

GENERAL NOTES

- ALL CONSTRUCTION AND MATERIALS TO COMPLY WITH CITY OF WICHITA STANDARD CONSTRUCTION SPECIFICATIONS AND DETAILS. UNLESS OTHERWISE INCLUDED IN THE CONTRACT DOCUMENTS.
- EACH BIDDER SHALL VISIT THE SITE OF THE PROJECT BEFORE SUBMITTING THE PROPOSAL FOR THIS WORK SO THAT THEY 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.
- AT LEAST 72 HOURS PRIOR TO BEGINNING ANY EXCAVATION (EXCLUDING WEEKENDS AND HOLIDAYS), THE CONTRACTOR SHALL CONTACT THE KANSAS ONE-CALL SYSTEM, A UTILITY LOCATION SERVICE, AT (316)-687-2470 OR 811 TO REQUEST THE LOCAL UTILITY COMPANIES TO LOCATE ANY EXISTING LINES WITHIN THE PROJECT AREA.
- THE CONTRACTOR MUST NOTIFY THE FOLLOWING IN CASE OF AN EMERGENCY:

EMERGENCY DISPATCH:	911
COX COMMUNICATIONS:	888-249-3530
EVERGY	800-383-1183
AT&T:	800-286-8313
KANSAS GAS SERVICE:	888-482-4950
CITY OF WICHITA WATER & SEWER:	316-219-8921
CITY OF WICHITA STORMWATER:	316-268-4090
CITY OF WICHITA TRAFFIC	316-268-4034
- THE CONTRACTOR SHALL GIVE ALL PROPERTY OWNERS AND/OR TENANTS OF DEVELOPED PROPERTY DIRECTLY ABUTTING THE CONSTRUCTION OF THIS PROJECT A MINIMUM OF SEVEN (7) DAYS ADVANCE NOTICE PRIOR TO THE START OF CONSTRUCTION.
- THE CONTRACTOR SHALL NOT START WORK ON THE PROJECT UNTIL THE PROJECT INSPECTOR IS ASSIGNED AND IS PRESENT ON THE SITE. ANY WORK DONE WITHOUT INSPECTION WILL BE REQUIRED TO BE UNCOVERED FOR INSPECTION AT THE CONTRACTORS EXPENSE.
- ALL ELEVATIONS SHOWN ARE NAVD88 DATUM. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL RE-ESTABLISH HORIZONTAL AND VERTICAL CONTROL POINTS AND VERIFY THEIR ACCURACY.
- EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE DRAWINGS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. LOCATION INFORMATION HAS BEEN OBTAINED FROM THE VARIOUS UTILITY COMPANIES AND IS EITHER FROM COMPANY RECORD DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. IT SHOULD BE NOTED THAT OTHER BURIED LINES AND CABLES MAY EXIST WHICH ARE NOT SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL HAVE ALL BURIED LINES LOCATED AND FLAGGED IN THE FIELD PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL CONTACT THE ENGINEER AND REVIEW ANY BURIED LINES LOCATED IF CONFLICTS EXIST. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION DURING TRENCHING OPERATIONS TO AVOID DAMAGING THESE LINES. ANY LINES DAMAGED SHALL BE REPLACED OR REPAIRED IMMEDIATELY AS DIRECTED BY THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL EXPOSE AND VERIFY THE VERTICAL AND HORIZONTAL LOCATION OF EXISTING UTILITIES THAT ARE IN POTENTIAL CONFLICT WITH THE PROPOSED IMPROVEMENTS. THE UTILITY LOCATES SHALL BE PERFORMED PRIOR TO THE START OF CONSTRUCTION AND ANY DISCREPANCIES SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS AND SECTION CORNERS. THE CONTRACTOR SHALL BE REQUIRED TO RE-ESTABLISH ANY PROPERTY IRONS AND SECTION CORNERS WHICH ARE DAMAGED OR DESTROYED BY CONSTRUCTION OPERATIONS. SUCH IRONS AND SECTION CORNERS SHALL BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR IN ACCORDANCE WITH STATE LAWS.

- EASEMENTS AND RIGHTS-OF-WAY PROVIDED BY THE OWNER FOR THE PROJECT ARE SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACQUISITION OF ANY ADDITIONAL TEMPORARY EASEMENTS OR RIGHTS-OF-WAY DESIRED TO USE IN COMPLETING THE WORK.
- THE CONTRACTOR SHALL CONTAIN THEIR OPERATIONS TO PERMIT LOCAL AND EMERGENCY TRAFFIC THROUGH AND ACROSS CONSTRUCTION AT ALL TIMES. THE CONTRACTOR SHALL UTILIZE WARNING SIGNS, FLASHING LIGHTS, BARRICADES, AND FLAGMEN IN COMPLIANCE WITH THE LATEST VERSION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES INCLUDING ANY TREES REMOVED, TREE TRIMMINGS, AND EXCESS EXCAVATION WHICH IS TO BE WASTED SHALL BE DISPOSED OF ON SITES PROVIDED BY THE CONTRACTOR. THESE SITES SHALL ALSO BE APPROVED BY THE ENGINEER AS TO SUITABILITY, APPEARANCE, AND SITE LOCATION. LOCATIONS THAT, IN THE OPINION OF THE ENGINEER, 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, FLOODWAYS, OR WETLANDS IS SUBJECT TO U.S. CORPS OF ENGINEERS PERMITTING REGULATIONS. ANY MATERIAL BURIED OR STOCKPILED BEYOND APPROVED CONSTRUCTION LIMITS MAY REQUIRE ARCHAEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY APPROVED DISPOSAL LOCATION.
- THE CONTRACTOR SHALL RESTORE ALL DITCHES, SWALES, ROAD SHOULDERS, AND BANKS TO THEIR ORIGINAL SLOPES AND GRADES EXCEPT AS SHOWN OTHERWISE. WHERE EXISTING ENTRANCE PIPE, DRAINAGE PIPE, SIGNS, FENCES, LANDSCAPING, ETC., CONFLICT WITH THE PROPOSED WORK HEREIN, THEY SHALL BE REMOVED AND REPLACED OR RESET, UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- THE CONTRACTOR SHALL TAKE CARE TO PREVENT SILT AND DEBRIS FROM ENTERING ANY STORM DRAINAGE SYSTEM DURING CONSTRUCTION. PIPES OR STRUCTURES WHICH CONTAIN MATERIALS FROM THE CONTRACTORS ACTIVITIES SHALL BE THOROUGHLY CLEANED BY THE CONTRACTOR, AT THEIR OWN EXPENSE, PRIOR TO THE FINAL INSPECTION.
- RECONSTRUCTION OF EROSION CONTROL MEASURES WHICH ARE DESTROYED BY WIND, FLOOD, FIRE, OR BY THE ACTIONS OF THE CONTRACTOR OR OTHERS SHALL BE PERFORMED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER AT NO ADDITIONAL COST. WHERE ADJUSTMENTS IN QUANTITIES ARE REQUIRED BY FIELD CONDITIONS, THERE SHALL BE NO ADJUSTMENT IN UNIT PRICE.
- ALL GRASSED AREAS DISTURBED BY CONSTRUCTION OF THE PROPOSED IMPROVEMENTS SHALL BE REPLANTED WITH GRASS AND FERTILIZED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. EXISTING GRASSED AREAS DISTURBED BY CONSTRUCTION SHALL BE REPLANTED WITH THE SAME TYPE OF GRASS AS WAS REMOVED, UNLESS OTHERWISE SPECIFIED.
- 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 PERMANENT SEEDING/SODDING IS APPLIED. TEMPORARY SEEDING OR PERMANENT SEEDING/SODDING SHALL BE APPLIED WITHIN 14 DAYS AFTER THE AREA HAS BEEN DISTURBED.
- OWNER SHALL BE RESPONSIBLE FOR CONSTRUCTION STAKING. STAKING AND BENCH MARKS DESTROYED DURING CONSTRUCTION OPERATIONS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL MAINTAIN UNINTERRUPTED UTILITY SERVICE TO ADJACENT FACILITIES DURING CONSTRUCTION, UNLESS OTHERWISE APPROVED BY OWNER.

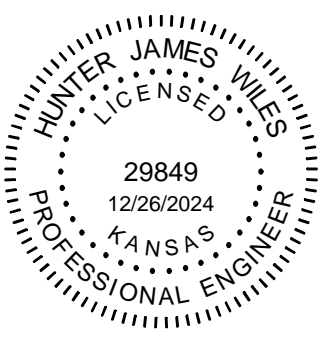
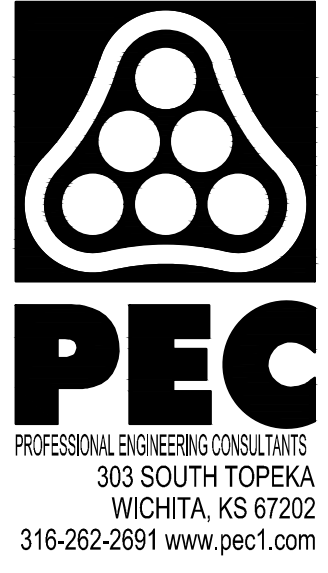
- WRITTEN REQUEST TO THE OWNER WILL BE REQUIRED 72 HOURS PRIOR TO A SCHEDULED UTILITY OUTAGE. THE FIRE DEPARTMENT MUST BE NOTIFIED OF ANY FIRE HYDRANTS OR WATER MAINS TAKEN OUT OF SERVICE.
- PERMITS THAT HAVE BEEN OBTAINED BY THE OWNER ARE LISTED BELOW. THE CONTRACTOR SHALL MEET ALL PERMITTING REQUIREMENTS. THE CONTRACTOR MAY OBTAIN COPIES OF THESE PERMITS FROM THE ENGINEER UPON REQUEST.
 COUNTY UTILITY PERMIT/USE OF RIGHT OF WAY (SEDGWICK COUNTY)
 THE CONTRACTOR SHALL OBTAIN ALL ADDITIONAL LOCAL, STATE, AND FEDERAL PERMITS REQUIRED FOR CONSTRUCTION.
- THE CONTRACTOR SHALL INSTALL AND/OR MAINTAIN EROSION CONTROL METHODS AS SPECIFIED ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EROSION CONTROL THROUGH THE COMPLETION OF THIS PROJECT. INSTALLATION OF THESE EROSION CONTROL DEVICES DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF ABATING SOIL EROSION. THE FOLLOWING QUANTITIES ARE ESTIMATED, AND SHOULD BE CONSIDERED THE MINIMUM EFFORT REQUIRED.
 SILT FENCE BARRIER 3,900 L.F.
- ALL LAWN/TURF AREAS DISTURBED BY CONSTRUCTION OF THE PROPOSED 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, MULCHING, AND/OR RE-SEEDING. 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. ALL COSTS FOR THIS WORK SHALL BE SUBSIDIARY TO "SITE RESTORATION".
- OPENING AND CLOSING WATER VALVES SHALL BE DONE SLOWLY TO PREVENT DAMAGE TO THE WATER DISTRIBUTION SYSTEM FROM WATER HAMMER. ALL VALVES CLOSED BY THE CONTRACTOR MUST BE REOPENED AS NEW CONSTRUCTION PERMITS. PROJECT INSPECTOR MUST ASCERTAIN THAT ANY VALVE CLOSED BY THE CONTRACTOR IS REOPENED. CONTRACTOR WILL BE PERMITTED TO OPERATE WATER VALVES ONLY WHEN THE PROJECT INSPECTOR ASSIGNED TO THE PROJECT IS PRESENT.
- NO SERVICES WILL BE INSTALLED AS PART OF THIS PROJECT.
- THE CONTRACTOR SHALL RESTRAIN ALL BENDS, VALVES, AND TEES THROUGH THE USE OF A RESTRAINED JOINT PIPE AS SPECIFIED, AT THE MINIMUM LENGTHS AS SHOWN IN THE PLANS. OTHER METHODS OF RESTRAINT MAY BE SUBMITTED FOR APPROVAL AT LEAST 14 DAYS PRIOR TO BIDDING. RESTRAINED JOINT DUCTILE IRON PIPE SHALL BE U.S. PIPE TR FLEX, AMERICAN FLEX RING, OR APPROVED EQUAL, IN ACCORDANCE WITH CITY OF WICHITA STANDARD SPECIFICATIONS. RESTRAINED JOINT PVC PIPE SHALL BE NORTH AMERICAN CERTA-LOK PIPE, OR APPROVED EQUAL, IN ACCORDANCE WITH CITY OF WICHITA STANDARD SPECIFICATIONS. THE CONTRACTOR MAY USE SIGMA PV-LOK SERIES PVM OR APPROVED EQUAL FOR RESTRAINT OF FITTINGS ON THE PROJECT. CLAMPING RING SHALL BE OF HIGH STRENGTH DUCTILE IRON AND SHALL CONFORM TO ASTM A536, GRADE 65-45-12. SIDE CLAMPING BOLT AND HEX NUTS SHALL BE A HIGH STRENGTH, LOW ALLOY STEEL AND SHALL CONFORM TO AWWA/ANSI C111/A21.11 AND PRORATE A MINIMUM 45,000 PSI YIELD AND 60,000 PSI TENSILE STRENGTH.
- MAINTAIN A MINIMUM OF 10-FOOT HORIZONTAL SEPARATION BETWEEN ALL WATER LINES (MAINS, SERVICES, AND FIRE HYDRANTS) AND ALL SANITARY SEWER LINES (MAINS, SERVICES, AND MANHOLES). ALL SEPARATIONS DISTANCES ARE TO BE MEASURED FROM EDGE-TO-EDGE, AT THE CLOSEST POINT.
- MAINTAIN A MINIMUM OF 2-FOOT VERTICAL SEPARATION BETWEEN ALL WATER LINES (MAIN AND SERVICES) AND ALL GRAVITY SANITARY SEWER LINES (MAINS, SERVICES, AND MANHOLES) AT CROSSINGS. ALL SEPARATION DISTANCES ARE TO BE MEASURED FROM EDGE-TO-EDGE, AT THE CLOSEST POINT.

- THE CONTRACTOR SHALL AVOID REMOVAL OR TRIMMING OF ANY TREES OR SHRUBS WHERE POSSIBLE. WHERE THE CONTRACTOR BELIEVES THE REMOVAL OR TRIMMING IS UNAVOIDABLE, THIS WORK SHALL BE COORDINATED WITH THE ENGINEER. TREE TRIMMING/REMOVAL SHALL BE COMPLETED IN ACCORDANCE WITH U.S FISH AND WILDLIFE SERVICE, AND KANSAS DEPARTMENT OF WILDLIFE, PARKS, AND TOURISM RESTRICTIONS. FULL TREE REMOVAL SHALL BE NOTED ON THE PLANS AND SHALL BE BID AS "TREE REMOVED, LARGE", "TREE REMOVED, SMALL", OR "TREE ROW REMOVED".
- THE CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION, TYPE, SIZE AND CLASS OF EXISTING WATERLINES PRIOR TO MAKING CONNECTIONS. EXISTING WATERLINE LOCATIONS AS SHOWN ON THE DRAWINGS ARE APPROXIMATE. CONTRACTOR SHALL MAKE ADJUSTMENTS AS REQUIRED. PROVISION AND INSTALLATION OF PIPE ADAPTORS, SHORT SECTION OF PIPE, AND COUPLERS SHALL BE AT NO ADDITIONAL COST TO THE PROJECT.
- MAINTAIN A MINIMUM OF 2-FOOT VERTICAL SEPARATION BETWEEN ALL WATERLINES (MAINS AND SERVICES) AND ALL PRESSURIZED SANITARY SEWER LINES (FORCE MAINS AND SERVICES) AT CROSSINGS. WATERLINES MUST ALWAYS BE PLACED ABOVE PRESSURIZED SANITARY SEWER LINES WHERE THEY CROSS. ALL SEPARATION DISTANCES ARE TO BE MEASURED FROM EDGE-TO-EDGE, AT CLOSEST POINT.
- THE CONTRACTOR MUST SCHEDULE THE CONNECTIONS TO THE EXISTING WATER DISTRIBUTION SYSTEM WITH THE CITY SUCH THAT THERE IS MINIMUM DISRUPTION TO THE SYSTEM.
- AS REQUIRED, THE CONTRACTOR SHALL INSTALL A TEMPORARY BLOW OFF AND/OR TEMPORARY CONNECTION TO THE EXISTING WATERLINE/SYSTEM PER AWWA C651 RECOMMENDATIONS TO FILL AND TEST THE NEW WATERLINE. AT THE CONTRACTOR'S OPTION, THE CONTRACTOR CAN INSTALL A TEMPORARY MAINLINE VALVE AT THE POINT OF CONNECTION. FOLLOWING ACCEPTANCE OF THE NEW WATERLINE, THE TEMPORARY CONNECTION/VALVE SHALL BE FULLY REMOVED AND THE FINAL CONNECTION TO THE EXISTING WATERLINE SHALL BE CONSTRUCTED. WATERLINE MATERIALS AT TIE-INS SHALL BE CONSTRUCTED WITH CLEAN, SWABBED PIPE AND FLUSHED UPON COMPLETION OF TIE-INS. ALL COSTS FOR TEMPORARY CONNECTIONS SHALL BE CONSIDERED SUBSIDIARY TO THE PROJECT.
- WATERLINES SHALL HAVE A MINIMUM DEPTH OF BURY OF 48 INCHES, UNLESS SHOWN OTHERWISE.
- FIRE HYDRANT BURY DEPTHS ARE BASED ON THE TOP ELEVATION OF THE PROPOSED WATER MAIN AND THE APPROXIMATE GROUND ELEVATION AT THE LOCATION OF THE FIRE HYDRANT. THE CONTRACTOR SHALL VERIFY THESE ELEVATIONS PRIOR TO INSTALLING FIRE HYDRANTS. ANY MODIFICATIONS REQUIRED TO THE FIRE HYDRANT BURY DEPTH DUE TO THE CONTRACTOR'S FIELD ADJUSTMENTS TO THE WATER MAIN PROFILE SHALL BE MADE BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. PROPOSED ADJUSTMENTS MUST BE APPROVED BY THE RESIDENT INSPECTOR OR ENGINEER PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL NOT BURY VALVE BOXES OR FIRE HYDRANTS THAT HAVE ELEVATIONS WHICH ARE LOWER THAN EXISTING GROUND. AS DIRECTED BY THE ENGINEER THE CONTRACTOR SHALL ADJUST VALVE BOXES AND FIRE HYDRANTS TO MATCH EXISTING GROUND OR PROVIDE DRAINAGE AWAY FROM THESE VALVE BOXES AND FIRE HYDRANTS BY SLOPING THE GROUND AS REQUIRED. ALL COSTS FOR THIS WORK SHALL BE CONSIDERED SUBSIDIARY TO THE PROJECT.
- THE CONTRACTOR SHALL LIMIT THE EXTENT OF TRENCH TO REMAIN OPEN OVERNIGHT AND WEEKENDS TO LESS THAN 50 FEET.
- THE CONTRACTOR SHALL MINIMIZE SERVICE DISRUPTION TO PROPERTY OWNERS AND SHALL PROVIDE 48 HOURS WRITTEN NOTICE TO ANY PROPERTY OWNERS THAT WILL HAVE A DISRUPTION OF SERVICE.

- OPENING AND CLOSING WATER VALVES SHALL BE DONE SLOWLY TO PREVENT DAMAGE TO THE WATER DISTRIBUTION SYSTEM FROM WATER HAMMER. ALL VALVES CLOSED FOR CONSTRUCTION MUST BE REOPENED AS NEW CONSTRUCTION PERMITS. WATERLINE VALVES AND FIRE HYDRANTS ARE ONLY TO BE OPERATED BY AUTHORIZED EMPLOYEES OF THE CITY OF WICHITA OR BY THE CONTRACTOR ONLY IF AN AUTHORIZED WATER DEPARTMENT REPRESENTATIVE IS ON-SITE.
- THE WATERLINE PIPE LENGTHS REPRESENT TRUE PIPE LENGTHS AND DO NOT INCLUDE FITTINGS/APPURTENANCES. THE PIPE LENGTHS DO NOT DIRECTLY CORRESPOND WITH ALIGNMENT STATIONING. THE COST OF FITTINGS IS CONSIDERED SUBSIDIARY TO PIPE.

UTILITY CONTACTS

- JEFF CROSBY
 WICHITA SANITARY SEWER
 8TH FLOOR - CITY HALL
 455 N. MAIN
 WICHITA, KS 67202
 316-268-4329
- GREG LOLLEY
 WICHITA WATER
 7TH FLOOR - CITY HALL
 455 N. MAIN
 WICHITA, KS 67202
 316-268-4334
- JOE HICKLE
 WICHITA STORM SEWER
 8TH FLOOR - CITY HALL
 455 N. MAIN
 WICHITA, KS 67202
 316-268-4307
- JAMES WALBURN
 COX COMMUNICATIONS
 ENGINEERING DEPARTMENT
 901 GEORGE WASHINGTON BLVD.
 WICHITA, KS 67211
 316-260-7491
- RICHARD AITKEN
 EVERGY
 1900 E. CENTRAL (3RD FLOOR)
 P.O. BOX 208
 WICHITA, KS 67201
 785-410-2986
- SHANNON BRINKMEYER
 AT&T - DISTRIBUTION
 WICHITA CENTRAL UNIT
 154 N. BROADWAY, ROOM 210
 WICHITA, KS 67202
 316-268-2931
- SARA PROCTOR
 KANSAS GAS SERVICE
 1021 E. 26TH ST. NORTH
 WICHITA, KS 67219
 316-832-3178



**16" WATER MAIN EXTENSION
 ALONG S 119TH STREET W
 (FROM PAWNEE ROAD TO
 APPROXIMATELY 3/4 MILES SOUTH)**
 CITY OF WICHITA, KANSAS
 PAUL GUNZELMAN, P.E.-CITY ENGINEER
 CITY OF WICHITA PROJECT NO. 448-2024-026409

Issue:	

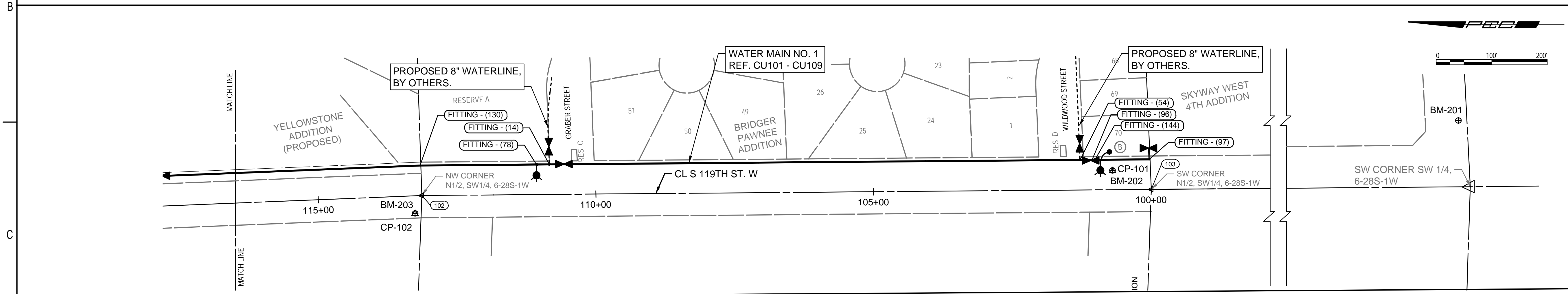
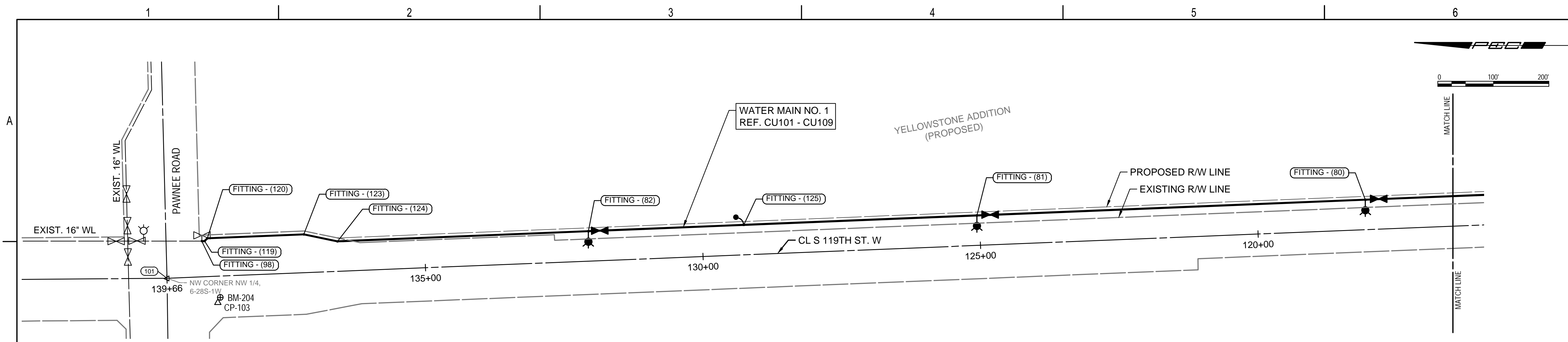
JOB NO.	35-230656-004-042
DATE	DECEMBER 2024
PM	KPG
DESIGNED BY	HJW
DRAWN BY	CSL
CHECKED BY	TBK

TITLE SHEET

C-001

SAVED 11/22/2024 4:03:07 PM BY CATHY.LINK
 PLOTTED 12/26/2024 10:18:22 AM BY BRADLEY HAYNES
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SAVED 12/19/2024 8:37:10 AM BY CATHY LINK
 PLOTTED 12/26/2024 10:19:09 AM BY BRADLEY HAYNES
 U:\WICHITA-CIVIL\2023\230656\002\2PD4_PLANS\030\WATER MAIN\230656-002-C-003.DWG



CONTROL SUMMARY
 HORIZONTAL DATUM/COORDINATE SYSTEM: KRCS ZONE 17 - WICHITA
 PROJECT COORDINATE SYSTEM: BROUGHT TO GROUND FROM DESCRIBED COORDINATE SYSTEM
 VERTICAL DATUM: NAVD 88
 SCALE POINT: NORTHING: EASTING:
 COMBINED ADJUSTMENT FACTOR (CAF): GROUND TO GRID=1.000000000
 GRID TO GROUND=1.000000000
 DISTANCE UNITS: US SURVEY FEET

BENCH MARKS
 BM-201
 ELEV: 1,344.96 (NAVD 88)
 DISC ON TOP OF WEST END OF NORTH HEADWALL 120' EAST OF 119TH STREET ON 31ST STREET

BM-202
 ELEV: 1,346.95 (NAVD 88)
 T-POST EAST SIDE 119TH STREET ACROSS FROM HOUSE #3001

BM-203
 ELEV: 1,334.46 (NAVD 88)
 X CUT ON SOUTH END OF 12" RCP WEST SIDE OF 119TH STREET

BM-204
 ELEV: 1,338.53 (NAVD 88)
 SQ CUT ON NW CORNER OF CURB INLET AT THE SW CORNER OF PAWNEE AND 119TH STREET

HORIZONTAL CONTROL POINTS
 CP-101
 N: 353,622.9170 E: 17,505,693.6891
 T-POST EAST SIDE OF 119TH STREET BELOW SURFACE
 1. 51.48' SSE TO RAILROAD SPIKE IN POWER POLE
 2. 72.3' SE TO BAUGHMAN BAR
 3. 21' W TO EAST EDGE OF 119TH STREET

CP-102
 N: 354,878.6433 E: 17,505,616.4091
 X CUT SOUTH END OF RCP ON WEST SIDE OF 119TH STREET
 1. 19' E TO WEST EDGE OF 119TH STREET
 2. 34.55' ESE TO SECTION CORNER
 3. 18.7' SW TO TOP CENTER 18" CONCRETE PILLAR SOUTH OF DRIVE

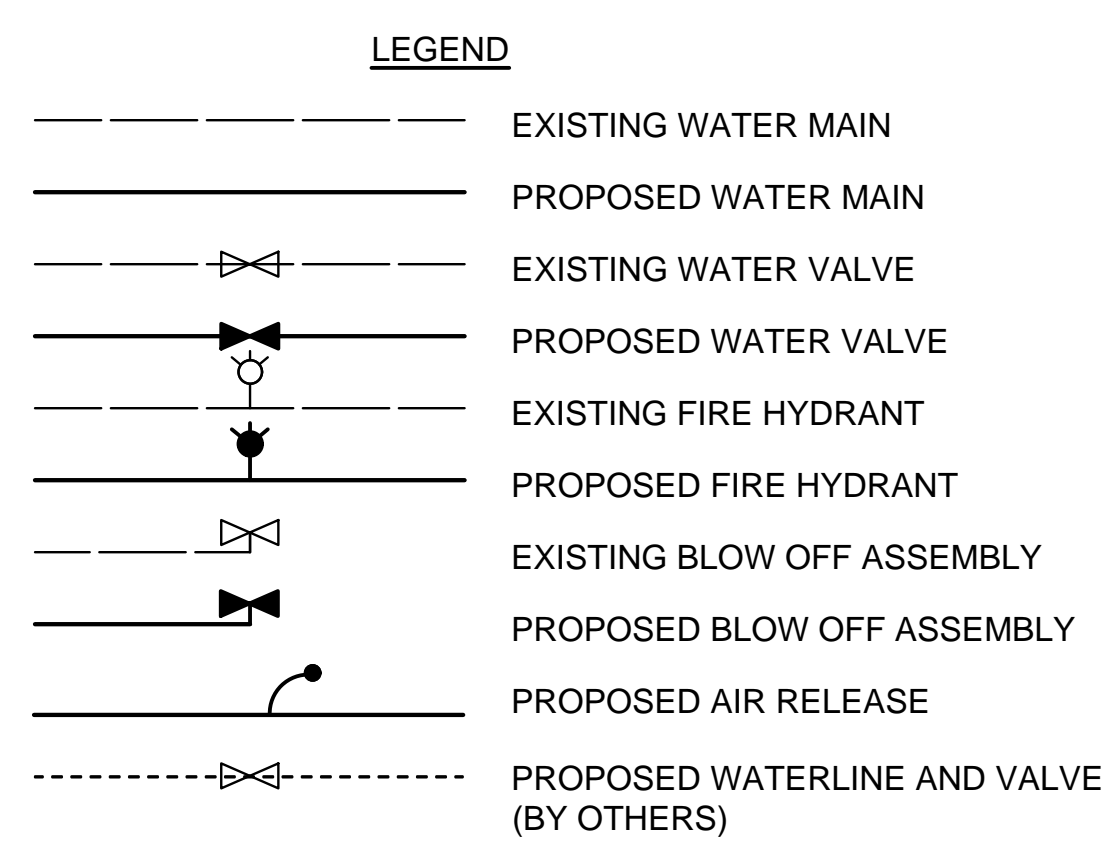
CP-103 BM-201 (NOT SHOWN)
 N: 357,424.9758 E: 17,505,497.3254
 1/2" BAR W/ CLSS8 TOPO CAP
 1. 10 SE TO NW CORNER OF CURB INLET
 2. 13.2 E TO BACK OF WEST CURB OF 119TH STREET
 3. 29.1 NW TO SE CORNER OF CONC PAD AROUND MANHOLE

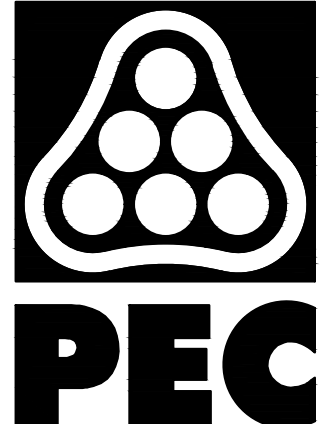
STREET CENTERLINE
COORDINATE LIST

POINT	NORTHING	EASTING
101	357,516.7125	17,505,541.4773
102	354,866.4041	17,505,648.7163
103	353,552.9871	17,505,659.7723


WATERLINE COORDINATES

ID	STATION	COORDINATES	DESCRIPTION
Fitting - (144)	WL LINE 1 9+96.6	N: 353,654.6216 E: 17,505,712.9222	AIR RELEASE ASSEMBLY
Fitting - (14)	WL LINE 1 10+00.0	N: 354,636.8295 E: 17,505,704.6547	16" X 8" TEE
Fitting - (98)	WM LINE 1 10+00.0	N: 357,454.0553 E: 17,505,608.1590	EXISTING BLOWOFF ASSEMBLY
Fitting - (119)	WM LINE 1 10+05.0	N: 357,449.0608 E: 17,505,608.0962	16" 45° RJ BEND
Fitting - (120)	WM LINE 1 10+12.3	N: 357,443.9154 E: 17,505,613.2884	16" 45° RJ BEND
Fitting - (123)	WM LINE 1 11+86.1	N: 357,270.2911 E: 17,505,620.3266	16" 11.25° RJ BEND
Fitting - (124)	WM LINE 1 12+47.9	N: 357,209.7327 E: 17,505,607.7692	16" 11.25° RJ BEND
Fitting - (82)	WM LINE 1 17+00.0	N: 356,758.0271 E: 17,505,626.0801	FIRE HYDRANT ASSEMBLY
Fitting - (125)	WM LINE 1 19+80.0	N: 356,478.2569 E: 17,505,637.4212	AIR RELEASE ASSEMBLY
Fitting - (81)	WM LINE 1 24+00.0	N: 356,058.6015 E: 17,505,654.4328	FIRE HYDRANT ASSEMBLY
Fitting - (80)	WM LINE 1 31+00.0	N: 355,359.1760 E: 17,505,682.7856	FIRE HYDRANT ASSEMBLY
Fitting - (130)	WM LINE 1 35+90.0	N: 354,869.5781 E: 17,505,702.6325	HORIZ. DEFLECTION
Fitting - (78)	WM LINE 1 38+00.0	N: 354,659.5860 E: 17,505,704.4602	FIRE HYDRANT ASSEMBLY
Fitting - (54)	WM LINE 1 47+78.3	N: 353,681.3238 E: 17,505,712.6974	16" X 8" TEE
Fitting - (96)	WM LINE 1 48+00.0	N: 353,659.6215 E: 17,505,712.8801	FIRE HYDRANT ASSEMBLY
Fitting - (97)	WM LINE 1 49+03.0	N: 353,556.6247 E: 17,505,713.7474	BLOWOFF ASSEMBLY

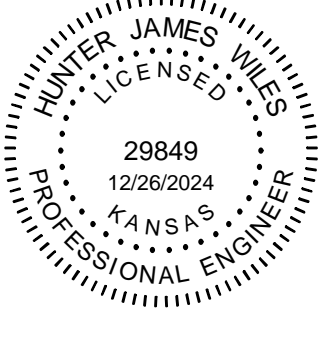




PEC
 PROFESSIONAL ENGINEERING CONSULTANTS
 303 SOUTH TOPEKA
 WICHITA, KS 67202
 316-262-2691 www.pec1.com



CITY OF WICHITA



HUNTER JAMES WILES
 LICENSED
 29849
 12/26/2024
 KANSAS
 PROFESSIONAL ENGINEER

**16" WATER MAIN EXTENSION
 ALONG S 119TH STREET W
 (FROM PAWNEE ROAD TO
 APPROXIMATELY 3/4 MILES SOUTH)**

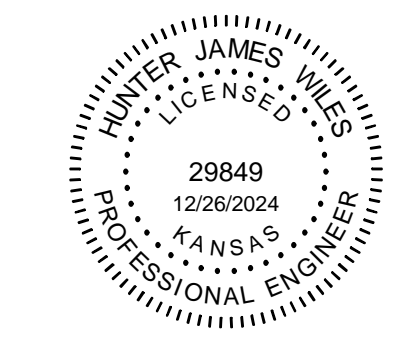
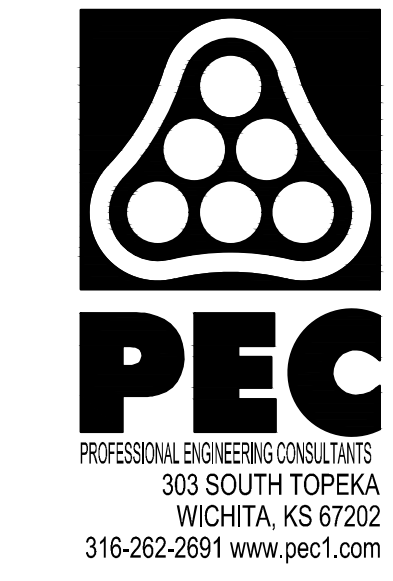
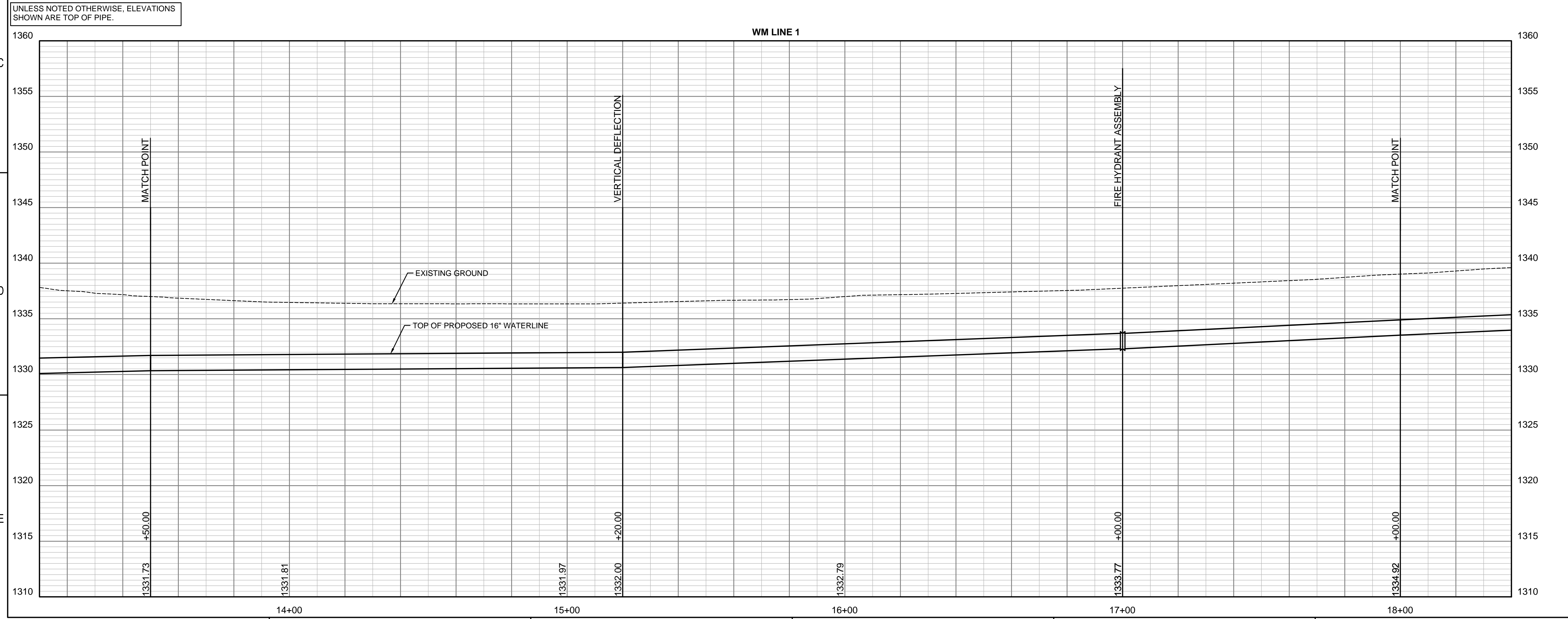
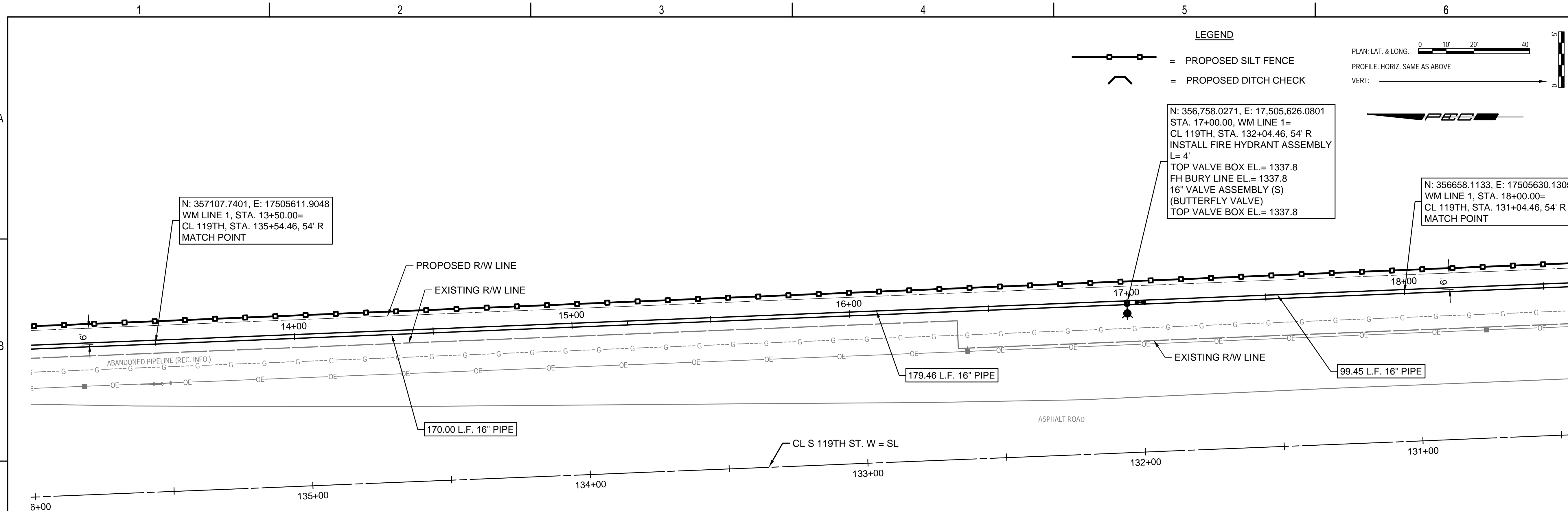
CITY OF WICHITA, KANSAS
 PAUL GUNZELMAN, P.E. - CITY ENGINEER
 CITY OF WICHITA PROJECT NO. 448-2024-026409

Issue:	
JOB NO.	35-230656-004-042
DATE	DECEMBER 2024
PM	KPG
DESIGNED BY	HJW
DRAWN BY	CSL
CHECKED BY	TBK
KEY MAP AND BUBBLE MAP	

C-003

NOTE: WATERLINE VALVES TO BE OPERATED BY CONTRACTOR ONLY IF WATER DEPARTMENT REPRESENTATIVE IS ON SITE.

SAVED 10/10/2024 4:31:14 PM BY CATHY.LINK
 PLOTTED 12/26/2024 10:21:10 AM BY BRADLEY.HAYNES
 U:\WICHITA-CIVIL\2023\230656\002\2PD4_PLANS\030\WATER MAIN\230656-002-CU102.DWG



**16" WATER MAIN EXTENSION
 ALONG S 119TH STREET W
 (FROM PAWNEE ROAD TO
 APPROXIMATELY 3/4 MILES SOUTH)**
 CITY OF WICHITA, KANSAS
 PAUL GUNZELMAN, P.E.-CITY ENGINEER
 CITY OF WICHITA PROJECT NO. 448-2024-026409

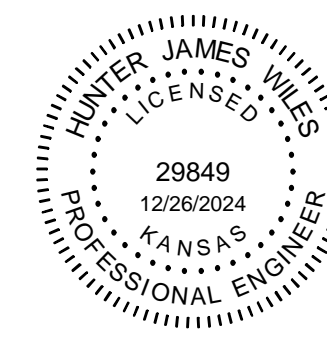
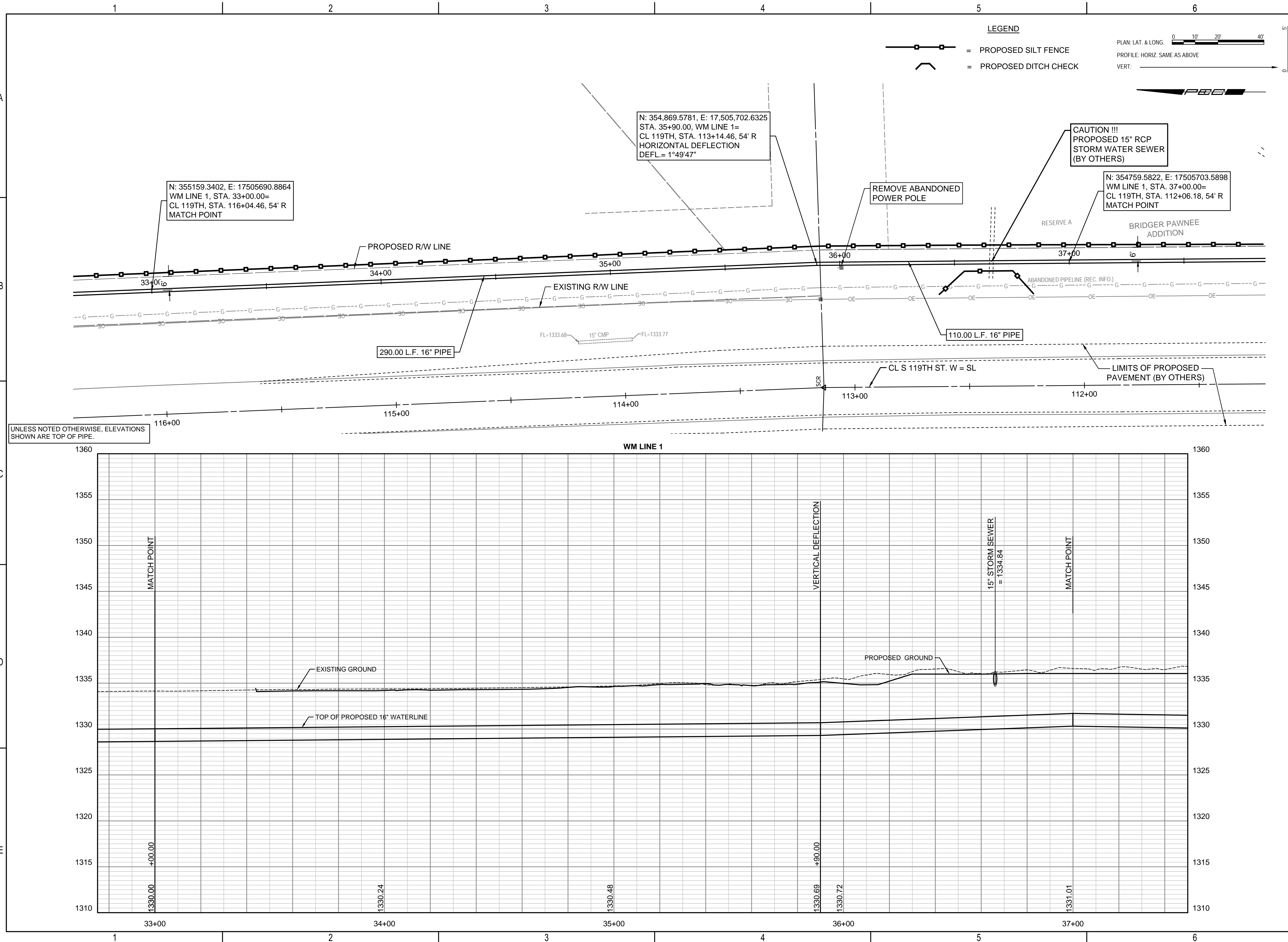
Issue:	

JOB NO.	35-230656-004-042
DATE	DECEMBER 2024
PM	KPG
DESIGNED BY	HJW
DRAWN BY	CSL
CHECKED BY	TBK

WATERLINE NO. 1

CU102

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**16" WATER MAIN EXTENSION
 ALONG S 119TH STREET W
 (FROM PAWNEE ROAD TO
 APPROXIMATELY 3/4 MILES SOUTH)**

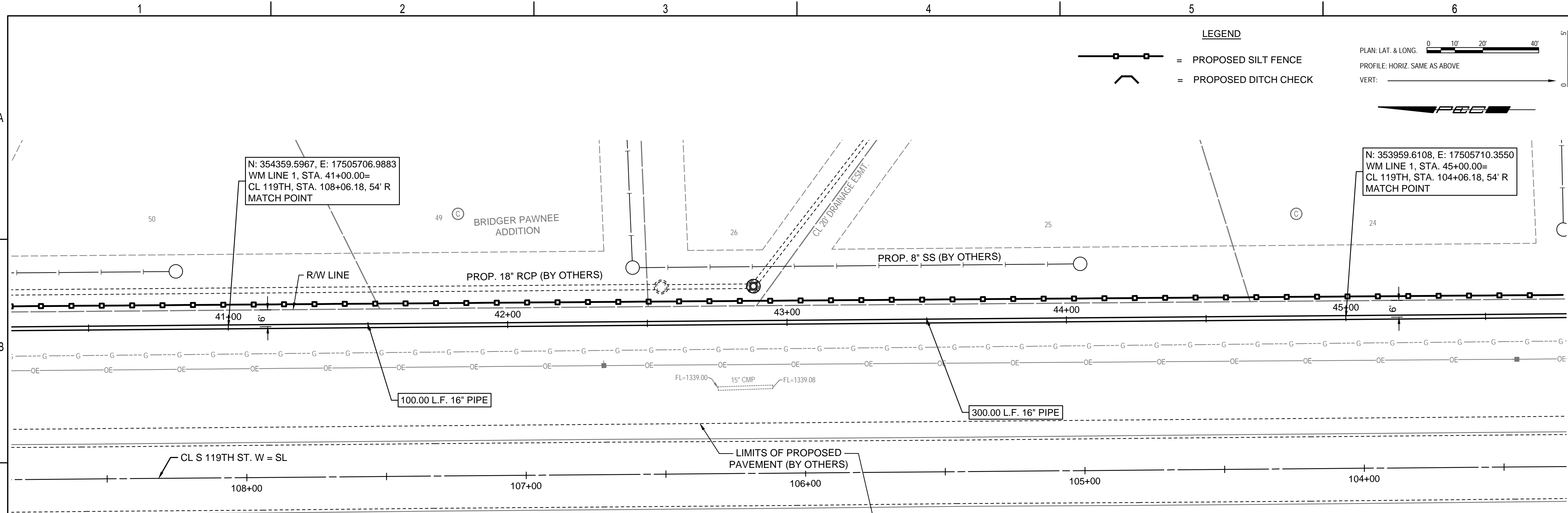
CITY OF WICHITA, KANSAS
 PAUL GUNZELMAN, P.E. - CITY ENGINEER
 CITY OF WICHITA PROJECT NO. 448-2024-026409

Issue:	
JOB NO.	35-230656-004-042
DATE	DECEMBER 2024
PM	KPG
DESIGNED BY	HJW
DRAWN BY	CSL
CHECKED BY	TBK

WATERLINE NO. 1

CU106

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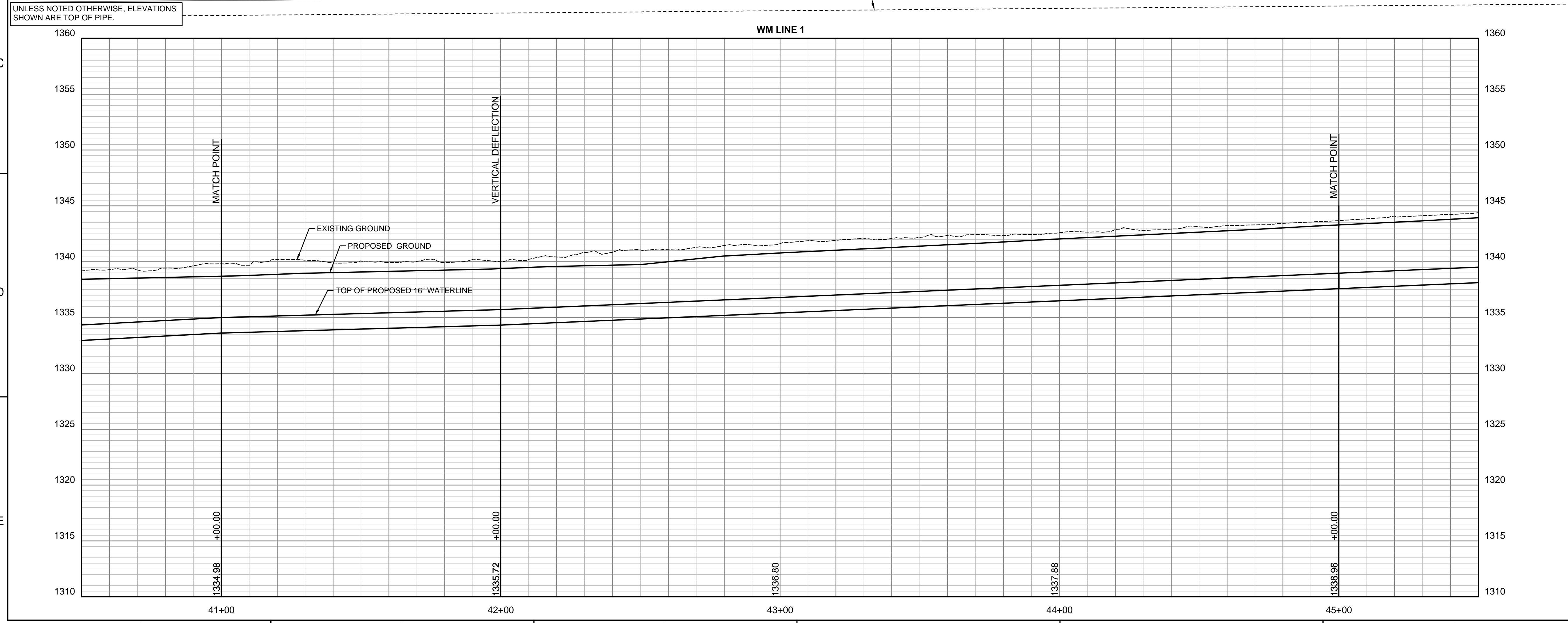
LEGEND

- = PROPOSED SILTY FENCE
- = PROPOSED DITCH CHECK

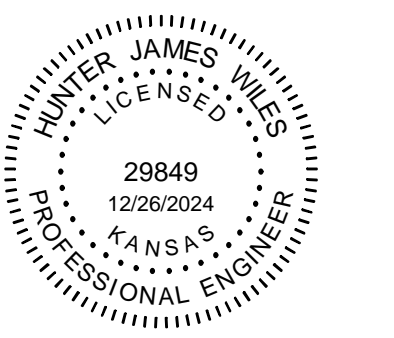
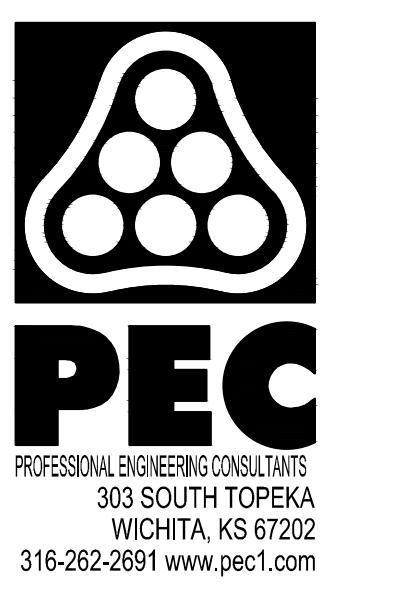
PLAN: LAT. & LONG.
 PROFILE: HORIZ. SAME AS ABOVE
 VERT:

N: 354359.5967, E: 17505706.9883
 WM LINE 1, STA. 41+00.00=
 CL 119TH, STA. 108+06.18, 54' R
 MATCH POINT

N: 353959.6108, E: 17505710.3550
 WM LINE 1, STA. 45+00.00=
 CL 119TH, STA. 104+06.18, 54' R
 MATCH POINT



UNLESS NOTED OTHERWISE, ELEVATIONS
 SHOWN ARE TOP OF PIPE.



**16" WATER MAIN EXTENSION
 ALONG S 119TH STREET W
 (FROM PAWNEE ROAD TO
 APPROXIMATELY 3/4 MILES SOUTH)**
 CITY OF WICHITA, KANSAS
 PAUL GUNZELMAN, P.E. - CITY ENGINEER
 CITY OF WICHITA PROJECT NO. 448-2024-026409

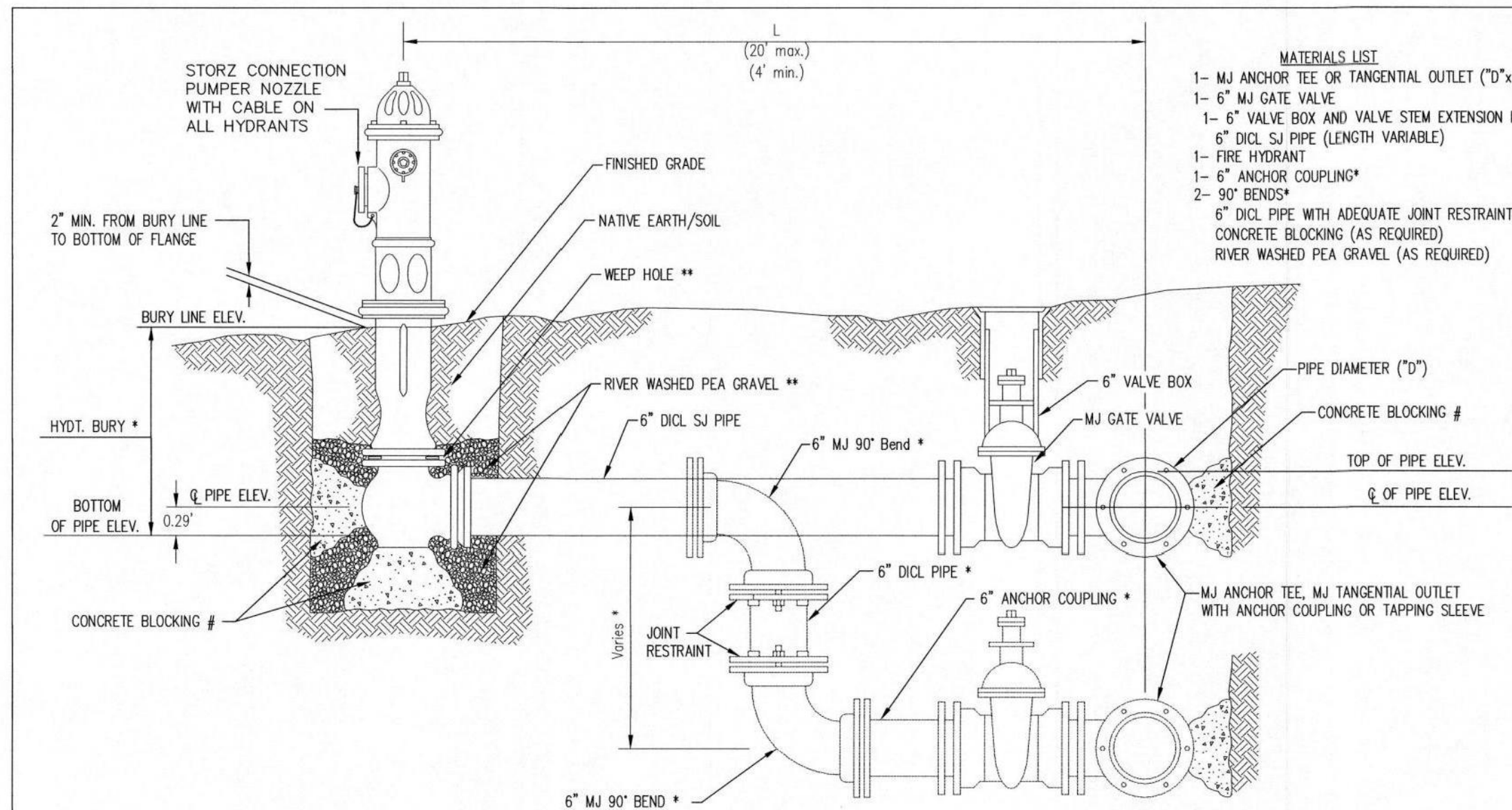
Issue:	

JOB NO.	35-230656-004-042
DATE	DECEMBER 2024
PM	KPG
DESIGNED BY	HJW
DRAWN BY	CSL
CHECKED BY	TBK

WATERLINE NO. 1

CU108

SAVED 9/18/2024 9:50:21 AM BY HUNTER WILES
 PLOTTED 12/26/2024 10:28:28 AM BY BRADLEY HAYNES
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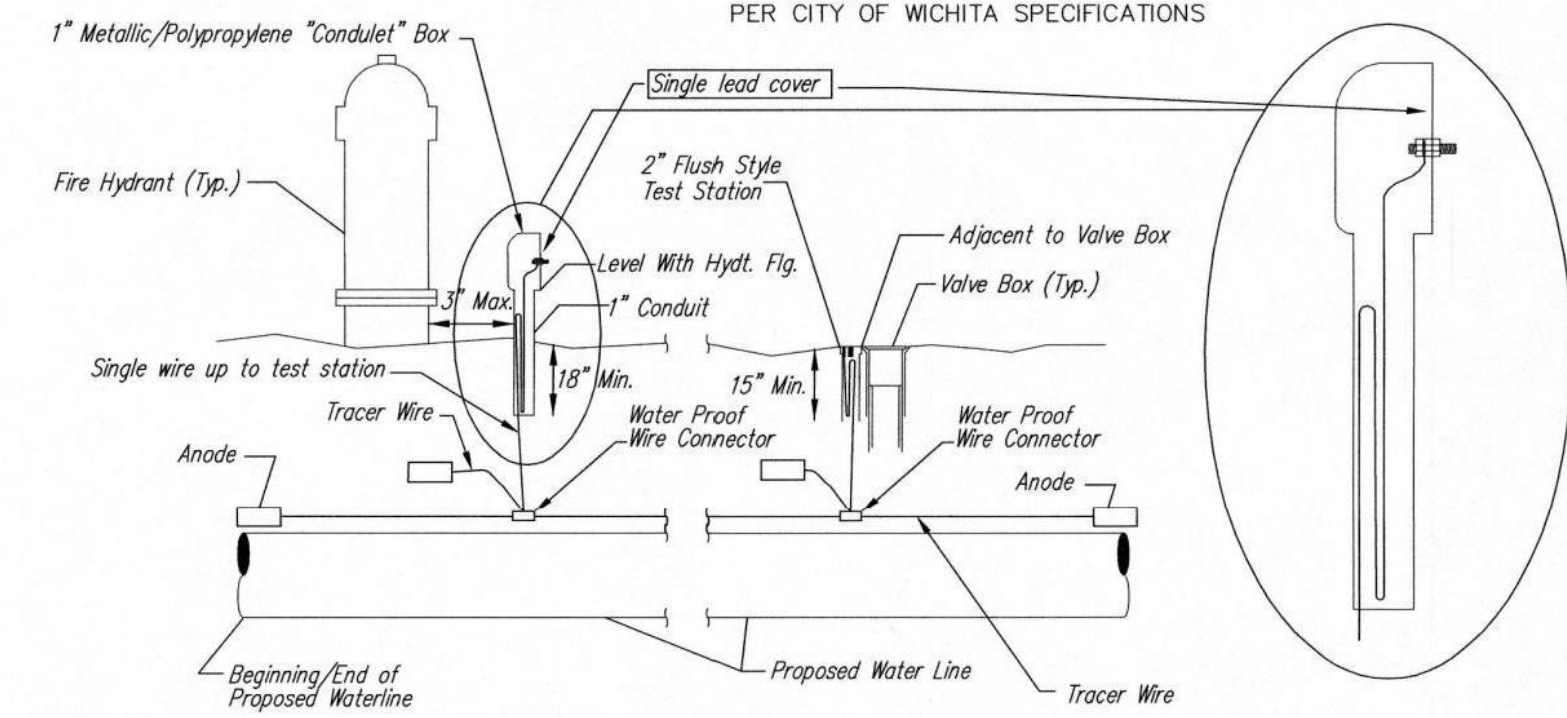
- MATERIALS LIST**
- 1- MJ ANCHOR TEE OR TANGENTIAL OUTLET ("D" x 6")
 - 1- 6" MJ GATE VALVE
 - 1- 6" VALVE BOX AND VALVE STEM EXTENSION IF REQUIRED *
 - 6" DI CL SJ PIPE (LENGTH VARIABLE)
 - 1- FIRE HYDRANT
 - 1- 6" ANCHOR COUPLING*
 - 2- 90° BENDS*
 - 6" DI CL PIPE WITH ADEQUATE JOINT RESTRAINT *
 - 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



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.

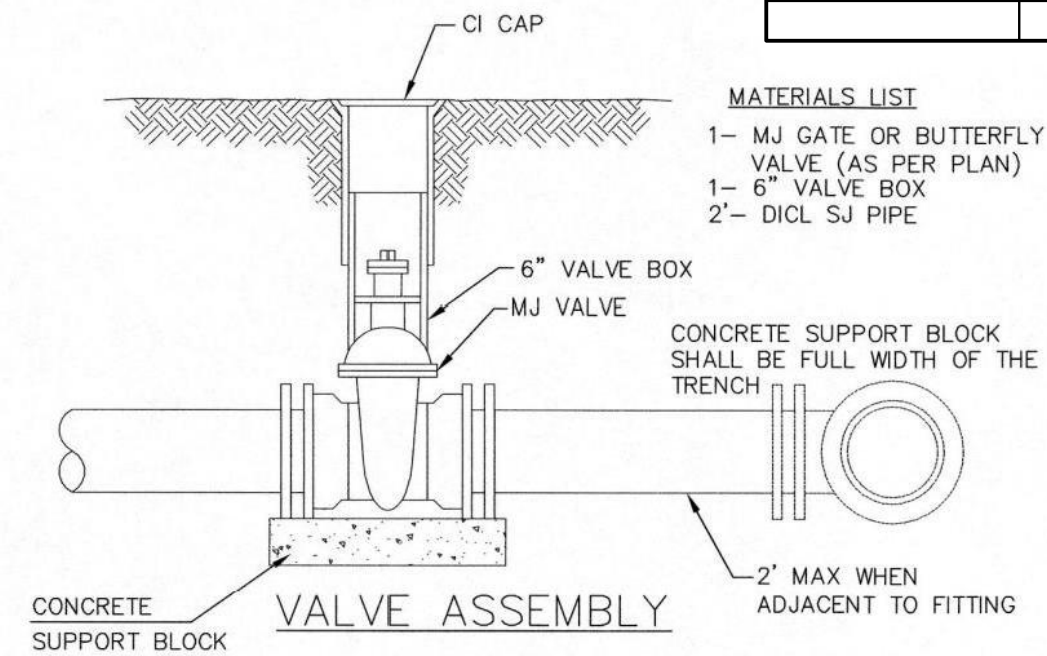
TEST STATIONS
The test station for fire hydrant application shall be a 1" "condulet" style station as manufactured by AGRA Industries with a removable solid cover having a single lead extending from the face or approved equal. The "conduit" style test station shall be attached to a 1" rigid galvanized 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 # 12PH7B1LP Handley Industries or CD14*TP 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.

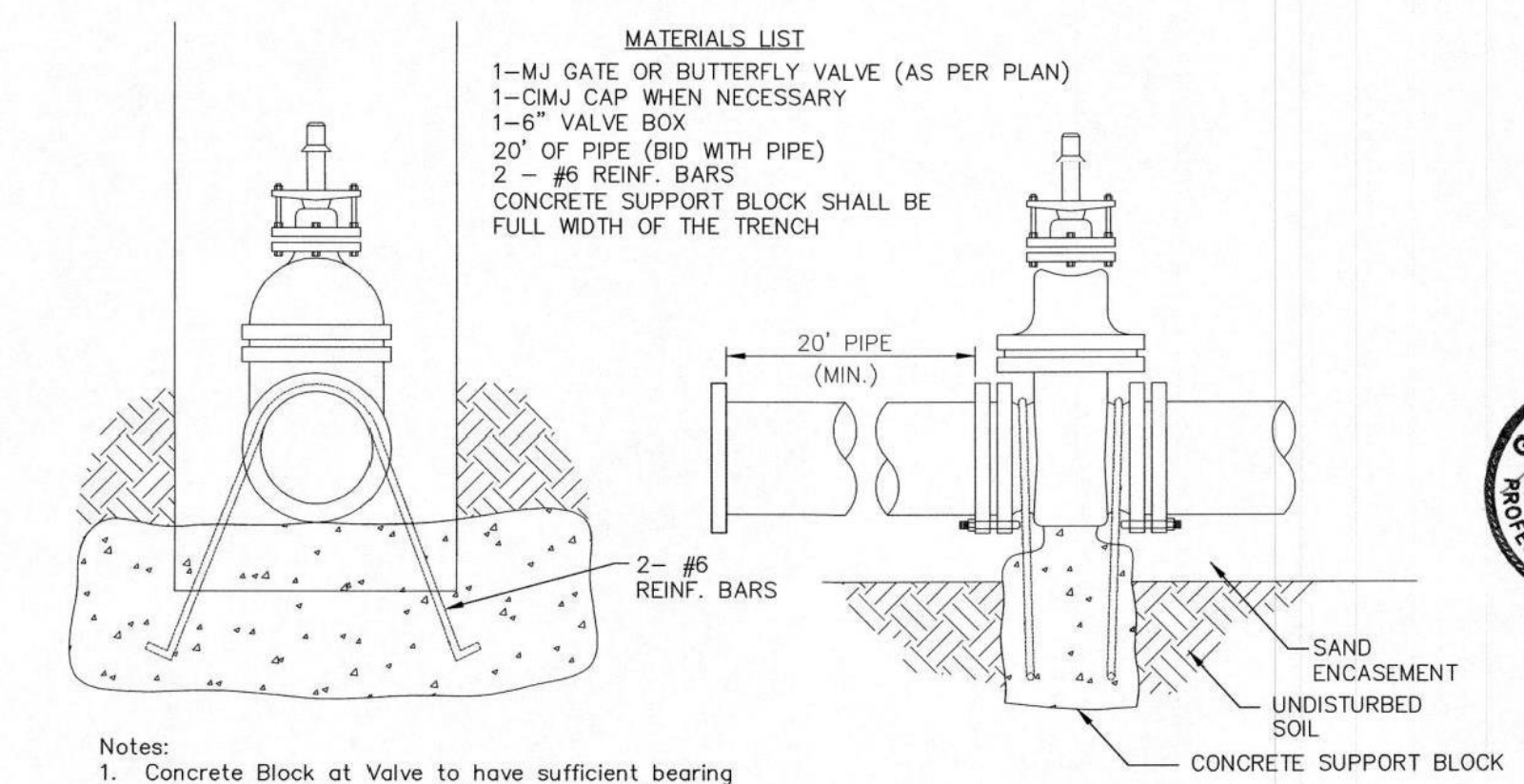
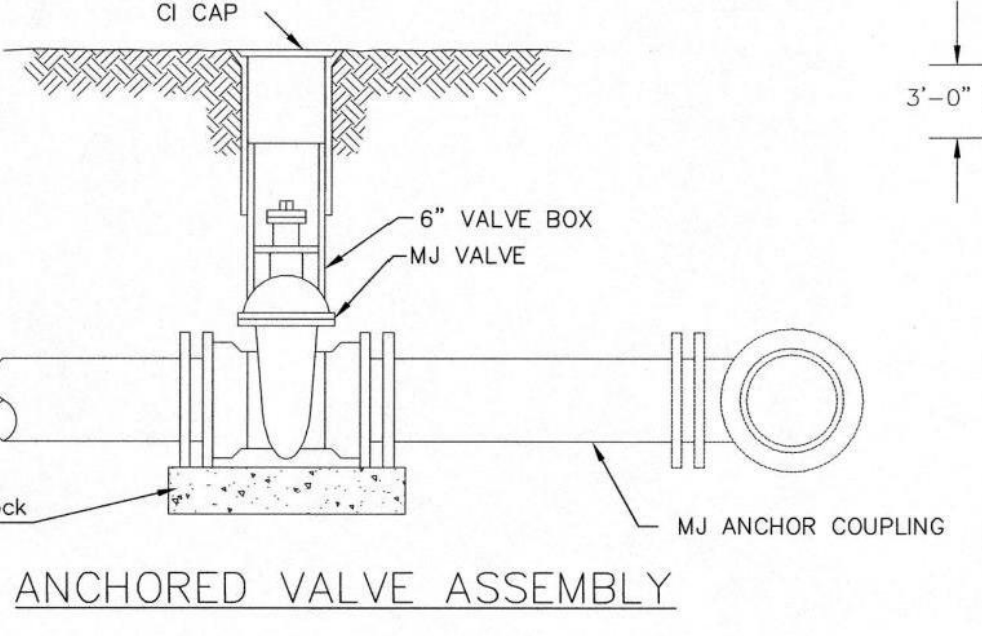
TRACER WIRE DETAIL
COST IS SUBSIDIARY TO PIPE INSTALLATION

FIRE HYDRANTS REQUIRED

STATION	BURY LINE ELEVATION	TOP OF PIPE ELEVATION	FIRE HYDRANT BURY REQUIRED*	VALVE STEM EXT. REQUIRED (ft)*
17+00.00	1337.8	1333.77	4.5'	
24+00.00	1337.4	1333.00	5.0'	
31+00.00	1334.0	1329.60	5.0'	
38+10.00	1337.2	1332.94	5.0'	
48+00.00	1346.6	1342.50	5.0'	



- 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

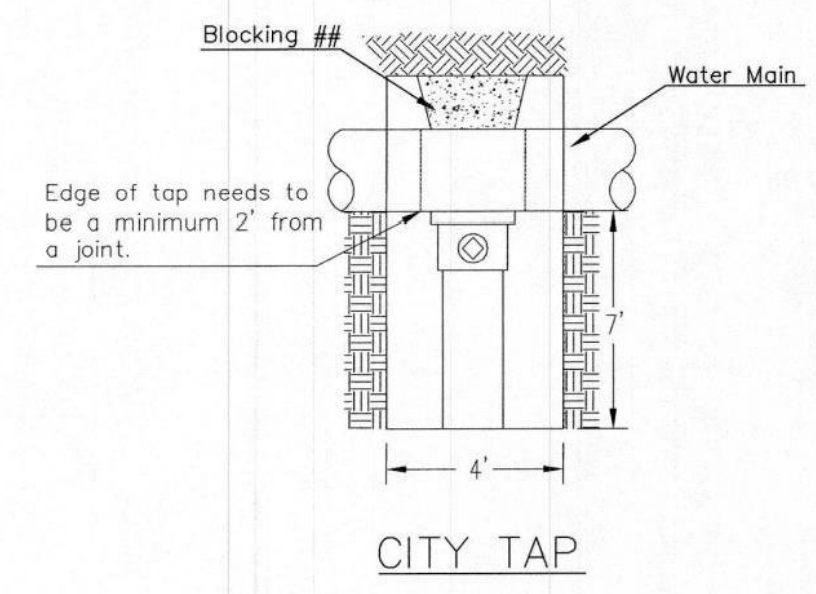


- Notes:**
- Concrete Block at Valve to have sufficient bearing in undisturbed soil to prevent thrust movement as shown in table at right. Field Engineer to determine thrust loading of undisturbed soil and final size of thrust block.
 - The thrust block shall be constructed such that bolts, nuts, and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

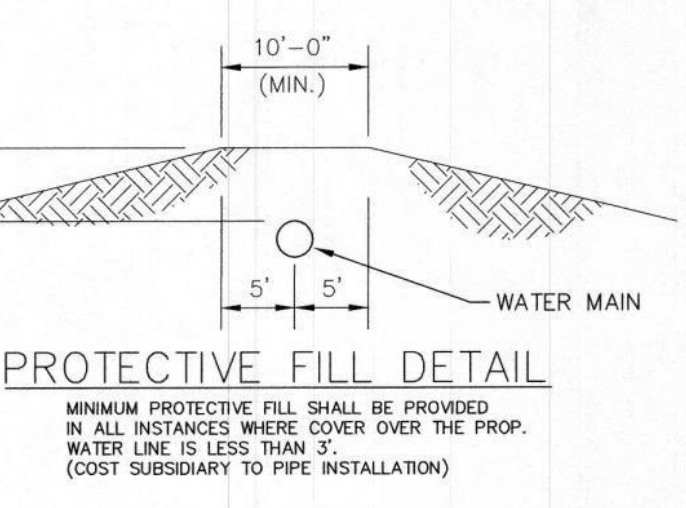
THRUST AT VALVES

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

ANCHORED VALVE ASSEMBLY, SPECIAL

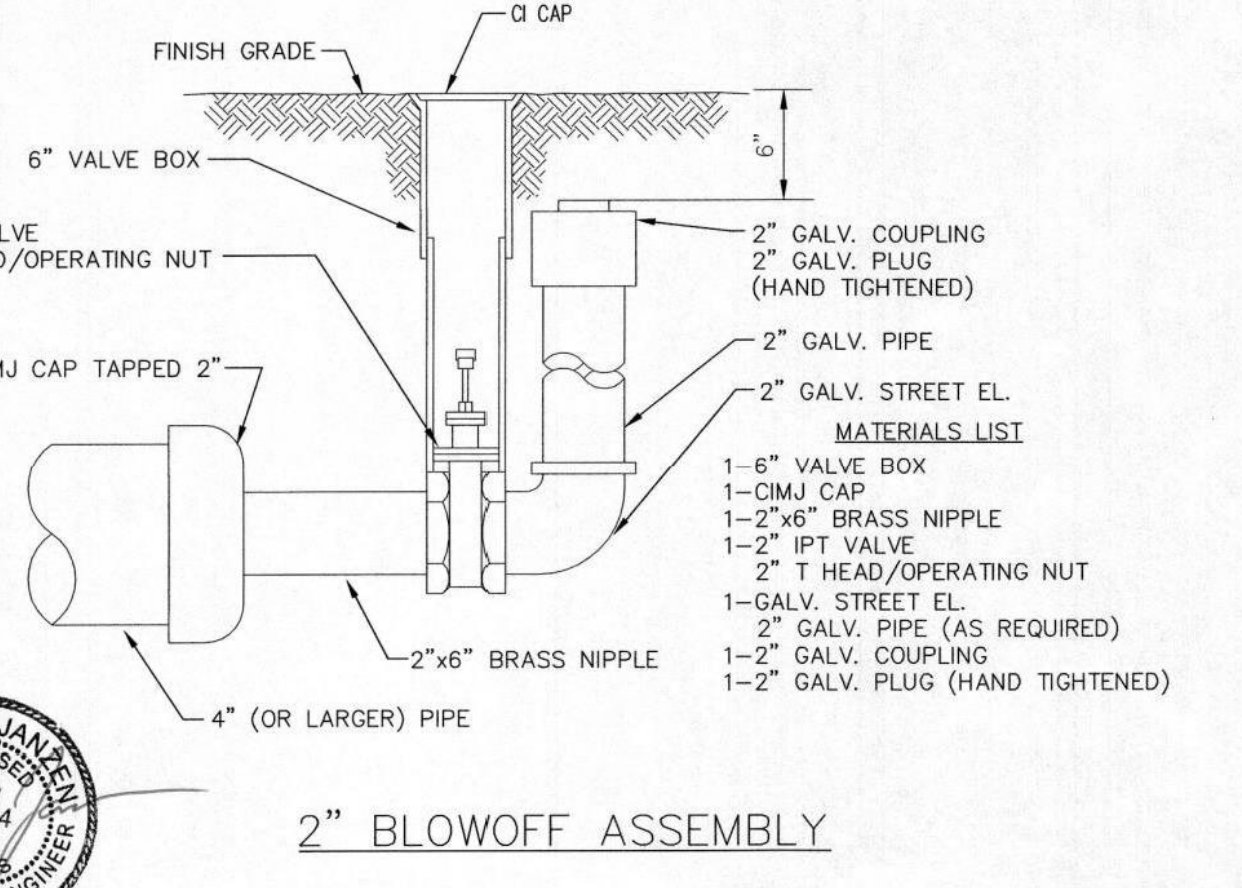


- MATERIALS LIST**
- 1- MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
 - 1- 6" VALVE BOX
 - 2- DI CL SJ PIPE

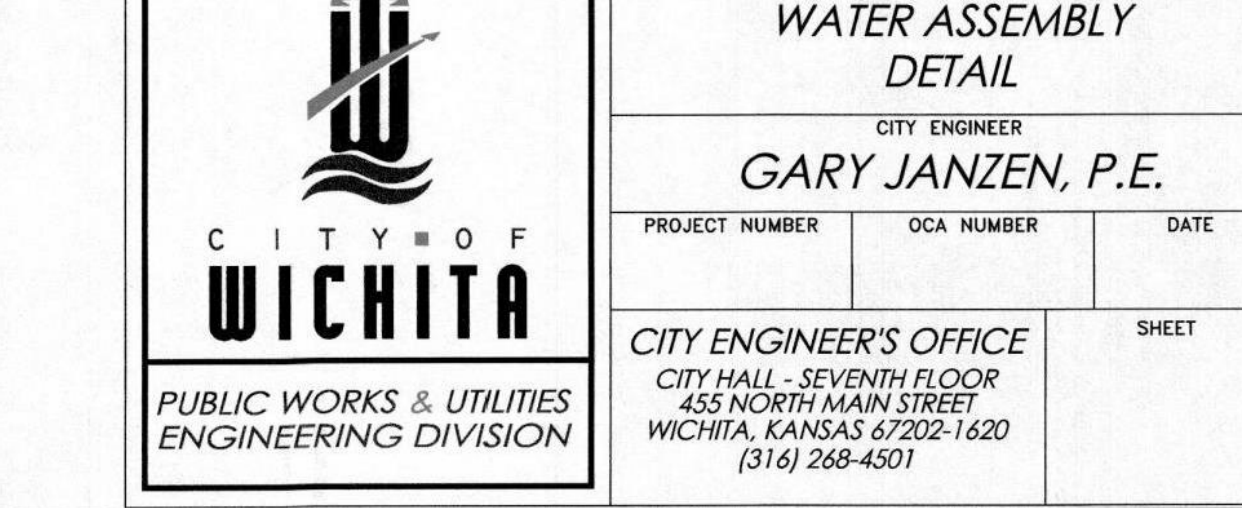


PROTECTIVE FILL DETAIL

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)



- MATERIALS LIST**
- 1- 6" VALVE BOX
 - 1- CI MJ CAP
 - 1- 2"x6" BRASS NIPPLE
 - 1- 2" IPT VALVE
 - 1- 2" T HEAD/OPERATING NUT
 - 1- GALV. STREET EL.
 - 2" GALV. PIPE (AS REQUIRED)
 - 1- 2" GALV. COUPLING
 - 1- 2" GALV. PLUG (HAND TIGHTENED)



STANDARD WATER ASSEMBLY DETAIL
CITY ENGINEER
GARY JANZEN, P.E.

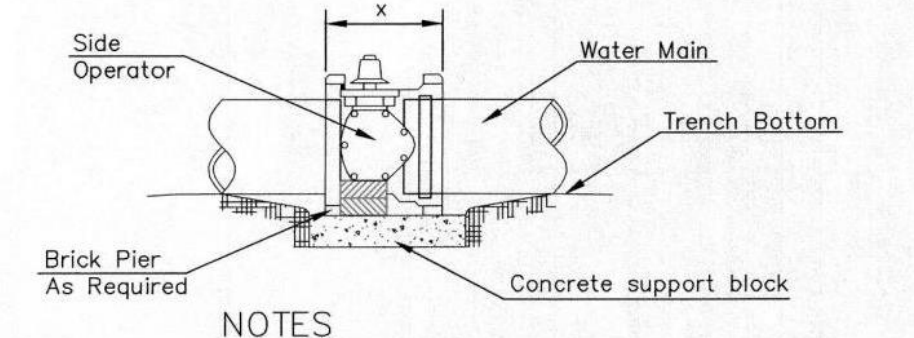
CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

GARY L. JAMES
LICENSED PROFESSIONAL ENGINEER
KANSAS
16284
10/27/16

REVISOR: OCTOBER 2016

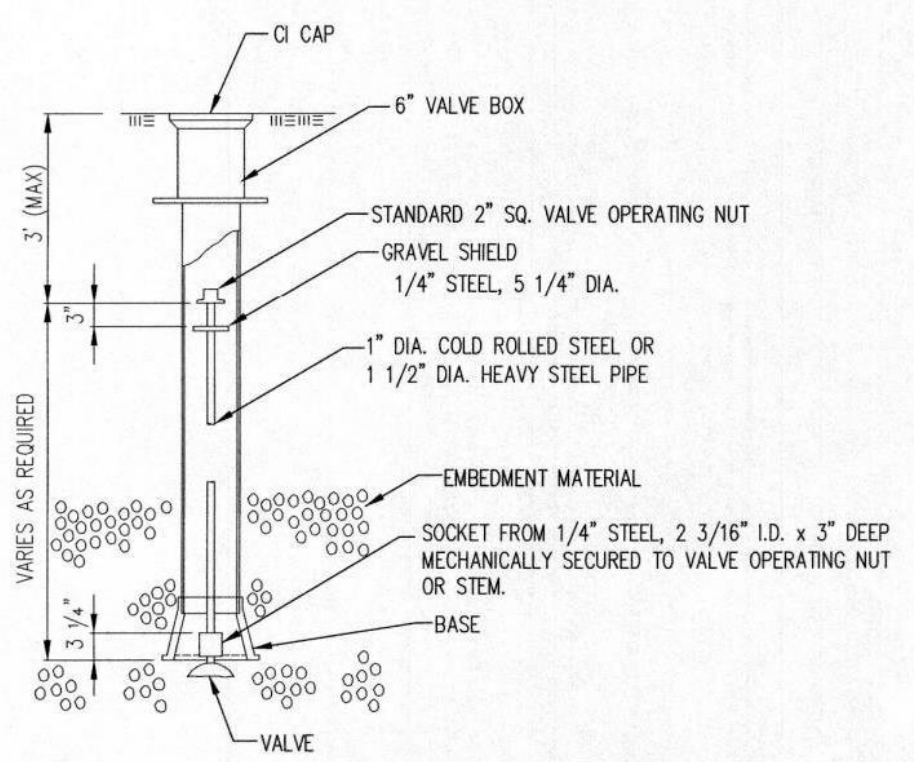
PROJECT NUMBER: [] OCA NUMBER: [] DATE: [] SHEET: []

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



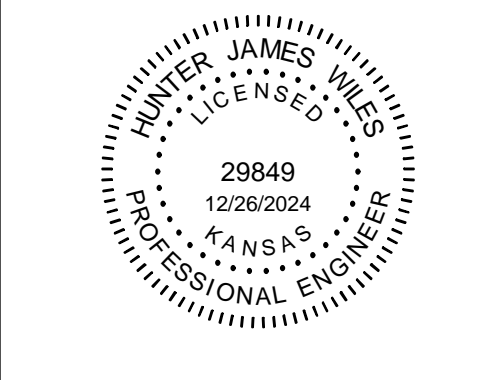
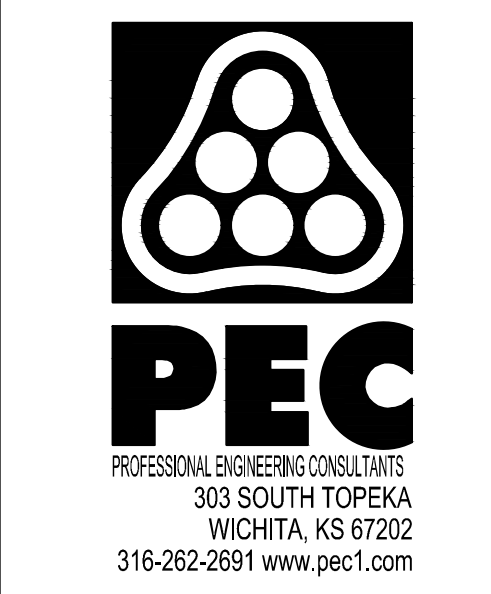
- NOTES**
- This detail covers Butterfly Valve installation, inclusive, regardless of type of pipe or joint used. 24" and larger lines to be detailed on plans.
 - 6" Valve Box and Cover required per City of Wichita Std. Specifications.
 - Conc. Support Block to be full width of trench.

CONCRETE SUPPORT BLOCKING FOR BUTTERFLY VALVE INSTALLATION



VALVE STEM EXTENSION DETAIL

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



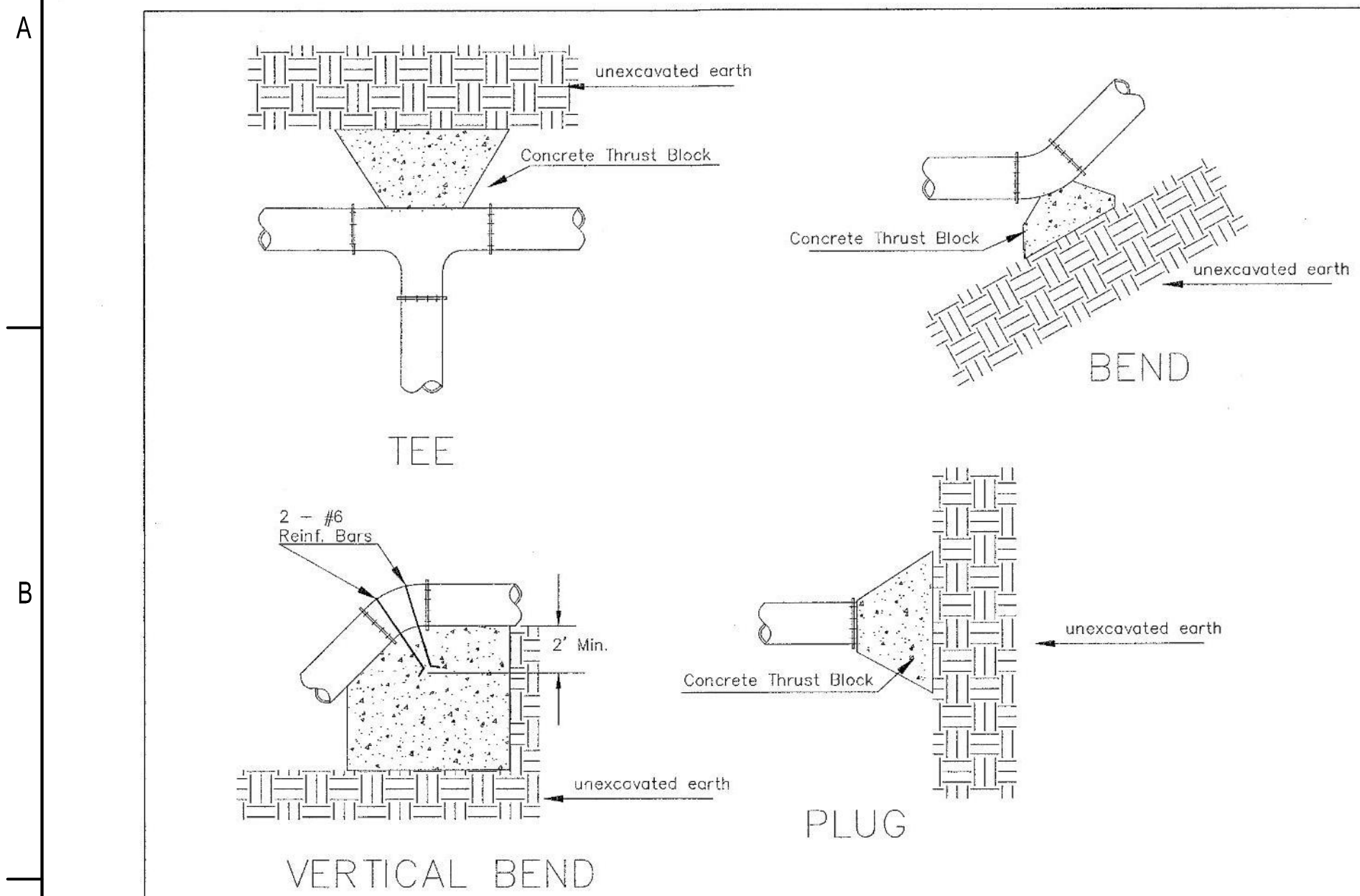
WATERLINE IMPROVEMENTS TO SERVE
BRIDGER PAWNEE ADDITION
 CITY OF WICHITA, KANSAS
 PAUL GUNZELMAN, P.E. - CITY ENGINEER
 CITY OF WICHITA PROJECT NO. 448-2024-016899

Issue:		
JOB NO.	35-230656-004-042	
DATE	DECEMBER 2024	
PM	KPG	
DESIGNED BY	HJW	
DRAWN BY	CSL	
CHECKED BY	TBK	

STANDARD WATER ASSEMBLY

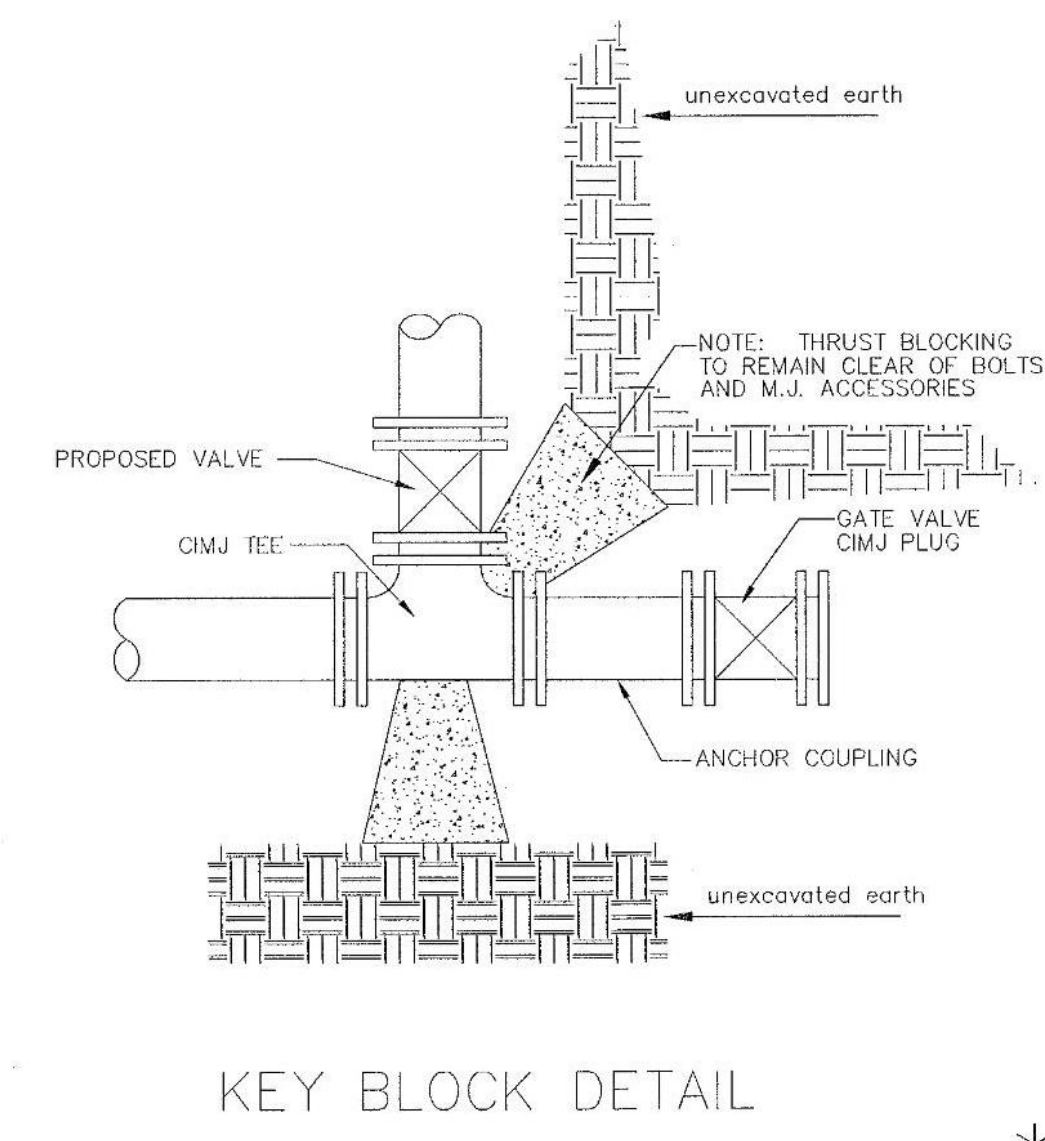
CU501

WL-101

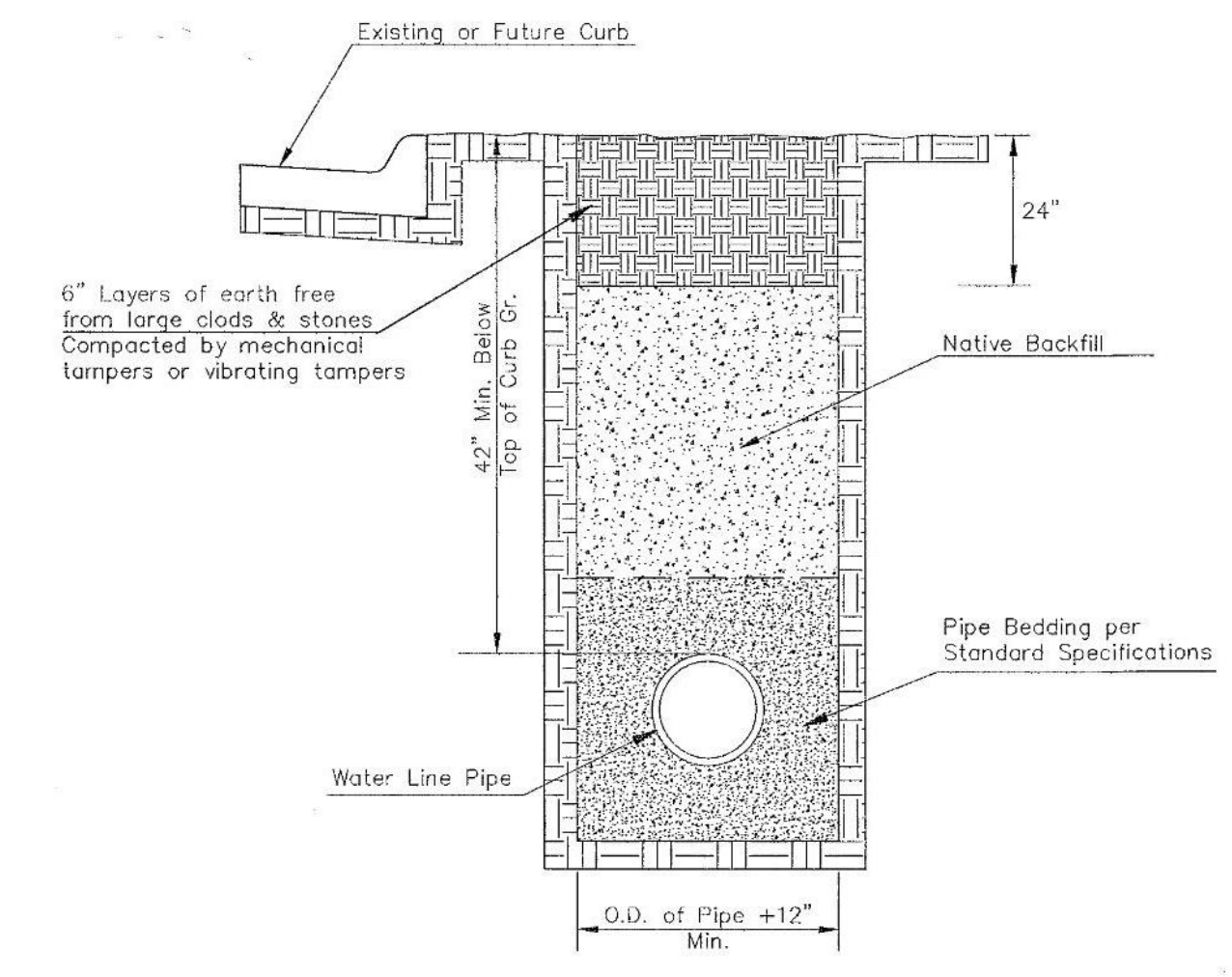


PIPE SIZE	THRUST AT FITTINGS IN TONS - AT 150#/IN ² P					
	PLUG	90°	45°	22 1/2°	11 1/4°	TEE
6"	2.8	3.95	2.15	1.09	.55	2.8
8"	4.9	6.95	3.75	1.90	.96	4.9
12"	11.4	16.1	8.75	4.45	2.25	11.4
16"	20.15	28.5	15.4	7.85	3.95	20.15
20"	31.15	44.0	23.85	12.15	6.10	31.15
24"	44.55	63.0	34.1	17.4	8.75	44.55

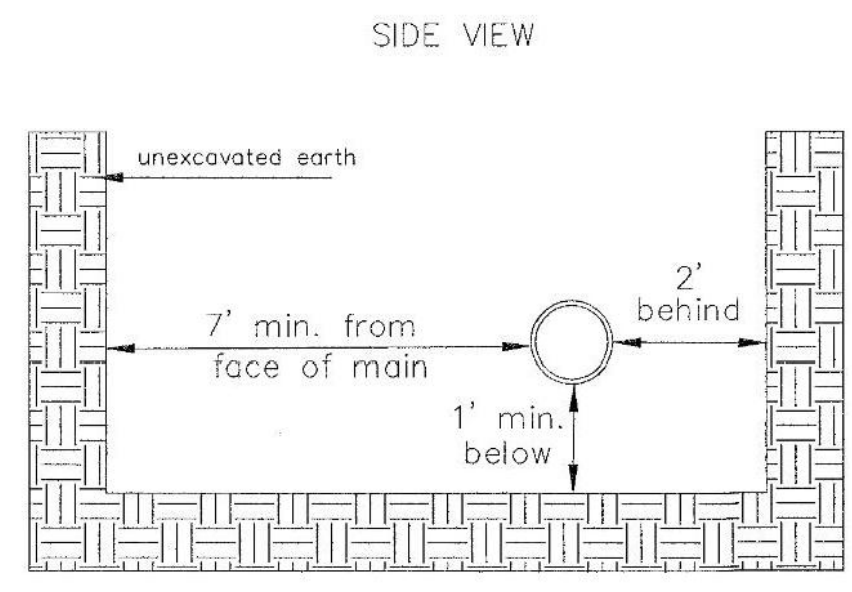
TYPICAL THRUST BLOCKS



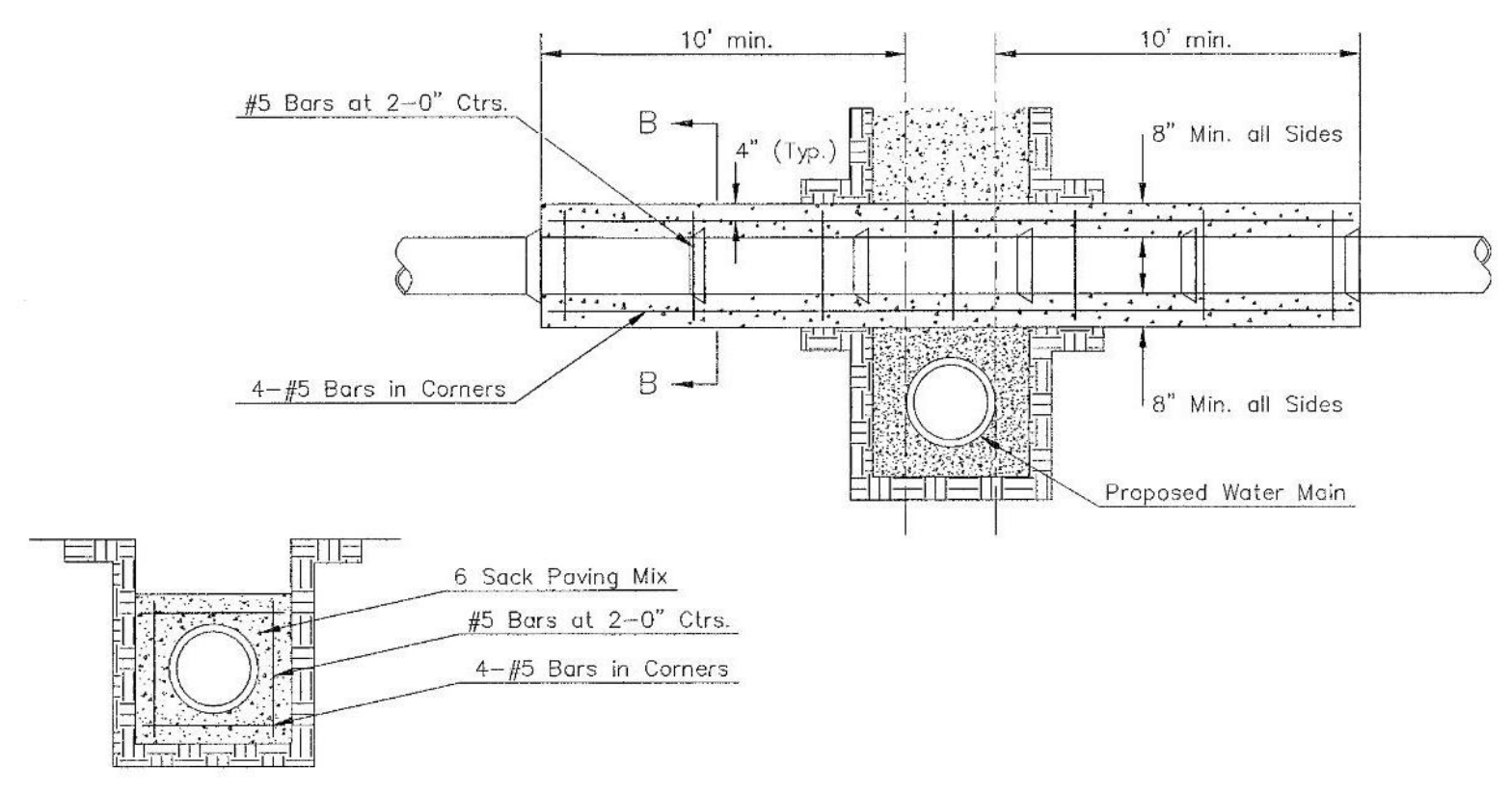
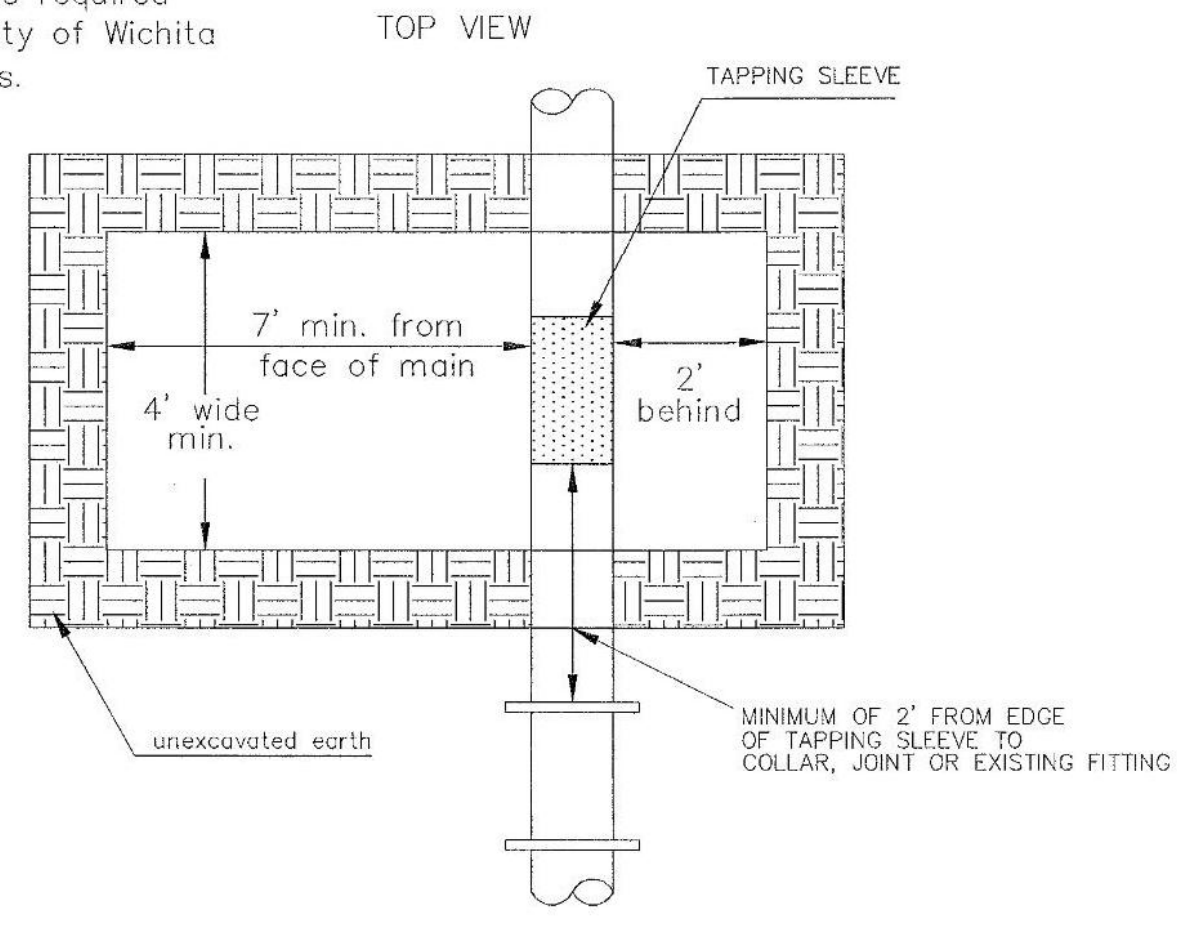
* PLANS GOVERN
UNLESS OTHERWISE NOTED ON PLANS



TRENCH COMPACTION IN ROAD RIGHT-OF-WAY



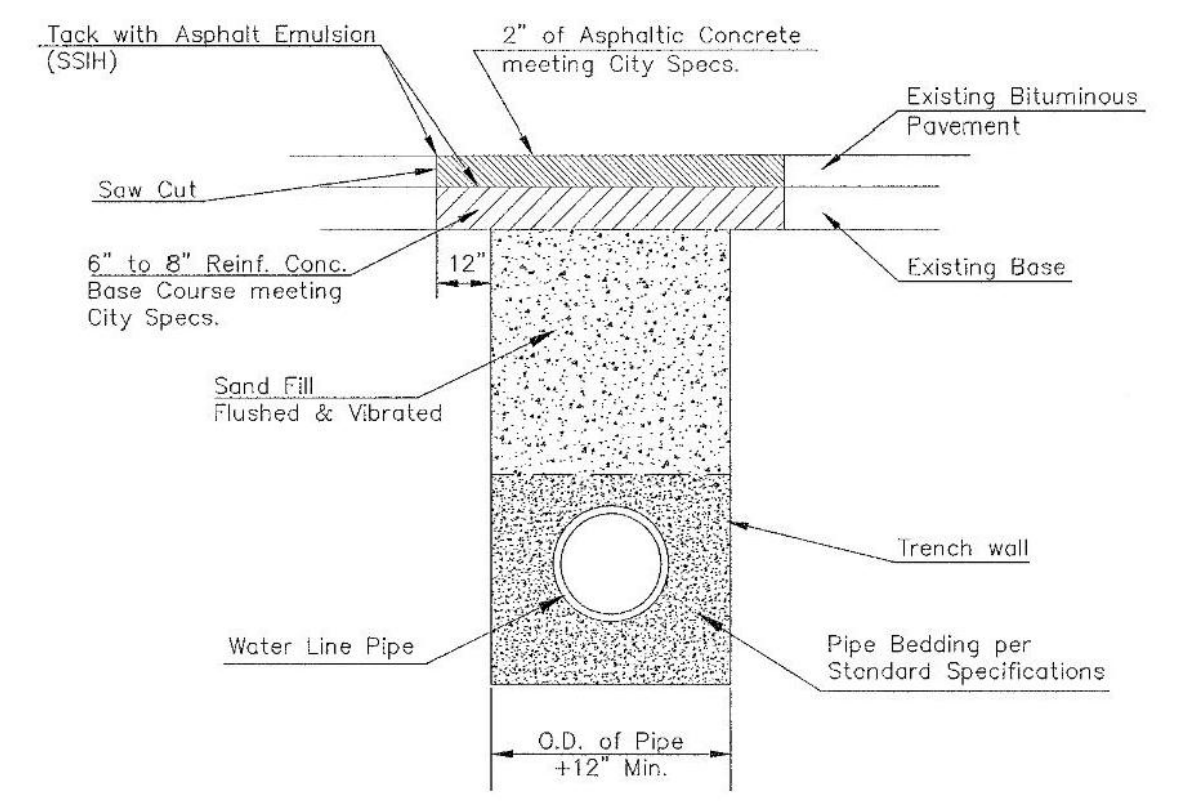
Note: When shoring is required it is to be per The City of Wichita Standard Specifications.



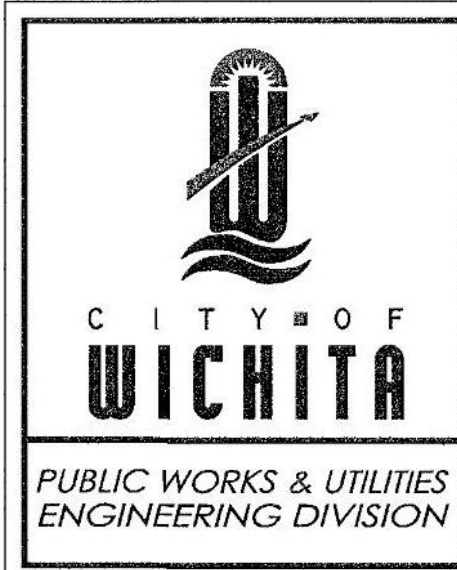
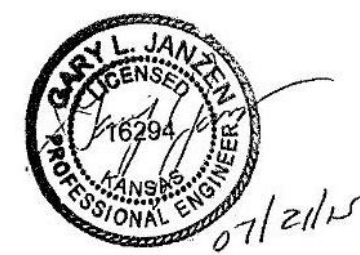
Note: Encasement to begin and end at a Bell on Sanitary Sewer Pipe.

SECTION B-B

REINFORCED CONCRETE ENCASEMENT OF SANITARY SEWER



PAVEMENT REPLACEMENT & TRENCH COMPACTION UNDER EXISTING AND PROPOSED CITY ROADS



MISCELLANEOUS WATER DETAILS

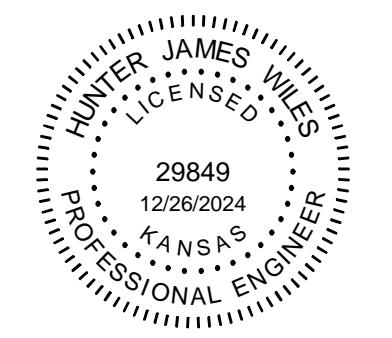
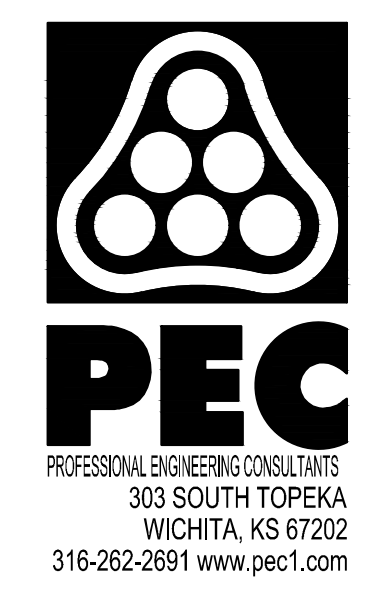
CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE

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

SHEET

WL-104



WATERLINE IMPROVEMENTS TO SERVE
BRIDGER PAWNEE ADDITION
CITY OF WICHITA, KANSAS
PAUL GUNZELMAN, P.E. - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 448-2024-016899

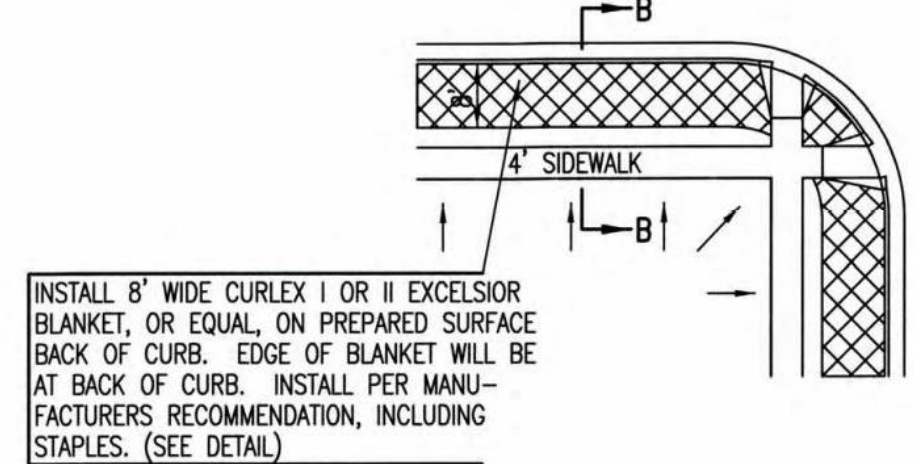
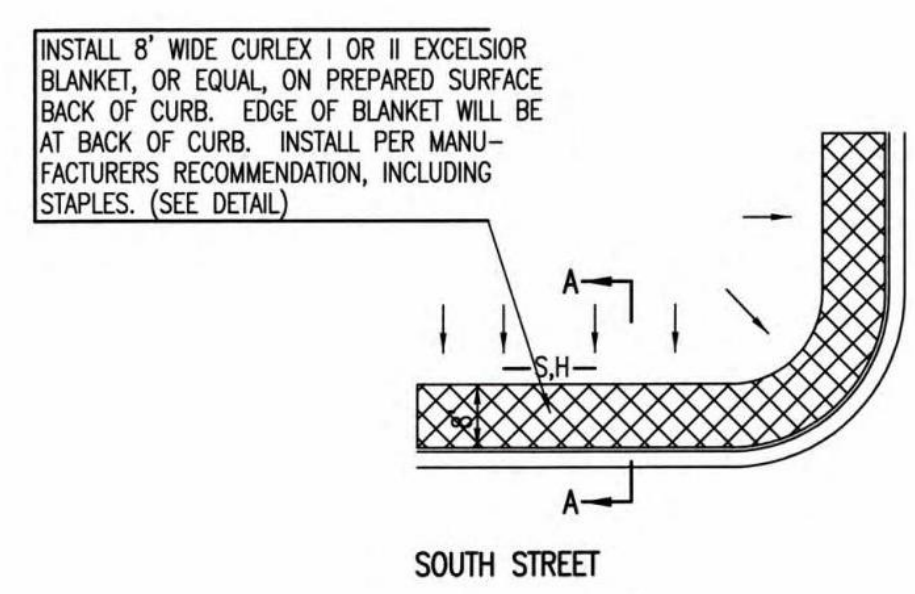
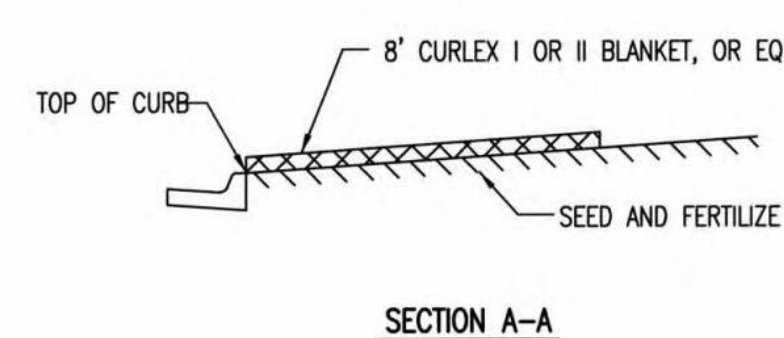
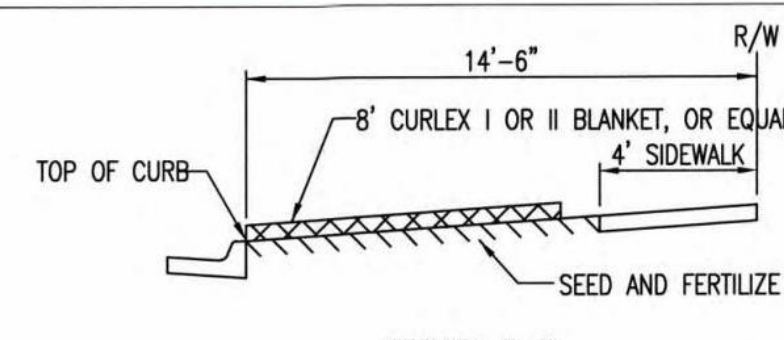
Issue:	
JOB NO.	35-230656-004-042
DATE	DECEMBER 2024
PM	KPG
DESIGNED BY	HJW
DRAWN BY	CSL
CHECKED BY	TBK

MISCELLANEOUS WATER DETAILS

CU502

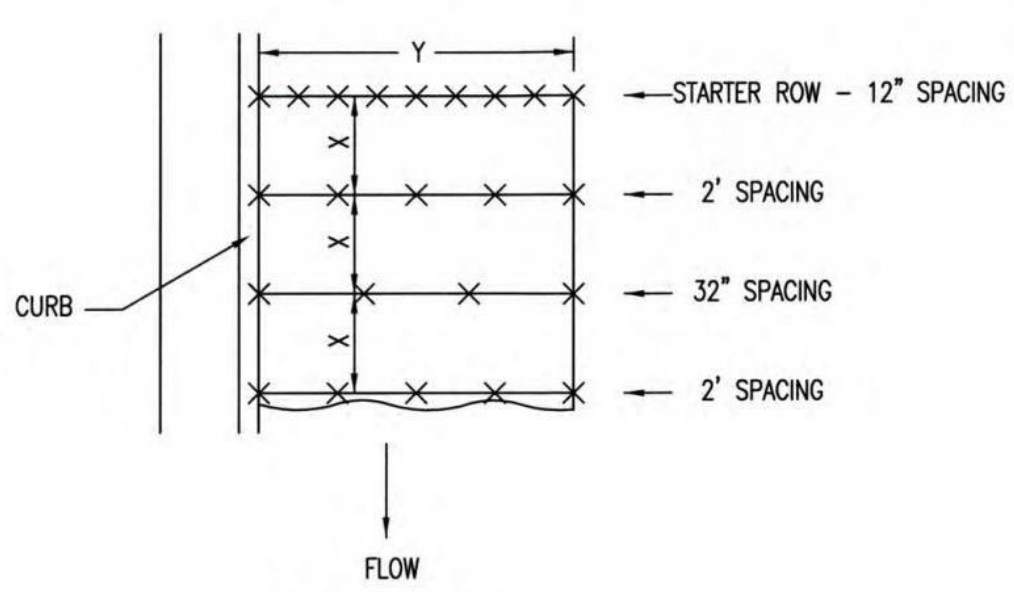
SAVED 9/18/2024 9:42:33 AM BY HUNTER, WILES
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1 2 3 4 5 6



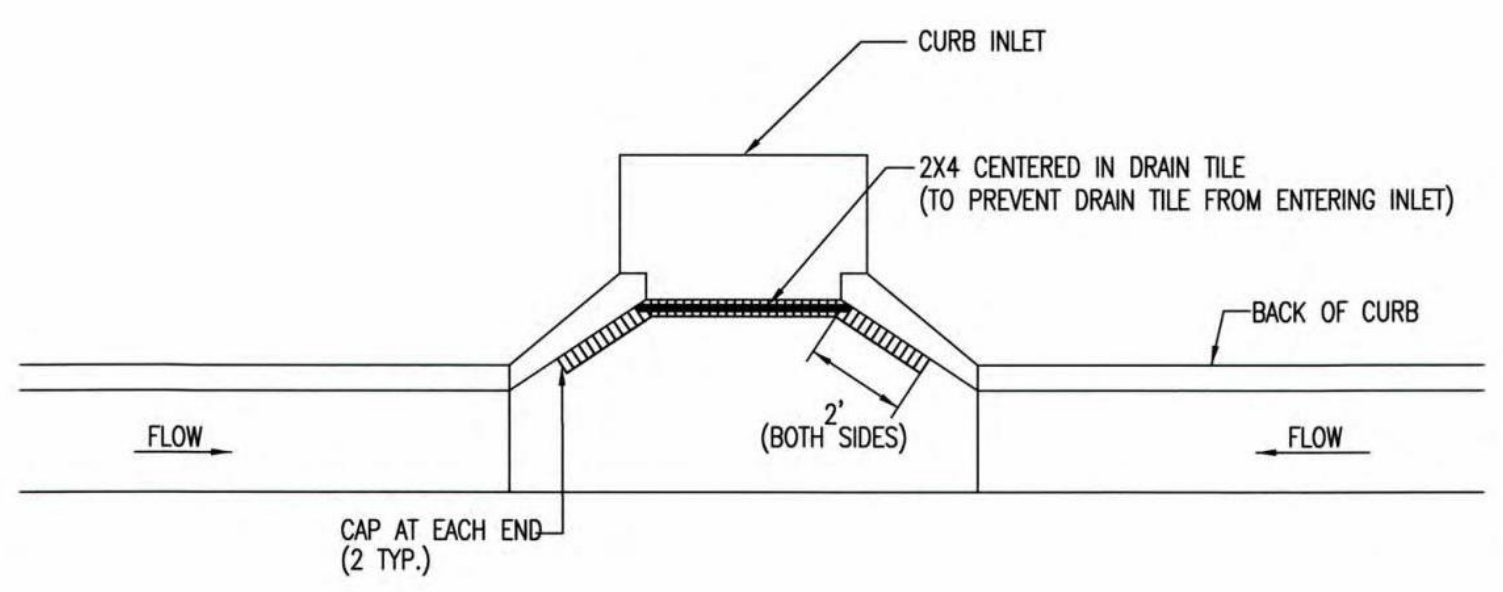
- GENERAL NOTES**
- EXCELSIOR MAT TO BE INSTALLED WHEN SOD IS NOT SPECIFIED ON PROJECT.
 - EXCELSIOR BLANKET TO BE INSTALLED OVER SEED AND FERTILIZER, AS SPECIFIED IN THE PROJECT SPECIFICATIONS.
 - AFTER INSTALLATION OF EXCELSIOR BLANKET, AT LOCATIONS WHERE CONCENTRATED FLOW CARRIES SEDIMENT OVER THE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

BACK OF CURB PROTECTION DETAIL



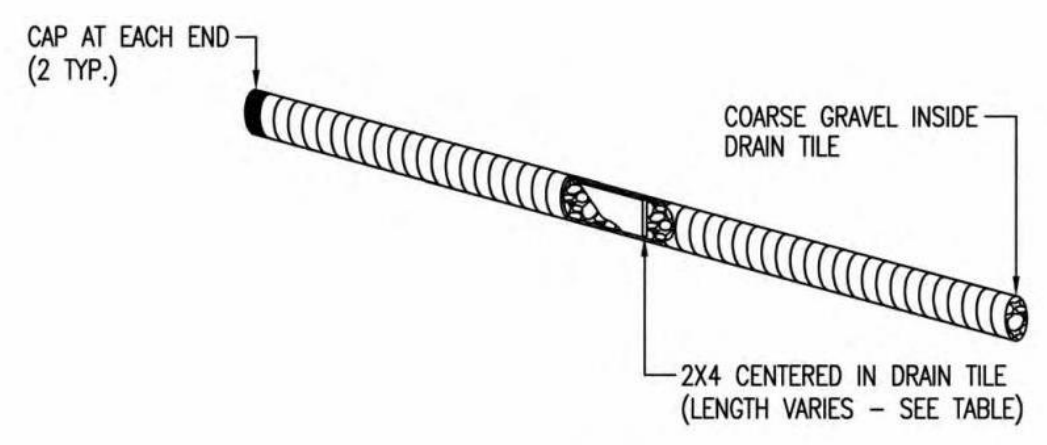
STAPLE PATTERN
 NOTES: USE 6" SEAM OVERLAP
 (X & Y = RECOMMENDED BY MANUFACTURE)

DETAILS FOR APPROVED EROSION CONTROL MAT

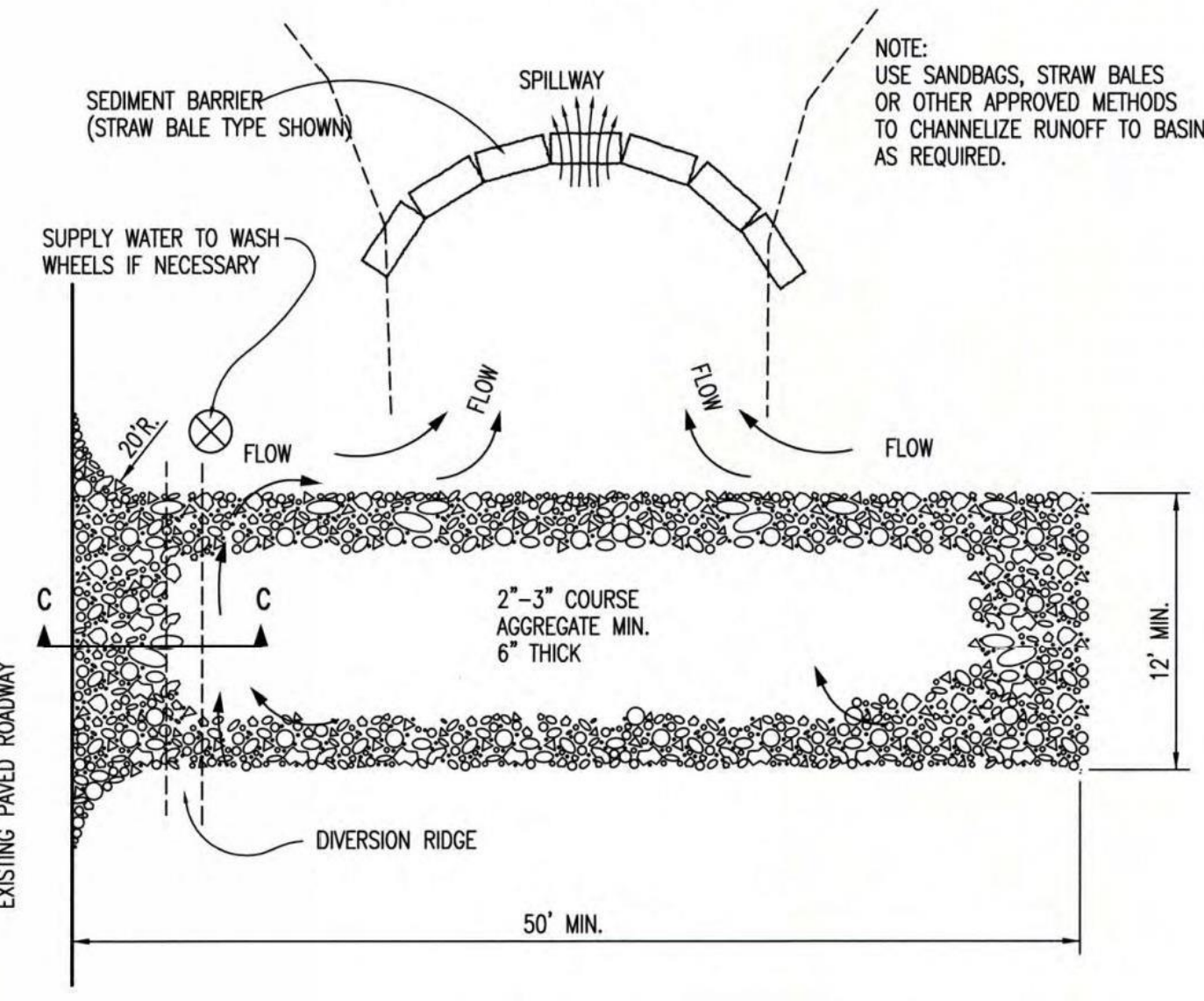
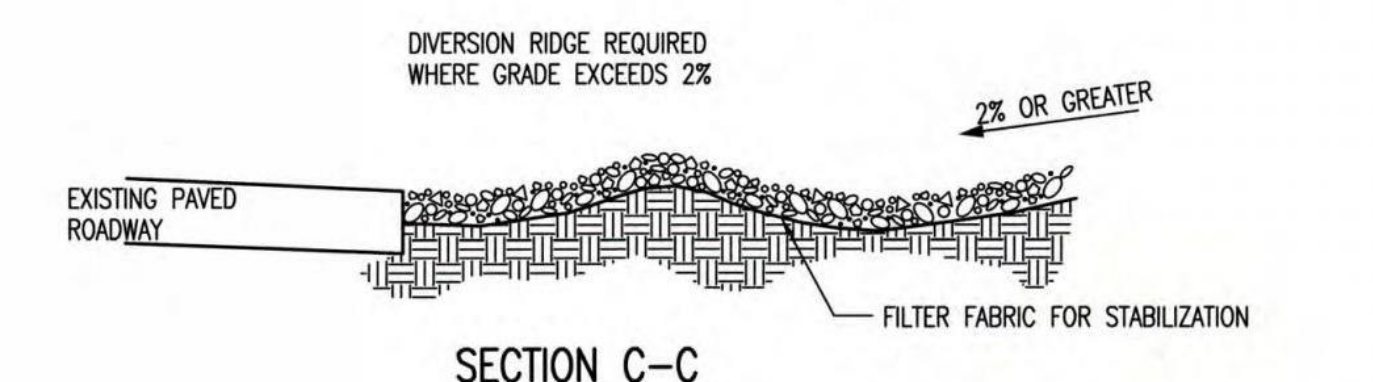


NOTE: PLACE 4" PERFORATED PVC PIPE, FILLED WITH 1/2"-1" DIA. GRAVEL, IN FRONT OF CURB INLET AS SHOWN.

2X4 LENGTH	INLET TYPE	INLET OPENING
5'-6"	1-A	5'-0"
10'-6"	1-A	10'-0"
15'-6"	1-A	15'-0"



CURB INLET PROTECTION
 4" PERFORATED PIPE W/ GRAVEL



STABILIZED CONSTRUCTION ENTRANCE

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



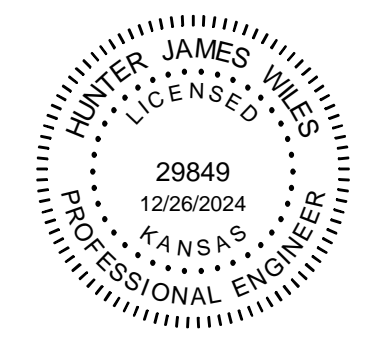
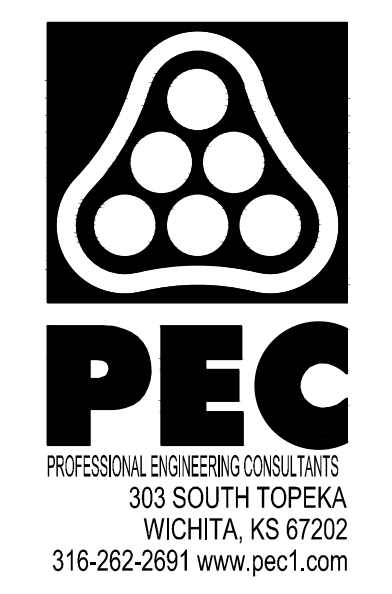
REVISION DATE: MAY 2013

BACK OF CURB PROTECTION, CURB INLET PROTECTION AND CONSTRUCTION ENTRANCE

CITY ENGINEER
GARY JANZEN, P.E.

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

SW-501



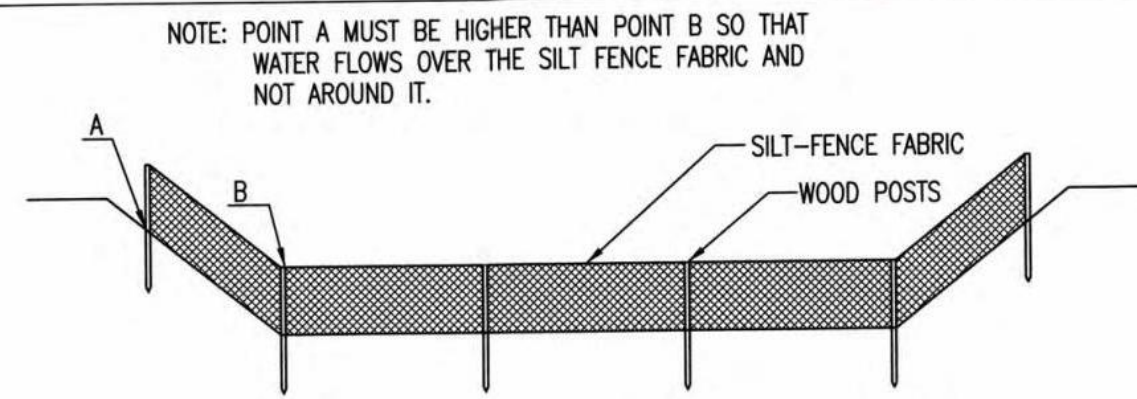
WATERLINE IMPROVEMENTS TO SERVE
BRIDGER PAWNEE ADDITION
 CITY OF WICHITA, KANSAS
 PAUL GUNZELMAN, P.E. - CITY ENGINEER
 CITY OF WICHITA PROJECT NO. 448-2024-016899

Issue:		
JOB NO.	35-230656-004-042	
DATE	DECEMBER 2024	
PM	KPG	
DESIGNED BY	HJW	
DRAWN BY	CSL	
CHECKED BY	TBK	

EROSION CONTROL DETAILS

CU601

1 2 3 4 5 6



ELEVATION
SILT FENCE DITCH CHECKS
(STREAM PROTECTION)

MATERIAL SPECIFICATION:

SILT FENCE FABRIC SHOULD CONFORM TO THE AASHTO M288 96 SILT FENCE SPECIFICATION. THE POSTS USED TO SUPPORT THE SILT FENCE FABRIC SHOULD BE A HARDWOOD MATERIAL WITH THE FOLLOWING MINIMUM DIMENSIONS: 2" SQUARE (NOMINAL) BY 4' LONG. SILT FENCE FABRIC SHOULD BE ATTACHED TO THE WOODEN POSTS WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

PLACEMENT:

PLACE SILT FENCE IN DITCHES WHERE IT IS UNLIKELY THAT IT WILL BE OVERTOPPED. WATER SHOULD FLOW THROUGH A SILT FENCE DITCH CHECK, NOT OVER IT. SILT FENCE DITCH CHECKS OFTEN FAIL WHEN OVERTOPPED. SILT FENCE DITCH CHECKS SHOULD BE PLACED PERPENDICULAR TO THE FLOWLINE OF THE DITCH. THE SILT FENCE SHOULD EXTEND FAR ENOUGH SO THAT THE GROUND LEVEL AT THE ENDS OF THE FENCE IS HIGHER THAN THE TOP OF THE LOW POINT OF THE FENCE. THIS PREVENTS WATER FROM FLOWING AROUND THE CHECK. SILT FENCE DITCH CHECKS SHOULD NOT BE PLACED IN DITCHES WHERE HIGH FLOWS ARE EXPECTED. ROCK CHECKS SHOULD BE USED INSTEAD. SILT FENCE SHOULD BE PLACED IN DITCHES WITH SLOPES OF 6% OR LESS. FOR SLOPES STEEPER THAN 6%, ROCK CHECKS SHOULD BE USED.

THE FOLLOWING TABLE PROVIDES CHECK SPACING FOR A GIVEN DITCH GRADE:

DITCH CHECK DITCH GRADE (%)	SPACING CHECK SPACING (FEET)
0.5	200
1.0	200
2.0	100
3.0	65
4.0	50
5.0	40
6.0	30

PROPER INSTALLATION METHOD:

EXCAVATE A TRENCH PERPENDICULAR TO THE DITCH FLOWLINE THAT IS AT LEAST 12" DEEP BY 6" WIDE. EXTEND THE TRENCH IN A STRAIGHT LINE ALONG THE ENTIRE LENGTH OF THE PROPOSED DITCH CHECK. PLACE THE SOIL ON THE UPSTREAM SIDE OF THE TRENCH FOR LATER USE. ROLL OUT A CONTINUOUS LENGTH OF SILT FENCE FABRIC ON THE DOWNSTREAM SIDE OF THE TRENCH. PLACE THE EDGE OF THE FABRIC IN THE TRENCH STARTING AT THE TOP UPSTREAM EDGE OF THE TRENCH. LINE TWO SIDES OF THE TRENCH WITH THE FABRIC AS SHOWN ON DETAIL. BACKFILL OVER THE FABRIC IN THE TRENCH WITH THE EXCAVATED SOIL AND COMPACT. AFTER FILLING THE TRENCH, APPROXIMATELY 24" TO 36" OF SILT FENCE FABRIC SHOULD REMAIN EXPOSED. LAY THE EXPOSED SILT FENCE ON THE UPSTREAM SIDE OF THE TRENCH TO CLEAR AN AREA FOR DRIVING IN THE POSTS. JUST DOWNSTREAM OF THE TRENCH, DRIVE POSTS INTO THE GROUND TO A DEPTH OF AT LEAST 24". PLACE POSTS NO MORE THAN 4' APART. ATTACH THE SILT FENCE TO THE ANCHORED POST WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

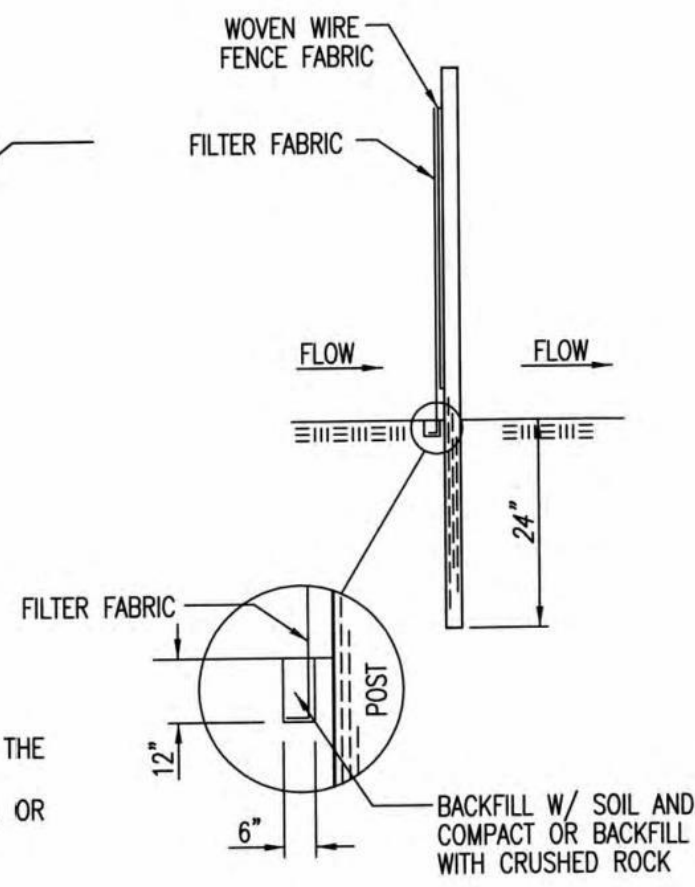
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

WATER SHOULD FLOW THROUGH A SILT FENCE DITCH CHECK—NOT OVER IT. PLACE SILT FENCE IN DITCHES WHERE IT IS UNLIKELY THAT IT WILL BE OVERTOPPED. SILT FENCE INSTALLATIONS QUICKLY DETERIORATE WHEN WATER OVERTOPS THEM. DO NOT PLACE SILT FENCE POSTS ON THE UPSTREAM SIDE OF THE SILT FENCE FABRIC. IN THIS CONFIGURATION, THE FORCE OF THE WATER IS NOT RESTRICTED BY THE POSTS, BUT ONLY BY THE STAPLES (WIRE, ZIP TIES, NAILS, ETC.). THE SILT FENCE WILL RIP AND FAIL. DO NOT PLACE A SILT FENCE DITCH CHECK DIRECTLY IN FRONT OF A CULVERT OUTLET. IT WILL NOT STAND UP TO THE CONCENTRATED FLOW. DO NOT PLACE SILT FENCE DITCH CHECKS IN DITCHES THAT WILL LIKELY EXPERIENCE HIGH FLOWS. THEY WILL NOT STAND UP TO CONCENTRATED FLOW. FOLLOW PRESCRIBED DITCH CHECK SPACING GUIDELINES. IF SPACING GUIDELINES ARE EXCEEDED, EROSION WILL OCCUR BETWEEN THE DITCH CHECKS. DO NOT ALLOW WATER TO FLOW AROUND THE DITCH CHECK. MAKE SURE THAT THE DITCH CHECK IS LONG ENOUGH SO THAT THE GROUND LEVEL AT THE ENDS OF THE FENCE IS HIGHER THAN THE LOW POINT ON THE TOP OF THE FENCE. DO NOT PLACE SILT FENCE DITCH CHECKS IN CHANNELS WITH SHALLOW SOILS UNDERLAIN BY ROCK. IF THE CHECK IS NOT ANCHORED SUFFICIENTLY, IT WILL WASH OUT.

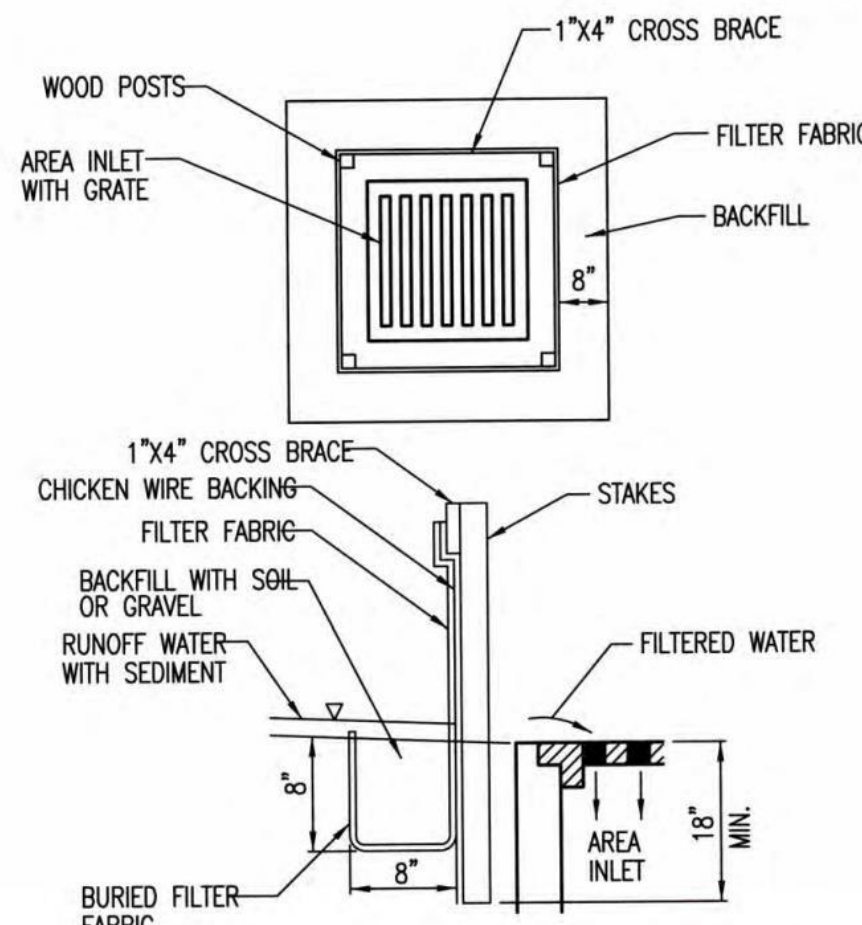
INSPECTION AND MAINTENANCE:

SILT FENCE DITCH CHECKS SHOULD BE INSPECTED EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL OF 1/2" OR MORE. THE FOLLOWING IS A LIST OF QUESTIONS THAT SHOULD BE ADDRESSED DURING EACH INSPECTION:

- DOES WATER FLOW AROUND THE DITCH CHECK?
- DOES WATER FLOW UNDER THE DITCH CHECK?
- DOES THE SILT FENCE SAG EXCESSIVELY?
- HAS THE SILT FENCE TORN OR BECOME DETACHED FROM THE POSTS?
- DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE DITCH CHECK?



ANCHOR TRENCH DETAIL



SILT FENCE BARRIERS FOR AREA INLETS
(INLET PROTECTION)

MATERIAL SPECIFICATION:

SILT FENCE FABRIC SHOULD CONFORM TO THE AASHTO M288 96 SILT FENCE SPECIFICATION. THE WIRE OR POLYMERIC MESH BACKING USED TO HELP SUPPORT THE SILT FENCE FABRIC SHOULD CONFORM TO THE AASHTO M288 96 SILT FENCE SPECIFICATION. THE POSTS USED TO SUPPORT THE SILT FENCE FABRIC SHOULD BE A HARDWOOD MATERIAL WITH THE FOLLOWING MINIMUM DIMENSIONS: 2" SQUARE (NOMINAL) BY 4' LONG. THE MATERIAL USED TO FRAME THE TOPS OF THE POSTS SHOULD BE 1" BY 4" BOARDS. SILT FENCE FABRIC AND SUPPORT BACKING SHOULD BE ATTACHED TO THE WOODEN POSTS AND FRAME WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

PLACEMENT:

PLACE A SILT FENCE DROP INLET BARRIER IN A LOCATION WHERE IT IS UNLIKELY TO BE OVERTOPPED. WATER SHOULD FLOW THROUGH SILT FENCE, NOT OVER IT. SILT FENCE BARRIERS FOR AREA INLETS OFTEN FAIL WHEN REPEATEDLY OVERTOPPED. WHEN USED AS A BARRIER FOR AREA INLETS, SILT FENCE FABRIC AND POSTS MUST BE SUPPORTED AT THE TOP BY A WOODEN FRAME. WHEN A SILT FENCE BARRIER FOR AREA INLETS IS LOCATED NEAR AN INLET THAT HAS STEEP APPROACH SLOPES, THE STORAGE CAPACITY BEHIND THE BARRIER IS DRASTICALLY REDUCED. TIMELY REMOVAL OF SEDIMENT MUST OCCUR FOR A BARRIER TO OPERATE PROPERLY IN THIS LOCATION.

PROPER INSTALLATION METHOD:

EXCAVATE A TRENCH AROUND THE PERIMETER OF THE AREA INLET THAT IS AT LEAST 8" DEEP BY 8" WIDE. DRIVE POSTS TO A DEPTH OF AT LEAST 18" AROUND THE PERIMETER OF THE AREA INLET. THE DISTANCE BETWEEN POSTS SHOULD BE 4' OR LESS. IF THE DISTANCE BETWEEN TWO ADJACENT CORNER POSTS IS MORE THAN 4', ADD ANOTHER POST(S) BETWEEN THEM. CONNECT THE TOPS OF ALL THE POSTS WITH A WOODEN FRAME MADE OF 1" BY 4" BOARDS. USE NAILS OR SCREWS FOR FASTENING. ATTACH THE WIRE OR POLYMERIC-MESH BACKING TO THE OUTSIDE OF THE POST/FRAME STRUCTURE WITH STAPLES, WIRE, ZIP TIES, OR NAILS. ROLL OUT A CONTINUOUS LENGTH OF SILT FENCE FABRIC LONG ENOUGH TO WRAP AROUND THE PERIMETER OF THE AREA INLET. ADD MORE LENGTH FOR OVERLAPPING THE FABRIC JOINT. PLACE THE EDGE OF THE FABRIC IN THE TRENCH, STARTING AT THE OUTSIDE EDGE OF THE TRENCH. LINE ALL THREE SIDES OF THE TRENCH WITH THE FABRIC. BACKFILL OVER THE FABRIC IN THE TRENCH WITH THE EXCAVATED SOIL AND COMPACT. AFTER FILLING THE TRENCH, APPROXIMATELY 24" TO 36" OF SILT FENCE FABRIC SHOULD REMAIN EXPOSED. ATTACH THE SILT FENCE TO THE OUTSIDE OF THE POST/FRAME STRUCTURE WITH STAPLES, WIRE, ZIP TIES, OR NAILS. THE JOINT SHOULD BE OVERLAPPED TO THE NEXT POST.

NOTE: WHEN A SILT FENCE BARRIER FOR AREA INLET IS PLACED IN A SHALLOW MEDIAN DITCH, MAKE SURE THAT THE TOP OF THE BARRIER IS NOT HIGHER THAN THE PAVED ROAD. IN THIS CONFIGURATION, WATER MAY SPREAD ONTO THE ROADWAY CAUSING A HAZARDOUS CONDITION.

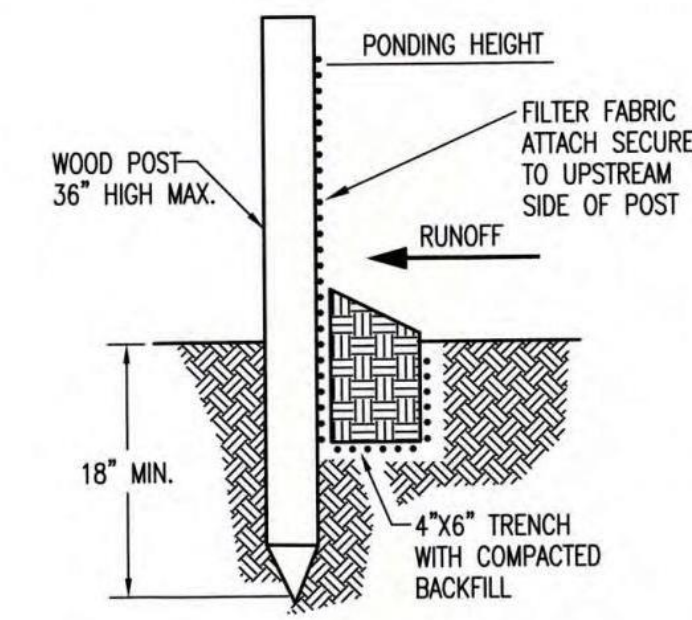
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

WATER SHOULD FLOW THROUGH A SILT FENCE BARRIER FOR AREA INLET—NOT OVER IT. PLACE A SILT FENCE BARRIER FOR AREA INLET IN A LOCATION WHERE IT IS UNLIKELY TO BE OVERTOPPED. SILT FENCE BARRIER FOR AREA INLETS OFTEN FAIL WHEN REPEATEDLY OVERTOPPED. DO NOT PLACE POSTS ON THE OUTSIDE OF THE SILT FENCE BARRIER FOR AREA INLET. IN THIS CONFIGURATION, THE FORCE OF THE WATER IS NOT RESISTED BY THE POSTS, BUT ONLY BY THE STAPLES (WIRE, ZIP TIES, NAILS, ETC.). THE SILT FENCE WILL RIP AND FAIL. DO NOT INSTALL SILT FENCE BARRIER FOR AREA INLETS WITHOUT FRAMING THE TOP OF THE POSTS. THE CORNER POSTS AROUND AREA INLETS ARE STRESSED IN TWO DIRECTIONS WHEREAS A NORMAL SILT FENCE IS ONLY STRESSED IN ONE DIRECTION. THIS ADDED STRESS REQUIRES MORE SUPPORT.

INSPECTION AND MAINTENANCE:

SILT FENCE BARRIER FOR AREA INLETS SHOULD BE INSPECTED EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL OF 1/2" OR MORE. THE FOLLOWING IS A LIST OF QUESTIONS THAT SHOULD BE ADDRESSED DURING EACH INSPECTION:

- DOES WATER FLOW UNDER THE SILT FENCE?
- DOES THE SILT FENCE SAG EXCESSIVELY?
- HAS THE SILT FENCE TORN OR BECOME DETACHED FROM THE POSTS?
- DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE AREA INLET BARRIER?



SILT FENCE BARRIERS

MATERIAL SPECIFICATION:

SILT FENCE FABRIC SHOULD CONFORM TO THE AASHTO M288 96 SILT FENCE SPECIFICATION. THE POSTS USED TO SUPPORT THE SILT FENCE FABRIC SHOULD BE A HARDWOOD MATERIAL WITH THE FOLLOWING MINIMUM DIMENSIONS: 2" SQUARE (NOMINAL) BY 4' LONG. SILT FENCE FABRIC SHOULD BE ATTACHED TO THE WOODEN POSTS WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

PLACEMENT:

A SLOPE BARRIER SHOULD BE USED AT THE TOE OF A SLOPE WHEN A DITCH DOES NOT EXIST. THE SLOPE BARRIER SHOULD BE PLACED ON NEARLY LEVEL GROUND 5' TO 10' AWAY FROM THE TOE OF A SLOPE. THE BARRIER IS PLACED AWAY FROM THE TOE OF THE SLOPE TO PROVIDE ADEQUATE STORAGE FOR SETTLING OUT SEDIMENT. WHEN PRACTICABLE, SILT FENCE SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. SILT FENCE SLOPE BARRIERS CAN ALSO BE PLACED ALONG RIGHT-OF-WAY FENCE LINES TO KEEP SEDIMENT FROM CROSSING ONTO ADJACENT PROPERTY. WHEN PLACED IN THIS MANNER, THE SLOPE BARRIER WILL NOT LIKELY FOLLOW CONTOURS.

PROPER INSTALLATION METHOD:

EXCAVATE A TRENCH THE LENGTH OF THE PLANNED SLOPE BARRIER THAT IS 6" DEEP BY 4" WIDE. MAKE SURE THAT THE TRENCH IS EXCAVATED ALONG A SINGLE CONTOUR. WHEN PRACTICABLE, SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. PLACE THE SOIL ON THE UPSLOPE SIDE OF THE TRENCH FOR LATER USE. ROLL OUT A CONTINUOUS LENGTH OF SILT FENCE FABRIC ON THE DOWNSLOPE SIDE OF THE TRENCH. PLACE THE EDGE OF THE FABRIC IN THE TRENCH STARTING AT THE TOP UPSLOPE EDGE. LINE ALL THREE SIDES OF THE TRENCH WITH THE FABRIC. BACKFILL OVER THE FABRIC IN THE TRENCH WITH THE EXCAVATED SOIL AND COMPACT. AFTER FILLING THE TRENCH, APPROXIMATELY 24" TO 36" OF SILT-FENCE FABRIC SHOULD REMAIN EXPOSED. LAY THE EXPOSED SILT FENCE UPSLOPE OF THE TRENCH TO CLEAR AN AREA FOR DRIVING IN THE POSTS. JUST DOWNSLOPE OF THE TRENCH, DRIVE POSTS INTO THE GROUND TO A DEPTH OF AT LEAST 18". PLACE POSTS NO MORE THAN 4' APART. ATTACH THE SILT FENCE TO THE ANCHORED POST WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

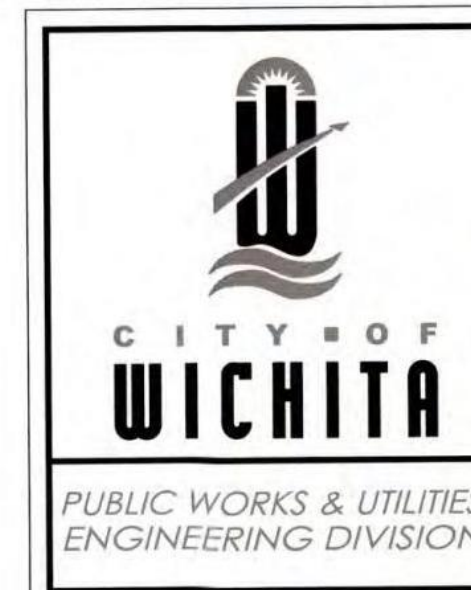
WHEN PRACTICABLE, DO NOT PLACE SILT FENCE SLOPE BARRIERS ACROSS CONTOURS. SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. WHEN THE FLOW CONCENTRATES, IT OVERTOPS THE BARRIER AND THE SILT FENCE SLOPE BARRIER QUICKLY DETERIORATES. DO NOT PLACE SILT-FENCE POSTS ON THE UPSLOPE SIDE OF THE SILT FENCE FABRIC. IN THIS CONFIGURATION, THE FORCE OF THE WATER IS NOT RESTRICTED BY THE POSTS, BUT ONLY BY THE STAPLES (WIRE, ZIP TIES, NAILS, ETC.). THE SILT FENCE WILL RIP AND FAIL. DO NOT PLACE SILT FENCE SLOPE BARRIERS IN AREAS WITH SHALLOW SOILS UNDERLAIN BY ROCK. IF THE BARRIER IS NOT SUFFICIENTLY ANCHORED, IT WILL WASH OUT. SILT FENCE SLOPE BARRIERS MUST BE DUG INTO THE GROUND—SILT FENCE AT GROUND LEVEL DOES NOT WORK BECAUSE WATER WILL FLOW UNDERNEATH.

INSPECTION AND MAINTENANCE:

SILT FENCE SLOPE BARRIERS SHOULD BE INSPECTED EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL OF 1/2" OR MORE. THE FOLLOWING IS A LIST OF QUESTIONS THAT SHOULD BE ADDRESSED DURING EACH INSPECTION:

- ARE THERE ANY POINTS ALONG THE SLOPE BARRIER WHERE WATER IS CONCENTRATING?
- DOES WATER FLOW UNDER THE SLOPE BARRIER?
- DOES THE SILT FENCES SAG EXCESSIVELY?
- HAS THE SILT FENCE TORN OR BECOME DETACHED FROM THE POSTS?
- DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE SLOPE BARRIER?

REVISION DATE: MAY 2013



SILT FENCE DITCH CHECK AND BARRIER DETAILS

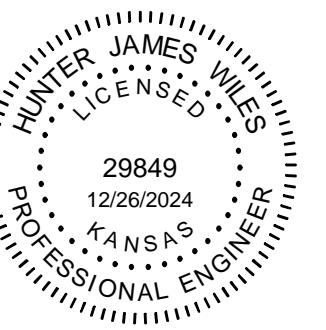
CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER OCA NUMBER DATE

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

SHEET

5W-502



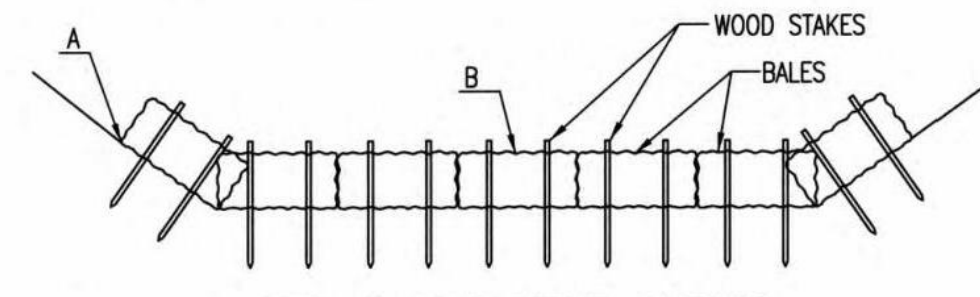
WATERLINE IMPROVEMENTS TO SERVE
BRIDGER PAWNEE ADDITION
CITY OF WICHITA, KANSAS
PAUL GUNZELMAN, P.E.-CITY ENGINEER
CITY OF WICHITA PROJECT NO. 448-2024-016899

Issue:	
JOB NO.	35-230656-004-042
DATE	DECEMBER 2024
PM	KPG
DESIGNED BY	HJW
DRAWN BY	CSL
CHECKED BY	TBK

EROSION CONTROL DETAILS

CU602

NOTE: POINT A MUST BE HIGHER THAN POINT B SO THAT WATER FLOWS OVER THE BALES AND NOT AROUND THEM.



STRAW BALE DITCH CHECKS

MATERIAL SPECIFICATION:

BALE DITCH CHECKS MAY BE CONSTRUCTED OF WHEAT STRAW, OAT STRAW, PRAIRIE HAY, OR BROMEGRASS HAY THAT IS FREE OF WEEDS DECLARED NOXIOUS BY THE KANSAS STATE BOARD OF AGRICULTURE. THE STAKES USED TO ANCHOR THE BALES SHOULD BE A HARDWOOD MATERIAL WITH THE FOLLOWING MINIMUM DIMENSIONS: 2" SQUARE (NOMINAL) BY 4' LONG. OPTIONAL: THE DOWNSTREAM SCOUR APRON SHOULD BE CONSTRUCTED OF A DOUBLE-NETTED STRAW EROSION-CONTROL BLANKET AT LEAST 6' WIDE. OPTIONAL: THE METAL LANDSCAPE STAPLES USED TO ANCHOR THE EROSION-CONTROL BLANKET SHOULD BE AT LEAST 8" LONG.

PLACEMENT:

BALE DITCH CHECKS SHOULD BE PLACED PERPENDICULAR TO THE FLOWLINE OF THE DITCH. THE DITCH CHECK SHOULD EXTEND FAR ENOUGH SO THAT THE GROUND LEVEL AT THE ENDS OF THE CHECK IS HIGHER THAN THE TOP OF THE LOWEST CENTER BALE. THIS PREVENTS WATER FROM FLOWING AROUND THE CHECK. STRAW BALE DITCH CHECKS SHOULD NOT BE PLACED IN DITCHES WHERE HIGH FLOWS ARE EXPECTED. ROCK CHECKS SHOULD BE USED INSTEAD. BALES SHOULD BE PLACED IN DITCHES WITH SLOPES OF 6% OR LESS. FOR SLOPES STEEPER THAN 6%, ROCK CHECKS SHOULD BE USED. THE FOLLOWING TABLE PROVIDES CHECK SPACING FOR A GIVEN DITCH GRADE:

DITCH CHECK SPACING (%)	CHECK SPACING (FEET)
0.5	200
1.0	200
2.0	100
3.0	65
4.0	50
5.0	40
6.0	30

PROPER INSTALLATION METHOD:

EXCAVATE A TRENCH PERPENDICULAR TO THE DITCH FLOWLINE THAT IS 4" DEEP AND A BALE'S WIDTH WIDE. EXTEND THE TRENCH IN A STRAIGHT LINE ALONG THE ENTIRE LENGTH OF THE PROPOSED DITCH CHECK. PLACE THE SOIL ON THE UPSTREAM SIDE OF THE TRENCH-IT WILL BE USED LATER. OPTIONAL: ON THE DOWNSTREAM SIDE OF THE TRENCH, ROLL OUT A LENGTH OF EROSION-CONTROL BLANKET (SCOUR APRON) EQUAL TO THE LENGTH OF THE TRENCH. PLACE THE UPSTREAM EDGE OF THE EROSION-CONTROL BLANKET ALONG THE BOTTOM UPSTREAM EDGE OF THE TRENCH. THE EROSION CONTROL BLANKET SHOULD BE ANCHORED IN THE TRENCH WITH ONE ROW OF 8" LANDSCAPE STAPLES PLACED ON 18" CENTERS. THE REMAINDER OF THE EROSION-CONTROL BLANKET (THE PORTION THAT IS NOT LYING IN THE TRENCH) WILL SERVE AS THE DOWNSTREAM SCOUR APRON. THIS SECTION OF THE BLANKET SHOULD BE ANCHORED TO THE GROUND WITH 8" LANDSCAPE STAPLES PLACED AROUND THE PERIMETER OF THE BLANKET ON 18" CENTERS. THE REMAINDER OF THE BLANKET SHOULD BE ANCHORED USING TWO EVENLY SPACED ROWS OF 8" LANDSCAPE STAPLES ON 18" CENTERS PLACED PERPENDICULAR TO THE FLOWLINE OF THE DITCH. PLACE THE BALES IN THE TRENCH, MAKING SURE THAT THEY ARE BUTTED TIGHTLY. TWO STAKES SHOULD BE DRIVEN THROUGH EACH BALE ALONG THE CENTERLINE OF THE DITCH CHECK, APPROXIMATELY 6" TO 8" IN FROM THE BALE ENDS. STAKES SHOULD BE DRIVEN AT LEAST 12" INTO THE GROUND. ONCE ALL THE BALES HAVE BEEN INSTALLED AND ANCHORED, PLACE THE EXCAVATED SOIL AGAINST THE UPSTREAM SIDE OF THE CHECK AND COMPACT IT. THE COMPACTED SOIL SHOULD BE NO MORE THAN 3" TO 4" DEEP AND EXTEND UPSTREAM NO MORE THAN 24".

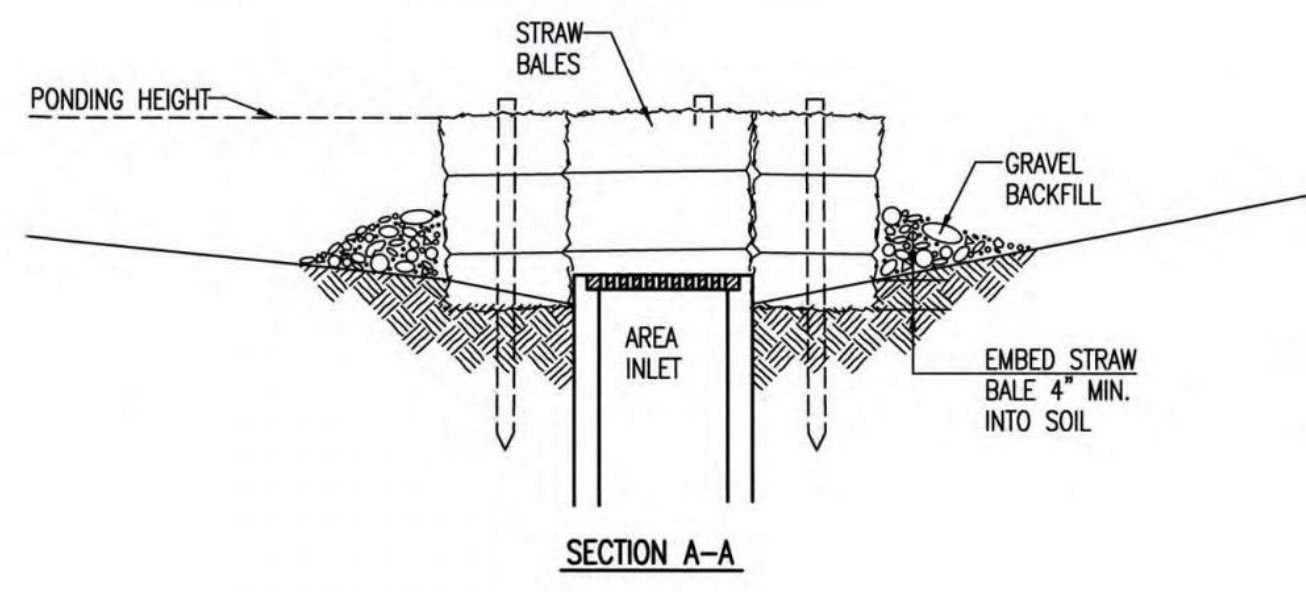
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

DO NOT PLACE A BALE DITCH CHECK DIRECTLY IN FRONT OF A CULVERT OUTLET. IT WILL NOT STAND UP TO THE CONCENTRATED FLOW. DO NOT PLACE BALE DITCH CHECKS IN DITCHES THAT WILL LIKELY EXPERIENCE HIGH FLOWS. THEY WILL NOT STAND UP TO CONCENTRATED FLOW. FOLLOW PRESCRIBED DITCH-CHECK SPACING GUIDELINES. IF SPACING GUIDELINES ARE EXCEEDED, EROSION WILL OCCUR BETWEEN THE DITCH CHECKS. DO NOT ALLOW WATER TO FLOW AROUND THE DITCH CHECK. MAKE SURE THAT THE DITCH CHECK IS LONG ENOUGH SO THAT THE GROUND LEVEL AT THE ENDS OF THE CHECK IS HIGHER THAN THE TOP OF THE LOWEST CENTER BALE. DO NOT PLACE BALE DITCH CHECKS IN CHANNELS WITH SHALLOW SOILS UNDERLAIN BY ROCK. IF THE CHECK IS NOT ANCHORED SUFFICIENTLY, IT WILL WASH OUT. BALE DITCH CHECKS MUST BE DUG INTO THE GROUND. BALES AT GROUND LEVEL DO NOT WORK BECAUSE THEY ALLOW WATER TO FLOW UNDER THE CHECK.

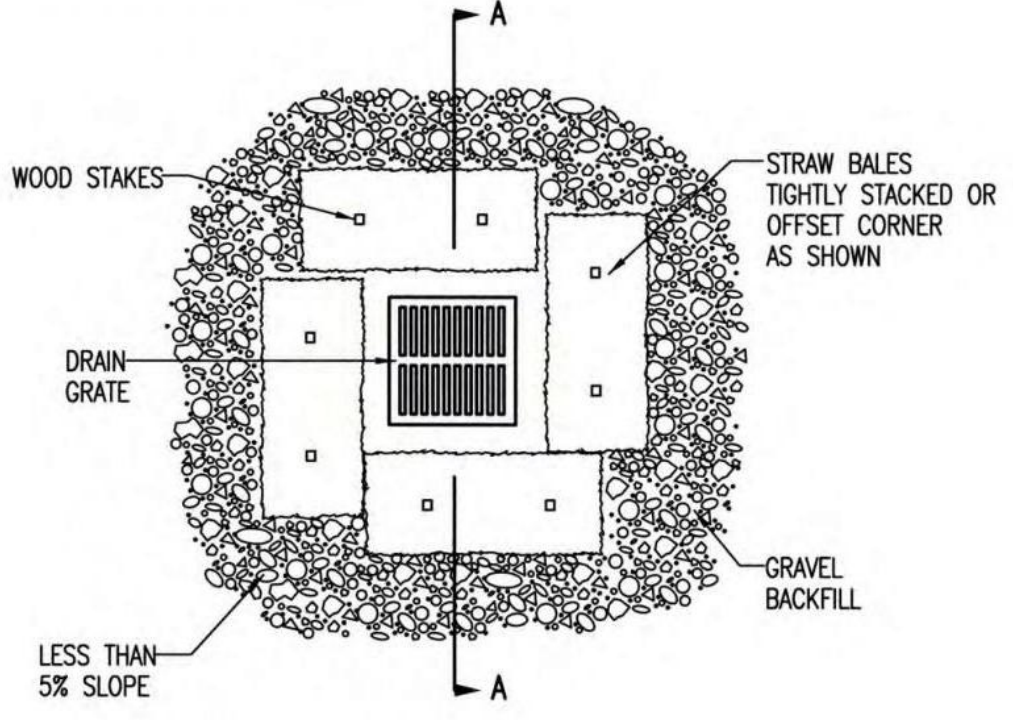
INSPECTION AND MAINTENANCE:

BALE DITCH CHECKS SHOULD BE INSPECTED EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL OF 1/2" OR MORE. THE FOLLOWING IS A LIST OF QUESTIONS THAT SHOULD BE ADDRESSED DURING EACH INSPECTION:

- DOES WATER FLOW AROUND THE DITCH CHECK?
- DOES WATER FLOW UNDER THE DITCH CHECK?
- DOES WATER FLOW THROUGH SPACES BETWEEN ABUTTING BALES?
- ARE ANY BALES AND/OR SCOUR APRONS (OPTIONAL) DISLODGED?
- ARE BALES DECOMPOSING DUE TO AGE AND/OR WATER DAMAGE?
- DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE DITCH CHECK?



SECTION A-A



STRAW BALE BARRIERS FOR AREA INLETS (INLET PROTECTION)

MATERIAL SPECIFICATION:

BALE AREA INLET BARRIERS SHOULD BE CONSTRUCTED OF WHEAT STRAW, OAT STRAW, PRAIRIE HAY, OR BROMEGRASS HAY THAT IS FREE OF WEEDS DECLARED NOXIOUS BY THE KANSAS STATE BOARD OF AGRICULTURE. THE STAKES USED TO ANCHOR THE BALES SHOULD BE A HARDWOOD MATERIAL WITH THE FOLLOWING MINIMUM DIMENSIONS: 2" SQUARE (NOMINAL) BY 4' LONG. TWINE SHOULD BE USED TO BIND BALES. THE USE OF WIRE BINDING IS PROHIBITED BECAUSE IT DOES NOT BIODEGRADE READILY.

PLACEMENT:

BALE AREA INLET BARRIERS SHOULD BE PLACED DIRECTLY AROUND THE PERIMETER OF A DROP INLET. WHEN A BALE AREA INLET BARRIER IS LOCATED NEAR AN INLET THAT HAS STEEP APPROACH SLOPES, THE STORAGE CAPACITY BEHIND THE BARRIER IS DRASTICALLY REDUCED. TIMELY REMOVAL OF SEDIMENT MUST OCCUR FOR A BARRIER TO OPERATE PROPERLY IN THIS LOCATION.

PROPER INSTALLATION METHOD:

EXCAVATE A TRENCH AROUND THE PERIMETER OF THE AREA INLET THAT IS AT LEAST 4" DEEP BY A BALE'S WIDTH WIDE. PLACE THE BALES IN THE TRENCH, MAKING SURE THAT THEY ARE BUTTED TIGHTLY. SOME BALES MAY NEED TO BE SHORTENED TO FIT INTO THE TRENCH AROUND THE AREA INLET. TWO STAKES SHOULD BE DRIVEN THROUGH EACH BALE, APPROXIMATELY 6" TO 8" IN FROM THE BALE ENDS. STAKES SHOULD BE DRIVEN AT LEAST 12" INTO THE GROUND. ONCE ALL THE BALES HAVE BEEN INSTALLED AND ANCHORED, PLACE THE EXCAVATED SOIL AGAINST THE RECEIVING SIDE OF THE BARRIER AND COMPACT IT. THE COMPACTED SOIL SHOULD BE NO MORE THAN 3" TO 4" DEEP. NOTE: WHEN A BALE AREA INLET BARRIER IS PLACED IN A SHALLOW MEDIAN DITCH, MAKE SURE THAT THE TOP OF THE BARRIER IS NOT HIGHER THAN THE PAVED ROAD. IN THIS CONFIGURATION, WATER MAY SPREAD ONTO THE ROADWAY CAUSING A HAZARDOUS CONDITION.

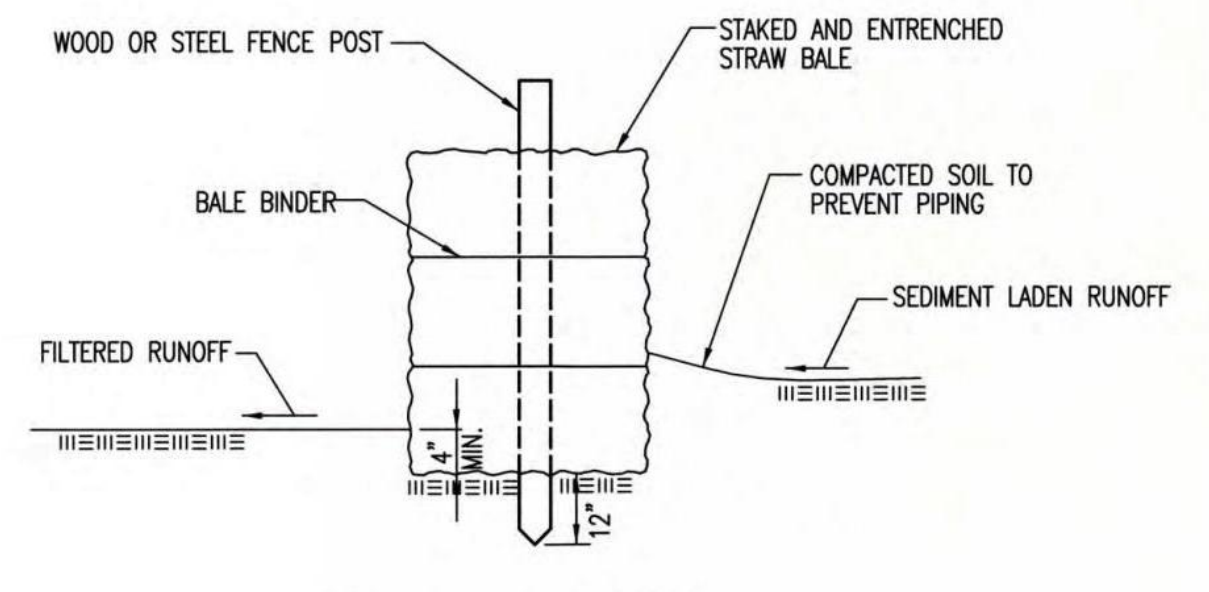
LIST OF COMMON PLACEMENT INSTALLATION MISTAKES TO AVOID:

BALES SHOULD BE PLACED DIRECTLY AGAINST THE PERIMETER OF THE AREA INLET. THIS ALLOWS OVERTOPPING WATER TO FLOW DIRECTLY INTO THE INLET INSTEAD OF ONTO NEARBY SOIL CAUSING SCOUR. BALE AREA INLET BARRIERS MUST BE DUG INTO THE GROUND. BALES AT GROUND LEVEL DO NOT WORK BECAUSE THEY ALLOW WATER TO FLOW UNDER THE BARRIER.

INSPECTION AND MAINTENANCE:

BALE AREA INLET BARRIERS SHOULD BE INSPECTED EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL OF 1/2" OR MORE. THE FOLLOWING IS A LIST OF QUESTIONS THAT SHOULD BE ADDRESSED DURING EACH INSPECTION:

- DOES WATER FLOW UNDER THE AREA INLET BARRIER?
- DOES WATER FLOW THROUGH SPACES BETWEEN ABUTTING BALES?
- ARE ANY BALES DISLODGED?
- ARE BALES DECOMPOSING DUE TO AGE AND/OR WATER DAMAGE?
- DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE AREA INLET BARRIER?



STRAW BALE BARRIERS

MATERIAL SPECIFICATION:

BALE SLOPE BARRIERS MAY BE CONSTRUCTED OF WHEAT STRAW, OAT STRAW, PRAIRIE HAY, OR BROMEGRASS HAY THAT IS FREE OF WEEDS DECLARED NOXIOUS BY THE KANSAS STATE BOARD OF AGRICULTURE. THE STAKES USED TO ANCHOR THE BALES SHOULD BE A HARDWOOD MATERIAL WITH THE FOLLOWING MINIMUM DIMENSIONS: 2" SQUARE (NOMINAL) BY 4' LONG. TWINE SHOULD BE USED TO BIND BALES. THE USE OF WIRE BINDING IS PROHIBITED BECAUSE IT DOES NOT BIODEGRADE READILY.

PLACEMENT:

A SLOPE BARRIER SHOULD BE USED AT THE TOE OF A SLOPE WHEN A DITCH DOES NOT EXIST. THE SLOPE BARRIER SHOULD BE PLACED ON NEARLY LEVEL GROUND 5' TO 10' AWAY FROM THE TOE OF A SLOPE. THE BARRIER IS PLACED AWAY FROM THE TOE OF THE SLOPE TO PROVIDE ADEQUATE STORAGE FOR SETTLING OUT SEDIMENT. WHEN PRACTICABLE, BALE SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. BALE SLOPE BARRIERS CAN ALSO BE PLACED ALONG RIGHT-OF-WAY FENCE LINES TO KEEP SEDIMENT FROM CROSSING ONTO ADJACENT PROPERTY. WHEN PLACED IN THIS MANNER, THE SLOPE BARRIER WILL NOT LIKELY FOLLOW CONTOURS.

PROPER INSTALLATION METHOD:

EXCAVATE A TRENCH THE LENGTH OF THE PLANNED SLOPE BARRIER THAT IS 4" DEEP AND A BALE'S WIDTH WIDE. MAKE SURE THAT THE TRENCH IS EXCAVATED ALONG A SINGLE CONTOUR. WHEN PRACTICABLE, SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. PLACE THE SOIL ON THE UPSLOPE SIDE OF THE TRENCH FOR LATER USE. PLACE THE BALES IN THE TRENCH, MAKING SURE THAT THEY ARE BUTTED TIGHTLY. TWO STAKES SHOULD BE DRIVEN THROUGH EACH BALE ALONG THE CENTERLINE OF THE DITCH CHECK, APPROXIMATELY 6" TO 8" IN FROM THE BALE ENDS. STAKES SHOULD BE DRIVEN AT LEAST 12" INTO THE GROUND. ONCE ALL THE BALES HAVE BEEN INSTALLED AND ANCHORED, PLACE THE EXCAVATED SOIL AGAINST THE UPSLOPE SIDE OF THE CHECK AND COMPACT IT. THE COMPACTED SOIL SHOULD BE NO MORE THAN 3" TO 4" DEEP.

LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

WHEN PRACTICABLE, DO NOT PLACE BALE SLOPE BARRIERS ACROSS CONTOURS. SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. CONCENTRATED FLOW OVER A SLOPE BARRIER CREATES A SCOUR HOLE ON THE DOWNSLOPE SIDE OF THE BARRIER. THE SCOUR HOLE EVENTUALLY UNDERMINES THE BALES AND THE BARRIER FAILS. DO NOT PLACE BALE SLOPE BARRIERS IN AREAS WITH SHALLOW SOILS UNDERLAIN BY ROCK. IF THE BARRIER IS NOT ANCHORED SUFFICIENTLY, IT WILL WASH OUT. BALE SLOPE BARRIERS MUST BE DUG INTO THE GROUND. BALES AT GROUND LEVEL DO NOT WORK BECAUSE THEY ALLOW WATER TO FLOW UNDER THE BARRIER.

INSPECTION AND MAINTENANCE:

BALE SLOPE BARRIERS SHOULD BE INSPECTED EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL OF 1/2" OR MORE. THE FOLLOWING IS A LIST OF QUESTIONS THAT SHOULD BE ADDRESSED DURING EACH INSPECTION:

- ARE THERE ANY POINTS ALONG THE SLOPE BARRIER WHERE WATER IS CONCENTRATING?
- DOES WATER FLOW UNDER THE SLOPE BARRIER?
- DOES WATER FLOW THROUGH SPACES BETWEEN ABUTTING BALES?
- ARE ANY BALES DISLODGED?
- ARE BALES DECOMPOSING DUE TO AGE AND/OR WATER DAMAGE?
- DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE SLOPE BARRIER?

REVISION DATE: MAY 2013

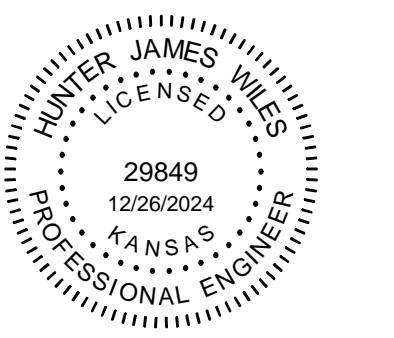
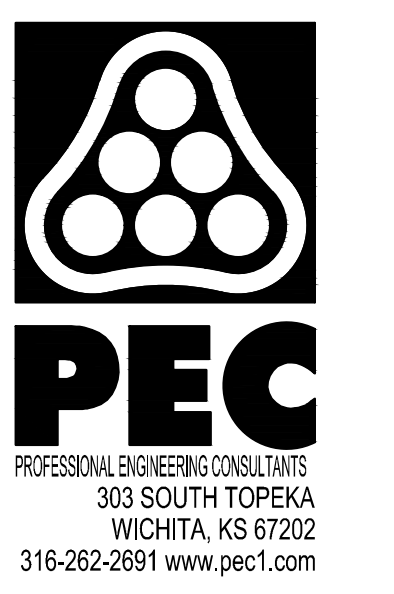


STRAW BALE DITCH CHECK AND BARRIER DETAILS

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



SW-503



WATERLINE IMPROVEMENTS TO SERVE
BRIDGER PAWNEE ADDITION
 CITY OF WICHITA, KANSAS
 PAUL GUNZELMAN, P.E. - CITY ENGINEER
 CITY OF WICHITA PROJECT NO. 448-2024-016899

Issue:	
JOB NO.	35-230656-004-042
DATE	DECEMBER 2024
PM	KPG
DESIGNED BY	HJW
DRAWN BY	CSL
CHECKED BY	TBK

EROSION CONTROL DETAILS

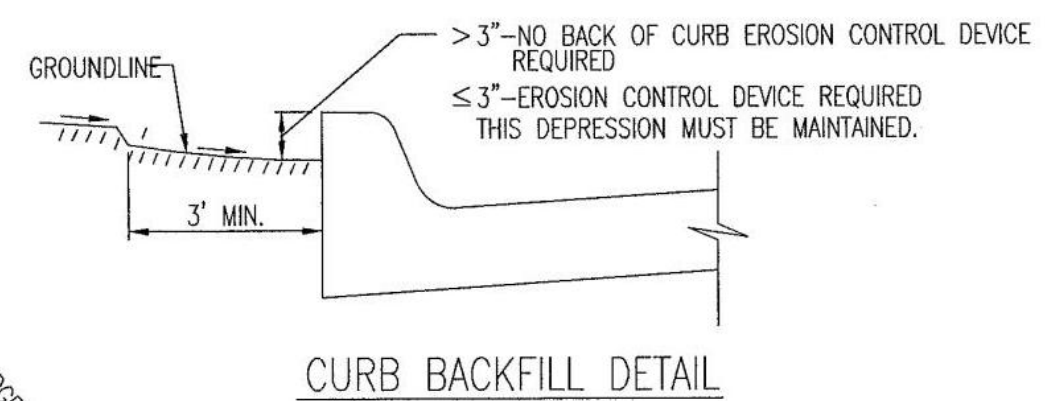
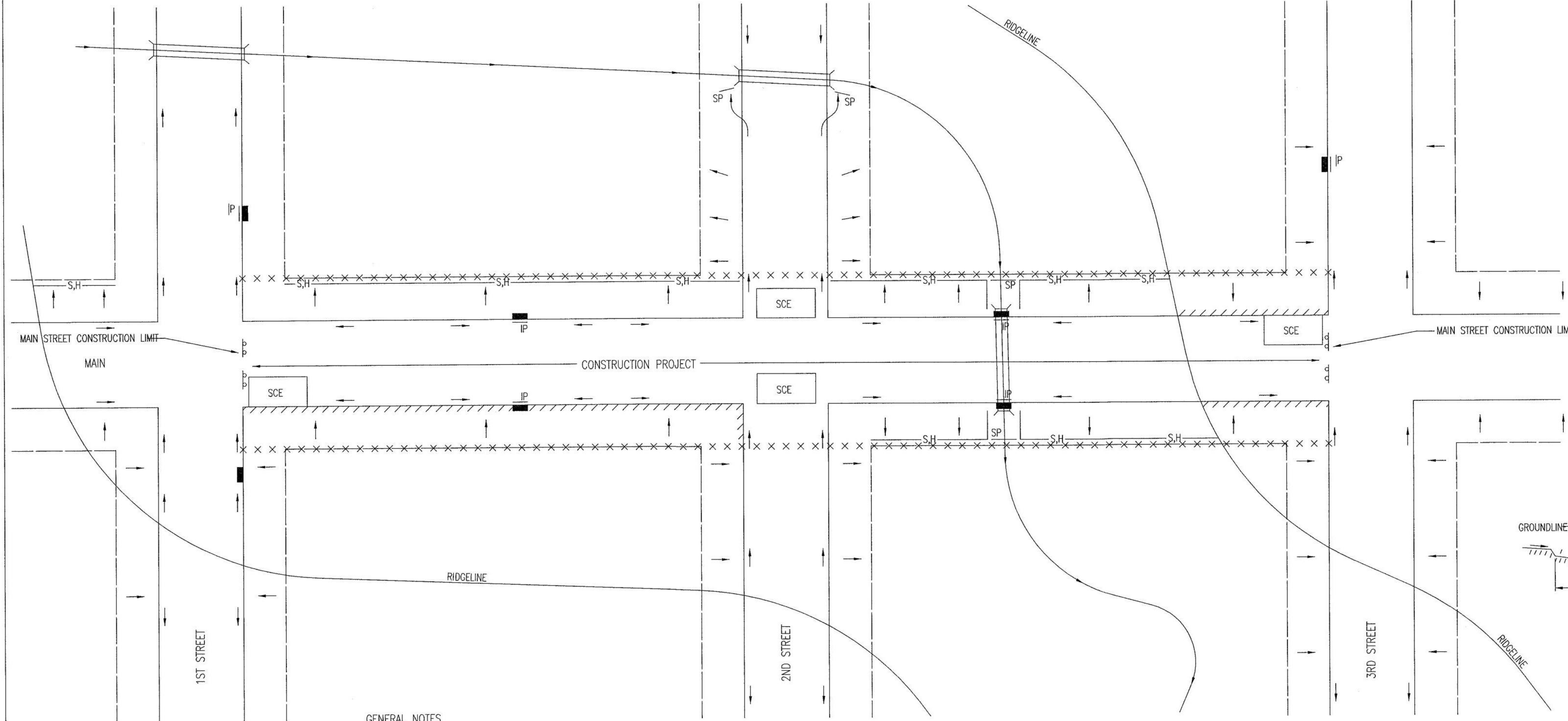
CU603

SAVED 9/18/2024 9:40:59 AM BY HUNTER, WILES
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SAVED 11/19/2024 2:24:19 PM BY HUNTER, WILES
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GENERAL NOTES

- THIS SHEET IS INTENDED TO PROVIDE GUIDELINES AS TO WHAT TYPES OF EROSION CONTROL DEVICES WILL BE INSTALLED DURING THE CONSTRUCTION PROCESS. CONTRACTORS ARE EXPECTED TO BID PROJECTS ACCORDINGLY.
- EROSION CONTROL DEVICES MUST BE MAINTAINED BY THE CONTRACTOR THROUGHOUT THE CONSTRUCTION PROCESS AND UNTIL THE DISTURBED EARTH IS RESTABILIZED.
- IF THE PROJECT WILL DISTURB 1 ACRE OR MORE, A FEDERAL/STATE NPDES STORMWATER PERMIT IS REQUIRED. A DETAILED STORMWATER POLLUTION PREVENTION PLAN, IS REQUIRED. THE EROSION CONTROL DEVICES SHOWN ON THIS SHEET ARE CONSIDERED TO BE THE MINIMUM TO BE SHOWN IN THE POLLUTION PREVENTION PLAN.
- FOR PROJECTS DISTURBING LESS THAN 1 ACRE, CONTRACTORS ARE ENCOURAGED TO PREPARE STORMWATER POLLUTION PREVENTION PLANS PRIOR TO CONSTRUCTION. EROSION CONTROL DEVICES MUST BE USED ON ALL PROJECTS.
- FAILURE TO USE AND MAINTAIN EROSION CONTROL DEVICES IS A VIOLATION OF SECTION 16.32 OF THE CITY CODE AND WILL SUBJECT THE CONTRACTOR TO THE PENALTIES PROVIDED FOR THEREIN.
- THE APPLICATION OF EROSION CONTROL DEVICES SHOWN ON THIS SHEET IS FOR SITUATIONS NORMALLY ENCOUNTERED. FROM TIME TO TIME, SITUATIONS WILL ARISE THAT MAY REQUIRE A DIFFERENT DEVICE OTHER THAN THOSE SHOWN. EROSION CONTROL DEVICES, OTHER THAN THOSE SHOWN, MAY BE UTILIZED AS LONG AS THEY ARE EFFECTIVE AND MAINTAINED.



LEGEND

- R-O-W LIMITS
- DRAINAGE FLOW PATH
- × × × × R/W LIMIT WITHIN CONSTRUCTION LIMIT
- STORM WATER INLETS
- IP INLET PROTECTION
- S.H.— SILT FENCE OR HAY BALE BARRIER
- S.P.— STREAM PROTECTION
- SCE STABILIZED CONSTRUCTION ENTRANCE
- //// BACK OF CURB PROTECTION

GENERAL NOTES

- THE INTENT OF ALL EROSION CONTROL DEVICES IS TO KEEP ALL SEDIMENT CONFINED TO THE CONSTRUCTION SITE, AND OUT OF ALL UNDERGROUND PIPES, DITCHES, LAKES, AND OTHER DRAINAGE FACILITIES, AND OFF OF STREETS.
- THE POINT OF COMPLIANCE IS GENERALLY THE RIGHT-OF-WAY LINES WITHIN THE LIMITS OF CONSTRUCTION.
- EROSION CONTROL DEVICES WILL BE REQUIRED AT ALL POINTS ALONG THE PROJECT WHERE DISTURBED EARTH CAN DRAIN ONTO PRIVATE PROPERTY.
- INLET PROTECTION DEVICES WILL BE REQUIRED WHEREVER WATER CAN DRAIN OFF THE PROJECT SITE INTO AN INLET, INCLUDING ANY SIDE STREET INLETS.
- EROSION CONTROL DEVICES SHALL BE INSTALLED AT CREEK CROSSINGS SO AS TO PREVENT SEDIMENT FROM ENTERING THEREIN.
- STABILIZED CONSTRUCTION ENTRANCES SHALL BE PROVIDED, AS NEEDED, TO PREVENT MUD FROM TRACKING ONTO STREETS NOT UNDER CONSTRUCTION AND ON STREETS WITHIN THE PROJECT LIMITS IF TRAFFIC IS BEING MAINTAINED THROUGH THE PROJECT.
- ANY MUD TRACKED ONTO STREETS MUST BE REMOVED AT THE END OF EACH WORK DAY.
- THE CONTRACTOR WILL BE REQUIRED TO PLACE EROSION CONTROL DEVICES BACK OF CURB, WHENEVER WATER CAN DRAIN OVER CURB, TO KEEP ERODED SOIL OUT OF THE GUTTERLINES, IN ACCORDANCE WITH THE FOLLOWING:
 - THE DEVICE REQUIRED WILL BE APPROVED EROSION CONTROL MAT LISTED ON THE CITY'S APPROVED MATERIAL LIST. SAID BLANKET SHALL BE PLACED OVER THE APPROPRIATE SEED AND FERTILIZER, AS SPECIFIED IN THE PROJECT SPECIFICATIONS. (SEE SOIL EROSION BMPs - BACK OF CURB SEDIMENT BARRIER DETAILS)
 - THIS DEVICE SHALL BE INSTALLED IMMEDIATELY WHENEVER THE CURB IS BACKFILLED TO WITHIN 3" OF THE TOP OF CURB. (SEE CURB BACKFILL DETAIL) OTHER BMP'S MAY BE REQUIRED AT LOCATIONS WHERE CONCENTRATED FLOW CARRIES SEDIMENT OVER THE CURB.
 - ADDITIONALLY, OTHER EROSION CONTROL DEVICES (HAY BALES, SILT FENCE, ETC.) WILL BE INSTALLED AT LOCATIONS OF CONCENTRATED FLOW RESULTING IN SEDIMENT OVERRUNNING THE MAT.
 - SHOULD THE PROJECT PLANS SPECIFY THAT THE RIGHT-OF-WAY IS TO BE SODDED, THE EXCELSIOR MAT WILL NOT BE REQUIRED SO LONG AS THE SOD IS PLACED WITHIN 48 HOURS AFTER CURB BACKFILL REACHES A HEIGHT OF 3" OR LESS FROM TOP OF CURB. (SEE CURB BACKFILL DETAIL)



REVISION: JUNE 2015

STREET IMPROVEMENT PROJECTS		
CITY ENGINEER GARY JANZEN, P.E.		
PROJECT NUMBER	OCA NUMBER	DATE
CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501		SHEET

WATERLINE IMPROVEMENTS TO SERVE
BRIDGER PAWNEE ADDITION
 CITY OF WICHITA, KANSAS
 PAUL GUNZELMAN, P.E. - CITY ENGINEER
 CITY OF WICHITA PROJECT NO. 448-2024-016899

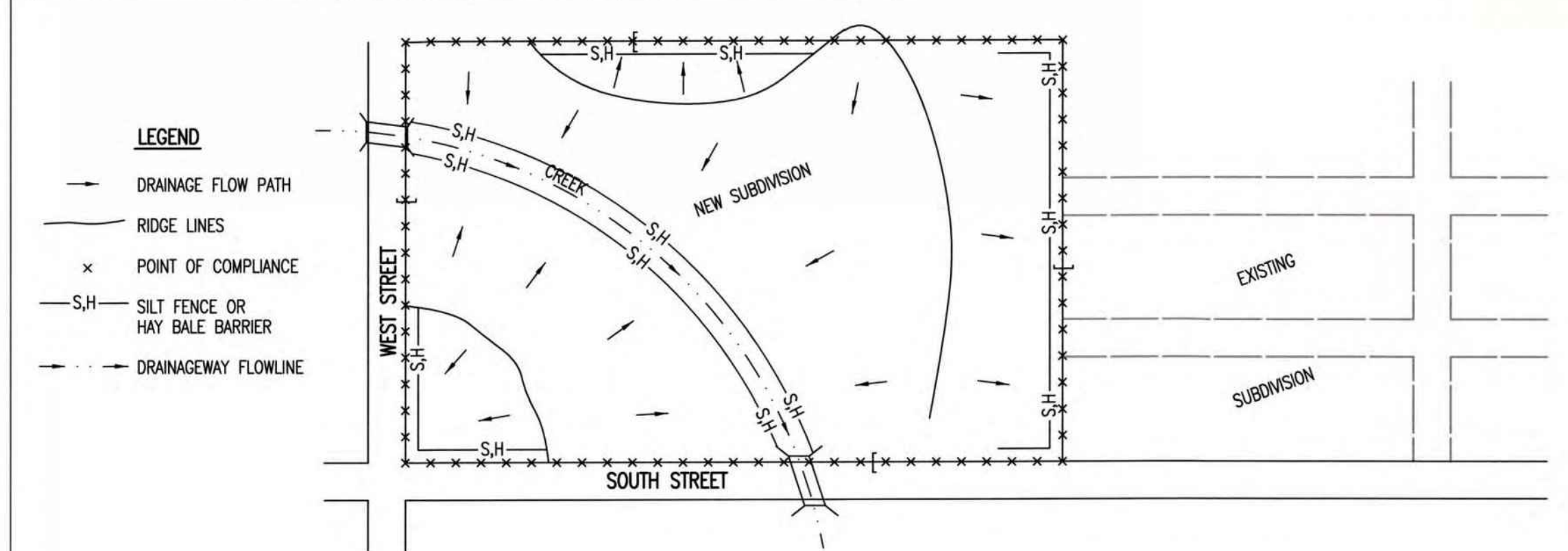
Issue:		

JOB NO.	35-230656-004-042
DATE	DECEMBER 2024
PM	KPG
DESIGNED BY	HJW
DRAWN BY	CSL
CHECKED BY	TBK

EROSION CONTROL DETAILS

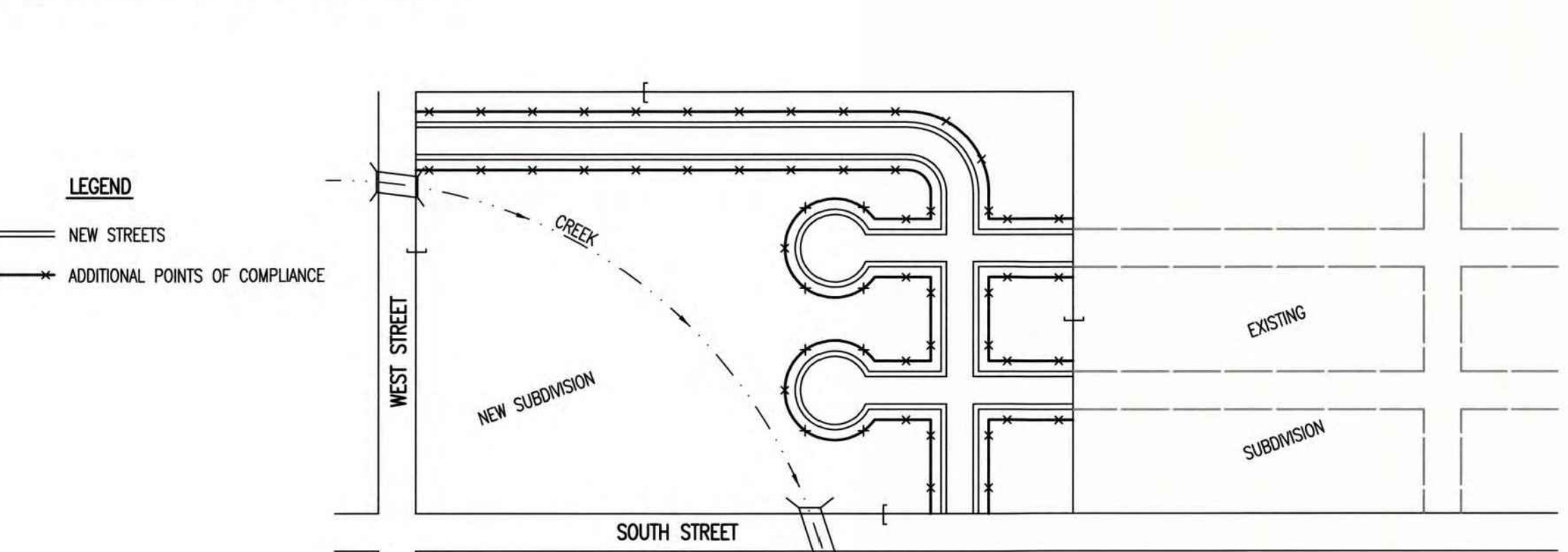
CU604

PHASE 1 – INITIAL EARTHWORK AND UTILITIES (EXCEPT STORM SEWER)



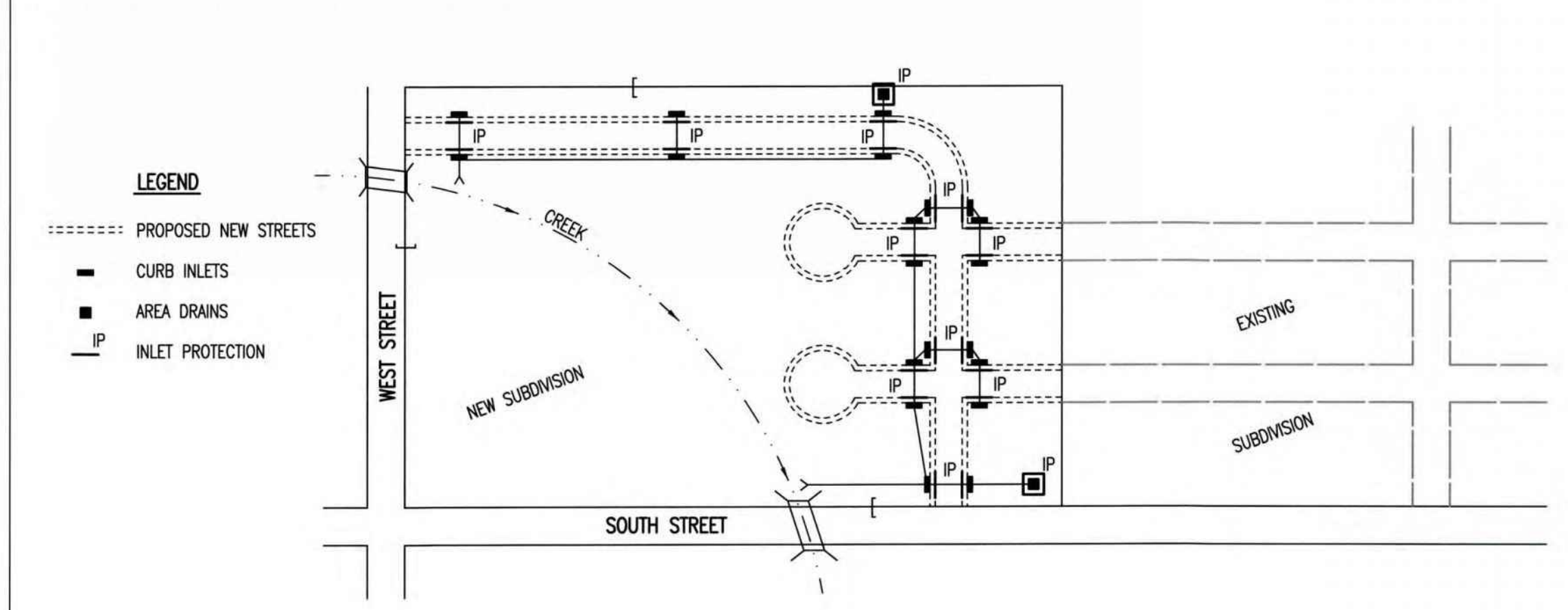
- LEGEND**
- DRAINAGE FLOW PATH
 - RIDGE LINES
 - x POINT OF COMPLIANCE
 - S,H- SILT FENCE OR HAY BALE BARRIER
 - - - DRAINAGEWAY FLOWLINE
- DURING THIS PHASE OF SUBDIVISION CONSTRUCTION, THE POINTS OF COMPLIANCE ARE THE PERIMETER BOUNDARIES AND ANY DRAINAGE WAYS OR STORM SEWERS DRAINING THROUGH OR FROM THE SITE. SHOULD LAKES BE CONSTRUCTED WITHIN THE SUBDIVISION THAT WILL DISCHARGE DURING STORMS, THEY ARE ALSO A POINT OF COMPLIANCE.
 - HAY BALES OR SILT FENCE MUST BE CONSTRUCTED ALONG THE PROPERTY LINE WHERE ON SITE WATER CAN DRAIN OFF THE PROPERTY. THESE EROSION CONTROL DEVICES WILL ALSO BE INSTALLED ALONG ANY DRAINAGE DITCH OR LAKE THAT CAN DISCHARGE.
 - SHOULD SILT OR SEDIMENT ENTER THE DITCHES OR STREETS ON THE ADJACENT BOUNDARY STREETS, APPROPRIATE EROSION CONTROL DEVICES WILL BE PLACED WITHIN THE SUBDIVISION TO PREVENT THIS.
 - ANY MUD TRACKED ONTO ADJACENT STREETS WILL BE REMOVED WITHIN 48 HOURS OR BY FRIDAY AT 6:00 PM, WHICHEVER IS EARLIER.
 - CONTRACTORS WORKING WITHIN THE SITE WILL NOT BE REQUIRED TO USE INDIVIDUAL EROSION CONTROL DEVICES AS LONG AS THOSE SPECIFIED ABOVE ARE IN PLACE AND EFFECTIVE. CONTRACTORS WORKING ON THE BOUNDARY LINE STREETS OR ON ADJACENT PROPERTIES TO EXTEND UTILITIES ARE EXPECTED TO USE EROSION CONTROL DEVICES AT THEIR WORK LOCATIONS, AS NEEDED.
 - UTILIZE STABILIZED CONSTRUCTION ENTRANCE AT ENTRANCE AND EXIT ONTO ANY EXISTING PUBLIC STREETS.
 - IF THE INITIAL EARTH WORK AND UTILITIES ARE DONE AS PART OF A PUBLIC IMPROVEMENT PROJECT, THESE EROSION CONTROL DEVICES WILL BE INSTALLED BY THE CONTRACTOR AS SPECIFIED IN THE INDIVIDUAL PROJECT CONTRACTS. THE CONTRACTOR WILL MAINTAIN THE DEVICES UNTIL COMPLETION OF THE CONTRACT, AT WHICH TIME THE DEVELOPER WILL ASSUME MAINTENANCE RESPONSIBILITIES. IF THESE CONTRACTS ARE NOT PUBLIC IMPROVEMENT PROJECTS, THE DEVELOPER WILL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THESE DEVICES.
 - WITHIN 14 DAYS OF COMPLETION OF EARTHWORK ACTIVITIES IN ANY GIVEN AREA, THAT AREA SHALL BE TEMPORARILY OR PERMANENTLY SEEDED AND MULCHED.

PHASE 3 – STREET CONSTRUCTION



- LEGEND**
- NEW STREETS
 - ADDITIONAL POINTS OF COMPLIANCE
- DURING THIS PHASE OF SUBDIVISION CONSTRUCTION, NEW STREETS ARE INSTALLED. ALL EROSION CONTROL DEVICES INSTALLED DURING PHASE 1 AND 2 MUST STILL BE MAINTAINED. THE POINT OF COMPLIANCE NOW SHIFTS TO THE BACK OF CURB ALONG EACH STREET.
 - CURB OPENING INLET PROTECTION:
 - SUMP AREAS – INLET PROTECTION SHALL BE PROVIDED WHEN STREET SUBGRADE WORK IS COMPLETED.
 - NON-SUMP LOCATIONS – PROVIDE INLET PROTECTION AS SOON AS BASE COURSE ASPHALT IS INSTALLED, BEFORE THE SURFACE COURSE LIFT.
 - EROSION CONTROL DEVICES WILL BE REQUIRED BACK OF CURB WHEREVER WATER CAN FLOW OVER THE CURB AND THE CURB HAS BEEN BACKFILLED TO WITHIN 3" OR LESS OF THE TOP OF CURB (SEE CURB BACKFILL DETAIL). FOR CURBS NOT YET ENTIRELY BACKFILLED (3" OR MORE BELOW TOP OF CURB), ADDITIONAL DEVICES WILL BE REQUIRED AT POINTS WHERE WATER BREAKS OVER CURB WHICH COULD RESULT IN THE PLACEMENT OF SEDIMENT IN THE GUTTER.
 - SEE DETAIL SHEET FOR BACK OF CURB PROTECTION.
 - THE BACK OF CURB PROTECTION SPECIFIED ON THIS PLAN MAY HAVE TO BE SUPPLEMENTED WITH HAY BALE OR SILT FENCE EROSION CONTROL DEVICES AT LOCATIONS WHERE CONCENTRATED FLOW RESULTS IN SEDIMENT BEING CARRIED OVER THE EXCELSIOR MATS.
 - THE STREET CONTRACTOR WILL BE RESPONSIBLE FOR INSTALLING BACK OF CURB EROSION CONTROL DEVICES.
 - THE INDIVIDUAL LOT OWNERS WILL BE RESPONSIBLE FOR MAINTAINING THE BACK OF CURB EROSION CONTROL DEVICES IN FRONT OF THEIR LOTS UNTIL SUCH TIME AS ADJACENT DISTURBED EARTH IS STABILIZED WITH GRASS OR SOD.

PHASE 2 – INSTALLATION OF STORM SEWER

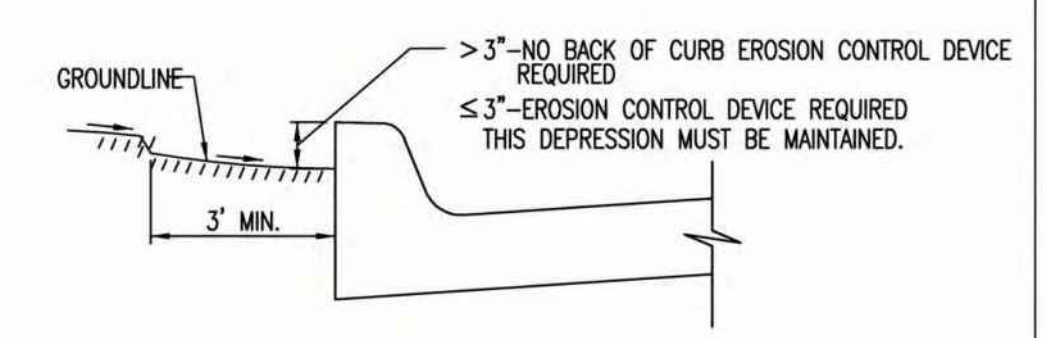


- LEGEND**
- - - PROPOSED NEW STREETS
 - CURB INLETS
 - AREA DRAINS
 - IP INLET PROTECTION
- DURING THIS PHASE OF SUBDIVISION DEVELOPMENT, ALL EROSION CONTROL DEVICES REQUIRED IN PHASE 1 SHALL REMAIN IN PLACE AND BE MAINTAINED.
 - AS NEW STORM SEWERS, WITH INLETS, ARE INSTALLED, THE STORM SEWERS MUST NOW BE PROTECTED SO ALL NEW INLETS BECOME POINTS OF COMPLIANCE.
 - AREA DRAINS – AS SOON AS WATER CAN FLOW INTO THESE DRAINS, HAY BALE OR SILT FENCE PROTECTION WILL BE INSTALLED AROUND THEM.
 - CURB OPENING INLETS – AS SOON AS WATER CAN FLOW INTO THESE DRAINS, INLET PROTECTION DEVICES MUST BE INSTALLED. IF WATER CANNOT FLOW INTO CURB INLETS UNTIL STREET CONSTRUCTION IS COMPLETE, THEN STREET CONTRACTOR WILL INSTALL INLET PROTECTION. SEE PHASE 3 – STREET CONSTRUCTION.
 - THE STORM SEWER CONTRACTOR WILL BE RESPONSIBLE FOR INSTALLING THESE DEVICES.
 - THE SUBDIVISION DEVELOPER WILL MAINTAIN THESE EROSION CONTROL DEVICES ONCE INSTALLED.
 - ALL DISTURBED GROUND WILL BE FINAL GRADED AND TEMPORARILY OR PERMANENTLY SEEDED WITHIN 14 DAYS IF COMPLETION OF WORK IN ANY GIVEN PART OF THE SUBDIVISION.
 - ONCE ALL DISTURBED GROUND DRAINING TO AN INLET HAS BEEN RESTABILIZED WITH GRASS OR SOD, THE SUBDIVISION DEVELOPER WILL BE RESPONSIBLE FOR PERMANENTLY REMOVING THE INLET PROTECTION.

GENERAL NOTES

- THE INTENT OF ALL EROSION CONTROL DEVICES IS TO PREVENT ERODED SOIL FROM ENTERING DITCHES, STORM SEWERS, LAKES, STREETS OR ANY OTHER OTHER DRAINAGE FEATURE.
- THIS SHEET IS INTENDED TO PROVIDE GUIDELINES AS TO WHAT TYPE OF EROSION CONTROL DEVICES WILL BE INSTALLED DURING THE CONSTRUCTION PROCESS. CONTRACTORS ARE EXPECTED TO BID PROJECTS ACCORDINGLY.
- EROSION CONTROL DEVICES SHALL BE MAINTAINED DURING THE CONSTRUCTION PROCESS TO REMAIN EFFECTIVE. MAINTENANCE SHALL BE AS INDICATED ON SOIL EROSION BMP'S DETAIL SHEETS.
- PERSONS DESTROYING EROSION CONTROL DEVICES SHALL BE RESPONSIBLE FOR IMMEDIATELY REPAIRING THEM OR INSTALLING SUITABLE REPLACEMENT DEVICES.
- THE DEVELOPMENT OF ANY SUBDIVISION THAT DISTURBS 1 ACRE OR MORE WILL REQUIRE A FEDERAL/STATE NPDES STORMWATER PERMIT. THE PREPARATION OF A STORMWATER POLLUTION PREVENTION PLAN IS REQUIRED. EROSION CONTROL DEVICES ARE REQUIRED. THE DETAILS SHOWN ON THIS SHEET ARE THE MINIMUM STANDARDS TO BE SHOWN ON POLLUTION PREVENTION PLANS.
- FOR SUBDIVISIONS SMALLER THAN 1 ACRE, SOIL EROSION DEVICES ARE REQUIRED. ALSO, DEVELOPERS AND CONTRACTORS ARE ENCOURAGED TO DEVELOP POLLUTION PREVENTION PLANS FOR EACH PROJECT PRIOR TO CONSTRUCTION.
- FAILURE TO USE AND MAINTAIN SOIL EROSION DEVICES IS A VIOLATION OF SECTION 16.32 OF THE CITY CODE AND WILL SUBJECT THE SUBDIVISION DEVELOPER AND CONTRACTORS TO THE PENALTIES PROVIDED THEREIN.
- THE APPLICATION OF EROSION CONTROL DEVICES SHOWN ON THIS SHEET IS FOR SITUATIONS NORMALLY ENCOUNTERED. FROM TIME TO TIME, SITUATIONS WILL ARISE THAT MAY REQUIRE DEVICES OTHER THAN THAT SHOWN. EROSION CONTROL DEVICES, OTHER THAN THOSE SHOWN, MAY BE UTILIZED SO LONG AS THEY ARE EFFECTIVE AND MAINTAINED.
- A STABILIZED EARTH SURFACE IS DEFINED AS ONE THAT IS HARD SURFACED WITH CONCRETE, ASPHALT, OR THE LIKE, OR ONE ON WHICH 70% OF THE GRASS HAS GERMINATED ON THE ENTIRE SURFACE.

SEE DETAIL SHEET FOR BACK OF CURB PROTECTION DETAIL



CURB BACKFILL DETAIL (STREET CONSTRUCTION ONLY)

THIS IS A TEMPORARY MEASURE ONLY, WHEN APPROVED BY THE PROJECT ENGINEER. THE DIRT GRADE BEHIND THE CURB SHALL BE BROUGHT TO THE TOP OF CURB, WITH TEMPORARY EROSION CONTROL MAT OR PERMANENT VEGETATION PLACED, PRIOR TO THE COMPLETION OF ALL PROJECTS.

REVISION DATE: MAY 2013



SUBDIVISION DEVELOPMENT PROCESS		
CITY ENGINEER GARY JANZEN, P.E.		
PROJECT NUMBER	OCA NUMBER	DATE
CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501	SHEET	

WATERLINE IMPROVEMENTS TO SERVE

BRIDGER PAWNEE ADDITION

CITY OF WICHITA, KANSAS
PAUL GUNZELMAN, P.E. - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 448-2024-016899

Issue:			
JOB NO.	35-230656-004-042		
DATE	DECEMBER 2024		
PM	KPG		
DESIGNED BY	HJW		
DRAWN BY	CSL		
CHECKED BY	TBK		

EROSION CONTROL DETAILS

CU605

SAVED 11/19/2024 2:24:35 PM BY CATHY.LINK
PLOTTED 12/26/2024 10:29:22 AM BY BRADLEY.HAYNES
U:\WICHITA-CIVIL\2023\230656\002\2PD4_PLANS\030\WATER MAIN\230656-002-CU605.DWG

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