The grading contractor shall perform a complete grading and . Impubition apprehing at shown on the plant, states in these notes or reasonably implied there than, all a accordance with the plans and native as marginative by the Gerisebnica Angineer

The contractor shall making the balls Engineer or least two days in advance of the start of the arading operation

All areas shall be allowed to drain. All low points shall as provided with temporary distinct

A segment control plan that includes monitored and maintained mediment control trains and or stray bows should be implemented as soon as possible. No graded area is to be allowed in remain bore over the winter without being seeded and malches. Care should be exercised to prevent soil from Homodog adjacent property and sitting up existing committees. storm dimnogri system

Soli sai in the bottom and tranks of any existing in finner panil sites or fributories should be removed, spread out and permitted to dry sufficiently to an used as fill. Note of this material should be plucer in proposed agritual-way. incomens of on storm bewel income

site preparation includes the decrance of all allimps, trees, bushes, shrubs, and weerls. the gradbing and removal of made and other surface abstructions from the site, and the demalition and removal of dry man-most- structures. The unsurtable material shall be plaperly disposed at alf the Expand and grass in the till wrote shall be broughtly asset prior to the ancement of any fill. the Soils Engineer shall applove the Coung pheration

B. Compaction anagument will consist of temping recorpregratic thed reflect, vibratory lifes to him speciimpact type dram rollers acceptable to the Point Engineer in rober shall be designed at the to ware the treation of layered till without proper blending of successive to

9 The Soils Engineer shall observe and feat the processors of the III to verify that specifications are mai. A settles of fill demails tooks, will be determined on out little fill interim reports showing fill guality will be made to the Owner of regular intervals with copy to City of Westzville

The Soils Engineer shall notify the Contractor at rejection at to litt ut fill or portion thereon the contractor shall rework the rewated portion of the and whiten nonlinears. from the Soils Engineer or its an option a prior to the placement of additional till

All areas to receive till show be scarified to a regit of and lies than in interes and their compacted in accordance will the specifications given below. Method slopes steeper thin I vertical to 5 horizontal in tereve III of all have horizontal benches, but into the slopes before the photomenr of any fill The width and height to be determined by the Selfs Engineer The fill shall be loasely placed in horizontal layers not exceeding 8 inches in thickness and compactive in accordance with the apacitications given below. The Soil Engineer shall by responsible for determining the amendability of units placed. Any unacceptable sale placed that be turned at the Contractor's expense.

The sequence of operation in the ill from with the file cumpact, verify acceptable and density, and repetition of the remainer. The acceptable most are contents suring the illing trienation may those of which solution try dry densities the beobtained. The acceptable marsture contents during the fiving operation in the remaining group are from J to 5 percent above the aptimum moisture runtin

The surface of the till shall be finished so that it on unit impound water if as the end of a days was it would appear Und there may be rain prior to the next working day, the surpose shall be finished smucht. If the surface has been finished smooth for any reason it shall be sourified paidle omiceeding with the placement of suc eeding IIIs. Fill shall and be placed on trazer ground, nor small filling operations continue when the temperature is such as to purpor the layer under placement to treate:

For each backfill stress) by comparison in the actions specified in the following table

Iravement base course.

SITE BENCHMARK:

GEGELIA COURT. ELEVATION 65921

REFERENCE BENCHMARK

WITNESS POST ELEVATION 687 56

MORMON CATEGORY FERN ALL COMPACE FOR I'll in hullling areas below factory JE -In under nubs, wilks, and traver out 11/2 851 Fill alter than building areas Noturn auugruse 865 Pavement subgrade 2.00

Ministered us in piercent of the maximum dry density as determined by modified Process (est (451M-0-155))

117

CHISELED "CROSS" ON THE TOP OF THE NORTH BOLL ON THE HYDRANT 3 I

STANDARD DISK STAMPED "OPE 1931" SET IN A 12" SQUARE CONCRETE MONUMENT

LOCATE ABOUT 3 MILES SOUTHWEST OF THE TOWN OF D'FALLON; 2 MILES STUTHEAST

OF THE DAM FOR LAKE SAINT LOUIS AND DE MILE NORTHEAST OF THE IMMADULATE

CONCEPTION CATHOLIC CHURCH, 107' NORTHWEST OF THE WORTHWEST CORNER

OF A SHED ADDITION TO AN OLDER BARN, 25' SOUTHWEST OF A SMALL POND:

39' NORTHEAST OF A LONE BEAR TREE AND 249" VORTHEAST OF A METAL

WEST OF THE CENTERLINE OF EMERALD SEE LANE AND 150'S NORTH OF

Maisture content must be within I persent briow or a mercent above optimum marshure content of fill in darper than IC feet.

underground utilities have been plotted from available information and therefore their locations shall be considered annoximate only. The verification of the location of all underground utilities, either shown or not shown on these plans shall be the responsibility of the contractor, and shall be located prior to any grading or construction of the

All manhole tops built without elevations furnished by the Engineer will be the responsibility of the sewer contractor.

8" P.V.C. conitary sewer pipe shall meet the following standards. A.S.T.M.-D-3034 SDR-35; with wall thickness immpression print 4.5.T.M.-D-3212. An appropriate rubber seal waterstop as approved by the sewer district shall be installed between H.V.C. pipe and masonry structures.

4 All filled places, including trench backfills, under buildings, proposed storm and sonitary sewer lines and/or trived, areas, shall be compacted to 90% maximum density as rietermined by the "Modified AASHTO T-180 Compaction Test." (A S. T.M.-D-1557). All filled places within public roadways shall be compacted to 90% of maximum density as determined by the "Standard Practor Test AASHTO T-99, Method C" (A.S.T.M.D.-698).

All trench backfills under paved areas shall be granular nockfill, and shall be compacted to 90% of the maximum density as determined by the "Modified AASHTO T-180 Compaction Test." (A.S.TM -13-1557) All other trench backfills may be sorth material (free of large clods or stones). All trench Lauxillis shall be water jetted.

At sonitory connections have been designed so that the minimum vertical distance from the low point of the building to the flowline of a namitary sewer of the corresponding hullding connection is not less than the diameter of the pipe plus the vertical distance of 2 1/2 feet.

7. He amo shall be cleared without the permission of the Project

3 All grades shall be within ±0.2 feet of those shown on the

Nu slope shall be steeper than 3:1 or as called for in the coils report for the project. All slopes strill be sodded or

10 All postruction and materials used shall conform to current Etta at Wentzville Standards.

 All P.V.C. sanitary sewer pipe shall have crushed stone bedding uniformly graded between 1" and 1/4" size. This bedding shall culting from 5" below the pipe to 7/10 of the pipe depth above the bottom of the pipe

12. All soils test shall be verified by a Sails Engineer concurrent with the grading and backfilling operations.

() resements shall be provided for sanitary sewers, and all utilities on the Record Plat. See Record Plat for limulian and size of easements.

14 Starts shall be constructed to the city of Wentzville standard specifications

15 All sankary wwar into and appurtenances will be designed and installed in accordance with the City's regulations and in

accordance with acceptable engineering practice. 16 All storm sewer plas, inlets, and appurtenances will be designed and installed in accordance with the City's regulations and in accordance with acceptable engineering practice, and will be based on carefully prepared hydraulic calculations. Retention Basin is existing, and, along with the offsite storm sewers have been designed and approved by the City of Lake Soint Louis in Stancrest Subdivision to autuin the stormwater differential runoff for this site.

numbers sever manholes shall be waterproofed on the exterior in accordance with Missouri Dept. of Natural Resources specifications 10 CSR-8.120(7)(E).

18 All storm lewer pipe in the tight-of-way shall be reinforced concrete pipe (A STAM C-76, Class III minimum)

14 Starm sewer 18 inch diameter and smaller shall be A.S.T.M. C-14, Stass, III RCP Minimum or ADS, unless other wise shown on the plans.

Horm sewers 21 Inch diameter and larger shall be AS.T.M. C-76. Class III RCP minimum or H.D.P.E. unless other wise shown on the plans.

Jr. All sanitary nouse laterals shall be 6" P.V.C. minimum se filly at Westaville standards

VEGETATION ESTABLISHMENT

For Urban Development Sites

What o Fig. - 150 its /oc (3,5 lbs. per sq. ft.)
Cods 120 its /oc (2,75 lbs. per sq. ft.)

ag At 1 to October 1

Min = 15 to September 15

APPENDIX A

Fesque in Brime - March 1 to June 1

Wing or Fig - Mac 15 to November 1

100 ms Der 1000 er Hr (4,356 lbs. per oc.)

500 les /ec ENM"

* I'M = effective restricting material as per

. Waar beimoup in railandove etal.

Tall Fescue - 30 lbs /ac

Interper 30 bs./oc

Phinchall 30 lzs /oc

7 Manuales 30 Ms /ac

SEEDING RATES:

HERMANENT-

IEMPORANT.

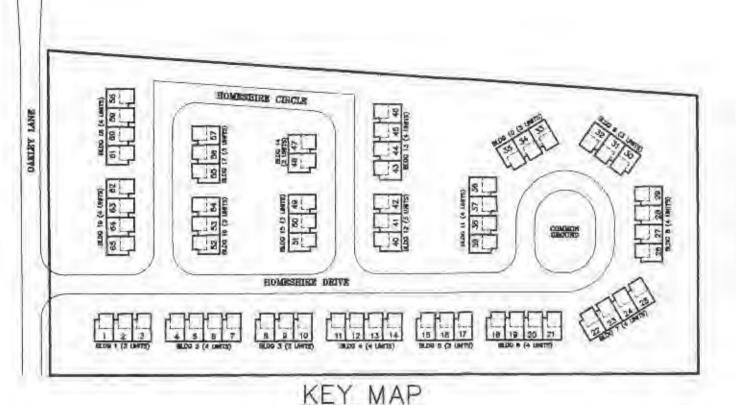
SEEDING PERIODS

MOLCH BATES

FEH DULLE BATES

A SET OF IMPROVEMENT PLANS FOR

A TRACT OF LAND IN U.S. SURVEY 888, TOWNSHIP 47 NORTH, RANGE 2 EAST OF THE FIFTH PRINCIPAL MERIDIAN. ST. CHARLES COUNTY, MISSOURI



WATER TAPS, SERVICE LINES & METERS

Personnel. This setup should be located on the property line

4 "K" copper is to be installed from the top to the meter setter.

NOTE: 24 HOUR NOTICE IS REQUIRED ON ALL INSPECTIONS

CURB INLET

AREA INLET

MANHOLE

END FIPE

DOUBLE CURB INLET

FLARED END SECTION

REINFORCED CONCRETE PIPE

CORRUGATED METAL PIRE

POLY VINYL CHLORIBE (PLASTIC)

CONCRETE PIPE

CAST IRON PIPE

CLEAN OUT

FIRE HYDRANT

--- STORM SEWER

- SANITARY SEWER

Smooth Brome - 20 lbs /u.

Combined Fesque at 15 lbs /oc. AND Brome @ 10 lbs./ac. 6. Meter tiles are to be set 14' from the curb and set to correct finish grade level

8. The following will be supplied:

DUELL

Q.H

R.C.P.

C.M.F.

CJ.P.

P.V.C.

0.0

1. All service connections are to be double setups, unless approved by Water Department

3. Taps are to be made on the 10.00 or 2:00 o'clock position only. NO BACKLOOPS.

5. If you are installing a double setter, make sure you are on the correct properly line.

7. Water is to be turned OFF & ON BY CITY EMPLOYEES ONLY Some day service is

2. All service lines under streets are to have a 2" FVC casing installed, at a minimum of 30' depth.

provided between 3:30 p.m. and 5:00 p.m. There is a \$15.00 service charge for service calls.

Setter w/ Compression Ends

Call 327-5102 or 332-5102 to pick up meter and supplies. You must give a minimum of 24 hours

LEGEND

natice for supplies to be issued. Supplies may be picked up at Wentzville Public Works, 200 East Fourth

Street, Wentzville, MO. between the hours of 8:00 - 8:30 a.m., and again between 12:00 - 12:30 p.m.

Y Branch (for double setter if required)

17617 (507)

EXSTING DONTOUR

-582 - PROPESTO CONTOUR

BLOW OFF ASSEMBLY

STREET SIGN

NEL PARKING SIGN

THE THE BLEWITION OF HOUSE COMMECTION

- TLO LIVE BLEVA TON OF SEWER MAIN

WATER VALVE

Frame & Cover



SEWER MAIN INSTALLATION ALWAYS KEEP THE SEWER MAIN ON EASEMENT

Sewer mains are to be at least 8" PVC with a SDR35 rating

Metropolitan Sewer District Specifications are to be followed, unless otherwise directed In new construction and sewer taps, as-built location of laterals must be pravided to

4 Final Testing: See page 14 of Wentzville's water and wastewater specifictaions.

Brick shall not be used on sanitary manholes.

I) All sonitory sewer manifoles shall be waterproofed on the exterior in accordance with the Missouri D.N.R. Specification 10CSR-8, 120(7) (E)

All sonitary sewer construction shall conform to current City of Wentzville Sewer District Standards and Specifications.

All pipes shall have positive drainage through manholes. No flat base structures are allowed. All terminal manholes shall have positive drainage

9. All trench backfill under payed areas shall be 1" clean (minus rock may be used with written approval by the street superintendent), granular backfill, water jetted and all trench backfills may be earth material (free of large clods or stones, nothing over a 6" diameter) and shall be water juited, inspected and approved by the Wentzville Street Superintendent.

(1) All sewer tops built without elevations furnished by the Engineer will be the responsibility of

II Easements shall be provided for storm sewers sanitary sewers, and all utilities on the record plat. See record plat for location, size, and width of easements.

12 The City of Wentzville Sewer District shall be notified at least 48 hours prior to construction of samitary sewers for coordination and inspections.

1.4 All drop sewers lines are to be ductile iron for the first 20', upstream from the manhole

14 All drop mentioles are to be 48", waterproofed. All double drop manhales are to be

15. 42" manholes/Waterproofed ale used for 8" sewers only. 48" manhates/Waterproofed are used for all sewer over 8".

15. All sewer mains 20' in depth are to be C900PVC.

17. Small field changes may be made by the City Inspector. Larger changes have to be resubmitted to the City Engineer for approval by the Developer's engineering company.

As-built drawings must be sent to the City before the project can be lurned is as completed

All bore casings shall have a casing spacer every 10' All bores will follow the Missouri State Highway specifications

NOTE 24 HOUR NOTICE IS REQUIRED ON ALL INSPECTIONS

CALL BEFORE -800-DIG-RITE

SHEET INDEX

I COVER SHEET 2 SITE PLAN

3 GRADING PLAN 4 WATER PLAN

5 OAKLEY LANE PLAN AND PROFILE

6 STREET PROFILES 7 SANITARY PROFILES

8 STORM PROFILES 9 EXISTING DRAINAGE AREA MAP

10 NEW DRAINAGE AREA MAP 11-17 CONSTRUCTION DETAILS

GENERAL NOTES

8.52 Acres R-35 (Dity of Wortz, My latal Acreage of Site: Existing Zoning: Proposed User Multiple Fornily Units Proposed 55 Units Units per Acre 9.53

R-30 DEVELOPMENT UNITERIA FRONT YARD SIDE YARD: REAR YARD:

MAXIMUM HEIGHT OF BUILDING = 4 - 1000E3 OF 5 TEET

LITHITIES AND DISTRICTS

Notes:

City of Wentzville Electric Ameren U.E. or Covers River Laclede Gos Century To School District Wentzville R 4 city of Wentzvice Fire District Wentzville Lice Protection States !

I All site utilities shall be located underground

7 All homes shall comply with the two on attached garage criteria and the minimum dwelling size criteria in ordinance 1546/1565

Subdivision shall have fire hydrant coverage of a manimum of sequence.

4 This tract is not within the Fluid Flain boundaries as per FEMA Map No. 29183C0185E affective date August 2, 1996.

5. One (1) landscape tree planting strall be provided per let any two into per corner 6. All common ground shall be maintained by the birmenwhere in the alling

or its assigns as set forth in the convenances by the Entire of Tourthan 7. The contractor shall be responsible for discretimnory true periods in

the areas of the detention basins and snall metall landscape heros required, upon construction.

8. Access to all platted lots shall be from interral subdivision. Ireal

INSTALLATION OF WATER MAINS

"ALWAYS KEEP THE WATER MAIN ON EASEMENT"

Water main should be located 5' behind the curb, as not to intercer with ather unlity contains 2. All water mains should be 8 inches in diameter, or larger The last 300 spair be 6' familiar pipa and must be C906, DP 13.5 Class 130 pipe with City approval and with blue surpe to identify as water pipe. The pipe should have a Minimum Pressure Holling (FR) in 200 ps or 30F at him M" and 0906 DR 13.5 Glass 130 for 12" and larger plac with blue stripe to identity as writin sign. An water mains of PVC malerial shall be certified by NSF and listed in NFS Standard 61 MSF stands for NFS international which is an agency that certifies materials, such as pipe saives, nic in use in printile whom systems among other things. Standards 61 is the (ANS)/NSF Standard 61) is a listing of certified (rooking). water system components. The Missouri DNR requires that product which could be contact with drinking water be lated in NSF Standard 61. If the gipe is NSF certified, it will have in stamp in the pipe that was

3. Fire hydrants must be Mueller Steamer Centurion and pointed vellow in color and all waves must be Mustler mechanical joint resilien! wedge gate valve, AWWA approved. - his rivation is required at the and of all dead and waterlines including those which may be extended at it later date

All tire hydrants are to have valves flanged to the tee and (with a total length of 36" of less) hydrain! swivel anchored to the valve. Clean 1" rock should be used to backfill above the week halps of the

5. The contractor small place all fire hydrants I 5 feet and three feet from the street curb (measured from

the edge of the fire hydront). The buryline should be set 6" righer in elevation than log of curt These water bends (45', 22-1/2', 11-1/4'), are to be made with mechanical sin). Fittings using mags lugs up to 10" diameter 12" and larger requires mega lugs and concrete blocking Con rele not to be on nuts or boits. Ninety degree (80% bends are not allowed. The first stip jain), up and down stream after litings, should be restrained per plac manufacturer specs. Bituma's Cale Speny that be applied to all bolts for a hanical connections.

Tees, 4-ways usc, shall have concrete blocking. Concrete not to the an oute in sisting Rocky soils shall resoure hedding 5" under and 6" over water pipe

9. Concrete encosement required to DNR Specification, when proseing there or womber assistant

Sanifary: vertical is 18", nonzontal is 10" - Storm vertical is 12" monuments. "

10. Must use appropriate sized casings when prossing streets 11. Must altack cooted solid cure, 12 gauge tracer wire, toped to the fax of the page or wire thust having the outside of the PVC SDR 21 valve box and is to be factival inside the valve or timber the water for

12. Use 3M waterproof splice kits for all splitting at tracer win 13. Any project where fire hydrants, or valves, are over 600 spart, tracel wire with a connection line music

be installed every 500' The connecting box will be in Dursonito Scapte/ Telecom number land tent Station with white post and blue cap made of Lexan material 14. A charme test is required. If must initially test at 25 RPM as greater, and J4 times later in SPM must

be present. 5 City Inspector must test it, and have 24 hours notice prior to that inspection. The main was on fasted for chionne every 1,200° of pipe.

13. If chloring test fails then main must be recharingsed.

16. The contractor will mater water and pay for it, in they may purchase on 11, by 4 tay for. Daily hap one \$25.00 per day, daily letting tags are \$50.00 per day not to except tive (5) that I yound common our required for all ever 5 days awage requests hydrani meters are or Poblic Works and male a separa is \$1,500 abspects NOTE: An letting requires appropriate backflow printer how

17. Colliform silmer's should be collected every (,700)

18. Find Presource Test: The water main must be purposed up to 125 US, and maintain the presource for one man without any drap in pressure. The bity may require a higher pressure took it deemed necessary 19. Gas, water, and other underground utilities shall not unnext with the nepth of purgontal location of emitting

and proposed sanitary and slarm severs including house laterals 20. All watening construction shall conform to current City of Wentzoile introduction.

21. The contractor shall place the 'steamer' quitet of the till hydron linear the steam

22 Backfill no depris larger than 6" in diameter

23. At series crossings will require BR13.5 Class 15th (906, Ultray ther. I all two) temperature our comment with series consumpring required a minimum of 26" or cover 24. Hydron't distances 600'y 300' - Residential / somtners of panding.

75. Easements shall be provided for water makes, and all utilities on the unjury plan. And to may plan for incotion, see and width of easements 26. The City of Wentz vin Water Department shall be mailing on these two hours provide construction of

water mains for coordination and inspections 22 All over mains should be properly capped when the main is unrittening to main it mains than I have but

three this introduced so it is visually sean 28. All Live colongs, except service lines, their nave of their nave, the ond 1956 NP 11 Organ 150 pic will be respiced. All borns will follow the Messouri Thate highway specifications.

29. All service fines since the strants are to have a " Byl toward from the or more an "All depth

Littles cosing may be required depending in service with transmitted or remitted at water more, than the fained at a depth to allow a minimum case of 42"

30. Noticy the City when work stope and with the Contractor will not be including weet. Twinty-total 1 42 have notice a required notifying when work will custimus

3) All spier makes are to be installed in a stronghi brooken board to and, said gard in a facilitation in and the district

32. Since need changes may be made by the Div trappedar sorger changes year to be combinated by the Employer's Engineer for approval

33. An-Early drawing, must be good to the City behave the project continuing on majaging trees, it is showing in this charges of elbows, revotions equipments, etc.

34 Air i legae value specifications for world mains. Whenevergue d, bit you have a general establish as well a mains shall be val Matic Model VM-2020 combination on releasing as and and on your - " NPT of equivalent

approved by the Con, of Wantzville. All air values shall be metalled in soil a printing and primary within brass saddle 2" BPT, a prass ball style shut all valve - " MPT a trant, ball style draw valve - 12" NPT and brase filtings. All oir valves shall be enclosed in a positive valual injuring a provincial of but and a number access haver with the fid having a minimum diameter of 24" installation shall also include a 7" trye to feet actioned with the introduced to the oir volve's putlet part estanding to the outquire spots, with the discounter An impection and his test will be required with a 24 liquir delical HOTE 24 JULIE WOLKE REQUIRED DW W_ HERECHOWE

HOME

S, INC.

CLAMER OF RESPONSIBILITY marely apeally (how the documents intended to be authenticated by my sest are limited to the authenticated by my sest are limited to the heart out I have by section way responsibly to all other browners, should be formations. It would be seen as a little chromer's a summents relating to a intended to be used a say part of parts of the analysis and the continuous or accomments are supported to be used.

D WENT

A.



C. syright © 2005 Bux Engineering Company, Inc. At Rights Reserved

REVISIONS RECEPT



ENGINEERING PLANNING SURVEYING

1052 South Cloverleaf Drive St. Peters, MO. 63376-6445 314-929-5552 FAX 928-1718

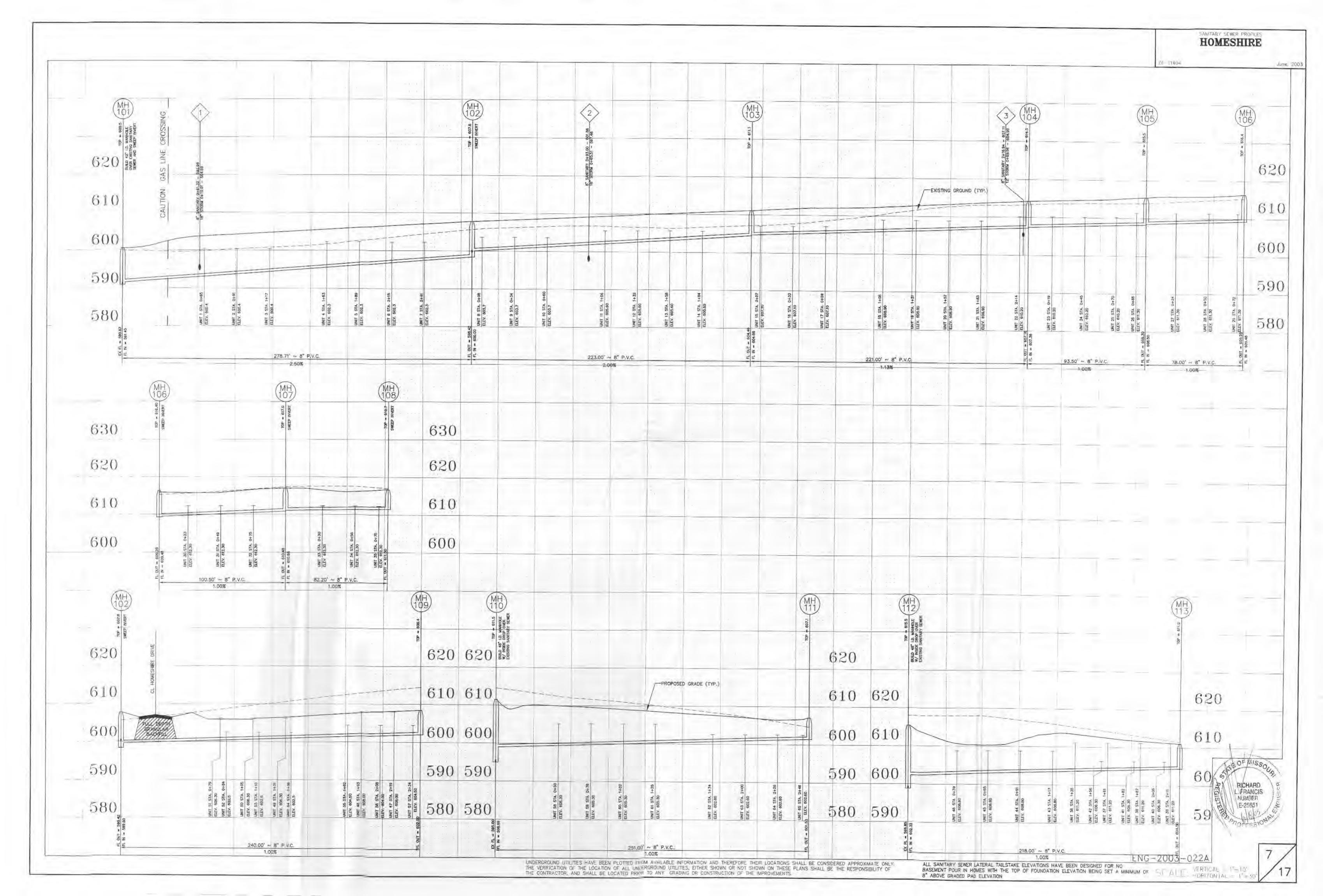
JUNE 16, 2003 01-11404 PROJECT NUMBER 1 OF 17 SHEET OF FILE NAME

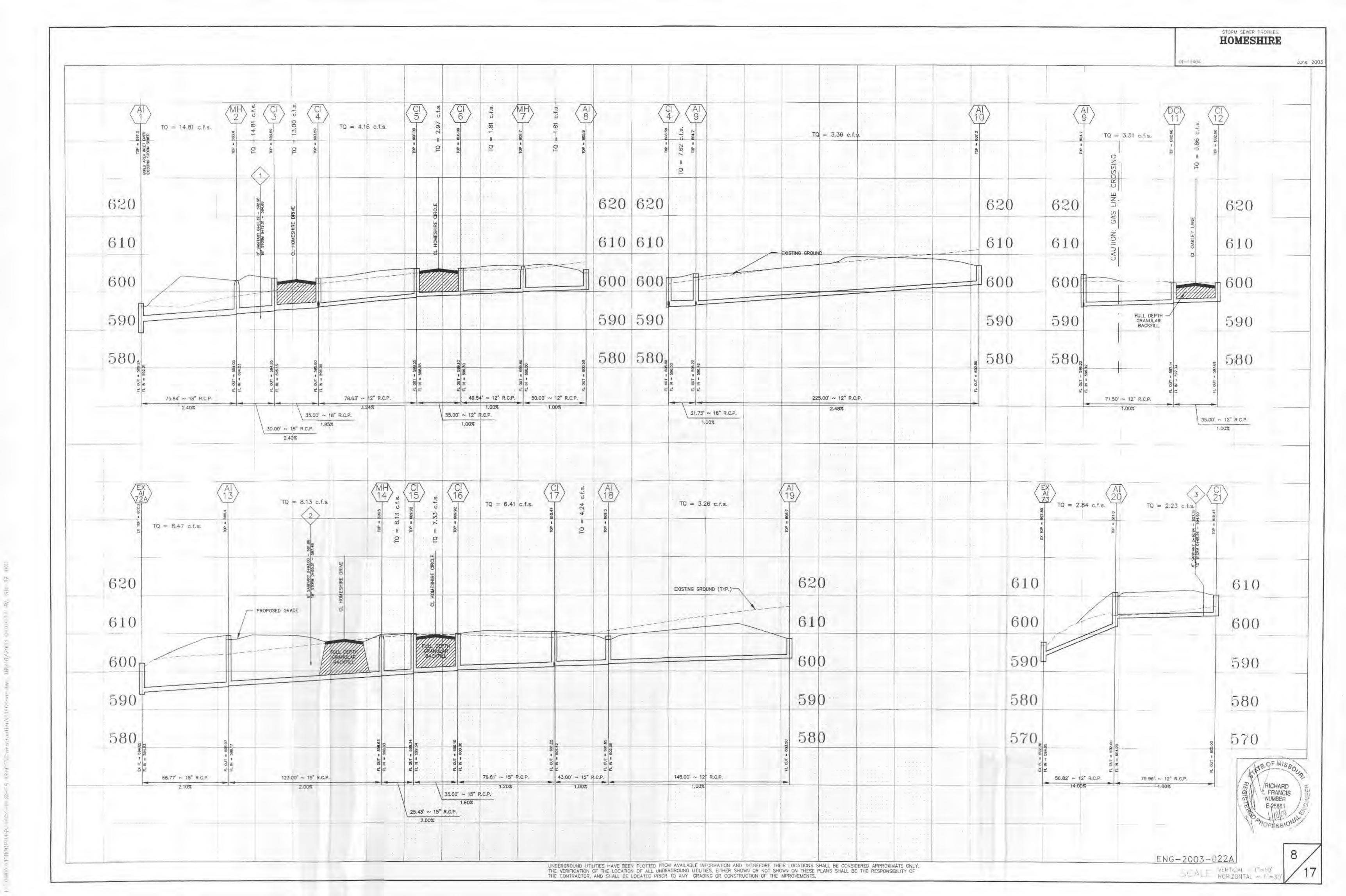
ENG-2003-022A

11404con.dwg

DRAWN CHECKED

ENBINE TO ALL TO





June, 2003

#8 SOLID COPPER TRACER WIRE

WATER MAIN S

ENCAVATE FOR JOINT AS REQUIRED.

PIPE IS 10 BE FULLY SUPPORTED.

NO HIGH OR LOW SPOTS WILL BE

PERMITTED

VY YVV WWYY EARTH #8 SOLID COPPER TRACER WIRE TAPED FILL TO TOP OF MAIN #8 SOLIU LOPPER -1/2" MINUS CRUSHED 9" MIN ABOVE TOP OF PIPE TO THE OF MAIN WATER MAIN . 6" OF 1/2" MINUS CRUSHED STONE. - NO. 12 U.L. APPRVD (PRIOR TO PIPE 600 V INSULATED INSTALLATION) LOCATOR WIRE ROCK EARTH

NA ATTOM

TYPICAL WATER MAIN INSTALLATION DETAILS

SECTION A-A

EXCAVATION

SANITARY SEWER B WATER MAIN

10' MIN. BETWEEN SANITARY SANITARY SEWER TO BOTTOM OF WATER MAIN

SANITARY SEWER MAIN

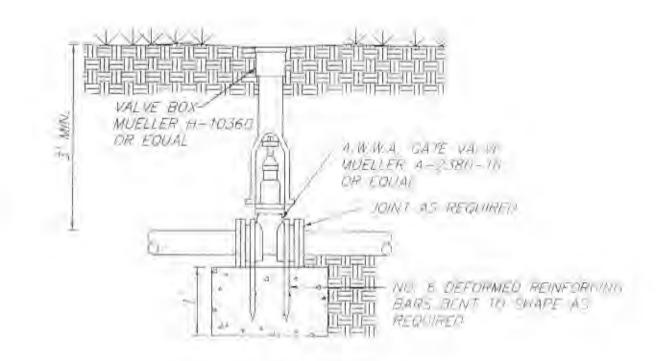
WATER MAIN

HORIZONTAL DISTANCE

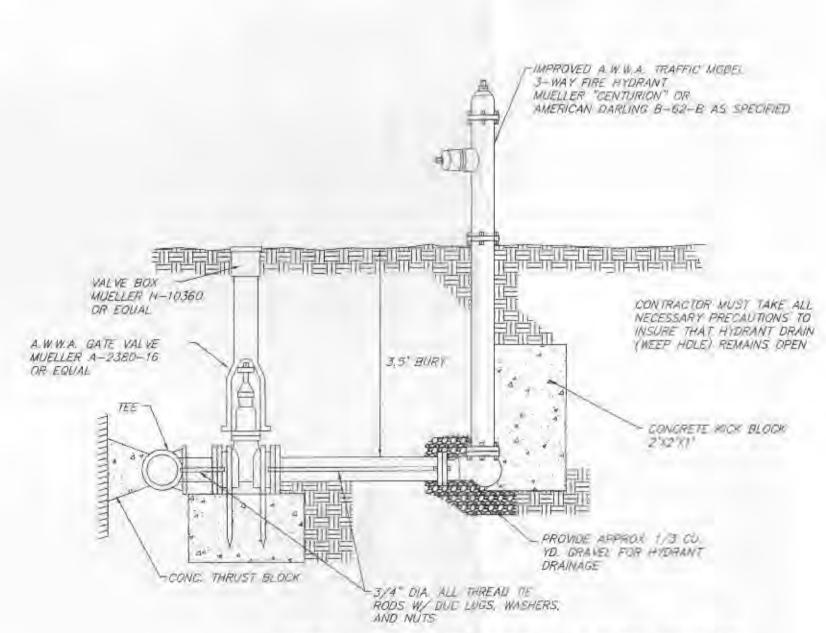
WATER MAIN

VERTICAL DISTANCE

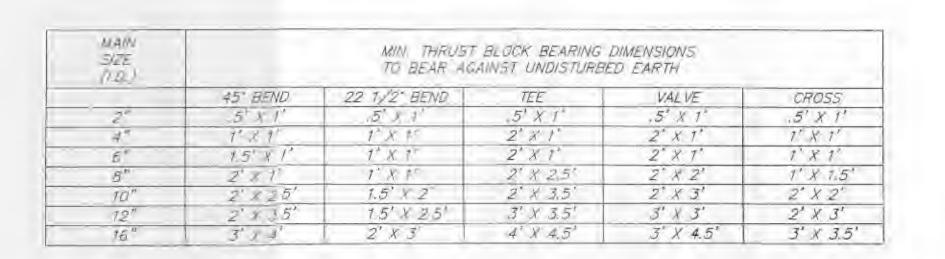
TYPICAL WATER AND SEWER SEPARATION

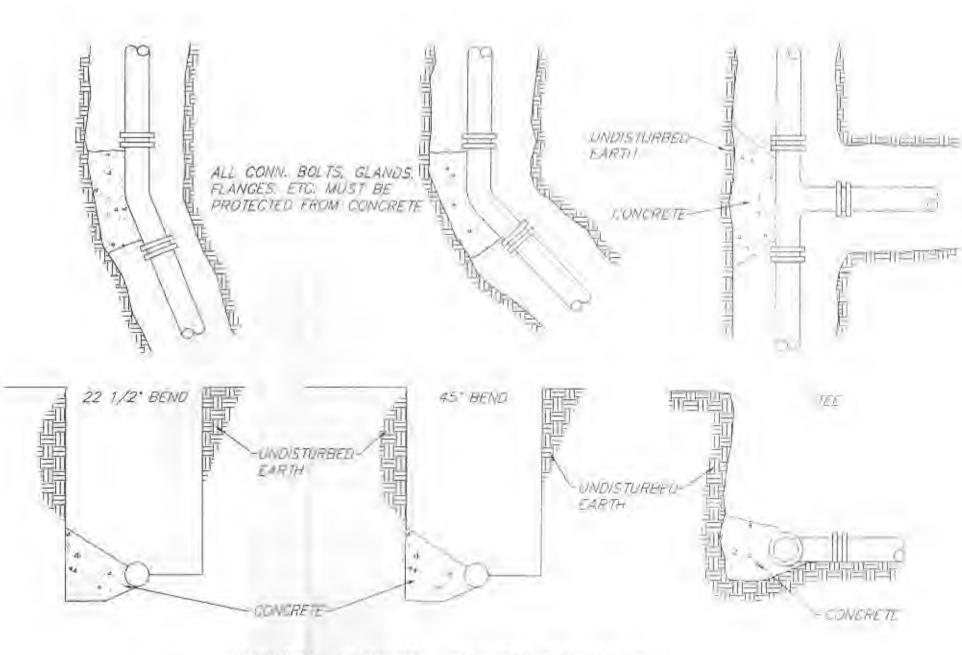


GATE VALVE W/THRUST BLOCK



FIRE HYDRANT INSTALLATION DETAIL

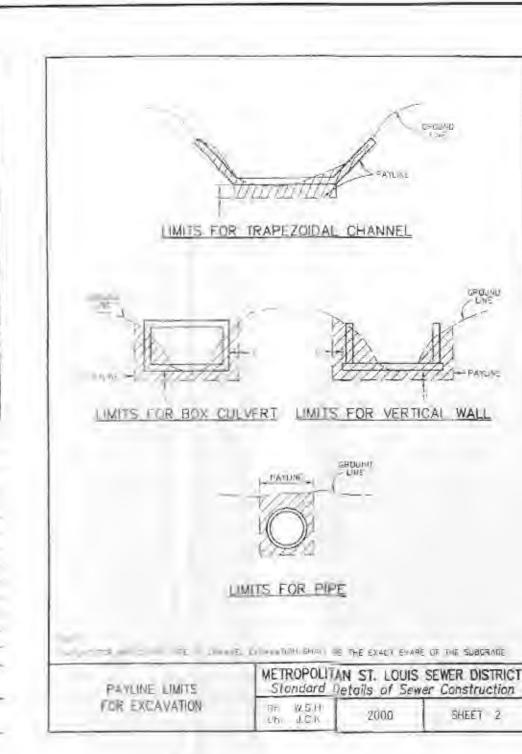


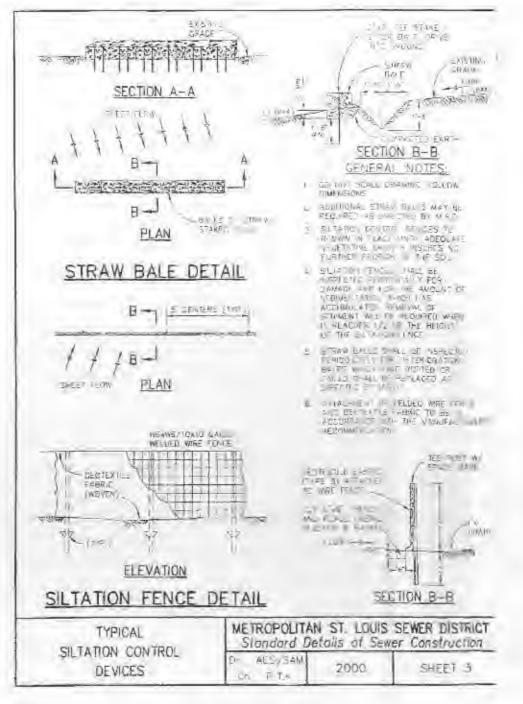


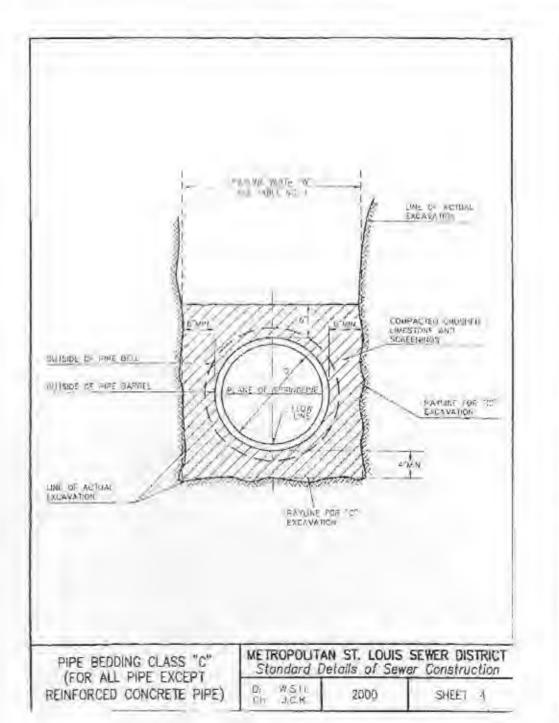
TYPICAL THRUST BLOCK DETAILS

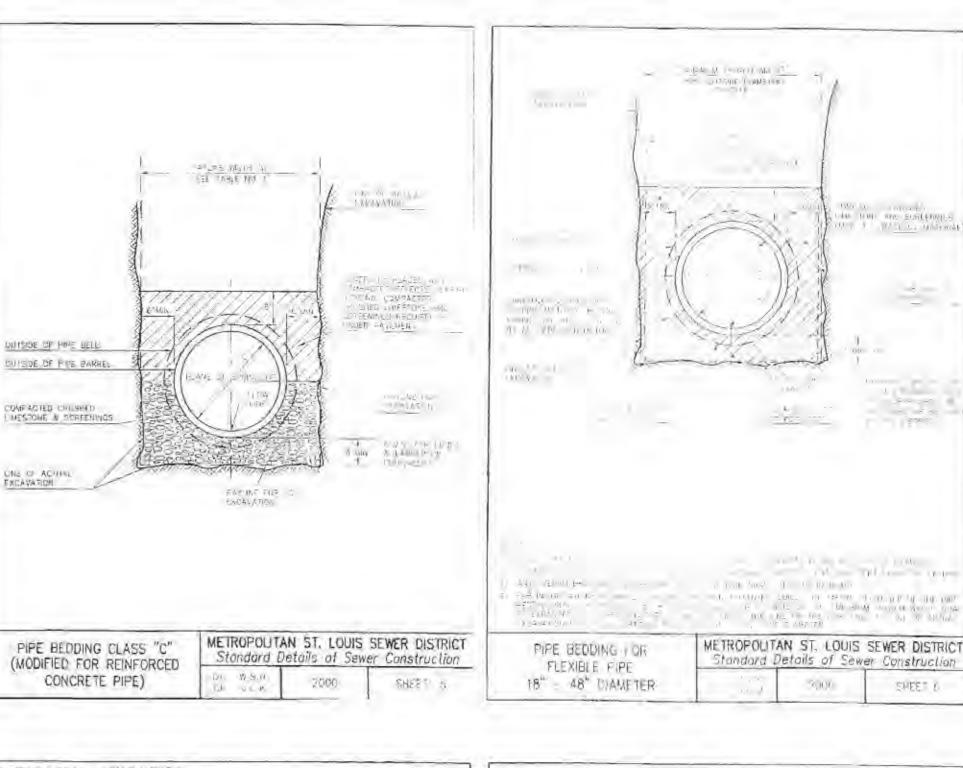


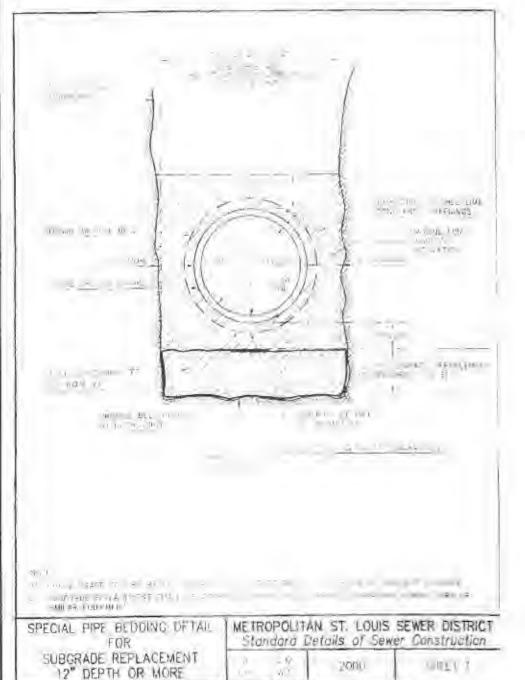
ENG-2003-022A











HORIZONTAL ELLIFTICAL FIFE

METROPOLITAN ST. LOUIS SEWER DISTRICT

A. TO _ HALL THE TENSION

11 THE R. P. LEWIS CO., LANSING, MICH. TE 10 NO TENED

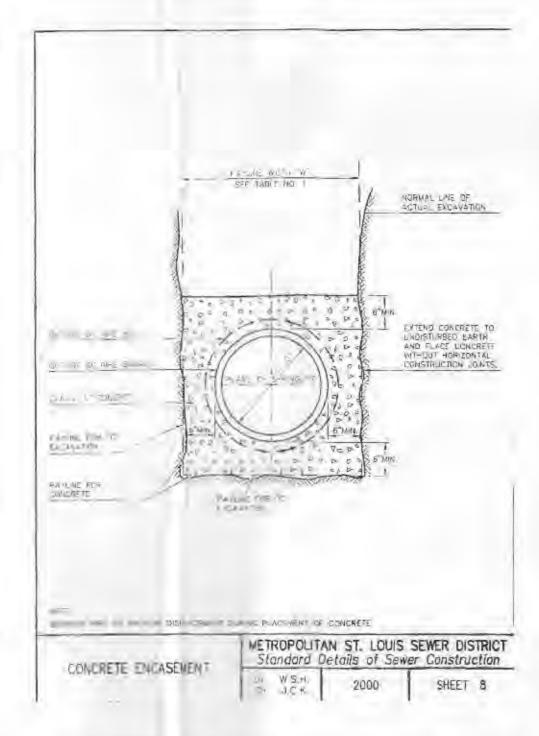
110 12 14

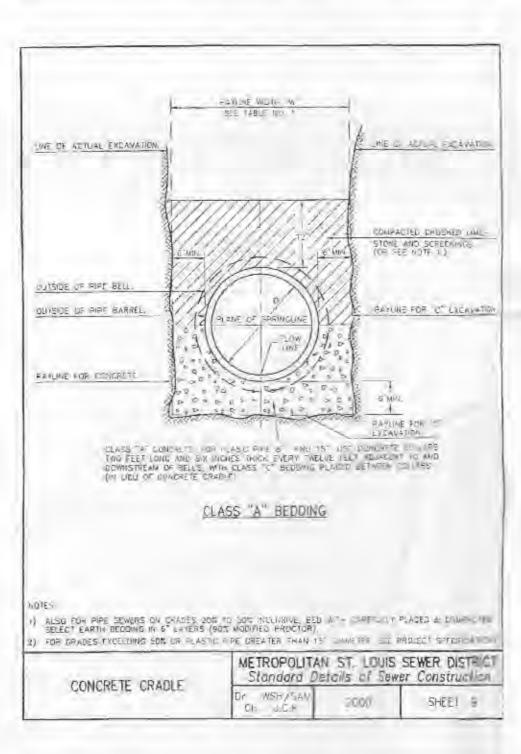
ROUND PIPE

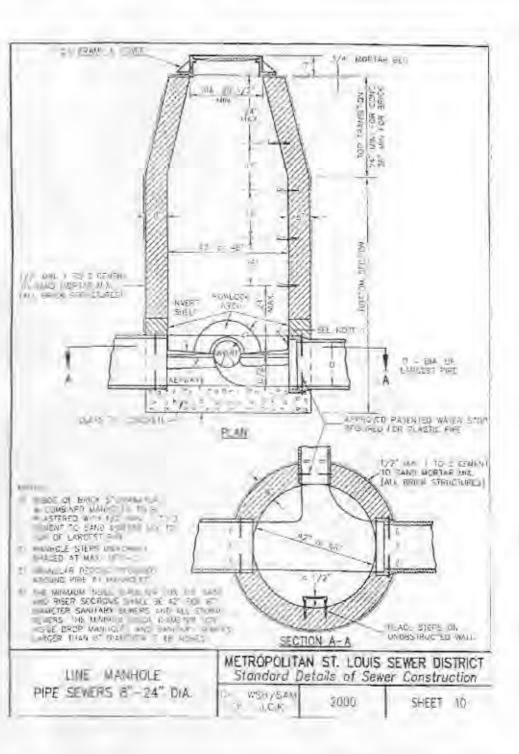
TABLE 1 PAYEINS WIDTHS OF IRENCH

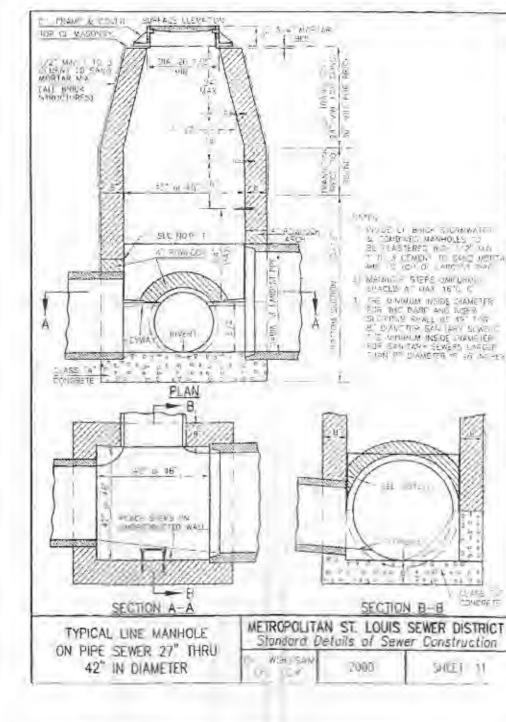
AND PAY-QUANTITIES

OF CONCRETE





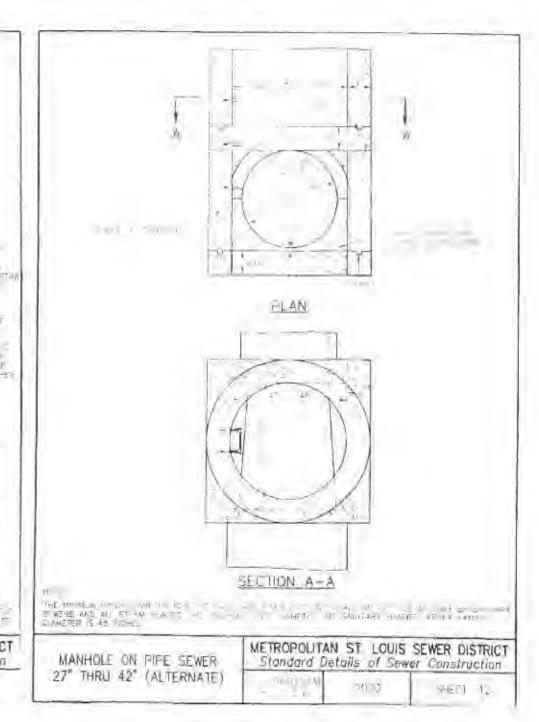


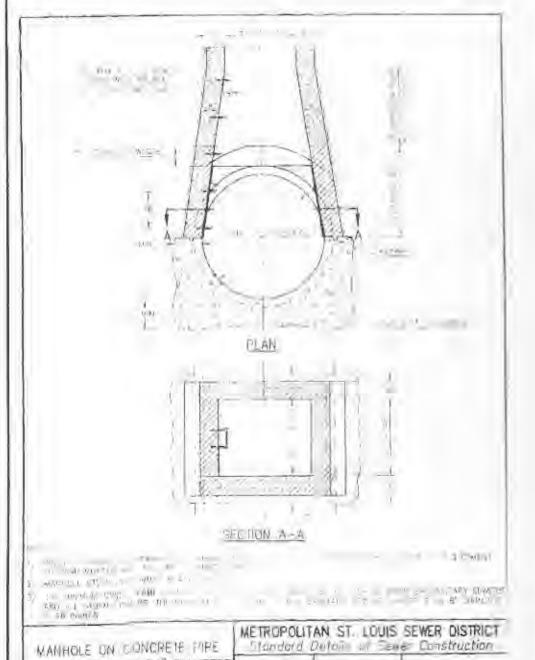


DITTS OF PINE HELL

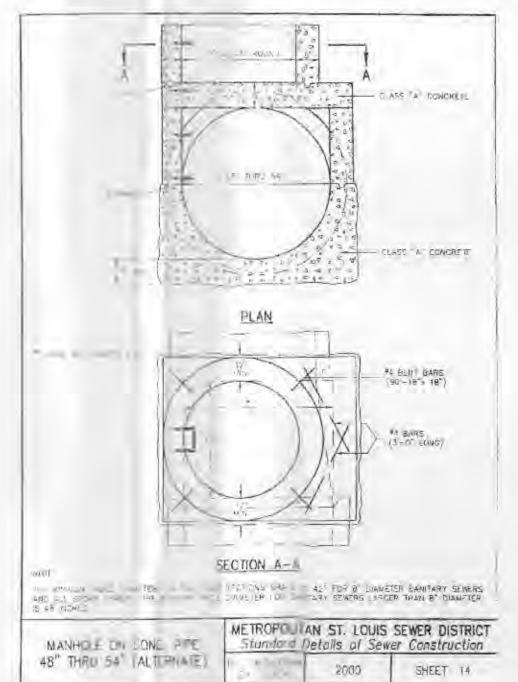
DUISIDE OF PIPE PARRES

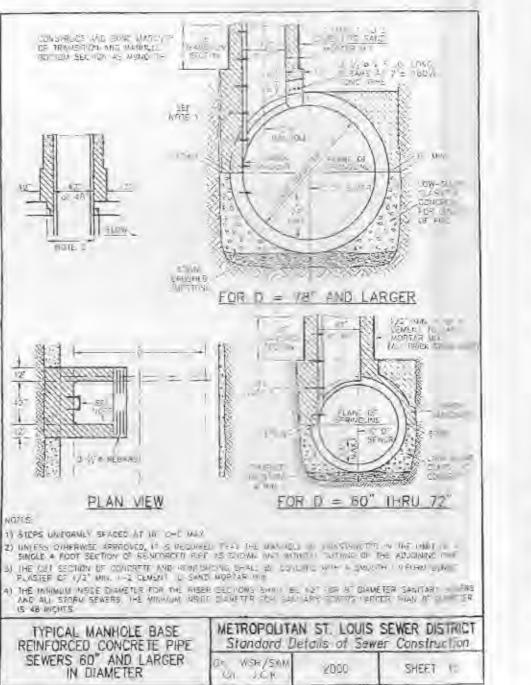
ONE OF ACTIVIL EXCAVATION

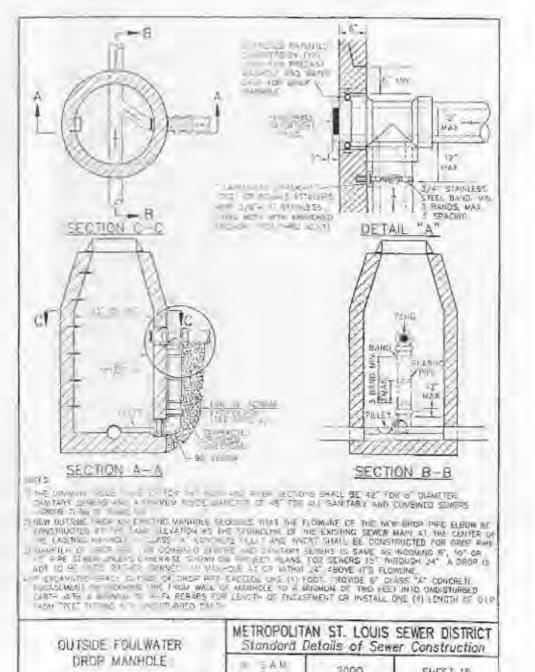


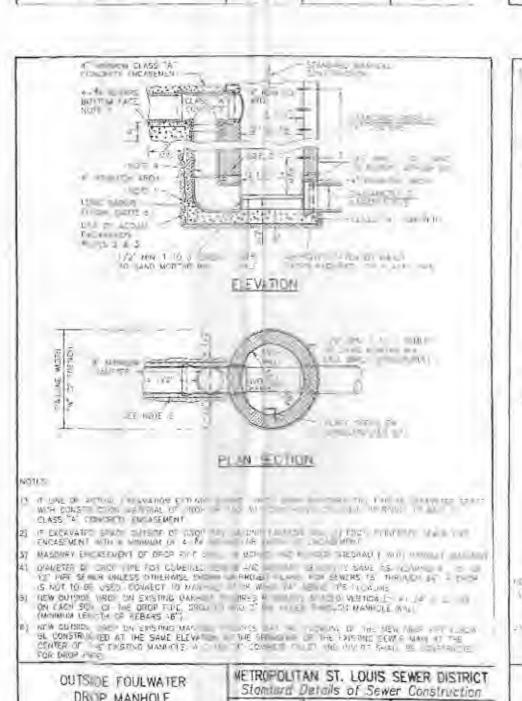


SEWERS 48" THEU 54" DIAMETER



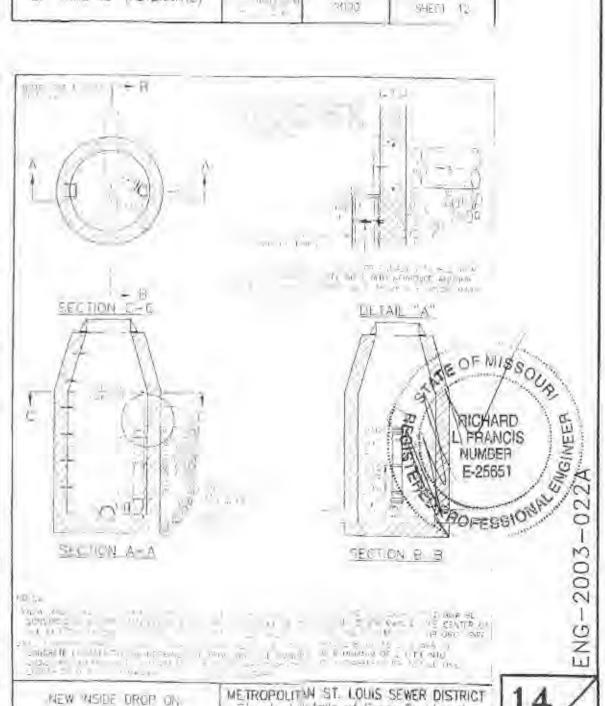






DROP MANHOLE

(ALTERNATE)



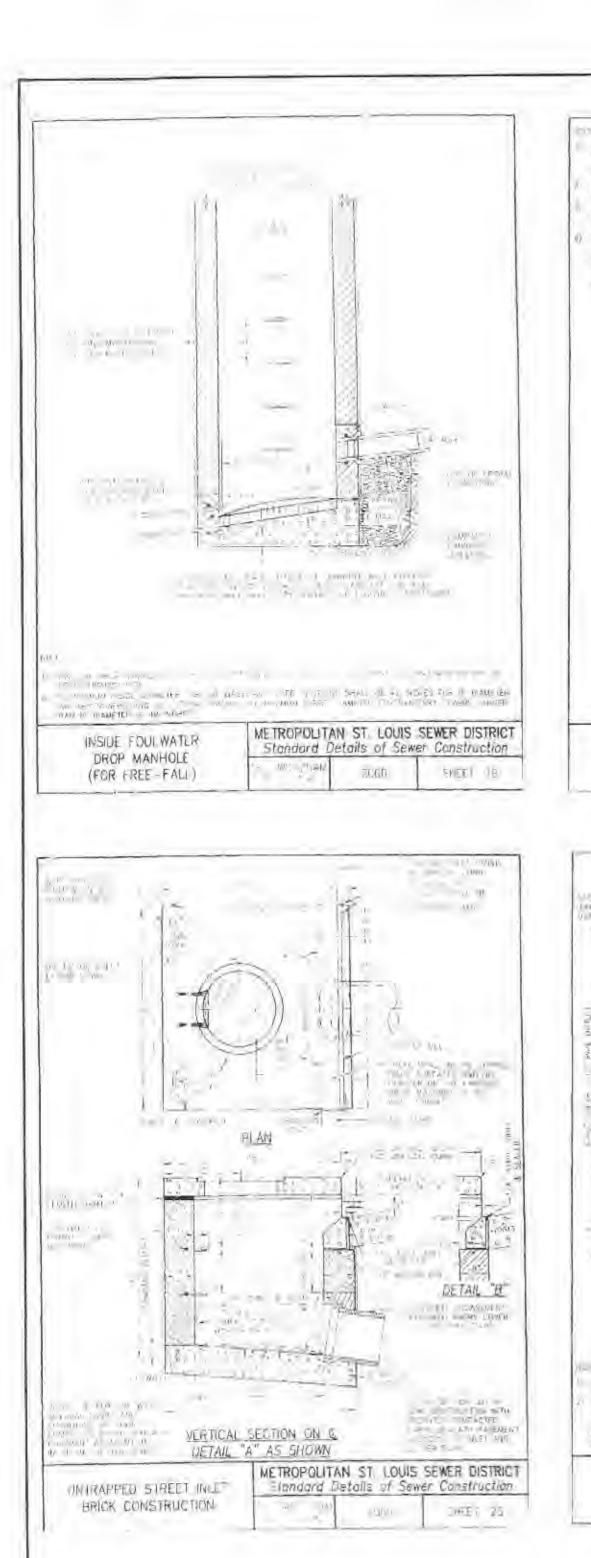
Standard "utalls of Sower Construction

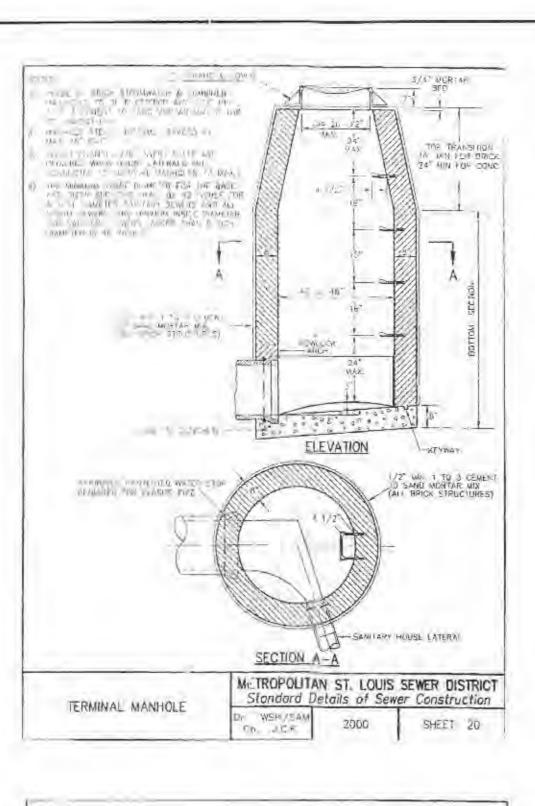
SHEET TH

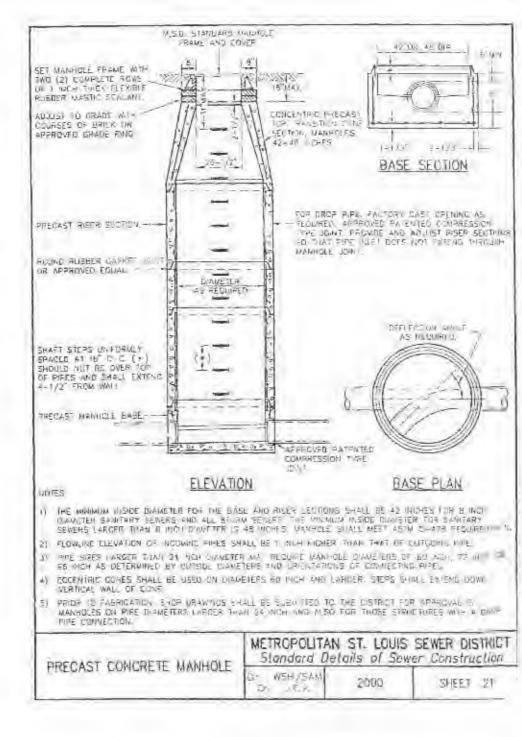
\$C\$1 200 3000

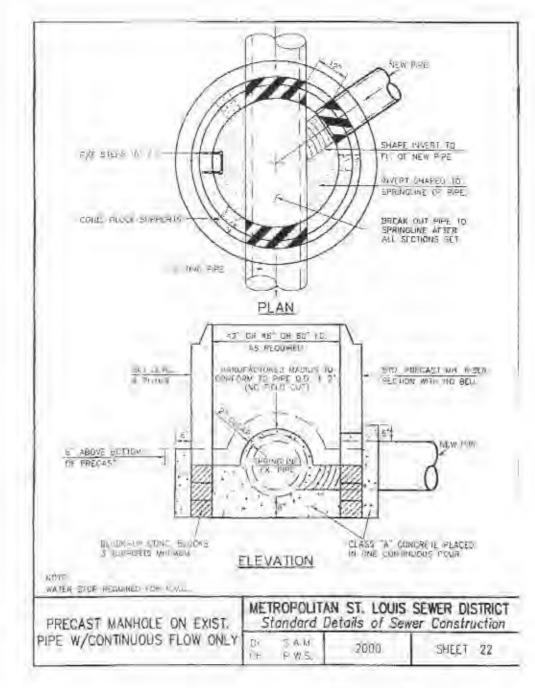
EXISTING MANHOLE FOR

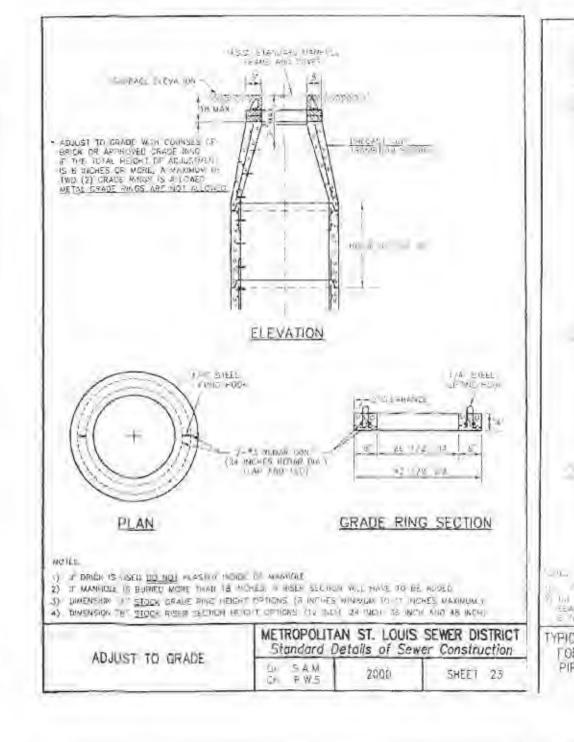
SEWERS 8 INCH TO 12 INCH

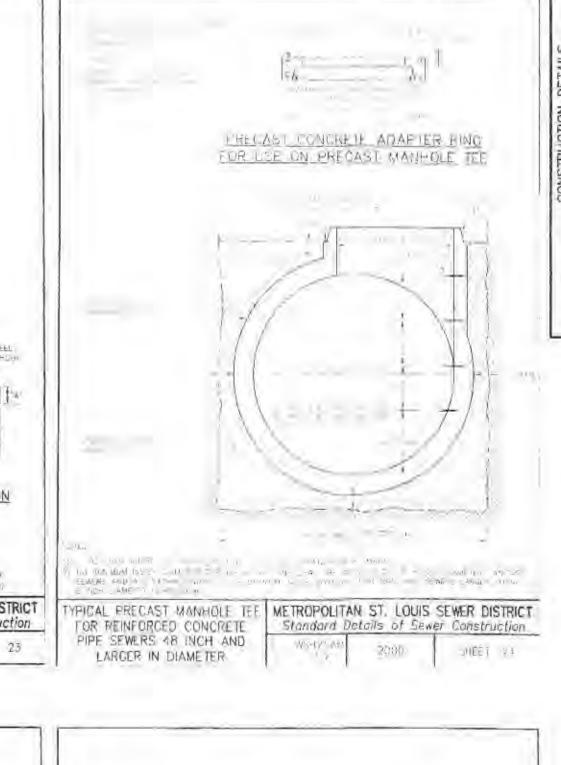


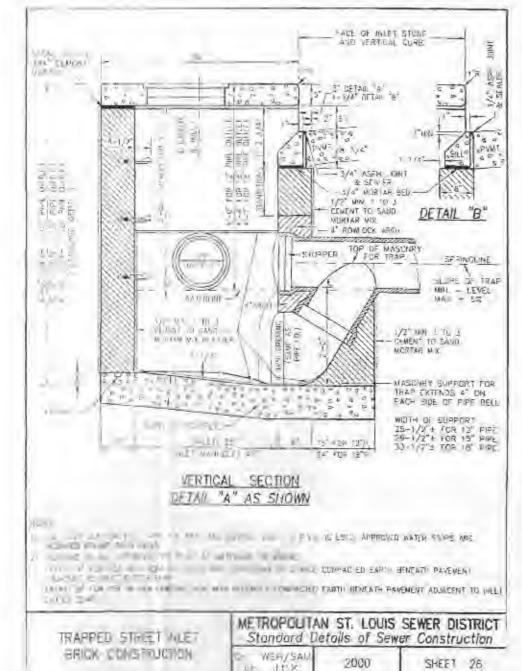


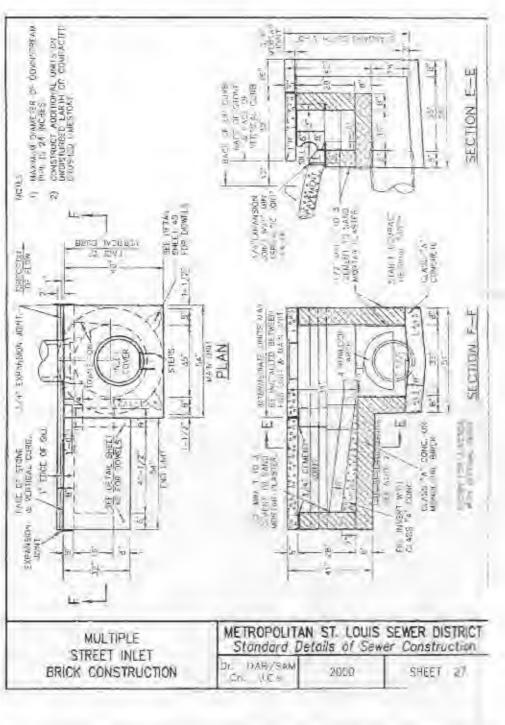


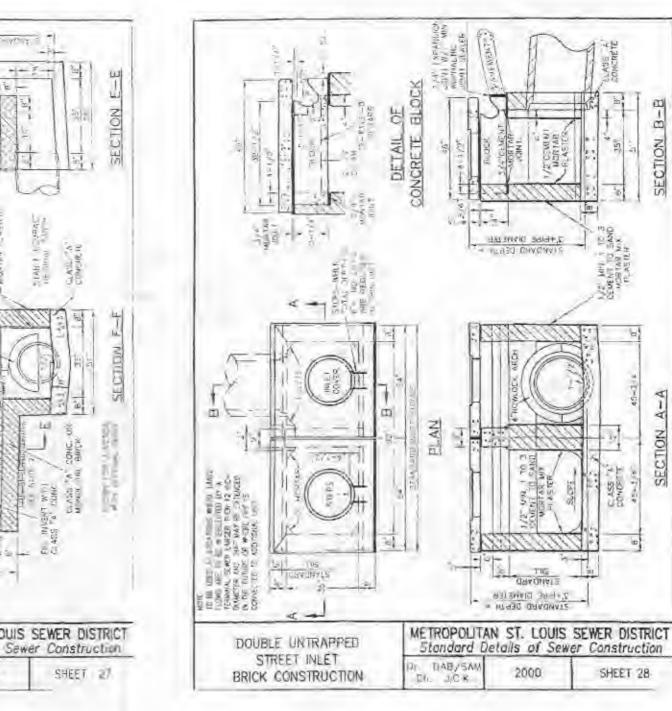


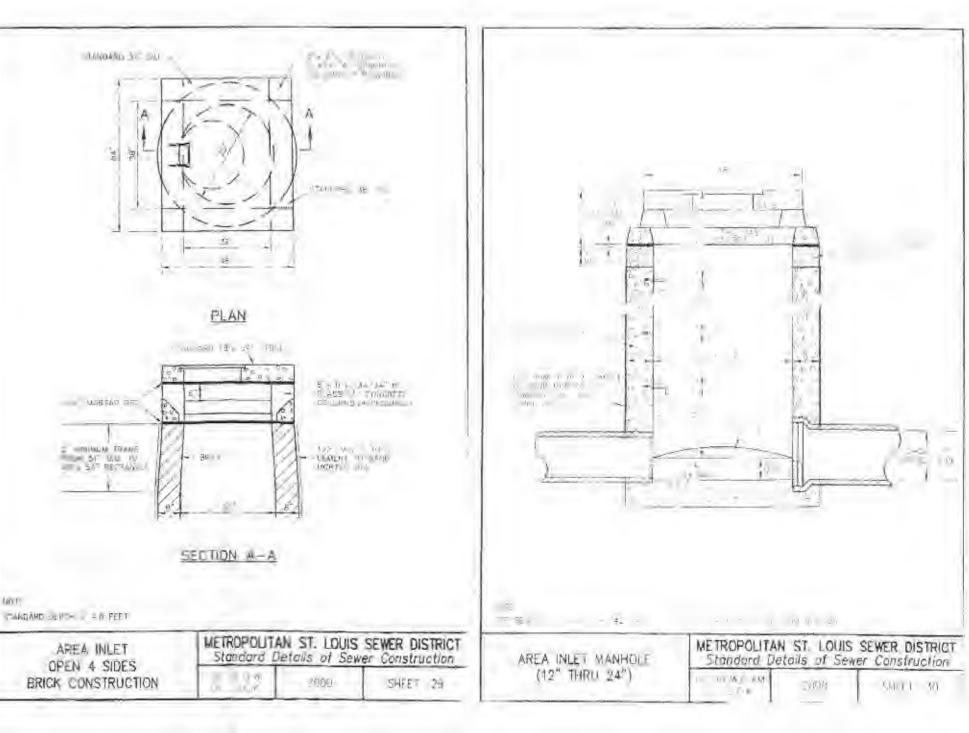


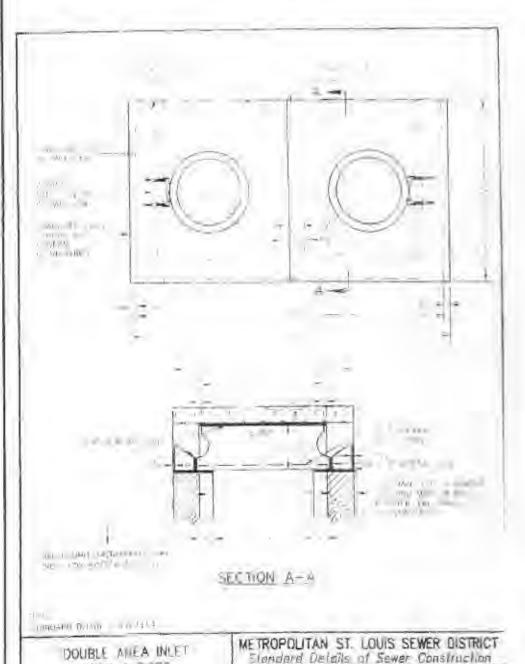








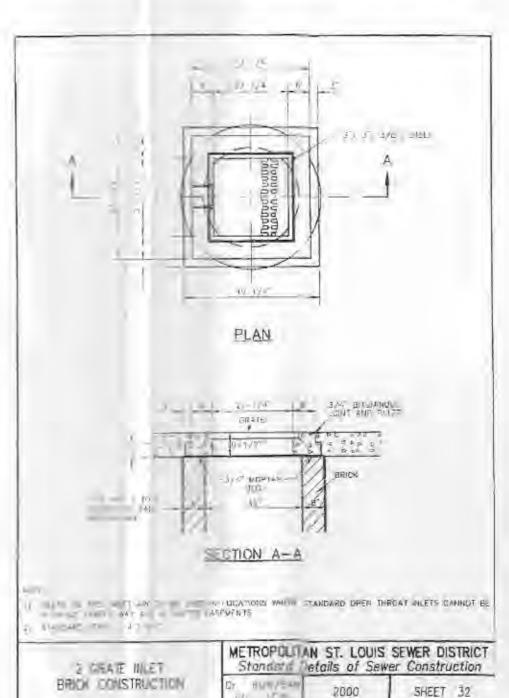


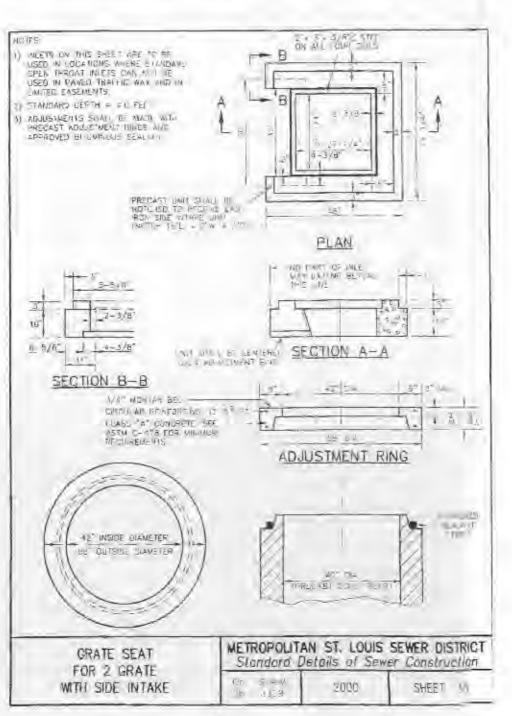


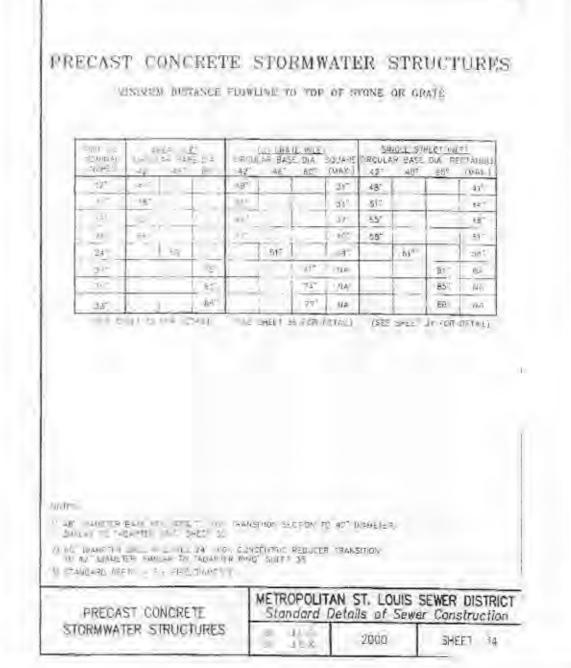
SHET D

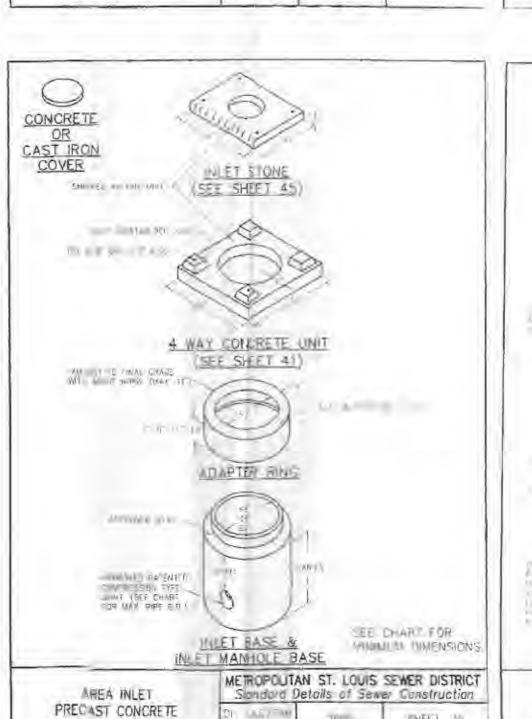
UPEN 4 SIDES

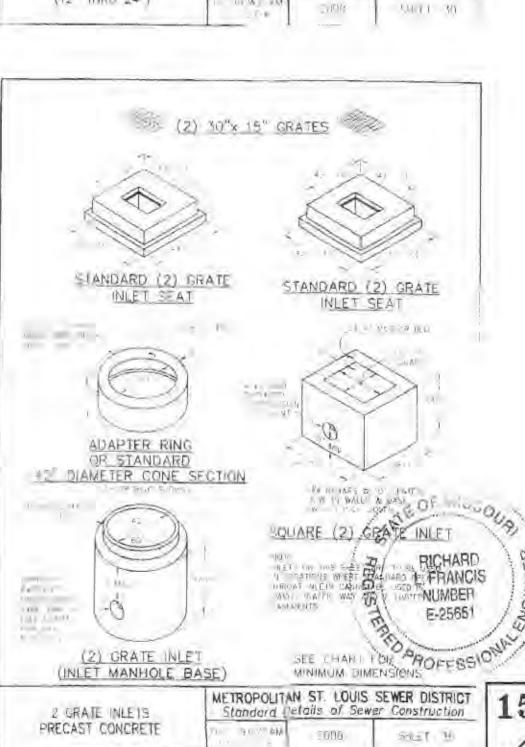
BRICK CONSTRUCTION





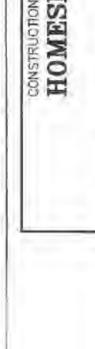


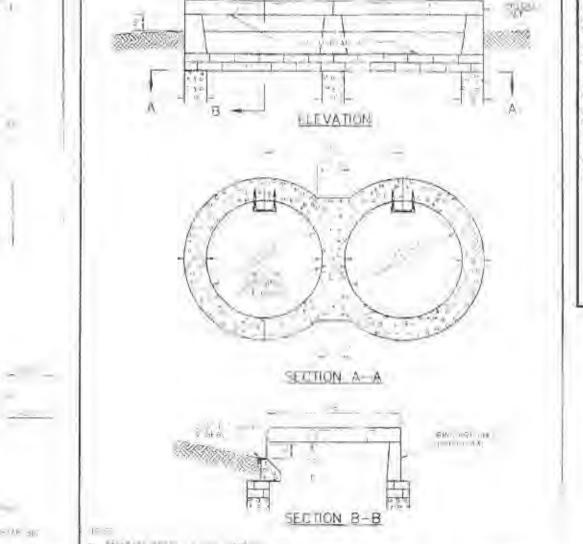












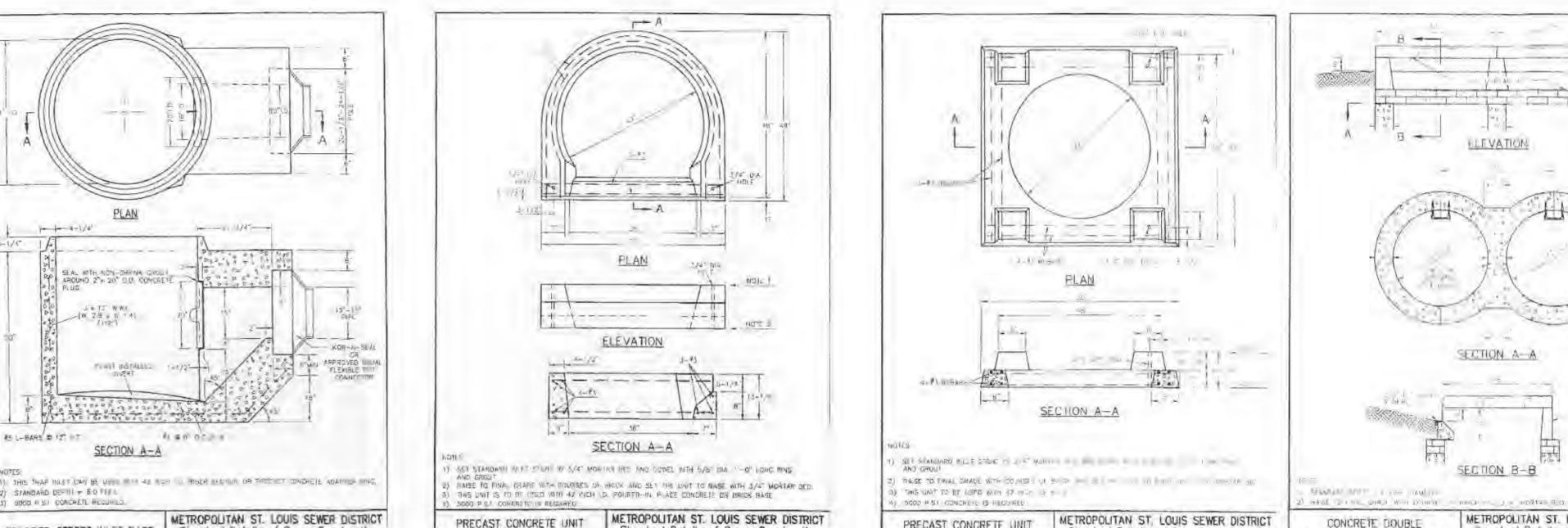
CONCRETE DOUBLE

STREET INLET WITH PRECAST

CONCRETE UNIT "A"

METROPOLITAN ST. LOUIS SEWER DISTRICT

Standard Details of Sewer Construction



Standard Details of Sewer Construction

SHEET 40

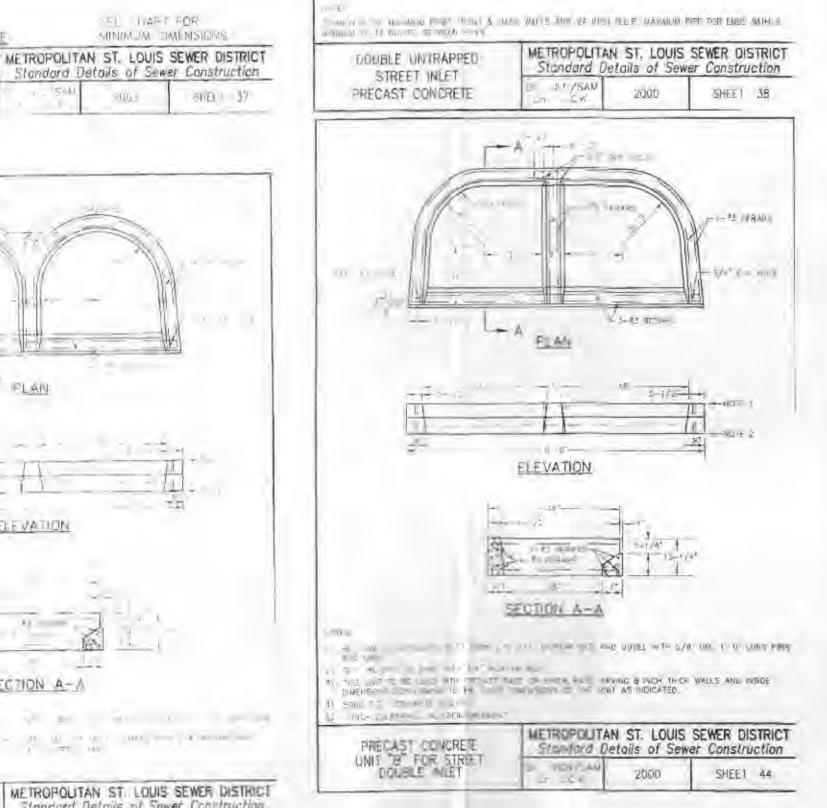
PRECAST CONCRETE UNIT

FOR

4 WAY AREA INLET

Standard Details of Sewer Construction

SMEET 41

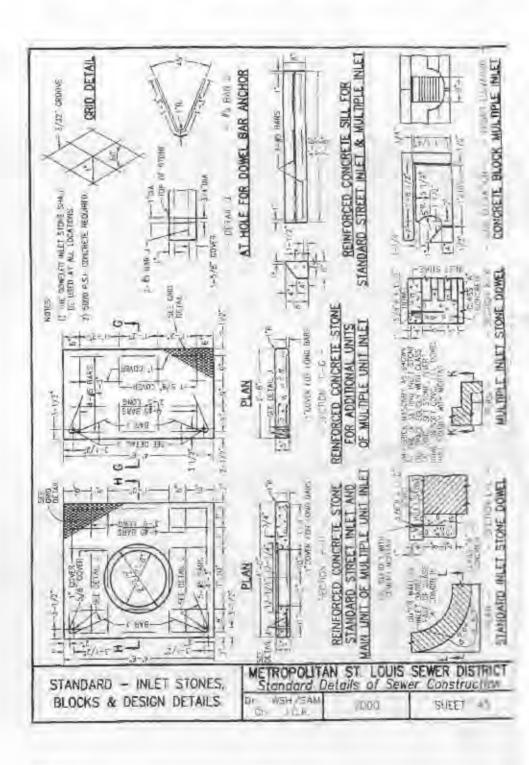


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FLAN

SECTION A-A

THE W PROTINES A NEW OF 12



Standard Details of Sewer Construction

SHEET 39

WSH/GAM

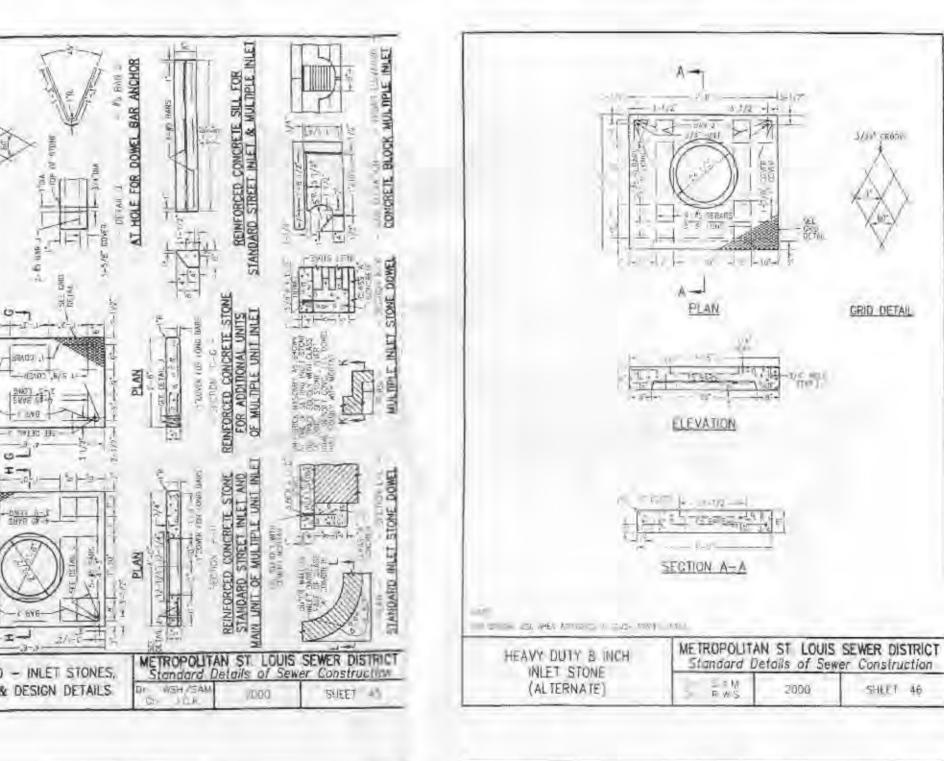
4-1/4

MS L-BARS DIT IT

) STANDARD DEPTH = 5.0 FEEL 7 SUCO R ST CONCRÉTE REQUIRED.

TRAPPED STREET INLET BASE

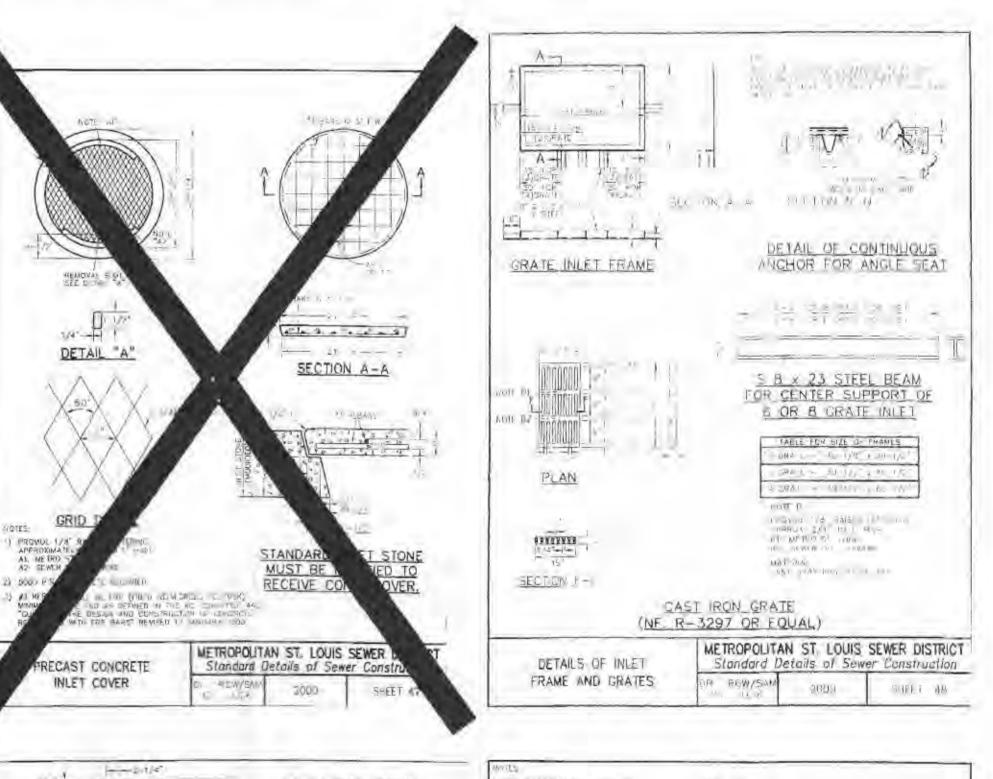
PRECAST CONCRETE

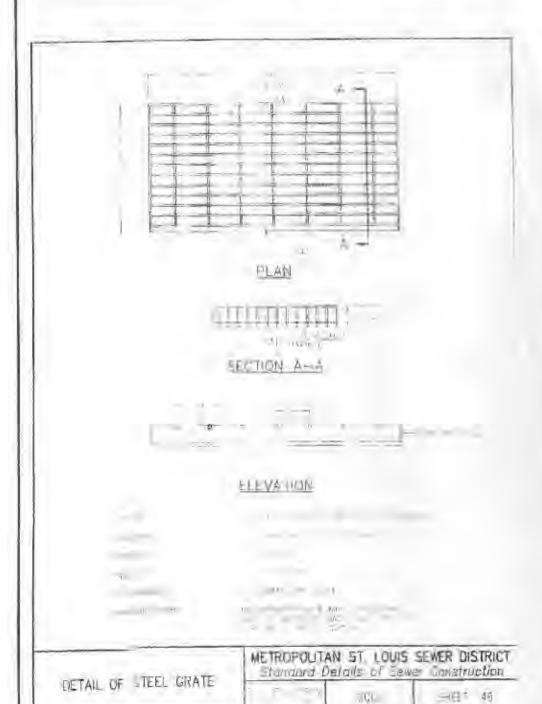


PRECAST CONCRETE UNIT

FOR

SINGLE STREET INLET





Standard Details of Sewer Construction

EPR / 1 13

700

SECTION A-A

MODE (1994) 1 (1994)

2 W/20M

UNCRETE UR CAST

IRON COVER

INLET STONE

SHALLOW SINGLE

CURB INLET

SEL TIME FOR

METROPOLITAN ST. LOUIS SEWER DISTRICT

Standard Details of Sewer Construction

MINIMUM CHAENSHOWS

51/EL 37

#15 -

25 E-

CONCRETE OR CAST

IRON COVER

(SEE SHEET 45

(SEE SHEET 40)

ADAPTER RING

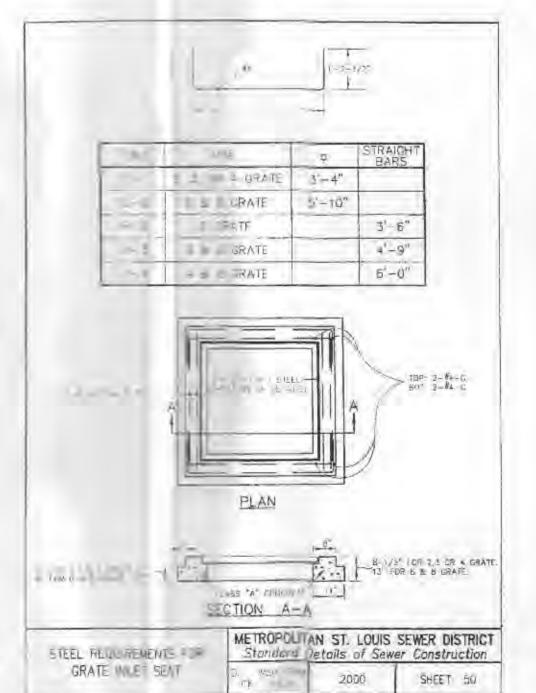
SINGLE STRLET INLETS

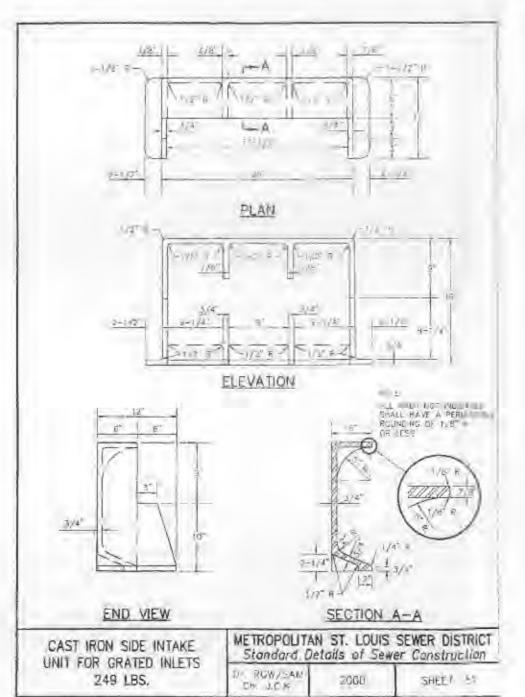
PRECAST CONCRETE

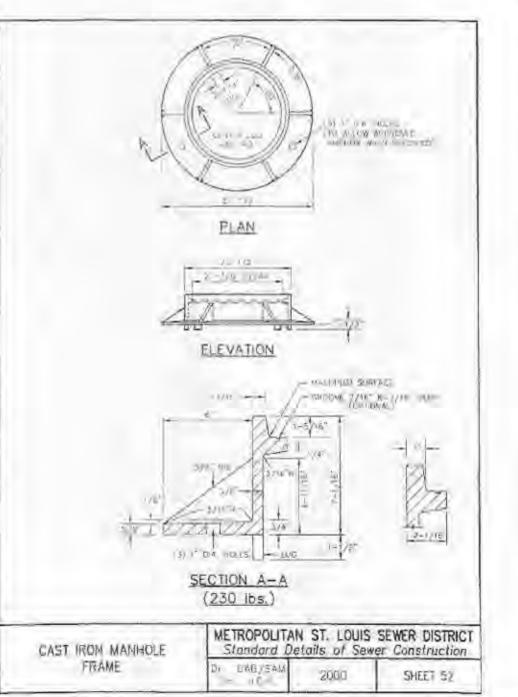
and the same of

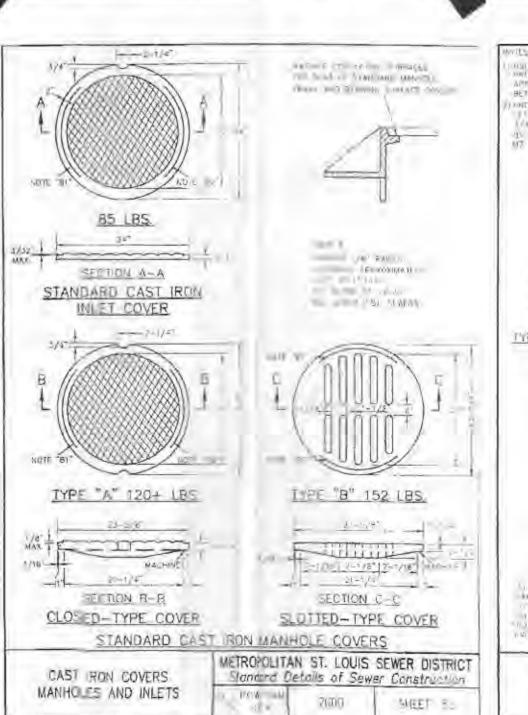
PRECAST CONCRETE UNIT "A" FOR STREET

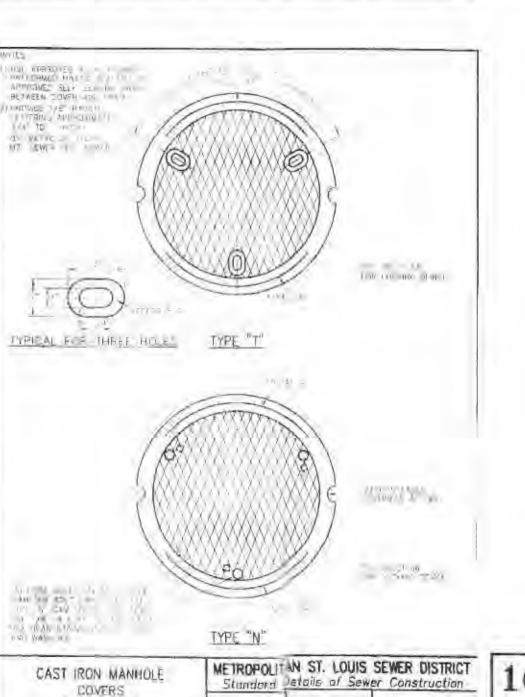
DOUBLE INLET





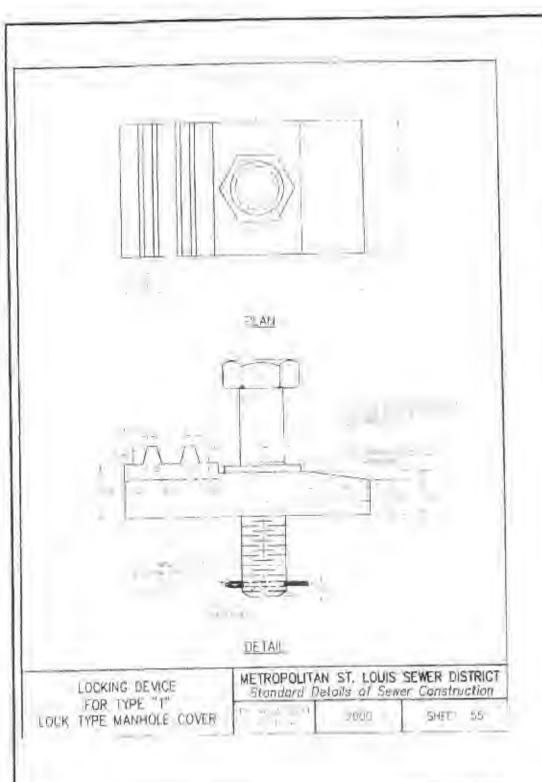


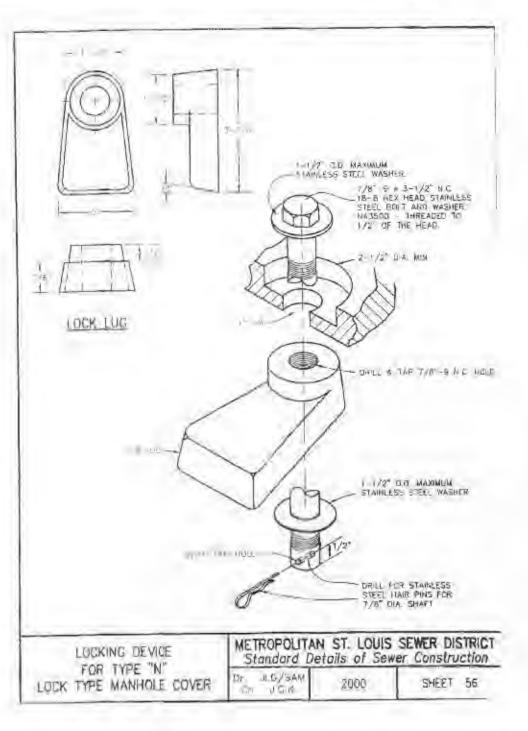


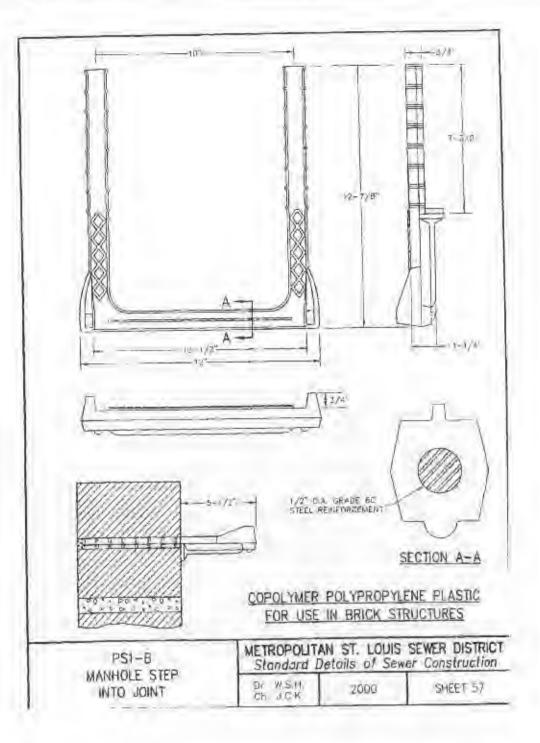


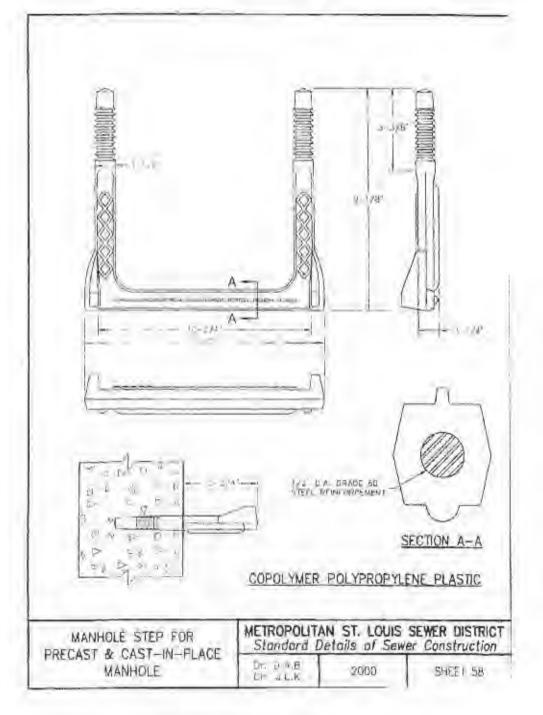
(LOCK TYPE)

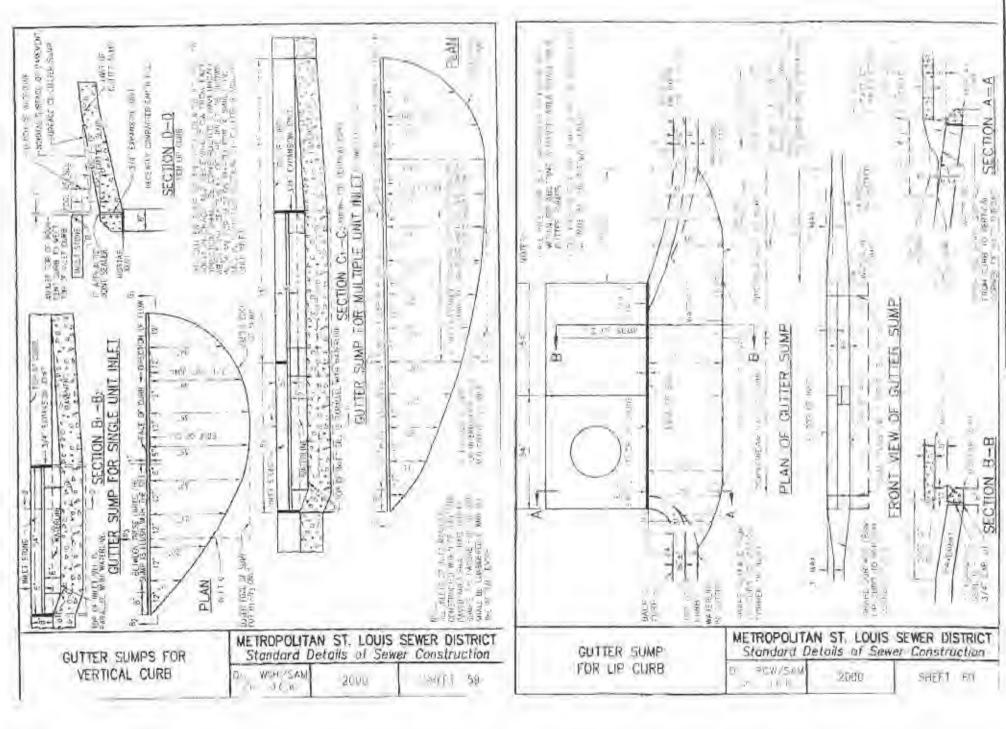
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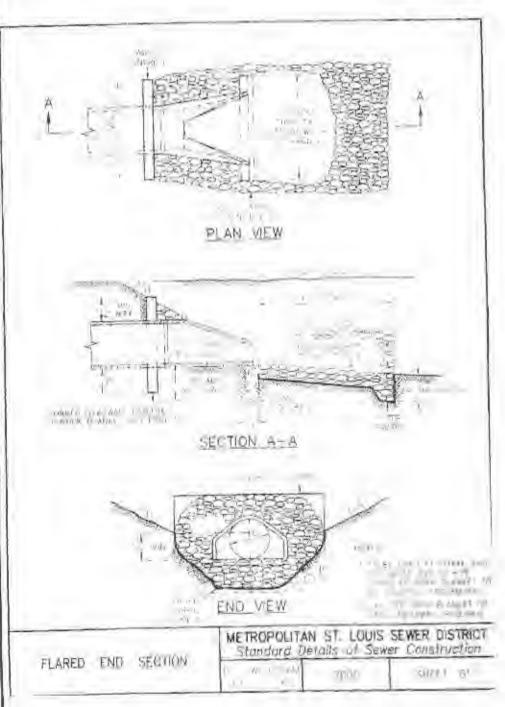


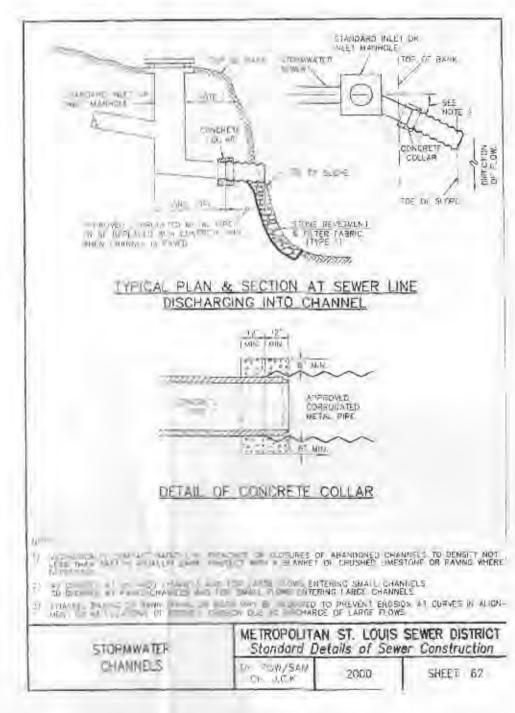


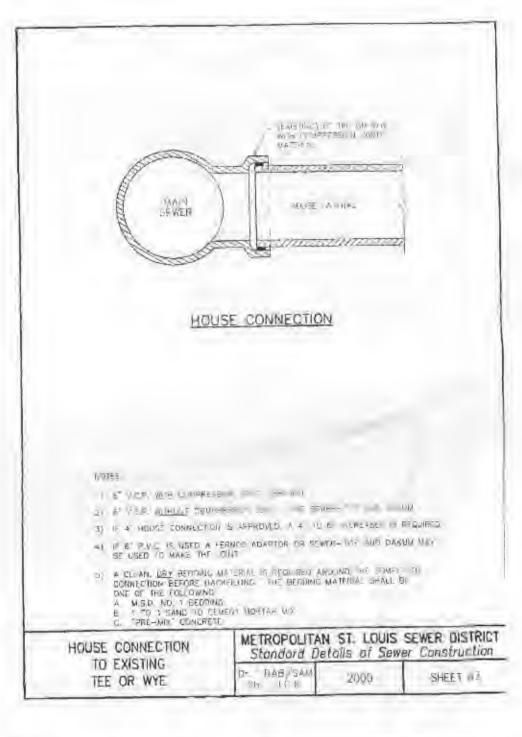


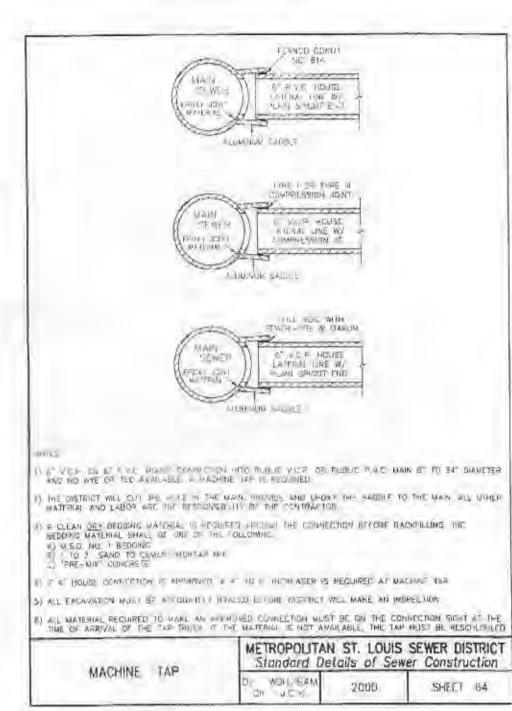


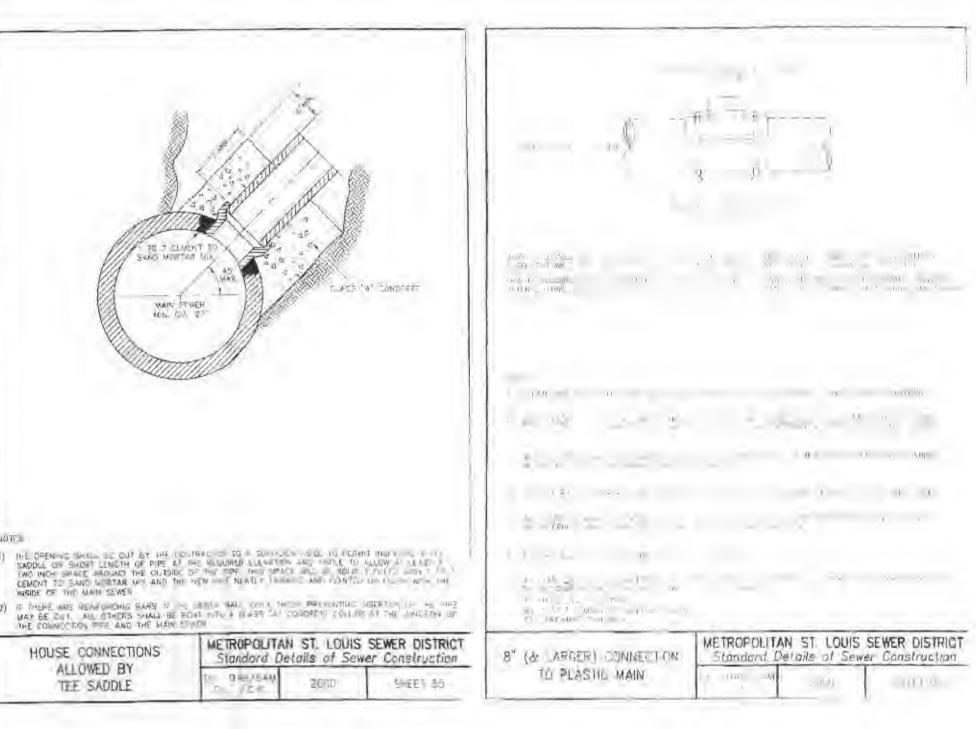








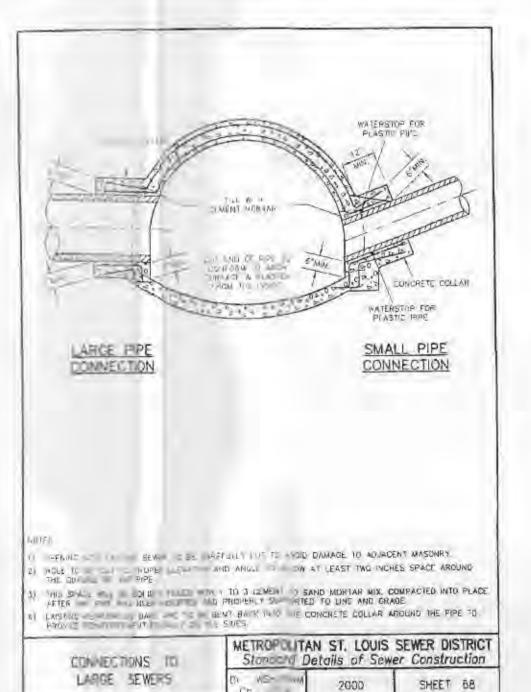


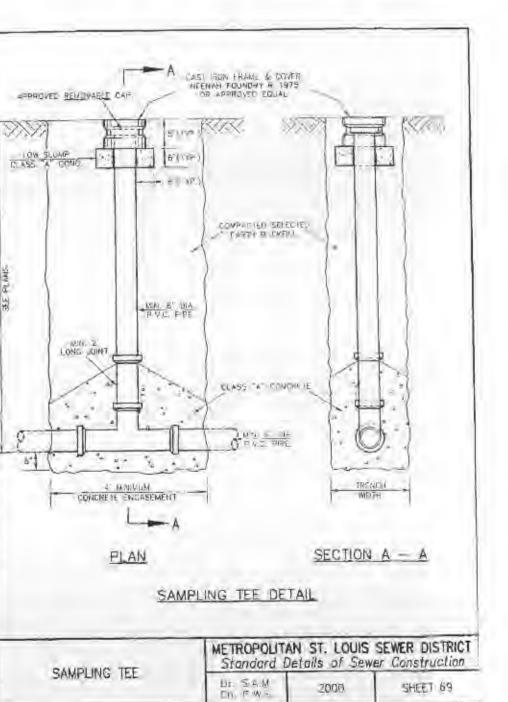


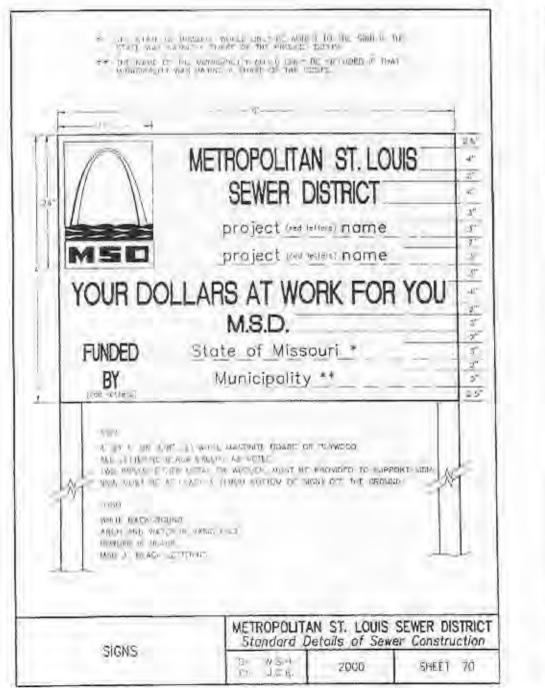


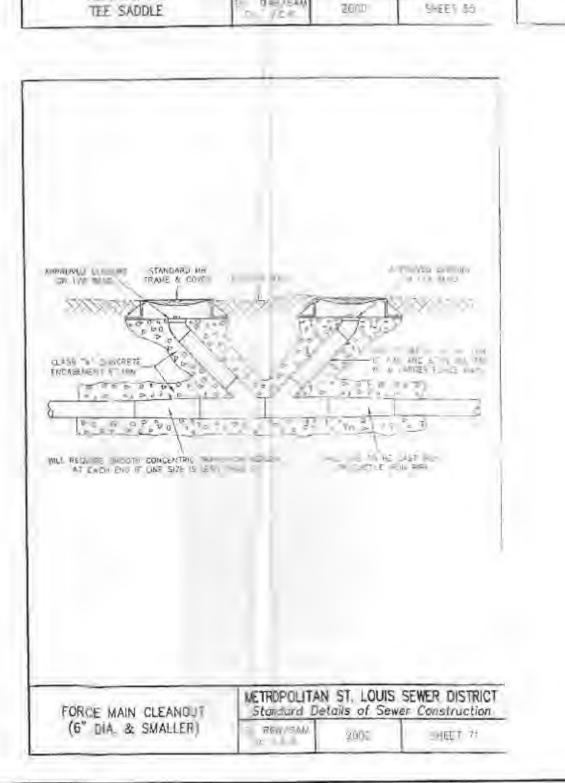
WEF 67

CLAY OR CONCRETE PIPE)









ENG-2003-022A

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