

SANITARY SEWER IMPROVEMENTS

TO SERVE PROPOSED SUBWAY BUILDING SITE

Lot 3 and a Part of Lot 2, Regency Lakes Commercial 2ND Addition
(NW Corner of 21st St. N. and Greenwich)

Private Project No. 1958 PPS 607861

City of Wichita
Sedgwick County, Kansas
JAMES L. ARMOUR, PE, CITY ENGINEER

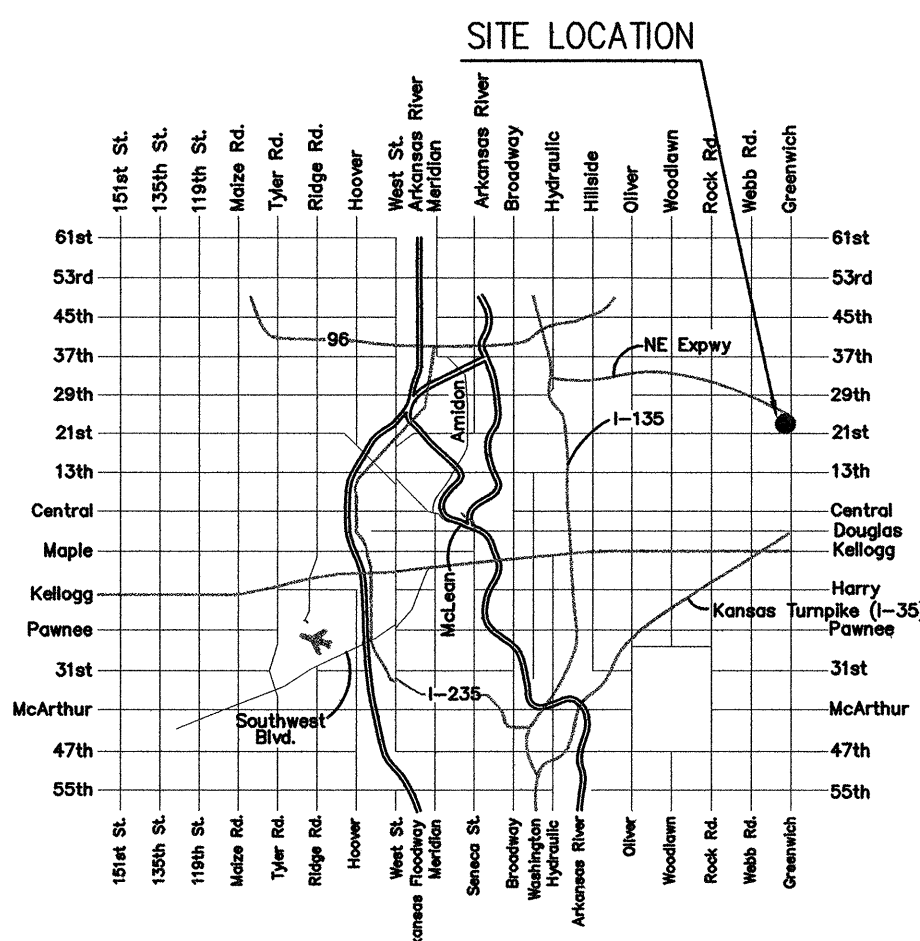
INDEX OF SHEETS:

- 8" SANITARY SEWER PLAN & PROFILESS-1
- STANDARD TYPE "P" MANHOLE DETAILSSS-2
- STANDARD MANHOLE FRAME & COVER DETAILS.....SS-3

BENCHMARKS & SURVEY NOTES:

- Horizontal boundary control and survey base map per ALTA/ACSM Land Survey Title dated 9/11/08. Survey performed by Allied Laboratories, Wichita, KS.
- Vertical control data based on benchmarks per ALTA/ACSM Land Survey Title dated 9/11/08, as follows:
 - 2.1 Chiseled "x" Southwest of fire hydrant +/- 90 ft. South of Northeast corner Kanza Bank property. ELEV. = 1364.80 N.G.V.D.
 - 2.2 Found chiseled "x" top of curb, East end median island, South of Chli's. ELEV. = 1368.03 N.G.V.D.

VICINITY MAP:



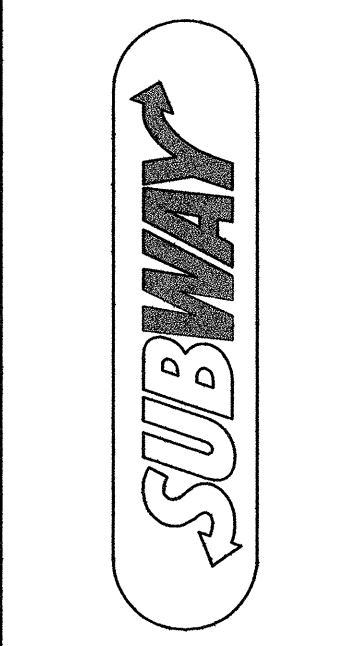
APPROVED AS NOTED
BY CITY ENGINEER OF WICHITA,
BY WICHITA WATER & SEWER DEPARTMENT

Public Works *Julianne Kellman 4-7-09*
Water & Sewer

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

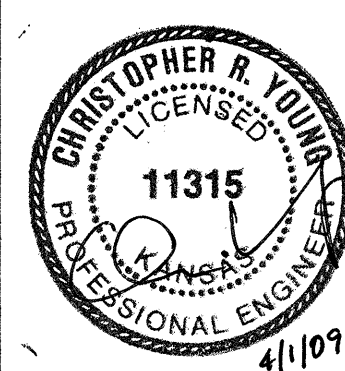
CITY OF WICHITA PRIVATE PROJECT NO.:
1958 PPS 607861

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SUBWAY SANDWICH SHOP
REGENCY LAKES SHOPPING CENTER
21ST. STREET N. & GREENWICH ROAD
WICHITA, KS.

DAN WINTER ARCHITECT
1024 EAST FIRST STREET
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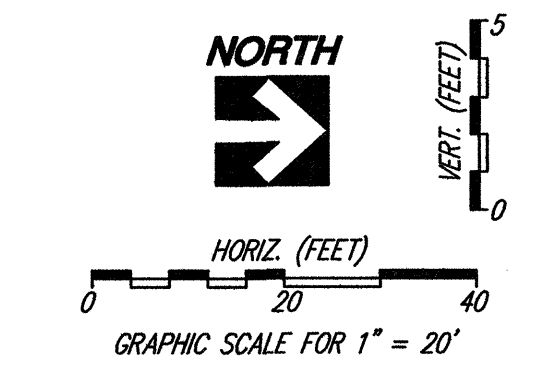
8" SAN. SEWER
PLAN & PROFILE

DATE:
FEB. 19, 2009
MAR. 10, 2009

SHEET NO.
SS-1

GENERAL NOTES:

- ALL SANITARY SEWERS AND APPURTENANCES SHALL BE INSTALLED IN ACCORDANCE WITH CITY OF WICHITA, KANSAS STANDARD SPECIFICATIONS FOR THE CONSTRUCTION OF CITY PROJECTS.
- CONTRACTOR WILL BE REQUIRED TO PROVIDE A MINIMUM ADVANCE NOTICE OF FORTY EIGHT HOURS TO UTILITY COMPANIES PRIOR TO STARTING ANY EXCAVATION AS FOLLOWS:
KANSAS ONE-CALL.....(316) 687-2470
THE CONTRACTOR MUST NOTIFY THE FOLLOWING IN CASE OF AN EMERGENCY:
COX COMMUNICATIONS.....(316) 262-0661
KANSAS GAS SERVICE.....1-800-482-4950
AQUILA NETWORKS.....1-800-527-0357
WESTAR ENERGY.....(316) 383-8600
AT&T.....1-800-870-8390
CITY OF WICHITA WATER DEPARTMENT.....(316) 268-4940
CITY OF WICHITA SEWER DEPARTMENT.....(316) 268-4940
- PAVEMENT REMOVAL AND REPLACEMENT WILL NOT BE PAID FOR DIRECTLY, BUT SHALL BE CONSIDERED SUBSIDIARY TO THE STORM SEWER PIPE INSTALLATION. WHEN PAVEMENT REMOVAL IS REQUIRED, THE CONTRACTOR SHALL REPLACE IT IN KIND, REGARDLESS OF WIDTH, PAVEMENT TYPE AND/OR THICKNESS. THE MINIMUM LIMITS OF REMOVAL SHALL BE ONE FOOT BEYOND THE PIPELINE TRENCH. REMOVAL AND REPLACEMENT OF EXISTING PAVEMENT SHALL CONFORM TO THE APPLICABLE SECTIONS OF THE CITY OF WICHITA STANDARD SPECIFICATIONS. CURB & GUTTER REMOVAL AND REPLACEMENT SHALL ALSO BE CONSIDERED SUBSIDIARY TO THE STORM SEWER PIPE INSTALLATION.
- EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS, REPRESENT THE BEST AVAILABLE INFORMATION. IT SHOULD BE NOTED THAT OTHER BURIED LINES AND CABLE MAY EXIST WHICH ARE NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION DURING TRENCHING OPERATIONS TO AVOID DAMAGING THESE LINES AND CABLES. ANY UTILITIES DAMAGED SHALL BE REPLACED OR REPAIRED IMMEDIATELY AS DIRECTED BY THE ENGINEER AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL PROTECT FROM DAMAGE AND SUPPORT EXISTING UTILITIES THROUGH CONSTRUCTION AS APPROVED BY THE UTILITY OWNER AND THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- WATER LINE DEPTHS THROUGHOUT THE PROJECT VARY. THE CONTRACTOR SHALL EXPOSE THE EXISTING WATER LINES AT ALL CROSSINGS. IF THE LOCATION OF THE WATER LINE IS IN CONFLICT WITH THE PROPOSED STORM SEWER, THE CONTRACTOR SHALL REPORT HIS FINDINGS TO THE ENGINEER SO NECESSARY PLAN MODIFICATIONS CAN BE MADE. CARE SHOULD BE TAKEN SO THE WATER LINES ARE NOT DAMAGED DURING CONSTRUCTION. ALL COSTS ASSOCIATED WITH LOCATING WATER LINES AND ADJUSTING THE PROPOSED STORM SEWER PROFILE AS REQUIRED WILL BE SUBSIDIARY TO STORM SEWER PIPE, COMPLETE IN PLACE.
- GAS LINE DEPTHS THROUGHOUT THE PROJECT VARY. THE CONTRACTOR SHALL EXPOSE THE EXISTING GAS LINES AT ALL CROSSINGS. IF THE LOCATION OF THE GAS LINE IS IN CONFLICT WITH THE PROPOSED STORM SEWER, THE CONTRACTOR SHALL REPORT HIS FINDINGS TO THE ENGINEER SO NECESSARY PLAN MODIFICATIONS CAN BE MADE. CARE SHOULD BE TAKEN SO THE GAS LINES ARE NOT DAMAGED DURING CONSTRUCTION. ALL COSTS ASSOCIATED WITH LOCATING GAS LINES AND ADJUSTING THE PROPOSED STORM SEWER PROFILE AS REQUIRED WILL BE SUBSIDIARY TO STORM SEWER PIPE, COMPLETE IN PLACE.
- THE CONTRACTOR SHALL NOT START WORK ON THE PROJECT UNTIL THE PROJECT INSPECTOR IS ASSIGNED TO THE PROJECT AND IS PRESENT ON THE SITE. ANY WORK PERFORMED WITHOUT INSPECTION IS SUBJECT TO BE UNCOVERED FOR INSPECTION.
- THE CONTRACTOR SHALL GIVE ALL PROPERTY OWNERS AND/OR TENANTS OF DEVELOPED PROPERTY DIRECTLY ABUTTING THE CONSTRUCTION OF THIS PROJECT A MINIMUM OF TEN (10) DAYS ADVANCE NOTICE PRIOR TO START OF CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING EXISTING PROPERTY IRONS AND RIGHT-OF-WAY MONUMENTS. THE CONTRACTOR SHALL BE REQUIRED TO REESTABLISH ANY PROPERTY IRONS OR RIGHT-OF-WAY MONUMENTS WHICH ARE DAMAGED OR DESTROYED BY HIS CONSTRUCTION OPERATIONS. SUCH IRONS OR MONUMENTS SHALL BE REESTABLISHED BY A LICENSED SURVEYOR IN ACCORDANCE WITH STATE LAWS. ALL COSTS FOR THIS WORK SHALL BE SUBSIDIARY TO SITE CLEARING & RESTORATION.
- THE CONTRACTOR SHALL RESTORE ALL DITCHES, SWALES, ROAD SHOULDERS, ENTRANCES, AND BANK LINES TO THEIR ORIGINAL SLOPES AND GRADES UNLESS SHOWN OTHERWISE IN THE PLANS.
- ANY EXCESS EXCAVATION OR RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES INCLUDING ANY TREES REMOVED AND TREE TRIMMINGS 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, 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 US 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.
- ALL LAWN AREAS DISTURBED BY CONSTRUCTION OF THE PROPOSED IMPROVEMENTS SHALL BE RESTORED WITH THE SAME GRASS AS EXISTING. RESTORATION OF DISTURBED AREAS SHALL INCLUDE BUT NOT BE LIMITED TO: TOP SOIL PREPARATION, SEEDING, MULCH AND/OR RESEEDING. ALL SEEDING WORK SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS AND THE CITY OF WICHITA ADMINISTRATIVE REGULATION NO. A978 WHICH CITY OF WICHITA STANDARD GOVERNS CLEANUP AND RESTORATION OF REPLACEMENT FOLLOWING CONSTRUCTION. ALL COSTS FOR THIS WORK SHALL BE SUBSIDIARY TO THE LUMP SUM PRICE BID FOR "SITE CLEARING & RESTORATION".
- ALL AREAS DISTURBED BY THE CONSTRUCTION OPERATION SHALL BE SEEDED (FESCUE OR MATCH EXISTING GRASS TYPE), FERTILIZED, AND MULCHED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. IF CONSTRUCTION IS COMPLETED OUTSIDE OF THE SPECIFIED "PLANTING SEASON", THEN THE CONTRACTOR SHALL PROVIDE TEMPORARY SEEDING AND MULCH IMMEDIATELY FOLLOWING CONSTRUCTION IN THE AREA.
- INTERURBAN TRAFFIC GENERATED OUTSIDE THE PROJECT AREA AND LOCAL BUSINESS OR RESIDENTIAL TRAFFIC GENERATED WITHIN THE PROJECT AREA ARE TO BE CARRIED THROUGH CONSTRUCTION AS FURTHER PROMULGATED BY THE PROJECT SPECIAL PROVISIONS. THE CONTRACTOR SHALL UTILIZE BARRICADES, SIGNS, GUARDS, AND FLAGMEN IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. THE CONTRACTOR SHALL PROVIDE A TRAFFIC CONTROL PLAN TO THE CITY FOR APPROVAL PRIOR TO BEGINNING WORK.
- A FULL DEPTH SAW CUT SHALL BE PROVIDED AT LOCATIONS WHERE PROPOSED CONSTRUCTION ABUTS AN EXISTING PAVEMENT. WHEN SUCH SAW CUTS ARE WITHIN THREE (3) FEET OF AN EXISTING JOINT THE LIMITS OF REMOVAL SHALL BE EXTENDED TO THE EXISTING JOINT. SUCH SAW CUTS WILL NOT BE PAID FOR DIRECTLY AND SHALL BE CONSIDERED SUBSIDIARY TO NEW PAVEMENT CONSTRUCTION.
- ALL IRRIGATION, LANDSCAPING, AND FENCING DISTURBED DURING CONSTRUCTION SHALL BE REMOVED AND RESET IN KIND, BY THE CONTRACTOR. THE CONTRACTOR SHALL PROVIDE A MINIMUM ADVANCE NOTICE OF FORTY-EIGHT HOURS TO THE AFFECTED PROPERTY OWNERS PRIOR TO BEGINNING CONSTRUCTION. THIS WORK SHALL BE CONSIDERED SUBSIDIARY TO "SITE CLEARING AND RESTORATION".
- ALL SIDEWALK REPLACEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF WICHITA STANDARDS. WHERE THE SIDEWALK IS TO BE REPLACED AT STREET INTERSECTIONS, THE CONTRACTOR SHALL CONSTRUCT WHEELCHAIR RAMPS PER THE CITY OF WICHITA STANDARD SPECIFICATIONS. ALL COSTS ASSOCIATED WITH THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE STORM SEWER PIPE INSTALLATION.
- THE CONTRACTOR SHALL USE BEST MANAGEMENT PRACTICES (BMP'S) TO PREVENT ERODED SOIL FROM ENTERING DITCHES, STORM SEWERS, OR ANY OTHER DRAINAGE FEATURE. THE CITY OF WICHITA STANDARD DETAILS FOR SOIL EROSION BMP'S ARE A PART OF THIS SET OF PLANS AND ARE INTENDED TO PROVIDE GUIDELINES AS TO WHAT TYPE OF SOIL EROSION PROTECTION WILL BE INSTALLED DURING THE CONSTRUCTION PROCESS. THE CONTRACTOR SHALL BID THE PROJECT ACCORDINGLY. BMP'S SHALL BE MAINTAINED DURING THE CONSTRUCTION PROCESS BY THE CONTRACTOR. THE CONTRACTOR SHALL IMMEDIATELY REPAIR OR REPLACE ANY SOIL EROSION BMP'S DAMAGED OR DESTROYED DURING THE CONSTRUCTION PROCESS. ALL COSTS ASSOCIATED WITH THIS WORK SHALL BE SUBSIDIARY TO THE BID ITEM "SOIL EROSION BMP'S."
- THE CONTRACTOR SHALL SATISFY HIMSELF OF THE SUBSURFACE CONDITIONS PRIOR TO CONSTRUCTION.

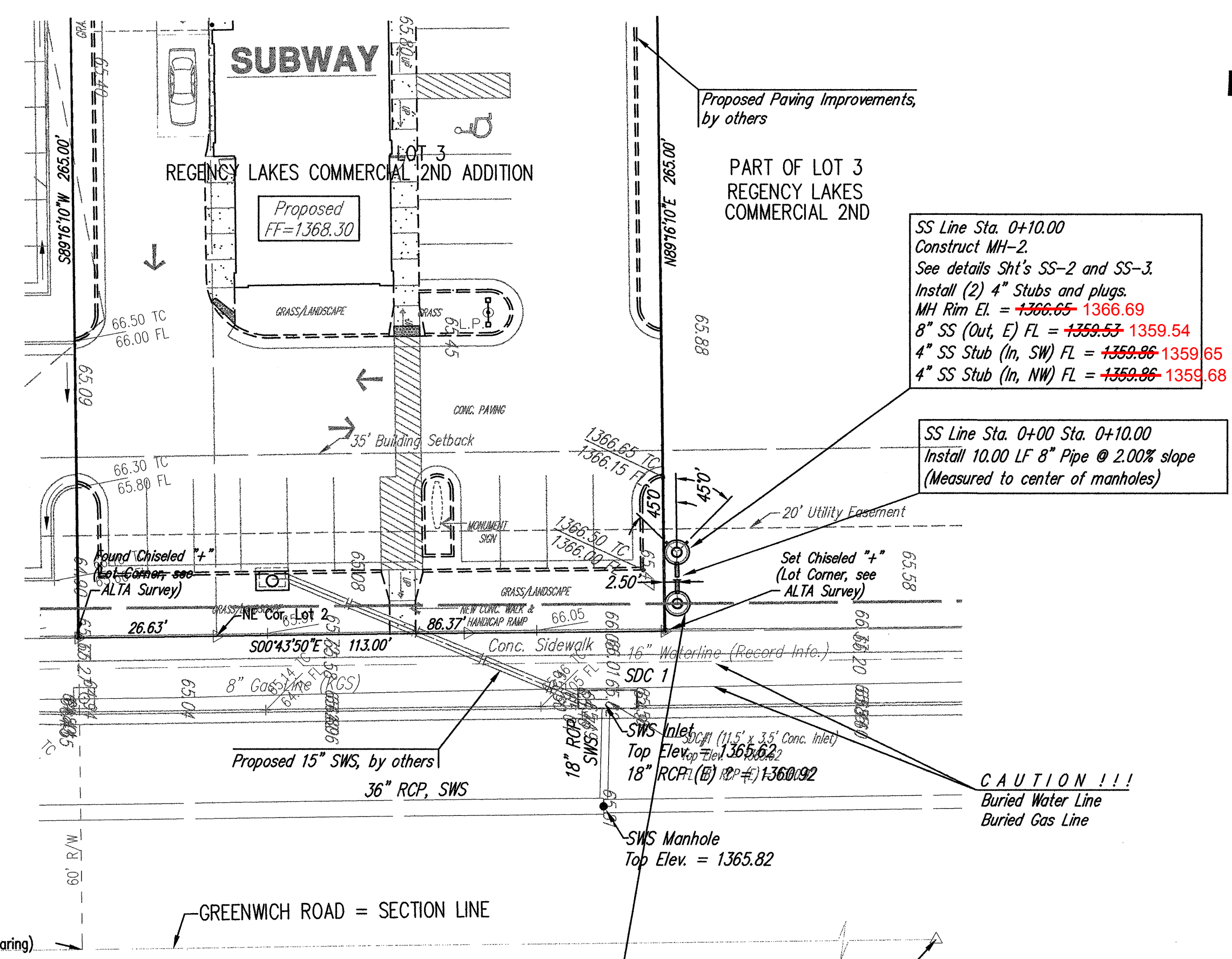


LEGEND:

- TP = Proposed top of pavement/walk elev.
- TC = Proposed top of curb elev.
- FL = Proposed curb flow-line elev.
- ME = Match existing grade, (field verify elev.)
- Proposed pavement spot elev., by others.

Benchmark 2.1, see notes this Sht.

488.2±
N00°43'50"W (Assumed Basis of Bearing)
SE COR. SE 1/4 SEC. 4, T27S, R2E FOUND CHISELED "x"



SS Line Sta. 0+10.00
Construct MH-2.
See details Sht's SS-2 and SS-3.
Install (2) 4" Stubs and plugs.
MH Rim El. = ~~1366.65~~ 1366.69
8" SS (Out, E) FL = ~~1359.53~~ 1359.54
4" SS Stub (In, SW) FL = ~~1359.86~~ 1359.85
4" SS Stub (In, NW) FL = ~~1359.86~~ 1359.85

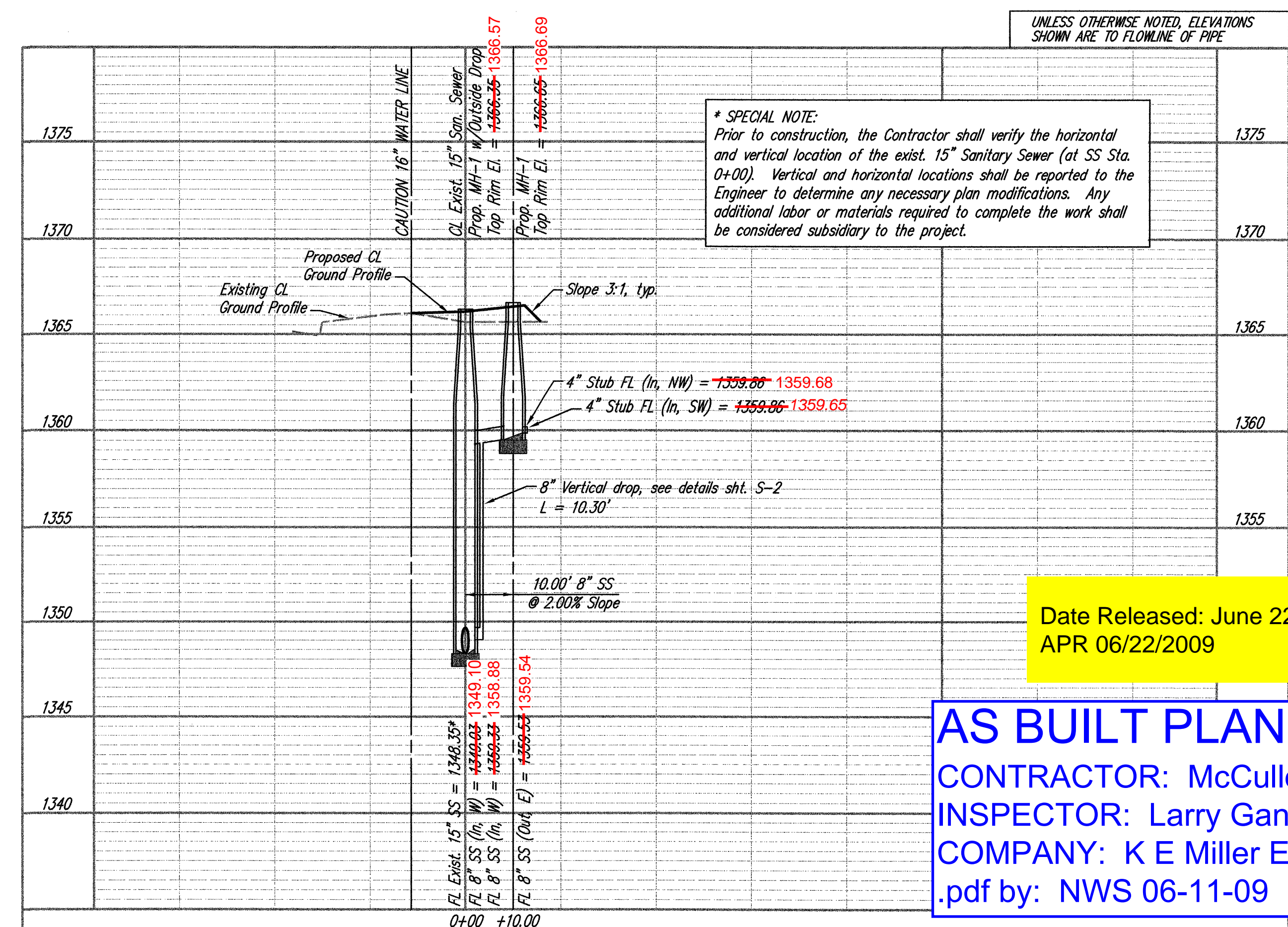
SS Line Sta. 0+00 Sta. 0+10.00
Install 10.00 LF 8" Pipe @ 2.00% slope
(Measured to center of manholes)

CAUTION !!!
Buried Water Line
Buried Gas Line

SS Line Sta. 0+00*
Construct MH-2, with Outside Drop.
Construct MH over existing 15" Pipe.
Remove top half of 15" pipe through MH.
See details Sht's S-2 and S-3.
MH Rim El. = ~~1366.35~~ 1366.57
Exist. 15" SS (Out, S) FL ± 1348.35
8" SS (In, W) FL = ~~1349.07~~ 1349.10
8" SS (In, W) FL = ~~1358.87~~ 1358.88
(Field verify 15" SS FL prior to construction, report any differences to Engineer)

UNLESS OTHERWISE NOTED, ELEVATIONS SHOWN ARE TO FLOWLINE OF PIPE

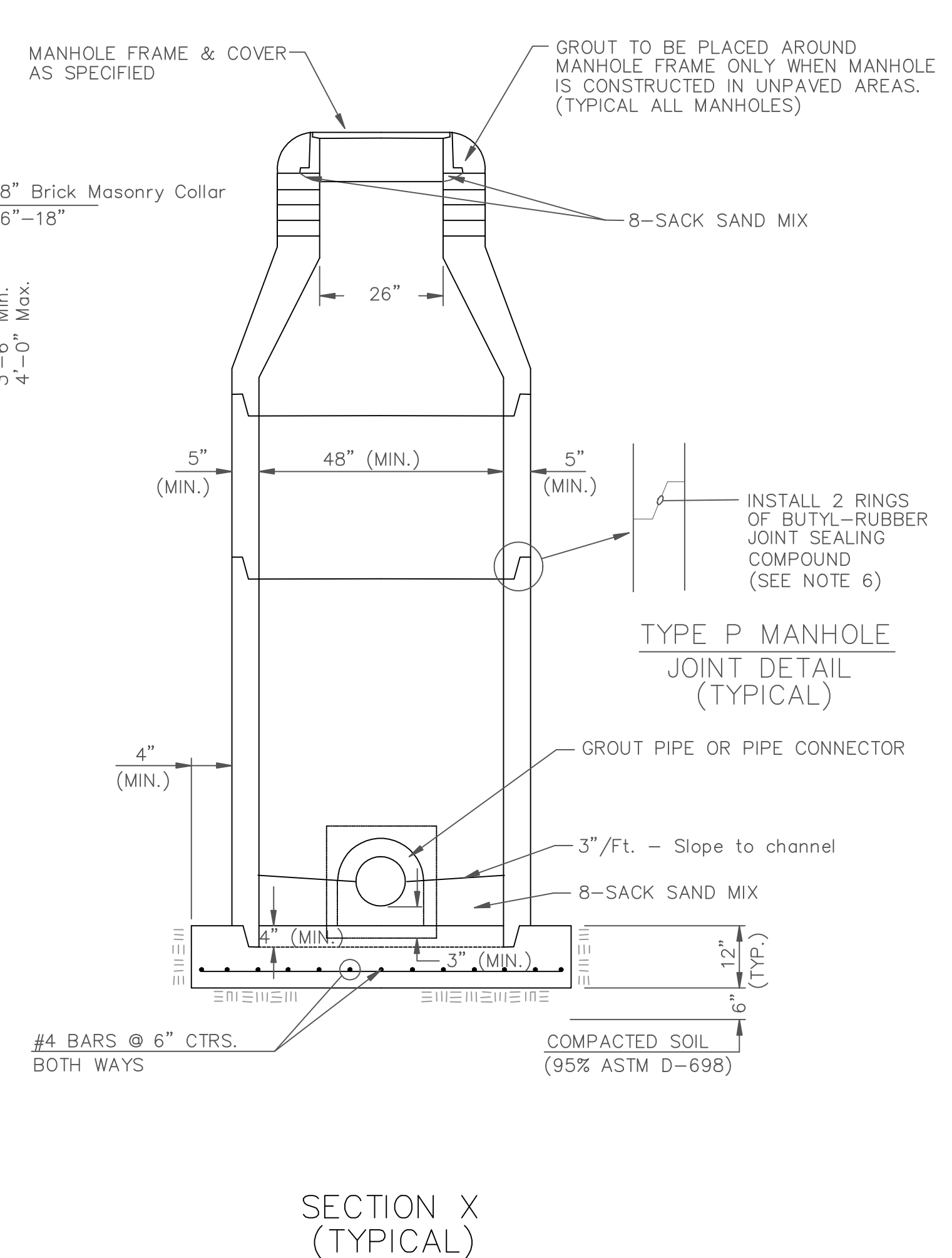
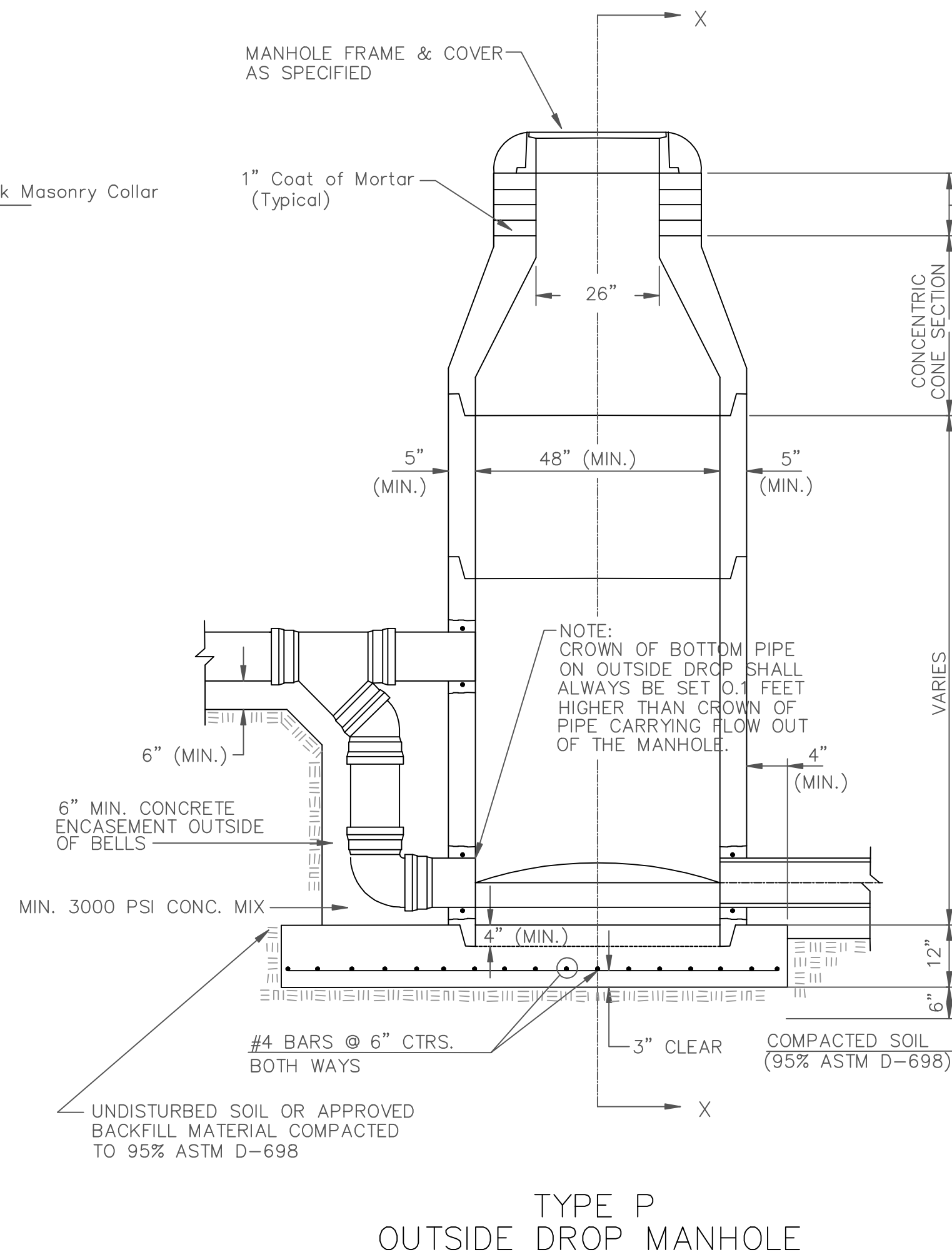
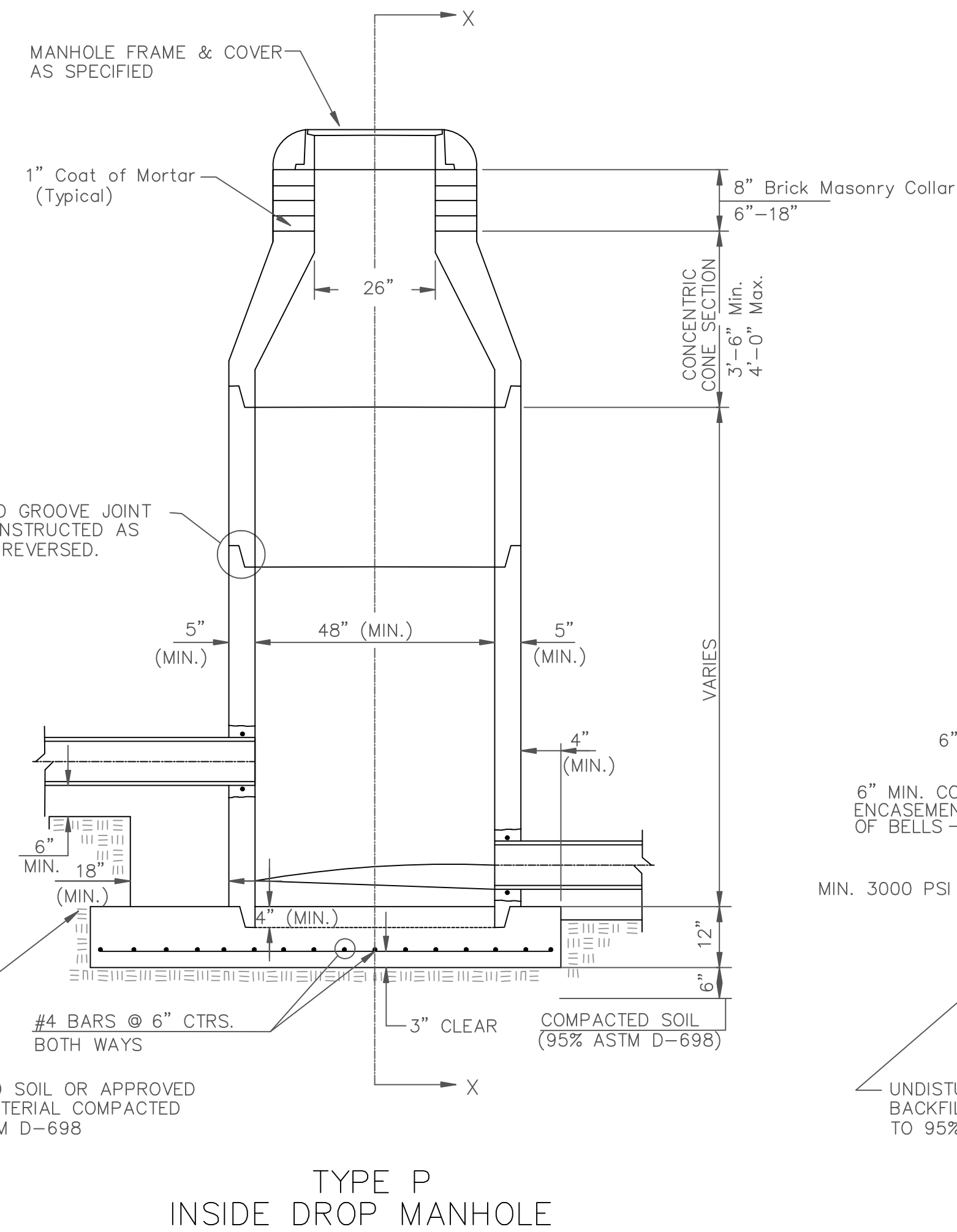
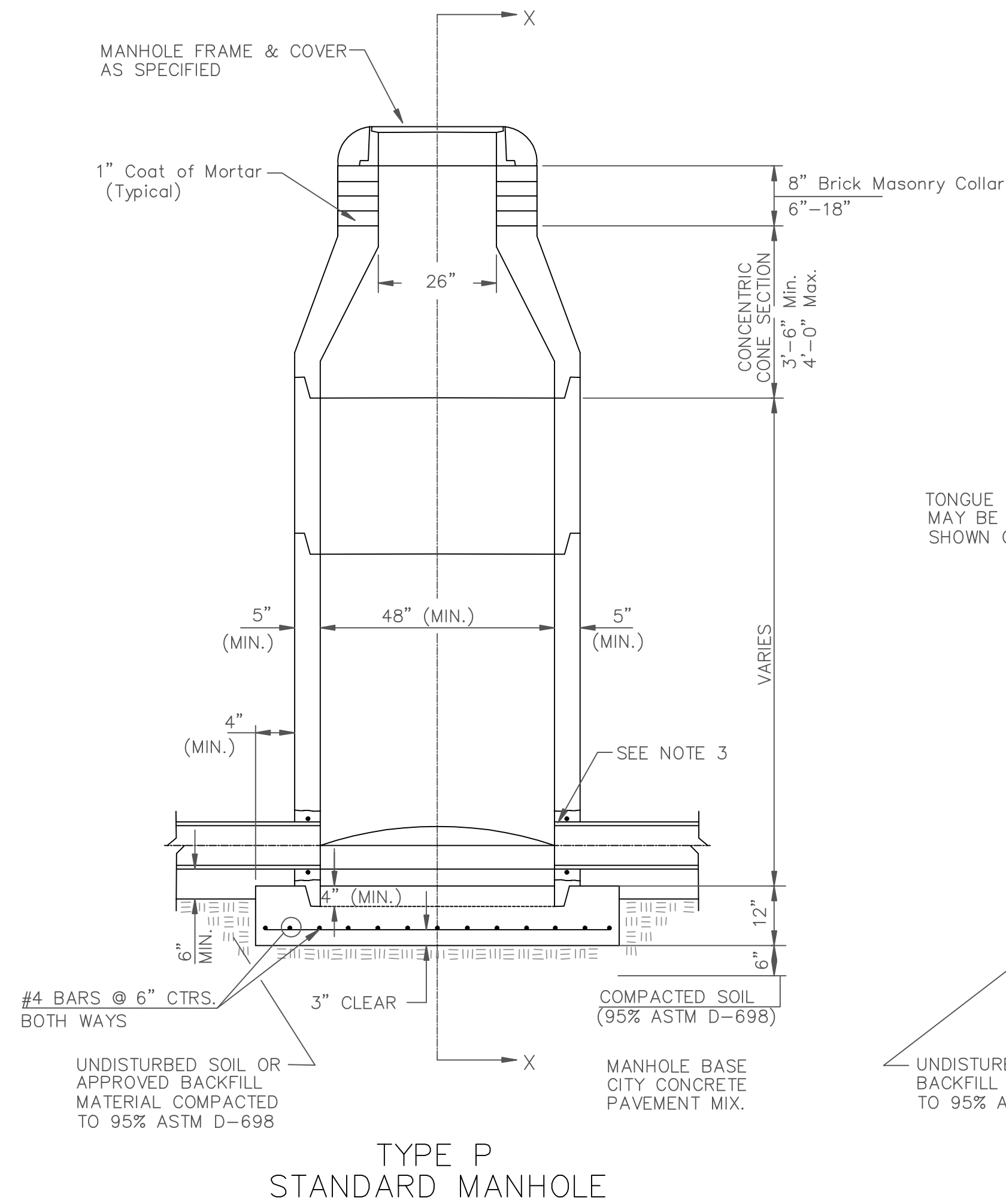
* SPECIAL NOTE:
Prior to construction, the Contractor shall verify the horizontal and vertical location of the exist. 15" Sanitary Sewer (at SS Sta. 0+00). Vertical and horizontal locations shall be reported to the Engineer to determine any necessary plan modifications. Any additional labor or materials required to complete the work shall be considered subsidiary to the project.



Date Released: June 22, 2009
APR 06/22/2009

AS BUILT PLANS:
CONTRACTOR: McCullough Exc.
INSPECTOR: Larry Gann
COMPANY: K E Miller Engineering
.pdf by: NWS 06-11-09

SEWER APPURTENANCES DETAILS



GENERAL NOTES PRECAST MANHOLE NOTES

- ALL PRECAST CONCRETE MANHOLE SECTIONS SHALL CONFORM TO THE LATEST REVISIONS OF A.S.T.M. C478 AS MODIFIED BY THE SPECIFICATIONS.
- NON-SHRINK GROUT SHALL BE NON-METALLIC TYPE.
- APPROVED FLEXIBLE WATERSTOP GASKETS SHALL BE INSTALLED TO JOIN THE SEWER TO THE MANHOLE WALL WHEN A.B.S. COMPOSITE PIPE OR P.V.C. PIPE IS USED. FOR OTHER TYPES OF PIPE THE SEWER SHALL BE GROUTED IN PLACE WITH NON-SHRINK GROUT. THE SEWER PIPE SHALL BE SUPPORTED WITH CONCRETE ENCASUREMENT A MINIMUM OF 3 FEET FROM THE MANHOLE WALL AND TO THE FIRST JOINT FOR V.C.P. SUCH THAT THE JOINT REMAINS FLEXIBLE.
- ALL INSIDE SURFACES OF THE CONCRETE MANHOLE WHICH WOULD BE EXPOSED TO SEWER GAS SHALL BE COATED WITH 2 COATS TNEPEC SERIES 66 HI-BUILD EPOXOLINE, DRY THICKNESS OF 8 MILS (MIN.)
- EXTERIOR MANHOLE WALLS SHALL BE COATED WITH 1 COAT MOBILARMA 633 BITUMINOUS COATING.
- JOINT SEALING COMPOUND SHALL BE KENT SEAL NO. 2 OR APPROVED EQUAL.
- PRECAST MANHOLES SHALL BE SET AT LEAST 4 INCHES INTO THE MANHOLE BASE.
- TOP OF MANHOLE FLOOR SLAB SHALL BE AT LEAST 3 INCHES BELOW THE FLOW LINE OF THE OUTLET PIPE TO INSURE SUFFICIENT MINIMUM THICKNESS OF SHAPED INVERT.
- LIFTING HOLES SHALL BE FILLED WITH NON-SHRINK GROUT AND THE INTERIOR SURFACE COATED AS SPECIFIED.
- MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 8 SACKS OF CEMENT PER CUBIC YARD. CONCRETE USED IN MANHOLE BASES SHALL CONFORM TO THE REQUIREMENTS OF CONCRETE FOR CONCRETE PAVEMENT CONSTRUCTION AS SPECIFIED IN THE CITY STANDARD PAVING SPECIFICATIONS USING CITY CONCRETE PAVEMENT MIX WITHOUT AIR ENTRAINING ADMIXTURE. MORTAR SHALL BE PLACED AROUND THE MANHOLE RING AS SHOWN ON THE DRAWINGS WHEN MANHOLES ARE CONSTRUCTED IN UNPAVED AREAS. MANHOLES CONSTRUCTED WHERE PIPE SIZES ARE SMALLER THAN 24" SHALL HAVE AN INSIDE DIAMETER OF 4". MANHOLES CONSTRUCTED WHERE PIPE SIZES ARE 24" OR LARGER SHALL HAVE AN INSIDE DIAMETER OF 5". COMPLETED MANHOLE SHALL BE WITHOUT LEAKS AND WATER TIGHT.

- REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASES AND SHALL CONSIST OF NO. 4 BARS PLACED ON 6" CENTERS IN BOTH DIRECTIONS. THE MANHOLE BASE REINFORCEMENT SHALL BE PLACED AT LEAST 3" ABOVE THE BOTTOM OF THE MANHOLE BASE. ALL COSTS FOR FURNISHING AND INSTALLING REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.
- OPENINGS SHALL BE CUT INTO THE MANHOLE WALL WHEN OUTSIDE DROPS ARE CONSTRUCTED ON EXISTING MANHOLES. SUCH OPENINGS CUT INTO EXISTING MANHOLES SHALL BE AS SMALL AS PRACTICAL TO FACILITATE INSTALLING AND GROUTING THE NEW PIPE IN PLACE. WATERSTOP GASKETS SHALL BE USED WITH P.V.C. AND A.B.S. COMPOSITE PIPE. THE NEW PIPE SHALL BE GROUTED INTO THE OPENING USING AN APPROVED NONSHRINK GROUT FOR THE FULL MANHOLE WALL THICKNESS. THE EXTERIOR OF THE COMPLETED CONNECTION SHALL BE SEALED WITH AN APPROVED BITUMINOUS COATING SUCH THAT THE CONNECTION WILL BE WATER TIGHT. FLOOR OF MANHOLE SHALL BE MODIFIED TO FORM NEW FLOW CHANNEL FOR THE NEW CONNECTION AS INDICATED BY THE DRAWING. THIS WORK, INCLUDING MODIFICATION OF MANHOLE FLOOR, SHALL BE PAID FOR AT THE UNIT PRICE BID FOR OUTSIDE DROP STACK CONSTRUCTED ON EXISTING MANHOLE.
- THE FLOORS OF ALL MANHOLES SHALL BE SHAPED WITH FLOW CHANNELS SUCH THAT THE MANHOLES WILL BE SELF CLEANING AND FREE OF AREAS WHERE SOLIDS COULD BE DEPOSITED AS SEWAGE FLOWS THROUGH THE MANHOLE FROM ALL INLET PIPES TO THE OUTLET PIPE. FLOW CHANNELS SHALL BE FORMED TO MATCH THE BOTTOM HALVES OF THE INFLOWING PIPES AND THE OUTFLOWING PIPE AS SHOWN BY THE DRAWINGS EXCEPT FOR INSIDE DROP MANHOLES. FLOW CHANNELS FOR INSIDE DROP MANHOLES SHALL BE CONSTRUCTED AS INDICATED BY THE DRAWING. MANHOLE FLOORS SHALL HAVE SLOPES OF 3 INCHES PER FOOT IN THE AREAS OUTSIDE OF THE FLOW CHANNELS SLOPED TOWARD THE FLOW CHANNELS. PIPES LAID THROUGH MANHOLES SHALL HAVE THE TOP HALF REMOVED TO NEAT LINES FOR THE FULL INSIDE DIAMETER OF THE MANHOLE. MANHOLE FLOORS SHALL THEN BE SHAPED AROUND THE BOTTOM HALF OF THE PIPE WHICH FORMS THE FLOW CHANNEL.
- PIPES INSTALLED WITHIN THE EXCAVATION MADE FOR THE MANHOLE SHALL BE CRADLED WITH CONCRETE TO THE LIMITS OF THE MANHOLE EXCAVATION. WHEN CLAY PIPE IS USED, THE CRADLE SHALL EXTEND TO THE FIRST JOINT OUTSIDE THE MAHOLE. THE CRADLE SHALL BE TERMINATED AT THE CLAY PIPE JOINT IN A MANNER WHICH WILL MAINTAIN THE FLEXIBILITY OF THE JOINT. COST OF CRADLE WITHIN MANHOLE EXCAVATION OR TO CLAY PIPE JOINTS ADJACENT TO MANHOLE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.

- MANHOLE COVER CASTINGS AND MANHOLE FRAME CASTINGS SHALL CONFORM TO THE REQUIREMENTS AS INDICATED IN THE STANDARD SPECIFICATIONS AND AS SHOWN IN THE STANDARD DETAIL DRAWING.
- THE VERTICAL DROP IN INSIDE DROP MANHOLES SHALL NOT EXCEED 2' FOR INFLOWING PIPES SIZED 12" OR SMALLER AND 2' FOR INFLOWING PIPES LARGER THAN 12". THE CROWNS OF INFLOWING PIPES SHALL NEVER BE SET LOWER THAN THE CROWN OF THE OUTFLOWING PIPE.
- STANDARD MANHOLES AND STANDARD INSIDE DROP MANHOLES SHALL BE BID AS STANDARD MANHOLES FOR THE TYPE AND DIAMETER INDICATED. OUTSIDE DROP MANHOLES SHALL BE BID AS STANDARD OUTSIDE DROP MANHOLES FOR THE TYPE AND DIAMETER INDICATED. ALL MANHOLE DIAMETERS WILL BE 4' UNLESS INDICATED OTHERWISE.
- A BRICK MASONRY COLLAR SHALL BE INSTALLED BETWEEN THE CAST IRON FRAME AND THE CONCENTRIC CONE. THE COLLAR WILL HAVE 8" WALLS AND A VERTICAL HEIGHT OF 6" MINIMUM AND 18" MAXIMUM. A 1" COAT OF MORTAR WILL BE PLASTERED ON THE OUTSIDE OF THE COLLAR. THE USE OF PRE-CAST CONCRETE SPACERS FOR MANHOLE TOP ADJUSTMENT IS ALSO ALLOWED.

Special Note:
Standard details for Type "P" Manholes shall be in accordance with the latest City of Wichita Standard Specifications for Construction of City Projects.

SUBWAY SANDWICH SHOP
REGENCY LAKES SHOPPING CENTER
21ST. STREET N. & GREENWICH ROAD
WICHITA, KS.

DAN WINTER
ARCHITECT

1024 EAST
FIRST STREET
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PH. 316-267-7142

STANDARD
TYPE "P"
MANHOLES

DATE:
FEB. 19, 2009
MAR. 10, 2009

SHEET NO.
SS-2

