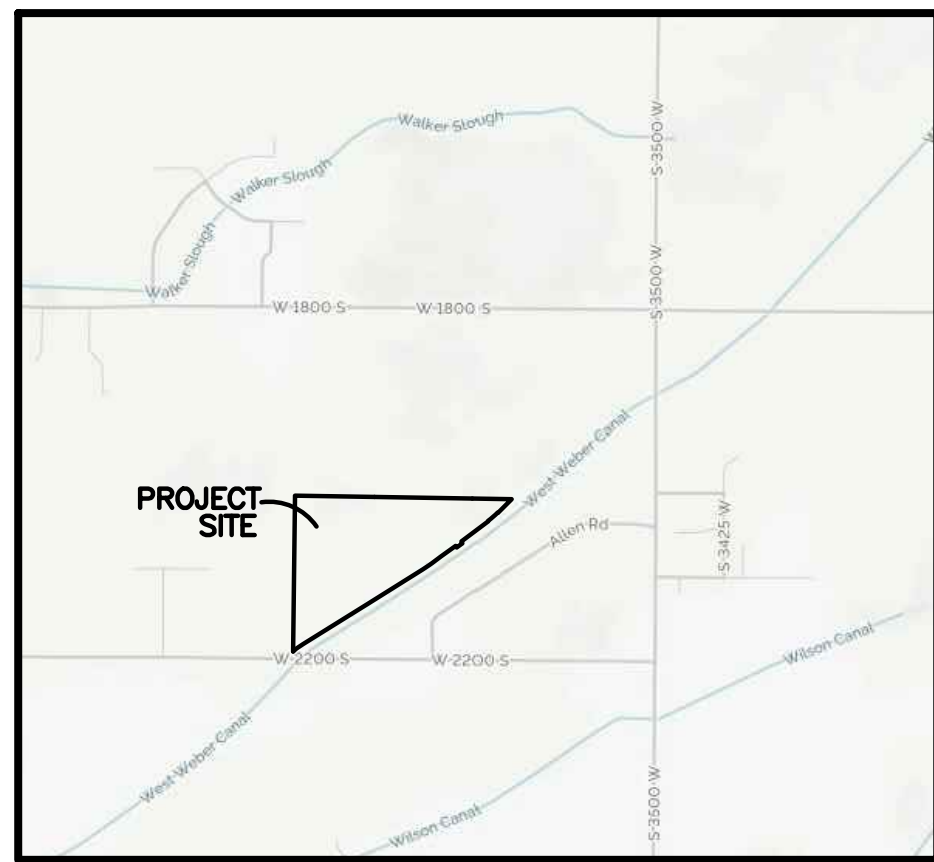


Date of the survey noted in the heading (Meaning the date, year and month the survey markers were placed). WCO 106-1-5(a)(2); WCO 106-1-8(c)(1)c.; UCA 17-23-17(3)(b)



Vicinity Map

SCALE: NONE

MONUMENTS

STREET NAMES

The existing location, widths, and other dimensions of all existing or platted easements within and immediately adjacent (within 30') to the tract to be subdivided. WCO 106-1-5(a) (6)

OVERALL AREA

Line Table

LINE	BEARING	DISTANCE
L1	S89°17'03"E	58.84'
L2	N89°17'04"W	80.00'
L3	S00°51'11"W	97.74'
L4	N07°28'54"W	30.00'
L5	N00°51'11"E	20.00'
L6	S57°48'02"E	25.00'
L7	N32°03'10"W	90.06'
L8	N53°20'43"E	30.10'
L9	N53°20'43"E	30.09'

Curve Table

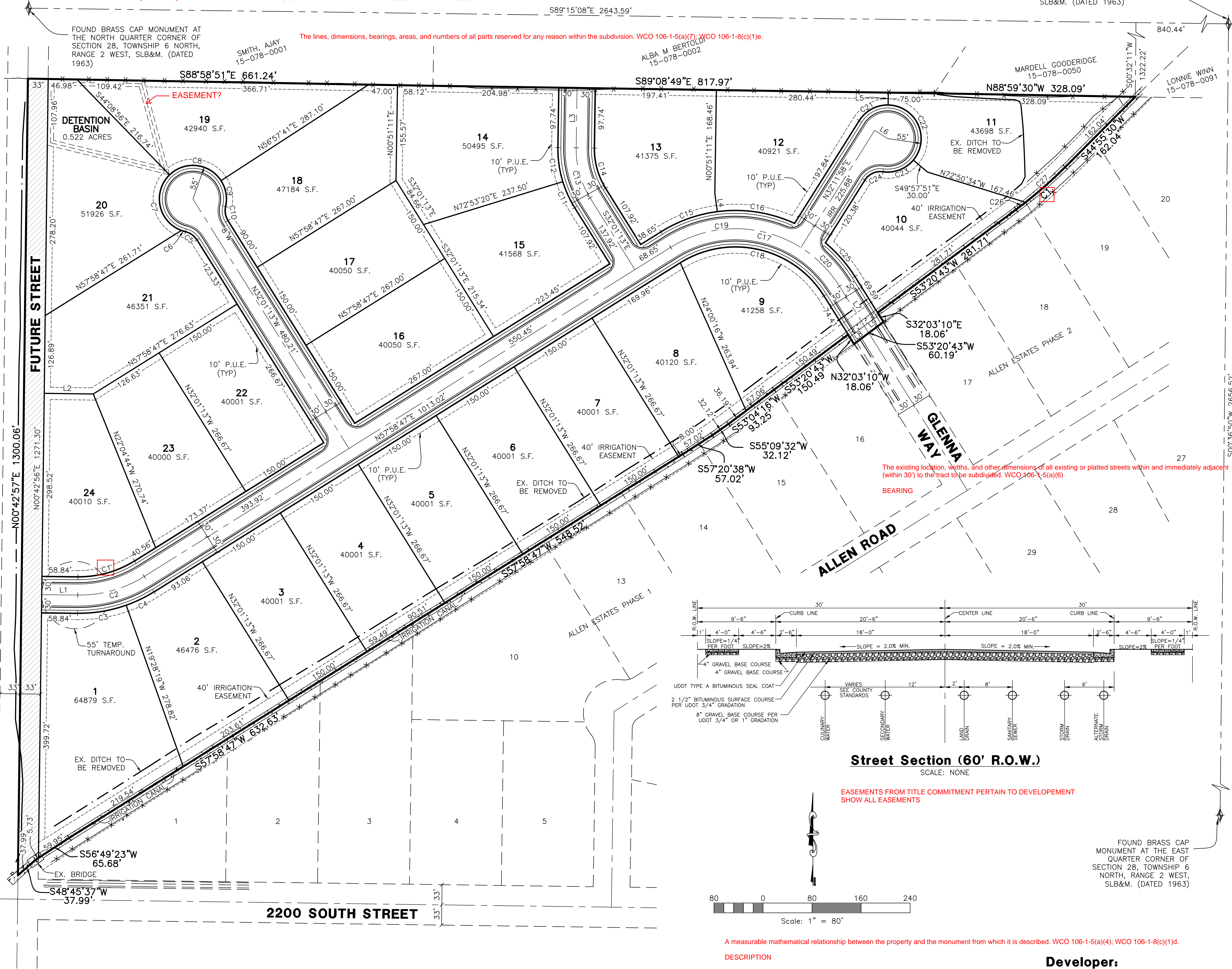
#	RADIUS	ARC LENGTH	CHD LENGTH	TANGENT	CHD BEARING	DELTA
C1	170.00'	97.13'	95.81'	49.93'	S74°20'52"W	32°44'10"
C2	200.00'	114.27'	112.72'	58.74'	N74°20'52"E	32°44'10"
C3	230.00'	81.04'	80.62'	40.94'	N80°37'19"E	20°11'17"
C4	230.00'	50.37'	50.27'	25.29'	S64°15'14"W	12°32'54"
C5	30.00'	23.81'	23.01'	12.46'	S54°34'11"E	45°05'57"
C6	55.00'	7.22'	7.22'	3.62'	S73°21'24"E	7°31'32"
C7	55.00'	110.82'	93.00'	87.08'	S11°52'17"E	115°26'42"
C8	55.00'	97.06'	84.95'	66.85'	N83°35'38"W	101°06'37"
C9	55.00'	44.27'	43.08'	23.41'	N09°58'48"W	46°07'03"
C10	30.00'	23.61'	23.01'	12.46'	N09°28'15"W	45°05'57"
C11	180.00'	46.84'	46.71'	23.55'	S24°33'57"E	14°54'33"
C12	180.00'	56.44'	56.21'	28.45'	S08°07'45"E	17°57'51"
C13	150.00'	86.06'	84.89'	44.25'	S15°35'01"E	32°52'24"
C14	120.00'	68.85'	67.91'	35.40'	S15°35'01"E	32°52'24"
C15	230.00'	98.50'	97.75'	50.02'	N70°14'56"E	24°32'19"
C16	230.00'	129.20'	127.51'	66.36'	S81°23'19"E	32°11'11"
C17	200.00'	314.05'	282.76'	199.89'	N77°02'12"W	89°58'03"
C18	170.00'	266.94'	240.35'	169.90'	N77°02'12"W	89°58'03"
C19	200.00'	224.17'	212.62'	125.51'	S89°54'38"E	64°13'11"
C20	200.00'	89.88'	89.12'	45.71'	S44°55'36"E	25°44'52"
C21	55.00'	56.30'	53.88'	30.90'	S61°31'34"W	58°39'13"
C22	55.00'	124.01'	99.36'	115.78'	N24°33'20"W	129°10'58"
C23	55.00'	55.53'	53.20'	30.39'	N68°57'35"E	57°50'53"
C24	30.00'	34.39'	32.54'	19.36'	N65°02'29"E	65°41'03"
C25	230.00'	73.27'	72.96'	36.95'	S41°10'46"E	18°15'11"
C26	719.98'	19.28'	19.28'	9.64'	S52°34'41"W	1°32'04"
C27	719.98'	86.53'	86.47'	43.32'	S48°22'04"W	6°53'09"

Legend

- = SECTION CORNER
- = BOUNDARY LINE
- = LOT LINE
- = ADJOINING PROPERTY
- = EASEMENTS
- = SECTION TIE LINE
- = EXISTING FENCE LINE
- = DITCH
- = PUBLIC UTILITY EASEMENT
- = ROAD DEDICATION FOR FUTURE ROAD

The names, widths, lengths, bearings and curve data on centerlines of proposed easements. WCO 106-1-5(a)(7); WCO 106-1-8(c)(1)e.

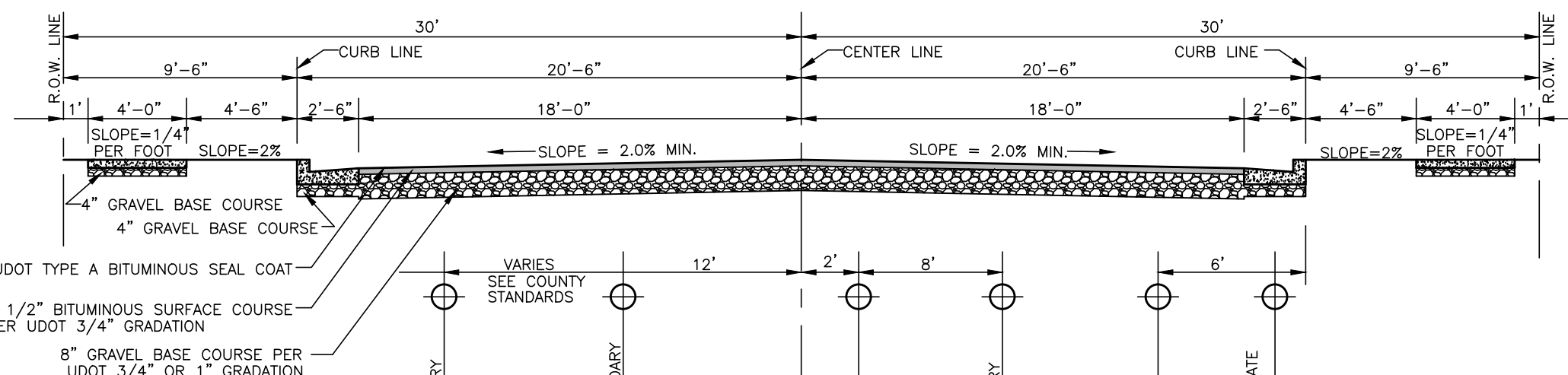
The lines, dimensions, bearings, areas, and numbers of all parts reserved for any reason within the subdivision. WCO 106-1-5(a)(7); WCO 106-1-8(c)(1)e.



FOUND BRASS CAP MONUMENT AT THE
NORTHEAST CORNER OF SECTION 28,
TOWNSHIP 6 NORTH, RANGE 2 WEST,
SLB&M. (DATED 1963)

The existing location, widths, and other dimensions of all existing or platted streets within and immediately adjacent
(within 30') to the tract to be subdivided. WCO 106-1-5(a)(6)

BEARING

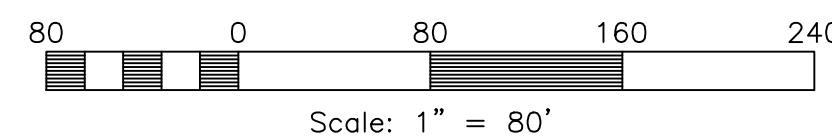


Street Section (60' R.O.W.)

SCALE: NONE

EASEMENTS FROM TITLE COMMITMENT PERTAIN TO DEVELOPMENT
SHOW ALL EASEMENTS

FOUND BRASS CAP
MONUMENT AT THE EAST
QUARTER CORNER OF
SECTION 28, TOWNSHIP 6
NORTH, RANGE 2 WEST,
SLB&M. (DATED 1963)



A measurable mathematical relationship between the property and the monument from which it is described. WCO 106-1-5(a)(4); WCO 106-1-8(c)(1)d.

DESCRIPTION

Developer:

Ivory Homes
970 Woodoak LN.
Salt Lake City, UT. 84117
(801) 386-6708



REVISIONS
DESCRIPTION

DATE

Reeve & Associates, Inc. - Solutions You Can Build On

PART OF THE NE 1/4 OF SECTION 28, T.4N., R. 1W., S.L.B. & M., U.S. SURVEY

Weber County, Utah

Saddlebred Acres

Preliminary Plan

Project Info.

Engineer: G. Thorson
Designer: C. Cave
Begin Date: JUNE 23, 2016
Name: SADDLEBREDED ACRES
Number: 4948-06

Sheet
1
2
Sheets

Weber County, Utah

Saddlebred Acres

Storm Runoff Calculations

Allen Property - Ivory Homes
Taylor, UT
7/6/2016 TJH

The following runoff calculations are based on the Rainfall - Intensity - Duration Frequency Curve for the Taylor, UT area taken from data compiled using NOAA Atlas 14 for a 50-year storm event.

Runoff storm water has been calculated for two different sets of conditions, one being undeveloped land and the other with land fully improved. The difference between the two quantities will be detained in a subsurface detention basin where the storm water will be released at its historical rate of 0.2 cfs/acre.

The calculations are as follows:

1. Drainage Area:

Runoff Coefficients		
Paved Area	182,344	C = 0.95
Landscaped Area	967,905	C = 0.20
Roof	96,600	C = 0.95
Weighted Runoff Coefficient		C = 0.37

2. Time of Concentration:

Using Storm Water Run-Off "Overland Flow Time"

Tc = 30 minutes

3. Rainfall Intensities:

Rainfall Intensities were obtained using NOAA Atlas 14 for a 50-year storm event. This can be seen in section 5 below.

Rainfall Intensity for a 15 minute Time of Concentration 2.25 in/hr

4. Peak Run-off:

Runoff Coefficient	C = 0.37
Rainfall Intensity	i = 2.25 IN./HR.
Acreage	A = 28.62 ACRES
Runoff Quantity	Q = CIA

Q (total) Q = 23.69 cfs

5. Allowable Discharge:

Allowable Discharge of Storm Water Volume (pre-development) is 0.2 cfs per acre.
Allowable Discharge Q = (0.2 x acres)

Allowable Discharge = Q = 5.72 cfs

6. Volume of Run-off for 50-year 24 hour Storm Event:

C =	0.37					
A =	28.62					
Q(out) =	5.72	(based on 0.2 cfs/acre)				
time (min)	time (sec)	i (in./hr.)	Q (cfs)	Vol. in (cf)	Vol. out (cf)	Difference (cf)
0	0	0.00	0.00	0.00	0.00	0.00
5	300	5.32	56.01	16801.89	1717.42	15084.46
10	600	4.04	42.53	25518.65	3434.85	22083.81
15	900	3.34	35.16	31645.66	5152.27	26493.39
30	1800	2.25	23.69	42636.37	10304.54	32331.83
60	3600	1.39	14.63	52679.60	20609.07	32070.52
120	7200	0.77	8.11	58364.45	41218.15	17146.30
180	10800	0.53	5.57	60145.70	61827.22	-1681.52
360	21600	0.31	3.26	70492.12	123654.45	-53162.32
720	43200	0.19	2.01	86864.49	247308.89	-160444.40
1440	86400	0.11	1.15	99143.76	494617.79	-395474.02

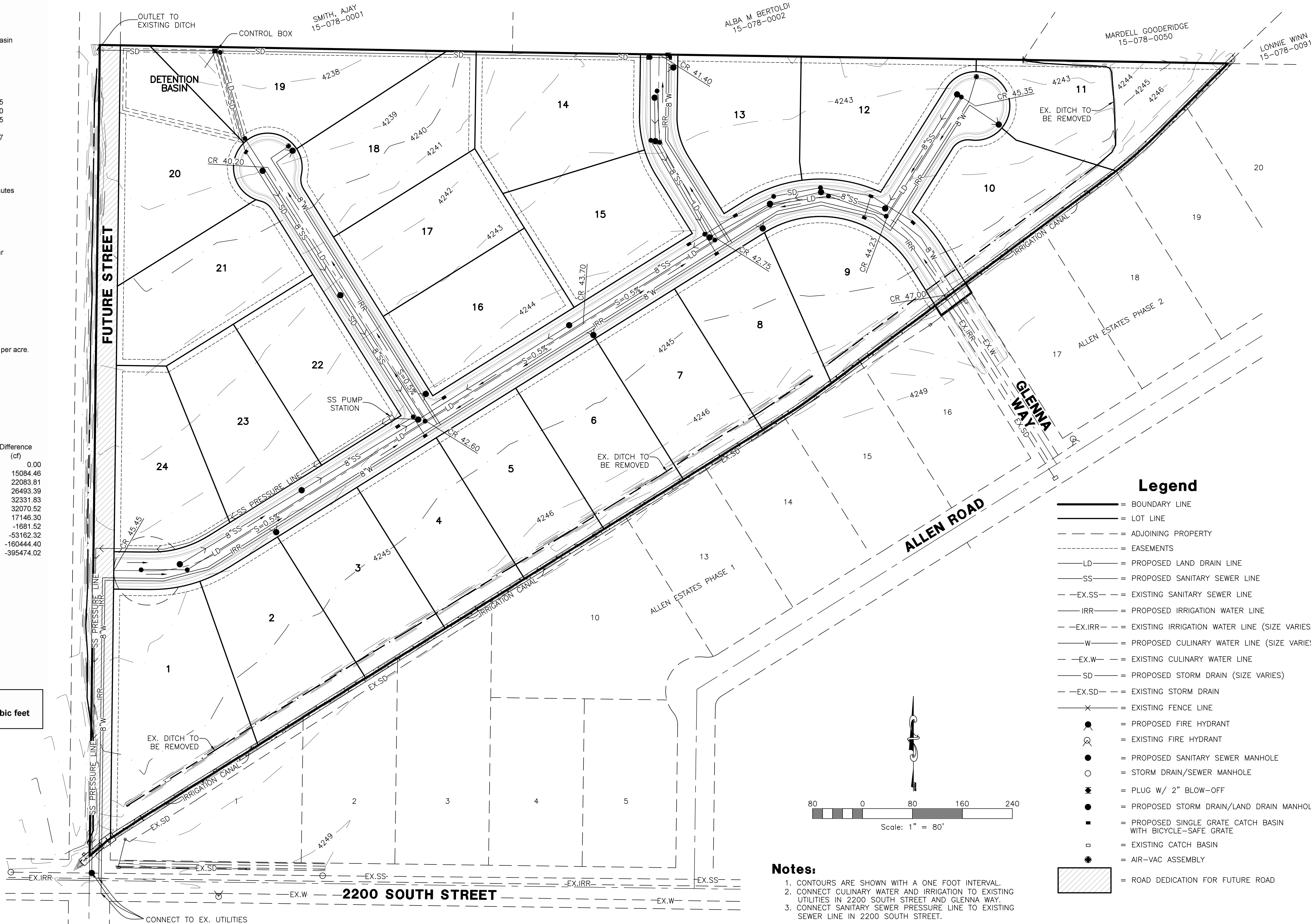
Required Detention Volume 32331.83 c.f.

7. Orifice Sizing

Given:	Q = 5.72 cfs
	2g = 64.4 ft/s ²
	H = 2.50 ft
	Cd = 0.62
	R = $\sqrt{Q / (0.7 * (64.4 * H)^{0.5} / \pi)}$
	R = 0.48 feet
	5.78 inches
	D = 11.55 inches

SUMMARY:

The required volume of the detention basin is **32,332 cubic feet**
Orifice Diameter at outlet is **11.55 inches**



Saddlebred Acres

Weber County, Utah

Project Info.

Engineer: G. Thorson
Designer: C. Gave
Begin Date: JUNE 23, 2016
Name: SADDLEBREDED ACRES
Number: 4948-06