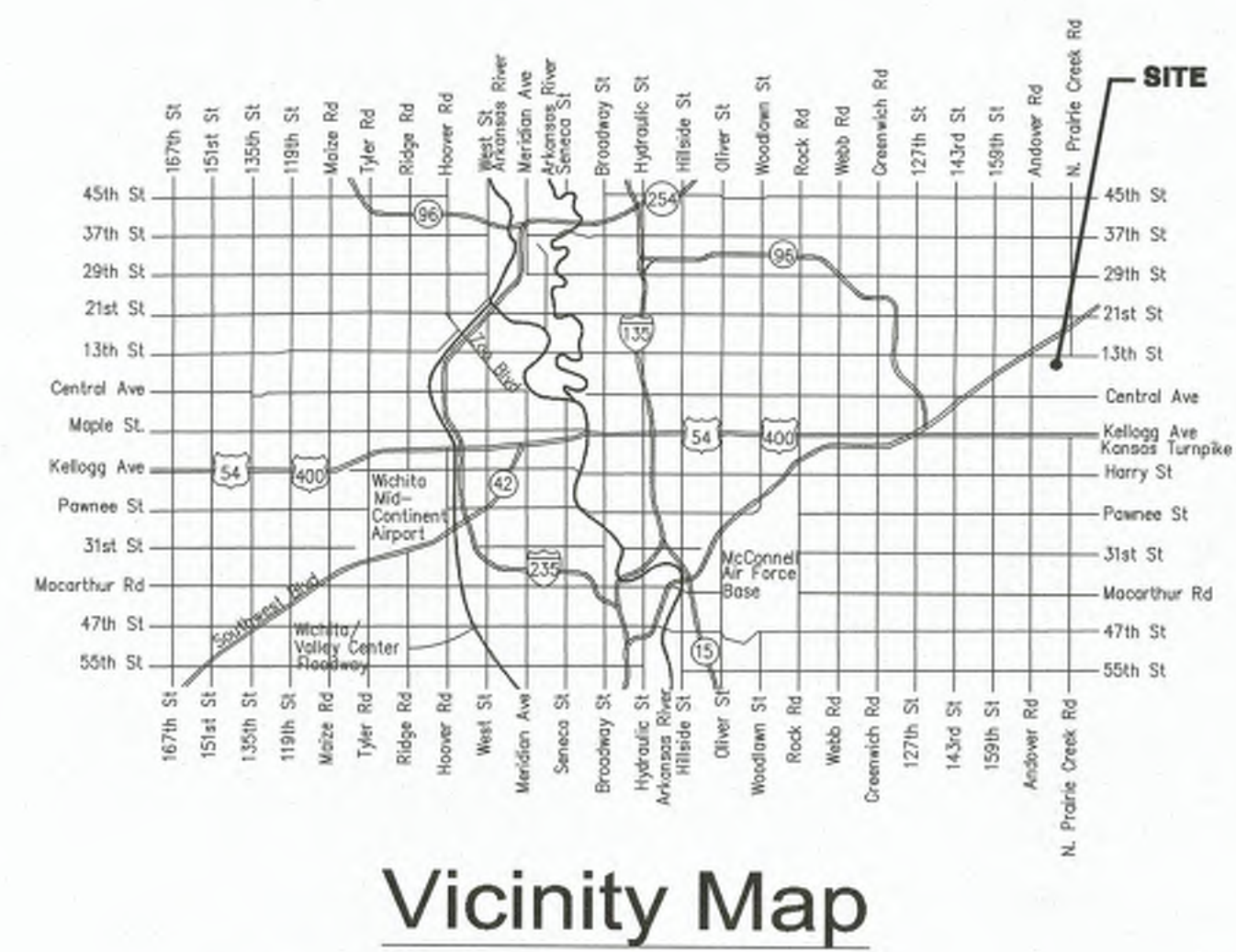


GENERAL NOTES

- THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE SAFETY REGULATIONS. ALL CONSTRUCTION SHALL BE COMPLETED FOLLOWING CURRENT CITY STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
- CONTRACTOR WILL BE REQUIRED TO PROVIDE NOTICE TO UTILITY COMPANIES A MINIMUM OF SEVENTY-TWO (72) HOURS PRIOR TO ANY EXCAVATION, AS FOLLOWS:
KANSAS ONE-CALL 687-2470
THE CONTRACTOR MUST NOTIFY THE FOLLOWING IN CASE OF AN EMERGENCY:
AT&T 1-800-246-8464
BLACK HILLS ENERGY 1-800-694-8989
CITY OF WICHITA WATER 1-316-268-4555
CITY OF WICHITA SEWER 1-316-268-4073
CITY OF WICHITA STORMWATER 1-316-268-4090
CITY OF WICHITA TRAFFIC 1-316-268-4034
COX COMMUNICATIONS 1-888-249-3530
KANSAS GAS SERVICE 1-888-482-4950
WESTAR ENERGY 1-800-544-4857
- UTILITY SERVICE LINES, POLES, ETC. 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.
- 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 WILL 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 WILL REQUIRE ADDITIONAL ARCHAEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY APPROVED BORROW LOCATION.
- 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.
- THE CONTRACTOR SHALL GIVE ALL PROPERTY OWNERS AND/OR TENANTS OF DEVELOPED PROPERTY ADJUTING THE CONSTRUCTION OF THIS PROJECT A MINIMUM OF TEN (10) DAYS NOTICE PRIOR TO START OF CONSTRUCTION.
- 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.
- THE WATER DISTRIBUTION DIVISION SHALL FIELD LOCATE WATER VALVES ONE TIME DURING CONSTRUCTION WHEN REQUESTED BY THE CONTRACTOR. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PRESERVE SUCH FIELD LOCATIONS DURING THE CONSTRUCTION PROCESS. WATER VALVES, VALVE BOXES OR FIRE HYDRANTS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY CONTRACTOR AT HIS OWN EXPENSE. VALVE BOXES AND WATER METERS WITHIN THE PROJECT LIMITS SHALL BE ADJUSTED TO MATCH FIELD GRADES.
- THE CONTRACTOR SHALL NOTIFY THE CONSULTANT ENGINEER AND TOM MASON WITH THE CITY AT 316-268-4574 WITH THE ANTICIPATED CONSTRUCTION START DATE AND NOTIFY THEM OF PROJECT COMPLETION, STAKING AND INSPECTION FOR THIS PROJECT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL ELEVATIONS SHOWN ARE NAVD 88.
- ALL AREAS DISTURBED DURING CONSTRUCTION THAT WILL NOT BE UNDER PROPOSED PAVEMENT SHALL BE RESTORED TO MATCH EXISTING CONDITIONS.
- 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. THE PROJECT INSPECTOR MUST ASCERTAIN ANY VALVE CLOSED BY THE CONTRACTOR IS REOPENED. THE CONTRACTOR WILL BE PERMITTED TO OPERATE WATER VALVES ONLY WHEN THE PROJECT INSPECTOR ASSIGNED TO THE PROJECT IS PRESENT.
- THE CONTRACTOR SHALL PROVIDE MATERIALS FOR TEMPORARY BLOWOFF OF WATERLINES. CONNECTIONS TO THE EXISTING WATERLINE(S) SHALL BE MADE WITH CLEAN, SWABBED PIPE AND FLUSHED UPON COMPLETION OF TIE-INS.
- REQUESTS FOR SHORT TERM WATER INTERRUPTIONS SHALL BE MADE TO THE CITY OF WICHITA WATER DISTRIBUTION DIVISION AND CITY OF ANDOVER CITY ENGINEER'S OFFICE AND WILL BE SUBJECT TO THEIR APPROVAL. THE CONTRACTOR SHALL GIVE WRITTEN NOTICE TO ANY PROPERTY OWNER, BUSINESS, AND/OR TENANTS THAT WILL HAVE WATER SERVICE INTERRUPTED AT LEAST 5 DAYS IN ADVANCE. SUCH NOTIFICATIONS SHOULD INDICATE THE TIME AND DATE THAT THE WATER WILL BE TURNED OFF AND WHEN THE SERVICE WILL BE RESTORED. NO BUSINESS, PROPERTY OWNER, AND/OR TENANTS SHALL BE WITHOUT WATER SERVICE FOR MORE THAN 8 HOURS. PROPOSED TIE IN LOCATIONS WHICH WILL AFFECT WATER SERVICE TO PROPERTY OWNERS SHALL BE PERFORMED DURING NON-PEAK HOURS.
- THE CONTRACTOR MUST SCHEDULE THE CONNECTIONS TO THE EXISTING MAIN WITH THE CITY SUCH THAT THERE IS A MINIMUM DISRUPTION OF SERVICE. CONNECTIONS SHALL BE MADE DURING PERIODS OF LOW WATER USAGE. THE CONTRACTOR SHALL SUBMIT HIS PROPOSED SCHEDULE FOR COMPLETING WORK FOR CITY APPROVAL AT LEAST 10 DAYS PRIOR TO BEGINNING CONSTRUCTION.
- DEFLECTIONS AT PIPE JOINT OR COUPLINGS SHALL NOT EXCEED THE PIPE MANUFACTURERS RECOMMENDED MAXIMUM. WHERE DEFLECTIONS ARE GREATER THAN THE MAXIMUM ALLOWED, THE CONTRACTOR SHALL UTILIZE CI MJ LONG SLEEVE OR MULTIPLE JOINTS.
- ANY EXTENSION GREATER THAN ONE LENGTH OF PIPE SHALL REQUIRE TESTING.
- CITY MAINTENANCE OF WATER MAINS ENDS AT RIGHT-OF-WAY OR EASEMENT LINE.
- VALVES 12 INCH AND LARGER ARE TO BE OPERATED BY THE CITY WATER DISTRIBUTION DIVISION, 48 HOURS OF ADVANCE NOTICE IS REQUIRED.
- ALL WET TAPS SHALL BE INSTALLED BY THE CITY OF WICHITA. THE CONTRACTOR WILL REIMBURSE THE CITY FOR TAPPING FEES.
- THE CONTRACTOR SHALL PROTECT FROM DAMAGE AND SUPPORT EXISTING UTILITIES THROUGH CONSTRUCTION AS APPROVED BY THE UTILITY OWNER AND THE ENGINEER AT THE CONTRACTORS EXPENSE.
- CONTRACTOR SHALL LIMIT THE EXTENT OF TRENCH OPEN OVERNIGHT AND WEEKENDS TO LESS THAN 50 FEET.
- ALL APPROVED EXCESS EXCAVATION WHICH IS TO BE WASTED SHALL BE STOCKPILED AS DIRECTED BY THE ENGINEER AT NO ADDITIONAL COST TO THE OWNER. STOCKPILE LOCATIONS SHALL BE AS DIRECTED BY THE OWNER AND IN ACCORDANCE WITH GENERAL NOTE NO. 4 ABOVE.
- ALL LAWN/TURF AREAS DISTURBED BY CONSTRUCTION OF THE IMPROVEMENTS SHALL BE RESTORED WITH THE SAME GRASS/SOD AS EXISTING. RESTORATION OF DISTURBED AREAS SHALL INCLUDE, BUT NOT BE LIMITED TO, TOP SOIL PREPARATION, SEEDING, MULCH, AND/OR RESEEDING. ALL SEEDING/SODDING WORK SHALL BE IN ACCORDANCE WITH THE CITY OF WICHITA STANDARD SPECIFICATIONS AND THE CITY OF WICHITA ADMINISTRATIVE REGULATION NO. AR6.5 WHICH GOVERNS CLEANUP AND RESTORATION OR REPLACEMENT FOLLOWING CONSTRUCTION.
- THE CONTRACTOR SHALL SEED ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES WITH TEMPORARY RYE GRASS. RYE GRASS SEED SHALL BE PLANTED AT A MINIMUM RATE OF SIX (6) POUNDS PER ONE THOUSAND (1,000) SQUARE FEET. THIS TEMPORARY SEEDING MAY BE OMITTED ONLY IF OTHER SEEDING IS REQUIRED IN ACCORDANCE WITH GENERAL NOTE NO. 26 ABOVE. TEMPORARY SEEDING OR PERMANENT SEEDING/SODDING SHALL BE APPLIED WITHIN 14 DAYS AFTER THE AREA HAS BEEN DISTURBED.
- EACH BIDDER SHALL VISIT THE SITE OF THE PROJECT BEFORE SUBMITTING THE PROPOSAL FOR THIS WORK SO THAT HE WILL BE FULLY INFORMED OF THE EXISTING FIELD CONDITIONS AND THE OBSTACLES WHICH MIGHT BE ENCOUNTERED. UPON AWARD OF THE CONTRACT THE CONTRACTOR WILL NOT BE GRANTED ANY ADDITIONAL COMPENSATION WITH REGARDS TO TIME AND MONEY FOR CONDITIONS THAT MAY HAVE BEEN EVALUATED DURING ANY INSPECTION OF THE SITE.
- THE CONTRACTOR SHALL INSTALL AND/OR MAINTAIN EROSION CONTROL METHODS AS SPECIFIED. THE GENERAL LOCATION OF THE REQUIRED EROSION CONTROL IS ILLUSTRATED ON THE EROSION CONTROL PLAN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE EROSION CONTROL SHOWN THROUGH THE COMPLETION OF THIS PROJECT. INSTALLATION OF THESE BMP'S DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF ABATING SOIL EROSION.

WATER DISTRIBUTION SYSTEM to serve BUTLER COMMUNITY COLLEGE ANDOVER 5000 BUILDING

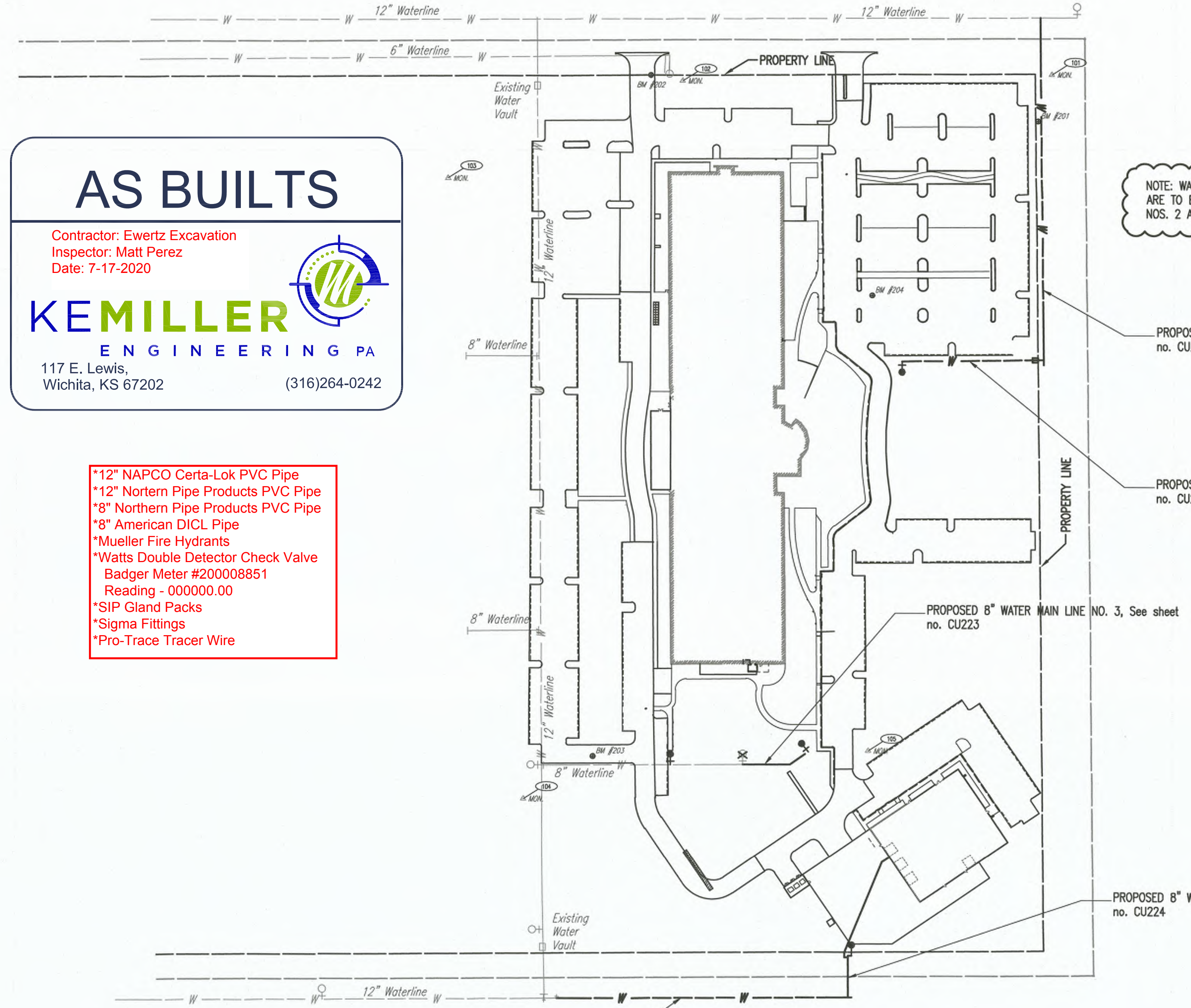
715 E. 13TH STREET, Andover, KANSAS
CITY OF ANDOVER, KANSAS
Gary Janzen, P.E. Wichita City Engineer
Steve Anderson, P.E. Andover City Engineer
Project Number
2209 PPW (183021)



Vicinity Map

SHEET INDEX

SHEET NO. CU221	TITLE SHEET
SHEET NO. CU222	WATER LINE NOS. 1
SHEET NO. CU223	WATER LINE NOS. 2 & 3
SHEET NO. CU224	WATER LINE NOS. 4 & 5
SHEET NO. CU225	STANDARD WATER DETAILS
SHEET NO. CU226	STANDARD WATER SERVICE DETAILS
SHEET NO. CU227	STANDARD WATER SERVICE DETAILS
SHEET NO. CU228	STANDARD WATER SERVICE DETAILS
SHEET NO. CU229	STANDARD WATER SERVICE DETAILS
SHEET NO. CU230	STANDARD WATER SERVICE DETAILS
SHEET NO. CU231	STANDARD WATER SERVICE DETAILS
SHEET NO. CU232	STANDARD WATER SERVICE DETAILS
SHEET NO. CU233	STANDARD WATER SERVICE DETAILS
SHEET NO. CU234	STANDARD WATER SERVICE DETAILS
SHEET NO. CU235	STANDARD WATER SERVICE DETAILS
SHEET NO. CU236	STANDARD WATER SERVICE DETAILS
SHEET NO. CU237	STANDARD WATER SERVICE DETAILS
SHEET NO. CU238	STANDARD WATER SERVICE DETAILS
SHEET NO. CU239	STANDARD WATER SERVICE DETAILS
SHEET NO. CU240	STANDARD WATER SERVICE DETAILS
SHEET NO. CU241	STANDARD WATER SERVICE DETAILS
SHEET NO. CU242	STANDARD WATER SERVICE DETAILS
SHEET NO. CU243	STANDARD WATER SERVICE DETAILS
SHEET NO. CU244	STANDARD WATER SERVICE DETAILS
SHEET NO. CU245	STANDARD WATER SERVICE DETAILS
SHEET NO. CU246	STANDARD WATER SERVICE DETAILS
SHEET NO. CU247	STANDARD WATER SERVICE DETAILS
SHEET NO. CU248	STANDARD WATER SERVICE DETAILS
SHEET NO. CU249	STANDARD WATER SERVICE DETAILS
SHEET NO. CU250	STANDARD WATER SERVICE DETAILS
SHEET NO. CU251	STANDARD WATER SERVICE DETAILS
SHEET NO. CU252	STANDARD WATER SERVICE DETAILS
SHEET NO. CU253	STANDARD WATER SERVICE DETAILS
SHEET NO. CU254	STANDARD WATER SERVICE DETAILS
SHEET NO. CU255	STANDARD WATER SERVICE DETAILS
SHEET NO. CU256	STANDARD WATER SERVICE DETAILS
SHEET NO. CU257	STANDARD WATER SERVICE DETAILS
SHEET NO. CU258	STANDARD WATER SERVICE DETAILS
SHEET NO. CU259	STANDARD WATER SERVICE DETAILS
SHEET NO. CU260	STANDARD WATER SERVICE DETAILS
SHEET NO. CU261	STANDARD WATER SERVICE DETAILS
SHEET NO. CU262	STANDARD WATER SERVICE DETAILS
SHEET NO. CU263	STANDARD WATER SERVICE DETAILS
SHEET NO. CU264	STANDARD WATER SERVICE DETAILS
SHEET NO. CU265	STANDARD WATER SERVICE DETAILS
SHEET NO. CU266	STANDARD WATER SERVICE DETAILS
SHEET NO. CU267	STANDARD WATER SERVICE DETAILS
SHEET NO. CU268	STANDARD WATER SERVICE DETAILS
SHEET NO. CU269	STANDARD WATER SERVICE DETAILS
SHEET NO. CU270	STANDARD WATER SERVICE DETAILS
SHEET NO. CU271	STANDARD WATER SERVICE DETAILS
SHEET NO. CU272	STANDARD WATER SERVICE DETAILS
SHEET NO. CU273	STANDARD WATER SERVICE DETAILS
SHEET NO. CU274	STANDARD WATER SERVICE DETAILS
SHEET NO. CU275	STANDARD WATER SERVICE DETAILS
SHEET NO. CU276	STANDARD WATER SERVICE DETAILS
SHEET NO. CU277	STANDARD WATER SERVICE DETAILS
SHEET NO. CU278	STANDARD WATER SERVICE DETAILS
SHEET NO. CU279	STANDARD WATER SERVICE DETAILS
SHEET NO. CU280	STANDARD WATER SERVICE DETAILS
SHEET NO. CU281	STANDARD WATER SERVICE DETAILS
SHEET NO. CU282	STANDARD WATER SERVICE DETAILS
SHEET NO. CU283	STANDARD WATER SERVICE DETAILS
SHEET NO. CU284	STANDARD WATER SERVICE DETAILS
SHEET NO. CU285	STANDARD WATER SERVICE DETAILS
SHEET NO. CU286	STANDARD WATER SERVICE DETAILS
SHEET NO. CU287	STANDARD WATER SERVICE DETAILS
SHEET NO. CU288	STANDARD WATER SERVICE DETAILS
SHEET NO. CU289	STANDARD WATER SERVICE DETAILS
SHEET NO. CU290	STANDARD WATER SERVICE DETAILS
SHEET NO. CU291	STANDARD WATER SERVICE DETAILS
SHEET NO. CU292	STANDARD WATER SERVICE DETAILS
SHEET NO. CU293	STANDARD WATER SERVICE DETAILS
SHEET NO. CU294	STANDARD WATER SERVICE DETAILS
SHEET NO. CU295	STANDARD WATER SERVICE DETAILS
SHEET NO. CU296	STANDARD WATER SERVICE DETAILS
SHEET NO. CU297	STANDARD WATER SERVICE DETAILS
SHEET NO. CU298	STANDARD WATER SERVICE DETAILS
SHEET NO. CU299	STANDARD WATER SERVICE DETAILS
SHEET NO. CU300	STANDARD WATER SERVICE DETAILS



AS BUILTS

Contractor: Ewertz Excavation
Inspector: Matt Perez
Date: 7-17-2020

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

- *12" NAPCO Certa-Lok PVC Pipe
- *12" Northern Pipe Products PVC Pipe
- *8" Northern Pipe Products PVC Pipe
- *8" American DICL Pipe
- *Mueller Fire Hydrants
- *Watts Double Detector Check Valve
- *Badger Meter #200008851
- *Reading - 000000.00
- *SIP Gland Packs
- *Sigma Fittings
- *Pro-Trace Tracer Wire

NOTE: WATER MAIN LINE NOS. 1, 4 AND 5 ARE TO BE PUBLIC MAINS. WATER MAIN NOS. 2 AND 3 WILL BE PRIVATE MAINS.

APPROVED AS NOTED
BY WICHITA PUBLIC WORKS
ENGINEERING DIVISION
& BY ANDOVER FIRE DEPARTMENT

Engineering *W.H. Shultz* 3-6-19
Utilities *Steve Yelby* 3-6-19
Fire Dept.

NOTE TO CONTRACTORS

Public Property:
Inspection and testing for the watertightness is to be provided by a Licensed Consulting Engineering Firm under contract with the Owner/Developer. Said inspection is 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 City Engineering. All Construction and Materials shall comply with the City of Wichita Specifications and Standards and Special Provision (on file and available in the City Engineer's Office) or on the City's Website.

Private Property:
Installation and testing for the fire protection line is to be performed by a City of Andover licensed fire protection contractor in accordance with the fire codes as adopted by the City of Andover. All material and construction practices for the fire protection line shall comply with the fire codes as adopted by the City of Andover (available from the City of Andover Fire Department). The Contractor shall not commence work without notification and approval of the Andover 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.

An approved copy of these plans signed by City staff are required on-site.

LEGEND

EXISTING WATER MAIN	—#—
PROPOSED WATER MAIN	—#—
EXISTING WATER VALVE	—V—
PROPOSED WATER VALVE	—V—
EXISTING FIRE HYDRANT	—H—
PROPOSED FIRE HYDRANT	—H—
REMOVE	X

BENCHMARKS

- BM #201 - CHISELED SQUARE ON TOP OF LIGHT POLE BASE IN NORTHEAST CORNER OF NORTHEAST PARKING LOT. ELEV. = 1334.42 (NAVD 88)
- BM #202 - CHISELED SQUARE ON EAST SIDE OF WEST ENTRY DRIVE SOUTH OF 13TH STREET. ELEV. = 1336.56 (NAVD 88)
- BM #203 - CHISELED SQUARE ON TOP OF SOUTHWEST CORNER OF AREA INLET 170' SOUTHWEST OF SCHOOL BUILDING. ELEV. = 1342.74 (NAVD 88)
- BM #204 - CHISELED SQUARE ON TOP OF LIGHT POLE BASE AT THE SOUTHWEST CORNER OF THE NORTHEAST PARKING LOT. ELEV. = 1336.71 (NAVD 88)

HORIZONTAL CONTROL

- Pl. No. 101
N: 1,694,586.2220, E: 1,709,741.6480
1/2" REBAR W/CONTROL CAP
1. 69.01' NE TO N 1/4 CORNER 17-27-JE
2. 32.61' N TO SOUTH EDGE ASPH. ROAD
3. 69.4' SSW TO CENTER OF LIGHT POLE BASE
- Pl. No. 102
N: 1,694,573.7510, E: 1,709,220.7210
1/2" REBAR W/CONTROL CAP
1. 47.5' N TO SOUTH EDGE ASPHALT ROAD.
2. 43.6' W TO EAST EDGE ASPHALT DRIVE
3. 22' WNW TO CENTER OF FIRE HYDRANT
- Pl. No. 103
N: 1,694,434.5760, E: 1,708,891.0090
1/2" REBAR W/CONTROL CAP
1. 176.6' N TO SOUTH EDGE ASPHALT ROAD
2. 180' NE TO SIAMSESE FIRE CONNECTION
3. 236.6' SW TO CENTER OF AREA INLET
- Pl. No. 104
N: 1,693,556.9300, E: 1,709,000.6450
1/2" REBAR W/CONTROL CAP
1. 52.5' NNE TO CENTER OF FIRE HYDRANT
2. 110.9' W TO WEST EDGE ASPHALT DRIVE NORTH
3. 115.9' NE TO BM #203
- Pl. No. 105
N: 1,693,627.1260, E: 1,709,486.9940
1/2" REBAR W/CONTROL CAP
1. 117' W TO WEST END 15" CIP
2. 39.2' NE TO GAS PIPELINE MARKER
3. 106.4' NNW TO SE CORNER CONCRETE RETAINING WALL



PROPERTY CORNER COORDINATE LIST

POINT	NORTH	EAST
1	1,693,333.0673	1,708,484.5966
2	1,694,575.3058	1,708,467.2556
3	1,694,586.1789	1,709,718.1544
4	1,693,345.2936	1,709,736.0216

① = COORDINATE POINT NO.
* = POINT NO. NOT SHOWN

GRAVITY::WORKS ARCHITECTURE
1015 Star Street, El Dorado, KS 67042
P (316) 321-4774 F (316) 321-7991
www.gravityworks-architecture.com

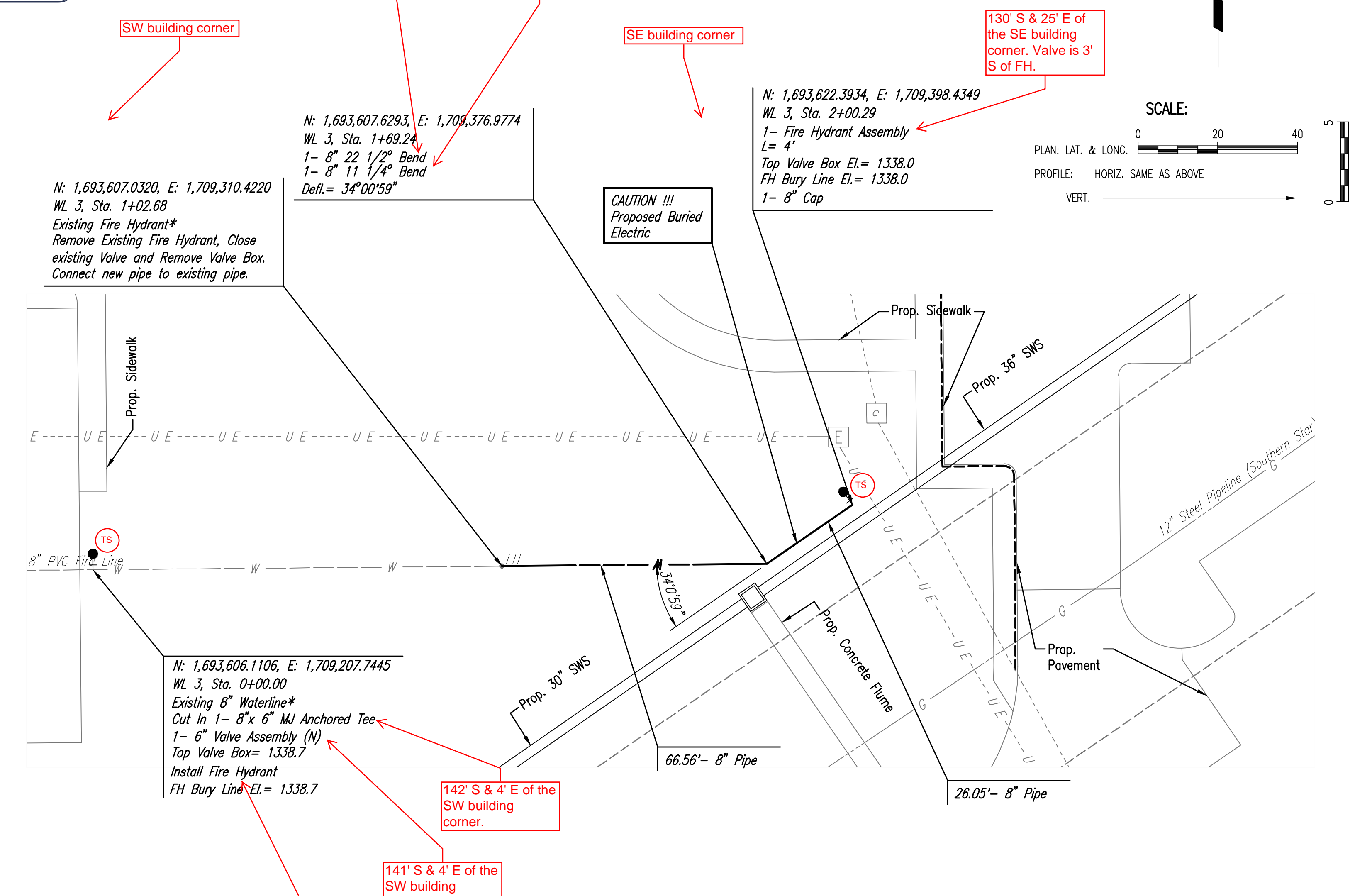
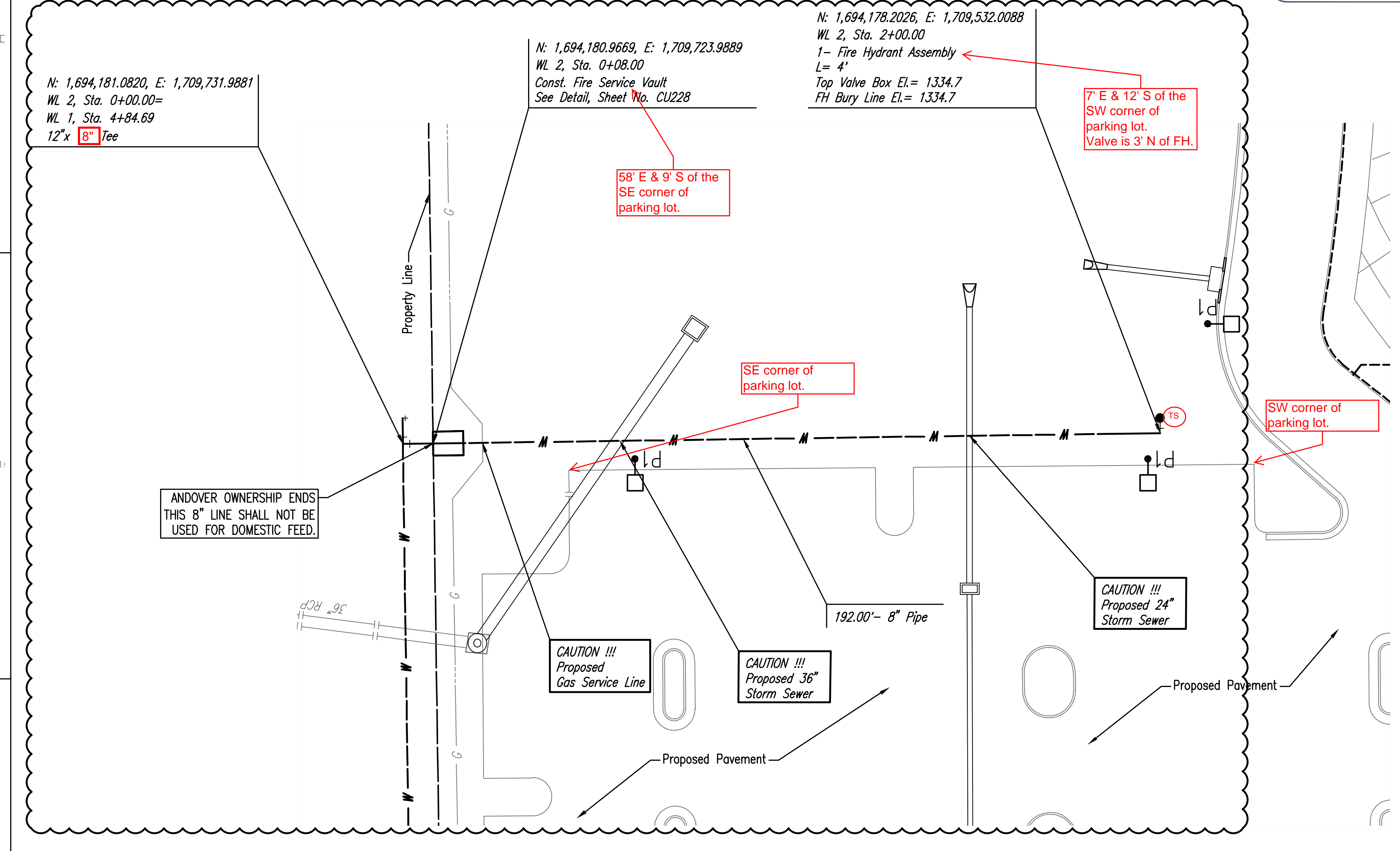
PEEC
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
300 SOUTH TOPEKA WICHITA, KS 67202
316-262-2681 www.peec.com

**5000 BUILDING REMODEL
BUTLER COMMUNITY COLLEGE**
715 E 13th St.
Andover, Kansas

DARWIN R. CROW
LICENSED
14896
KANSAS
PROFESSIONAL ENGINEER

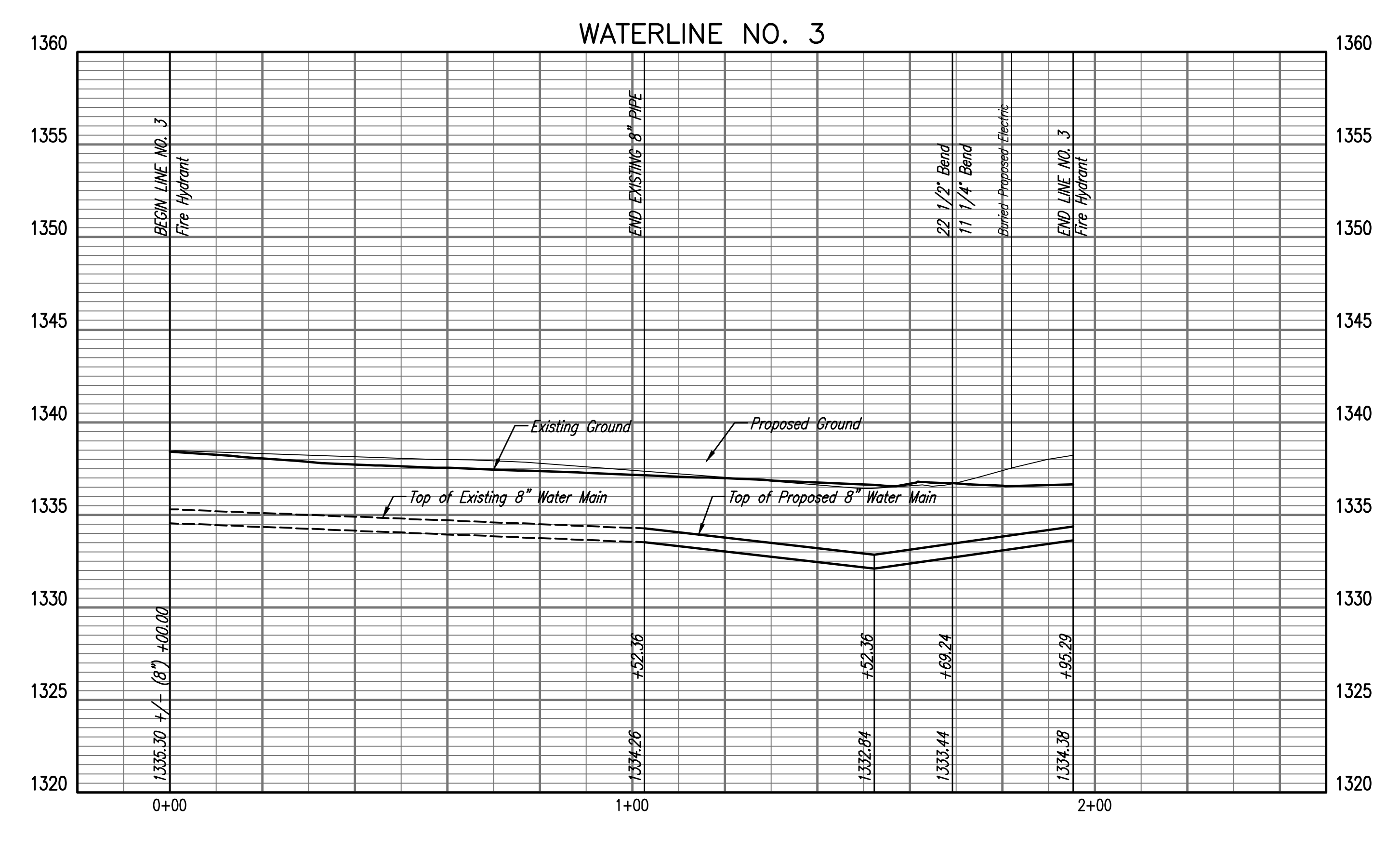
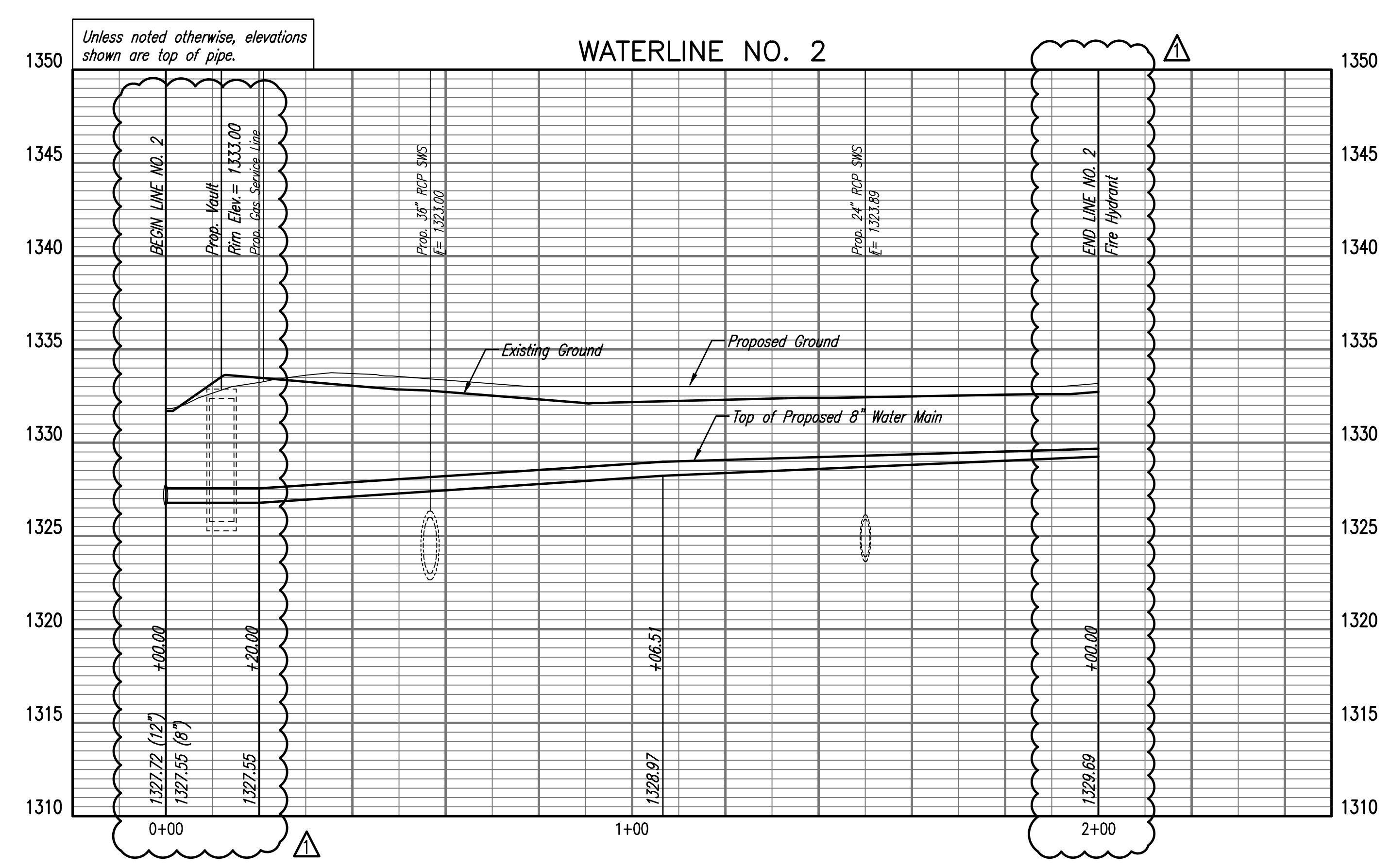
ISSUE
ADDENDUM #1
MARCH 1, 2019

DATE
March 1, 2019
PROJECT NUMBER
18-1263
SHEET NUMBER
CU221



* PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE THE EXISTING 8" WATERLINE AT STATION 0+00.00 AND 1+02.68 TO VERIFY PIPE SIZE, TYPE, FITTINGS, AND HORIZONTAL AND VERTICAL LOCATION. THE CONTRACTOR SHALL REPORT HIS FINDINGS TO THE ENGINEER SO THAT ANY NECESSARY PLAN MODIFICATIONS CAN BE MADE. ANY ADDITIONAL LABOR OR MATERIALS NECESSARY TO COMPLETE THE CONNECTION SHALL BE CONSIDERED SUBSIDIARY TO THE PROJECT.

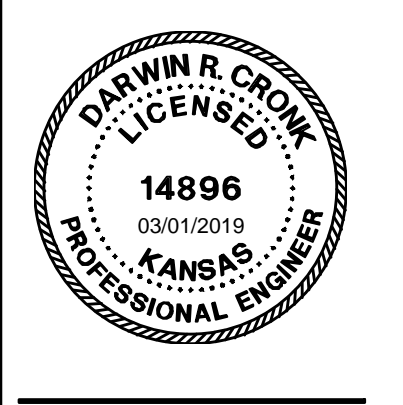
□ - Denotes Caps or Plugs to be installed.
 X - Denotes Waterline to be abandoned in place.



Sneed 02-26-2019 1:44:56 PM by SUD
 U:\Wichita-Facility\2018\180457\03\Main\Drawings\180457-003-CU223 WATER LINE 2&3

WATER LINE NOS. 2 & 3

5000 BUILDING REMODEL
BUTLER COMMUNITY COLLEGE
 715 E 13th St.
 Andover, Kansas



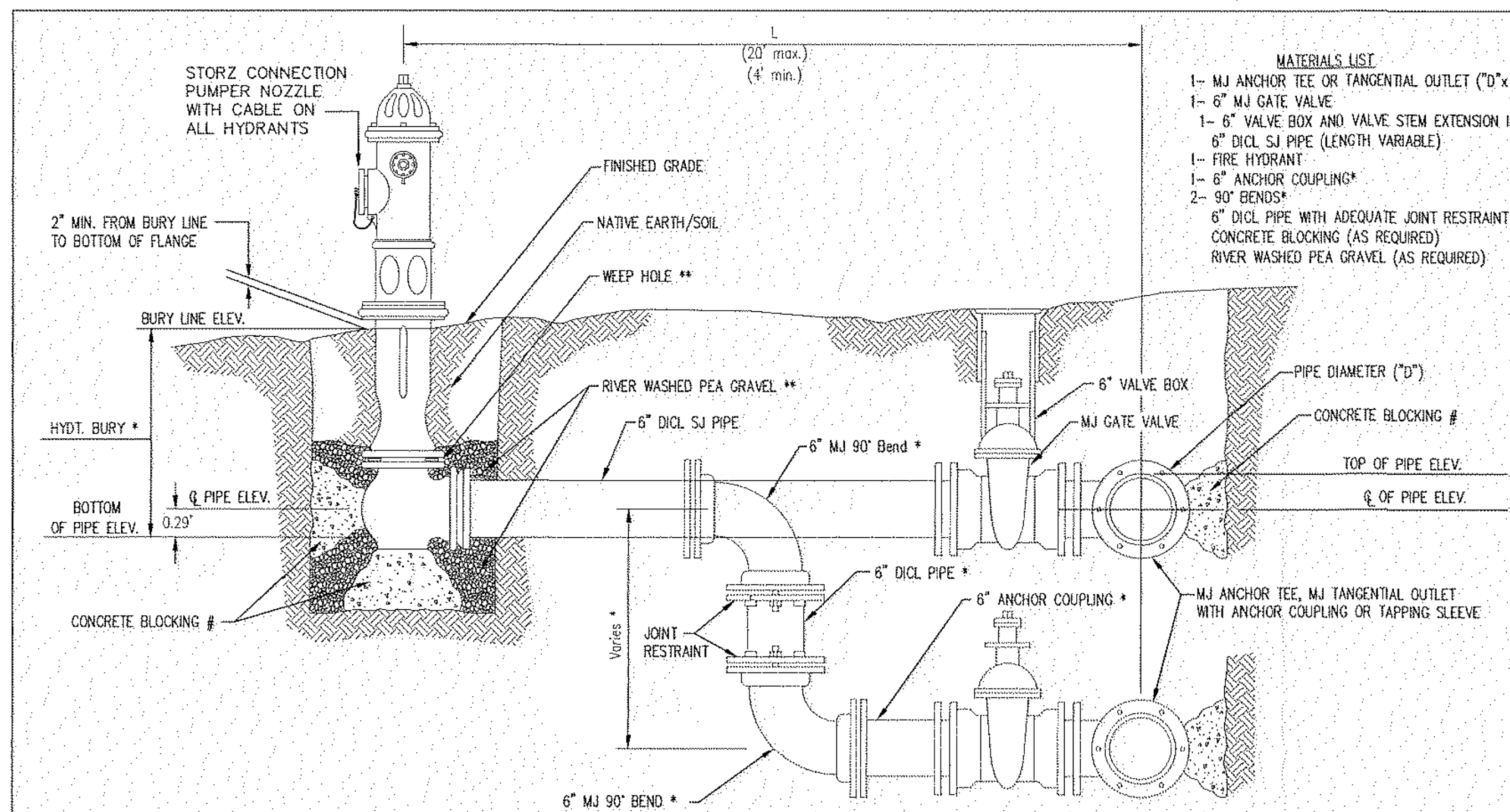
ISSUE
 ADDENDUM #1
 MARCH 1, 2019

DATE
 March 1, 2019
 PROJECT NUMBER
 18-1263
 SHEET NUMBER

CU223

GRAVITYWORKS ARCHITECTURE
 101 S. Star Street, El Dorado, KS 67042
 p (316) 331-4774 f (316) 731-7999
 www.gravityworks-architecture.com

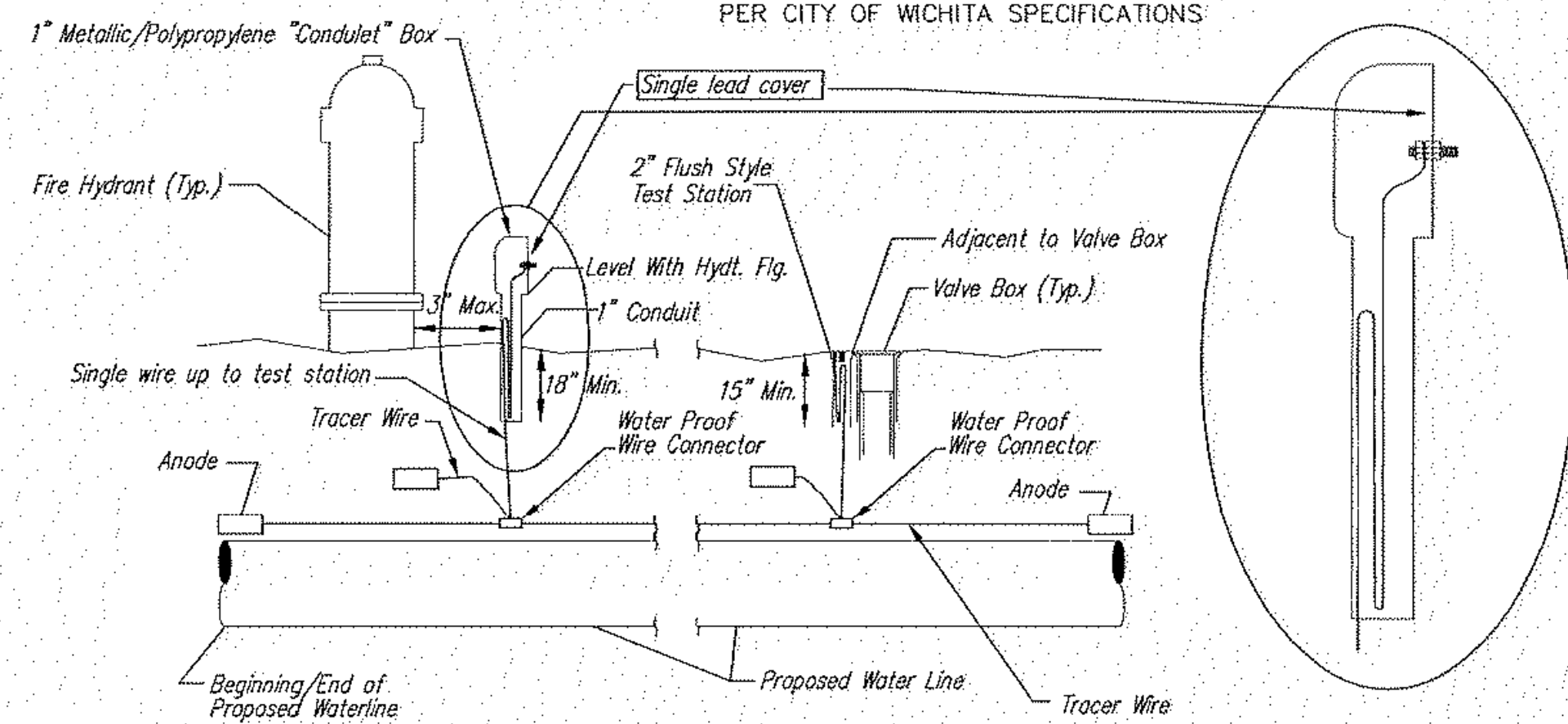
PEPC
 PROFESSIONAL ENGINEERING CONSULTANTS P.A.
 305 SOUTH TOPICKA WICHITA, KS 67202
 316-262-2891 www.pepc.com



- MATERIALS LIST**
- 1- MJ ANCHOR TEE OR TANGENTIAL OUTLET (0"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 MEAGALUGS, 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



TRACER WIRE
Conductive type pipe locator/tracer wire shall be install 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. A waterproof connector shall be used at splice locations. A complete list of approved tracer wire and waterproof connectors can be found on the City of Wichita's website at www.wichita.gov.

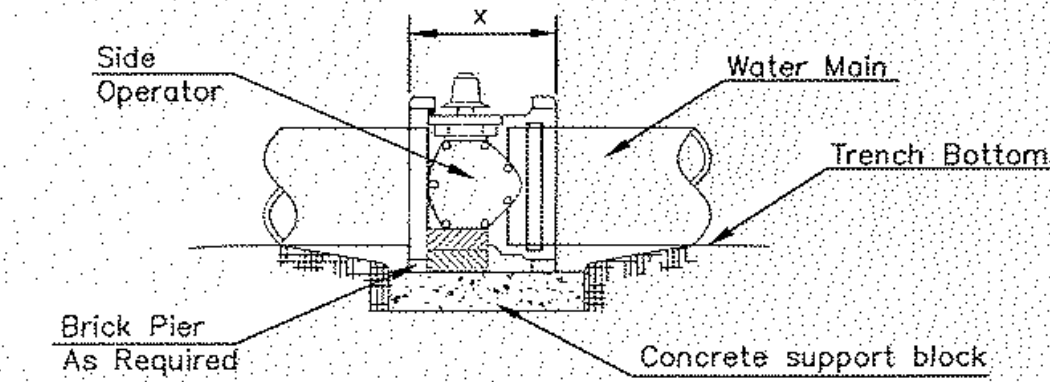
WIRE
The tracer wire shall be Blue No. 12 AWG CCS with 45 mil HDPE insulation. To allow for grade adjustment, a minimum of 12" of excess wire shall be coiled at the bottom of the test station for all wires. Wire connectors shall be installed per manufacturer recommendations. Contractor shall attach wire being installed with proposed water main to any tracer wire installed with adjacent waterline projects.

TEST STATIONS
The test station for fire hydrant application shall be a 1" "condulet" style station as manufactured by AGRA Industries with a removable solid cover having a single lead extending from the face or approved equal. The "condulet" style test station shall be attached to a 1" 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. The test station for valve applications shall be a 2" flush style test station with wire connector on lid. Model # 12PH781LP Handley Industries or CD14*7P SnakeFit as manufactured by Copperhead Industries or approved equal. 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 install to allow 12" of wire within the test station. The location of all test stations shall be recorded, and shown in the as-built drawings. Flush style test stations shall not be installed in pavement or sidewalk unless approved by the Engineer. Contractor shall extend tracer wire & move flush mount test station to nearest location out of pavement or sidewalk.

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 12 AWG CCS which shall be extended to the test station.

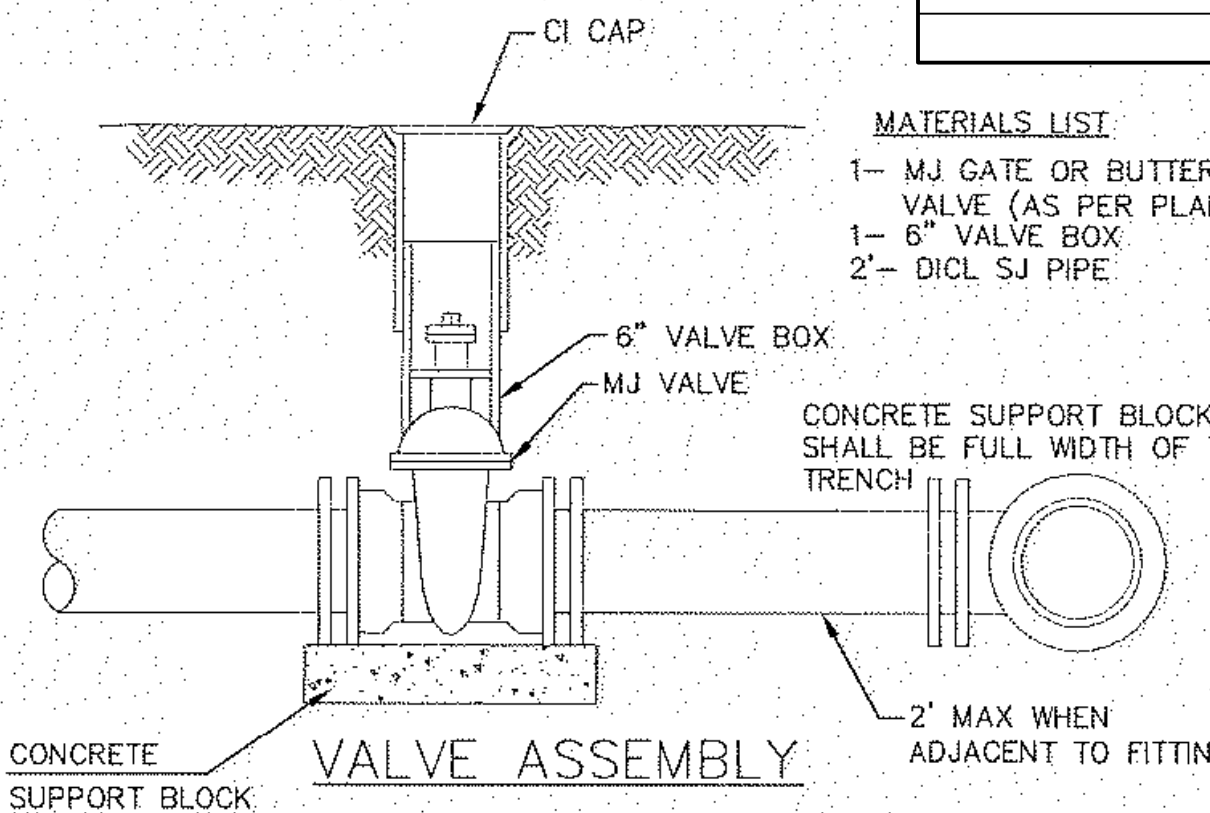
TRACER WIRE DETAIL
COST IS SUBSIDIARY TO PIPE INSTALLATION

FIRE HYDRANTS REQUIRED				
STATION	BURY LINE ELEVATION	TOP OF PIPE ELEVATION	FIRE HYDRANT BURY REQUIRED*	VALVE STEM EXT. REQUIRED (ft)*
LINE 2 - 2+13.03	1333.5	1330.00	4.5'	
LINE 3 - 0+00.00	1338.7	1335.30	4'	
LINE 3 - 2+00.29	1338.0	1334.38	4.5'	
LINE 5 - 0+64.13	1341.3	1337.73	4.5'	

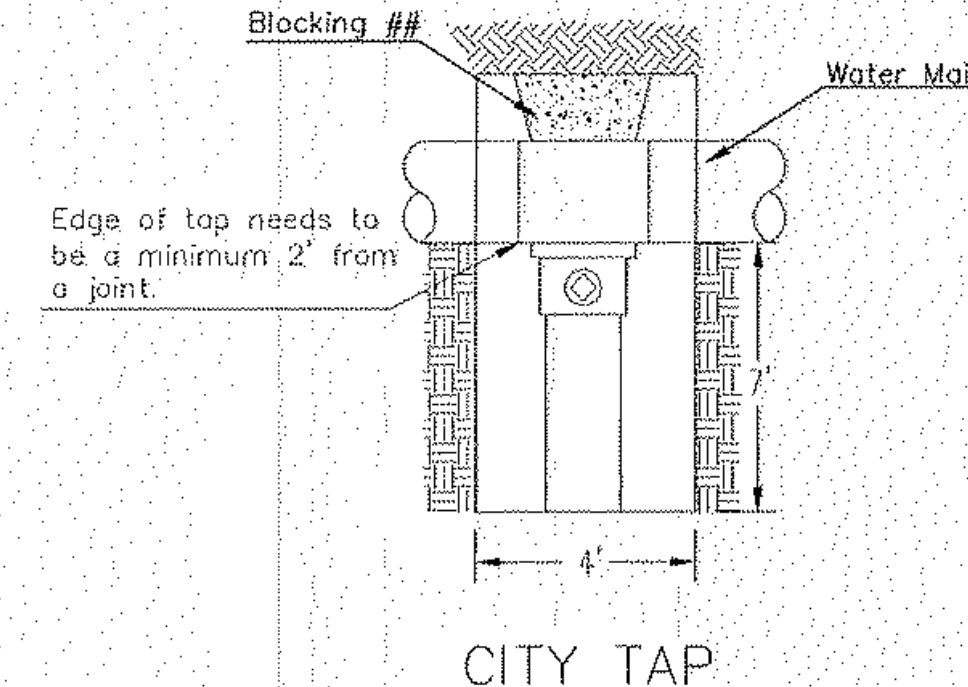


- NOTES**
- This detail covers Butterfly Valve installation, inclusive, regardless of type of pipe or joint used. 24" and larger lines to be detailed on plans.
 - 6" Valve Box and Cover required per City of Wichita Std. Specifications.
 - Conc. Support Block to be full width of trench.

CONCRETE SUPPORT BLOCKING FOR BUTTERFLY VALVE INSTALLATION



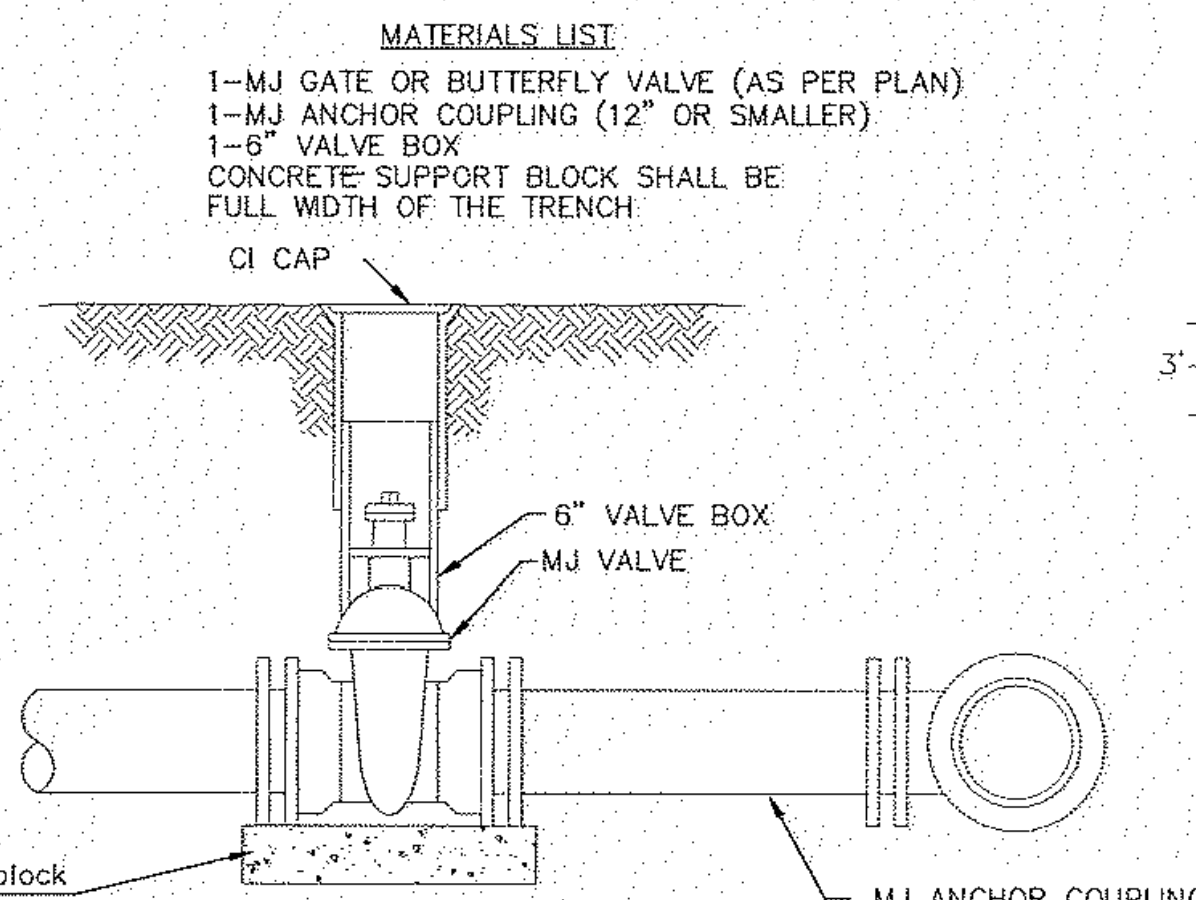
- MATERIALS LIST**
- 1- MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
 - 1- 6" VALVE BOX
 - 2- DI CL SJ PIPE



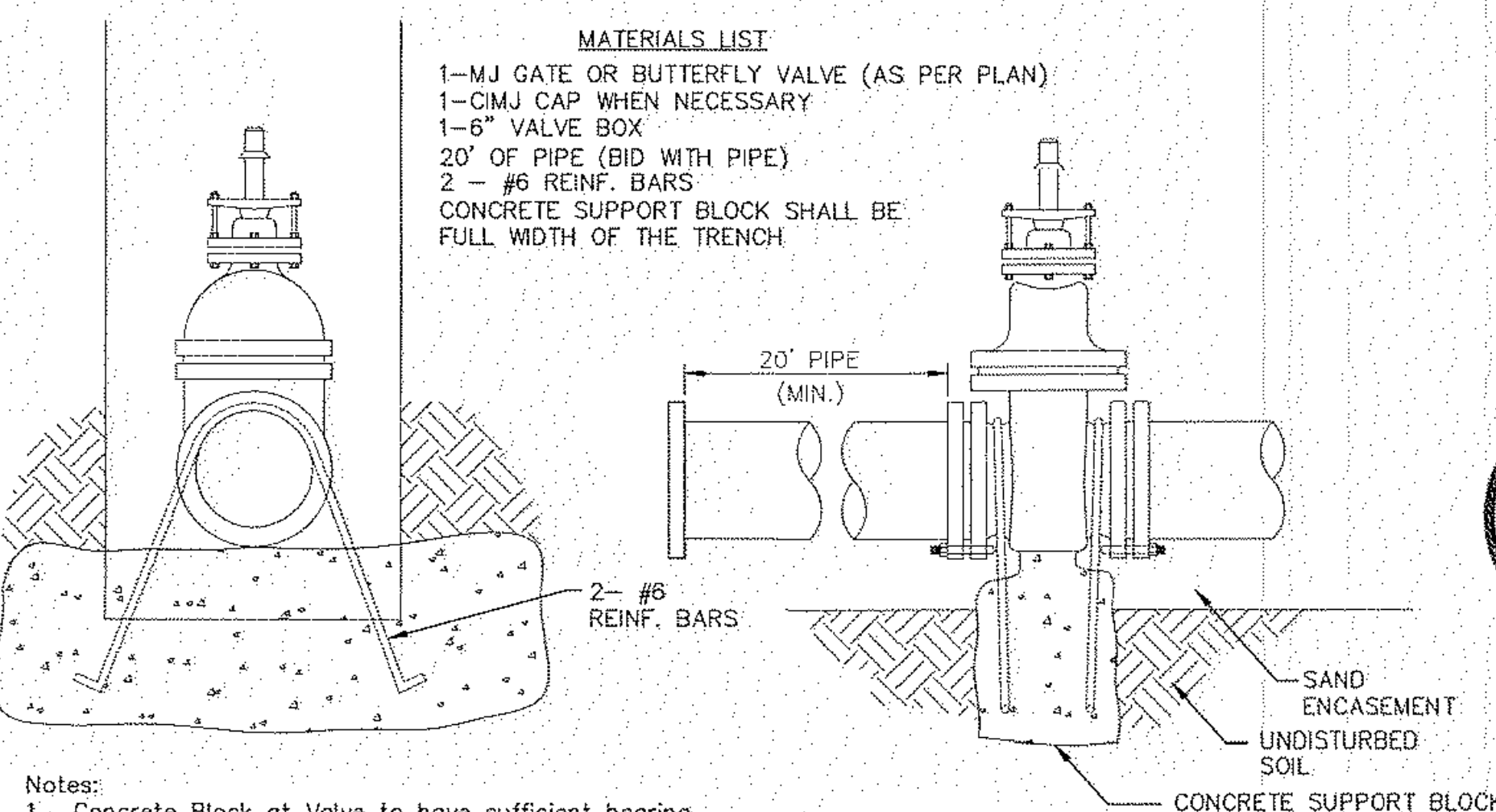
CITY TAP

Edge of top needs to be a minimum 2" from a joint.

** When the City of Wichita makes top blocking is to be done by Contractor



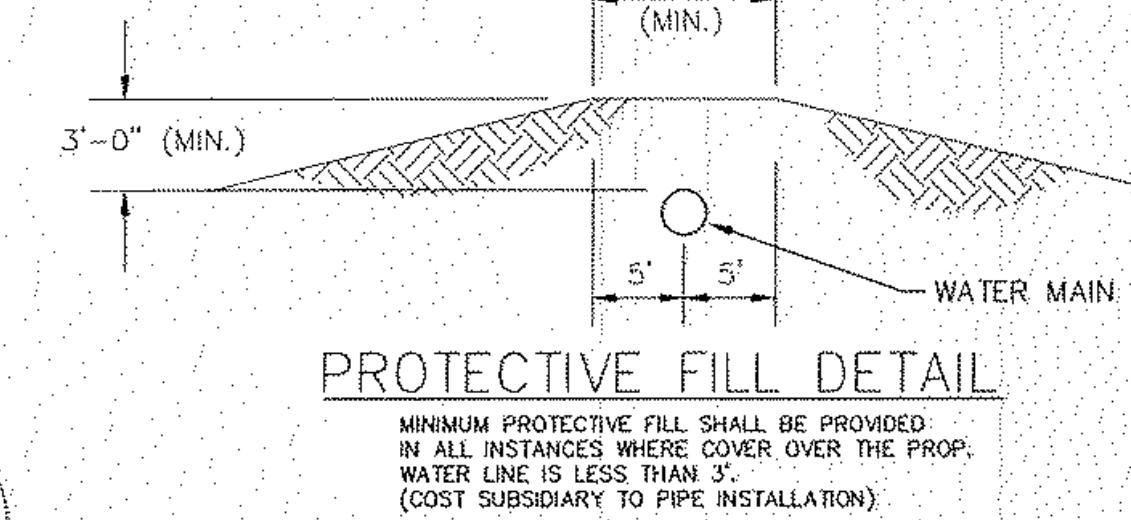
ANCHORED VALVE ASSEMBLY



- MATERIALS LIST**
- 1- MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
 - 1- CI MJ 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

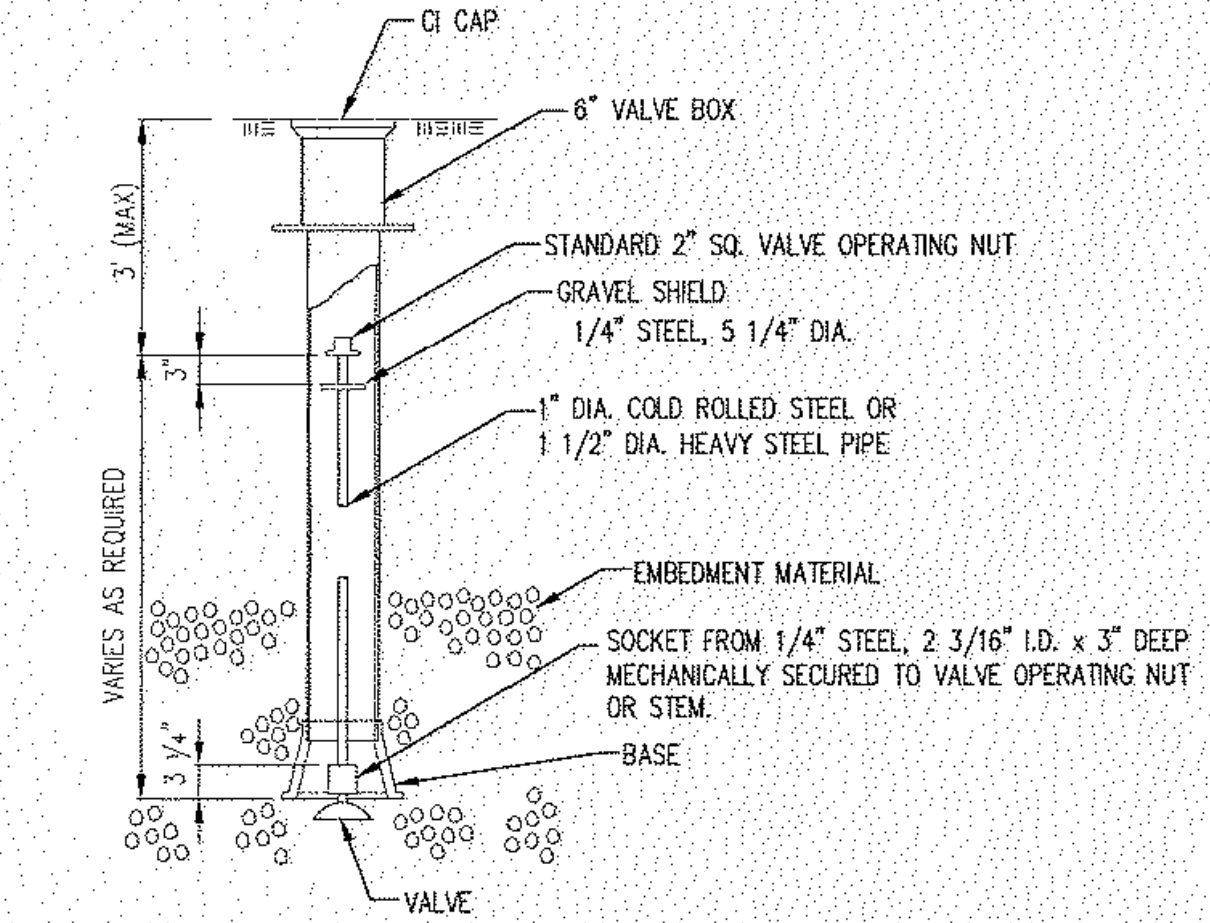
- Notes:**
- Concrete Block at Valve to have sufficient bearing in undisturbed soil to prevent thrust movement as shown in table at right. Field Engineer to determine thrust loading of undisturbed soil and final size of thrust block.
 - The thrust block shall be constructed such that bolts, nuts, and 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.

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



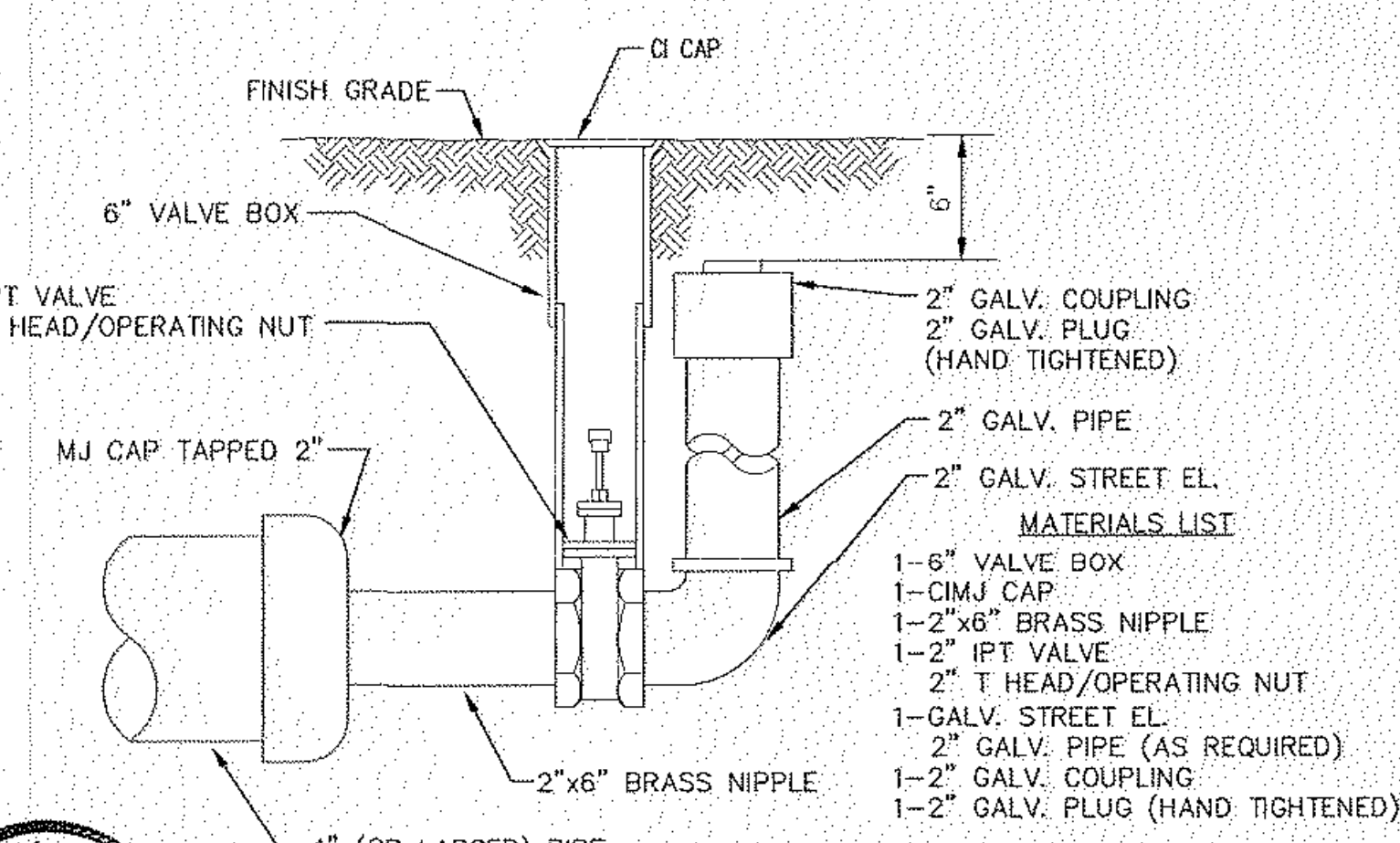
PROTECTIVE FILL DETAIL

MINIMUM PROTECTIVE FILL SHALL BE PROVIDED IN ALL INSTANCES WHERE COVER OVER THE PROP. WATER LINE IS LESS THAN 5". (COST SUBSIDIARY TO PIPE INSTALLATION)

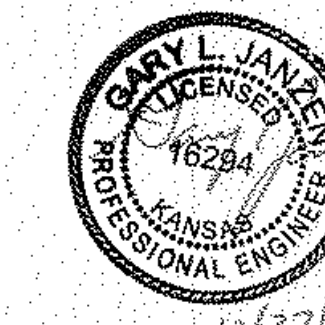


VALVE STEM EXTENSION DETAIL

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



2" BLOWOFF ASSEMBLY



CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

STANDARD WATER ASSEMBLY DETAIL

CITY ENGINEER
GARY JANZEN, P.E.

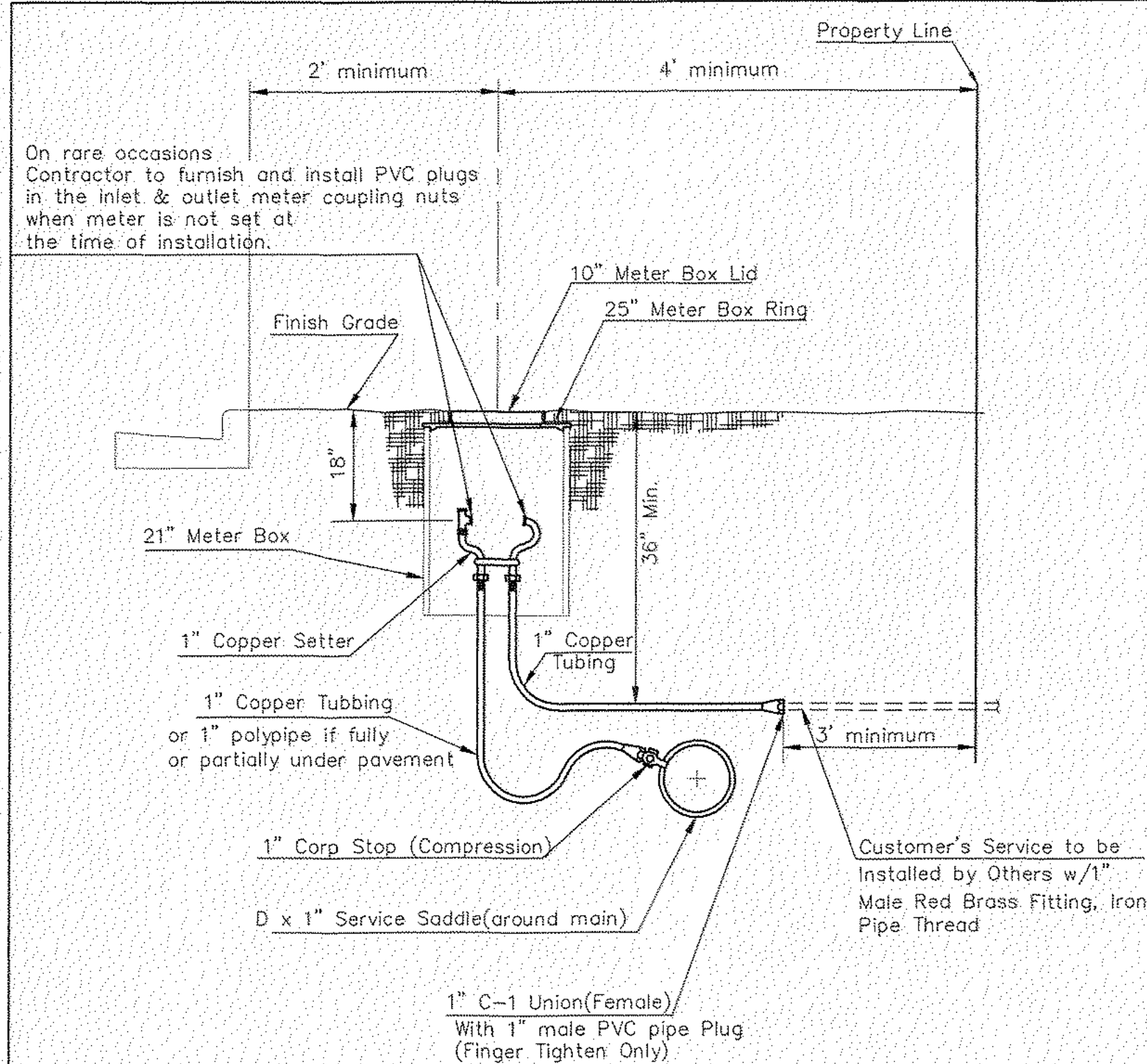
PROJECT NUMBER: 2209 PPW
OCA NUMBER: (183021)

CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

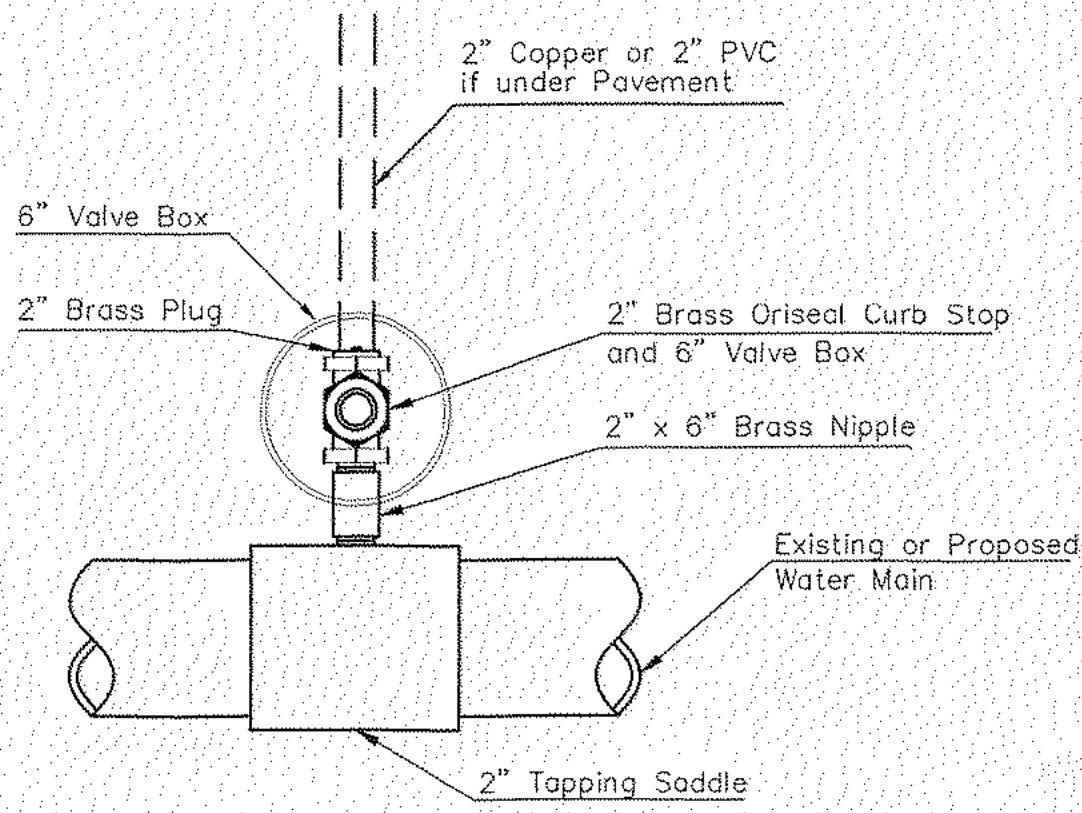
SHEET: CU225

REVISED: OCTOBER 2016

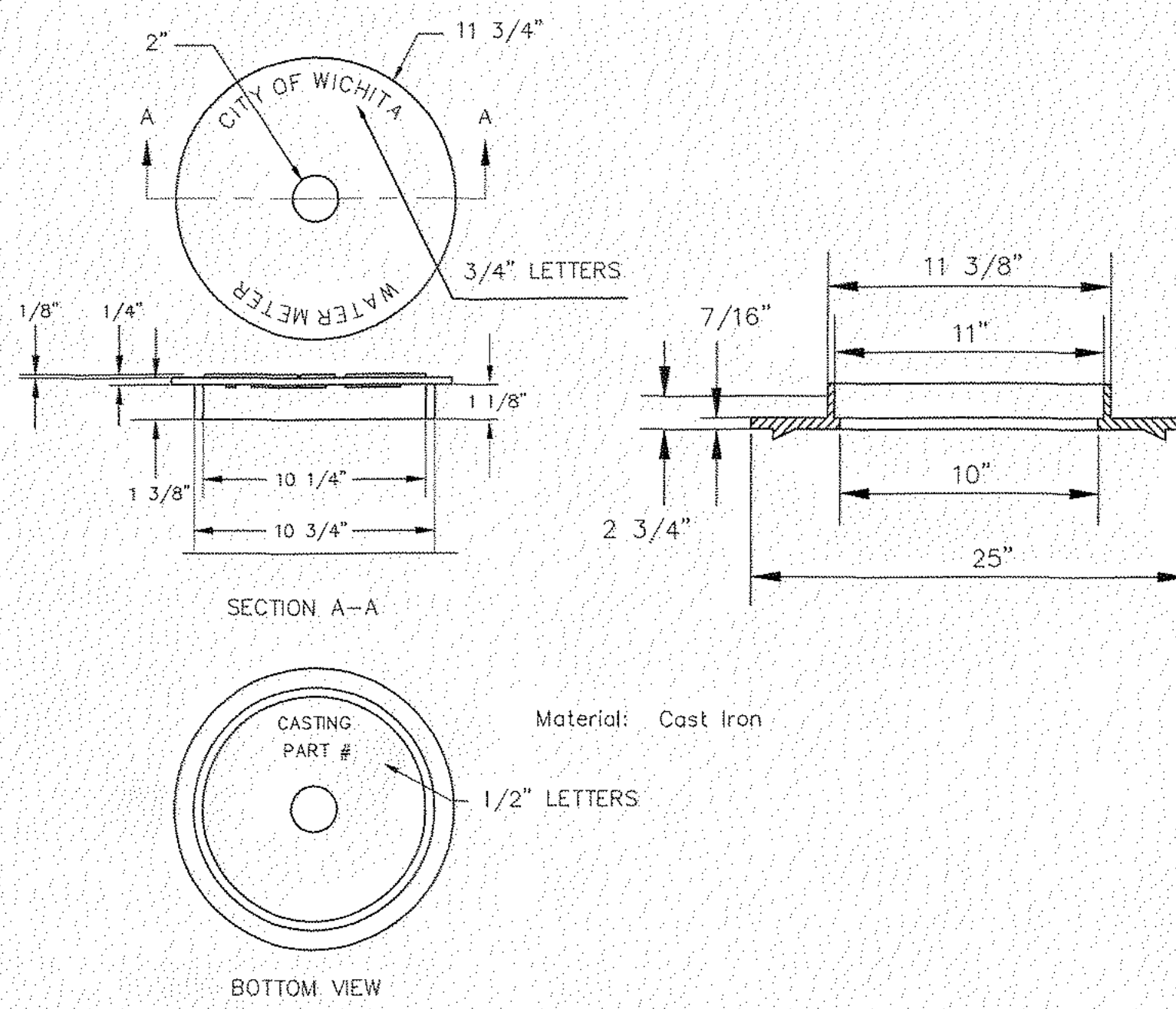
WL-101



TYPICAL 1" METER SETTING



2" SERVICE OUTLET ASSEMBLY
TOP VIEW

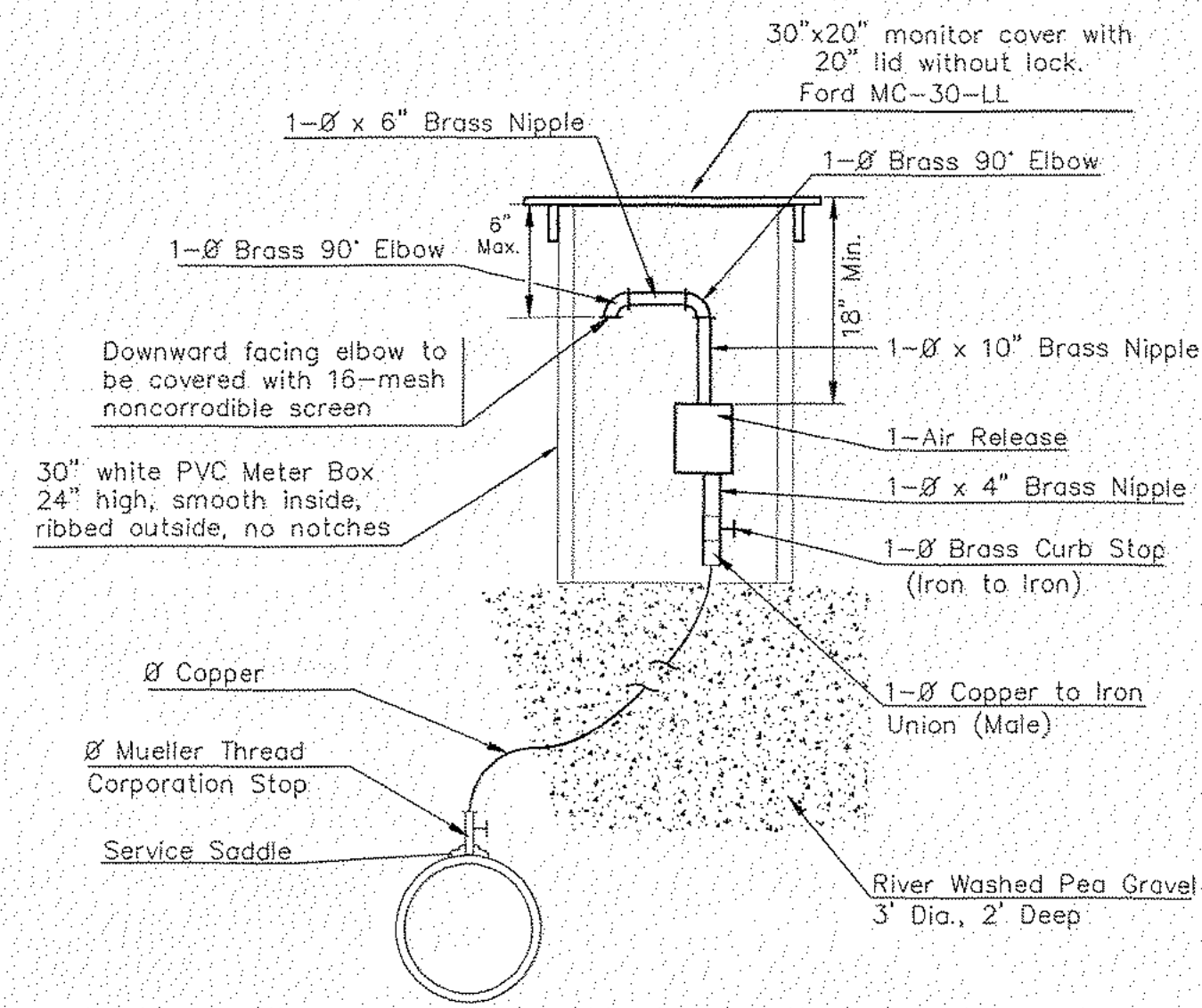


NOT TRAFFIC RATED
RING & LID FOR 1" METER BOX

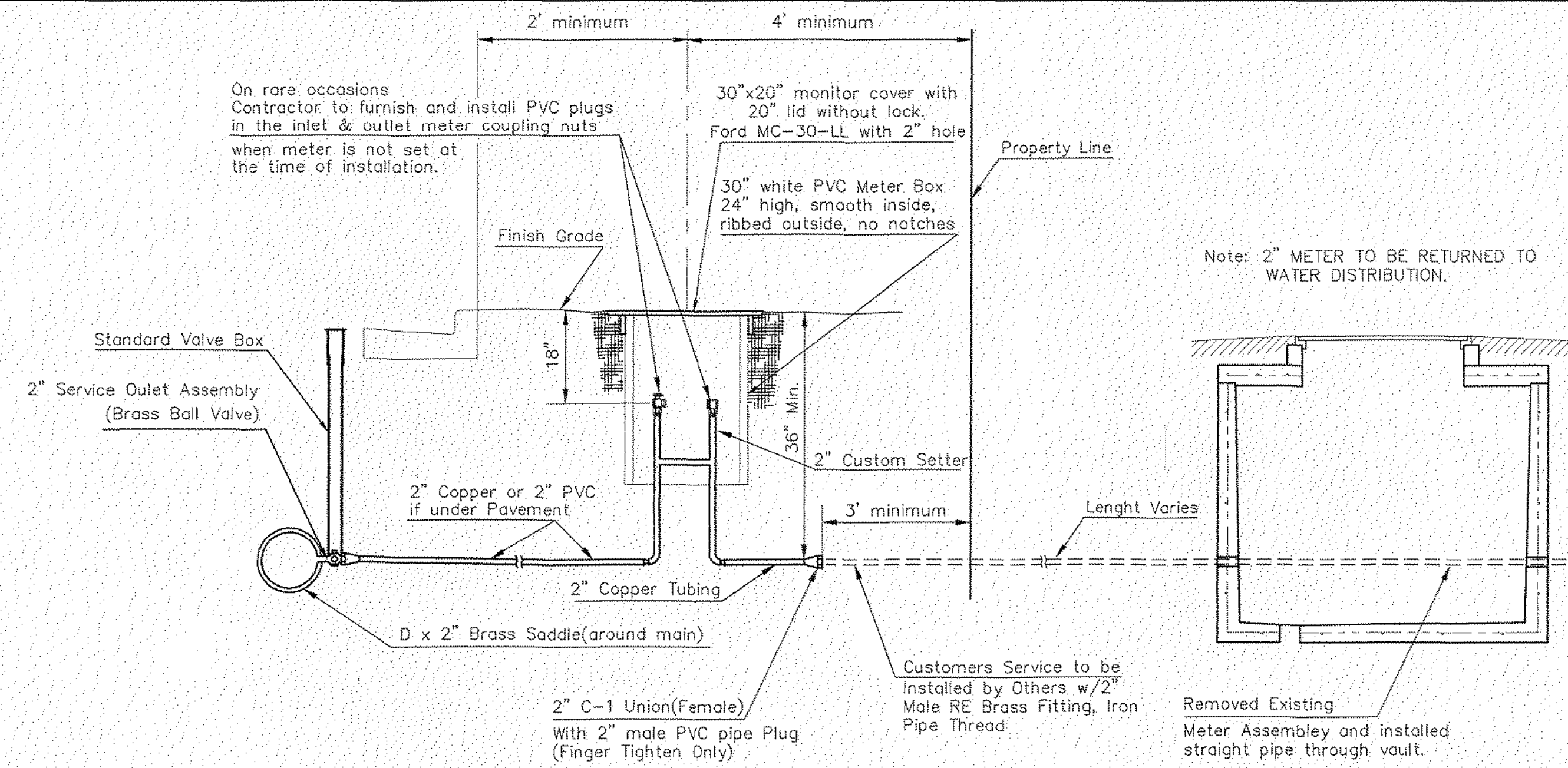
- 1 - Ø Mueller Thread Corporation Stop
- 1 - Ø Type "K" Copper Tubing
- 1 - Ø Copper to Iron Union (Male)
- 1 - Ø Brass Curb Stop (Iron to Iron)
- 2 - Øx4" Brass Nipple
- Air Release
- 2 - Ø Brass Elbows (90°)
- 1 - 1"x6" Brass Nipple
- 1 - 30" Monitor Cover
- 1 - 20" Meter Lid

NOTE:

THE 1"/2" AIR RELEASE ASSEMBLY WILL TYPICALLY BE USED ON WATER MAINS 24" AND SMALLER, AS SPECIFICALLY DESIGNATED IN THE PLANS. COMBINATION AIR RELEASE ASSEMBLIES WILL BE SPECIFICALLY DESIGNED FOR PROJECTS WITH LARGER MAINS, AND WILL BE INCLUDED IN THE PLANS.



MATERIALS FOR 1" or 2" AIR RELEASE ASSEMBLY
Ø = 1" or 2"

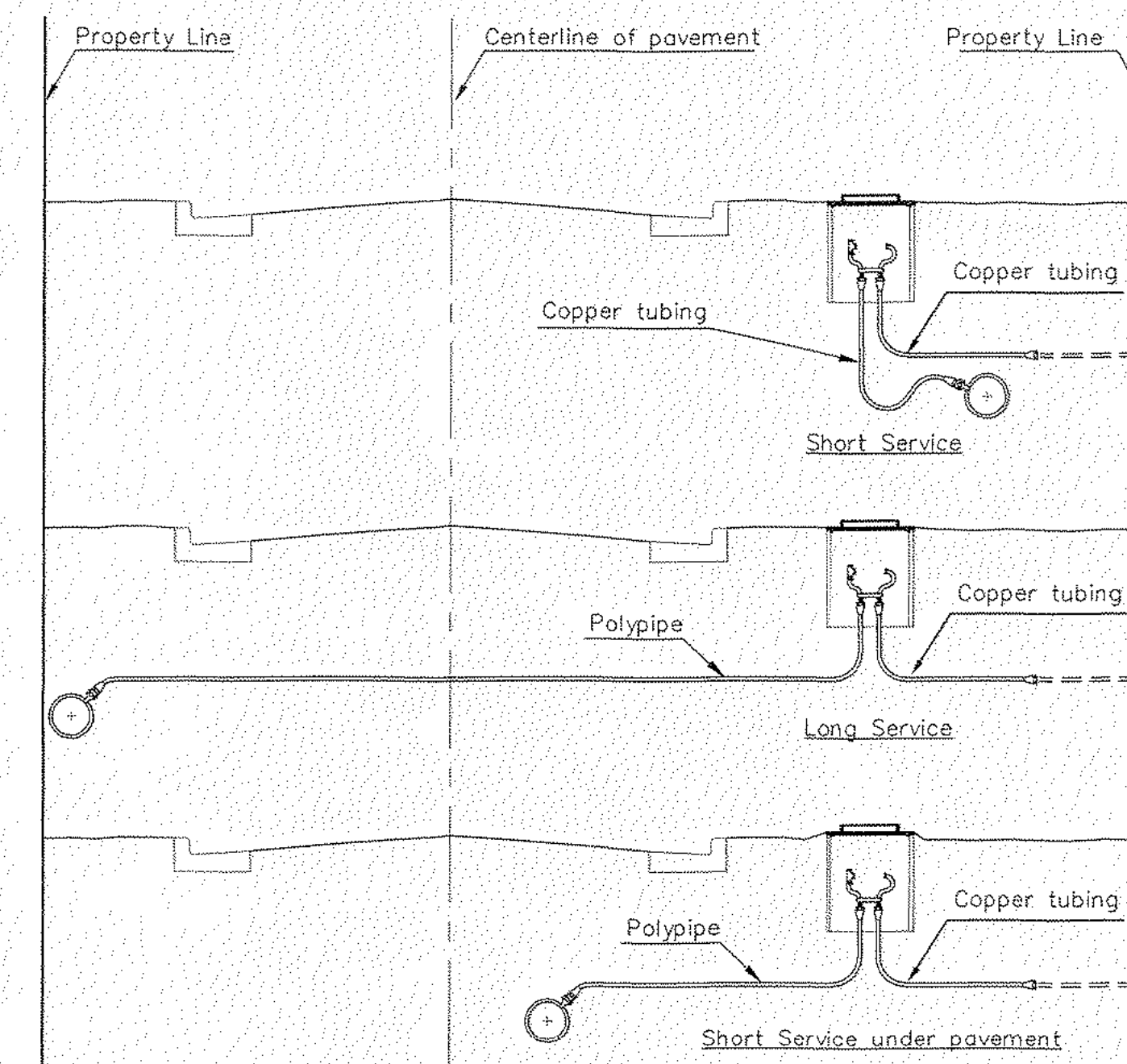


TYPICAL 2" METER SETTING

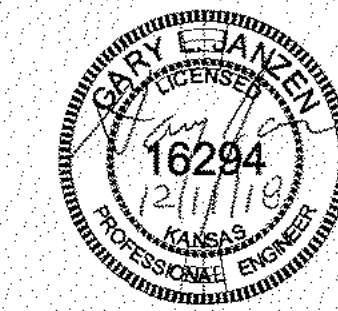
Note: ONE VALVE STEM EXTENSION FOR EACH VALVE BURIED GREATER THAN 5'

TYPICAL 2" METER SETTING INVOLVING EXISTING 2" METER VAULT

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



SERVICE TYPES



REVISED: DECEMBER 2018	TM	BRASS NIPPLE LENGTH TO 10" ON THE 1" OR 2" AIR RELEASE ASSEMBLY	
<p>CITY OF WICHITA PUBLIC WORKS & UTILITIES ENGINEERING DIVISION</p>		<p>STANDARD WATER SERVICE DETAIL</p> <p>CITY ENGINEER GARY JANZEN, P.E.</p>	
		PROJECT NUMBER 2209 PPW	OCA NUMBER (183021)
CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501		SHEET	CU226

WL-102

STANDARD WATER SERVICE DETAILS

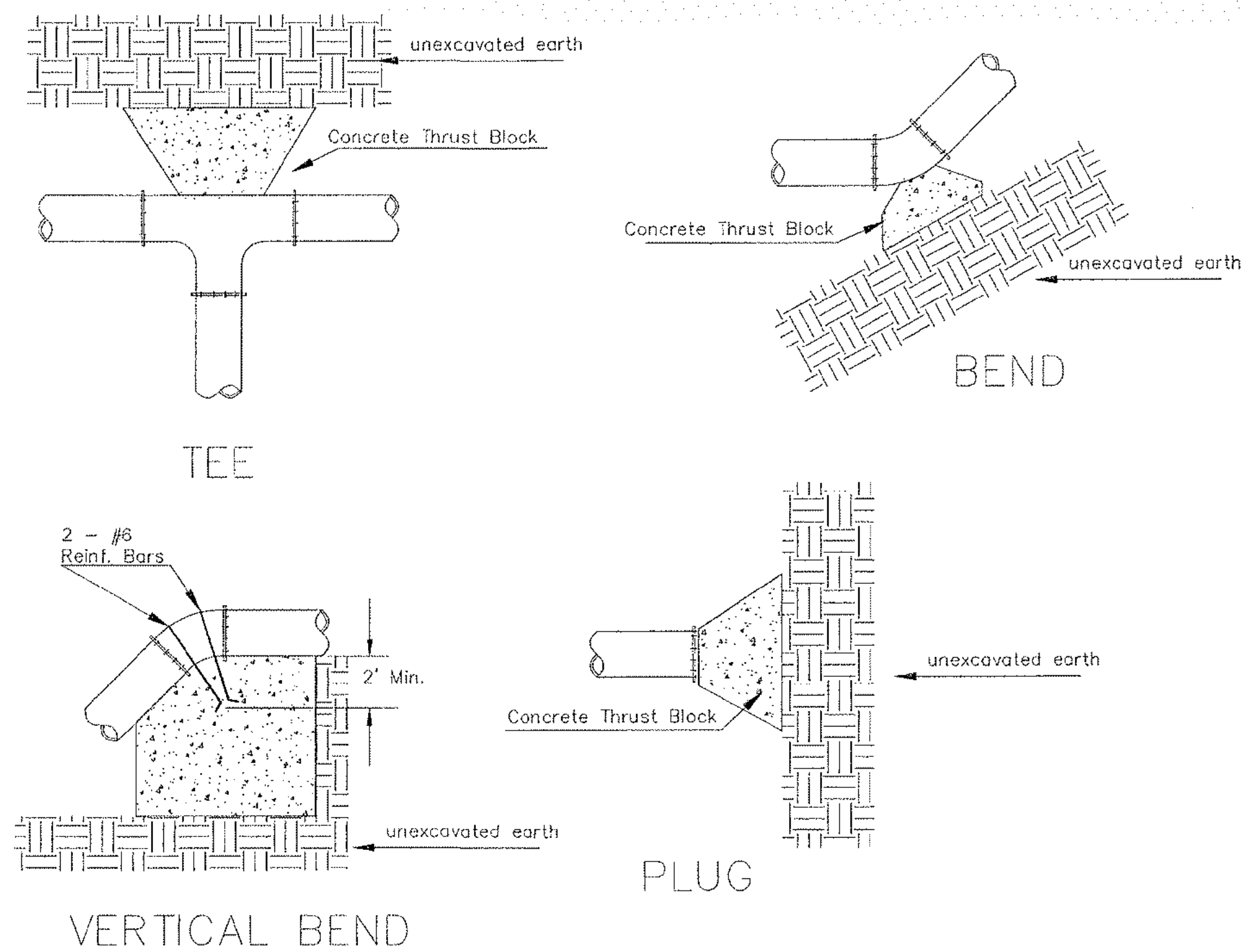
DATE
February 18, 2019
PROJECT NUMBER
18-1263
SHEET NUMBER
CU226

5000 BUILDING REMODEL
BUTLER COMMUNITY COLLEGE
715 E 13th St.
Andover, Kansas

GRAVITY:WORKS
ARCHITECTURE

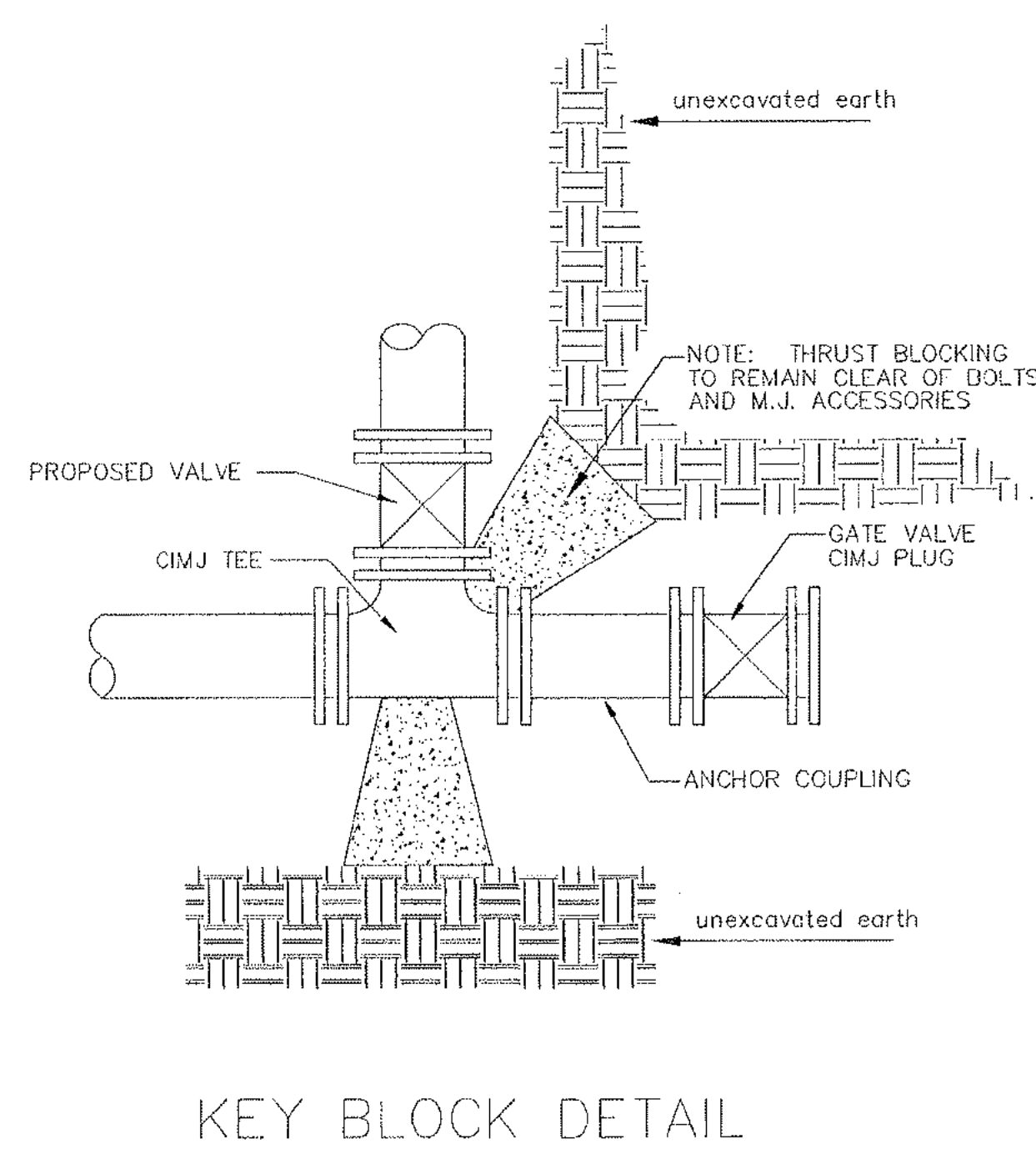
101 S. Star Street, El Dorado, KS 67042
p (316) 331-4774 f (316) 331-7999
www.gravityworks-architecture.com

PEP
PROFESSIONAL ENGINEERING CONSULTANTS P.A.
305 SOUTH TOPICKA WICHITA, KS 67202
316-262-2691 www.pcep.com



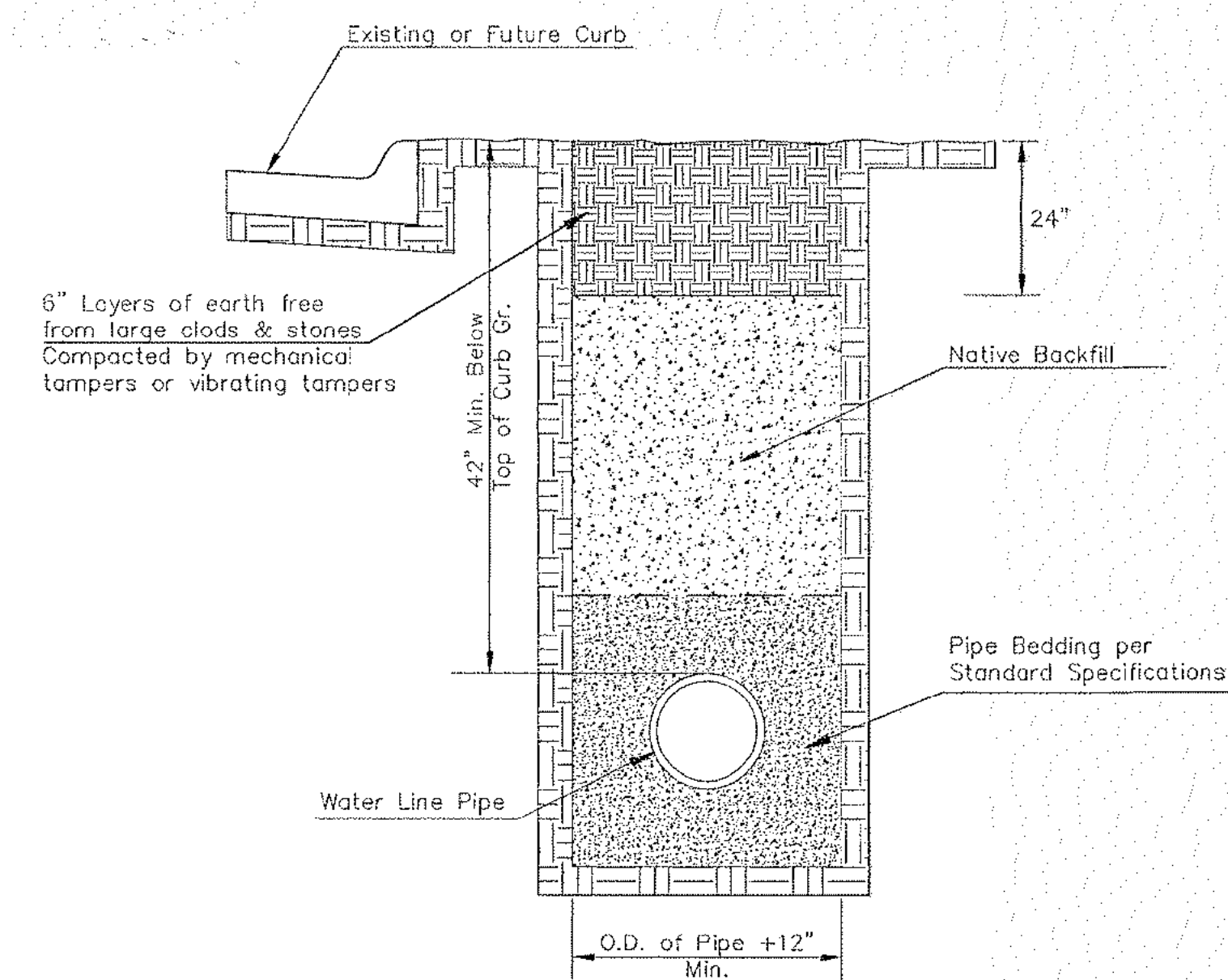
PIPE SIZE	THRUST AT FITTINGS IN TONS-AT 150#/IN ² P					
	PLUG	90°	45°	22 1/2°	11 1/4°	TEE
6"	2.8	3.95	2.15	1.09	.55	2.8
8"	4.9	6.95	3.75	1.90	.96	4.9
12"	11.4	16.1	8.75	4.45	2.25	11.4
16"	20.15	28.5	15.4	7.85	3.95	20.15
20"	31.15	44.0	23.85	12.15	6.10	31.15
24"	44.55	63.0	34.1	17.4	8.75	44.55

TYPICAL THRUST BLOCKS

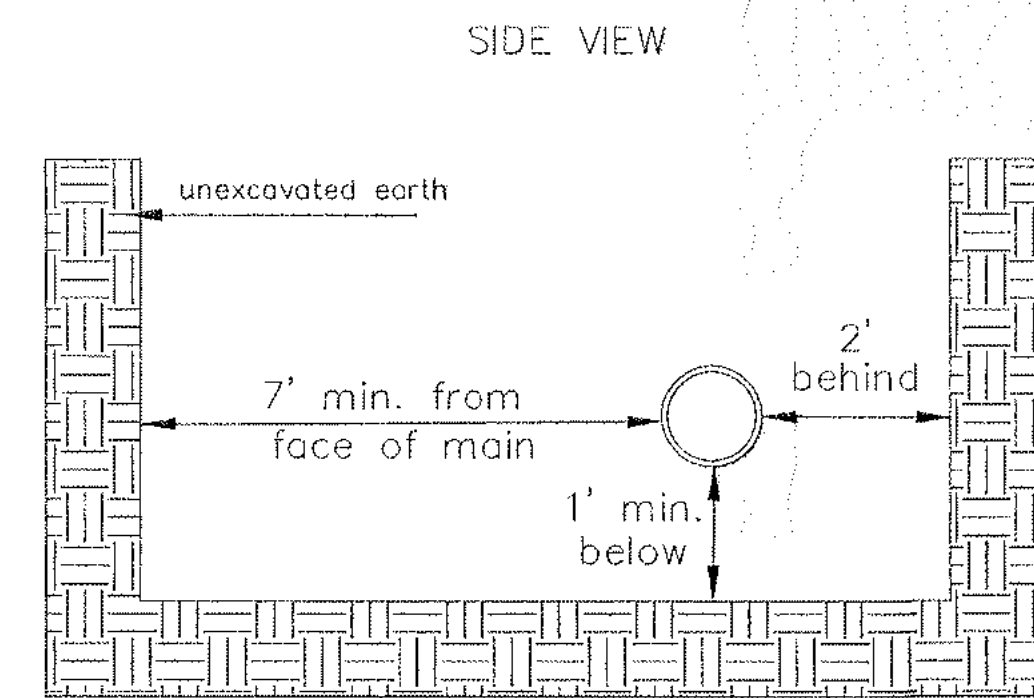


KEY BLOCK DETAIL

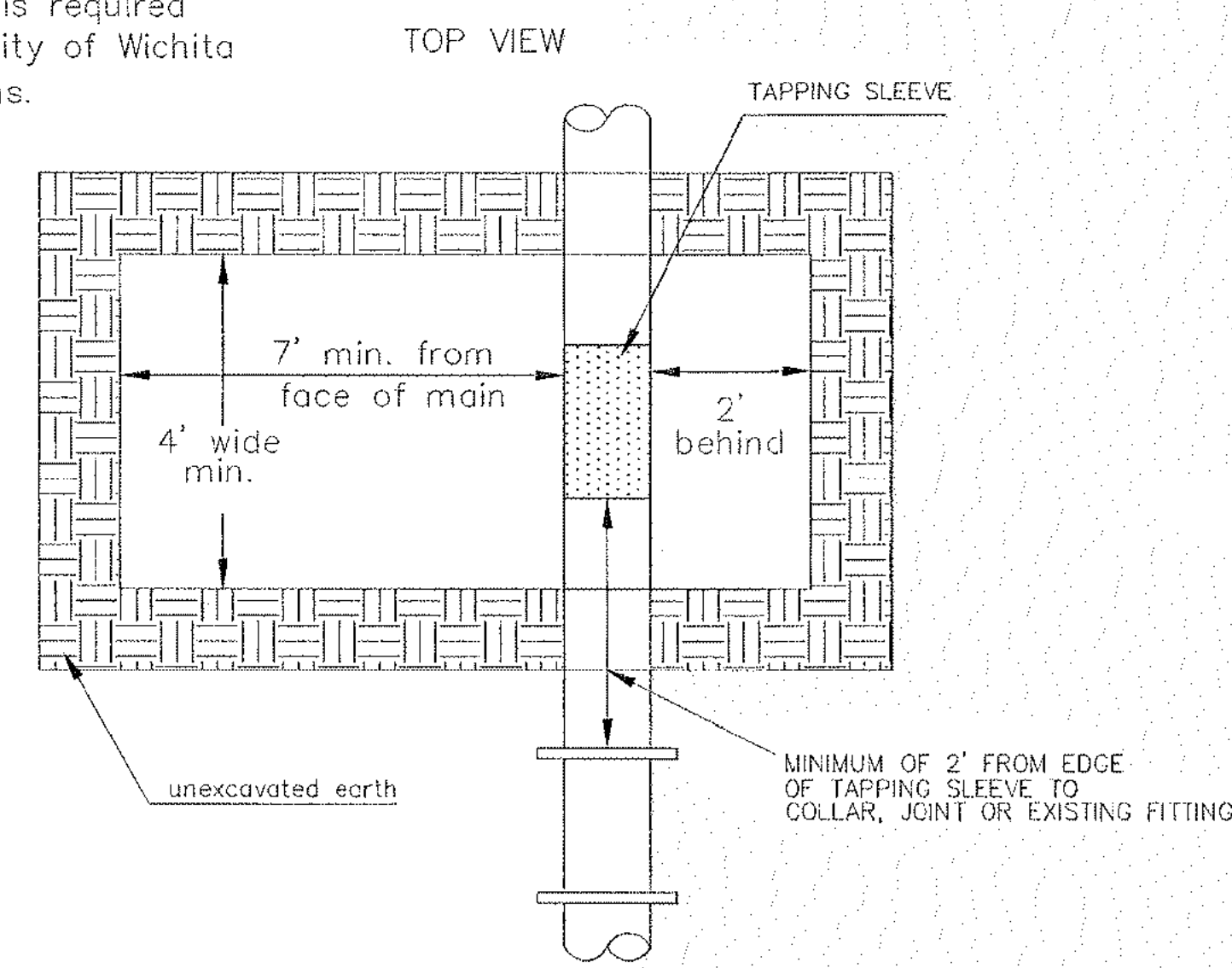
* PLANS GOVERN
UNLESS OTHERWISE NOTED ON PLANS



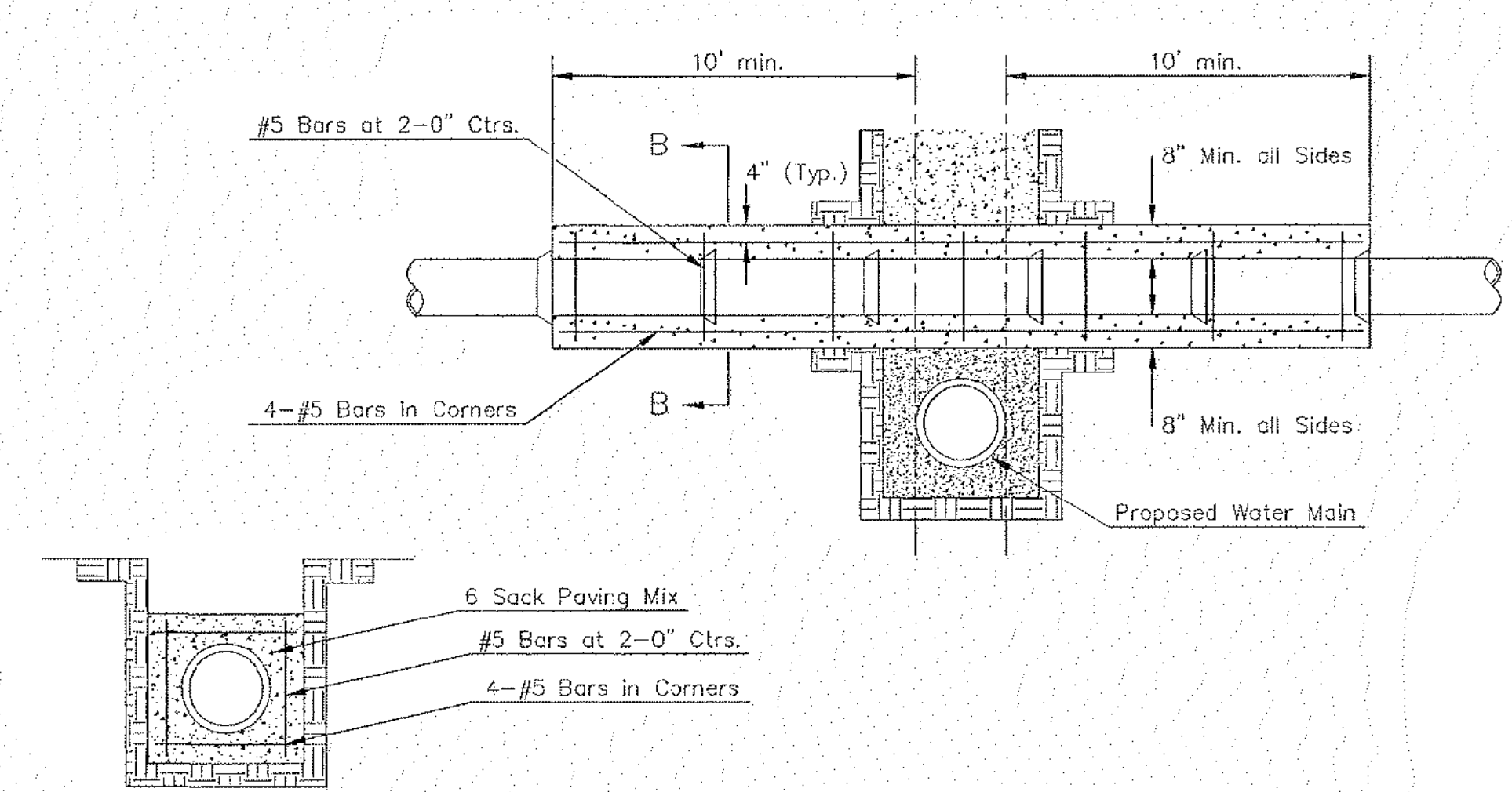
TRENCH COMPACTION IN ROAD RIGHT-OF-WAY



Note: When shoring is required it is to be per The City of Wichita Standard Specifications.



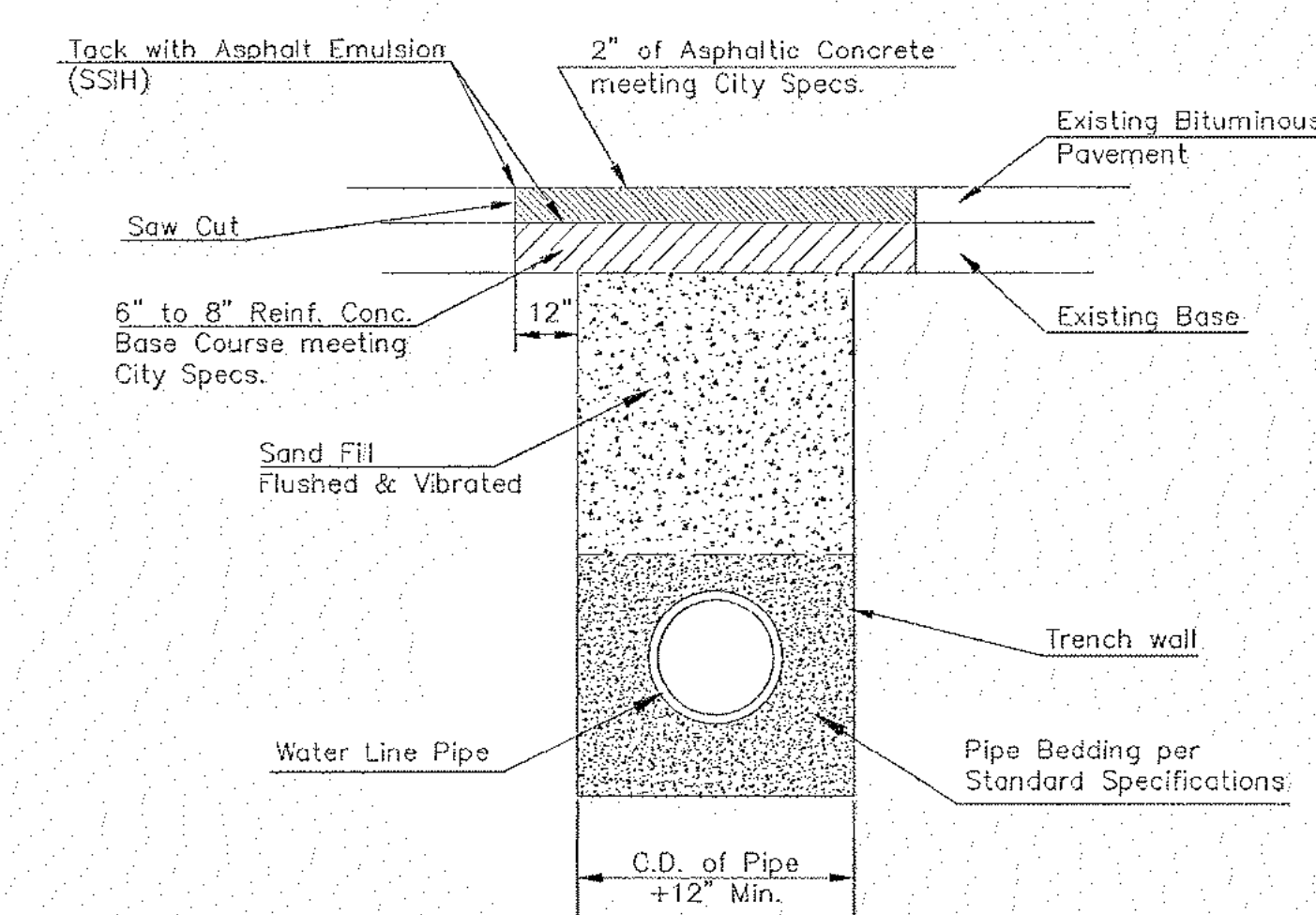
EXCAVATION FOR WET TAP



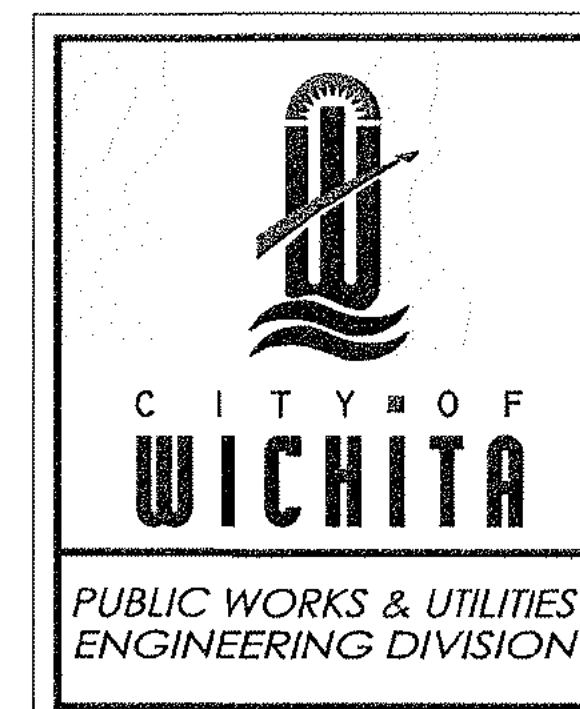
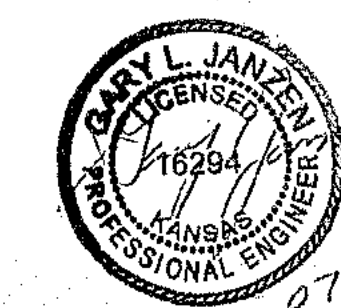
SECTION B-B

Note: Encasement to begin and end at a Bell on Sanitary Sewer Pipe.

REINFORCED CONCRETE ENCASEMENT OF SANITARY SEWER



PAVEMENT REPLACEMENT & TRENCH COMPACTION UNDER EXISTING AND PROPOSED CITY ROADS



MISCELLANEOUS WATER DETAILS		
CITY ENGINEER		
GARY JANZEN, P.E.		
PROJECT NUMBER	OCA NUMBER	DATE
2209 PPW	(183021)	
CITY ENGINEER'S OFFICE		SHEET
CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501		CU227

WL-104

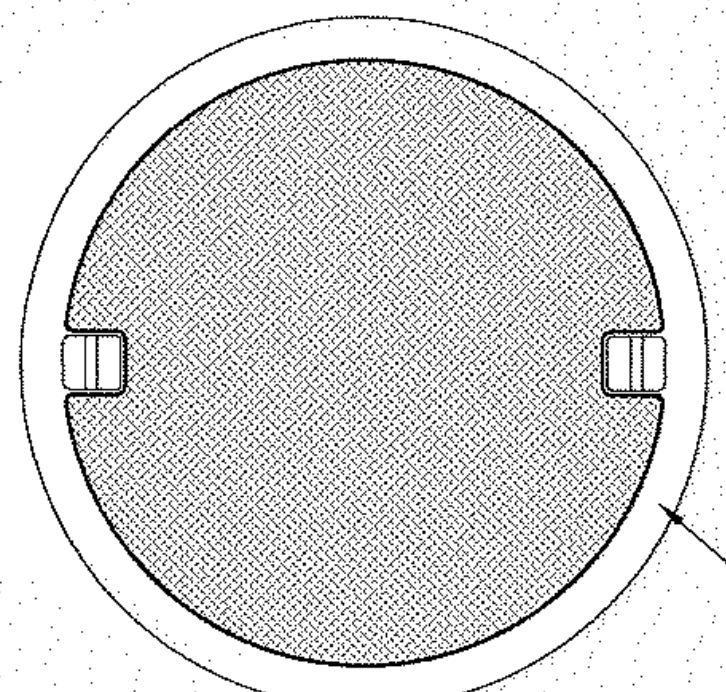
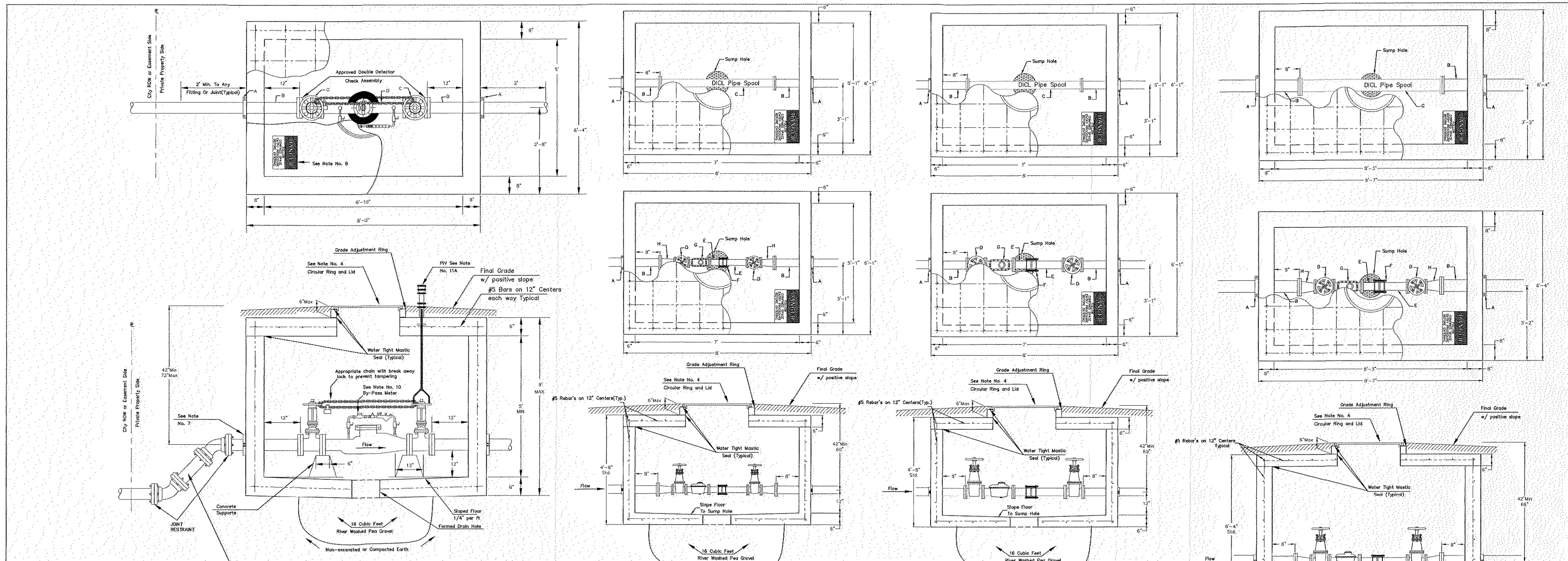
MISCELLANEOUS WATER DETAILS

ISSUE
DATE
February 18, 2019
PROJECT NUMBER
18-1263
SHEET NUMBER
CU227

5000 BUILDING REMODEL
BUTLER COMMUNITY COLLEGE
715 E 13th St.
Andover, Kansas

GRAVITY::WORKS
ARCHITECTURE

PECC
PROFESSIONAL ENGINEERING CONSULTANTS P.A.
305 SOUTH TOPICKA WICHITA, KS 67202
316-262-2891 www.pecc.com



4" thru 8" Fire Service

NOTE:
Domestic Services larger than 6" shall be custom designed by Consultant Engineer.

3" Domestic Service

4" Domestic Service

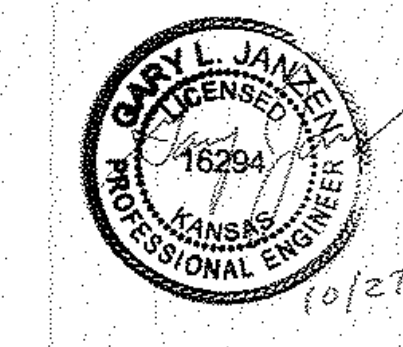
6" Domestic Service with 4" meter

Notes For All Services - 3" thru 12":

- When the standard vault dimensions are not applicable, such as when additional space is required for special pipe, fittings, additional meters, etc. the consultant design engineer shall design a vault with the required dimensions for Public Works and Utilities approval.
- The vault shall be poured concrete, cement blocks (voids to be completely filled with 2500 P.S.I. concrete), or approved precast structure. The intent of these details shall not be limited by drawings or standards of precast structures.
- Any vault located in pavement must be traffic rated unless it is protected. Traffic rated vaults must be design and approved by Public Works and Utilities.
- The manhole ring and lid shall be Neenah R-6034 Frame with Type "C" Solid Lid and Drop Down Handle or US Foundry APS-30x30 (Aluminum) or Deeter 1261 or EJ 1936z1 (with pick hole(s) as shown in Detail A). Where applicable the standard 10" Public Works and Utilities pattern meter reading lid and ring shall be located directly above water meter register. All joints of concrete to concrete or metal to concrete in the construction of the vault shall have an approved water tight mastic joint seal.

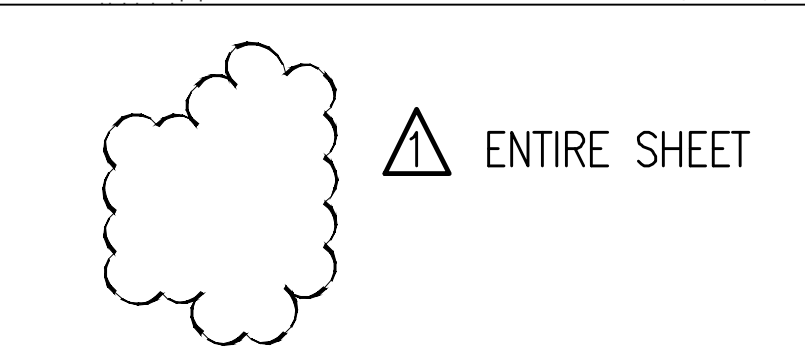
- Any fittings or appurtenances required to achieve proper elevation of pipe through the vault shall be provided by the contractor and appropriately noted on the as-built submitted by the inspecting engineer. Such fittings shall be a minimum of 2' from the exterior wall of vault.
- For all domestic services larger than 3" the contractor shall provide an outlet flange connection as shown 8" from the inside wall. Inlet and outlet wall sleeves shall be provided and installed by the contractor and shall be in alignment with one another. The inlet and outlet pipe shall be ductile iron pipe, cement lined, Class 150 per Standard Specifications and shall be continuous through vault and joint no less than 2' from the exterior wall of vault. Flanges of inlet and outlet pipe shall be in proper alignment and bolt pattern shall be rotated in such a way that valves and other fittings shall be in their proper vertical alignment when installed.
- For all services 4" and larger the contractor shall install a mega lug, restrained joint, or approved equal on the exterior walls of the vault, which shall be manufactured of ductile iron conforming ASTM A 536-80, heat treated to a minimum hardness of 370 BHN and have a working pressure of a least 250 P.S.I. For a services smaller than 4" the contractor shall install an approved vault clamp on the exterior walls of the vault.
- All valves, meters, assemblies and fitting shall be provided with sufficient concrete or other approved supports to the vault floor.
- The "Confined Space Warning" sign shall be fastened to the top of all vaults. If necessary for landscaping or site consideration, the sign may be fastened to the vault lid if it does not impede access to the handle. Acceptable materials: Aluminum 7341SH, Plastic 7343HH or S.A. Vinyl 73463HH.

- All meters shall have an electronic read register compatible with the current City of Wichita meter reading system. All detector meters shall be on 5/8 cubic foot Badger meter with AMR register with a ADE on the register and 25' long Itron cord and plug or approved equal. Gallon meters shall not be accepted.
- Additional Notes For Fire Services
 - A post indicator valve (PIV) is an option for the outlet valve. It is not required by the City of Wichita ordinance, it can be requested by the owner and will be allowed at the discretion of the City Engineer.
 - When Siamese connections are required by the Wichita Fire Department, refer to the current City Code Section 15.
 - If due to any reason the completed vault retains ground or drainage water in excess of 4" in depth from the floor of the vault, the property owner shall be responsible for providing and installing an appropriate automatic sump pump or approved equal, as well as any other appurtenances required to make such system function as intended.



<p>CITY OF WICHITA PUBLIC WORKS & UTILITIES ENGINEERING DIVISION</p>	STANDARD VAULT DETAILS AND METER ASSEMBLIES	
	CITY ENGINEER GARY JANZEN, P.E.	
	PROJECT NUMBER 2209 PPW	DATE (183021)
	CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501	
		SHEET CU228

WL-103



Saved 02-26-2019 10:36:02 AM by 540
 U:\Wichita-Frac\2018\180457\03\Main\Drawings\180457-003-CU228 STD VAULT & METER ASSEMBLIES

STD. VAULT & METER ASSEMBLIES

ISSUE	DATE
ADDENDUM #1	March 1, 2019
PROJECT NUMBER	18-1263
SHEET NUMBER	CU228

5000 BUILDING REMODEL
BUTLER COMMUNITY COLLEGE
 715 E 13th St.
 Andover, Kansas

GRAVITY::WORKS
ARCHITECTURE
 101 S. Star Street, El Dorado, KS 67042
 p (316) 331-4774 f (316) 331-7999
 www.gravityworks-architecture.com

PECE
 PROFESSIONAL ENGINEERING CONSULTANTS P.A.
 305 SOUTH TOPICKA WICHITA, KS 67202
 316-262-2691 www.pece.com