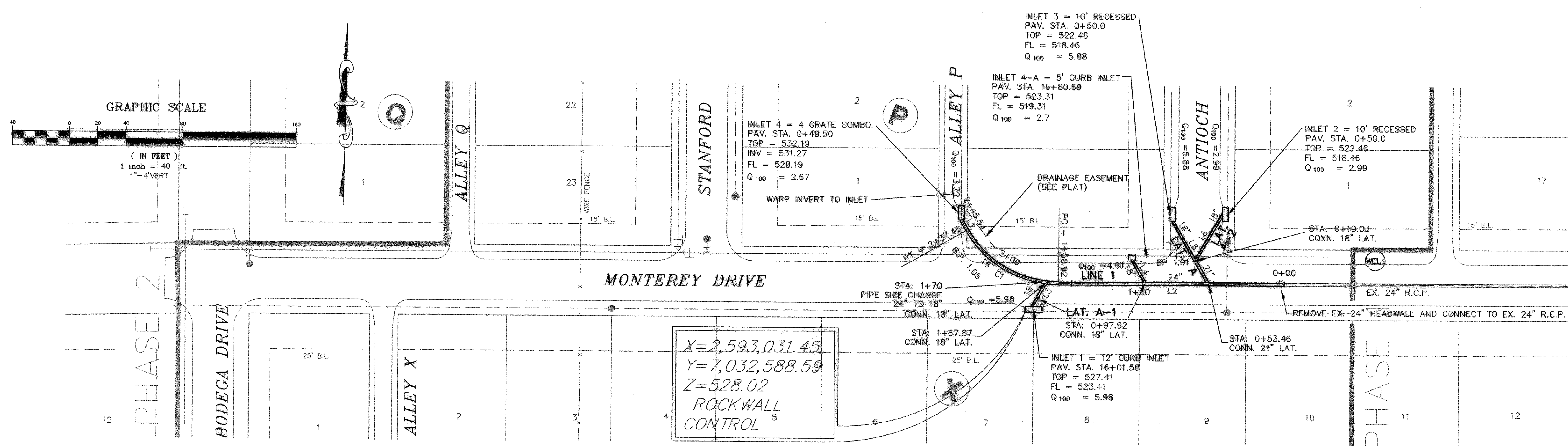


DOUPHRADE & ASSOCIATES, INC.
 ENGINEERING - PROJECT MANAGEMENT - SURVEYING
 2235 RIDGE RD., # 200 ROCKWALL, TEXAS 75087
 PHONE: (972) 771-9004 FAX: (972) 771-9005

BENCHMARK:
 BRASS CAP MONUMENT NO. 10 SET IN CONCRETE IN THE CENTER OF GRASS MEDIAN IN MASTERS DRIVE BETWEEN NORTH LAKESHORE & SHORES BLVD.
 N 7032464.6317, E 2589554.1518
 ELEV. = 524.62



$X = 2,593,031.45$
 $Y = 7,032,588.59$
 $Z = 528.02$
 ROCKWALL CONTROL

STORM LINE 1

From	To	Length	Box Height	Width	DESIGN Q100	Pipe Size (in)	CAP Q100	FULL V	PARTIAL V	PARTIAL FLOW %	PARTIAL FLOW CHT. No.	Ki	Flow R(ft)	Flow R ² /3	Flow Area	FULL S	DESIGN S	HGL Rise	HGL Number	
STM -1									9.47										514.71	Starting
Junction Loss																			515.33	
53.46	0	53.46			22.13	24	20.23	7.04	7.04	1.09	1.00	1.0000	0.5000	0.6300	3.1416	0.0096	0.0080	0.5116	515.84	
89.04	53.46	35.58			13.26	24	55.87	4.22	3.17	0.24	0.75	1.0000	0.5000	0.6300	3.1416	0.0034	0.0610	0.1222	516.34	
167.87	89.04	78.83			8.65	24	55.87	2.75	2.04	0.15	0.74	1.0000	0.5000	0.6300	3.1416	0.0015	0.0610	0.1589	516.62	
245.54	167.87	77.67			2.67	18	34.10	1.51	0.98	0.08	0.65	1.0000	0.3750	0.5200	1.7671	0.0006	0.1054	0.0823	516.82	
																		0.0502	516.87	

LATERAL A

From	To	Length	Box Height	Width	DESIGN Q100	Pipe Size (in)	CAP Q100	FULL V	PARTIAL V	PARTIAL FLOW %	PARTIAL FLOW CHT. No.	Ki	Flow R(ft)	Flow R ² /3	Flow Area	FULL S	DESIGN S	HGL Rise	HGL Number	
LATERAL A									6.44										515.89	Starting
Junction Loss																			516.36	
19.03	0	19.03			8.87	21	51.52	3.69	2.84	0.17	0.77	0.8000	0.4375	0.5763	2.4053	0.0031	0.0145	0.0596	516.42	
50.90	19.03	31.87			5.88	18	32.65	3.33	2.56	0.18	0.77	1.0000	0.3750	0.5200	1.7671	0.0031	0.0966	0.0999	516.56	

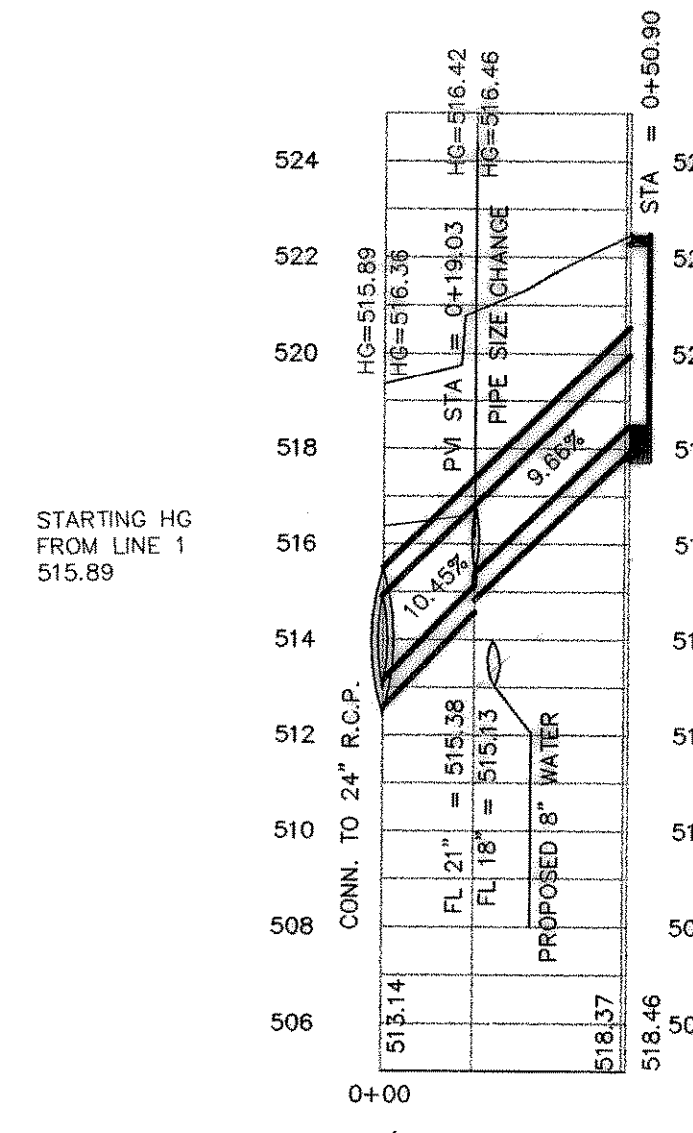
LATERAL A-1

From	To	Length	Box Height	Width	DESIGN Q100	Pipe Size (in)	CAP Q100	FULL V	PARTIAL V	PARTIAL FLOW %	PARTIAL FLOW CHT. No.	Ki	Flow R(ft)	Flow R ² /3	Flow Area	FULL S	DESIGN S	HGL Rise	HGL Number	
LATERAL A-1																			521.75	Starting @ PIPE SOFFIT
19.67	0	19.67			5.98	18	42.11	3.38	2.61	1.10	1.10		0.3750	0.5200	1.7671	0.0032	0.1607	0.0637	521.81	

LATERAL A-2

From	To	Length	Box Height	Width	DESIGN Q100	Pipe Size (in)	CAP Q100	FULL V	PARTIAL V	PARTIAL FLOW %	PARTIAL FLOW CHT. No.	Ki	Flow R(ft)	Flow R ² /3	Flow Area	FULL S	DESIGN S	HGL Rise	HGL Number	
LATERAL A-2																			516.63	Starting
38.13	0	38.13			2.99	18	30.57	1.69	1.86	1.10	1.10		0.3750	0.5200	1.7671	0.0008	0.0847	0.0309	516.66	

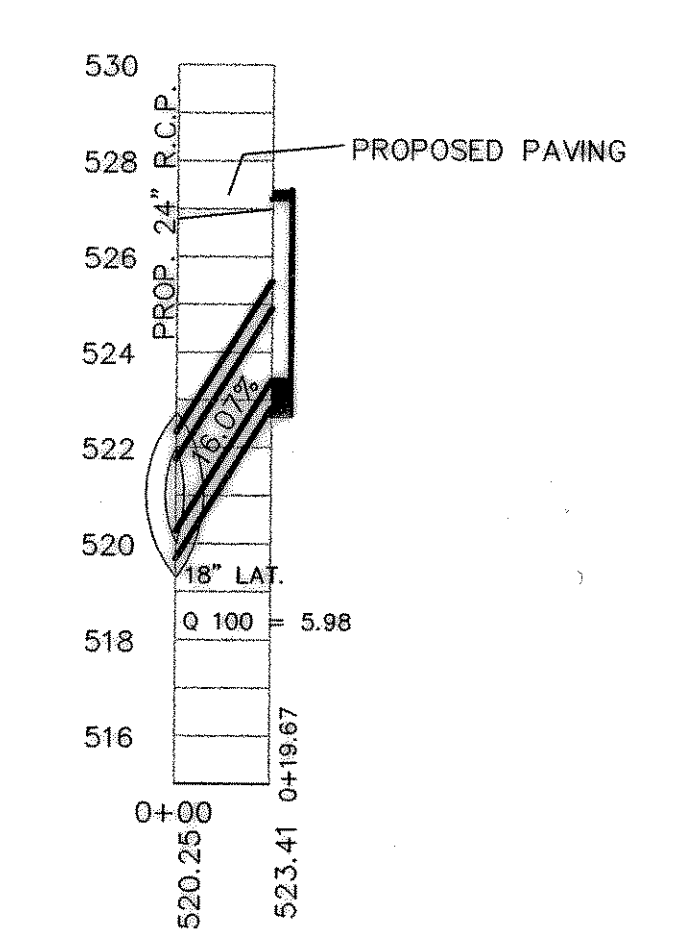
LATERAL A



21" R.C.P. Q₁₀₀ = 8.87 CAP = 51.52 S = 0.0031 V = 3.69 f.p.s. Vp = 2.84 f.p.s.
 18" R.C.P. Q₁₀₀ = 5.88 CAP = 32.65 S = 0.0066 V = 3.33 f.p.s. Vp = 2.65 f.p.s.

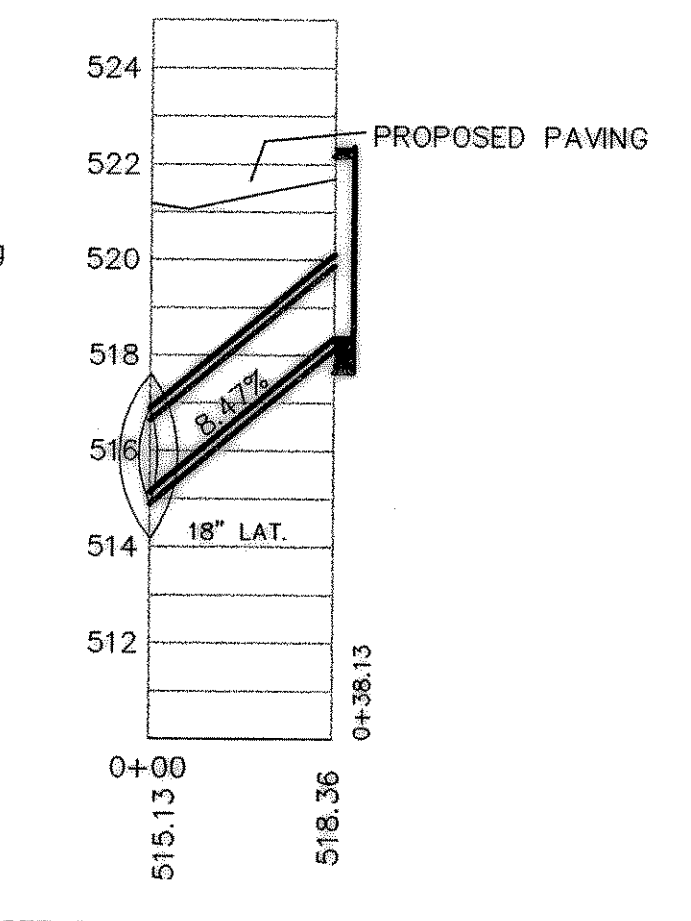
SEE CHART FOR ADDITIONAL INFORMATION

LATERAL A-1



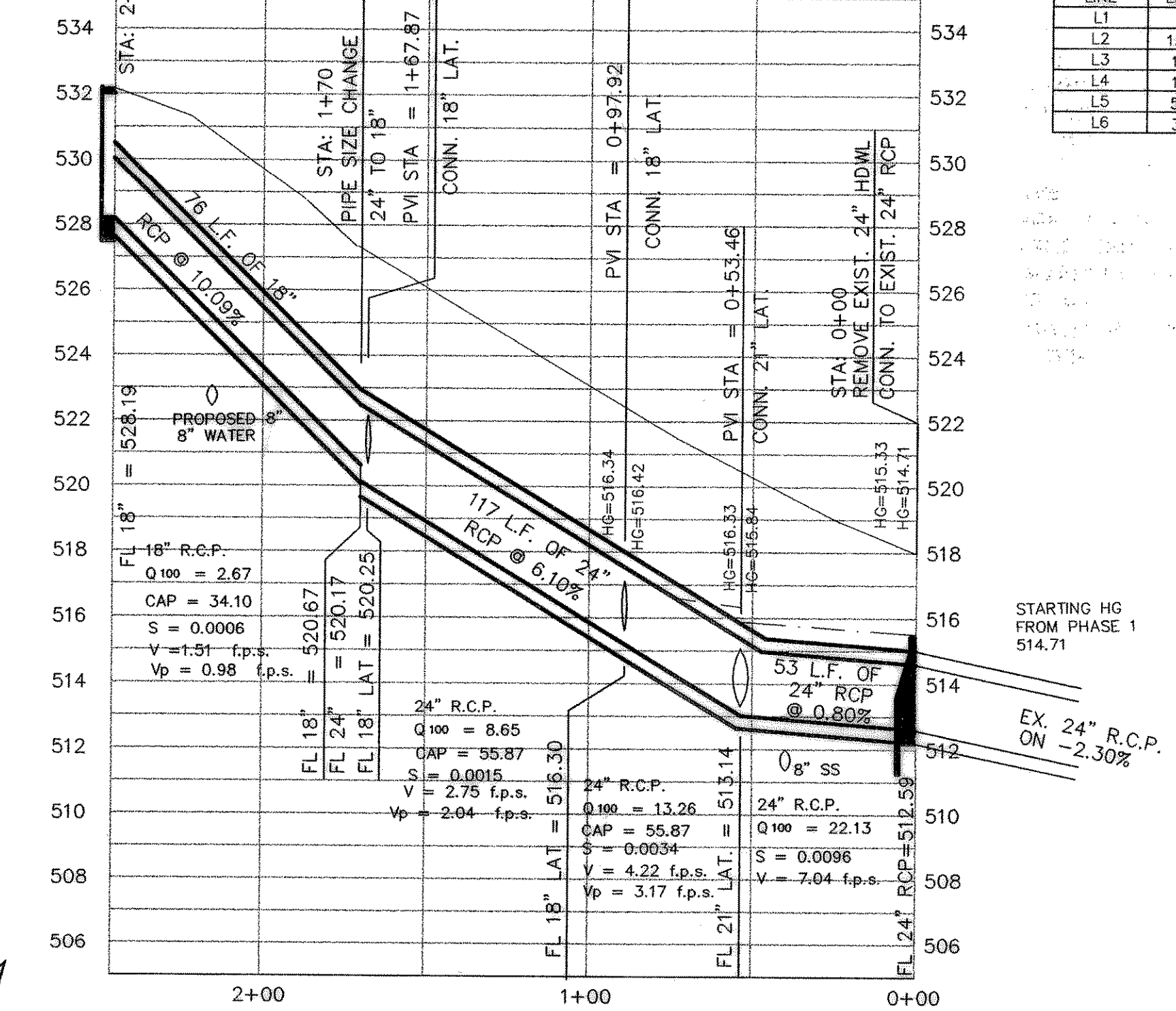
SEE CHART FOR ADDITIONAL INFORMATION

LATERAL A-2



SEE CHART FOR ADDITIONAL INFORMATION

STORM LINE 1



CURVE TABLE

CURVE	LENGTH	RADIUS	TANGENT	CH BRG	CH DIST	DELTA
C1	78.94	75.00	43.30	S61°05'46"E	75.00	60°00'00"

LINE TABLE

LINE	LENGTH	BEARING
L1	8.08'	S31°05'46"E
L2	158.92'	S88°54'14"W
L3	19.67'	N28°54'14"E
L4	19.09'	S31°05'46"E
L5	50.90'	S31°05'46"E
L6	38.13'	S28°54'14"W

STORM SEWER PLAN & PROFILE
LINE 1 AND LATERAL A
LAKEVIEW SUMMIT PHASE 1A
 CITY OF ROCKWALL, COUNTY OF ROCKWALL

REVISION

NO.	DATE	BY	DESCRIPTION
1	6/6/00	W.L.D.	W.D. CHECKED
2	9919-1ASTM	K.E.B.	K.E.B. DRAWN
3			DATE
4			PROJECT

RECORD DRAWINGS:
 THE INTENT OF THE OWNER AND ENGINEER WAS TO CONSTRUCT THESE FACILITIES ACCORDING TO THESE PLANS AS APPROVED BY THE CITY OF ROCKWALL. THE LINES AND GRADES WERE SET ON THE GROUND FOR CONSTRUCTION ACCORDING TO SAID PLANS. THE CITY OF ROCKWALL INSPECTED THE CONSTRUCTION. THE OWNER NOR ENGINEER DID NOT VERIFY LINES OR GRADES AFTER CONSTRUCTION. WE ARE NOT AWARE OF ANY CHANGES OR REVISIONS TO THESE PLANS DURING CONSTRUCTION EXCEPT AS NOTED 4/16/02