

SANITARY SEWER PLANS OAK RIDGE SECOND ADDITION PHASE 2

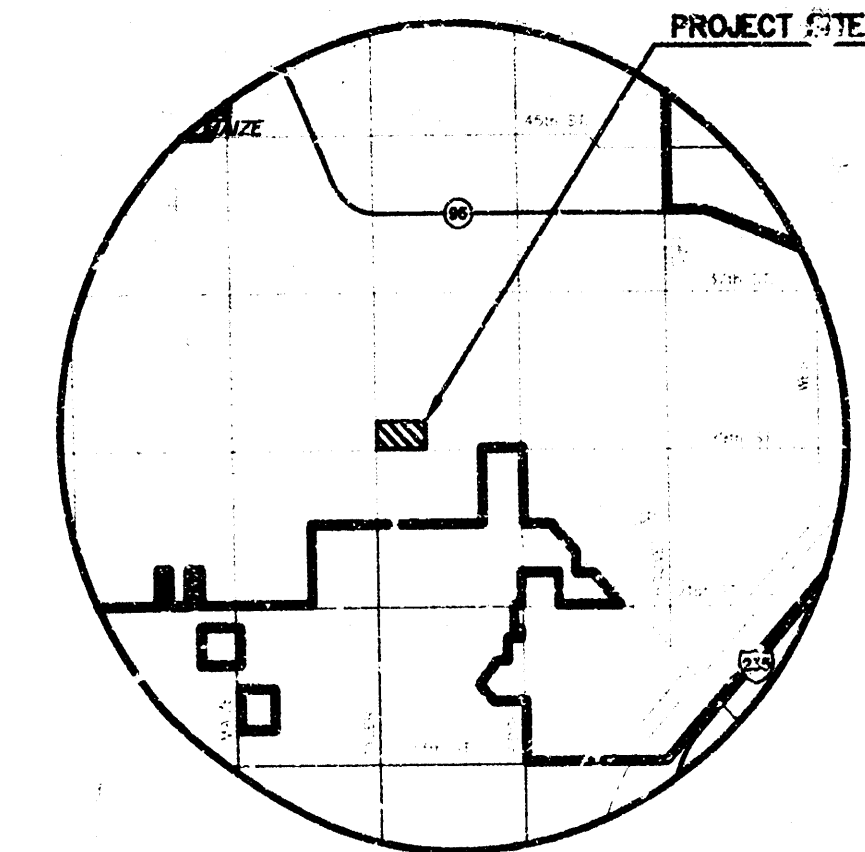
LATERAL 379 SOUTHWEST INTERCEPTOR SEWER
PROJECT NO. 468-82723

CITY OF WICHITA, KANSAS
MICHAEL E. LINDEBAK, CITY ENGINEER
INDEX CODE-743797

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 268-4908
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 MOUNDING 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. COST SHALL BE SUBSIDIARY TO PROJECT.
11. CONTRACTOR SHALL CLEAR ALL CONFLICTS WITH THE PROPOSED WATERLINE CONSTRUCTION IN AN EXPEDITIOUS MANNER TO ALLOW THE WATERLINE CONTRACTOR TO BEGIN CONSTRUCTION IMMEDIATELY FOLLOWING. THE CONTRACTOR SHALL ALSO COORDINATE WITH THE WATERLINE CONTRACTOR, CITY PERSONNEL, THE OWNER, AND HIS REPRESENTATIVES TO MAINTAIN A PROMPT SCHEDULE. COST SHALL BE CONSIDERED SUBSIDIARY TO PROJECT.
12. EXCESS EXCAVATION SHALL BE WASTED ON SITE IN AREAS DESIGNATED BY THE OWNER.
13. CONTRACTOR SHALL USE BMP (BEST MANAGEMENT PRACTICE) IN CONTROLLING EROSION RUNOFF FROM SITE. CONTRACTOR SHALL BE AWARE OF THE POLLUTION PREVENTION PLAN.
14. FIELD VERIFY THE TREES ALONG 29TH STREET NORTH HAVE BEEN REMOVED. IF TREES HAVE NOT BEEN REMOVED, REMOVE AND PLACE INTO A BURN PILE ON LOT 4, BLOCK 1.



LOCATION MAP

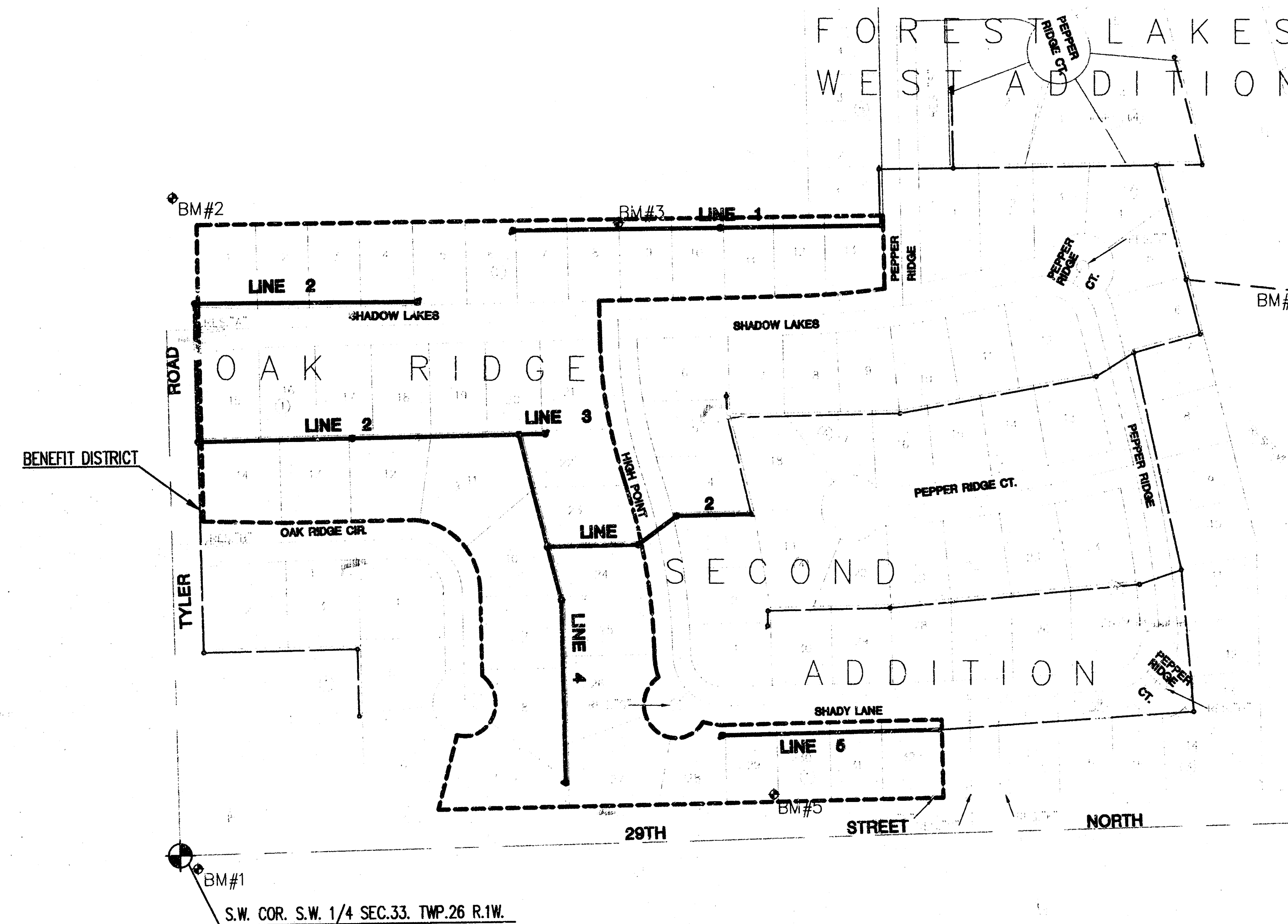
INDEX TO DRAWINGS

SHEET NO.	DESCRIPTION
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2-3	DETAILS
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8	LINE 5
9	EASEMENT GRADING DETAILS
10	DITCH PLAN & PROFILE ALONG 29TH
11-16	DITCH CROSS SECTIONS
17	FINAL PLAT

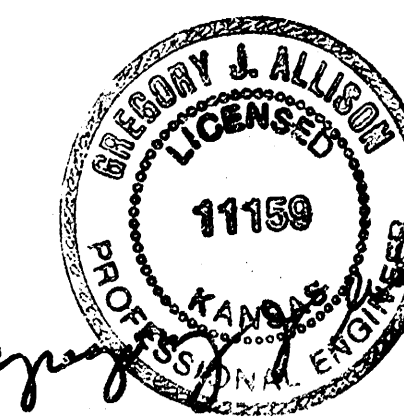
BENCHMARKS

- BM#1 C.O.W. BENCHMARK
SE CORNER INTERSECTION, 32.3' S. AND 30' E.
OF C/L BOTH, 55.5' E OF P.P. 9.2' SE OF
P.P. 43.2' SE OF IRON AT SECTION CORNER.
ELEV. = 178.04
- BM#2 RR SPIKE IN THE SOUTH FACE OF P.P. WEST
SIDE OF TYLER RD. WEST OF THE N.W. CORNER
OF OAK RIDGE 2ND.
ELEV. = 174.94
- BM#3 TOP OF "T" POST 1/2-1.5' SOUTH OF THE NE
CORNER LOT 8, BLOCK 2.
ELEV. = 182.77
- BM#4 R.R. SPIKE IN S.W. FACE OF WEST H POLE
IN THE N.E. CORNER OF OAK RIDGE 2ND.
ELEV. = 158.55
- BM#5 TOP OF "T" POST 1/2-1.5' NORTH OF S.E.
CORNER LOT 29, BLOCK 1
ELEV. = 184.49

Booked
P-113
RDL
AS BUILT 12/14/99



SCALE: 1" = 150'



MID-KANSAS ENGINEERING
CONSULTANTS, INC.
411 N. WEBB ROAD
WICHITA, KS. 67206
316-684-9600

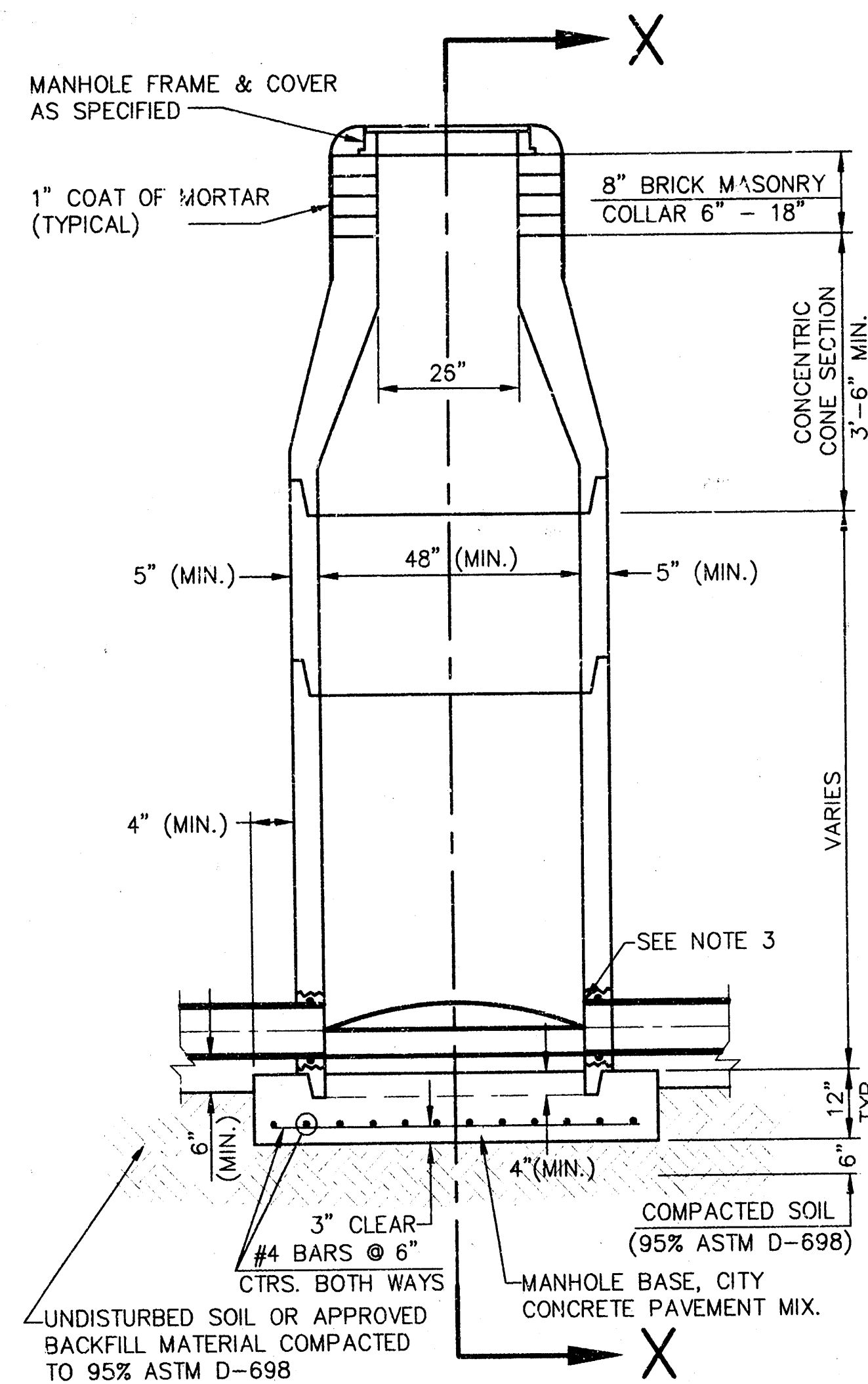
OAK RIDGE SECOND ADDITION
PHASE 2
PROJECT NAME

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SHEET TITLE

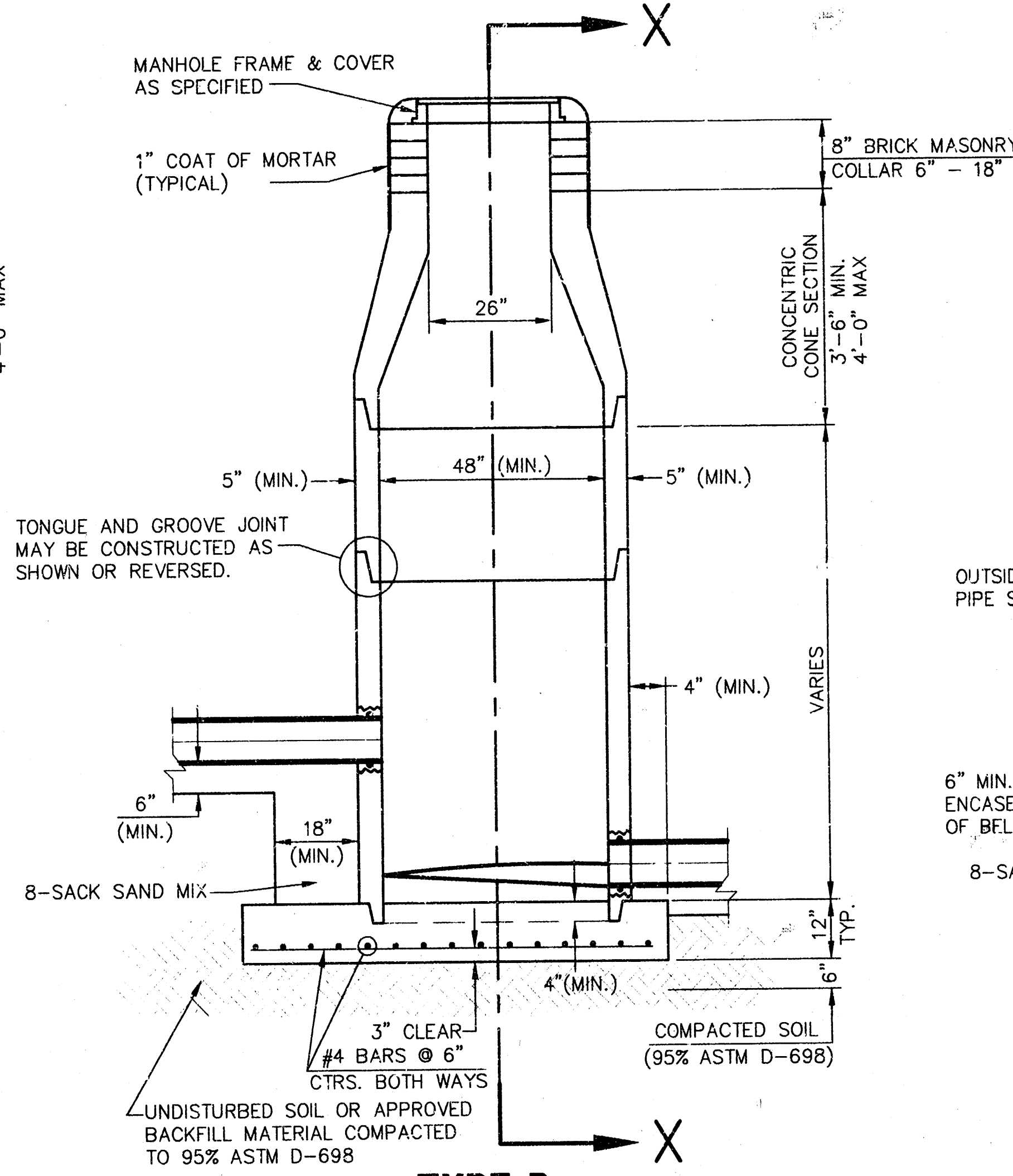
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MAY 1999	96167BT	1 / 17
DATE	JOB NO.	SHEET/OF

SEWER APPURTENANCES DETAILS

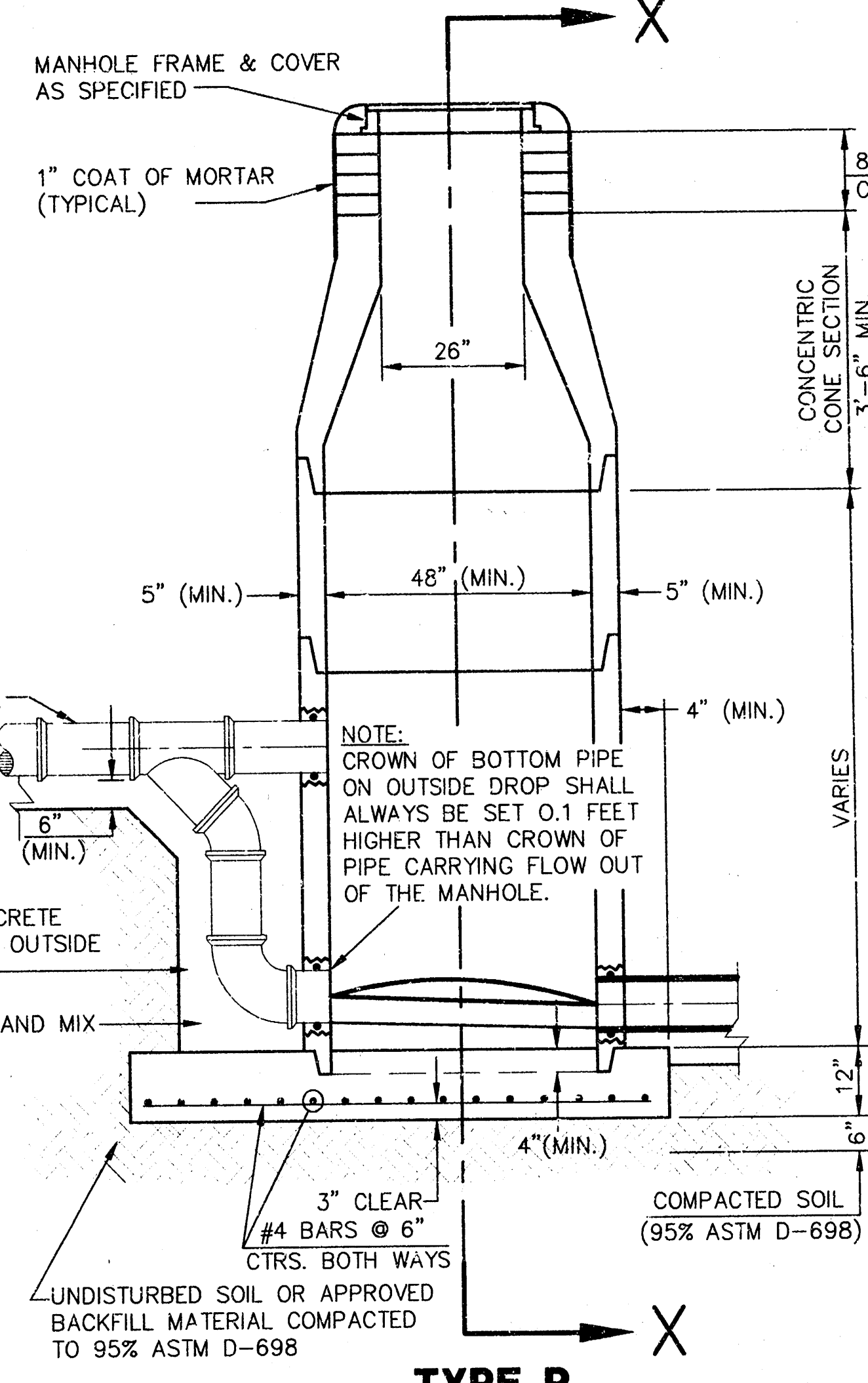
ADOPTED AS STANDARD DESIGN
BY
CITY OF WICHITA



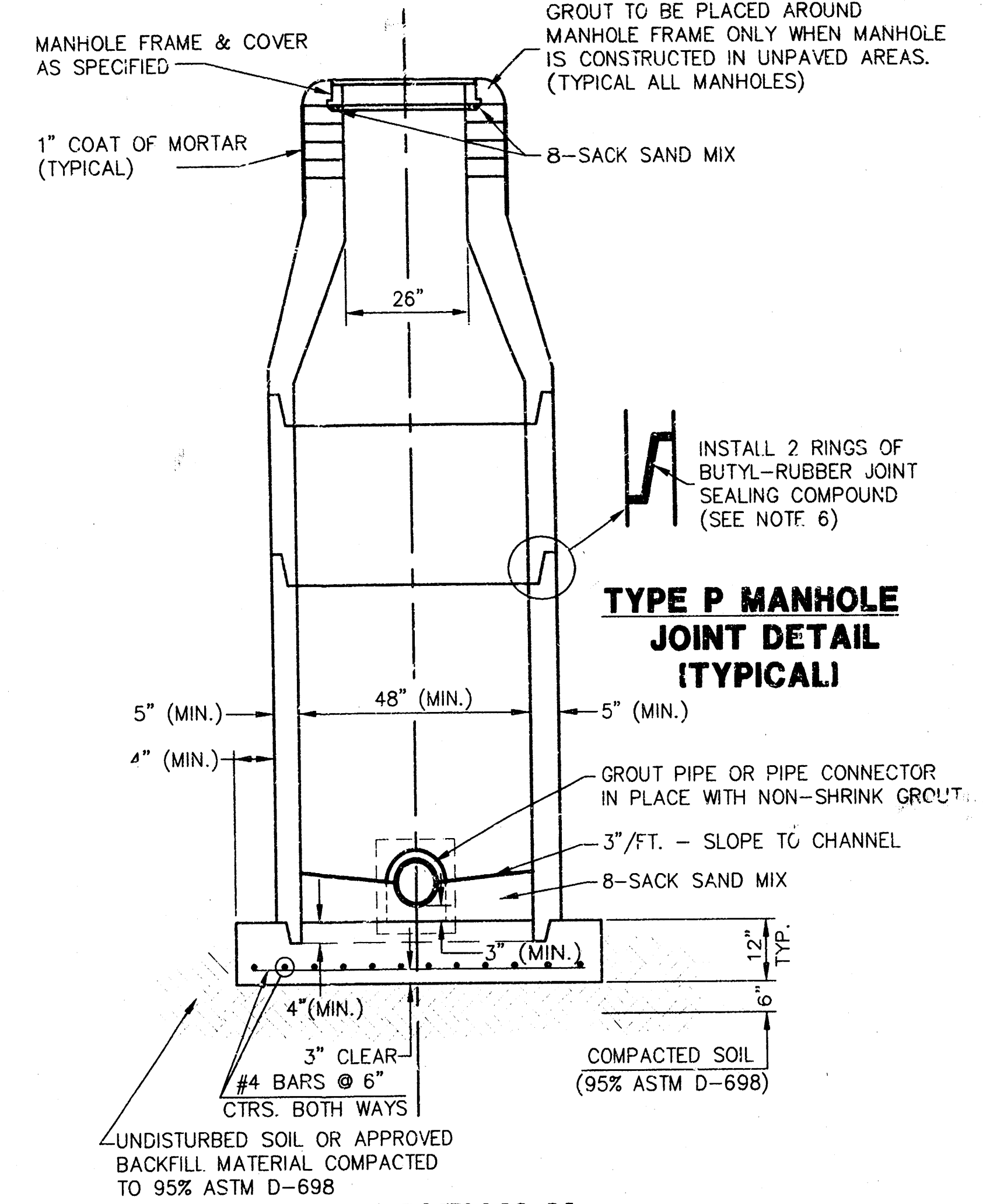
**TYPE P
STANDARD MANHOLE**



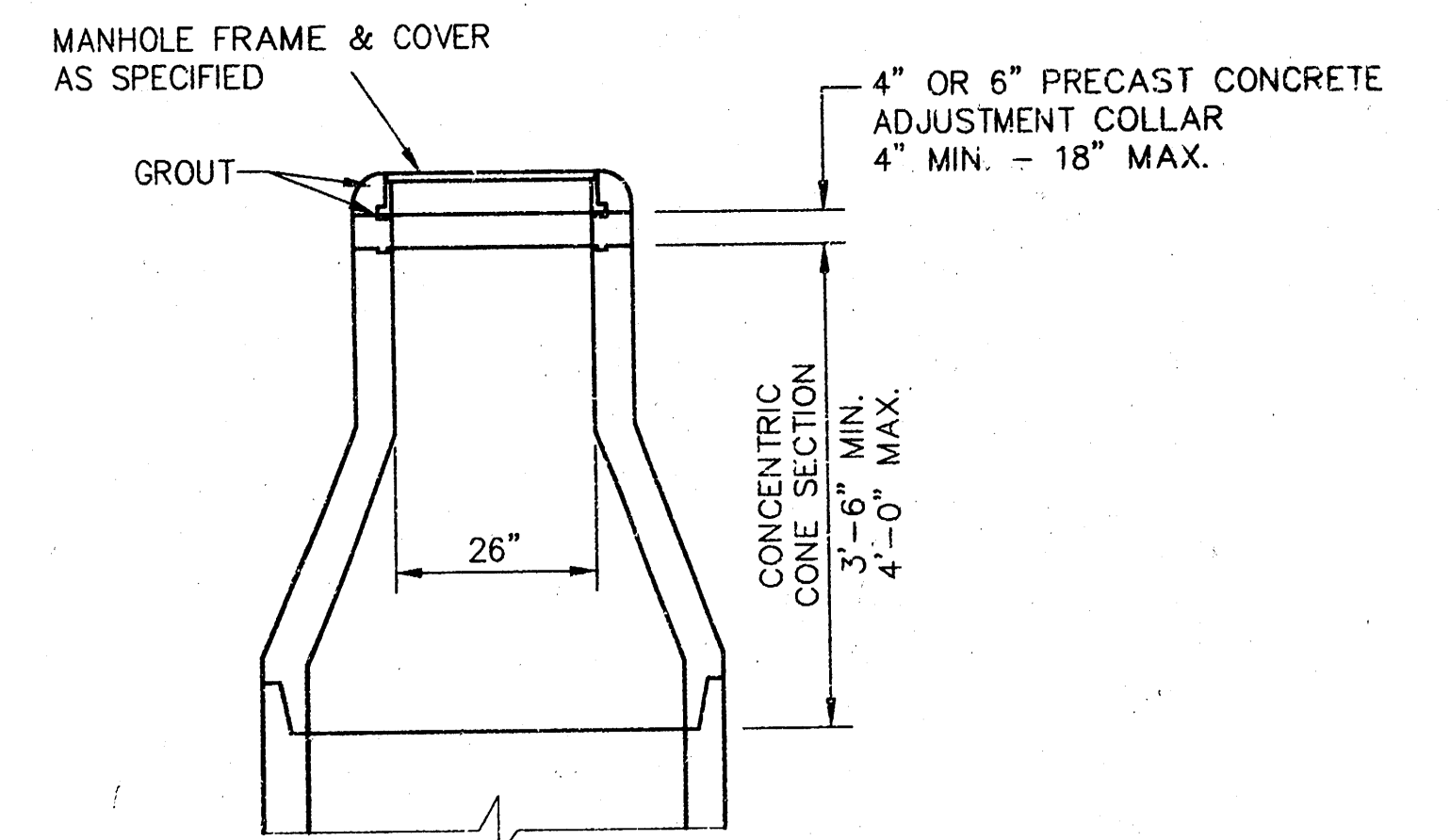
**TYPE P
INSIDE DROP MANHOLE**



**TYPE P
OUTSIDE DROP MANHOLE**



**SECTION X
(TYPICAL)**



**ALTERNATE CONSTRUCTION
IN UNPAVED AREAS**

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 1/2" IN 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 TNEC-66 HI-BUILD EPOXOLINE, DRY THICKNESS OF 8 MILS (MIN.)
- EXTERIOR MANHOLE WALLS SHALL BE COATED WITH 1 COAT MOBILARMA 633 BITUMINUS COATING.
- JOINT SEALING COMPOUND SHALL BE KENT SEAL NO. 2 OR APPROVED EQUAL.
- PRECAST MANHOLES SHALL BE SET AT LEAST 4 INCHES INTO THE SOLE 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 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. 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.

MANHOLE DETAILS

REVISED: 6-12-86

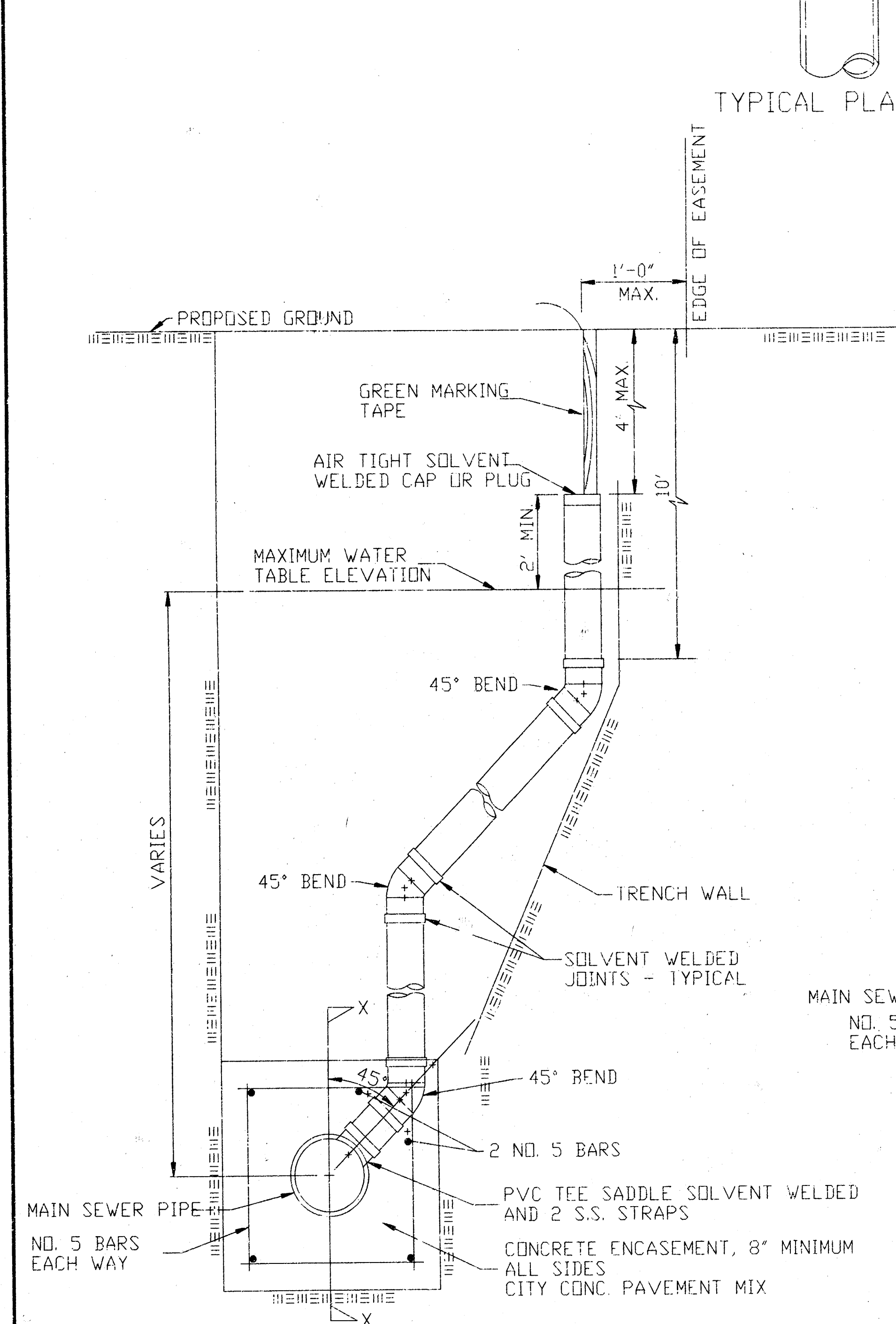
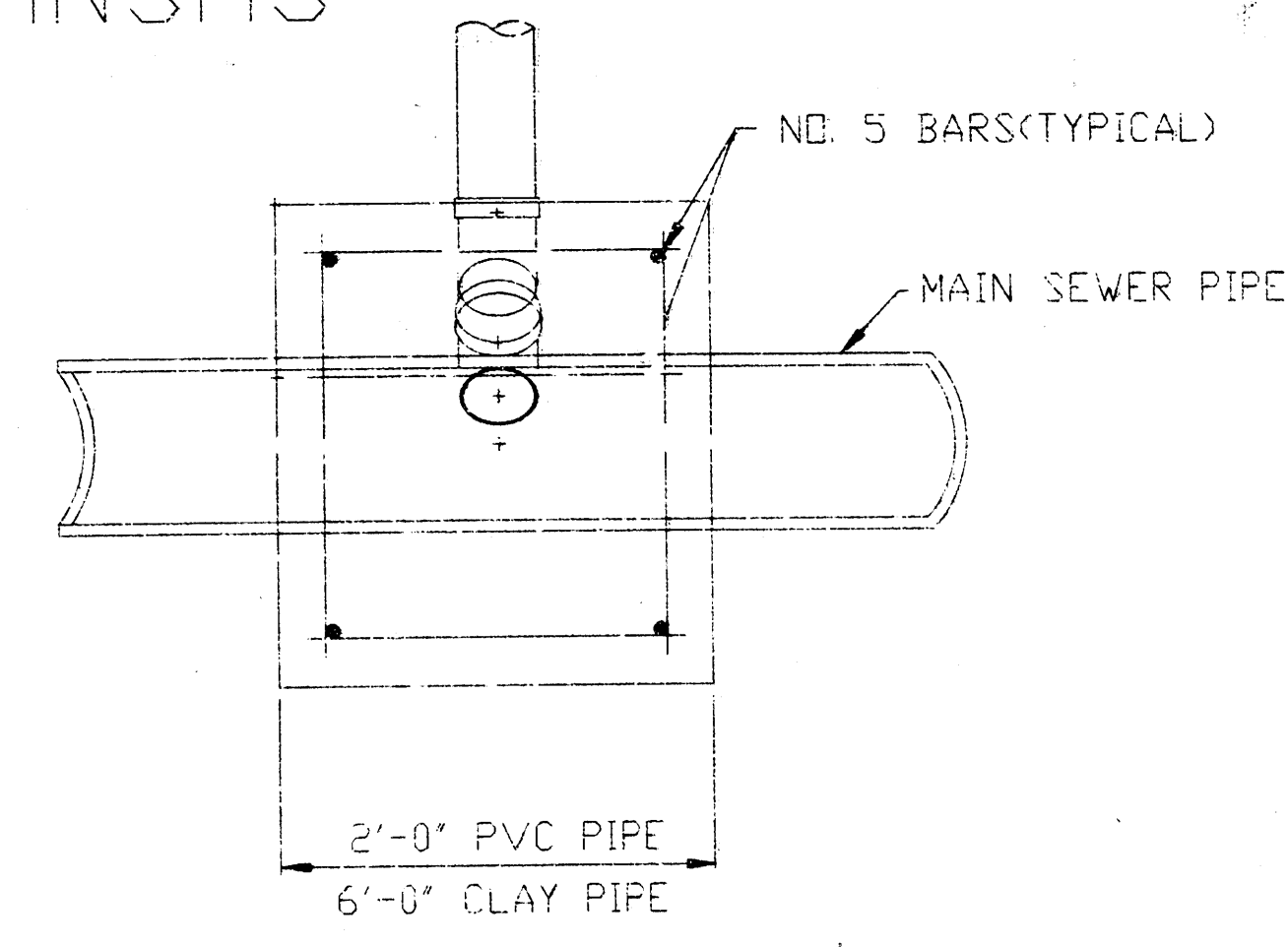
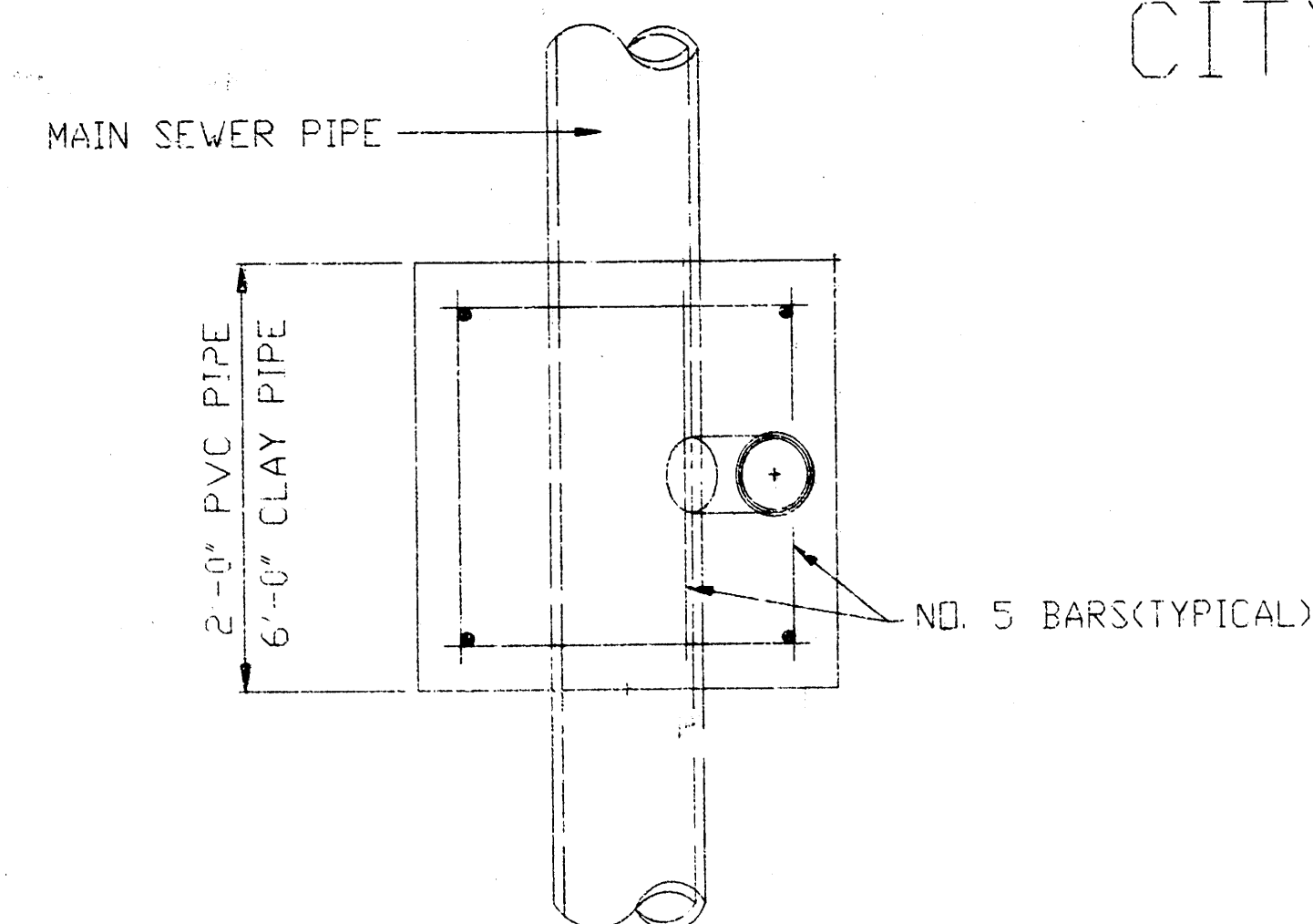
CITY OF WICHITA, KANSAS			
Design	C.O.W.	Checked by	Checked by
Drawn by	Date	Date JULY 1996	Job No.

2

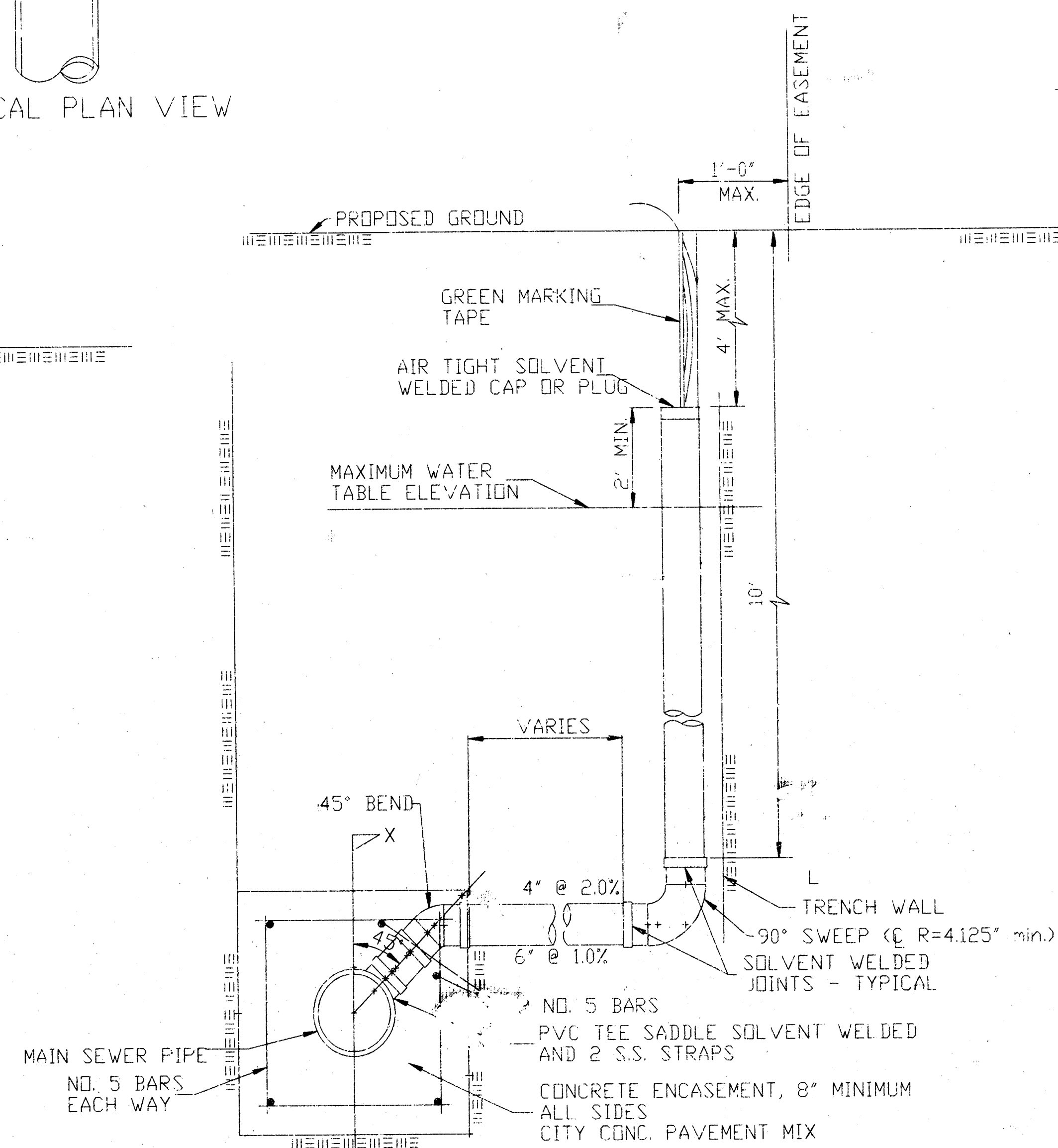
17

VERTICAL RISER DETAILS ADOPTED AS STANDARD DESIGN

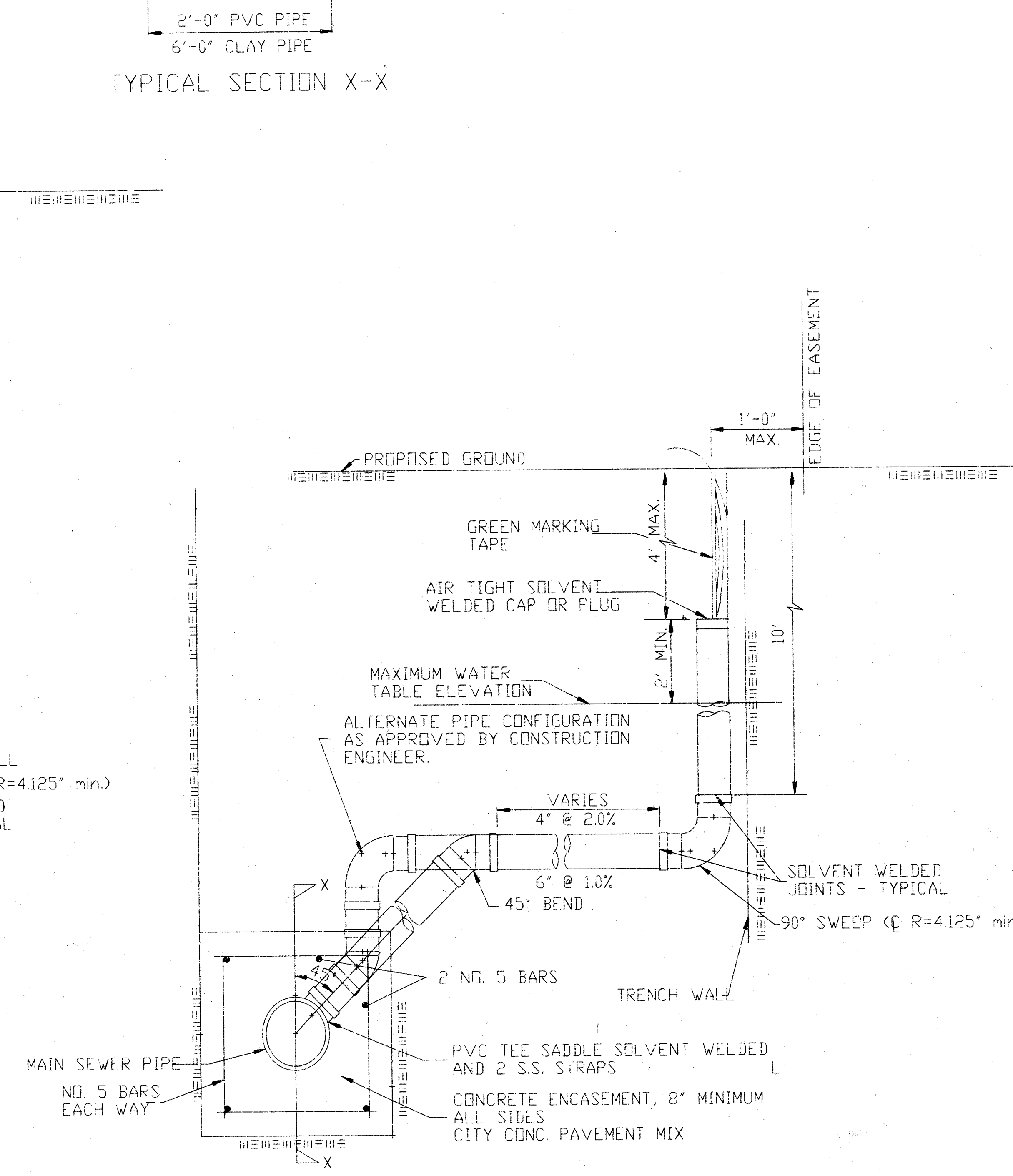
BY
CITY OF WICHITA, KANSAS
OCTOBER 1992



METHOD "A"



METHOD "B"

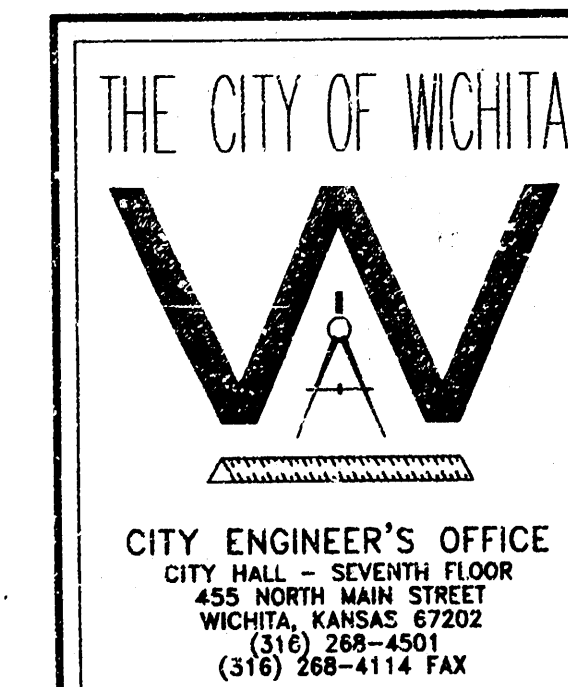


METHOD "C"

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

GENERAL NOTES

- 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 developed property shall be approved by the property owner and the Construction Engineer.
- PIPE STUBS:** Pipe stubs shall be installed in manholes where locations of manholes will provide satisfactory service 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 the top of the sanitary sewer main.
- SIZING:** Pipe stubs and risers shall be sized according to the plans and riser table where risers are indicated. In the event 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.
- RISER OR STUB MATERIAL:** Risers and stubs shall be constructed of SDR 35 PVC Pipe or Schedule 40 Pipe meeting the requirements of the latest revision of ASTM. All pipe joints shall be solvent welded.
- REINFORCED CONCRETE ENCASEMENT:** Riser connections to clay pipe sanitary sewers shall be reinforced concrete encased with 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.
- 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 and stubs constructed in vertical wall or sloped wall trenches. Bedding material and construction practices shall be approved by the Construction Engineer prior to installation.
- 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 bracing the riser pipe shall be approved by the Construction Engineer.
- 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.
- TOP OF THE RISER PIPE:** The top elevation of the sanitary sewer riser pipe shall be built per prior 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.
- 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.
- 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.
- 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.
- PAYMENT:** "Sanitary sewer risers" shall be paid for at the contract unit price per each, which price shall be full compensation for all pipe, fittings, marking tape, length of wooden 2 x 4, reinforced concrete encasement, support, 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".



VERTICAL RISER DETAIL

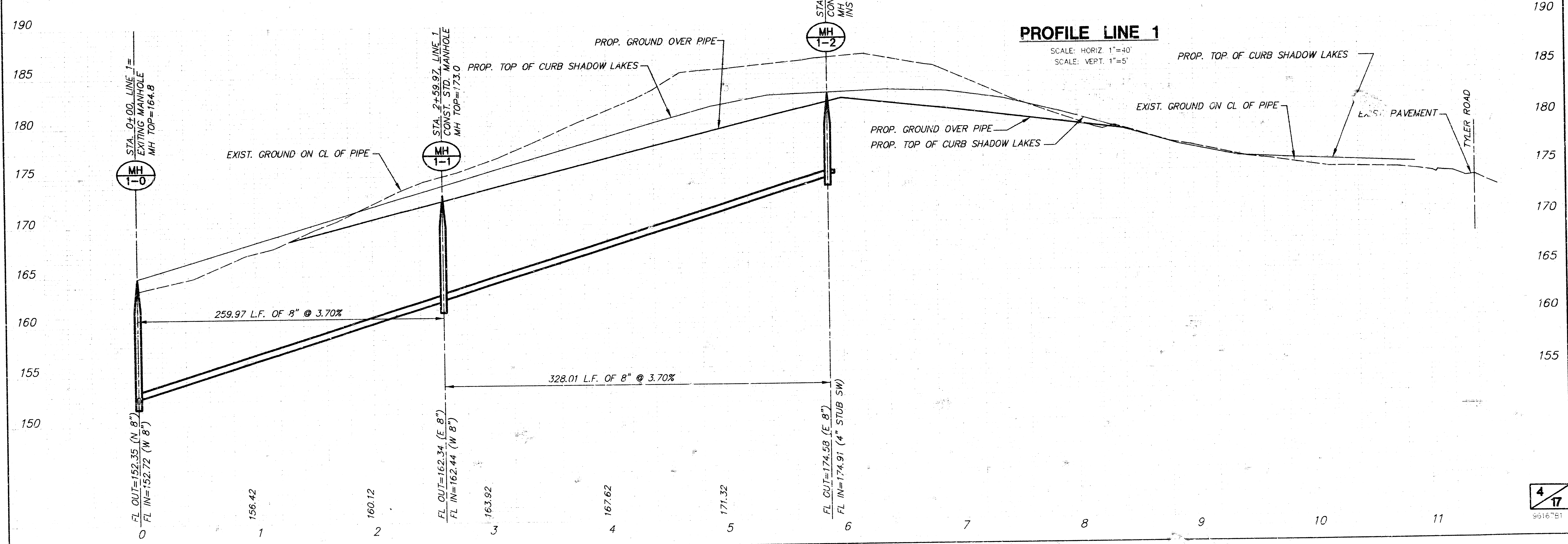
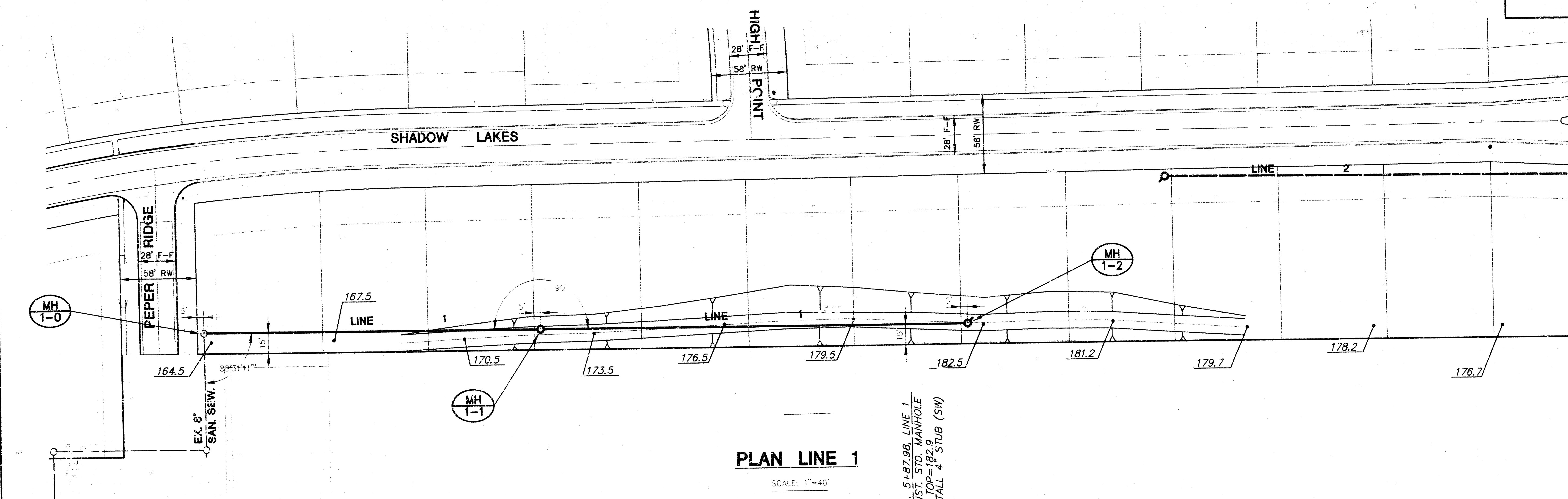
M. E. UNDEBAK P.E. - CITY ENGINEER

PROJECT NUMBER INDEX CODE

466- DATE

MAR 86 SHEET 3 OF 17

OAK RIDGE SECOND ADDITION
SANITARY SEWER PLANS
PHASE 2



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OAK RIDGE SECOND ADDITION SANITARY SEWER PLANS PHASE 2

SEWER SERVICE TABLE FOR OAD RIDGE 2ND ADDITION

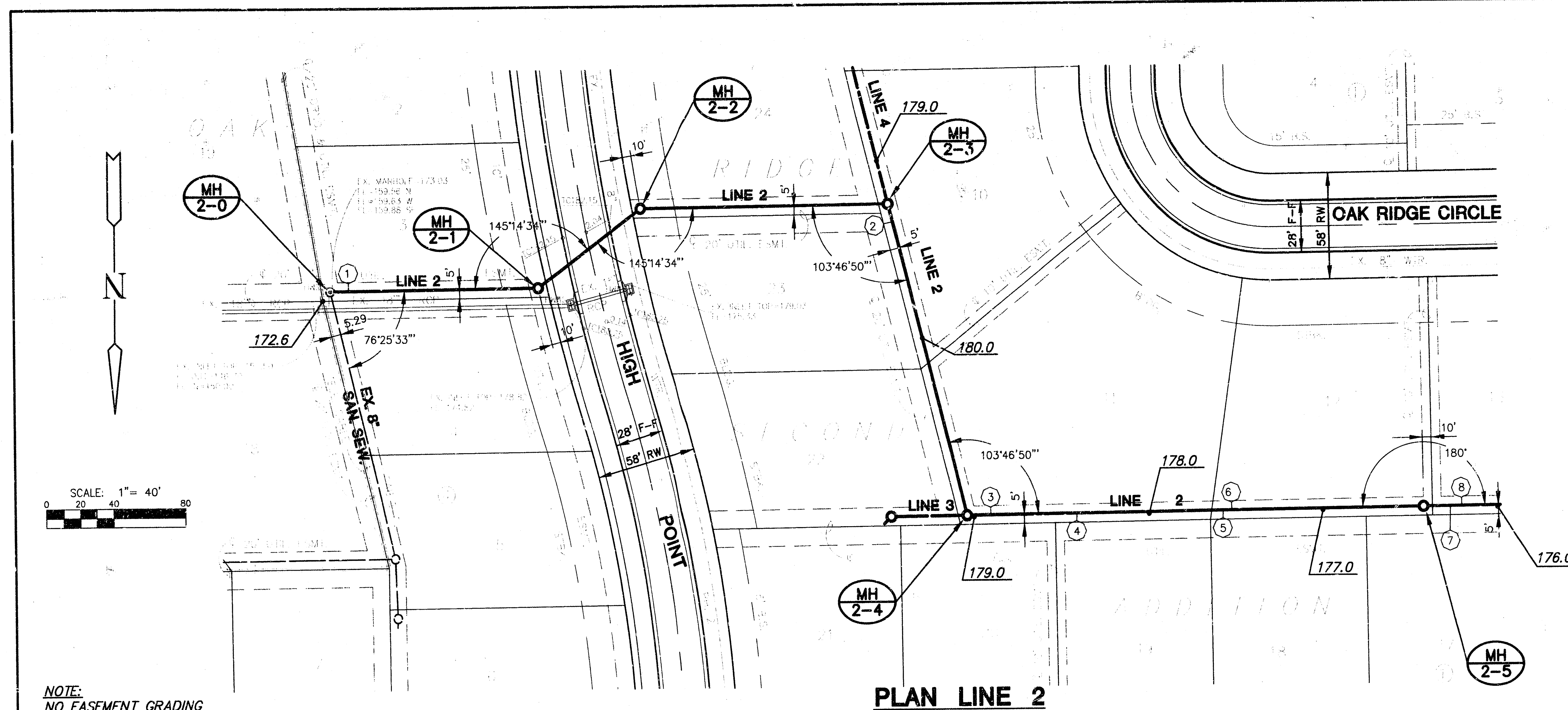
NO.	TYPE	LOCATION				FOR INFORMATION ONLY	
		LOT NO.	BLOCK NO.	LINE NO.	STATION/DIRECTION	APPROXIMATE LENGTH 4" PIPE	
1	8"x4" TEE SADDLE	3	4	2	0+10/LT.	4'	4'
2	8"x4" TEE SADDLE	23	1	2	3+38/RT.	9'	9'
3	8"x4" TEE SADDLE	11	1	2	5+21/LT.	8'	4'
4	8"x4" TEE SADDLE	19	1	2	6+60/RT.	7'	9'
5	8"x4" TEE SADDLE	18	1	2	6+60/RT.	6'	9'
6	8"x4" TEE SADDLE	12	1	2	6+65/LT.	6'	4'
7	8"x4" TEE SADDLE	17	1	2	7+85/RT.	4'	9'
8	8"x4" TEE SADDLE	13	1	2	7+90/LT.	4'	4'

NOTES:

- Vertical Riser Pipe shall be extended to 2' minimum above ground water elevation and 4' maximum below proposed ground elevation.

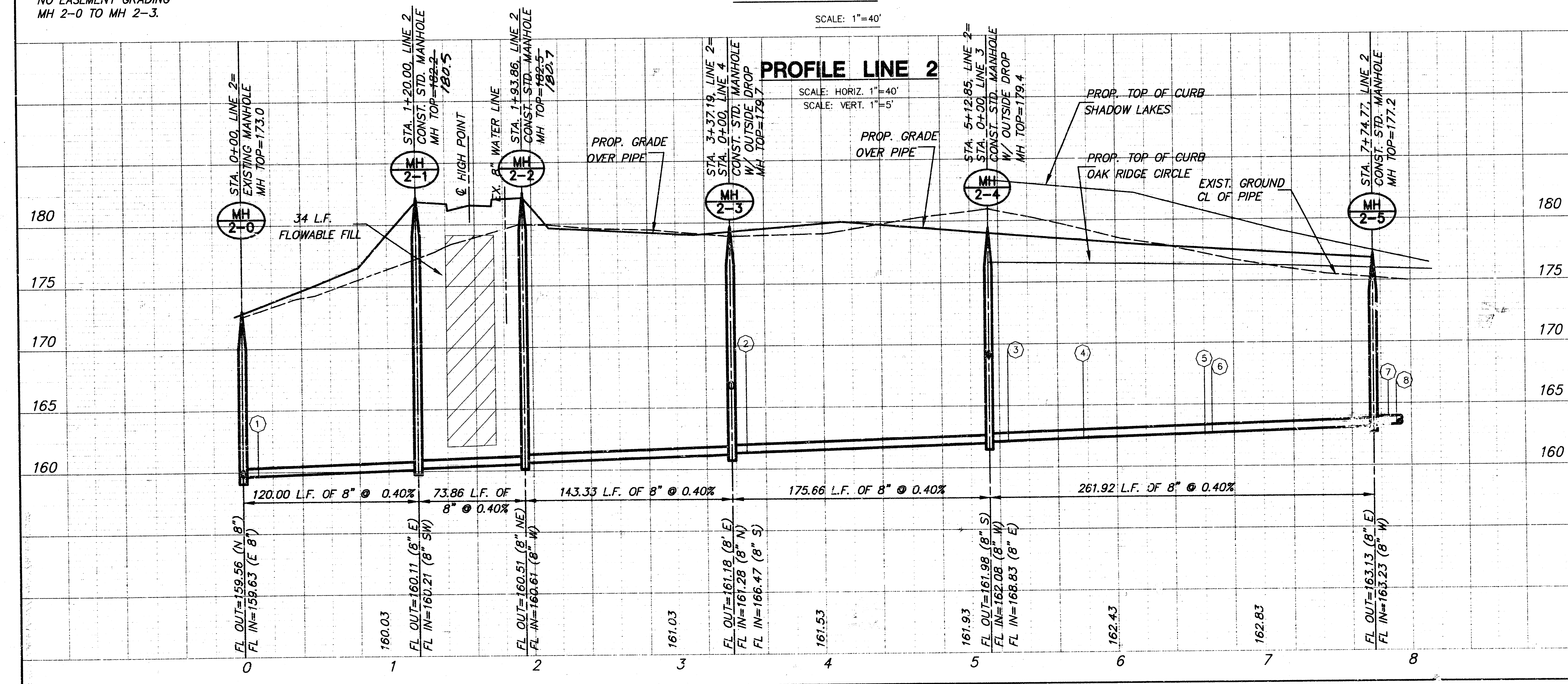
LEGEND

- ② VERTICAL RISER LOCATION



PLAN LINE 2

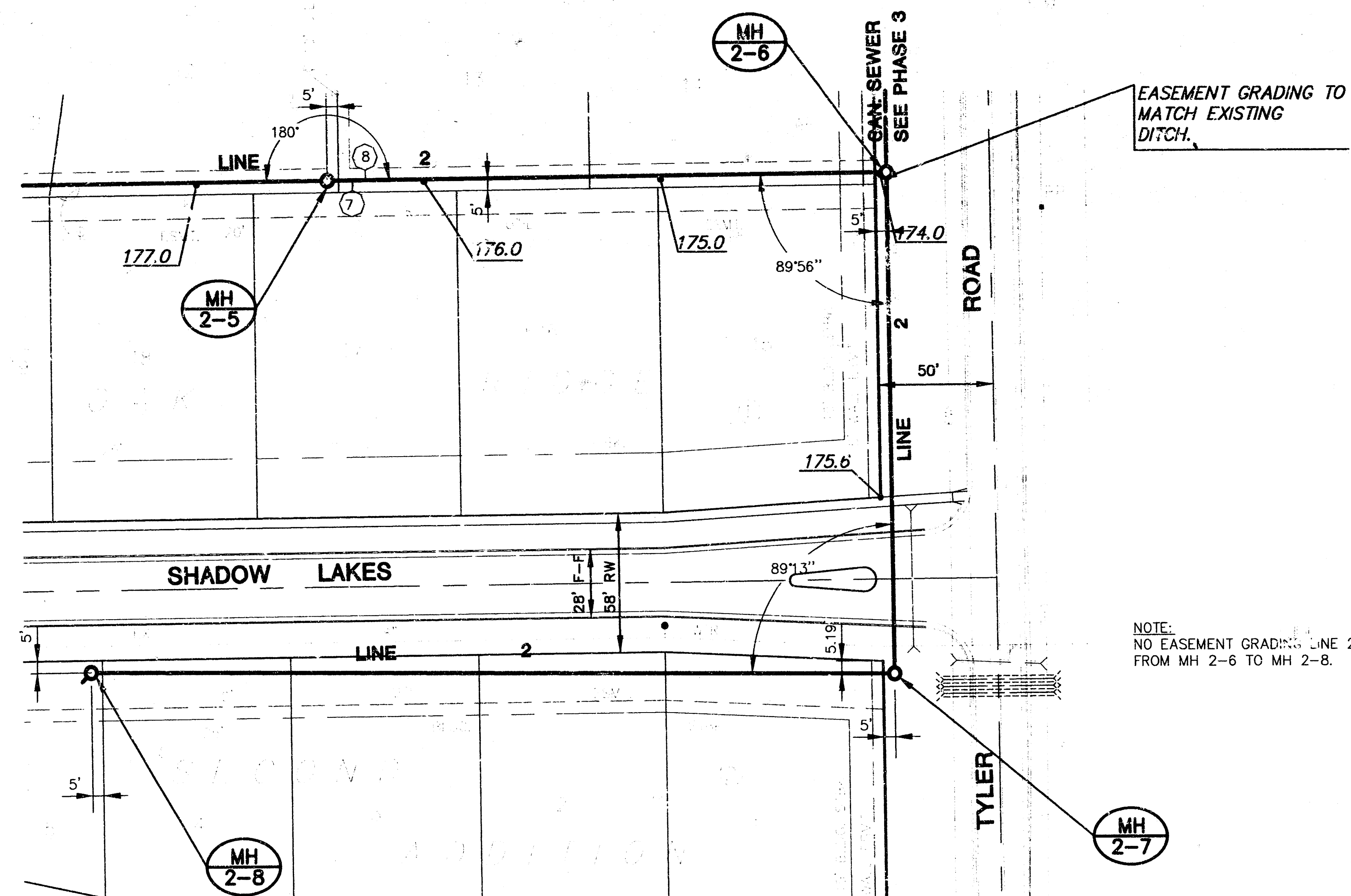
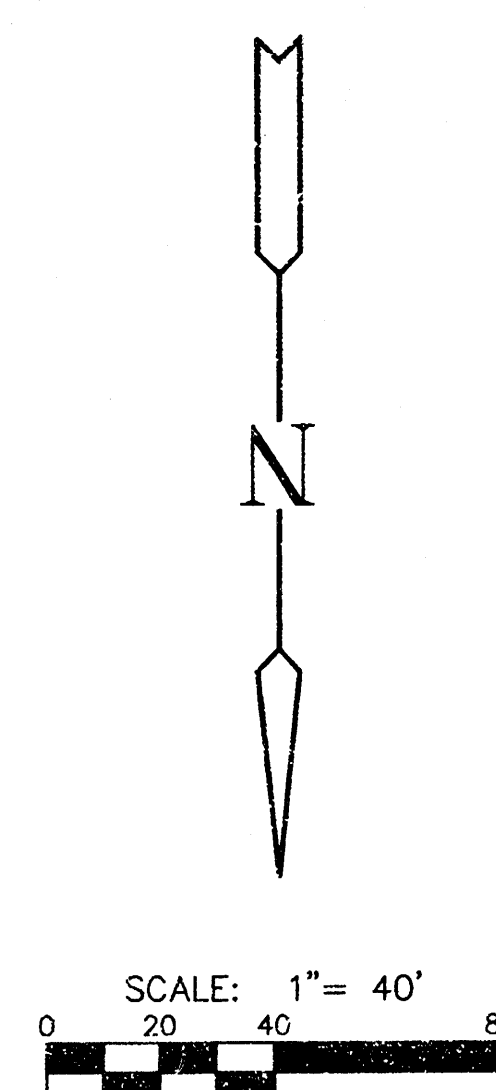
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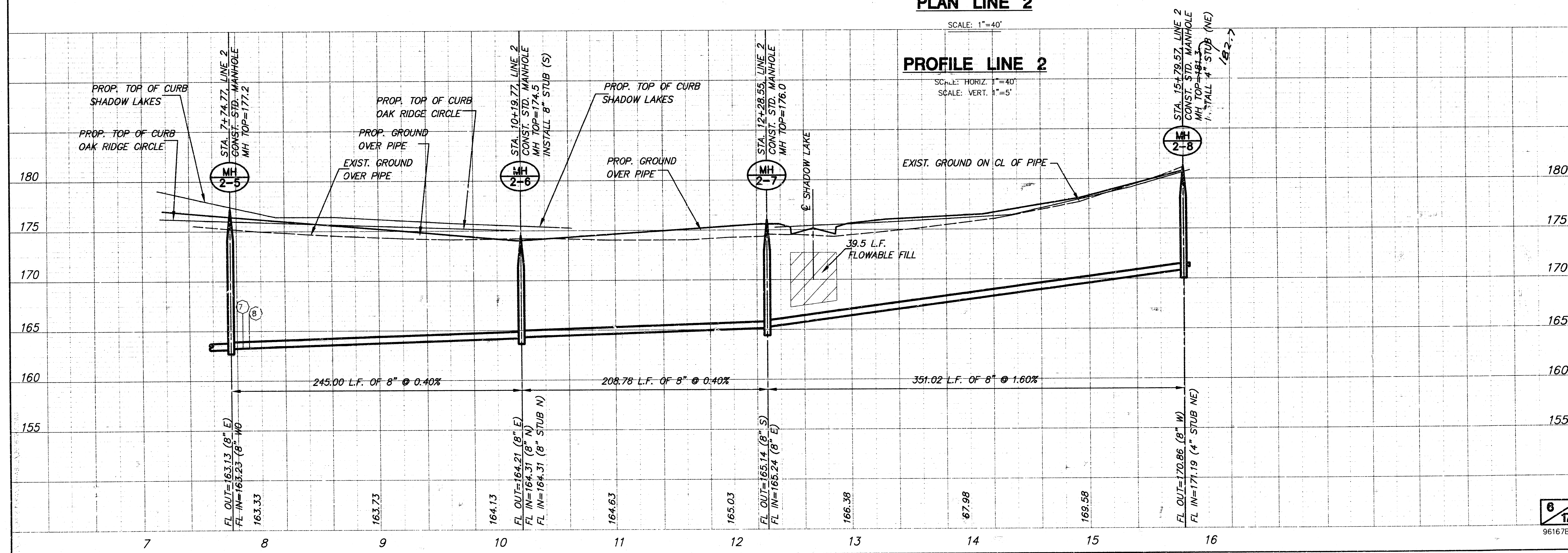
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SCALE: VERT. 1"=5'

OAK RIDGE SECOND ADDITON
SANITARY SEWER PLANS
PHASE 2



PLAN LINE 2

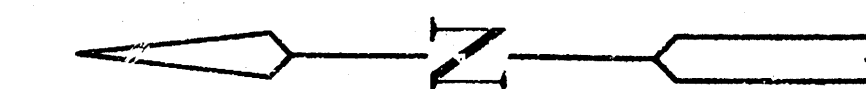
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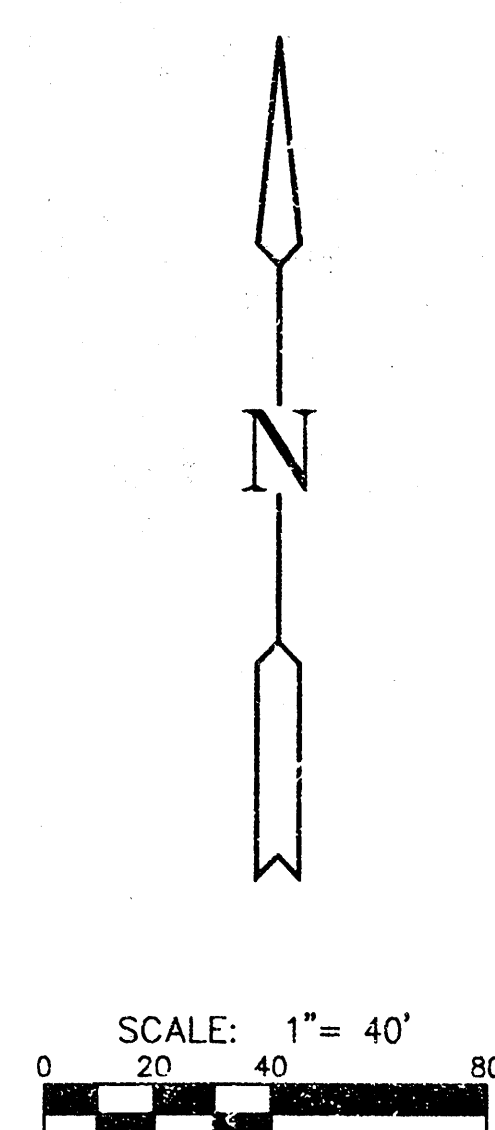
PROFILE LINE 2

SCALE: HORIZ. 1"=40'
SCALE: VERT. 1"=5'

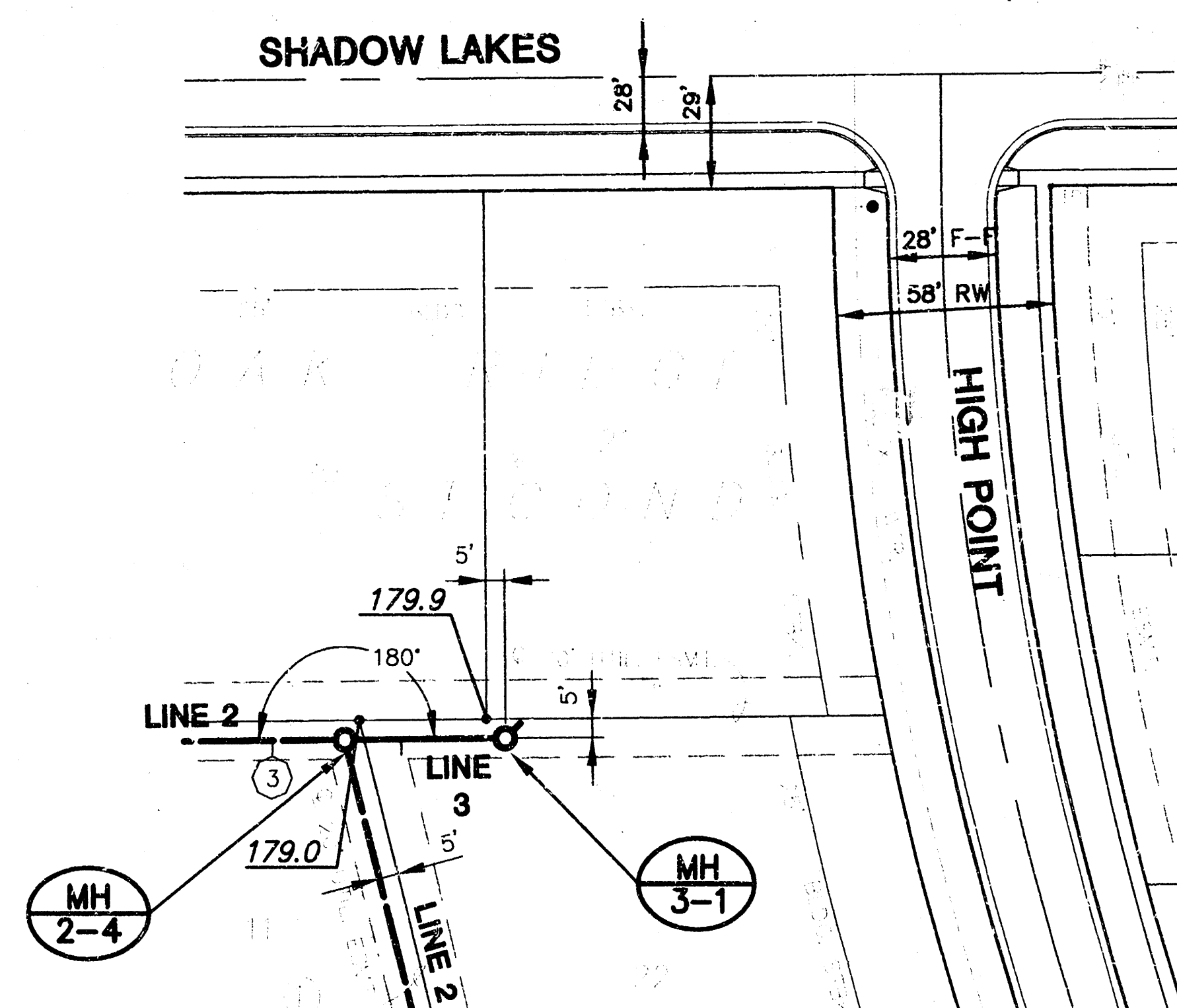
OAK RIDGE SECOND ADDITON
SANITARY SEWER PLANS
PHASE 2



SCALE: 1" = 40'

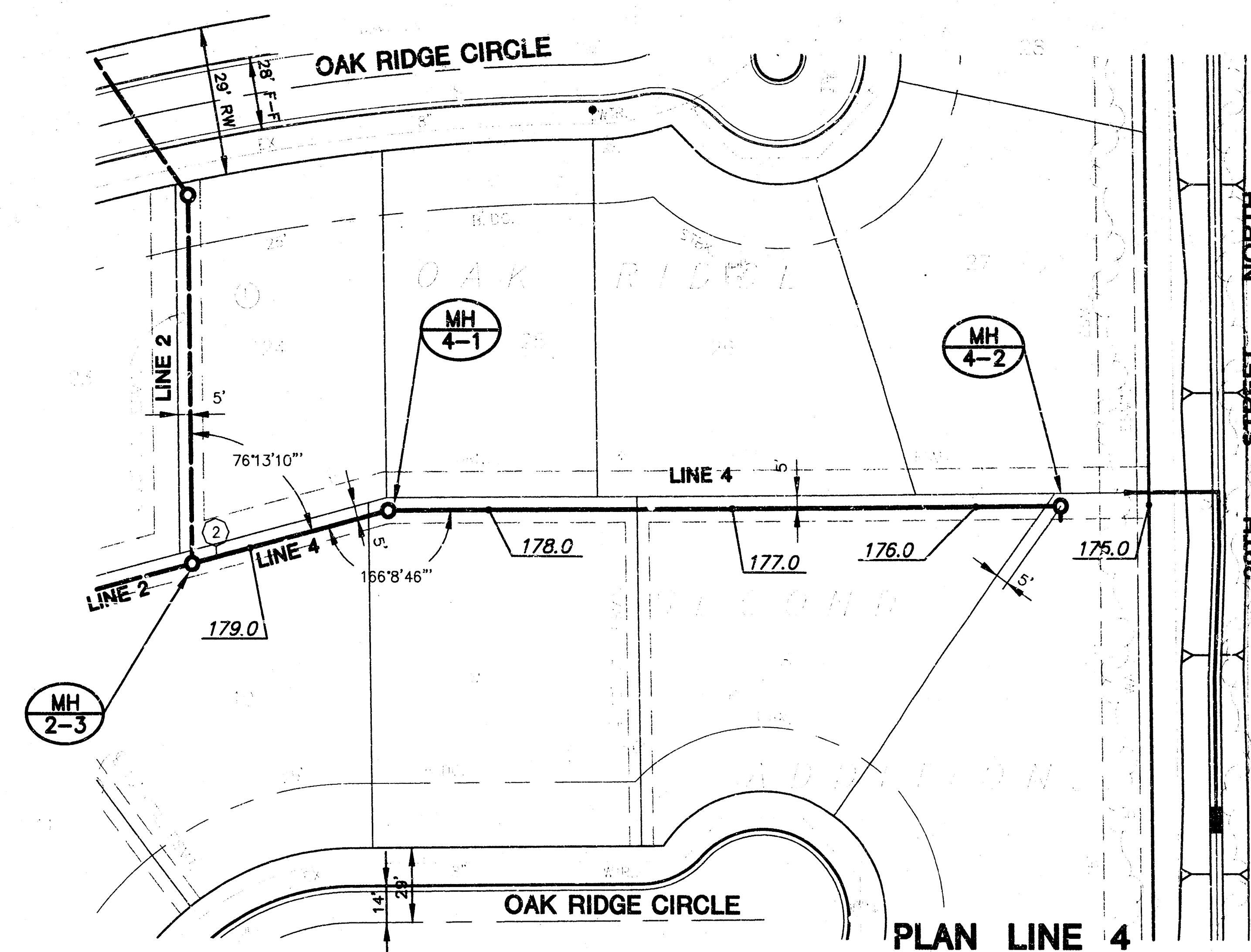


SCALE: 1" = 40'



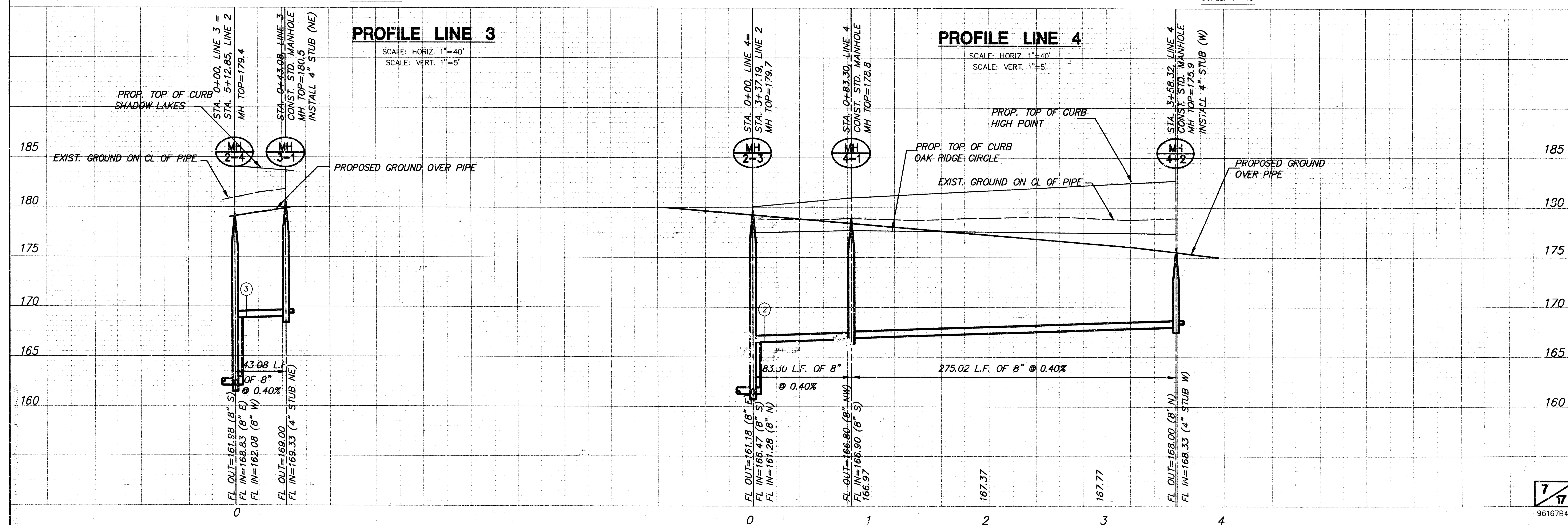
PLAN LINE 3

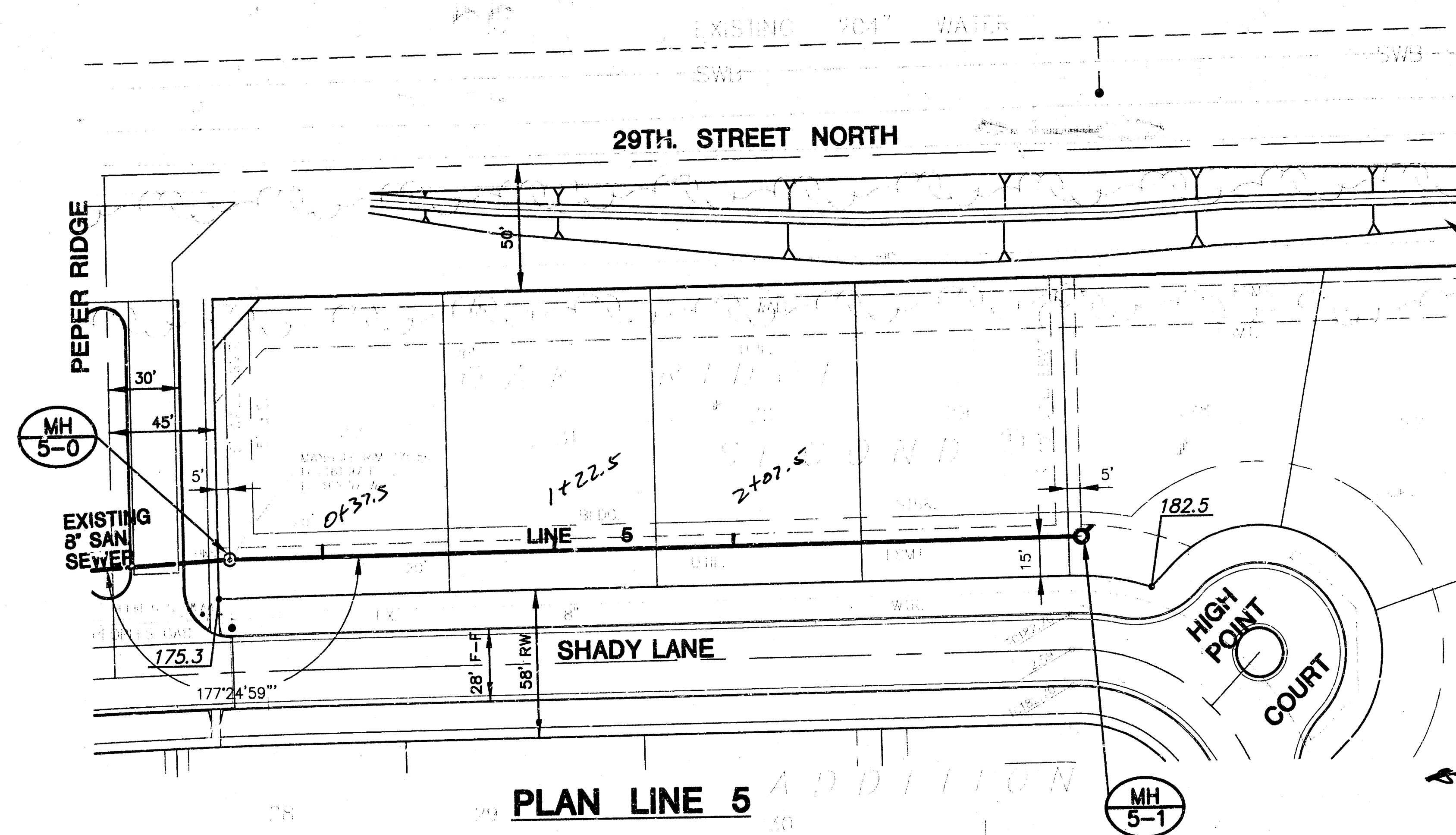
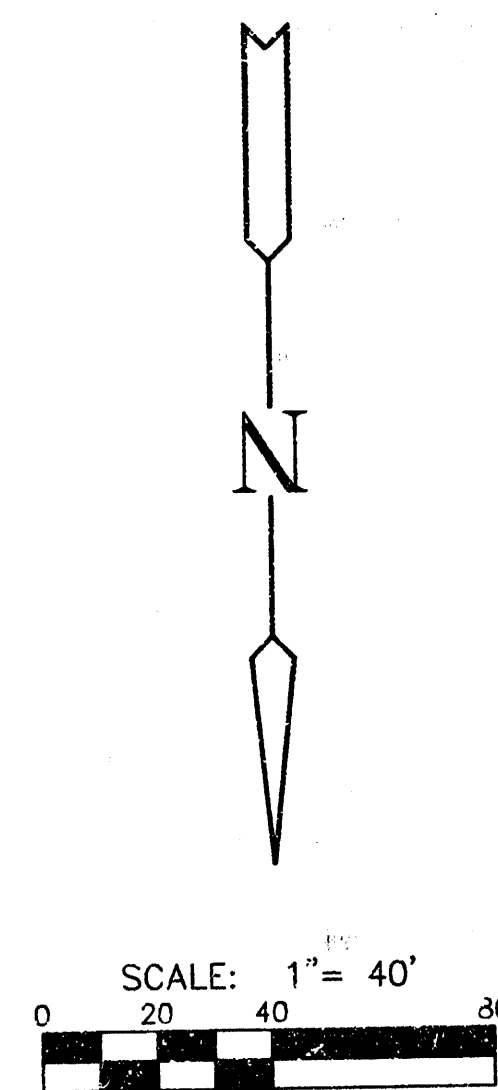
SCALE: 1" = 40'



PLAN LINE 4

SCALE: 1" = 40'





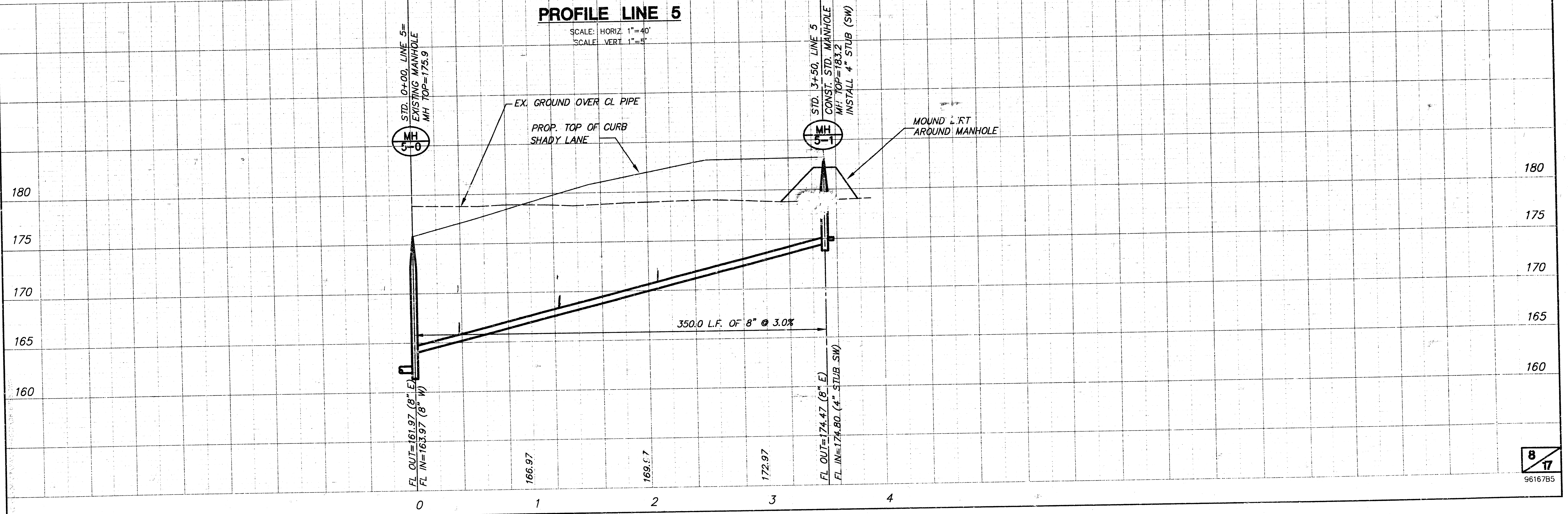
NOTE:
NO EASEMENT GRADING LINE 5
FROM MH 5-0 TO MH 5-1.
4" Risers Added
0+37.5 Lt. 8" V. 5'H
1+22.5 Lt. 8" V. 5'H
2+07.5 Lt. 8" V. 5'H.

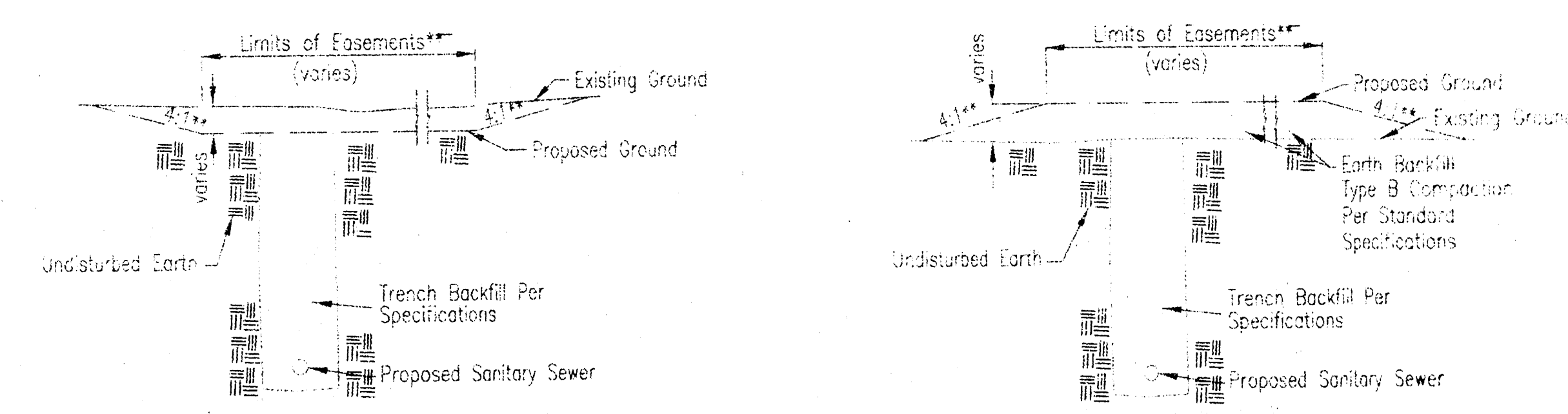
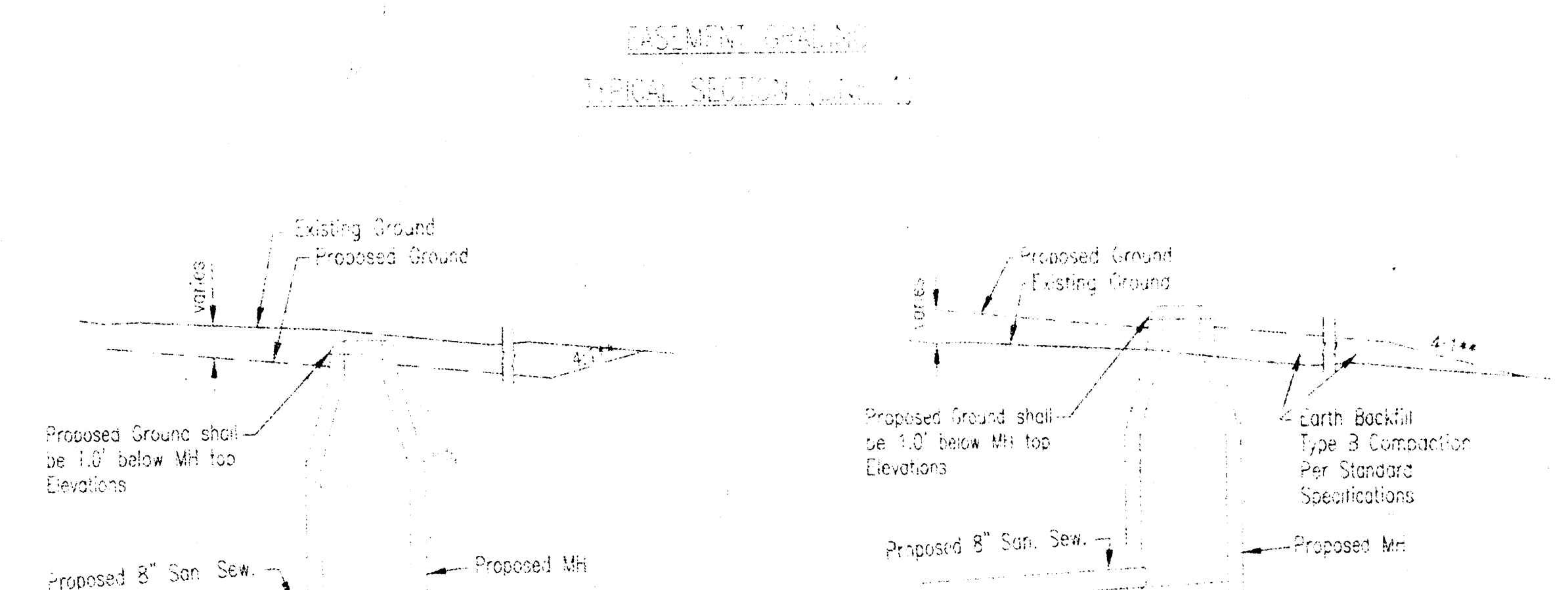
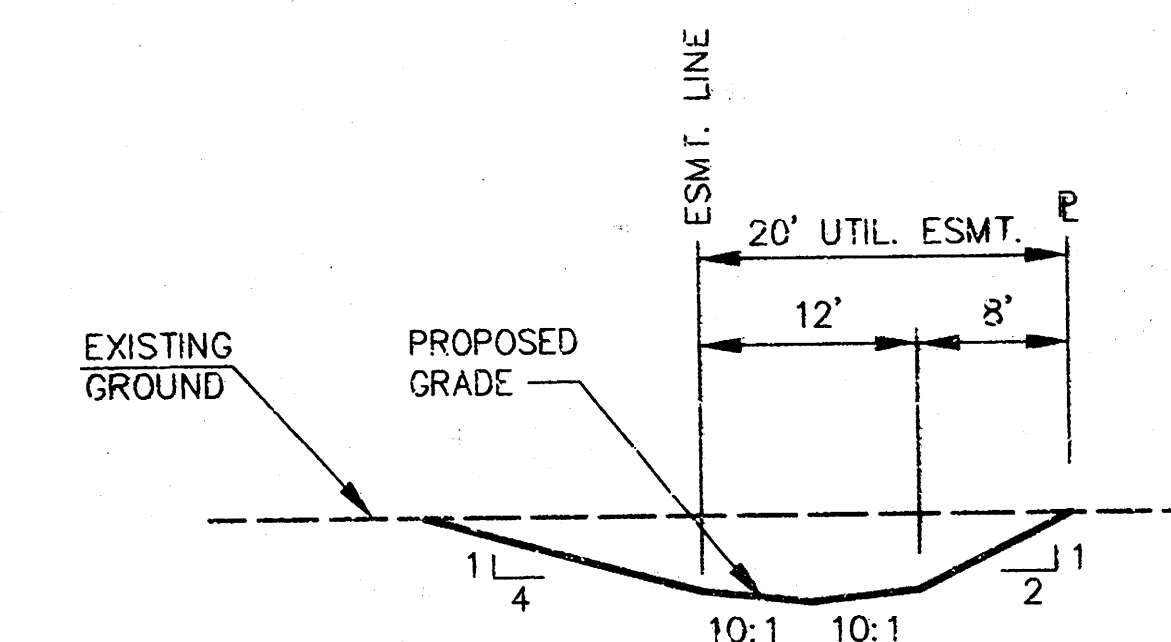
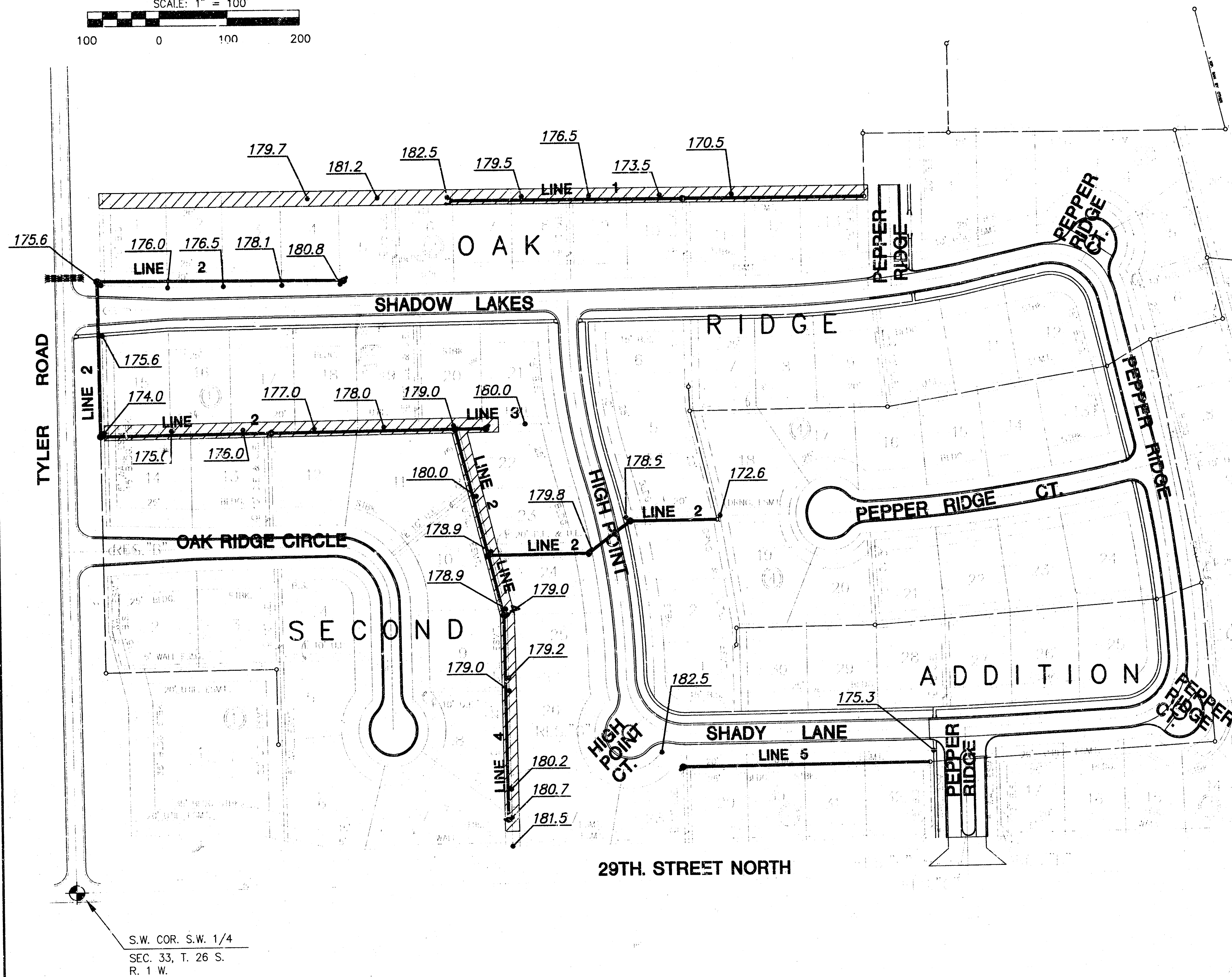
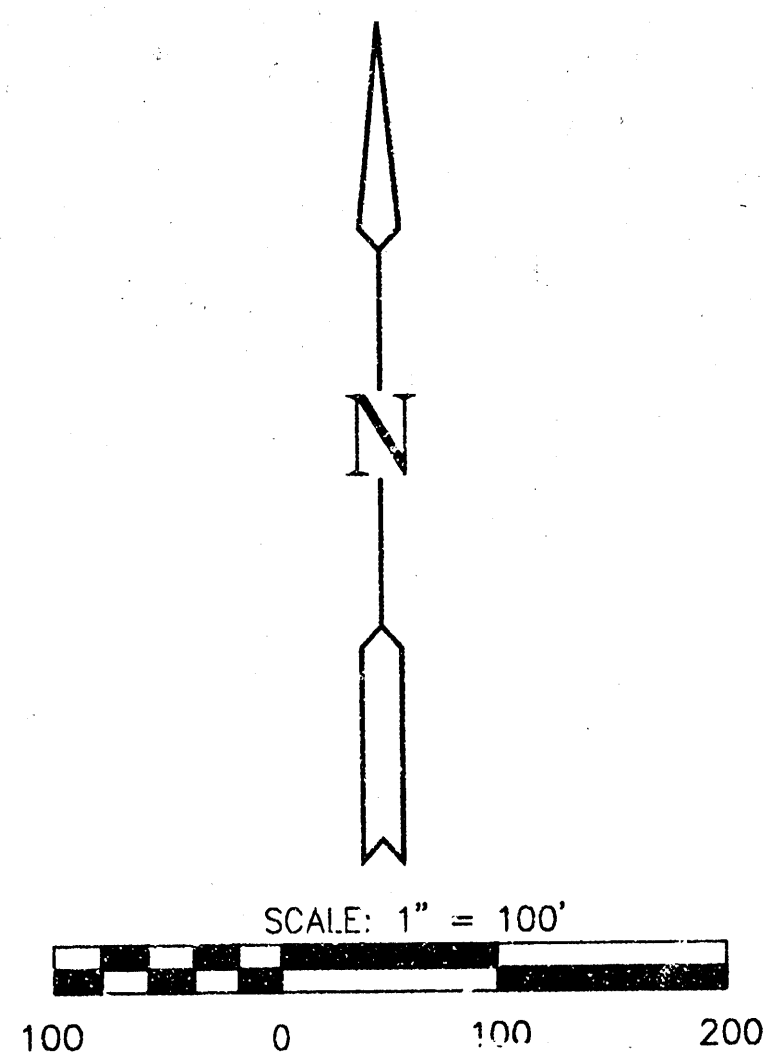
PLAN LINE 5

SCALE: 1"=40'

PROFILE LINE 5

SCALE: HORIZ 1"=40'
SCALE: VERT 1"=5'





NOTE:
 NO EASEMENT GRADING LINE 2 FROM MH 2-0 TO MH 2-3.
 NO EASEMENT GRADING LINE 2 FROM MH 2-6 TO MH 2-8.
 NO EASEMENT GRADING LINE 5 FROM MH 5-0 TO MH 5-1.

EASEMENT GRADING DETAILS

/// = AREAS TO BE GRADED
 HP = HIGH POINT
 VE = WHICH EXISTING

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

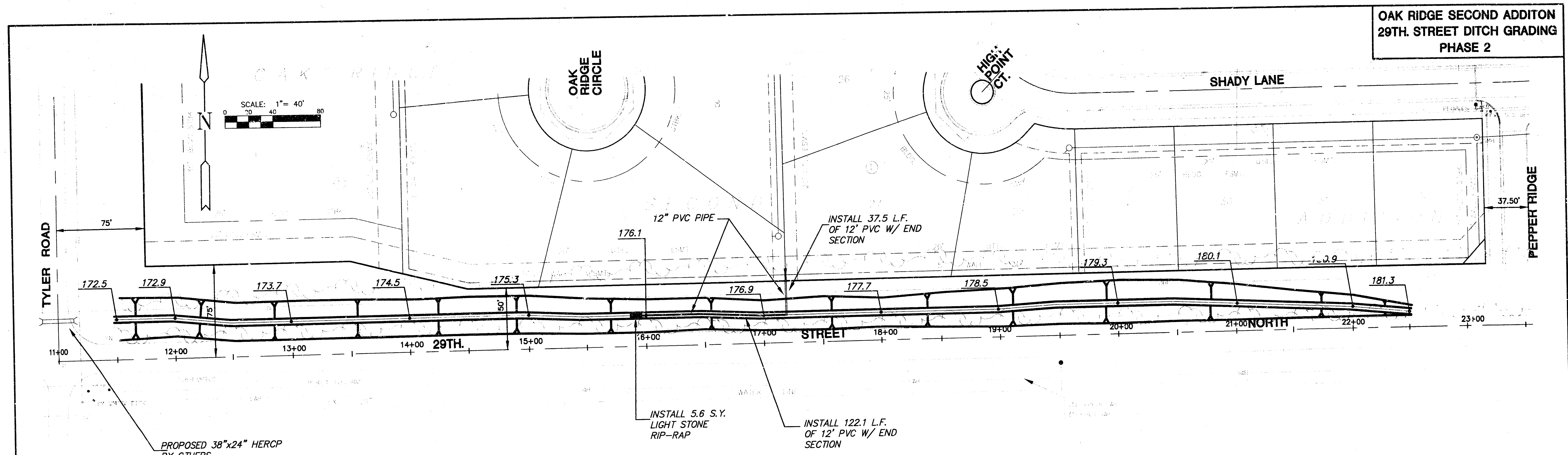
Easement Grading will be bid on a lump sum basis for grading the easements to the profile and elevations shown on the Easement Grading Plan (this sheet). Approximate quantities of earthwork for easement grading are shown below. These approximate quantities are given for information only. The Contractor should verify the quantities when preparing the proposal.
 Cut 2455 C.Y. (Approximate)
 Fill 502 C.Y. (Approximate)
 29th. Street Ditch Cut 3675 C.Y. (Approximate)

S.E. COR. S.W. 1/4
 SEC. 33, T. 26 S.
 R. 1 W.

EASEMENT GRADING DETAILS

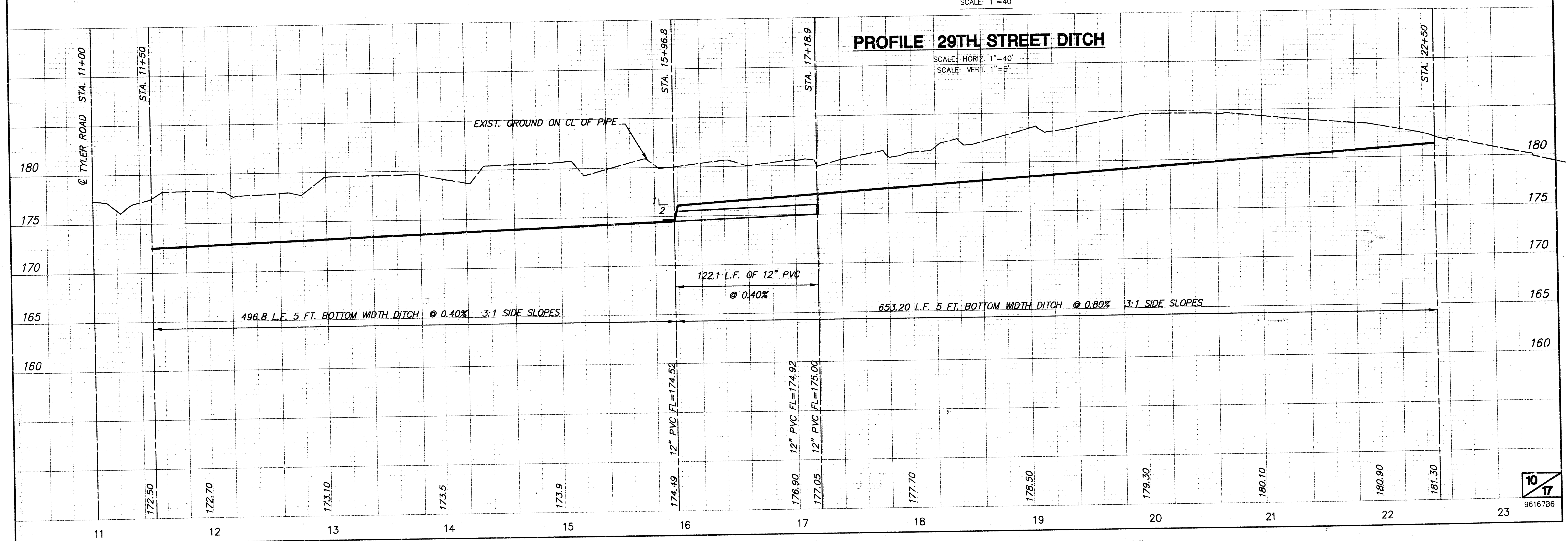
ADAPTED AS STANDARD DESIGN JANUARY 1998
 BY
 KERNAN COUNTY BUREAU OF PUBLIC SERVICES
 DAVID C. BEANS, P.E. DIRECTOR, BUREAU OF PUBLIC SERVICES/COUNTY ENGINEER

OAK RIDGE SECOND ADDITION
29TH STREET DITCH GRADING
PHASE 2



PLAN 29TH STREET DITCH

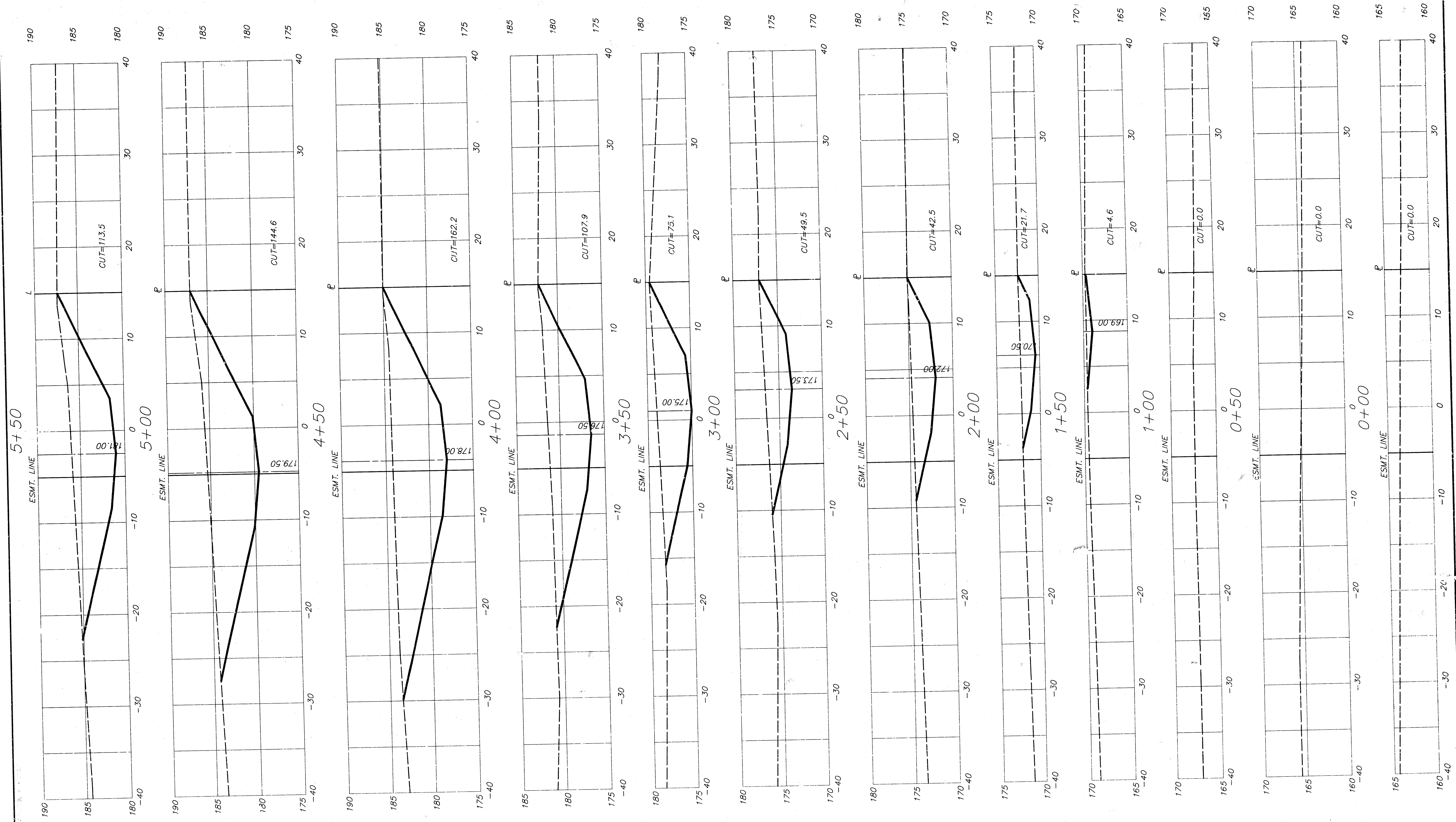
SCALE: 1"=40'



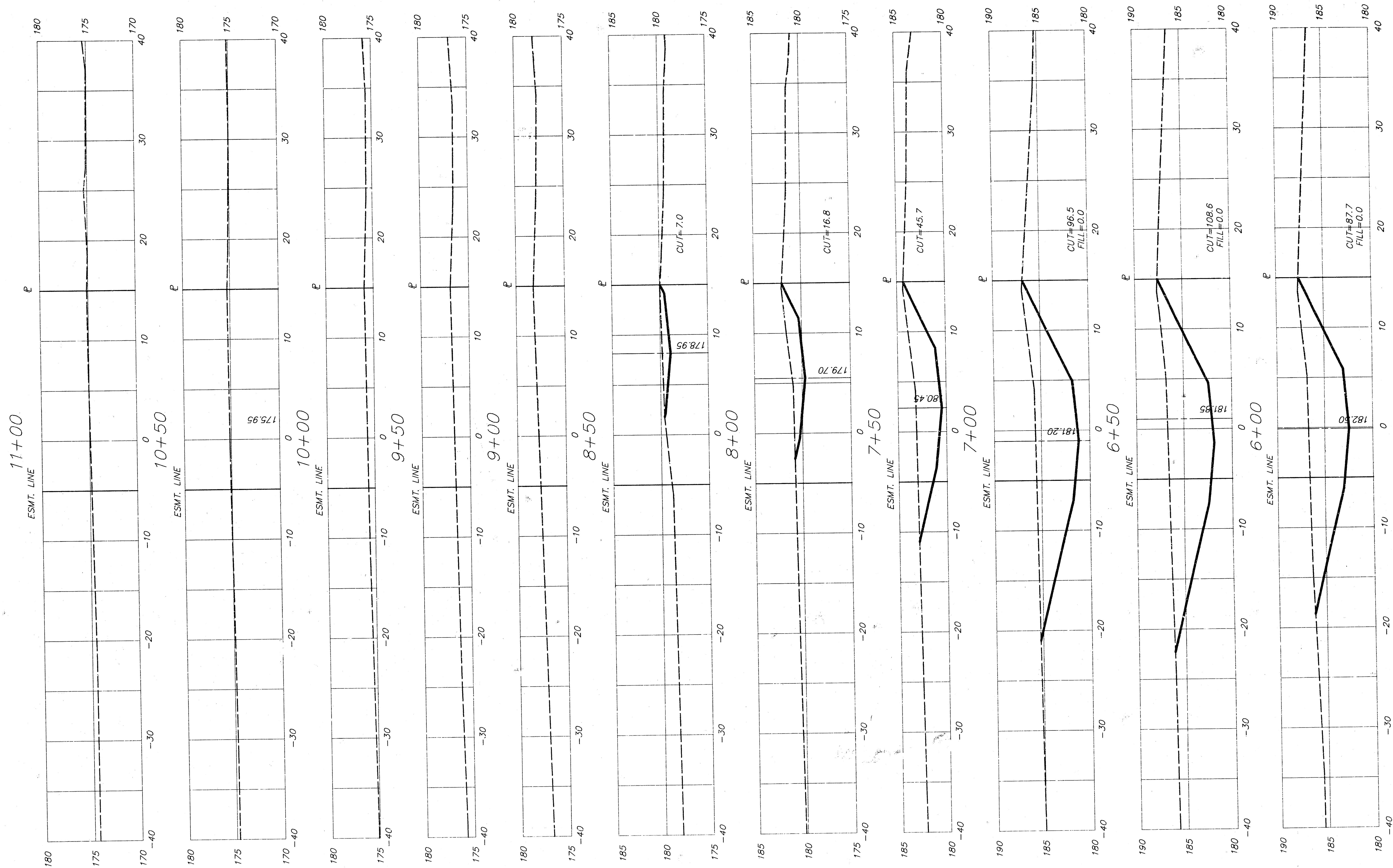
PROFILE 29TH STREET DITCH

SCALE: HORIZ. 1"=40'
SCALE: VERT. 1"=5'

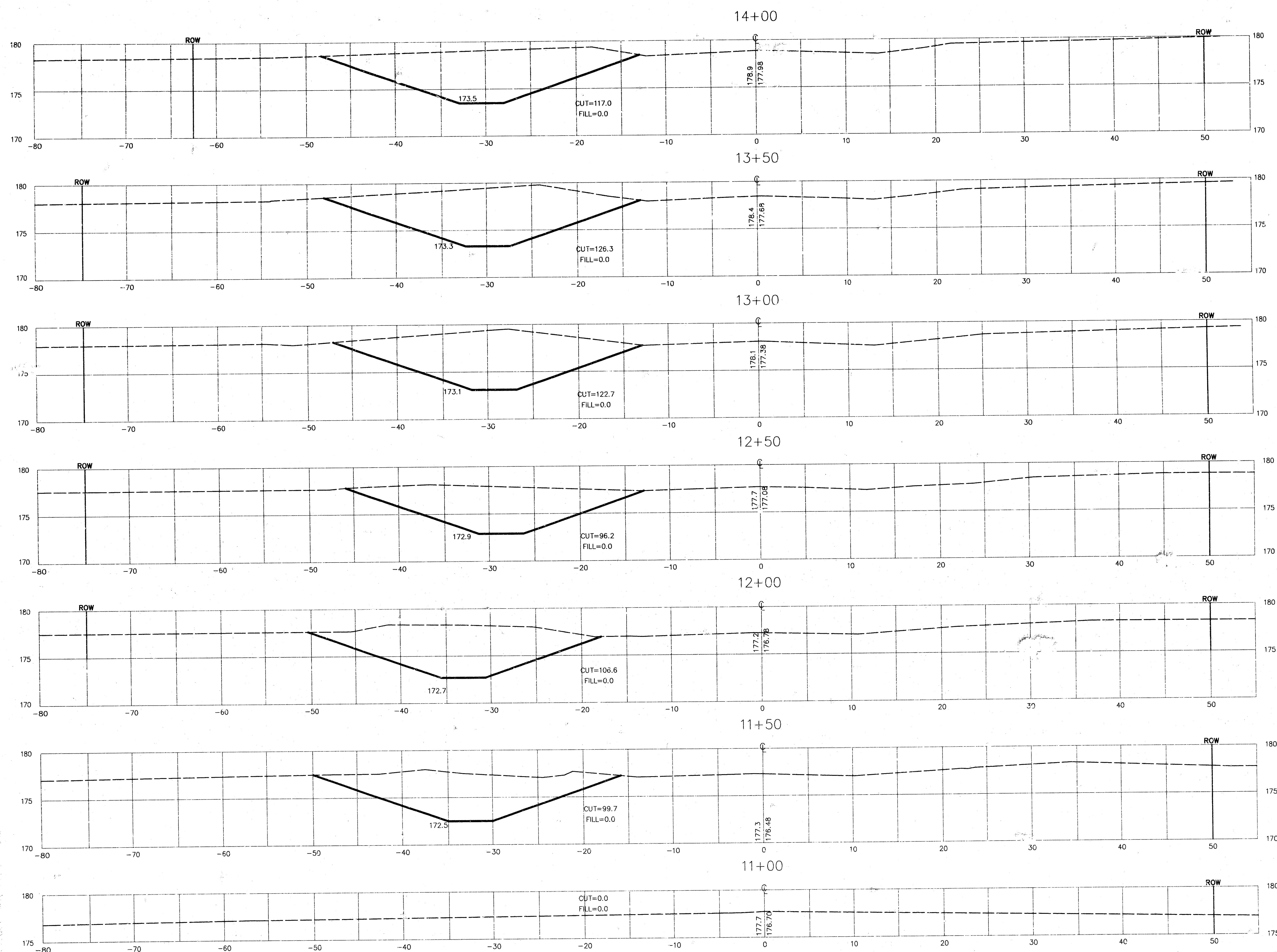
OAK RIDGE SECOND ADDITION
SANITARY SEWER - PHASE 2
CROSS SECTIONS FOR EASEMENT
GRADING ALONG LOIS 1-13, BLOCK 2



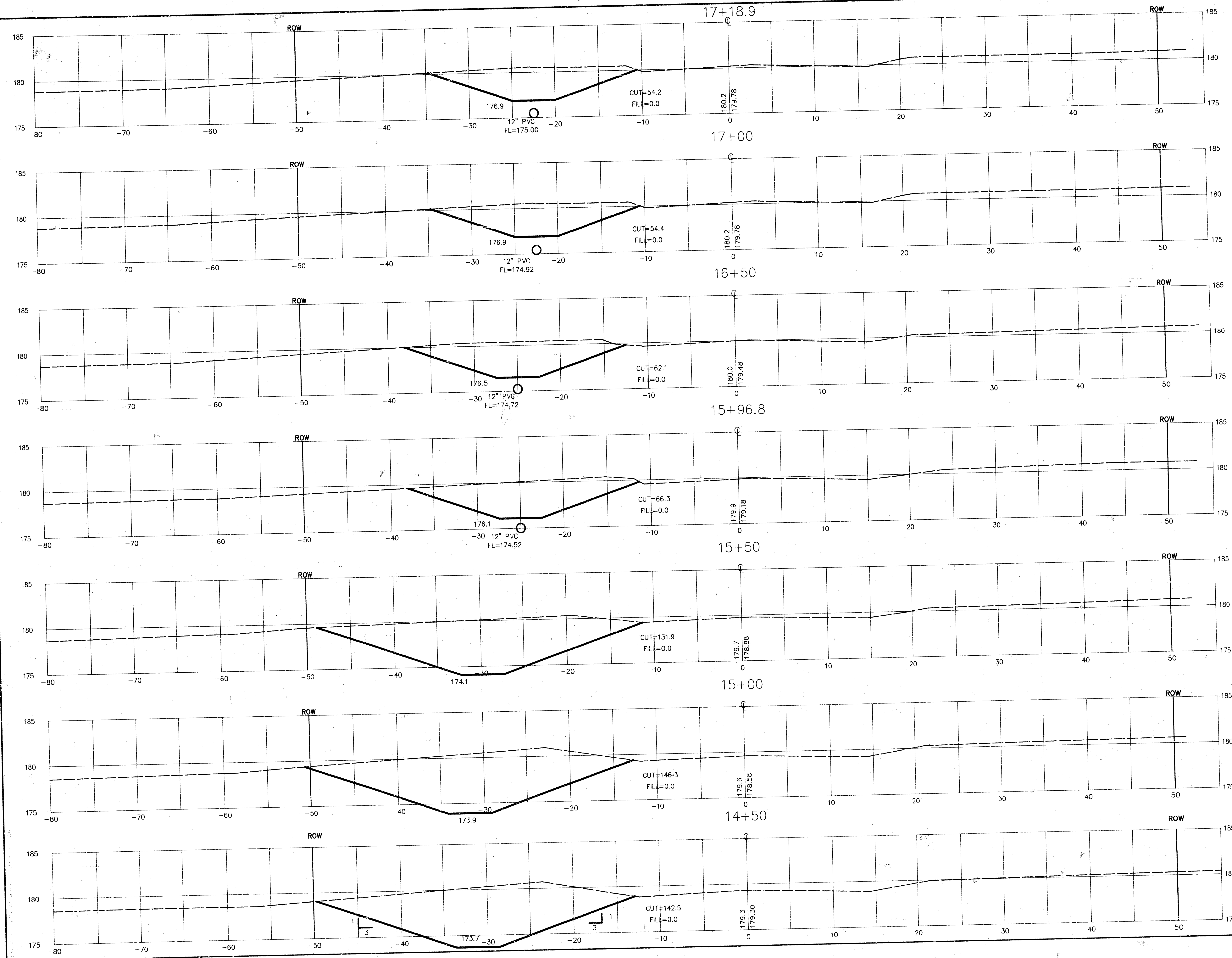
OAK RIDGE SECOND ADDITION
SANITARY SEWER - PHASE 2
CROSS SECTIONS FOR EASEMENT
GRADING ALONG LOTS 1-13, BLOCK 2



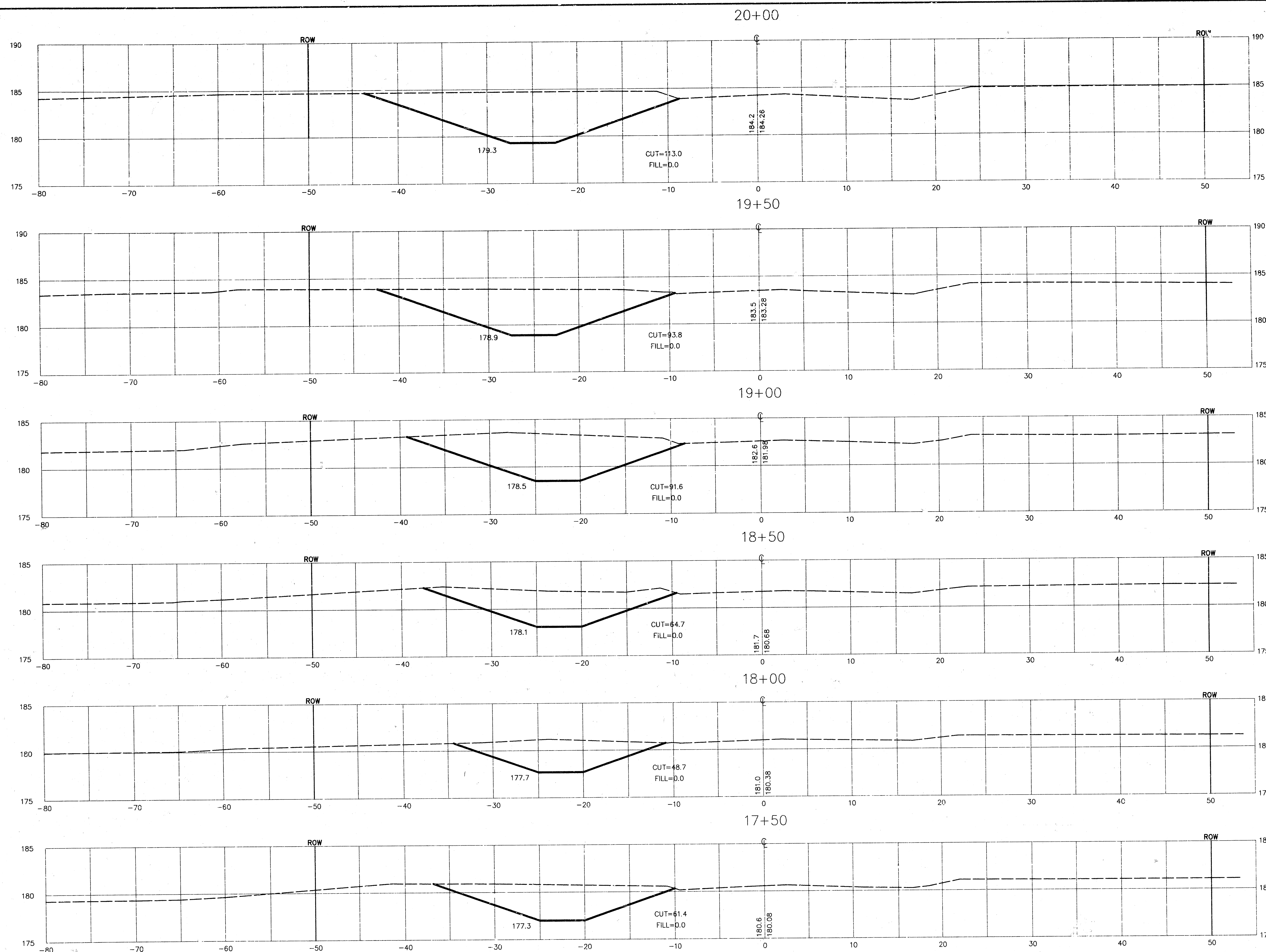
OAK RIDGE SECOND ADDITION
SANITARY SEWER - PHASE 2
CROSS SECTIONS FOR DITCH ALONG
29TH. STREET NORTH

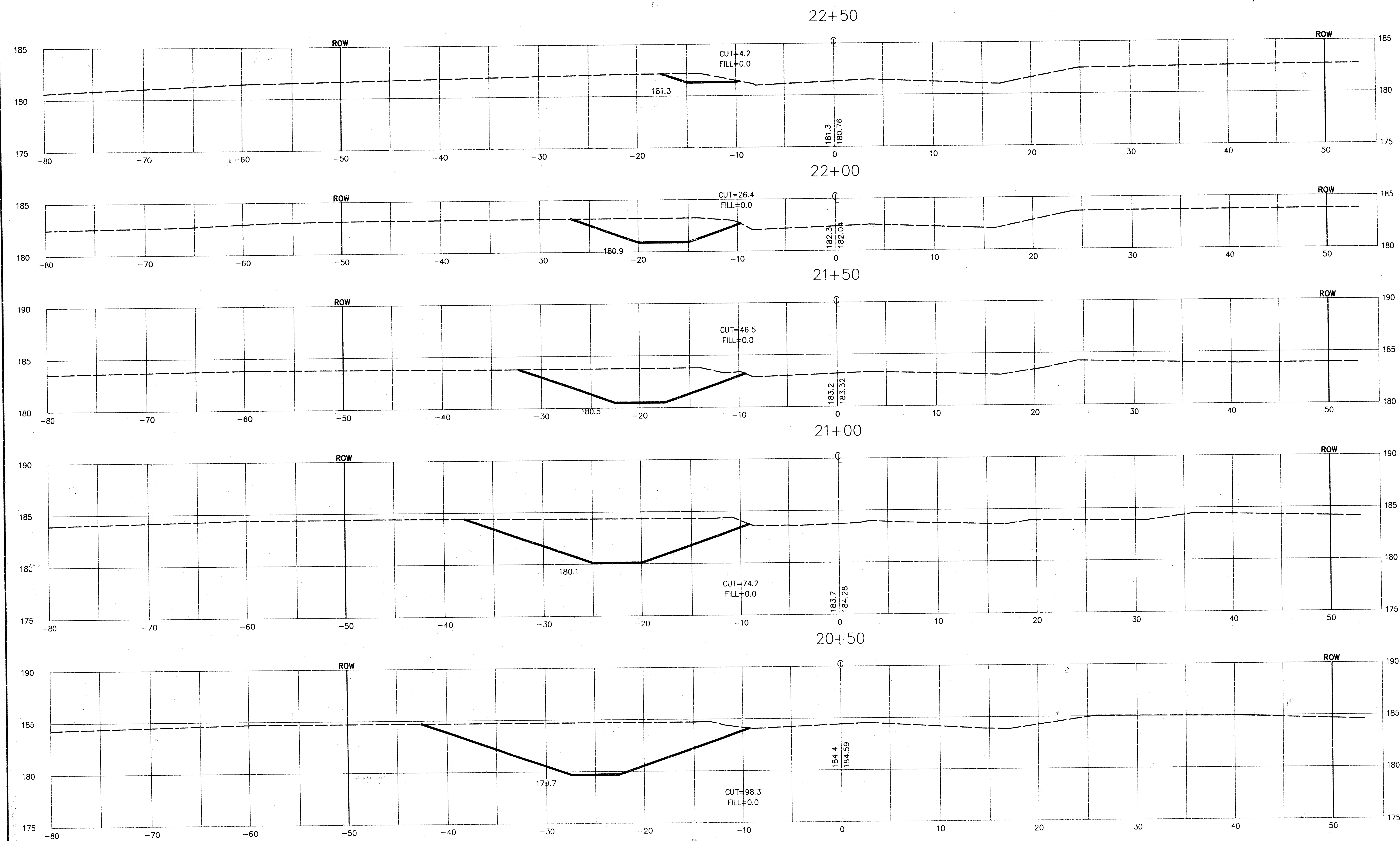


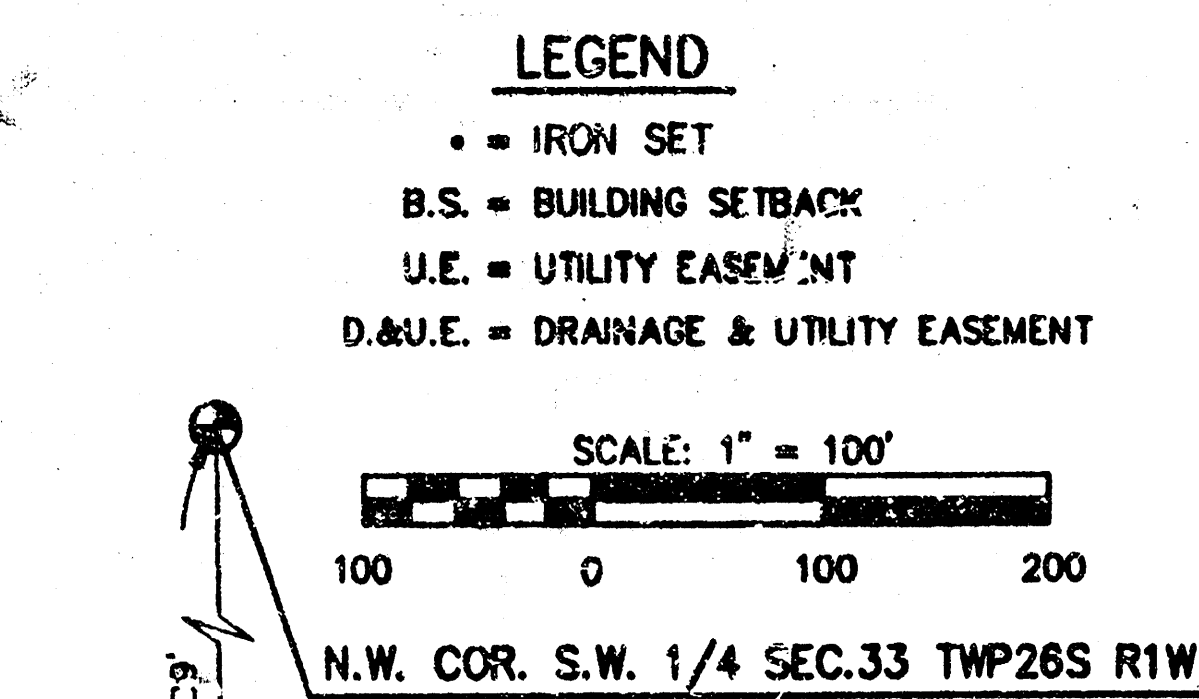
OAK RIDGE SECOND ADDITION
SANITARY SEWER - PHASE 2
CROSS SECTIONS FOR DITCH ALONG
29TH. STREET NORTH



OAK RIDGE SECOND ADDITION
SANITARY SEWER - PHASE 2
CROSS SECTIONS FOR DITCH ALONG
29TH. STREET NORTH





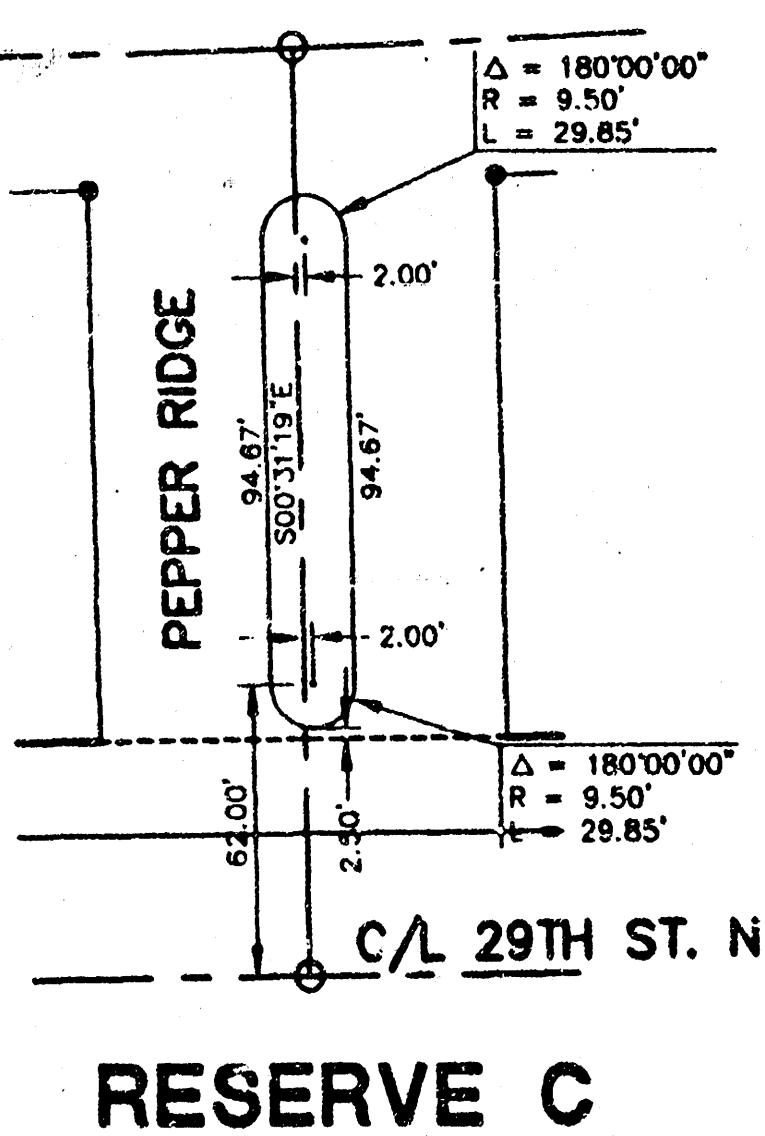
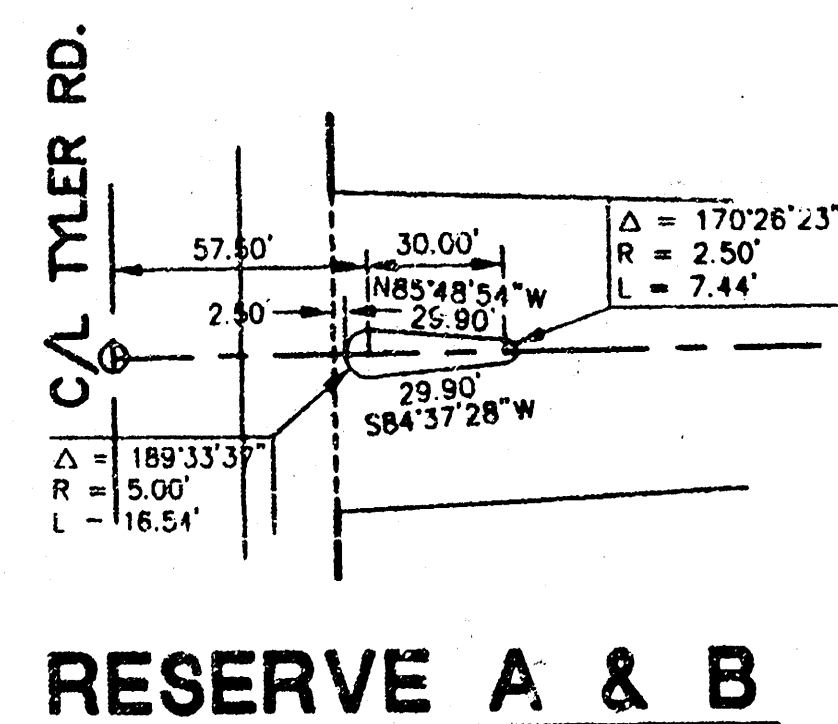
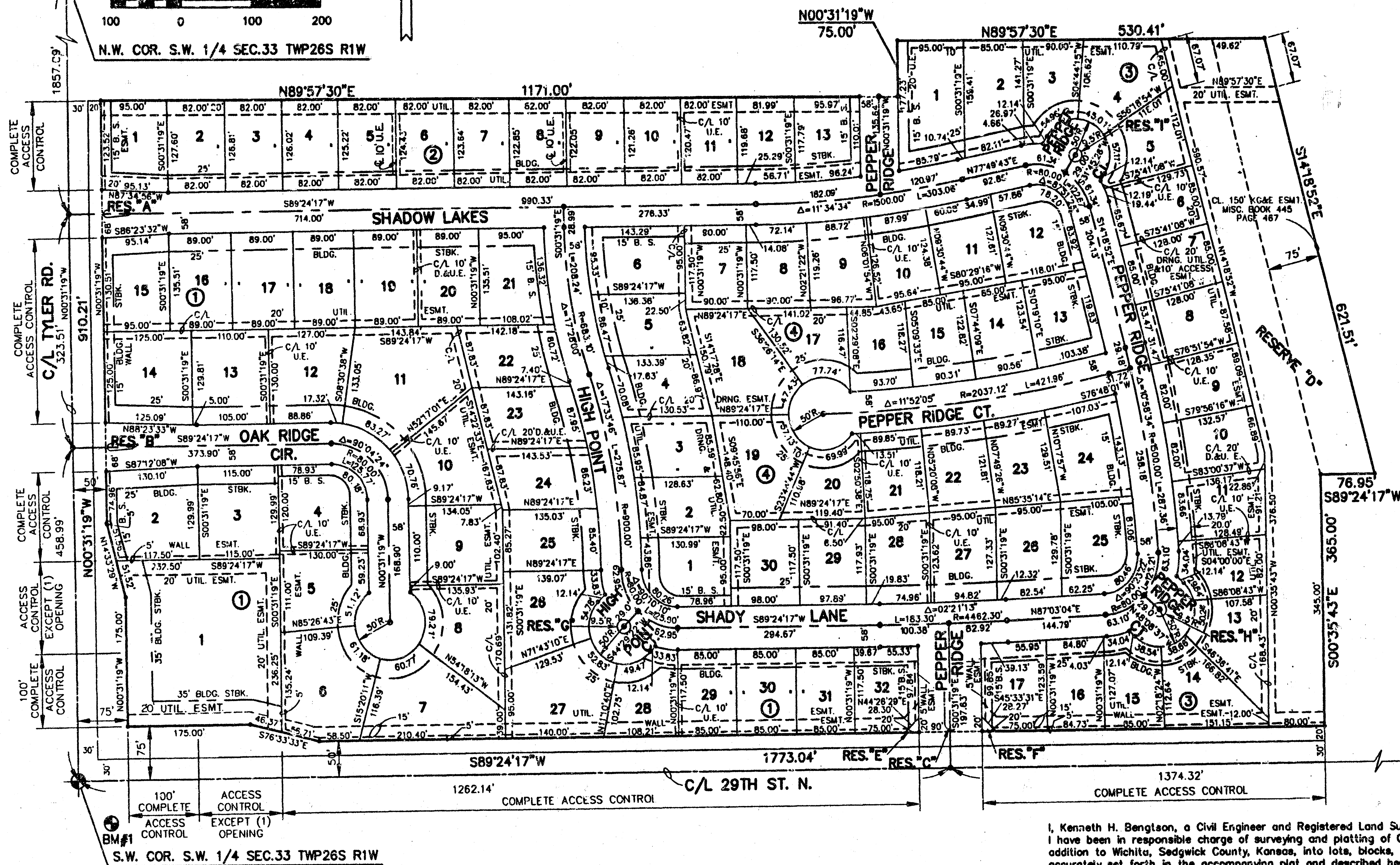


FINAL PLAT

OAK RIDGE SECOND ADDITION

AN ADDITION TO SEDGWICK COUNTY, KANSAS

LIBRARY COPY
SEDGWICK COUNTY, KANSAS
REGISTER OF DEEDS
LARRY CONSOLVER



Lot	Block	Min. Pad Elev. (City Datum)	Min. Pad Elev. (USGS Datum)
4	3	158.0	1345.4
5	3	158.0	1345.4
6	3	158.0	1345.4
7	3	158.0	1345.4
8	3	158.0	1345.4
9	3	158.0	1345.4
10	3	158.0	1345.4
11	3	158.0	1345.4
12	3	158.0	1345.4
13	3	158.0	1345.4
14	3	158.0	1345.4

BENCHMARKS

BM#1 SE COR. INTERSECTION, 32.3' SOUTH & 30' EAST OF CTR. LINE BOTH. 55.5' EAST OF PP, 9.2' SE OF PP 43.2' SE OF IRON AT SECTION CORNER. ELEV. = 178.04

I, Kenneth H. Bengtson, a Civil Engineer and Registered Land Surveyor in Kansas, do hereby certify that I have been in responsible charge of surveying and platting of OAK RIDGE SECOND ADDITION, an addition to Wichita, Sedgwick County, Kansas, into lots, blocks, streets, and reserves the same being accurately set forth in the accompanying plat and described herein:

A tract of land lying in the Southwest Quarter, Section 33, Township 26 South, Range 1 West of the 6th P.M., Sedgwick County, Kansas, more particularly described as follows:

Beginning at a point lying 30 feet East of the West line and 30 feet North of the South line of said Southwest Quarter; thence N 00° 31' 19" W, 910.21 feet parallel with said West line to a point on the North line of General Warranty Deed found on Film 1645, Page 1709; thence N 89° 57' 30" E, 1171.00 feet along said North line of General Warranty Deed; thence N 00° 31' 19" W, 75.00 feet; thence N 89° 57' 30" E, 530.41 feet to a point on the centerline of a 150 foot K. G. & E. Easement; thence S 14° 18' 52" E, 621.51 feet along said centerline to a point on the North line of NORTHWEST SUBSTATION ADDITION, an addition to Wichita, Sedgwick County, Kansas; thence S 89° 24' 17" W, 76.95 feet along the North line to the Northwest corner of said addition; thence S 00° 35' 43" E, 365.00 feet along the West line of said addition to a point lying 30 feet North of said South line of said Southwest Quarter; thence S 89° 24' 17" W, 1773.04 feet parallel with said South line to the point of beginning.

I hereby certify that the details of this plat are correct to the best of my knowledge and belief this 2 day of June, 1997.

Kenneth H. Bengtson, P.E., R.L.S. #922
Mid-Kansas Engineering Consultants, Inc.
411 North Webb Road
Wichita, KS 67206



Know all men by these presents that we the undersigned property owners of the land as above set forth in the Civil Engineer's and Registered Land Surveyor's Certificate, have caused the same to be surveyed and platted into lots, blocks, streets and reserves the same to be known as "OAK RIDGE SECOND ADDITION", an addition to Sedgwick County, Kansas. The streets are hereby dedicated to and for the use of the public. Easements for the construction and maintenance of public utilities and drainage, are hereby granted to the public.

Reserves A, B, C, E, and F are platted for open space, landscaping, lighting, irrigation, median, and entry monuments. Reserve D is platted for construction and maintenance of public drainage and lakes. Reserve D is also platted for open space, landscaping, irrigation, and recreation. Reserves G, H, and I are platted for open space, landscaping, lighting, irrigation, and monuments. The reserves shall be owned and maintained by the homeowners association.

All abutters right of access to or from 29th Street North over and across the South line of OAK RIDGE SECOND ADDITION, are hereby granted to the governing body, provided however, Lot 1, Block 1 shall have access to 29th Street North at one location as determined by the City Engineer. All abutters right of access to or from Tyler Road over and across the West line of OAK RIDGE SECOND ADDITION are hereby granted to the governing body, provided however, Lot 1, Block 1 shall have access to Tyler Road at one location as determined by the City Engineer.

The 10' Access Easement located in Lots 6 and 7, Block 3 is hereby granted to and for the use of the public, and shall not be obstructed.

The wall easement is platted for the construction and maintenance of a private wall, utilities may cross the wall easement.

Minimum pad elevations (Lowest opening) are as indicated on the accompanying plat.

FREEDOM DEVELOPMENT, INC.

J.V. VanAllen, President

We, Woodard Children College Trust, aka Woodard Grandchildren College Trust, an Irrevocable Trust under Trust Indenture, holders of a mortgage on the above described property, do hereby consent to the plat of "OAK RIDGE SECOND ADDITION"

Woodard Children College Trust, aka Woodard Grandchildren College Trust, an Irrevocable Trust under Trust Indenture.

Charles Woodard

STATE OF KANSAS)

as.

SEDGWICK COUNTY) BE IT REMEMBERED, that on this 20th day of June, 1997, before me, the undersigned, a Notary Public in and for the County and State aforesaid, came J.V. VanAllen, President, Freedom Development, Inc. and Charles Woodard, Trustee for Woodard Children College Trust, aka Woodard Grandchildren College Trust, an Irrevocable Trust under Trust Indenture, to me personally known to be the same person who executed the foregoing instrument of writing and duly acknowledged the execution of the same.

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

Deborah S. McGinnis

Notary Public

DEBORAH S. MCGINNIS
Notary Public, Expires 10-18-99

My appointment expires: October 18, 1997

This plat of "OAK RIDGE SECOND ADDITION", has been submitted to and approved by the Wichita-Sedgwick County Metropolitan Area Planning Commission, Wichita, Kansas.

Dated this 10th day of April, 1997.

WICHITA-SEDGWICK COUNTY METROPOLITAN PLANNING COMMISSION

John C. Frye, Chairman

Marvin S. Krout, Secretary

This plat approved and all dedications shown thereon, if any, accepted by the City Council of the City of Wichita, Kansas, this 13th day of July, 1997.

Bob Knight, Mayor

Pat Burnett, City Clerk

Entered for record this 2nd day of July, 1997.

James Alfard, County Clerk

STATE OF KANSAS)

SEDGWICK COUNTY)

This is to certify that this instrument was filed for record in the Register of Deeds office this 28 day of July, 1997.

Larry Consolver, Register of Deeds

Michael D. Hurtt, Deputy

18-13-01-18