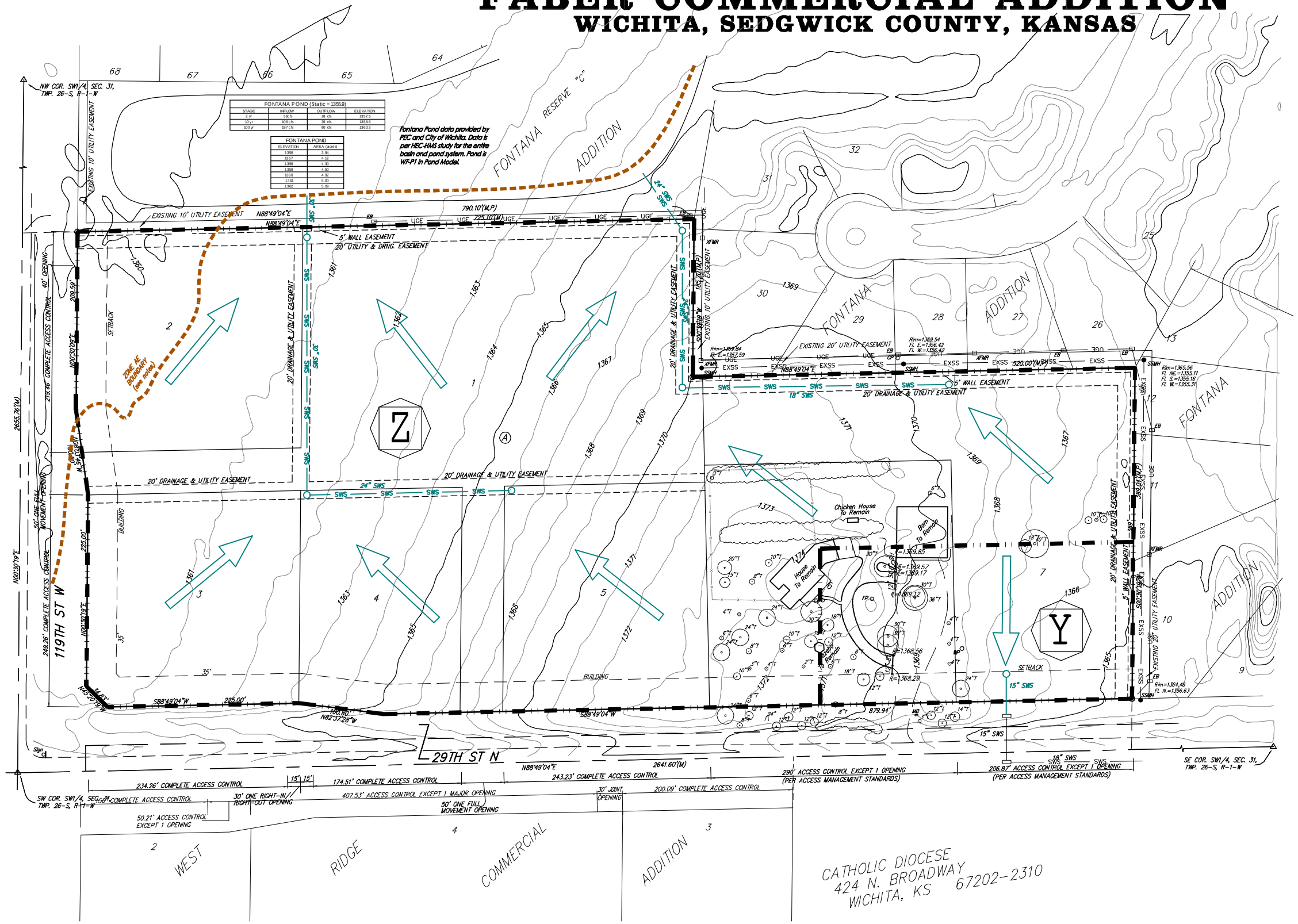
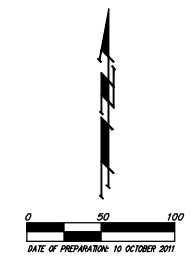
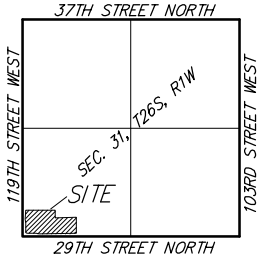
DRAINAGE PLAN
FABER COMMERCIAL ADDITION
WICHITA, SEDGWICK COUNTY, KANSAS





• = #4 REBAR W/ "BAUGHMAN" CAP (SET)
⊙ = #4 REBAR W/ "SAVOY" CAP (FOUND)
△ = 3/4" IRON (FOUND)



VICINITY MAP

CP ○ = Cable TV Pedestal
XFMR □ = Transformer
EB □ = Electric Box
LP ◇ = Light Pole
PP □ = Power Pole
SSMH ● = Sanitary Sewer Manhole
CO ○ = Cleanout
MB ▭ = Mail Box
T ○ = Tree
Sign △ = Sign
FP ○ = Flag Pole

Land Use	Hydrologic Soil Group A	B	C	D	Land Use	Hydrologic Soil Group A	B	C	D
Undisturbed	0.02	0.03	0.04	0.05	Undisturbed	55	71	80	84
Turf or Disturbed Soil	0.15	0.20	0.22	0.25	Turf or Disturbed Soils	71	80	84	88
Impervious Cover	0.95	0.95	0.95	0.95	Impervious Cover	98	98	98	98

Basin #	Undist. ft²	Dist. ft²	Red. Imp. ft²	New Imp. ft²	Total Area ft²	Weighted Volumetric Runoff Coef. (Rv) (eq 4-24*) U %	D %	Redev. I %	I %	Rv	WQv, ft³ (eq. 4-25*
Fontana	0	645,173	0	297,267	1,045,440	0.000	0.136	0.000	0.361	0.4974	62,000
Faber	0	21,475	0	615,364	609,840	0.000	0.033	0.000	0.808	0.8406	61,267
											103,257

Pond Volume Below Static Pool

Basin	Static Pool Sq.Ft.	Static Pool Acre	Pond Bottom Area Sq. Ft.	Pond Bottom Area Acre	Depth Feet	Volume Acre-Ft.
Pond	217000	5.0	130680	3.0	8	31.9
Totals:		5.0		3.0		31.9

Pond Volume > WQv		
Pond	WQv	Check
31.9	2.4	Yes

Water Quality treatment is provided in the adjacent Fontana pond. The pond has approximately 31.4 ac-ft of storage under its static elevation. This site, along with the contributing area from Fontana, will only need 2.4 ac-ft of treatment volume. Downstream Channel protection will be waived as the entire pond system within Fontana Addition provides adequate storage throughout the pond system.

Z

FABER SITE TO FONTANA POND AREA = 12.4 acres	
EXISTING 'C' = 0.60	DEVELOPED 'C' = 0.88
Q_2 = 28 cfs	Q_2 = 42 cfs
Q_5 = 34 cfs	Q_5 = 50 cfs
Q_{10} = 39 cfs	Q_{10} = 57 cfs
Q_{100} = 55 cfs	Q_{100} = 80 cfs

Y

SOUTH EAST CORNER TO 29TH STREET AREA = 1.6 acres	
EXISTING 'C' = 0.60	DEVELOPED 'C' = 0.88
Q_2 = 3.6 cfs	Q_2 = 5.4 cfs
Q_5 = 4.3 cfs	Q_5 = 6.4 cfs
Q_{10} = 5.0 cfs	Q_{10} = 7.3 cfs
Q_{100} = 7.1 cfs	Q_{100} = 10 cfs

Basin Y will need to provide detention onsite upon site development to limit the runoff to the 29th Street ROW to existing conditions. This detention volume will vary depending on site specific impervious areas, however; based on the peak runoff values to the left this volume is approximately 3,000 cu-ft of storage needed in the 100-year storm event. We anticipate WQ to be provided for this basin in the form of a Hydroguard Unit or Snout installed in the manhole. Location and size of detention and WQ structures will be determined at final site development.

NOTES: FEMA ZONE AE Floodplain is per scaled location per the FEMA LOMR 12-07-0465P (effective 3/12/13), elevation 1360.2 NAVD88. This area will need to be filled and removed via LOMR-F at the time of site plan construction for Lot 2.

The internal Storm Water Sewer, preliminarily as shown herein , will be sized and final location approved during the site plan process. Sizes and locations are subject to change based on development.

DRAINAGE PLAN
FABER COMMERCIAL ADDITION
25 NOV 2013

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Baughman ENGINEERING | SURVEYING | PLANNING | LANDSCAPE ARCHITECTURE

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