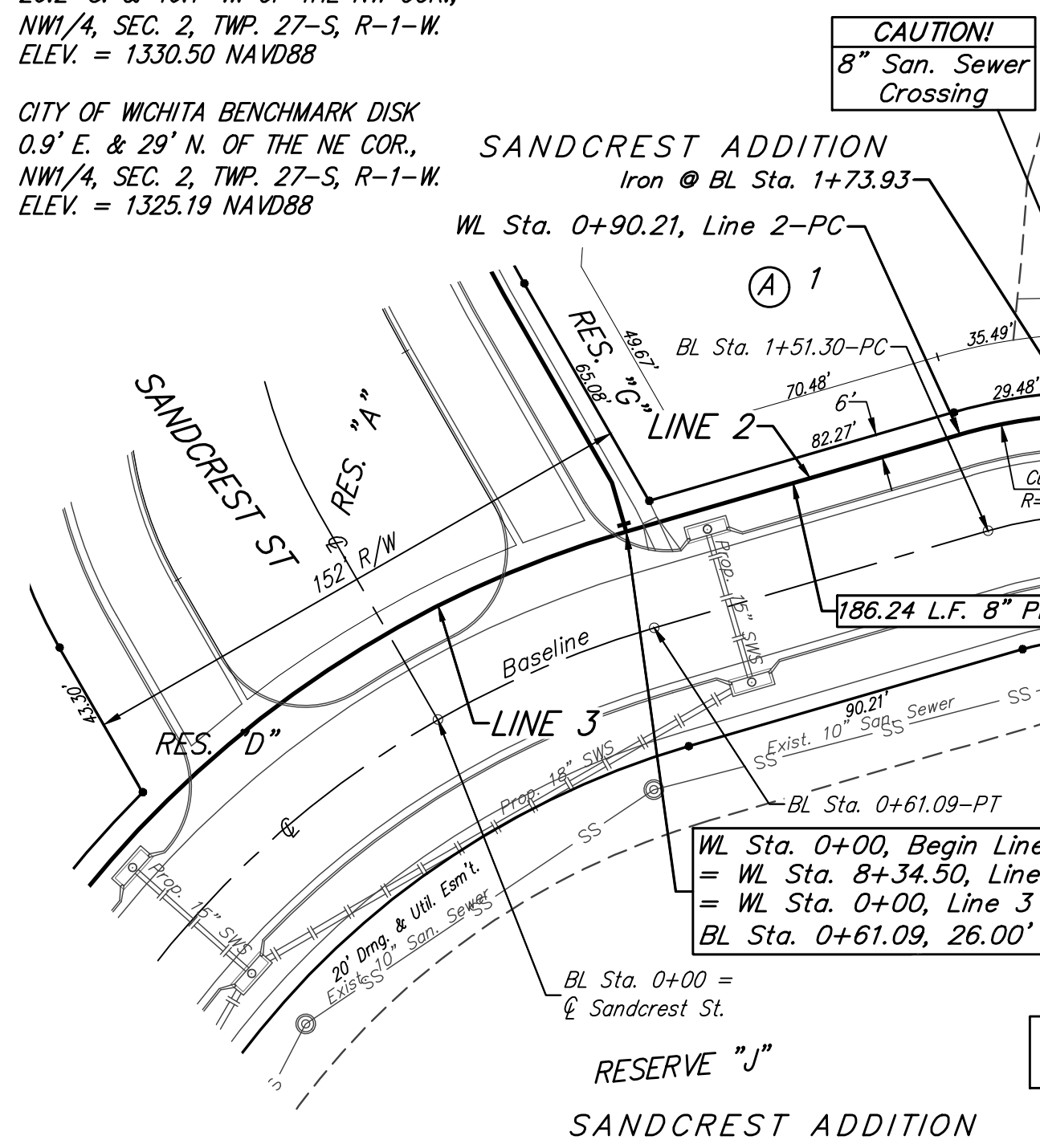


BENCHMARKS:
 CITY OF WICHITA BENCHMARK DISK
 34.9' S. & 31.2' W. OF THE SW COR.,
 NW1/4, SEC. 2, TWP. 27-S, R-1-W.
 ELEV. = 1327.57 NAVD88

CITY OF WICHITA BENCHMARK DISK
 26.2' S. & 46.1' W. OF THE NW COR.,
 NW1/4, SEC. 2, TWP. 27-S, R-1-W.
 ELEV. = 1330.50 NAVD88

CITY OF WICHITA BENCHMARK DISK
 0.9' E. & 29' N. OF THE NE COR.,
 NW1/4, SEC. 2, TWP. 27-S, R-1-W.
 ELEV. = 1325.19 NAVD88

FIRE HYDRANTS REQUIRED				
STATION	BURY LINE ELEVATION	TOP OF PIPE ELEVATION	FIRE HYDRANT BURY REQUIRED*	VALVE STEM EXT. REQUIRED (ft)*
2+01.38	1326.30	1322.55	4.5'	-



Curve #5
 Curve Data Based on Centerline of Pipe
 Rad. = 132.75' Delta = 3022'59" Tangent = 36.05'
 Arc = 70.39' L.C. = 69.57' Def./Ft. = 12.94916 Min.

Station	Arc	Chord 8' Left	Defl.	Total Defl.
0+00.00	-	-	000'00"	000'00"
0+25.00	9.79'	10.38'	2'06'46"	2'06'46"
0+50.00	19.57'	20.76'	4'13'32"	4'13'32"
0+75.00	29.36'	31.14'	6'20'18"	6'20'18"
1+00.00	39.15'	41.52'	8'27'04"	8'27'04"
1+25.00	48.94'	51.90'	10'33'50"	10'33'50"
1+50.00	58.73'	62.28'	12'40'36"	12'40'36"
1+75.00	68.52'	72.66'	14'47'22"	14'47'22"
2+00.00	78.31'	83.04'	16'54'08"	16'54'08"
2+01.38	80.00'	84.00'	17'11'29"	17'11'29"

Curve #6
 Curve Data Based on Centerline of Pipe
 Rad. = 203.58' Delta = 2742'04" Tangent = 50.19'
 Arc = 98.43' L.C. = 97.47' Def./Ft. = 8.44289 Min.

Station	Arc	Chord 8' Left	Defl.	Total Defl.
3+30.03	-	-	000'00"	000'00"
3+50.00	19.97'	20.75'	2'48'36"	2'48'36"
3+75.00	39.94'	41.50'	4'97'12"	4'97'12"
4+00.00	59.91'	62.25'	6'45'48"	6'45'48"
4+25.00	79.88'	83.00'	8'34'24"	8'34'24"
4+50.00	99.85'	103.75'	10'23'00"	10'23'00"
4+75.00	119.82'	124.50'	12'11'36"	12'11'36"
5+00.00	139.79'	145.25'	14'00'12"	14'00'12"
5+25.00	159.76'	166.00'	15'48'48"	15'48'48"
5+50.00	179.73'	186.75'	17'37'24"	17'37'24"
5+75.00	199.70'	207.50'	19'26'00"	19'26'00"
6+00.00	219.67'	228.25'	21'14'36"	21'14'36"
6+25.00	239.64'	249.00'	23'03'12"	23'03'12"
6+50.00	259.61'	269.75'	24'51'48"	24'51'48"
6+75.00	279.58'	290.50'	26'40'24"	26'40'24"
7+00.00	299.55'	311.25'	28'29'00"	28'29'00"
7+25.00	319.52'	332.00'	30'17'36"	30'17'36"
7+50.00	339.49'	352.75'	32'06'12"	32'06'12"
7+75.00	359.46'	373.50'	33'54'48"	33'54'48"
8+00.00	379.43'	394.25'	35'43'24"	35'43'24"
8+25.00	399.40'	415.00'	37'32'00"	37'32'00"
8+50.00	419.37'	435.75'	39'20'36"	39'20'36"
8+75.00	439.34'	456.50'	41'09'12"	41'09'12"
9+00.00	459.31'	477.25'	42'57'48"	42'57'48"
9+25.00	479.28'	498.00'	44'46'24"	44'46'24"
9+50.00	499.25'	518.75'	46'35'00"	46'35'00"
9+75.00	519.22'	539.50'	48'23'36"	48'23'36"
10+00.00	539.19'	560.25'	50'12'12"	50'12'12"
10+25.00	559.16'	581.00'	52'00'48"	52'00'48"
10+50.00	579.13'	601.75'	53'49'24"	53'49'24"
10+75.00	599.10'	622.50'	55'38'00"	55'38'00"
11+00.00	619.07'	643.25'	57'26'36"	57'26'36"
11+25.00	639.04'	664.00'	59'15'12"	59'15'12"
11+50.00	659.01'	684.75'	61'03'48"	61'03'48"
11+75.00	678.98'	705.50'	62'52'24"	62'52'24"
12+00.00	698.95'	726.25'	64'41'00"	64'41'00"
12+25.00	718.92'	747.00'	66'29'36"	66'29'36"
12+50.00	738.89'	767.75'	68'18'12"	68'18'12"
12+75.00	758.86'	788.50'	70'06'48"	70'06'48"
13+00.00	778.83'	809.25'	71'55'24"	71'55'24"
13+25.00	798.80'	830.00'	73'44'00"	73'44'00"
13+50.00	818.77'	850.75'	75'32'36"	75'32'36"
13+75.00	838.74'	871.50'	77'21'12"	77'21'12"
14+00.00	858.71'	892.25'	79'09'48"	79'09'48"
14+25.00	878.68'	913.00'	80'58'24"	80'58'24"
14+50.00	898.65'	933.75'	82'47'00"	82'47'00"
14+75.00	918.62'	954.50'	84'35'36"	84'35'36"
15+00.00	938.59'	975.25'	86'24'12"	86'24'12"
15+25.00	958.56'	996.00'	88'12'48"	88'12'48"
15+50.00	978.53'	1016.75'	89'51'24"	89'51'24"
15+75.00	998.50'	1037.50'	91'40'00"	91'40'00"
16+00.00	1018.47'	1058.25'	93'28'36"	93'28'36"
16+25.00	1038.44'	1079.00'	95'17'12"	95'17'12"
16+50.00	1058.41'	1099.75'	97'05'48"	97'05'48"
16+75.00	1078.38'	1120.50'	98'54'24"	98'54'24"
17+00.00	1098.35'	1141.25'	100'43'00"	100'43'00"
17+25.00	1118.32'	1162.00'	102'31'36"	102'31'36"
17+50.00	1138.29'	1182.75'	104'20'12"	104'20'12"
17+75.00	1158.26'	1203.50'	106'08'48"	106'08'48"
18+00.00	1178.23'	1224.25'	107'57'24"	107'57'24"
18+25.00	1198.20'	1245.00'	109'46'00"	109'46'00"
18+50.00	1218.17'	1265.75'	111'34'36"	111'34'36"
18+75.00	1238.14'	1286.50'	113'23'12"	113'23'12"
19+00.00	1258.11'	1307.25'	115'11'48"	115'11'48"
19+25.00	1278.08'	1328.00'	117'00'24"	117'00'24"
19+50.00	1298.05'	1348.75'	118'49'00"	118'49'00"
19+75.00	1318.02'	1369.50'	120'37'36"	120'37'36"
20+00.00	1337.99'	1390.25'	122'26'12"	122'26'12"
20+25.00	1357.96'	1411.00'	124'14'48"	124'14'48"
20+50.00	1377.93'	1431.75'	126'03'24"	126'03'24"
20+75.00	1397.90'	1452.50'	127'52'00"	127'52'00"
21+00.00	1417.87'	1473.25'	129'40'36"	129'40'36"
21+25.00	1437.84'	1494.00'	131'29'12"	131'29'12"
21+50.00	1457.81'	1514.75'	133'17'48"	133'17'48"
21+75.00	1477.78'	1535.50'	135'06'24"	135'06'24"
22+00.00	1497.75'	1556.25'	136'55'00"	136'55'00"
22+25.00	1517.72'	1577.00'	138'43'36"	138'43'36"
22+50.00	1537.69'	1597.75'	140'32'12"	140'32'12"
22+75.00	1557.66'	1618.50'	142'20'48"	142'20'48"
23+00.00	1577.63'	1639.25'	144'09'24"	144'09'24"
23+25.00	1597.60'	1660.00'	145'58'00"	145'58'00"
23+50.00	1617.57'	1680.75'	147'46'36"	147'46'36"
23+75.00	1637.54'	1701.50'	149'35'12"	149'35'12"
24+00.00	1657.51'	1722.25'	151'23'48"	151'23'48"
24+25.00	1677.48'	1743.00'	153'12'24"	153'12'24"
24+50.00	1697.45'	1763.75'	155'01'00"	155'01'00"
24+75.00	1717.42'	1784.50'	156'49'36"	156'49'36"
25+00.00	1737.39'	1805.25'	158'38'12"	158'38'12"
25+25.00	1757.36'	1826.00'	160'26'48"	160'26'48"
25+50.00	1777.33'	1846.75'	162'15'24"	162'15'24"
25+75.00	1797.30'	1867.50'	164'04'00"	164'04'00"
26+00.00	1817.27'	1888.25'	165'52'36"	165'52'36"
26+25.00	1837.24'	1909.00'	167'41'12"	167'41'12"
26+50.00	1857.21'	1929.75'	169'29'48"	169'29'48"
26+75.00	1877.18'	1950.50'	171'18'24"	171'18'24"
27+00.00	1897.15'	1971.25'	173'07'00"	173'07'00"
27+25.00	1917.12'	1992.00'	174'55'36"	174'55'36"
27+50.00	1937.09'	2012.75'	176'44'12"	176'44'12"
27+75.00	1957.06'	2033.50'	178'32'48"	178'32'48"
28+00.00	1977.03'	2054.25'	180'21'24"	180'21'24"
28+25.00	1997.00'	2075.00'	182'10'00"	182'10'00"
28+50.00	2016.97'	2095.75'	183'58'36"	183'58'36"
28+75.00	2036.94'	2116.50'	185'47'12"	185'47'12"
29+00.00	2056.91'	2137.25'	187'35'48"	187'35'48"
29+25.00	2076.88'	2158.00'	189'24'24"	189'24'24"
29+50.00	2096.85'	2178.75'	191'13'00"	191'13'00"
29+75.00	2116.82'	2199.50'	193'01'36"	193'01'36"
30+00.00	2136.79'	2220.25'	194'50'12"	194'50'12"
30+25.00	2156.76'	2241.00'	196'38'48"	196'38'48"
30+50.00	2176.73'	2261.75'	198'27'24"	198'27'24"
30+75.00	2196.70'	2282.50'	200'16'00"	200'16'00"
31+00.00	2216.67'	2303.25'	202'04'36"	202'04'36"
31+25.00	2236.64'	2324.00'	203'53'12"	203'53'12"
31+50.00	2256.61'	2344.75'	205'41'48"	205'41'48"
31+75.00	2276.58'	2365.50'	207'30'24"	207'30'24"
32+00.00	2296.55'	2386.25'	209'19'00"	209'19'00"
32+25.00	2316.52'	2407.00'	211'07'36"	211'07'36"
32+50.00	2336.49'	2427.75'	212'56'12"	212'56'12"
32+75.00	2356.46'	2448.50'	214'44'48"	214'44'48"
33+00.00	2376.43'	2469.25'	216'33'24"	216'33'24"
33+25.00	2396.40'	2490.00'	218'22'00"	218'22'00"
33+50.00	2416.37'	2510.75'	220'10'36"	220'10'36"
33+75.00	2436.34'	2531.50'	221'59'12"	221'59'12"
34+00.00	2456.31'	2552.25'	223'47'48"	223'47'48"
34+25.00	2476.28'	2573.00'	225'36'24"	225'36'24"
34+50.00	2496.25'	2593.75'	227'25'00"	227'25'00"
34+75.00	2516.22'	2614.50'	229'13'36"	229'13'36"
35+00.00	2536.19'	2635.25'	231'02'12"	231'02'12"
35+25.00	2556.16'	2656.00'	232'50'48"	232'50'48"
35+50.00	2576.13'	2676.75'	234'39'24"	234'39'24"
35+75.00	2596.10'	2697.50'	236'28'00"	236'28'00"
36+00.00	2616.07'	2718.25'	238'16'36"	238'16'36"
36+25.00	2636.04'	2739.00'	240'05'12"	240'05'12"
36+50.00	2656.01'	2759.75'	241'53'48"	241'53'48"
36+75.00	2676.98'	2780.50'	243'42'24"	243'42'24"
37+00.00	2696.95'	2801.25'	245'31'00"	245'31'00"
37+25.00	2716.92'	2822.00'	247'19'36"	247'19'36"
37+50.00	2736.89'	2842.75'	249'08'12"	249'08'12"
37+75.00	2756.86'	2863.50'	250'56'48"	250'56'48"
38+00.00	2776.83'	2884.25'	252'45'24"	252'45'24"
38+25.00	2796.80'	2905.00'	254'34'00"	254'34'00"
38+50.00	2816.77'	2925.75'		