

WHEN RECORDED, MAIL TO:
Utah Department of Transportation
Right of Way, Fourth Floor
Box 148420
Salt Lake City, UT 84114-8240

UTAH DEPARTMENT OF TRANSPORTATION DRAINAGE AGREEMENT

Salt lake County

Tax ID No. 14323000114001

This Drainage Agreement made and entered into this 19th day of September
20¹⁹ between Utah Department of Transportation ("Department") and
DR Horton, LLC ("Permittee"), who owns the property described in Exhibit A.

RECITALS

The Permittee (property owner) desires to construct a drainage system and a drainage connection within the Department Right of Way subject to the requirements and conditions described in the Permit.

Department's Policy 08A-06 requires the Permittee to sign the Drainage Agreement as part of the permitting process for a drainage connection.

The parties agree as follows:

(1) **COMPLIANCE:** Permittee must comply with the conditions in the permit and applicable state and federal statutes, regulations and rules. The Department may perform inspection of Permittee's drainage system 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 in meeting the Permit conditions. The Permittee is responsible for the Department's inspection costs. Permittee's responsibilities include:

- a) Permittee is responsible for repairing and restoring any portion of the Department Right of Way and drainage systems 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.
- b) Permittee must not increase its drainage discharge into the Department's drainage system without the written permission of the Department.
- c) A bonded contractor must apply for the required permit to install drainage systems in the Department Right of Way prior to the commencement of any such work.
- d) The Permittee is responsible to obtain environmental clearances, permits, or other approvals from any other local, state or federal agency that may have regulatory jurisdiction or oversight.

(2) **MAINTENANCE:** Permittee's drainage system must at all times be maintained, repaired, constructed, and operated by and at the expense of the Permittee. The drainage system will be serviced without access from any interstate highway or ramp. The Department may notify the Permittee of any maintenance requirements if the Permittee fails to maintain the drainage system. The Department reserves the right, without relieving the Permittee of its obligations, to reconstruct or make repairs to the drainage system, as it may consider necessary, and the Permittee must reimburse the Department for its cost if the Permittee fails to comply with the Department's written notification and complete the required maintenance.

(3) **FUTURE IMPACTS:** The Department has the right to change its drainage system for any future transportation project. If the Department's drainage system is reconstructed or modified, the Department reserves the right to hold the Permittee responsible for the cost to reconnect to the Department's drainage system. The Department is not responsible for any costs the Permittee incurs due to the drainage system being reconstructed or modified.

(4) **LIABILITY:** Pursuant to R930-7-6(2)(b), the Permittee is required to guarantee satisfactory performance under this Permit. 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 system, including the failure to restore the Right of Way to Department standards. The Permittee will be liable for all costs the Department incurs under this agreement.

The Permittee will indemnify, defend, and hold harmless the Department, its employees, and the State of Utah from responsibility for any damage or liability arising from Permittee's construction, maintenance, repair, or any other related operation of the drainage system pursuant to the Permit issued under this agreement.

The Permittee will not hold the Department liable for damages resulting from any back-up or flow into the Permittee's drainage system or property. The Permittee accepts all risks associated with the connection to the Department's drainage system. The Permittee is responsible for all liability resulting from the discharge of pollutants into the Department's drainage system from its property or drainage system.

(5) **CANCELLATION OF PERMIT:** Any failure on the part of Permittee to comply with the terms and conditions set forth in the Permit or this Agreement may result in cancellation of the Permit. Failure of the Permittee to pay any sum of money for costs incurred by the Department in association with inspection, reconstruction, repair, or maintenance of the drainage system may also result in cancellation of the Permit. Non-compliance with either the Permit or Agreement may result in the Department removing the drainage system and restoring the highway and Right of Way at the sole expense of the Permittee. The Department will notify the Permittee in writing prior to any cancellation, 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 Permittee to remove its drainage system if the violations are not corrected.

(6) **SUCCESSORS AND ASSIGNS:** 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's 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.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement the day and year first above written.

CURRENT PROPERTY OWNER/PERMITTEE			
Name Printed:	<u>Adam Loser</u>	Signature:	<u>Adam Loser</u>

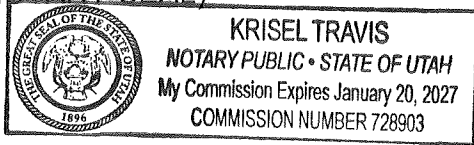
State of Utah
County of Salt Lake

On this 28 day of ~~September~~ February, in the year 2024,

Adam Loser personally appeared before me and duly acknowledged to me that he/she executed this agreement as the current property owner of said property or was authorized to sign the agreement on behalf of the property owner. Witness my hand and official seal.

Krisel Travis
Notary Public

(NOTARY SEAL)



UTAH DEPARTMENT OF TRANSPORTATION – Region Permits Officer			
Name Printed:	<u>Baharak Treweek</u>	Signature:	<u>Baharak Treweek</u>

State of Utah
County of Salt Lake

On this 1st day of September, in the year 2019,

Baharak Treweek personally appeared before me, who duly acknowledged to me that he/she executed this agreement pursuant to the authority delegated to him/her for the Utah Department of Transportation. Witness my hand and official seal.

Kim Velasquez
Notary Public

(NOTARY SEAL)

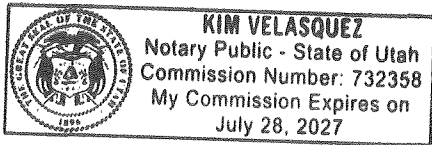


EXHIBIT A (Legal Description of Permittee's Property)

A parcel of land situate in the East Half of Section 31 and the West Half of Section 32, Township 1 South, Range 2 West, Salt Lake Base and Meridian, being more particularly described as follows:

Beginning at the Intersection of the Southwest line of the Denver & Rio Grande Western Railroad Right-of-Way and the West line of 8400 West Street (SR-111), said point also being South 00°01'06" West 154.21 feet along the Quarter Section line and West 71.00 feet from the Center of Section of Section 32, Township 1 South, Range 2 West, Salt Lake Base and Meridian, and running;

thence South 00°01'06" West 1,775.11 feet along the said Westerly Right-of-Way of 8400 South Street;
thence North 89°40'50" West 353.32 feet;
thence North 124.83 feet;
thence West 496.00 feet;
thence South 459.00 feet;
thence South 89°45'36" East 310.90 feet;
thence South 00°01'06" West 233.00 feet;
thence South 89°40'50" East 165.00 feet;
thence South 00°01'06" West 140.00 feet to a point on the South Section line of Section 32;
thence North 89°40'50" West 1,280.27 feet along said South line to a line that is 25 feet perpendicularly distant Northeasterly from the Center of Tracks of the Bingham & Garfield Railroad;
thence North 43°48'26" West 237.28 feet along said line 25 feet perpendicularly distant from the Center of said Tracks;
thence North 46°10'42" East 797.63 feet;
thence Northeasterly 636.53 feet along the arc of a 1,150.00 foot radius curve to the left (center bears North 43°49'18" West and the chord bears North 30°19'17" East 628.44 feet with a central angle of 31°42'49");
thence North 14°27'53" East 204.34 feet;
thence Northwesterly 1,095.55 feet along the arc of a 2,833.00 foot radius curve to the right (center bears North 14°27'53" East and the chord bears North 64°27'24" West 1,088.74 feet with a central angle of 22°09'25");
thence North 53°22'42" West 895.56 feet;
thence South 36°37'18" West 946.68 feet;
thence North 21°56'38" West 29.63 feet;
thence North 11°38'14" West 457.04 feet;
thence North 02°29'50" West 369.19 feet;
thence North 11°16'48" West 268.52 feet;
thence North 16°31'39" West 269.99 feet;
thence North 20°55'36" West 184.93 feet;
thence North 31°54'21" West 229.96 feet;
thence North 50°15'57" West 158.95 feet;
thence North 50°14'34" West 266.00 feet;
thence North 89°44'49" East 1,117.41 feet to a point on the Southwesterly Right-of-Way of said Denver & Rio Grande Western Railroad;
thence Southeasterly 3,229.51 feet along the arc of a 4,347.28 foot radius curve to the left (center bears North 49°21'37" East and the chord bears South 61°55'18" East 3,155.76 feet with a central angle of 42°33'50") along said Southwesterly Right-of-Way to the point of beginning.

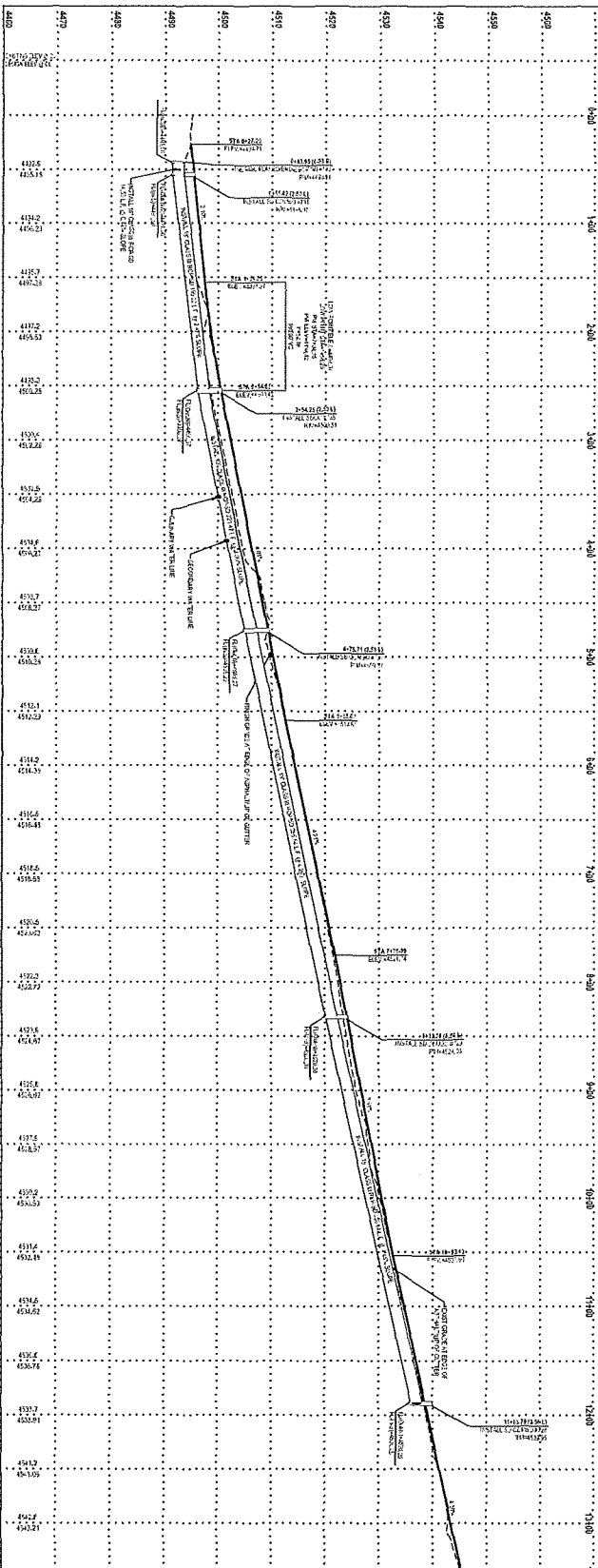
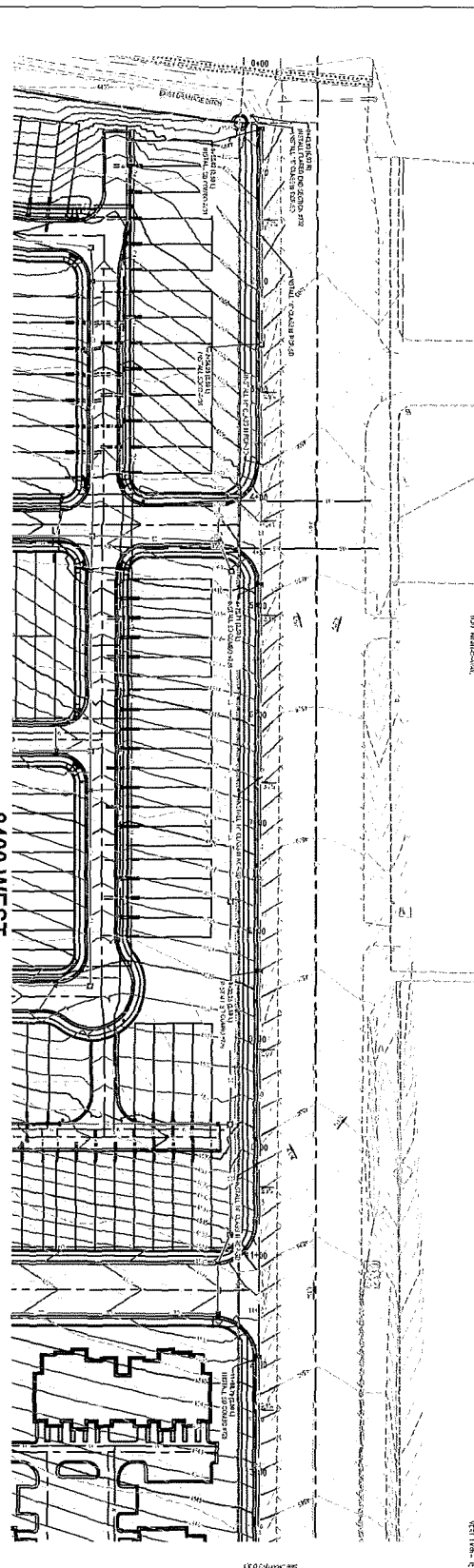
Contains 6,074,813square feet or 139.459 acres.

EXHIBIT B

(include drainage plan showing state route, mile post and location of all drainage systems and drainage calculations)

ENSIGN ENGINEERING
 3411 LAKE CITY
 SALT LAKE CITY, UT 84143
 PHONE: 801.488.8888
 WWW.ENSIGNENG.COM

- GENERAL NOTES**
1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE UTAH CONSTRUCTION CODES AND THE UTAH DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES.
 3. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL ADJACENT PROPERTIES AND UTILITIES AT ALL TIMES.
 4. ALL UTILITIES SHOWN ON THIS PLAN SHALL BE PROTECTED AND DEEPENED AS NECESSARY TO MAINTAIN ADEQUATE COVER.
 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION.
 6. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED THROUGHOUT CONSTRUCTION.
 7. THE CONTRACTOR SHALL MAINTAIN ADEQUATE DRAINAGE AND EROSION CONTROL MEASURES AT ALL TIMES.
 8. ALL CONSTRUCTION SHALL BE COMPLETED WITHIN THE SPECIFIED TIME FRAME.
 9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES.
 10. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL ADJACENT PROPERTIES AND UTILITIES AT ALL TIMES.



GATEWAY TO LITTLE VALLEY ROADWAY INFRASTRUCTURE
 4100 S 8400 W
 MAGNA, UTAH

ENSIGN ENGINEERING
 3411 LAKE CITY
 SALT LAKE CITY, UT 84143
 PHONE: 801.488.8888
 WWW.ENSIGNENG.COM

PROJECT INFORMATION
 PROJECT NO: 2023-001
 SHEET NO: U3.0
 DATE: 10/2023

DESIGNER
 NAME: [Redacted]
 TITLE: [Redacted]

CHECKER
 NAME: [Redacted]
 TITLE: [Redacted]

APPROVER
 NAME: [Redacted]
 TITLE: [Redacted]

SCALE
 1" = 100'

U3.0

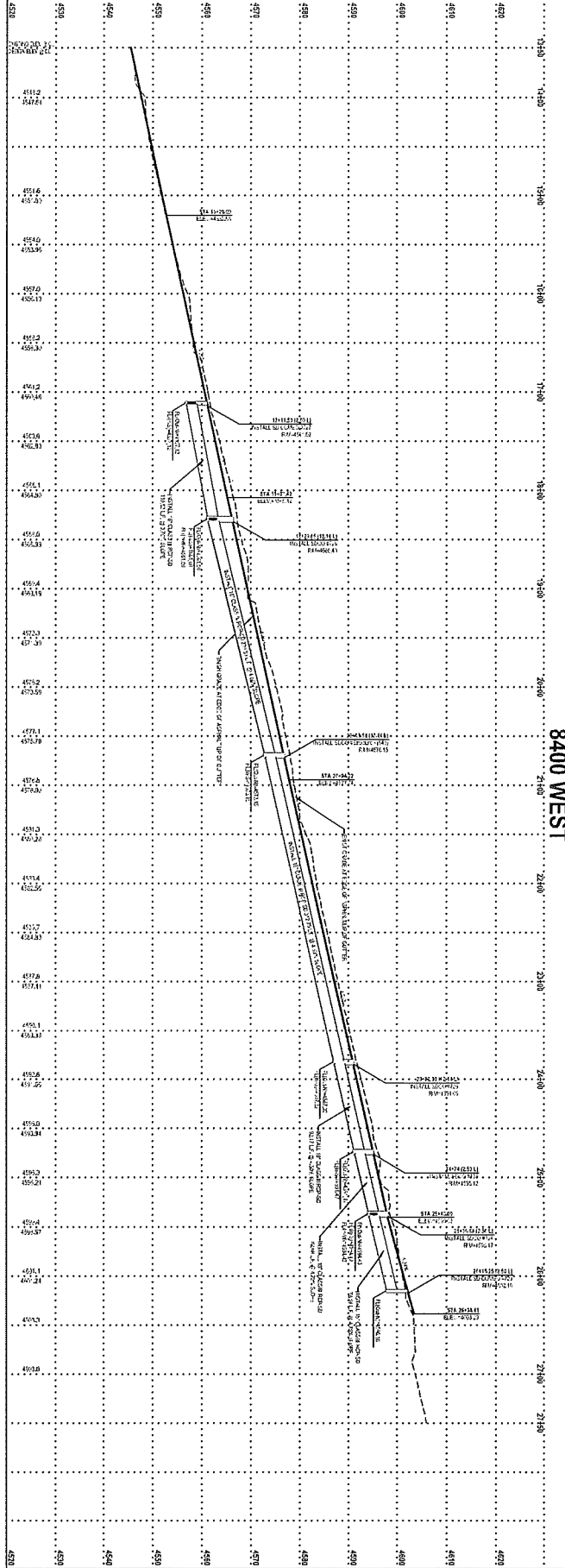
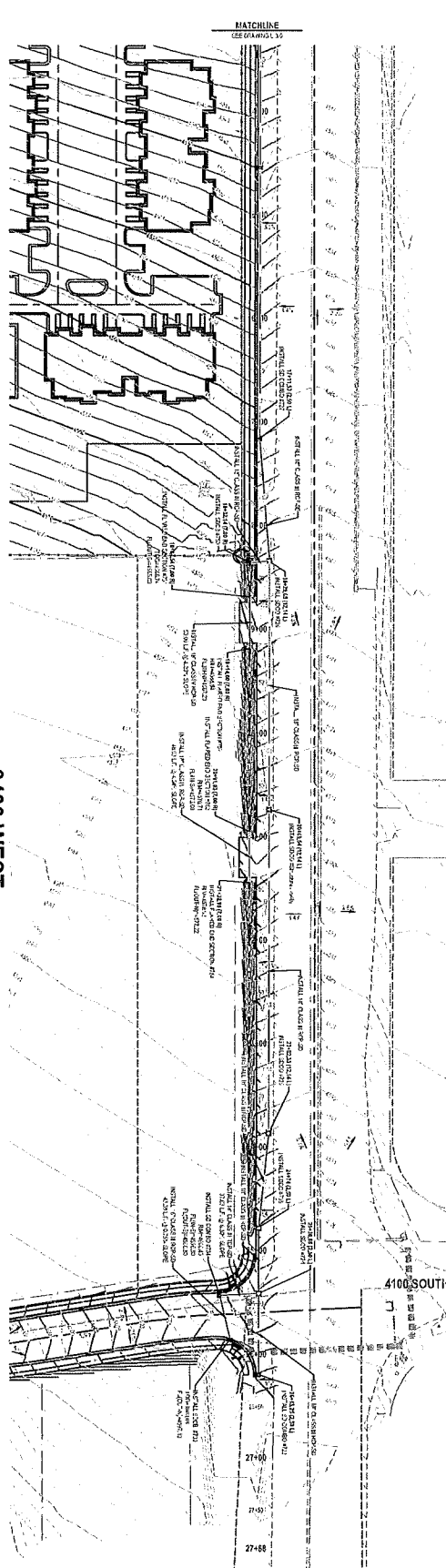
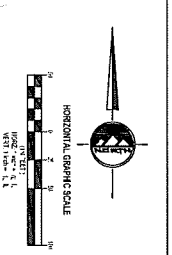
EN SIGN
 THE STANDARD IN ENGINEERING

DESIGNATION
 1. PROJECT NO. 14210454
 2. SHEET NO. B-11474 P-9561
 3. DATE: 08/11/2014
 4. DRAWN BY: J. HARRIS
 5. CHECKED BY: J. HARRIS
 6. APPROVED BY: J. HARRIS
 7. PROJECT: GATEWAY TO LITTLE VALLEY ROADWAY INFRASTRUCTURE
 8. LOCATION: 4100 S 8400 W, MAGNA, UTAH

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GATEWAY TO LITTLE VALLEY ROADWAY INFRASTRUCTURE
 4100 S 8400 W
 MAGNA, UTAH

EN SIGN
 THE STANDARD IN ENGINEERING

4100 S 8400 W
 MAGNA, UTAH 84000
 PHONE: 435.955.4150
 FAX: 435.955.4153
 WWW.ENSIGNING.COM

U.3.1

8400 WEST GRADING & DRAINAGE PLAN

MEMORANDUM



Date: September 23, 2019

To: UDOT Region 2 Headquarters
Utah Department of Transportation
2010 South 2760 West
Salt Lake City, Utah 84104

Civil Engineering
Land Surveying
Structural Design
Water Design
Aerial Technologies

From: Alexander Yanez
Riley Ford, PE

**RE: Gateway to Little Valley
8400 W 4100 S
Magna, UT 84044
Ensign Engineering Project No.: 8106**

The purpose of this memorandum is to exhibit the proposed storm drain design features and show that the designs will meet the latest UDOT Drainage of Instruction standards and requirements. In this project, Gateway to Little Valley, 8400 West is owned and maintained by UDOT. Drainage within 8400 West and surrounding adjacent drainage will be analyzed and will be handled accordingly. These features include: a channel design, and a storm drain pipe analysis design.

4100 South Runoff:

The rational method was used to find the peak release flow rate that will be discharged onto 8400 West from 4100 South. National Oceanic and Atmospheric Administration (NOAA) data was used for the intensity storm event values. The drainage area contributing from 4100 South to the UDOT drainage system in 8400 West resulted to be approximately 1.22-ac. The weighted runoff coefficient was determined to be 0.72.

The table below depicts the design parameters and calculations implemented to determine the peak release flow rate that would be discharged onto the drainage system in 8400 West. The portion of 4100 South that will free-release results in a flow rate of 3.60-cfs onto 8400 West.

25 - Year Storm Event

TIME (MIN)	depth (in)	I (in/hr)	C	A (AC)	Q (CFS)
5	0.347	4.164	0.72	1.22	3.6
10	0.528	3.168	0.72	1.22	2.8
15	0.654	2.616	0.72	1.22	2.3
30	0.881	1.762	0.72	1.22	1.5
60	1.090	1.090	0.72	1.22	1.0
120	1.240	0.620	0.72	1.22	0.5
180	1.310	0.437	0.72	1.22	0.4
360	1.500	0.250	0.72	1.22	0.2
720	1.790	0.149	0.72	1.22	0.1
1440	2.100	0.088	0.72	1.22	0.1

SALT LAKE CITY
45 West 10000 South, Ste 500
Sandy, UT 84070
P 801.255.0529

LAYTON
1485 W Hill Field Rd, Ste 204
Layton, UT 84041
P 801.547.1100

CEDAR CITY
1870 North Main Street, Ste 104
Cedar City, UT 84721
P 435.865.1453

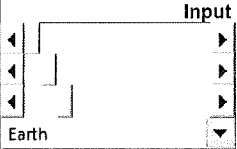
TOOELE
169 N. Main Street, Unit 1
Tooele, UT 84074
P 435.843.3590

RICHFIELD
225 North 100 East
Richfield, UT 84701
P 435.896.2983

Channel Design:

The table below depicts the design parameters for the new v-notch channel design. This channel was designed to be constructed as a v-notch channel to facilitate on-site grading. This channel was designed to convey the 10-year storm event.

Therefore, the design peak flow used was 3.0-cfs. This resulted in a high-water depth of 0.70-feet and a freeboard depth of 1.70-feet. The newly graded channel will be set by a 2-foot offset landscape buffer from the edge of asphalt along the West side of 8400 West. This landscape buffer will slope downwards at a 5% slope towards the new channel. The channel will have 2H:1V side slopes.

MANNING'S CHANNEL SIZING BY DEPTH OF FLOW	
Input	
	b = <input type="text" value="0.00"/> ft Channel bottom width. d = <input type="text" value="0.70"/> ft Depth of Flow. h = <input type="text" value="2.00"/> ft Channel Height. n = <input type="text" value="0.0475"/> Assumed Manning's roughness coefficient. s = <input type="text" value="0.50"/> Side slope (V/H). S = <input type="text" value="0.0448"/> ft/ft Channel slope.
Output	
	θ = 0.464 rad A = 8.00 ft ² Cross sectional area for given channel. P = 8.94 ft Perimeter for given channel. A _w = 0.98 ft ² Wetted area of channel. P _w = 3.13 ft Wetted perimeter of channel. R _h = 0.31 ft Hydraulic radius of channel. B = 2.80 ft Top width of channel. V = 3.06 ft/s Velocity of flow through channel. 35.01% Percent full. Q = 3.00 cfs Flow at given depth.

SALT LAKE CITY
 45 West 10000 South, Ste 500
 Sandy, UT 84070
 P 801.255.0529

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 1870 North Main Street, Ste 104
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Pipe Analysis Design:

The storm drain pipe network design system was designed to capture and convey the 10-year storm event. The adjacent drainage area of 1.22-ac, with a peak flow of 3.60 cfs, was added into the pipe system. Using the designed pipe slopes, designated sub-basin areas, and a minimum storm drain pipe diameter of 18-inches, the system was able to successfully convey the required storm event.

SD PIPE ANALYSIS											
manning "n":	0.013	RCP									
pipe #	from mh #	to mh #	pipe dia (in)	pipe slope (%)	pipe area (sq.ft.)	pipe capacity (cfs)	sub basin req (cfs)	total req (cfs)	excess capacity (cfs)	notes	
1	combo#1	co#1	18	4.75	1.77	22.96	0	0	22.96	none	
2	cb#1	combo#2	18	0.75	1.77	9.12	3.60	3.60	5.52	Add Detention Release Flow	
3	combo#2	co#1	18	6.30	1.77	26.44	0	3.60	22.84	Convey Det	
4	co#1	co#2	18	4.72	1.77	22.88	0	3.60	19.28	Convey Det	
5	co#2	co#3	18	4.50	1.77	22.34	0	3.60	18.74	Convey Det	
6	co#3	co#4	18	4.53	1.77	22.42	0	3.60	18.82	Convey Det	
7	co#4	co#5	18	4.46	1.77	22.24	0	3.60	18.64	Convey Det	
8	co#5	combo#727	18	4.50	1.77	22.34	0	3.60	18.74	Convey Det	
9	combo#727	combo#641	18	4.30	1.77	21.84	2.07	5.67	16.17	Add A6; Convey Det	
10	combo#641	combo#728	18	4.83	1.77	23.15	0.63	6.29	16.85	Add A5; Convey Det, A6	
11	combo#728	combo#729	18	4.45	1.77	22.22	0.63	6.92	15.30	Add A4; Convey Det, A6-5	
12	combo#729	combo#730	18	4.25	1.77	21.71	0.86	7.79	13.93	Add A3; Convey Det, A6-4	
13	combo#730	co#6	18	4.00	1.77	21.07	0.88	8.66	12.40	Add A2; Convey Det, A6-3	
14	co#6	combo#731	18	2.42	1.77	16.38	0	8.66	7.72	Convey Det, A6-2	
15	combo#731	Flared End	24	0.50	3.14	16.04	1.05	9.71	6.33	Add A1; Convey Det, A6-2	

In summary, all three storm drain design features have satisfied the standards and requirements specified in the UDOT Drainage Manual of Instruction.

If you have any questions concerning the information noted above, feel free to contact us at any time.

SALT LAKE CITY
45 West 10000 South, Ste 200
Sandy, UT 84070
P 801.255.0529

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DRAINAGE CHANNEL DESIGN

9/24/2019

Gateway to Little Valley - 8106

MAGNA, UT

4100 S 8400 W

NOAA: GARFIELD TIME (MIN)	10 - Year		25 - Year		100 - Year	
	depth (in)	I (in/hr)	depth (in)	I (in/hr)	depth (in)	I (in/hr)
5	0.261	3.132	0.347	4.164	0.521	6.252
10	0.397	2.382	0.528	3.168	0.794	4.764
15	0.492	1.968	0.654	2.616	0.984	3.936
30	0.663	1.326	0.881	1.762	1.33	2.660
60	0.821	0.821	1.09	1.090	1.64	1.640
120	0.959	0.480	1.24	0.620	1.81	0.905
180	1.04	0.347	1.31	0.437	1.85	0.617
360	1.24	0.207	1.5	0.250	1.96	0.327
720	1.5	0.125	1.79	0.149	2.27	0.189
1440	1.81	0.075	2.1	0.088	2.56	0.107

DRAINAGE AREA:

	HARD SURFACE	ROOF	LANDSCAPE	TOTAL
SQ.FT. =	44448	0	9746	1.24 AC
SQ.FT. =				
AC	1.02	0.00	0.22	AC

RUNOFF COEFFICIENT:

	C	C*A
HARD SURFACE	0.90	0.92
ROOF	0.92	0
LANDSCAPE	0.15	0.03

WEIGHTED C = 0.77

DRAINAGE CHANNEL DESIGN

MANNING'S CHANNEL DESIGN BY DEPTH OF FLOW																																									
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SUBBASINS

SUBBASIN REQUIREMENTS AT 10 YEAR STORM EVENT

10 - Year time	in/hr	Subbasin	Area (sq.ft. / ac)	C	tc	I (in/hr)	Q(cfs)
10	2.382	1	32333	0.74	15	1.968	1.05
15	1.968	2	27072	0.62	15	1.968	0.88
		3	26729	0.61	15	1.968	0.86
		4	19407	0.45	15	1.968	0.63
		5	19323	0.44	15	1.968	0.63
15	1.968	6	9745	0.22	15	1.968	0.32
30	1.326	7	54194	1.24	15	1.968	1.75
		8	63939	1.47	15	1.968	2.07
		Total	188802	4.33			

SD PIPE ANALYSIS

pipe #	manning "n":	0.013	from mlt #	RCP	to mlt #	pipe dia (in)	pipe slope (%)	pipe area (sq.ft.)	pipe capacity (cfs)	sub basin req (cfs)	total req (cfs)	excess capacity (cfs)	notes
1		combo#1	combo#1	combo#1	combo#1	18	4.75	1.77	22.96	0	0	22.96	none
2		combo#2	combo#2	combo#2	combo#2	18	0.75	1.77	9.12	3.60	3.60	5.52	Add Detention Release Flow
3		combo#1	combo#1	combo#1	combo#1	18	6.30	1.77	26.44	0	3.60	22.84	Convey Det
4		combo#2	combo#2	combo#2	combo#2	18	4.72	1.77	22.88	0	3.60	19.28	Convey Det
5		combo#2	combo#2	combo#3	combo#3	18	4.50	1.77	22.34	0	3.60	18.74	Convey Det
6		combo#3	combo#4	combo#4	combo#4	18	4.53	1.77	22.42	0	3.60	18.82	Convey Det
7		combo#4	combo#5	combo#5	combo#5	18	4.46	1.77	22.24	0	3.60	18.64	Convey Det
8		combo#5	combo#727	combo#727	combo#727	18	4.50	1.77	22.34	0	3.60	18.74	Convey Det
9		combo#727	combo#641	combo#641	combo#641	18	4.30	1.77	21.84	2.07	5.67	16.17	Add A6; Convey Det
10		combo#641	combo#728	combo#728	combo#728	18	4.83	1.77	23.15	0.63	6.29	16.85	Add A5; Convey Det; A6
11		combo#728	combo#729	combo#729	combo#729	18	4.45	1.77	22.22	0.63	6.92	15.30	Add A4; Convey Det; A6-5
12		combo#729	combo#730	combo#730	combo#730	18	4.25	1.77	21.71	0.86	7.79	13.93	Add A3; Convey Det; A6-4
13		combo#730	combo#6	combo#6	combo#6	18	4.00	1.77	21.07	0.88	8.66	12.40	Add A2; Convey Det; A6-3
14		combo#6	combo#731	combo#731	combo#731	18	2.42	1.77	16.38	0	8.66	7.72	Convey Det; A6-2
15		combo#731	Flared End	Flared End	Flared End	24	0.50	3.14	16.04	1.05	9.71	6.33	Add A1; Convey Det; A6-2