

Project Narrative/Notes/Revisions

1. 07/13/18 JM - COMPLETED DESIGN FOR CLIENT & CITY REVIEW.
2. 09/12/18 JM - REVISED PER CITY COMMENTS.
3. 09/27/18 JM - REVISED BUILDING AND DUMPSTER ENCLOSURE PER CLIENT.
4. 10/04/18 JM - CALLED OUT UDOT DETAIL FOR CURB AND GUTTER REPLACEMENT ON 9000 S.
5. 10/09/18 RH - OWNER UPDATES.
6. 11/19/18 JM - CITY COMMENTS.
7. 11/19/18 NF - UDOT COMMENTS.
8. 12/03/18 JM - UTILITY REVISIONS PER CLIENT.
9. 12/20/18 JM - UDOT COMMENTS.
10. 01/25/19 JM - CITY COMMENTS.
11. 01/29/19 JM - ADDED AIR STATION.
12. 02/05/19 JM - WATER SIZE ADJUSTED.
13. 02/06/19 JM - SEWER REVISIONS

7-Eleven W 9000 S Improvement Plans

SANDY, SALT LAKE COUNTY, UTAH
JULY 2018

RECEIVED
FEB 18 2019
SANDY CITY
COMMUNITY DEVELOPMENT



Vicinity Map
NOT TO SCALE

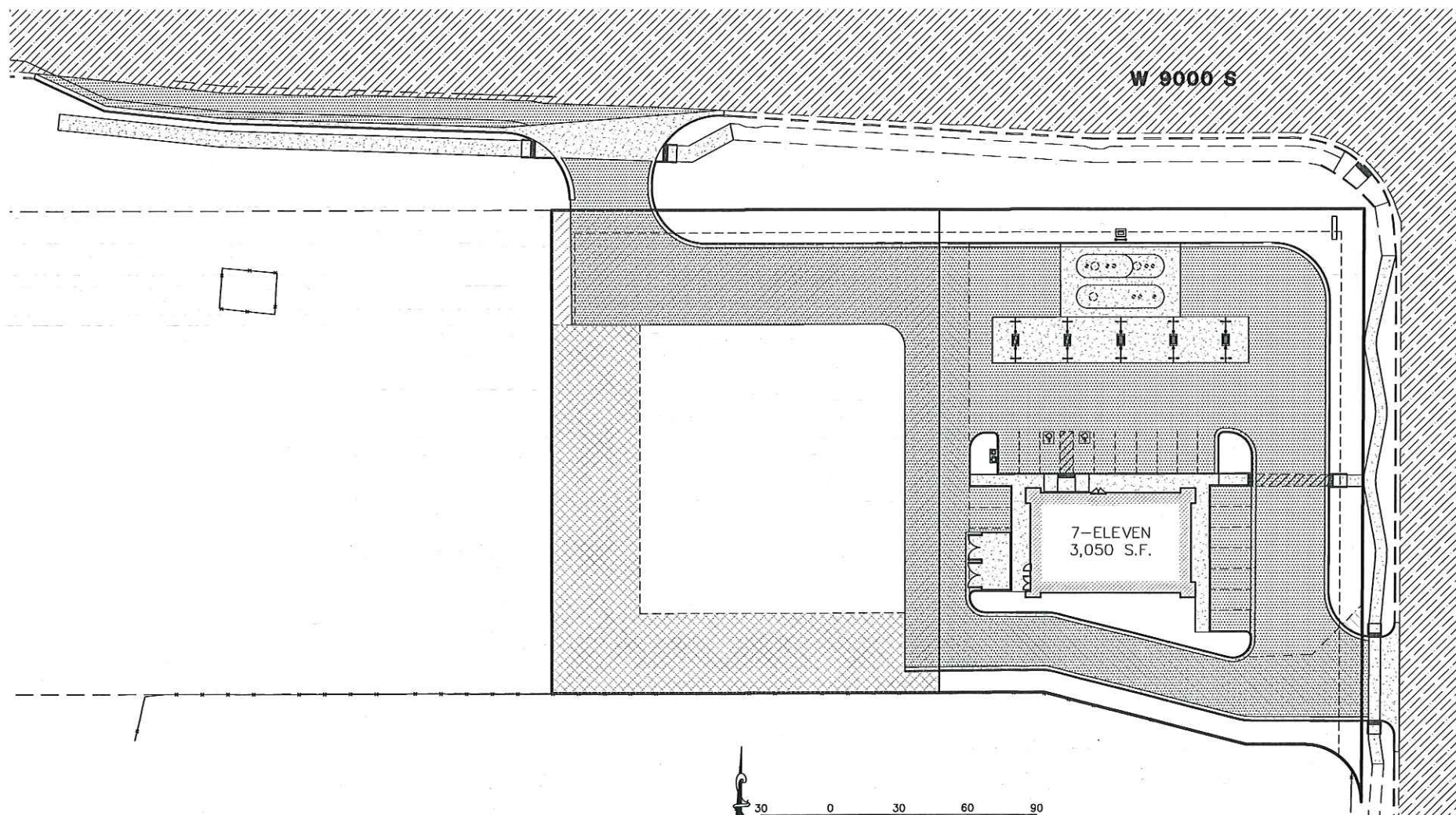
PROJECT NUMBER

ISSUE DATE:

REVISIONS:
1 12/03/18

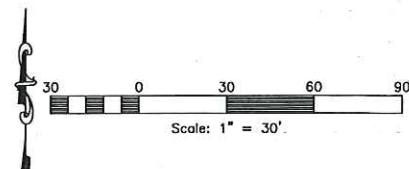
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- Sheet Index**
- Sheet 1 - Cover/Index Sheet
 - Sheet 2 - Notes/Legend
 - Sheet 3 - Existing/Demolition Plan
 - Sheet 4 - Proposed Site Plan
 - Sheet 5 - Grading/Utility Plan
 - Sheet 5.1 - Utility Plan
 - Sheet 6 - Civil Details
 - Sheet 6.1 - Civil Details
 - Sheet 7 - Storm Water Pollution Prevention Plan Exhibit
 - Sheet 8 - Storm Water Pollution Prevention Plan Details
 - Sheet L1 - Landscape Plan
 - Sheet L2 - Irrigation Plan
 - Sheet L3 - Irrigation Details

SITE DATA	
PARKING:	19 STALLS PROVIDED (2 A.D.A.) (Net Incl. gas canopy locations)
PARCEL AREA:	76,677 S.F. (1.76 ACRES)
BUILDING AREA:	3,050 S.F. 4.0%
PAVEMENT AREA:	41,591 S.F. 54.2%
LANDSCAPE AREA:	32,036 S.F. 41.8%
DISTURBANCE AREA:	86,652 S.F.



Survey Control Note:

The Contractor or Surveyor shall be responsible for following the National Society of Professional Surveyors (NSPS) model standards for any surveying or construction layout to be completed using Reeve & Associates, Inc. survey data or construction improvement plans. Prior to proceeding with construction staking, the surveyor shall be responsible for verifying horizontal control from the survey monuments and for verifying any additional control points shown on an ALTA survey, improvement plan, or any electronic data provided. The surveyor shall also use the benchmarks as shown on the plan, and verify them against no less than five (5) existing hard improvement elevations included on these plans or on electronic data provided. If any discrepancies are encountered, the surveyor shall immediately notify Reeve & Associates, Inc. and resolve the discrepancies before proceeding with any construction staking.

Engineer's Notice To Contractors

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED FROM AVAILABLE INFORMATION PROVIDED BY OTHERS. THE LOCATIONS SHOWN ARE APPROXIMATE AND SHALL BE CONFIRMED IN THE FIELD BY THE CONTRACTOR. SO THAT ANY NECESSARY ADJUSTMENT CAN BE MADE IN ALIGNMENT AND/OR GRADE OF THE PROPOSED IMPROVEMENT, THE CONTRACTOR IS REQUIRED TO CONTACT THE UTILITY COMPANIES AND TAKE DUE PRECAUTIONARY MEASURE TO PROTECT ANY UTILITY LINES SHOWN, AND ANY OTHER LINES OBTAINED BY THE CONTRACTOR'S RESEARCH, AND OTHERS NOT OF RECORD OR NOT SHOWN ON THESE PLANS.

Developer Contact:

Phil Holland
Wright Development Group
1178 W. Legacy Crossing Blvd Ste 100
Centerville Utah 84014
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Project Contact:

Project Engineer: KEN HUNTER



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PROJECT NUMBER: 6407-04
DRAWN BY: JCM
ENGINEER: JNR

7-ELEVEN
NEC of W 9000 S & S 700 W
SANDY, UTAH

COVER/INDEX

C1





- NOTES:
- WHERE PARKING SPACES THAT ARE RESERVED FOR PERSONS WITH DISABILITIES ARE DESIGNATED TO ACCOMMODATE WHEELCHAIR VANS, A "VAN ACCESSIBLE" (R7-8P) PLAQUE SHALL BE MOUNTED BELOW THE R7-8 SIGN.
 - SIGNS SHALL BE MOUNTED A MINIMUM OF 60" FROM BOTTOM OF SIGN TO TOP OF SIDEWALK.
 - SIGNS TO MEET ALL STATE AND LOCAL REGULATIONS.

ADA Parking Signage

- ADA ROUTE - NOT TO EXCEED A RUNNING SLOPE GREATER THAN 5% OR CROSS SLOPE GREATER THAN 1%. (indicated by a light gray hatched pattern)
- ADA PARKING AREAS - NOT TO EXCEED A SLOPE GREATER THAN 1% IN ANY DIRECTION. (indicated by a dark gray hatched pattern)

NOTE: ALL PARKING STALL AND DRIVE LANE DIMENSIONS ARE TO THE FACE OF CURB WHERE APPLICABLE.

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SANDY, UTAH

PROPOSED
SITE PLAN

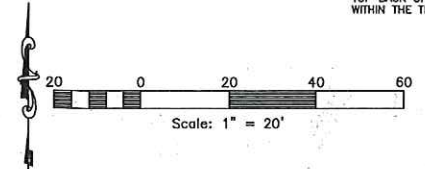
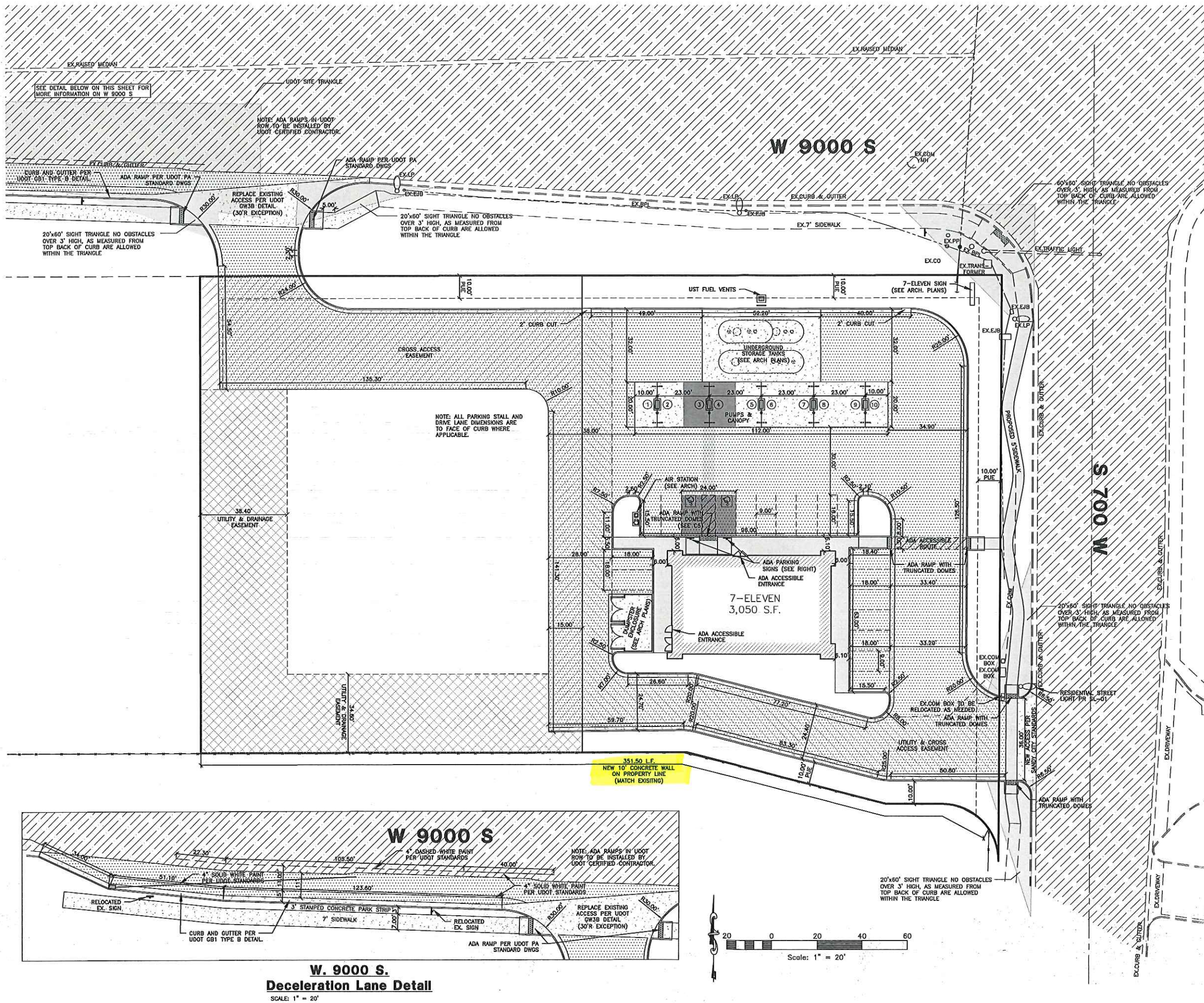
C4



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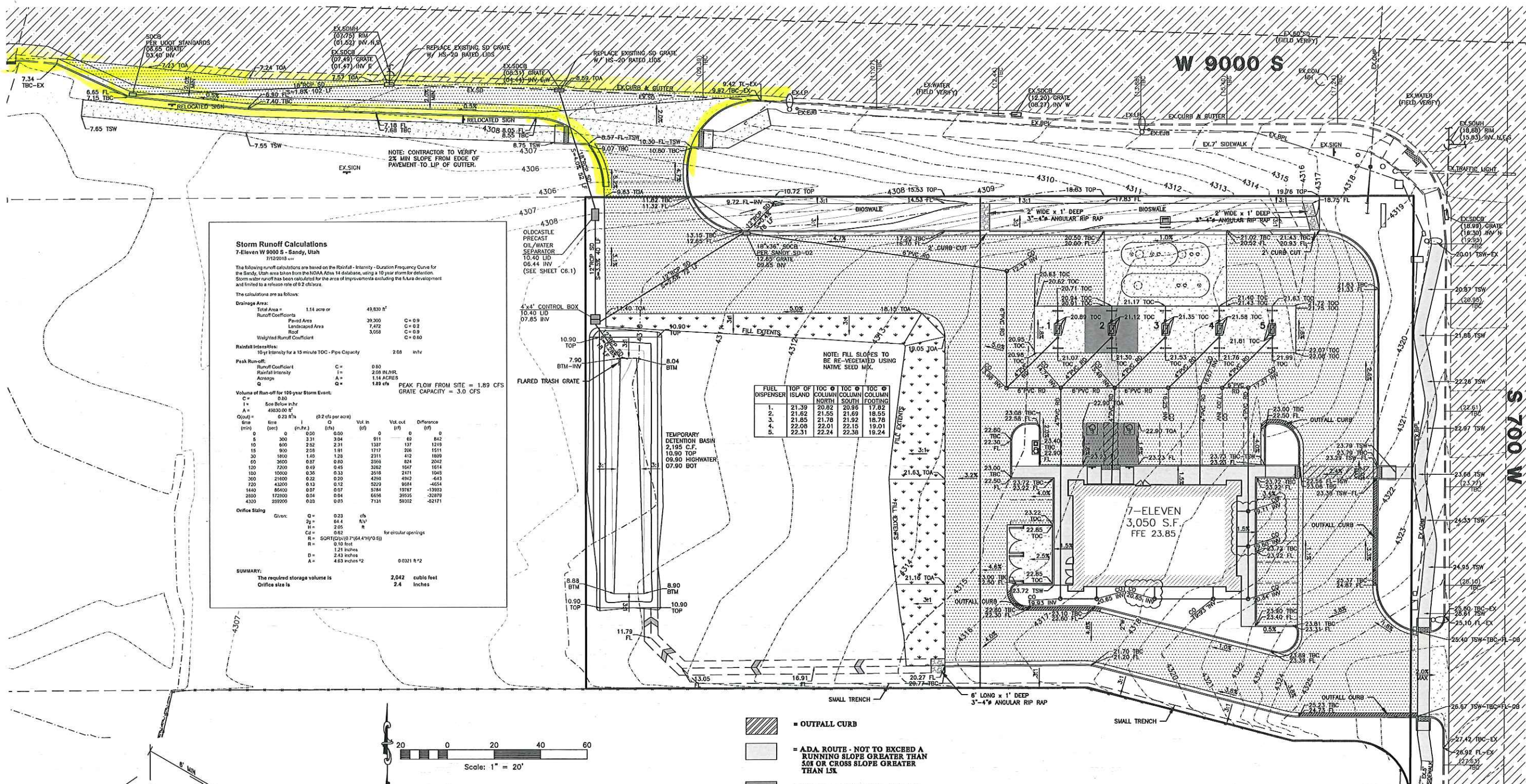


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SANDY, UTAH

GRADING

C5.0



Storm Runoff Calculations
7-Eleven W 9000 S - Sandy, Utah
7/12/2018

The following runoff calculations are based on the Rational - Intensity - Duration Frequency Curve for the Sandy, Utah area taken from the NOAA Atlas 14 database, using a 10 year storm for detention. Storm water runoff has been calculated for the area of improvements excluding the future development and limited to a release rate of 0.2 cfs/acre.

The calculations are as follows:

Drainage Area:			
Total Area =	1.14 acre or	49,830 sq ft	
Runoff Coefficients:			
Paved Area	39,300	C = 0.9	
Landscape Area	7,472	C = 0.2	
Roof	3,058	C = 0.9	
Weighted Runoff Coefficient		C = 0.80	

Rainfall Intensity:
10-yr Intensity for a 15 minute TOC - Pipe Capacity: 2.03 in/s

Peak Run-off:
Runoff Coefficient: C = 0.80
Rainfall Intensity: I = 2.03 in/hr
Area: A = 1.14 ACRES
Q = 1.89 cfs

PEAK FLOW FROM SITE = 1.89 CFS
GRATE CAPACITY = 3.0 CFS

Volume of Run-off for 109-year Storm Event:
C = 0.80
I = Size Below in/hr
A = 49830.00 sq ft
A(Out) = 0.23 ft/s

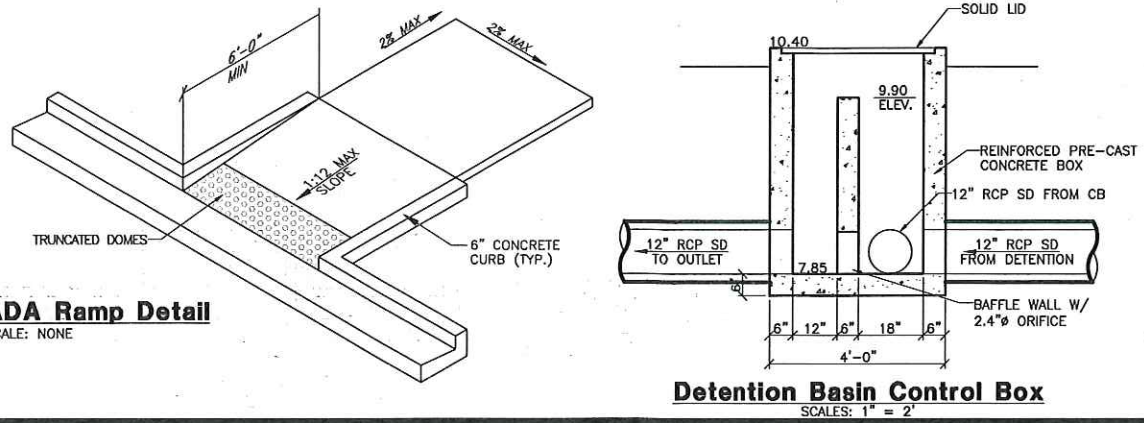
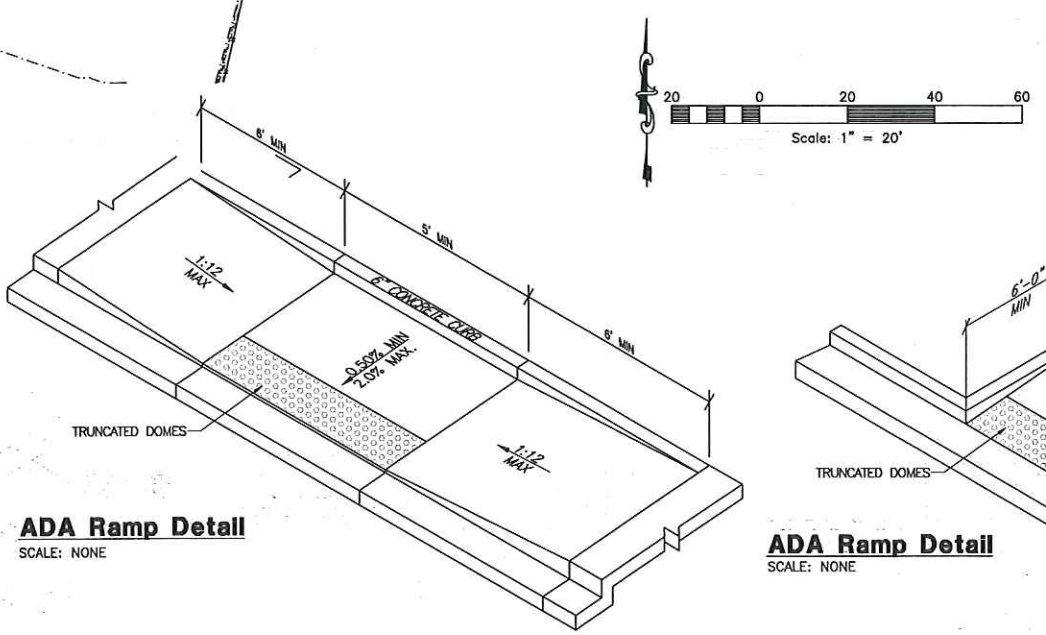
Time (min)	Rate (cfs)	Vol. in (cu ft)	Vol. out (cu ft)	Difference (cu ft)
0	0	0.00	0	0
5	300	1.50	0	1.50
10	600	3.00	0	3.00
15	900	4.50	0	4.50
20	1200	6.00	0	6.00
25	1500	7.50	0	7.50
30	1800	9.00	0	9.00
35	2100	10.50	0	10.50
40	2400	12.00	0	12.00
45	2700	13.50	0	13.50
50	3000	15.00	0	15.00
55	3300	16.50	0	16.50
60	3600	18.00	0	18.00
65	3900	19.50	0	19.50
70	4200	21.00	0	21.00
75	4500	22.50	0	22.50
80	4800	24.00	0	24.00
85	5100	25.50	0	25.50
90	5400	27.00	0	27.00
95	5700	28.50	0	28.50
100	6000	30.00	0	30.00
105	6300	31.50	0	31.50
110	6600	33.00	0	33.00
115	6900	34.50	0	34.50
120	7200	36.00	0	36.00
125	7500	37.50	0	37.50
130	7800	39.00	0	39.00
135	8100	40.50	0	40.50
140	8400	42.00	0	42.00
145	8700	43.50	0	43.50
150	9000	45.00	0	45.00
155	9300	46.50	0	46.50
160	9600	48.00	0	48.00
165	9900	49.50	0	49.50
170	10200	51.00	0	51.00
175	10500	52.50	0	52.50
180	10800	54.00	0	54.00
185	11100	55.50	0	55.50
190	11400	57.00	0	57.00
195	11700	58.50	0	58.50
200	12000	60.00	0	60.00
205	12300	61.50	0	61.50
210	12600	63.00	0	63.00
215	12900	64.50	0	64.50
220	13200	66.00	0	66.00
225	13500	67.50	0	67.50
230	13800	69.00	0	69.00
235	14100	70.50	0	70.50
240	14400	72.00	0	72.00
245	14700	73.50	0	73.50
250	15000	75.00	0	75.00
255	15300	76.50	0	76.50
260	15600	78.00	0	78.00
265	15900	79.50	0	79.50
270	16200	81.00	0	81.00
275	16500	82.50	0	82.50
280	16800	84.00	0	84.00
285	17100	85.50	0	85.50
290	17400	87.00	0	87.00
295	17700	88.50	0	88.50
300	18000	90.00	0	90.00
305	18300	91.50	0	91.50
310	18600	93.00	0	93.00
315	18900	94.50	0	94.50
320	19200	96.00	0	96.00
325	19500	97.50	0	97.50
330	19800	99.00	0	99.00
335	20100	100.50	0	100.50
340	20400	102.00	0	102.00
345	20700	103.50	0	103.50
350	21000	105.00	0	105.00
355	21300	106.50	0	106.50
360	21600	108.00	0	108.00
365	21900	109.50	0	109.50
370	22200	111.00	0	111.00
375	22500	112.50	0	112.50
380	22800	114.00	0	114.00
385	23100	115.50	0	115.50
390	23400	117.00	0	117.00
395	23700	118.50	0	118.50
400	24000	120.00	0	120.00
405	24300	121.50	0	121.50
410	24600	123.00	0	123.00
415	24900	124.50	0	124.50
420	25200	126.00	0	126.00
425	25500	127.50	0	127.50
430	25800	129.00	0	129.00
435	26100	130.50	0	130.50
440	26400	132.00	0	132.00
445	26700	133.50	0	133.50
450	27000	135.00	0	135.00
455	27300	136.50	0	136.50
460	27600	138.00	0	138.00
465	27900	139.50	0	139.50
470	28200	141.00	0	141.00
475	28500	142.50	0	142.50
480	28800	144.00	0	144.00
485	29100	145.50	0	145.50
490	29400	147.00	0	147.00
495	29700	148.50	0	148.50
500	30000	150.00	0	150.00

Orifice Sizing:
Given: Q = 0.23 cfs
Dg = 6.4 in
H = 2.05 ft
Cd = 0.62
R = SORT(CD*(Q*(64.4)/Dg^5))
R = 0.10 feet
D = 1.21 inches
A = 2.43 inches^2
A = 4.83 inches^2

SUMMARY:
The required storage volume is 2,042 cubic feet
Orifice size is 2.4 inches

NOTE: FILL SLOPES TO BE RE-VEGETATED USING NATIVE SEED MIX.

FUEL DISPENSER	TOP OF ISLAND	TOC @ NORTH	TOC @ SOUTH	TOC @ COLUMN
1.	21.39	20.62	20.96	17.82
2.	21.62	21.55	21.69	18.55
3.	21.85	21.78	21.92	18.78
4.	22.08	22.01	22.15	19.01
5.	22.31	22.24	22.38	19.24



811 Know what's below. Call before you dig.

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LANDSCAPE
 PLAN

L1



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Plant Table

TREES

Quantity	Symbol	Scientific Name	Common Name	Planting Size
6	(Symbol)	Acer freemanii 'Jeffersred'	Autumn Blaze Maple	2" cal.
4	(Symbol)	Gleditsia tria. iner. 'Imperial'	Imperial Honeylocust	2" cal.
11	(Symbol)	Picea pungens 'Bachen'	Baker's Dwarf Spruce	5'-8" B&B
21	(Symbol)	Pinus heldrichi 'Leucodermis'	Bosnian Pine	5'-8" B&B

SHRUBS

Quantity	Symbol	Scientific Name	Common Name	Planting Size
9	(Symbol)	Euonymus alatus 'Compacta'	Dwarf Burning Bush	5 gal.
26	(Symbol)	Juniperus sabinia 'Buffalo'	Buffalo Juniper	5 gal.
5	(Symbol)	Potentilla frut. 'Gold Drop' or equal	Gold Drop Potentilla or equal	5 gal.
3	(Symbol)	Rhus aromatica 'Gro-Low'	Gro-Low Sumac	5 gal.
19	(Symbol)	Spiraea japonica 'Magic Carpet'	Magic Carpet Spirea	5 gal.

PERENNIALS

Quantity	Symbol	Scientific Name	Common Name	Planting Size
18	(Symbol)	Hemerocallis 'Stella de Oro'	Stella de Oro Daylily	1 gal.
16	(Symbol)	Salvia 'May Night'	May Night Salvia	1 gal.

- (Symbol) Decorative Boulders
- (Symbol) Turf Grass (Drought Tolerant Fescue Mix) - To be sodded with 'BioTurf' from Biogross or equal.
- (Symbol) Existing Trees - Keep as many existing trees as possible
- (Symbol) A 3" layer of 2" minus, crushed gravel mulch over Dewitt Pro 5 Weed Barrier Cloth, or equal.

Sandy City Notes

MULCH: After completion of all planting, all irrigated non-turf areas shall be covered with a minimum layer of four (4) inches of mulch to retain water, inhibit weed growth and moderate soil temperature. Non-porous material shall not be placed under mulch. 4" mulch in all irrigated non-turf areas. If rock mulch, minimum is 3".

- NOTE: 2H:1V Maximum slope in landscaped areas.
- NOTE: No trees shall be planted in public park strips less than 8' wide. Centerline of trees shall be planted a minimum of 4' away from back of curb and either side of sidewalk.
- NOTE: plants chosen are well-suited to microclimate and soil conditions at site, shall be relatively free of pests and diseases, and are generally easy to maintain.
- NOTE: Water-conserving plants are used on slopes exceeding 30%.
- NOTE: Minimum four inches (4") of mulch on all irrigated, non-turf areas.

Landscape Calculations

CODE: 1 Tree per 500 sf. of on-site landscape area
 Total on-site landscape area = 9,045 sf.
 9,045 sf. / 500 = 18 trees required, 42 provided
 South Landscape Buffer-Overlapping, 20' evergreen trees as required by city

General Notes

- A) The contractor shall verify the exact location of all existing and proposed utilities, and all site conditions prior to beginning construction. The contractor shall coordinate his work with the project manager and all other contractors working on this site.
- B) The finish grade of all planting area shall be smooth, even and consistent, free of any humps, depressions or other grading irregularities. The finish grade of all landscape areas shall be graded consistently 3/4" below the top of all surrounding walks, curbs, etc.
- C) The contractor shall stake the location of all plants for approval prior to planting. Trees shall be located equidistant from all surrounding plant material. Shrubs and ground covers shall be triangular and equally spaced.
- D) The plant materials list is provided as an indication of the specific requirements of the plants specified, wherever in conflict with the planting plan, the planting plan shall govern.
- E) The contractor shall provide all materials, labor and equipment required for the proper completion of all landscape work as specified and shown on the drawings.
- F) All plant materials shall be approved prior to planting. The Owner/Landscape Architect has the right to reject any and all plant material not conforming to the specifications. The Owner/Landscape Architect decision will be final.
- G) The contractor shall keep the premises, storage areas and paving areas neat and orderly at all times. Remove trash, sweep, clean, hose, etc. daily.
- H) The contractor shall plant all plants per the planting details, stake/guy as shown. Top of root balls shall be planted flush with grade.
- I) The contractor shall not impede drainage in any way. The contractor shall always maintain positive drainage away from the building, walls, etc.
- J) The contractor shall maintain all work until ALL work is complete and accepted by the Owner. In addition, the contractor shall maintain and guarantee all work for a period of THIRTY DAYS from the date of final acceptance by the Owner. Maintenance shall include mowing, weeding, fertilizing, cleaning, insecticides, herbicides, etc.
- K) 7-Eleven shall be responsible for landscape maintenance beyond construction period.

