

**SITE BENCHMARK:**  
 (553.29) - CHISELED SQUARE AT THE SOUTHWEST CORNER OF THE CONCRETE BASE OF THE QUIK TRIP SIGN LOCATED AT THE SOUTHWEST CORNER OF THE QUIK TRIP PROPERTY.

**TECHNOLOGY DRIVE (WIDTH VARIES)**

**STATE HIGHWAY K (WIDTH VARIES)**

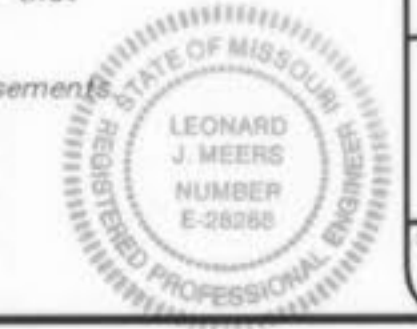
**"AS-BUILT"**

- LEGEND**
- UTILITY POLE
  - GUY WIRE
  - LIGHT POLE
  - TRAFFIC SIGNAL BOX
  - TRAFFIC LIGHT
  - ELECTRIC BOX
  - ELECTRIC METER
  - ELECTRIC MANHOLE
  - TELEPHONE BOX
  - TELEPHONE MANHOLE
  - FIRE HYDRANT
  - WATER METER
  - WATER VALVE
  - WATER MANHOLE
  - GAS METER
  - GAS VALVE
  - GAS DRIP
  - STREET SIGN
  - BOLLARD OR POST
  - PARKING METER
  - MAILBOX
  - YARD DRAIN
  - CLEANOUT
  - FLARED END SECTION
  - STORM DRAIN W/GRATE INLET
  - STORM DRAIN W/AREA INLET
  - STORM DRAIN W/MANHOLE
  - SANITARY SEWER W/MANHOLE
  - OVERHEAD ELECTRIC LINE
  - UNDERGROUND ELECTRIC LINE
  - UNDERGROUND TELEPHONE LINE
  - WATER LINE
  - GAS LINE
  - FENCE: CHAIN LINK OR WIRE
  - FENCE: WOOD CONSTRUCTION
  - GUARDRAIL
  - 1' CONTOUR INTERVAL
  - 5' CONTOUR INTERVAL
  - 101.5 SPOT ELEVATION
  - BUSH OR SHRUB
  - TREE W/APPROX. DIAMETER

**SEWER MEASUREMENTS**  
 The existing sewer lengths, sizes, flowlines, depths of structures and sewers and locations with respect to existing or proposed easements have been measured. The results of those measurements are shown on this set of Final Measurement plans. Since the wye locations have been plotted from information provided by the sewer contractor or other sources, I disclaim any responsibility for that specific information.

All public sewers are located within designated existing or proposed easements.

*Leonard J. Meers*  
 P.E./S. DATE 7/26/05



**SITE - AS-BUILT**

**LOT 4 OF LABOUR'E CENTRE-O'FALLON, MISSOURI**

**J. R. GRIMES**  
**CONSULTING ENGINEERS, INC.**

12300 OLD TESSON ROAD  
 SUITE 3000  
 ST. LOUIS, MO. 63128  
 PH. (314) 849-6100  
 FAX (314) 849-6010

DRAWN BY: J.L.K.	DATE: 06/16/05	CHECKED BY: S.B.	DATE: 06/16/05	JOB NUMBER: 1004C	SHEET: 1 of 1
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Labour'e Center Lot 4 Asbuilt

# LABOURE' CENTRE

ALL OF LOT 4 OF WILLIAM H. ERKER SUBDIVISION, PLAT BOOK 40 PAGE 150,  
IN U.S. SURVEY 1669, TOWNSHIP 46 NORTH, RANGE 3 EAST  
CITY OF O'FALLON, ST. CHARLES COUNTY, MISSOURI

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L-1	LANDSCAPE PLAN
L1.2	PHOTOMETRICS PLAN

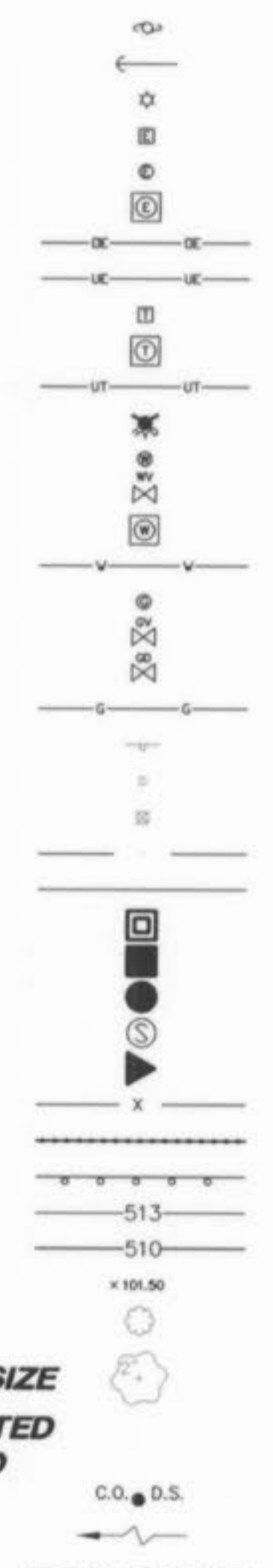
## LEGEND

### EXISTING

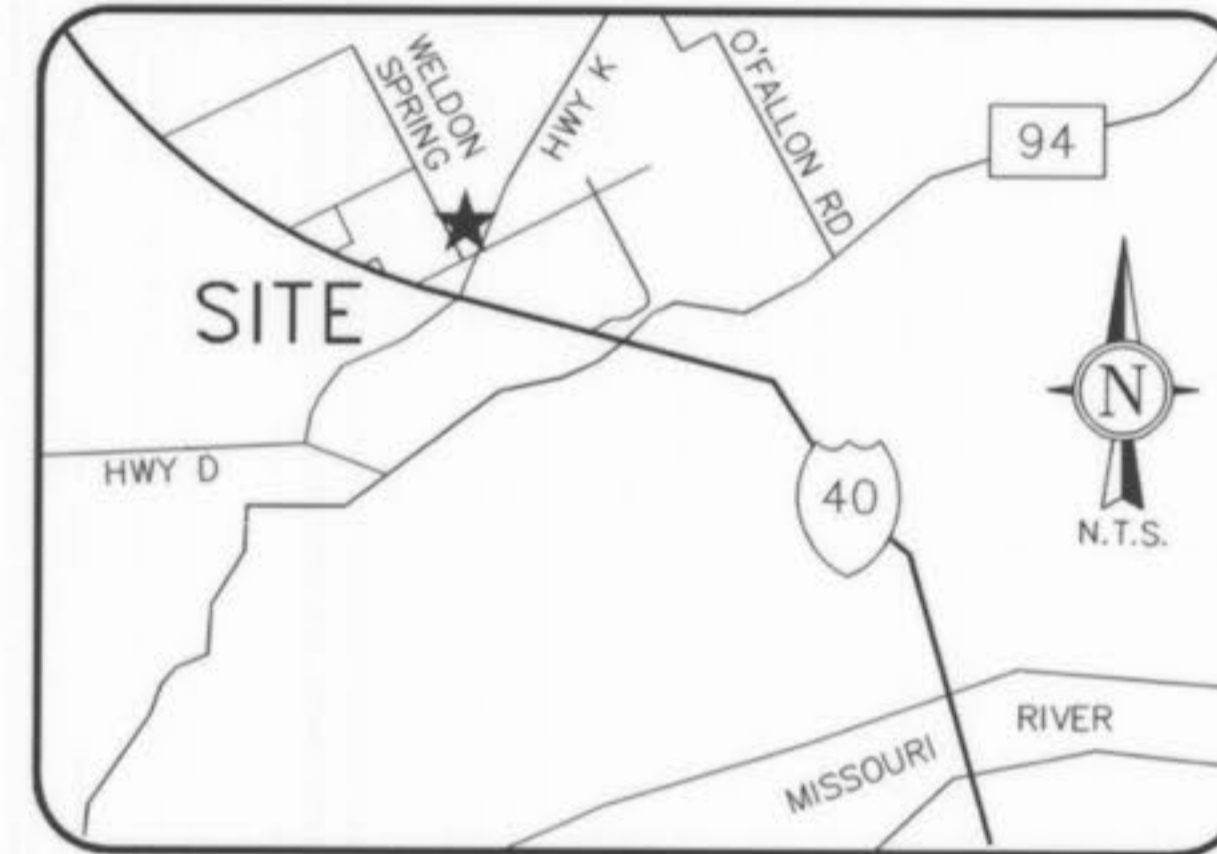


**UTILITY POLE**  
GUY WIRE  
LIGHT STANDARD  
ELECTRIC BOX  
ELECTRIC METER  
ELECTRIC MANHOLE  
OVERHEAD ELECTRIC LINE  
UNDERGROUND ELECTRIC LINE  
TELEPHONE BOX  
TELEPHONE MANHOLE  
UNDERGROUND TELEPHONE LINE  
FIRE HYDRANT  
WATER METER  
WATER VALVE  
WATER MANHOLE  
WATER LINE  
GAS METER  
GAS VALVE  
GAS DRIP  
GAS LINE  
STREET SIGN  
BOLLARD OR POST  
MAILBOX  
SANITARY SEWER  
STORM SEWER  
STORM DRAIN GRATE INLET  
STORM DRAIN AREA INLET  
STORM DRAIN MANHOLE  
SANITARY SEWER MANHOLE  
FLARED END SECTION  
FENCE: 6' WHITE VINYL  
FENCE: WOOD CONSTRUCTION  
GUARDRAIL  
MINOR CONTOUR INTERVAL  
MAJOR CONTOUR INTERVAL  
SPOT ELEVATION  
BUSH OR SHRUB  
TREE W/APPROXIMATE DIAMETER SIZE  
FOUND SURVEY MONUMENT AS NOTED  
SET SURVEY MONUMENT AS NOTED  
CLEAN-OUT/DOWN-SPOUT  
SWALE  
UTILITY EASEMENT

### PROPOSED



## SITE IMPROVEMENT PLANS



### LOCATOR MAP

**PROPERTY OWNER** WILLIAM ERKER  
35 N. CENTRAL, STE 400  
ST. LOUIS, MO. 63105

**EXISTING ZONING** C-2

**SITE ACREAGE** 15.52 Ac.

**SITE ADDRESS** 4601 STATE HIGHWAY K  
O'FALLON, MO 63304

### UTILITIES

**WATER DISTRICT** PUBLIC WATER DISTRICT NO. 2  
100 WATER DR., BOX 967  
O'FALLON, MO 63303

**SEWER DISTRICT** DUCKETT CREEK  
3550 HIGHWAY K  
O'FALLON, MO 63304-8616

**GAS SERVICE** LAGLEDE GAS CO.  
1999 TRADE CENTER DRIVE EAST  
ST. PETERS, MO 63376

**ELECTRIC SERVICE** AMEREN UE  
200 N. CALLAHAN RD.  
WENTZVILLE, MO 63385-1999

**PHONE SERVICE** SOUTHWESTERN BELL  
402 N. 3RD ST. GRND FLOOR  
ST. CHARLES, MO 63301

**CABLE SERVICE** CHARTER COMMUNICATIONS  
4160 OLD MILL PARKWAY  
ST. PETERS, MO 63576

NOTE-FIBER OPTICS ARE PRESENT WITHIN THE LIMITS OF THIS PROJECT



Underground facilities, structures & utilities have been plotted from available surveys, records & information, and therefore, do not necessarily reflect the actual existence, nonexistence, size, type, number of, or location of these facilities, structures, & utilities. The Contractor shall be responsible for verifying the actual location of all underground facilities, structures, & utilities, either shown or not shown on these plans. The underground facilities, structures, & utilities shall be located in the field prior to any grading, excavation or construction of improvements. These provisions shall in no way absolve any party from complying with the Underground Facility Safety and Damage Prevention Act, Chapter 319, RSMo.

J. R. GRIMES CONSULTING ENGINEERS, INC. AND THE UNDERSIGNED ENGINEER HAVE NO RESPONSIBILITY FOR SERVICES PROVIDED BY OTHERS TO IMPLEMENT THE IMPROVEMENTS SHOWN ON THIS PLAN AND ALL OTHER DRAWINGS WHERE THE UNDERSIGNED ENGINEER'S SEAL APPEARS. THE CONSTRUCTION MEANS AND METHODS ARE THE SOLE RESPONSIBILITY OF THE OWNER AND CONTRACTOR. J. R. GRIMES CONSULTING ENGINEERS, INC. HAS NO RESPONSIBILITY TO VERIFY FINAL IMPROVEMENTS AS SHOWN ON THIS PLAN UNLESS SPECIFICALLY ENGAGED AND AUTHORIZED TO DO SO BY THE OWNER OR CONTRACTOR.

### FLOOD NOTE

NOTE: THE ENTIRE SURVEYED TRACT AS SHOWN HEREON LIES WITHIN FLOOD ZONE X. AREAS DETERMINED TO BE OUTSIDE THE 500-YEAR FLOOD PLAIN AS SHOWN ON FLOOD INSURANCE RATE MAP 29183C0430 E. EFFECTIVE DATE: AUGUST 2, 1996

### PARKING CALCULATIONS

**RETAIL A:**  
LOADING:  
5.5 PER 1,000 S.F. 17,780 S.F. = 98 SPACES  
TOTAL REQUIRED = 98 SPACES  
TOTAL PROPOSED = 98 SPACES

H.C. ACCESSIBLE:  
TOTAL REQUIRED = 4 SPACES  
TOTAL PROPOSED = 4 SPACES

**RETAIL B:**  
LOADING:  
5.5 PER 1,000 S.F. 58,250 S.F. = 320 SPACES  
TOTAL REQUIRED = 320 SPACES  
TOTAL PROPOSED = 322 SPACES

H.C. ACCESSIBLE:  
TOTAL REQUIRED = 8 SPACES  
TOTAL PROPOSED = 8 SPACES

**RETAIL A:**  
LOADING:  
1 FOR FIRST 5,000 S.F. AND 1 FOR ADDITIONAL 20,000 S.F.  
17,780 S.F. = 2 SPACES  
TOTAL REQUIRED = 2 SPACES  
TOTAL PROPOSED = 2 SPACES

**RETAIL B:**  
LOADING:  
1 FOR FIRST 5,000 S.F. AND 1 FOR ADDITIONAL 20,000 S.F.  
58,250 S.F. = 4 SPACES  
TOTAL REQUIRED = 4 SPACES  
TOTAL PROPOSED = 4 SPACES

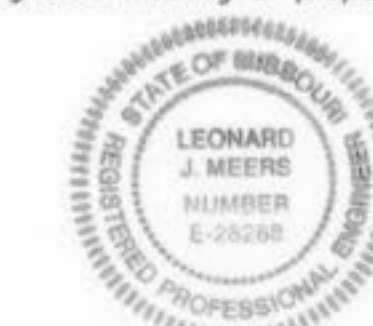
**RETAIL A:**  
BICYCLE:  
1 FOR 15 PARKING SPACES  
98 P.S. = 7 SPACES  
TOTAL REQUIRED = 7 SPACES  
TOTAL PROPOSED = 7 SPACES

**RETAIL B:**  
BICYCLE:  
1 FOR 15 PARKING SPACES  
322 P.S. = 21 SPACES  
TOTAL REQUIRED = 21 SPACES  
TOTAL PROPOSED = 21 SPACES

NOTE: IN ACCORDANCE WITH THE FEB. 19, 2004 APPROVAL OF THE CURRENT SITE PLAN BY THE CITY OF O'FALLON PLANNING AND ZONING COMMISSION, THE OWNER/DEVELOPER UNDERSTANDS THAT IF PART OF SITE IS TO BE UTILIZED FOR A RESTAURANT OR BAR WITH DINE-IN SERVICE, THE OWNER/DEVELOPER MUST OBTAIN APPROVAL FROM THE PLANNING AND ZONING COMMISSION OF AN AMENDED SITE PLAN, WHICH WILL MEET THE CITY'S CURRENT PARKING REQUIREMENTS.

PREPARED FOR:  
WILLIAM H. ERKER  
35 N. CENTRAL, STE 400  
ST. LOUIS, MO 63105  
PH: (314) 863-6061  
FAX: (314) 863-6146

P.E./S. *Leonard J. Meers*  
Date 7/26/05



P&Z FILE # 0704/0704.01

GENERAL CONTRACTOR  
ARCHITECT  
STRUCTURAL ENGINEER  
GEOTECHNICAL ENGINEER  
CIVIL ENGINEER  
MECHANICAL ENGINEER  
PLUMBING ENGINEER  
ELECTRICAL ENGINEER  
FIRE PROTECTION

ARCO CONSTRUCTION CO., INC.  
THOMAS ROOF INC. ARCHITECTS  
IBRAHIM ENGINEERING CORP.  
GEOTECHNOLOGY  
J.R. GRIMES CONSULTING ENGINEERS  
JAPRELL MECHANICAL CONTRACTORS  
SYSTEM AIRE, INC.  
PAYNE CREST ELECTRIC  
BI-STATE FIRE PROTECTION

**ARCO**  
Construction Company, Inc.

LABOURE' CENTRE  
4601 HIGHWAY K  
O'FALLON, MISSOURI

**TR**  
Architects of the Possible

THOMAS ROOF INC. ARCHITECTS  
6251 Marwood Ave. Suite 300 314-726-9990  
St. Louis, Missouri 63105 Fax-726-9991  
www.thomasroof.com

DATE: 02/13/04

REVISIONS

PER CITY, DUCKETT CREEK  
& MODOT COMMENTS 04/06/04  
PER CITY COMMENTS 04/28/04  
PER MODOT COMMENTS 05/13/04  
PER MODOT COMMENTS 05/26/04

DWG. BY JLW

PROJECT NO. 1004B

SHEET NO.

C0.0  
TITLE SHEET

Labourer Center Asbuilt



N/F  
KELLEN-BECK  
PROPERTIES, LLC  
DB. 2478, PG. 1717  
ZONED HTCD  
VACANT

N/F  
MALLARD'S LANDING  
APARTMENTS, L.L.C.  
DB. 2472, PG. 1  
ZONED R4  
APARTMENTS

N/F  
H. ERKER REALTY  
& BUILDING CO.  
DB. 2954, PG. 1468  
ZONED C2

N/F  
JACKSON, DEAN  
JACKSON, DIANNE  
GUNDAKER GORDON  
GUNDAKER, DONNA  
DB. 2865, PG. 1091  
ZONED C3  
VACANT

N/F  
GOLDENBERG ASSOCIATES  
DB. 2486, PG. 1064  
ZONED C3  
QUIK TRIP

WELDON SPRINGS ROAD (VARIABLE WIDTH)

TECHNOLOGY DRIVE (WIDTH VARIES)

STATE HIGHWAY K (WIDTH VARIES)

**BUILDING A**  
RETAIL  
17,780 S.F.  
FF=567.00

**BUILDING B**  
RETAIL  
58,250 S.F.  
FF=567.00

**LOT 4A**  
9.14 ACRES

**LOT 4F**  
152 ACRES

**LOT 4E**  
0.66 ACRES

**LOT 4B**  
106 ACRES

**LOT 4C**  
159 ACRES

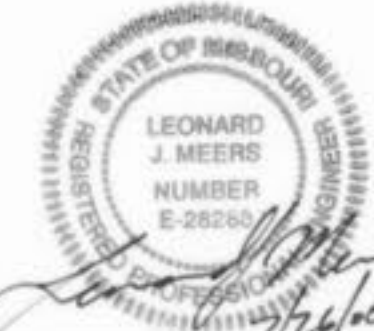
**LOT 4D**  
155 ACRES

SEE SHEET C6.2 FOR  
HIGHWAY K WIDENING

**NOTES:**

- 1.) REFER TO SHEETS C3.1-3.2 FOR SITE PLANS
- 2.) REFER TO SHEETS C4.1-4.2 FOR GRADING PLANS
- 3.) REFER TO SHEETS C5.1-5.2 FOR UTILITY PLANS
- 4.) REFER TO SHEETS C6.1-6.2 FOR PAVEMENT GEOMETRICS

"AS-BUILT"



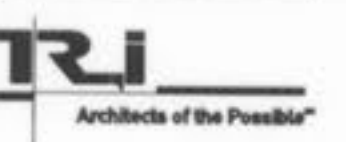
PREPARED FOR:  
WILLIAM H. ERKER  
35 N. CENTRAL, STE 400  
ST. LOUIS, MO 63105  
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FAX: (314) 863-6146

P&Z FILE # 0704/0704.01

- GENERAL CONTRACTOR: ARCO CONSTRUCTION CO., INC.
- ARCHITECT: THOMAS ROOF INC. ARCHITECTS
- STRUCTURAL ENGINEER: IBRAHIM ENGINEERING CORP.
- GEOTECHNICAL ENGINEER: GEOTECHNOLOGY
- CIVIL ENGINEER: J.R. GRIMES CONSULTING ENGINEERS
- MECHANICAL ENGINEER: JARRELL MECHANICAL CONTRACTORS
- PLUMBING ENGINEER: SYSTEM AIRE, INC.
- ELECTRICAL ENGINEER: PAYNE CREST ELECTRIC
- FIRE PROTECTION: BI-STATE FIRE PROTECTION

**ARCO**  
Construction Company, Inc.

**LABOURÉ CENTRE**  
4601 HIGHWAY K  
O'FALLON, MISSOURI



THOMAS ROOF INC. - ARCHITECTS  
8201 Woodland Ave. Suite 200  
St. Louis, Missouri 63105  
Tel: 726-9991  
www.trarchitects.com

DATE: 02/13/04

REVISIONS

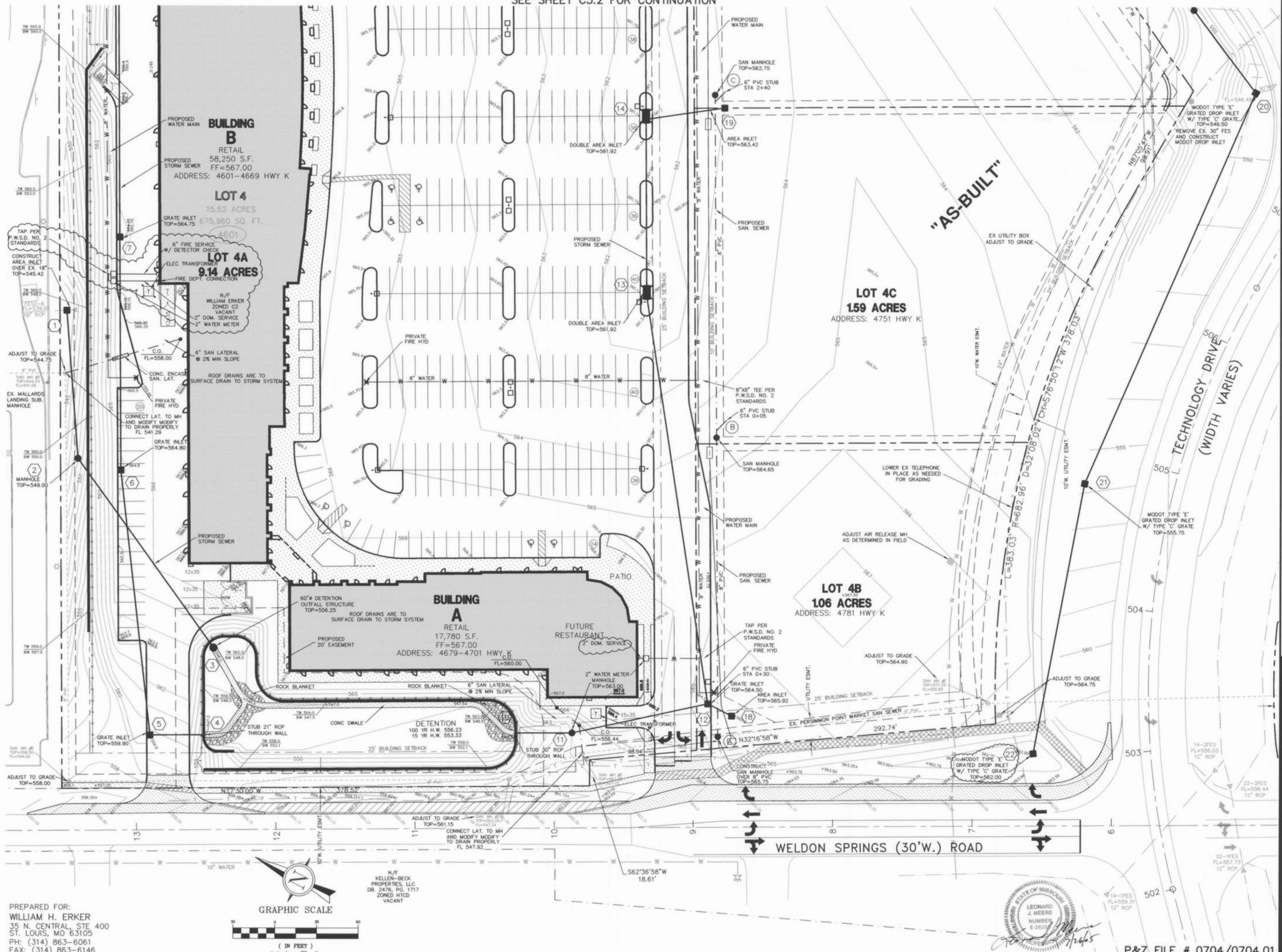
NO.	DESCRIPTION	DATE
1	PER CITY, DUCKETT CREEK & MODOT COMMENTS	04/06/04

DWG. BY: J.L.W.  
PROJECT NO.: 1004B  
SHEET NO.:

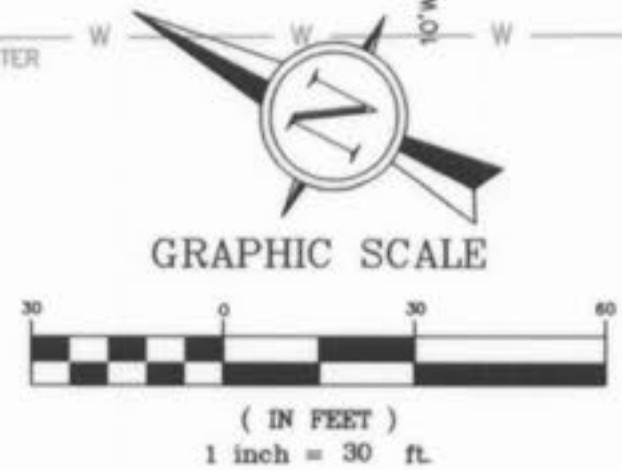
**C2.1**  
OVERALL SITE PLAN

Laboure Center Asbuilt

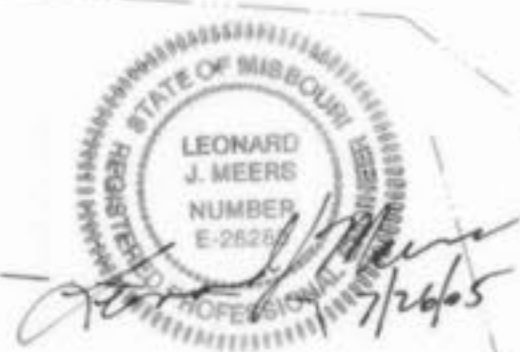
SEE SHEET C5.2 FOR CONTINUATION



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 FAX: (314) 863-6146



N/F  
 KELLEN-BECK  
 PROPERTIES, LLC  
 DBL 2476, PG. 1717  
 ZONED HTCD  
 VACANT



P&Z FILE # 0704/0704.01

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- GEOTECHNICAL ENGINEER: GEOTECHNOLOGY
- CIVIL ENGINEER: J.R. GRIMES CONSULTING ENGINEERS
- MECHANICAL ENGINEER: JARRELL MECHANICAL CONTRACTORS
- PLUMBING ENGINEER: SYSTEM AIRE, INC.
- ELECTRICAL ENGINEER: PAYNE CREST ELECTRIC
- FIRE PROTECTION: BI-STATE FIRE PROTECTION



# LABOURÉ CENTRE

4601 HIGHWAY K  
 O'FALLON, MISSOURI



THOMAS ROOF INC. ARCHITECTS  
 8251 Maryland Ave. Suite 300  
 St. Louis, Missouri 63105  
 Copyright 2004

DATE: 02/13/04

REVISIONS

OWNER & FIRE COMMENTS 2/26/04  
 PER CITY, DUCKETT CREEK  
 & MODOT COMMENTS 04/06/04

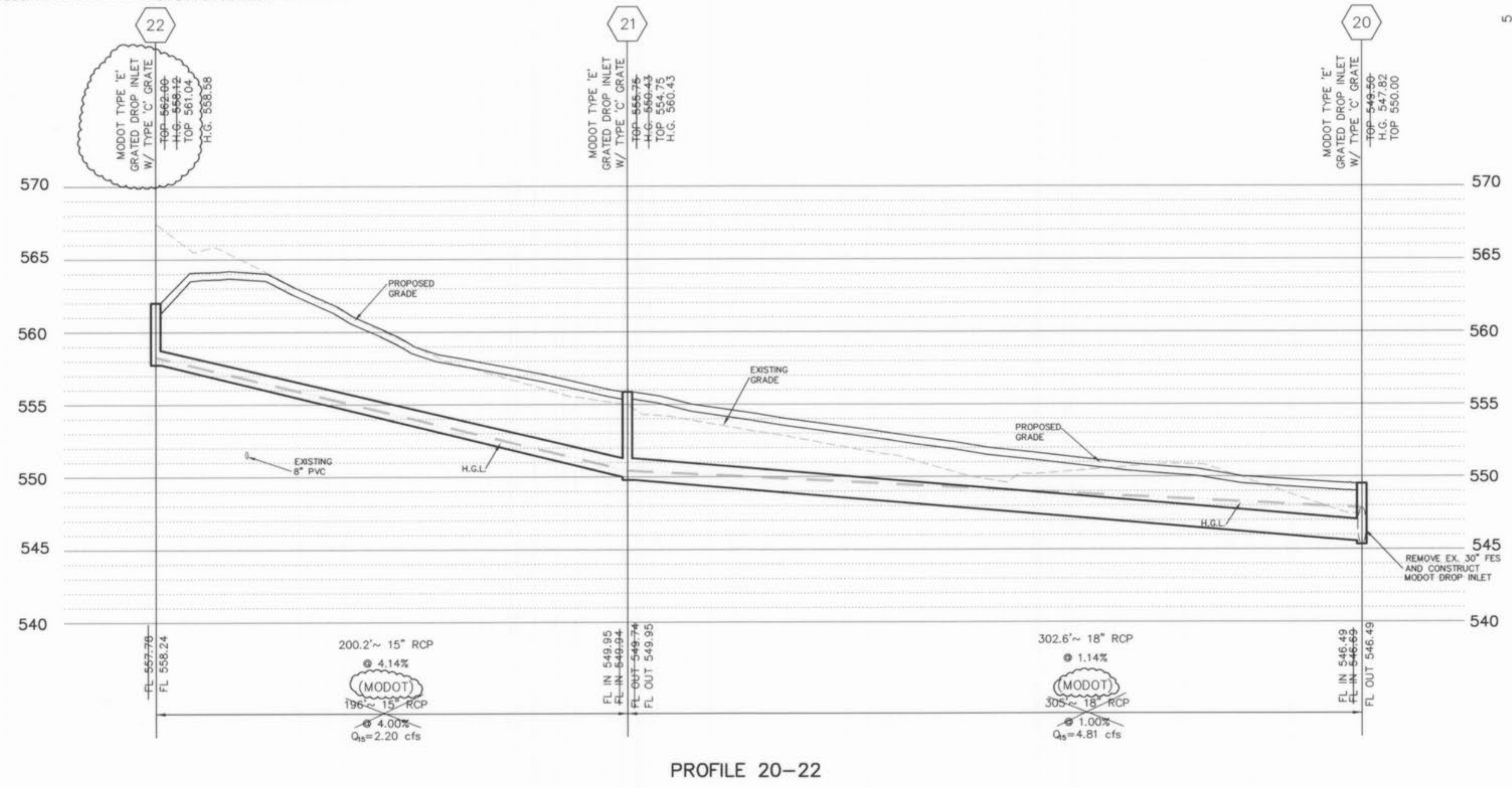
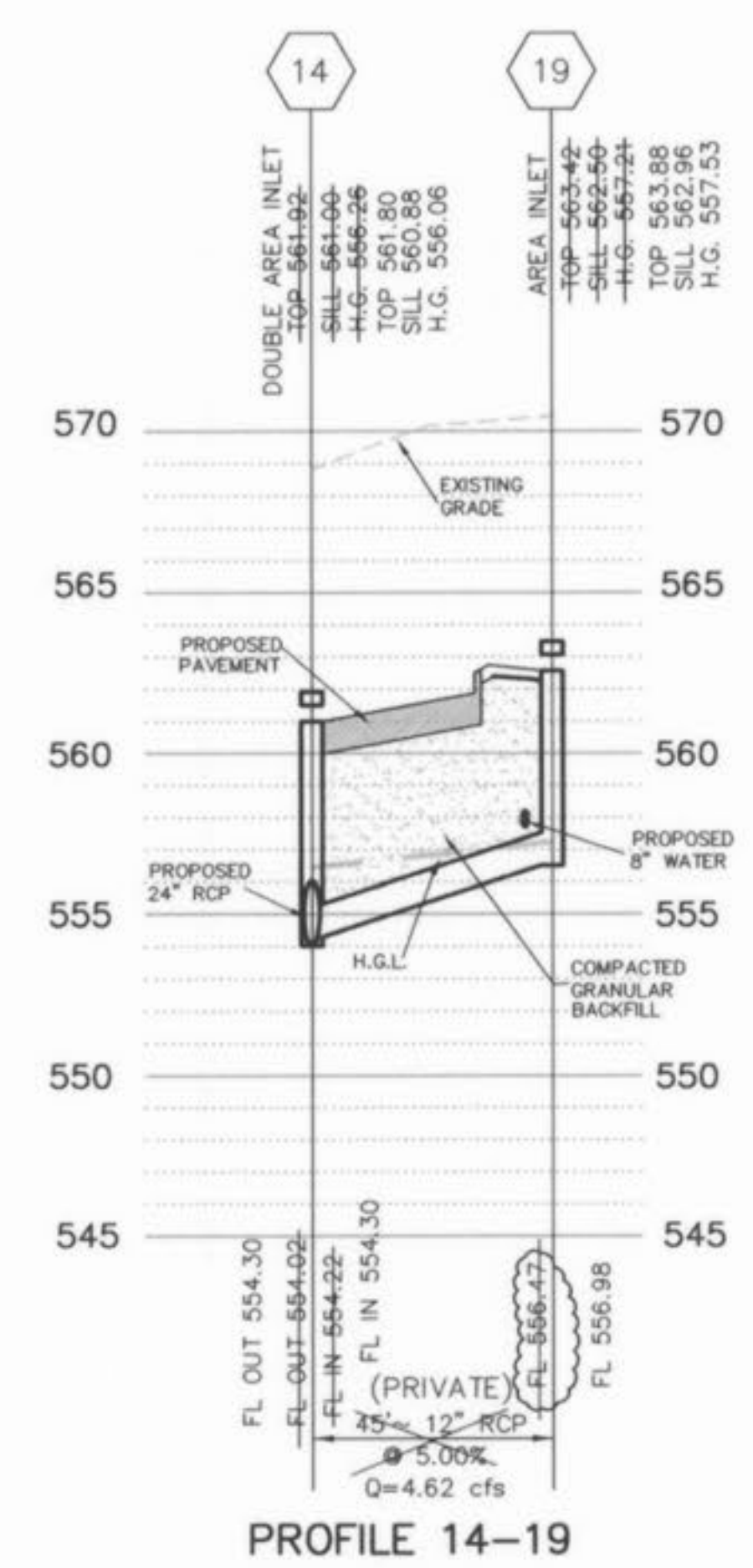
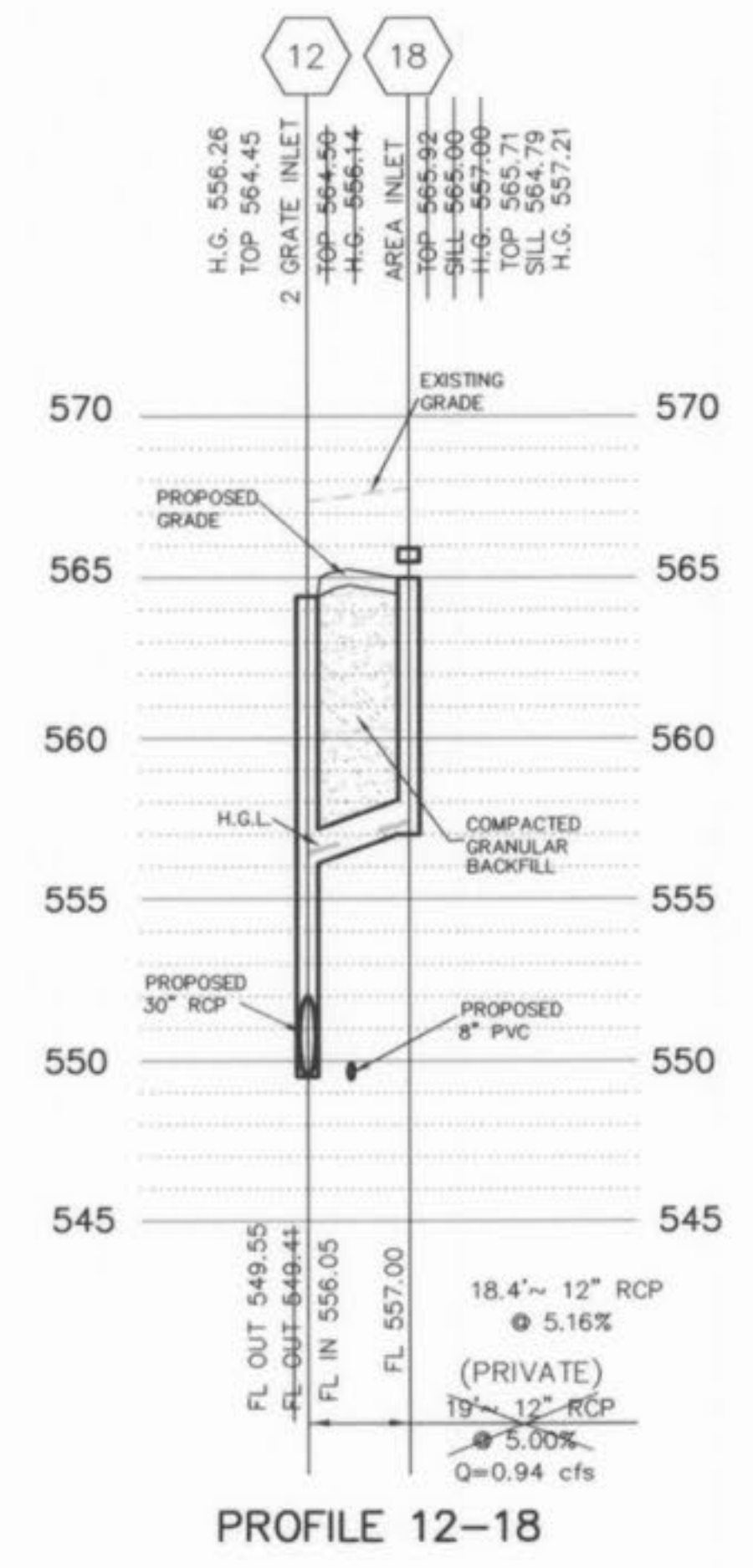
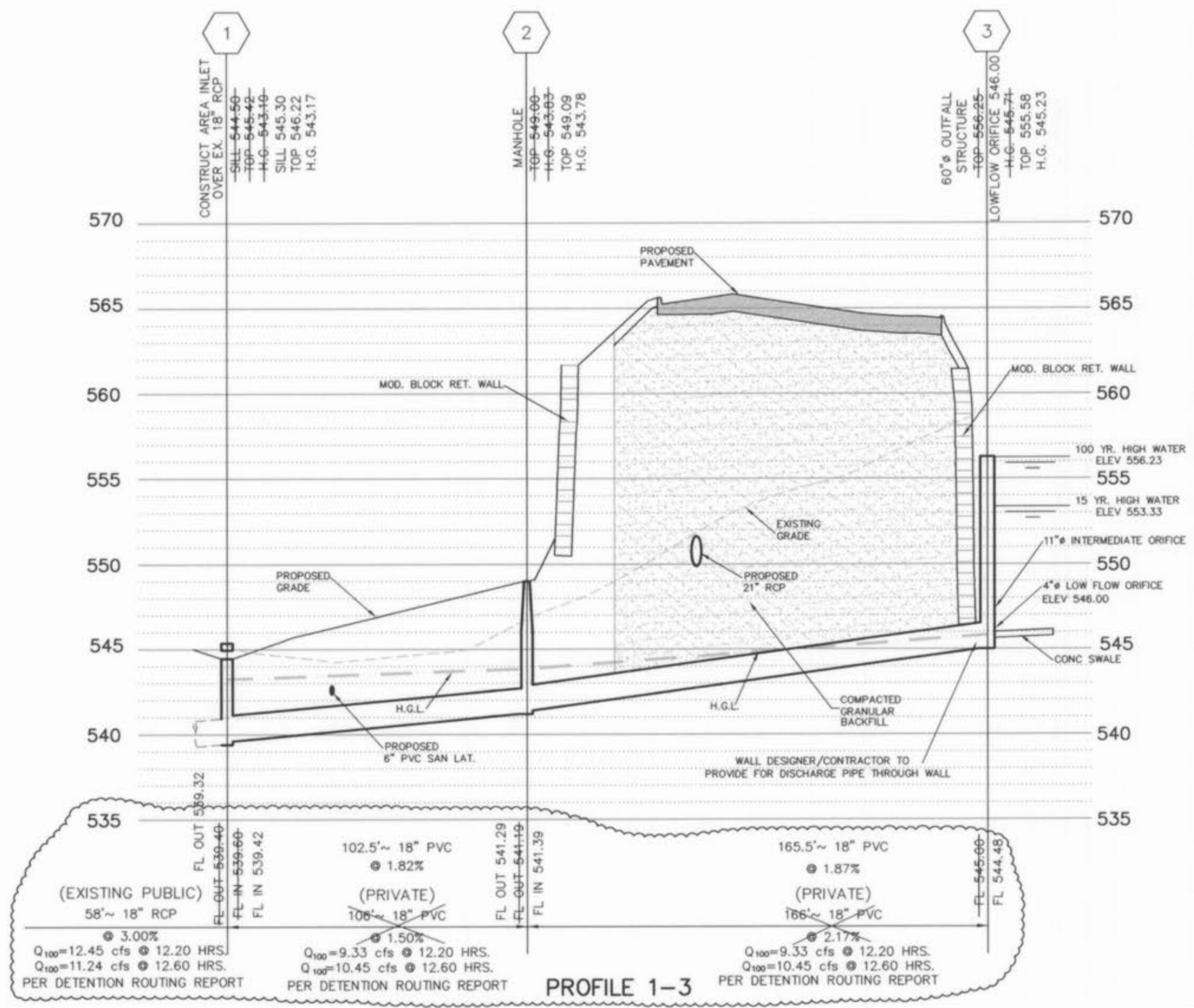
DWG. BY: J.W.  
 PROJECT NO.: 1004B  
 SHEET NO.:

## C5.1

UTILITY PLAN

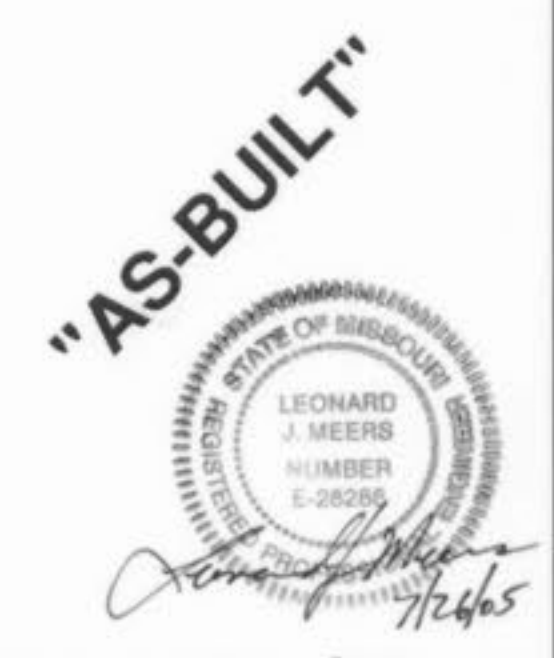
Labouré Center As-built





5 VERT.  
30 HORIZ.  
SCALE:

PREPARED FOR:  
WILLIAM H. ERKER  
35 N. CENTRAL, STE 400  
ST. LOUIS, MO 63105  
PH: (314) 863-6061  
FAX: (314) 863-6146



P&Z FILE # 0704/0704.01

- |                     |                   |
|---------------------|-------------------|
| GENERAL CONTRACTOR  | ARCHITECT         |
| STRUCTURAL ENGINEER | CIVIL ENGINEER    |
| MECHANICAL ENGINEER | PLUMBING ENGINEER |
| ELECTRICAL ENGINEER | FIRE PROTECTION   |
- 
- |                                  |                             |
|----------------------------------|-----------------------------|
| ARCO CONSTRUCTION CO., INC.      | THOMAS ROOF INC. ARCHITECTS |
| J.R. GRIMES CONSULTING ENGINEERS | IBRAHIM ENGINEERING CORP.   |
| JARRELL MECHANICAL CONTRACTORS   | GEOTECHNOLOGY               |
| SYSTEM AIRE, INC.                | PAVING CONTRACTORS          |
| PAYNE CREST ELECTRIC             | BI-STATE FIRE PROTECTION    |



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825 Westport Ave. Suite 300  
St. Louis, Missouri 63105  
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www.thomasroof.com

DATE: 02/13/04

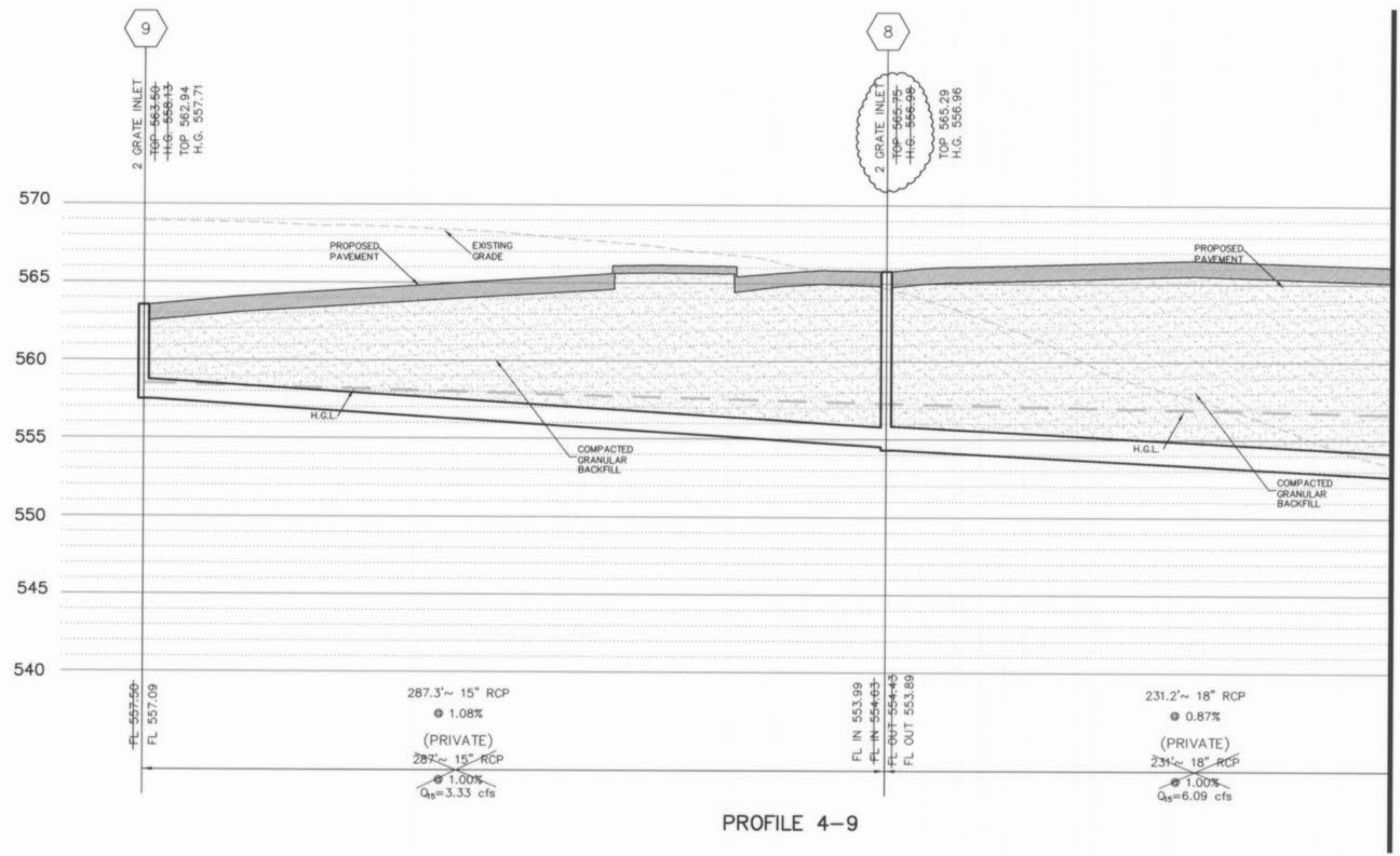
REVISIONS

PER CITY, DUCKETT CREEK	
& MODOT COMMENTS	04/06/04
PER CITY COMMENTS	04/28/04

DWG. BY: J.W.  
PROJECT NO.: 1004B  
SHEET NO.:

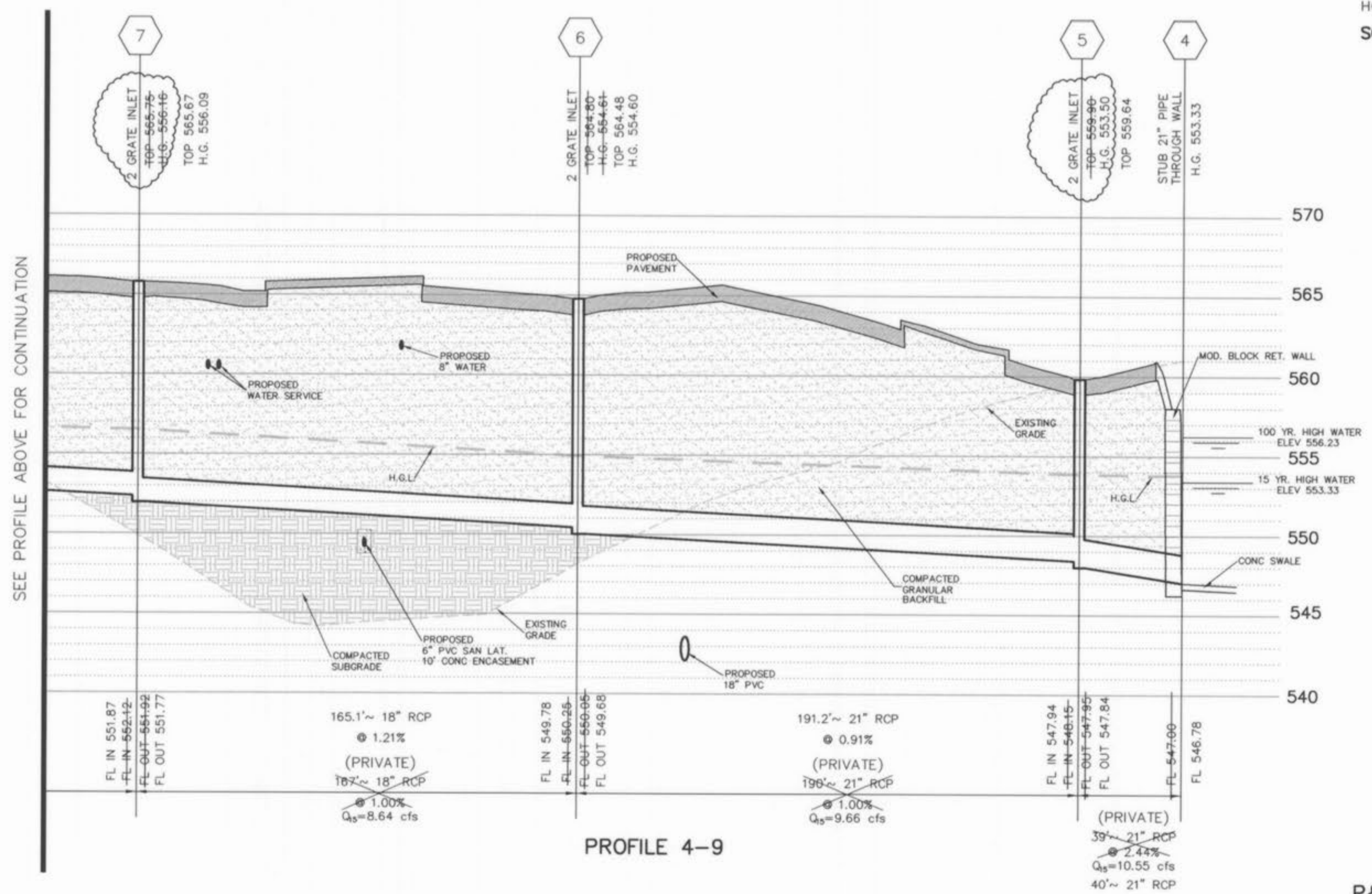
**C8.1**  
STORM SEWER PROFILES

Labouré Center As built



PROFILE 4-9

SEE PROFILE BELOW FOR CONTINUATION



PROFILE 4-9

5 VERT.  
30 HORIZ.  
SCALE:

PREPARED FOR:  
WILLIAM H. ERKER  
35 N. CENTRAL STE 400  
ST. LOUIS, MO 63105  
PH: (314) 863-6061  
FAX: (314) 863-6146

**"AS-BUILT"**

- GENERAL CONTRACTOR: ARCO CONSTRUCTION CO., INC.
- ARCHITECT: THOMAS ROOF INC. ARCHITECTS
- STRUCTURAL ENGINEER: IBRAHIM ENGINEERING CORP.
- GEOLOGICAL ENGINEER: GEOTECHNOLOGY
- CIVIL ENGINEER: J.R. GRIMES CONSULTING ENGINEERS
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- FIRE PROTECTION: BI-STATE FIRE PROTECTION



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8201 Maryland Ave. Suite 300  
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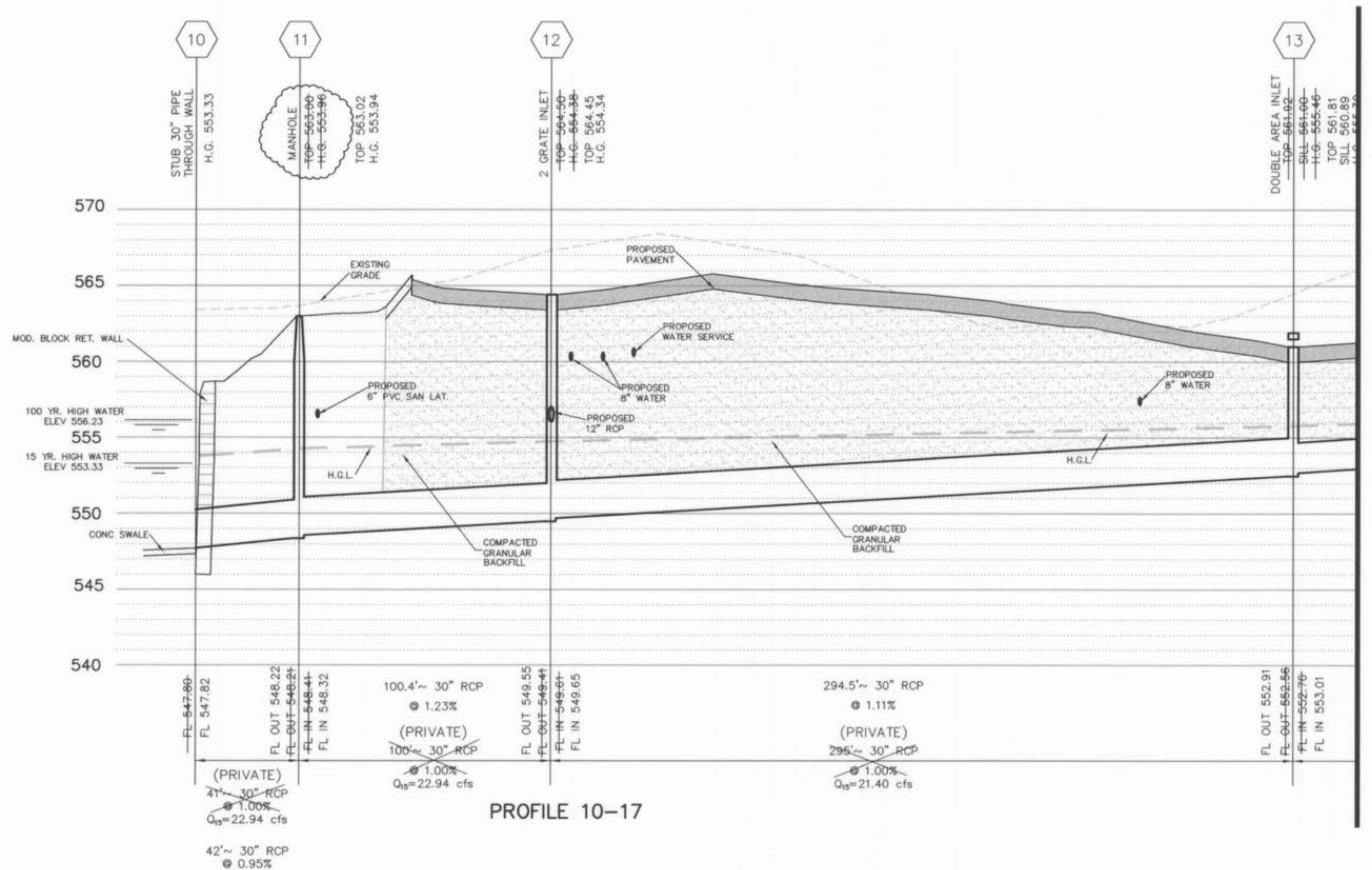
REVISIONS	PER CITY, DUCKETT CREEK
	& MODOT COMMENTS 04/06/04
	REVISED GRADING 08/18/04

DWG. BY: JLW  
PROJECT NO.: 1004B  
SHEET NO.:

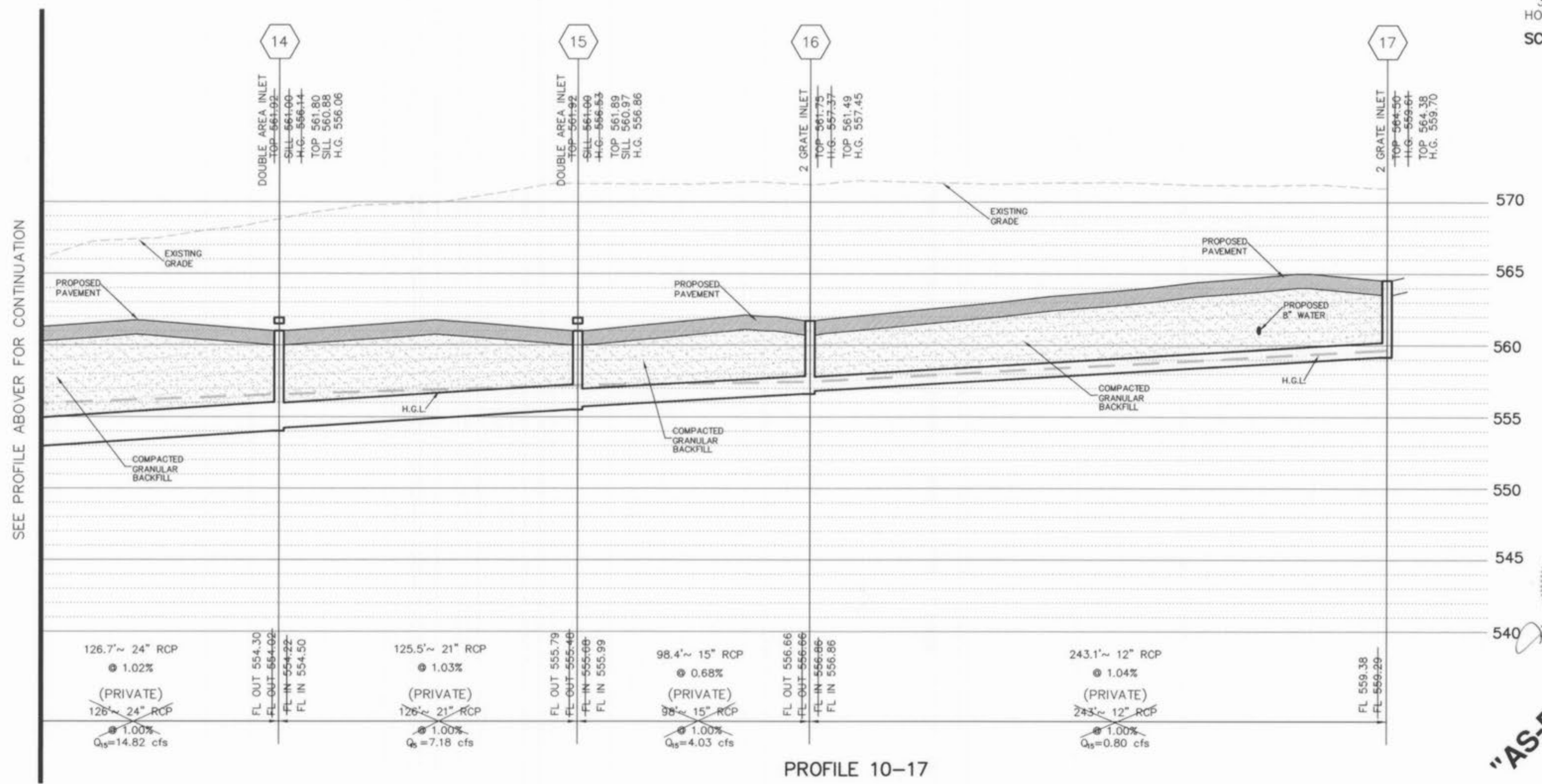
**C8.2**  
STORM SEWER PROFILES

P&Z FILE # 0704/0704.01

Labouré Center As built



SEE PROFILE BELOW FOR CONTINUATION



5 VERT.  
30 HORIZ.  
SCALE:

PREPARED FOR:  
WILLIAM H. ERKER  
35 N. CENTRAL, STE 400  
ST. LOUIS, MO 63105  
PH: (314) 863-6061  
FAX: (314) 863-6146

**"AS-BUILT"**  
 LEONARD J. MEERS  
 NUMBER E-2023  
 7/26/05

- GENERAL CONTRACTOR: ARCO CONSTRUCTION CO., INC.
- ARCHITECT: THOMAS ROOF INC. ARCHITECTS
- STRUCTURAL ENGINEER: IBRAHIM ENGINEERING CORP.
- GEOTECHNICAL ENGINEER: GEOTECHNOLOGY
- CIVIL ENGINEER: J.R. GRIMES CONSULTING ENGINEERS
- MECHANICAL ENGINEER: JARRELL MECHANICAL CONTRACTORS
- PLUMBING ENGINEER: SYSTEM ARE, INC.
- ELECTRICAL ENGINEER: PAYNE CREST ELECTRIC
- FIRE PROTECTION: BI-STATE FIRE PROTECTION



**LABOURÉ CENTRE**  
 4601 HIGHWAY K  
 O'FALLON, MISSOURI



THOMAS ROOF INC. ARCHITECTS  
 8351 Marford Ave., Suite 300, St. Louis, Missouri 63115  
 314-738-9990  
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DATE: 02/13/04

REVISIONS

REVISION	DATE
PER CITY, DUCKETT CREEK & MODOT COMMENTS	04/06/04

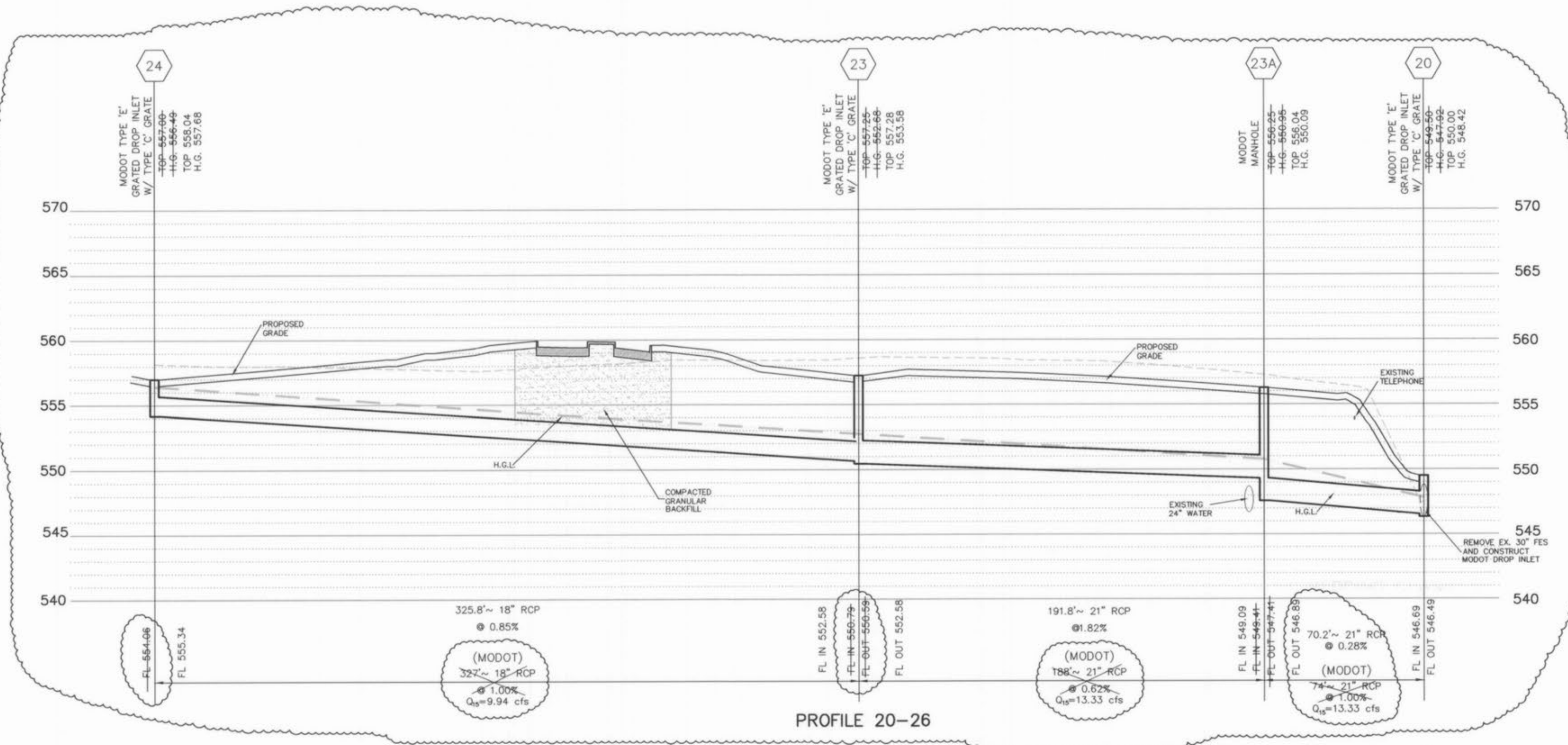
DWG. BY: J.W.  
 PROJECT NO.: 1004B  
 SHEET NO.:

**C8.3**  
 STORM SEWER PROFILES

P&Z FILE # 0704/0704.01

Labouré Center As built





J.R. GRIMES  
CONSULTING ENGINEERS, INC. LABOURE' CENTRE

CALC. BY: J. WHISLER  
DATE: 02/09/2004  
REVISED: 08/24/2004

VER. 2.0

STRUCTURE	UPR	LOWER	FLOWLINE	UPR	LOWER	LENGTH	GRADE	PIPE	"n"	Q	TOTAL	V	W <sub>s</sub>	FRICT.	CURVE	TOTAL PIPE	STRUCTURE LOSSES (ft.)			HYD. ELEV		HYD. GRADE	LOWEST	FREEBOARD	PIPE CAPACITY	Q/CAP.	DEPTH	FULL FLOW VELOCITY	GIVEN LOWER
																	LOSS	LOSS	LOSSES	UPPER	LOWER								
HYDRAULIC DATA 100 YEAR STORM PER DETENTION ROUTING REPORT																													
CB 2-2	FES	2	530.68	530.38	30	0.0100	30	0.013	1.37	24.91	5.33	0.44	0.12	0.00	0.12	0.24	0.07	0.31	534.22	533.79	0.00407	537.61	3.39	41.02	0.61	1.39	5.07	533.79	
MH 2-3	CB	2	2531.18	530.68	50	0.0100	24	0.013	0.00	23.54	8.58	1.14	0.71	0.00	0.71	0.00	0.17	0.17	535.10	534.22	0.01420	538.31	3.21	22.62	1.04	1.70	7.49		
CB 2-4	MH	2	3534.33	531.18	105	0.0300	24	0.013	6.03	23.54	7.87	0.96	1.25	0.00	1.25	1.36	0.00	1.36	536.80	535.10	0.01194	544.61	7.81	39.18	0.60	1.11	7.49		
MH 2-5	CB	2	4537.66	534.33	111	0.0300	18	0.013	5.06	17.51	11.35	2.00	4.04	0.00	4.04	0.63	0.16	0.79	541.64	536.80	0.03643	551.61	9.97	18.19	0.96	1.18	9.91		
1	MH	2	5539.32	537.66	58	0.0286	18	0.013	3.12	12.45	7.61	0.90	0.95	0.00	0.95	0.29	0.29	0.58	543.17	541.64	0.01639	545.30	2.13	17.77	0.70	0.92	7.05		
2	1	541.29	539.42	103	0.0182	18	0.01	0.00	9.33	5.28	0.43	0.48	0.00	0.48	0.00	0.13	0.13	0.13	543.78	543.17	0.00467	549.09	5.31	18.44	0.51	0.75	5.28		
3	2	544.48	541.39	166	0.0187	18	0.01	9.33	9.33	5.28	0.43	0.77	0.00	0.77	0.00	0.00	0.00	0.00	545.23	543.78	0.00467	546.00	0.77	18.66	0.50	0.75	5.28		
HYDRAULIC DATA 15 YEAR STORM PER DETENTION ROUTING REPORT @ 12.20 HRS. WHEN HYDROGRAPHS COMBINES FOR MAXIMUM OUTFALL																													
5	4	547.84	546.78	40	0.0265	21	0.013	0.89	10.55	4.12	0.26	0.16	0.00	0.16	0.00	0.02	0.02	0.02	553.50	553.33	0.00392	559.64	6.14	25.79	0.41	0.77	4.39	553.33	
6	5	549.68	547.94	191	0.0091	21	0.013	1.02	9.66	4.24	0.28	0.79	0.00	0.79	0.30	0.00	0.30	0.30	554.60	553.50	0.00414	564.48	9.88	15.12	0.64	1.00	4.02		
7	6	551.77	549.78	165	0.0121	18	0.013	2.55	8.64	5.38	0.45	1.35	0.00	1.35	0.14	0.00	0.14	0.14	556.09	554.60	0.00819	565.67	9.58	11.53	0.75	0.95	4.89		
8	7	553.89	551.87	231	0.0087	18	0.013	2.76	6.09	3.64	0.21	0.86	0.00	0.86	0.00	0.00	0.00	0.00	556.96	556.09	0.00374	565.29	8.33	9.82	0.62	0.86	3.45		
9	8	557.09	553.99	287	0.0108	15	0.013	3.33	3.33	2.69	0.11	0.75	0.00	0.75	0.00	0.00	0.00	0.00	557.71	556.96	0.00260	562.94	5.23	6.71	0.50	0.61	2.71		
11	10	548.22	547.82	42	0.0095	30	0.013	0.00	22.94	4.77	0.35	0.14	0.00	0.14	0.25	0.23	0.48	0.48	553.94	553.33	0.00325	563.02	9.08	40.03	0.57	1.30	4.67		
12	11	549.55	548.32	100	0.0123	30	0.013	0.60	22.94	4.67	0.34	0.31	0.00	0.31	0.05	0.03	0.08	0.08	554.34	553.94	0.00313	564.45	10.11	45.40	0.51	1.25	4.67		
13	12	552.91	549.65	295	0.0111	30	0.013	6.58	21.40	4.32	0.29	0.79	0.00	0.79	0.27	0.00	0.27	0.27	555.39	554.34	0.00267	560.89	5.50	43.16	0.50	1.21	4.36		
14	13	554.30	553.01	127	0.0102	24	0.013	3.02	14.82	5.02	0.39	0.62	0.00	0.62	0.04	0.02	0.06	0.06	556.06	555.39	0.00487	560.88	4.82	22.83	0.65	1.16	4.72		
15	14	555.79	554.50	126	0.0103	21	0.013	3.15	7.18	2.88	0.13	0.24	0.00	0.24	0.20	0.00	0.26	0.26	556.86	556.06	0.00191	560.97	4.11	16.06	0.45	0.81	2.99		
16	15	556.66	555.99	98	0.0068	15	0.013	3.23	4.03	3.61	0.20	0.46	0.00	0.46	0.00	0.00	0.00	0.00	557.45	556.86	0.00471	561.49	4.04	5.33	0.76	0.79	3.28		
17	16	559.38	556.86	243	0.0104	12	0.013	0.80	0.80	0.81	0.01	0.08	0.00	0.08	0.00	0.00	0.00	0.00	559.70	557.45	0.00032	564.38	4.68	3.63	0.22	0.32	1.02		
18	12	557.00	556.05	18	0.0516	12	0.013	0.94	0.94	0.75	0.01	0.01	0.00	0.01	0.00	0.00	0.00	0.00	557.21	556.26	0.00028	564.79	7.58	8.10	0.12	0.21	1.20		
19	14	556.98	554.30	54	0.0497	12	0.013	4.62	4.62	6.12	0.58	0.98	0.00	0.98	0.00	0.00	0.00	0.00	557.53	556.06	0.01819	562.96	5.44	7.94	0.58	0.55	5.88		
20	15	FES	546.49	542.48	186	0.0216	30	0.013	10.92	29.06	5.86	0.53	0.92	0.00	0.92	0.10	0.02	0.11	547.82	544.98	0.00492	549.50	1.68	60.23	0.48	1.21	5.92		
21	20	549.95	546.49	303	0.0114	18	0.013	2.61	4.81	2.60	0.10	0.58	0.00	0.58	0.00	0.00	0.00	0.00	550.63	547.82	0.00191	555.75	5.13	11.23	0.43	0.68	2.72		
22	21	558.24	549.95	200	0.0414	15	0.013	2.20	2.20	1.30	0.03	0.12	0.00	0.12	0.00	0.00	0.00	0.00	558.58	550.63	0.00061	563.75	5.17	13.15	0.17	0.34	1.79		
23A	20	546.89	546.69	70	0.0028	21	0.013	0.00	13.33	5.54	0.48	0.50	0.00	0.50	0.05	0.00	0.05	0.05	548.97	548.42	0.00708	556.04	7.07	8.46	1.58	1.73	5.54		
23	23A	552.58	549.09	192	0.0182	21	0.013	3.39	13.33	5.85	0.53	1.51	0.00	1.51	0.00	0.00	0.00	0.00	553.58	550.09	0.00788	557.28	3.70	21.37	0.62	1.00	5.54		
24	23	555.34	552.58	326	0.0085	18	0.013	9.94	9.94	6.47	0.65	3.86	0.00	3.86	0.00	0.00	0.00	0.00	557.68	553.83	0.01184	558.04	0.36	9.67	1.03	1.25	5.62		

5 VERT.  
30 HORIZ.  
SCALE:

PREPARED FOR:  
WILLIAM H. ERKER  
35 N. CENTRAL, STE 400  
ST. LOUIS, MO 63105  
PH: (314) 863-6061  
FAX: (314) 863-6146

P&Z FILE # 0704/0704.01

- GENERAL CONTRACTOR: ARCO CONSTRUCTION CO., INC.
- ARCHITECT: THOMAS ROOF INC. ARCHITECTS
- STRUCTURAL ENGINEER: IBRAHIM ENGINEERING CORP.
- GEOTECHNICAL ENGINEER: GEOTECHNOLOGY
- CIVIL ENGINEER: J.R. GRIMES CONSULTING ENGINEERS
- MECHANICAL ENGINEER: JARRELL MECHANICAL CONTRACTORS
- PLUMBING ENGINEER: SYSTEM AIRE, INC.
- ELECTRICAL ENGINEER: PAYNE CREST ELECTRIC
- FIRE PROTECTION: BI-STATE FIRE PROTECTION



LABOURE' CENTRE  
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O'FALLON, MISSOURI



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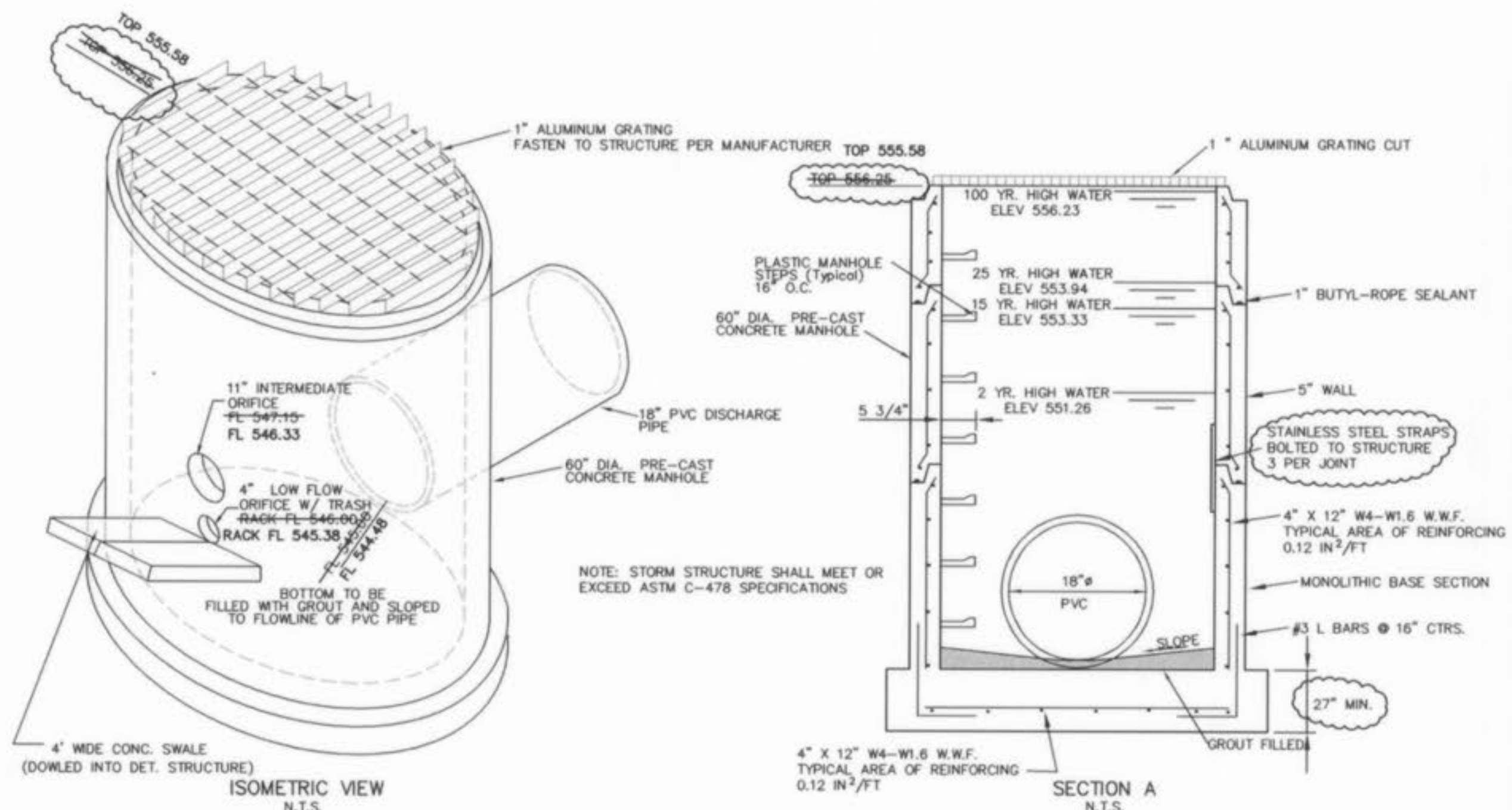
DATE: 02/13/04

REVISIONS	DATE
PER CITY, DUCKETT CREEK	
& MODOT COMMENTS	04/06/04
PER CITY COMMENTS	04/28/04
PER SEWER CONFLICT	08/24/04
PER MODOT COMMENTS	9/02/04

DWG. BY: J.W.  
PROJECT NO.: 1004B  
SHEET NO.:

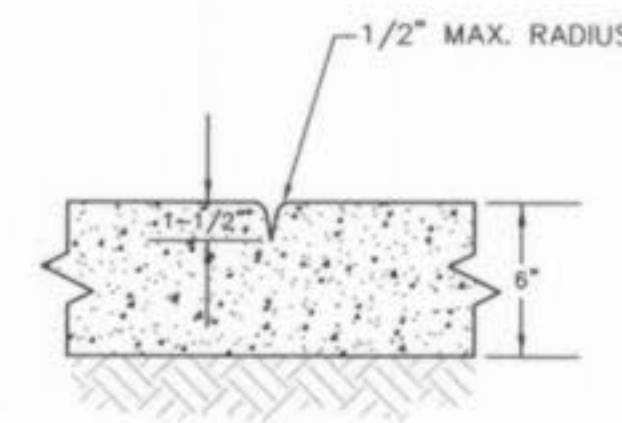
C8.4  
STORM SEWER PROFILES

Laboure Center As Built

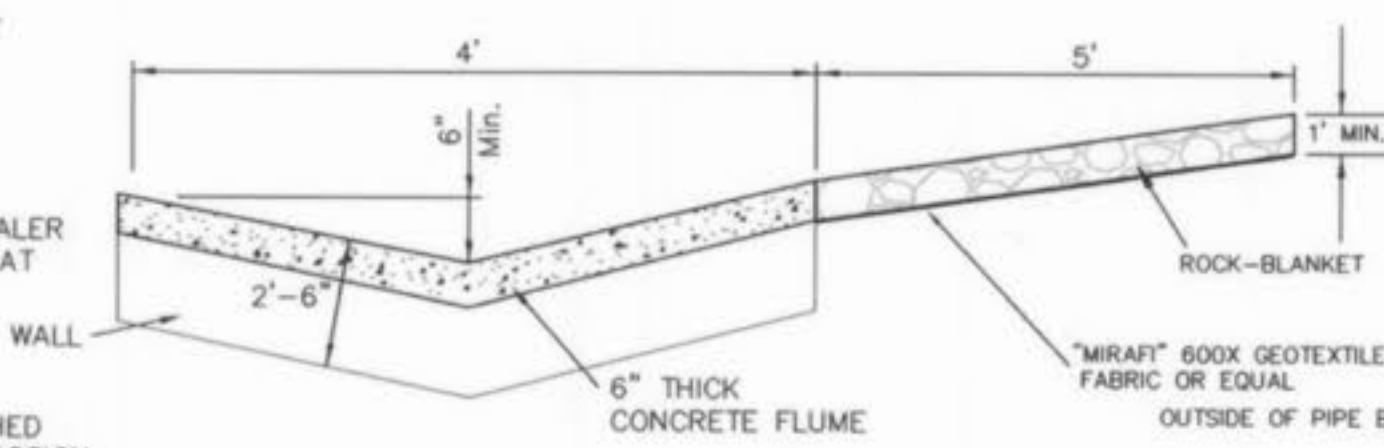


**DETENTION STRUCTURE DETAIL**

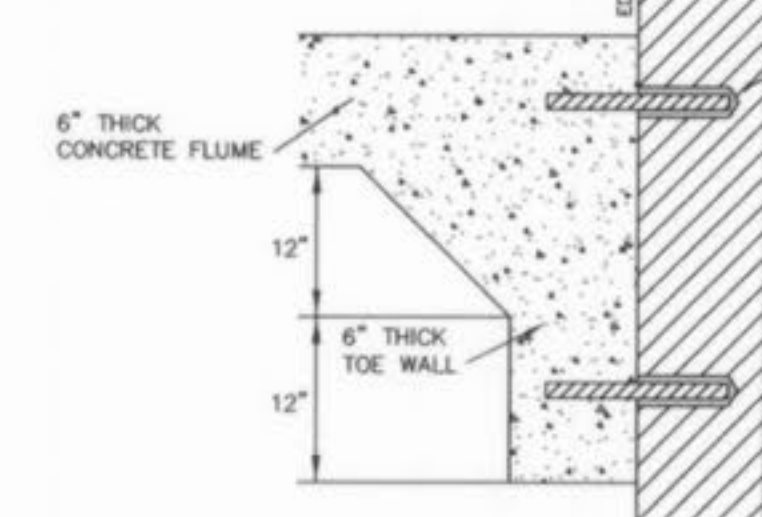
- NOTES:**
1. CONCRETE SHALL BE 3000 p.s.i. STRENGTH AT 28 DAYS.
  2. TOE WALL SHALL BE CONSTRUCTED AT BOTH UPSTREAM AND DOWNSTREAM ENDS.
  3. 1/2" PREFORMED FIBER JOINT WITH JOINT SEALER TO BE CONSTRUCTED AS TRANSVERSE JOINT AT 50' INTERVALS.
  4. MINIMUM CHANNEL SLOPE TO BE 0.5%.
  5. DISTURBED AREAS TO BE SEEDED AND MULCHED UPON COMPLETION OF CONSTRUCTION AND EROSION CONTROL DEVICES INSTALLED PER DIRECTION OF OWNER OR ENGINEER.
  6. CONCRETE SWALE TO BE DOWLED INTO THE DETENTION STRUCTURE USING #4 DOWELS.
  7. CONTROL JOINTS SHALL BE HAND-TOOLED OR SAWCUT AT A MAXIMUM OF 15' O.C. AND AT ANY/ALL P.C.'S AND P.T.'S.



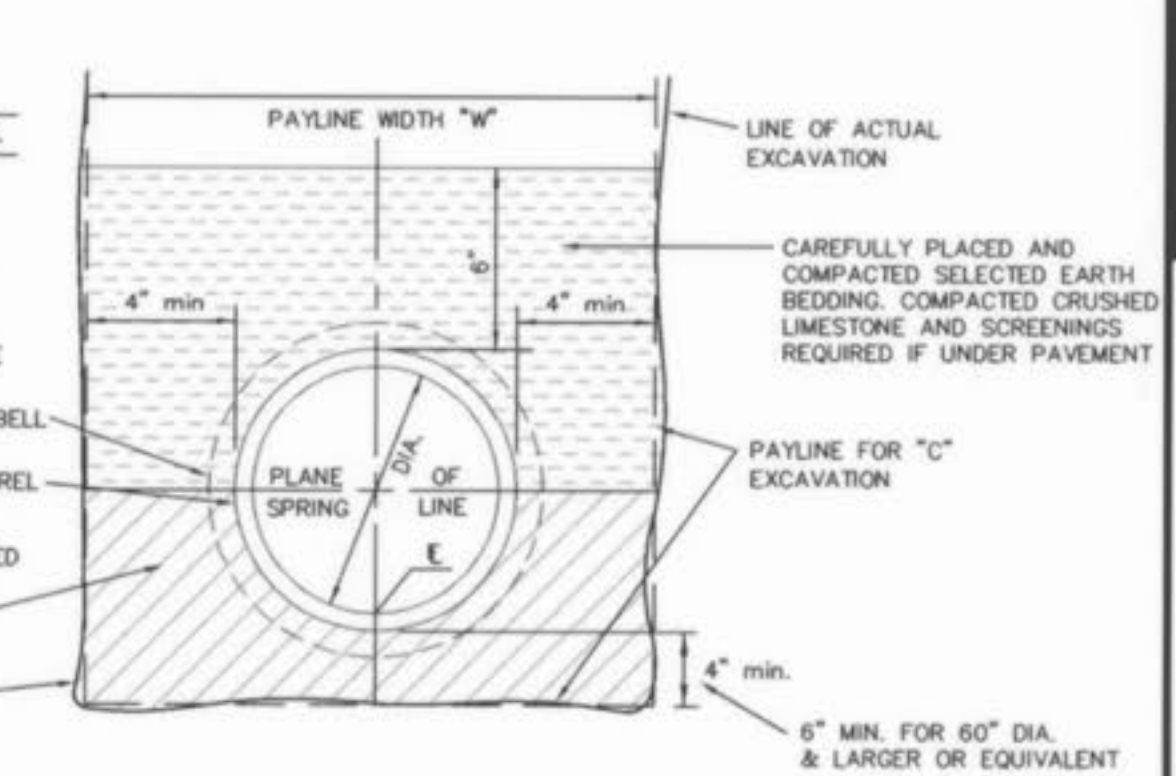
**CONTROL JOINT DETAIL**  
DETENTION BASIN CONC. SWALE



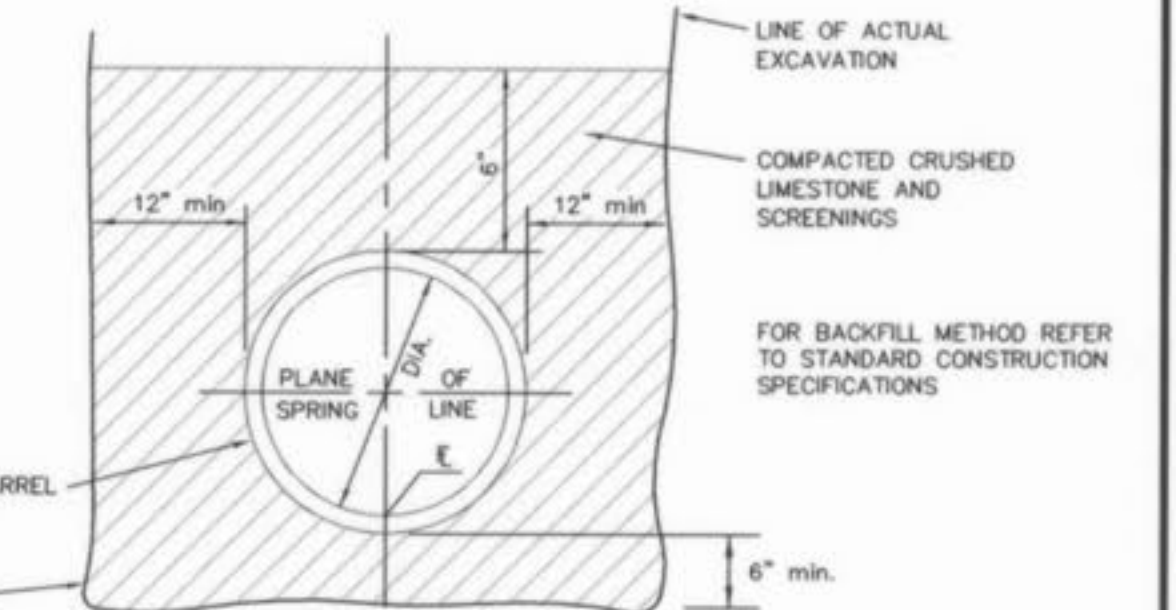
**CONCRETE SWALE DETAIL**



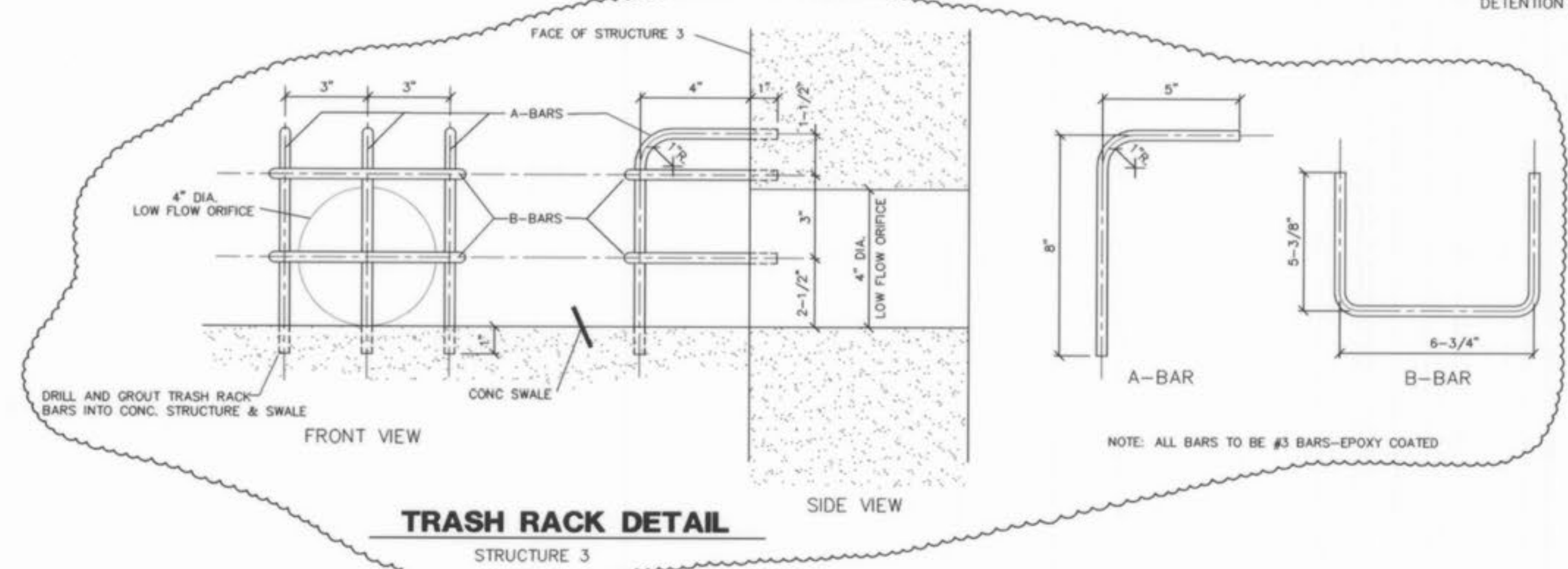
**DOWELLED FLUME CONNECTION**



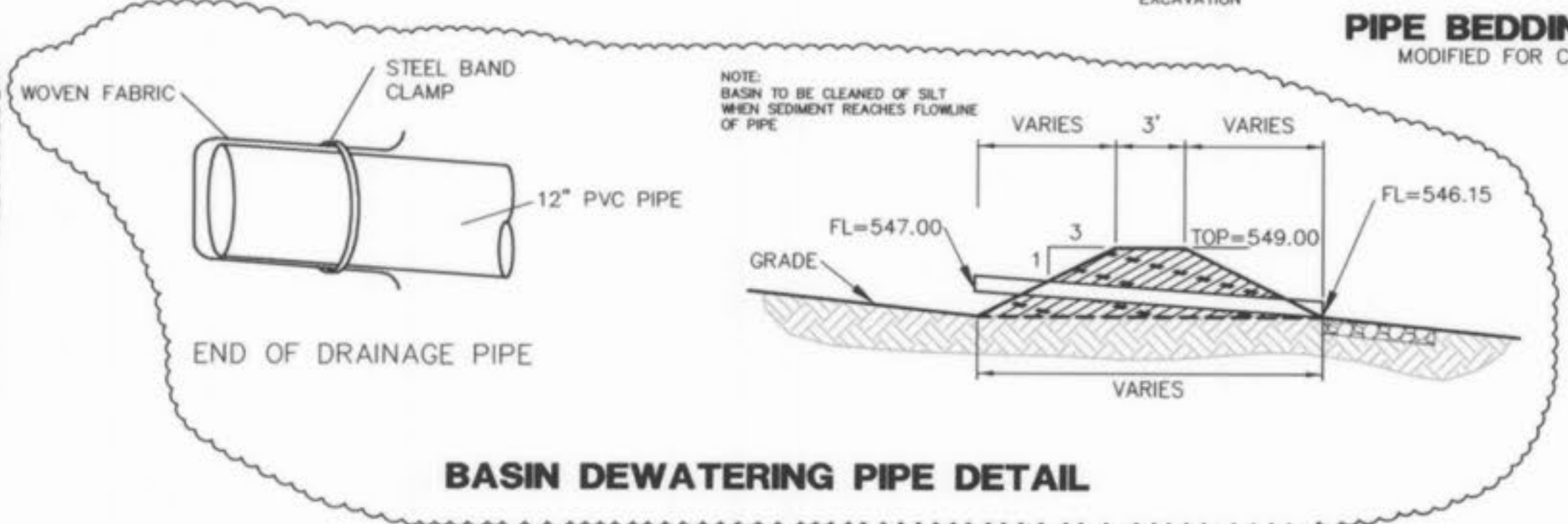
**PIPE BEDDING CLASS "C"**  
MODIFIED FOR REINFORCED CONCRETE PIPE



**PIPE BEDDING CLASS "C"**  
MODIFIED FOR CORRUGATED METAL PIPE

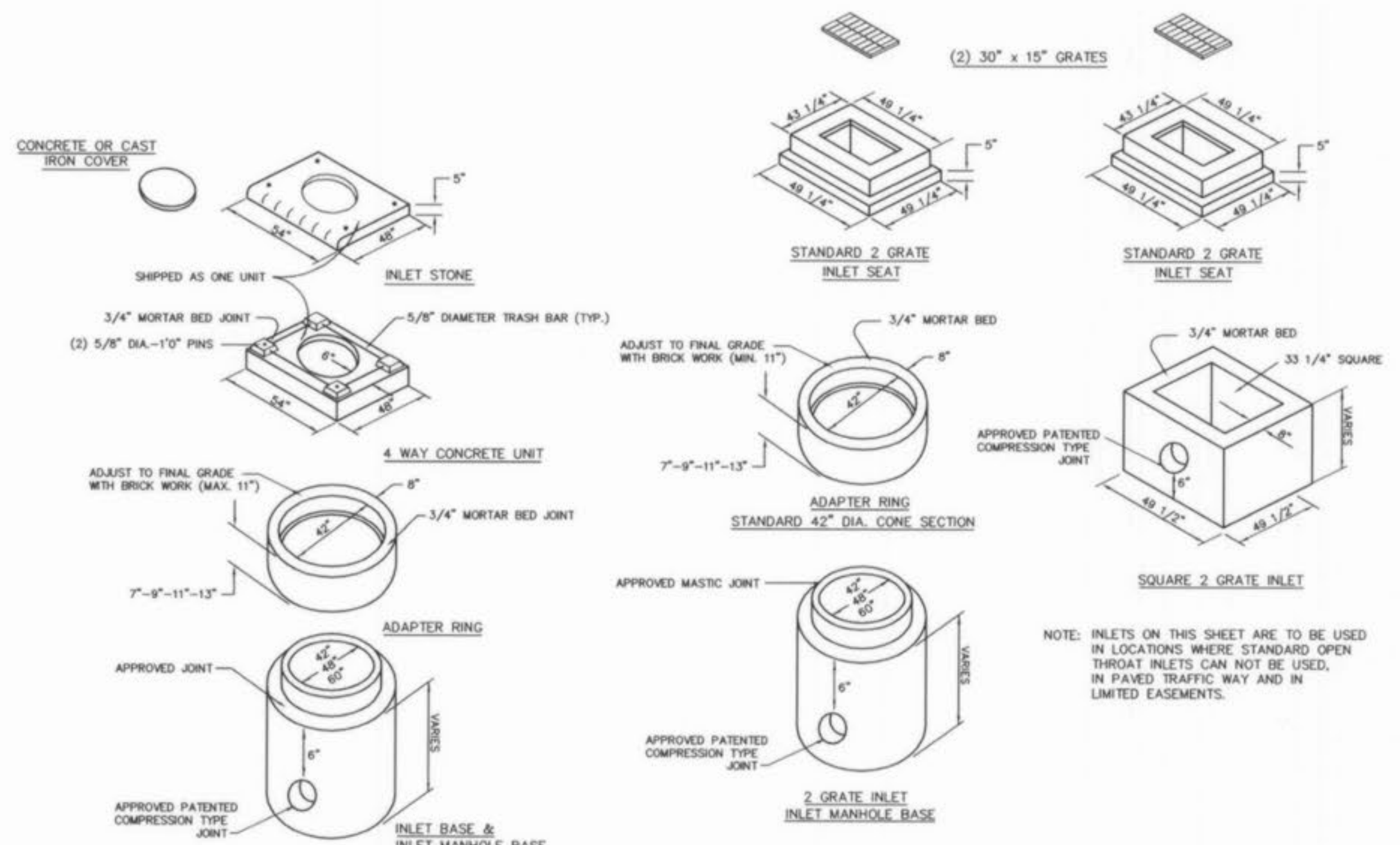


**TRASH RACK DETAIL**



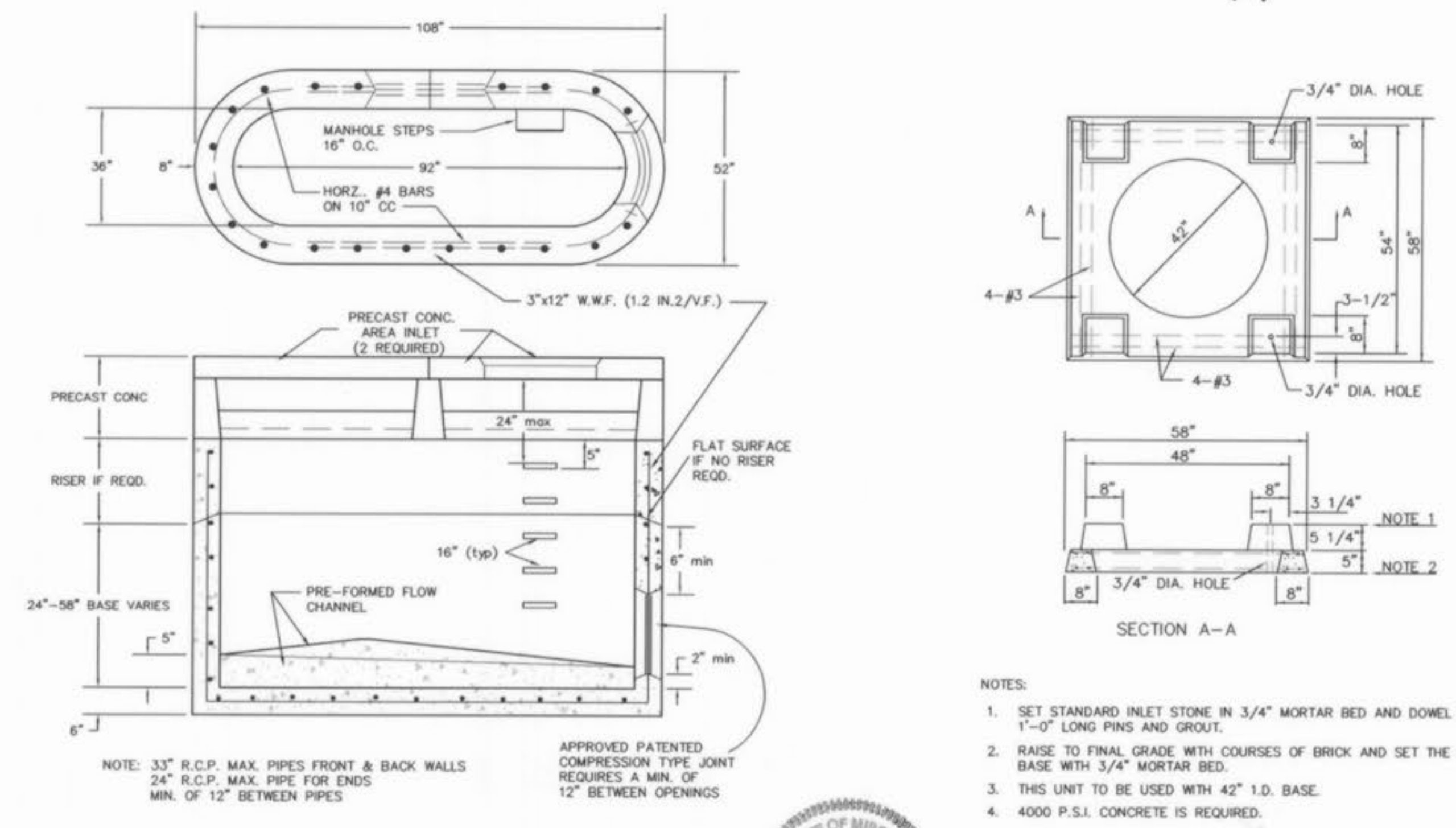
**BASIN DEWATERING PIPE DETAIL**

**"AS-BUILT"**



**AREA INLET PRECAST CONCRETE**

**2 GRATE INLETS**  
PRE-CAST CONCRETE



**DOUBLE AREA INLET**  
PRECAST CONCRETE

**PRECAST CONCRETE**  
UNIT FOR 4-WAY AREA INLET

NOTE: COMPACTED ROCK BACKFILL SHALL BE PLACED AROUND THE DISTURBED GROUND AT DROP STRUCTURES

PREPARED FOR:  
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35 N. CENTRAL STE 400  
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FAX: (314) 863-6146

GENERAL CONTRACTOR  
ARCHITECT  
STRUCTURAL ENGINEER  
GEOTECHNICAL ENGINEER  
CIVIL ENGINEER  
MECHANICAL ENGINEER  
PLUMBING ENGINEER  
ELECTRICAL ENGINEER  
FIRE PROTECTION

ARCO CONSTRUCTION CO., INC.  
THOMAS ROOF INC. ARCHITECTS  
IBRAHIM ENGINEERING CORP.  
GEOTECHNOLOGY  
J.R. GRIMES CONSULTING ENGINEERS  
JARRELL MECHANICAL CONTRACTORS  
SYSTEM AIRE, INC.  
PAYNE CREST ELECTRIC  
BI-STATE FIRE PROTECTION

**ARCO**  
Construction Company, Inc.

**LABOURÉ CENTRE**

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DATE: **02/13/04**

REVISIONS

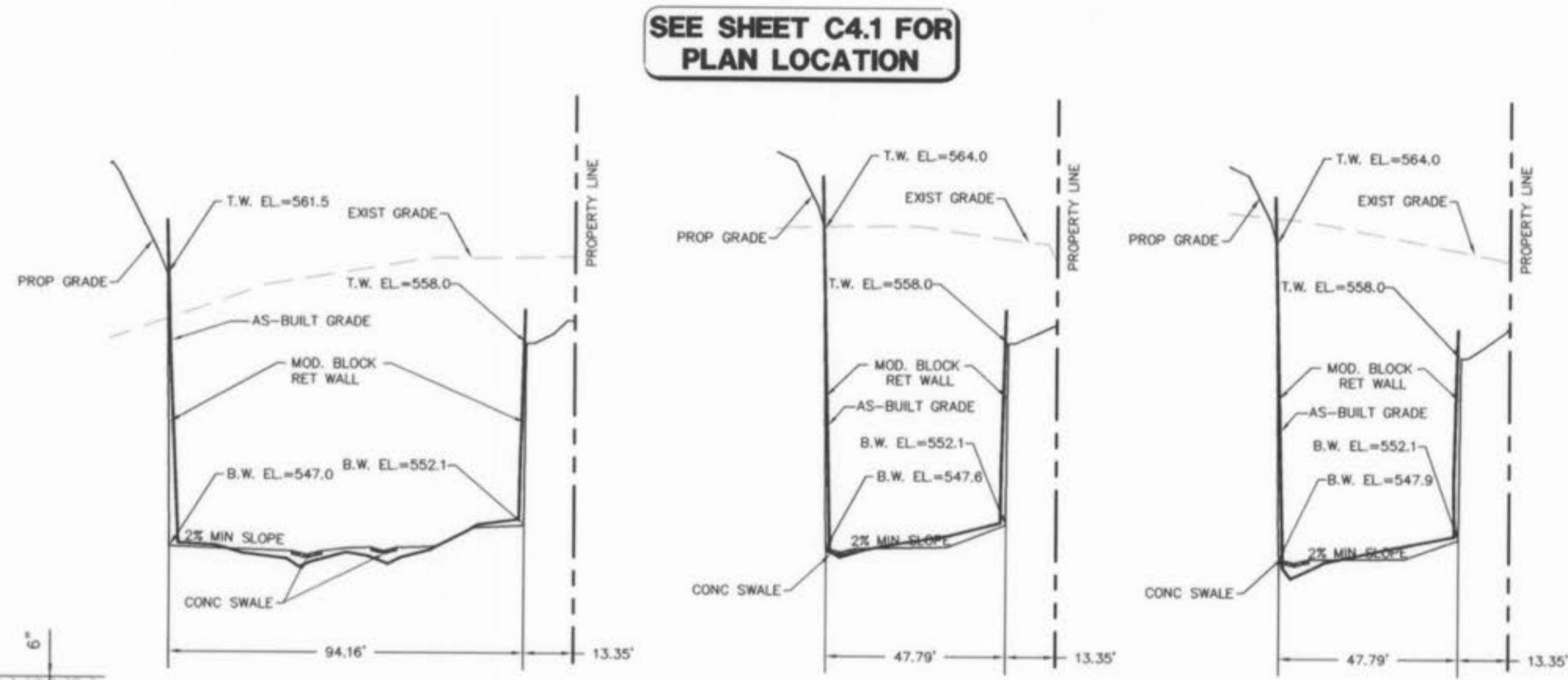
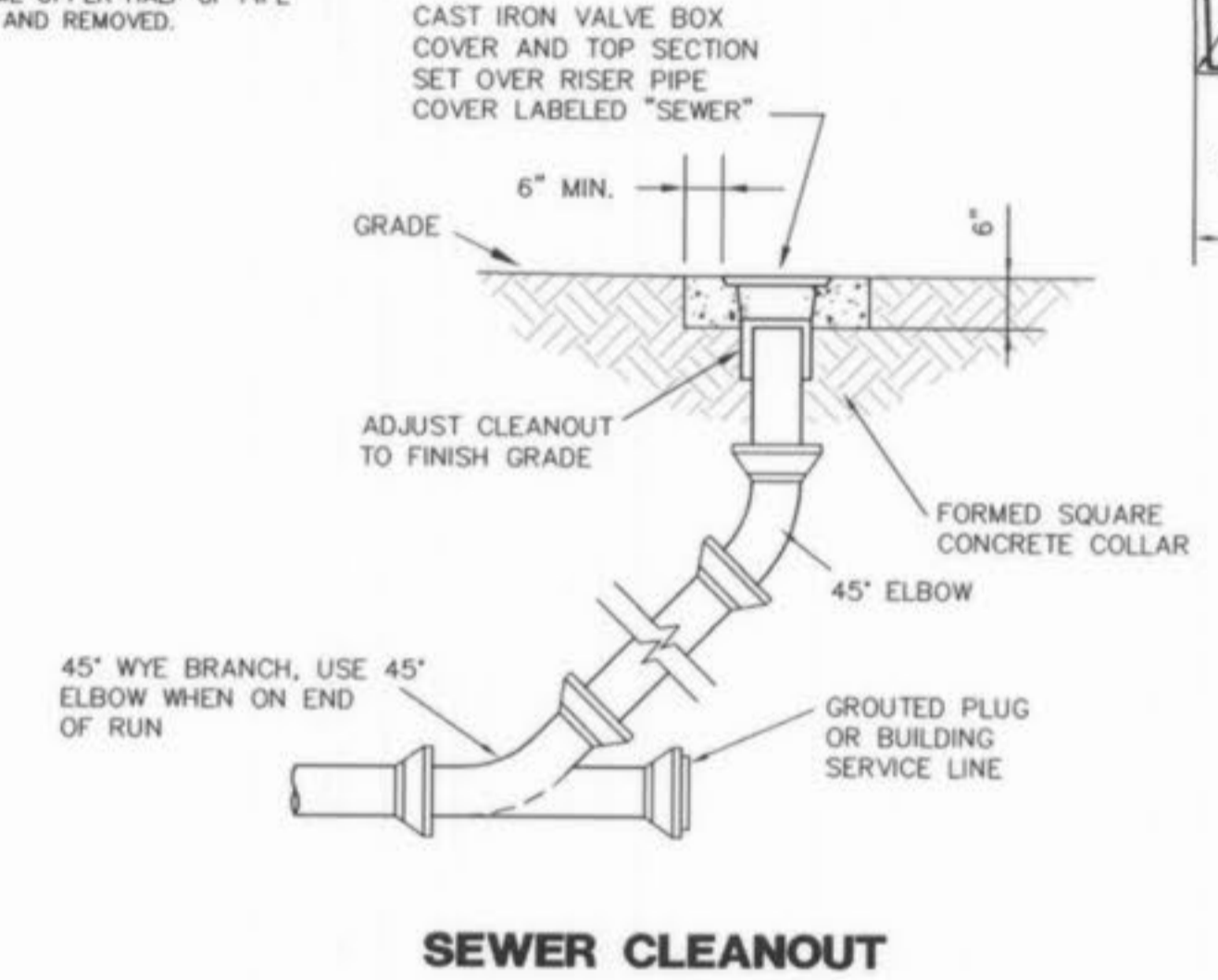
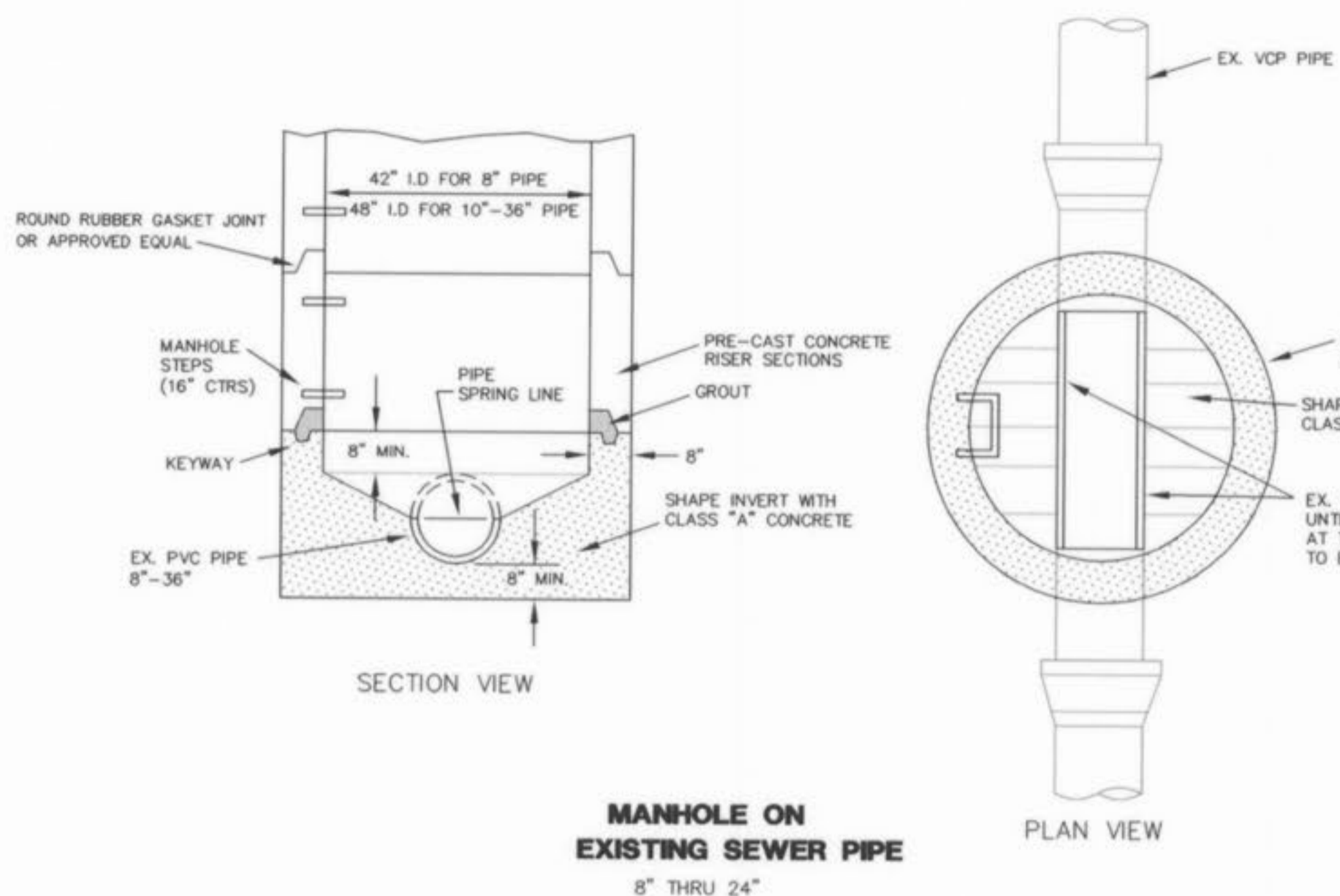
PER CITY, DUCKETT CREEK  
& MODOT COMMENTS **04/06/04**  
PER CITY COMMENTS **04/28/04**

DWG. BY: **JLW**  
PROJECT NO.: **1004B**  
SHEET NO.:

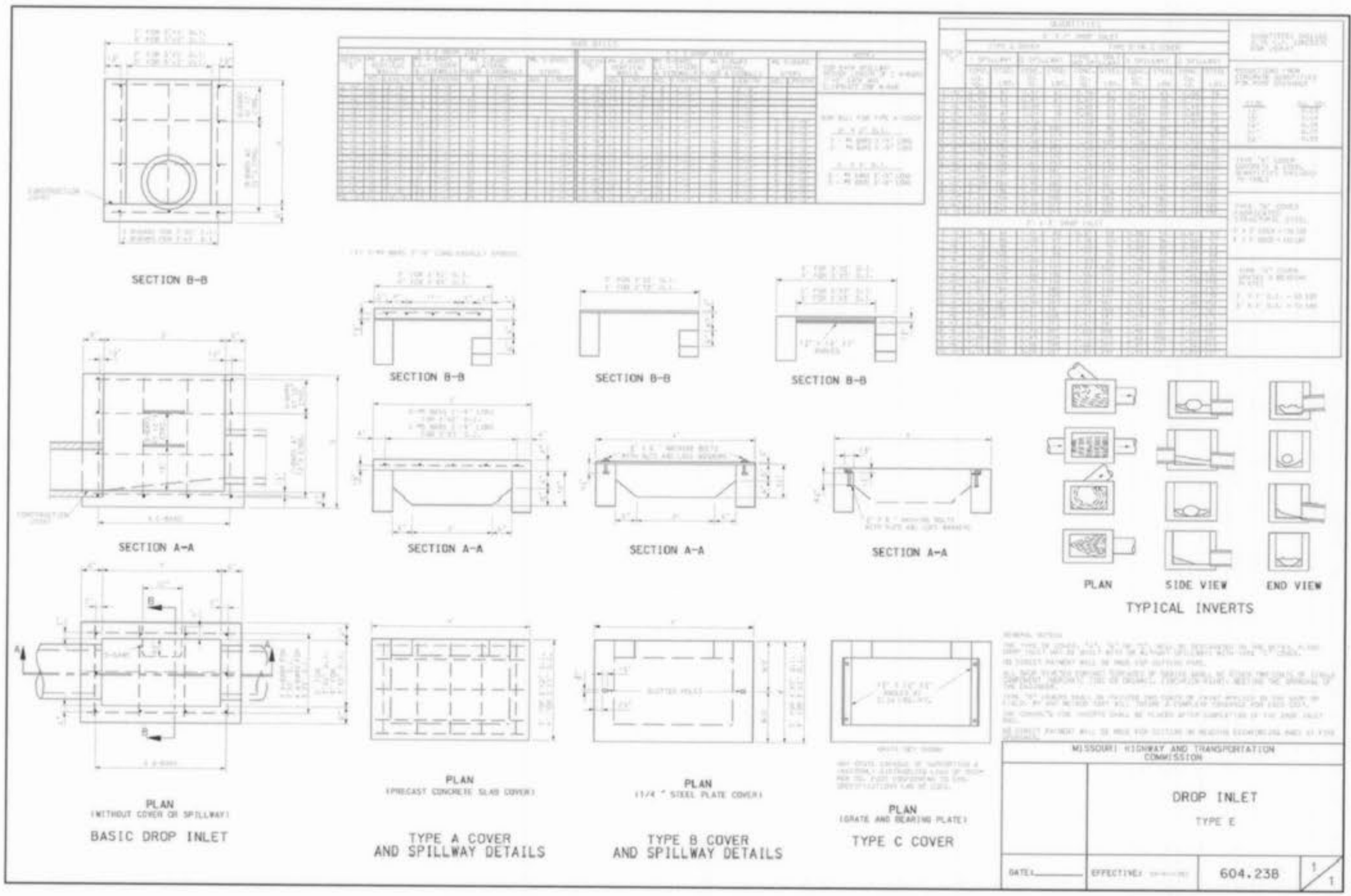
**C8.5**  
STORM SEWER DETAILS

P&Z FILE # 0704/0704.01

Labouré Center As built



SEE SHEET C4.1 FOR PLAN LOCATION



PREPARED FOR:  
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"AS-BUILT"



P&Z FILE # 0704/0704.01

- GENERAL CONTRACTOR: ARCO CONSTRUCTION CO., INC.
- ARCHITECT: THOMAS ROOF INC. ARCHITECTS
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**ARCO**  
Construction Company, Inc.

**LABOURÉ CENTRE**

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DATE: 02/13/04

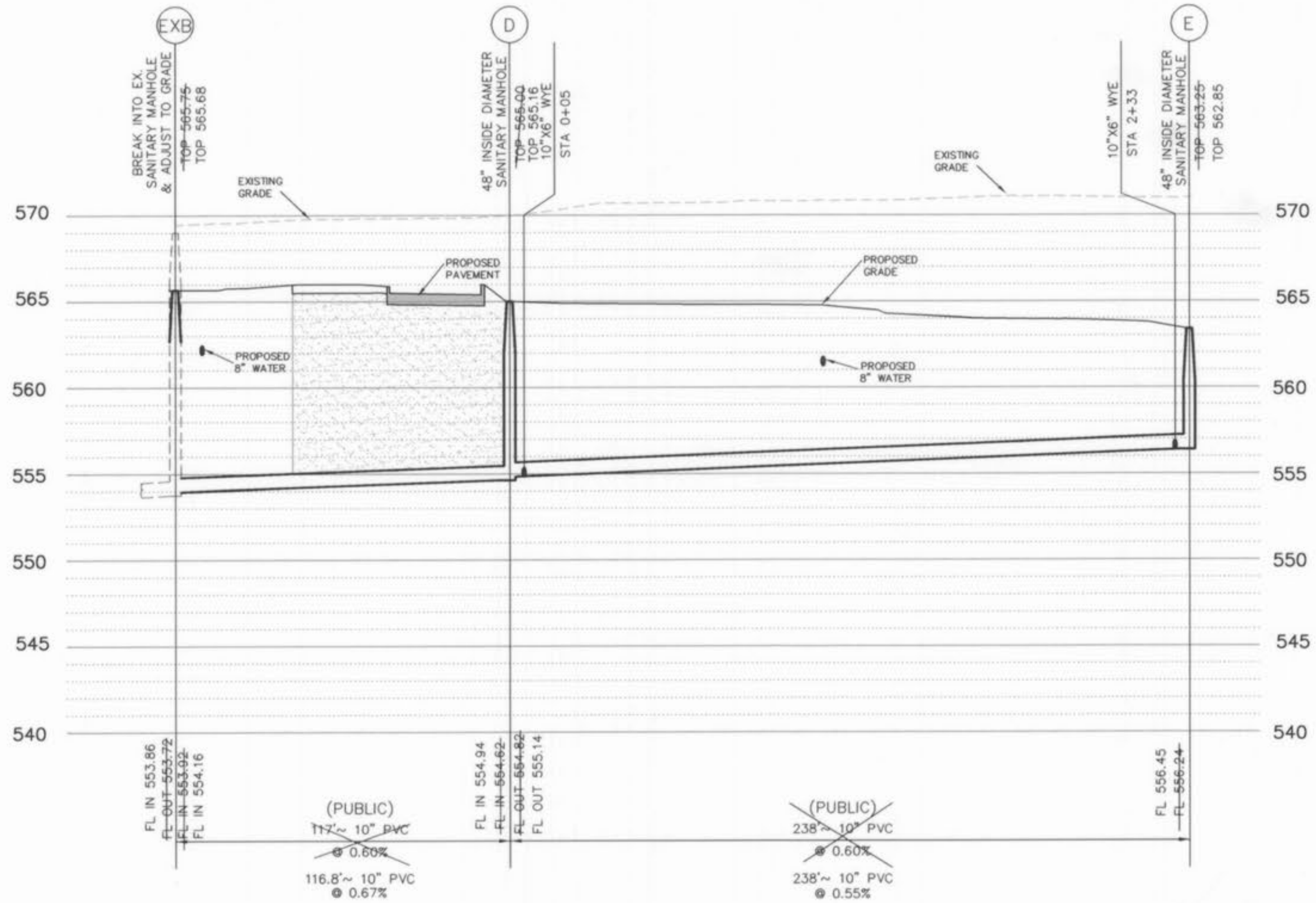
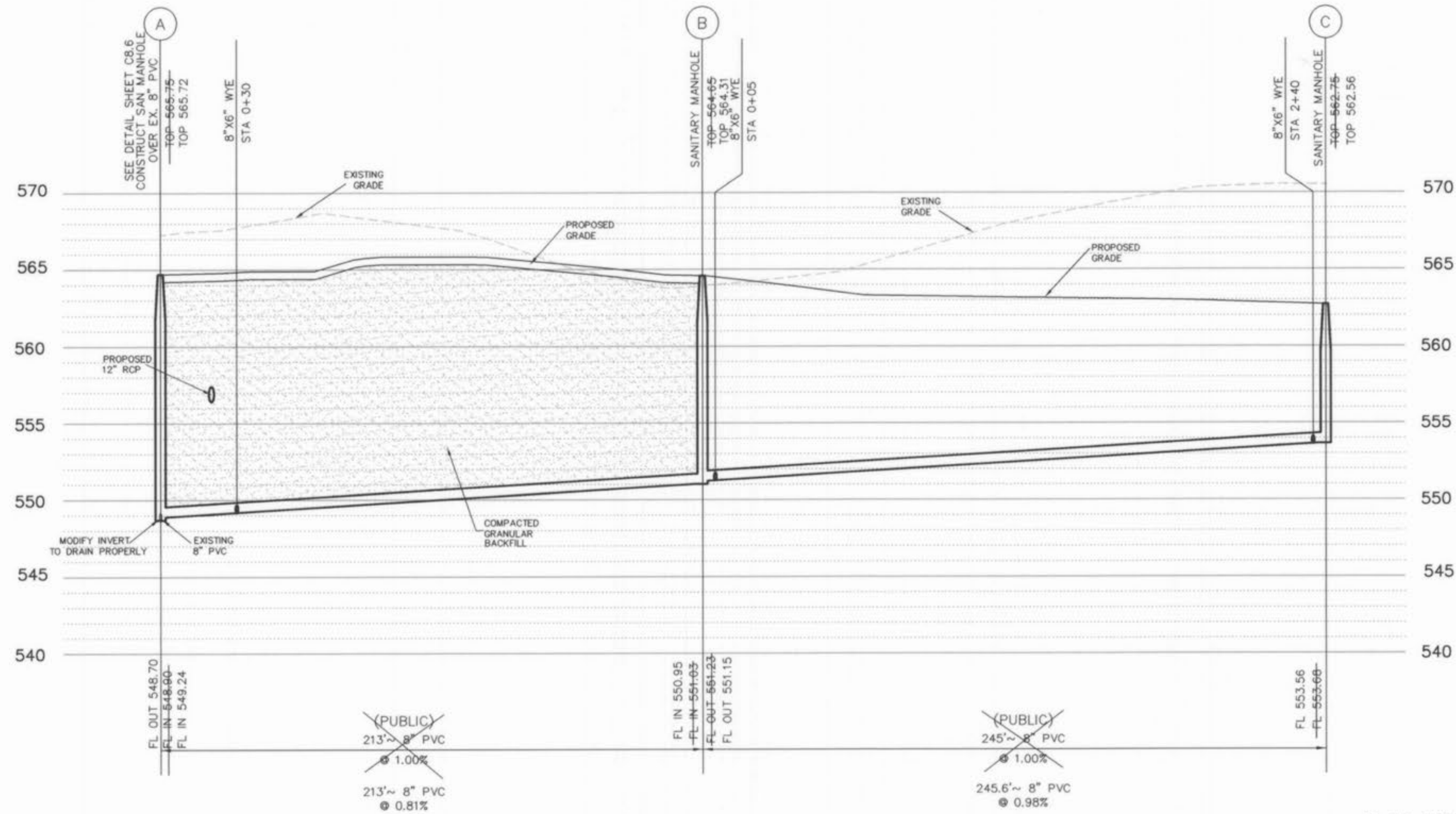
REVISIONS

NO.	DESCRIPTION	DATE
1	PER CITY, DUCKETT CREEK & MODOT COMMENTS	04/06/04

DWG. BY: J.W.  
PROJECT NO.: 1004B  
SHEET NO.:

**C8.6**  
STORM SEWER DETAILS

laboure center as built



AS THE OUTLOTS ARE DEVELOPED ANY MANHOLE THAT FALLS WITHIN A PAVED AREA SHALL HAVE THE LID CONVERTED TO A LOCK-TYPE "N" LID

5 VERT.  
30 HORIZ.  
SCALE:

"AS-BUILT"

PREPARED FOR:  
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- GENERAL CONTRACTOR: ARCO CONSTRUCTION CO., INC.
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DATE: 02/13/04

REVISIONS

NO.	DESCRIPTION	DATE
1	PER CITY, DUCKETT CREEK & MODOT COMMENTS	04/06/04

DWG. BY: J.W.  
PROJECT NO.: 1004B  
SHEET NO.:



P&Z FILE # 0704/0704.01

C9.1

SANITARY SEWER PROFILES  
laboure center as built