23-082 (141346)

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Contract # 258135   Tracking # 46906

Krista Barney

UDOT Contract Administrator

W3335211

SINGLE-PARCEL DRAINAGE AGREEMENT
Between
UTAH DEPARTMENT OF TRANSPORTATION
And
Silverado Group LLC

E# 3335211 PG 1 OF 11
LEANN H KILTS, WEBER CTY. RECORDER
05-AUG-24 248 PM FEE $40.00 SED
REC FOR: UTAH DEPT. OF TRANSPORTATION

County   Tax ID No. _____130720072_____

This Single-Parcel Drainage Agreement ("Agreement"), by and between **Utah Department of Transportation** ("Department") and _____**Silverado Group LLC**_____ ("Permittee") describes the terms and conditions of offsite drainage connections in the Department Right of Way.

RECITALS

WHEREAS, the Permittee owns the property described in Exhibits; and

WHEREAS, the Permittee, its successors and assigns, desires to construct drainage facilities in accordance with the plans permitted by the Department, to collect and convey stormwater from their property and discharge into the Department's drainage facilities, more particularly shown in Exhibits; and

WHEREAS, the Permittee shall be responsible to comply with the required stormwater permits, applicable laws and regulations.

AGREEMENT

The Parties agree to the following:

(1)   DRAINAGE CONNECTION IMPACT

a)   The Department may perform inspection of Permittee's drainage facility to monitor compliance with the Permit and with state and federal statutes, regulations, and rules. Permittee grants the Department access to the Permittee's property for inspection or to perform any repairs to prevent damage to the Department's Right of Way. The Department's inspection does not relieve the Permittee of its responsibilities. The Permittee is responsible for the Department's inspection costs.

b)   Permittee shall comply with applicable stormwater permits, laws, regulations, and rules.

c)   The Permittee is responsible for repairing and restoring any portion of the Department Right of Way and drainage features located therein that may be damaged as a result of making the drainage connection or as the result of any subsequent drainage originating from the Permittee's property. A bonded contractor must apply for the required permit to install drainage facilities in the Department Right of Way prior to the commencement of any such work.

d)   The Permittee must not increase the stormwater discharge into the Department's drainage facilities without the written permission of the Department.

e)   The Permittee is responsible for all liability resulting from the discharge of pollutants into the Department's drainage facility from its property or drainage facility, including the failure to comply with applicable stormwater permits, laws, regulations and rules.

f)   The Permittee accepts all risks associated with the connection to the Department's drainage facility.

(2)   LONG TERM OPERATION AND MAINTENANCE

a)   The Permittee's drainage facilities shall be maintained and operational to prevent or reduce the discharge of pollutants.

b)   The Department may notify the Permittee of any maintenance requirements if the Permittee fails to maintain the drainage facilities. The Department reserves the right, without relieving the Permittee of its obligations, to reconstruct or make repairs to the drainage connection as necessary. The Permittee must reimburse the Department for its cost if the Permittee fails to comply with the Department's written notification.

c)   The Permittee's drainage facilities shall be maintained without access from any interstate highway or ramp.

(3)   FUTURE IMPACTS

a)   The Department has the right to change its drainage facilities for any future transportation project. If the Department's drainage facilities are reconstructed or modified, the Department reserves the right to hold the Permittee responsible for the cost to reconnect to the Department's drainage facilities. The Department is not responsible for any costs the Permittee incurs due to the drainage facilities being reconstructed or modified.

(4)   LIABILITY

a)   Pursuant to R930-7-6(2)(b), the Permittee is required to guarantee satisfactory performance under this Permit.

b)   The Department may proceed against Permittee to recover all expenses incurred by the Department, its employees, or contractors in repairing the sections of roadway damaged by the Permittee or its drainage facility, including the failure to restore the Right of Way to Department standards.

c)   The Permittee will be liable for all costs the Department incurs under this agreement.

d)   The Permittee waives any claims against the Department for damages resulting from any back-up or flow into the Permittee's drainage facilities or property.

e)   The Permittee will indemnify, defend, and hold harmless the Department, its employees, and the State of Utah for any and all damages, accidents, causalities, occurrences, or claims which might arise or be asserted against the Department from failure of the Permittee to comply with its obligations under this agreement relating to the drainage connection.

(5)   REMOVAL OF CONNECTION

a)   Non-compliance with this Agreement may result in the Department removing the drainage

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connection and restoring the highway and Right of Way at the sole expense of the Permittee.

b) The Department will notify the Permittee in writing prior to any removal, setting forth the violations, and will provide the Permittee a reasonable time to correct the violations to the satisfaction of the Department. The Department may order the removal of any drainage connections subject to this Agreement if the violations are not corrected.

(6) SUCCESSORS AND ASSIGNS

a) All covenants, obligations and agreements will be binding upon the parties, their successors and assigns and run with the land as described in Exhibit A until the drainage connection is removed from the Department Right of Way.

(7) MISCELLANEOUS

a) Each party agrees to undertake and perform all further acts that are reasonably necessary to carry out the intent and purpose of the Agreement at the request of the other party.

b) This Agreement does not create any type of agency relationship, joint venture, or partnership between the Department and Permittee.

c) The failure of either party to insist upon strict compliance of any of the terms and conditions, or failure or delay by either party to exercise any rights or remedies provided in this Agreement, or by law, will not release either party from any obligations arising under this Agreement.

d) This Agreement shall be deemed to be made under and shall be governed by the laws of the State of Utah in all respects. Each person signing this Agreement warrants that the person has full legal capacity, power and authority to execute this Agreement for and on behalf of the respective party and to bind such party.

e) If any portion of this Agreement is held to be invalid or unenforceable for any reason by a court of competent jurisdiction, such invalidity or unenforceability shall not affect any other provision, and this Agreement shall be construed as if such invalid or unenforceable provision had never been included.

f) The effective date of this Agreement is the date signed by the last party.

****

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IN WITNESS WEREOF, the parties hereto have caused this Drainage Agreement to be executed by its duly authorized officers.

Application Property Owner

Company: SILVERADO GROUP LLC

Signature: _Rick Scadden_   Title: MEMBER

Printed Name: RICK SCADDEN   Date: 7/16/2024

ACKNOWLEDGMENT

County of Weber

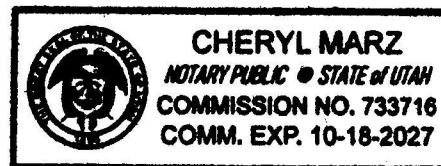On this 16 day of July, in the year 20 24, before me, Cheryl Marz a notary public, personally appeared Rick Scadden, proved on the basis of satisfactory evidence to be the person whose name is subscribed to this instrument, and acknowledged (he/she) executed the same.

Witness my hand and official seal.

Cheryl S Marz

CHERYL MARZ
NOTARY PUBLIC ● STATE of UTAH
COMMISSION NO. 733716
COMM. EXP. 10-18-2027

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Send a recorded copy of this agreement
to the UDOT Region Storm Water Coordinator.

Utah Department of Transportation Permits Department

Title: Region Permit Officer

Date: 7-22-2024 ~RJC~   Signature: _____

Print Name: RODGER JAY GENEREUX

ACKNOWLEDGMENT

County of ___Weber___

On this __22__ day of ___July___, in the year 20_24_, before me,

___Cheryl Marz___ a notary public, personally appeared

___Rodger Jay Genereux___, proved on the basis of satisfactory evidence to be the

person whose name is subscribed to this instrument, and acknowledged (he/she) executed the same.

Witness my hand and official seal.

___Cheryl S Marz___

CHERYL MARZ
NOTARY PUBLIC • STATE of UTAH
COMMISSION NO. 733716
COMM. EXP. 10-18-2027

Title: Region Director

Date: 7-22-24   Signature: _____

Print Name: Rob Wight

ACKNOWLEDGMENT

County of ___Weber___

On this __22__ day of ___July___, in the year 20_24_, before me,

___Cheryl Marz___ a notary public, personally appeared

___Rob Wight___, proved on the basis of satisfactory evidence to be the

person whose name is subscribed to this instrument, and acknowledged (he/she) executed the same.

Witness my hand and official seal.

___Cheryl S Marz___

CHERYL MARZ
NOTARY PUBLIC • STATE of UTAH
COMMISSION NO. 733716
COMM. EXP. 10-18-2027

Exhibit A

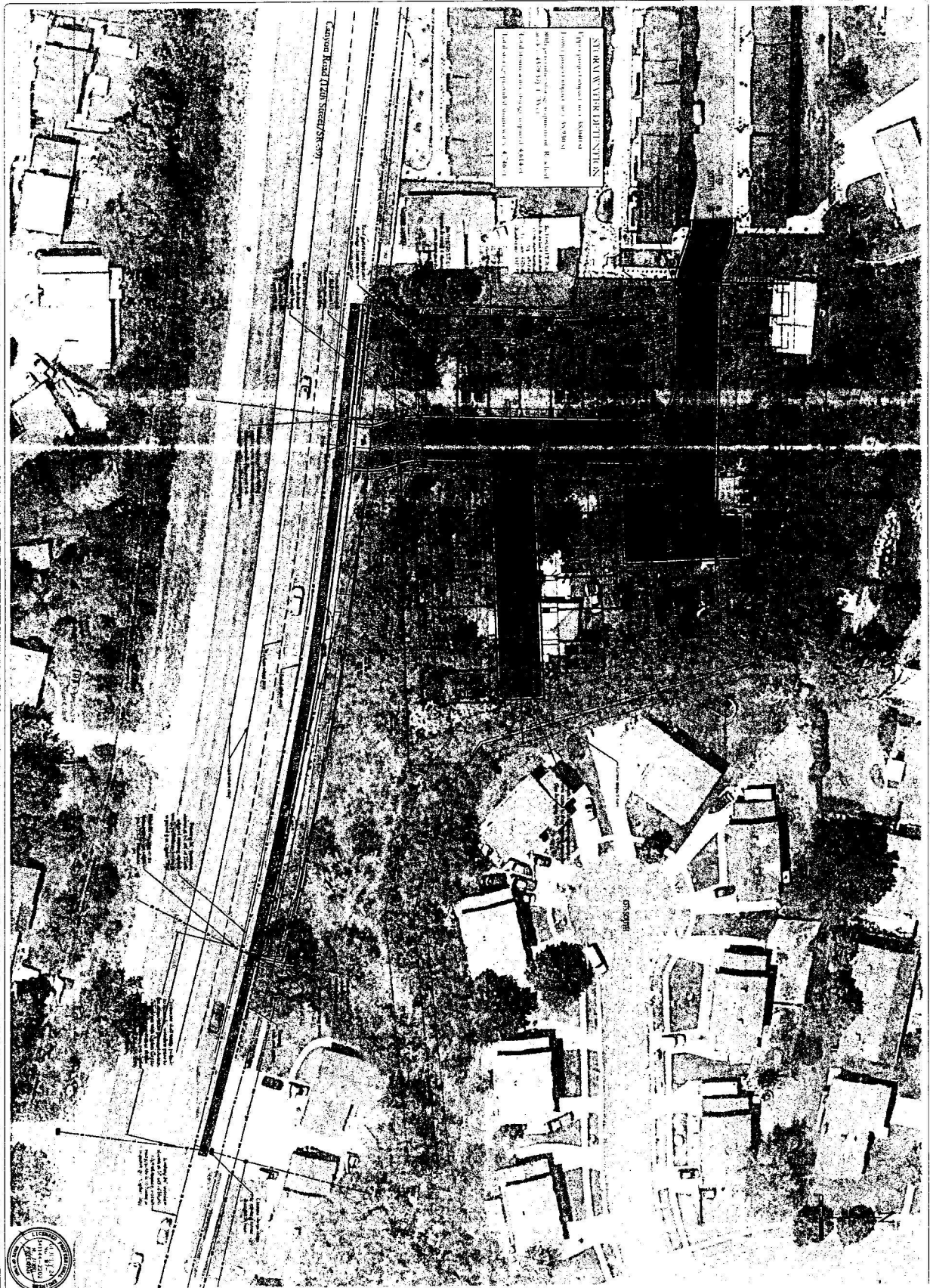**Poyner**
1518 Canyon Road
Ogden, Utah 84401

Parcel 130720072:   PCV   BT

Part of the Southwest Quarter of Section 22, Township 6 North, Range 1 West, Salt Lake Base and Meridian, U.S. Survey:

Beginning at the Intersection of an existing North Ogden Irrigation Canal and the North Line of said Southwest Quarter being located North 88°40'46" West 55.65 feet from the calculated Northeast Corner of said Southwest Quarter said point also being North 75°11'21" East 675.11 feet and South 88°20'46" East 189.36 feet from the Ogden City Centerline Monument at Canyon Road and Mountain Road (Basis of Bearing is a line between the Ogden City Monument at Canyon Road and the Ogden City Pi Monument on Mountain Road) running thence along said exiting canal the following four courses: South 53°15'49" East 63.23 feet, South 62°02'04" East 28.08 feet, South 34°10'44" East 18.62 feet, thence South 13°02'23" East 217.25 feet to the North Right-of-Way line of Canyon Road, thence along said North Right-or-Way line the following two courses; South 88°59'48" West 250.00 feet; South 89°15'26" West 29.60 feet to an existing fence line; thence along said existing fence line the following five courses: North 01°08'37" East 118.75 feet, North 82°31'21" West 20.16 feet, North 01°05'47" East 96.48 feet, South 89°02'45" West 30.35 feet, North 01°09'55" East 70.97 feet to the North line of said Southwest Quarter, thence along said North line South 88°20'46" East 189.36 feet to the point of beginning.

Contains 72,222 s.f.
Or 1.658 acres

STORMWATER DEFINITIONS

PROJECT / LOCATION:		
CANYON ROAD FLATS		
1518 CANYON ROAD		
OGDEN, UTAH		
TITLE:		
STORMWATER PLAN		

CLIENT:	SILVERADO
PROJECT NUMBER:	CK.22002
FILE:	~ck22002.03-15 Site.dwg
SHEET:	6 of 25

DATE:	JULY 2024
DRAWN:	KSM / JEO
CHECKED:	RTE

NO.	DATE	BY	REVISIONS

CIVIL ENGINEERING
CONSULTANTS, PLLC
5141 SOUTH 1500 WEST
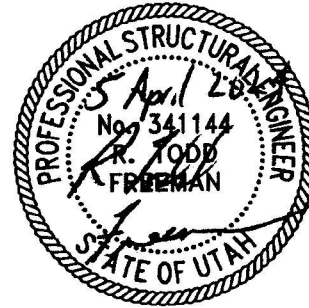RIVERDALE, UT 84405
801.860.0550

STORM DRAINAGE ANALYSIS
25 YEAR RETURN PERIOD - 24 HOUR STORM EVENT

Canyon Road Townhomes
Ogden, Utah

Weber County, Utah

13-Sep-23

1. Drainage Areas:

Drainage Area #1 -	0.557 acres	Paving and Impervious Areas
Drainage Area #2 -	0.456 acres	Buidings - Roof Areas
Drainage Area #3 -	0.757 acres	Landscaping Areas
Total Area =	**1.771 acres**	Drainage Area - Site Detention Area

Drainage Area Slope = varies % (Per the design drawings)

Study Area Overview:

The site will be used as high-density residential

2. Coefficient of Run-off:

The coefficient of runoff "C" was developed using storm water design by "Seelye 18-01", and Mark J. Hammer from "Water and Waste Water Technology" is as follows:

Drainage Area #1 - Paving and Impervious Areas	C = 0.95
Drainage Area #2 - Buidings - Roof Areas	C = 0.90
Drainage Area #3 - Landscaping Areas	C = 0.15

Composite "C" =   C = 0.595

C= Coefficient of run-off (based upon surface materials)

3. Time of Concentration:

Using Storm Water Run-Off - "Overland Flow Time", design by "Seelye 18-01"

Tc from Area =   30.00 minutes   (from Site Plan Drawings and tables from Seelye 18-01)

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4. Rainfall Intensities:

Rainfall Intensities are calculated using the rainfall frequency duration curves for Weber County, Utah.
Using the NOAA rainfall intensity values for a 100 year "Return Period".

Time of Concentration (minutes) T_c	Rainfall Intensity* (in/hour) I
5	5.120
10	3.900
15	3.230
30	2.170
60	1.340
120	0.770
180	0.533
360	0.328
720	0.209
1440	0.128

*Rainfall Intensity for a **25-year** return period - 24 hour storm event.

T_c=time of concentration
I=rainfall intensity

Drainage Area	1.77 acres	Paving and Impervious Area
T_c =	30.00	minutes
Rainfall Intensity (I) =	2.12	(in/hr) (Chart above)

Calculation Parameters:
   Maximum flow paths used for routing and calculating time of concentration.
   Maximum Intensity on technical paper chart used for time of concentration under 5 minutes.

5. Peak Run-off: (Pipe sizing)

Using the "Rational Formula" to calculate the Peak run-off ($Q=CIA$) - maximum pipe flow
   Q= Quantity of run-off, in cubic feet per second (cfs)
   C= Coefficient of run-off (based upon surface materials)
   I= Intensity of the average storm, in inches per hour (in/hr)
   A= Area of drainage area, in acres

Total Drainage Area

			Coeff. of Run-off "C"	Time of Concentration "Tc"	Rainfall Intensity "I"	Rate of Run-off "Q" (cfs)
Area	1.7705 acres	Paving and Impervious Area	0.595	30.00	2.12	2.23
					Total Flow =	2.23

All Areas   Q =   **2.23**   **cfs**

6. Allowable Discharge:

Analyis: These flow rates are to be used as the allowable discharge from the detention basins.

Allowable Discharge:

Allowable discharge of storm water volume is 0.1 cfs per acre Per Ogden City Standards.

Allowable discharge =	**0.10 cfs/acre**	1.77	acres	=	0.18	cfs
	Allowable discharge	**=**	**0.18**	**cfs**		

80th percentile storm (Site Retention):

An 80th percentile storm depth of 0.61 inches was multiplied by the site area (in acres) and Rv factor to determine the required retention depth required prior to allowable discharge. This 80th percentile storm depth volume must remain on site and be discharged by percolation.

80th percentile storm (Site Retention):

Area =	77125	sf
i =	0.595	Impervious %
Rv =	0.427	Soil Group A
Rv =	0.458	Soil Group B
Rv(ave) =	0.443	A&B Soil Average
d =	0.051	in
WQV =	1735	cf.

$1.77 \text{ acres} \times 43{,}560 \text{ sf.} \times 0.61/12 * Rv_{(ave)} =$ **1,735 ft³**

7. Volume of Run-off: 25 year storm period   (Adjust the Basin-footprint into Acres)

Analyis

Time	Intensity	Allowable Discharge	Volume Generated	Retention Volume Required	
Tc	I		Inflow	detention	
minutes	in/hour	c.f.	c.f.	c.f.	
5	5.120	53.12	1,631.57	1,578.45	
10	3.900	106.23	2,485.60	2,379.36	
15	3.230	159.35	3,087.87	2,928.52	
30	2.170	318.70	4,149.03	3,830.33	
60	1.340	637.40	5,124.15	4,486.75	
120	0.770	1,274.79	5,888.95	**4,614.16**	(Required Storage Basin)
180	0.533	1,912.19	6,114.56	4,202.38	
360	0.328	3,824.38	7,525.62	3,701.24	
720	0.209	7,648.75	9,590.57	1,941.82	
1440	0.128	15,297.509	11,747.305	-3,550.204	

Storage - Retention Basin - Volume

Detention Volume Required	=	4,614 ft³
80th percentile storm retention	=	1,735 ft³
Discharge Volume Allowed:	**=**	**2,879 ft³**
Volume Provided:	**=**	**4,746 ft³**

8. Orifice Sizing: 25 year storm period

Given:

$Q=$ **0.177** cubic feet/second

$2g=$ 64.4 ft/sec^2 (acceleration due to gravity)

$H=$ *0.25 feet (3 inches) in basin from overflow to flowline outlet pipe*

$C_d=$ 0.62 for square-edged openings

$A_o=$ Area of orifice opening

Formula:

$$Q = C_d \times A_o (2gH)^{1/2} \quad \text{Solving for } A_o$$

$$A_o = Q/C_d \times (2gH)^{1/2}$$

$A_o=$ 0.07   square feet (orifice size)

$A_o=$ 10.25   square inches (orifice size)

$A_o=$ 3.61   inches in diameter (orifice size)

Summary: 25 year storm period

Use a 3.5" minimum diameter orifice and the outlet control rate is =   **0.31 cubic feet
per second**

(3" minimum diameter orifice per Ogden City Standards)