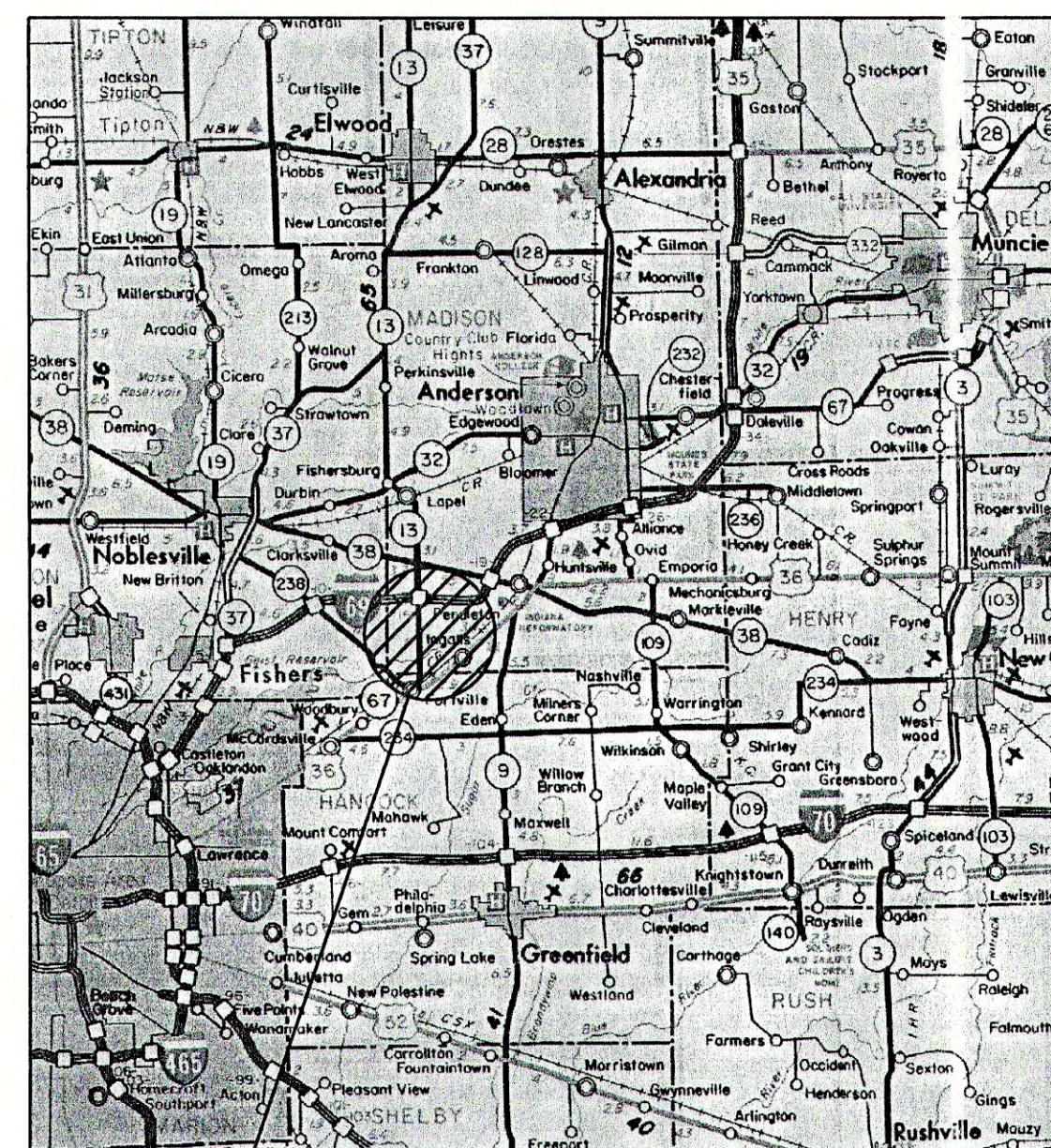


# STATE ROAD 13 SANITARY SEWER FORCEMAIN EXTENSION PROJECT

## FOR THE FALL CREEK REGIONAL WASTE DISTRICT MADISON CO., IN.

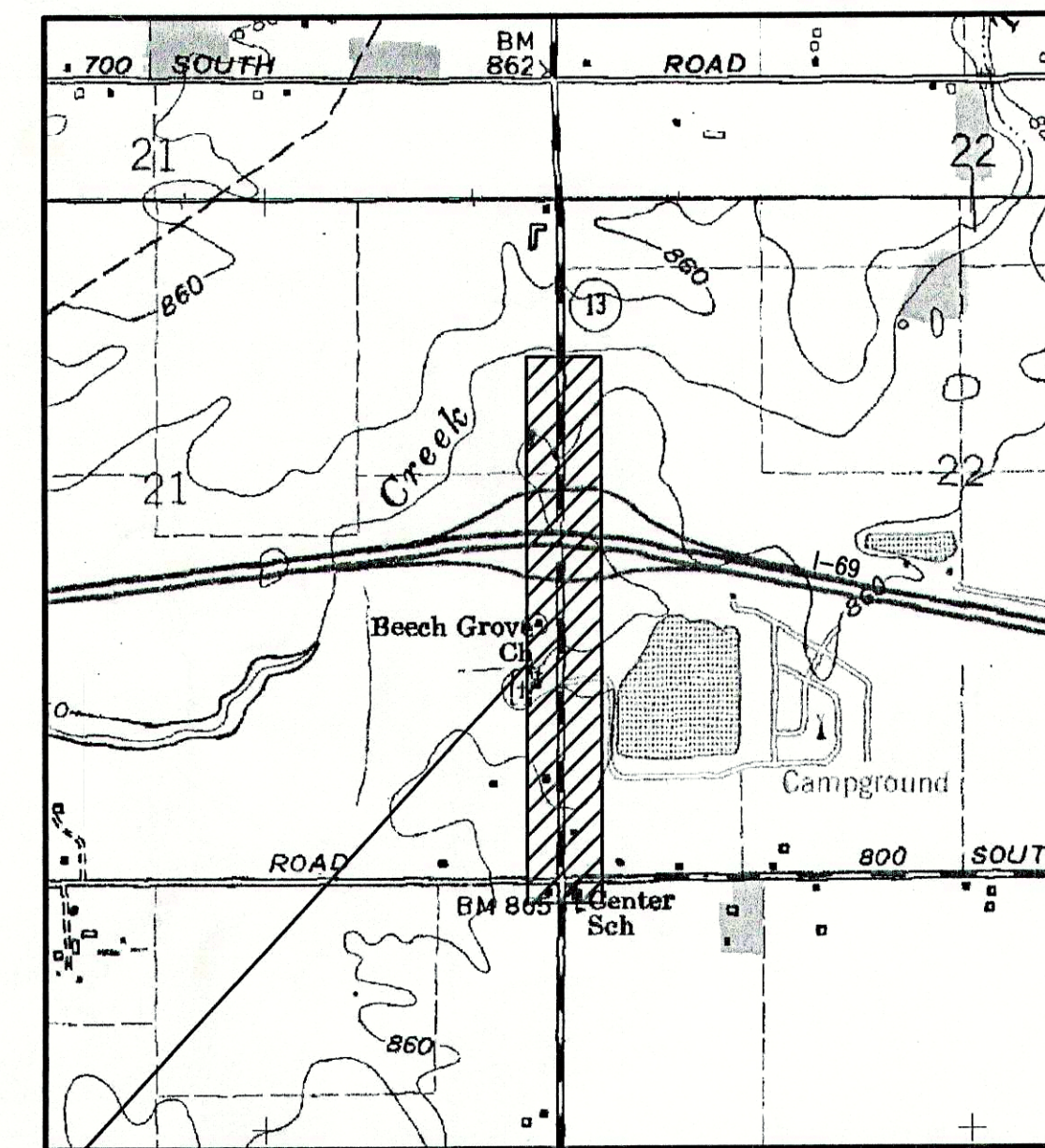
JULY 2002

AREA MAP



AREA  
LOCATION

LOCATION MAP



PROJECT  
LOCATION

**RECORD DRAWING**  
FEBRUARY 17, 2003

PLANS PREPARED BY:

**TRIAD**  
**ASSOCIATES**  
**INC.**  
INDIANAPOLIS, INDIANA

**NOTE:**  
ADDITIONAL RIGHT-OF-WAY OR EASEMENTS MAY  
NEED TO BE ACQUIRED FOR INSTALLATION OF SEWER.



DON'T DIG BLIND  
CALL BEFORE YOU DIG  
1-800-382-5544  
1-800-428-5200

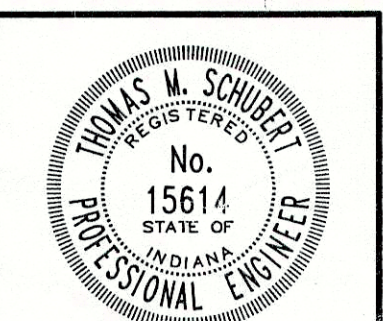
PER INDIANA STATE LAW IS-69-1991, IT IS  
AGAINST THE LAW TO EXCAVATE WITHOUT  
NOTIFYING THE UNDERGROUND LOCATION SERVICE  
TWO (2) WORKING DAYS BEFORE COMMENCING WORK.  
**NOTE: CONTRACTOR TO VERIFY ALL UTILITY LOCATIONS  
PRIOR TO THE START OF CONSTRUCTION**

THESE PLANS CERTIFIED BY:

James W. Frazell, Professional Engineer



Thomas M. Schubert, Professional Engineer



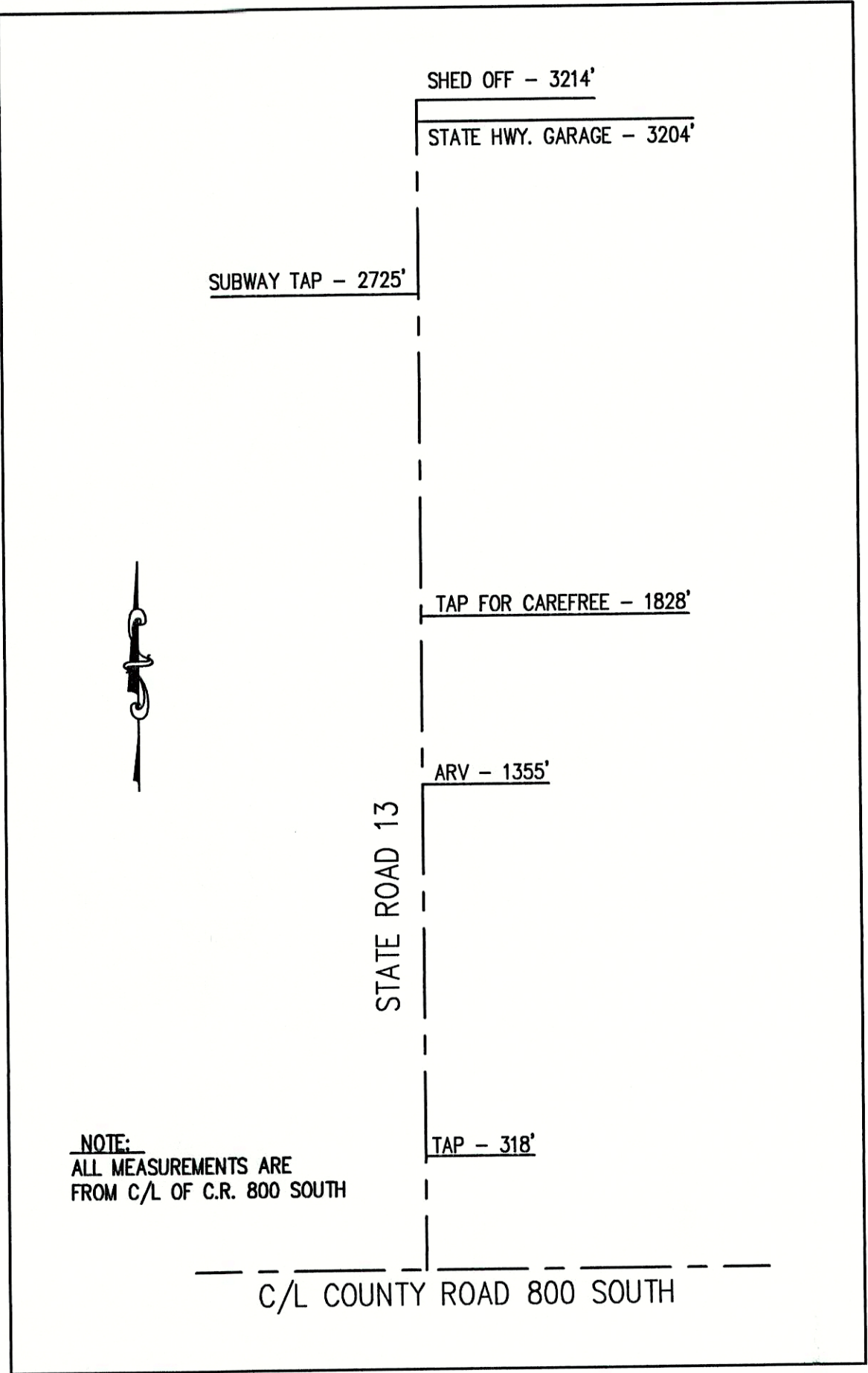


LEGEND:	
	EXISTING STONE DRIVE
	EXISTING ASPHALT DRIVE
	EXISTING CONTOUR
	EXISTING FENCE
	EXISTING TREE/BUSH
	EXISTING DRAINAGE PIPE
	EXISTING MANHOLE
	EXISTING DRAINAGE INLET
	EXISTING POWER POLE
	EXISTING GUY WIRES
	EXISTING LIGHT POLE
	EXISTING MAILBOX
	EXISTING SECTION LINE
	EXISTING PROPERTY LINE
	EXISTING RIGHT-OF-WAY LINE
	EXISTING EASEMENT
	PROPOSED EASEMENT
	EXISTING SHORE LINE
	EXISTING GAS LINE
	EXISTING WATER LINE
	EXISTING UNDERGROUND ELECTRIC LINE
	PROPOSED FORCEMAIN LOCATION
	PROPOSED AIR/VAC RELEASE
	PROPOSED VALVE w/ BOX & RISER
	PROPOSED SERVICE CONNECTION
	PROPOSED VALVE VAULT

UTILITIES:	
VECTREN ENERGY DELIVERY 2001 LOUISE STREET ANDERSON, INDIANA 46016-3741 CONTACT: MR. BRIAN HARGER TEL: (317) 648-3205	
CINERGY / PSI 100 MILL CREEK ROAD NOBLESVILLE, INDIANA 46060 CONTACT: MR. TRACY GRADY TEL: (317) 776-5352	
INGALLS WATER 249 NORTH MERIDIAN STREET INGALLS, INDIANA 46048 CONTACT: MR. RANDY McVAY TEL: (317) 485-4321	
SPRINT 50 NORTH JACKSON STREET FRANK, INDIANA 46131-2346 CONTACT: MS. NANCY PICKEREL TEL: (317) 736-5309	
INSIGHT COMMUNICATIONS 335 EAST 10th STREET ANDERSON, INDIANA 46016 CONTACT: MR. MIKE ETHRINGTON TEL: (765) 649-5228	

TEMPORARY BENCHMARK INFORMATION:	
TBM #1a	BOX NOTCH CUT IN THE NORTHWEST CORNER OF THE SECOND LIGHT POLE CONCRETE PAD. THIS TBM IS ON THE TREATMENT PLANT SITE. ELEV. 842.36
TBM #1	SPIKE IN THE SOUTHEAST SIDE OF POWERPOLE #065277 AT THE NORTHWEST QUADRANT OF COUNTY ROAD 650W AND FALL CREEK DRIVE. ELEV. 861.26
TBM #2	SPIKE IN THE SOUTH SIDE OF POWERPOLE #B-2 98 SPPA 454 40 EAST OF 7144 FALL CREEK DRIVE. ELEV. 859.41
TBM #3	SPIKE IN THE SOUTHWEST SIDE OF POWERPOLE AT THE NORTH SIDE OF THE ROAD AT FALL CREEK DRIVE AND COUNTY ROAD 750W. ELEV. 854.43
TBM #4	SPIKE IN A POLE LOCATED 100 FEET WEST OF THE INTERSECTION OF COUNTY ROAD 900S AND COUNTY ROAD 750W. ELEV. 853.20
TBM #5	RAILROAD SPIKE WHICH WAS FOUND AT THE INTERSECTION OF COUNTY ROAD 800W AND COUNTY ROAD 875S. ELEV. 861.90
TBM #6	SPIKE IN THE WEST SIDE OF POWERPOLE #064-393 AT COUNTY ROAD 800S AND COUNTY ROAD 800W. ELEV. 868.44
TBM #7	SPIKE IN THE NORTH SIDE OF POWERPOLE ON COUNTY ROAD 800S. ELEV. 850.14
TBM #8	NOTCHED SQUARE IN WESTERLY BASE OF A LIGHT POLE ON THE NORTH SIDE OF THE I-69 NORTH BOUND ON RAMP. ELEV. 857.56

GENERAL NOTES:	
1.	CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES, STRUCTURES, ELEVATIONS, ETC. PRIOR TO CONSTRUCTION.
2.	ALL DISTURBED AREAS TO BE RESTORED TO ORIGINAL CONDITION IF NOT SPECIFIED OTHERWISE.
3.	ALL 90° PIPING TURNS SHALL BE DONE WITH TWO (2) D.I.M.J. 45° ELBOWS UNLESS OTHERWISE SPECIFIED.
4.	SEE SHEET 12 FOR THRUST BLOCKING/RESTRAINED JOINT DETAILS.
5.	CONTRACTOR TO TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING STRUCTURES DURING CONSTRUCTION.
6.	SEE DETAIL SHEET 11 FOR PIPE BEDDING REQUIREMENTS.
7.	SEE SHEETS 4 - 9 FOR FURTHER PROPOSED STRUCTURE AND SITE INFORMATION.
8.	SEE DETAIL SHEET 11 FOR STANDARD MANHOLE DETAILS.
9.	CONTRACTOR TO COORDINATE WITH ALL MECHANICAL AND ELECTRICAL WORK TO BE REQUIRED.
10.	CONTRACTOR SHALL CONTACT ALL UTILITIES FOR LOCATION OF EXISTING SERVICES FOR THE FORCEMAIN ROUTE PRIOR TO CONSTRUCTION.



SHEET INDEX:

SHEET No.	SHEET DESCRIPTION
1	TITLE SHEET
2	INDEX SHEET
3	PROJECT BASE MAP
4-6	PLAN AND PROFILE SHEETS
7	BRIDGE BORING SECTION
8-9	STANDARD DETAIL SHEETS

NOTE:  
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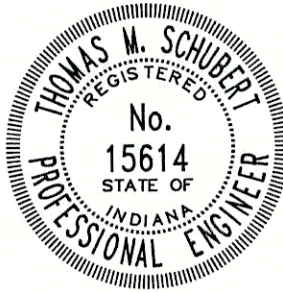
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FEBRUARY 17, 2003

CONSULTANT:

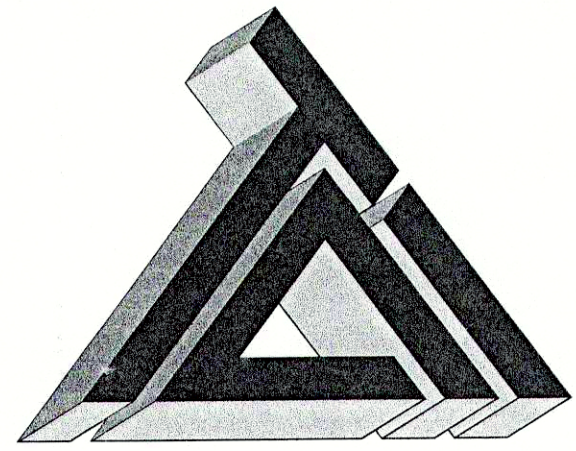
REVISIONS:

DATE	DESCRIPTION	BY

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TRIAD ASSOCIATES INC.  
5835 LAWTON LOOP EAST DRIVE  
INDIANAPOLIS, INDIANA 46216  
PHONE: 317-377-5230 FAX: 317-377-5241

DESIGNED FOR:

FALL CREEK REGIONAL WASTE DISTRICT  
STATE ROAD 13 SANITARY  
SEWER FORCEMAIN EXTENSION PROJECT

SHEET TITLE:

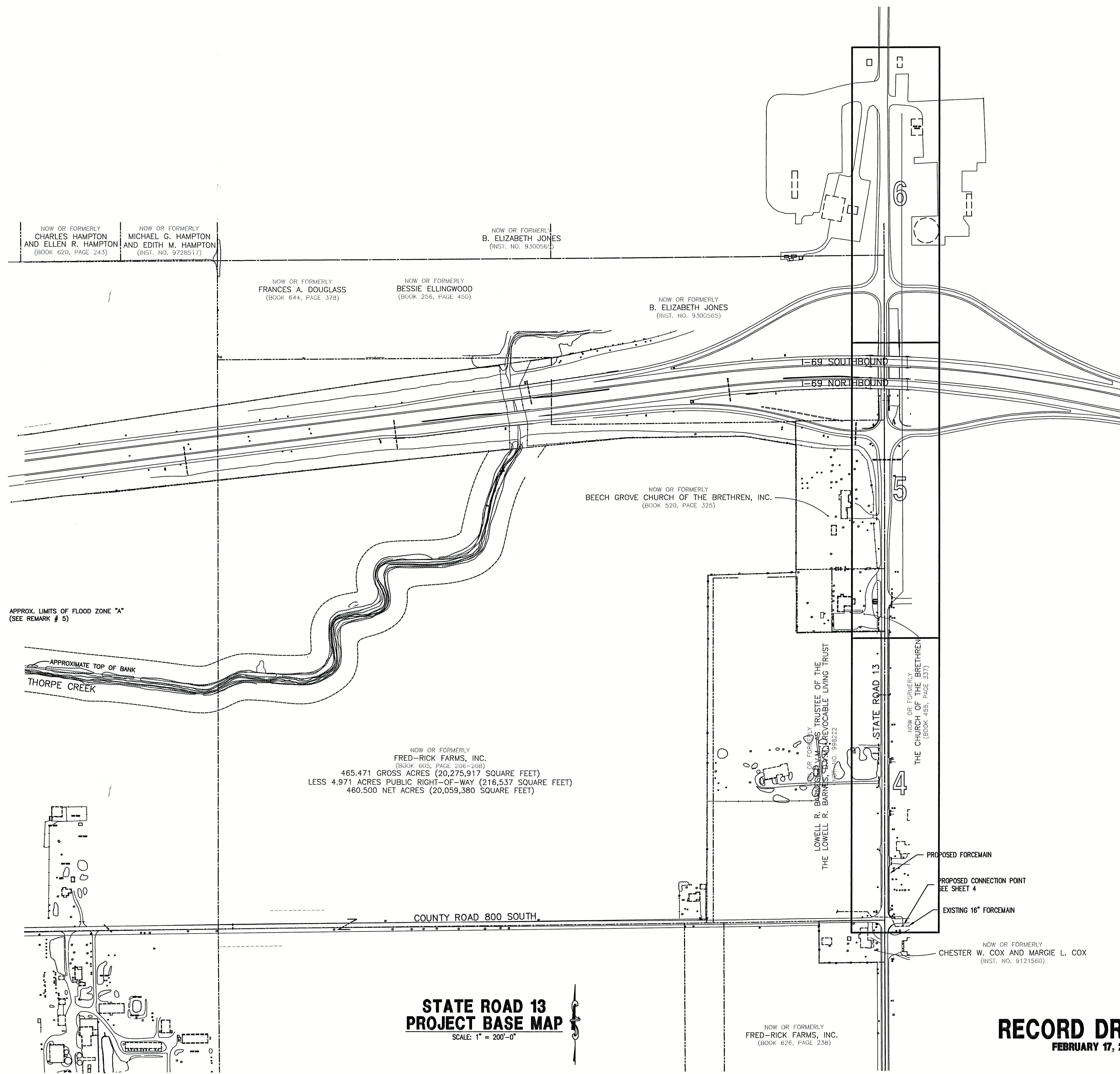
PLAN AND PROFILE SHEET

JOB NUMBER: 200202F	CHECKED BY: J.W.F.
SCALE: AS NOTED	PLOT DATE: 08/16/02
PLOT SCALE: 1" = 1'	DATE: JULY 2002
DRAWN BY: B.K.Y.	DESIGNED BY: THOMAS M. SCHUBERT, P.E.
DRAWING NAME: 200202FIND-RD.DWG	

SHEET No.

2  
OF 9



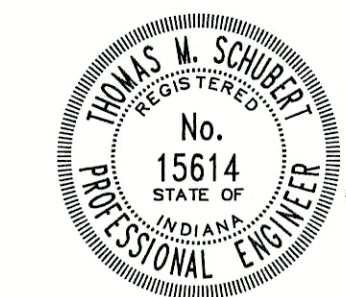


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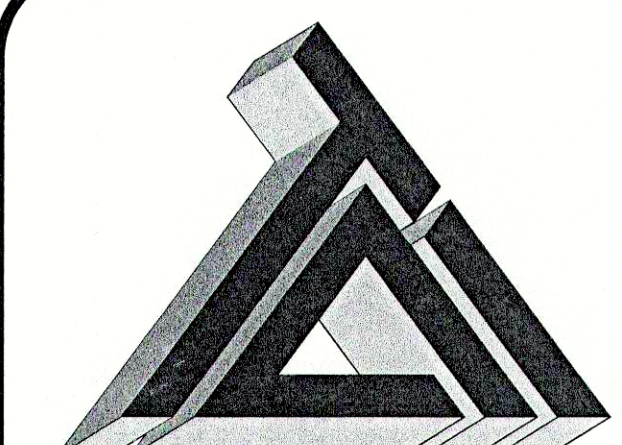
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FORCEMAIN EXTENSION PROJECT

SHEET TITLE:

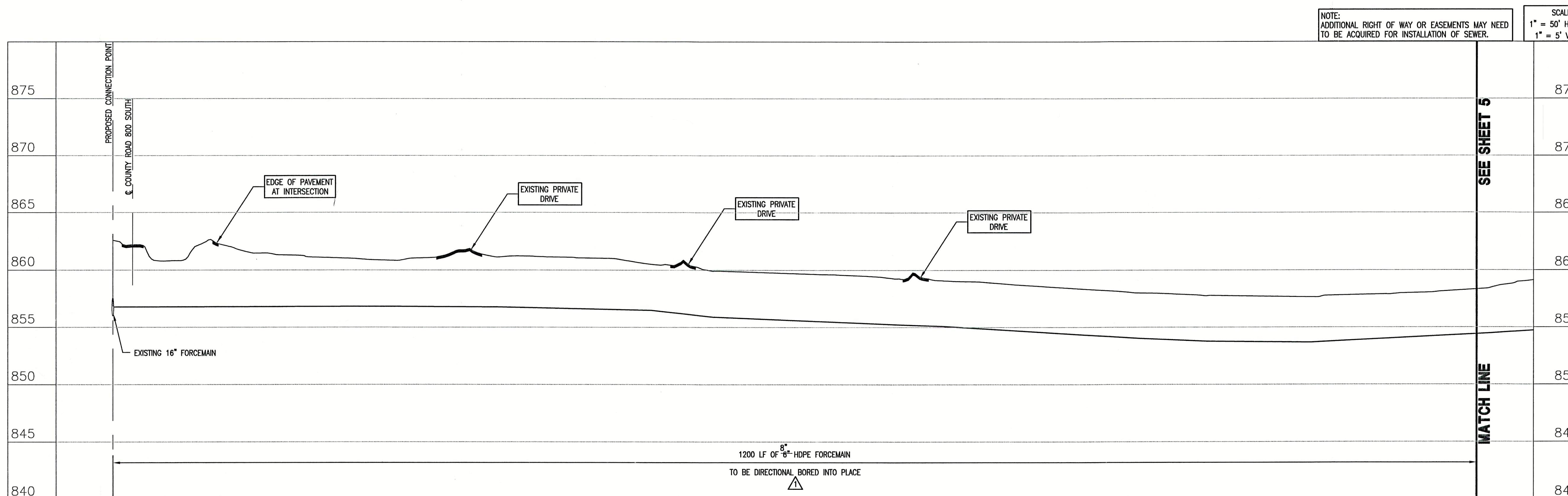
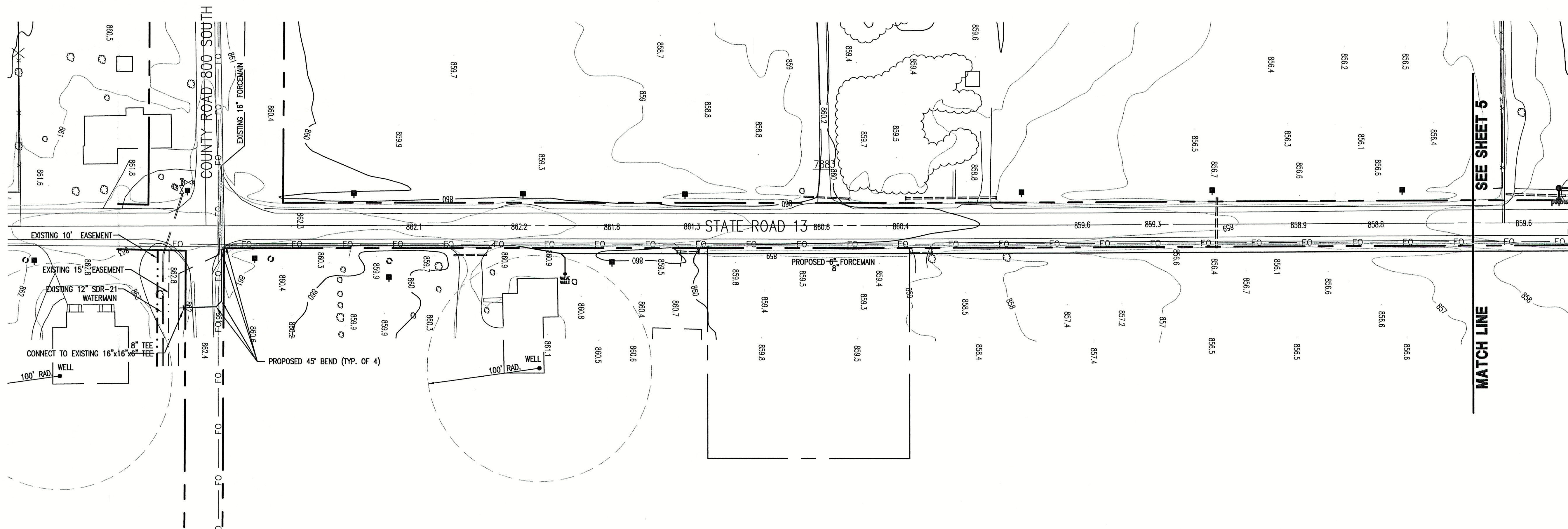
PROJECT BASE MAP

JOB NUMBER: 200202F	CHECKED BY: J.W.F.
SCALE: AS NOTED	PLOT DATE: 10/09/02
PLOT SCALE: 1" = 200	DATE: JULY 2002
DRAWN BY: B.K.Y.	DESIGNED BY: THOMAS M. SCHUBERT, P.E.
DRAWING NAME: 200202F-BASE-RD.DWG	

SHEET No.

3  
OF 9





- GENERAL NOTES:**
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  - CONTRACTOR SHALL MAINTAIN A MINIMUM 10'-0" HORIZONTAL AND 18" VERTICAL SEPARATION BETWEEN SEWER AND WATER MAINS.
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- LEGEND:**
- TREE
  - EXISTING FIRE HYDRANT
  - PROPOSED FIRE HYDRANT
  - MAILBOX
  - SIGN
  - SPOT SHOT
  - CONTOUR
  - FENCE
  - EXIST. SANITARY SEWER w/ MANHOLE
  - POWER POLE
  - MISCELLANEOUS POSTS
  - LIGHT POLE
  - INLET
  - ASPHALT SURFACE
  - CONCRETE SURFACE
  - STONE SURFACE
  - NEW GRAVITY SERVICE CONNECTION
  - PROPOSED SANITARY GRAVITY

- PROPOSED GRINDER PUMP
- PROPOSED SANITARY FORCEMAIN
- PROPOSED WATER
- EXISTING WATER LINE
- EXISTING ROAD DRAIN
- GAS
- GAS LINE
- UNDERGROUND TELEPHONE LINE
- EXISTING FIBER OPTIC LINE
- APPROX. RIGHT-OF-WAY

**RECORD DRAWING**  
FEBRUARY 17, 2003

CONSULTANT:

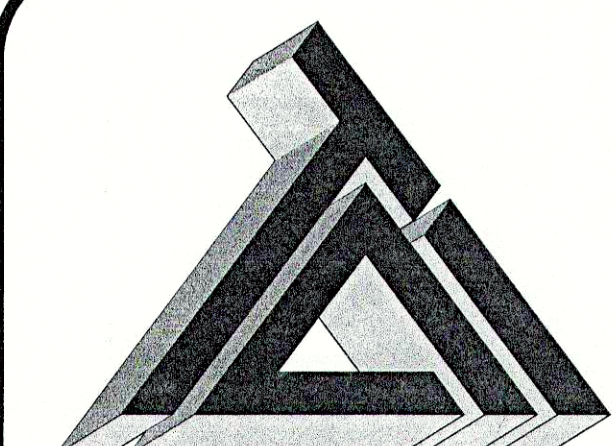
REVISIONS:

DATE	DESCRIPTION	BY
10/9/02	REV'D INSTALLATION METHOD	D.A.P.

APPROVED BY:



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INDIANAPOLIS, INDIANA 46216  
PHONE: 317-377-5230 FAX: 317-377-5241

DESIGNED FOR:

FALL CREEK REGIONAL WASTE DISTRICT  
STATE ROAD 13 SANITARY  
SEWER FORCEMAIN EXTENSION PROJECT

SHEET TITLE:

PLAN AND PROFILE SHEET

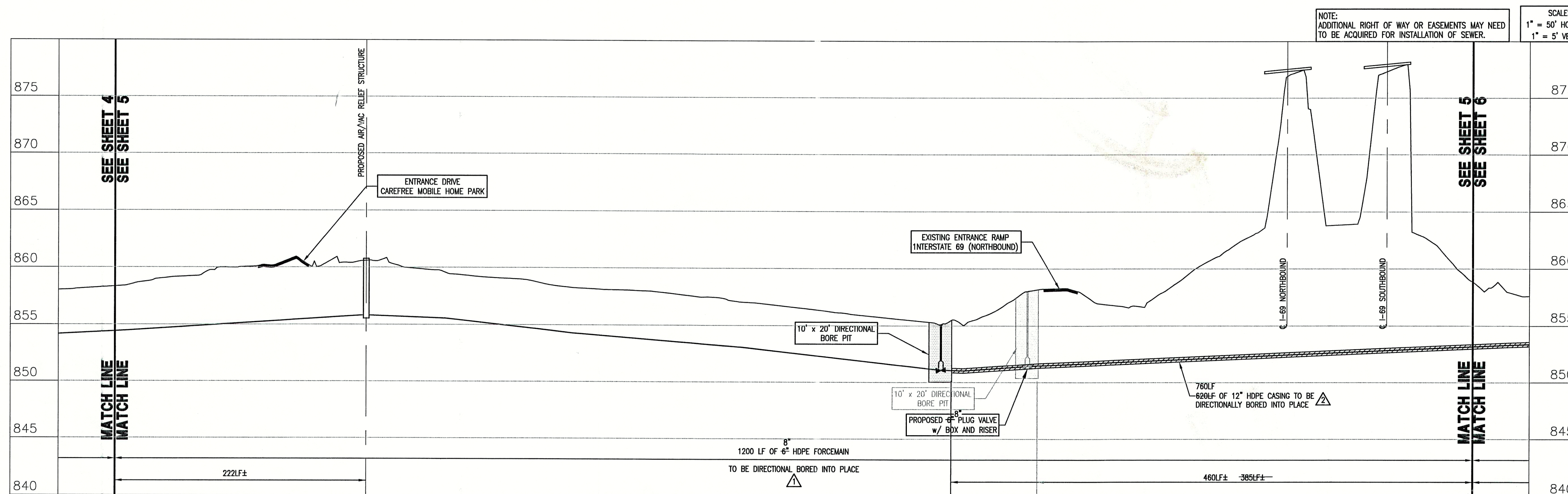
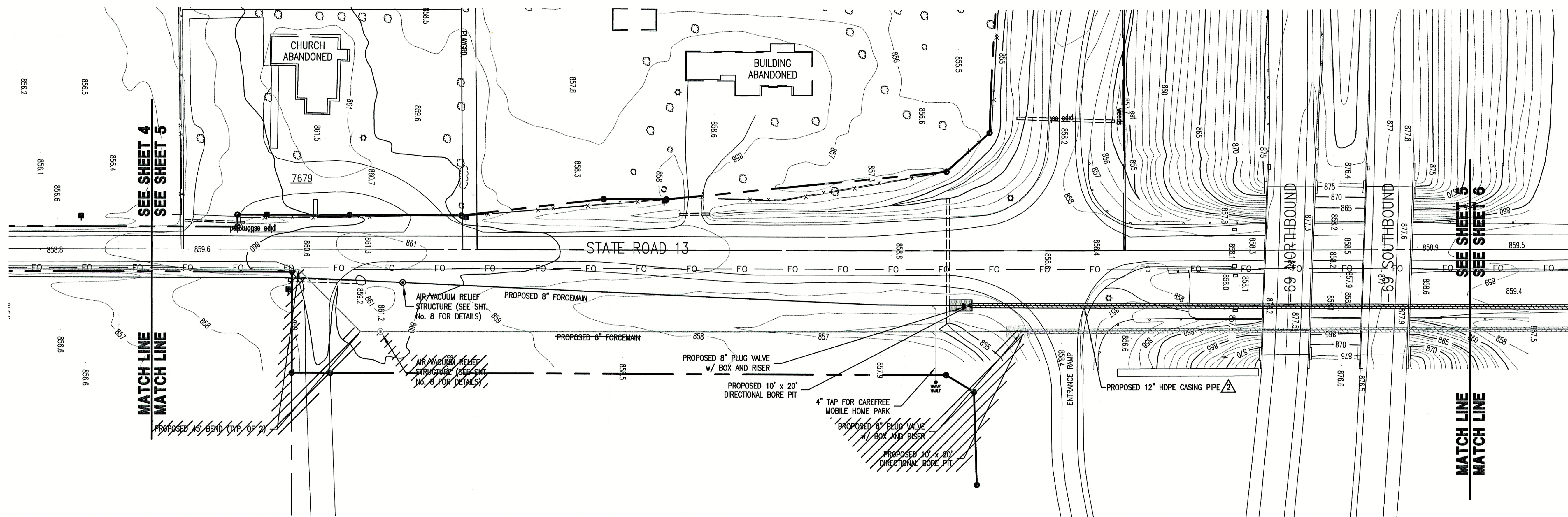
JOB NUMBER: 200202F	CHECKED BY: J.W.F.
SCALE: AS NOTED	PLOT DATE: 10/23/02
PLOT SCALE: 1" = 1'	DATE: JULY 2002
DRAWN BY: B.K.Y.	DESIGNED BY: THOMAS M. SCHUBERT, P.E.
DRAWING NAME: RCP01001-RD.DWG	

SHEET No.

**4**

OF 9





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**LEGEND:**

- TREE
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- PROPOSED FIRE HYDRANT
- MAILBOX
- SIGN
- SPOT SHOT
- CONTOUR
- FENCE
- EXIST. SANITARY SEWER w/ MANHOLE

- POWER POLE
- MISCELLANEOUS POSTS
- LIGHT POLE
- INLET
- ASPHALT SURFACE
- CONCRETE SURFACE
- STONE SURFACE
- NEW GRAVITY SERVICE CONNECTION
- PROPOSED SANITARY GRAVITY

- GP
- PROPOSED GRINDER PUMP
- PROPOSED SANITARY FORCEMAIN
- PROPOSED WATER INLET
- EXISTING WATER LINE
- EXISTING ROAD DRAIN
- GAS LINE
- UNDERGROUND TELEPHONE LINE
- EXISTING FIBER OPTIC LINE
- APPROX. RIGHT-OF-WAY

**RECORD DRAWING**  
FEBRUARY 17, 2003

CONSULTANT:

**REVISIONS:**

DATE	DESCRIPTION	BY
10/9/02	REV'D INSTALLATION METHOD	D.A.P.
10/23/02	ADDED HDPE CASING PIPE	D.A.P.

APPROVED BY:

THOMAS M. SCHUBERT  
REGISTERED  
No. 15614  
STATE OF INDIANA  
PROFESSIONAL ENGINEER

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**DESIGNED FOR:**  
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STATE ROAD 13 SANITARY SEWER FORCEMAIN EXTENSION PROJECT

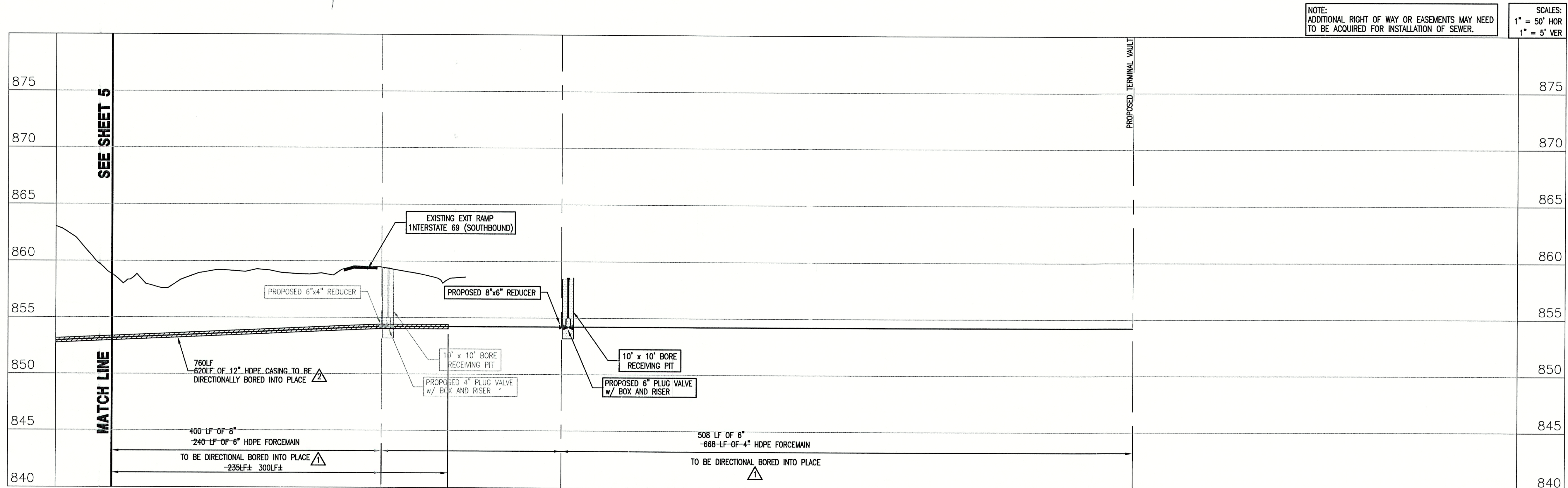
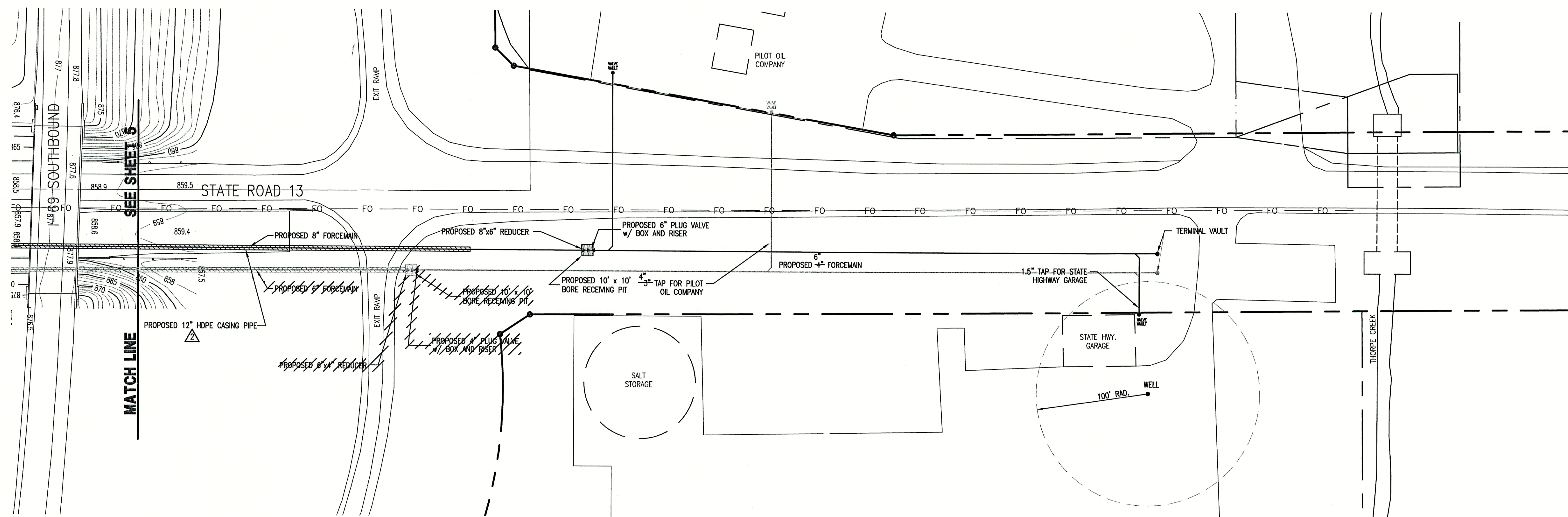
SHEET TITLE:  
**PLAN AND PROFILE SHEET**

JOB NUMBER: 200202F  
SCALE: AS NOTED  
PLOT SCALE: 1" = 1'  
DRAWN BY: B.K.Y.  
DESIGNED BY: THOMAS M. SCHUBERT, P.E.  
DRAWING NAME: RCP0201.DWG

CHECKED BY: J.W.F.  
PLOT DATE: 10/23/02  
DATE: JULY 2002

SHEET No.  
**5**  
OF 9





NOTE: ADDITIONAL RIGHT OF WAY OR EASEMENTS MAY NEED TO BE ACQUIRED FOR INSTALLATION OF SEWER.

SCALES:  
1" = 50' HOR  
1" = 5' VER

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- EXISTING FIBER OPTIC LINE
- APPROX. RIGHT-OF-WAY
- APPROX. PROPERTY LINE
- PROPOSED UTILITY EASEMENT
- EXISTING UTILITY EASEMENT

**RECORD DRAWING**  
FEBRUARY 17, 2003

CONSULTANT:

REVISIONS:

DATE	DESCRIPTION	BY
10/9/02	REV'D INSTALLATION METHOD	D.A.P.
10/23/02	ADDED HDPE CASING PIPE	D.A.P.

APPROVED BY:

THOMAS M. SCHUBERT  
No. 15614  
STATE OF INDIANA  
PROFESSIONAL ENGINEER

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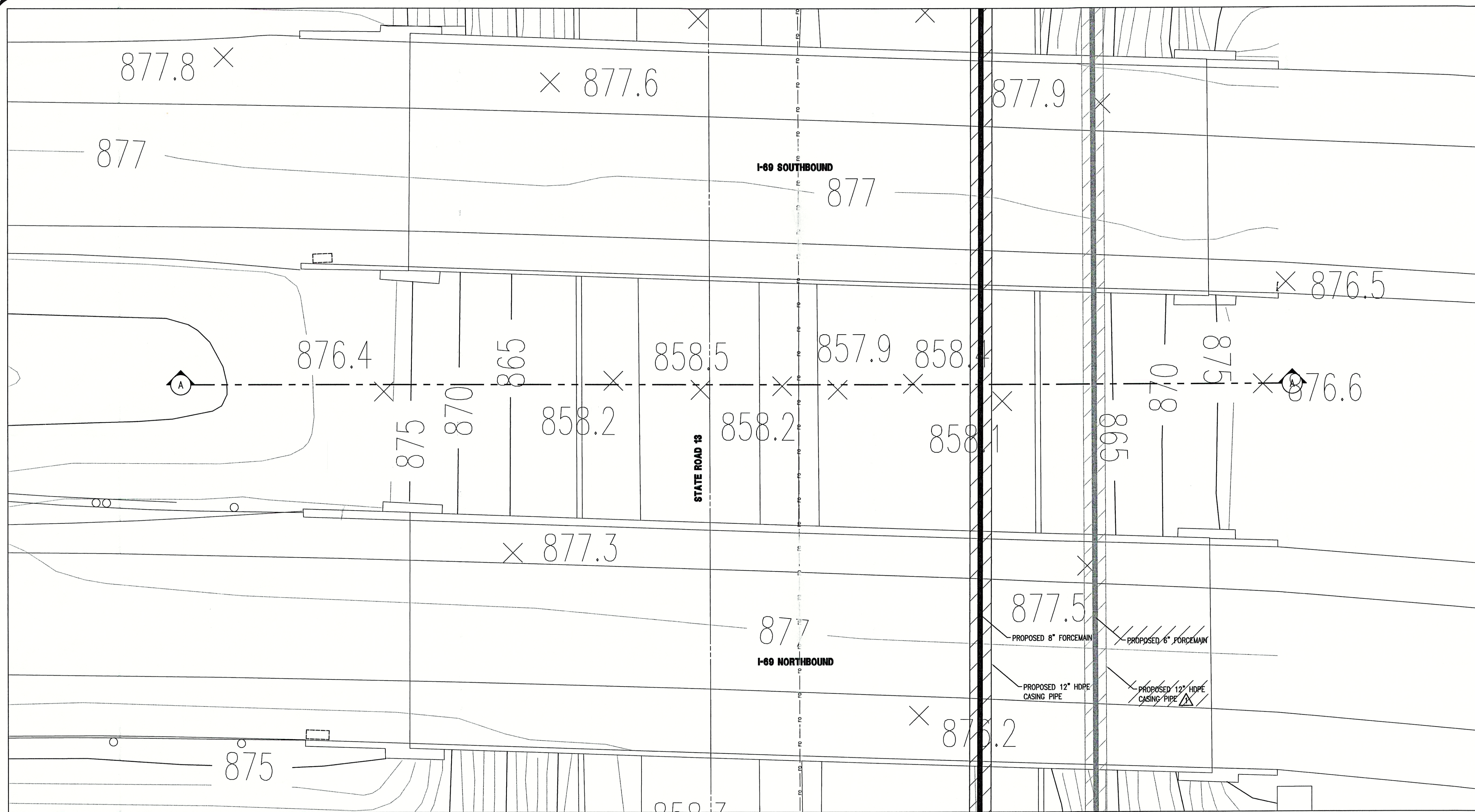
DESIGNED FOR:  
FALL CREEK REGIONAL WASTE DISTRICT  
STATE ROAD 13 SANITARY SEWER FORCEMAIN EXTENSION PROJECT

SHEET TITLE:  
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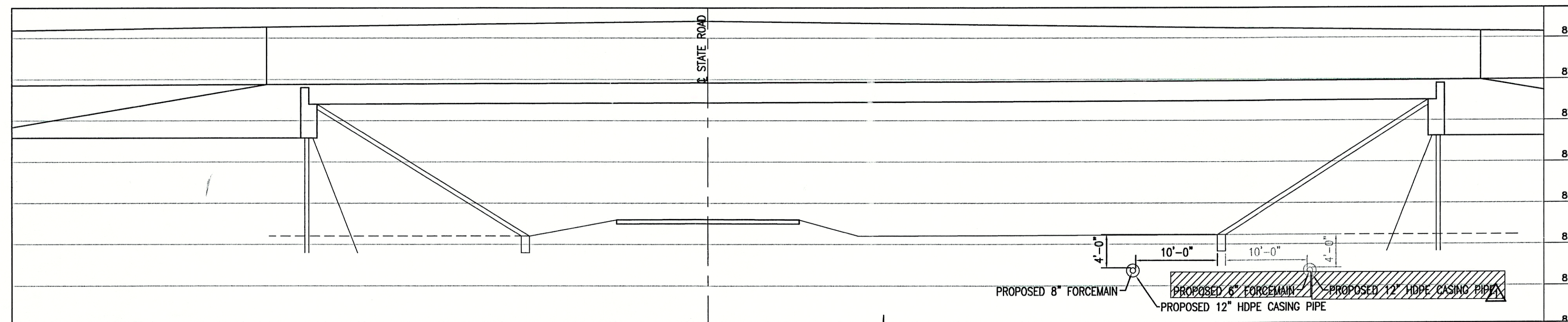
JOB NUMBER: 200202F  
SCALE: AS NOTED  
PLOT SCALE: 1" = 1'  
DRAWN BY: B.K.Y.  
CHECKED BY: J.W.F.  
PLOT DATE: 10/23/02  
DATE: JULY 2002  
DESIGNED BY: THOMAS M. SCHUBERT  
DRAWING NAME: RCP03001-RD.DWG

SHEET No. **6** OF 9





**PLAN VIEW**  
SCALE: 1" = 10'-0"



**SECTION A-A**  
SCALE: 1" = 10'-0"

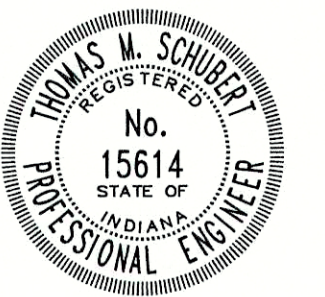
**RECORD DRAWING**  
FEBRUARY 17, 2003

CONSULTANT:

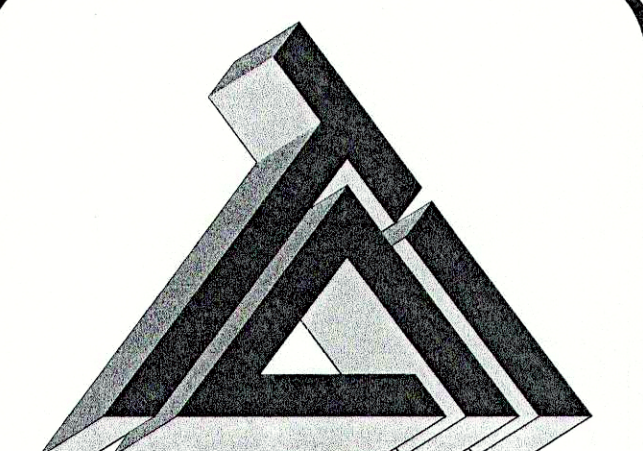
REVISIONS:

DATE	DESCRIPTION	BY
10/23/02	ADDED 12" HDPE CASING PIPE	D.A.P.

APPROVED BY:



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DESIGNED FOR:

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STATE ROAD 13 SANITARY  
FORCEMAIN EXTENSION PROJECT

SHEET TITLE:

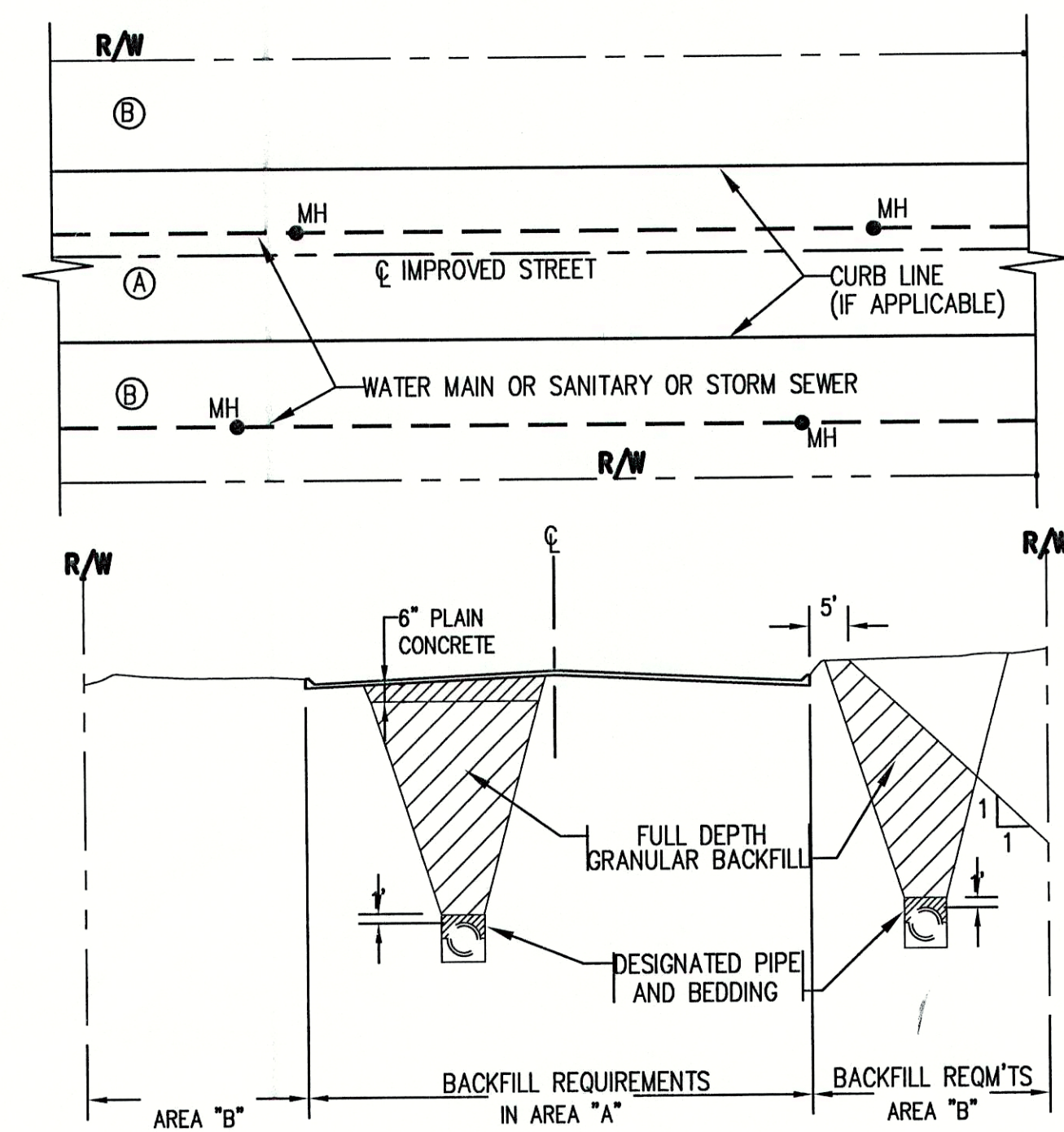
BRIDGE BORING SECTION

JOB NUMBER: 200202F	CHECKED BY: J.W.F.
SCALE: AS NOTED	PLOT DATE: 10/23/02
PLOT SCALE: 1" = 1'	DATE: JULY 2002
DRAWN BY: B.K.Y.	DESIGNED BY: THOMAS M. SCHUBERT
DRAWING NAME: 200202F-BRSEC-RD.DWG	

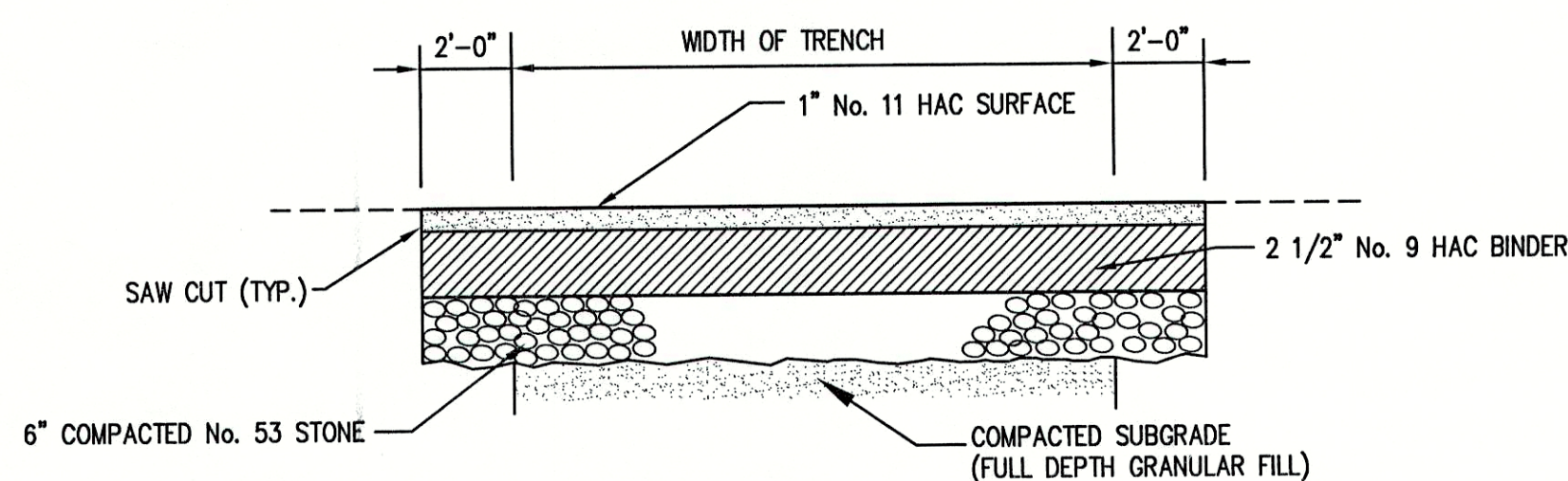
SHEET No.

**7**  
OF 9

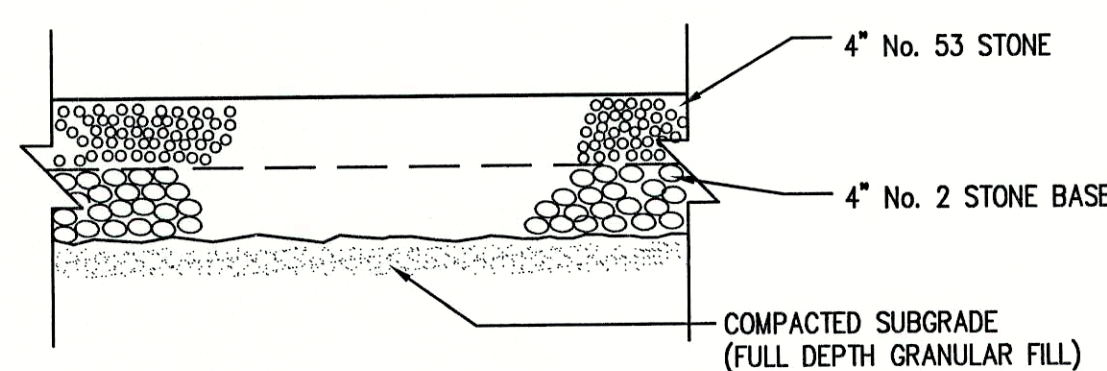




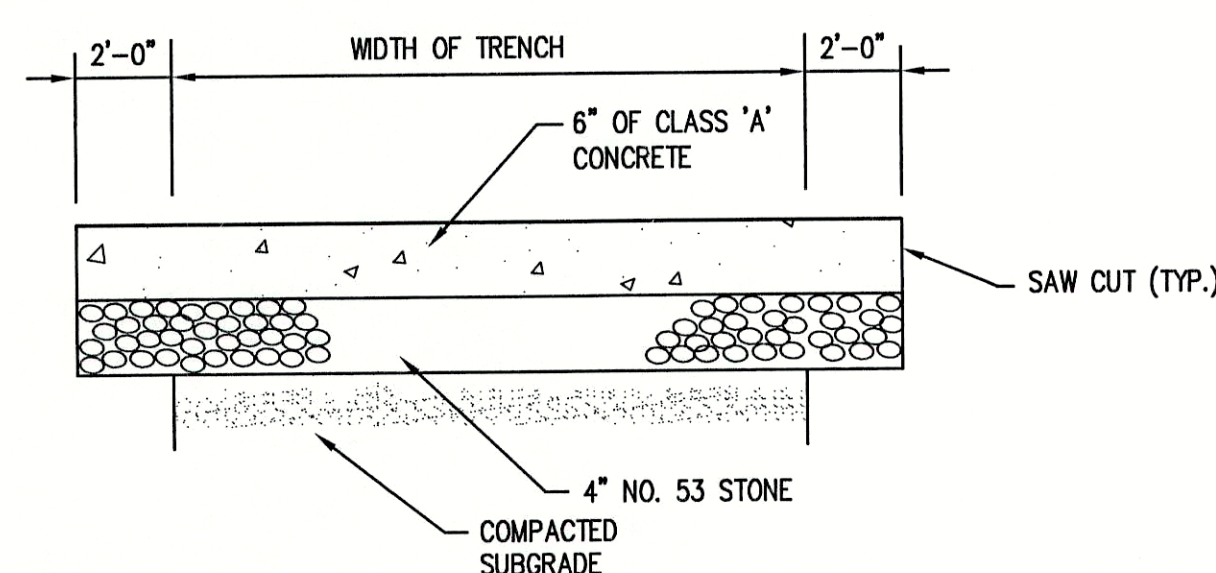
1 **BACKFILL REQUIREMENTS**  
(FOR PIPELINES WITHIN RIGHT-OF-WAY FOR IMPROVED STREETS)



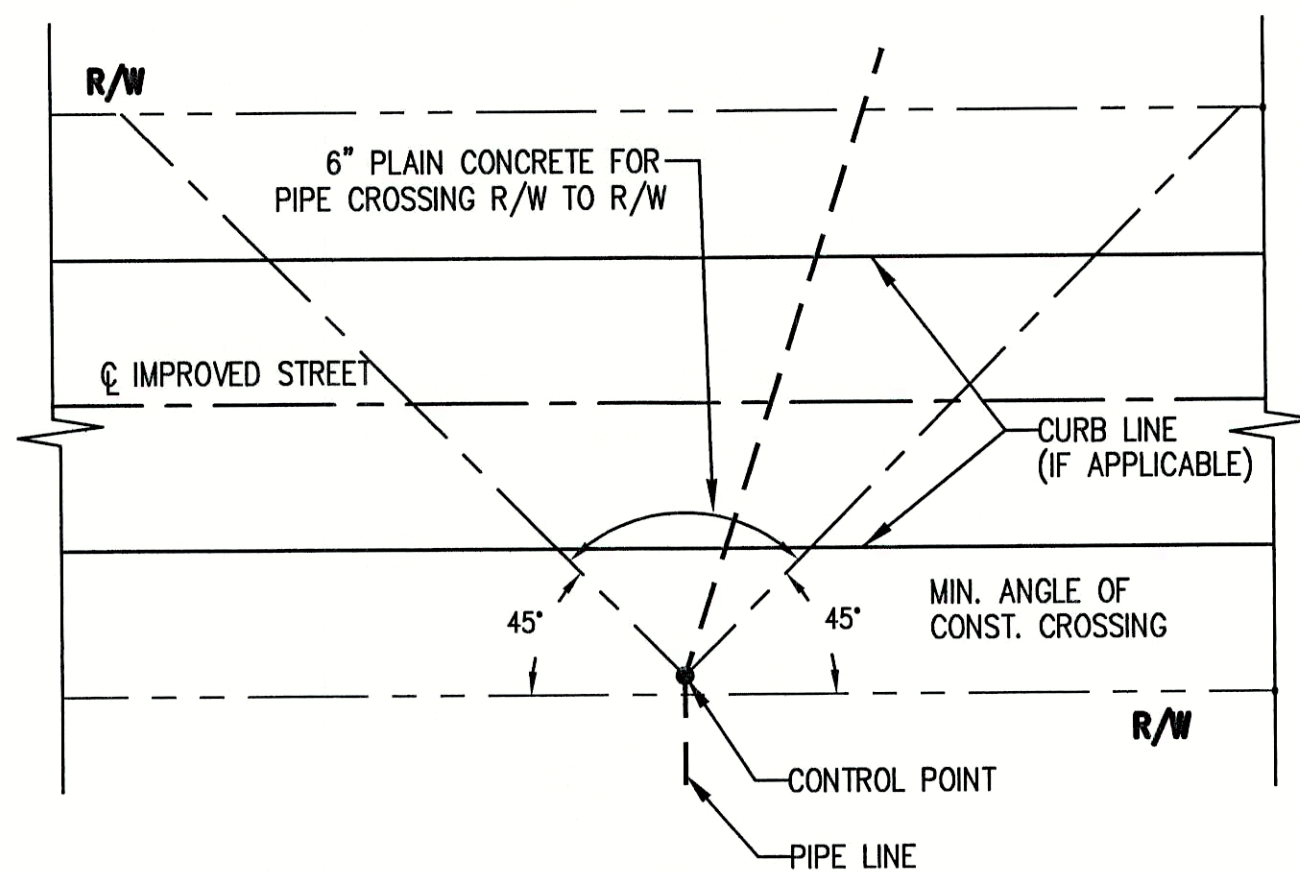
4 **ASPHALT DRIVE REPAIR DETAIL**  
SCALE: N.T.S.



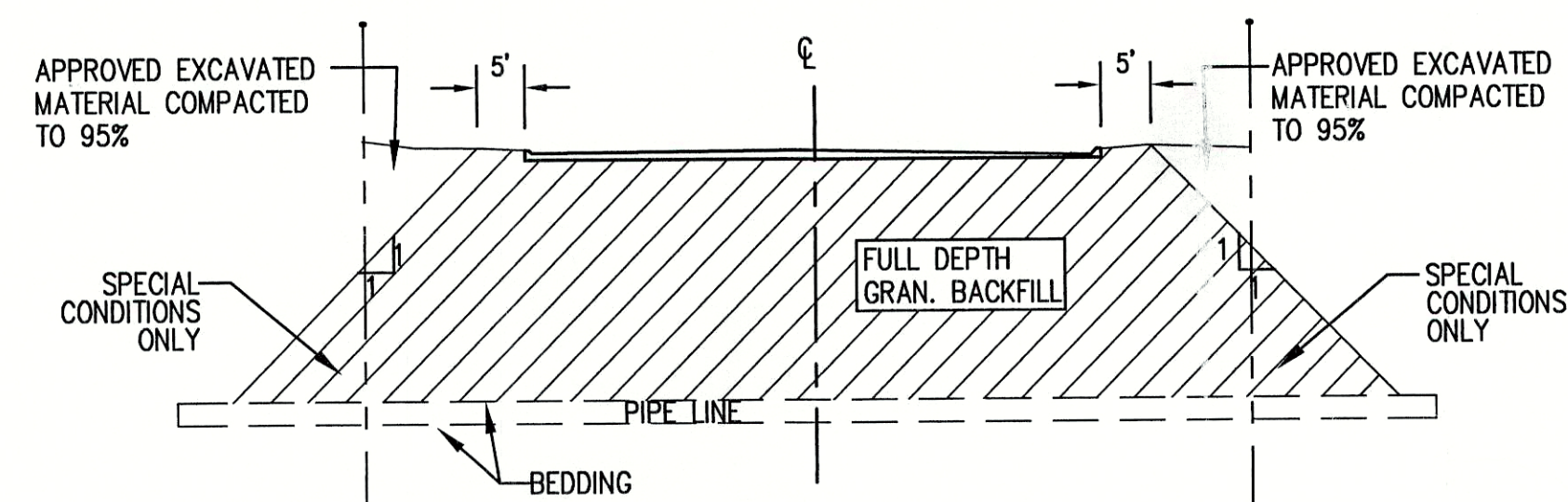
5 **STONE DRIVE REPAIR DETAIL**  
SCALE: N.T.S.



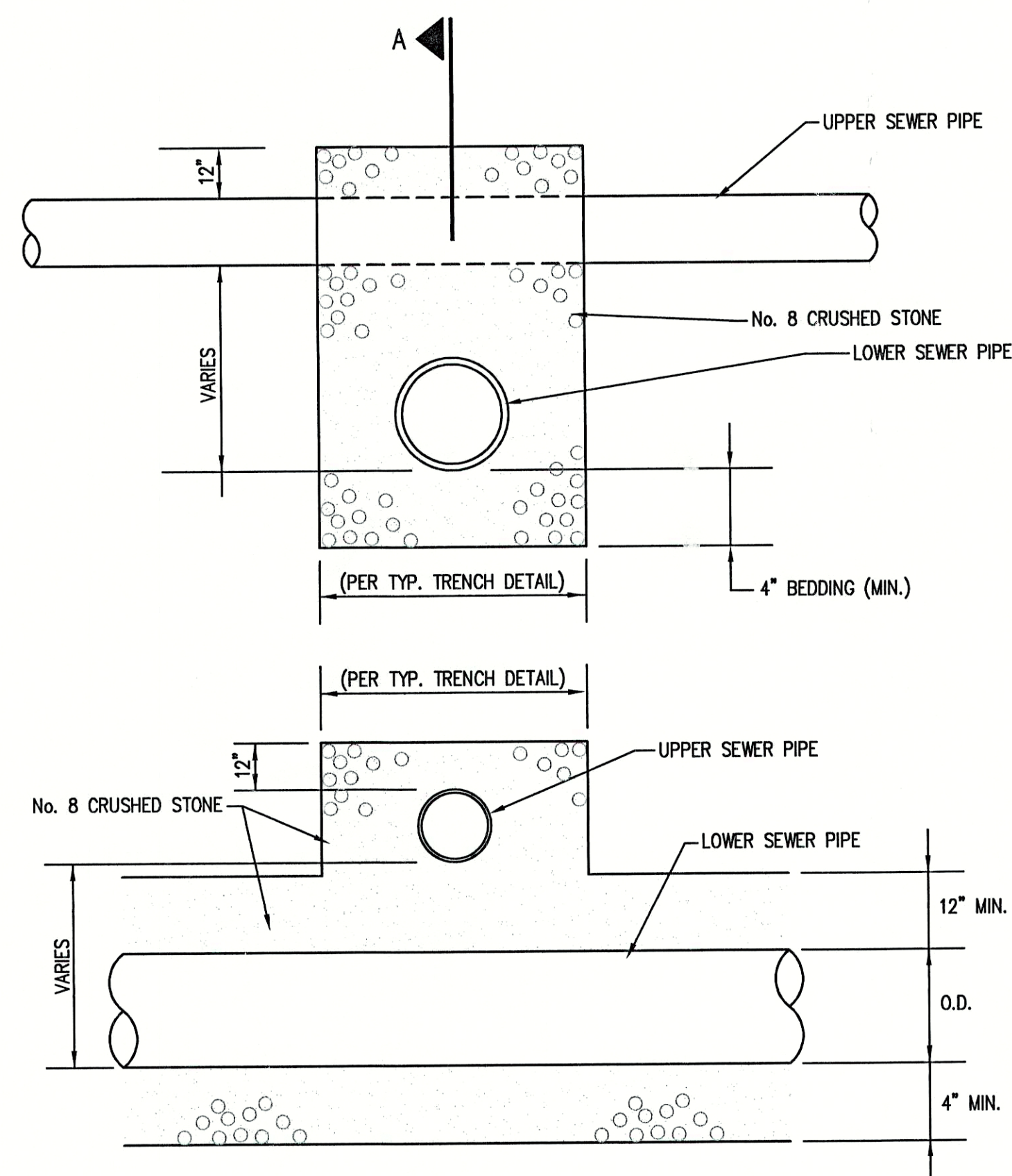
6 **CONCRETE DRIVE REPAIR DETAIL**  
SCALE: N.T.S.



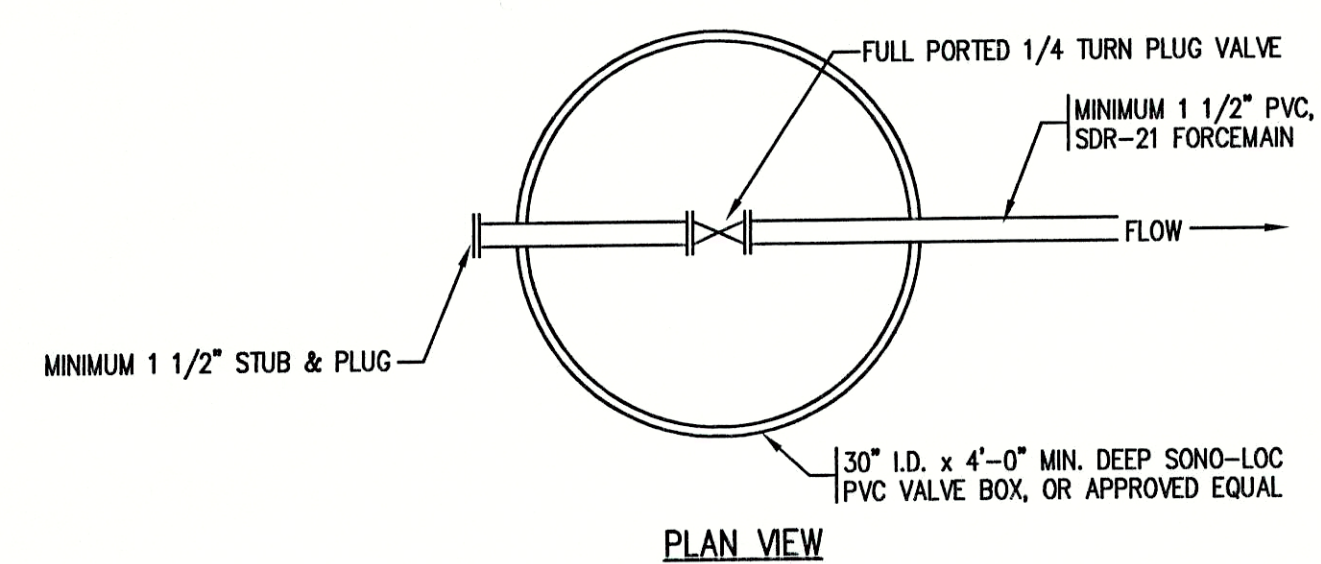
2 **BACKFILL REQUIREMENTS**  
(FOR PIPELINES CROSSING RIGHT-OF-WAY FOR IMPROVED STREETS)



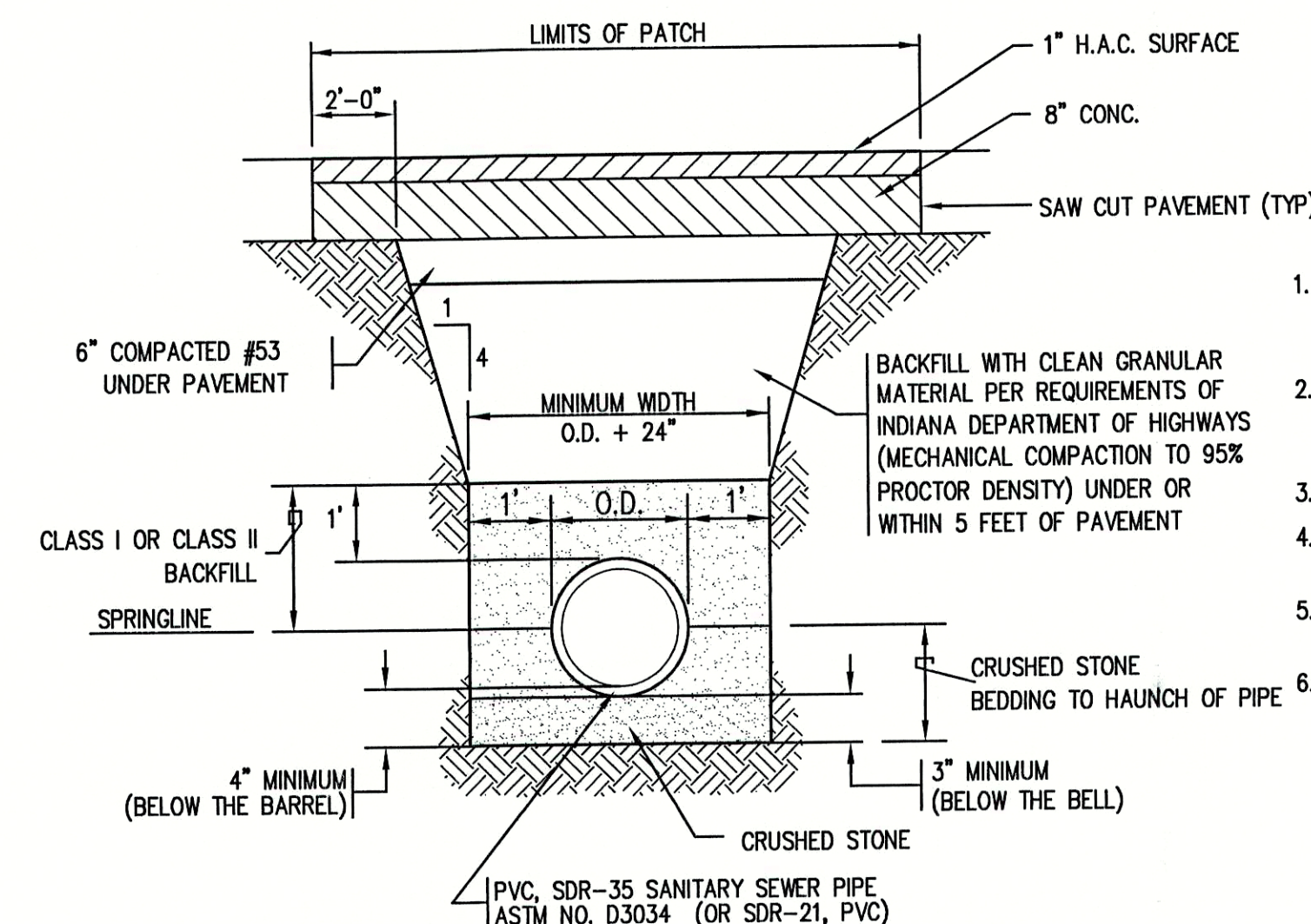
7 **STORM SEWER/SANITARY SEWER CROSSING DETAIL**  
SCALE: N.T.S.



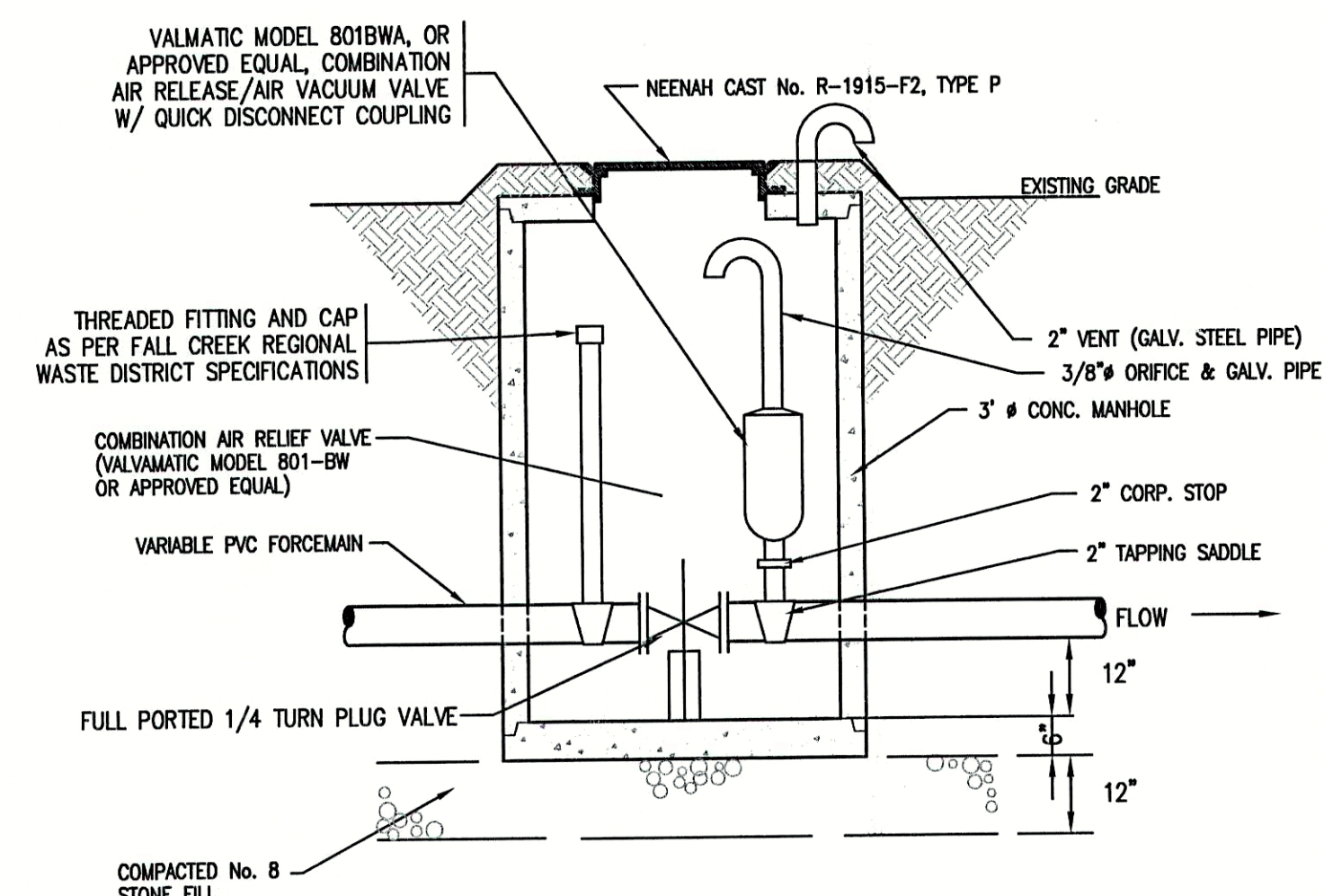
8 **VALVE VAULT w/ AIR / VAC RELIEF STRUCTURE**  
SCALE: N.T.S.



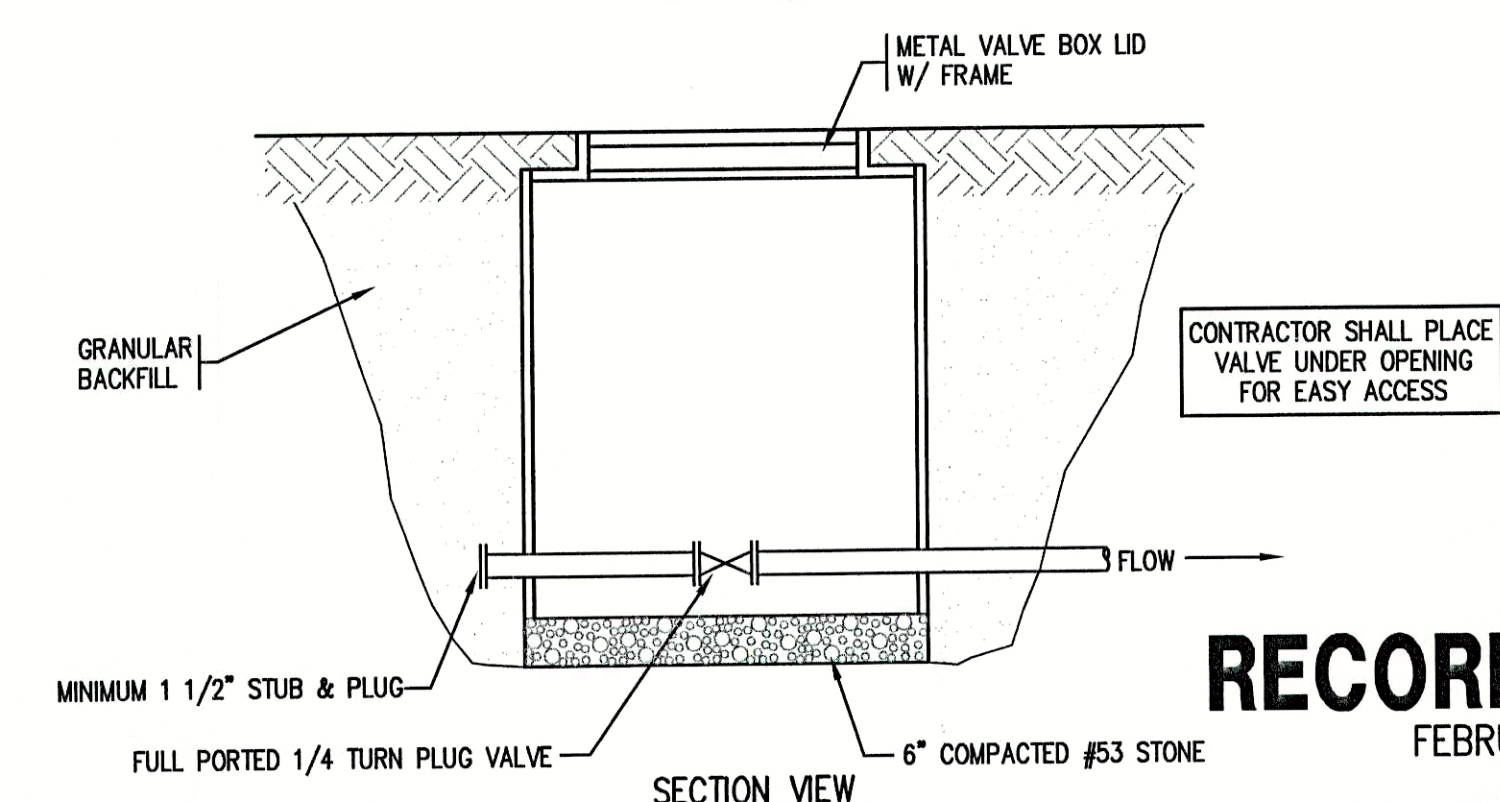
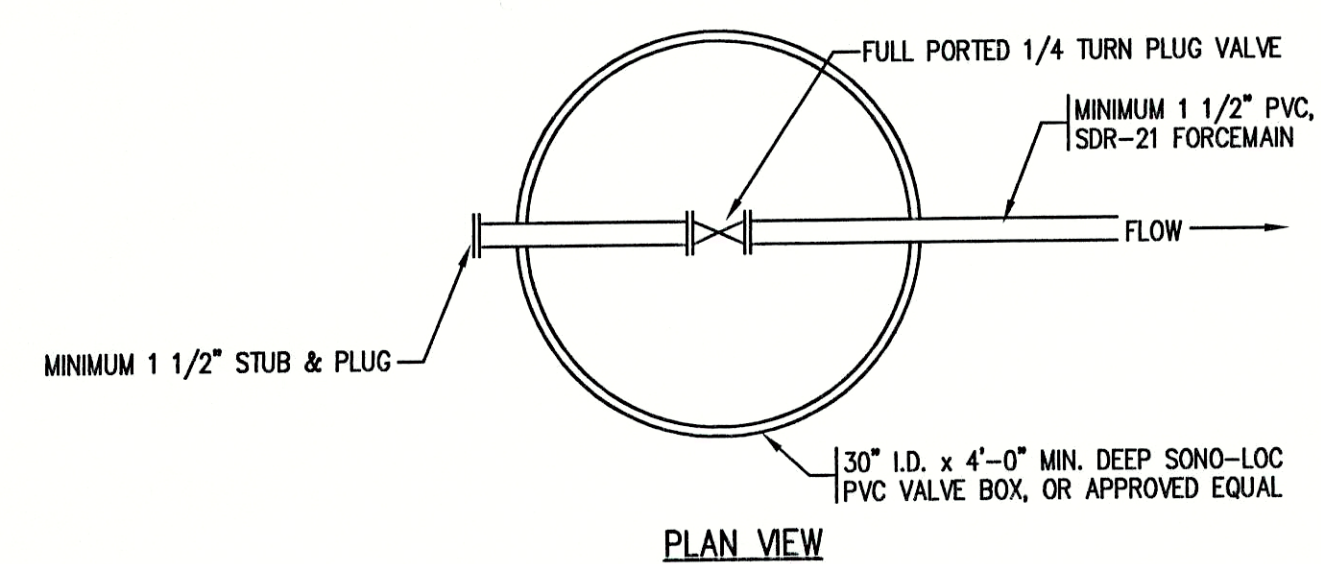
9 **STANDARD SERVICE CONNECTION VALVE VAULT**  
NOT TO SCALE



3 **TYPICAL TRENCH AND PAVEMENT PATCH DETAIL**  
SCALE: N.T.S.



CONTRACTOR SHALL PLACE VALVE UNDER OPENING FOR EASY ACCESS



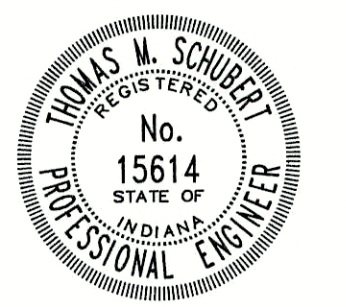
**RECORD DRAWING**  
FEBRUARY 17, 2003

CONSULTANT:

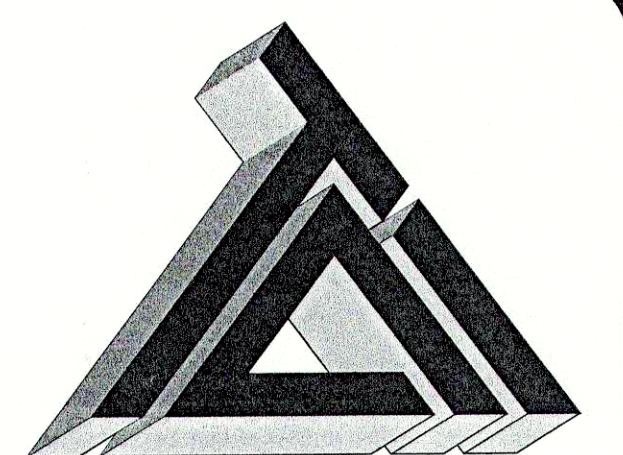
REVISIONS:

DATE	DESCRIPTION	BY

APPROVED BY:



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INDIANAPOLIS, INDIANA 46216  
PHONE: 317-377-5230 FAX: 317-377-5241

DESIGNED FOR:  
FALL CREEK REGIONAL WASTE DISTRICT  
STATE ROAD 13 SANITARY  
SEWER FORCEMAIN EXTENSION PROJECT

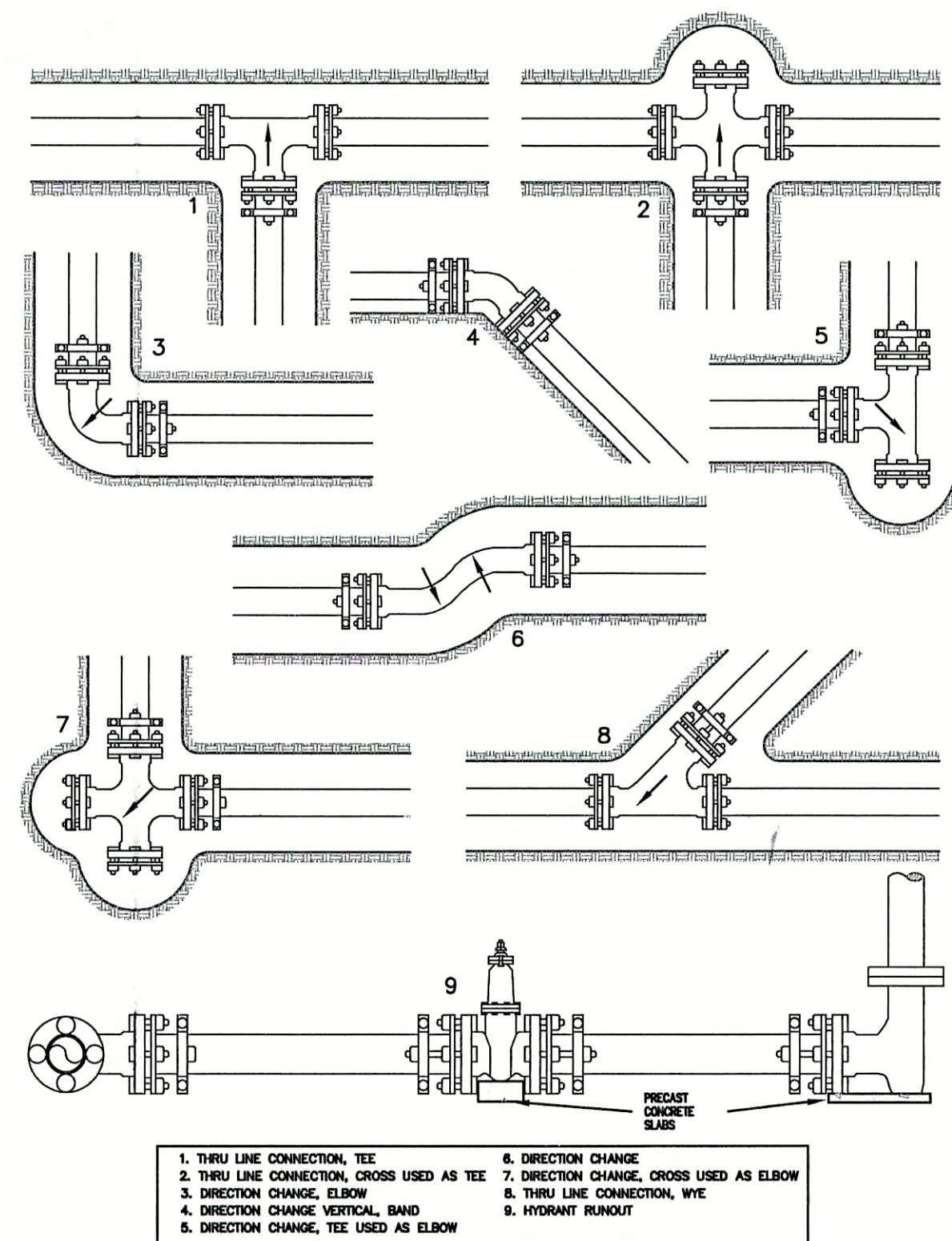
SHEET TITLE:  
MISCELLANEOUS DETAIL SHEET

JOB NUMBER: 200202F  
SCALE: AS NOTED  
PLOT SCALE: 1 = 1  
DRAWN BY: B.K.Y.  
DESIGNED BY: THOMAS M. SCHUBERT, P.E.  
DRAWING NAME: 200202FDET1-RD.DWG

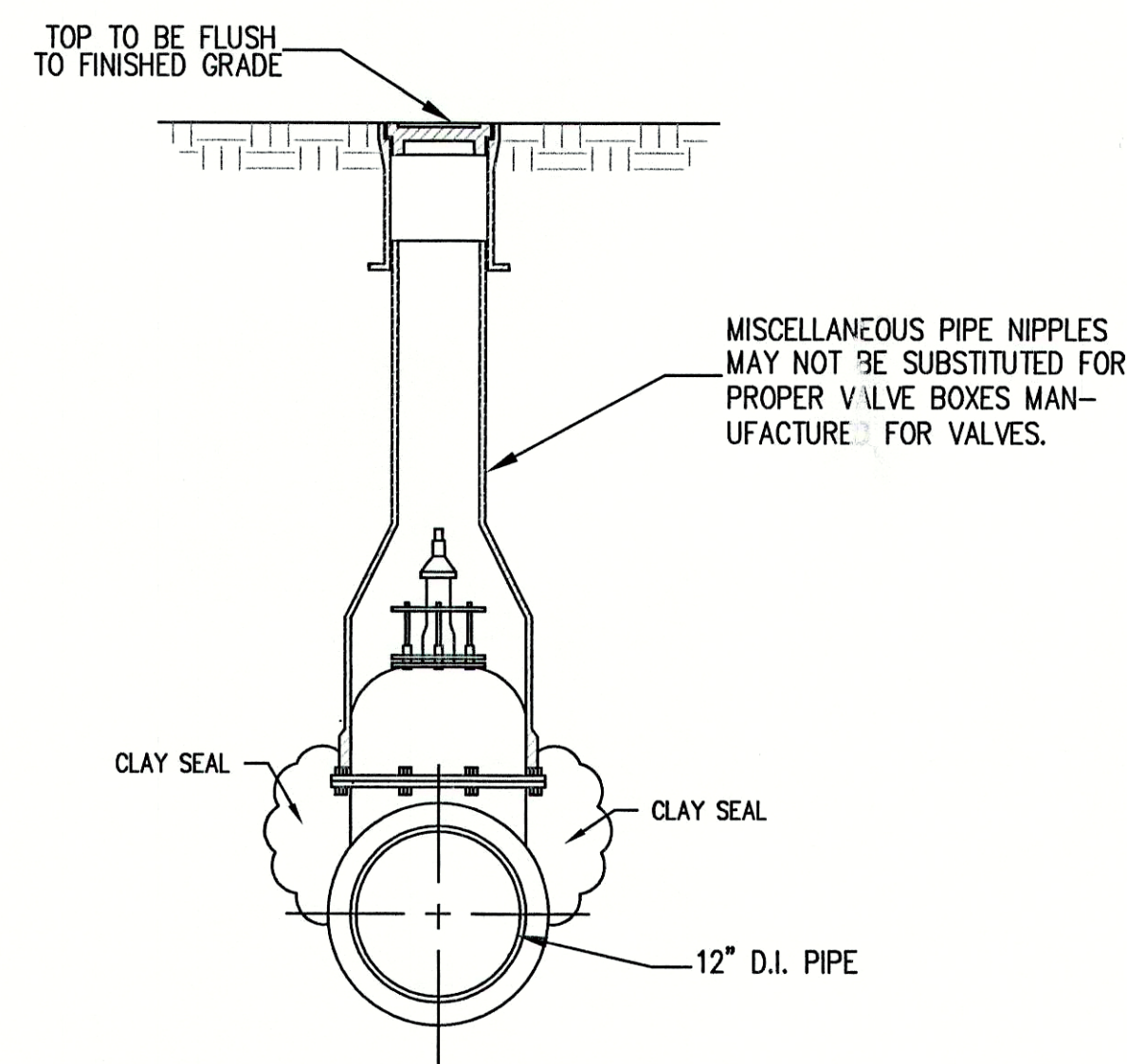
SHEET No.

**8**  
OF 9

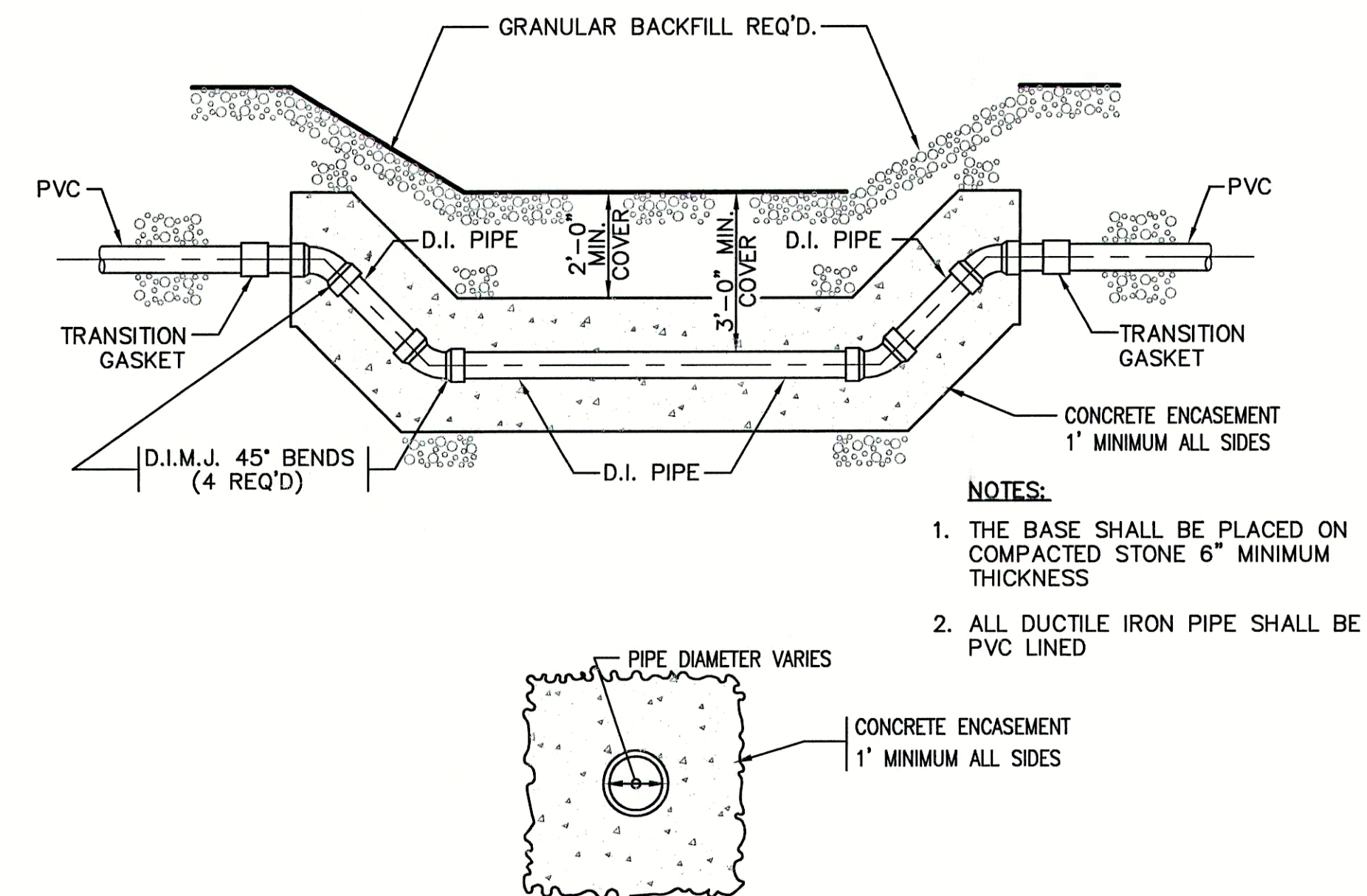




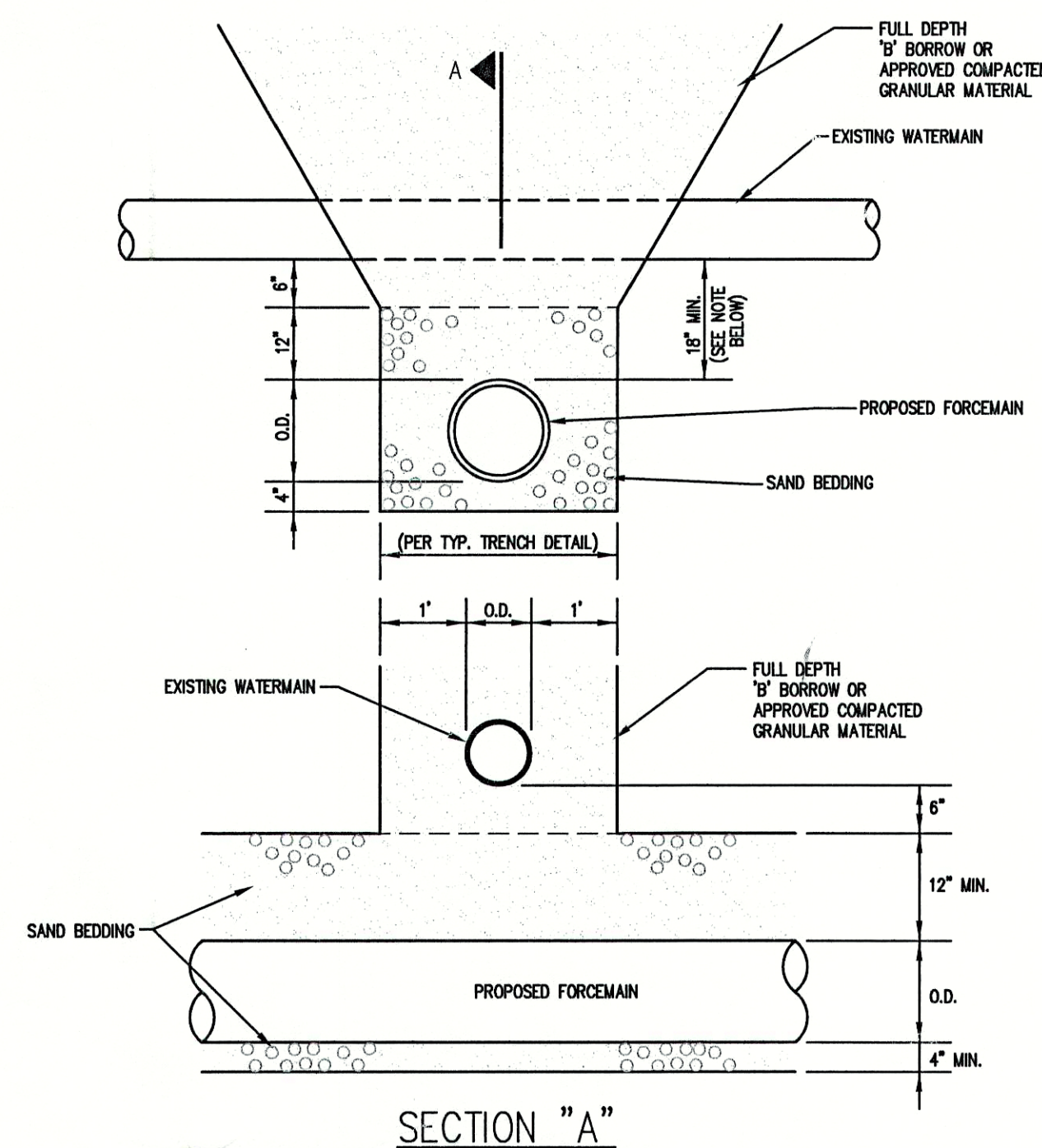
1 TYPES OF JOINT RESTRAINING  
NOT TO SCALE



2 VALVE BOX SECTION  
NOT TO SCALE



3 TYPICAL CREEK CROSSING FOR FORCEMAIN  
NOT TO SCALE



NOTE:  
IF 18" SEPARATION CANNOT BE MAINTAINED, POURED-IN-PLACE CONCRETE SADDLE TO THE SPRING LINE OF THE WATERMAIN SHALL BE USED.

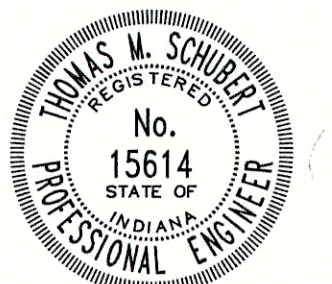
4 WATERMAIN / FORCEMAIN TYPICAL CROSSING DETAIL  
NOT TO SCALE

CONSULTANT:

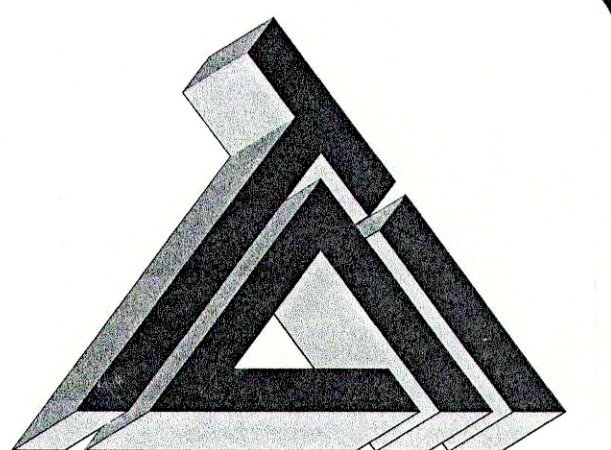
REVISIONS:

DATE	DESCRIPTION	BY

APPROVED BY:



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DESIGNED FOR:

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STATE ROAD 13 SANITARY  
SEWER FORCEMAIN EXTENSION PROJECT

SHEET TITLE:

MISCELLANEOUS DETAIL SHEET

JOB NUMBER: 200202F	CHECKED BY: J.W.F.
SCALE: AS NOTED	PLOT DATE: 09/24/02
PLOT SCALE: 1" = 1'	DATE: JULY 2002
DRAWN BY: B.K.Y.	DESIGNED BY: THOMAS M. SCHUBERT, P.E.
DRAWING NAME: 200202FDET2-RD.DWG	

SHEET No.

9  
OF 9

**RECORD DRAWING**  
FEBRUARY 17, 2003