

# DRAINAGE PLAN

## SKYWAY WEST 4TH ADDITION

### WICHITA, SEDGWICK COUNTY, KANSAS

**North Offsite**

Area = 2.8 acres  
 CN = 80  
 Tc = 15 min  
 Q<sub>2</sub> = 3.8 cfs  
 Q<sub>5</sub> = 8.7 cfs  
 Q<sub>10</sub> = 11 cfs  
 Q<sub>25</sub> = 14 cfs  
 Q<sub>100</sub> = 19 cfs

<b>EXISTING West Basin</b>	<b>DEVELOPED West Basin</b>
Area = 43 acres	Area = 40 acres
CN = 80	CN = 91
Tc = 82 min	Tc = 55 min
Q <sub>2</sub> = 31 cfs	Q <sub>2</sub> = 59 cfs
Q <sub>5</sub> = 47 cfs	Q <sub>5</sub> = 81 cfs
Q <sub>10</sub> = 58 cfs	Q <sub>10</sub> = 96 cfs
Q <sub>25</sub> = 74 cfs	Q <sub>25</sub> = 115 cfs
Q <sub>100</sub> = 103 cfs	Q <sub>100</sub> = 151 cfs

<b>EXISTING East Basin</b>	<b>DEVELOPED East Basin</b>
Area = 30 acres	Area = 33 acres
CN = 80	CN = 91
Tc = 41 min	Tc = 33 min
Q <sub>2</sub> = 34 cfs	Q <sub>2</sub> = 71 cfs
Q <sub>5</sub> = 52 cfs	Q <sub>5</sub> = 96 cfs
Q <sub>10</sub> = 65 cfs	Q <sub>10</sub> = 114 cfs
Q <sub>25</sub> = 83 cfs	Q <sub>25</sub> = 137 cfs
Q <sub>100</sub> = 115 cfs	Q <sub>100</sub> = 179 cfs

**West Detention (Bottom = 1338.0)**

STAGE	INFLOW	OUTFLOW	ELEVATION
2' P	71 cfs	14 cfs	1339.9
5' P	81 cfs	19 cfs	1341.3
10' P	96 cfs	25 cfs	1343.8
25' P	115 cfs	58 cfs	1344.1
100' P	151 cfs	107 cfs	1344.7

**PROPOSED POND**

ELEVATION	AREA (sq ft)
1338	5000
1339	5000
1340	6000
1341	6000
1342	7000
1343	7000
1344	8000
1345	8500

Total Developed Area	Water Quality Volume Needed	WQv needed per Developed sqft
73 acres	91,580 cuft	0.04 cuft

These figures account for the dry detention already providing 60% of the WQv needed for site. The remaining WQv needed is shown above per each development activity.

**East Detention (Bottom = 1335.0)**

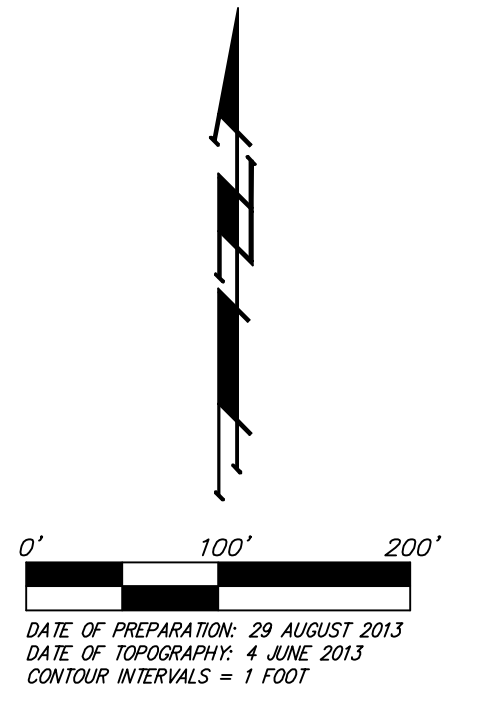
STAGE	INFLOW	OUTFLOW	ELEVATION
2' P	71 cfs	14 cfs	1335.9
5' P	81 cfs	19 cfs	1337.3
10' P	96 cfs	21 cfs	1338.8
25' P	115 cfs	39 cfs	1339.5
100' P	151 cfs	74 cfs	1339.3

**PROPOSED POND**

ELEVATION	AREA (sq ft)
1335	8500
1336	8500
1337	9500
1338	9500
1339	10500
1340	10500
1341	11500

**OUTFALL**  
 Pump Elev 1338.0  
 15' Weir Elev 1343.0

Pump to be sized at Site Development. At 4 day drawdown pump expected to discharge 312 gpm. For 2 day drawdown pump expected to discharge at 425 gpm.



DATE OF PREPARATION: 29 AUGUST 2013  
 DATE OF TOPOGRAPHY: 4 JUNE 2013  
 CONTOUR INTERVALS = 1 FOOT

- = #4 REBAR W/ "BAUGHMAN" CAP (FOUND)
- = #4 REBAR W/ "BAUGHMAN" CAP (SET)
- = 1" / A" IRON IN THIMBLE (FOUND)
- ⊗ = 1" IRON IN THIMBLE (FOUND)
- ⊕ = 1/2" IRON IN THIMBLE (FOUND)
- (M) = MEASURED
- RESERVES "A" AND "B" ARE RESERVED FOR OPEN SPACE, LANDSCAPING, LAKES, AND DRAINAGE PURPOSES.
- EB □ = Electric Box
- Guy ⊙ = Guy Anchor
- PM ⊙ = Pipeline Marker
- PP □ = Power Pole
- Sign ⊙ = Sign
- ATT Ped □ = ATT Pedestal
- TR ⊙ = Tree
- Well ⊙ = Cased Well

- WTR = WETLAND
- A&T = AIR TRAP
- GAS = GAS LINE
- CoTV = COVENANT
- OHE = OVERHEAD ELECTRIC LINE
- EXSS = EXISTING SANITARY SEWER
- EXKS = EXISTING KYLE
- EXGE = EXISTING GUY WIRE
- EXPE = EXISTING PIPELINE



**VICINITY MAP**  
 SEC. 6, T28S, R1W

## DRAINAGE PLAN

### SKYWAY WEST 4TH ADDITION

**Baughman Company, P.A.**  
 315 Ellis St. Wichita, KS 67211 P 316-262-7271 F 316-262-0149  
 ENGINEERING | SURVEYING | PLANNING | LANDSCAPE ARCHITECTURE