

PRIVATE FIRE LINE TO SERVE
Northwest High School
 Lot 1, Block A, Northwest High School Add.
City of Wichita Private Project Number:
1826 PPW (607853)
APRIL 2014

BENCHMARK

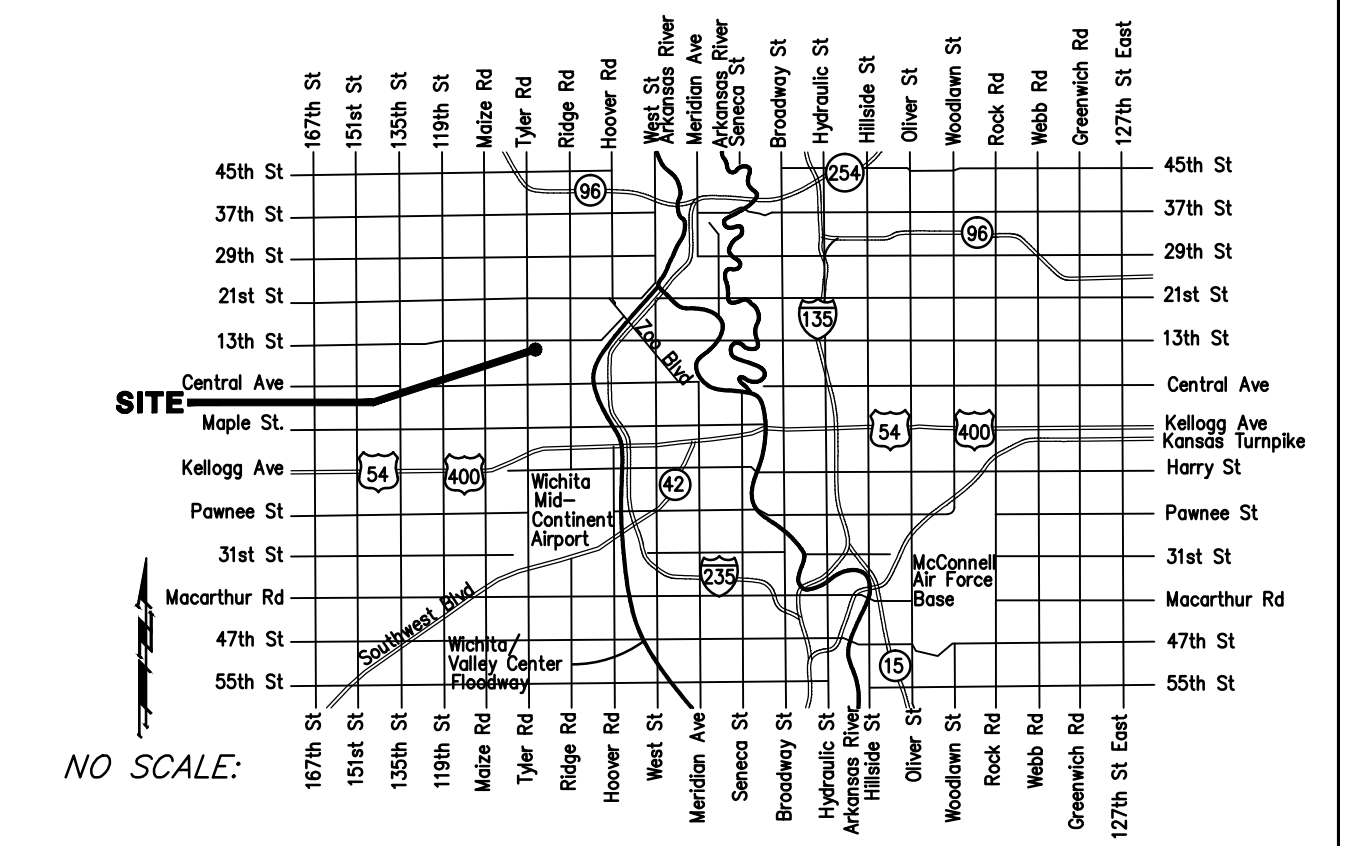
BENCH MARK #1: CHISELED SQUARE WITH DIVOT ON THE TOP OF CURB AT THE SOUTHWEST CORNER OF THE NORTH PARKING LOT OF NORTHWEST HIGH SCHOOL, 110.5' NORTH OF THE WESTERLY MOST NORTH BUILDING CORNER
 ELEVATION = 1348.90 (NAVD88)

BENCH MARK #2: CHISELED SQUARE WITH DIVOT ON THE TOP OF CURB ON THE EAST SIDE OF CURVED DRIVE ON THE WEST SIDE OF NORTHWEST HIGH SCHOOL, SIDE SIDE OF SIDEWALK RAMP, 131'± WEST OF THE WESTERLY MOST BUILDING FACE
 ELEVATION = 1347.62 (NAVD88)

BENCH MARK #3: CHISELED SQUARE WITH DIVOT ON THE NORTHWEST CORNER OF A CONCRETE WATER VAULT, BETWEEN BALL FIELDS ON THE EAST SIDE OF NORTHWEST HIGH SCHOOL, 168' EAST- NORTHEAST OF EASTERLY MOST BUILDING CORNER
 ELEVATION = 1348.11 (NAVD88)

BENCH MARK #4: CHISELED SQUARE WITH DIVOT ON THE TOP OF CURB ON THE NORTHERLY SIDE OF DRIVE ENTRANCE, NORTHEAST OF NORTH PARKING AREA, 36' NORTHERLY OF NORTHWEST CURB RETURN, 275'± SOUTH OF CENTERLINE OF 13TH STREET NORTH, NORTHWEST HIGH SCHOOL
 ELEVATION = 1348.75 (NAVD88)

BENCH MARK #5: CHISELED SQUARE WITH DIVOT ON THE CONCRETE WALK ON THE WEST SIDE OF THE NORTH ENTRANCE TO THE TENNIS COURTS, WEST OF THE FOOTBALL FIELD
 ELEVATION = 1346.40 (NAVD88)



VICINITY MAP

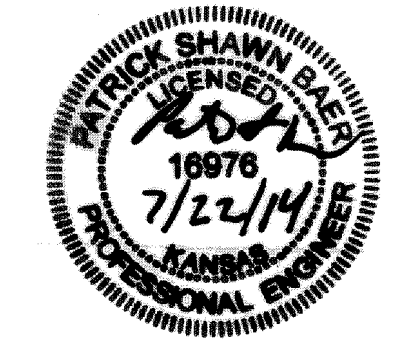
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- GENERAL NOTES:**
- Contractor will be required to provide notice to utility companies a minimum of forty-eight (48) hours prior to any excavation, as follows:
 Kansas One-Call 687-2470
 The Contractor must notify the following in case of an emergency:
 Cox Communications 262-4270
 Kansas Gas Service 1-888-482-4950
 Westar Energy 383-8650
 Black Hills Energy (Gas) 1-800-303-0357
 ATT 268-2245
 City of Wichita Water Dept. 268-4563
 City of Wichita Sewer Maint. 268-4024
 City of Wichita Storm Sewer Maint. 268-4090
 City of Wichita Traffic Maint. 268-4034
 - Utility service lines, poles, valve boxes, meters, and etcetera 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.
 - All disturbed R/W areas not intended for pavement or sidewalk construction shall be seeded with Kansas Premium Fescue Blend at a rate of 8 lb./1000 Sq. Ft., fertilized with a 16-20-6 ratio at a rate of 4 lb./1000 Sq. Ft., and mulched with Prairie Hay at a rate of 92 lb./1000 Sq. Ft. Mulch shall be "patted" with forks or punched into soil to reduce loss due to wind.
 - 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.
 - Contractor to remove concrete sidewalk to the nearest construction joint if within 3' of joint. Saw cut if over 3' from joint. Removal and replacement of pavement shall not be paid for directly, but shall be considered incidental to other items in the project.
 - Contractor shall furnish the inspector with a copy of the manufacturer's certification for any pipe used on this project after completion of pipe installation. The engineer will not certify the project to the city until pipe certification has been received.
 - 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.
 - All water lines and appurtenances shall be installed in accordance with the most recent edition of City of Wichita, Kansas Standard Specifications for the Construction of City Projects and Special Provisions.
 - Contractor shall not start work on the project until the project inspector is assigned to the project and is present on the site. Contractor shall not start on the project until all necessary bonds and permits have been obtained. Bonds may include but are not limited to Statutory, Performance & Maintenance. Any work done without inspection will be required to be uncovered for inspection.
 - Existing property & Control Irons are noted on the title sheet are to be used to locate the proposed improvements. The Contractor is not to assume these locations are per the state plan coordinate system.

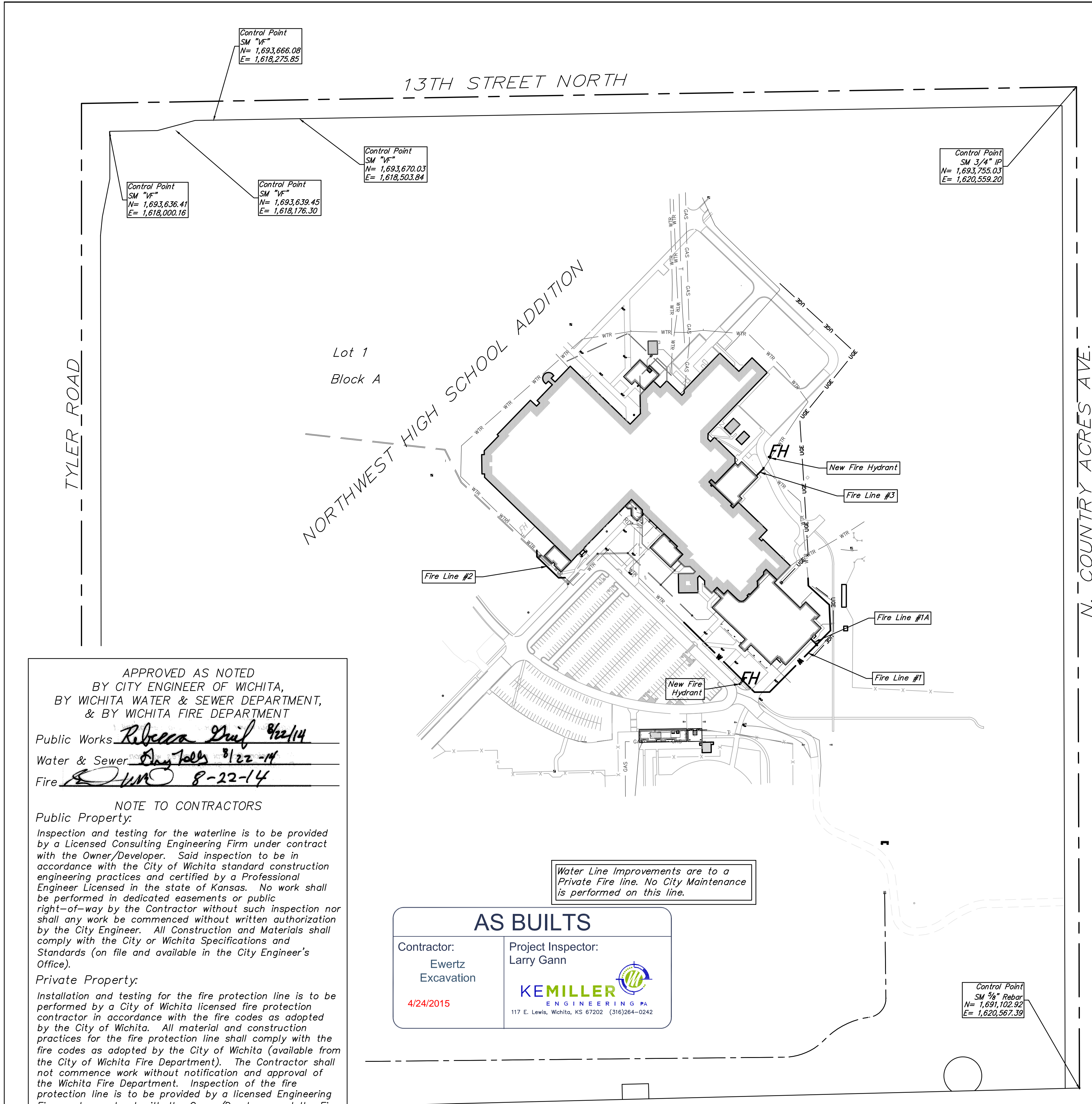
Contractor To Use Extreme Caution When Excavating Near Utility Lines. Contractor To Hand Dig To Expose All Utility Lines Prior To Construction. Verify Depth To Determine Conflict If Any.

Contractor Shall Follow All Applicable Best Management Practices (BMP) For Erosion Control.



Baughman Company, P.A. 315 Ellis St. Wichita, KS 67211 P 316-262-2271 F 316-262-0149
 ENGINEERING | SURVEYING | PLANNING | LANDSCAPE ARCHITECTURE

F:\Projects\USD 239 NW High Site Plans (13-07-1935)\Engineering\To COW\PPW 8-25-14\1826 PPW(607853) NW High 8-25-14.dwg



Control Point
 SM "V"
 N= 1,693,666.08
 E= 1,618,275.85

Control Point
 SM "V"
 N= 1,693,670.03
 E= 1,618,303.64

Control Point
 SM 3/4" IP
 N= 1,693,755.03
 E= 1,620,559.20

Control Point
 SM "V"
 N= 1,693,636.41
 E= 1,618,000.16

Control Point
 SM "V"
 N= 1,693,639.45
 E= 1,618,176.30

APPROVED AS NOTED
 BY CITY ENGINEER OF WICHITA,
 BY WICHITA WATER & SEWER DEPARTMENT,
 & BY WICHITA FIRE DEPARTMENT

Public Works *Rebecca Duff 9/22/14*
 Water & Sewer *Doug Jells 8/22/14*
 Fire *Jim 8-22-14*

NOTE TO CONTRACTORS
Public Property:
 Inspection and testing for the waterline is to be provided by a Licensed Consulting Engineering Firm under contract with the Owner/Developer. Said inspection to be in accordance with the City of Wichita standard construction engineering practices and certified by a Professional Engineer Licensed in the state of Kansas. No work shall be performed in dedicated easements or public right-of-way by the Contractor without such inspection nor shall any work be commenced without written authorization by the City Engineer. All Construction and Materials shall comply with the City or Wichita Specifications and Standards (on file and available in the City Engineer's Office).

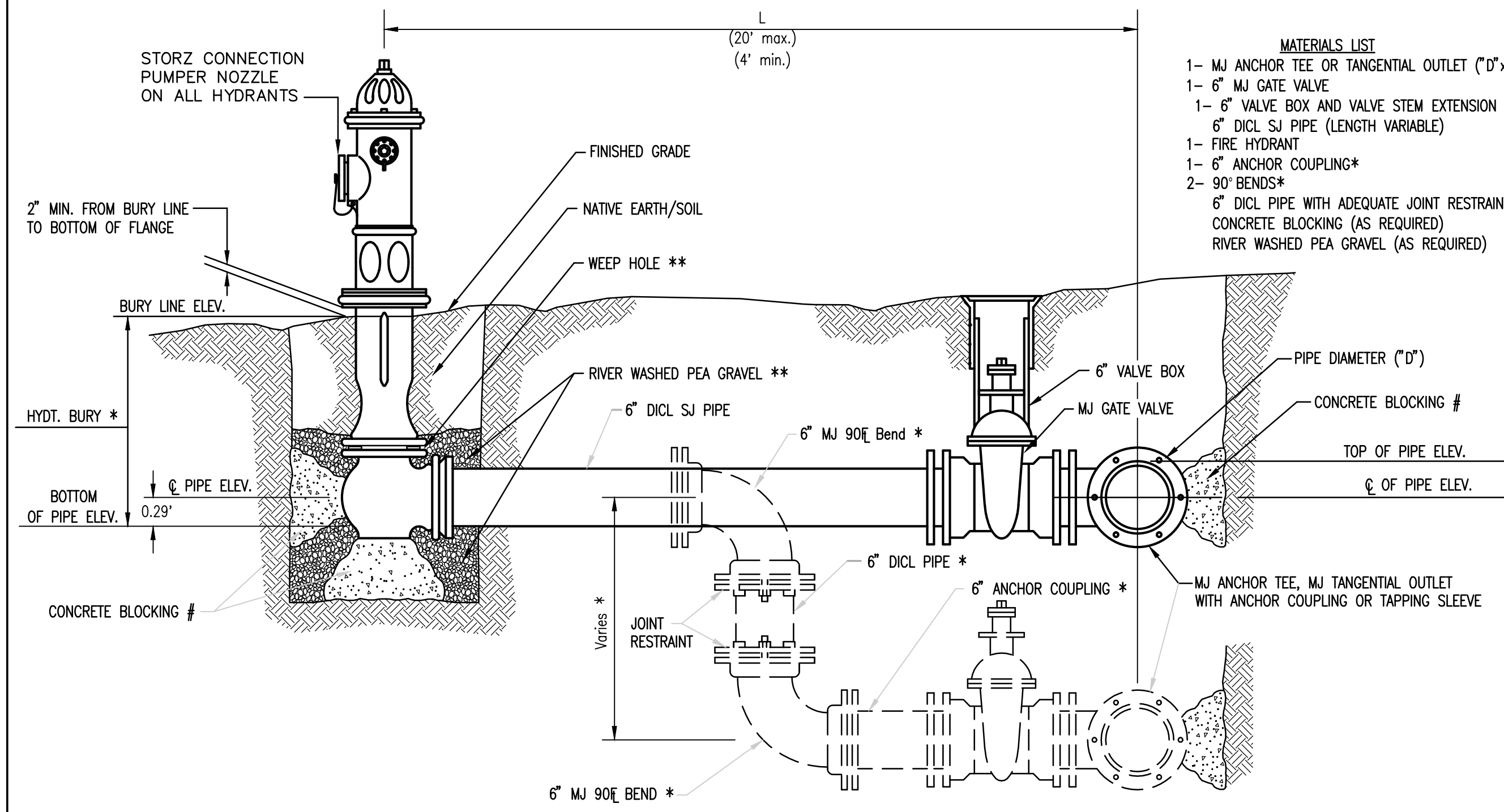
Private Property:
 Installation and testing for the fire protection line is to be performed by a City of Wichita licensed fire protection contractor in accordance with the fire codes as adopted by the City of Wichita. All material and construction practices for the fire protection line shall comply with the fire codes as adopted by the City of Wichita (available from the City of Wichita Fire Department). The Contractor shall not commence work without notification and approval of the Wichita Fire Department. Inspection of the fire protection line is to be provided by a licensed Engineering Firm under contract with the Owner/Developer and the Fire Department. The contractor shall not start work until the project inspector is assigned to the project and present on the site. Any work done without inspection will be required to be uncovered for inspection.

Water Line Improvements are to a Private Fire line. No City Maintenance is performed on this line.

AS BUILTS

Contractor: Ewertz Excavation 4/24/2015	Project Inspector: Larry Gann KEMILLER ENGINEERING PA 117 E. Lewis, Wichita, KS 67202 (316)264-0242
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Control Point
 SW 3/4" Rebar
 N= 1,691,102.92
 E= 1,620,567.39



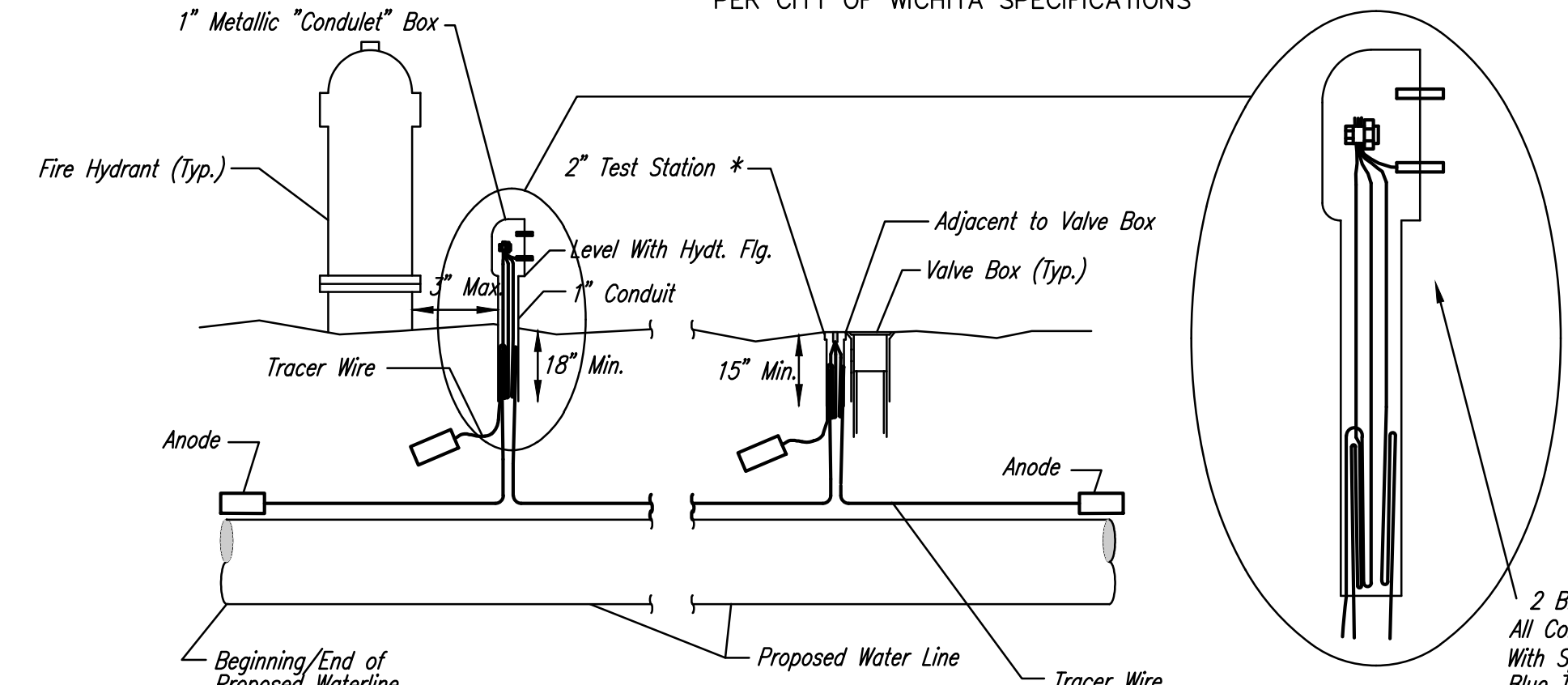
- MATERIALS LIST**
- 1- MJ ANCHOR TEE OR TANGENTIAL OUTLET ("D" x 6")
 - 1- 6" MJ GATE VALVE
 - 1- 6" VALVE BOX AND VALVE STEM EXTENSION IF REQUIRED *
 - 6" DI CL SJ PIPE (LENGTH VARIABLE)
 - 1- FIRE HYDRANT
 - 1- 6" ANCHOR COUPLING*
 - 2- 90° BENDS*
 - 6" DI CL PIPE WITH ADEQUATE JOINT RESTRAINT *
 - CONCRETE BLOCKING (AS REQUIRED)
 - RIVER WASHED PEA GRAVEL (AS REQUIRED)

* IF THE REQUIRED HYDRANT BURY IS IN EXCESS OF 5', BUT LESS THAN 7', CONTRACTOR SHALL USE STANDARD 5' HYDRANT BURY AND HYDRANT BARREL EXTENSIONS AS NECESSARY. IF THE REQUIRED HYDRANT BURY IS GREATER THAN 7', CONTRACTOR SHALL USE 5' HYDRANT BURY, 2-MJ 90° BENDS, 6" ANCHOR COUPLING AND 6" DI CL PIPE AS NECESSARY FOR VERTICAL ADJUSTMENT. THE CONTRACTOR SHALL PROVIDE ADEQUATE THRUST BLOCKING AT HYDRANT AND MEGALUGS, OR SIMILAR RESTRAINT BETWEEN 90° BENDS TO SECURE ALL FITTINGS DURING TESTING AND OPERATION. THE CONTRACTOR SHALL PROVIDE A VALVE STEM EXTENSION PER DETAIL THIS SHEET.

** CAUTION: WEEP HOLES TO BE KEPT CLEAR DURING CONSTRUCTION AND BACKFILL. CONCRETE FOR THRUST BLOCKING SHALL NOT OBSTRUCT WEEP HOLES. PLACE 1 CUBIC FOOT OF RIVER WASHED PEA GRAVEL AROUND EACH WEEP HOLE.

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

FIRE HYDRANT ASSEMBLY
PER CITY OF WICHITA SPECIFICATIONS



* FLUSH STYLE TEST STATIONS SHALL ONLY BE USED IN PAVEMENT.

2 Blue Wires and 1 Black Wire All Connected to Single Test Lead With Split Bolt Connection and Blue Tracer Wire

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 3 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.

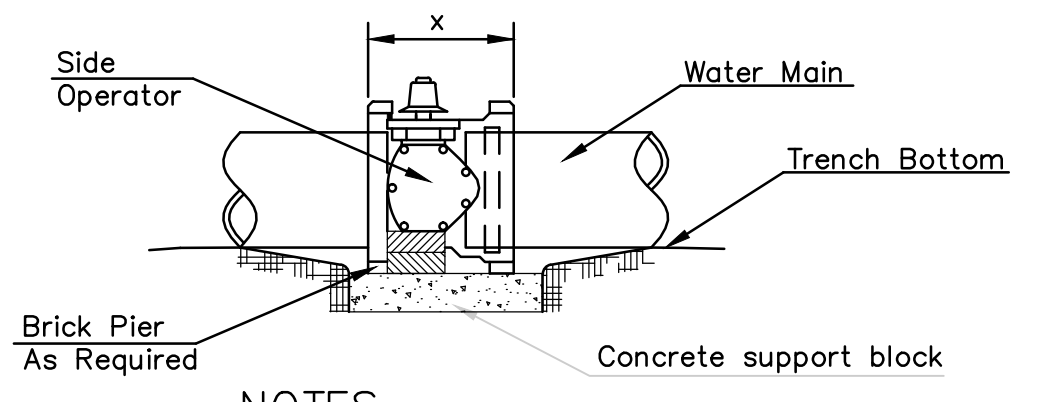
WIRE
The tracer wire shall be Blue No. 12 THHN annealed soft copper wire with thermal plastic insulation or Blue No. 12 AWG CCS with 30 mil HDPE insulation. The insulation shall be heat, oil, and gasoline resistant as manufactured by Temple Electric or approved equal. To allow for grade adjustment, a 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 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 "condulet" 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 test station 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 3 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.

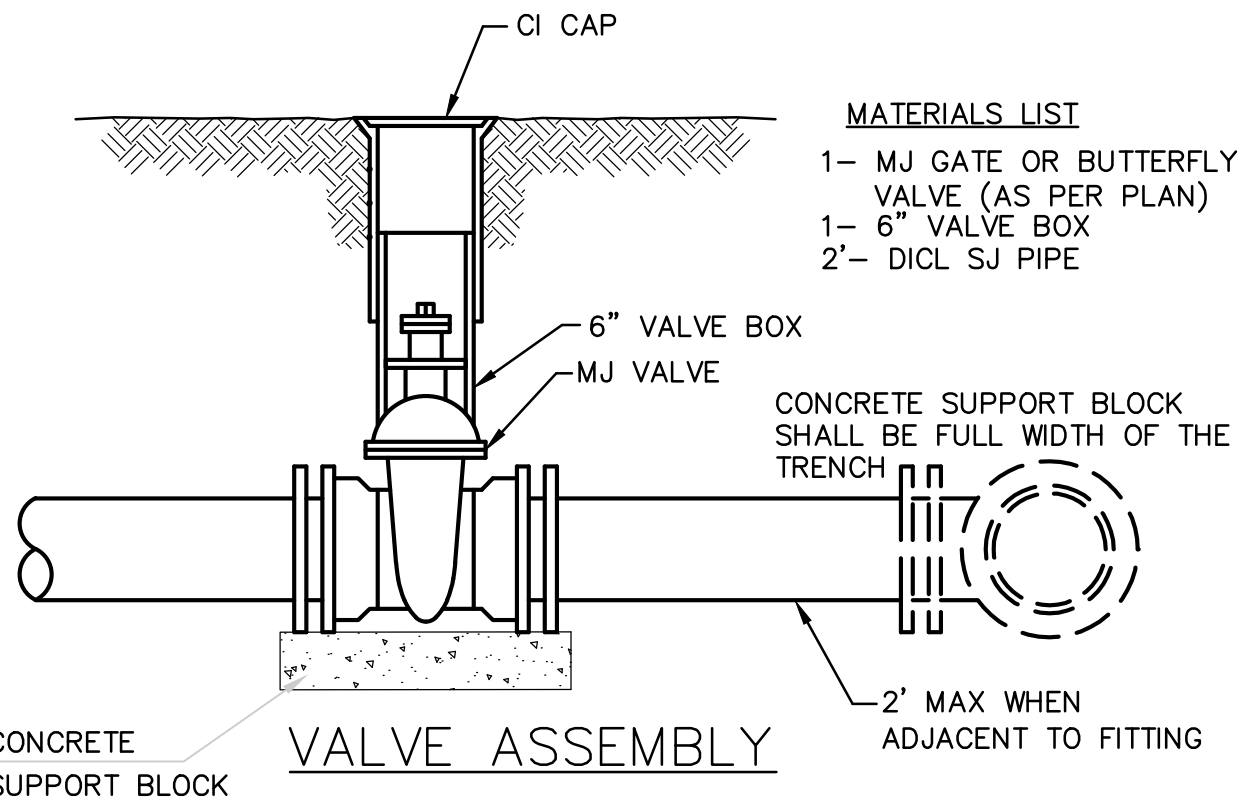
TRACER WIRE DETAIL
COST IS SUBSIDIARY TO PIPE INSTALLATION

FIRE HYDRANTS REQUIRED				
STATION	BURY LINE ELEVATION	TOP OF PIPE ELEVATION	FIRE HYDRANT BURY REQUIRED*	VALVE STEM EXT. REQUIRED (ft)*
2+19.74	1348.05	1344.20	4.5'	-
NA	1349.10	1345.25*	4.5'	-



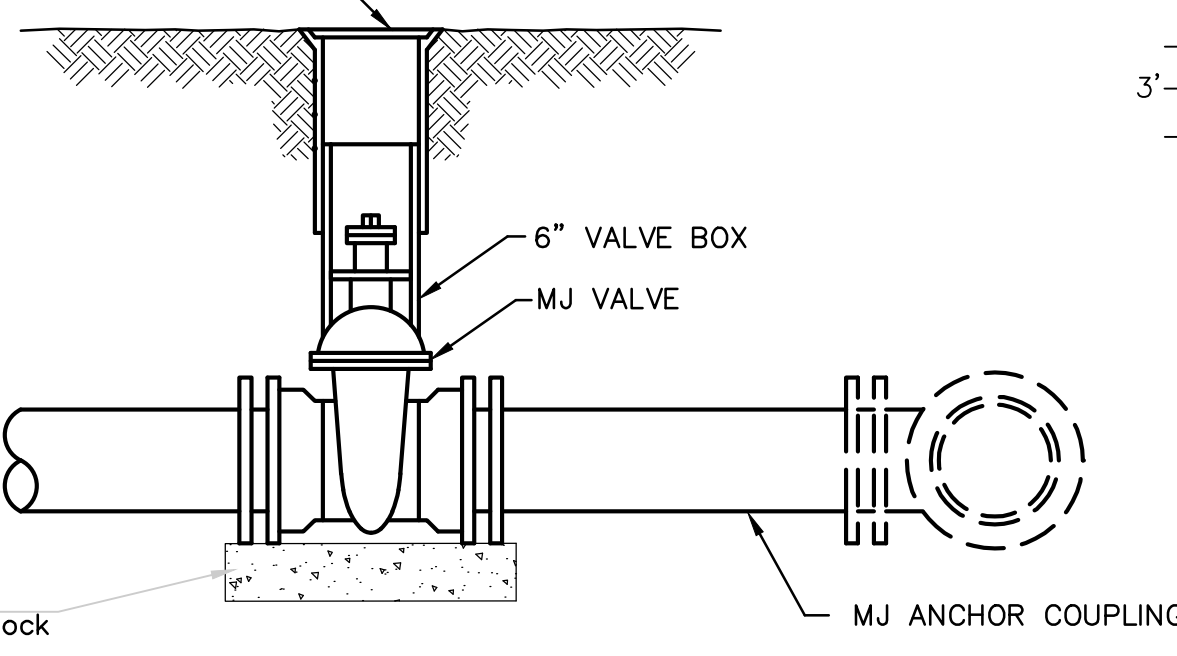
- NOTES**
- This detail covers Butterfly Valve installation, inclusive, regardless of type of pipe or joint used. 24" and larger lines to be detailed on plans.
 - 6" Valve Box and Cover required per City of Wichita Std. Specifications.
 - Conc. Support Block to be full width of trench.

CONCRETE SUPPORT BLOCKING FOR BUTTERFLY VALVE INSTALLATION

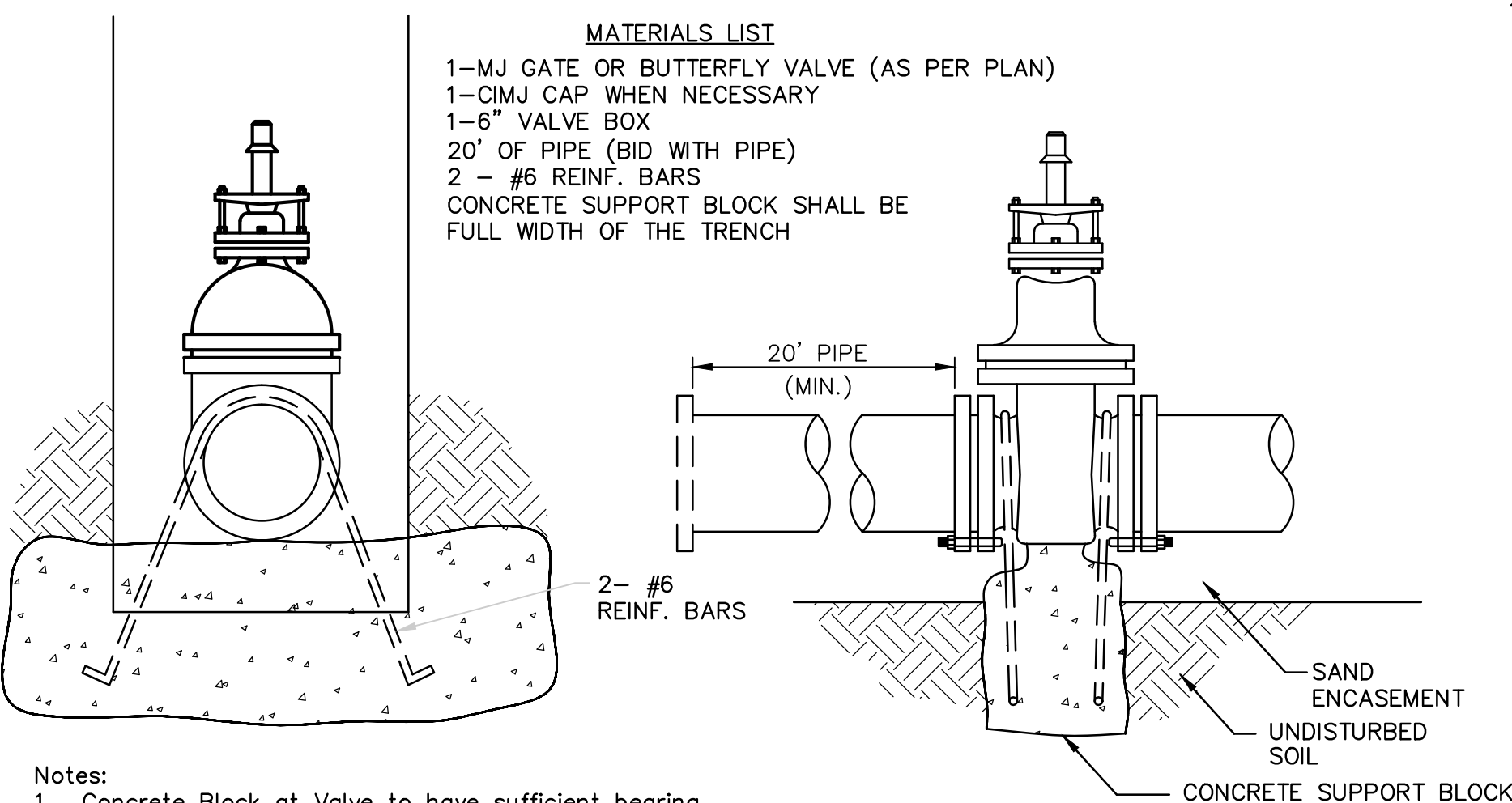


- MATERIALS LIST**
- 1- MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
 - 1- 6" VALVE BOX
 - 2- DI CL SJ PIPE

- 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

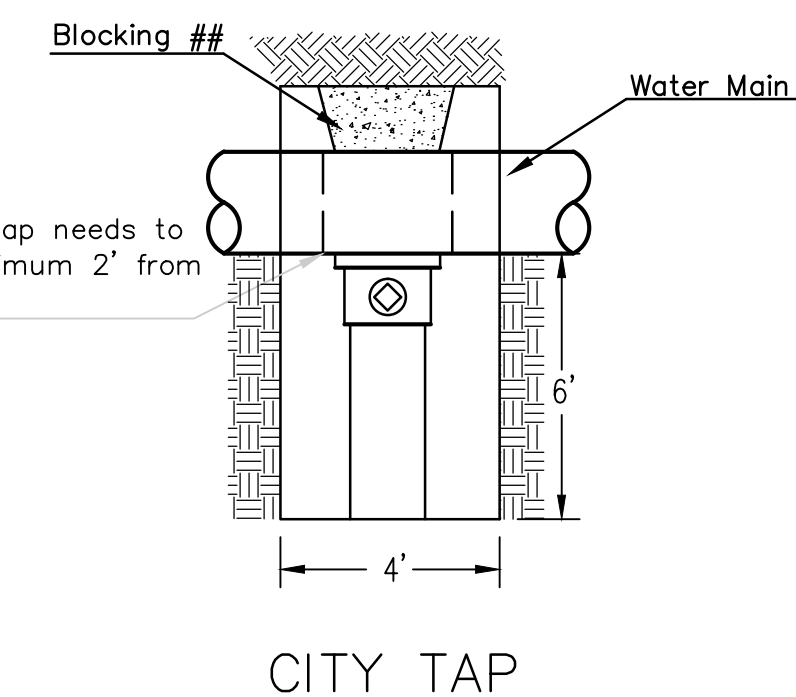
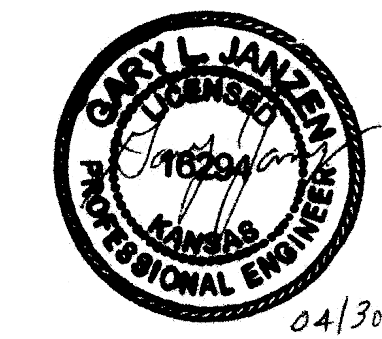


ANCHORED VALVE ASSEMBLY



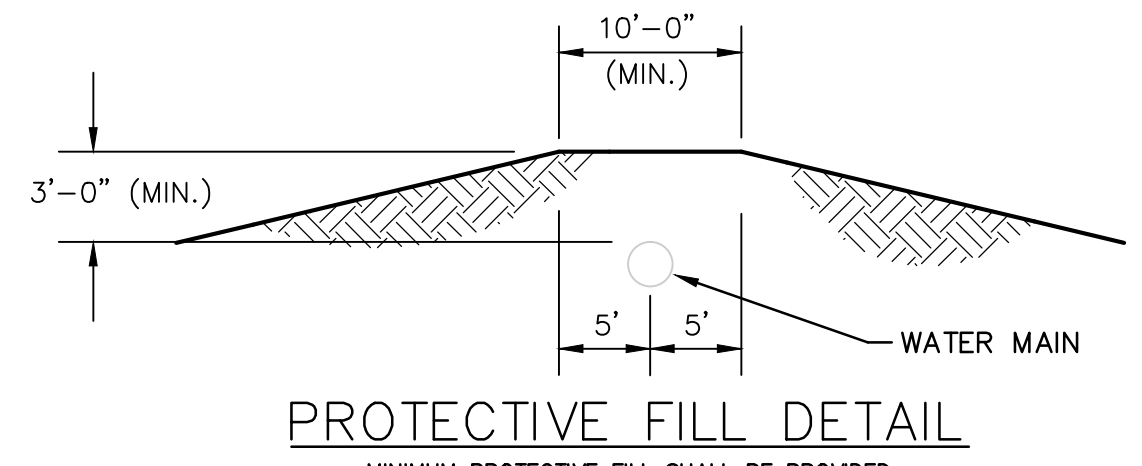
- Notes:**
- Concrete Block at Valve to have sufficient bearing in undisturbed soil to prevent thrust movement as shown in table at right. Field Engineer to determine thrust loading of undisturbed soil and final size of thrust block.
 - The thrust block shall be constructed such that bolts, nuts, and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

VALVE	THRUST AT 150 #/in ²
4"	1809 lbs.
6"	4245 lbs.
8"	7540 lbs.
12"	16965 lbs.



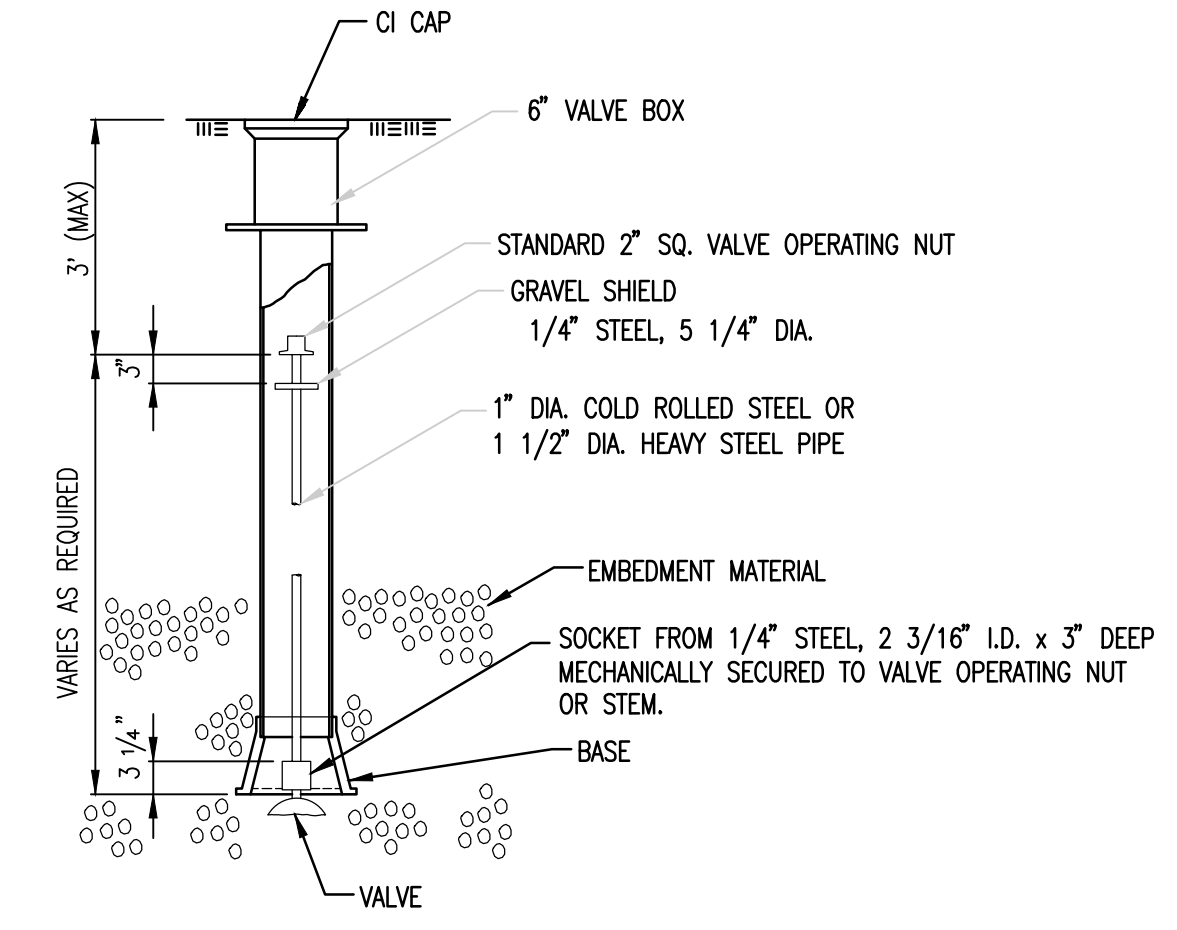
CITY TAP

When the City of Wichita makes tap, blocking is to be done by Contractor



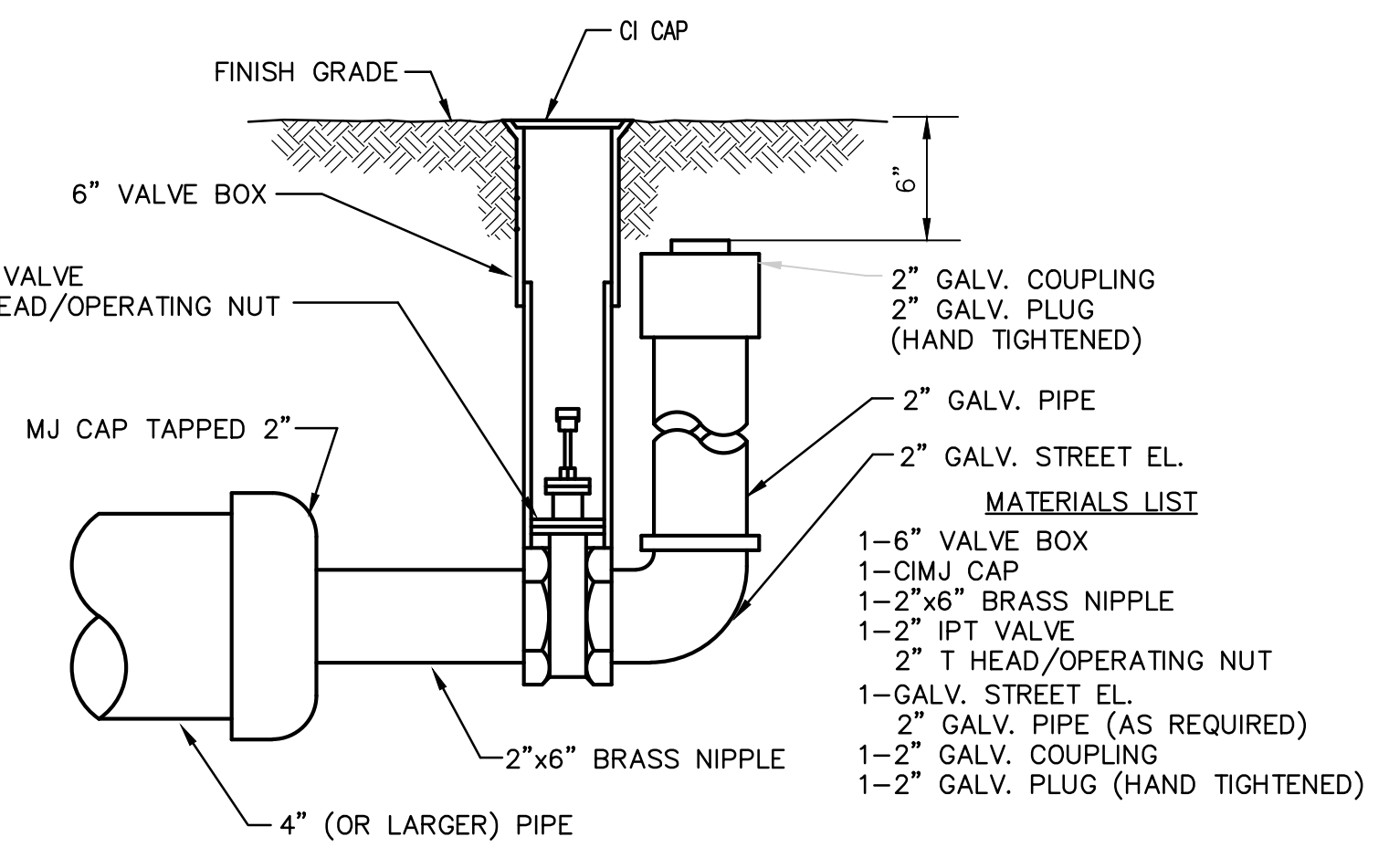
PROTECTIVE FILL DETAIL

MINIMUM PROTECTIVE FILL SHALL BE PROVIDED IN ALL INSTANCES WHERE COVER OVER THE PROP. WATER LINE IS LESS THAN 3". (COST SUBSIDIARY TO PIPE INSTALLATION)



VALVE STEM EXTENSION DETAIL

NOTE: ONE VALVE STEM EXTENSION FOR EACH VALVE BURIED GREATER THAN 5'.



2" BLOWOFF ASSEMBLY



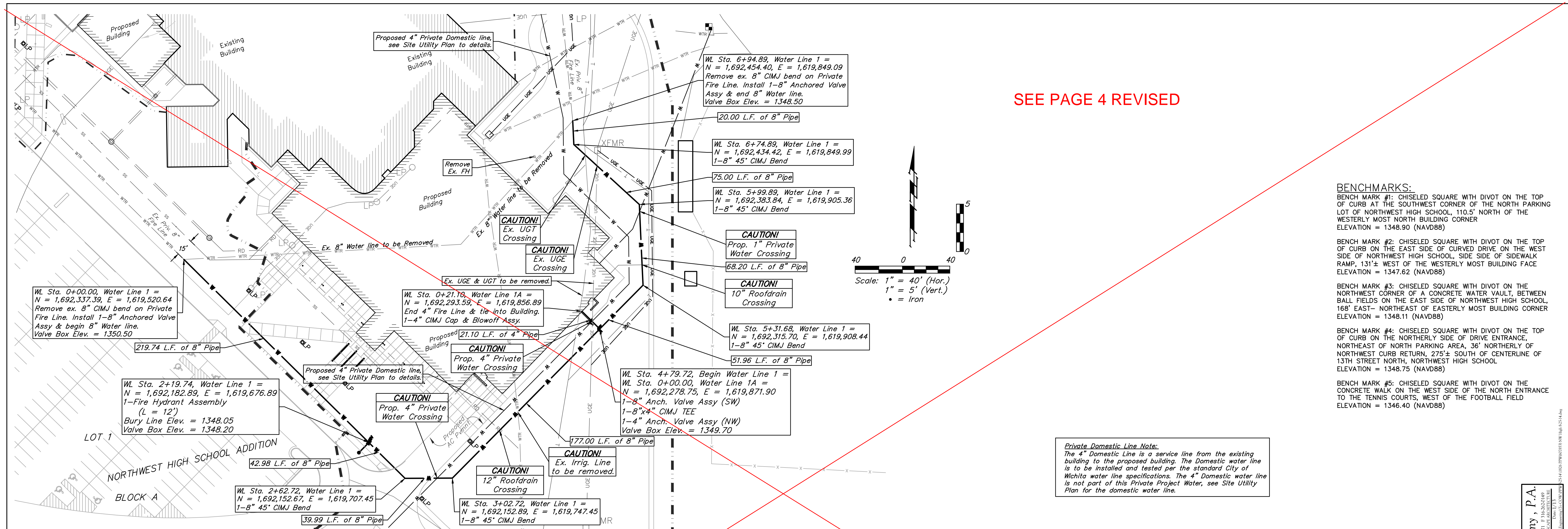
STANDARD WATER ASSEMBLY DETAIL

CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER 1826 PPW	OCA NUMBER (607853)	DATE 7/2013
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CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

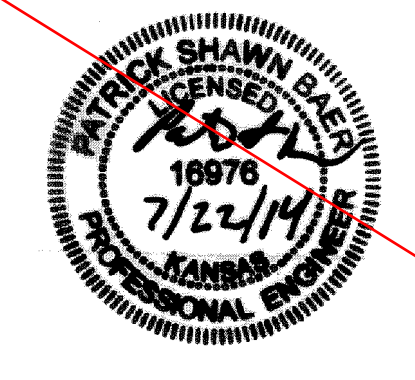
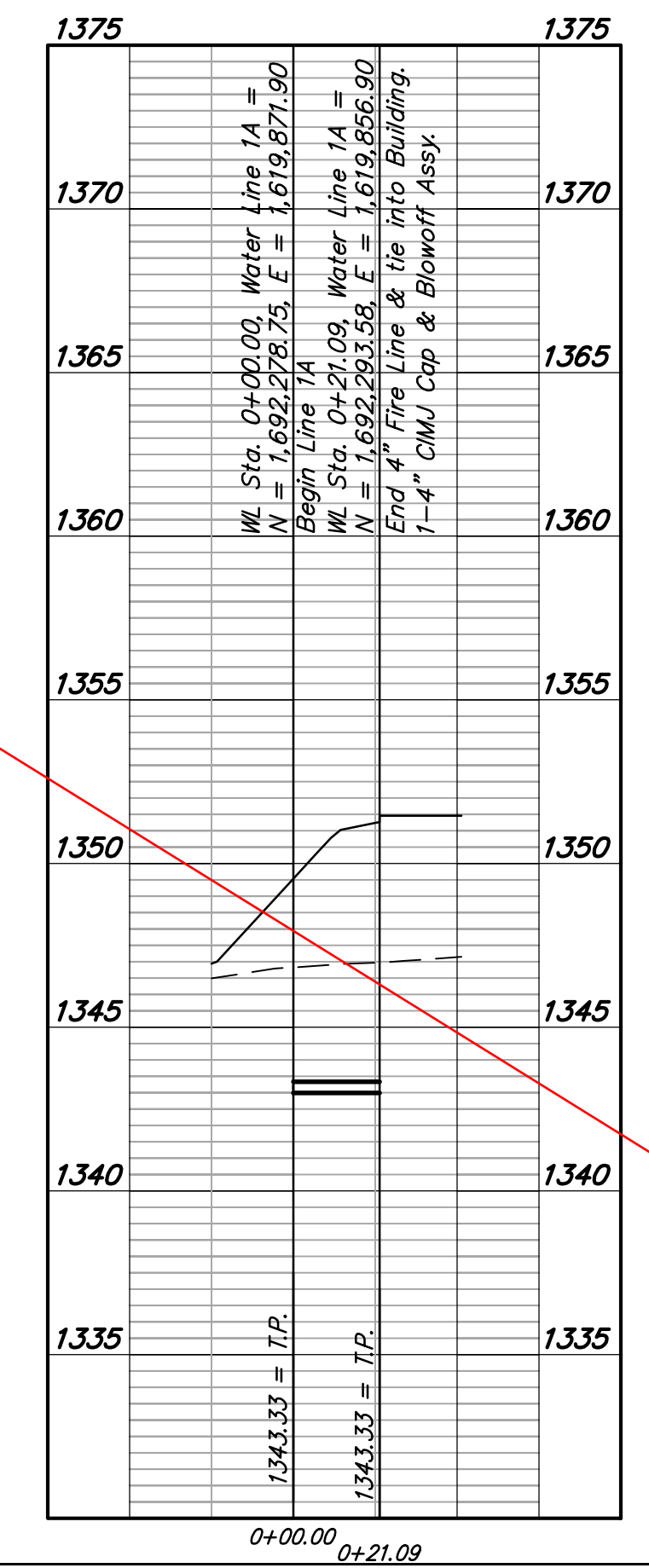
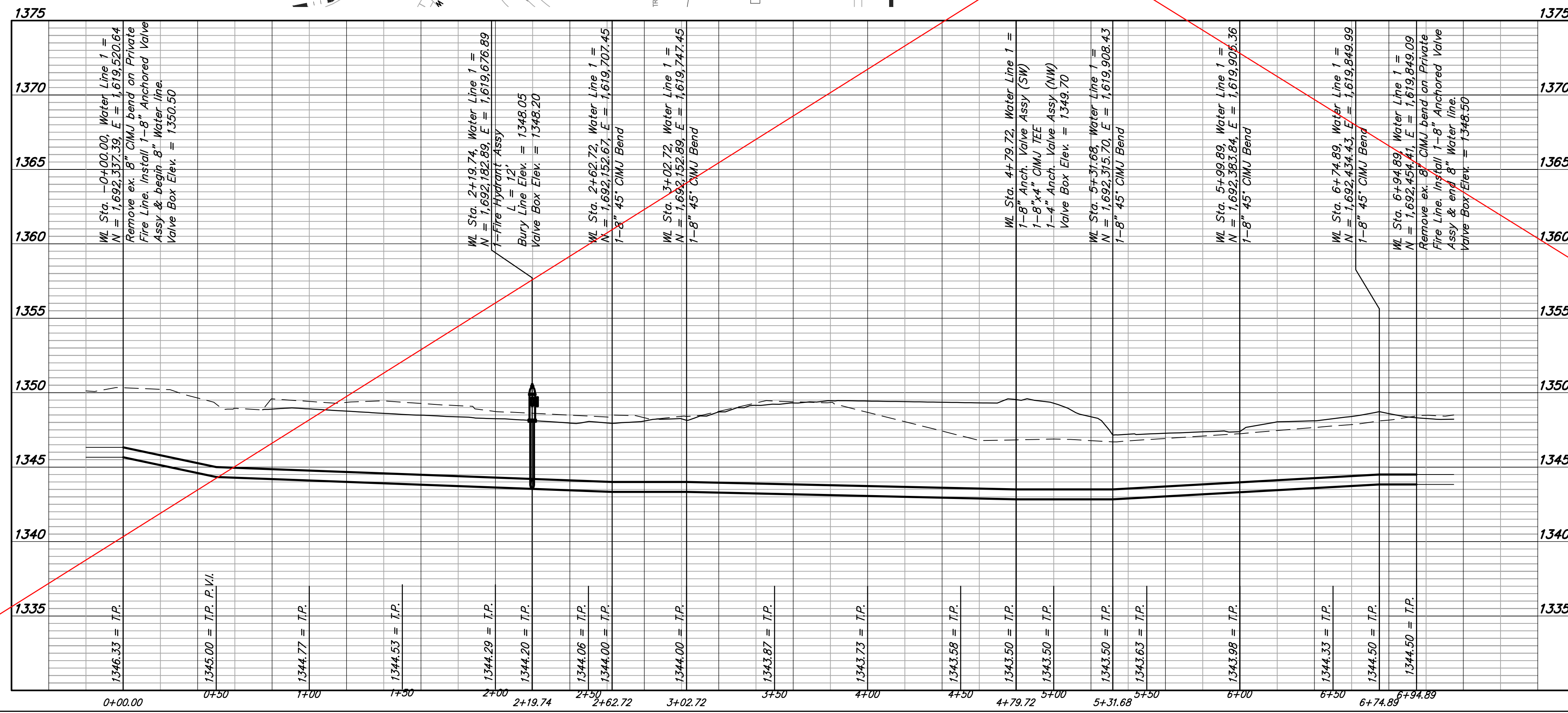
SHEET
2 of 5



SEE PAGE 4 REVISED

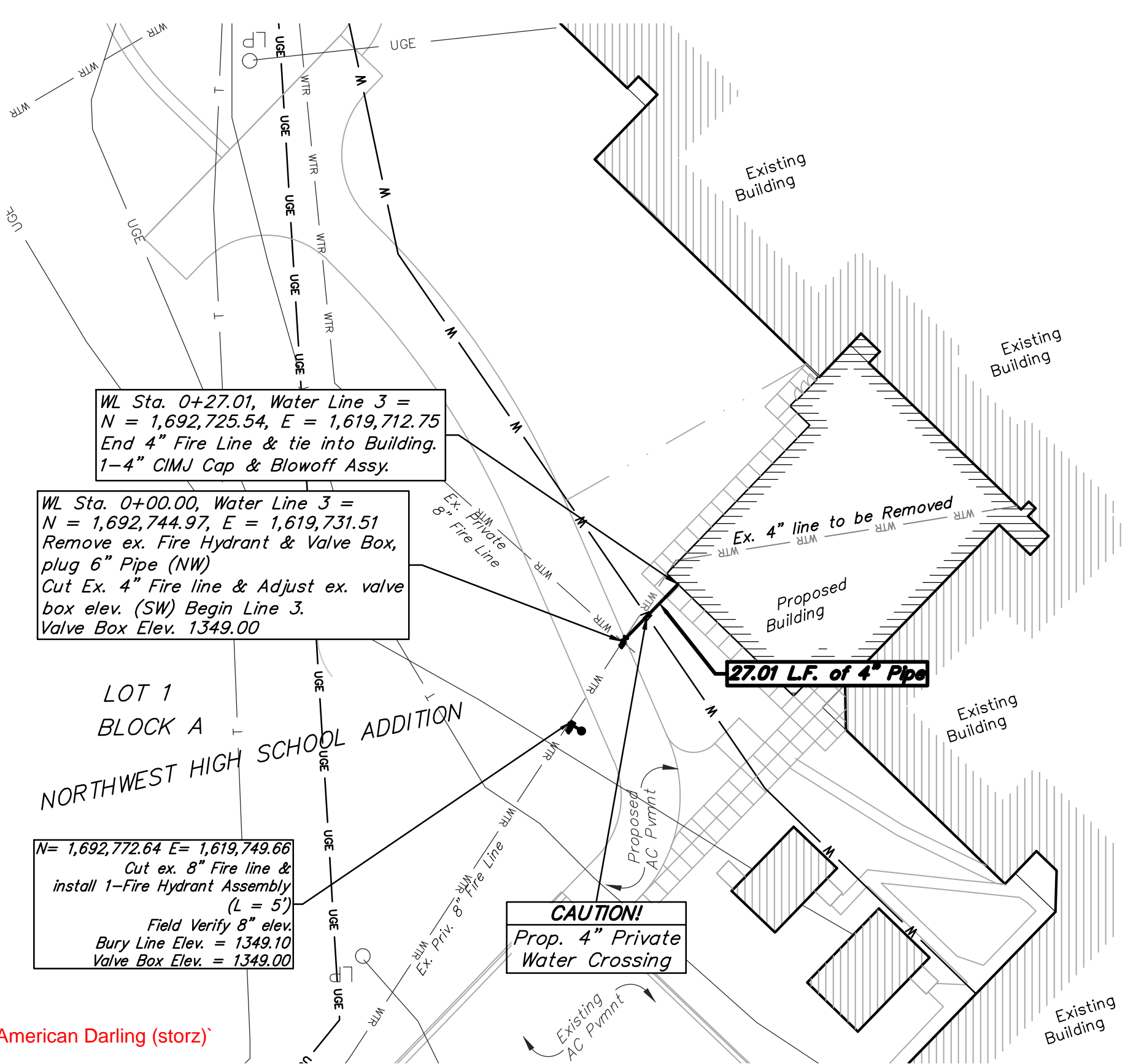
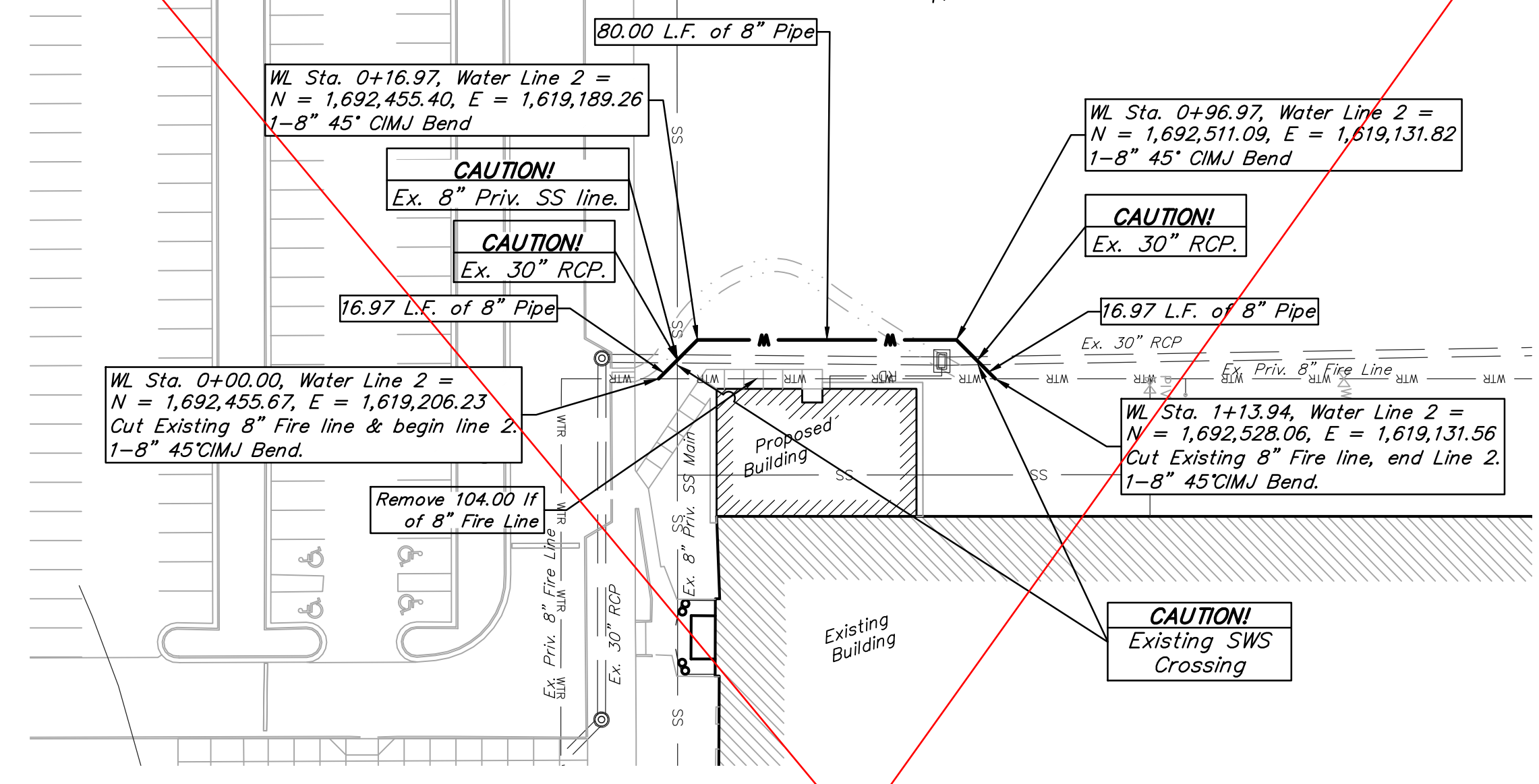
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Private Domestic Line Note:
 The 4" Domestic Line is a service line from the existing building to the proposed building. The Domestic water line is to be installed and tested per the standard City of Wichita water line specifications. The 4" Domestic water line is not part of this Private Project Water, see Site Utility Plan for the domestic water line.



Line 2 Note:
 Fire line 2 is to be constructed with Add alternate #5. In the event Add Alt. 5 is not constructed, As Builts will need to note Line 2 is to be omitted with these improvements.

LOT 1
 BLOCK A
 NORTHWEST HIGH SCHOOL ADDITION



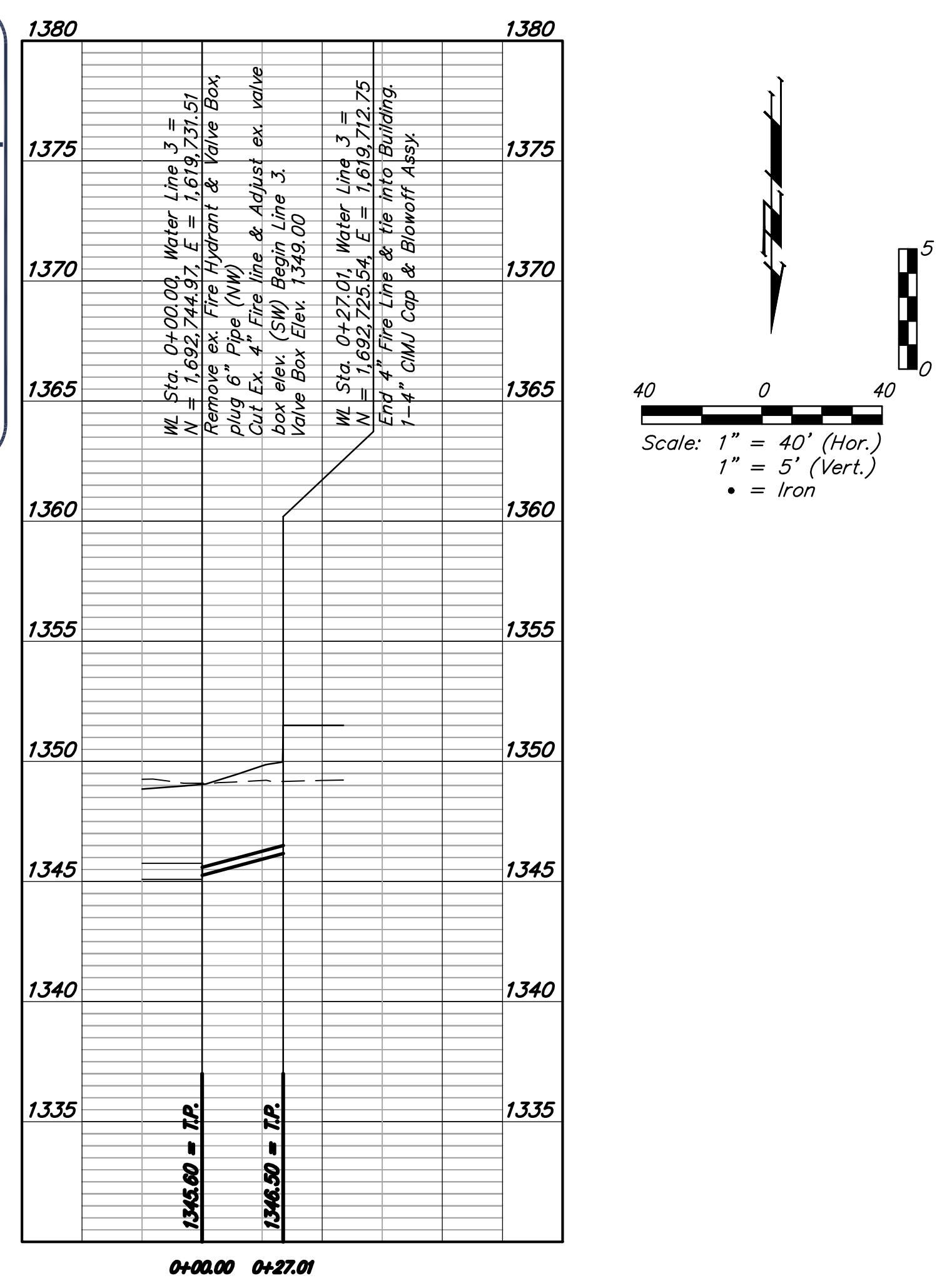
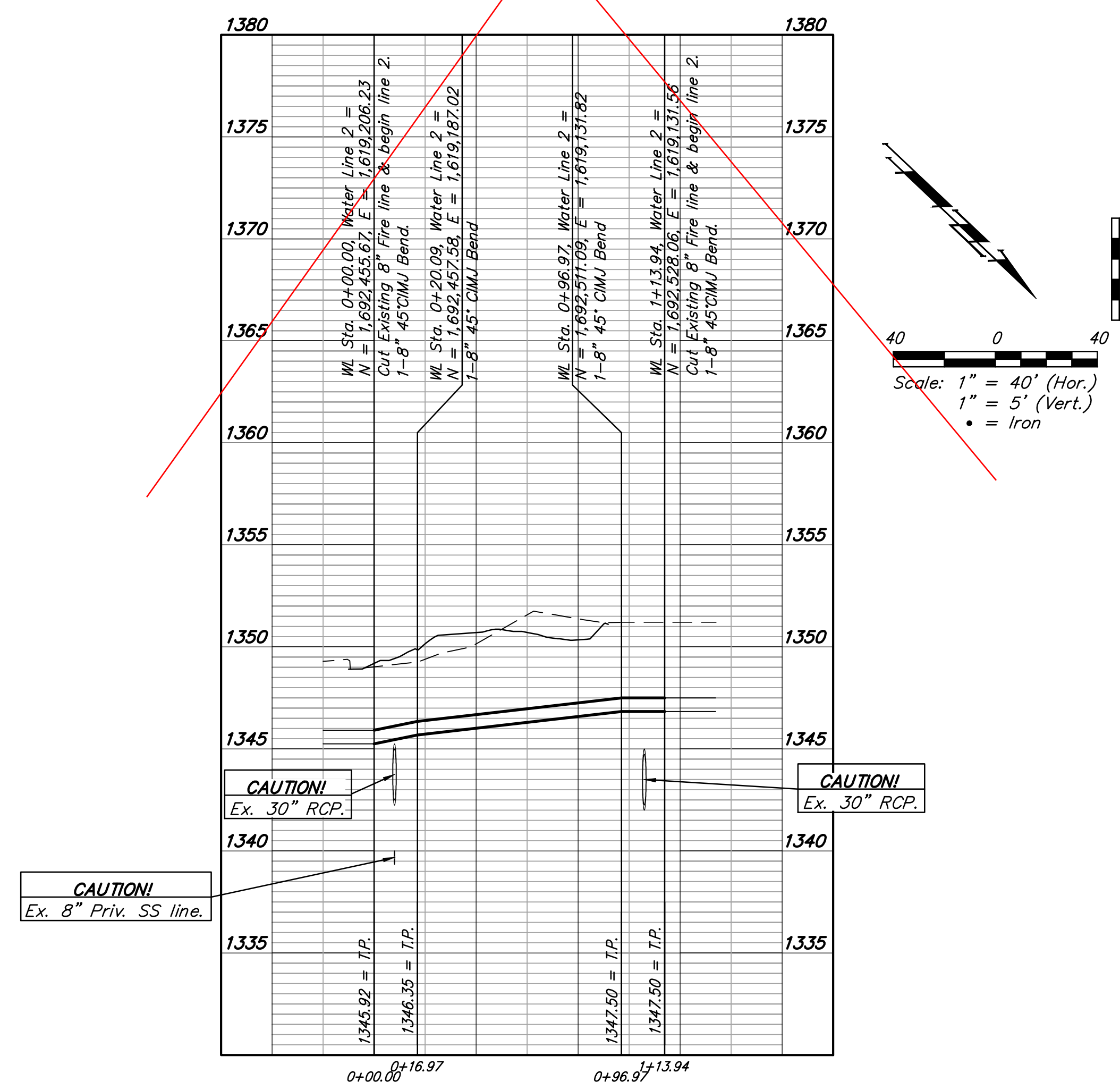
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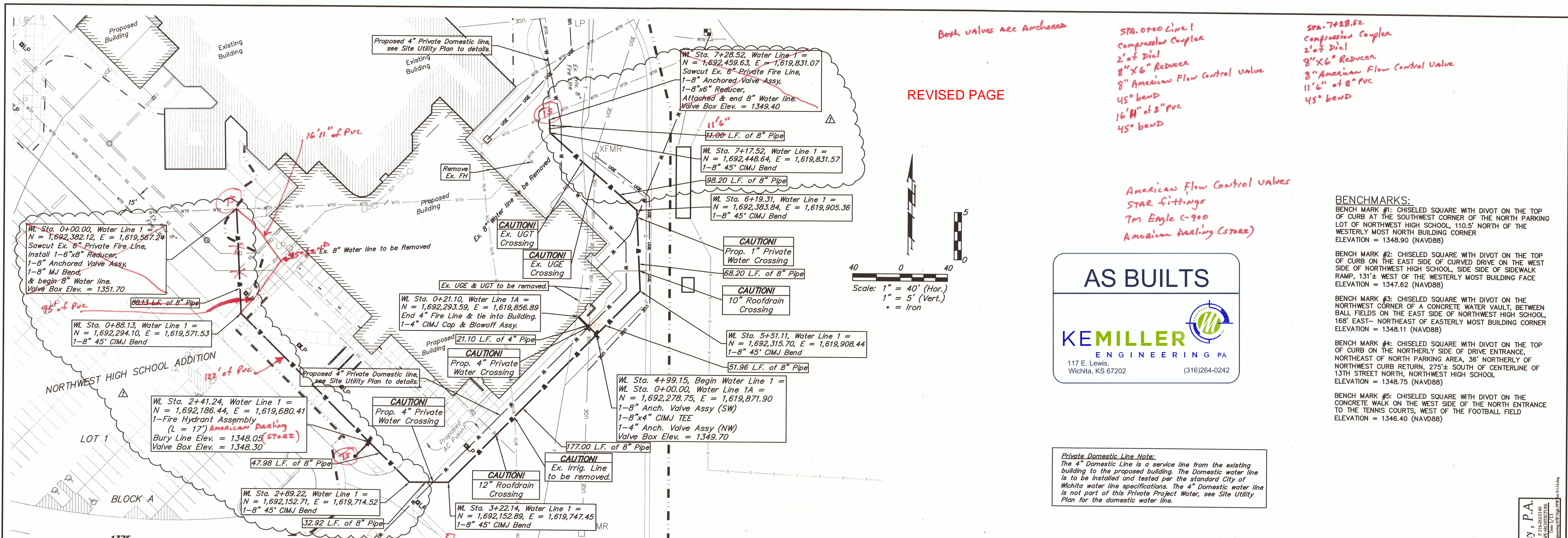
American Darling (storz)

DIDN'T DO THIS LINE

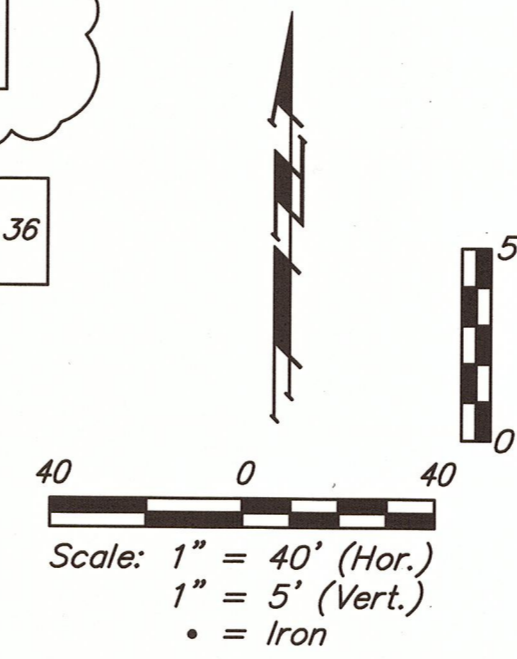
AS BUILTS

117 E. Lewis,
 Wichita, KS 67202 (316)264-0242





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AS BUILTS

KEMILLER ENGINEERING PA

117 E. Lewis,
Wichita, KS 67202 (316)264-0242

Private Domestic Line Note:
The 4" Domestic Line is a service line from the existing building to the proposed building. The Domestic water line is to be installed and tested per the standard City of Wichita water line specifications. The 4" Domestic water line is not part of this Private Project Water, see Site Utility Plan for the domestic water line.

Both valves are Anchored

STA. 0+00 Line 1
Compressor Coupler
2" of Dial
8" X 6" Reducer
8" American Flow Control Valve
45° bend
16" of 8" PVC
45° bend

STA. 7+28.52
Compression Coupler
2" of Dial
8" X 6" Reducer
8" American Flow Control Valve
11" of 8" PVC
45° bend

American Flow Control Valves
STAR fittings
Tee fittings
American Anuling (Stops)

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 - BENCH MARK #4: CHISELED SQUARE WITH DIVOT ON THE TOP OF CURB ON THE NORTHERLY SIDE OF DRIVE ENTRANCE, NORTHEAST OF NORTH PARKING AREA, 36' NORTHERLY OF NORTHWEST CURB RETURN, 275± SOUTH OF CENTERLINE OF 13TH STREET NORTH, NORTHWEST HIGH SCHOOL
ELEVATION = 1348.14 (NAVD88)
 - BENCH MARK #5: CHISELED SQUARE WITH DIVOT ON THE CONCRETE WALK ON THE WEST SIDE OF THE NORTH ENTRANCE TO THE TENNIS COURTS, WEST OF THE FOOTBALL FIELD
ELEVATION = 1346.40 (NAVD88)

