

PLANNING COMMISSION REGULAR MEETING MONDAY, DECEMBER 2, 2024 AGENDA

Monday, December 2, 2024

6:00 PM

Hearing Room

Disclaimer - This packet is provided for informational purposes only and is subject to change. Some documents may have been unavailable at the time this agenda was prepared. For additional information, contact the responsible staff person.

Instructions to access the video or audio of the meeting are available here:

https://www.douglas.co.us/board-county-commissioners/boards-commissions/planning-commission/ To submit written public comment and/or exhibits for a Planning Commission meeting, please send them, in advance, to planningcommission@douglas.co.us. Instructions for providing audio comments at the remote meeting are available at the webpage above.

1. Call to Order

- a. Pledge of Allegiance
- b. Roll Call
- c. Attorney Certification of the Agenda
- d. Planning Commission Disclosures

2. Approval of Minutes

Unofficial Minutes from November 18, 2024.

3021

Attachments: Unoffice

Unofficial Minutes from November 18, 2024

3. Land Use Hearing Items

Pinery Filing 30A, Tract F, High Prairie Farms Metropolitan District Maintenance Building Project - Location and Extent - Project File: LE2024-027.

3020

Carolyn Washee-Freeland, AICP, Senior Planner — Department of Community Development

Attachments: LE2024-027 - Staff Report

Referral Response HPFMD Maintenance bldg 20241202

Referral Summary Report LE2024-027 w Ltrs

4. Adjournment

The Next Regular Meeting Will be Held on Monday, December 16, 2024 @ 6:00 p.m.



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MEETING DATE: December 2, 2024

DESCRIPTION: Unofficial Minutes from November 18, 2024.

ATTACHMENTS:

Unofficial Minutes from November 18 2024



PLANNING COMMISSION REGULAR MEETING MONDAY, NOVEMBER 18, 2024

MINUTES

Monday, November 18, 2024

6:00 PM

Hearing Room

1. Call to Order

Commissioner Garbo presented virtual hearing instructions.

a. Pledge of Allegiance

b. Roll Call

PRESENT Commissioner C. J. Garbo

Commissioner John Griffith Commissioner Jay Longmire Commissioner Michael McKesson Commissioner Priscilla S. Rahn Commissioner Edward Rhodes

EXCUSED Commissioner Stephen S. Allen

Commissioner Jack Gilmartin

Alternate Matt Collitt Alternate Barrett Miller

c. Attorney Certification of the Agenda

Chris Pratt, County Attorney, stated that all items on today's agenda have been reviewed by the County Attorney's Office, they have been properly noticed and the Commission has jurisdiction to hear them.

d. Planning Commission Disclosures

None.

2. Approval of Minutes

a. Unofficial Minutes from November 4, 2024.

Commissioner Mike McKesson moved that the Commission approve the Minutes from November 4, 2024.

RESULT: APPROVED MOVER: Mike McKesson SECONDER: Edward Rhodes

AYES: C. J. Garbo, John Griffith, Mike McKesson, Edward Rhodes

ABSTAIN: Jay Longmire, Priscilla Rahn

3. Approval of the 2025 PC Public Hearing Schedule

a. Proposed 2025 PC Public Hearing Schedule.

Commissioner Priscilla Rahn moved that the Commission approve the Proposed 2025 PC Public Hearing Schedule.

RESULT: APPROVED
MOVER: Priscilla Rahn
SECONDER: Jay Longmire

AYES: C. J. Garbo, John Griffith, Mike McKesson, Edward Rhodes, Jay Longmire,

Priscilla Rahn

4. Land Use Hearing Items

a. Tallman Gulch Metropolitan District Second Amendment - Service Plan Amendment - Project File: SV2024-003.

DJ Beckwith, Principal Planner - Department of Community Development - presented the proposed application.

The applicant's representative, Diane Miller, Miller Law, P.C. - presented the proposed application.

The applicant's representative, Jim Yates, Craft Companies, LLC - provided additional information.

The applicant's representative, Chad Schneider, Strong Capital Markets, LLC - provided additional information.

Commissioner Garbo opened public comment.

There was no public comment.

Commissioner Garbo closed public comment.

Commissioner Garbo opened Planning Commission discussion.

Commissioner Mike McKesson moved that the Commission recommend tabling for further study the Tallman Gulch Metropolitan District Second Amendment - Service Plan Second Amendment - Project File: SV2024-003.

RESULT: APPROVED
MOVER: Mike McKesson
SECONDER: Edward Rhodes

AYES: C. J. Garbo, John Griffith, Mike McKesson, Edward Rhodes, Jay Longmire,

Priscilla Rahn

NAYS: None

Adjournment	
The meeting was adjourned at 7:08 p.m.	
Michael McKesson, Secretary	
Samantha Hutchison, Recording Secretary	

5.



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MEETING DATE: December 2, 2024

STAFF PERSON

RESPONSIBLE: Carolyn Washee-Freeland, AICP, Senior Planner

DESCRIPTION: Pinery Filing 30A, Tract F, High Prairie Farms Metropolitan District

Maintenance Building Project - Location and Extent - Project File:

LE2024-027.

SUMMARY: The request is for approval of a Location and Extent for the construction of a

new 40-foot by 75-foot maintenance building on Tract F within the Pinery

Filing 30A subdivision.

STAFF

ASSESSMENT: Staff has evaluated the application in accordance with Section 32 of the

Douglas County Zoning Resolution. The applicant has indicated that the new maintenance building is necessary to increase the operational space for High Prairie Farms Metropolitan District. While encroaching into certain zoning setbacks, the applicant indicated that the placement of the maintenance facility

was selected to minimize the amount of grade and vegetation disturbance.

Should the Planning Commission approve the Location and Extent request, the applicant will be required to obtain any necessary permits for completion of the

proposed maintenance building.

REVIEW:

Steven E Koster Approve 11/20/2024 Samantha Hutchison - FYI Notified - FYI 11/20/2024

ATTACHMENTS:

LE2024-027 - Staff Report

Referral Response HPFMD Maintenance bldg 20241202

Referral Summary Report LE2024-027 w Ltrs



Location and Extent Staff Report

DATE: NOVEMBER 18, 2024

TO: DOUGLAS COUNTY PLANNING COMMISSION

FROM: CAROLYN WASHEE-FREELAND, AICP, SENIOR PLANNER CWF

JEANETTE BARE, AICP, PLANNING MANAGER $J\mathcal{B}$

STEVEN E. KOSTER, AICP, ASSISTANT DIRECTOR OF PLANNING SERVICES

SUBJECT: PINERY FILING 30A, TRACT F, HIGH PRAIRIE FARMS METROPOLITAN DISTRICT

MAINTENANCE BUILDING PROJECT – LOCATION AND EXTENT

PROJECT FILE: LE2024-027

OWNER: REPRESENTATIVE:

HIGH PRAIRIE FARMS METROPOLITAN DISTRICT 8390 E. CRESCENT PKWY, SUITE 300

GREENWOOD VILLAGE, CO 80111

CINDY PEDRIOLI, PROJECT MANAGER

FARNSWORTH GROUP 5613 DTC PKWY, SUITE 1100 GREENWOOD VILLAGE, CO 80111

PLANNING COMMISSION HEARING: DECEMBER 2, 2024 @ 6:00 PM

I. <u>EXECUTIVE SUMMARY</u>

High Prairie Farms Metropolitan District ("HPFMD") requests approval of a Location and Extent (L&E) to construct a new maintenance building on Tract F within the Pinery Filing 30A subdivision. The project area is located at the corner of S. Pinery Parkway and Democrat Road.

The project site is in the central portion of Douglas County, located east of State Highway 83 (SH83). HPFMD indicates that the project is necessary to increase the operational space for the District. The property is located within the Pinery Separated Urban Area of the 2040 Comprehensive Master Plan.

II. REQUEST

A. Request

HPFMD requests approval of a L&E for the construction of a new 40-foot by 75-foot maintenance building on Tract F within the Pinery Filing 30A subdivision.

B. Location

The project site is located at the southeast corner of the S. Pinery Parkway and Democrat Road intersection, within the Pinery Planned Development (PD), Planning Area 70. The Pinery PD is located in the northeast portion of Douglas County, east of State Highway 83, south of Hilltop Road, and north of Bayou Gulch Road. Tract F is a 9.235-acre parcel owned and maintained by HPFMD. The project zoning, vicinity, and aerial maps are located with the Attachments section of this staff report.

C. Project Description

The applicant is proposing to construct a single-story 2,980 square-foot maintenance building to increase operational space for the HPFMD. The building will be used for both maintenance purposes and office space and will be located to the south of the existing HPFMD maintenance facility.

The new building will be designed to match the existing maintenance building and will include similar exterior building materials. The color scheme will include muted colors to integrate with the surrounding landscape. According to the applicant, the proposed exterior lighting will be full cut-off light fixture types, to match the existing building lighting fixtures. The building materials will consist of split face concrete masonry, asphalt shingles, anodized aluminum storefront, tan paint, dark bronze painted downspouts, and concrete bollards to be painted in safety yellow. The proposed development will include removal of some existing trees on the site. The applicant will then replace the removed trees with 7 ponderosa pine trees.

The applicant is proposing to site the building near the existing maintenance building; however, it will encroach into the 30-foot east side property line setback by 19.56 feet at the southeast corner of the building and 6.41 feet at the northeast corner of the building. All other building setbacks, as required by the Pinery PD, are met. The applicant indicates that, while the building could be moved to meet these setbacks, doing so would increase impervious areas on the property and require the removal of additional large trees. The applicant states that the proposed building location is consistent with the placement of other buildings on the site, will minimize the visual impact of the improvements, and will limit further disturbance of existing vegetation.

The applicant has stated that the new building will provide dedicated space for existing operations. The HPFMD currently stores equipment off-site and intends to store company vehicles and equipment in the building to reduce the number of trips to and from the facility. The current facility has 1.5 full-time employees on-site during operational hours. The meeting space within the new building is intended to be for small meetings for HPFMD. There will be a board meeting approximately 1 time per month, with approximately 9-10 people. The applicant plans to have HPFMD visitors park within the existing paved areas on an adjacent property owned by the Pinery Water and Wastewater District (PWWD).

The new building will share access and parking spaces with the adjacent property owned and maintained by the PWWD, referred to as the "Reservoir #7 & Well N Site." The PWWD tract is accessed from Democrat Road. The applicant has an existing non-exclusive cross access easement in place with PWWD to access the existing HPFMD maintenance facility located on Tract F.

Construction activities are anticipated once the HPFMD has obtained all necessary permits, and the applicant estimates that construction will be completed within a 4-month timeframe. According to the applicant, construction activities will take place between 8:00 a.m. to 5:00 p.m., Monday through Friday. The existing access drive from the PWWD tract will be the primary access to the project site during construction. The applicant is not able to predict exactly how much traffic will occur during construction, however, they indicate that construction will commence with site work and foundation work, with an estimated 3 to 6 additional construction vehicles at any one time, which includes the equipment.

III. CONTEXT

A. Background

The new maintenance building will be located on Tract F within the Pinery Filing 30A subdivision. Pinery Filing 30A, was subdivided in 2013 as a portion of the Pinery Filing 30. Pinery Filing 30A contains 25 single-family residential lots and 6 tracts on 29.87 acres within the Pinery PD, Planning Area 70. Tract F is 9.235 acres and consists of open space, drainage facilities, maintenance, utilities, a regional trail extension, and pedestrian public access, and was dedicated to the HPFMD to own and maintain these facilities. The HPFMD has an existing 2,500 square-foot single-story maintenance building located on Tract F that was built in 2008 which takes access from the adjacent PWWD property off of Democrat Road.

The property is located within the Pinery Separated Urban Area of the 2040 Comprehensive Master Plan (CMP) where urban level uses and services are generally supported. The CMP supports the preservation of existing vegetation and other natural features for new development.

B. Adjacent Land Uses and Zoning

The project site is zoned Planned Development (PD). The following table reflects the zone districts and land uses surrounding the project area.

	Zoning	Land Use
North	Pinery PD	Pinery Filing 30-A Single Family Residential Lots and Tract C, vacant land in Pinery Filing 30-A owned by HPFMD
South	Pinery PD	Tracts A and C, Pinery Filing 26A, vacant land owned by the HPFMD

	Zoning	Land Use
East	Pinery PD and Suburban	PWWD Reservoir #7 & Well N Site; Single-Family
	Residential (SR)	Residential; and Tract B, Pinery 29-A, vacant land owned by HPFMD
West	Pinery PD	Tract D, Pinery Filing 27, 1 st Amendment, vacant land
		owned by HPFMD

IV. PHYSICAL SITE CHARACTERISTICS

A. Site Characteristics and Constraints

The overall topography of Tract F is composed of rolling terrain with a mix of scrub oak, ponderosa pine and native grasses. The site slopes from east to west, with steep berms and swales near the existing shared access.

B. Access

The new building will take access from the adjacent property owned by the PWWD, known as the Reservoir #7 & Well N Site. The PWWD tract is accessed from Democrat Road. The applicant has an existing non-exclusive cross-access easement in place with PWWD to access the existing HPFMD maintenance facility located on Tract F.

Democrat Road is a County-owned arterial roadway.

C. Drainage and Erosion

The applicant submitted a Drainage Letter with the request, which concluded that the proposed project has been designed to conform to the Douglas County Storm Drainage Design and Technical Criteria Manual.

A Grading Erosion & Sediment Control (GESC) plan and report will be submitted to Douglas County Engineering Services for review and approval prior to permits being issued for construction activities. Any additional requirements will be identified in referral comments to be provided by Public Works Engineering.

D. Floodplain

There is no mapped FEMA floodplain on the site.

V. PROVISION OF SERVICES

A. Fire Protection

The South Metro Fire Rescue Protection District (SMFRPD) provides fire and emergency medical services to the site. SMFRPD had no objection to request.

B. Sheriff Services

The Douglas County Sheriff's Office (DCSO) provides emergency services to the site. At the writing of this staff report, the DCSO had not provided referral agency review comments.

C. Water and Sanitation

The new maintenance building will be served by PWWD.

D. Utilities

The site falls within the jurisdiction of Xcel Energy for electric and gas service. Xcel Energy's referral comment stated there was "no apparent conflict."

E. Other Required Processes and Permits

The proposed project will require the following permits and approvals prior to commencement of construction:

- Public Works Engineering Grading Erosion and Sediment Control (GESC) Plans and Permits and other applicable construction plans and permits
- Douglas County Building Division building permits

VI. PUBLIC NOTICE AND INPUT

Courtesy notices of an application in process were sent to abutting property owners. No responses were received from property owners at the time of the writing of this staff report.

Referral response requests were sent to referral agencies on November 12, 2024. Referral responses are due at the conclusion of the referral period on November 26, 2024, prior to the Planning Commission hearing. Agency responses received are included as an attachment to this staff report.

VII. STAFF ASSESSMENT

Staff has evaluated the application in accordance with Section 32 of the *Douglas County Zoning Resolution*. The applicant has indicated that the new maintenance building is necessary to increase the operational space for HPFMD. While encroaching into certain zoning setbacks, the applicant indicates that the placement of the maintenance facility was selected to minimize the amount of grade and vegetation disturbance.

Should the Planning Commission approve the Location and Extent request, the applicant will be required to obtain any necessary permits for completion of the proposed maintenance building.

ATTACHMENTS	PAGE
Douglas County Land Use Application	7
Location and Extent Narrative and Community Impact Report	8
Vicinity, Zoning, and Aerial Maps	10
Referral Agency Response Report	
Referral Response Letters	16
Location and Extent Plan Exhibit	21



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Planning Services

LAND USE APPLICATION

Please fill in this application form completely. An incomplete application will not be processed.

Note: Neither the Planning Commission nor the Board of County Commissioners should be contacted regarding an open application.

OFFICE USE ONLY Pinery Filing 30A, Tract F, High Prairie Farm Metro District, Location PROJECT NAME: _and Extent	PROJECT FILE #: LE2024-027
PROJECT TYPE: Location & Extents Plan (L&E)	PLANNING FEES:
MARKETING NAME: High Prairie Farm Metro District Maintenance Bldg	\$325.00
SITE ADDRESS: near the NE corner of S. Pinery Pkwy and Democrat Rd.	ENGINEERING FEES:
OWNER(S):	
Name(s): High Prairie Farms Metro District	TOTAL FEES:
Address: 8390 E Crescent Pkwy Ste 300	
Phone: 303-779-5710	RELATED PROJECTS:
Email: matt@millerlandmanagement.com	SB2013-045
AUTHORIZED REPRESENTATIVE (requires notarized letter of authorization if other than owner)	PS2024-046
Name: Farnsworth Group	
Address: 5613 DTC Parkway, Suite 1100, Greenwood Village, CO 80111	
Phone: 303-692-8838	
Email: cpedrioli@f-w.com	
LEGAL DESCRIPTION: Subdivision Name:pinery	
Filing #: Lot #: Tract_FBlock #: Section #: NW 18 Township: 7	Range: 65
STATE PARCEL NUMBER(S):	
ZONING:	
Present Zoning: PD Proposed Zoning: same Grow	ss Acreage: 9.235
Gross Site Density (DU per AC): n/a # of Lots or Units Proposed:n/a	
SERVICE PROVIDERS:	
Fire District: south metro Metro District: high prairie Gas:	
Water: Pinery Water/WW Dist Sewer: Pinery Water/WW Dist Electric	c:
Roads: Public Private (please explain):	
To the best of my knowledge, the information contained on this application is true and correct. I have reconformation sheet regarding the Preble's Meadow Jumping Mouse. Richard P. Helsen Applicant Signature	ceived the County's

100 Third Street, Castle Rock, Colorado 80104 • 303.660.7460

Revised 03.04.2021





www.f-w.com

November 8, 2024

RE: Project Narrative - High Prairie Farms Metro District Maintenance Facility

Existing Site Conditions:

The lot is a 9.235-acre site owned by High Prairie Farms Metro District on the northeast corner of Democrat Road and Pinery Parkway. It is considered Tract F Pinery 30-A. The site is mostly native trees, shrubs and grasses except where previous site improvements and roadway construction impacted the property with regrading and revegetation. There is one 50x50 concrete block building near the southeast corner of the District's property in addition to the small building on the adjacent Pinery Water property. The property is primarily accessed near the southeast corner off the adjacent lot owned by Denver Southeast Suburban Water and Sanitation District (Pinery Water). The two lots work in conjunction with one another, with the gravel driveway on the Pinery Water lot accessing both sites coming off Democrat Road onto the Water and Sanitation District's site, but with the existing storm drainage facilities and one building on the High Prairie Farms Metro District lot (see property lines on the site plan drawings).

Proposed Project:

The proposed project is being requested to increase the operational space for the High Prairie Farms Metro District. The improvements proposed include the addition of a combined single-story maintenance and office building on the southeast corner of the site near Democrat Road. The building is $2,980 \text{ SF} (40' \times 75'-4")$.

The building will be accessed off the loop drive off Democrat Road as described above on the Pinery Water property directly adjacent to the building. The building is located on the site less than the standard side property line setback, but it replicates the existing conditions of other buildings, including the building approved and built around 2012-2014. It will sit nearly perpendicular to Democrat Road and near the lot line and existing adjacent gravel drive. This keeps the cluster of maintenance buildings for both entities closer together, minimizing the visual impact of the improvements, and minimizing the disturbance on the site (as well as leave the existing drainage facility in place next to the existing building), and reduces the removal of native landscape, including mature Black Forest trees. All grading activities are kept near the building and will be re-seeded with a Douglas County seed mix and some native shrubs. The building could be pushed back to meet side setbacks, but it would increase impervious area and remove additional large trees, the configuration as proposed maintains compact development and disturbance on the site.

High Prairie Farms Metro District Maintenance Facility November 8, 2024 Page 2 of 3

The building materials and design complement and are designed to match the existing facility buildings and are muted colors to integrate with the surrounding landscape and all lighting is full cut-off, matching existing building lighting. The building materials are more specifically described on the drawings, and include split face concrete masonry, asphalt shingles, anodized aluminum storefront, tan paint, dark bronze painted downspouts, and the bollards are concrete painted in safety yellow. All colors are intended to match the existing building on-site.

Compliance with the Comprehensive Plan:

The Pinery area is considered a Separated Urban Area (SUA) within the Douglas County 2040 CMP document. Within the language of the document, it specifically notes concern about wellhead protection for alluvial wells and groundwater protections zones for protection on water quality (this is also defined in Policy 2-15B.10 of the document). Overall, in this area, any development must consider the goal of maintaining the community separation surrounding The Pinery.

This property sits below the adjacent residential homes on the north, east and west sides of the area, the Democrat and Pinery Parkway intersection is in a low point. The new building will reflect the low-profile rooflines of the existing District buildings on both lots. The building is also placed on the site in proximity to existing disturbance and paving and is intended to minimize land disturbance as it also sits above the existing drainage to the north of the building, reducing impacts to the surface drainage in the area.

Traffic & Parking:

The new building is intended to provide dedicated space for existing operations and is anticipated to maintain or even reduce existing trips from the site. Some equipment is currently being kept off-site, so storing those vehicles in the building may reduce the number of trips to/from the facility.

On average, there is 1.5 FTE for the District on-site during operational hours. Outside of the vehicles being parked inside the garage spaces of the building, visitors to the site will park within the existing paved areas of the Pinery Water property. No long-term storage of vehicles or equipment is planned in the outdoor areas, just parking during building use. Please also see the provided cross-access easement and agreement between High Prairie Farms Metro District and Pinery Water for access to the District buildings.

The meeting space within the new building is intended to be for small meetings for the District and is not a large space for community meetings. There will be a board meeting approximately 1 time per month, with approximately 9-10 people, but otherwise it will be used by the 1-2 staff members on-site.

High Prairie Farms Metro District Maintenance Facility November 8, 2024 Page 3 of 3

Construction Timeframe:

The project is anticipated to start as soon as the District has all the necessary permits. Once construction starts, it is anticipated to take approximately 3-4 months, with large efforts and equipment on-site for the site work and foundation. The District will commit to construction hours between 8am and 5pm daily. The number of contractors on-site is not anticipated to be significant, and estimated to not be more than 3-6 additional vehicles at any one time, plus equipment.

The following is the design team and owner contact information for this project. If you have any questions, you are welcome to contact myself or other members of our team. Thank you.

Sincerely,

Cindy Pedrioli, PLA
Senior Urban Planning Manager
Farnsworth Group
5613 DTC Parkway, Suite 1100
Greenwood Village, CO 80111
cpedrioli@f-w.com
303.692.8838

Brad Nelson, AIA
Senior Architectural Manager
Farnsworth Group
5613 DTC Parkway, Suite 1100
Greenwood Village, CO 80111
bnelson@f-w.com
303.692.8838

Matt Miller
Property Manager
High Prairie Farms Metro District
8390 E Crescent Parkway, Suite 300
Greenwood Village, CO 80111
matt@millerlandmanagement.com
303-779-5710

PINERY FILING 30A, TRACT F **LOCATION & EXTENT**

LE2024-027 **ZONING MAP**



LEGEND

Roads

Major Roads

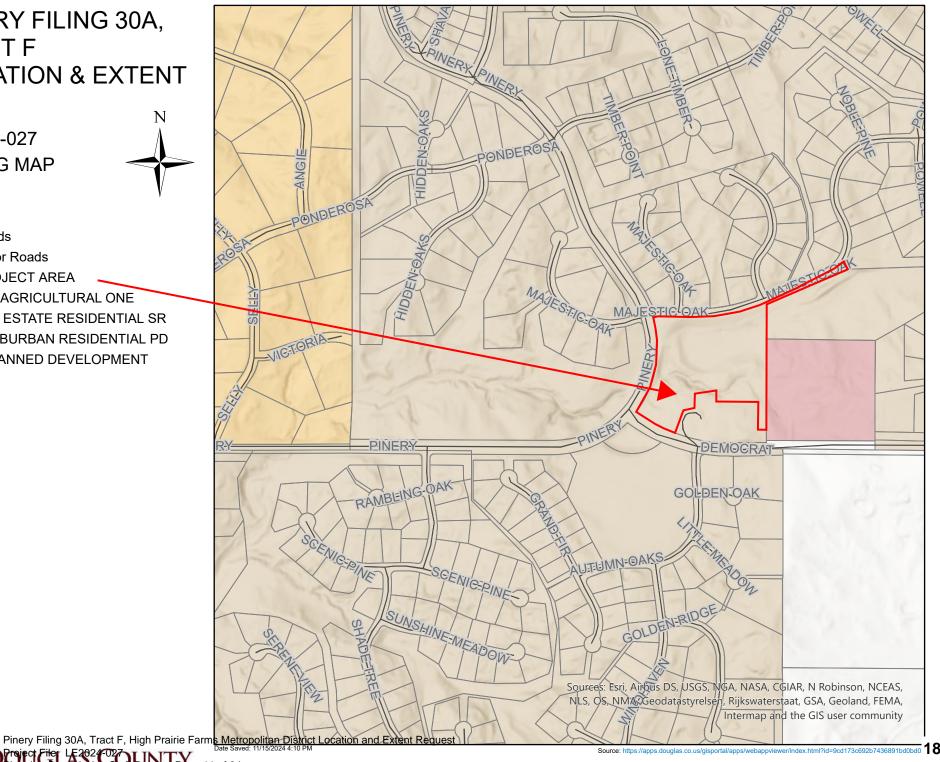
PROJECT AREA

A1 - AGRICULTURAL ONE

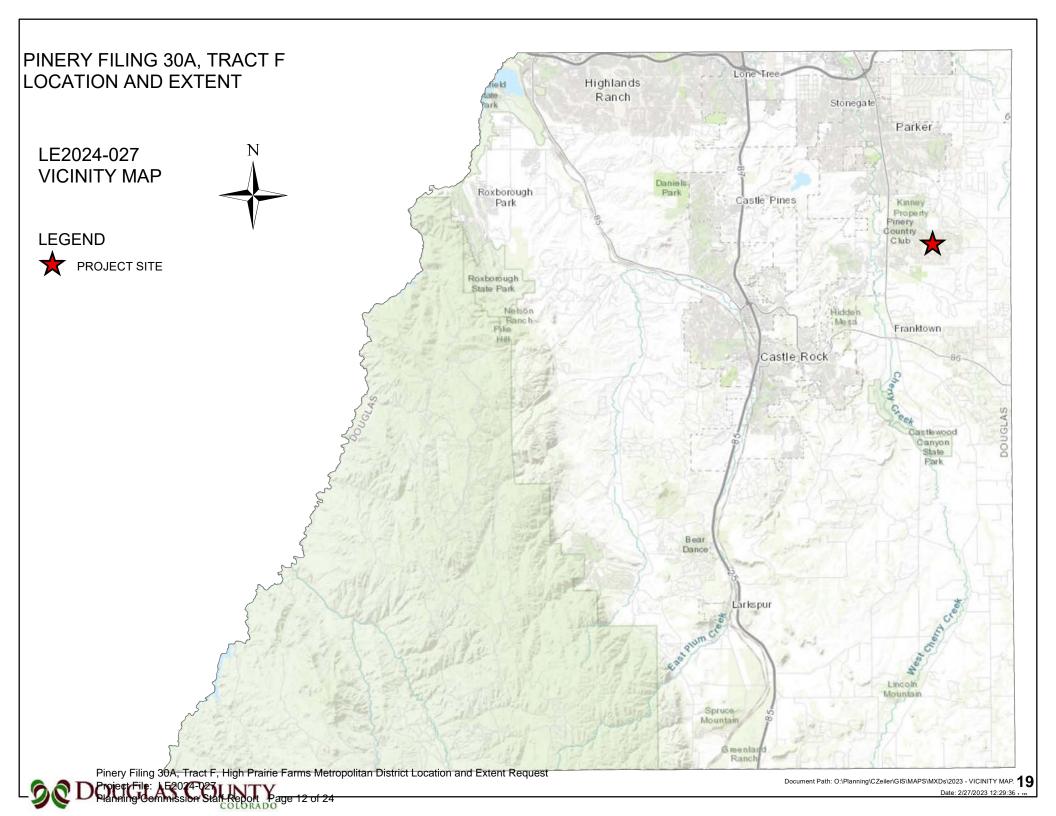
ER - ESTATE RESIDENTIAL SR

- SUBURBAN RESIDENTIAL PD

- PLANNED DEVELOPMENT



Delegate LE 2024 F027 LINTTY Date Save



PINERY FILING 30A, TRACT F LOCATION & **EXTENT**

LE2024-027 **AERIAL MAP**

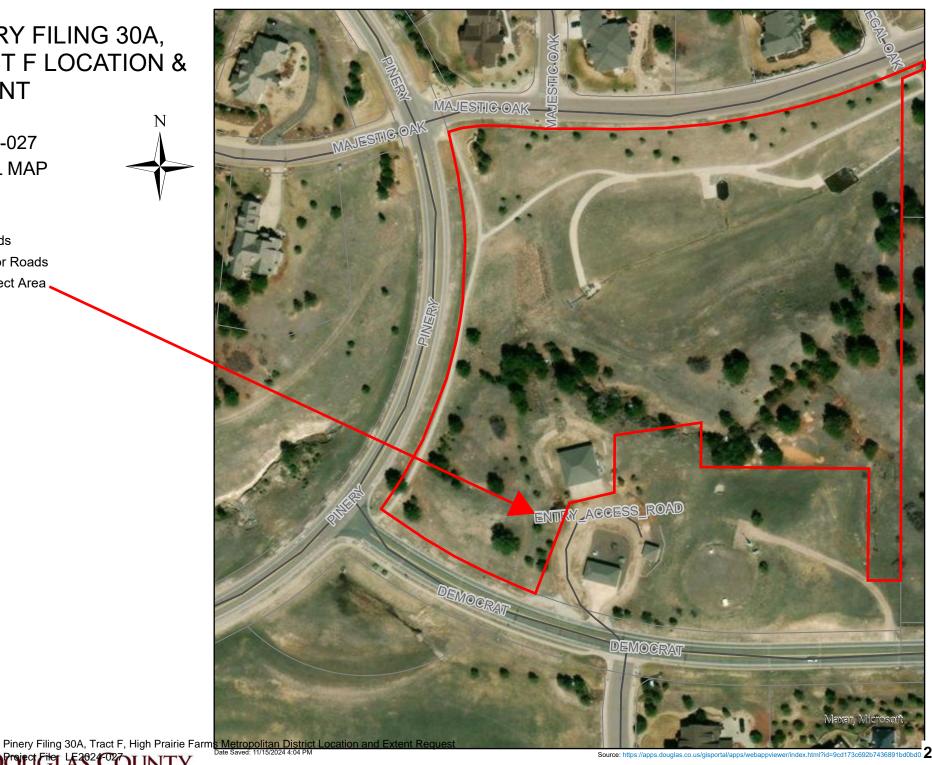


LEGEND

Roads

Major Roads

Project Area



Project Name: Pinery Filing 30A, Tract F, High Prairie Farms Metropolitan District – Location and Extent

Project File #: LE2024-027

Initial Referral: Date Sent: 11/12/2024 Date Due: 11/26/2024

Agency	Date Received	Agency Response	Response Resolution
Addressing Analyst	11/18/2024	No Comment	No action necessary
Assessor	11/19/2024	No Comment	No action necessary
AT&T	11/13/2024	This is in response to your eReferral with a utility map showing any buried AT&T Long Line Fiber Optics near Democrat Road Franktown, Colorado. The Earth map shows the project area in red. Based on the address and/or map you provided, there should be NO conflicts with the AT&T Long Lines, as we do not have facilities in that area. Ann Barnowski Clearwater Consulting Group Inc 120 9th Avenue South Suite 140 Nampa, ID 83651 Annb@cwc64.com	No action necessary
Black Hills Energy	Awaiting Response		
Building Services	Awaiting Response		
CenturyLink	Awaiting Response		
Comcast	Awaiting Response		
CORE Electric Cooperative	Awaiting Response		
Drainage: Mile High Flood District Engineering Services	Awaiting Response Awaiting		
Fire Districts: South Metro Fire Rescue	Response 11/14/2024	South Metro Fire Rescue (SMFR) has reviewed the provided documents and has no objection to the proposed Location and Extent.	No action necessary
Homeowners Association: High Prairie Farms HOA Homeowners Association:	Awaiting Response Awaiting		
The Pinery HOA Homeowners Association: Misty Pines HOA	Response Awaiting Response		

Project Name: Pinery Filing 30A, Tract F, High Prairie Farms Metropolitan District – Location and Extent

Project File #: LE2024-027

Initial Referral: Date Sent: 11/12/2024 Date Due: 11/26/2024

Homeowners Association: Timbers At The Pinery Filing 23A HOA Homeowners Association: Timbers At The Pinery Filing 23B HOA Homeowners Association: Timbers HOA Homeowners Association: Timbers HOA Response Metro District: High Prairie Farms Metropolitan District Office of Emergency Management Sheriff's Office Awaiting Response Awaiting Response		
23A HOA Homeowners Association: Timbers At The Pinery Filing 23B HOA Homeowners Association: Timbers HOA Metro District: High Prairie Farms Metropolitan District Office of Emergency Management Sheriff's Office Awaiting Response Awaiting Response Awaiting Response Awaiting Response		
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23B HOA Homeowners Association: Awaiting Timbers HOA Response Metro District: High Prairie Farms Metropolitan District Office of Emergency Management Sheriff's Office Awaiting Awaiting Response Awaiting Awaiting		
Homeowners Association: Timbers HOA Response Metro District: High Prairie Farms Metropolitan District Office of Emergency Management Sheriff's Office Awaiting Awaiting Response Awaiting Awaiting Awaiting Awaiting		
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Metro District: High Prairie Awaiting Farms Metropolitan District Response Office of Emergency Awaiting Management Response Sheriff's Office Awaiting		
Farms Metropolitan District Response Office of Emergency Awaiting Management Response Sheriff's Office Awaiting		
Office of Emergency Awaiting Management Response Sheriff's Office Awaiting		
ManagementResponseSheriff's OfficeAwaiting		
Sheriff's Office Awaiting		
Response		
Sheriff's Office E911 Awaiting		
Response		
Pinery Water and Awaiting		
Wastewater District Response		
Xcel Energy-Right of Way & 11/18/2024 Pub	olic Service Company of	No action necessary
	orado's (PSCo) Right of Way &	
	mits Referral Desk has	
	iewed the documents for the	
	ove-mentioned project and	
	rently has no apparent	
	iflict. As a safety precaution,	
	Co would like to remind the	
	eloper to call the Utility	
	tification Center by dialing	
	L for utility locates prior to	
	nstruction.	
	leta Ciocanu (Chokanu)	
	ht of Way and Permits	
	olic Service Company of	
viole	orado dba Xcel Energy ice: 303-285-6612 – Email:	

SOUTH METRO FIRE RESCUE FIRE MARSHAL'S OFFICE



Carolyn Washee-Freeland, AICP, Senior Planner Douglas County Department of Community Development, Planning Services 100 Third St Castle Rock Co 80104 303.660.7460 303.660.9550 Fax

Project Name: High Prairie Farms Metro District - Location and Extent

Project File #: LE2024-027 S Metro Review # REFSP24-00195

Review date: November 14, 2024

Plan reviewer: Aaron Miller 720.989.2246

aaron.miller@southmetro.org

Project Summary: High Prairie Farms Metro District requests approval of a Location and Extent for the

construction of a new maintenance building located near the northeast corner of S.

Pinery Pkwy and Democrat Road SPN: 2347-182-05-001.

Douglas County Fire Code, 2018 International Fire Code, and 2021 International Building Code Reference:

Code with amendments as adopted by Douglas County.

South Metro Fire Rescue (SMFR) has reviewed the provided documents and has no objection to the proposed Location and Extent. Applicants and Contractors are encouraged to contact SMFR regarding the applicable permit requirements for the proposed project.

Carolyn Freeland

From: annb cwc64.com <annb@cwc64.com>
Sent: Wednesday, November 13, 2024 2:31 PM

To: Carolyn Freeland

Cc: Pam Choy (pc2914@att.com); duanew cwc64.com; jt cwc64.com

Subject: Democrat Road Franktown, Colorado Douglas County eReferral

#LE2024-027

Attachments: Democrat Road Franktown, Colorado.jpg

Hi Carolyn,

This is in response to your eReferral with a utility map showing any buried AT&T Long Line Fiber Optics near Democrat Road Franktown, Colorado. The Earth map shows the project area in red. Based on the address and/or map you provided, there should be NO conflicts with the AT&T Long Lines, as we do not have facilities in that area.

Please feel free to contact us with any questions or concerns.

Ann Barnowski Clearwater Consulting Group Inc 120 9th Avenue South Suite 140 Nampa, ID 83651 Annb@cwc64.com

The attached google earth maps are intended to show approximate locations of the buried AT&T long line fiber optic cable. The maps are provided for informational purposes only. In no way should the maps be used for anything other than general guidelines as to where the fiber is or is not and any other use of these maps is strictly prohibited.

----Original Message-----

From: cfreeland@douglas.co.us <cfreeland@douglas.co.us>

Sent: Tuesday, November 12, 2024 2:39 PM To: annb cwc64.com annb@cwc64.com

Subject: Douglas County eReferral (LE2024-027) Is Ready For Review

There is an eReferral for your review. Please use the following link to log on to your account:

https://apps.douglas.co.us/planning/projects/Login.aspx

LE2024-027, Pinery Filing 30A, Tract F, High Prairie Farms MetroDistrict - New Maintenance Building Location and Extent Request

High Prairie Farms Metro District requests approval of a Location and Extent for the construction of a new maintenance building located near the northeast corner of S. Pinery Pkwy and Democrat Road SPN: 2347-182-05-001.

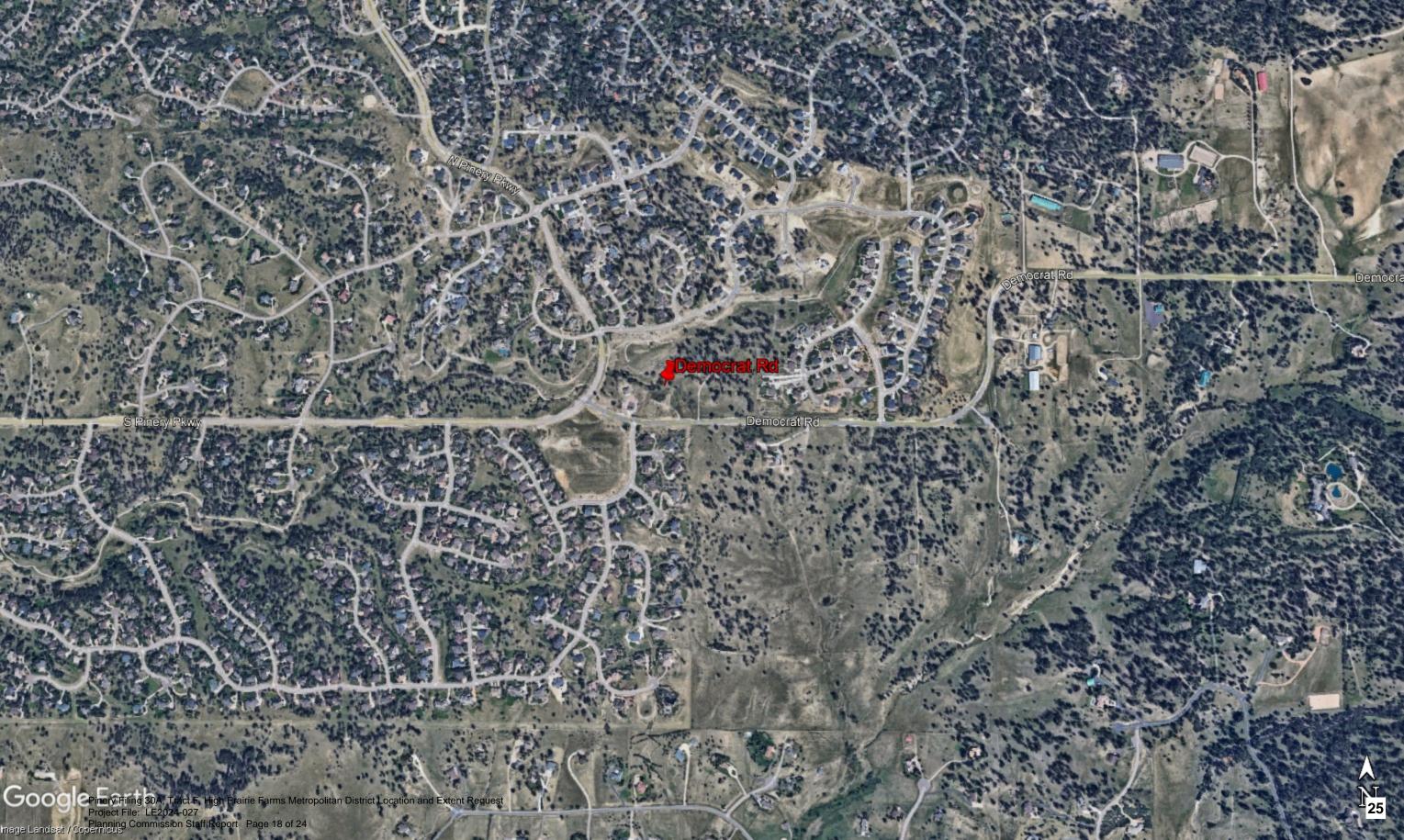
This referral will close on November 26, 2024.

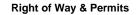
If you have any questions, please contact me.

Sincerely,

Pinery Filing 30A, Tract F, High Prairie Farms Metropolitan District Location and Extent Request Project File: LE2024-027

Planning Commission Staff Report Page 17 of 24







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

November 18, 2024

Douglas County Planning Services 100 Third Street Castle Rock, CO 80104

Attn: Carolyn Washee-Freeland

Re: Pinery Filing 30A, Tract F, High Prairie Farms MetroDistrict - New

Maintenance Building Location and Extent Request

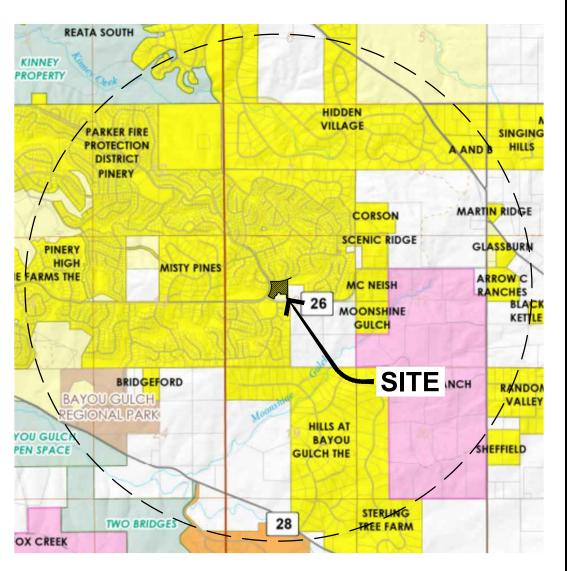
Case # LE2024-027

Public Service Company of Colorado's (PSCo) Right of Way & Permits Referral Desk has reviewed the documents for **the above-mentioned project** and currently has **no apparent conflict**.

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.

Violeta Ciocanu (Chokanu) Right of Way and Permits Public Service Company of Colorado dba Xcel Energy

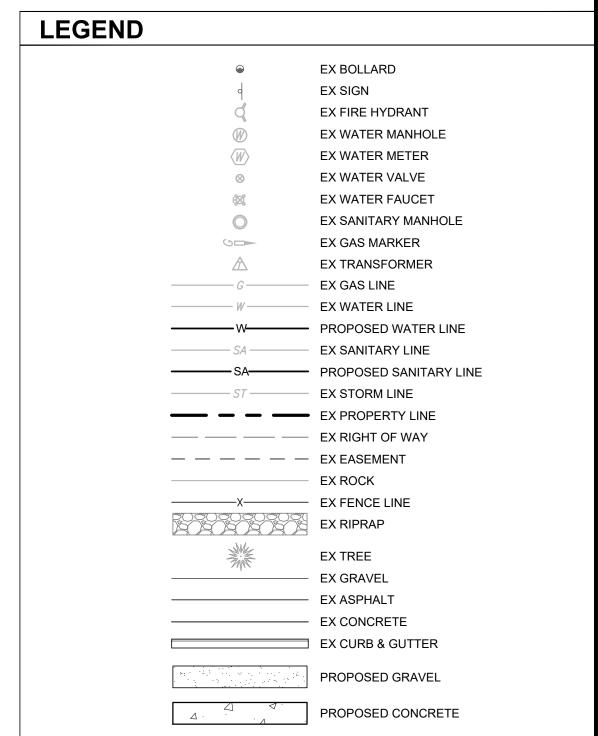
Office: 303-285-6612 - Email: violeta.ciocanu@xcelenergy.com



VICINITY MAP

WITH 1 MILE RADIUS

SCALE: 1"=2000'





www.f-w.com Engineers | Architects | Surveyors | Scientists

DATE: DESCRIPTION:

Project Status
NOT FOR CONSTRUCTION

ROJECT:

HIGH PRAIRIE FARMS METRO DISTRICT

HPFMD MAINTENANCE BUILDING

9455 DEMOCRAT ROAD, PARKER, CO 80134

DATE:	11/08/2024
DESIGNED:	JN
DRAWN:	GG
REVIEWED:	СР

SITE & UTILITY PLAN

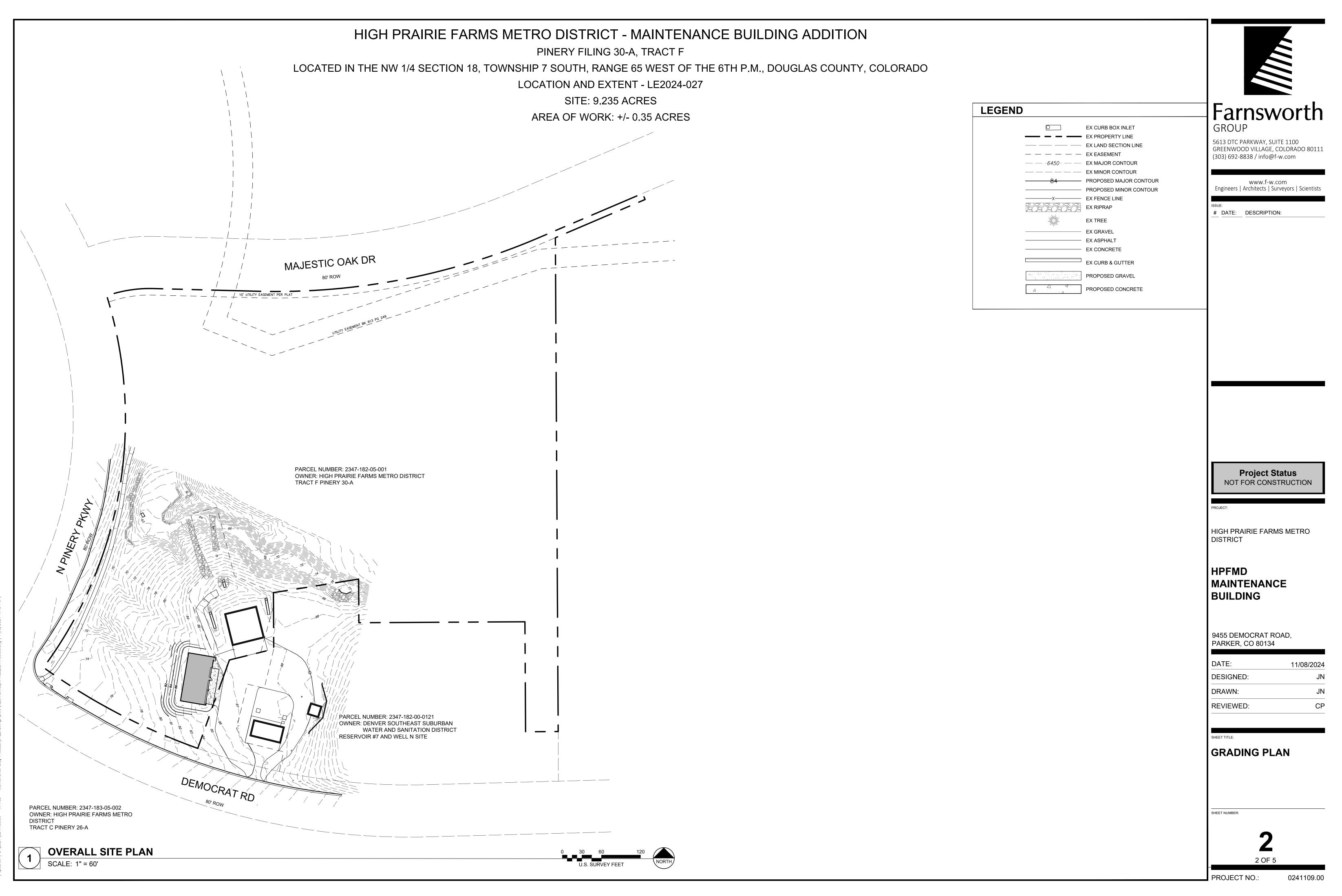
SHEET NUMBER:

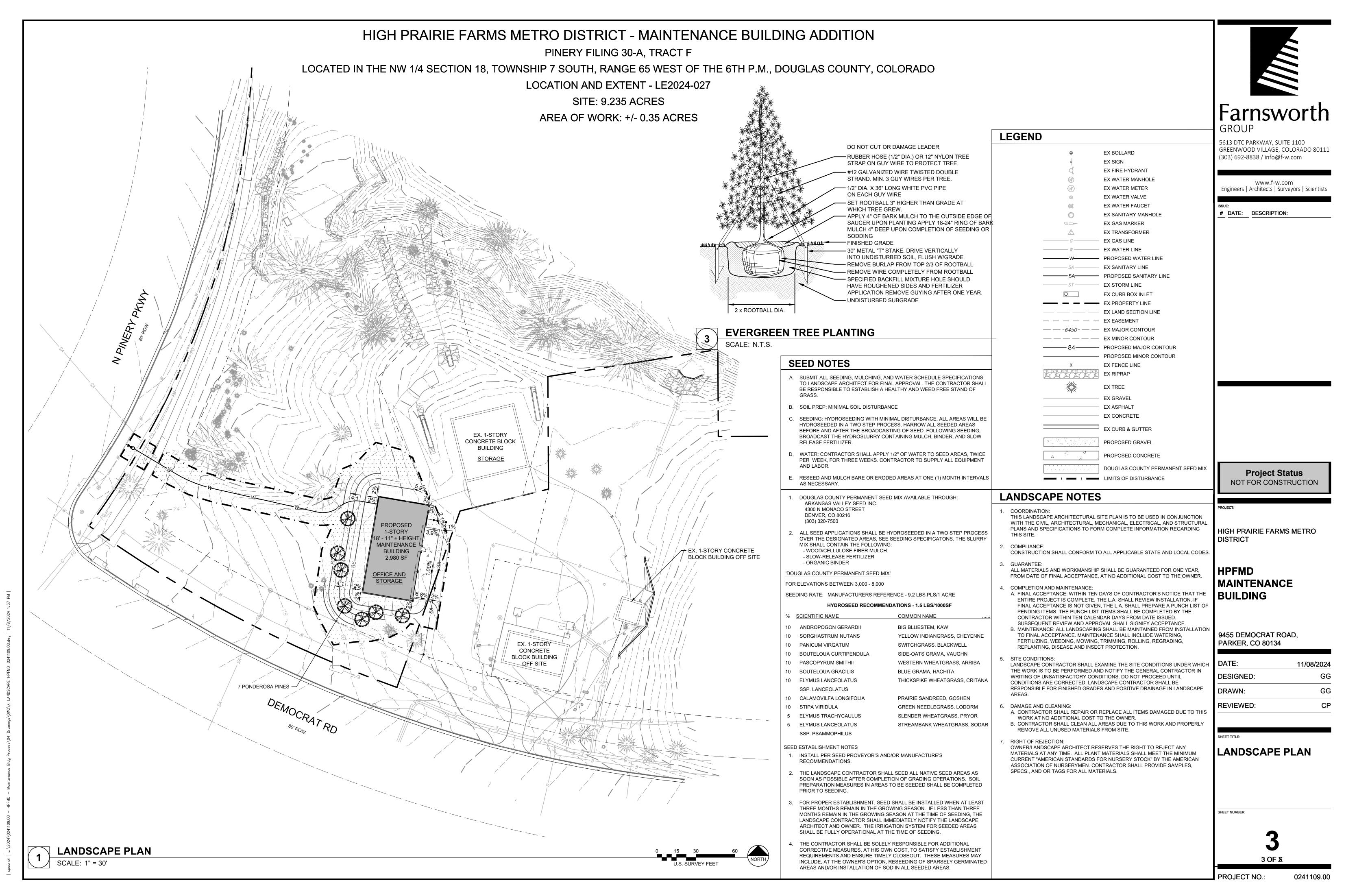
1 1 OF 5

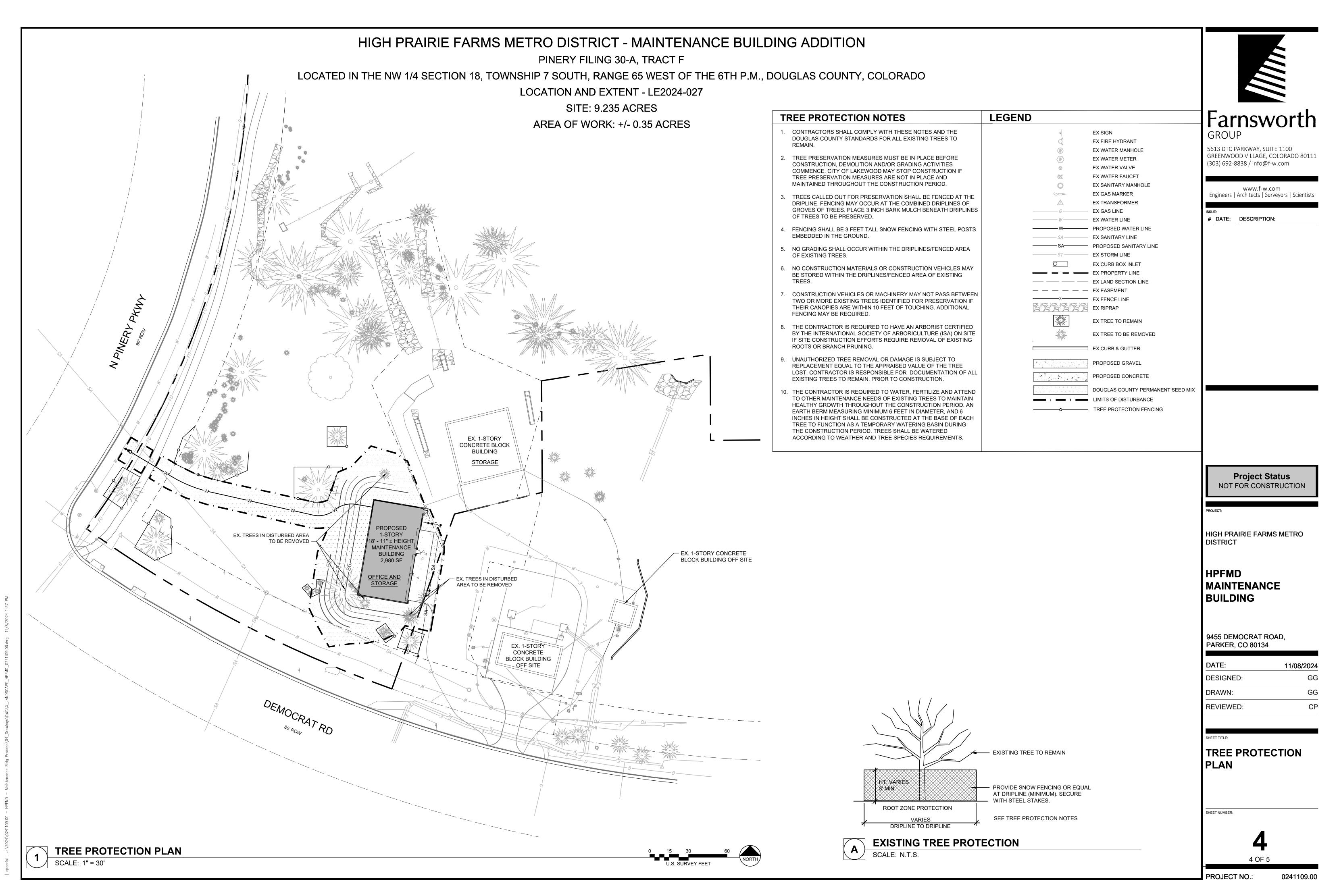
PROJECT NO.:

.: 0241109.00

Pinery Filing 30A, Tract F, High Prairie Farms Metropolitan District Location and Extent Request Project File: LE2024-027 Planning Commission Staff Report Page 20 of 24







HIGH PRAIRIE FARMS METRO DISTRICT - MAINTENANCE BUILDING ADDITION

PINERY FILING 30-A, TRACT F

LOCATED IN THE NW 1/4 SECTION 18, TOWNSHIP 7 SOUTH, RANGE 65 WEST OF THE 6TH P.M., DOUGLAS COUNTY, COLORADO LOCATION AND EXTENT (LE2024-027)

SITE: 9.235 ACRES AREA OF WORK: +/-0.35 ACRES

MATERIALS LEGEND (XXX)

SPLIT FACE CONCRETE MASONRY UNIT COLOR TO MATCH EXISTING BUILDING

ASPHALT SHINGLE ROOFING COLOR TO MATCH EXISTING BUILDING

STOREFRONT ANODZED ALUMINUM

TAN TO MATCH EXISTING BUILDING

PT-2 DARK BRONZE TO MATCH EXISTING DOWNSPOUTS

SAFETY YELLOW



www.f-w.com Engineers | Architects | Surveyors | Scientists

GREENWOOD VILLAGE, COLORADO 80111

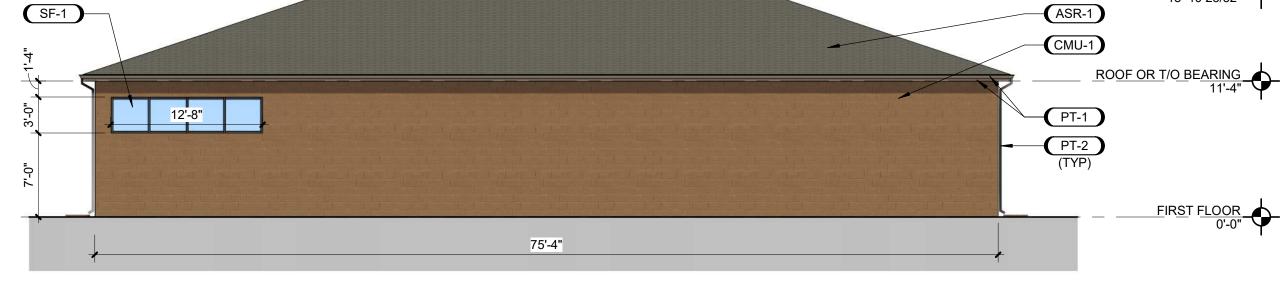
(303) 692-8838 / info@f-w.com

DATE: DESCRIPTION:



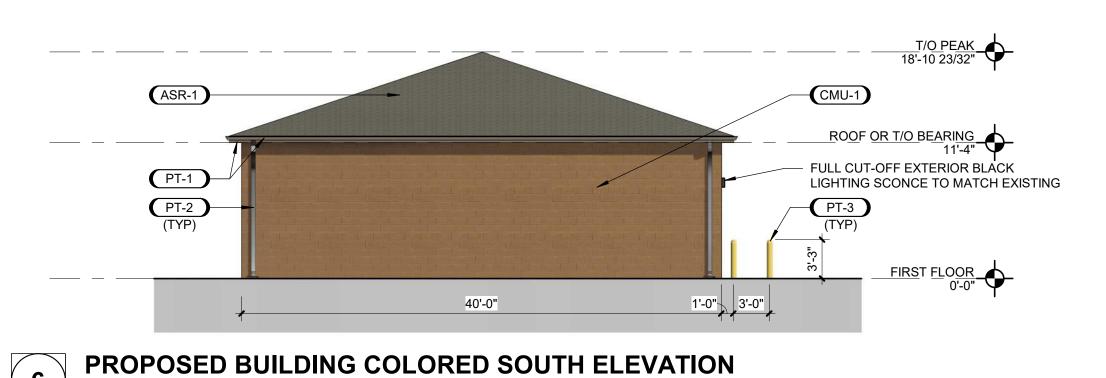
SCALE: 1/8" = 1'-0"

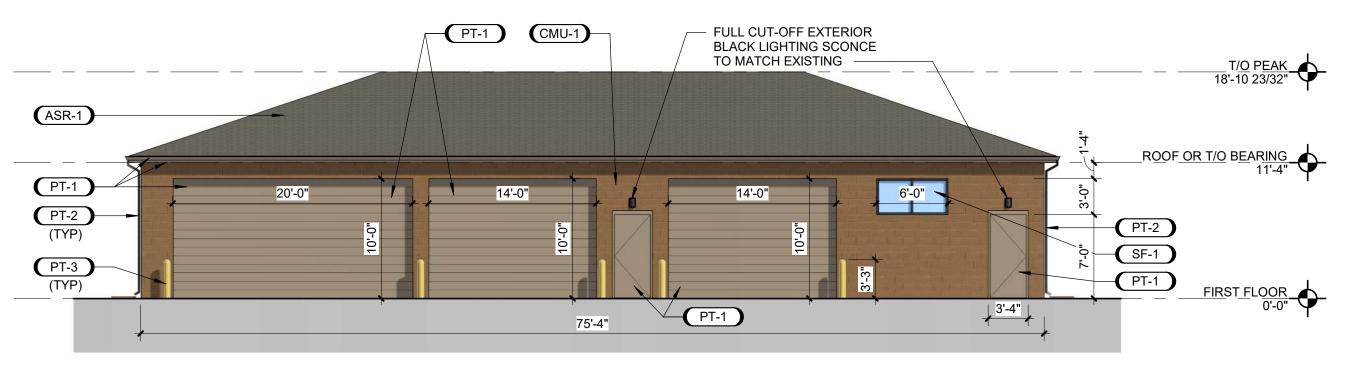
SCALE: 1/8" = 1'-0"



PROPOSED BUILDING COLORED WEST ELEVATION

SCALE: 1/8" = 1'-0"





PROPOSED BUILDING COLORED EAST ELEVATION

SCALE: 1/8" = 1'-0"

HPFMD MAINTENANCE BUILDING

DISTRICT

Project Status

NOT FOR CONSTRUCTION

HIGH PRAIRIE FARMS METRO

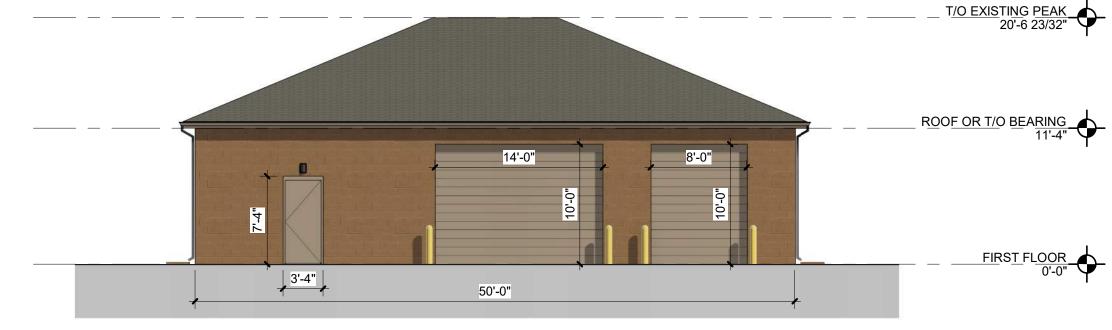
9455 DEMOCRAT ROAD PARKER, CO 80134

DATE:	11/08/24
DESIGNED:	ВН
DRAWN:	ВН
REVIEWED:	BN

COLORED ELEVATIONS

SHEET NUMBER:

5 OF 5



EXISTING BUILDING COLORED SOUTH ELEVATION

SCALE: 1/8" = 1'-0"

PROJECT NO.:







December 2, 2024

Carolyn Washee-Freeland, Senior Planner
Douglas County Department of Community Development
100 Third St.
Castle Rock, CO 80104
cfreeland@douglas.co.us

Re: Response to Comments – LE2024-027, Pinery Filing 30A, Tract F L&E Plan

Ms. Washee-Freeland,

The following are at the comment responses to the referral summary report provided by the County dated December 1, 2024. Responses, if required, are shown in bold italic.

Addressing Analysis - no comment

<u>Assessor – no comment</u>

AT&T Long Distance – ROW

This is in response to your eReferral with a utility map showing any buried AT&T Long Line Fiber Optics near Democrat Road Franktown, Colorado. The Earth map shows the project area in red. Based on the address and/or map you provided, there should be NO conflicts with the AT&T Long Lines, as we do not have facilities in that area. Ann Barnowski, Clearwater Consulting Group Inc, 120 9th Avenue South, Suite 140, Nampa, ID 83651, annb@cwc64.com.

Response: Comment noted.

Black Hills Energy – No response received.

Building Services

Permit is required, please visit Douglas Conty's web site for requirements and contact 303-660-7497 if you have any questions.

Response: Comment noted. We will submit the building permit in accordance with the County's requirements.

CenturyLink

We have received your request for an Encroachment and have set up a Lumen project accordingly. Your project number is P864060 and it should be referenced in all emails sent in for review. Your project owner is Richard Hollis and they can be reached by email at Richard.Hollis@lumen.com with any questions that you may have regarding this project. Eryn Ogden, Project Coordinator, Faulk & Foster, 214 Expo Circle, Suite 7, West Monroe, LA 71291, Eryn.Ogden@lumen.com.

Response: Comment noted.

Comcast – No response received.

<u>CORE Electric Cooperative – No comment.</u>

Engineering Services

General Comments Summary: Please submit construction drawings and plans (including GESC Plans). These are not required for the approval of the L&E but will be required prior to construction. Please submit them to Carol LeMaire (clemaire@douglas.co.us)

Response: Comment noted. We will submit CD drawings, including the GESC prior to construction.

Drainage Comments Summary: It appears that an older Phase III Drainage Report was used than the most recent which included a detention pond around the building to the northeast. Please reassess and amend the letter per the most recent Phase III Drainage Report (see attached). With this, please either show that the detention and/or water quality for this proposed site is being accounted for in the detention pond around the building to the northeast, or that a grass buffer or swale is being provided per the Mile High Flood District criteria. Please provide all calculations for either case as part of the report.

Response: We were provided this existing report previously (The Pinery High Prairie Farms Maintenance Facility Phase III Drainage Report). It is dated as "Revised March 2008." The Pinery Regional Detention Pond Phase III Drainage Report (referred to as the PINERY POND REPORT in our drainage letter and to which the letter indicates conformance) is dated "Submitted for Approval June 18, 2014." Therefore, our drainage letter is written to conform with that most recent existing drainage report (albeit a report that does not treat the High Prairie Farms "site" as specifically as the 2008 report). Review of The 2008 Pinery High Prairie Farms Maintenance Facility Phase III Drainage Report will also show that it does not include the project site within its area of analysis and is therefore technically not directly applicable to the project site.

Therefore, the drainage letter we submit does not address the 2008 Pinery High Prairie Farms Maintenance Facility Phase III Drainage Report specifically by name, but does reference it generally in the second paragraph of page 2:
 "Existing facilities installed to mitigate the impact of the development immediately east of the project site lie generally upstream and are described in reports which pre-date the PINERY POND REPORT. Therefore, comparison of the impact from the proposed development of the project site within this letter is made to the assumptions of the PINERY POND REPORT."

- With the assessment of the "existing facilities" (i.e. the existing pond to which the county comments make reference) as being "...generally upstream...," the submitted letter implies re-use of the existing pond is not applicable to the proposed development.
- Although the drainage letter does not indicate inclusion of the county's request for "...a grass buffer or swale...;" it does indicate compliance with the county's criteria that for a Tier 2 site within the Cherry Creek Basin in lieu of a Grass Buffer or a Grass Swale, indication that the Water Quality Control Volume (WQCV) storm event is assumed not to leave the site is met.
- Calculations and/or explanations of the design described above and in the letter were provided with the letter.

Traffic Comments Summary: Please discuss in the narrative the number of trips that the site currently receives and the anticipated number of trips that the site will receive and discuss the frequency.

Response: We will update the narrative as determined through this response and the hearing. Much of the trips to/from the site are seasonal, as it is a maintenance facility, so in the winter it may be 1 trip a day, in the summer as many as 20 trips to/from a day. The meeting space in the new building is intended for small meetings, including the monthly district meeting. There will be 9-10 cars one time a month for a 1-2-hour period to attend the meeting. The following was provided in the project narrative as well:

The new building is intended to provide dedicated space for existing operations and is anticipated to maintain or even reduce existing trips from the site. Some equipment is currently being kept off-site, so storing those vehicles in the building may reduce the number of trips to/from the facility.

On average, there is 1.5 FTE for the District on-site during operational hours. Outside of the vehicles being parked inside the garage spaces of the building, visitors to the site will park within the existing paved areas of the Pinery Water property. No long-term storage of vehicles or equipment is planned in the outdoor areas, just parking during building use. Please also see the provided cross-access easement and agreement between High Prairie Farms Metro District and Pinery Water for access to the District buildings.

The meeting space within the new building is intended to be for small meetings for the District and is not a large space for community meetings. There will be a board meeting approximately 1 time per month, with approximately 9-10 people, but otherwise it will be used by the 1-2 staff members on-site.

With the next submittal, please enclose a written response to these comments. Jacob Gabel, Development Review Engineer.

<u>High Prairie Farms HOA – No comment</u>

High Prairie Farms Metro District – No response received.

Mile High Flood District – No response received.

Pinery Filing 30A, Tract F LE2024-027

Misty Pines HOA – No comment

Office of Emergency Management – No response received.

<u>Pinery Water and Wastewater District – No response received.</u>

Sheriff's Office

This was reviewed by Deputy Jeff Pelle with Douglas County Sherriff's Office. I have no comments or concerns at this time for the project.

Response: Comment noted.

<u>Sherriff's Office E911 – No response received.</u>

South Metro Fire Rescue

South Metro Fire Rescue (SMFR) has reviewed the provided documents and has no objection to the proposed Location and Extent. Applicants and Contractors are encouraged to contact SMFR regarding the applicable permit requirements for the proposed project.

Response: Comment noted. SMFR will be contacted during the permit process. Thank you.

The Pinery HOA

The Pinery HOA appreciates the attention to blend the buildings colors in with the surrounding environment and thoughtful placement to reduce the removal of trees.

Response: Comment noted. Thank you.

<u>Timbers At the Pinery Filing 23A HOA – No response received.</u>

<u>Timbers at the Pinery Filing 23B HOA – No response received.</u>

Timbers HOA

The Timbers T30A HOA does not object to the construction of the building per the particulars they provided to the county in their submission. We do however have one request. If at all possible, if some additional native trees could be planted between the HPFMD buildings and the detention swale, it would provide a layer of additional screening for our residents. Thank you, Ed Likman, T30A HOA president, 201-715-8658, edlikman@gmail.com

Response: We will work with the HOA to add trees on HPFMD property related to this project, in addition to those proposed on the south and west sides of the building.

Xcel Energy – Right of Way & Permits

Public Service Company of Colorado's (PSCo) Right of Way & Permits Referral Desk has reviewed the documents for the above-mentioned project and currently has no apparent conflict. 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. Violeta Ciocanu (Chokanu), Right of Way and Permits, Public

Pinery Filing 30A, Tract F LE2024-027

Service Company of Colorado dba Xcel Energy, Office: 303-285-6612 — Email: violeta.ciocanu@xcelenergy.com

Response: Comment noted.

Sincerely on behalf of the Design Team and High Prairie Farms Metro District, FARNSWORTH GROUP, INC.

Cindy Pedrioli, PLA

Senior Urban Planning Manager

Project Name: Pinery Filing 30A, Tract F

Project File #: LE2024-027 **Date Sent:** 11/12/2024

Agency	Date Received	Agency Response	Response Resolution
Addressing Analyst	11/18/2024	No Comment	No action necessary
Assessor	11/19/2024	No Comment	No action necessary
AT&T Long Distance - ROW	11/13/2024	Received: This is in response to your eReferral with a utility map showing any buried AT&T Long Line Fiber Optics near Democrat Road Franktown, Colorado. The Earth map shows the project area in red. Based on the address and/or map you provided, there should be NO conflicts with the AT&T Long Lines, as we do not have facilities in that area. Ann Barnowski Clearwater Consulting Group Inc 120 9th Avenue South Suite 140, Nampa, ID 83651 Annb@cwc64.com	No action necessary
Black Hills Energy		No Response Received	No action necessary
Building Services	11/22/2024	Received: Permit is required, please visit Douglas County's web site for requirements and contact 303-660- 7497 if you have any questions.	Comments forwarded to applicant to address.
CenturyLink	11/20/2024	Received: We have received your request for an Encroachment and have set up a Lumen project accordingly. Your project number is P864060 and it should be referenced in all emails sent in for review. Your project owner is Richard Hollis and they can be reached by email at Richard.Hollis@lumen.com with any questions that you may have regarding this project. Eryn Ogden, Project Coordinator Faulk & Foster 214 Expo Circle, Suite 7 West Monroe, LA 71291 Eryn.Ogden@lumen.com	No action necessary

Project Name: Pinery Filing 30A, Tract F

Project File #: LE2024-027 **Date Sent:** 11/12/2024

Received	Agency Response	Response Resolution
	No Response Received	No action necessary
11/20/2024	No Comment	No action necessary
11/26/2024	Received: General Comments Summary: Please submit construction drawings and plans (including GESC Plans). These are not required for the approval of the L&E but will be required prior to construction. Please submit them to Carol LeMaire (clemaire@douglas.co.us) Drainage Comments Summary: It appears that an older Phase III Drainage Report was used than the most recent which included a detention pond around the building to the northeast. Please reassess and amend the letter per the most recent Phase III Drainage Report (see attached). With this, please either show that the detention and/or water quality for this proposed site is being accounted for in the detention pond around the building to the northeast, or that a grass buffer or swale is being provided per the Mile High Flood District criteria. Please provide all calculations for either case as part of the report. Traffic Comments Summary: Please discuss in the narrative the	Comments forwarded to applicant to address.
	currently receives and the anticipated number of trips that the site will receive and discuss the	
	frequency. With the next submittal, please enclose a written response to these comments. Jacob Gabel,	
	11/20/2024	Interpretation of the terror of the approvided per the most recent Phase III Drainage Report (see attached). With this, please either show that the detention and/or water quality for this proposed site is being provided per the Mile High Flood District criteria. Please provide all calculations for either case as part of the report. Traffic Comments Summary: Interpretation of the L&E but will be required prior to construction. Please submit them to Carol LeMaire (clemaire@douglas.co.us) Drainage Comments Summary: It appears that an older Phase III Drainage Report was used than the most recent which included a detention pond around the building to the northeast. Please reassess and amend the letter per the most recent Phase III Drainage Report (see attached). With this, please either show that the detention and/or water quality for this proposed site is being accounted for in the detention pond around the building to the northeast, or that a grass buffer or swale is being provided per the Mile High Flood District criteria. Please provide all calculations for either case as part of the report. Traffic Comments Summary: Please discuss in the narrative the number of trips that the site currently receives and the anticipated number of trips that the site requency. With the next submittal, please enclose a written response

Project Name: Pinery Filing 30A, Tract F

Project File #: LE2024-027 **Date Sent:** 11/12/2024

Agency	Date Received	Agency Response	Response Resolution
High Prairie Farms HOA		No Response Received	No action necessary
High Prairie Farms Metro District		No Response Received	No action necessary
Mile High Flood District		No Response Received	No action necessary
Misty Pines HOA	11/21/2024	No Comment	No action necessary
Office of Emergency Management		No Response Received	No action necessary
Pinery Water and Wastewater District		No Response Received	No action necessary
Sheriff's Office	11/26/2024	Received: This was reviewed by Deputy Jeff Pelle with the Douglas County Sheriff's Office. I have no comments or concerns at this time for the project.	No action necessary
Sheriff's Office E911		No Response Received	No action necessary
South Metro Fire Rescue	11/14/2024	Received: South Metro Fire Rescue (SMFR) has reviewed the provided documents and has no objection to the proposed Location and Extent. Applicants and Contractors are encouraged to contact SMFR regarding the applicable permit requirements for the proposed project.	No action necessary
The Pinery HOA	11/26/2024	Received: The Pinery HOA appreciates the attention to blend the buildings colors in with the surrounding environment and thoughtful placement to reduce the removal of trees.	No action necessary
Timbers At The Pinery Filing 23A HOA		No Response Received	No action necessary
Timbers At The Pinery Filing 23B HOA		No Response Received	No action necessary

Project Name: Pinery Filing 30A, Tract F

Project File #: LE2024-027 **Date Sent:** 11/12/2024

Agency	Date Received	Agency Response	Response Resolution
Timbers HOA	11/26/2024	Received: The Timbers T30A HOA does not object to the construction of the building per the particulars they provided to the county in their submission. We do however have one request. If at all possible, if some additional native trees could be planted between the HPFMD buildings and the detention swale, it would provide a layer of additional screening for our residents. Thank you, Ed Likman T30A HOA President 201-715-8658 edlikman@gmail.com	Comments forwarded to applicant to address.
Xcel Energy-Right of Way & Permits	11/18/2024	Received: Public Service Company of Colorado's (PSCo) Right of Way & Permits Referral Desk has reviewed the documents for the above- mentioned project and currently has no apparent conflict. 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. 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	No action necessary

www.douglas.co.us

REFERRAL RESPONSE REQUEST - LOCATION AND EXTENT

Comments due by: November 26, 2024
High Prairie Farms Metro District - Location and Extent
LE2024-027
High Prairie Farms Metro District requests approval of a Location and Extent for the construction of a new maintenance building located near the northeast corner of S. Pinery Pkwy and Democrat Road SPN: 2347-182-05-001.
ed development proposal located in Douglas County is enclosed. nt in the space provided.
d of the following concerns:
ed for detail.
Phone #: (303) 660-7490
Your Signature:
nt) Date: 11/26/2024
quest will be held before the Douglas County Planning Commission 2024, at 6:00 pm; located at 100 Third Street, Castle Rock, CO er's Hearing Room.

Carolyn Washee-Freeland, AICP Senior Planner 303-660-7460 cfreeland@douglas.co.us Enclosure www.douglas.co.us Engineering Services

MEMORANDUM

To: Carolyn Washee-Freeland, Senior Planner

CC: Matt Miller, High Prairie Farms Metro District

From: Jacob Gabel, Development Review Engineer

Date: 11/26/2024

RE: Pinery Filing 30A, Tract F Maintenance Building: LE2024-027: DV2024-481

Initial Submittal: 11-13-2024 1st Engineering response letter: 11-26-2024

The Douglas County Department of Public Works Engineering has reviewed the Pinery Filing 30A, Tract F Maintenance Building Project and has the following comments:

General

- 1. Please submit any construction drawings and plans (including GESC Plans). These are not required for the approval of the L&E but will be required prior to construction.
 - a. Please note that the general process for approval of plans and permits is that once any plans are completed for this project, please submit them to Carol LeMaire (clemaire@douglas.co.us) with the DV# as part of the subject line. Once received, we will review them (usually 14 days, though this could be shorter or longer dependent on the project or our current workload), and send comments if there are any outstanding items or request final plans if there are no changes to be made. Once the plans are approved and fees are paid for, we will send the plans back to you. From there, please submit the GESC Permit to Carol LeMaire along with the approved plan and send any ROW Use and/or Construction Permits, Temporary Access Permits, etc., to Engineering Permits and Inspections (engpermits@douglas.co.us). Once the GESC Permit is approved you will receive an email to schedule a preconstruction meeting. Once this meeting has been completed with our inspectors, they will sign off on the permit and construction can commence when you have the approved permit in hand.

Drainage Letter

2. It appears that an older Phase III Drainage Report was used than the most recent which included a detention pond around the building to the northeast. Please reassess and amend the letter per the most recent Phase III Drainage Report (see attached). With this, please either show that the detention and/or water quality for this proposed site is being accounted for in the detention pond around the building to the northeast, or that a grass buffer or swale is being provided per the Mile High Flood District criteria. Please provide all calculations for either case as part of the report.

Traffic Letter

3. Please discuss in the narrative the number of trips that the site currently receives and the anticipated number of trips that the site will receive and discuss the frequency.

With the next submittal, please enclose a written response to these comments. Please let me know if you have any questions.

APR 03 2008

THE PINERY HIGH PRAIRIE FARMS MAINTENANCE FACILITY PHASE III DRAINAGE REPORT

for

High Prairie Metro District c/o Clifton Gunderson

Contact: Kenneth Black
Manager
6399 So. Fiddler's Green Circle, Suite 100
Greenwood Village, CO 80111
303-472-8120

by

Nolte Associates, Inc. 8000 South Chester Street, Suite 200 Centennial, Colorado 80112 (303) 220-6400

> August 2007 Revised February 2008 Revised March 2008



CERTIFICATION

I hereby certify that this report for the final drainage design of the High Prairie Farms

Maintenance Facility was prepared by me (or under my direct supervision) in accordance with
the provisions of Douglas County Drainage Design and Technical Criteria for the owners thereof.
I understand that Douglas County does not and will not assume liability for drainage facilities
designed by others.

Gary Iwata, Revisited Professional Engineer State of Colorado 1000/1004

The High Prairie Metro District hereby certifies that the drainage facilities for the High Prairie Farms Maintenance Facility shall be constructed according to the design presented in this report. I understand that Douglas County does not and will not assume liability for the drainage facilities designed and/or certified by my engineer and that Douglas County reviews drainage plans pursuant to Colorado Revised Statutes, Title 30, Article 28; but cannot, on behalf of the High Prairie Farms Maintenance Facility, guarantee that final drainage design review will absolve High Prairie Metro District and/or their successors and/or assigns of future liability for improper design. I further understand that approval of the Final Plat does not imply approval of my engineer's drainage design.

i

Kenneth Black

High Prairie Metro District c/o Clifton Gunderson

Nolte Associates, Inc.

N:\dv1310\Drainage\High Prairie Farms\Phase III Drainage Report.doc



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ii

Nolte Associates, Inc.

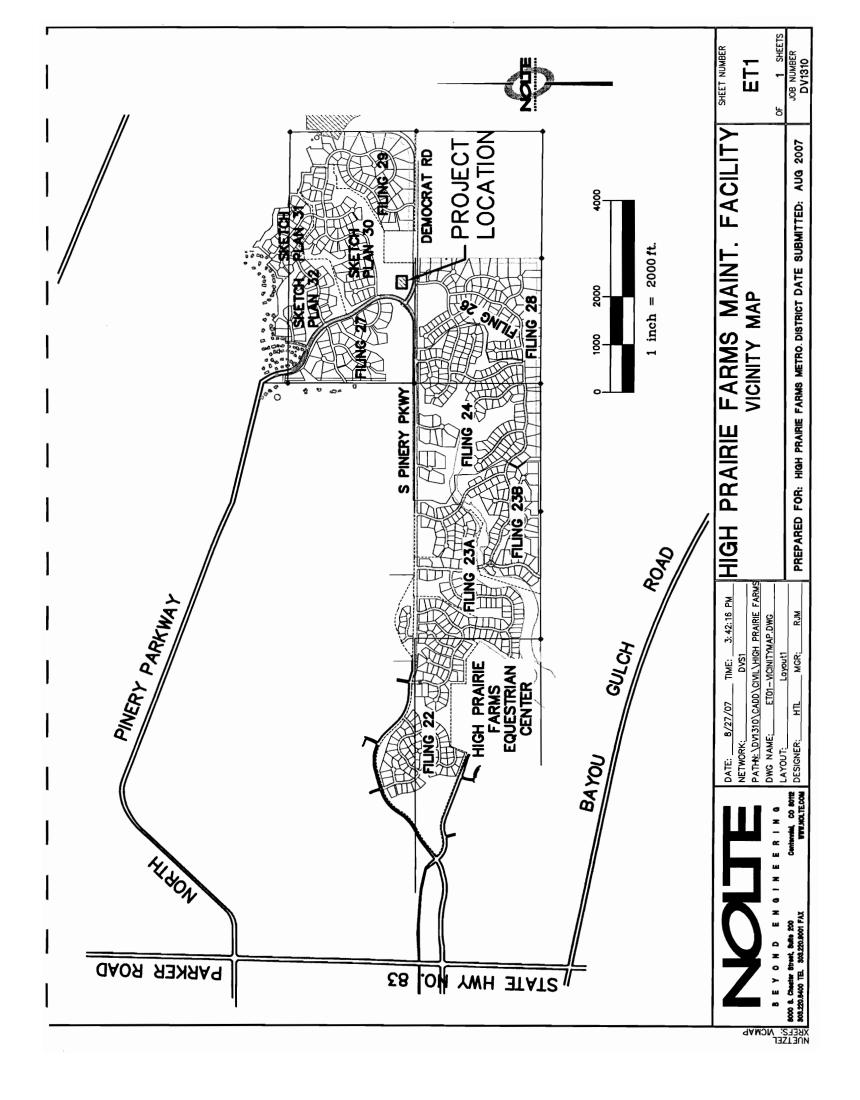
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APPENDIX C
StormCAD Schematic
StormCAD Reports
StormCAD Profiles
APPENDIX D
Detention Pond Calculations
Detention I and Calculations
APPENDIX E
Historic Drainage Maps
Proposed Drainage Maps

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1 GENERAL LOCATION AND DESCRIPTION

A. Location

The proposed High Prairie Farms Maintenance Facility is located in the **northeast quarter of Section 18**, Township 7 South, Range 65 West of the Sixth Principal Meridian, Douglas County, Colorado. The project will be located on existing Democrat Road, at the northeast corner of the intersection with North Pinery Parkway. (See vicinity map).

B. Description of Property

The proposed High Prairie Farms Maintenance Facility is a 2,500 square foot building on a 0.13 acre lot. The existing vegetation consists of numerous pine trees, native grasses and brush. Onsite soils are in the Stapleton-Bresser Association, with slopes ranging from two to thirty percent.

The existing site drains to the north into an existing drainage way. The existing drainage way drains to the west into an existing culvert underneath North Pinery Parkway and is conveyed in Timbers Creek until it reaches Bayou Gulch. Bayou Gulch ultimately drains into Cherry Creek.

2 DRAINAGE BASINS AND SUB-BASINS

A. Major Basin Description

Historically, the site drains to the north. The proposed development will not change the historic flow patterns. A detention pond will be constructed on the back of the building (north side), that will capture all the developed flow from the building and release it at historic rates.

The property is not located in a FEMA dedicated floodplain REF Flood Insurance Rate Map Douglas County Colorado Panels 204 number 080049 suffix F.

B. Sub-basin Description (Historic)

Basin H1 is an offsite basin that drains to the north into the existing drainage way. This basin contains brush, native grasses, and select areas of pine trees.

C. Sub-basin Description (Developed)

Basin A1 is the main basin created by this project. It includes the proposed building, driveway and detention pond. Flows will be collected in the swales on either side of the building and then run north to a pair of forebays and into the detention pond.

Basin B1 is on the north side of the detention pond. It includes the slope down from the proposed detention pond to the existing grade. This area will be replanted with

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native vegetation and not permanently irrigated. This area is expected to generate flows similar to the existing conditions and will not be captured in the detention pond.

3 <u>DRAINAGE DESIGN CRITERIA</u>

A. Regulations

The Phase III Drainage Report for High Prairie Farms Maintenance Facility complies with procedures outlined in the Douglas County Storm Drainage Design and Technical Criteria and the Urban Storm Drainage Criteria Manual. The High Prairie Farms Maintenance Facility is within the Pinery Development, which is a part of the Timbers Creek Basin.

B. Development Criteria References and Constraints

The Phase III Drainage Report for High Prairie Farms Maintenance Facility complies with proposed Pinery Regional Drainage Study.

C. Hydrologic Criteria

The one-hour design point rainfall values for the High Prairie Farms Maintenance Facility development are:

10-yr recurrence interval storm = 1.66 in/hr

100-yr recurrence interval storm = 2.60 in/hr

The proposed development falls within Zone 1, so the appropriate *Time Intensity Frequency Curve Formulas* from the *Douglas County Storm Drainage Design and Technical Criteria* were used (see Appendix A). Runoff calculations were done utilizing the Rational Method for all storm events. Hydrologic calculations can be found in Appendix A. Runoff coefficients used were based on composite impervious values defined in the *Urban Storm Drainage Criteria Manual* (see Appendix A). Composite percent imperviousness was determined by way of the land uses on each basin and the related percent imperviousness found in the *Urban Storm Drainage Criteria Manual*. The resultant percent imperviousness was applied to equations from the *Urban Storm Drainage Criteria Manual*.

D. Hydraulic Criteria

A channel rundown was designed utilizing FlowMaster by *Haestad Methods*, which conforms to normal open channel calculation procedures with Manning's formula. Storm pipe capacities and Hydraulic Grade Lines were determined using StormCad by *Haestad Methods*, which utilizes common calculating procedures outlined in the *Criteria*. Hydraulic calculations can be found in Appendix B.

4 DRAINAGE FACILITY DESIGN

A. General Concept

The general drainage concept for High Prairie Farms Maintenance Facility is to capture the runoff from the building in the pond behind the building.

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Water quality enhancement measures will be incorporated into the detention pond. The Excess Urban Runoff Volume (EURV) for the detention pond is calculated based on the Excess Urban Runoff Volume design in the Urban Storm Drainage Criteria Manual, Volume 2 – Storage. The development of the High Prairie Farms Maintenance Facility will detain drainage and release it at allowable rate into the channel to the north. The detention pond will provide several features to help with water quality. First, the forebay will allow for larger particles to settle out into the bottom and still allow water to pass at a controlled rate into the rest of the pond. The release structure has two different releases. The first is the Excess Urban Runoff Volume (EURV). There will be a plate attached to the front of the outlet structure to allow this EURV to be released over a 72-hour period. In addition, there will be a trash rack in front of the EURV plate to help prevent clogging, but will not interfere with the hydraulic capacity of the outlet. The top of the plate will have a notch to release the 100-year event not exceed the historic rate for the major storm.

5 CONCLUSIONS / SUMMARY

All drainage calculations and drainage solutions were done in compliance with *Douglas County Storm Drainage Design and Technical Criteria*, the drainage studies for surrounding developments and the *Urban Storm Drainage Criteria Manual*. The storm sewers will release into channels or to the detention ponds. The proposed detention pond has been designed to meet current standards set fourth by the *Criteria* and do not exceed calculated historic flow rates. The drainage system has been designed to control discharge of storm water and safely convey it from the site in compliance with local regulations.

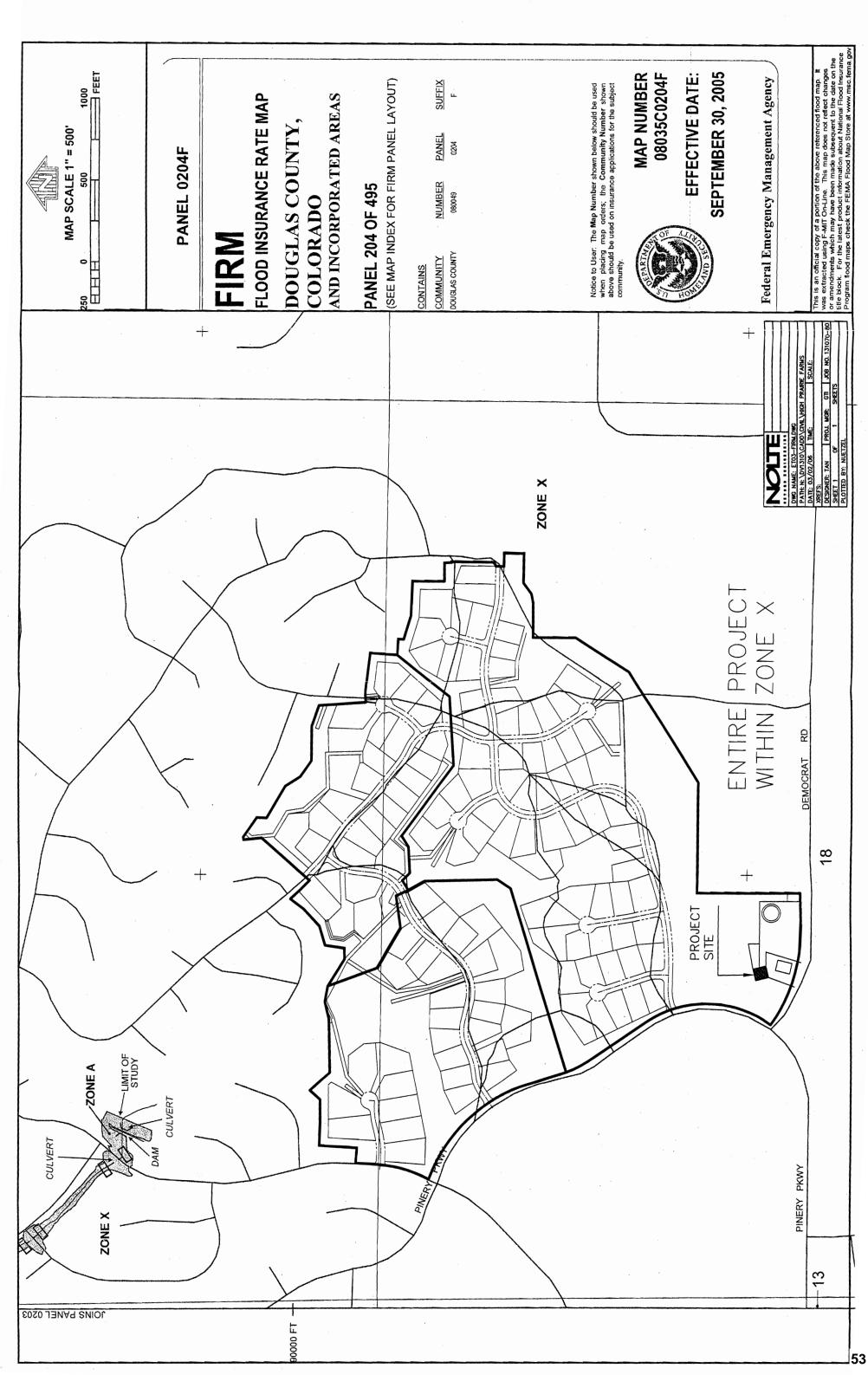
6 REFERENCES

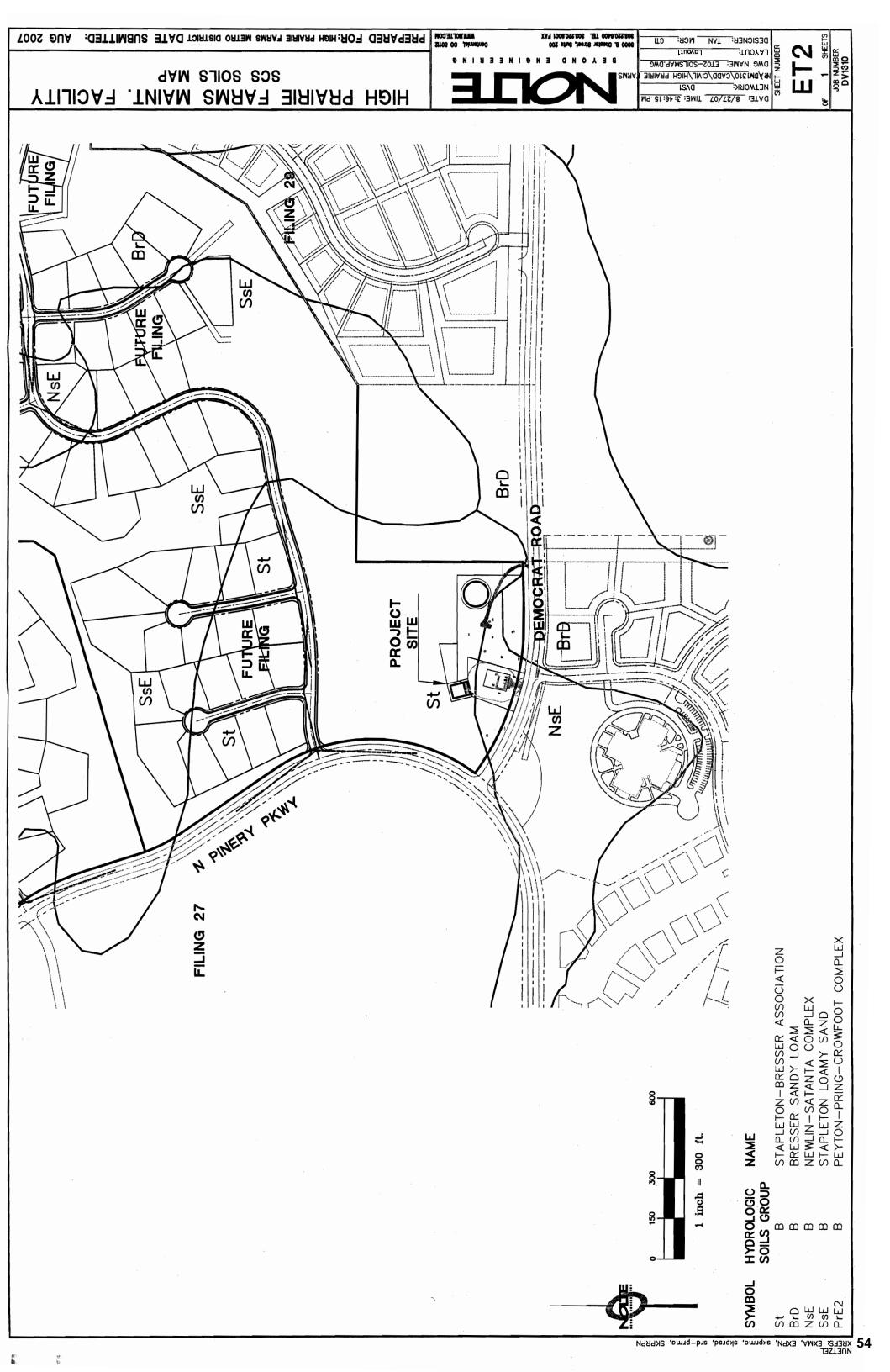
- A. Douglas County Storm Drainage Design and Technical Criteria, January 1986.
- B. <u>Urban Storm Drainage Criteria Manual, Volume 1</u>, June 2001, Urban Storm Drainage and Flood Control District.
- C. <u>Urban Storm Drainage Criteria Manual, Volume 2</u>, June 2001, Urban Storm Drainage and Flood Control District.
- D. <u>Urban Storm Drainage Criteria Manual, Volume 3</u>, September 1999, Urban Storm Drainage and Flood Control District.

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APPENDIX A
MAPS
(FIRM, SCS)





APPENDIX B HYDROLOGY CALCULATIONS

DEVELOPED COMPOSITE % IMPERVIOUS

DEVELOPED COMPOSITE WEIGHTED "C"

DEVELOPED COMPOSITE SLOPE

DEVELOPED RATIONAL METHOD CALCULATIONS

RELATED CHARTS, FIGURES & GRAPHS

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DEVELOPED COMPOSITE BASIN - WEIGHTED "% IMPERVIOUS" CALCULATIONS

-REFERENCE TABLE RO-3 DRAINAGE CRITERIA MANUAL (V.1)

•												
	Lawns	_	O.S./		Multi Unit	+00m+3	Det Dend	Dest	Comm-	W/ell Cite		
	Type A or C		Greenbelt	Family	Attached		Der. Folla	KOOI	ercial	Men Site		
% Imperv.	%00.2	2.00%	2.00%	%00.82	75.00%	100.00%	100.00%	100.00%	%00'56	12.00%	Total	Weighted
Basin ID	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	% Imperv.
A1	0.20						0.05	80.0			0.34	41.04%
B1	0.13										0.13	2.00%
	0.33	0.00	0.00	0.00	0.00	0.00	0.05	80.0	0.00	0.00	0.47	30.03%
									Total On-Site	Total On-Site Area (Ac) = 0.47	0.47	

HISTORIC COMPOSITE BASIN - WEIGHTED "% IMPERVIOUS" CALCULATIONS

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Total Area (Ac) =

Total Off-Site Area (Ac) =

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High Prairie Farms Maintenance Facility Phase III Drainage Report

COMPOSITE DEVELOPED BASIN -WEIGHTED "C" CALCULATIONS (10-YEAR & 100-YEAR)

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 $C_A = K_A + (1.31i^3 - 1.44i^2 + 1.135i - 0.12)$ for $C_A >$ or + 0, otherwise $C_A = 0$ $C_B = (C_A + C_{CD})/2$

(RO-6)

(RO-7)

 $C_{CD} = K_{CD} + (0.858i^3 - 0.786i^2 + 0.774i + 0.04)$

i = % imperviousness/100 expressed as a decimal K_A = Correction factor for Type A soils K_{CD} = Correction factor for Type C and Type D soils

Correction Factors, KA & KCD

 5-Year
 10-Year
 100-Year

 -0.08i + 0.09
 -0.14i + 0.17
 -0.25i + 0.32

 -0.10i + 0.11
 -0.18i + 0.21
 -0.39i + 0.46
 Storm Return Period 2-Year Soil Type C or D

Transfer III	Doct. ID 6/ Immen.		Coll True	Col	rrection Fac	Correction Factors, KA & KCD	Kcp.		Runoff Coeffi	fficients, C		Basin	Total	Weis	Veighted Runof	T Coefficient	ts, C
Dasin ID	% timpery.	•	Sour Type	2-Year	5-Year	10-Year	100-Year	2-Year	5-Year	10-Year	100-Year	Area	Area	2-Year	5-Year	10-Year	100-Year
			A	00.0	90.0	0.11	0.22	0.19	0.25	0.31	0.41						
Α1	41.04%	0.41	В		•	,		0.24	0.30	0.36	0.50	0.34	0.34	0.24	0.30	0.36	0.50
			CorD	0.00	0.07	0.14	0.30	0.28	0.35	0.42	0.58						
			ď	00.0	0.09	0.17	0.32	00.0	0.00	0.07	0.22						
B1	2.00%	0.02	В		,	,	•	0.03	80.0	0.17	0.36	0.13	0.13	0.03	80.0	0.17	0.36
			CorD	0.00	0.11	0.21	0.45	90.0	0.16	0.26	0.51						

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ient					T(t)	min.	0.1				
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					Length	ff.	95				
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High Prairie Farms Maintenance Facility Phase III Drainage Report

High Prairie Farms Maintenance Facility Historic Runoff Calculations

DV1310

(Rational Method Procedure)

Design Storm 5 Year Historic

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High Prairie Farms Maintenance Facility

Historic Runoff Calculations

(Rational Method Procedure)

Design Storm 10 Year Historic

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High Prairie Farms Maintenance Facility

Historic Runoff Calculations

(Rational Method Procedure)

Design Storm 100 Year Historic

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		Paved .		(URB	COMP.	T(c)	7.4	5.0							
ient					T(t)	min.	0.1	0.0							
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	Short Grass Pasture & Lawns 7.00	Nearly B	TRAVEL TIME	TRAVEL TII	TRAVEL TII	TRAVEL TII	TRAVEL TII	LAVEL TII	VAVEL TII	T(t)	Slope	%	2.00	2.00	
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High Prairie Farms Maintenance Facility	Developed Runoff Calculations	Time of Concentration			DESIGN DRAIN AREA C(5)	POINT BASIN	A1	B1							
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High Prairie Farms Maintenance Facility

DV1310

Developed Runoff Calculations

(Rational Method Procedure)

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High Prairie Farms Maintenance Facility Phase III Drainage Report

High Prairie Farms Maintenance Facility

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Developed Runoff Calculations

(Rational Method Procedure)

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	DIRECT RUNOFF	CxA		0.12	5.0 0.02 5.76 0.13	
	DIRE	T(c)	min	7.4	5.0	
nadona		AREA RUNOFF T(c) C x A I	COEFF	0.36 7.4 0.12 5.16 0.63	0.17	
T I I Ear D	ATON		ac.	0.34	0.13	
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High Prairie Farms Maintenance Facility Phase III Drainage Report

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High Prairie Farms Maintenance Facility Developed Runoff Calculations

(Rational Method Procedure)

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madain.		AREA RUNOFF	COEFF	0.50	0.36	
and and a second a	ATON	AREA	ac.	0.34	0.13	
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FIGURE 6-1
DOUGLAS COUNTY RAINFALL ZONES

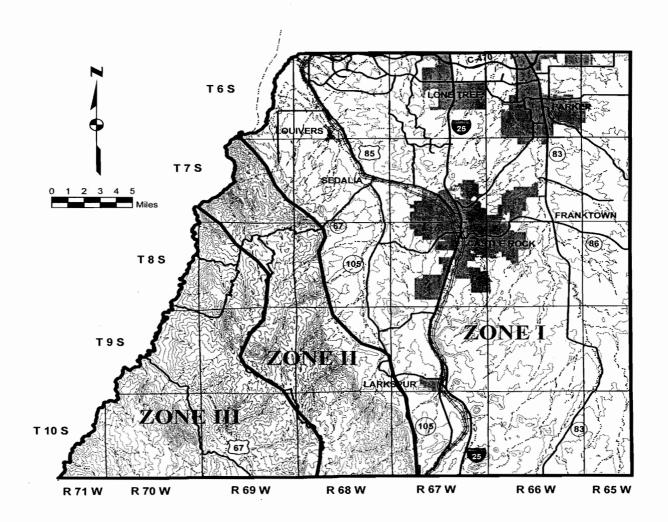


FIGURE 6-2
RAINFALL INTENSITY-DURATION CURVE
DOUGLAS COUNTY ZONE I

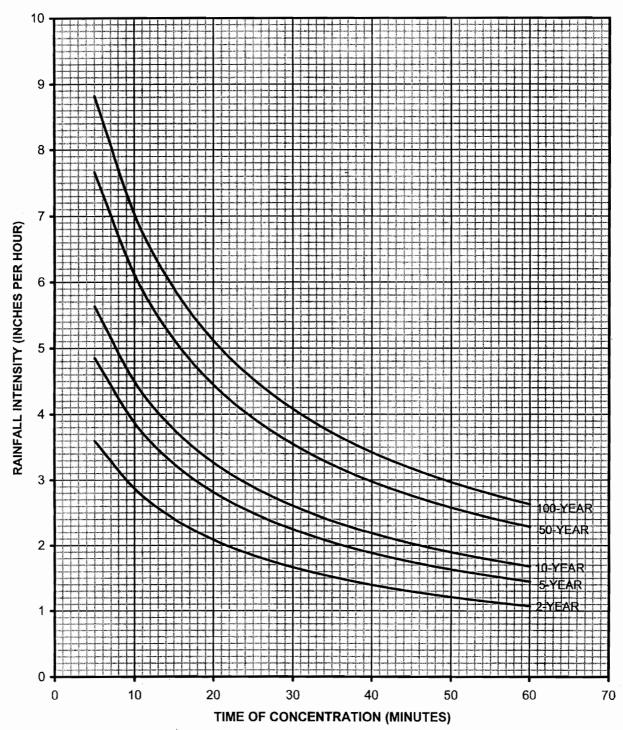


Table RO-3—Recommended Percentage Imperviousness Values

Land Use or Surface Characteristics	Percentage Imperviousness
Business:	
Commercial areas	95
Neighborhood areas	85
Residential:	
Single-family	*
Multi-unit (detached)	60
Multi-unit (attached)	75
Half-acre lot or larger	*
Apartments	80
Industrial:	
Light areas	80
Heavy areas	90
Parks, cemeteries	5
Playgrounds	10
Schools	50
Railroad yard areas	15
Undeveloped Areas:	
Historic flow analysis	2
Greenbelts, agricultural	2
Off-site flow analysis	45
(when land use not defined)	
Streets:	
Paved	100
Gravel (packed)	40
Drive and walks	90
Roofs	90
Lawns, sandy soil	0
Lawns, clayey soil	. 0

^{*} See Figures RO-3 through RO-5 for percentage imperviousness.

$$C_A = K_A + (1.31i^3 - 1.44i^2 + 1.135i - 0.12)$$
 for $C_A \ge 0$, otherwise $C_A = 0$ (RO-6)

$$C_{CD} = K_{CD} + (0.858i^3 - 0.786i^2 + 0.774i + 0.04)$$
 (RO-7)

$$C_B = (C_A + C_{CD})/2$$

in which:

i = % imperviousness/100 expressed as a decimal (see <u>Table RO-3</u>)

C_A = Runoff coefficient for Natural Resources Conservation Service (NRCS) Type A soils

 C_B = Runoff coefficient for NRCS Type B soils

 C_{CD} = Runoff coefficient for NRCS Type C and D soils

 K_A = Correction factor for Type A soils defined in Table RO-4

 K_{CD} = Correction factor for Type C and D soils defined in Table RO-4

Table RO-4—Correction Factors K_A and K_{CD} for Use with Equations RO-6 and RO-7

	Storm Return Period						
NRCS Soil Type	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	
C and D	0	-0.10 <i>i</i> + 0.11	-0.18i + 0.21	-0.28i + 0.33	-0.33i + 0.40	-0.39i + 0.46	
A	0	-0.08i + 0.09	-0.14i + 0.17	-0.19i + 0.24	-0.22i + 0.28	-0.25i + 0.32	

The values for various catchment imperviousnesses and storm return periods are presented graphically in Figures RO-6 through RO-8, and are tabulated in Table RO-5. These coefficients were developed for the Denver region to work in conjunction with the time of concentration recommendations in Section 2.4. Use of these coefficients and this procedure outside of the semi-arid climate found in the Denver region may not be valid. The *UD-Rational* spreadsheet performs all the needed calculations to find the runoff coefficient given the soil type and imperviousness and the reader may want to take advantage of this macro-enabled Excel workbook that is available for download from the District's web site www.udfcd.org under "Download" – "Technical Downloads."

See Examples 7.1 and 7.2 that illustrate the Rational method. The use of the Rational method in storm sewer design is illustrated in Example 6.13 of the STREETS/INLETS/STORM SEWERS chapter.

Table RO-5— Runoff Coefficients, C

Percentage Imperviousness		Type C and	d D NRCS I	Hvdrologic :	Soil Groups	;		
	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr		
0%	0.04	0.15	0.25	0.37	0.44	0.50		
5%	0.08	0.18	0.28	0.39	0.46	0.52		
10%	0.11	0.21	0.30	0.41	0.47	0.53		
15%	0.14	0.24	0.32	0.43	0.49	0.54		
20%	0.17	0.26	0.34	0.44	0.50	0.55		
25%	0.20	0.28	0.36	0.46	0.51	0.56		
30%	0.22	0.30	0.38	0.47	0.52	0.57		
35%	0.25	0.33	0.40	0.48	0.53	0.57		
40%	0.28	0.35	0.42	0.50	0.54	0.58		
45%	0.31	0.37	0.44	0.51	0.55	0.59		
50%	0.34	0.40	0.46	0.53	0.57	0.60		
55%	0.37	0.43	0.48	0.55	0.58	0.62		
60%	0.41	0.46	0.51	0.57	0.60	0.63		
65%	0.45	0.49	0.54	0.59	0.62	0.65		
70%	0.49	0.53	0.57	0.62	0.65	0.68		
75%	0.54	0.58	0.62	0.66	0.68	0.71		
80%	0.60	0.63	0.66	0.70	0.72	0.74		
85%	0.66	0.68	0.71	0.75	0.77	0.79		
90%	0.73	0.75	0.77	0.80	0.82	0.83		
95%	0.80	0.82	0.84	0.87	0.88	0.89		
100%	0.89	0.90	0.92	0.94	0.95	0.96		
	TYPE B NRCS HYDROLOGIC SOILS GROUP							
0%	0.02	0.08	0.15	0.25	0.30	0.35		
5%	0.04	0.10	0.19	0.28	0.33	0.38		
10%	0.06	0.14	0.22	0.31	0.36	0.40		
15%	0.08	0.17	0.25	0.33	0.38	0.42		
20%	0.12	0.20	0.27	0.35	0.40	0.44		
25%	0.15	0.22	0.30	0.37	0.41	0.46		
30%	0.18	0.25	0.32	0.39	0.43	0.47		
35%	0.20	0.27	0.34	0.41	0.44	0.48		
40%	0.23	0.30	0.36	0.42	0.46	0.50		
45%	0.26	0.32	0.38	0.44	0.48	0.51		
50%	0.29	0.35	0.40	0.46	0.49	0.52		
55%	0.33	0.38	0.43	0.48	0.51	0.54		
60%	0.37	0.41	0.46	0.51	0.54	0.56		
65 <u>%</u>	0.41	0.45	0.49	0.54	0.57	0.59		
70%	0.45	0.49	0.53	0.58	0.60	0.62		
75%	0.51	0.54	0.58	0.62	0.64	0.66		
80%	0.57	0.59	0.63	0.66	0.68	0.70		
85%	0.63	0.66	0.69	0.72	0.73	0.75		
90%	0.71	0.73	0.75	0.78	0.80	0.81		
95%	0.79	0.81	0.83	0.85	0.87	0.88		
100%	0.89	0.90	0.92	0.94	0.95	0.96		

APPENDIX C HYDRAULIC CALCULATIONS

STORMCAD ANALYSIS



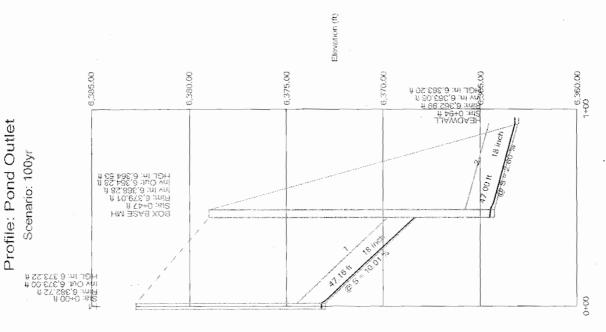
Combined Pipe\Node Report

Hydraulic Grade Line Out (ft)	6,368.31	6,363.20
Hydraulic Grade Line In (ft)	6,373.05	6,364.33
Constructed Slope (%)	10.01	2.60
Downstream Invert Elevation (ft)	6,368.28	6,363.06
Upstream Invert Elevation (ft)	6,373.00	•
Average Velocity (ft/s)	2.55	1.59
Flow / Full Capacity (%)	90.0	0.12
Full Capacity (cfs)	33.23	16.92
Total System Flow (cfs)	0.02	0.02
Section Size	47.16 18 inch	47.00 18 inch
Length (ft)		47.00
Downstream Length Section Node (ft) Size	BOX BASE N	BOX BASE M HEADWALL
Upstream Node	7	BOX BASE N
Label	-	7

Combined Pipe\Node Report

<u> </u>	abel Upstream Node	Downstream Length Node (ft)	Length (ft)	Section Size	Total System Flow (cfs)	Full Capacity (cfs)	Flow / Full Capacity (%)	Average Velocity (ft/s)	Upstream Invert Elevation (ft)	Downstream Invert Elevation (ft)	Constructed Slope (%)	Hydraulic Grade Line In (ft)	Hydraulic Grade Line Out (ft)
	Ξ	BOX BASE N	47.16	47.16 18 inch	0.34	33.23	1.02	6.08	6,373.00	6,368.28	10.01	6,373.22	6,368.39
	BOX BASE N HEADWALL	HEADWALL	47.00	47.00 18 inch	0.34	16.92	2.01	3.80	6,364.28	6,363.06	2.60	6,364.50	6,363.21

Profile Scenario: 100yr



APPENDIX D DETENTION AND WATER QUALITY

EXCESS URBAN RUNOFF CONTROL (FULL-SPECTRUM) DETENTION SIZING

Project: High Prairie Farms Maintenance Facility

Basin ID:

Area of Watershed (acres) 0.336

Subwatershed Imperviousness 100.0%

Level of Minimizing Directly Connected Impervious Area (MDCIA) 0 0

Effective Imperviousness 100.0%

 Hydrologic Soil Type
 Percentage of Area
 Area (acres)

 Type A
 0.0

 Type B
 0.0

 Type C or D
 100.0%
 0.3

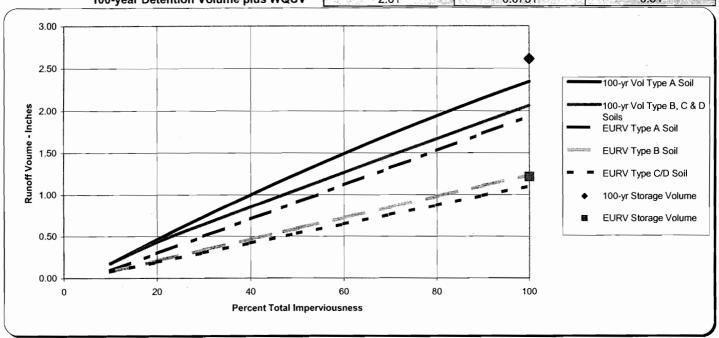
Recommended H	orton's Equation Para	meters for CUHP
Infiltration (incl	nes per hour)	Decay
Initial f_i	Finalfo	Coefficientα
3	0.5	0.0018

 User input data shown in blue.

Detention	Volumes ^{2,5}	
(watershed inches)	(acre-feet)	Maximum Allowable Release Rate, cfs ³
1,21	0.0340	Design Oulet to Empty EURV in 72 Hours
2 61	0.0731	0.34

Excess Urban Runoff Volume⁴

100-year Detention Volume plus WQCV ⁵



Notes:

- 1) Effective imperviousness is based on Figure ND-1 of the Urban Storm Drainage Criteria Manual (USDCM).
- 2) Results shown reflect runoff reduction from Level 1 or 2 MDCIA and are plotted at the watershed's total imperviousness value; the impact of MDCIA is reflected by the results being below the curves.
- 3) Maximum allowable release rates for 100-year event are based on Table SO-1. Outlet for the Excess Urban Runoff Volume (EURV) to be designed to empty out the EURV in 72 hours. Outlet design is similar to one for the WQCV outlet of an extended detention basin (i.e., perforated plate with a micro-pool) and extends to top of EURV water surface elevation.
- 4) EURV approximates the difference between developed and pre-developed runoff volume.
- 5) User has opted to add the WQCV to the 100-year detention volume to satisfy local regulations. This is not required per the USDCM.

High Prairie Farms Maintenance Facility Phase III Drainage Report

EMPIRICAL 10-YEAR AND 100-YEAR DETENTION VOLUME CALCULATIONS -REFERENCE UDFCD DRAINAGE CRITERIA MANUAL (V.2)

 $V_{10,100} = KA$

 $K_{10} = (0.95I-1.90)/1000$

(EQUATION SO-2)

 $K_{100} = (1.78I - 0.002I^2 - 3.56)/900$

(EQUATION SO-3)

A=Tributary Area (acres)

I=Imperviousness of Tributary Area (%)

A = 0.336

I = 100.00

Required $V_{10}(Ac-ft) = 0.031$

Required $V_{100}(Ac-ft) = 0.058$

WATER QUALITY CAPTURE VOLUME CALCULATIONS

-REFERENCE UDFCD DRAINAGE CRITERIA MANUAL VOL. 3 FIGURE EDB-2

Water Quality Capture Volume = $WQCV = a*(0.91i^3-1.19i^2+0.78i)$ (watershed inches)

 $i = \text{Total Imperviousness Ratio} = I_{WO}/100$

a = 40-hr Drain Time =

1.0

Required Storage = [WQCV/12]*A*1.2 (acre-ft)

A = Tributary Catchments Area (acres)

1.2 Factor = Multiplier to account for 20% sediment accumulation

i = 1.00

Required WQCV (watershed in) = 0.500

Required WQCV (Ac-ft) = 0.017

Forebay (3%) = 0.0005

Forebay (5%) = 0.0008

Micropool (0.5%) = 0.0001

High Prairie Farms Maintenance Facility Phase III Drainage Report

DETENTION POND - STAGE/DISCHARGE

		PRISN	OIDAL ME	THOD	
	PON	D VOLUME	= 1/3(A1+A2-	+(A1*A2)^0.5)*	'D
	DETENTIO	N POND	INCREM	CUMM.	CUMM.
	ELEV	AREA	<u>VOLUME</u>	VOLUME	<u>VOLUME</u>
		SQ FT	CU FT	_CU FT	ACRE-FT
	6379.08	0	0	0	0.0000
	6379.50	0	0	0	0.0000
	6380.00	238	40	40	0.0009
	6380.50	537	189	229	0.0052
	6381.00	840	341	570	0.0131
WQCV WSE	6381.16				0.017
	6381.50	1,207	509	1,079	0.0248
EURV WSE	6381.78				0.034
	6382.00	1,634	708	1,786	0.0410
	6382.50	2,125	937	2,724	0.0625
100-yr WSE	6382.72				0.074
	6383.00	2,699	1,203	3,927	0.0901

				<u> </u>
Wo	rksheet for 100-	Yr - Rect	angula	r Orifice
Project Description				
Solve For	Opening Width			
Input Data			-	
Discharge		0.320	ft³/s	
Headwater Elevation		6382.72	ft	*.*
Centroid Elevation		6382.13	ft	
Tailwater Elevation		6373.00	ft	
Discharge Coefficient		0.65		
Opening Height		0.69	ft	
Results		*		
Opening Width		0.12	ft	
Headwater Height Above Centro	bic	0.60	ft	
Tailwater Height Above Centroid	d .	-9.13	ft	
Flow Area		11.46	in²	

4.02 ft/s

Velocity

High Prairie Farms Maintenance Facility Phase III Drainage Report

OUTLET DESIGN

TOP OF MICROPOOL ELEV.= 6379.50 ft

$$EURV = 0.034$$
 ac-ft

ELEVATION =
$$6381.78$$
 ft

$$H(EURV) = 2.28$$
 ft

$$ELEVATION = 6382.72$$
 ft

$$100_{\text{vear}} \text{ Release} = 0.34$$
 cfs

EXCESS URBAN RUNOFF VOLUME ORIFICE CALCULATIONS.

-REFERENCE UDFCD DRAINAGE CRITERIA MANUAL VOL. 2 EQUATION SO-13a

$$b=0.0166H^2+0.2055H+0.1543$$

$$b = 0.710$$

$$c = -0.0018H^2 - 0.0068H + 1.0015$$

$$c = 0.977$$

$$A = [(EURV)/b]^{(1/c)}$$

$$A = 0.04 in^2$$

$$\mathbf{D} = 0.24$$
$$\mathbf{D} = 2/8$$

 ft/s^2

100-YR WEIR DESIGN

$$Q = CA*(2gh)^{\wedge}.5$$
 cfs

$$c = 0.65$$

$$g = 32.17$$

$$A = 0.00034 \text{ ft}^2$$

EURV ELEV.

	Elev. =	h =	Q =	Q total =
	6381.78			
	6381.50	0.28	0.00094	0.01349
	6381.17	0.61	0.00139	0.01255
	6380.83	0.95	0.00173	0.01116
-	6380.50	1.28	0.00201	0.00943
	6380.17	1.61	0.00226	0.00742
	6379.83	1.95	0.00248	0.00516
	6379.50	2.28	0.00268	0.00268

$$Q_{100 \text{ weir}} = Q_{100} - Q_{\text{total eurv}} = 0.32$$

ft

$$Q_{100 \text{ weir}} = cbh^{(3/2)}$$

$$c = 3.33$$

$$h = 0.93$$

$$b = Q/(ch^{(3/2)}) = 0.11$$
 ft

$$= 1.3 \qquad \text{in}$$

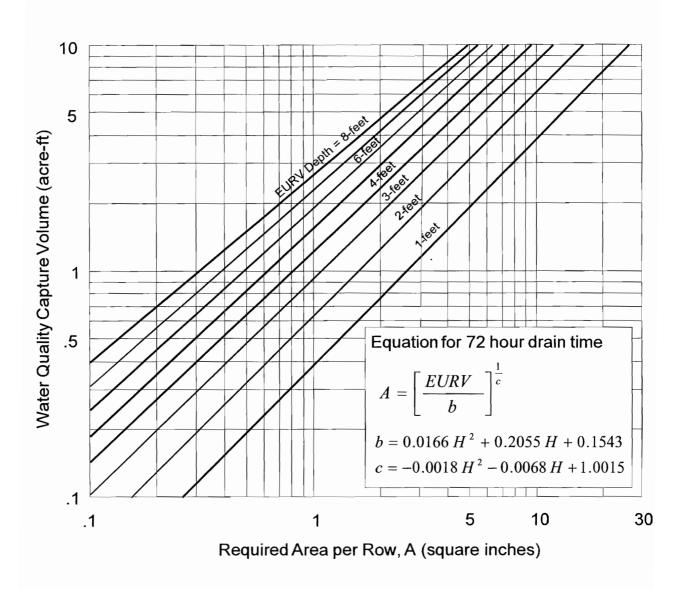


Figure SO-8—Outlet Sizing for EURV Control with 72-hour Drain Time for On-Site Detention

Orifice Plate Perforation Sizing

Circular Perforation Sizing

This table may be used to size perforation in a vertical plate of riser pipe.

Hole Dia.	Hole Dia.	Min. S _c	Area	per Row (so	լ. in.)
(in.) *	(in.)	(in.)	n = 1	n = 2	n = 3
1/4	0.250	1	0.05	0.10	0.15
5/16	0.313	2	0.08	0.16	0.24
3/8	0.375	2	0.11	0.22	0.33
7/16	0.438	2	0.15	0.30	0.45
1/2	0.500	2	0.20	0.40	0.60
9/16	0.563	3	0.25	0.50	0.75
5/8	0.625	3	0.31	0.62	0.93
11/16	0.688	3	0.37	0.74	1.11
3/4	0.750	3	0.44	0.88	1.32
13/16	0.813	3	0.52	1.04	1.56
7/8	0.875	3	0.60	1.20	1.80
15/16	0.938	3	0.69	1.38	2.07
1	1.000	4	0.79	1.58	2.37
1 1/16	1.063	4	0.89	1.78	2.67
1 1/8	1.125	4	0.99	1.98	2.97
1 3/16	1.188	4	1.11	2.22	3.33
1 1/4	1.250	4	1.23	2.46	3.69
1 5/16	1.313	4	1.35	2.70	4.05
1 3/8	1.375	4	1.48	2.96	4.44
1 7/16	1.438	4	1.62	3.24	4.86
1 1/2	1.500	4	1.77	3.54	5.31
1 9/16	1.563	4	1.92	3.84	5.76
1 5/8	1.625	4	2.07	4.14	6.21
1 11/16	1.688	4	2.24	4.48	6.72
1 3/4	1.750	4	2.41	4.82	7.23
1 13/16	1.813	4	2.58	5.16	7.74
1 7/8	1.875	4	2.76	5.52	8.28
1 15/16	1.938	4	2.95	5.90	8.85
2	2.000	4	3.14	6.28	9.42
	n = Nu	mber of colu	mns of perfo	rations	-
	steel plate t		1/4"	5/16"	3/8"
	er may interfe eded area if d		arest 32 nd inc	h to better m	atch

Rectangular Perforation sizing

Use only one rectangular column whenever two 2;inch diameter circular perforations cannot provide needed outlet area.

Rectangular Height = 2-inches

Rectangular Width = Required Area per Row / 2"

Rectangular hole Width	Min. Steel Thickness
5"	1/4 "
6"	1/4 "
7"	5/32 "
8"	5/16 "
9"	11/32 "
10"	3/8 "
> 10"	1/2 "

Figure 5—WQCV Outlets Orifice Perforation Sizing.

FOREBAY/MICRO-POOL VOLUME CALCULATIONS

POND	ELEV	AREA	VOLUME	VOLUME _{sum}	VOLUME _{sum}	METHOD
DESIGN		_(ft ²)_	_(ft ³)	(ft ³)	(Ac-ft)	
on st	6382.37	0.00	0.00	0.00	0.0000	prismoidal
ıd entation - West	6382.40	4.68	0.05	0.05	0.0000	
	6382.60	35.33	3.52	3.57	0.0001	
· · · · · · · · · · · · · · · · · · ·	6382.80	66.78	10.05	13.62	0.0003	
Presedi Foreb	6382.90	76.27	7.15	20.76	0.0005	
Pr F						

WQCV(Ac-ft) = 0.0

0.0168

 $V_{forebay}(Ac-ft)=$

0.0004

Elev (ft) = 6382.87

50% of total flow enters south forebay. Therefore only 50% of the required forebay volume is being provided at this location.

POND	ELEV	AREA	VOLUME	VOLUME _{sum}	VOLUME _{sum}	METHOD
DESIGN		(ft ²)	(ft ³)	(ft ³)	(Ac-ft)	
tati ' -	6383.44	0.00	0	0	0.0000	prismoidal
bay en	6383.60	24.04	1.31	1.31	0.0000	
Ponc dim orek East	6383.80	55.18	7.71	9.02	0.0002	
Presed on Fo	6384.00	82.84	13.71	22.72	0.0005	

WQCV(Ac-ft)=

0.0168

 $V_{forebay}(Ac-ft)=$

0.0004

Elev (ft) = 6383.94

50% of total flow enters north forebay. Therefore only 50% of the required forebay volume is being provided at this location.

POND	ELEV	AREA	VOLUME	VOLUME _{sum}	VOLUME _{sum}	METHOD
DESIGN		(ft ²)	(ft ³)	(ft ³)	(Ac-ft)	
000	6376.80	16.00	0	0	0	prismoidal
d tatio Pool	6377.00	16.00	3.20	3.20	0.0001	
·	6377.50	16.00	8.00	11.20	0.0003	
Por Sedimei Micro	6378.00	16.00	8.00	19.20	0.0004	
Se	6378.50	16.00	8.00	27.20	0.0006	
Bottom Stage	6379.00	16.00	8.00	35.20	0.0008	
Storage VBS	6379.50	16.00	8.00	43.20	0.0010	

WQCV(Ac-ft)=

0.0168

V_{Bottom Stage}(Ac-ft)= Elev (ft) = 0.0001 6377.03

Note: Micro-pool to be 1/2 depth of the top stage depth, or 2.5', whichever is greater.

Top stage depth = 3.3', therefore micro-pool is 2.50' deep.

High Prairie F	Farms Maint Facility - P	Pond Forebay	Outle
SUBJECT			
DV 1310	TAN	_	
JOB NO.	DESIGNED BY	-	
8/28/07		_	

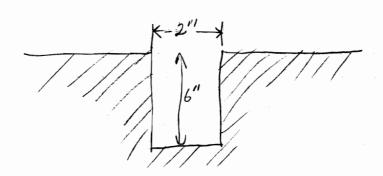


Forebays should drain in 3-5 minutes

Qweir =
$$C 6h^{3/2}$$
 $C = 3.33$ $h = 0.5'$

$$b = \frac{Q}{C h^{\frac{3}{2}}}$$
 $b_{3min} = 0.086' = 1.0''$

* Use 2" wide curb cut due to clogging concerns



Worksheet for Pond Emergency Overflow

Project Description		
Solve For	Headwater Elevation	
Input Data		
Discharge	1.35	0 ft³/s
Crest Elevation	6383.2	5 ft
Tailwater Elevation	6382.4	O ft
Crest Surface Type	Gravel	
Crest Breadth	5.0	O ft
Crest Length	10.00	D ft
Résults		
Headwater Elevation	6383.39	9 ft
Headwater Height Above Crest	0.14	4 ft
Tailwater Height Above Crest	-0.8	5 ft
Weir Coefficient	2.56	5 US
Submergence Factor	1.00)
Adjusted Weir Coefficient	2.50	5 US
Flow Area	202.3	9 in²
Velocity	0.96	5 ft/s
Wetted Perimeter	10.20	3 ft
Top Width	10.00	D ft

Cross Section for Pond Emergency Overflow Project Description Solve For Headwater Elevation Input Data 1.350 Discharge Headwater Elevation 6383.39 ft Crest Elevation 6383.25 ft Tailwater Elevation 6382.40 ft Crest Surface Type Gravel Crest Breadth 5.00 ft Crest Length 10.00 ft Cross Section Image

10.00 ft

/: 10 N:1

0.14 ft

APPENDIX E MAPS/PLANS

1697 Cole Boulevard, Suite 200 Golden, CO 80401 Tel: (303) 239-5400 Fex: (303) 239-5454



January 11, 2008

Ms. Kati Carter
Douglas County Community Development Department
Planning Division
100 Third Street
Castle Rock, CO 80104

Subject: 9455 Democrat Road (High Prairie Farms Maintenance Facility), SP07-104

Dear Ms. Carter:

Brown and Caldwell reviewed the subject project on behalf of the Cherry Creek Basin Water Quality Authority (Authority). As the watershed consultant for the Authority, Brown and Caldwell's review focuses on point and non-point source pollutant impacts and water quality considerations related to the proposed project.

Considerations

The proposed project warrants review by the Authority because of its location within the Cherry Creek basin and the change in land use that can impact runoff quantity and quality.

Review Comments

The Authority takes no exception to the proposed project as long as the applicant provides water quality control facilities (i.e., baseline BMPs) either on-site or by a regional facility. Facilities must be designed in accordance with the Authority's Requirements, Authority approved development master plans, and the Urban Drainage and Flood Control District's Major Drainageway and Outfall System Planning studies. Additional water-quality facilities are required if the project disturbs a stream preservation area or if industrial type uses are proposed that may impact quality of stormwater runoff or if the project may have a direct impact on Cherry Creek State Park. Applicant shall provide documentation in the drainage report that a regional stormwater facility was designed to accept developed-conditions runoff from the proposed project. The Authority reserves the right to comment further on the project after receiving the drainage plan. Please provide a copy of the drainage and stormwater quality plan with subsequent submittals.

If you have any questions, please call us at (303) 239-5400.

Very muly yours,

BROWN AND CALDWELL

Michelle M. Wind, P.E.

Project Manager

cc:

Chuck Reid, Manager, Authority

Charry Crack Basin Water Quality Authority. February 2000. Cherry Crest Reservoir Watershed Stormwater Quality Requirements.

Environment al Engineers of Consultants

Project Engineer

P:\Data\CEN\CCBWQA\132130 - CCBWQA - 2007\040 Dev Rev\2007\Carer-2-9455DemocratRoad.doc

Michelle M. Wind, P.E. Project Manager 1697 Cole Blvd., Suite 200 Golden, CO 80401



RE: 9455 Democrat Road (High Prairie Farms Maintenance Facility), SP07-104

Dear Mrs. Wind:

This letter is in reference to the comments received from the Cherry Creek Basin Water Quality Authority (Authority) on the first submittal of the 9455 Democrat Road plans and reports, dated January 11, 2008.

Review Comments

- 1. The Authority takes no exception to the proposed project as ling as the applicant provides water quality control facilities (i.e., baseline BMPs) either on-site or by a regional facility. Facilities must be designed in accordance with the Authority's *Requirements*, Authority approved development master plans, and the Urban Drainage and Flood Control District's Major Drainageway and Outfall System Planning Studies.
 - Response: Water quality facilities will be provided on-site and have been designed in accordance with current UDFCD standards. These include a water quality volume in the on-site detention basin, forebays and a micropool. The project will be constructed following current Douglas County Grading, Erosion and Sediment Control procedures to ensure water quality during construction.
- 2. Additional water-quality facilities are required if the project disturbs a stream preservation area or if industrial type uses are proposed that may impact quality of stormwater runoff or if the project may have a direct impact on Cherry Creek State Park.
 - Response: The project does not meet the above listed criteria for additional water-quality facilities.
- Applicant shall provide documentation in the drainage report that a regional stormwater facility was
 designed to accept developed-conditions runoff from the proposed project.

 Response: Stormwater detention will be provided on site to accept developed-conditions runoff.

 This has been documented in the drainage report.
- 4. The Authority reserves the right to comment further on the project after receiving the drainage plan. Please provide a copy of the drainage and stormwater quality plan with subsequent submittals. Response: The Phase III Drainage Report is attached.

Please contact us if you have any questions or concerns regarding this matter. Sincerely,

NOLTE ASSOCIATES, INC.

Gary Iwata, P.E. Engineering Manager

CC: Kati Carter, Project Planner, Douglas County Planning Division
 David Foster, Plan West, Inc.

NOLTE ASSOCIATES, INC.

8000 SOUTH CHESTER STREET, SUITE 200 CENTENNIAL, CO 80112-3520

303.220.6400 TEL 303.220.9001 FAX

WWW.NOLTE.COM

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CONSTRUCTION PLANS

THE PINERY HIGH PRAIRIE FARMS MAINTENANCE FACILITY

PROPOSED GRADING AND STORM DRAINAGE IMPROVEMENTS
County of Douglas, State of Colorado

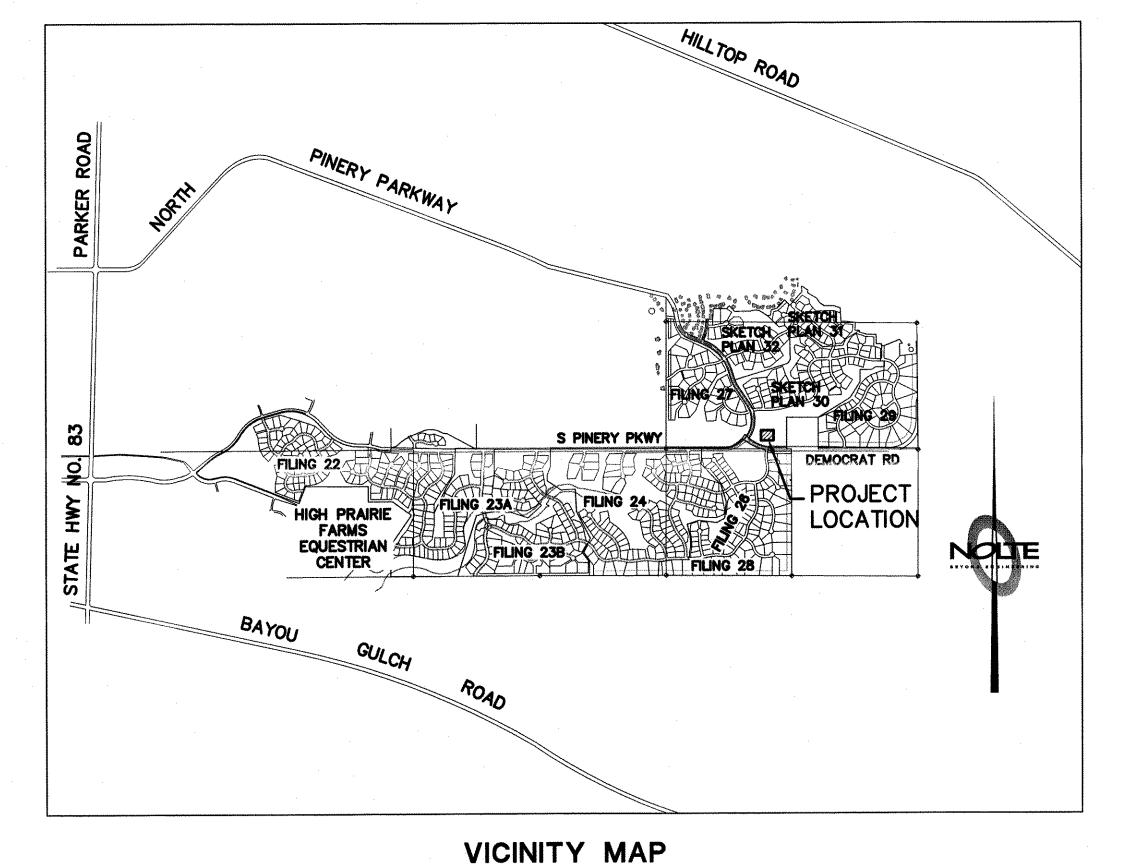
GENERAL NOTES

1. THE DOUGLAS COUNTY ENGINEER'S SIGNATURE AFFIXED TO THIS DOCUMENT INDICATES THE ENGINEERING DIVISION HAS REVIEWED THE DOCUMENT AND FOUND IT IN GENERAL CONFORMANCE WITH THE DOUGLAS COUNTY SUBDIVISION RESOLUTION OR APPROVED VARIANCES TO THOSE REGULATIONS. THE DOUGLAS COUNTY ENGINEER, THROUGH ACCEPTANCE OF THIS DOCUMENT, ASSUMES NO RESPONSIBILITY, OTHER THAN STATED ABOVE, FOR THE COMPLETENESS AND/OR ACCURACY OF THESE DOCUMENTS. THE OWNER AND ENGINEER UNDERSTAND THAT THE RESPONSIBILITY FOR THE ENGINEERING ADEQUACY OF THE FACILITIES DEPICTED IN THE DOCUMENT LIES SOLELY WITH THE REGISTERED PROFESSIONAL ENGINEER WHOSE STAMP AND SIGNATURE IS AFFIXED TO THE DOCUMENT.

- 2. ALL MATERIAL AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY THE DOUGLAS COUNTY ENGINEERING DIVISION. THE COUNTY RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO ITS STANDARDS AND SPECIFICATIONS.
- 3. THE CONTRACTOR SHALL NOTIFY THE DOUGLAS COUNTY ENGINEERING DIVISION INSPECTION SECTION,
- 4. CAUTION: LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ACCONSTRUCTION FOR INFORMATION CONTACT: DENVER INTER-UTILITY GROUP 1-800-922-1987.
- 5. THE CONTRACTOR SHALL HAVE ONE (1) SIGNED COPY OF THE PLANS (ACCEPTED BY THE DOUGLAS COUNTY ENGINEER) AND ONE (1) COPY OF THE ROADWAY DESIGN AND CONSTRUCTION STANDARDS AT THE JOB SITE AT
- 6. A PLAN FOR TRAFFIC CONTROL DURING CONSTRUCTION SHALL BE SUBMITTED TO DOUGLAS COUNTY FOR ACCEPTANCE WITH THE PERMIT APPLICATION. AN EXCAVATION OR PUBLIC IMPROVEMENTS CONSTRUCTION PERMIT WILL NOT BE ISSUED WITHOUT AN APPROVED TRAFFIC CONTROL PLAN FOR TRAFFIC CONTROL DURING CONSTRUCTION.
- 7. THE CONSTRUCTION PLANS SHALL BE CONSIDERED VALID FOR TWO (2) YEARS FROM THE DATE OF COUNTY ACCEPTANCE AFTER WHICH TIME THESE PLANS SHALL BE VOID AND WILL BE SUBJECT TO RE—REVIEW AND BE ACCEPTANCE BY DOUGLAS COUNTY
- 8. CONTRACTOR SHALL NOTIFY DOUGLAS COUNTY ENGINEERING INSPECTION WHEN WORKING OUTSIDE OF THE PUBLIC RIGHT—OF—WAY ON ANY FACILITY WHICH WILL BE CONVEYED TO THE COUNTY, URBAN DRAINAGE AND FLOOD CONTROL DISTRICT, OR OTHER SPECIAL DISTRICT FOR MAINTENANCE (STORM SEWER, ENERGY DISSIPATER, DETENTION OUTLET STRUCTURE, OR OTHER DRAINAGE INFRASTRUCTURE BY THE COUNTY AND/OR URBAN DRAINAGE). FAILURE TO NOTIFY ENGINEERING INSPECTION TO ALLOW THEM TO INSPECT THE CONSTRUCTION MAY RESULT IN NON—ACCEPTANCE OF THE FACILITY/INFRASTRUCTURE BY THE COUNTY AND/OR URBAN DRAINAGE.
- 9. INSPECTION: CONSTRUCTION SHALL NOT BEGIN UNTIL A PERMIT HAS BEEN ISSUED. IF A DOUGLAS COUNTY ENGINEERING INSPECTOR IS NOT AVAILABLE AFTER PROPER NOTICE OF CONSTRUCTION ACTIVITY HAS BEEN PROVIDED, THE PERMITEE MAY COMMENCE WORK IN THE INSPECTORS ABSENCE. HOWEVER, DOUGLAS COUNTY RESERVES THE RIGHT NOT TO ACCEPT THE IMPROVEMENT IF SUBSEQUENT TESTING REVEALS AN IMPROPER INSTALLATION
- 10. ALL ELEVATIONS ARE ON USGS DATUM NAVD 88. RANGE POINT OR MONUMENT SHALL BE SHOWN ON CONSTRUCTION PLANS.

STORM DRAIN NOTES

- 1. PUBLIC STORM SEWER SHALL BE REINFORCED CONCRETE PIPE (RCP), MINIMUM CLASS III EXCEPT WHERE NOTED OTHERWISE.
- 2. CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF EXISTING STORM SEWER POINTS OF CONNECTIONS PRIOR TO THE CONSTRUCTION OF ANY PROPOSED STORM SEWER AND NOTIFY THE COUNTY AND ENGINEER WITH ANY DISCREPANCIES.
- 3. ALL STORM SEWER SHALL HAVE PIPE BEDDING AS SHOWN ON FIGURE 9.1a AND 9.1b PER DOUGLAS COUNTY ROADWAY DESIGN AND CONSTRUCTION STANDARDS MANUAL.
- 4. MANHOLE BARRELS AND CONES SHALL BE CONSTRUCTED OF PRECAST CONCRETE. CAST-IN-PLACE MANHOLE BASES AND INLETS ARE REQUIRED.
- 5. PRECAST MANHOLES AND RISERS SHALL BE MANUFACTURED IN CONFORMITY WITH ASTM DESIGNATION C-478. ALL CONES SHALL BE ECCENTRIC.
- 6. CONTRACTOR SHALL ATTACH FLARED-END SECTIONS PER DOUGLAS COUNTY CRITERIA WITH JOINT FASTENERS ON FES AND THE LAST TWO SECTIONS OF RCP PIPE.
- 7. NO BACKFILL MATERIAL SHALL BE PLACED ABOVE THE SPRINGLINE OF THE PIPE UNTIL A DOUGLAS COUNTY REPRESENTATIVE HAS AUTHORIZED BACKFILLING. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY DOUGLAS COUNTY 48 HOURS IN ADVANCE OF THE PROPOSED BACKFILL OPERATIONS SO THAT A DOUGLAS COUNTY REPRESENTATIVE MAY INSPECT THE PIPE AND THE BEDDING PRIOR TO BACKFILLING.
- 8. STORM DRAINAGE MANHOLES SHALL BE IMPRINTED WITH "STORM" ON THE COVER.
- 9. ALL RCP STORM SEWER MUST USE WATERTIGHT O-RING GASKETS.
- 10. EPOXY COATED REBAR SHALL BE USED IN THE CONSTRUCTION OF ALL INLETS PER CDOT M & S STANDARDS M-604-10, 11, 12, AND 13.
- 11. CLASS D CONCRETE SHALL BE USED FOR THE CONSTRUCTION OF ALL DRAINAGE STRUCTURES.
- 12. TWO (2) MANHOLE ACCESS POINTS ARE REQUIRED ON ALL TYPE 'R' INLETS GREATER THAN OR EQUAL TO TEN (10) FEET IN LENGTH, PER CDOT M & S STANDARD M-604-12.



SCALE 1"-2000"

BASIS OF BEARINGS

THE BEARINGS ARE BASED ON THE SOUTHERLY LINE OF THE SOUTHEAST QUARTER OF SECTION 13, TOWNSHIP 7 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN. SAID LINE IS MONUMENTED ON THE WEST BY A 3 1/2" ALUMINUM CAPPED MONUMENT STAMPED "T7S R66W 13/24 1999 PLS 28656" AND ON THE EAST BY A 3 1/2" ALUMINUM CAPPED MONUMENT STAMPED "T7S R66W R65W 13/18/24/19 1999 PLS 28656" AS SHOWN HEREON. THE BEARING OF SAID LINE IS SOUTH 89°51'18" WEST, WITH ALL BEARINGS CONTAINED HEREIN RELATIVE THERETO.

BENCHMARK

THE BENCHMARK IS A 2 1/2" BRASS CAP STAMPED "CP #13, WSSI" LOCATED NEAR THE NORTH RIGHT-OF-WAY LINE OF SOUTH PINERY PARKWAY APPROXIMATELY 925 FEET EAST OF THE NORTH-SOUTH CENTERLINE OF SECTION 13, TOWNSHIP 7 SOUTH, RANGE 66 WEST OF THE 6TH PRINCIPAL MERIDIAN. ELEVATION = 6301.82, DOUGLAS COUNTY GPS NETWORK DATUM.

KEY CONTACTS

GARY IWATA NOLTE AND ASSOCIATES, INC.	(303)	220-6400
DAVE PERKINS HIGH PRAIRIE FARMS METRO DISTRICT	(303)	472-8120
BILL MORGAN PINERY WATER & WASTE WATER DISTRICT	(303)	841-2797
UTILITY NOTIFICATION INTER-UTILITY GROUP	1-800)-922-198
	NOLTE AND ASSOCIATES, INC. DAVE PERKINS HIGH PRAIRIE FARMS METRO DISTRICT BILL MORGAN PINERY WATER & WASTE WATER DISTRICT UTILITY NOTIFICATION	NOLTE AND ASSOCIATES, INC(303) DAVE PERKINS HIGH PRAIRIE FARMS METRO DISTRICT(303) BILL MORGAN PINERY WATER & WASTE WATER DISTRICT(303) UTILITY NOTIFICATION

SHEET INDEX

1 TS TITLE SHEET
2 DT1 DETAILS
3 DT2 DETAILS
4 GR1 OVERALL GRADING PLAN
5 DR1 HISTORIC & PROPOSED DRAINAGE MAP
6 DR2 STORM DRAIN & OUTLET STRUCTURE DETAILS
7 DR3 DETENTION POND — FOREBAY DETAILS

I HEREBY AFFIRM THAT THESE CONSTRUCTION PLANS FOR THE PINERY HIGH PRAIRIE FARMS MAINTENANCE FACILITY WERE PREPARED BY ME (OR UNDER MY DIRECT SUPERVISION) IN ACCORDANCE WITH THE REQUIREMENTS OF THE DOUGLAS COUNTY ROADWAY DESIGN AND CONSTRUCTION STANDARDS. THE DOUGLAS COUNTY STORM DRAINAGE DESIGN AND TECHNICAL CRITERIA.



GARY IWATA
REGISTERED PROFESSIONAL ENGINEER
STATE OF COLORADO NO. 37642
NOLTE ASSOCIATES, INC.
8000 S. CHESTER ST., SUITE 200,
CENTENNIAL, CO. 80112
(303) 220-6400

RECORD COPY

RECORD COPY



CALL UTILITY NOTIFICATION
CENTER OF COLORADO

OUT OF COLORADO

CALL 2 BUSINESS DAYS IN ADVANCE
BEFORE YOU DIG, GRADE OR EXCAVATE
FOR THE MARKING OF UNDERGROUND
MEMBER UTILITIES.

RECORD COPY

COUNTY ENGINEER

DATE

THESE CONSTRUCTION PLANS HAVE REE

THESE CONSTRUCTION PLANS HAVE BEEN REVIEWED BY DOUGLAS COUNTY FOR DRAINAGE IMPROVEMENTS ONLY.

ENGINEERING DIVISION ACCEPTANCE BLOCK

The engineer preparing these plans will not liable for, unauthorized changes to or uses changes to the plans must be in writing a changes to the preparer of these plans.

SUCTION DOCUMENTS
TITLE SHEET

CON G mial, co 80112

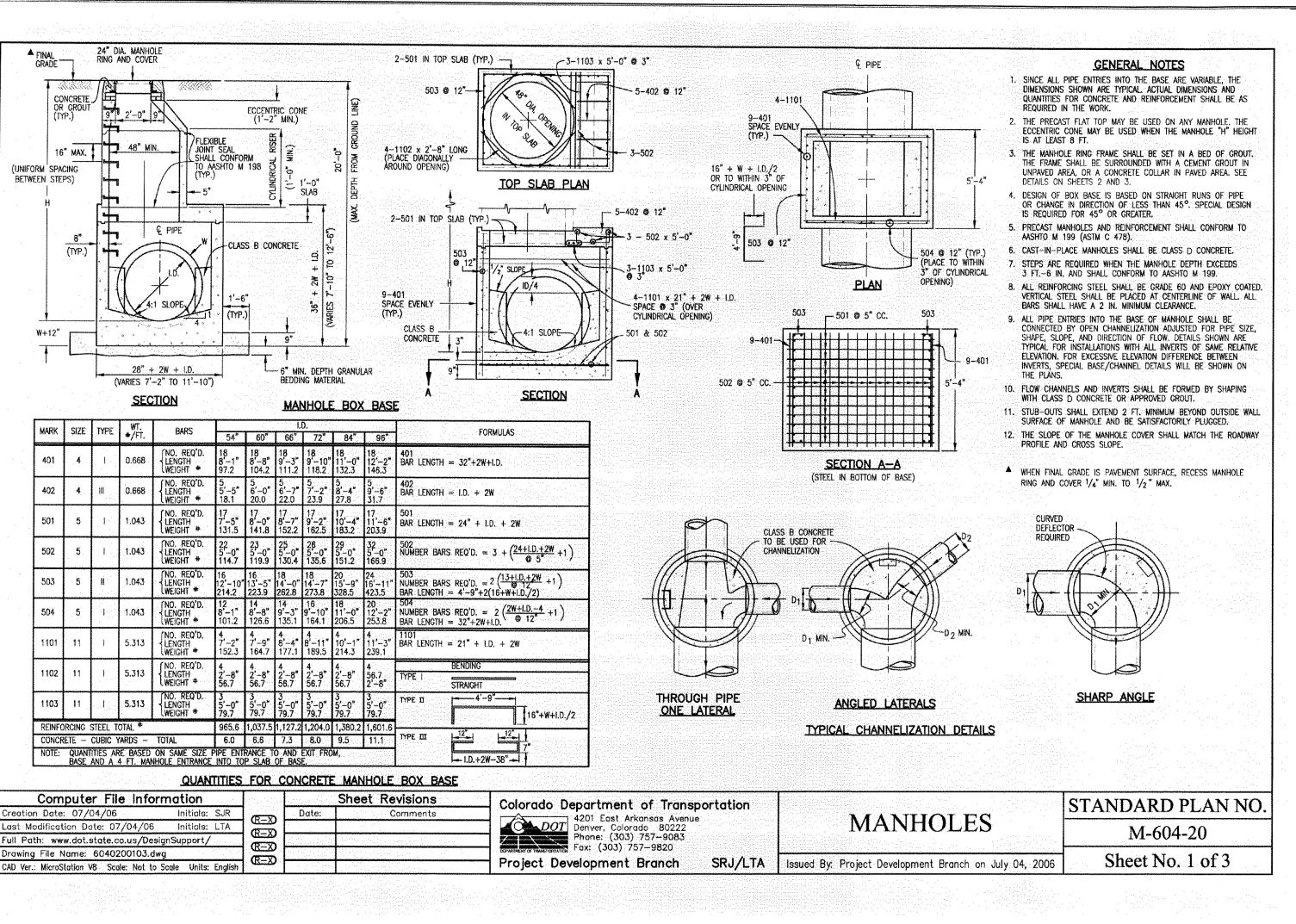
B E Y O N D E N G I N E E R I N G
S. Chester Street, Suite 200
Centennial, CO

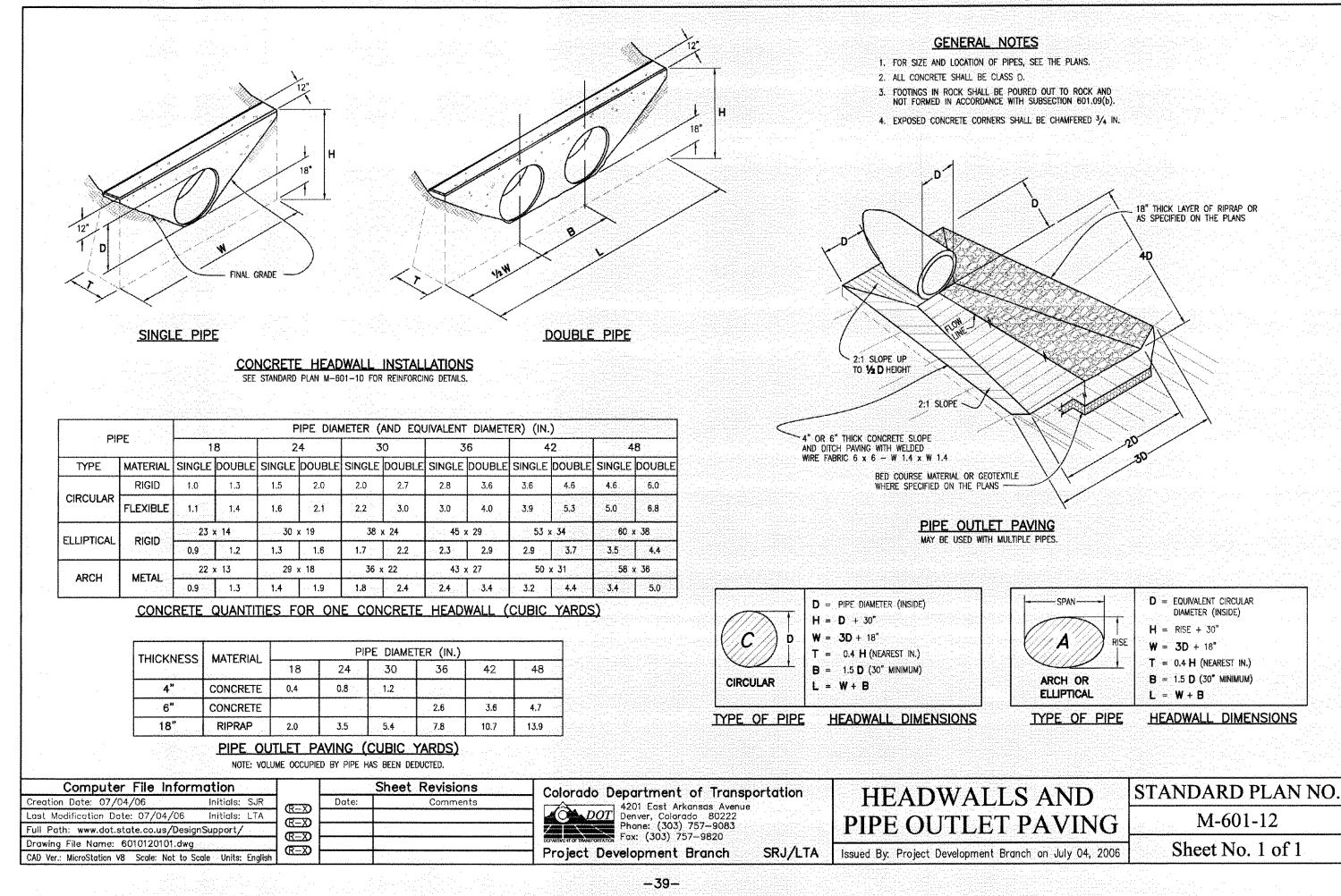
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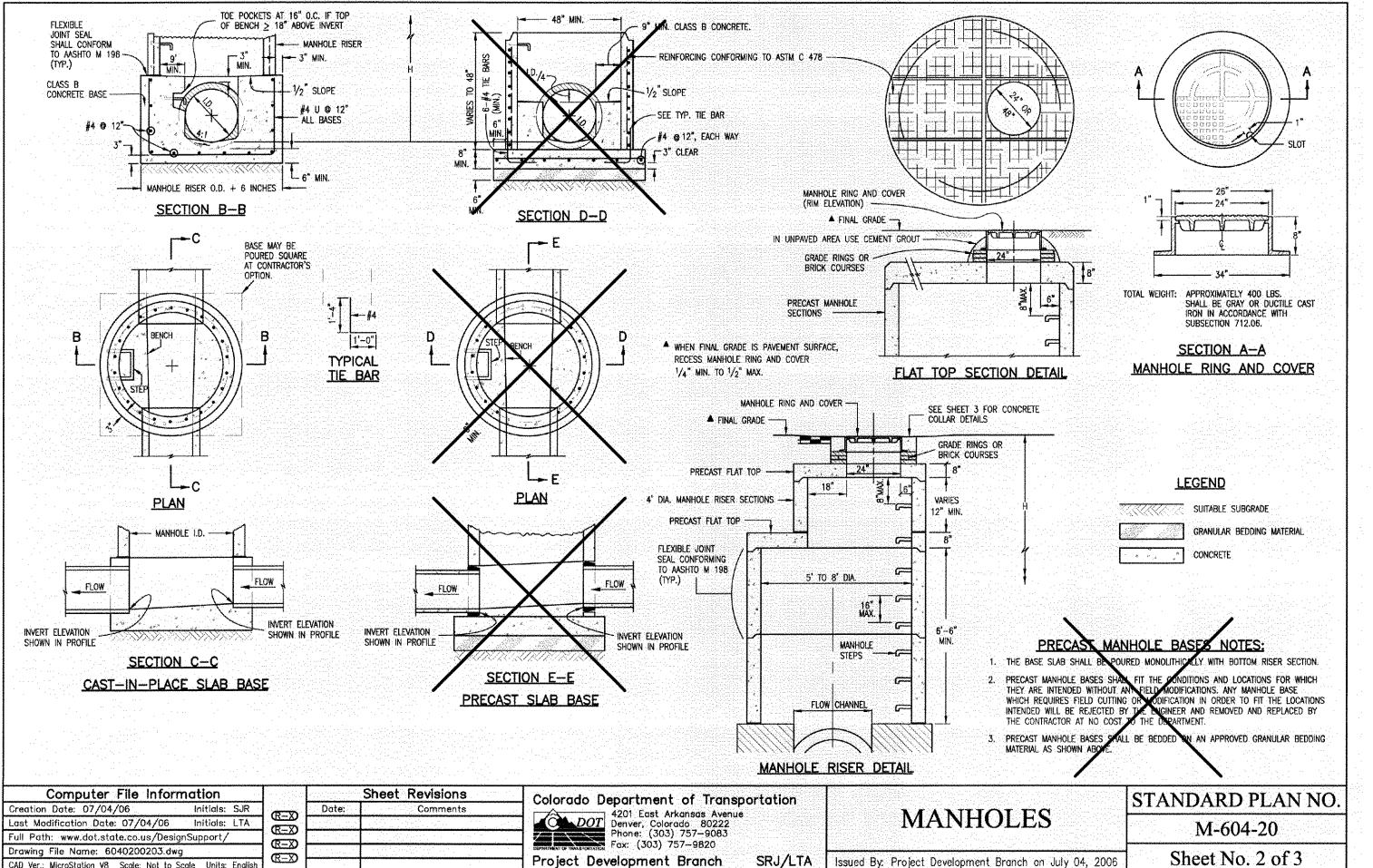
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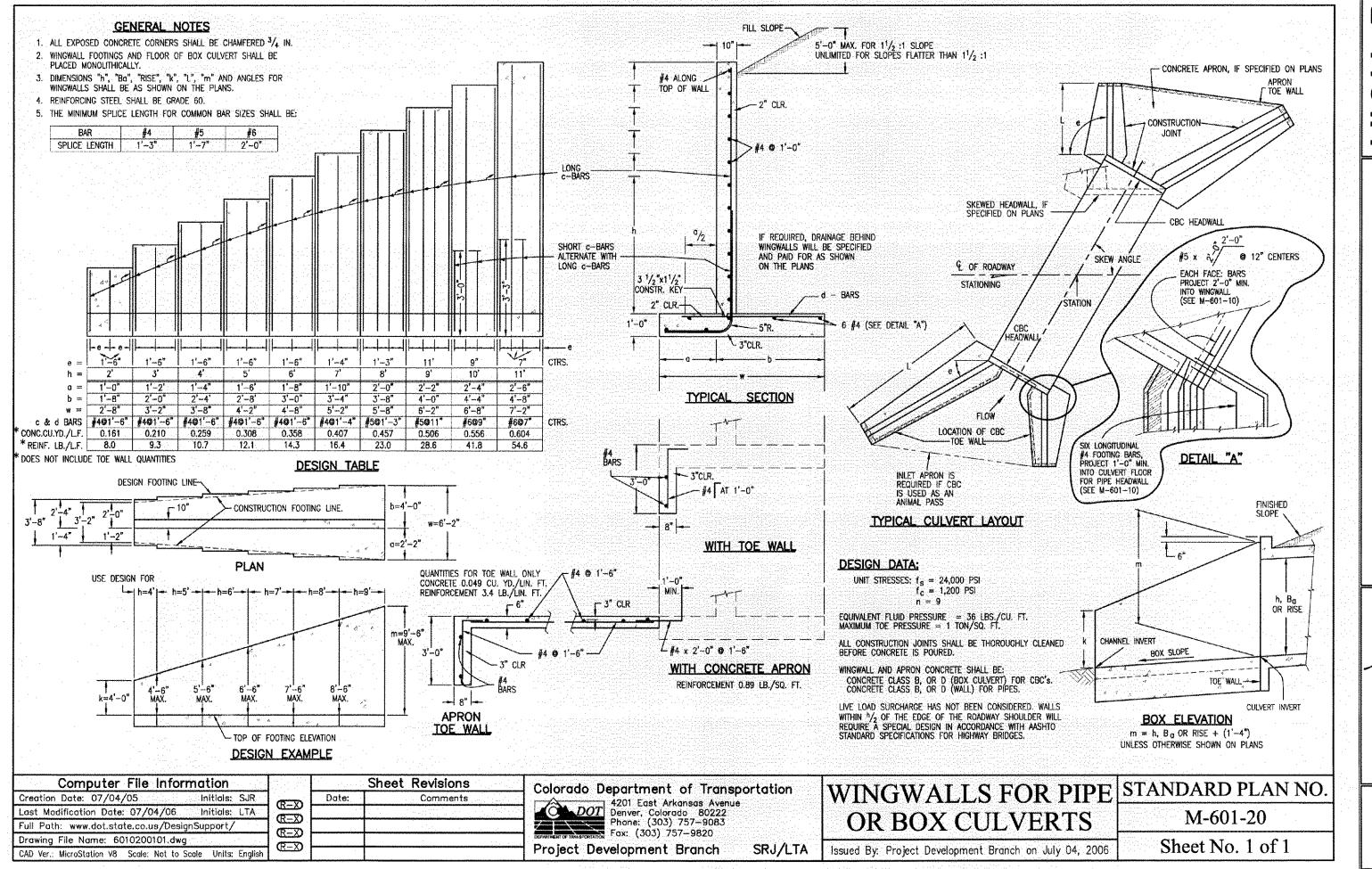
OF 7 SHEETS

JOB NUMBER
DV131005











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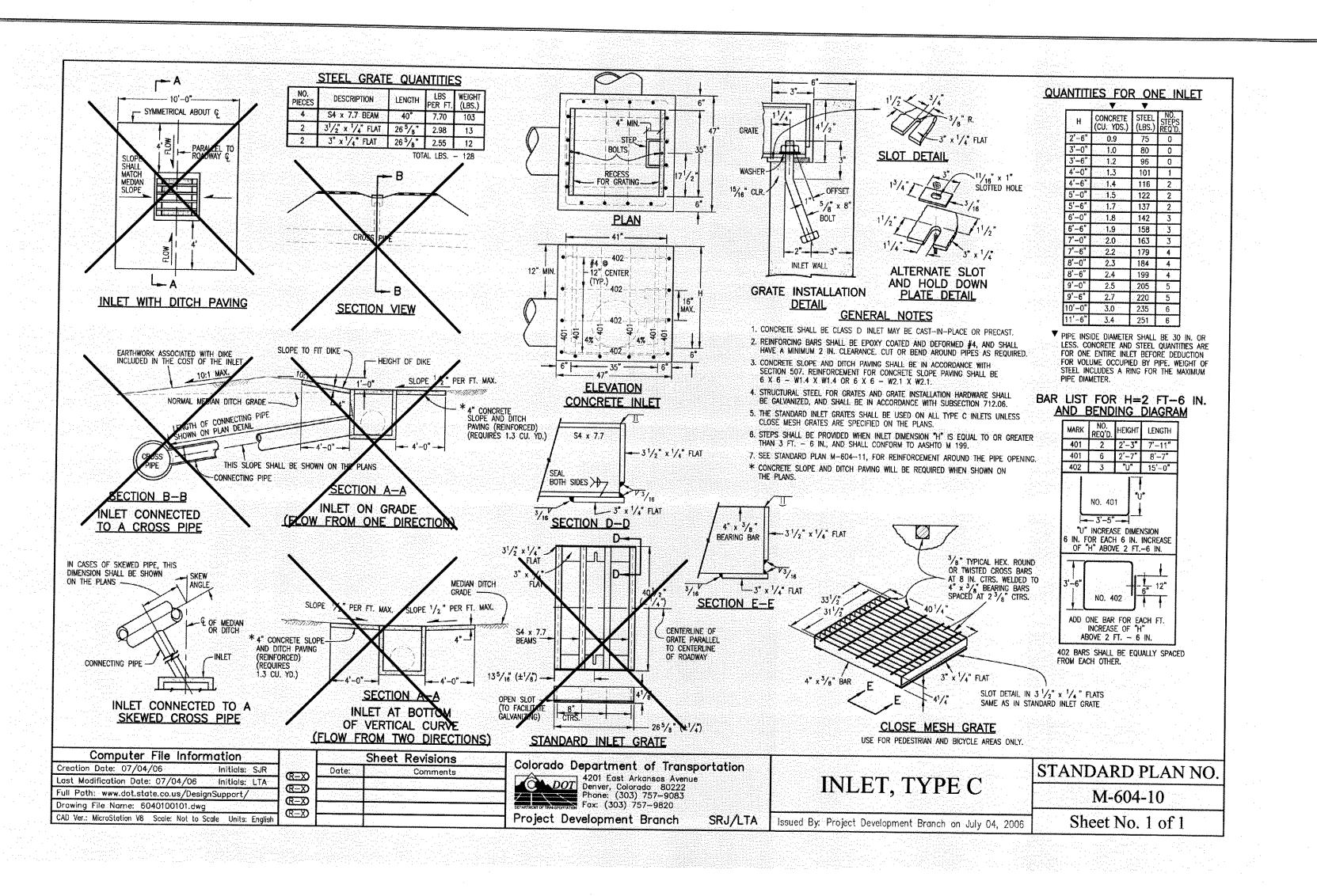
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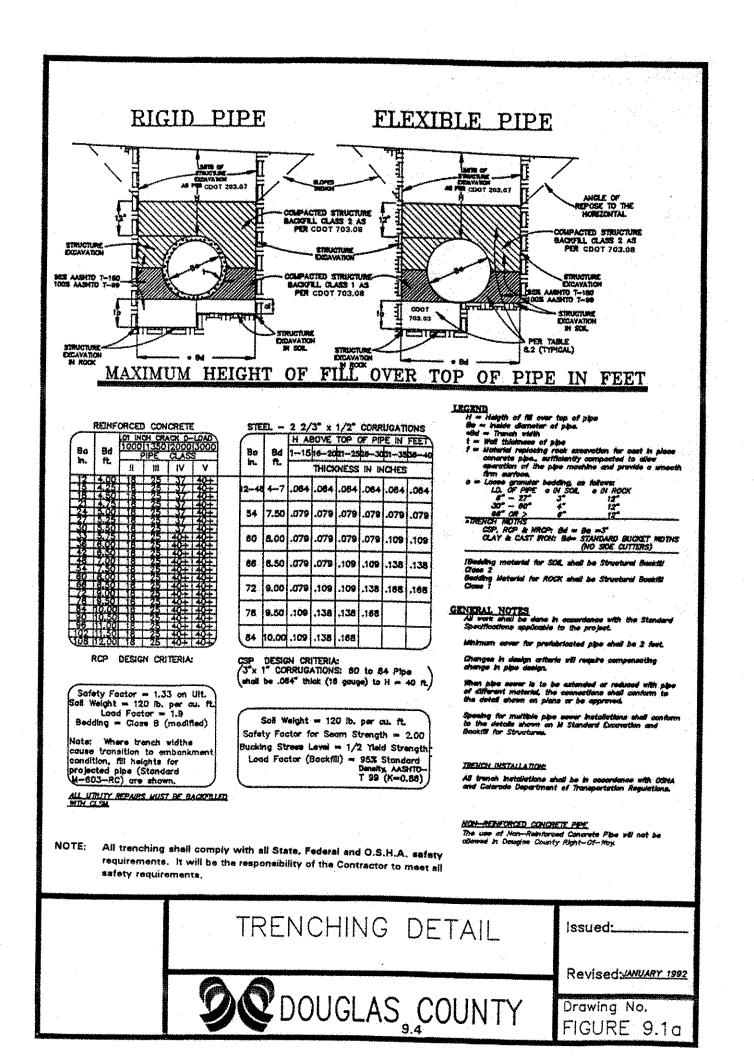
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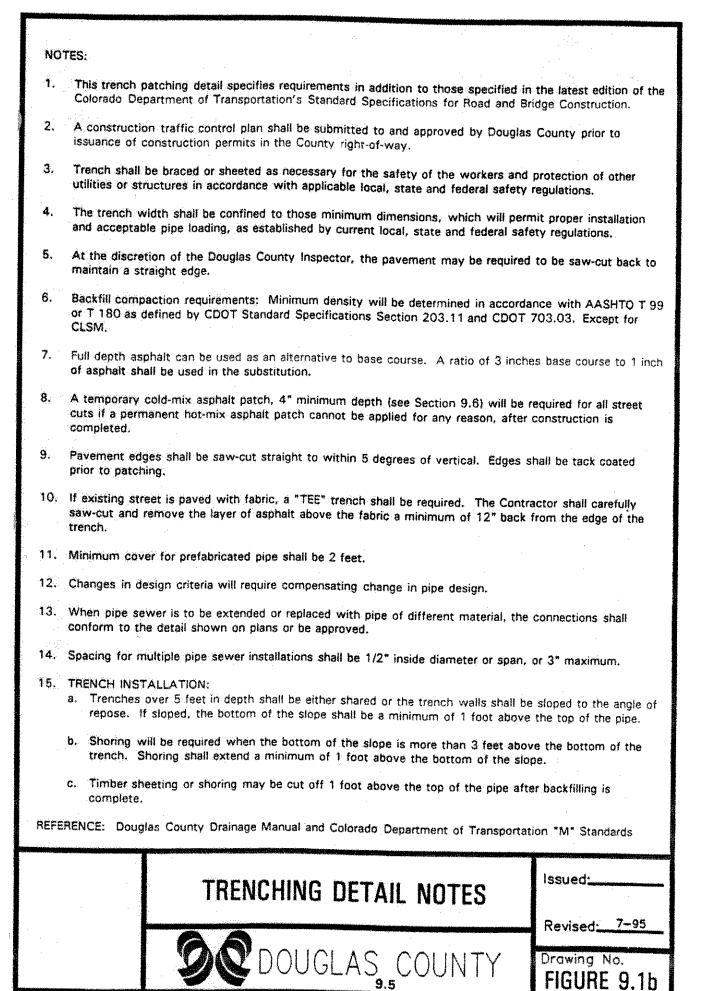
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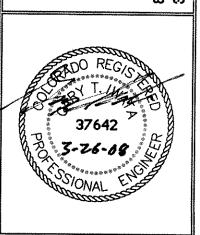




HIGH PRAIRIE FARMS MAINT. FACILITY
CONSTRUCTION DOCUMENTS
DETAILS

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B E Y O N D E N G I N E E R I N G



SHEET NUMBER

DT2

3 OF 7 SHEETS

JOB NUMBER
DV131005

LEGEND

__6380__ EXISTING CONTOURS

___6380___ PROPOSED CONTOURS

©⊕©⊕© EXISTING TREES

----SD---- EXISTING STORM DRAIN

EXISTING STORM DRAIN

PROPOSED STORM DRAIN

EXISTING WATERLINE

-- EXISTING SANITARY SEWER

E EXISTING ELECTRIC TRANSFORMER

EXISTING WATER VALVE

____ LIMITS OF GRADING

PROPOSED CONCRETE PAVEMENT

— -- WATER SURFACE ELEVATION

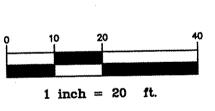
RIP-RAP

10' MAINTENANCE ACCESS

PROPOSED HEADWALL

X 83.54 PROPOSED ELEV @ FL UNLESS OTHERWISE NOTED



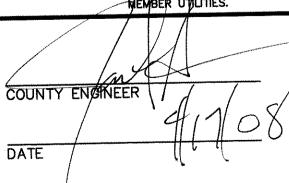




CALL UTILITY NOTIFICATION
CENTER OF COLORADO

1—800—922—1987

CALL 2 BUSINESS DAYS IN ADVANCE
BEFORE YOU DIG, GRADE OR EXCAVATE
FOR THE MARKING OF UNDERGROUND
NEMBER UTILITIES.



THESE CONSTRUCTION PLANS HAVE BEEN REVIEWED BY DOUGLAS COUNTY FOR DRAINAGE IMPROVEMENTS ONLY.

ENGINEERING DIVISION ACCEPTANCE BLOCK

HIGH PRAIRIE FARMS MAINT.

CONSTRUCTION DOCUMENTS
OVERALL GRADING PLAN

A

B E Y O N D E N G I N E E R I N G
S. Chester Street, Suite 200
Centennial, CO 80

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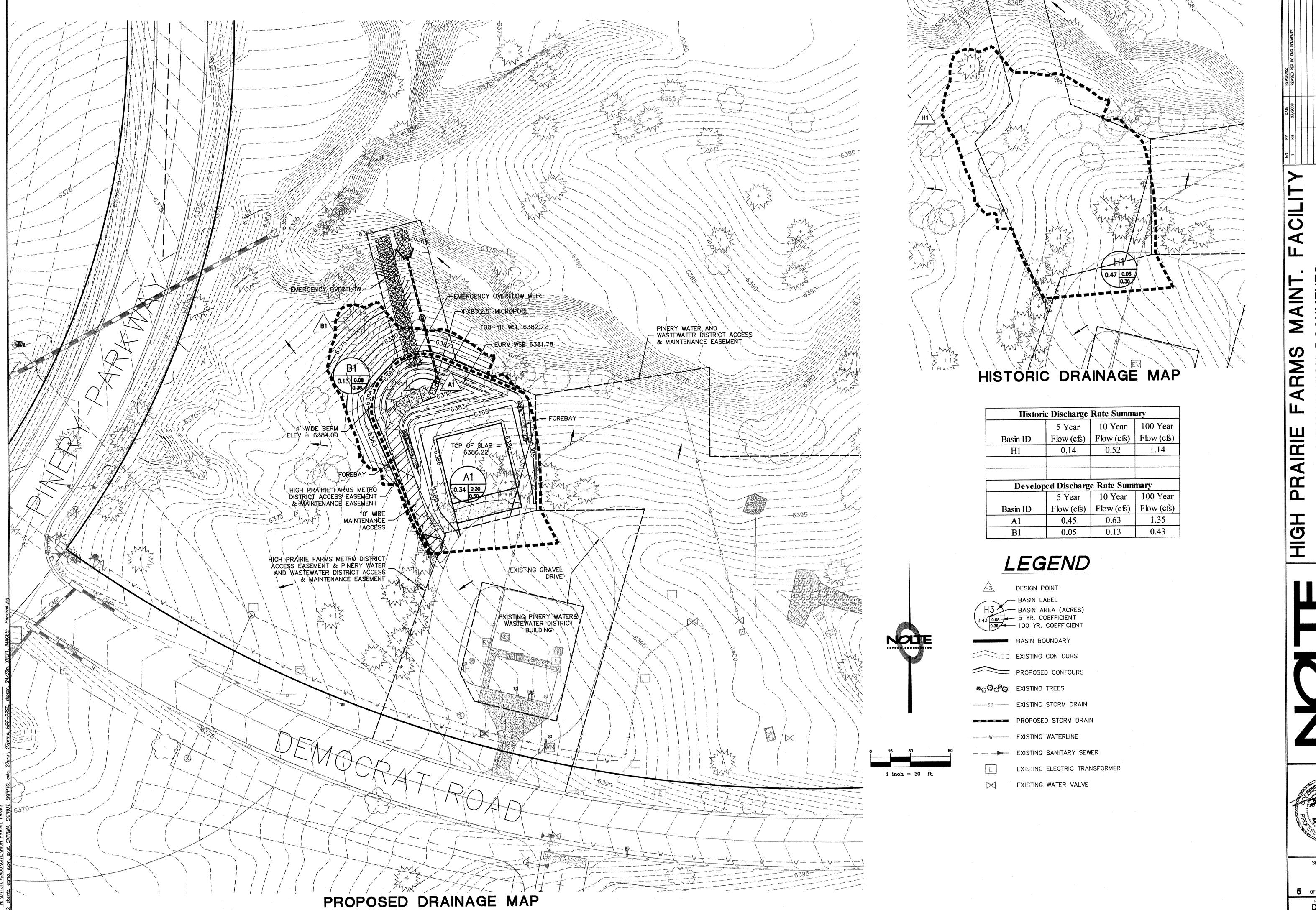
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4 OF 7 SHEETS

JOB NUMBER

DV131005



GH PRAIRIE FARMS MAINI. FAC

N D E N G I N E E R I N G ett, Suite 200 Centennial, CO 80112

WWW.NOLTE.CON

37642 8000 S. Chester 303.220.6400 TE

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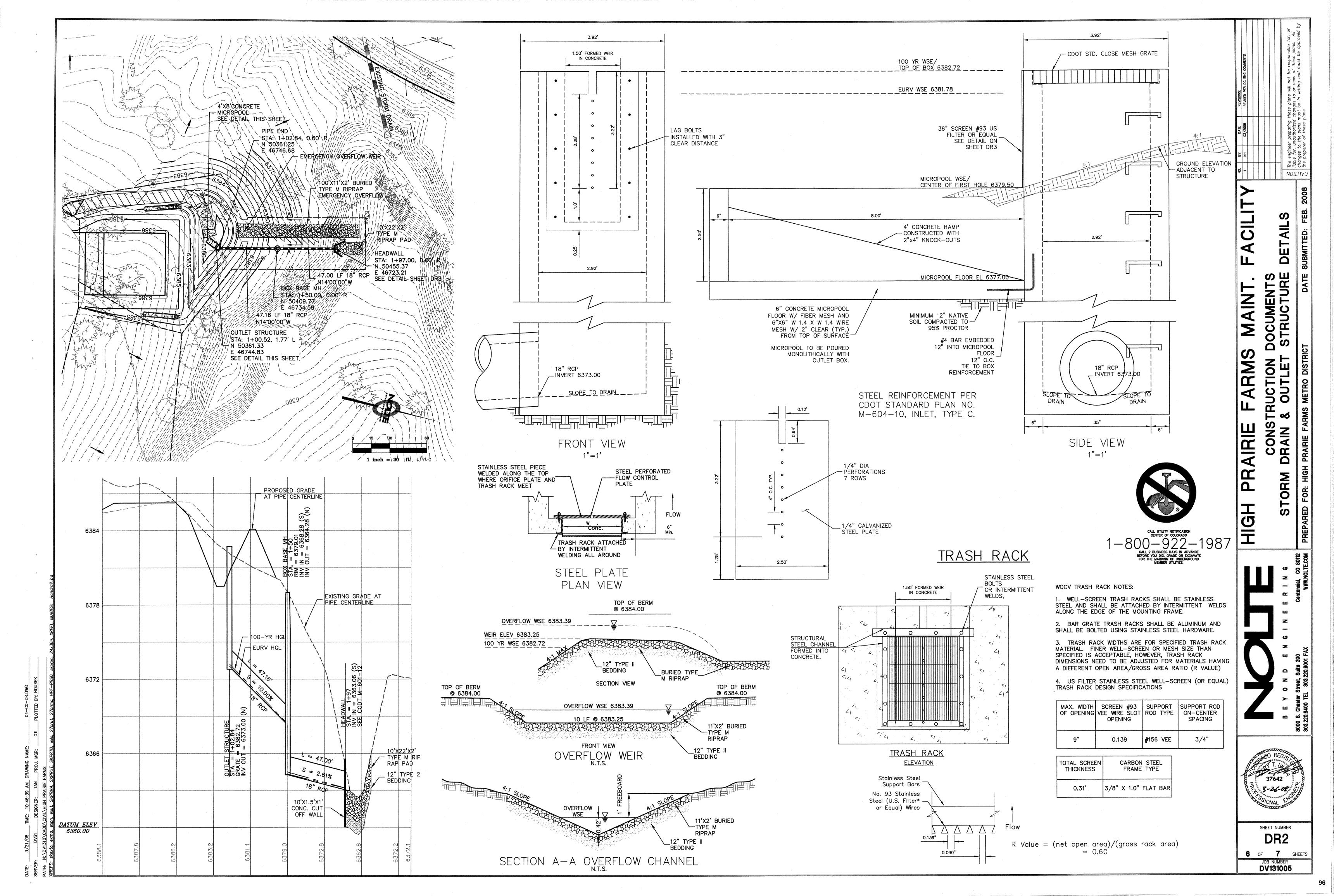
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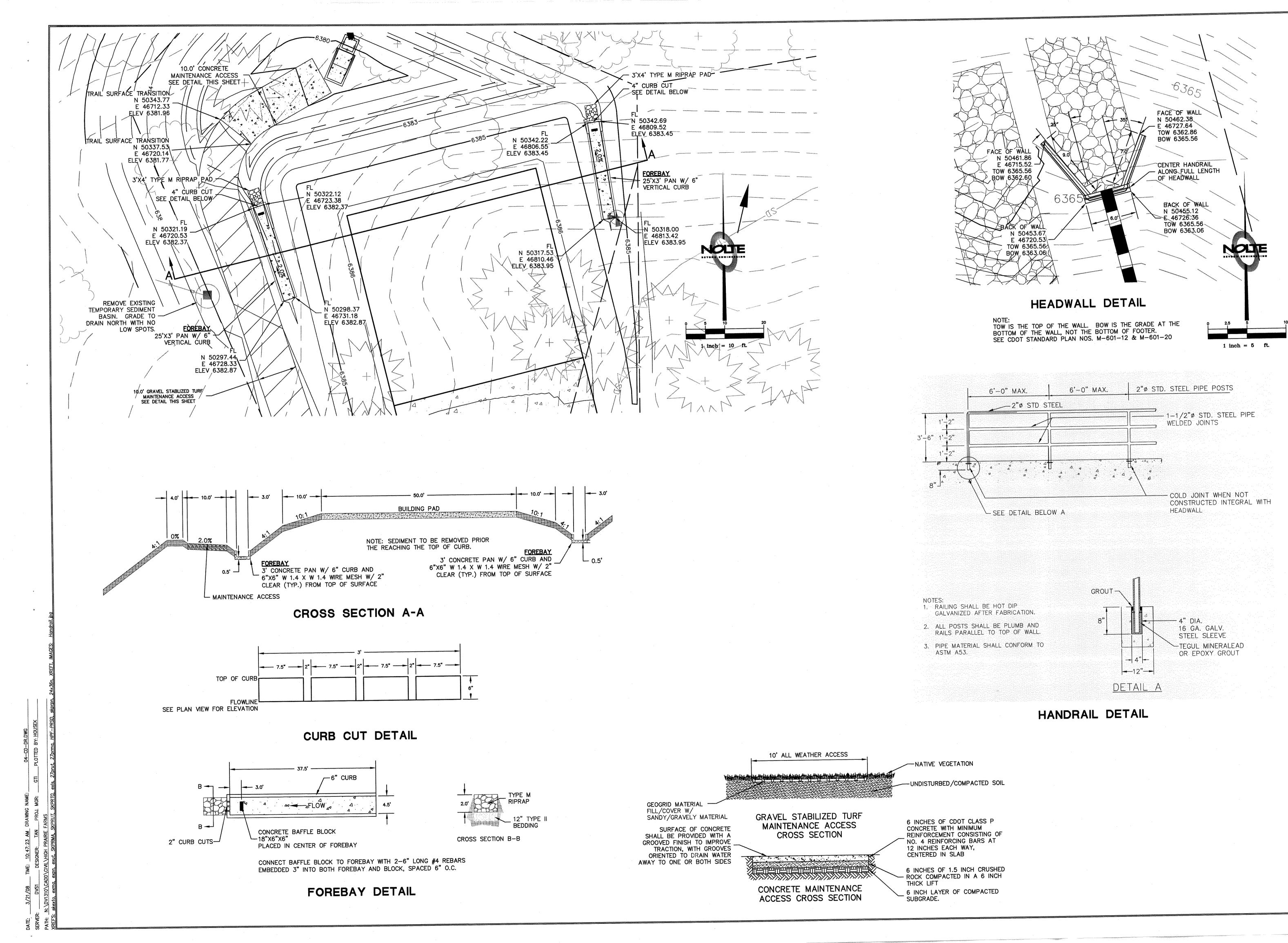
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HIGH PRAIRIE FARMS MAINT. FACILI
CONSTRUCTION DOCUMENTS
DETENTION POND - DETAILS

NOITUAC

Chester Street, Suite 200

Chester Street, Suite 200

Chester Street, Suite 200

37642 37642 3-26-08

DR3
7 of 7 SHEETS

JOB NUMBER **DV131005**

SOUTH METRO FIRE RESCUEFIRE MARSHAL'S OFFICE



Carolyn Washee-Freeland, AICP, Senior Planner Douglas County Department of Community Development, Planning Services 100 Third St Castle Rock Co 80104 303.660.7460 303.660.9550 Fax

Project Name: High Prairie Farms Metro District – Location and Extent

Project File #: LE2024-027 S Metro Review # REFSP24-00195

Review date: November 14, 2024

Plan reviewer: Aaron Miller 720.989.2246

aaron.miller@southmetro.org

Project Summary: High Prairie Farms Metro District requests approval of a Location and Extent for the

construction of a new maintenance building located near the northeast corner of S.

Pinery Pkwy and Democrat Road SPN: 2347-182-05-001.

Code Reference: Douglas County Fire Code, 2018 International Fire Code, and 2021 International Building

Code with amendments as adopted by Douglas County.

South Metro Fire Rescue (SMFR) has reviewed the provided documents and has no objection to the proposed Location and Extent. Applicants and Contractors are encouraged to contact SMFR regarding the applicable permit requirements for the proposed project.





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

November 18, 2024

Douglas County Planning Services 100 Third Street Castle Rock, CO 80104

Attn: Carolyn Washee-Freeland

Re: Pinery Filing 30A, Tract F, High Prairie Farms MetroDistrict - New

Maintenance Building Location and Extent Request

Case # LE2024-027

Public Service Company of Colorado's (PSCo) Right of Way & Permits Referral Desk has reviewed the documents for **the above-mentioned project** and currently has **no apparent conflict**.

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.

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

Carolyn Freeland

From: annb cwc64.com <annb@cwc64.com>
Sent: Wednesday, November 13, 2024 2:31 PM

To: Carolyn Freeland

Cc: Pam Choy (pc2914@att.com); duanew cwc64.com; jt cwc64.com

Subject: Democrat Road Franktown, Colorado Douglas County eReferral

#LE2024-027

Attachments: Democrat Road Franktown, Colorado.jpg

Hi Carolyn,

This is in response to your eReferral with a utility map showing any buried AT&T Long Line Fiber Optics near Democrat Road Franktown, Colorado. The Earth map shows the project area in red. Based on the address and/or map you provided, there should be NO conflicts with the AT&T Long Lines, as we do not have facilities in that area.

Please feel free to contact us with any questions or concerns.

Ann Barnowski Clearwater Consulting Group Inc 120 9th Avenue South Suite 140 Nampa, ID 83651 Annb@cwc64.com

The attached google earth maps are intended to show approximate locations of the buried AT&T long line fiber optic cable. The maps are provided for informational purposes only. In no way should the maps be used for anything other than general guidelines as to where the fiber is or is not and any other use of these maps is strictly prohibited.

----Original Message-----

From: cfreeland@douglas.co.us <cfreeland@douglas.co.us>

Sent: Tuesday, November 12, 2024 2:39 PM To: annb cwc64.com annb@cwc64.com

Subject: Douglas County eReferral (LE2024-027) Is Ready For Review

There is an eReferral for your review. Please use the following link to log on to your account:

https://apps.douglas.co.us/planning/projects/Login.aspx

LE2024-027, Pinery Filing 30A, Tract F, High Prairie Farms MetroDistrict - New Maintenance Building Location and Extent Request

High Prairie Farms Metro District requests approval of a Location and Extent for the construction of a new maintenance building located near the northeast corner of S. Pinery Pkwy and Democrat Road SPN: 2347-182-05-001.

This referral will close on November 26, 2024.

If you have any questions, please contact me.

Sincerely,

