

**GENERAL NOTES**

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS. THE CONTRACTOR WILL BE REQUIRED TO REESTABLISH ANY PROPERTY IRONS WHICH ARE DAMAGED OR DESTROYED BY HIS CONSTRUCTION OPERATIONS. SUCH IRONS SHALL BE REESTABLISHED BY A LICENSED LAND SURVEYOR IN ACCORDANCE WITH STATE LAWS.
2. EXISTING UTILITIES AND THEIR LOCATIONS, AS SHOWN ON THE PLANS 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. THE PLAN LOCATIONS SHOWN ARE NOT GUARANTEED. ADDITIONAL EXISTING UTILITIES MAY ALSO BE ENCOUNTERED.
3. CONTRACTOR WILL BE REQUIRED TO PROVIDE A MINIMUM ADVANCE NOTICE OF FORTY-EIGHT (48) HOURS TO UTILITY COMPANIES PRIOR TO STARTING ANY EXCAVATION AS FOLLOWS:

KANSAS ONE-CALL 1-800-344-7233  
or 687-2470 (LOCAL WICHITA)

THE CONTRACTOR MUST NOTIFY THE FOLLOWING IN CASE OF AN EMERGENCY:

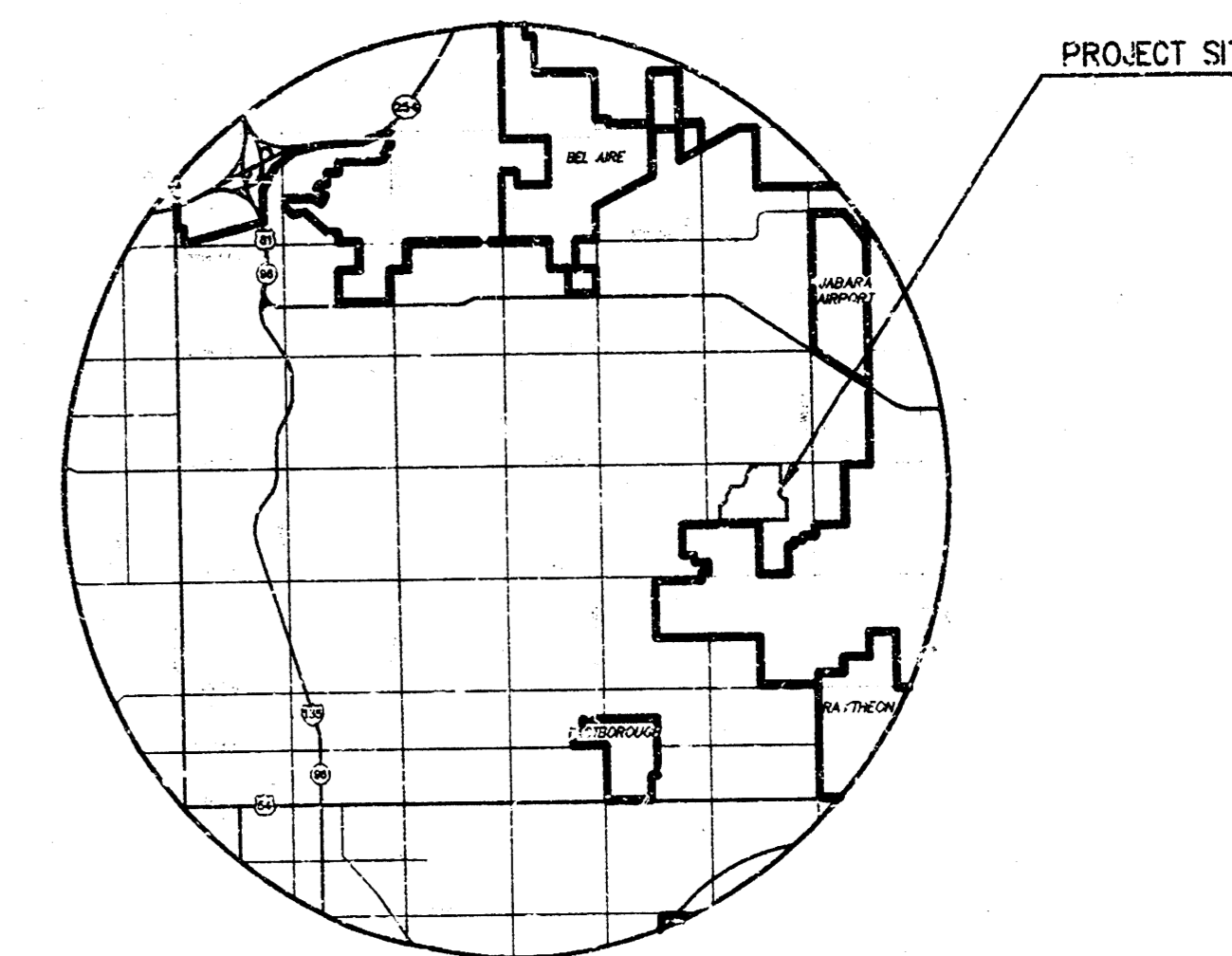
SOUTHWESTERN BELL TELEPHONE COMPANY 1-800-734-7630  
CABLEVISION 262-0661  
K.G.&E. (GAS & ELECTRIC) 383-8600  
CITY OF WICHITA WATER & SEWER MAINTENANCE 262-6000

4. RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES AND EXCESS EXCAVATION WHICH IS TO BE WASTED SHALL BE DISPOSED OF ON SITES TO BE PROVIDED BY THE CONTRACTOR. THESE SITES SHALL BE APPROVED BY THE ENGINEER AS TO SUITABILITY, APPEARANCE AND SITE LOCATION. LOCATIONS 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 WOULD REQUIRE A KANSAS STATE BOARD OF AGRICULTURE PERMIT. ANY MATERIAL DUMPED IN WATERS OF THE UNITED STATES OR WETLANDS IS SUBJECT TO U.S. CORPS OF ENGINEERS PERMITTING REGULATIONS. ANY MATERIAL BURIED OR STOCKPILED BEYOND APPROVED CONSTRUCTION LIMITS WOULD REQUIRE ADDITIONAL ARCHAEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY APPROVED BORROW LOCATION.
5. COST OF EXCAVATION, HAULING, AND DUMPING OF EXCESS EXCAVATION SHALL BE SUBSIDIARY TO THE PROJECT.
6. A PORTION OF EXCESS EXCAVATED MATERIAL SHALL BE MOUNDED AROUND MANHOLES WHICH EXTEND MORE THAN ONE (1) FOOT ABOVE THE EXISTING GROUND. SUCH MOUNDS SHALL BE CONSTRUCTED WITH A SIX (6) FOOT DIAMETER FLAT TOP WITH 4 TO 1 SIDE SLOPES DOWN TO THE ORIGINAL GROUND. THE ELEVATION OF THE FLAT TOP OF THE MOUND SHALL BE 0.4 FOOT BELOW THE TOP OF THE MANHOLE.
7. ALL STUBS AND PLUGGED PIPES SHALL BE LOCATED WITH GREEN PLASTIC TAPE IN THE SAME MANNER AS RISERS.
8. PRIOR TO LAYING SEWER LINES USING EXISTING STUBS IN EXISTING MANHOLES, THE CONTRACTOR SHALL EXPOSE AND VERIFY THE ELEVATION, GRADE AND ALIGNMENT OF EXISTING STUBS AND NOTIFY THE ENGINEER OF ANY DEVIATION FROM THE PLAN. WHERE CONNECTION TO AN EXISTING MANHOLE THAT DOES NOT HAVE AN EXISTING STUB OR THE STUB IS UNUSABLE DUE TO ELEVATION GRADE OR ALIGNMENT, THE CONTRACTOR SHALL RESHAPE THE EXISTING MANHOLE INVERT TO PROVIDE SMOOTH FLOW. THE COST OF RESHAPING EXISTING MANHOLE INVERTS IS INCIDENTAL TO THE PROJECT.
9. TREES AND SHRUBS IN PUBLIC RIGHT-OF-WAY WHICH ARE IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE REMOVED BY THE CONTRACTOR WITH THE ENGINEER'S APPROVAL. TREES AND SHRUBS WHICH ARE NOT IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE SAVED AND PROTECTED FROM DAMAGE.
10. ALL DISTURBED AREAS TO BE SEEDED WITH RYE GRASS AT A RATE OF 200LBS./ ACRE WITHIN 10 DAYS OF CONSTRUCTION.
11. CONTRACTOR SHALL OBTAIN APPROVAL FROM OWNER PRIOR TO REMOVAL OF ALL TREES. TREES REMOVED WITHOUT APPROVAL WILL BE PAID FOR BY THE CONTRACTOR AS DAMAGED PROPERTY.
12. EXCESS EXCAVATION MAY BE WASTED ON SITE IN APPROVED LOCATIONS.
13. CONTRACTOR SHALL MAINTAIN EROSION CONTROL THROUGHOUT CONSTRUCTION. COST SUBSIDIARY TO PROJECT.
14. CONTRACTOR TO PRESERVE EXISTING LANDSCAPING. ANY LANDSCAPING DISTURBED DUE TO THE SPECIFIED WORK OR CONTRACTORS NEGLIGENCE SHALL BE REPLACED AND RESEEDED WITH SAME AS EXISTING. COST SUBSIDIARY TO PROJECT.
14. CONTRACTOR TO INSTALL PLASTIC SEWER MANHOLE MARKERS. SEWER DEPARTMENT WILL PROVIDE THE MATERIALS. COST TO INSTALL MARKERS SUBSIDIARY TO MANHOLES.

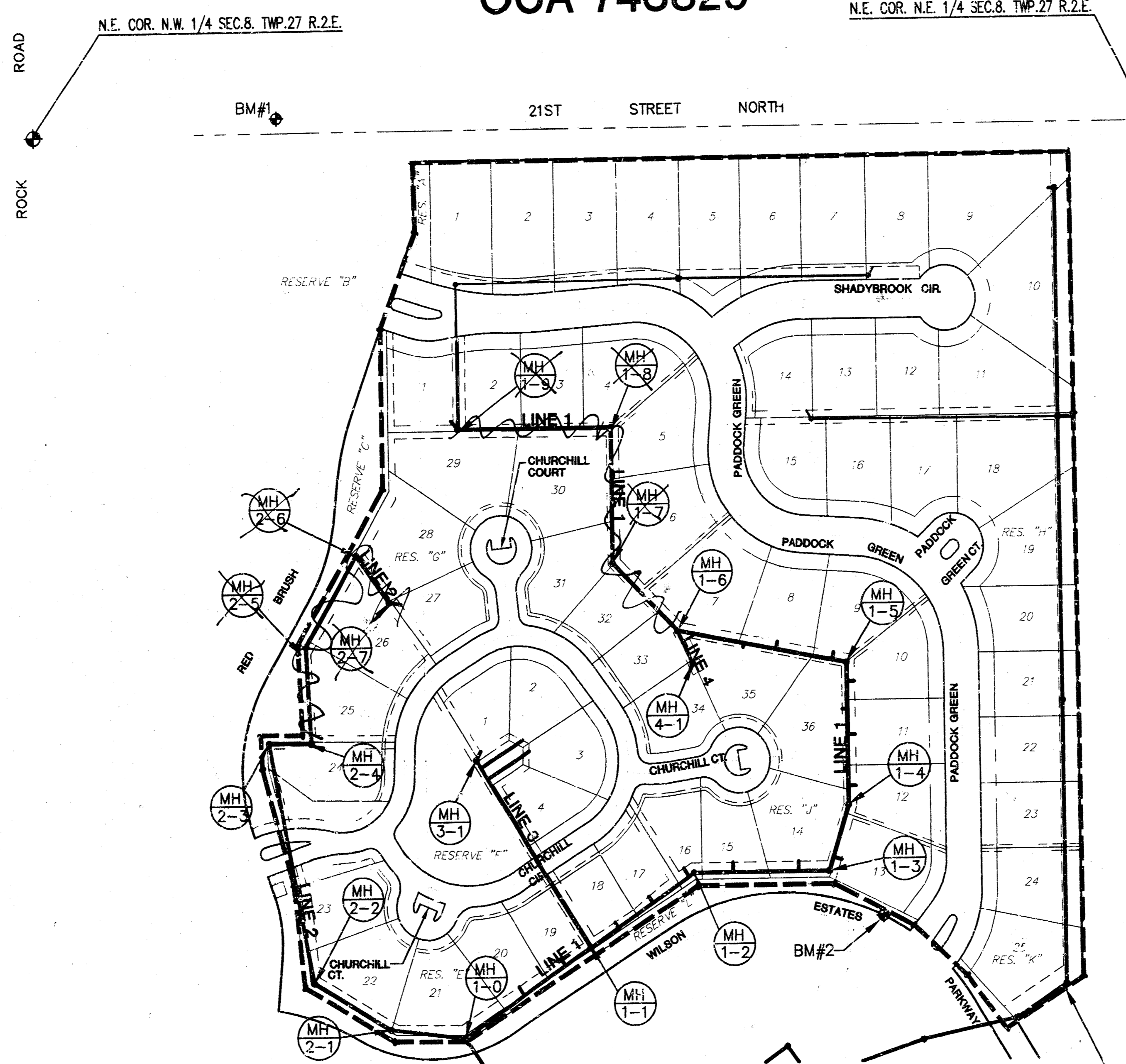
**SANITARY SEWER PLANS  
WILSON FARMS 2ND ADDITION  
PHASE I**

**LAT. 79, MAIN 22, WAR INDUSTRIES SEWER  
PROJECT NO. 468-83057**

**CITY OF WICHITA, KANSAS  
MICHAEL E. LINDEBAK, CITY ENGINEER  
OCA 743829**



LOCATION MAP



SCALE: 1" = 150'

*Booked  
p-143  
8-15-00  
RDL  
AS BUILT*

**INDEX TO DRAWINGS**

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	DETAILS
3	VERTICAL RISER LOCATIONS
Δ 3A	VERTICAL RISER DETAILS
4	LINE 1
5	LINE 1 CONT.
6	LINE 2
7	LINE 3 & 4
8	EASEMENT GRADING
9-10	INLET RELOCATION
11	FINAL PLAT

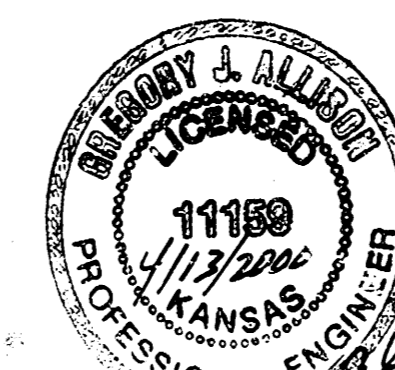
**BENCHMARKS**

BM#1 C.O.W. BENCHMARK  
1/2 MILE EAST OF ROCK ROAD ON 21ST ST.  
C.O.W. BENCH MARK, N.E. COR. HUBGUARD ON  
P.C.B.C.  
ELEV. = 190.005 (PUBLISHED ELEV. = 190.04)

BM#2 TOP OF "T" POST ± 7' NORTH OF THE SE.  
CORNER RESERVE "L" (SOUTH OF LOT 15, BLK. 5).  
ELEV. = 195.00

**LEGEND**

- LIMITS OF TREE REMOVAL
- INDIVIDUAL TREE REMOVAL
- VERTICAL RISER—SEE SEWER SERVICE TABLE SHT. 3 FOR CONSTRUCTION TYPE & LOCATION



REVISION 04/12/00

**WILSON FARM 2ND ADDITION - PHASE 1**  
PROJECT NAME

**SANITARY SEWER PLANS**  
SHEET TITLE

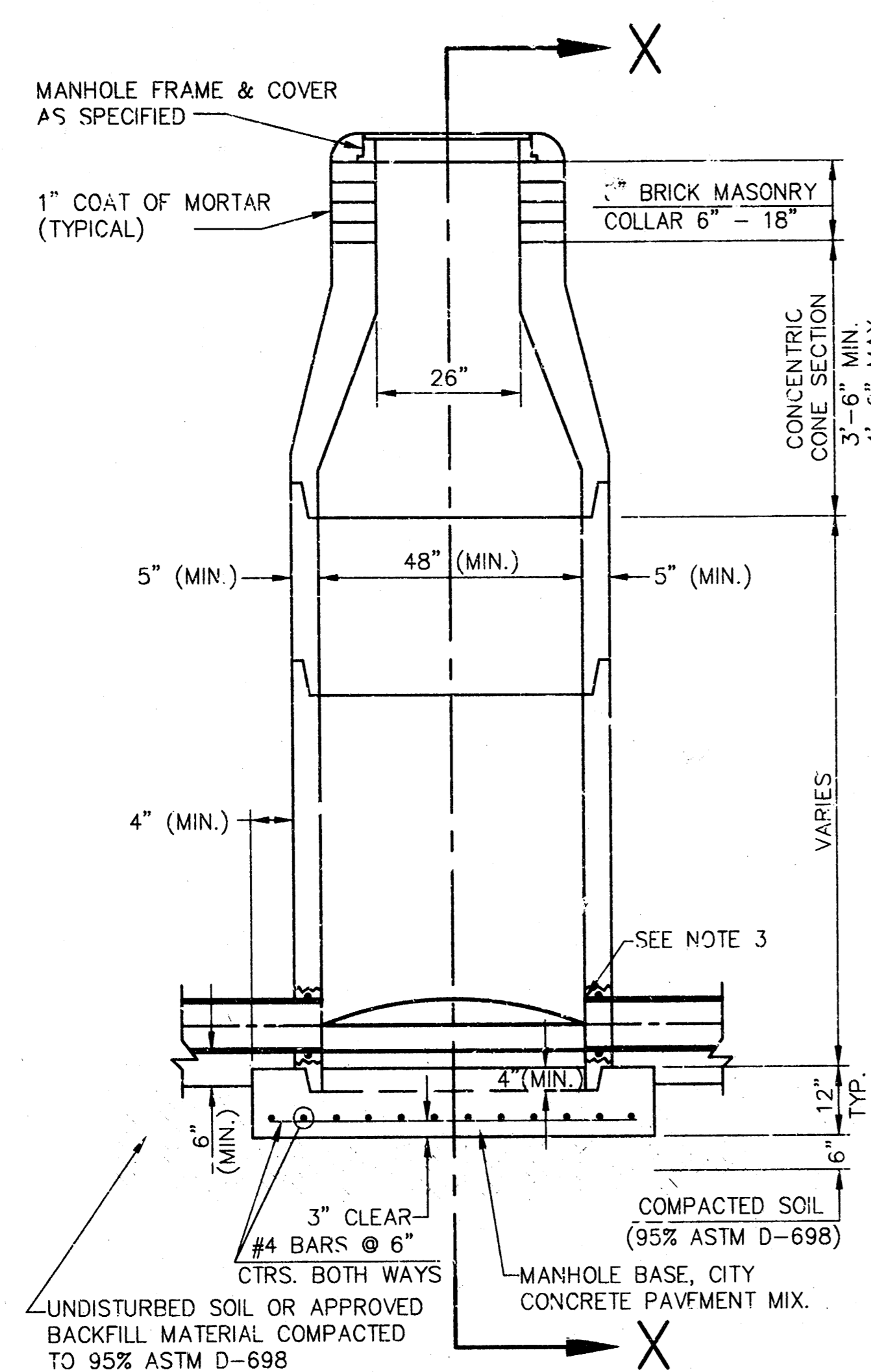
MID-KANSAS ENGINEERING CONSULTANTS, INC.  
411 N. WEBB ROAD  
WICHITA, KS. 67906  
316-684-9600

DESIGN BY: DFL  
DRAWN BY: DAC  
CHECKED BY: GJA

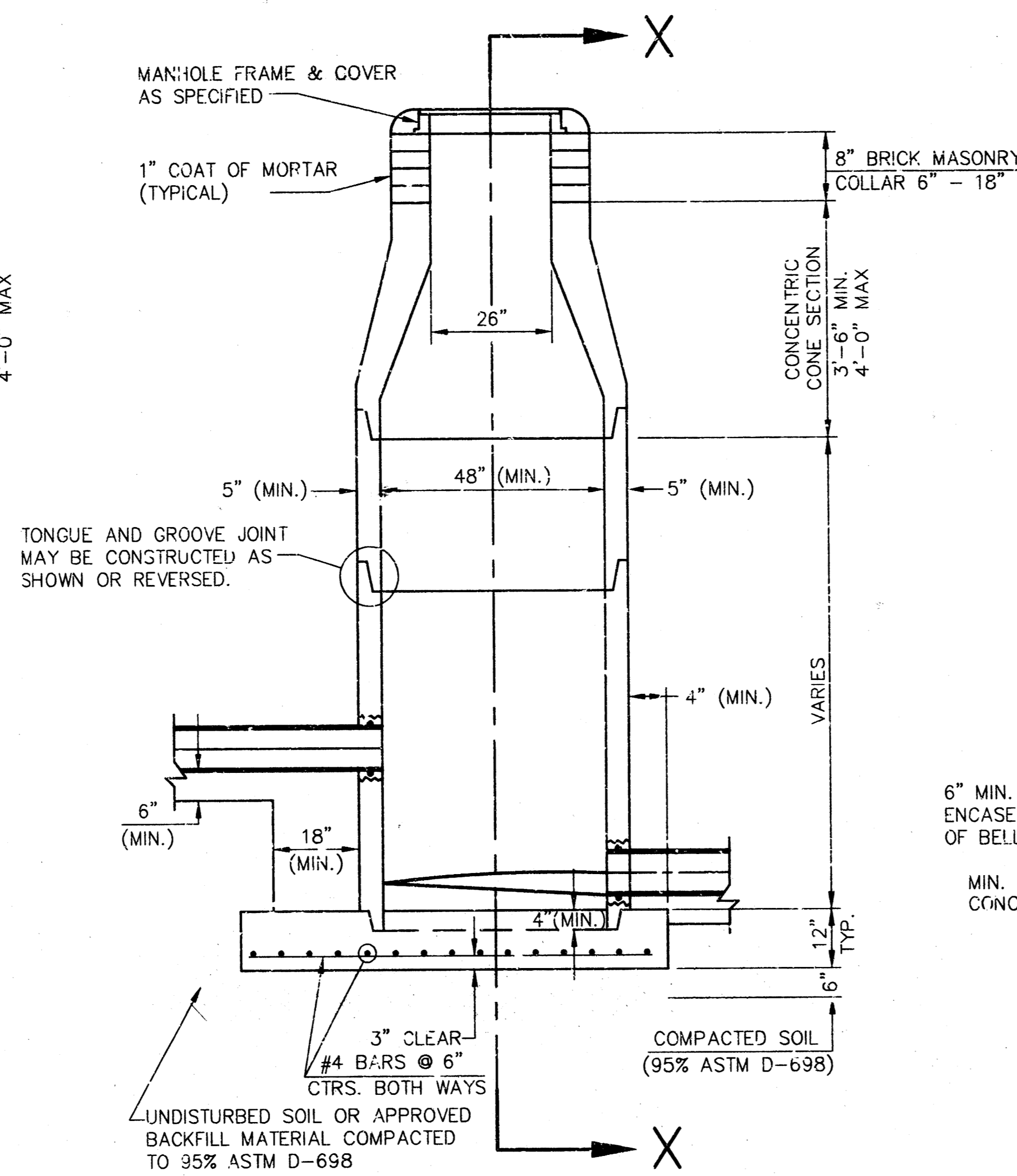
DATE: JANUARY 2000  
JOB NO.: 99223-BT  
SHEET / OF: 1 / 11

R:\CIVIL\06166\06223\06166\_06223\_BT.DWG Thu Mar 13 10:23:30 2000

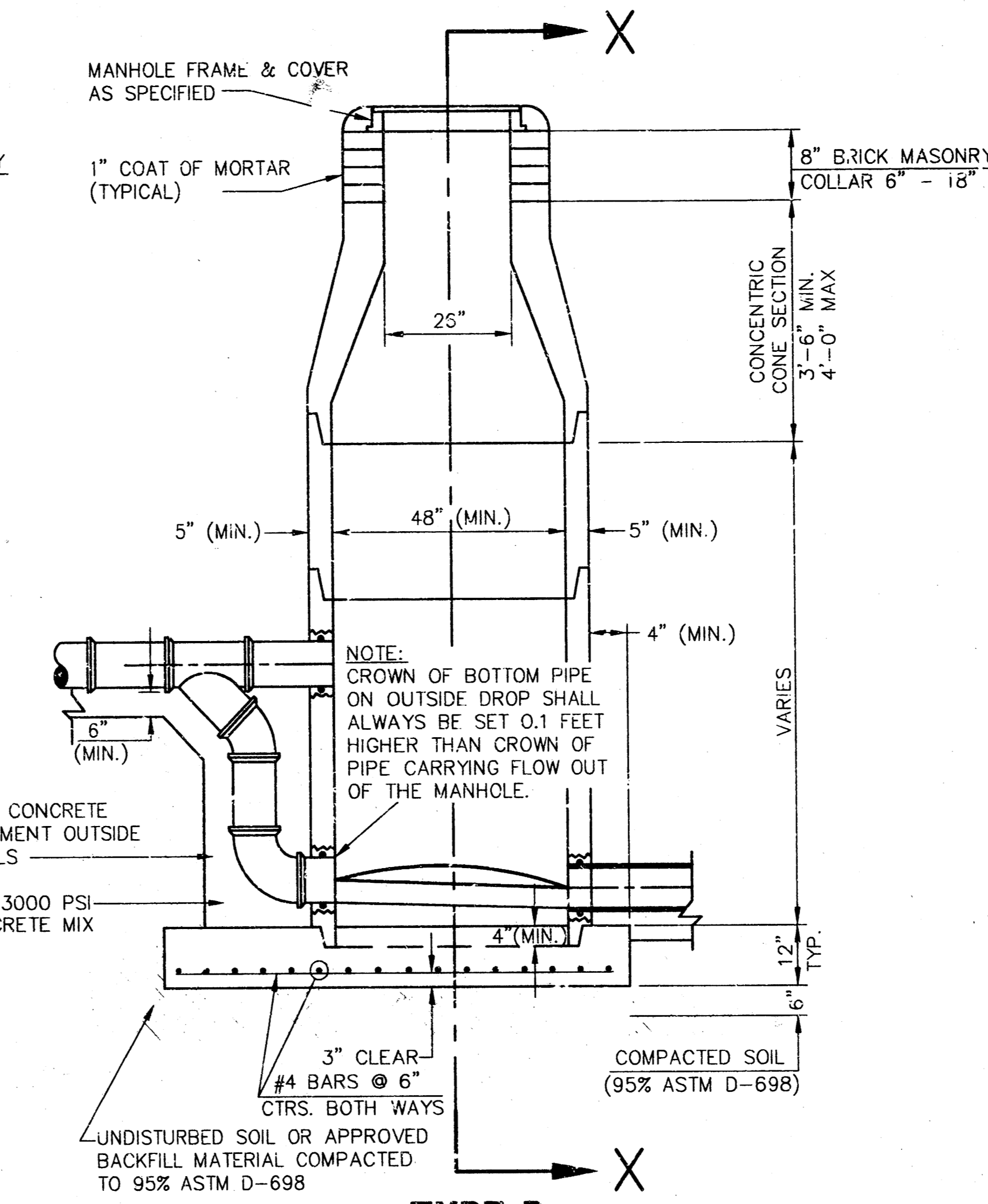
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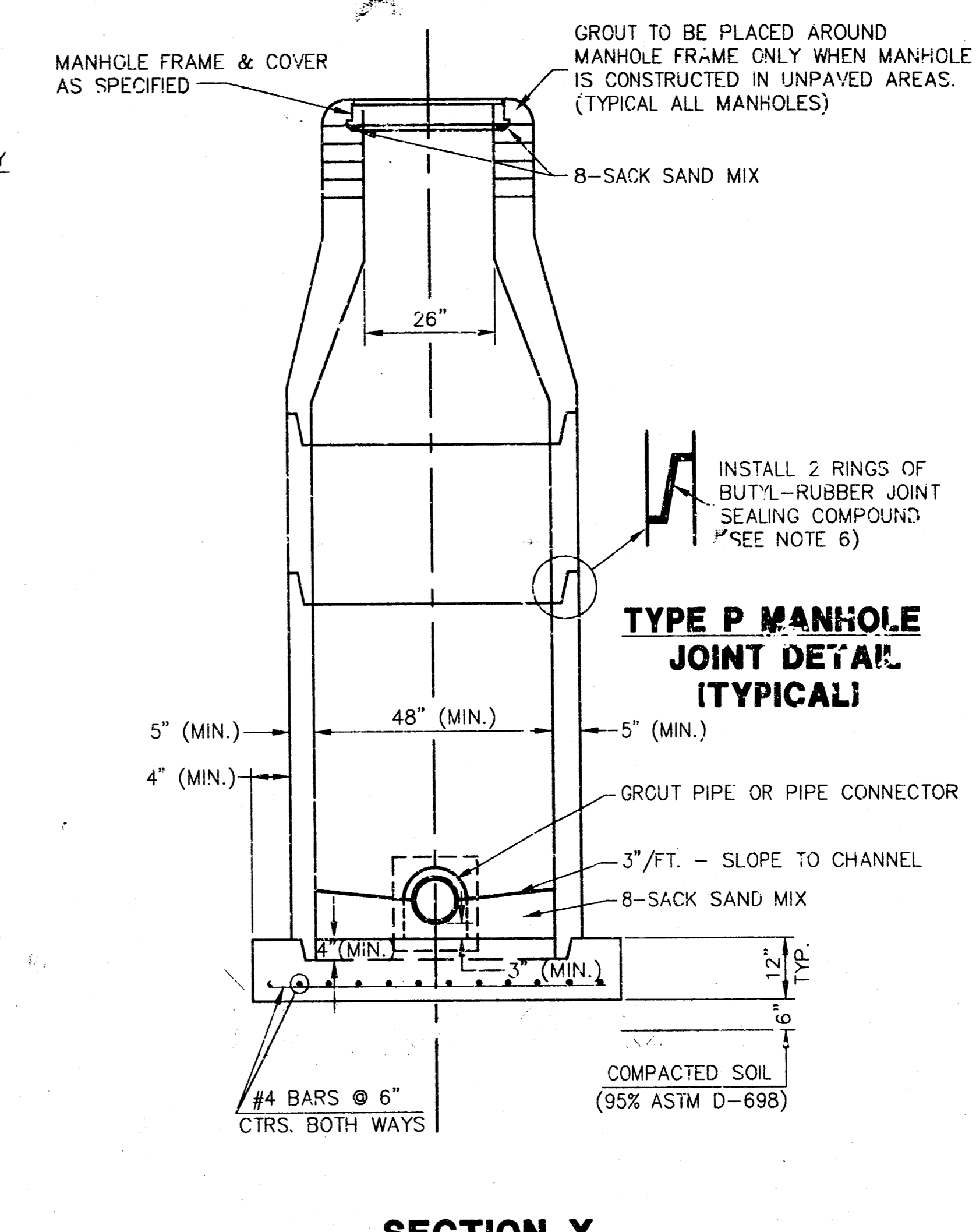
**TYPE P  
STANDARD MANHOLE**



**TYPE P  
INSIDE DROP MANHOLE**



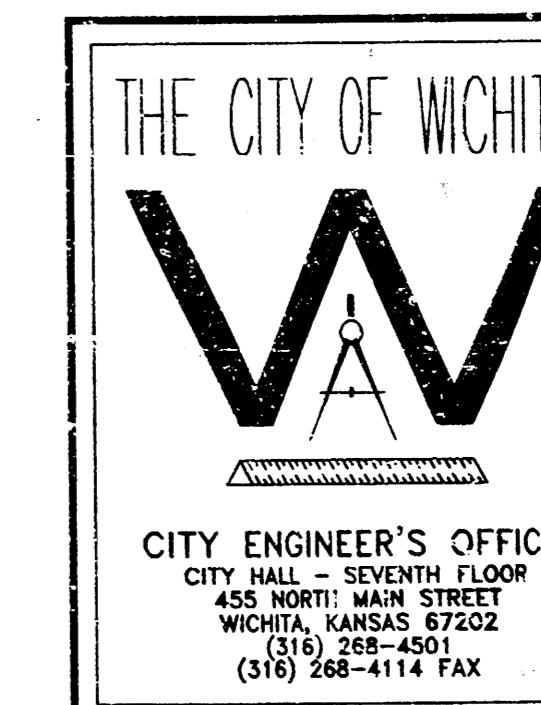
**TYPE P  
OUTSIDE DROP MANHOLE**



**SECTION X  
(TYPICAL)**

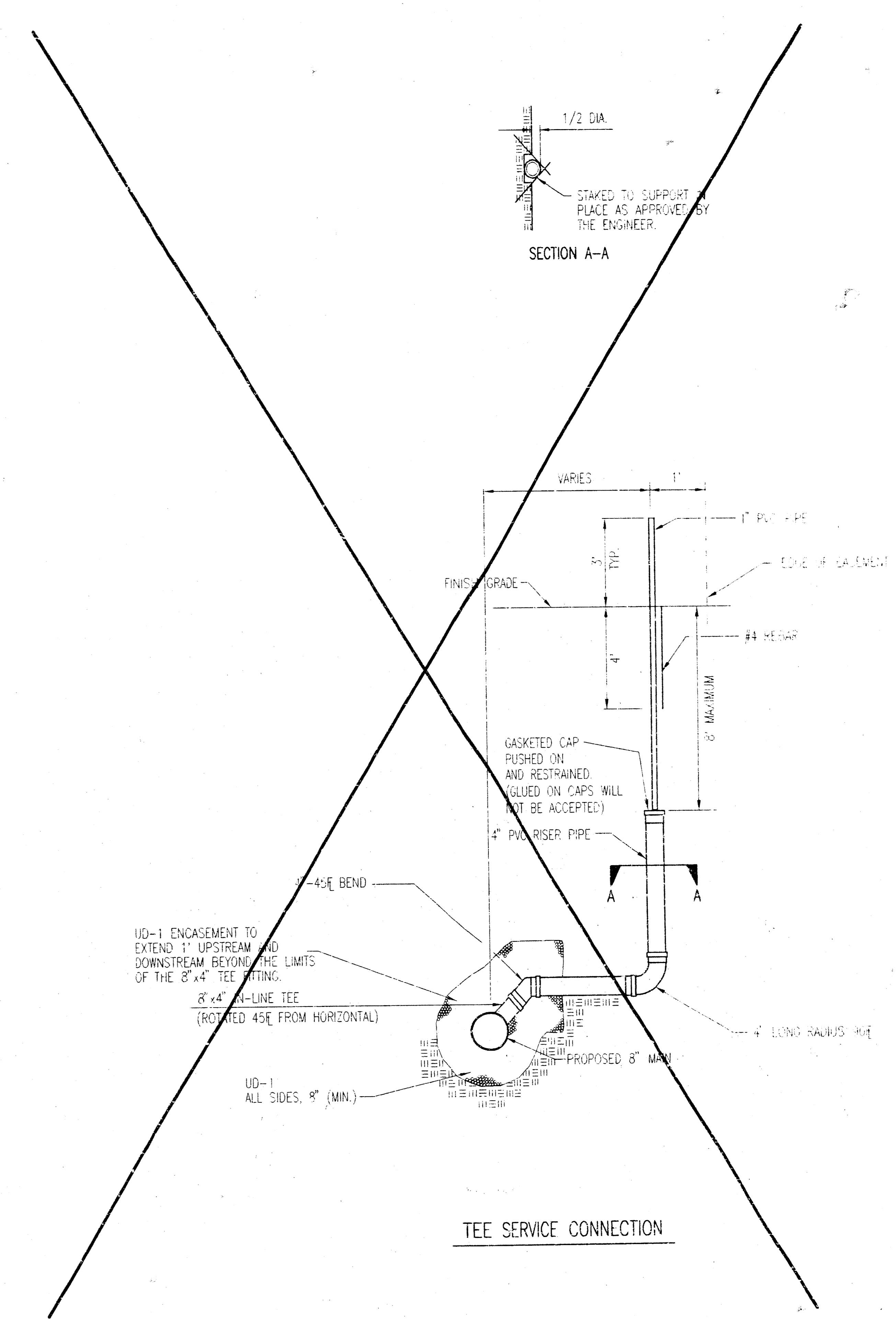
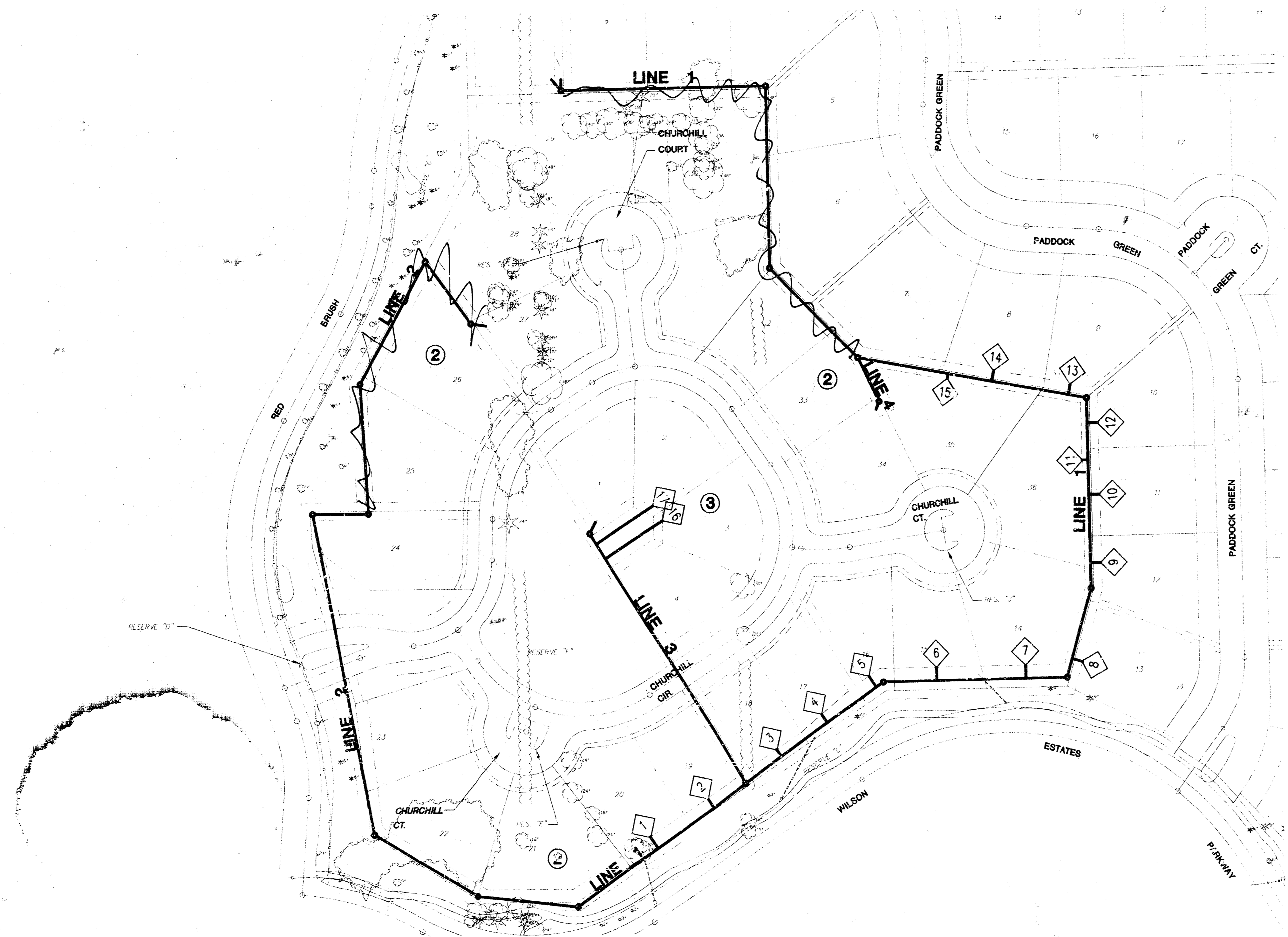
## GENERAL NOTES - PRECAST MANHOLE NOTES

- 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 ENCASEMENT 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 NEMEC SERIES #6 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 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 AND THROUGH MANHOLES SHALL HAVE THE TOP HALF REMOVED TO NEAR 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 MANHOLE. 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.



<b>STANDARD TYPE 'P' MANHOLES</b>	
M. E. LINDEBAK P.E. - CITY ENGINEER	
PROJECT NUMBER 468-83057	INDEX CODE 74382J
DATE JAN 00	SHEET 2 OF 11

SEWER SERVICE TABLE										
LOCATION					FOR INFORMATION ONLY		RECORD INFORMATION (TO BE COMPLETED BY PROJECT INSPECTOR)			
NO.	TYPE	LOT NO.	BLOCK NO.	LATERAL NO.	STATION/DIRECTION	APPROXIMATE LENGTH 4" PIPE		DISTANCE FROM NEAREST MANHOLE		NO.
						VERTICAL	HORIZONTAL	UPSTREAM	DOWNSTREAM	
1	TEE SERVICE CONNECTION	20	2	LINE 1	1+15.52 / LT.	9'	16'			1
2	TEE SERVICE CONNECTION	19	2	LINE 1	1+36.48 / LT.	10'	13.5'			2
3	TEE SERVICE CONNECTION	18	2	LINE 1	2+99.14 / LT.	13'	10'			3
4	TEE SERVICE CONNECTION	17	2	LINE 1	3+66.54 / LT.	15'	11.5'			4
5	TEE SERVICE CONNECTION	16	2	LINE 1	4+36.73 / LT.	16'	15'			5
6	TEE SERVICE CONNECTION	15	2	LINE 1	5+11.59 / LT.	18'	15'			6
7	TEE SERVICE CONNECTION	14	2	LINE 1	6+18.83 / LT.	16'	15'			7
8	TEE SERVICE CONNECTION	13	2	LINE 1	6+89.80 / RT.	13'	13'			8
9	TEE SERVICE CONNECTION	12	2	LINE 1	3+02.04 / RT.	13'	12'			9
10	TEE SERVICE CONNECTION	11	2	LINE 1	8+79.99 / RT.	13'	12'			10
11	TEE SERVICE CONNECTION	36	2	LINE 1	9+19.03 / LT.	13'	7'			11
12	TEE SERVICE CONNECTION	10	2	LINE 1	9+61.35 / RT.	13'	12'			12
13	TEE SERVICE CONNECTION	9	2	LINE 1	10+12.01 / RT.	13'	12'			13
14	TEE SERVICE CONNECTION	8	2	LINE 1	11+04.00 / RT.	12'	12'			14
15	TEE SERVICE CONNECTION	35	2	LINE 1	11+57.47 / LT.	11'	6'			15
16	TEE SERVICE CONNECTION	3	3	LINE 3	3+05.41 / RT.	5.5'	80'			16
17	TEE SERVICE CONNECTION	2	3	LINE 3	3+25.41 / RT.	5.5'	80'			17



REVISED: 04/12/00

WILSON FARMS 2ND ADDITION  
 RISER INFORMATION

3/11

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# VERTICAL RISER DETAILS

## ADOPTED AS STANDARD DESIGN

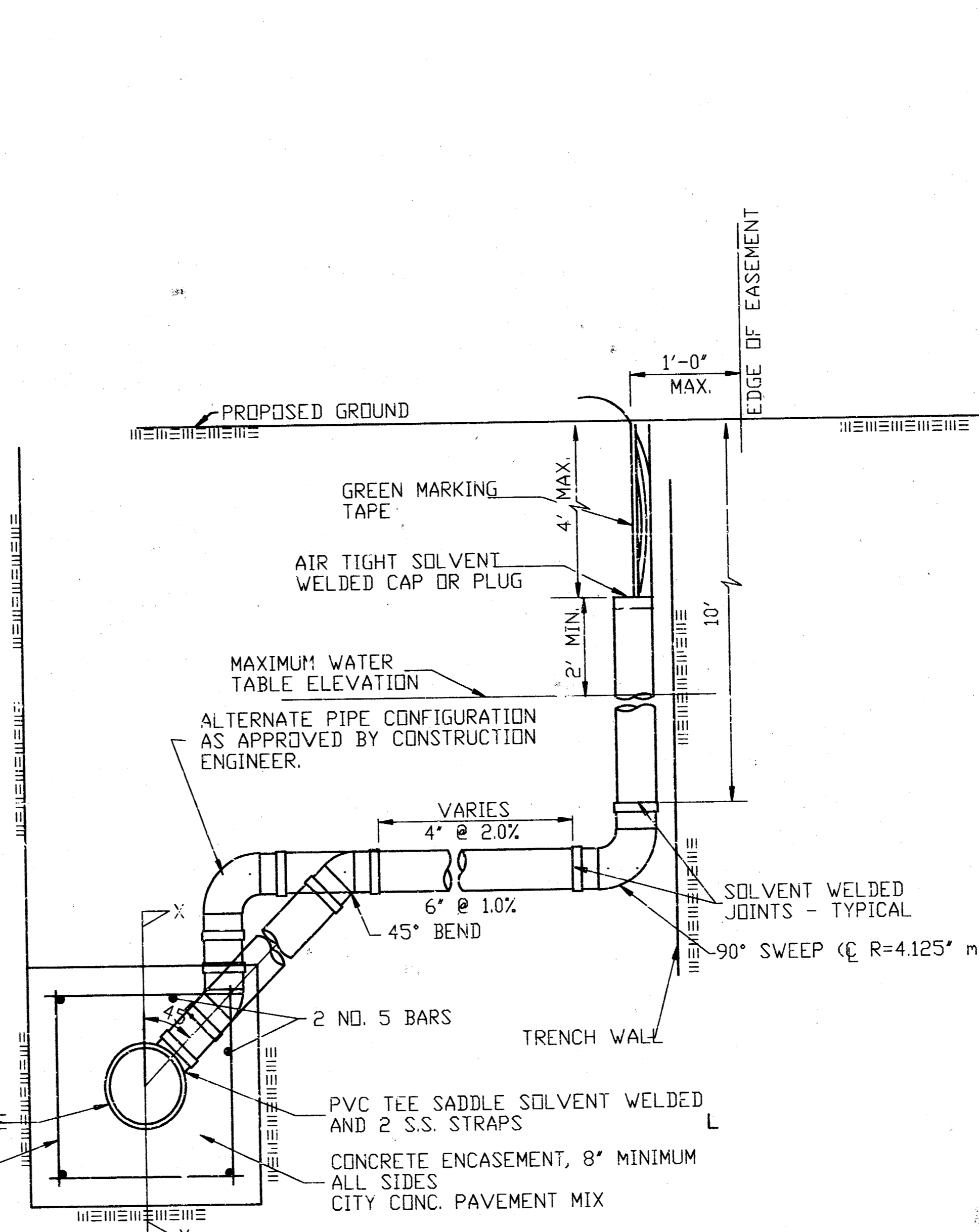
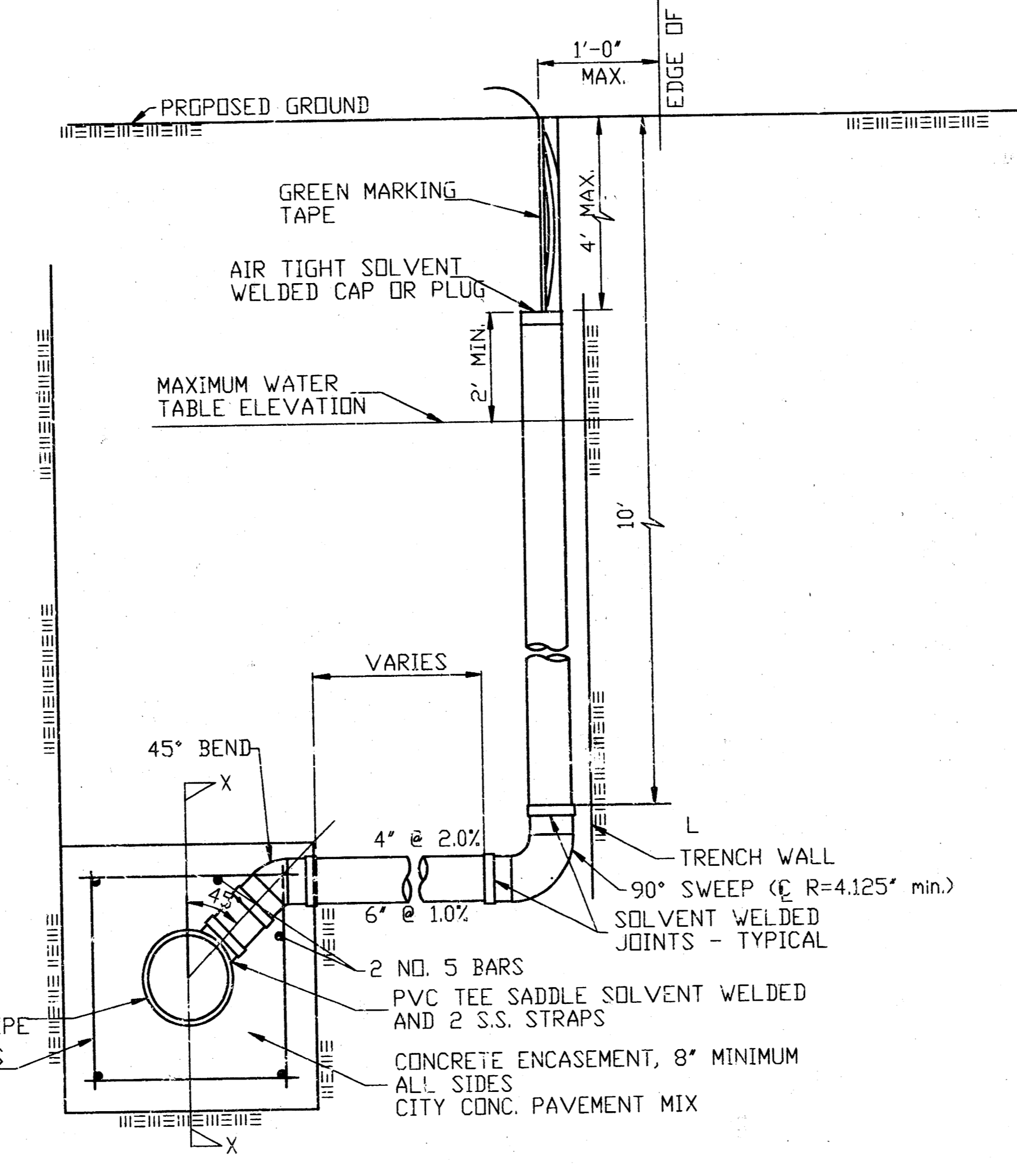
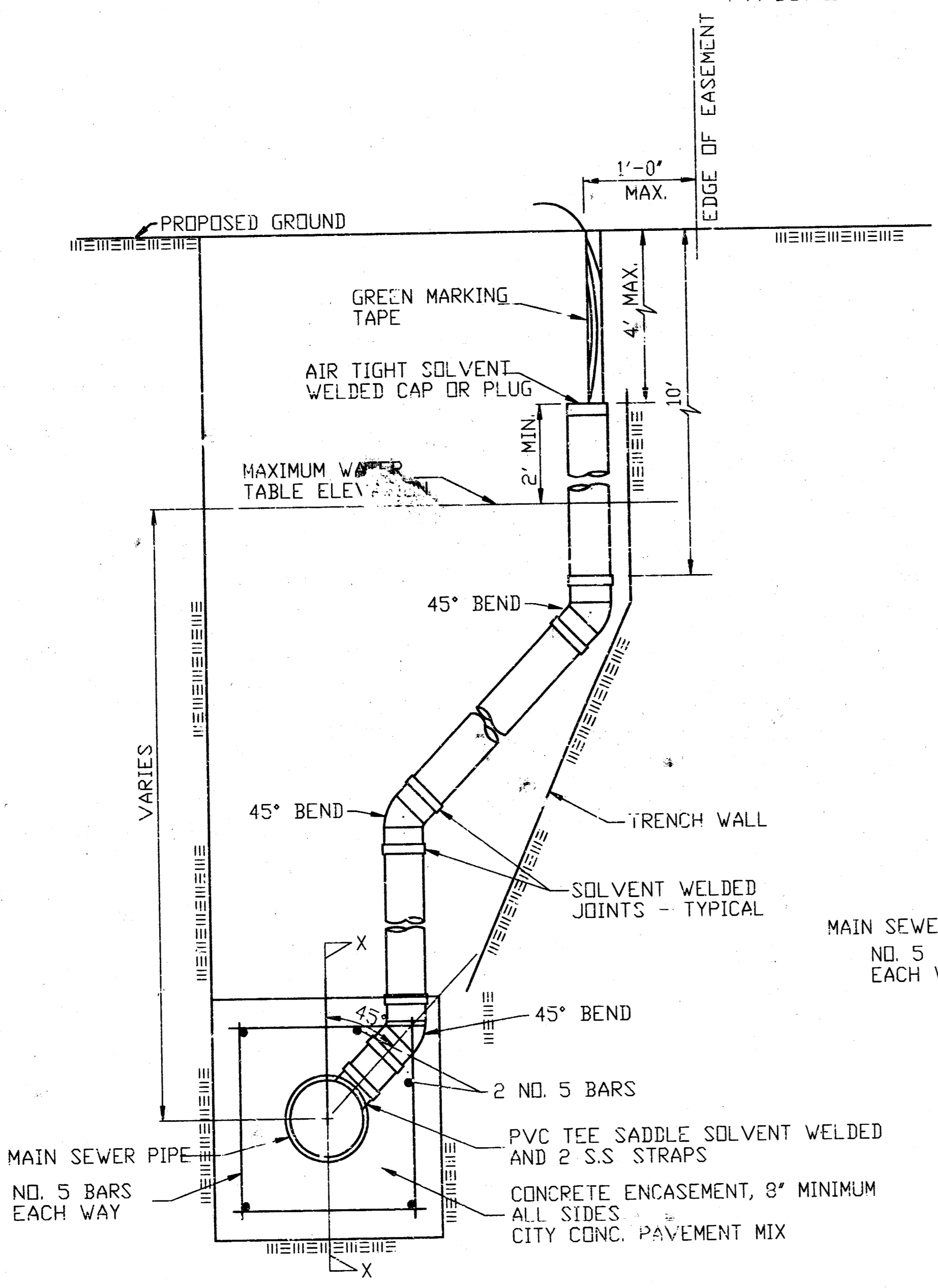
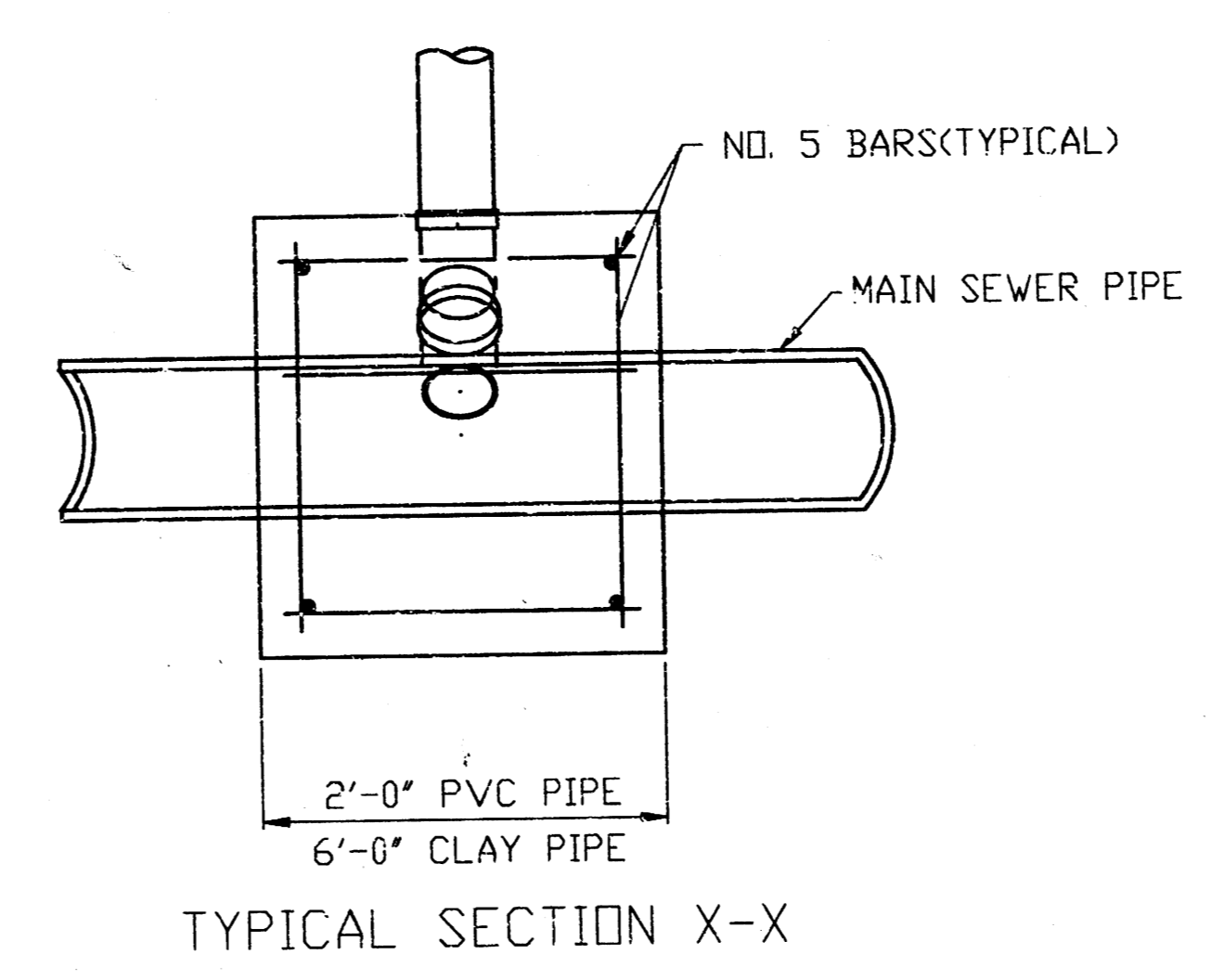
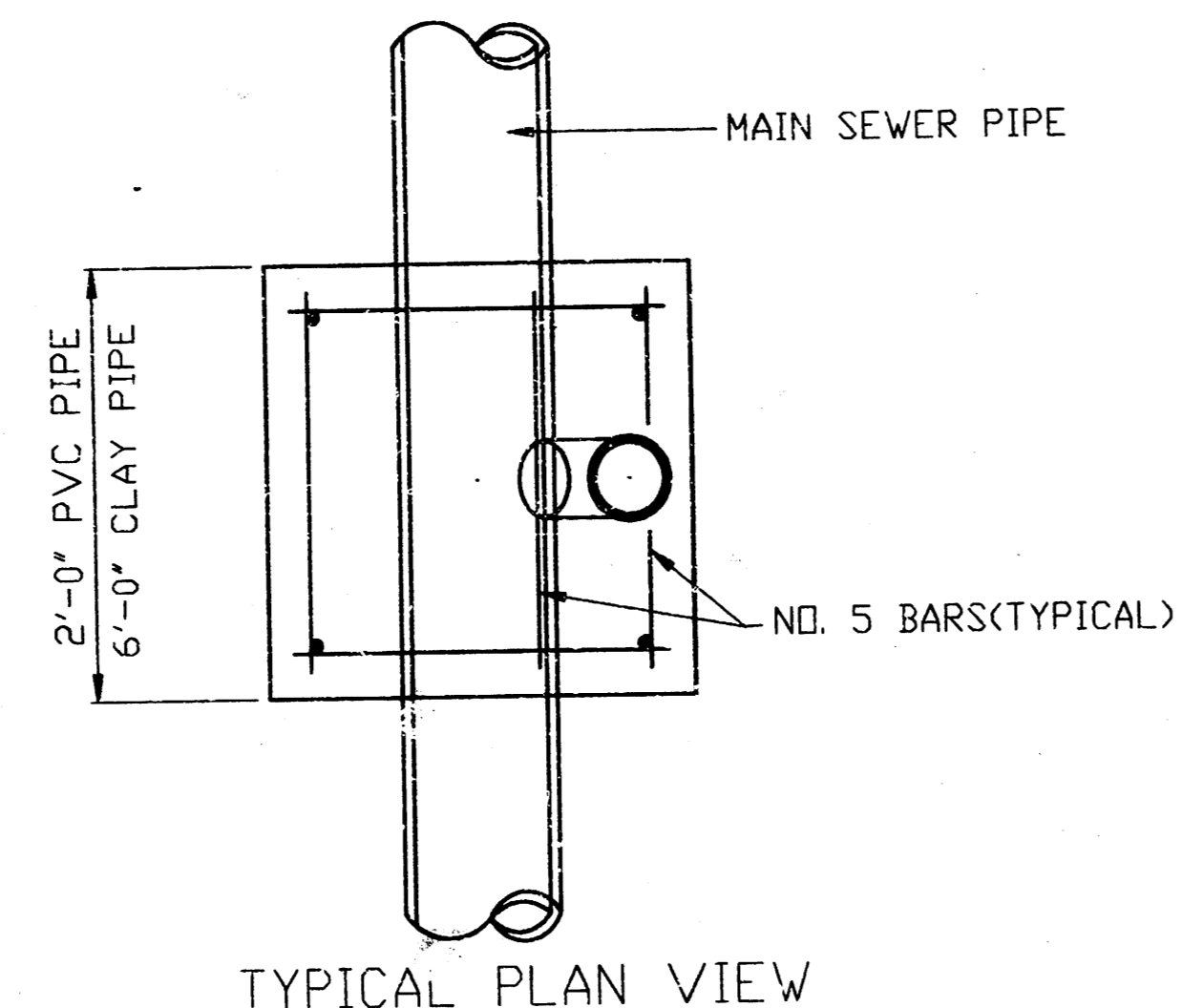
### BY

## CITY OF WICHITA, KANSAS

### OCTOBER 1992

GENERAL NOTES

1. **RISERS.** Risers shall be installed to serve all lots or tracts where the sanitary sewer main is below the water table. Risers shall also be installed to serve all lots and tracts where the sanitary sewer main depth is greater than 12 feet below the proposed ground elevation. Installation of risers because of field conditions shall be as approved by the Construction Engineer. The location of the risers to serve developer property shall be approved by the property owner and the Construction Engineer.
2. **PIPE STUBS.** Pipe stubs shall be installed in manholes where locations of manholes will provide satisfactory service. The connection as determined by the Construction Engineer. The vertical distance between the flowline of the manhole pipe stub and the flowline of the sanitary sewer main out of the manhole shall not exceed 2 feet. Risers shall be utilized at manhole pipe stubs as indicated in Note 1. Manhole pipe stubs shall be set such that the top of the stub is not lower than 12 feet of the sanitary sewer main.
3. **SIZING.** Pipe stubs and risers shall be sized according to the plans and riser table where risers are indicated by the plans. Where risers or pipe stubs are required because of field conditions, the risers and stubs shall be six-inch diameter for commercial or industrial properties and 4" or 6" diameter for residential properties, based on lot size and sanitary sewer main depth. Sizing of risers and stubs shall be approved by the Construction Engineer prior to installation.
4. **RISER OR STUB MATERIAL.** Risers and stubs shall be constructed of Schedule 40 PVC Pipe meeting the requirements of the latest revision of A.S.T.M. All pipe joints shall be solvent welded.
5. **REINFORCED CONCRETE ENCASEMENT.** Riser connections to clay pipe sanitary sewers shall be reinforced concrete encased both ways from the riser centerline. The reinforced concrete encasement shall extend three feet from the riser centerline or stop at the first sanitary sewer pipe joint within three feet of the riser centerline. Riser connections to PVC Sanitary Sewer mains shall be reinforced concrete encased one foot each way from the riser centerline. The concrete encasement shall be reinforced using reinforcing steel as shown in the appropriate drawing. The concrete shall conform to the City Standard Specifications for concrete pavement.
6. **BEDDING.** Bedding around the sanitary sewer riser shall be compacted Pipe Bedding Type 1 or 2. The bedding shall be placed and compacted from the depth of the sanitary sewer main to the top of the sanitary sewer riser pipe. Compacted Pipe Bedding Type 1 or 2 shall be required for all risers whether constructed in vertical wall or sloped wall trenches. Bedding material and construction practices shall be approved by the Construction Engineer prior to installation.
7. **SUPPORT OF RISERS.** Sanitary sewer riser pipe shall be supported during trench backfill. The riser pipe shall be held in a vertical position at all times until trench backfill and compaction has been completed. Contractor's methods for supporting and backfilling the riser pipe shall be approved by the Construction Engineer.
8. **PLUGGING.** The ends of the riser pipes and manhole stubs shall be plugged using an airtight solvent welded cap or plug. Cap or plug fittings shall be approved by the Construction Engineer prior to installation. Caps or plugs which do not provide an airtight seal will not be accepted.
9. **TOP OF THE RISER PIPE.** The top elevation of the sanitary sewer riser pipe shall be built per plan elevations, unless otherwise directed by the Construction Engineer. Where riser elevations are not shown on the plans, the top of the risers shall be set at an elevation four feet below the proposed ground surface. If ground water is encountered, the top of the riser pipe shall be set at an elevation two feet (min.) above the maximum water table elevation, regardless of the riser elevation shown on the plans.
10. **MARKING.** Locations of the ends of the sanitary sewer riser pipe shall be marked by fastening green colored plastic tape to the end of the riser. The tape shall be supported by a length of wooden 2 x 4, extending from the top of the riser pipe to the proposed ground surface. The green tape shall be visible and extend one foot above the proposed ground surface. The green tape shall be 4 mil Polyethylene film with a minimum width of three inches, specifically manufactured for the purpose of identification of underground sewers.
11. **LOCATION MEASURES.** The project inspector shall record and document the location of all risers constructed as measured from the nearest manhole, indicating the direction from the manhole, the direction and distance from the main, riser size, and elevation of the top of the riser.
12. **RISER LOCATION.** The riser shall be located per plan if shown. If not shown on the plan, the riser shall be located at the center of the lot within one foot of the property side of the easement for the lot being served. All riser locations shall be approved by the Construction Engineer prior to installation.
13. **PAYMENT.** "Sanitary sewer risers" shall be paid for at the contract unit price per each which shall be full compensation for all pipe, fittings, marking tape, length of wooden 2 x 4, reinforced concrete encasement, support during backfill, backfill, labor, site restoration, and any other items necessary to complete the work.  
"Manhole stubs" shall be paid for at the contract unit price per each which shall be full compensation for all labor, material, and incidentals necessary to complete the work including all pipe, fittings, reinforced concrete encasement, and all other items as required and listed for "Sanitary Sewer Risers".

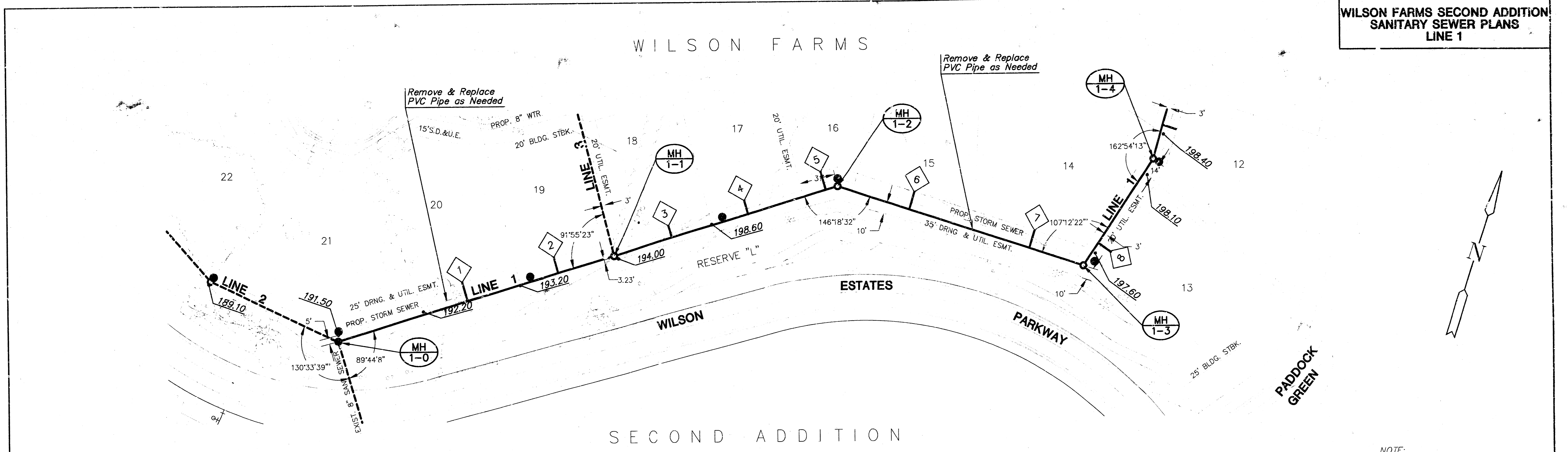


NOTE: RISER PIPE REQUIREMENTS AT MANHOLE STUBS SHALL BE SIMILAR TO THOSE SHOWN ABOVE.

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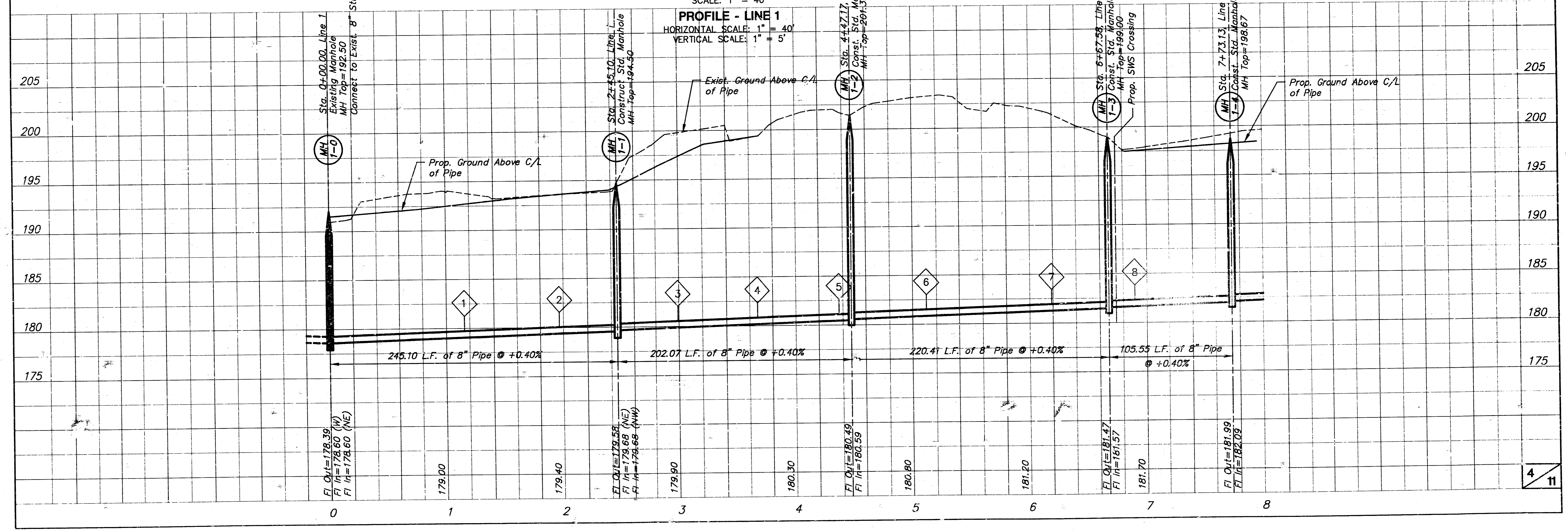
REVISED: 04/12/00 (ADDED SHEET)	
	<b>VERTICAL RISER DETAIL</b>
M. E. LINDEBAK P.E. - CITY ENGINEER	
CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202 (316) 266-4114 FAX	PROJECT NUMBER 468-83057
DATE APR 00	SHEET 3A OF 11

**WILSON FARMS SECOND ADDITION  
SANITARY SEWER PLANS  
LINE 1**

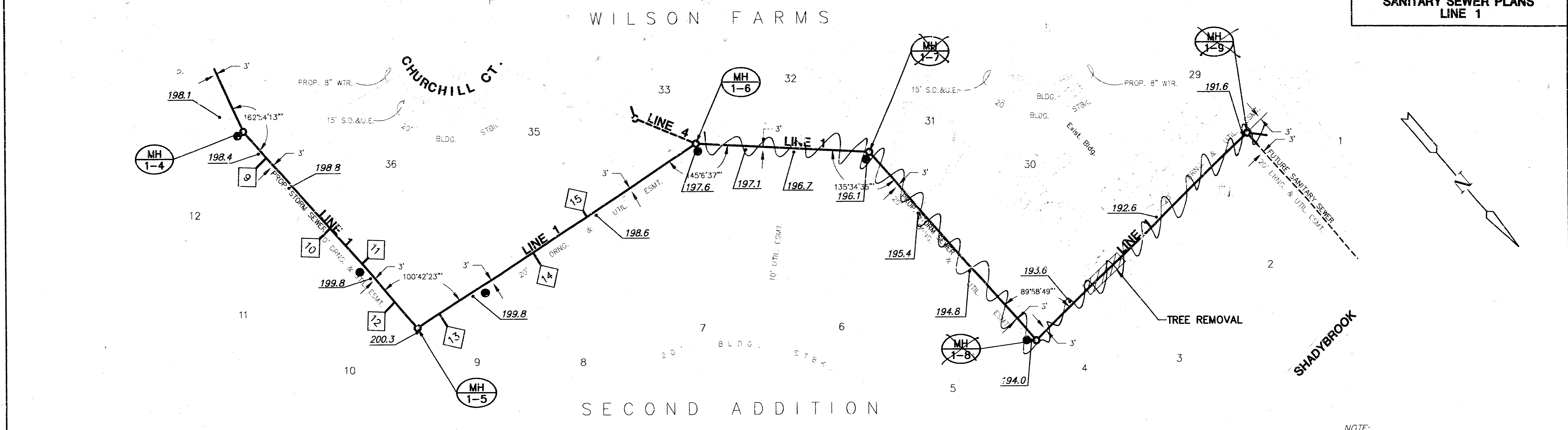


NOTE:  
EASEMENT GRADING SEE SHEET 8

**PLAN - LINE 1**  
SCALE: 1" = 40'  
**PROFILE - LINE 1**  
HORIZONTAL SCALE: 1" = 40'  
VERTICAL SCALE: 1" = 5'



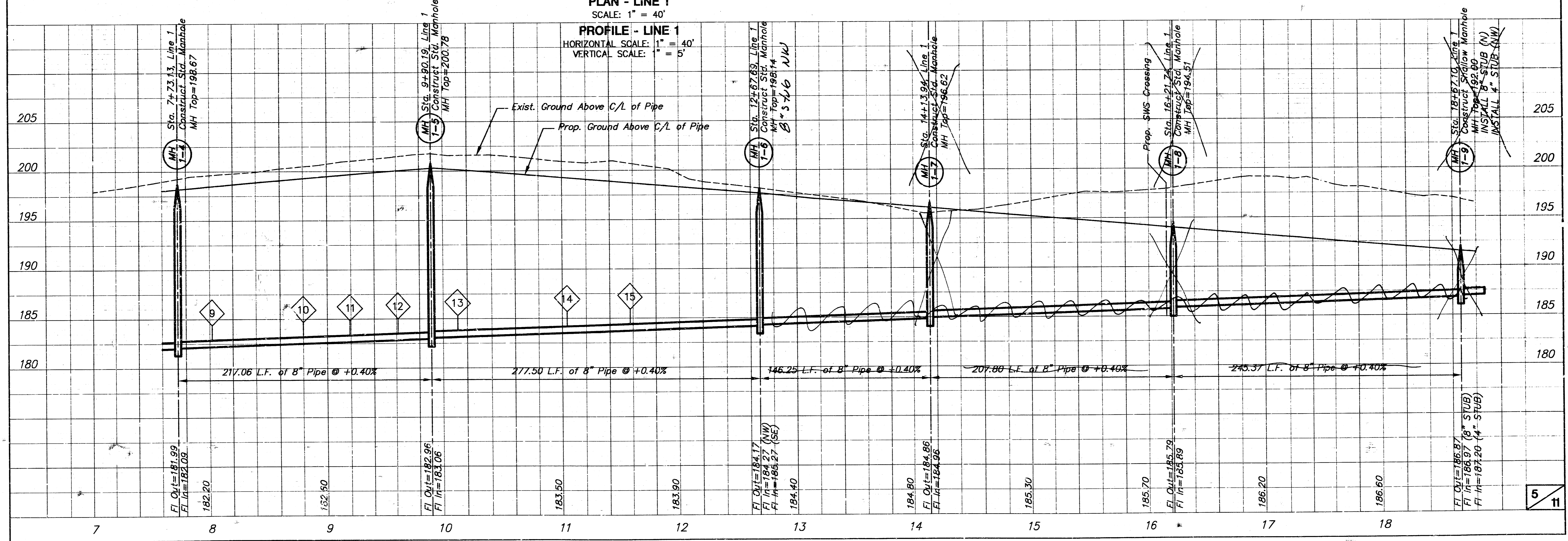
**WILSON FARMS SECOND ADDITION  
SANITARY SEWER PLANS  
LINE 1**



NOTE:  
EASEMENT GRADING SEE SHEET 8

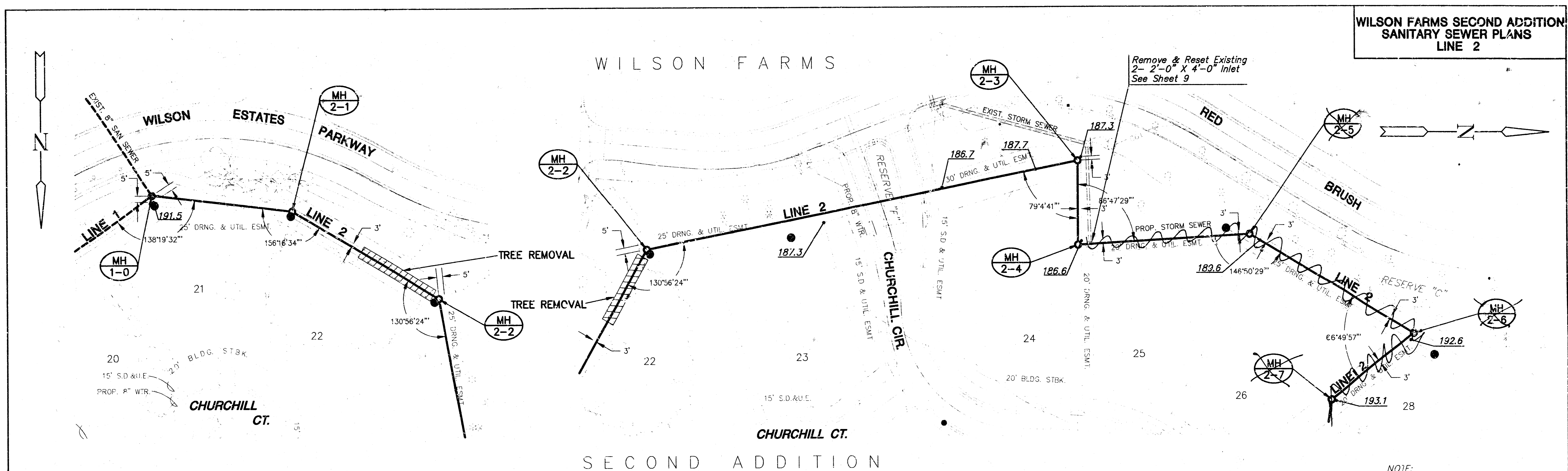
**PLAN - LINE 1**  
SCALE: 1" = 40'

**PROFILE - LINE 1**  
HORIZONTAL SCALE: 1" = 40'  
VERTICAL SCALE: 1" = 5'



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**WILSON FARMS SECOND ADDITION  
SANITARY SEWER PLANS  
LINE 2**



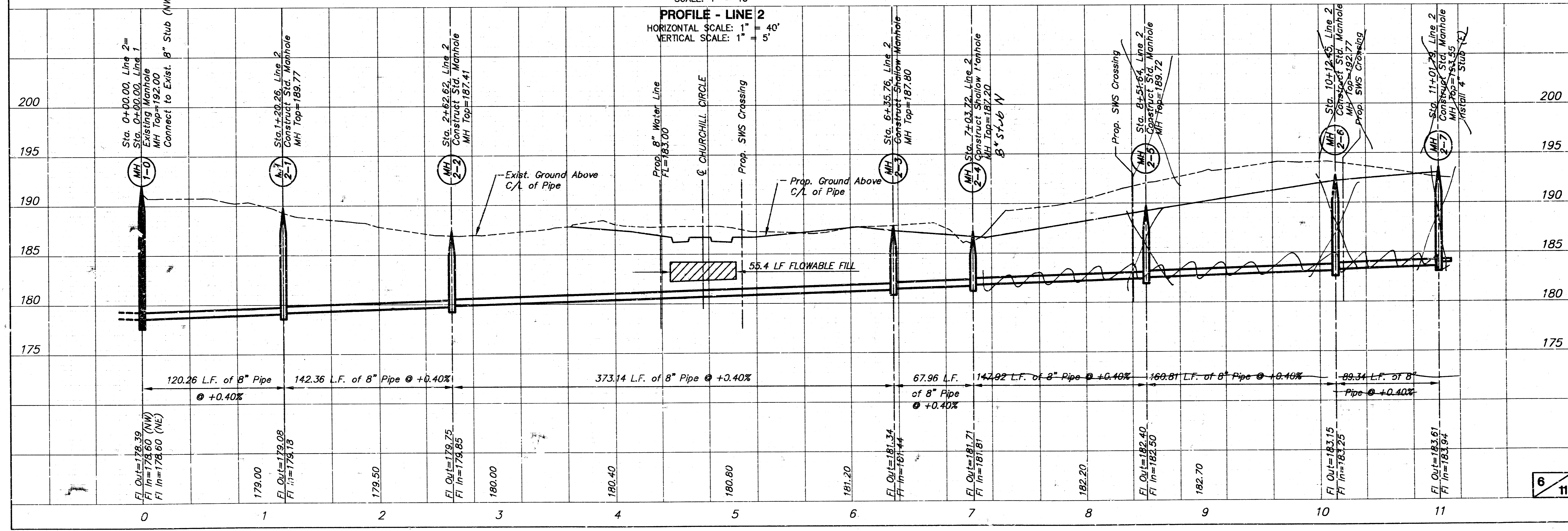
**PLAN - LINE 2**

SCALE: 1" = 40'

NOTE:  
EASEMENT GRADING SEE SHEET 8  
NO EASEMENT GRADING BETWEEN  
MH 1-0 & 2-3

**PROFILE - LINE 2**

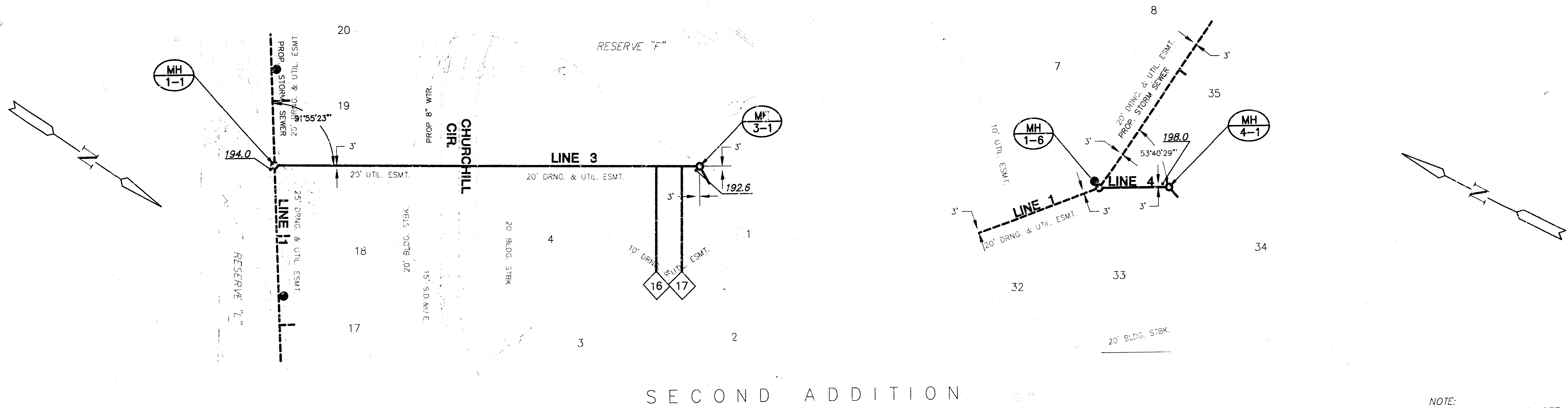
HORIZONTAL SCALE: 1" = 40'  
VERTICAL SCALE: 1" = 5'



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**WILSON FARMS SECOND ADDITION  
SANITARY SEWER PLANS  
LINES 3 & 4**

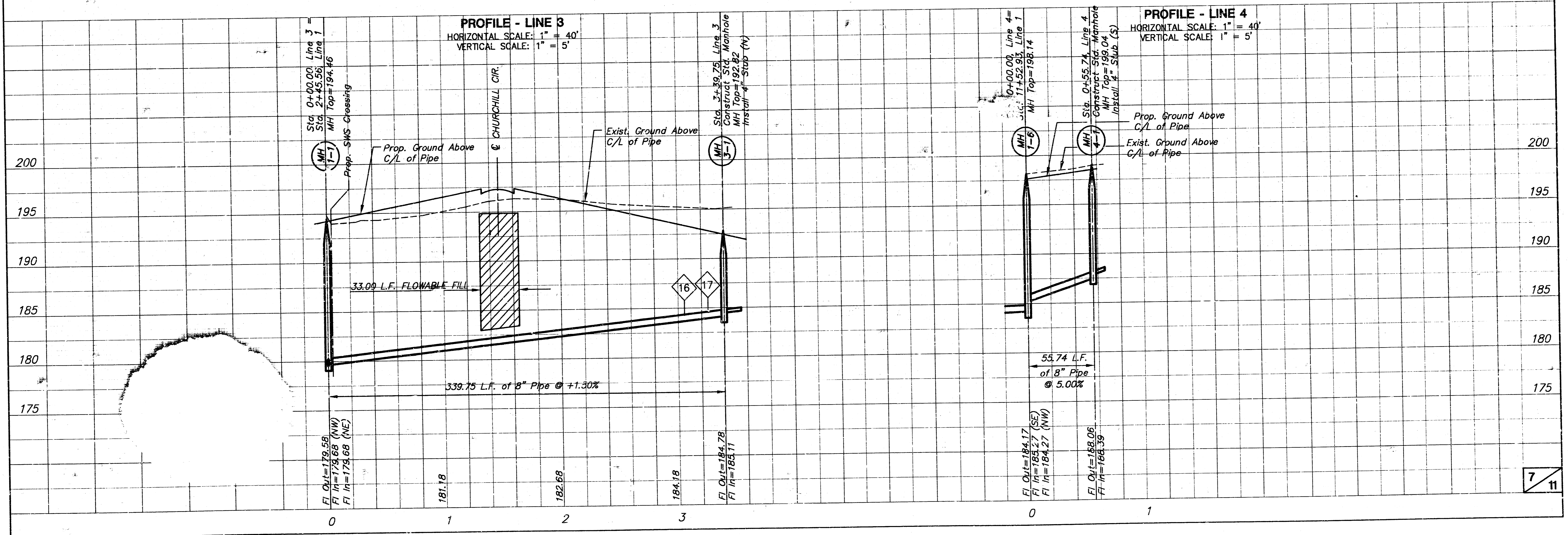
WILSON FARMS



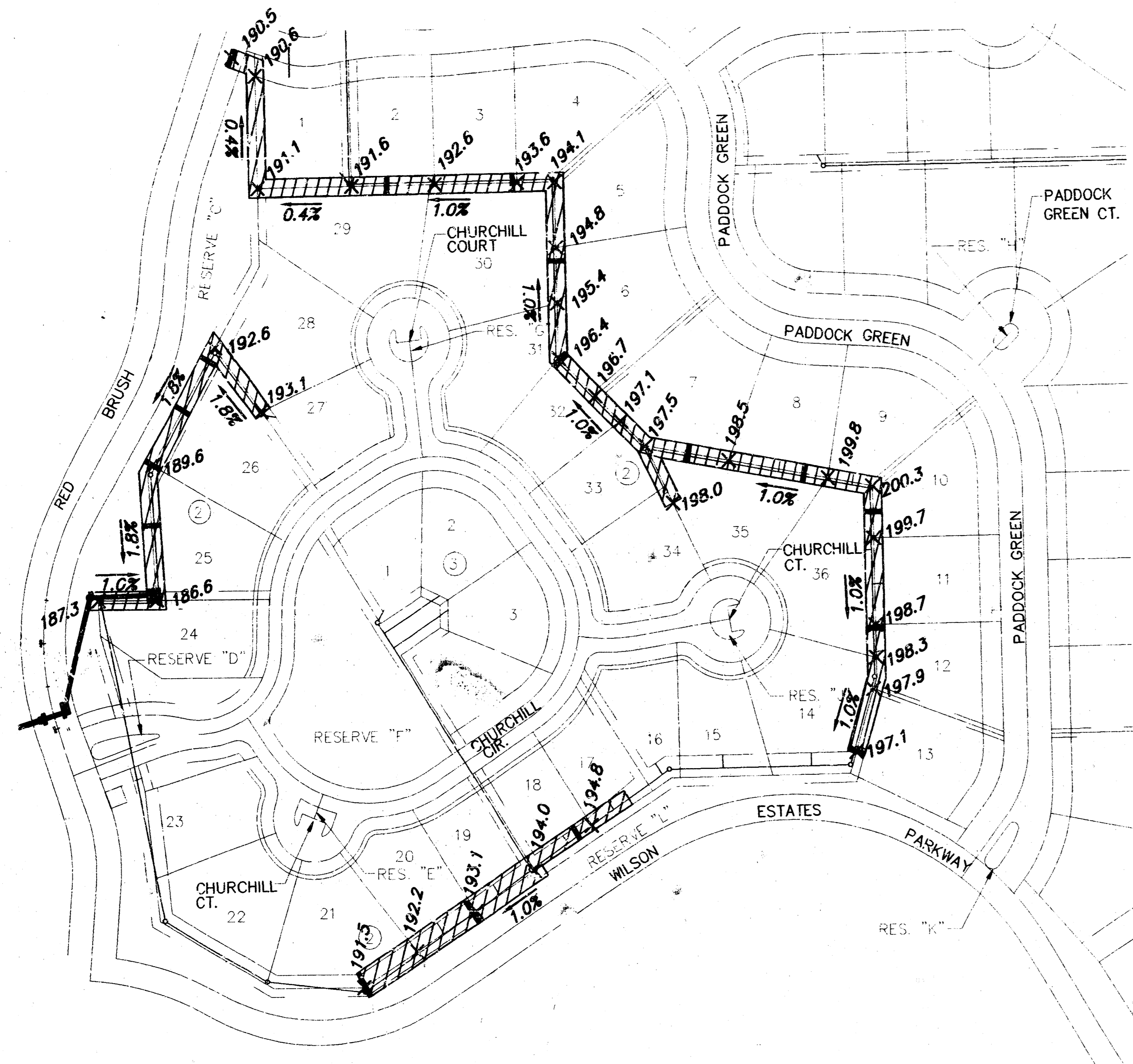
SECOND ADDITION

**PLAN - LINE 3 & LINE 4**  
SCALE: 1" = 40'

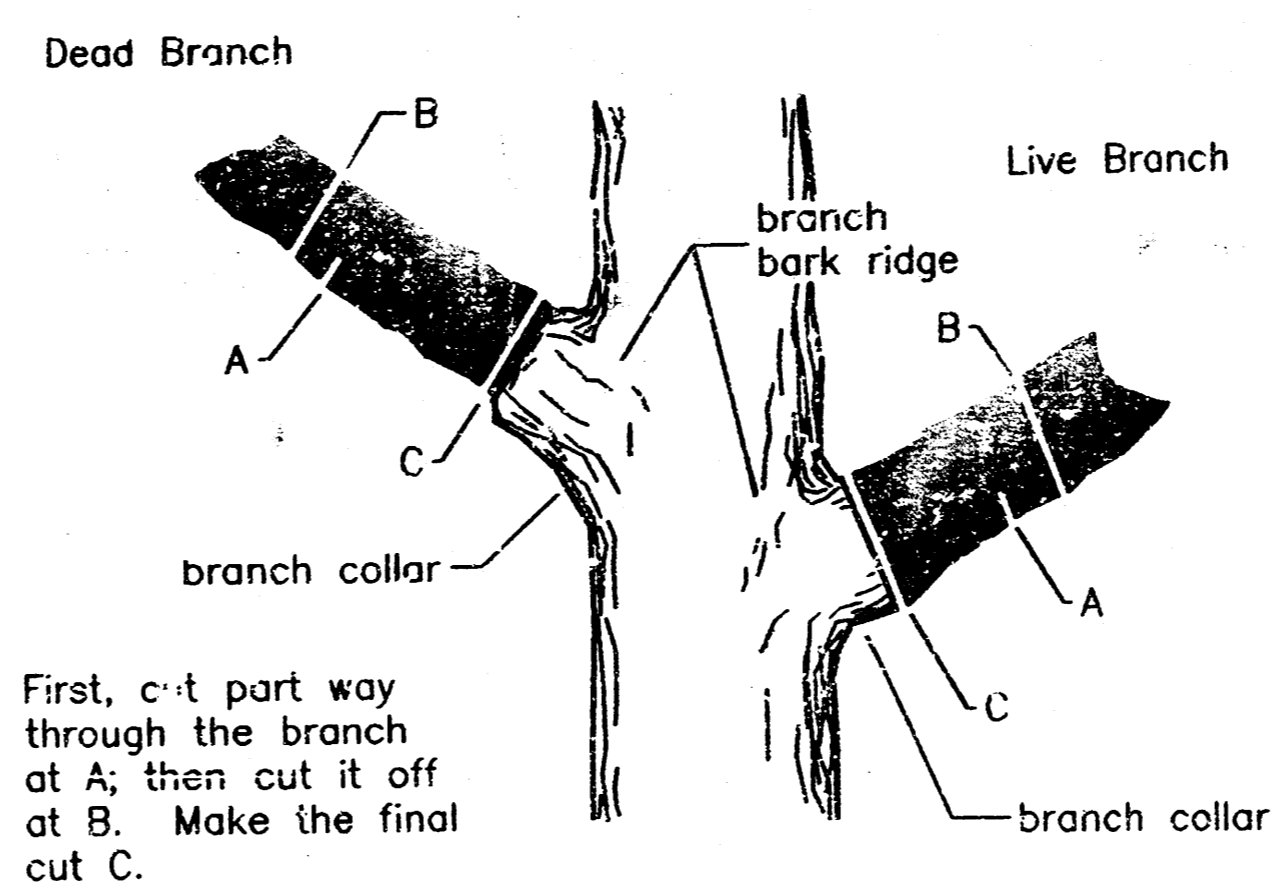
NOTE:  
EASEMENT GRADING SEE SHEET 8  
NO EASEMENT GRADING BETWEEN  
MH 1-1 & 4-1



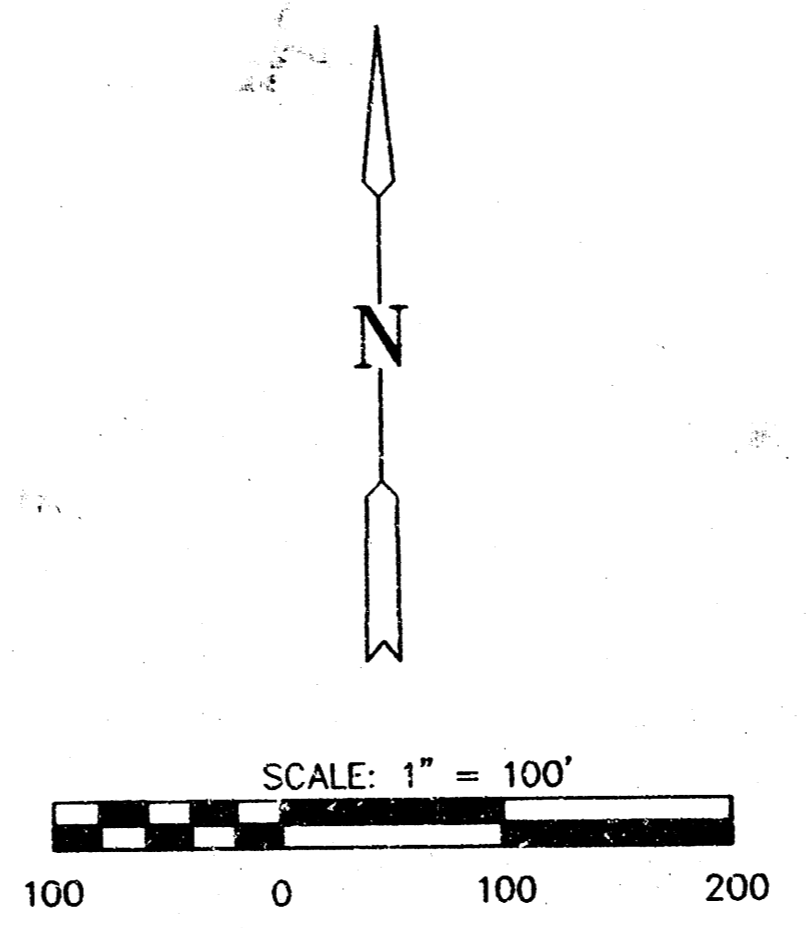
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**EASEMENT GRADING PLAN**



**TREE TRIMMING DETAIL**  
NOT TO SCALE



**EASEMENT GRADING DETAILS**

- = AREAS TO BE GRADED
- = LOCATION FOR SEDIMENT CONTROL
- = LOCATION OF INLET SEDIMENT CONTROL

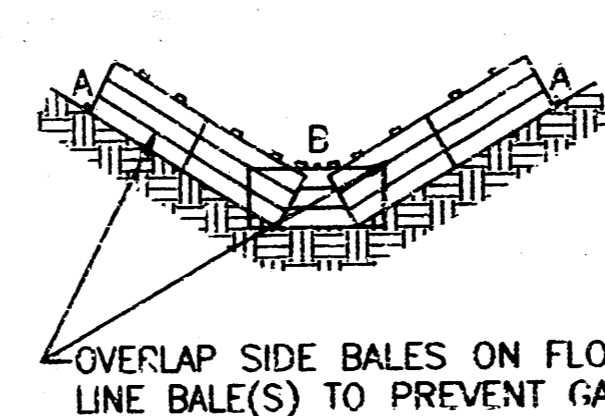
H.P. = HIGH POINT  
M.E. = MATCH EXISTING

\*\*Grade widths and slopes may vary as approved by the Engineer to minimize conflict with existing trees.

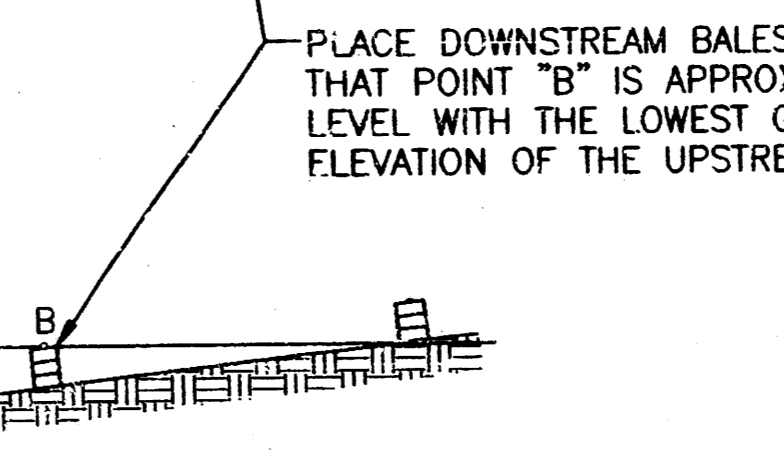
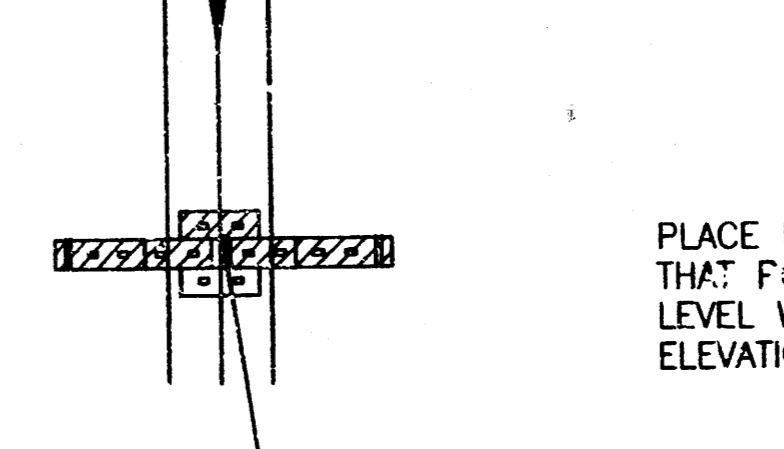
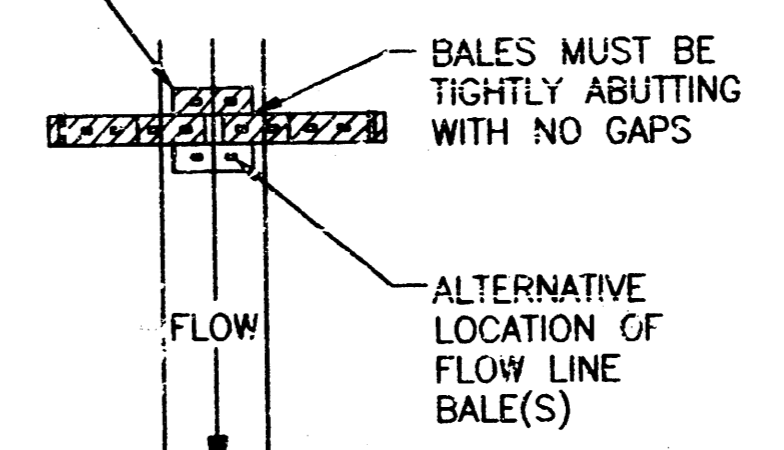
Easement Grading will be bid on a lump sum basis for grading the easements to the profile and elevations shown on the Easement Grading Plan (this sheet). Approximate quantities of earthwork for easement grading are shown below. These approximate quantities are given for information only. The Contractor should verify the quantities when preparing the proposal.

Cut 4850 C.Y. (Approximate)  
Fill 0 C.Y. (Approximate)

END POINTS "A" MUST BE HIGHER THAN FLOW LINE POINT "B"



ONE OR MORE BALES IN CHANNEL BED TIGHTLY ABUTTING EACH OTHER

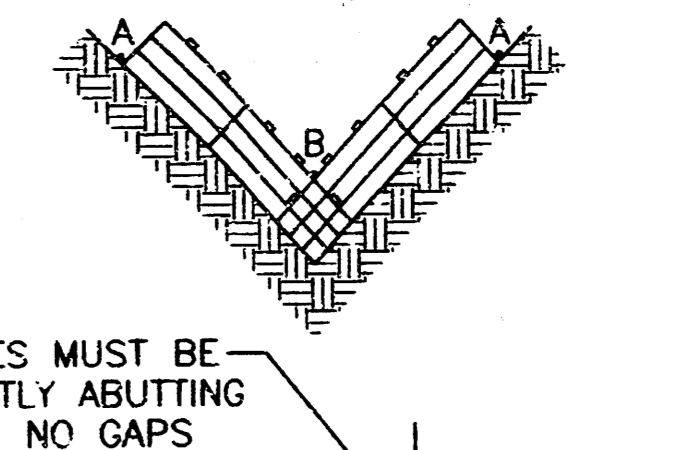


**WIDE CHANNELS**

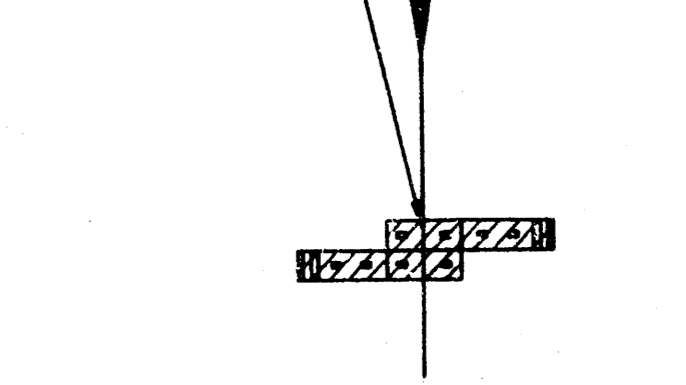
18 INCH BY 36 INCH BALES	VALUE OF Z	MINIMUM NUMBERS OF BALES
	10 OR <	1**
	10-35	2**
	35-50	3**
	50-70	4**
	70 OR >	5**
		RECOMMENDED

\*\* ASSUMES DEPTH OF WATER ABOVE POINT "B" WILL NOT EXCEED 6 INCHES

END POINTS "A" MUST BE HIGHER THAN FLOW LINE POINT "B"

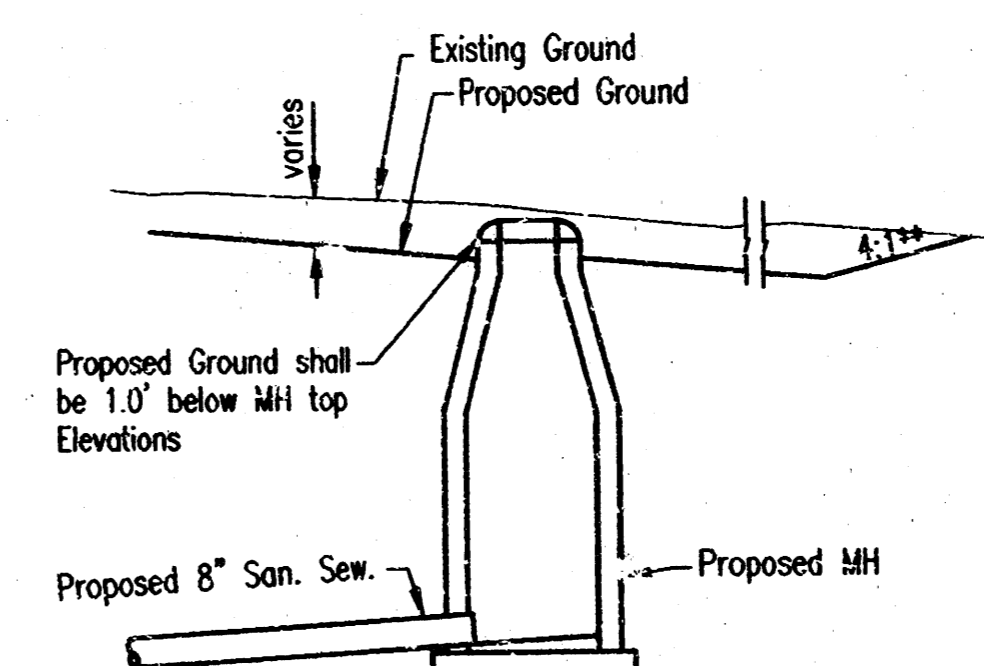


PLACE DOWNSTREAM BALES SUCH THAT POINT "B" IS APPROXIMATELY LEVEL WITH THE LOWEST GROUND ELEVATION OF THE UPSTREAM BALE

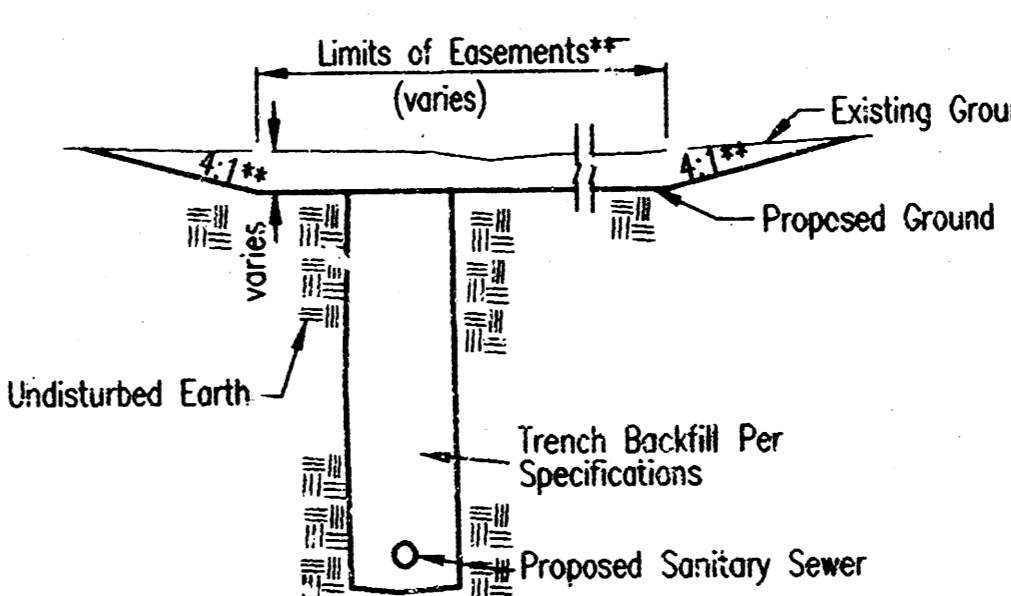


**NARROW CHANNELS**

**STRAW BALE DIKES FOR EASEMENT GRADING**

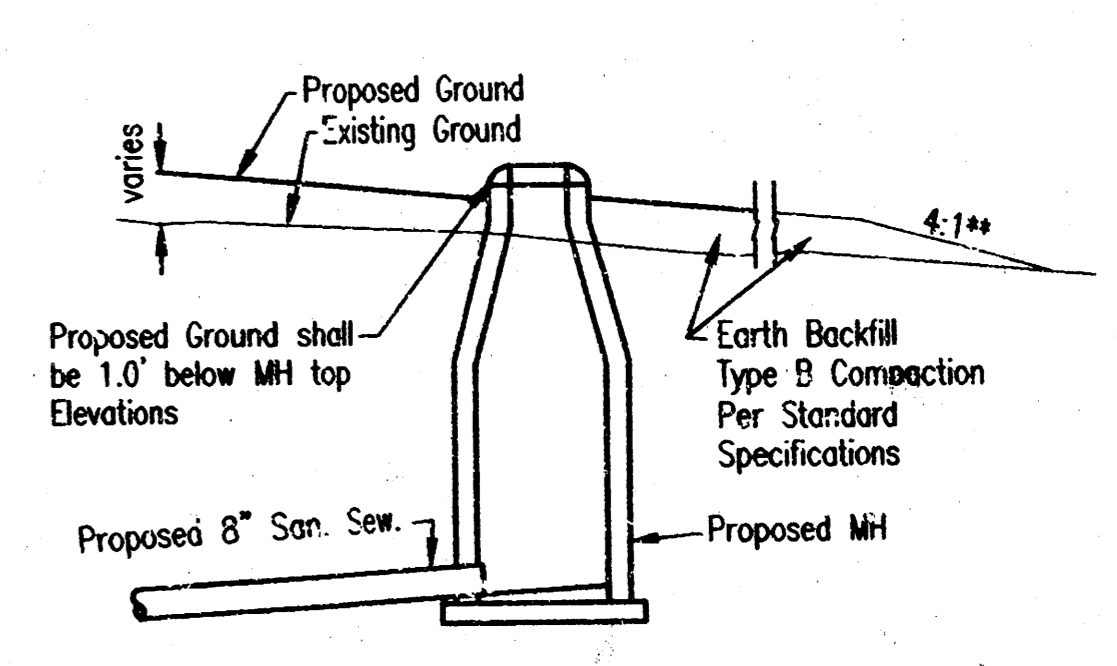


**TYPICAL PROFILE**

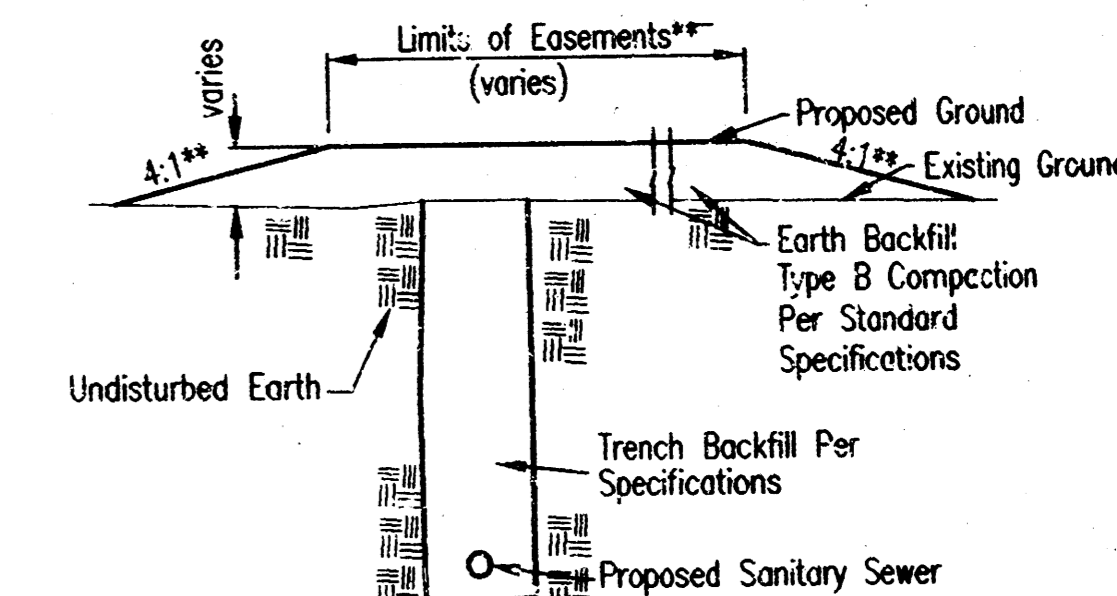


**TYPICAL SECTION**

**"CUT" SITUATIONS**



**TYPICAL PROFILE**

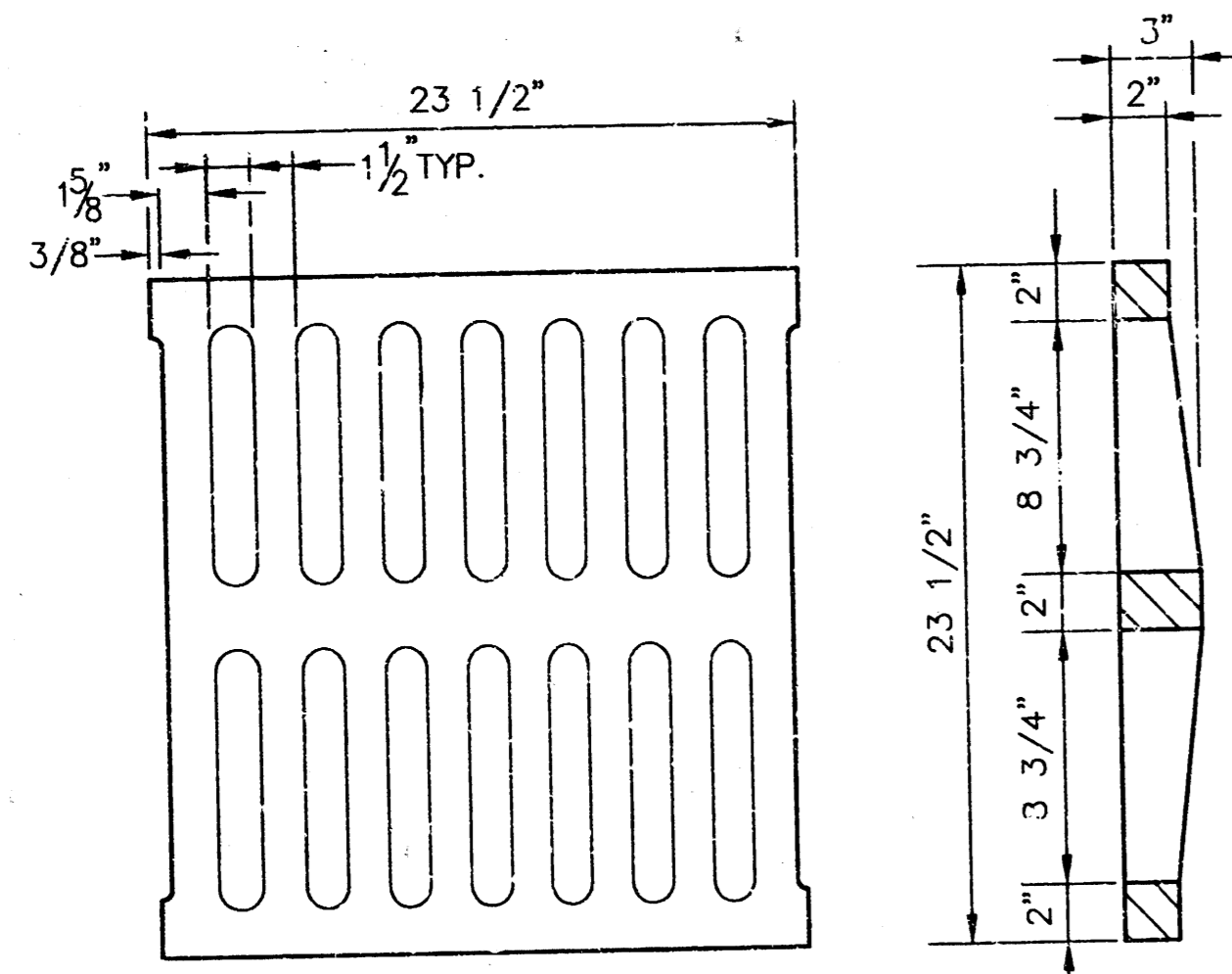


**TYPICAL SECTION**

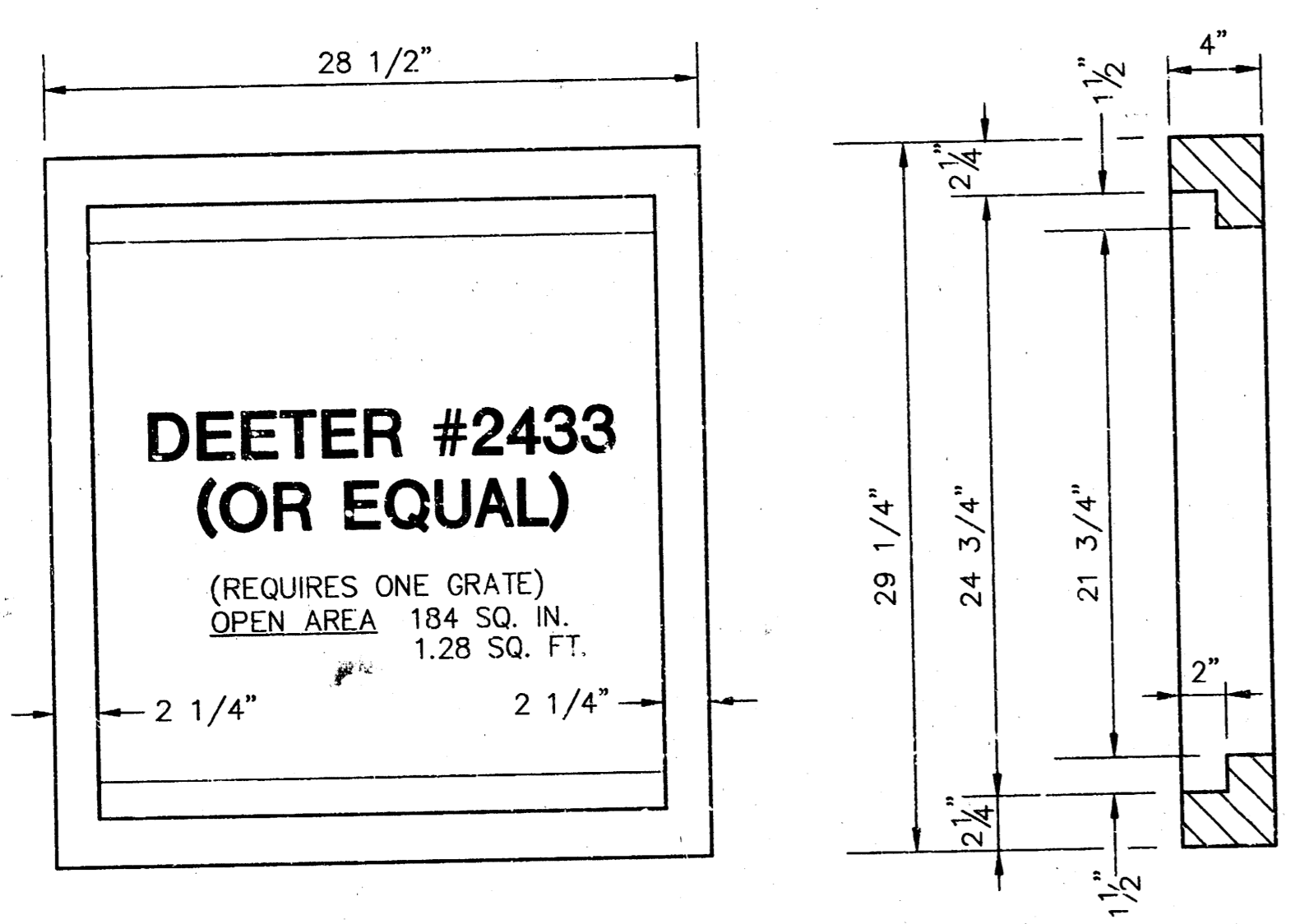
**"FILL" SITUATIONS**

**EASEMENT GRADING DETAILS**  
FOR  
**WISLON FARMS 2ND ADDITION -- PHASE 1**

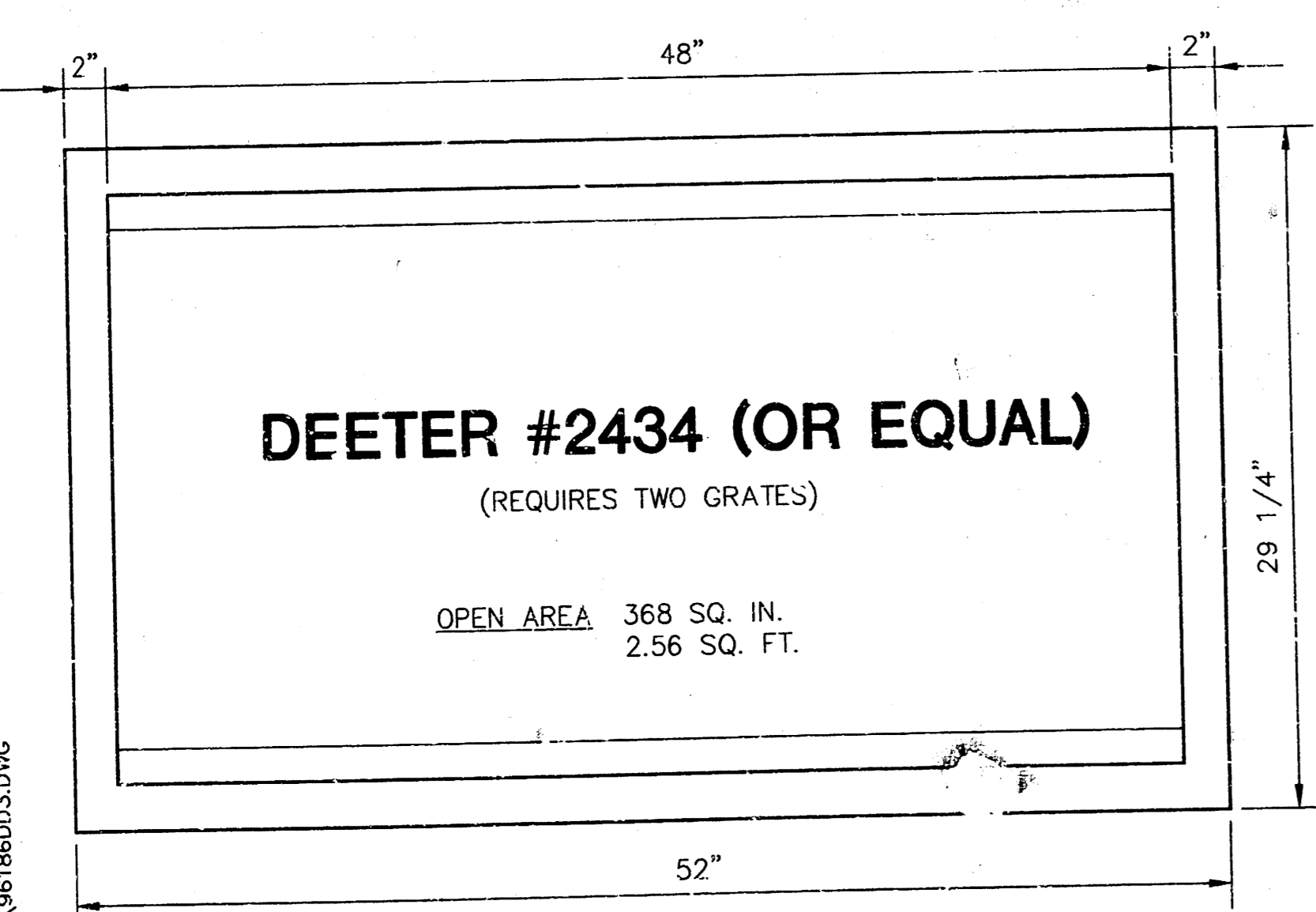




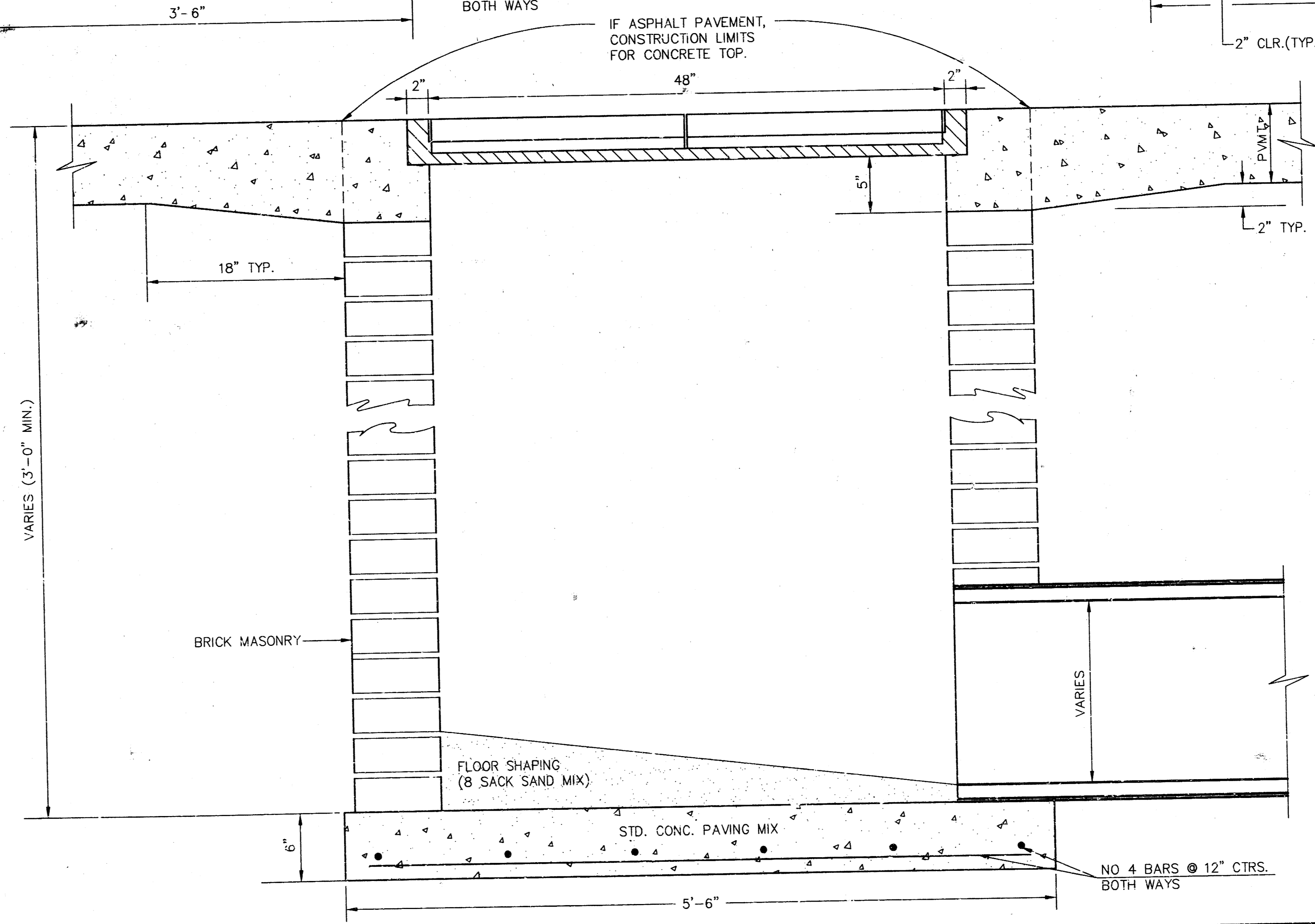
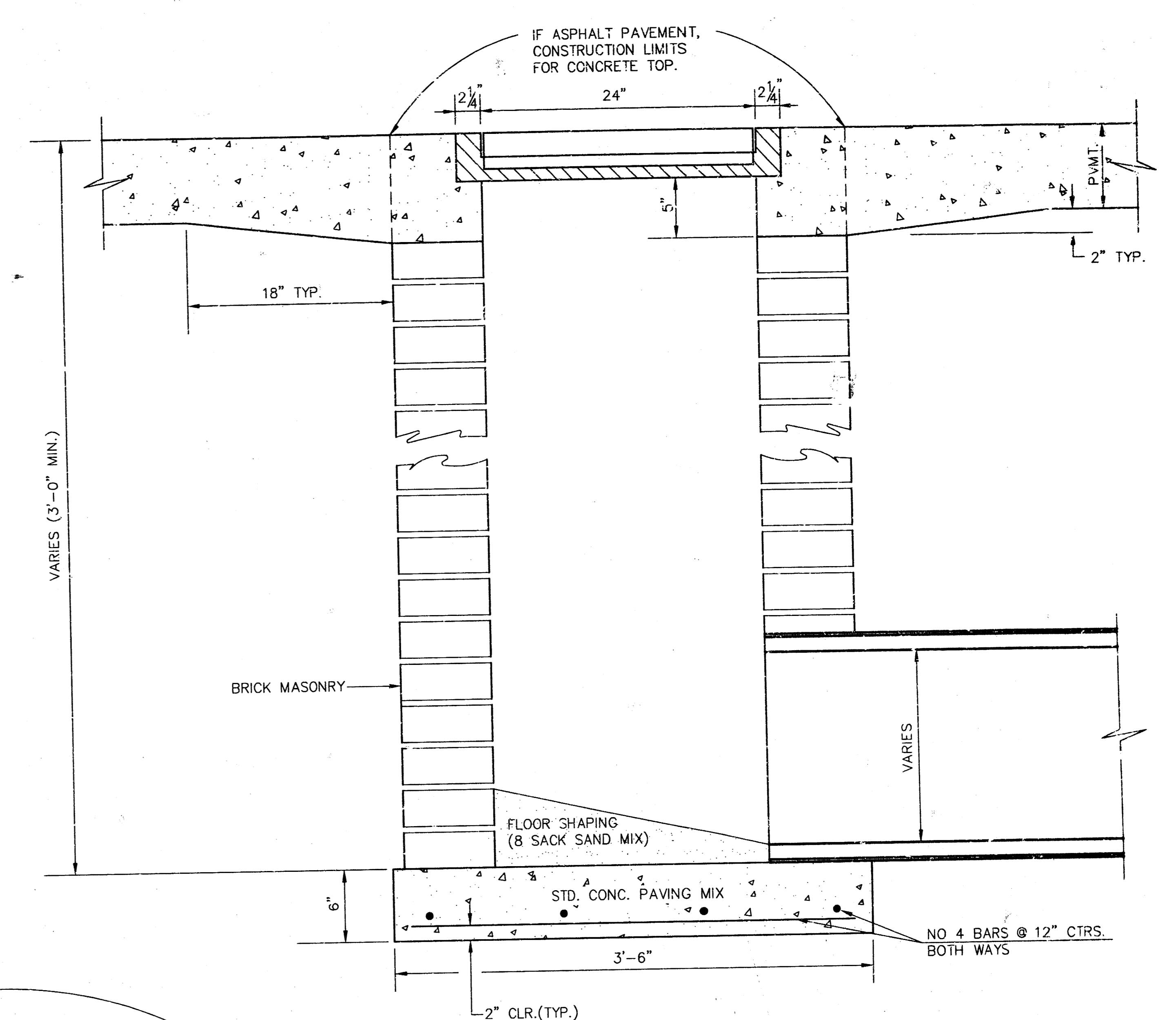
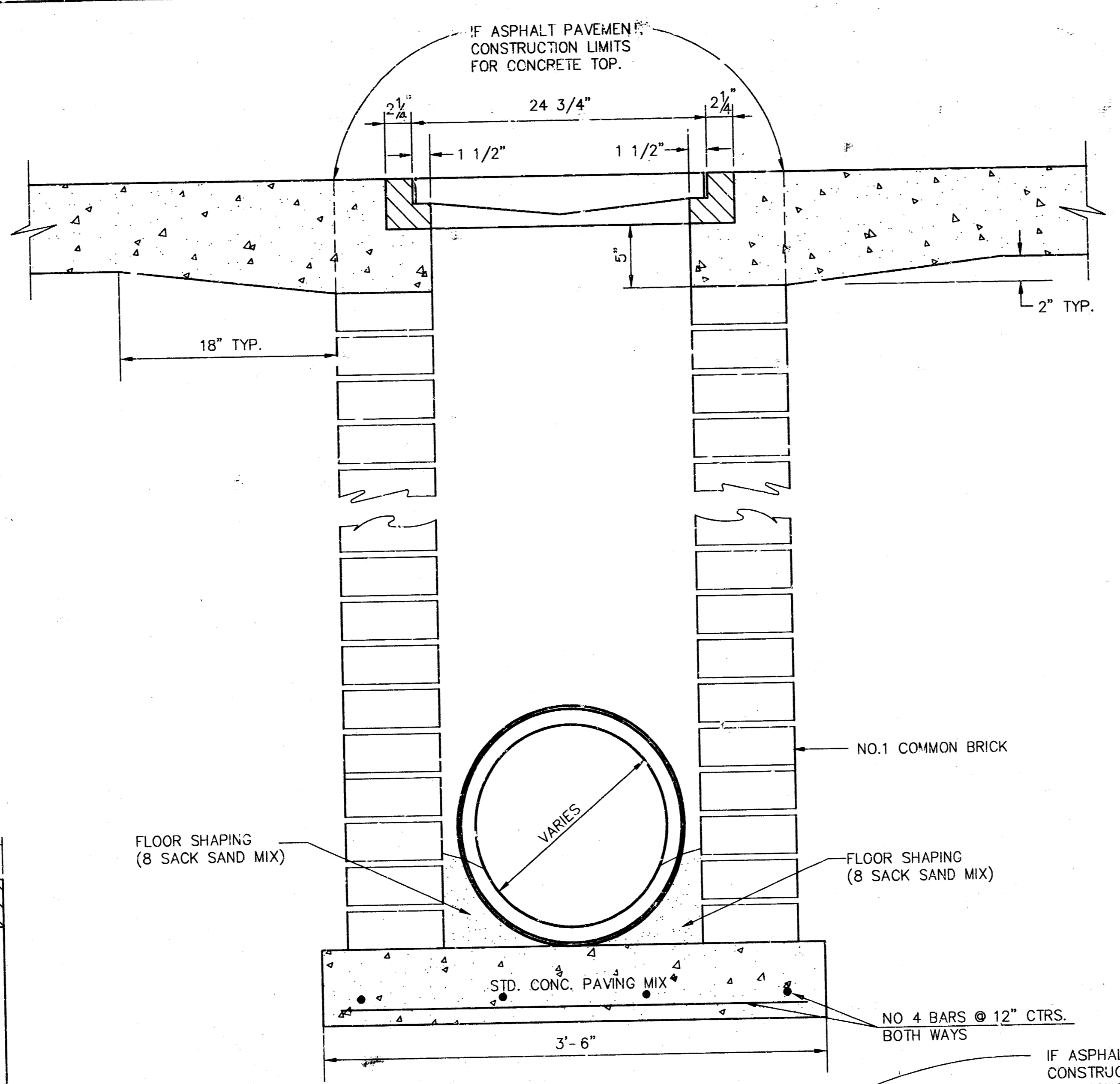
24"x24" GRATE DETAIL



SINGLE 24"x24" FRAME DETAIL



DOUBLE 24"x24" FRAME DETAIL



ORIFICE EQUATION		
$Q = C \cdot A \cdot \sqrt{2gh}$ $C = 0.60$		
h (DEPTH)	#2433 (SINGLE)	#2434 (DOUBLE)
0.1	1.95 cfs	3.89 cfs
0.2	2.75 cfs	5.50 cfs
0.3	3.37 cfs	6.74 cfs
0.4	3.89 cfs	7.78 cfs
0.5	4.35 cfs	8.70 cfs
0.6	4.77 cfs	9.53 cfs
0.7	5.15 cfs	10.30 cfs
0.8	5.50 cfs	11.01 cfs
0.9	5.84 cfs	11.67 cfs
1.0	6.15 cfs	12.30 cfs

REVISED: 5-8-60 JNJ

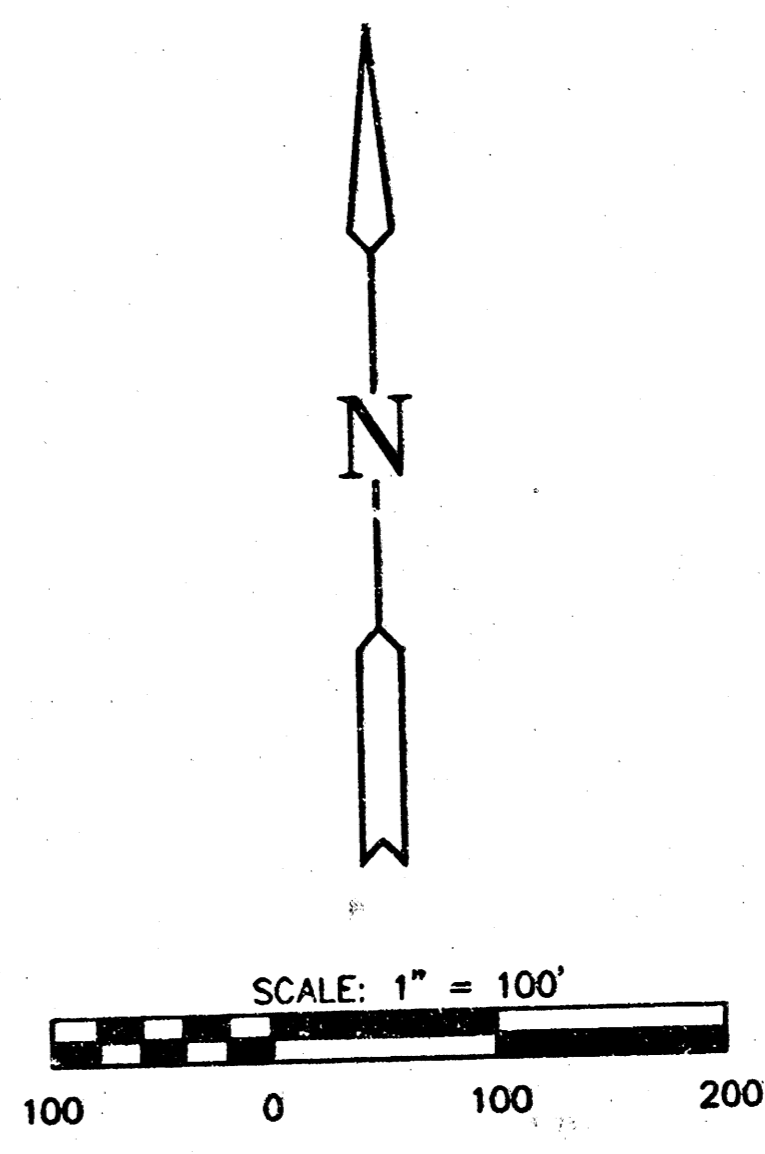
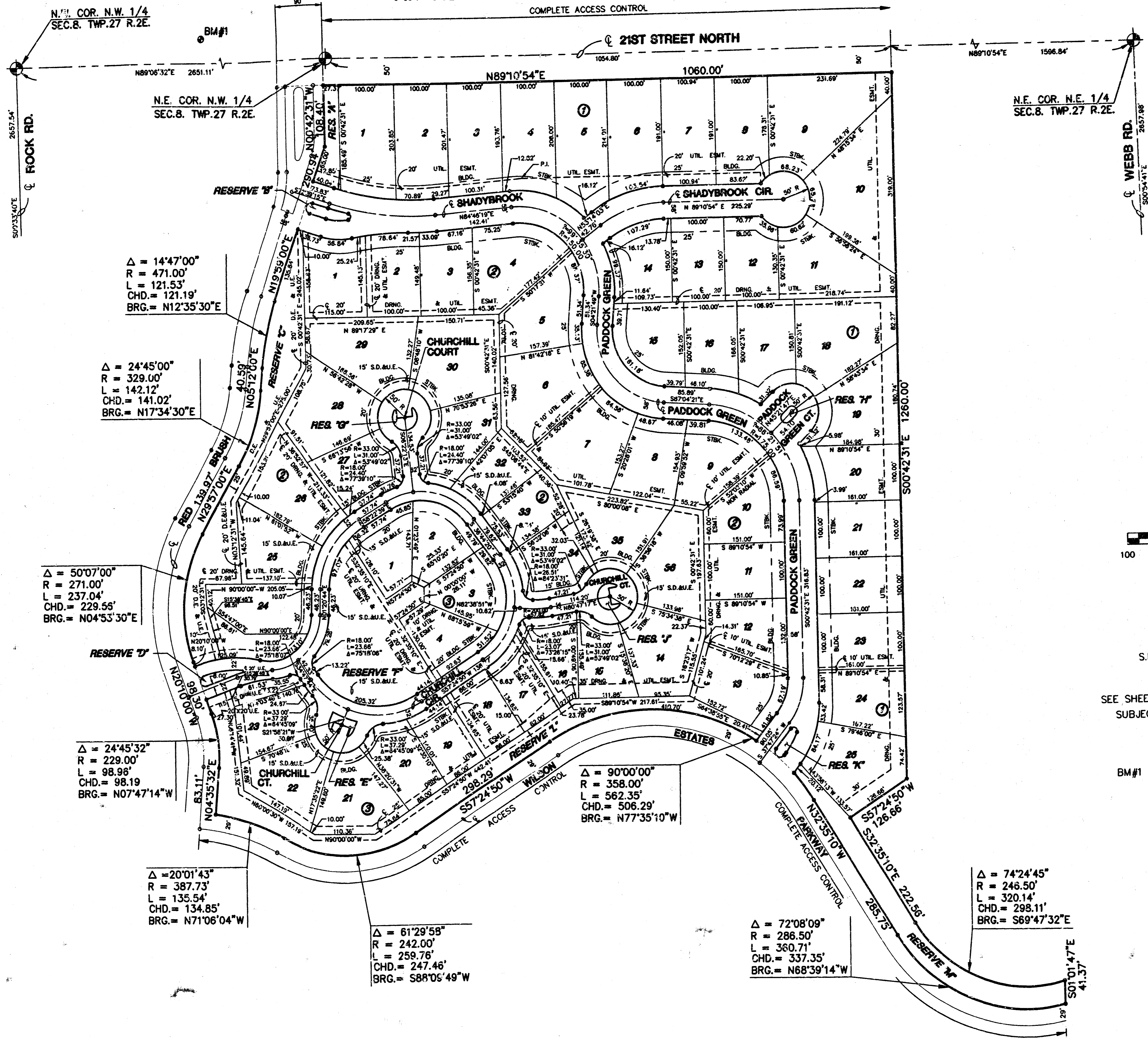
**DROP INLET DETAILS**

CITY OF WICHITA, KANSAS

Design	C.O.W.	Checked by	Checked by	10/11
Drawn by		Date	Date AUG. 1997	Job No. 99223003

# FINAL PLAT WILSON FARMS SECOND ADDITION

AN ADDITION TO WICHITA, SEDGWICK COUNTY, KANSAS



**LEGEND**

- \* = I.P.
- B.S. = BUILDING SETBACK
- S.D.&U.E. = STREET, DRAINAGE, AND UTILITY EASMENT
- U.E. = UTILITY EASMENT

SEE SHEET 2/2 FOR RESERVE ISLAND DETAILS  
SUBJECT TO CUP GP-201, AMENDMENT 1

**BENCHMARK**

BM#1 1/2 MILE EAST OF ROCK ROAD  
ON 21ST. C.O.W. BENCH MARK  
NE COR. HUBGUARD ON RCBC  
ELEV.=190.04

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 H:\CIVIL\06\06\992231.DWG\PROPT\FINAL.PLT\992231.DWG

