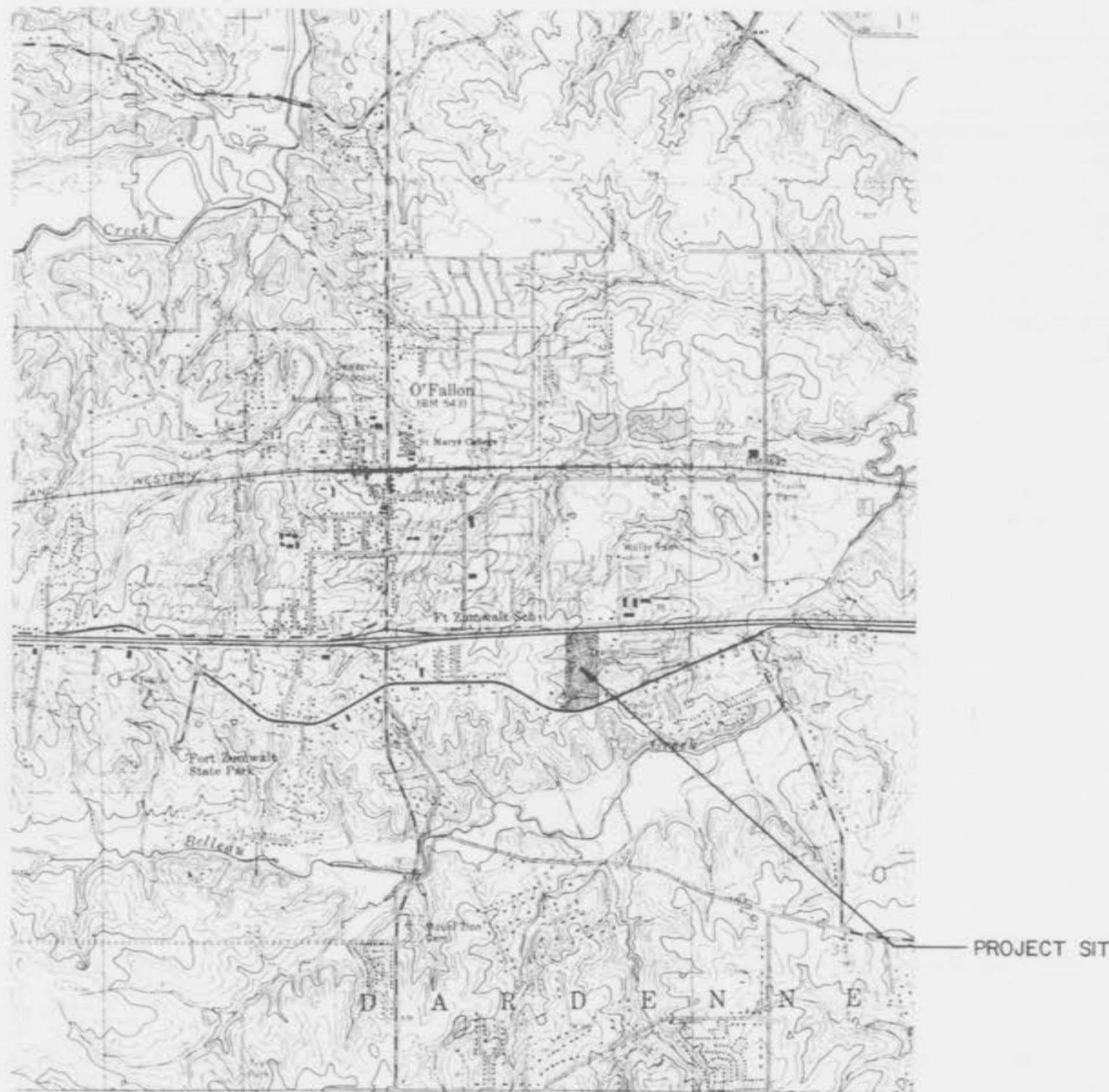


A TRACT OF LAND BEING PART OF THE WEST 1/2 OF THE S.E. 1/4
 OF SECTION 28, T. 47N., R. 3E.
 CITY OF O'FALLON, ST. CHARLES COUNTY, MISSOURI

SHEET INDEX

COVER	SHEET C-1
GRADING, DRAINAGE AND SEWER PLAN	SHEET C-2
PAVING AND UTILITY PLAN	SHEET C-3
SEWER PROFILES (STORM) AND DETAILS	SHEET C-4
STREET AND ON-SITE SANITARY SEWER PROFILES	SHEET C-5
OFF-SITE SANITARY SEWER PLAN / PROFILE	SHEET C-6
OFF-SITE SANITARY SEWER PLAN / PROFILE	SHEET C-7



LOCATION MAP

SCALE: 1" = 2000'

**BENCHMARK ADOPTED FROM SANITARY SEWER EXTENSION FOR
 THE CITY OF O'FALLON, MISSOURI (E.P.A. PROJECT # C-291090-07)**

T.B.M. 2- R.R. SPIKE IN POWER POLE ON NORTH SIDE OF OLD HIGHWAY
 40, DUE NORTH OF EAST DRIVE OF BAYLESS MO.-CO.
 ELEVATION: 520.15

LEGEND OF SYMBOLS		
OBJECT/CONDITION REPRESENTED BY SYMBOL	EXISTING SYMBOL	PROPOSED SYMBOL
UTILITY POLE	⊕	⊕
UTILITY POLE WITH GUY WIRE	⊕---○	⊕---○
TREE	⊙	⊙
ELECTRIC LINE (OVERHEAD)	—DE—	—DE—
TELEPHONE LINE (OVERHEAD)	—OT—	—OT—
ELECTRIC LINE (UNDERGROUND)	—E—	—E—
TELEPHONE LINE (UNDERGROUND)	—T—	—T—
WATER LINE	—W—	—W—
GAS LINE	—G—	—G—
MANHOLE WITH STORM SEWER	⊕	⊕
INLET WITH STORM SEWER	⊕	⊕
MANHOLE WITH SANITARY SEWER	⊕	⊕
INLET NUMBER	⊕	⊕
MANHOLE NUMBER	⊕	⊕
LIGHT	⊕	⊕
FIRE HYDRANT	⊕	⊕
GAS VALVE	⊕	⊕
GAS METER	⊕	⊕
WATER VALVE	⊕	⊕
WATER METER	⊕	⊕
CONTOUR	—100—	—100—
SPOT ELEVATION	↑ 100.00	↑ 100.00
SPOT ELEVATION AT TOP OF CURB	↑ TC 100.00	↑ TC 100.00
SPOT ELEVATION AT GUTTER	↑ G 100.00	↑ G 100.00
SPOT ELEVATION AT TOP OF WALL	↑ TW 100.00	↑ TW 100.00
SPOT ELEVATION AT BOTTOM OF WALL	↑ BW 100.00	↑ BW 100.00
SPOT ELEVATION AT TOP OF BANK	↑ TB 100.00	↑ TB 100.00
SPOT ELEVATION AT BOTTOM OF BANK	↑ BB 100.00	↑ BB 100.00

MSP
**MASSMANN, STEPHANS
 & FOEHLMAN, INC.**
 ARCHITECTS & PLANNERS
 201 S. CENTRAL • CLAYTON, MO 63105
 SUITE 201 • (314) 725-4333
 LAW MARTINI • CIVIL ENGINEERING • LAND PLANNING

Henmi Jen Enderling, Inc.
 Architects & Planners
HBD Contracting, Inc.
 General Contractor

GARDEN VIEW CARE CENTER
 700 Garden Path
 O'Fallon, Missouri
LARUS CORPORATION
 Developer

Date 3/2/87

Revisions
4-24-87
5-01-87
5-28-87
07-24-87
09-08-87 DAK
12-14-87 EKS

AS-BUILT

PROPERTY OF
 CITY OF O'FALLON
 BUILDING DEPARTMENT



Sheet Title
COVER

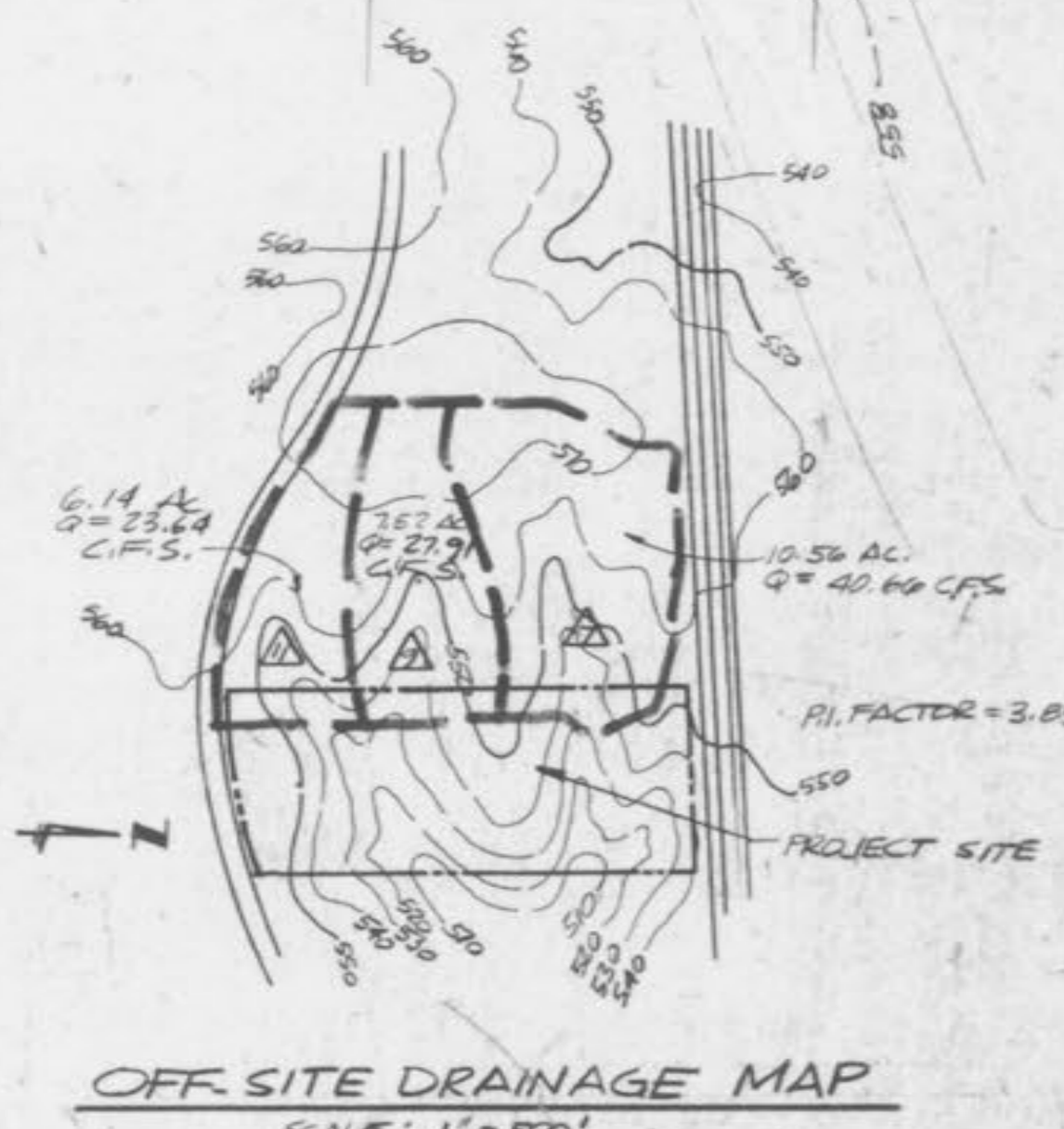
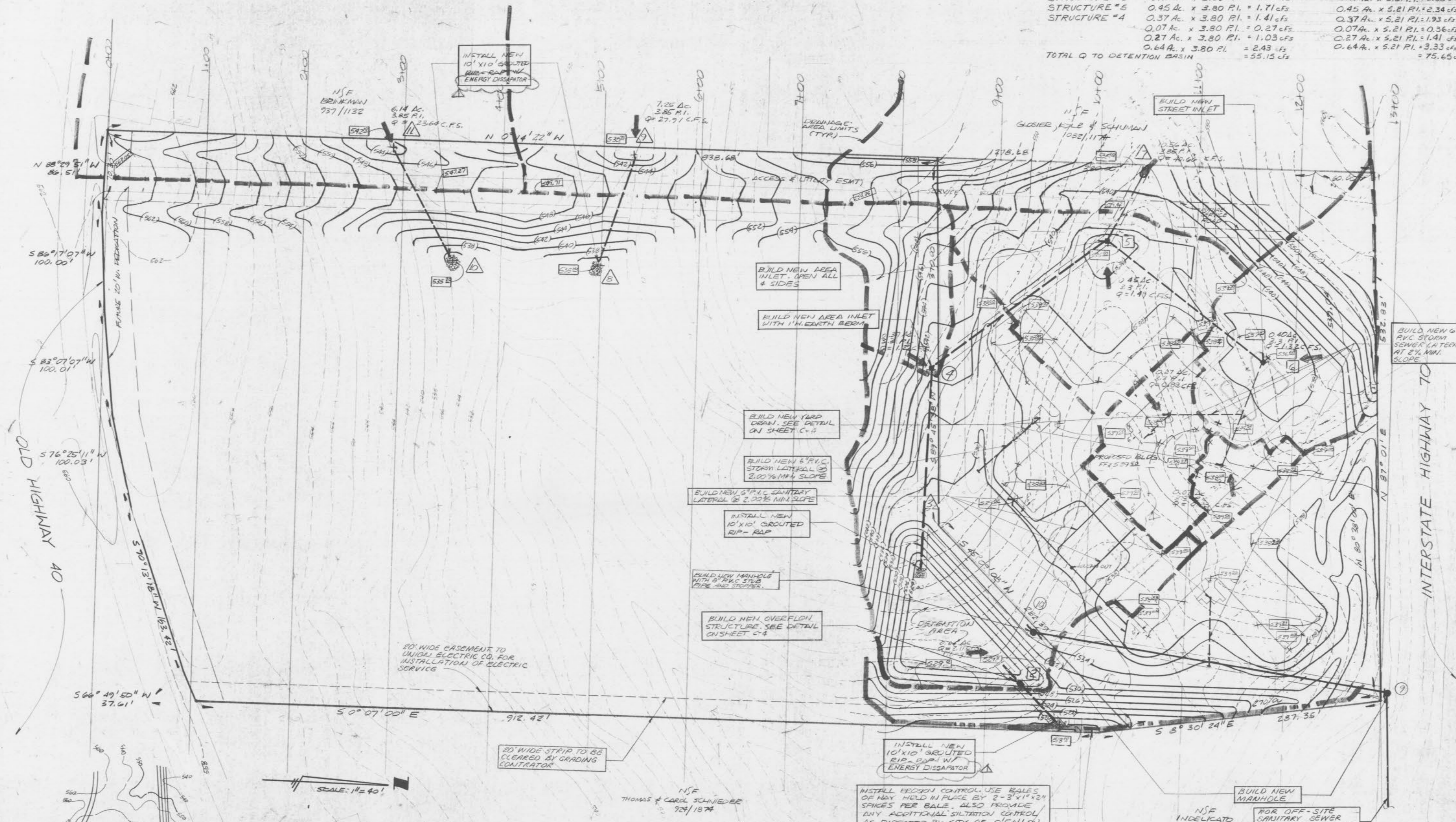
Sheet No.
C-1
 of 7 Sheets

File No. 1740

12/25/87
 GARDENVIEW CARE CENTER

NOTE: STATIONS SHOWN ON THIS SHEET ARE FOR GRADING CROSS SECTIONS.

	Q ² For 25 YR Storm	Q ² For 100 YR Storm
STRUCTURE # 11	6.14 Ac. x 4.43 PI. = 27.20 cfs	6.14 Ac. x 6.08 PI. = 37.33 cfs
STRUCTURE # 9	7.25 Ac. x 4.43 PI. = 32.12 cfs	7.25 Ac. x 6.08 PI. = 44.08 cfs
STRUCTURE # 7	10.56 Ac. x 4.43 PI. = 46.78 cfs	10.56 Ac. x 6.08 PI. = 64.20 cfs
STRUCTURE # 6	0.40 Ac. x 3.80 PI. = 1.52 cfs	0.40 Ac. x 5.21 PI. = 2.08 cfs
STRUCTURE # 5	0.45 Ac. x 3.80 PI. = 1.71 cfs	0.45 Ac. x 5.21 PI. = 2.34 cfs
STRUCTURE # 4	0.37 Ac. x 3.80 PI. = 1.41 cfs	0.37 Ac. x 5.21 PI. = 1.93 cfs
	0.07 Ac. x 3.80 PI. = 0.27 cfs	0.07 Ac. x 5.21 PI. = 0.36 cfs
	0.27 Ac. x 3.80 PI. = 1.03 cfs	0.27 Ac. x 5.21 PI. = 1.41 cfs
	0.64 Ac. x 3.80 PI. = 2.43 cfs	0.64 Ac. x 5.21 PI. = 3.33 cfs
TOTAL Q TO DETENTION BASIN	= 55.15 cfs	= 75.65 cfs



EARTHWORK CALCULATIONS

40714	- CUBIC YARDS CUT
35,683	- CUBIC YARDS FILL
5,031	- 14.1% SURPLUSAGE BALANCE

- GENERAL NOTES - DETAILS**
- Corrugated Metal Pipe shall conform to the requirements of AASHTO M6 Standard Specification for Zinc Coated (Galvanized) Corrugated Iron or Steel Culvert and Underdrains or the Standard Specification for AASHTO M196 Corrugated Aluminum Culvert Pipe.
 - Concrete pipe shall conform to ASTM Designation C14-67, Standard Strength, except as noted. Reinforced concrete pipe shall conform to ASTM Designation C76-67, Class II, except as noted.
 - Polyvinyl Chloride Pipe (PVC) shall meet requirements of ASTM D-3034, SDR 35.
 - Joints for PVC Pipe shall consist of formed bells utilizing rubber gaskets.
 - Bituminous material shall conform to the requirements of AASHTO M190-70.
 - All sewer construction and materials shall conform to "Standard Construction Specifications for Sewers and Drainage Facilities," per City of O'Fallon standards.
 - Details of sewer construction shall be in accordance with "Revised Standard Construction Details for Sewer and Drainage Facilities," per City of O'Fallon standards.
 - All trenches under areas to be paved, and under existing paving shall be backfilled with granular material. Use one inch minus crushed limestone. Place in accordance with City of O'Fallon standards.

NOTE: UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS AND, THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN.

MSP MASSMANN, STEPHANS & POEHLMAN, INC.
201 S CENTRAL CLAYTON RD. #3105
SUITE 201 - O'FALLON, ILL. 62453
LAND SURVEYING - CIVIL ENGINEERING - LAND PLANNING

Henmi Jen Enderling, Inc.
Architects & Planners
HBD Contracting, Inc.
General Contractor

GARDEN VIEW CARE CENTER
700 Garden Path
LARUS CORPORATION
Developer

Date 3-2-87.

Revisions

3-6-87	SP
3-12-87	CLK
08-01-87	DAK
04-23-87	GLT
5-01-87	DAK
5-28-87	GLT
07-24-87	
09-28-87	DAK
12-14-87	EA

Sheet Title
GRADING, DRAINAGE & SEWER PLAN

Sheet No.
C-2

of 7 Sheets

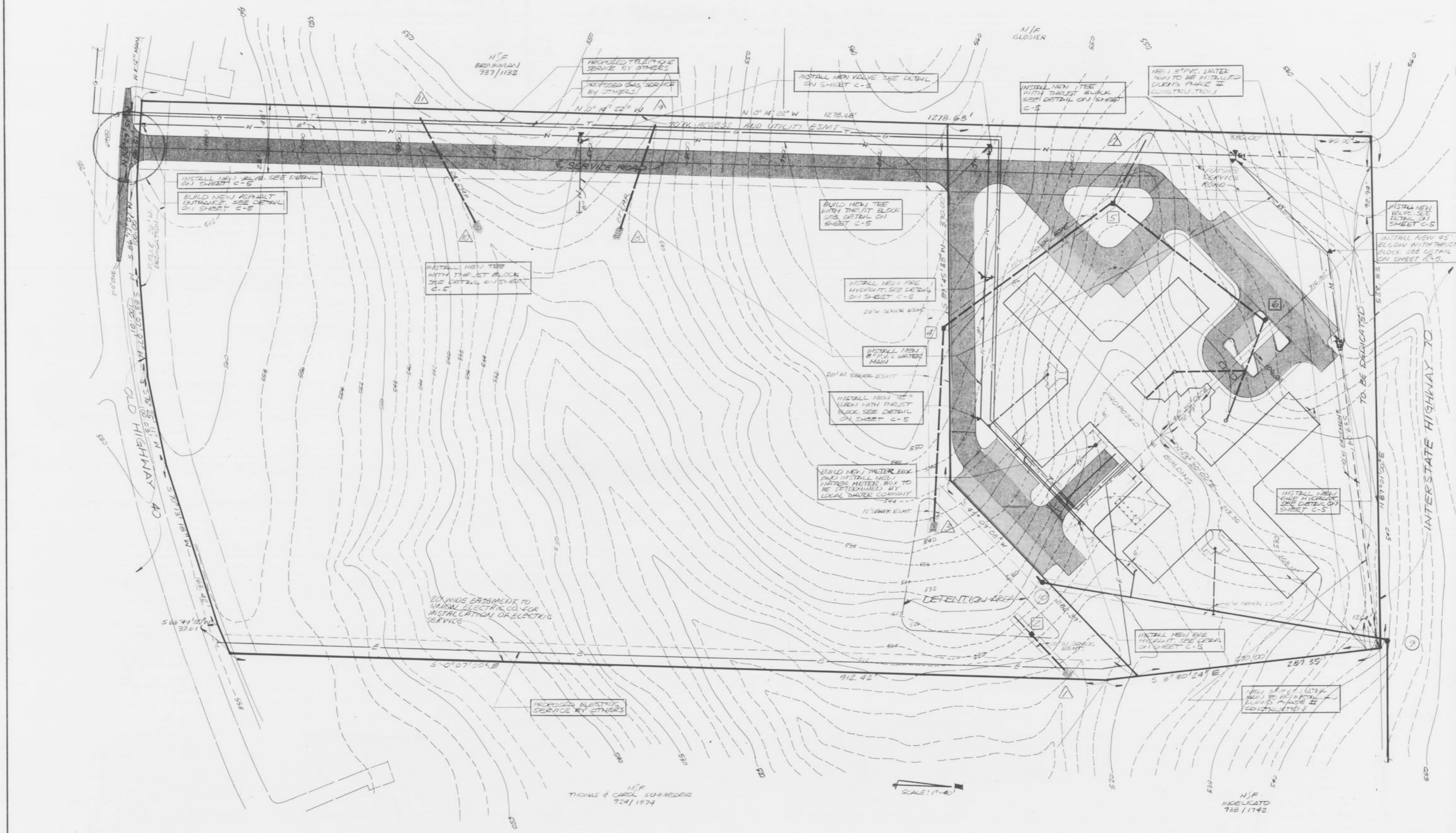
File No. 1740

AS-BUILT

PROPERTY OF
CITY OF O'FALLON
BUILDING DEPARTMENT



12/28/84



PAVEMENT LEGEND

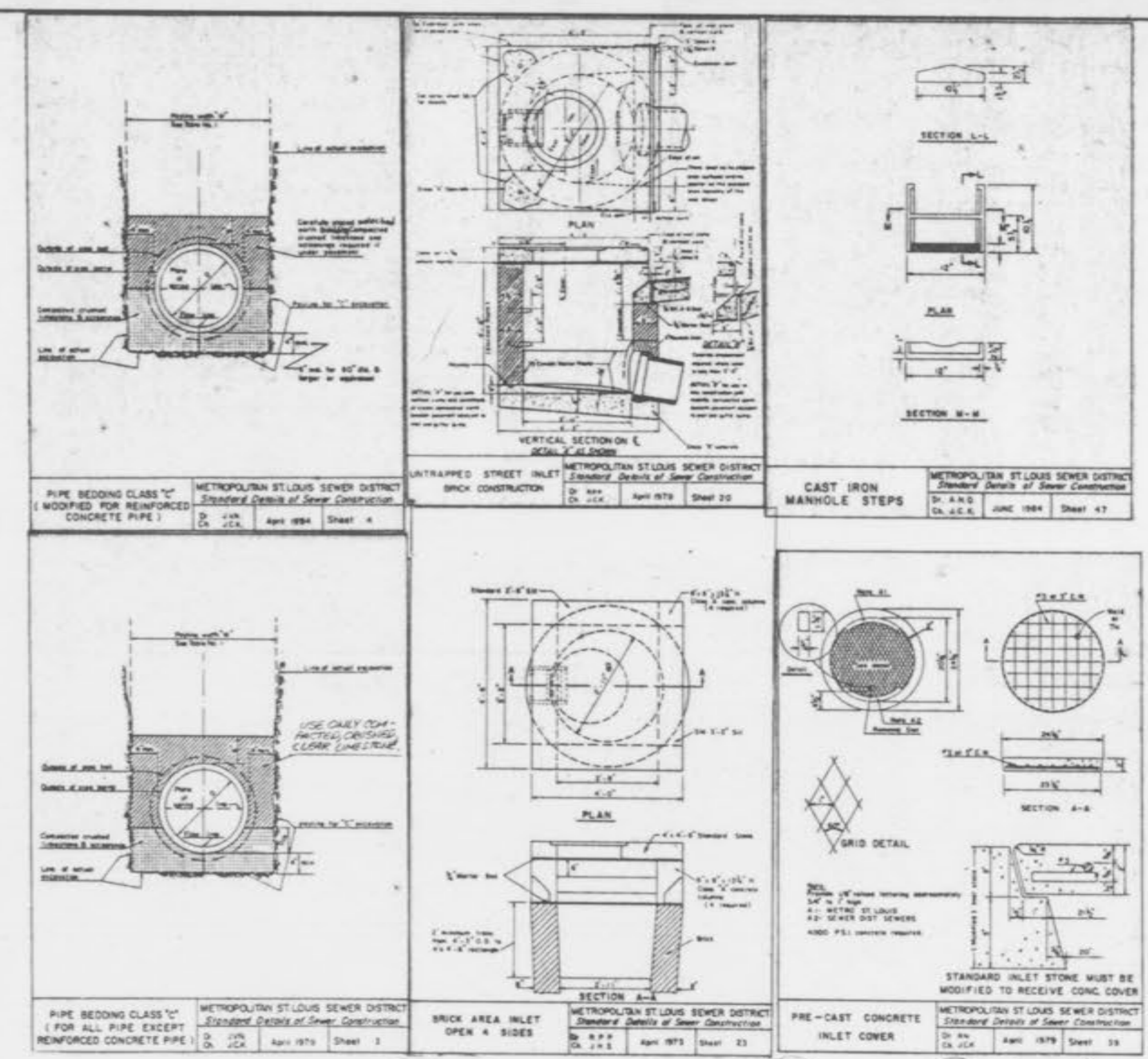
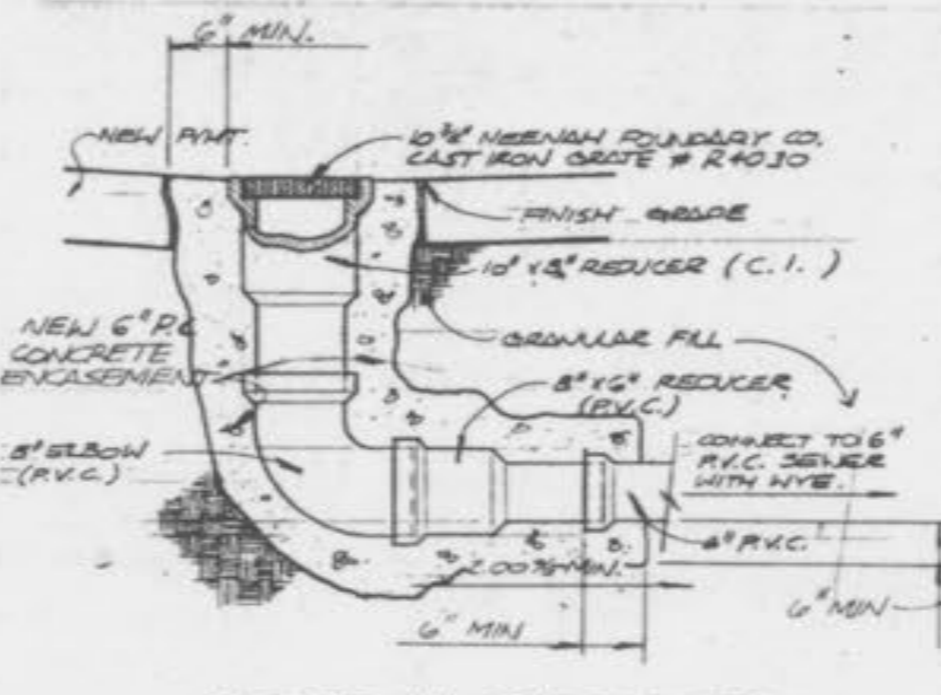
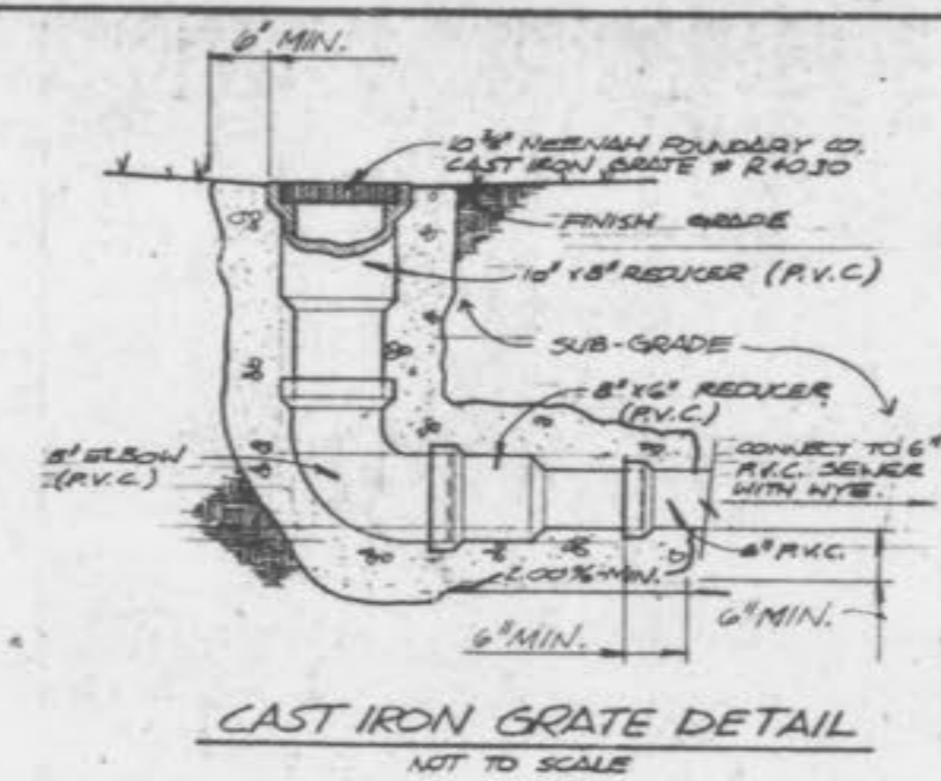
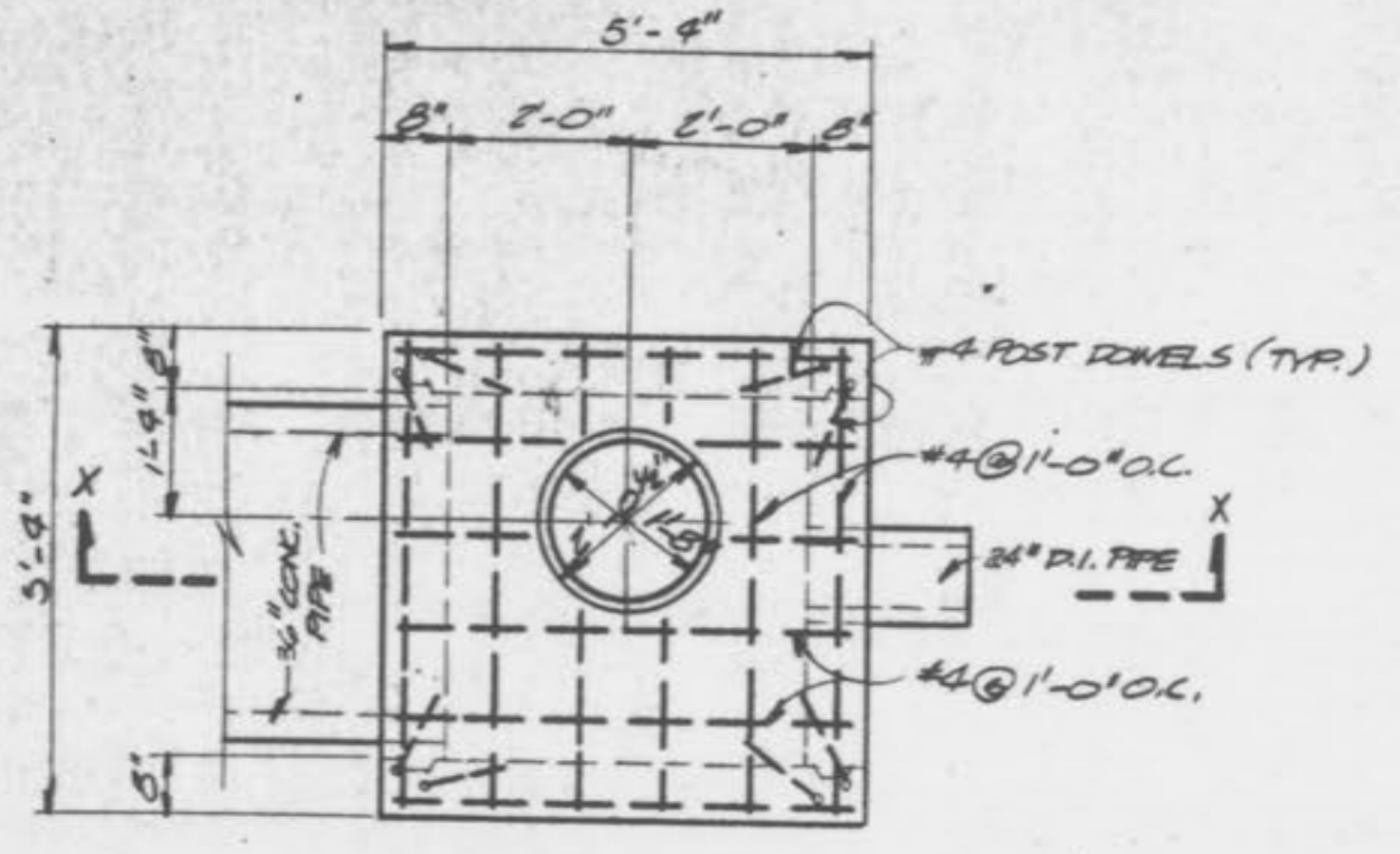
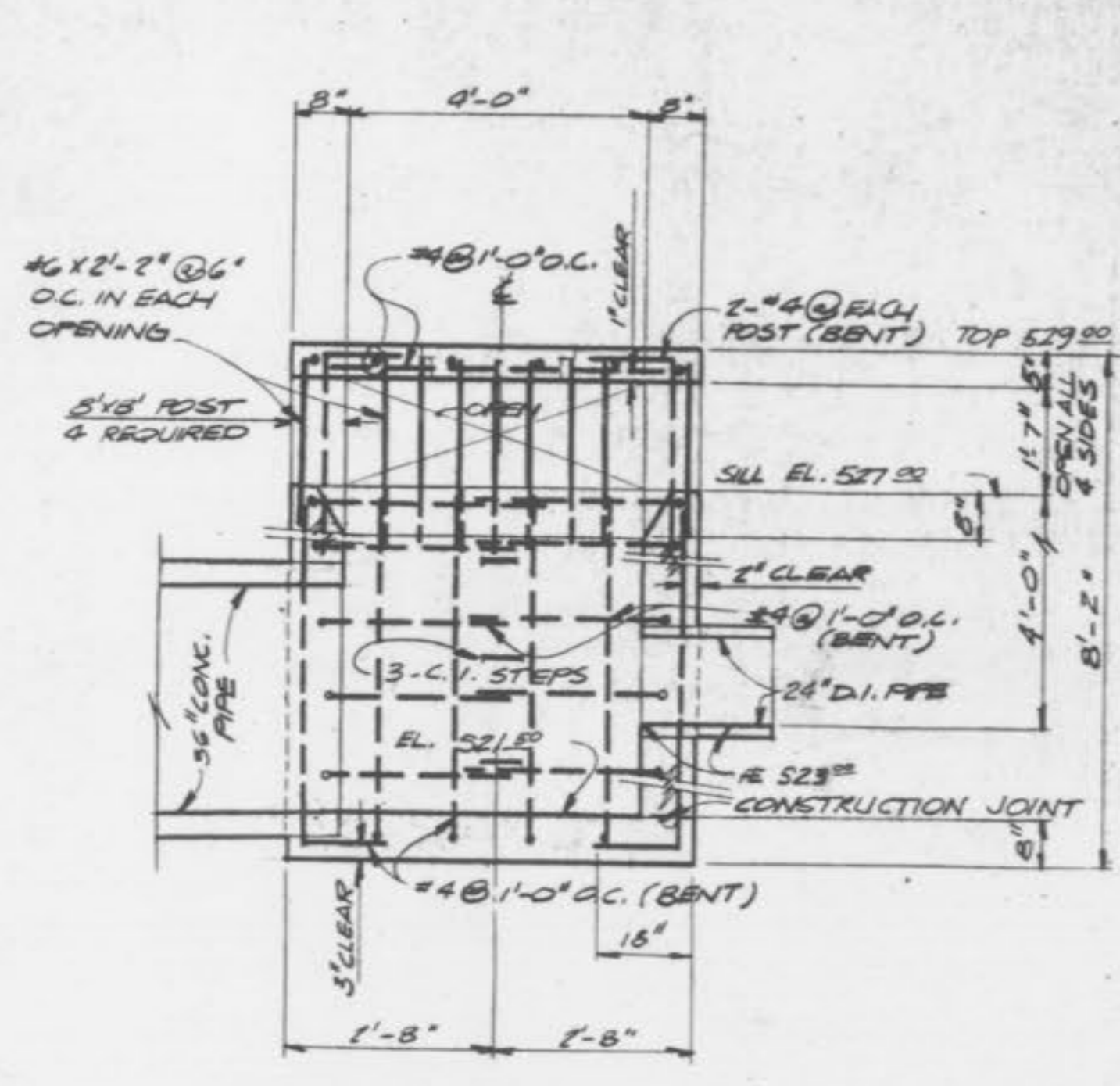
- 2" TYPE "C" ASPHALTIC CONCRETE SURFACE COURSE WITH 6" ROLLED STONE BASE COURSE.
- 3" TYPE "C" ASPHALTIC CONCRETE SURFACE COURSE WITH 6" ROLLED STONE BASE COURSE.

RS-20KT

PROPERTY OF
 CITY OF OFFALLEN
 BUILDING DEPARTMENT



NOTE:
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- 1) All materials, proportioning, air-entraining, mixing, slump, and transporting of the concrete shall be in accordance with Section 501 of the St. Louis County Standard Specifications for Highway Construction, 1976 Edition. $f_c = 4,000$ psi.
- 2) All reinforcing steel shall conform to A.S.T.M. specification A615, grade 60. $f_y = 60,000$ psi.
- 3) All material and workmanship shall conform to the Standard Specifications of the St. Louis County Department of Highways and Traffic.
- 4) The earth backfill shall be placed in layers not exceeding eight inches (loose measurement) and shall be compacted to at least 90 percent of maximum density, as determined by the standard compaction test.
- 5) Placing form oil on all forms prior to the placement of the reinforcing steel is required.

OVERFLOW STRUCTURE DETAIL



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NOTE: ALL STRUCTURES SHALL HAVE A 0.20' FT. DROP FROM PIPE INLET TO PIPE OUTLET.

STORM SEWER PROFILES SCALE: HORIZONTAL - 1\"/>

PROPERTY OF CITY OF FALLON BUILDING DEPARTMENT



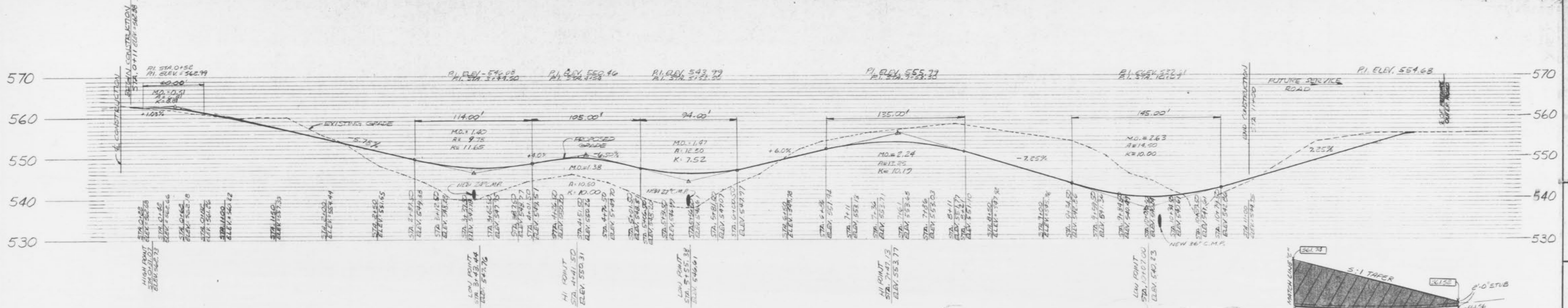
MSP MASSMANN, STEPHANS & FOEHLMAN, INC. 201 S. CENTRAL • CLAYTON, MO 63105 SUITE 201 • (314) 725-4333

Henmi Jen Enderling, Inc. Architects & Planners HBD Contracting, Inc. General Contractor

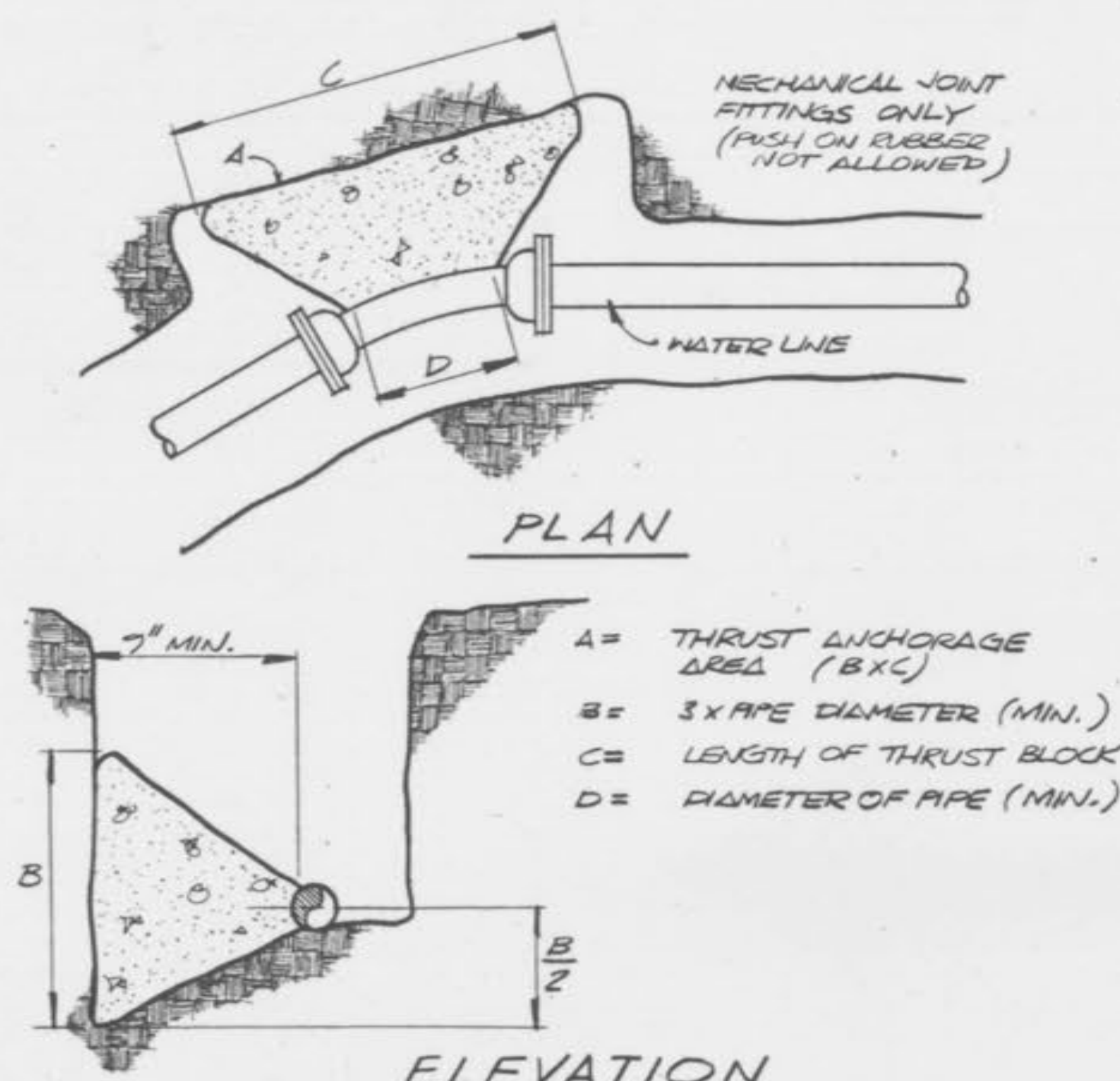
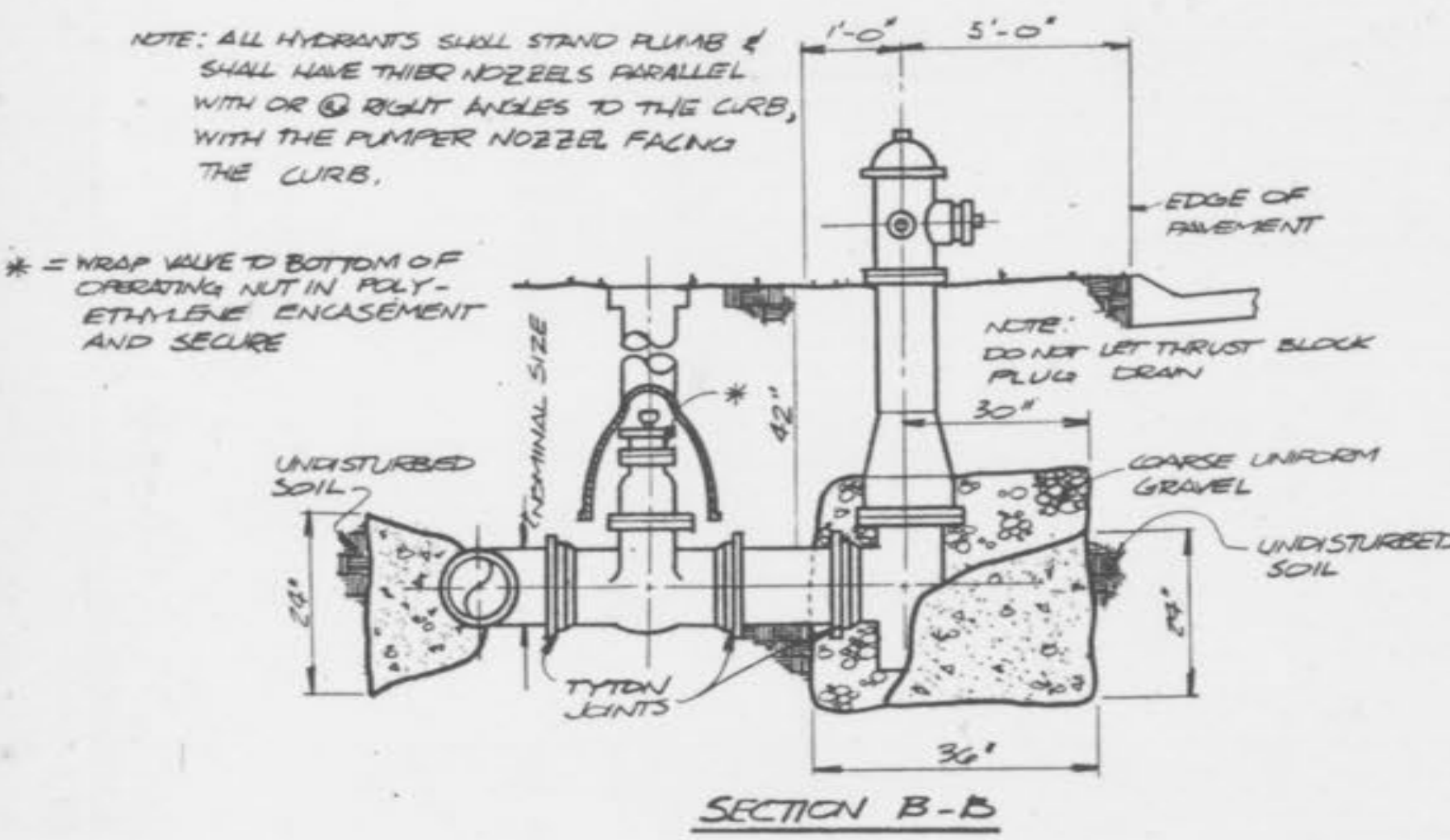
GARDEN VIEW CARE CENTER 700 Garden Path O'Fallon, Missouri LARUS CORPORATION Developer

Date	Revisions
	A-4-25-87 GLT
	5-01-87 DAK
	5-28-87 GLT
	07-24-87
	09-08-87 DAK
	12-18-87 FMC

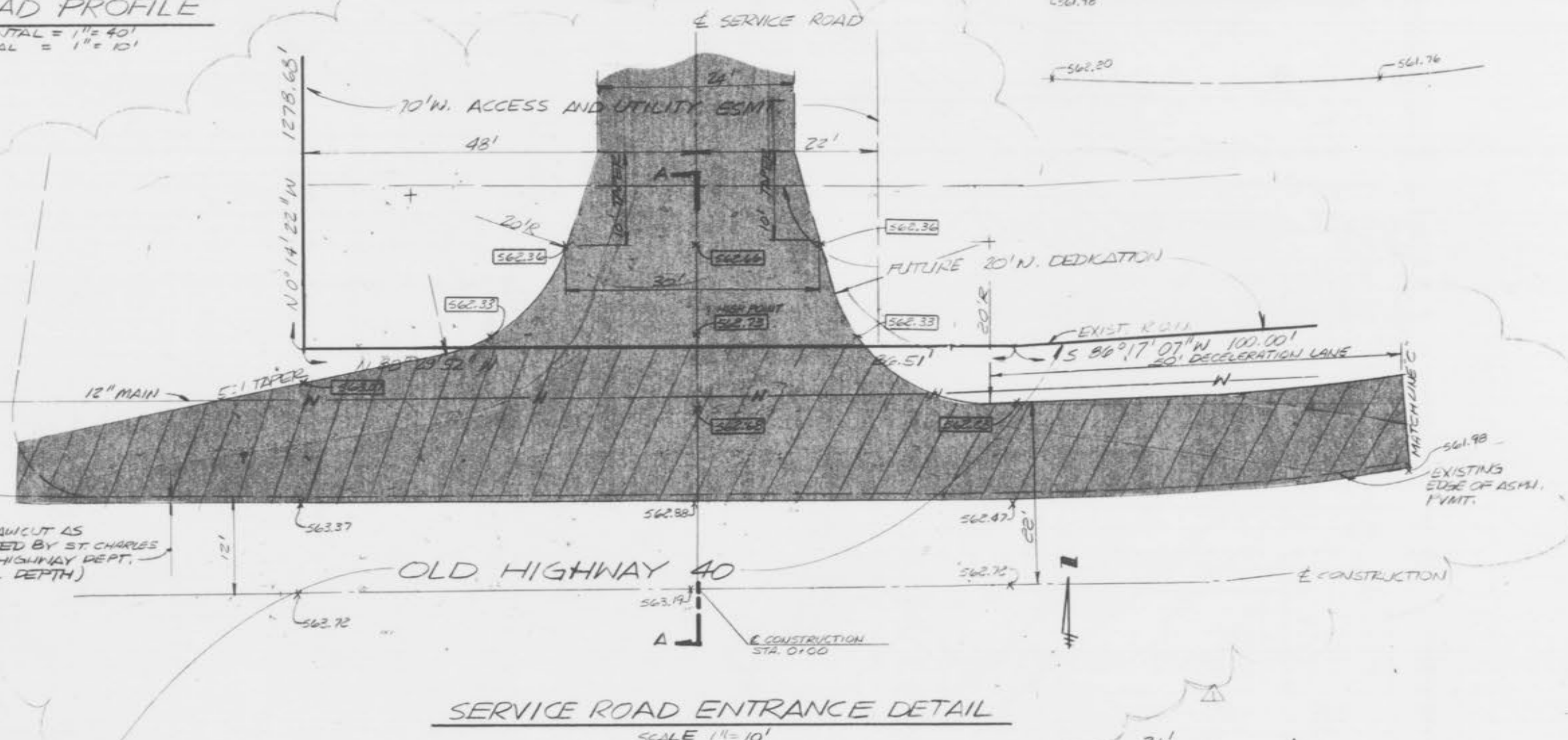
Sheet Title SEWER PROFILE (STORM) AND DETAILS Sheet No. C-4 of 7 Sheets File No. 1740



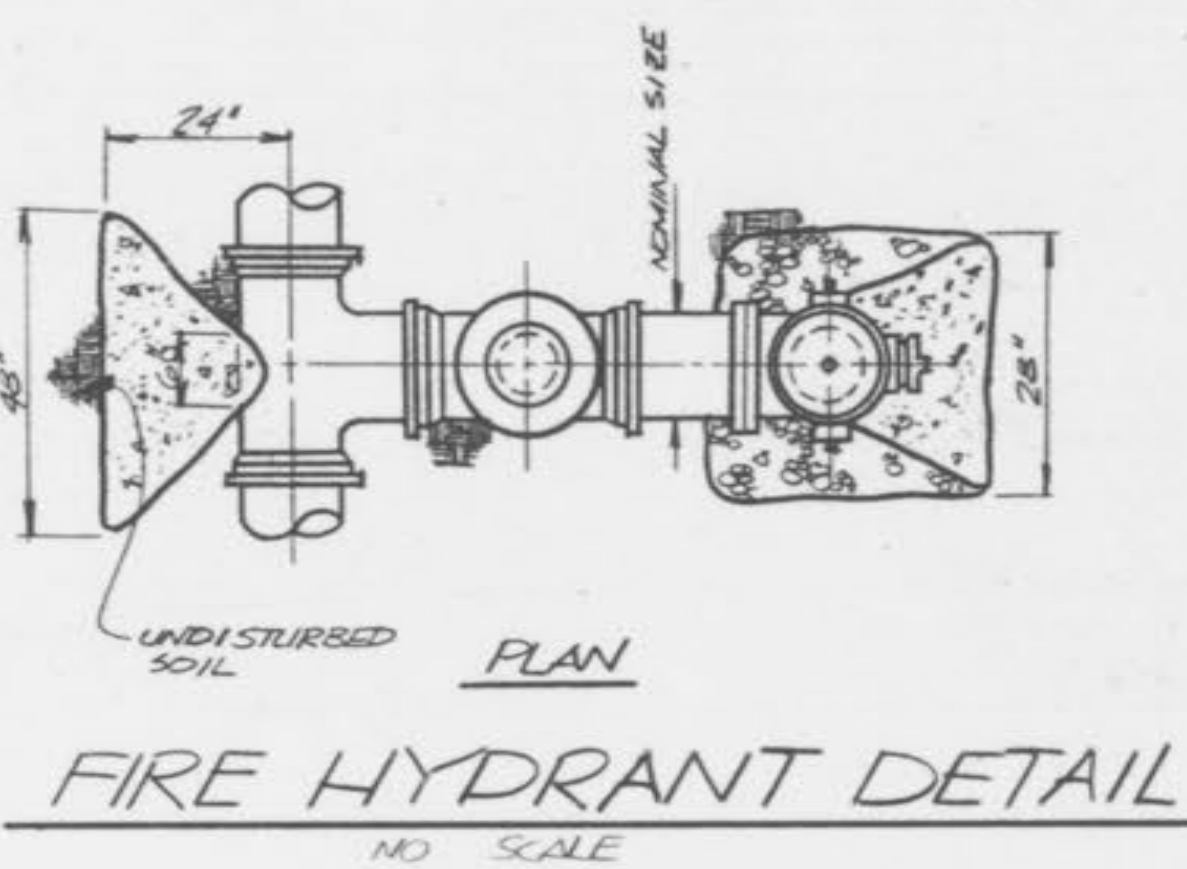
SERVICE ROAD PROFILE
 SCALE: HORIZONTAL = 1" = 40'
 VERTICAL = 1" = 10'



- GENERAL NOTES**
- COVER OVER TOP OF PIPE SHALL BE 42" MIN., 72" MAX.
 - THRUST BLOCKS SHALL BE BUILT AGAIN UNDISTURBED SOIL W/ ADEQUATE BACKING TO PREVENT MOVEMENT OF FITTINGS.
 - NO THRUST BLOCKS TO BE PLACED IN SEWER LATERAL DITCHES.
 - THRUST BLOCKS SHALL BE KEPT CLEAR OF SELLS.



SERVICE ROAD ENTRANCE DETAIL
 SCALE: 1" = 10'



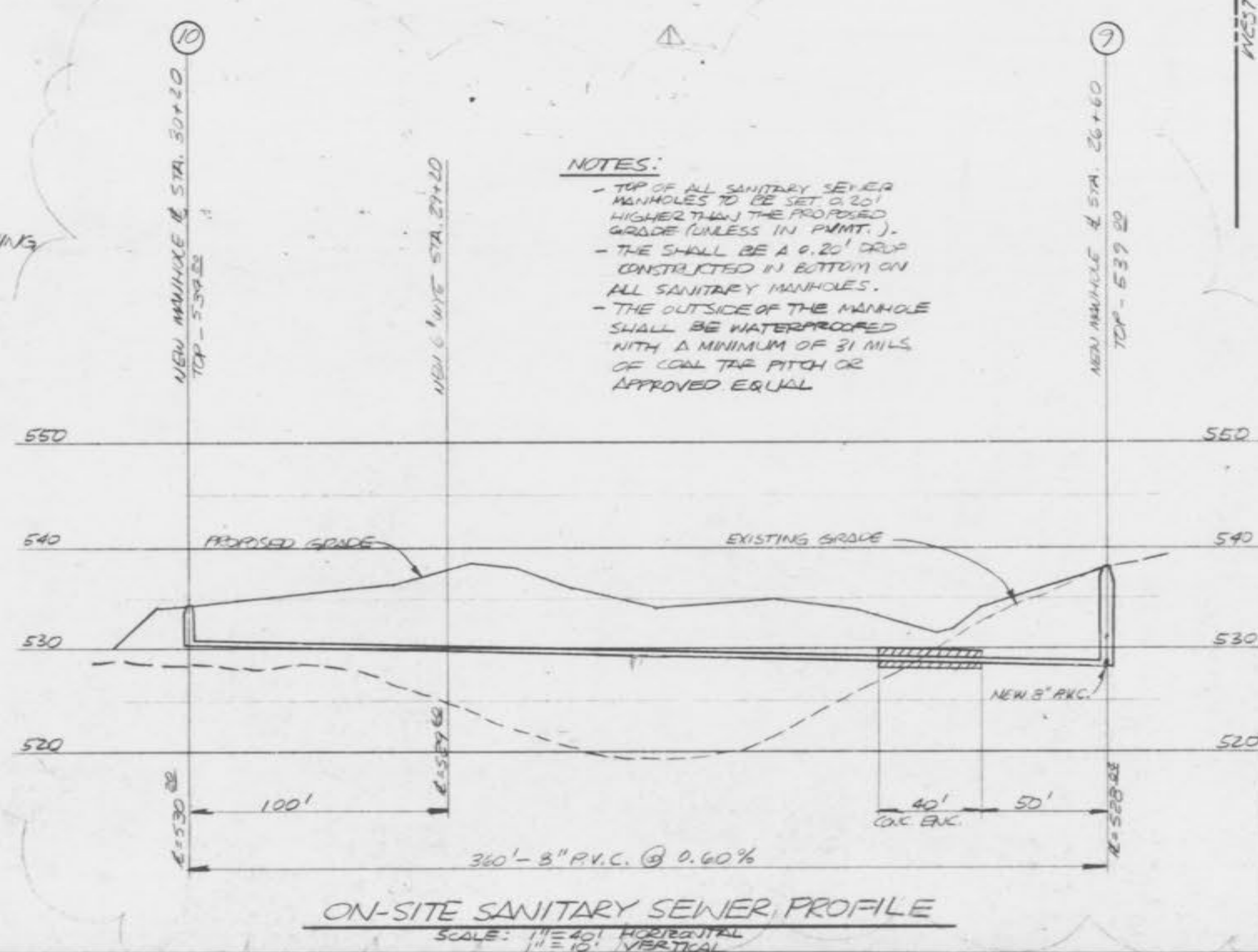
FIRE HYDRANT DETAIL
 NO SCALE

GENERAL NOTES - WATER SERVICE

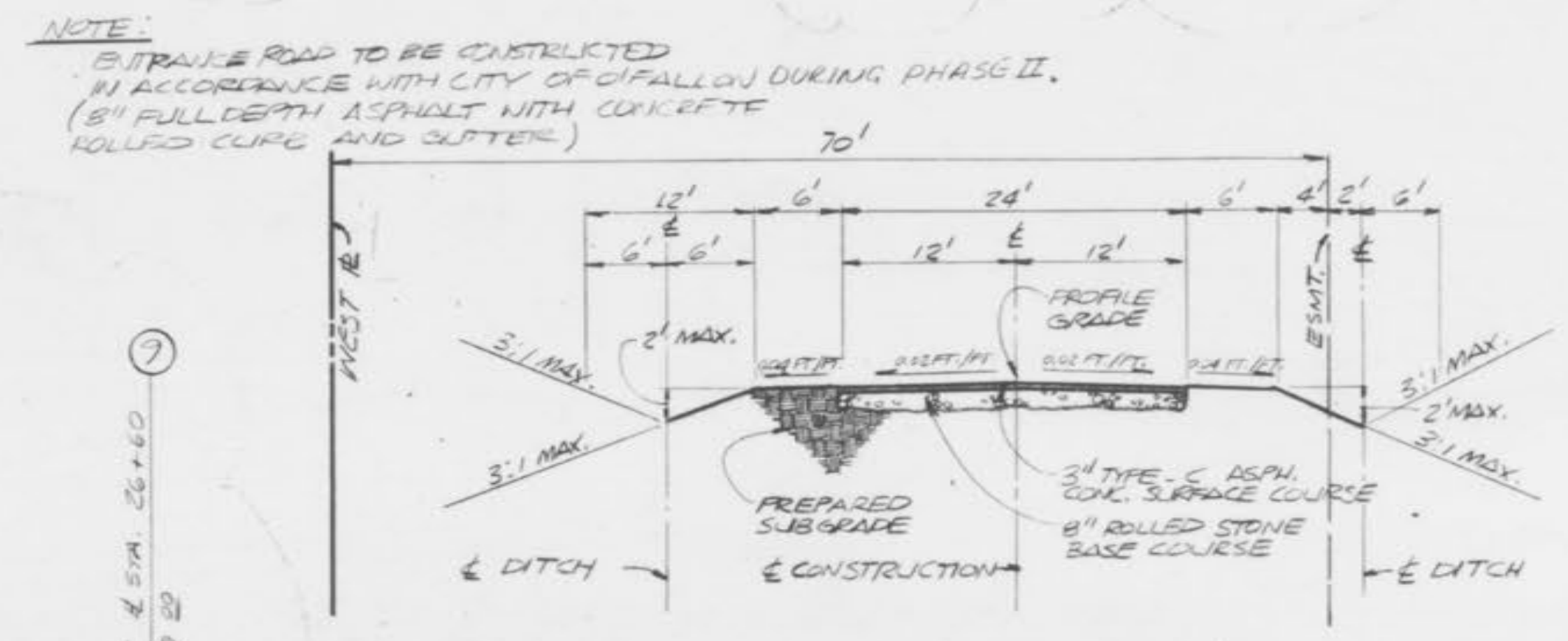
PIPE: SDR 26 - CLASS 160 P.V.C. BELL RING,
 FITTINGS: M. J. DUCTILE IRON AND UNION (153) (21.5) WITHOUT CEMENT LINING,
 VALVES: M. J. MUELLER A23702 OPEN LEFT,
 FIRE HYDRANT: 4" BURY WITH 6" M. J. SHOE - MUELLER A-421 CENTURIAN THAT IS A 4 1/2 - 3 WAY CONNECTION.

- GENERAL NOTES**
- Polyvinyl Chloride Pipe (PVC) for sanitary and storm sewers shall meet requirements of ASTM D-3034, SDR 35.
 - Joints for PVC Pipe shall consist of formed bells utilizing rubber gaskets.
 - All sewer construction and materials shall conform to "Standard Construction Specifications for Sewers and Drainage Facilities," for City of O'Fallon Standards.
 - Details of sewer construction shall be in accordance with "Revised Standard Construction Details for Sewer and Drainage Facilities," The Metropolitan St. Louis Sewer District, 1986 Edition.
 - Sanitary sewer manhole frames and covers use 24" and 30" and 36" and 48" and 60" and 72" and 90" and 108" and 120" and 144" and 180" and 216" or larger 1516 or approved equal rather than 4515.

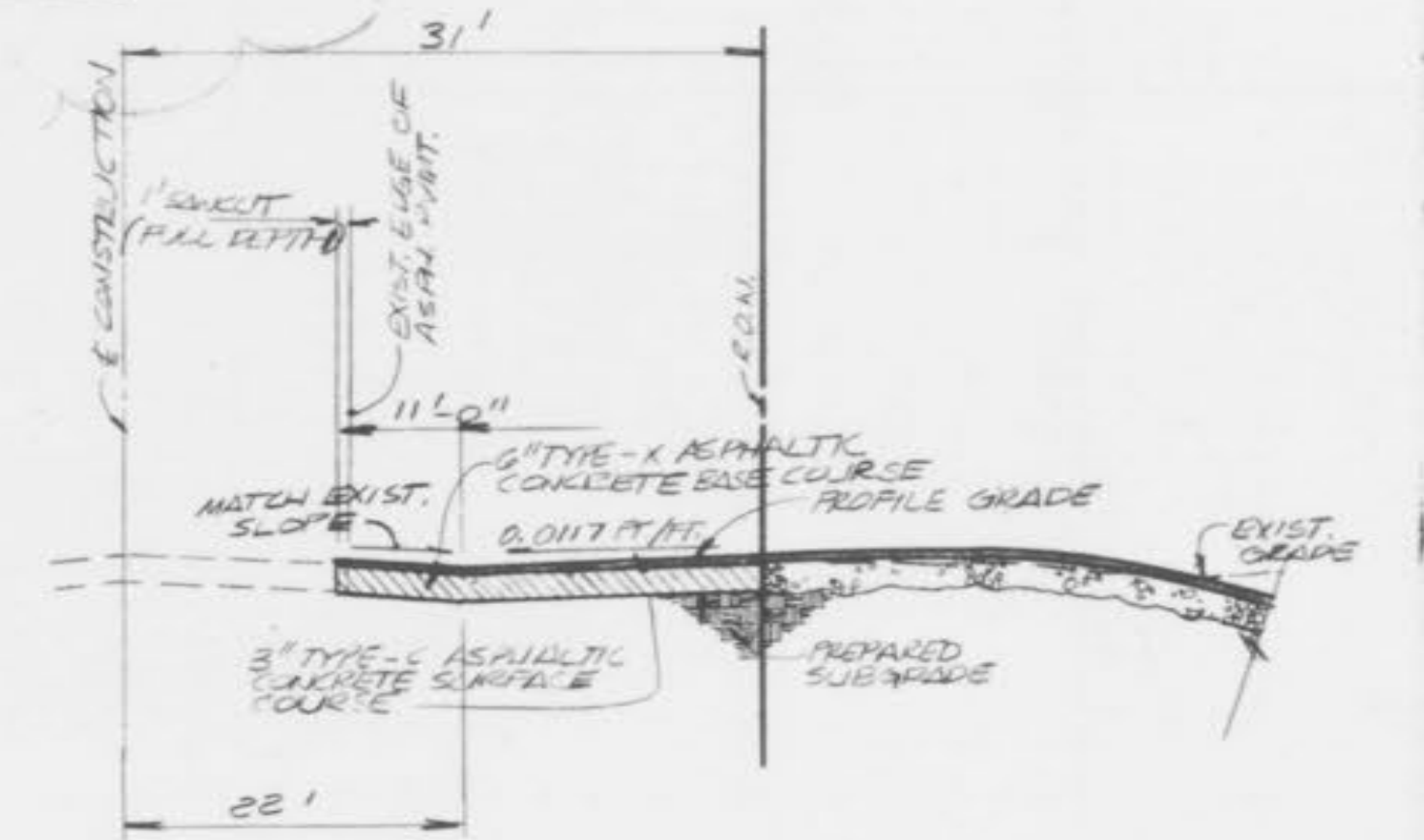
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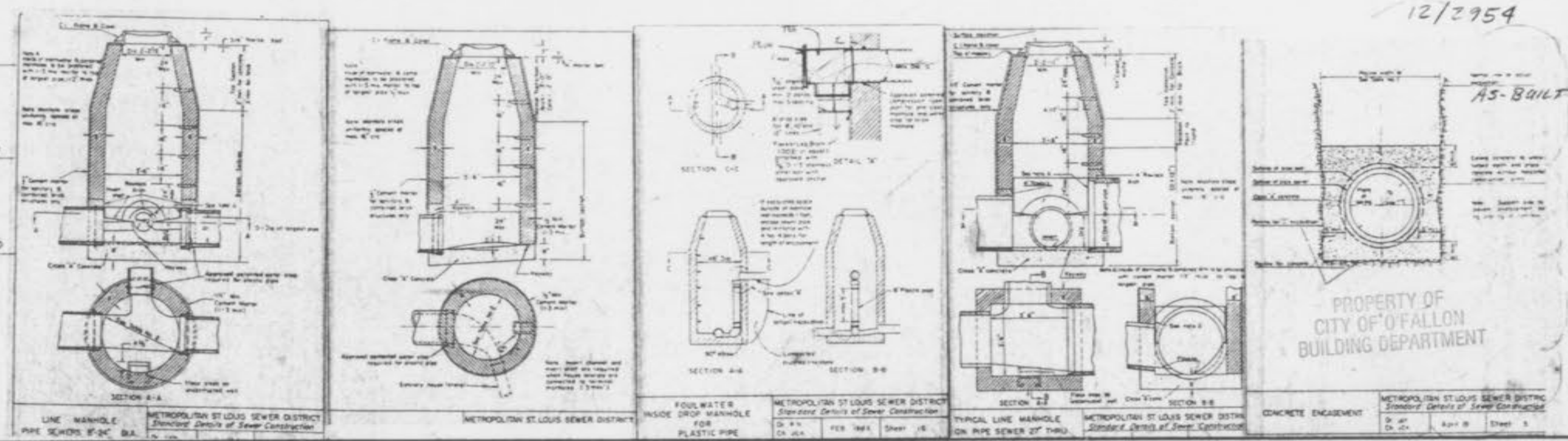
ON-SITE SANITARY SEWER PROFILE
 SCALE: 1" = 40' HORIZONTAL
 VERTICAL = 1" = 10'



TYPICAL SERVICE ROAD X-SECTION
 SCALE: 1" = 10'



SECTION A-A
 NO SCALE



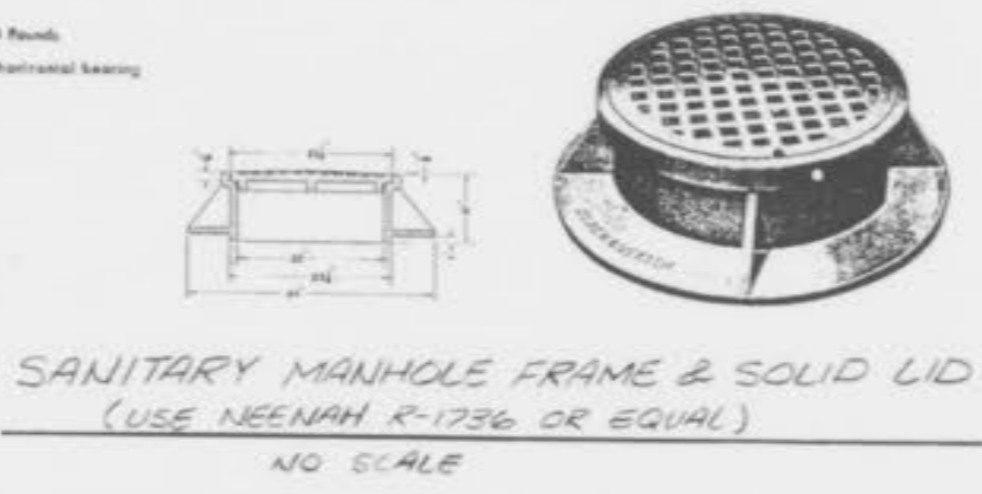
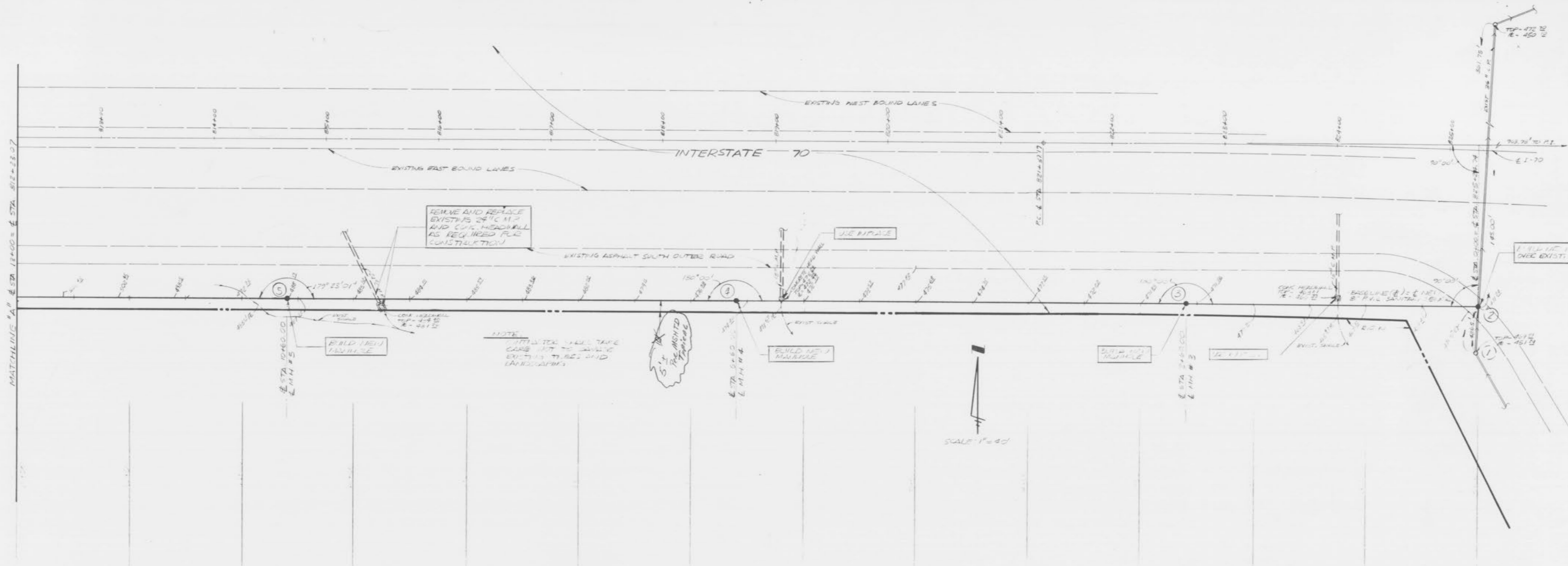
MSP MASSMANN, STEPHANS & POEHLMAN, INC.
 201 S. CENTRAL - CLAYTON, MO 63105
 SUITE 201 - (314) 725-4333
 LAND SURVEYING - CIVIL ENGINEERING - LAND PLANNING

Henmi Jen Endering, Inc.
 Architects & Planners
HBD Contracting, Inc.
 General Contractor

GARDEN VIEW CARE CENTER
 700 Garden Path
LARUS CORPORATION
 Developer

DATE: 4/1/87
 REVISIONS:
 4/23/87
 5/1/87
 5/28/87
 07-28-87
 09-28-87 PAK
 12-16-87 PAK

Sheet Title
STREET & ON-SITE SANITARY SEWER PROFILE
 Sheet No.
C-5
 of 7 Sheets
 File No. 1740



NOTE: ALL SANITARY MANHOLES MUST HAVE A 0.2' DROP THROUGH EACH MANHOLE. ALL TOPS OF SANITARY MANHOLES SHALL BE SET 0.2' HIGHER THAN THE PROPOSED GROUND ELEVATION EXCEPT WHEN PLACED IN PAVEMENT. THE OUTSIDES OF ALL MANHOLES SHALL BE WATERPROOFED WITH A MINIMUM OF 3 MILS OF COAL TAR PITCH OR APPROVED EQUAL.



OFF-SITE SANITARY SEWER PROFILE
 HORIZ. SCALE: 1\"/>

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AS-BUILT 10-14-87 EAC
 OFF-SITE SANITARY SEWER PLAN / PROFILE 4/25/87

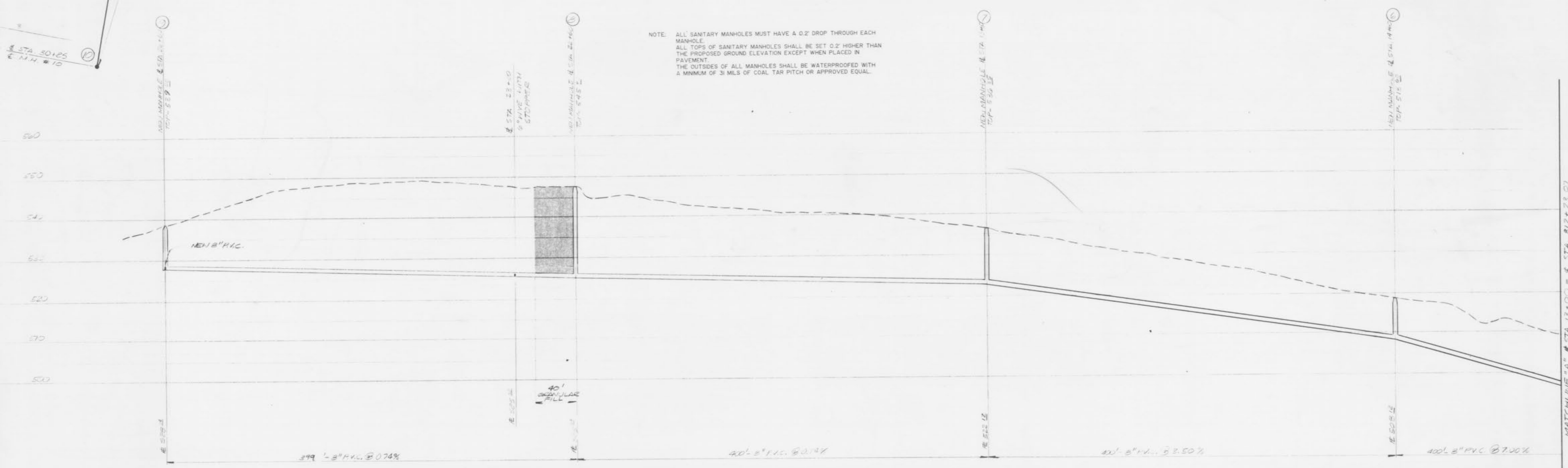
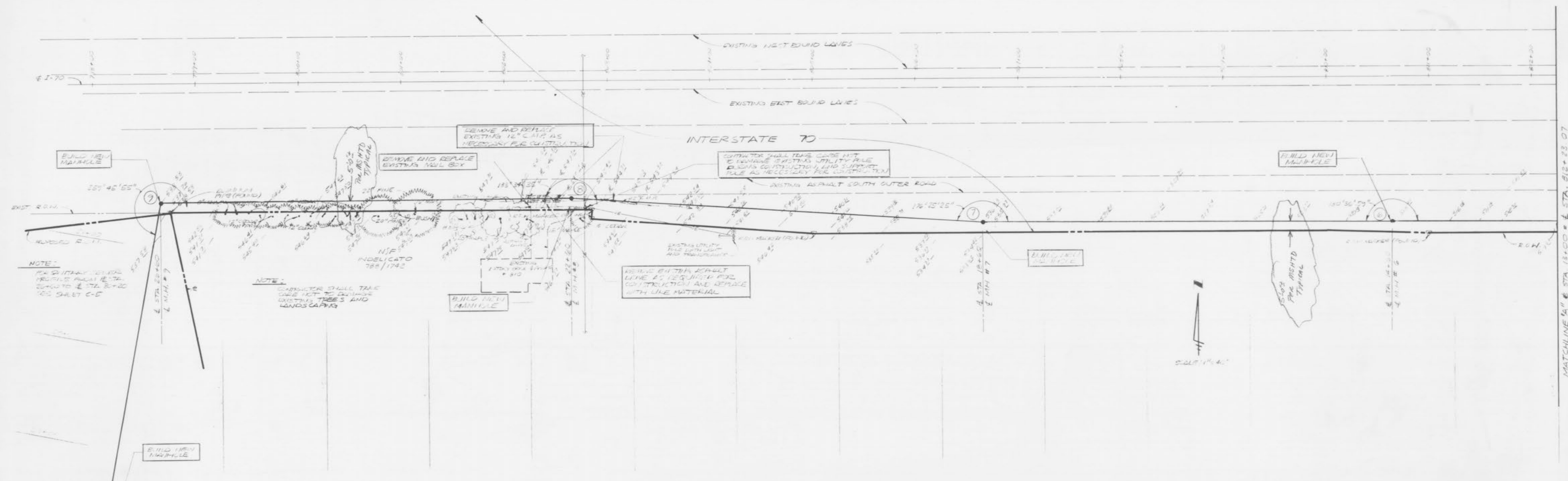
MSP MASSMANN, STEPHANS & POEHLMAN, INC.
 201 S. CENTRAL • CLAYTON, MO 63105
 SUITE 201 • (314) 725-4333
 LAND SURVEYING • CIVIL ENGINEERING • LAND PLANNING

REVISIONS:
 5-01-87
 5-28-87
 07-28-87
 09-23-87 JAM
 10-05-87 JAM

DATE: 10-05-87
 SHEET: C-2 OF 7

Gardenshire Care Cent.
 GARDENSHIRE CARE CENT. A&BH

PROPERTY OF
 CITY OF FALLON
 BUILDING DEPARTMENT



OFF-SITE SANITARY SEWER PROFILE
 SCALE: 1" = 40' HORIZONTAL
 1" = 10' VERTICAL

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PROPERTY OF
 CITY OF FALLON
 BUILDING DEPARTMENT

AS-BUILT 12-14-87 EAE
 OFF-SITE SANITARY SEWER PLAN/PROFILE 4/23/87



MSP MASSMANN, STEPHANS & POEHLMAN, INC.
 201 S. CENTRAL • CLAYTON, MO 63105
 SUITE 201 • (314) 725-4333
 LAND SURVEYING • CIVIL ENGINEERING • LAND PLANNING

DATE: 5-23-87
 DRAWN BY: J. B. BIR
 CHECKED BY: J. B. BIR
 IN CHARGE: J. B. BIR

Garland View Care Cent
 Gar. en View Care Cent As B/r

MATCHLINE "A" @ STA. 13+00 = 2 STA. 512+23.07

MATCHLINE "A" @ STA. 13+00 = 2 STA. 512+23.07