



VICINITY MAP
SCALE: NONE

Storm Runoff Calculations

Wangsgard Property
1192017

The following runoff calculations are based on the Rainfall - Intensity - Duration Frequency Curve for the Huntsville, Utah area taken from the NOAA Atlas 14 database, using a 100 year storm for retention. Storm water runoff has been calculated for a fully developed site. Basin size has been reduced to account for infiltration into the existing and proposed drywells.

The calculations are as follows:

1. Drainage Area:

Total Area	2.25 acre or	98,140 ft ²
Runoff Coefficients		
Paved Area	20,670	C = 0.9
Landscaped Area	37,950	C = 0.2
Roof	39,520	C = 0.9
Weighted Runoff Coefficient		C = 0.63

2. Peak Run-off:

Runoff Coefficient	C = 0.63
Rainfall Intensity	I = 1.00 IN./HR.
Area	A = 2.25 ACRES
Q	Q = 2.27 cfs

3. Percolation Rate:

Drainage Area	980 s.f.	see below
Perc. Rate	5 mpi	
Percolation out	(1in/perc rate) * (1hr/12in) * (1min/60sec) * surface area	cfs
	0.27	

4. Volume of Run-off for 100-year Storm Event:

C	0.63						
I	See below in/hr						
A	98140.00 ft ²						
Q (out)	0.27 ft ³ /s (5 mpi assumed percolation for drywells)						
time (min)	0	0.00	0.00	0.00	0.00	0.00	
	15	900	4.54	6.49	5841.56	245.04	5596.52
	30	1800	3.96	4.37	7574.53	490.09	7354.44
	60	3600	1.89	2.70	9727.36	980.18	8747.18
	120	7200	1.11	1.59	11425.79	1960.35	9465.43
	180	10800	0.76	1.09	11795.35	2940.53	8854.82
	240	21600	0.45	0.62	13340.38	5981.06	7459.31
	300	43200	0.27	0.39	16675.47	11762.12	4913.35
	360	86400	0.16	0.23	19516.48	23524.25	-4007.77

5. Existing & Proposed Drywell Storage

Diameter	4 ft
Depth	10 ft
Side surface/well	151
Bot. surface/well	15
Total Surface	980 s.f.

6. Existing & Proposed Surface Storage

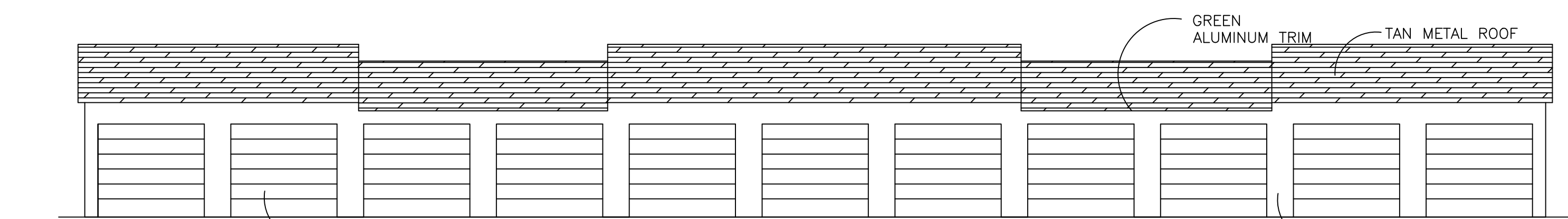
Surface Area 1	2025 ft ²
Surface Area 2	550 ft ²
Surface Area 3	825 ft ²
Surface Area 4	925 ft ²
Surface Area 5	2375 ft ²
Surface Area 6	1275 ft ²
Surface Area 7	750 ft ²

SUMMARY:

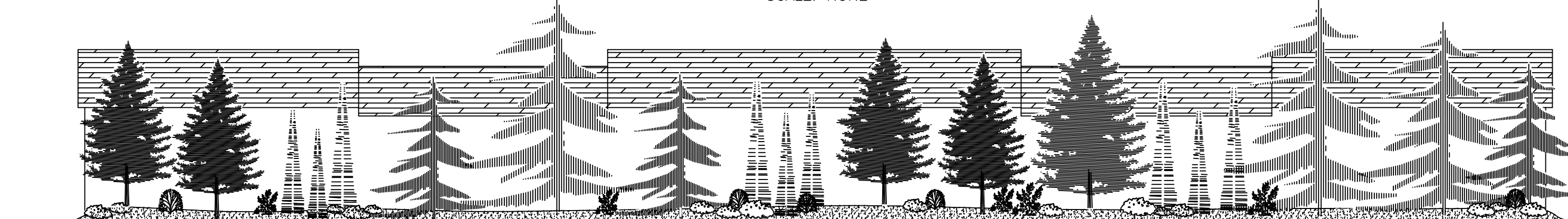
The required storage volume is	9,465	cubic feet
Volume provided by drywells storage	754	cubic feet
Volume provided by surface storage	8,725	cubic feet
Total Volume provided	9,479	cubic feet

- = LANDSCAPE
- = DRIVABLE LANDSCAPE AREA
- = RECYCLED CONCRETE BASE MATERIAL
- = EXISTING ASPHALT TO REMAIN
- = NEW CONCRETE
- = PROPOSED BUILDING
- = EXISTING BUILDING
- = EXISTING ROAD PAVEMENT

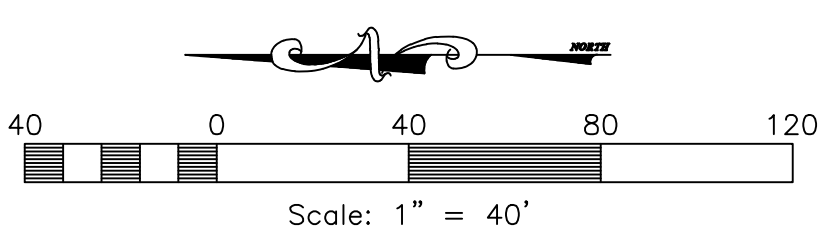
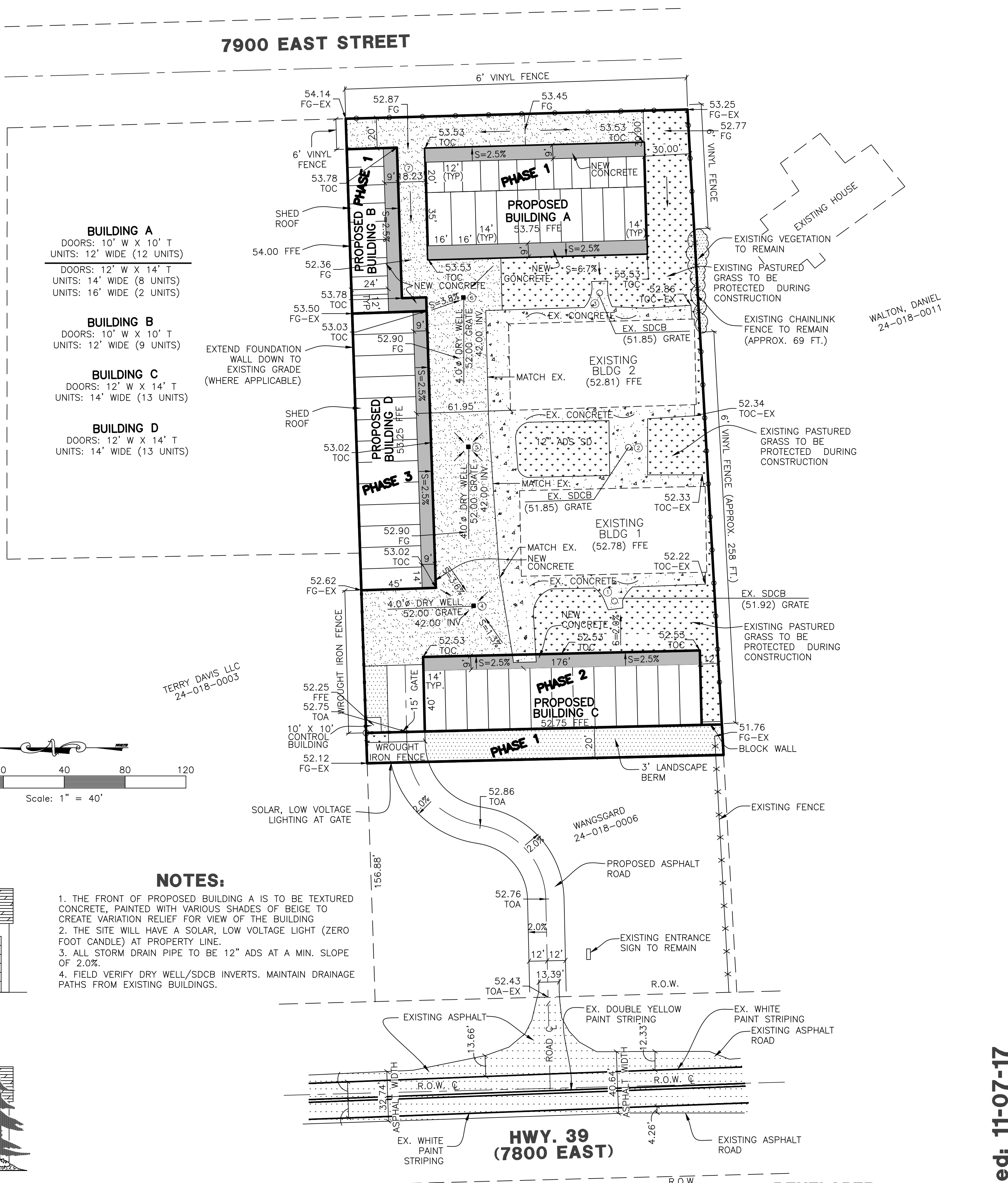
- Legend**
- W— = PROPOSED CULINARY WATER LINE FC = FENCE CORNER
 - EX.W— = EXISTING CULINARY WATER LINE FF = FINISH FLOOR
 - SS— = PROPOSED SANITARY SEWER LINE FFE = FINISH FLOOR ELEVATION
 - EX.SS— = EXISTING SANITARY SEWER LINE FG = FINISHED GRADE
 - SD— = PROPOSED STORM DRAIN LINE FH = FIRE HYDRANT
 - EX.SD— = EXISTING STORM DRAIN LINE FL = FLOW LINE
 - X—X— = EXISTING CHAINLINK FENCE GB = GRADE BREAK
 - O— = PROPOSED 6" VINYL FENCE INV = INVERT
 - = PROPOSED BLACK WROUGHT IRON FENCE L.F. = LINEAR FEET
 - = PROPOSED FIRE HYDRANT NG = NATURAL GRADE
 - = EXISTING FIRE HYDRANT PP = POWER/UTILITY POLE
 - = PROPOSED MANHOLE P.U.E. = PUBLIC UTILITY EASEMENT
 - = EXISTING MANHOLE RCP = REINFORCED CONCRETE PIPE
 - = PROPOSED SEWER CLEAN-OUT RIM = RIM OF MANHOLE
 - ⊗ = PROPOSED GATE VALVE R.O.W. = RIGHT-OF-WAY
 - ⊗ = EXISTING GATE VALVE SD = STORM DRAIN
 - ⊗ = PROPOSED WATER METER SS = SANITARY SEWER
 - ⊗ = EXISTING WATER METER TBC = TOP BACK OF CURB
 - = PROPOSED CATCH BASIN TOA = TOP OF ASPHALT
 - = EXISTING CATCH BASIN TOC = TOP OF CONCRETE
 - ⊕ = PLUG W/ 2" BLOW-OFF TOFF = TOP OF FINISHED FLOOR
 - ⊕ = EXISTING PLUG W/ 2" BLOW-OFF TOI = TOP OF PUMP ISLAND
 - ⊕ = PLUG & BLOCK TSW = TOP OF SIDEWALK
 - ⊕ = STREET LIGHT W = CULINARY WATER
 - ⊕ = SIGN WM = WATER METER
 - BLDG = BUILDING C.F. = CUBIC FEET
 - C&G = CURB & GUTTER C.F.S. = CUBIC FEET PER SECOND
 - CB = CATCH BASIN



TYPICAL INTERIOR BUILDING ELEVATION
SCALE: NONE



EXTERIOR BUILDING A ELEVATION
(FACING 7800 EAST STREET)
SCALE: NONE



- NOTES:**
1. THE FRONT OF PROPOSED BUILDING A IS TO BE TEXTURED CONCRETE, PAINTED WITH VARIOUS SHADES OF BEIGE TO CREATE VARIATION RELIEF FOR VIEW OF THE BUILDING
 2. THE SITE WILL HAVE A SOLAR, LOW VOLTAGE LIGHT (ZERO FOOT CANDLE) AT PROPERTY LINE.
 3. ALL STORM DRAIN PIPE TO BE 12" ADS AT A MIN. SLOPE OF 2.0%.
 4. FIELD VERIFY DRY WELL/SDCB INVERTS. MAINTAIN DRAINAGE PATHS FROM EXISTING BUILDINGS.

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ARCHITECTS • STRUCTURAL ENGINEERS • LANDSCAPE ARCHITECTS

REVISIONS

DATE	DESCRIPTION
1-30-17	C.C. LAYOUT UPDATES
2-09-17	C.C. LAYOUT UPDATES
6-09-17	E.C. COUNTY REVIEWS
8-03-17	C.C. ADD FRONTAGE
8-07-17	E.R. ASPHALT SURFACE
10-13-17	E.R. LAYOUT UPDATES
12-20-17	J.M. PHASE 1 BLDGS

Wangsgard Property
PART OF THE SE 1/4 OF SECTION 18, T.6N., R. 2E., S.1.B. & M., U.S. SURVEY
HUNTSVILLE, WEBER COUNTY, UTAH

CUP Site Plan

Project Info.

Engineer: N. Reeve
Designer: C. Gave
Begin Date: Sept. 17, 2013
Name: WANGSGARD PROPERTY
Number: 6260-01

Wangsgard Property
Huntsville City, Weber County, Utah