GENERAL NOTES

1. Existing utilities, both above and below ground, and their locations as shown on the plans, represent the best information available for design. The locations of utilities as shown on the plans are not guaranteed and the Contractor shall verify all utilities and their locations before beginning construction. Additional utilities, including relocated utilities, which are not shown on the plans may be encountered. In this event, the Contractor shall adjust his schedule and cooperate with the utility companies to ensure that their facilities be adjusted as required to clear construction. The Contractor shall exercise extreme caution while working near utilities.

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

3. The Water Department shall field locate water valves one time during construction when requested by the Contractor. It shall be the responsibility of the Contractor to preserve such field locations during the construction process. Water valves, water valve boxes, or fire hydrants damaged during construction shall be repaired at the Contractor's expense. Contact Greg Lolley with the Wichita Water Department for water service information.

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

5. The Contractor shall not start work on the project until the Project Inspector assigned to the project is present. Any work done without inspection will be required to be uncovered for inspection.

6. Power Poles within close proximity to the new water line may require temporary bracing to facilitate construction. Contractor shall contact Shane Price at Westar Energy at 261-6315 prior to construction to coordinate pole bracing.

7. Temporary Blow-off Valves necessary to flush lines at existing water line tie-ins shall not be paid for directly, but shall be considered INCIDENTAL to other items in the bid.

8. All Costs for abandonment of existing Water lines, including Pipe abandonment, removal and salvage of Valve Boxes, and closing and capping of Valves shall be included in the Bid Item "Site Clearing".

9. All pipe trench under new pavement shall be back filled with sand, which shall be flushed with water and vibrated. To be paid as the Lump Sum Bid Item "Sand Fill, Flushed & Vibrated."

10. All water pipe trench in pavement or driveways which will be required to carry traffic until permanent replacement shall be topped with 6" thick temporary asphalt to be paid as a Measured Quantity Bid Item (S.Y.).

WATER MAIN REPLACEMENT FOR

HYDRAULIC AVE.

From South of Harry Street to Kellogg Drive

Project Number

448-90448

O.C.A. Number

636220

CITY OF WICHITA, KANSAS

James L. Armour, P.E. City Engineer

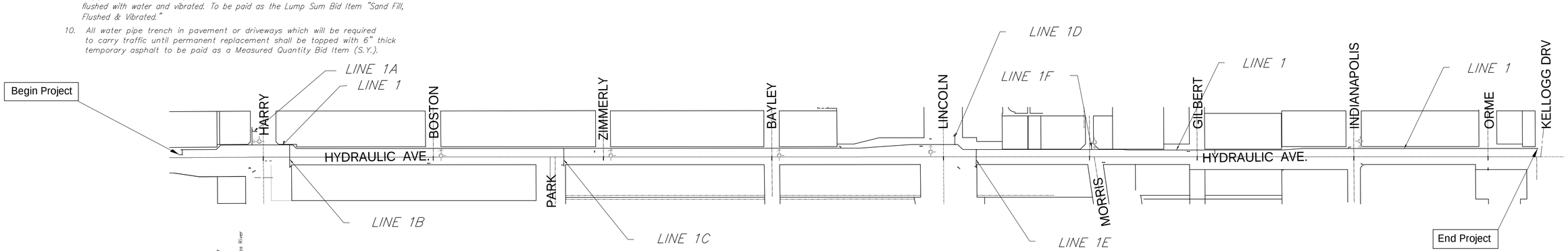
SEPTEMBER 2009

FINAL PLANS

0 100 200

Scale: 1" = 200'

Index



Vicinity Map

PROJECT AREA

TIM AZIERE LICENSED 19753 KANSAS PROFESSIONAL ENGINEER

Drawing File: E:\\Hydraulic Kellogg to Harry Pave\Land\dwg\Water.dwg

September 2009

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

KEYSHEET

Benchmarks

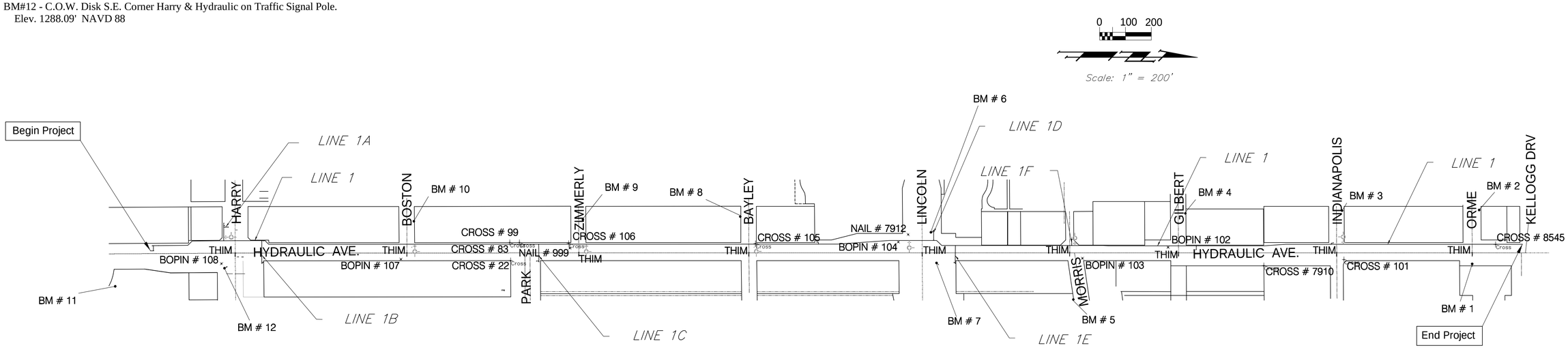
BM#1 - C.O.W. Disk - E. Side of Hydraulic CL of Orme W.
Elev. 1293.46' NAVD 88
BM#2 - "□" Top of Curb N. Side Orme, E. End Return,
E. Side Alley, W. of Hydraulic.
Elev. 1291.43' NAVD 88
BM#3 - "□" Top of Curb N. Side of Indianapolis, E. End Return,
E. Side Alley, W. of Hydraulic.
Elev. 1290.92' NAVD 88
BM#4 - "□" Top of Curb N. Side Gilbert, E. End Return,
E. Side of Alley, W. of Hydraulic
Elev. 1291.14' NAVD 88
BM#5 - "□" Top of Curb S. Side Morris, 155' E. of CL Hydraulic.
Elev. 1290.88' NAVD 88
BM#6 - "□" Top of Curb E. End Return, S. Drive into Quick Trip,
W. of Hydraulic.
Elev. 1294.16' NAVD 88
BM#7 - C.O.W. Disk N.E. Corner Lincoln and Hydraulic of Traffic Signal Pole
Elev. 1293.50' NAVD 88
BM#8 - "□" Top of Curb S. Side Bayley, E End Return, E Side Alley, W. of Hydraulic.
Elev. 1296.15' NAVD 88
BM#9 - "□" Top of Curb S. Side Zimmerly, W.End Return, W. Alley, W. of Hydraulic.
Elev. 1290.84' NAVD 88
BM#10 - "□" Top of Curb N. Side Boston, W. End Return, W. Side Alley, W. of Hydraulic.
Elev. 1290.00' NAVD 88
BM#11 - Top of Curb N. End Return, N. Side Osie, E. Side Hydraulic.
Elev. 1288.18' NAVD 88
BM#12 - C.O.W. Disk S.E. Corner Harry & Hydraulic on Traffic Signal Pole.
Elev. 1288.09' NAVD 88

Control Points

Number	Northing	Easting	Elev.	Desc
22	21065.4192	30014.9897	1290.51	CROSS
83	21060.7751	29945.0425	1290.26	CROSS
99	21098.2767	29944.5608	1290.45	CROSS
101	24289.4460	29968.2450	1291.21	CROSS
102	23608.2850	29929.4800	1290.48	BOPIN
103	23277.4900	29976.6840	1290.42	BOPIN
104	22564.3470	29922.9130	1294.95	BOPIN
105	22012.0290	29936.8010	1296.02	CROSS
106	21289.5410	29945.5660	1290.96	CROSS
107	20641.2000	30015.4290	1290.11	BOPIN
108	19947.3410	30041.7310	1288.32	BOPIN
999	21293.9331	29963.6377	1291.16	NAIL
7910	23979.5530	29995.6888	1290.08	CROSS
7912	22602.1863	29893.5941	1295.13	NAIL BCAP
8545	24874.8370	29901.5610	1293.42	CROSS

0 100 200

Scale: 1" = 200'



PROJECT AREA

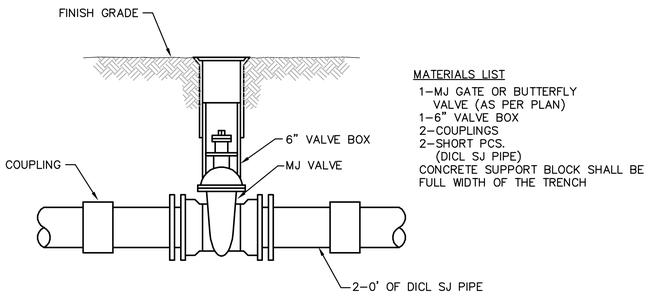
Drawing File: E:\\Hydraulic Kellogg to Harry Pave\Land\dwg\ACAD-Base (Water).dwg

September 2009

Design: KK
Drawn: TCA
Approved: JFB
Scale: 1:200

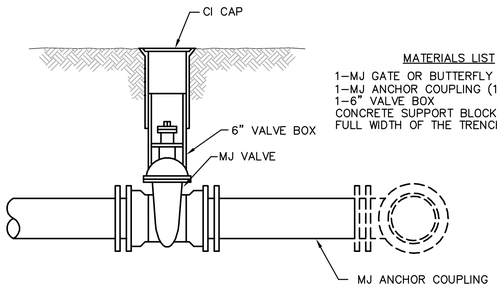
Project No.
CAPITAL IMPROVEMENT PROJECT
HYDRAULIC STREET WATERLINE
KEYSHEET
SOUTH OF HARRY TO KELLOGG DRIVE

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



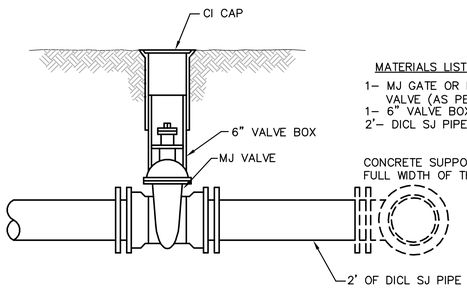
MATERIALS LIST
1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
1-6" VALVE BOX
2-COUPLINGS
2-SHORT PCS. (DICL SJ PIPE)
CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH

LINE VALVE ASSEMBLY



MATERIALS LIST
1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
1-MJ ANCHOR COUPLING (12" OR SMALLER)
1-6" VALVE BOX
CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH

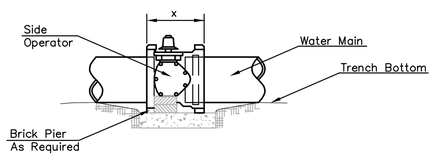
ANCHORED VALVE ASSEMBLY



MATERIALS LIST
1- MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
1- 6" VALVE BOX
2'- DICL SJ PIPE

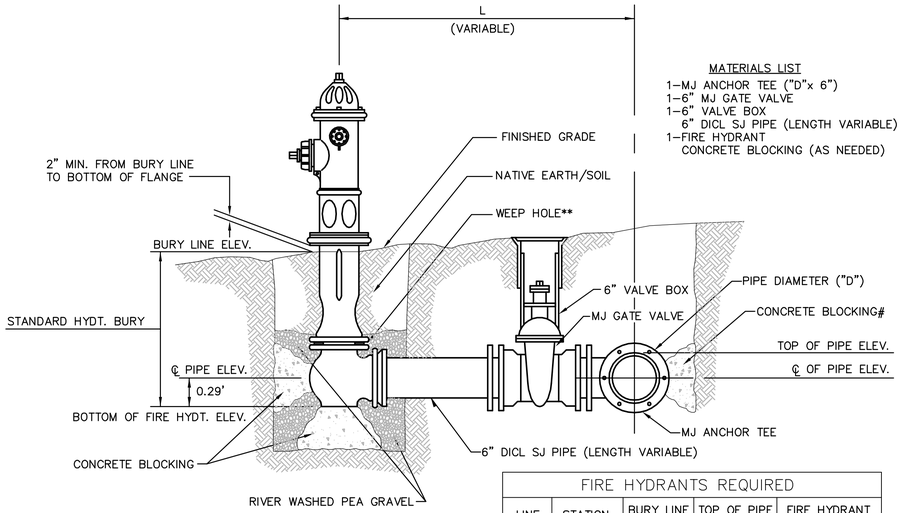
CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH

VALVE ASSEMBLY



NOTES
1. This detail covers Butterfly Valve installation, inclusive, regardless of type of pipe or joint used. Larger lines to be detailed on plans.
2. 6" Valve Box and Cover required per City of Wichita Std. Specifications.
3. Conc. Support Block to be full width of trench.

CONCRETE SUPPORT BLOCKING FOR BUTTERFLY VALVE INSTALLATION



MATERIALS LIST
1-MJ ANCHOR TEE ("D"x 6")
1-6" MJ GATE VALVE
1-6" VALVE BOX
6" DICL SJ PIPE (LENGTH VARIABLE)
1-FIRE HYDRANT
CONCRETE BLOCKING (AS NEEDED)

** CAUTION! WEEP HOLES TO BE KEPT CLEAR DURING CONSTRUCTION AND BACKFILL. CONCRETE FOR THRUST BLOCKING SHALL NOT OBSTRUCT WEEP HOLES.

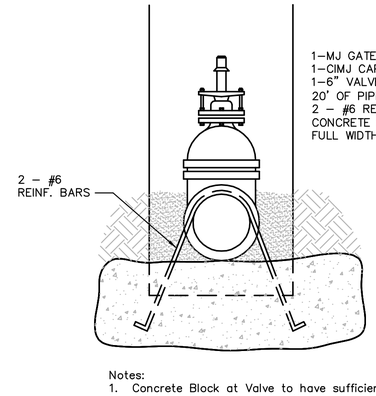
CONCRETE THRUST BLOCKING SHALL BE KEPT CLEAR OF BOLTS, NUTS, AND MJ ACCESSORIES.

* IF HYDRANT BURY IS IN EXCESS OF 5', CONTRACTOR SHALL USE STANDARD 5' HYDRANT BURY AND HYDRANT BARREL EXTENSIONS AS NECESSARY.

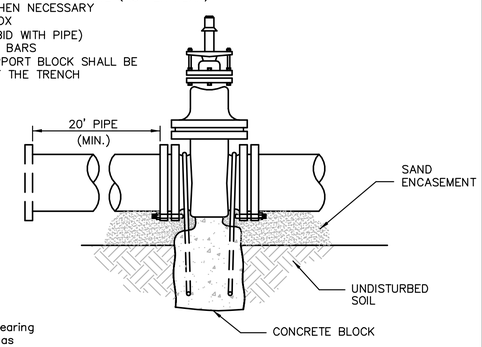
FIRE HYDRANTS REQUIRED				
LINE	STATION	BURY LINE ELEVATION	TOP OF PIPE ELEVATION	FIRE HYDRANT BURY REQUIRED*
1	10+26.84	1289.44	1286.22	3.9'
1	16+96.20	1291.04	1287.00	4.7'
1	23+54.15	1295.97	1292.30	4.3'
1	29+46.13	1294.83	1290.77	4.7'
1	35+95.06	1290.93	1287.04	4.6'
1	46+33.75	1291.23	1287.58	4.3'
1A	0+13.60	1288.87	1284.00	5.5'

FIRE HYDRANT ASSEMBLY

PER CITY OF WICHITA SPECIFICATIONS



MATERIALS LIST
1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
1-CIMJ CAP WHEN NECESSARY
1-6" VALVE BOX
20' OF PIPE (BID WITH PIPE)
2 - #6 REINF. BARS
CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH



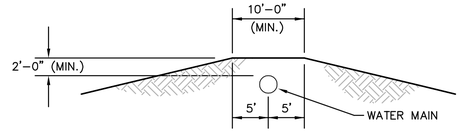
Notes:
1. Concrete Block at Valve to have sufficient bearing in undisturbed soil to prevent thrust movement as shown in table at right. Field Engineer to determine thrust loading of undisturbed soil and final size of thrust block.

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.

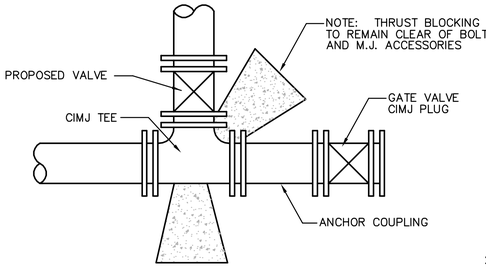
THRUST AT VALVES	
VALVE	THRUST AT 150 #/in²
4"	1809 lbs.
6"	4245 lbs.
8"	7540 lbs.
12"	16965 lbs.

ANCHORED VALVE ASSEMBLY, SPECIAL

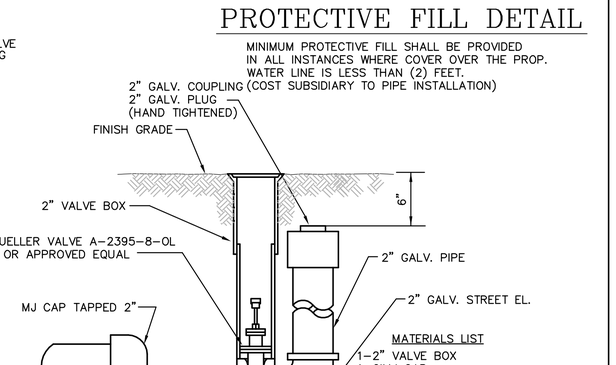


PROTECTIVE FILL DETAIL

MINIMUM PROTECTIVE FILL SHALL BE PROVIDED IN ALL INSTANCES WHERE COVER OVER THE PROP. WATER LINE IS LESS THAN (2) FEET.

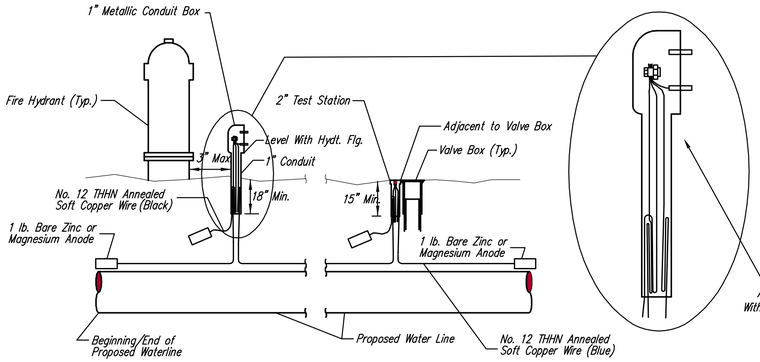


KEY BLOCK DETAIL



MATERIALS LIST
1-2" VALVE BOX
1-CIMJ CAP
1-2"x6" BRASS NIPPLE
1-2" IPT MUELLER VALVE A-2395-8-OL
2" HEAD OR APPROVED EQUAL
1-GALV. STREET EL.
2" GALV. PIPE (AS REQUIRED)
1-2" GALV. COUPLING
1-2" GALV. PLUG (HAND TIGHTENED)

2" BLOWOFF ASSEMBLY



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

Revised: 6-7-00, MCG

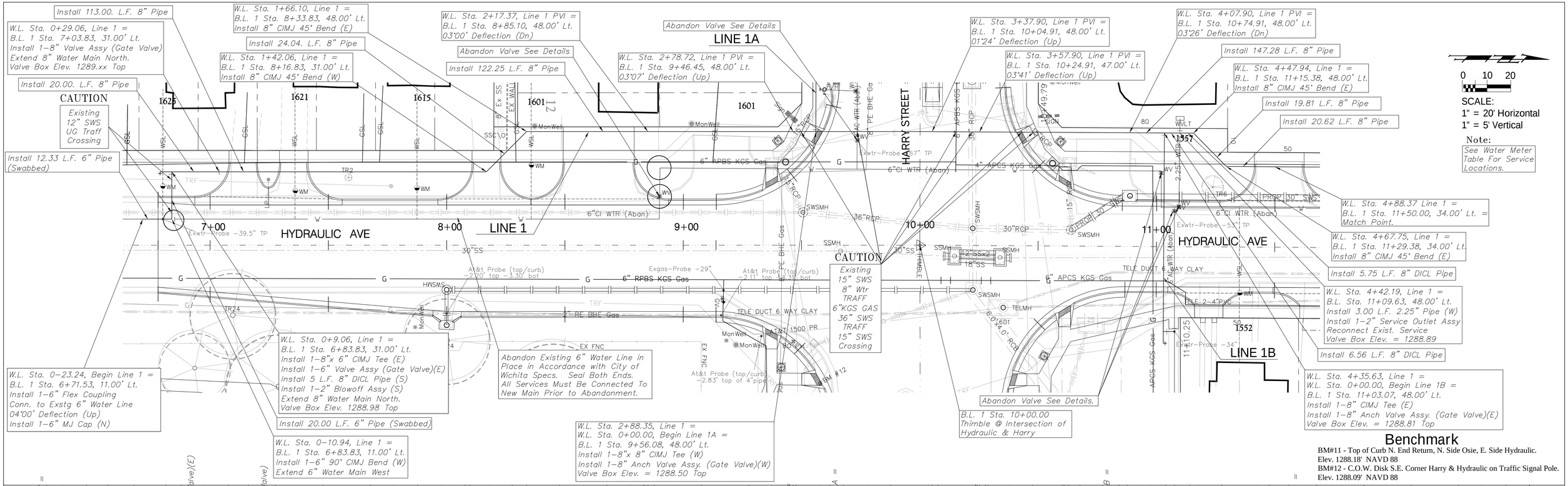
THE CITY OF WICHITA

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

STANDARD WATER ASSEMBLY DETAILS

JIM ARMOUR - CITY ENGINEER

PROJECT NUMBER	O.C.A. Number
448-90448	636220
DATE: Sept. 2009	SHEET 3 OF 18



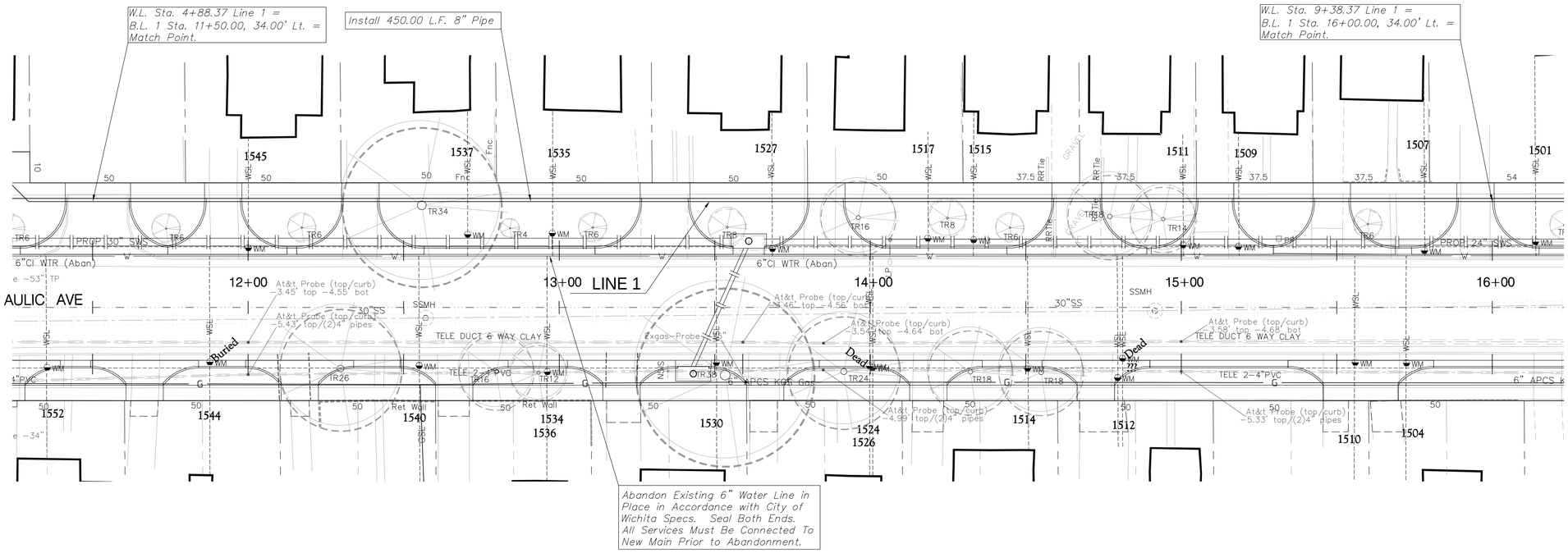
Drawing File: E:\Eng\Hydraulic Kellogg to Harry Pave\Land\dwg\ACAD-Base (Water).dwg

September 2009

Design: TCA	Project No. 07-10-E969 CAPITAL IMPROVEMENT PROJECT
Drawn: TCA	HYDRAULIC AVENUE
Approved: JFB	Line 1, W.L. Sta. 0+00.00 to W.L. Sta 4+88.37
Scale: 1:20	SOUTH OF HARRY TO KELLOGG DRIVE

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

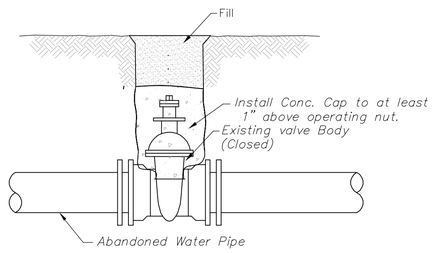
SHEET 4 OF 18



Note:
See Water Meter Table For Service Locations.

0 10 20

SCALE:
1" = 20' Horizontal
1" = 5' Vertical

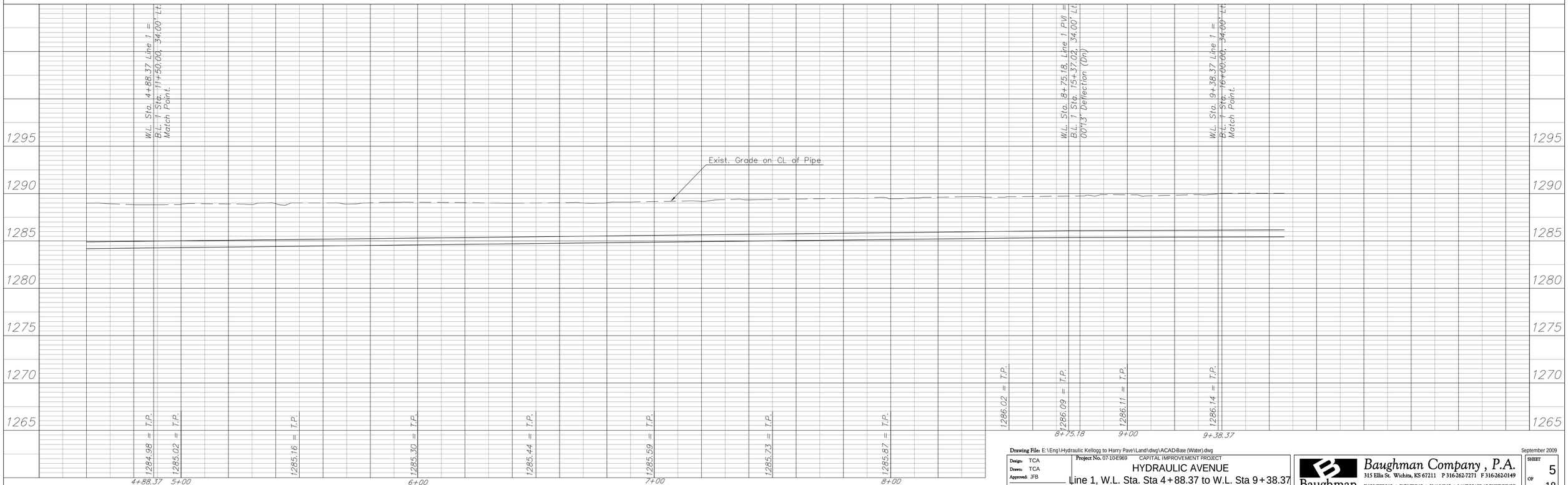


WATER VALVE
Abandonment Details

Close Valve, Remove & Salvage Valve Box. Deliver to City of Wichita. Cap Valve with Conc.

Benchmark

BM#10 - "□" Top of Curb N. Side Boston, W. End Return, W. Side Alley, W. of Hydraulic.
Elev. 1290.00' NAVD 88



Drawing File: E:\Eng\Hydraulic Kellogg to Harry Pave\Land\dwg\ACAD-Base (Water).dwg

September 2009

Design: TCA	**Project No.** 07-10-E969 CAPITAL IMPROVEMENT PROJECT
Drawn: TCA	HYDRAULIC AVENUE
Approved: JFB	Line 1, W.L. Sta. Sta 4+88.37 to W.L. Sta 9+38.37
Scale: 1:20	SOUTH OF HARRY TO KELLOGG DRIVE

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

Install 94.47 L.F. 8" Pipe

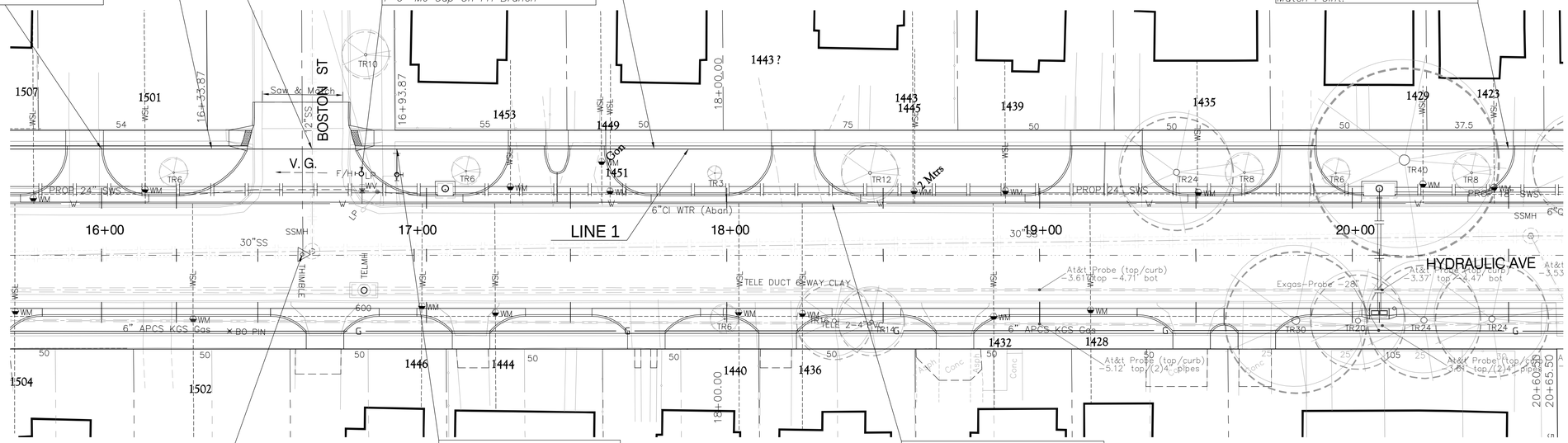
W.L. Sta. 9+38.37 Line 1 = B.L. 1 Sta. 16+00.00, 34.00' Lt. = Match Point.

CAUTION
Existing 12" SS Crossing

Remove & Salvage Ex. Fire Hydrant & Abandon Valve See Details. Install 1-6" MJ Cap On FH Branch

Install 355.53 L.F. 8" Pipe

W.L. Sta. 13+88.37 Line 1 = B.L. 1 Sta. 20+50.00, 34.00' Lt. = Match Point.



B.L. 1 Sta. 16+64.16, 0.27 Lt. Thimble @ Intersection of Hydraulic & Boston

W.L. Sta. 10+32.84, Line 1 = B.L. 1 Sta. 16+94.47, 34.00' Lt. Install 1-Fire Hydrant Assy. (E) L = 8.20' Valve Box Elev. 1289.82 Top Bury Line Elev. 1289.44

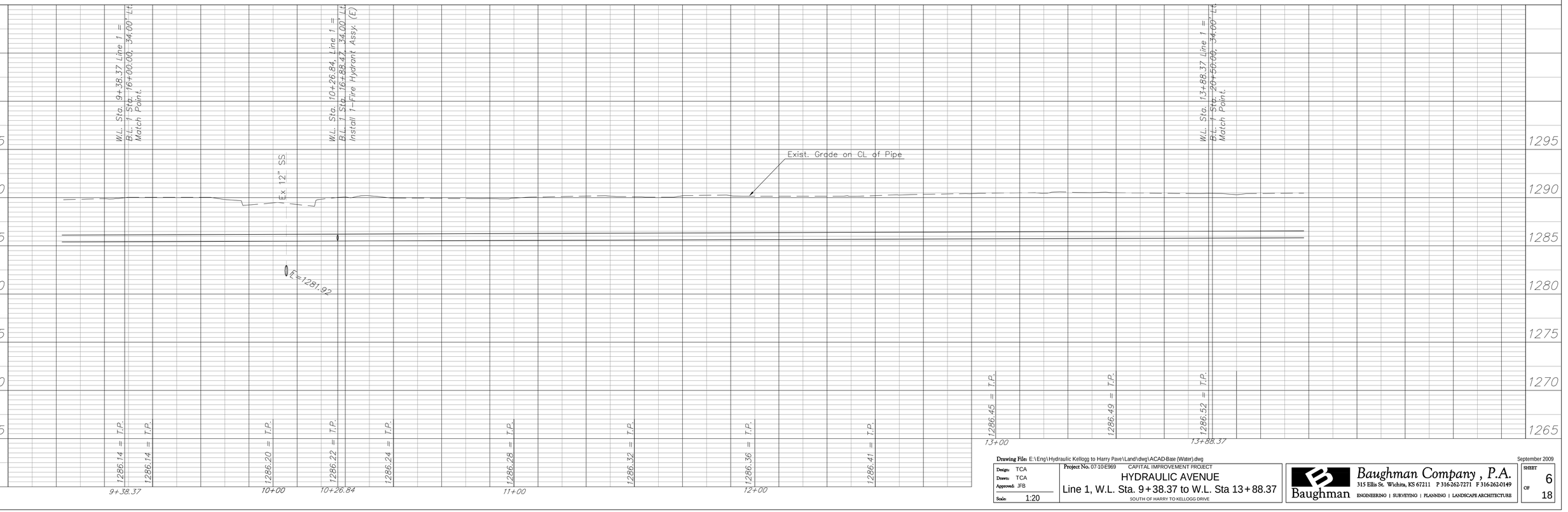
Abandon Existing 6" Water Line in Place in Accordance with City of Wichita Specs. Seal Both Ends. All Services Must Be Connected To New Main Prior to Abandonment.

Note:
See Water Meter Table For Service Locations.

0 10 20
SCALE:
1" = 20' Horizontal
1" = 5' Vertical

Benchmark

BM#10 - "□" Top of Curb N. Side Boston, W. End Return, W. Side Alley, W. of Hydraulic. Elev. 1290.00' NAVD 88



Drawing File: E:\Eng\Hydraulic Kellogg to Harry Pave\Land\dwg\ACAD-Base (Water).dwg

September 2009

Design:	TCA
Drawn:	TCA
Approved:	JFB
Scale:	1:20

Project No. 07-10-E969 CAPITAL IMPROVEMENT PROJECT

HYDRAULIC AVENUE

Line 1, W.L. Sta. 9+38.37 to W.L. Sta 13+88.37

SOUTH OF HARRY TO KELLOGG DRIVE

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

SHEET 6 OF 18

Install 124.07. L.F. 8" Pipe

W.L. Sta. 13+88.37 Line 1 = B.L. 1 Sta. 20+50.00, 34.00' Lt. = Match Point.

CAUTION
Existing 2 UG AT&T Crossing

Install 183.76 L.F. 8" Pipe

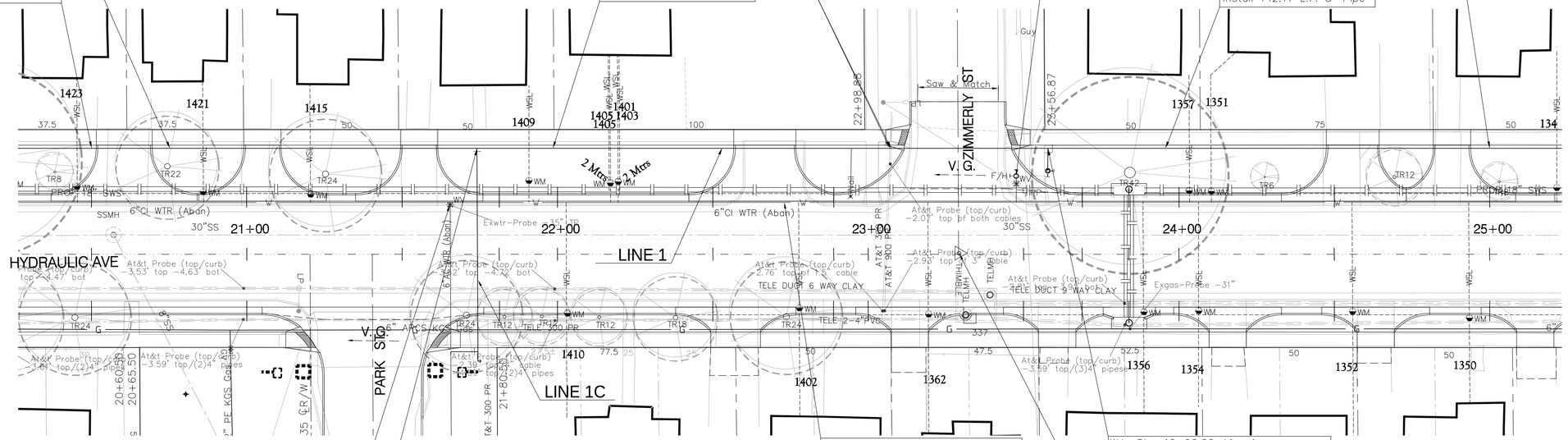
Remove & Salvage Ex. Fire Hydrant & Abandon Valve See Details. Install 1-6" MJ Cap On FH Branch

W.L. Sta. 18+38.37 Line 1 = B.L. 1 Sta. 25+00.00, 34.00' Lt. = Match Point.

Install 142.17 L.F. 8" Pipe

Note:
See Water Meter Table For Service Locations.

0 10 20
SCALE:
1" = 20' Horizontal
1" = 5' Vertical



Abandon Valve See Details.

W.L. Sta. 15+12.44, Line 1 = W.L. Sta. 0+00.00, Begin Line 1C = B.L. 1 Sta. 21+74.07, 34.00' Lt. Install 1-8" CIMJ Tee (E) Install 1-8" Anch Valve Assy. (Gate Valve)(E) Valve Box Elev. = 1290.34 Top

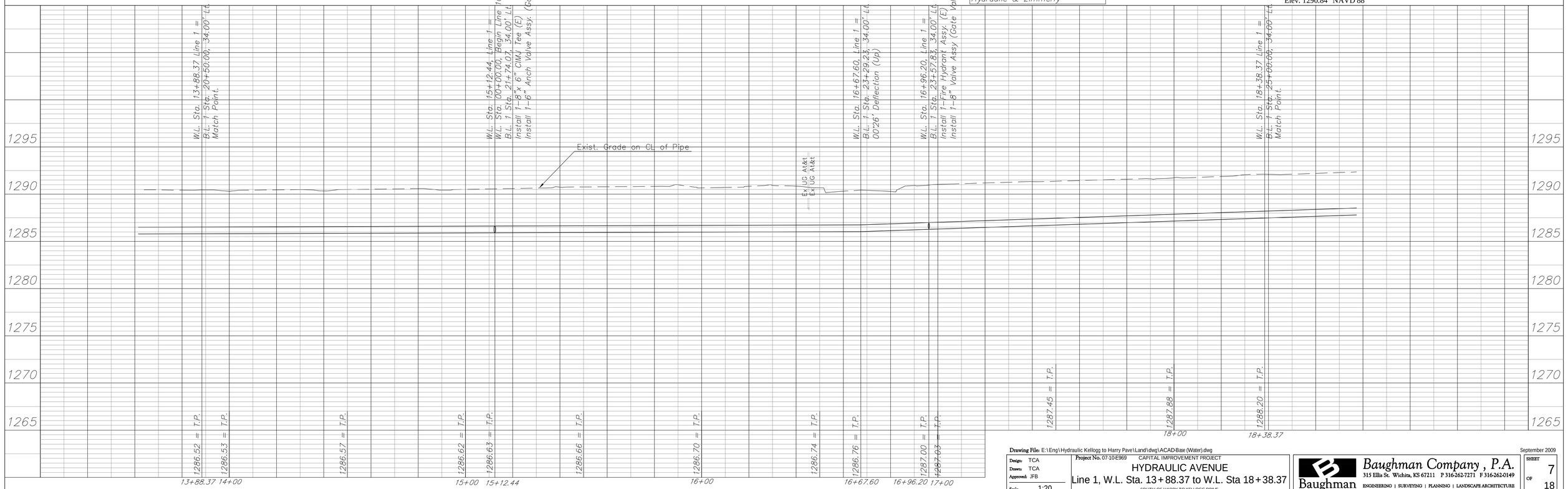
Abandon Existing 6" Water Line in Place in Accordance with City of Wichita Specs. Seal Both Ends. All Services Must Be Connected To New Main Prior to Abandonment.

W.L. Sta. 16+96.20, Line 1 = B.L. 1 Sta. 23+57.83, 34.00' Lt. Install 1-Fire Hydrant Assy. (E) L = 7.22' Install 1-8" Valve Assy (Gate Valve)(N) Valve Box Elev. 1290.87 Top Bury Line Elev. 1291.04

B.L. 1 Sta. 23+29.22, 0.32 Lt. Thimble @ Intersection of Hydraulic & Zimmerly

Benchmark

BM#9 - "□" Top of Curb S. Side Zimmerly, W.End Return, W. Alley, W. of Hydraulic. Elev. 1290.84' NAVD 88



Drawing File: E:\Eng\Hydraulic Kellogg to Harry Pave\Land\dwg\ACAD-Base (Water).dwg

September 2009

Design:	TCA
Drawn:	TCA
Approved:	JFB
Scale:	1:20

Project No. 07-10-E969 CAPITAL IMPROVEMENT PROJECT

HYDRAULIC AVENUE

Line 1, W.L. Sta. 13+88.37 to W.L. Sta 18+38.37

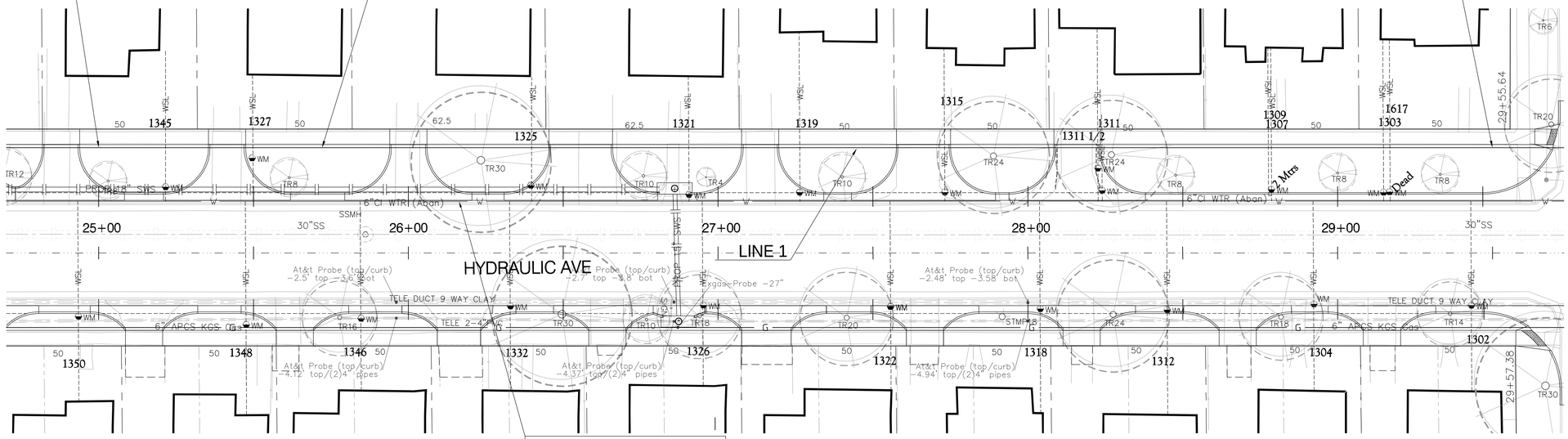
SOUTH OF HARRY TO KELLOGG DRIVE

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

W.L. Sta. 18+38.37 Line 1 = B.L. 1 Sta. 25+00.00, 34.00' Lt. = Match Point.

Install 450.00 L.F. 8" Pipe

W.L. Sta. 22+88.37 Line 1 = B.L. 1 Sta. 29+50.00, 34.00' Lt. = Match Point.



Abandon Existing 6" Water Line in Place in Accordance with City of Wichita Specs. Seal Both Ends. All Services Must Be Connected To New Main Prior to Abandonment.

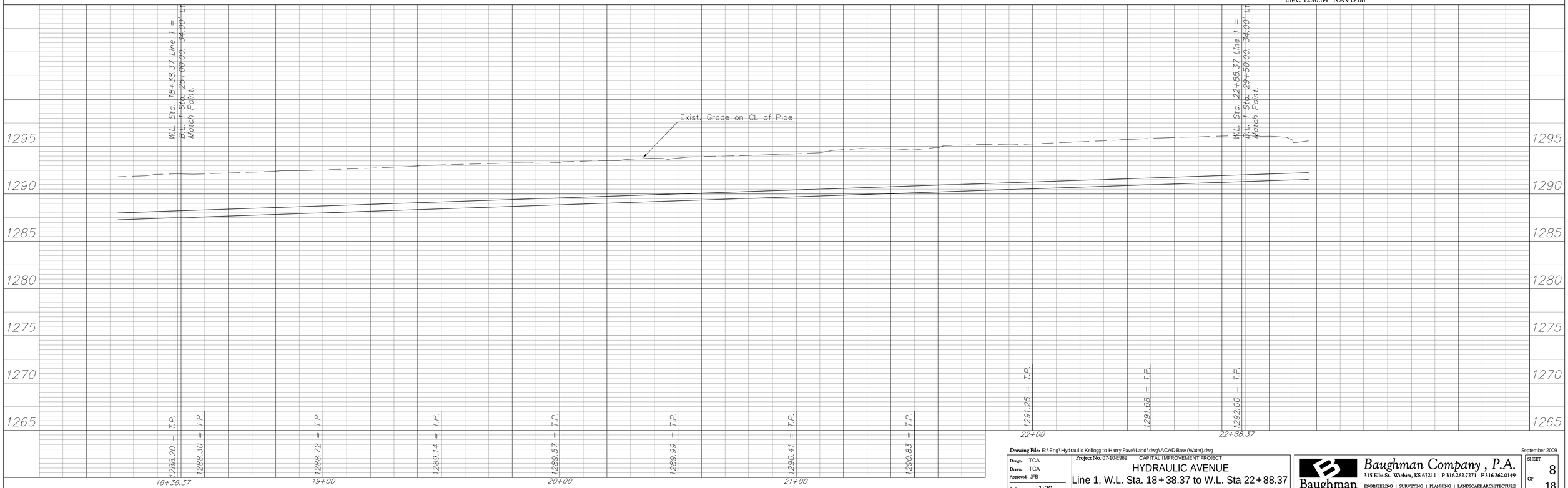
Note:
See Water Meter Table For Service Locations.

0 10 20

SCALE:
1" = 20' Horizontal
1" = 5' Vertical

Benchmark

BM#8 - "□" Top of Curb S. Side Bayley, E End Return, E Side Alley, W. of Hydraulic. Elev. 1296.15' NAVD 88
BM#9 - "□" Top of Curb S. Side Zimmerly, W.End Return, W. Alley, W. of Hydraulic. Elev. 1290.84' NAVD 88



Drawing File: E:\Eng\Hydraulic Kellogg to Harry Pave\Land\dwg\ACAD-Base (Water).dwg

September 2009

Design: TCA Drawn: TCA Approved: JFB Scale: 1:20	Project No. 07-10-E969 CAPITAL IMPROVEMENT PROJECT HYDRAULIC AVENUE Line 1, W.L. Sta. 18+38.37 to W.L. Sta 22+88.37 SOUTH OF HARRY TO KELLOGG DRIVE	Baughman Company, P.A. 315 Ellis St. Wichita, KS 67211 P 316-262-7271 F 316-262-0149 ENGINEERING | SURVEYING | PLANNING | LANDSCAPE ARCHITECTURE

SHEET 8 OF 18

CAUTION
Existing
3 UG AT&T
Crossing

Install 65.78 L.F. 8" Pipe

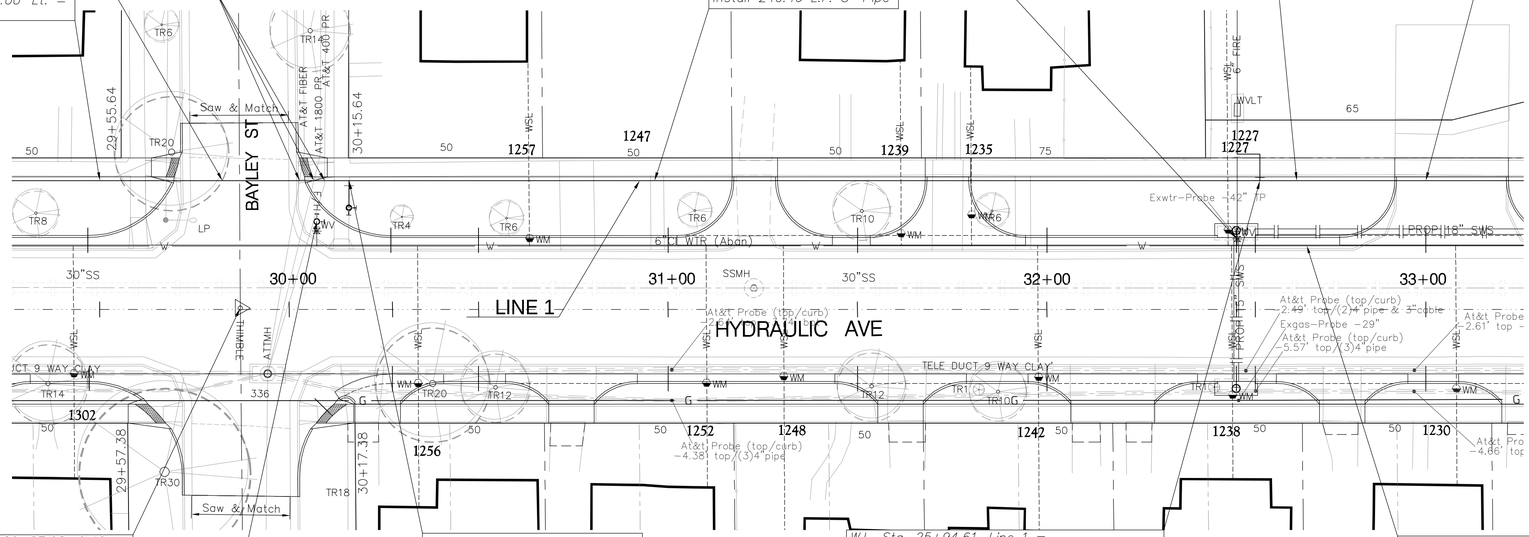
W.L. Sta. 22+88.37 Line 1 =
B.L. 1 Sta. 29+50.00, 34.00' Lt. =
Match Point.

Abandon Valve See Details.
Install 1-6" MJ Cap On FS Branch

Install 240.46 L.F. 8" Pipe

Install 43.76 L.F. 8" Pipe

W.L. Sta. 26+38.37 Line 1 =
B.L. 1 Sta. 33+00.00, 34.00' Lt. =
Match Point.



B.L. 1 29+87.08, 0.40 Lt.
Thimble @ Intersection of
Hydraulic & Bayley

Remove & Salvage Ex. Fire Hydrant
& Abandon Valve See Details. Install
1-6" MJ Cap On FH Branch

W.L. Sta. 23+54.15, Line 1 =
B.L. 1 Sta. 30+15.78, 34.00' Lt.
Install 1-Fire Hydrant Assy. (E)
L = 7.22'
Valve Box Elev. 1295.91 Top
Bury Line Elev. 1295.97

W.L. Sta. 25+94.61, Line 1 =
B.L. 1 Sta. 32+50.24, 34.00' Lt.
Install 1-8"x 6" CIMJ Tee (W)
Install 1-6" Anch Valve Assy. (Gate Valve)(W)
Install 7.00 L.F. 6" DICL Pipe (W)
Install 1-6" CIMJ 90° Bend (S)
Install 6.00 L.F. 6" DICL Pipe (S)
Install 1-6" CIMJ 90° Bend (W)
Reconnect Exist. Service
Valve Box Elev. = 1295.47 Top

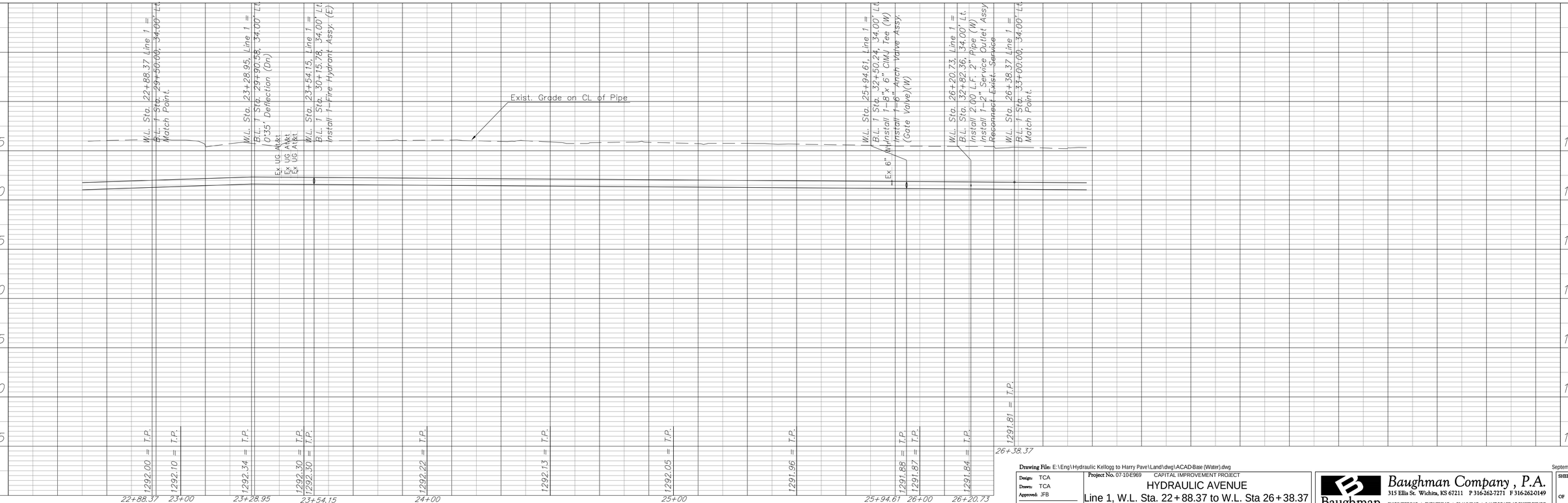
Abandon Existing 6" Water Line in
Place in Accordance with City of
Wichita Specs. Seal Both Ends.
All Services Must Be Connected To
New Main Prior to Abandonment.

Note:
See Water Meter
Table For Service
Locations.

0 10 20
SCALE:
1" = 20' Horizontal
1" = 5' Vertical

Benchmark

BM#8 - "□" Top of Curb S. Side Bayley, E End Return, E Side Alley, W. of Hydraulic.
Elev. 1296.15' NAVD 88



Drawing File: E:\Eng\Hydraulic Kellogg to Harry Pave\Land\dwg\ACAD-Base (Water).dwg

September 2009

Design:	TCA
Drawn:	TCA
Approved:	JFB
Scale:	1:20

Project No. 07-10E969 CAPITAL IMPROVEMENT PROJECT

HYDRAULIC AVENUE

Line 1, W.L. Sta. 22+88.37 to W.L. Sta 26+38.37

SOUTH OF HARRY TO KELLOGG DRIVE

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

SHEET 9 OF 18

W.L. Sta. 26+38.37 Line 1 = B.L. 1 Sta. 33+00.00, 34.00' Lt. = Match Point.

W.L. Sta. 26+68.60, Line 1= B.L. 1 Sta. 33+30.23, 34.00' Lt. Deflect Pipe 04°00' W

Install 307.99 L.F. 8" Pipe

W.L. Sta. 29+53.00, Line 1 PVI = B.L. 1 Sta. 36+14.12, 48.00' Lt. 02°21' Deflection (Up)

Install 94.74 L.F. 8" Pipe

W.L. Sta. 29+46.13, Line 1 = B.L. 1 Sta. 36+07.48, 48.00' Lt. Install 1-Fire Hydrant Assy. (E) L = 4.35' Valve Box Elev. 1294.77 Top Bury Line Elev. 1294.83

Remove & Salvage Ex. Fire Hydrant & Abandon Valve See Details. Deliver to City of Wichita. Install 1-6" MJ Cap On FH Branch

W.L. Sta. 29+78.00, Line 1 PVI = B.L. 1 Sta. 36+39.12, 48.00' Lt. 02°23' Deflection (Dn)

LINE 1D

Abandon Valve See Details.

CAUTION Existing TRAFF Crossing

Install 27.58 L.F. 8" Pipe

W.L. Sta. 30+96.96, Line 1 = B.L. 1 Sta. 37+50.00, 28.50' Lt = Match Point.

Install 17.15 L.F. 8" Pipe

W.L. Sta. 30+79.81, Line 1 B.L. Sta 37+32.85, 28.50' Lt Install 8" CIMJ 45° Bend (W)

W.L. Sta. 30+52.23, Line 1 B.L. Sta 37+13.35, 48.00' Lt Install 8" CIMJ 45° Bend (E)

Install 11.21 L.F. 8" DICL Pipe

W.L. Sta. 30+41.02, Line 1 = W.L. Sta. 0+00.00, Begin Line 1D = B.L. 1 Sta. 37+02.14, 48.00' Lt Install 1-8" CIMJ Tee (W) Install 1-8" Anch Valve Assy. (Gate Valve)(W) Install 2-8" Valve Assy. (Gate Valve)(N&S) Valve Box Elev. = 1294.08 Top

W.L. Sta. 30+23.00, Line 1 PVI = B.L. 1 Sta. 36+84.12, 48.00' Lt. 02°23' Deflection (Up)

B.L. 1 36+57.48, Thimble @ Intersection of Hydraulic & Lincoln

W.L. Sta. 29+98.00, Line 1 PVI = B.L. 1 Sta. 36+59.12, 48.00' Lt. 02°23' Deflection (Dn)

W.L. Sta. 28+69.07, Line 1= B.L. 1 Sta. 35+30.19, 48.00' Lt. Deflect Pipe 04°00' E

Abandon Existing 6" Water Line in Place in Accordance with City of Wichita Specs. Seal Both Ends. All Services Must Be Connected To New Main Prior to Abandonment.

Abandon Valve See Details.

CAUTION Existing 6" Wtr UG AT&T TRAFF x 2 8" SS 4x4 Brk Arch Crossing

CAUTION Existing 6" Wtr TRAFF x 2 6"KGS GAS Crossing

LINCOLN ST

HYDRAULIC AVE

Exist. Grade on CL of Pipe

0 10 20

SCALE:
1" = 20' Horizontal
1" = 5' Vertical

Note:
See Water Meter Table For Service Locations.

Benchmark

BM#6 - "□" Top of Curb E. End Return, S. Drive into Quick Trip, W. of Hydraulic. Elev. 1294.16' NAVD 88

BM#7 - C.O.W. Disk N.E. Corner Lincoln and Hydraulic on Traffic Signal Pole Elev. 1293.50' NAVD 88

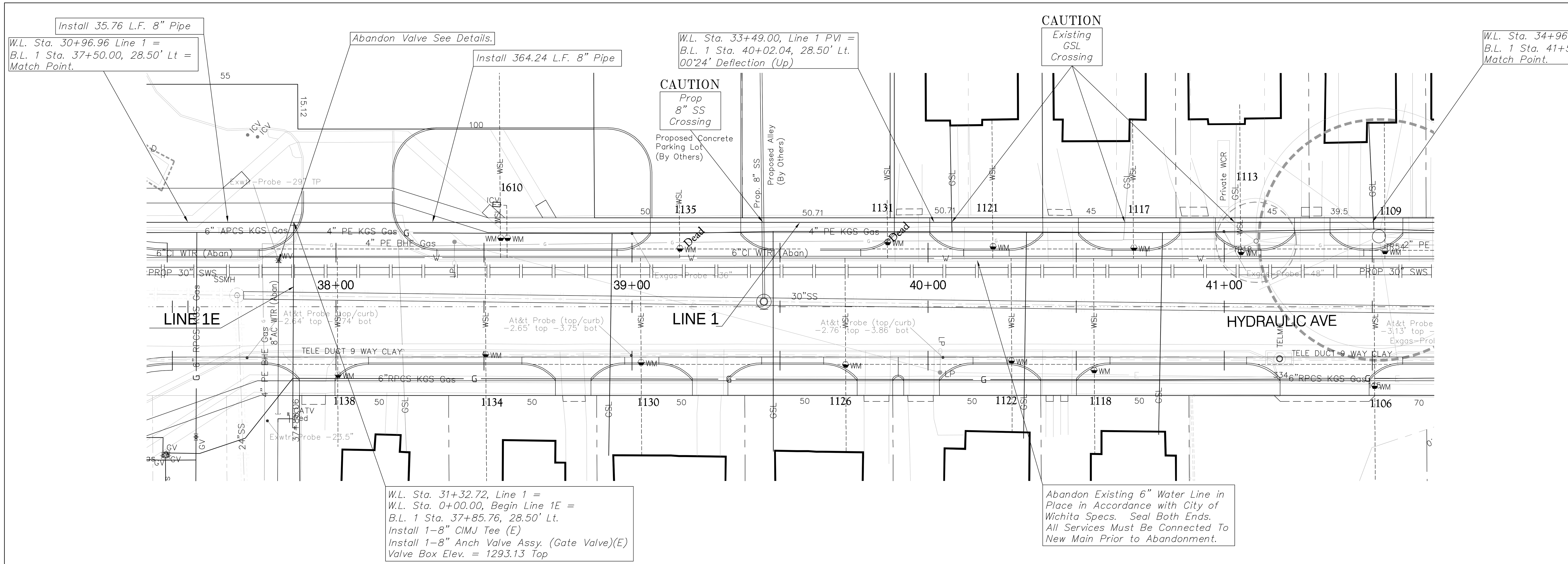
Drawing File: E:\Eng\Hydraulic Kellogg to Harry Pave\Land\dwg\ACAD-Base (Water).dwg

September 2009

Design: TCA	Project No. 07-10-E969
Drawn: TCA	CAPITAL IMPROVEMENT PROJECT
Approved: JFB	HYDRAULIC AVENUE
Scale: 1:20	Line 1, W.L. Sta. 26+38.37 to W.L. Sta 30+96.96
	SOUTH OF HARRY TO KELLOGG DRIVE

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

SHEET 10 OF 18



Install 35.76 L.F. 8" Pipe
W.L. Sta. 30+96.96 Line 1 =
B.L. 1 Sta. 37+50.00, 28.50' Lt =
Match Point.
Abandon Valve See Details.
Install 364.24 L.F. 8" Pipe
W.L. Sta. 33+49.00, Line 1 PVI =
B.L. 1 Sta. 40+02.04, 28.50' Lt.
00'24' Deflection (Up)
CAUTION
Prop
8" SS
Crossing
Proposed Concrete
Parking Lot
(By Others)
Proposed Alley
(By Others)
CAUTION
Existing
GSL
Crossing
W.L. Sta. 34+96.96 Line 1 =
B.L. 1 Sta. 41+50.00, 28.50' Lt =
Match Point.
6" APCS KGS Gas
4" PE KGS Gas
4" PE BHE Gas
6" CI WTR (Aban)
PROP 30" SWS
38+00
39+00
40+00
41+00
LINE 1E
LINE 1
HYDRAULIC AVE
30"SS
TELE DUCT 9 WAY CLAY
6"RPCS KGS Gas
1610
1135
1131
1121
1117
1113
1109
1138
1134
1130
1126
1122
1118
1106
W.L. Sta. 31+32.72, Line 1 =
W.L. Sta. 0+00.00, Begin Line 1E =
B.L. 1 Sta. 37+85.76, 28.50' Lt.
Install 1-8" CIMJ Tee (E)
Install 1-8" Anch Valve Assy. (Gate Valve)(E)
Valve Box Elev. = 1293.13 Top
Abandon Existing 6" Water Line in
Place in Accordance with City of
Wichita Specs. Seal Both Ends.
All Services Must Be Connected To
New Main Prior to Abandonment.

0 10 20

SCALE:
1" = 20' Horizontal
1" = 5' Vertical

Note:
See Water Meter Table For Service Locations.

Benchmark

BM#6 - "□" Top of Curb E. End Return, S. Drive into Quick Trip, W. of Hydraulic. Elev. 1294.16' NAVD 88

BM#7 - C.O.W. Disk N.E. Corner Lincoln and Hydraulic of Traffic Signal Pole Elev. 1293.50' NAVD 88

W.L. Sta. 30+96.96 Line 1 =
B.L. 1 Sta. 37+50.00, 28.50' Lt
Match Point.
W.L. Sta. 31+32.72, Line 1 =
W.L. Sta. 0+00.00, Begin Line 1E
B.L. 1 Sta. 37+85.76, 28.50' Lt
Install 1-8" CIMJ Tee (E)
Install 1-8" Anch Valve Assy.
(Gate Valve)(E)
W.L. Sta. 33+49.00, Line 1 PVI
B.L. 1 Sta. 40+02.04, 28.50' Lt
0'24' Deflection (Up)
W.L. Sta. 34+96.96 Line 1 =
B.L. 1 Sta. 41+50.00, 28.50' Lt
Match Point.
Exist. Grade on CL of Pipe
Prop 8" SS
FL=1281.88
1295
1290
1285
1280
1275
1270
1265
1289.53 = T.P.
1289.50 = T.P.
1289.22 = T.P.
1289.07 = T.P.
1288.65 = T.P.
1288.23 = T.P.
1287.80 = T.P.
1287.38 = T.P.
1287.31 = T.P.
1287.24 = T.P.
1287.18 = T.P.
30+96.96
31+00
31+32.72
32+00
33+00
33+49.00
34+00
34+96.96

Drawing File: E:\Eng\Hydraulic Kellogg to Harry Pave\Land\dwg\ACAD-Base (Water).dwg

September 2009

Design: TCA	Project No. 07-10-E969 CAPITAL IMPROVEMENT PROJECT	
Drawn: TCA	HYDRAULIC AVENUE	
Approved: JFB	Line 1, W.L. Sta. 30+96.96 to W.L. Sta 34+96.76	
Scale: 1:20	SOUTH OF HARRY TO KELLOGG DRIVE	

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

W.L. Sta. 35+45.41, Line 1 PVI = B.L. 1 Sta. 41+98.45, 28.50' Lt. 03°59' Deflection (Up)

W.L. Sta. 35+18.44, Line 1 PVI = B.L. 1 Sta. 41+71.48, 28.50' Lt. 03°59' Deflection (Dn)

W.L. Sta. 34+96.96 Line 1 = B.L. 1 Sta. 41+50.00, 28.50' Lt = Match Point.

LINE 1F

W.L. Sta. 35+80.41, Line 1 PVI = B.L. 1 Sta. 42+33.45, 28.50' Lt. 03°59' Deflection (Up)

W.L. Sta. 35+95.06, Line 1 = B.L. 1 Sta. 42+48.10, 28.50' Lt. Install 1–Fire Hydrant Assy. (W) L = 5.00' Valve Box Elev. 1290.93 Top Bury Line Elev. 1290.93

W.L. Sta. 36+07.51, Line 1 PVI = B.L. 1 Sta. 42+60.55, 28.50' Lt. 03°59' Deflection (Dn)

W.L. Sta. 37+04.60, Line 1= B.L. 1 Sta. 43+57.64, 28.50' Lt. Deflect Pipe 04°00' E

CAUTION Existing 30" Wtr Crossing

CAUTION Existing GSL Crossing

CAUTION Existing GSL Crossing

CAUTION Prop 18" SWS Existing 15" SWS Crossing

CAUTION Existing 8" Wtr 4"KGS GAS 15" SWS Crossing

Install 85.71 L.F. 8" Pipe

Remove & Salvage Valve & Valve Box. Deliver to City of Wichita. Install 1–6" CIMJ Plug On Existing Tee (N)

Abandon Valve See Details.

B.L. 1 42+27.96, 0.18 Lt. Thimble @ Intersection of Hydraulic & Morris

W.L. Sta. 35+82.63, Line 1 = W.L. Sta. 0+00.00, Begin Line 1F = B.L. 1 Sta. 42+35.67, 28.50' Lt. Install 1–8" CIMJ Tee (W) Install 1–8" Anch Valve Assy. (Gate Valve)(W) Valve Box Elev. = 1290.01 Top

Abandon Valve See Details.

Install 12.43 L.F. 8" Pipe

Remove & Salvage Ex. Fire Hydrant & Abandon Valve See Details. Install 1–6" MJ Cap On FH Branch

Install 401.95 L.F. 8" Pipe

W.L. Sta. 37+26.10, Line 1= B.L. 1 Sta. 43+79.09, 27.00' Lt. Deflect Pipe 04°00' W

Abandon Existing 6" Water Line in Place in Accordance with City of Wichita Specs. Seal Both Ends. All Services Must Be Connected To New Main Prior to Abandonment.

W.L. Sta. 39+97.01 Line 1 = B.L. 1 Sta. 46+50.00, 27.00' Lt. = Match Point.

B.L. 1 46+48.90, 0.23 Lt. Thimble @ Intersection of Hydraulic & Gilbert

MORRIS ST

GILBERT ST

LINE 1

RESA

1720 REAR APT

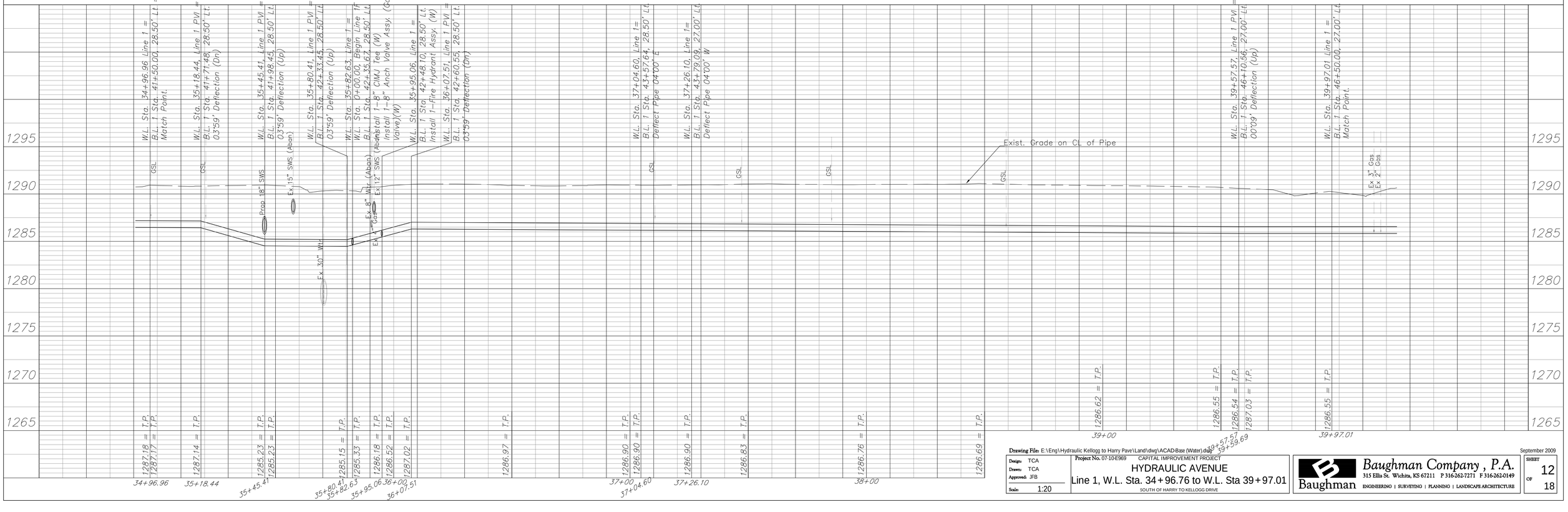
0 10 20

SCALE:
1" = 20' Horizontal
1" = 5' Vertical

Note:
See Water Meter Table For Service Locations.

Benchmark

BM#5 - "□" Top of Curb S. Side Morris, 155' E. of CL Hydraulic.
Elev. 1290.88' NAVD 88



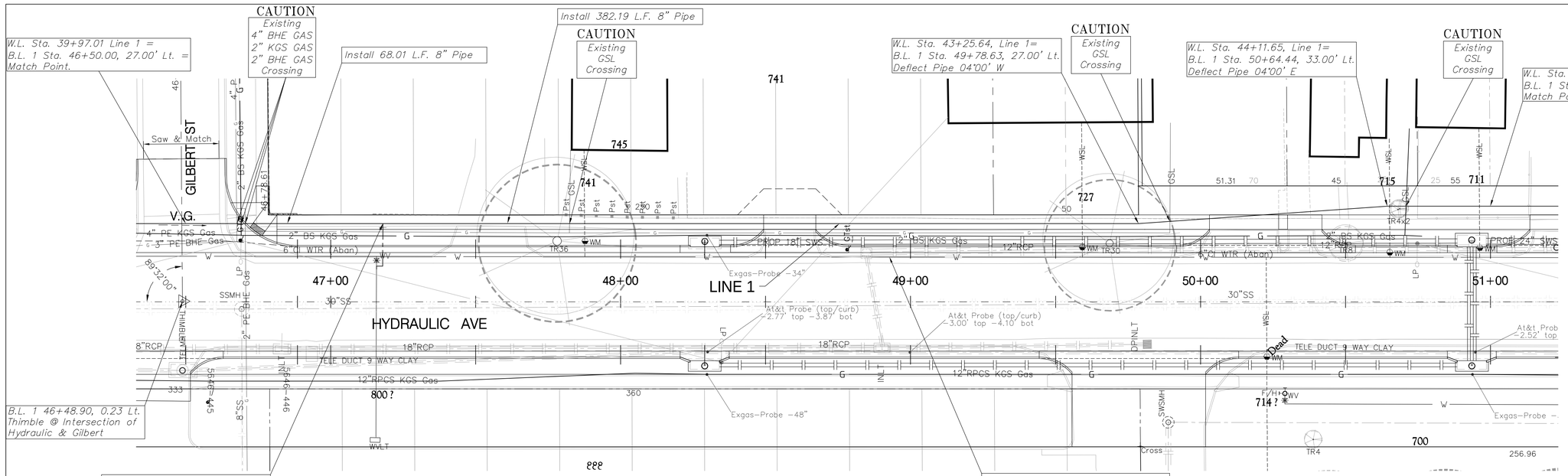
Drawing File: E:\Eng\Hydraulic Kellogg to Harry Pave\Land\dwg\ACAD-Base (Water).dwg

September 2009

Design: TCA	Project No. 07-10-E969 CAPITAL IMPROVEMENT PROJECT
Drawn: TCA	HYDRAULIC AVENUE
Approved: JFB	Line 1, W.L. Sta. 34+96.76 to W.L. Sta 39+97.01
Scale: 1:20	SOUTH OF HARRY TO KELLOGG DRIVE

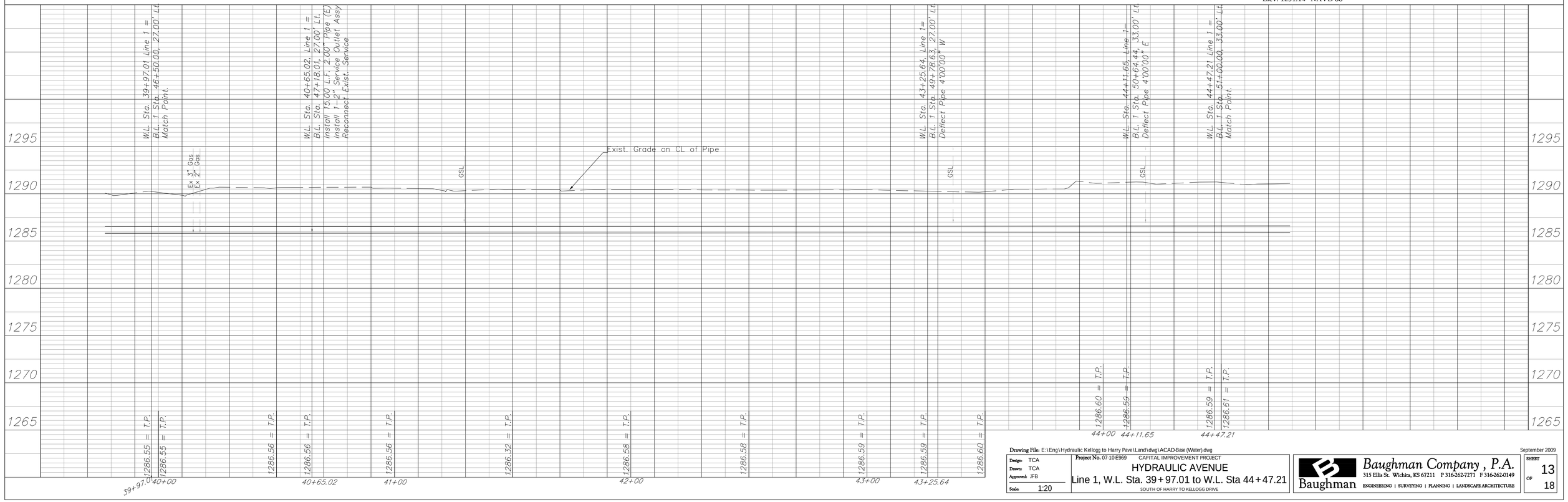
Baughman Company, P.A.
315 Ellis St. Wichita, KS 67211 P 316-262-7271 F 316-262-0149
ENGINEERING | SURVEYING | PLANNING | LANDSCAPE ARCHITECTURE

SHEET 12 OF 18



Benchmark

BM#4 - "□" Top of Curb N. Side Gilbert, E. End Return, E. Side of Alley, W. of Hydraulic Elev. 1291.14' NAVD 88



Drawing File: E:\Eng\Hydraulic Kellogg to Harry Pave\Land\dwg\ACAD-Base (Water).dwg

September 2009

Design:	TCA
Drawn:	TCA
Approved:	JFB
Scale:	1:20

Project No. 07-10-E969 CAPITAL IMPROVEMENT PROJECT

HYDRAULIC AVENUE

Line 1, W.L. Sta. 39+97.01 to W.L. Sta 44+47.21

SOUTH OF HARRY TO KELLOGG DRIVE

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

W.L. Sta. 45+59.20, Line 1 PVI = B.L. 1 Sta. 52+12.02, 33.00' Lt. 02°43' Deflection (Dn)

W.L. Sta. 45+93.84, Line 1 PVI = B.L. 1 Sta. 52+46.63, 33.00' Lt. Install 8" CIMJ 45° Bend (Up)

Install 3.33 L.F. 8" DICL Pipe

W.L. Sta. 45+91.49, Line 1 PVI = B.L. 1 Sta. 52+44.28, 33.00' Lt. Install 8" CIMJ 45° Bend (Dn) 03°04' Deflection (Up)

Install 4.19 L.F. 8" DICL Pipe

W.L. Sta. 44+47.21 Line 1 = B.L. 1 Sta. 51+00.00, 33.00' Lt. = Match Point.

CAUTION — Existing 57" SWS 8" SS 12"KGS Gas 4"KGS Gas Crossing

W.L. Sta. 46+27.22, Line 1 PVI = B.L. 1 Sta. 52+80.01, 33.00' Lt. Install 8" CIMJ 45° Bend (Up)

Install 6.45 L.F. 8" DICL Pipe

W.L. Sta. 46+31.75, Line 1 PVI = B.L. 1 Sta. 52+84.54, 33.00' Lt. Install 8" CIMJ 45° Bend (Dn)

Abandon Valve See Details.

Remove & Salvage Ex. Fire Hydrant & Abandon Valve. See Details. Install 1–6" MJ Cap On FH Branch

W.L. Sta. 48+79.89, Line 1 PVI = B.L. 1 Sta. 55+32.68, 33.00' Lt. 00°19' Deflection (Dn)

W.L. Sta. 48+97.21 Line 1 = B.L. 1 Sta. 55+50.00, 33.00' Lt. = Match Point.

0 10 20

SCALE:
1" = 20' Horizontal
1" = 5' Vertical

Note:
See Water Meter Table For Service Locations.

INDIANAPOLIS ST

HYDRAULIC AVE

LINE 1

CAUTION — Existing UG AT&T Crossing

CAUTION — Existing 8" Wtr Crossing

Install 140.12 L.F. 8" Pipe

Install 263.46 L.F. 8" Pipe

W.L. Sta. 46+33.75, Line 1 = B.L. 1 Sta. 52+86.54, 33.00' Lt. Install 1–Fire Hydrant Assy. (W) L = 4 Box Elev. 1291.17 Top Bury Line Elev. 1291.23

Install 2.00 L.F. 8" DICL Pipe

Install 20 L.F. Concrete Sanitary Sewer Encasement. See Detail on ____

Install 33.38 L.F. 8" Pipe

W.L. Sta. 45+87.30 Line 1 = B.L. 1 Sta. 52+40.09, 33.00' Lt. Install 1–8" CIMJ Tee (W) Rolled Install 1–8" Valve Assy. (Gate Valve)(S) Install 5.00 L.F. 8" DICL Pipe (W) Install 1–8" CIMJ 90° Bend (N) Install 8.00 L.F. 8" DICL Pipe (N) To Gate Valve (See Detail Sh)

Abandon Valve See Details. Install 1–8" CIMJ Cap On Existing Tee (S)

B.L. 1 52+60.84, 0.16 Lt. Thimble @ Intersection of Hydraulic & Indianapolis

W.L. Sta. 45+95.30, 5.00' Lt. Line 1 = B.L. 1 Sta. 52+48.09, 38.00' Lt. Cut Existing 8" PVC Water Line Install 1–8" x 8" CIMJ Tee (S) Install 2–8" Valve Assy. (Gate Valve)(W&S) Valve Box Elev. = 1290.38 Top

Abandon Existing 6" Water Line in Place in Accordance with City of Wichita Specs. Seal Both Ends. All Services Must Be Connected To New Main Prior to Abandonment.

#5 Bars at 2–0" Centers, 4" (Typ.), 8" Min. all Sides
4 – #5 Bars in Corners

#5 Bars at 2–0" Centers
4 – #5 Bars in Corners

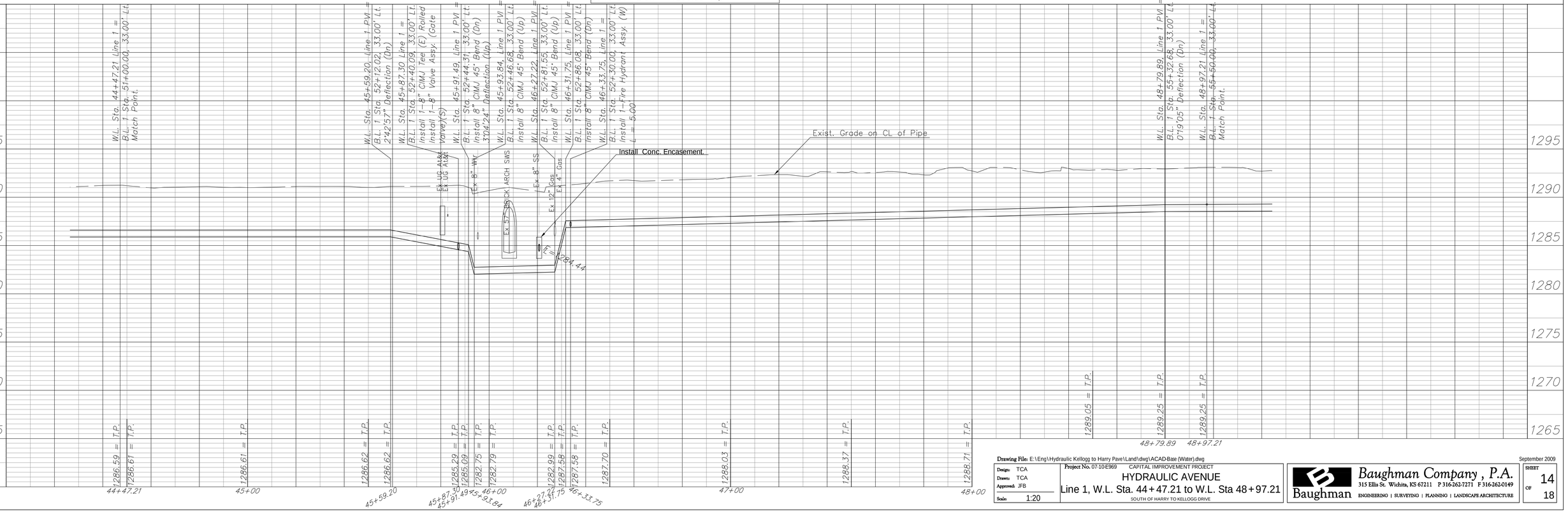
REINFORCED CONCRETE ENCASEMENT OF SANITARY SEWER
Note: Encasement to begin and end at a Bell on Sanitary Sewer Pipe

Note:
8" Waterline to be Installed with Trenchless methods from WL Sta 44+11.65 to Sta 45+59.20.

Note:
8" Waterline to be Installed with Trenchless methods from WL Sta 46+33.75 to Sta 51+00.00.

Benchmark

BM#3 - "□" Top of Curb N. Side of Indianapolis, E. End Return, E. Side Alley, W. of Hydraulic. Elev. 1290.92' NAVD 88



Drawing File: E:\Eng\Hydraulic Kellogg to Harry Pave\Land\dwg\ACAD-Base (Water).dwg

September 2009

Design:	TCA
Drawn:	TCA
Approved:	JFB
Scale:	1:20

Project No. 07-10-E969 CAPITAL IMPROVEMENT PROJECT

HYDRAULIC AVENUE

Line 1, W.L. Sta. 44+47.21 to W.L. Sta 48+97.21

SOUTH OF HARRY TO KELLOGG DRIVE

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

SHEET 14 OF 18

W.L. Sta. 48+97.21 Line 1 = B.L. 1 Sta. 55+50.00, 33.00' Lt. = Match Point.

Install 429.43 L.F. 8" Pipe

B.L. 1 57+85.17, Thimble @ Intersection of Hydraulic & Orme

W.L. Sta. 53+16.71, Line 1 PVI = B.L. 1 Sta. 59+69.50, 33.00' Lt. 03°50' Deflection (Dn)

Remove & Salvage Valve & Valve Box. Deliver to City of Wichita. Install 1-6" CIMJ Plug On Existing Tee (N) Install 1-6" CIMJ Cap (S)

W.L. Sta. 53+26.64, End Line 1 = B.L. 1 Sta. 59+79.43, 33.00' Lt. Tap Existing 8"AC Water Line 1-8" x 8" Tapping Sleeve 1-8" Tapping Valve w/Valve Box Valve Box Elev. = 1293.01 Top To Be Furnished & Installed By City of Wichita Water Dept.

CAUTION Existing 4"KGS Gas Crossing

0 10 20

SCALE:
1" = 20' Horizontal
1" = 5' Vertical

Note:
See Water Meter Table For Service Locations.

LINE 1

ORME ST

HYDRAULIC AVE

KELLOGG DRIVE

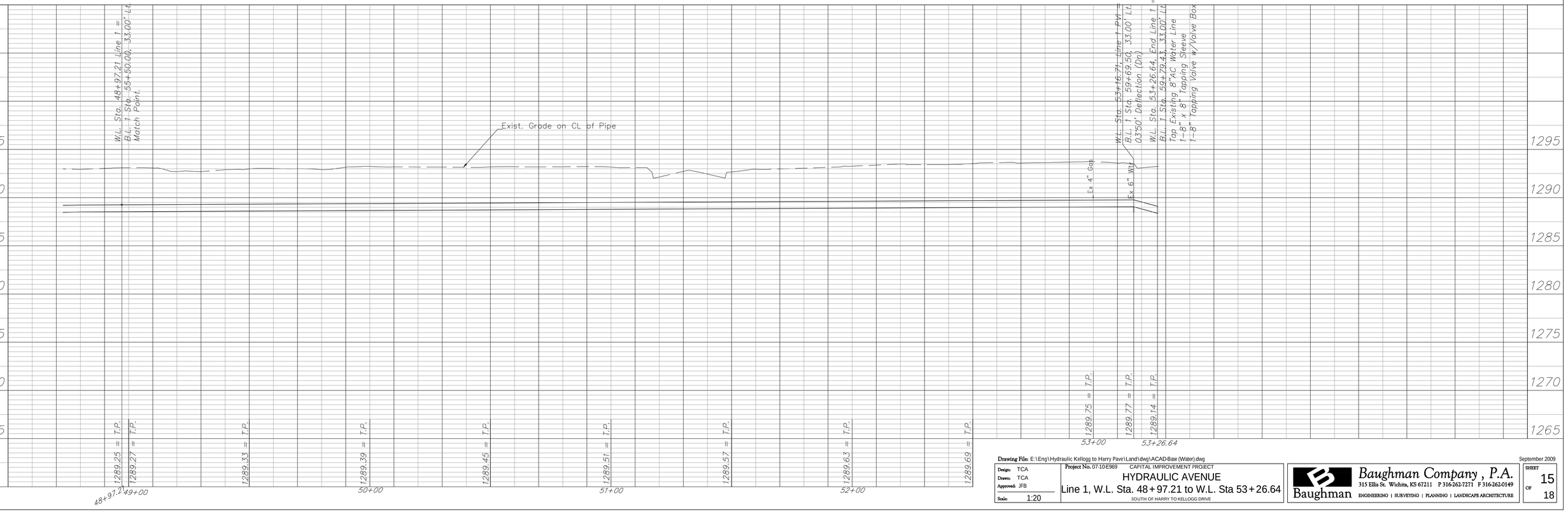
Saw & Match

Abandon Existing 6" Water Line in Place in Accordance with City of Wichita Specs. Seal Both Ends. All Services Must Be Connected To New Main Prior to Abandonment.

Note:
8" Waterline to be Installed with Trenchless methods from W.L. Sta 46+33.75 to Sta 51+00.00.

Benchmark

BM#1 - C.O.W. Disk - E. Side of Hydraulic CL of Orme W.
Elev. 1293.46' NAVD 88
BM#2 - "□" Top of Curb N. Side Orme, E. End Return, E. Side Alley, W. of Hydraulic.
Elev. 1291.43' NAVD 88



Drawing File: E:\Eng\Hydraulic Kellogg to Harry Pave\Land\dwg\ACAD-Base (Water).dwg

September 2009

Design: TCA
Drawn: TCA
Approved: JFB
Scale: 1:20

Project No. 07-10-E969 CAPITAL IMPROVEMENT PROJECT

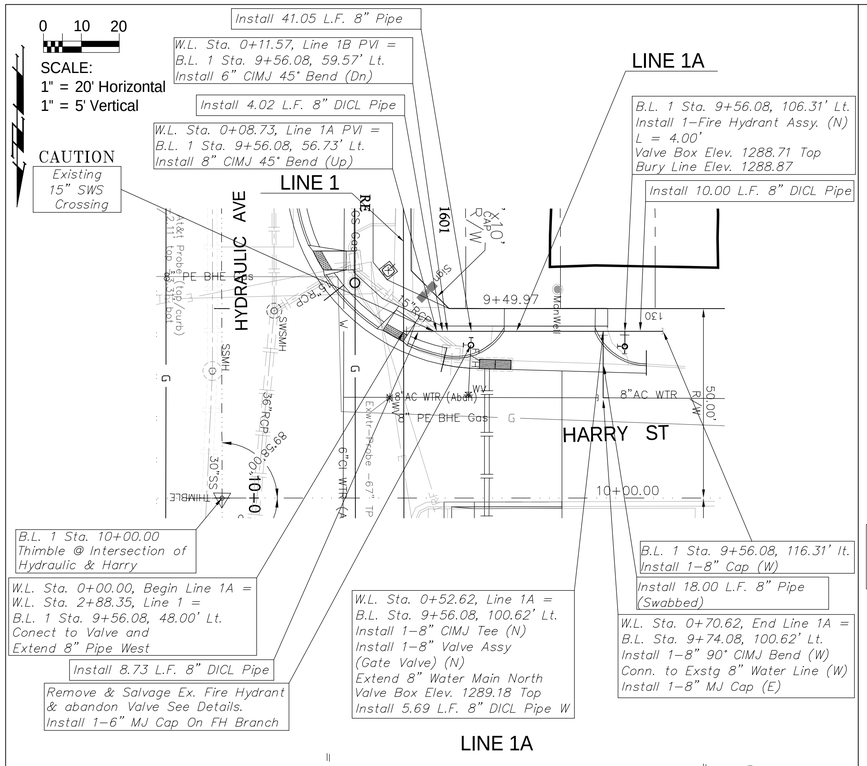
HYDRAULIC AVENUE

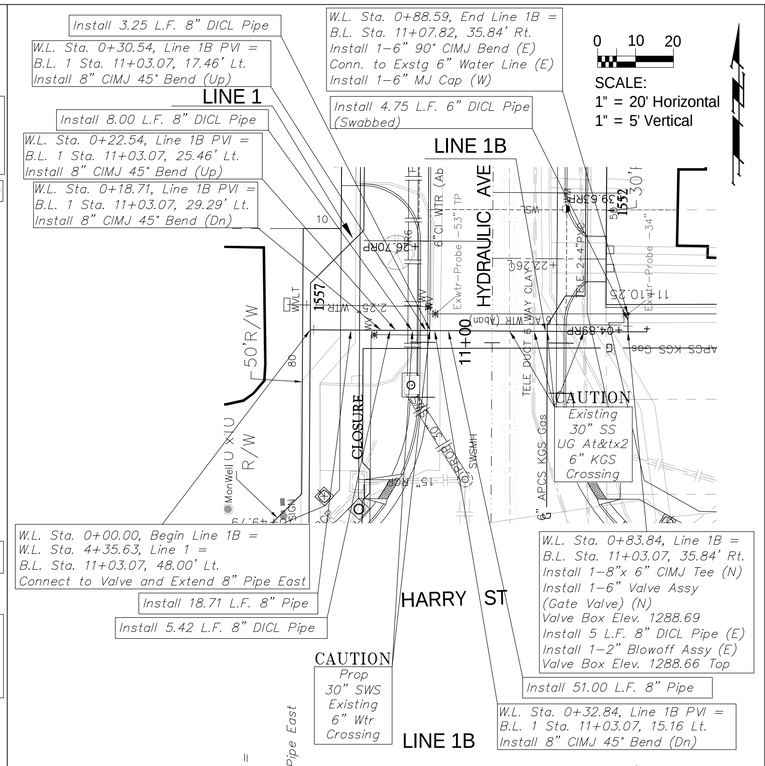
Line 1, W.L. Sta. 48+97.21 to W.L. Sta 53+26.64

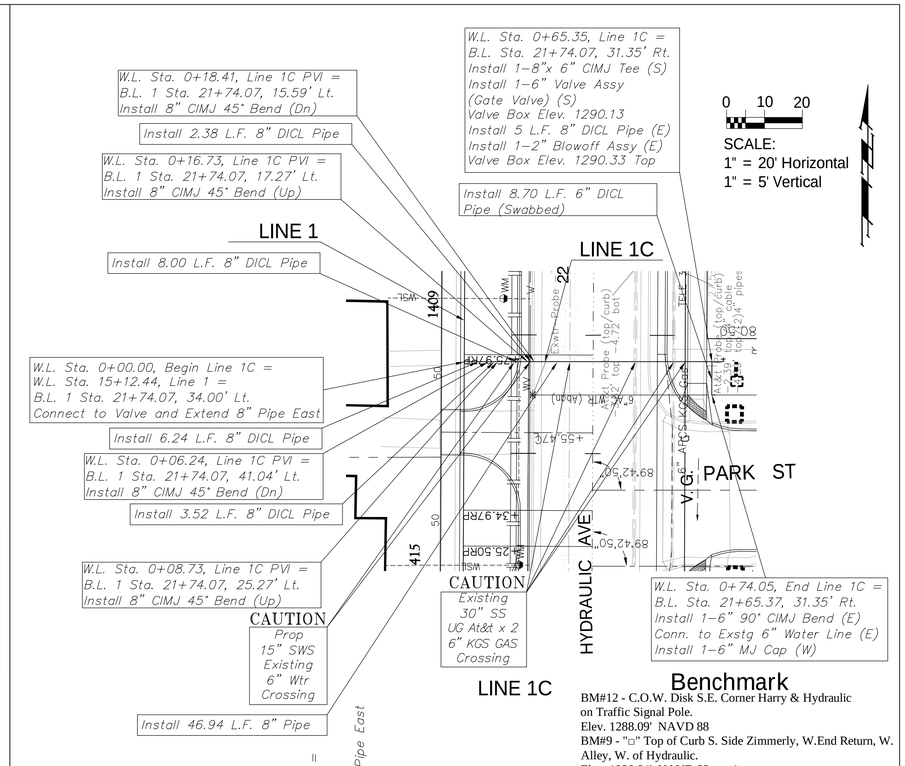
SOUTH OF HARRY TO KELLOGG DRIVE

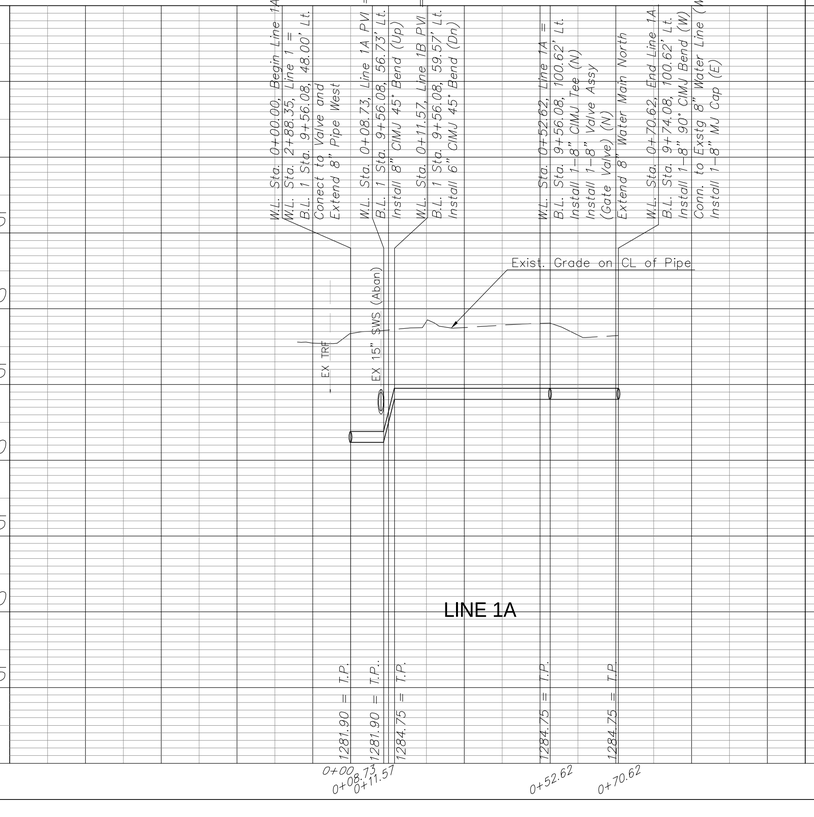
Baughman Company, P.A.
315 Ellis St. Wichita, KS 67211 P 316-262-7271 F 316-262-0149
ENGINEERING | SURVEYING | PLANNING | LANDSCAPE ARCHITECTURE

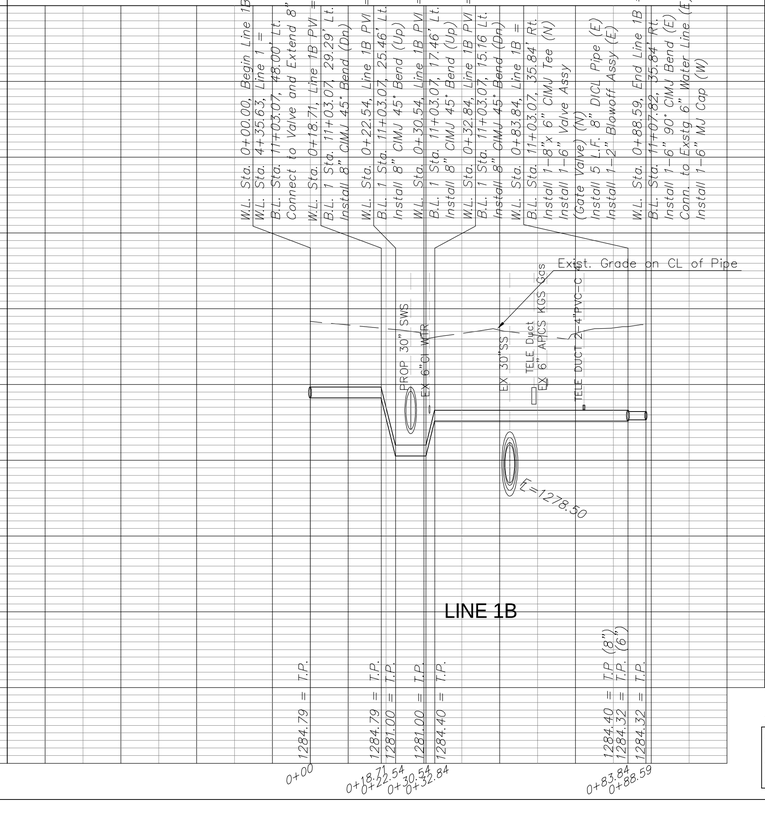
SHEET 15 OF 18

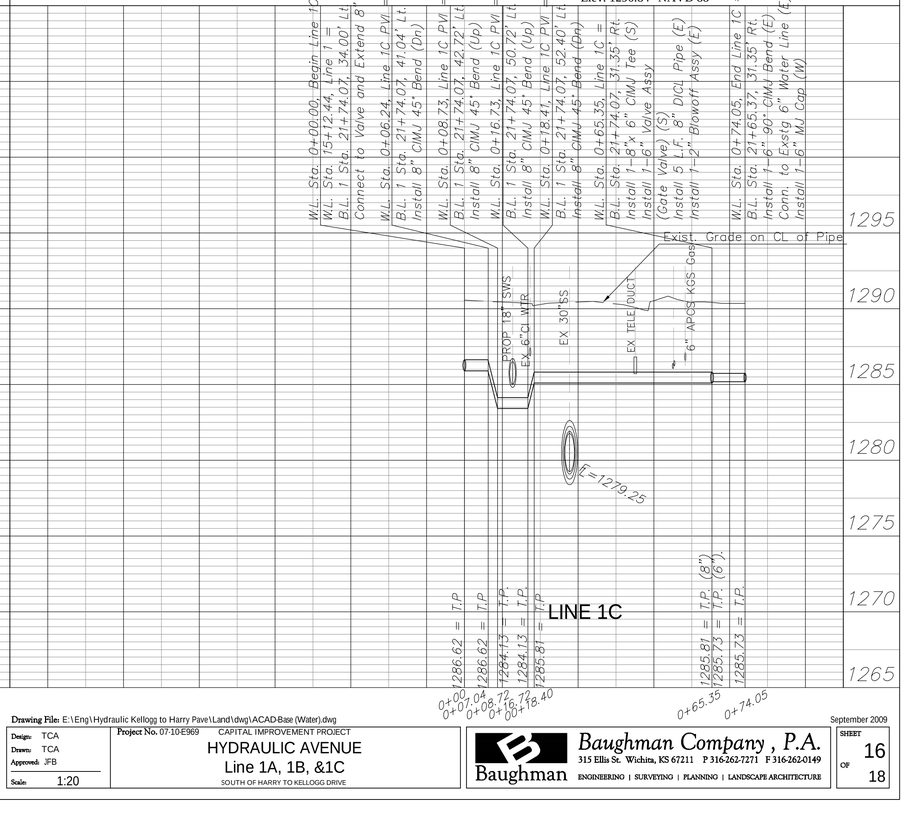












Drawing File: E:\Eng\Hydraulic Kellogg to Harry Pave\Land\dwg\ACAD-Base (Water).dwg

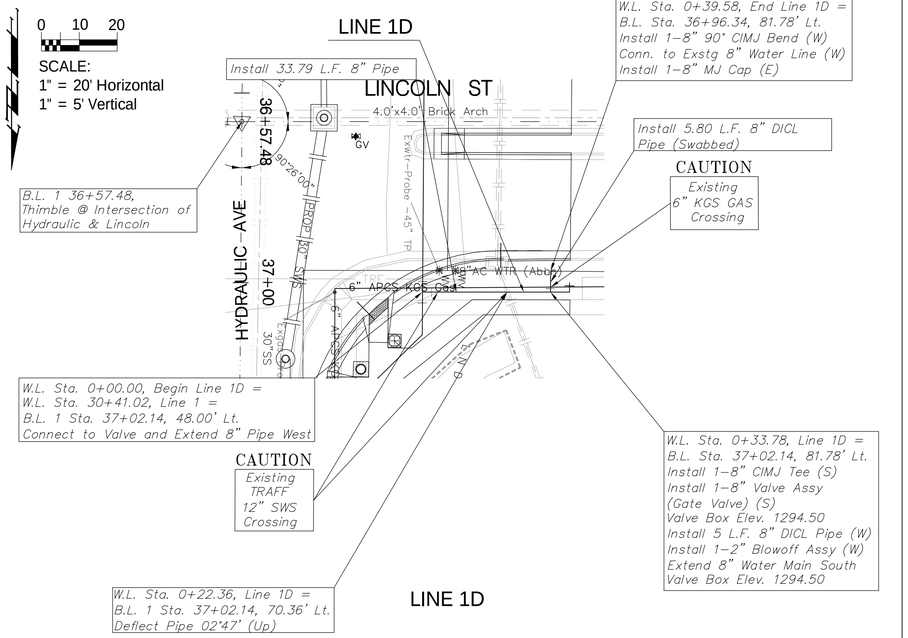
September 2009

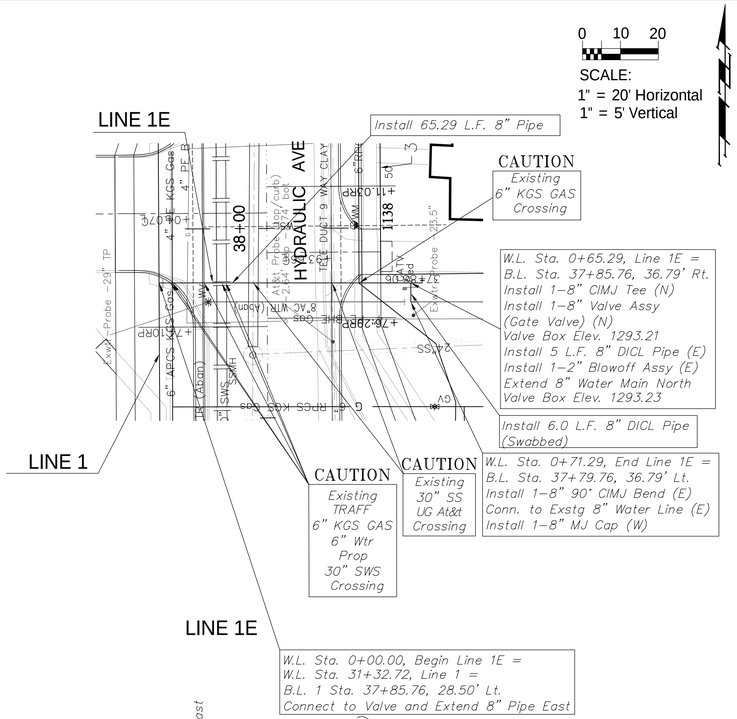
Design: TCA
Drawn: TCA
Approved: JFB
Scale: 1:20

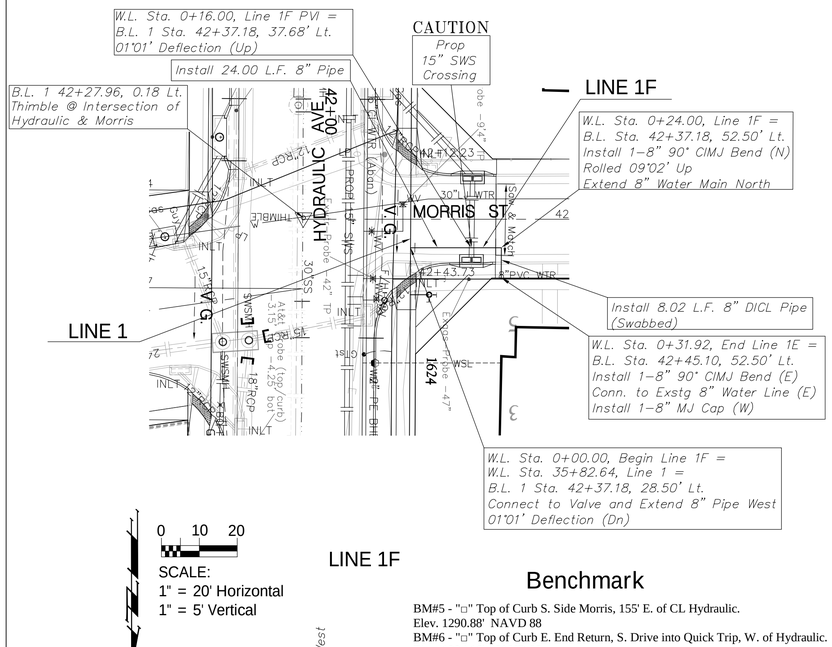
Project No. 07-10-E969 CAPITAL IMPROVEMENT PROJECT

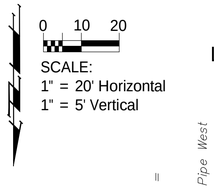
HYDRAULIC AVENUE
Line 1A, 1B, &1C
SOUTH OF HARRY TO KELLOGG DRIVE

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



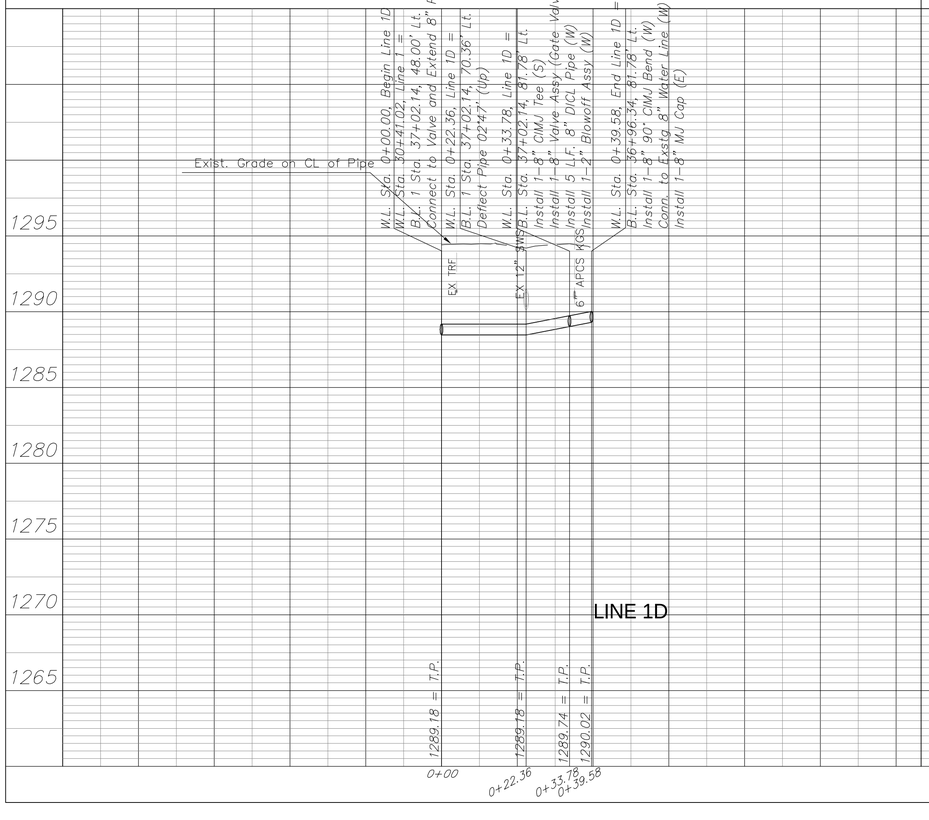


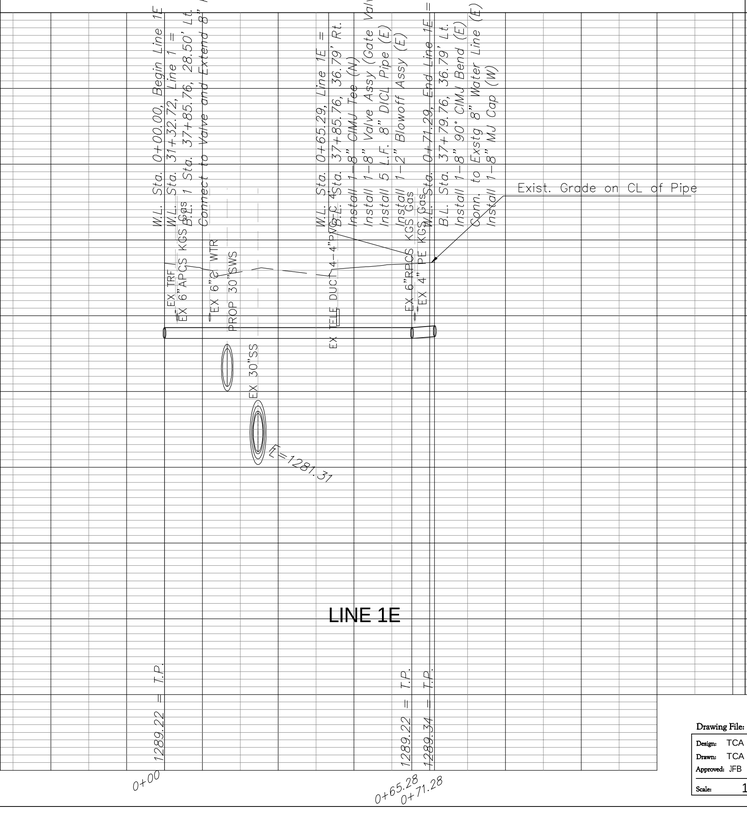


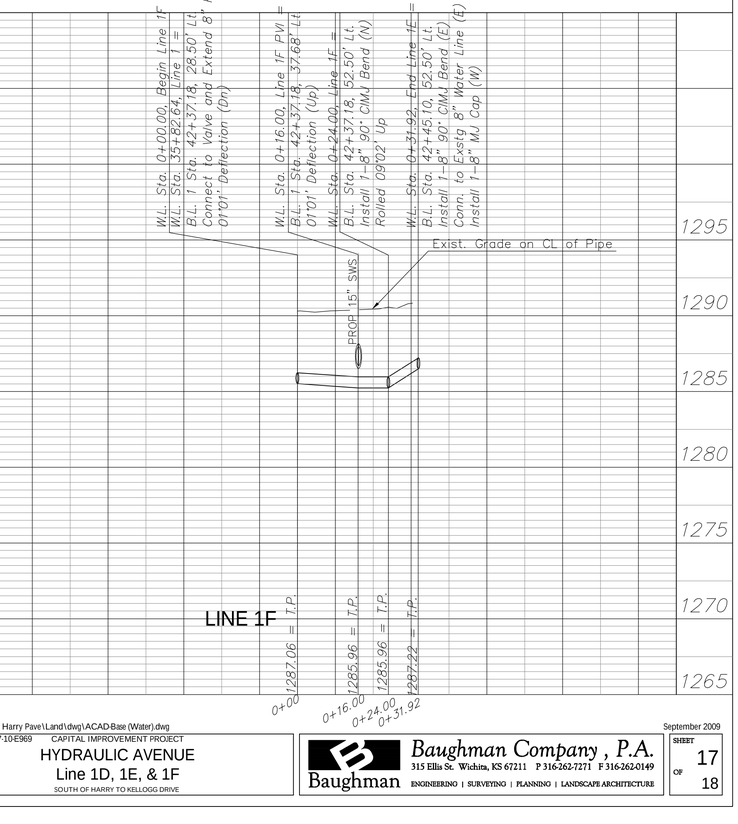


Benchmark

BM#5 - "□" Top of Curb S. Side Morris, 155' E. of CL Hydraulic.
Elev. 1290.88' NAVD 88
BM#6 - "□" Top of Curb E. End Return, S. Drive into Quick Trip, W. of Hydraulic.
Elev. 1294.16' NAVD 88
BM#7 - C.O.W. Disk N.E. Corner Lincoln and Hydraulic of Traffic Signal Pole
Elev. 1293.50' NAVD 88







Drawing File: E:\Eng\Hydraulic Kellogg to Harry Pave\Land\dwg\ACAD-Base (Water).dwg

Design: TCA	Project No. 07-10-E969	CAPITAL IMPROVEMENT PROJECT	September 2009
Drawn: TCA	HYDRAULIC AVENUE		SHEET 17
Approved: JFB	Line 1D, 1E, & 1F		OF 18
Scale: 1:20	SOUTH OF HARRY TO KELLOGG DRIVE		

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

Water Service Replacements

Address	B.L. Sta.	Ex. Offset	New Offset	Status	Remarks	Meter No.
1625 S. Hydraulic	6+80.04	24.96' Lt.		Short		
1621 S. Hydraulic	7+36.02	22.99' Lt.		Short		
1615 S. Hydraulic	7+87.42	24.19 Lt.		Short		
1601 S. Hydraulic	8+35.85	33.88' Lt.		Short		
1557 S. Hydraulic	11+09.69	54.01' Lt.		Short	Wtr Vlt	
1552 S. Hydraulic	11+35.31	19.36' Rt.		Long		
1544 S. Hydraulic	11+87.68	17.54 Rt.		Long	Buried	
1545 S. Hydraulic	12+00.00	19.09 Lt.		Short		
1540 S. Hydraulic	12+54.97	18.72 Rt.		Long		
1537 S. Hydraulic	12+70.55	23.47 Lt.		Short		
1536 S. Hydraulic	12+96.20	20.67' Rt.		Long	Duplex w/1534 Buried	
1534 S. Hydraulic	12+96.20	20.67' Rt.		Long	Duplex w/1536 1 Meter In 1 Box	
1535 S. Hydraulic	12+97.77	23.89' Lt.		Short		
1530 S. Hydraulic	13+50.52	17.75' Rt.		Long		
1527 S. Hydraulic	13+68.53	18.90' Lt.		Short		
1526 S. Hydraulic	13+99.79	18.84 Rt.		Long	Duplex w/1524 1 Dead set	
1524 S. Hydraulic	14+00.76	19.39' Rt.		Long	Duplex w/1526 1 Meter In 1 Box	
1517 S. Hydraulic	14+18.48	22.20' Lt.		Short		
1515 S. Hydraulic	14+33.24	21.73' Lt.		Short		
1514 S. Hydraulic	14+50.55	19.63' Rt.		Long		
1512 S. Hydraulic	14+79.50	22.59' Rt.		Long		
1512 ½ S.Hydraulic	14+81.06	16.37' Rt.		Long	Dead	
1511 S. Hydraulic	15+00.58	20.07' Lt.		Short		
1509 S. Hydraulic	15+18.38	19.58' Lt.		Short		
1510 S. Hydraulic	15+55.91	17.70' Rt.		Long		
1504 S. Hydraulic	15+72.43	17.87' Rt.		Long		
1507 S. Hydraulic	15+78.15	18.27' Lt.		Short		
1501 S. Hydraulic	16+13.89	21.09 Lt.		Short		
1502 S. Hydraulic	16+29.28	20.34' Rt.		Long		
1446 S. Hydraulic	17+02.42	16.21' Rt.		Long		
1444 S. Hydraulic	17+25.96	18.31' Rt.		Long		
1453 S. Hydraulic	17+30.71	21.88' Lt.		Short		
1449 S. Hydraulic	17+59.93	30.00' Lt.		Short	Duplex w/1551 Gone	
1451 S. Hydraulic	17+62.60	20.56' Lt.		Short	Duplex w/1549	
1440 S. Hydraulic	18+03.75	18.21' Rt.		Long		
1436 S. Hydraulic	18+24.12	18.61' Rt.		Long		
1445 S. Hydraulic	18+59.85	20.57' Lt.		Short	2 Meter In 1 Box	
1443 S. Hydraulic	18+59.85	20.57' Lt.		Short	2 Meter In 1 Box	
1432 S. Hydraulic	18+85.31	19.49' Rt.		Long		
1439 S. Hydraulic	18+89.06	20.62' Lt.		Short		
1428 S. Hydraulic	19+16.30	17.47' Rt.		Long		
1435 S. Hydraulic	19+50.78	20.16' Lt.		Short		
1429 S. Hydraulic	20+22.61	22.83' Lt.		Short		
1423 S. Hydraulic	20+45.36	21.76' Lt.		Short		
1421 S. Hydraulic	20+85.87	20.08' Lt.		Short		
1415 S. Hydraulic	21+20.56	19.25' Lt.		Short		
1409 S. Hydraulic	21+90.76	23.69' Lt.		Short		
1410 S. Hydraulic	22+03.18	18.99' Rt.		Long		
1405 S. Hydraulic	22+15.65	22.81' Lt.		Short	Duplex w/1405 2 Meter In 1 Box	
1405 S. Hydraulic	22+15.65	22.81' Lt.		Short	Duplex w/1405 2 Meter In 1 Box	
1403 S. Hydraulic	22+19.51	23.32' Lt.		Short	Duplex w/1401 2 Meter In 1 Box	
1401 S. Hydraulic	22+19.51	23.32' Lt.		Short	Duplex w/1403 2 Meter In 1 Box	

Water Service Replacements

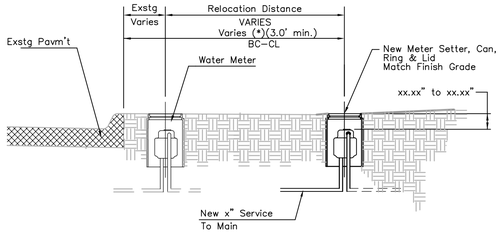
Address	B.L. Sta.	Ex. Offset	New Offset	Status	Remarks	Meter No.
1402 S. Hydraulic	22+77.86	17.27' Rt.		Long		
1362 S. Hydraulic	23+19.32	19.39' Rt.		Long		
1356 S. Hydraulic	23+88.71	18.52' Rt.		Long	Duplex w/1354	
1357 S. Hydraulic	24+03.30	20.43' Lt.		Long		
1354 S. Hydraulic	24+06.38	18.18' Rt.		Short	Duplex w/1356	
1351 S. Hydraulic	24+10.42	20.25' Lt.		Short		
1352 S. Hydraulic	24+55.92	18.38' Rt.		Short		
1350 S. Hydraulic	24+93.48	20.46' Rt.		Long	Dead	
1345 S. Hydraulic	25+21.61	21.36' Lt.		Short		
1348 S. Hydraulic	25+47.65	23.09' Rt.		Long		
1327 S. Hydraulic	25+49.57	30.70' Lt.		Short		
1346 S. Hydraulic	25+84.73	21.10' Rt.		Long		
1332 S. Hydraulic	26+32.94	17.12' Rt.		Long		
1325 S. Hydraulic	26+39.53	21.85' Lt.		Short		
1321 S. Hydraulic	26+90.57	18.89' Lt.		Short		
1326 S. Hydraulic	26+95.22	16.79' Rt.		Long		
1319 S. Hydraulic	27+26.31	19.63' Lt.		Short		
1322 S. Hydraulic	27+55.67	17.29' Rt.		Long		
1315 S. Hydraulic	27+73.16	19.65' Lt.		Short		
1318 S. Hydraulic	28+04.02	17.98' Rt.		Long		
1311 1/2 S. Hydraulic	28+22.60	27.39' Lt.		Short		
1311 S. Hydraulic	28+23.96	20.23' Lt.		Short		
1312 S. Hydraulic	28+44.97	18.31 ' Rt.		Long		
1309 S. Hydraulic	28+77.58	20.82' Lt.		Short	Duplex w/1307 2 Meter In 1 Box	
1307 S. Hydraulic	28+78.64	20.57' Lt.		Short	Duplex w/1309 2 Meter In 1 Box	
1304 S. Hydraulic	28+92.37	16.44' Rt.		Long		
1303 S. Hydraulic	29+14.84	19.50' Lt.		Short		
1617 E. Bayley	29+16.75	19.74' Lt.		Short	Full of Dirt	
1302 S. Hydraulic	29+43.22	16.84' Rt.		Long		
1256 S. Hydraulic	30+34.04	19.45' Rt.		Long		
1257 S. Hydraulic	30+63.47	18.80' Lt.		Short		
1252 S. Hydraulic	31+10.15	19.36' Rt.		Long		
1248 S. Hydraulic	31+30.53	17.63' Rt.		Long		
1239 S. Hydraulic	31+61.51	20.05' Lt.		Short		
1235 S. Hydraulic	31+80.12	25.06' Lt.		Short		
1242 S. Hydraulic	31+97.83	17.81' Rt.		Long		
1227 S. Hydraulic	32+47.82	21.03' Lt.		Short		
1238 S. Hydraulic	32+49.04	22.51' Rt.		Long		
1230 S. Hydraulic	33+08.07	20.88' Rt.		Long		
1228 S. Hydraulic	33+43.59	18.52' Rt.		Long		
1226 S. Hydraulic	34+09.80	17.62' Rt.		Long		
1214 S. Hydraulic	34+49.03	17.71' Rt.		Long		
1212 S. Hydraulic	34+82.51	19.25' Rt.		Long		
1210 S. Hydraulic	35+14.44	17.42' Rt.		Long		
1204 S. Hydraulic	35+50.99	24.06' Rt.		Long		
1138 S. Hydraulic	38+00.70	23.03' Rt.		Long		
1134 S. Hydraulic	38+50.52	16.09' Rt.		Long		
1610 E. Lincoln	38+55.60	23.15' Lt.		Short		
1610 E. Lincoln	38+57.97	23.23' Lt.		Short	ICV	
1130 S. Hydraulic	39+03.05	18.82' Rt.		Long		
1135 S. Hydraulic	39+16.16	19.65' Lt.		Short	Dead	
1126 S. Hydraulic	39+72.09	19.60' Rt.		Long		

Water Service Replacements

Address	B.L. Sta.	Ex. Offset	New Offset	Status	Remarks	Meter No.
1131 S. Hydraulic	39+86.30	21.79' Lt.		Short	Dead	
1121 S. Hydraulic	40+21.93	20.32' Lt.		Short		
1122 S. Hydraulic	40+28.14	18.26' Rt.		Long		
1118 S. Hydraulic	40+56.03	21.46' Rt.		Long		
1117 S. Hydraulic	40+69.48	19.90' Lt.		Short		
1113 S. Hydraulic	41+05.66	18.46' Lt.		Short		
1106 S. Hydraulic	41+50.78	26.73' Rt.		Short		
1109 S. Hydraulic	41+54.28	18.78' Lt.		Short		
1619 E. Morris	41+74.36	18.87' Lt.		Short		
1624 E. Morris	42+66.20	19.29' Lt.		Short		
1023 S. Hydraulic	43+35.44	18.35' Lt.		Short		
1021 S. Hydraulic	43+72.95	20.09' Lt.		Short		
1702 E. Morris	43+77.02	21.83' Rt.		Long	Gone	
1710 E. Morris	43+82.74	21.75' Rt.		Long		
1708 E. Morris	43+84.37	21.84' Rt.		Long	Duplex w/1706 2 Meter In 1 Box	
1706 E. Morris	43+85.97	21.89' Rt.		Long	Duplex w/1708 2 Meter In 1 Box	
1704 E. Morris	43+89.41	21.78' Rt.		Long		
1712 E. Morris	43+95.08	21.81' Rt.		Long	Gone	
1017 S. Hydraulic	44+22.41	18.69' Lt.		Short	Buried	
1720 S. Morris	44+57.20	22.56' Rt.		Long		
1013 S. Hydraulic	44+75.12	21.27' Lt.		Short		
1003 S. Hydraulic	45+66.12	20.54' Lt.		Short		
741 S. Hydraulic	47+87.71	20.99' Lt.		Short		
727 S. Hydraulic	49+59.21	18.84' Lt.		Short		
714 S. Hydraulic	50+22.86	18.89' Rt.		Long	Dead	
715 S. Hydraulic	50+65.28	17.09' Lt.		Short		
711 S. Hydraulic	50+96.32	18.65' Lt.		Short		
707 S. Hydraulic	51+50.37	19.83' Lt.		Short	Shared with 703 S. Hydraulic	
701 S. Hydraulic	51+96.73	19.87' Lt.		Short	Shared with 701 ½ S. Hydraulic	
643 S. Hydraulic	53+29.15	20.68' Lt.		Short	1610 Indianapolis 2 Meter In 1 Box	
1610 Indianapolis	53+29.15	20.68' Lt.		Short	643 S. Hydraulic 2 Meter In 1 Box	
642 S. Hydraulic	53+29.62	19.94' Rt.		Long	Shared with 646 & 648	
641 S. Hydraulic	53+44.83	18.84' Lt.		Short		
632 S. Hydraulic	54+12.62	19.11' Rt.		Long	Shared with 636 & 638	
637 S. Hydraulic	54+15.62	19.90' Lt.		Short		
633 S. Hydraulic	54+38.88	20.58' Lt.		Short		
614 S. Hydraulic	54+59.36	19.54' Rt.		Long		
612 S. Hydraulic	55+08.82	19.56' Rt.		Long		
623 S. Hydraulic	55+19.07	17.73' Lt.		Short	Shared with 625 & 627	
611 S. Hydraulic	55+39.79	17.90' Lt.		Short	Shared with 613.1 & 613.2	
610 S. Hydraulic	55+55.70	23.57' Rt.		Long		
608 S. Hydraulic	55+96.92	18.62' Rt.		Long	A, B, C, & D	
609 S. Hydraulic	56+12.43	19.25' Lt.		Short		
607 S. Hydraulic	56+12.94	19.87' Lt.		Short	Shared with 607 ½ S. Hydraulic	
604b S. Hydraulic	56+47.65	20.62' Rt.		Long	Dead	
604a S. Hydraulic	56+49.58	20.62' Rt.		Long	Dead	
604 S. Hydraulic	56+67.21	22.32' Rt.		Long	606 S. Hydraulic 2 Meter In 1 Box	
605 S. Hydraulic	56+93.87	19.64' Lt.		Short	Shared with 603 S. Hydraulic	
602 S. Hydraulic	57+29.19	20.93' Rt.		Long		
601 S. Hydraulic	57+42.71	18.62' Lt.		Short		
530 S. Hydraulic	57+51.54	19.76' Rt.		Long		
1619 E. Orme	57+60.17	20.59' Lt.		Short	Dead	
533 S. Hydraulic	59+35.54	38.21' Lt.		Short		

Summary of Water Quantities

MEASURED QUANTITY BID ITEMS - WATERLINE		
2" Water Pipe	18	L.F.
6" Water Pipe	33	L.F.
8" Water Pipe	5,580	L.F.
6" DICL Water Pipe	27	L.F.
8" DICL Water Pipe	188	L.F.
6" Valve Assy (Gate Valve)	3	EA.
6" Anchored Valve Assy (Gate Valve)	1	EA.
8" Valve Assy (Gate Valve)	10	EA.
8" Anchored Valve Asy (Gate Valve)	6	EA.
2" Service Outlet Assy	2	EA.
Fire Hydrant Assy	7	EA.
Fire Hydrants Removal	7	EA.
2" Blow-Off Assy	5	EA.
Sand Fill, Flush & Vibrate	680	L.F.
Conc. Sanitary Sewer Encasement	20	L.F.
Temporary Asphalt Pavement (5")	762	S.Y.
Remove Existing Water Valves	2	EA.
Abandon Existing Water Valves	19	EA.
Relocate & Re-install Water Services (Short)	84	EA.
Relocate & Reinstall Water Services (Long)	72	EA.



Typical Water Meter Installation Detail

(*) Relocation of all water meters in conflict with construction of this project will be accomplished in conjunction with construction. Location of meter(s) will be typically set at least x.x ft. from the back of new curbline to the centerline of meter box unless otherwise as directed by the Field Engineer.

The top of the meter box to be field set typically to match finish grade elevations unless otherwise as directed by the Field Engineer.

Replace meter setter, can, ring & lid. All work and materials required is to be INCIDENTAL to the quantity item "Relocate & Re-install Water Service (EA.)"

Drawing File: E:\Eng\Hydraulic Kellogg to Harry Pave\Water Details\Water Meter Tables.dwg

September 2009

Design: TCA
Drawn: TCA
Approved: JFB
Scale: NOTED

Project No. 07-10-E969 CAPITAL IMPROVEMENT PROJECT

WATER MAIN REPLACEMENT
WATER SERVICETABLES
HYDRAULIC - KELLOGG to HARRY

Baughman Company , P.A.
315 Ellis St. Wichita, KS 67211 P 316-262-7271 F 316-262-0149
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SHEET 18 OF 18