

GENERAL NOTES:

1. Contractor will be required to provide notice to utility companies a minimum of twenty-four (24) hours prior to any excavation, as follows:

Kansas One-Call 687-2470

The Contractor must notify the following in case of an emergency:

Cox Communications 262-4270
 Kansas Gas Service 1-888-482-4950
 Westar Energy 383-8650
 Aquila Energy 1-800-303-0357
 SBC 268-2243
 City of Wichita Water Dept. 268-4563
 City of Wichita Sewer Maint. 268-4024
 City of Wichita Storm Sewer Maint. 268-4080
 City of Wichita Traffic Maint. 268-4034
 Conoco Pipeline Co. 1-800-231-2551
 Southern Star Pipeline Co. 529-6600
 Phillips Pipeline Co. 1-800-786-8230
 Jayhawk Pipeline Co. 1-888-542-9575

2. Utility service lines, poles, valve boxes, meters, and structures are to be adjusted as necessary by others prior to construction unless the plans specifically call for their adjustment by the Contractor or unless the plans specifically identify a utility to be adjusted by its owner during construction. Existing utilities and their location, as shown on the plans, represent the best information obtainable for design. The Contractor will be required to work around existing utilities within the right-of-way which do not conflict with proposed construction.

3. Rubble from the removal of miscellaneous structures and excess excavation which is to be wasted shall be disposed of on sites to be provided by the Contractor. These sites shall be approved by the Engineer as to suitability, appearance and site location. Locations, in the opinion of the Engineer, that will leave an unsightly appearance will not be approved. All disposal sites must be approved by the Kansas Department of Health and Environment. Material either stockpiled or disposed of in a flood plain would require a Kansas State Board of Agriculture permit. Any material dumped in waters of the United States or wetlands is subject to U.S. Corps of Engineers permitting regulations. Any material buried or stockpiled beyond approved construction limits would require additional archaeological investigations unless buried in a previously approved borrow location.

4. Trees and shrubs in public right-of-way which are in direct conflict with proposed new construction shall be removed by the Contractor with the Engineer's approval. Trees and shrubs which are not in direct conflict with proposed new construction shall be saved and protected from damage.

5. The Contractor shall give all property owners and/or tenants of developed property abutting the construction of this project a minimum of ten (10) days advance notice prior to start of construction.

6. The Contractor shall be responsible for preserving property irons. The Contractor will be required to re-establish any property irons which are damaged or destroyed by his construction operations. Such irons shall be re-established by a licensed land surveyor in accordance with state laws.

7. All existing and proposed erosion control measures including silt fencing, erosion control mat, straw bales, inlet barriers, and const. entrance shall be maintained throughout construction by the contractor and until project is accepted by the City of Wichita. The on-site engineer shall complete weekly reports on the status of erosion control measures. The contractor shall be required to comply with maintenance and/or replacement of erosion control measures as determined by the on-site engineer until project is accepted by City of Wichita. Maintenance and/or replacement of erosion control measures to be paid by L.S. bid item "Site Clearing & Restoration"

8. All excess excavation shall remain on-site and shall be stockpiled or spread at a location determined by the engineer.

9. The Contractor shall adjust water valve boxes and fire hydrants as directed by the Engineer at the price bid for said adjustments. The Water Department shall field locate water valves one time during construction when requested by Contractor. It shall be the Contractor's responsibility to preserve such field locations during the construction process. Water valves, water valve boxes or fire hydrants damaged during construction shall be repaired by the Contractor at his own expense.

10. All water mains and appurtenances shall be installed in accordance with City of Wichita, Kansas Standard Specifications for Water Main Installations.

11. Opening and closing of water valves shall be done slowly to prevent damage to the water distributions system from water hammer. All valves closed by the contractor must be reopened as new construction permits. Project Inspector must ascertain that any valve closed by the Contractor is reopened. Contractor will be permitted to operate water valves only when the project inspector assigned to the project is present.

12. All areas disturbed within Maize Rd. R/W during construction shall be seeded, mulched, and fertilized as follows (Permanent Seeding):

Seed: Kansas Premium Fescue Blend: 8 lbs./1000 sq. ft.
 Mulch: Prairie Hay 2 tons/acre
 Fertilizer: 12-24-12: 850 lbs./acre

All other areas disturbed during construction shall be seeded at 300 lbs./acre with Rye Grass immediately following construction in that area. Contractor shall prepare ground per City Specifications. All seeding operations shall conform to City of Wichita Standard Specifications. All costs associated with seeding, mulching, and fertilizing shall be included in bid item "Project Seeding."

13. The developer for this project is Matt Lillie, and may be contacted at (316) 773-1313.

WATER DISTRIBUTION SYSTEM to serve LILLIE 2ND ADDITION CITY OF WICHITA, KANSAS

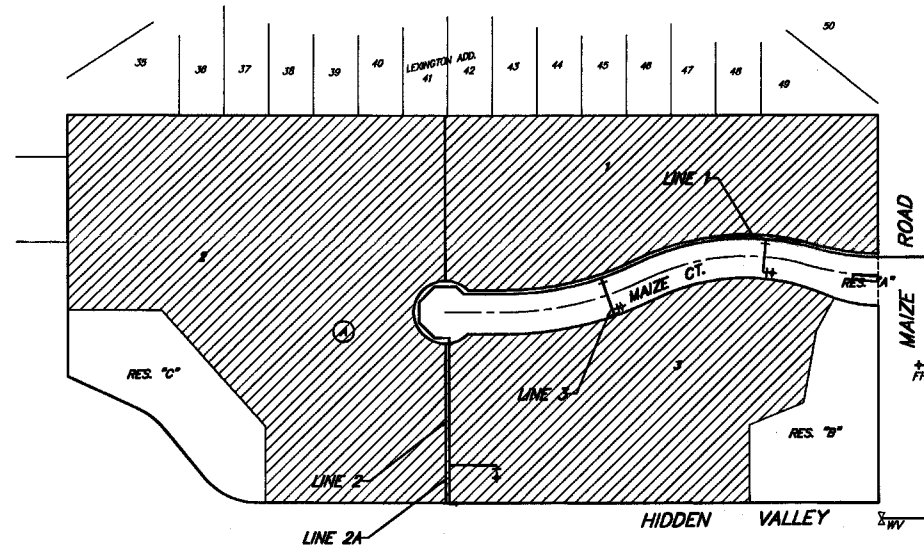
James L. Armour, P.E. City Engineer

Project Number

448-90116

O.C.A. Number

735343



Benchmarks

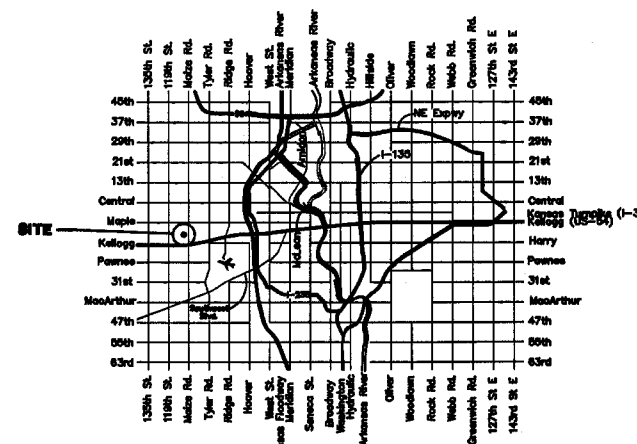
City Disc - Maize Road & McCormick (Hidden Valley) 0.5 MI. South of Maple on the NE Corner of R.C.B.C. Over Cowskin Creek, South of Hidden Valley Elev. = 1318.93 City Datum (1318.93 NGVD29)

Scale: 1" = 150'

Sheet Index

Title Sheet	1
Water Detail Sheet	2
Line 1	3-4
Line 2	4
Line 2A & 3	5
Coordinate Sheet	6
Erosion Control Plan	7
Erosion Control Details	8-11
Copy of Plat	12

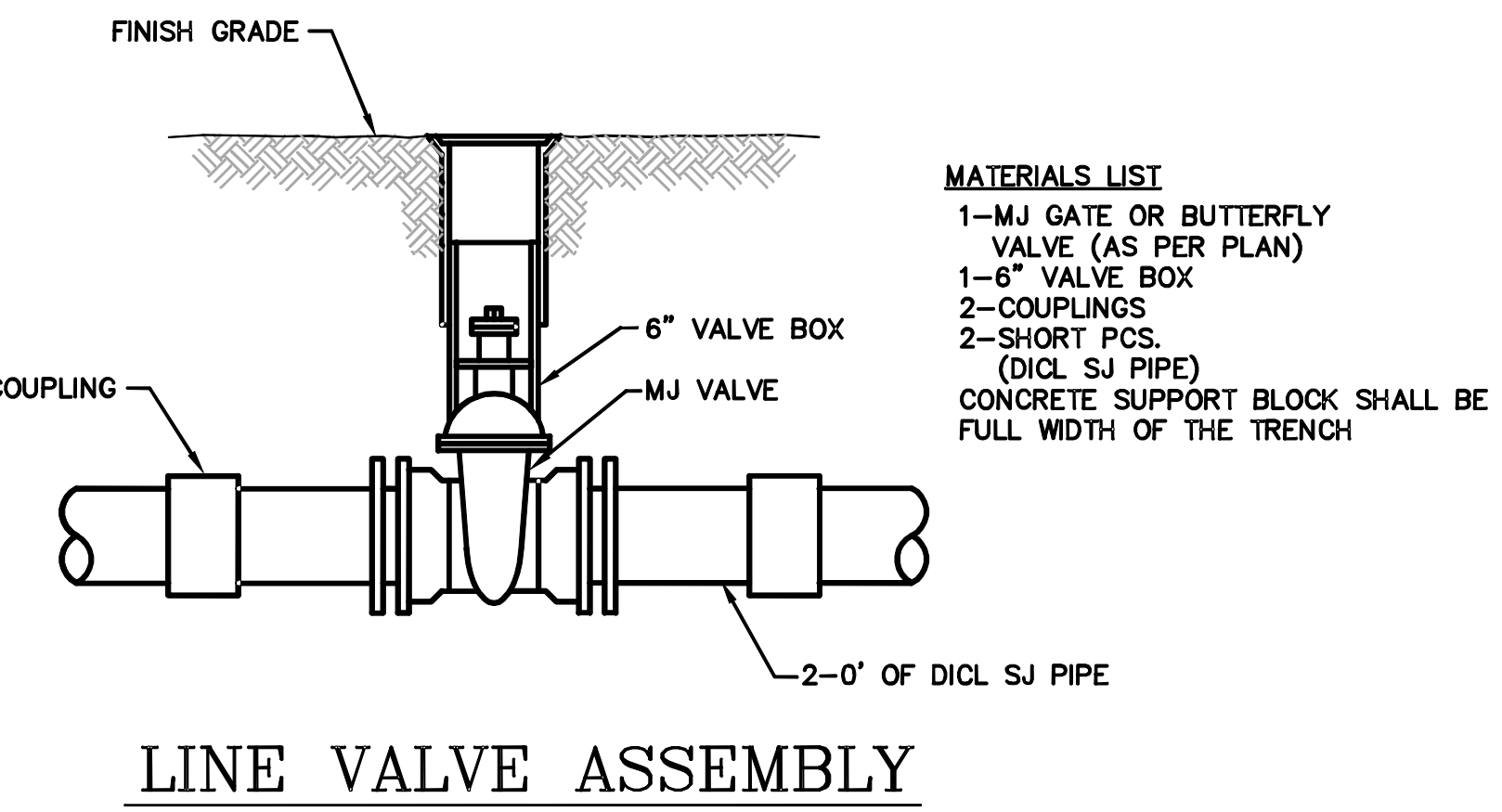
Benefit District



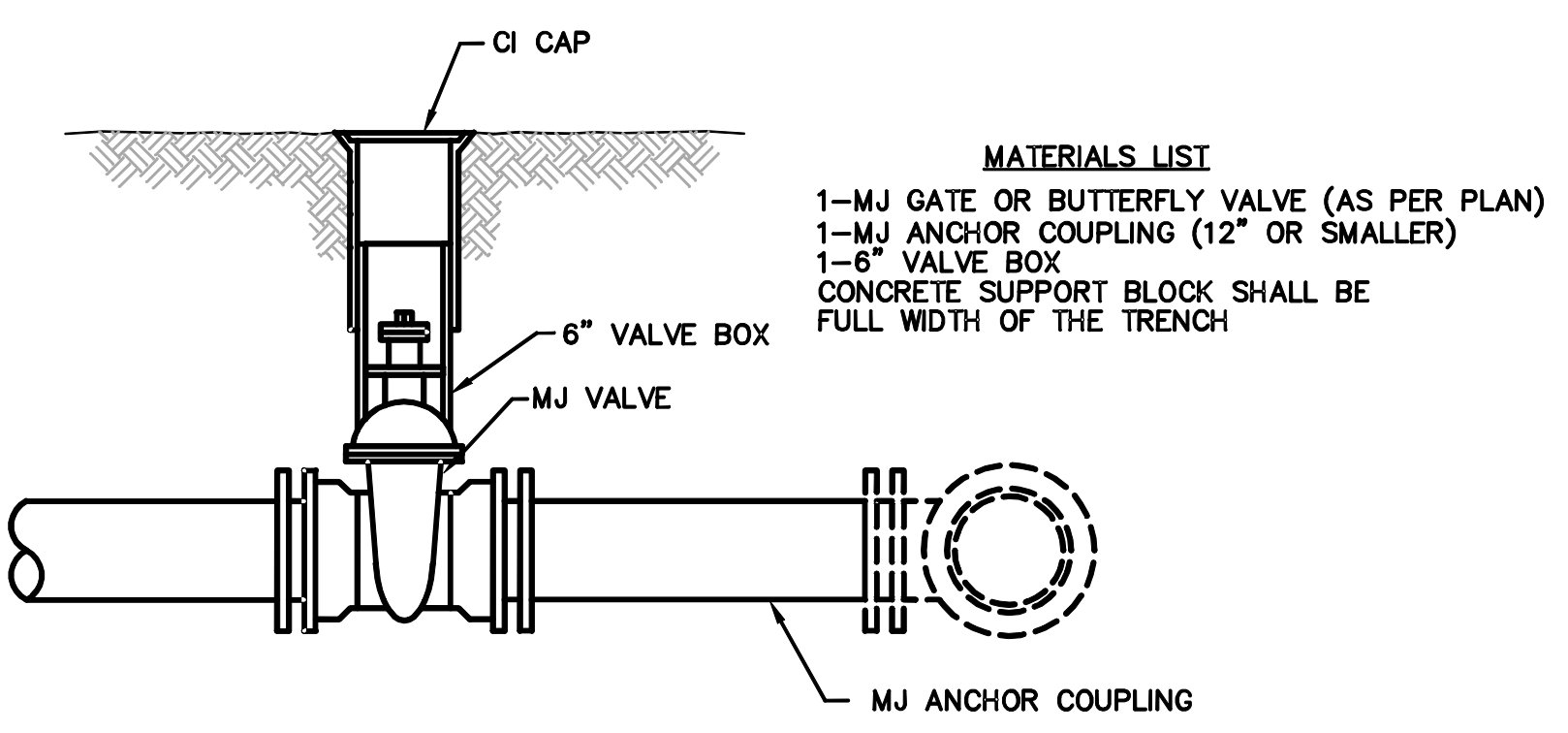
Vicinity Map



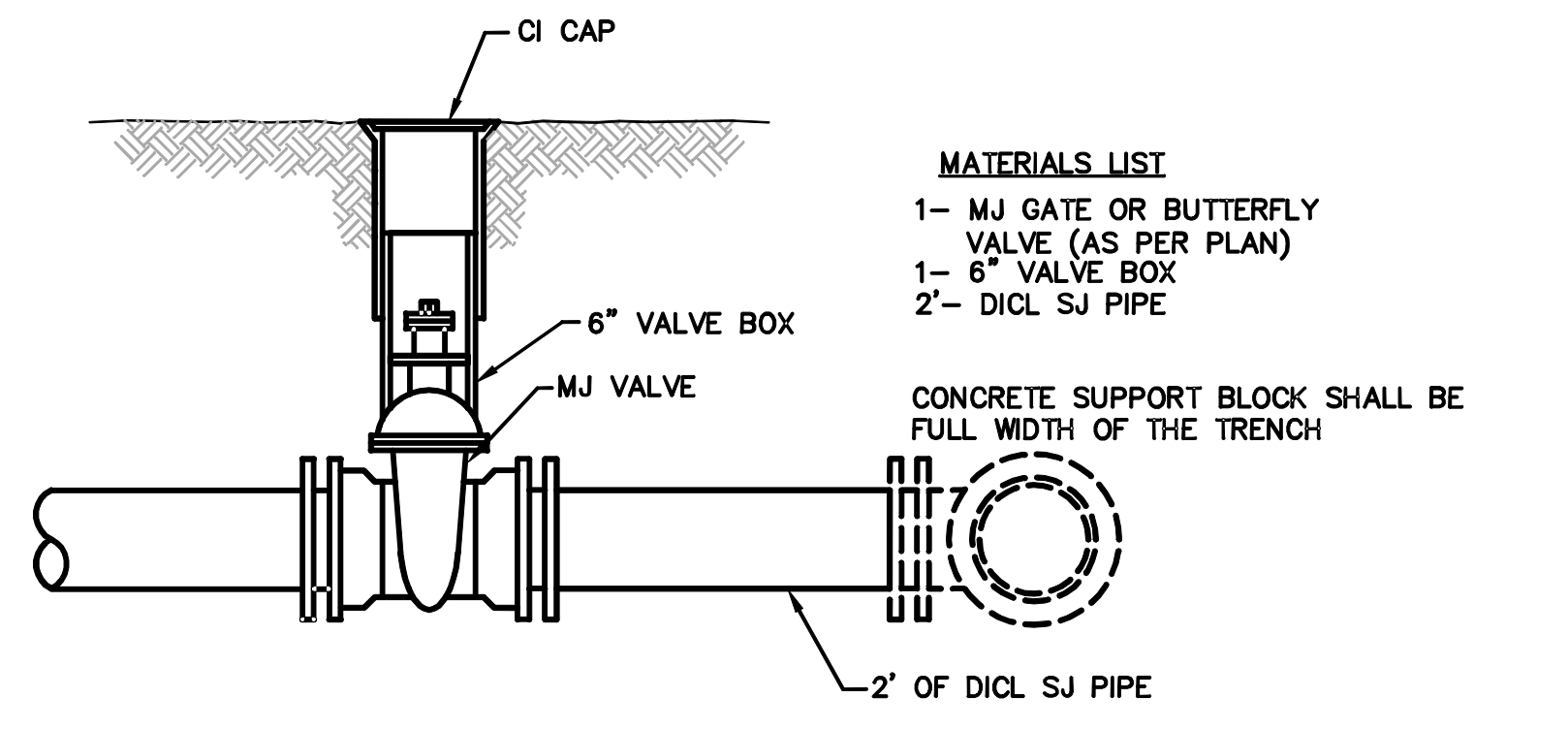
Baughman Company, P.A. 315 Ellis St. Wichita, KS 67211 P 316-262-7271 F 316-262-0145
 ENGINEERING | SURVEYING | PLANNING | LANDSCAPE ARCHITECTURE



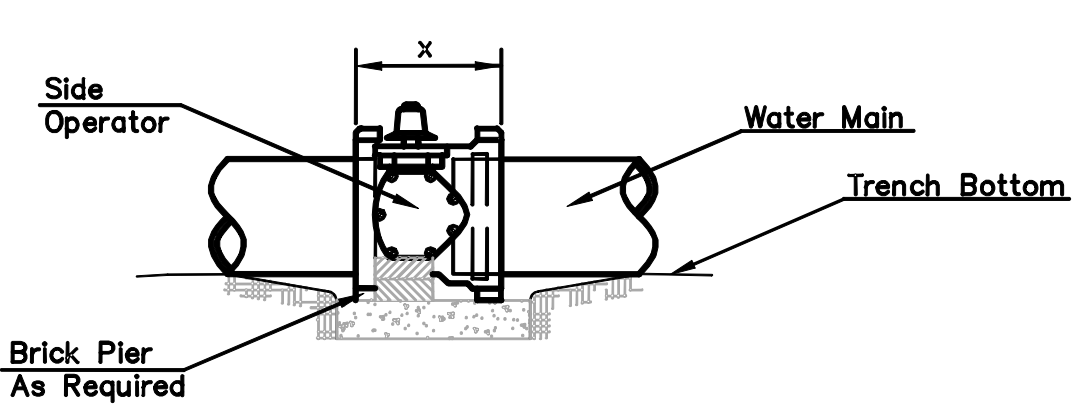
LINE VALVE ASSEMBLY



ANCHORED VALVE ASSEMBLY

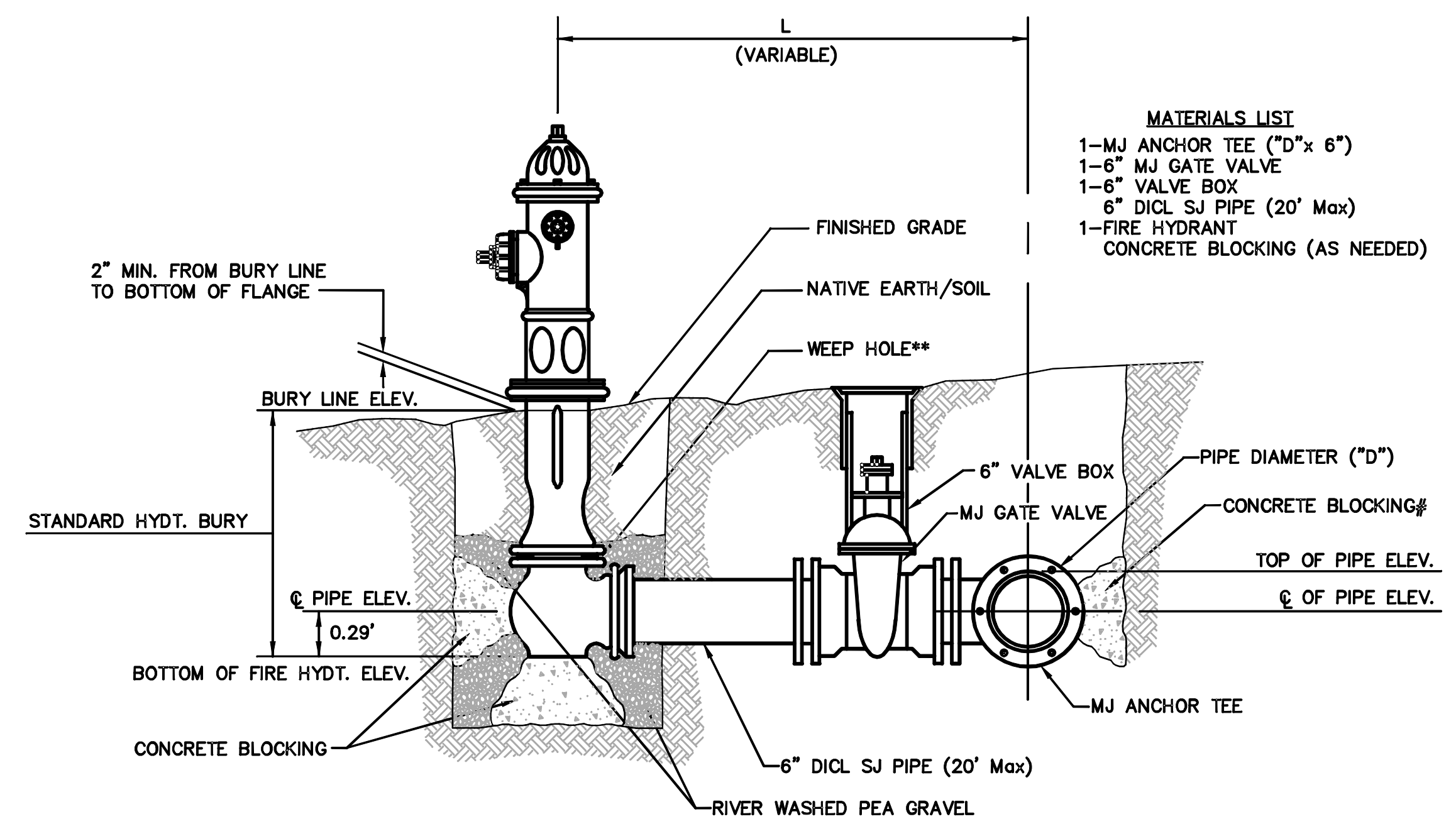


VALVE ASSEMBLY



NOTES

- This detail covers Butterfly Valve installation, inclusive, regardless of type of pipe or joint used. Larger lines to be detailed on plans.
- 6" Valve Box and Cover required per City of Wichita Std. Specifications.
- Conc. Support Block to be full width of trench.

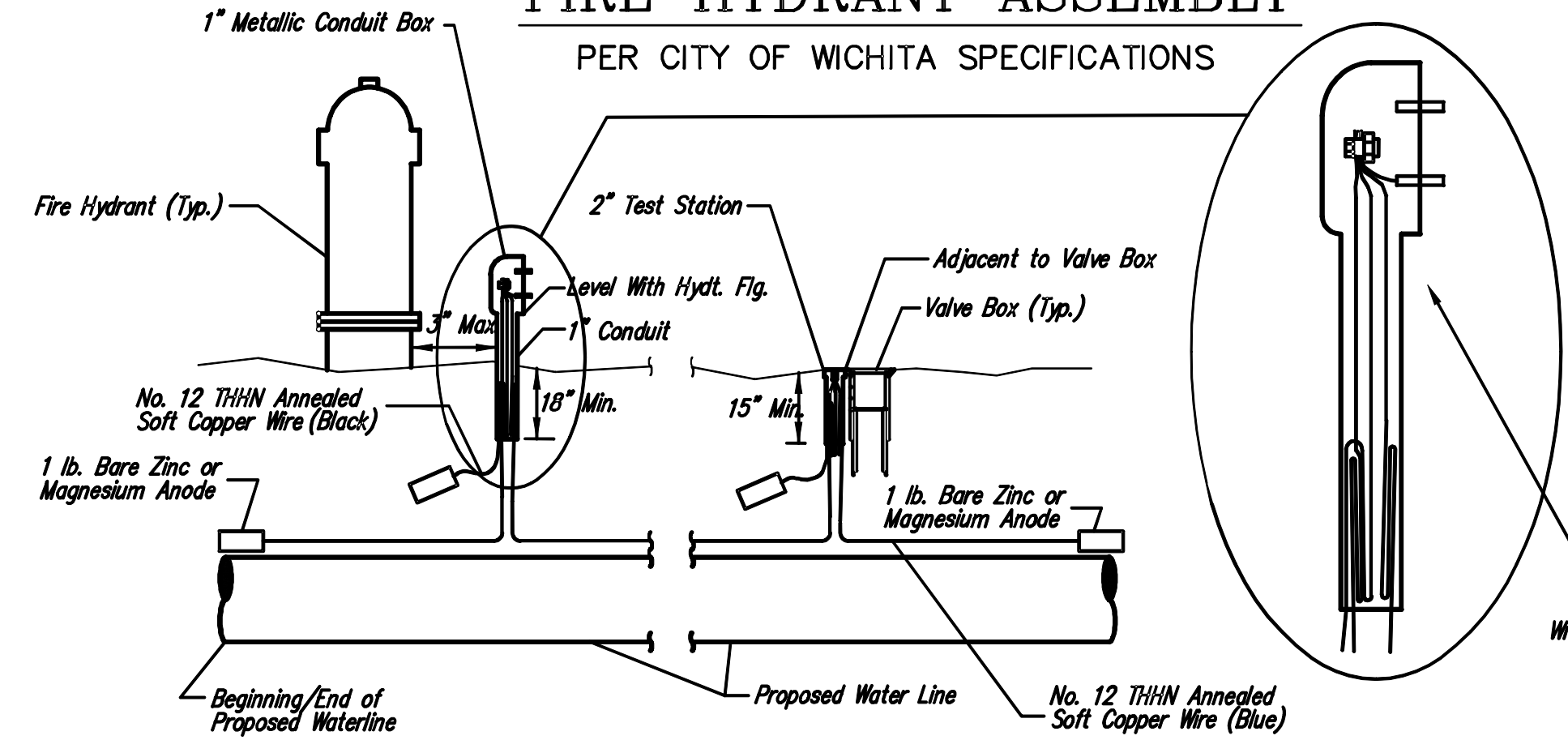


FIRE HYDRANTS REQUIRED

LINE	STATION	BURY LINE ELEVATION	TOP OF PIPE ELEVATION	FIRE HYDRANT BURY REQUIRED*
1	2+63.34	1324.30	1320.34	5.0'
2	2+74.24	1325.90	1323.00	4.0'
3	0+53.50	1325.00	1320.00	5.5'

** CAUTION! WEEP HOLES TO BE KEPT CLEAR DURING CONSTRUCTION AND BACKFILL. CONCRETE FOR THRUST BLOCKING SHALL NOT OBSTRUCT WEEP HOLES.
 # CONCRETE THRUST BLOCKING SHALL BE KEPT CLEAR OF BOLTS, NUTS, AND MJ ACCESSORIES.
 * IF HYDRANT BURY IS IN EXCESS OF 5', CONTRACTOR SHALL USE STANDARD 5' HYDRANT BURY AND HYDRANT BARREL EXTENSIONS AS NECESSARY.

FIRE HYDRANT ASSEMBLY
 PER CITY OF WICHITA SPECIFICATIONS



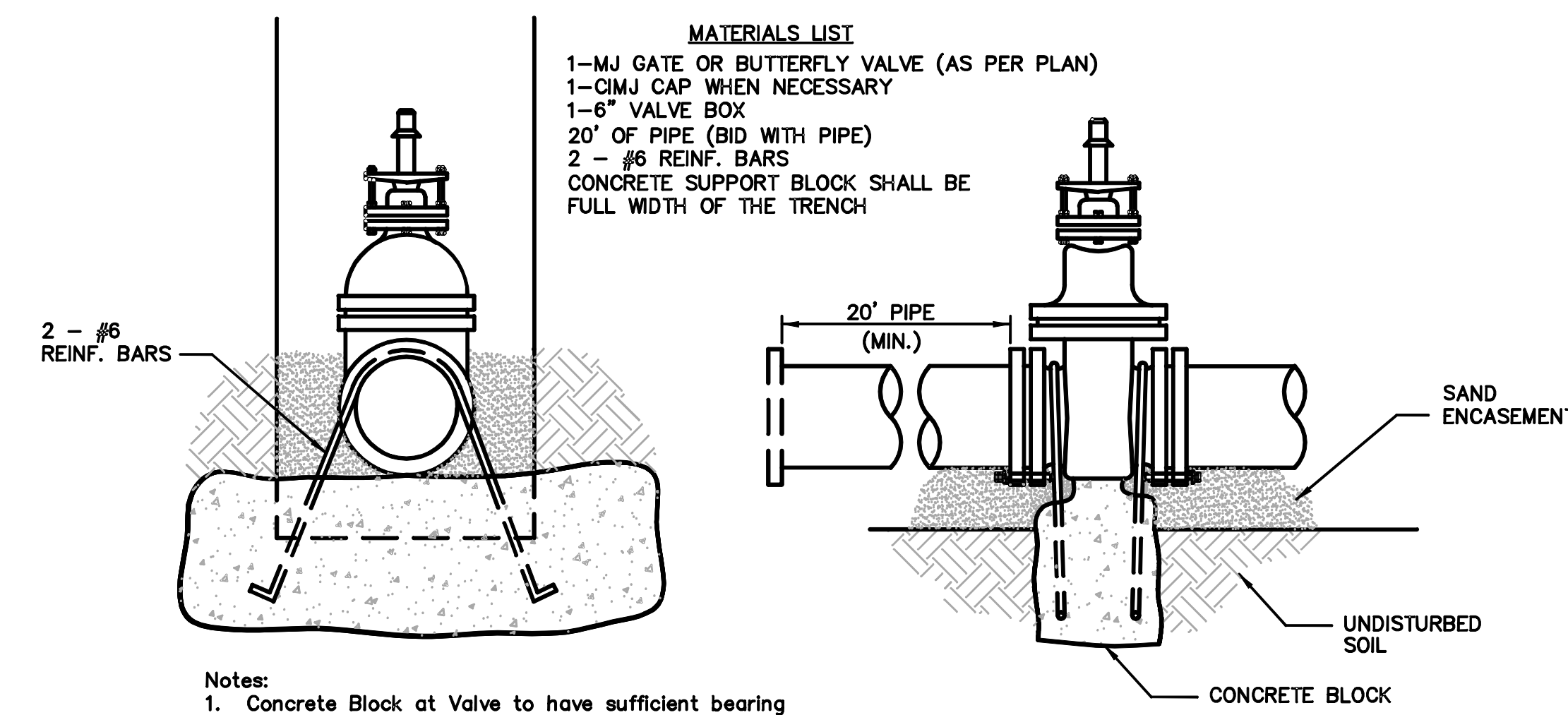
TRACER WIRE
 Conductive type pipe locator/tracer wire shall be installed to locate all waterline pipe regardless of pipe material. The wire shall extend the entire length of the proposed pipe. The wire shall be taped to the waterline and pulled with the pipe. Split-bolt connectors shall be used at splice locations. Electrical tape shall cover all splices so no bare wire is exposed. Test stations shall be installed adjacent to all fire hydrants along the waterline and at blowoffs or valves near the ends of the waterlines. Any exceptions to the location of test stations shall be approved by the engineer. At each test station, the tracer wire shall be connected to a 1 lb. Zinc or magnesium anode. Anodes shall also be attached to the tracer wire at both the beginning and the end of the proposed waterline. A typical layout of the tracer wire and test station is provided in the above figure.

WIRE
 The tracer wire shall be Blue No. 12 THHN annealed soft copper wire with thermal plastic insulation. The insulation shall be heat, oil, and gasoline resistant as manufactured by Temple Electric or approved equal. To allow for grade adjustment, a minimum of 12" of excess wire shall be coiled at the bottom of the test station for all wires. The insulation sheathing shall be removed such that 1" bare copper wire is exposed at all points of connection. Contractor shall attach wire being installed with proposed water main to any tracer wire installed with adjacent waterline projects.

TEST STATIONS
 The test station for fire hydrant applications shall be a 1 inch galvanized conduit style test station as manufactured by AGRA Industries with a removable solid cover having two leads extending from the face or approved equal. The test station for valve applications shall be 2 inch flush style test station T2PS3B as manufactured by HANDLEY Industries or approved equal. The conduit style shall be attached to a 1 inch rigid galvanized conduit with a minimum length of 36" and plastic end bushing. The flush style shall have the word "WATER" stamped or molded into the lid. All test stations shall be manufactured using molded blue tops or sufficiently coated with blue enamel paint. The tracer wire and the anode wire shall be installed to allow 10 inches of wire within the test station. In concrete environments such as sidewalks or in the downtown area the contractor shall use the flush style test station. The location of all test stations shall be approved by the engineer, recorded, and shown in the as-built drawings.

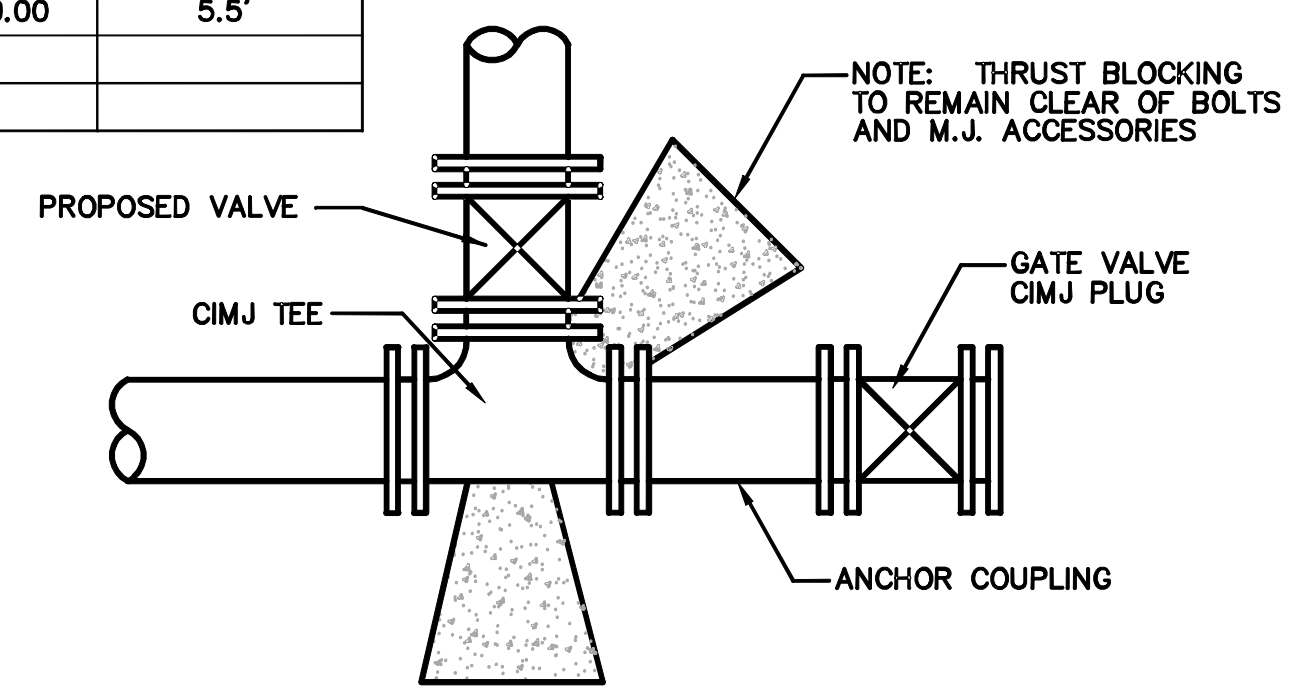
ANODES
 The anodes shall be 1 lb. bare zinc or magnesium. The anodes shall be buried at the same elevation as the waterline at each test station. The anodes shall be connected to Black No. 12 THHN annealed soft copper wire which shall be extended to the test station.

TRACER WIRE DETAIL
 COST IS SUBSIDIARY TO PIPE INSTALLATION

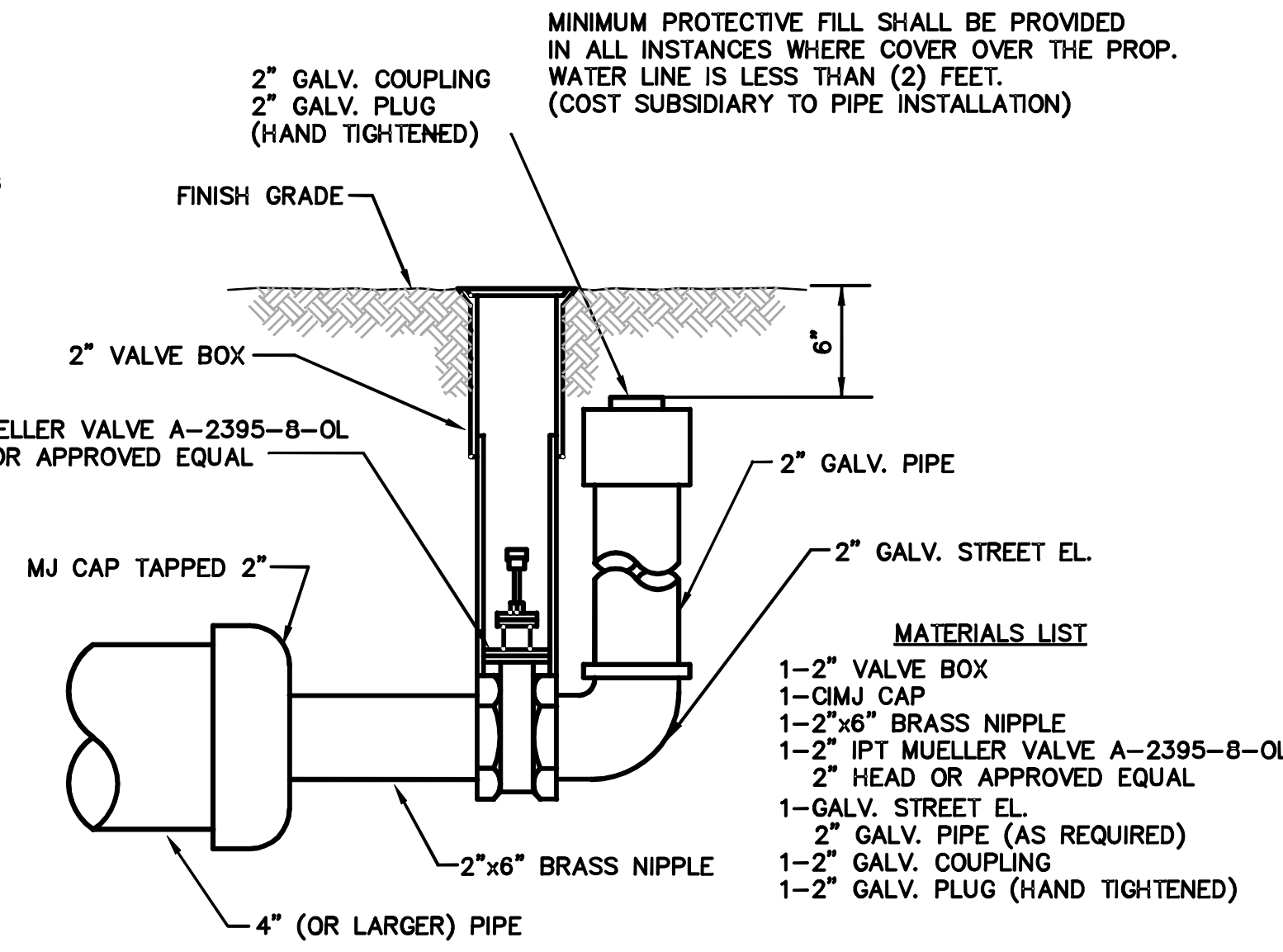
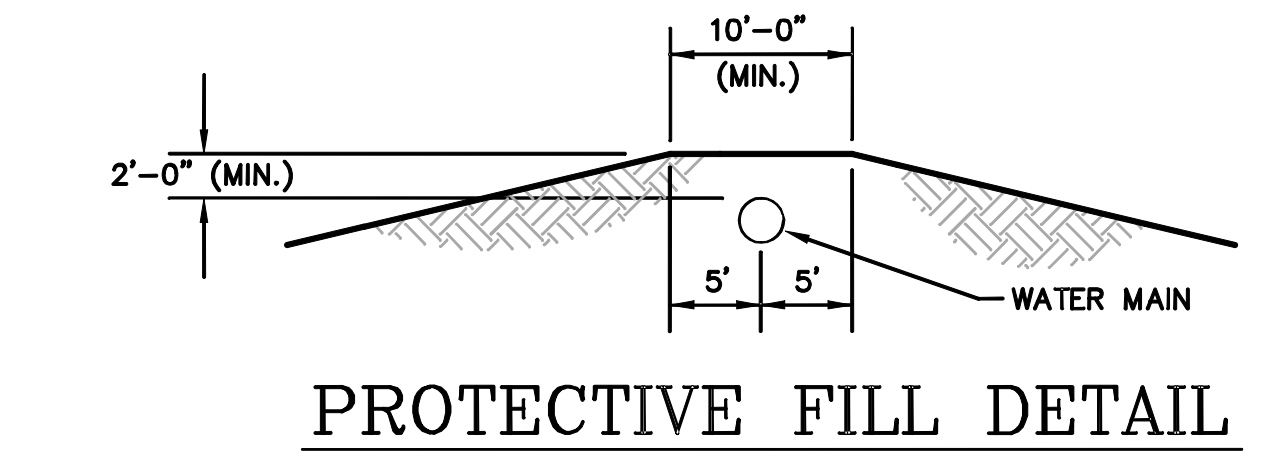


Notes:
 1. Concrete Block at Valve to have sufficient bearing in undisturbed soil to prevent thrust movement as shown in table at right. Field Engineer to determine thrust loading of undisturbed soil and final size of thrust block.
 2. The thrust block shall be constructed such that bolts, nuts, and other MJ accessories are kept clear of concrete.
 3. All valves at dead ends and at other locations as called out on the plans shall be blocked as shown here.

ANCHORED VALVE ASSEMBLY, SPECIAL



KEY BLOCK DETAIL



2" BLOWOFF ASSEMBLY

CONCRETE SUPPORT BLOCKING FOR BUTTERFLY VALVE INSTALLATION

Revised: 6-7-00, MCG

THE CITY OF WICHITA

STANDARD WATER ASSEMBLY DETAILS

JAMES L. ARMOUR, P.E. - CITY ENGINEER

CITY ENGINEER'S OFFICE
 156 NORTH MAIN STREET
 WICHITA, KANSAS 67202
 (316) 268-4501
 (316) 268-4114 FAX

PROJECT NUMBER 448-90116	INDEX CODE 735343
DATE SEP 2004	SHEET 2 OF 12

City Disc - Maize Road & McCormick (Hidden Valley) 0.5 Mi. South of Maple on the NE Corner of R.C.B.C Over Cowskin Creek, South of Hidden Valley Elev. = 1318.93 City Datum (1318.93 NGVD29)

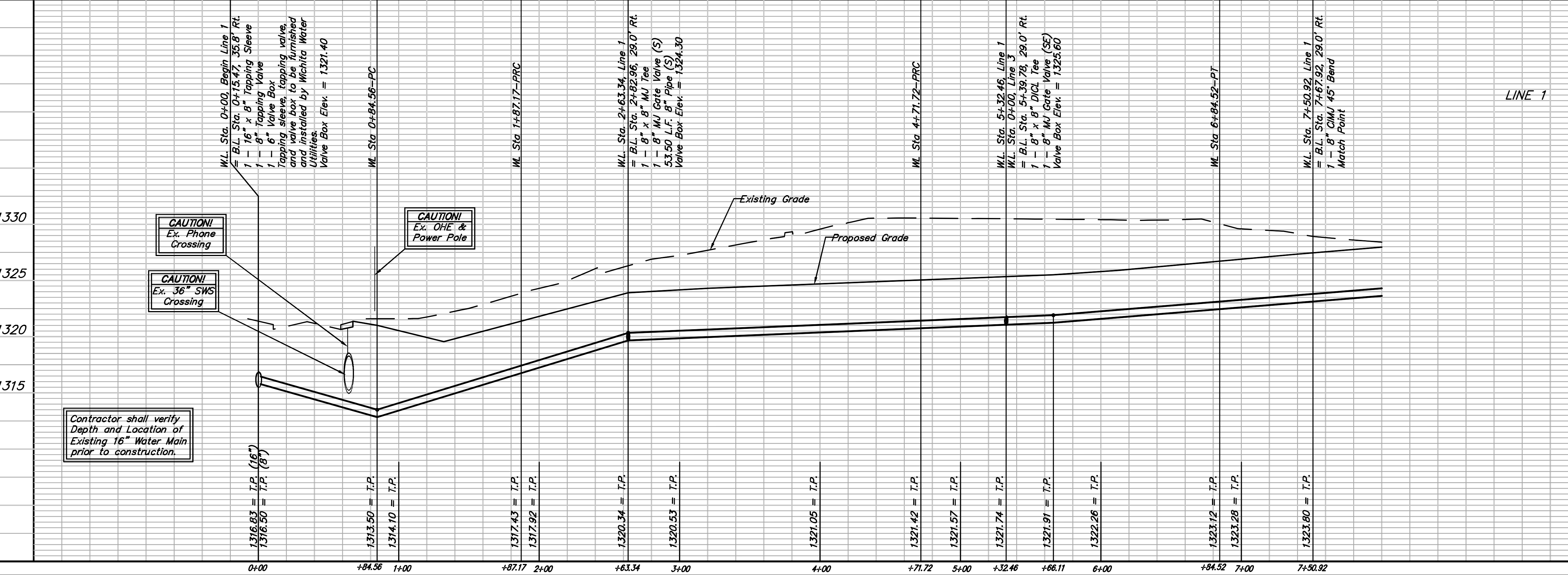
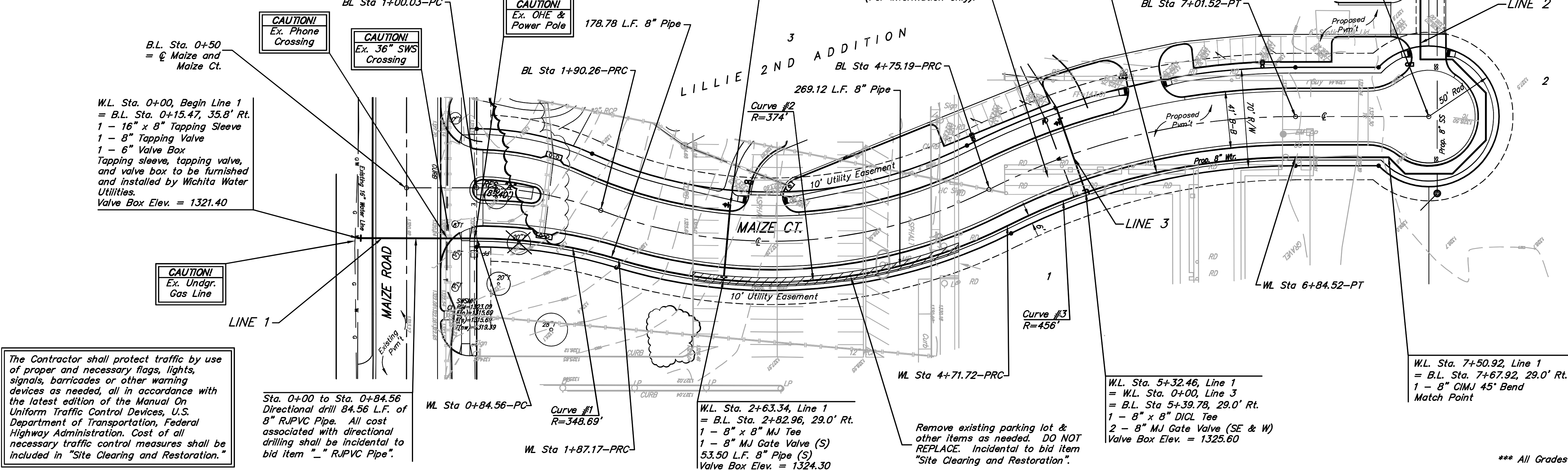
W.L. Sta. 2+63.34, Line 1 = B.L. Sta. 2+82.96, 24.5' Lt. 1 - FH Assy. L = 3.50' Bury Line Elev. = 1324.30 Valve Box Elev. = 1324.30 1 - 8" MJ Plug (S)

Scale: 1" = 40' Horizontal
1" = 5' Vertical
• = Iron

B.L. Sta. = Centerline of Maize Court

See Curve Tables on Sheet 5 of 12.

*** All Grades are to Top of Pipe unless noted otherwise ***

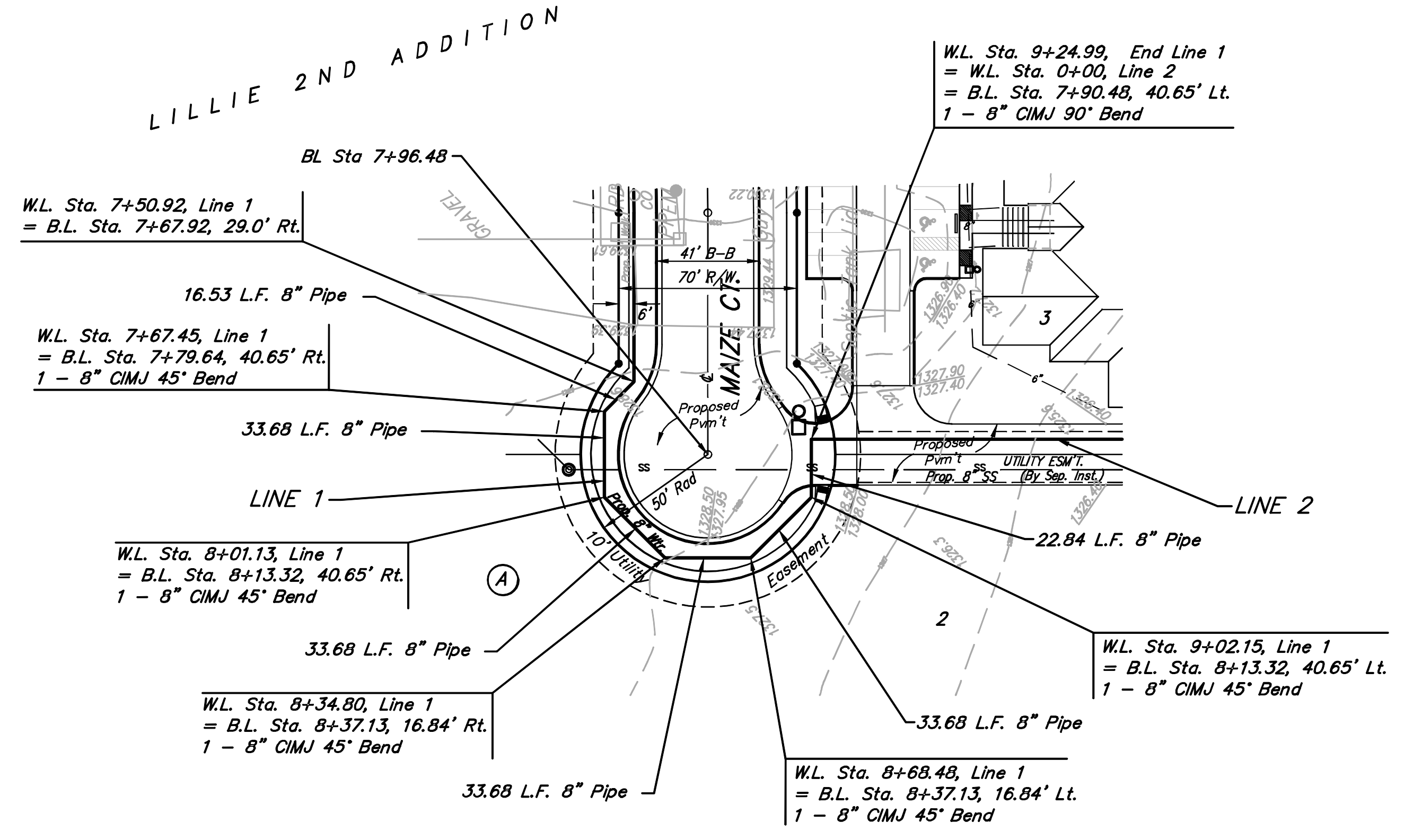


Baughman		Lillie 2nd Addition Line 1 Water Line Improvements	
Baughman Company, P.A. 315 Ellis St. Wichita, KS 67211 P 316-262-7271 F 316-262-0149 ENGINEERING SURVEYING PLANNING LANDSCAPE ARCHITECTURE			
PROJECT NUMBER 448-90116	DESIGN MWS	DRAWN MWS	DATE 06/07
REVISIONS	APPROVED	SCALE Noted	SHEET
			3 OF 12
E:\eng\Lillie Office Park\wtr1.dwg			06-06-E586

City Disc - Maize Road & McCormick
 (Hidden Valley) 0.5 Mi. South of Maple
 on the NE Corner of R.C.B.C Over
 Cowskin Creek, South of Hidden Valley
 Elev. = 1318.93 City Datum (1318.93
 NGVD29)

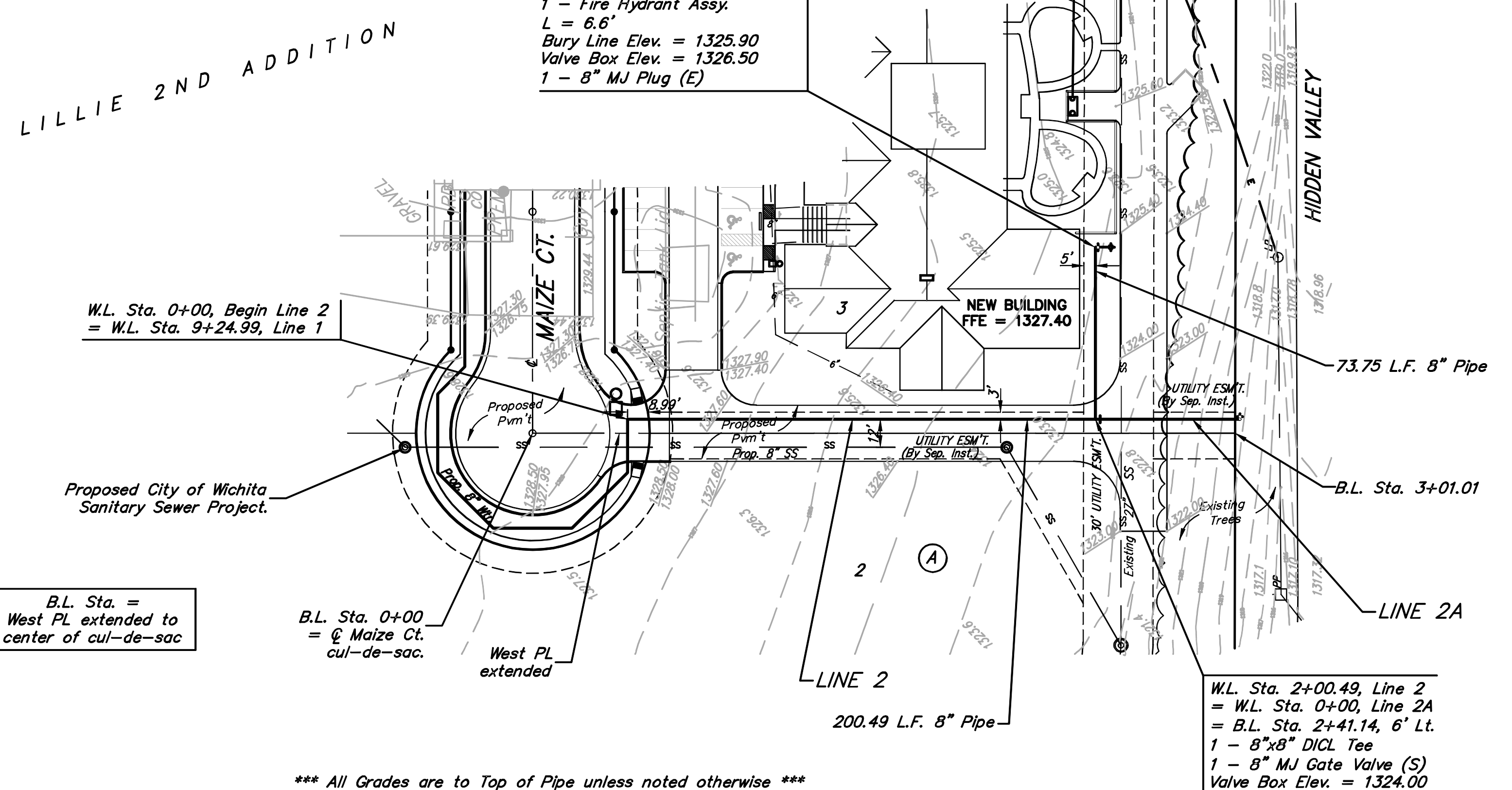
B.L. Sta. =
 Centerline of Maize
 Court

Scale: 1" = 40' Horizontal
 1" = 5' Vertical
 • = Iron

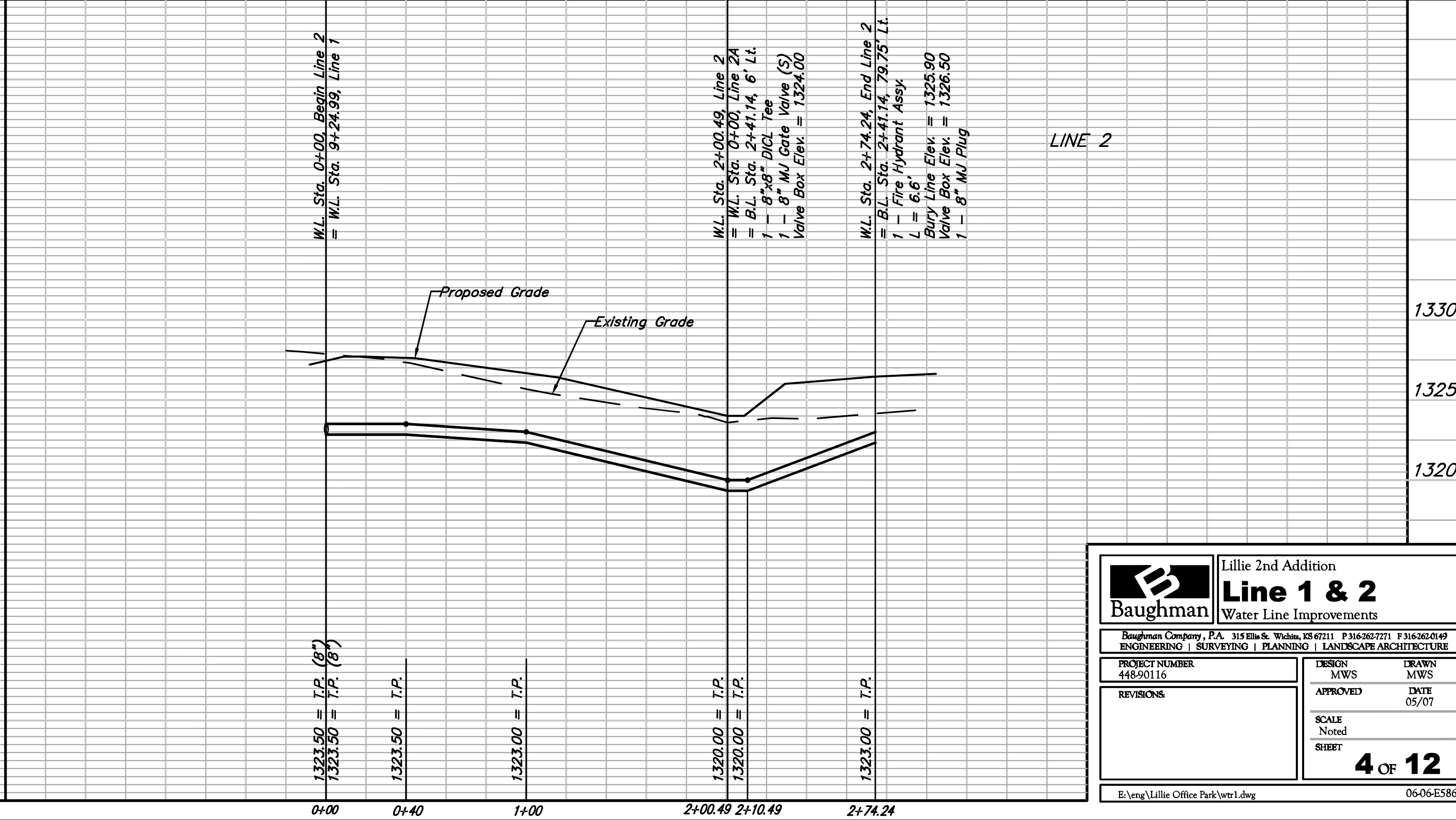
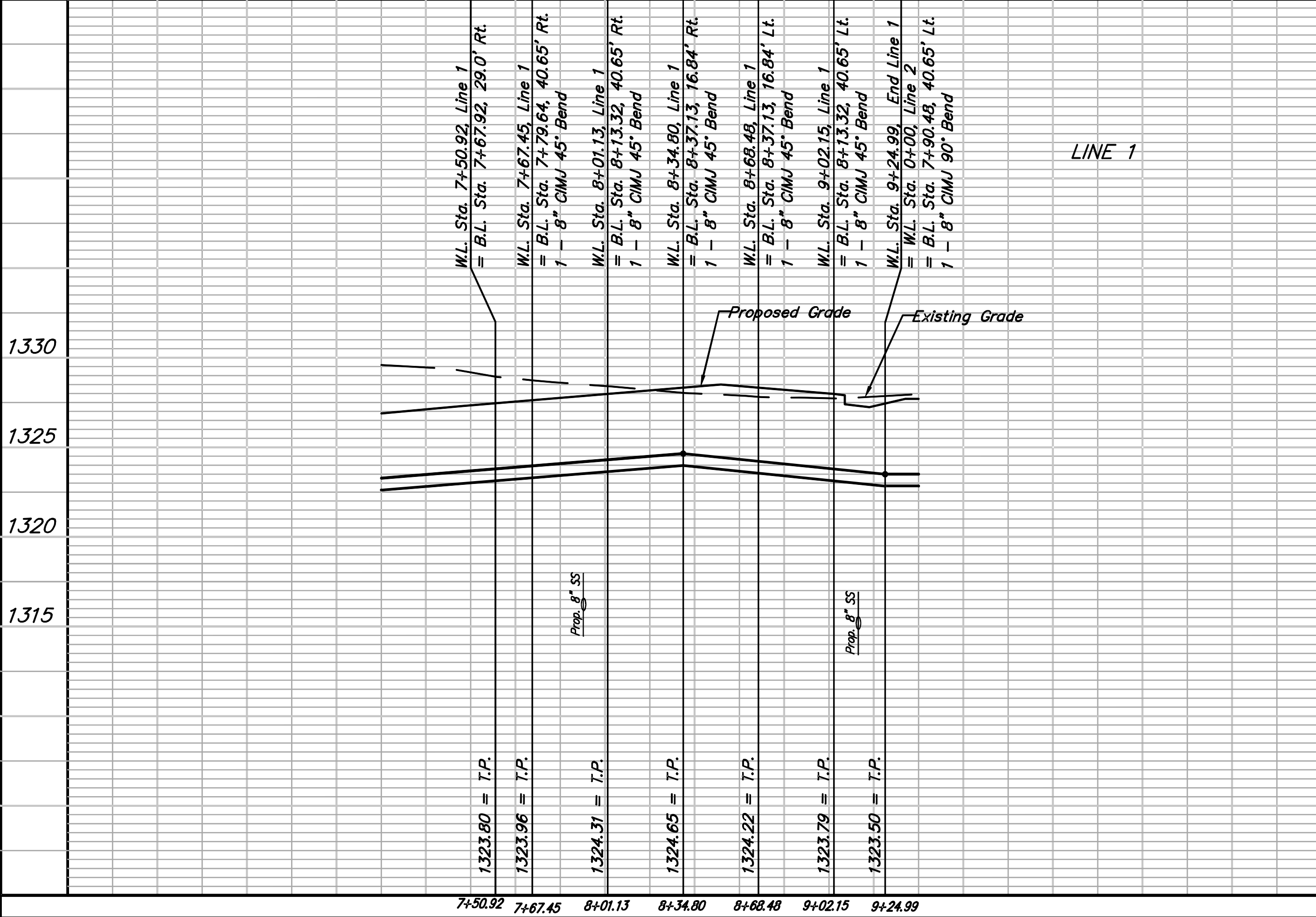


*** All Grades are to Top of Pipe unless noted otherwise ***

Scale: 1" = 40' Horizontal
 1" = 5' Vertical
 • = Iron



*** All Grades are to Top of Pipe unless noted otherwise ***



		Lillie 2nd Addition Line 1 & 2 Water Line Improvements	
Baughman Company, P.A. 315 Ellis St. Wichita, KS 67211 P 316-262-7271 F 316-262-0149 ENGINEERING SURVEYING PLANNING LANDSCAPE ARCHITECTURE			
PROJECT NUMBER 448-90116	DESIGN MWS	DRAWN MWS	DATE 05/07
REVISIONS	APPROVED	DATE	05/07
SCALE Noted		SHEET	
		4 OF 12	
E:\eng\Lillie Office Park\wtr1.dwg			06-06-E586

Curve #1
Curve Data Based on waterline
Rad. = 348.69' Delta = 16°51'35" Tangent = 51.68'
Arc = 102.61' L.C. = 102.23' Del/Ft. = 4.92926 Min.

Station	Arc	CHORD LENGTHS		
		6' Rt.	Defl.	T. Defl.
0+84.56	-	-	0'00'00"	0'00'00"
1+00.00	15.44'	15.17'	1'16'06"	1'16'06"
1+25.00	25.00'	24.56'	2'03'14"	3'19'20"
1+50.00	25.00'	24.56'	2'03'14"	5'22'34"
1+75.00	25.00'	24.56'	2'03'14"	7'25'48"
1+87.17	12.17'	11.96'	0'59'59"	8'25'47"

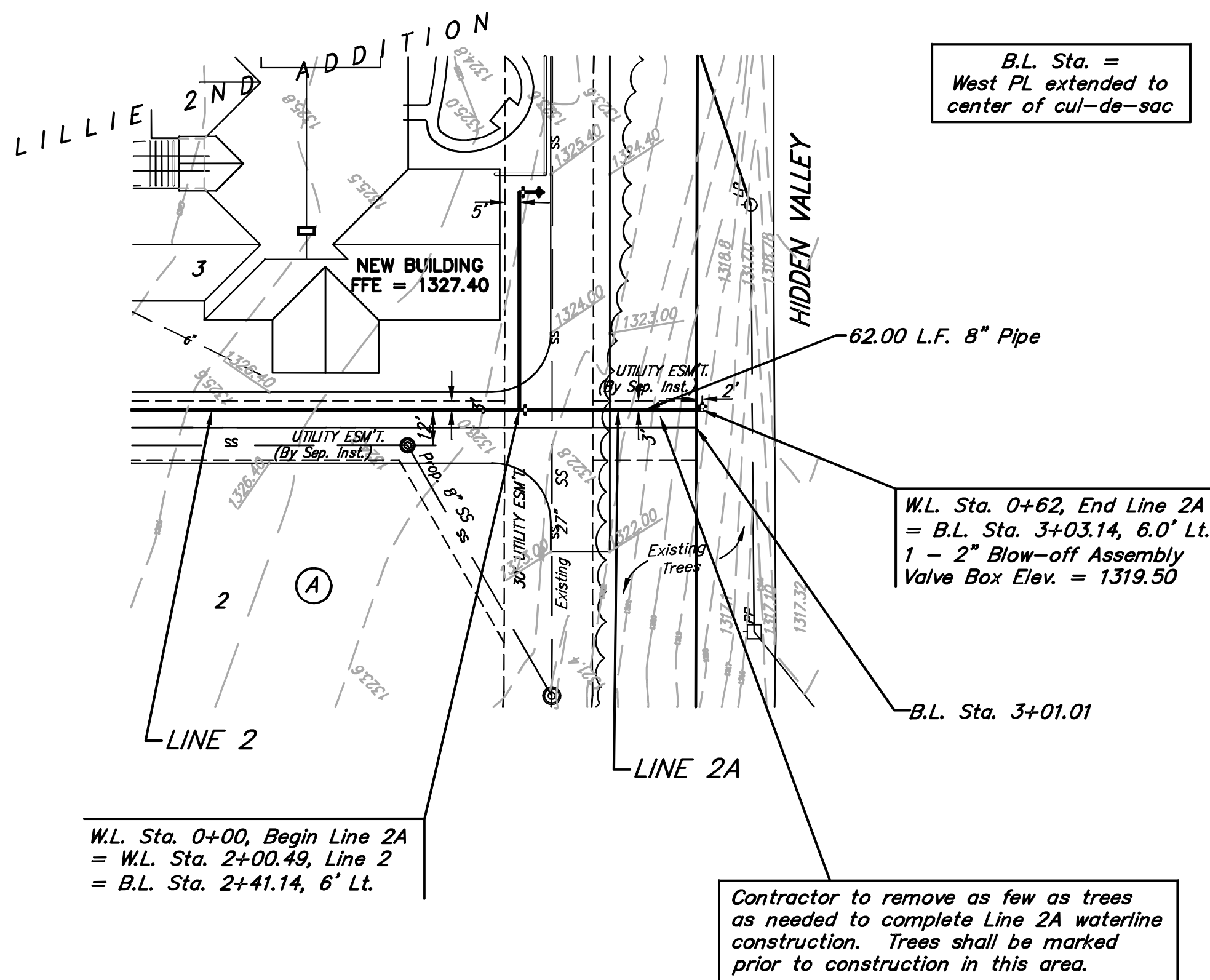
Curve #2
Curve Data Based on waterline
Rad. = 374' Delta = 43°35'37" Tangent = 149.57'
Arc = 284.55' L.C. = 277.74' Del/Ft. = 4.99606 Min.

Station	Arc	CHORD LENGTHS		
		6' Rt.	Defl.	T. Defl.
1+87.17	-	-	0'00'00"	0'00'00"
2+00.00	12.83'	13.04'	0'58'58"	0'58'58"
2+25.00	25.00'	25.40'	1'54'54"	2'53'52"
2+50.00	25.00'	25.40'	1'54'54"	4'48'46"
2+63.34	13.34'	13.55'	1'01'19"	5'50'05"
2+75.00	11.66'	11.85'	0'53'35"	6'43'40"
3+00.00	25.00'	25.40'	1'54'54"	8'38'34"
3+25.00	25.00'	25.40'	1'54'54"	10'33'28"
3+50.00	25.00'	25.40'	1'54'54"	12'28'23"
3+75.00	25.00'	25.40'	1'54'54"	14'23'17"
4+00.00	25.00'	25.40'	1'54'54"	16'18'11"
4+25.00	25.00'	25.40'	1'54'54"	18'13'05"
4+50.00	25.00'	25.40'	1'54'54"	20'07'59"
4+71.72	21.72'	22.07'	1'39'50"	21'47'49"

Curve #3
Curve Data Based on waterline
Rad. = 456' Delta = 26°44'17" Tangent = 108.37'
Arc = 212.80' L.C. = 210.87' Del/Ft. = 3.76946 Min.

Station	Arc	CHORD LENGTHS		
		6' Rt.	Defl.	T. Defl.
4+71.72	-	-	0'00'00"	0'00'00"
4+75.00	3.28'	3.24'	0'12'22"	0'12'22"
5+00.00	25.00'	24.67'	1'34'14"	1'46'36"
5+25.00	25.00'	24.67'	1'34'14"	3'20'50"
5+32.46	7.46'	7.36'	0'28'07"	3'48'57"
5+50.00	17.54'	17.31'	1'06'07"	4'55'04"
5+75.00	25.00'	24.67'	1'34'14"	6'29'19"
6+00.00	25.00'	24.67'	1'34'14"	8'03'33"
6+25.00	25.00'	24.67'	1'34'14"	9'37'47"
6+50.00	25.00'	24.67'	1'34'14"	11'12'01"
6+75.00	25.00'	24.67'	1'34'14"	12'46'15"
6+84.52	9.52'	9.39'	0'35'53"	13'22'08"

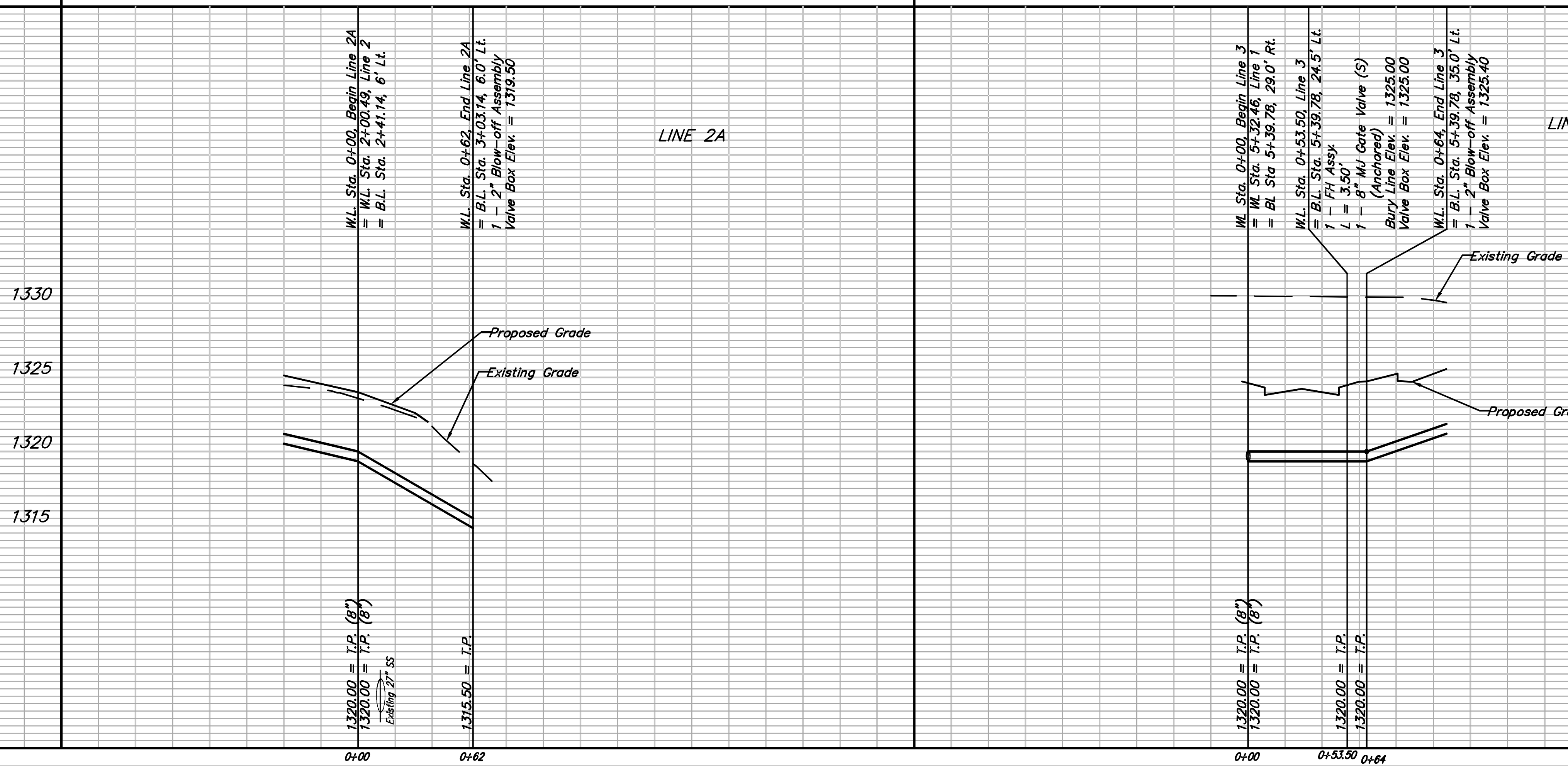
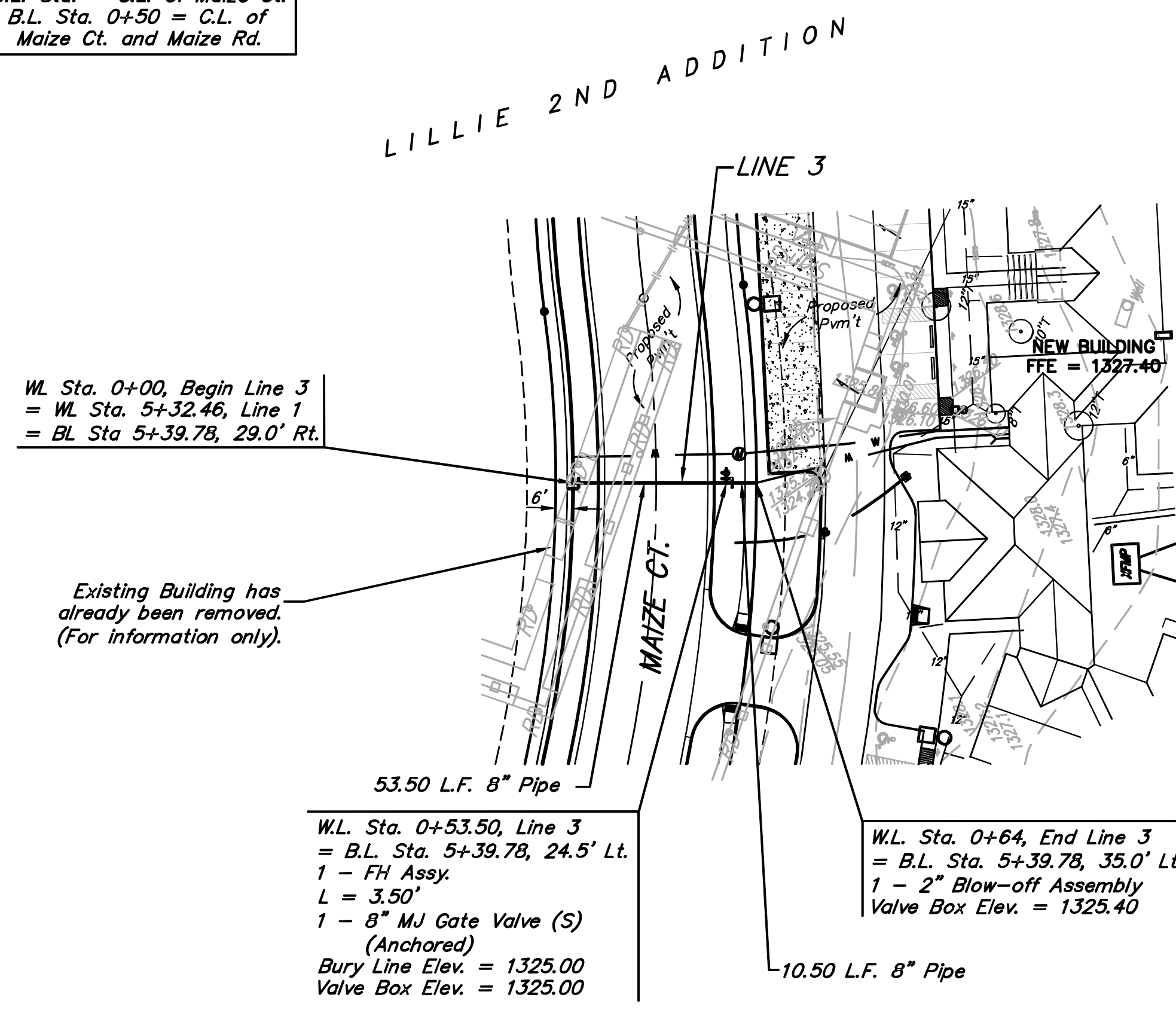
City Disc - Maize Road & McCormick
(Hidden Valley) 0.5 Mi. South of Maple
on the NE Corner of R.C.B.C Over
Cowskin Creek, South of Hidden Valley
Elev. = 1318.93 City Datum (1318.93
NGVD29)



Scale: 1" = 40' Horizontal
1" = 5' Vertical
• = Iron

B.L. Sta. = C.L. of Maize Ct.
B.L. Sta. 0+50 = C.L. of
Maize Ct. and Maize Rd.

Scale: 1" = 40' Horizontal
1" = 5' Vertical
• = Iron



Baughman Lillie 2nd Addition
Line 2A & 3
Water Line Improvements

Baughman Company, P.A. 315 Ellis St. Wichita, KS 67211 P 316-262-7271 F 316-262-0149
ENGINEERING | SURVEYING | PLANNING | LANDSCAPE ARCHITECTURE

PROJECT NUMBER 448-90116	DESIGN MWS	DRAWN MWS
REVISIONS:	APPROVED	DATE 05/07
SCALE Noted		SHEET 5 OF 12

E:\eng\Lillie Office Park\wtr1.dwg 06-06-E586

LILLIE 2ND ADDITION WICHITA, SEDGWICK COUNTY, KANSAS

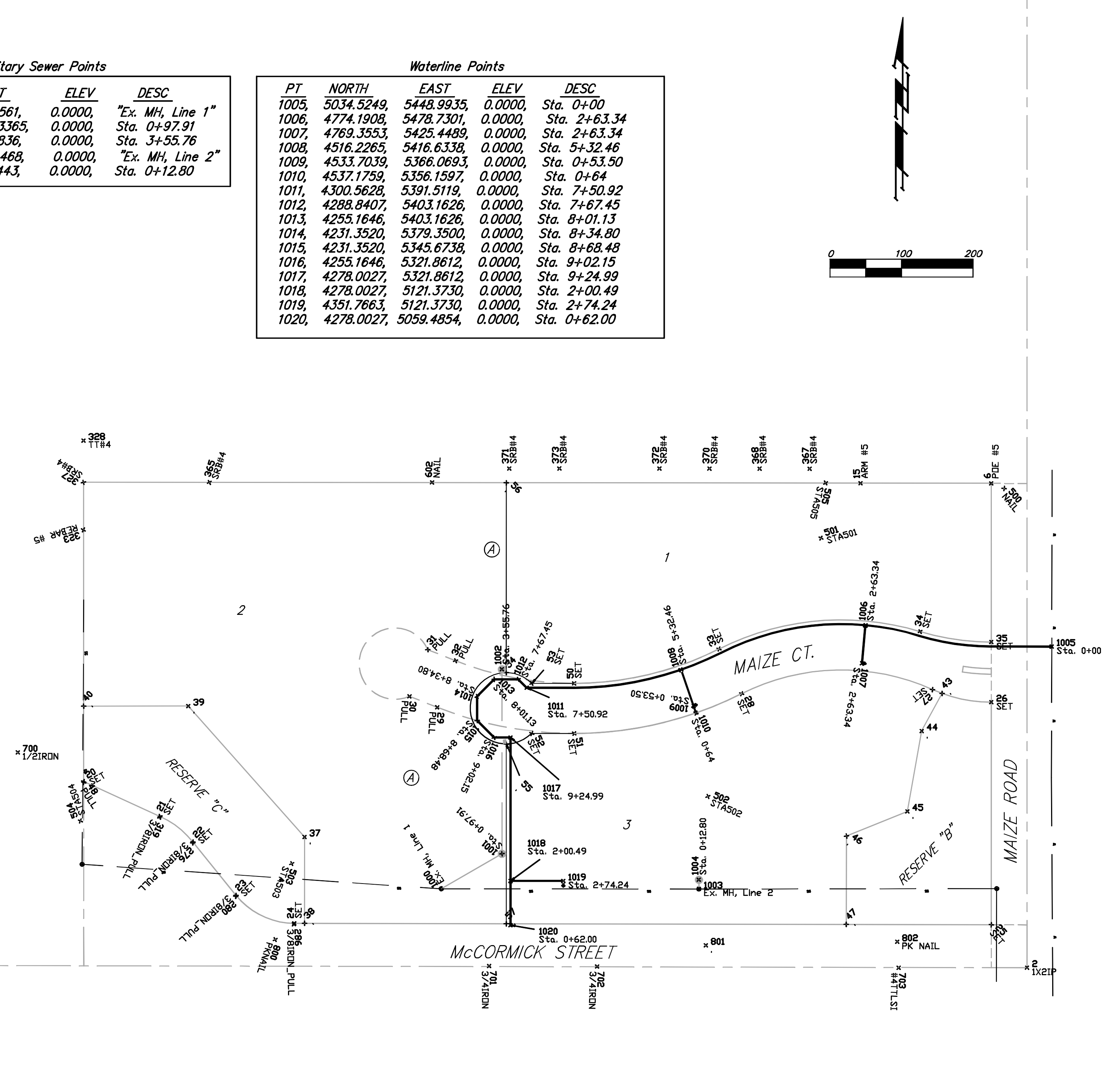
Sanitary Sewer Points


PT	NORTH	EAST	ELEV	DESC
1000	4181.1712	5110.4561	0.0000	"Ex. MH, Line 1"
1001	4266.0027	5159.3365	0.0000	Sta. 0+97.91
1002	4266.0027	5417.1836	0.0000	Sta. 3+55.76
1003	4541.3166	5110.1468	0.0000	"Ex. MH, Line 2"
1004	4541.3013	5122.9443	0.0000	Sta. 0+12.80

Waterline Points

PT	NORTH	EAST	ELEV	DESC
1005	5034.5249	5448.9935	0.0000	Sta. 0+00
1006	4774.1908	5478.7301	0.0000	Sta. 2+63.34
1007	4769.3553	5425.4489	0.0000	Sta. 2+63.34
1008	4516.2265	5416.6338	0.0000	Sta. 5+32.46
1009	4533.7039	5366.0693	0.0000	Sta. 0+53.50
1010	4537.1759	5356.1597	0.0000	Sta. 0+64
1011	4300.5628	5391.5119	0.0000	Sta. 7+50.92
1012	4288.8407	5403.1626	0.0000	Sta. 7+67.45
1013	4255.1646	5403.1626	0.0000	Sta. 8+01.13
1014	4231.3520	5379.3500	0.0000	Sta. 8+34.80
1015	4231.3520	5345.6738	0.0000	Sta. 8+68.48
1016	4255.1646	5321.8612	0.0000	Sta. 9+02.15
1017	4278.0027	5321.8612	0.0000	Sta. 9+24.99
1018	4278.0027	5121.3730	0.0000	Sta. 2+00.49
1019	4351.7663	5121.3730	0.0000	Sta. 2+74.24
1020	4278.0027	5059.4854	0.0000	Sta. 0+62.00

PT	NORTH	EAST	ELEV	DESC
1	7644.7200	5000.0000		3X4IP
2	5000.0000	5000.0000		1X2IP
6	5677.0545	4949.9493		POE #5
15	5677.3205	4767.2647		ARM #5
20	5260.2924	3681.2783		SET
21	5211.4789	3788.0235		SET
22	5175.6874	3834.1497		SET
23	5101.1422	3894.2260		SET
24	5062.1075	3975.6022		SET
25	5060.1030	4949.9955		SET
26	5371.2129	4949.9722		SET
27	5388.8787	4867.7733		SET
28	5383.1137	4600.9150		SET
29	5364.0767	4175.4140		PULL
30	5379.4429	4136.6321		PULL
31	5444.5207	4162.4174		PULL
32	5429.1545	4201.1993		PULL
33	5445.6288	4569.4213		SET
34	5469.9355	4850.5725		SET
35	5455.2129	4949.9659		SET
37	5182.8274	3990.0000		
38	5062.0779	3990.0000		
39	5365.7833	3827.4665		
40	5365.6682	3681.2088		
43	5383.3962	4881.2197		
44	5330.7704	4852.5924		
45	5218.4299	4832.6894		
46	5184.0949	4747.5075		
47	5060.5198	4747.4068		
48	5258.9968	3681.3324		PULL
50	5397.5119	4366.9614		SET
51	5327.5119	4366.9614		SET
52	5327.5119	4307.7098		SET
53	5397.5119	4307.7098		SET
54	5412.5119	4272.0027		
55	5312.5119	4272.0027		
56	5677.8597	4272.0027		
57	5061.4977	4272.0027		
276	5174.6554	3833.8048		3/BIRON_PULL
280	5099.9964	3893.8407		3/BIRON_PULL
286	5060.8952	3975.1401		3/BIRON_PULL
319	5210.4391	3787.6570		3/BIRON_PULL
323	5612.1550	3680.8464		REBAR #5
327	5678.5617	3681.0023		SRB#4
328	5736.7776	3680.9311		TT#4
365	5678.4306	3856.9374		SRB#4
367	5697.4817	4696.1684		SRB#4
368	5697.6446	4626.2249		SRB#4
370	5697.6034	4556.1359		SRB#4
371	5697.8666	4276.2186		SRB#4
372	5697.7299	4486.1812		SRB#4
373	5697.9248	4346.3049		SRB#4
500	5669.9800	4967.9300		NAIL
501	5600.4582	4712.0276		STA501
502	5239.3941	4553.9176		STA502
503	5145.7439	3972.1298		STA503
504	5205.0515	3676.6956		STA504
505	5677.8301	4718.3656		STA505
600	5523.5371	2431.3144		STA600
601	5005.4249	2362.8966		CTR
602	5678.4072	4168.2927	147.3977	NAIL
603	7633.4154	2360.5109		N1/4COR
700	5301.1290	3589.0775		1/2IRON
701	5002.5137	4248.0096		3/4IRON
702	5001.8340	4398.9762		3/4IRON
703	5000.0555	4820.4227		#4TTLSI
800	5039.4720	3948.9250	127.3300	PKNAIL
801	5031.1857	4550.9375		
802	5036.2170	4818.3600	128.8100	PK NAIL





Baughman
ENGINEERING | SURVEYING | PLANNING | LANDSCAPE ARCHITECTURE

Lillie 2nd Addition
Staking Coordinates
Water Distribution Improvements

Baughman Company, P.A. 315 Ellis St. Wichita, KS 67211 P 316-262-7271 F 316-262-0149
ENGINEERING | SURVEYING | PLANNING | LANDSCAPE ARCHITECTURE

PROJECT NUMBER 448-90116	DESIGN MWS	DRAWN MWS
REVISIONS:	APPROVED	DATE 06/2007
SCALE Noted		6 OF 12
SHEET		

E:\eng\Lillie Office Park\Coordinates_staking (all).dwg
06-06-E586

1" = 60'

Contractor may use existing entrance to site. Must keep area clean of mud and debris.

Install 100 l.f. Silt Fence, per this project.

Install 1800 s.f. +/- of Curlex Blanket, per this project. (Bid amount will be 1800 s.f., Contractor to install +/- as much as needed to fix disturbed area when finished.)

NOTES:
 1. This Plan Is Not To Be Used As A Comprehensive Grading Plan. All Spot Elevations Are Proposed & Subject To Change.
 2. Each Lot Area Disturbed By Construction Shall Be The Responsibility Of Each Individual Homeowner. Owner Responsible To Follow All SWPP Plans & Guidelines For The Area.

3. Erosion Control Matting and/or Other Approved Bank Stabilization w/Seeding & Fertilizer Shall Be Installed at Engineered Channels or Sedimentation Basins Where the Designed Sideslopes Will be Greater Than 6:1. All Other Disturbed Areas Shall be Seeded, Fertilized, & Mulched As Follows:

SEED --
 150 lbs. per acre of K-31 Fescue.
 200 lbs. per acre of Annual Rye.
 50 lbs. per acre of Brome
FERTILIZER --
 12-24-12 Ratio - 350 lbs./ac.
MULCH --
 2 Tons of Prairie Hay or Bromegrass Hay per Acre "Patted" w/Forks Or Punched Into Soil To Reduce Loss Due To Wind.

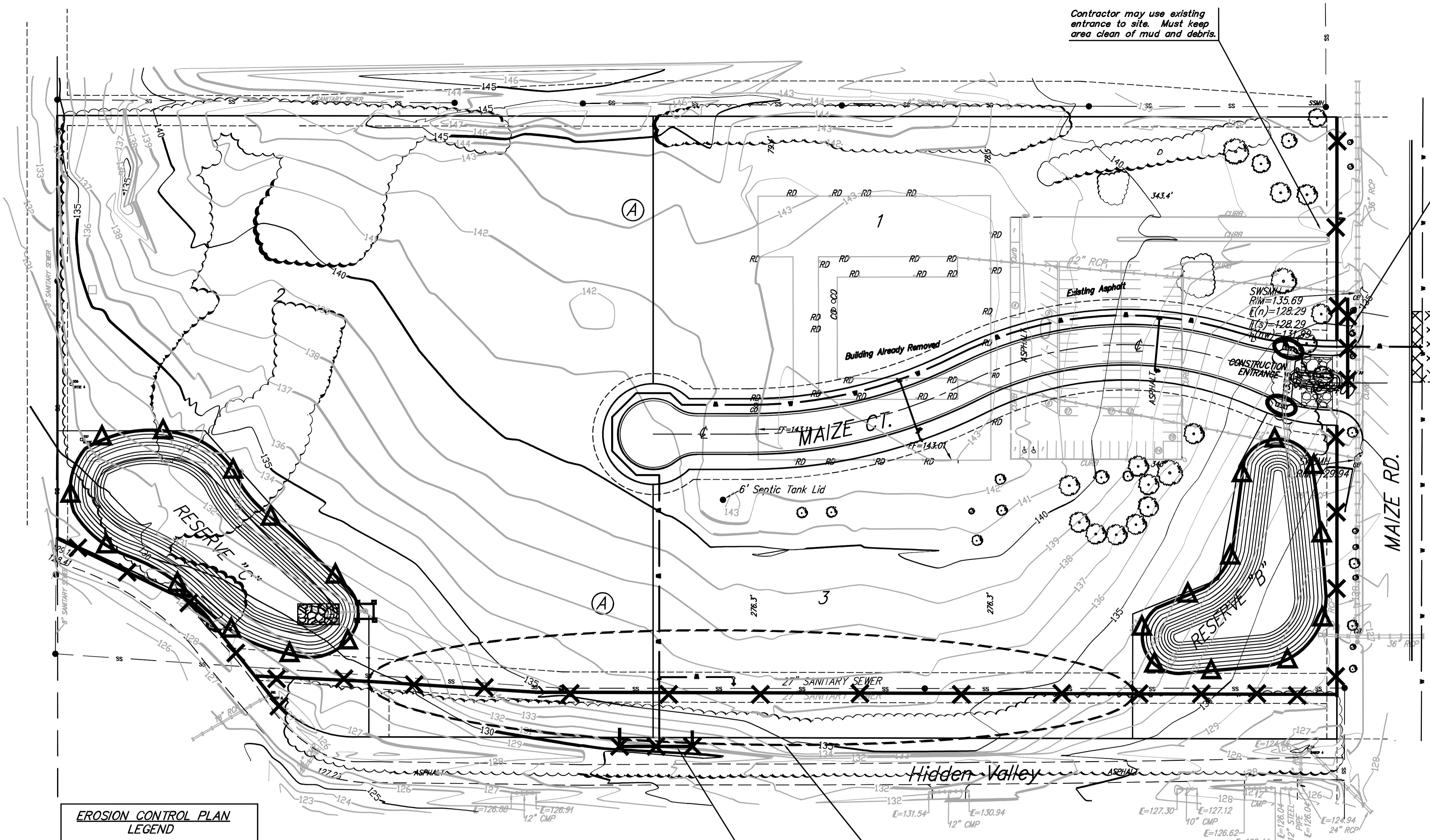
4. Install 8' Wide Curlex/Excelsior Blanket, or Approved Equal, on Prepared Surface Back of Curb. Edge of Blanket Will Be At Back of Curb. Install Per Manufactures Recommendation, Including Staples.
 5. The Silt Fence Installed Around the Ponds May be Substituted with a 40' Wide Strip of Mat-Blend 50/50 Plus Wood Fiber Mulch. The Seeding Rate Shall Be The Same As Note 3. Contact Mat, Inc. For More Information on Mat-Blend Plus at 1-888-477-3028. Mat-Blend Plus May be Substituted For Another Comparable Hydro-Mulch Product.

6. All Seeding Shall Be Drilled During Spring or Fall Planting Seasons. Fall Seeding Shall Be September 1 thru Mid October. Spring Seeding Shall be From March 15 thru Mid May.

7. All areas disturbed within Maize Rd. R/W during construction shall be seeded, mulched, and fertilized as follows (Permanent Seeding):

Seed: Kansas Premium Fescue Blend: 8 lbs./1000 sq. ft.
Mulch: Prairie Hay: 2 tons/acre
Fertilizer: 12-24-12: 850 lbs./acre

All other areas disturbed during construction shall be seeded at 300 lbs./acre with Rye Grass immediately following construction in that area. Contractor shall prepare ground per City Specifications. All seeding operations shall conform to City of Wichita Standard Specifications. All costs associated with seeding, mulching, and fertilizing shall be included in bid item "Project Seeding."



EROSION CONTROL PLAN LEGEND
 (Installation Details Found in the SWP2 Plan)

- LIGHT STONE RIP-RAP
- DROP INLET PROTECTION
- CURB INLET PROTECTION
- STRAW BALE BARRIERS
- SILT FENCING
- EARTH DIKES

EROSION CONTROL MEASURE	UNITS	QUANTITY
SILT FENCE	L.F.	1853
RIPRAP	S.Y.	94
DROP INLET BARRIER	EA.	2
CURB INLET BARRIER	EA.	2
STRAW BALE BARRIER	EA.	0
Construction Entrance	EA.	1

QUANTITIES ARE FOR INFORMATION ONLY!
 CONTRACTOR SHALL VERIFY QUANTITIES PER FINAL BID QUANTITY SHEET.

Maintain 760 l.f. Silt Fence, per this project.

Install 110 l.f. Silt Fence, per this project.

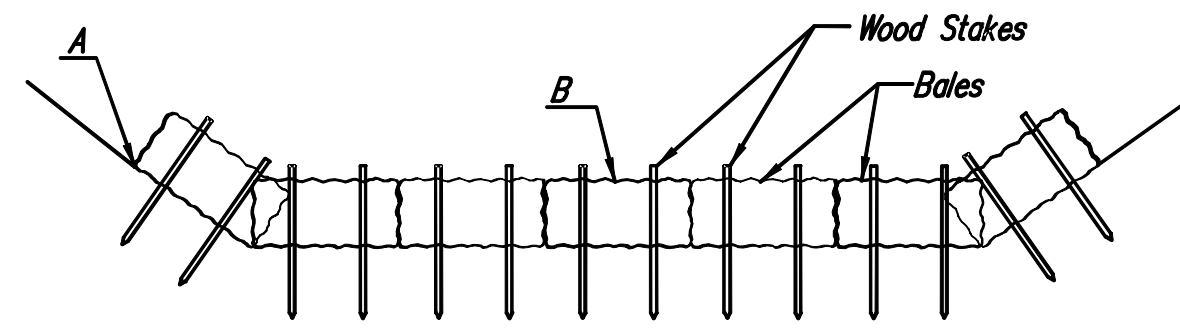
Baughman Lillie 2nd Addition
SWPP Water Distribution Improvements

Baughman Company, P.A. 315 Ellis St. Wichita, KS 67211 P 316-262-7271 F 316-262-0149
 ENGINEERING | SURVEYING | PLANNING | LANDSCAPE ARCHITECTURE

PROJECT NUMBER 448-90116	DESIGN MWS	DRAWN MWS
REVISIONS:	APPROVED	DATE 06/2007
	SCALE Noted	
	SHEET	7 OF 12

E:\eng\Lillie Office Park\Erosion Control Plan.dwg 06-06-E586

NOTE: Point A must be higher than Point B so that water flows over the bales and not around them.



STRAW BALE DITCH CHECKS

Material Specification:

Bale ditch checks may be constructed of wheat straw, oat straw, prairie hay, or bromegrass hay that is free of weeds declared noxious by the Kansas State Board of Agriculture. The stakes used to anchor the bales should be a hardwood material with the following minimum dimensions: 2" square (nominal) by 4' long. Optional: The downstream scour apron should be constructed of a double-netted straw erosion-control blanket at least 6' wide. Optional: The metal landscape staples used to anchor the erosion-control blanket should be at least 8" long.

Placement:

Bale ditch checks should be placed perpendicular to the flowline of the ditch. The ditch check should extend far enough so that the ground level at the ends of the check is higher than the top of the lowest center bale. This prevents water from flowing around the check. Straw bale ditch checks should not be placed in ditches where high flows are expected. Rock checks should be used instead. Bales should be placed in ditches with slopes of 6% or less. For slopes steeper than 6%, rock checks should be used. The following table provides check spacing for a given ditch grade:

Ditch grade (%)	Ditch Check Spacing (feet)
0.5	200
1.0	200
2.0	100
3.0	65
4.0	50
5.0	40
6.0	30

Proper installation method:

Excavate a trench perpendicular to the ditch flowline that is 4" deep and a bale's width wide. Extend the trench in a straight line along the entire length of the proposed ditch check. Place the soil on the upstream side of the trench—it will be used later. Optional: On the downstream side of the trench, roll out a length of erosion-control blanket (scour apron) equal to the length of the trench. Place the upstream edge of the erosion-control blanket along the bottom upstream edge of the trench. The erosion control blanket should be anchored in the trench with one row of 8" landscape staples placed on 18" centers. The remainder of the erosion-control blanket (the portion that is not lying in the trench) will serve as the downstream scour apron. This section of the blanket should be anchored to the ground with 8" landscape staples placed around the perimeter of the blanket on 18" centers. The remainder of the blanket should be anchored using two evenly spaced rows of 8" landscape staples on 18" centers placed perpendicular to the flowline of the ditch. Place the bales in the trench, making sure that they are butted tightly. Two stakes should be driven through each bale along the centerline of the ditch check, approximately 6" to 8" in from the bale ends. Stakes should be driven at least 12" into the ground. Once all the bales have been installed and anchored, place the excavated soil against the upstream side of the check and compact it. The compacted soil should be no more than 3" to 4" deep and extend upstream no more than 24".

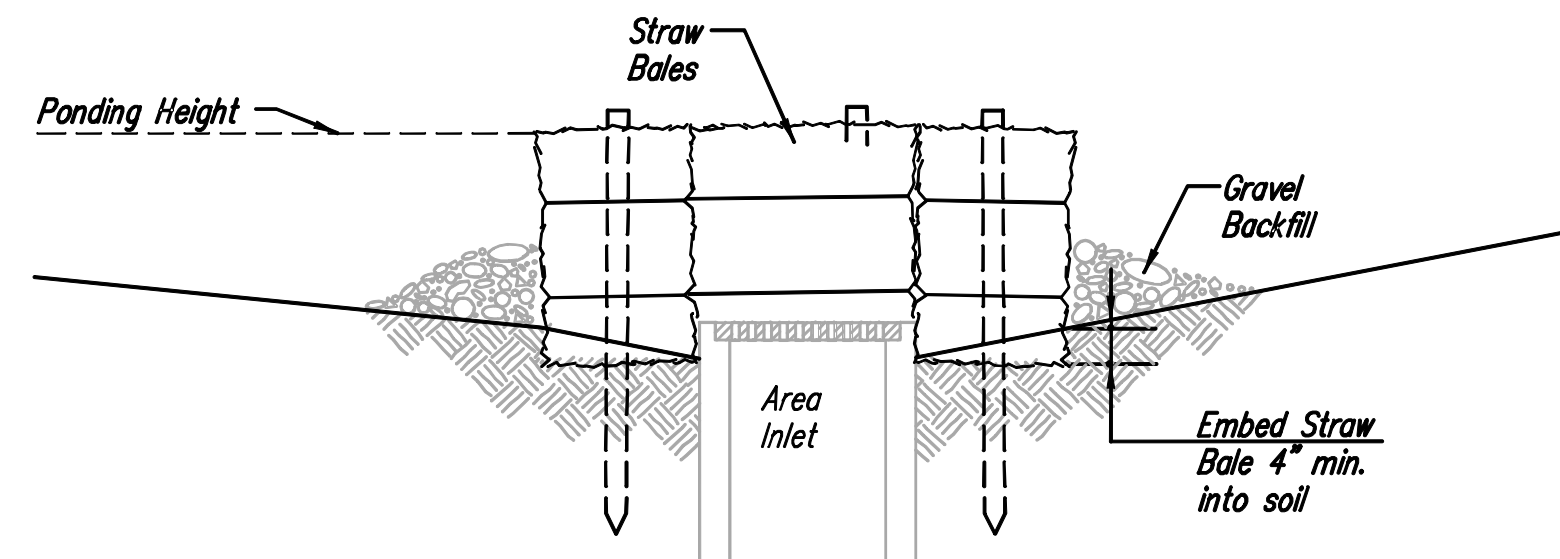
List of common placement/installation mistakes to avoid:

Do not place a bale ditch check directly in front of a culvert outlet. It will not stand up to the concentrated flow. Do not place bale ditch checks in ditches that will likely experience high flows. They will not stand up to concentrated flow. Follow prescribed ditch-check spacing guidelines. If spacing guidelines are exceeded, erosion will occur between the ditch checks. Do not allow water to flow around the ditch check. Make sure that the ditch check is long enough so that the ground level at the ends of the check is higher than the top of the lowest center bale. Do not place bale ditch checks in channels with shallow soils underlain by rock. If the check is not anchored sufficiently, it will wash out. Bale ditch checks must be dug into the ground. Bales at ground level do not work because they allow water to flow under the check.

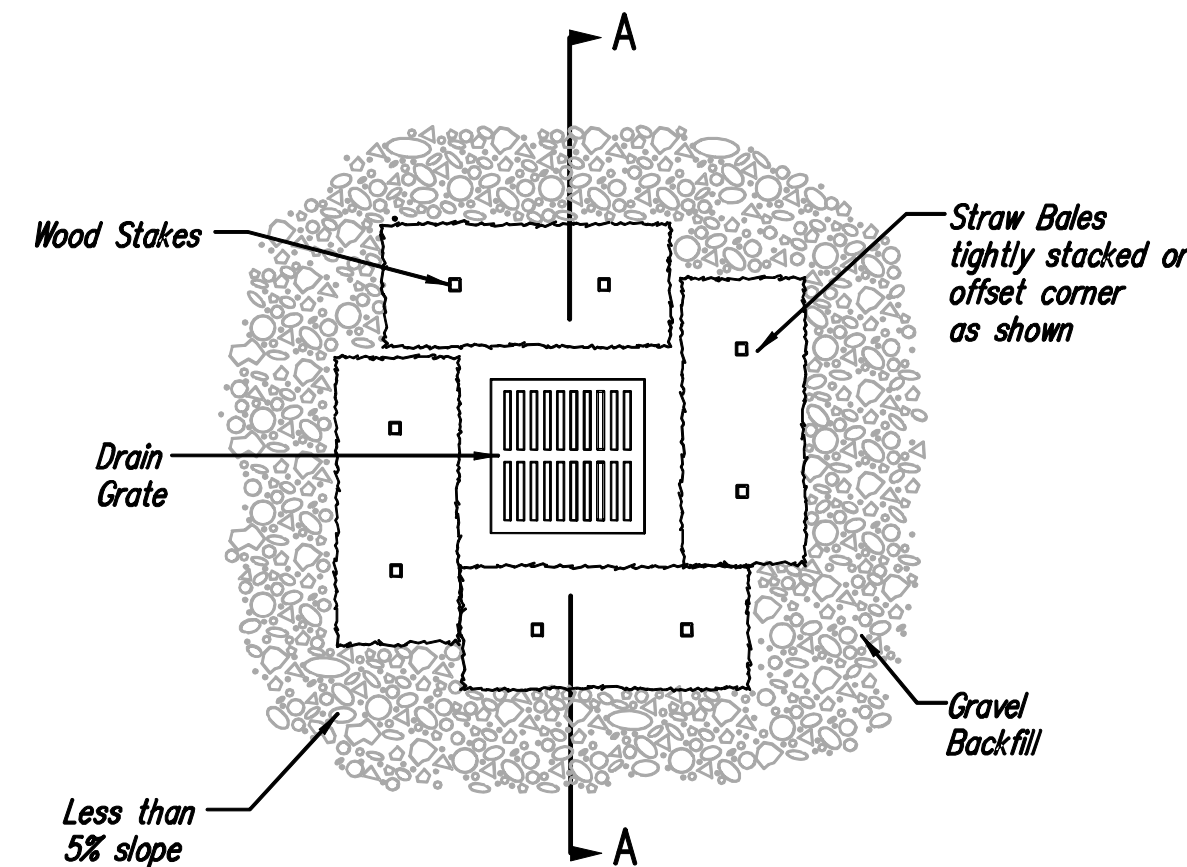
Inspection and Maintenance:

Bale ditch checks should be inspected every 7 days and within 24 hours of a rainfall of 1/2" or more. The following is a list of questions that should be addressed during each inspection:

- Does water flow around the ditch check?
- Does water flow under the ditch check?
- Does water flow through spaces between abutting bales?
- Are any bales and/or scour aprons (optional) dislodged?
- Are bales decomposing due to age and/or water damage?
- Does sediment need to be removed from behind the ditch check?



SECTION A-A



STRAW BALE BARRIERS FOR AREA INLETS (INLET PROTECTION)

Material Specification:

Bale area inlet barriers should be constructed of wheat straw, oat straw, prairie hay, or bromegrass hay that is free of weeds declared noxious by the Kansas State Board of Agriculture. The stakes used to anchor the bales should be a hardwood material with the following minimum dimensions: 2" square (nominal) by 4' long. Twine should be used to bind bales. The use of wire binding is prohibited because it does not biodegrade readily.

Placement:

Bale area inlet barriers should be placed directly around the perimeter of a drop inlet. When a bale area inlet barrier is located near an inlet that has steep approach slopes, the storage capacity behind the barrier is drastically reduced. Timely removal of sediment must occur for a barrier to operate properly in this location.

Proper Installation Method:

Excavate a trench around the perimeter of the area inlet that is at least 4" deep by a bale's width wide. Place the bales in the trench, making sure that they are butted tightly. Some bales may need to be shortened to fit into the trench around the area inlet. Two stakes should be driven through each bale, approximately 6" to 8" in from the bale ends. Stakes should be driven at least 12" into the ground. Once all the bales have been installed and anchored, place the excavated soil against the receiving side of the barrier and compact it. The compacted soil should be no more than 3" to 4" deep. Note: When a bale area inlet barrier is placed in a shallow median ditch, make sure that the top of the barrier is not higher than the paved road. In this configuration, water may spread onto the roadway causing a hazardous condition.

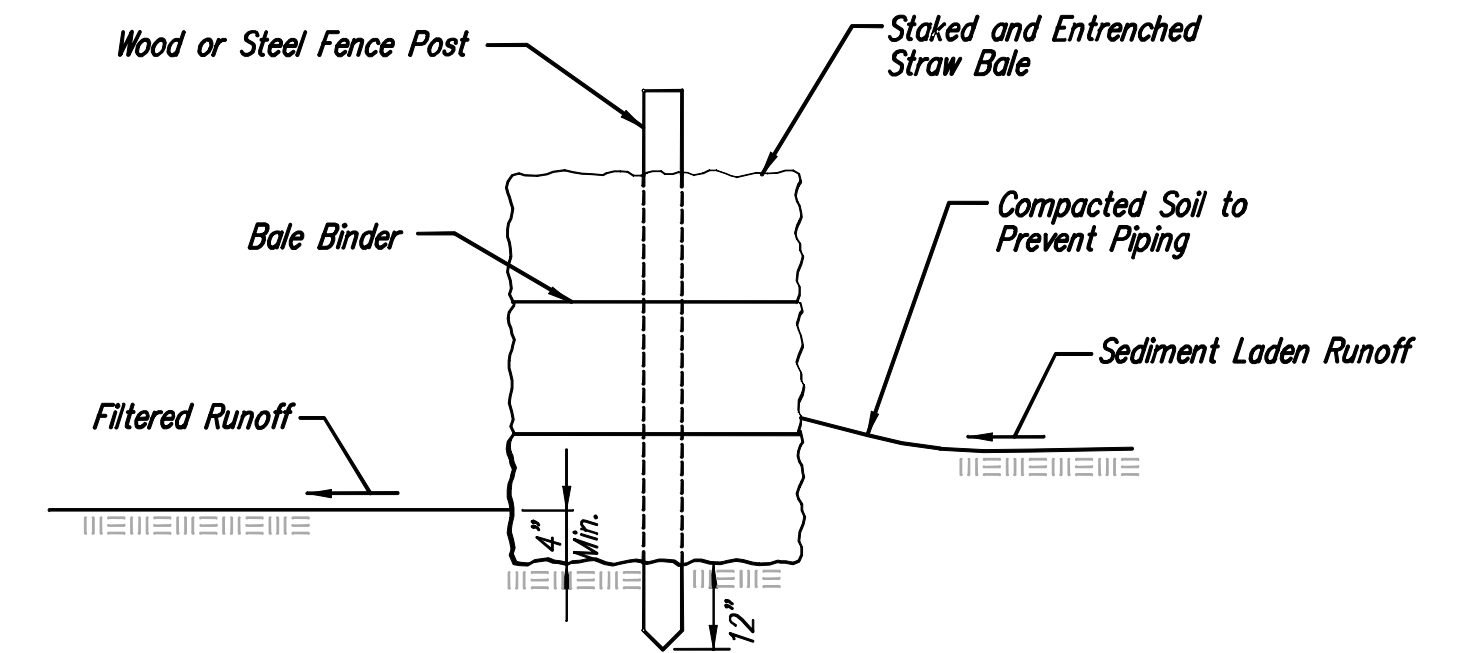
List of common placement installation mistakes to avoid:

Bales should be placed directly against the perimeter of the area inlet. This allows overlapping water to flow directly into the inlet instead of onto nearby soil causing scour. Bale area inlet barriers must be dug into the ground. Bales at ground level do not work because they allow water to flow under the barrier.

Inspection and Maintenance:

Bale area inlet barriers should be inspected every 7 days and within 24 hours of a rainfall 1/2" or more. The following is a list of questions that should be addressed during each inspection:

- Does water flow under the area inlet barrier?
- Does water flow through spaces between abutting bales?
- Are any bales dislodged?
- Are bales decomposing due to age and/or water damage?
- Does sediment need to be removed from behind the area inlet barrier?



STRAW BALE BARRIERS

Material Specification:

Bale slope barriers may be constructed of wheat straw, oat straw, prairie hay, or bromegrass hay that is free of weeds declared noxious by the Kansas State Board of Agriculture. The stakes used to anchor the bales should be a hardwood material with the following minimum dimensions: 2" square (nominal) by 4' long. Twine should be used to bind bales. The use of wire binding is prohibited because it does not biodegrade readily.

Placement:

A slope barrier should be used at the toe of a slope when a ditch does not exist. The slope barrier should be placed on nearly level ground 5' to 10' away from the toe of a slope. The barrier is placed away from the toe of the slope to provide adequate storage for settling out sediment. When practicable, bale slope barriers should be placed along contours to avoid a concentration of flow. Bale slope barriers can also be placed along right-of-way fence lines to keep sediment from crossing onto adjacent property. When placed in this manner, the slope barrier will not likely follow contours.

Proper installation method:

Excavate a trench the length of the planned slope barrier that is 4" deep and a bale's width wide. Make sure that the trench is excavated along a single contour. When practicable, slope barriers should be placed along contours to avoid a concentration of flow. Place the soil on the upslope side of the trench for later use. Place the bales in the trench, making sure that they are butted tightly. Two stakes should be driven through each bale along the centerline of the ditch check, approximately 6" to 8" in from the bale ends. Stakes should be driven at least 12" into the ground. Once all the bales have been installed and anchored, place the excavated soil against the upslope side of the check and compact it. The compacted soil should be no more than 3" to 4" deep.

List of common placement/installation mistakes to avoid:

When practical, do not place bale slope barriers across contours. Slope barriers should be placed along contours to avoid a concentration of flow. Concentrated flow over a slope barrier creates a scour hole on the downslope side of the barrier. The scour hole eventually undermines the bales and the barrier fails. Do not place bale slope barriers in areas with shallow soils underlain by rock. If the barrier is not anchored sufficiently, it will wash out. Bale slope barriers must be dug into the ground. Bales at ground level do not work because they allow water to flow under the barrier.

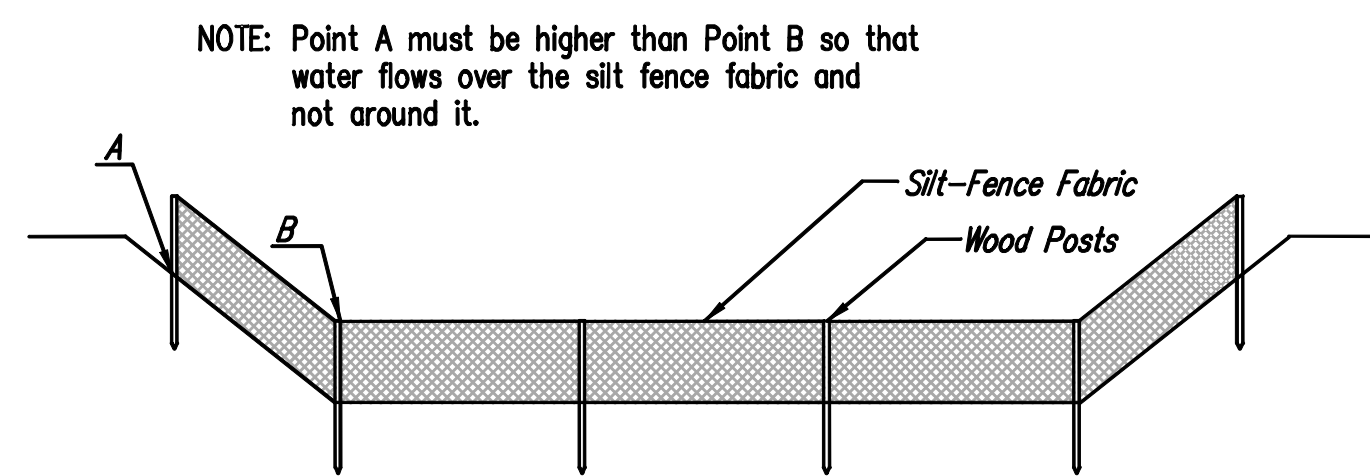
Inspection and Maintenance:

Bale slope barriers should be inspected every 7 days and within 24 hours of a rainfall of 1/2" or more. The following is a list of questions that should be addressed during each inspection:

- Are there any points along the slope barrier where water is concentrating?
- Does water flow under the slope barrier?
- Does water flow through spaces between abutting bales?
- Are any bales dislodged?
- Are bales decomposing due to age and/or water damage?
- Does sediment need to be removed from behind the slope barrier?



SOIL EROSION BMPs	
STRAW BALE DITCH CHECK AND BARRIER DETAILS	
JIM ARMOUR, P.E. CITY ENGINEER	
PROJECT NUMBER 448-90116	OCA NO. 735343
DATE JAN 2007	SHEET 9 OF 12



ELEVATION
SILT FENCE DITCH CHECKS
(STREAM PROTECTION)

Material Specification:

Silt fence fabric should conform to the AASHTO M288 96 silt fence specification. The posts used to support the silt fence should be a hardwood material with the following minimum dimensions: 2" square (nominal) by 4' long. Silt fence fabric should be attached to the wooden posts with staples, wire, zip ties, or nails.

Placement:

Place silt fence in ditches where it is unlikely that it will be overtopped. Water should flow through a silt fence ditch check, not over it. Silt fence ditch checks often fail when overtopped. Silt fence ditch checks should be placed perpendicular to the flowline of the ditch. The silt fence should extend far enough so that the ground level at the ends of the fence is higher than the top of the low point of the fence. This prevents water from flowing around the check. Silt fence ditch checks should not be placed in ditches where high flows are expected. Rock checks should be used instead. Silt fence should be placed in ditches with slopes of 6% or less. For slopes steeper than 6%, rock checks should be used.

The following table provides check spacing for a given ditch grade:

Ditch Check Ditch grade (%)	Spacing Check Spacing (feet)
0.5	200
1.0	200
2.0	100
3.0	65
4.0	50
5.0	40
6.0	30

Proper installation method:

Excavate a trench perpendicular to the ditch flowline that is at least 12" deep by 6" wide. Extend the trench in a straight line along the entire length of the proposed ditch check. Place the soil on the upstream side of the trench for later use. Roll out a continuous length of silt fence fabric on the downstream side of the trench. Place the edge of the fabric in the trench starting at the top upslope edge of the trench. Line two sides of the trench with the fabric as shown on detail. Backfill over the fabric in the trench with the excavated soil and compact. After filling the trench, approximately 24" to 36" of silt fence fabric should remain exposed. Lay the exposed silt fence on the upstream side of the trench to clear an area for driving in the posts. Just downstream of the trench, drive posts into the ground to a depth of at least 24". Place posts no more than 4' apart. Attach the silt fence to the anchored post with staples, wire, zip ties, or nails.

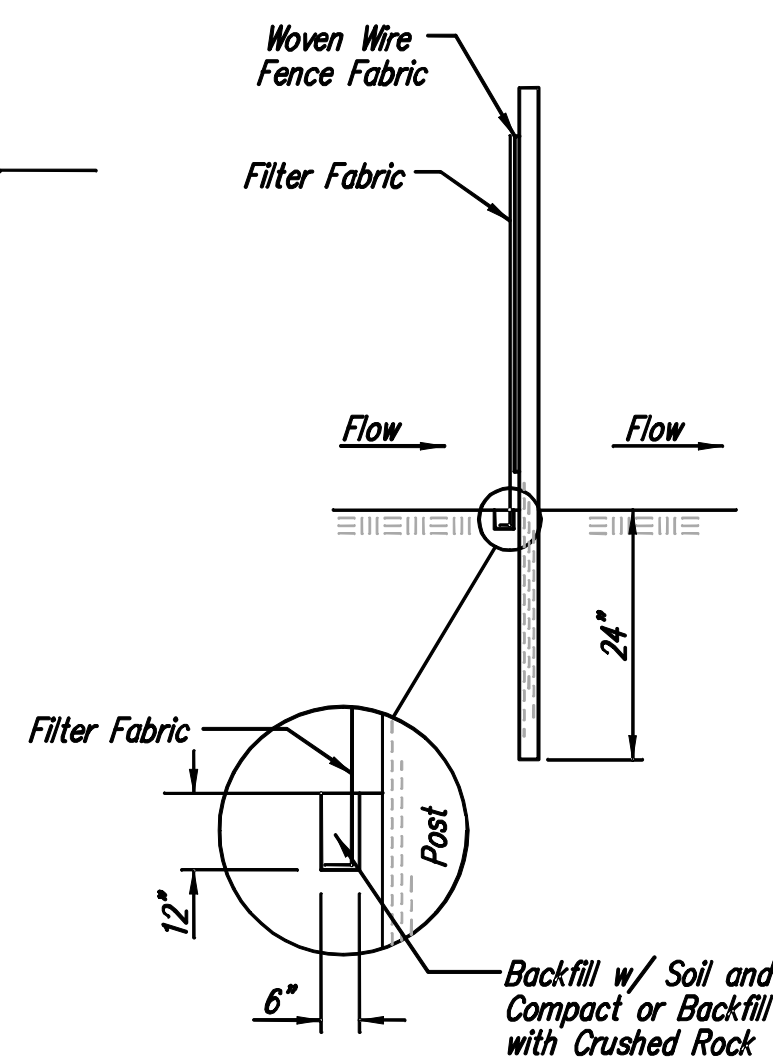
List of common placement/installation mistakes to avoid:

Water should flow through a silt fence ditch check—not over it. Place silt fence in ditches where it is unlikely that it will be overtopped. Silt fence installations quickly deteriorate when water overtops them. Do not place silt fence posts on the upstream side of the silt fence fabric. In this configuration, the force of the water is not restricted by the posts, but only by the staples (wire, zip ties, nails, etc.). The silt fence will rip and fail. Do not place a silt fence ditch check directly in front of a culvert outlet. It will not stand up to the concentrated flow. Do not place silt fence ditch checks in ditches that will likely experience high flows. They will not stand up to concentrated flow. Follow prescribed ditch check spacing guidelines. If spacing guidelines are exceeded, erosion will occur between the ditch checks. Do not allow water to flow around the ditch check. Make sure that the ditch check is long enough so that the ground level at the ends of the fence is higher than the low point on the top of the fence. Do not place silt fence ditch checks in channels with shallow soils underlain by rock. If the check is not anchored sufficiently, it will wash out.

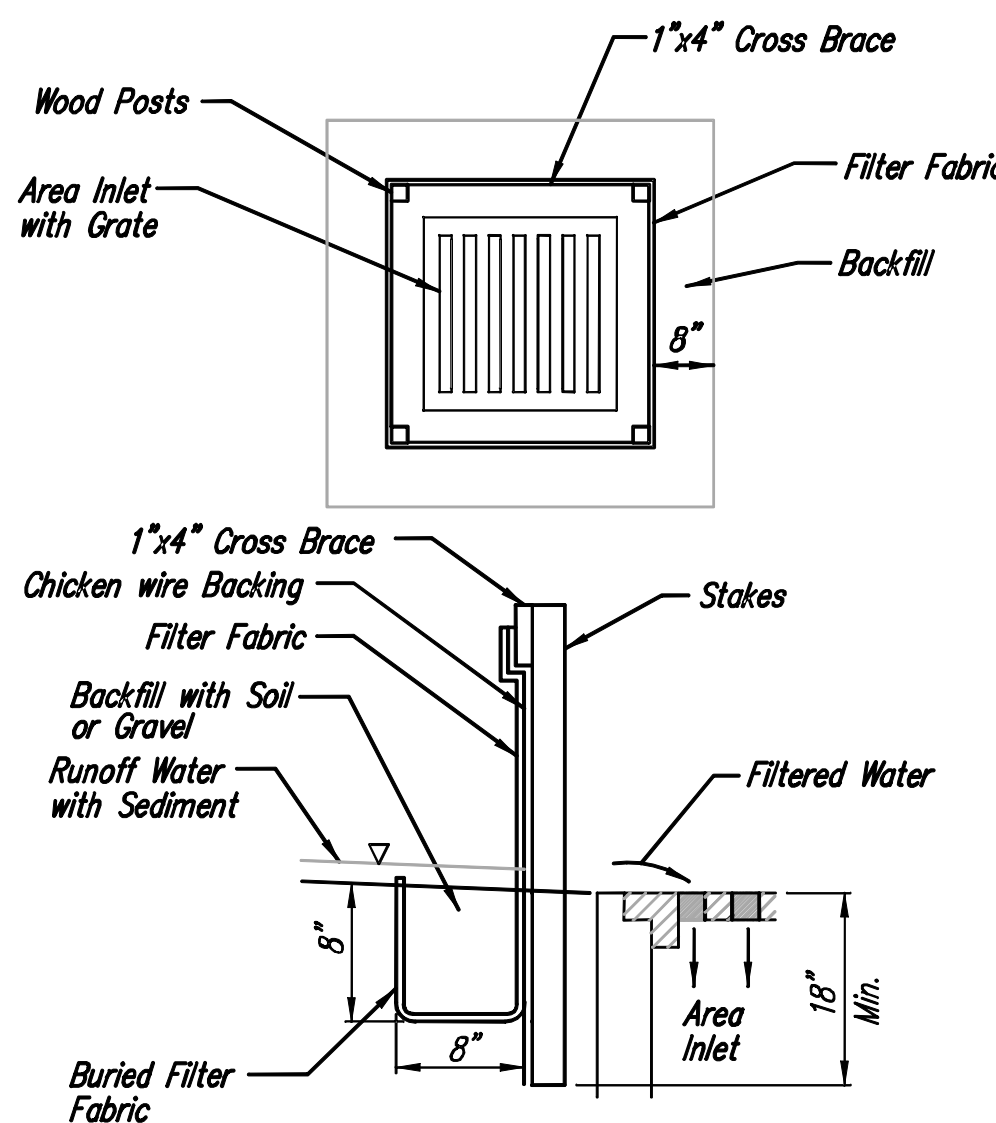
Inspection and Maintenance:

Silt fence ditch checks should be inspected every 7 days and within 24 hours of a rainfall of 1/2" or more. The following is a list of questions that should be addressed during each inspection:

- Does water flow around the ditch check?
- Does water flow under the ditch check?
- Does the silt fence sag excessively?
- Has the silt fence torn or become detached from the posts?
- Does sediment need to be removed from behind the ditch check?



ANCHOR TRENCH DETAIL



SILT FENCE BARRIERS FOR AREA INLETS
(INLET PROTECTION)

Material Specification:

Silt fence fabric should conform to the AASHTO M288 96 silt fence specification. The wire or polymeric mesh backing used to help support the silt fence fabric should conform to the AASHTO M288 96 silt fence specification. The posts used to support the silt fence fabric should be a hardwood material with the following minimum dimensions: 2" square (nominal) by 4' long. The material used to frame the tops of the posts should be 1" by 4" boards. Silt fence fabric and support backing should be attached to the wooden posts and frame with staples, wire, zip ties, or nails.

Placement:

Place a silt fence drop inlet barrier in a location where it is unlikely to be overtopped. Water should flow through silt fence, not over it. Silt fence barriers for area inlets often fail when repeatedly overtopped. When used as a barrier for area inlets, silt fence fabric and posts must be supported at the top by a wooden frame. When a silt fence barrier for area inlets is located near an inlet that has steep approach slopes, the storage capacity behind the barrier is drastically reduced. Timely removal of sediment must occur for a barrier to operate properly in this location.

Proper installation method:

Excavate a trench around the perimeter of the area inlet that is at least 8" deep by 8" wide. Drive posts to a depth of at least 18" around the perimeter of the area inlet. The distance between posts should be 4' or less. If the distance between two adjacent corner posts is more than 4', add another post(s) between them. Connect the tops of all the posts with a wooden frame made of 1" by 4" boards. Use nails or screws for fastening. Attach the wire or polymeric-mesh backing to the outside of the post/frame structure with staples, wire, zip ties, or nails. Roll out a continuous length of silt fence fabric long enough to wrap around the perimeter of the area inlet. Add more length for overlapping the fabric joint. Place the edge of the fabric in the trench, starting at the outside edge of the trench. Line all three sides of the trench with the fabric. Backfill over the fabric in the trench with the excavated soil and compact. After filling the trench, approximately 24" to 36" of silt fence fabric should remain exposed. Attach the silt fence to the outside of the post/frame structure with staples, wire, zip ties, or nails. The joint should be overlapped to the next post.

Note: When a silt fence barrier for area inlet is placed in a shallow median ditch, make sure that the top of the barrier is not higher than the paved road. In this configuration, water may spread onto the roadway causing a hazardous condition.

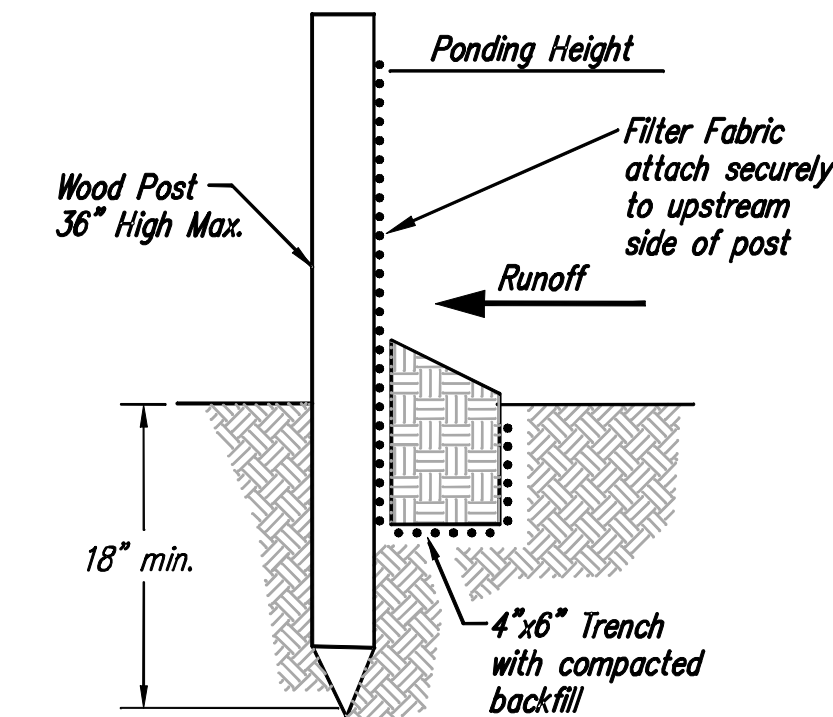
List of common placement/installation mistakes to avoid:

Water should flow through a silt fence barrier for area inlet—not over it. Place a silt fence barrier for area inlet in a location where it is unlikely to be overtopped. Silt fence barrier for area inlets often fail when repeatedly overtopped. Do not place posts on the outside of the silt fence barrier for area inlet. In this configuration, the force of the water is not resisted by the posts, but only by the staples (wire, zip ties, nails, etc.). The silt fence will rip and fail. Do not install silt fence barrier for area inlets without framing the top of the posts. The corner posts around area inlets are stressed in two directions whereas a normal silt fence is only stressed in one direction. This added stress requires more support.

Inspection and Maintenance:

Silt fence barrier for area inlets should be inspected every 7 days and within 24 hours of a rainfall of 1/2" or more. The following is a list of questions that should be addressed during each inspection:

- Does water flow under the silt fence?
- Does the silt fence sag excessively?
- Has the silt fence torn or become detached from the posts?
- Does sediment need to be removed from behind the area inlet barrier?



SILT FENCE BARRIERS

Material Specification:

Silt fence fabric should conform to the AASHTO M288 96 silt fence specification. The posts used to support the silt fence should be a hardwood material with the following minimum dimensions: 2" square (nominal) by 4' long. Silt fence fabric should be attached to the wooden posts with staples, wire, zip ties, or nails.

Placement:

A slope barrier should be used at the toe of a slope when a ditch does not exist. The slope barrier should be placed on nearly level ground 5' to 10' away from the toe of a slope. The barrier is placed away from the toe of the slope to provide adequate storage for settling out sediment. When practicable, silt fence slope barriers should be placed along contours to avoid a concentration of flow. Silt fence slope barriers can also be placed along right-of-way fence lines to keep sediment from crossing onto adjacent property. When placed in this manner, the slope barrier will not likely follow contours.

Proper installation method:

Excavate a trench the length of the planned slope barrier that is 6" deep by 4" wide. Make sure that the trench is excavated along a single contour. When practicable, slope barriers should be placed along contours to avoid a concentration of flow. Place the soil on the upslope side of the trench for later use. Roll out a continuous length of silt fence fabric on the downslope side of the trench. Place the edge of the fabric in the trench starting at the top upslope edge. Line all three sides of the trench with the fabric. Backfill over the fabric in the trench with the excavated soil and compact. After filling the trench, approximately 24" to 36" of silt-fence fabric should remain exposed. Lay the exposed silt fence upslope of the trench to clear an area for driving in the posts. Just downslope of the trench, drive posts into the ground to a depth of at least 18". Place posts no more than 4' apart. Attach the silt fence to the anchored post with staples, wire, zip ties, or nails.

List of common placement/installation mistakes to avoid:

When practicable, do not place silt fence slope barriers across contours. Slope barriers should be placed along contours to avoid a concentration of flow. When the flow concentrates, it overtops the barrier and the silt fence slope barrier quickly deteriorates. Do not place silt-fence posts on the upslope side of the silt fence fabric. In this configuration, the force of the water is not restricted by the posts, but only by the staples (wire, zip ties, nails, etc.). The silt fence will rip and fail. Do not place silt fence slope barriers in areas with shallow soils underlain by rock. If the barrier is not sufficiently anchored, it will wash out. Silt fence slope barriers must be dug into the ground—silt fence at ground level does not work because water will flow underneath.

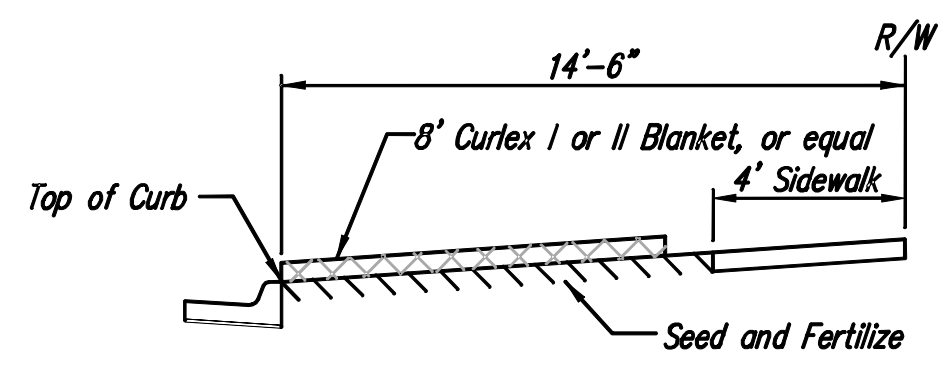
Inspection and Maintenance:

Silt fence slope barriers should be inspected every 7 days and within 24 hours of a rainfall of 1/2" or more. The following is a list of questions that should be addressed during each inspection:

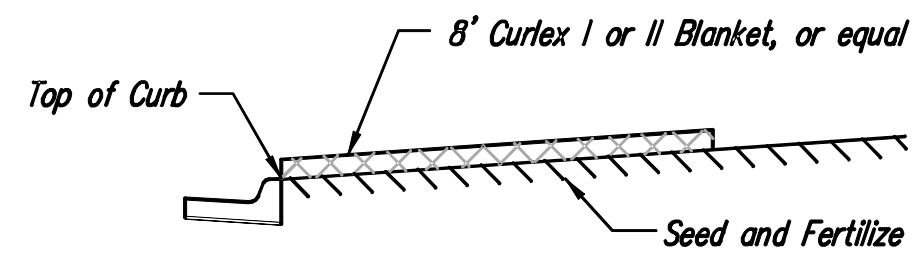
- Are there any points along the slope barrier where water is concentrating?
- Does water flow under the slope barrier?
- Do the silt fences sag excessively?
- Has the silt fence torn or become detached from the posts?
- Does sediment need to be removed from behind the slope barrier?



SOIL EROSION BMPs	
SILT FENCE DITCH CHECK AND BARRIER DETAILS	
JIM ARMOUR, P.E. CITY ENGINEER	
PROJECT NUMBER 448-90116	OCA NO. 735343
DATE JAN 2007	SHEET 10 OF 12

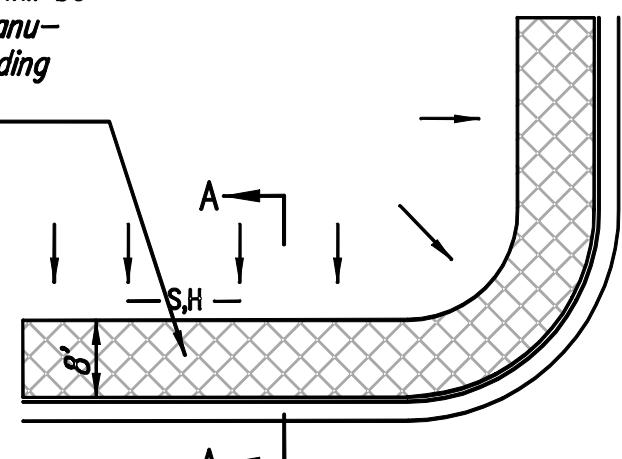


SECTION B-B

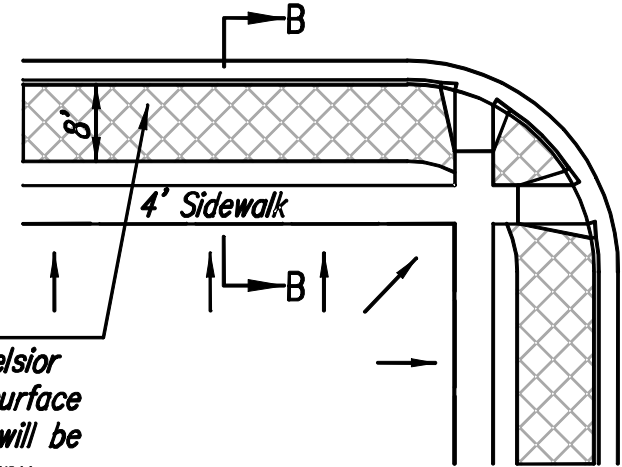


SECTION A-A

Install 8' wide Curlex I or II Excelsior Blanket, or equal, on prepared surface back of curb. Edge of blanket will be at back of curb. Install per manufacturer's recommendation, including staples. (See detail)



SOUTH STREET

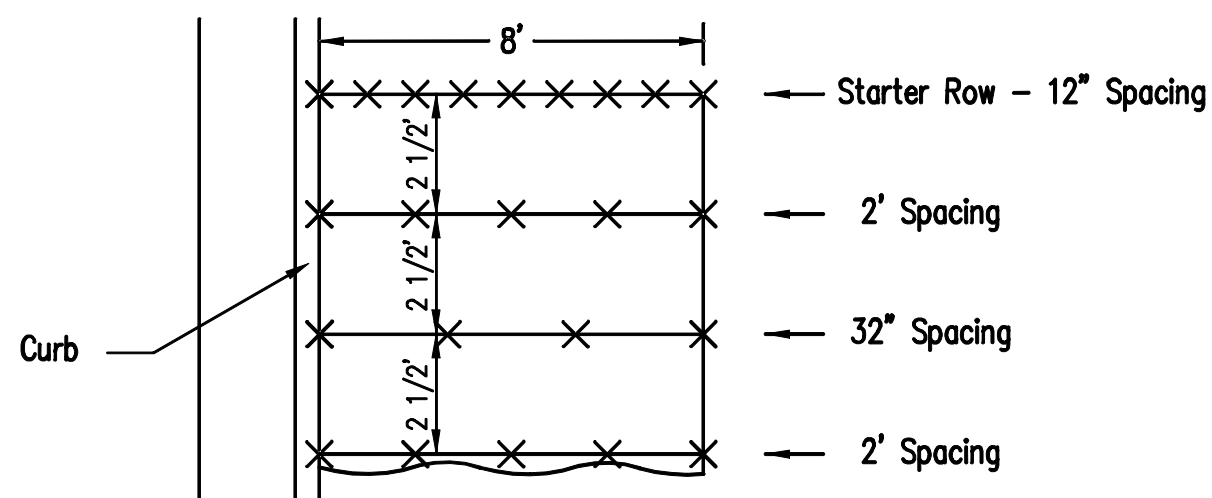


Install 8' wide Curlex I or II Excelsior Blanket, or equal, on prepared surface back of curb. Edge of blanket will be at back of curb. Install per manufacturer's recommendation, including staples. (See detail)

NOTES:

1. EXCELSIOR MAT TO BE INSTALLED WHEN SOD IS NOT SPECIFIED ON PROJECT.
2. EXCELSIOR BLANKET TO BE INSTALLED OVER SEED AND FERTILIZER, AS SPECIFIED IN THE PROJECT SPECIFICATIONS.
3. AFTER INSTALLATION OF EXCELSIOR BLANKET, AT LOCATIONS WHERE CONCENTRATED FLOW CARRIES SEDIMENT OVER THE CURB AND INTO THE GUTTER, SUPPLEMENTAL EROSION CONTROL DEVICES WILL BE INSTALLED BY THE CONTRACTOR AS NEEDED, TO FIX THE PROBLEM.

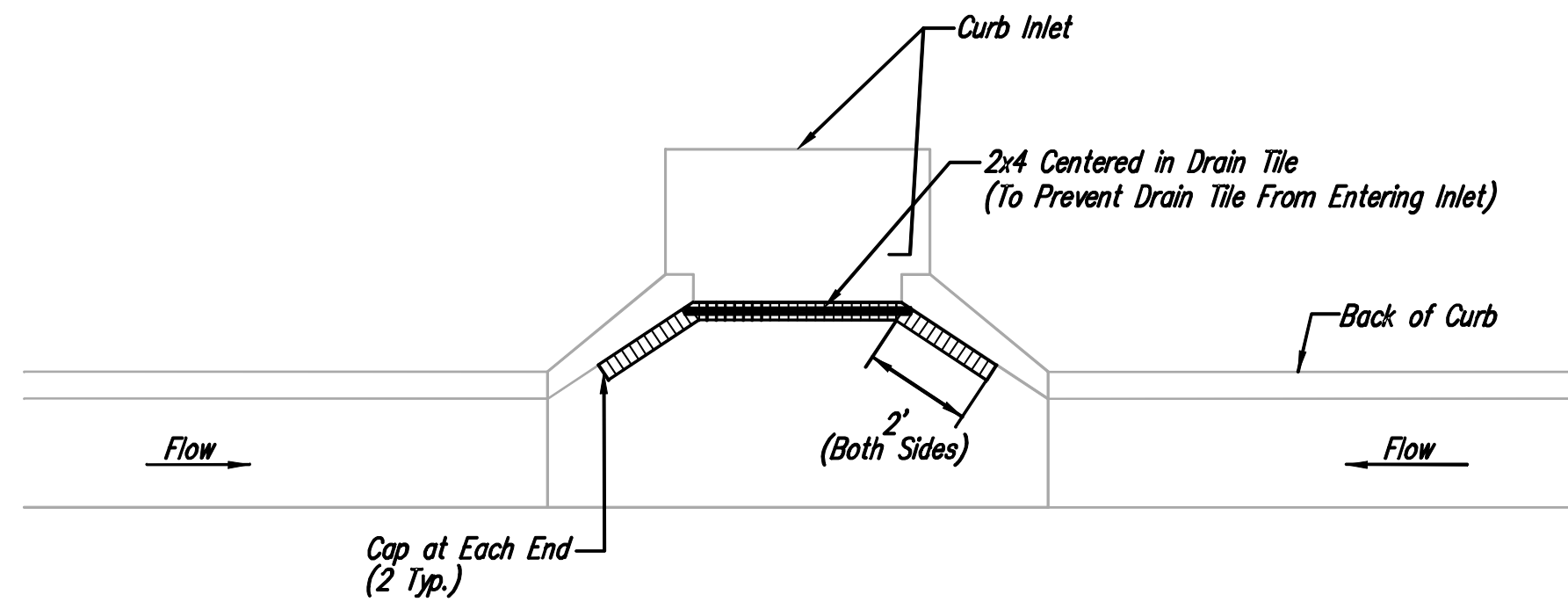
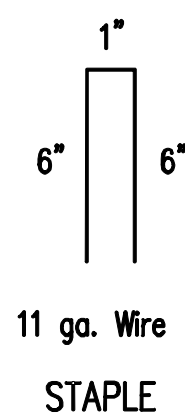
BACK OF CURB PROTECTION DETAIL



STAPLE PATTERN

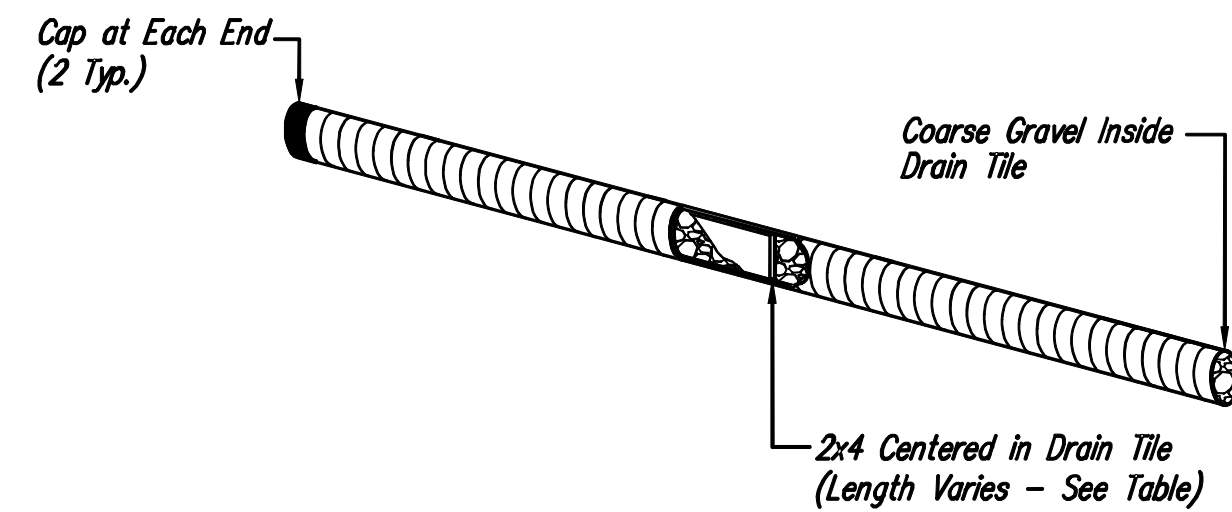
NOTES: Use 6" seam overlap

DETAILS FOR CURLEX I OR II BLANKETS



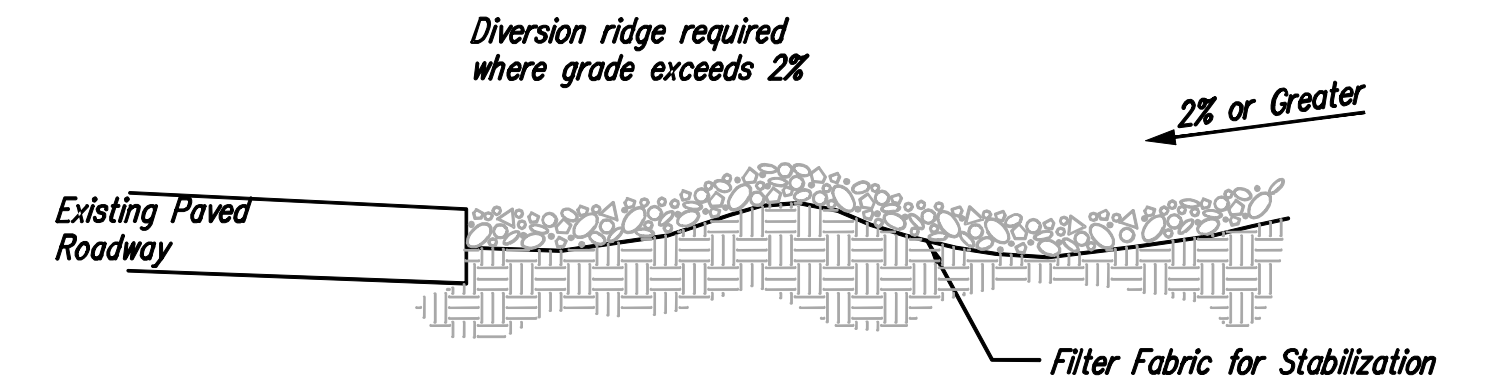
Note: Place 4" perforated PVC pipe, filled with 1/2"-1" dia. gravel, in front of curb inlet as shown.

2x4 LENGTH	INLET TYPE	INLET OPENING
5'-6"	1-A	5'-0"
10'-6"	1-A	10'-0"
15'-6"	1-A	15'-0"

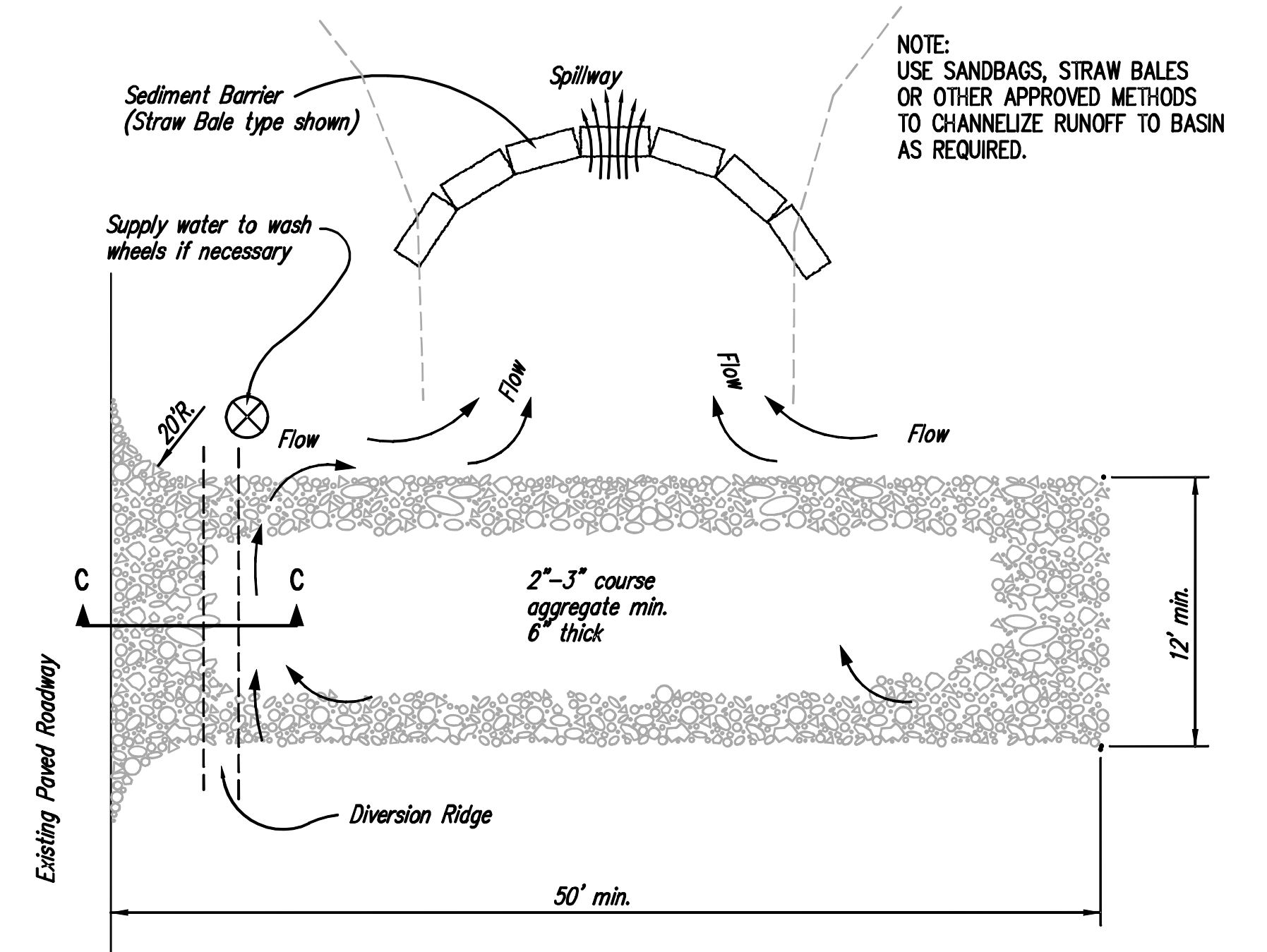


CURB INLET PROTECTION

4" PERFORATED PIPE W/ GRAVEL



SECTION C-C



STABILIZED CONSTRUCTION ENTRANCE

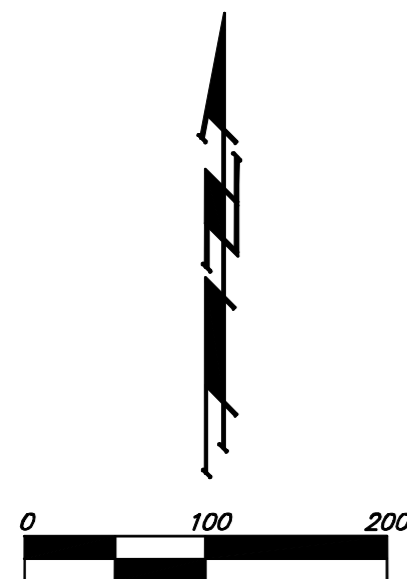
NOTES:

1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN, AS SHOWN ABOVE.
4. DRIVE ENTRANCES ONTO RESIDENTIAL LOTS WILL NOT BE REQUIRED TO HAVE THE SEDIMENT BARRIER SHOWN, BUT WHEEL WASHING MAY BE REQUIRED IF STABILIZED ENTRANCE IS NOT SUFFICIENT TO KEEP MUD FROM BEING TRACKED ONTO ADJACENT STREET. ENTRANCE SHALL EXTEND FROM BACK OF CURB TO DWELLING.



SOIL EROSION BMPs	
BACK OF CURB PROTECTION, CURB INLET PROTECTION AND CONSTRUCTION ENTRANCE	
JIM ARMOUR, P.E. CITY ENGINEER	
PROJECT NUMBER 448-90116	OCA NO. 735343
DATE JAN 2007	SHEET 11 OF 12

LILLIE 2ND ADDITION WICHITA, SEDGWICK COUNTY, KANSAS



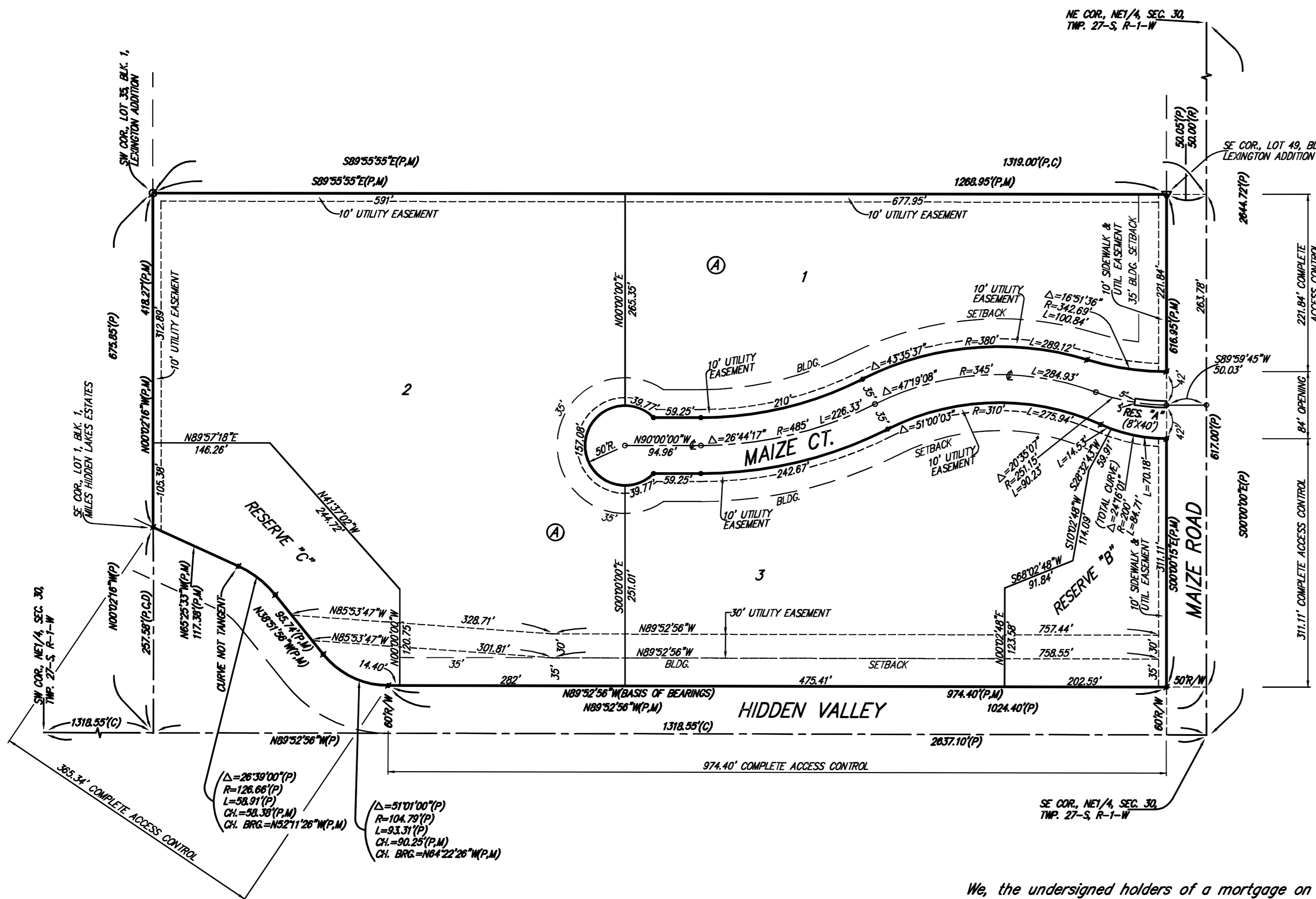
- = #4 REBAR W/ "BAUGHMAN" CAP (SET)
- = #4 REBAR W/ "BAUGHMAN" CAP (FOUND)
- ◻ = #4 REBAR W/ "SBS" CAP (FOUND)
- ◻ = #4 REBAR W/ "POE" CAP (FOUND)

MINIMUM BUILDING PAD ELEVATIONS FOR LOWEST OPENING TO THE STRUCTURES		
LOT	BLOCK	ELEVATION
2, 3	A	1322.0

- (M) = MEASURED
- (D) = DESCRIBED
- (P) = PLATTED
- (C) = CALCULATED
- (R) = RECORD MEASUREMENT
- (C-P) = CALCULATED PER PLATTED INFO.
- (C-D) = CALCULATED PER DESCRIBED INFO.

BENCHMARK:
CITY OF WICHITA BENCHMARK DISC -
MAIZE ROAD & MCCORMICK (HIDDEN VALLEY)
0.5 MI. S. OF MAPLE ON THE NE CORNER
OF R.C.B.C. OVER CONSKIN CREEK,
SOUTH OF HIDDEN VALLEY
ELEV. = 1318.93 NGVD29

NOTE:
ADDITIONAL BUILDING SETBACK
REQUIREMENTS PER COMMUNITY
UNIT PLAN 3P-288 ON FILE WITH
THE CITY OF WICHITA, KANSAS.



State of Kansas) SS We, Baughman Company, P.A., Surveyors in
Sedgwick County) aforesaid county and state do hereby certify that we have surveyed and
platted "LILLIE 2ND ADDITION", Wichita, Sedgwick County, Kansas and that
the accompanying plat is a true and correct exhibit of the property
surveyed, described as and being a replat of all of Lots 1, 2, and 3,
Block A, together with all of Reserves "A", "B", and "C", and together with
all of Maize Ct., all as platted and dedicated in Lillie Addition, Wichita,
Sedgwick County, Kansas.

All being situated in the NE1/4 of Sec. 30, Twp. 27-S,
R-1-W of the 6th P.M., Sedgwick County, Kansas.

Existing public easements and dedications being
vacated by virtue of K.S.A. 12-512(b).

Baughman Company, P.A.

This plat of "LILLIE 2ND ADDITION", Wichita,
Sedgwick County, Kansas has been submitted to and approved by the
Wichita-Sedgwick County Metropolitan Area Planning Commission, Wichita,
Kansas.

Dated this _____ day of _____, 2007.
Wichita-Sedgwick County Metropolitan Area Planning Commission

_____, Chair
Darrell A. Downing

_____, Secretary
John L. Schlegel

_____, Surveyor
Michael G. Conrey

This plat approved and all dedications
shown hereon accepted by the City Council of the City of Wichita,
Kansas, this _____ day of _____, 2007.

_____, Mayor
Carl Brewer

_____, City Clerk
Karen Sublett

Know all men by these presents that we,
the undersigned, have caused the land in the surveyors certificate to be
platted into Lots, a Block, a Street, and Reserves to be known as "LILLIE
2ND ADDITION", Wichita, Sedgwick County, Kansas. The utility easements
are hereby granted as indicated for the construction and maintenance of
all public utilities. The sidewalk and utility easements are hereby granted
as indicated for the construction and maintenance of public sidewalks and
for the construction and maintenance of all public utilities. The street is
hereby dedicated to and for the use of the public. Reserve "A" is hereby
reserved for streets, entry monuments, open space, utilities, and
landscaping. Reserve "B" is hereby reserved for lakes, landscaping,
drainage purposes, entry monuments, signage, sidewalks, and utilities as
confined to easements. Reserve "C" is hereby reserved for lakes,
landscaping, drainage purposes, and utilities as confined to easements.
Reserves "A", "B", and "C" shall be owned and maintained by the lot
owners association for the addition. Access controls shall be as depicted
on the face of the plat and are hereby granted to the City of Wichita,
Kansas. The Minimum Building Pad Elevation for the lowest opening to
the structures shall be as indicated on the face of the plat.

Physicians Development, L.L.C.,
a Kansas limited liability company

_____, Co-Manager/Member
Gregory F. Lakin, O.D., J.D.

_____, Co-Manager/Member
Matthew J. Lillie

Reviewed in accordance with K.S.A. 58-2005
on this _____ day of _____, 2007.

_____, Deputy County Surveyor
Tricia L. Robello, L.S. #1246
Sedgwick County, Kansas

Entered on transfer record this _____ day
of _____, 2007.

_____, County Clerk
Don Brace

We, the undersigned holders of a mortgage on the
above described property, do hereby consent to this plat of "LILLIE 2ND
ADDITION", Wichita, Sedgwick County, Kansas.

Central National Bank

_____, Notary Public

My App't. Exp. _____

State of Kansas) SS The foregoing instrument acknowledged be-
Sedgwick County) fore me, this _____ day of _____, 2007, by _____,
_____, of Central National Bank, on behalf of the bank.

_____, Notary Public

_____, Notary Public

My App't. Exp. _____

State of Kansas) SS The foregoing instrument acknowledged before
Sedgwick County) me, this _____ day of _____, 2007, by Matthew J. Lillie,
_____, Co-Manager/Member of Physicians Development, LLC, a Kansas limited
liability company, on behalf of the limited liability company.

_____, Notary Public

_____, Notary Public

My App't. Exp. _____

State of Kansas) SS This is to certify that this plat has been
Sedgwick County) filed for record in the office of the Register of Deeds, this _____ day
of _____, 2007 at _____ o'clock _____ M; and is duly recorded.

_____, Register of Deeds
Bill Meek

_____, Deputy
Tonya Buckingham

LILLIE 2ND ADDITION

Baughman Company, P.A.
315 Ellis St. Wichita, KS 67211 P 316-262-7171 F 316-262-0149
Baughman ENGINEERING | SURVEYING | PLANNING | LANDSCAPE ARCHITECTURE

NOTE:
A DRAINAGE PLAN HAS BEEN DEVELOPED FOR THIS SUBDIVISION AND IS
ON FILE WITH THE CITY OF WICHITA, KANSAS. DRAINAGE INTENT SHALL
REMAIN AS DEPICTED OR AS MODIFIED WITH THE APPROVAL OF THE CITY
ENGINEER OF THE CITY OF WICHITA, KANSAS. NO OBSTRUCTIONS WHICH
IMPEDE THE FLOW OF THIS DRAINAGE PLAN SHALL BE ALLOWED.