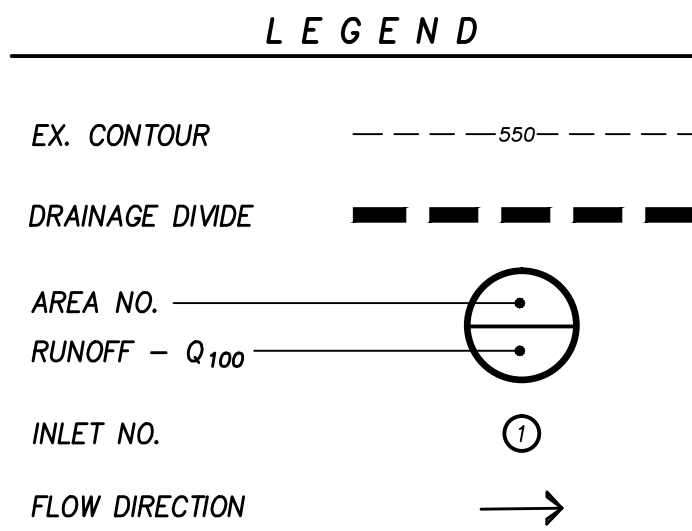


INLET DESIGN CALCULATIONS															
Inlet No.	Location	Design Storm Frequency (yrs)	AREA RUNOFF Q = CIA				Carry-Over From Upstream Inlet (c.f.s.)	Total Gutter Flow (c.f.s.)	Gutter Capacity (c.f.s.)	Gutter Slope (ft/100ft)	Crown Type	SELECTED INLET		Inlet Capacity (c.f.s.)	Inlet By-Pass (c.f.s.)
			Time of Conc. (min)	Intensity (in/hr)	Runoff Coeff. "	Area (ac)						Q <sub>100</sub> (c.f.s.)	Length "L" (Feet)		
1	LINE "A"	100	10	9.8	0.50	1.89	9.26	0	10.11	Low	Parabolic	15'	IV	—	—
2	LINE "A"	100	10	9.8	0.50	0.95	4.66	0	4.66	7.80%	Parabolic	10'	IV	—	—
3	LINE "A"	100	10	9.8	0.50	0.42	2.06	0	2.06	Low	Parabolic	10'	IV	—	—
4	LINE "A"	100	10	9.8	0.50	0.48	2.35	0	2.35	Low	Invert	Combo	IV	2.02*	0.33

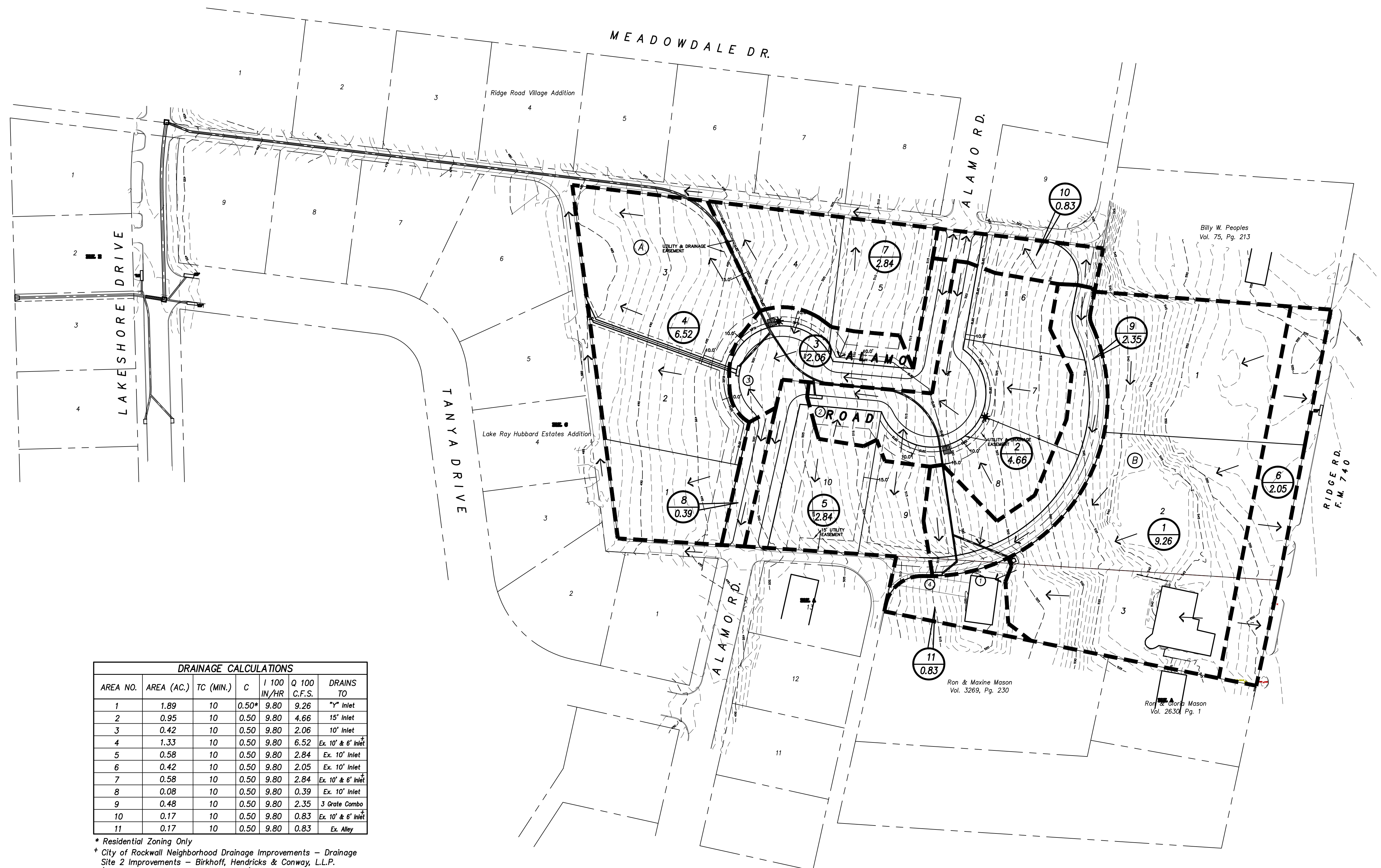
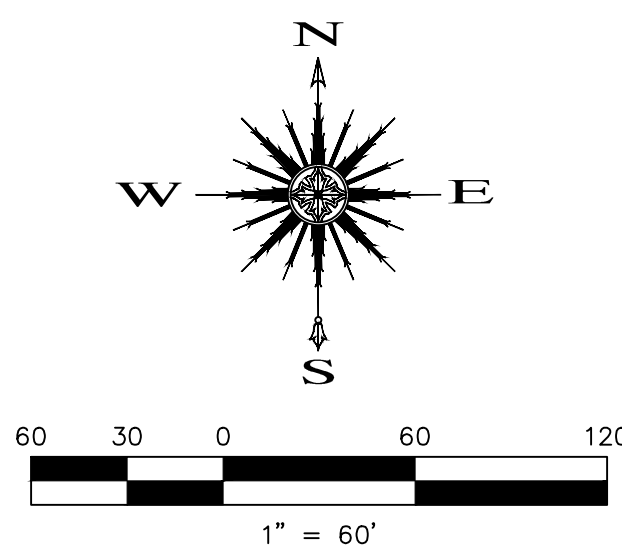
\* Per Figure 3.10 "Three Grate Inlet and Three Grate Combination Inlet Capacity Curves on Grade", in the City of Rockwall Standards of Design and Construction Manual, it is determined that 76% of the alley flow (on 10% grade) will be captured by the on-grade 3 grate combination inlet. Since the alley pavement will be warped to drain to the combination inlet we believe that an additional 10% of the alley flow will be captured by the inlet.



**BENCHMARK**

SET "X" CUT IN CENTER OF CONCRETE MEDIAN IN FRONT OF HOUSE #1310 RIDGE ROAD, APPROXIMATELY 30.9' EAST OF WEST CURVE LINE AND 10' SOUTH OF MEDIAN NOSE.

ELEV=554.18



DRAINAGE CALCULATIONS						
AREA NO.	AREA (AC.)	TC (MIN.)	C	1 100 IN/HR	Q 100 C.F.S.	DRAINS TO
1	1.89	10	0.50*	9.80	9.26	"Y" Inlet
2	0.95	10	0.50	9.80	4.66	15' Inlet
3	0.42	10	0.50	9.80	2.06	10' Inlet
4	1.33	10	0.50	9.80	6.52	Ex. 10' & 6' Inlet
5	0.58	10	0.50	9.80	2.84	Ex. 10' Inlet
6	0.42	10	0.50	9.80	2.05	Ex. 10' Inlet
7	0.58	10	0.50	9.80	2.84	Ex. 10' & 6' Inlet
8	0.08	10	0.50	9.80	0.39	Ex. 10' Inlet
9	0.48	10	0.50	9.80	2.35	3 Grate Combo
10	0.17	10	0.50	9.80	0.83	Ex. 10' & 6' Inlet
11	0.17	10	0.50	9.80	0.83	Ex. Alley

\* Residential Zoning Only

City of Rockwall Neighborhood Drainage Improvements - Drainage Site 2 Improvements - Birkhoff, Hendricks & Conway, L.L.P. (Project No. 2006-182, January 2007)

Note:  
Undeveloped Q (C (0.35) x I (8.30) x A) is 20.49 c.f.s for the entire project (7.054 acres). The entire undeveloped site (7.054 ac.) was included in the Drainage Site 2 Improvements. With this development, drainage areas 4, 7, & 10 (developed Q = 10.19) only, are draining to Drainage Site 2 Improvements.

Revision	Date	Description
4	8/22/13	PAVING & STORM LINE REVISION

Owner:  
**Dan Bobst**  
5133 F.M. 549 • Rockwall, Texas • 75032  
Phone: 214-553-5505

**Eagle Point Estates**  
Rockwall, Texas

~ Civil Engineer ~  
**F.C. CUNY CORPORATION**  
#2 Horizon Court • Heath, Texas 75032 • (469) 402-7700  
Texas Registered Engineering Firm F-7449

Drawn By: F.C. CUNY	Checked By: F.C. CUNY
Date: 08/11	Project No.: -
Sheet Title: <b>Drainage Area Map</b>	
Scale: 1" = 60'	Sheet No.: 7 of 12

Z:\Projects\5-Residential\Dan Bobst\AS BUILT\07 - DRAINAGE AREA MAP.dwg