

PROP. PARK SITE  
DEDICATED TO CITY OF ROCKWALL  
5.420 Ac.  
LOT 6 BLOCK A

REPLAT OF PART OF LOT 2  
THE MCLENDON COMPANIES ADDITION  
CAB. D. PG. 153  
P.R.R.C.T.

PROP. R.I.S.D. SCHOOL SITE  
10.00 Ac.  
LOT 7 BLOCK A

REPLAT OF LOT 1  
THE MCLENDON COMPANIES ADDITION  
CAB. D. PG. 153  
P.R.R.C.T.

OPEN SPACE "A"  
(4.218 Ac.)  
LOT 44, BLOCK E  
DRAINAGE & UTILITY ESMT.

OPEN SPACE "A"  
(4.218 Ac.)  
LOT 44, BLOCK E  
DRAINAGE & UTILITY ESMT.

OPEN SPACE  
(3.32 AC)

### INLET DESIGN CALCULATIONS

Inlet No.	Contributing Drainage Areas	Location	Design Storm Frequency (yr)	Time of Conc. (min)	Intensity (in/hr)	Runoff Coeff. (C)	Area (Ac.)	Q <sup>100</sup> (cfs)	Carry-Over from Upstream Inlet (cfs)	Total Gutter Flow (cfs)	Gutter Capacity (cfs)	Gutter Depth (ft)	Allowable Gutter Depth (ft)	Gutter Slope (ft/100ft)	Crown Type	Length L <sup>1</sup> (feet)	Type	Inlet Capacity (cfs)	
																			AREA RUNOFF - Q = CA
1	DA-4, DA-6 (CARRY OVER)	LINE 5'	100	10	9.8	0.5	10.29	1.62	1.92	3.57	14.80	0.27	0.50	Low	Parabolic	10'	IA	21.20	
2	DA-3	LINE 5'	100	10	9.8	0.5	2.49	12.20	0	5.06	14.80	0.35	0.50	Low	Parabolic	10'	IA	21.20	
3	PH1-37, DA-7	LAT D-2' - STA 26+72.13	100	10	9.8	0.5	10.79	3.87	1.19	3.87	14.80	0.30	0.50	0.60%	Parabolic	10'	I	6.50	
4	DA-6	LAT D-1' - STA 26+72.13	100	10	9.8	0.5	2.44	12.45	0	12.45	14.80	0.45	0.50	0.60%	Parabolic	15'	I	10.50	
5	DA-8	LAT D-3' - STA 5+40.24	100	10	9.8	0.5	1.87	9.16	0	9.16	14.80	0.42	0.50	0.60%	Parabolic	15'	I	10.50	
6	DA-13	LINE 10' - STA 3+17.87	100	10	9.8	0.5	1.93	9.46	0	9.46	14.80	0.42	0.50	0.60%	Parabolic	15'	I	10.50	
7	DA-11	EX LAT D-1' - STA 5+35	100	10	9.8	0.5	1.28	8.27	0	8.27	14.80	0.42	0.50	0.60%	Parabolic	15'	IA	10.70	
8	PH1-30, PH1-32, DA-14	EX LAT D-1' - STA 5+35	100	10	9.8	0.5	11.85	9.07	8.38	17.45	---	---	---	---	Low	Parabolic	15'	IA	33.00

\* THIS AREA DOES NOT INCLUDE CARRY OVER FROM UPSTREAM. TOTAL FLOW TO INLET CAN BE FOUND IN THE TOTAL GUTTER FLOW COLUMN IN THE TABLE ABOVE.

#### DRAINAGE AREAS CONTRIBUTING TO EACH POND

##### POND #1 DRAINAGE AREAS

Drainage Area No.	Total Area (Ac.)
S1	7.55
S2	0.30
PH1-18	9.30
PH1-28	0.35
PH1-29	1.64
PH1-30	2.38
PH1-31	1.04
PH1-32	0.34
PH2-9	1.80
PH2-10	3.70
PH2-11	1.28
PH2-14	1.85
<b>TOTAL</b>	<b>31.33</b>

##### POND #2 DRAINAGE AREAS

Drainage Area No.	Total Area (Ac.)
POND #1 AREA	31.33
PH1-17	0.68
PH1-19	0.78
PH1-20	0.64
PH1-23	1.20
PH1-37	1.57
PH1-39	1.18
PH2-3	0.80
PH2-4	0.29
PH2-5	1.78
PH2-6	2.28
PH2-7	0.79
PH2-8	1.87
PH2-13	1.93
PH3-1	6.30
PH3-2	1.63
PH3-3	4.77
<b>TOTAL</b>	<b>59.82</b>

### LEGEND

--- DRAINAGE DIVIDE

→ FLOW DIRECTION

--- 580 --- EXIST. CONTOUR

29  
1.64  
8.04 EXISTING PHASE I DRAINAGE AREA

1  
2.60  
12.74 DRAINAGE AREA ACRES RUNOFF, cfs

○ INLET NO.

100 Year  
TC = 10 min  
C = 0.50  
I = 9.80  
A = Acres  
Q = 0.50(A)(9.80)

#### SCHOOL SITE DRAINAGE AREA CALCULATIONS

Drainage Area No.	Total Area (Acres)	Runoff Coefficient C	Time of Concentration Tc (Min.)	Rainfall Intensity I <sub>100</sub> (in/hr)	Proposed Flow Q <sub>100</sub> (cfs)	Remarks
S1	7.55	0.70	10	9.80	51.79	FLOWS TO POND A, POND #1
S2	0.30	0.70	10	9.80	2.06	FLOWS TO POND #1
<b>TOTAL</b>	<b>7.85</b>				<b>53.85</b>	

#### PHASE I DRAINAGE AREA CALCULATIONS

Drainage Area No.	Total Area (Acres)	Runoff Coefficient C	Time of Concentration Tc (Min.)	Rainfall Intensity I <sub>100</sub> (in/hr)	Proposed Flow Q <sub>100</sub> (cfs)	Remarks
17	0.68	0.50	10	9.80	3.33	FLOWS TO POND #2
18	9.30	0.50	10	9.80	45.57	FLOWS TO POND #1
19	0.78	0.50	10	9.80	3.82	FLOWS TO POND #2
20	0.64	0.50	10	9.80	3.14	FLOWS TO POND #2
23	1.20	0.50	10	9.80	5.88	FLOWS TO POND #2
28	0.35	0.50	10	9.80	1.72	FLOWS TO POND #1
29	1.64	0.50	10	9.80	8.04	FLOWS TO POND #1
30	2.38	0.50	10	9.80	11.66	FLOWS TO POND #1
31	1.04	0.50	10	9.80	5.10	FLOWS TO POND #1
32	0.34	0.50	10	9.80	1.67	FLOWS TO POND #1
37	1.57	0.50	10	9.80	7.68	FLOWS TO POND #2
39	1.18	0.50	10	9.80	5.78	FLOWS TO POND #2
<b>TOTAL</b>	<b>21.10</b>				<b>103.39</b>	

#### PHASE II DRAINAGE AREA CALCULATIONS

Drainage Area No.	Total Area (Acres)	Runoff Coefficient C	Time of Concentration Tc (Min.)	Rainfall Intensity I <sub>100</sub> (in/hr)	Proposed Flow Q <sub>100</sub> (cfs)	Remarks
1	0.67	0.50	10	9.80	3.28	FLOWS OFFSITE TO EAST
2	1.69	0.50	10	9.80	8.28	FLOWS OFFSITE TO EAST
3	0.80	0.50	10	9.80	3.92	FLOWS TO INLET #2, POND #2
4	0.29	0.50	10	9.80	1.42	FLOWS TO INLET #1, POND #2
5	1.78	0.50	10	9.80	8.72	FLOWS TO POND #2
6	2.54	0.50	10	9.80	12.45	FLOWS TO INLET #4, POND #2
7	0.79	0.50	10	9.80	3.87	FLOWS TO INLET #3, POND #2
8	1.87	0.50	10	9.80	9.16	FLOWS TO INLET #5, POND #2
9	1.60	0.50	10	9.80	7.84	FLOWS TO POND #1
10	3.70	0.50	10	9.80	18.13	FLOWS TO POND #1
11	1.28	0.50	10	9.80	6.27	FLOWS TO INLET #7, POND #1
12	0.09	0.50	10	9.80	0.44	FLOWS OFFSITE TO NORTHEAST
13	1.93	0.50	10	9.80	9.46	FLOWS TO INLET #6, POND #1
14	1.85	0.50	10	9.80	9.07	FLOWS TO INLET #8, POND #1
<b>TOTAL</b>	<b>20.88</b>				<b>102.31</b>	

#### PHASE III DRAINAGE AREA CALCULATIONS

Drainage Area No.	Total Area (Acres)	Runoff Coefficient C	Time of Concentration Tc (Min.)	Rainfall Intensity I <sub>100</sub> (in/hr)	Proposed Flow Q <sub>100</sub> (cfs)	Remarks
OS-1	6.30	0.50	10	9.80	30.87	FLOWS TO POND #2
OS-2	1.63	0.50	10	9.80	7.98	FLOWS TO POND #2
OS-3	4.77	0.50	10	9.80	23.37	FLOWS TO POND #2
<b>TOTAL</b>	<b>12.70</b>				<b>62.23</b>	

NOTE: PHASE 1 DETENTION POND A, POND #1 AND POND #2 ARE CONNECTED. ALL DRAINAGE FLOW TO PHASE 1 POND A IS DETAINED AND RELEASED AT A PREDEVELOPED FLOW RATE TO POND #1. ALL DRAINAGE FLOW TO POND #1 IS DETAINED AND RELEASED AT A PREDEVELOPED FLOW RATE TO POND #2. ALL DRAINAGE FLOW TO POND #2 IS DETAINED AND RELEASED OFFSITE AT A PREDEVELOPED FLOW RATE.

**CAUTION EXISTING UTILITIES !!!**

EXISTING UTILITIES AND UNDERGROUND FACILITIES INDICATED ON THESE PLANS HAVE BEEN LOCATED FROM REFERENCE INFORMATION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY BOTH HORIZONTALLY AND VERTICALLY THE LOCATION OF ALL EXISTING UTILITIES AND UNDERGROUND FACILITIES PRIOR TO CONSTRUCTION, TO TAKE THE NECESSARY PRECAUTIONS IN ORDER TO PROTECT ALL FACILITIES ENCOUNTERED. THE CONTRACTOR SHALL PRESERVE AND PROTECT ALL EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION.

**BENCHMARK:**  
"X" ON TOP OF CURB WEST NOSE OF MEDIAN AT ENTRANCE TO FONTANNA RANCH WIMBERLEY LN.  
ELEV. 570.06

**RECORD DRAWING**

Revision	Date	Description

**FONTANNA RANCH, LTD.**  
6750 HILLCREST PLAZA DR., S. 235 • DALLAS, TX 75220 • 972-386-3333

# Fontanna Ranch Ph. 2

**F.C. CUNY CORPORATION**  
#2 Horizon Court • Ste. 500 • Heath, Texas 75032  
Phone: 469-402-7700  
Fax: 469-402-0700  
Texas Registered Engineering Firm F-7449

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY CHRISTOPHER R. CUNY, P.E. 65642

6-7-2017  
F.C. CUNY CORPORATION  
F-7449

Drawn By:	Checked By:
FC CUNY	FC CUNY
Date:	Project No.:
4-16	
Sheet Title:	Sheet No.:
<b>Drainage Area Map</b>	
Scale:	Sheet No.:
1" = 100'	9 of 17

Fontanna Ranch Ph. 2