

SANITARY SEWER PLANS
LATERAL 346, FOUR MILE CREEK SEWER
PROJECT NO. 468-83589

CITY OF WICHITA, KANSAS
JIM ARMOUR, CITY ENGINEER
OCA 744178

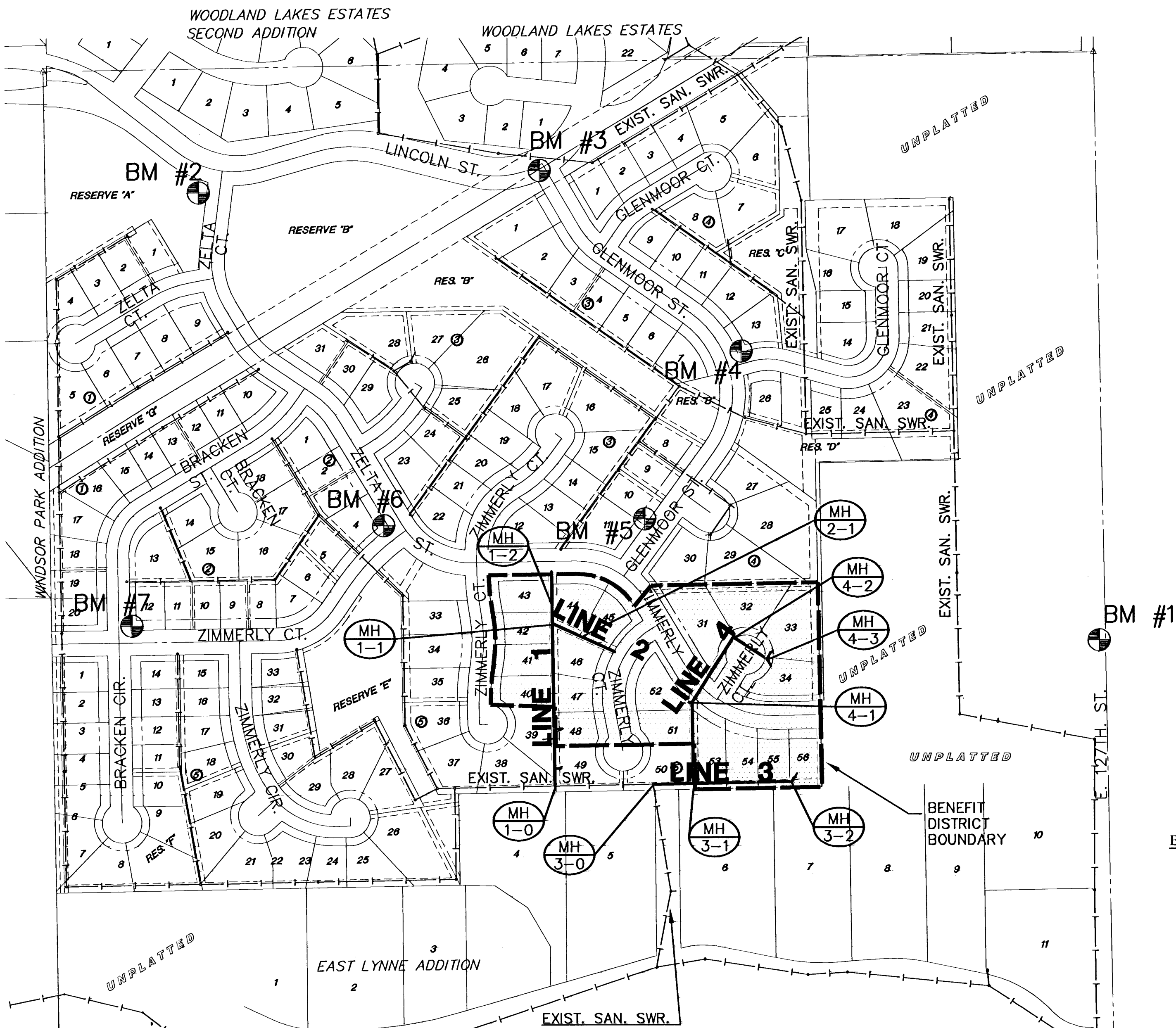
GENERAL NOTES

- UNLESS SHOWN OR STATED OTHERWISE ON THESE DRAWINGS, MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF WICHITA STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS. THE CONTRACTOR WILL BE REQUIRED TO RE-ESTABLISH ANY PROPERTY IRONS WHICH ARE DAMAGED OR DESTROYED BY HIS CONSTRUCTION OPERATIONS. SUCH IRONS SHALL BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR IN ACCORDANCE WITH STATE LAWS.
- 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.
- CONTRACTOR WILL BE REQUIRED TO PROVIDE A MINIMUM ADVANCE NOTICE OF SEVENTY-TWO (72) HOURS TO UTILITY COMPANIES PRIOR TO STARTING ANY EXCAVATION AS FOLLOWS:

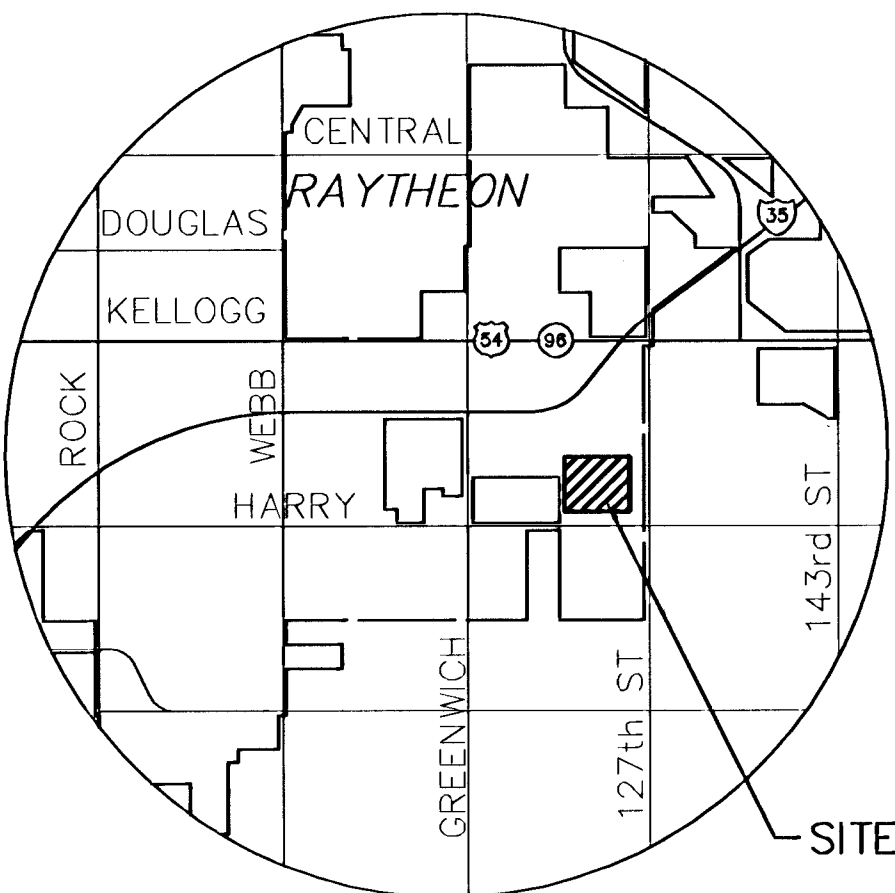
KANSAS ONE-CALL 1-800-344-7233
or 687-2470 (LOCAL WICHITA)

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

SBC (TELEPHONE) 800-870-8390
COX COMMUNICATIONS (CABLE) 262-0661
KANSAS GAS SERVICE (GAS) 832-3101
CITY OF WICHITA WATER & SEWER 262-6000
WESTAR (ELECTRIC) 261-6512
AQUILA (GAS) 946-0096
- 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.
- COST OF EXCAVATION, HAULING, AND DUMPING OF EXCESS EXCAVATION SHALL BE SUBSIDIARY TO THE PROJECT.
- 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.
- ALL STUBS AND PLUGGED PIPES SHALL BE LOCATED WITH GREEN PLASTIC TAPE IN THE SAME MANNER AS RISERS.
- CONNECTING TO EXISTING MANHOLES:
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 BORE CUT INTO EXISTING MANHOLE WALL TO MAKE CONNECTION USING APPROVED WATER STOP GASKET, AND RESHAPE THE EXISTING MANHOLE INVERT TO PROVIDE SMOOTH FLOW. THE COST OF CONNECTING TO EXISTING MANHOLES IS INCIDENTAL TO THE PROJECT.
- ALL DISTURBED AREAS TO BE SEED WITH RYE GRASS AT A RATE OF 200 LBS. PER ACRE WITHIN 10 DAYS OF CONSTRUCTION. CONTRACTOR TO PREPARE GROUND PER CITY SPECIFICATIONS. COST IS SUBSIDIARY TO SITE PREPARATION AND RESTORATION.



WB Carter Construction Co, Inc. Contractor
Wood, City- Inspector
Released 9/26/06
As-Built
Risers + Stubs
.pdf by JDL 10/30/06



VICINITY MAP



SCALE: 1" = 200'

INDEX TO DRAWINGS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	MANHOLE DETAILS
3	BUBBLE MAP
4	VERTICAL RISER DETAILS
5	LINE 1 & 2
6	LINE 3 & 4
7-8	EROSION CONTROL
9-10	FINAL PLATS

BENCHMARKS

BM#	ELEVATION	DESCRIPTION
1	1346.58	Chiseled square on East end of North headwall of RCB, 31' East and 11' North of the Center of Section 27, Township 27 South, Range 2 East.
2	1340.42	T-post on Southwest corner of Zelta and Lincoln, 5' Southwest of the Northeast corner of Reserve A.
3	1338.37	T-post on Southwest corner of Glenmoor and Lincoln, 5' Southwest of the Northeast corner of Reserve B.
4	1329.64	T-post 5' North of the Southwest corner of Lot 13, Block 4.
5	1340.26	T-post 5' North of the Southeast corner of Lot 11, Block 3.
6	1339.14	T-post 5' West of the "East" corner of Lot 4, Block 2.
7	1338.12	T-post 5' Northeast of the Southwest corner of Lot 12, Block 2.



SANITARY SEWER PLANS
WOODLAND LAKES 4TH
ZIMMERLY PHASE

TITLE SHEET

SHEET TITLE
468-83589
PROJECT NUMBER

DESIGN BY SRS

DRAWN BY BFL

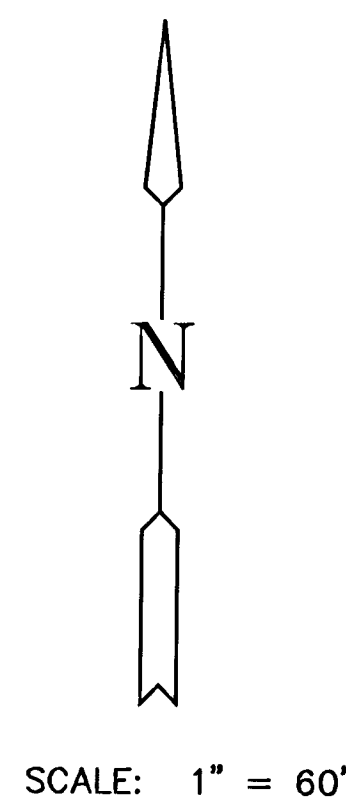
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ISSUED
APRIL 2006

REVISED

SHEET NO.

1 of 10

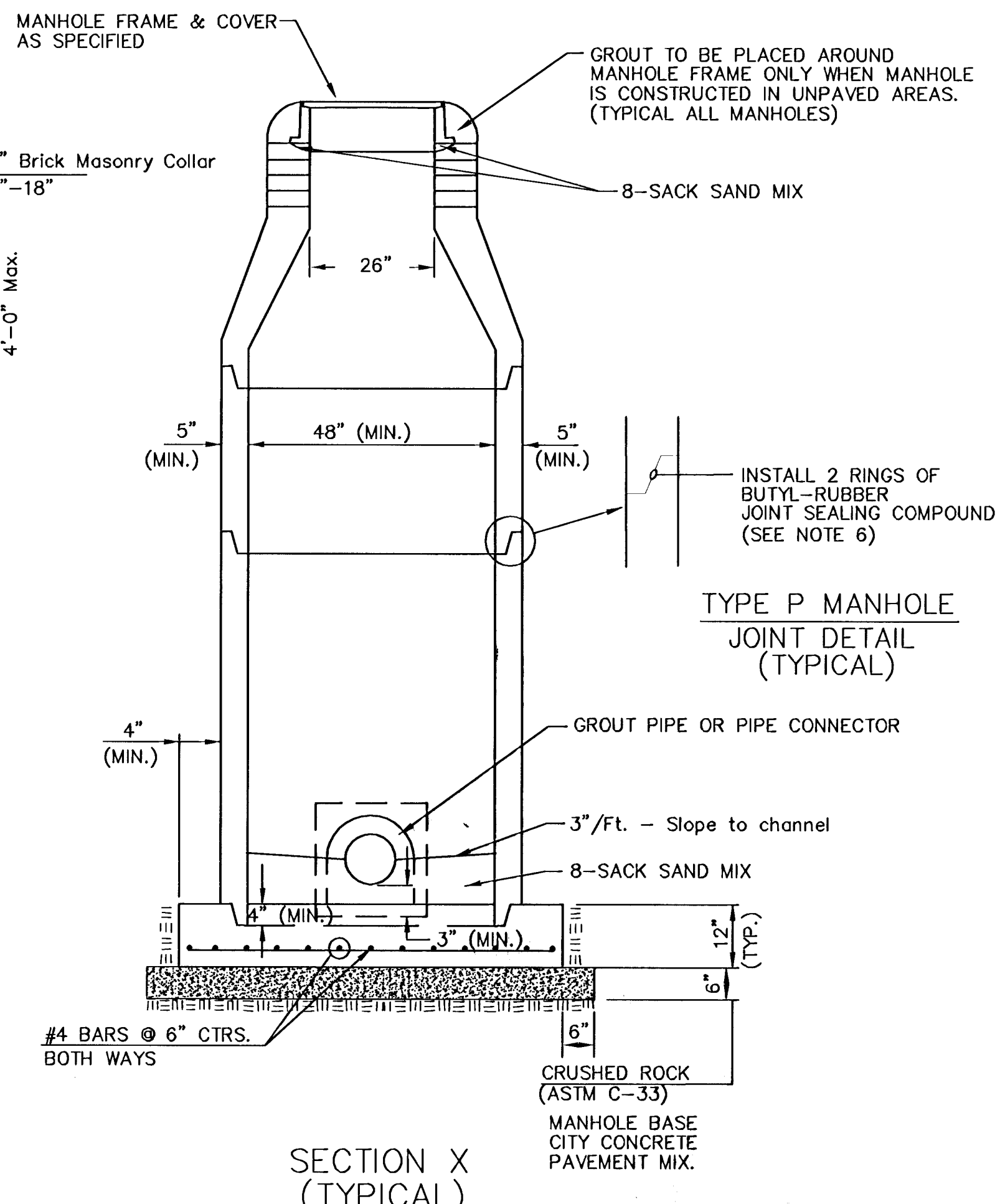
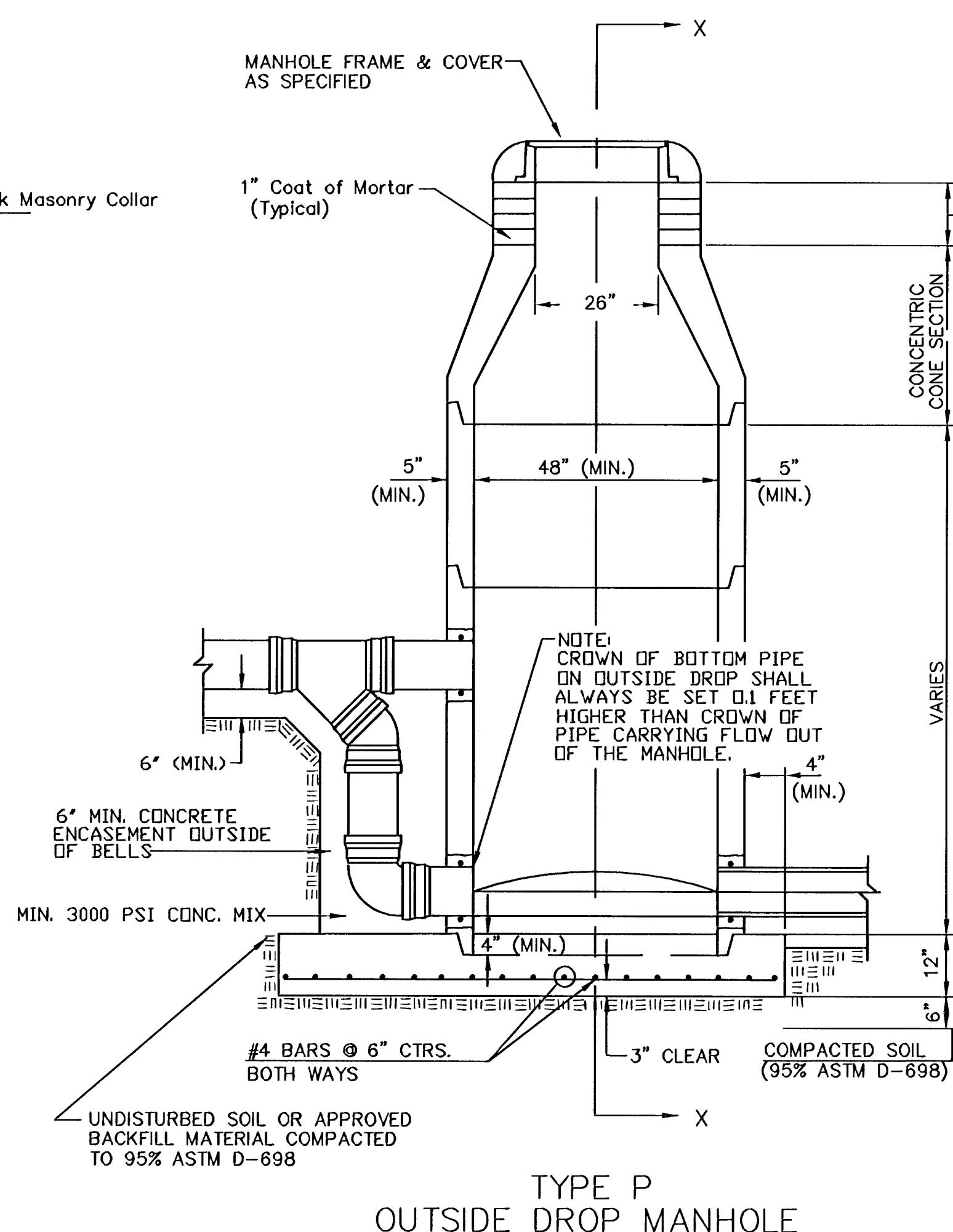
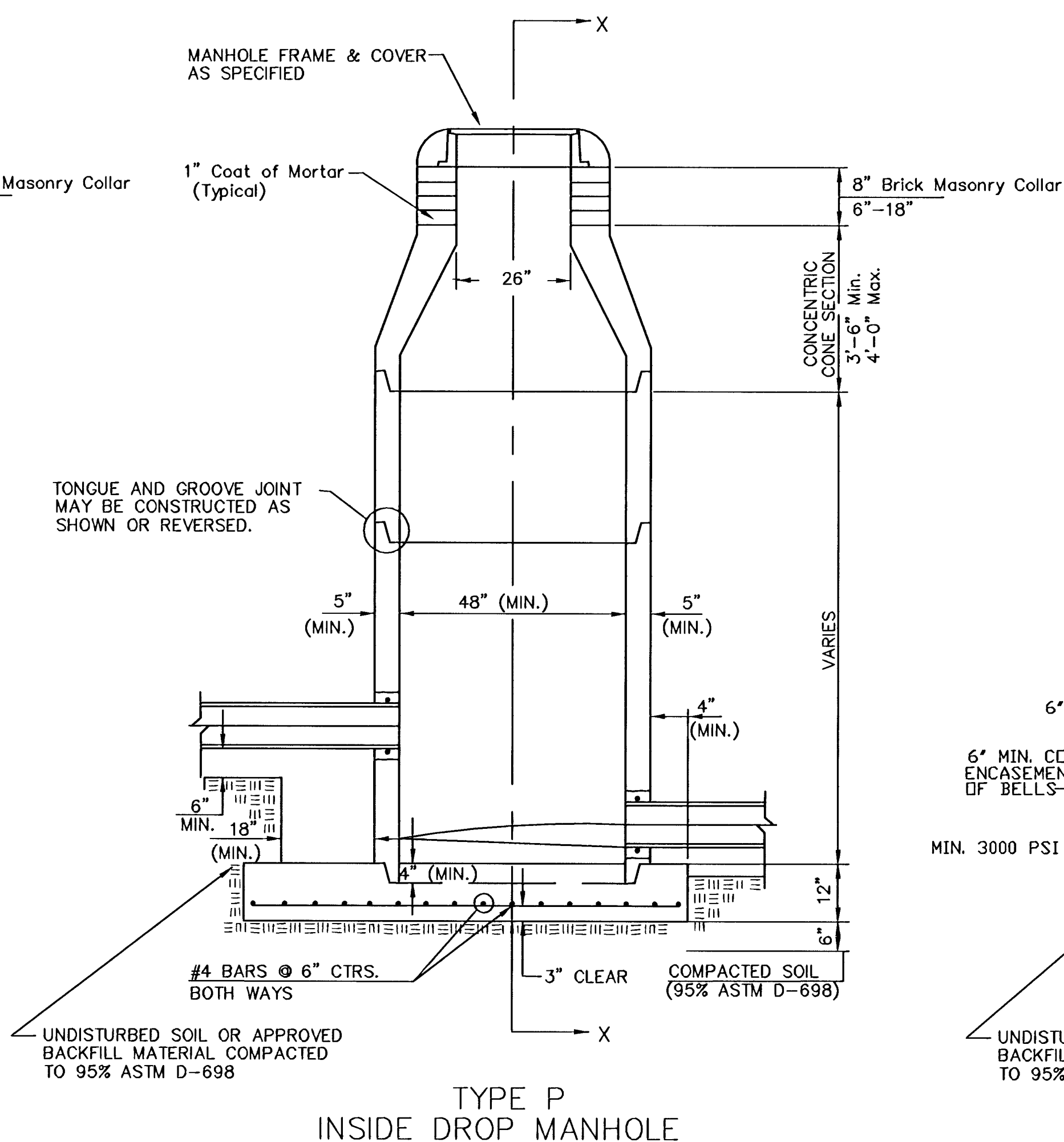
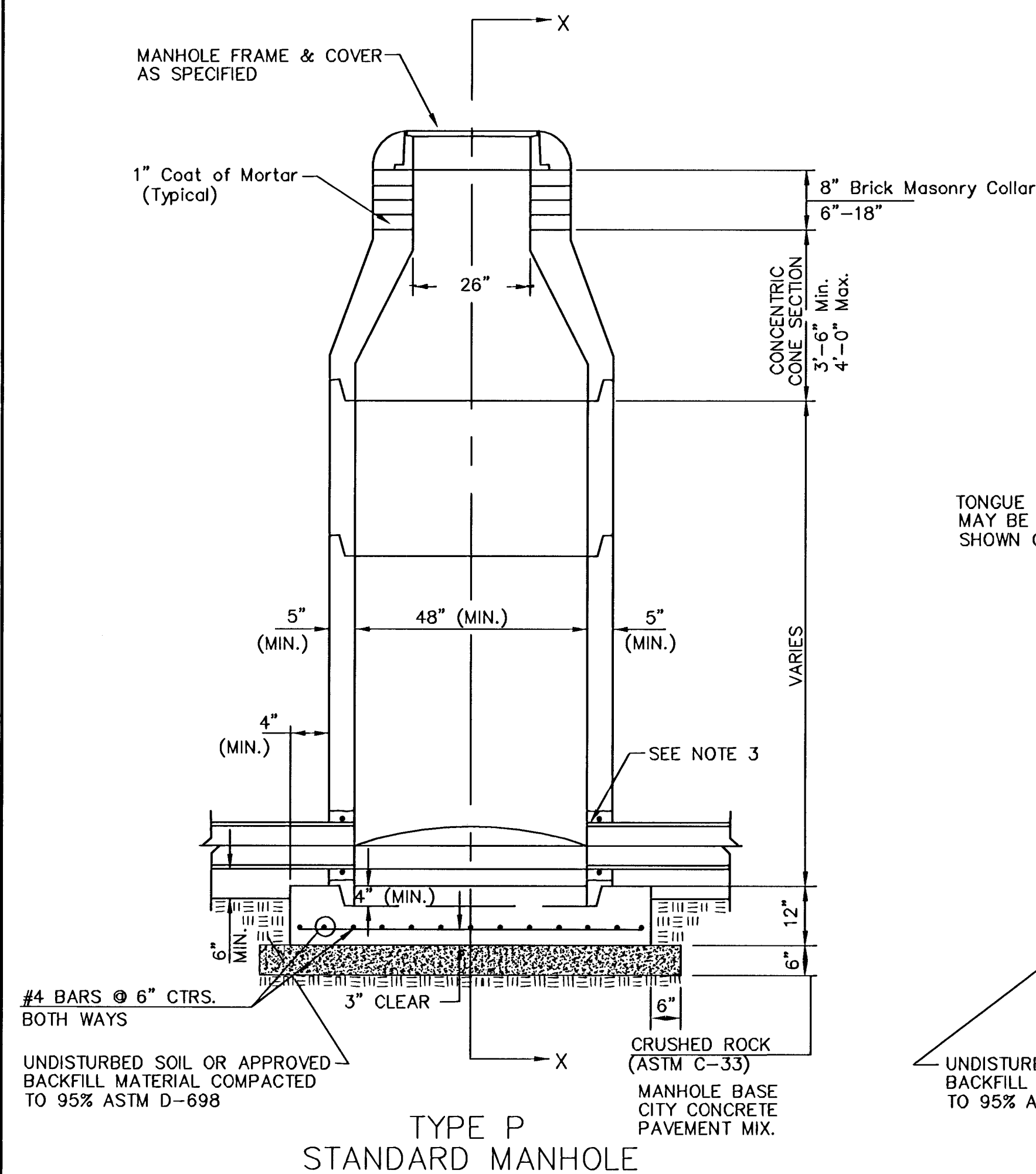


<i>R/W PROPERTY LINE POINTS</i>		
Point No.	North	East
3300	1679512.54	1690547.00
3301	1679545.55	1690601.84
3302	1679494.56	1690646.00
3303	1679544.40	1690675.88
3304	1679563.16	1690722.23
3305	1679513.22	1690724.79
3306	1679467.06	1690695.37
3307	1679449.65	1690649.89
3308	1679365.76	1690433.50
3309	1679354.86	1690376.53
3310	1679416.33	1690364.77
3311	1679427.23	1690421.74
3312	1679650.68	1690463.85
3313	1679600.94	1690493.79
3314	1679687.35	1690441.77
3315	1679720.36	1690496.61
3316	1679444.56	1690794.92
3317	1679374.57	1690796.14
3318	1679229.95	1690913.80
3319	1679376.58	1690911.13
3320	1679446.57	1690909.91
3321	1679746.50	1690904.41
3322	1679738.78	1690484.28
3323	1679768.69	1690295.41
3324	1679774.78	1690233.08
3325	1679218.00	1690244.15



1. CONTRACTOR SHALL MAKE EVERY EFFORT TO PRESERVE EACH EXISTING TREE (UNLESS NOTED FOR REMOVAL) AS DIRECTED IN THESE PLANS & NOTES.
2. BEFORE ANY TYPE OF CONSTRUCTION BEGINS WITHIN THE PROJECT IMPROVEMENT AREA THE CONTRACTOR SHALL INSTALL PROTECTION FENCE AROUND ALL EXISTING TREES TO BE PRESERVED.
3. CONSTRUCTION EQUIPMENT & STORED MATERIALS SHALL REMAIN OUT OF AREAS NOTED TO BE TREE PRESERVATION. CONTRACTOR SHALL TAKE EVERY PRECAUTION WHEN WORKING ON THE PROPOSED FENCELINE WHERE THERE WILL BE NEED FOR CLOSE PROXIMITY TO TREES.
4. EQUIPMENT AND CONSTRUCTION MATERIALS SHALL REMAIN OUT OF AND AWAY FROM TREE DRIPLINES SO AS TO NOT COMPACT THE ROOT ZONE OR DAMAGE THE TREE. CHEMICAL SPILL DAMAGE SHALL BE PREVENTED BY FILLING GAS TANKS, CLEANING TOOLS & REPAIRING EQUIPMENT WELL OUTSIDE TREE PROTECTED ROOT ZONES. MIXING TRUCKS SHALL BE RINSED OUT OFF SITE.
5. ANY TREE THAT MUST HAVE BRANCHES REMOVED SHALL BE TRIMMED WITH SHARP INSTRUMENT/TOOL THAT IS INTENDED FOR SUCH OPERATIONS. CONSULT LANDSCAPE ARCHITECT PRIOR TO TRIMMING. KNOCKING BRANCHES OFF WITH BACKHOE OR OTHER SIMILAR MACHINE [IS NOT ACCEPTABLE] REFER TO TREE TRIMMING DETAIL ON THIS SHEET FOR TRIMMING PROCEDURE.
6. FAILURE TO MAINTAIN ERECTED TREE PROTECTION FENCE AROUND DESIGNATED AREAS WITHOUT PRIOR REMOVAL CONSENT FROM THE OWNER IS STRICTLY PROHIBITED. ALL EQUIPMENT WORK SHALL HAULT UNTIL REMIDDED SHOULD ANY PROTECTION FENCE BE REMOVED OR MOVED.

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 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 TMEC 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 LAIN 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.
- CRUSHED ROCK CONFORMING TO ASTM C-33 WITH A GRADATION OF NO. 67 SHALL BE INSTALLED AT THE BASE OF THE MANHOLE TO A DEPTH OF NO LESS THAN 6", AND SHALL EXTEND NO LESS THAN 6" OUTSIDE THE DIAMETER OF THE CONCRETE FLOOR OF THE MANHOLE.
- WALL THICKNESS SHALL BE 1" GREATER THAN MANHOLE DIAMETER IN FEET.
- THE FULL DIAMETER OF THE MANHOLE SHALL EXTEND THE ENTIRE DEPTH OF THE MANHOLE TO THE CONE SECTION. NO REDUCTION IN MANHOLE DIAMETER WILL BE ALLOWED.

REV. 1/05/01, MCG

H:\CIVIL\95058\02172\DWG\SAN\ZIMMERLY\02172BD1.DWG

CITY ENGINEER'S OFFICE 425 NORTH MAIN STREET WICHITA, KANSAS 67202 (316) 268-4501 (316) 268-4114 FAX	STANDARD TYPE 'P' MANHOLES	
	JIM ARMOUR - CITY ENGINEER	
	PROJECT NUMBER 468-83589	INDEX CODE
	DATE APRIL 2006	SHEET 3 OF 10

2'-0" PVC PIPE
6'-0" CLAY PIPE
MAIN SEWER PIPE
NO. 5 BARS (TYPICAL)
TYPICAL PLAN VIEW

Diagram illustrating the structure of a manhole. The structure is composed of a 2'-0" PVC pipe (top section) and a 6'-0" clay pipe (bottom section). The structure is reinforced with NO. 5 BARS (TYPICAL). The main sewer pipe is shown entering the structure from the right.

SEWER SERVICE TABLE FOR REEDS COVE FOURTH ADDITION							
NO.	TYPE	LOCATION				FOR INFORMATION ONLY	
		LOT NO.	BLOCK NO.	LINE NO.	STATION/ DIRECTION	APPROXIMATE LENGTH 4" PIP	
						VERTICAL	HORIZONTAL
1	8"x6" Tee Saddle	49	1	1	10+43.13/RT	3.1'	15.0'
2	8"x6" Tee Saddle	39	1	1	11+07.98/L	2.9'	10.0'
3	8"x6" Tee Saddle	48	1	1	11+43.75/LT	2.8'	15.0'

2"x4" - 1' ABOVE GROUND

1'-0" MAX.

EDGE OF EASEMENT

PROPOSED GROUND

GREEN MARKING TAPE

AIR TIGHT SOLVENT WELDED CAP OR PLUG

4' MAX.

10'

2' MIN.

MAXIMUM WATER TABLE ELEVATION

45° BEND

45° BEND

TRENCH WALL

SOLVENT WELDED JOINTS - TYPICAL

VARIES

45° BEND

2 NO. 5 BARS

PVC TEE SADDLE SOLVENT WELDED AND 2 S.S. STRAPS

CONCRETE ENCASUREMENT, 8" MINIMUM CITY CONC. PAVEMENT MIX

MAIN SEWER NO. 5 EACH

MAIN SEWER PIPE NO. 5 BARS EACH WAY

above ground water
proposed ground ele

$2' \times 4' - 1'$
ABOVE GROUND

$1'-0"$
MAX.

EDGE OF

PROPOSED GROUND

GREEN MARKING TAPE

AIR TIGHT SOLVENT WELDED CAP OR PLUG

$4'$
MAX.

MAXIMUM WATER TABLE ELEVATION

$2'$
MIN.

$10'$

VARIABLES

45° BEND

X

$4' @ 2.0\%$

$6' @ 1.0\%$

L

TRENCH WALL

90° SWEEP ($R=4.125'$ min.)

SOLVENT WELDED JOINTS - TYPICAL

2 NO. 5 BARS

PVC TEE SADDLE SOLVENT WELDED AND 2 S.S. STRAPS

CONCRETE ENCASUREMENT, $8"$ MINIMUM ALL SIDES CITY CONC. PAVEMENT MIX

MAIN SEWER PIPE NO. 5 BARS EACH WAY

2"x4" - 1' ABOVE GROUND

1'-0" MAX.

EDGE OF EASEMENT

PROPOSED GROUND

GREEN MARKING TAPE

4' MAX.

AIR TIGHT SOLVENT WELDED CAP OR PLUG

2' MIN.

10'

MAXIMUM WATER TABLE ELEVATION

ALTERNATE PIPE CONFIGURATION AS APPROVED BY CONSTRUCTION ENGINEER.

VARIES 4' @ 2.0%

6' @ 10%

45° BEND

SOLVENT WELDED JOINTS - TYPICAL

90° SWEEP (R=4.125' min.)

TRENCH WALL

2 NO. 5 BARS

PVC TEE SADDLE SOLVENT WELDED AND 2 S.S. STRAPS

CONCRETE ENCASUREMENT, 8' MINIMUM CITY CONC. PAVEMENT MIX

MAIN SEWER PIPE

NO. 5 BARS EACH WAY

4.125' min.

"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".

 CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202 (316) 268-4501 (316) 268-4114 FAX	VERTICAL RISER DETAIL NEIL D. CABLE, P.E. - CITY ENGINEER <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <tr> <td style="width: 50%; text-align: center;">PROJECT NUMBER 468-83589</td> <td style="width: 50%; text-align: center;">INDEX CODE XXXXXX</td> </tr> </table> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <tr> <td style="width: 30%; text-align: center;">DATE APRIL 06</td> <td style="width: 70%; text-align: center;">SHEET 4 OF 10</td> </tr> </table>	PROJECT NUMBER 468-83589	INDEX CODE XXXXXX	DATE APRIL 06	SHEET 4 OF 10
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WOODLAND LAKES 4TH
ZIMMERLY PHASE

LINE 1 & 2
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PROJECT NUMBER

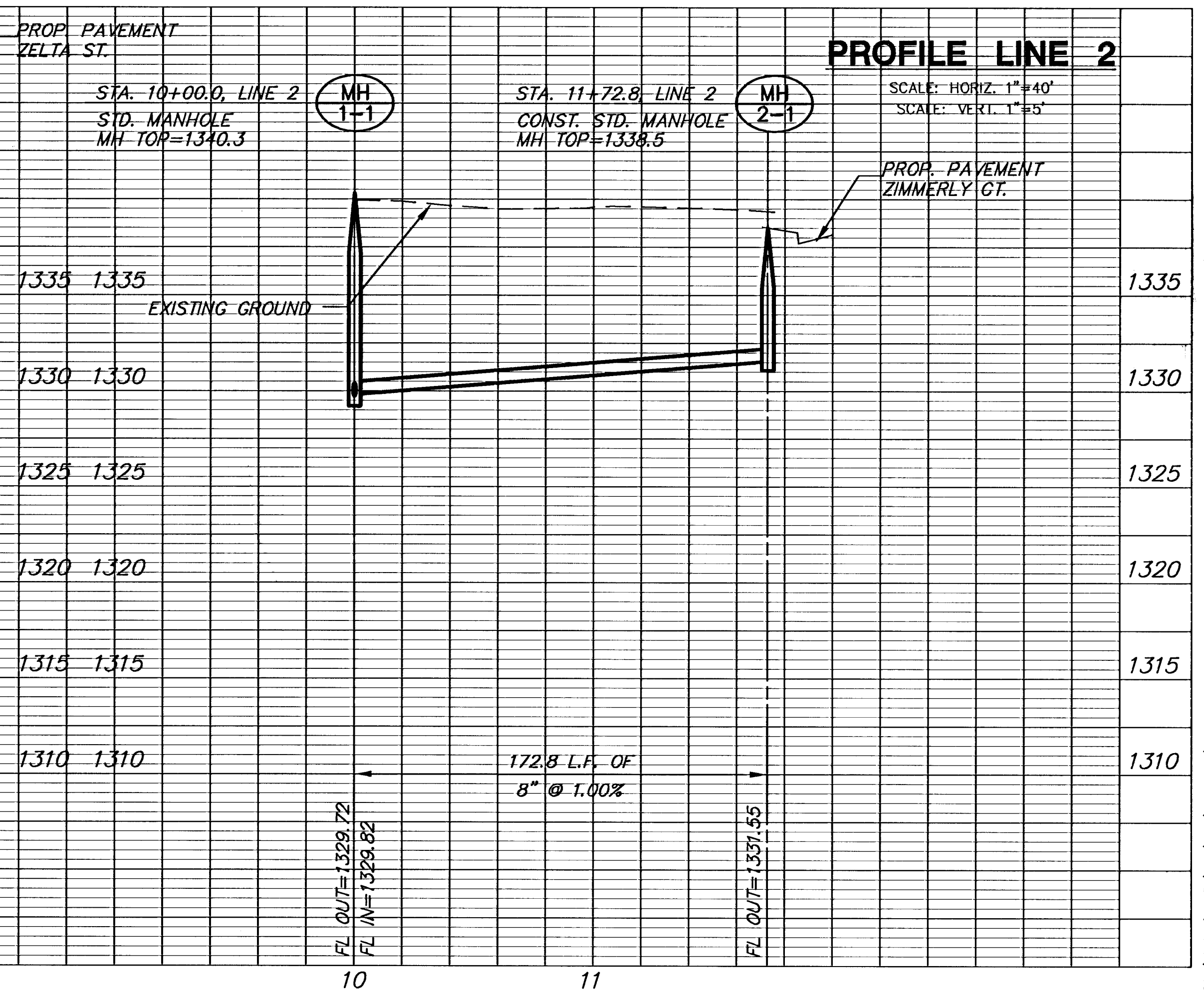
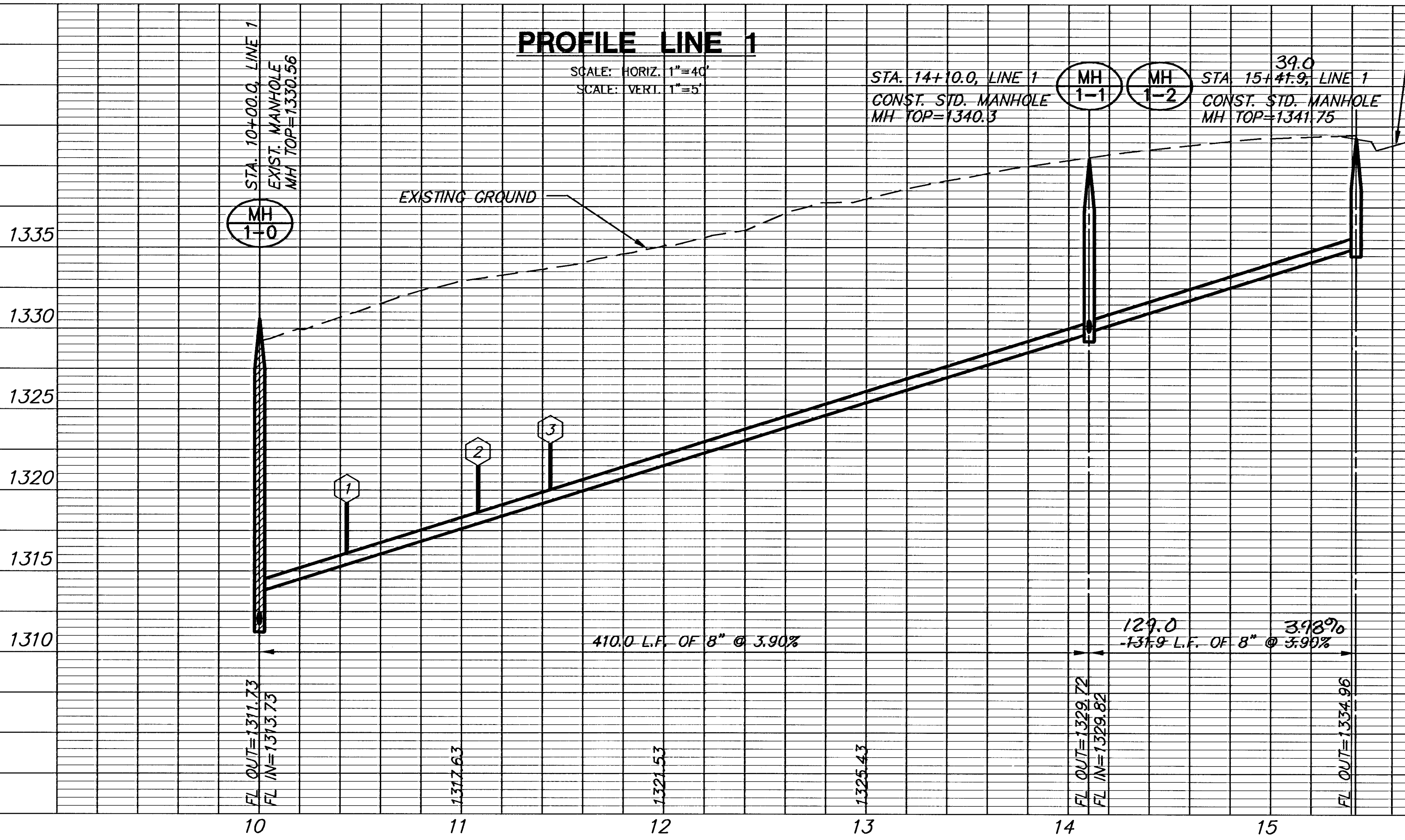
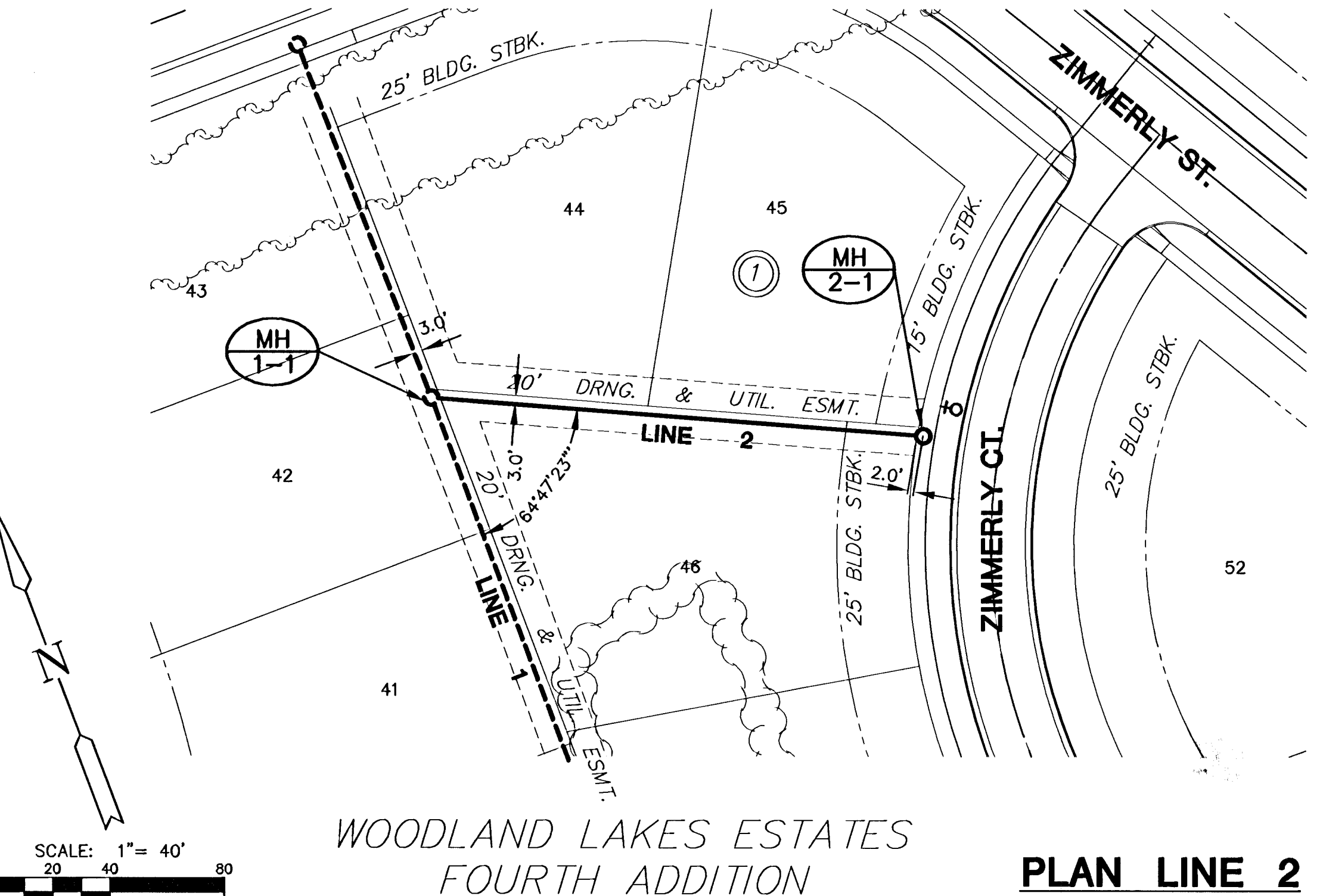
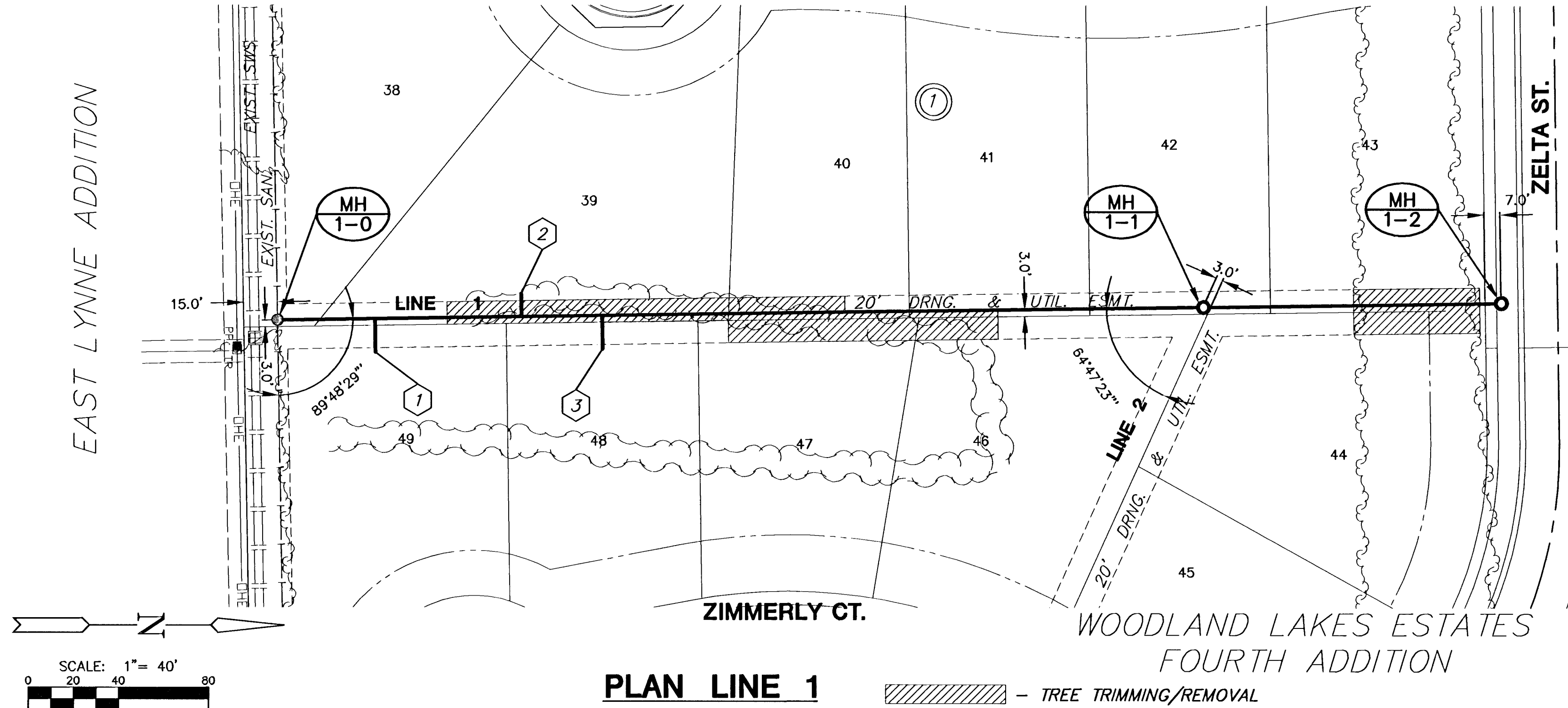
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ISSUED
APRIL 2006
REVISED

SHEET NO.
5 of 10

WOODLAND LAKES ESTATES
FOURTH ADDITION
ZIMMERLY CT.

WOODLAND LAKES ESTATES
FOURTH ADDITION
ZIMMERLY ST.





411 N. WEBB ROAD
WICHITA, KS. 67206
316 - 684 - 9600

SANITARY SEWER PLANS
WOODLAND LAKES 4TH
ZIMMERLY PHASE

LINE 3 & 4
SHEET TITLE
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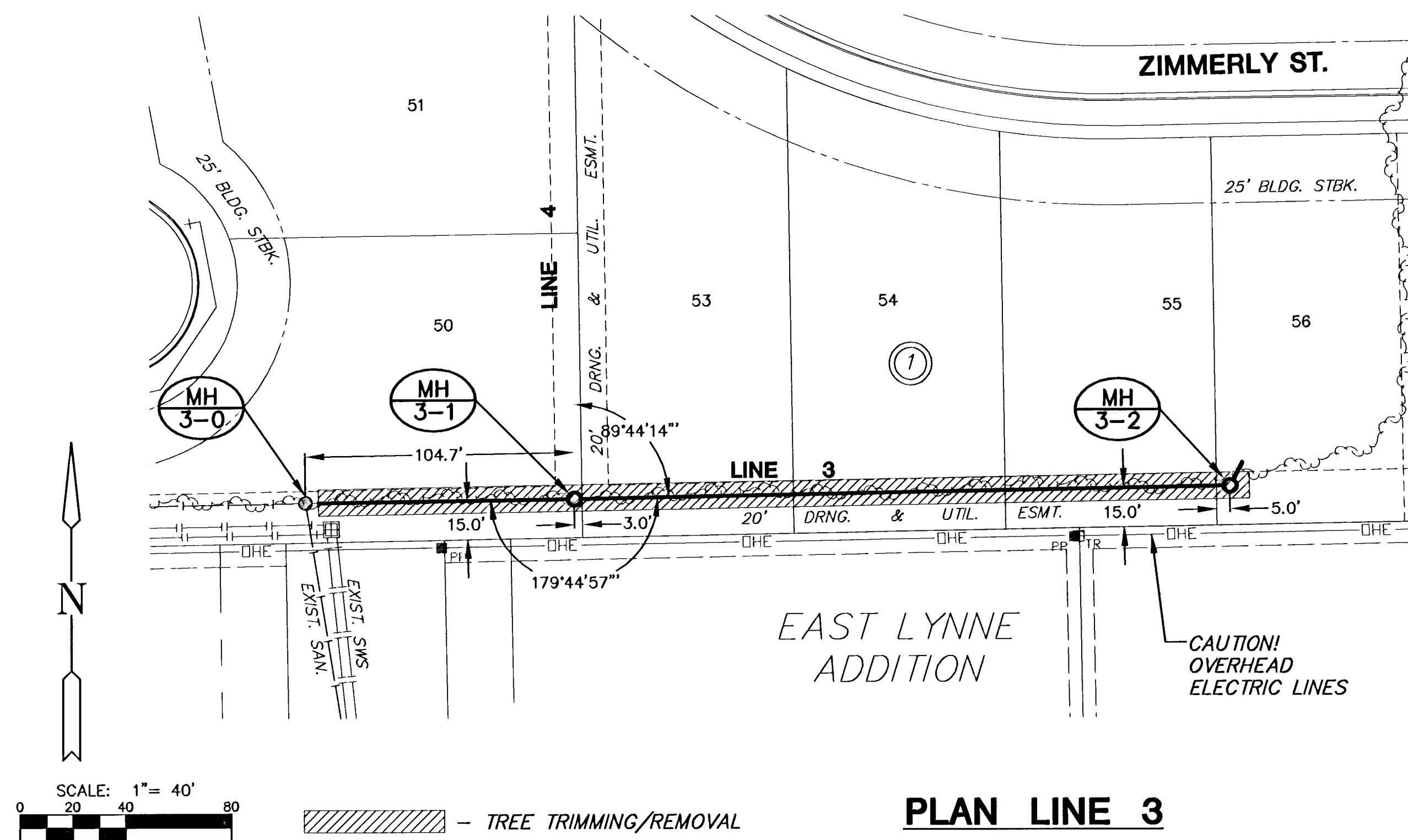
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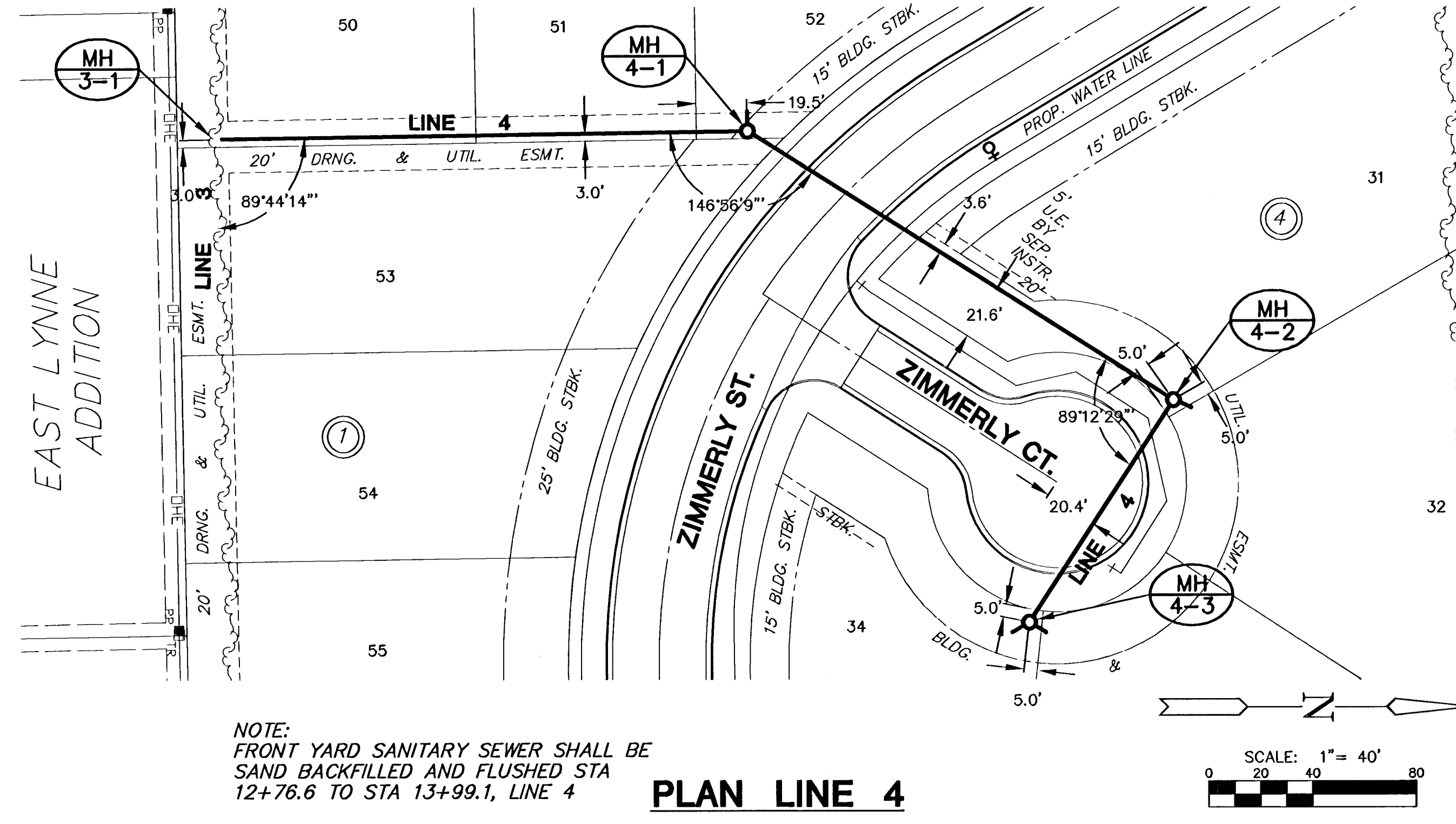
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WOODLAND LAKES ESTATES
FOURTH ADDITION

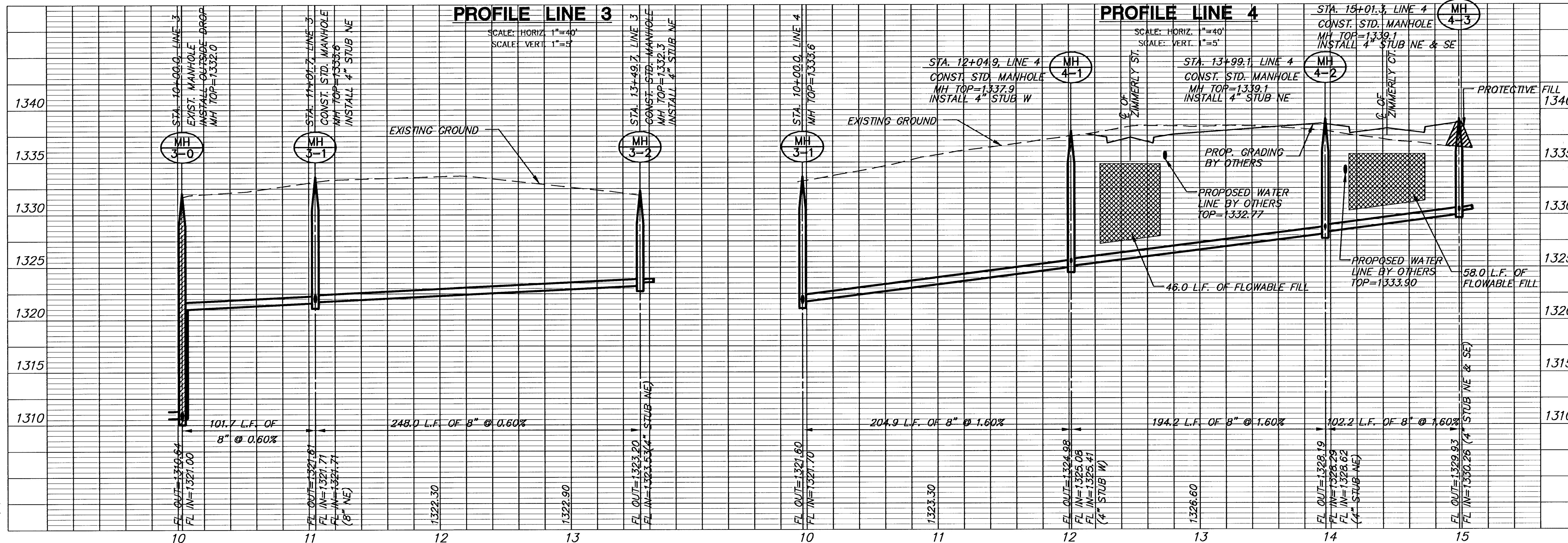
WOODLAND LAKES ESTATES
FOURTH ADDITION



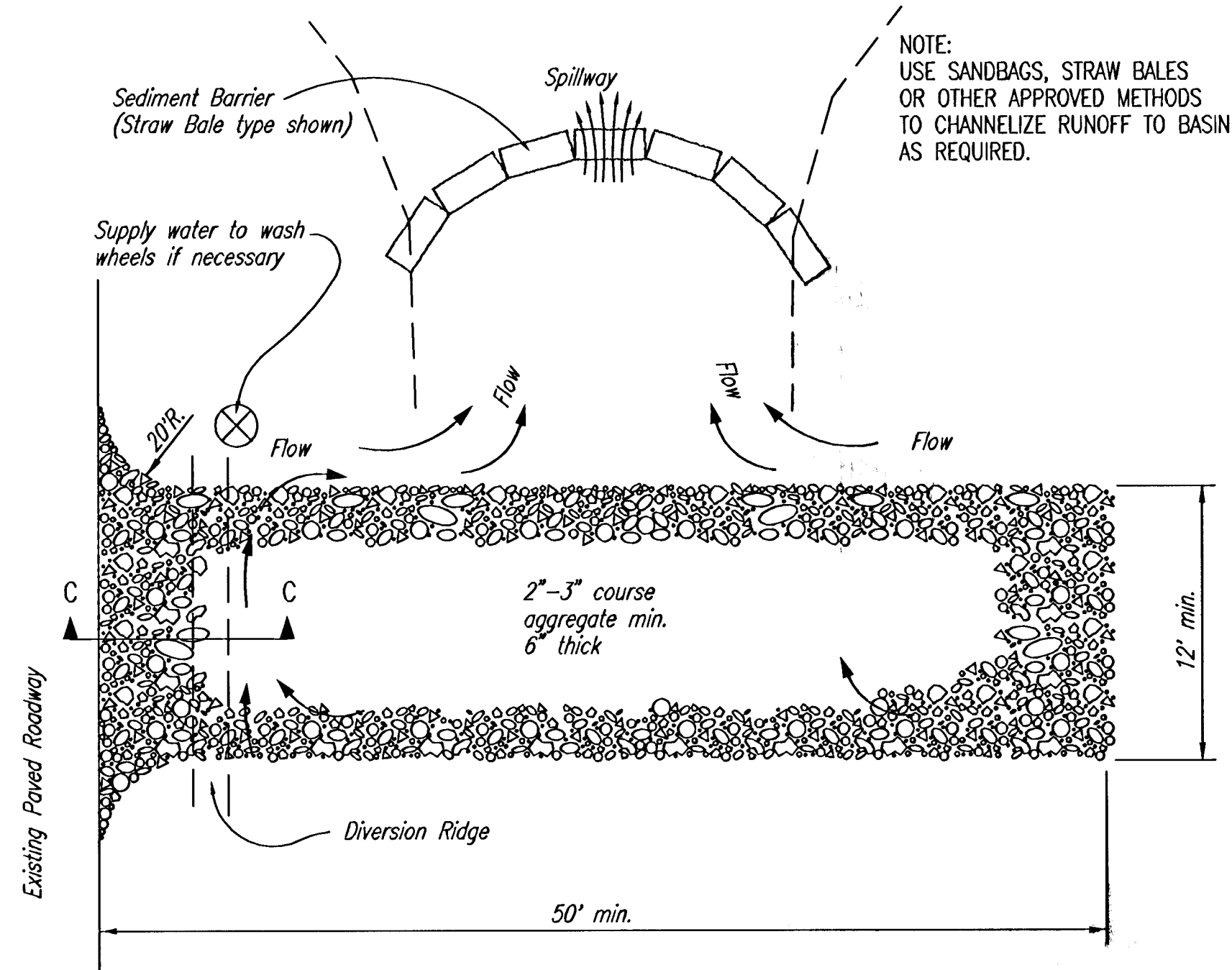
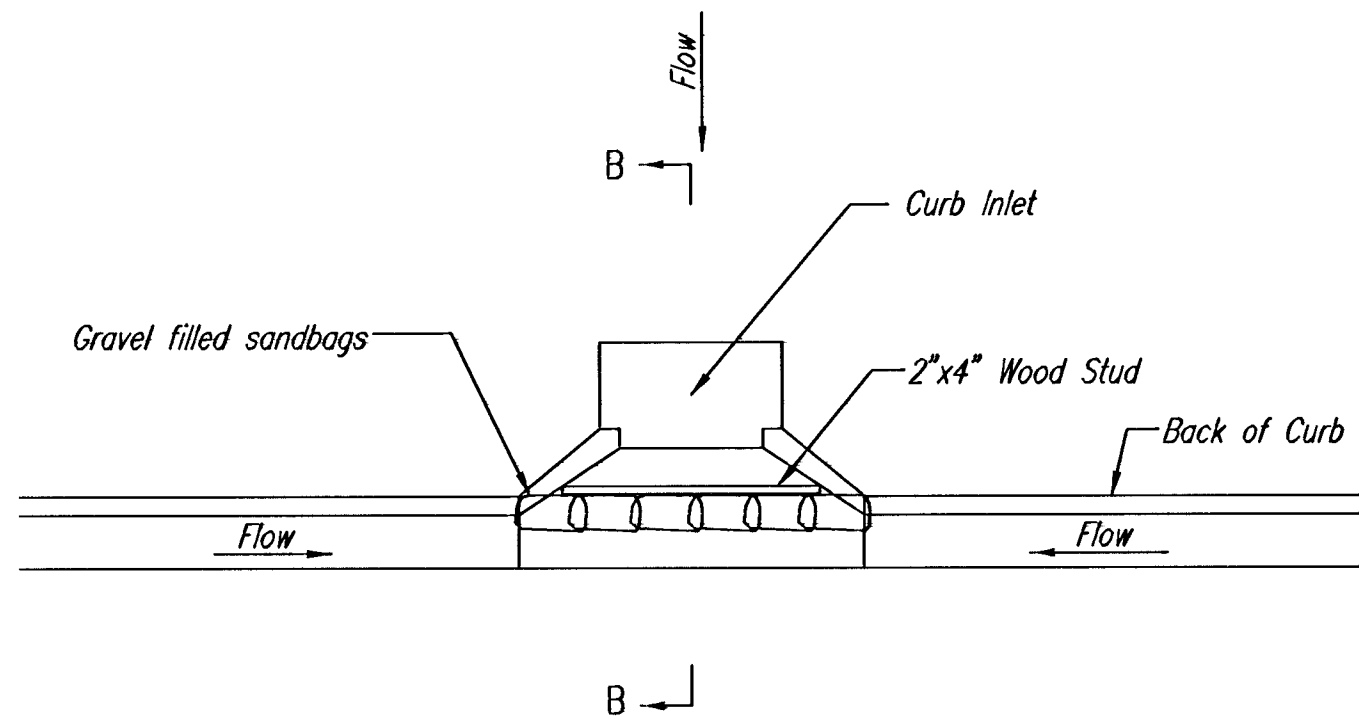
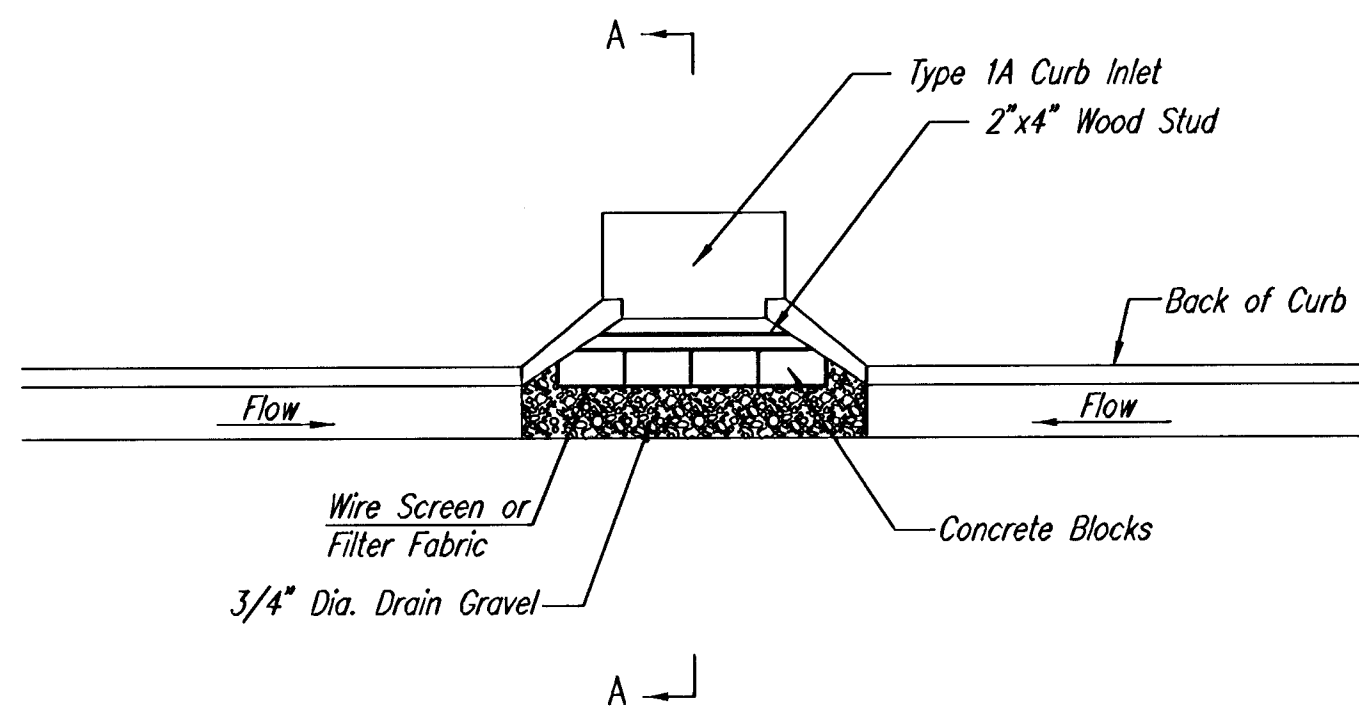
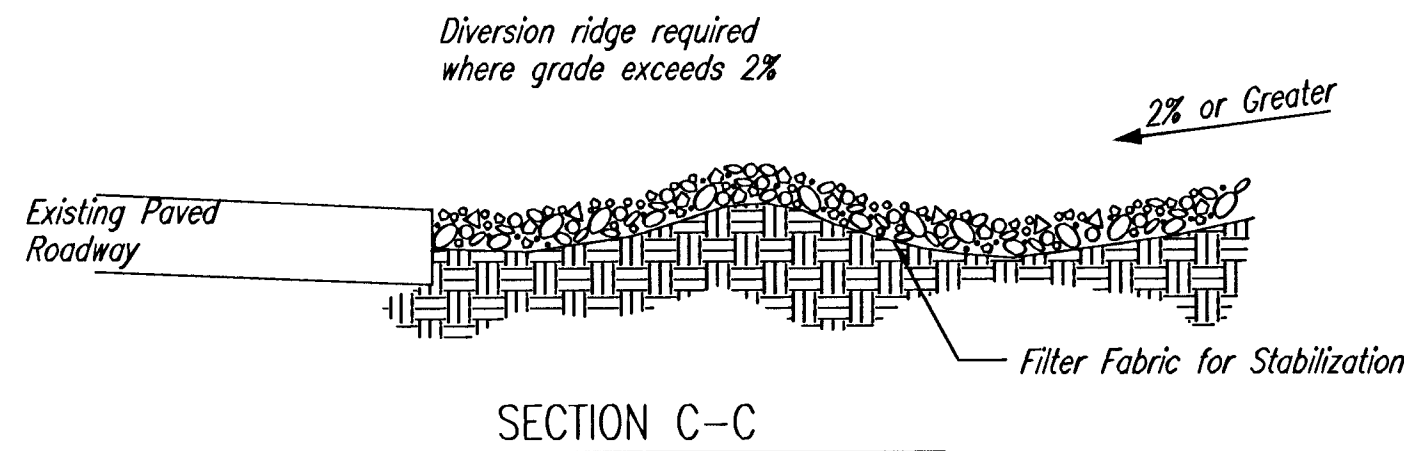
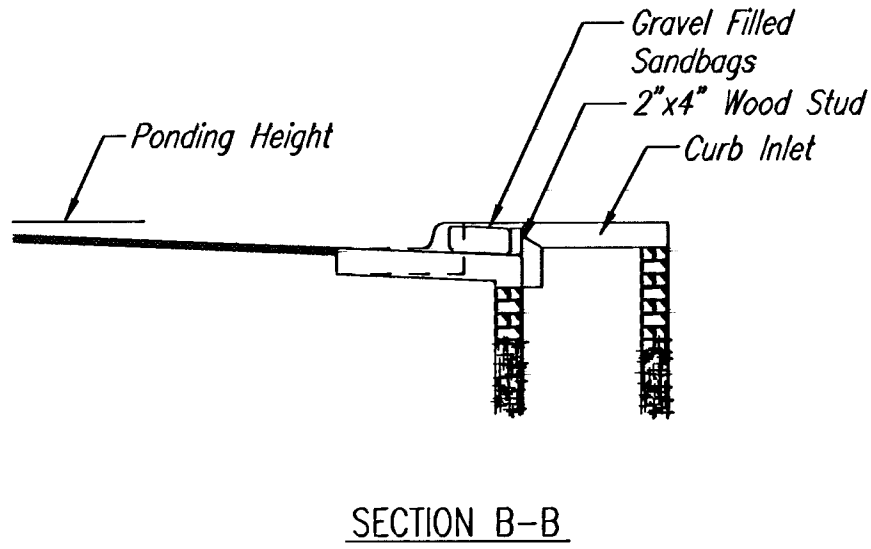
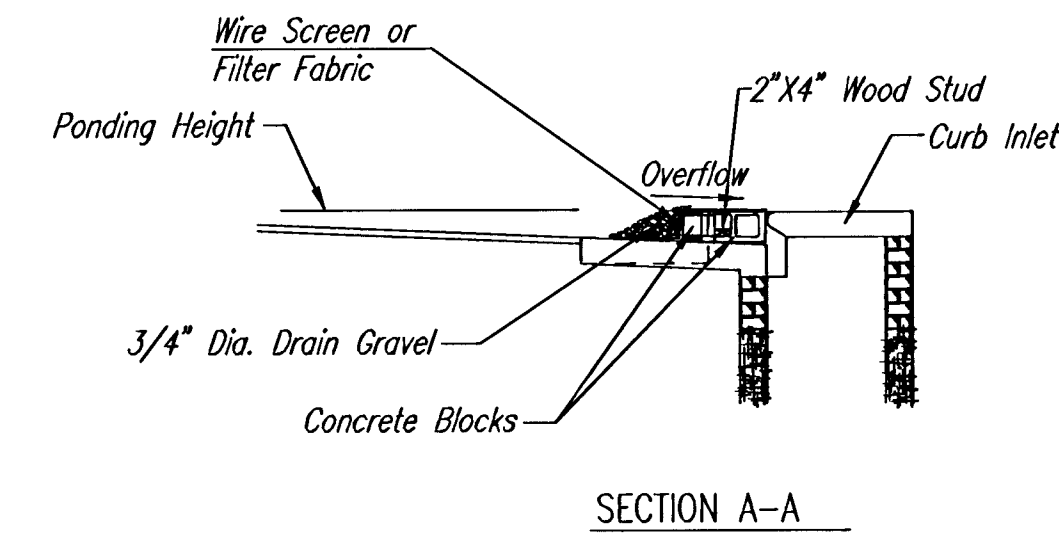
PLAN LINE 3



PLAN LINE 4



JSNR: DEP_OPER: DEP_SCALE: 1=1.00
2: STANDARD Standards Wichita\SEBMP_PEC_DTL53 06-05-2001 02:03:06 pm



CURB INLET GRAVEL FILTERS (INLET PROTECTION-RESIDENTIAL STREETS ONLY)

NOTE: Other types of curb inlet protection may be approved by the city so long as equal protection is provided.

A gravel inlet filter shall be installed at sump locations on residential streets. This type of protection is not to be used on arterial or collector streets at any time that it would pose an undue traffic hazard.

Instructions for Installing:

- STEP 1: Place concrete blocks around the inlet as shown on drawing. Insert 2x4 board as shown.
- STEP 2: Wrap 1/2" mesh wire screen around the concrete blocks.
- STEP 3: Place 1" to 1-1/2" diameter rock around the blocks and wire screen. Be sure the rock extends down from the top of the concrete block.
- STEP 4: To prevent damage to vehicles, signs warning drivers about the structures may be necessary. An alternative installation is the use of gravel bags supported by a 2"x4" board to prevent collapsing.

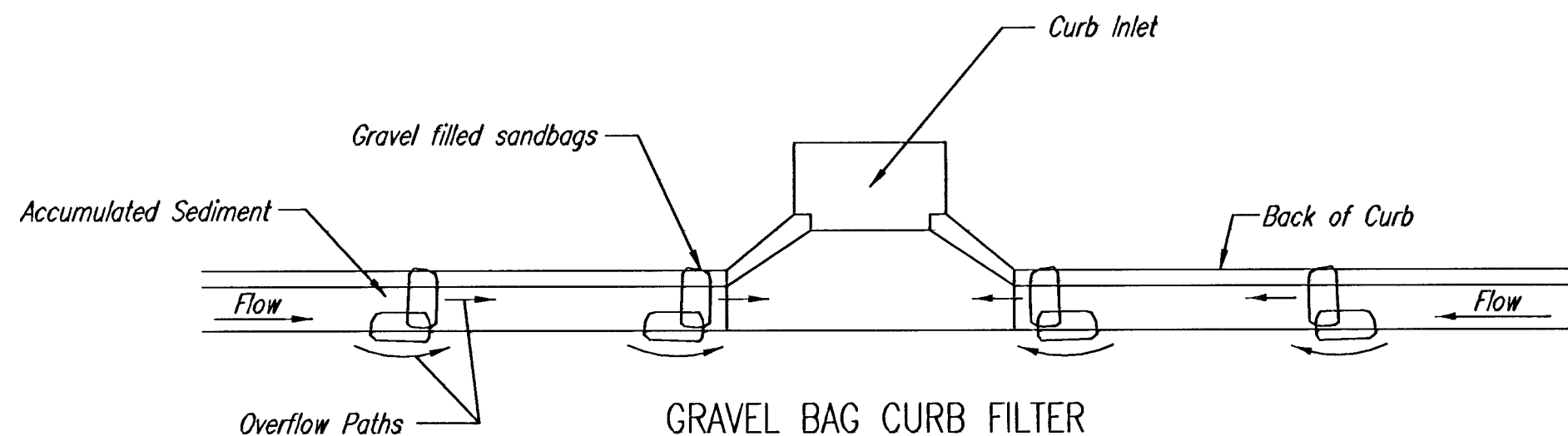
Use of rock with diameters smaller than 1" in the bag may result in clogging of pores and reduce the amount of water flowing into an inlet.

Maintenance:

All curb inlet gravel filters shall be inspected and repaired after each runoff event. Sediment deposits are to be removed once material is within 8 cm (3 inches) of the top of any block. Periodically, the gravel shall be raked to increase infiltration and filtering of runoff waters. Accumulated sediment is to be removed immediately from roads and streets.

CURB INLET SANDBAG FILTERS (INLET PROTECTION)

NOTE: Other types of curb inlet protection may be approved by the City so long as equal protection is provided.



GRAVEL BAG CURB FILTER (INLET PROTECTION)

NOTE: Place two or more sets of bags in a manner that results in maximum support. The flow line bag must be lower than top of curb.

CURB SEDIMENT TRAPS

When inlets are located on streets having a grade (i.e., sump conditions do not exist), installing gravel (or sand) bags in the gutter flow line to create small sediment traps can be considered. Gravel bags are recommended over sand bags to allow for drainage.

If the spacing between bags becomes too large, little sediment may be trapped. Spacing of bags should be completed using the table or graph that illustrates placement distances based upon street slope. When installed in the gutter, bag tops must be lower than the sidewalk.

Spacing:

Gravel bags are to be placed according to street grades using the following table or graph that appears below.

GRADE (%)	SPACING (FEET)
0.5	75
1.0	45
2.0	18
3.0	12
4.0	9
5.0	6

Maintenance:

Collected sediment shall be removed after every runoff event. Bags that are destroyed by vehicular traffic or through natural deterioration are to be immediately replaced.

NOTES:

1. 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.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. 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.
4. 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.



SOIL EROSION BMP DETAILS

JIM ARMOUR - CITY ENGINEER

PROJECT NUMBER

OCA NO.

468-83589

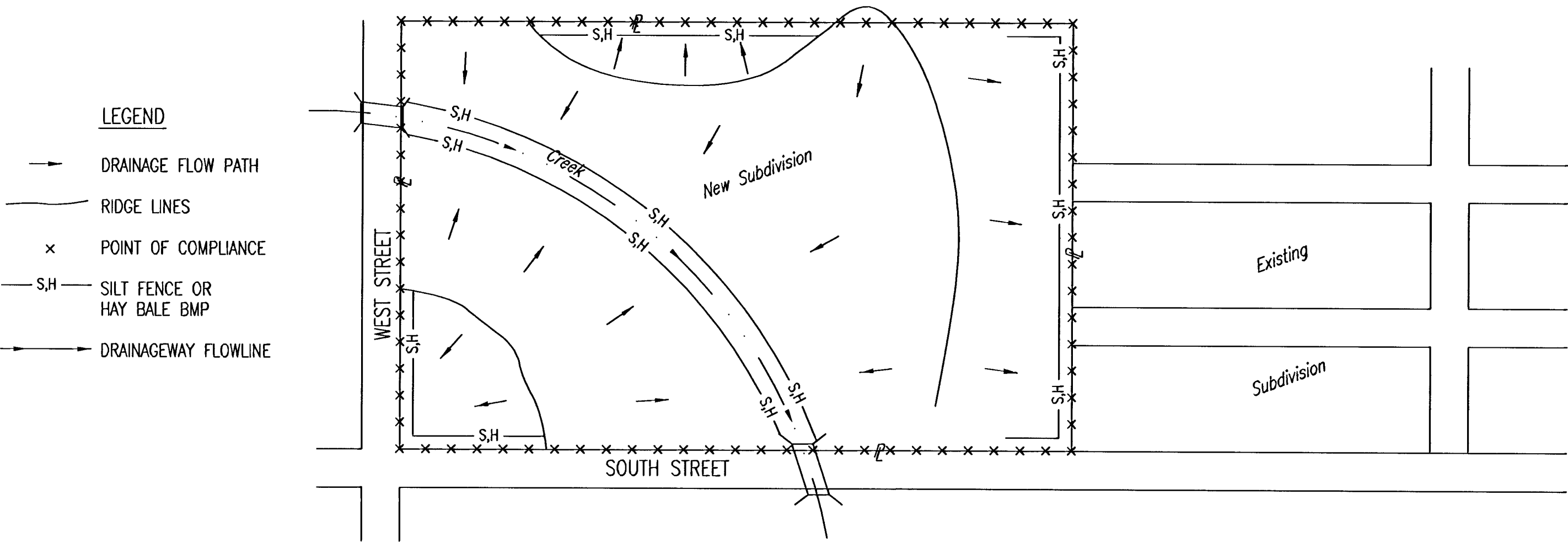
DATE

APRIL 06

SHEET 7 OF 10

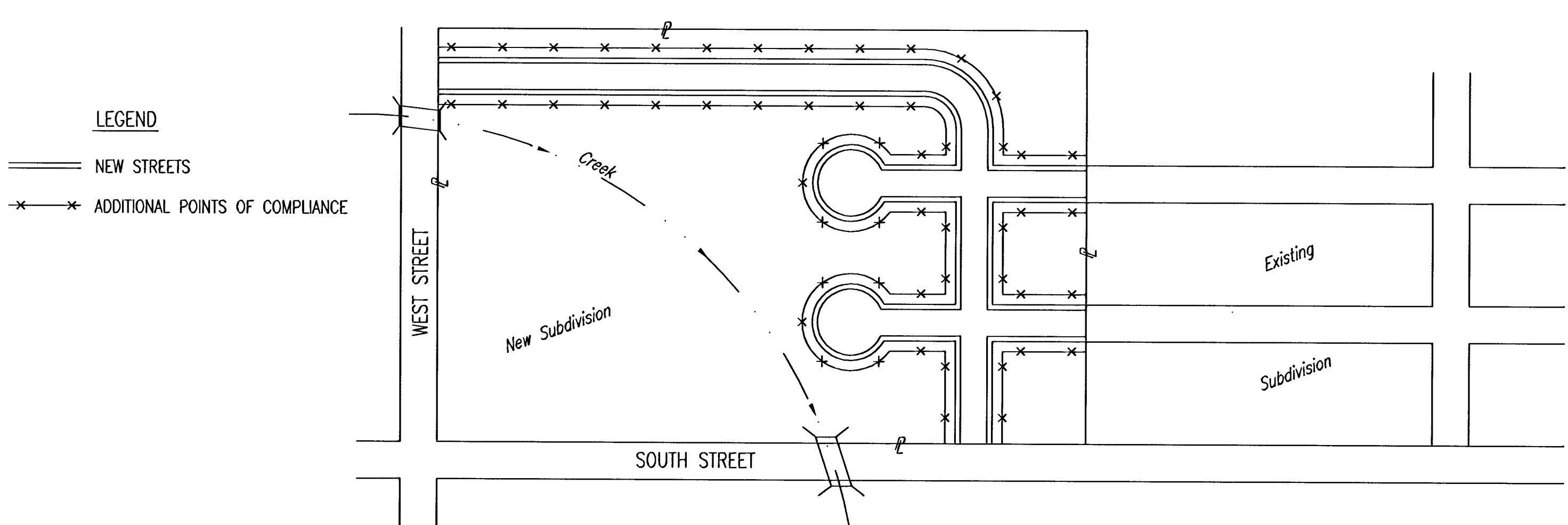
H:\CIVIL\95058\02172\DWG\SAN\ZIMMERLY\02172ER1.DWG

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



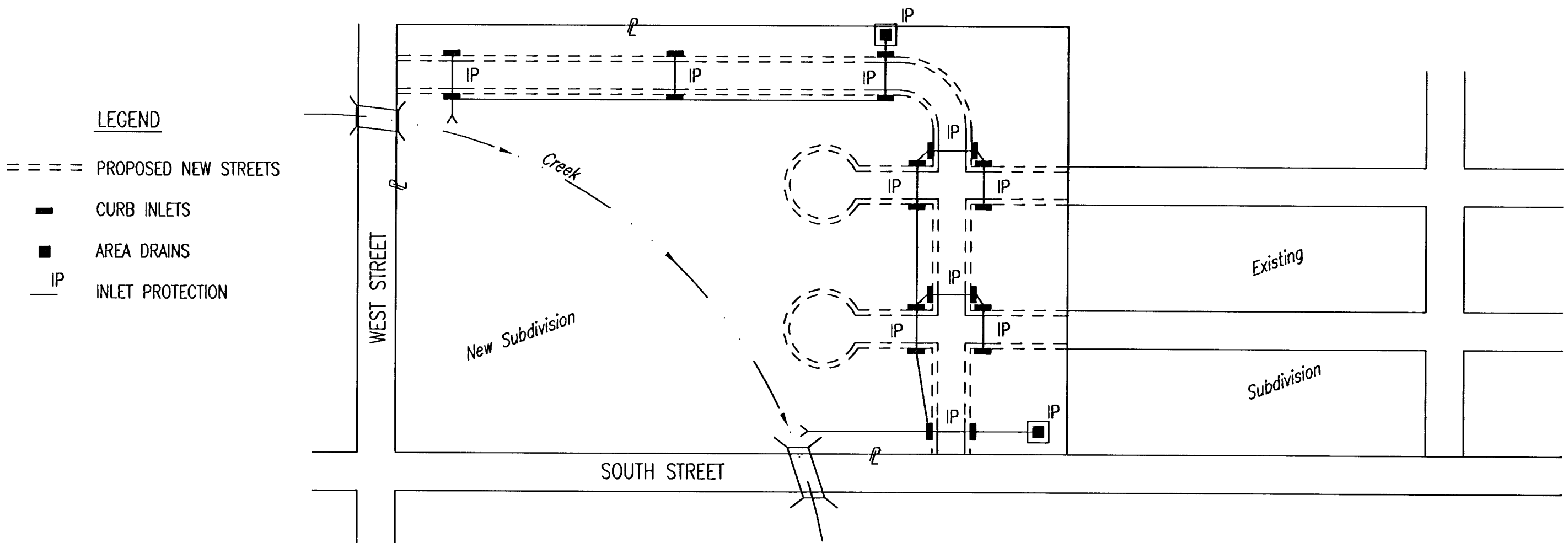
1. DURING THIS PHASE OF SUBDIVISION CONSTRUCTION, THE POINTS OF COMPLIANCE ARE THE PERIMETER BOUNDARIES AND ANY DRAINAGE WAYS OR STORM SEWERS DRAINING THROUGH OR FROM THE SITE. SHOULD LAKES BE CONSTRUCTED WITHIN THE SUBDIVISION THAT WILL DISCHARGE DURING STORMS, THEY ARE ALSO A POINT OF COMPLIANCE.
2. HAYBALES OR SILT FENCE MUST BE CONSTRUCTED ALONG THE PROPERTY LINE WHERE ON SITE WATER CAN DRAIN OFF THE PROPERTY. THESE BMP'S WILL ALSO BE INSTALLED ALONG ANY DRAINAGE DITCH OR LAKE THAT CAN DISCHARGE.
3. SHOULD SILT OR SEDIMENT ENTER THE DITCHES OR GUTTERLINES ON THE ADJACENT BOUNDARY STREETS, APPROPRIATE BMP'S WILL BE PLACED WITHIN THE SUBDIVISION TO PREVENT THIS.
4. ANY MUD TRACKED ONTO ADJACENT STREETS WILL BE REMOVED AT THE END OF EACH WORK DAY.
5. CONTRACTORS WORKING WITHIN THE SITE WILL NOT BE REQUIRED TO USE INDIVIDUAL BMP'S 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 BMP'S AT THEIR WORK LOCATIONS, AS NEEDED.
6. UTILIZE STABILIZED CONSTRUCTION ENTRANCE AT ENTRANCE AND EXIT ONTO ANY EXISTING PUBLIC STREETS.
7. THE SUBDIVISION DEVELOPER (OWNER) SHALL INSTALL AND MAINTAIN THE ON-SITE BMP'S.

PHASE 3 – STREET CONSTRUCTION



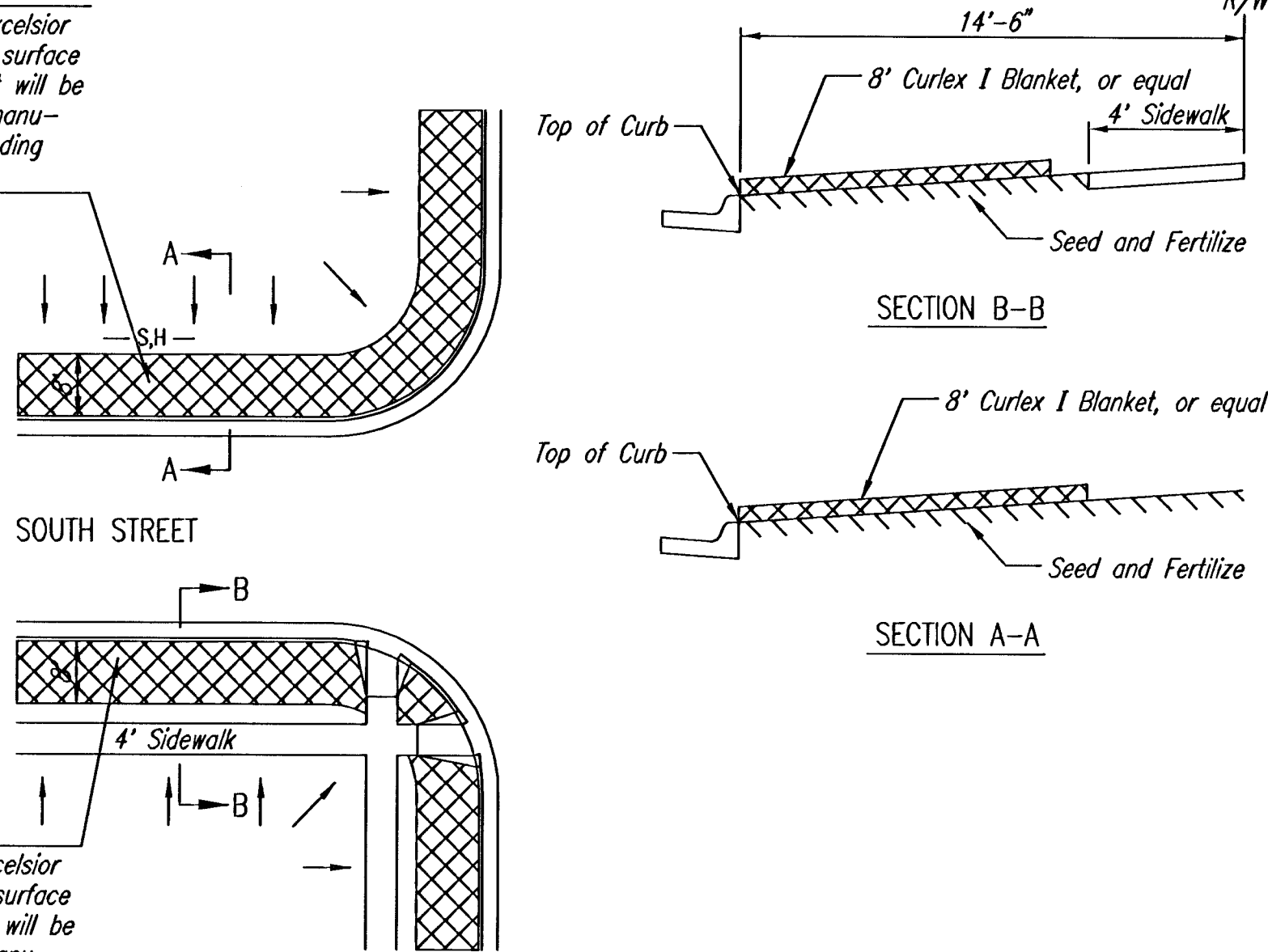
1. DURING THIS PHASE OF SUBDIVISION CONSTRUCTION, NEW STREETS ARE INSTALLED. ALL BMP'S INSTALLED DURING PHASE 1 AND 2 MUST STILL BE MAINTAINED. THE POINT OF COMPLIANCE NOW SHIFTS TO THE BACK OF CURB ALONG EACH STREET.
2. CURB OPENING INLET PROTECTION:
 - A. SUMP AREAS – INLET PROTECTION SHALL BE PROVIDED WHEN STREET SUBGRADE WORK IS COMPLETED.
 - B. NON-SUMP LOCATIONS – PROVIDE INLET PROTECTION AS SOON AS BASE COURSE ASPHALT IS INSTALLED, BEFORE THE SURFACE COURSE LIFT.
3. BMP'S 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), BMP'S WILL BE REQUIRED AT POINTS WHERE WATER BREAKS OVER CURB WHICH COULD RESULT IN THE PLACEMENT OF SEDIMENT IN THE GUTTER.
4. SEE DETAIL THIS SHEET ON BACK OF CURB PROTECTION.
5. THE BACK OF CURB PROTECTION SPECIFIED ON THIS PLAN MAY HAVE TO BE SUPPLEMENTED WITH HAYBALE OR SILT FENCE BMP'S AT LOCATIONS WHERE CONCENTRATED FLOW RESULTS IN SEDIMENT BEING CARRIED OVER THE EXCELSIOR MATS.
6. THE STREET CONTRACTOR WILL BE RESPONSIBLE FOR INSTALLING BACK OF CURB BMP'S.
7. THE INDIVIDUAL LOT OWNERS WILL BE RESPONSIBLE FOR MAINTAINING THE BACK OF CURB BMP'S IN FRONT OF THEIR LOTS UNTIL SUCH TIME AS ADJACENT DISTURBED EARTH IS STABILIZED WITH GRASS OR SOD.

PHASE 2 – INSTALLATION OF STORM SEWER



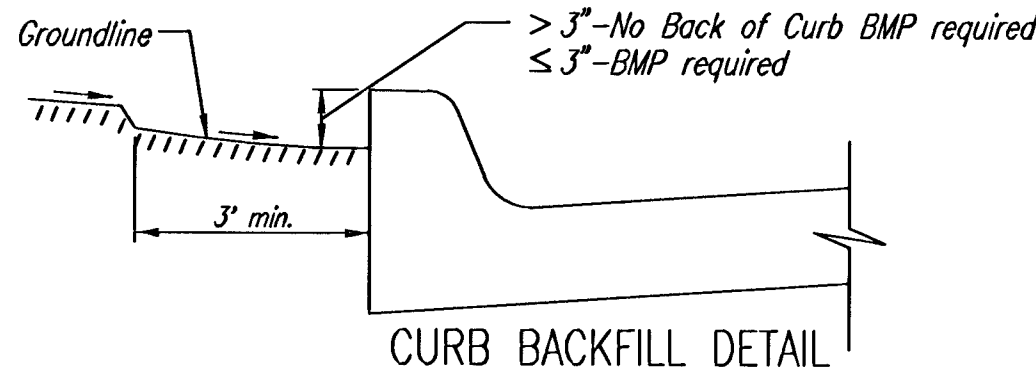
1. DURING THIS PHASE OF SUBDIVISION DEVELOPMENT, ALL BMP'S REQUIRED IN PHASE 1 SHALL REMAIN IN PLACE AND BE MAINTAINED.
2. AS NEW STORM SEWERS, WITH INLETS, ARE INSTALLED, THE STORM SEWERS MUST NOW BE PROTECTED SO ALL NEW INLETS BECOME POINTS OF COMPLIANCE.
3. AREA DRAINS – AS SOON AS WATER CAN FLOW INTO THESE DRAINS, HAYBALE OR SILT FENCE PROTECTION WILL BE INSTALLED AROUND THEM.
4. CURB OPENING INLETS – AS SOON AS WATER CAN FLOW INTO THESE DRAINS, INLET PROTECTION BMP'S MUST BE INSTALLED. SEE PHASE 3 – STREET CONSTRUCTION.
5. THE STORM SEWER CONTRACTOR WILL BE RESPONSIBLE FOR INSTALLING THESE BMP'S. IF WATER CANNOT FLOW INTO CURB INLETS UNTIL STREET CONSTRUCTION IS COMPLETE, THEN STREET CONTRACTOR WILL INSTALL INLET PROTECTION.
6. THE SUBDIVISION DEVELOPER WILL MAINTAIN THESE BMP'S ONCE INSTALLED.
7. 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.

BMP-Install 8" wide Curlex I Excelsior Blanket, or equal, on prepared surface back of curb. Edge of blanket will be at back of curb. Install per manufacturer's recommendation, including staples.



BMP-Install 8" wide Curlex I Excelsior Blanket, or equal, on prepared surface back of curb. Edge of blanket will be at back of curb. Install per manufacturer's recommendation, including staples.

BACK OF CURB PROTECTION DETAIL



H: \CIVIL\95058\02172\dwg\SAN\ZIMMERLY\SAN\02172ER2.dwg

GENERAL NOTES:

1. THE INTENT OF ALL BEST MANAGEMENT PRACTICES (B.M.P.'S) IS TO PREVENT ERODED SOIL FROM ENTERING DITCHES, STORM SEWERS, OR ANY OTHER DRAINAGE FEATURE.
2. THIS SHEET IS INTENDED TO PROVIDE GUIDELINES AS TO WHAT TYPE OF BMP'S WILL BE INSTALLED DURING THE CONSTRUCTION PROCESS. CONTRACTORS ARE EXPECTED TO BID PROJECTS ACCORDINGLY.
3. BMP'S SHALL BE MAINTAINED DURING THE CONSTRUCTION PROCESS TO REMAIN EFFECTIVE. MAINTENANCE SHALL BE AS INDICATED ON THE BMP DETAIL SHEETS.
4. PERSONS DESTROYING BMP'S SHALL BE RESPONSIBLE FOR IMMEDIATELY REPAIRING THEM OR INSTALLING SUITABLE REPLACEMENT BMP'S.
5. THE DEVELOPMENT OF ANY SUBDIVISION THAT DISTURBS 5 ACRES OR MORE WILL REQUIRE A FEDERAL/STATE NPDES STORMWATER PERMIT. THE PREPARATION OF A STORMWATER POLLUTION PREVENTION PLAN IS REQUIRED. EROSION CONTROL BMP'S ARE REQUIRED. THE DETAILS SHOWN ON THIS SHEET ARE THE MINIMUM STANDARDS TO BE SHOWN ON POLLUTION PREVENTION PLAN.
6. FOR SUBDIVISIONS SMALLER THAN 5 ACRES, SOIL EROSION BMP'S ARE REQUIRED. ALSO, DEVELOPERS AND CONTRACTORS ARE ENCOURAGED TO DEVELOP POLLUTION PREVENTION PLANS FOR EACH PROJECT PRIOR TO CONSTRUCTION.
7. FAILURE TO USE AND MAINTAIN BMP'S IS A VIOLATION OF SECTION 16.32 OF THE CITY CODE AND WILL SUBJECT THE SUBDIVISION DEVELOPER AND CONTRACTORS TO THE PENALTIES PROVIDED THEREIN.
8. THE APPLICATION OF BMP'S SHOWN ON THIS SHEET IS FOR SITUATIONS NORMALLY ENCOUNTERED. FROM TIME TO TIME, SITUATIONS WILL ARISE THAT MAY REQUIRE A DIFFERENT BMP OTHER THAN THAT SHOWN. BMP'S, OTHER THAN THOSE SHOWN, MAY BE UTILIZED SO LONG AS THEY ARE EFFECTIVE AND MAINTAINED.
9. 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.



SOIL EROSION BMP'S
SUBDIVISION
DEVELOPMENT
PROCESS

JIM ARMOUR – CITY ENGINEER

PROJECT NUMBER
468-83589

OCA NO.

DATE
APRIL 06

SHEET 8 OF 10

FINAL PLAT
WOODLAND LAKES ESTATES THIRD ADDITION
AN ADDITION TO WICHITA, SEDGWICK COUNTY, KANSAS

NE. Cor., NE. 1/4, Sec. 27,
T27S, R2E, 6th P.M.
Not Fnd., Not Set

NE. Cor., SE. 1/4, Sec. 27,
T27S, R2E, 6th P.M.
Fnd. 1/2" Bar

SCALE: 1" = 100'
100 0 100 200

LEGEND

- △ = SECTION CORNER MONUMENT FOUND
- = FOUND PROPERTY CORNER
- = SET 5/8" REBAR W/ MKEC CLS #39 CAP
- B.S. = BUILDING SETBACK
- U.E. = UTILITY EASEMENT
- (P) = PLATTED DIMENSION
- (M) = MEASURED DIMENSION
- (CM) = CALCULATED FROM MEASUREMENT
- (D) = DEEDED MEASUREMENT

MINIMUM PAD ELEVATIONS (LOWEST OPENINGS)			
LOT	BLOCK	ELEVATION (CITY DATUM)	ELEVATION (USGS)
1	1	1342.5	155.1
2	1	1343.0	155.6
3	1	1343.0	155.6
4	1	1343.0	155.6
1	3	1333.5	146.1
2	3	1333.0	145.6
3	3	1332.3	144.9
4	3	1331.5	144.1
5	3	1331.0	143.6
6	3	1330.5	143.1
7	3	1330.5	143.1
8	3	1330.5	143.1
16	3	1330.8	143.4
17	3	1331.5	144.1
26	3	1333.5	146.1
27	3	1334.0	146.6
28	3	1335.0	147.6
31	3	1337.0	149.6
6	4	1332.5	145.1
7	4	1331.0	143.6
8	4	1330.8	143.4
11	4	1330.5	143.1
12	4	1330.5	143.1
13	4	1330.5	143.1
14	4	1330.5	143.1
15	4	1330.5	143.1
16	4	1330.5	143.1
17	4	1331.0	143.6
23	4	1328.5	139.1
24	4	1328.0	140.6
25	4	1329.5	142.1
26	4	1329.5	142.1
27	4	1329.5	142.1
28	4	1328.0	140.6

BENCHMARKS
CONTINUED

- BM#6 - T-post 5' West of the "East" corner of Lot 4, Block 2.
Elev.=1339.135 NGVD
151.735 City Datum
- BM#7 - T-post 5' East of the Northwest corner of Lot 18, Block 2.
Elev.=1342.695 NGVD
155.295 City Datum
- BM#8 - T-post 5' Northeast of the Southwest corner of Lot 12, Block 2.
Elev.=1338.12 NGVD
150.72 City Datum
- BM#9 - Railroad spike in West side of 24" tree on Northeast corner 127th Street East and Zimmerly, 30' East of the centerline of 127th Street East and on the North line of Zimmerly extended.
Elev.=1329.72 NGVD
142.32 City Datum

SE. Cor., SE. 1/4, Sec. 27,
T27S, R2E, 6th P.M.
Fnd. 1/2" Pipe

CONTINUE TO SHEET 2/3

CONTINUE TO SHEET 2/3
BENCHMARKS

- BM#2 - T-post on Southwest corner of Zelta and Lincoln, 5' Southwest of the Northeast corner of Reserve A.
Elev.=1340.415 NGVD
153.015 City Datum
- BM#3 - T-post on Southwest corner of Glenmoor and Lincoln, 5' Southwest of the Northeast corner of Reserve B.
Elev.=1338.37 NGVD
150.97 City Datum
- BM#4 - T-post 5' North of the Southwest corner of Lot 13, Block 4.
Elev.=1329.635 NGVD
142.235 City Datum
- BM#5 - T-post 5' North of the Southeast corner of Lot 11, Block 3.
Elev.=1340.255 NGVD
152.855 City Datum

HARRY ST. S88°58'40"W(M) 2658.77'(M)

SW. Cor., SE. 1/4, Sec. 27,
T27S, R2E, 6th P.M.
Fnd. 1/2" Pipe

CONTINUE TO SHEET 2/3

- BM#1 - "C" cut on East end of North headwall of RCB, 31' East and 11' North of the Center of Section 27, Township 27 South, Range 2 East.
Elev.=1346.58 NGVD
159.18 City Datum

NW. Cor., SE. 1/4, Sec. 27,
T27S, R2E, 6th P.M.
Set 5/8" rebar w/
MKEC CLS 39 id cap

Δ=38°55'12"
R=366.48'
L=248.94'
CHD.=244.18'
BEARING=S71°25'26"E

Δ=54°00'00"
R=270.00'
L=254.47'
Chd.=245.15'
Bearing=S78°57'50"E

Δ=30°00'00"
R=280.00'
L=146.61'
Chd.=144.94'
Bearing=N89°02'10"E

Δ=70°55'44"
R=265.00'
L=328.05'
CHD.=307.50'
BEARING=N68°34'18"E

N

FINAL PLAT
WOODLAND LAKES ESTATES FOURTH ADDITION
AN ADDITION TO WICHITA, SEDGWICK COUNTY, KANSAS

MINIMUM PAD ELEVATIONS (LOWEST OPENINGS)			
LOT	BLOCK	ELEVATION (CITY DATUM)	ELEVATION (NGVD)
25	1	143.1	1330.5
26	1	146.1	1333.5
27	1	147.6	1335.0
28	1	147.6	1335.0
29	1	147.6	1335.0
30	1	147.6	1335.0
31	1	147.6	1335.0
32	1	147.6	1335.0
33	1	147.6	1335.0
34	1	147.6	1335.0
35	1	147.6	1335.0
36	1	147.6	1335.0
37	1	143.1	1330.5

BENCH MARK

BM#9 - Railroad spike in West side of 24" tree on Northeast corner 127th Street East and Zimmerly, 30' East of the centerline of 127th Street East and on the North line of Zimmerly extended. Elev.=1329.72 NGVD 142.32 City Datum

LEGEND

- △ = Section Corner Monument Found
- = Found Survey Monument (see annotated caption for type)
- = Set 5/8" Rebar w/ MKEC CLS 39 id. Cap
- U.E. = Utility Easement
- D.E. = Drainage Easement
- (P) = Platted
- (M) = Measured

We MKEC Engineering Consultants, Inc., a Registered Corporate Land Surveyor in Kansas, do hereby certify that we have been in responsible charge of surveying and platting of "WOODLAND LAKES ESTATES FOURTH ADDITION" an addition to Wichita, Sedgwick County, Kansas, into Lots, a Block, a Reserve, and Streets, the same being accurately set forth in the accompanying plat and described herein.

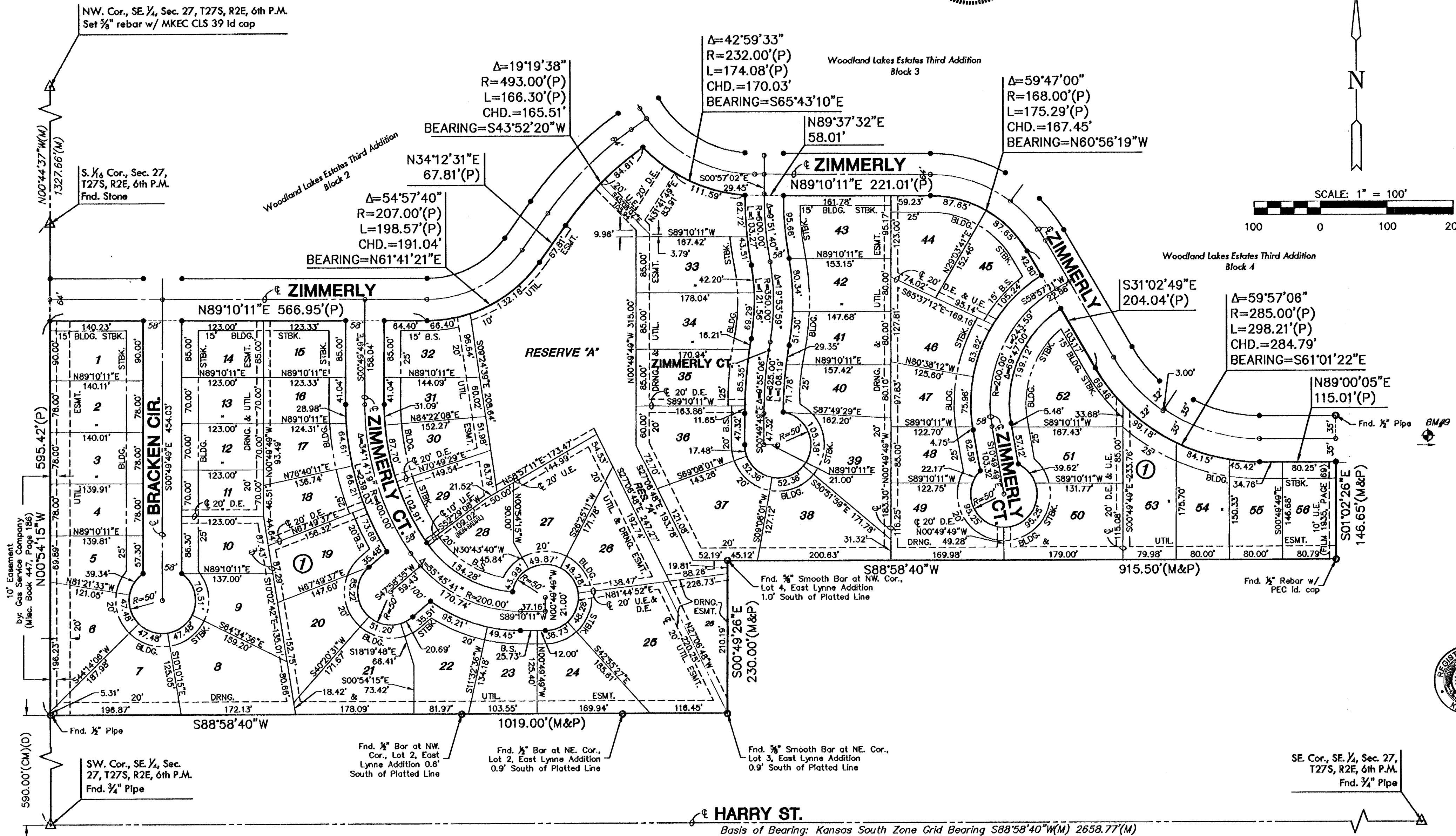
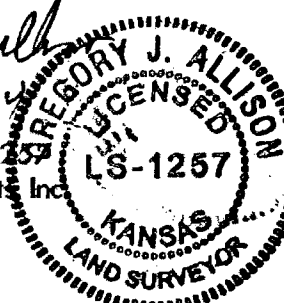
A replat of a portion of Woodland Lakes Estates Third Addition, an addition to Wichita, Sedgwick County, Kansas, said portion being described as follows:

All of Block 5, said addition.
TOGETHER WITH:
All of Reserves "E" and "F", said addition.
TOGETHER WITH:
All of Bracken Circle and Zimmerly Courts, lying South of Zelta and Zimmerly Streets, said addition.

The platted and/or dedicated streets and/or public right-of-way, platted easements, building setbacks, access control, and public dedications within the above described property, are hereby vacated and replatted by virtue of K.S.A. 12-512(b).

I hereby certify that the details of this plat are correct to the best of my knowledge and belief this 15th day of July 2004.

Gregory J. Allison, PE, LS #11257
MKEC Engineering Consultants, Inc.
411 North Webb Road
Wichita, Kansas 67206



Know all men by these presents that we the undersigned property owners of the land above set forth in the Registered Land Surveyor's Certificate, have caused the same to be surveyed and platted into Lots, a Block, a Reserve, and Streets, the same to be known as "WOODLAND LAKES ESTATES FOURTH ADDITION" an addition to Wichita, Sedgwick County, Kansas. Streets are hereby dedicated to and for the use of the public. Easements for the construction and maintenance of public utilities and drainage, as indicated on the accompanying plat are hereby granted to the public. Reserve "A" is platted for drainage, ponds, utilities in designated locations, a pool house, a neighborhood swimming pool, parking for the pool, monuments, landscaping, irrigation, and open space. The Reserve shall be owned and maintained by the lot owner's association. A drainage plan has been developed for this plat and all drainage easements, rights-of-way, reserves shall remain at established grades or as modified with the approval of the City Engineer, and unobstructed to allow for the conveyance of storm water. Lots 25-37 inclusive, Block 1, are required to adhere to the minimum pad elevation as shown on the "Minimum Pad Elevations" table.

INTERNATIONAL TRADING, INC.

Joe H. Lee, President
Joe H. Lee, President

STATE OF KANSAS, SEDGWICK COUNTY) ss:

This instrument was acknowledged before me on 19th day of July, 2004, by Joe H. Lee, President, International Trading Inc.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, the day and year last above written.

My Term Expires 9-15-05 Notary Public: Ann C. Ybarra



We Emprise Bank, holders of a mortgage on the above described property, do hereby consent to the plat of "WOODLAND LAKES ESTATES FOURTH ADDITION."

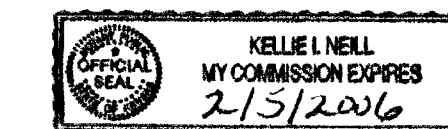
EMPRISE BANK

Sam Trummel, Sr. Vice President
Sam Trummel, Sr. Vice President

This instrument was acknowledged before me on 16th day of July, 2004, by Sam Trummel, Sr. Vice President, Emprise Bank.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, the day and year last above written.

My Term Expires 2/5/2006 Notary Public: Kellie L. Neill

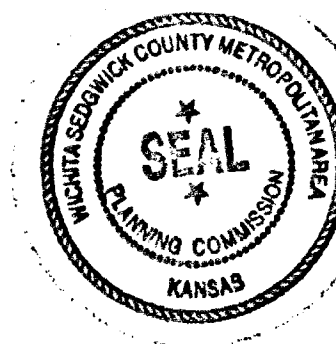


This plat of "WOODLAND LAKES ESTATES FOURTH ADDITION" has been submitted to and approved by the Wichita-Sedgwick County Metropolitan Area Planning Commission, Wichita, Kansas.

Dated this 17th day of June, 2004

WICHITA-SEDGWICK COUNTY METROPOLITAN PLANNING COMMISSION

Ronald L. Marnell, Chair
John L. Schlegel, Secretary



At the direction of the City Council.

Carlos Mayans, Mayor
Karen Sublett, City Clerk

Entered on transfer record this 1st day of October, 2004

Don Brace, County Clerk



STATE OF KANSAS, SEDGWICK COUNTY) ss:

This is to certify that this instrument was filed for record in the Register of Deeds office this 1st day of October, 2004, at 3:52 o'clock P.M. and is duly recorded.



Bill Meek, Register of Deeds

Linda Kizzire, Deputy

Reviewed and approved with K.S.A. 58-2005 on this 22nd day of October, 2004.

Tricia L. Hinkle, Deputy County Surveyor
Deputy County Surveyor
Sedgwick County, Kansas



Sedgwick County
Register of Deeds - Bill Meek
DOC #FLM-PG: 28612807

Receipt # 1562827
Page Recorded: 1
Recording Fee: \$20.00

Custodian Initials: GM
Authorized By: [Signature]

Date Recorded: 10/1/2004 3:52:13 PM



58-09-05-03