Community & Economic
Development Department
www.adcogov.org

ADAMS COUNTY
COLORADO

4430 South Adams County Parkway
1st Floor, Suite W2000B
Brighton, CO 80601-8218
PHONE 720.523.6800
FAX 720.523.6967

Development Team Review Comments

The following comments have been provided by reviewers of your land use application. At this time, a resubmittal of your application is required before this case is ready to be scheduled for public hearing.

To prepare your resubmittal, you will be expected to provide:

- A response to each comment with a description of the revisions and the page of the response on the site plan;
- Any revised plans or renderings; and
- A list identifying any additional changes made to the original submission other than those required by staff.

Resubmittal documents must be provided electronically through e-mail or a flash drive delivered to the One-Stop Customer Service Center. The following items will be expected by our One-Stop Customer Service Center:

- One digital copy of all new materials
  - All digital materials shall be in a single PDF document
  - The single PDF document shall be bookmarked
  - If a Subdivision Improvements Agreement, Legal Description, or Development Agreement is required, then an additional Microsoft Word version of these documents shall also be provided
  - Electronic copies can be emailed to epermitcenter@adcogov.org as a PDF attachment. If the files are too large to attach, the email should include an unlocked Microsoft OneDrive link. Alternatively, the resubmittal can be delivered to the One-Stop counter on a flash drive.

Community & Economic
Development Department
www.adcogov.org

ADAMS COUNTY
COLORADO

4430 South Adams County Parkway
1st Floor, Suite W2000
Brighton, CO 80601-8204
PHONE 720.523.6800
FAX 720.523.6998

Re-submittal Form

Case Name/ Number: PLT2025-00027/ Seltzer Heights

Case Manager: Nick Eagleson

Re-submitted Items:

- [ ] Development Plan/ Site Plan
- [X] Plat
- [ ] Parking/ Landscape Plan
- [ ] Engineering Documents
- [ ] Subdivision Improvements Agreement
- [ ] Other: _____

*** All re-submittals must have this cover sheet and a cover letter addressing review comments.**

Please note the re-submittal review period is 21 days.

The cover letter must include the following information:

- Restate each comment that requires a response
- Provide a response below the comment with a description of the revisions
- Identify any additional changes made to the original document

For County Use Only:

Date Accepted:

Staff (accepting intake):

Resubmittal Active: Addressing, Building Safety, Neighborhood Services,

Engineering, Environmental, Parks, Planner, ROW, SIA - Finance, SIA - Attorney

ADAMS COUNTY
COLORADO

Community & Economic Development Department
4430 S. Adams County Pkwy.
1st Floor, Suite W2000B
Brighton, CO 80601
PHONE 720.523.6800
EMAIL epermitcenter@adcogov.org
adcogov.org

Development Review Team Comments

Date: 7/15/2025

Project Number: PLT2025-00027

Project Name: 6300 E 88th Minor Subdivision

Commenting Division: ROW Review

Name of Reviewer: David Dittmer

Date: 07/10/2025

Email:

Resubmittal Required

ROW1: Place case number at the top right-hand corner of all sheets **Response:** Moved case number label to top right corner.

ROW2: Need to label the Ownership and Dedication Certificate

Ownership Certificate:

a. Know all men by these presents that (owner name(s)), being the sole owner(s) of the following described tract of land:

b. Legal Description must match that of the title commitment

c. Have (Has) by these presents laid out, platted, and subdivided the same into lot(s), tract(s), street(s), and easement(s) as shown on this plat under the name and style of (subdivision name).

Response: Added ownership and dedication certificate label. Revised language as indicated and added legal from title commitment.

ROW3: The legal description must match that of the provided title report dated in 2025, with three parcels due to current ownership (two entities overlapping) followed by the new m/b legal for the boundary once the strip is pulled into the subdivision.

Response: Revised as indicated with new legal description following "now being described as follows" statement. Also labeledparcels A, B, nad C on sheet 2 existing conditions drawing.

ROW4: Dedication Statements:

•Statements of land to be dedicated to the County for parks or other public uses,
grants of easements and dedication of public streets to the Adams County are required.

a. All plats with public streets shall have the following sentence in the dedication statement: All public streets are hereby dedicated to Adams County for public use.

b. All plats with public easements and/or tracts must have the following sentence in the dedication statement: The undersigned does hereby dedicate, grant and convey to Adams County those Public Easements (and tracts) as shown on the plat; and further restricts the use of all Public Easement to Adams County and/or its assigns, provided however, that the sole right and authority to release or quitclaim all or any such Public Easements shall remain exclusively vested in Adams County.

c. All plats with private streets shall have the following sentence in the dedication statement: All private streets (insert names) are privately owned and maintained by (list owner name, Owner's Association, etc.).

Response: I believe the only necessary dedication statement will be for easements. Corrected language to match County statements.

ROW5: Revise the Notary Affirmation to read: "THE FOREGOING OWNERSHIP AND DEDICATION CERTIFICATE WAS ACKNOWLEDGED BEFORE ME" **Response:** Corrected notary affirmation.

ROW6: The signature block for Fred J. Orr may need to be revised based upon a recorded SOA. A copy of a recorded SOA, current, is required to verify the signatory's ability to encumber the entities.

Response: Revised language based on SOAs recorded in 2007 and 2019, provided with this submittal.

ROW6: Is Note 10 the m/b legal of the new boundary, or why is it being included?

Response: New one incorporating strip. Moved this legal description to the Ownership and Dedication statement with a "Now Being Described as Follows" statement.

ROW7: Revise the county approval / signature blocks as provided on the plat comments. **Response:** Revised as indicated.

ROW8: A revision block is required to verify we are looking at the correct submittal through this process.

Response: Added revision block on cover sheet.

ROW9: Sheet 2: State parcel line vacated by this plat for the strip, and review the line weight and style for the existing lot lines. **Response:** Added label stating parcel lines vacated to Parcel C label. Made existing lot line solid.

ROW10: Delineate between access and drainage easement boundary and provide the necessary dedication statement for the access and drainage easements sheet 3 **Response:** Revised as indicated.

Commenting Division: Planner Review

Name of Reviewer: Nick Eagleson

Date: 07/10/2025

Email:

Resubmittal Required

PLN01: Request is for a Minor Subdivision Final Plat to establish new lot line boundaries for lots one and two of the Faden Subdivision. The subdivision would vacate a small remnant parcel along the southern boundary, which is not part of the Faden Subdivision. **Response:** This is correct.

PLN02: Place case number PLT2025-00027 at top right of page one. **Response:** Moved case number label to top right corner.

PLN03: Lots one and two would meet the dimensional requirements for the C-5 zone district. **Response:** Noted.

PLN04: Water and sewer have been established with existing use (South Adams). **Response:** Noted.

PLN05: After subdivision is approved, applicant can move forward with USE permits and landscape relief. **Response:** Noted.

Commenting Division: Development Engineering Review

Name of Reviewer: Laurie Clark

Date: 07/09/2025

Email:

Resubmittal Required

ENG1: The Minor Subdivision cannot go to the Board of County Commissioners until engineering documents are approved under EGR2023-00051. There has been no activity on the EGR case since January of 2024.

Response: Noted. Revised engineering documents have been included in this submittal, updated per the latest plat.

Commenting Division: Neighborhood Services Review

Name of Reviewer: Gail Moon

Date: 07/07/2025

Email: gmoon@adcogov.org

Complete

There are no OPEN violation cases at this location at this time. NO COMMENT

Response: Noted.

Commenting Division: Environmental Analyst Review

Name of Reviewer: Megan Grant

Date: 07/07/2025

Email:

Complete

ENV1. The applicant has responded to ENV comments on USE2023-00037 and USE2023-00018. **Response:** Noted.

The following comments apply to mineral resources:

ENV2. The subject parcels are located within the Adams County Mineral Conservation Overlay (MCO) district, the purpose of which is to establish reasonable and uniform limitations, safeguards, and controls for the conservation and wise utilization of natural resources and for rehabilitation of excavated land. Land within this classification is designated as containing commercial mineral deposits in sufficient size parcels and in areas where extraction and rehabilitation can be undertaken while still protecting the health, safety, and welfare of the inhabitants of the area and Adams County. Although these parcels are located within the MCO district, the parcels are less than 5 acres and previously developed; therefore, the MCO restrictions are not applicable in this case. **Response:** Noted.

Commenting Division: Attorney Review

Name of Reviewer: Sally Daggett

Date: 07/07/2025

Email:

Resubmittal Required

Plat needs revisions to comply with County requirements. ROW will identify the required revisions more fully. **Response:** Noted.

Commenting Division: Addressing Review

Name of Reviewer: David Dittmer

Date: 07/02/2025

Email:

Complete

Addressing will not change with this subdivision **Response:** Noted.

Nick Eagleson

From: Cicione - CDPHE, Brendan <brendan.cicione@state.co.us>
Sent: Monday, June 16, 2025 1:04 PM
To: Nick Eagleson
Subject: Re: PLT2025-00027 E. 88th Minor Subdivision; Request for Comments

Hi Nick,

Thank you for your email. There are no comments from the Air Pollution Control Division. Please do not hesitate to contact me with any questions. **Response:** Noted.

Thanks,
Brendan Cicione *(he/him)*
Air Quality and Transportation Planner

4300 Cherry Creek Drive S. | Denver, CO 80246-1530 brendan.cicione@state.co.us
| https://cdphe.colorado.gov/

On Mon, Jun 16, 2025 at 8:15 AM Localreferral - CDPHE, CDPHE <cdphe_localreferral@state.co.us> wrote:

> Hello,
>
> Please see the email below. Please add comments by 7/6.
>
> Thank you!
>
> ---------- Forwarded message ---------
> From: **Nick Eagleson** <NEagleson@adcogov.org>
> Date: Thu, Jun 12, 2025 at 12:03 PM
> Subject: PLT2025-00027 E. 88th Minor Subdivision; Request for Comments
> To: Nick Eagleson <NEagleson@adcogov.org>
>
> Good Afternoon,
>
> Please see the attached request for comments to combine a small parcel of land to two exiting lots. Please have any comments returned by **7/8**.

Thanks!

Nick Eagleson

Senior Strategic Planner, *Planning & Development Division*

ADAMS COUNTY, COLORADO

4430 South Adams County Parkway, 1st Floor, Suite W2000A

Brighton, CO 80601

O: 720.523.6878 | *NEagleson@adcogov.org* | www.adcogov.org

County operating hours: Monday-Friday 8:00am-4:30pm

--

cdphe_localreferral@state.co.us | colorado.gov/cdphe

Nick Eagleson

From: Hacker - DNR, Ariel <ariel.hacker@state.co.us>
Sent: Wednesday, July 9, 2025 10:07 AM
To: Nick Eagleson
Cc: Ioana Comaniciu - DNR
Subject: Re: PLT2025-00027 E. 88th Minor Subdivision; Request for Comments

Good morning,

The DWR has reviewed the PLT2025-00027 referral at 6300 E 88th Ave referral to adjust the lot lines of Lot 1 and Lot 2, Faden Subdivision. This referral does not appear to qualify as a "subdivision" as defined in section 30-28-101(10)(a), C.R.S. Therefore, pursuant to the State Engineer's March 4, 2005 and March 11, 2011 memorandums to county planning directors, this office will only perform a cursory review of the referral information and provide informal comments. The comments do not address the adequacy of the water supply plan for this project or the ability of the water supply plan to satisfy any County regulations or requirements. In addition, the comments provided herein cannot be used to guarantee a viable water supply plan or infrastructure, the issuance of a well permit, or physical availability of water. The proposed water supply is the existing municipal service. The municipal provider was identified to be South Adams County Water District. This office has no comments on the proposed water supply.

Response: Noted.

If you have any questions, please let me know.

Thank you,

Ariel Hacker
Water Resources Engineer, Division 1
Pronouns: she/her/hers (why pronouns?)

P 303-866-3581 x 8234
1313 Sherman St., Suite 818, Denver, CO 80203
ariel.hacker@state.co.us | www.colorado.gov/water

Summer Working Hours:
Monday - Thursday 5:30 am - 3:00 pm,
Friday 7 - 11 am

On Fri, Jun 13, 2025 at 4:48 PM Comaniciu - DNR, Ioana <ioana.comaniciu@state.co.us> wrote:

> Hi Ariel,
> Could you please review this referral.
> Thank you,

Ioana Comaniciu, P. E.

Water Resource Engineer

P 303-866-3581 x 8246

1313 Sherman St., Suite 821 Denver CO 80203

ioana.comaniciu@state.co.us | https://dwr.colorado.gov

---------- Forwarded message ---------
From: **Nick Eagleson** <NEagleson@adcogov.org>
Date: Thu, Jun 12, 2025 at 12:03 PM
Subject: PLT2025-00027 E. 88th Minor Subdivision; Request for Comments
To: Nick Eagleson <NEagleson@adcogov.org>

Good Afternoon,

Please see the attached request for comments to combine a small parcel of land to two exiting lots. Please have any comments returned by **7/8**.

Thanks!

Nick Eagleson

Senior Strategic Planner, *Planning & Development Division*

ADAMS COUNTY, COLORADO

4430 South Adams County Parkway, 1st Floor, Suite W2000A

Brighton, CO 80601

O: 720.523.6878 | *NEagleson@adcogov.org* | www.adcogov.org

County operating hours: Monday-Friday 8:00am-4:30pm

COLORADO GEOLOGICAL SURVEY

1801 Moly Road
Golden, Colorado 80401

Matthew L. Morgan
State Geologist and
Director

June 30, 2025

Nick Eagleson
Adams County Community and Economic Development
NEagleson@adcogov.org

Location:
39.8576, -104.9150

Subject: **6300 E. 88th Minor Subdivision**
Case Number PLT2025-00027; Adams County, CO; CGS Unique No. AD-25-0037

Dear Mr. Eagleson:

At your request (June 12, 2025), the Colorado Geological Survey has reviewed the 6300 E. 88th Minor Subdivision referral. I understand the applicant proposes to resolve property boundary discrepancies.

The site does not contain, nor is it exposed to, any geologic hazards that would preclude the proposed plat correction. **CGS therefore has no objection to approval of PLT2025-00027 as proposed.** **Response:** Noted.

Mineral resource potential. According to the Atlas of Sand, Gravel, and Quarry Aggregate Resources, Colorado Front Range Counties (Schwochow et al, Colorado Geological Survey Special Publications 5-A, Plate 2, and 5-B, Commerce City Quadrangle, 1974), the subject property is within a mapped "T1" resource area, described as a stream terrace deposit potentially containing a coarse aggregate resource consisting of "Gravel: relatively clean and sound."

A determination of whether the property contains an economic mineral resource is outside the scope of CGS review. A site-specific investigation and market analysis would be required to verify the presence or absence of an economically viable resource. However, if an aggregate resource were determined to be present, the site's small size and existing development likely preclude economic extraction.

Thank you for the opportunity to review and comment on this project. If you have questions or require additional review, please call me at (303) 384-2643, or e-mail carlson@mines.edu.

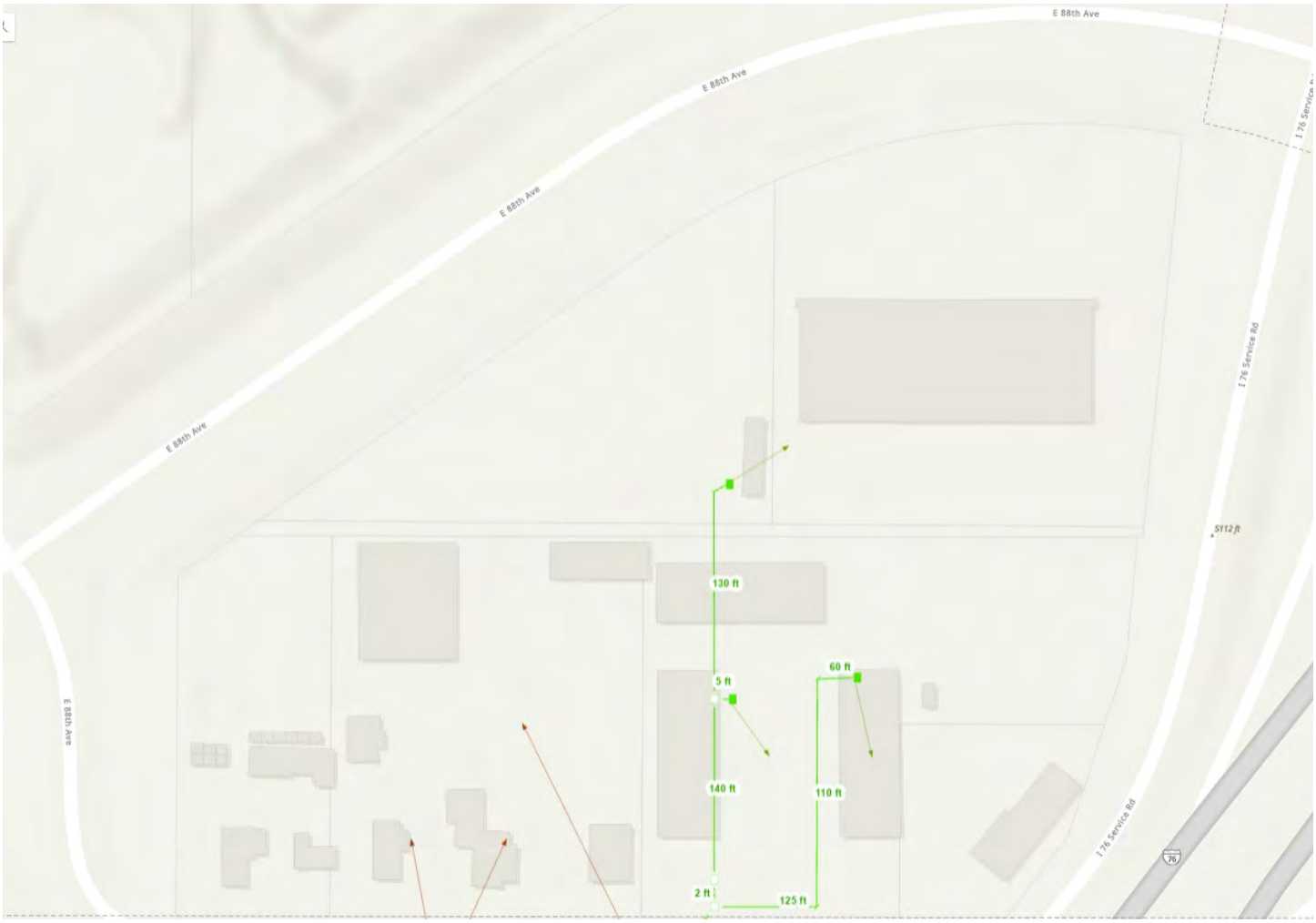
Sincerely,

Jill Carlson, C.E.G.
Engineering Geologist

Nick Eagleson

From: Flores, Miguel <Miguel_Flores@comcast.com>
Sent: Thursday, June 12, 2025 12:42 PM
To: Nick Eagleson
Subject: RE: PLT2025-00027 E. 88th Minor Subdivision; Request for Comments

Hello Nick,
based on the documents this should not impact Comcast, however we do have some UG facilities that need to be protected. **Response:** Noted.



Thanks,

Miguel Flores

Construction Manager – Denver / NoCo
720-413-0113 mobile

COMCAST

From: Nick Eagleson <NEagleson@adcogov.org>
Sent: Thursday, June 12, 2025 12:03 PM
To: Nick Eagleson <NEagleson@adcogov.org>
Subject: [EXTERNAL] PLT2025-00027 E. 88th Minor Subdivision; Request for Comments

Good Afternoon,

Please see the attached request for comments to combine a small parcel of land to two exiting lots. Please have any comments returned by **7/8**.

Thanks!

Nick Eagleson
Senior Strategic Planner, *Planning & Development Division*
ADAMS COUNTY, COLORADO
4430 South Adams County Parkway, 1st Floor, Suite W2000A
Brighton, CO 80601
O: 720.523.6878 | *NEagleson@adcogov.org* | www.adcogov.org

County operating hours: Monday-Friday 8:00am-4:30pm

Right of Way & Permits

1123 West 3rd Avenue
Denver, Colorado 80223
Telephone: 303.285.6612
violeta.ciocanu@xcelenergy.com

July 7, 2025

Adams County Community and Economic Development Department
4430 South Adams County Parkway, Suite W2000A
Brighton, CO 80601

Attn: Nick Eagleson

Re: 6300 E 88th Minor Subdivision, Case # PLT2025-00027

Public Service Company of Colorado's (PSCo) Right of Way & Permits Referral Desk has reviewed the plat for **6300 E 88th Minor Subdivision**. Please be aware that PSCo owns and operates existing natural gas and electric distribution facilities along the southern boundary of Lot 1.

The property owner/developer/contractor must complete the application process for any new natural gas or electric service, or modification to existing facilities via xcelenergy.com/InstallAndConnect. It is then the responsibility of the developer to contact the Designer assigned to the project for approval of design details.

Response: Noted.

If additional easements need to be acquired by separate PSCo document (i.e. transformer), a Right-of-Way Agent will need to be contacted by the Designer.

Response: Noted.

As a safety precaution, PSCo would like to remind the developer to call the Utility Notification Center by dialing 811 for utility locates prior to construction.

Response: Noted.

Violeta Ciocanu (Chokanu)
Right of Way and Permits
Public Service Company of Colorado dba Xcel Energy
Office: 303-285-6612 – Email: violeta.ciocanu@xcelenergy.com

FADEN SUBDIVISION AMENDMENT NO. 1

A SUBDIV…CK 1, FADEN SUBDIVISION, AND PART OF THE NORTH 7 FEET OF THE SOUTH…HEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 20, TOWNSHIP 2 SOUTH,…THEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 20, TOWNSHIP 2 S…NCIPAL MERIDIAN, COUNTY OF ADAMS, STATE OF COLORADO.
…EET 1 OF 3 – COVER

CASE NO. _____

PLACE AT TOP RIGHT-HAND CORNER OF ALL SHEETS

REVISED AS INDICATED

REVISE:
Ownership Certificate:
a. Know all men by these presents that (owner name(s)), being the sole owner(s) of the following
described tract of land:
b. Legal Description must match that of the title commitment
c. Have (Has) by these presents laid out, platted, and subdivided the same into lot(s), tract(s), street(s), and easement(s) as shown on this plat under the name and style of (subdivision name).

OWNERSHIP AND DEDICATION CERIFICATE

REVISED AS INDICATED

KNOW ALL MEN BY THESE… THE UNDERSIGNED, BEING TH…
FOLLOWING DESCRIBED TRACT OF LAND: (FROM …
COMPANY COMMITMENT NO. ABH70775754, EFFEC…

LOT 1, BLOCK 1, FADEN SUBDIVISION, COUNTY OF…
BLOCK 1, FADEN SUBDIVISION, COUNTY OF ADAMS… SOUTH 1/2 OF…
…WITHIN THE HIGH…
…., COUNTY OF …
COLORADO,…
FOREVER, A…
EASEMENTS…
DRAINAGE F…
LINES, AND…
TOGETHER W…
MAINTENANC…
USED IN A …

REVISED OWNERSHIP AND DEDICATION LANGUAGE AS INDICATED

Dedication Statements:
•Statements of land to be ded… public uses, grants of easements and ded… County are required.

a. All plats with public streets shall have the following sentence in the dedication statement: All public streets are hereby dedicated to Adams County for public use.

b. All plats with public easements and/or tracts must have the following sentence in the dedication statement: The undersigned does hereby dedicate, grant and convey to Adams County those Public Easements (and tracts) as shown on the plat; and further restricts the use of all Public Easement to Adams County and/or its assigns, provided however, that the sole right and authority to release or quitclaim all or any such Public Easements shall remain exclusively vested in Adams County.

c. All plats with private streets shall have the following sentence in the dedication statement: All private streets (insert names) are privately owned and maintained by (list owner name, Owner's Association, etc.).

d. All plats with other tracts being dedicated to the County shall have:
i. A sentence in the dedication statement similar to "Tract X is hereby dedicated to Adams County for public use".
ii. A special numbered plat note defining the purpose and perpetual maintenance responsibility for the tract such as "Tract X is for public drainage, landscaping, trail and open space with maintenance of the surface being vested in the (District Name) Special Maintenance District

THE LEGAL DESCRIPTION PROVIDED MUST MATCH THAT OF THE TITLE REPORT WITH PARCELS A, B AND C.
BRINGING IN THE STRIP WILL CREATE A NEW M/B LEGAL FOR THE BOUNDARY OF THE AMENDED SUB… CURRENT LEGAL S… NOW DESCRIBED A…

REVISED AS INDICATED. MOVE LEGAL DESCRIPTION IN PLAT NOTE 10 TO OWNERSHIP AND DEDICATION STATEMENT WITH "NOW BEING DESCRIBED AS FOLLOWS" STATEMENT

EXECUTED THIS _____ DAY OF _____

PERF 88 LLC & 76 AND 88 LLC

_____
FRED J. ORR, _____, PERF 88 LLC & 76 AND 88 LLC

ACKNOWLEDGEMENT:

STATE OF COLORADO)
COUNTY OF ADAMS)

THIS WILL BE DICTATED BY THE REQUESTED AND REQUIRED RECORDED SOA

THE FOREGOING OWNERSHIP AND DEDICATION CERTIFICATE WAS ACKNOWLEDGED BEFOR ME….

REVISED AS INDICATED

…ED J. ORR, _____, PERF 88 LLC & 76 AND 88 LLC

REVISED BASED ON 2007 AND 2019 STATEMENTS OF AUTHORITY

_____ DAY OF _____

_____
NOTARY PUBLIC
MY COMMISSION EXPIRES: _____
MY ADDRESS IS: _____
_____

NEED CURRENT RECORDED COPY OF SOA FOR BOTH ENTITIES

FOUND STATEMENTS OF AUTHORITY RECORDED IN 2007 AND 2019

PLAT NOTES

1. NOTICE: ACCORDING TO COLORADO LAW …UY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY …ER YOU FIRST DISCOVER SUCH DEFECT. IN NO EVENT MAY ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF THE CERTIFICATION SHOWN HEREON.

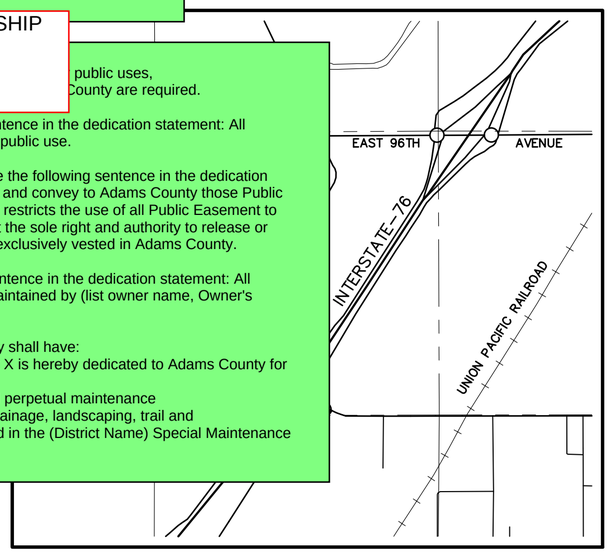
2. THE LINEAL UNIT USED AND SHOWN HEREON IS U.S. SURVEY FOOT AND DECIMALS THEREOF. A U.S. SURVEY FOOT IS DEFINED AS EXACTLY 1200/3937 METERS. THE BEARINGS AND DISTANCES SHOWN HEREON ARE AS MEASURED UNLESS OTHERWISE NOTED.

3. ALL NOTES, DEDICATIONS AND PLAT RESTRICTIONS, AS SHOWN ON THE PLAT OF FADEN SUBDIVISION RECORDED AT RECEPTION NO. 803857 IN THE RECORDS OF ADAMS COUNTY, COLORADO SHALL APPLY UNLESS SPECIFICALLY AMENDED AND SUPERSEDED HEREBY.

4. THIS SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY R.W. BAYER & ASSOCIATES, INC. OF THE PROPERTY SHOWN AND DESCRIBED HEREIN TO DETERMINE OWNERSHIP OF THE TRACT OF LAND, COMPATIBILITY OF THIS DESCRIPTION WITH THOSE OF ADJACENT TRACTS OF LAND OR RIGHTS-OF-WAY, EASEMENTS OR ENCUMBRANCES OF RECORD AFFECTING THIS TRACT OF LAND. R.W. BAYER & ASSOCIATES, INC. HAS RELIED UPON OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY COMMITMENT NO. RND70867390, EFFECTIVE APRIL 22, 2025 AT 5:00 PM, FOR OWNERSHIP AND FOR THE PURPOSE OF SHOWING RECORDED EASEMENTS AND RIGHT-OF-WAY ACROSS THESE PREMISES.

5. THIS PARCEL OF LAND LIES WITHIN ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 1% ANNUAL CHANCE FLOODPLAIN) AS DELINEATED IN THE FEMA FLOOD INSURANCE RATE MAP, MAP NO. 08001C0606H EFFECTIVE MARCH 5, 2007.

6. BASIS OF BEARINGS: THE SOUTH LINE OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 20, TOWNSHIP 2 SOUTH, RANGE 67 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF ADAMS, STATE OF COLORADO, BEING MONUMENTED ON THE WEST END BY A 2" ALUMINUM CAP, PLS 23519 AND ON THE EAST END BY A 3-1/4" ALUMINUM CAP, PLS 38318, IS ASSUMED TO BEAR N89°57'30"W. ALL BEARINGS SHOWN HEREON ARE RELATIVE THERETO.



VICINITY MAP
SCALE: 1" = 2000'

…TES: (CONTINUED)

…LICY OF THE COUNTY REQUIRES THAT MAINTENANCE …PROVIDED TO ALL STORM DRAINAGE FACILITIES TO …NTINUOUS OPERATIONAL CAPABILITY OF THE SYSTEM. THE …OWNERS SHALL BE RESPONSIBLE FOR THE MAINTENANCE …INAGE FACILITIES INCLUDING INLETS, PIPES, CULVERTS, CHANNELS, DITCHES, HYDRAULIC STRUCTURES, AND DETENTION BASINS LOCATED ON THEIR LAND UNLESS MODIFIED BY SUBDIVISION DEVELOPMENT AGREEMENT. SHOULD THE OWNER FAIL TO ADEQUATELY MAINTAIN SAID FACILITIES, THE COUNTY SHALL HAVE THE RIGHT TO ENTER SAID LAND FOR THE SOLE PURPOSE OF OPERATIONS AND MAINTENANCE. ALL SUCH MAINTENANCE COSTS WILL BE ASSESSED TO THE PROPERTY OWNER.

8. SIX-FOOT (6') WIDE UTILITY EASEMENTS ARE HEREBY DEDICATED ON PRIVATE PROPERTY ADJACENT TO THE FRONT LOT LINES OF EACH LOT IN THE SUBDIVISION. IN ADDITION, EIGHT-FOOT (8') WIDE DRY UTILITY EASEMENTS ARE HEREBY DEDICATED AROUND THE PERIMETER OF TRACTS, PARCELS AND/OR OPEN SPACE AREAS. THESE EASEMENTS ARE DEDICATED TO ADAMS COUNTY FOR THE BENEFIT OF THE APPLICABLE UTILITY PROVIDERS FOR THE INSTALLATION, MAINTENANCE, AND REPLACEMENT OF UTILITIES. UTILITY EASEMENTS SHALL ALSO BE GRANTED WITHIN ANY ACCESS EASEMENTS AND PRIVATE STREETS IN THE SUBDIVISION. PERMANENT STRUCTURES, IMPROVEMENTS, OBJECTS, BUILDINGS, WELLS, WATER METERS AND OTHER OBJECTS THAT MAY INTERFERE WITH THE UTILITY FACILITIES OR USE THEREOF (INTERFERING OBJECTS) SHALL NOT BE PERMITTED WITHIN SAID UTILITY EASEMENTS AND THE UTILITY PROVIDERS, AS GRANTEES, MAY REMOVE ANY INTERFERING OBJECTS AT NO COST TO SUCH GRANTEES, INCLUDING, WITHOUT LIMITATION, VEGETATION.

9. ANY PERSON WHO KNOWINGLY REMOVES ALTERS OR DEFACES ANY PUBLIC LAND SURVEY MONUMENT OR LAND BOUNDARY MONUMENT OR ACCESSORY COMMITS A CLASS TWO (2) MISDEMEANOR PURSUANT TO STATE STATUTE 18-4-508, C.R.S.

PREPARED BY:

R.W. BAYER & ASSOCIATES, INC.
12170 TEJON STREET, UNIT 700
WESTMINSTER, COLORADO 80234
(303)452-4433
RWBSURVEYING@HOTMAIL.COM
CAD FILE: 22033/22033.DWG

DATE PREPARED: JUNE 6, 2022
REVISED: APRIL 29, 2025

PLAT NOTES: (CONTINUED)

10. THE LEGAL DESCRIPTION OF THIS PROPERTY GIVEN IN THE OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY COMMITMENT NO. ABH70775754, EFFECTIVE MAY 26, 2022 AT 5:00 PM OVERLAPS WITH ADJACENT RIGHTS OF WAY AND PARCELS. A RECOMMENDED OR AS-SURVEYED LEGAL DESCRIPTION IS AS FOLLOWS:

A PART OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 20, TOWNSHIP 2 SOUTH, RANGE 67 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF ADAMS, STATE OF COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
COMMENCING AT THE …T 1/4, FROM WHICH THE SOUTHEAST CORNER …HE MONUMENTS SHOWN HEREON, THIS LINE B… …00°04'47"E ALONG THE WEST LINE OF PARCEL DES… …8 FEET TO A POINT ON THE SOUTHERLY R… POINT BEING THE SOUTHWEST CORNER OF A P… 466; THENCE N55°00'00"E ALONG SAID SO… TO A POINT DISTANT 325.00 FEET FROM THE SOU… SURED AT RIGHT ANGLES AND THE POINT OF …
THENCE CONTINUING ALONG … FOLLOWING TWO COURSE:
1) THENCE N55°00'00"E, 4… VATURE;
2) THENCE ALONG THE ARC OF A CURVE TO THE RIGHT, SAID CURVE HAVING A RADIUS OF 616.30 FEET, THROUGH A CENTRAL ANGLE OF 44°46'03", AN ARC DISTANCE OF 481.54 FEET, THE CHORD OF SAID CURVE BEARS N77°23'01"E, 469.38 FEET, TO A POINT ON THE WESTERLY RIGHT OF WAY LINE OF INTERSTATE 76;
THENCE S05°13'30"W ALONG SAID WESTERLY RIGHT OF WAY LINE, 336.84 FEET TO THE NORTHEAST CORNER OF LOT 1, INTERSTATE INDUSTRIAL PARK, SAID POINT BEING DISTANT 325.00 FEET FROM THE SOUTH LINE OF SAID SOUTHEAST 1/4 AS MEASURED AT RIGHT ANGLES; THENCE N89°57'30"W ALONG THE NORTH LINE OF SAID LOT 1 EXTENDED WEST, SAID LINE BEING PARALLEL WITH AND 325.00 FEET DISTANT FROM THE SOUTH LINE OF SAID SOUTHEAST 1/4, 759.23 FEET TO THE POINT OF BEGINNING.

IS THE M/B LEGAL FOR THE INITIAL SUBDIVISION OR THE NEW ONE BRINGING IN THE STRIP?

NEW ONE INCORPORATING STRIP. MOVED THIS LEGAL DESCRIPTION TO THE OWNERSHIP AND DEDICATION STATEMENT WITH A "NOW BEING DESCRIBED AS FOLLOWS" STATEMENT

SURVEYOR'S CERTIFICATE:

I, RAYMOND W. BAYER, A REGISTERED LAND SURVEYOR, REGISTERED IN THE STATE OF COLORADO, DO HEREBY CERTIFY THAT THERE ARE NO ROADS, PIPELINES, IRRIGATION DITCHES OR OTHER EASEMENTS IN EVIDENCE OR KNOWN BY ME TO EXIST ON OR ACROSS THE HEREIN BEFORE DESCRIBED PROPERTY, EXCEPT AS SHOWN ON THIS PLAT. I FURTHER CERTIFY THAT THIS SURVEY WAS PERFORMED BY ME OR UNDER MY DIRECT RESPONSIBILITY, SUPERVISION AND CHECKING, AND THAT THIS PLAT ACCURATELY REPRESENTS SAID SURVEY, AND THAT ALL MONUMENTS EXIST AS SHOWN HEREON.

RAYMOND W. BAYER,
REG P.L.S. NO. 6973

PLANNING COMMISSION APPROVAL
REVIEWED BY THE ADAMS COUNTY PLANNING COMMISSION THIS _____ DAY OF _____ 202__.

_____
CHAIR

BOARD OF COUNTY COMMISSIONERS' APPROVAL
APPROVED BY THE ADAMS COUNTY BOARD OF COUNTY COMMISSIONERS THIS _____ DAY OF _____ 202_

_____
CHAIR

REVISED AS INDICATED

ADAMS COUNTY ATTORNEY'S OFFICE

_____
APPROVED AS TO FORM

THIS PLAT WAS FILED FOR RECORD IN THE OFFICE OF THE ADAMS COUNTY CLERK AND RECORDED, IN THE STATE OF COLORADO, AT ____:_____.M., ON THE _____ DAY OF _____, A.D., 20_____.

BY: _____ _____
DEPUTY COUNTY CLERK AND RECORDER

RECEPTION NO.: _____

FADEN SUBDIVISION AMENDMENT NO. 1

CASE NO. _____

A SUBDIVISION OF PART OF LOTS 1 AND 2, BLOCK 1, FADEN SUBDIVISION, AND PART OF THE NORTH 7 FEET OF THE SOUTH 1/2 OF THE SOUTH 1/2 OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 20, TOWNSHIP 2 SOUTH,. RANGE 67, BEING A PART OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 20, TOWNSHIP 2 SOUTH, RANGE 67 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF ADAMS, STATE OF COLORADO.
SHEET 2 OF 3 – EXISTING CONDITIONS

N

0 50 100 Feet

SCALE: 1" = 50'

PREPARED BY:

R.W. BAYER & ASSOCIATES, INC.
12170 TEJON STREET, UNIT 700
WESTMINSTER, COLORADO 80234
(303)452-4433
RWBSURVEYING@HOTMAIL.COM
CAD FILE: 22033/22033.DWG

DATE PREPARED: JUNE 6, 2022
REVISED: APRIL 29, 2025

LEGEND

- FOUND ALIQUOT MONUMENT AS DESCRIBED
- FOUND 5/8" REBAR & CAP – PLS 9010
- FOUND 5/8" REBAR & CAP – PLS 16112
- SET 5/8" REBAR & CAP – PLS 6973

EAST 88TH AVENUE
200' R.O.W. (BOOK 1575 AT PAGE 126, BOOK 1575 AT PAGE 129, AND BOOK 1666 AT PAGE 330)

NORTH LINE FADEN SUBDIVISION
OVERLAPS WITH EAST 88TH AVENUE RIGHT OF WAY

Δ=44°46'03"
R=616.30'
L=481.54'
ChB=N77°23'01"E
ChL=469.38'

3.8' OVERLAP

5.1' OVERLAP

1.3' OVERLAP

NORTH LINE FADEN SUBDIVISION

WEST LINE BOOK 1666 AT PAGE 330

EAST LINE LOT 1, BLOCK 1, FADEN SUBDIVISION

SHOULD THIS BE A SOLID LINE FOR THE LOT LINE?

CHANGED TO SOLID LINE

SOUTH LINE BOOK 1575 AT PAGE 129

LOT 1, BLOCK 1
FADEN SUBDIVISION

S05°13'30"W 336.84'

INTERSTATE-76
R.O.W. WIDTH VARIES
(BOOK 1555 AT PAGE 330)

N55°00'00"E 405.12'

LOT 2, BLOCK 1
FADEN SUBDIVISION

NORTH 7' OF THE SOUTH 1/2 OF THE SOUTH 1/2 OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 20 EXCEPT THAT PART LYING WITHIN HIGHWAYS (PARCEL B, REC. NO. 2019000010713) – OVERLAPS WITH FADEN SUBDIVISION, LOT 1, INTERSTATE INDUSTRIAL PARK, AND PARCELS DESCRIBED IN REC. NO. C108775 AND 2011000052407

FOUND MONUMENT AT SOUTHEAST CORNER LOT 1, BLOCK 1, FADEN SUBDIVISON
4.9' NORTH AND 1.7' EAST OF SET MONUMENT

PARCEL LINE TO BE VACATED

10' PSCO EASEMENT PER BOOK 2827 AT PAGE 377
(SOUTH 10' OF LOT 1, BLOCK 1, FADEN SUBDIVISION)

3.0' OVERLAP

1.7' OVERLAP

4.9' LOT LINE

1.6' OVERLAP

4.9' LOT LINE

POINT OF BEGINNING
(AS-SURVEYED)

NORTH LINE PARCEL B, REC. NO. 2019000010713
OVERLAPS WITH FADEN SUBDIVISION

N89°57'30"W 759.23'

BOOK 1349
AT PAGE 466

79.63'
N55°00'00"E

SOUTH LINE PARCEL B, REC. NO. 2019000010713
1.7' SOUTH OF PROPERTY LINE

SOUTH LINE FADEN SUBDIVISION

SOUTH LINE PARCEL B, REC. NO. 2019000010713
1.6' SOUTH OF PROPERTY LINE
OVERLAPS WITH LOT 1, INTERSTATE INDUSTRIAL PARK AND PARCELS PER REC. NO. C1088775 AND REC. NO. 2011000052407

2' GAP BETWEEN LEGAL DESCRIPTIONS

UNPLATTED
REC. NO. 2011000052407

UNPLATTED
REC. NO. C1088775

LOT 1, INTERSTATE INDUSTRIAL PARK
REC. NO. A054021

325.00'

WEST LINE SW1/4
SEC. 20 T.2S. R.67W.

N00°32'18"E

N00°04'47"E 279.28'

20' WITNESS CORNER TO THE SOUTHWEST CORNER SW1/4
SEC. 20 T.2S. R.67W.
3-1/4" ALUMINUM CAP
PLS 16406

S89°57'30"E 1335.13'

POINT OF COMMENCEMENT (AS-SURVEYED)
SOUTHWEST CORNER SE1/4 SW1/4 SEC. 20 T.2S. R.67W.
2" ALUMINUM CAP – PLS 23519

SOUTH LINE SE1/4 SW1/4 SEC. 20. T.2S. R.67W.

S89°57'30"E 1335.86'
BASIS OF BEARINGS

SOUTHEAST CORNER SE1/4 SW1/4 SEC. 20 T.2S. R.67W.
3-1/4" ALUMINUM CAP – PLS 38318

FADEN SUBDIVISION AMENDMENT NO. 1

CASE NO. _____

A SUBDIVISION OF PART OF LOTS 1 AND 2, BLOCK 1, FADEN SUBDIVISION, AND PART OF THE NORTH 7 FEET OF THE SOUTH 1/2 OF THE SOUTH 1/2 OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 20, TOWNSHIP 2 SOUTH,. RANGE 67, BEING A PART OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 20, TOWNSHIP 2 SOUTH, RANGE 67 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF ADAMS, STATE OF COLORADO.

SHEET 3 OF 3 – PLATTED CONDITIONS

N

0 50 100 Feet

SCALE: 1" = 50'

PREPARED BY:

R.W. BAYER & ASSOCIATES, INC.
12170 TEJON STREET, UNIT 700
WESTMINSTER, COLORADO 80234
(303)452-4433
RWBSURVEYING@HOTMAIL.COM
CAD FILE: 22033/22033.DWG

DATE PREPARED: JUNE 6, 2022
REVISED: APRIL 29, 2025

LEGEND

- ◆ FOUND ALIQUOT MONUMENT AS DESCRIBED
- ● FOUND 5/8" REBAR & CAP – PLS 9010
- ▲ FOUND 5/8" REBAR & CAP – PLS 16112
- ■ SET 5/8" REBAR & CAP – PLS 6973

CURVE TABLE					
CURVE #	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C1	96.67	55.00	100°42'29"	S39°44'07"W	84.70
C2	40.86	581.80	4°01'27"	S57°00'43"W	40.85
C3	53.25	605.80	5°02'11"	N57°31'06"E	53.23
C4	53.64	29.00	105°58'08"	N37°06'17"E	46.31

LINE TABLE		
LINE #	BEARING	DISTANCE
L1	S10°37'08"E	42.92
L2	S35°00'00"E	60.22
L3	S55°00'00"W	55.06
L4	N35°00'00"W	56.10
L5	S35°00'00"E	10.50
L6	N15°52'47"W	39.00

EAST 88TH AVENUE
200' R.O.W. (BOOK 1575 AT PAGE 126, BOOK 1575 AT PAGE 129, AND BOOK 1666 AT PAGE 330)

Δ=44°46'03"
R=616.30'
L=481.54'
ChB=N77°23'01"E
ChL=469.38'

L=354.64
Δ=32°58'12"

L=32.91
L=103.44
L=126.90
Δ=11°47'51"

L6
L1
C4
C1
C3
C2

S89°54'39"E 140.52'
N89°54'39"W 140.61'

10.5'
24.0'
6.0'

ACCESS & DRAINAGE EASEMENT DEDICATED BY THIS PLAT

8' UTILITY EASEMENT DEDICATED BY THIS PLAT

ACCESS EASEMENT DEDICATED BY THIS PLAT

LOT 1
2.530 ACRES ±
110,197 SQUARE FEET ±

REVISED EASEMENTS TO SEPARATE DRAINAGE AND ACCESS

DELINEATE THE ACCESS AND THE DETENTION FROM EACH OTHER

N55°00'00"E 405.12'
N55°00'00"E 214.99'
S55°00'00"W 214.99'
N55°00'00"E 110.13'

6' UTILITY EASEMENT DEDICATED BY THIS PLAT

N00°02'30"E 294.30'

LOT 2
1.561 ACRES ±
68,000 SQUARE FEET ±

L5
L2
L4

ACCESS & DRAINAGE EASEMENT DEDICATED BY THIS PLAT

DRAINAGE EASEMENT DEDICATED BY THIS PLAT

79.99'
97.70'

POINT OF BEGINNING (AS-SURVEYED)

442.32'
N89°57'30"W 759.23'
316.91'

10' PSCO EASEMENT PER BOOK 2827 AT PAGE 377 (SOUTH 10' OF LOT 1, BLOCK 1, FADEN SUBDIVISION)

8' UTILITY EASEMENT DEDICATED BY THIS PLAT

4.9'

INTERSTATE-76
R.O.W. WIDTH VARIES
(BOOK 1555 AT PAGE 330)

S05°13'30"W 336.84'

BOOK 1349 AT PAGE 466

79.63'
N55°00'00"E

WEST LINE SW1/4 SEC. 20 T.2S. R.67W.

N00°32'18"E

N00°04'47"E 279.28'

UNPLATTED
REC. NO. 2011000052407

UNPLATTED
REC. NO. C1088775

325.00'

LOT 1, INTERSTATE INDUSTRIAL PARK
REC. NO. A054021

20' WITNESS CORNER TO THE SOUTHWEST CORNER SW1/4 SEC. 20 T.2S. R.67W.
3-1/4" ALUMINUM CAP
PLS 16406

S89°57'30"E 1335.13'

POINT OF COMMENCEMENT (AS-SURVEYED)
SOUTHWEST CORNER SE1/4 SW1/4 SEC. 20 T.2S. R.67W.
2" ALUMINUM CAP – PLS 23519

SOUTH LINE SE1/4 SW1/4 SEC. 20. T.2S. R.67W.
S89°57'30"E 1335.86'
BASIS OF BEARINGS

SOUTHEAST CORNER SE1/4 SW1/4 SEC. 20 T.2S. R.67W.
3-1/4" ALUMINUM CAP – PLS 38318

RECEPTION#: 2007000002785, 01/05/2007 at 02:36:51 PM, 1 OF 1, Doc Type:AF Carol Snyder, Adams County, CO

Escrow No. 277-H0146173-030-PA

STATEMENT OF AUTHORITY

Pursuant to C.R.S. §38-30-172, the undersigned hereby executes this Statement of Authority on behalf of 76 & 88 LLC, **a** Limited Liability Company **an entity other than an individual, capable of holding title to real property (the "Entity"), and states as follows:**

The name of the Entity is: 76 & 88 LLC

The Entity is a: Colorado Limited Liability Company
(state type of entity and state, country or other government authority under whose laws such entity was formed)

The mailing address for the Entity is: 5040 Acoma St, Denver, CO 80216

The name or position of the person(s) authorized to execute instruments conveying, encumbering, or otherwise affecting title to real property on behalf of the Entity is:

Fred J. Orr - Manager - member

The limitations upon the authority of the person named above or holding the position described above to bind the Entity are as follows: None
(if no limitations insert "NONE")

The instrument and recording information, including the County, of the document by which title was acquired is:

Special Warranty Deed

Other matters concerning the manner in which the Entity deals with any interest in real property are:

(if no matters, leave this section blank)

EXECUTED this January 3, 2007

BUYER:

7688 LLC

by Fred J. Orr as Manager

STATE OF COLORADO
COUNTY OF **Adams** } SS:

The foregoing instrument was acknowledged before me this January 3, 2007,
by Fred J. Orr - Manager on behalf of
76 & 88 LLC a Limited Liability Company.

Witness my hand and official seal.

My commission expires: _____

P. Schoenfeld
NOTARY PUBLIC
STATE OF COLORADO
My commission expires 5/29/2009

Electronically Recorded RECEPTION#: 2019000010712,
2/13/2019 at 9:58 AM, 1 OF 1,
REC: $13.00
TD Pgs: 0 Josh Zygielbaum, Adams County, CO.

After recording please return to:

PERF 88 LLC
5040 Acoma Street
Denver, CO 80216

STATEMENT OF AUTHORITY

1. This Statement of Authority relates to an entity named PERF 88 LLC.

2. The type of entity is a Colorado Limited Liability Company.

3. The entity is formed under the laws of the State of Colorado.

4. The mailing address for the entity is 5040 Acoma Street Denver, CO 80216.

5. The name of each person authorized to execute instruments conveying, encumbering or otherwise affecting title to real property on behalf of the entity is:

   Fred J. Orr whose address is 5040 Acoma Street, Denver, CO 80216

6. The authority of the foregoing persons to bind the entity is NOT limited.

By: Fred J Orr

STATE OF COLORADO)
)ss:
CITY AND COUNTY OF Denver)

On Feb. 8, 2019, before me, Cathleen S. Ryan, a notary public in and for the said state personally appeared **Fred J Orr**, as the managing member for PERF 88 LLC, personally known to me (or proved to me based upon satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged that he executed the same in his signature on the instrument the person or entity on behalf of which they acted, executed the instrument.

Witness my hand and official seal

Cathleen S Ryan
NOTARY PUBLIC
My commission expires 2-16-2020

CATHLEEN S RYAN
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 20084004225
MY COMMISSION EXPIRES FEB 16, 2020

NOTARY SEAL

FADEN SUBDIVISION AMENDMENT NO. 1

A SUBDIVISION OF PART OF LOTS 1 AND 2, BLOCK 1, FADEN SUBDIVISION, AND PART OF THE NORTH 7 FEET OF THE SOUTH 1/2 OF THE SOUTH 1/2 OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 20, TOWNSHIP 2 SOUTH,. RANGE 67, BEING A PART OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 20, TOWNSHIP 2 SOUTH, RANGE 67 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF ADAMS, STATE OF COLORADO.

SHEET 1 OF 3 – COVER

CASE NO. PLT2025–00027

OWNERSHIP AND DEDICATION CERTIFICATE

KNOW ALL MEN BY THESE PRESENTS THAT PERF 88 LLC, A COLORADO LIMITED LIABILITY COMPANY AND 76 & 88 LLC,A COLORADO LIMITED LIABILITY COMPANY BEING THE SOLE OWNERS OF THE FOLLOWING DESCRIBED TRACT OF LAND:

PARCEL A:
LOT 1, BLOCK 1, FADEN SUBDIVISION, COUNTY OF ADAMS, STATE OF COLORADO.
PARCEL B:
LOT 2, BLOCK 1, FADEN SUBDIVISION, COUNTY OF ADAMS, STATE OF COLORADO.
PARCEL C:
THE NORTH 7 FEET OF THE SOUTH 1/2 OF THE SOUTH 1/2 OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4, EXCEPT THAT PART LYING WITHIN THE HIGHWAY, SECTION. 20, TOWNSHIP 2 SOUTH, RANGE 67 WEST OF THE 6TH P.M., COUNTY OF ADAMS, STATE OF COLORADO.

NOW BEING DESCRIBED AS FOLLOWS:

A PART OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 20, TOWNSHIP 2 SOUTH, RANGE 67 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF ADAMS, STATE OF COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
COMMENCING AT THE SOUTHWEST CORNER OF SAID SOUTHEAST 1/4, FROM WHICH THE SOUTHEAST CORNER THEREOF BEARS S89°57'30"E BETWEEN THE MONUMENTS SHOWN HEREON, THIS LINE BEING THE BASIS OF BEARINGS; THENCE N00°04'47"E ALONG THE WEST LINE OF PARCEL DESCRIBED AT RECEPTION NO. 2011000052407, 279.28 FEET TO A POINT ON THE SOUTHERLY RIGHT OF WAY LINE OF EAST 88TH AVENUE, SAID POINT BEING THE SOUTHWEST CORNER OF A PARCEL DESCRIBED IN BOOK 1349 AT PAGE 466; THENCE N55°00'00"E ALONG SAID SOUTHERLY RIGHT OF WAY LINE, 79.63 FEET TO A POINT DISTANT 325.00 FEET FROM THE SOUTH LINE OF SAID SOUTHEAST 1/4 AS MEASURED AT RIGHT ANGLES AND THE POINT OF BEGINNING;
THENCE CONTINUING ALONG SAID SOUTHERLY RIGHT OF WAY LINE THE FOLLOWING TWO COURSE:
1) THENCE N55°00'00"E, 405.12 FEET TO A POINT OF TANGENT CURVATURE;
2) THENCE ALONG THE ARC OF A CURVE TO THE RIGHT, SAID CURVE HAVING A RADIUS OF 616.30 FEET, THROUGH A CENTRAL ANGLE OF 44°46'03", AN ARC DISTANCE OF 481.54 FEET, THE CHORD OF SAID CURVE BEARS N77°23'01"E, 469.38 FEET, TO A POINT ON THE WESTERLY RIGHT OF WAY LINE OF INTERSTATE 76;
THENCE S05°13'30"W ALONG SAID WESTERLY RIGHT OF WAY LINE, 336.84 FEET TO THE NORTHEAST CORNER OF LOT 1, INTERSTATE INDUSTRIAL PARK, SAID POINT BEING DISTANT 325.00 FEET FROM THE SOUTH LINE OF SAID SOUTHEAST 1/4 AS MEASURED AT RIGHT ANGLES; THENCE N89°57'30"W ALONG THE NORTH LINE OF SAID LOT 1 EXTENDED WEST, SAID LINE BEING PARALLEL WITH AND 325.00 FEET DISTANT FROM THE SOUTH LINE OF SAID SOUTHEAST 1/4, 759.23 FEET TO THE POINT OF BEGINNING.

HAVE BY THESE PRESENTS LAID OUT, PLATTED AND SUBDIVIDED THE SAME INTO LOTS AND EASEMENTS AS SHOWN ON THIS PLAT UNDER THE NAME AND STYLE OF FADEN SUBDIVISION AMENDMENT NO. 1, AND THE UNDERSIGNED DOES HEREBY DEDICATE, GRANT AND CONVEY TO ADAMS COUNTY THOSE PUBLIC EASEMENTS AS SHOWN ON THE PLAT; AND FURTHER RESTRICTS THE USE OF ALL PUBLIC EASEMENTS TO ADAMS COUNTY AND/OR ITS ASSIGNS, PROVIDED HOWEVER, THAT THE SOLE RIGHT AND AUTHORITY TO RELEASE AND QUITCLAIM ALL OR ANY SUCH PUBLIC EASEMENTS SHALL REMAIN EXCLUSIVELY VESTED IN ADAMS COUNTY.

EXECUTED THIS _____ DAY OF _____, 20_____.

PERF 88 LLC, A COLORADO LIMITED LIABILITY COMPANY, AND
76 & 88 LLC, A COLORADO LIMITED LIABILITY COMPANY

_____
FRED J. ORR AS
MANAGING MEMBER, PERF 88 LLC, A COLORADO LIMITED LIABILITY COMPANY AND
MANAGER, 76 & 88 LLC, A COLORADO LIMITED LIABILITY COMPANY

ACKNOWLEDGEMENT:

STATE OF COLORADO)
COUNTY OF ADAMS)

THE FOREGOING OWNERSHIP AND DEDICATION CERTIFICATE WAS ACKNOWLEDGED BY ME THIS _____ DAY OF _____, 20_____, BY FRED J. ORR, MANAGING MEMBER, PERF 88 LLC, A COLORADO LIMITED LIABILITY COMPANY, AND MANAGER, 76 AND 88 LLC, A COLORADO LIMITED LIABILITY COMPANY

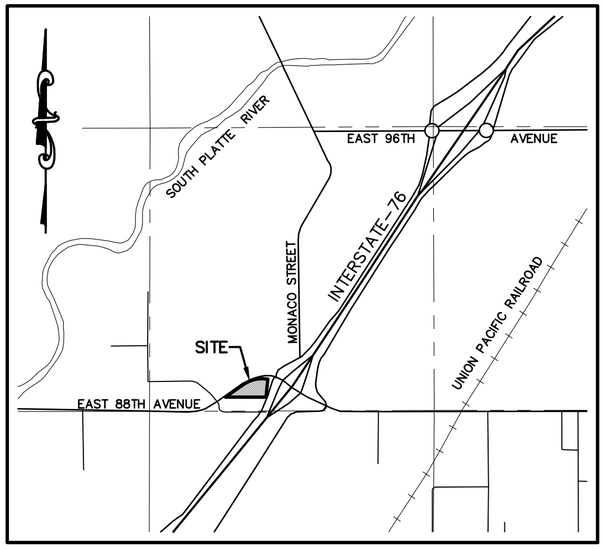
_____
NOTARY PUBLIC
MY COMMISSION EXPIRES: _____
MY ADDRESS IS: _____
_____

PREPARED BY:

R.W. BAYER & ASSOCIATES, INC.
12170 TEJON STREET, UNIT 700
WESTMINSTER, COLORADO 80234
(303)452–4433
RWBSURVEYING@HOTMAIL.COM
CAD FILE: 22033/22033.DWG

DATE PREPARED: JUNE 6, 2022
REVISED: JULY 22, 2025

REVISIONS:
4/29/25 NEW EASEMENTS AND LAYOUT
7/22/25 FIRST SUBMITTAL ROW COMMENTS



VICINITY MAP
SCALE: 1" = 2000'

PLAT NOTES

1. NOTICE: ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVER SUCH DEFECT. IN NO EVENT MAY ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF THE CERTIFICATION SHOWN HEREON.

2. THE LINEAL UNIT USED AND SHOWN HEREON IS U.S. SURVEY FOOT AND DECIMALS THEREOF. A U.S. SURVEY FOOT IS DEFINED AS EXACTLY 1200/3937 METERS. THE BEARINGS AND DISTANCES SHOWN HEREON ARE AS MEASURED UNLESS OTHERWISE NOTED.

3. ALL NOTES, DEDICATIONS AND PLAT RESTRICTIONS, AS SHOWN ON THE PLAT OF FADEN SUBDIVISION RECORDED AT RECEPTION NO. 803857 IN THE RECORDS OF ADAMS COUNTY, COLORADO SHALL APPLY UNLESS SPECIFICALLY AMENDED AND SUPERSEDED HEREBY.

4. THIS SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY R.W. BAYER & ASSOCIATES, INC. OF THE PROPERTY SHOWN AND DESCRIBED HEREIN TO DETERMINE OWNERSHIP OF THE TRACT OF LAND, COMPATIBILITY OF THIS DESCRIPTION WITH THOSE OF ADJACENT TRACTS OF LAND OR RIGHTS–OF–WAY, EASEMENTS OR ENCUMBRANCES OF RECORD AFFECTING THIS TRACT OF LAND. R.W. BAYER & ASSOCIATES, INC. HAS RELIED UPON OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY COMMITMENT NO. RND70867390, EFFECTIVE APRIL 22, 2025 AT 5:00 PM, FOR OWNERSHIP AND FOR THE PURPOSE OF SHOWING RECORDED EASEMENTS AND RIGHT–OF–WAY ACROSS THESE PREMISES.

5. THIS PARCEL OF LAND LIES WITHIN ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 1% ANNUAL CHANCE FLOODPLAIN) AS DELINEATED IN THE FEMA FLOOD INSURANCE RATE MAP, MAP NO. 08001C0606H EFFECTIVE MARCH 5, 2007.

6. BASIS OF BEARINGS: THE SOUTH LINE OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 20, TOWNSHIP 2 SOUTH, RANGE 67 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF ADAMS, STATE OF COLORADO, BEING MONUMENTED ON THE WEST END BY A 2" ALUMINUM CAP, PLS 23519 AND ON THE EAST END BY A 3–1/4" ALUMINUM CAP, PLS 38318, IS ASSUMED TO BEAR N89°57'30"W. ALL BEARINGS SHOWN HEREON ARE RELATIVE THERETO.

PLAT NOTES: (CONTINUED)

7. THE POLICY OF THE COUNTY REQUIRES THAT MAINTENANCE ACCESS BE PROVIDED TO ALL STORM DRAINAGE FACILITIES TO ASSURE CONTINUOUS OPERATIONAL CAPABILITY OF THE SYSTEM. THE PROPERTY OWNERS SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL DRAINAGE FACILITIES INCLUDING INLETS, PIPES, CULVERTS, CHANNELS, DITCHES, HYDRAULIC STRUCTURES, AND DETENTION BASINS LOCATED ON THEIR LAND UNLESS MODIFIED BY SUBDIVISION DEVELOPMENT AGREEMENT. SHOULD THE OWNER FAIL TO ADEQUATELY MAINTAIN SAID FACILITIES, THE COUNTY SHALL HAVE THE RIGHT TO ENTER SAID LAND FOR THE SOLE PURPOSE OF OPERATIONS AND MAINTENANCE. ALL SUCH MAINTENANCE COSTS WILL BE ASSESSED TO THE PROPERTY OWNER.

8. SIX–FOOT (6') WIDE UTILITY EASEMENTS ARE HEREBY DEDICATED ON PRIVATE PROPERTY ADJACENT TO THE FRONT LOT LINES OF EACH LOT IN THE SUBDIVISION. IN ADDITION, EIGHT–FOOT (8') WIDE DRY UTILITY EASEMENTS ARE HEREBY DEDICATED AROUND THE PERIMETER OF TRACTS, PARCELS AND/OR OPEN SPACE AREAS. THESE EASEMENTS ARE DEDICATED TO ADAMS COUNTY FOR THE BENEFIT OF THE APPLICABLE UTILITY PROVIDERS FOR THE INSTALLATION, MAINTENANCE, AND REPLACEMENT OF UTILITIES. UTILITY EASEMENTS SHALL ALSO BE GRANTED WITHIN ANY ACCESS EASEMENTS AND PRIVATE STREETS IN THE SUBDIVISION. PERMANENT STRUCTURES, IMPROVEMENTS, OBJECTS, BUILDINGS, WELLS, WATER METERS AND OTHER OBJECTS THAT MAY INTERFERE WITH THE UTILITY FACILITIES OR USE THEREOF (INTERFERING OBJECTS) SHALL NOT BE PERMITTED WITHIN SAID UTILITY EASEMENTS AND THE UTILITY PROVIDERS, AS GRANTEES, MAY REMOVE ANY INTERFERING OBJECTS AT NO COST TO SUCH GRANTEES, INCLUDING, WITHOUT LIMITATION, VEGETATION.

9. ANY PERSON WHO KNOWINGLY REMOVES ALTERS OR DEFACES ANY PUBLIC LAND SURVEY MONUMENT OR LAND BOUNDARY MONUMENT OR ACCESSORY COMMITS A CLASS TWO (2) MISDEMEANOR PURSUANT TO STATE STATUTE 18–4–508, C.R.S.

SURVEYOR'S CERTIFICATE:

I, RAYMOND W. BAYER, A REGISTERED LAND SURVEYOR, REGISTERED IN THE STATE OF COLORADO, DO HEREBY CERTIFY THAT THERE ARE NO ROADS, PIPELINES, IRRIGATION DITCHES OR OTHER EASEMENTS IN EVIDENCE OR KNOWN BY ME TO EXIST ON OR ACROSS THE HEREIN BEFORE DESCRIBED PROPERTY, EXCEPT AS SHOWN ON THIS PLAT. I FURTHER CERTIFY THAT THIS SURVEY WAS PERFORMED BY ME OR UNDER MY DIRECT RESPONSIBILITY, SUPERVISION AND CHECKING, AND THAT THIS PLAT ACCURATELY REPRESENTS SAID SURVEY, AND THAT ALL MONUMENTS EXIST AS SHOWN HEREON.

RAYMOND W. BAYER,
REG P.L.S. NO. 6973

PLANNING COMMISSION APPROVAL:

REVIEWED BY THE ADAMS COUNTY PLANNING COMMISSION
THIS ____ DAY OF _____, 20_____.

_____
CHAIR

BOARD OF COUNTY COMMISSIONERS APPROVAL:

APPROVED BY THE ADAMS COUNTY BOARD OF COUNTY COMMISSIONERS
THIS ____ DAY OF _____, 20_____.

_____
CHAIR

ADAMS COUNTY ATTORNEY'S OFFICE

_____
APPROVED AS TO FORM

CERTIFICATE OF THE CLERK AND RECORDER:

THIS PLAT WAS FILED FOR RECORD IN THE OFFICE OF THE ADAMS COUNTY CLERK AND RECORDED, IN THE STATE OF COLORADO, AT ____:_____.M., ON THE _____ DAY OF _____, A.D., 20_____.

BY: _____ _____
DEPUTY COUNTY CLERK AND RECORDER

RECEPTION NO.: _____

FADEN SUBDIVISION AMENDMENT NO. 1

A SUBDIVISION OF PART OF LOTS 1 AND 2, BLOCK 1, FADEN SUBDIVISION, AND PART OF THE NORTH 7 FEET OF THE SOUTH 1/2 OF THE SOUTH 1/2 OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 20, TOWNSHIP 2 SOUTH,. RANGE 67, BEING A PART OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 20, TOWNSHIP 2 SOUTH, RANGE 67 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF ADAMS, STATE OF COLORADO.
SHEET 2 OF 3 – EXISTING CONDITIONS

CASE NO. PLT2025-00027

N

0 50 100 Feet

SCALE: 1" = 50'

PREPARED BY:

R.W. BAYER & ASSOCIATES, INC.
12170 TEJON STREET, UNIT 700
WESTMINSTER, COLORADO 80234
(303)452-4433
RWBSURVEYING@HOTMAIL.COM
CAD FILE: 22033/22033.DWG

DATE PREPARED: JUNE 6, 2022
REVISED: JULY 22, 2025

LEGEND

- FOUND ALIQUOT MONUMENT AS DESCRIBED
- FOUND 5/8" REBAR & CAP – PLS 9010
- FOUND 5/8" REBAR & CAP – PLS 16112
- SET 5/8" REBAR & CAP – PLS 6973

EAST 88TH AVENUE
200' R.O.W. (BOOK 1575 AT PAGE 126, BOOK 1575 AT PAGE 129, AND BOOK 1666 AT PAGE 330)

NORTH LINE FADEN SUBDIVISION
OVERLAPS WITH EAST 88TH AVENUE RIGHT OF WAY

Δ=44°46'03"
R=616.30'
L=481.54'
ChB=N77°23'01"E
ChL=469.38'

3.8' OVERLAP

5.1' OVERLAP

1.3' OVERLAP

NORTH LINE FADEN SUBDIVISION

WEST LINE BOOK 1666 AT PAGE 330

EAST LINE LOT 1, BLOCK 1, FADEN SUBDIVISION

INTERSTATE-76
R.O.W. WIDTH VARIES
(BOOK 1555 AT PAGE 330)

S05°13'30"W 336.84'

SOUTH LINE BOOK 1575 AT PAGE 129

PARCEL A
LOT 1, BLOCK 1
FADEN SUBDIVISION

N55°00'00"E 405.12'

PARCEL B
LOT 2, BLOCK 1
FADEN SUBDIVISION

PARCEL C
NORTH 7' OF THE SOUTH 1/2 OF THE SOUTH 1/2 OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 20 EXCEPT THAT PART LYING WITHIN HIGHWAYS (PARCEL B, REC. NO. 2019000010713) – OVERLAPS WITH FADEN SUBDIVISION, LOT 1, INTERSTATE INDUSTRIAL PARK, AND PARCELS DESCRIBED IN REC. NO. C108775 AND 2011000052407. PARCEL LINES VACATED BY THIS PLAT

FOUND MONUMENT AT SOUTHEAST CORNER LOT 1, BLOCK 1, FADEN SUBDIVISON
4.9' NORTH AND 1.7' EAST OF SET MONUMENT

PARCEL LINE TO BE VACATED

10' PSCO EASEMENT PER BOOK 2827 AT PAGE 377
(SOUTH 10' OF LOT 1, BLOCK 1, FADEN SUBDIVISION)

1.6' OVERLAP

4.9' LOT LINE

1.7' OVERLAP

4.9' LOT LINE

3.0' OVERLAP

POINT OF BEGINNING
(AS-SURVEYED)

NORTH LINE PARCEL B, REC. NO. 2019000010713
OVERLAPS WITH FADEN SUBDIVISION

N89°57'30"W 759.23'

BOOK 1349
AT PAGE 466

79.63'
N55°00'00"E

SOUTH LINE PARCEL B, REC. NO. 2019000010713
1.7' SOUTH OF PROPERTY LINE

SOUTH LINE FADEN SUBDIVISION

SOUTH LINE PARCEL B, REC. NO. 2019000010713
1.6' SOUTH OF PROPERTY LINE
OVERLAPS WITH LOT 1, INTERSTATE INDUSTRIAL PARK AND PARCELS PER REC. NO. C1088775 AND REC. NO. 2011000052407

2' GAP BETWEEN LEGAL DESCRIPTIONS

UNPLATTED
REC. NO. 2011000052407

UNPLATTED
REC. NO. C1088775

LOT 1, INTERSTATE INDUSTRIAL PARK
REC. NO. A054021

325.00'

WEST LINE SW1/4
SEC. 20 T.2S. R.67W.

N00°32'18"E

N00°04'47"E 279.28'

20' WITNESS CORNER TO THE SOUTHWEST CORNER SW1/4 SEC. 20 T.2S. R.67W.
3-1/4" ALUMINUM CAP
PLS 16406

S89°57'30"E 1335.13'

POINT OF COMMENCEMENT (AS-SURVEYED)
SOUTHWEST CORNER SE1/4 SW1/4 SEC. 20 T.2S. R.67W.
2" ALUMINUM CAP – PLS 23519

SOUTH LINE SE1/4 SW1/4 SEC. 20. T.2S. R.67W.

S89°57'30"E 1335.86'
BASIS OF BEARINGS

SOUTHEAST CORNER SE1/4 SW1/4 SEC. 20 T.2S. R.67W.
3-1/4" ALUMINUM CAP – PLS 38318

FADEN SUBDIVISION AMENDMENT NO. 1

A SUBDIVISION OF PART OF LOTS 1 AND 2, BLOCK 1, FADEN SUBDIVISION, AND PART OF THE NORTH 7 FEET OF THE SOUTH 1/2 OF THE SOUTH 1/2 OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 20, TOWNSHIP 2 SOUTH,. RANGE 67, BEING A PART OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 20, TOWNSHIP 2 SOUTH, RANGE 67 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF ADAMS, STATE OF COLORADO.
SHEET 3 OF 3 – PLATTED CONDITIONS

CASE NO. PLT2025-00027

N

0 50 100 Feet

SCALE: 1" = 50'

PREPARED BY:

R.W. BAYER & ASSOCIATES, INC.
12170 TEJON STREET, UNIT 700
WESTMINSTER, COLORADO 80234
(303)452-4433
RWBSURVEYING@HOTMAIL.COM
CAD FILE: 22033/22033.DWG

DATE PREPARED: JUNE 6, 2022
REVISED: JULY 22, 2025

LEGEND

- FOUND ALIQUOT MONUMENT AS DESCRIBED
- FOUND 5/8" REBAR & CAP – PLS 9010
- FOUND 5/8" REBAR & CAP – PLS 16112
- SET 5/8" REBAR & CAP – PLS 6973

CURVE TABLE					
CURVE #	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C1	96.67	55.00	100°42'29"	S39°44'07"W	84.70
C2	40.86	581.80	4°01'27"	S57°00'43"W	40.85
C3	53.25	605.80	5°02'11"	N57°31'06"E	53.23
C4	53.64	29.00	105°58'08"	N37°06'17"E	46.31

LINE TABLE		
LINE #	BEARING	DISTANCE
L1	S10°37'08"E	42.92
L2	S35°00'00"E	60.22
L3	S55°00'00"W	55.06
L4	N35°00'00"W	56.10
L5	S35°00'00"E	10.50
L6	N15°52'47"W	39.00

EAST 88TH AVENUE
200' R.O.W. (BOOK 1575 AT PAGE 126, BOOK 1575 AT PAGE 129, AND BOOK 1666 AT PAGE 330)

Δ=44°46'03"
R=616.30'
L=481.54'
ChB=N77°23'01"E
ChL=469.38'

L=354.64
Δ=32°58'12"

L=32.91
L=103.44
L=126.90
Δ=11°47'51"

L6
L1
C4
C1
C3
C2

S89°54'39"E 140.52'
N89°54'39"W 140.61'

ACCESS EASEMENT DEDICATED BY THIS PLAT

8' UTILITY EASEMENT DEDICATED BY THIS PLAT

10.5'
6.0'
24.0' ACCESS EASEMENT DEDICATED BY THIS PLAT

N55°00'00"E 405.12'
N55°00'00"E 214.99'
S55°00'00"W 214.99'

6' UTILITY EASEMENT DEDICATED BY THIS PLAT

LOT 1
2.530 ACRES ±
110,197 SQUARE FEET ±

N00°02'30"E 294.30'

S05°13'30"W 336.84'

INTERSTATE-76
R.O.W. WIDTH VARIES
(BOOK 1555 AT PAGE 330)

L5
S35°00'00"E 94.72'
L2
N55°00'00"E 110.13'

LOT 2
1.561 ACRES ±
68,000 SQUARE FEET ±

DRAINAGE EASEMENT DEDICATED BY THIS PLAT

L4
79.99'
L3

10' PSCO EASEMENT PER BOOK 2827 AT PAGE 377
(SOUTH 10' OF LOT 1, BLOCK 1, FADEN SUBDIVISION)

8' UTILITY EASEMENT DEDICATED BY THIS PLAT

4.9'

POINT OF BEGINNING
(AS-SURVEYED)

97.70' 67.27' 442.32' 316.91'

N89°57'30"W 759.23'

BOOK 1349
AT PAGE 466

79.63'
N55°00'00"E

WEST LINE SW1/4
SEC. 20 T.2S. R.67W.

N00°32'18"E

N00°04'47"E 279.28'

325.00'

UNPLATTED
REC. NO. 2011000052407

UNPLATTED
REC. NO. C1088775

LOT 1, INTERSTATE
INDUSTRIAL PARK
REC. NO. A054021

20' WITNESS CORNER TO THE
SOUTHWEST CORNER SW1/4
SEC. 20 T.2S. R.67W.
3-1/4" ALUMINUM CAP
PLS 16406

S89°57'30"E 1335.13'

POINT OF COMMENCEMENT (AS-SURVEYED)
SOUTHWEST CORNER SE1/4 SW1/4 SEC. 20 T.2S. R.67W.
2" ALUMINUM CAP – PLS 23519

SOUTH LINE SE1/4 SW1/4 SEC. 20. T.2S. R.67W.

S89°57'30"E 1335.86'
BASIS OF BEARINGS

SOUTHEAST CORNER SE1/4 SW1/4 SEC. 20 T.2S. R.67W.
3-1/4" ALUMINUM CAP – PLS 38318

Community & Economic
Development Department
www.adcogov.org

ADAMS COUNTY
COLORADO

4430 South Adams County Parkway
1st Floor, Suite W2000B
Brighton, CO 80601-8218
PHONE 720.523.6800
FAX 720.523.6967

Development Team Review Comments

The following comments have been provided by reviewers of your land use application. At this time, a resubmittal of your application is required before this case is ready to be scheduled for public hearing.

To prepare your resubmittal, you will be expected to provide:

- A response to each comment with a description of the revisions and the page of the response on the site plan;
- Any revised plans or renderings; and
- A list identifying any additional changes made to the original submission other than those required by staff.

Resubmittal documents must be provided electronically through e-mail or a flash drive delivered to the One-Stop Customer Service Center. The following items will be expected by our One-Stop Customer Service Center:

- One digital copy of all new materials
  - All digital materials shall be in a single PDF document
  - The single PDF document shall be bookmarked
  - If a Subdivision Improvements Agreement, Legal Description, or Development Agreement is required, then an additional Microsoft Word version of these documents shall also be provided
  - Electronic copies can be emailed to epermitcenter@adcogov.org as a PDF attachment. If the files are too large to attach, the email should include an unlocked Microsoft OneDrive link. Alternatively, the resubmittal can be delivered to the One-Stop counter on a flash drive.

Community & Economic
Development Department
www.adcogov.org

ADAMS COUNTY
COLORADO

4430 South Adams County Parkway
1st Floor, Suite W2000
Brighton, CO 80601-8204
PHONE 720.523.6800
FAX 720.523.6998

Re-submittal Form

Case Name/ Number: PLT2025-00027/ Seltzer Heights

Case Manager: Nick Eagleson

Re-submitted Items:

- [ ] Development Plan/ Site Plan
- [X] Plat
- [ ] Parking/ Landscape Plan
- [ ] Engineering Documents
- [ ] Subdivision Improvements Agreement
- [ ] Other: _____

*** All re-submittals must have this cover sheet and a cover letter addressing review comments.**

Please note the re-submittal review period is 21 days.

The cover letter must include the following information:

- Restate each comment that requires a response
- Provide a response below the comment with a description of the revisions
- Identify any additional changes made to the original document

For County Use Only:

Date Accepted:

Staff (accepting intake):

Resubmittal Active: Addressing, Building Safety, Neighborhood Services,

Engineering, Environmental, Parks, Planner, ROW, SIA - Finance, SIA - Attorney

ADAMS COUNTY
COLORADO

Community & Economic Development Department
4430 S. Adams County Pkwy.
1st Floor, Suite W2000B
Brighton, CO 80601
PHONE 720.523.6800
EMAIL epermitcenter@adcogov.org
adcogov.org

Development Review Team Comments

Date: 7/15/2025

Project Number: PLT2025-00027

Project Name: 6300 E 88th Minor Subdivision

Commenting Division: ROW Review

Name of Reviewer: David Dittmer

Date: 07/10/2025

Email:

Resubmittal Required

ROW1: Place case number at the top right-hand corner of all sheets **Response:** Moved case number label to top right corner.

ROW2: Need to label the Ownership and Dedication Certificate

Ownership Certificate:

a. Know all men by these presents that (owner name(s)), being the sole owner(s) of the following described tract of land:

b. Legal Description must match that of the title commitment

c. Have (Has) by these presents laid out, platted, and subdivided the same into lot(s), tract(s), street(s), and easement(s) as shown on this plat under the name and style of (subdivision name).

Response: Added ownership and dedication certificate label. Revised language as indicated and added legal from title commitment.

ROW3: The legal description must match that of the provided title report dated in 2025, with three parcels due to current ownership (two entities overlapping) followed by the new m/b legal for the boundary once the strip is pulled into the subdivision.

Response: Revised as indicated with new legal description following "now being described as follows" statement. Also labeledparcels A, B, nad C on sheet 2 existing conditions drawing.

ROW4: Dedication Statements:

•Statements of land to be dedicated to the County for parks or other public uses,
grants of easements and dedication of public streets to the Adams County are required.

a. All plats with public streets shall have the following sentence in the dedication statement: All public streets are hereby dedicated to Adams County for public use.

b. All plats with public easements and/or tracts must have the following sentence in the dedication statement: The undersigned does hereby dedicate, grant and convey to Adams County those Public Easements (and tracts) as shown on the plat; and further restricts the use of all Public Easement to Adams County and/or its assigns, provided however, that the sole right and authority to release or quitclaim all or any such Public Easements shall remain exclusively vested in Adams County.

c. All plats with private streets shall have the following sentence in the dedication statement: All private streets (insert names) are privately owned and maintained by (list owner name, Owner's Association, etc.).

Response: I believe the only necessary dedication statement will be for easements. Corrected language to match County statements.

ROW5: Revise the Notary Affirmation to read: "THE FOREGOING OWNERSHIP AND DEDICATION CERTIFICATE WAS ACKNOWLEDGED BEFORE ME" **Response:** Corrected notary affirmation.

ROW6: The signature block for Fred J. Orr may need to be revised based upon a recorded SOA. A copy of a recorded SOA, current, is required to verify the signatory's ability to encumber the entities.

Response: Revised language based on SOAs recorded in 2007 and 2019, provided with this submittal.

ROW6: Is Note 10 the m/b legal of the new boundary, or why is it being included?

Response: New one incorporating strip. Moved this legal description to the Ownership and Dedication statement with a "Now Being Described as Follows" statement.

ROW7: Revise the county approval / signature blocks as provided on the plat comments. **Response:** Revised as indicated.

ROW8: A revision block is required to verify we are looking at the correct submittal through this process.

Response: Added revision block on cover sheet.

ROW9: Sheet 2: State parcel line vacated by this plat for the strip, and review the line weight and style for the existing lot lines. **Response:** Added label stating parcel lines vacated to Parcel C label. Made existing lot line solid.

ROW10: Delineate between access and drainage easement boundary and provide the necessary dedication statement for the access and drainage easements sheet 3 **Response:** Revised as indicated.

Commenting Division: Planner Review

Name of Reviewer: Nick Eagleson

Date: 07/10/2025

Email:

Resubmittal Required

PLN01: Request is for a Minor Subdivision Final Plat to establish new lot line boundaries for lots one and two of the Faden Subdivision. The subdivision would vacate a small remnant parcel along the southern boundary, which is not part of the Faden Subdivision. **Response:** This is correct.

PLN02: Place case number PLT2025-00027 at top right of page one. **Response:** Moved case number label to top right corner.

PLN03: Lots one and two would meet the dimensional requirements for the C-5 zone district. **Response:** Noted.

PLN04: Water and sewer have been established with existing use (South Adams). **Response:** Noted.

PLN05: After subdivision is approved, applicant can move forward with USE permits and landscape relief. **Response:** Noted.

Commenting Division: Development Engineering Review

Name of Reviewer: Laurie Clark

Date: 07/09/2025

Email:

Resubmittal Required

ENG1: The Minor Subdivision cannot go to the Board of County Commissioners until engineering documents are approved under EGR2023-00051. There has been no activity on the EGR case since January of 2024.

Response: Noted. Revised engineering documents have been included in this submittal, updated per the latest plat.

Commenting Division: Neighborhood Services Review

Name of Reviewer: Gail Moon

Date: 07/07/2025

Email: gmoon@adcogov.org

Complete

There are no OPEN violation cases at this location at this time. NO COMMENT

Response: Noted.

Commenting Division: Environmental Analyst Review

Name of Reviewer: Megan Grant

Date: 07/07/2025

Email:

Complete

ENV1. The applicant has responded to ENV comments on USE2023-00037 and USE2023-00018. **Response:** Noted.

The following comments apply to mineral resources:

ENV2. The subject parcels are located within the Adams County Mineral Conservation Overlay (MCO) district, the purpose of which is to establish reasonable and uniform limitations, safeguards, and controls for the conservation and wise utilization of natural resources and for rehabilitation of excavated land. Land within this classification is designated as containing commercial mineral deposits in sufficient size parcels and in areas where extraction and rehabilitation can be undertaken while still protecting the health, safety, and welfare of the inhabitants of the area and Adams County. Although these parcels are located within the MCO district, the parcels are less than 5 acres and previously developed; therefore, the MCO restrictions are not applicable in this case. **Response:** Noted.

Commenting Division: Attorney Review

Name of Reviewer: Sally Daggett

Date: 07/07/2025

Email:

Resubmittal Required

Plat needs revisions to comply with County requirements. ROW will identify the required revisions more fully. **Response:** Noted.

Commenting Division: Addressing Review

Name of Reviewer: David Dittmer

Date: 07/02/2025

Email:

Complete

Addressing will not change with this subdivision **Response:** Noted.

Nick Eagleson

From: Cicione - CDPHE, Brendan <brendan.cicione@state.co.us>
Sent: Monday, June 16, 2025 1:04 PM
To: Nick Eagleson
Subject: Re: PLT2025-00027 E. 88th Minor Subdivision; Request for Comments

Hi Nick,

Thank you for your email. There are no comments from the Air Pollution Control Division. Please do not hesitate to contact me with any questions. **Response:** Noted.

Thanks,
Brendan Cicione *(he/him)*
Air Quality and Transportation Planner

4300 Cherry Creek Drive S. | Denver, CO 80246-1530 brendan.cicione@state.co.us
| https://cdphe.colorado.gov/

On Mon, Jun 16, 2025 at 8:15 AM Localreferral - CDPHE, CDPHE <cdphe_localreferral@state.co.us> wrote:

> Hello,
>
> Please see the email below. Please add comments by 7/6.
>
> Thank you!
>
> ---------- Forwarded message ---------
> From: **Nick Eagleson** <NEagleson@adcogov.org>
> Date: Thu, Jun 12, 2025 at 12:03 PM
> Subject: PLT2025-00027 E. 88th Minor Subdivision; Request for Comments
> To: Nick Eagleson <NEagleson@adcogov.org>
>
> Good Afternoon,
>
> Please see the attached request for comments to combine a small parcel of land to two exiting lots. Please have any comments returned by **7/8**.

Thanks!

Nick Eagleson

Senior Strategic Planner, *Planning & Development Division*

ADAMS COUNTY, COLORADO

4430 South Adams County Parkway, 1st Floor, Suite W2000A

Brighton, CO 80601

O: 720.523.6878 | *NEagleson@adcogov.org* | www.adcogov.org

County operating hours: Monday-Friday 8:00am-4:30pm

--

cdphe_localreferral@state.co.us | colorado.gov/cdphe

Nick Eagleson

From: Hacker - DNR, Ariel <ariel.hacker@state.co.us>
Sent: Wednesday, July 9, 2025 10:07 AM
To: Nick Eagleson
Cc: Ioana Comaniciu - DNR
Subject: Re: PLT2025-00027 E. 88th Minor Subdivision; Request for Comments

Good morning,

The DWR has reviewed the PLT2025-00027 referral at 6300 E 88th Ave referral to adjust the lot lines of Lot 1 and Lot 2, Faden Subdivision. This referral does not appear to qualify as a "subdivision" as defined in section 30-28-101(10)(a), C.R.S. Therefore, pursuant to the State Engineer's March 4, 2005 and March 11, 2011 memorandums to county planning directors, this office will only perform a cursory review of the referral information and provide informal comments. The comments do not address the adequacy of the water supply plan for this project or the ability of the water supply plan to satisfy any County regulations or requirements. In addition, the comments provided herein cannot be used to guarantee a viable water supply plan or infrastructure, the issuance of a well permit, or physical availability of water. The proposed water supply is the existing municipal service. The municipal provider was identified to be South Adams County Water District. This office has no comments on the proposed water supply.

Response: Noted.

If you have any questions, please let me know.

Thank you,

Ariel Hacker
Water Resources Engineer, Division 1
Pronouns: she/her/hers (why pronouns?)

P 303-866-3581 x 8234
1313 Sherman St., Suite 818, Denver, CO 80203
ariel.hacker@state.co.us | www.colorado.gov/water

Summer Working Hours:
Monday - Thursday 5:30 am - 3:00 pm,
Friday 7 - 11 am

On Fri, Jun 13, 2025 at 4:48 PM Comaniciu - DNR, Ioana <ioana.comaniciu@state.co.us> wrote:

> Hi Ariel,
> Could you please review this referral.
> Thank you,

Ioana Comaniciu, P. E.

Water Resource Engineer

P 303-866-3581 x 8246

1313 Sherman St., Suite 821 Denver CO 80203

ioana.comaniciu@state.co.us | https://dwr.colorado.gov

---------- Forwarded message ---------
From: **Nick Eagleson** <NEagleson@adcogov.org>
Date: Thu, Jun 12, 2025 at 12:03 PM
Subject: PLT2025-00027 E. 88th Minor Subdivision; Request for Comments
To: Nick Eagleson <NEagleson@adcogov.org>

Good Afternoon,

Please see the attached request for comments to combine a small parcel of land to two exiting lots. Please have any comments returned by **7/8**.

Thanks!

Nick Eagleson

Senior Strategic Planner, *Planning & Development Division*

ADAMS COUNTY, COLORADO

4430 South Adams County Parkway, 1st Floor, Suite W2000A

Brighton, CO 80601

O: 720.523.6878 | *NEagleson@adcogov.org* | www.adcogov.org

County operating hours: Monday-Friday 8:00am-4:30pm

COLORADO GEOLOGICAL SURVEY

1801 Moly Road
Golden, Colorado 80401

Matthew L. Morgan
State Geologist and
Director

June 30, 2025

Nick Eagleson
Adams County Community and Economic Development
NEagleson@adcogov.org

Location:
39.8576, -104.9150

Subject: **6300 E. 88th Minor Subdivision**
Case Number PLT2025-00027; Adams County, CO; CGS Unique No. AD-25-0037

Dear Mr. Eagleson:

At your request (June 12, 2025), the Colorado Geological Survey has reviewed the 6300 E. 88th Minor Subdivision referral. I understand the applicant proposes to resolve property boundary discrepancies.

The site does not contain, nor is it exposed to, any geologic hazards that would preclude the proposed plat correction. **CGS therefore has no objection to approval of PLT2025-00027 as proposed.** **Response:** Noted.

Mineral resource potential. According to the Atlas of Sand, Gravel, and Quarry Aggregate Resources, Colorado Front Range Counties (Schwochow et al, Colorado Geological Survey Special Publications 5-A, Plate 2, and 5-B, Commerce City Quadrangle, 1974), the subject property is within a mapped "T1" resource area, described as a stream terrace deposit potentially containing a coarse aggregate resource consisting of "Gravel: relatively clean and sound."

A determination of whether the property contains an economic mineral resource is outside the scope of CGS review. A site-specific investigation and market analysis would be required to verify the presence or absence of an economically viable resource. However, if an aggregate resource were determined to be present, the site's small size and existing development likely preclude economic extraction.

Thank you for the opportunity to review and comment on this project. If you have questions or require additional review, please call me at (303) 384-2643, or e-mail carlson@mines.edu.

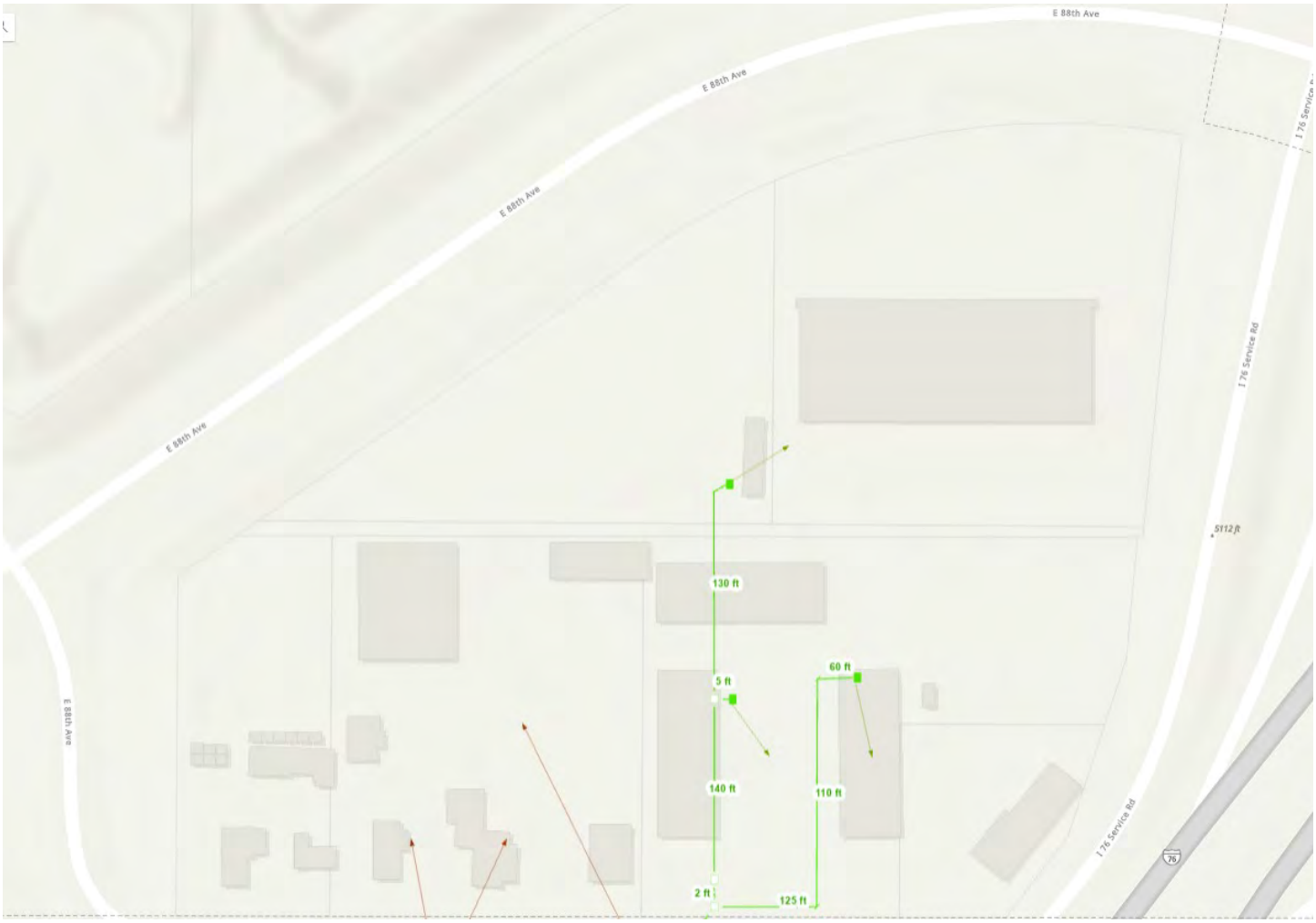
Sincerely,

Jill Carlson, C.E.G.
Engineering Geologist

Nick Eagleson

From: Flores, Miguel <Miguel_Flores@comcast.com>
Sent: Thursday, June 12, 2025 12:42 PM
To: Nick Eagleson
Subject: RE: PLT2025-00027 E. 88th Minor Subdivision; Request for Comments

Hello Nick,
based on the documents this should not impact Comcast, however we do have some UG facilities that need to be protected. **Response:** Noted.



Thanks,

Miguel Flores

Construction Manager – Denver / NoCo
720-413-0113 mobile

COMCAST

From: Nick Eagleson <NEagleson@adcogov.org>
Sent: Thursday, June 12, 2025 12:03 PM
To: Nick Eagleson <NEagleson@adcogov.org>
Subject: [EXTERNAL] PLT2025-00027 E. 88th Minor Subdivision; Request for Comments

Good Afternoon,

Please see the attached request for comments to combine a small parcel of land to two exiting lots. Please have any comments returned by **7/8**.

Thanks!

Nick Eagleson
Senior Strategic Planner, *Planning & Development Division*
ADAMS COUNTY, COLORADO
4430 South Adams County Parkway, 1st Floor, Suite W2000A
Brighton, CO 80601
O: 720.523.6878 | *NEagleson@adcogov.org* | www.adcogov.org

County operating hours: Monday-Friday 8:00am-4:30pm

Right of Way & Permits

1123 West 3rd Avenue
Denver, Colorado 80223
Telephone: 303.285.6612
violeta.ciocanu@xcelenergy.com

July 7, 2025

Adams County Community and Economic Development Department
4430 South Adams County Parkway, Suite W2000A
Brighton, CO 80601

Attn: Nick Eagleson

Re: 6300 E 88th Minor Subdivision, Case # PLT2025-00027

Public Service Company of Colorado's (PSCo) Right of Way & Permits Referral Desk has reviewed the plat for **6300 E 88th Minor Subdivision**. Please be aware that PSCo owns and operates existing natural gas and electric distribution facilities along the southern boundary of Lot 1.

The property owner/developer/contractor must complete the application process for any new natural gas or electric service, or modification to existing facilities via xcelenergy.com/InstallAndConnect. It is then the responsibility of the developer to contact the Designer assigned to the project for approval of design details.

Response: Noted.

If additional easements need to be acquired by separate PSCo document (i.e. transformer), a Right-of-Way Agent will need to be contacted by the Designer.

Response: Noted.

As a safety precaution, PSCo would like to remind the developer to call the Utility Notification Center by dialing 811 for utility locates prior to construction.

Response: Noted.

Violeta Ciocanu (Chokanu)
Right of Way and Permits
Public Service Company of Colorado dba Xcel Energy
Office: 303-285-6612 – Email: violeta.ciocanu@xcelenergy.com

FADEN SUBDIVISION AMENDMENT NO. 1

A SUBDIV…CK 1, FADEN SUBDIVISION, AND PART OF THE NORTH 7 FEET OF THE SOUTH…HEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 20, TOWNSHIP 2 SOUTH,…THEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 20, TOWNSHIP 2 S…NCIPAL MERIDIAN, COUNTY OF ADAMS, STATE OF COLORADO.
…EET 1 OF 3 – COVER

CASE NO. _____

PLACE AT TOP RIGHT-HAND CORNER OF ALL SHEETS

REVISED AS INDICATED

REVISE:
Ownership Certificate:
a. Know all men by these presents that (owner name(s)), being the sole owner(s) of the following
described tract of land:
b. Legal Description must match that of the title commitment
c. Have (Has) by these presents laid out, platted, and subdivided the same into lot(s), tract(s), street(s), and easement(s) as shown on this plat under the name and style of (subdivision name).

OWNERSHIP AND DEDICATION CERIFICATE

REVISED AS INDICATED

KNOW ALL MEN BY THESE… THE UNDERSIGNED, BEING TH…
FOLLOWING DESCRIBED TRACT OF LAND: (FROM …
COMPANY COMMITMENT NO. ABH70775754, EFFEC…

LOT 1, BLOCK 1, FADEN SUBDIVISION, COUNTY OF…
BLOCK 1, FADEN SUBDIVISION, COUNTY OF ADAMS… SOUTH 1/2 OF…
…WITHIN THE HIGH…
…., COUNTY OF …
COLORADO,…
FOREVER, A…
EASEMENTS…
DRAINAGE F…
LINES, AND…
TOGETHER W…
MAINTENANC…
USED IN A …

REVISED OWNERSHIP AND DEDICATION LANGUAGE AS INDICATED

Dedication Statements:
•Statements of land to be ded… public uses, grants of easements and ded… County are required.

a. All plats with public streets shall have the following sentence in the dedication statement: All public streets are hereby dedicated to Adams County for public use.

b. All plats with public easements and/or tracts must have the following sentence in the dedication statement: The undersigned does hereby dedicate, grant and convey to Adams County those Public Easements (and tracts) as shown on the plat; and further restricts the use of all Public Easement to Adams County and/or its assigns, provided however, that the sole right and authority to release or quitclaim all or any such Public Easements shall remain exclusively vested in Adams County.

c. All plats with private streets shall have the following sentence in the dedication statement: All private streets (insert names) are privately owned and maintained by (list owner name, Owner's Association, etc.).

d. All plats with other tracts being dedicated to the County shall have:
i. A sentence in the dedication statement similar to "Tract X is hereby dedicated to Adams County for public use".
ii. A special numbered plat note defining the purpose and perpetual maintenance responsibility for the tract such as "Tract X is for public drainage, landscaping, trail and open space with maintenance of the surface being vested in the (District Name) Special Maintenance District

THE LEGAL DESCRIPTION PROVIDED MUST MATCH THAT OF THE TITLE REPORT WITH PARCELS A, B AND C.
BRINGING IN THE STRIP WILL CREATE A NEW M/B LEGAL FOR THE BOUNDARY OF THE AMENDED SUB… CURRENT LEGAL S… NOW DESCRIBED A…

REVISED AS INDICATED. MOVE LEGAL DESCRIPTION IN PLAT NOTE 10 TO OWNERSHIP AND DEDICATION STATEMENT WITH "NOW BEING DESCRIBED AS FOLLOWS" STATEMENT

EXECUTED THIS _____ DAY OF _____

PERF 88 LLC & 76 AND 88 LLC

_____
FRED J. ORR, _____, PERF 88 LLC & 76 AND 88 LLC

ACKNOWLEDGEMENT:

STATE OF COLORADO)
COUNTY OF ADAMS)

THIS WILL BE DICTATED BY THE REQUESTED AND REQUIRED RECORDED SOA

THE FOREGOING OWNERSHIP AND DEDICATION CERTIFICATE WAS ACKNOWLEDGED BEFOR ME….

REVISED AS INDICATED

…ED J. ORR, _____, PERF 88 LLC & 76 AND 88 LLC

REVISED BASED ON 2007 AND 2019 STATEMENTS OF AUTHORITY

_____ DAY OF _____

_____
NOTARY PUBLIC
MY COMMISSION EXPIRES: _____
MY ADDRESS IS: _____
_____

NEED CURRENT RECORDED COPY OF SOA FOR BOTH ENTITIES

FOUND STATEMENTS OF AUTHORITY RECORDED IN 2007 AND 2019

PLAT NOTES

1. NOTICE: ACCORDING TO COLORADO LAW …UY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY …ER YOU FIRST DISCOVER SUCH DEFECT. IN NO EVENT MAY ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF THE CERTIFICATION SHOWN HEREON.

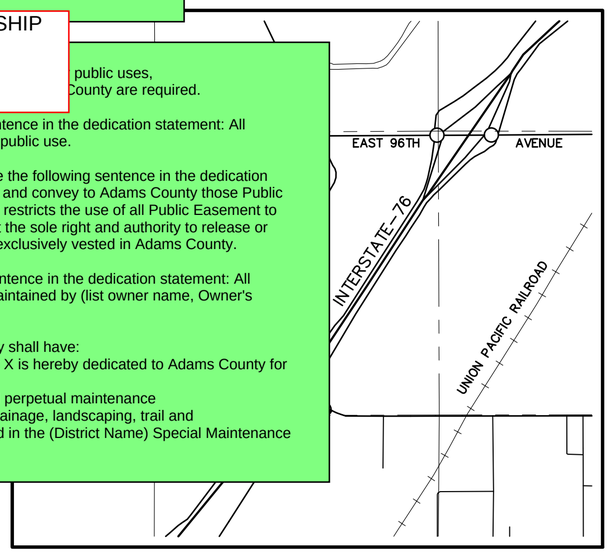
2. THE LINEAL UNIT USED AND SHOWN HEREON IS U.S. SURVEY FOOT AND DECIMALS THEREOF. A U.S. SURVEY FOOT IS DEFINED AS EXACTLY 1200/3937 METERS. THE BEARINGS AND DISTANCES SHOWN HEREON ARE AS MEASURED UNLESS OTHERWISE NOTED.

3. ALL NOTES, DEDICATIONS AND PLAT RESTRICTIONS, AS SHOWN ON THE PLAT OF FADEN SUBDIVISION RECORDED AT RECEPTION NO. 803857 IN THE RECORDS OF ADAMS COUNTY, COLORADO SHALL APPLY UNLESS SPECIFICALLY AMENDED AND SUPERSEDED HEREBY.

4. THIS SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY R.W. BAYER & ASSOCIATES, INC. OF THE PROPERTY SHOWN AND DESCRIBED HEREIN TO DETERMINE OWNERSHIP OF THE TRACT OF LAND, COMPATIBILITY OF THIS DESCRIPTION WITH THOSE OF ADJACENT TRACTS OF LAND OR RIGHTS-OF-WAY, EASEMENTS OR ENCUMBRANCES OF RECORD AFFECTING THIS TRACT OF LAND. R.W. BAYER & ASSOCIATES, INC. HAS RELIED UPON OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY COMMITMENT NO. RND70867390, EFFECTIVE APRIL 22, 2025 AT 5:00 PM, FOR OWNERSHIP AND FOR THE PURPOSE OF SHOWING RECORDED EASEMENTS AND RIGHT-OF-WAY ACROSS THESE PREMISES.

5. THIS PARCEL OF LAND LIES WITHIN ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 1% ANNUAL CHANCE FLOODPLAIN) AS DELINEATED IN THE FEMA FLOOD INSURANCE RATE MAP, MAP NO. 08001C0606H EFFECTIVE MARCH 5, 2007.

6. BASIS OF BEARINGS: THE SOUTH LINE OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 20, TOWNSHIP 2 SOUTH, RANGE 67 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF ADAMS, STATE OF COLORADO, BEING MONUMENTED ON THE WEST END BY A 2" ALUMINUM CAP, PLS 23519 AND ON THE EAST END BY A 3-1/4" ALUMINUM CAP, PLS 38318, IS ASSUMED TO BEAR N89°57'30"W. ALL BEARINGS SHOWN HEREON ARE RELATIVE THERETO.



VICINITY MAP
SCALE: 1" = 2000'

…TES: (CONTINUED)

…LICY OF THE COUNTY REQUIRES THAT MAINTENANCE …PROVIDED TO ALL STORM DRAINAGE FACILITIES TO …NTINUOUS OPERATIONAL CAPABILITY OF THE SYSTEM. THE …OWNERS SHALL BE RESPONSIBLE FOR THE MAINTENANCE …INAGE FACILITIES INCLUDING INLETS, PIPES, CULVERTS, CHANNELS, DITCHES, HYDRAULIC STRUCTURES, AND DETENTION BASINS LOCATED ON THEIR LAND UNLESS MODIFIED BY SUBDIVISION DEVELOPMENT AGREEMENT. SHOULD THE OWNER FAIL TO ADEQUATELY MAINTAIN SAID FACILITIES, THE COUNTY SHALL HAVE THE RIGHT TO ENTER SAID LAND FOR THE SOLE PURPOSE OF OPERATIONS AND MAINTENANCE. ALL SUCH MAINTENANCE COSTS WILL BE ASSESSED TO THE PROPERTY OWNER.

8. SIX-FOOT (6') WIDE UTILITY EASEMENTS ARE HEREBY DEDICATED ON PRIVATE PROPERTY ADJACENT TO THE FRONT LOT LINES OF EACH LOT IN THE SUBDIVISION. IN ADDITION, EIGHT-FOOT (8') WIDE DRY UTILITY EASEMENTS ARE HEREBY DEDICATED AROUND THE PERIMETER OF TRACTS, PARCELS AND/OR OPEN SPACE AREAS. THESE EASEMENTS ARE DEDICATED TO ADAMS COUNTY FOR THE BENEFIT OF THE APPLICABLE UTILITY PROVIDERS FOR THE INSTALLATION, MAINTENANCE, AND REPLACEMENT OF UTILITIES. UTILITY EASEMENTS SHALL ALSO BE GRANTED WITHIN ANY ACCESS EASEMENTS AND PRIVATE STREETS IN THE SUBDIVISION. PERMANENT STRUCTURES, IMPROVEMENTS, OBJECTS, BUILDINGS, WELLS, WATER METERS AND OTHER OBJECTS THAT MAY INTERFERE WITH THE UTILITY FACILITIES OR USE THEREOF (INTERFERING OBJECTS) SHALL NOT BE PERMITTED WITHIN SAID UTILITY EASEMENTS AND THE UTILITY PROVIDERS, AS GRANTEES, MAY REMOVE ANY INTERFERING OBJECTS AT NO COST TO SUCH GRANTEES, INCLUDING, WITHOUT LIMITATION, VEGETATION.

9. ANY PERSON WHO KNOWINGLY REMOVES ALTERS OR DEFACES ANY PUBLIC LAND SURVEY MONUMENT OR LAND BOUNDARY MONUMENT OR ACCESSORY COMMITS A CLASS TWO (2) MISDEMEANOR PURSUANT TO STATE STATUTE 18-4-508, C.R.S.

PREPARED BY:

R.W. BAYER & ASSOCIATES, INC.
12170 TEJON STREET, UNIT 700
WESTMINSTER, COLORADO 80234
(303)452-4433
RWBSURVEYING@HOTMAIL.COM
CAD FILE: 22033/22033.DWG

DATE PREPARED: JUNE 6, 2022
REVISED: APRIL 29, 2025

PLAT NOTES: (CONTINUED)

10. THE LEGAL DESCRIPTION OF THIS PROPERTY GIVEN IN THE OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY COMMITMENT NO. ABH70775754, EFFECTIVE MAY 26, 2022 AT 5:00 PM OVERLAPS WITH ADJACENT RIGHTS OF WAY AND PARCELS. A RECOMMENDED OR AS-SURVEYED LEGAL DESCRIPTION IS AS FOLLOWS:

A PART OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 20, TOWNSHIP 2 SOUTH, RANGE 67 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF ADAMS, STATE OF COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
COMMENCING AT THE …T 1/4, FROM WHICH THE SOUTHEAST CORNER …HE MONUMENTS SHOWN HEREON, THIS LINE B… …00°04'47"E ALONG THE WEST LINE OF PARCEL DES… …8 FEET TO A POINT ON THE SOUTHERLY R… POINT BEING THE SOUTHWEST CORNER OF A P… 466; THENCE N55°00'00"E ALONG SAID SO… TO A POINT DISTANT 325.00 FEET FROM THE SOU… SURED AT RIGHT ANGLES AND THE POINT OF …
THENCE CONTINUING ALONG … FOLLOWING TWO COURSE:
1) THENCE N55°00'00"E, 4… VATURE;
2) THENCE ALONG THE ARC OF A CURVE TO THE RIGHT, SAID CURVE HAVING A RADIUS OF 616.30 FEET, THROUGH A CENTRAL ANGLE OF 44°46'03", AN ARC DISTANCE OF 481.54 FEET, THE CHORD OF SAID CURVE BEARS N77°23'01"E, 469.38 FEET, TO A POINT ON THE WESTERLY RIGHT OF WAY LINE OF INTERSTATE 76;
THENCE S05°13'30"W ALONG SAID WESTERLY RIGHT OF WAY LINE, 336.84 FEET TO THE NORTHEAST CORNER OF LOT 1, INTERSTATE INDUSTRIAL PARK, SAID POINT BEING DISTANT 325.00 FEET FROM THE SOUTH LINE OF SAID SOUTHEAST 1/4 AS MEASURED AT RIGHT ANGLES; THENCE N89°57'30"W ALONG THE NORTH LINE OF SAID LOT 1 EXTENDED WEST, SAID LINE BEING PARALLEL WITH AND 325.00 FEET DISTANT FROM THE SOUTH LINE OF SAID SOUTHEAST 1/4, 759.23 FEET TO THE POINT OF BEGINNING.

IS THE M/B LEGAL FOR THE INITIAL SUBDIVISION OR THE NEW ONE BRINGING IN THE STRIP?

NEW ONE INCORPORATING STRIP. MOVED THIS LEGAL DESCRIPTION TO THE OWNERSHIP AND DEDICATION STATEMENT WITH A "NOW BEING DESCRIBED AS FOLLOWS" STATEMENT

SURVEYOR'S CERTIFICATE:

I, RAYMOND W. BAYER, A REGISTERED LAND SURVEYOR, REGISTERED IN THE STATE OF COLORADO, DO HEREBY CERTIFY THAT THERE ARE NO ROADS, PIPELINES, IRRIGATION DITCHES OR OTHER EASEMENTS IN EVIDENCE OR KNOWN BY ME TO EXIST ON OR ACROSS THE HEREIN BEFORE DESCRIBED PROPERTY, EXCEPT AS SHOWN ON THIS PLAT. I FURTHER CERTIFY THAT THIS SURVEY WAS PERFORMED BY ME OR UNDER MY DIRECT RESPONSIBILITY, SUPERVISION AND CHECKING, AND THAT THIS PLAT ACCURATELY REPRESENTS SAID SURVEY, AND THAT ALL MONUMENTS EXIST AS SHOWN HEREON.

RAYMOND W. BAYER,
REG P.L.S. NO. 6973

PLANNING COMMISSION APPROVAL
REVIEWED BY THE ADAMS COUNTY PLANNING COMMISSION THIS _____ DAY OF _____ 202__.

_____
CHAIR

BOARD OF COUNTY COMMISSIONERS' APPROVAL
APPROVED BY THE ADAMS COUNTY BOARD OF COUNTY COMMISSIONERS THIS _____ DAY OF _____ 202_

_____
CHAIR

REVISED AS INDICATED

ADAMS COUNTY ATTORNEY'S OFFICE

_____
APPROVED AS TO FORM

THIS PLAT WAS FILED FOR RECORD IN THE OFFICE OF THE ADAMS COUNTY CLERK AND RECORDED, IN THE STATE OF COLORADO, AT ____:_____.M., ON THE _____ DAY OF _____, A.D., 20_____.

BY: _____ _____
DEPUTY COUNTY CLERK AND RECORDER

RECEPTION NO.: _____

FADEN SUBDIVISION AMENDMENT NO. 1

CASE NO. _____

A SUBDIVISION OF PART OF LOTS 1 AND 2, BLOCK 1, FADEN SUBDIVISION, AND PART OF THE NORTH 7 FEET OF THE SOUTH 1/2 OF THE SOUTH 1/2 OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 20, TOWNSHIP 2 SOUTH,. RANGE 67, BEING A PART OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 20, TOWNSHIP 2 SOUTH, RANGE 67 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF ADAMS, STATE OF COLORADO.
SHEET 2 OF 3 – EXISTING CONDITIONS

N

0 50 100 Feet

SCALE: 1" = 50'

PREPARED BY:

R.W. BAYER & ASSOCIATES, INC.
12170 TEJON STREET, UNIT 700
WESTMINSTER, COLORADO 80234
(303)452-4433
RWBSURVEYING@HOTMAIL.COM
CAD FILE: 22033/22033.DWG

DATE PREPARED: JUNE 6, 2022
REVISED: APRIL 29, 2025

LEGEND

- FOUND ALIQUOT MONUMENT AS DESCRIBED
- FOUND 5/8" REBAR & CAP – PLS 9010
- FOUND 5/8" REBAR & CAP – PLS 16112
- SET 5/8" REBAR & CAP – PLS 6973

EAST 88TH AVENUE
200' R.O.W. (BOOK 1575 AT PAGE 126, BOOK 1575 AT PAGE 129, AND BOOK 1666 AT PAGE 330)

NORTH LINE FADEN SUBDIVISION
OVERLAPS WITH EAST 88TH AVENUE RIGHT OF WAY

Δ=44°46'03"
R=616.30'
L=481.54'
ChB=N77°23'01"E
ChL=469.38'

3.8' OVERLAP

5.1' OVERLAP

1.3' OVERLAP

NORTH LINE FADEN SUBDIVISION

WEST LINE BOOK 1666 AT PAGE 330

EAST LINE LOT 1, BLOCK 1, FADEN SUBDIVISION

SHOULD THIS BE A SOLID LINE FOR THE LOT LINE?

CHANGED TO SOLID LINE

SOUTH LINE BOOK 1575 AT PAGE 129

LOT 1, BLOCK 1
FADEN SUBDIVISION

S05°13'30"W 336.84'

INTERSTATE-76
R.O.W. WIDTH VARIES
(BOOK 1555 AT PAGE 330)

N55°00'00"E 405.12'

LOT 2, BLOCK 1
FADEN SUBDIVISION

NORTH 7' OF THE SOUTH 1/2 OF THE SOUTH 1/2 OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 20 EXCEPT THAT PART LYING WITHIN HIGHWAYS (PARCEL B, REC. NO. 2019000010713) – OVERLAPS WITH FADEN SUBDIVISION, LOT 1, INTERSTATE INDUSTRIAL PARK, AND PARCELS DESCRIBED IN REC. NO. C108775 AND 2011000052407

FOUND MONUMENT AT SOUTHEAST CORNER LOT 1, BLOCK 1, FADEN SUBDIVISON
4.9' NORTH AND 1.7' EAST OF SET MONUMENT

PARCEL LINE TO BE VACATED

10' PSCO EASEMENT PER BOOK 2827 AT PAGE 377
(SOUTH 10' OF LOT 1, BLOCK 1, FADEN SUBDIVISION)

3.0' OVERLAP

1.7' OVERLAP

4.9' LOT LINE

1.6' OVERLAP

4.9' LOT LINE

POINT OF BEGINNING
(AS-SURVEYED)

NORTH LINE PARCEL B, REC. NO. 2019000010713
OVERLAPS WITH FADEN SUBDIVISION

N89°57'30"W 759.23'

BOOK 1349
AT PAGE 466

79.63'
N55°00'00"E

SOUTH LINE PARCEL B, REC. NO. 2019000010713
1.7' SOUTH OF PROPERTY LINE

SOUTH LINE FADEN SUBDIVISION

SOUTH LINE PARCEL B, REC. NO. 2019000010713
1.6' SOUTH OF PROPERTY LINE
OVERLAPS WITH LOT 1, INTERSTATE INDUSTRIAL PARK AND PARCELS PER REC. NO. C1088775 AND REC. NO. 2011000052407

2' GAP BETWEEN LEGAL DESCRIPTIONS

UNPLATTED
REC. NO. 2011000052407

UNPLATTED
REC. NO. C1088775

LOT 1, INTERSTATE INDUSTRIAL PARK
REC. NO. A054021

325.00'

WEST LINE SW1/4
SEC. 20 T.2S. R.67W.

N00°32'18"E

N00°04'47"E 279.28'

20' WITNESS CORNER TO THE SOUTHWEST CORNER SW1/4
SEC. 20 T.2S. R.67W.
3-1/4" ALUMINUM CAP
PLS 16406

S89°57'30"E 1335.13'

POINT OF COMMENCEMENT (AS-SURVEYED)
SOUTHWEST CORNER SE1/4 SW1/4 SEC. 20 T.2S. R.67W.
2" ALUMINUM CAP – PLS 23519

SOUTH LINE SE1/4 SW1/4 SEC. 20. T.2S. R.67W.

S89°57'30"E 1335.86'
BASIS OF BEARINGS

SOUTHEAST CORNER SE1/4 SW1/4 SEC. 20 T.2S. R.67W.
3-1/4" ALUMINUM CAP – PLS 38318

FADEN SUBDIVISION AMENDMENT NO. 1

CASE NO. _____

A SUBDIVISION OF PART OF LOTS 1 AND 2, BLOCK 1, FADEN SUBDIVISION, AND PART OF THE NORTH 7 FEET OF THE SOUTH 1/2 OF THE SOUTH 1/2 OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 20, TOWNSHIP 2 SOUTH,. RANGE 67, BEING A PART OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 20, TOWNSHIP 2 SOUTH, RANGE 67 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF ADAMS, STATE OF COLORADO.

SHEET 3 OF 3 – PLATTED CONDITIONS

N

0 50 100 Feet

SCALE: 1" = 50'

PREPARED BY:

R.W. BAYER & ASSOCIATES, INC.
12170 TEJON STREET, UNIT 700
WESTMINSTER, COLORADO 80234
(303)452-4433
RWBSURVEYING@HOTMAIL.COM
CAD FILE: 22033/22033.DWG

DATE PREPARED: JUNE 6, 2022
REVISED: APRIL 29, 2025

LEGEND

- ◆ FOUND ALIQUOT MONUMENT AS DESCRIBED
- ● FOUND 5/8" REBAR & CAP – PLS 9010
- ▲ FOUND 5/8" REBAR & CAP – PLS 16112
- ■ SET 5/8" REBAR & CAP – PLS 6973

CURVE TABLE					
CURVE #	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C1	96.67	55.00	100°42'29"	S39°44'07"W	84.70
C2	40.86	581.80	4°01'27"	S57°00'43"W	40.85
C3	53.25	605.80	5°02'11"	N57°31'06"E	53.23
C4	53.64	29.00	105°58'08"	N37°06'17"E	46.31

LINE TABLE		
LINE #	BEARING	DISTANCE
L1	S10°37'08"E	42.92
L2	S35°00'00"E	60.22
L3	S55°00'00"W	55.06
L4	N35°00'00"W	56.10
L5	S35°00'00"E	10.50
L6	N15°52'47"W	39.00

EAST 88TH AVENUE
200' R.O.W. (BOOK 1575 AT PAGE 126, BOOK 1575 AT PAGE 129, AND BOOK 1666 AT PAGE 330)

Δ=44°46'03"
R=616.30'
L=481.54'
ChB=N77°23'01"E
ChL=469.38'

L=354.64
Δ=32°58'12"

L=32.91
L=103.44
L=126.90
Δ=11°47'51"

L6
L1
C4
C1
C3
C2

S89°54'39"E 140.52'
N89°54'39"W 140.61'

10.5'
24.0'
6.0'

ACCESS & DRAINAGE EASEMENT DEDICATED BY THIS PLAT

8' UTILITY EASEMENT DEDICATED BY THIS PLAT

ACCESS EASEMENT DEDICATED BY THIS PLAT

LOT 1
2.530 ACRES ±
110,197 SQUARE FEET ±

REVISED EASEMENTS TO SEPARATE DRAINAGE AND ACCESS

DELINEATE THE ACCESS AND THE DETENTION FROM EACH OTHER

N55°00'00"E 405.12'
N55°00'00"E 214.99'
S55°00'00"W 214.99'
N55°00'00"E 110.13'

6' UTILITY EASEMENT DEDICATED BY THIS PLAT

N00°02'30"E 294.30'

LOT 2
1.561 ACRES ±
68,000 SQUARE FEET ±

L5
L2
L4

ACCESS & DRAINAGE EASEMENT DEDICATED BY THIS PLAT

DRAINAGE EASEMENT DEDICATED BY THIS PLAT

79.99'
97.70'

POINT OF BEGINNING (AS-SURVEYED)

442.32'
N89°57'30"W 759.23'
316.91'

10' PSCO EASEMENT PER BOOK 2827 AT PAGE 377 (SOUTH 10' OF LOT 1, BLOCK 1, FADEN SUBDIVISION)

8' UTILITY EASEMENT DEDICATED BY THIS PLAT

4.9'

INTERSTATE-76
R.O.W. WIDTH VARIES
(BOOK 1555 AT PAGE 330)

S05°13'30"W 336.84'

BOOK 1349 AT PAGE 466

79.63'
N55°00'00"E

WEST LINE SW1/4 SEC. 20 T.2S. R.67W.

N00°32'18"E

N00°04'47"E 279.28'

UNPLATTED
REC. NO. 2011000052407

UNPLATTED
REC. NO. C1088775

325.00'

LOT 1, INTERSTATE INDUSTRIAL PARK
REC. NO. A054021

20' WITNESS CORNER TO THE SOUTHWEST CORNER SW1/4 SEC. 20 T.2S. R.67W.
3-1/4" ALUMINUM CAP
PLS 16406

S89°57'30"E 1335.13'

POINT OF COMMENCEMENT (AS-SURVEYED)
SOUTHWEST CORNER SE1/4 SW1/4 SEC. 20 T.2S. R.67W.
2" ALUMINUM CAP – PLS 23519

SOUTH LINE SE1/4 SW1/4 SEC. 20. T.2S. R.67W.
S89°57'30"E 1335.86'
BASIS OF BEARINGS

SOUTHEAST CORNER SE1/4 SW1/4 SEC. 20 T.2S. R.67W.
3-1/4" ALUMINUM CAP – PLS 38318

RECEPTION#: 2007000002785, 01/05/2007 at 02:36:51 PM, 1 OF 1, Doc Type:AF Carol Snyder, Adams County, CO

Escrow No. 277-H0146173-030-PA

STATEMENT OF AUTHORITY

Pursuant to C.R.S. §38-30-172, the undersigned hereby executes this Statement of Authority on behalf of 76 & 88 LLC, **a** Limited Liability Company **an entity other than an individual, capable of holding title to real property (the "Entity"), and states as follows:**

The name of the Entity is: 76 & 88 LLC

The Entity is a: Colorado Limited Liability Company
(state type of entity and state, country or other government authority under whose laws such entity was formed)

The mailing address for the Entity is: 5040 Acoma St, Denver, CO 80216

The name or position of the person(s) authorized to execute instruments conveying, encumbering, or otherwise affecting title to real property on behalf of the Entity is:

Fred J. Orr - Manager - member

The limitations upon the authority of the person named above or holding the position described above to bind the Entity are as follows: None
(if no limitations insert "NONE")

The instrument and recording information, including the County, of the document by which title was acquired is:

Special Warranty Deed

Other matters concerning the manner in which the Entity deals with any interest in real property are:

(if no matters, leave this section blank)

EXECUTED this January 3, 2007

BUYER:

7688 LLC

by Fred J. Orr as Manager

STATE OF COLORADO
COUNTY OF **Adams** } SS:

The foregoing instrument was acknowledged before me this January 3, 2007,
by Fred J. Orr - Manager on behalf of
76 & 88 LLC a Limited Liability Company.

Witness my hand and official seal.

My commission expires: _____

P. Schoenfeld
NOTARY PUBLIC
STATE OF COLORADO
My commission expires 5/29/2009

Electronically Recorded RECEPTION#: 2019000010712,
2/13/2019 at 9:58 AM, 1 OF 1,
REC: $13.00
TD Pgs: 0 Josh Zygielbaum, Adams County, CO.

After recording please return to:

PERF 88 LLC
5040 Acoma Street
Denver, CO 80216

STATEMENT OF AUTHORITY

1. This Statement of Authority relates to an entity named PERF 88 LLC.

2. The type of entity is a Colorado Limited Liability Company.

3. The entity is formed under the laws of the State of Colorado.

4. The mailing address for the entity is 5040 Acoma Street Denver, CO 80216.

5. The name of each person authorized to execute instruments conveying, encumbering or otherwise affecting title to real property on behalf of the entity is:

   Fred J. Orr whose address is 5040 Acoma Street, Denver, CO 80216

6. The authority of the foregoing persons to bind the entity is NOT limited.

By: Fred J Orr

STATE OF COLORADO)
)ss:
CITY AND COUNTY OF Denver)

On Feb. 8, 2019, before me, Cathleen S. Ryan, a notary public in and for the said state personally appeared **Fred J Orr**, as the managing member for PERF 88 LLC, personally known to me (or proved to me based upon satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged that he executed the same in his signature on the instrument the person or entity on behalf of which they acted, executed the instrument.

Witness my hand and official seal

Cathleen S Ryan
NOTARY PUBLIC
My commission expires 2-16-2020

CATHLEEN S RYAN
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 20084004225
MY COMMISSION EXPIRES FEB 16, 2020

NOTARY SEAL

FADEN SUBDIVISION AMENDMENT NO. 1

A SUBDIVISION OF PART OF LOTS 1 AND 2, BLOCK 1, FADEN SUBDIVISION, AND PART OF THE NORTH 7 FEET OF THE SOUTH 1/2 OF THE SOUTH 1/2 OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 20, TOWNSHIP 2 SOUTH,. RANGE 67, BEING A PART OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 20, TOWNSHIP 2 SOUTH, RANGE 67 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF ADAMS, STATE OF COLORADO.

SHEET 1 OF 3 – COVER

CASE NO. PLT2025–00027

OWNERSHIP AND DEDICATION CERTIFICATE

KNOW ALL MEN BY THESE PRESENTS THAT PERF 88 LLC, A COLORADO LIMITED LIABILITY COMPANY AND 76 & 88 LLC,A COLORADO LIMITED LIABILITY COMPANY BEING THE SOLE OWNERS OF THE FOLLOWING DESCRIBED TRACT OF LAND:

PARCEL A:
LOT 1, BLOCK 1, FADEN SUBDIVISION, COUNTY OF ADAMS, STATE OF COLORADO.
PARCEL B:
LOT 2, BLOCK 1, FADEN SUBDIVISION, COUNTY OF ADAMS, STATE OF COLORADO.
PARCEL C:
THE NORTH 7 FEET OF THE SOUTH 1/2 OF THE SOUTH 1/2 OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4, EXCEPT THAT PART LYING WITHIN THE HIGHWAY, SECTION. 20, TOWNSHIP 2 SOUTH, RANGE 67 WEST OF THE 6TH P.M., COUNTY OF ADAMS, STATE OF COLORADO.

NOW BEING DESCRIBED AS FOLLOWS:

A PART OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 20, TOWNSHIP 2 SOUTH, RANGE 67 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF ADAMS, STATE OF COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
COMMENCING AT THE SOUTHWEST CORNER OF SAID SOUTHEAST 1/4, FROM WHICH THE SOUTHEAST CORNER THEREOF BEARS S89°57'30"E BETWEEN THE MONUMENTS SHOWN HEREON, THIS LINE BEING THE BASIS OF BEARINGS; THENCE N00°04'47"E ALONG THE WEST LINE OF PARCEL DESCRIBED AT RECEPTION NO. 2011000052407, 279.28 FEET TO A POINT ON THE SOUTHERLY RIGHT OF WAY LINE OF EAST 88TH AVENUE, SAID POINT BEING THE SOUTHWEST CORNER OF A PARCEL DESCRIBED IN BOOK 1349 AT PAGE 466; THENCE N55°00'00"E ALONG SAID SOUTHERLY RIGHT OF WAY LINE, 79.63 FEET TO A POINT DISTANT 325.00 FEET FROM THE SOUTH LINE OF SAID SOUTHEAST 1/4 AS MEASURED AT RIGHT ANGLES AND THE POINT OF BEGINNING;
THENCE CONTINUING ALONG SAID SOUTHERLY RIGHT OF WAY LINE THE FOLLOWING TWO COURSE:
1) THENCE N55°00'00"E, 405.12 FEET TO A POINT OF TANGENT CURVATURE;
2) THENCE ALONG THE ARC OF A CURVE TO THE RIGHT, SAID CURVE HAVING A RADIUS OF 616.30 FEET, THROUGH A CENTRAL ANGLE OF 44°46'03", AN ARC DISTANCE OF 481.54 FEET, THE CHORD OF SAID CURVE BEARS N77°23'01"E, 469.38 FEET, TO A POINT ON THE WESTERLY RIGHT OF WAY LINE OF INTERSTATE 76;
THENCE S05°13'30"W ALONG SAID WESTERLY RIGHT OF WAY LINE, 336.84 FEET TO THE NORTHEAST CORNER OF LOT 1, INTERSTATE INDUSTRIAL PARK, SAID POINT BEING DISTANT 325.00 FEET FROM THE SOUTH LINE OF SAID SOUTHEAST 1/4 AS MEASURED AT RIGHT ANGLES; THENCE N89°57'30"W ALONG THE NORTH LINE OF SAID LOT 1 EXTENDED WEST, SAID LINE BEING PARALLEL WITH AND 325.00 FEET DISTANT FROM THE SOUTH LINE OF SAID SOUTHEAST 1/4, 759.23 FEET TO THE POINT OF BEGINNING.

HAVE BY THESE PRESENTS LAID OUT, PLATTED AND SUBDIVIDED THE SAME INTO LOTS AND EASEMENTS AS SHOWN ON THIS PLAT UNDER THE NAME AND STYLE OF FADEN SUBDIVISION AMENDMENT NO. 1, AND THE UNDERSIGNED DOES HEREBY DEDICATE, GRANT AND CONVEY TO ADAMS COUNTY THOSE PUBLIC EASEMENTS AS SHOWN ON THE PLAT; AND FURTHER RESTRICTS THE USE OF ALL PUBLIC EASEMENTS TO ADAMS COUNTY AND/OR ITS ASSIGNS, PROVIDED HOWEVER, THAT THE SOLE RIGHT AND AUTHORITY TO RELEASE AND QUITCLAIM ALL OR ANY SUCH PUBLIC EASEMENTS SHALL REMAIN EXCLUSIVELY VESTED IN ADAMS COUNTY.

EXECUTED THIS _____ DAY OF _____, 20_____.

PERF 88 LLC, A COLORADO LIMITED LIABILITY COMPANY, AND
76 & 88 LLC, A COLORADO LIMITED LIABILITY COMPANY

_____
FRED J. ORR AS
MANAGING MEMBER, PERF 88 LLC, A COLORADO LIMITED LIABILITY COMPANY AND
MANAGER, 76 & 88 LLC, A COLORADO LIMITED LIABILITY COMPANY

ACKNOWLEDGEMENT:

STATE OF COLORADO)
COUNTY OF ADAMS)

THE FOREGOING OWNERSHIP AND DEDICATION CERTIFICATE WAS ACKNOWLEDGED BY ME THIS _____ DAY OF _____, 20_____, BY FRED J. ORR, MANAGING MEMBER, PERF 88 LLC, A COLORADO LIMITED LIABILITY COMPANY, AND MANAGER, 76 AND 88 LLC, A COLORADO LIMITED LIABILITY COMPANY

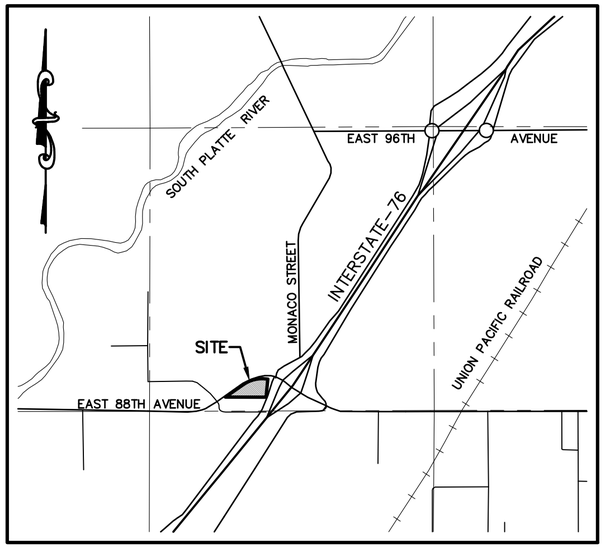
_____
NOTARY PUBLIC
MY COMMISSION EXPIRES: _____
MY ADDRESS IS: _____
_____

PREPARED BY:

R.W. BAYER & ASSOCIATES, INC.
12170 TEJON STREET, UNIT 700
WESTMINSTER, COLORADO 80234
(303)452–4433
RWBSURVEYING@HOTMAIL.COM
CAD FILE: 22033/22033.DWG

DATE PREPARED: JUNE 6, 2022
REVISED: JULY 22, 2025

REVISIONS:
4/29/25 NEW EASEMENTS AND LAYOUT
7/22/25 FIRST SUBMITTAL ROW COMMENTS



VICINITY MAP
SCALE: 1" = 2000'

PLAT NOTES

1. NOTICE: ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVER SUCH DEFECT. IN NO EVENT MAY ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF THE CERTIFICATION SHOWN HEREON.

2. THE LINEAL UNIT USED AND SHOWN HEREON IS U.S. SURVEY FOOT AND DECIMALS THEREOF. A U.S. SURVEY FOOT IS DEFINED AS EXACTLY 1200/3937 METERS. THE BEARINGS AND DISTANCES SHOWN HEREON ARE AS MEASURED UNLESS OTHERWISE NOTED.

3. ALL NOTES, DEDICATIONS AND PLAT RESTRICTIONS, AS SHOWN ON THE PLAT OF FADEN SUBDIVISION RECORDED AT RECEPTION NO. 803857 IN THE RECORDS OF ADAMS COUNTY, COLORADO SHALL APPLY UNLESS SPECIFICALLY AMENDED AND SUPERSEDED HEREBY.

4. THIS SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY R.W. BAYER & ASSOCIATES, INC. OF THE PROPERTY SHOWN AND DESCRIBED HEREIN TO DETERMINE OWNERSHIP OF THE TRACT OF LAND, COMPATIBILITY OF THIS DESCRIPTION WITH THOSE OF ADJACENT TRACTS OF LAND OR RIGHTS–OF–WAY, EASEMENTS OR ENCUMBRANCES OF RECORD AFFECTING THIS TRACT OF LAND. R.W. BAYER & ASSOCIATES, INC. HAS RELIED UPON OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY COMMITMENT NO. RND70867390, EFFECTIVE APRIL 22, 2025 AT 5:00 PM, FOR OWNERSHIP AND FOR THE PURPOSE OF SHOWING RECORDED EASEMENTS AND RIGHT–OF–WAY ACROSS THESE PREMISES.

5. THIS PARCEL OF LAND LIES WITHIN ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 1% ANNUAL CHANCE FLOODPLAIN) AS DELINEATED IN THE FEMA FLOOD INSURANCE RATE MAP, MAP NO. 08001C0606H EFFECTIVE MARCH 5, 2007.

6. BASIS OF BEARINGS: THE SOUTH LINE OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 20, TOWNSHIP 2 SOUTH, RANGE 67 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF ADAMS, STATE OF COLORADO, BEING MONUMENTED ON THE WEST END BY A 2" ALUMINUM CAP, PLS 23519 AND ON THE EAST END BY A 3–1/4" ALUMINUM CAP, PLS 38318, IS ASSUMED TO BEAR N89°57'30"W. ALL BEARINGS SHOWN HEREON ARE RELATIVE THERETO.

PLAT NOTES: (CONTINUED)

7. THE POLICY OF THE COUNTY REQUIRES THAT MAINTENANCE ACCESS BE PROVIDED TO ALL STORM DRAINAGE FACILITIES TO ASSURE CONTINUOUS OPERATIONAL CAPABILITY OF THE SYSTEM. THE PROPERTY OWNERS SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL DRAINAGE FACILITIES INCLUDING INLETS, PIPES, CULVERTS, CHANNELS, DITCHES, HYDRAULIC STRUCTURES, AND DETENTION BASINS LOCATED ON THEIR LAND UNLESS MODIFIED BY SUBDIVISION DEVELOPMENT AGREEMENT. SHOULD THE OWNER FAIL TO ADEQUATELY MAINTAIN SAID FACILITIES, THE COUNTY SHALL HAVE THE RIGHT TO ENTER SAID LAND FOR THE SOLE PURPOSE OF OPERATIONS AND MAINTENANCE. ALL SUCH MAINTENANCE COSTS WILL BE ASSESSED TO THE PROPERTY OWNER.

8. SIX–FOOT (6') WIDE UTILITY EASEMENTS ARE HEREBY DEDICATED ON PRIVATE PROPERTY ADJACENT TO THE FRONT LOT LINES OF EACH LOT IN THE SUBDIVISION. IN ADDITION, EIGHT–FOOT (8') WIDE DRY UTILITY EASEMENTS ARE HEREBY DEDICATED AROUND THE PERIMETER OF TRACTS, PARCELS AND/OR OPEN SPACE AREAS. THESE EASEMENTS ARE DEDICATED TO ADAMS COUNTY FOR THE BENEFIT OF THE APPLICABLE UTILITY PROVIDERS FOR THE INSTALLATION, MAINTENANCE, AND REPLACEMENT OF UTILITIES. UTILITY EASEMENTS SHALL ALSO BE GRANTED WITHIN ANY ACCESS EASEMENTS AND PRIVATE STREETS IN THE SUBDIVISION. PERMANENT STRUCTURES, IMPROVEMENTS, OBJECTS, BUILDINGS, WELLS, WATER METERS AND OTHER OBJECTS THAT MAY INTERFERE WITH THE UTILITY FACILITIES OR USE THEREOF (INTERFERING OBJECTS) SHALL NOT BE PERMITTED WITHIN SAID UTILITY EASEMENTS AND THE UTILITY PROVIDERS, AS GRANTEES, MAY REMOVE ANY INTERFERING OBJECTS AT NO COST TO SUCH GRANTEES, INCLUDING, WITHOUT LIMITATION, VEGETATION.

9. ANY PERSON WHO KNOWINGLY REMOVES ALTERS OR DEFACES ANY PUBLIC LAND SURVEY MONUMENT OR LAND BOUNDARY MONUMENT OR ACCESSORY COMMITS A CLASS TWO (2) MISDEMEANOR PURSUANT TO STATE STATUTE 18–4–508, C.R.S.

SURVEYOR'S CERTIFICATE:

I, RAYMOND W. BAYER, A REGISTERED LAND SURVEYOR, REGISTERED IN THE STATE OF COLORADO, DO HEREBY CERTIFY THAT THERE ARE NO ROADS, PIPELINES, IRRIGATION DITCHES OR OTHER EASEMENTS IN EVIDENCE OR KNOWN BY ME TO EXIST ON OR ACROSS THE HEREIN BEFORE DESCRIBED PROPERTY, EXCEPT AS SHOWN ON THIS PLAT. I FURTHER CERTIFY THAT THIS SURVEY WAS PERFORMED BY ME OR UNDER MY DIRECT RESPONSIBILITY, SUPERVISION AND CHECKING, AND THAT THIS PLAT ACCURATELY REPRESENTS SAID SURVEY, AND THAT ALL MONUMENTS EXIST AS SHOWN HEREON.

RAYMOND W. BAYER,
REG P.L.S. NO. 6973

PLANNING COMMISSION APPROVAL:

REVIEWED BY THE ADAMS COUNTY PLANNING COMMISSION
THIS ____ DAY OF _____, 20_____.

_____
CHAIR

BOARD OF COUNTY COMMISSIONERS APPROVAL:

APPROVED BY THE ADAMS COUNTY BOARD OF COUNTY COMMISSIONERS
THIS ____ DAY OF _____, 20_____.

_____
CHAIR

ADAMS COUNTY ATTORNEY'S OFFICE

_____
APPROVED AS TO FORM

CERTIFICATE OF THE CLERK AND RECORDER:

THIS PLAT WAS FILED FOR RECORD IN THE OFFICE OF THE ADAMS COUNTY CLERK AND RECORDED, IN THE STATE OF COLORADO, AT ____:_____.M., ON THE _____ DAY OF _____, A.D., 20_____.

BY: _____ _____
DEPUTY COUNTY CLERK AND RECORDER

RECEPTION NO.: _____

FADEN SUBDIVISION AMENDMENT NO. 1

A SUBDIVISION OF PART OF LOTS 1 AND 2, BLOCK 1, FADEN SUBDIVISION, AND PART OF THE NORTH 7 FEET OF THE SOUTH 1/2 OF THE SOUTH 1/2 OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 20, TOWNSHIP 2 SOUTH,. RANGE 67, BEING A PART OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 20, TOWNSHIP 2 SOUTH, RANGE 67 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF ADAMS, STATE OF COLORADO.
SHEET 2 OF 3 – EXISTING CONDITIONS

CASE NO. PLT2025-00027

N

0 50 100 Feet

SCALE: 1" = 50'

PREPARED BY:

R.W. BAYER & ASSOCIATES, INC.
12170 TEJON STREET, UNIT 700
WESTMINSTER, COLORADO 80234
(303)452-4433
RWBSURVEYING@HOTMAIL.COM
CAD FILE: 22033/22033.DWG

DATE PREPARED: JUNE 6, 2022
REVISED: JULY 22, 2025

LEGEND

- FOUND ALIQUOT MONUMENT AS DESCRIBED
- FOUND 5/8" REBAR & CAP – PLS 9010
- FOUND 5/8" REBAR & CAP – PLS 16112
- SET 5/8" REBAR & CAP – PLS 6973

EAST 88TH AVENUE
200' R.O.W. (BOOK 1575 AT PAGE 126, BOOK 1575 AT PAGE 129, AND BOOK 1666 AT PAGE 330)

NORTH LINE FADEN SUBDIVISION
OVERLAPS WITH EAST 88TH AVENUE RIGHT OF WAY

Δ=44°46'03"
R=616.30'
L=481.54'
ChB=N77°23'01"E
ChL=469.38'

3.8' OVERLAP

5.1' OVERLAP

1.3' OVERLAP

NORTH LINE FADEN SUBDIVISION

WEST LINE BOOK 1666 AT PAGE 330

EAST LINE LOT 1, BLOCK 1, FADEN SUBDIVISION

INTERSTATE-76
R.O.W. WIDTH VARIES
(BOOK 1555 AT PAGE 330)

S05°13'30"W 336.84'

SOUTH LINE BOOK 1575 AT PAGE 129

PARCEL A
LOT 1, BLOCK 1
FADEN SUBDIVISION

N55°00'00"E 405.12'

PARCEL B
LOT 2, BLOCK 1
FADEN SUBDIVISION

PARCEL C
NORTH 7' OF THE SOUTH 1/2 OF THE SOUTH 1/2 OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 20 EXCEPT THAT PART LYING WITHIN HIGHWAYS (PARCEL B, REC. NO. 2019000010713) – OVERLAPS WITH FADEN SUBDIVISION, LOT 1, INTERSTATE INDUSTRIAL PARK, AND PARCELS DESCRIBED IN REC. NO. C108775 AND 2011000052407. PARCEL LINES VACATED BY THIS PLAT

FOUND MONUMENT AT SOUTHEAST CORNER LOT 1, BLOCK 1, FADEN SUBDIVISON
4.9' NORTH AND 1.7' EAST OF SET MONUMENT

PARCEL LINE TO BE VACATED

10' PSCO EASEMENT PER BOOK 2827 AT PAGE 377
(SOUTH 10' OF LOT 1, BLOCK 1, FADEN SUBDIVISION)

1.6' OVERLAP

4.9' LOT LINE

1.7' OVERLAP

4.9' LOT LINE

3.0' OVERLAP

POINT OF BEGINNING
(AS-SURVEYED)

NORTH LINE PARCEL B, REC. NO. 2019000010713
OVERLAPS WITH FADEN SUBDIVISION

N89°57'30"W 759.23'

BOOK 1349
AT PAGE 466

79.63'
N55°00'00"E

SOUTH LINE PARCEL B, REC. NO. 2019000010713
1.7' SOUTH OF PROPERTY LINE

SOUTH LINE FADEN SUBDIVISION

SOUTH LINE PARCEL B, REC. NO. 2019000010713
1.6' SOUTH OF PROPERTY LINE
OVERLAPS WITH LOT 1, INTERSTATE INDUSTRIAL PARK AND PARCELS PER REC. NO. C1088775 AND REC. NO. 2011000052407

2' GAP BETWEEN LEGAL DESCRIPTIONS

UNPLATTED
REC. NO. 2011000052407

UNPLATTED
REC. NO. C1088775

LOT 1, INTERSTATE INDUSTRIAL PARK
REC. NO. A054021

325.00'

WEST LINE SW1/4
SEC. 20 T.2S. R.67W.

N00°32'18"E

N00°04'47"E 279.28'

20' WITNESS CORNER TO THE SOUTHWEST CORNER SW1/4 SEC. 20 T.2S. R.67W.
3-1/4" ALUMINUM CAP
PLS 16406

S89°57'30"E 1335.13'

POINT OF COMMENCEMENT (AS-SURVEYED)
SOUTHWEST CORNER SE1/4 SW1/4 SEC. 20 T.2S. R.67W.
2" ALUMINUM CAP – PLS 23519

SOUTH LINE SE1/4 SW1/4 SEC. 20. T.2S. R.67W.

S89°57'30"E 1335.86'
BASIS OF BEARINGS

SOUTHEAST CORNER SE1/4 SW1/4 SEC. 20 T.2S. R.67W.
3-1/4" ALUMINUM CAP – PLS 38318

FADEN SUBDIVISION AMENDMENT NO. 1

A SUBDIVISION OF PART OF LOTS 1 AND 2, BLOCK 1, FADEN SUBDIVISION, AND PART OF THE NORTH 7 FEET OF THE SOUTH 1/2 OF THE SOUTH 1/2 OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 20, TOWNSHIP 2 SOUTH,. RANGE 67, BEING A PART OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 20, TOWNSHIP 2 SOUTH, RANGE 67 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF ADAMS, STATE OF COLORADO.
SHEET 3 OF 3 – PLATTED CONDITIONS

CASE NO. PLT2025-00027

N

0 50 100 Feet

SCALE: 1" = 50'

PREPARED BY:

R.W. BAYER & ASSOCIATES, INC.
12170 TEJON STREET, UNIT 700
WESTMINSTER, COLORADO 80234
(303)452-4433
RWBSURVEYING@HOTMAIL.COM
CAD FILE: 22033/22033.DWG

DATE PREPARED: JUNE 6, 2022
REVISED: JULY 22, 2025

LEGEND

- FOUND ALIQUOT MONUMENT AS DESCRIBED
- FOUND 5/8" REBAR & CAP – PLS 9010
- FOUND 5/8" REBAR & CAP – PLS 16112
- SET 5/8" REBAR & CAP – PLS 6973

CURVE TABLE					
CURVE #	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C1	96.67	55.00	100°42'29"	S39°44'07"W	84.70
C2	40.86	581.80	4°01'27"	S57°00'43"W	40.85
C3	53.25	605.80	5°02'11"	N57°31'06"E	53.23
C4	53.64	29.00	105°58'08"	N37°06'17"E	46.31

LINE TABLE		
LINE #	BEARING	DISTANCE
L1	S10°37'08"E	42.92
L2	S35°00'00"E	60.22
L3	S55°00'00"W	55.06
L4	N35°00'00"W	56.10
L5	S35°00'00"E	10.50
L6	N15°52'47"W	39.00

EAST 88TH AVENUE
200' R.O.W. (BOOK 1575 AT PAGE 126, BOOK 1575 AT PAGE 129, AND BOOK 1666 AT PAGE 330)

Δ=44°46'03"
R=616.30'
L=481.54'
ChB=N77°23'01"E
ChL=469.38'

L=354.64
Δ=32°58'12"

L=32.91
L=103.44
L=126.90
Δ=11°47'51"

L6
L1
C4
C1
C3
C2

S89°54'39"E 140.52'
N89°54'39"W 140.61'

ACCESS EASEMENT DEDICATED BY THIS PLAT

8' UTILITY EASEMENT DEDICATED BY THIS PLAT

10.5'
6.0'
24.0' ACCESS EASEMENT DEDICATED BY THIS PLAT

N55°00'00"E 405.12'
N55°00'00"E 214.99'
S55°00'00"W 214.99'

6' UTILITY EASEMENT DEDICATED BY THIS PLAT

LOT 1
2.530 ACRES ±
110,197 SQUARE FEET ±

N00°02'30"E 294.30'

S05°13'30"W 336.84'

INTERSTATE-76
R.O.W. WIDTH VARIES
(BOOK 1555 AT PAGE 330)

L5
S35°00'00"E 94.72'
L2
N55°00'00"E 110.13'

LOT 2
1.561 ACRES ±
68,000 SQUARE FEET ±

DRAINAGE EASEMENT DEDICATED BY THIS PLAT

L4
79.99'
L3

10' PSCO EASEMENT PER BOOK 2827 AT PAGE 377
(SOUTH 10' OF LOT 1, BLOCK 1, FADEN SUBDIVISION)

8' UTILITY EASEMENT DEDICATED BY THIS PLAT

4.9'

POINT OF BEGINNING
(AS-SURVEYED)

97.70' 67.27' 442.32' 316.91'

N89°57'30"W 759.23'

BOOK 1349
AT PAGE 466

79.63'
N55°00'00"E

WEST LINE SW1/4
SEC. 20 T.2S. R.67W.

N00°32'18"E

N00°04'47"E 279.28'

325.00'

UNPLATTED
REC. NO. 2011000052407

UNPLATTED
REC. NO. C1088775

LOT 1, INTERSTATE
INDUSTRIAL PARK
REC. NO. A054021

20' WITNESS CORNER TO THE
SOUTHWEST CORNER SW1/4
SEC. 20 T.2S. R.67W.
3-1/4" ALUMINUM CAP
PLS 16406

S89°57'30"E 1335.13'

POINT OF COMMENCEMENT (AS-SURVEYED)
SOUTHWEST CORNER SE1/4 SW1/4 SEC. 20 T.2S. R.67W.
2" ALUMINUM CAP – PLS 23519

SOUTH LINE SE1/4 SW1/4 SEC. 20. T.2S. R.67W.

S89°57'30"E 1335.86'
BASIS OF BEARINGS

SOUTHEAST CORNER SE1/4 SW1/4 SEC. 20 T.2S. R.67W.
3-1/4" ALUMINUM CAP – PLS 38318

CONSTRUCTION DRAWINGS - GRADING AND STORMWATER

6300 EAST 88TH AVENUE - WEST

SITUATED IN THE SOUTHWEST QUARTER OF SECTION 20
TOWNSHIP 2 SOUTH, RANGE 67 WEST OF THE SIXTH PRINCIPAL MERIDIAN,
COUNTY OF ADAMS, STATE OF COLORADO

ADAMS COUNTY GENERAL CONSTRUCTION NOTES:

1. A PRE-CONSTRUCTION MEETING IS REQUIRED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. TO SCHEDULE A PRE-CONSTRUCTION MEETING CONTACT THE ADAMS COUNTY CONSTRUCTION INSPECTOR SUPERVISOR AT 720-523-6965.
2. ALL CONCRETE CURB, GUTTER AND WALK MUST BE POURED MONOLITHICALLY USING 4,500 psi CONCRETE WITH FIBER MESH.
3. ALL MATERIAL SUBMITTALS MUST BE APPROVED, STAMPED AND SIGNED, BY THE ENGINEER OF RECORD AND, SUBMITTED TO THE ADAMS COUNTY CONSTRUCTION INSPECTOR FOR APPROVAL PRIOR TO CONSTRUCTION/INSTALLATION.
4. THE CONTRACTOR IS REQUIRED TO SUBMIT COPIES OF ALL CONCRETE AND ASPHALT TICKETS TO THE ADAMS COUNTY CONSTRUCTION INSPECTOR.
5. THE CONTRACTOR IS RESPONSIBLE FOR ALL QUALITY CONTROL TESTING AND, IS REQUIRED TO SUBMIT ALL TEST RESULTS TO THE ADAMS COUNTY CONSTRUCTION INSPECTOR.
6. THE CONTRACTOR IS REQUIRED TO REMOVE A MINIMUM OF TWO (2) FEET OF EXISTING ASPHALT FOR ALL CURB AND GUTTER REPLACEMENT.
7. ALL UTILITY CUTS IN EXISTING STREETS ARE REQUIRED TO BE BACKFILLED WITH FLOWFILL AND, PATCHED WITH A MINIMUM OF 9-INCH ASPHALT PATCH.
8. A COPY OF THE GEOTECHNICAL REPORT SPECIFYING THE PAVEMENT THICKNESS DESIGN MUST BE SUBMITTED FOR REVIEW.
9. PERMITS WILL BE REQUIRED FOR THE INSTALLATION OF ALL UTILITIES. THE DEVELOPER/CONTRACTOR/ENGINEER, MUST SUPPLY THE LINEAL FOOTAGES AND THE NUMBER OF SERVICE CUTS REQUIRED FOR ALL UTILITIES.
10. PERMITS WILL BE REQUIRED FOR THE INSTALLATION OF ALL CONCRETE AND ASPHALT FACILITIES. PRIOR TO THE ISSUANCE OF THESE PERMITS, THE DEVELOPER/CONTRACTOR/ENGINEER, MUST SUPPLY THE SQUARE YARDAGE/SQUARE FOOTAGES OF ALL CONCRETE AND ASPHALT BEING INSTALLED.
11. THE SIA MUST BE COMPLETED WITH APPROPRIATE COLLATERAL, ALONG WITH THE PROPOSED PLAT, PRIOR TO THE ISSUANCE OF ANY ROW ACCESS/CONSTRUCTION PERMIT.
12. NO C.O.'S WILL BE ISSUED FOR ANY BUILDING CONSTRUCTION UNTIL ALL ROW IMPROVEMENTS HAVE BEEN COMPLETED AND HAVE BEEN GRANTED PRELIMINARY ACCEPTANCE.
13. UPON COMPLETION OF ALL CONSTRUCTION, A DRAINAGE CERTIFICATION LETTER, AND APPROPRIATE AS-BUILT CONSTRUCTION DRAWINGS AND INFORMATION WILL BE REQUIRED. THIS LETTER WILL BE STAMPED AND SIGNED BY THE ORIGINAL DESIGN ENGINEER.

VICINITY MAP
1"=1000'

PROJECT CONTACTS:

OWNER:
76 AND 88 LLC
ATTN: FRED ORR
5040 ACOMA STREET
DENVER, CO 80216

CIVIL ENGINEER:
TERRA FORMA SOLUTIONS
ATTN: TODD JOHNSON, PE
303.257.7653

LANDSCAPE:
TIM DUNN LANDSCAPE ARCHITECTURE
ATTN: TIM DUNN
720.350.2411

SURVEYOR:
ENGINEERING SERVICE COMPANY
14190 EAST EVANS AVENUE
AURORA, CO 80014
303.337.1393

LIGHTING:
STUDIO LIGHTNING
ATTN: JACOB BENNEFIELD, LC
63 SUNSET DR.
BAILEY, CO 80421
303.242.1572

LEGAL DESCRIPTION:

LOT 1, BLOCK 1, FADEN SUBDIVSION, COUNTY OF ADAMS STATE OF COLORADO, AND LOT 2, BLOCK 1, FADEN SUBDIVISION, COUNTY OF ADAMS, STATE OF COLORADO, AND THE NORTH 7 FEET OF THE SOUTH 1/2 OF THE SOUTH 1/2 OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4, EXCEPT THAT PART LYING WITHIN THE HIGHWAY, SECTION 20, TOWNSHIP 2 SOUTH, RANGE 67 WEST OF THE 6TH P.M., COUNTY OF ADAMS, STATE OF COLORADO.

BENCHMARK:

ADAMS COUNTY CONTROL MONUMENT NUMBER 0212 - 3 - 1/4" DIAMETER ALUMINUM CAP (STAMPED 95 0212 1995 2S67W S 20) ATOP AN ALUMINUM ROD LOCATED AT THE SOUTHWEST CORNER OF THE INTERSECTION OF INTERSTATE HIGHWAY 76 AND EAST 88TH AVENUE. 0.05 MI SOUTHEAST OF THE CENTER LINE OF E. 88TH AVE, AND 39 FT SOUTHWEST OF THE CENTERLINE OF OLD 88TH AVE.

ELEVATION: 5103.29 FEET (NAVD 1988 DATUM).

BASIS OF BEARINGS:

BEARINGS ARE BASED ON THE SOUTH LINE OF THE SE 1/4 OF THE SW $\frac{1}{4}$ SECTION 20, TOWNSHIP 2 SOUTH, RANGE 67 WEST, OF THE 6TH PRINCIPAL MERIDIAN BEARING N89°57'30"W BOUND BY THE MONUMENTS SHOWN HEREON.

SHEET LIST TABLE

SHEET NUMBER	SHEET TITLE	SHEET DESCRIPTION
1	COVER SHEET	CS1
2	EXISTING CONDITIONS AND DEMOLITION PLAN	EX1
3	SITE PLAN	SP1
4	GRADING PLAN	GR1
5	EXTENDED DETENTION BASIN PLAN	EDB1
6	OUTLET STRUCTURE DETAILS	OS1

811
UNCC
CALL BEFORE
YOU DIG
811
OR
1-800-922-1987
UTILITY NOTIFICATION
CENTER OF COLORADO

TERRA FORMA SOLUTIONS

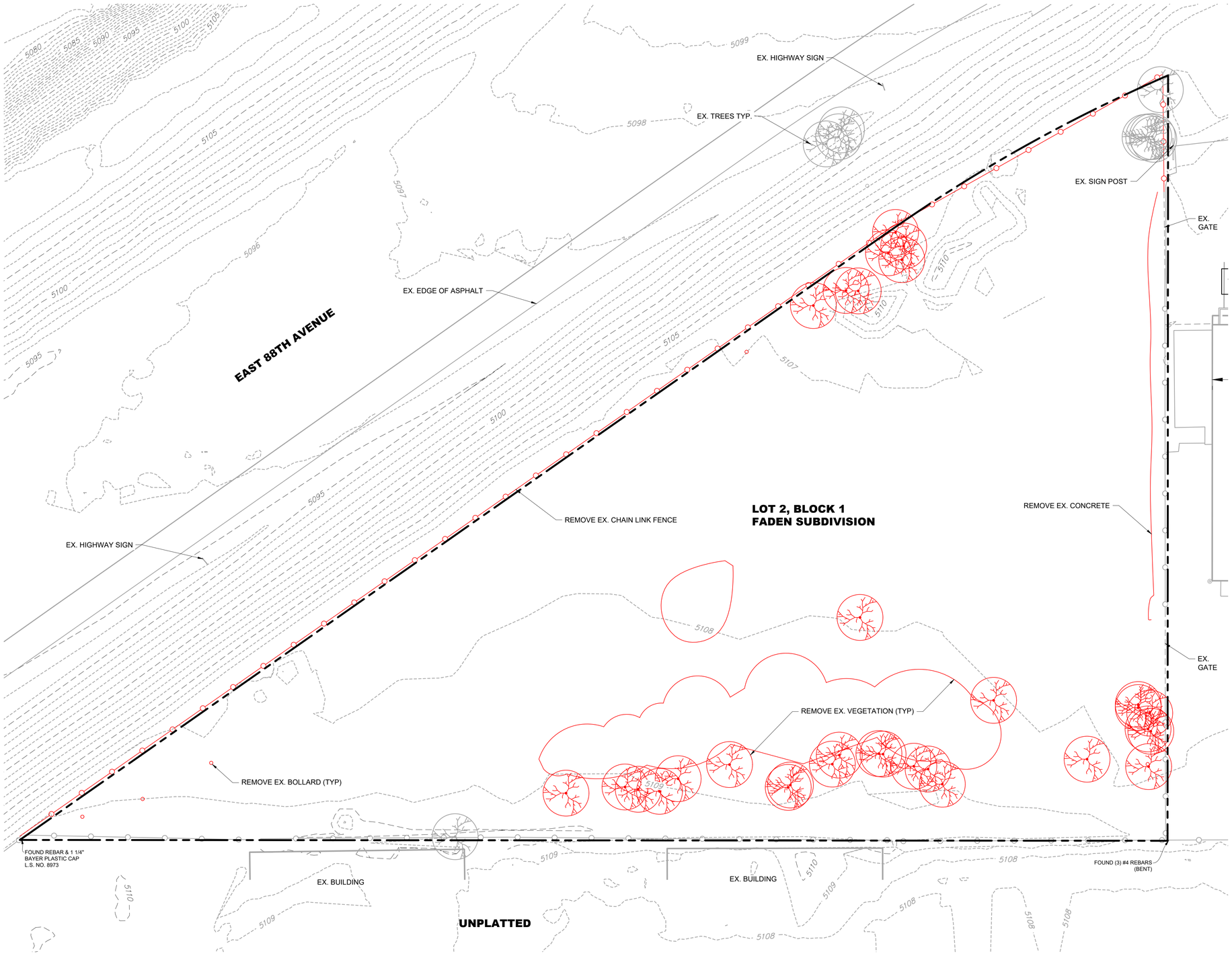
REV. NO.	DESCRIPTION	DATE
2	REVISED PER BOUNDARY UPDATES	5/19/2025
1	REVISED PER COUNTY COMMENTS	10/1/2024

PERF 88 LLC
CONSTRUCTION DRAWINGS
6300 E. 88TH AVENUE - WEST
COVER SHEET
6300 E. 88TH AVENUE
ADAMS COUNTY, COLORADO

COLORADO LICENSED
37660
5/19/25
PROFESSIONAL ENGINEER

PROJ NO: 6300
ENG :
DATE : 8/22/2023

SHEET NUMBER
CS1
1 OF 6



EXISTING CONDITIONS NOTES:

1. TOPOGRAPHIC SURVEY FIELD WORK COMPLETED BY ENGINEERING SERVICE COMPANY ON JANUARY 8, 2020.
2. THE UNDERGROUND UTILITY INFORMATION SHOWN HAS BEEN DERIVED FROM MULTIPLE SOURCES INCLUDING, BUT NOT LIMITED TO, TOPOGRAPHIC SURVEY AND THE LOCAL MUNICIPALITY/DISTRICT. THE ACCURACY AND COMPLETENESS OF THIS INFORMATION CANNOT BE GUARANTEED AND THE CONTRACTOR SHALL CONFIRM UNDERGROUND UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

DEMOLITION PLAN NOTES:

1. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL CONTACT AND COORDINATE WITH THE RESPECTIVE UTILITY COMPANIES FOR ANY REMOVAL AND/OR RELOCATION OF UTILITIES SHOWN ON THESE PLANS.
2. SHOULD THE DEMOLITION/CONSTRUCTION ACTIVITIES DAMAGE ANY SITE FEATURES NOT INDICATED FOR REMOVAL, THE CONTRACTOR SHALL REPLACE AND/OR RESTORE THE DAMAGED FEATURES TO THEIR ORIGINAL CONDITION AT NO ADDITIONAL COST.
3. ALL EROSION AND SEDIMENT CONTROL BMPs SHALL BE INSTALLED PRIOR TO ANY DEMOLITION ACTIVITIES.

LEGEND

- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PAVEMENT/SIDEWALK REMOVAL, FULL DEPTH
- SAWCUT PAVEMENT, FULL DEPTH
- EX. IMPROVEMENTS TO BE REMOVED

811

1-800-922-1987
UTILITY NOTIFICATION
CENTER OF COLORADO

0 20' 40'
1" = 20' (HORIZONTAL)

TERRA FORMA SOLUTIONS

REV. NO.	DESCRIPTION	DATE
2	REVISED PER BOUNDARY UPDATES	5/19/2025
1	REVISED PER COUNTY COMMENTS	10/1/2024

PERF 88 LLC

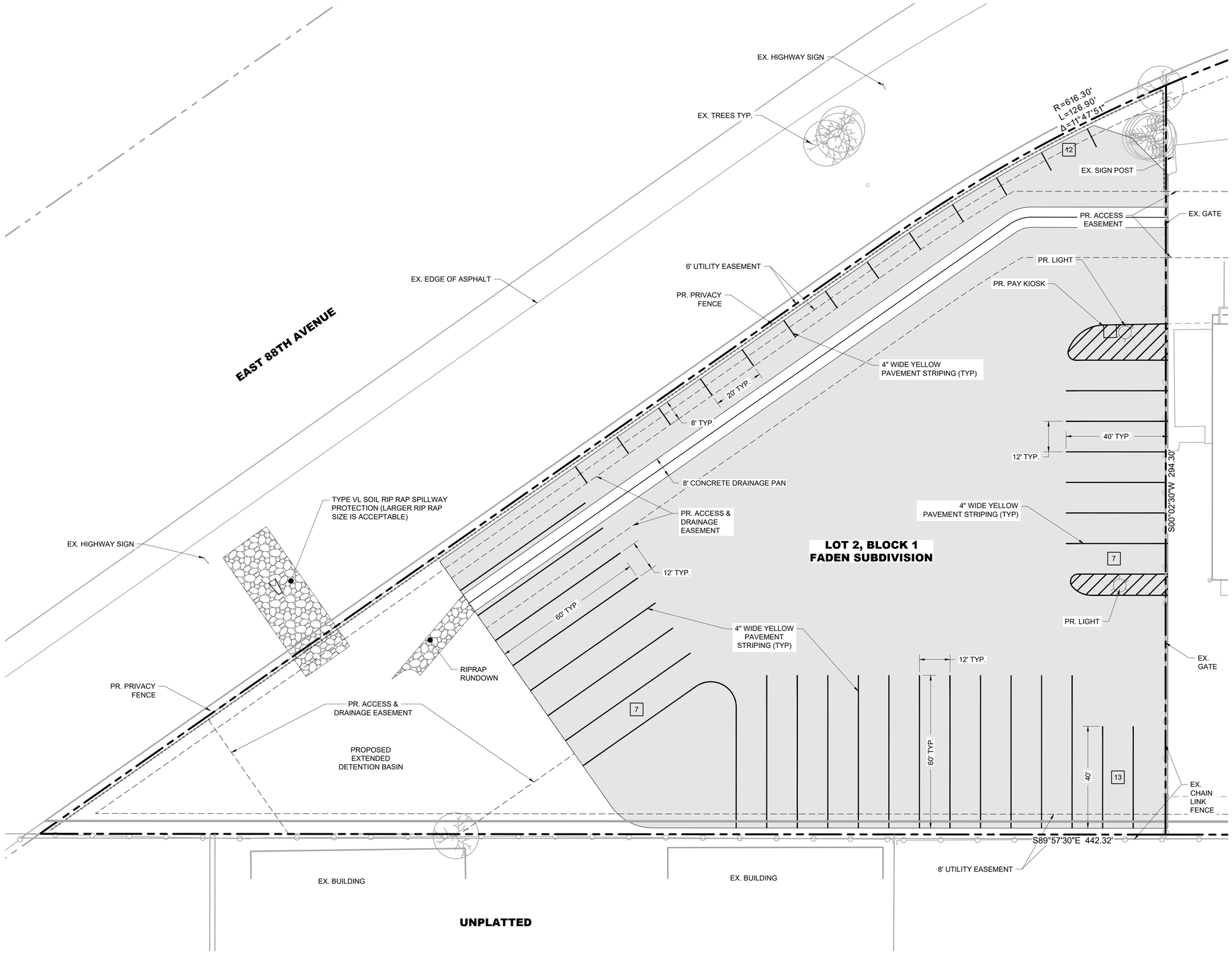
CONSTRUCTION DRAWINGS
6300 E. 88TH AVENUE - WEST
EXISTING CONDITIONS AND DEMOLITION PLAN

6300 E. 88TH AVENUE
ADAMS COUNTY, COLORADO

COLORADO LICENSED
37660
5/19/25
PROFESSIONAL ENGINEER

PROJ NO: 6300
ENG :
DATE : 8/22/2023

SHEET NUMBER
EX1
2 OF 6



SITE PLAN NOTES:

1. ALL DIMENSIONS ARE FLOWLINE TO FLOWLINE UNLESS OTHERWISE NOTED.
2. ALL IMPROVEMENTS ARE PARALLEL AND PERPENDICULAR TO THE SOUTH AND NORTHWEST PROPERTY LINES UNLESS OTHERWISE NOTED.

SITE DATA TABLE	
SITE AREA	±1.56 AC
20' PARALLEL PARKING STALLS	12
40' PARKING STALLS	9
60' PARKING STALLS	18
TOTAL PARKING STALLS	39

LEGEND

- [#] PARKING COUNT
- ASPHALT PAVEMENT MATCH EXISTING
- LIGHT POLE
- PERIMETER PRIVATE / SCREEN FENCE

811 UNCC CALL BEFORE YOU DIG 811 OR 1-800-922-1987 UTILITY NOTIFICATION CENTER OF COLORADO

0 20' 40'
1" = 20' (HORIZONTAL)

TERRA FORMA SOLUTIONS

REV. NO.	DESCRIPTION	DATE
2	REVISED PER BOUNDARY UPDATES	5/19/2025
1	REVISED PER COUNTY COMMENTS	10/1/2024

PERF 88 LLC

CONSTRUCTION DRAWINGS
6300 E. 88TH AVENUE - WEST
SITE PLAN

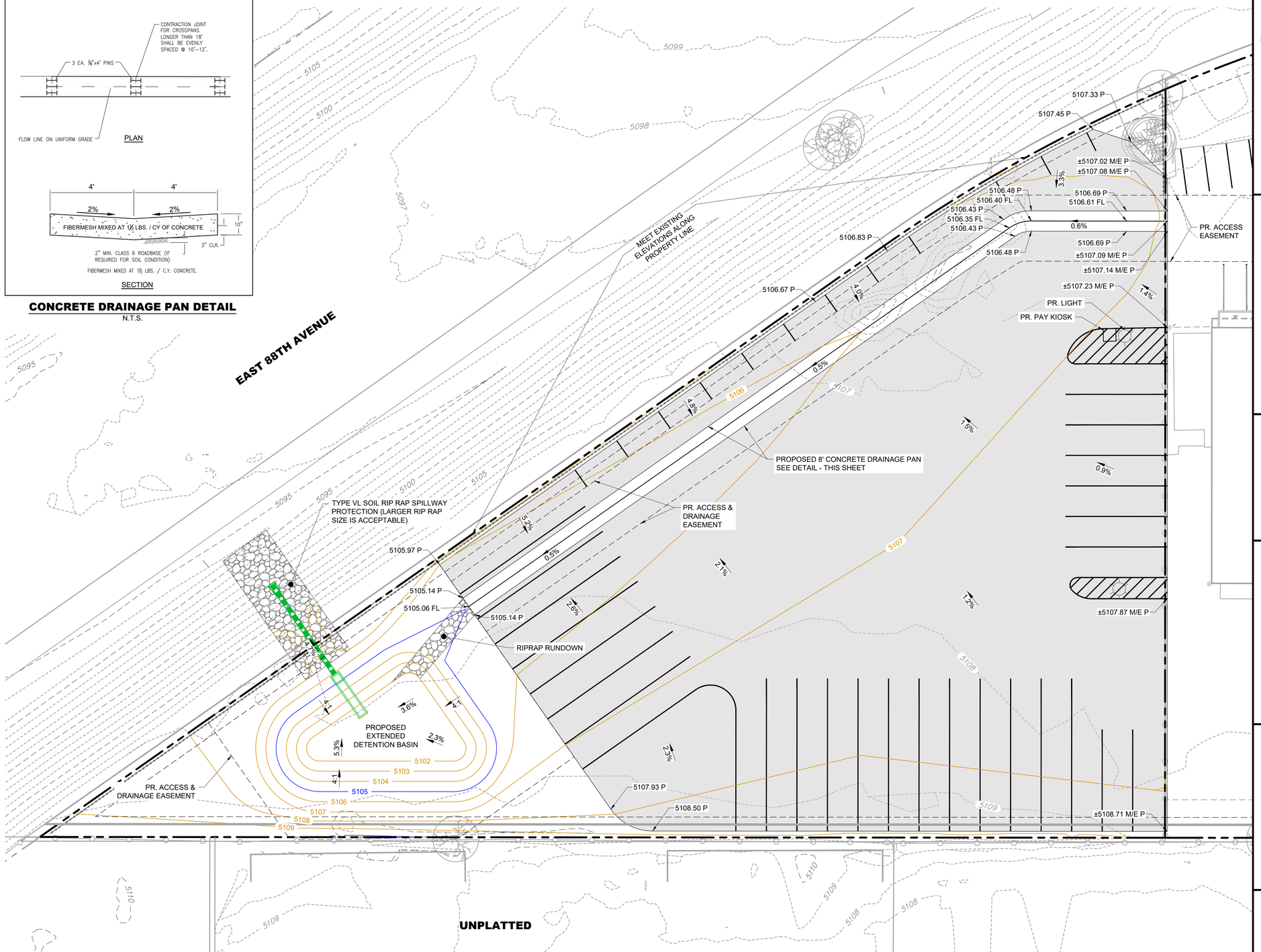
6300 E. 88TH AVENUE
ADAMS COUNTY, COLORADO

COLORADO LICENSED PE 37660 5/19/25 PROFESSIONAL ENGINEER

PROJ NO: 6300
ENG :
DATE : 8/22/2023

SHEET NUMBER
SP1
3 OF 6

CONCRETE DRAINAGE PAN DETAIL
N.T.S.



GRADING PLAN NOTES:

1. CONTRACTOR TO REFER TO THE GEOTECHNICAL REPORT TO ENSURE ALL SUBGRADE PREPARATION REQUIREMENTS, PAVEMENT RECOMMENDATIONS, MINIMUM SLOPE REQUIREMENTS , AND ALL OTHER APPLICABLE REQUIREMENTS ARE MET.
2. RETAINING WALL DESIGN BY OTHERS.

LEGEND

100.00	SPOT ELEVATION
100	PROPOSED MAJOR CONTOUR
100	PROPOSED MINOR CONTOUR
100	EXISTING MAJOR CONTOUR
100	EXISTING MINOR CONTOUR
	DRAINAGE FLOW ARROW

GRADING ABBREVIATIONS

HP	HIGH POINT
LP	LOW POINT
GF	GRADE AT FOUNDATION
FF	FINISHED FLOOR
P	PAVEMENT
SW	SIDEWALK
FL	FLOWLINE
G	GROUND
M/E	MEET EXISTING

UNCC
CALL BEFORE
YOU DIG
811
OR
1-800-922-1987
UTILITY NOTIFICATION
CENTER OF COLORADO

0 20' 40'
1" = 20' (HORIZONTAL)

TERRA FORMA SOLUTIONS

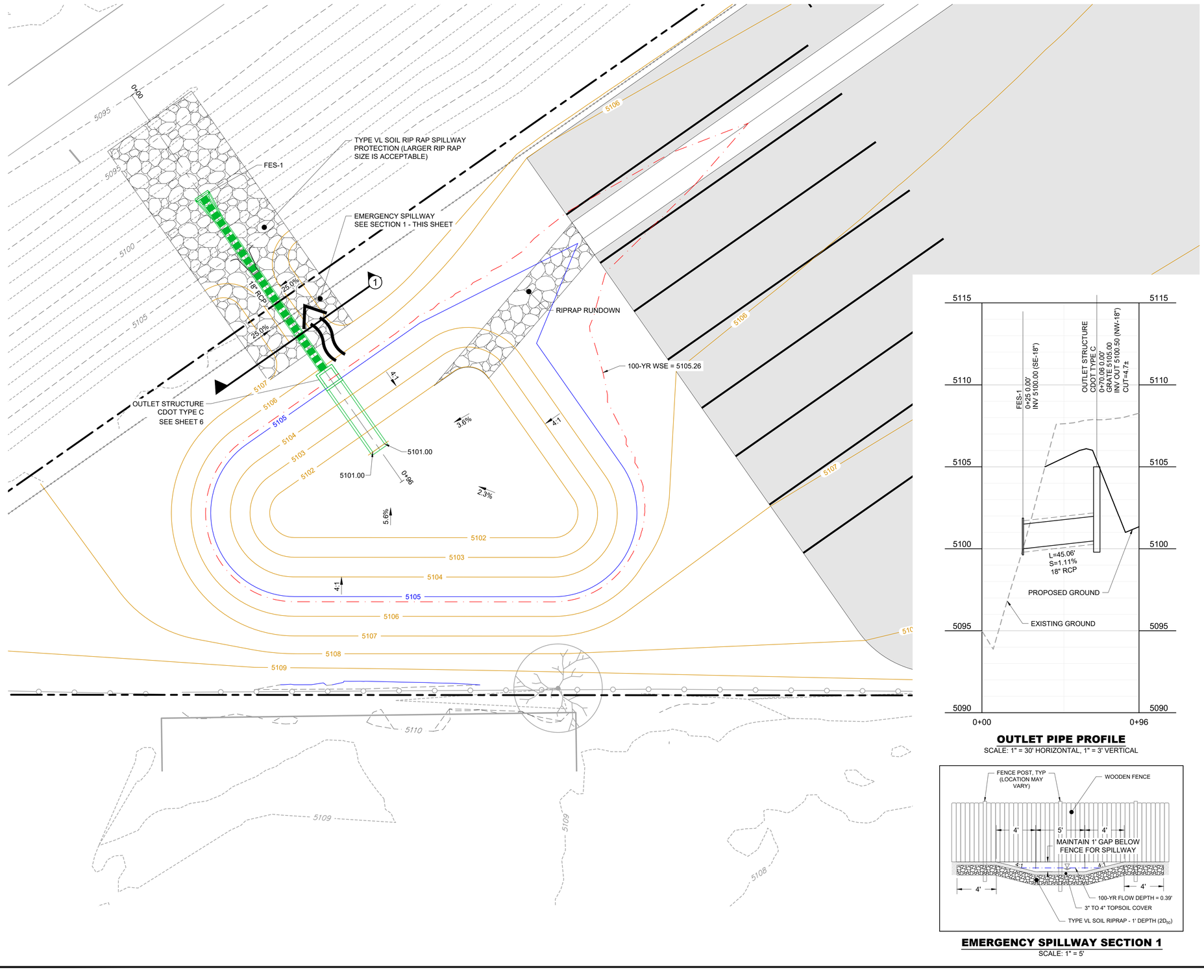
REV. NO.	DESCRIPTION	DATE
2	REVISED PER BOUNDARY UPDATES	5/19/2025
1	REVISED PER COUNTY COMMENTS	10/1/2024

PERF 88 LLC
CONSTRUCTION DRAWINGS
6300 E. 88TH AVENUE - WEST
GRADING PLAN
6300 E. 88TH AVENUE
ADAMS COUNTY, COLORADO

COLORADO LICENSED
37660
5/19/25
PROFESSIONAL ENGINEER

PROJ NO: 6300
ENG :
DATE : 8/22/2023

SHEET NUMBER
GR1
4 OF 6



OUTLET PIPE PROFILE
SCALE: 1" = 30' HORIZONTAL, 1" = 3' VERTICAL

EMERGENCY SPILLWAY SECTION 1
SCALE: 1" = 5'

STORM SEWER NOTES:

1. ALL STORM SEWER PIPES WITHIN THE PUBLIC RIGHT-OF-WAY MUST BE RCP CLASS III MATERIAL. IN THE EVENT THAT THE SOIL CHEMISTRY IS NOT CONDUCIVE TO THIS TYPE OF MATERIAL, THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY SO THAT THEY CAN PROPOSE SOLUTIONS TO ADAMS COUNTY PUBLIC WORKS DEPARTMENT STAFF TO MITIGATE THE SITUATION IF IT SHOULD ARISE.
2. ALL NEW UNDERGROUND FACILITIES, INCLUDING STORM SEWER, MUST BE ELECTRONICALLY LOCATABLE IN COMPLIANCE WITH COLORADO REVISED STATE STATUTE 2018, TITLE 9, ARTICLE 1.5, 9-1.5-103. SEE THE ADAMS COUNTY "STORM SEWER - TRACER WIRE SPECIFICATION" FOR MATERIAL AND INSTALLATION REQUIREMENTS.

LEGEND

- PROPOSED STORM PIPE
- PROPOSED STORM MANHOLE
- PROPOSED FLARED END SECTION
- EXISTING STORM PIPE
- EXISTING STORM MANHOLE

811
1-800-922-1987
UTILITY NOTIFICATION CENTER OF COLORADO

0 10' 20'
1" = 10' (HORIZONTAL)

TERRA FORMA SOLUTIONS

REV. NO.	DESCRIPTION	DATE
2	REVISED PER BOUNDARY UPDATES	5/19/2025
1	REVISED PER COUNTY COMMENTS	10/1/2024

PERF 88 LLC

CONSTRUCTION DRAWINGS
6300 E. 88TH AVENUE - WEST
EXTENDED DETENTION BASIN PLAN

6300 E. 88TH AVENUE
ADAMS COUNTY, COLORADO

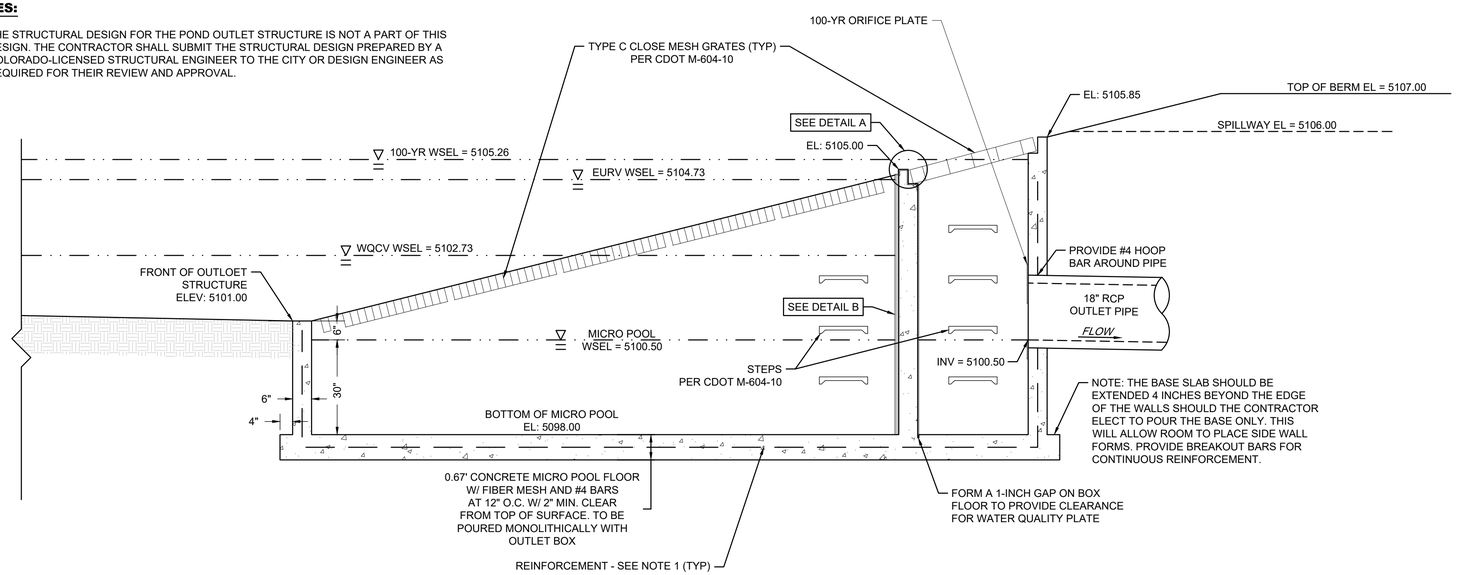
COLORADO LICENSED PROFESSIONAL ENGINEER
37660
5/19/25

PROJ NO: 6300
ENG :
DATE : 8/22/2023

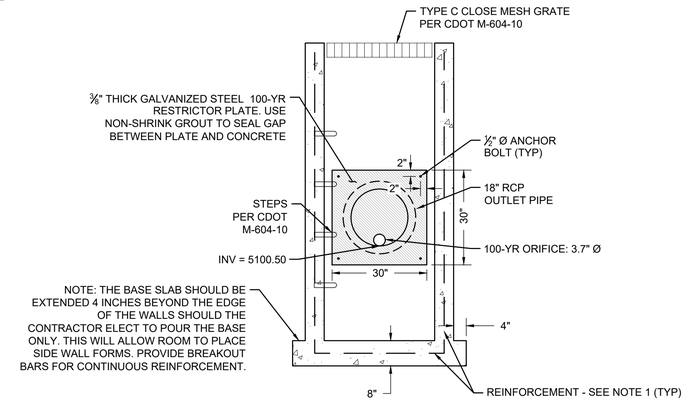
SHEET NUMBER
EDB1
5 OF 6

NOTES:

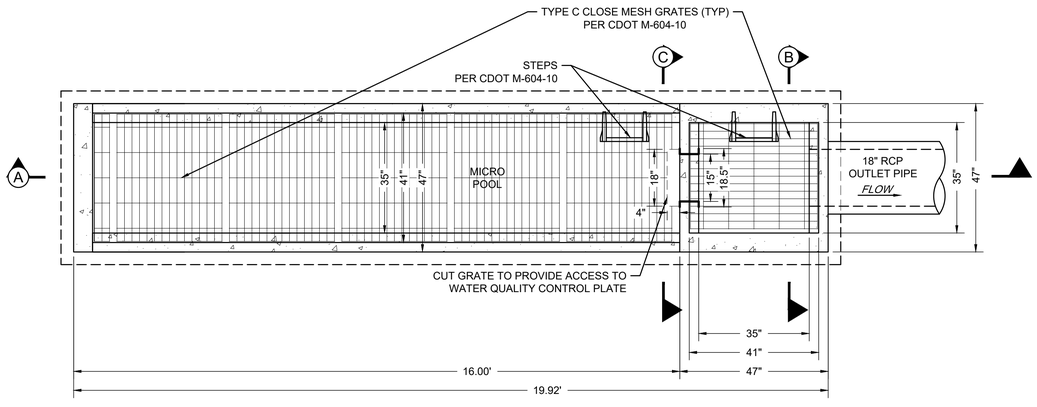
1. THE STRUCTURAL DESIGN FOR THE POND OUTLET STRUCTURE IS NOT A PART OF THIS DESIGN. THE CONTRACTOR SHALL SUBMIT THE STRUCTURAL DESIGN PREPARED BY A COLORADO-LICENSED STRUCTURAL ENGINEER TO THE CITY OR DESIGN ENGINEER AS REQUIRED FOR THEIR REVIEW AND APPROVAL.



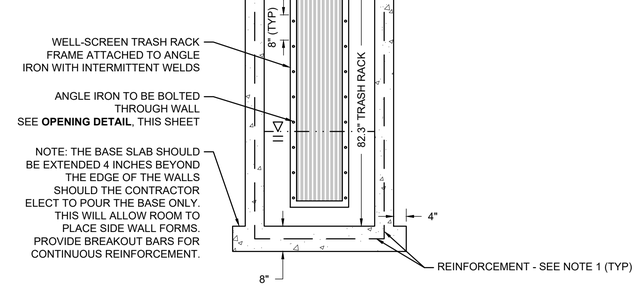
SECTION A - OUTLET STRUCTURE
1"=2'



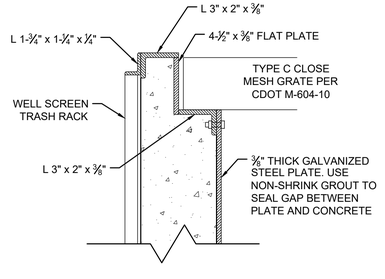
SECTION B - 100-YR ORIFICE
1"=2'



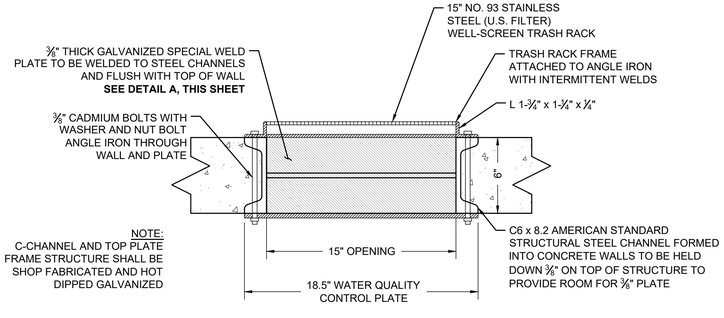
OUTLET STRUCTURE
1"=2'



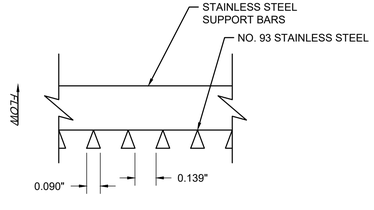
SECTION C
1"=2'



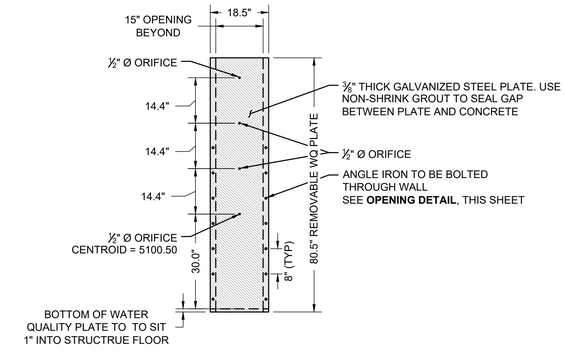
DETAIL A
1"=0.5'



OPENING DETAIL
1"=0.5'



DETAIL B
1"=0.5'



WATER QUALITY CONTROL PLATE DETAIL
1"=2'

TERRA FORMA SOLUTIONS

REV. NO.	DESCRIPTION	DATE
2	REVISED PER BOUNDARY UPDATES	5/19/2025
1	REVISED PER COUNTY COMMENTS	10/1/2024

PERF 88 LLC

CONSTRUCTION DRAWINGS
6300 E. 88TH AVENUE - WEST
OUTLET STRUCTURE DETAILS

6300 E. 88TH AVENUE
ADAMS COUNTY, COLORADO

GRADO LICENSED 37660 5/19/25 PROFESSIONAL ENGINEER

PROJ NO: 6300
ENG :
DATE : 8/22/2023

SHEET NUMBER
OS1
6 OF 6

6300 EAST 88TH PARKING LOT EXPANSION

FINAL DRAINAGE REPORT

AUGUST 2023

REVISED OCTOBER 2024

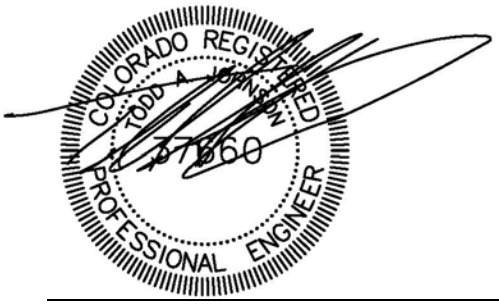
REVISED MAY 2025

For:
76 AND 88 LLC
5040 Acoma Street
Denver, CO 80216
Contact: Fred Orr

By:
Terra Forma Solutions, Inc.
Todd Johnson, P.E.
Todd@terraformas.com
303.257.7653

ENGINEER'S CETRIFICATION OF DRAIANGE REPORT

I hereby certify that this Final Drainage Report and Plan for the development, 6300 East 88th Parking Lot Expansion, was prepared by me (or under my direct supervision) in accordance with the provisions of Adams County Storm Drainage Design and Stormwater Quality Regulations for the owners thereof. I understand that Adams County does not and will not assume liability for drainage facilities designed by others.



5/19/25

Todd Johnson, P.E. Date
State of Colorado No. 37660
For and on behalf of Terra Forma Solutions, Inc.

DEVELOPER CERTIFICATION OF DRAIANGE FACILITIES

76 and 88 LLC hereby certifies that the drainage facilities for the 6300 East 88th Parking Lot Expansion shall be constructed according to the design presented in this report. I understand that Adams County does not and will not assume liability for the drainage facilities designed and/ or certified by my engineer. I understand that Adams County reviews drainage plans pursuant to Colorado Revised Statues Title 30, Article 28; but cannot, on behalf of the 6300 East 88th Parking Lot Expansion, guarantee that final drainage design review will absolve 76 and 88 LLC and/ or their successors and/ or assigns the future liability for improper design. I further understand that approval of the Final Plat and/ or Final Development Plan does not imply approval of my engineer's drainage design.

Name of Developer (please print)

Authorized Signature

TABLE OF CONTENTS

A. INTRODUCTION 4
1. Location 4
2. Description of Property 5
B. HISTORIC DRAINAGE 5
1. Overall Basin Description 5
2. Drainage Patterns Through the Property 5
3. Outfalls Downstream from Property 5
C. DESIGN CRITERIA 5
1. List References 5
2. Hydrologic Criteria 6
3. Hydraulic Criteria 6
D. DRAINAGE PLAN 6
1. General Concept 6
2. Specific Details 7
3. Low Impact Development (LID) 7
E. CONCLUSIONS 7
1. Compliance with Standards 7
2. Summary of Concept 7
F. LIST OF REFERENCES 8
APPENDIX A – Referenced Maps
APPENDIX B – Hydrologic Calculations
APPENDIX C – Hydraulic Calculations
APPENDIX D – Referenced Material
APPENDIX E – Drainage Plans

I. INTRODUCTION

The purpose of this report is to present the drainage plan for the proposed development of a parking lot expansion at 6300 E 88th Ave. This report includes drainage analysis and design information in general conformance with the standards and specifications of Adams County and the Mile High Flood District.

A. Location

- The project is located west of the intersection of I-76 and East 88th Avenue at 6300 E 88th Avenue.
- The site is bordered to the north and west by East 88th Avenue, to the east by an existing auto repair shop, and to the south by an existing industrial development.
- The site lies within the southwest quarter of Section 20, Township 2 South, Range 67 West of the 6th Principal Meridian in the County of Adams, State of Colorado.
- Approximate geodetic coordinates for the site are 39°51'27"N, 104°54'58"W
- See Vicinity Map below for overall site location:

VICINITY MAP

B. Description of Property

- The 6300 East 88th Parking Lot Expansion site will contain approximately 1.56 acres of land that is currently unoccupied and undeveloped.
- The existing site is very flat and drains north to the existing roadside ditch of East 88th Avenue with slopes ranging from 0.5% to 3%.
- Soil types in the project area as identified by the Natural Resources Conservation Service (NRCS) are as follows:

Hydrologic Soil Group— Adams County Area				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
VoA	Vona sandy loam, 0 to 1 percent slopes	A	1.7	100%

- See Appendix A for soils map.
- The proposed 6300 East 88th Parking Lot Expansion Site will consist of a paved parking lot with approximately 39 truck and car parking stalls, as well as an on-site Extended Detention Basin (EDB) to collect and treat runoff from the proposed parking expansion.
- There are no variances requested from Adams County at this time.

II. HISTORIC DRAINAGE

A. Overall Basin Description

- According to the Mile High Flood District General Data Viewer Map, the proposed 6300 East 88th Parking Lot Expansion Site is located within the Irondale Gulch Watershed and is ultimately tributary to the South Platte River.
- The site is contained within FEMA Flood Insurance Rate Maps (FIRM) Panel 08001C0606H. As illustrated on this panel, the site is not within any mapped floodplains or floodways. See Appendix A for FEMA Firmette.

B. Drainage Patterns Through the Property

- The existing site is very flat and its entirety sheet flows north to the existing roadside ditch on the southeast side of East 88th Avenue.

C. Outfalls Downstream from Property

- The site directly outfalls into the existing roadside ditch bordering the site along the southeast side of East 88th Avenue.

III. DESIGN CRITERIA

A. List References

- The Drainage Plan presented within this Final Drainage Report has been designed in accordance with the following criteria:
    - Urban Storm Drainage Criteria Manual, Volumes 1, 2, and 3, Mile High Flood District, latest editions (USDCM).

- Chapter 9 - Adams County Storm Drainage Design and Stormwater Quality Control Regulations, Adams County, December 8, 2020.

B. Hydrologic Criteria

- Peak storm runoff was determined using the Rational Formula: Q=CIA
- Design storm recurrence intervals are as follows:
  - 5-year storm for the minor event, with a 1-hour point rainfall value of 1.12 inches taken from NOAA Atlas 14.
  - 100-year storm for the major event, with a 1-hour point rainfall value of 2.47 inches taken from NOAA Atlas 14.
- Percent Impervious and Runoff coefficients have been determined using the equations in USDCM Volume 1's Table 6-4.
- Time of Concentration have been calculated using the equations in USDCM Volume 1, Chapter 6, Section 2.4.
- Rainfall intensities have been calculated with Equation 5-1 in USDCM Volume 1, Chapter 5, Section 4.0 using NOAA Atlas 14 point precipitation values.
- See Appendix B for all hydrologic calculations.

C. Hydraulic Criteria

- Street and Inlet capacity has been analyzed using the Mile High Flood District's UD-Inlet_v4.05.xlsm spreadsheet, as applicable.
- The EDB and outlet structure have been designed using the Mile High Flood District's MHFD-Detention_v4-06.xlsm spreadsheet to size the facility's volume and control its release rates in accordance with Adams County, Mile High Flood District, and the State of Colorado requirements.
- Emergency overflow paths will be provided at all sump locations to safely convey the major storm safely to the existing roadside ditch bordering the site along the southeast side of East 88th Avenue.
- See Appendix C for all hydraulic calculations.

IV. DRAINAGE PLAN

A. General Concept

- The drainage system for the 6300 East 88th Parking Lot Expansion has been designed to safely convey stormwater runoff to the proposed EDB that will provide flood attenuation and water quality treatment for the entirety of the proposed parking lot expansion.
- The proposed EDB will discharge through a proposed outlet structure and pipe system directly into the existing roadside ditch bordering the site along the southeast side of East 88th Avenue.

- Runoff within the proposed parking lot expansion will sheet flow to a proposed concrete pan in the center of the pavement that will flow southwest and discharge directly into the proposed EDB via a riprap rundown.
- The proposed drainage patterns have been developed to preserve natural drainageways and follow historic drainage patterns as closely as possible.
- See Appendix E for the Proposed Drainage Map

B. Specific Details

Detention and Water Quality

- The entirety of the development is tributary to the proposed on-site EDB before being released into the existing roadside ditch on the southeast side of East 88th Avenue. The outlet structure has been designed to provide a 40-hour drain time for the entire Water Quality Capture Volume for the proposed parking lot, achieving 100% of the required water quality treatment for the site. In the event of clogging of the outlet structure, an emergency spillway has been provided that will safely convey the 100-year peak runoff rate from the site to the existing roadside ditch on the southeast side of East 88th Avenue

Basin Descriptions

- There is only one proposed drainage basin for the parking lot expansion, Basin D1.
  - **Basin D1:** Consists of parking lot paving, landscaping, and the EDB.
    - Runoff generated in this basin will sheet flow to a proposed concrete pan in the center of the pavement that will flow southwest and discharge directly into the proposed EDB via a riprap rundown. From there, the proposed EDB will discharge through an outlet structure directly into the existing roadside ditch bordering the site along the southeast side of East 88th Avenue.

C. Low Impact Development (LID)

- The Low Impact Development (LID) emphasizes the conservation of natural features and the use of engineered, on-site, small-scale hydrologic controls that infiltrate, filter, store, evaporate, and detain runoff close to its source.
- LID practices have been incorporated into the design where feasible.
  - The site has avoided the use of inlets and storm sewer to promote unconnected impervious areas. Runoff from the proposed parking pavement discharges directly to riprap and landscaping to promote infiltration and filter runoff close to its source.

V. CONCLUSIONS

A. Compliance with Standards

- The drainage design for the 6300 East 88th Avenue Parking Lot Expansion site detailed within this report is in general compliance with the Adams County and the Mile High Flood District criteria.

B. Summary of Concept

- The drainage design presented within this report will safely and effectively convey runoff to the proposed EDB for the 6300 East 88th Parking Lot Expansion development, where it will then

outfall directly into the existing roadside ditch bordering the site along the southeast side of East 88th Avenue.

- The proposed 100-year release rate from the EDB has been designed to be at 90% or less than the 100-year predevelopment runoff rate leaving the site. Therefore, it is our opinion that there will be no negative impact to downstream flows, channel depths, street capacities, velocities, or erosion rates, due to the development of the proposed parking lot expansion.

VI. LIST OF REFERENCES

- *Urban Storm Drainage Criteria Manual, Volumes 1, 2, and 3,* Mile High Flood District, latest editions.
- *Adams County Storm Drainage Design and Stormwater Quality Regulations,* Adams County, August 2017.
- FEMA Flood Insurance Rate Maps Panel 08001C0606H, effective March 5, 2007

APPENDICES

APPENDIX A – REFERENCED MAPS

FEMA Map
Soils Map
Wetlands Map

APPENDIX B – HYDROLOGIC CALCULATIONS

Imperviousness and Composite C Calculations
Time of Concentration Calculations
Rational Method Calculations

APPENDIX C – HYDRAULIC CALCULATIONS

Extended Detention Basin Calculations

APPENDIX D – REFERENCED MATERIAL

NOAA Atlas 14 Rainfall Data

APPENDIX E – DRAINAGE PLANS

Proposed Drainage Plan

APPENDIX A - REFERENCED MAPS

National Flood Hazard Layer FIRMette

FEMA

104°55'13"W 39°51'41"N

104°54'35"W 39°51'13"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 Cross Sections with 1% Annual Chance
- 17.5 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 8/1/2023 at 12:10 AM 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.

Hydrologic Soil Group—Adams County Area, Parts of Adams and Denver Counties, Colorado
(6300 East 88th Ave)

Map Scale: 1:806 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 10 20 40 60

Feet
0 35 70 140 210

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 1:20,000.

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: Adams County Area, Parts of Adams and Denver Counties, Colorado
Survey Area Data: Version 19, Sep 1, 2022

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

Date(s) aerial images were photographed: Jun 9, 2021—Jun 12, 2021

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
VoA	Vona sandy loam, 0 to 1 percent slopes	A	1.7	100.0%
Totals for Area of Interest			**1.7**	**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.

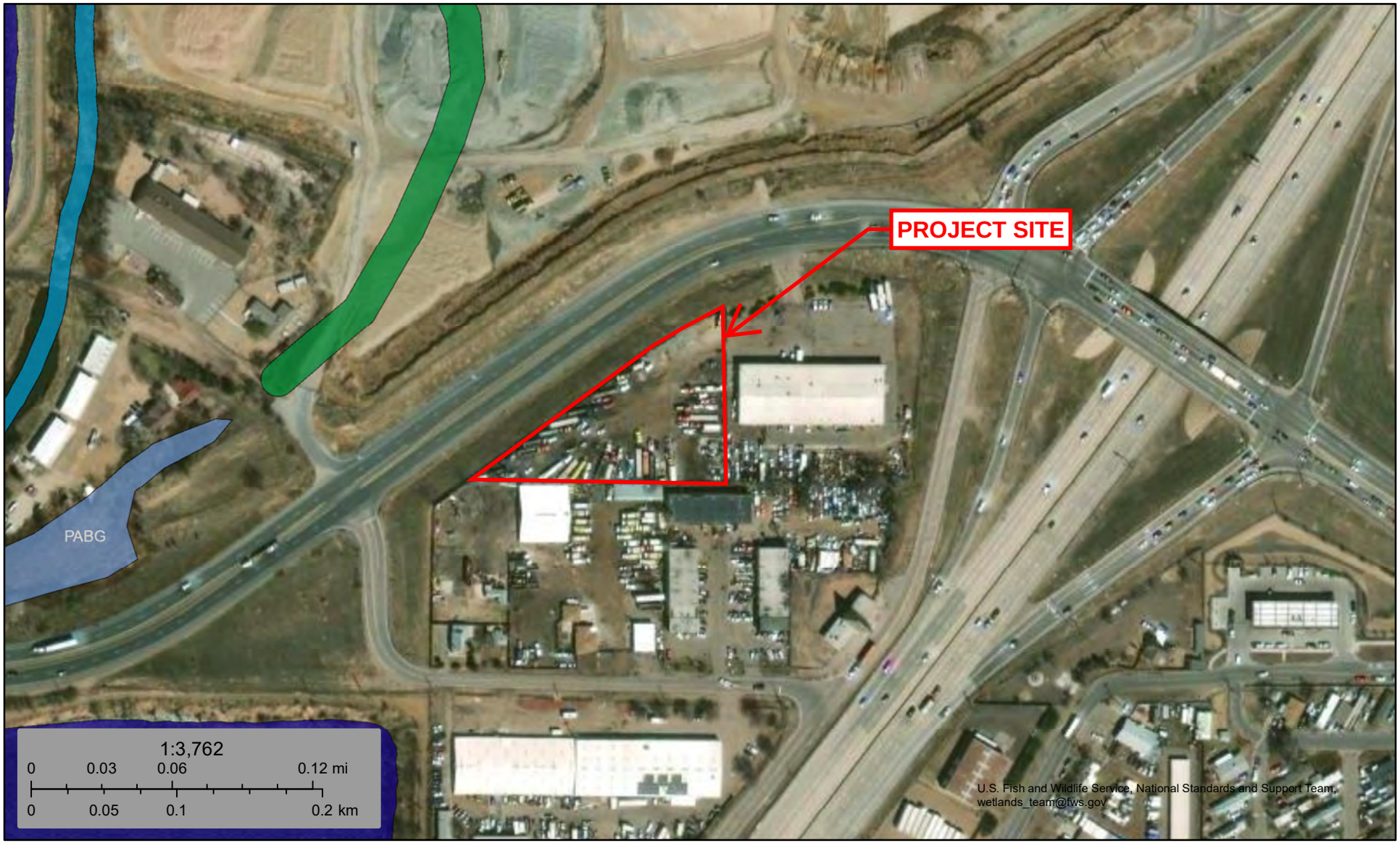
Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

U.S. Fish and Wildlife Service
National Wetlands Inventory

6300 East 88th Avenue - Wetlands Map



August 16, 2023

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

APPENDIX B - HYDROLOGIC COMPUTATIONS

TERRA FORMA SOLUTIONS

Project: 6300 East 88th
Location: Adams County, CO
Designer: TAJ
Date: 7/23/2023
Latest Revision: 5/19/2025

[1]From Table 6-3 in UDFCD Volume 1
[2]From Table 6-4 in UDFCD Volume 1

DEVELOPED IMPERVIOUSNESS AND RUNOFF COEFFICIENT CALCULATIONS

				Roofs	Lawn	Pavement	Sidewalk				
			Impervious %[1]	90%	2%	100%	90%				
Basin Designation	NRCS Hydrologic Soil Group	Total Area (ac)	Total Area (sf)	Roofs (sf)	Lawn (sf)	Pavement (sf)	Sidewalk (sf)	Percent Impervious	Runoff Coefficients, C[2]		
									C_2	C_5	C_{100}
D1	A	1.53	66,747	0	12,992	53,755	0	80.92%	0.64	0.66	0.74
Overall		**1.53**	**66,747**	**0**	**12,992**	**53,755**	**0**	80.92%	0.64	0.66	0.74

TERRA FORMA SOLUTIONS

Project: 6300 East 88th
Location: Adams County, CO
Designer: TAJ
Date: 7/23/2023
Latest Revision: 5/19/2025

NRCS Conveyance Factors, K[2]	
Type of Land Surface	**K**
Heavy Meadow	2.5
Tillage/Field	5
Short Pasture/Lawns	7
Nearly Bare Ground	10
Grassed Waterway	15
Paved Areas	20

[1]Max 300 ft in Urban areas and 500 ft in rural areas
[2]From Table 6-2 in UDFCD Volume 1
Minimum T_c 5

DEVELOPED TIME OF CONCENTRATION CALCULATIONS

			Initial/Overland Flow Time, T_i			Channelized Flow/Travel Time, T_t					Time of Concentration, T_c (Check		
Basin Designation	**Imperviousness (%)**	**C_5**	**Length (ft)[1]**	**Slope (%)**	**T_i (min)**	**Land Surface**	**Length (ft)**	**Slope (%)**	**Velocity (ft/sec)**	**T_t (min)**	**Computed T_c (min)**	**First Design Point T_c (min)**	**Selected T_c (min)**
D1	80.92%	0.66	66	1.36	5.88	Paved Areas	293	0.50	1.41	3.45	9.33	15.64	9.33

2.4.1 Initial or Overland Flow Time

The initial or overland flow time, t_i, may be calculated using Equation 6-3:

$$t_i = \frac{0.395(1.1 - C_5)\sqrt{L_i}}{S_o^{0.33}} \quad \text{Equation 6-3}$$

Where:

t_i = overland (initial) flow time (minutes)
C_5 = runoff coefficient for 5-year frequency (from Table 6-4)
L_i = length of overland flow (ft)
S_o = average slope along the overland flow path (ft/ft).

2.4.2 Channelized Flow Time

The channelized flow time (travel time) is calculated using the hydraulic properties of the conveyance element. The channelized flow time, t_t, is estimated by dividing the length of conveyance by the velocity. The following equation, Equation 6-4 (Guo 2013), can be used to determine the flow velocity in conjunction with Table 6-2 for the conveyance factor.

$$t_t = \frac{L_t}{60K\sqrt{S_o}} = \frac{L_t}{60V_t} \quad \text{Equation 6-4}$$

Where:

t_t = channelized flow time (travel time, min)
L_t = waterway length (ft)
S_o = waterway slope (ft/ft)
V_t = travel time velocity (ft/sec) = $K\sqrt{S_o}$
K = NRCS conveyance factor (see Table 6-2).

$$t_c = t_i + t_t \quad \text{Equation 6-2}$$

Where:

t_c = computed time of concentration (minutes)
t_i = overland (initial) flow time (minutes)
t_t = channelized flow time (minutes).

2.4.3 First Design Point Time of Concentration in Urban Catchments

Equation 6-4 was solely determined by the waterway characteristics and using a set of empirical formulas. A calibration study between the Rational Method and the Colorado Urban Hydrograph Procedure (CUHP) suggests that the time of concentration shall be the lesser of the values calculated by Equation 6-2 and Equation 6-5 (Guo and Urbonas 2013).

$$t_c = (26 - 17i) + \frac{L_t}{60(14i + 9)\sqrt{S_t}} \quad \text{Equation 6-5}$$

Where:

t_c = minimum time of concentration for first design point when less than t_c from Equation 6-1.
L_t = length of channelized flow path (ft)
i = imperviousness (expressed as a decimal)
S_t = slope of the channelized flow path (ft/ft).

2.4.4 Minimum Time of Concentration

Use a minimum t_c value of 5 minutes for urbanized areas and a minimum t_c value of 10 minutes for areas that are not considered urban. Use minimum values even when calculations result in a lesser time of concentration.

TERRA FORMA SOLUTIONS

Project: 6300 East 88th
Location: Adams County, CO
Designer: TAJ
Date: 7/23/2023
Latest Revision: 5/19/2025

Design Storm:	2-Yr
1-hr Design Point Rainfall (in):	0.84

DEVELOPED 2-YEAR PEAK RUNOFF CALCULATIONS

Basin Designation	Design Point	Area (ac)	C_2	C X A	T_c (min)	Intensity (in/hr)	Peak Flow, Q (cfs)
D1	1	1.53	0.64	0.98	9.33	2.32	2.27

TERRA FORMA SOLUTIONS

Project: 6300 East 88th
Location: Adams County, CO
Designer: TAJ
Date: 7/23/2023
Latest Revision: 5/19/2025

Design Storm:	5-Yr
1-hr Design Point Rainfall (in):	1.12

DEVELOPED 5-YEAR PEAK RUNOFF CALCULATIONS

Basin Designation	Design Point	Area (ac)	C_5	C X A	T_c (min)	Intensity (in/hr)	Peak Flow, Q (cfs)
D1	1	1.53	0.66	1.01	9.33	3.11	3.13

TERRA FORMA SOLUTIONS

Project: 6300 East 88th
Location: Adams County, CO
Designer: TAJ
Date: 7/23/2023
Latest Revision: 5/19/2025

Design Storm:	100-Yr
1-hr Design Point Rainfall (in):	2.47

DEVELOPED 100-YEAR PEAK RUNOFF CALCULATIONS

Basin Designation	Design Point	Area (ac)	C_{100}	C X A	T_c (min)	Intensity (in/hr)	Peak Flow, Q (cfs)
D1	1	1.53	0.74	1.14	9.33	6.86	7.80

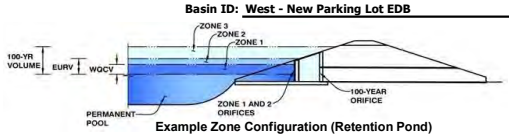
APPENDIX C - HYDRAULIC CALCULATIONS

DETENTION BASIN STAGE-STORAGE TABLE BUILDER

MHFD-Detention, Version 4.06 (July 2022)

Project: 6300 E. 88th Avenue

Basin ID: West - New Parking Lot EDB



Example Zone Configuration (Retention Pond)

Watershed Information

Selected BMP Type =	**EDB**	
Watershed Area =	1.53	acres
Watershed Length =	443	ft
Watershed Length to Centroid =	302	ft
Watershed Slope =	0.050	ft/ft
Watershed Imperviousness =	80.92%	percent
Percentage Hydrologic Soil Group A =	100.0%	percent
Percentage Hydrologic Soil Group B =	0.0%	percent
Percentage Hydrologic Soil Groups C/D =	0.0%	percent
Target WQCV Drain Time =	40.0	hours
Location for 1-hr Rainfall Depths =	User Input	

After providing required inputs above including 1-hour rainfall depths, click 'Run CUHP' to generate runoff hydrographs using the embedded Colorado Urban Hydrograph Procedure.

			Optional User Overrides	
Water Quality Capture Volume (WQCV) =	0.043	acre-feet		acre-feet
Excess Urban Runoff Volume (EURV) =	0.164	acre-feet		acre-feet
2-yr Runoff Volume (P1 = 0.84 in.) =	0.075	acre-feet	0.84	inches
5-yr Runoff Volume (P1 = 1.12 in.) =	0.103	acre-feet	1.12	inches
10-yr Runoff Volume (P1 = 1.37 in.) =	0.130	acre-feet	1.37	inches
25-yr Runoff Volume (P1 = 1.77 in.) =	0.174	acre-feet	1.77	inches
50-yr Runoff Volume (P1 = 2.1 in.) =	0.213	acre-feet	2.10	inches
100-yr Runoff Volume (P1 = 2.47 in.) =	0.259	acre-feet	2.47	inches
500-yr Runoff Volume (P1 = 3.43 in.) =	0.379	acre-feet	3.43	inches
Approximate 2-yr Detention Volume =	0.075	acre-feet		
Approximate 5-yr Detention Volume =	0.104	acre-feet		
Approximate 10-yr Detention Volume =	0.130	acre-feet		
Approximate 25-yr Detention Volume =	0.175	acre-feet		
Approximate 50-yr Detention Volume =	0.202	acre-feet		
Approximate 100-yr Detention Volume =	0.228	acre-feet		

Define Zones and Basin Geometry

Zone 1 Volume (WQCV) =	0.043	acre-feet
Zone 2 Volume (EURV - Zone 1) =	0.121	acre-feet
Zone 3 Volume (100-year - Zones 1 & 2) =	0.065	acre-feet
Total Detention Basin Volume =	0.228	acre-feet
Initial Surcharge Volume (ISV) =	user	ft^3
Initial Surcharge Depth (ISD) =	user	ft
Total Available Detention Depth (H_{total}) =	user	ft
Depth of Trickle Channel (H_{TC}) =	user	ft
Slope of Trickle Channel (S_{TC}) =	user	ft/ft
Slopes of Main Basin Sides (S_{main}) =	user	H:V
Basin Length-to-Width Ratio ($R_{L/W}$) =	user	

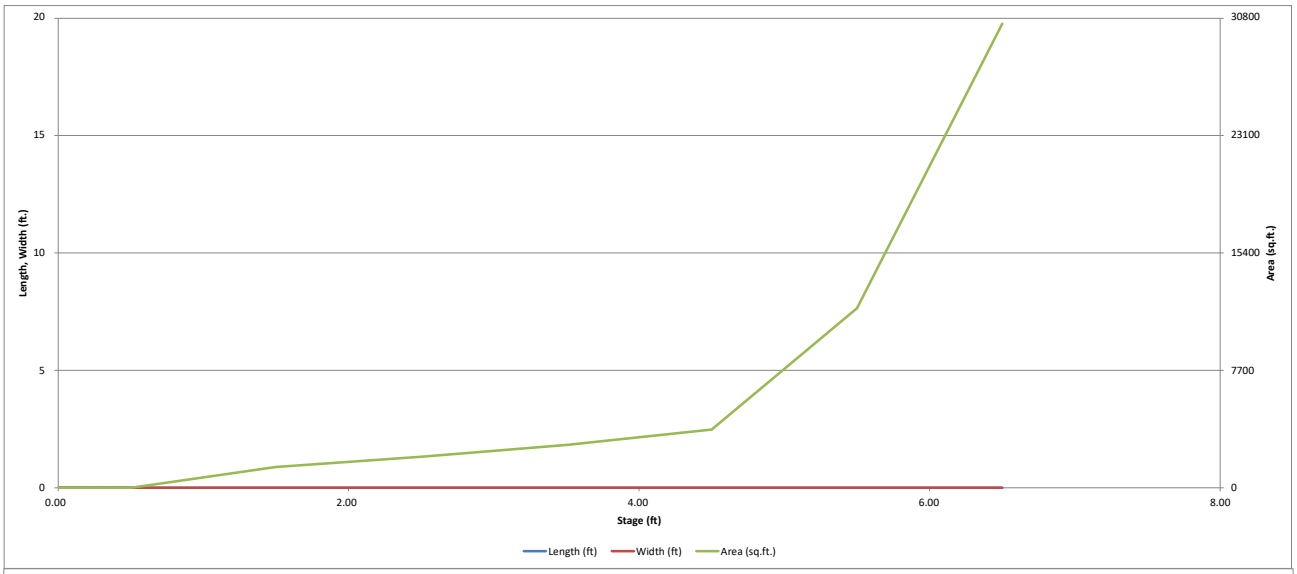
Initial Surcharge Area (A_{ISV}) =	user	ft^2
Surcharge Volume Length (L_{ISV}) =	user	ft
Surcharge Volume Width (W_{ISV}) =	user	ft
Depth of Basin Floor (H_{FLOOR}) =	user	ft
Length of Basin Floor (L_{FLOOR}) =	user	ft
Width of Basin Floor (W_{FLOOR}) =	user	ft
Area of Basin Floor (A_{FLOOR}) =	user	ft^2
Volume of Basin Floor (V_{FLOOR}) =	user	ft^3
Depth of Main Basin (H_{MAIN}) =	user	ft
Length of Main Basin (L_{MAIN}) =	user	ft
Width of Main Basin (W_{MAIN}) =	user	ft
Area of Main Basin (A_{MAIN}) =	user	ft^2
Volume of Main Basin (V_{MAIN}) =	user	ft^3
Calculated Total Basin Volume (V_{total}) =	**user**	acre-feet

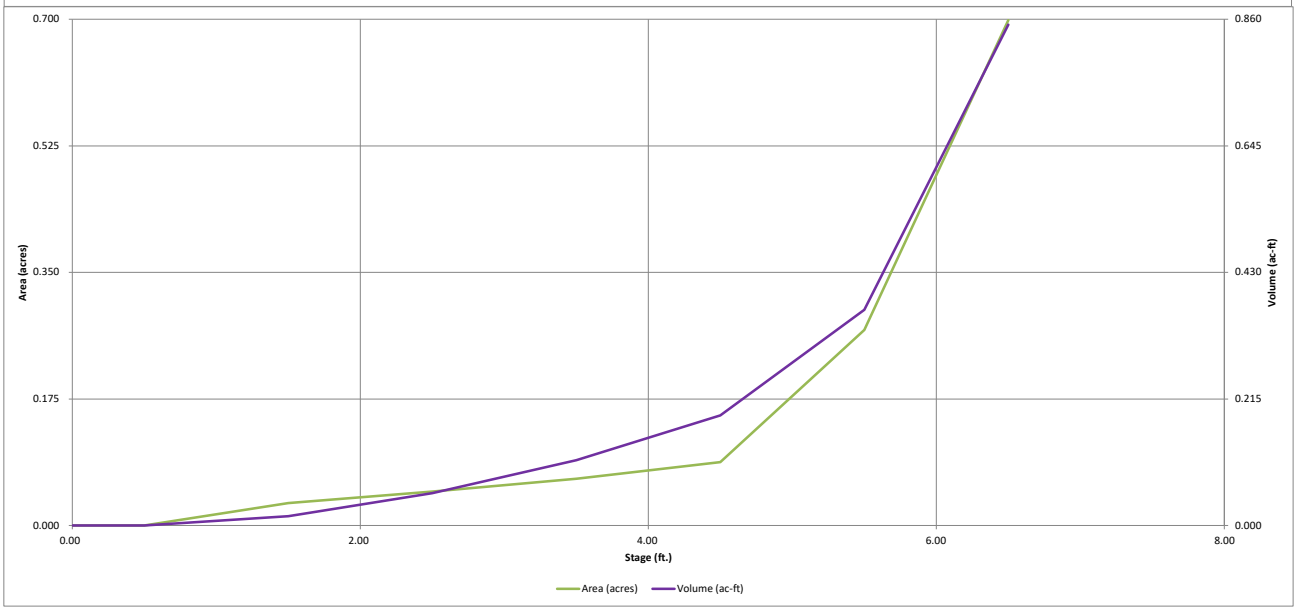
Depth Increment = 1.00 ft

Stage - Storage Description	Stage (ft)	Optional Override Stage (ft)	Length (ft)	Width (ft)	Area (ft^2)	Optional Override Area (ft^2)	Area (acre)	Volume (ft^3)	Volume (ac-ft)
Top of Micropool	--	0.00	--	--	--	10	0.000		
5101	--	0.50	--	--	--	10	0.000	5	0.000
5102	--	1.50	--	--	--	1,361	0.031	690	0.016
5103	--	2.50	--	--	--	2,041	0.047	2,391	0.055
5104	--	3.50	--	--	--	2,822	0.065	4,823	0.111
5105	--	4.50	--	--	--	3,834	0.088	8,151	0.187
5106 (Spillway)	--	5.50	--	--	--	11,784	0.271	15,960	0.366
5107	--	6.50	--	--	--	30,442	0.699	37,073	0.851

DETENTION BASIN STAGE-STORAGE TABLE BUILDER

MHFD-Detention, Version 4.06 (July 2022)



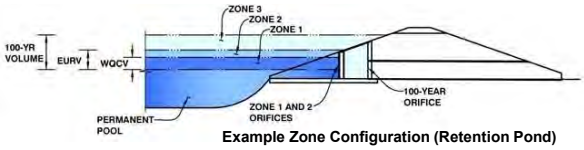


DETENTION BASIN OUTLET STRUCTURE DESIGN

MHFD-Detention, Version 4.06 (July 2022)

Project: **6300 E. 88th Avenue**

Basin ID: **West - New Parking Lot EDB**



Example Zone Configuration (Retention Pond)

	Estimated Stage (ft)	Estimated Volume (ac-ft)	Outlet Type
Zone 1 (WQCV)	2.23	0.043	Orifice Plate
Zone 2 (EURV)	4.23	0.121	Orifice Plate
Zone 3 (100-year)	4.85	0.065	Weir&Pipe (Circular)
Total (all zones)		0.228	

User Input: Orifice at Underdrain Outlet (typically used to drain WQCV in a Filtration BMP)

Underdrain Orifice Invert Depth =	N/A	ft (distance below the filtration media surface)	Underdrain Orifice Area =	N/A	ft^2
Underdrain Orifice Diameter =	N/A	inches	Underdrain Orifice Centroid =	N/A	feet

Calculated Parameters for Underdrain

User Input: Orifice Plate with one or more orifices or Elliptical Slot Weir (typically used to drain WQCV and/or EURV in a sedimentation BMP)

Centroid of Lowest Orifice =	0.00	ft (relative to basin bottom at Stage = 0 ft)	WQ Orifice Area per Row =	1.597E-03	ft^2
Depth at top of Zone using Orifice Plate =	4.23	ft (relative to basin bottom at Stage = 0 ft)	Elliptical Half-Width =	N/A	feet
Orifice Plate: Orifice Vertical Spacing =	15.00	inches	Elliptical Slot Centroid =	N/A	feet
Orifice Plate: Orifice Area per Row =	0.23	sq. inches (diameter = 1/2 inch)	Elliptical Slot Area =	N/A	ft^2

Calculated Parameters for Plate

User Input: Stage and Total Area of Each Orifice Row (numbered from lowest to highest)

	Row 1 (required)	Row 2 (optional)	Row 3 (optional)	Row 4 (optional)	Row 5 (optional)	Row 6 (optional)	Row 7 (optional)	Row 8 (optional)
Stage of Orifice Centroid (ft)	0.00	1.20	2.40	3.60				
Orifice Area (sq. inches)	0.23	0.23	0.23	0.23				

	Row 9 (optional)	Row 10 (optional)	Row 11 (optional)	Row 12 (optional)	Row 13 (optional)	Row 14 (optional)	Row 15 (optional)	Row 16 (optional)
Stage of Orifice Centroid (ft)								
Orifice Area (sq. inches)								

User Input: Vertical Orifice (Circular or Rectangular)

	Not Selected	Not Selected			Not Selected	Not Selected	
Invert of Vertical Orifice =	N/A	N/A	ft (relative to basin bottom at Stage = 0 ft)	Vertical Orifice Area =	N/A	N/A	ft^2
Depth at top of Zone using Vertical Orifice =	N/A	N/A	ft (relative to basin bottom at Stage = 0 ft)	Vertical Orifice Centroid =	N/A	N/A	feet
Vertical Orifice Diameter =	N/A	N/A	inches				

Calculated Parameters for Vertical Orifice

User Input: Overflow Weir (Dropbox with Flat or Sloped Grate and Outlet Pipe OR Rectangular/Trapezoidal Weir and No Outlet Pipe)

	Zone 3 Weir	Not Selected			Zone 3 Weir	Not Selected	
Overflow Weir Front Edge Height, Ho =	4.50	N/A	ft (relative to basin bottom at Stage = 0 ft)	Height of Grate Upper Edge, H_t =	5.23	N/A	feet
Overflow Weir Front Edge Length =	2.92	N/A	feet	Overflow Weir Slope Length =	3.01	N/A	feet
Overflow Weir Grate Slope =	4.00	N/A	H:V	Grate Open Area / 100-yr Orifice Area =	92.89	N/A	
Horiz. Length of Weir Sides =	2.92	N/A	feet	Overflow Grate Open Area w/o Debris =	6.94	N/A	ft^2
Overflow Grate Type =	Close Mesh Grate	N/A		Overflow Grate Open Area w/ Debris =	3.47	N/A	ft^2
Debris Clogging % =	50%	N/A	%				

Calculated Parameters for Overflow Weir

User Input: Outlet Pipe w/ Flow Restriction Plate (Circular Orifice, Restrictor Plate, or Rectangular Orifice)

	Zone 3 Circular	Not Selected			Zone 3 Circular	Not Selected	
Depth to Invert of Outlet Pipe =	0.00	N/A	ft (distance below basin bottom at Stage = 0 ft)	Outlet Orifice Area =	0.07	N/A	ft^2
Circular Orifice Diameter =	3.70	N/A	inches	Outlet Orifice Centroid =	0.15	N/A	feet
				Half-Central Angle of Restrictor Plate on Pipe =	N/A	N/A	radians

Calculated Parameters for Outlet Pipe w/ Flow Restriction Plate

User Input: Emergency Spillway (Rectangular or Trapezoidal)

Spillway Invert Stage=	5.50	ft (relative to basin bottom at Stage = 0 ft)	Spillway Design Flow Depth=	0.39	feet
Spillway Crest Length =	5.00	feet	Stage at Top of Freeboard =	6.39	feet
Spillway End Slopes =	4.00	H:V	Basin Area at Top of Freeboard =	0.65	acres
Freeboard above Max Water Surface =	0.50	feet	Basin Volume at Top of Freeboard =	0.78	acre-ft

Calculated Parameters for Spillway

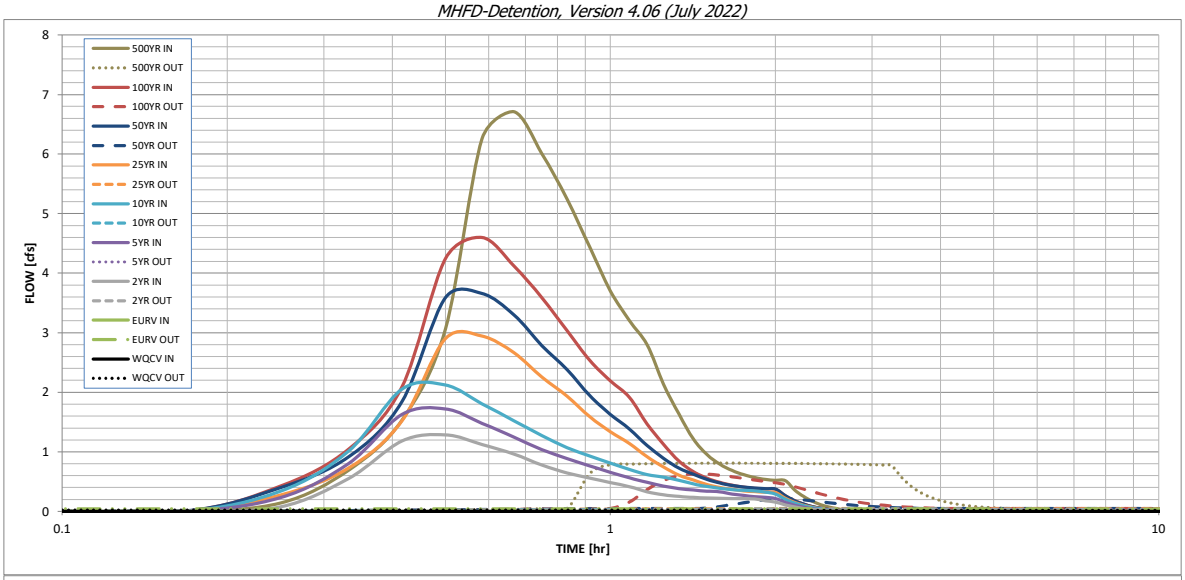
Routed Hydrograph Results

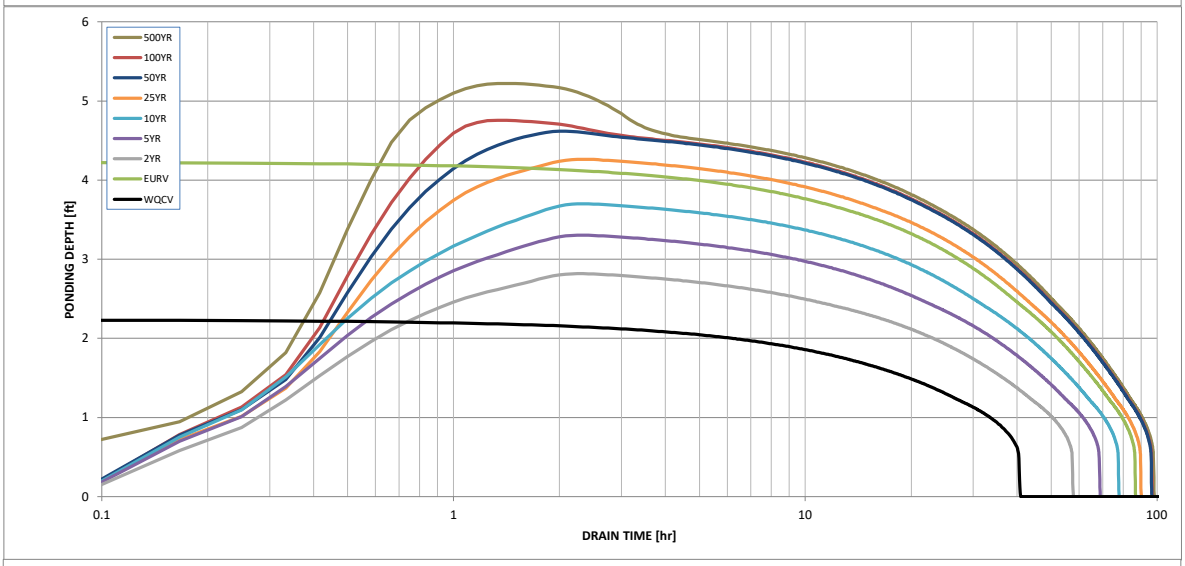
The user can override the default CUHP hydrographs and runoff volumes by entering new values in the Inflow Hydrographs table (Columns W through AF).

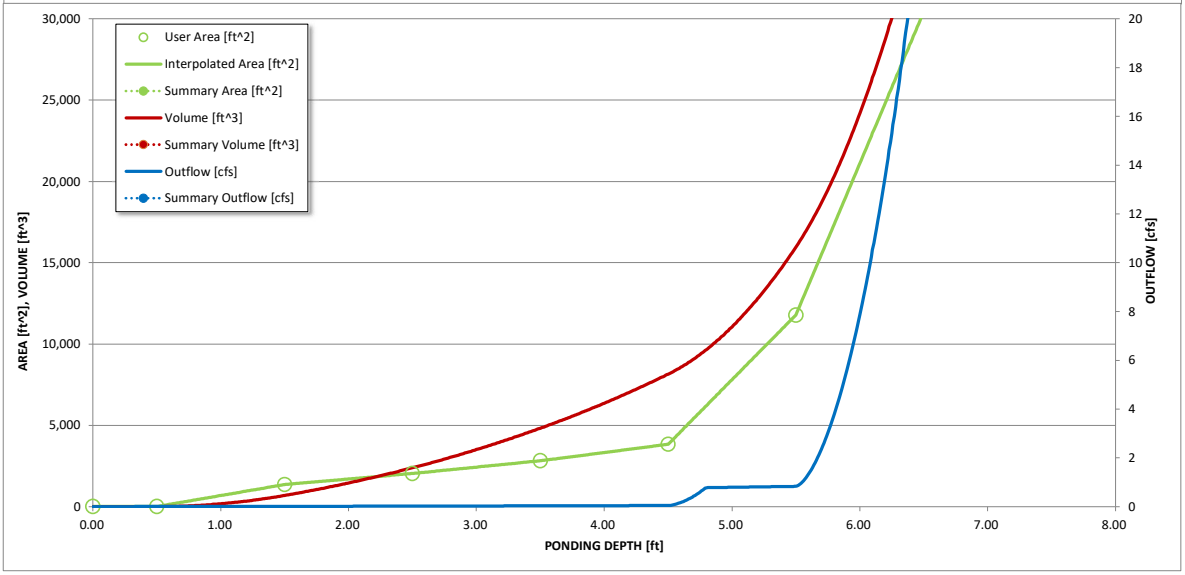
Design Storm Return Period =	WQCV	EURV	2 Year	5 Year	10 Year	25 Year	50 Year	100 Year	500 Year
One-Hour Rainfall Depth (in) =	N/A	N/A	0.84	1.12	1.37	1.77	2.10	2.47	3.43
CUHP Runoff Volume (acre-ft) =	0.043	0.164	0.075	0.103	0.130	0.174	0.213	0.259	0.379
Inflow Hydrograph Volume (acre-ft) =	N/A	N/A	0.075	0.103	0.130	0.174	0.213	0.259	0.379
CUHP Predevelopment Peak Q (cfs) =	N/A	N/A	0.0	0.0	0.0	0.0	0.4	0.8	1.9
OPTIONAL Override Predevelopment Peak Q (cfs) =	N/A	N/A							
Predevelopment Unit Peak Flow, q (cfs/acre) =	N/A	N/A	0.00	0.00	0.01	0.02	0.24	0.54	1.25
Peak Inflow Q (cfs) =	N/A	N/A	1.3	1.7	2.1	2.9	3.7	4.6	6.7
Peak Outflow Q (cfs) =	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.6	0.8
Ratio Peak Outflow to Predevelopment Q =	N/A	N/A	N/A	4.9	2.5	1.3	0.6	0.8	0.4
Structure Controlling Flow =	Plate	Plate	Plate	Plate	Plate	Plate	Overflow Weir 1	Overflow Weir 1	Outlet Plate 1
Max Velocity through Grate 1 (fps) =	N/A	N/A	N/A	N/A	N/A	N/A	0.0	0.1	0.1
Max Velocity through Grate 2 (fps) =	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Time to Drain 97% of Inflow Volume (hours) =	38	78	54	63	71	81	86	84	81
Time to Drain 99% of Inflow Volume (hours) =	**40**	84	56	67	75	87	93	92	91
Maximum Ponding Depth (ft) =	2.24	4.23	2.82	3.30	3.70	4.26	4.62	4.76	5.22
Area at Maximum Ponding Depth (acres) =	0.04	0.08	0.05	0.06	0.07	0.08	0.11	0.13	0.22
Maximum Volume Stored (acre-ft) =	0.043	0.164	0.070	0.098	0.123	0.167	0.199	0.215	0.298

DETENTION BASIN OUTLET STRUCTURE DESIGN

MHFD-Detention, Version 4.06 (July 2022)







S-A-V-D Chart Axis Override	X-axis	Left Y-Axis	Right Y-Axis
minimum bound			
maximum bound			

APPENDIX D - REFERENCED MATERIAL

NOAA Atlas 14, Volume 8, Version 2
Location name: Henderson, Colorado, USA*
Latitude: 39.8577°, Longitude: -104.9156°
Elevation: 5107 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Deborah Martin, Sandra Pavlovic, Ishani Roy, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Michael Yekta, Geoffery Bonnin

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	**0.220** (0.172-0.282)	**0.270** (0.211-0.347)	**0.362** (0.281-0.466)	**0.448** (0.346-0.579)	**0.579** (0.440-0.792)	**0.692** (0.511-0.953)	**0.814** (0.580-1.15)	**0.948** (0.649-1.37)	**1.14** (0.750-1.69)	**1.30** (0.827-1.93)
10-min	**0.322** (0.251-0.413)	**0.395** (0.308-0.508)	**0.530** (0.412-0.682)	**0.656** (0.507-0.847)	**0.848** (0.644-1.16)	**1.01** (0.748-1.40)	**1.19** (0.850-1.68)	**1.39** (0.950-2.01)	**1.67** (1.10-2.47)	**1.90** (1.21-2.83)
15-min	**0.393** (0.307-0.504)	**0.482** (0.376-0.619)	**0.647** (0.503-0.832)	**0.799** (0.618-1.03)	**1.04** (0.785-1.41)	**1.24** (0.912-1.70)	**1.45** (1.04-2.05)	**1.69** (1.16-2.45)	**2.04** (1.34-3.02)	**2.31** (1.48-3.45)
30-min	**0.552** (0.431-0.708)	**0.676** (0.527-0.868)	**0.903** (0.702-1.16)	**1.11** (0.861-1.44)	**1.44** (1.09-1.96)	**1.71** (1.26-2.35)	**2.01** (1.43-2.82)	**2.33** (1.60-3.37)	**2.80** (1.84-4.14)	**3.17** (2.02-4.73)
60-min	**0.682** (0.533-0.875)	**0.836** (0.652-1.07)	**1.12** (0.867-1.44)	**1.37** (1.06-1.78)	**1.77** (1.34-2.41)	**2.10** (1.55-2.89)	**2.47** (1.76-3.47)	**2.86** (1.96-4.13)	**3.43** (2.26-5.08)	**3.89** (2.48-5.79)
2-hr	**0.813** (0.641-1.03)	**0.996** (0.784-1.27)	**1.33** (1.04-1.69)	**1.63** (1.28-2.09)	**2.10** (1.61-2.84)	**2.50** (1.86-3.40)	**2.93** (2.11-4.08)	**3.40** (2.35-4.85)	**4.06** (2.70-5.95)	**4.61** (2.97-6.78)
3-hr	**0.881** (0.698-1.11)	**1.08** (0.853-1.36)	**1.43** (1.13-1.82)	**1.76** (1.38-2.24)	**2.26** (1.74-3.03)	**2.68** (2.01-3.63)	**3.14** (2.27-4.34)	**3.64** (2.53-5.16)	**4.35** (2.90-6.32)	**4.92** (3.19-7.20)
6-hr	**1.05** (0.837-1.31)	**1.27** (1.01-1.59)	**1.67** (1.33-2.09)	**2.03** (1.61-2.56)	**2.59** (2.01-3.43)	**3.06** (2.31-4.08)	**3.56** (2.60-4.86)	**4.10** (2.88-5.75)	**4.88** (3.30-7.02)	**5.51** (3.61-7.97)
12-hr	**1.29** (1.04-1.60)	**1.55** (1.25-1.92)	**2.00** (1.61-2.49)	**2.42** (1.93-3.01)	**3.03** (2.37-3.96)	**3.55** (2.70-4.68)	**4.10** (3.02-5.53)	**4.70** (3.33-6.50)	**5.54** (3.78-7.86)	**6.22** (4.12-8.89)
24-hr	**1.57** (1.28-1.92)	**1.88** (1.53-2.30)	**2.42** (1.96-2.97)	**2.89** (2.33-3.57)	**3.58** (2.82-4.60)	**4.14** (3.18-5.38)	**4.73** (3.51-6.29)	**5.36** (3.82-7.30)	**6.23** (4.28-8.71)	**6.92** (4.63-9.77)
2-day	**1.82** (1.50-2.21)	**2.20** (1.81-2.67)	**2.83** (2.32-3.44)	**3.36** (2.74-4.11)	**4.12** (3.26-5.20)	**4.72** (3.64-6.03)	**5.33** (3.99-6.97)	**5.96** (4.29-8.00)	**6.82** (4.73-9.39)	**7.49** (5.06-10.4)
3-day	**1.98** (1.64-2.39)	**2.36** (1.95-2.85)	**3.00** (2.47-3.63)	**3.55** (2.91-4.31)	**4.32** (3.44-5.42)	**4.93** (3.84-6.27)	**5.56** (4.19-7.23)	**6.21** (4.50-8.28)	**7.10** (4.95-9.72)	**7.79** (5.30-10.8)
4-day	**2.11** (1.75-2.53)	**2.48** (2.06-2.99)	**3.12** (2.58-3.76)	**3.67** (3.02-4.44)	**4.45** (3.56-5.57)	**5.07** (3.96-6.42)	**5.72** (4.32-7.40)	**6.38** (4.64-8.48)	**7.30** (5.12-9.94)	**8.01** (5.47-11.0)
7-day	**2.40** (2.01-2.86)	**2.79** (2.34-3.33)	**3.46** (2.88-4.13)	**4.02** (3.34-4.83)	**4.83** (3.90-5.99)	**5.48** (4.31-6.86)	**6.14** (4.68-7.86)	**6.82** (5.00-8.97)	**7.76** (5.48-10.5)	**8.49** (5.85-11.6)
10-day	**2.66** (2.24-3.15)	**3.08** (2.59-3.64)	**3.77** (3.16-4.48)	**4.36** (3.64-5.20)	**5.19** (4.20-6.38)	**5.85** (4.63-7.28)	**6.52** (5.00-8.30)	**7.21** (5.32-9.41)	**8.15** (5.79-10.9)	**8.88** (6.15-12.0)
20-day	**3.43** (2.92-4.02)	**3.91** (3.32-4.58)	**4.70** (3.98-5.52)	**5.35** (4.51-6.31)	**6.26** (5.11-7.58)	**6.96** (5.56-8.54)	**7.66** (5.93-9.62)	**8.38** (6.24-10.8)	**9.34** (6.70-12.3)	**10.1** (7.05-13.5)
30-day	**4.05** (3.47-4.72)	**4.60** (3.94-5.37)	**5.50** (4.69-6.43)	**6.24** (5.29-7.32)	**7.25** (5.94-8.70)	**8.01** (6.44-9.75)	**8.77** (6.82-10.9)	**9.53** (7.13-12.2)	**10.5** (7.59-13.8)	**11.3** (7.94-15.0)
45-day	**4.80** (4.13-5.55)	**5.48** (4.71-6.34)	**6.57** (5.63-7.62)	**7.44** (6.35-8.67)	**8.62** (7.10-10.3)	**9.50** (7.66-11.5)	**10.4** (8.09-12.8)	**11.2** (8.42-14.1)	**12.3** (8.89-15.9)	**13.0** (9.26-17.2)
60-day	**5.40** (4.67-6.22)	**6.22** (5.37-7.16)	**7.50** (6.46-8.66)	**8.52** (7.30-9.89)	**9.88** (8.16-11.7)	**10.9** (8.80-13.0)	**11.8** (9.28-14.5)	**12.8** (9.62-16.0)	**13.9** (10.1-17.9)	**14.7** (10.5-19.3)

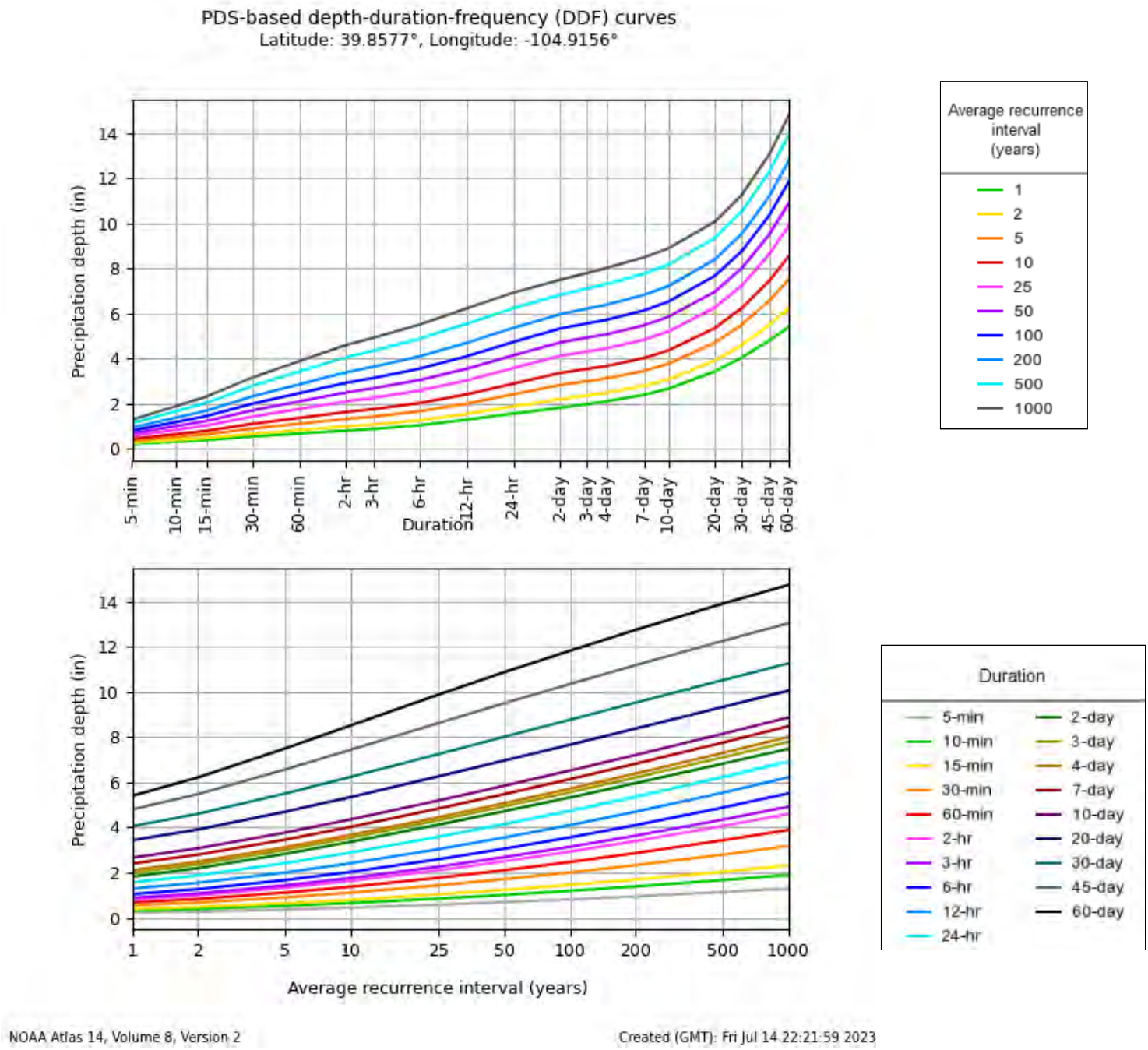
[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

Back to Top

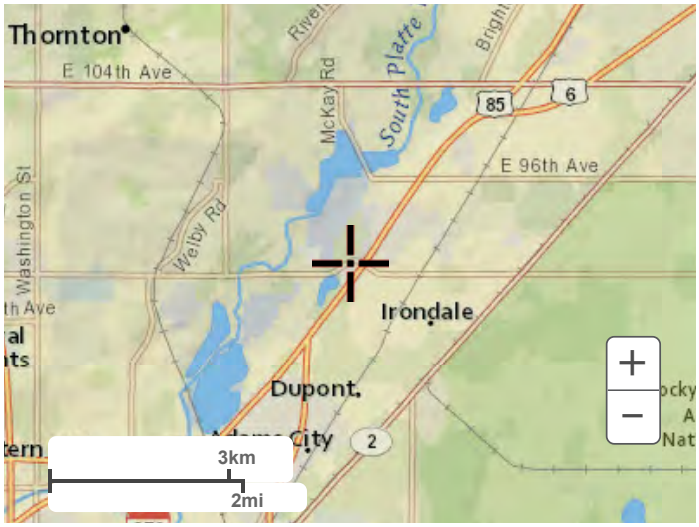
PF graphical



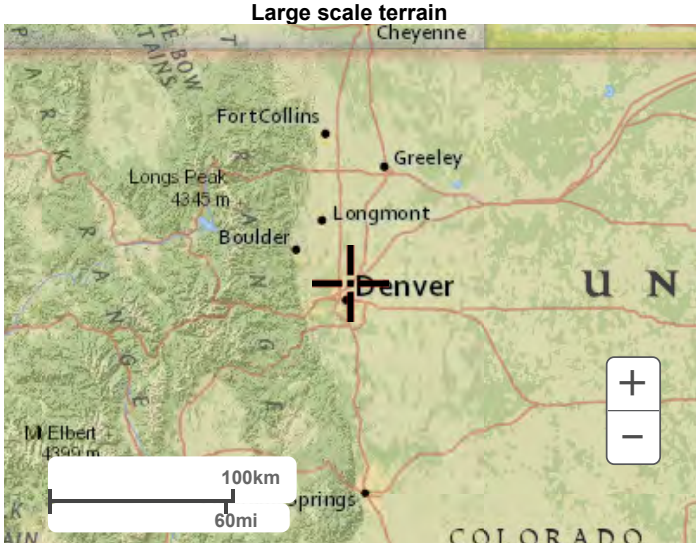
Back to Top

Maps & aerials

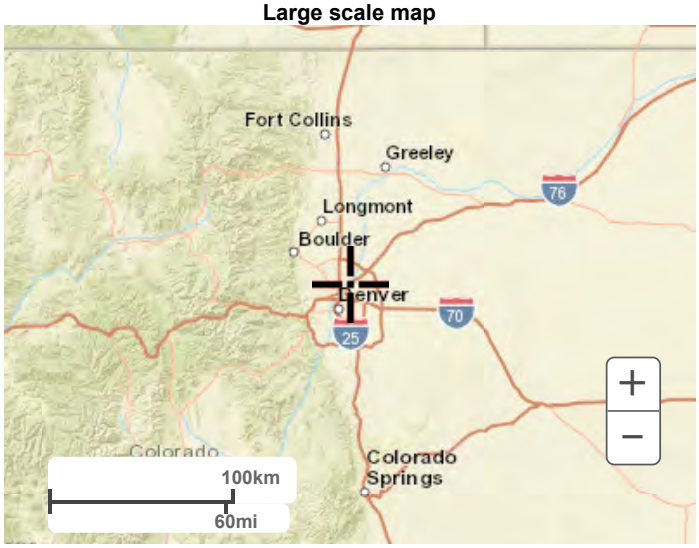
Small scale terrain



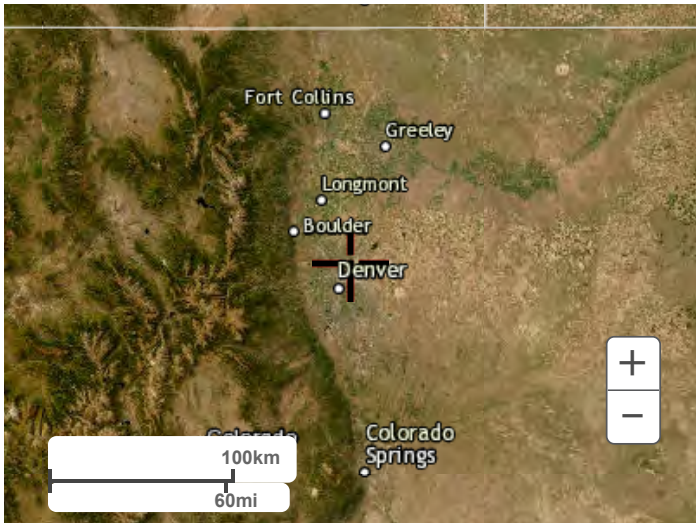
Large scale terrain



Large scale map



Large scale aerial

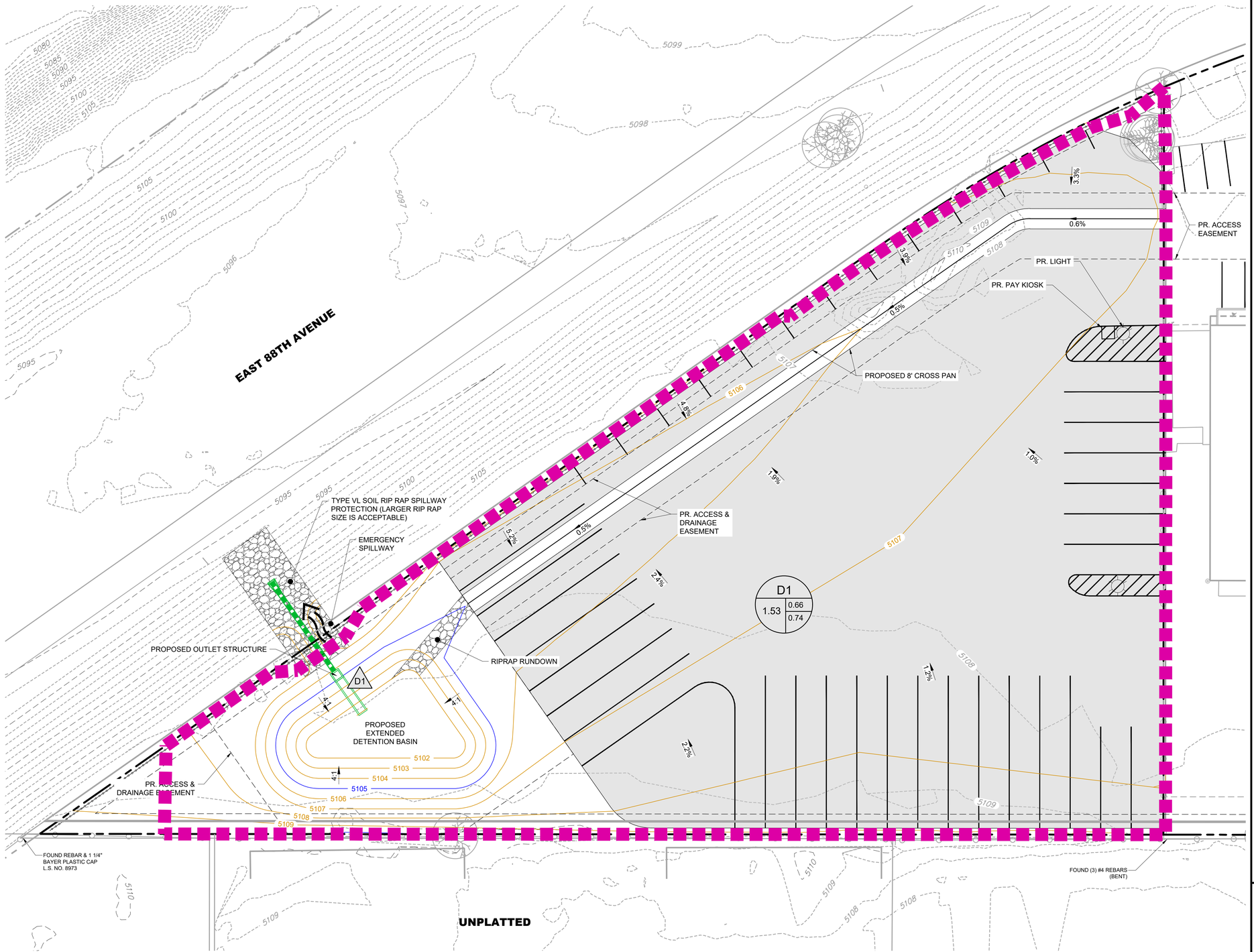


Back to Top

US Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
National Water Center
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

Disclaimer

APPENDIX E - DRAINAGE PLANS



LEGEND

BASIN DESIGNATION — D1 — C5
BASIN AREA (ACRES) — 1.00 — 0.62 — C100
0.78

- DESIGN POINT
- DRAINAGE BASIN BOUNDARY
- EMERGENCY OVERFLOW
- PROPOSED STORM SEWER
- EXISTING STORM SEWER
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR

DEVELOPED BASIN SUMMARY TABLE

Basin Designation	Area (ac)	Percent Impervious	C2	C5	C100	Q_5 (cfs)	Q_5 (cfs)	Q_{100} (cfs)
D1	1.53	80.92%	0.64	0.66	0.74	2.27	3.13	7.80

TERRA FORMA SOLUTIONS

REV. NO.	DESCRIPTION	DATE
2	REVISED PER BOUNDARY UPDATES	5/19/2025
1	REVISED PER COUNTY COMMENTS	10/1/2024

PERF 88 LLC

6300 E. 88TH AVENUE - WEST

PROPOSED DRAINAGE PLAN

6300 E. 88TH AVENUE
ADAMS COUNTY, COLORADO

PROJ NO: 6300
ENG : TAJ
DATE : 8/15/2023

SHEET NUMBER
DR1
1 OF 1

0 20' 40'
1" = 20' (HORIZONTAL)

CONSTRUCTION DRAWINGS - EROSION CONTROL

6300 EAST 88TH AVENUE - WEST

SITUATED IN THE SOUTHWEST QUARTER OF SECTION 20
TOWNSHIP 2 SOUTH, RANGE 67 WEST OF THE SIXTH PRINCIPAL MERIDIAN,
COUNTY OF ADAMS, STATE OF COLORADO

SHEET LIST TABLE		
SHEET NUMBER	SHEET TITLE	SHEET DESCRIPTION
1	COVER SHEET	CS1
2	INITIAL EROSION CONTROL PLAN	EC1
3	INTERIM EROSION CONTROL PLAN	EC2
4	FINAL EROSION CONTROL PLAN	EC3
5	EROSION CONTROL DETAILS	EC4
6	EROSION CONTROL DETAILS	EC5

VICINITY MAP
1"=1000'

PROJECT CONTACTS:

OWNER:
76 AND 88 LLC
ATTN: FRED ORR
5040 ACOMA STREET
DENVER, CO 80216

CIVIL ENGINEER:
TERRA FORMA SOLUTIONS
ATTN: TODD JOHNSON, PE
303.257.7653

LANDSCAPE:
TIM DUNN LANDSCAPE ARCHITECTURE
ATTN: TIM DUNN
720.350.2411

SURVEYOR:
ENGINEERING SERVICE COMPANY
14190 EAST EVANS AVENUE
AURORA, CO 80014
303.337.1393

LIGHTING:
STUDIO LIGHTNING
ATTN: JACOB BENNEFIELD, LC
63 SUNSET DR.
BAILEY, CO 80421
303.242.1572

LEGAL DESCRIPTION:

LOT 1, BLOCK 1, FADEN SUBDIVISION, COUNTY OF ADAMS STATE OF COLORADO, AND LOT 2, BLOCK 1, FADEN SUBDIVISION, COUNTY OF ADAMS, STATE OF COLORADO, AND THE NORTH 7 FEET OF THE SOUTH 1/2 OF THE SOUTH 1/2 OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4, EXCEPT THAT PART LYING WITHIN THE HIGHWAY, SECTION 20, TOWNSHIP 2 SOUTH, RANGE 67 WEST OF THE 6TH P.M., COUNTY OF ADAMS, STATE OF COLORADO.

BENCHMARK:

ADAMS COUNTY CONTROL MONUMENT NUMBER 0212 - 3 - 1/4" DIAMETER ALUMINUM CAP (STAMPED 95 0212 1995 2S67W S 20) ATOP AN ALUMINUM ROD LOCATED AT THE SOUTHWEST CORNER OF THE INTERSECTION OF INTERSTATE HIGHWAY 76 AND EAST 88TH AVENUE. 0.05 MI SOUTHEAST OF THE CENTER LINE OF E. 88TH AVE, AND 39 FT SOUTHWEST OF THE CENTERLINE OF OLD 88TH AVE.

ELEVATION: 5103.29 FEET (NAVD 1988 DATUM).

BASIS OF BEARINGS:

BEARINGS ARE BASED ON THE SOUTH LINE OF THE SE 1/4 OF THE SW $\frac{1}{4}$ SECTION 20, TOWNSHIP 2 SOUTH, RANGE 67 WEST, OF THE 6TH PRINCIPAL MERIDIAN BEARING N89°57'30"W BOUND BY THE MONUMENTS SHOWN HEREON.

ADAMS COUNTY EROSION CONTROL PLAN - GENERAL NOTES:

1. ALL CONSTRUCTION PROJECTS, REGARDLESS OF THE SIZE, SHALL INSTALL, MAINTAIN AND REPAIR STORMWATER POLLUTION CONTROL MEASURES (CMS) TO EFFECTIVELY MINIMIZE EROSION, SEDIMENT TRANSPORT, AND THE RELEASE OF POLLUTANTS RELATED TO CONSTRUCTION ACTIVITY. CMS EXAMPLE INCLUDE: SEDIMENT CONTROL LOGS (SCL), SILT FENCE (SF), DIKES/SWALES, SEDIMENT TRAPS (ST), INLET PROTECTION (IP), OUTLET PROTECTION (OP), CHECK DAMS (CD), SEDIMENT BASINS (SB), TEMPORARY/PERMANENT SEEDING AND MULCHING (MU), SOIL ROUGHENING, MAINTAINING EXISTING VEGETATION AND PROTECTION OF TREES. CMS MUST BE SELECTED, DESIGNED, ADEQUATELY SIZED, INSTALLED AND MAINTAINED IN ACCORDANCE WITH GOOD ENGINEERING, HYDROLOGIC AND POLLUTION CONTROL PRACTICES. CMS/BMPS INSTALLATION AND MAINTENANCE DETAILS SHALL CONFORM TO URBAN DRAINAGE FLOOD CONTROL CRITERIA MANUAL VOLUME 3. OR THE COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) ITEM CODE BOOK. CMS MUST FILTER, SETTLE, CONTAIN OR STRAIN POLLUTANTS FROM STORMWATER FLOWS IN ORDER TO PREVENT BYPASS OF FLOWS WITHOUT TREATMENT. CMS MUST BE APPROPRIATE TO TREAT THE RUNOFF FROM THE AMOUNT OF DISTURBED AREA, THE EXPECTED FLOW RATE, DURATION, AND FLOW CONDITIONS (I.E., SHEET OR CONCENTRATED FLOW). CMS/BMPS SHALL BE SPECIFIED IN THE SWMP (IF APPLICABLE), AND THE LOCATIONS SHOWN ON THE EC PLAN.
1) PRIOR TO CONSTRUCTION, PROJECTS DISTURBING 1 OR MORE ACRES OF LAND, OR ANY PROJECT BELONGING TO A COMMON PLAN OF DEVELOPMENT DISTURB 1 OR MORE ACRES, MUST OBTAIN:
   - A GENERAL PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES, FROM THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, AND
   - AN ADAMS COUNTY STORMWATER QUALITY PERMIT WITHIN THE UNINCORPORATED ADAMS COUNTY MS4 AREA.
2) PERMITTED PROJECTS SHALL DEVELOP A STORMWATER MANAGEMENT PLAN (SWMP), AKA EROSION AND SEDIMENT CONTROL PLAN (ESCP), IN COMPLIANCE WITH CDPHE MINIMUM REQUIREMENTS. THE APPROVED SWMP, INCLUDING EROSION CONTROL (EC) PLAN (SITE MAP), SHALL BE KEPT ON SITE AND UPDATED AT ALL TIMES. THE QUALIFIED STORMWATER MANAGER IS RESPONSIBLE FOR IMPLEMENTING THE SWMP AND CMS (AKA BMPS) DURING CONSTRUCTION.
3) PERMITTED PROJECTS SHALL PERFORM REGULAR STORMWATER INSPECTIONS EVERY 7 CALENDAR DAYS; OR EVERY 14 CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY PRECIPITATION OR SNOWMELT EVENT THAT CAUSES SURFACE EROSION. INSPECTION FREQUENCY CAN BE REDUCED FOR POST STORM EVENT INSPECTIONS AT TEMPORARILY IDLE SITES AND ALSO FOR STORMWATER INSPECTIONS AT COMPLETED SITES WAITING FOR FINAL STABILIZATION. INSPECTION REPORTS MUST IDENTIFY ANY INCIDENTS OF NON COMPLIANCE.
4) TRACKING OF DIRT ONTO PAVED PUBLIC OR PRIVATE PAVED ROADS IS NOT ALLOWED. THE USE OF DIRT RAMPS TO ENTER/EXIT FROM AN UNPAVED INTO A PAVED AREA IS PROHIBITED. VEHICLE TRACKING CONTROLS SHALL BE IMPLEMENTED, OTHERWISE ENTRANCE AREA MUST DRAIN THRU A CM TOWARDS THE PRIVATE SITE.
5) TRUCK LOADS OF FILL MATERIAL IMPORTED TO OR CUT MATERIAL EXPORTED FROM THE SITE SHALL BE PROPERLY COVERED TO PREVENT LOSS OF THE MATERIAL DURING TRANSPORTATION ON PUBLIC ROW. HAUL ROUTES MUST BE PERMITTED BY THE COUNTY. NO MATERIAL SHALL BE TRANSPORTED TO ANOTHER SITE WITHOUT APPLICABLE PERMITS.
6) CONTROL MEASURES DESIGNED FOR CONCRETE WASHOUT WASTE MUST BE IMPLEMENTED. THIS INCLUDES WASHOUT WASTE DISCHARGED TO THE GROUND AND WASHOUT WASTE FROM CONCRETE TRUCKS AND MASONRY OPERATIONS.
7) TEMPORARY CMS/BMPS SHALL BE REMOVED AFTER THE SITE HAS REACHED FINAL STABILIZATION.
8) DEWATERING OPERATIONS DISCHARGING OFF SITE INTO ANY WATERS CONVEYANCE SYSTEMS INCLUDING WETLANDS, IRRIGATION DITCHES, CANALS, RIVERS, STREAMS OR STORM SEWER SYSTEMS, REQUIRE A STATE CONSTRUCTION DEWATERING PERMIT.
9) PERMITTED PROJECTS SHALL KEEP THE CDPHE'S STORMWATER DISCHARGE PERMIT, STORMWATER MANAGEMENT PLAN (SWMP) AND INSPECTION LOGS AVAILABLE ON SITE THROUGHOUT THE DURATION OF THE PROJECT, AND FOR AN ADDITIONAL 3 YEARS AFTER PERMIT CLOSE OUT.
10) PERMITTED LANDOWNER AND/OR CONTRACTOR SHALL CLOSE THE STATE AND CITY/COUNTY PERMIT ONCE FINAL STABILIZATION IS REACHED. STORMWATER INSPECTIONS SHALL CONTINUE UNTIL INACTIVATION NOTICE IS FILED WITH CDPHE.

PERFORMANCE STANDARD NOTES:

1. STORMWATER RUNOFF FROM DISTURBED AREAS MUST FLOW TO AT LEAST ONE (1) CM TO MINIMIZE SEDIMENT IN THE DISCHARGE. DO NOT ALLOW SEDIMENT TO LEAVE THE SITE. THE BEST WAY TO PREVENT SEDIMENT OR POLLUTANTS FROM ENTERING THE STORM SEWER SYSTEM IS TO STABILIZE THE SITE AS QUICKLY AS POSSIBLE, PREVENTING EROSION AND STOPPING SEDIMENT RUN OFF AT ITS SOURCE.
2. PHASE CONSTRUCTION TO MINIMIZE DISTURBED AREAS, INCLUDING DISTURBANCE OF STEEP SLOPES. (I.E. THE ENTIRE PROJECT SITE SHOULD NOT BE DISTURBED IF CONSTRUCTION WILL ONLY BE OCCURRING IN ONE PARTICULAR SECTION OF THE SITE).LIMIT SOIL EXPOSURE TO THE SHORTEST POSSIBLE PERIOD OF TIME. PROTECT NATURAL FEATURES AND EXISTING VEGETATION WHENEVER POSSIBLE. REMOVAL OF EXISTING VEGETATION SHALL BE LIMITED TO THE AREA REQUIRED FOR IMMEDIATE CONSTRUCTION OPERATIONS. MAINTAIN PRE EXISTING VEGETATION (OR EQUIVALENT CMS) FOR AREAS WITHIN 50 HORIZONTAL FT OF RECEIVING WATERS.
3. SOIL COMPACTION MUST BE MINIMIZED FOR AREAS WHERE INFILTRATION CMS WILL OCCUR OR WHERE FINAL STABILIZATION WILL BE ACHIEVED THROUGH VEGETATIVE COVER.
4. ALL SOIL IMPORTED TO OR EXPORTED FROM THE SITE SHALL BE PROPERLY COVERED TO PREVENT THE LOSS OF MATERIAL DURING TRANSPORT.
5. DUST EMISSIONS RESULTING FROM GRADING ACTIVITIES OR WIND SHALL BE CONTROLLED.
6. INSTALL CONSTRUCTION FENCE (ORANGE) TO PROTECT WETLANDS AND OTHER SENSITIVE AREAS AND TO PREVENT ACCESS, AND TO DELINEATE THE LIMITS OF CONSTRUCTION. DO NOT USE SILT FENCE TO PROTECT WETLANDS SINCE TRENCHING MAY IMPACT THESE AREAS.
7. CMS INTENDED TO CAPTURE OVERLAND, LOW VELOCITY SHEET FLOW AT A FAIRLY LEVEL GRADE SHALL ONLY BE INSTALLED ALONG CONTOURS.
8. INSTALL CMS, SUCH AS CHECK DAMS, PERPENDICULAR TO THE CONCENTRATED FLOWS TO REDUCE FLOW VELOCITY.
9. STORM DRAIN INLETS WITHIN AND ADJACENT TO THE CONSTRUCTION SITE MUST BE PROTECTED. ANY PONDING OF STORMWATER AROUND INLET PROTECTION MUST NOT CAUSE EXCESSIVE FLOODING OR DAMAGE ADJACENT AREAS OR STRUCTURES.
10. INSTALL VEHICLE TRACKING CONTROL (VTC) TO ENTER/EXIT UNPAVED AREA. DO NOT USE RECYCLED CRUSHED CONCRETE OR ASPHALT MILLINGS FOR VEHICLE TRACKING PADS.
11. STRAW BALES SHALL NOT BE USED FOR PRIMARY EROSION OR SEDIMENT CONTROL (I.E. STRAW BALES MAY BE USED FOR REINFORCEMENT BEHIND ANOTHER BMP SUCH AS SILT FENCE).
12. OUTLETS SYSTEMS (SUCH AS SKIMMER OR PERFORATED RISER PIPE) SHALL BE INSTALLED TO WITHDRAW WATER FROM OR NEAR THE SURFACE LEVEL WHEN DISCHARGING FROM BASINS. WATER CANNOT DRAIN FROM THE BOTTOM OF THE POND.
13. TEMPORARY STABILIZATION MUST BE IMPLEMENTED FOR EARTH DISTURBING ACTIVITIES ON ANY PORTION OF THE SITE WHERE LAND DISTURBING ACTIVITIES HAVE PERMANENTLY OR TEMPORARILY CEASED (FOR MORE THAN 14 CALENDAR DAYS). TEMPORARY STABILIZATION METHODS EXAMPLES: TARPS, SOIL TACKIFIER, AND HYDROSEED. TEMPORARY STABILIZATION REQUIREMENT MAY EXCEED THE 14 DAY SCHEDULE WHEN EITHER THE FUNCTION OF THE SPECIFIC AREA REQUIRES IT TO REMAIN DISTURBED, OR, PHYSICAL CHARACTERISTICS OF THE TERRAIN AND CLIMATE PREVENT STABILIZATION AS LONG AS THE CONSTRAINTS AND ALTERNATIVE SCHEDULE IS DOCUMENTED ON THE SWMP, AND LOCATIONS ARE IDENTIFIED ON THE EC PLAN (SITE MAP).
14. RUNOFF FROM STOCKPILE AREA MUST BE CONTROLLED. SOILS THAT WILL BE STOCKPILED FOR MORE THAN 30 DAYS SHALL BE PROTECTED FROM WIND AND WATER EROSION WITHIN 14 DAYS OF STOCKPILE CONSTRUCTION. INSTALL CMS/BMPS 5 FT AWAY FROM THE TOE OF THE STOCKPILE'S SLOPE.
15. WATER USE TO CLEAN CONCRETE TRUCKS SHALL BE DISCHARGED INTO A CONCRETE WASHOUT AREA (CWA). THE PREDEFINED CONTAINMENT AREA MUST BE IDENTIFIED WITH A SIGN, AND SHALL ALLOW THE LIQUIDS TO EVAPORATE OR DRY OUT. CWA DISCHARGES THAT MAY REACH GROUNDWATER MUST FLOW THROUGH SOIL THAT HAS BUFFERING CAPACITY PRIOR TO REACHING GROUNDWATER. THE CONCRETE WASHOUT LOCATION SHALL BE NOT BE LOCATED IN AN AREA WHERE SHALLOW GROUNDWATER MAY BE PRESENT AND WOULD RESULT IN BUFFERING CAPACITY NOT BEING ADEQUATE, SUCH AS NEAR NATURAL DRAINAGES, SPRINGS, OR WETLANDS. IN THIS CASE, A LINER UNDERNEATH IS NEEDED FOR AREAS WITH HIGH GROUNDWATER LEVELS. CWA SHALL NOT BE PLACED IN LOW AREAS, DITCHES OR ADJACENT TO STATE WATERS. PLACE CWA 50 FT AWAY FROM STATE WATERS.
16. WASTE, SUCH AS BUILDING MATERIALS, WORKERS TRASH AND CONSTRUCTION DEBRIS, MUST BE PROPERLY MANAGED TO PREVENT STORMWATER POLLUTION.
17. INSTALL STABILIZED STAGING AREA (SSA) TO STORE MATERIALS, CONSTRUCTION TRAILER, ETC.
18. IF CONDITIONS IN THE FIELD WARRANT ADDITIONAL CMS/BMPS TO THE ONES ORIGINALLY APPROVED ON THE SWMP OR EC PLAN (CIVIL DRAWING), THE LANDOWNER OR CONTRACTOR SHALL IMPLEMENT MEASURES DETERMINED NECESSARY, AS DIRECTED BY THE COUNTY.
19. PERMANENT CMS/BMPS FOR SLOPES, CHANNELS, DITCHES, OR DISTURBED LAND AREA SHALL BE PERFORMED IMMEDIATELY AFTER FINAL GRADING. CONSIDER THE USE EROSION CONTROL BLANKETS ON SLOPES 3:1 OR STEEPER AND AREAS WITH CONCENTRATED FLOWS SUCH AS SWALES, LONG CHANNELS AND ROADSIDE DITCHES.
20. THE DISCHARGE OF SANITARY WASTE INTO THE STORM SEWER SYSTEM IS PROHIBITED. PORTABLE TOILETS MUST BE PROVIDED, SECURED AND PLACED ON PERMEABLE SURFACES, AWAY FROM THE CURBSIDE, STORM INLETS AND/OR DRAINAGE WAYS.
21. REMOVE TEMPORARY CMS/BMPS ONCE FINAL STABILIZATION IS REACHED, UNLESS OTHERWISE AUTHORIZED.
22. FINAL STABILIZATION MUST BE IMPLEMENTED. FINAL STABILIZATION IS REACHED WHEN ALL SOIL DISTURBING ACTIVITIES HAVE BEEN COMPLETED, AND EITHER A UNIFORM VEGETATIVE COVER HAS BEEN ESTABLISHED WITH AN INDIVIDUAL PLANT DENSITY OF AT LEAST 70% OF PRE DISTURBANCE LEVELS, OR EQUIVALENT PERMANENT ALTERNATIVE METHOD HAS BEEN IMPLEMENTED.
23. PROVIDE SPILL PREVENTION AND CONTAINMENT MEASURES FOR CONSTRUCTION MATERIALS, WASTE AND FUEL STORAGE AREAS. BULK STORAGE (55 GALLONS OR GREATER) OF PETROLEUM PRODUCTS AND LIQUID CHEMICALS MUST HAVE SECONDARY CONTAINMENT, OR EQUIVALENT PROTECTION, IN ORDER TO CONTAIN SPILLS AND TO PREVENT SPILLED MATERIAL FROM ENTERING STATE WATERS.
24. REPORT SPILLS OR RELEASES OF CHEMICAL, OIL, PETROLEUM PRODUCT, SEWAGE, ETC., WHICH MAY REACH THE STORM SEWER OR ENTER STATE WATERS WITHIN 24 HOURS FROM TIME OF DISCOVERY. GUIDANCE AVAILABLE AT WWW.CDPHE.STATE.CO.US/EMP/SPILLSANDRELEASED.HTM. STATE OF COLORADO SPILL-LINE: 1-877-518-5608. ADAMS COUNTY STORMWATER HOTLINE: 720-523-6400; PUBLIC WORKS 303-453-8787 AND THE TRI-COUNTY HEALTH DEPARTMENT AT 303-220-9200.

MAINTENANCE STANDARD NOTES:

1. MAINTAIN AND REPAIR CMS ACCORDING TO APPROVED EROSION CONTROL PLAN (CIVIL DRAWING) TO ASSURE THEY CONTINUE PERFORMING AS ORIGINALLY INTENDED.
2. CMS/BMPS REQUIRING MAINTENANCE OR ADJUSTMENT SHALL BE REPAIRED IMMEDIATELY AFTER OBSERVATION OF THE FAILING BMP.
3. CMS SHALL BE CLEANED WHEN SEDIMENT LEVELS ACCUMULATE TO HALF THE DESIGN UNLESS OTHERWISE SPECIFIED.
4. SWMP AND EC PLAN SHALL BE CONTINUOUSLY UPDATED TO REFLECT NEW OR REVISED CMS/BMPS DUE TO CHANGES IN DESIGN, CONSTRUCTION, OPERATION, OR MAINTENANCE, TO ACCURATELY REFLECT THE ACTUAL FIELD CONDITIONS. A NOTATION SHALL BE MADE IN THE SWMP, INCLUDING DATE OF CHANGES IN THE FIELD, IDENTIFICATION OF THE CMS REMOVED, MODIFIED OR ADDED, AND THE LOCATIONS OF THOSE CMS. UPDATES MUST BE MADE WITHIN 72-HOURS FOLLOWING THE CHANGE.
5. MAINTAIN VEHICLE TRACKING CONTROL (VTC), IF SEDIMENT TRACKING OCCURS, CLEAN-UP IMMEDIATELY. SWEEP BY HAND OR THE USE STREET SWEEPERS (WITH VACUUM SYSTEM). FLUSHING OFF PAVED SURFACES WITH WATER IS PROHIBITED.
6. CWA MUST BE CLEANED ONCE WASTE ACCUMULATION REACHES ¾ OF THE WET STORAGE CAPACITY OF THE STRUCTURE. LEGALLY DISPOSED OF CONCRETE WASTE. DO NOT BURY ON-SITE.
7. CLEAN-UP SPILLS IMMEDIATELY AFTER DISCOVERY, OR CONTAIN UNTIL APPROPRIATE CLEANUP METHODS CAN BE EMPLOYED. FOLLOW MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP, ALONG WITH PROPER DISPOSAL METHODS. RECORDS OF SPILLS, LEAKS, OR OVERFLOWS THAT RESULT IN DISCHARGE OF POLLUTANTS MUST BE DOCUMENTED AND MAINTAINED.
8. REMOVE SEDIMENT FROM STORM SEWER INFRASTRUCTURE (PONDS, STORM PIPES, OUTLETS, INLETS, ROADSIDE DITCHES, ETC.), AND RESTORE VOLUME CAPACITY UPON COMPLETION OF PROJECT OR PRIOR TO INITIAL ACCEPTANCE OF PUBLIC IMPROVEMENTS (IF APPLICABLE). DO NOT FLUSH SEDIMENT OFFSITE, CAPTURE ON-SITE AND DISPOSED OF AT AN APPROVED LOCATION.

THESE NOTES ARE NOT INTENDED TO BE ALL-INCLUSIVE, BUT TO HIGHLIGHT THE BASIC STORMWATER POLLUTION PREVENTION REQUIREMENTS FOR CONSTRUCTION ACTIVITIES TO COMPLY WITH CDPS STORMWATER CONSTRUCTION PERMIT AND BE IN CONFORMANCE WITH COUNTY STANDARDS.

811 UNCC CALL BEFORE YOU DIG 811 OR 1-800-922-1987 UTILITY NOTIFICATION CENTER OF COLORADO

TERRA FORMA SOLUTIONS

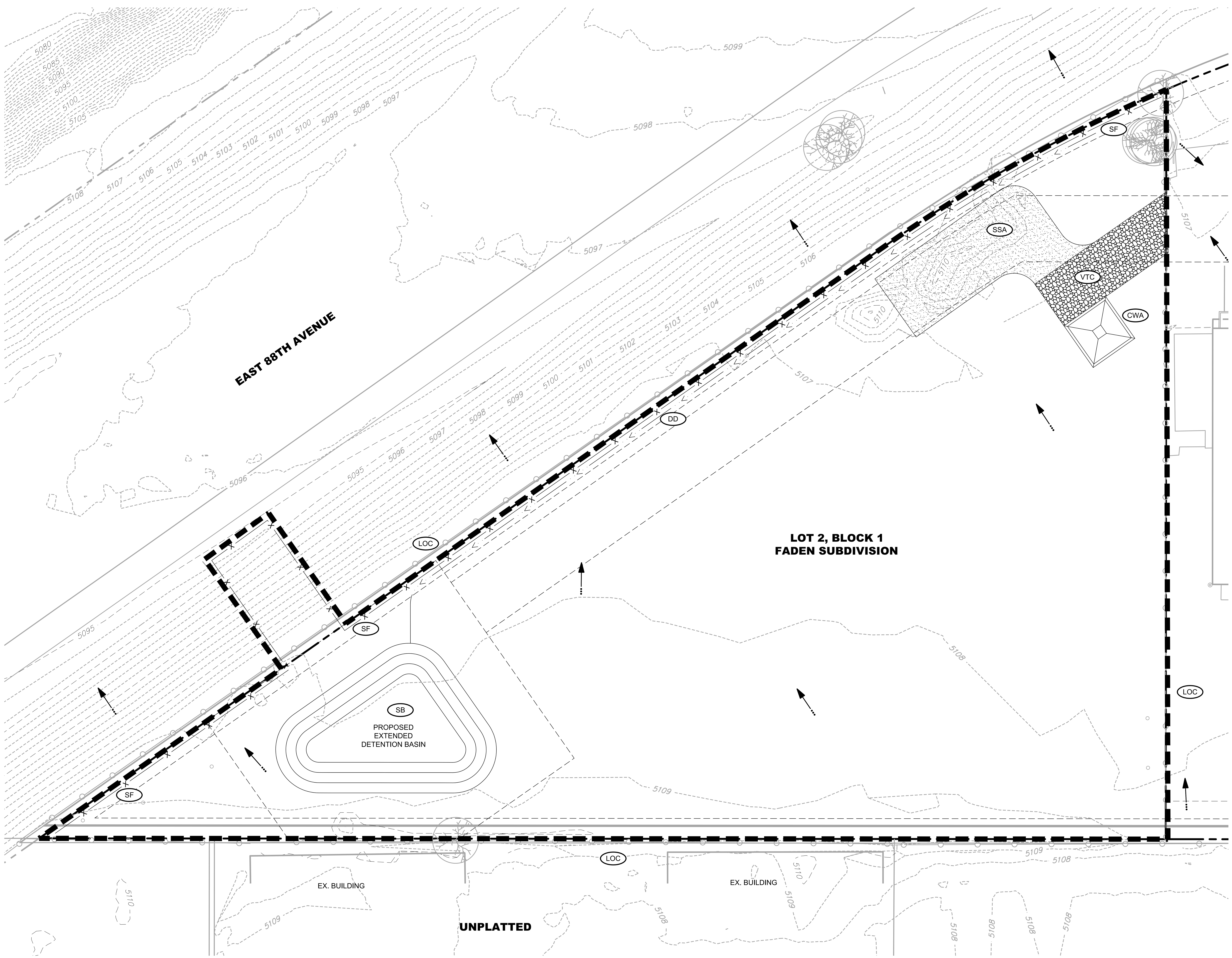
REV. NO.	DESCRIPTION	DATE
2	REVISED PER BOUNDARY UPDATES	5/19/2025
1	REVISED PER COUNTY COMMENTS	10/1/2024

PERF 88 LLC
SWMP
6300 E. 88TH AVENUE - WEST
COVER SHEET
6300 E. 88TH AVENUE
ADAMS COUNTY, COLORADO

GRADO UNITED STATES OF AMERICA 37660 5/19/25 PROFESSIONAL ENGINEER

PROJ NO: 6300
ENG :
DATE : 8/21/2023

SHEET NUMBER
CS1
1 OF 6



EROSION CONTROL NOTES:

1. REFERENCE MILE HIGH FLOOD DISTRICT FOR ALL BMP DETAILS
2. STREET SWEEPING SHOULD BE CONDUCTED REGULARLY WHEN THERE IS NOTICEABLE SEDIMENT ACCUMULATION ON PARKING LOT AND ROADWAYS ADJACENT TO THE CONSTRUCTION SITE.
3. GRADING ONLY TO OCCUR WITHIN SITE LIMITS (LOC).

SITE DETAILS:

AREA OF DISTURBANCE: 1.7 AC
HARD SURFACE AREA: 1.3 AC

BMP LEGEND:

- CD CHECK DAM
- CWA CONCRETE WASHOUT AREA
- CF CONSTRUCTION FENCE
- DD DIVERSION DITCH
- ECB EROSION CONTROL BLANKET
- IP INLET PROTECTION
- RCD REINFORCED CHECK DAM
- RS ROCK SOCK
- RSC ROCK SOCK FOR CULVERT PROTECTION
- SCL SEDIMENT CONTROL LOG
- SR SOIL ROUGHENING
- SM SEEDING AND MULCHING
- SF SILT FENCE
- SSA STABILIZED STAGING AREA
- SR SURFACE ROUGHENING
- TSD TEMPORARY SLOPE DRAIN
- VTC VEHICLE TRACKING CONTROL
- WW VTC WITH WHEEL WASH
- LOC LIMITS OF CONSTRUCTION

811
1-800-922-1987
UTILITY NOTIFICATION CENTER OF COLORADO

0 40' 80'
1" = 40' (HORIZONTAL)

TERRA FORMA SOLUTIONS

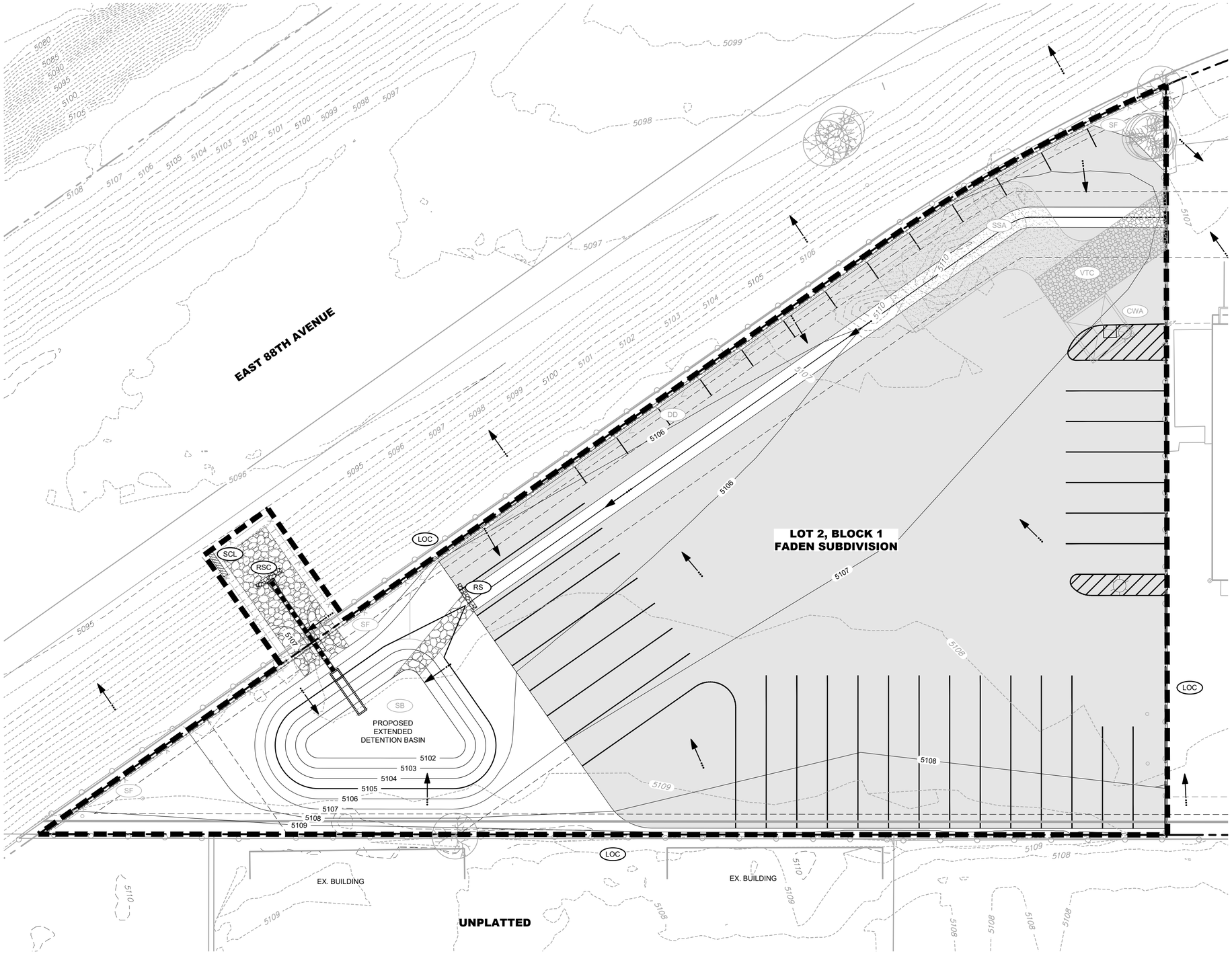
REV. NO.	DESCRIPTION	DATE
2	REVISED PER BOUNDARY UPDATES	5/19/2025
1	REVISED PER COUNTY COMMENTS	10/1/2024

PERF 88 LLC
SWMP
6300 E. 88TH AVENUE - WEST
INITIAL EROSION CONTROL PLAN
6300 E. 88TH AVENUE
ADAMS COUNTY, COLORADO

COLORADO LICENSED PROFESSIONAL ENGINEER 37660 5/19/25

PROJ NO: 6300
ENG:
DATE: 8/21/2023

SHEET NUMBER
EC1
2 OF 6



EROSION CONTROL NOTES:

1. REFERENCE MILE HIGH FLOOD DISTRICT FOR ALL BMP DETAILS
2. STREET SWEEPING SHOULD BE CONDUCTED REGULARLY WHEN THERE IS NOTICEABLE SEDIMENT ACCUMULATION ON PARKING LOT AND ROADWAYS ADJACENT TO THE CONSTRUCTION SITE.
3. GRADING ONLY TO OCCUR WITHIN SITE LIMITS (LOC).

SITE DETAILS:

AREA OF DISTURBANCE: 1.7 AC
HARD SURFACE AREA: 1.3 AC

BMP LEGEND:

- CD — CHECK DAM
- CWA — CONCRETE WASHOUT AREA
- CF — CONSTRUCTION FENCE
- DD — DIVERSION DITCH
- ECB — EROSION CONTROL BLANKET
- IP — INLET PROTECTION
- RCD — REINFORCED CHECK DAM
- RS — ROCK SOCK
- RSC — ROCK SOCK FOR CULVERT PROTECTION
- SCL — SEDIMENT CONTROL LOG
- SR — SOIL ROUGHENING
- SM — SEEDING AND MULCHING
- SF — SILT FENCE
- SSA — STABILIZED STAGING AREA
- SR — SURFACE ROUGHENING
- TSD — TEMPORARY SLOPE DRAIN
- VTC — VEHICLE TRACKING CONTROL
- WW — VTC WITH WHEEL WASH
- LOC — LIMITS OF CONSTRUCTION

811
1-800-922-1987
UTILITY NOTIFICATION CENTER OF COLORADO

0 40' 80'
1" = 40' (HORIZONTAL)

TERRA FORMA SOLUTIONS

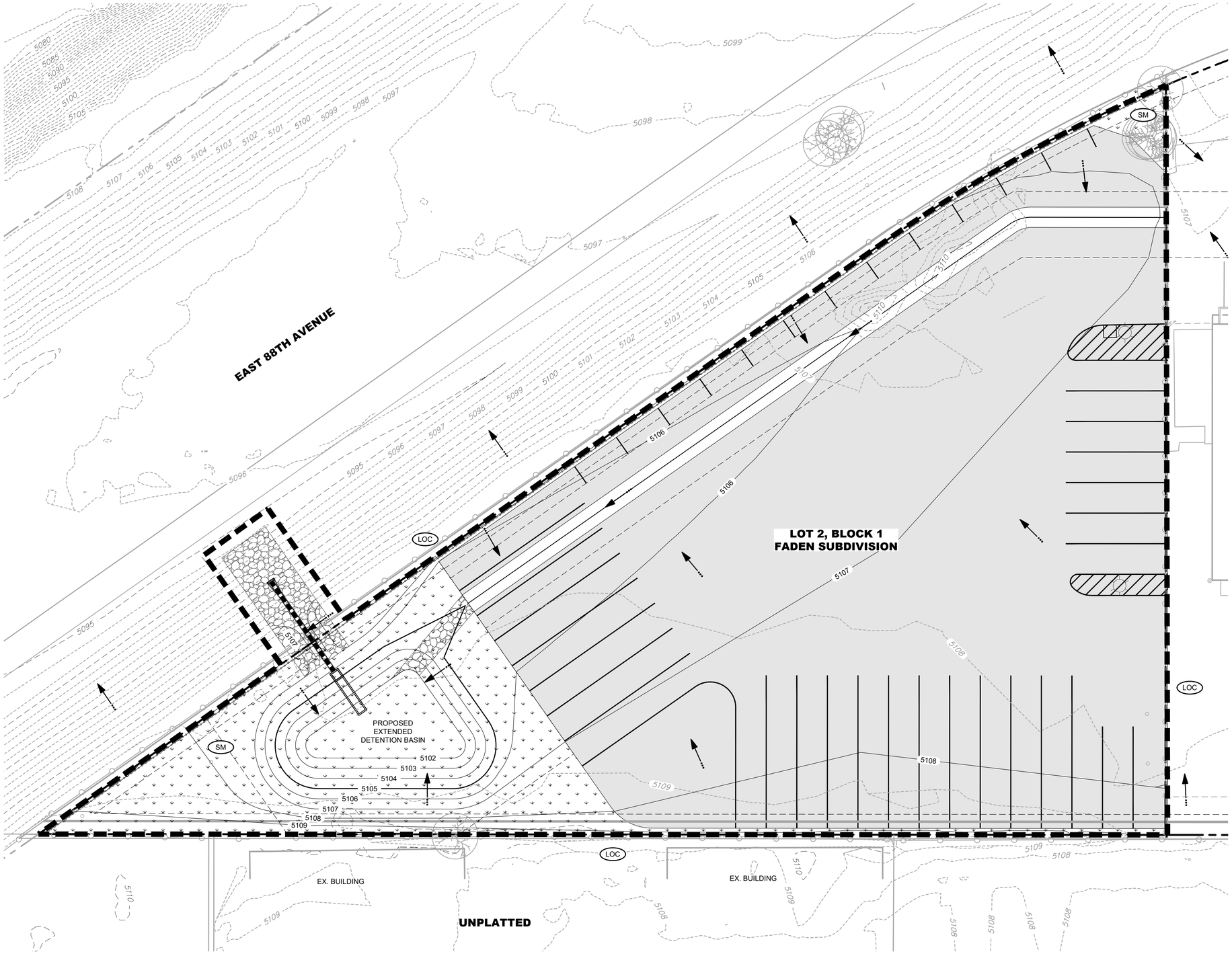
REV. NO.	DESCRIPTION	DATE
2	REVISED PER BOUNDARY UPDATES	5/19/2025
1	REVISED PER COUNTY COMMENTS	10/1/2024

PERF 88 LLC
SWMP
6300 E. 88TH AVENUE - WEST
INTERIM EROSION CONTROL PLAN
6300 E. 88TH AVENUE
ADAMS COUNTY, COLORADO

COLORADO LICENSED 37660 5/19/25 PROFESSIONAL ENGINEER

PROJ NO: 6300
ENG :
DATE : 8/21/2023

SHEET NUMBER
EC2
3 OF 6



EROSION CONTROL NOTES:

1. REFERENCE MILE HIGH FLOOD DISTRICT FOR ALL BMP DETAILS
2. STREET SWEEPING SHOULD BE CONDUCTED REGULARLY WHEN THERE IS NOTICEABLE SEDIMENT ACCUMULATION ON PARKING LOT AND ROADWAYS ADJACENT TO THE CONSTRUCTION SITE.
3. GRADING ONLY TO OCCUR WITHIN SITE LIMITS (LOC).

SITE DETAILS:

AREA OF DISTURBANCE: 1.7 AC
HARD SURFACE AREA: 1.3 AC

BMP LEGEND:

- CD — CHECK DAM
- CWA — CONCRETE WASHOUT AREA
- CF — CONSTRUCTION FENCE
- DD — DIVERSION DITCH
- ECB — EROSION CONTROL BLANKET
- IP — INLET PROTECTION
- RCD — REINFORCED CHECK DAM
- RS — ROCK SOCK
- RSC — ROCK SOCK FOR CULVERT PROTECTION
- SCL — SEDIMENT CONTROL LOG
- SR — SOIL ROUGHENING
- SM — SEEDING AND MULCHING
- SF — SILT FENCE
- SSA — STABILIZED STAGING AREA
- SR — SURFACE ROUGHENING
- TSD — TEMPORARY SLOPE DRAIN
- VTC — VEHICLE TRACKING CONTROL
- WW — VTC WITH WHEEL WASH
- LOC — LIMITS OF CONSTRUCTION

1-800-922-1987
UTILITY NOTIFICATION
CENTER OF COLORADO

0 40' 80'
1" = 40' (HORIZONTAL)

TERRA FORMA SOLUTIONS

REV. NO.	DESCRIPTION	DATE
2	REVISED PER BOUNDARY UPDATES	5/19/2025
1	REVISED PER COUNTY COMMENTS	10/1/2024

PERF 88 LLC

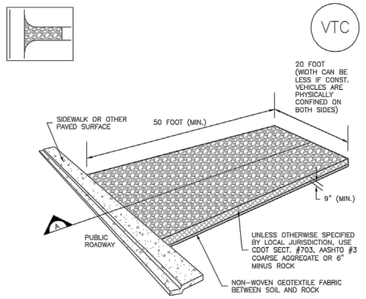
SWMP
6300 E. 88TH AVENUE - WEST
FINAL EROSION CONTROL PLAN

6300 E. 88TH AVENUE
ADAMS COUNTY, COLORADO

COLORADO LICENSED
37660
5/19/25
PROFESSIONAL ENGINEER

PROJ NO: 6300
ENG :
DATE : 8/21/2023

SHEET NUMBER
EC3
4 OF 6



VTC–1. AGGREGATE VEHICLE TRACKING CONTROL

STABILIZED CONSTRUCTION ENTRANCE/EXIT INSTALLATION NOTES

1. SEE PLAN VIEW FOR
   –LOCATION OF CONSTRUCTION ENTRANCE(S)/EXIT(S).
   –TYPE OF CONSTRUCTION ENTRANCE(S)/EXITS(S) (WITH/WITHOUT WHEEL WASH, CONSTRUCTION MAT OR TRM).

2. CONSTRUCTION MAT OR TRM STABILIZED CONSTRUCTION ENTRANCES ARE ONLY TO BE USED ON SHORT DURATION PROJECTS (TYPICALLY RANGING FROM A WEEK TO A MONTH) WHERE THERE WILL BE LIMITED VEHICULAR ACCESS.

3. A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE LOCATED AT ALL ACCESS POINTS WHERE VEHICLES ACCESS THE CONSTRUCTION SITE FROM PAVED RIGHT–OF–WAYS.

4. STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

5. A NON–WOVEN GEOTEXTILE FABRIC SHALL BE PLACED UNDER THE STABILIZED CONSTRUCTION ENTRANCE/EXIT PRIOR TO THE PLACEMENT OF ROCK.

6. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.

STABILIZED CONSTRUCTION ENTRANCE/EXIT MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

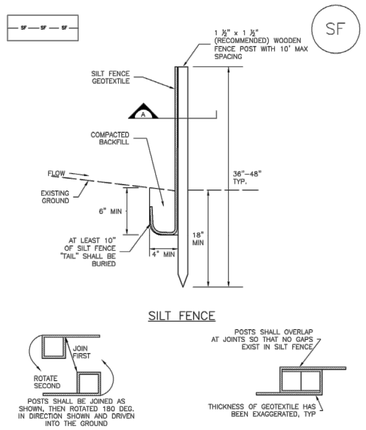
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY TO THE STABILIZED ENTRANCE/EXIT TO MAINTAIN A CONSISTENT DEPTH.

5. SEDIMENT TRACKED ONTO PAVED ROADS IS TO BE REMOVED THROUGHOUT THE DAY AND AT THE END OF THE DAY BY SHOVELING OR SWEEPING. SEDIMENT MAY NOT BE WASHED DOWN STORM SEWER DRAINS.

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

(DETAILS ADAPTED FROM CITY OF BROOMFIELD, COLORADO, NOT AVAILABLE IN AUTOCAD)



SF–1. SILT FENCE

SILT FENCE INSTALLATION NOTES

1. SILT FENCE MUST BE PLACED AWAY FROM THE TOE OF THE SLOPE TO ALLOW FOR WATER PONDING. SILT FENCE AT THE TOE OF A SLOPE SHOULD BE INSTALLED IN A FLAT LOCATION AT LEAST SEVERAL FEET (2–5 FT) FROM THE TOE OF THE SLOPE TO ALLOW ROOM FOR PONDING AND DEPOSITION.

2. A UNIFORM 6" X 4" ANCHOR TRENCH SHALL BE EXCAVATED USING TRENCHER OR SILT FENCE INSTALLATION DEVICE. NO ROAD GRADERS, BACKHOES, OR SIMILAR EQUIPMENT SHALL BE USED.

3. COMPACT ANCHOR TRENCH BY HAND WITH A "JUMPING JACK" OR BY WHEEL ROLLING. COMPACTION SHALL BE SUCH THAT SILT FENCE RESISTS BEING PULLED OUT OF ANCHOR TRENCH BY HAND.

4. SILT FENCE SHALL BE PULLED TIGHT AS IT IS ANCHORED TO THE STAKES. THERE SHOULD BE NO NOTICEABLE SAG BETWEEN STAKES AFTER IT HAS BEEN ANCHORED TO THE STAKES.

5. SILT FENCE FABRIC SHALL BE ANCHORED TO THE STAKES USING 1" HEAVY DUTY STAPLES OR NAILS WITH 1" HEADS. STAPLES AND NAILS SHOULD BE PLACED 3" ALONG THE FABRIC DOWN THE STAKE.

6. AT THE END OF A RUN OF SILT FENCE ALONG A CONTOUR, THE SILT FENCE SHOULD BE TURNED PERPENDICULAR TO THE CONTOUR TO CREATE A "J–HOOK." THE "J–HOOK" EXTENDING PERPENDICULAR TO THE CONTOUR SHOULD BE OF SUFFICIENT LENGTH TO KEEP RUNOFF FROM FLOWING AROUND THE END OF THE SILT FENCE (TYPICALLY 10' – 20').

7. SILT FENCE SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

SILT FENCE MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. SEDIMENT ACCUMULATED UPSTREAM OF THE SILT FENCE SHALL BE REMOVED AS NEEDED TO MAINTAIN THE FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 6".

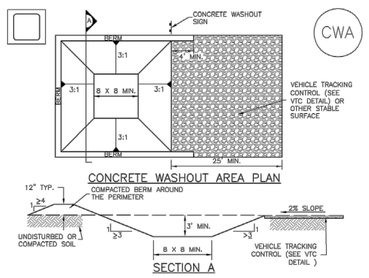
5. REPAIR OR REPLACE SILT FENCE WHEN THERE ARE SIGNS OF WEAR, SUCH AS SAGGING, TEARING, OR COLLAPSE.

6. SILT FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION, OR IS REPLACED BY AN EQUIVALENT PERIMETER SEDIMENT CONTROL BMP.

7. WHEN SILT FENCE IS REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

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

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



CWA–1. CONCRETE WASHOUT AREA

CWA INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   –CWA INSTALLATION LOCATION.

2. DO NOT LOCATE AN UNLINED CWA WITHIN 400' OF ANY NATURAL DRAINAGE PATHWAY OR WATERBODY. DO NOT LOCATE WITHIN 1,000' OF ANY WELLS OR DRINKING WATER SOURCES. IF SITE CONSTRAINTS MAKE THIS INFEASIBLE, OR IF HIGHLY PERMEABLE SOILS EXIST ON SITE, THE CWA MUST BE INSTALLED WITH AN IMPERMEABLE LINER (18 MIL MIN. THICKNESS) OR SURFACE STORAGE ALTERNATIVES USING PREFABRICATED CONCRETE WASHOUT DEVICES OR A LINED ABOVE GROUND STORAGE ARE SHOULD BE USED.

3. THE CWA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.

4. CWA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' BY 8' SLOPES LEADING OUT OF THE SUBSURFACE PIT SHALL BE 3:1 OR FLATTER. THE PIT SHALL BE AT LEAST 3' DEEP.

5. BERM SURROUNDING SIDES AND BACK OF THE CWA SHALL HAVE MINIMUM HEIGHT OF 1'.

6. VEHICLE TRACKING PAD SHALL BE SLOPED 2% TOWARDS THE CWA.

7. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CWA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CWA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.

8. USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

CWA MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. THE CWA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE. CONCRETE MATERIALS, ACCUMULATED IN PIT, SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF 2'.

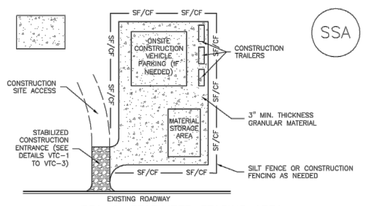
5. CONCRETE WASHOUT WATER, WASTED PIECES OF CONCRETE AND ALL OTHER DEBRIS IN THE SUBSURFACE PIT SHALL BE TRANSPORTED FROM THE JOB SITE IN A WATER–TIGHT CONTAINER AND DISPOSED OF PROPERLY.

6. THE CWA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.

7. WHEN THE CWA IS REMOVED, COVER THE DISTURBED AREA WITH TOP SOIL, SEED AND MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

(DETAIL ADAPTED FROM DOUGLAS COUNTY, COLORADO AND THE CITY OF PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD).

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



SSA–1. STABILIZED STAGING AREA

STABILIZED STAGING AREA INSTALLATION NOTES

1. SEE PLAN VIEW FOR
   –LOCATION OF STAGING AREA(S).
   –CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM THE LOCAL JURISDICTION.

2. STABILIZED STAGING AREA SHOULD BE APPROPRIATE FOR THE NEEDS OF THE SITE. OVERSIZING RESULTS IN A LARGER AREA TO STABILIZE FOLLOWING CONSTRUCTION.

3. STAGING AREA SHALL BE STABILIZED PRIOR TO OTHER OPERATIONS ON THE SITE.

4. THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM 3" THICK GRANULAR MATERIAL.

5. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.

6. ADDITIONAL PERIMETER BMPs MAY BE REQUIRED INCLUDING BUT NOT LIMITED TO SILT FENCE AND CONSTRUCTION FENCING.

STABILIZED STAGING AREA MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY IF RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.

STABILIZED STAGING AREA MAINTENANCE NOTES

5. STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING/LOADING OPERATIONS.

6. THE STABILIZED STAGING AREA SHALL BE REMOVED AT THE END OF CONSTRUCTION. THE GRANULAR MATERIAL SHALL BE REMOVED OR, IF APPROVED BY THE LOCAL JURISDICTION, USED ON SITE, AND THE AREA COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION.

NOTE: MANY MUNICIPALITIES PROHIBIT THE USE OF RECYCLED CONCRETE AS GRANULAR MATERIAL FOR STABILIZED STAGING AREAS DUE TO DIFFICULTIES WITH RE–ESTABLISHMENT OF VEGETATION IN AREAS WHERE RECYCLED CONCRETE WAS PLACED.

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

(DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO, NOT AVAILABLE IN AUTOCAD)

TERRA FORMA SOLUTIONS

REV. NO.	DESCRIPTION	DATE
2	REVISED PER BOUNDARY UPDATES	5/19/2025
1	REVISED PER COUNTY COMMENTS	10/1/2024

PERF 88 LLC

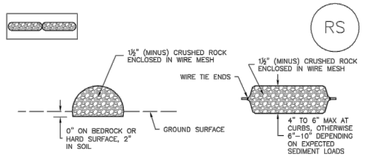
SWMP
6300 E. 88TH AVENUE - WEST
EROSION CONTROL DETAILS

6300 E. 88TH AVENUE
ADAMS COUNTY, COLORADO

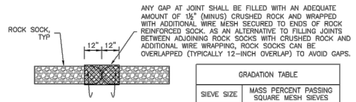
COLORADO LICENSED 37660 5/19/25 PROFESSIONAL ENGINEER

PROJ NO: 6300
ENG :
DATE : 8/21/2023

SHEET NUMBER
EC4
5 OF 6



ROCK SOCK SECTION ROCK SOCK PLAN



ROCK SOCK JOINTING

GRADATION TABLE	
SIEVE SIZE	MASS PERCENT PASSING SQUARE MESH SIEVES
	NO. 4
2"	100
1½"	90 – 100
1"	20 – 55
¾"	0 – 15
⅜"	0 – 5
MATCHES SPECIFICATIONS FOR NO. 4 COARSE AGGREGATE FOR CONCRETE PER AASHTO M43. ALL ROCK SHALL BE FRACTURED FACE, ALL SIDES.	

ROCK SOCK INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   –LOCATION(S) OF ROCK SOCKS.

2. CRUSHED ROCK SHALL BE ½" (MINUS) IN SIZE WITH A FRACTURED FACE (ALL SIDES) AND SHALL COMPLY WITH GRADATION SHOWN ON THIS SHEET (1½" MINUS).

3. WIRE MESH SHALL BE FABRICATED OF 10 GAGE POULTRY MESH, OR EQUIVALENT, WITH A MAXIMUM OPENING OF ½", RECOMMENDED MINIMUM ROLL WIDTH OF 48"

4. WIRE MESH SHALL BE SECURED USING "HOG RINGS" OR WIRE TIES AT 6" CENTERS ALONG ALL JOINTS AND AT 2" CENTERS ON ENDS OF SOCKS.

5. SOME MUNICIPALITIES MAY ALLOW THE USE OF FILTER FABRIC AS AN ALTERNATIVE TO WIRE MESH FOR THE ROCK ENCLOSURE.

RS–1. ROCK SOCK PERIMETER CONTROL

ROCK SOCK MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. ROCK SOCKS SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED, OR DAMAGED BEYOND REPAIR.

5. SEDIMENT ACCUMULATED UPSTREAM OF ROCK SOCKS SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY ½ OF THE HEIGHT OF THE ROCK SOCK.

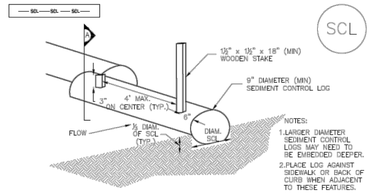
6. ROCK SOCKS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.

7. WHEN ROCK SOCKS ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

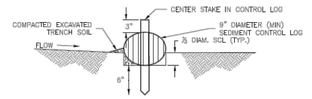
(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)

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

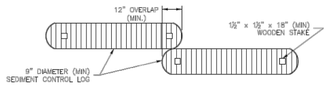
NOTE: THE DETAILS INCLUDED WITH THIS FACT SHEET SHOW COMMONLY USED, CONVENTIONAL METHODS OF ROCK SOCK INSTALLATION IN THE DENVER METROPOLITAN AREA. THERE ARE MANY OTHER SIMILAR PROPRIETARY PRODUCTS ON THE MARKET. UDFCD NEITHER NDORSES NOR DISCOURAGES USE OF PROPRIETARY PROTECTION PRODUCTS; HOWEVER, IN THE EVENT PROPRIETARY METHODS ARE USED, THE APPROPRIATE DETAIL FROM THE MANUFACTURER MUST BE INCLUDED IN THE SWMP AND THE BMP MUST BE INSTALLED AND MAINTAINED AS SHOWN IN THE MANUFACTURER'S DETAILS.



TRENCHED SEDIMENT CONTROL LOG

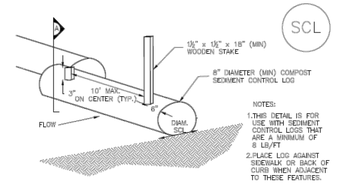


SECTION Ⓐ
TRENCHED SEDIMENT CONTROL LOG

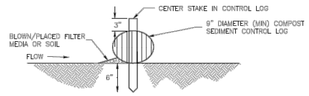


LOG JOINTS

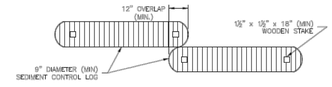
SCL–1. TRENCHED SEDIMENT CONTROL LOG



COMPOST SEDIMENT CONTROL LOG (WEIGHTED)



SECTION Ⓐ
COMPOST SEDIMENT CONTROL LOG



LOG JOINTS

SCL–2. COMPOST SEDIMENT CONTROL LOG (WEIGHTED)

SEDIMENT CONTROL LOG INSTALLATION NOTES

1. SEE PLAN VIEW FOR LOCATION AND LENGTH OF SEDIMENT CONTROL LOGS.

2. SEDIMENT CONTROL LOGS THAT ACT AS A PERIMETER CONTROL SHALL BE INSTALLED PRIOR TO ANY UPGRADIENT LAND–DISTURBING ACTIVITIES.

3. SEDIMENT CONTROL LOGS SHALL CONSIST OF STRAW, COMPOST, EXCELSIOR OR COCONUT FIBER, AND SHALL BE FREE OF ANY NOXIOUS WEED SEEDS OR DEFECTS INCLUDING RIPS, HOLES AND OBVIOUS WEAR.

4. SEDIMENT CONTROL LOGS MAY BE USED AS SMALL CHECK DAMS IN DITCHES AND SWALES. HOWEVER, THEY SHOULD NOT BE USED IN PERENNIAL STREAMS.

5. IT IS RECOMMENDED THAT SEDIMENT CONTROL LOGS BE TRENCHED INTO THE GROUND TO A DEPTH OF APPROXIMATELY ⅓ OF THE DIAMETER OF THE LOG. IF TRENCHING TO THIS DEPTH IS NOT FEASIBLE AND/OR DESIRABLE (SHORT TERM INSTALLATION WITH DESIRE NOT TO DAMAGE LANDSCAPE) A LESSER TRENCHING DEPTH MAY BE ACCEPTABLE WITH MORE ROBUST STAKING. COMPOST LOGS THAT ARE 8 LB/FT DO NOT NEED TO BE TRENCHED.

6. THE UPHILL SIDE OF THE SEDIMENT CONTROL LOG SHALL BE BACKFILLED WITH SOIL OR FILTER MATERIAL THAT IS FREE OF ROCKS AND DEBRIS. THE SOIL SHALL BE TIGHTLY COMPACTED INTO THE SHAPE OF A RIGHT TRIANGLE USING A SHOVEL OR WEIGHTED LAWN ROLLER OR BLOWN IN PLACE.

7. FOLLOW MANUFACTURERS' GUIDANCE FOR STAKING. IF MANUFACTURERS' INSTRUCTIONS DO NOT SPECIFY SPACING, STAKES SHALL BE PLACED ON 4' CENTERS AND EMBEDDED A MINIMUM OF 6" INTO THE GROUND. 3" OF THE STAKE SHALL PROTRUDE FROM THE TOP OF THE LOG. STAKES THAT ARE BROKEN PRIOR TO INSTALLATION SHALL BE REPLACED. COMPOST LOGS SHOULD BE STAKED 10' ON CENTER.

SEDIMENT CONTROL LOG MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. SEDIMENT ACCUMULATED UPSTREAM OF SEDIMENT CONTROL LOG SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY ½ OF THE HEIGHT OF THE SEDIMENT CONTROL LOG.

5. SEDIMENT CONTROL LOG SHALL BE REMOVED AT THE END OF CONSTRUCTION.COMPOST FROM COMPOST LOGS MAY BE LEFT IN PLACE AS LONG AS BAGS ARE REMOVED AND THE AREA SEEDED. IF DISTURBED AREAS EXIST AFTER REMOVAL, THEY SHALL BE COVERED WITH TOP SOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

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

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

TERRA FORMA SOLUTIONS

REV. NO.	DESCRIPTION	DATE
2	REVISED PER BOUNDARY UPDATES	5/19/2025
1	REVISED PER COUNTY COMMENTS	10/1/2024

PERF 88 LLC
SWMP
6300 E. 88TH AVENUE - WEST
EROSION CONTROL DETAILS
6300 E. 88TH AVENUE
ADAMS COUNTY, COLORADO

COLORADO LICENSED
37660
5/19/25
PROFESSIONAL ENGINEER

PROJ NO: 6300
ENG :
DATE : 8/21/2023

SHEET NUMBER
EC5
6 OF 6

Stormwater Management Plan (SWMP)

for construction activities at:

6300 East 88th Parking Lot Expansion
6300 East 88th Avenue
Adams County, CO 80640

SWMP Preparation Date: August 2023
SWMP Revision Date: May 2025
Docs. #3697430-v2

Table of Contents

SECTION 1: SITE EVALUATION, ASSESSMENT, AND PLANNING 5
1.1 Project/Site Information 5
1.2 Contact Information/Responsible Parties 6
1.3 Nature and Sequence of Construction Activity 7
1.4 Soils, Drainage Patterns, and Vegetation 8
1.5 Construction Site Estimates 9
1.6 Receiving Waters 10
1.8 Potential Sources of Pollution 12
1.9 Anticipated Allowable Sources of Non-stormwater Discharge 16
1.10 Demolition 17
SECTION 2: EROSION & SEDIMENT CONTROL MEASURES 18
2.1 Minimize Disturbed Area & Protect Natural Features and Soil 20
2.2 Control Stormwater Flowing onto and through the Project 22
2.3 Soil Stabilization and Slope Protection 25
2.4 Storm Drain Inlet Protection 31
2.6 Retention of Sediment On-Site 35
2.7 Construction Entrance/Exit Stabilization 38
2.8 Additional Control Measures (CMs) 40
SECTION 3: CONSTRUCTION SITE PHASING & EC PLAN 42
3.1 Construction Site Phasing Summary 42
3.2 General Notes 45
SECTION 4: WASTE MANAGEMENT PLAN 46
4.1 Covering Outdoor Storage and Handling Areas 47
4.2 Spill Prevention and Response Plan 49
4.3 Good Housekeeping 52
4.4 Vehicle Maintenance, Fueling and Storage 54
4.5 Street Sweeping and Cleaning 56
4.6 Storm Sewer Cleaning 57
SECTION 5: STORMWATER INSPECTIONS 58
5.1 Inspections 58
5.2 Delegation of Authority 60
5.3 Inspection Sequence 61
5.4 Common Compliance Problems 63
SECTION 6: RECORDKEEPING 64
6.1 Recordkeeping 64
SECTION 7: FINAL STABILIZATION 65
7.1 Final Stabilization Requirement 65
7.2 Removal of Temporary CMs 65
7.3 Stormwater Permits Close-out 65
7.4 Final Stabilization Measures 66
7.6 Long Term Stormwater Management 67
SECTION 8: STORMWATER VIOLATIONS 68
8.1 Stormwater Violations 68
8.2 Potential Stormwater Violations 68
SECTION 9: SWMP CERTIFICATION 69
9.1 SWMP Certification Statement 69

SWMP APPENDICES 70
APPENDIX 1: Project Vicinity Map 71
APPENDIX 2: CDPHE Stormwater Construction Permit + Local Stormwater Permit 72
APPENDIX 3: Pre-Disturbance Photos 73
APPENDIX 4: Local Demolition Permit + State Asbestos Permit 74
APPENDIX 5: Erosion & Sediment CMs/BMPs Details 75
APPENDIX 6: Erosion Control Plan (EC Plan) - Site Map 76
APPENDIX 7: Stormwater Inspection Form (Template) 77
APPENDIX 8: Delegation of Authority Form 81
APPENDIX: 9 Completed Stormwater Inspection Logs 82
APPENDIX 10: Subcontractor Certifications/Agreements 83
APPENDIX 11: Agreement for off-site Control Measures 84
APPENDIX 12: State Low Risk Discharge Guidance for Discharges of Potable Water 85
APPENDIX 13: Erosion and Sediment Control Standard Notes 88

Basic Acronyms:

SWMP: Stormwater Management Plan = ESCP: Erosion and Sediment Control Plan = SWPPP: Stormwater Pollution Prevention Plan
EC Plan: Erosion Control Plan (Site Map)
CM: Control Measures = BMP: Best Management Practices
MS4: Municipal Separate Storm Sewer System

Objectives:

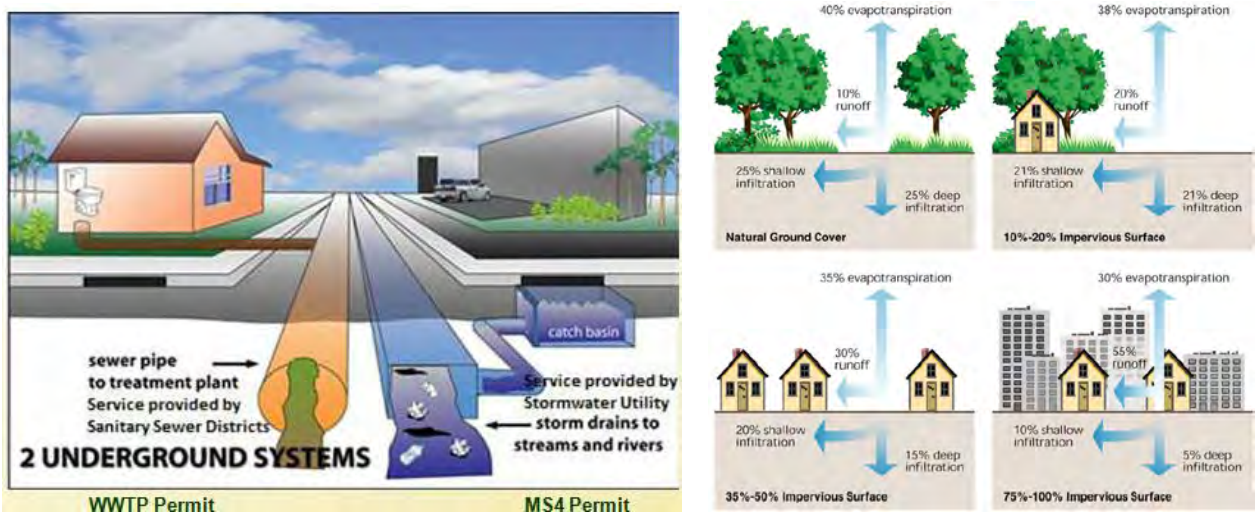
The SWMP identifies potential pollutant sources that may contribute to stormwater pollution, and identifies CMs to reduce or eliminate water quality impacts during construction activities. The goal is to keep sediments on-site. The most efficient construction site control measures are those that prevent erosion from occurring.

The SWMP must be completed and implemented prior to project breaking ground, and revised by the contractor's Qualified Stormwater Manager as construction proceeds, to accurately reflect the site conditions and practices until final stabilization is reached. The SWMP intends to meet the minimum requirements to comply with the State of Colorado CDPS General Permit for Stormwater Discharges Associated with Construction Activity, and local unincorporated Adams County regulations.

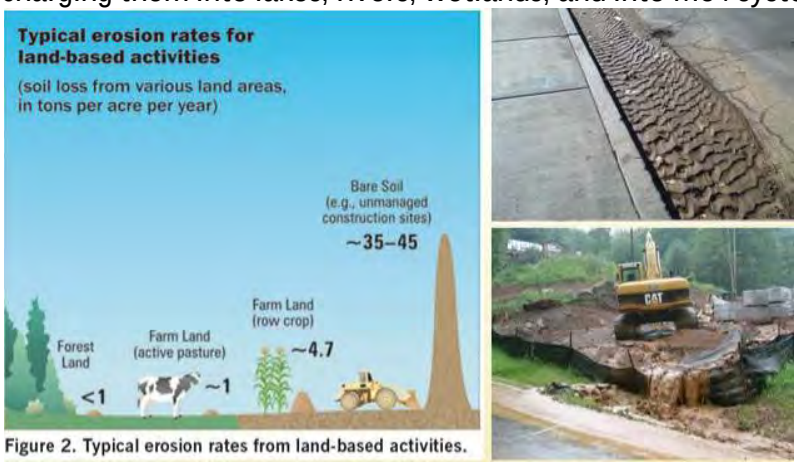
General Instructions:

To fill out the Stormwater Management Plan (SWMP) Template, select (double right click) the blue text and enter applicable information. If there is a blue box ☐, check when applicable. Doo not leave blank sections. If a section is "Not Applicable", select the blue text and enter "N/A".

Stormwater is runoff water from rain or snowmelt that does not infiltrate into the ground, and instead flows across the land discharging directly into the environment without treatment.

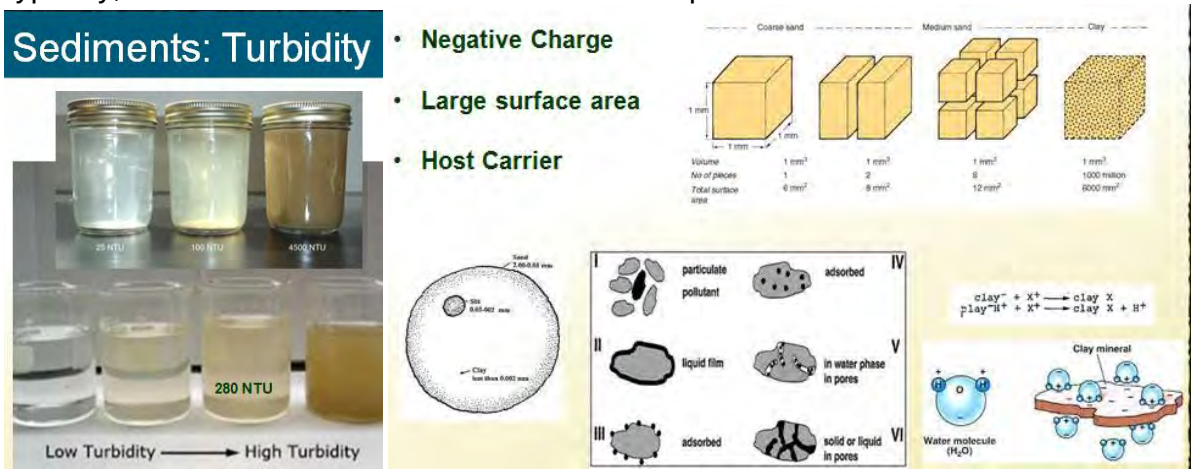


Runoff from construction sites can contain pollutants when runoff moves over and across disturbed areas discharging them into lakes, rivers, wetlands, and into MS4 systems.



Unmanaged construction soils erodes about 6 times more than farming activities

Typically, sediment from disturbed areas is the main pollutant source at construction sites.



Sediments easily attach to other pollutants and acts as a carrier, as well as impacting clarity of water which is critical for aquatic life and fish species spawning areas preservation.

1.1 Project/Site Information

Instructions:

- Include basic site information identifying general project information, permit numbers.
- Include a project vicinity map in Appendix 1.
- Attach the State of Colorado CDPS Stormwater Construction Permit Certification Page in Appendix 2.
- Attach a copy of the City/County Stormwater Permit in Appendix 2.

Project/Site Name: 6300 East 88th Parking Lot Expansion

Project Location: 6300 East 88th Avenue

City: Adams County State: CO ZIP Code: 80640

Subdivision: N/A

State of Colorado - CDPS Stormwater Discharge Permit associated with Construction Activities
Permit Number: COR-04 _____

Adams County Stormwater Quality (SWQ) Permit: _____

1.2 Contact Information/Responsible Parties

Instructions:

List the owner, operator, stormwater contact, and organization that prepared the SWMP. Complete by selecting the blue text, double right click, then type in the applicable information.

Owner:

76 AND 88 LLC
Fred Irr
5040 Acoma Street, Denver, CO 80216
Phone #: (303) 295-1313

Site Superintendent:

Insert Site Supervisor(s) Company or Organization Name - TBD
Insert Site Supervisor(s) Name - TBD
Insert Site Supervisor(s) Address, City, State, Zip Code - TBD
Phone #: (xxx)-xxx-xxxx - TBD Email: xxx@xxx.com - TBD

Qualified Stormwater Manager: Individual responsible for implementing, maintaining, and revising the SWMP, knowledgeable in the principles and practices of ESC and pollution prevention, with the skills to:

- Assess conditions at construction sites that could impact stormwater quality, and
- Assess the effectiveness of stormwater controls measures (CMs).

Insert ESC Qualified Stormwater Manager(s) Company or Organization Name - TBD
Insert ESC Qualified Stormwater Manager(s) Name - TBD
Insert ESC Qualified Stormwater Manager(s) Title - TBD
Insert ESC Qualified Stormwater Manager(s) Address, City, State, Zip Code - TBD
Phone #: (xxx)-xxx-xxxx - TBD Email: xxx@xxx.com - TBD

Qualified Stormwater Manager's area of control (if more than 1 operator at site):
N/A

SWMP prepared by:

Terra Forma Solutions
Todd Johnson
3465 South Gaylord Court, A304 Englewood, CO 80113
Phone #: (303) 257-7653 Email: todd@terraformas.com

1.3 Nature and Sequence of Construction Activity

Instructions:

- Describe the scope of the construction activity at the project site.
- Identify the purpose of the construction activity, include estimated dates to begin and conclude.
- Describe the sequence for major construction activities at each phase of the construction project.

Project scope of work:

Paved parking lot with approximately 39 truck and car parking stalls, as well as an on-site EDB.

Type of construction activity:

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

Estimated Project Start Date: March 2024

Estimated Project Completion Date: July 2024

Estimated Project Final Stabilization: August 2024

Major phases of construction:

☒ Initial Control Measures (CM)
☒ Demolition
☒ Grading
☒ Utility Installation
☒ Interim CM
☒ Road Construction
☐ Vertical Construction
☒ Final Grade
☒ Final Stabilization CM
☐ Other (please specify such as Over-Excavation, etc.):

Earth Work Summary:

Cut: 2,770 (CY)

Fill: 50 (CY)

If excess dirt: TBD

If importing dirt: N/A

Is the off-site borrow/fill area within ¼ mile of the project? TBD

If yes: either incorporate off-site area to the project's SWMP/EC plan, or submit a separate SWMP/EC Plan for the off-site area.

1.4 Soils, Drainage Patterns, and Vegetation

Instructions:

- Describe the existing soil conditions at the construction site including soil type(s), drainage patterns, and other topographic features that might affect erosion and sediment control.
- Describe the pre-disturbance vegetation and include color pre-disturbance photos in Appendix 3.

Soil type: Vona Sandy Loam

Source if this data: USDA NRCS Web Soil Survey

Soil's erosion potential: Moderate

Top Soil:

Describe quality of site's existing topsoil?

Low. Existing site is mostly bare soil used for existing storage.

Depth of top soil that will be preserved?

Minimal. Less than 3".

Where will the top-soil be stored during construction?

Stockpiled as needed near the southwest corner of the site.

Where will the top soil be ultimately re-utilized?

Proposed landscaped areas in the southwest corner of the site and northeast corner.

Drainage pattern - Describe existing drainage patterns, slopes and changes due to the proposed grading:

Existing site is very flat and sheet flows north to the existing roadside ditch on the southeast side of East 88th Ave. In the proposed condition, runoff in the parking lot will sheet flow to a concrete pan in the center of the pavement that will flow southwest and discharge directly into the proposed EDB via a riprap rundown. The EDB will discharge through an outlet structure directly into the existing roadside ditch bordering the site along the southeast side of East 88th Avenue, generally following existing drainage patterns.

Vegetation:

Describe type of pre-disturbance vegetation:

The existing site appears to be mostly dirt with very low vegetation coverage. There are a few existing trees and shrubs on the site.

Estimate the percentage of pre-existing vegetation cover of the entire site (%):

15%

Describe method for determining the percentage:

Google earth aerial imagery.

1.5 Construction Site Estimates

Instructions:

- Estimate total project area.
- Estimate the area to be disturbed by excavation, grading, or other construction activities, including off-site improvements, pavement cuts, dedicated off-site borrow or fill areas within ¼ mile from the site, equipment and material storage areas, and staging areas.

Total site area: 1.56 acres

Construction area to be disturbed: 1.7 acres

Are there any control measures (CMs) located outside the permitted area (or limits of construction), that are utilized for compliance, but not under the direct control of the Permittee?: No

If Yes: attach "Use Agreement" signed by the off-site owner/operator under Appendix 11 and describe CMs location, specifications, etc.

1.6 Receiving Waters

Instructions:

- List the jurisdictional storm sewer system or drainage system that stormwater from your site discharges to, such as storm system within unincorporated Adams County MS4, CDOT MS4, City of Thornton MS4, etc.
- Indicate inside which watershed the project is located.
- List the waterbody(s) that would receive stormwater from your site, including streams, rivers, lakes and wetlands. Describe each as clearly as possible, such as: *Clear Creek, a tributary to the South Platte River*. Including water courses even if they are usually dry, such as borrow ditches, arroyos, and other unnamed waterways.
- Indicate if the stream segment of the waterbody(s) is impaired and if a Total Maximum Daily Load (TMDL) has been adopted for any pollutant.

Location of the site's storm discharge: The proposed EDB will discharge through a proposed outlet structure and pipe system directly into the existing roadside ditch bordering the site along the southeast side of East 88th Avenue, generally following existing drainage patterns.

If the site discharges to a public Municipal Separate Storm Sewer System (MS4), insert the name of the MS4 owner: N/A

Name and description of the project's watershed: Irondale Gulch Watershed

Name and description of ultimately receiving water(s), including stream segment designation: South Platte River (Segment ID: COSPUS15)

- Distance from the project to the closest receiving water: 3,300'
- Is the receiving water stream segment impaired? ☒ Yes / ☐ No
- If yes, list TMDL's adopted for each pollutant: Cadmium (total and dissolved), Sulfate, Temperature, Ammonia, and E. coli
- Are these pollutants expected to be present at the construction site? ☐ Yes / ☒ No
- Which pollutant?: N/A
- Describe specific control measures (CMs) selected for the pollutant-specific Wasteload Allocation (WLA): N/A

Are stream crossings within the construction site boundary? ☐ Yes / ☒ No

- Location within the site: N/A
- Stream name: N/A
- Description of any disturbed upland areas that may contribute to the stream at the stream crossing locations: N/A
- Description of the CMs to be implemented for those contributing disturbed upland areas: N/A

Other: N/A

1.7 Protected Site Features and Sensitive Areas

Instructions:

- Describe unique site features or sensitive area including historic structures, floodplain/floodway of streams, stream buffers, wetlands, specimen trees, natural vegetation, steep slopes, or highly erodible soils that are to be preserved. Describe the measures that will be used to protect these features. Include unique features and sensitive areas on the EC Plan drawings.
- Describe any known soil or groundwater contamination. Note that additional permitting is required from the State of Colorado, Water Quality Control Division.
  Refer to http://www.cdphe.state.co.us/hm/HMSiteCover.htm and access the Hazardous Materials and Waste Management Division Site Locator Mapping Application.

Describe unique site feature or sensitive area to be preserved during construction:

N/A

Describe measures to preserve unique site feature or sensitive area during construction:

N/A

Describe any known soil or groundwater contamination:

None known.

Describe management plan for contaminated soils and/or groundwater:

N/A

Attach applicable Permits (check if applicable):

- ☐ 404 Permit
- ☐ 401 Permit
- ☐ Dewatering Permit (off-site)
- ☐ Remediation Permit
- ☐ Other

1.8 Potential Sources of Pollution

Instructions:

- List and describe measures to control potential sources of pollution, which may reasonably be expected to affect stormwater quality discharges from the construction site.
- Below is a comprehensive list. Add rows if additional potential sources of pollution are identified.
- If a potential pollutant source is applicable to the site, then select the blue Yes/No, then type "Yes" or "No".

Potential Pollution Source	Potential on this site?	Control Measures (CM)	CM Implementation (as needed)
Disturbed & Stored Soils - grading - spoils - stockpiles	Yes	ESC CMs (IP, SF, SSA, TRM, RECP, TOP, SCL, SBB, RS, SB, ST) Preservation of existing vegetation (PV, VB, CF, CP) Materials management Solid waste management (SP, GH) Stockpile management (SP) Vehicle tracking control (VTC)	1. Delineate protected areas prior to construction. 2. Install CMs prior construction. 3. Manage materials effectively once they arrive on site. 4. Place trash receptacles prior to construction. 5. Implement spill response. 6. Implement stockpile mgnt controls. 7. Delineate vehicle travel areas prior to construction, adjust as needed.
Vehicle Tracking - all permitted vehicle traffic	Yes	ESC CMs (IP, SF, SSA, TRM, RECP, TOP, SCL, SBB, RS, SB, ST) Vehicle traffic controls Vehicle tracking controls (VTC) Street sweeping (SS)	1. Install CMs prior construction. 2. Delineate vehicle travel areas prior to construction, adjust as needed. 3. Install VTC prior to construction. 4. Implement SS as needed, in conjunction with start of construction.
Contaminated Soils	No	Hazardous materials management (GH, CT) Spill response & notification (GH) Stockpile management (SP)	1. Implement hazardous materials management. 2. Implement spill response procedures. 3. Implement stockpile mgnt controls.
Loading & Unloading - construction materials	Yes	Material management (GH) Vehicle traffic controls (VTC)	1. Manage materials effectively once they arrive on site. 2. Delineate vehicle travel areas prior to construction, adjust as needed.
Vehicle/equip ment maint. & fueling - gas, oil, - diesel - lubricants - hydraulic fluids	Yes	Spill prevention controls (GH) Designated fuel storage area (GH) Spill response & notification (GH)	1. Designate fuel storage area. 2. Implement spill prevention controls. 3. Implement spill response and notification procedures.

* Refer to Section 2, for acronyms used to identify CM details.

Potential Pollution Source	Potential on this site?	Control Measures (CM)	CM Implementation
Outdoor storage - building materials - fertilizers - chemicals	Yes	Material storage procedures (GH)	1. Designate material storage areas prior to delivery. 2. Materials left outdoors must be covered if they can pollute stormwater. 3. Secondary containment must be used for hazardous materials.
Dust - wind transport - saw cutting	Yes	Dust control (DC) Temporary soil stabilization (SF, SD, GB, SSA, TRM, RECP, TOP) Street sweeping (SS) Preservation of existing vegetation (PV, VB, CF)	1. Delineate protected areas prior to construction. 2. Implement dust control in conjunction with soil disturbing activities. 3. Implement temporary soil stabilization measures as soon as practical. 4. Implement street sweeping at the start of major construction and maintain as needed.
Routine Maintenance Activities - fertilizers - pesticides - detergents - solvents - fuels, oils, etc.	Yes	Material storage (GH) Hazardous waste management (GH, Chemical Treatment) ESC CMs (IP, SF, SSA, RECP, TOP, SCL, SBB, RS, SB, ST)	1. Designate materials storage areas prior to site arrival. 2. Practice hazardous waste management procedures during the storage of such materials. 3. Install ESC measures prior to landscape work.
Non-industrial Waste - worker trash - portable toilets	Yes	Sanitary waste (GH) Solid waste management (GH)	1. Place temporary sanitary facilities on site and prevent off-site discharges. 2. Place trash receptacles on site.
On-site Industrial Waste - construction debris, etc	Yes	Waste management (GH) Liquid waste management (GH) Hazardous waste management (GH, CT)	1. Place trash receptacles on site. 2. Place designated watertight receptacles or washout area(s) prior to activities that produce liquid waste. 3. Implement hazardous waste management procedures.
Concrete Truck Chute/Tool Washing	Yes	Concrete washout area (CWA)	Install designated concrete washout(s) prior to concrete work.
Drywall Mud and Paint	Yes	Liquid waste management (GH)	Place designated watertight receptacles or washout area(s) prior to activities that produce liquid waste.
Fly Ash - concrete - flow fill	Yes	Concrete washout area (CWA) Hazardous waste management (GH)	1. Install designated CWA prior to concrete activities. 2. Implement hazardous waste management procedures.

* Refer to Section 2, for acronyms used to identify CM details.

Potential Pollution Source	Potential on this site?	Control Measures (CM)	CM Implementation
Dedicated: - Asphalt Plants - Concrete Batch Plants -Mortar/Masonry Mixing Stations	Yes	Secondary containment Concrete washout area (CWA) Solid waste management (GH) materials management (GH)	1. Install secondary containment CMs prior to using dedicated batch plants. 2. Establish dedicated washout area before construction begins. 3. Place trash receptacles on site. 4. Manage materials effectively once they arrive on site.
Waste from: - Geo-tech Test - Potholing - Saw Cutting - Utility borings for locates	Yes	Dust control (DC) Material storage (GH) Solid waste management (GH)	1. Implement dust control in conjunction with soil disturbing activities. 2. Designate materials storage areas prior to their arrival on site. 3. Place trash receptacles on site.
Demolition of infrastructure: - concrete curb - asphalt road - steel/rebar	Yes	Dust control (DC) Solid waste management (GH)	1. Implement dust control in conjunction with soil disturbing activities. 2. Place trash receptacles.
Electric Generator - pump	Yes	Secondary containment Spill response & notification (GH) Hazardous waste management (GH, CT)	1. Install secondary containment CMs prior to using generators. 2. Implement hazardous waste management procedures.
Areas where potential spills can occur	Yes	Hazardous waste management (GH) Spill response & notification (GH)	1. Implement hazardous waste management. 2. Implement spill response and notification procedures.
Flushing Waterlines	No	ESC CMs Low Risk Guidance for Potable Water **See Appendix 12	1. Install ESC measures prior to discharge. 2. Follow CMs required by the Low Risk Guidance**See Appendix 12

* Refer to Section 2, for acronyms used to identify CM details.

Potential hazardous material & chemical pollutants to stormwater:

Potentially on Site?	Material/ Chemical	Physical Description	Stormwater Pollutants	Location
Yes	Fertilizer	Liquid or solid grains	Nitrogen, phosphorous	Newly seeded areas
Yes	Cleaning solvents	Colorless, blue, or yellow-green liquid	Perchloroethylene, methylene chloride, trichloroethylene, petroleum distillates	Staging areas
Yes	Asphalt	Black solid	Oil, petroleum distillates	Streets
Yes	Concrete and Grout	White solid/grey liquid	Limestone, sand, pH, chromium	Curb and gutter, sidewalk, building construction
Yes	Curing compounds	Creamy white liquid	Naphtha	Curb and gutter, sidewalk, driveways, concrete slabs
Yes	Hydraulic oil/ fluids	Brown, oily petroleum hydrocarbon	Mineral oil	Leaks or broken hoses from equipment
Yes	Gasoline	Colorless, pale brown or pink petroleum hydrocarbon	Benzene, ethyl benzene, toluene, xylene, MTBE	Secondary containment/staging area
Yes	Antifreeze/ coolant	Clear green/yellow liquid	Ethylene glycol, propylene glycol, heavy metals (copper, lead, zinc)	Leaks or broken hoses from equipment or vehicles
Yes	Sanitary toilets	Various colored liquid	Bacteria, parasites, and viruses	Staging areas

1.9 Anticipated Allowable Sources of Non-stormwater Discharge

Instructions:

- Check box for presence of any anticipated allowable sources of non-stormwater discharge at the site such as: uncontaminated springs, landscape irrigation return flows, construction dewatering, concrete washout, super-chlorinated water for pipeline testing, etc.
- Include location (if applicable).

Description and location of any anticipated allowable sources of non-stormwater discharge at the site. Check if applicable:

☐ Natural springs, only if:
- Uncontaminated, and
- Spring flows are not exposed to land disturbance

Location: N/A

☒ Landscape irrigation return flow
Location: Landscaped areas.

☐ Construction dewatering, only if:
- Groundwater or groundwater combined with stormwater is uncontaminated, and
- Dewatering CMs are identified in the SWMP (filtration measures at pump intake and outlet), and
- The discharge does not leave the site as surface runoff or to surface waters.

Note: For off-site discharges a separate State of Colorado Dewatering Permit is required.
Location: N/A

☒ Concrete washout (CWA), only if:
- Liquids from washing concrete tools and concrete mixer chutes are properly contained, and
- No concrete washout water leaves the site as surface runoff or reach receiving waters

Liner under CWA is required if:
- The groundwater table level is high.
- CWA is within 400 feet of any natural drainage pathway or waterbody, or
- CWA is within 1,000 feet of any wells or drinking water sources.

☐ Check if the CWA liner is needed for this site.
Location: Near construction entrance.

☐ Super-chlorinated water for line testing (**Refer to Appendix 12 for State Low Risk Guidance).
- Discharge only after dechlorination CMs, such as industry standard dechlorination techniques or chemical treatment to “no measurable chlorine” content, and
- Control flow during discharge to allow infiltration and reduce erosion of land

Location: N/A

Description and location of any other anticipated allowable sources of non-stormwater discharge at the site: N/A

1.10 Demolition

Instructions:

- Before demolition of a structure begins, a copy of the Asbestos Certification from the State of Colorado certifying the structure is free of asbestos and other pollutants must be obtained. Attach a copy of the Demolition Permit, including the State of Colorado Asbestos Abatement Permit in Appendix 4.

Are there any building structures to be demolished at this site?

☐ Yes ☒ No

If yes:

1) Place a copy of Demolition Permit in Appendix 4.
2) Place a copy of the State of Colorado Asbestos Certification in Appendix 4.
3) Initial CMs must be installed prior beginning demolition work.
4) Describe additional steps taken to address demolition: N/A

SECTION 2: EROSION & SEDIMENT CONTROL MEASURES

Instructions:

Multiple permanent (structural) and temporary (non-structural) Control Measures (CM) are used for each phase of construction to minimize stormwater pollution. Select and categorize each CM according to their purpose:

1. Minimize disturbed area, and protect natural features and soil
2. Control stormwater flowing onto and through the project
3. Soil stabilization and slope protection
4. Storm drain inlet protection
5. Perimeter control and sediment barriers
6. Retention of sediment on-site
7. Construction entrance/exit stabilization
8. Additional CMs

Describe the CMs that will be implemented to control pollutants in stormwater discharges. A list of standard and commonly use CM is provided. The information also includes the e*xpected level of information* for each CM. The e*xpected level of information* must address the following:

- *What CMs will be installed? Select and describe CMs.*
- *When will the CMs be implemented and removed? Timing, temporary or permanent. All CMs shall be installed as a phased operation as construction progresses.*
- *Where will the CMs be implemented? Location.*
- *How will the CMs be maintained? Describe the maintenance and inspection procedures. Include protocols, thresholds, and schedules for cleaning, repairing or replacing damaged or failing CMs.*

If a construction project uses a CM that is not included below, add the CMs and ensure that the *expected level of information* is included.

Place CM detail drawings in Appendix 5. Use Urban Drainage Flood Control District's Detail Drawings:

https://udfcd.org/wp-content/uploads/uploads/vol3%20criteria%20manual/Chapter%207%20Construction%20BMPs.pdf

Indicate on the sections below which permanent (structural) or temporary (non-structural) control measure will be implemented to prevent stormwater pollution according to the following priorities:

1. Minimize Disturbed Area and Protect Natural Features and Soil

- Limits of Construction (LOC)
- Construction Phasing (CP)
- Protection of Existing Vegetation (PV) SM-2

2. Control Stormwater Flowing onto and through the Project

- Temporary Slope Drains (TSD) EC-7
- Earth Dikes/Drainage Swales (ED/DS) EC-10
- Sediment Trap (ST) SC-8
- Temporary Diversion Channel (TDC) SM-8
- Dewatering Operations (DW) SM-9
- Temporary Stream Crossing (TSC) SM-10

3. Soil Stabilization and Slope Protection

- Surface Roughening (SR) EC-1
- Temporary and Permanent Seeding (TS/PS) EC-2
- Soil Binders (SB) EC-3
- Mulching (MU) EC-4
- Rolled Erosion Control Product (RECP) EC-6
- Temporary Slope Drain (TSD) EC-7
- Temporary Outlet Protection (TOP) EC-8
- Earth Dikes/Drainage Swales (ED/DS) EC-10
- Terracing (TER) EC-11
- Check Dams (CD) EC-12
- Streambank Stabilization (SS) EC-13
- Wind Erosion/Dust Control (DC) EC-14

4. Storm Drain Inlet Protection

- Rock Sock (RS) SC-5
- Inlet Protection (IP) SC-6

5. Perimeter Controls and Sediment Barriers

- Construction Fence (CF) SM-3
- Vehicle Tracking Control (VTC) SM-4
- Vegetated Buffer (VB) SC-9

6. Retention of Sediment On-Site

- Silt Fence (SF) SC-1
- Sediment Control Log (SCL) SC-2
- Straw Bale Barrier (SBB) SC-3
- Sediment Basin (SB) SC-7
- Sediment Trap (ST) SC-8

7. Construction Entrance/Exit Stabilization

- Vehicle Tracking Control (VTC) SM-4
- Stabilized Construction Roadway (SCR) SM-5
- Stabilized Staging Area (SSA) SM-6
- Street Sweeping (SS) SM-7

8. Additional CMs

- Concrete Washout Areas (CWA) MM-1
- Stockpile Management (SP) MM-2
- Paving and Grinding Operations (PGO) SM-12
- Temporary Cement Mixing Station MM-3

2.1 Minimize Disturbed Area & Protect Natural Features and Soil

Instructions:

- Select methods (signs, construction fence) to protect unique site feature or sensitive area that shall not be disturbed. Describe how each unique site feature or sensitive area identified earlier will be protected during construction activity. Include these areas and associated measures on the EC Plan (site map).
- Indicate applicable measure by selecting the blue Yes/No then type "Yes" or "No". Identify the phase of construction during which the CM will be implemented: 1, 2, or 3, and check whether the CM is Permanent (structural) or Temporary (non-structural). Add any additional CMs as needed.

Limits of Construction (LOC)	Used: Yes	Phase(s): 1
☐ *Permanent*	☒ *Temporary*	

What: Description	LOC is use to designate the area of land that will be disturbed by construction activities.
When: Installation	The permitted LOC shall be designated prior to land disturbing activities. If land is disturbed outside of the limits, then the State and Local stormwater construction discharge permits and SWMP/EC Plan must be amended.
Where: Location	The permitted LOC shall be identified on the EC Plan.
How: Maintenance & Inspection	LOC are typically delineated by silt fence or construction fence. Inspect LOC continuously and maintain the permitted LOC in an effort to not disturb land outside of the boundaries.

Construction Phasing (CP)	Used: No	Phase(s): N/A
☐ *Permanent*	☒ *Temporary*	

What: Description	CP is scheduling and sequencing of land disturbing activities to limit erosion on dormant parts of the site.
When: Installation	At planning
Where: Location	The permitted CP shall be identified on the SWMP/EC Plan.
How: Maintenance & Inspection	At least establish CMs for initial, interim and final phase.

Protection of Existing Vegetation (PV) SM-2	Used: No	Phase(s): N/A
☐ *Permanent*	☐ *Temporary*	
What: Description	A construction fence shall be installed around native areas that require protection. It may also be necessary to install perimeter controls to prevent sediment loading to those sensitive areas.	
When: Installation	CMs installed for protection of existing vegetation shall be installed prior to land disturbing activities or as part of the phasing of the construction project.	
Where: Location	PV shall be installed at locations identified on the SWMP as a preservation area.	
How: Maintenance & Inspection	Install and maintain PV per detail SM-2 (Appendix 5). Clearly mark the area on the EC plan to be preserved. No stockpiles, equipment, trailers or parking shall be allowed within the area. Repair or replace damaged or displaced protective barriers around the vegetated area. Inspect and maintain all areas that are designated to be protected. If damage to the vegetation occurs in a protected area, reseed the area with the same or similar species. Construction equipment must not enter a wetland area, except as permitted by the U.S. Army Corps of Engineers (USACE). In advertent placement of fill in a wetland is a 404 permit violation and requires notification to the USACE.	

Insert Additional Control Measure (CM)	Used: No	Phase(s): N/A
☐ *Permanent*	☐ *Temporary*	
What – Description	N/A	
When – Installation	N/A	
Where – Location	N/A	
How – Maintenance and Inspection	N/A	

For additional CMs, repeat as needed here.

2.2 Control Stormwater Flowing onto and through the Project

Instructions:
- Select practices to divert flows from exposed soils, retain or detain flows, or otherwise limit runoff and the discharge of pollutants from exposed areas of the site.
- Indicate applicable measure by selecting the blue Yes/No then type "Yes" or "No". Identify the phase of construction during which the CM will be implemented: 1, 2, or 3, and check whether the CM is Permanent (structural) or Temporary (non-structural). Add any additional CMs as needed.

Temporary Slope Drains (TSD) EC-7	Used: No	Phase(s): N/A
☐ *Permanent*	☐ *Temporary*	
What: Description	TSD is a pipe or culvert use to convey water down a slope where there is high potential for erosion. A collection system at the top of the slope directs runoff to the conveyance. The pipe outlet must be equipped with outlet protection.	
When: Installation	Install TSD prior to up-gradient land disturbing activities and maintain in place until no longer needed, but remove prior to the end of construction.	
Where: Location	TSD shall be installed at the locations identified on the SWMP. They are for long, steep slopes where there is a high potential for flow concentration.	
How: Maintenance & Inspection	TSD shall be installed and maintained per detail EC-7 (Appendix 5). Inspect and maintain all TSD throughout construction. Inspect the entrance for sediment accumulation. Inspect the downstream outlet for signs of erosion and stabilize, as needed. Remove accumulated sediment at the entrance and outfall, and inspect pipe anchors to ensure they are secure.	

Earth Dikes/Drainage Swales (ED/DS) EC-10	Used: Yes	Phase(s): 1,2
☐ *Permanent*	☒ *Temporary*	
What: Description	*ED/DS* are temporary storm conveyance channels used to divert runoff around slopes or to convey runoff to additional sediment control CMs prior to discharge from the site.	
When: Installation	Install ED/DS immediately upon completion of channel grading and maintain in place until the end of construction.	
Where: Location	ED/DS shall be installed at the locations identified on the SWMP. Typically installed around steep slopes or as temporary conveyance feature leading to a sediment basin or trap.	
How: Maintenance & Inspection	ED/DS shall be installed per detail EC-10 (Appendix 5). Continuously inspect and maintain all ED/DS for stability, compaction and signs of erosion and repair. Inspect side slopes for erosion and damage to erosion control fabric. Stabilize slopes and repair fabric as necessary. Accumulated sediment shall be removed when the sediment has accumulated to ½ of the depth of the ED/DS.	

Sediment Trap (ST) SC-8	Used: No	Phase(s): N/A
☐ *Permanent*	☐ *Temporary*	
What: Description	ST is an excavated or bermed area designed to capture drainage, allowing settling of sediment from a disturbed area upstream smaller than 1 acre.	
When: Installation	ST shall be installed prior to land disturbing activities. The ST shall not be removed until the upstream area is stabilized.	
Where: Location	ST shall be installed at the locations identified on the SWMP. It shall be installed across a low area or drainage swale.	
How: Maintenance & Inspection	ST shall be installed per detail SC-8 (Appendix 5). Inspect regularly and maintain the ST embankments for stability and seepage. Inspect the ST outlet for debris and damage. Repair damage to the outlet, and remove all obstructions. Accumulated sediment shall be removed when it reaches ½ the height of the outflow embankment.	

Temporary Diversion Channel (TDC) *SM-8*	Used: No	Phase(s): N/A
☐ *Permanent*	☒ *Temporary*	
What: Description	TDC diverts water from a stream to allow for construction activities to take place underneath or in the stream.	
When: Installation	TDC shall be installed prior to the start of any construction activities within a stream. The TDC shall be removed when the work at the down gradient or natural channel is no longer required. The TDC shall be backfilled and stabilized.	
Where: Location	TDC shall be installed at the location identified on the SWMP. TDC can be used in the following locations: construction of detention ponds, dams, in-stream grade control structures, utility installations or any activity that requires work in a waterway.	
How: Maintenance & Inspection	TDC shall be installed per detail SM-8 (Appendix 5). Inspect frequently and maintain all TDC throughout construction. Inspect flow barriers at the start and end of each workday. Inspect TDC for signs of erosion. Repair or replace the lining if necessary.	

Dewatering Operations (DW) SM-9	Used: No	Phase(s): N/A
☐ *Permanent*	☐ *Temporary*	
What: Description	DW involves pumping water from an inundated area to a CM, then downstream to a receiving waterway, sediment basin or well-vegetated area. When pumping water outside of the permitted boundary a separate State of Colorado Dewatering Permit is required.	

When: Installation	DW is needed when an area of the construction site is inundated with water as a result of a large storm event, groundwater or existing ponding conditions. Remove DW once the work is no longer required.
Where: Location	Install DW at the locations identified on the SWMP. DW may occur in any area of the site where accumulated water needs to be removed.
How: Maintenance & Inspection	DW shall be conducted per detail SM-9 (Appendix 5). All dewatering discharges must be treated to remove sediment (and other pollutants) before discharging from the construction site. Inspect DW regularly and maintain operations throughout construction.

Temporary Stream Crossing (TSC) SM-10	Used: No	Phase(s): N/A
☐ *Permanent*	☒ *Temporary*	
What: Description	TSC is needed where an actively flowing watercourse must be crossed. Crossing methods: culvert crossing, stream ford and temporary bridge. A 404 permit is required for placement of fill in a waterway from the U.S. Army Corps of Engineers per Section 404 of the Clean Water Act.	
When: Installation	Install a TSC only when it is necessary to cross a stream; and remove it when the crossing is no longer needed for construction.	
Where: Location	TSC shall be installed at the locations identified on the SWMP.	
How: Maintenance & Inspection	TSC shall be installed per detail SM-10 (Appendix 5). Inspect and maintain TSC throughout construction. Inspect for bank erosion and in-stream degradation.	

Insert Additional Control Measure (CM)	Used: No	Phase(s):N/A
☐ *Permanent*	☐ *Temporary*	
What –Description	N/A	
When – Installation	N/A	
Where – Location	N/A	
How –Maintenance and Inspection	N/A	

For additional CMs, repeat as needed here.

2.3 Soil Stabilization and Slope Protection

Instructions:

- Soil Stabilization: Select controls to stabilize exposed soils where construction activities have temporarily or permanently ceased and measures to control dust generation.
- Slope Protection: Select controls that will be implemented to protect slopes from eroding.
- Indicate applicable measure by selecting the blue Yes/No then type "Yes" or "No". Identify the phase of construction during which the CM will be implemented: 1, 2, or 3, and check whether the CM is Permanent (structural) or Temporary (non-structural). Add any additional CMs as needed.

Surface Roughening (SR) EC-1	Used: Yes	Phase(s): 1,2
☐ *Permanent*	☒ *Temporary*	
What: Description	SR is tracking, scarifying, imprinting or tilling a disturbed area to provide temporary stabilization. Variations in the soil are created to help minimize wind and water erosion.	
When: Installation	SR shall be performed either after final grading or to temporarily stabilize an area during active construction.	
Where: Location	SR shall be used in the locations identified on the SWMP. It can be used on mild and steep slopes.	
How: Maintenance & Inspection	SR shall be installed per detail EC-1 (Appendix 5). SR shall always be perpendicular to the slope. Continuously inspect and maintain all surfaces that are roughened throughout construction. SR shall be inspected for erosion as it is only a temporary control. Vehicles and equipment shall not be driven over areas that have been surface roughening. Refresh SR as needed.	

Temporary and Permanent Seeding (TS/PS) EC-2	Used: Yes	Phase(s): 2,3
☒ *Permanent*	☒ *Temporary*	
What: Description	Seed is applied to disturbed areas in an effort to establish vegetation. TS is used to stabilize disturbed areas that will be inactive for an extended period. PM is used to stabilize areas at final grade that will not be otherwise stabilized. Effective seeding includes preparation of a seedbed, selection of an appropriate seed mixture, proper planting techniques, and protection of the seeded area with mulch, geotextile, or other appropriate measures. Mulching helps to protect the bare soil and must be secured by crimping, tackifiers, netting or other measures. Site specific soil amendment and seed mix specifications must be included in the SWMP.	
When: Installation	TS/PS shall be performed on temporary inactive surfaces and following the completion of final grading.	
Where: Location	TS/PS shall be completed in the locations identified on the SWMP to stabilize areas at final grade that will not otherwise be stabilized.	

How: Maintenance & Inspection	TS/PS and secured mulching shall be installed per seed mix specifications and detail EC-2 (Appendix 5). Continuously inspect and maintain TS/PS and secured mulch throughout construction. Prepare the seedbed, select an appropriate seed mixture, use proper planting techniques and protect the seeded area with secured mulch.

Soil Binders (SB) EC-3	Used: No	Phase(s): N/A
☐ *Permanent*	☒ *Temporary*	
What: Description	SB involves a broad range of treatments that can be applied to exposed soils for temporary stabilization to reduce wind and water erosion.	
When: Installation	Use SB for short term temporary stabilization. Soil binders can break down fast due to natural weathering.	
Where: Location	SB can be used on mild and steep slopes including stockpiles. They are often used in areas where work has temporarily stopped, but is expected to resume before revegetation can be established.	
How: Maintenance & Inspection	SB shall be used per detail EC-3 (Appendix 5). Continuously inspect and maintain all areas where SB have been applied throughout construction. SB can fail after heavy rainfall events and may require re-application. In particular, SB will generally experience spot failures during heavy rainfall events.	

Mulching (MU) EC-4	Used: Yes	Phase(s): 2,3
☒ *Permanent*	☒ *Temporary*	
What: Description	MU consists of evenly applying straw, hay, shredded wood mulch, bark or compost to disturbed soils and securing the mulch by crimping, tackifiers or netting.	
When: Installation	MU is used in conjunction with TS/PS to help protect the seed bed and stabilize the soil. Mulch can also be used as a temporary cover on low to mild slopes to help temporarily stabilize disturbed area where there are growing season constraints. After MU application, there shall not be bare ground surface exposed. Reapply mulch, as needed, to cover bare areas.	
Where: Location	Temporary and/or permanent MU shall be completed in the locations identified on the SWMP.	
How: Maintenance & Inspection	MU shall be installed per detail EC-4 (Appendix 5). After MU, the bare ground surface shall not be more than 10% exposed. Re-apply mulch, as needed, to cover bare areas.	

Rolled Erosion Control Product (RECP) EC-6	Used: No	Phase(s): N/A
☐ *Permanent*	☐ *Temporary*	
What: Description	RECP consist of a variety of temporary or permanently installed manufactured products designed to control erosion and enhance vegetation establishment and survivability, especially on slopes and in channels. Categories of RECP: mulch control netting, open weave textile, erosion control blanket, and turf reinforcement mat.	
When: Installation	RECP shall be installed upon completion of slope grading and when revegetation measures are completed. RECP are biodegradable typically and do not need to be removed after construction.	
Where: Location	RECP shall be installed at the locations identified on the SWMP. Install RECP according to manufacturer's specifications.	
How: Maintenance & Inspection	RECP shall be installed per EC-6 (Appendix 5). Continuously inspect and maintain all RECP throughout construction. Check for signs of erosion, including voids under the mat. Also check for damaged or loose stakes and secure loose sections of the blanket.	

Temporary Slope Drain (TSD) EC-7	Used: No	Phase(s): N/A
☐ *Permanent*	☐ *Temporary*	
What: Description	Refer to Section 2.2	
When: Installation	Refer to Section 2.2	
Where: Location	Refer to Section 2.2	
How: Maintenance & Inspection	Refer to Section 2.2	

Temporary Outlet Protection (TOP) EC-8	Used: Yes	Phase(s): 2,3
☒ *Permanent*	☒ *Temporary*	
What: Description	TOP consist of riprap rock placed at the outlet to help reduce erosion immediately downstream of a pipe, culvert, slope drain rundown or other conveyance with concentrated flow. TOP is intended for less than 2 years.	
When: Installation	TOP shall be installed immediately upon the completion of grading and removed once the pipe is no longer draining upstream area or once the downstream area has been sufficiently stabilized.	
Where: Location	TOP shall be installed at the locations identified on the SWMP, where there is a potential for accelerated erosion due to concentrated flow.	

How: Maintenance & Inspection	TOP shall be installed and maintain per EC-8 detail (Appendix 5). The Inspect regularly and maintain TOP as the rocks may be displaced. Accumulated sediment shall be removed before the TOP becomes buried and ineffective.

Earth Dikes/Drainage Swales (ED/DS) EC-10	Used: Yes	Phase(s): 1,2
☐ *Permanent*	☐ *Temporary*	
What: Description	Refer to Section 2.2	
When: Installation	Refer to Section 2.2	
Where: Location	Refer to Section 2.2	
How: Maintenance & Inspection	Refer to Section 2.2	

Terracing (TER) EC-11	Used: Yes/No	Phase(s): 1, 2, 3
☐ *Permanent*	☐ *Temporary*	
What: Description	TER consists of grading steep slopes into a series of relatively flat sections separated at intervals by steep slope segments. They shorten the uninterrupted flow lengths on steep slopes, reducing the development of rills and gullies.	
When: Installation	TER shall be completed during grading activities; when slope is at final grade, and vegetation shall be established as soon as possible.	
Where: Location	TER shall be installed at the locations identified on the SWMP. It is usually used to control erosion on slopes that are steeper than 4:1.	
How: Maintenance & Inspection	TER shall be installed per detail EC-11 (Appendix 5). TER shall be used in combination with other stabilization measures that provide cover for exposed soils. Inspect regularly and maintain all TER throughout construction. Remove accumulated sediment and repair rill erosion as necessary.	

Check Dams (CD) EC-12	Used: No	Phase(s): N/A
☐ *Permanent*	☐ *Temporary*	
What: Description	CDs are temporary or permanent grade control structures use in drainage channels to reduce the velocity of runoff and concentrated flows. They can be constructed from rock, gravel bags, sand bags or proprietary devices.	
When: Installation	CD shall be installed prior to earth disturbing activities or immediately upon	

	completion of channel grading. Temporary CDs shall be removed and area shall be stabilized. Permanent CDs shall be cleaned and remain in place.
Where: Location	CD shall be installed at the locations identified on the SWMP. Typically they are placed in drainage channels, swales or on mild to moderate steep slopes.
How: Maintenance & Inspection	CDs shall be installed per detail EC-12 (Appendix 5). They shall be placed at regularly spaced intervals along the drainage swale or ditch. The height of the CD shall allow for pooling of the runoff. Inspect regularly and maintain CD as rocks can be displaced and gravel bags or sandbags can be torn. Accumulated sediment shall be removed before it reaches ½ the height of the CD.

Streambank Stabilization (SS) *EC-13*	Used: No	Phase(s): N/A
☐ *Permanent*	☐ *Temporary*	
What: Description	SS is a combination of erosion and sediment control measures to protect streams, banks, and in-stream habitat from accelerated erosion. Some of the measures include PV, CD, TS/PS and RECP.	
When: Installation	SS shall be installed prior to earth disturbing activities to protect existing vegetation, preserve exposed streambank, or mitigate erosion rates from disturbed area. SS measures that will not remain in place as a part of final stabilization, such as silt fence, shall be removed when all land disturbing activities have ceased and the area has been permanently stabilized.	
Where: Location	SS shall be installed at the locations identified on the SWMP. They shall be installed along the banks of streams or waterways.	
How: Maintenance & Inspection	SS shall be installed per detail EC-13 (Appendix 5). Inspect regularly and maintain SS throughout construction.	

Wind Erosion/Dust Control (DC) EC-14	Used: Yes	Phase(s): 1, 2, 3
☐ *Permanent*	☒ *Temporary*	
What: Description	DC helps keep sediments (from soils and stockpiles) from entering the air as a result of land disturbing construction activities. A variety of practices that focus on grading disturbed areas may be used.	
When: Installation	Implement DC during conditions which result in dust from either construction activities or from naturally occurring winds. Do not overwater.	
Where: Location	Dust abatement shall be completed throughout the project area where any material exists that has the potential to become airborne.	
How: Maintenance & Inspection	DC measures shall be performed per detail EC-14 (Appendix 5). Apply water or magnesium chloride, seed and mulch or use spray-on soil binders on disturbed areas. Water and magnesium chloride shall be applied such that concentrated flows do not form.	

Insert Additional Control Measure (CM)	Used: No	Phase(s): N/A
☐ *Permanent*	☐ *Temporary*	
What – Description	N/A	
When – Installation	N/A	
Where – Location	N/A	
How – Maintenance and Inspection	N/A	

For additional CMs, repeat as needed here.

2.4 Storm Drain Inlet Protection

Instructions:

- Select controls, including design specifications and details, that will be implemented to protect storm drain inlets receiving stormwater from the project.
- Indicate applicable measure by selecting the blue Yes/No then type "Yes" or "No". Identify the phase of construction during which the CM will be implemented: 1, 2, or 3, and check whether the CM is Permanent (structural) or Temporary (non-structural). Add any additional CMs as needed.

Rock Sock (RS) SC-5	Used: Yes	Phase(s): 2
☐ *Permanent*	☒ *Temporary*	
What: Description	RS is an elongated cylindrical filter constructed of gravel wrapped by wire mesh or woven geotextile (aka "curb socks" if placed at angles at curb line).	
When: Installation	Install RS prior to land disturbing activities; once upstream stabilization is complete. Accumulated sediment shall be removed and properly disposed of.	
Where: Location	RS shall be installed at the locations identified on the EC Plan. They are use for perimeter control of a disturbed area, or as part of IP.	
How: Maintenance & Inspection	Install RS per detail SC-5 (Appendix 5). Inspect regularly and maintain RS as they are susceptible to displacement and breakage due to vehicle traffic. Accumulated sediment shall be removed to maintain functionality.	

Inlet Protection (IP) SC-6	Used: No	Phase(s): N/A
☐ *Permanent*	☐ *Temporary*	
What: Description	IP is a permeable barrier that is installed around an inlet drain to filter runoff and remove sediment before entering the storm system. IP can be constructed of: RS, SCL, SF, blocks and RS, or other materials.	
When: Installation	Install IP for existing catch basins prior to land disturbing activities upslope from the inlet. IP for proposed catch basins shall be installed immediately after the drain is constructed. IP and associated sediment must be removed and properly disposed of when the drainage area upstream is stabilized.	
Where: Location	Install IP at the locations identified on the EC Plan. IP is not a stand-alone measure. It shall be used in conjunction with other up gradient measures.	
How: Maintenance & Inspection	Install IP per detail SC-6 (Appendix 5). IP shall enable the drain to function without completely blocking the flow. Inspect regularly and maintain IP throughout construction as it is the final measure before runoff enters the storm drain. Accumulated sediment shall be removed when it has reached ½ of the height of the IP or looses functionality, whichever comes first. IP is not standalone measure and shall be part of redundant system.	

Insert Additional Control Measures (CM)	Used: No	Phase(s): N/A
☐ *Permanent*	☐ *Temporary*	
What – Description	N/A	
When – Installation	N/A	
Where – Location	N/A	
How – Maintenance and Inspection	N/A	

For additional CMs, repeat as needed here.

2.5 Perimeter Control & Sediment Barriers

Instructions:

- Select measures, including design specifications and details, to filter and trap sediment before it leaves the construction site.
- Indicate applicable measure by selecting the blue Yes/No then type "Yes" or "No". Identify the phase of construction during which the CM will be implemented: 1, 2, or 3, and check whether the CM is Permanent (structural) or Temporary (non-structural). Add any additional CMs as needed.

Construction Fence (CF) SM-3	Used: No	Phase(s): N/A
☐ *Permanent*	☐ *Temporary*	

What: Description	CF restricts site access to designated entrances and exits, delineates construction site boundaries, and keeps construction out of sensitive locations such as natural areas to be preserved as open space, wetlands and riparian areas.
When: Installation	CF shall be installed prior to earth disturbing activities; and removed once construction is complete.
Where: Location	Install CF along the site perimeter or any area within the site where access shall be restricted.
How: Maintenance & Inspection	CF shall be installed, maintained and removed per detail SM-3 (Appendix 5). Inspect CF for damages and slumping. The CF shall be tight and any areas with slumping or fallen posts shall be reinstalled or replaced.

Vehicle Tracking Control (VTC) SM-4	Used: Yes	Phase(s): 1,2
☐ *Permanent*	☒ *Temporary*	

What: Description	VTC is a stabilized site access point that helps remove sediment from vehicle tires and reduces tracking of sediment onto paved surfaces.
When: Installation	Install VTC prior to any land disturbing activities; and removed when there is no longer the potential for vehicle tracking to occur.
Where: Location	VTC shall be installed at the location identified on the SWMP. Locate VTC where frequent vehicle traffic will exit the construction site onto a paved roadway.
How: Maintenance & Inspection	VTC shall be installed per detail SM-4 (Appendix 5). All VTC must have non-woven geotextile fabric between the soil and rock pad. Recycled concrete aggregate is not allowed because concrete dust elevates pH in stormwater. Inspect regularly and maintain VTCs throughout construction. If the area becomes clogged with sediment, remove and dispose of excess sediment or replace material with a fresh layer of rock. Any sediment that is tracked onto adjacent roadways shall be cleaned with brooms, shovels (no water washing), or mechanically cleaned with a street vacuum sweeper.

Vegetated Buffer (VB) SC-9	Used: No	Phase(s): N/A
☐ *Permanent*	☐ *Temporary*	

What: Description	VB is the preservation of natural vegetation to protect waterways and wetlands. A VB may be required as a type of setback from a natural waterway. It shall be used in conjunction with other perimeter measures.
When: Installation	VB shall be pre-existing of land disturbing activities.
Where: Location	VB shall be installed at the locations identified on the SWMP. VB shall be use with additional measures to separating land disturbing activities.
How: Maintenance & Inspection	VB shall be installed per detail SC-9 (Appendix 5). Inspect regularly and maintain VB throughout construction. Inspect for signs of erosion. VB shall not be used as standalone measure and shall be part of redundant system.

Insert Additional Control Measure (CM)	Used: No	Phase(s): N/A
☐ *Permanent*	☐ *Temporary*	

What – Description	N/A
When – Installation	N/A
Where – Location	N/A
How – Maintenance and Inspection	N/A

For additional CMs, repeat as needed here.

2.6 Retention of Sediment On-Site

Instructions:

- Select sediment control practices, including design specifications and details (volume, dimensions, outlet structure) that will be implemented at the construction site to retain sediments on-site.
- Indicate applicable measure by selecting the blue Yes/No then type "Yes" or "No". Identify the phase of construction during which the CM will be implemented: 1, 2, or 3, and check whether the CM is Permanent (structural) or Temporary (non-structural). Add any additional CMs as needed.

Silt Fence (SF) SC-1	Used: Yes	Phase(s): 1,2
☐ *Permanent*	☒ *Temporary*	

What: Description	SF is a woven geotextile fabric attached to wooden posts and trenched into the ground. It is use to intercept sheet flow runoff from disturbed areas.
When: Installation	SF shall be installed prior to land disturbing activities. SF shall be removed when the upstream area is stabilized.
Where: Location	SF shall be installed at the locations identified on the SWMP. SF is typically installed along the contour of slopes, which is down slope of a disturbed area to accept sheet flow, and placed along the perimeter of a construction site. *SF is not designed to receive concentrated flow, or to be used a filter fabric.*
How: Maintenance & Inspection	SF shall be installed per detail SC-1 (Appendix 5). Inspect regularly and maintain SF throughout construction. Any section of SF that has a tear, hole, slumping, undercutting or has been bypassed shall be replaced. Accumulated sediment shall be removed before it reaches a depth of 6 inches.

Sediment Control Log (SCL) SC-2	Used: Yes	Phase(s): 1,2
☐ *Permanent*	☒ *Temporary*	

What: Description	SCL, aka "Straw Wattle", is a linear roll made of natural materials (straw, coconut fiber or other fibrous material), trenched into the ground and held with wooden stakes, used to intercept sheet flows from disturbed areas.
When: Installation	SCL shall be installed during land disturbing activities and it may also be installed after formation of a stockpile. Once the upstream area is stabilized, remove and properly dispose of the SCL. If disturbed areas exist after removal, the area shall be covered with top soil, seeded and mulched.
Where: Location	SCL shall be installed at the locations identified on the ECSP. SCL are typically used for stockpile control, IP, and CD in small drainage ditches, on disturbed slopes to shorten flow lengths and/or as part of multi-layered perimeter control along receiving water such as a stream, pond or wetland. SCL work well in combination with other layers of erosion and sediment controls. Stockpiles stored on impervious surfaces shall not be placed in a flowline and SCL shall be weighted. Stockpiles stored on pervious surfaces may be

	protected by pervious SCL, SF or adequate vegetative cover.
How: Maintenance & Inspection	SCL shall be installed per detail SC-2 (Appendix 5), along (parallel) the slope contour to avoid concentrating flows. Inspect regularly and maintain SCL throughout construction as they will eventually degrade. Accumulated sediment shall be removed before the depth is ½ the height of the SCL.

Straw Bale Barrier (SBB) SC-3	Used: No	Phase(s): N/A
☐ *Permanent*	☐ *Temporary*	
What: Description	SBB is a linear barrier of straw bales used to intercept and capture sheet flow and to trap sediment before runoff exits a disturbed area. Typically used as CD, or as IP.	
When: Installation	Install SBB prior to land disturbing activities. Remove and properly dispose of the SBB once the upstream area has been stabilized. Areas of disturbance beneath the SBB shall be seeded and mulched when bales are removed.	
Where: Location	Straw bale barriers shall be installed at the locations identified on the ECSP.	
How: Maintenance & Inspection	SBB shall be installed per detail SC-3 (Appendix 5). Inspect regularly and maintain SBB throughout construction as they may be bypassed or undercut by flows and will degrade and rot. Accumulated sediment shall be removed when the depth reaches ¼ the height of the bale.	

Sediment Basin (SB) SC-7	Used: Yes	Phase(s): 1,2
☐ *Permanent*	☒ *Temporary*	
What: Description	SB is a temporary structure designed to capture sediment transported in runoff and slowly release flows to allow time for settling of the sediment prior to discharge from the site	
When: Installation	Install SB prior to land disturbing activities. SBs are typically converted to permanent detention basins. For conversion, remove accumulated sediment and re-configure the basin and outlet to meet the requirements of the final design. For SB that are temporary, remove when is no longer needed by filling in the excavated area with soil and stabilizing accordingly.	
Where: Location	SB shall be installed at the locations identified on the SWMP. Where feasible, the SB shall be installed in the same location where a permanent post-construction detention basin will be located.	
How: Maintenance & Inspection	The SB shall be installed per detail SC-7 (Appendix 5). Inspect regularly and maintain SB to be effective. Accumulated sediment shall be dredged from the basin when it reaches no more than ⅓ of the design storage volume.	

Sediment Trap (ST) SC-8	Used: No	Phase(s): N/A
☐ *Permanent*	☐ *Temporary*	

What: Description	ST is an excavated or bermed area designed to capture drainage, allowing settling of sediment from upstream disturbed area smaller than 1 acre.
When: Installation	Install ST prior to land disturbing activities. The ST shall not be removed until the upstream area is sufficiently stabilized.
Where: Location	Install ST in the locations identified on the SWMP. It shall be installed across a low area or drainage swale.
How: Maintenance & Inspection	ST shall be installed per detail SC-8 (Appendix 5). Inspect regularly and maintain the ST throughout construction. Inspect the embankments for stability and seepage, and the outlet for sediment, debris and damage. Repair damage to the outlet, and remove all obstructions. Accumulated sediment shall be removed when it reaches ½ the height of the outflow embankment.

Insert Additional Control Measure (CM)	Used: No	Phase(s): N/A
☐ *Permanent*	☐ *Temporary*	

What – Description	N/A
When – Installation	N/A
Where – Location	N/A
How – Maintenance and Inspection	N/A

For additional CMs, repeat as needed here.

2.7 Construction Entrance/Exit Stabilization

Instructions:

- Select CM to stabilize vehicle entrance(s) and exit(s) to minimize off-site vehicle tracking of sediments and discharges to stormwater.
- Indicate applicable measure by selecting the blue Yes/No then type "Yes" or "No". Identify the phase of construction during which the CM will be implemented: 1, 2, or 3, and check whether the CM is Permanent (structural) or Temporary (non-structural). Add any additional CMs as needed.

Vehicle Tracking Control (VTC) SM-4	Used: Yes	Phase(s): 1,2
☐ *Permanent*	☒ *Temporary*	
What: Description	Refer to Section 2.5	
When: Installation	Refer to Section 2.5	
Where: Location	Refer to Section 2.5	
How: Maintenance & Inspection	Refer to Section 2.5	

Stabilized Construction Roadway (SCR) SM-5	Used: No	Phase(s): N/A
☐ *Permanent*	☐ *Temporary*	
What: Description	SCR is a temporary method to control sediment runoff, vehicle tracking, and dust from roads during construction activities consisting of aggregate base course of 3-inch diameter granular material (recycled concrete aggregate is not allowed because concrete dust elevates pH in stormwater).	
When: Installation	SCR is installed on high traffic construction roads to minimize dust and erosion, and use in place of rough cut street controls on roadways with frequent construction and vehicle traffic. Gravel shall be removed once the road is ready to be paved. Prior to paving, the road should be inspected for grade changes and damage. Re-grade and repair as necessary.	
Where: Location	SCR shall be installed at the locations identified on the SWMP. Apply gravel to disturbed areas that are used as a route for vehicles.	
How: Maintenance & Inspection	SCR shall be installed per detail SM-5 (Appendix 5). Inspect regularly and maintain SCR throughout construction. A stable surface cover of rigid gravel shall be maintained as well as repairing any perimeter controls. Inspect drainage ditches along the roadway for erosion and stabilize as needed.	

Stabilized Staging Area (SSA) SM-6	Used: Yes	Phase(s): 1,2
☐ *Permanent*	☒ *Temporary*	

What: Description	SSA is a clearly designated area where construction equipment and vehicles, stockpiles, waste bins and other construction-related materials are stored. If the construction site is big, more than one SSA may be necessary.
When: Installation	SSA shall be installed prior to any land disturbing activities.
Where: Location	SSA shall be installed at the location identified on the SWMP.
How: Maintenance & Inspection	SSA shall be installed per detail SM-6 (Appendix 5). Inspect regularly and maintain SSA throughout construction. A stable surface cover of rigid gravel shall be maintained as well as repairing any perimeter controls and following good housekeeping practices.

Street Sweeping (SS) SM-7	Used: Yes	Phase(s): 1,2,3
☐ *Permanent*	☒ *Temporary*	

What: Description	SS is used where vehicles track sediment onto paved roadways to reduce the transport of it into storm drain systems or surface waterways.
When: Installation	Manual SS or mechanical vacuuming SS shall be conducted when there is noticeable sediment accumulation on roadways adjacent to the construction site. SS shall be completed prior to any precipitation events, at the end of the workday as needed, and at the end of construction.
Where: Location	SS shall be utilized throughout the site and also on adjacent areas to construction.
How: Maintenance & Inspection	SS shall be performed per detail SM-7 (Appendix 5). Use standard SS equipment to adequately remove sediment from roadways adjacent to the construction site.

Insert Additional Control Measure (CM)	Used: No	Phase(s): N/A
☐ *Permanent*	☐ *Temporary*	

What – Description	N/A
When – Installation	N/A
Where – Location	N/A
How – Maintenance and Inspection	N/A

For additional CMs, repeat as needed here.

2.8 Additional Control Measures (CMs)

Instructions:

Indicate applicable CMs by selecting the blue Yes/No then type "Yes" or "No". Identify the phase of construction during which the CM will be implemented: 1, 2, or 3, and check whether the CM is Permanent (structural) or Temporary (non-structural). Add any additional CMs as needed.

Concrete Washout Areas (CWA) *MM-1*	Used: Yes	Phase(s): 1,2
☐ *Permanent*	☒ *Temporary*	
What: Description	CWA is a specific area for concrete washing activities. It can be an excavation of a pit in the ground, above ground storage area or prefabricated haul-away container.	
When: Installation	CWA shall be installed prior to any concrete delivery to the construction site; and remove upon termination of use of the washout. Accumulated solid waste, including concrete waste and any contamination soils, must be removed from the site to a designated disposal location.	
Where: Location	CWA shall be installed at the locations identified on the SWMP. Lined CWA if the groundwater table is high; or if the CWA will be placed within 400 ft of a natural drainage pathway/waterbody; or within 1,000 ft of a wells or drinking water source.	
How: Maintenance & Inspection	CWA shall be installed per detail MM-1 (Appendix 5). Inspect regularly and maintain CWA throughout construction. Ensure adequate signage is in place identifying the location of the CWA. Remove concrete waste when filled to about ⅔ of CWA capacity to maintain functionality.	

Stockpile Management (SP) *MM-2*	Used: Yes	Phase(s): 1,2
☐ *Permanent*	☒ *Temporary*	
What: Description	SP includes measures to minimize erosion and sediment transport from stockpiles. SP shall be used when soils or other erodible materials are stored.	
When: Installation	SP locations shall be determined during construction. If temporary removal of a CM is necessary to access the SP, ensure CMs area re-installed per detail drawing. When SP is no longer needed, properly dispose of excess materials and re-vegetate or stabilize the ground surface where the SP was located.	
Where: Location	SP locations shall be placed away from areas where concentrated stormwater flow is anticipated, major drainageways, gutters, and storm sewer inlets. SP locations shall be noted on the SWMP.	
How: Maintenance & Inspection	SP shall be installed per detail MM-2 (Appendix 5). Inspect regularly and maintain SP throughout construction. It is recommended to place SP on a pervious surface and protected from sediment transport with measures such	

	as SCL, VB and/or SF. SP are only allowed on impervious surfaces if no other practical alternative exists. Provide weighted sediment control measures around the perimeter of the SP, such as RS or sand bags.

Paving and Grinding Operations (PGO) SM-12	Used: No	Phase(s): N/A
☐ *Permanent*	☐ *Temporary*	
What: Description	Runoff management practices shall be used during all PGO. A variety of management practices can be used such as: IP, perimeter controls, store materials away from the storm sewer system, drainages and waterways, and keep a spill kit onsite.	
When: Installation	PGO shall be scheduled during dry weather. Recycle asphalt and pavement material when feasible. Material that cannot be recycled must be disposed of properly.	
Where: Location	Use runoff management practices during all paving and grinding operations such as surfacing, resurfacing, and saw cuts.	
How: Maintenance & Inspection	PGO shall be installed per detail SM-12 (Appendix 5). Inspect regularly and maintain PGO throughout construction.	

Temporary Cement Mixing Area *MM-3*	Used: No	Phase(s): N/A
☐ *Permanent*	☐ *Temporary*	
What: Description	Contained area for concrete, cement, mortar, drywall, mud and stucco mixing activities.	
When: Installation	Install prior to any material mixing activity; and remove upon termination of use of the area.	
Where: Location	Installed at the locations identified on the SWMP.	
How: Maintenance & Inspection	Install per detail (attach to Appendix 5). Inspect regularly and maintain capacity throughout construction. Clean-up if there are spills.	

Insert Additional Control Measure (CM)	Used: No	Phase(s): N/A
☐ *Permanent*	☐ *Temporary*	
What – Description	N/A	
When – Installation	N/A	
Where – Location	N/A	
How – Maintenance and Inspection	N/A	

For additional CMs, repeat as needed here.

3.1 Construction Site Phasing Summary

Instructions:
The SWMP and EC Plan (Site Map) shall clearly delineate the construction sequencing between the separate phases of construction, and the CM/BMP implementation of the permanent and temporary CMs.
Using the information under Section 1.3 Nature and Sequence of Construction Activity, describe the construction phase and the permanent or temporary CMs associated with each of the following 3 phases:

- Initial Construction = Phase I, Initial BMP/CMs
- Interim Construction = Phase II, Interim BMP/CMs
- Final Construction = Phase III, Final BMP/CMs

The EC Plan must identify location of the proposed CMs to be implemented during the 3 phases of construction. Develop 3 separate phased detailed site maps (one plan sheet representing one phase; do not combine). Place the EC Plan sheets in Appendix 6. Place CMs details in Appendix 5.

- Initial Construction - Phase I
  - Select applicable construction activities

☐ Demolition
☒ Clearing, Grubbing, Tree and Shrub Removal
☒ Top Soil Stripping and Stock Piling
☒ Grading
☐ Over-excavation/Soil conditioning
☐ Utility Installation
☐ Dewatering
☐ Other:

☒ Initial Control Measures (CM)

☒ Stabilized Staging Area (SSA) SM-6
☒ VTC to enter/exit into public roads
☒ Perimeter Control
☐ Inlet Protection (IP) SC-6 on existing site or off-site storm drains
☐ Check Dams (CD) EC-12
☐ Rock Sock (RS) SC-5
☒ Silt Fence (SF) SC-1
☐ Sediment Control Log (SCL) SC-2
☒ Sediment Basin (SB) SC-7
☐ Sediment Trap (ST) SC-8
☒ Earth Dikes/Drainage Swales (ED/DS) EC-10
☐ Dewatering Operations (DW) SM-9
☒ Stockpile Management (SP) MM-2
☒ Surface Roughening (SR) EC-1
☒ Temporary Seeding (TS) EC-2

☐ Soil Binders (SB) EC-3
☒ Limits of Construction (LOC)
☐ Protection of Existing Vegetation (PV) SM-2
☐ Employee Training
☒ Street Sweeping (SS) SM-7
☒ Dust Control (DC) EC-14
☒ Good Housekeeping Practices (required)
☒ Spill Prevention, Containment and Control (required)
☒ Covering Outdoor Storage and Handling Areas (required)
☐ Other: Insert Here

- Interim Construction - Phase II
  - Select applicable construction activities

☐ Road Construction
☒ Parking lot Construction
☐ Vertical Construction
☐ Dewatering
☐ Other:

☒ Interim Control Measures (CM) - BMPs/CMs associated with this Phase
☐ Inlet Protection (IP) SC-6 as new storm drains are constructed
☒ Outlet Protection (OP)
☐ Check Dams (CD) EC-12
☒ Rock Sock (RS) SC-5
☐ Installation of additional CMs at curbside, sidewalks, medians, and parking islands once pavement is laid (until landscape begins)
☒ VTC to enter/exit dirt lots from internal roads or parkinglot
☒ Concrete Washout Areas (CWA) MM-1
☐ Temporary Cement Mixing Area
☒ Stabilized Staging Area (SSA) SM-6
☒ Silt Fence (SF) SC-1
☐ Sediment Control Log (SCL) SC-2
☒ Sediment Basin (SB) SC-7
☐ Sediment Trap (ST) SC-8
☒ Earth Dikes/Drainage Swales (ED/DS) EC-10
☒ Surface Roughening (SR) EC-1
☒ Temporary Seeding (TS) EC-2
☐ Soil Binders (SB) EC-3
☐ Dewatering Operations (DW) SM-9
☒ Stockpile Management (SP) MM-2

☒ Limits of Construction (LOC)
☐ Protection of Existing Vegetation (PV) SM-2
☐ Employee Training
☒ Street Sweeping (SS) SM-7
☒ Dust Control (DC) EC-14
☒ Good Housekeeping Practices (required)
☒ Spill Prevention, Containment and Control (required)
☒ Covering Outdoor Storage and Handling Areas (required)
☐ Other:

- Final Construction - Phase III
  - Select applicable construction activities

☒ Final Grade
☒ Top Soil Placement
☒ Landscape (per approved plan)
☒ Removal of applicable temporary BMPs/CMs
☒ Permanent pond conversion + removal of sediments on the SB
☐ Other:

☒ Final Stabilization - BMPs/CMs associated with this Phase
☒ Sod
☒ Permanent Seeding & Mulching (PS/MU)
☐ Erosion Control blankets (RECP)
☒ Limits of Construction (LOC)
☐ Protection of Existing Vegetation (PV) SM-2
☐ Employee Training
☒ Street Sweeping (SS) SM-7
☒ Dust Control
☒ Good Housekeeping Practices (required)
☒ Spill Prevention, Containment and Control (required)
☒ Covering Outdoor Storage and Handling Areas (required)
☐ Other:

3.2 General Notes

Instructions:

Refer to Appendix 13 for the General EC Plan Notes from Unincorporated Adams County.

SECTION 4: WASTE MANAGEMENT PLAN

Instructions:

Complete the Waste Management Plan below by describing site-specific pollution prevention CMs that will be implemented to control pollutants in stormwater from construction sites. Indicate which of the following CM categories are applicable for your construction site:

- Covering Outdoor Storage and Handling Areas (required)
- Spill Prevention and Response Plan (required)
- Good Housekeeping (required)
- Vehicle Maintenance, Fueling and Storage (required, if applicable)
- Street Sweeping and Cleaning (required, if applicable)
- Storm Sewer System Cleaning (required, if applicable)

4.1 Covering Outdoor Storage and Handling Areas

Instructions:

- Practices for outdoor storage and handling areas are required to be implemented in all 3 phases of construction (initial, interim and final).

Covering Outdoor Storage and Handling Areas Used: Yes Phase(s): 1, 2, 3

☐ *Permanent* ☒ *Temporary Procedure*

Description: When raw materials, byproducts, finished products, storage tanks, and other materials are stored or handled outdoors, stormwater runoff that comes in contact with the materials can become contaminated. Proactively covering storage and handling areas can be an effective source control for such areas. Coverings can be permanent or temporary and consist of tarp, plastic sheeting, roofing, enclosed structures, or other approaches that reduce exposure of materials to precipitation and wind.

Uses: Covering is appropriate for areas where solids (e.g., gravel, compost, building materials) or liquids (e.g., oil, gas, tar) are stored, prepared, or transferred. Cover the following areas that are applicable to this construction site:

- Loading and Unloading: Loading and unloading operations usually take place at outside storage or staging area on the construction site. Materials may be spilled during transfer between storage facilities and trucks during pumping of liquids, pneumatic transfer of dry chemicals, and mechanical transfer of bags, boxes, drums, or other containers by material handling equipment.
- Aboveground Tanks/Liquid Storage: Accidental releases of chemicals from above-ground liquid storage can contaminate stormwater with a variety of pollutants. Several common causes of accidental releases from above-ground storage include: external corrosion and structural failure, problems due to improper installation, spills and overfills due to operator error, failure of piping systems, and leads or spills during pumping of liquids or gases between trucks to a storage facility.
- Outside Manufacturing: Common outside manufacturing activities may include parts assembly, rock grinding or crushing, metals painting or coating, grinding or sanding, degreasing, concrete manufacturing, parts cleaning or operations that use hazardous materials. These activities can result in dry deposition of dust, metal and wood shavings and liquid discharges of dripping or leaking fluids from equipment or process and other residuals being washed away in storm runoff. In addition, outside storage of materials and waste products may occur in conjunction with outside manufacturing.
- Waste Management: Wastes spilled, leached, or lost from outdoor waste management areas or outside manufacturing activities may accumulate in soils or on other surfaces and be carried away by storm runoff. There is also the potential for liquid wastes from surface impoundments to overflow to surface waters or soak the soil where they can be picked up by runoff. Possible stormwater contaminants include toxic compounds, oil and grease, oxygen-demanding organics, paints and solvents, heavy metals and high

levels of suspended solids. Lack of coverage of waste receptacles can result in precipitation seeping through the material and collecting contaminants or the material being blown around the site and into the storm sewer system. Containment sources include waste piles, wastewater and solid waste treatment and disposal, land application sites, dumpsters, or unlabeled drums.

- Outside Storage of Materials: Raw materials, intermediate products, byproducts, process residuals, finished products, containers, and materials storage areas can be sources of pollutants such as metals, oils and grease, sediment and other contaminants. Pollutant transport can occur when solid materials wash off or dissolve into water, or when spills or leaks occur.

Practice Procedures:

- Where practical, conduct operations indoors. If outdoors, then select a temporary or permanent covering to reduce exposure of materials to precipitation and runoff.
- The type of covering selected depends on a variety of factors such as the type and size of activity being conducted and materials involved. Types of cover range from relatively inexpensive tarps and plastic sheeting to overhead structures or fully enclosed buildings equipped with ventilation, lighting, etc.
- Covering practices should be combined with Good Housekeeping to be most effective.
- Tarps and plastic sheets require more frequent inspection and maintenance.

Place site-specific information here:

4.2 Spill Prevention and Response Plan

Instructions: Implement spill prevention, containment and control practices during all 3 phases of construction.

Spill Prevention & Response Plan	Used: Yes	Phase(s): 1, 2, 3
☐ *Permanent*	☒ *Temporary Procedure*	

Spills and leaks of solid and liquid materials processed, handled or stored outdoors can be a source of stormwater pollution. Spilled substances can reach receiving waters when runoff washes these materials from impervious surfaces or when spills directly enter the storm system during dry weather conditions. Effective controls depend on spill prevention and response measures, proper training, and may include structural spill containment or control devices. Spill containment measures include temporary or permanent curbs or berms that surround a potential spill site. Berms may be constructed of concrete, earthen material, metal, synthetic liners, or other material. Spill control devices include valves, slide gates, or other devices that can control and contain spilled material.

Spill Prevention Measures

- Train key employees in plan and provide clear, common-sense spill prevention practices and clean-up procedures to be strictly followed.
- Identify equipment that is exposed to precipitation, pollutants that may be generated and possible sources of leaks or discharges.
- Perform inspections and preventative maintenance of equipment for proper operation and to check for leaks or evidence of discharge (stains). Ensure repairs are completed or provide temporary leak containment until such repairs can be made.
- Drain used motor oil and other automotive fluids in a designated area away from storm inlets. Collect spent fluids and recycle or dispose of properly. Never dispose into storm or sanitary sewer.
- In fueling areas, clean up spills with dry methods (absorbents) and use damp cloths on gas pumps and damp mops on paved surfaces.
- Never hose down a spill or absorbent materials into the storm drain, or down into an interior floor drain which leads to the sanitary sewer system.
- Reduce stormwater contact with equipment and materials by implementing covered storage, reduce stormwater run-on and follow good housekeeping practices.
- Post signs at critical locations with Spill Prevention and Response Plan information.

Identification of Spill Areas: Spill prevention and response measures shall be implemented at construction sites in areas where materials may be spilled in quantities that can adversely impact receiving waters or the storm system. Identify potential spill areas, potential spill volumes, material types, frequency of material used, and drainage paths from spill areas with relation to storm sewer inlets, adjacent water bodies, structural CMs, and containment structures. Use this information to determine the types of spill prevention and control

measures needed specific to the site conditions. Show the potential spill areas on the EC Plan:

- Loading and unloading areas
- Outdoor storage areas
- Outdoor manufacturing or processing activities
- Waste disposal
- Areas that generate significant dust or particulates that may later deposit on the ground
- Areas prone to spills based on past experience at the site
- Locations where other routine maintenance activities occur
- Areas where smaller leaks may occur (parkinglots)

Material Handling Procedures: From a water quality perspective, the primary principle behind effective material handling practices is to minimize exposure to precipitation. Store the material indoors, otherwise implement the following outdoor materials handling procedures:

- Divert stormwater around materials storage areas.
- Keep bulk solid materials (raw materials, sand, gravel, topsoil, compost, concrete, packing materials, metal products, etc) covered and protected from stormwater.
- When practical, store materials on impermeable surfaces.
- Store hazardous materials according to federal, state, and local requirements.
- Adopt procedures to reduce spills or leaks during filling or transfer of materials.
- Substitute less toxic or nontoxic materials for toxic materials.
- Store containers that are easily punctured or damaged away from high traffic areas.
- Add waste-capture containers such as collection pans for lubricating fluids.
- Store drums and containers with liquids on impermeable surfaces and provide 2dary containment. Place drums stored outdoors on pallets to minimize contact with runoff.

Spill Response Procedures: Tailor spill response procedures to site-specific conditions and industry-specific regulatory requirements. Follow procedures:

- Contain and cleanup spills promptly after the spill is discovered.
- Sweep up small quantities of pollutants to reduce exposure to runoff.
- Place absorbents at fueling areas or areas susceptible to spills.
- Wipe up small spills with a rag, store rags in appropriate containers, dispose of rags properly or use a professional industrial cleaning service.
- Contain medium-sized spills with absorbents and use berms or absorbent "snakes" as temporary booms for the spill. Store and dispose of absorbents properly. Wet/dry vacuums may be used, but not for volatile fluids.
- Install drip pans below minor equipment leaks until a repair can be made.
- For large spills, first contain the spill and plug storm inlet where the liquid may migrate

off-site, then clean up the spill.

- Excavation of spill areas to removed contaminated material may be required where large liquid spills occur on unpaved surfaces.
- Maintain an inventory of cleanup materials onsite and strategically locate them based on the types and quantities of chemicals present.
- Records of spills, leaks, or overflows that result in the discharge of pollutants must be documented and maintained.

Two approaches are used when implementing spill containment measures: 1) Design system to contain the entire spill; or 2) Use curbing to route spilled material to a collection basin. Both containment berming and curbing should be sized to safely contain or convey to a collection basin a spill from the largest storage tank, tanker truck, or other containment device in the possible spill area. The spill containment area must have an impermeable surface (impermeable liner, asphalt or concrete) to prevent groundwater contamination. Design containment system to enable collection and removal of spilled material through a pump or vacuum trucks, sorbent or gelling material, etc. Material removed must be disposed of or recycled according to local, state, and federal standards. If the capacity of the spill containment is exceeded, supplemental measures should be available such as a portable containment device, sorbent materials, or gelling agents to solidify the material. Water that collects within containment areas due to rainfall or snowmelt must be appropriately treated before release from the spill area.

Emergency 24-Hour Site Contact (with spill response and clean-up authority):

TBD

TBD

Office #: (xxx)-xxx-xxxx Cell #: (xxx)-xxx-xxxx Email: xxx@xxx.com

Notification Procedures: Some spills may need to be reported to the State of Colorado, Water Quality Control Division and Adams County Stormwater Division immediately upon discovery. Releases of chemical, oil, petroleum product, sewage, etc., which may enter State Waters must be reported to: State of Colorado, 24-hour Emergency Spill Reporting Line: 1-877-518-5608. www.cdphe.state.co.us/emp/spillsandreleased.htm). Adams County Stormwater Hotline: 720-523-6400; Public Works: 303-453-8787. Tri-County Health Department: 303-220-9200.

Spill kits shall be present at all times within the construction staging area.

Insert: Incorporate by reference any part of a Spill Prevention Control and Countermeasure (SPCC) plan under section 311 of the Clean Water Act (CWA)
The relevant sections of any referenced plans must be available on-site

Insert: Incorporate by reference any part of the Spill Prevention Plan required by a separate CDPS permit
The relevant sections of any referenced plans must be available on-site

N/A

4.3 Good Housekeeping

Instructions: Implement good housekeeping practices during all 3 phases of construction (initial, interim & final).

Good Housekeeping Practices	Used: Yes	Phase(s): 1, 2, 3
☐ *Permanent*	☒ *Temporary*	

Description: Good housekeeping practices are designed to maintain a clean and orderly work environment. The most effective first steps towards preventing stormwater pollution at construction sites simply involve using common sense to improve the site's basic housekeeping methods. Poor housekeeping practices result in increased waste and potential for stormwater contamination. A clean and orderly work site reduces the possibility of accidental spills caused by mishandling of chemicals and equipment and should reduce safety hazards to personnel. A well-maintained material and chemical storage area will reduce the possibility of stormwater mixing with pollutants. Some simple procedures a site can use to promote good housekeeping include improved operation and maintenance of machinery and processes, material storage practices, material inventory controls, routine and regular clean-up schedules, maintaining well organized work areas, signage, and educational program for employees and the general public.

Practice Procedures for Operation and Maintenance:

- Maintain dry and clean floors and ground surfaces by using brooms, shovels, vacuums or cleaning machines, rather than wet clean-up methods.
- Regularly collect and dispose of garbage and waste material.
- Routinely inspect equipment to ensure that it is functioning properly without leaking and conduct preventative maintenance and needed repairs.
- Train employees on proper clean up and spill response procedures.
- Designate separate areas for auto parking, vehicle refueling and routine maintenance.
- Promptly clean up leaks, drips and other spills.
- Cover and maintain dumpsters and waste receptacles. Add additional dumpsters or increase frequency of waste collection if overflowing conditions reoccur.
- For outdoor painting and sanding: Conduct activities in designated areas that provide adequate protection to prevent overspray and uncontrolled emissions. All operations should be conducted on paved surfaces to facilitate cleanup. Use portable containment as necessary for outside operations. Clean up and properly dispose of excess paint, paint chips, protective coatings, grit waste, etc.
- Maintain vegetation on facility grounds in a manner that minimizes erosion. Follow the Landscape Maintenance and Pesticide, Herbicide and Fertilizer Usage CMs to ensure that minimum amounts of chemicals needed for healthy vegetation are applied to minimize transport of these materials in runoff.

Practice Procedures for Material Storage Practices:

- Provide adequate aisle space to facilitate material transfer and access for inspection.

- Store containers, drums, and bags away from direct traffic routes to reduce container damage resulting in accidental spills.
- Stack containers according to manufacturer's instructions to avoid damaging the containers from improper weight distribution. Also store materials in accordance with directions in Material Safety Data Sheets (MSDSs).
- Store containers on pallets or similar devices to prevent corrosion of containers that results from containers coming in contact with moisture on the ground.
- Store toxic or hazardous liquids within curbed areas or secondary containers.

Practice Procedures for Material Inventory Practices: An up-to-date materials inventory can keep material costs down by preventing overstocking, track how materials are stored and handled onsite, and identify which materials and activities pose the most risk to the environment. Assign responsibility of hazardous material inventory to individuals trained to handle such materials. A material inventory should include these steps:

- Identify all chemical substances present at work site. Perform a walk-through of the site, review purchase orders, list all chemical substances used and obtain Material Safety Data Sheets (MSDS) for all chemicals.
- Label all containers with name and type of substance, stock number, expiration date, health hazards, handling suggestions, and first aid information. Find info on the MSDS.
- Clearly identify special handling, storage, use and disposal considerations for hazardous materials on the material inventory.
- Institute a shelf-life program to improve material tracking and inventory to reduce the amount of materials overstocked and ensure proper disposal of expired materials. Careful tracking of materials ordered can result in more efficient materials use. Decisions on the amounts of hazardous materials that are stored on site should include an evaluation-of any emergency control systems that are in place. All storage areas for hazardous materials should be designed to contain spills.

Practice Procedures for Training and Participation: Provide frequent and proper training in good housekeeping techniques to reduce mishandling of chemicals or equipment. Educate by:

- Discussing good housekeeping practices in training programs and meetings.
- Publicizing pollution prevention concepts through posters or signs.
- Posting bulletin boards with updated good housekeeping procedures and tips.

Place site-specific information here:

4.4 Vehicle Maintenance, Fueling and Storage

Instructions:

- Identify procedures by selecting the blue Yes/NA then type "Yes" or "N/A".
- If applicable, CMs is required during all 3 phases of construction (initial, interim and final).

Vehicle Maintenance, Fueling and Storage	Used: Yes	Phase(s): 2
☐ *Permanent*	☒ *Temporary*	

Description: Areas where vehicles are fueled, maintained, and stored/parked can be pollutant "hot spots" that can result in hydrocarbons, trace metals, and other pollutants being transported in precipitation runoff. Proper fueling operations, storage of automotive fluids and effective spill cleanup procedures can help reduce contamination of stormwater runoff from vehicle maintenance and fueling facilities. Fuel-related spills can occur due to lack of attention during fueling or "topping off" fuel tanks. Common activities at construction sites include vehicle fluid replacement and equipment replacement and repair. Some of the wastes generated maintaining automobiles include solvents (degreasers, paint thinners, etc.), antifreeze, brake fluid, brake pad dust, battery acid, motor oil, fuel, and lubricating grease.

Uses: procedures are applicable to vehicle maintenance and fueling. Vehicle wash water is considered process wastewater that will not be discharged to the storm sewer system.

Practice Procedures for Vehicle Maintenance: The most effective way to minimize wastes generated by automotive maintenance activities is to prevent their production in the first place. The following practices will be implemented:

- Perform maintenance activities inside or under cover. When repairs cannot be performed indoors, use drip pans or absorbents.
- Keep equipment clean and free of excessive oil and grease buildup.
- Promptly cleanup spills using dry methods and properly dispose of waste. When water is required, use as little as possible to clean spills, leaks, and drips.
- Use a solvent collection service to collect spent solvent used for parts cleaning.
- When using liquids for cleaning, use a centralized station to ensure that solvents and residues stay in one area. Locate drip pans and draining boards to direct solvents back into a solvent sink or holding tank for reuse.
- Store used oil for recycling in labeled tanks. Locate used oil tanks and drums away from storm sewer, flowing streams, and preferably indoors.
- Use non-hazardous or less hazardous alternatives when practical. For example, replace chlorinated organic solvents with non-chlorinated ones like kerosene or mineral spirits.
- Properly recycle or dispose of grease, oil, antifreeze, brake fluid, cleaning solutions, hydraulic fluid, batteries, transmission fluid, worn parts, filters, and rags.
- Drain and crush oil filters before recycling or disposal.

- Drain all fluids and remove batteries from salvage vehicles and equipment.
- Closely monitor parked vehicles for leaks and place pans under leaks to collect the fluids for proper disposal or recycling.
- Install berms or other measures to contain spills and prevent work surface runoff from entering storm sewer system.
- Develop a spill prevention plan with measures such as spill kits, and information about location of storm drains and how to protect them if a large spill occurs.
- Conduct periodic employee training to reinforce proper disposal practices.
- Promptly transfer used fluids to recycling drums or hazardous waste containers.
- Store cracked batteries in leak-proof secondary containers.
- Inspect outdoor storage areas regularly for drips, spills and improperly stored materials (for example: unlabeled containers, auto parts that might contain grease or fluids, etc). This is particularly important for parking areas for vehicles awaiting repair.
- Structural CMs, such as traps, installed in vehicle hotspot areas require routine cleanout of oil and grease. During heavy rainfall, cleanout is required more often to ensure that pollutants are not washed through the trap. Sediment removal is also required on a regular basis to keep the CM working efficiently.

Practice Procedures for Vehicle Fueling:

- Fueling areas should be designed to prevent stormwater runoff and spills. Fuel-dispensing areas should be paved with concrete or equivalent impervious surface, with an adequate slope to prevent ponding, and separated from the rest of the site by a grade break or berm to prevent run-on of precipitation.
- For sites using a mobile fuel truck, establish a designated fueling area. Place temporary "caps" over nearby catch basins or manhole covers so that if a spill occurs, it is prevented from entering the storm sewer. 2dary containment should be used when transferring fuel from the tank truck to the fuel tank. Cover storm drains in the vicinity. Install vapor recovery nozzles to help control drips, and reduce air pollution.
- Keep spill response information and spill cleanup materials onsite and readily available.
- Employ dry cleanup methods cleaning up fuel spills. Such methods include sweeping to remove litter and debris, and using rags and absorbents for leaks and spills.
- Water should not be used to wash fuel spill areas. During routine cleaning, use a damp cloth on the pumps and a damp mop on the pavement. Fuel dispensing nozzles should be fitted with automatic shutoff except where prohibited by fire department. Post signs at the fuel dispenser warning operators against "topping off' vehicle fuel tanks.
- Provide written procedures describing CMs to employees who will be fueling.

Place site-specific information here:

4.5 Street Sweeping and Cleaning

Instructions:

- Identify CMs for the construction site by selecting the blue Yes/NA then type "Yes" or "N/A".
- If applicable, street sweeping shall be implemented for all 3 phases of construction (initial, interim and final).

Street Sweeping (SS)	Used: Yes	Phase(s): 1, 2, 3
☐ *Permanent*	☒ *Temporary*	

Description: SS uses either manual or mechanical pavement cleaning practices to collect or vacuum sediment, litter and other debris from the streets before being washed into storm sewers by runoff. This practice can reduce pollutant loading to receiving waters, reduce clogging of storm sewer pipes, prolong the life of infiltration CMs and reduce clogging of outlet structures in detention ponds. Mechanical designs include: broom and conveyor belt sweeper, wet or dry vacuum-assisted sweepers, and regenerative-air sweepers. The effectiveness depends upon particle loadings being swept, street texture, moisture conditions, parked cars, equipment conditions and frequency of cleaning.

Uses: SS is a technique in urban areas where sediment and litter accumulated on streets is of concern for aesthetic, sanitary, water and air quality reasons. SS is required at constructions sites per SWMP to reduce off-site tracking.

Procedures:

1. SS may be performed manually (broom and shovel) or with a vacuum sweeper (no kick-broom). Choose the most effective approach for site conditions.
2. SS shall be completed when there is sediment tracking from the construction site exits into the public road or right-of-way.
3. SS frequency depends on presence of sediment tracking. If tracking is occurring, either a VTC shall be installed, the VTC needs maintenance, or the VTC is inadequate; all require SWMP updates.
4. Off-site sediment tracking from the construction site shall be swept immediately.
5. Conduct SS prior to precipitation events.
6. Operate sweepers at manufacturer recommended optimal speed levels.
7. Regularly inspect vehicles and equipment for leaks and repair promptly.
8. Keep accurate logs of number of curb-miles swept and amount of waste collected.
9. Dispose of SS debris and dirt at a landfill.
10. Do not store swept material along the side of the street or near a storm drain inlet.

Place site-specific information here:

4.6 Storm Sewer Cleaning

Instructions:

- Select CMs to remove accumulated sediment, trash, and other pollutants from the storm system for the applicable construction site wastes identified in Section 1.8 Potential Sources of Pollution to maintain a clean and orderly construction site.
- Identify CMs by selecting the blue Yes/NA then type "Yes" or "N/A". If applicable, the following practices shall be implemented for all 3 phases of construction (initial, interim and final).

Storm Sewer System Cleaning	Used: N/A	Phase(s): 1, 2,3
☐ *Permanent*	☒ *Temporary*	

Description: Periodic storm sewer cleaning can help remove accumulated sediment, trash, and other pollutants from the storm system including inlets, pipes and also construction CMs. Routine cleaning reduces the amount of pollutants in the storm system and in receiving waters. Clogged drains can cause overflow, leading to increase erosion. Cleaning increases dissolved oxygen, reduces levels of bacteria, and supports in-stream habitat. Areas with flat grades or low flows should be given special attention because they rarely achieve high enough flows to flush themselves. Water used in storm drain cleaning must be collected and properly disposed of, typically at a sanitary wastewater treatment facility. Simpler methods in localized areas can also include manual trash collection and shoveling sediment and debris from inlets and outlets. Frequency and prioritization of storm sewer cleaning is affected by the activity and intensity of construction and the proper installation and maintenance for construction CMs.

Uses: Inspection of the existing storm system is recommended prior construction to document condition. The storm sewer shall be cleaned at minimum at completion of construction.

Practice Guidelines: Inspect the storm system as part of the required stormwater inspection.

- Technology available: manual cleaning (shovel), vacuum cleaning and vacuum combination jet cleaning. Choose the most effective approach for site conditions.
- Staff training: train about maintenance, waste collection and disposal methods.
- Waste disposal: Most catch basin waste is acceptable for landfills. If hazardous material is suspected, it should be tested and disposed of accordingly.

Place site specific information here:

N/A

5.1 Inspections

Instructions:

Identify the individual responsible for conducting inspections and describe qualifications. Certifications, such as "Certified Inspector of Sediment and Erosion Control" (CISEC), or equivalent, are recommended.

Select the frequency of inspections and procedures to inspect CMs that will occur at your site.

Identify procedures to document the repairs and maintenance of CMs as a result of the inspections.

Use the Stormwater Inspection Form in Appendix 7. Place completed stormwater inspections in Appendix 9.

1. Inspection Personnel:

Identify the person(s) who will be responsible for conducting stormwater inspections and describe their qualifications:

TBD

2. Inspection Frequency:

Inspections shall start within 7 calendar days of commencement of construction activities.

Minimum Stormwater Inspection Schedule: A thorough inspection of the site inspection shall be performed in accordance with one of the following minimum frequencies:

- At least one inspection every 7 calendar days, or
- At least one inspection every 14 calendar days, if post-storm event inspections are conducted within 24 hours after the end of any precipitation or snowmelt event that causes surface erosion. Post-storm inspections may be used to fulfill the 14-day routine inspection requirement.

Post-Storm Inspections at Temporarily Idle Sites - For permittees choosing to combine 14-day inspections and post-storm-event inspections, if no construction activities will occur following a storm event, post-storm event inspections must be conducted prior to re-commencing construction activities, but no later than 72 hours following the storm event. The delay of any post-storm event inspection must be documented in the inspection record. Routine inspections must still be conducted at least every 14 calendar days.

Inspections at Completed Sites/Areas - When the site, or portions of a site are awaiting establishment of a vegetative ground cover and final stabilization, the permittee must conduct a thorough inspection of the stormwater management system at least once every 30 days. Post-storm event inspections are not required under this schedule. This reduced inspection schedule is allowed if all of the following criteria are met:

i. All construction activities resulting in ground disturbance are complete;

ii. All activities required for final stabilization, in accordance with the SWMP, have been completed, with the exception of the application of seed that has not occurred due to seasonal conditions or the necessity for additional

seed application to augment previous efforts; and

iii. The SWMP has been amended to locate those areas to be inspected in accordance with the reduced schedule allowed for in this paragraph.

The minimum inspection frequency required does not affect the permittee's responsibility to implement and maintain effective control measures as prescribed in the SWMP. Proper maintenance may require more frequent inspections.

3. Inspection Procedures:

- At minimum, inspect the construction site perimeter, all disturbed area, designated haul routes, material and/or waste storage areas that are exposed to precipitation, discharge location, and locations where vehicles exit the site shall be inspected for evidence of, or the potential for, pollutants leaving the Permitted boundaries, entering the storm sewer system, or discharging to the MS4.
- Refer to Section 5.3 Inspection Sequence.
- Visually verify whether all implemented CMs are in effective operational condition and are working as designed in their specifications to minimize pollutant discharges.
- Determine if there are new potential sources of pollutants.
- Assess the adequacy of CMs at the site to identify areas requiring new or modified CMs to minimize pollutant discharges.
- Identify all areas of non-compliance and implement corrective action.

4. Correcting Problems:

Take steps to minimize the discharge of pollutants until a CM is implemented and operational, or an inadequate CM is replaced or corrected, and returned to effective operating condition. If it is infeasible to install or repair the CM immediately after discovering the deficiency, the following must be documented:
(a) Describe why it is infeasible to initiate the installation or repair immediately; and
(b) Provide a schedule for installing or repairing the CM and returning it to an effective operating condition asap.
Remove and properly dispose of any unauthorized release or discharge. Clean up any contaminated surfaces to minimize discharges of the material in subsequent storm events.

Responsible staff or company for making corrections: TBD

5. Inspection Form:

Use the form (or equivalent) in Appendix 7.Place completed inspections in Appendix 9. Document: Inspection date, name & title of inspector; weather conditions; phase of construction; estimated acreage of disturbance at the time of inspection; location(s) of discharges of sediment or other pollutants from the site; location(s) of CMs needing maintenance; location(s) and identification of inadequate CMs; location(s) and identification of additional CMs needed that were not in place at the time of inspection; description of the minimum inspection frequency; deviations from the minimum inspection schedule; certification statement for corrective action(s) or inspection (if no actions).

5.2 Delegation of Authority

Instructions:

- Delegation of Authority is optional. Attach a copy of the signed delegation of authority form in Appendix 8.
- Identify the individual(s) or specifically describe the position where the construction site operator has delegated authority for the purposes of signing inspection reports, certifications, or other information.

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

Company or Organization Name _____

Name _____

Title _____

Address _____

City, State, Zip Code _____

Telephone Number _____

Fax/Email _____

5.3 Inspection Sequence

Instructions:

When conducting stormwater inspections of your construction site it is recommended that one always follows this recommended inspection sequence to ensure that all procedures and measures are being followed.

Place all completed inspections in Appendix 9.

1. Plan the stormwater inspection
   - Use the inspection form (or equivalent) under Appendix 7.
   - Obtain a copy of the EC Plan (Site Map) with CMs locations marked.
   - Plan to walk the entire site, including discharge points from the site and any off-site support activities.
   - Follow a consistent pattern each time to ensure you inspect all areas.
2. Determine Inspection frequency
   - Site inspections must be conducted at least once every 7; or 14 calendar days.
   - If 14-day inspections, then post-storm inspections must be conducted within 24 hours after the end of any precipitation or snowmelt event that causes surface erosion.
   - 30-day inspections are conducted once construction is complete, temporary stabilizations has been installed and the site is waiting to reach final stabilization.
3. Inspect discharge points and downstream, off-site areas
   - Inspect discharge locations to determine whether erosion and sediment control measures are effective.
   - Inspect nearby downstream locations.
   - Walk down the street to inspect off-site areas for signs of discharges.
   - Inspect down slope existing catch basins to ensure they are free of sediment and other pollutants and to ensure that they are adequately protected.
4. Inspect perimeter controls and slopes
   - Inspect perimeter controls to determine if sediment should be removed.
   - Check the structural integrity of the CM. Determine if CM replacement is needed.
   - Inspect slopes and temporary stockpiles to determine if erosion controls are effective.
5. Compare CMs in the EC Plan with the construction site conditions
   - Determine whether CMs are in place as required by the EC plan.
   - Evaluate whether CMs have been adequately installed and maintained.
   - Look for areas where CMs are needed but are missing on the field, or are not documented on the SWMP.
6. Inspect construction site entrances

- Inspect the construction exits to determine if there is tracking of sediment from the site onto the street.
- Refresh or replace the rock in designated entrances and concrete washout areas.
- Look for evidence of additional construction exits being used that are not in the SWMP or are not stabilized.
- Sweep the street if there is evidence of sediment accumulation.

7. Inspect sediment controls
   - Inspect any sediment basins for sediment accumulation.
   - Remove sediment when it reduces the capacity of the basin by ⅓ of the design storage volume.
8. Inspect pollution prevention and good housekeeping practices
   - Inspect trash areas to ensure that waste is properly contained.
   - Inspect material storage and staging areas to verify that potential pollutant sources are not exposed to stormwater runoff.
   - Verify that concrete, paint, and stucco washouts are being used properly and are correctly sized for the volume of wash water.
   - Inspect vehicle/equipment fueling and maintenance areas for signs of stormwater pollutant exposure.
9. Inspect for final stabilization
   - Inspect all temporary and permanent CMs for correct application and installation with the CM details.
   - Remove sediment from the private storm sewer system - do not jet pollutants down into the public storm sewer system.

5.4 Common Compliance Problems

The following are problems commonly found at construction sites:

Problem #1 - Not using phased grading or providing temporary or permanent soil stabilization

Problem #2 - No sediment controls on-site

Problem #3 - No sediment control for temporary stockpiles

Problem #4 - No inlet protection

Problem #5 - No CMs or inadequate CMs to minimize vehicle tracking onto the road

Problem #6 - Inadequate or improper solid waste or hazardous waste management

Problem #7 - Unpermitted dewatering and other pollutant discharge at the construction site

Problem #8 - Poorly managed washouts (concrete, paint, stucco)

Problem #9 - Inadequate maintenance of CMs

Problem #10 - Inadequate documentation

Required Non-Compliance Notifications

Report non-compliance orally within twenty-four (24) hours from the time of awareness, and mail to the State a written report within five (5) working days after if:

- Any non-compliance issues which may endanger health or the environment regardless of the cause of the incident (these types of circumstances would primarily result from the discharge of pollutants in violation of the Construction Stormwater Permit);
- Any un-anticipated bypass which exceeds any effluent limitations in the Construction Stormwater Permit
- Any upset which causes an exceedance of any effluent limitation in the Construction Stormwater Permit
- Any daily maximum violations for any of the pollutants limited by Part I of the Construction Stormwater Permit. This includes any toxic pollutant or hazardous substance or any pollutant specifically identified as the method to control any toxic pollutant or hazardous substance (these types of circumstances would primarily result from an exceedance of a numeric effluent).

6.1 Recordkeeping

Instructions:

The following section provides a list of records that shall be kept available at your construction site for review, including the length of time those records shall be preserved for.

The following records shall be kept available at the construction site, or be on-site when construction activities are occurring:

- ✓ An updated SWMP, reflecting current conditions and CMs.
- ✓ Keep record of SWMP/EC Plan changes made including the date and identification of the changes (*).
- ✓ Completed inspection reports, which shall be placed in Appendix 9.
- ✓ Any document or plan incorporated by reference to the SWMP.

Specify where will the SWMP be located on-site:
SWMP will be located within the construction management office and/or trailer within the site.

(*) The SWMP must be amended when the following occurs:

1) A change in design, construction, operation, or maintenance of the site requiring implementation of new or revised control measures;
2) The SWMP proves ineffective in controlling pollutants in stormwater runoff in compliance with the permit conditions;
3) Control measures identified in the SWMP are no longer necessary and are removed; and
4) Corrective actions are taken onsite that result in a change to the SWMP.

A notation must be included in the SWMP to identify the date of the site change, the control measure removed, or modified, the location(s) of those control measures, and any changes to the control measure(s). The permittee must ensure the site changes are reflected in the SWMP. The permittee is non-compliant with the permit until the SWMP revisions have been made

SWMP documentation required under this permit are considered reports that must be available to the public under Section 308(b) of the CWA and Section 61.5(4) of the CDPS regulations. The permittee must make plans available to members of the public upon request. However, the permittee may claim any portion of a SWMP as confidential in accordance with 40 CFR Part 2.

Records will be retained for a minimum period of at least 3 years after the CDPHE permit is terminated.

7.1 Final Stabilization Requirement

Instructions:

Final stabilization of the construction sites occurs when there is 70% uniform vegetated cover. The vegetation MUST be uniform so that there are no open patches of soil.

Final Stabilization means that all land disturbing activities are complete, and all disturbed areas have either been built on, paved over or a uniform vegetative cover has been established per SWMP. Prior to closing the State and County Stormwater Permit, all the items listed below must be completed in order for the construction site to be considered to have final stabilization.

1. The site has a uniform vegetative cover with a density of at least 70% compared to the original undisturbed site. Such cover must be capable of adequately controlling soil erosion.

2. If applicable, proper installation and maintenance of all approved, permanent, post-construction stormwater quality treatment drainage facilities.

3. Removal of all stockpiles of soil, construction material/debris, construction equipment, etc. from the construction site.

4. Streets, parking lots and other surrounding paved surfaces are clean and free of any sediment or debris.

5. Removal of sediment, debris or other pollutants within the private and adjacent public storm drainage system.

6. Restoration of any damaged public infrastructure caused by the construction activities.

7.2 Removal of Temporary CMs

Once the site has met the final stabilization conditions, the remaining temporary CMs such as perimeter controls, inlet protection, silt fence, etc. shall be removed and disposed of properly.

7.3 Stormwater Permits Close-out

Contact the County to close the local Stormwater Permit.

Submit the CDPS Stormwater Discharge Permit Inactivation Form to the State of Colorado, CDPHE.

7.4 Final Stabilization Measures

Instructions:

Describe CMs for final stabilization of all disturbed areas at the site, such as: erosion control blankets, mulch and seeding, approved landscape plan, etc. Update the EC Plan (site map) to indicate areas that have achieved final stabilization.

Permanent Seeding (PS)		Used: Yes	Phase(s): 3
☒ *Permanent*	☐ *Temporary*		
See Landscape Plan.			

Soil Stabilization Method		Used: Yes	Phase(s):1,2
☐ *Permanent*	☒ *Temporary*		
Crimped Straw (as needed)			
Hydromulch (as needed)			
Rolled Erosion Control (as needed)			

Others:			
☒ *Permanent*	☐ *Temporary*		
Asphalt and Concrete Pavement *Temporary*		Used: Yes	Phase(s): 3 ☒ *Permanent* - ☐
Describe: See Civil plans.			
Xeriscape	Used: Yes	Phase(s): 3 ☒ *Permanent* - ☐ *Temporary*	
Describe: See Landscape Plans.			
Landscape Plans	Used: Yes	Phase(s): 3 ☒ *Permanent* - ☐ *Temporary*	
Describe: See Landscape Plan			

For additional CMs, repeat as needed here

7.6 Long Term Stormwater Management

Instructions:

Describe planned water quality drainage facilities to control pollutants in stormwater discharges that will be installed and remain after construction operations are completed. Including, but not limited to, water quality detention basin, rain gardens, underground hydrodynamic separators, etc.

Describe type and location of the permanent water quality drainage facilities designed to control pollutants in stormwater discharges that will remain after construction operations are completed:

The on-site extended detention basin will provide flood attenuation and water quality treatment after the construction operations are completed.

Recorded Access and Drainage Easement over water quality facility: Anticipated drainage easement over the extended detention basin.

Not yet recorded.

Operation and Maintenance (O&M) Plan for the water quality facility: Yes

If applicable: Submit copy to the O&M plan to the County for approval

SECTION 8: STORMWATER VIOLATIONS

8.1 Stormwater Violations

Federal, State and Local jurisdictions are able to enforce their respective Stormwater Pollution Prevention Regulations upon the Permittee or violator of these regulations. Administrative or judicial enforcement tools vary and may involve written warning, notice of violation, stop work order, permit revocation, surety withdrawal, civil or criminal penalties, which may require abatement of any violation, etc.

VIOLATIONS ARE SUBJECT TO ENFORCEMENT FROM THE TIME THE VIOLATION STARTS

8.2 Potential Stormwater Violations

The following items are considered a violation:

1. Conducting a permit covered activity without a local Stormwater Permit.
2. Conducting construction activities outside the permitted boundary of the local Stormwater Permit.
3. Failure to prepare a SWMP.
4. Failure to prepare an Erosion Control (EC) Plan, aka Site Map.
5. Conducting a permit covered activity without County/City's SWMP approval.
6. Conducting construction activity without a State CDPS Stormwater Discharge Permit.
7. Failure to renew Stormwater Permits.
8. Failure to renew financial surety.
9. Deficient SWMP.
10. Failure to update the SWMP adequately to reflect current site conditions.
11. Failure to install, maintain or properly select Control Measures (CM), aka Best Management Practices (BMP).
12. Failure to correct findings from previous City/County Regulatory Inspections
13. Failure to perform stormwater inspections of the permitted construction site.
14. Failure to submit requested documentation to the City/County.
15. Failure to adequately respond to the City/County's written directives.
16. Failure to install permanent post-construction BMPs (if applicable).
17. Lack of good housekeeping practices.
18. Pollution, contamination or degradation of stormwater quality.
19. An illicit discharge into the City/County's Municipal Separate Storm Sewer System (MS4).

9.1 SWMP Certification Statement

Instructions:

The Permittee shall certify the SWMP by signing the certification statement below. It is recommended that all subcontractors sign the Subcontractor Certifications/Agreements in Appendix 10.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: Todd Johnson, P.E. Title: President, Terra Forma Solutions

Signature: _____ Date: _____

SWMP APPENDICES

Attach the following documentation:

Appendix 1 - Project Vicinity Map	***(Section 1.1)***
Appendix 2 - State CDPS Stormwater Construction Permit + Local Permit	***(Section 1.2)***
Appendix 3 - Pre-disturbance Photos	***(Section 1.4)***
Appendix 4 -Demolition Permit and State Asbestos Permit	***(Section 1.9)***
Appendix 5 - Erosion and Sediment BMPs/CMs Details	***(Section 1.10)***
Appendix 6 - Erosion Control Plan (EC Plan) - Site Map	***(Section 2.10)***
Appendix 7 - Stormwater Inspection Form (Template)	***(Section 5.1)***
Appendix 8 - Delegation of Authority (optional)	***(Section 5.2)***
Appendix 9 - Completed Stormwater Inspection Logs	***(Sections 5.3 & 5.5)***
Appendix 10 - Subcontractor Certifications/Agreements (optional)	***(Section 9.1)***
Appendix 11 - Agreement for off-site Control Measures (if applicable)	***(Section 1.5)***
Appendix 12 - Low Risk Guidance for Discharges of Potable Water	***(Section 1.8 & 1.9)***
Appendix 13 – Erosion and Sediment Control General Notes	***(Section 3.2)***

APPENDIX 1: Project Vicinity Map

VICINITY MAP

APPENDIX 2: CDPHE Stormwater Construction Permit + Local Stormwater Permit

STATE OF COLORADO

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Water Quality Control Division

CDPS GENERAL PERMIT STORMWATER DISCHARGES ASSOCIATED WITH

CONSTRUCTION ACTIVITY AUTHORIZATION TO DISCHARGE UNDER THE COLORADO DISCHARGE PERMIT SYSTEM (CDPS)

COR400000

In compliance with the provisions of the Colorado Water Quality Control Act, (25-8-101 et seq., CRS, 1973 as amended) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq.; the "Act"), this permit authorizes the discharge of stormwater associated with construction activities (and specific allowable non-stormwater discharges in accordance with Part I.A.1. of the permit) certified under this permit, from those locations specified throughout the State of Colorado to specified waters of the State.

Such discharges shall be in accordance with the conditions of this permit. This permit specifically authorizes the facility listed on the certification to discharge in accordance with permit requirements and conditions set forth in Parts I and II hereof. All discharges authorized herein shall be consistent with the terms and conditions of this permit.

This permit becomes effective on April 1, 2019, and shall expire at midnight March 31, 2024.

Issued and signed this 28th day of January, 2021.

Meg Parish

Meg Parish, Permits Section Manager Water Quality Control Division

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Permit History

Minor Modification Issued January 28, 2021 Effective February 1, 2021
Modification Issued December 31, 2020 Effective February 1, 2021
Originally signed and issued October 31, 2018; effective April 1, 2019

Table of Contents

PART I 3
A. COVERAGE UNDER THIS PERMIT 3
1. Authorized Discharges 3
2. Limitations on Coverage 3
3. Permit Certification and Submittal Procedures 4
B. EFFLUENT LIMITATIONS 8
1. Requirements for Control Measures Used to Meet Effluent Limitations 8
2. Discharges to an Impaired Waterbody 11
3. General Requirements 12
C. STORMWATER MANAGEMENT PLAN (SWMP) REQUIREMENTS 12
1. SWMP General Requirements 12
2. SWMP Content 13
3. SWMP Review and Revisions 15
4. SWMP Availability 16
D. SITE INSPECTIONS 16
1. Person Responsible for Conducting Inspections 16
2. Inspection Frequency 16
3. Inspection Frequency for Discharges to Outstanding Waters 17
4. Reduced Inspection Frequency 17
5. Inspection Scope 17
E. DEFINITIONS 19
F. MONITORING 22
G. OIL AND GAS CONSTRUCTION 22
PART II: STANDARD PERMIT CONDITIONS 24
A. DUTY TO COMPLY 24
B. DUTY TO REAPPLY 24
C. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE 24
D. DUTY TO MITIGATE 24
E. PROPER OPERATION AND MAINTENANCE 24
F. PERMIT ACTIONS 24
G. PROPERTY RIGHTS 24
H. DUTY TO PROVIDE INFORMATION 25
I. INSPECTION AND ENTRY 25
J. MONITORING AND RECORDS 25
K. SIGNATORY REQUIREMENTS 26
1. Authorization to Sign: 26
2. Electronic Signatures 26

3. Change in Authorization to Sign 26
L. REPORTING REQUIREMENTS 27
1. Planned Changes 27
2. Anticipated Non-Compliance 27
3. Transfer of Ownership or Control 27
4. Monitoring reports 27
5. Compliance Schedules 27
6. Twenty-four Hour Reporting 28
7. Other Non-Compliance 28
8. Other Information 28
M. BYPASS 28
1. Bypass Not Exceeding Limitations 28
2. Notice of Bypass 28
3. Prohibition of Bypass 28
N. UPSET 29
1. Effect of an upset 29
2. Conditions Necessary for Demonstration of an Upset 29
3. Burden of Proof 29
O. RETENTION OF RECORDS 29
1. Post-Expiration or Termination Retention 29
2. On-site Retention 29
P. REOPENER CLAUSE 30
1. Procedures for Modification or Revocation 30
2. Water Quality Protection 30
Q. SEVERABILITY 30
R. NOTIFICATION REQUIREMENTS 30
1. Notification to Parties 30
S. RESPONSIBILITIES 30
1. Reduction, Loss, or Failure of Treatment Facility 30
T. OIL AND HAZARDOUS SUBSTANCE LIABILITY 30
U. EMERGENCY POWERS 31
V. CONFIDENTIALITY 31
W. FEES 31
X. DURATION OF PERMIT 31
Y. SECTION 307 TOXICS 31

Part I

Note: At the first mention of terminology that has a specific connotation for the purposes of this permit, the terminology is electronically linked to the definitions section of the permit in Part I.E.

A. COVERAGE UNDER THIS PERMIT

1. Authorized Discharges

This general permit authorizes permittee(s) to discharge the following to state waters: stormwater associated with construction activity and specified non-stormwater associated with construction activity. The following types of stormwater and non-stormwater discharges are authorized under this permit:

a. Allowable Stormwater Discharges

i. Stormwater discharges associated with construction activity.

ii. Stormwater discharges associated with producing earthen materials, such as soils, sand, and gravel dedicated to providing material to a single contiguous site, or within ¼ mile of a construction site (e.g. borrow or fill areas).

iii. Stormwater discharges associated with dedicated asphalt, concrete batch plants and masonry mixing stations (Coverage under this permit is not required if alternative coverage has been obtained.)

b. Allowable Non-Stormwater Discharges

The following non-stormwater discharges are allowable under this permit if the discharges are identified in the stormwater management plan in accordance with Part I.C and if they have appropriate control measures in accordance with Part I.B.1.

i. Discharges from uncontaminated springs that do not originate from an area of land disturbance.

ii. Discharges to the ground of concrete washout water associated with the washing of concrete tools and concrete mixer chutes. Discharges of concrete washout water must not leave the site as surface runoff or reach receiving waters as defined by this permit. Concrete on-site waste disposal is not authorized by this permit except in accordance with Part I.B.1.a.ii(b).

iii. Discharges of landscape irrigation return flow.

iv. Discharges from diversions of state waters within the permitted site.

c. Emergency Fire Fighting

Discharges resulting from emergency firefighting activities during the active emergency response are authorized by this permit.

2. Limitations on Coverage

Discharges not authorized by this permit include, but are not limited to, the discharges and activities listed below. Permittees may seek individual or alternate general permit coverage for the discharges, as appropriate and available.

a. Discharges of Non-Stormwater

Discharges of non-stormwater, except the authorized non-stormwater discharges listed in Part

I.A.1.b., are not eligible for coverage under this permit.

b. Discharges Currently Covered by another Individual or General Permit

c. Discharges Currently Covered by a Water Quality Control Division (division) Low Risk Guidance Document

3. Permit Certification and Submittal Procedures

a. Duty to Apply

The following activities shall apply for coverage under this permit:

i. Construction activity that will disturb one acre or more; or

ii. Construction activity that is part of a common plan of development or sale; or

iii. Stormwater discharges that are designated by the division as needing a stormwater permit because the discharge:

(a) Contributes to a violation of a water quality standard; or

(b) Is a significant contributor of pollutants to state waters.

b. Application Requirements

To obtain authorization to discharge under this permit, applicants applying for coverage following the effective date of the renewal permit shall meet the following requirements:

i. Owners and operators submitting an application for permit coverage will be co- permittees subject to the same benefits, duties, and obligations under this permit.

ii. Signature requirements: Both the owner and operator (permittee) of the construction site, as defined in Part I.E., must agree to the terms and conditions of the permit and submit a completed application that includes the signature of both the owner and the operator. In cases where the duties of the owner and operator are managed by the owner, both application signatures may be completed by the owner. Both the owner and operator are responsible for ensuring compliance with all terms and conditions of the permit, including implementation of the stormwater management plan.

iii. The applicant(s) must develop a stormwater management plan (SWMP) in accordance with the requirements of Part I.C. The applicant(s) must also certify that the SWMP is complete, or will be complete, prior to commencement of any construction activity.

iv. In order to apply for certification under this general permit, the applicant(s) must submit a complete, accurate, and signed permit application form as provided by the division by electronic delivery at least 10 days prior to the commencement of construction activity, except those construction activities that are in response to a public emergency related site; public emergency related sites shall apply for coverage no later than 14 days after the commencement of construction activities. The provisions of this part in no way remove a violation of the Colorado Water Quality Control Act if a point source discharge occurs prior to the issuance of a CDPS permit.

v. The application in its entirety must be submitted via the division's online permitting system unless a waiver is granted by the division. If a waiver is granted, the application in its entirety, including signatures by both the owner and operator, must be submitted to:

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

vi. The applicant(s) must receive written notification that the division granted permit coverage prior to conducting construction activities except for construction activities that are in response to a public emergency related site.

c. Division Review of Permit Application

Within 10 days of receipt of the application, and following review of the application, the division may:

i. Issue a certification of coverage;

ii. Request additional information necessary to evaluate the discharge;

iii. Delay the authorization to discharge pending further review;

iv. Notify the applicant that additional terms and conditions are necessary; or

v. Deny the authorization to discharge under this general permit.

d. Alternative Permit Coverage

i. Division Required Alternative Permit Coverage:

The division may require an applicant or permittee to apply for an individual permit or an alternative general permit if it determines the discharge does not fall under the scope of this general permit, including if any additional terms and conditions are necessary in order to ensure that discharges authorized by this permit shall not cause, have the reasonable potential to cause, or measurably contribute to an exceedance of any applicable water quality standard, including narrative standards for water quality. In this case, the division will notify the applicant or permittee that an individual permit application is required.

ii. Permittee Request for Alternative Permit Coverage:

A permittee authorized to discharge stormwater under this permit may request to be excluded from coverage under this general permit by applying for an individual permit. In this case, the permittee must submit an individual application, with reasons supporting the request, to the division at least 180 days prior to any discharge. When an individual permit is issued, the permittee's authorization to discharge under this permit is terminated on the effective date of the individual permit.

e. Submittal Signature Requirements

Documents required for submittal to the division in accordance with this permit, including applications for permit coverage and other documents as requested by the division, must include signatures by both the owner and the operator, except for instances where the duties of the owner and operator are managed by the owner.

Signatures on all documents submitted to the division as required by this permit must meet the Standard Signatory Requirements in Part II.K of this permit in accordance with 40 C.F.R. 122.41(k).

i. Signature Certification

Any person(s) signing documents required for submittal to the division must make the following

certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

f. Compliance Document Signature Requirements

Documents which are required for compliance with the permit, but for which submittal to the division is not required unless specifically requested by the division, must be signed by the individual(s) designated as the Qualified Stormwater Manager, as defined in Part I.E.

i. Any person(s) signing inspection documents required for compliance with the permit per Part I.D.5.c.xiii must make the following statement and provide the date of the statement:

"I verify that, to the best of my knowledge and belief, that if any corrective action items were identified during the inspection, those corrective actions are complete, and the site is currently in compliance with the permit."

g. Field Wide Permit Coverage for Oil and Gas Construction

At the discretion of the division, a single permit certification may be issued to a single oil and gas permittee to cover construction activity related discharges from an oil and gas field at multiple locations that are not necessarily contiguous.

h. Permit Coverage without Application

Qualifying Local Program: When a small construction site is within the jurisdiction of a qualifying local program, the owner and operator of the construction activity are authorized to discharge stormwater associated with small construction activity under this general permit without the submittal of an application to the division. Sites covered by a qualifying local program are exempt from the following sections of this general permit: Part I.A.3.a.; Part I.A.3.b.; Part I.A.3.c.; Part I.A.3.d.; Part I.A.3.g.; Part I.A.3.i.; Part I.A.3.j.; Part I.A.3.k.

Sites covered by a qualifying local program are subject to the following requirements:

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

ii. Permit Coverage Termination: When a site under a Qualifying Local Program is finally stabilized, coverage under this permit is automatically terminated.

iii. Compliance with Qualifying Local Program: Qualifying Local Program requirements that are equivalent to the requirements of this permit are incorporated by reference. Permittees authorized to discharge under this permit, must comply with the equivalent requirements of the Qualifying Local Program that has jurisdiction over the site as a condition of this permit.

iv. Compliance with Remaining Permit Conditions. Requirements of this permit that are in addition to or more stringent than the requirements of the Qualifying Local Program apply in addition to the requirements of the Qualifying Local Program.

v. Written Authorization of Coverage: The division or local municipality may require any permittee within the jurisdiction of a Qualifying Local Program covered under this permit to

apply for, and obtain written authorization of coverage under this permit. The permittee must be notified in writing that an application for written authorization of coverage is required.

i. Permittee Initiated Permit Actions

Permittee initiated permit actions, including but not limited to modifications, contact changes, transfers, and terminations, shall be conducted following Part II.L, division guidance and using appropriate division-provided forms.

j. Sale of Residence to Homeowner

Residential construction sites only: The permittee may remove residential lots from permit coverage once the lot meets the following criteria:

i. The residential lot has been sold to the homeowner(s) for private residential use;

ii. A certificate of occupancy, or equivalent, is maintained on-site and is available during division inspections;

iii. The lot is less than one acre of disturbance;

iv. All construction activity conducted on the lot by the permittee is complete;

v. The permittee is not responsible for final stabilization of the lot; and

vi. The SWMP was modified to indicate the lot is no longer part of the construction activity.

If the residential lot meets the criteria listed above then activities occurring on the lot are no longer considered to be construction activities with a duty to apply and maintain permit coverage. Therefore, the permittee is not required to meet the final stabilization requirements and may terminate permit coverage for the lot.

k. Permit Expiration and Continuation of Permit Coverage

Authorization to discharge under this general permit shall expire at midnight on March 31, 2024. While Regulation 61.4 requires a permittee to submit an application for continuing permit coverage 180 days before the permit expires, the division is requiring that permittees desiring continued coverage under this general permit must reapply at least 90 days in advance of this permit expiration. The division will determine if the permittee may continue to discharge stormwater under the terms of the general permit. An individual permit may be required for any facility not reauthorized to discharge under the reissued general permit.

If this permit is not reissued or replaced prior to the expiration date, it will be administratively continued and remain in force and effect. For permittees that have applied for continued permit coverage, discharges authorized under this permit prior to the expiration date will automatically remain covered by this permit until the earliest of:

i. An authorization to discharge under a reissued permit, or a replacement of this permit, following the timely and appropriate submittal of a complete application requesting authorization to discharge under the new permit and compliance with the requirements of the new permit; or

ii. The issuance and effect of a termination issued by the division; or

iii. The issuance or denial of an individual permit for the facility's discharges; or

iv. A formal permit decision by the division not to reissue this general permit, at which time the division will identify a reasonable time period for covered dischargers to seek coverage under

an alternative general permit or an individual permit. Coverage under this permit will cease when coverage under another permit is granted/authorized; or

v. The division has informed the permittee that discharges previously authorized under this permit are no longer covered under this permit.

B. EFFLUENT LIMITATIONS

1. Requirements for Control Measures Used to Meet Effluent Limitations

The permittee must implement control measures to minimize the discharge of pollutants from all potential pollutant sources at the site. Control measures must be installed prior to commencement of construction activities. Control measures must be selected, designed, installed and maintained in accordance with good engineering, hydrologic and pollution control practices. Control measures implemented at the site must be designed to prevent pollution or degradation of state waters.

a. Stormwater Pollution Prevention

The permittee must implement structural and/or nonstructural control measures that effectively minimize erosion, sediment transport, and the release of other pollutants related to construction activity.

i. Control Measures for Erosion and Sediment Control

Control measures for erosion and sediment control may include, but are not limited to, wattles/sediment control logs, silt fences, earthen dikes, drainage swales, sediment traps, subsurface drains, pipe slope drains, inlet protection, outlet protection, gabions, sediment basins, temporary vegetation, permanent vegetation, mulching, geotextiles, sod stabilization, slope roughening, maintaining existing vegetation, protection of trees, and preservation of mature vegetation.

Specific control measures must meet the requirements listed below.

(a) Structural and nonstructural vehicle tracking controls shall be implemented to minimize vehicle tracking of sediment from disturbed areas and may include tracking pads, minimizing site access, wash racks, graveled parking areas, maintaining vehicle traffic to paved areas, street sweeping and sediment control measures.

(b) Stormwater runoff from all disturbed areas and soil storage areas must utilize or flow to one or more control measures to minimize erosion or sediment in the discharge. The control measure(s) must be selected, designed, installed and adequately sized in accordance with good engineering, hydrologic and pollution control practices for the intended application. The control measure(s) must contain or filter flows in order to prevent the bypass of flows without treatment and must be appropriate for stormwater runoff from disturbed areas and for the expected flow rate, duration, and flow conditions (e.g. sheet or concentrated flow).

(c) Selection of control measures should prioritize the use of structural and nonstructural control measures that minimize the potential for erosion (i.e. covering materials). Selection should also prioritize phasing construction activities to minimize the amount of soil disturbance at any point in time throughout the duration of construction.

(d) Outlets that withdraw water from or near the surface shall be installed when discharging from basins and impoundments, unless infeasible.

(e) Maintain pre-existing vegetation or equivalent control measures for areas within 50 horizontal feet of receiving waters as defined by this permit, unless infeasible.

(f) Soil compaction must be minimized for areas where infiltration control measures will occur or where final stabilization will be achieved through vegetative cover.

(g) Unless infeasible, topsoil shall be preserved for those areas of a site that will utilize vegetative final stabilization.

(h) Minimize the amount of soil exposed during construction activity, including the disturbance of steep slopes.

(i) Diversion control measures must minimize soil transport and erosion within the entire diversion, minimize erosion during discharge, and minimize run-on into the diversion. The permittee must minimize the discharge of pollutants throughout the installation, implementation and removal of the diversion. Diversions must meet one or more of the following conditions:

(1) Lined or piped structures that result in no erosion in all flow conditions.

(2) Diversion channels, berms, and coffer dams must be lined or composed of a material that minimizes potential for soil loss in the entire wetted perimeter during anticipated flow conditions (e.g. vegetated swale, non-erosive soil substrate). The entire length of the diversion channel must be designed with all of the following considerations: maximum flow velocity for the type of material(s) exposed to the anticipated flows to ensure that the calculated maximum shear stress of flows in the channel is not expected to result in physical damage to the channel or liner and result in discharge of pollutants. Additionally, the conditions relied on to minimize soil loss must be maintained for the projected life of the diversion (i.e. a vegetated swale must be limited to a period of time that ensures vegetative growth, minimizes erosion and maintains stable conditions).

(3) An alternative diversion criteria, approved by the division prior to implementation. The diversion method must be designed to minimize the discharge of pollutants and to prevent the potential for pollution or degradation to state waters as a result of the diverted flow through the diversion structure. In addition, the alternative diversion method must minimize the discharge of pollutants throughout the installation, implementation and removal of the diversion.

ii. Practices for Other Common Pollutants

(a) Bulk storage, individual containers of 55 gallons or greater, for petroleum products and other liquid chemicals must have secondary containment, or equivalent protection, in order to contain spills and to prevent spilled material from entering state waters.

(b) Control measures designed for concrete washout waste must be implemented. This includes washout waste discharged to the ground as authorized under this permit and washout waste from concrete trucks and masonry operations contained on site. The permittee must ensure the washing activities do not contribute pollutants to stormwater runoff, or receiving waters in accordance Part I.A.1.b.ii. Discharges that may reach groundwater must flow through soil that has buffering capacity prior to reaching groundwater, as necessary to meet the effluent limits in this permit, including Part I.B.3.a. The concrete washout location must not be located in an area where shallow groundwater may be present and would result in buffering capacity not being adequate, such as near natural drainages, springs, or wetlands. This permit authorizes discharges to the ground of concrete washout waste, but does not authorize on-site waste disposal per Part I.B.3.d.

(c) In the event that water remains onsite and contains pollutants either from the

firefighting activities or picked up from the site (i.e. in a gutter, sediment basin, etc.) after active emergency response is complete, the permittee must ensure the remaining water containing pollutants is properly removed and disposed of in order to minimize pollutants from discharging from the site, unless infeasible.

iii. Stabilization Requirements

The following requirements must be implemented for each site.

(a) Temporary stabilization must be implemented for earth disturbing activities on any portion of the site where ground disturbing construction activity has permanently ceased, or temporarily ceased for more than 14 calendar days. Temporary stabilization methods may include, but are not limited to, tarps, soil tackifier, and hydroseed. The permittee may exceed the 14-day schedule when either the function of the specific area of the site requires it to remain disturbed or physical characteristics of the terrain and climate prevent stabilization. The SWMP must document the constraints necessitating the alternative schedule, provide the alternate stabilization schedule, and identify all locations where the alternative schedule is applicable on the site map. Minimum inspection frequency and scope, as directed in Part I.D., must be followed for temporarily stabilized areas.

(b) Final stabilization must be implemented for all construction sites covered under this permit. Final stabilization is reached when (1), (2), and (3) below are complete:

(1) All construction activities are complete.

(2) Permanent stabilization methods are complete. Permanent stabilization methods include, but are not limited to, permanent pavement or concrete, hardscape, xeriscape, stabilized driving surfaces, vegetative cover, or equivalent permanent alternative stabilization methods. The division may approve alternative final stabilization criteria for specific operations. Vegetative cover must meet the following criteria:

a. Evenly distributed perennial vegetation, and

b. Coverage, at a minimum, equal to 70 percent of what would have been provided by native vegetation in a local, undisturbed area or adequate reference site, and

(3) The permittee must ensure all temporary control measures are removed from the construction site once final stabilization is achieved, except when the control measure specifications allow the control measure to be left in place (i.e. bio-degradable control measures).

(c) Final stabilization must be designed and installed as a permanent feature. Final stabilization measures for obtaining a vegetative cover or alternative stabilization methods include, but are not limited to, the following as appropriate:

(1) Seed mix selection and application methods;

(2) Soil preparation and amendments;

(3) Soil stabilization methods to provide adequate protection to minimize erosion (e.g. crimped straw, hydro mulch or rolled erosion control products);

(4) Appropriate sediment control measures as needed until final stabilization is achieved;

(5) Permanent pavement, hardscape, xeriscape, stabilized driving surfaces;

(d) Other alternative stabilization practices as applicable.

b. Maintenance

The permittee must ensure that all control measures remain in effective operating condition and are protected from activities that would reduce their effectiveness. Control measures must be maintained in accordance with good engineering, hydrologic and pollution control practices. Observations leading to the required maintenance of control measures can be made during a site inspection, or during general observations of site conditions. The necessary repairs or modifications to a control measure requiring routine maintenance, as defined in Part I.E., must be conducted to maintain an effective operating condition. This section is not subject to the requirements in Part I.B.1.c below.

c. Corrective Actions

The permittee must assess the adequacy of control measures at the site, and the need for changes to those control measures, to ensure continued effective performance.

When an inadequate control measure, as defined in Part I.E., is identified (i.e., new or replacement control measures become necessary), the following corrective action requirements apply. The permittee is in noncompliance with the permit until the inadequate control measure is replaced or corrected and returned to effective operating condition in compliance with Part I.B.1 and the general requirements in Part I.B.3. If the inadequate control measure results in noncompliance that meets the conditions of Part II.L., the permittee must also meet the requirements of that section.

i. The permittee must take all necessary steps to minimize or prevent the discharge of pollutants from the permitted area and manage any stormwater run-on onto the site until a control measure is implemented and made operational and/or an inadequate control measure is replaced or corrected and returned to effective operating condition. If it is infeasible to install or repair the control measure immediately after discovering the deficiency, the following must be documented in the SWMP in Part I.D.5.c and kept on record in accordance with the recordkeeping requirements in Part II.

(a) Describe why it is infeasible to initiate the installation or repair immediately; and

(b) Provide a schedule for installing or repairing the control measure and returning it to an effective operating condition as soon as possible.

ii. If applicable, the permittee must remove and properly dispose of any unauthorized release or discharge within and from the permitted area (e.g., discharge of non-stormwater, untreated stormwater containing pollutants, spill, or leak not authorized by this permit.) The permittee must also clean up any contaminated surfaces, if feasible, to minimize discharges of the material in subsequent storm events, including water remaining from the response that contains pollutants after active emergency firefighting response is complete.

2. Discharges to an Impaired Waterbody

a. Total Maximum Daily Load (TMDL)

If the discharge from the site of permit coverage flows to or could reasonably be expected to flow to any water body for which a TMDL has been approved, and stormwater discharges associated with construction activity were assigned a pollutant-specific Wasteload Allocation (WLA) under the TMDL, the division may:

i. Ensure the WLA is implemented properly through alternative local requirements, such as by a

municipal stormwater permit; or

ii. Notify the permittee of the WLA and amend the permittee's certification to add specific effluent limits and other requirements, as appropriate. The permittee may be required to do the following:

(a) Under the permittee's SWMP, implement specific control measures based on requirements of the WLA, and evaluate whether the requirements are met through implementation of existing stormwater control measures or if additional control measures are necessary. Document the calculations or other evidence demonstrating that the requirements are expected to be met; and

(b) If the evaluation shows that additional or modified control measures are necessary, describe the type and schedule for the control measure additions or modifications.

iii. Discharge monitoring may also be required. The permittee may maintain coverage under the general permit provided they comply with the applicable requirements outlined above. The division reserves the right to require individual or alternate general permit coverage.

3. General Requirements

a. Discharges authorized by this permit shall not cause, have the reasonable potential to cause, or measurably contribute to an exceedance of any applicable water quality standard, including narrative standards for water quality.

b. The division may require sampling and testing, on a case-by-case basis, in the event that there is reason to suspect that the SWMP is not adequately minimizing pollutants in stormwater or in order to measure the effectiveness of the control measures in removing pollutants in the effluent. Such monitoring may include Whole Effluent Toxicity testing.

c. The permittee must comply with the lawful requirements of federal agencies, municipalities, counties, drainage districts and other local agencies including applicable requirements in Municipal Stormwater Management Programs developed to comply with CDPS permits. The permittee must comply with local stormwater management requirements, policies and guidelines including those for erosion and sediment control.

d. All construction site wastes must be properly managed to prevent potential pollution of state waters. This permit does not authorize on-site waste disposal.

e. This permit does not relieve the permittee of the reporting requirements in 40 CFR 110, 40 CFR 117 or 40 CFR 302. Any discharge of hazardous material must be handled in accordance with the division's Noncompliance Notification Requirements (see Part II.L of the permit).

C. STORMWATER MANAGEMENT PLAN (SWMP) REQUIREMENTS

1. SWMP General Requirements

a. A SWMP shall be developed for each construction site listed under Part I.A.3.a, including but not limited to, construction activity that will disturb one acre or more and/or are part of a common plan of development or sale covered by this permit. The SWMP must be prepared in accordance with good engineering, hydrologic and pollution control practices.

i. For public emergency related sites, a SWMP shall be created no later than 14 days after the commencement of construction activities.

b. The permittee must implement the provisions of the SWMP as written and updated, from commencement of construction activity until final stabilization is complete. The division may review the SWMP.

c. A copy of the SWMP must be retained onsite or be onsite when construction activities are occurring at the site unless the permittee specifies another location and obtains approval from the division.

2. SWMP Content

a. The SWMP, at a minimum, must include the following elements.

i. Qualified Stormwater Manager. The SWMP must list individual(s) by title and name who are designated as responsible for implementing the SWMP in its entirety and meet the definition of a Qualified Stormwater Manager. This role may be filled by more than one individual.

ii. Spill Prevention and Response Plan. The SWMP must have a spill prevention and response plan. The plan may incorporate by reference any part of a Spill Prevention Control and Countermeasure (SPCC) plan under section 311 of the Clean Water Act (CWA) or a Spill Prevention Plan required by a separate CDPS permit. The relevant sections of any referenced plans must be available as part of the SWMP consistent with Part I.C.4.

iii. Other CDPS Permits. The SWMP must list the applicable CDPS permits associated with the permitted site and the activities occurring on the permitted site (e.g. a CDPS Dewatering Permit).

iv. Materials Handling. The SWMP must describe handling procedures of all control measures implemented at the site to minimize impacts from handling significant materials that could contribute pollutants to runoff. These handling procedures can include control measures for pollutants and activities such as, exposed storage of building materials, paints and solvents, landscape materials, fertilizers or chemicals, sanitary waste material, trash and equipment maintenance or fueling procedures.

v. Potential Sources of Pollution. The SWMP must list all potential sources of pollution which may reasonably be expected to affect the quality of stormwater discharges associated with construction activity from the site. This may include, but is not limited to, the following pollutant sources:

(a) Disturbed and stored soils;

(b) Vehicle tracking of sediments;

(c) Management of contaminated soils, if known to be present, or if contaminated soils are found during construction;

(d) Loading and unloading operations;

(e) Outdoor storage activities (erodible building materials, fertilizers, chemicals, etc.);

(f) Vehicle and equipment maintenance and fueling;

(g) Significant dust or particulate generating processes (e.g., saw cutting material, including dust);

(h) Routine maintenance activities involving fertilizers, pesticides, herbicides, detergents, fuels, solvents, oils, etc.;

(i) On-site waste management practices (waste piles, liquid wastes, dumpsters);

(j) Concrete truck/equipment washing, including washing of the concrete truck chute and associated fixtures and equipment;

(k) Dedicated asphalt, concrete batch plants and masonry mixing stations;

(l) Non-industrial waste sources such as worker trash and portable toilets.

vi. Implementation of Control Measures. The SWMP must include design specifications that contain information on the implementation of all the structural and nonstructural control measures in use on the site in accordance with good engineering, hydrologic and pollution control practices; including, as applicable, drawings, dimensions, installation information, materials, implementation processes, control measure-specific inspection expectations, and maintenance requirements.

The SWMP must include a documented use agreement between the permittee and the owner or operator of any control measures located outside of the permitted area, that are utilized by the permittee's construction site for compliance with this permit, but not under the direct control of the permittee. The permittee is responsible for ensuring that all control measures located outside of their permitted area, that are being utilized by the permittee's construction site, are properly maintained and in compliance with all terms and conditions of the permit. The SWMP must include all information required of and relevant to any such control measures located outside the permitted area, including location, installation specifications, design specifications and maintenance requirements.

vii. Site Description. The SWMP must include a site description which includes, at a minimum, the following:

(a) The nature of the construction activity at the site;

(b) The proposed schedule for the sequence for major construction activities and the planned implementation of control measures for each phase. (e.g. clearing, grading, utilities, vertical, etc.);

(c) Estimates of the total acreage of the site, and the acreage expected to be disturbed by clearing, excavation, grading, or any other construction activities;

(d) A summary of any existing data and sources used in the development of the construction site plans or SWMP that describe the soil types found in the permitted area and the erodibility of the identified soil types;

(e) A description of the percent cover of native vegetation on the site if the site is undisturbed, or the percent cover of native vegetation in a similar, local undisturbed area or adequate reference area if the site is disturbed. Include the source or methodology for determining the percentage. If a percent cover is not appropriate for the site location (i.e. arid), describe the technique and justification for the identified cover of native vegetation;

(f) A description of any allowable non-stormwater discharges at the site, including those being discharged under a separate CDPS permit or a division low risk discharge guidance policy, and applicable control measures installed;

(g) A description of the drainage patterns from the site, including a description of the immediate source receiving the discharge and the receiving water(s) of the discharge, if different than the immediate source. If the stormwater discharge is to a municipal separate storm sewer system, include the name of the entity owning that system, the location(s) of the stormwater discharge, and the receiving water(s);

(h) A description of all stream crossings located within the construction site boundary; and

(i) A description of the alternate temporary stabilization schedule, if applicable (Part I.B.1.a.iii(a)).

(j) A description of the alternative diversion criteria as approved by the division, if applicable (Part I.B.1.a.i(i)(3)).

viii. Site Map. The SWMP must include a site map which includes, at a minimum, the following:

(a) Construction site boundaries;

(b) Flow arrows that depict stormwater flow directions on-site and runoff direction;

(c) All areas of ground disturbance including areas of borrow and fill;

(d) Areas used for storage of soil;

(e) Locations of all waste accumulation areas, including areas for liquid, concrete, masonry, and asphalt;

(f) Locations of dedicated asphalt, concrete batch plants and masonry mixing stations;

(g) Locations of all structural control measures;

(h) Locations of all non-structural control measures (e.g. temporary stabilization);

(i) Locations of springs, streams, wetlands, diversions and other state waters, including areas that require pre-existing vegetation be maintained within 50 feet of a receiving water, where determined feasible in accordance with Part I.B.1.a.i(e);

(j) Locations of all stream crossings located within the construction site boundary; and

(k) Locations where alternative temporary stabilization schedules apply.

ix. Temporary Stabilization, Final Stabilization and Long Term Stormwater Management.

(a) The SWMP must document the constraints necessitating an alternative temporary stabilization schedule, as referenced in Part I.B.1.a.iii(a), provide the alternate stabilization schedule, and identify all locations where the alternative schedule is applicable on the site map.

(b) The SWMP must describe and locate the methods used to achieve final stabilization of all disturbed areas at the site, as listed in Part I.B.1.a.iii(b).

(c) The SWMP must describe the measures used to establish final stabilization through vegetative cover or alternative stabilization method, as referenced in Part I.B.1.a.iii(c), and describe and locate any temporary control measures in place during the process of final stabilization.

(d) The SWMP must describe and locate any planned permanent control measures to control pollutants in stormwater discharges that will occur after construction operations are completed, including but not limited to, detention/retention ponds, rain gardens, stormwater vaults, etc.

x. Inspection Reports. The SWMP must include documented inspection reports in accordance with Part I.D.5.c.

3. SWMP Review and Revisions

Permittees must keep a record of SWMP changes made that includes the date and identification of the changes. The SWMP must be amended when the following occurs:

a. A change in design, construction, operation, or maintenance of the site requiring implementation

of new or revised control measures;

b. The SWMP proves ineffective in controlling pollutants in stormwater runoff in compliance with the permit conditions;

c. Control measures identified in the SWMP are no longer necessary and are removed; and

d. Corrective actions are taken onsite that result in a change to the SWMP.

e. The site or areas of the site qualifying for reduced frequency inspections under Part I.D.4.

For SWMP revisions made prior to or following a change(s) onsite, including revisions to sections addressing site conditions and control measures, a notation must be included in the SWMP that identifies the date of the site change, the control measure removed, or modified, the location(s) of those control measures, and any changes to the control measure(s). The permittee must ensure the site changes are reflected in the SWMP. The permittee is noncompliant with the permit until the SWMP revisions have been made.

4. SWMP Availability

A copy of the SWMP must be provided upon request to the division, EPA, and any local agency with authority for approving sediment and erosion plans, grading plans or stormwater management plans within the time frame specified in the request. If the SWMP is required to be submitted to any of these entities, the submission must include a signed certification in accordance with Part I.A.3.e, certifying that the SWMP is complete and compliant with all terms and conditions of the permit.

All SWMPs required under this permit are considered reports that must be available to the public under Section 308(b) of the CWA and Section 61.5(4) of the CDPS regulations. The permittee must make plans available to members of the public upon request. However, the permittee may claim any portion of a SWMP as confidential in accordance with 40 CFR Part 2.

D. SITE INSPECTIONS

Site inspections must be conducted in accordance with the following requirements. The required inspection schedules are a minimum frequency and do not affect the permittee's responsibility to implement control measures in effective operating condition as prescribed in the SWMP, Part I.C.2.a.vi, as proper maintenance of control measures may require more frequent inspections. Site inspections shall start within 7 calendar days of the commencement of construction activities on site.

1. Person Responsible for Conducting Inspections

The person(s) inspecting the site may be on the permittee's staff or a third party hired to conduct stormwater inspections under the direction of the permittee(s). The permittee is responsible for ensuring that the inspector meets the definition of a Qualified Stormwater Manager. The inspector may be different than the individual(s) listed in Part I.C.2.a.i.

2. Inspection Frequency

Permittees must conduct site inspections in accordance with on the following minimum frequencies, unless the site meets the requirements of Part I.D.3. All inspections must be recorded per Part I.D.5.c.

a. At least one inspection every 7 calendar days; or

b. At least one inspection every 14 calendar days, if post-storm event inspections are conducted within 24 hours after the end of any precipitation or snowmelt event that causes surface erosion. Post-storm inspections may be used to fulfill the 14-day routine inspection requirement.

c. When site conditions make the schedule required in this section impractical, the permittee may

petition the division to grant an alternate inspection schedule. The alternative inspection schedule must not be implemented prior to written approval by the division and incorporation into the SWMP.

3. Inspection Frequency for Discharges to Outstanding Waters

Permittees must conduct site inspections at least once every 7 calendar days for sites that discharge to a water body designated as an Outstanding Water by the Water Quality Control Commission.

4. Reduced Inspection Frequency

The permittee may perform site inspections at the following reduced frequencies when one of the following conditions exists:

a. Post-Storm Inspections at Temporarily Idle Sites

For permittees choosing an inspection frequency pursuant to Part I.D.2.b and if no construction activities will occur following a storm event, post-storm event inspections must be conducted prior to re-commencing construction activities, and no later than 72 hours following the storm event. If the post-storm event inspection qualifies under this section, the inspection delay must be documented in the inspection record per Part I.D.5.c. Routine inspections must still be conducted at least every 14 calendar days.

b. Inspections at Completed Sites/Areas

When the site, or portions of a site, are awaiting establishment of a vegetative ground cover and final stabilization, the permittee must conduct a thorough inspection of the stormwater management system at least once every 30 days. Post-storm event inspections are not required under this schedule. This reduced inspection schedule is allowed if all of the following criteria are met:

i. All construction activities resulting in ground disturbance are complete;

ii. All activities required for final stabilization, in accordance with Part I.B.1.a.iii(b) & (c) and with the SWMP, have been completed, with the exception of the application of seed that has not occurred due to seasonal conditions or the necessity for additional seed application to augment previous efforts; and

iii. The SWMP has been amended to locate those areas to be inspected in accordance with the reduced schedule allowed for in this paragraph.

c. Winter Conditions Inspections Exclusion

Inspections are not required for sites that meet all of the following conditions: construction activities are temporarily halted, snow cover exists over the entire site for an extended period, and melting conditions posing a risk of surface erosion do not exist. This inspection exception is applicable only during the period where melting conditions do not exist, and applies to the routine 7-day, 14-day and monthly inspections, as well as the post-storm-event inspections. When this inspection exclusion is implemented, the following information must be documented in accordance with the requirements in Part I.C.3 and Part I.D.5.c:

i. Dates when snow cover existed;

ii. Date when construction activities ceased; and

iii. Date melting conditions began.

5. Inspection Scope

a. Areas to Be Inspected

When conducting a site inspection the following areas, if applicable, must be inspected for evidence of, or the potential for, pollutants leaving the construction site boundaries, entering the stormwater drainage system or discharging to state waters:

i. Construction site perimeter;

ii. All disturbed areas;

iii. Locations of installed control measures;

iv. Designated haul routes;

v. Material and waste storage areas exposed to precipitation;

vi. Locations where stormwater has the potential to discharge offsite; and

vii. Locations where vehicles exit the site.

b. Inspection Requirements

i. Visually verify whether all implemented control measures are in effective operational condition and are working as designed in their specifications to minimize pollutant discharges.

ii. Determine if there are new potential sources of pollutants.

iii. Assess the adequacy of control measures at the site to identify areas requiring new or modified control measures to minimize pollutant discharges.

iv. Identify all areas of non-compliance with the permit requirements and, if necessary, implement corrective action(s) in accordance with Part I.B.1.c.

c. Inspection Reports

The permittee must keep a record of all inspections conducted for each permitted site. Inspection reports must identify any incidents of noncompliance with the terms and conditions of this permit. All inspection reports must be signed and dated in accordance with Part I.A.3.f. Inspection records must be retained in accordance with Part II.O. At a minimum, the inspection report must include:

i. The inspection date;

ii. Name(s) and title(s) of personnel conducting the inspection;

iii. Weather conditions at the time of inspection;

iv. Phase of construction at the time of inspection;

v. Estimated acreage of disturbance at the time of inspection;

vi. Location(s) and identification of control measures requiring routine maintenance;

vii. Location(s) and identification of discharges of sediment or other pollutants from the site;

viii. Location(s) and identification of inadequate control measures;

ix. Location(s) and identification of additional control measures needed that were not in place at the time of inspection;

x. Description of corrective action(s) for items vii, viii, ix, above, dates corrective action(s) were completed, including requisite changes to the SWMP, as necessary;

xi. Description of the minimum inspection frequency (either in accordance with Part I.D.2, Part I.D.3 or Part I.D.4.) utilized when conducting each inspection.

xii. Deviations from the minimum inspection schedule as required in Part I.D.2. This would include documentation of division approval for an alternate inspection schedule outlined in Part I.D.2.c;

xiii. After adequate corrective action(s) have been taken, or where a report does not identify any incidents requiring corrective action, the report shall contain a statement as required in Part I.A.3.f.

E. DEFINITIONS

For the purposes of this permit:

(1) Bypass the intentional diversion of waste streams from any portion of a treatment facility in accordance with 40 CFR 122.41(m)(1)(i) and Regulation 61.2(12).

(2) Common Plan of Development or Sale - A contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules, but remain related. The division has determined that "contiguous" means construction activities located in close proximity to each other (within ¼ mile). Construction activities are considered to be "related" if they share the same development plan, builder or contractor, equipment, storage areas, etc. "Common plan of development or sale" includes construction activities that are associated with the construction of field wide oil and gas permits for facilities that are related.

(3) Construction Activity - Ground surface disturbing and associated activities (land disturbance), which include, but are not limited to, clearing, grading, excavation, demolition, installation of new or improved haul roads and access roads, staging areas, stockpiling of fill materials, and borrow areas. Construction does not include routine maintenance to maintain the original line and grade, hydraulic capacity, or original purpose of the facility. Activities to conduct repairs that are not part of routine maintenance or for replacement are construction activities and are not routine maintenance. Repaving activities where underlying and/or surrounding soil is exposed as part of the repaving operation are considered construction activities. Construction activity is from initial ground breaking to final stabilization regardless of ownership of the construction activities.

(4) Control Measure - Any best management practice or other method used to prevent or reduce the discharge of pollutants to state waters. Control measures include, but are not limited to, best management practices. Control measures can include other methods such as the installation, operation, and maintenance of structural controls and treatment devices.

(5) Control Measure Requiring Routine Maintenance - Any control measure that is still operating in accordance with its design and the requirements of this permit, but requires maintenance to prevent a breach of the control measure. See also inadequate control measure.

(6) Dedicated Asphalt, Concrete Batch Plants and Masonry Mixing Stations – Are batch plants or mixing stations located on, or within ¼ mile of, a construction site and that provide materials only to that specific construction site.

(7) Diversion – Discharges of state waters that are temporarily routed through channels or structures (e.g. in-stream, uncontaminated springs, non-pumped groundwater, temporary rerouting of surface waters).

(8) Final Stabilization - The condition reached when construction activities at the site have been

completed, permanent stabilization methods are complete, and temporary control measures are removed. Areas being stabilized with a vegetative cover must have evenly distributed perennial vegetation. The vegetation coverage must be, at a minimum, equal to 70 percent of what would have been provided by native vegetation in a local, undisturbed area or adequate reference site.

(9) Good Engineering, Hydrologic and Pollution Control Practices: are methods, procedures, and practices that:

a. Are based on basic scientific fact(s).

b. Reflect best industry practices and standards.

c. Are appropriate for the conditions and pollutant sources.

d. Provide appropriate solutions to meet the associated permit requirements, including practice based effluent limits.

(10) Inadequate Control Measure - Any control measure that is not designed or implemented in accordance with the requirements of the permit and/or any control measure that is not implemented to operate in accordance with its design. See also Control Measure Requiring Routine Maintenance.

(11) Infeasible – Not technologically possible, or not economically practicable and achievable in light of best industry practices.

(12) Minimize - reduce or eliminate to the extent achievable using control measures that are technologically available and economically practicable and achievable in light of best industry practice.

(13) Municipality - A city, town, county, district, association, or other public body created by, or under, State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes, or a designated and approved management agency under section 208 of CWA (1987).

(14) Municipal Separate Storm Sewer System (MS4) - A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

a. Owned or operated by a State, city, town, county, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or a designated and approved management agency under section 208 of the CWA that discharges to state waters;

i. Designed or used for collecting or conveying stormwater;

ii. Are not a combined sewer; and

iii. Are not part of a Publicly Owned Treatment Works (POTW). See 5 CCR 1002-61.2(62).

(15) Municipal Stormwater Management Program - A stormwater program operated by a municipality, typically to meet the requirements of the municipalities MS4 discharge certification.

(16) Operator - The party that has operational control over day-to-day activities at a project site which are necessary to ensure compliance with the permit. This party is authorized to direct individuals at a site to carry out activities required by the permit (i.e. the general contractor).

(17) Outstanding Waters - Waters designated as outstanding waters pursuant to Regulation 31, Section 31.8(2)(a). The highest level of water quality protection applies to certain waters that constitute an outstanding state or national resource.

(18) Owner - The party that has overall control of the activities and that has funded the implementation of the construction plans and specifications. This is the party that may have ownership of, a long term lease of, or easements on the property on which the construction activity is occurring (e.g. the developer).

(19) Permittee(s) - The owner and operator named in the discharge certification issued under this permit for the construction site specified in the certification.

(20) Point Source - Any discernible, confined, and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. Point source does not include irrigation return flow. See 5 CCR 102-61.2(75).

(21) Pollutant - Dredged spoil, dirt, slurry, solid waste, incinerator residue, sewage, sewage sludge, garbage, trash, chemical waste, biological nutrient, biological material, radioactive material, heat, wrecked or discarded equipment, rock, sand, or any industrial, municipal or agricultural waste. See 5 CCR 1002-61.2(76).

(22) Presentation of credentials – a government issued form of identification, if in person; or (ii) providing name, position and purpose of inspection if request to enter is made via telephone, email or other form of electronic communication. A Permittee's non-response to a request to enter upon presentation of credentials constitutes a denial to such request, and may result in violation of the Permit.

(23) Process Water - Any water which, during manufacturing or processing, comes into contact with or results from the production of any raw material, intermediate product, finished product, by product or waste product.

(24) Public Emergency Related Site - a project initiated in response to an unanticipated emergency (e.g., mud slides, earthquake, extreme flooding conditions, disruption in essential public services), for which the related work requires immediate authorization to avoid imminent endangerment to human health or the environment, or to reestablish essential public services.

(25) Qualified Stormwater Manager - An individual knowledgeable in the principles and practices of erosion and sediment control and pollution prevention, and with the skills to assess conditions at construction sites that could impact stormwater quality and to assess the effectiveness of stormwater controls implemented to meet the requirements of this permit.

(26) Qualifying Local Program - A municipal program for stormwater discharges associated with small construction activity that was formally approved by the division as a qualifying local program.

(27) Receiving Water - Any classified or unclassified surface water segment (including tributaries) in the State of Colorado into which stormwater associated with construction activities discharges. This definition includes all water courses, even if they are usually dry, such as borrow ditches, arroyos, and other unnamed waterways.

(28) Severe Property Damage - substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. See 40 CFR 122.41(m)(1)(ii).

(29) Significant Materials - Include, but not limited to, raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in

food processing or production; hazardous substances designated under section 101(14) of CERCLA; any chemical the permittee is required to report under section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA); fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with stormwater discharges.

(30) Small Construction Activity - The discharge of stormwater from construction activities that result in land disturbance of equal to, or greater than, one acre and less than five acres. Small construction activity also includes the disturbance of less than one acre of total land area that is part of a larger common plan of development or sale, if the larger common plan ultimately disturbs equal to, or greater than, one acre and less than five acres.

(31) Spill - An unintentional release of solid or liquid material which may pollute state waters.

(32) State Waters - means any and all surface and subsurface waters which are contained in or flow in or through this state, but does not include waters in sewage systems, waters in treatment works of disposal systems, waters in potable water distribution systems, and all water withdrawn for use until use and treatment have been completed.

(33) Steep Slopes: where a local government, or industry technical manual (e.g. stormwater BMP manual) has defined what is to be considered a "steep slope", this permit's definition automatically adopts that definition. Where no such definition exists, steep slopes are automatically defined as those that are 3:1 or greater.

(34) Stormwater - Precipitation runoff, snow melt runoff, and surface runoff and drainage. See 5 CCR 1002-61.2(103).

(35) Total Maximum Daily Loads (TMDLs) -The sum of the individual wasteload allocations (WLA) for point sources and load allocations (LA) for nonpoint sources and natural background. For the purposes of this permit, a TMDL is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources. A TMDL includes WLAs, LAs, and must include a margin of safety (MOS), and account for seasonal variations. See section 303(d) of the CWA and 40 C.F.R. 130.2 and 130.7.

(36) Upset - an exceptional incident in which there is unintentional and temporary noncompliance with permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation in accordance with 40 CFR 122.41(n) and Regulation 61.2(114).

F. MONITORING

The division may require sampling and testing, on a case-by-case basis. If the division requires sampling and testing, the division will send a notification to the permittee. Reporting procedures for any monitoring data collected will be included in the notification.

If monitoring is required, the following applies:

1. The thirty (30) day average must be determined by the arithmetic mean of all samples collected during a thirty (30) consecutive-day period; and

2. A grab sample, for monitoring requirements, is a single "dip and take" sample.

G. OIL AND GAS CONSTRUCTION

Stormwater discharges associated with construction activities directly related to oil and gas exploration, production, processing, and treatment operations or transmission facilities are regulated under the Colorado Discharge Permit System Regulations (5 CCR 1002-61), and require coverage under this permit in accordance with that regulation. However, references in this permit to specific authority under the CWA do not apply to

stormwater discharges associated with these oil and gas related construction activities, to the extent that the references are limited by the federal Energy Policy Act of 2005.

Part II: Standard Permit Conditions

A. DUTY TO COMPLY

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Water Quality Control Act and is grounds for:

1. Enforcement action;

2. Permit termination, revocation and reissuance, or modification; or

3. Denial of a permit renewal application.

B. DUTY TO REAPPLY

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain authorization as required by Part I.A.3.k. of the permit.

C. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

D. DUTY TO MITIGATE

A permittee must take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

E. PROPER OPERATION AND MAINTENANCE

A permittee must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by the permittee only when the operation is necessary to achieve compliance with the conditions of this permit. This requirement can be met by meeting the requirements for Part I.B., I.C., and I.D. above. See also 40 C.F.R. § 122.41(e).

F. PERMIT ACTIONS

This permit may be modified, revoked and reissued, or terminated for cause. The permittee request for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. Any request for modification, revocation, reissuance, or termination under this permit must comply with all terms and conditions of Regulation 61.8(8).

G. PROPERTY RIGHTS

In accordance with 40 CFR 122.41(g) and 5 CCR 1002-61, 61.8(9):

1. The issuance of a permit does not convey any property or water rights in either real or personal property, or stream flows or any exclusive privilege.

2. The issuance of a permit does not authorize any injury to person or property or any invasion of personal rights, nor does it authorize the infringement of federal, state, or local laws or regulations.

3. Except for any toxic effluent standard or prohibition imposed under Section 307 of the Federal act or any standard for sewage sludge use or disposal under Section 405(d) of the Federal act, compliance with a permit during its term constitutes compliance, for purposes of enforcement, with Sections 301,

302, 306, 318, 403, and 405(a) and (b) of the Federal act. However, a permit may be modified, revoked and reissued, or terminated during its term for cause as set forth in Section 61.8(8) of the Colorado Discharge Permit System Regulations.

H. DUTY TO PROVIDE INFORMATION

The permittee shall furnish to the division, within a reasonable time, any information which the division may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the division, upon request, copies of records required to be kept by this permit in accordance with 40 CFR 122.41(h) and/or Regulation 61.8(3)(q).

I. INSPECTION AND ENTRY

The permittee shall allow the division and the authorized representative, upon the presentation of credentials as required by law, to allow for inspections to be conducted in accordance with 40 CFR 122.41(i), Regulation 61.8(3), and Regulation 61.8(4):

1. To enter upon the permittee's premises where a regulated facility or activity is located or in which any records are required to be kept under the terms and conditions of this permit;

2. At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit;

3. At reasonable times, inspect any monitoring equipment or monitoring method required in the permit; and

4. To enter upon the permittee's premises in a reasonable manner and at a reasonable time to inspect or investigate, any actual, suspected, or potential source of water pollution, or any violation of the Colorado Water Quality Control Act. The investigation may include: sampling of any discharges, stormwater or process water, taking of photographs, interviewing site staff on alleged violations and other matters related to the permit, and assessing any and all facilities or areas within the site that may affect discharges, the permit, or an alleged violation.

   The permittee shall provide access to the division or other authorized representatives upon presentation of proper credentials. A permittee's non-response to a request to enter upon presentation of credentials constitutes a denial of such request, and may result in a violation of the permit.

J. MONITORING AND RECORDS

1. Samples and measurements taken for the purpose of monitoring must be representative of the volume and nature of the monitored activity.

2. The permittee must retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date the permit expires or the date the permittee's authorization is terminated. This period may be extended by request of the division at any time.

3. Records of monitoring information must include:

   a. The date, exact place, and time of sampling or measurements;

   b. The individual(s) who performed the sampling or measurements;

   c. The date(s) analyses were performed

d. The individual(s) who performed the analyses;

e. The analytical techniques or methods used; and

f. The results of such analyses.

4. Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in the permit.

K. SIGNATORY REQUIREMENTS

1. Authorization to Sign:

All documents required to be submitted to the division by the permit must be signed in accordance with the following criteria:

a. For a corporation: by a responsible corporate officer. For the purpose of this subsection, a responsible corporate officer means:

i. A president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or

ii. The manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

c. For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this subsection, a principal executive officer of a federal agency includes

i. The chief executive officer of the agency, or

ii. A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency. (e.g. Regional Administrator of EPA)

2. Electronic Signatures

For persons signing applications for coverage under this permit electronically, in addition to meeting other applicable requirements stated above, such signatures must meet the same signature, authentication, and identity-proofing standards set forth at 40 CFR § 3.2000(b) for electronic reports (including robust second-factor authentication). Compliance with this requirement can be achieved by submitting the application using the Colorado Environmental Online Service (CEOS) system.

3. Change in Authorization to Sign

If an authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization must be submitted to the division, prior to the re-authorization, or together with any reports, information, or applications to be signed by an authorized representative.

L. REPORTING REQUIREMENTS

1. Planned Changes

The permittee shall give advance notice to the division, in writing, of any planned physical alterations or additions to the permitted facility in accordance with 40 CFR 122.41(l) and Regulation 61.8(5)(a). Notice is required only when:

a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or

b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.41(a)(1).

2. Anticipated Non-Compliance

The permittee shall give advance notice to the division, in writing, of any planned changes in the permitted facility or activity that may result in noncompliance with permit requirements. The timing of notification requirements differs based on the type of non-compliance as described in subparagraphs 5, 6, 7, and 8 below.

3. Transfer of Ownership or Control

The permittee shall notify the division, in writing, ten (10) calendar days in advance of a proposed transfer of the permit. This permit is not transferable to any person except after notice is given to the division.

a. Where a facility wants to change the name of the permittee, the original permittee (the first owner or operators) must submit a Notice of Termination.

b. The new owner or operator must submit an application. See also signature requirements in Part II.K, above.

c. A permit may be automatically transferred to a new permittee if:

i. The current permittee notifies the division in writing 30 calendar days in advance of the proposed transfer date; and

ii. The notice includes a written agreement between the existing and new permittee(s) containing a specific date for transfer of permit responsibility, coverage and liability between them; and

iii. The division does not notify the existing permittee and the proposed new permittee of its intent to modify, or revoke and reissue the permit.

iv. Fee requirements of the Colorado Discharge Permit System Regulations, Section 61.15, have been met.

4. Monitoring reports

Monitoring results must be reported at the intervals specified in this permit per the requirements of 40 CFR 122.41(l)(4).

5. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule in the permit, shall be submitted on the date listed

in the compliance schedule section. The fourteen (14) calendar day provision in Regulation 61.8(4)(n)(i) has been incorporated into the due date.

6. Twenty-four Hour Reporting

In addition to the reports required elsewhere in this permit, the permittee shall report the following circumstances orally within twenty-four (24) hours from the time the permittee becomes aware of the circumstances, and shall mail to the division a written report containing the information requested within five (5) working days after becoming aware of the following circumstances:

a. Circumstances leading to any noncompliance which may endanger health or the environment regardless of the cause of the incident;

b. Circumstances leading to any unanticipated bypass which exceeds any effluent limitations in the permit;

c. Circumstances leading to any upset which causes an exceedance of any effluent limitation in the permit;

d. Daily maximum violations for any of the pollutants limited by Part I of this permit. This includes any toxic pollutant or hazardous substance or any pollutant specifically identified as the method to control any toxic pollutant or hazardous substance.

e. The division may waive the written report required under subparagraph 6 of this section if the oral report has been received within 24 hours.

7. Other Non-Compliance

A permittee must report all instances of noncompliance at the time monitoring reports are due. If no monitoring reports are required, these reports are due at least annually in accordance with Regulation 61.8(4)(p). The annual report must contain all instances of non-compliance required under either subparagraph 5 or subparagraph 6 of this subsection.

8. Other Information

Where a permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, or in any report to the Permitting Authority, it has a duty to promptly submit such facts or information.

M. BYPASS

1. Bypass Not Exceeding Limitations

The permittees may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Part II.M.2 of this permit. See 40 CFR 122.41(m)(2).

2. Notice of Bypass

a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, the permittee must submit prior notice, if possible at least ten days before the date of the bypass. ee 40 CFR §122.41(m)(3)(i) and/or Regulation 61.9(5)(c).

b. Unanticipated bypass. The permittee must submit notice of an unanticipated bypass in accordance with Part II.L.6. See 40 CFR §122.41(m)(3)(ii).

3. Prohibition of Bypass

Bypasses are prohibited and the division may take enforcement action against the permittee for bypass, unless:

a. The bypass is unavoidable to prevent loss of life, personal injury, or severe property damage;

b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

c. Proper notices were submitted to the division.

N. UPSET

1. Effect of an upset

An upset constitutes an affirmative defense to an action brought for noncompliance with permit effluent limitations if the requirements of Part II.N.2. of this permit are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review in accordance with Regulation 61.8(3)(j).

2. Conditions Necessary for Demonstration of an Upset

A permittee who wishes to establish the affirmative defense of upset shall demonstrate through properly signed contemporaneous operating logs, or other relevant evidence that:

a. An upset occurred and the permittee can identify the specific cause(s) of the upset;

b. The permitted facility was at the time being properly operated and maintained; and

c. The permittee submitted proper notice of the upset as required in Part II.L.6.(24- hour notice); and

d. The permittee complied with any remedial measure necessary to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. In addition to the demonstration required above, a permittee who wishes to establish the affirmative defense of upset for a violation of effluent limitations based upon water quality standards shall also demonstrate through monitoring, modeling or other methods that the relevant standards were achieved in the receiving water.

3. Burden of Proof

In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

O. RETENTION OF RECORDS

1. Post-Expiration or Termination Retention

Copies of documentation required by this permit, including records of all data used to complete the application for permit coverage to be covered by this permit, must be retained for at least three years from the date that permit coverage expires or is terminated. This period may be extended by request of EPA at any time.

2. On-site Retention

The permittee must retain an electronic version or hardcopy of the SWMP at the construction site from

the date of the initiation of construction activities to the date of expiration or inactivation of permit coverage; unless another location, specified by the permittee, is approved by the division.

P. REOPENER CLAUSE

1. Procedures for Modification or Revocation

   Permit modification or revocation of this permit or coverage under this permit will be conducted according to Regulation 61.8(8).

2. Water Quality Protection

   If there is evidence indicating that the stormwater discharges authorized by this permit cause, have the reasonable potential to cause or contribute to an excursion above any applicable water quality standard, the permittee may be required to obtain an individual permit, or the permit may be modified to include different limitations and/or requirements.

Q. SEVERABILITY

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

R. NOTIFICATION REQUIREMENTS

1. Notification to Parties

   All notification requirements, excluding information submitted using the CEOS portal, shall be directed as follows:

   a. Oral Notifications, during normal business hours shall be to:
      Clean Water Compliance Section
      Water Quality Control Division
      Telephone: (303) 692-3500

   b. Written notification shall be to:
      Clean Water Compliance Section
      Water Quality Control Division
      Colorado Department of Public Health and Environment
      WQCD-WQP-B2
      4300 Cherry Creek Drive South
      Denver, CO 80246-1530

S. RESPONSIBILITIES

1. Reduction, Loss, or Failure of Treatment Facility

   The permittee has the duty to halt or reduce any activity if necessary to maintain compliance with the effluent limitations of the permit. It shall not be a defense for a permittee in an enforcement action that it would be necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

T. OIL AND HAZARDOUS SUBSTANCE LIABILITY

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject to under Section 311 (Oil and Hazardous Substance Liability) of the CWA.

U. EMERGENCY POWERS

Nothing in this permit shall be construed to prevent or limit application of any emergency power of the division.

V. CONFIDENTIALITY

Any information relating to any secret process, method of manufacture or production, or sales or marketing data which has been declared confidential by the permittee, and which may be acquired, ascertained, or discovered, whether in any sampling investigation, emergency investigation, or otherwise, shall not be publicly disclosed by any member, officer, or employee of the Water Quality Control Commission or the division, but shall be kept confidential. Any person seeking to invoke the protection of this section shall bear the burden of proving its applicability. This section shall never be interpreted as preventing full disclosure of effluent data.

W. FEES

The permittee is required to submit payment of an annual fee as set forth in the 2016 amendments to the Water Quality Control Act. Section 25-8-502 (1.1) (b), and the Colorado Discharge Permit System Regulations 5 CCR 1002-61, Section 61.15 as amended. Failure to submit the required fee when due and payable is a violation of the permit and will result in enforcement action pursuant to Section 25-8-601 et. seq., C.R.S.1973 as amended.

X. DURATION OF PERMIT

The duration of a permit shall be for a fixed term and shall not exceed five (5) years. If the permittee desires to continue to discharge, a permit renewal application shall be submitted at least ninety (90) calendar days before this permit expires. Filing of a timely and complete application shall cause the expired permit to continue in force to the effective date of the new permit. The permit's duration may be extended only through administrative extensions and not through interim modifications. If the permittee anticipates there will be no discharge after the expiration date of this permit, the division should be promptly notified so that it can terminate the permit in accordance with Part I.A.3.i.

Y. SECTION 307 TOXICS

If a toxic effluent standard or prohibition, including any applicable schedule of compliance specified, is established by regulation pursuant to Section 307 of the Federal Act for a toxic pollutant which is present in the permittee's discharge and such standard or prohibition is more stringent than any limitation upon such pollutant in the discharge permit, the division shall institute proceedings to modify or revoke and reissue the permit to conform to the toxic effluent standard or prohibition

APPENDIX 3: Pre-Disturbance Photos

APPENDIX 4: Local Demolition Permit + State Asbestos Permit

APPENDIX 5: Erosion & Sediment CMs/BMPs Details

APPENDIX 6: Erosion Control Plan (EC Plan) – Site Map

EC Plan includes, at a minimum, the following:

1. Construction site boundaries;
2. Flow arrows that depict stormwater flow directions on-site and runoff direction;
3. Areas of ground disturbance including areas of borrow and fill;
4. Areas used for storage of soil;
5. Location of all waste accumulation areas, including areas for liquid, concrete, masonry, and asphalt;
6. Location of dedicated asphalt, concrete batch plants and masonry mixing stations;
7. Location of all structural control measures;
8. Location of all non-structural control measures;
9. Location of springs, streams, wetlands and other state waters, including areas that require pre-existing vegetation be maintained within 50 ft of a receiving water; and
10. Location of all stream crossings located within the construction site boundary.

Urban Poster:

Rural Poster: http://www.adcogov.org/sites/default/files/Stormwater%20Rural%20-%20Small%20Builder.pdf

CONSTRUCTION DRAWINGS - EROSION CONTROL

6300 EAST 88TH AVENUE - WEST

SITUATED IN THE SOUTHWEST QUARTER OF SECTION 20
TOWNSHIP 2 SOUTH, RANGE 67 WEST OF THE SIXTH PRINCIPAL MERIDIAN,
COUNTY OF ADAMS, STATE OF COLORADO

SHEET LIST TABLE		
SHEET NUMBER	SHEET TITLE	SHEET DESCRIPTION
1	COVER SHEET	CS1
2	INITIAL EROSION CONTROL PLAN	EC1
3	INTERIM EROSION CONTROL PLAN	EC2
4	FINAL EROSION CONTROL PLAN	EC3
5	EROSION CONTROL DETAILS	EC4
6	EROSION CONTROL DETAILS	EC5

VICINITY MAP
1"=1000'

PROJECT CONTACTS:

OWNER:
76 AND 88 LLC
ATTN: FRED ORR
5040 ACOMA STREET
DENVER, CO 80216

CIVIL ENGINEER:
TERRA FORMA SOLUTIONS
ATTN: TODD JOHNSON, PE
303.257.7653

LANDSCAPE:
TIM DUNN LANDSCAPE ARCHITECTURE
ATTN: TIM DUNN
720.350.2411

SURVEYOR:
ENGINEERING SERVICE COMPANY
14190 EAST EVANS AVENUE
AURORA, CO 80014
303.337.1393

LIGHTING:
STUDIO LIGHTNING
ATTN: JACOB BENNEFIELD, LC
63 SUNSET DR.
BAILEY, CO 80421
303.242.1572

LEGAL DESCRIPTION:

LOT 1, BLOCK 1, FADEN SUBDIVISION, COUNTY OF ADAMS STATE OF COLORADO, AND LOT 2, BLOCK 1, FADEN SUBDIVISION, COUNTY OF ADAMS, STATE OF COLORADO, AND THE NORTH 7 FEET OF THE SOUTH 1/2 OF THE SOUTH 1/2 OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4, EXCEPT THAT PART LYING WITHIN THE HIGHWAY, SECTION 20, TOWNSHIP 2 SOUTH, RANGE 67 WEST OF THE 6TH P.M., COUNTY OF ADAMS, STATE OF COLORADO.

BENCHMARK:

ADAMS COUNTY CONTROL MONUMENT NUMBER 0212 - 3 - 1/4" DIAMETER ALUMINUM CAP (STAMPED 95 0212 1995 2S67W S 20) ATOP AN ALUMINUM ROD LOCATED AT THE SOUTHWEST CORNER OF THE INTERSECTION OF INTERSTATE HIGHWAY 76 AND EAST 88TH AVENUE. 0.05 MI SOUTHEAST OF THE CENTER LINE OF E. 88TH AVE, AND 39 FT SOUTHWEST OF THE CENTERLINE OF OLD 88TH AVE.

ELEVATION: 5103.29 FEET (NAVD 1988 DATUM).

BASIS OF BEARINGS:

BEARINGS ARE BASED ON THE SOUTH LINE OF THE SE 1/4 OF THE SW $\frac{1}{4}$ SECTION 20, TOWNSHIP 2 SOUTH, RANGE 67 WEST, OF THE 6TH PRINCIPAL MERIDIAN BEARING N89°57'30"W BOUND BY THE MONUMENTS SHOWN HEREON.

ADAMS COUNTY EROSION CONTROL PLAN - GENERAL NOTES:

1. ALL CONSTRUCTION PROJECTS, REGARDLESS OF THE SIZE, SHALL INSTALL, MAINTAIN AND REPAIR STORMWATER POLLUTION CONTROL MEASURES (CMS) TO EFFECTIVELY MINIMIZE EROSION, SEDIMENT TRANSPORT, AND THE RELEASE OF POLLUTANTS RELATED TO CONSTRUCTION ACTIVITY. CMS EXAMPLE INCLUDE: SEDIMENT CONTROL LOGS (SCL), SILT FENCE (SF), DIKES/SWALES, SEDIMENT TRAPS (ST), INLET PROTECTION (IP), OUTLET PROTECTION (OP), CHECK DAMS (CD), SEDIMENT BASINS (SB), TEMPORARY/PERMANENT SEEDING AND MULCHING (MU), SOIL ROUGHENING, MAINTAINING EXISTING VEGETATION AND PROTECTION OF TREES. CMS MUST BE SELECTED, DESIGNED, ADEQUATELY SIZED, INSTALLED AND MAINTAINED IN ACCORDANCE WITH GOOD ENGINEERING, HYDROLOGIC AND POLLUTION CONTROL PRACTICES. CMS/BMPS INSTALLATION AND MAINTENANCE DETAILS SHALL CONFORM TO URBAN DRAINAGE FLOOD CONTROL CRITERIA MANUAL VOLUME 3. OR THE COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) ITEM CODE BOOK. CMS MUST FILTER, SETTLE, CONTAIN OR STRAIN POLLUTANTS FROM STORMWATER FLOWS IN ORDER TO PREVENT BYPASS OF FLOWS WITHOUT TREATMENT. CMS MUST BE APPROPRIATE TO TREAT THE RUNOFF FROM THE AMOUNT OF DISTURBED AREA, THE EXPECTED FLOW RATE, DURATION, AND FLOW CONDITIONS (I.E., SHEET OR CONCENTRATED FLOW). CMS/BMPS SHALL BE SPECIFIED IN THE SWMP (IF APPLICABLE), AND THE LOCATIONS SHOWN ON THE EC PLAN.
1) PRIOR TO CONSTRUCTION, PROJECTS DISTURBING 1 OR MORE ACRES OF LAND, OR ANY PROJECT BELONGING TO A COMMON PLAN OF DEVELOPMENT DISTURB 1 OR MORE ACRES, MUST OBTAIN:
   - A GENERAL PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES, FROM THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, AND
   - AN ADAMS COUNTY STORMWATER QUALITY PERMIT WITHIN THE UNINCORPORATED ADAMS COUNTY MS4 AREA.
2) PERMITTED PROJECTS SHALL DEVELOP A STORMWATER MANAGEMENT PLAN (SWMP), AKA EROSION AND SEDIMENT CONTROL PLAN (ESCP), IN COMPLIANCE WITH CDPHE MINIMUM REQUIREMENTS. THE APPROVED SWMP, INCLUDING EROSION CONTROL (EC) PLAN (SITE MAP), SHALL BE KEPT ON SITE AND UPDATED AT ALL TIMES. THE QUALIFIED STORMWATER MANAGER IS RESPONSIBLE FOR IMPLEMENTING THE SWMP AND CMS (AKA BMPS) DURING CONSTRUCTION.
3) PERMITTED PROJECTS SHALL PERFORM REGULAR STORMWATER INSPECTIONS EVERY 7 CALENDAR DAYS; OR EVERY 14 CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY PRECIPITATION OR SNOWMELT EVENT THAT CAUSES SURFACE EROSION. INSPECTION FREQUENCY CAN BE REDUCED FOR POST STORM EVENT INSPECTIONS AT TEMPORARILY IDLE SITES AND ALSO FOR STORMWATER INSPECTIONS AT COMPLETED SITES WAITING FOR FINAL STABILIZATION. INSPECTION REPORTS MUST IDENTIFY ANY INCIDENTS OF NON COMPLIANCE.
4) TRACKING OF DIRT ONTO PAVED PUBLIC OR PRIVATE PAVED ROADS IS NOT ALLOWED. THE USE OF DIRT RAMPS TO ENTER/EXIT FROM AN UNPAVED INTO A PAVED AREA IS PROHIBITED. VEHICLE TRACKING CONTROLS SHALL BE IMPLEMENTED, OTHERWISE ENTRANCE AREA MUST DRAIN THRU A CM TOWARDS THE PRIVATE SITE.
5) TRUCK LOADS OF FILL MATERIAL IMPORTED TO OR CUT MATERIAL EXPORTED FROM THE SITE SHALL BE PROPERLY COVERED TO PREVENT LOSS OF THE MATERIAL DURING TRANSPORTATION ON PUBLIC ROW. HAUL ROUTES MUST BE PERMITTED BY THE COUNTY. NO MATERIAL SHALL BE TRANSPORTED TO ANOTHER SITE WITHOUT APPLICABLE PERMITS.
6) CONTROL MEASURES DESIGNED FOR CONCRETE WASHOUT WASTE MUST BE IMPLEMENTED. THIS INCLUDES WASHOUT WASTE DISCHARGED TO THE GROUND AND WASHOUT WASTE FROM CONCRETE TRUCKS AND MASONRY OPERATIONS.
7) TEMPORARY CMS/BMPS SHALL BE REMOVED AFTER THE SITE HAS REACHED FINAL STABILIZATION.
8) DEWATERING OPERATIONS DISCHARGING OFF SITE INTO ANY WATERS CONVEYANCE SYSTEMS INCLUDING WETLANDS, IRRIGATION DITCHES, CANALS, RIVERS, STREAMS OR STORM SEWER SYSTEMS, REQUIRE A STATE CONSTRUCTION DEWATERING PERMIT.
9) PERMITTED PROJECTS SHALL KEEP THE CDPHE'S STORMWATER DISCHARGE PERMIT, STORMWATER MANAGEMENT PLAN (SWMP) AND INSPECTION LOGS AVAILABLE ON SITE THROUGHOUT THE DURATION OF THE PROJECT, AND FOR AN ADDITIONAL 3 YEARS AFTER PERMIT CLOSE OUT.
10) PERMITTED LANDOWNER AND/OR CONTRACTOR SHALL CLOSE THE STATE AND CITY/COUNTY PERMIT ONCE FINAL STABILIZATION IS REACHED. STORMWATER INSPECTIONS SHALL CONTINUE UNTIL INACTIVATION NOTICE IS FILED WITH CDPHE.

PERFORMANCE STANDARD NOTES:

1. STORMWATER RUNOFF FROM DISTURBED AREAS MUST FLOW TO AT LEAST ONE (1) CM TO MINIMIZE SEDIMENT IN THE DISCHARGE. DO NOT ALLOW SEDIMENT TO LEAVE THE SITE. THE BEST WAY TO PREVENT SEDIMENT OR POLLUTANTS FROM ENTERING THE STORM SEWER SYSTEM IS TO STABILIZE THE SITE AS QUICKLY AS POSSIBLE, PREVENTING EROSION AND STOPPING SEDIMENT RUN OFF AT ITS SOURCE.
2. PHASE CONSTRUCTION TO MINIMIZE DISTURBED AREAS, INCLUDING DISTURBANCE OF STEEP SLOPES. (I.E. THE ENTIRE PROJECT SITE SHOULD NOT BE DISTURBED IF CONSTRUCTION WILL ONLY BE OCCURRING IN ONE PARTICULAR SECTION OF THE SITE).LIMIT SOIL EXPOSURE TO THE SHORTEST POSSIBLE PERIOD OF TIME. PROTECT NATURAL FEATURES AND EXISTING VEGETATION WHENEVER POSSIBLE. REMOVAL OF EXISTING VEGETATION SHALL BE LIMITED TO THE AREA REQUIRED FOR IMMEDIATE CONSTRUCTION OPERATIONS. MAINTAIN PRE EXISTING VEGETATION (OR EQUIVALENT CMS) FOR AREAS WITHIN 50 HORIZONTAL FT OF RECEIVING WATERS.
3. SOIL COMPACTION MUST BE MINIMIZED FOR AREAS WHERE INFILTRATION CMS WILL OCCUR OR WHERE FINAL STABILIZATION WILL BE ACHIEVED THROUGH VEGETATIVE COVER.
4. ALL SOIL IMPORTED TO OR EXPORTED FROM THE SITE SHALL BE PROPERLY COVERED TO PREVENT THE LOSS OF MATERIAL DURING TRANSPORT.
5. DUST EMISSIONS RESULTING FROM GRADING ACTIVITIES OR WIND SHALL BE CONTROLLED.
6. INSTALL CONSTRUCTION FENCE (ORANGE) TO PROTECT WETLANDS AND OTHER SENSITIVE AREAS AND TO PREVENT ACCESS, AND TO DELINEATE THE LIMITS OF CONSTRUCTION. DO NOT USE SILT FENCE TO PROTECT WETLANDS SINCE TRENCHING MAY IMPACT THESE AREAS.
7. CMS INTENDED TO CAPTURE OVERLAND, LOW VELOCITY SHEET FLOW AT A FAIRLY LEVEL GRADE SHALL ONLY BE INSTALLED ALONG CONTOURS.
8. INSTALL CMS, SUCH AS CHECK DAMS, PERPENDICULAR TO THE CONCENTRATED FLOWS TO REDUCE FLOW VELOCITY.
9. STORM DRAIN INLETS WITHIN AND ADJACENT TO THE CONSTRUCTION SITE MUST BE PROTECTED. ANY PONDING OF STORMWATER AROUND INLET PROTECTION MUST NOT CAUSE EXCESSIVE FLOODING OR DAMAGE ADJACENT AREAS OR STRUCTURES.
10. INSTALL VEHICLE TRACKING CONTROL (VTC) TO ENTER/EXIT UNPAVED AREA. DO NOT USE RECYCLED CRUSHED CONCRETE OR ASPHALT MILLINGS FOR VEHICLE TRACKING PADS.
11. STRAW BALES SHALL NOT BE USED FOR PRIMARY EROSION OR SEDIMENT CONTROL (I.E. STRAW BALES MAY BE USED FOR REINFORCEMENT BEHIND ANOTHER BMP SUCH AS SILT FENCE).
12. OUTLETS SYSTEMS (SUCH AS SKIMMER OR PERFORATED RISER PIPE) SHALL BE INSTALLED TO WITHDRAW WATER FROM OR NEAR THE SURFACE LEVEL WHEN DISCHARGING FROM BASINS. WATER CANNOT DRAIN FROM THE BOTTOM OF THE POND.
13. TEMPORARY STABILIZATION MUST BE IMPLEMENTED FOR EARTH DISTURBING ACTIVITIES ON ANY PORTION OF THE SITE WHERE LAND DISTURBING ACTIVITIES HAVE PERMANENTLY OR TEMPORARILY CEASED (FOR MORE THAN 14 CALENDAR DAYS). TEMPORARY STABILIZATION METHODS EXAMPLES: TARPS, SOIL TACKIFIER, AND HYDROSEED. TEMPORARY STABILIZATION REQUIREMENT MAY EXCEED THE 14 DAY SCHEDULE WHEN EITHER THE FUNCTION OF THE SPECIFIC AREA REQUIRES IT TO REMAIN DISTURBED, OR, PHYSICAL CHARACTERISTICS OF THE TERRAIN AND CLIMATE PREVENT STABILIZATION AS LONG AS THE CONSTRAINTS AND ALTERNATIVE SCHEDULE IS DOCUMENTED ON THE SWMP, AND LOCATIONS ARE IDENTIFIED ON THE EC PLAN (SITE MAP).
14. RUNOFF FROM STOCKPILE AREA MUST BE CONTROLLED. SOILS THAT WILL BE STOCKPILED FOR MORE THAN 30 DAYS SHALL BE PROTECTED FROM WIND AND WATER EROSION WITHIN 14 DAYS OF STOCKPILE CONSTRUCTION. INSTALL CMS/BMPS 5 FT AWAY FROM THE TOE OF THE STOCKPILE'S SLOPE.
15. WATER USE TO CLEAN CONCRETE TRUCKS SHALL BE DISCHARGED INTO A CONCRETE WASHOUT AREA (CWA). THE PREDEFINED CONTAINMENT AREA MUST BE IDENTIFIED WITH A SIGN, AND SHALL ALLOW THE LIQUIDS TO EVAPORATE OR DRY OUT. CWA DISCHARGES THAT MAY REACH GROUNDWATER MUST FLOW THROUGH SOIL THAT HAS BUFFERING CAPACITY PRIOR TO REACHING GROUNDWATER. THE CONCRETE WASHOUT LOCATION SHALL BE NOT BE LOCATED IN AN AREA WHERE SHALLOW GROUNDWATER MAY BE PRESENT AND WOULD RESULT IN BUFFERING CAPACITY NOT BEING ADEQUATE, SUCH AS NEAR NATURAL DRAINAGES, SPRINGS, OR WETLANDS. IN THIS CASE, A LINER UNDERNEATH IS NEEDED FOR AREAS WITH HIGH GROUNDWATER LEVELS. CWA SHALL NOT BE PLACED IN LOW AREAS, DITCHES OR ADJACENT TO STATE WATERS. PLACE CWA 50 FT AWAY FROM STATE WATERS.
16. WASTE, SUCH AS BUILDING MATERIALS, WORKERS TRASH AND CONSTRUCTION DEBRIS, MUST BE PROPERLY MANAGED TO PREVENT STORMWATER POLLUTION.
17. INSTALL STABILIZED STAGING AREA (SSA) TO STORE MATERIALS, CONSTRUCTION TRAILER, ETC.
18. IF CONDITIONS IN THE FIELD WARRANT ADDITIONAL CMS/BMPS TO THE ONES ORIGINALLY APPROVED ON THE SWMP OR EC PLAN (CIVIL DRAWING), THE LANDOWNER OR CONTRACTOR SHALL IMPLEMENT MEASURES DETERMINED NECESSARY, AS DIRECTED BY THE COUNTY.
19. PERMANENT CMS/BMPS FOR SLOPES, CHANNELS, DITCHES, OR DISTURBED LAND AREA SHALL BE PERFORMED IMMEDIATELY AFTER FINAL GRADING. CONSIDER THE USE EROSION CONTROL BLANKETS ON SLOPES 3:1 OR STEEPER AND AREAS WITH CONCENTRATED FLOWS SUCH AS SWALES, LONG CHANNELS AND ROADSIDE DITCHES.
20. THE DISCHARGE OF SANITARY WASTE INTO THE STORM SEWER SYSTEM IS PROHIBITED. PORTABLE TOILETS MUST BE PROVIDED, SECURED AND PLACED ON PERMEABLE SURFACES, AWAY FROM THE CURBSIDE, STORM INLETS AND/OR DRAINAGE WAYS.
21. REMOVE TEMPORARY CMS/BMPS ONCE FINAL STABILIZATION IS REACHED, UNLESS OTHERWISE AUTHORIZED.
22. FINAL STABILIZATION MUST BE IMPLEMENTED. FINAL STABILIZATION IS REACHED WHEN ALL SOIL DISTURBING ACTIVITIES HAVE BEEN COMPLETED, AND EITHER A UNIFORM VEGETATIVE COVER HAS BEEN ESTABLISHED WITH AN INDIVIDUAL PLANT DENSITY OF AT LEAST 70% OF PRE DISTURBANCE LEVELS, OR EQUIVALENT PERMANENT ALTERNATIVE METHOD HAS BEEN IMPLEMENTED.
23. PROVIDE SPILL PREVENTION AND CONTAINMENT MEASURES FOR CONSTRUCTION MATERIALS, WASTE AND FUEL STORAGE AREAS. BULK STORAGE (55 GALLONS OR GREATER) OF PETROLEUM PRODUCTS AND LIQUID CHEMICALS MUST HAVE SECONDARY CONTAINMENT, OR EQUIVALENT PROTECTION, IN ORDER TO CONTAIN SPILLS AND TO PREVENT SPILLED MATERIAL FROM ENTERING STATE WATERS.
24. REPORT SPILLS OR RELEASES OF CHEMICAL, OIL, PETROLEUM PRODUCT, SEWAGE, ETC., WHICH MAY REACH THE STORM SEWER OR ENTER STATE WATERS WITHIN 24 HOURS FROM TIME OF DISCOVERY. GUIDANCE AVAILABLE AT WWW.CDPHE.STATE.CO.US/EMP/SPILLSANDRELEASED.HTM. STATE OF COLORADO SPILL-LINE: 1-877-518-5608. ADAMS COUNTY STORMWATER HOTLINE: 720-523-6400; PUBLIC WORKS 303-453-8787 AND THE TRI-COUNTY HEALTH DEPARTMENT AT 303-220-9200.

MAINTENANCE STANDARD NOTES:

1. MAINTAIN AND REPAIR CMS ACCORDING TO APPROVED EROSION CONTROL PLAN (CIVIL DRAWING) TO ASSURE THEY CONTINUE PERFORMING AS ORIGINALLY INTENDED.
2. CMS/BMPS REQUIRING MAINTENANCE OR ADJUSTMENT SHALL BE REPAIRED IMMEDIATELY AFTER OBSERVATION OF THE FAILING BMP.
3. CMS SHALL BE CLEANED WHEN SEDIMENT LEVELS ACCUMULATE TO HALF THE DESIGN UNLESS OTHERWISE SPECIFIED.
4. SWMP AND EC PLAN SHALL BE CONTINUOUSLY UPDATED TO REFLECT NEW OR REVISED CMS/BMPS DUE TO CHANGES IN DESIGN, CONSTRUCTION, OPERATION, OR MAINTENANCE, TO ACCURATELY REFLECT THE ACTUAL FIELD CONDITIONS. A NOTATION SHALL BE MADE IN THE SWMP, INCLUDING DATE OF CHANGES IN THE FIELD, IDENTIFICATION OF THE CMS REMOVED, MODIFIED OR ADDED, AND THE LOCATIONS OF THOSE CMS. UPDATES MUST BE MADE WITHIN 72-HOURS FOLLOWING THE CHANGE.
5. MAINTAIN VEHICLE TRACKING CONTROL (VTC), IF SEDIMENT TRACKING OCCURS, CLEAN-UP IMMEDIATELY. SWEEP BY HAND OR THE USE STREET SWEEPERS (WITH VACUUM SYSTEM). FLUSHING OFF PAVED SURFACES WITH WATER IS PROHIBITED.
6. CWA MUST BE CLEANED ONCE WASTE ACCUMULATION REACHES ¾ OF THE WET STORAGE CAPACITY OF THE STRUCTURE. LEGALLY DISPOSED OF CONCRETE WASTE. DO NOT BURY ON-SITE.
7. CLEAN-UP SPILLS IMMEDIATELY AFTER DISCOVERY, OR CONTAIN UNTIL APPROPRIATE CLEANUP METHODS CAN BE EMPLOYED. FOLLOW MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP, ALONG WITH PROPER DISPOSAL METHODS. RECORDS OF SPILLS, LEAKS, OR OVERFLOWS THAT RESULT IN DISCHARGE OF POLLUTANTS MUST BE DOCUMENTED AND MAINTAINED.
8. REMOVE SEDIMENT FROM STORM SEWER INFRASTRUCTURE (PONDS, STORM PIPES, OUTLETS, INLETS, ROADSIDE DITCHES, ETC.), AND RESTORE VOLUME CAPACITY UPON COMPLETION OF PROJECT OR PRIOR TO INITIAL ACCEPTANCE OF PUBLIC IMPROVEMENTS (IF APPLICABLE). DO NOT FLUSH SEDIMENT OFFSITE, CAPTURE ON-SITE AND DISPOSED OF AT AN APPROVED LOCATION.

THESE NOTES ARE NOT INTENDED TO BE ALL-INCLUSIVE, BUT TO HIGHLIGHT THE BASIC STORMWATER POLLUTION PREVENTION REQUIREMENTS FOR CONSTRUCTION ACTIVITIES TO COMPLY WITH CDPS STORMWATER CONSTRUCTION PERMIT AND BE IN CONFORMANCE WITH COUNTY STANDARDS.

811 UNCC CALL BEFORE YOU DIG 811 OR 1-800-922-1987 UTILITY NOTIFICATION CENTER OF COLORADO

TERRA FORMA SOLUTIONS

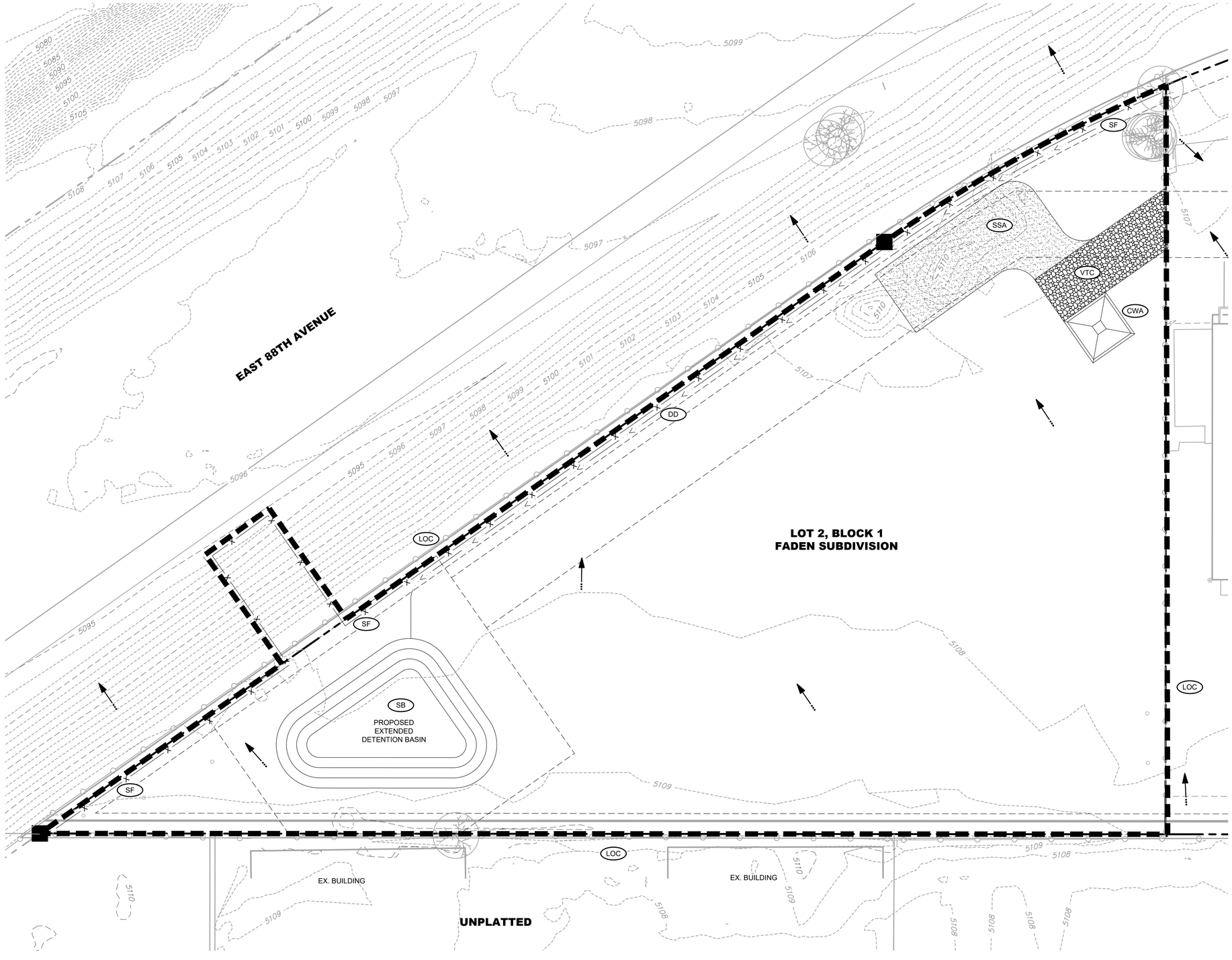
REV. NO.	DESCRIPTION	DATE
2	REVISED PER BOUNDARY UPDATES	5/19/2025
1	REVISED PER COUNTY COMMENTS	10/1/2024

PERF 88 LLC
SWMP
6300 E. 88TH AVENUE - WEST
COVER SHEET
6300 E. 88TH AVENUE
ADAMS COUNTY, COLORADO

GRADO UNITED STATES OF AMERICA 37660 5/19/25 PROFESSIONAL ENGINEER

PROJ NO: 6300
ENG :
DATE : 8/21/2023

SHEET NUMBER
CS1
1 OF 6



EROSION CONTROL NOTES:

1. REFERENCE MILE HIGH FLOOD DISTRICT FOR ALL BMP DETAILS
2. STREET SWEEPING SHOULD BE CONDUCTED REGULARLY WHEN THERE IS NOTICEABLE SEDIMENT ACCUMULATION ON PARKING LOT AND ROADWAYS ADJACENT TO THE CONSTRUCTION SITE.
3. GRADING ONLY TO OCCUR WITHIN SITE LIMITS (LOC).

SITE DETAILS:

AREA OF DISTURBANCE: 1.7 AC
HARD SURFACE AREA: 1.3 AC

BMP LEGEND:

- CD — CHECK DAM
- CWA — CONCRETE WASHOUT AREA
- CF — CONSTRUCTION FENCE
- DD — DIVERSION DITCH
- ECB — EROSION CONTROL BLANKET
- IP — INLET PROTECTION
- RCD — REINFORCED CHECK DAM
- RS — ROCK SOCK
- RSC — ROCK SOCK FOR CULVERT PROTECTION
- SCL — SEDIMENT CONTROL LOG
- SR — SOIL ROUGHENING
- SM — SEEDING AND MULCHING
- SF — SILT FENCE
- SSA — STABILIZED STAGING AREA
- SR — SURFACE ROUGHENING
- TSD — TEMPORARY SLOPE DRAIN
- VTC — VEHICLE TRACKING CONTROL
- WW — VTC WITH WHEEL WASH
- LOC — LIMITS OF CONSTRUCTION

811
1-800-922-1987
UTILITY NOTIFICATION
CENTER OF COLORADO

0 40' 80'
1" = 40' (HORIZONTAL)

TERRA FORMA SOLUTIONS

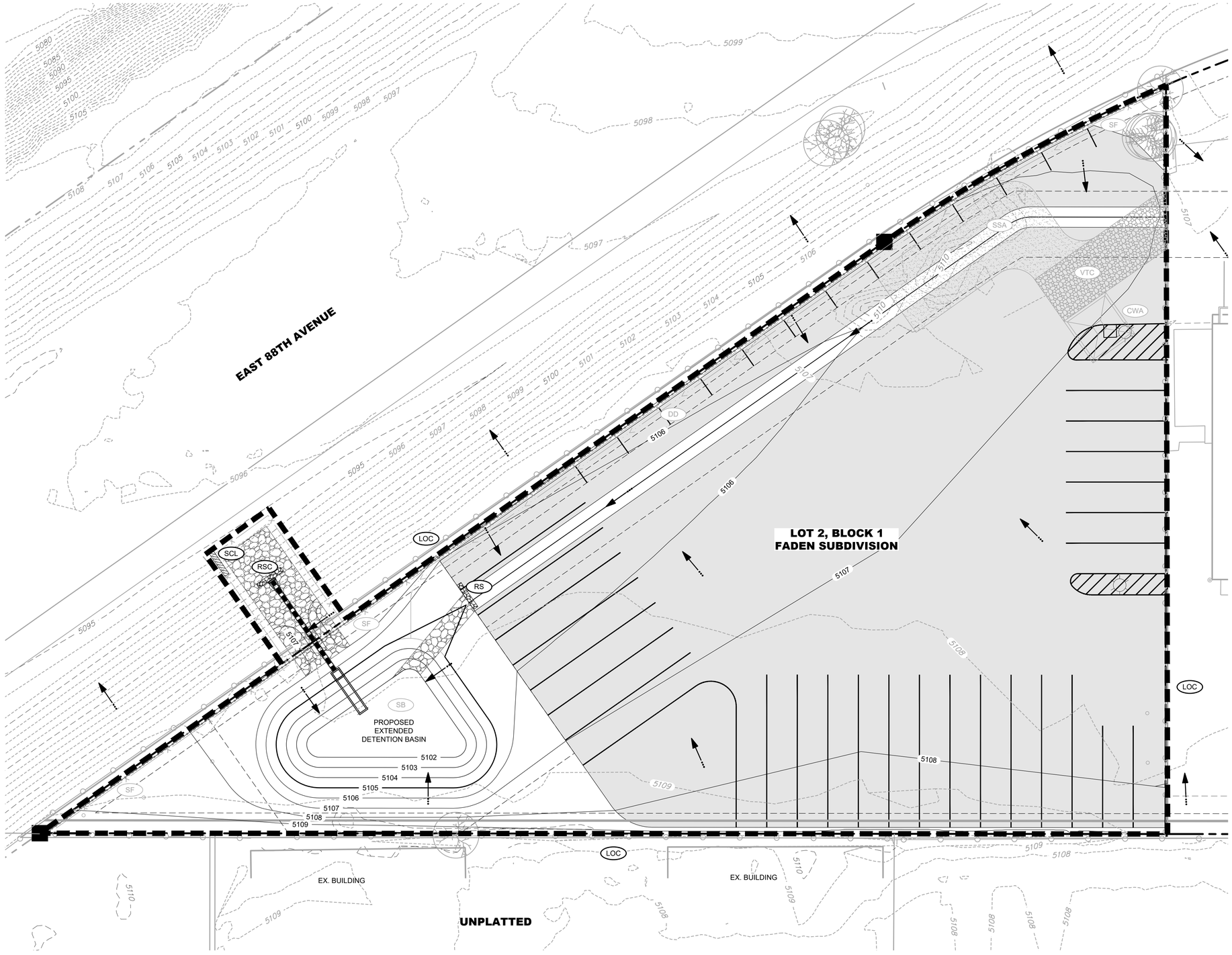
REV. NO.	DESCRIPTION	DATE
2	REVISED PER BOUNDARY UPDATES	5/19/2025
1	REVISED PER COUNTY COMMENTS	10/1/2024

PERF 88 LLC
SWMP
6300 E. 88TH AVENUE - WEST
INITIAL EROSION CONTROL PLAN
6300 E. 88TH AVENUE
ADAMS COUNTY, COLORADO

COLORADO REGISTERED PROFESSIONAL ENGINEER 37660 5/19/25

PROJ NO: 6300
ENG :
DATE : 8/21/2023

SHEET NUMBER
EC1
2 OF 6



EROSION CONTROL NOTES:

1. REFERENCE MILE HIGH FLOOD DISTRICT FOR ALL BMP DETAILS
2. STREET SWEEPING SHOULD BE CONDUCTED REGULARLY WHEN THERE IS NOTICEABLE SEDIMENT ACCUMULATION ON PARKING LOT AND ROADWAYS ADJACENT TO THE CONSTRUCTION SITE.
3. GRADING ONLY TO OCCUR WITHIN SITE LIMITS (LOC).

SITE DETAILS:

AREA OF DISTURBANCE: 1.7 AC
HARD SURFACE AREA: 1.3 AC

BMP LEGEND:

- CD — CHECK DAM
- CWA — CONCRETE WASHOUT AREA
- CF — CONSTRUCTION FENCE
- DD — DIVERSION DITCH
- ECB — EROSION CONTROL BLANKET
- IP — INLET PROTECTION
- RCD — REINFORCED CHECK DAM
- RS — ROCK SOCK
- RSC — ROCK SOCK FOR CULVERT PROTECTION
- SCL — SEDIMENT CONTROL LOG
- SR — SOIL ROUGHENING
- SM — SEEDING AND MULCHING
- SF — SILT FENCE
- SSA — STABILIZED STAGING AREA
- SR — SURFACE ROUGHENING
- TSD — TEMPORARY SLOPE DRAIN
- VTC — VEHICLE TRACKING CONTROL
- WW — VTC WITH WHEEL WASH
- LOC — LIMITS OF CONSTRUCTION

811
1-800-922-1987
UTILITY NOTIFICATION CENTER OF COLORADO

0 40' 80'
1" = 40' (HORIZONTAL)

TERRA FORMA SOLUTIONS

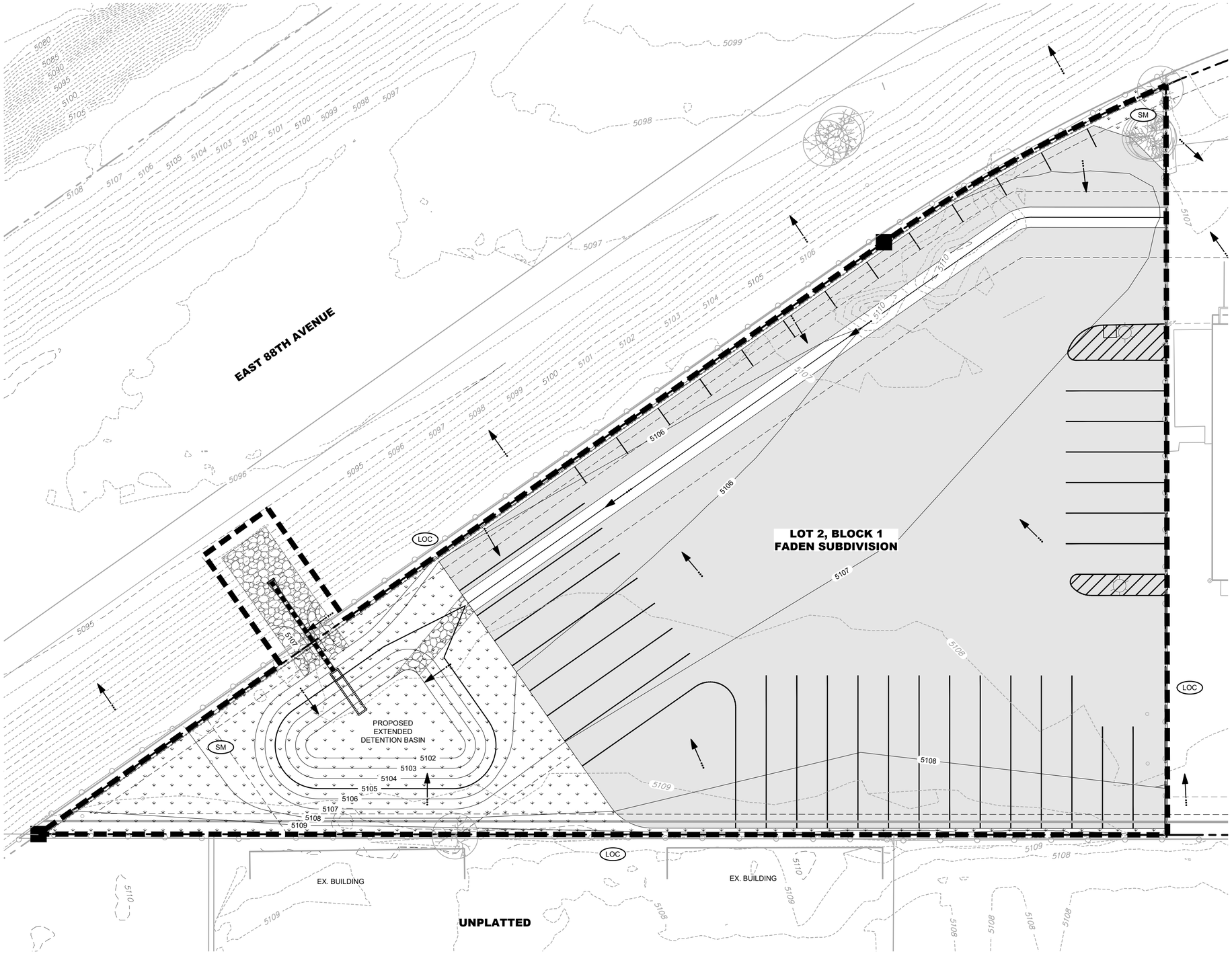
REV. NO.	DESCRIPTION	DATE
2	REVISED PER BOUNDARY UPDATES	5/19/2025
1	REVISED PER COUNTY COMMENTS	10/1/2024

PERF 88 LLC
SWMP
6300 E. 88TH AVENUE - WEST
INTERIM EROSION CONTROL PLAN
6300 E. 88TH AVENUE
ADAMS COUNTY, COLORADO

COLORADO LICENSED 37660 5/19/25 PROFESSIONAL ENGINEER

PROJ NO: 6300
ENG :
DATE : 8/21/2023

SHEET NUMBER
EC2
3 OF 6



EROSION CONTROL NOTES:

1. REFERENCE MILE HIGH FLOOD DISTRICT FOR ALL BMP DETAILS
2. STREET SWEEPING SHOULD BE CONDUCTED REGULARLY WHEN THERE IS NOTICEABLE SEDIMENT ACCUMULATION ON PARKING LOT AND ROADWAYS ADJACENT TO THE CONSTRUCTION SITE.
3. GRADING ONLY TO OCCUR WITHIN SITE LIMITS (LOC).

SITE DETAILS:

AREA OF DISTURBANCE: 1.7 AC
HARD SURFACE AREA: 1.3 AC

BMP LEGEND:

- CD — CHECK DAM
- CWA — CONCRETE WASHOUT AREA
- CF — CONSTRUCTION FENCE
- DD — DIVERSION DITCH
- ECB — EROSION CONTROL BLANKET
- IP — INLET PROTECTION
- RCD — REINFORCED CHECK DAM
- RS — ROCK SOCK
- RSC — ROCK SOCK FOR CULVERT PROTECTION
- SCL — SEDIMENT CONTROL LOG
- SR — SOIL ROUGHENING
- SM — SEEDING AND MULCHING
- SF — SILT FENCE
- SSA — STABILIZED STAGING AREA
- SR — SURFACE ROUGHENING
- TSD — TEMPORARY SLOPE DRAIN
- VTC — VEHICLE TRACKING CONTROL
- WW — VTC WITH WHEEL WASH
- LOC — LIMITS OF CONSTRUCTION

811
1-800-922-1987
UTILITY NOTIFICATION
CENTER OF COLORADO

0 40' 80'
1" = 40' (HORIZONTAL)

TERRA FORMA SOLUTIONS

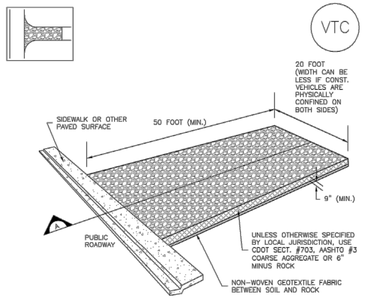
REV. NO.	DESCRIPTION	DATE
2	REVISED PER BOUNDARY UPDATES	5/19/2025
1	REVISED PER COUNTY COMMENTS	10/1/2024

PERF 88 LLC
SWMP
6300 E. 88TH AVENUE - WEST
FINAL EROSION CONTROL PLAN
6300 E. 88TH AVENUE
ADAMS COUNTY, COLORADO

COLORADO LICENSED
37660
5/19/25
PROFESSIONAL ENGINEER

PROJ NO: 6300
ENG :
DATE : 8/21/2023

SHEET NUMBER
EC3
4 OF 6



VTC–1. AGGREGATE VEHICLE TRACKING CONTROL

STABILIZED CONSTRUCTION ENTRANCE/EXIT INSTALLATION NOTES

1. SEE PLAN VIEW FOR
   –LOCATION OF CONSTRUCTION ENTRANCE(S)/EXIT(S).
   –TYPE OF CONSTRUCTION ENTRANCE(S)/EXITS(S) (WITH/WITHOUT WHEEL WASH, CONSTRUCTION MAT OR TRM).

2. CONSTRUCTION MAT OR TRM STABILIZED CONSTRUCTION ENTRANCES ARE ONLY TO BE USED ON SHORT DURATION PROJECTS (TYPICALLY RANGING FROM A WEEK TO A MONTH) WHERE THERE WILL BE LIMITED VEHICULAR ACCESS.

3. A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE LOCATED AT ALL ACCESS POINTS WHERE VEHICLES ACCESS THE CONSTRUCTION SITE FROM PAVED RIGHT–OF–WAYS.

4. STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

5. A NON–WOVEN GEOTEXTILE FABRIC SHALL BE PLACED UNDER THE STABILIZED CONSTRUCTION ENTRANCE/EXIT PRIOR TO THE PLACEMENT OF ROCK.

6. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.

STABILIZED CONSTRUCTION ENTRANCE/EXIT MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

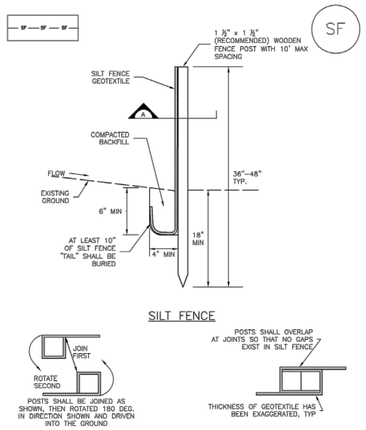
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY TO THE STABILIZED ENTRANCE/EXIT TO MAINTAIN A CONSISTENT DEPTH.

5. SEDIMENT TRACKED ONTO PAVED ROADS IS TO BE REMOVED THROUGHOUT THE DAY AND AT THE END OF THE DAY BY SHOVELING OR SWEEPING. SEDIMENT MAY NOT BE WASHED DOWN STORM SEWER DRAINS.

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

(DETAILS ADAPTED FROM CITY OF BROOMFIELD, COLORADO, NOT AVAILABLE IN AUTOCAD)



SF–1. SILT FENCE

SILT FENCE INSTALLATION NOTES

1. SILT FENCE MUST BE PLACED AWAY FROM THE TOE OF THE SLOPE TO ALLOW FOR WATER PONDING. SILT FENCE AT THE TOE OF A SLOPE SHOULD BE INSTALLED IN A FLAT LOCATION AT LEAST SEVERAL FEET (2–5 FT) FROM THE TOE OF THE SLOPE TO ALLOW ROOM FOR PONDING AND DEPOSITION.

2. A UNIFORM 6" X 4" ANCHOR TRENCH SHALL BE EXCAVATED USING TRENCHER OR SILT FENCE INSTALLATION DEVICE. NO ROAD GRADERS, BACKHOES, OR SIMILAR EQUIPMENT SHALL BE USED.

3. COMPACT ANCHOR TRENCH BY HAND WITH A "JUMPING JACK" OR BY WHEEL ROLLING. COMPACTION SHALL BE SUCH THAT SILT FENCE RESISTS BEING PULLED OUT OF ANCHOR TRENCH BY HAND.

4. SILT FENCE SHALL BE PULLED TIGHT AS IT IS ANCHORED TO THE STAKES. THERE SHOULD BE NO NOTICEABLE SAG BETWEEN STAKES AFTER IT HAS BEEN ANCHORED TO THE STAKES.

5. SILT FENCE FABRIC SHALL BE ANCHORED TO THE STAKES USING 1" HEAVY DUTY STAPLES OR NAILS WITH 1" HEADS. STAPLES AND NAILS SHOULD BE PLACED 3" ALONG THE FABRIC DOWN THE STAKE.

6. AT THE END OF A RUN OF SILT FENCE ALONG A CONTOUR, THE SILT FENCE SHOULD BE TURNED PERPENDICULAR TO THE CONTOUR TO CREATE A "J–HOOK." THE "J–HOOK" EXTENDING PERPENDICULAR TO THE CONTOUR SHOULD BE OF SUFFICIENT LENGTH TO KEEP RUNOFF FROM FLOWING AROUND THE END OF THE SILT FENCE (TYPICALLY 10' – 20').

7. SILT FENCE SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

SILT FENCE MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. SEDIMENT ACCUMULATED UPSTREAM OF THE SILT FENCE SHALL BE REMOVED AS NEEDED TO MAINTAIN THE FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 6".

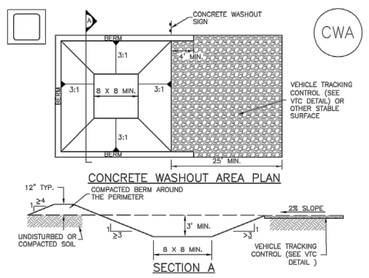
5. REPAIR OR REPLACE SILT FENCE WHEN THERE ARE SIGNS OF WEAR, SUCH AS SAGGING, TEARING, OR COLLAPSE.

6. SILT FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION, OR IS REPLACED BY AN EQUIVALENT PERIMETER SEDIMENT CONTROL BMP.

7. WHEN SILT FENCE IS REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

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

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



CWA–1. CONCRETE WASHOUT AREA

CWA INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   –CWA INSTALLATION LOCATION.

2. DO NOT LOCATE AN UNLINED CWA WITHIN 400' OF ANY NATURAL DRAINAGE PATHWAY OR WATERBODY. DO NOT LOCATE WITHIN 1,000' OF ANY WELLS OR DRINKING WATER SOURCES. IF SITE CONSTRAINTS MAKE THIS INFEASIBLE, OR IF HIGHLY PERMEABLE SOILS EXIST ON SITE, THE CWA MUST BE INSTALLED WITH AN IMPERMEABLE LINER (18 MIL MIN. THICKNESS) OR SURFACE STORAGE ALTERNATIVES USING PREFABRICATED CONCRETE WASHOUT DEVICES OR A LINED ABOVE GROUND STORAGE ARE SHOULD BE USED.

3. THE CWA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.

4. CWA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' BY 8' SLOPES LEADING OUT OF THE SUBSURFACE PIT SHALL BE 3:1 OR FLATTER. THE PIT SHALL BE AT LEAST 3' DEEP.

5. BERM SURROUNDING SIDES AND BACK OF THE CWA SHALL HAVE MINIMUM HEIGHT OF 1'.

6. VEHICLE TRACKING PAD SHALL BE SLOPED 2% TOWARDS THE CWA.

7. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CWA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CWA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.

8. USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

CWA MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. THE CWA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE. CONCRETE MATERIALS, ACCUMULATED IN PIT, SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF 2'.

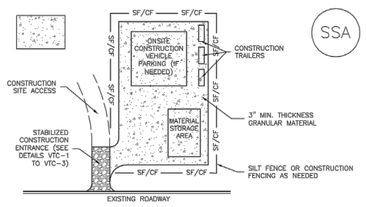
5. CONCRETE WASHOUT WATER, WASTED PIECES OF CONCRETE AND ALL OTHER DEBRIS IN THE SUBSURFACE PIT SHALL BE TRANSPORTED FROM THE JOB SITE IN A WATER–TIGHT CONTAINER AND DISPOSED OF PROPERLY.

6. THE CWA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.

7. WHEN THE CWA IS REMOVED, COVER THE DISTURBED AREA WITH TOP SOIL, SEED AND MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

(DETAIL ADAPTED FROM DOUGLAS COUNTY, COLORADO AND THE CITY OF PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD).

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



SSA–1. STABILIZED STAGING AREA

STABILIZED STAGING AREA INSTALLATION NOTES

1. SEE PLAN VIEW FOR
   –LOCATION OF STAGING AREA(S).
   –CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM THE LOCAL JURISDICTION.

2. STABILIZED STAGING AREA SHOULD BE APPROPRIATE FOR THE NEEDS OF THE SITE. OVERSIZING RESULTS IN A LARGER AREA TO STABILIZE FOLLOWING CONSTRUCTION.

3. STAGING AREA SHALL BE STABILIZED PRIOR TO OTHER OPERATIONS ON THE SITE.

4. THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM 3" THICK GRANULAR MATERIAL.

5. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.

6. ADDITIONAL PERIMETER BMPs MAY BE REQUIRED INCLUDING BUT NOT LIMITED TO SILT FENCE AND CONSTRUCTION FENCING.

STABILIZED STAGING AREA MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY IF RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.

STABILIZED STAGING AREA MAINTENANCE NOTES

5. STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING/LOADING OPERATIONS.

6. THE STABILIZED STAGING AREA SHALL BE REMOVED AT THE END OF CONSTRUCTION. THE GRANULAR MATERIAL SHALL BE REMOVED OR, IF APPROVED BY THE LOCAL JURISDICTION, USED ON SITE, AND THE AREA COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION.

NOTE: MANY MUNICIPALITIES PROHIBIT THE USE OF RECYCLED CONCRETE AS GRANULAR MATERIAL FOR STABILIZED STAGING AREAS DUE TO DIFFICULTIES WITH RE–ESTABLISHMENT OF VEGETATION IN AREAS WHERE RECYCLED CONCRETE WAS PLACED.

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

(DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO, NOT AVAILABLE IN AUTOCAD)

TERRA FORMA SOLUTIONS

REV. NO.	DESCRIPTION	DATE
2	REVISED PER BOUNDARY UPDATES	5/19/2025
1	REVISED PER COUNTY COMMENTS	10/1/2024

PERF 88 LLC

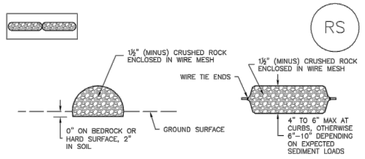
SWMP
6300 E. 88TH AVENUE - WEST
EROSION CONTROL DETAILS

6300 E. 88TH AVENUE
ADAMS COUNTY, COLORADO

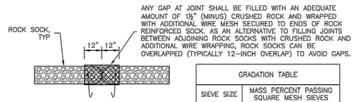
COLORADO LICENSED 37660 5/19/25 PROFESSIONAL ENGINEER

PROJ NO: 6300
ENG :
DATE : 8/21/2023

SHEET NUMBER
EC4
5 OF 6



ROCK SOCK SECTION ROCK SOCK PLAN



ROCK SOCK JOINTING

GRADATION TABLE	
SIEVE SIZE	MASS PERCENT PASSING SQUARE MESH SIEVES
	NO. 4
2"	100
1½"	90 – 100
1"	20 – 55
¾"	0 – 15
⅜"	0 – 5
MATCHES SPECIFICATIONS FOR NO. 4 COARSE AGGREGATE FOR CONCRETE PER AASHTO M43. ALL ROCK SHALL BE FRACTURED FACE, ALL SIDES.	

ROCK SOCK INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   –LOCATION(S) OF ROCK SOCKS.

2. CRUSHED ROCK SHALL BE ½" (MINUS) IN SIZE WITH A FRACTURED FACE (ALL SIDES) AND SHALL COMPLY WITH GRADATION SHOWN ON THIS SHEET (1½" MINUS).

3. WIRE MESH SHALL BE FABRICATED OF 10 GAGE POULTRY MESH, OR EQUIVALENT, WITH A MAXIMUM OPENING OF ½", RECOMMENDED MINIMUM ROLL WIDTH OF 48"

4. WIRE MESH SHALL BE SECURED USING "HOG RINGS" OR WIRE TIES AT 6" CENTERS ALONG ALL JOINTS AND AT 2" CENTERS ON ENDS OF SOCKS.

5. SOME MUNICIPALITIES MAY ALLOW THE USE OF FILTER FABRIC AS AN ALTERNATIVE TO WIRE MESH FOR THE ROCK ENCLOSURE.

RS–1. ROCK SOCK PERIMETER CONTROL

ROCK SOCK MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. ROCK SOCKS SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED, OR DAMAGED BEYOND REPAIR.

5. SEDIMENT ACCUMULATED UPSTREAM OF ROCK SOCKS SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY ½ OF THE HEIGHT OF THE ROCK SOCK.

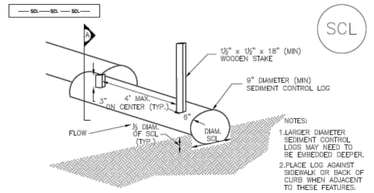
6. ROCK SOCKS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.

7. WHEN ROCK SOCKS ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

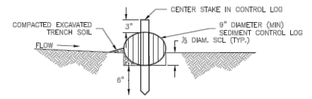
(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)

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

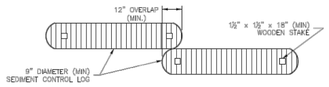
NOTE: THE DETAILS INCLUDED WITH THIS FACT SHEET SHOW COMMONLY USED, CONVENTIONAL METHODS OF ROCK SOCK INSTALLATION IN THE DENVER METROPOLITAN AREA. THERE ARE MANY OTHER SIMILAR PROPRIETARY PRODUCTS ON THE MARKET. UDFCD NEITHER NDORSES NOR DISCOURAGES USE OF PROPRIETARY PROTECTION PRODUCTS; HOWEVER, IN THE EVENT PROPRIETARY METHODS ARE USED, THE APPROPRIATE DETAIL FROM THE MANUFACTURER MUST BE INCLUDED IN THE SWMP AND THE BMP MUST BE INSTALLED AND MAINTAINED AS SHOWN IN THE MANUFACTURER'S DETAILS.



TRENCHED SEDIMENT CONTROL LOG

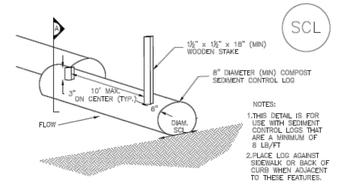


SECTION Ⓐ
TRENCHED SEDIMENT CONTROL LOG

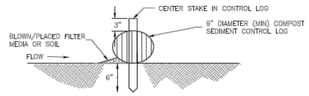


LOG JOINTS

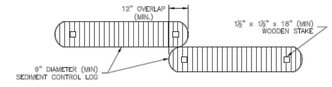
SCL–1. TRENCHED SEDIMENT CONTROL LOG



COMPOST SEDIMENT CONTROL LOG (WEIGHTED)



SECTION Ⓐ
COMPOST SEDIMENT CONTROL LOG



LOG JOINTS

SCL–2. COMPOST SEDIMENT CONTROL LOG (WEIGHTED)

SEDIMENT CONTROL LOG INSTALLATION NOTES

1. SEE PLAN VIEW FOR LOCATION AND LENGTH OF SEDIMENT CONTROL LOGS.

2. SEDIMENT CONTROL LOGS THAT ACT AS A PERIMETER CONTROL SHALL BE INSTALLED PRIOR TO ANY UPGRADIENT LAND–DISTURBING ACTIVITIES.

3. SEDIMENT CONTROL LOGS SHALL CONSIST OF STRAW, COMPOST, EXCELSIOR OR COCONUT FIBER, AND SHALL BE FREE OF ANY NOXIOUS WEED SEEDS OR DEFECTS INCLUDING RIPS, HOLES AND OBVIOUS WEAR.

4. SEDIMENT CONTROL LOGS MAY BE USED AS SMALL CHECK DAMS IN DITCHES AND SWALES. HOWEVER, THEY SHOULD NOT BE USED IN PERENNIAL STREAMS.

5. IT IS RECOMMENDED THAT SEDIMENT CONTROL LOGS BE TRENCHED INTO THE GROUND TO A DEPTH OF APPROXIMATELY ⅓ OF THE DIAMETER OF THE LOG. IF TRENCHING TO THIS DEPTH IS NOT FEASIBLE AND/OR DESIRABLE (SHORT TERM INSTALLATION WITH DESIRE NOT TO DAMAGE LANDSCAPE) A LESSER TRENCHING DEPTH MAY BE ACCEPTABLE WITH MORE ROBUST STAKING. COMPOST LOGS THAT ARE 8 LB/FT DO NOT NEED TO BE TRENCHED.

6. THE UPHILL SIDE OF THE SEDIMENT CONTROL LOG SHALL BE BACKFILLED WITH SOIL OR FILTER MATERIAL THAT IS FREE OF ROCKS AND DEBRIS. THE SOIL SHALL BE TIGHTLY COMPACTED INTO THE SHAPE OF A RIGHT TRIANGLE USING A SHOVEL OR WEIGHTED LAWN ROLLER OR BLOWN IN PLACE.

7. FOLLOW MANUFACTURERS' GUIDANCE FOR STAKING. IF MANUFACTURERS' INSTRUCTIONS DO NOT SPECIFY SPACING, STAKES SHALL BE PLACED ON 4' CENTERS AND EMBEDDED A MINIMUM OF 6" INTO THE GROUND. 3" OF THE STAKE SHALL PROTRUDE FROM THE TOP OF THE LOG. STAKES THAT ARE BROKEN PRIOR TO INSTALLATION SHALL BE REPLACED. COMPOST LOGS SHOULD BE STAKED 10' ON CENTER.

SEDIMENT CONTROL LOG MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. SEDIMENT ACCUMULATED UPSTREAM OF SEDIMENT CONTROL LOG SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY ½ OF THE HEIGHT OF THE SEDIMENT CONTROL LOG.

5. SEDIMENT CONTROL LOG SHALL BE REMOVED AT THE END OF CONSTRUCTION.COMPOST FROM COMPOST LOGS MAY BE LEFT IN PLACE AS LONG AS BAGS ARE REMOVED AND THE AREA SEEDED. IF DISTURBED AREAS EXIST AFTER REMOVAL, THEY SHALL BE COVERED WITH TOP SOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

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

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

TERRA FORMA SOLUTIONS

REV. NO.	DESCRIPTION	DATE
2	REVISED PER BOUNDARY UPDATES	5/19/2025
1	REVISED PER COUNTY COMMENTS	10/1/2024

PERF 88 LLC
SWMP
6300 E. 88TH AVENUE - WEST
EROSION CONTROL DETAILS
6300 E. 88TH AVENUE
ADAMS COUNTY, COLORADO

COLORADO LICENSED
37660
5/19/25
PROFESSIONAL ENGINEER

PROJ NO: 6300
ENG :
DATE : 8/21/2023

SHEET NUMBER
EC5
6 OF 6

APPENDIX 7: Stormwater Inspection Form (Template)

Instructions:
This inspection report has been developed to complete the 7 day (or 14 day and storm event site inspections) and 30-day inspections at completed sites.

Using the Inspection Report:
You can complete the items in the upper section that will remain constant, such as the date, project name, and inspector. You will either need to print out multiple copies of this inspection report or save an electronic version as a master form to use during your inspections.

Ensure that all items are completed by checking "Yes", "No", or "N/A" –Not Applicable. Document any "Corrective Action Needed". Under "BMP/CMs Description", document the CMs that are required per plan and/or installed, if maintenance is needed and document any "Corrective Action Needed" as necessary.

When issues are present at a construction site, ensure you enter the date when the issue has been addressed, on the same inspection form. Document when the issue was addressed by filling in the "Date Fixed".

Stormwater Inspection Form

Project Name: Insert Project Name	Inspection Date/Time: Date/Time
Project Location: Insert Project Location	Current Weather: temperature / rainy, sunny, etc
Company Name: Insert Company Name	Current Disturbed Acres: Estimate acreage
Qualified SW Manager Name & Title: Insert Name & Title Here Phone Number: Insert Phone Number	Current Construction Phase: Initial (Demo, Grading, Utilities, Road), Interim (Building Filing/Block/Lot), Final (Landscape,etc)

Type of Inspection

☐ 14-Day Inspection ☐ Post-Storm Event Inspection	☐ 7-Day Inspection	☐ 30-Day Reduced Frequency Inspection (Construction and Final Stabilization completed + SWMP updated)
☐ Winter Conditions Inspections Exclusion: Dates when snow cover existed Dates when construction activities ceased Dates melting conditions began		Deviation from minimum inspection frequency: Y/N If **Yes**, Explain:

Off-Site Discharge Assessment

Have pollutants been discharge off-site?	Y/N	If **Yes**: Insert Location, type of pollutant, date and corrective action.

Minimum Requirements:

Are there any new potential sources of pollutants?: Y/N
Does stormwater runoff from all disturbed areas flow thru at least **one** control measure? Y/N
Is VTC installed? Y/N (If **NOT**, area must run thru at least **one** control measure)
Is pre-existing vegetation (or equivalent CM) maintained for areas within 50 ft of receiving waters? Y/N/NA
Does all bulk storage (55+ gall) of petroleum products and liquid chemicals have secondary containment (or equivalent) Y/N/NA
Is outlet installed to withdrawn water just below surface level at basin? Y/N/NA
Are **inactive disturbed areas** stabilized within 14 days? Y/N (if **NOT**, then document constraints, alternative schedule and location in SWMP)
Are natural areas (streams, wetlands, trees) protected? Y/N
Has soil compaction been minimized? Y/N
Has topsoil been preserved? Y/N
Has the amount of soil exposed been minimized (including the disturbance of steep slopes)? Y/N
Is construction perimeter contained? Y/N
Are designated haul routes in compliance? Y/N
Are washout facilities identified and maintained? Y/N (Add liner if shallow groundwater or close to stream/channels/wetland)
Are potential stormwater pollutants stored properly? Y/N
Are equipment maintenance areas free of spills/leaks? Y/N
Are non-stormwater discharges properly controlled? (on-site dewatering, CWA, potable water, etc) Y/N
Has the SWMP/EC Plan (site map) been updated to reflect current field conditions?: Y/N/NA
Notes: If "YES" describe discharge or potential for discharge below. Document related maintenance, inadequate CMs and corrective actions.

BMP/Control Measure (CM) Description	Code	In EC plan? Y/N	Installed? Y/N	Describe Corrective Action: Additional BMP Maintenance Removal	Location:	Date Fixed
Sediment Control BMPs/CMs						
Silt Fence	SF					
Sediment Control Log	SCL					
Straw Bale Barrier	SBB					
Rock Sock	RS					
Inlet Protection	IP					
Sediment Basin	SB					
Sediment Trap	ST					
Vegetated Buffer	VB					
Other:						
Erosion Control BMPs/CMs						
Surface Roughening	SR					
Temp. & Permanent Seed	TS/PS					
Soil Binders	SB					
Mulching	MU					
Rolled Erosion Control Prod.	RECP					
Temp. Slope Drain	TSD					
Temp. Outlet Protection	TOP					
Earth Dikes/Drainage Swales	ED/DS					
Terracing	TER					
Check Dams	CD					
Streambank Stabilization	SS					
Dust Control	DC					
Other:						
Materials Management						
Concrete Washout Area	CWA					
Stockpile Management	SP					
Stabilize Staging Area	SSA					
Good Housekeeping	GH					
Portable Toilets	PT					
Blowing Trash	Waste					
Spills and Leaks	Spills					
Equip. Maint. & Fueling	Equip					
Other:						
Site Management Controls						
Protection of Vegetation	PV					
Construction Fence	CF					
Vehicle Tracking Control	VTC					
Stabilized Construction Rd	SCR					
Street Sweeping	SS					
Temp. Diversion Channel	TDC					
Dewatering Ops.	DW					
Temp. Stream Crossing	TSC					
Paving & Grinding Ops.	PGO					
Other:						

Certification Statement (if all CMs are in Good Condition, or After Corrective Actions are Completed): I verify that, to the best of my knowledge and belief, all corrective action and maintenance identified in the inspection are complete, and the site is in compliance w/ permit.

Signature: Insert Signature | Date: Insert Date

Reporting Requirements
Report the following circumstances orally within twenty-four (24) hours from the time the permittee becomes aware of the circumstances, and mail to the State a written report containing the information requested within five (5) working days after becoming aware of the following circumstances.

All Noncompliance Requiring 24-Hour Notification per Part II.L.6 of the Permit
a. Endangerment to Health or the Environment Circumstances leading to any non-compliance which may endanger health or the environment regardless of the cause of the incident (See Part II.L.6.a of the Permit) This category would primarily result from the discharge of pollutants in violation of the permit
b. Numeric Effluent Limit Violations • Circumstances leading to any unanticipated bypass which exceeds any effluent limitations (See Part II.L.6.b of the Permit) • Circumstances leading to any upset which causes an exceedance of any effluent limitation (See Part II.L.6.c of the Permit) • Daily maximum violations (See Part II.L.6.d of the Permit) Numeric effluent limits are very uncommon in certifications under the COR400000 general permit. This category of noncompliance only applies if numeric effluent limits are included in a permit certification.
Has there been an incident of non-compliance requiring 24-hour notification? Y/N/NA

Date and Time of Incident	**Location**	**Description of Noncompliance**	**Corrective Action**	**Date and Time of 24 Hour Oral Notification**	**Date of 5 Day Written Notification ***

APPENDIX 8: Delegation of Authority Form

I, _____-, hereby designate the person or specifically described position below to be a duly authorized representative for the purpose of overseeing compliance with environmental requirements, including the Construction General Permit, at the Insert Name of Project construction site. The designee is authorized to sign any reports, stormwater pollution prevention plans and all other documents required by the permit.

Name & Title _____
Company Name _____
Insert Company Address
Company City, State, Zip Code _____
Company Phone _____

By signing this authorization, I confirm that I meet the requirements to make such a designation as set forth in the COR400000 general permit, and that the designee above meets the definition of a "duly authorized representative"

APPENDIX: 9 Completed Stormwater Inspection Logs

(File completed inspection forms here)

APPENDIX 10: Subcontractor Certifications/Agreements

SUBCONTRACTOR CERTIFICATION
STORMWATER MANAGEMENT PLAN (SWMP)

Project Number: _____

Project Title: _____

Operator(s): _____

As a subcontractor, you are required to comply with the SWMP, for any work that you perform on-site. Any person or company who violates any condition of the SWMP may be subject to substantial penalties or loss of contract. You are encouraged to advise each of your employees working on this project of the requirements of the SWMP. A copy of the SWMP is available for your review at: Insert Location of Documents.

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

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

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

Company: _____

Address: _____

Telephone Number: _____

Type of construction service to be provided: _____

_____

_____

Signature: _____

Title: _____

Date: _____

APPENDIX 11: Agreement for off-site Control Measures

(if applicable)

Attach use agreement between the Permittee and the owner/operator of any control measures located outside of the permitted area, that are utilized by the Permittee's construction site for compliance with this permit, but not under the direct control of the Permittee.

The Permittee is responsible for ensuring that all control measures located outside of their permitted area, that are being utilized by the Permittee's construction site, are properly maintained and in compliance with all terms and conditions of the permit.

Include all information to any such off-site control measures located outside the permitted area, including location, installation specifications, design specifications and maintenance requirements

APPENDIX 12: Low Risk Discharge Guidance for Discharges of Potable Water

***If Flushing New Waterlines including fire suppression lines, irrigation lines, etc , the State of Colorado Low Risk Discharge Guidance for Discharges of Potable Water must be followed.*

Discharges of potable water are short term infrequent discharges that with proper management are not expected to contain pollutants in concentrations that are toxic or in concentrations that would cause or contribute to a violation of a water quality standard. The typical pollutant of concern is total residual chlorine, however, total suspended solids (TSS) and oil&grease may also become pollutants of concern. These pollutants can be handled using dechlorination techniques, filters, oil booms, and other control measures (CM).

The following conditions must be followed by anyone discharging potable water: The discharge of cleaning materials or chemicals, including dyes, is strictly prohibited, and shall be sent to the sanitary sewer, with permission of the local wastewater treatment facility, or otherwise collected and disposed of. Except for additional chlorine and dechlorination chemicals in accordance with manufacturer's label. The potable water shall not be used in any additional process. Processes include, but are not limited to, any type of washing, heat exchange, manufacturing, and hydrostatic testing of pipelines not associated with treated water distribution systems. The discharge shall be from a potable water distribution system, tank or storage that has been maintained for potable water distribution use. Discharges from a distribution system, tank or storage that is used for conveyance or storage of materials other than potable water is not authorized. The discharge shall not cause erosion of a land surface. Energy dissipation devices designed to protect downstream areas from erosion y reducing velocity of flow (such as hose attachments and erosion controls), may be necessary. The discharge shall not contain solid materials in concentrations that can settle to form bottom deposits detrimental to the beneficial uses of the state waters or form floating debris, scum, or other surface materials sufficient to harm existing beneficial uses. All discharges must comply with the lawful requirements of federal agencies, municipalities, counties, drainage districts, ditch owners, and other local agencies regarding any discharges to storm drain systems, conveyances, ditches or other water courses under their jurisdiction. This guidance in no way reduces the existing authority of the owner of a storm sewer, ditch owner, or other local agency, from prohibiting or placing additional conditions on the discharge.

If the discharge is directly to a State surface water (any stream, creek, gully, whether dry or flowing), it must not contain any residual chlorine in excess of 0.011 mg/l. The operator is responsible for determining what is necessary for removing chlorine from the discharge. If the discharge is to a ditch, chlorine content may be limited by the owner of the ditch. However, if the ditch returns flow to classified state waters, it must not contain any residual chlorine in excess of 0.011 mg/l at the point where it discharges to the classified state water. Removal of residual chlorine in excess of 0.011 ml/l, must be done for any direct discharge to state surface waters or for any discharge to a storm sewer or conveyance where the chlorine will not dissipate below 0.011 mg/l prior to reaching state surface water. Dechlorination, if necessary, may be achieved by allowing water to stand uncovered until no chlorine is detected, or by dechlorination using a portable dechlorinator. Pay particular attention when handling super-chlorinated waters. A longer time is needed to dissipate chlorine from super-chlorinated waters.

When using chemicals in the dechlorination process, the operator must ensure that proper quantities and rates are used, based on the concentration of chlorine; that adequate mixing occurs; and that enough time is allowed prior to flow reaching a surface water for the dechlorination chemicals to react with the chlorine in the water. In cases where the discharge of water that had been super-chlorinated will occur, operators should allow additional time for the chlorine to dissipate. It is the operators' responsibility to ensure that adequate processes are followed to meet the 0.011 mg/L chlorine limitation prior to discharge to classified state surface water. It is not required that an EPA approved test method be used to make this determination. For many methods, it will be necessary to have a test result indicating no (0 mg/L) residual chlorine to ensure that this limitation is met. Discharging without Testing is possible without analysis. This may be based on a determination that the given hold time or travel time to classified state water, based on other discharge-specific variables, will adequately reduce chlorine levels to result in the chlorine limitation being met. It is the operator's responsibility to ensure they understand the variables associated with a specific discharge to ensure that the chlorine limitation has been met. CMs shall be implemented as necessary to meet the conditions above, by anyone discharging potable water.

For discharge to the ground: the water shall not cause any toxicity to vegetation. When discharging, allow the water to drain slowly so that it soaks into the ground as much as possible. Dechlorination is not required for discharges into the ground if the discharge does not reach state surface water. This option should be considered as an alternative to dechlorination.

Pollutants Picked Up After Release: The discharge should be conducted to minimize the potential to pick up additional pollutants following release from the potable water distribution systems and prior to discharge to a water of the state. The discharge should be conducted to minimize the potential to pick up additional suspended solids and to control erosion. It is

understood that minimal suspension of sediment is inherent to any water running across soils. However potential water quality impacts should be minimized through practices such as diffusing flows and avoiding flows across bare soils. The discharge should be conducted to minimize the potential that it will contact petroleum products/waste, and avoid picking up any oil and grease. When possible, an absorbent oil pad, boom or similar device should be used to eliminate oil from the discharge. A visible sheen must not be evident in the discharge. The discharge shall be conducted to minimize the potential that it will not pick up any oil and grease. When possible, an absorbent oil pad, boom or similar device shall be used to eliminate oil from the discharge.

Preparing and Installing Components: When installing new pipe, fittings and appurtenances into a potable water distribution system, the components should be prepared and maintained in a way to minimize the potential for contribution of pollutants to discharges covered under this guidance. All pipe, fittings, and other appurtenances associated with the discharge should meet industry standards for cleanliness for public water. Examples of standard operating procedures include, but are not limited to, those found in ANSI/AWWA Standard C600-10, (Installation of ductile-Iron mains and their appurtenances), or any other applicable standard operating procedures that reflect industry standards of cleanliness. When it is necessary to remove debris, foreign material or other gross contamination from components prior to installation, wastewater generated from such activities may not be covered under this guidance. Such activity should occur at a location that allows for generated wastewater to be sent to the sanitary sewer with permission of the local wastewater treatment facility. Such wastewater could also be otherwise collected and disposed of. Practices should be implemented during transport, storage, installation, and maintenance to minimize introduction of contaminants to pipe, fittings, and other appurtenances that could contribute pollutants to discharges.

Removing Pollutants: Control measures for filtering or settling suspended solids and other debris should be used to remove solids or other debris that have either been picked up after discharge or that originated from within the potable water system. Examples of suspended solid removal practices include check dams and filter bags. As a final measure downstream from additional control measures, inlet protection can be used to provide some additional removal and to allow for redundancy. Pollutant removal control measures should be used and maintained in accordance with manufacturers' specifications.

Alternative Disposal Options:
Water not meeting the criteria and conditions of this guidance may be sent to the sanitary sewer with permission of the local wastewater treatment facility or otherwise collected and disposed. If discharge is to the sanitary sewer, contact the local wastewater treatment facility prior to discharge. System owners may grant blanket authorization to discharge to their systems. This must be done to ensure that the facility is able to accept the discharge. Not all facilities are able to accept such discharges. Note that additional restrictions or local guidelines may apply. If the waste is collected for disposal, it may be hauled off site for disposal at a facility that is authorized to discharge the water through an existing CDPS permit or in accordance with disposal requirements administered through the Colorado Hazardous Materials and Waste Management Division. Alternatively the water may be land applied in a way that results in complete evapotranspiration. This will likely only be an option when the quantities of water are small.

Low Risk Guidance for Discharges of Uncontaminated Groundwater to Land

Applicable to:
• The source of the discharge must solely be uncontaminated groundwater or uncontaminated groundwater combined with stormwater. To be considered uncontaminated, the source must not contain pollutants in concentrations that exceed water quality standards for the applicable receiving groundwater.
• The discharge must be to land. Point source discharges to surface waters, storm sewers, or other drainage conveyance systems are not covered by this guidance.

Conditions:
Prohibition of pollutants in the discharge:
• No chemicals may be added.
• If the discharge is from vaults or similar structures, the discharge cannot be contaminated by process materials used, stored, or conveyed in the structures, or by introduced surface water runoff from outside environments that may contain oil, grease, and corrosives.
• A visible sheen must not be evident in the source water or discharge.

Exclusion of Process Discharges:
• The groundwater shall not be used in additional processes, such as any type of washing, heat exchange, or manufacturing.

Controlling the discharge:

• The groundwater discharge cannot leave the operational control of the entity administering the land application. The owner of the property where the discharge is occurring must have prior knowledge and grant permission for the land application.

• Land application must be conducted at a rate and location that does not allow for any runoff into state waters or other drainage conveyance systems, including but not limited to streets, curb and gutter, inlets, borrow ditches, open channels etc. If the land application is to agricultural land, it must not reach or have the potential to reach an agricultural ditch. Discharges to drainage conveyance systems as described above are a discharge to surface water that require a discharge permit and are not covered under this guidance document.

• Land application must be conducted at a rate that does not allow ponding of the groundwater on the surface, unless the ponding is a result of implementing control measures that are designed to reduce flow velocity. If the control measures used result in ponding, the land application must be done in an area with a constructed containment, such as an excavation or bermed area with no designed outfall. The containment shall prevent the discharge of the ponding water offsite as runoff.

Compliance with construction stormwater discharge permits: If the discharge is located at a facility covered by a CDPS General Permit for Stormwater Discharge Associated with Construction Activities, the requirements in that permit associated with the discharge of groundwater must be complied with, including identification in the Stormwater Management Plan.

Controlling erosion: The discharge shall not cause erosion of a land surface that could cause pollution of the receiving water. Signs of visible erosion that have the potential to cause pollution without downstream controls measures implemented include the formation of rills or gullies on the land surface. Energy dissipation devices designed to protect downstream areas from erosion by reducing velocity of flow (such as hose attachments and erosion controls) may be necessary to prevent erosion.

Controlling pollutant potential of deposited sediment: Control measures shall be implemented to prevent any sediment deposited during land application from being transported by stormwater runoff to surface waters or other conveyances.

Additional Requirements and Property Rights:

• All discharges must comply with federal agencies, municipalities, counties, drainage districts, ditch owners, and other local agencies regarding any discharges to storm drain systems, conveyances, ditches or other water courses under their jurisdiction.

• This guidance in no way reduces the existing authority of the owner of a storm sewer, ditch owner, or other local agency, from prohibiting or placing additional conditions on the discharge.

• The discharge shall not result in flooding of neighboring property, streets, gutters or storm sewers. The discharge must be diverted from building foundations or other areas that may be damaged from ground settling or swelling.

Implementation of Control Measures:

Identifying potentially contaminated groundwater: It the groundwater is located within 1 mile of a landfill, abandoned landfill, mine or mine tailing area, a Leaking Underground Storage Tank (LUST), Brownfield site, or other area of contamination, there is an increased likelihood that groundwater contamination exists. In those cases additional work is appropriate to determine if your dewatering area is in an area of contamination. The following is a list of contamination and plume resources and is helpful when determining if your dewatering area is in an area of contamination, however the list is not all inclusive and in some cases site-specific characterization of groundwater may be necessary. All control measures used to meet the provisions of this guidance document must be selected, installed, implemented and maintained according to good engineering, hydrologic and pollution control practices. Control measures must be adequately designed to provide control for all potential pollutant sources associated with the discharge of uncontaminated groundwater to land. Route discharge in such a way that it will not contact petroleum products/waste, a visible sheen must not be evident in the discharge. To minimize potential for creating stormwater pollution sources, control measures (such as a filter bag or similar filtration device) should be used to remove sediment/solids prior to land application. Water that does not meet the criteria of this guidance or that cannot be discharged in a manner that meets the conditions of this guidance must be either authorized by a Colorado Discharge Permit System (CDPS) discharge permit issued by the division or disposed of through an alternative means. The Water Quality Control Division has general permits available for discharges to surface water and/or land associated with construction dewatering, subterranean structure/foundation dewatering, and the remediation of groundwater. Obtaining coverage one of these permits will likely be the most efficient solution for discharges that do not meet the criteria and conditions of this guidance. For discharges associated with construction projects, guidance on determining the appropriate permit and Application Guidance Document for these general permits, visit: https://www.colorado.gov/pacific/cdphe/wq-construction-general-permits. Discharges from subterranean structures (basement, foundation, footer drains, etc.) are covered by the Subterranean Dewatering or Well Development general permit. Visit: https://www.colorado.gov/pacific/cdphe/clean-water-commerce-and-industry-permitting

APPENDIX 13: Erosion and Sediment Control Standard Notes

Adams County Erosion Control Plan - General Notes:

1 All construction projects, regardless of the size, shall install, maintain and repair stormwater pollution control measures (CMs) to effectively minimize erosion, sediment transport, and the release of pollutants related to construction activity. CMs example include: sediment control logs (SCL), silt fence (SF), dikes/swales, sediment traps (ST), inlet protection (IP), outlet protection (OP), check dams (CD), sediment basins (SB), temporary/permanent seeding and mulching (MU), soil roughening, maintaining existing vegetation and protection of trees. CMs must be selected, designed, adequately sized, installed and maintained in accordance with good engineering, hydrologic and pollution control practices. CMs/BMPs installation and maintenance details shall conform to Urban Drainage Flood Control Criteria Manual Volume 3, or the Colorado Department of Transportation (CDOT) Item Code Book. CMs must filter, settle, contain or strain pollutants from stormwater flows in order to prevent bypass of flows without treatment. CMs must be appropriate to treat the runoff from the amount of disturbed area, the expected flow rate, duration, and flow conditions (i.e., sheet or concentrated flow). CMs/BMPs shall be specified in the SWMP (if applicable), and the locations shown on the EC Plan.

1) Prior to construction, projects disturbing 1 or more acres of land, or any project belonging to a common plan of development disturb 1 or more acres, must obtain:
   - A General Permit for Stormwater Discharges associated with Construction Activities, from the Colorado Department of Public Health and Environment, and
   - An Adams County Stormwater Quality Permit within the unincorporated Adams County MS4 Area.
2) Permitted projects shall develop a Stormwater Management Plan (SWMP), aka Erosion and Sediment Control Plan (ESCP), in compliance with CDPHE minimum requirements. The approved SWMP, including Erosion Control (EC) Plan (Site Map), shall be kept on site and updated at all times. The Qualified Stormwater Manager is responsible for implementing the SWMP and CMs (aka BMPs) during construction.
3) Permitted projects shall perform regular Stormwater Inspections every 7 calendar days; or every 14 calendar days and within 24 hours after any precipitation or snowmelt event that causes surface erosion. Inspection frequency can be reduced for Post-Storm Event inspections at Temporarily Idle Sites and also for Stormwater Inspections at Completed Sites waiting for final stabilization. Inspection reports must identify any incidents of non-compliance.
4) Tracking of dirt onto paved public or private paved roads is not allowed. The use of dirt ramps to enter/exit from an unpaved into a paved area is prohibited. Vehicle tracking controls shall be implemented, otherwise entrance area must drain thru a CM towards the private site.
5) Truck loads of fill material imported to or cut material exported from the site shall be properly covered to prevent loss of the material during transportation on public ROW. Haul routes must be permitted by the County. No material shall be transported to another site without applicable permits.

6) Control measures designed for concrete washout waste must be implemented. This includes washout waste discharged to the ground and washout waste from concrete trucks and masonry operations.
7) Temporary CMs/BMPs shall be removed after the site has reached final stabilization.
8) Dewatering operations discharging off-site into any waters conveyance systems including wetlands, irrigation ditches, canals, rivers, streams or storm sewer systems, require a State Construction Dewatering Permit.
9) Permitted projects shall keep the CDPHE's Stormwater Discharge Permit, Stormwater Management Plan (SWMP) and inspection logs available on-site throughout the duration of the project, and for an additional 3 years after permit close-out.
10) Permitted landowner and/or contractor shall close the State and City/County permit once final stabilization is reached. Stormwater inspections shall continue until Inactivation Notice is filed with CDPHE.

Performance Standard Notes:

1. Stormwater runoff from disturbed areas must flow to at least one (1) CM to minimize sediment in the discharge. Do not allow sediment to leave the site. The best way to prevent sediment or pollutants from entering the storm sewer system is to stabilize the site as quickly as possible, preventing erosion and stopping sediment run-off at its source.
2. Phase construction to minimize disturbed areas, including disturbance of steep slopes. (i.e. the entire project site should not be disturbed if construction will only be occurring in one particular section of the site).Limit soil exposure to the shortest possible period of time. Protect natural features and existing vegetation whenever possible. Removal of existing vegetation shall be limited to the area required for immediate construction operations. Maintain pre-existing vegetation (or equivalent CMs) for areas within 50 horizontal ft of receiving waters.
3. Soil compaction must be minimized for areas where infiltration CMs will occur or where final stabilization will be achieved through vegetative cover.
4. All soil imported to or exported from the site shall be properly covered to prevent the loss of material during transport.
5. Dust emissions resulting from grading activities or wind shall be controlled.
6. Install construction fence (orange) to protect wetlands and other sensitive areas and to prevent access, and to delineate the Limits of Construction. Do not use silt fence to protect wetlands since trenching may impact these areas.
7. CMs intended to capture overland, low velocity sheet flow at a fairly level grade shall only be installed along contours.
8. Install CMs, such as check dams, perpendicular to the concentrated flows to reduce flow velocity.
9. Storm drain inlets within and adjacent to the construction site must be protected. Any ponding of stormwater around inlet protection must not cause excessive flooding or damage adjacent areas or structures.

10. Install Vehicle Tracking Control (VTC) to enter/exit unpaved area. Do not use recycled crushed concrete or asphalt millings for vehicle tracking pads.
11. Straw bales shall not be used for primary erosion or sediment control (i.e. straw bales may be used for reinforcement behind another BMP such as silt fence).
12. Outlets systems (such as skimmer or perforated riser pipe) shall be installed to withdraw water from or near the surface level when discharging from basins. Water cannot drain from the bottom of the pond.
13. Temporary stabilization must be implemented for earth disturbing activities on any portion of the site where land disturbing activities have permanently or temporarily ceased (for more than 14 calendar days). Temporary stabilization methods examples: tarps, soil tackifier, and hydroseed. Temporary stabilization requirement may exceed the 14-day schedule when either the function of the specific area requires it to remain disturbed, or, physical characteristics of the terrain and climate prevent stabilization as long as the constraints and alternative schedule is documented on the SWMP, and locations are identified on the EC Plan (site map).
14. Runoff from stockpile area must be controlled. Soils that will be stockpiled for more than 30 days shall be protected from wind and water erosion within 14 days of stockpile construction. Install CMs/BMPs 5 ft away from the toe of the stockpile's slope.
15. Water use to clean concrete trucks shall be discharged into a concrete washout area (CWA). The predefined containment area must be identified with a sign, and shall allow the liquids to evaporate or dry out. CWA discharges that may reach groundwater must flow through soil that has buffering capacity prior to reaching groundwater. The concrete washout location shall be not be located in an area where shallow groundwater may be present and would result in buffering capacity not being adequate, such as near natural drainages, springs, or wetlands. In this case, a liner underneath is needed for areas with high groundwater levels. CWA shall not be placed in low areas, ditches or adjacent to state waters. Place CWA 50 ft away from state waters.
16. Waste, such as building materials, workers trash and construction debris, must be properly managed to prevent stormwater pollution.
17. Install stabilized staging area (SSA) to store materials, construction trailer, etc.
18. If conditions in the field warrant additional CMs/BMPs to the ones originally approved on the SWMP or EC Plan (civil drawing), the landowner or contractor shall implement measures determined necessary, as directed by the County.
19. Permanent CMs/BMPs for slopes, channels, ditches, or disturbed land area shall be performed immediately after final grading. Consider the use erosion control blankets on slopes 3:1 or steeper and areas with concentrated flows such as swales, long channels and roadside ditches.
20. The discharge of sanitary waste into the storm sewer system is prohibited. Portable toilets must be provided, secured and placed on permeable surfaces, away from the curbside, storm inlets and/or drainage ways.
21. Remove temporary CMs/BMPs once final stabilization is reached, unless otherwise authorized.
22. Final stabilization must be implemented. Final stabilization is reached when all soil disturbing activities have been completed, and either a uniform vegetative cover has

been established with an individual plant density of at least 70% of pre-disturbance levels, or equivalent permanent alternative method has been implemented.

23. Provide spill prevention and containment measures for construction materials, waste and fuel storage areas. Bulk storage (55 gallons or greater) of petroleum products and liquid chemicals must have secondary containment, or equivalent protection, in order to contain spills and to prevent spilled material from entering state waters.
24. Report spills or releases of chemical, oil, petroleum product, sewage, etc., which may reach the storm sewer or enter state waters within 24-hours from time of discovery. Guidance available at www.cdphe.state.co.us/emp/spillsandreleased.htm. State of Colorado Spill-line: 1-877-518-5608. Adams County Stormwater Hotline: 720-523-6400; Public Works 303-453-8787 and the Tri-County Health Department at 303-220-9200.

Maintenance Standard Notes:

1. Maintain and repair CMs according to approved Erosion Control Plan (civil drawing) to assure they continue performing as originally intended.
2 CMs/BMPs requiring maintenance or adjustment shall be repaired immediately after observation of the failing BMP.
3 CMs shall be cleaned when sediment levels accumulate to half the design unless otherwise specified.
4 SWMP and EC plan shall be continuously updated to reflect new or revised CMs/BMPs due to changes in design, construction, operation, or maintenance, to accurately reflect the actual field conditions. A notation shall be made in the SWMP, including date of changes in the field, identification of the CMs removed, modified or added, and the locations of those CMs. Updates must be made within 72-hours following the change.
5 Maintain Vehicle Tracking Control (VTC), if sediment tracking occurs, clean-up immediately. Sweep by hand or the use street sweepers (with vacuum system). Flushing off paved surfaces with water is prohibited.
6 CWA must be cleaned once waste accumulation reaches ⅔ of the wet storage capacity of the structure. Legally disposed of concrete waste. Do not bury on-site.
7 Clean-up spills immediately after discovery, or contain until appropriate cleanup methods can be employed. Follow Manufacturer's recommended methods for spill cleanup, along with proper disposal methods. Records of spills, leaks, or overflows that result in discharge of pollutants must be documented and maintained.
8 Remove sediment from storm sewer infrastructure (ponds, storm pipes, outlets, inlets, roadside ditches, etc.), and restore volume capacity upon completion of project or prior to initial acceptance of public improvements (if applicable). Do not flush sediment offsite, capture on-site and disposed of at an approved location.

These notes are not intended to be all-inclusive, but to highlight the basic stormwater pollution prevention requirements for construction activities to comply with CDPS Stormwater Construction Permit and be in conformance with County standards.

STORMWATER MANAGEMENT FACILITY

OPERATION AND MAINTENANCE (O&M) MANUAL

For:

6300 EAST 88TH PARKING LOT EXPANSION

ADAMS COUNTY, COLORADO

PREPARED FOR:
76 and 88, LLC
5040 Acoma Street
Denver, CO 80216
Contact: Fred Orr

Prepared By:
Terra Forma Solutions

October 2024
REVISED MAY 2025

TABLE OF CONTENTS

I. INTRODUCTION 3
II. LOCATION AND ACCESS 3
III. PURPOSE OF FACILITY 4
IV. GENERAL DESCRIPTION 4
V. OWNERSHIP 4
VI. PROJECT HISTORY 4
VII. PROJECT DATA SHEET 5
VIII. NORMAL OPERATION 5
IX. EMERGENCY ACTION PLAN 5
X. REGULARLY SCHEDULED MAINTENANCE 6
XI. INSPECTION & MAINTENANCE PLAN 7
XII. ROUTINE & PERIODIC INSPECTIONS AND FORMS 16
APPENDICES 18

APPENDIX A – Site Maps and Details

APPENDIX B – Stormwater Management Facility Maintenance and Inspection Form

I. INTRODUCTION

This facility has been constructed as a part of the 6300 East 88th Parking Lot Expansion and its associated development. The facility is an Extended Detention Basin. The overall purpose of this facility's operation and maintenance is to attenuate and treat stormwater runoff from the developed property to mitigate negative downstream effects and to ensure proper functioning of the facility by maintaining it through regular inspection and cleaning.

II. LOCATION AND ACCESS

This facility is located within a parcel immediately west 6300 East 88th Avenue at the southwest corner of the property and discharges into the roadside ditch of East 88th Avenue which ultimately drains to the South Platte River. The property is located in Adams County, near the southwest corner of East 88th Avenue and Interstate 76. The facility will be accessed off of East 88th Avenue through the parking lot of the existing building at East 88th Ave which will have an access easement through its parcel. The parcel that the facility is located in will have an access and drainage easement running through the parking lot expansion and encompassing the Extended Detention Basin to allow for continuous inspection and maintenance.

VICINITY MAP

III. PURPOSE OF FACILITY

The purpose of this facility is to provide flood attenuation and water quality treatment for the increase in stormwater flows resulting from the development of the subject property. The facility has been designed in accordance with Adams County, Mile High Flood District, and State requirements.

IV. GENERAL DESCRIPTION

This facility is an Extended Detention Basin (EDB) consisting of a localized depression in the ground for storage and an outlet structure to provide attenuation and water quality. The outlet structure includes a micropool, trash racks, a water quality orifice plate, an overflow grate, a 100-year restrictor plate, and an outlet pipe. There will be a flared end section and soil riprap at the discharge point to protect from erosion. There will also be an emergency spillway where flows will be directed northwest to the roadside ditch of East 88th Avenue in the event of clogging of the outlet structure or flows in excess of the 100-year event. This spillway will be protected by soil riprap to the toe of the downstream slope.

The EDB uses a much smaller water quality orifice plate that extends the release time of the more frequently occurring runoff events to facilitate pollutant removal. The EDB's drain time for the water quality portion of the facility is 40 hours. As previously mentioned, the outlet structure includes a small micropool just below the orifice holes. This micropool is designed to continuously hold water and keep sediment from blocking the outlet.

Inflow into the Extended Detention Basin will be accomplished completely through surface flow, with the majority of the parking lot runoff being concentrated through a riprap rundown at the north end of the facility.

V. OWNERSHIP

The facility's owner is:
76 and 88, LLC
5040 Acoma Street
Denver, CO 80216
Contact: Fred Orr

VI. PROJECT HISTORY

This facility has been constructed for the expansion of the parking lot on the parcel immediately west of 6300 East 88th Avenue. Construction will be complete in early 2025. The Civil Engineer of Record is Todd Johnson, PE 37660 for and on Behalf of Terra Forma Solutions, Inc.. The General Contractor is To Be Determined. No major modifications have taken place over the life of the facility as of September 2024.

The project site was historically used for miscellaneous vehicle parking and storage and was surrounded by a chain link fence. The site is bordered to the north and west by East 88th Avenue, to the east by an existing auto repair shop, and to the south by an existing industrial development.

VII. PROJECT DATA SHEET

6300 East 88th Ave Parking Expansion Facility Data Sheet

Catchment Area	1.53 Acres
Imperviousness	80.92%
Impervious Area	1.24 Acres
Off-Site Contribution of Runoff	0.0 Acres
WQCV	0.043 AC-FT
100-Year Storage Volume	0.215 AC-FT
WQCV Orifice Diameters	0.5 in
100-Year Orifice Diameter	3.7 in
Design Release Rate (100-yr)	0.6 cfs

VIII. NORMAL OPERATION

Normal day-to-day inspection and maintenance is required for the Extended Detention Basin facility to operate properly in the following ways:

1. Visually inspect the Extended Detention Basin (EDB) to make sure water is drainage after all storm events. In no case should the pond be holding water after 93 hours. If there is standing water within the EDB past 93 hours after a storm event, this would indicate one of the orifices and/or trash racks within the outlet structure are clogged and requires immediate maintenance.
2. Visually inspect the storm outfall into the East 88th Avene roadside ditch after all storm events to ensure that no debris is covering the outfall pipe.

IX. EMERGENCY ACTION PLAN

During extreme weather conditions, the facility may overflow the emergency spillway at the top of the EDB. If water is flowing over the emergency spillway, this could mean that either the outlet structure is clogged, or the storm's rainfall is in excess of the 100-year design event. No immediate measures are needed if water is observed flowing over the emergency spillway as this failsafe is operating as intended. After the storm event, the outlet structure should be inspected to ensure that the orifices and trash racks are not clogged. Emergency Contacts:

Adams County Sheriff: 911

Property Owner:
The facility's owner is:
76 and 88, LLC
5040 Acoma Street
Denver, CO 80216
Contact: Fred Orr

X. REGULARLY SCHEDULED MAINTENANCE

The most effective way to regularly maintain the facility is to prevent pollutants from entering the facility in the first place, like trash, debris, sediment, and chemicals. Measures to accomplish this include:

1. Educating employees to be aware of how their actions affect water quality, and how they can help reduce maintenance costs.
2. Keeping parking lot free of trash, debris, and lawn clippings.
3. Ensuring the proper disposal of hazardous wastes and chemicals.
4. Re-vegetating disturbed and bare areas to maintain stabilization and reduce erosion and sediment collection.
5. Removing accumulation of woody growth or weed within the above ground basin area.
6. Visual inspecting the rip rap rundown into the facility and the outfall into the East 88th Ave roadside ditch and removing any debris that could be blocking normal flow.

Stormwater management facilities must be properly maintained to ensure that they operate correctly and provide the water quality treatment for which they were designed. Routine maintenance performed on a frequently scheduled basis, can help avoid more costly rehabilitative maintenance that results when facilities are not adequately maintained.

Maintenance Categories

Stormwater management facility maintenance programs are separated into three broad categories of work. These categories are based largely on the Mile High Flood District's Maintenance Program for regional drainage facilities. The categories are separated based upon the magnitude and type of the maintenance activities performed. A description of each category follows:

Routine Maintenance Activities

The majority of this work consists of scheduled mowings and trash and debris pickups for stormwater management facilities during the growing season. This includes items such as the removal of debris/material that may be clogging the outlet structure well screens and trash racks. It also includes activities such as weed control, mosquito treatment, and algae treatment. These activities normally will be performed several times during the course of the year. These items can be completed without any prior correspondence with ADAMS COUNTY; however, completed inspection and maintenance forms shall be submitted to ADAMS COUNTY for each inspection and maintenance activity.

Minor Maintenance Activities

This work consists of a variety of isolated or small-scale maintenance and work needed to address operational problems. Most of this work can be completed by a small crew, with minor tools, and small equipment. These items require prior correspondence with ADAMS COUNTY and require that completed maintenance forms be submitted to ADAMS COUNTY for each maintenance activity.

Major Maintenance Activities

This work consists of large-scale maintenance and major improvements needed to address failures within the stormwater management facilities. This work requires consultation with ADAMS COUNTY and may require an engineering design with construction plans to be prepared for review and approval. This work may also require more specialized maintenance equipment, surveying, construction permits or assistance through private contractors and consultants. These items require prior correspondence with ADAMS COUNTY and require that completed maintenance forms be submitted to ADAMS COUNTY for each maintenance activity.

Maintenance Personnel

Maintenance personnel must be qualified to properly maintain stormwater management facilities. Inadequately trained personnel can cause additional problems resulting in additional maintenance costs.

Maintenance Forms

The Stormwater Management Facility Maintenance Form provides a record of maintenance activities. Maintenance Forms are provided in Appendix B. Maintenance Forms shall be completed by the contractor completing the required maintenance items. The form shall then be reviewed by the property owner or an authorized agent of the property owner and submitted upon request to the ADAMS COUNTY.

XI. INSPECTION & MAINTENANCE PLAN

Inspection:

Inspection or maintenance personnel may utilize the site plan, located in Appendix A of the Operation and Maintenance Manual, containing the locations of the access points and maintenance easements of the EDB within this development.

EDBs have a number of features that are designed to serve a particular function. Below is a list and description of the features within the EDB and the corresponding maintenance inspection items that can be anticipated:

TABLE 1 – TYPICAL INSPECTION & MAINTENANCE REQUIREMENTS MATRIX

EDB FEATURES	Sediment Removal	Mowing/Weed Control	Trash & Debris Removal	Erosion	Overgrown Vegetation Removal	Standing Water (mosquito/algae control)	Structure Repair
Inflow Points & Outfalls	X		X	X	X	X	X
Bottom Stage	X	X	X	X	X	X	
Mirco Pool	X		X			X	X
Outlet Structure	X		X				X
Emergency Spillway			X	X	X		X
Upper Stage	X	X	X	X	X		
Embankment		X		X	X		

1. Inflow Points or Outfalls into and out of the EDB are the point source of the stormwater discharge to and from the facility. The inflow and outflow points of this facility are both protected by riprap. The most typical maintenance items that are found with these features are as follows:
    a. Riprap Displaced – Many times, because the repeated impact/force of water, the riprap can shift and settle. If any portion of the riprap appears to have settled, soil is present between the riprap, or the riprap has shifted, maintenance may be required to ensure future erosion is prevented.
    b. Erosion Present/Outfall Undercut – Any erosion within the vicinity of the inflow or outflow point will require maintenance to prevent damage to the structure(s) and sediment transport within the facility.
    c. Sediment Accumulation – Because of the turbulence in the water created by the riprap, sediment often deposits immediately downstream of the inflow and outflow point. To prevent a loss in hydraulic performance of the upstream infrastructure, sediment that accumulates in this area must be removed in a timely manner.
    d. Woody Growth/Weeds Present – Undesirable vegetation can grow in and around the inflow and outflow area for an EDB that can significantly impact the performance of the drainage facilities discharging into and out of the facility. This type of vegetation includes trees (typically cottonwoods) and dense areas of shrubs (willows). If woody vegetation is not routinely mowed/removed, the growth can cause debris/sediment to accumulate, resulting in blockage of the discharge. Also, tree roots can cause damage to the structural components of the inflow. Routine maintenance is essential for trees (removing a small tree/sapling is much cheaper and “quieter” than a mature tree). Also, noxious weeds growing in the facility can result in the loss of desirable native vegetation and impact adjacent open spaces/land.
2. The bottom stage is at least 1.0 to 2.0 feet deeper than the upper stage and is located in front of the outlet structure. The bottom stage is designed to store the smaller runoff events and assists in keeping the majority of the basin bottom dry resulting in easier maintenance operations and enhances the facilities pollutant removal capabilities. This area of the EDB may develop wetland vegetation.
    a. Sediment/Debris Accumulation – The bottom stage can frequently accumulate sediment and debris. This material must be removed to maintain pond volume and proper function of the outlet structure.
    b. Woody Growth/Weeds Present – As there is constant moisture in the soil surrounding the bottom stage, woody growth (cottonwoods/willows) can create operational problems for the EDB. If woody vegetation is not routinely mowed/removed, the growth can cause debris/sediment to accumulate outside of the micro-pool, which can cause problems with other EDB features. Also, tree roots can cause damage to the structural components of the outlet works. Routine management is essential for tree removal (removing a small tree/sapling is much cheaper and “quieter” than a mature tree).

c. Bank Erosion – The bottom stage is usually a couple feet deeper than the other areas of the ponds. Erosion can be caused by water flowing into the micro-pool, if adequate protection/armor is not present. Erosion in this area must be mitigated to prevent sediment transport and other EDB feature damage.

3. The micropool is a concrete walled structure directly in front of the outlet structure. The micropool is 2.5 feet deep and is designed to hold water. The micropool is critical in the proper function of the EDB; it allows suspended sediment to be deposited at the bottom of the micropool and prevents these sediments from being deposited in front of the outlet works causing clogging of the outlet structure, which results in marshy areas within the top and bottom stages.

    a. Sediment/Debris Accumulation – The micro-pool can frequently accumulate sediment and debris. This material must be removed to maintain pond volume and proper function of the outlet structure.

    b. Mosquitoes/Algae Treatment – Mosquitos are a nuisance created by stagnant water can result from improper maintenance/treatment of the micro-pool. Mosquito larvae can be laid by adult mosquitoes within the permanent pool. Also, aquatic vegetation that grows in shallow pools of water can decompose causing foul odors. Chemical/mechanical treatment of the micro-pool may be necessary to reduce these impacts to adjacent property owners.

    c. Petroleum/Chemical Sheen – Many indicators of illicit discharges into the storm sewer systems will be present in the micro-pool area of the EDB. These indicators can include sheens, odors, discolored soil, and dead vegetation. If it is suspected that an illicit discharge has occurred, contact Adams County immediately. Proper removal/mitigation of contaminated soils and water in the EDB is necessary to minimize any environmental impacts downstream.

4. The outlet structure is the feature that drains the EDB in specified quantities over specified periods of time. The outlet structure is constructed of reinforced concrete into the embankment of the EDB. The concrete structure has steel orifice plates anchored/embedded within it to control stormwater release rates. The larger openings (flood control) on the outlet structure has trash racks over it to prevent clogging. The water quality orifice plate (smaller diameter holes) has a well screen covering it to prevent smaller materials from clogging it. The outlet structure is the single most important feature in the EDB operation. Proper inspection and maintenance of the outlet works is essential in ensuring the long-term operation of the EDB.

    a. Trash Rack/Well Screen Clogged – Floatable material that enters the EDB will most likely make its way to the outlet structure. This material is intended to be trapped against the trash racks and well screens on the outlet structure. This material must be removed on a routine basis to ensure the outlet structure drains in the specified design period.

    b. Structural Damage - The outlet structure is primarily constructed of concrete, which can crack, spall, and settle. The steel trash racks and well screens are also susceptible to damage.

c. Orifice Plate Missing/Not Secure – Many times residents, property owners, or maintenance personnel will remove or loosen orifice plates if they believe the pond is not draining properly. Any modification to the orifice plate(s) will significantly impact the designed discharge rates for water quality and/or flood control. Modification of the orifice plates is prohibited without approval from the County. When maintaining the orifice plate, be sure that the neoprene gasket installed between the concrete structure and the orifice plate is replaced during the maintenance activity. If no neoprene gasket is found during the inspection or maintenance of the orifice plate, one will need to be installed as part of the maintenance activities.

5. Emergency Spillway An emergency spillway is designed to serve as the overflow in the event the volume of the pond is exceeded. The emergency spillway is armored with riprap buried within the soil. The emergency spillway is a weir section in the pond embankment. Proper function of the emergency spillway is essential to ensure flooding does not impact adjacent properties.

    a. Riprap Displaced – As mentioned before, the emergency spillway is typically armored with riprap to provide erosion protection. Over the life of an EDB, the riprap may shift or become dislodged due to flow.

    b. Erosion Present – Although the spillway is typically armored, stormwater flowing through the spillway can cause erosion damage. Erosion must be repaired to ensure the integrity of the basin embankment, and proper function of the spillway.

    c. Woody Growth/Weeds Present – Management of woody vegetation is essential in the proper long-term function of the spillway. Larger trees or dense shrubs can capture larger debris entering the EDB and reduce the capacity of the spillway.

    d. Obstruction Debris – The spillway must be cleared of any obstruction (man made or natural) to ensure the proper design capacity.

6. The upper stage of the EDB (dry storage) provides the majority of the water quality flood detention volume. This area of the EDB is higher than the micro-pool and typically stays dry, except during storm events. The upper stage is the largest feature/area of the basin. With proper maintenance of the micropool and forebay(s), the upper stage should not experience much sedimentation; however, bottom elevations should be monitored to ensure adequate volume.

    a. Vegetation Sparse – The upper basin is the most visible part of the EDB, and therefore aesthetics is important. Adequate and properly maintained vegetation can greatly increase the overall appearance and acceptance of the EDB by the public. Also, vegetation can reduce the potential for erosion and subsequent sediment transport to the other areas of the pond.

    b. Woody Growth/Undesirable Vegetation – Although some trees and woody vegetation may be acceptable in the upper basin, some thinning of cottonwoods and willows may be necessary. Remember, the basin will have to be dredged as to ensure volume, and large trees and shrubs will be difficult to protect during that operation (public perception).

c. Standing Water/Boggy Areas – Standing water or boggy areas in the upper stage is typically a sign that some other feature in the pond is not functioning properly. Routine maintenance (mowing, trash removal, etc) can be extremely difficult for the upper stage if the ground is saturated. If this inspection item is checked, make sure you have identified the root cause of the problem.

d. Sediment Accumulation – Although other features within the EDB are designed to capture sediment, the upper storage area will collect sediment over time. Excessive amounts of sedimentation will result in a loss of storage volume. It may be more difficult to determine if this area has accumulated sediment without conducting a field survey. However, there are some indicators that sedimentation has occurred in the upper stage. Below is a list of indicators:

    i. Standing water or boggy areas in upper stage

    ii. Uneven grades or mounds

    iii. Micro-pool has excessive amounts of sediment

e. Erosion (banks and bottom) – The bottom grades of the dry storage are typically flat enough that erosion should not occur. However, inadequate vegetative cover may result in erosion of the upper stage. Erosion that occurs in the upper stage can result in increased dredging/maintenance of the micro-pool.

f. Trash Debris – Trash and debris can accumulate in the upper area after large events, or from illegal dumping. Over time, this material can accumulate and clog the EDB outlet works. G

Maintenance:

1. Maintenance personnel must be qualified to properly maintain EDBs. Inadequately trained personnel can cause additional problems resulting in additional maintenance costs.
2. It is imperative that the appropriate equipment and tools are taken to the field with the operations crew. The types of equipment/tools will vary depending on the task at hand. Below is a list of tools, equipment, and material(s) that may be necessary to perform maintenance on an EDB:

    a. Loppers/Tree Trimming Tools

    b. Mowing Tractors

    c. Trimmers (extra string)

    d. Shovels

    e. Rakes

    f. All Surface Vehicle (ASVs)

    g. Skid Steer

    h. Back Hoe

    i. Track Hoe/Long Reach Excavator

    j. Dump Truck

k. Jet-Vac Machine
l. Engineers Level (laser)
m. Riprap
n. Filter Fabric
o. Erosion Control Blanket(s)
p. Seed Mix (Native - Foothills)
q. Illicit Discharge Cleanup Kits
r. Trash Bags
s. Tools (wrenches, screw drivers, hammers, etc)
t. Chain Saw
u. Confined Space Entry Equipment
v. Approved Stormwater Facility Operation and Maintenance Manual

Some of the items identified above may not be needed for every maintenance operation. However, this equipment should be available to the maintenance operations crews should the need arise.

3. Safety - Vertical drops may be encountered in areas located within and around the facility. Avoid walking on top of vertical walls or other structures that have a significant vertical drop. If a vertical drop is identified within the EDB that is greater than 48” in height, make the appropriate note/comment on the maintenance inspection form.

4. The EDB Maintenance Form provides a record of each maintenance operation performed by maintenance contractors. The EBD Maintenance Form shall be filled out in the field after the completion of the maintenance operation. Each form shall be review and maintained by the property owner or property manager. The form is located in Appendix D. A variety of maintenance activities, separated into categories, are identified on the form. All maintenance activities performed during the operation must be identified on the form. These maintenance activities are described in more detail later in this Manual. Maintenance forms shall be completed by contractor completing the required maintenance items. The form shall then be reviewed by an authorized agent of the property owner and filed.

5. A typical EDB Maintenance Program will consist of three broad categories of work. Within each category of work, a variety of maintenance activities can be performed on an EDB. A maintenance activity can be specific to each feature within the EDB, or general to the overall facility. This section of the plan explains each of the categories and briefly describes the typical maintenance activities for an EDB. The maintenance activities range in magnitude from routine trash pickup to the reconstruction of drainage infrastructure. Below is a description of each maintenance activity, the objectives, and frequency of actions.

Routine Maintenance Activities - The majority of this work consists of regularly scheduled mowing and trash and debris pickups for stormwater management facilities during the growing season. This includes items such as the removal of debris/material that may be clogging the outlet structure well screens and trash racks. It also includes activities such as weed control, mosquito treatment, and algae treatment. These activities normally will be performed numerous

times during the year. These items can be completed without any prior correspondence with Adams County; however completed inspection and maintenance forms shall be filed with the property owner and/or manager. The Maintenance Activities are summarized below, and further described in the following sections.

TABLE 2 – Summary of Routine Maintenance Activities

MAINTENANCE ACTIVITY	MINIMUM FREQUENCY	LOOK FOR	MAINTENANCE ACTION
Mowing	Twice Annually	Excessive grass height/aesthetics	4” to 6” grass height
Trash/Debris Removal	Twice Annually	Trash & debris in EDB	Remove and dispose of trash and debris
Outlet Structure Cleaning	As needed – after significant rain events – twice annually min.	Clogged outlet structure; ponding water	Remove and dispose of debris/trash/sediment to allow outlet to function properly
Weed Control	Minimum twice annually	Noxious weeds; unwanted vegetation	Treat w/ herbicide or hand pull; Consult weed specialist
Mosquito Treatment	As needed	Standing water/mosquito habitat	Treat w/ EPA approved chemicals
Algae Treatment	As needed	Standing water/Algal growth/green color	Treat w/ EPA approved chemicals

1. Mowing - Occasional mowing is necessary to limit unwanted vegetation and to improve the overall appearance of the EDB. Native vegetation should be mowed to a height of 4-to-6 inches tall. Frequency – Routine - Minimum of twice annually or depending on aesthetics.
2. Trash/Debris Removal - Trash and debris must be removed from the entire EDB area to minimize outlet clogging and to improve aesthetics. This activity must be performed prior to mowing operations. Frequency – Routine – Prior to mowing operations and minimum of twice annually.
3. Outlet Structure Cleaning - Debris and other materials can clog the outlet structure’s well screen, orifice plate(s) and trash rack. The removal of these obstructions must be performed anytime other maintenance activities are conducted to ensure proper operation. Frequency - Routine – After significant rainfall event or concurrently with other maintenance activities.
4. Weed Control - Noxious weeds and other unwanted vegetation must be treated as needed throughout the EDB. This activity can be performed either through mechanical means (mowing/pulling) or with herbicide. Consultation with a weed specialist is highly recommended prior to the use of herbicide. Frequency – Routine – As needed based on inspections.
5. Mosquito/Algae Treatment - Treatment of permanent pools is necessary to control mosquitoes and undesirable aquatic vegetation that can create nuisances. Only EPA approved chemicals/materials can be used in areas that are warranted. Frequency – As needed.

Minor Maintenance Activities - This work consists of a variety of isolated or small-scale maintenance/operational problems. Most of this work can be completed by a small crew, tools, and small equipment.

TABLE 3 – Summary of Minor Maintenance Activities

MAINTENANCE ACTIVITY	MINIMUM FREQUENCY	LOOK FOR	MAINTENANCE ACTION
Sediment Removal	As needed; typically every 1 –2 years	Sediment build-up; decrease in pond volume	Remove and dispose of sediment
Erosion Repair	As needed, based upon inspection	Rillying/gullying of side slopes, trickle channel, other areas	Repair eroded areas Revegetate; Address cause
Vegetation Removal/Tree Thinning	As needed, based upon inspection	Large trees/wood vegetation in lower chamber of pond	Remove vegetation; restore grade and surface
Drain Cleaning/Jet Vac	As needed, based upon inspection	Sediment build-up /non draining system	Clean drains; Jet Vac if needed

1. Sediment Removal - Sediment removal is necessary to maintain the original design volume of the EDB and to ensure proper function of the infrastructure. Regular sediment removal (minor) from the inflow(s) can significantly reduce the frequency of major sediment removal activities (dredging) in the upper and lower stages. The minor sediment removal activities can typically be addressed with shovels and smaller equipment. Major sediment removal activities will require larger and more specialized equipment. The major sediment activities will also require surveying with an engineer's level, and consultation with the Adams County Engineering Staff to ensure design volumes/grades are achieved. Stormwater sediments removed from EDBs do not meet the criteria of "hazardous waste". However, these sediments are contaminated with a wide array of organic and inorganic pollutants and handling must be done with care. Sediments from permanent pools must be carefully removed to minimize turbidity, further sedimentation, or other adverse water quality impacts. Sediments should be transported by motor vehicle only after they are dewatered. All sediments must be taken to a landfill for proper disposal. Should a spill occur during transportation, prompt and thorough cleanup is important. Frequency – Nonroutine – As necessary based upon inspections.
2. Erosion Repair - The repair of eroded areas is necessary to ensure the proper function of the EDB, minimize sediment transport, and to reduce potential impacts to other features. Erosion can vary in magnitude from minor repairs energy dissipaters and rilling to major gullies in the embankments and spillways. The repair of eroded areas may require the use of excavators, earthmoving equipment, riprap, concrete, erosion control blankets, and turf reinforcement mats. Major erosion repair to the pond embankments, spillways, and adjacent to structures will require consultation with the engineering staff. Frequency – Nonroutine – As necessary based upon inspections.
3. Vegetation Removal/Tree Thinning - Dense stands of woody vegetation (willows, shrubs, etc) or trees can create maintenance problems for the infrastructure within an EDB. Tree roots can damage structures and invade pipes/channels thereby blocking flows. Also, trees growing in the upper and lower stages of the EDB will most likely have to be removed when sediment/dredging operations occur. A small tree is easier to remove than a large tree,

therefore, regular removal/thinning is imperative. All trees and woody vegetation should be removed that is growing in the bottom of the EDB or near structures (inflows, trickle channels, outlet works, emergency spillways, etc). Any trees or woody vegetation in the EDB should be limited to the upper portions of the pond banks. Frequency – Nonroutine – As necessary based upon inspections.

4. Clearing Drains/Jet-Vac - An EDB contains many structures, openings, and pipes that can be frequently clogged with debris. These blockages can result in a decrease of hydraulic capacity and also create standing water (nuisances) in areas outside of the micro-pool. Many times the blockage to this infrastructure can be difficult to access and/or clean. Specialized equipment (jet-vac machines) may be necessary to clear debris from these difficult areas. Frequency – Nonroutine – As necessary based upon inspections.

Major Maintenance Activities - This work consists of larger maintenance/operational problems and failures within the stormwater management facilities. All of this work requires consultation with the Adams County Engineering Department to ensure the proper maintenance is performed. This work requires that the engineering staff review the original design and construction drawings to assess the situation and assign the necessary maintenance. This work may also require more specialized maintenance equipment, design/details, surveying, or assistance through private contractors and consultants.

TABLE 3 – Summary of Major Maintenance Activities

MAINTENANCE ACTIVITY	MINIMUM FREQUENCY	LOOK FOR	MAINTENANCE ACTION
Major Sediment Removal	As needed – based upon scheduled inspections	Large quantities of sediment; reduced pond capacity	Remove and dispose of sediment. Repair vegetation as needed
Major Erosion Repair	As needed – based upon scheduled inspections	Severe erosion including gullying, excessive soil displacement, areas of settlement, holes	Repair erosion – find cause of problem and address to avoid future erosion
Structural Repair	As needed – based upon scheduled inspections	Deterioration and/or damage to structural components – broken concrete, damaged pipes, outlet structure	Structural repair to restore the structure to its original design

1. Major Sediment Removal - Major sediment removal consists of removal of large quantities of sediment or removal of sediment from vegetated areas. Care shall be given when removing large quantities of sediment and sediment deposited in vegetated areas. Large quantities of sediment need to be carefully removed, transported and disposed of. Vegetated areas need special care to ensure design volumes and grades are preserved. Frequency – Nonroutine – Repair as needed based upon inspections.

2. Major Erosion Repair - Major erosion repair consist of filling and revegetating areas of severe erosion. Determining the cause of the erosion as well as correcting the condition that caused the erosion should also be part of the erosion repair. Care should be given to ensure design grades and volumes are preserved. Frequency – Nonroutine – Repair as needed based upon inspections.

3. Structural Repair - An EDB includes a variety of structures that can deteriorate or be damaged during the course of routine maintenance. These structures are constructed of steel and concrete that can degrade or be damaged and may need to be repaired or re-

constructed from time to time. Some of the minor structural repairs can be performed by in-house operations staff. Major repairs to structures may require input from a structural engineer and specialized contractors. Consultation with the Adams County Engineering Staff should take place prior to all structural repairs. Frequency – Nonroutine – Repair as needed based upon inspections.

XII. ROUTINE & PERIODIC INSPECTIONS AND FORMS

It is imperative that the appropriate equipment is taken to the field with the inspector(s). This is to ensure the safety of the inspector and allow the inspections to be performed as efficiently as possible. Below is a list of the equipment that may be necessary to perform the inspections of all Stormwater Management Facilities:

- Protective clothing and boots.
- Safety equipment (vest, hard hat, confined space entry equipment).
- Communication equipment.
- Operation and Maintenance Manual for the site including stormwater management facility location maps.
- Clipboard.
- Stormwater Management Facility Maintenance and Inspection Forms (See Appendix B).
- Manhole Lid Remover
- Shovel.

Some of the items identified above need not be carried by the inspector (manhole lid remover, shovel, and confined space entry equipment). However, this equipment should be available in the vehicle driven to the site.

Inspection of the facility should occur at least once per year, and once every six months in the first year.

The quality of stormwater entering the waters of the state relies heavily on the proper operation and maintenance of permanent best management practices. Stormwater management facilities must be periodically inspected to ensure that they function as designed. The inspection will determine the appropriate maintenance that is required for the facility.

Inspection Procedures

All stormwater management facilities are required to be inspected by a qualified individual at a minimum of once per year. Inspections should follow the inspection guidance found in this plan.

Inspection Report

The person(s) conducting the inspection activities shall complete the appropriate inspection report for the specific facility. Inspection reports are located in Appendix B.

The following information explains how to fill out the Inspection Forms:

General Information

This section identifies the facility location, person conducting the inspection and the date and time the facility was inspected.

All facilities should be inspected on an annual basis at a minimum. In addition, all facilities should be inspected after a significant precipitation event to ensure the facility is draining appropriately and to identify any damage that occurred as a result of the increased runoff.

Inspection Scoring

For each inspection item, a score must be given to identify the urgency of required maintenance. The scoring is as follows:

0= No deficiencies identified.

1= Monitor — Although maintenance may not be required at this time, a potential problem exists that will most likely need to be addressed in the future. This can include items like minor erosion, concrete cracks/spalling, or minor sediment accumulation. This item should be revisited at the next inspection.

2= Routine Maintenance Required — Some inspection items can be addressed through the routine maintenance program. This can include items like vegetation management or debris/trash removal.

3= Immediate Repair Necessary — This item needs immediate attention because failure is imminent or has already occurred. This could include items such as structural failure of a feature (outlet works, forebay, etc), significant erosion, or significant sediment accumulation. This score should be given to an item that can significantly affect the function of the facility.

N/A This is checked by an item that may not exist in a facility. Not all facilities have all of the features identified on the form (forebay, trickle channel, etc.).

Inspection Notes

Additional explanations to inspection items, and observations about the facility not covered by the form, are recorded in this section.

Verification of Inspection and Form Submittal

The Stormwater Management Facility Maintenance and Inspection Form provides a record of inspection of the facility. Inspection Form is provided in Appendix B. Verification of the inspection of the stormwater facilities, the facility inspection form(s), and Inspector Qualifications shall be provided to ADAMS COUNTY upon request. The verification and the inspection form(s) shall be reviewed and submitted by the property owner or property manager.

All stormwater management facilities located on the site have both a designated access location as well as a drainage easement for maintenance. Refer to the Site Maps located in Appendix A for access and easement locations.

Keep safety considerations at the forefront of inspection procedures at all times. Likely hazards should be anticipated and avoided. Never enter a confined space (outlet structure, manhole, etc) without proper training or equipment. A confined space should never be entered without at least one additional person present.

If a toxic or flammable substance is discovered, leave the immediate area and contact the local Sheriff at 911.

Potentially dangerous (e.g., fuel, chemicals, hazardous materials) substances found in the areas must be referred to the local Sheriff's Office immediately for response by the Hazardous Materials Unit. The emergency contact number is 911.

If any hazard is found within the facility area that poses an immediate threat to public safety, contact the local Sheriff's Office immediately.

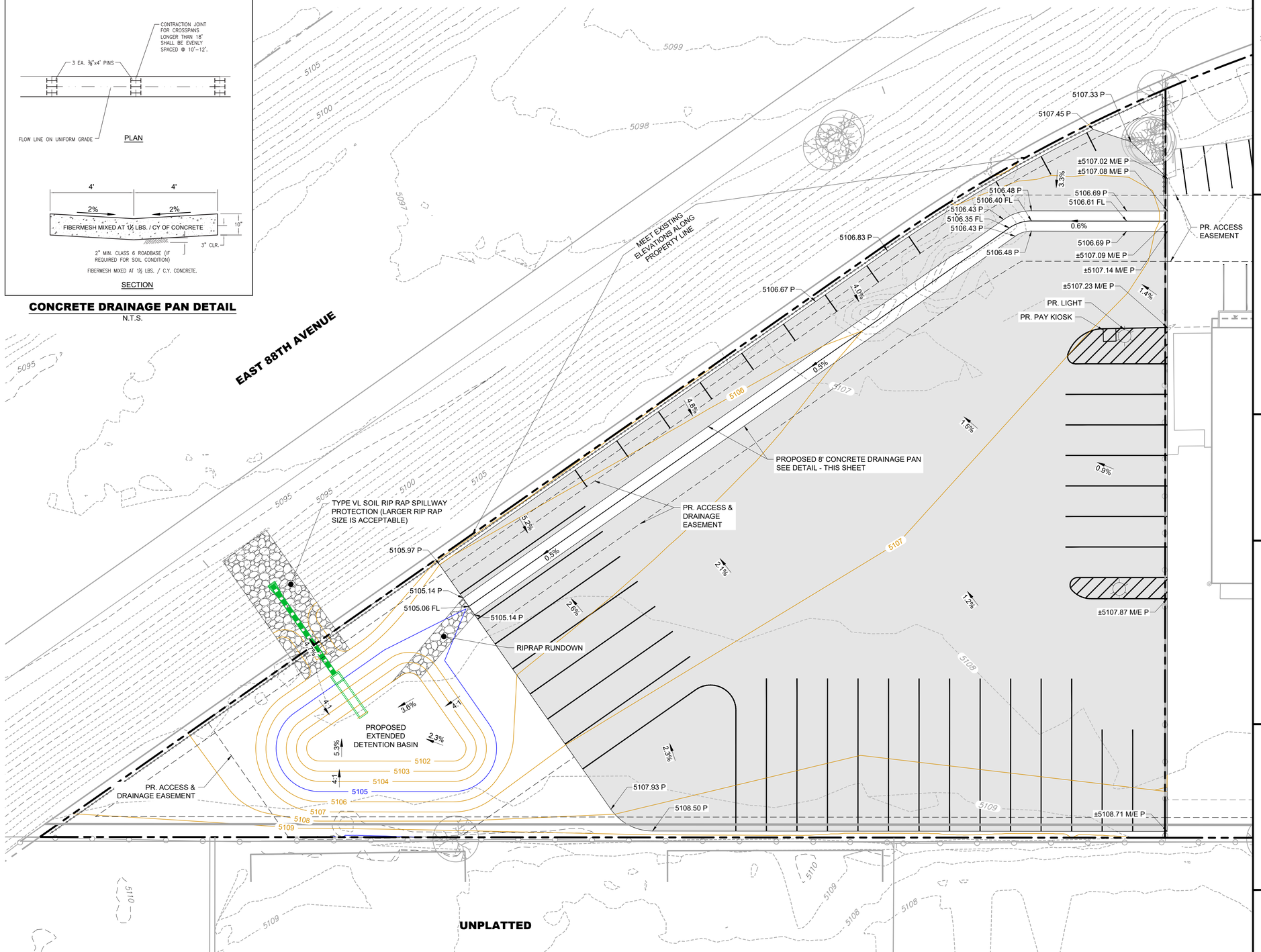
APPENDICES

APPENDIX A – Site Maps and Details

APPENDIX B – Stormwater Management Facility Maintenance and Inspection Form

APPENDIX A - SITE MAPS & DETAILS

CONCRETE DRAINAGE PAN DETAIL
N.T.S.



GRADING PLAN NOTES:

1. CONTRACTOR TO REFER TO THE GEOTECHNICAL REPORT TO ENSURE ALL SUBGRADE PREPARATION REQUIREMENTS, PAVEMENT RECOMMENDATIONS, MINIMUM SLOPE REQUIREMENTS , AND ALL OTHER APPLICABLE REQUIREMENTS ARE MET.
2. RETAINING WALL DESIGN BY OTHERS.

LEGEND

100.00	SPOT ELEVATION
100	PROPOSED MAJOR CONTOUR
100	PROPOSED MINOR CONTOUR
100	EXISTING MAJOR CONTOUR
100	EXISTING MINOR CONTOUR
	DRAINAGE FLOW ARROW

GRADING ABBREVIATIONS

HP	HIGH POINT
LP	LOW POINT
GF	GRADE AT FOUNDATION
FF	FINISHED FLOOR
P	PAVEMENT
SW	SIDEWALK
FL	FLOWLINE
G	GROUND
M/E	MEET EXISTING

UNCC
CALL BEFORE
YOU DIG
811
OR
1-800-922-1987
UTILITY NOTIFICATION
CENTER OF COLORADO

0 20' 40'
1" = 20' (HORIZONTAL)

TERRA FORMA SOLUTIONS

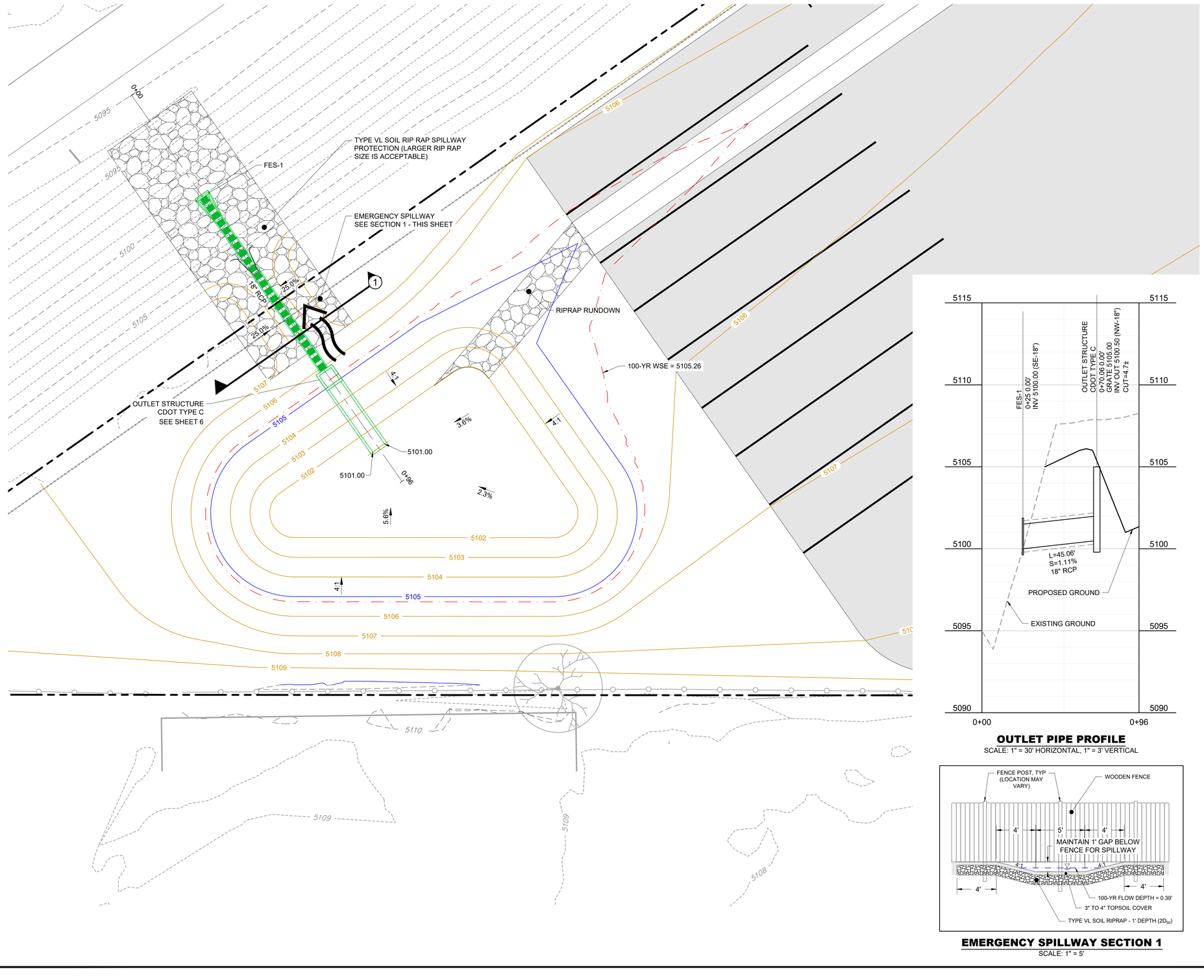
REV. NO.	DESCRIPTION	DATE
2	REVISED PER BOUNDARY UPDATES	5/19/2025
1	REVISED PER COUNTY COMMENTS	10/1/2024

PERF 88 LLC
CONSTRUCTION DRAWINGS
6300 E. 88TH AVENUE - WEST
GRADING PLAN
6300 E. 88TH AVENUE
ADAMS COUNTY, COLORADO

COLORADO LICENSED
37660
5/19/25
PROFESSIONAL ENGINEER

PROJ NO: 6300
ENG :
DATE : 8/22/2023

SHEET NUMBER
GR1
4 OF 6



OUTLET PIPE PROFILE
SCALE: 1" = 30' HORIZONTAL, 1" = 3' VERTICAL

EMERGENCY SPILLWAY SECTION 1
SCALE: 1" = 5'

STORM SEWER NOTES:

1. ALL STORM SEWER PIPES WITHIN THE PUBLIC RIGHT-OF-WAY MUST BE RCP CLASS III MATERIAL. IN THE EVENT THAT THE SOIL CHEMISTRY IS NOT CONDUCIVE TO THIS TYPE OF MATERIAL, THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY SO THAT THEY CAN PROPOSE SOLUTIONS TO ADAMS COUNTY PUBLIC WORKS DEPARTMENT STAFF TO MITIGATE THE SITUATION IF IT SHOULD ARISE.
2. ALL NEW UNDERGROUND FACILITIES, INCLUDING STORM SEWER, MUST BE ELECTRONICALLY LOCATABLE IN COMPLIANCE WITH COLORADO REVISED STATE STATUTE 2018, TITLE 9, ARTICLE 1.5, 9-1.5-103. SEE THE ADAMS COUNTY "STORM SEWER - TRACER WIRE SPECIFICATION" FOR MATERIAL AND INSTALLATION REQUIREMENTS.

LEGEND

- PROPOSED STORM PIPE
- PROPOSED STORM MANHOLE
- PROPOSED FLARED END SECTION
- EXISTING STORM PIPE
- EXISTING STORM MANHOLE

811
1-800-922-1987
UTILITY NOTIFICATION CENTER OF COLORADO

0 10' 20'
1" = 10' (HORIZONTAL)

TERRA FORMA SOLUTIONS

REV. NO.	DESCRIPTION	DATE
2	REVISED PER BOUNDARY UPDATES	5/19/2025
1	REVISED PER COUNTY COMMENTS	10/1/2024

PERF 88 LLC

CONSTRUCTION DRAWINGS
6300 E. 88TH AVENUE - WEST
EXTENDED DETENTION BASIN PLAN

6300 E. 88TH AVENUE
ADAMS COUNTY, COLORADO

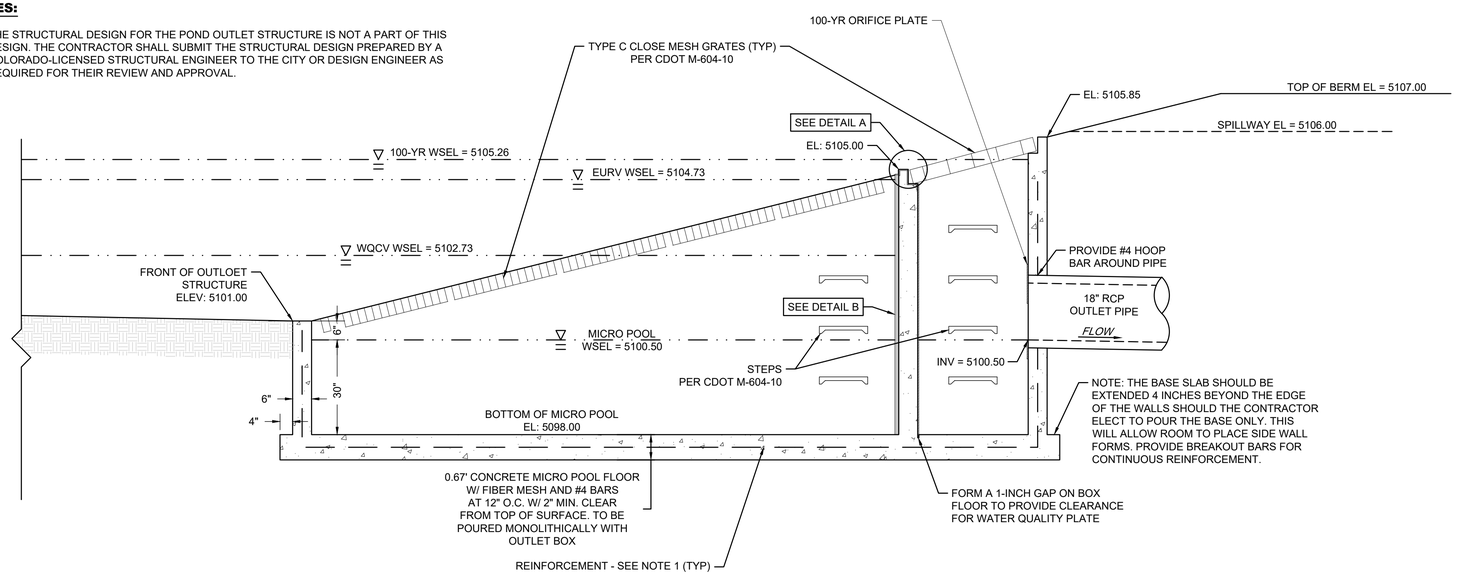
COLORADO LICENSED PROFESSIONAL ENGINEER
37660
5/19/25

PROJ NO: 6300
ENG :
DATE : 8/22/2023

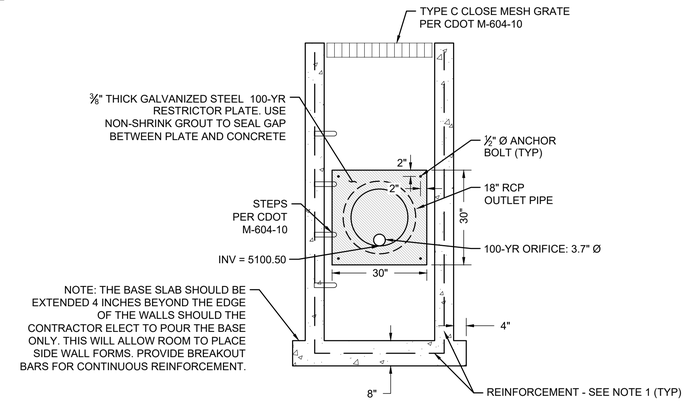
SHEET NUMBER
EDB1
5 OF 6

NOTES:

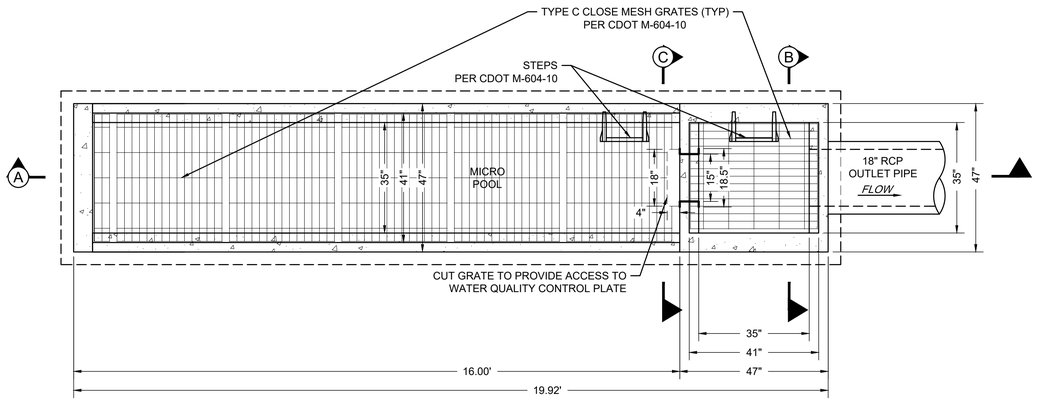
1. THE STRUCTURAL DESIGN FOR THE POND OUTLET STRUCTURE IS NOT A PART OF THIS DESIGN. THE CONTRACTOR SHALL SUBMIT THE STRUCTURAL DESIGN PREPARED BY A COLORADO-LICENSED STRUCTURAL ENGINEER TO THE CITY OR DESIGN ENGINEER AS REQUIRED FOR THEIR REVIEW AND APPROVAL.



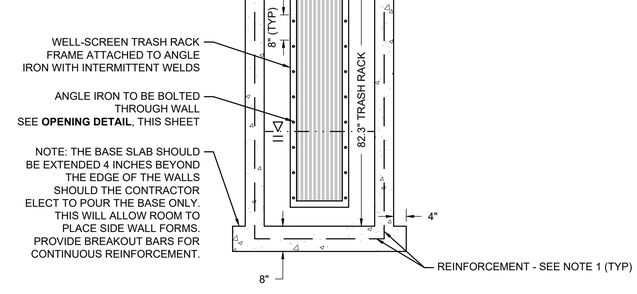
SECTION A - OUTLET STRUCTURE
1"=2'



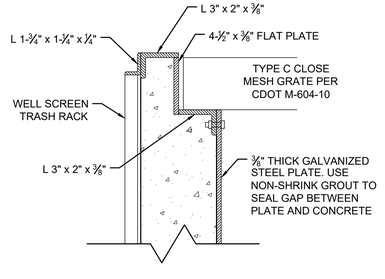
SECTION B - 100-YR ORIFICE
1"=2'



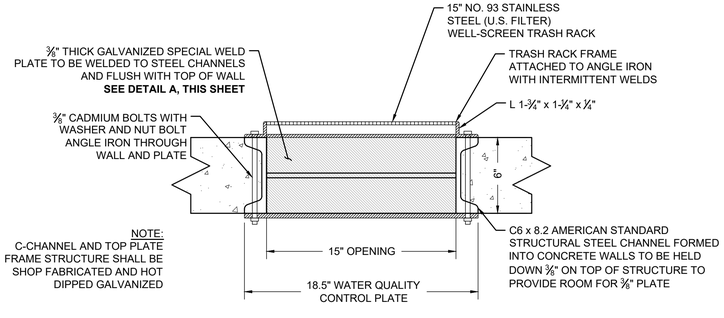
OUTLET STRUCTURE
1"=2'



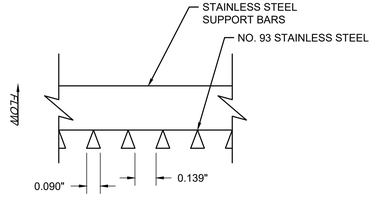
SECTION C
1"=2'



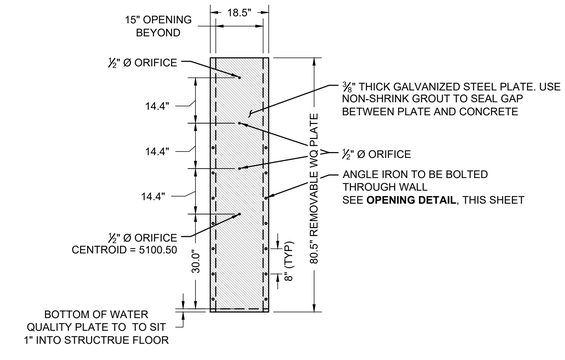
DETAIL A
1"=0.5'



OPENING DETAIL
1"=0.5'



DETAIL B
1"=0.5'



WATER QUALITY CONTROL PLATE DETAIL
1"=2'

TERRA FORMA SOLUTIONS

REV. NO.	DESCRIPTION	DATE
2	REVISED PER BOUNDARY UPDATES	5/19/2025
1	REVISED PER COUNTY COMMENTS	10/1/2024

PERF 88 LLC

CONSTRUCTION DRAWINGS
6300 E. 88TH AVENUE - WEST
OUTLET STRUCTURE DETAILS

6300 E. 88TH AVENUE
ADAMS COUNTY, COLORADO

GRADO LICENSED 37660 5/19/25 PROFESSIONAL ENGINEER

PROJ NO: 6300
ENG :
DATE : 8/22/2023

SHEET NUMBER
OS1
6 OF 6

APPENDIX B - INSPECTION FORM

Stormwater Management Facility Maintenance and Inspection Form

General Information:

Contractor Name: _____ Contractor Email: _____

Contractor Address: _____ Project Name: _____

Contractor Phone: _____ Project Location: _____

Maintenance Required from Inspection based on Standard Operating Procedure (SOP):

Routine Work		Minor Work*		Major Work**	
Mowing		Sediment Removal		Major Sediment Removal	
Trash/Debris Removal		Forebay		Main Basin	
Outlet Works Cleaning		Trickle Channel		Filter Media	
Weed Control		Inflow (s)		Major Erosion Repair	
Mosquito Treatment		Filter Media		Outlet Works	
Algae Treatment		Erosion Repair		Main Basin	
		Inflow Point		Spillway	
		Trickle Channel		Structural Repair	
		Filter Media		Inflow (s)	
		Vegetation Removal/Tree Thinning		Outlet Works	
		Inflow (s)		Forebay	
BMP Type		Trickle Channel		Trickle channel	
Extended Detention Basin		Main Basin		Facility Rebuild	
Porous Landscape Detention		Filter Media		OTHER:_____	
Sand Filter Basin		Revegetation		_____	
Grass Swale		Jet-Vac/Clearing Drains		_____	
Grass Buffer		Forebay			
Open Channel		Outlet Works			
Constructed Wetland Basin		Inflow (s)			
Constructed Wetland Channel		Underdrain (s)			

*Requires Approval From Adams County **Requires Permitting From Adams County

Inspection Notes:

_____

_____

_____

_____

_____

Attach any inspection photos from the inspection.

Inspector Sign Off: _____ **Date**: _____