MCDOANALD'S RESTAURANT
10950 S. Parker Road
Parker, Colorado

DRAINAGE REPORT
Strategic Land Solutions, Inc. JN: 21-001-168
Report Date/History: October 6, 2023

Prepared for:

MCDONALD'S RESTAURANT
10590 S. Parker Road
Parker, Colorado
STORE ID # 500162
ATTN: Mr. Robert Yagusesky – Area Construction Manager
Email: robert.yagusesky@us.mcd.com

Prepared by:

Strategic Land Solutions, Inc.
Civil Engineering • Land Planning • Entitlements

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Published by Strategic Land Solutions, Inc. (2595 Ponderosa Road, Franktown, CO 80116, www.strategicls.net, 720-384-7661 phone)

Strategic Land Solutions, Inc.
Civil Engineering • Land Planning • Entitlements

TABLE OF CONTENTS

LIST OF FIGURES

APPENDICES

Strategic Land Solutions, Inc.
Civil Engineering • Land Planning • Entitlements

ENGINEER'S CERTIFICATION

This **STORMWATER MANAGEMENT REPORT** was prepared by me or under my direct supervision in accordance with the provisions of the Town of Parker Storm Drain and Environmental Manual for the owners thereof. It is understood that the Town of Parker does not and will not assume liability for the drainage facilities designed by others.

SIGNATURE: _____

Robert J. Palmer, PE
CO PE #36320

COLORADO REGISTERED ROBERT J. PALMER 36320 PROFESSIONAL ENGINEER

DEVELOPER'S CERTIFICATION

THE PROPERTY OWNER (hereinafter **DEVELOPER**) hereby certifies that the drainage facilities for the project detailed within this Report will be constructed according to the design presented. It is understood that the Town of Parker does not and will not assume liability for the drainage facilities designed and/or certified by my engineer and that the Town of Parker reviews drainage plans pursuant to Colorado Revised Statutes, Title 24, Article 28; but cannot, on behalf of **DEVELOPER**, guarantee that final drainage design review will absolve **DEVELOPER** and/or their successor and/or assigns of future liability for improper design.

SIGNATURE: _____

_____
Printed Name –

_____
Title –

1. GENERAL LOCATION AND DESCRIPTION

1.1. LOCATION

The planned **McDonalds Remodel** will consist of a major remodel of their restaurant located at 1095 S. Parker Road within the northeast ¼ of Section 22, Township 6 South, Range 66 West of the 6th Principal Meridian, Town of Parker, State of Colorado.

The site is bounded on the west by S. Parker Road and on the north, east, and south by an existing commercial development.

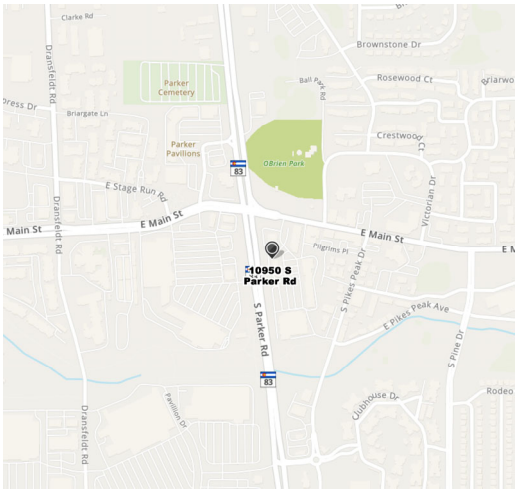


Figure 1 - SITE LOCATION MAP

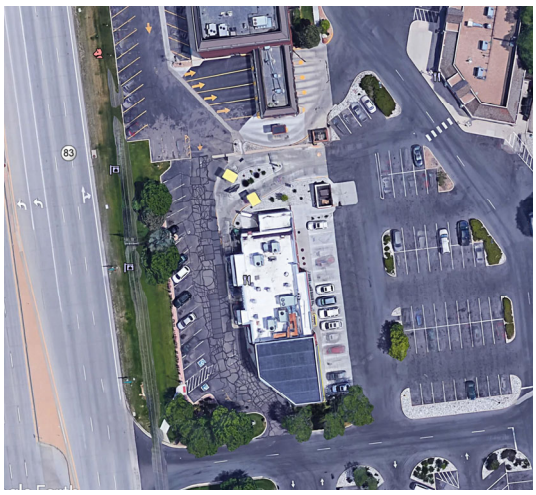


Figure 2 - SITE LOCATION ENLARGEMENT

1.2. DESCRIPTION OF PROPERTY

The site is approximately 0.70 acres total and consists of an operational McDonalds Restaurant.

The site-specific development improvements will consist of a major remodel of their existing restaurant, new parking lot paving, and a new fire protection service to the building.

2. DRAINAGE BASINS AND SUB-BASINS

2.1. MAJOR BASIN DESCRIPTION

The site lies within the Cherry Creek Drainage Basin, and it is tributary to the Sulphur Gulch.

Runoff from the existing site generally flows overland from north and east at approximately 1.0% slope to an existing storm drain system serving the shopping center. Runoff is then conveyed to Sulphur Gulch and ultimately to Cherry Creek.

The project is located within Flood Zone X as shown on the National Flood Insurance Program's Flood Insurance Rate Map (FIRM), Douglas County, Panel 69 of 495, Community Panel Number 08035C0069F, with an Effective Date of September 30, 2005 – REVISED to reflect LOMR September 6, 2019.

According the National Resource Council Soil (NRCS) web site, the onsite soil consists of Bresser sandy loam (6%) and Sandy alluvial land (94%), which has a hydraulic soils classification type B and type A respectively.

According to the Phase 1 Environmental Site Assessment prepared Terracon, there are no wetlands, or protected species located at this site. As such, no Federal or State permitting is required.

According to the site Geotechnical Report prepared by Terracon, groundwater was encountered at approximately 20-feet below the existing ground. As such, no dewatering is expected as part of the storm drain improvements.

Sulphur Gulch is the major drainageway that runs south of the site.

2.2. SUB-BASIN DESCRIPTION

Under proposed conditions, the site is roughly divided into four (4) existing and proposed drainage sub-basins. Note that neither the existing drainage basin boundaries nor the existing runoff patterns are changed with this project.

The following is a description of the four proposed and existing sub-basins:

Basin A Contains approximately 0.46 acre, and is comprised of building roof top, and the northerly drive aisles, parking, drive thru and landscaping. Runoff from this area sheet flows to gutters, where it is conveyed north to an existing catch basin located in the Wells Fargo bank parking lot.

Basin B Contains approximately 0.10 acre, and is comprised of drive aisles, parking, and landscaping along the easterly side of the site. Runoff from this area is sheet flows east, where it is captured in a gutter and conveyed south to an existing catch basin in the easterly drive aisle.

Basin C Contains approximately 0.02 acre, and is comprised of the drive aisle and a small area of landscaping near the SW corner of the building. Runoff from this area is captured by a gutter, where it is conveyed to an existing catch basin in the parking lot south of the site.

Basin D Contains approximately 0.12 acre, and is comprised of the landscaped area adjacent to S. Parker Road. Runoff from this area is captured by a grass swale, where it is conveyed north to an existing catch basin located near the NW corner of the site.

Basin E1 Contains approximately 0.46 acre, and is comprised of building roof top, and the northerly drive aisles, parking, drive thru and landscaping. Runoff from this area sheet flows to gutters, where it is conveyed north to an existing catch basin located in the Wells Fargo bank parking lot.

Basin E2 Contains approximately 0.10 acre, and is comprised of drive aisles, parking, and landscaping along the easterly side of the site. Runoff from this area is sheet flows east, where it is captured in a gutter and conveyed south to an existing catch basin in the easterly drive aisle.

Basin E3 Contains approximately 0.02 acre, and is comprised of the drive aisle and a small area of landscaping near the SW corner of the building. Runoff from this area is captured by a gutter, where it is conveyed to an existing catch basin in the parking lot south of the site.

Basin E4 Contains approximately 0.12 acre, and is comprised of the landscaped area adjacent to S. Parker Road. Runoff from this area is captured by a grass swale, where it is conveyed north to an existing catch basin located near the NW corner of the site.

3. DRAINAGE DESIGN CRITERIA

3.1. REGULATIONS

This drainage report was prepared in compliance with the following criteria:

- Town of Parker Storm Drain and Environmental Manual
- Urban Drainage and Flood Control District (UDFCD) *Urban Storm Drainage Criteria Manual*

During construction, disturbed areas will be stabilized for erosion and sediment control in accordance with Town of Parker and UDFCD *Criteria*. The methods used to control erosion and sediment during construction of this project will comply with the non-structural and structural Best Management Practices (BMPs) described within the Town of Parker and UDFCD manuals. Erosion Control plans are included in the construction plan set.

No deviation from the Town of Parker *Criteria* is being requested.

3.2. DEVELOPMENT RESTRAINTS

The area is an existing site and surrounded by development. Therefore, no additional stormwater treatment or detention is being proposed.

3.3. HYDROLOGIC CRITERIA

Runoff was calculated per the Town of Parker *Criteria*. Rainfall intensity was taken from Figure 5.1 of the Town of Parker *Criteria*, and runoff coefficients were taken from UDFCD Table RO-3

utilizing soil type "A". The rational method was used to calculate runoff from the proposed development. The following formula was used to determine the runoff values:

Q=CIA
Where Q = Storm runoff, cubic feet per second (CFS)
C = Runoff coefficient
I = Storm intensity, inches per hour
A = Drainage area, acres

Detention and water quality volumes for this development were calculated using the UDFCD *Full Spectrum Detention Basins spread sheet. The outlet control structure was design per Volume 3 Full Spectrum Design details, and the culverts were designed using UDFCD culvert software.*

3.4. HYDRAULIC CRITERIA

No pipe work or additional drainage improvements are proposed, and therefore, there is no pipe modeling associated with this project.

3.5. WATER QUALITY REQUIREMENTS

No additional stormwater quality is being proposed with this project.

3.6. WAIVERS FROM CRITERIA

No deviation from the Town of Parker *Criteria* is being requested.

4. DRAINAGE FACILITY DESIGN

4.1. GENERAL CONCEPT

Runoff from the site generally flows overland from north and east at approximately 1.0% slope to an existing storm drain system serving the shopping center. Runoff is then conveyed to Sulphur Gulch and ultimately to Cherry Creek.

No existing drainage basin limits or runoff patterns are being modified with this project. As shown in the report calculations, there is a minor 5-year runoff reduction, and no change to the expect 100-year runoff.

There is no additional water quality or stormwater detention proposed with this project.

4.2. SPECIFIC DETAILS

SOUTH SITE

DESCRIPTION	VALUE REQUIRED/PROVIDED
Developed ACRES	0.70 total site
EXISTING PERCENT IMPERVIOUS	70.38%
PROPOSED PERCENT IMPERVIOUSNESS	70.26%
EXISTING 5-YEAR RUNOFF COEFFICIENT	0.62
PROPOSED 5-YEAR RUNOFF COEFFICIENT	0.62
EXISTING 100-YEAR RUNOFF COEFFICIENT	0.76
PROPOSED 5-YEAR RUNOFF COEFFICIENT	0.76
EXISITNG 5-YEAR RUNOFF	1.99 CFS
PROPOSED 5-YEAR RUNOFF	1.98 CFS
EXISITNG 5-YEAR RUNOFF	4.12 CFS
PROPOSED 100-YEAR RUNOFF	4.12 CFS

4.3. MAINTENANCE PLAN

Site maintenance will be achieved by collecting garbage from the site daily. The existing storm drain system is maintained by a common area maintenance (CAM) fee charged to all lots.

5. CONCLUSIONS

5.1. COMPLIANCE WITH STANDARDS

This stormwater Management Report was prepared in compliance with the *Town of Parker Storm Drain and Environmental Manual* and the UDFCD *Urban Storm Drainage Criteria Manual*. No variances will be requested, except to allow a reduction in the release rates to offset the offsite basins.

5.2. DESIGN

This project meets the requirements shown in the *Town of Parker Storm Drain and Environmental Manual* and the UDFCD *Urban Storm Drainage Criteria Manual.* Additionally, the proposed drainage design does not alter the existing drainage basin boundaries or runoff patterns for the site. Furthermore, the proposed development does not change the expected 100-year runoff and expects a minor reduction to the 5-year runoff.

6. REFERENCES

1. Town of Parker, Storm Drainage Design and Technical Criteria, November, 1999
2. Flood Insurance Rate Map – Town of Parker, Colorado, Flood Insurance Rate Map (FIRM), Douglas County, Panel 69 of 495, Community Panel Number 08035C0069F, with an Effective Date of September 30, 2005 – REVISED to reflect LOMR September 6, 2019
3. Geotechnical Report prepared June 2, 2023 by Terracon.
4. Phase 1 Environmental prepared May 23, 2023 by Terracon.
5. Mile High Flood District Criteria Manual (Volumes 1, 2, and 3); Urban Drainage and Flood Control District, 2001 (latest revision).

APPENDIX

A HYDROLOGIC COMPUTATIONS

Appendix A – HYDROLOGIC COMPUTATIONS

McDonald's Remodel-Mainstreet Parker, CO - Drainage Calculations

EXISTING LAND USAGE FOR EACH SUB-BASIN

LAND USAGE	PERCENT IMPERVIOUS (%)	5-YR RUNOFF COEFF. C_5	100-YR RUNOFF COEFF. C_{100}	AREA E1	E2	E3	E4				SUM OF AREA (ACRE)
LANDSCAPE	0	0.15	0.50	0.031		0.007	0.115				0.153
ROOF	90	0.75	0.83	0.142							0.142
DRIVES AND WALKS (IMPERVIOUS)	90	0.75	0.83	0.284	0.104	0.015	0.004				0.407
Total				0.457	0.104	0.022	0.119	0.000	0.000	0.000	0.702

COMPOSITE % IMPERVIOUSNESS AND RUNOFF COEFFICIENTS

SUB-BASIN	EFFECTIVE % IMPERVIOUS		COMPOSITE C_5	COMPOSITE C_{100}	AREA acres
E1	83.89		0.71	0.81	0.457
E2	90.00		0.75	0.83	0.104
E3	61.36		0.56	0.73	0.022
E4	3.03		0.17	0.51	0.119
TOTAL EXISTING	70.38		0.62	0.76	0.702

McDonald's Remodel-Mainstreet Parker, CO - Drainage Calculations

PROPOSED LAND USAGE FOR EACH SUB-BASIN

LAND USAGE	PERCENT IMPERVIOUS (%)	5-YR RUNOFF COEFF. C_5	100-YR RUNOFF COEFF. C_{100}	AREA							SUM OF AREA (ACRE)
				AREA	B	C	D				
LANDSCAPE	0	0.15	0.50	0.036		0.005	0.113				0.154
ROOF	90	0.75	0.83	0.142							0.142
DRIVES AND WALKS (IMPERVIOUS)	90	0.75	0.83	0.279	0.104	0.017	0.006				0.406
Total				0.457	0.104	0.022	0.119	0.000	0.000	0.000	0.702

COMPOSITE % IMPERVIOUSNESS AND RUNOFF COEFFICIENTS

SUB-BASIN	EFFECTIVE % IMPERVIOUS		COMPOSITE C_5	COMPOSITE C_{100}	AREA acres
A	82.91		0.70	0.80	0.457
B	90.00		0.75	0.83	0.104
C	69.55		0.61	0.76	0.022
D	4.54		0.18	0.52	0.119
TOTAL PROPOSED	70.26		0.62	0.76	0.702

STANDARD FORM SF-2

TIME OF CONCENTRATION YEAR

SUBDIVISION: McDonald's Remodel-Mainstreet Parker, CO

CALCULATED BY: Robert Palmer **DATE:** 10/05/23

$t_c = t_i + t_t$

SUB-BASIN DATA			INITIAL / OVERLAND TIME (t_i)			TRAVEL TIME (t_i)				t_c CHECK (URBANIZED BASINS)			FINAL t_c	REMARKS
DESIGN	AREA Ac	C_5	LENGTH Ft	SLOPE %	t_i Min	LENGTH Ft	SLOPE %	VEL FPS	t_t Min	COMP t_c	TOTAL LENGTH	t_c=(L/180)+10 Min	Min	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	
	MAIN DETENTION POND													
E1	0.457	0.71	97	2	5.5	181	1.0	2.00	1.5	7.0	278	11.5	7.0	
E2	0.104	0.75	102	3.1	4.4	50	1.0	2.00	0.4	4.8	152	10.8	4.8	use 5 minute min.
E3	0.022	0.56	30	1.8	4.4	60	1.2	2.20	0.5	4.8	90	10.5	4.8	use 5 minute min.
E4	0.119	0.17	34	2.4	7.3	160	2.2	2.10	1.3	8.6	194	11.1	8.6	
ETOTAL	0.702	0.62	34	2.4	3.8	160	2.2	2.10	1.3	5.0	194	11.1	8.6	
A	0.457	0.70	97	2	5.6	181	1.0	2.00	1.5	7.1	278	11.5	7.1	
B	0.104	0.75	102	3.1	4.4	50	1.0	2.00	0.4	4.8	152	10.8	4.8	use 5 minute min.
C	0.022	0.61	30	1.8	3.9	60	1.2	2.20	0.5	4.4	90	10.5	4.4	use 5 minute min.
D	0.119	0.18	34	2.4	7.2	160	2.2	2.10	1.3	8.5	194	11.1	8.5	
PTOTAL	0.702	0.62	34	2.4	3.8	160	2.2	2.10	1.3	5.0	194	11.1	8.6	

STANDARD FORM SF-3

STORM DRAINAGE SYSTEM DESIGN

(Rational Method Procedure)

SUBDIVISION: Mainstreet Parker McDonalds - Parker, CO

CALCULATED BY: Robert Palmer **DATE:** 10/05/23

DESIGN STORM: 5-Yr

	STREET	DESIGN POINT	DIRECT RUNOFF							TOTAL RUNOFF				STREET		PIPE			TRAVEL TIME			REMARKS
			AREA DESIGN	AREA (AC)	RUNOFF COEFF	t_c (MIN)	C*A (AC)	i (IN/HR)	Q (CFS)	t_c (MIN)	$\sum$(C*A) (AC)	i (IN/HR)	Q (CFS)	SLOPE (%)	STREET FLOW (CFS)	DESIGN FLOW (CFS)	SLOPE (%)	PIPE SIZE	LENGTH (FT)	VELOCITY (FPS)	t_t (MIN)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1	Basin E1	E1	E1	0.46	0.71	7.0	0.32	4.62	1.50				1.50									
2	Basin E2	E2	E2	0.10	0.75	5.0	0.08	4.80	0.37				0.37									
3	Basin E3	E3	E3	0.02	0.56	5.0	0.01	4.80	0.06				0.06									
4	Basin E4	E4	E4	0.12	0.17	8.6	0.02	4.57	0.09				0.09									
5	TOTAL EX.	E5	E1-E4	0.70	0.62	8.6	0.43	4.57	1.99				1.99									
6																						
7	Basin A	1	A	0.46	0.70	7.1	0.32	4.60	1.48				1.48									
8	Basin B	2	B	0.10	0.75	5.0	0.08	4.80	0.37				0.37									
9	Basin C	3	C	0.02	0.61	5.0	0.01	4.80	0.06				0.06									
10	Basin D	4	D	0.12	0.18	8.5	0.02	4.56	0.10				0.10									
11	Total Prop.	5	A-D	0.70	0.62	8.6	0.43	4.57	1.98				1.98									
12																						
13																						
14																						

STANDARD FORM SF-3

STORM DRAINAGE SYSTEM DESIGN

(Rational Method Procedure)

SUBDIVISION: McDonald's Remodel-Mainstreet Parker, CO

CALCULATED BY: Robert Palmer **DATE:** 10/05/23

DESIGN STORM: 100-Yr

	STREET	DESIGN POINT	DIRECT RUNOFF							TOTAL RUNOFF				STREET		PIPE			TRAVEL TIME			REMARKS
			AREA DESIGN	AREA (AC)	RUNOFF COEFF	t_c (MIN)	C*A (AC)	i (IN/HR)	Q (CFS)	t_c (MIN)	$\sum$ (C*A) (AC)	i (IN/HR)	Q (CFS)	SLOPE (%)	STREET FLOW (CFS)	DESIGN FLOW (CFS)	SLOPE (%)	PIPE SIZE	LENGTH (FT)	VELOCITY (FPS)	t_t (MIN)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1	Basin E1	E1	E1	0.46	0.81	7.0	0.37	8.00	2.95				2.95									
2	Basin E2	E2	E2	0.10	0.83	5.0	0.09	8.80	0.76				0.76									
3	Basin E3	E3	E3	0.02	0.73	5.0	0.02	88.00	1.40				1.40									
4	Basin E4	E4	E4	0.12	0.51	8.6	0.06	7.75	0.47				0.47									
5	Total EX.	E5	E1-E4	0.70	0.76	8.6	0.53	7.75	4.12				4.12									
6																						
7	Basin A	1	A	0.46	0.80	7.1	0.37	7.90	2.90				2.90									
8	Basin B	2	B	0.10	0.83	5.0	0.09	8.80	0.76				0.76									
9	Basin C	3	C	0.02	0.76	5.0	0.02	8.80	0.15				0.15									
10	Basin D	4	D	0.12	0.52	8.5	0.06	7.73	0.48				0.48									
11	Total Prop.	5	A-D	0.70	0.76	8.6	0.53	7.75	4.12				4.12									
12																						
13																						
14																						

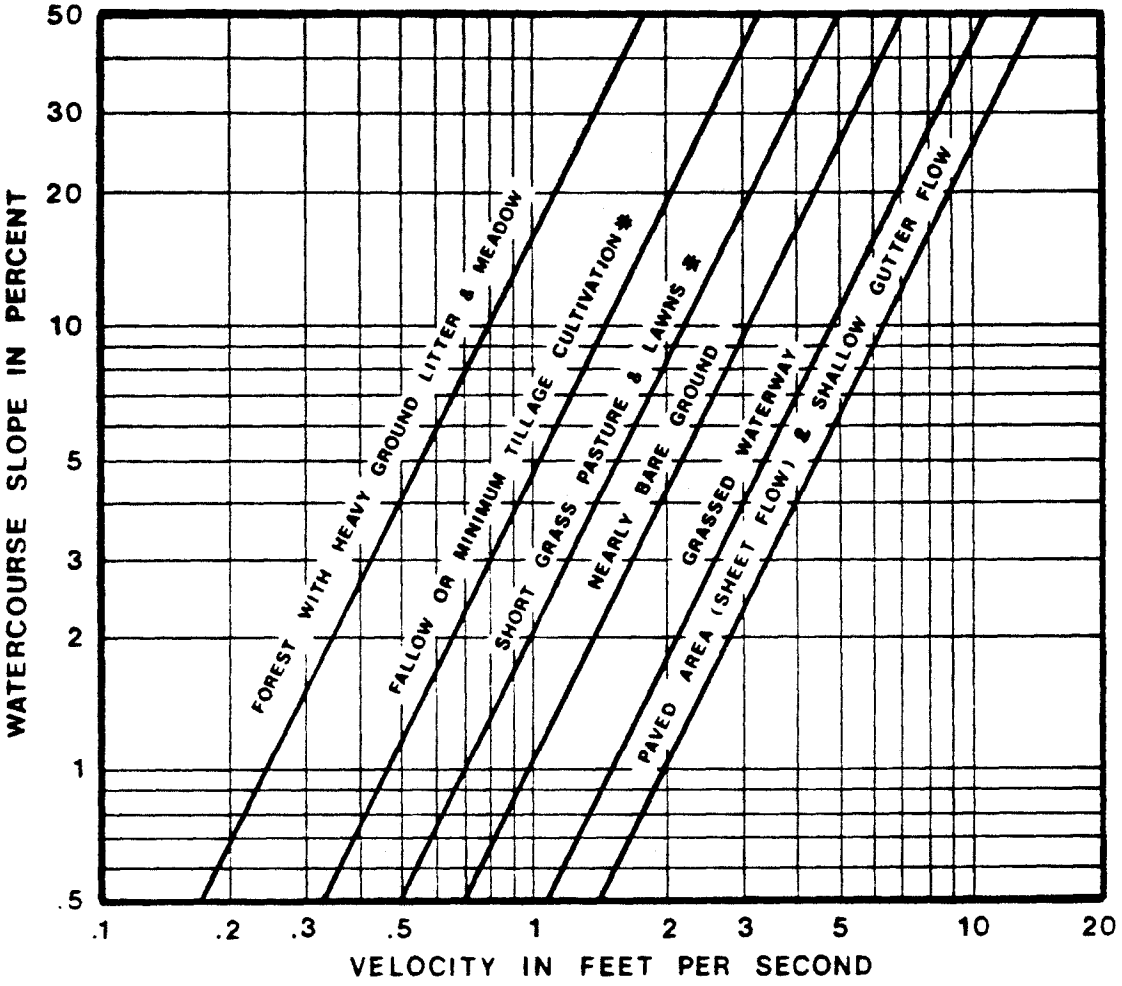


Figure RO-1—Estimate of Average Overland Flow Velocity for Use With the Rational Formula

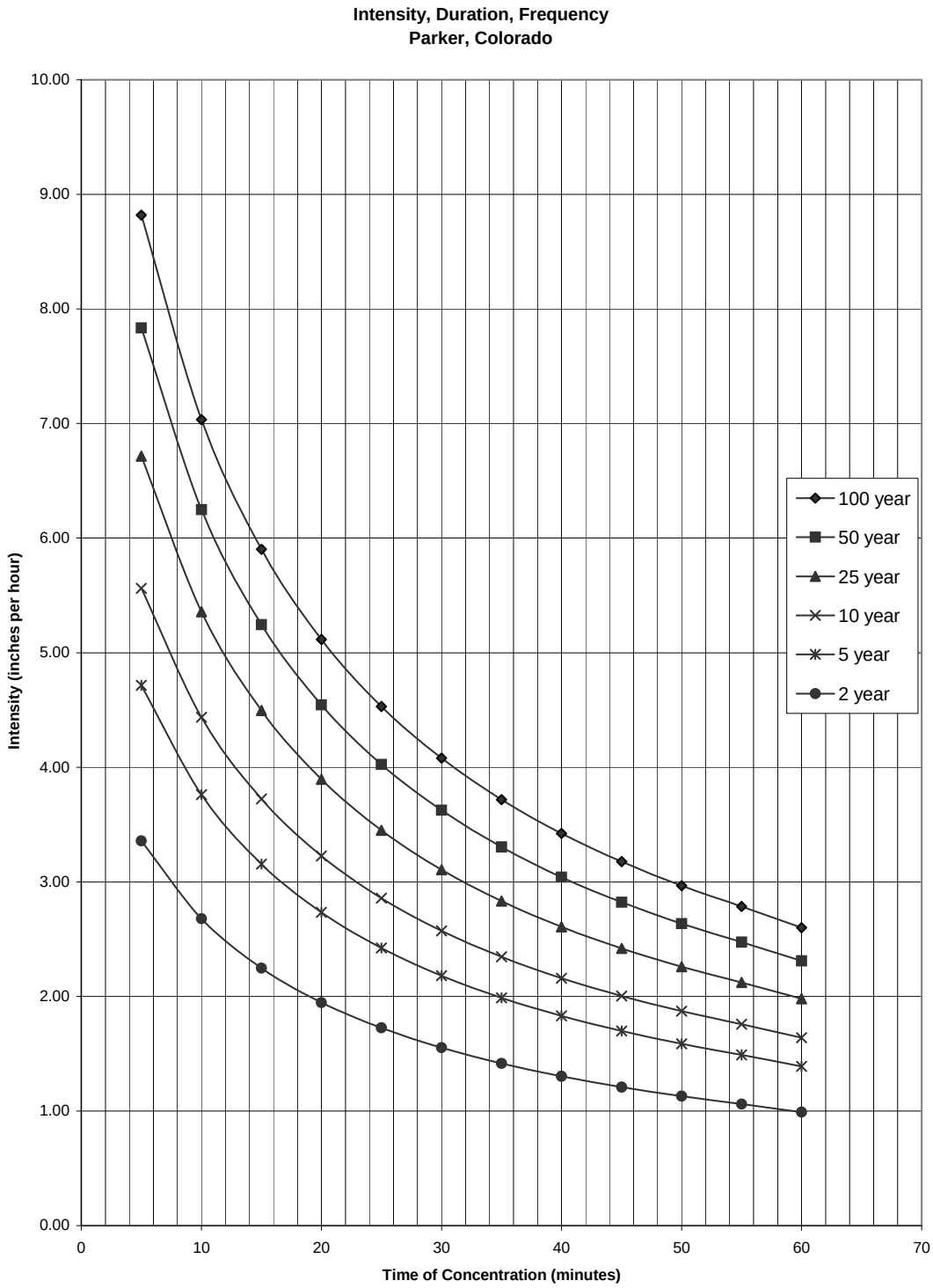


FIGURE 5.1
RAINFALL INTENSITY VERSUS DURATION CURVES FOR PARKER, COLORADO

B. MAP POCKET

Appendix B – MAP POCKET

Hydrologic Soil Group—Castle Rock Area, Colorado

Map Scale: 1:390 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 5 10 20 30

Feet: 0 15 30 60 90

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

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Soil Rating Lines

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Soil Rating Points

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

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

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

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

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

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

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

Soil Survey Area: Castle Rock Area, Colorado
Survey Area Data: Version 16, Aug 24, 2023

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

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

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

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BrB	Bresser sandy loam, cool, 1 to 3 percent slopes	B	0.0	6.0%
Sd	Sandy alluvial land	A	0.6	94.0%
Totals for Area of Interest			**0.6**	**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.

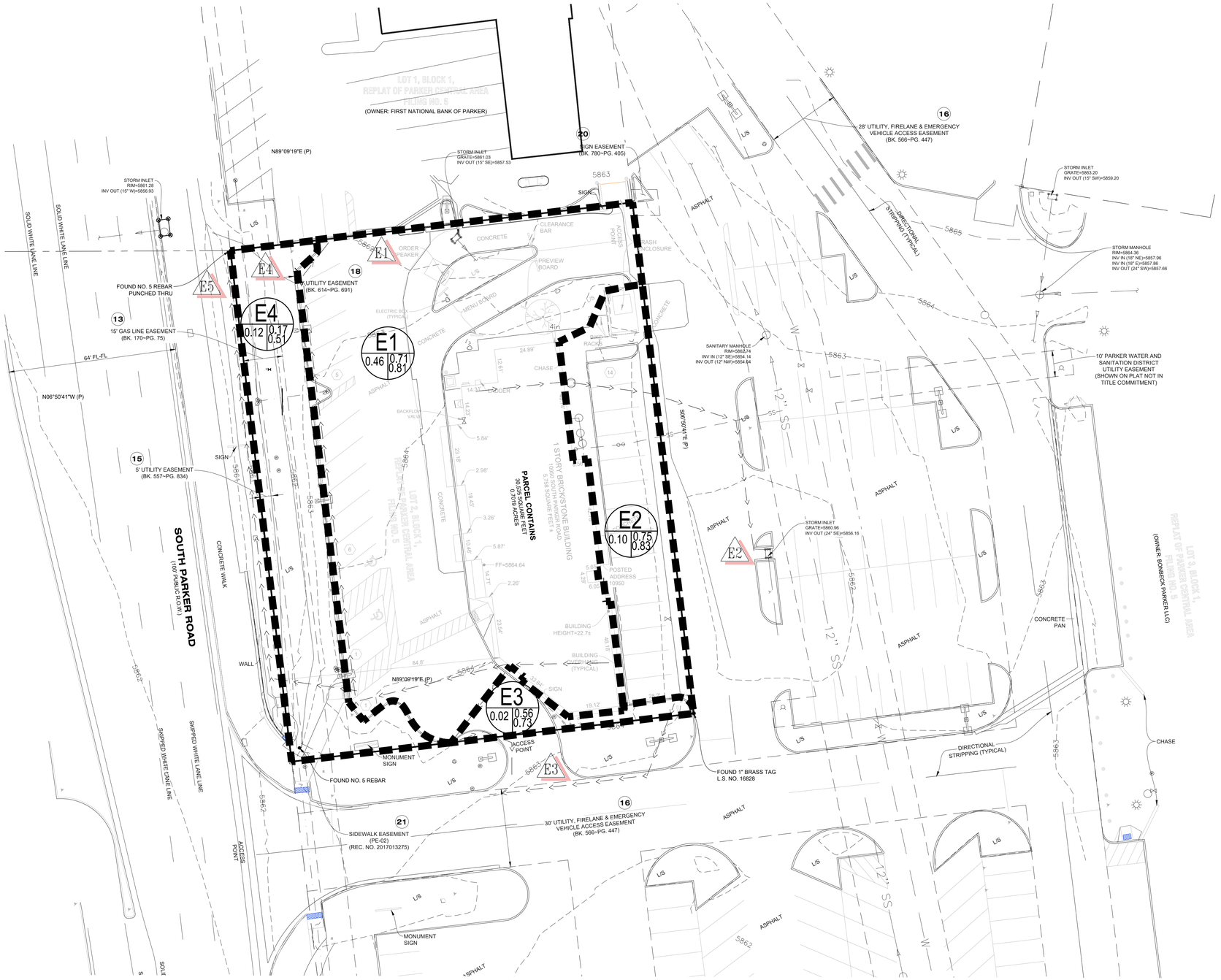
Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over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

MCDONALDS REMODEL AT PARKER CENTRAL AREA
FILING NO. 5, BLOCK 1, LOT 2
CONSTRUCTION PLANS



EXISTING SUMMARY RUNOFF TABLE

DESIGN PT	CONTRIBUTING BASINS / AREA (acres)	5-YEAR RUNOFF (cfs)	100-YEAR PEAK RUNOFF (cfs)
E1	E1/0.46	1.50	2.95
E2	E2/0.10	0.37	0.76
E3	E3/0.02	0.06	1.40
E4	E4/0.12	0.09	0.47
E5	TOT. EX./0.70	1.99	4.12

LEGEND

TC CALCULATIONS
BASIN LIMITS
1 DESIGN POINT
Ac C5 C100 BASIN DESIGNATION
5 YR COMPOSITE 'C'
100YR COMPOSITE 'C'
BASIN AREA

PLAN SCALE: 1" = 20'

Know what's **below.** **Call** before you dig.

The Town of Parker review constitutes general compliance with the own's Standards and approved variances, subject to these plans being stamped, signed, and dated by the professional engineer of record. Review by the Town does not constitute approval of the plan design or accuracy and correctness of engineering calculations. Errors in the design or calculations remain the responsibility of the registered professional engineer whose stamp and signature are affixed to this document.

This review does not constitute approval of any private on-site improvements which may be shown. Construction cannot commence until all required drainage/traffic report(s), final development plan(s), special review(s), grading permit, and/or other permits are complete, approved and on file with the Town of Parker.

Town of Parker, Director of Engineering/Public Works Date

NO.	DATE	REVISION DESCRIPTION

CIVIL ENGINEERING CONSULTANT:
Strategic Land Solutions, Inc.
Civil Engineering • Land Planning • Entitlements
2595 PONDEROSA ROAD
FRANKTOWN, CO 80116
720.384.7661 Phone
rpalmer@strategicls.net
Robert J. Palmer, PE
President

PREPARED UNDER THE DIRECT SUPERVISION OF:
SEAL: COLORADO REGISTERED ROBERT J. PALMER 36320 PROFESSIONAL ENGINEER
BY Robert J. Palmer, PE
Licensed Professional Engineer (CO PE #36320), AS PRESIDENT FOR STRATEGIC LAND SOLUTIONS, INC.

McDonald's®

OFFICE ROCKY MOUNTAIN REGION
ADDRESS 4643 S. ULSTER STREET, SUITE 1300, DENVER, COLORADO 80237

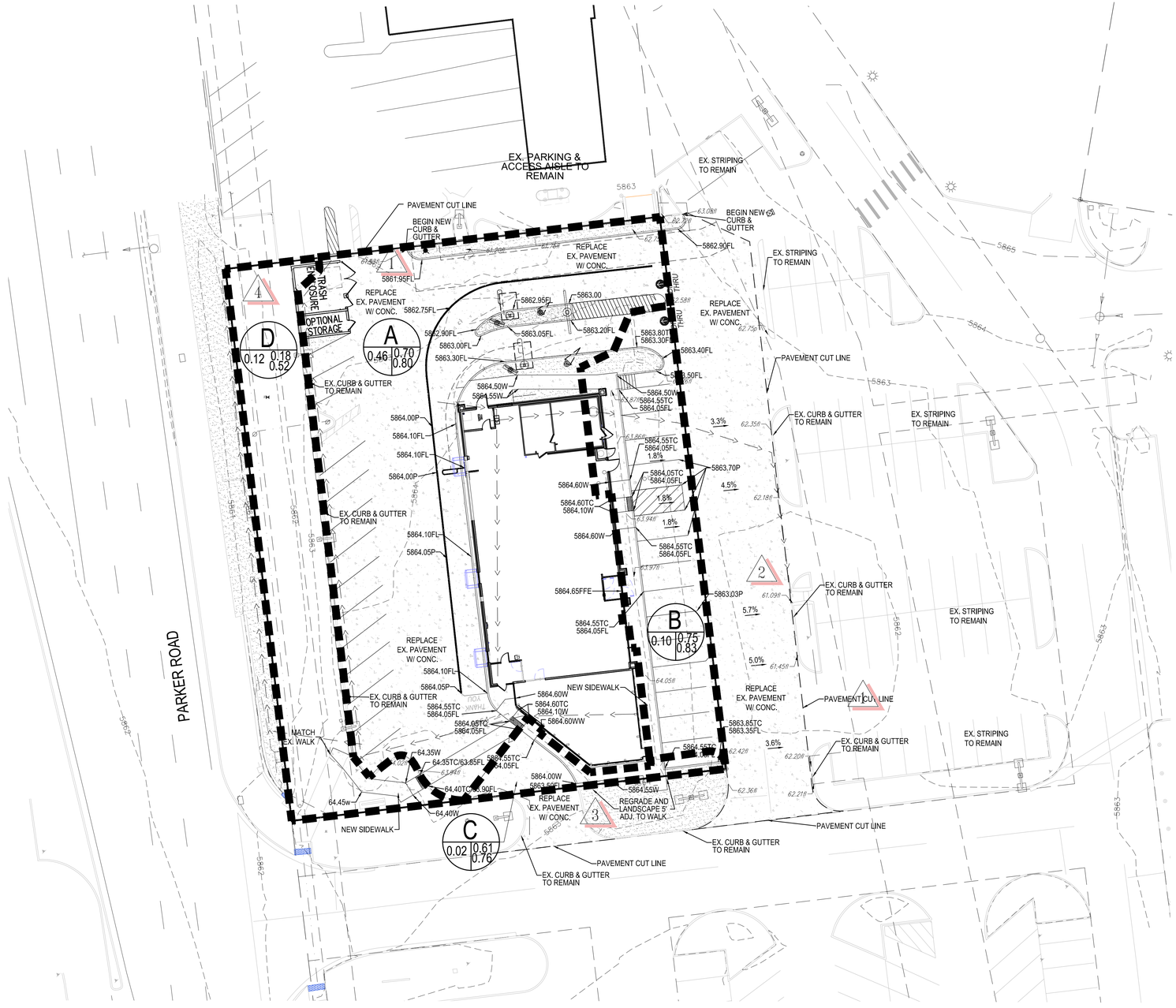
STREET ADDRESS: 10950 S. PARKER ROAD
CITY: PARKER
STATE: COLORADO
COUNTY: DOUGLAS
STATE STORE #: 500162
NATIONAL #: tbd
REGIONAL DWG. NO: -

SCALE: AS NOTED	McD RE: BOWAN
DATE: 10/06/2023	McD P/CM: PEDIGO
DESIGNED BY: RJP	
DRAWN BY: RJP	FILE NAME: CURRENT.DWG
CHECKED BY: RJP	SLS JN: 14-001-42

DRAWING TITLE:
EXISTING DRAINAGE

SHEET NO:
DR-1

MCDONALDS REMODEL AT PARKER CENTRAL AREA
FILING NO. 5, BLOCK 1, LOT 2
CONSTRUCTION PLANS



PROPOSED SUMMARY RUNOFF TABLE

DESIGN PT	CONTRIBUTING BASINS / AREA (acres)	5-YEAR RUNOFF (cfs)	100-YEAR PEAK RUNOFF (cfs)
1	A/0.46	1.48	2.90
2	B/0.10	0.37	0.76
3	C/0.02	0.06	0.15
4	D/0.12	0.10	0.48
5	TOT. PROP./0.70	1.98	4.12

LEGEND

TC CALCULATIONS
BASIN LIMITS
1 DESIGN POINT
A Ac 5YC 100YC BASIN DESIGNATION, 5 YR COMPOSITE 'C', 100YR COMPOSITE 'C'
BASIN AREA

20 0 10 20
PLAN SCALE: 1" = 20'

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STATE STORE #: 500162
NATIONAL #: tbd
REGIONAL DWG. NO: -

SCALE:	AS NOTED
DATE:	10/06/2023
DESIGNED BY:	RJP
DRAWN BY:	RJP
CHECKED BY:	RJP
McD RE:	BOWAN
McD P/CM:	PEDIGO
FILE NAME:	CURRENT.DWG
SLS JN:	14-001-47

DRAWING TITLE:
PROPOSED DRAINAGE

SHEET NO:
DR-2