1

Description of Property

The undeveloped site (zoned RM-30) contains few site improvements which include unpaved trails and abandoned softball fields. The overall on-site imperviousness is approximately 2% and the site is sparsely vegetated by grass, shrubs, and trees. There are no structures or impervious areas on site. The site generally slopes from the northeast down to the southwest.

The site consists of 88.3% Blakeland loamy sand and 11.7% Blendon sandy loam per the USDA, NRCS web soil survey. This soil is categorized as Hydrologic Soil Group A and Group B. These soils groups are considered highly to moderately permeable soils with low erodibility. The NRCS soil survey is presented in Appendix A.

The developed site is to include apartment buildings, garages, recreational facilities, paved drive isles and parking areas, and private utilities and storm sewer network. The nine apartment buildings are spread throughout the site and parking spaces are provided along drive isles. Landscape areas surround apartment buildings and are dispersed throughout the islands in parking areas. Screening along adjacent rights-of-way is provided by landscape areas at the northern and southern edges of the site. The site is accessed by an entry on the adjacent public right-of-way of Meadowbrook Parkway to the north and an entry originating from the public right-of-way of Peterson Road to the west.

The on-site private storm includes private Type R sump and on-grate grate inlets within the drive isles and parking areas. Roof drains and dome inlets are tied directly into secondary drainage systems surrounding apartment buildings which connect to the main storm system. The storm system is made up of two main branches that ultimately outfall into forebays within the full spectrum detention pond within Tract C. The existing

private water quality and detention pond (by others) includes an outlet structure with orifice plate and micropool that is designed to provide detention and release the stormwater at or below historic rates.

The entirety of the 14.09 acre site will be disturbed for development. Offsite disturbances for the development include connecting the site to existing public utilities owned and maintained by Cherokee Metropolitan District within Tract B and the entry within the Meadowbrook Parkway right-of-way. The total area to be disturbed is 15.15 acres.

Construction Activity

The proposed development ultimately described above as the nine apartment buildings, clubhouse building, fitness center building, and mail building with site features including a dog park, pool, pickleball court, and the drive aisle roadway network with sidewalk, private utilities, and landscaping is constructed in three distinct phases: Initial Construction Phase, Interim Construction Phase, and Final Construction Phase.

The phasing of construction is conducive to horizontal and vertical construction while maintaining the stormwater management of the site to minimize erosion and sediment transport, while also phasing installation of infrastructure and hardscape so as to avoid damage and degradation of new facilities and pavement while continually constructing buildings/vertical elements. The specific construction activities involved with the three phases are described in more detail below and the following section describes the Construction Control Measures (CCMs) involved with each phase. The total area to be disturbed is approximately 14.48 acres including offsite areas of Pond 1 and grading within the adjacent future Development Tract B. Meadowbrook Parkway improvements are constructed by others including the eastbound right-turn deceleration lane into the Site and striping within the public roadway.

Initial Construction Phase:

Initial phase construction activity consists of installation of perimeter control construction control measures (CCMs) including silt fence which is to be installed at the property boundary of Lot 1. Silt fence to the west and south are an erosion and sediment control measure for the earthwork to take place internal to the site. Silt fence at the east of the property is upstream of internal site earthwork activities and downstream from the offsite adjacent property to the east. The northern silt fence is a perimeter control measure and does not experience any upstream or downstream sediment transport.

Initial phase CCMs are installed at this time prior to construction activity on the site including vehicle tracking control along the existing Meadowbrook Parkway roadway in the area of a future curb cut access, and two main areas of stabilized staging areas and stockpile areas located to the north and south of the site for flexibility in staging and stockpiling across the site.

Traffic control is to be implemented as required in this phase.

Three (3) temporary sediment basins are designed for the site to capture sediment transport of their respective tributary areas during initial earthwork activities on the site. TSB 1 and 2 are located on future apartment building pads for ease of transition from TSB to backfilled foundation work during the final construction phase. TSB 3 is located in the area of a future garage structure and open space with future storm main. All TSB's have outlet riser pipes that outfall into the existing public metro district owned and maintained full spectrum detention pond that is a regional facility for this development. Any disturbance within the pond for installation of these outfall pipes are allowable by the Metro District.

Clearing and grubbing and general overlot earthwork takes place in the initial phase.

Interim Construction Phase:

1. Roadway/drive aisle corridor grading including sub-grade compaction, building pad grading to bottom of-footer elevations and general site grading takes place to near-final grade. No detailed grading to take place at this phase.
2. Utility trenching, installation, and backfill for sanitary sewer, storm, water, electric, and fiber. Backfill requirements follow that of the respective agency. Scope includes setting of manholes, valve boxes, etc. To final grades, building of transformer pads and installation of electric facilities, installation of utility services to stub locations at building pads, installation of secondary landscape drain systems stubbed to roof drain locations for future vertical construction tie-ins, installation of storm inlets to flowline grades.
3. Irrigation to be installed with utility installations.
4. Construction of roadways and drive aisles to their aggregate base course section. HMA mat is not installed at this time, until final phase to allow construction vehicles on site for vertical construction and to avoid pavement degradation and damage during vertical construction phase.

Final Construction Phase:

1. Vertical construction of all structures: apartments (9), clubhouse building, fitness facility, mail building, dumpster enclosures, and garage structures. It is anticipated that construction of these buildings will be in a logical direction/order either from north to south or south to north. Vertical construction of buildings will not all be simultaneous.
2. Asphalt and concrete hardscape construction to be installed in areas of finished buildings and facilities. Installation of site ADA ramp installation, permeable paver installation in ADA parking locations, ADA ramp with handrail accesses at buildings.
3. Striping and signage.
4. Restoration of existing pavement and facilities as needed, e.g. Meadowbrook Parkway curb cut patching.
5. Final stabilization of open space and landscaped areas in areas of finished buildings. Seeding and mulching where specified, landscaping of trees and plantings to take place as shown on landscaping plans.

II. Construction Phasing

Phasing and Sequence Schedule

The proposed major construction activities and Construction Control Measures for the project correspond to the Grading and Erosion Control Plans and are sequenced as follows:

1. Install initial phase SF perimeter control. Install VTC and establish SSA and SP areas. (Spring 2027)
2. Clear, grub and grade site & for improvements. (Spring 2027)

3. Construct TSB's with outfall pipes daylighting as designated. (Spring 2027)
4. Establish interim phase SSA, CWA, SCL, temporary IP, temporary OP. Trench, install, and backfill utilities. Utilities in roadways/drive aisles to be built to aggregate base course section only. Overlot grading of building pad areas to bottom of footer elevations. Near-final grading of all other areas of the site for future installation of hardscape and landscaping. Install Interim/Final phase ECB for sloped areas. (Spring – Fall of 2027)
5. Final Phase Vertical Construction and Horizontal Hardscape construction throughout site. Final hardscape of sidewalk, drive aisles, striping to take place in areas of minimal activity following near-finished vertical construction of buildings. (Fall 2027 – Summer 2028)
6. Installation of SM and final phase ECB. (Summer – Fall 2028)
7. Ensure final stabilization achieved prior to site closure. Visual inspection to adjacent, existing vegetation is acceptable. (Fall 2028)

Construction Documentation

Construction drawings are provided with this document showing the Grading and Erosion Control plan for this project and are intended to be a "living" document used by the SWMP Manager to document construction activities. See Appendix F for record log.

III. Pre-Development Conditions and Soils

Floodway

Based on FEMA Firm map 08041C0754G dated December 7, 2018, the site is Zone X, which are areas determined to be outside the 0.2% annual chance flood. No portion of the site is within a designated FEMA floodplain.

A map is provided in Appendix A.

Existing Vegetation

The overall on-site imperviousness is approximately 2% and the site is sparsely vegetated by grass, shrubs, and trees. There are no structures or impervious areas on site. The site generally slopes from the northeast down to the southwest. The percent cover of the native vegetation is approximately 95% as evidence by site observations, survey, and aerial imagery. The non-vegetated areas are cut-in dirt pathways on the property.

Existing Slopes

The site consists of a fairly consistent slope between 2% and 5% in a west and southwesterly directions.

Existing Drainage Patterns

A majority of stormwater runoff upstream of the development sheet flows over undeveloped land to a regional full spectrum detention pond located to the southwest within Tract C as a part of the Cimarron Hills Southeast Mixed Use Filing No. 1 development. The Pond was established with this multi-family development as a part of the Final Plat application for the master planned development and this apartment development is cited within the FDR which informed the design of the regional PCM. The existing drainage pattern of the site is such that stormwater flow from the western boundary drains southwest off-site, but ultimately south to the regional facility.

Off-site stormwater flow from the upstream, eastern adjacent multi-family site is minimal as there was a berm constructed as a part of that development (Aurora Crossroads Apartments).

IV. Description of Potential Pollutants

Potential sources of sediment to stormwater runoff include earth moving and concrete activities associated with grading, multi-family apartments and other site structure construction including concrete foundations and hardscape, and landscaping.

Potential pollutants and sources other than sediment to stormwater runoff include trash, debris, fueling and equipment failure. Materials of significance stored on the project site include sediment, concrete washout, cement, trash & debris, fuels and oils.

Discharges of concrete/masonry washout water are the only allowable non-stormwater discharges from the site.

Construction activities can produce a variety of pollutants that can potentially cause stormwater contamination. Grading activities remove rocks, vegetation and other erosion controlling surfaces and can result int he exposure of underlying soil to the elements, which can then be displaced into water sources.

Wind and erosion and vehicular transport can produce sediment debris.

Potential Sources of Pollution:

1. Potential sources of pollution from construction activities include
    a. Disturbed or stored soils
    b. Vehicle tracking of sediment
    c. Loading & unloading operations
    d. Outdoor Storage activities
    e. Vehicle and Equipment Maintenance/Fueling
    f. Dust or Particulate Generating Processes
    g. Routine maintenance activities involving fertilizers, pesticides, detergents, fuels, solvents etc.
    h. On-site waste management (waste piles, liquid wastes, dumpsters)
    i. Concrete truck/equipment washing (washing truck chute and associated fixtures)
    j. Non-industrial waste (worker trash and portable toilets)

V. Self-Inspections

Self-inspections of the Construction Control Measures must be completed by the certified GEC Administrator. The below provides the minimum to satisfy the El Paso County self-inspection requirements. A more frequent self-inspection schedule may be required to ensure Control Measures are operating in compliance with the approved GEC plan.

1. Inspection Schedules:
    a. The GEC Administrator shall make a thorough inspection of the Control Measures:
        i. At least once every fourteen (14) calendar days.

ii. Within 24 hours following any precipitation event (i.e. rain, snow, hail etc.) that causes surface erosion.
    - Alternatively, the GEC Administrator can perform a thorough inspection of the Control Measures once every seven (7) days and forego post-precipitation inspections.

b. For sites where construction activities have completed and final stabilization measures installed but final stabilization has not yet been achieved, the GEC Administrator shall make a thorough inspection of the Control Measures:
    i. At least once every 30 days
    ii. Within 72 hours following any precipitation event that causes surface erosion

2. Inspection Procedures:
    a. Site Inspection & Observation Items:
        i. Limits of disturbance perimeter and stormwater discharge points
        ii. All disturbed areas to ensure necessary Construction Control Measures are in place to control potential stormwater runoff.
        iii. Areas used for material/waste storage.
        iv. Any areas having a signification potential for storm water pollution (i.e site entrances, concrete washout areas etc.)
        v. All Construction Control Measures identified on the GEC plans.
    b. Inspection Requirements:
        i. Determine any locations, or potential locations, where pollutants and stormwater may be exiting the site/entering the receiving waters.
        ii. Evaluate Construction Control measures and determine if they are constructed in accordance with the latest revision of the approved GEC plan and operating effectively.
        iii. Provide recommendations for the need of additional Construction Control measures and the maintenance of existing measures in disrepair to ensure complication with the El Paso County Stormwater Construction Manual.
    c. Construction Control Measure Maintenance/Replacement:
        i. The GEC administrator shall ensure sediment has been removed from perimeter controls and relocated to an area without the potential for sediment to discharge from the site
        ii. The GEC administrator shall ensure diversion ditches and temporary sediment ponds have not accumulated excess sediment that impedes their functionality.
        iii. The GEC administrator shall ensure that failed Control Measures are repaired/reinstalled within three (3) calendar days, according to the El Paso County Stormwater Control Measure details, to ensure pollutants and/or sediment do not discharge from the site. GEC details are provided in the GEC Plans and can be viewed in Appendix B.
    d. Documentation:
        i. Update the GEC plan to document the installation/revision of Control Measures
        ii. Identify Control Measure deficiencies and that noncompliance is resolved within three (3) calendar days.
        iii. Identify Self-Inspection schedule in most recent inspection form
        iv. Complete and submit Self-Inspection forms to the El Paso County within five (5) business days of the completed inspection

v. Ensure this SWMP, along with the associated GEC Plans, are available either physically or electronically throughout the duration of the project
vi. Self-Inspection Repost shall contain at least the following:
    - Inspection Date
    - Name and title of the GEC Administrator performing inspection
    - Location(s) of illicit discharges of stormwater, sediment or pollutants from the site
    - Location(s) of Construction Control Measures in need of maintenance/repair
    - Location(s) of Construction Control Measures that failed to operate as designed or proved inadequate
    - Location(s) of additional Construction Control Measures not shown on the latest, approved revision of the GEC plan
    - Any deviations from the minimum inspection schedule
    - Signature of GEC Administrator

VI. Materials Handling

1. General Materials Handling Practices:
    a. Potential pollutants shall be stored and used in a manner consistent with the manufacturer's instructions in a secure location. To the extent practical, material storage areas should be located away from storm drain inlets and should be equipped with covers, roofs or secondary containment as required to prevent stormwater from contacting stored materials. Chemicals that are not compatible shall be stored in segregated areas so that spill materials cannot combine and react.
    b. Disposal of materials shall be in accordance with the manufacturer's instructions and applicable local, state, and federal regulations.
    c. Materials no longer required for construction shall be removed from the site as soon as possible.
    d. Adequate garbage, construction waste, and sanitary waste handling and disposal facilities shall be provided as necessary to keep the site clear of obstruction and Control Measures clear and functional.
2. Specific Materials Handling Practices:
    a. All pollutants, including waste materials and demolition debris, that occur onsite during construction shall be handled in a way that does not contaminate stormwater.
    b. All chemicals including liquid products, petroleum products, water treatment chemicals, and wastes stored onsite shall be covered and protected from vandalism.
    c. Maintenance, fueling, and repair of all equipment and vehicles involving oil changes, hydraulic system drain down, degreasing operation, fuel tank drain down and removal, and other activities which may result in the accidental release of contaminants, shall be conducted under cover during wet weather and on an impervious surface to prevent release of contaminants onto the ground. Materials spilled during maintenance operations shall be cleaned up immediately and properly disposed of.
    d. Wheel wash water shall be settled and discharged onsite by infiltration.
    e. Application of agricultural chemicals, including fertilizers and pesticides, shall be conducted in a manner and at application rates that will not result in loss of chemical to stormwater runoff. Follow manufacturer's recommendations for application rates and procedures.

f. pH-modifying sources shall be managed to prevent contamination of runoff and stormwater collected onsite. The most common sources of pH-modifying materials are bulk cement, cement kiln dust (CKD), fly ash, new concrete washing and curing waters, waste streams generated from concrete grinding and sawing, exposed aggregate processes, and concrete pumping and mixer washout waters.

VII. Spill Prevention & Response Plan

1. The primary objective in responding to a spill is to quickly contain the material and prevent or minimize their mitigation into stormwater runoff and conveyance systems. If the release has impacted onsite stormwater, it is critical to contain the released materials onsite and prevent their release into receiving waters.
2. Spill Response Procedures:
    a. Notify site superintendent immediately when a spill, or the threat of a spill, is observed. The superintendent shall assess the situation and determine the appropriate response.
    b. If spills represent an imminent threat of escaping onsite facilities and entering the receiving waters, site personnel shall respond immediately to contain the release and notify the superintendent once the situation has stabilized.
    c. The site superintendent shall be responsible for completing a spill reporting form and for reporting the spill to the appropriate agency.
    d. Spill response equipment shall be inspected and maintained as necessary to replace any materials used in spill response activities.
3. Spill kits shall be on-hand at all fueling sites. Spill kit locations shall be reported to the GEC administrator.
4. Absorbent materials shall be on-hand at all fueling areas for use in containing advertent spills. Containers shall be on-hand at all fueling sites for disposal of used absorbents.
5. Recommended components of spill kits include the following:
    a. Oil absorbent pads
    b. Oil absorbent booms
    c. 55-gallon drums
    d. 9-mil plastic bags
    e. Personal protective equipment including gloves and goggles
6. Concrete wash water: unless confined in a pre-defined, bermed containment area, the cleaning of concrete truck delivery chutes is prohibited at the job site.
7. Notification procedures:
    a. In the event of an accident or spill, the GEC administrator shall be notified.
    b. Depending on the nature of the spill and material involved, the Colorado Department of Public Health and Environment, downstream water users, or other agencies may also need to be notified.
    c. Any spill of oil which 1) violates water quality standards, 2) produces a “sheen” on a surface water, or 3) causes a sludge or emulsion, or any hazardous substance release, or hazardous waste release which exceeds the reportable quantity, must be reported immediately by telephone to the National Response Center Hotline at (800) 424-8802.

There are no dedicated batch plants proposed as a part of this project and therefore a source of pollution requiring spill prevention and response is not anticipated.

VIII. Implementation of Control Measures

Stormwater control measures must be installed according to El Paso County design specifications, presented in Appendix D, and the approved Grading and Erosion Control plan this report supports (Appendix B). Within the context of this SWMP's construction activities the following control measures, at a minimum, are required:

- Perimeter Silt Fence
    - Silt fence is to be installed at the initial construction phase at the perimeter of the project to prevent sediment runoff offsite from the project disturbance area. While disturbance for roadway construction may be more central to the project construction area, the silt fence acts as a barrier for downstream sediment from the disturbed area and may remain in place for private lot construction.
- Vehicle Tracking Control
    - Vehicle Tracking Control is required for the ingress/egress areas of the project for large construction vehicles to access the site with minimal disturbance to existing infrastructure and pavement. The VTC also assists in debris removal from vehicles prior to exit of the site. The control measure is to be installed at the initial construction phase
- Stabilized Staging Area
    - A designated stabilized staging area is required for equipment staging at the initial construction phase. This area is to be sufficient in size and relatively flat to prevent erosion and sediment runoff when handling materials and maneuvering vehicles. Perimeter controls of the SSA are recommended as localized erosion and sediment control of this area.
- Stockpile Protection
    - A designated stockpile area is required for dirt and debris containment at the initial construction phase. This area is to have perimeter controls for localized erosion and sediment control. Frequent export haul is recommended to maintain a minimal stockpile size and minimize sediment runoff during rain events during construction activities.
- Inlet Protection
    - Inlet protection is to be installed to prevent sediment runoff from entering storm systems and allow present and future stormwater conveyance as designed. Inlet protection is to remain in place until permanent stabilization is completed. Any sediment identified in inlets and storm pipes is to be removed prior to inspection and/or final permanent stabilization. Frequent inspection and maintenance of the inlet protection is to take place to ensure that wear and tear of the control measure has not taken place.
- Outlet Protection
    - Outlet protection is to be installed to prevent sediment runoff from being transported via storm infrastructure at outfall points. Outfall areas for this development are for the initial and interim phases for temporary sediment basin outfall pipes and the outfalls to the regional Pond from the private storm systems. Frequent inspection and maintenance of the inlet protection is to take place to ensure that wear and tear of the control measure has not taken place.
- Sediment Control Logs

    - Sediment control logs are installed at downstream edges of unpaved roadways that are built to their aggregate base course section in order to minimize sediment transport from construction activity that includes construction vehicles driving over those drive aisle sections. These are a primary CCM for sediment control internal to the site and the silt fence perimeter control is secondary at the interim phase.
- Erosion Control Blanket
    - Erosion Control Blanket is to be installed on disturbed slopes of 3:1 or greater to stabilize these areas for permanent stabilization in future construction phases. The erosion control blanket remains in place from the time of disturbance and establishment of the slope in perpetuity as natural degradation of the control measure will occur over time. Any disturbance of the blanket itself requires replacement to ensure stabilization of the slope.
- Seeding & Mulching
    - Seeding and mulching is proposed as a temporary construction phase control measure for slope stabilization and restoration of disturbed areas to remain pervious areas. Permanent seeding and mulching is included in the final construction phase as a permanent stabilization method to stabilize disturbed areas and provide vegetation.
- Concrete Washout Areas
    - Concrete Washout Areas are to be established at the initial construction phase as designated concrete washouts per MHFD details. The designated CWA's are to be monitored to ensure that effluent does not overflow or drain out of the excavation. Removal of materials is to take place prior to deconstruction and fill of the CWA.

Additional control measures may be required at the discretion of the County Stormwater Inspector.

Stormwater pollutant control measures for waste disposal and off-site soil tracking are to follow the State's CDPHE Brochure instructions and guidelines. Site specific off-site soil tracking is to be mitigated via Vehicle Tracking Control measures and daily project site street sweeping. Perimeter control measures are to be inspected and maintained as required to reduce sediment runoff.

IX. Final Stabilization & Long-Term Stormwater Management Plan

1. Temporary seeding and mulching will be installed to provide interim stabilization prior to final landscaping installation, where applicable (Refer to approved Landscape Plan). Final stabilization will be achieved at time of final landscaping. See approved landscaping plans for final stabilization details. Final stabilization is met when a vegetative cover density of 70% pre-disturbed conditions, not including noxious weeds, are achieved. Visual inspection to adjacent existing cover is acceptable. Final stabilization must be achieved prior to removal of temporary stormwater control measures. Anticipated date of final stabilization is Fall 2028; however, this is subject to change. Long-term stormwater management will be provided in the proposed off-site, regional, private, full spectrum detention pond referred to as Pond 1 in Tract C of the Final Plat (SF2420). Pond 1 is located at the southwest of the site. Permanent Best Management Practices construction documents for Pond 1 have been prepared for this development. See below for seeding and mulching details:
    a. Prior to seeding, fill any eroded rills and gullies with topsoil.

b. Ensure all areas are seeded and mulched per the County Stormwater Construction Manual.
c. Continue monthly self-inspections of final stabilization methods and the stormwater management system to ensure proper function. If repairs are needed, reseed and re-mulch as needed.
d. Control noxious weeds in a manner acceptable to the GEC inspector.
e. Seed Mix: See Appendix D for approved seed mixes.
f. Seeding Requirements:
    i. Drill seed whenever possible, seed depth must be 1/3 to ½ inch when drill-seeding. Cross drilling should be used whenever possible with the seed divided between the two operations. The second drilling should be perpendicular to the first.
    ii. When drill seeding is not possible or on slopes greater than 3:1, hydro-seeding with tackifier may be substituted at the discretion of the GEC inspector. Hydro-seeding must be lightly raked into soil. Seeding rates are presented in Appendix D.
    iii. All seeded areas must be mulched.
g. Mulching Requirements:
    i. Mulching shall be completed as soon as practical after seeding but no more than fourteen (14) days after planting. Erosion control blanket can be used in place of the below mulching methods.
    ii. Hay or straw mulch:
        1. Only certified weed-free and certified-seed free mulch may be used. Must be applied at 2 tons/acre and adequately secured.
        2. Crimping shall not be used no slopes greater than 3:1, tackifier must be used in place.
    iii. Hydraulic mulching:
        1. Allowable on steep slopes or areas with limited access
        2. If hydro-seeding is used, mulching must be applied secondly.
        3. Wood cellulose fibers mixed with water must be applied at a rate of 2,000-2,500 lbs/acre, and tackifier applied at a rate of 100 lbs/acre.

2. The project control measures are to be owned and maintained by the Developer or their assigns (General Contractor, GEC Administrator).
3. This Stormwater Management Plan Report is a living document that is to be continuously reviewed and modified as part of the overall process of evaluating and managing stormwater quality issues at the site. The Qualified Stormwater Manager shall amend the SWMP when there is a change in design, construction, or operations and maintenance of the site which would require the implementation of new or revised control measures or if the SWMP proves to be ineffective in achieving the general objectives of controlling pollutants in stormwater discharges associated with the construction activity when control measures are no longer necessary and are removed.

X. References

El Paso County – Drainage Criteria Manual, latest revision October 31, 2018

El Paso County – Engineering Criteria Manual, latest revision October 14, 2020

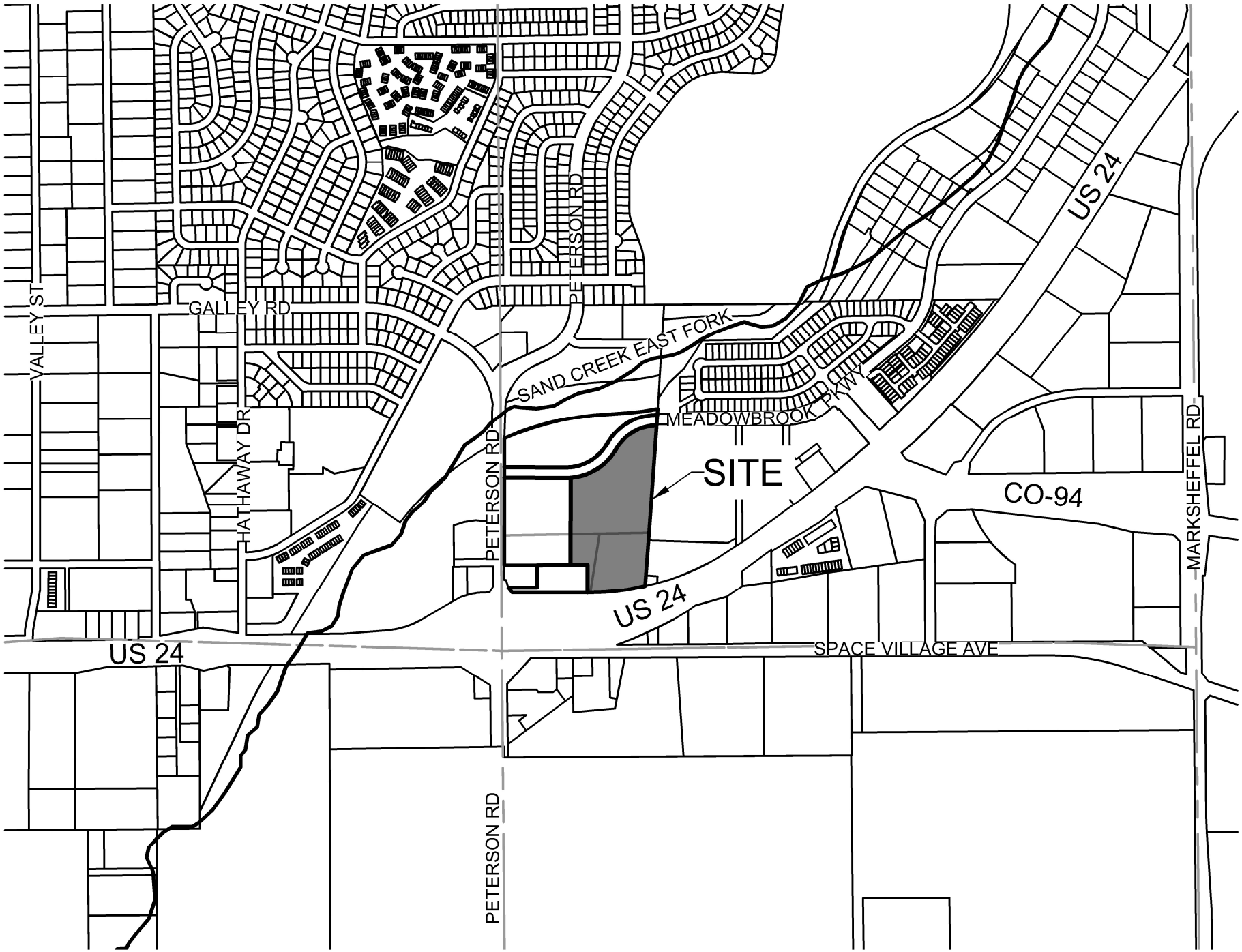
Mile High Flood District Urban Storm Drainage Criteria Manual Volumes 1, 2, and 3; latest revisions

Bristlecone Ecology – Natural Features and Wetlands Report October 8th 2024

APPENDIX A – VICINITY MAP & NRCS SOIL SURVEY & FEMA MAP

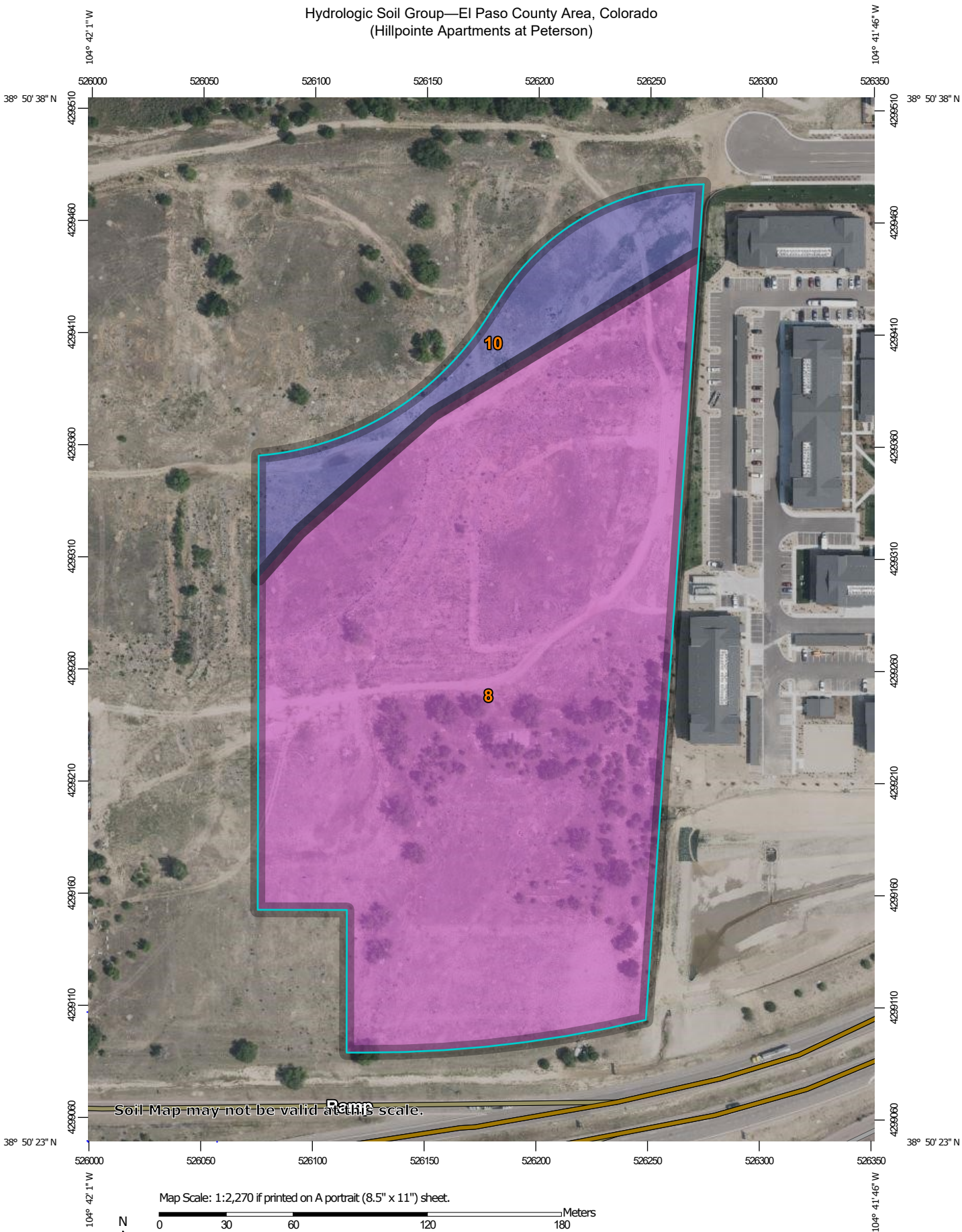
VICINITY MAP

HILLPOINTE APARTMENTS AT PETERSON



SCALE: 1" = 1000'

Hydrologic Soil Group—El Paso County Area, Colorado
(Hillpointe Apartments at Peterson)



Map Scale: 1:2,270 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 30 60 120 180

Feet: 0 100 200 400 600

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

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

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

Soil Rating Lines

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

Soil Rating Points

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

Water Features

- Streams and Canals

Transportation

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

Background

- Aerial Photography

MAP INFORMATION

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

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

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

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

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

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

Soil Survey Area: El Paso County Area, Colorado
Survey Area Data: Version 23, Aug 29, 2025

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

Date(s) aerial images were photographed: Jul 23, 2024—Aug 4, 2024

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
8	Blakeland loamy sand, 1 to 9 percent slopes	A	12.4	88.3%
10	Blendon sandy loam, 0 to 3 percent slopes	B	1.6	11.7%
Totals for Area of Interest			**14.1**	**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

National Flood Hazard Layer FIRMette

FEMA

104°42'13"W 38°50'46"N

104°41'35"W 38°50'18"N

Feet

0 250 500 1,000 1,500 2,000

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

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

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, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- 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 D*

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

OTHER FEATURES
- 20.2 / 17.5 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

N

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 3/5/2026 at 4:56 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.

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 13. The **horizontal datum** was NAD83, GRS80 spheroid. Differences in datum, spheroid, projection or UTM zones zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the **North American Vertical Datum of 1988 (NAVD88)**. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov/ or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, MD 20910-3282

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242 or visit its website at http://www.ngs.noaa.gov/.

Base Map information shown on this FIRM was provided in digital format by El Paso County, Colorado Springs Utilities, and Anderson Consulting Engineers, Inc. These data are current as of 2008.

This map reflects more detailed and up-to-date **stream channel configurations and floodplain delineations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study Report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map. The profile baselines depicted on this map represent the hydraulic modeling baselines that match the flood profiles and Floodway Data Tables if applicable, in the FIS report. As a result, the profile baselines may deviate significantly from the new base map channel representation and may appear outside of the floodplain.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact **FEMA Map Service Center** (MSC) via the FEMA Map Information eXchange (FMIX) 1-877-336-2627 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. The MSC may also be reached by Fax at 1-800-358-9620 and its website at http://www.msc.fema.gov/.

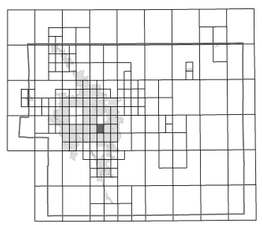
If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1-877-FEMA MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov/business/nfip.

El Paso County Vertical Datum Offset Table

Flooding Source	Vertical Datum Offset (ft)

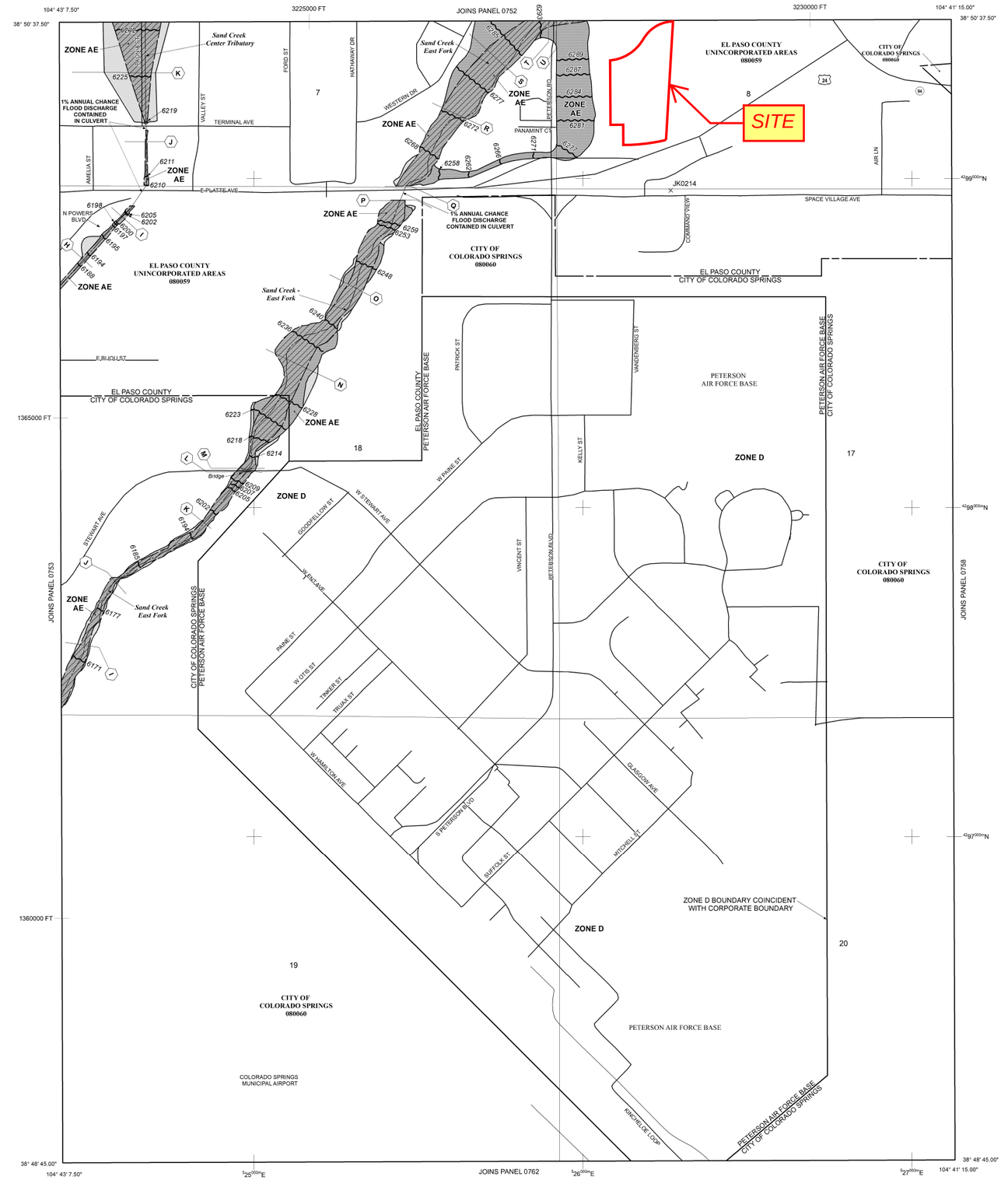
REFER TO SECTION 3.3 OF THE EL PASO COUNTY FLOOD INSURANCE STUDY FOR STREAM BY STREAM VERTICAL DATUM CONVERSION INFORMATION

Panel Location Map



This Digital Flood Insurance Rate Map (DFIRM) was produced through a Cooperating Technical Partner (CTP) agreement between the State of Colorado Water Conservation Board (CWCB) and the Federal Emergency Management Agency (FEMA).

Additional Flood Hazard information and resources are available from local communities and the Colorado Water Conservation Board.



NOTE: MAP AREA SHOWN ON THIS PANEL IS LOCATED WITHIN TOWNSHIP 14 SOUTH, RANGE 65 WEST.

LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAS) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A No Base Flood Elevations determined.
ZONE AE Base Flood Elevations determined.
ZONE AH Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR Special Flood Hazard Area Formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99 Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- Floodplain boundary
- Floodway boundary
- Zone D Boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988 (NAVD 88)

- A — A — Cross section line
- 23 — 23 — Transect line
- 97° 07' 30.00" / 32° 22' 30.00" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 4275000mN — 1000-meter Universal Transverse Mercator grid ticks, zone 13
- 6000000 FT — 5000-foot grid ticks: Colorado State Plane coordinate system, central zone (FIPSZONE 0502), Lambert Conformal Conic Projection
- DX5510 × — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 ● — River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
MARCH 17, 1997

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL
DECEMBER 7, 2018 - to update corporate limits, to change Base Flood Elevations and Special Flood Hazard Areas, to update map format, to add roads and road names, and to incorporate previously issued Letters of Map Revision.

For community map revision history prior to countywide mapping, refer to the Community Map History Table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'
250 0 500 1000 FEET
150 0 150 300 METERS

NFIP

PANEL 0754G

NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

EL PASO COUNTY, COLORADO AND INCORPORATED AREAS

PANEL 754 OF 1300

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
COLORADO SPRINGS, CITY OF	080060	0754	G
EL PASO COUNTY	080059	0754	G

Notice: This map was reissued on 05/15/2020 to make a correction.This version replaces any previous versions. See the Notice-to-User Letter that accompanied this correction for details.

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
08041C0754G

MAP REVISED
DECEMBER 7, 2018

Federal Emergency Management Agency

APPENDIX B – GEC PLANS

(TO BE INCLUDED ONCE APPROVED)

APPENDIX C – CALCULATIONS

TEMPORARY SEDIMENT BASIN
SEDIMENT BASIN STAGE-STORAGE CALCULATIONS

Elevation	Area S.F.	Area Acre	Volume Cu. Ft.	Volume Acre-Ft	Cumm Vol Cu. Ft.	Cumm Vol Acre-Ft	Proration Enter Vol. in Cu-Ft*	Proration Enter Vol. in Acre-Ft*	Elev. Cu-Ft
6285.0	**3630**								
6286.0	**4637**	**0.1065**	4,123	0.0355	**4,123**	**0.095**	8,532	0.1959	**6,286.85**
6287.0	**5745**	**0.1319**	5,181	0.1189	**9,304**	**0.214**			
6288.0	**6953**	**0.1596**	6,339	0.1455	**15,644**	**0.359**			
6289.0	**8009**	**0.1839**	7,475	0.1716	**23,119**	**0.531**	17,064	0.392	**6,288.19**

COLUMN 1	**CENTROID EL.**
ORIFICE 1	6,286.85
ORIFICE 2	6,287.18
ORIFICE 3	6,287.51
ORIFICE 4	6,287.84
ORIFICE 5	6,288.17

SED Basin riser pipe orifice calculations					
A_0 =	area per row of orifices spaved on 4" centers (in^2)				
V=	0.1959	design volume (acre feet)	*<15 ac.		
T_D=	72	time to drain the prescribed colume (hrs) (Typically 72 hours for EURV)			
H=	1.339	depth of volume (ft)			
S=	0.0001	Trickel channel slope (ft/ft) [Use 0.0001 for flat slope]			
			S=0%		
A_0 =	0.5891	in^2	**0.5874**	in^2	**USE 7/8" DIA.**
Dia	0.86	in			
	1.73	Dia=/2			
	3.46	Dia=/4			
	6.92	Dia=/8			
	13.84	Dia=/16			
	27.67	Dia=/32			

SEDIMENT VOLUME CALCULATIONS				
Disturbed area-acres	4.740	Acres		
Undisturbed area-acres	0.000	Acres		
Total Area-acres	4.740	Acres		
Sediment volume	17,064	cu-ft	0.3917	Acres-ft
Volume below lowest hole	8,532	cu-ft	0.1959	Acres-ft
Volume above lowest hole	8,532	cu-ft	0.1959	Acres-ft
Total Volume	17,064	cu-ft	0.3917	Acres-ft

Note: **Enter values in highlighted cells only.**

TEMPORARY SEDIMENT BASIN
SEDIMENT BASIN STAGE-STORAGE CALCULATIONS

Elevation	Area S.F.	Area Acre	Volume Cu. Ft.	Volume Acre-Ft	Cumm Vol Cu. Ft.	Cumm Vol Acre-Ft	Proration Enter Vol. in Cu-Ft*	Proration Enter Vol. in Acre-Ft*	Elev. Cu-Ft
6282.6	**5805**								
6283.0	**6158**	**0.1414**	2,392	0.0188	**2,392**	**0.055**			
6284.0	**7635**	**0.1753**	6,883	0.1580	**9,276**	**0.213**	11,268	0.2587	**6,284.24**
6285.0	**9213**	**0.2115**	8,412	0.1931	**17,687**	**0.406**			
6286.0	**10892**	**0.2500**	10,041	0.2305	**27,728**	**0.637**	22,536	0.517	**6,285.48**
6286.5	**11768**	**0.2702**	5,664	0.1300	**33,392**	**0.767**			

COLUMN 1	**CENTROID EL.**
ORIFICE 1	6,284.24
ORIFICE 2	6,284.57
ORIFICE 3	6,284.90
ORIFICE 4	6,285.23

SED Basin riser pipe orifice calculations					
A_0 =	area per row of orifices spaved on 4" centers (in^2)				
V=	0.2587	design volume (acre feet) *<15 ac.			
T_D=	72	time to drain the prescribed colume (hrs) (Typically 72 hours for EURV)			
H=	1.246	depth of volume (ft)			
S=	0.0001	Trickel channel slope (ft/ft) [Use 0.0001 for flat slope]			
			S=0%		
A_0 =	0.7655	in^2	**0.7632**	in^2	**USE 1" DIA.**
Dia	0.99	in			
	1.97	Dia=/2			
	3.94	Dia=/4			
	7.89	Dia=/8			
	15.77	Dia=/16			
	31.55	Dia=/32			

SEDIMENT VOLUME CALCULATIONS				
Disturbed area-acres	6.260	Acres		
Undisturbed area-acres	0.000	Acres		
Total Area-acres	6.260	Acres		
Sediment volume	22,536	cu-ft	0.5174	Acres-ft
Volume below lowest hole	11,268	cu-ft	0.2587	Acres-ft
Volume above lowest hole	11,268	cu-ft	0.2587	Acres-ft
Total Volume	22,536	cu-ft	0.5174	Acres-ft

Note: **Enter values in highlighted cells only.**

TEMPORARY SEDIMENT BASIN
SEDIMENT BASIN STAGE-STORAGE CALCULATIONS

Elevation	Area S.F.	Area Acre	Volume Cu. Ft.	Volume Acre-Ft	Cumm Vol Cu. Ft.	Cumm Vol Acre-Ft	Proration Enter Vol. in Cu-Ft*	Proration Enter Vol. in Acre-Ft*	Elev. Cu-Ft
6283.0	**2645**	**0.0607**							
6284.0	**3728**	**0.0856**	3,171	0.0728	**3,171**	**0.073**	5,508	0.1264	**6,284.54**
6285.0	**4912**	**0.1128**	4,306	0.0989	**7,477**	**0.172**			
6286.0	**6196**	**0.1422**	5,542	0.1272	**13,019**	**0.299**	11,016	0.253	**6,285.64**
6286.7	**6877**	**0.1579**	4,573	0.1050	**17,593**	**0.404**			

COLUMN 1	**CENTROID EL.**
ORIFICE 1	6,284.54
ORIFICE 2	6,284.87
ORIFICE 3	6,285.20
ORIFICE 4	6,285.53

SED Basin riser pipe orifice calculations					
A_0 =	area per row of orifices spaved on 4" centers (in^2)				
V=	0.1264	design volume (acre feet)	*<15 ac.		
T_D=	72	time to drain the prescribed colume (hrs) (Typically 72 hours for EURV)			
H=	1.096	depth of volume (ft)			
S=	0.0001	Trickel channel slope (ft/ft) [Use 0.0001 for flat slope]			
			S=0%		
A_0 =	0.3927	in^2	**0.3915**	**in^2**	**USE 11/16 DIA.**
Dia	0.71	in			
	1.41	Dia=/2			
	2.82	Dia=/4			
	5.65	Dia=/8			
	11.30	Dia=/16			
	22.59	Dia=/32			

SEDIMENT VOLUME CALCULATIONS				
Disturbed area-acres	3.060	Acres		
Undisturbed area-acres	0.000	Acres		
Total Area-acres	3.060	Acres		
Sediment volume	11,016	cu-ft	0.2529	Acres-ft
Volume below lowest hole	5,508	cu-ft	0.1264	Acres-ft
Volume above lowest hole	5,508	cu-ft	0.1264	Acres-ft
Total Volume	11,016	cu-ft	0.2529	Acres-ft

Note: **Enter values in highlighted cells only.**

BMP FEATURE	TOTAL TRIBUTARY AREA (AC)	DISTURBED AREA (AC)	UNDISTURBED AREA (AC)	BOTTOM SIZE (FT)	SEDIMENT VOLUME (AC-FT)	BASIN VOLUME (AC-FT)	BOTTOM ELEVATION	CREST ELEVATION	CREST, WxL (FT)	TOP OF POND ELEVATION	LOWEST ORIFICE ELEVATION	TOTAL AREA OF ORIFICES (SQ IN)	# OF ORIFICE COLUMNS	DIA. OF ORIFICES (IN)	RISER PIPE INVERT	DAYLIGHT ELEVATION	OUTLET PIPE LENGTH (FT)	OUTLET PIPE SLOPE
TSB 1	4.74	4.74	0.00	84'L x 44'W	0.39	0.53	6,285.00	6,288.20	10' x 20'	6,289.20	6,286.85	0.59	1	7/8"	6,285.60	6,283.75	238	0.8%
TSB 2	6.26	6.26	0.00	142.5'L x 41.3'W	0.52	0.77	6,282.60	6,285.50	12' x 15'	6,286.50	6,284.24	0.76	1	1"	6,282.99	6,281.90	127	0.9%
TSB 3	3.06	3.06	0.00	113'L x 24'W	0.25	0.40	6,283.00	6,286.00	6' x 20'	6,287.00	6,284.54	0.39	1	11/16"	6,283.29	6,281.90	121	1.2%

*ORIFICES TO BE EVERY 4" FROM LOWEST ORIFICE ELEVATION TO THE TOP OF RISER PIPE, TOTAL NUMBER OF ORIFICES VARY.

APPENDIX D – EL PASO COUNTY CONSTRUCTION CONTROL MEASURES

(REFER TO DETAIL SHEETS OF APPROVED GEC PLANS IN APPENDIX B FOR PROJECT SPECIFIC CONTROL MEASURE DETAILS)

APPENDIX E – SPILL PREVENTION PLAN

Spill Prevention, Control and Countermeasure (SPCC) Plan

Facility Name: _____
Address: _____
_____

Contact Name: _____
Phone: _____
Fax: _____
Email: _____

Certification: I hereby certify that I have examined the facility, and, being familiar with the provisions of 40 CFR part 112, attest that this SPCC plan has been prepared, or updated within 5 years, in accordance with good engineering practices and meets the requirements listed in 40 CFR part 112.

This plan has been certified by:

Date of certification: _____ *Engineer's Seal*

Copies of this plan are located at the facility and are available to all employees.

Location(s) of plan(s): _____

I. FACILITY INFORMATION

a. Facility Name: _____

b. Mailing Address: _____
_____

c. Physical address if different: _____
_____
_____

d. Owner Name: _____

e. Owner Address: _____
_____

f. Primary Contact Name: _____
Work Phone Number: _____
Home Phone Number: _____
Mobile Phone Number: _____

g. Secondary Contact Name:
Work Phone Number: _____
Home Phone Number: _____
Mobile Phone Number: _____

h. Date of Initial Operation: _____

II. SITE ASSESSMENT

a. Location:
Describe where facility is located. For example, "This site is located along Broad Creek about 2 miles north of its confluence with the Choptank River at Holland Point. Road access is from. . . . The site is located on Talbot County ADC map 22 (H5). Latitude is ___ and longitude is ___ ."

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

III. FACILITY DESCRIPTION

a. Acres of land: ____

b. Facilities and Equipment:
Place an X beside all that apply.

____ Garage for vehicle processing
____ Parts store
____ On-site crushcr
_____Impervious crush pad for crusher
____ Impervious pad for outside vehicle processing
____ Spill kit/emergency equipment
____ Refrigerant (Freon) extractor
____ Parts washer
____ Other structures and major equipment:

Please list: _____
_____
_____
_____
_____

c. Services:
Place an X beside all that apply.

____ Dismantler/Recycler
____ Sell used parts
____ Sell vehicles for scrap
_____Crushing
____ Auto body/repair shop
____ Sell used cars
____ Other services:

Please list: _____
_____
_____
_____

d. Fixed Storage:
List capacity and contents of each storage container. For example, "One 6,000 gallon above ground tank containing diesel fuel." Be sure to include diesel, gasoline, waste oil, heating oil, kerosene, paint thinner and other solvents. Also describe the construction of the containers, secondary containment for each, liquid level indicators, alarms and method of corrosion protection for each container._____

e. Non-Fixed Storage:
List capacity and contents of each storage container. For example, "One 55 gallon drum for recycled oil." Be sure to indicate what each container is used for, its condition and construction and how secondary containment is provided. _____

f. Total quantity of stored materials:
The combined quantity of the materials listed above: _____ gallons

IV. OIL SPILL HISTORY

Place an X on the appropriate line and proceed accordingly.

___ There has never been a significant spill at the above named facility.

___ There have been one or more significant spills at the above named facility. Details of such spill(s) are described below.

For each spill that occurred, supply the following information:

- Type and amount of oil spilled
- Location, date and time of spill(s)
- Watercourse affected
- Description of physical damage
- Cost of damage
- Cost of clean-up
- Cause of spill
- Action taken to prevent recurrence

V. POTENTIAL SPILL VOLUMES AND RATES

Fill in all applicable blanks. Be prepared to show the engineer documentation of flow rates. Your fuel vendor and the manufacturer of your storage and dispensing equipment should be able to provide this documentation.

Potential Event	Volume Released	Spill Rate
Complete failure of a full tank*	____ gallons	instantaneous
Partial failure of a full tank*	1 to ____ gallons	gradual to instantaneous
Tank overflow**	1 to ____ gallons	up to ____ gallons per minute
Leaking during unloading***	up to ____ gallons	up to ____ gallons per minute
Pipe failure****	up to ____ gallons	up to ____ gallons per minute
Leaking pipe or valve****	several ounces to gallons	up to ____ gallons per minute
Fueling operations****	several ounces to gallons	up to ____ gallons per minute
Oil and grease	several ounces to quarts	spotting

* Volume of largest tank
** Calculate using the rate at which fuel is dispensed from the delivery truck into your tank(s).
*** Calculate using the rate at which petroleum would be withdrawn from the tank if it should have to be emptied (*e.g.*, if it was being taken out of service).
**** Calculate based on the specifications of your equipment.

VI. SPILL PREVENTION AND CONTROL

a. Spill Prevention:
Provide specific descriptions of containment facilities and practices. Include description of items such as double-walled tanks, containment berms, emergency shut-offs, drip pans, fueling procedures and spill response kits. Also, describe how and when employees are trained in proper handling procedures and spill prevention and response procedures.

b. Spill discharge and flow:
For each potential spill source, describe where petroleum would flow in the event of a spill. For example, "The 6,000 gallon diesel tank has a pre-manufactured secondary containment system capable of holding 110 percent of the total volume of the tank" and, "A spill from engine repair would be contained inside the shop building and quickly cleaned up with oil absorbents." Incorporate site map by reference (see instructions under *Appendices*).

c. Spill response:
Identify what equipment would be deployed by whom and in what situation. Also, include phone numbers for response agencies, *e.g.*, U.S. Coast Guard, fire department, spill response contractors, etc. A copy of your spill response plan may be attached as an appendix to this SPCC plan in lieu of completing this section.

d. Security
Provide a description of how all containers are protected when the facility is not in operation or unattended. Include a description of fencing, access control, gates, locks, etc. that prevent access by unauthorized individuals.

VII. FACILITY INSPECTIONS

a. Routine Inspections

Name facilities and the frequency with which they are inspected. For example, "The fuel pumps are inspected daily. The materials storage area is inspected monthly." Describe all facility containers, piping, etc. that is to be inspected. Name the person who has responsibility to implement preventative maintenance programs, oversee on-site inspections, coordinate employee training, maintain records, update the plan as necessary, and ensure that reports are submitted to the proper authorities.

b. Annual Inspections

Include a description of annual comprehensive inspections. For example, "A site inspection is also conducted annually by appropriate responsible personnel to verify that the description of potential pollutant sources are accurate, that the map reflects current site conditions, and that the controls to reduce the pollutants identified in this plan are being implemented and are adequate. This annual inspection will be conducted above and beyond the routine inspections done focusing on designated equipment and areas where potential sources are located."

VIII. RECORD KEEPING

Describe record keeping procedures. For example, "Record keeping procedures consist of maintaining all records a minimum of three years. The following items will be kept on file: current SPCC plan, internal site reviews, training records, and documentation of any spills or maintenance conducted in regards to these sites." *Maintenance Inspection*, *Employee Training*, and *Record Keeping* logs are included in this template for your use.

IX. MAINTENANCE INSPECTIONS

Maintenance Coordinator: _____. Maintenance Coordinator responsibilities include implementation of preventative maintenance programs and oversight of on-site inspections.

Use this table to record inspections:

Facility Inspected	Date of Inspection	Name of Inspector	Result Pass/Fail	Comments

X. RECORD KEEPING OF INCIDENTAL SPILLS

Record Keeper: _____. Record Keeper responsibilities include maintaining records of incidents, updating the SPCC plan as necessary and ensuring reports are submitted to the proper authorities when necessary.

Incident No.	Type of Incident	Date of Occurrence	How it was Cleaned Up

APPENDIX F – SWMP REPORT REVISION LOG

SWMP REPORT REVISION LOG

REVISION #	DATE	BY	COMMENTS

APPENDIX G – QUALIFIED STORMWATER MANAGER CERTIFICATIONS

2880 International Circle, Suite 110
Colorado Springs, CO 80910
Phone: 719-520-6300
Email: Stormwater@elpasoco.com
publicworks.elpasoco.com/stormwater/

Stormwater Permit Number: ESQ_____

EL PASO COUNTY
STORMWATER PERMIT FORM
Erosion and Stormwater Quality Control Permit (ESQCP)

EPC Project Number: PPR2613

There are multiple Stormwater Permits. Please refer to Engineering Criteria Manual (ECM) Appendix I to determine which permit is applicable to your project.

This form initially acts as the permit application. Only once this form has been signed & approved, all other required documents have been submitted & approved, and the Notice to Proceed has been issued, does this form become an active permit.

Part I. Property Owner or Authorized Representative (Co-Permit Holder)	
Company/Organization	HILLPOINTE, LLC.
Name or Name of Representative	MARK FOSTER
Title	VICE PRESIDENT OF DEVELOPMENT
Physical Address (not PO Box)	
Street Number and Street Name	3773 CHERRY CREEK DRIVE NORTH SUITE #801 EAST TOWER
City, State, Zip Code	DENVER, COLORADO 80209
Mailing Address (if differs from above)	
Street Number and Street Name	
City, State, Zip Code	
Phone Number - Office	303-910-5470
Phone Number - Cell	
Email Address	MFOSTER@HILLPOINTE.COM

Part II. Contractor/Operator (Co-Permit Holder)*	
Company/Organization	
Name or Name of Representative	
Title	
Physical Address (not PO Box)	
Street Number and Street Name	
City, State, Zip Code	
Mailing Address (if differs from above)	
Street Number and Street Name	
City, State, Zip Code	
Phone Number - Office	
Phone Number - Cell	
Email Address	

*This section can be left blank through design review but must be filled in no later than at the Pre-Con Meeting.

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Part III. Qualified Stormwater Manager (QSM)*	
Company/Organization	
Name	
Phone Number - Office	
Phone Number - Cell	
Email Address	

*This section can be left blank through design review but must be filled in no later than at the Pre-Con Meeting.

Part IV. Project Information	
Project Name	HILLPOINTE APARTMENTS AT PETERSON ROAD
Address (or nearest major cross streets)	485 MEADOWBROOK PARKWAY (MEADOWBROOK PARKWAY AND PETERSON
Acreage	Total: 14.09 acres Proposed Disturbance: 14.48 acres
Description of Project	MULTI-FAMILY APARTMENT DEVLEOPMENT OF 300 UNITS WITH ASSOCIATED SITE ROADWAYS AND LANDSCAPING.
Schedule (input estimated month or season)	Start of Construction: SPRING OF 2027 Completion of Construction: FALL OF 2028 Final Stabilization: FALL OF 2028

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Stormwater Permit Number: ESQ_____

EL PASO COUNTY
STORMWATER PERMIT FORM
Erosion and Stormwater Quality Control Permit (ESQCP)

EPC Project Number: PPR2613

REQUIRED SUBMISSIONS

See ECM Appendix I for the documentation required to be submitted, reviewed, and approved in conjunction with this Stormwater Permit Form.

RESPONSIBILITY FOR DAMAGE

The County and its officers and employees, including but not limited to the ECM Administrator, shall not be answerable or accountable in any manner for damage to property or for injury to or death of any person, including but not limited to the Permit Holder(s), persons employed by the Permit Holder(s), or persons acting on behalf of the Permit Holder(s), from any cause. The Permit Holder(s) shall be responsible for any liability imposed by law and for damage to property or injuries to or death of any person, including but not limited to the Permit Holder(s), persons employed by the Permit Holder(s), and persons acting on behalf of the Permit Holder(s), arising out of work or other activity permitted and done under a permit, or arising out of the failure to perform the obligations under any permit with respect to maintenance or any other obligations, or resulting from defects or obstructions, or from any cause whatsoever during the progress of the work or other activity, or at any subsequent time work or other activity is being performed under the obligations provided by and contemplated by the permit.

The Permit Holder(s) shall indemnify, save, and hold harmless the County and its officers and employees, including but not limited to the Board of County Commissioners (BoCC) and ECM Administrator, from all claims, suits or actions of every name, kind and description brought for or on account of damage to property or injuries to or death of any person, including but not limited to the Permit Holder(s), persons employed by the Permit Holder(s), persons acting in behalf of the Permit Holder(s) and the public, resulting from the performance of work or other activity under the permit, or arising out of the failure to perform obligations under any permit with respect to maintenance or any other obligations, or resulting from defects or obstructions, or from any cause whatsoever during the progress of the work or other activity, or at any subsequent time work or other activity is being performed under the obligations provided by and contemplated by the permit, except as otherwise provided by state law. The Permit Holder(s) waives any and all rights to any type of expressed or implied indemnity against the County, its officers or employees. It is the intent of the parties that the Permit Holder(s) will indemnify, save, and hold harmless the County, its officers and employees from any and all claims, suits or actions as set forth above regardless of the existence or degree of fault of or negligence, whether active or passive, primary or secondary, on the part of the County, the Permit Holder(s), persons employed by the Permit Holder(s), or persons acting in behalf of the Permit Holder(s).

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EL PASO COUNTY
STORMWATER PERMIT FORM
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EPC Project Number: PPR2613

APPLICATION AND PERMIT CERTIFICATION – PERMIT HOLDERS

We, as the Permit Holder(s), hereby certify that this application is correct and complete as per the requirements presented in the El Paso County Engineering Criteria Manual (ECM) and Drainage Criteria Manual (DCM) Volume 2. We, as the Permit Holder(s), have read and will comply with all of the requirements of the submitted Stormwater Management Plan (SWMP), Grading & Erosion Control (GEC) Plan, and any other documents specifying construction control measures to be used on the site, including permit conditions that may be required by the ECM Administrator. We understand that the approved plans are an enforceable part of the ESQCP. We further understand that we are to comply with all requirements set forth by the ECM and DCM Volume 2. We understand that the permitted area is that which is shown as the Limits of Disturbance on the GEC Plans. We further understand that a Construction Permit must be obtained and all necessary construction control measures are to be installed in accordance with the SWMP, GEC Plan, ECM, and DCM Volume 2 before land disturbance begins and that failure to comply will result in a Stop Work Order and may result in other penalties as allowed by law. We understand that the construction control measures are to be maintained on the site and be modified as necessary to protect stormwater quality as the project progresses. We further understand and agree to indemnify, save, and hold harmless the County and its officers and employees, including but not limited to the BoCC and ECM Administrator, from all claims, suits or actions of every name, kind and description as outlined in Responsibility for Damage section above.

Signature of Owner or Representative

4/27/26
Date

MARK FOSTER
Print Name of Owner or Representative

Signature of Contractor/Operator or Representative*
*If signed by a Rep, an Affidavit of Signature Authority must be included

Date

Print Name of Contractor/Operator or Representative

APPLICATION AND PERMIT CERTIFICATION – EL PASO COUNTY

The following signature from the ECM Administrator signifies the approval of this ESQCP Application.

Signature of ECM Administrator

Date

Altitude Training Associates

Awards this Certificate of Completion to

Colleen Monahan

**Who on October 5, 2020 successfully completed a one day,
Instructor Led Online Training Class in:**

Stormwater Management & Erosion Control During Construction (GEC)

Instructor
Altitude Training Associates, LLC

altitudeta.com

ALTITUDE TRAINING ATA ASSOCIATES

Altitude Training Associates

Awards this Certificate of Completion to

Colleen Monahan

Who on October 6, 2020 Successfully Completed
The Following Instructor Led, Online Training Class:

Developing & Implementing Stormwater Management Plans (SWMP)

Instructor
Altitude Training Associates

altitudeta.com

ALTITUDE TRAINING ATA ASSOCIATES