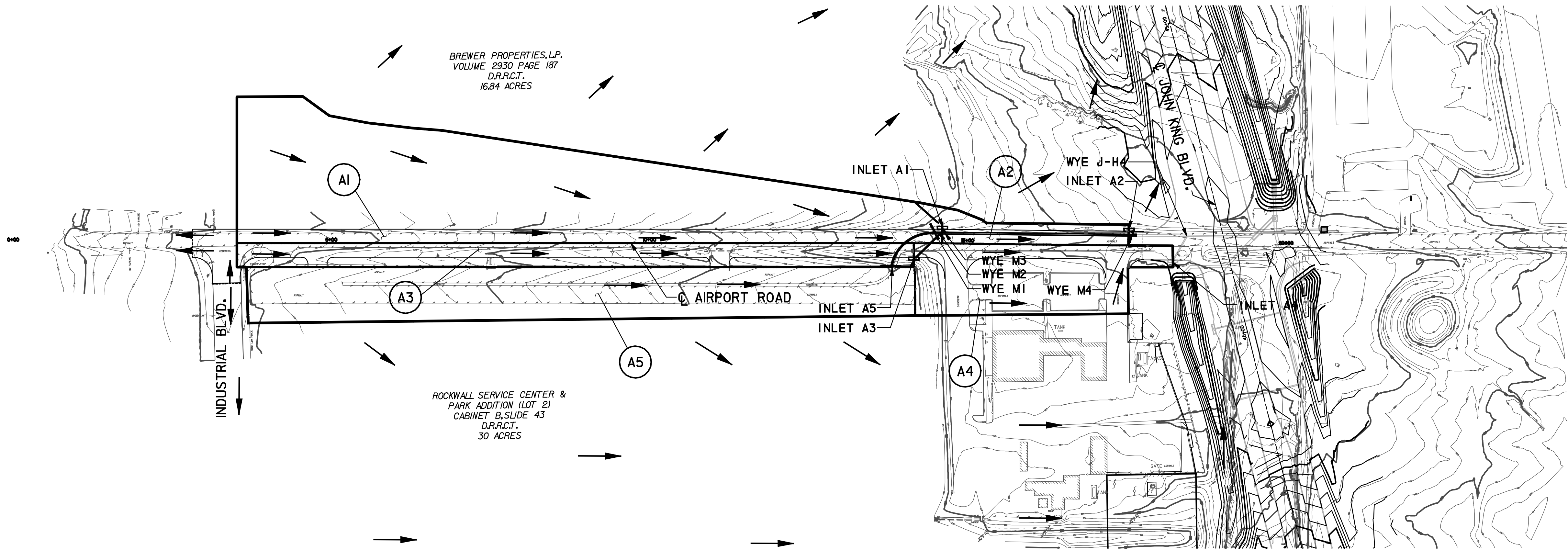
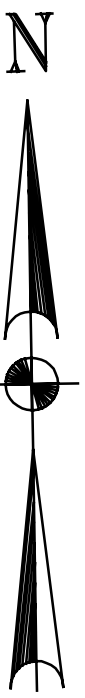




100 0 100 200
SCALE IN FEET
HORIZONTAL



RECORD DRAWING

This drawing is a compilation of the original sealed engineering drawing and modifications by addenda, change orders and information furnished by the contractor. Information shown that was provided by the contractor and others not associated with the design engineer cannot be verified for accuracy or completeness. Original sealed drawing is on file at the office of AECOM Technical Services, Inc., TBPE REG. NO. F-3580

ORIGINAL DRAWING
SEALED & SIGNED BY

T.H. Gaertner, P.E.
TX NO. 37124

STORM DRAIN CALCULATIONS																						
RUNOFF COLLECTION POINT		DISTANCE BETWEEN POINTS (FT)	INCREMENTAL DRAINAGE AREA				ACCUMULATED "CA"	TIME AT UPSTREAM NODE (MINUTES)	DESIGN STORM FREQUENCY (YRS)	INTENSITY "I" (IN/HR)	STORM WATER RUNOFF "Q" (CFS)	SELECTED PIPE SIZE (IN)	SLOPE OF PIPE (FT/FT)	FLOW CAPACITY (CFS)	VELOCITY AT FLOW CAPACITY (FPS)	SLOPE OF HYDRAULIC GRADIENT (FT/FT)	VELOCITY IN PIPE BETWEEN NODES (FPS)	HEAD LOSS COEFF.	VELOCITY HEADLOSS AT UPSTREAM STATION (FT)	FLOW TIME IN PIPE (MINUTES)	TIME AT DOWN STREAM NODE (MINUTES)	Hg AT UPSTREAM NODE
UP STREAM NODE	DOWN STREAM NODE		AREA DESIGNATION	AREA (AC.)*A'	RUNOFF COEFF *C'	INCREMENTAL "CA"																
INLET A5	WYE M2	93.5	A5	1.98	0.9	1.782	1.782	10.00	100	9.80	17.46	21	0.0305	27.75	11.54	0.0121	7.26	1.25	1.023	0.21	10.21	557.35
WYE M2	WYE M3	16	A3	0.93	0.9	0.837	2.619	10.21	100	9.80	25.67	30	0.0094	39.87	8.12	0.0039	5.23	0.75	0.318	0.05	10.27	555.19
WYE M3	WYE M4	291	A1	3.62	0.476	1.723	4.342	20.02	100	8.30	36.04	30	0.0139	48.49	9.88	0.0077	7.34	0.75	0.628	0.66	20.68	554.81
WYE M4	STUB OUT	6	A2	0.27	0.826	0.223	4.565	20.68	100	8.20	37.43	30	0.0155	51.20	10.43	0.0083	7.63	0.50	0.452	0.01	20.69	551.95
STUB OUT	-	-	A4	0.9	0.9	0.810	5.375	20.69	100	8.15	43.81	-	-	-	-	-	-	-	-	-	-	551.45
INLET A3	WYE M2	45	A3	0.93	0.9	0.837	-	10	100	9.8	8.20	18	0.0572	25.19	14.25	0.0061	4.64	1.25	0.418	0.16	10.16	555.89
INLET A1	WYE M3	7.5	A1	3.62	0.476	1.723	-	20	100	8.33	14.35	21	0.2363	77.23	32.11	0.0082	5.97	1.25	0.691	0.02	20.02	555.57
INLET A2	WYE M4	5	A2	0.27	0.826	0.223	-	10	100	9.8	2.19	18	0.1830	45.06	25.50	0.0004	1.24	1.25	0.030	0.07	10.07	551.98
INLET A4	EX. WYE J-H4	45	A4	0.9	0.9	0.810	-	10	100	9.8	7.94	18	0.0044	6.99	3.95	0.0057	4.49	1.25	0.392	0.17	10.17	551.72

INLET DESIGN CALCULATIONS																
INLET		DESIGN STORM FREQUENCY (YRS)	AREA 100 YEAR RUNOFF Q = CIA					CARRY OVER FROM UP STREAM INLET (CFS)	TOTAL GUTTER FLOW (CFS)	GUTTER CAPCITY (CFS)	GUTTER SLOPE (FT/FT)	CROWN TYPE	SELECTED INLET		INLET CAPACITY	CARRY OVER TO DOWN STREAM INLET (CFS)
NO.	LOCATION		TIME OF CONC. (MIN)	INTENSITY (IN/HR)"I"	RUNOFF COEFF. "C"	AREA (AC.) "A"	FLOW (CFS) "Q"						LENGTH (FT)	TYPE		
A1	14+60	100	20	8.33	0.476*	3.62	14.35	0	14.35	28	0.022	PARABOLIC	15	CURB	9.75	4.60
A2	17+58	100	10	9.8	0.826**	0.27	2.19	4.60	6.79	23	0.015	PARABOLIC	15	CURB	10.50	0
A3	14+26	100	10	9.8	0.9	0.93	8.20	0.00	8.20	33	0.028	PARABOLIC	15	CURB	9.50	0
A4	18+22	100	10	9.8	0.9	0.90	7.94	0.00	7.94	28	0.023	PARABOLIC	15	CURB	9.00	0
A5	13+83	100	10	9.8	0.9	1.98	17.46	0.00	17.46	-	SAG	-	4 GRATE	COMB.	17.50	0

- * COMPOSITE C VALUE, 2.79 ACRES UNDEVELOPED (C=0.35) AND 0.83 ACRES FULLY DEVELOPED (C=0.9).
- ** COMPOSITE C VALUE, 0.04 ACRES UNDEVELOPED (C=0.35) AND 0.23 ACRES FULLY DEVELOPED (C=0.9).

NO.	REVISION	BY	DATE

AIRPORT ROAD

DRAINAGE AREA MAP & CALCULATIONS



City of Rockwall, Texas

AECOM

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TBPE REG. NO. F-3580

Unit	PW-DAL	Scales	Horz AS SHOWN Vert AS SHOWN	Date	8/2/2012
Designed	SB	Checked	THG	Project No.	60004153
Drawn	FG	Approved	THG	Sheet	18 of 26