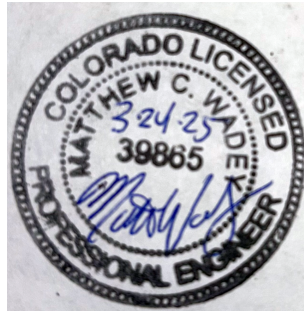


DRAINAGE REPORT

446 BROADWAY

EAGLE, COLORADO

March 2025



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- Sheet 1- Drainage Map

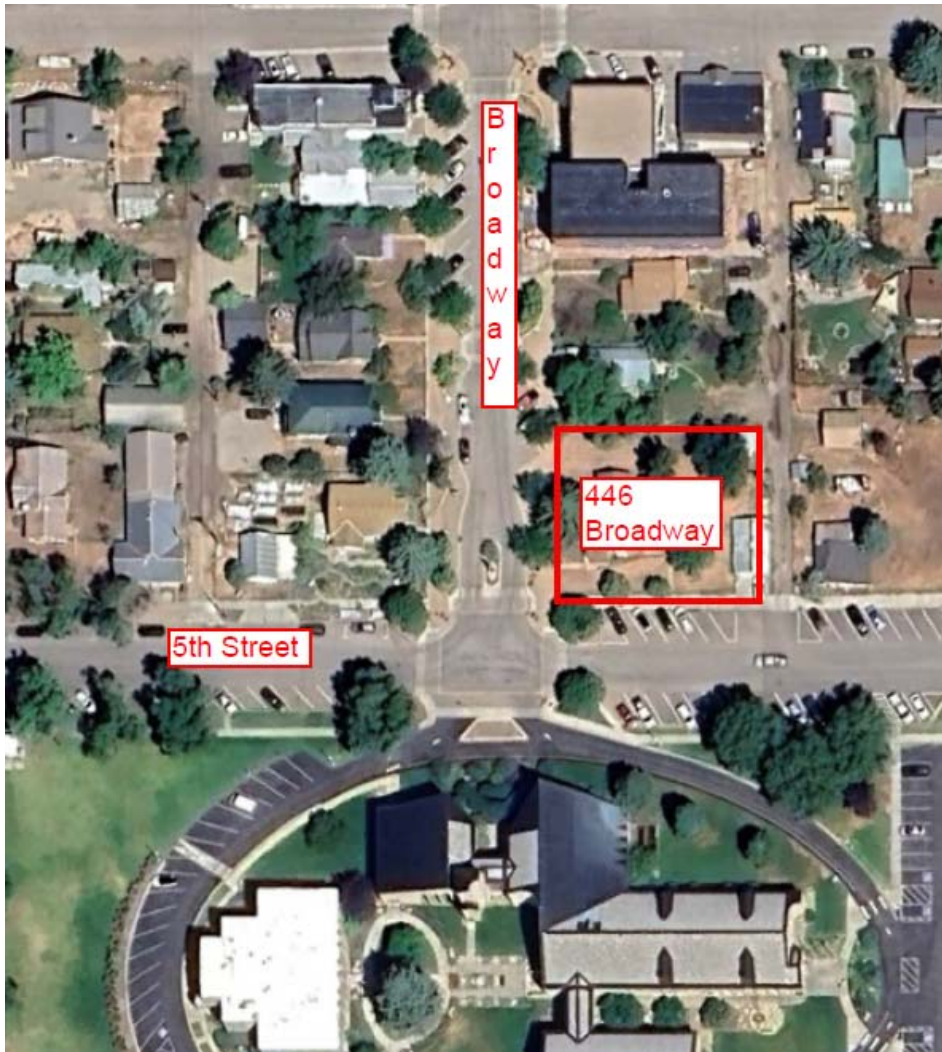


Figure 1: Vicinity Map- 446 Broadway , Eagle

I. INTRODUCTION

The proposed 446 Broadway Project is in downtown Eagle Colorado approximately 2/3 of a mile south of the Interstate 70 exit. The Project is located on the corner of Fifth Street and Broadway Street, just north from the Eagle County Government Buildings. The Property is approximately 0.28 acres and will combine lots 21-24 of Block 22 of the Town of Eagle. The lots are bordered by an existing single family residence to the north, a gravel alley to the east, Fifth Street to the south and Broadway Street to the west. The Project is a proposed mixed use commercial-residential with commercial on the ground floor and smaller residential units on the upper levels. This report addresses the stormwater generated runoff from the proposed development and connection to the existing Town stormwater infrastructure prior to being released to the Eagle River.

II. EXISTING LAND USE

Lots 21-24 currently existing as a single family residence with a garage outbuilding. Most of the property contains a grass yard surrounded one (2) sides by Town concrete sidewalks. (see Figure 1: Vicinity Map)

III. DRAINAGE BASINS

The downtown core of Eagle allows zero setback building construction, and therefore the proposed building is designed to be built to each property line, on all sides. The proposed drainage will be collected on the roof and piped to a discharge point on the southern edge of the proposed building. The runoff will connect to an existing stormwater curb inlet along 5th street, installed with the 2002 Town drainage improvements. The existing curb inlet connect to an 18" RCP storm pipe that travels to

the 27" RCP storm collector at the intersection of Broadway St. and fifth Street. This pipe crosses Highway 6 and then discharges into the Eagle River. The Town's stormwater system is shown below in Figure 2.

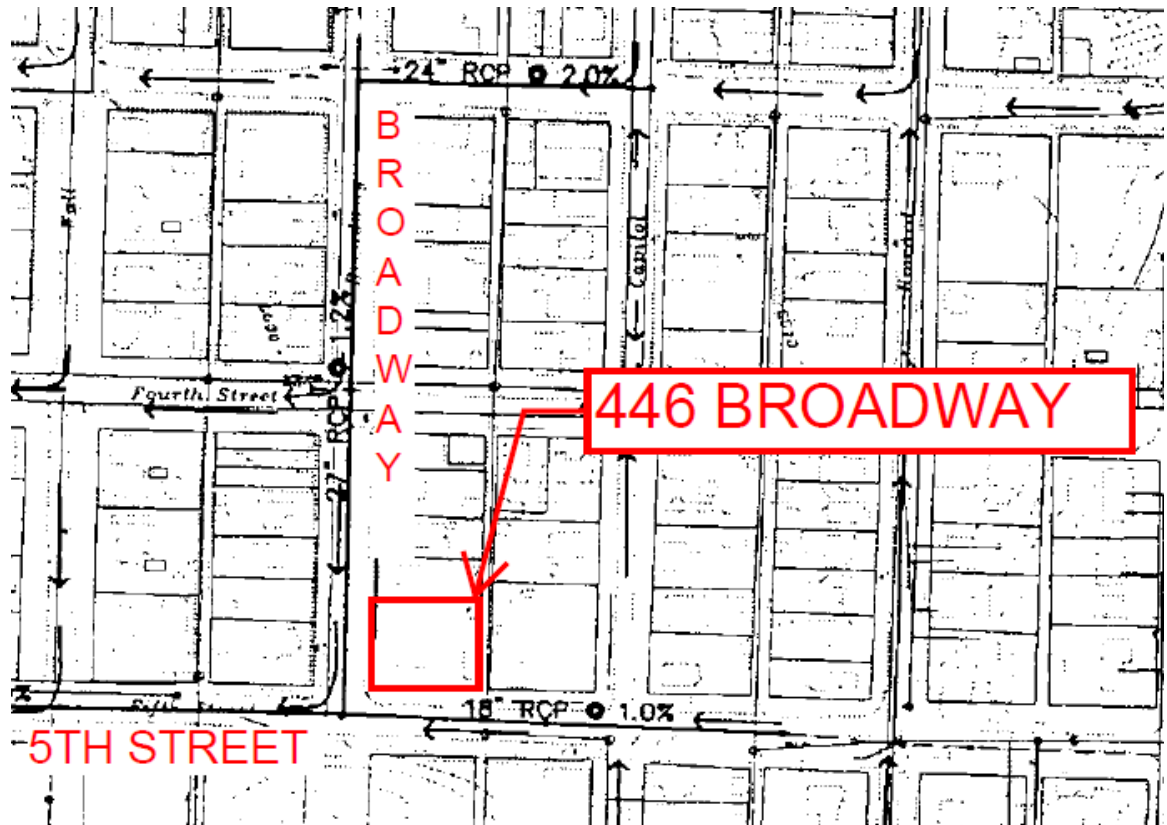


Figure 2: Town of Eagle Stormwater System

The offsite drainage basins were not analyzed in the attached calculations, as the offsite storm flow is contained in the street sections of Broadway St and Fifth street and diverted around the Project site and analyzed in the 2002 Report "Old Town Drainage

Master Plan” (August 2002 prepared by Icon Engineering Inc.). diverted around the proposed Project.

IV. HYDROLOGY- PEAK FLOW DETERMINATION

Historic Peak flows have been calculated using TR55 (SCS method for Type II rainfall), "Urban Hydrology for Small Watersheds", June 1986 as prepared by the U.S. Soil Conservation Service. The Town of Eagle Drainage Design Criteria was reviewed to adhere to the standards. A 10, 25 and 100 year storm event were analyzed per Public Works Design Manual and the 2020 ordinance suggesting a 10 year storm event for design consideration. Rainfall intensity were taken NOAA Atlas 14 and the precipitation tables are included in Appendix A.

Soil classification types were found in the “Soil Survey of Eagle County” prepared by the U.S. Department of Agriculture Soil Conservation Service (NRCS). A summary and map of the soils may be found in Appendix B. The entire site is comprised of Type B soils, which have moderate infiltration rates, are well drained and have moderate water transmission rates.

Developed Peak Flows were determined utilizing TR55 (SCS method). The specific developed drainage basins were given runoff curve numbers (RCN) representative of their relative impervious areas. Historic and Developed 10, 25 and 100 year peak flows can be found in the summary table “Stormwater Runoff” in Appendix C and seen below. All runoff calculations (TR55) for Historic and Developed flows can be seen in Appendix D and E.

446 Broadway

Stormwater Runoff

Type II rain, Type B soils

Basins	Area	Area (Acre)	Area Roof/hardscape	Area Grass	RCN	TC	Q-10	Q-25	Q-100
Site	12,110	0.28	0.28	0.000	98	0.10	0.52	0.63	0.80
DEVELOPED		0.28					0.52	0.63	0.80
HISTORIC				grass- FAIR					
H	12,110	0.28		0.28	69	0.1	0.00	0.00	0.11

The historic stormwater runoff was relatively low given the small site and Type B soils. Only the 100 year storm event provided a calculation utilizing TR-55, of 0.11 cfs. The developed stormwater runoff was calculated as 0.52, 0.63 and 0.80 cfs for the 10, 25 and 100 year events.

The existing Old Town stormwater basin for this area is listed as Basin F in previous Master Drainage Studies (seen below, Figure 3)

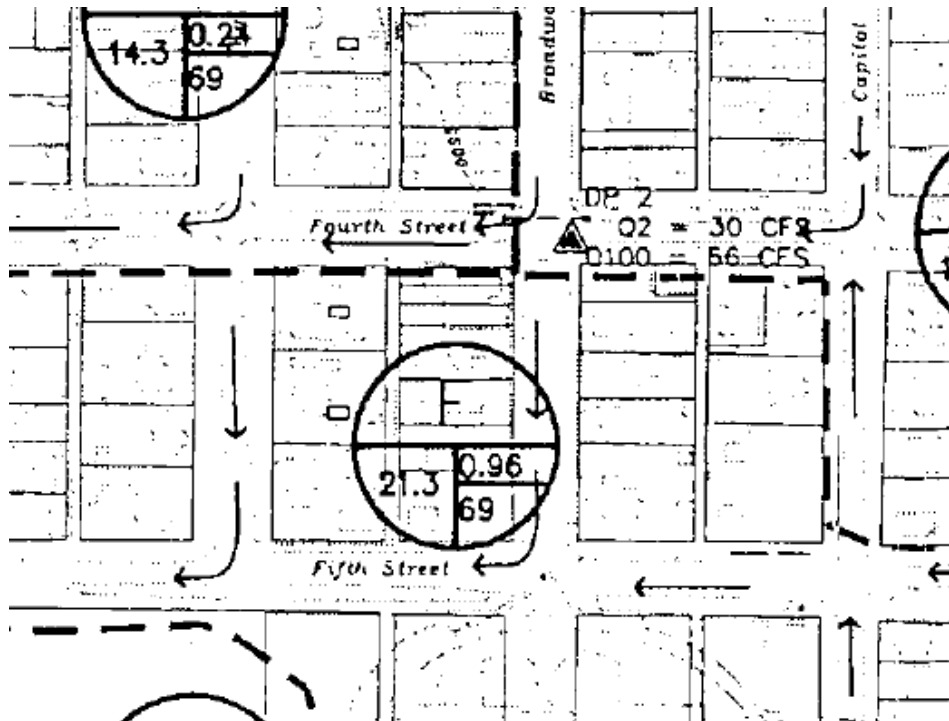


Figure 3: Drainage Basin F (Old Town Eagle Master Drainage)

Basin F contains 21.3 acres with a runoff curve of 69, and a time of concentration of 0.96 hours. The release of stormwater from the proposed Project should be the difference of the volumes from the historic runoff event and the developed site, which equates to 0.52 cfs for the 10 year event.

V. HYDRAULICS- CULVERTS

The existing stormwater infrastructure in Fifth Street is a 27" RCP culvert that continues under Highway 6. A full 27" RCP pipe at 1.0% can contain 33.1 cfs (Manning's Equation- Appendix F). The proposed Project will introduce 0.52 additional cfs (10 year event) to the Town system, approximately a 1.5% increase. In the event the Town's storm system becomes inundated with runoff, the Town's curbed street system will provide sufficient volume to carry the 100 year event (per 2002 Master Drainage Study)

V1. SEDIMENT AND EROSION CONTROL

A sediment and erosion control plan have been developed for the project to limit the transport of sediments and contaminants to the Town facilities and the Eagle River. Devices to be used during construction to prevent sediment laden runoff from leaving the site include stabilized construction entrances, excelsior wattles and inlet protection. (See plan sheet in Appendix)

APPENDIX A

Precipitation Data



NOAA Atlas 14, Volume 8, Version 2
Location name: Eagle, Colorado, USA*
Latitude: 39.6522°, Longitude: -106.8272°
Elevation: 6603 ft**
* source: ESRI Maps
** source: USGS



POINT PRECIPITATION FREQUENCY ESTIMATES

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

NOAA, National Weather Service, Silver Spring, Maryland

[PF tabular](#) | [PF graphical](#) | [Maps & aeries](#)

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches) ¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.103 (0.085-0.129)	0.155 (0.127-0.193)	0.237 (0.193-0.297)	0.304 (0.247-0.383)	0.395 (0.304-0.520)	0.464 (0.347-0.623)	0.531 (0.381-0.739)	0.598 (0.408-0.865)	0.685 (0.446-1.03)	0.749 (0.474-1.16)
10-min	0.151 (0.124-0.188)	0.226 (0.185-0.282)	0.347 (0.283-0.434)	0.446 (0.361-0.561)	0.579 (0.445-0.761)	0.679 (0.509-0.912)	0.778 (0.559-1.08)	0.876 (0.597-1.27)	1.00 (0.652-1.51)	1.10 (0.694-1.69)
15-min	0.184 (0.151-0.229)	0.276 (0.226-0.344)	0.423 (0.345-0.530)	0.544 (0.440-0.684)	0.706 (0.543-0.928)	0.828 (0.620-1.11)	0.948 (0.681-1.32)	1.07 (0.728-1.54)	1.22 (0.796-1.84)	1.34 (0.846-2.06)
30-min	0.255 (0.209-0.317)	0.349 (0.286-0.435)	0.504 (0.411-0.630)	0.632 (0.512-0.796)	0.810 (0.626-1.07)	0.948 (0.712-1.28)	1.09 (0.782-1.52)	1.23 (0.838-1.78)	1.41 (0.921-2.13)	1.55 (0.984-2.40)
60-min	0.331 (0.272-0.412)	0.422 (0.346-0.526)	0.573 (0.468-0.717)	0.702 (0.569-0.884)	0.884 (0.685-1.17)	1.03 (0.774-1.39)	1.17 (0.847-1.64)	1.32 (0.908-1.93)	1.53 (1.00-2.32)	1.69 (1.07-2.61)
2-hr	0.408 (0.337-0.504)	0.495 (0.408-0.612)	0.643 (0.528-0.798)	0.772 (0.629-0.963)	0.957 (0.750-1.26)	1.11 (0.842-1.48)	1.26 (0.920-1.75)	1.42 (0.987-2.05)	1.65 (1.09-2.46)	1.83 (1.17-2.78)
3-hr	0.471 (0.390-0.578)	0.550 (0.455-0.676)	0.687 (0.566-0.848)	0.808 (0.661-1.00)	0.986 (0.779-1.29)	1.13 (0.868-1.51)	1.29 (0.945-1.78)	1.45 (1.01-2.08)	1.68 (1.12-2.49)	1.86 (1.20-2.81)
6-hr	0.603 (0.503-0.735)	0.678 (0.565-0.827)	0.811 (0.673-0.993)	0.932 (0.768-1.15)	1.11 (0.888-1.45)	1.27 (0.979-1.67)	1.43 (1.06-1.95)	1.60 (1.13-2.27)	1.85 (1.25-2.71)	2.05 (1.34-3.05)
12-hr	0.751 (0.630-0.908)	0.858 (0.719-1.04)	1.04 (0.869-1.26)	1.20 (0.996-1.47)	1.43 (1.15-1.83)	1.62 (1.26-2.11)	1.82 (1.36-2.44)	2.02 (1.44-2.81)	2.31 (1.57-3.32)	2.54 (1.67-3.71)
24-hr	0.917 (0.774-1.10)	1.06 (0.893-1.27)	1.30 (1.09-1.56)	1.50 (1.25-1.82)	1.80 (1.44-2.27)	2.03 (1.59-2.61)	2.27 (1.71-3.01)	2.52 (1.81-3.46)	2.87 (1.96-4.06)	3.14 (2.08-4.52)
2-day	1.10 (0.934-1.31)	1.25 (1.06-1.49)	1.52 (1.28-1.81)	1.75 (1.47-2.10)	2.09 (1.70-2.62)	2.36 (1.87-3.01)	2.65 (2.01-3.47)	2.95 (2.14-3.99)	3.37 (2.33-4.71)	3.70 (2.48-5.25)
3-day	1.21 (1.03-1.43)	1.38 (1.18-1.64)	1.68 (1.42-1.99)	1.93 (1.63-2.30)	2.30 (1.87-2.86)	2.60 (2.06-3.28)	2.91 (2.22-3.78)	3.23 (2.35-4.34)	3.69 (2.57-5.11)	4.04 (2.73-5.68)
4-day	1.30 (1.12-1.54)	1.49 (1.27-1.76)	1.80 (1.53-2.13)	2.06 (1.75-2.46)	2.45 (2.00-3.04)	2.76 (2.20-3.48)	3.09 (2.36-3.99)	3.42 (2.50-4.57)	3.89 (2.72-5.35)	4.26 (2.89-5.95)
7-day	1.55 (1.34-1.82)	1.74 (1.50-2.04)	2.06 (1.77-2.43)	2.34 (1.99-2.77)	2.74 (2.25-3.36)	3.06 (2.45-3.81)	3.39 (2.61-4.34)	3.74 (2.75-4.92)	4.21 (2.97-5.72)	4.58 (3.14-6.32)
10-day	1.76 (1.52-2.06)	1.96 (1.69-2.29)	2.30 (1.97-2.69)	2.58 (2.21-3.04)	2.99 (2.47-3.65)	3.32 (2.67-4.11)	3.66 (2.84-4.65)	4.02 (2.97-5.25)	4.50 (3.20-6.07)	4.89 (3.36-6.68)
20-day	2.35 (2.04-2.72)	2.60 (2.26-3.01)	3.02 (2.61-3.50)	3.37 (2.90-3.93)	3.87 (3.21-4.65)	4.26 (3.45-5.19)	4.65 (3.63-5.82)	5.06 (3.78-6.51)	5.62 (4.02-7.43)	6.04 (4.20-8.13)
30-day	2.84 (2.48-3.27)	3.15 (2.75-3.63)	3.66 (3.18-4.22)	4.08 (3.52-4.73)	4.65 (3.88-5.55)	5.10 (4.15-6.17)	5.54 (4.35-6.87)	5.99 (4.50-7.63)	6.59 (4.74-8.63)	7.04 (4.93-9.38)
45-day	3.48 (3.05-3.99)	3.87 (3.39-4.44)	4.50 (3.92-5.16)	5.00 (4.34-5.77)	5.68 (4.74-6.70)	6.18 (5.04-7.41)	6.68 (5.26-8.19)	7.16 (5.40-9.02)	7.78 (5.63-10.1)	8.24 (5.81-10.9)
60-day	4.04 (3.55-4.61)	4.50 (3.95-5.14)	5.22 (4.57-5.98)	5.80 (5.04-6.67)	6.55 (5.48-7.68)	7.10 (5.81-8.46)	7.63 (6.02-9.29)	8.13 (6.14-10.2)	8.76 (6.36-11.2)	9.20 (6.52-12.0)

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

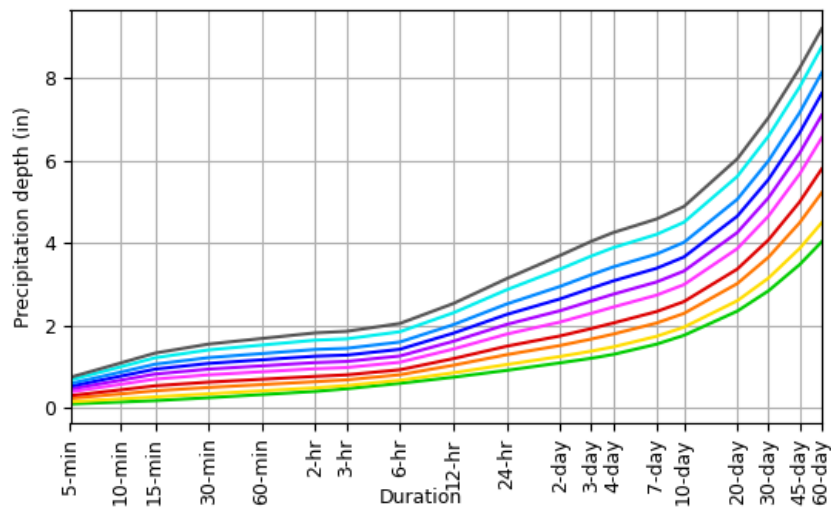
Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper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

Please refer to NOAA Atlas 14 document for more information.

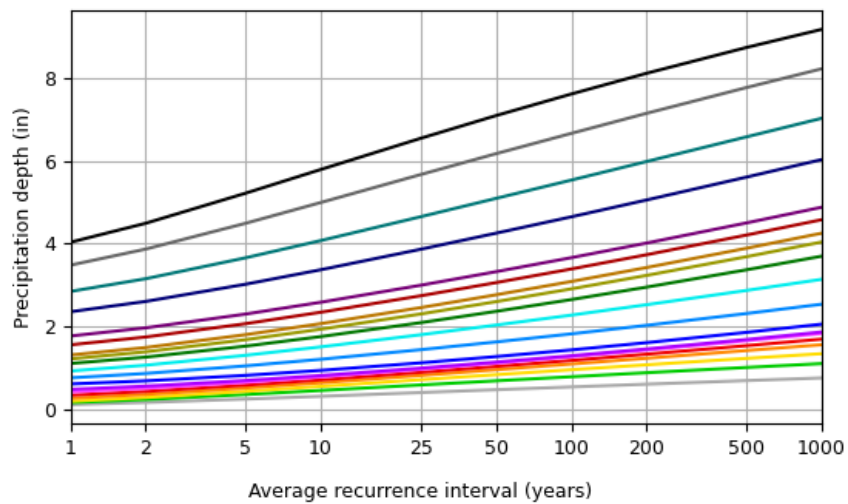
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PF graphical

PDS-based depth-duration-frequency (DDF) curves
Latitude: 39.6522°, Longitude: -106.8272°



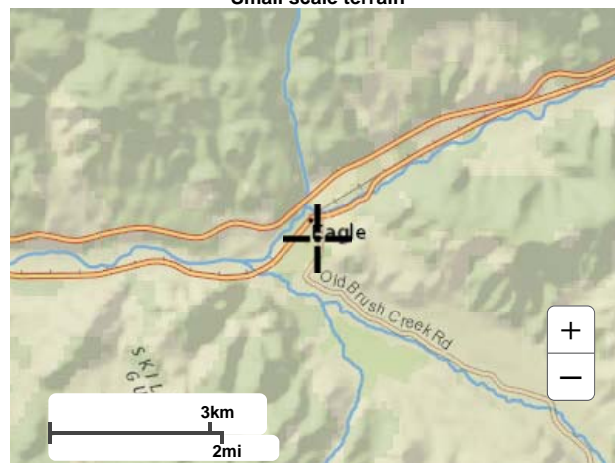
Average recurrence interval (years)
1
2
5
10
25
50
100
200
500
1000



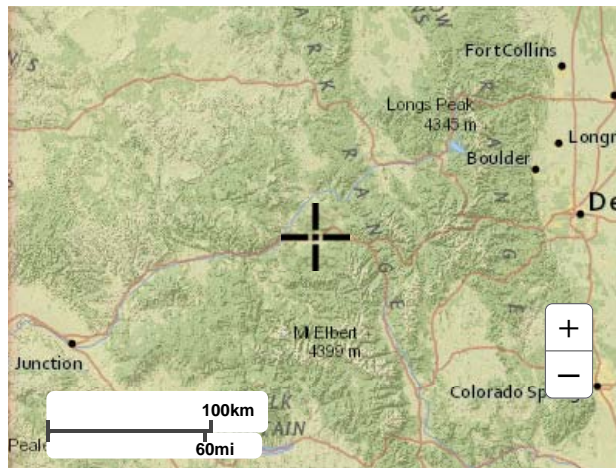
Duration	
5-min	2-day
10-min	3-day
15-min	4-day
30-min	7-day
60-min	10-day
2-hr	20-day
3-hr	30-day
6-hr	45-day
12-hr	60-day
24-hr	

Maps & aerals

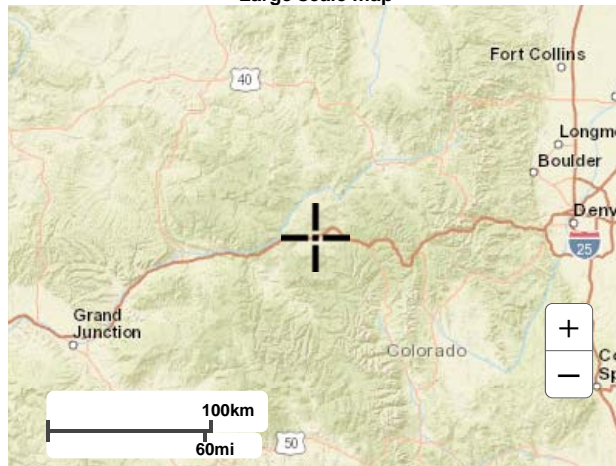
Small scale terrain



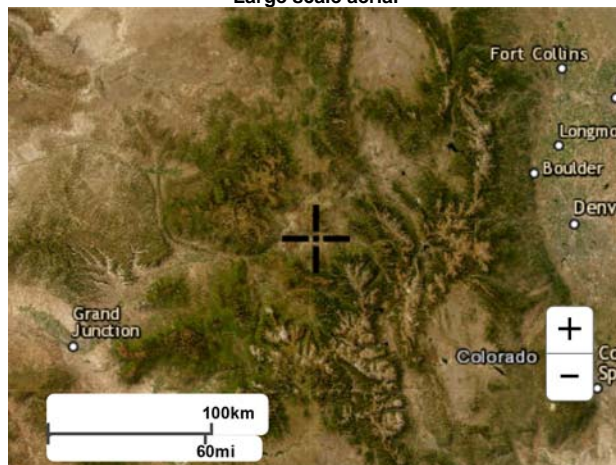
Large scale terrain



Large scale map



Large scale aerial



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APPENDIX B

Soils Summary

Hydrologic Soil Group—Aspen-Gypsum Area, Colorado, Parts of Eagle, Garfield, and Pitkin Counties



MAP LEGEND

Area of Interest (AOI)









 Area of Interest (AOI)

Soils

Soil Rating Polygons





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

Soil Rating Lines


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

Soil Rating Points






 A
 A/D
 B
 B/D

 C
 C/D
 D
 Not rated or not available


Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

Background

 Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: Aspen-Gypsum Area, Colorado, Parts of Eagle, Garfield, and Pitkin Counties
 Survey Area Data: Version 15, Aug 29, 2024

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

Date(s) aerial images were photographed: Sep 5, 2021—Sep 7, 2021

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

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
89	Mussel loam, 1 to 6 percent slopes	B	0.4	100.0%
Totals for Area of Interest			0.4	100.0%

Description

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

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

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

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

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

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

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

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

APPENDIX C

Historic and Developed Stormwater Runoff

446 Broadway

Stormwater Runoff

Type II rain, Type B soils

Basins	Area	Area (Acre)	Area Roof/hardscape	Area Grass	RCN	TC	Q-10	Q-25	Q-100
Site	12,110	0.28	0.28	0.000	98	0.10	0.52	0.63	0.80
DEVELOPED		0.28					0.52	0.63	0.80
HISTORIC	grass- FAIR								
H	12,110	0.28	0.28		69	0.1	0.00	0.00	0.11

APPENDIX D

Historic Flowrate Calculations TR55

WinTR-55 Current Data Description

--- Identification Data ---

User: MW Date: 3/24/2025
 Project: Eagle- 446 Broadway Units: English
 SubTitle: Historic Areal Units: Acres
 State: Colorado
 County: Eagle
 Filename: <new file>

--- Sub-Area Data ---

Name	Description	Reach	Area(ac)	RCN	Tc
Historic		Outlet	0.28	69	0.100

Total area: .28 (ac)

--- Storm Data ---

Rainfall Depth by Rainfall Return Period

2-Yr (in)	5-Yr (in)	10-Yr (in)	25-Yr (in)	50-Yr (in)	100-Yr (in)	-Yr (in)
1.06	1.3	1.5	1.8	2.03	2.27	.0

Storm Data Source: User-provided custom storm data
 Rainfall Distribution Type: Type II
 Dimensionless Unit Hydrograph: <standard>

=====

MW Eagle- 446 Broadway
 Historic
 Eagle County, Colorado
 Watershed Peak Table

Sub-Area or Reach Identifier	10-Yr (cfs)	25-Yr (cfs)	100-Yr (cfs)
------------------------------------	----------------	----------------	-----------------

SUBAREAS			
Historic	.00	.00	0.11

REACHES

OUTLET	.00	.00	0.11
--------	-----	-----	------

=====

MW Eagle- 446 Broadway
 Historic

Eagle County, Colorado

Sub-Area Summary Table

Sub-Area Identifier	Drainage Area (ac)	Time of Concentration (hr)	Curve Number	Receiving Reach	Sub-Area Description
Historic	.28	0.100	69	Outlet	
Total Area: .28 (ac)					

=====

MW Eagle- 446 Broadway
Historic
Eagle County, Colorado

Sub-Area Time of Concentration Details

Sub-Area Identifier/	Flow Length (ft)	Slope (ft/ft)	Mannings's n	End Area (sq ft)	Wetted Perimeter (ft)	Velocity (ft/sec)	Travel Time (hr)
Historic							
User-provided							0.100
Time of Concentration							0.100
=====							

=====

MW Eagle- 446 Broadway
Historic
Eagle County, Colorado

Sub-Area Land Use and Curve Number Details

Sub-Area Identifier	Land Use	Hydrologic Soil Group	Sub-Area Area (ac)	Curve Number
Historic	Open space; grass cover 50% to 75% (fair)	B	.278	69
Total Area / Weighted Curve Number			.28	69
				==

=====

APPENDIX E

Developed Flowrate Calculations TR55

WinTR-55 Current Data Description

--- Identification Data ---

User: MW Date: 3/24/2025
 Project: Eagle- 446 Broadway Units: English
 SubTitle: developed Areal Units: Acres
 State: Colorado
 County: Eagle
 Filename: O:\Eagle\446 Broadway- 2024\dwg\Drainage\tr 55\historic.w55

--- Sub-Area Data ---

Name	Description	Reach	Area(ac)	RCN	Tc
Developed		Outlet	0.28	98	0.100

Total area: .28 (ac)

--- Storm Data ---

Rainfall Depth by Rainfall Return Period

2-Yr (in)	5-Yr (in)	10-Yr (in)	25-Yr (in)	50-Yr (in)	100-Yr (in)	-Yr (in)
1.06	1.3	1.5	1.8	2.03	2.27	.0

Storm Data Source: User-provided custom storm data
 Rainfall Distribution Type: Type II
 Dimensionless Unit Hydrograph: <standard>

=====

MW Eagle- 446 Broadway
 developed
 Eagle County, Colorado
 Watershed Peak Table

Sub-Area or Reach Identifier	10-Yr (cfs)	25-Yr (cfs)	100-Yr (cfs)
------------------------------------	----------------	----------------	-----------------

SUBAREAS			
Developed	0.52	0.63	0.80

REACHES

OUTLET	0.52	0.63	0.80
--------	------	------	------

=====

MW Eagle- 446 Broadway
 developed

Eagle County, Colorado

Sub-Area Summary Table

Sub-Area Identifier	Drainage Area (ac)	Time of Concentration (hr)	Curve Number	Receiving Reach	Sub-Area Description
Developed	.28	0.100	98	Outlet	
Total Area: .28 (ac)					

=====

MW Eagle- 446 Broadway
developed
Eagle County, Colorado

Sub-Area Time of Concentration Details

Sub-Area Identifier/	Flow Length (ft)	Slope (ft/ft)	Mannings's n	End Area (sq ft)	Wetted Perimeter (ft)	Velocity (ft/sec)	Travel Time (hr)
Developed							
User-provided							0.100
Time of Concentration							0.100
=====							

=====

MW Eagle- 446 Broadway
developed
Eagle County, Colorado

Sub-Area Land Use and Curve Number Details

Sub-Area Identifier	Land Use	Hydrologic Soil Group	Sub-Area Area (ac)	Curve Number
Developed	Paved parking lots, roofs, driveways	B	.278	98
Total Area / Weighted Curve Number			.28	98
				==

=====

APPENDIX G

Culvert Calculations (Manning's Equation)

Manning Pipe Calculator

Given Input Data:

Shape	Circular
Solving for	Flowrate
Diameter	27.0000 in
Depth	26.0000 in
Slope	0.0100 ft/ft
Manning's n	0.0130

Computed Results:

Flowrate	33.1381 cfs
Area	3.9761 ft ²
Wetted Area	3.9285 ft ²
Wetted Perimeter	74.3655 in
Perimeter	84.8230 in
Velocity	8.4353 fps
Hydraulic Radius	7.6071 in
Percent Full	96.2963 %
Full flow Flowrate	30.9703 cfs
Full flow velocity	7.7892 fps

MAPS

LEGEND

	PROPERTY LINE
	EXISTING CONTOUR
	EASEMENT
	PROPOSED CONTOUR
	PROPOSED GRADING, SLOPE/SPOT
	EXISTING GRADING, SLOPE/SPOT
	PROPOSED STORM SEWER
	PROPOSED BOULDER RETAINING
	PROPOSED CONCRETE/ASPHALT

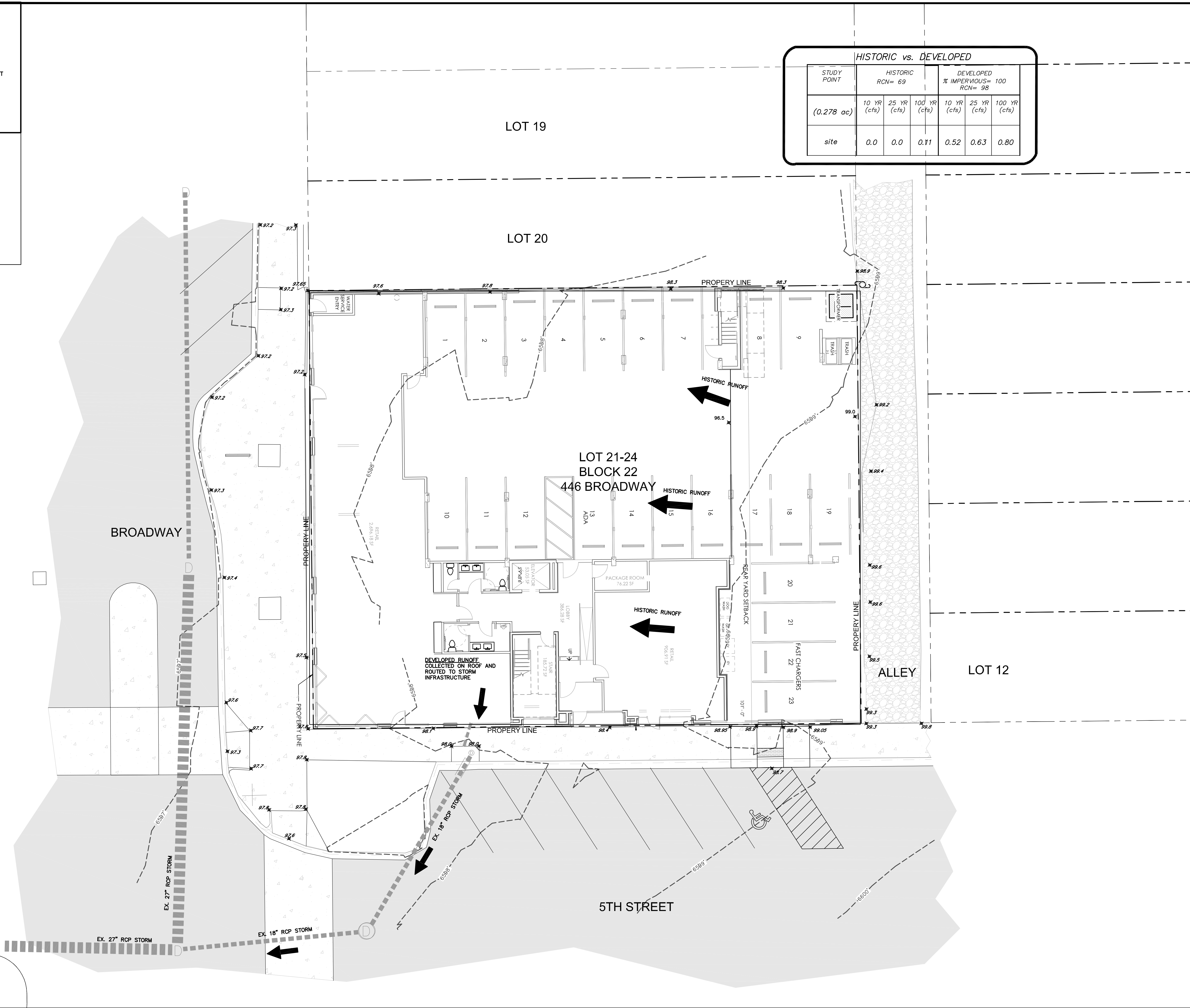
GRAPHIC SCALE

0 5 10 20


(IN FEET)

1 inch = 10 ft.

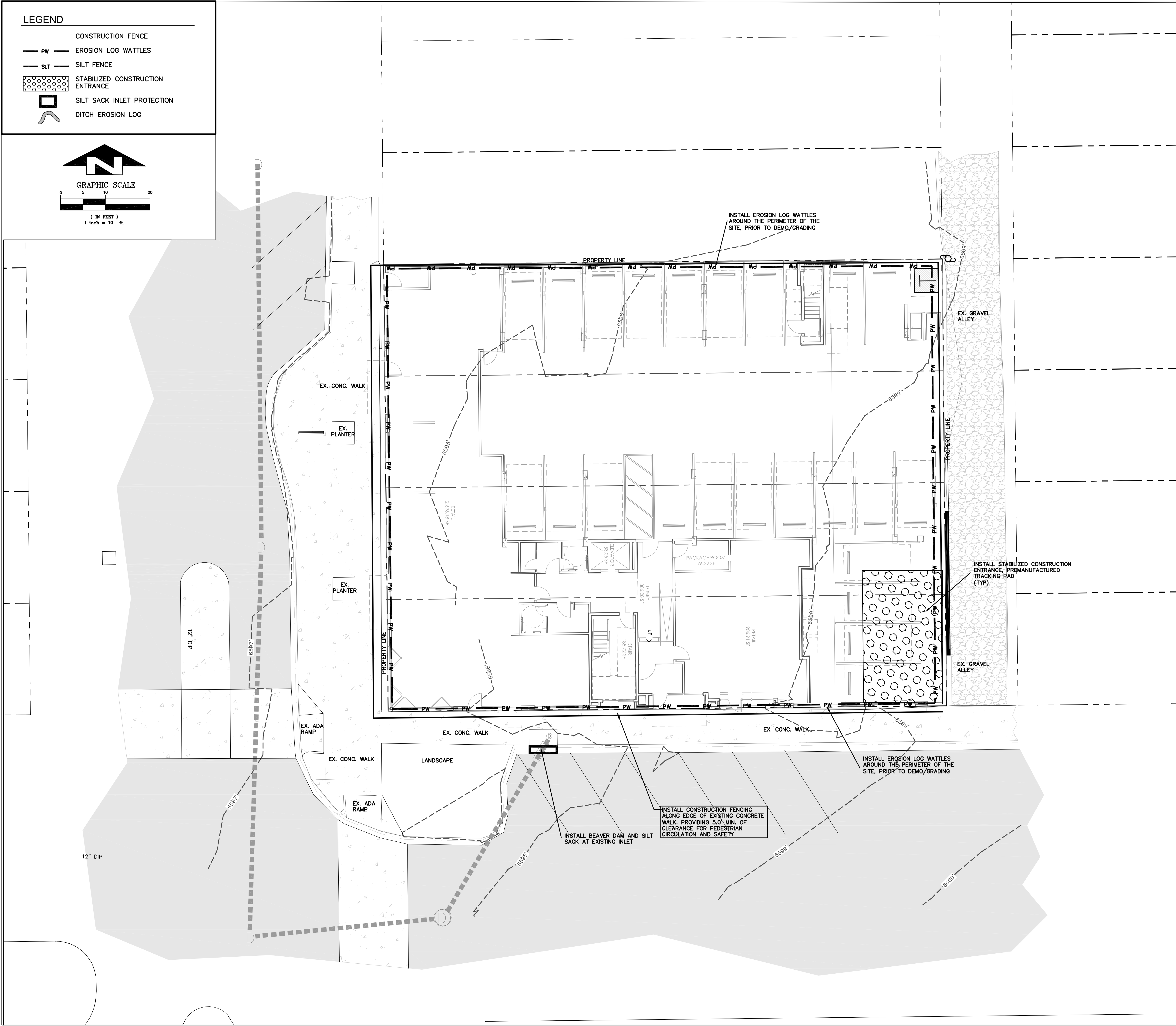
TOPOGRAPHIC INFORMATION PROVIDED BY KIPPP LAND SURVEYING



HISTORIC vs. DEVELOPED						
STUDY POINT	HISTORIC RCN= 69			DEVELOPED % IMPERVIOUS= 100 RCN= 98		
(0.278 ac)	10 YR (cfs)	25 YR (cfs)	100 YR (cfs)	10 YR (cfs)	25 YR (cfs)	100 YR (cfs)
site	0.0	0.0	0.11	0.52	0.63	0.80

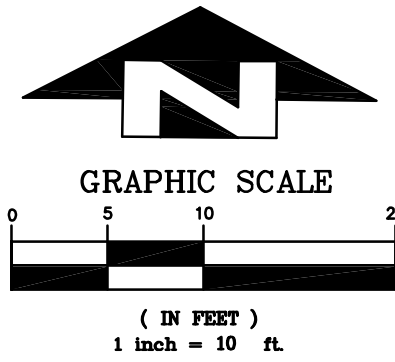
<div style="text-align: center;"> SHEET DAM </div>	DESIGNED	MCW	<div style="text-align: center;"> 446 BROADWAY EAGLE, CO DRAINAGE MAP </div>	<div style="text-align: center;">  ALPINE ENGINEERING INC. <small>34510 HWY 6 / UNIT A9 / PO BOX 97 EAGLE, CO 81631 WWW.ALPINECIVIL.COM</small> </div>																																							
	DRAWN	MCW																																									
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LEGEND

- CONSTRUCTION FENCE
- PW EROSION LOG WATTLES
- SLT SILT FENCE
- STABILIZED CONSTRUCTION ENTRANCE
- SILT SACK INLET PROTECTION
- DITCH EROSION LOG



GENERAL NOTES FOR SEDIMENT CONTROL

1. INSTALL AND MAINTAIN SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH THESE PLANS AND AS NEEDED TO PREVENT SEDIMENT FROM DISCHARGING OFF-SITE OR ENTERING THE RIVER.
2. ALL PROPOSED SEDIMENT CONTROL MEASURES ARE TEMPORARY MEASURES UNLESS SPECIFIED OTHERWISE ON PLANS.
3. SEDIMENT CONTROL MEASURES MAY REQUIRE FIELD ADJUSTMENTS AT THE TIME OF CONSTRUCTION TO INSURE THAT THEIR INTENDED PURPOSE IS ACCOMPLISHED.
4. PROVIDE REGULAR INSPECTION AND MAINTENANCE OF ALL SEDIMENT CONTROL MEASURES TO INSURE THAT SEDIMENT CONTROL EFFICIENCY IS OBTAINED UNTIL FINAL STABILIZATION OF SITE HAS TAKEN PLACE.
5. INSTALL SEDIMENT CONTROL MEASURES AT THE ONSET OF GRADING OPERATIONS SO THAT EFFECTIVE SEDIMENT CONTROL CAN BE ACHIEVED DURING THE ENTIRE CONSTRUCTION PERIOD.
6. STABILIZE ALL POINTS OF INGRESS AND EGRESS WITH TRACKING PAD DURING CONSTRUCTION TO PREVENT TRACKING OF MUD ONTO PUBLIC WAYS.
7. FOR TEMPORARY STOCKPILES APPLY SEED, HYDROMULCH AND TACKIFIER IMMEDIATELY AFTER THEY ARE CONSTRUCTED FOR STABILIZATION. IF EROSION OCCURS AFTER APPLICATION OF THE TACKIFIER, USE EXCELSIOR C2 EROSION CONTROL FABRIC. INSTALL SILT FENCE BELOW STOCKPILES TO CAPTURE SEDIMENT.
8. THE TERM 'REVEGETATION' ON THIS PLAN MEANS THE SUCCESSFUL GERMINATION AND ESTABLISHMENT OF STABLE GRASS COVER FROM A PROPERLY PREPARED SEEDBED CONTAINING THE SPECIFIED AMOUNTS OF FERTILIZER IN ACCORDANCE WITH APPLICABLE 'STANDARDS AND SPECIFICATIONS', REFER TO LANDSCAPE PLANS FOR SEED MIX, FERTILIZER TYPE, MULCH, TACKIFIER AND APPLICATION RATES.
9. IT IS THE CONTRACTOR'S RESPONSIBILITY TO TAKE APPROPRIATE MEASURES TO INSURE THAT NO SEDIMENT LADEN WATER IS DISCHARGED FROM THE SITE.
10. APPROVAL SHALL BE REQUESTED UPON FINAL STABILIZATION OF ALL SITES BEFORE REMOVAL OF SEDIMENT CONTROLS.
11. CONTRACTOR SHALL OBTAIN AND CONFORM TO STORMWATER DISCHARGE PERMIT AND ALL ENVIRONMENTAL PERMITS AND KEEP STREETS CLEAN AND FREE OF SEDIMENT.
12. REMOVAL AND CLEANUP OF ANY SEDIMENT THAT LEAVES THE SITE IS THE RESPONSIBILITY OF THE CONTRACTOR

CONSTRUCTION SEQUENCE OF EROSION/SEDIMENT CONTROL MEASURES BEFORE COMMENCING GRADING OR CONSTRUCTION

1. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCES AT ALL POINTS OF INGRESS AND EGRESS.
2. CONTRACTOR SHALL TAKE APPROPRIATE MEASURES TO ASSURE THAT NO SEDIMENT LEAVES THE SITE.
3. CONSTRUCT SILT FENCE AND WATTLES AND ALL SEDIMENT CONTROL DEVICES.
4. BEGIN DEMOLITION, EXCAVATION AND CONSTRUCTION.
5. INSTALL EROSION CONTROL MEASURES AFTER DITCHES AND SWALES HAVE BEEN CONSTRUCTED AND TOPSOIL AND SEED HAVE BEEN PLACED. INSTALL INLET PROTECTION IN ALL INLETS AS THEY ARE CONSTRUCTED.
6. TOPSOIL AND REVEGETATE ALL DISTURBED AREAS WITH APPROVED SEED MIX PER LANDSCAPE PLAN.
7. CONTRACTOR SHALL REMOVE SEDIMENT CONTROL FACILITIES AFTER FINAL STABILIZATION.

FUGITIVE DUST CONTROL

THE CONTRACTOR IS RESPONSIBLE TO CONTROL FUGITIVE DUST AND TO INCORPORATE THE FOLLOWING:

1. ALL UNPAVED ROADS AND OTHER DISTURBED AREAS ON SITE SHALL BE WATERED TO MINIMIZE FUGITIVE DUST.
2. HAUL ROADS SHALL BE TREATED WITH MAGNESIUM CHLORIDE IF WATER IS NOT CONTROLLING THE DUST.
3. ALL DISTURBED SURFACE AREAS SHALL BE REVEGETATED OR SURFACED PER THE LANDSCAPE PLAN AS SOON AS POSSIBLE.
4. MUD AND DIRT CARRYOUT ONTO PAVED SURFACES SHALL BE PREVENTED. ANY MUD AND DIRT CARRYOUT ONTO PAVED SURFACES SHALL BE CLEANED UP DAILY.

DESIGNED	DRAWN	CHECKED	JOB NO.	DATE
MCW	MCW	MCW		05/26/2021
NO.	DATE	REVISIONS	BY	
		DEVELOPMENT	MCW	
		SUBMITTAL		