

811
CALL BLUESTAKES
@ 811 AT LEAST 48 HOURS
PRIOR TO THE
COMMENCEMENT OF ANY
CONSTRUCTION.

BENCHMARK
WEST 1/4 CORNER OF SECTION 23,
TOWNSHIP 5 NORTH RANGE 1 WEST
SALT LAKE BASE AND MERIDIAN
ELEV = 4971.196'

PROPERTY DESCRIPTION
ALL OF LOT 1 OF HIGHLAND BLUFF ESTATES SUBDIVISION, PART OF THE SOUTHWEST QUARTER CORNER OF SECTION 23,
T. 5 N., R. 1 W., S.L.B. & M. WEBER COUNTY, UTAH

DATE _____ NAME _____
License No. _____

Existing Study Summary Statistics

Phase 1:

Area	C Value
Building Area	1,827 0.9
Total Hardscape	17,977 0.9
Landscaped Area	190,845 0.15
Total Area	199,849
Weighted Average C 0.222	
Total Area	199,849 SF
Total Area	4.59 Acres
Composite C	0.222

Existing Catchment Calculations (10-year storm)

Catchment	Area (SF)	C	Flow (CFS)	Destination
1	199,849	0.222	1,644	Offsite

Offsite Existing Detention Calculations (100-year storm)

Basin Tributary Area	Runoff coefficient C	Release Rate	Peak Release*
507,238 SF	0.350	0.20 cfs/acre	2,329 cfs

Without Bypass Flow

Office Calculations: $Q=C_e A_e (2gh)^{1/2}$

High Water Elevation:	4,819.26 FT
Box Invert:	4,814.46 FT
Allowed Basin Discharge*	3,973 CFS
C_e :	0.62
Office Area:	52.48 IN ²
Office Diameter:	8.2 IN

*2,329 cfs offsite peak release added to allowed basin discharge

Detention Calculations (100-year storm)

Basin Tributary Area	199,859 SF
Runoff coefficient C:	0.350
Release Rate	0.36 cfs/acre
Peak Release*	1,644 cfs

Time (min)	i (in/hr)	Cumulative Runoff to Basin (c.f.)	Net Allowed Basin** Discharge (c.f.)	Required Storage (c.f.)
5	7.37	3,551	493	3,057
10	5.60	5,396	986	4,409
15	4.63	6,692	1,480	5,212
30	3.12	9,018	2,969	6,059
60	1.93	11,157	5,918	5,239
120	1.12	12,950	11,837	1,113
180	0.77	13,337	17,755	(4,418)
360	0.43	14,915	35,510	(20,595)
720	0.27	18,661	71,021	(52,360)
1440	0.15	21,367	142,042	(120,675)
2880	0.09	25,529	284,083	(258,554)
Required Detention			6,059	
Provided Detention			9,801	

*Peak release based on existing flow

Pipe Design (10-year storm)

Pipe	Tributary	Surface	Upstream	Pipe Flow	Total	Pipe	Diameter	Pipe Type	Full Flow	% of Full
SD-1	2.3	2.781	SD-2	0.331	3.111	0.35%	15RCP	3.832	81.2%	
SD-2	3	0.331	none	0.000	0.331	0.35%	15RCP	3.832	8.6%	

Study Summary Statistics

Phase 1:

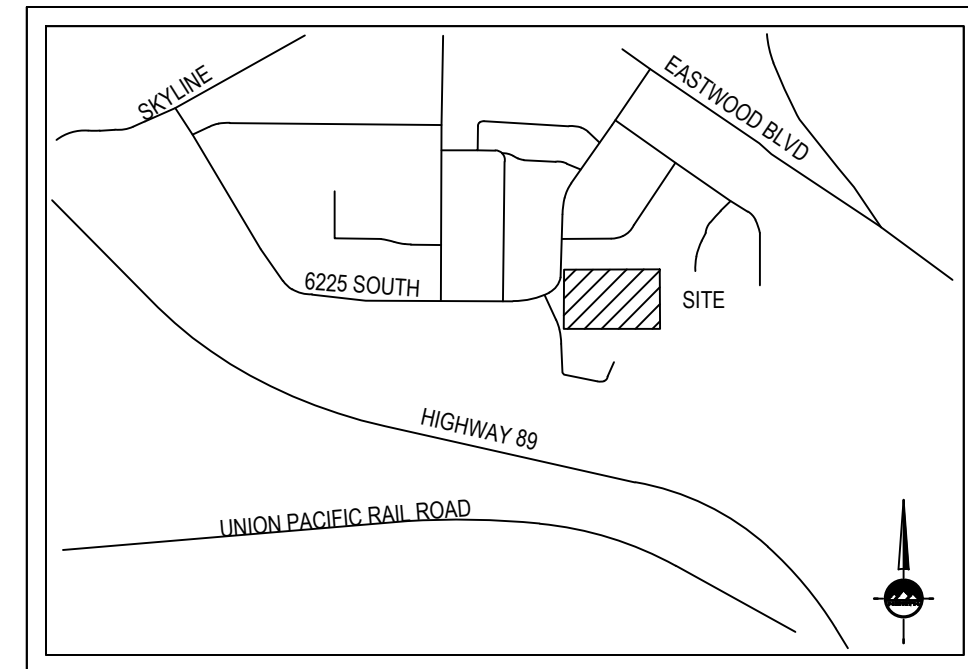
Area	C Value
Building Area	1,827 0.9
Total Hardscape	17,977 0.9
Landscaped Area	190,845 0.15
Total Area	199,859
Weighted Average C 0.254	
Total Area	199,859 SF
Total Area	4.59 Acres
Composite C	0.254

Catchment Calculations (10-year storm)

Catchment	Area (SF)	C	Flow (CFS)	Destination
1	18,282	0.350	0.351	Offsite
2	76,334	0.350	1.466	SD-1
3	68,484	0.350	1.315	SD-1
4	19,532	0.350	0.375	Offsite
5	17,227	0.350	0.331	SD-2

LEGEND

- SECTION CORNER
- EXIST MONUMENT
- PRO MONUMENT
- EXIST REBAR AND CAP
- SET ENSIGN REBAR AND CAP
- EXIST WATER METER
- PRO WATER METER
- EXIST WATER MANHOLE
- PRO WATER MANHOLE
- EXIST WATER VALVE
- PRO WATER VALVE
- EXIST FIRE HYDRANT
- PRO FIRE HYDRANT
- EXIST SANITARY SEWER MANHOLE
- PRO SANITARY SEWER MANHOLE
- EXIST STORM DRAIN CLEAN OUT
- PRO STORM DRAIN CLEAN OUT
- EXIST STORM DRAIN CATCH BASIN
- PRO STORM DRAIN CATCH BASIN
- EXIST STORM DRAIN COMBO BOX
- PRO STORM DRAIN COMBO BOX
- MINOR CONTOURS 1' INCREMENT
- MAJOR CONTOURS 5' INCREMENT
- BUILDABLE AREA WITHIN SETBACKS
- PUBLIC DRAINAGE EASEMENT
- EXISTING 30" CURB AND GUTTER
- PROPOSED 30" CURB AND GUTTER
- EXIST FLOW LINE
- PRO FLOW LINE
- EXIST FENCE
- PRO FENCE
- EXIST EDGE OF ASPHALT
- PRO EDGE OF ASPHALT
- EXIST SANITARY SEWER
- PRO SANITARY SEWER LINE
- EXIST STORM DRAIN LINE
- PRO STORM DRAIN LINE
- EXIST WATER LINE
- PRO WATER LINE



ENSIGN
THE STANDARD IN ENGINEERING

LAYTON
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SALT LAKE CITY
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TOOELE
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CEDAR CITY
Phone: 435.865.1453

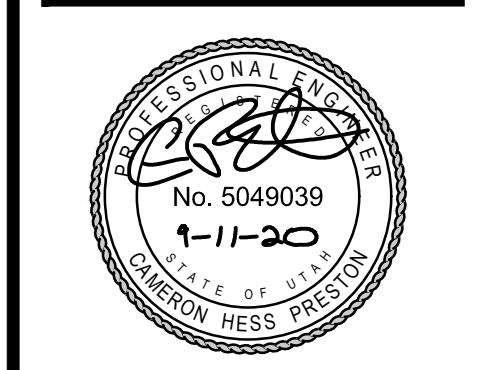
RICHFIELD
Phone: 435.896.2983

WWW.ENSIGNENG.COM

FOR:
MOORE HOMES
9691 S GRANITE WOODS CIRCLE
SANDY, UTAH 84092

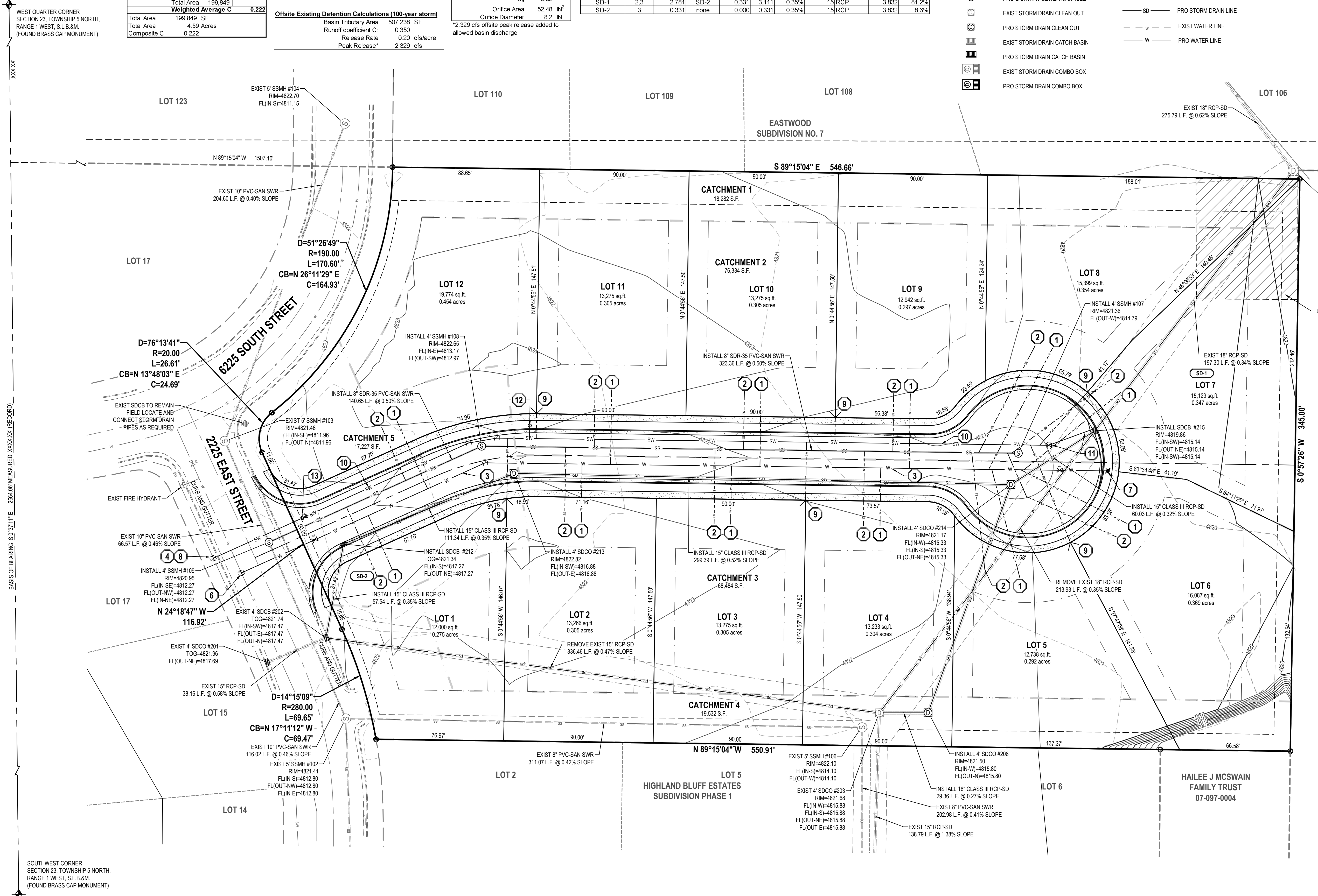
CONTACT:
CLIENT CONTACT
PHONE: 801-000-0000

**HIGHLANDS BLUFF ESTATES
SUBDIVISION
2225 EAST 6225 SOUTH
WEBER COUNTY, UTAH**



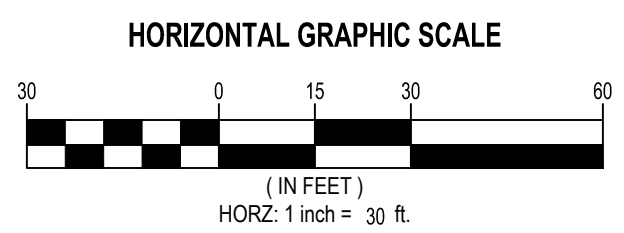
PRELIMINARY PLAT

PROJECT NUMBER: 9455
PRINT DATE: 9/11/20
DRAWN BY: JMOSS
CHECKED BY: CPRESTON
PROJECT MANAGER: CPRESTON



- SCOPE OF WORK:**
PROVIDE, INSTALL AND/OR CONSTRUCT THE FOLLOWING PER THE SPECIFICATIONS GIVEN OR REFERENCED, THE DETAILS NOTED, AND/OR AS SHOWN ON THE CONSTRUCTION DRAWINGS.
- 3/4" CULINARY WATER SERVICE W/ 3/4" WATER METER PER WEBER COUNTY STANDARDS.
 - 4" SDR-35 PVC SANITARY SEWER LATERAL @ 2.00% MINIMUM SLOPE.
 - 8" C900 PVC DR18 CULINARY WATERLINE PER WEBER COUNTY STANDARDS.
 - 4" X6" X6" TEE AND THRUST BLOCK.
 - 8" GATE VALVE.
 - FIELD LOCATE AND "HOT TAP" EXISTING CULINARY WATERLINE.
 - FIRE HYDRANT W/ VALVE COMPLETE PER APWA PLAN No. 511.
 - FIELD LOCATE AND CONNECT TO EXISTING SECONDARY WATERLINE PER WEBER BASIN WATER CONSERVANCY STANDARDS.
 - 1-1/2" DUAL TURNOUT SECONDARY WATER SERVICE PER WEBER BASIN WATER CONSERVANCY DISTRICT STANDARDS.
 - 8" C900 PVC DR14 SECONDARY WATERLINE PER WEBER BASIN WATER CONSERVANCY DISTRICT STANDARDS.
 - PLUG AND BLOCK END OF SWL WITH DRAIN TO EXISTING DRAINAGE DRAIN PER WEBER BASIN WATER CONSERVANCY DISTRICT STANDARDS.
 - AIR - VACUUM BREAKER PER WEBER BASIN WATER CONSERVANCY DISTRICT STANDARDS.
 - 8" GATE VALVE PER WEBER BASIN WATER CONSERVANCY DISTRICT STANDARDS.

HAILEE J MCSWAIN
FAMILY TRUST
07-097-0003



SOUTHWEST CORNER
SECTION 23, TOWNSHIP 5 NORTH,
RANGE 1 WEST, S.L.B. & M.
(FOUND BRASS CAP MONUMENT)