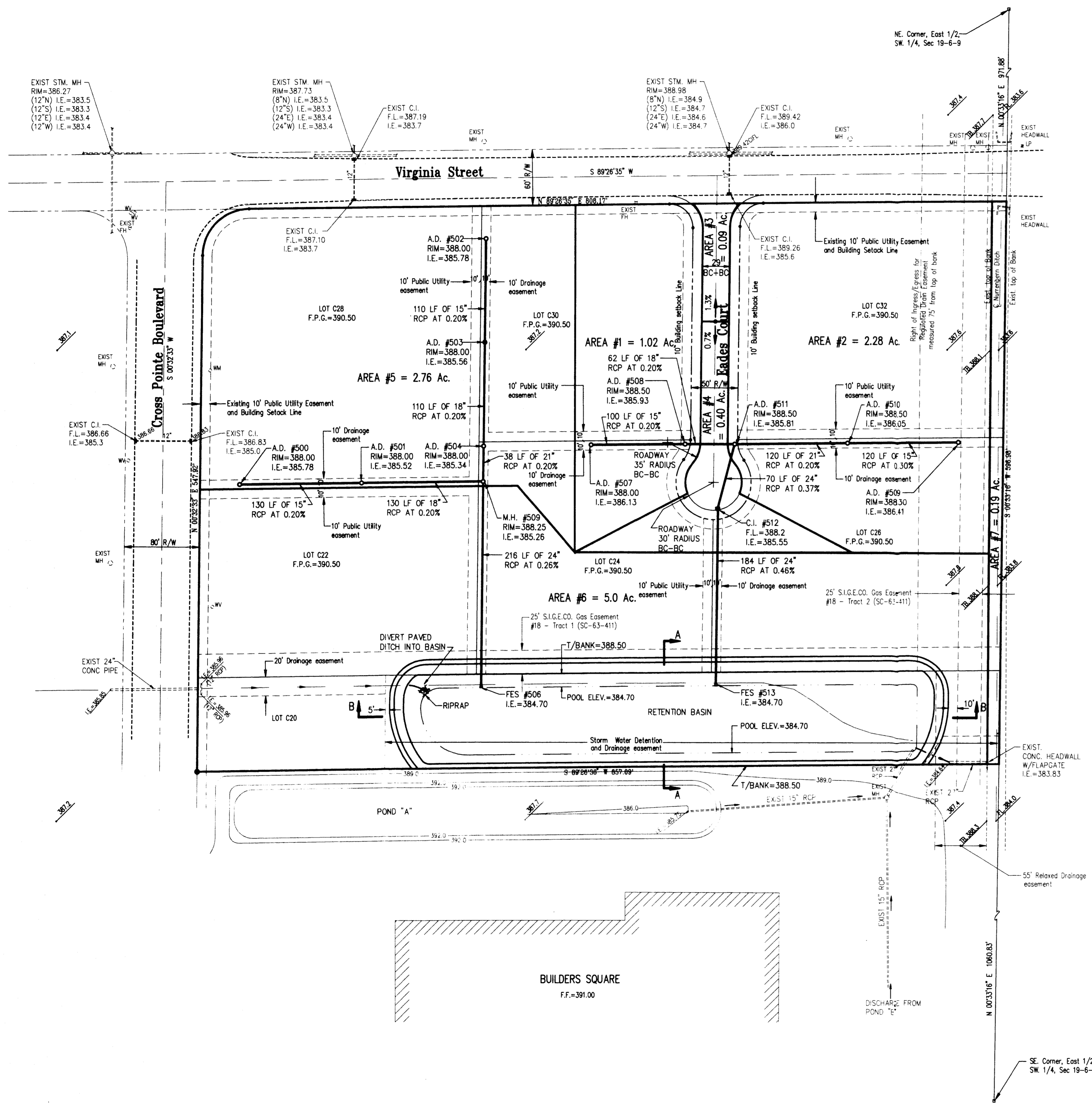
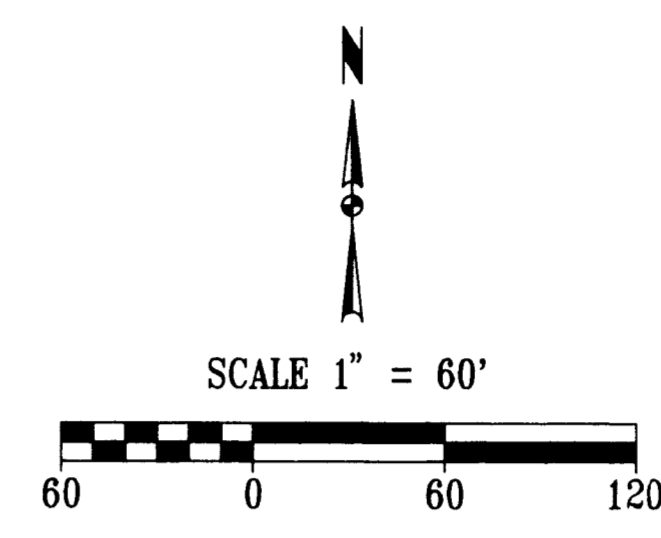
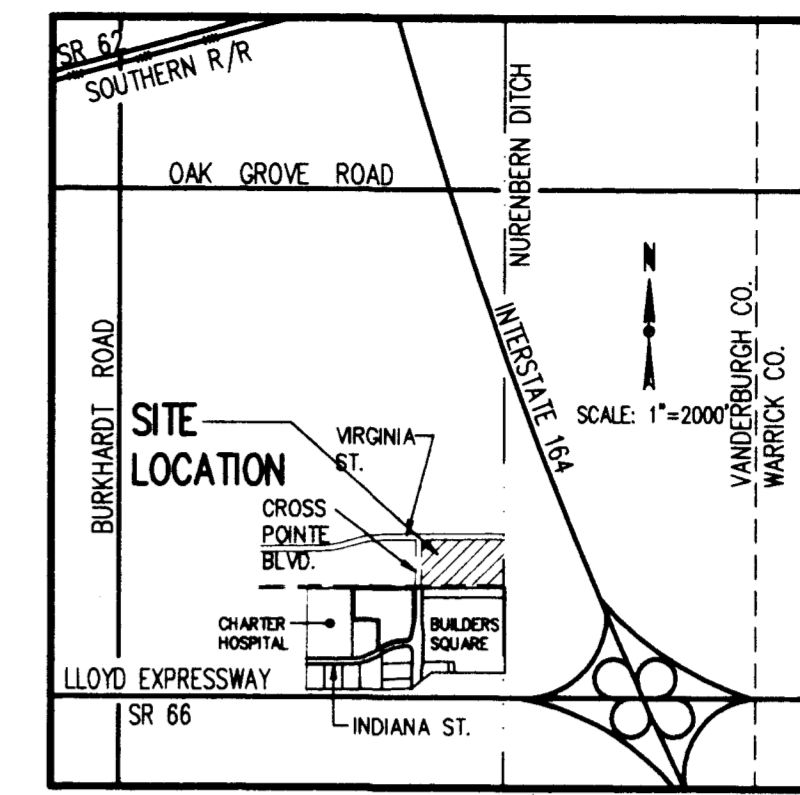


# CROSS POINTE - SECTION 4



VANDERBURGH COUNTY DRAINAGE BOARD  
FORM 800

PROJECT: Cross Pointe  
Section 4 Retention (Discharge Restricted to 7.2 cfs)  
DESIGNER: MORLEY & ASSOC.

WATERSHED AREA: 11.73 ACRES  
TIME OF CONCENTRATION (UNDEVELOPED WATERSHED): 28.84 MINUTES  
RAINFALL INTENSITY (I<sub>u</sub>): 3.326 INCHES/HR  
UNDEVELOPED RUNOFF COEFFICIENT (C<sub>u</sub>): 0.2  
UNDEVELOPED RUNOFF RATE (O = C<sub>u</sub>I<sub>u</sub>A): 7.80 CFS  
DEVELOPED RUNOFF COEFFICIENT (C<sub>d</sub>): 0.846

STORM DURATION (HRS)	RAINFALL INTENSITY (INCH/HR)	INFLOW RATE (CFS)	RESTRICTED OUTFLOW RATE (CFS)	STORAGE RATE (CFS)	REQUIRED STORAGE (ACRE-FT)
0.08	7.208	71.53	7.20	64.33	0.447
0.17	5.925	58.80	7.20	51.60	0.717
0.25	5.033	49.95	7.20	42.75	0.891
0.33	4.571	45.36	7.20	38.16	1.060
0.42	4.108	40.77	7.20	33.57	1.166
0.50	3.646	36.18	7.20	28.98	1.208
0.58	3.385	33.59	7.20	26.39	1.283
0.67	3.123	30.99	7.20	23.79	1.322
0.75	2.862	28.40	7.20	21.20	1.325
0.83	2.601	25.81	7.20	18.61	1.292
0.92	2.339	23.21	7.20	16.01	1.223
1.00	2.078	20.62	7.20	13.42	1.118
1.25	1.509	14.94	7.20	7.74	1.223
1.50	1.179	11.76	7.20	4.56	1.357
1.75	1.019	10.18	7.20	2.98	1.416
2.00	0.908	9.08	7.20	1.88	1.416
2.50	0.750	7.50	7.20	0.30	1.001
3.00	0.643	6.43	7.20	0.23	0.728
4.00	0.438	4.38	7.20	0.18	0.385

PEAK STORAGE (ACRE-FT): 1.33  
PEAK STORAGE (CUBIC FT): 57,721

VANDERBURGH COUNTY DRAINAGE BOARD  
FORM 800

PROJECT: Cross Pointe Sec 4  
Cross Pointe Blvd - Direct to Retention Basin  
DESIGNER: MORLEY & ASSOC.

WATERSHED AREA: 2.00 ACRES  
TIME OF CONCENTRATION (UNDEVELOPED WATERSHED): 30.90 MINUTES  
RAINFALL INTENSITY (I<sub>u</sub>): 3.226 INCHES/HR  
UNDEVELOPED RUNOFF COEFFICIENT (C<sub>u</sub>): 0.2  
UNDEVELOPED RUNOFF RATE (O = C<sub>u</sub>I<sub>u</sub>A): 1.29 CFS  
DEVELOPED RUNOFF COEFFICIENT (C<sub>d</sub>): 0.82

STORM DURATION (HRS)	RAINFALL INTENSITY (INCH/HR)	INFLOW RATE (CFS)	RESTRICTED OUTFLOW RATE (CFS)	STORAGE RATE (CFS)	REQUIRED STORAGE (ACRE-FT)
0.08	7.208	11.82	1.29	10.53	0.073
0.17	5.925	9.72	1.29	8.43	0.117
0.25	5.033	8.25	1.29	6.96	0.145
0.33	4.571	7.50	1.29	6.21	0.172
0.42	4.108	6.74	1.29	5.45	0.189
0.50	3.646	5.98	1.29	4.69	0.195
0.58	3.385	5.55	1.29	4.26	0.207
0.67	3.123	5.12	1.29	3.83	0.213
0.75	2.862	4.69	1.29	3.40	0.213
0.83	2.601	4.27	1.29	2.97	0.207
0.92	2.339	3.84	1.29	2.55	0.194
1.00	2.078	3.41	1.29	2.12	0.176
1.25	1.509	2.27	1.29	0.98	0.192
1.50	1.179	1.85	1.29	0.56	0.195
1.75	1.019	1.57	1.29	0.28	0.187
2.00	1.000	1.30	1.29	0.01	0.169
2.50	0.750	1.18	1.29	0.89	0.144
3.00	0.643	1.07	1.29	0.38	0.095
4.00	0.438	0.77	1.29	0.08	0.027

PEAK STORAGE (ACRE-FT): 0.21  
PEAK STORAGE (CUBIC FT): 9,273

Basin Elevation/Area/Storage Information

Elev. (ft.)	Area (ac.)	Cumulative Volume (cu. ft.)
384.7	0.800	-
385.0	0.633	0.245
386.0	0.946	1.154
387.0	1.063	2.139
388.0	1.182	3.261
388.5	1.243	3.868

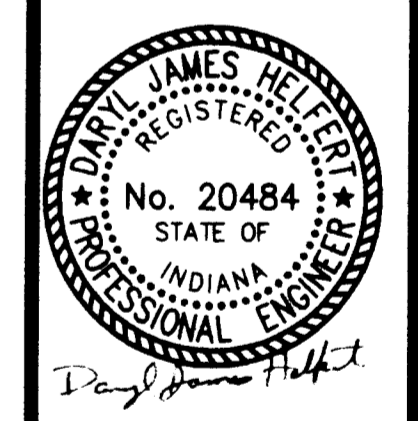
Pool Storage: 142,069 cubic feet  
Peak Storage: 142,069 cubic feet

Storage Volume Provided = 142,069 cubic feet (to Elevation 388.0)  
Req'd Storage Volume (Form 800) = 57,721 + 9,273 = 66,994 cu ft < 142,069 cu ft available

**Morley and Associates, Inc.**  
Consulting Engineers/Surveyors/Architects  
605 S.E. Martin Luther King Jr. Blvd.  
Evansville, Indiana 47713  
(812) 464-9585

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No.	Date	Description



Project: Cross Pointe - Section 4  
Sheet Title: Drainage Plan  
Scale: 1"=60'  
Designed By: R.S.L. Job Number: 3310-4  
Drawn By: G.A.H. Date: 4-22-96  
Checked By: File Name: 3310DRN.DWG  
Sheet Number: 1 of 1