

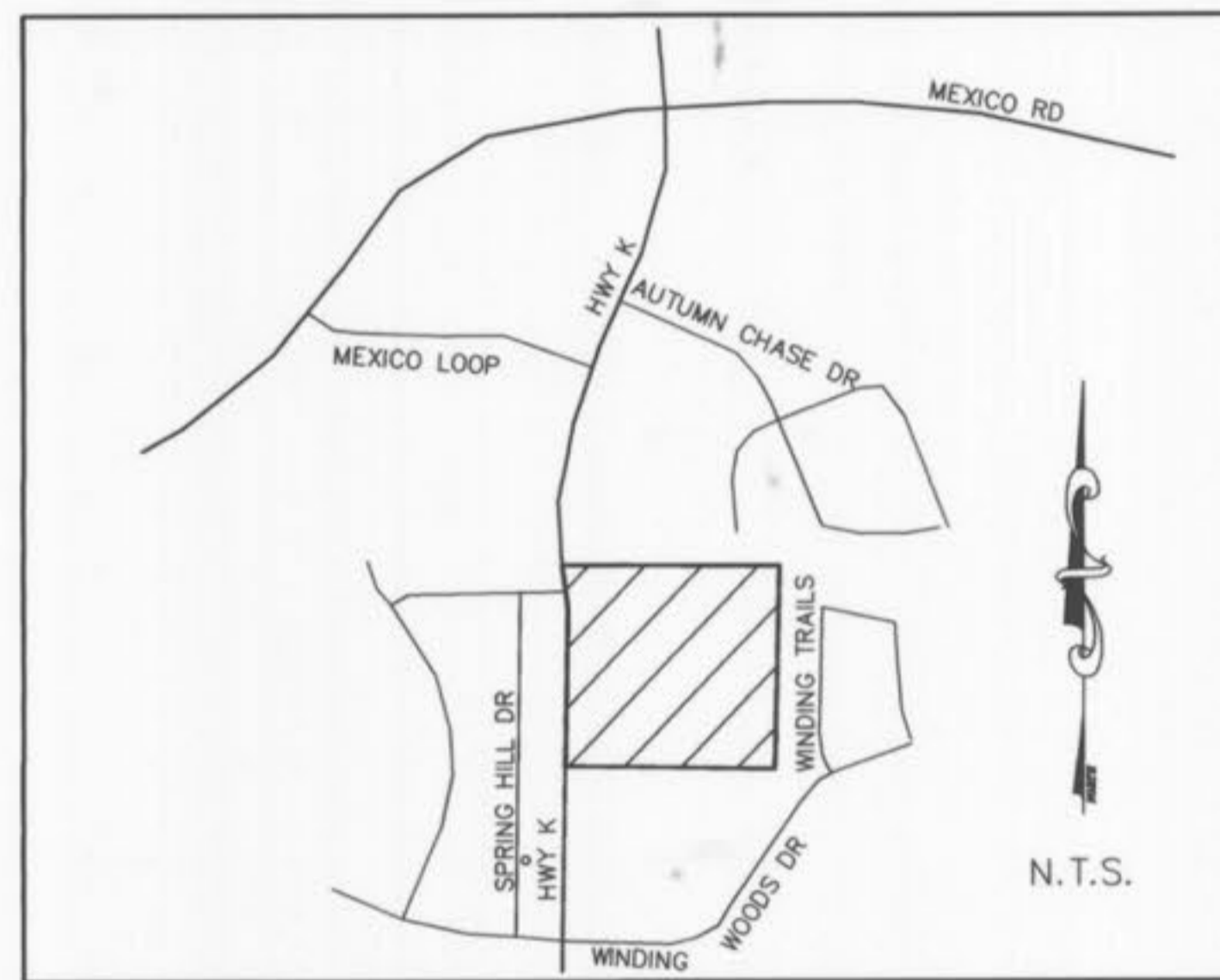
# MEGAN CROSSING

A TRACT OF LAND BEING PART OF  
FRACTIONAL SECTION 33,  
TOWNSHIP 47 NORTH, RANGE 3 EAST,  
ST. CHARLES COUNTY, MISSOURI

## IMPROVEMENT PLANS "AS-BUILTS"

### CITY OF O'FALLON GENERAL NOTES

- Gas, water and other underground utilities shall not conflict with the depth or horizontal locations of existing and proposed sanitary and storm sewers, including house laterals.
- Underground utilities have been plotted from available information and, therefore, their locations must be considered approximate 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 grading or construction of improvements.
- Polyvinyl Chloride (PVC) shall conform to the requirements of ASTM D-3034 Standard Specifications for the PSM Polyvinyl Chloride (PVC) Sewer Pipe and Fittings, SDR-35.
- Storm sewers 18" in diameter or smaller shall be ASTM C-14.
- Storm sewers 21" in diameter or larger shall be ASTM C-76, Class II.
- All storm sewer pipe under pavement, regardless of size, shall be reinforced concrete pipe (ASTM C-76, Class III) unless noted otherwise in the plans.
- Corrugated metal pipe shall conform to the standard specifications for corrugated culvert pipe M-36, A.A.S.H.T.O. See plans for gauge.
- All filled places under proposed roads, proposed sanitary and storm sewer lines, and/or paved areas including trench backfills shall be compacted to 90% of maximum density as determined by the "Modified AASHTO T-99 Compaction Test" or 95% of maximum density as determined by the Standard Proctor Test AASHTO T-99. All filled places in proposed roads shall be compacted from the bottom of the fill up. All tests shall be verified by a soils engineer concurrent with grading and backfilling operations. Ensure the moisture content of the soil in fill areas is to correspond to the corrective effort as defined by the Standard or Modified Proctor Test. Optimum moisture content shall be determined using the same test that was used for compaction. Soil compaction curves shall be submitted to the City of O'Fallon prior to the placement of fill. Proof rolling may be required to verify soil stability at the discretion of the City of O'Fallon.
- All earthen filled places within State, County, or City roads (Highways) shall be compacted to 95% of maximum density as determined by the "Standard Proctor Test A.A.S.H.T.O. T-99" (ASTM D-698) unless otherwise specified by local governing authority specifications. All tests will be verified by a soils engineer.
- All storm and sanitary trench backfills shall be water jetted. Granular fill will be used under paved areas.
- Easements shall be provided for storm sewers, sanitary sewers, and all utilities on the record plan. See record plat for location and size of easements. This does not apply to house laterals.
- No area shall be cleared without the permission of the developer.
- All grades shall be within 0.2 feet (more or less) of those shown on the grading plan.
- No slope shall be steeper than 3' (horizontal) to 1' (vertical) sodded or seeded and mulched.
- Hazard markers will consist of three (3) standard specification, "Manual on Uniform Traffic Control Devices," and of roadway markers mounted on two (2) pound "U" channel sign post. Each marker shall consist of an eighteen (18) inch diamond reflectorized red panel. The bottom of each panel shall be mounted a minimum of four (4) feet above the elevation of the pavement surface.
- All manhole and curb inlet tops built without elevations furnished by the Engineer will be the responsibility of the sewer contractor. At the time of construction stake-out of the sewer lines, all curb and grate inlets will be face staked. If normal face stakes fall in the with sewer construction, the Engineer will set these stakes on a double offset. It shall be the responsibility of the sewer contractor to preserve all face stakes from destruction.
- All standard street curb inlets to have front of inlet 2 feet behind curb.
- The minimum vertical distance from the low point of the basement to the baseline of a sanitary sewer at the corresponding house connection shall not be less than the diameter of the sanitary sewer plus a vertical distance not less than two and one-half feet (2-1/2').
- Water lines, valves, sleeves, meters and etc., shall meet all specifications and installation requirements of the local governing authority. Water mains shall have a minimum of 42" of cover.
- All cast iron pipe for water mains shall conform to A.W.W.A. specification C-106 and/or C-108. The cast iron fittings shall conform to A.W.W.A. specification C-110. All rubber gasket joints for water cast iron pressure pipe and fittings shall conform to A.W.W.A. specification C-111.
- All water hydrants and valves shall be cast iron and installed in accordance with plans and details.
- All sanitary and storm sewers shall meet all specifications and installation requirements of the local governing authority.
- All PVC water pipe shall have a minimum pressure rating of PR-200 or SDR-21.
- All PVC sanitary sewer pipe shall be DR-35 or equal with crushed stone bedding uniformly graded between 1" and 1/4" size. This bedding shall extend from 6" below the pipe to 12" above the top of the pipe.
- All grading on Missouri State Highway Right-of-Way shall be seeded and mulched and all disturbed Right-of-Way markers shall be reset at the completion of grading.
- All streets must meet the specifications and installation requirements of the City of O'Fallon.
- All sanitary manholes top shall be set 0.2' higher than the proposed ground except in pavement areas.
- All sanitary manholes shall have a 31 mil thick coat of coal tar pitch waterproofing.
- All sanitary service lines shall have a 6" diameter.
- Manhole frame and cover shall be Clay and Bailey No. 2008 or Neenah R-1736 or Deeter 1315 or approved equal.
- A drop of 0.2 feet is required through each sanitary manhole. Minimum cover of 42" is required on all sanitary sewer mains.
- The City of O'Fallon shall be notified at least 48 hours prior to construction of sanitary sewers for coordination and inspection.
- Brick shall not be used on in the construction of sanitary or storm sewer structures.
- 5/8" diameter trash bars shall be provided for all inlets.
- Waterproofing: Waterproofing will be required on the exterior of all manholes. The bitumen shall consist of two coats of asphalt, coat-tar pitch, or a coating meeting American Society for Testing and Materials (ASTM) D-41. Asphalt shall conform to the requirements of ASTM D 449. Coat-tar pitch shall conform to the requirements of ASTM D-450. Coating shall be 31 mils thickness.
- All concrete pipe or ADS N-12 pipe shall be installed with "O-Ring" Rubber type gaskets per M.S.D. standard construction specifications or manufacturer.
- The contractor shall assume complete responsibility for controlling all siltation and erosion of the project area. The contractor shall use whatever means necessary to control erosion and siltation including, but not limited to, staked straw bales and/or siltation fabric fences (possible methods of control are detailed in the plan). Control shall commence with grading and be maintained throughout the project until acceptance of the work by the Owner and/or the City of O'Fallon and/or MoDOT. The contractor's responsibilities include all design and implementation as required to prevent erosion and the depositing of silt. The Owner and/or the City of O'Fallon and/or MoDOT may at their option direct the Contractor in his methods as deemed fit to protect property and improvements. Any depositing of silt or mud on new or existing pavement or in new or existing storm sewers or swales shall be removed after each rain and affected areas cleaned to the satisfaction of the Owner and/or the City of O'Fallon and/or MoDOT.
- Developer must supply City construction inspectors with soils reports prior to or during site soil testing.
- All paving to be in accordance with St. Charles County standards and specifications except as modified by the City of O'Fallon ordinances.
- Owner shall provide a copy of the soils report to grading contractor. Contractor shall be responsible for adhering to all recommendations outlined in the soils report.



LOCATION MAP

TO \_\_\_\_\_  
These "As-Built" Sanitary Sewer, Storm Sewer and Water plans, are based on actual field measurements conducted during December 2005 and the results are shown hereon.

By: *[Signature]* 5-18-06  
JAMES R. CHERVEK P.L.S., #2211  
STATE OF MISSOURI  
PICKETT, RAY & SILVER'S CORPORATE  
REGISTRATION NO. LS-54-D

#### BENCH MARKS

TBM: "M" in Mueller on fire hydrant east side of Highway K  
333'± south of the northwest corner of this site.

ELEVATION = 574.07

U.S.G.S. BENCHMARK: F-149, AT O'FALLON, ST. CHARLES COUNTY, ON THE WABASH RAILROAD, ONE BLOCK EAST OF THE STATION, IN THE SOUTHEAST CORNER OF THE ST. MARY INSTITUTE YARD, 40 FEET EAST OF THE CENTER OF A STREET CROSSING, AND 45 FEET NORTH OF THE CENTERLINE OF THE MAIN TRACK. A STANDARD DISK, STAMPED F 149 1935 AND SET IN THE TOP OF A CONCRETE POST PROJECTING 6 INCHES ABOVE GROUND.

ELEVATION = 542.80

### DRAWING INDEX

Sheet	Description
1	COVER SHEET
2	SITE PLAN
3	GRADING PLAN
4	DRAINAGE AREA MAP
5	INTERIM GRADING AND SILTATION PLAN
6	STORM SEWER PROFILES
7,8,9	CONSTRUCTION DETAILS
10	SANITARY SEWER PROFILES/DETAILS
11	SILTATION CONTROL DETAILS
12	WATER DETAILS
13	LIGHTING PLAN
13A	LANDSCAPE PLAN
13B	PAVING PLAN
13C	UTILITY PLAN

### LEGEND

	Sanitary Sewer (Proposed)		R.C.P.	Reinforced Concrete Pipe
	Sanitary Sewer (Existing)		C.M.P.	Corrugated Metal Pipe
	Storm Sewer (Proposed)		C.I.P.	Cast Iron Pipe
	Storm Sewer (Existing)		P.V.C.	Polyvinyl Chloride
	Water Line & Size		V.C.P.	Vitrified Clay Pipe
	Existing water line			
	Tee & Valve		C.O.	Clean Out
	Hydrant		V.T.	Vent Trap
	Cap		T.B.R.	To Be Removed
	18 Lot or Building Number		T.B.R. & R	To Be Removed & Relocated
	Existing Fence Line		G.I.	To Be Protected
	Existing Tree Line		A.I.	To Be Abandoned
	Street Sign		D.A.I.	Base Of Curb
	Existing Contour		C.C.	Top Of Curb
	Proposed Contour		F.E.	Top Of Wall
	Grouted Rip-Rap		E.P.	Base Of Wall
	End of Lateral		E.D.	(TYP)
	Asphalt Pavement		M.H.	Unless Noted Otherwise
	Concrete Pavement		C.P.	Use In Place

# PICKETT RAY & SILVER

Civil Engineers  
Planners  
Land Surveyors

333 Mid Rivers Mall Dr.  
St. Peters, MO 63376  
397-1211 FAX 397-1104

**PICKETT RAY & SILVER**  
CIVIL ENGINEERS  
PLANNERS  
LAND SURVEYORS  
333 Mid Rivers Mall Drive  
St. Peters, MO 63376  
Phone (636) 397-1211  
Fax (636) 397-1104

MEGAN CROSSING  
MISSOURI STATE HIGHWAY K  
O'FALLON, MISSOURI  
Prepared For:  
G. J. GREWE, INC.  
8165 WATSON ROAD  
ST. LOUIS, MO  
(314) 962-5300

REVISIONS	DATE	BY	DESCRIPTION
1	05-28-04	PER CITY OF O'FALLON	
2	01-21-05	PER DEVELOPER	
3	03-30-05	PER WATER COMPANY	
4	01-12-06	"AS-BUILTS"	

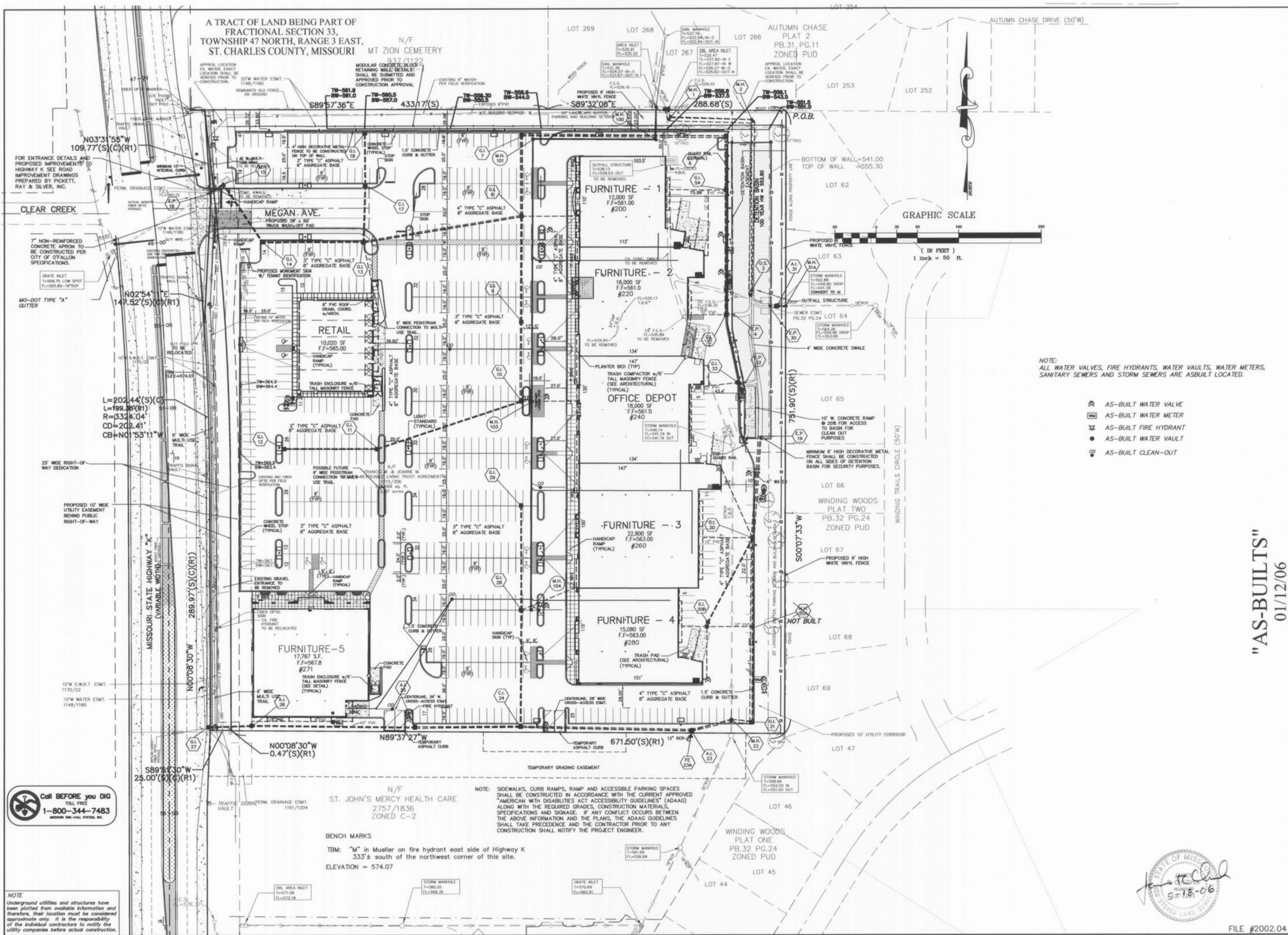
**ENGINEERS AUTHENTICATION**  
The responsibility for professional engineering liability on this project is hereby limited to the set of plans authenticated by the seal, signature, and date hereunder attached. Responsibility is disclaimed for all other engineering plans involved in this project and specifically excludes revisions after this date unless reauthenticated.  
PICKETT, RAY & SILVER, INC.

DRAWN D.STOSZ	DATE 04-27-04
CHECKED D.BYRD	DATE 04-27-04
PROJECT # 03043.G.JGR.00C	TASK # 1 FIELD BOOK

MEGAN CROSSING  
COVER SHEET  
SHEET 1 OF 13  
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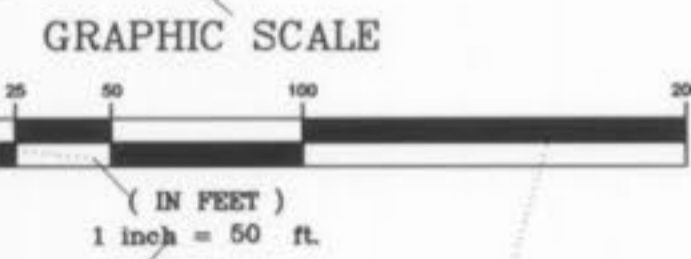




A TRACT OF LAND BEING PART OF FRACTIONAL SECTION 33, TOWNSHIP 47 NORTH, RANGE 3 EAST, ST. CHARLES COUNTY, MISSOURI

PLAT 2, PB.31, PG.11 ZONED PUD

ST. JOHN'S MERCY HEALTH CARE  
2757/1836  
ZONED C-2



NOTE: ALL WATER VALVES, FIRE HYDRANTS, WATER VAULTS, WATER METERS, SANITARY SEWERS AND STORM SEWERS ARE ASBUILT LOCATED.

- AS-BUILT WATER VALVE
- AS-BUILT WATER METER
- AS-BUILT FIRE HYDRANT
- AS-BUILT WATER VAULT
- AS-BUILT CLEAN-OUT

NOTE: SIDEWALKS, CURB RAMPS, RAMP AND ACCESSIBLE PARKING SPACES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT APPROVED "AMERICAN WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES" (ADAAG) ALONG WITH THE REQUIRED GRADES, CONSTRUCTION MATERIALS, SPECIFICATIONS AND SIGNAGE. IF ANY CONFLICT OCCURS BETWEEN THE ABOVE INFORMATION AND THE PLANS, THE ADAAG GUIDELINES SHALL TAKE PRECEDENCE AND THE CONTRACTOR PRIOR TO ANY CONSTRUCTION SHALL NOTIFY THE PROJECT ENGINEER.

Call BEFORE you DIG  
TOLL FREE  
1-800-344-7483  
MEDIUM ONE-CALL SYSTEM, INC.

NOTE: Underground utilities and structures have been plotted from available information and therefore, their location must be considered approximate only. It is the responsibility of the individual contractors to notify the utility companies before actual construction.

"AS-BUILTS"  
01/12/06

**PICKETT RAY & SILVER**  
CIVIL ENGINEERS  
PLANNERS  
LAND SURVEYORS  
333 Mid Rivers Mall Drive  
St. Peters, MO 63376  
Phone (636) 397-1211  
Fax (636) 397-1104

**MEGAN CROSSING**  
MISSOURI STATE HIGHWAY K  
O'FALLON, MISSOURI  
Prepared For:  
**G. J. GREWE, INC.**  
8168 WATSON ROAD  
ST. LOUIS, MO  
(314) 962-6300

REVISIONS	DATE	BY	DESCRIPTION
1	01-05-06	PER. CITY OF OTTALON	
2	01-21-06	PER. DEVELOPER	
3	01-25-06	PER. CITY OF OTTALON	
4	02-16-06	PER. DEVELOPER	
5	03-11-06	EXISTING WATER PER FIELD LOCATION	
6	03-30-06	PER. WATER COMPANY	
7	08-14-06	PER. DEVELOPER	
8	08-05-06	PER. DEVELOPER	
9	10-03-06	PER. WATER COMPANY	
10	01-12-06	"AS-BUILTS"	

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**PICKETT, RAY & SILVER, INC.**

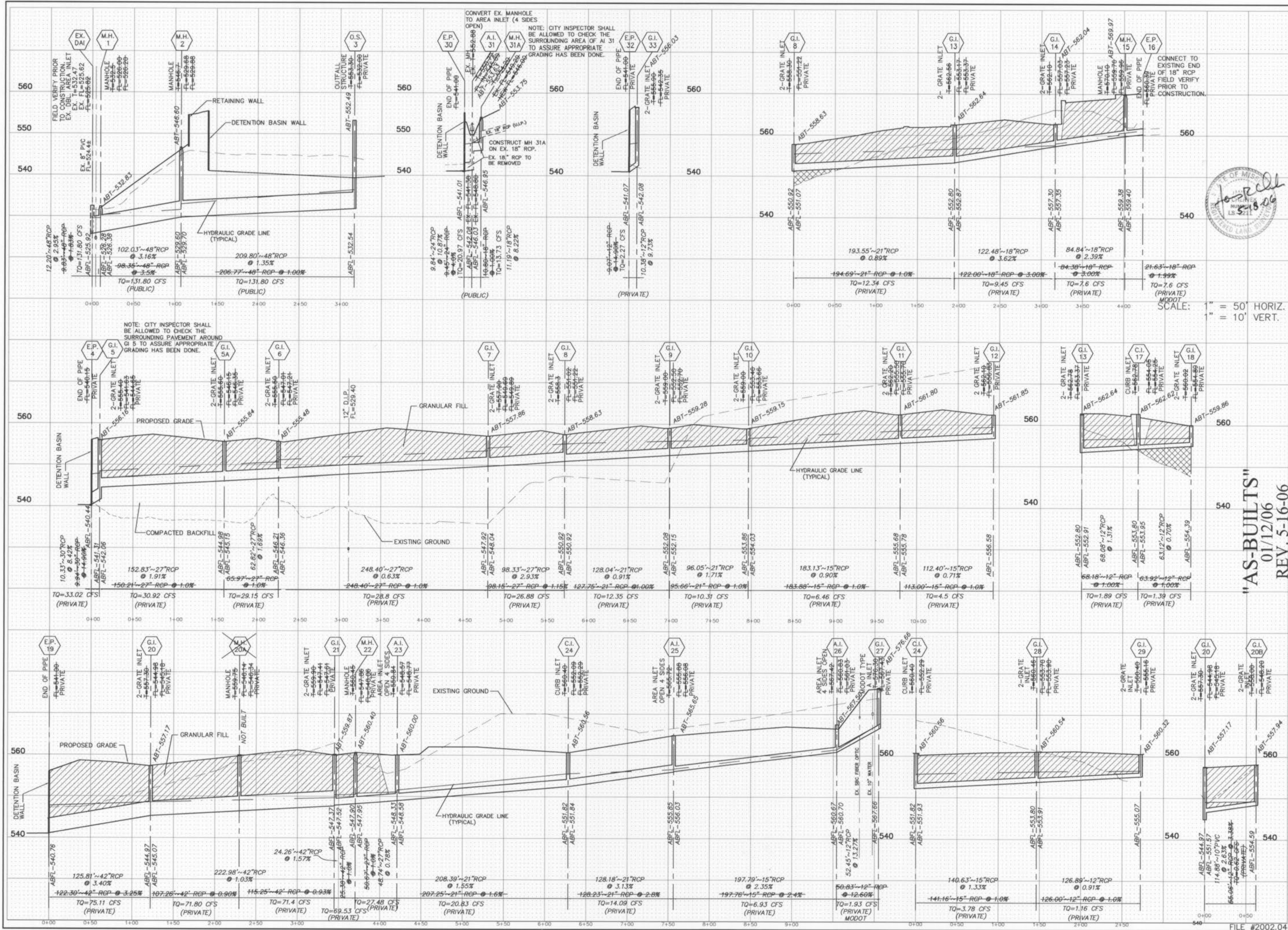
DRAWN D.STOSZ	DATE 12-15-04
CHECKED D.BYRD	DATE 12-15-04
PROJECT # 03043.GJGR.00C	TASK # 1 FIELD BOOK

MEGAN CROSSING  
SITE PLAN  
SHEET 2 OF 13  
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FILE #2002.04





"AS-BUILTS"  
01/12/06  
REV. 5-16-06

SCALE: 1" = 50' HORIZ.  
1" = 10' VERT.

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MEGAN CROSSING  
MISSOURI STATE HIGHWAY K  
OF FALLON, MISSOURI  
Prepared For:  
G. J. GREWE, INC.  
9109 WATSON ROAD  
OF FALLON, MO 64429  
(314) 962-6300

REVISIONS NO.	DATE	DESCRIPTION
05-28-04	PER CITY OF OF FALLON	
07-13-04	PER CITY OF OF FALLON	
01-21-05	PER DEVELOPER	
03-10-05	PER WATER COMPANY	
03-30-05	PER WATER COMPANY	

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PROJECT # 03043.G.J.G.R.DOC	TASK # 1 FIELD BOOK

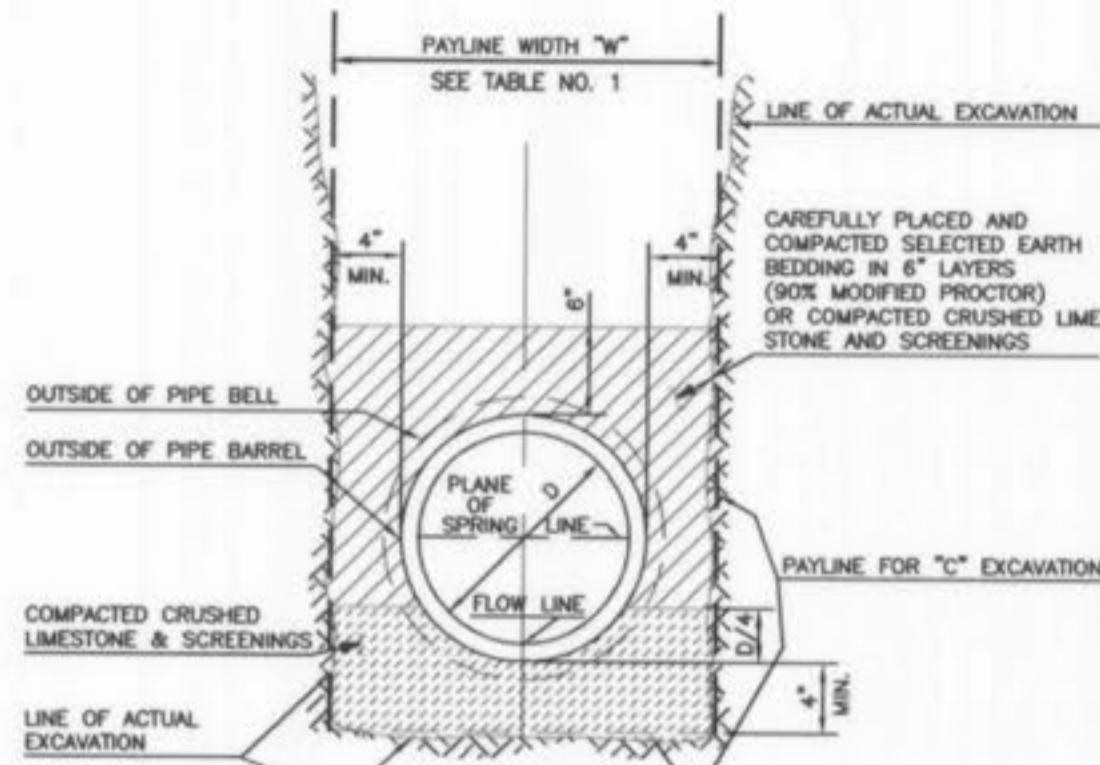
MEGAN SHOPPES  
SEWER PROFILES  
SHEET 6 OF 13  
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Megan Crossing As-builts 3045

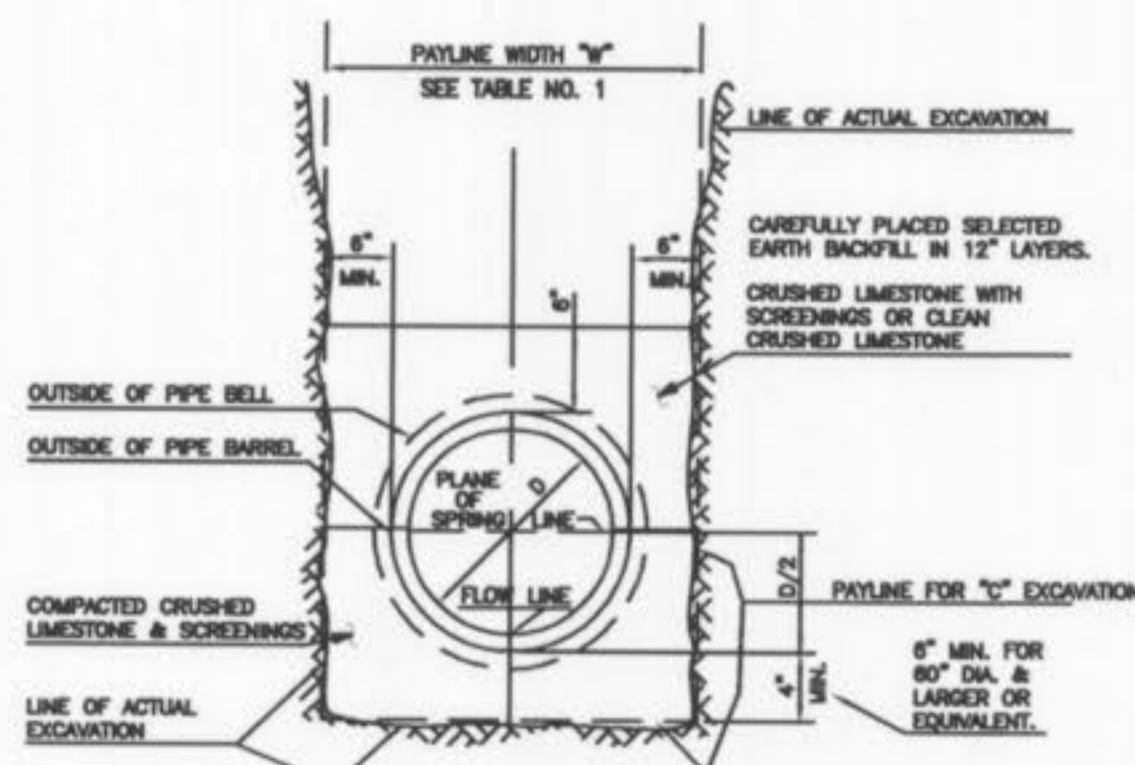


ROUND PIPE				HORIZONTAL ELLIPTICAL PIPE			
Inside Diameter of Pipe (ft)	Outside Diameter of Pipe (ft)	Payline Width (ft)	Payline Quantity of Concrete (cu yd)	Inside Diameter of Pipe (ft)	Outside Diameter of Pipe (ft)	Payline Width (ft)	Payline Quantity of Concrete (cu yd)
4	28	3.33	3.30				
6	36	3.33	3.48				
8	36	3.33	3.70				
10	36	3.33	3.88				
12	36	3.33	3.98				
15	36	3.47	4.88				
18	36	3.62	6.43	14 X 23	41	3.42	6.94
21	36	3.76	8.61				
24	42	3.80	7.39	18 X 30	49	4.08	7.88
27	42	3.75	8.18	22 X 34	53	4.42	8.81
30	42	4.08	8.30	24 X 36	59	4.83	9.30
33	53	4.42	10.63	27 X 42	62	5.17	10.71
36	53	4.57	11.43	28 X 46	66	5.80	11.72
39	53	4.72	12.23	29 X 49	71	6.22	12.54
42	63	5.00	13.38	34 X 53	76	6.25	14.05
48	70	5.83	15.67	38 X 60	83	6.82	16.18
54	77	6.42	18.15	43 X 66	82	7.87	18.81
60	84	7.00	20.73	48 X 76	101	8.42	21.88
66	91	7.58	23.41	53 X 83	109	9.08	24.30
72	98	8.17	26.37	58 X 91	118	9.83	27.48
78	105	8.75	29.33	63 X 98	126	10.60	30.60
84	112	9.33	32.57	68 X 106	135	11.35	33.81
90	119	9.92	35.80	73 X 113	143	11.82	36.88
96	126	10.50	39.37	77 X 121	152	12.67	40.89
102	133	11.08	42.89	82 X 129	160	13.33	44.48
108	140	11.67	46.78	87 X 138	168	14.00	47.79
114	147	12.25	50.88	92 X 143	176	14.87	51.70
120	154	12.83	54.72	97 X 151	185	15.42	55.01
126	161	13.42	58.82				
132	168	14.00	63.27	108 X 166	202	16.83	64.48
144	180	15.17	75.40	118 X 180	218	18.17	73.88

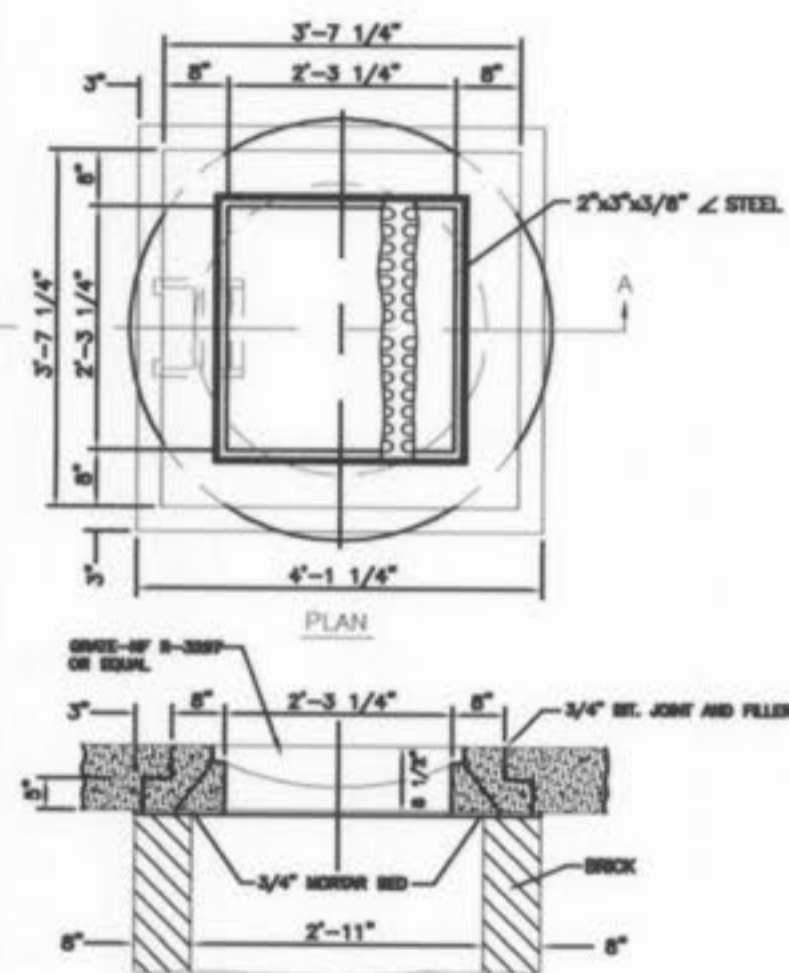
TABLE NO. 1  
PAYLINE WIDTHS OF TRENCH AND  
PAY-QUANTITIES OF CONCRETE



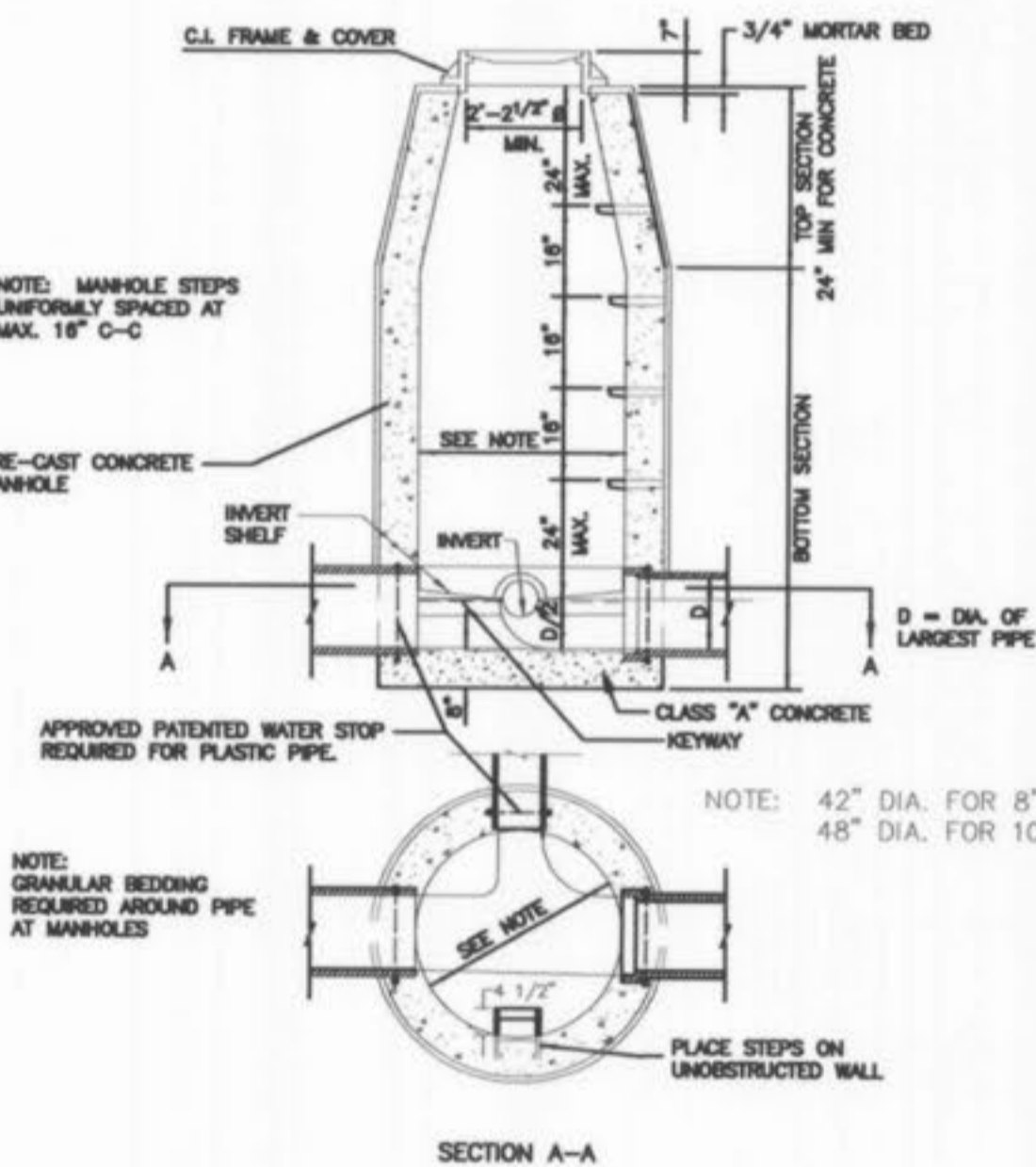
PIPE BEDDING CLASS "C"  
(FOR ALL PIPE EXCEPT  
REINFORCED CONCRETE PIPE)



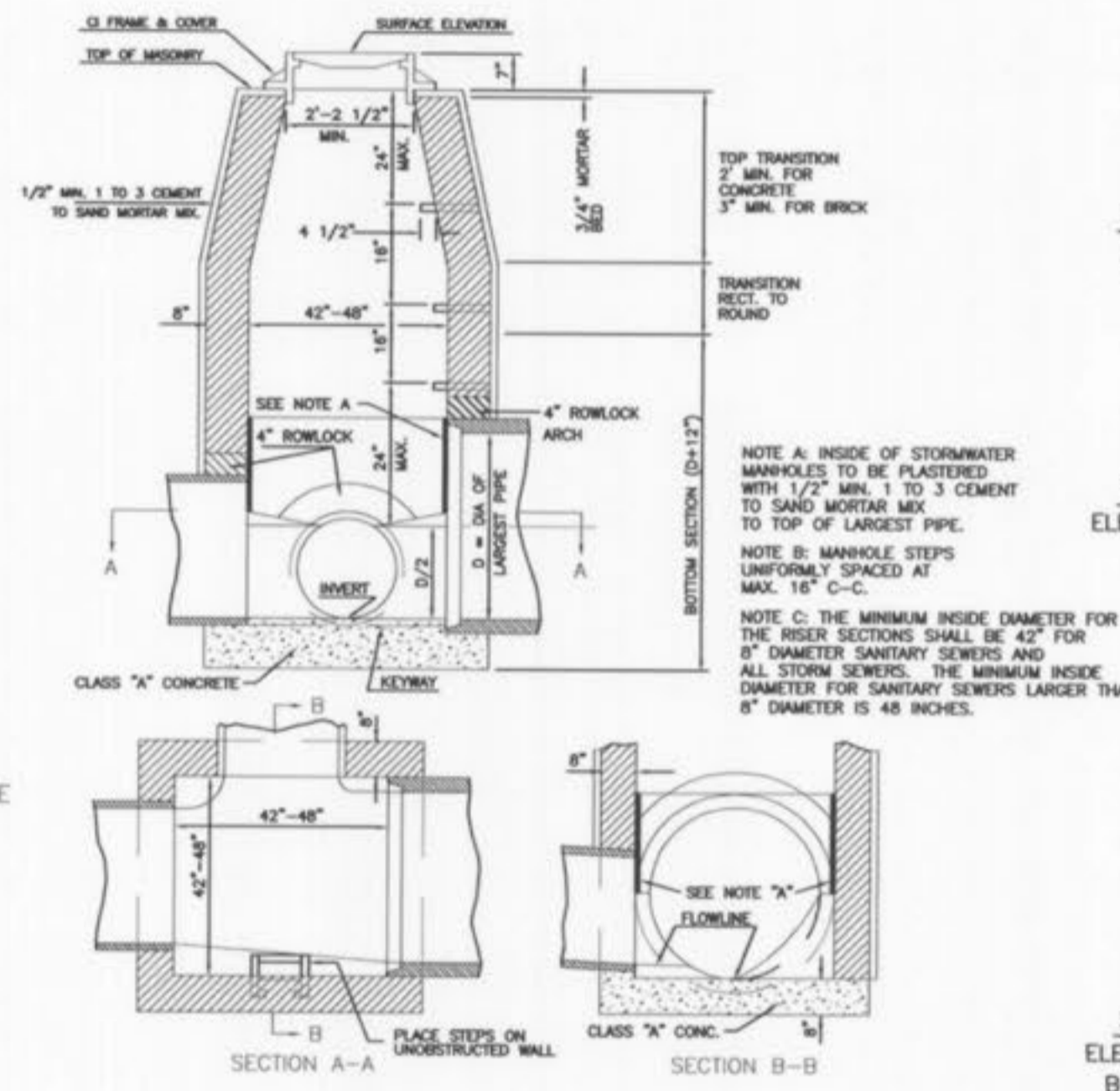
PIPE BEDDING CLASS "C"  
(MODIFIED FOR REINFORCED  
CONCRETE PIPE)



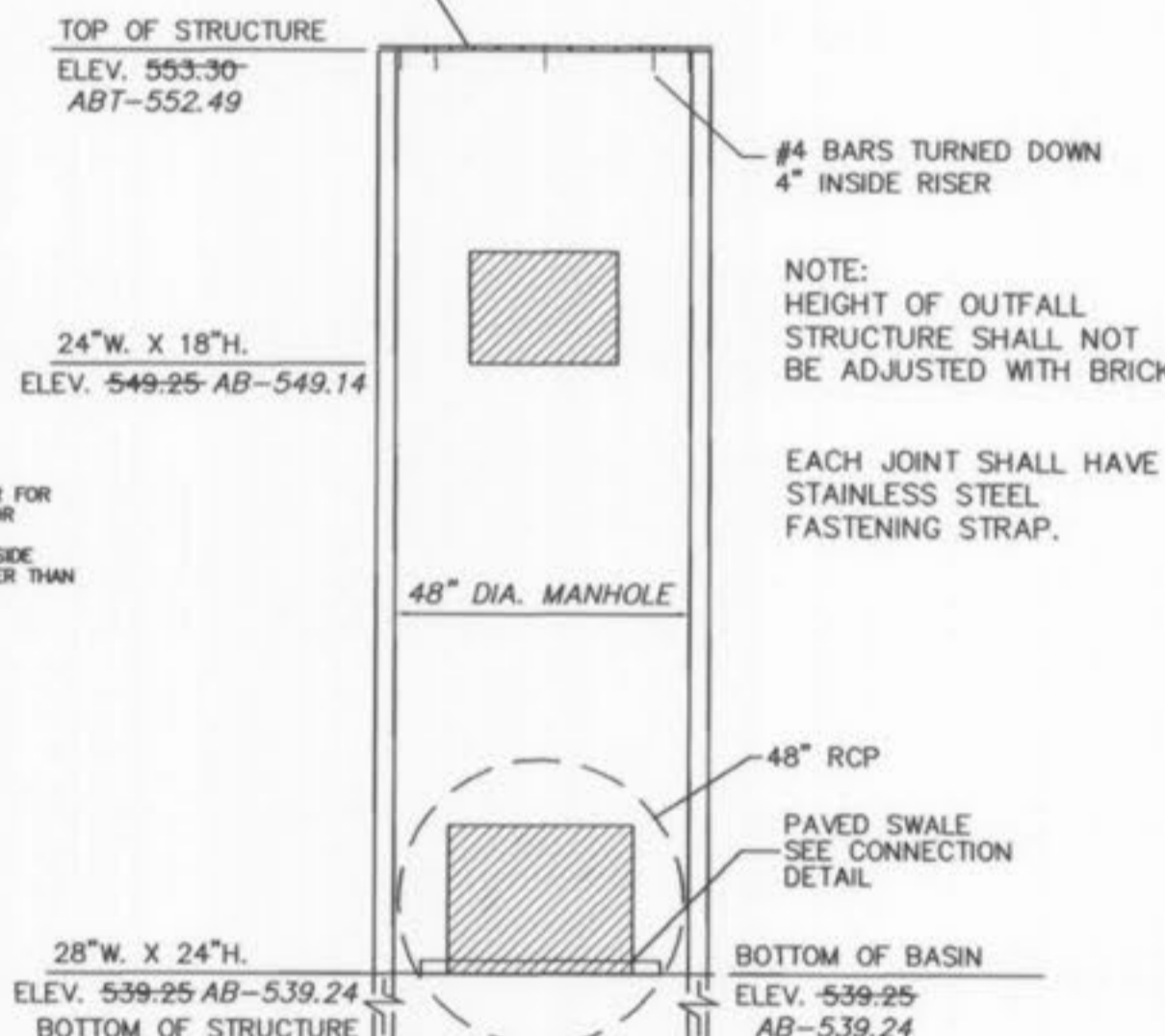
2 GRATE INLET



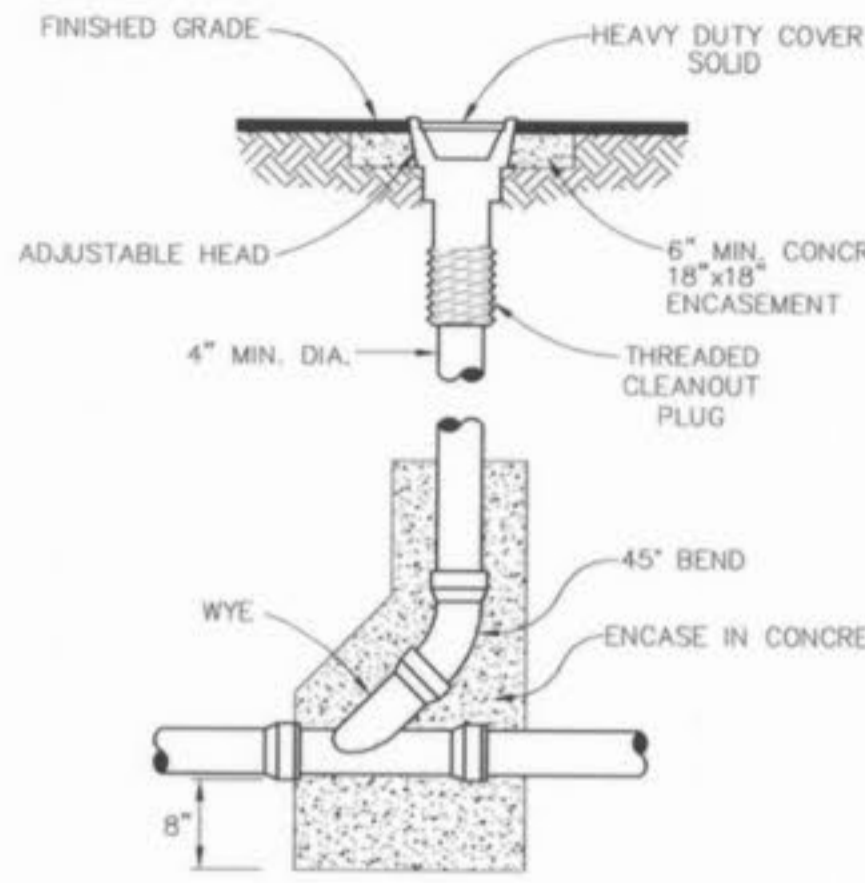
LINE MANHOLE  
PIPE SEWERS 8"-24" DIA.



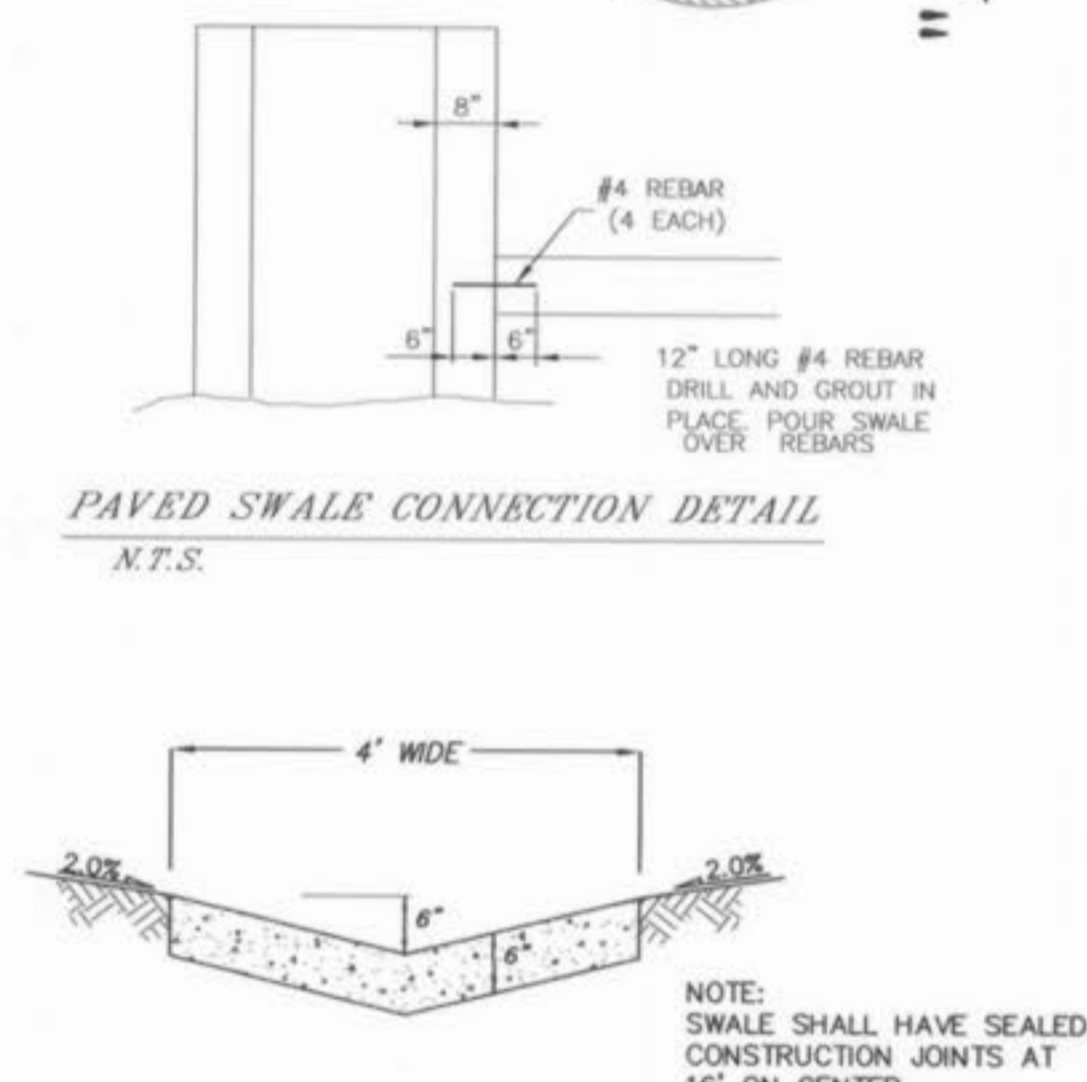
TYPICAL LINE MANHOLE  
ON PIPE SEWER 27" THRU  
42" DIAMETER



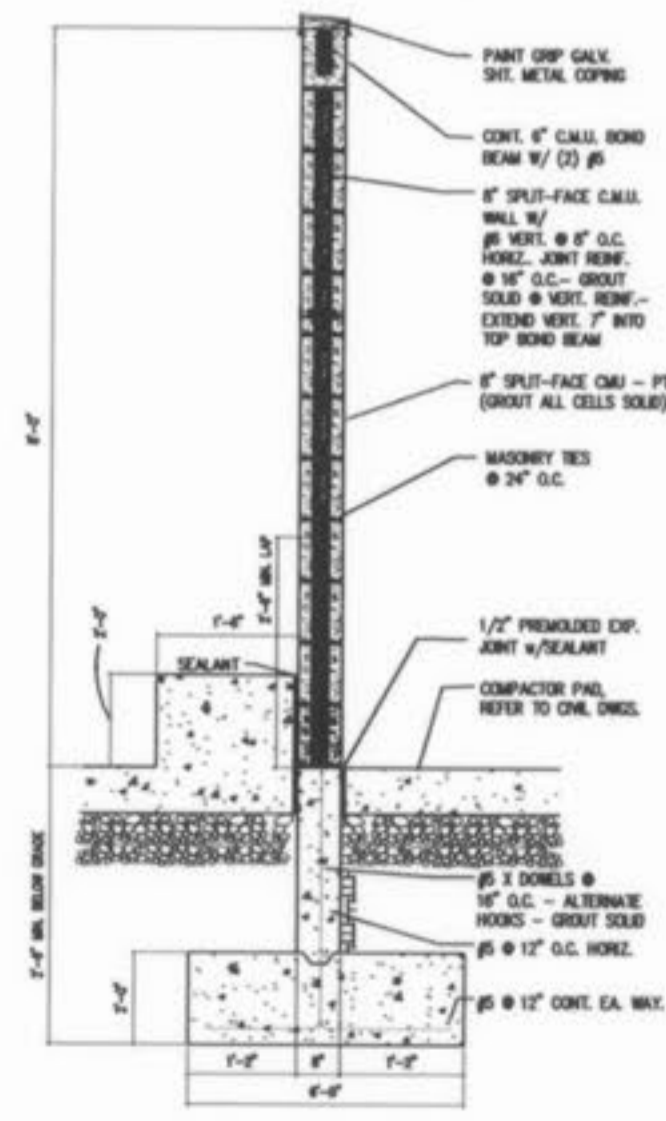
OUTFALL STRUCTURE  
N.T.S.



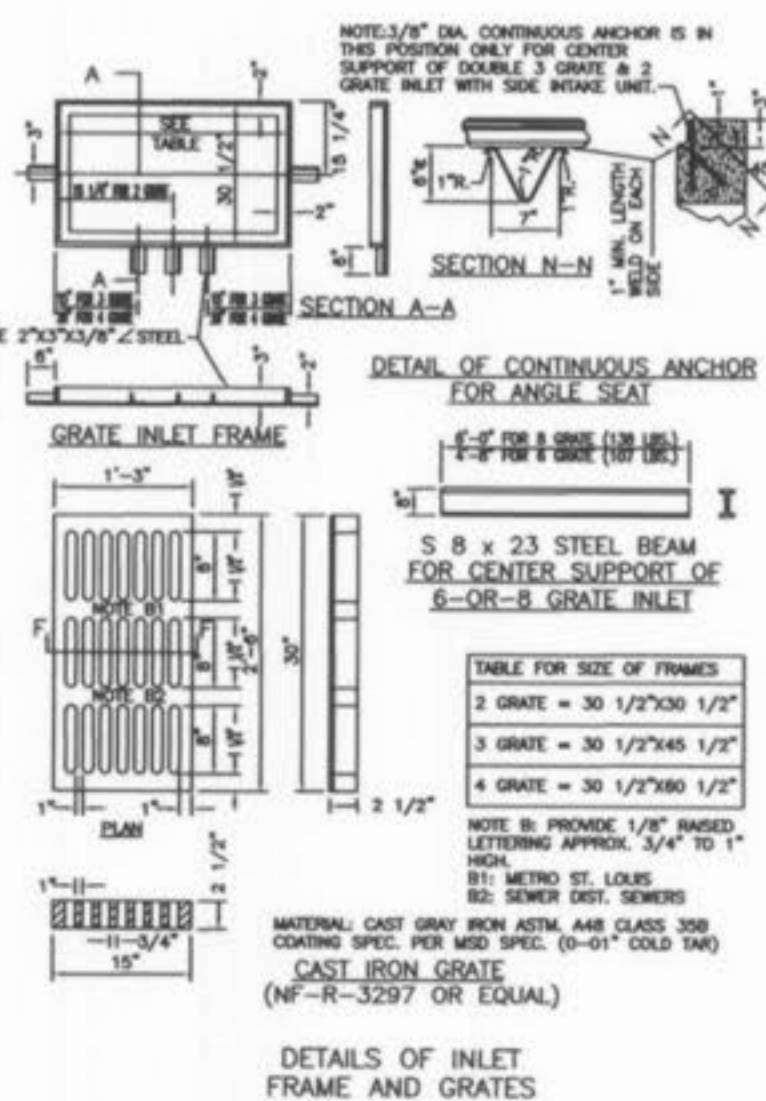
CLEANOUT DETAIL  
N.T.S.



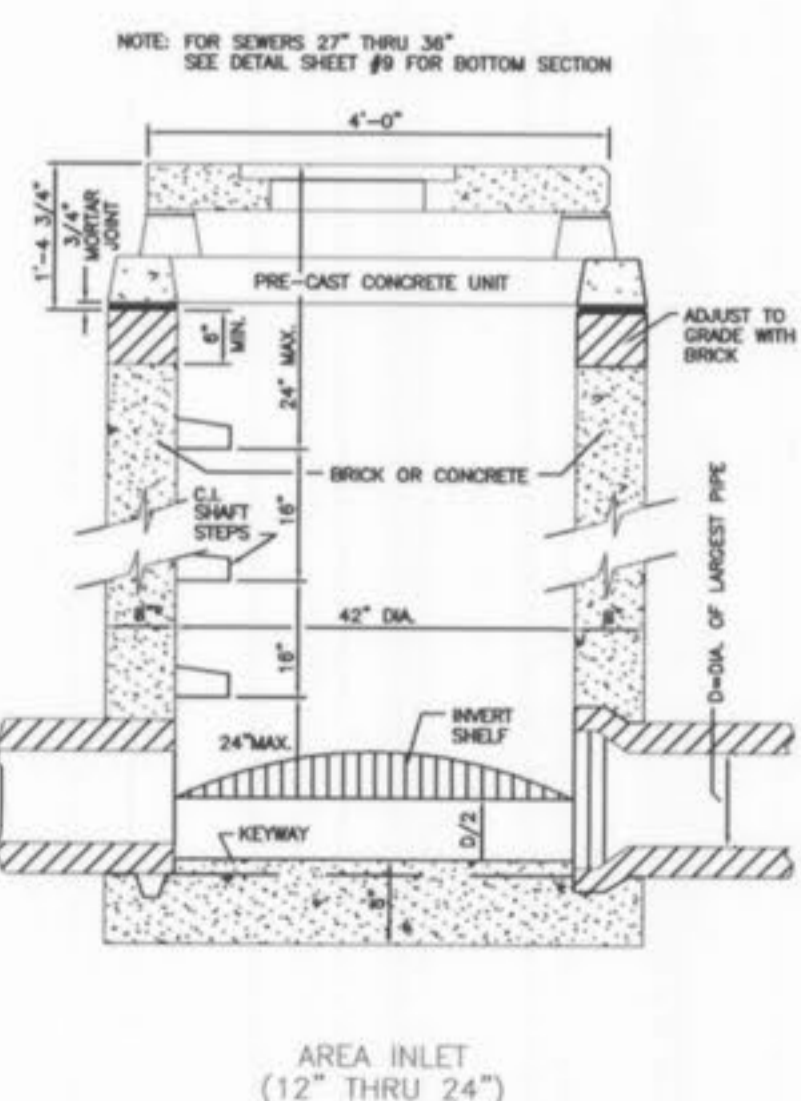
CONC. PAVED SWALE  
N.T.S.



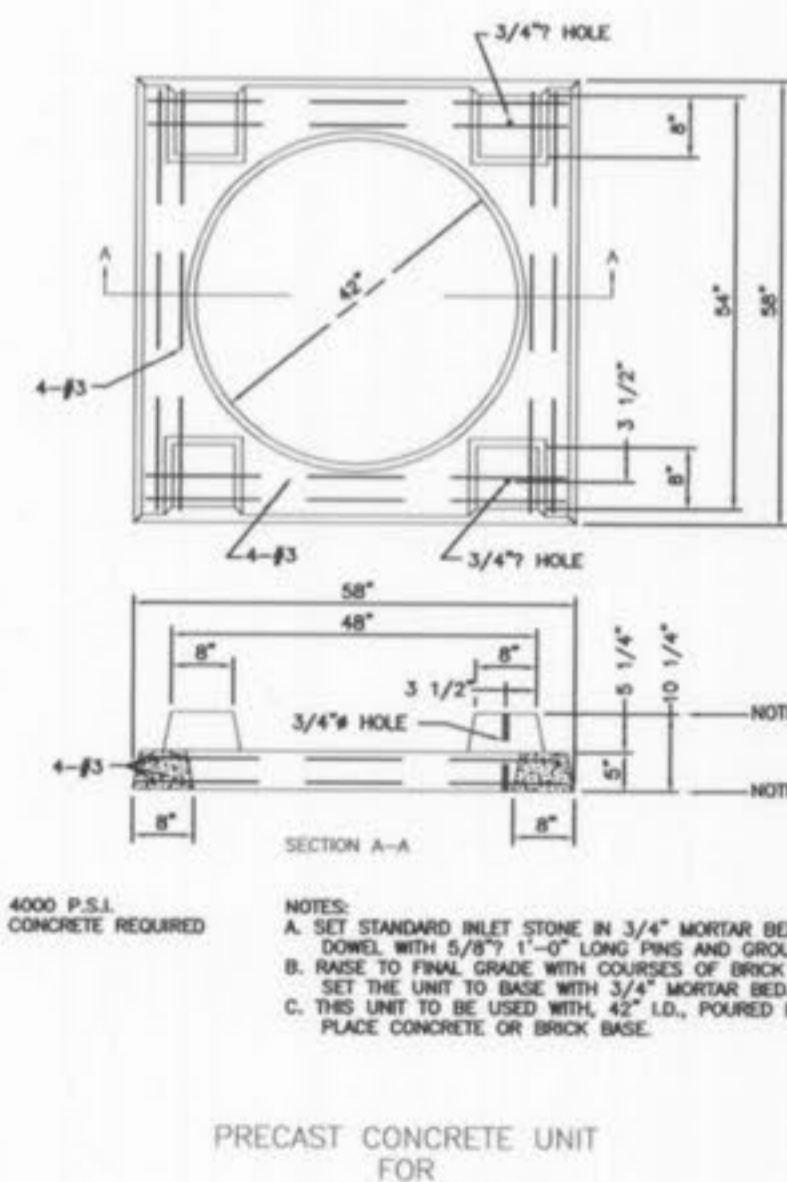
TRASH COMPACTOR SCREENWALL  
N.T.S.



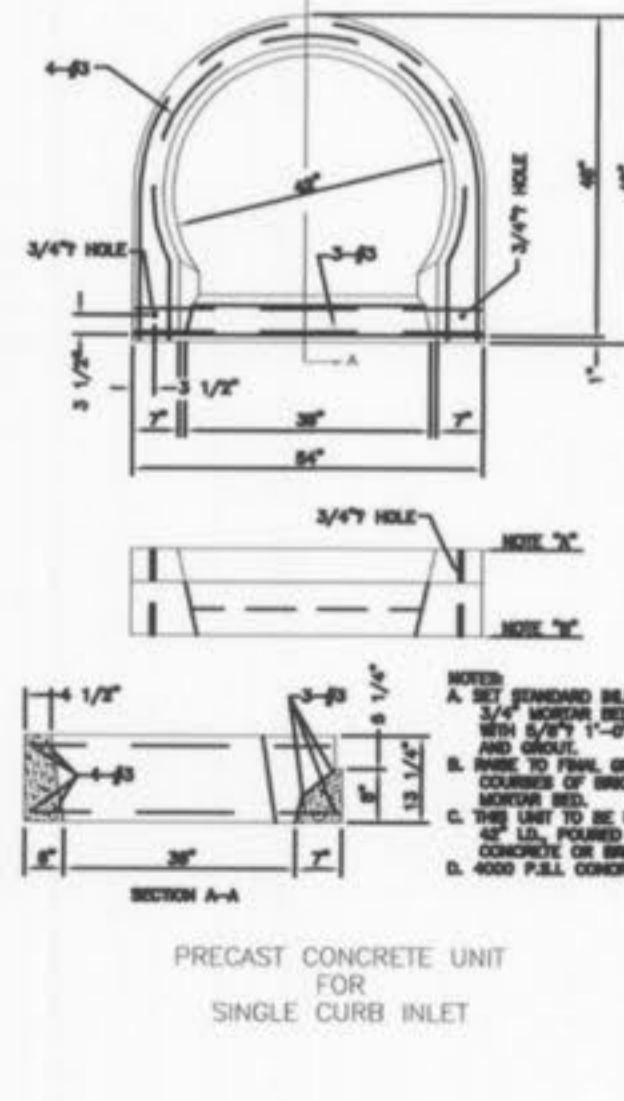
DETAILS OF INLET  
FRAME AND GRATES



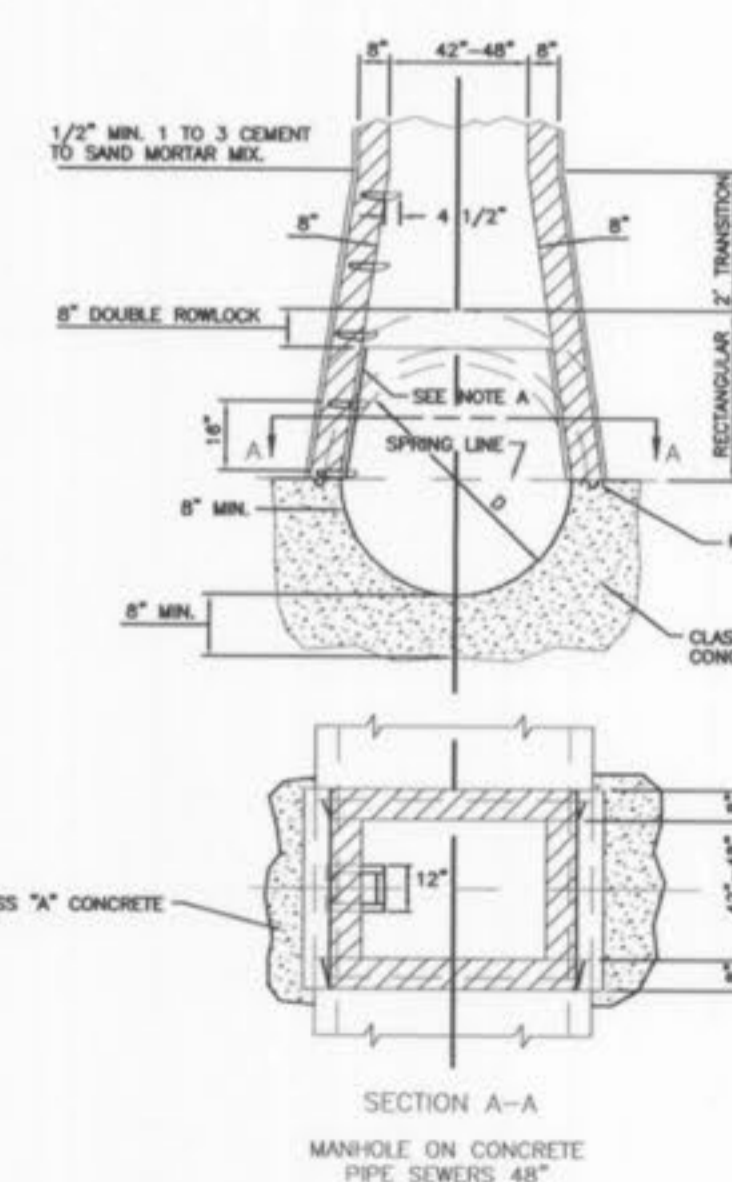
AREA INLET  
(12" THRU 24")



PRECAST CONCRETE UNIT  
FOR  
4-WAY AREA INLET



PRECAST CONCRETE UNIT  
FOR  
SINGLE CURB INLET



SECTION A-A  
MANHOLE ON CONCRETE  
PIPE SEWERS 48"  
THRU 54" DIAMETER  
(MANHOLE 1)

**PICKETT RAY & SILVER**  
353 Mid Rivers Mall Drive  
St. Peters, MO 63376  
Phone (636) 397-1211  
Fax (636) 397-1104

**CIVIL ENGINEERS  
PLANNERS  
LAND SURVEYORS**

**MEGAN CROSSING**  
MISSOURI STATE HIGHWAY K  
OF FALLON, MISSOURI

Prepared For:  
**G. J. GREWE, INC.**

4109 PATTERSON ROAD  
ST. LOUIS, MO 63110  
(314) 962-6300

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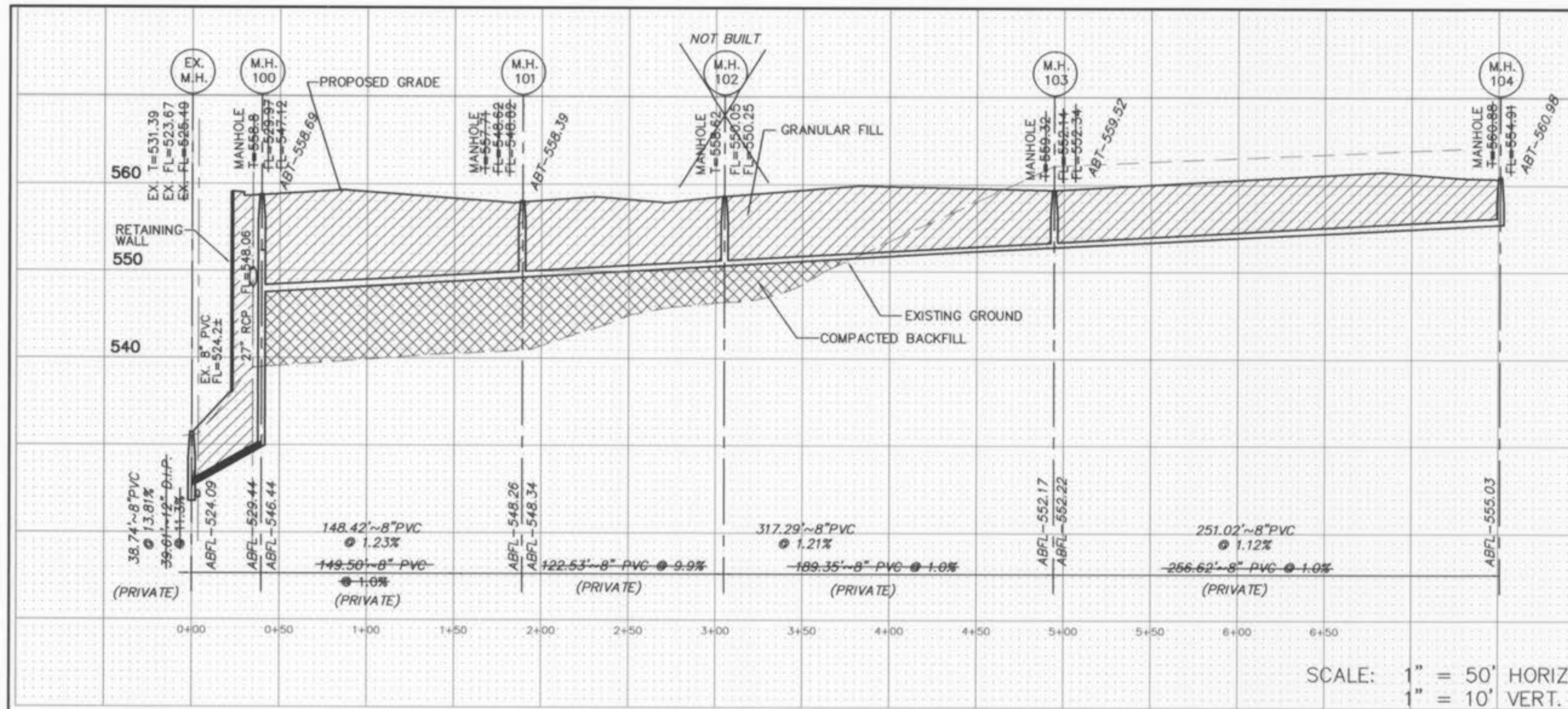
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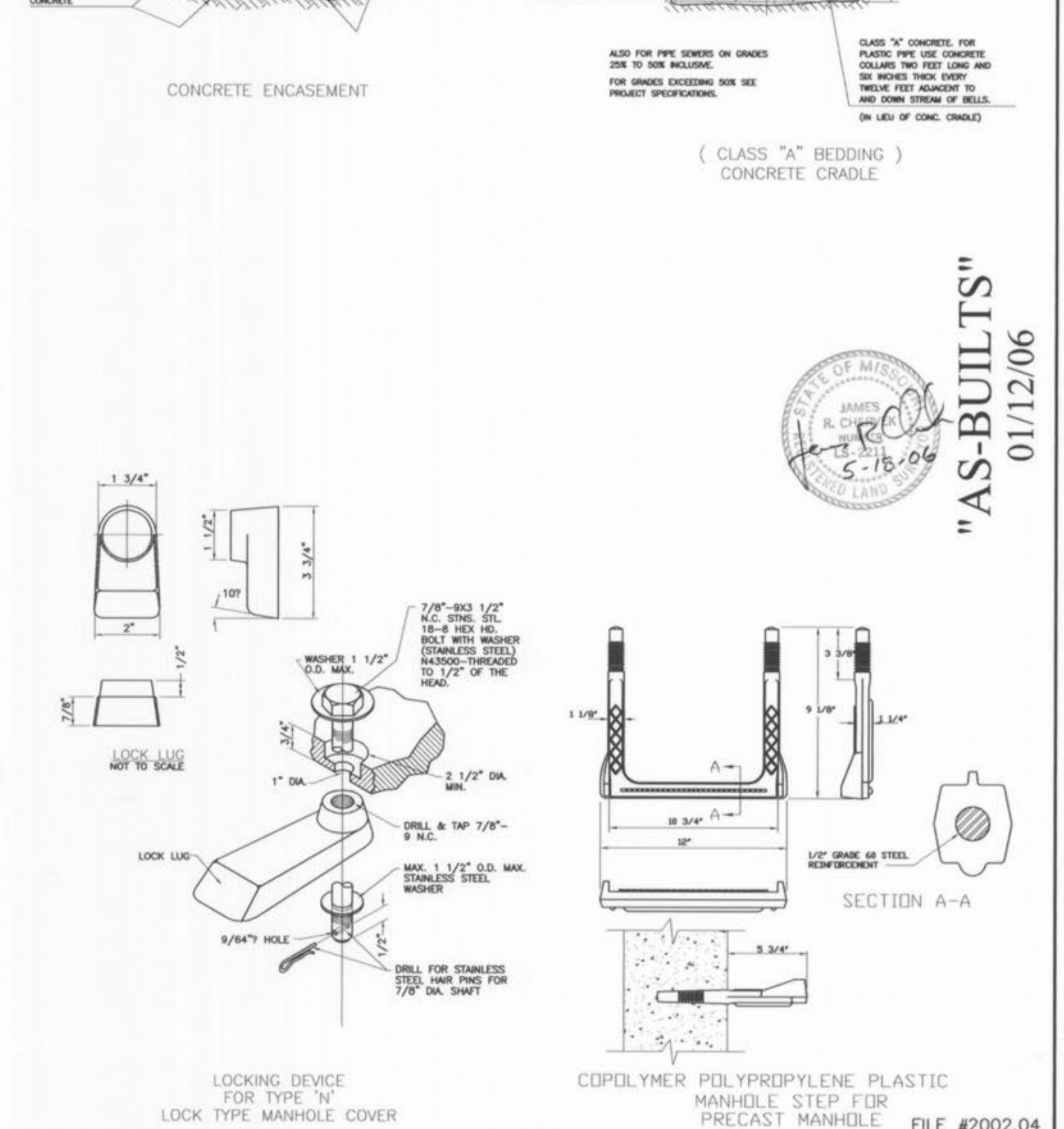
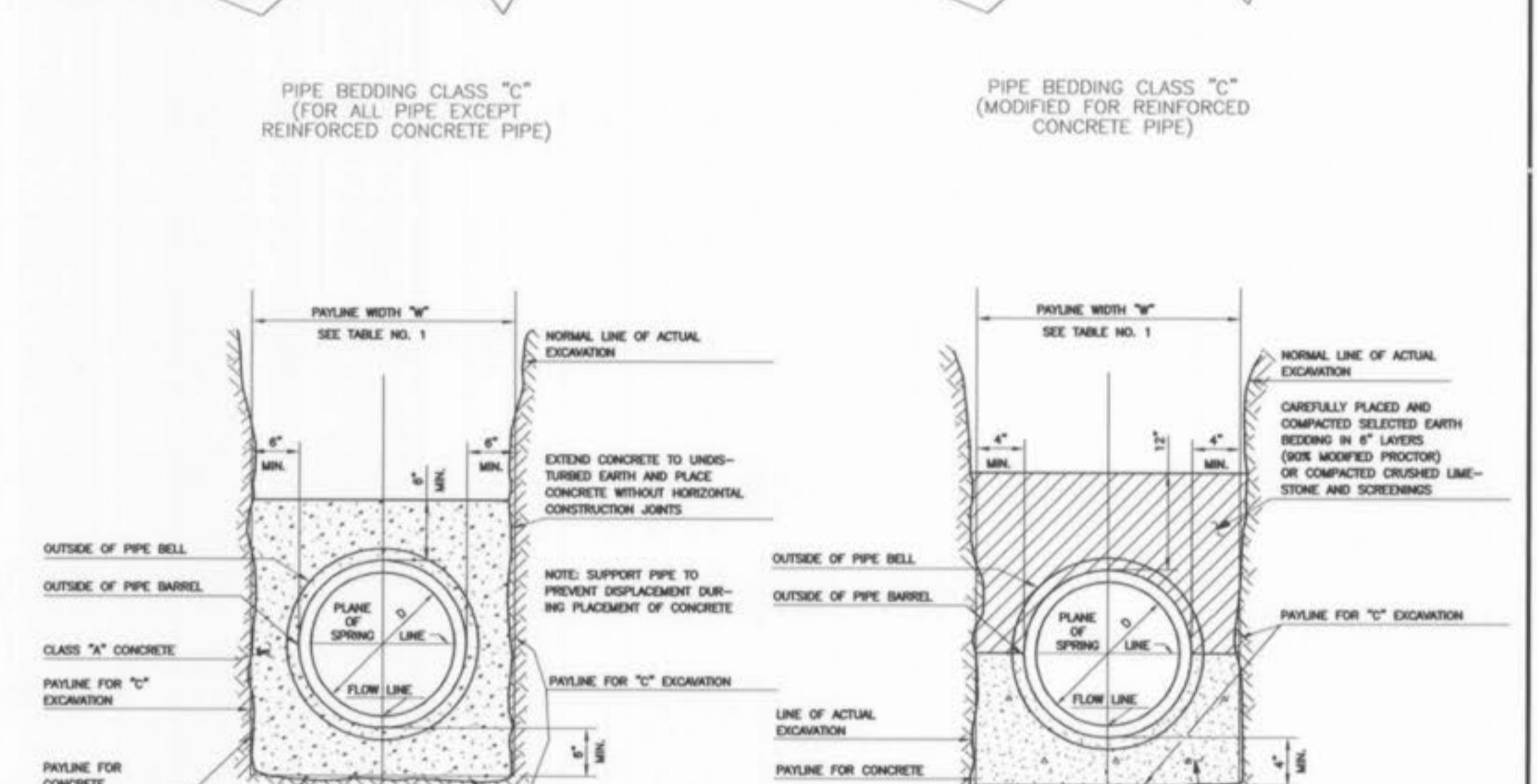
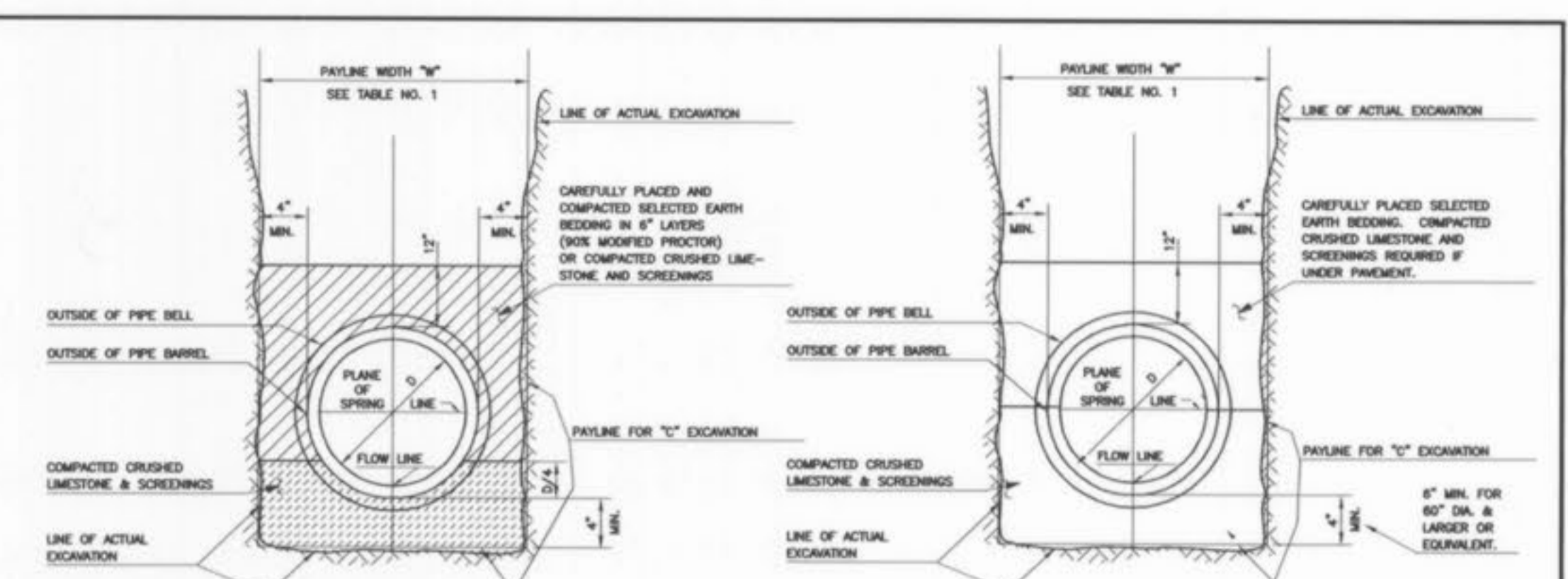
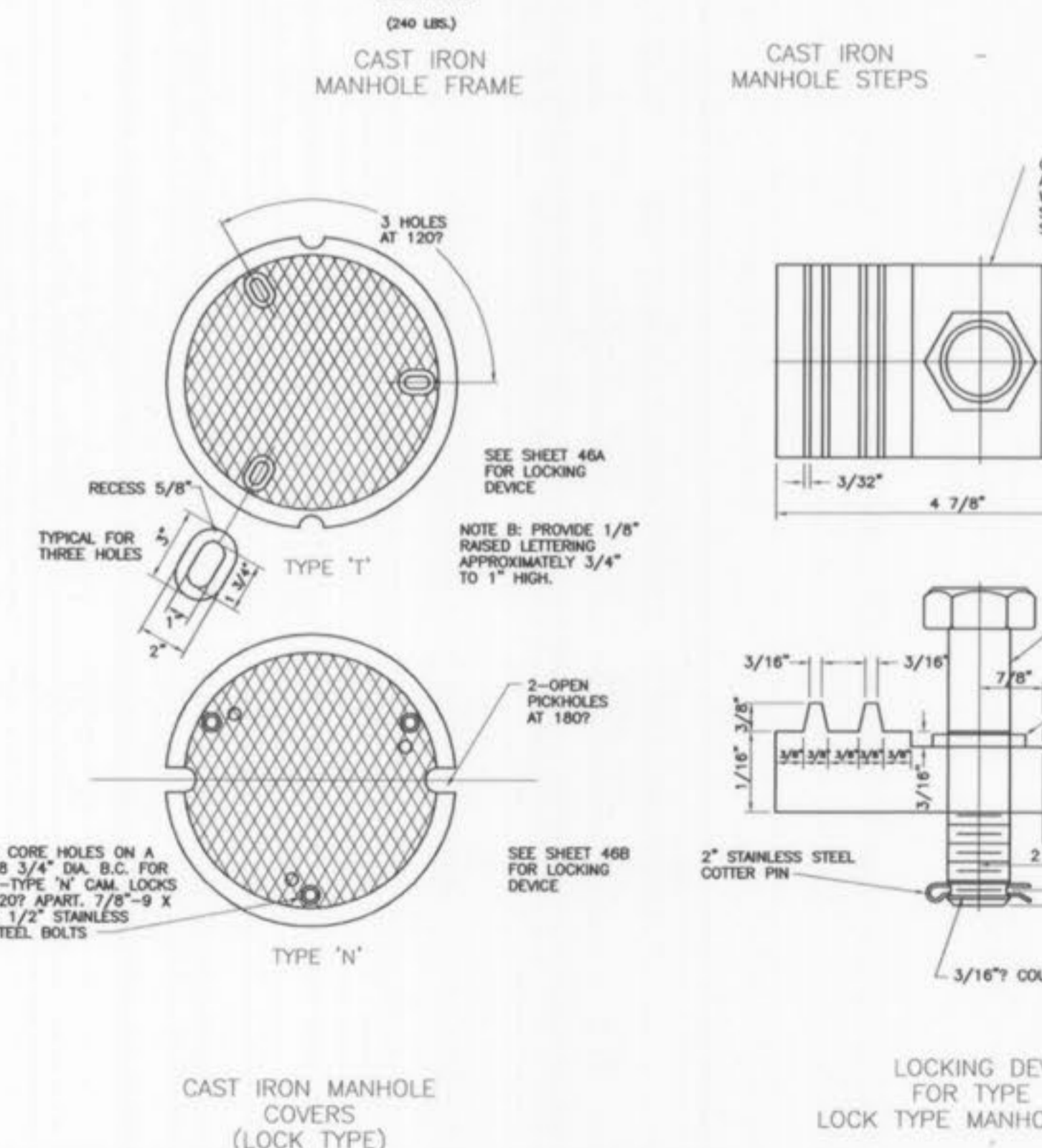
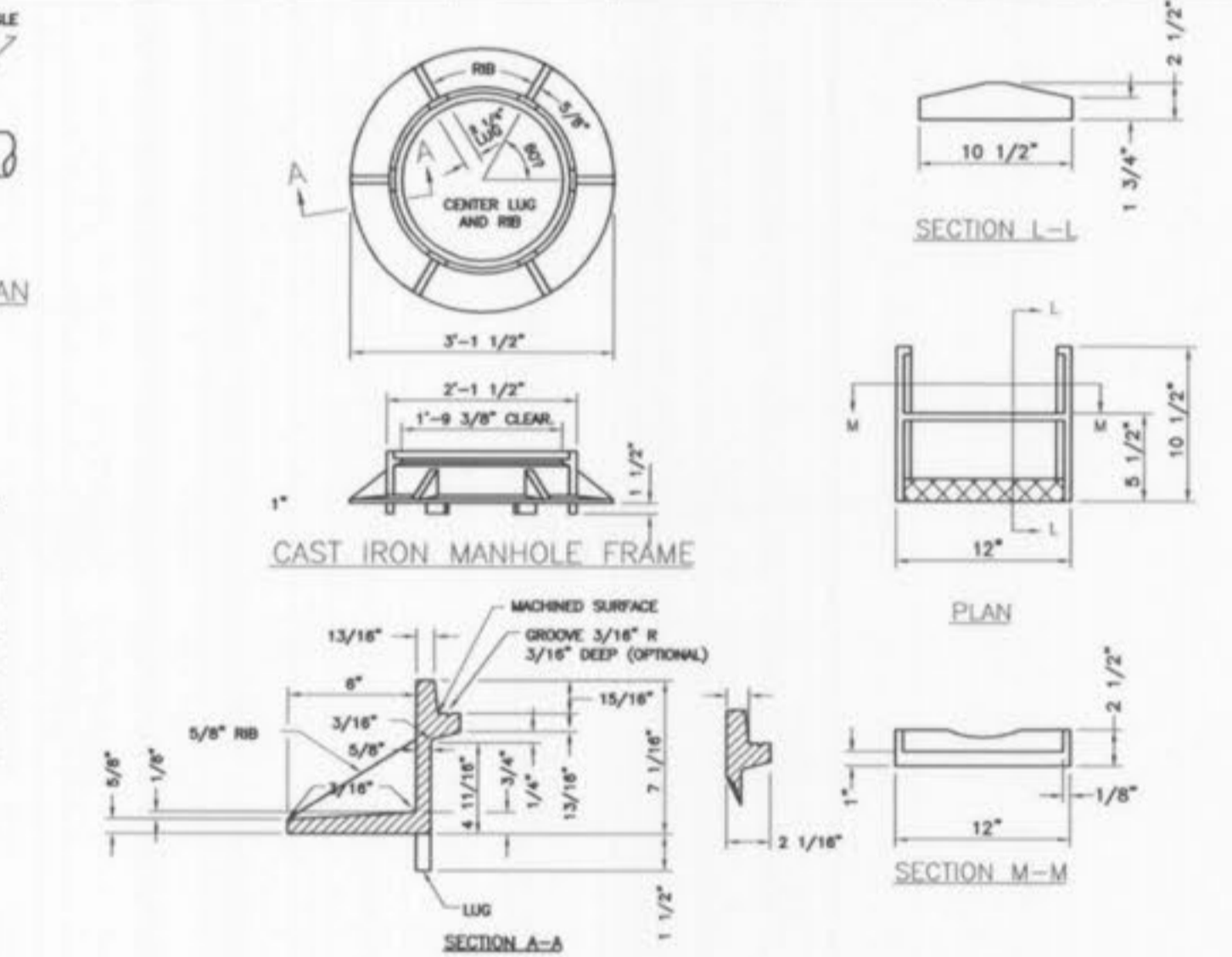
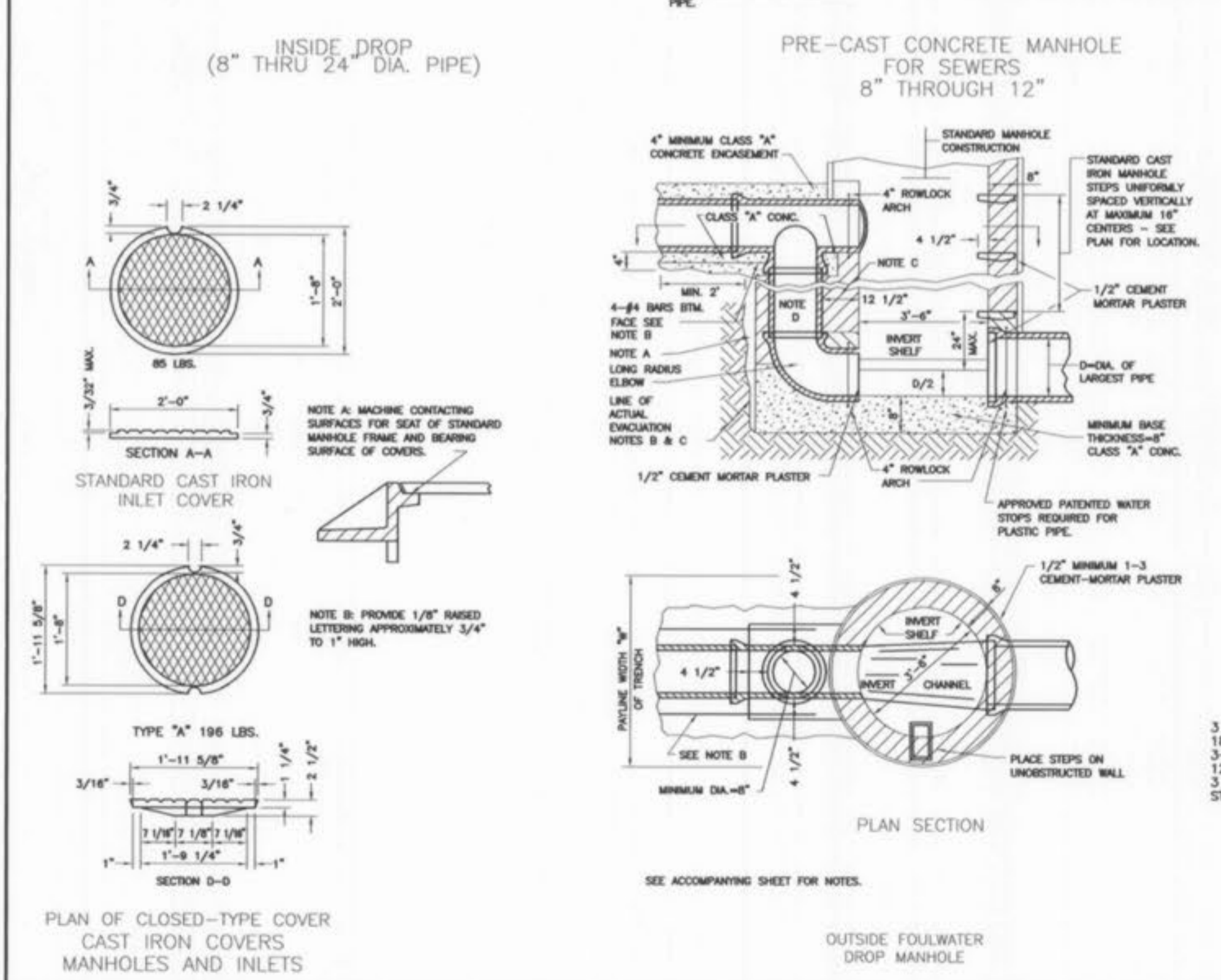
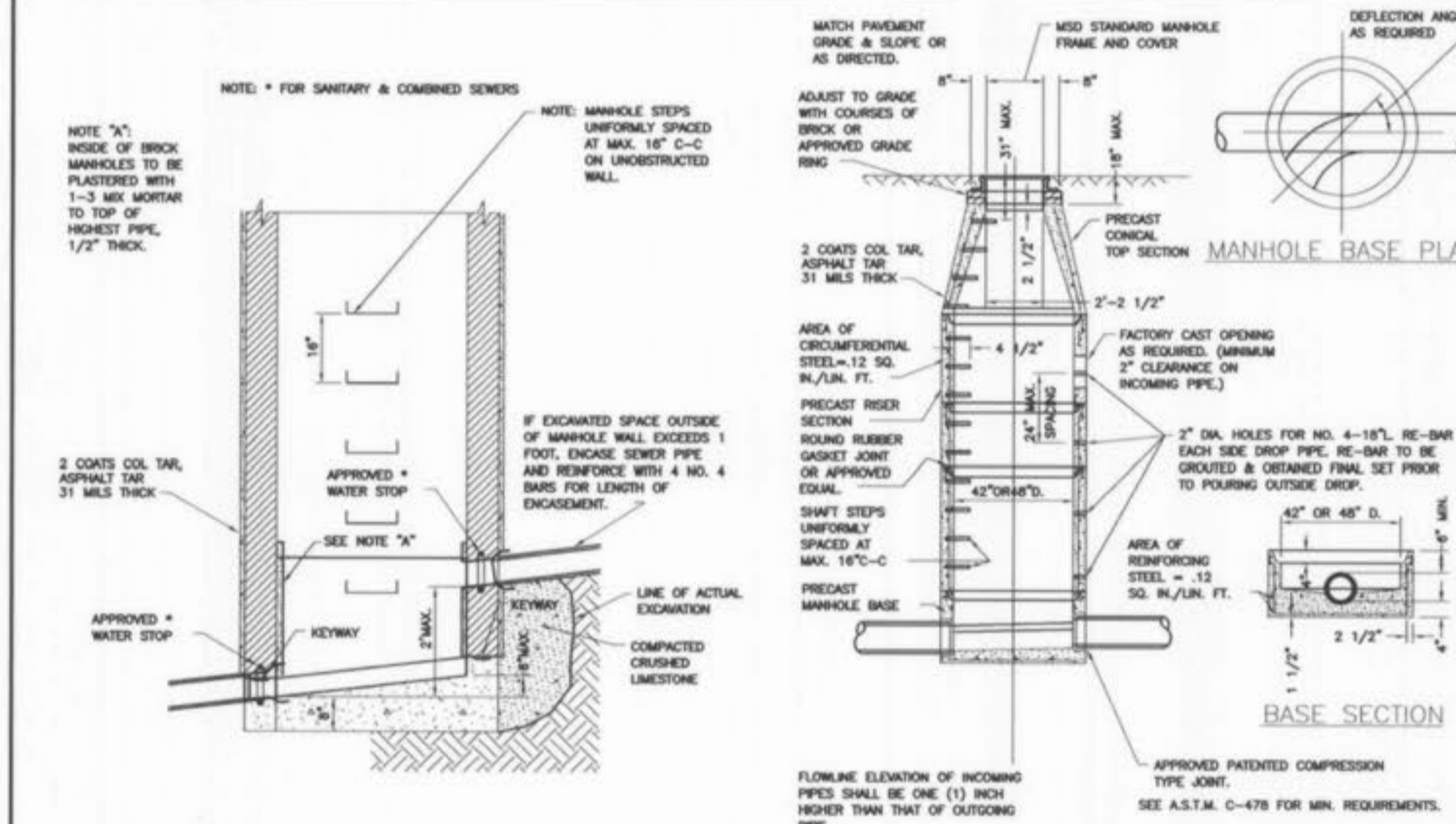
DRAWN D.STOSZ	DATE 04-27-04
CHECKED D.BYRD	DATE 04-27-04
PROJECT # 03043.GJ.GRD.OOC	
TASK # 1 FIELD BOOK	

MEGAN CROSSING  
CONSTRUCTION DETAILS  
SHEET 9 OF 13  
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SCALE: 1" = 50' HORIZ.  
1" = 10' VERT.



STATE OF MISSOURI  
JAMES R. GREW, INC.  
5-18-06

"AS-BUILTS"  
01/12/06

**PICKETT RAY & SILVER**  
CIVIL ENGINEERS  
PLANNERS  
LAND SURVEYORS  
333 Mile Rivers Mall Drive  
St. Louis, MO 63276  
Phone (636) 397-1211  
Fax (636) 397-1104

**MEGAN CROSSING**  
MISSOURI STATE HIGHWAY K  
OF FALLON, MISSOURI  
Prepared For:  
**G. J. GREWE, INC.**  
9109 WATSON ROAD  
ST. LOUIS, MO  
63119-7626

REVISIONS	DATE	BY	DESCRIPTION
1	01-21-06	PER DEVELOPER	
2	01-25-06	PER CITY OF OF FALLON	
3	01-13-06	"AS-BUILTS"	

**ENGINEERS AUTHENTICATION**  
The responsibility for professional engineering liability on this project is hereby limited to the set of plans authorized by the seal, signature, and date hereunder attached. Responsibility is disclaimed for all other engineering plans involved in this project and specifically excludes revisions after this date unless reauthorized.  
PICKETT, RAY & SILVER, INC.

DRAWN D.STOSZ	DATE 04-27-04
CHECKED D.BYRO	DATE 04-27-04
PROJECT # 03043.GJGR.OOC	TASK # 1 FIELD BOOK

MEGAN CROSSING  
SANITARY SEWER PROFILES  
SANITARY SEWER DETAILS  
SHEET 10 OF 13  
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