

# DRAINAGE PLAN

## FALCON FALLS 5TH ADDITION

### WICHITA, SEDGWICK COUNTY, KANSAS

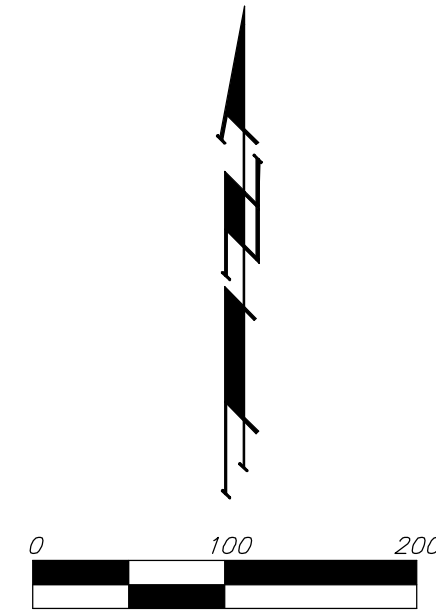
**OWNER:**  
 HEIGHTS, LLC, A KANSAS LIMITED LIABILITY COMPANY  
 ATTN: JAY RUSSELL  
 P.O. BOX 75337  
 WICHITA, KS 67275-5337  
 (316) 722-2417

**LEGAL DESCRIPTION:**  
 A REPLAT OF ALL OF LOTS 1 AND 2, BLOCK A,  
 FALCON FALLS COMMERCIAL ADDITION, WICHITA,  
 SEDGWICK COUNTY, KANSAS.

**BENCHMARK:**  
 "C" CUT ON THE EAST HUBBARD OF REINFORCED  
 CONCRETE BOX CULVERT, 110' SOUTH OF THE  
 SOUTHEAST CORNER OF THE SOUTHEAST QUARTER OF  
 SECTION 22, TOWNSHIP 26 SOUTH, RANGE 1 EAST.  
 ELEV. = 1359.54 NAVD83  
 ELEV. = 1360.03 NAVD88

RESERVE "A" IS RESERVED FOR OPEN SPACE, LANDSCAPING,  
 SIDEWALKS, FLOODWAY, LAKES, AND DRAINAGE PURPOSES.

RESERVE "B" IS RESERVED FOR OPEN SPACE, LANDSCAPING,  
 SIDEWALKS, FLOODWAY, LAKES, UTILITIES AS CONFINED TO  
 EASEMENTS, AND DRAINAGE PURPOSES.



CONTOUR INTERVAL = 1 FOOT  
 DATE OF TOPOGRAPHY: SPRING 2011  
 TOPOGRAPHY BY SEDGWICK COUNTY

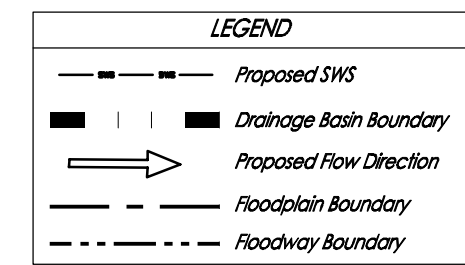
- = #4 REBAR W/ "BAUGHMAN" CAP (SET)
- = 1/2" IRON (FOUND)
- = STONE (FOUND)
- = #5 REBAR W/ TRIMBLE (FOUND)
- = 1/2" SQUARE BOLT (FOUND)
- = 3/4" IRON W/ "BAUGHMAN" CAP (SET)

- (M) = MEASURED
- (P) = PLATTED
- (D) = DESCRIBED
- (C) = CALCULATED

ADDITIONAL BUILDING SETBACK  
 REQUIREMENTS PER COMMUNITY  
 UNIT PLAN DP-283.

THE LOCATION OF THE FLOODWAY LINE AND FLOODPLAIN  
 BOUNDARY LINE AS SHOWN ON THE FACE OF THE PLAT  
 ARE BASED UPON SCALED LOCATION PER FEMA FIRM MAP  
 2017300218E, EFFECTIVE DATE FEB. 2, 2007, REVISION  
 PER LOMR 08-07-0314X, EFFECTIVE DATE FEB. 7, 2008.

LOT	BLOCK	ELEVATION NAVD88
1	B	1349.5
1-8, 23-30	A	1348.5



Developed Intensity	Rational C	Developed Flowrates		
		2yr	10yr	100yr
3.8	0.48	5.19	7.36	

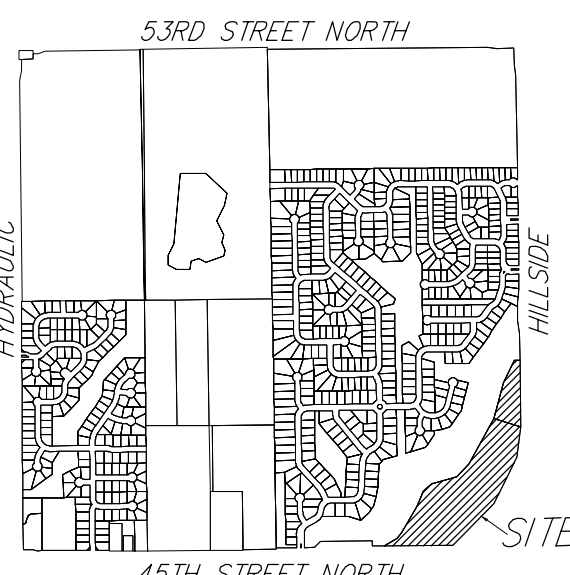
Basin ID	Area acres	Developed Flowrates		
		2-yr cfs	10-yr cfs	100-yr cfs
1	4.6	8.4	14	23
2	2.5	4.6	7.4	13
3	0.8	1.5	2.4	4.0
4	0.5	0.9	1.5	2.5
5	1.0	1.8	3.0	5.0
6	1.3	2.4	3.8	6.5
7	3.3	6.0	10	17
8	1.2	2.2	3.5	6.0
9	0.3	0.5	0.9	1.5
10	2.3	4.2	6.8	12
<b>TOTAL</b>	<b>17.8</b>	<b>32.5</b>	<b>52.7</b>	<b>89.1</b>

NOTES: FEMA Floodway and Floodplain boundaries are scaled per location per FEMA LOMR 08-07-0314X effective February 7, 2008. If any fill is placed in the floodplain to remove portions of lots a DWR Floodplain Fill permit followed by a LOMR-F will be required.

This property was originally platted and Drainage Plan approved as Falcon Falls Commercial Addition. Detention was provided in the adjacent ponds located to the west. This site was configured and filled with the Falcon Falls 2nd & 3rd development.

Water Quality will be provided in the adjacent lake/pond located immediately to the west. See water quality calculations on chart. Water quality provided in the pond system will meet City of Wichita Ordinance 16.32.

Downstream channel protection is not provided onsite due to the already constructed pond system adjacent.



VICINITY MAP  
 SEC. 22, T26S, R1E

Table 4-13 Volumetric Runoff Coefficients by Land Use and Hydrologic Soil Group

Land Use	Hydrologic Soil Group				Land Use	Hydrologic Soil Group			
	A	B	C	D		A	B	C	D
Undisturbed	0.02	0.03	0.04	0.05	Undisturbed	0.55	0.71	0.80	0.84
Turf or Disturbed Soils	0.15	0.20	0.22	0.25	Turf or Disturbed Soils	0.71	0.80	0.84	0.88
Impervious Cover	0.95	0.95	0.95	0.95	Impervious Cover	0.98	0.98	0.98	0.98

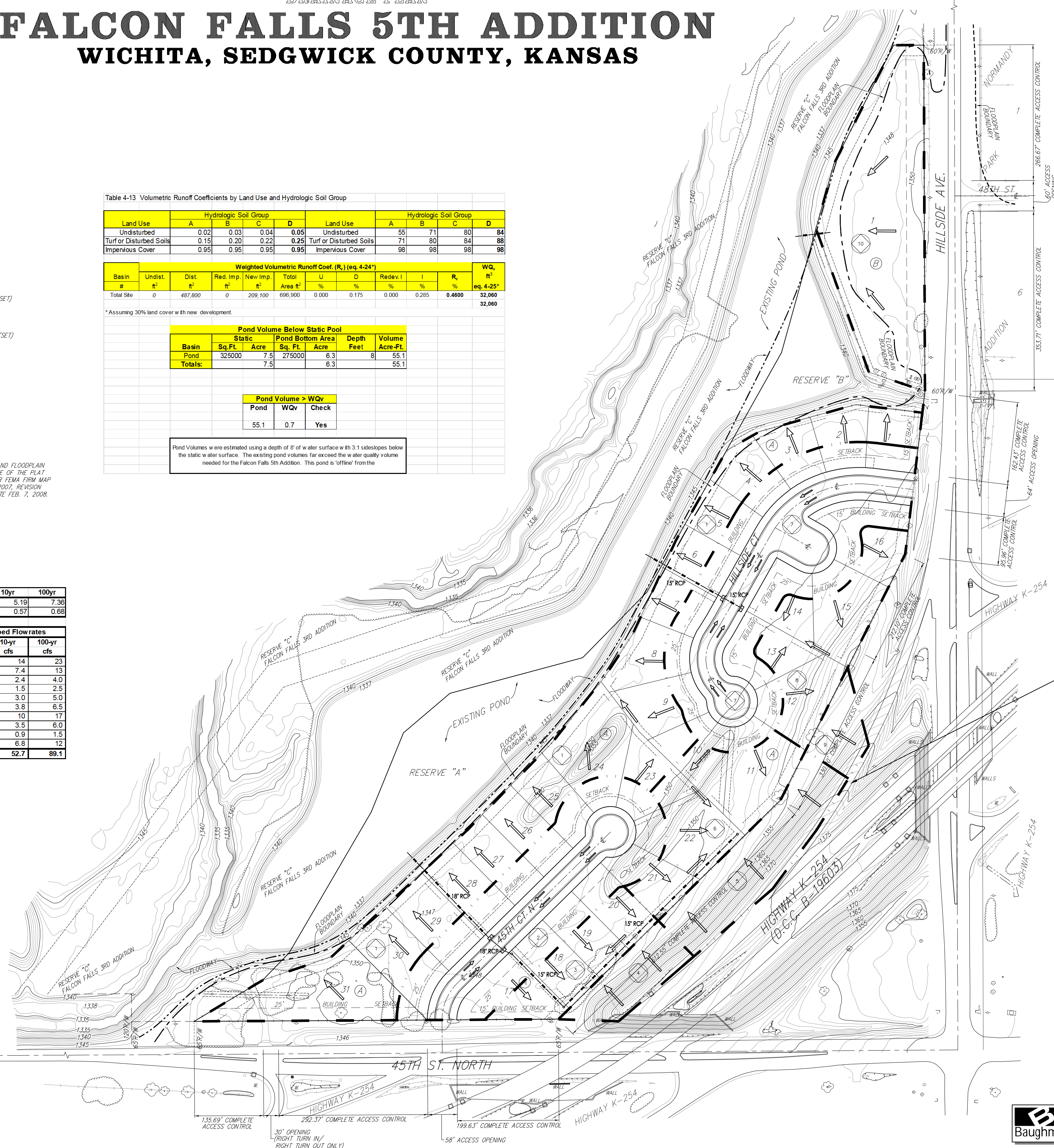
Basin #	Weighted Volumetric Runoff Coef. (R <sub>w</sub> ) (eq. 4-24*)							WQ, eq. 4-25*			
	Undist. # <sup>2</sup>	Dist. # <sup>2</sup>	Red. Imp. # <sup>2</sup>	New Imp. # <sup>2</sup>	Total Area # <sup>2</sup>	U %	D %				
Total Site	0	487,800	0	209,100	696,900	0.000	0.175	0.000	0.285	0.4600	32,060

\* Assuming 30% land cover w/ new development.

Basin	Pond Volume Below Static Pool		Depth Feet	Volume Acre-Feet
	Sq. Ft.	Acre		
Pond	325000	7.5	275000	6.3
<b>Totals:</b>		<b>7.5</b>	<b>6.3</b>	<b>55.1</b>

Pond Volume > WQv		
Pond	WQv	Check
55.1	0.7	Yes

Pond Volumes were estimated using a depth of 8' of water surface w/ 3:1 slopes below the static water surface. The existing pond volumes far exceed the water quality volume needed for the Falcon Falls 5th Addition. This pond is 'offline' from the



Basins 4, 5, & 9 are offsite drainage areas from the KDOT ROW. These flows will be conveyed through this site and into the existing pond as it does today.

**DRAINAGE PLAN**  
**FALCON FALLS 5TH ADDITION**  
 02 APR 2014

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

**Baughman**

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