



August 21, 2015

Ms. Linda Faulkner  
Division Director Filings  
Commonwealth of Kentucky  
Public Service Commission  
211 Sower Blvd.  
PO Box 615  
Frankfort, Kentucky 40602-0615

**RECEIVED**

**AUG 25 2015**

**PUBLIC SERVICE  
COMMISSION**

RE: Western Rockcastle Water Association  
Rockcastle County, Kentucky  
Water System Extensions & Improvements (Record Drawings)  
Water Storage Tanks Rehabilitation (Painting Only-No Drawings Required)  
Case: 2014-00007

Dear Ms. Faulkner:

This is to certify that the above-referenced project has been satisfactorily completed in accordance with the contract plans and specifications. Enclosed you will find an electronic copy on CD of the "Record Drawings" (As-Built) for the above-reference project.

Should you have any questions or need additional information, please advise.

Sincerely,

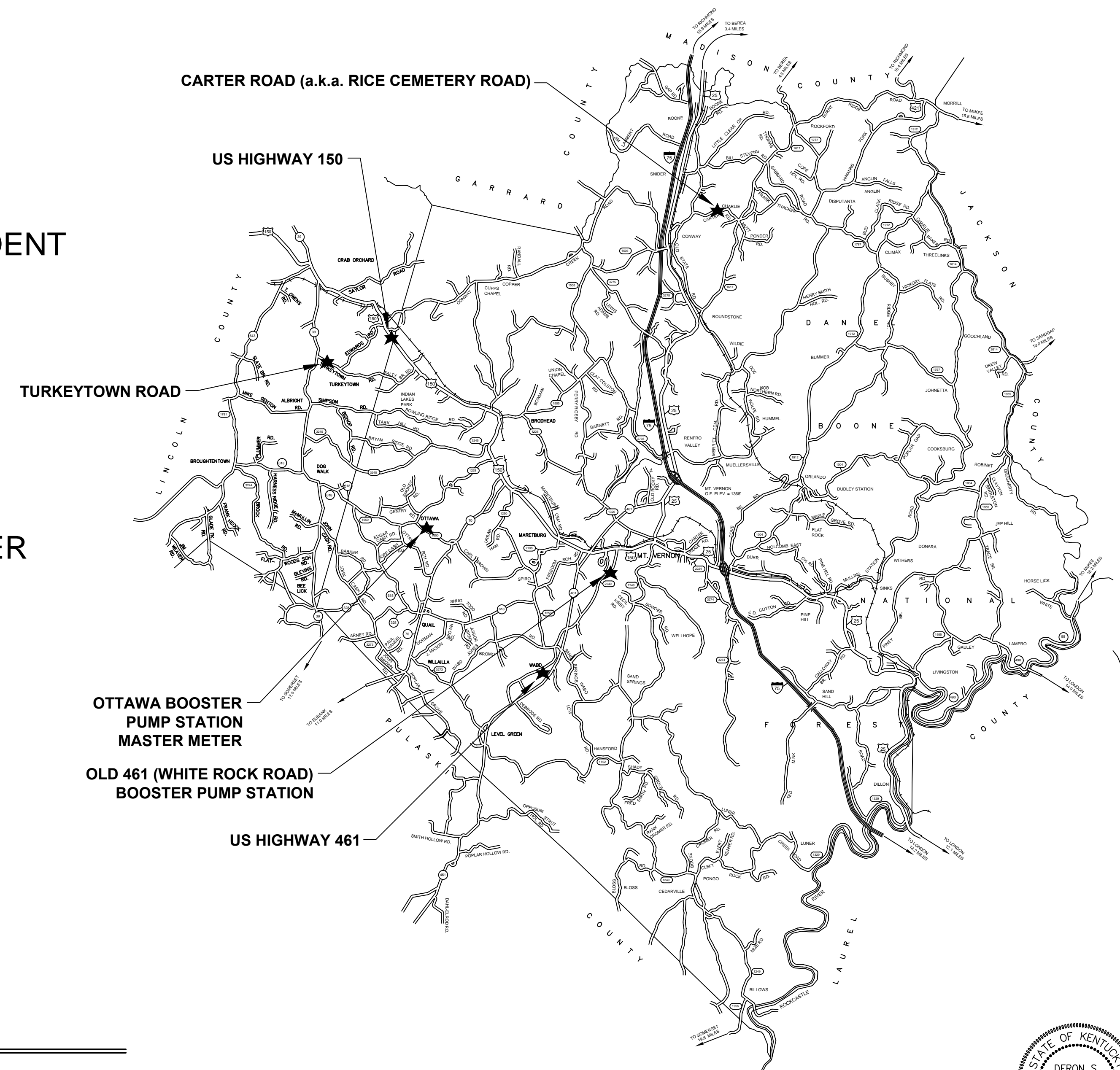
Deron S. Byrne, P.E.  
Project Engineer

/dsb

Enclosure

# WESTERN ROCKCASTLE WATER ASSOCIATION ROCKCASTLE COUNTY, KENTUCKY CONTRACT 10 - WATER SYSTEM EXTENSIONS AND IMPROVEMENTS

LOCATION MAP



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**COMMISSIONERS**  
 DARRELL WHITAKER, PRESIDENT  
 JULIE PIGG  
 ALBERT MARTIN  
 EDDIE J. HAMM  
 JERRY WOODALL

PAULA DeBORDE, MANAGER  
 JERRY COX, ATTORNEY

OCTOBER 2013

**THIS PROJECT FUNDED BY:**

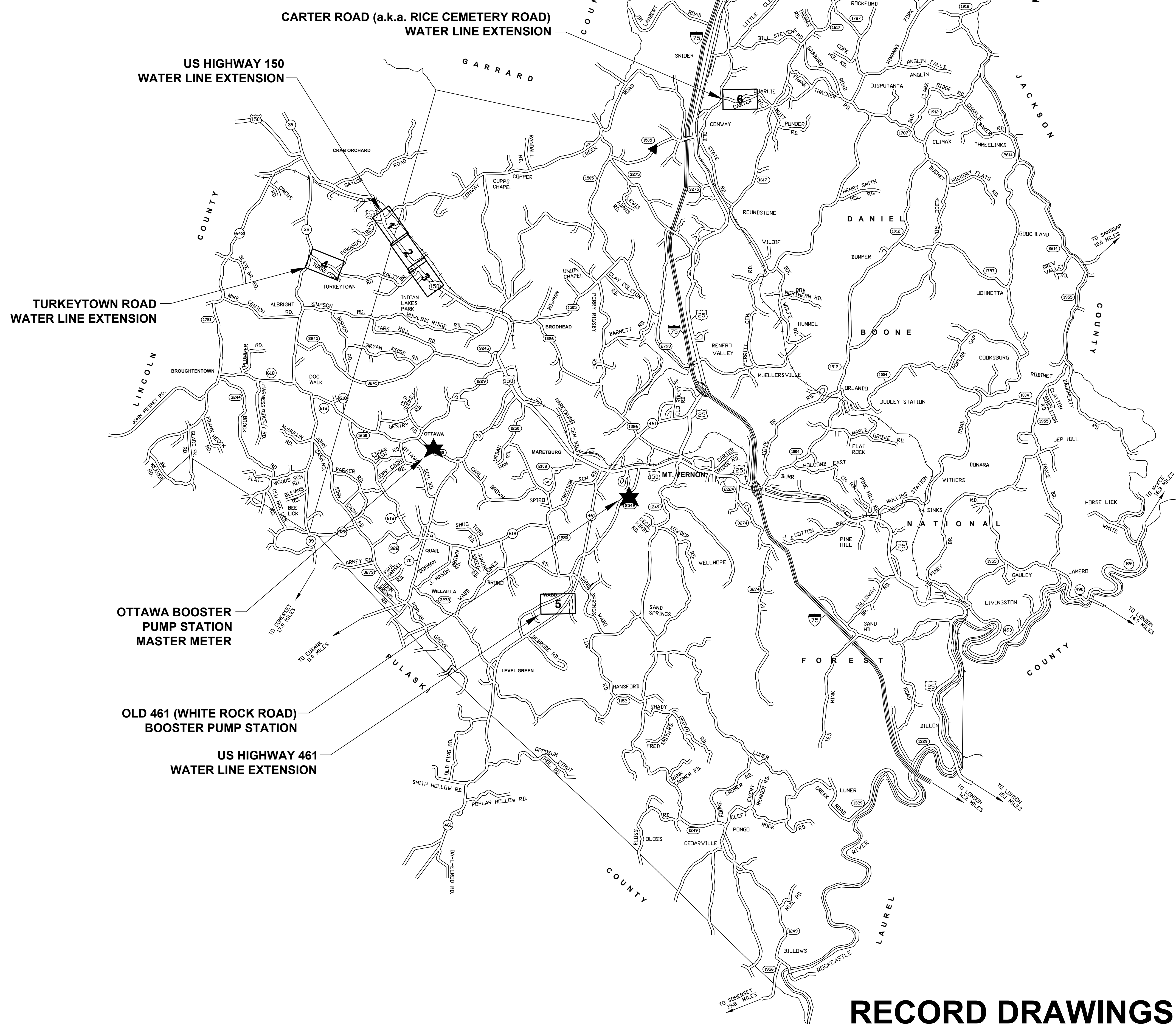
U.S.D.A. RURAL DEVELOPMENT

**M**  
**Monarch Engineering, Inc.**

556 CARLTON DRIVE  
 LAWRENCEBURG, KY 40342

**RECORD DRAWINGS**





**RECORD DRAWINGS**

|  |   |  |         |                      |
|--|---|--|---------|----------------------|
| <b>WATER SYSTEM EXTENSIONS<br/>WESTERN ROCKCASTLE WATER ASSOCIATION<br/>ROCKCASTLE, LINCOLN &amp; PULASKI COUNTIES, KENTUCKY</b> |   |  |         |                      |
| <b>PROJECT LOCATION MAP</b>  |   |  |         |                      |
|  |   |  |         |                      |
|  | 556 CARLTON DRIVE<br>LAWRENCEBURG, KY 40342         |  |         |                      |
|  | DRAWN BY: JRC<br>CHECKED BY: JLM<br>CHECKED BY: DSB | DATE: FEB 2012<br>SCALE: N.T.S.<br>PROJECT: 1207 | REVISED | SHEET<br><b>LM-1</b> |





**RECORD DRAWINGS**

**WATER SYSTEM EXTENSIONS  
WESTERN ROCKCASTLE WATER ASSOCIATION  
ROCKCASTLE, LINCOLN & PULASKI COUNTIES, KENTUCKY**

**NEW U.S. HIGHWAY 150 WATER LINE EXTENSION**

|                 |  |                |          |
|-----------------|--|----------------|----------|
|                 |  |                |          |
|                 | Monarch Engineering, Inc.<br>556 CARLTON DRIVE<br>LAWRENCEBURG, KY 40342 |                |          |
|                 | DRAWN BY: JRC  | DATE: FEB 2012 | REVISED  |
| CHECKED BY: JLM | SCALE: 1"=100'   |                | <b>1</b> |
| CHECKED BY: DSB | PROJECT: 1207  |                |          |





**RECORD DRAWINGS**

**WATER SYSTEM EXTENSIONS  
WESTERN ROCKCASTLE WATER ASSOCIATION  
ROCKCASTLE, LINCOLN & PULASKI COUNTIES, KENTUCKY**

**NEW U.S. HIGHWAY 150 WATER LINE EXTENSION**

|                 |   |                   |
|-----------------|---|-------------------|
|                 | <b>Monarch Engineering, Inc.</b><br>556 CARLTON DRIVE<br>LAWRENCEBURG, KY 40342 |                   |
|                 | DRAWN BY: JRC   | DATE: FEB 2012    |
|                 | CHECKED BY: JLM   | SCALE: 1"=100'    |
| CHECKED BY: DSB | PROJECT: 1207   | SHEET<br><b>2</b> |





**RECORD DRAWINGS**

**WATER SYSTEM EXTENSIONS  
WESTERN ROCKCASTLE WATER ASSOCIATION  
ROCKCASTLE, LINCOLN & PULASKI COUNTIES, KENTUCKY**

**NEW U.S. HIGHWAY 150 WATER LINE EXTENSION**

|                 |                 |                |  |          |
|-----------------|-----------------|----------------|--|----------|
|                 |                 |                | Monarch Engineering, Inc.<br>556 CARLTON DRIVE<br>LAWRENCEBURG, KY 40342 |          |
|                 | DRAWN BY: JRC   | DATE: FEB 2012 | REVISED  | SHEET    |
|                 | CHECKED BY: JLM | SCALE: 1"=100' |  | <b>3</b> |
| CHECKED BY: DSB | PROJECT: 1207   |                |  |          |





**RECORD DRAWINGS**

**WATER SYSTEM EXTENSIONS  
WESTERN ROCKCASTLE WATER ASSOCIATION  
ROCKCASTLE, LINCOLN & PULASKI COUNTIES, KENTUCKY**

**TURKEYTOWN ROAD WATER LINE EXTENSION**

|                 |  |                |         |       |
|-----------------|--|----------------|---------|-------|
|                 |  |                |         |       |
|                 | Monarch Engineering, Inc.<br>556 CARLTON DRIVE<br>LAWRENCEBURG, KY 40342 |                |         |       |
|                 | DRAWN BY: JRC  | DATE: FEB 2012 | REVISED | SHEET |
| CHECKED BY: JLM | SCALE: 1"=100'   |                |         |       |
| CHECKED BY: DSB | PROJECT: 1207  |                |         |       |

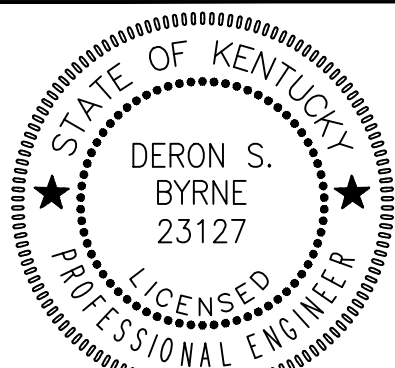
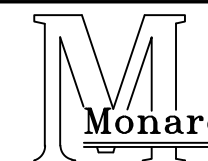




**RECORD DRAWINGS**

**WATER SYSTEM EXTENSIONS  
WESTERN ROCKCASTLE WATER ASSOCIATION  
ROCKCASTLE, LINCOLN & PULASKI COUNTIES, KENTUCKY**

**U.S. HIGHWAY 461 WATER LINE EXTENSION**

|   |                |  |       |
|---|----------------|--|-------|
|  |                | <br><b>Monarch Engineering, Inc.</b><br>556 CARLTON DRIVE<br>LAWRENCEBURG, KY 40342 |       |
| DRAWN BY: JRC   | DATE: FEB 2012 | REVISED  | SHEET |
| CHECKED BY: JLM   | SCALE: 1"=100' |  | 5     |
| CHECKED BY: DSB   | PROJECT: 1207  |  |       |

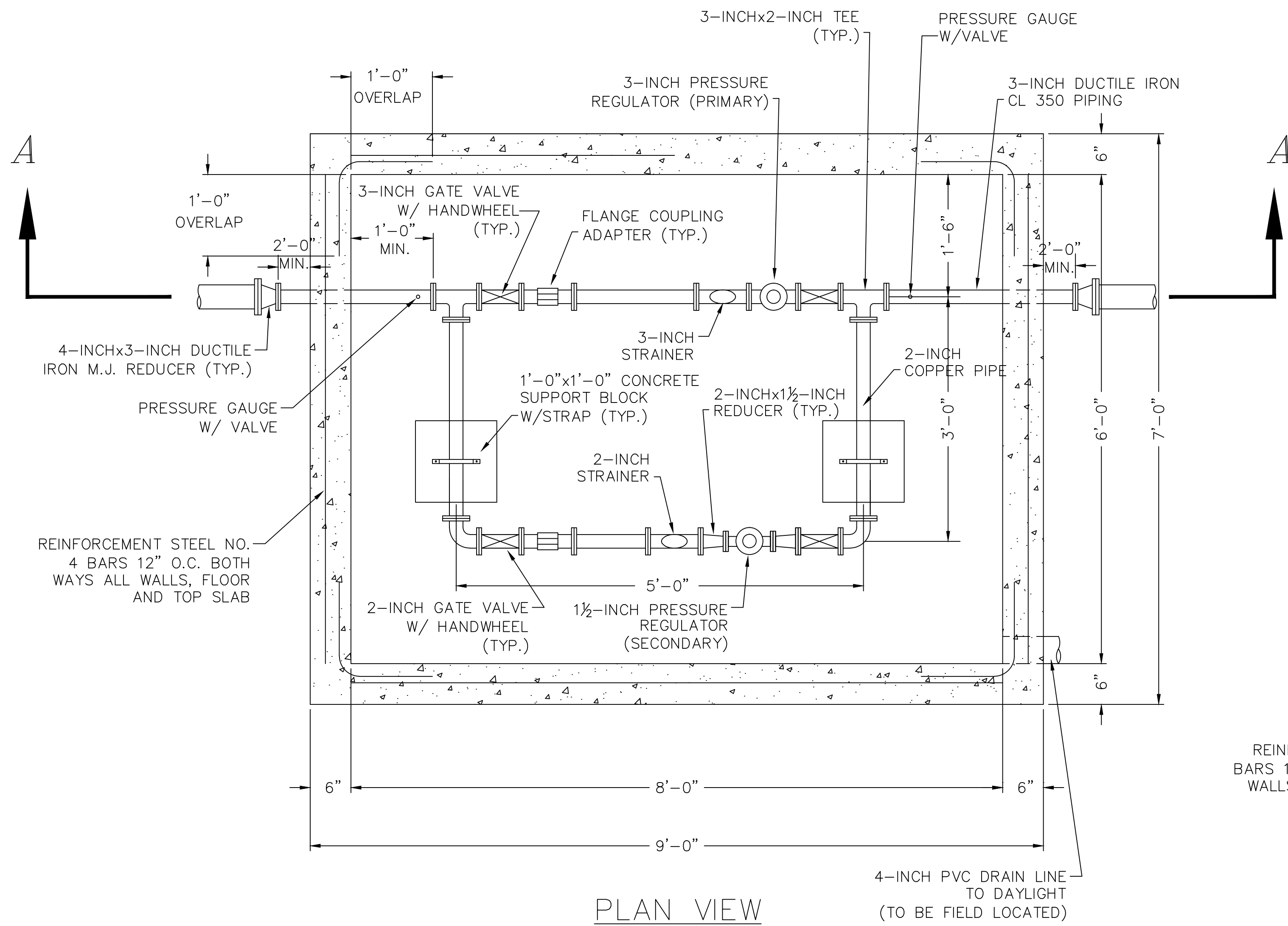




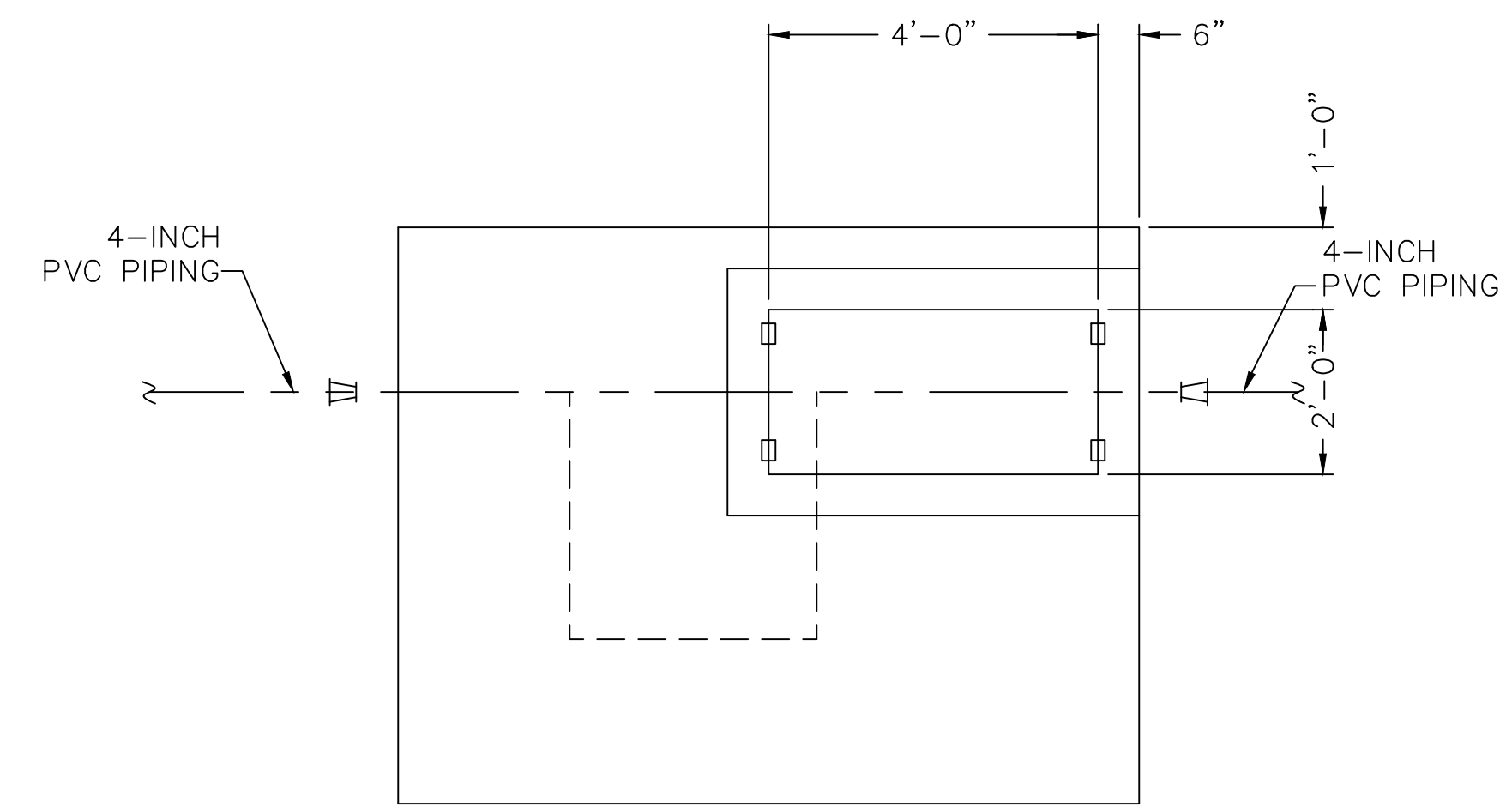
**RECORD DRAWINGS**

|  |  |  |                           |
|--|--|--|---------------------------|
| <b>WATER SYSTEM EXTENSIONS<br/>WESTERN ROCKCASTLE WATER ASSOCIATION<br/>ROCKCASTLE, LINCOLN &amp; PULASKI COUNTIES, KENTUCKY</b> |  |  |                           |
| <b>CARTER RD (a.k.a. RICE CEMETERY RD) WATER LINE EXTENSION</b>  |  |  |                           |
|  |  |  |                           |
|  | Monarch Engineering, Inc.<br>556 CARLTON DRIVE<br>LAWRENCEBURG, KY 40342 |  |                           |
|  | DRAWN BY: JRC<br>CHECKED BY: DSB<br>CHECKED BY: DMB                      | DATE: SEPT 2012<br>SCALE: 1"=100'<br>PROJECT: 1207 | REVISED<br>_____<br>_____ |

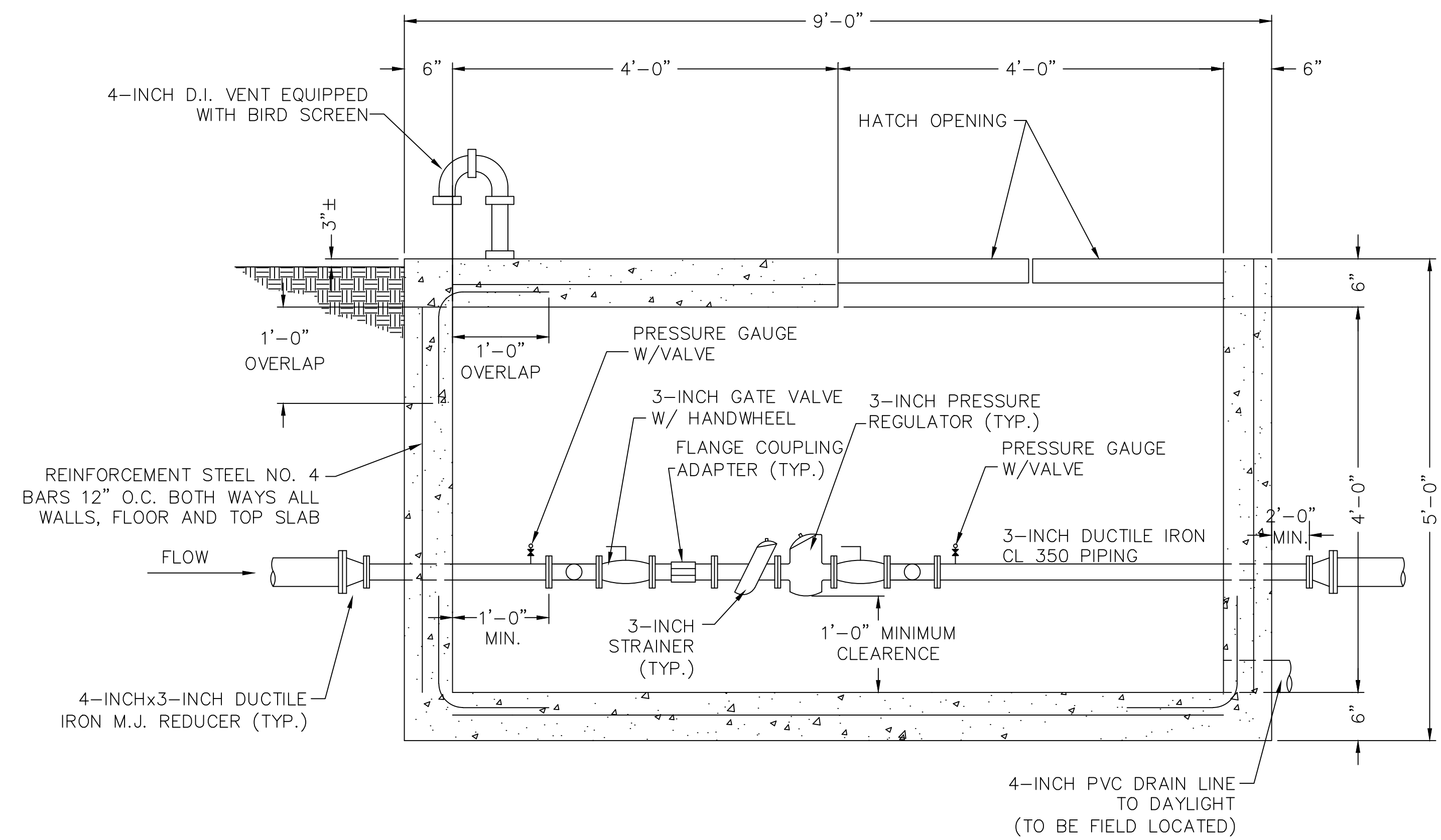




PLAN VIEW



PLAN OF HATCH OPENING DETAIL FOR PRESSURE REGULATING STATION



SECTION A-A

| PRESSURE REGULATING VALVE SETTING CHART |           |           |
|---|-----------|-----------|
| LOCATION                                | INLET PSI | SET POINT |
| PRIMARY (HIGH FLOWS)                    | 60-160    | 40        |
| SECONDARY (LOW FLOWS)                   | 60-160    | 45        |

**WATER SYSTEM EXTENSIONS  
 WESTERN ROCKCASTLE WATER ASSOCIATION  
 ROCKCASTLE, LINCOLN & PULASKI COUNTIES, KENTUCKY  
 TURKEYTOWN ROAD PRESSURE REDUCING VALVE STATION**

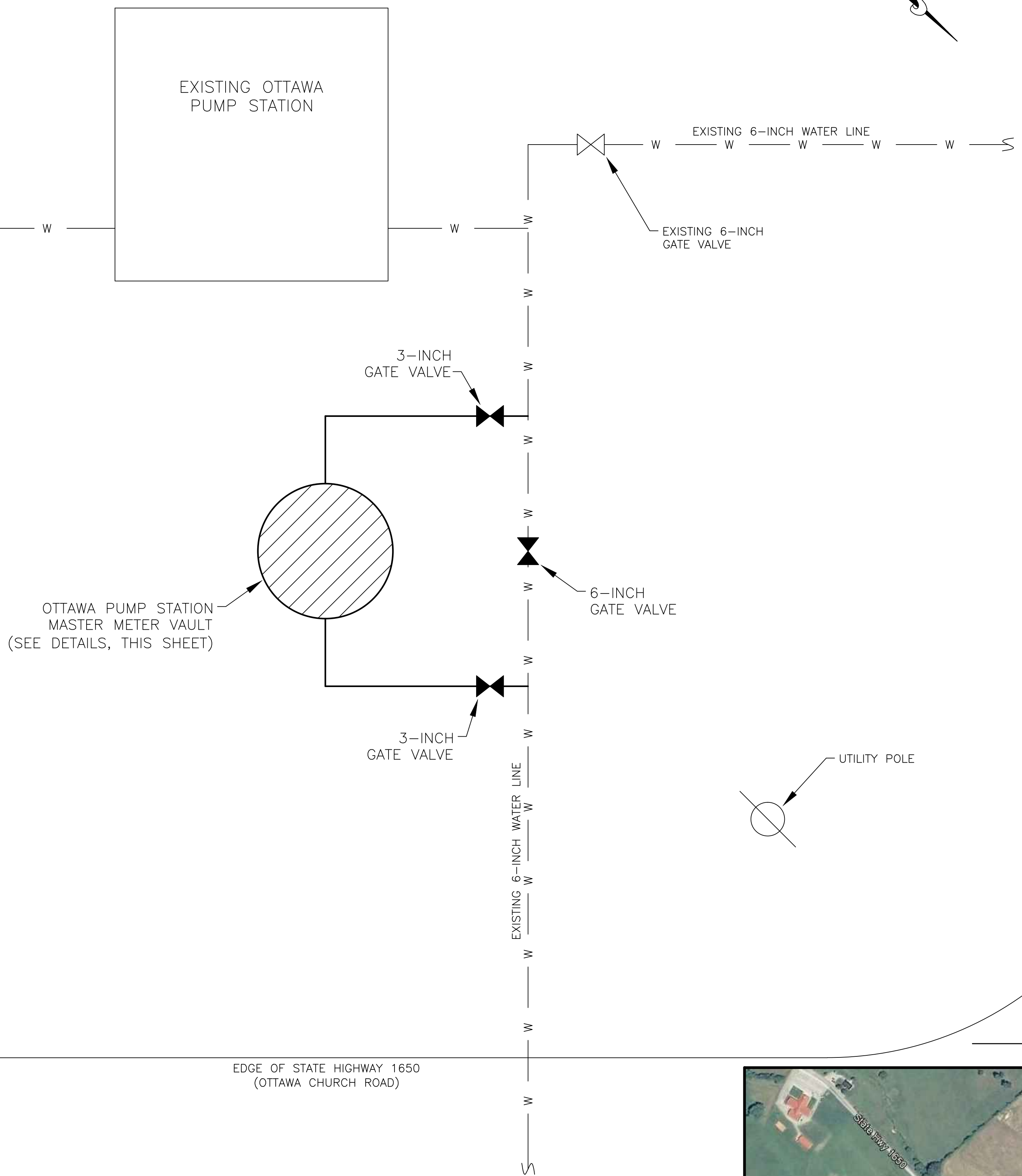
DERON S. BYRNE  
23127  
LICENSED PROFESSIONAL ENGINEER

Monarch Engineering, Inc.  
556 CARLTON DRIVE  
LAWRENCEBURG, KY 40342

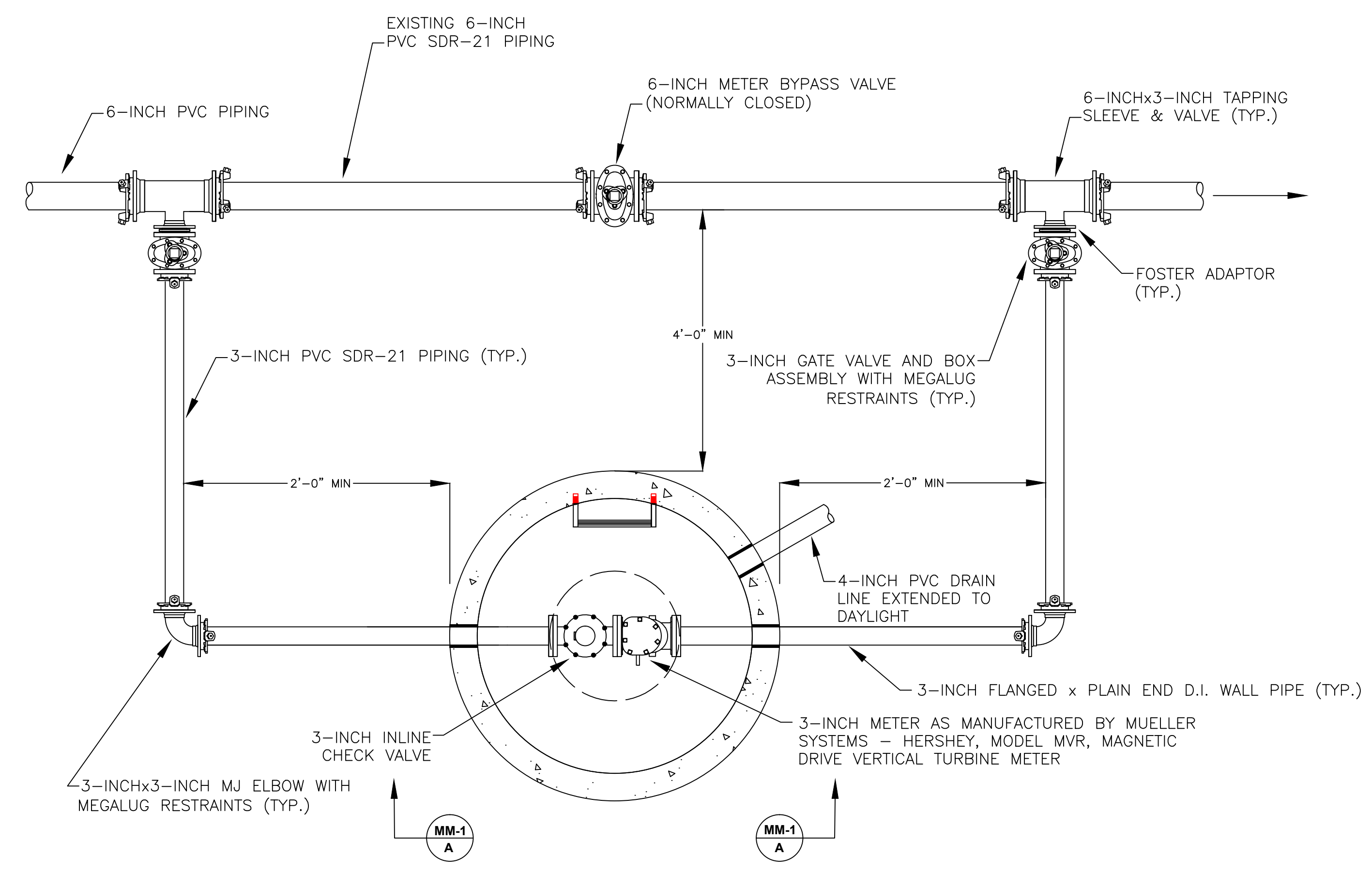
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| DRAWN BY: JRC   | DATE: FEB 2012  | REVISED | SHEET        |
| CHECKED BY: DSB | SCALE: 1"=1'-0" |         | <b>PRV-1</b> |
| CHECKED BY: DMB | PROJECT: 1207   |         |              |

**RECORD DRAWINGS**

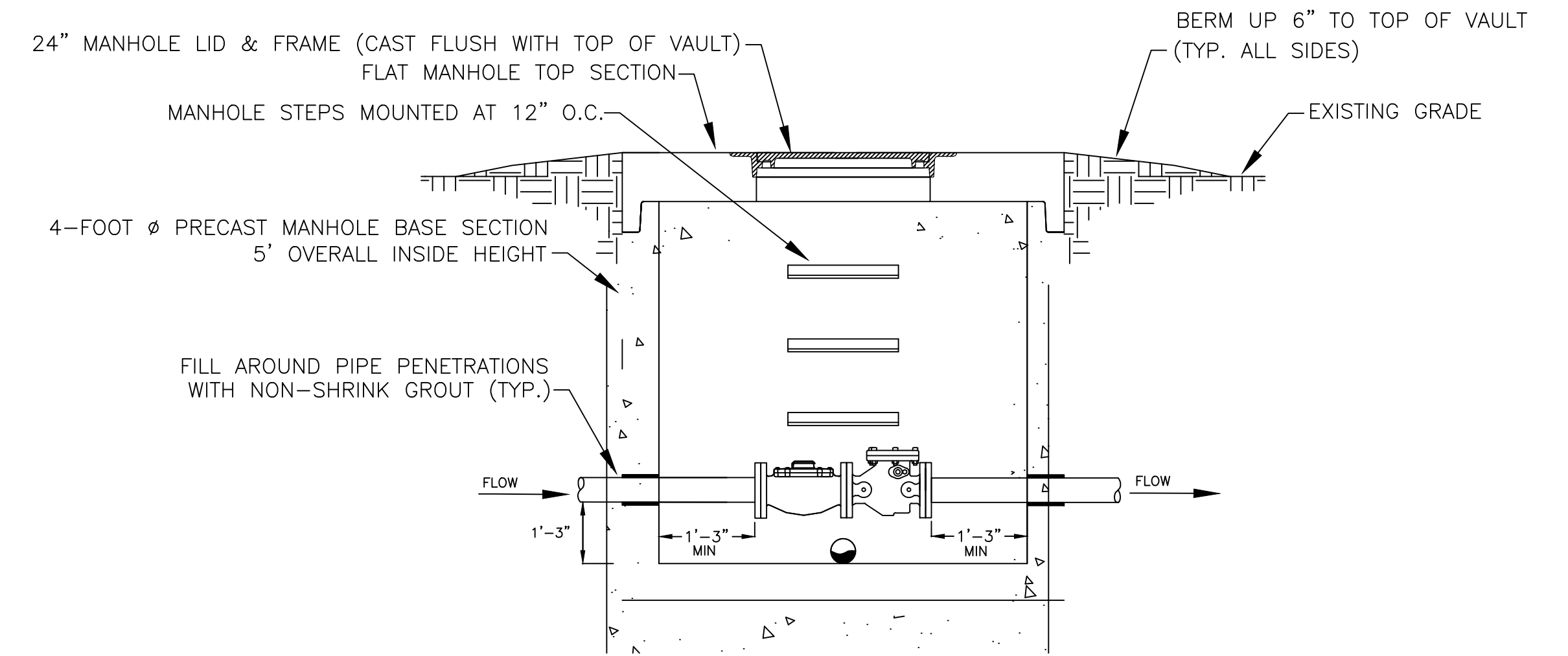




EDGE OF OTTAWA CEMETERY DRIVE



PLAN  
N.T.S.

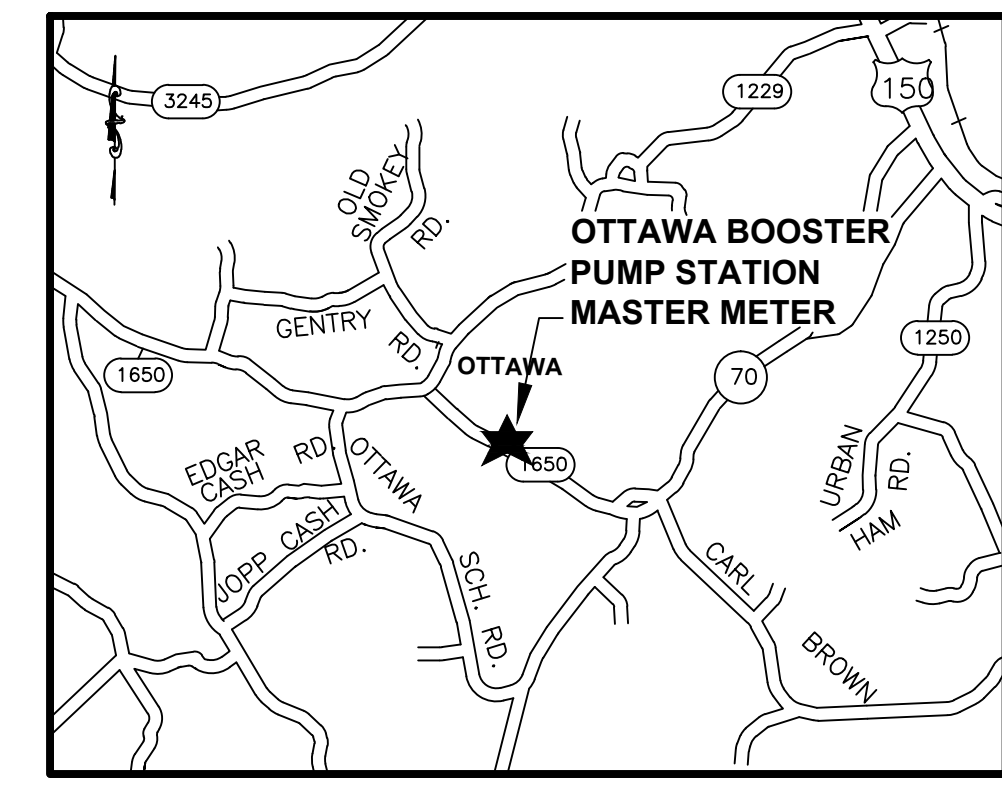
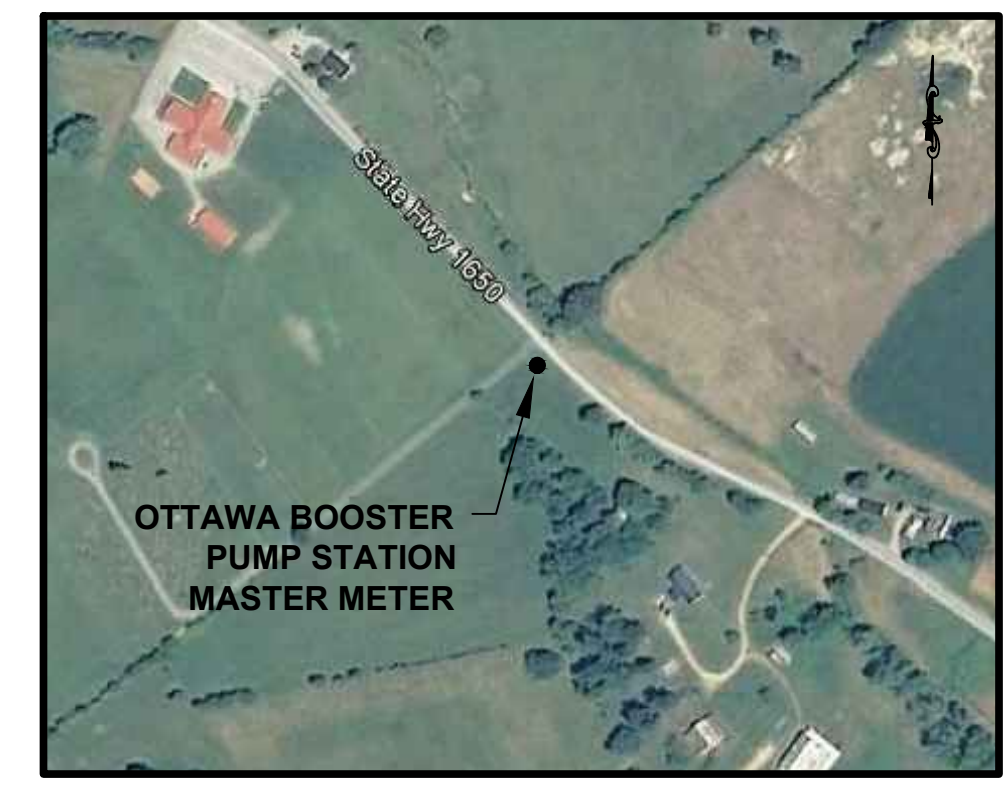


OTTAWA PUMP STATION  
MASTER METER DETAIL SECTION  
MM-1  
A

N.T.S.

EDGE OF STATE HIGHWAY 1650  
(OTTAWA CHURCH ROAD)

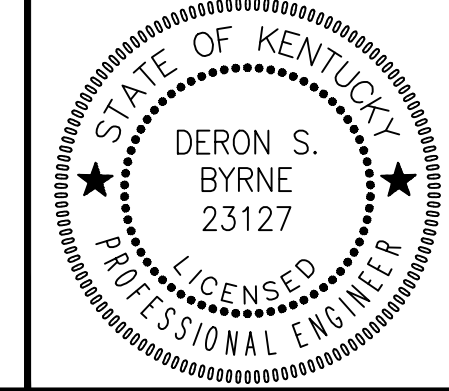
OTTAWA PUMP STATION  
MASTER METER DETAIL SECTION  
SCALE: 1/2" = 1'-0"



## RECORD DRAWINGS

WATER SYSTEM IMPROVEMENTS & EXTENSIONS  
WESTERN ROCKCASTLE WATER ASSOCIATION  
ROCKCASTLE COUNTY, KENTUCKY

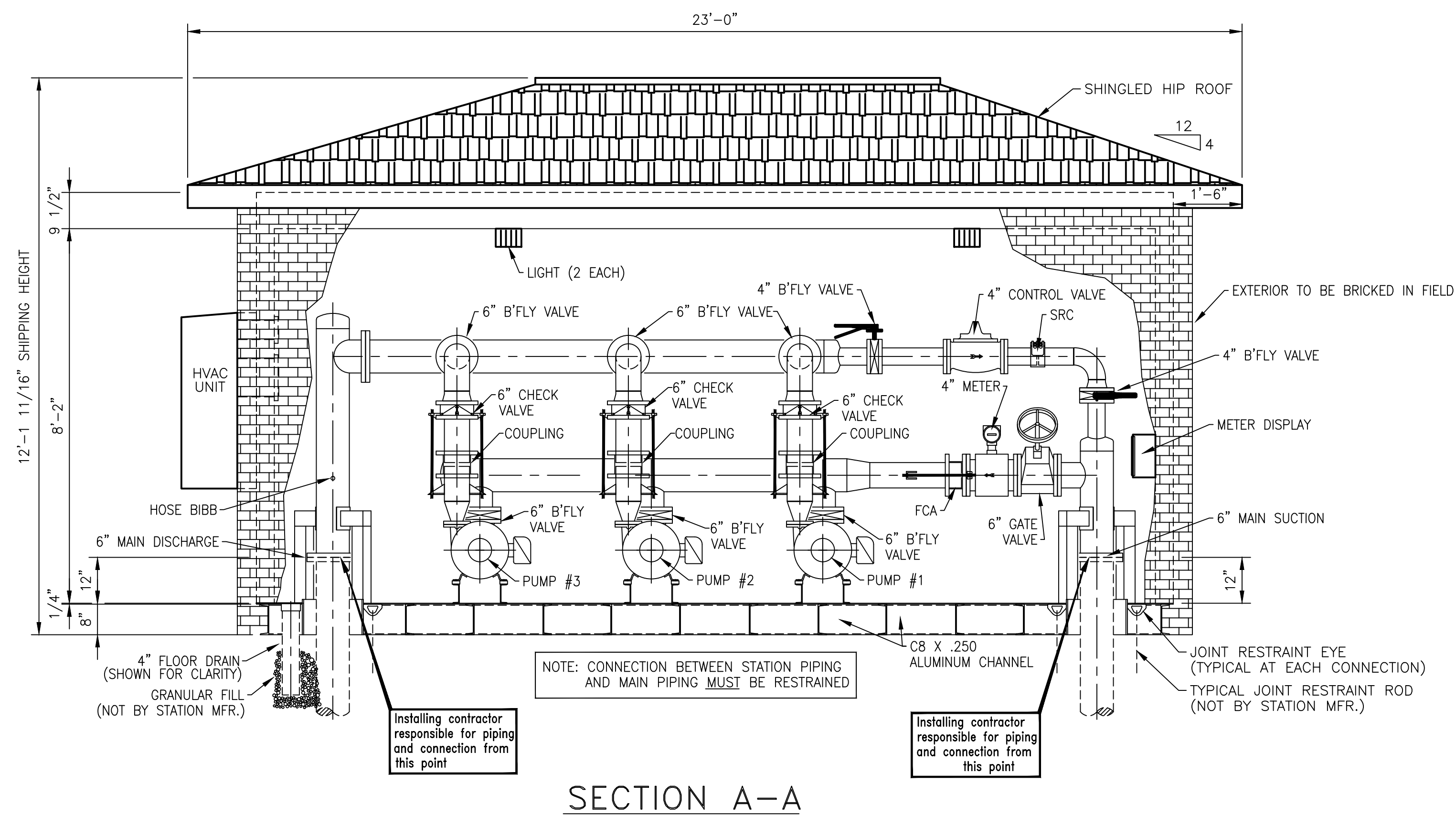
OTTAWA BOOSTER PUMP STATION MASTER METER DETAIL



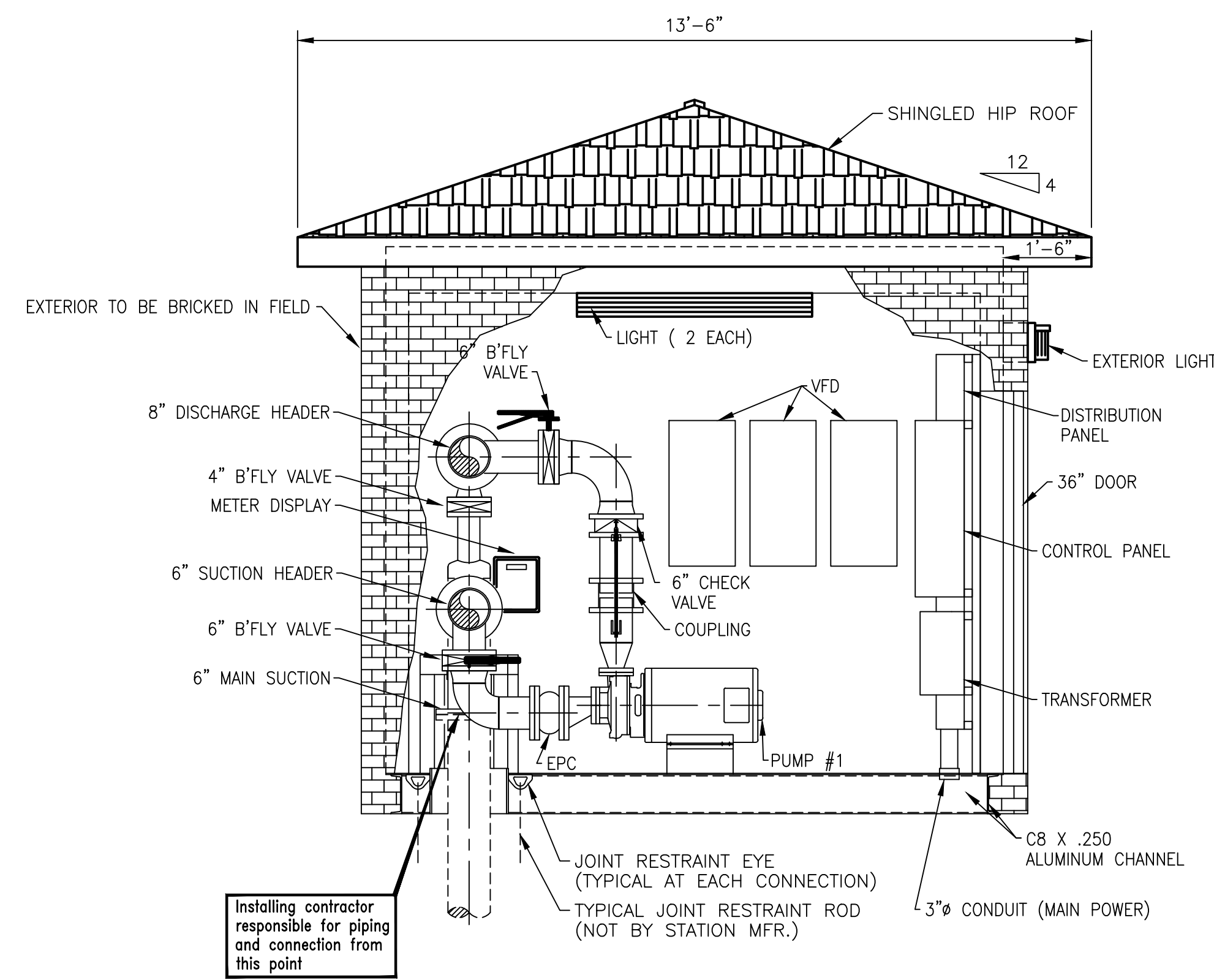
**M**  
Monarch Engineering, Inc.  
556 CARLTON DRIVE  
LAWRENCEBURG, KY 40342

|                 |                |          |             |
|-----------------|----------------|----------|-------------|
| DRAWN BY: BGB   | DATE: AUG 2012 | REVISED: | SHEET       |
| CHECKED BY: DSB | SCALE: N.T.S.  |          | <b>MM-1</b> |
| CHECKED BY: DMB | PROJECT: 1207  |          |             |

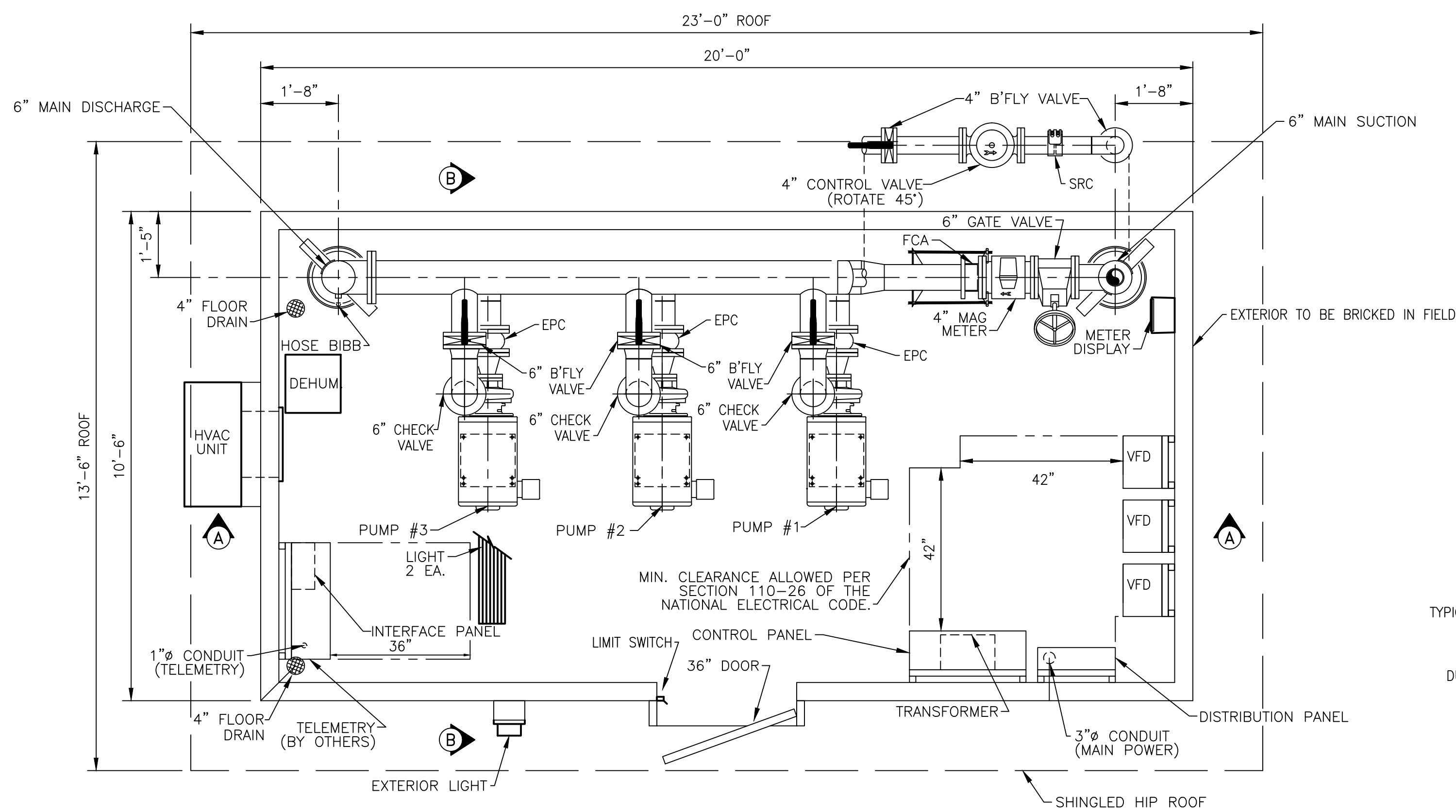




SECTION A-A



SECTION B-B



INTERIOR PLAN

DESIGN CRITERIA

CONTROLS: TELEMETRY (BY OTHERS)  
POWER SERVICE: 480 VOLTS, 3 PHASE, 60 CYCLE

PUMP DATA

TYPE: HORIZ., CLOSE CPLD., END SUCTION  
PUMP: 1, 2 & 3  
CAPACITY: 500 G.P.M., AT 120 FEET T.D.H.  
MOTOR: 25 H.P., 3500 R.P.M.

\* THIS DESIGN IS BASED ON THE SPARLING MODEL 656 MAGNETIC FLOW METER, REQUIRING 3 UPSTREAM AND ZERO DOWNSTREAM STRAIGHT PIPE DIAMETER LENGTHS FOR MAINTAINING STATED ACCURACY LIMITS. SPECIFICATION OR USE OF ANY OTHER MANUFACTURERS FLOW METER WILL NOT KEEP THIS DESIGN WITHIN THE ACCURACY LIMITS OF THAT FLOW METER.

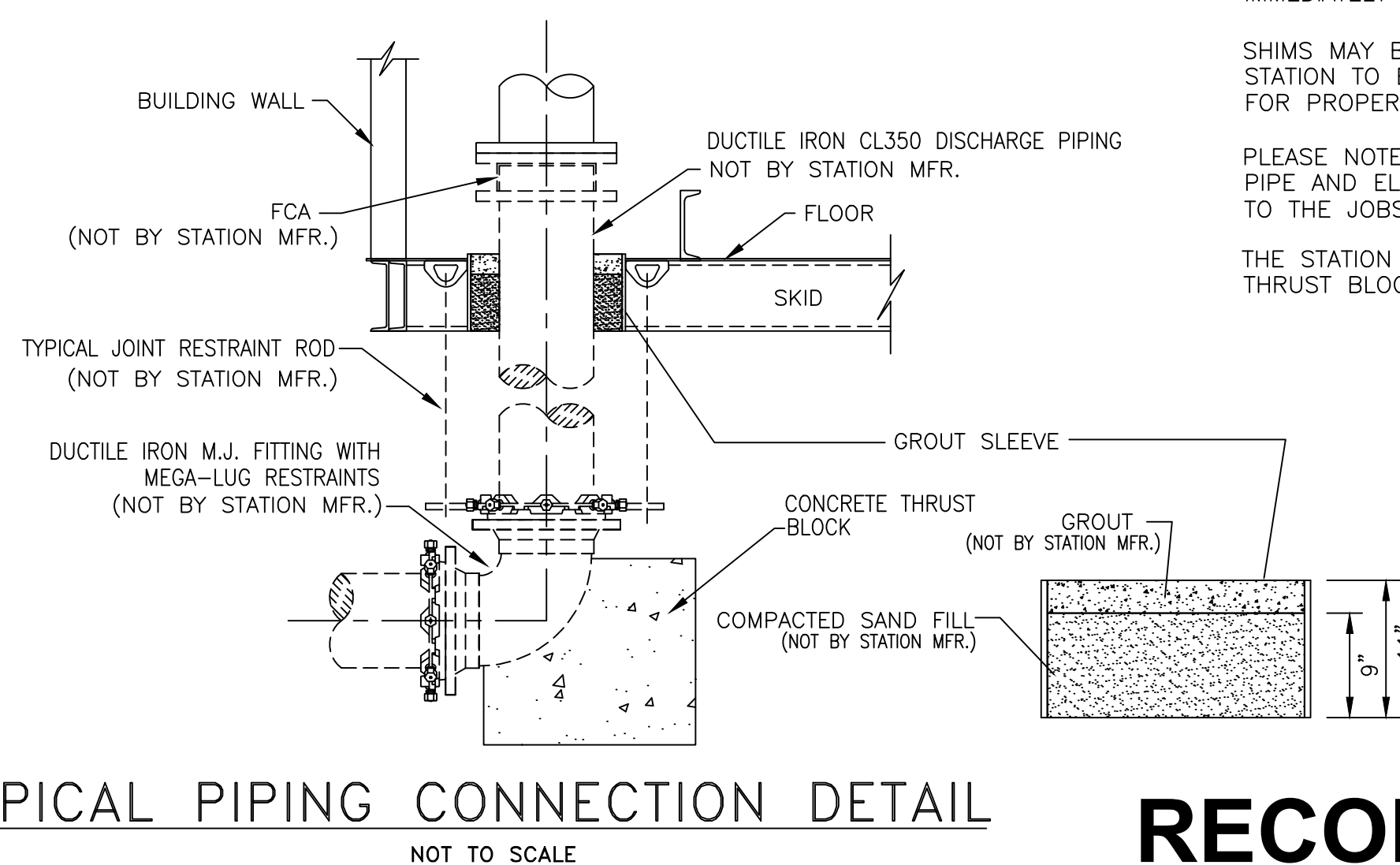
\* EXCEPT FOR PIPE END SUPPORTS, WHICH ARE SHOWN, VERTICAL AND ANGLE PIPE BRACES ARE NOT SHOWN FOR DRAWING CLARITY

GENERAL NOTES:

- ALL STATION PIPING SHALL BE SCHEDULE 40 STEEL PIPE
- MAIN SUCTION & DISCHARGE SHALL BE ANSI STANDARD B16.5, CLASS 150 FLANGE
- ALL PIPING AND EQUIPMENT SHALL BE ADEQUATELY SUPPORTED AND BRACED
- PLATE AND STRUCTURAL STEEL SHALL BE ASTM A-36
- STRUCTURAL TUBING SHALL BE A500, GRADE B
- FCA - FLANGED COUPLING ADAPTER
- EPC - ELASTOMER PIPE CONNECTOR
- SRC - SELF RESTRAINED COUPLING

CONTRACTOR NOTES:

- DEHUMIDIFIER MUST BE POWERED UP AND TURNED ON IMMEDIATELY AFTER THIS STATION IS SET IN PLACE.
- SHIMS MAY BE REQUIRED AROUND PERIMETER OF THE STATION TO ENSURE PROPER LEVEL. THIS IS CRITICAL FOR PROPER DOOR OPERATION.
- PLEASE NOTE ORIENTATION OF THE INLET AND OUTLET PIPE AND ELECTRICAL/TELEMETRY LOCATIONS IN REFERENCE TO THE JOBSITE LAYOUT.
- THE STATION IS NOT DESIGNED TO ACCEPT PIPELINE FORCES THRUST BLOCKING MUST BE PROVIDED EXTERNAL TO THE STATION



TYPICAL PIPING CONNECTION DETAIL  
NOT TO SCALE

RECORD DRAWINGS

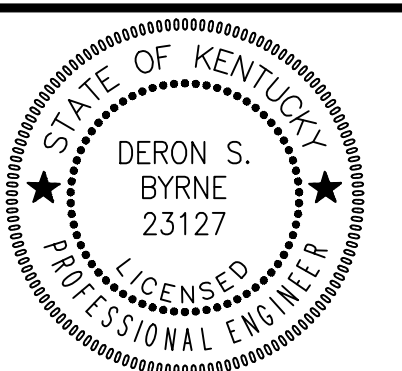
Monarch Engineering, Inc.

556 CARLTON DRIVE  
LAWRENCEBURG, KY 40342

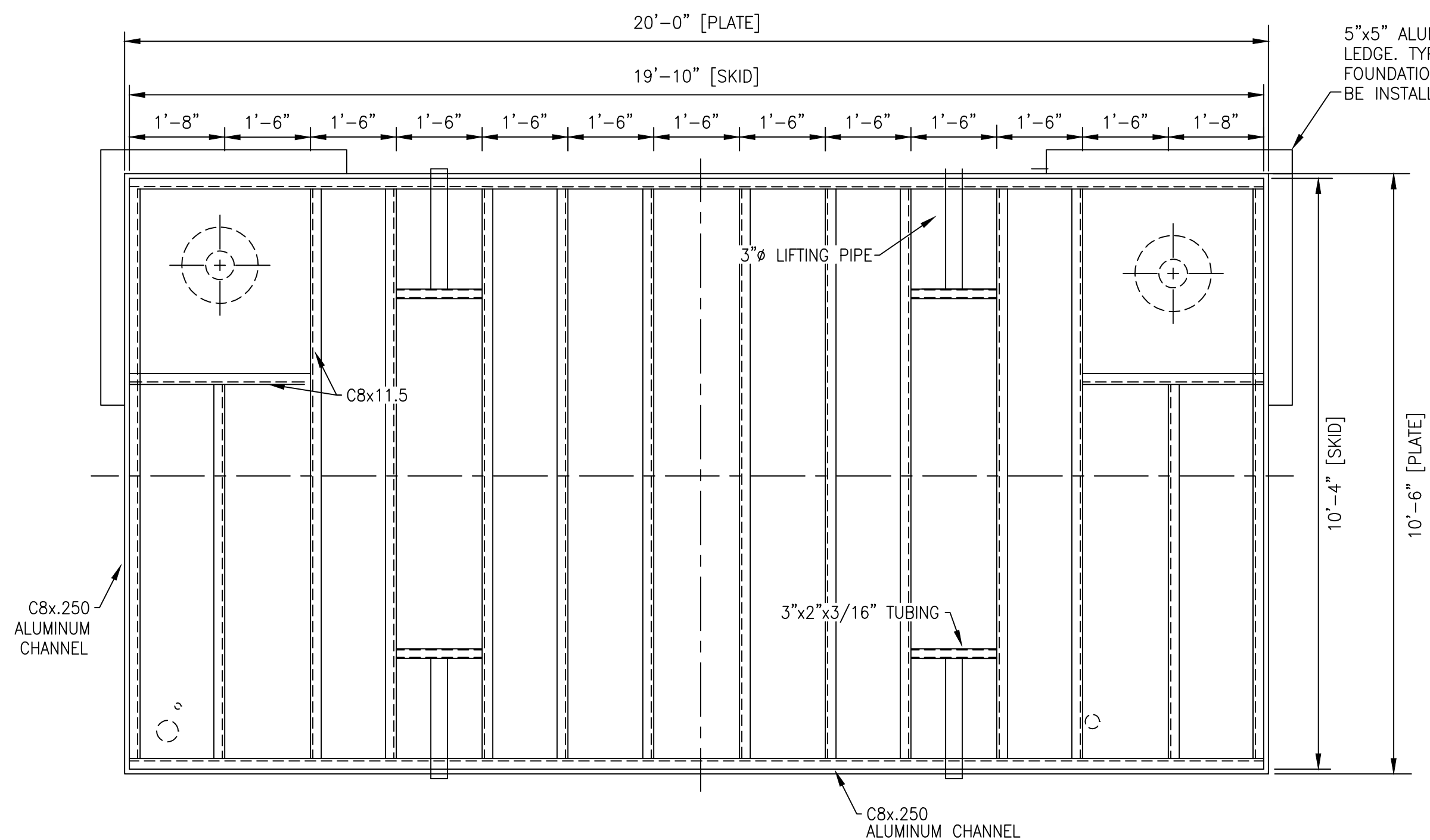
DESCRIPTION: OLD KY 461 (WHITE ROCK ROAD)  
BOOSTER PUMP STATION REPLACEMENT  
CUSTOMER: WESTERN ROCKCASTLE WATER ASSOCIATION  
ROCKCASTLE COUNTY, KENTUCKY

PROJECT NO. 1207  
DATE: FEB 2012  
DRAWN BY: JRC  
CHECKED BY: DSB  
CHECKED BY: DMB  
SCALE: 1/2"=1'-0"

SHEET:  
**BPS-1**

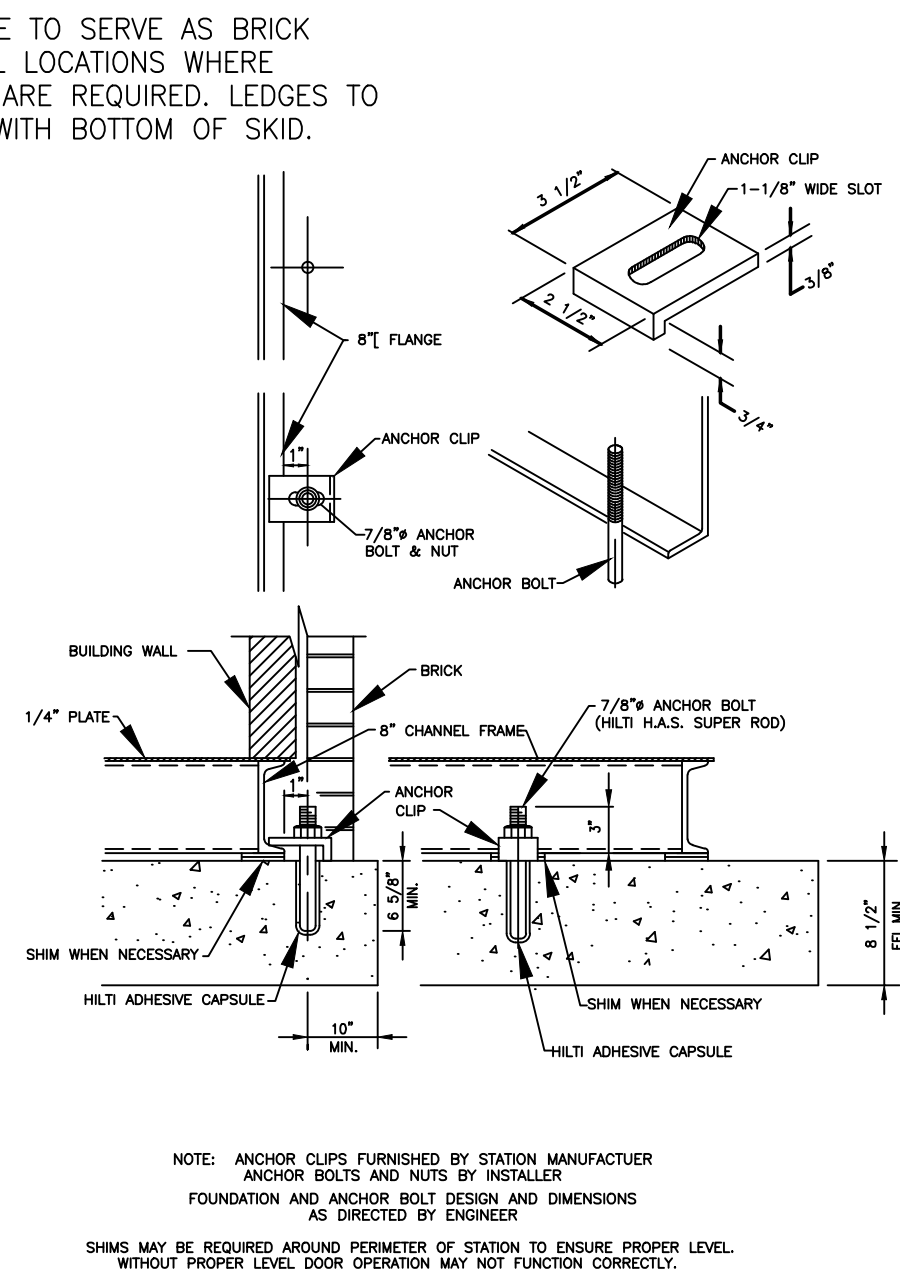






**SKID PLAN**

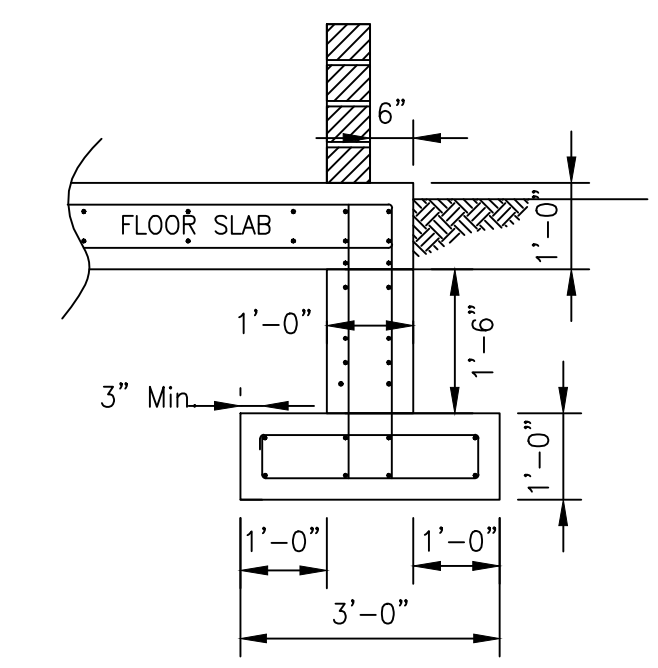
SCALE: 1/2"=1'-0"



**TYPICAL ANCHOR DETAIL**

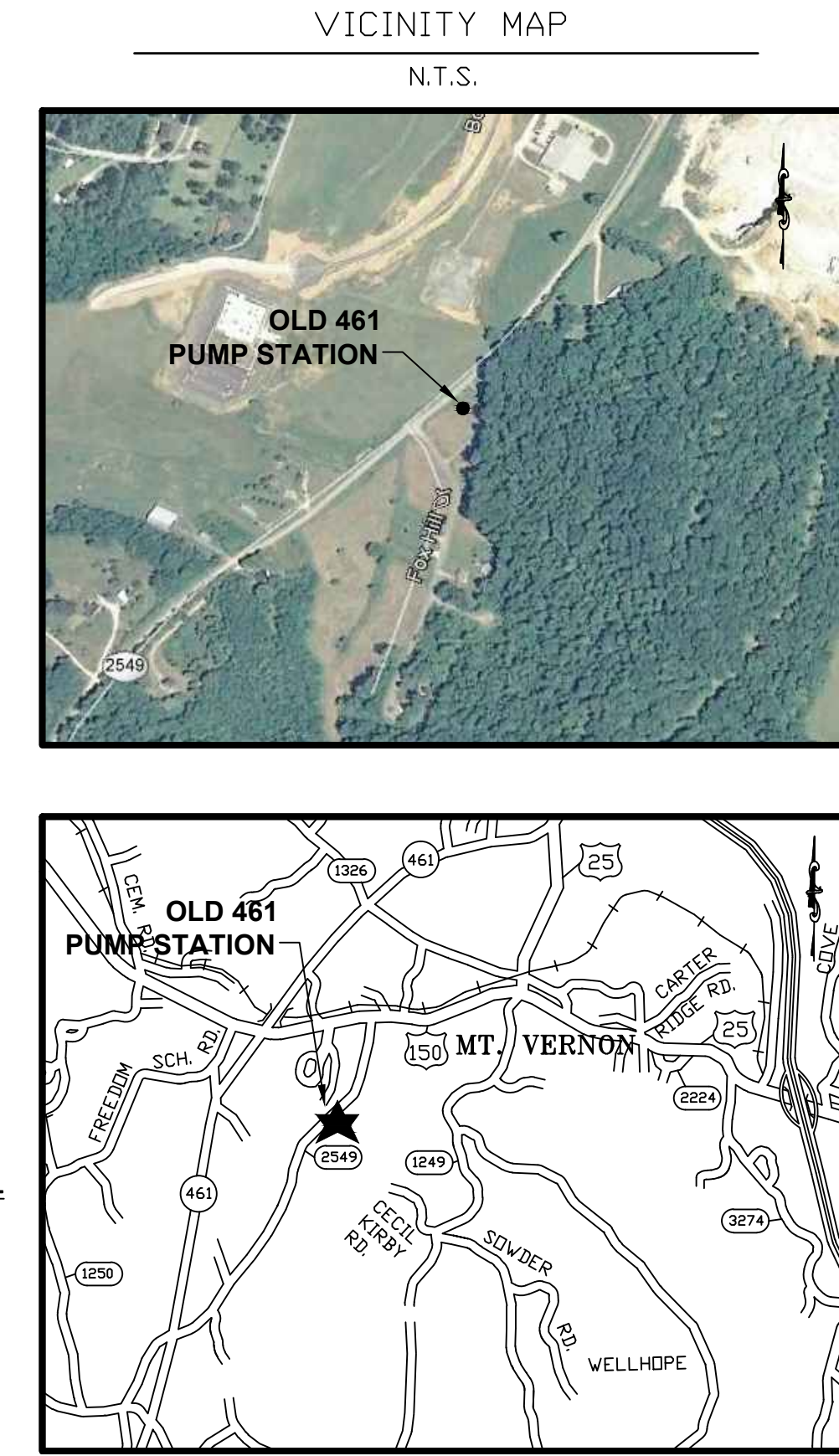
NOT TO SCALE

NOTE: ALL CONCRETE SHALL HAVE #4 BARS 12-INCHES ON CENTER, EACH WAY, BOTH FACES.

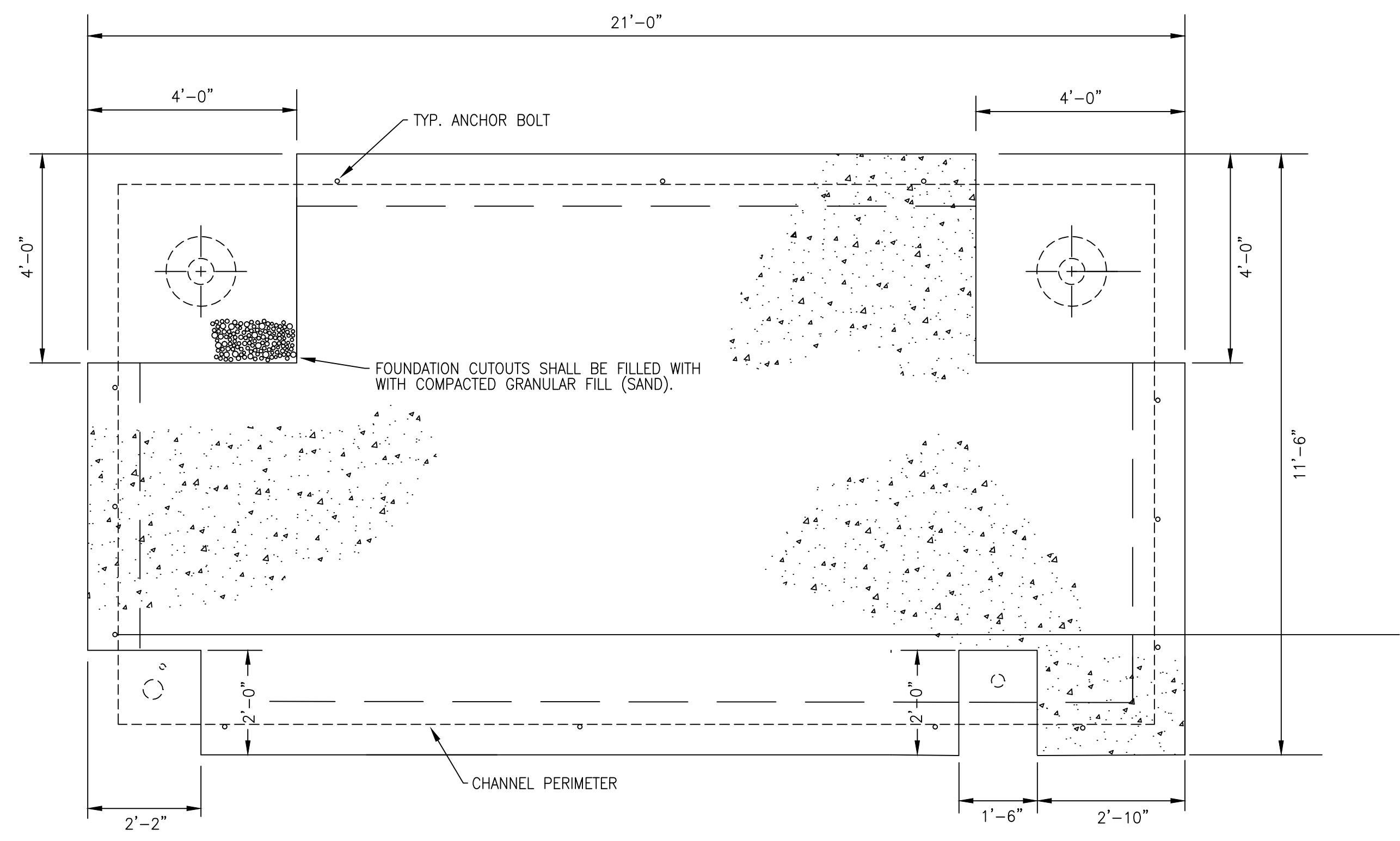


**TYPICAL SECTION FOUNDATION & REINFORCING DETAIL**

NOT TO SCALE

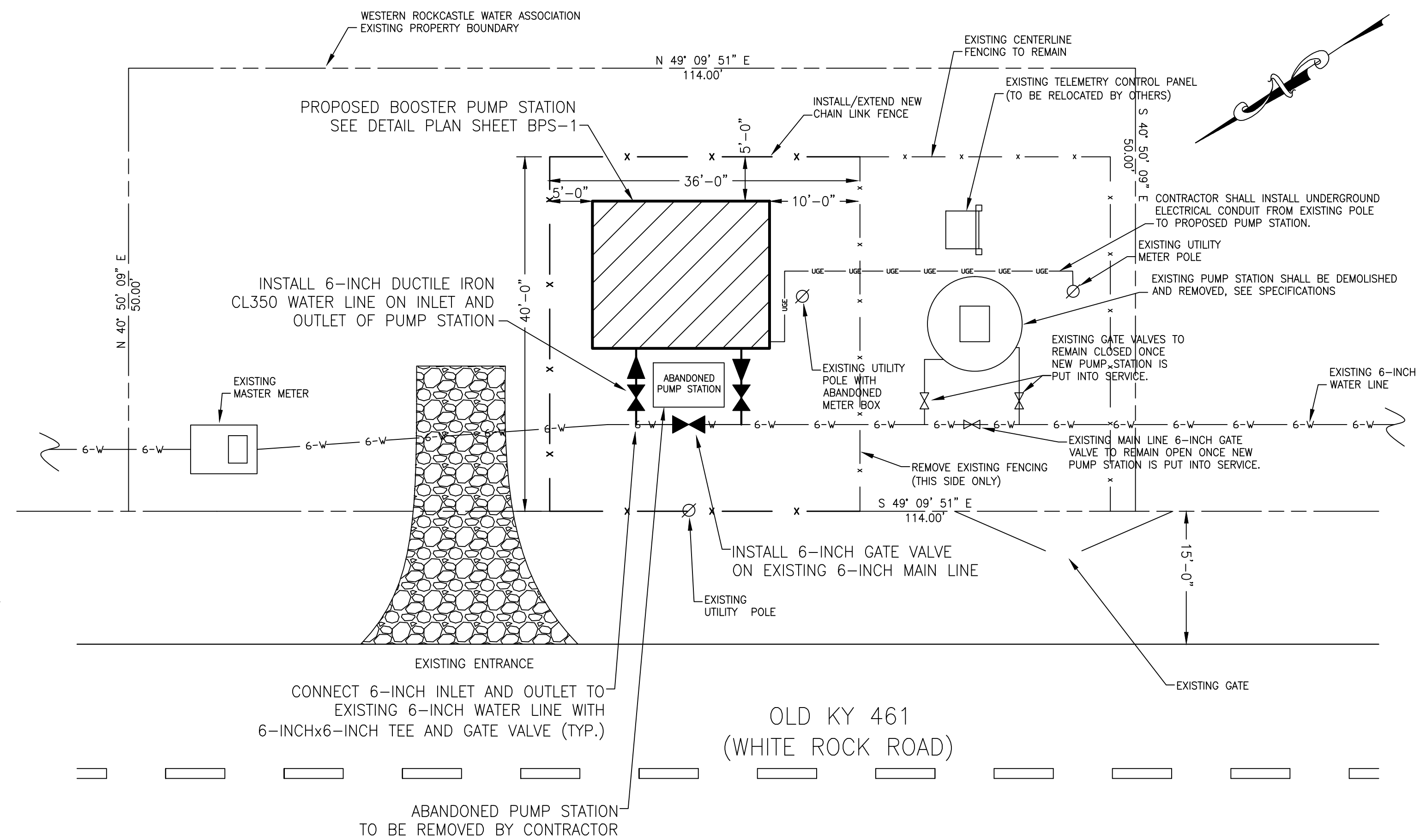


NOTE: FOUNDATION CUTOUT MUST BE PROVIDED TO ACCOMMODATE ADEQUATE SPACE TO CONNECT MAIN PIPING



**FOUNDATION LAYOUT**

SCALE: 1/2"=1'-0"



**SITE PLAN**

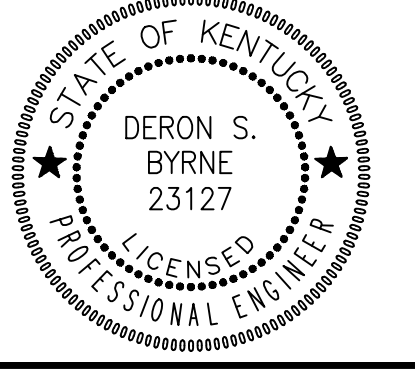
1"=10'

DESCRIPTION:  
 OLD KY 461 (WHITE ROCK ROAD)  
 BOOSTER PUMP STATION REPLACEMENT

CUSTOMER:  
 WESTERN ROCKCASTLE WATER ASSOCIATION  
 ROCKCASTLE COUNTY, KENTUCKY

PROJECT NO. 1207  
 DATE: FEB 2012  
 DRAWN BY: JRC  
 CHECKED BY: DSB  
 CHECKED BY: DMB  
 SCALE: AS NOTED

SHEET:  
**BPS-2**

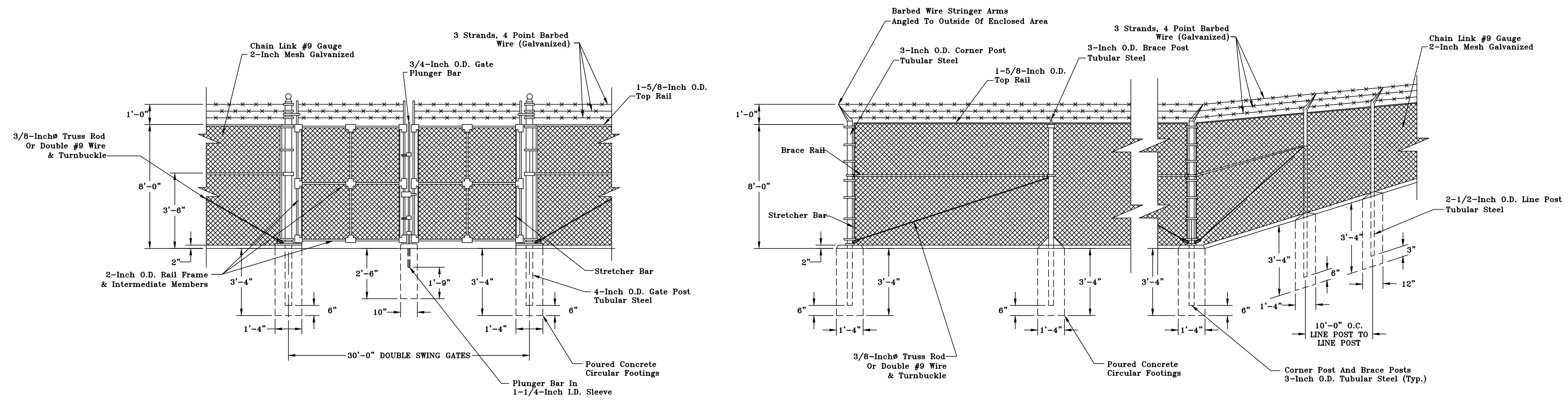


**RECORD DRAWINGS**

**Monarch Engineering, Inc.**

556 CARLTON DRIVE  
 LAWRENCEBURG, KY 40342





**CHAIN LINK FENCE ELEVATION**

Scale: N. T. S.

**M** Monarch Engineering, Inc.

556 CARLTON DRIVE  
LAWRENCEBURG, KY 40342

**FENCING DETAILS**

DESCRIPTION:

CUSTOMER:

**WESTERN ROCKCASTLE WATER ASSOCIATION  
ROCKCASTLE COUNTY, KENTUCKY**

PROJECT NO. 1207

DATE: FEB 2012

DRAWN BY: JRC

CHECKED BY: DSB

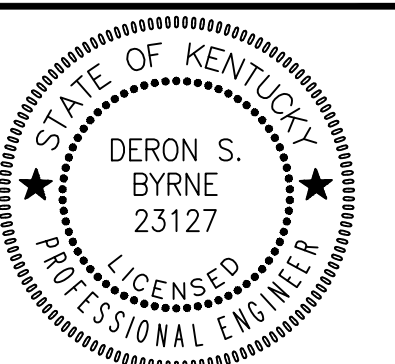
CHECKED BY: DMB

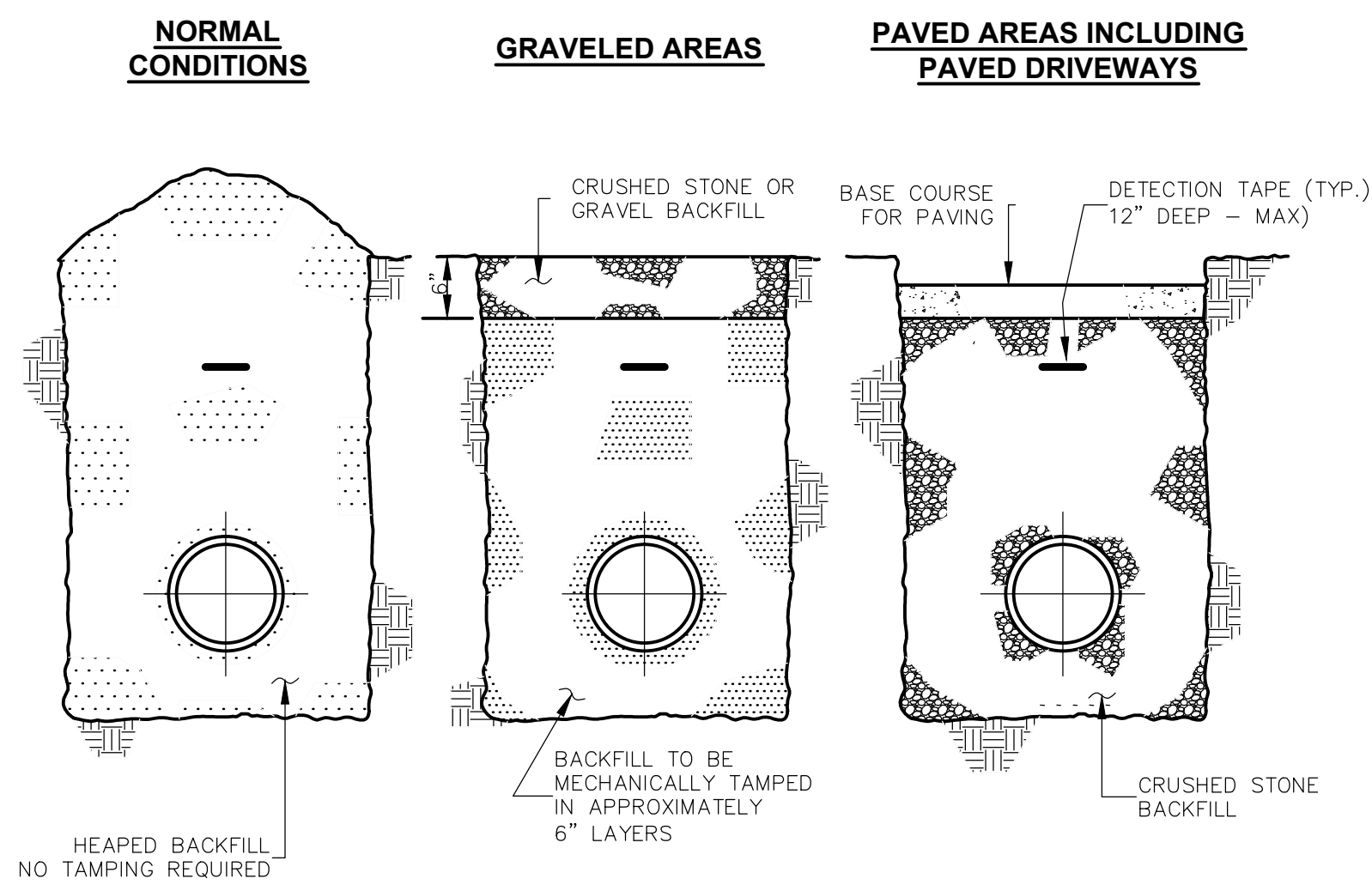
SCALE: AS NOTED

SHEET:

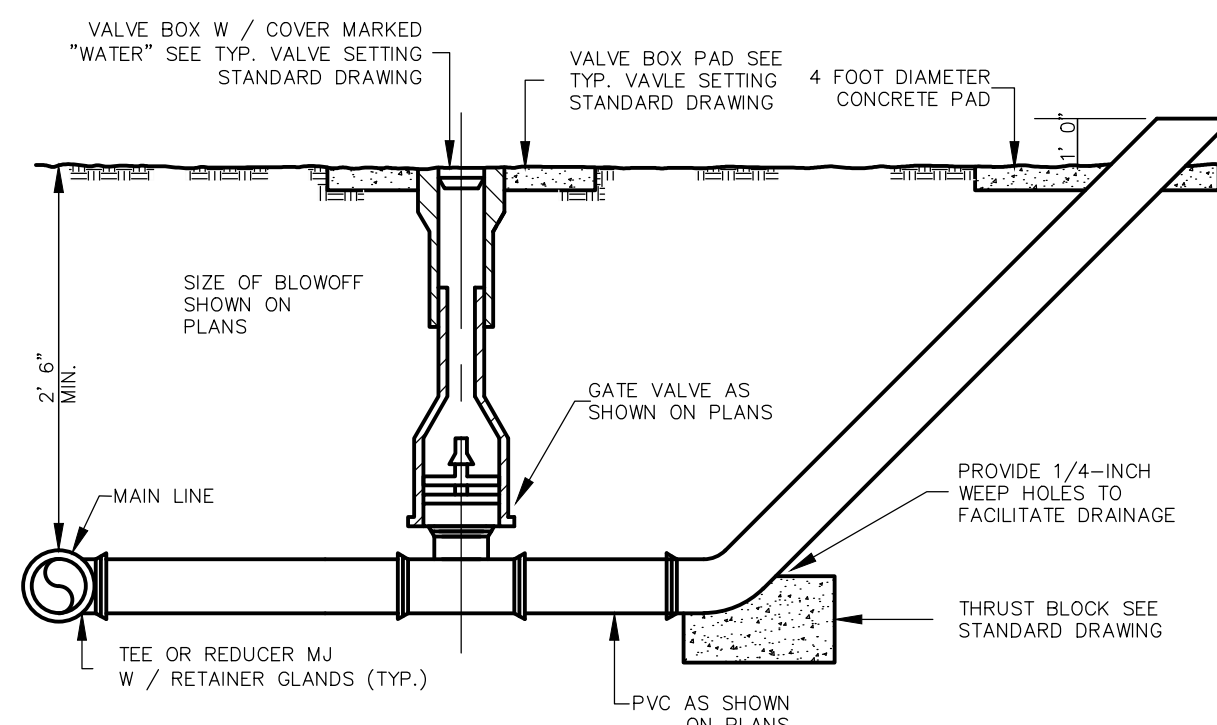
**F-1**

**RECORD DRAWINGS**



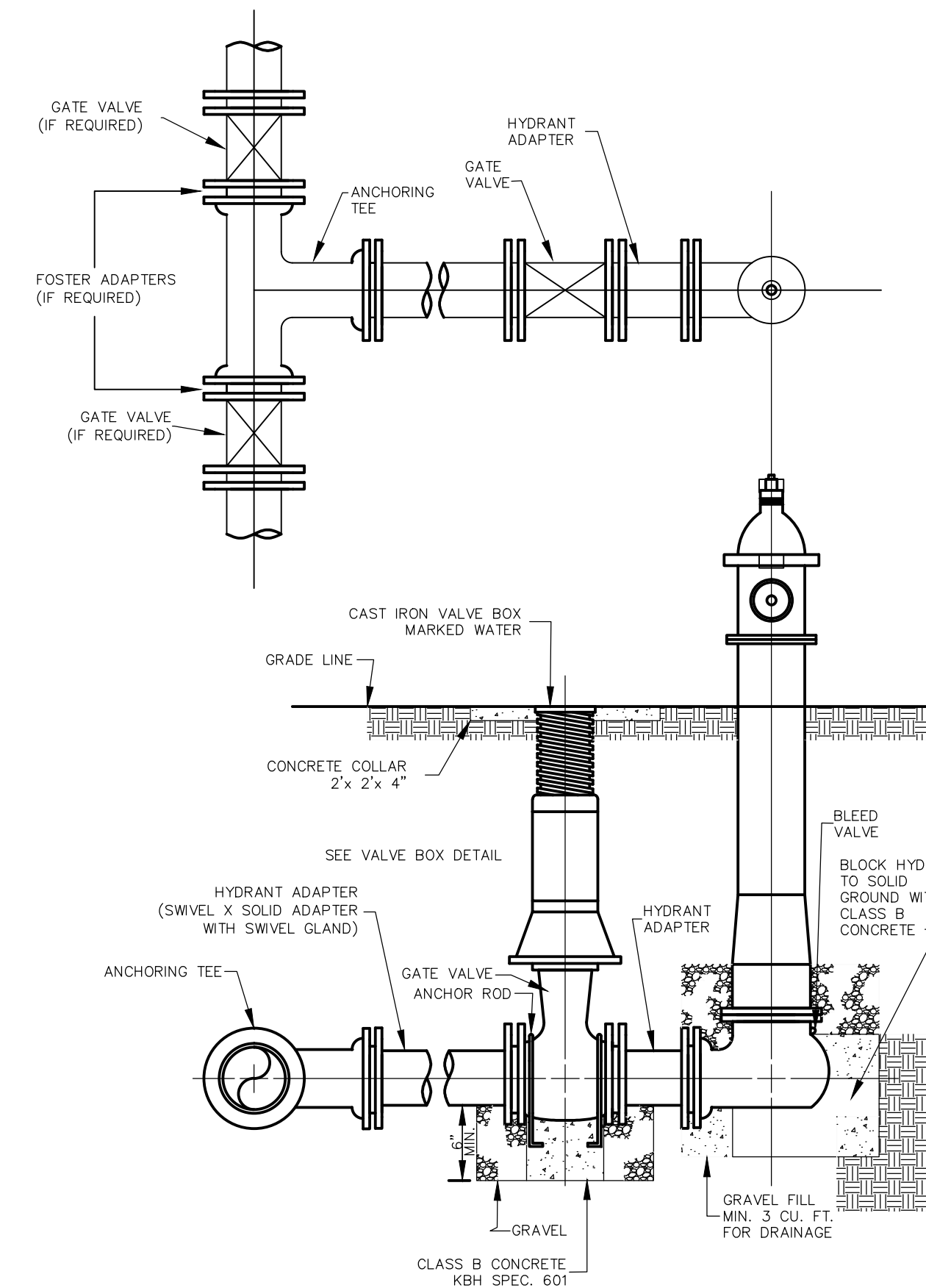


**BACKFILLING**  
N.T.S



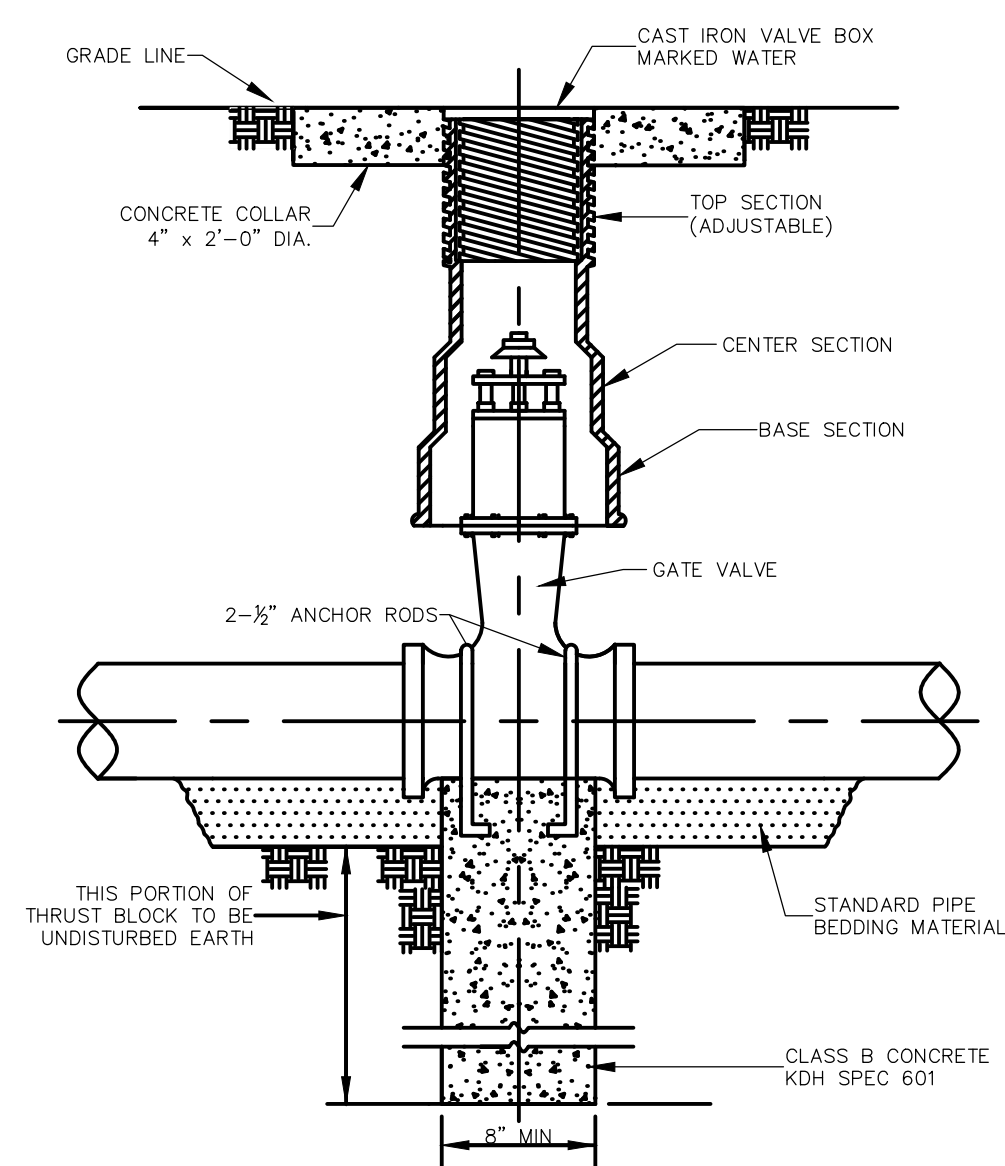
NOTE: WHERE BLOWOFF ASSEMBLIES ARE REQUIRED AT THE END OF A LINE NO TEE OR REDUCER IS REQUIRED. AT THESE LOCATIONS VALVES AND PIPES ARE TO BE THE SAME SIZE AS THE WATER MAIN.

**BLOWOFF DETAIL**  
N.T.S



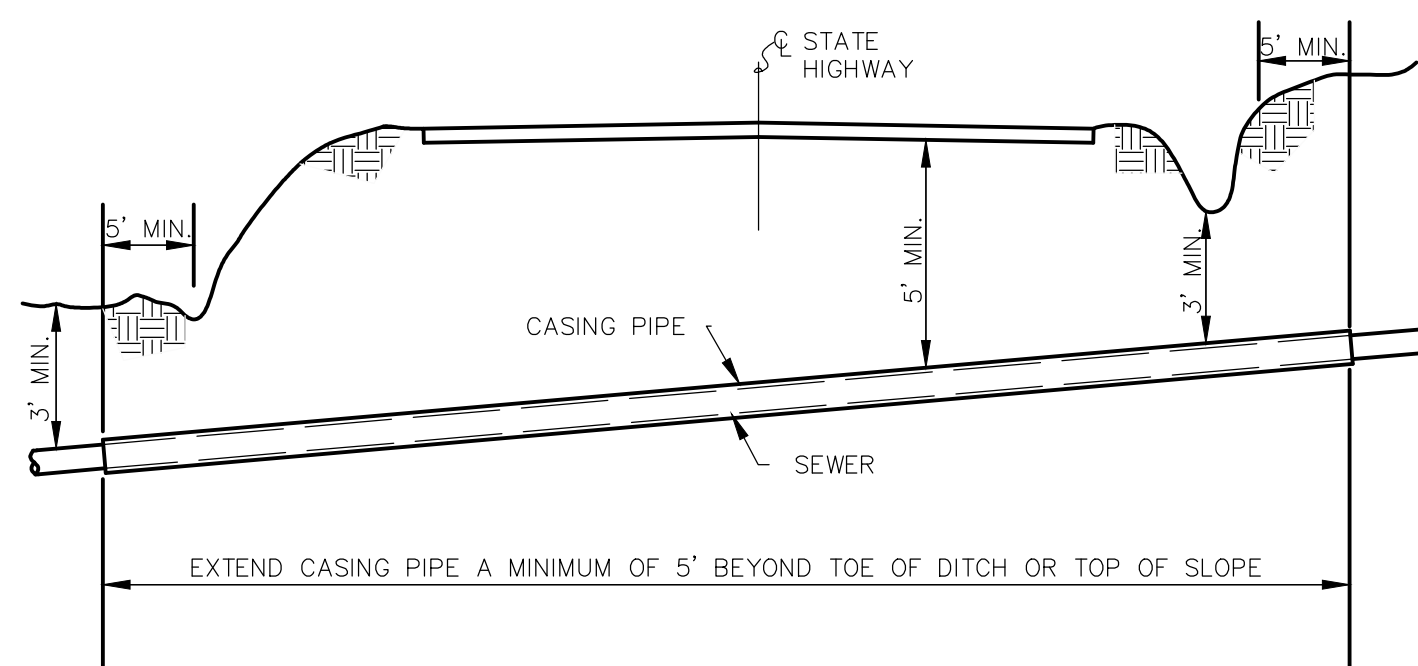
NOTE: SEE SPECIFICATIONS FOR PIPING MATERIALS.  
NOTE: BLEED VALVE NOT TO BE ENCASED IN CONCRETE.

**FLUSH HYDRANT DETAIL**  
N.T.S



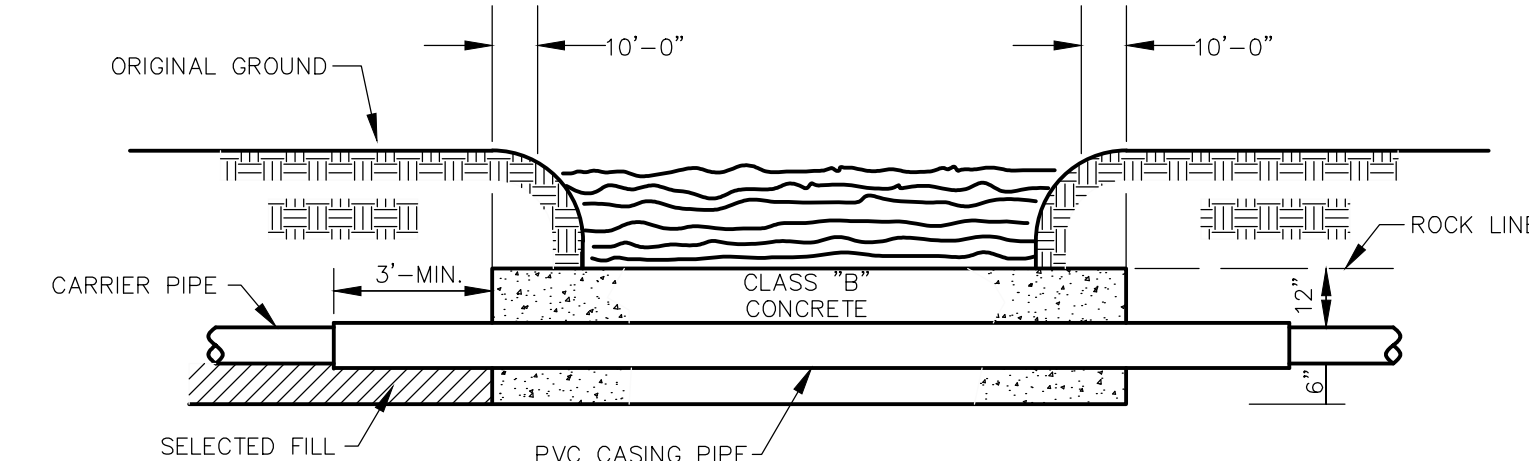
NOTE: SEE SPECIFICATION FOR PIPING MATERIALS AND PIPING JOINTS  
NOTE: CONCRETE TO BE CLASS B KDH SPEC. 601

**GATE VALVE DETAIL**  
N.T.S

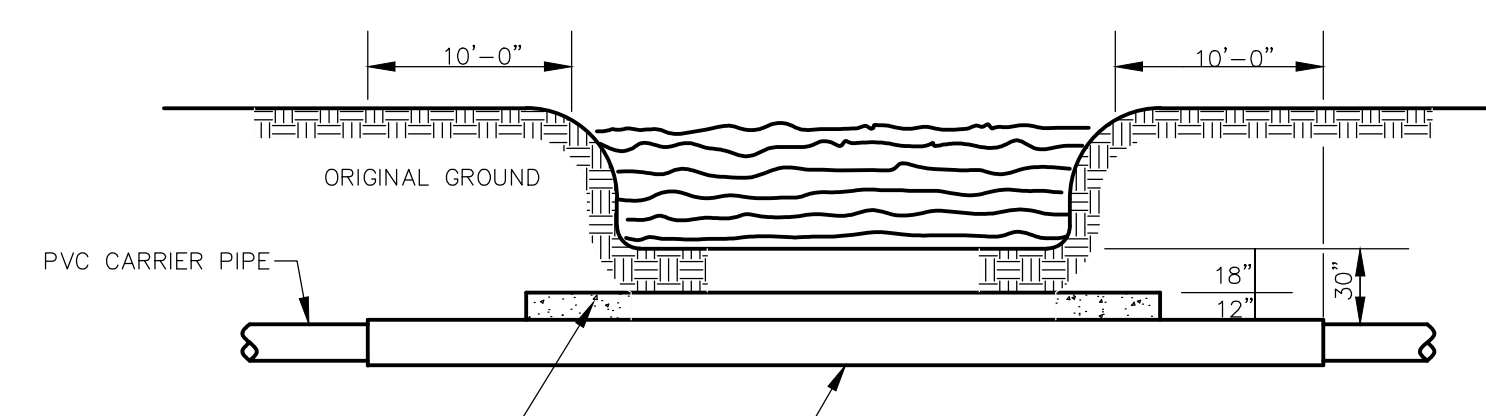


**TYP. STATE HIGHWAY ENCASED BORE CROSSING**

**STATE HIGHWAY ENCASED BORE CROSSING**  
N.T.S



**CREEK CROSSING IN SOLID ROCK**



CONCRETE COVER ON CREEK CROSSINGS GREATER THAN 15 FEET MEASURED SHORE TO SHORE ALONG CENTERLINE OF PIPE  
**CREEK CROSSING IN EARTH**

NOTE: ENCASEMENT SHALL EXTEND AT LEAST FROM TOP OF BANK TO TOP OF BANK

**CREEK CROSSING DETAILS**  
N.T.S

**RECORD DRAWINGS**

**Monarch Engineering, Inc.**

556 CARLTON DRIVE  
LAWRENCEBURG, KY 40342

MISCELLANEOUS DRAWINGS

WESTERN ROCKCASTLE WATER ASSOCIATION  
ROCKCASTLE COUNTY, KENTUCKY

DESCRIPTION:

CUSTOMER:

PROJECT NO. 1207

DATE: FEB 2012

DRAWN BY: JRC

CHECKED BY: JLM

CHECKED BY: DSB

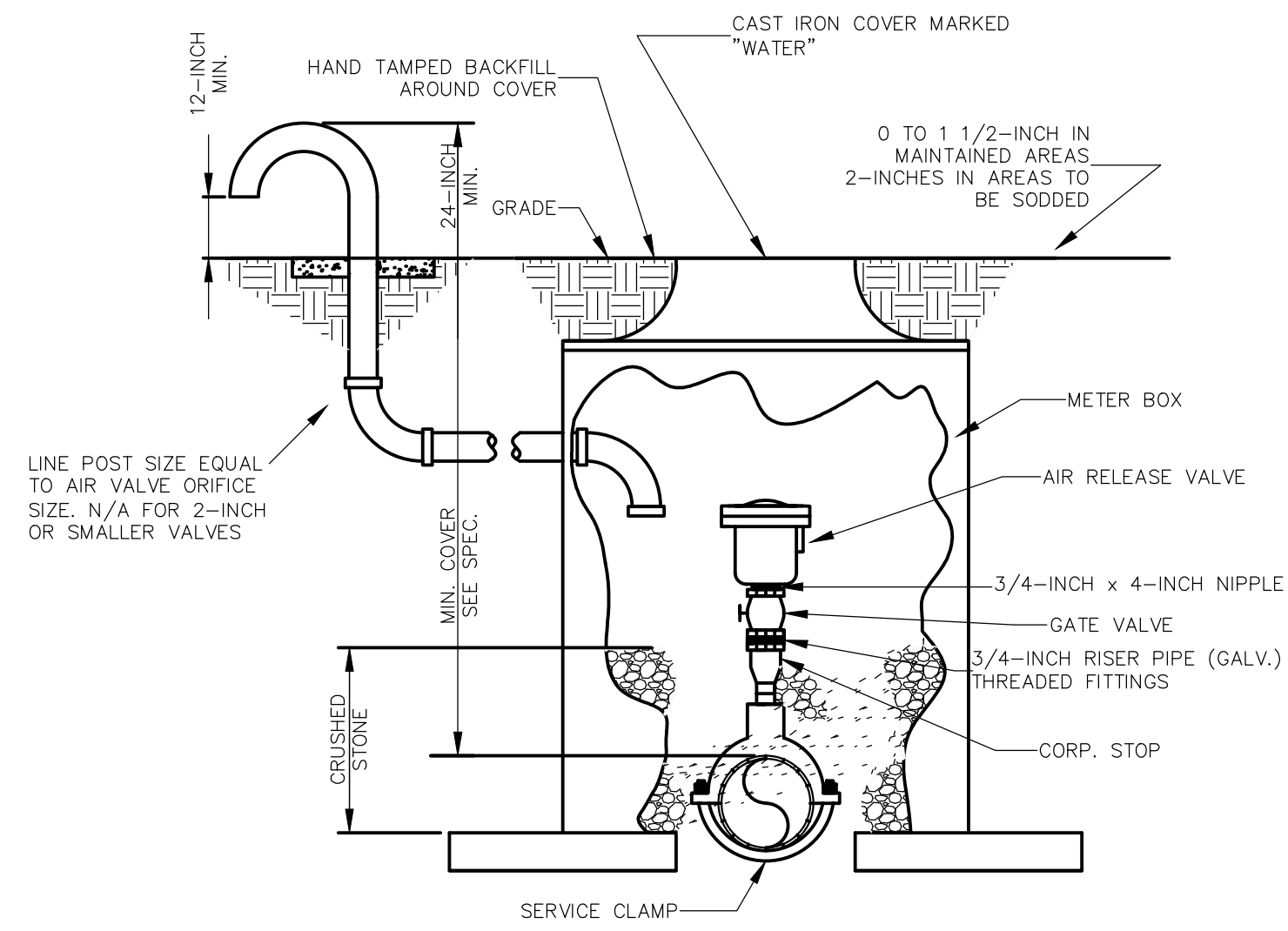
SCALE: AS NOTED

SHEET:

**MD-1**



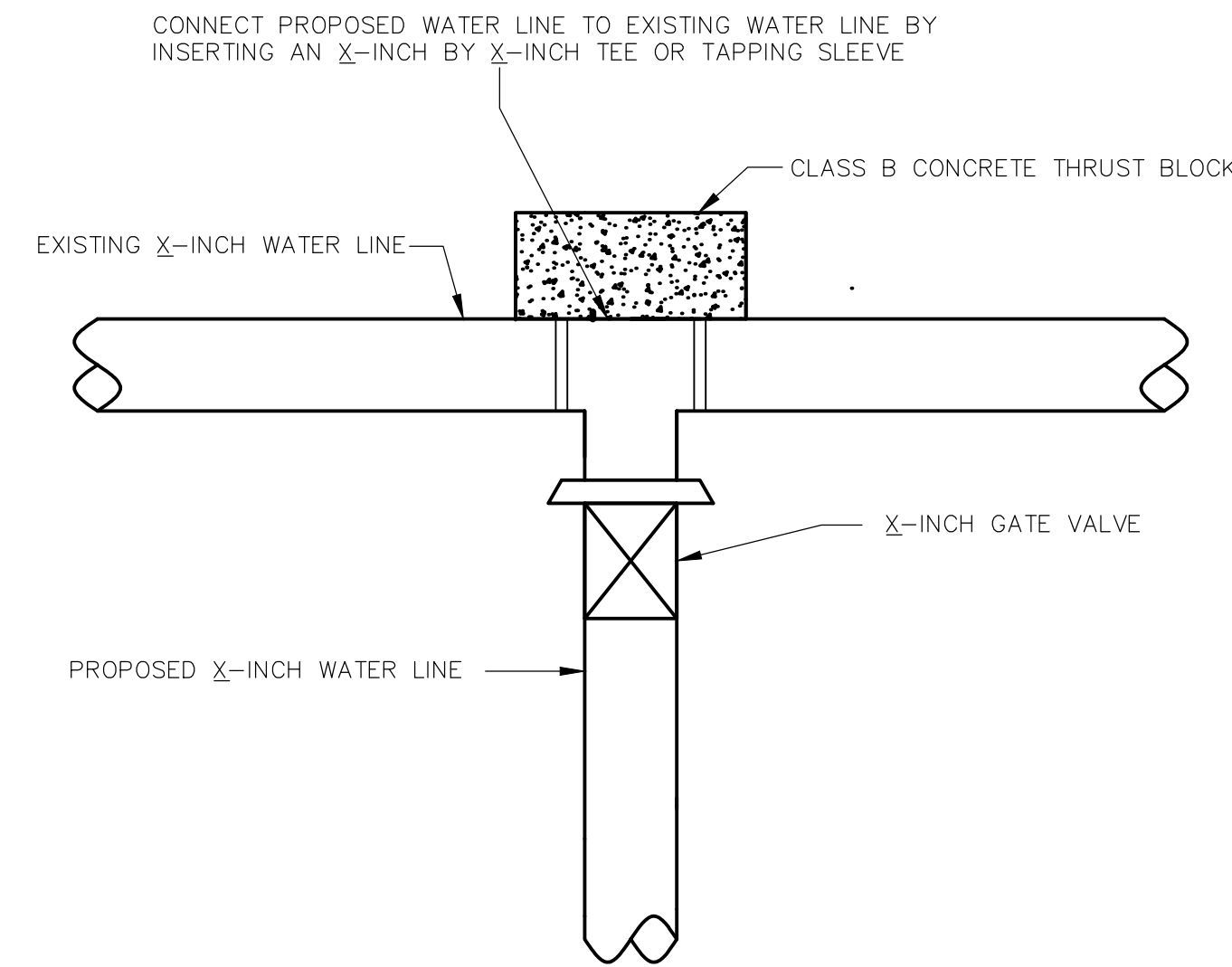




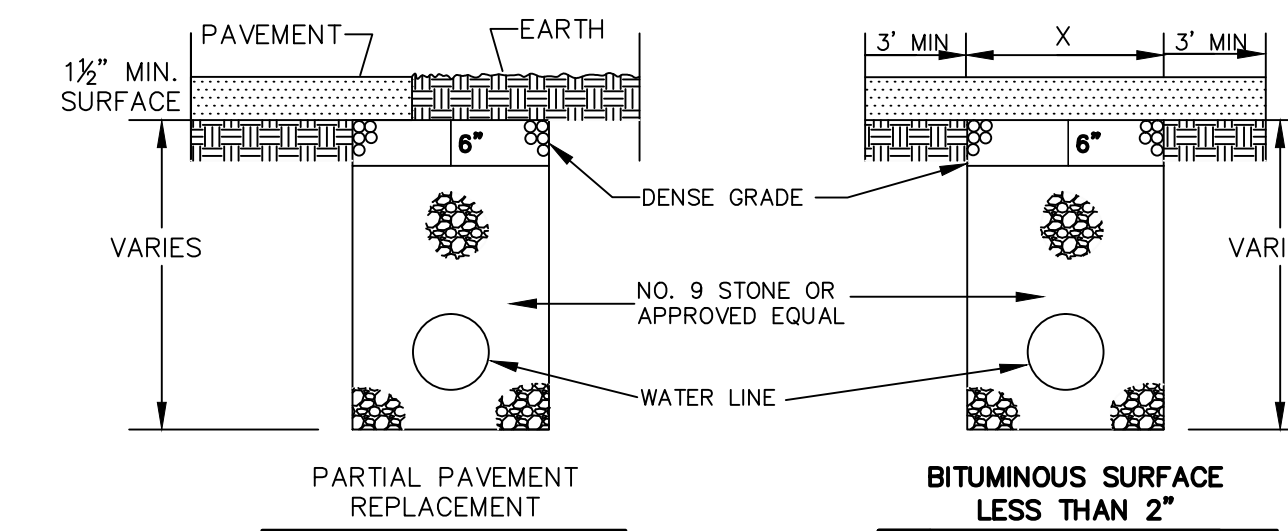
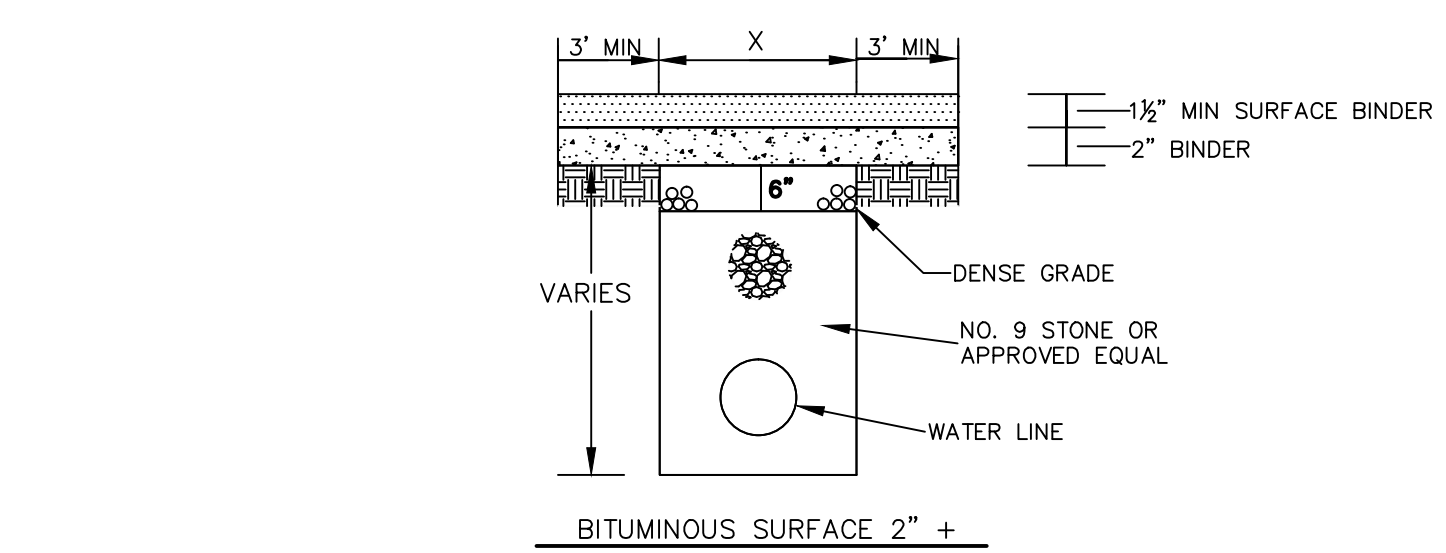
NOTE: WHERE THE WATER LINE IS LOCATED IN A STREET OR ROAD, THE AIR RELEASE VALVE AND BOX ARE TO BE LOCATED OFF THE ROAD AS DIRECTED BY THE ENGINEER AND CONNECTED TO THE MAINLINE BY 3/4-INCH SERVICE PIPE. THE SERVICE PIPE WILL BE A SEPARATE PAY ITEM.

NOTE: 2-INCH x 6-INCH SOLID CONCRETE BLOCKS 4 REQ'D. TO SUPPORT BOX OFF MAINLINE

**AIR RELEASE VALVE**  
N.T.S



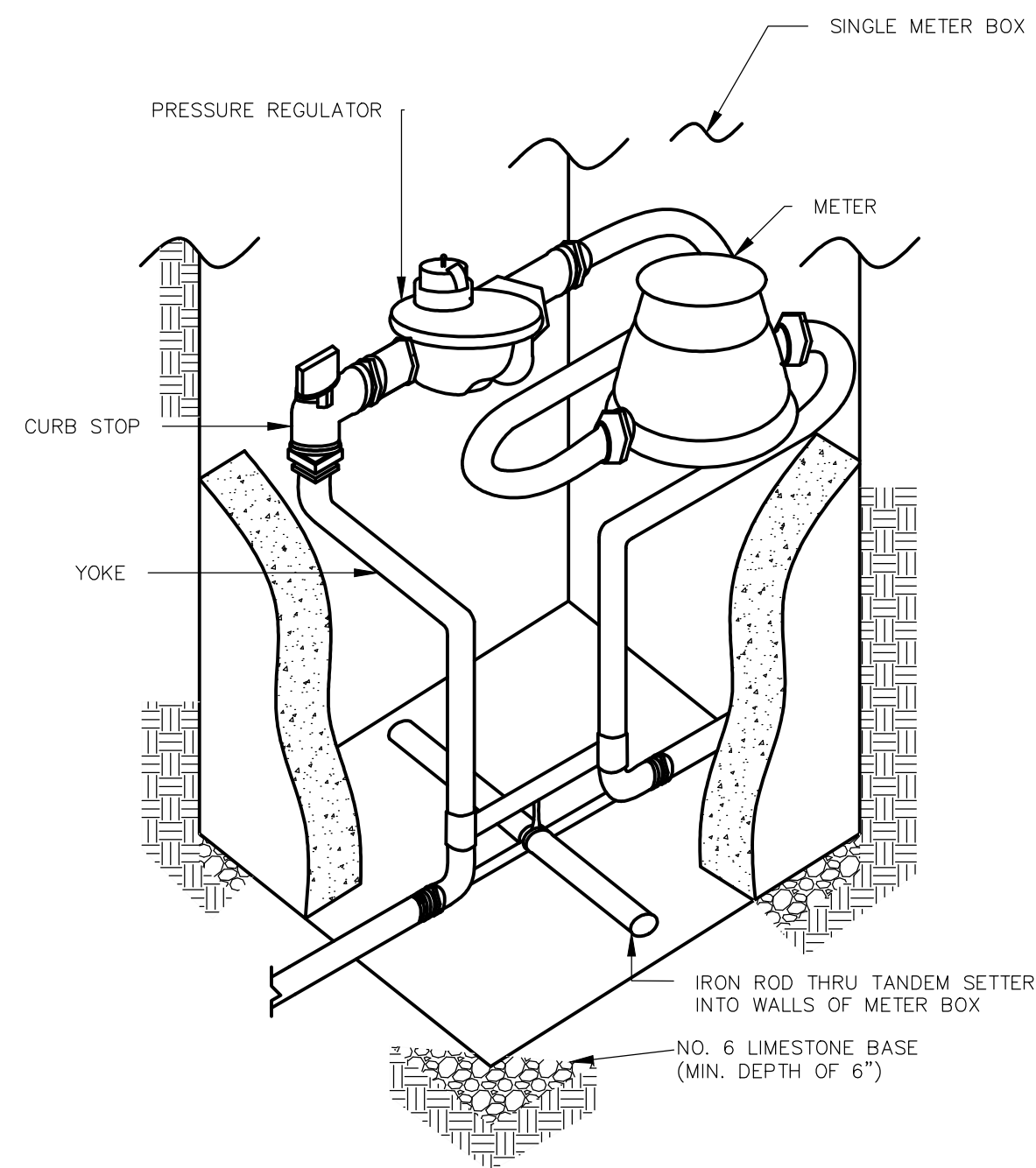
**WATER LINE CONNECTION**  
N.T.S



NOTE: ANY TRENCH THAT DISTURBS PAVEMENT SHALL BE BACKFILLED WITH STONE.

NOTE: REPLACE BITUMINOUS PAVEMENT WITH THE SAME TYPE AND DEPTH AS EXISTING PAVEMENT

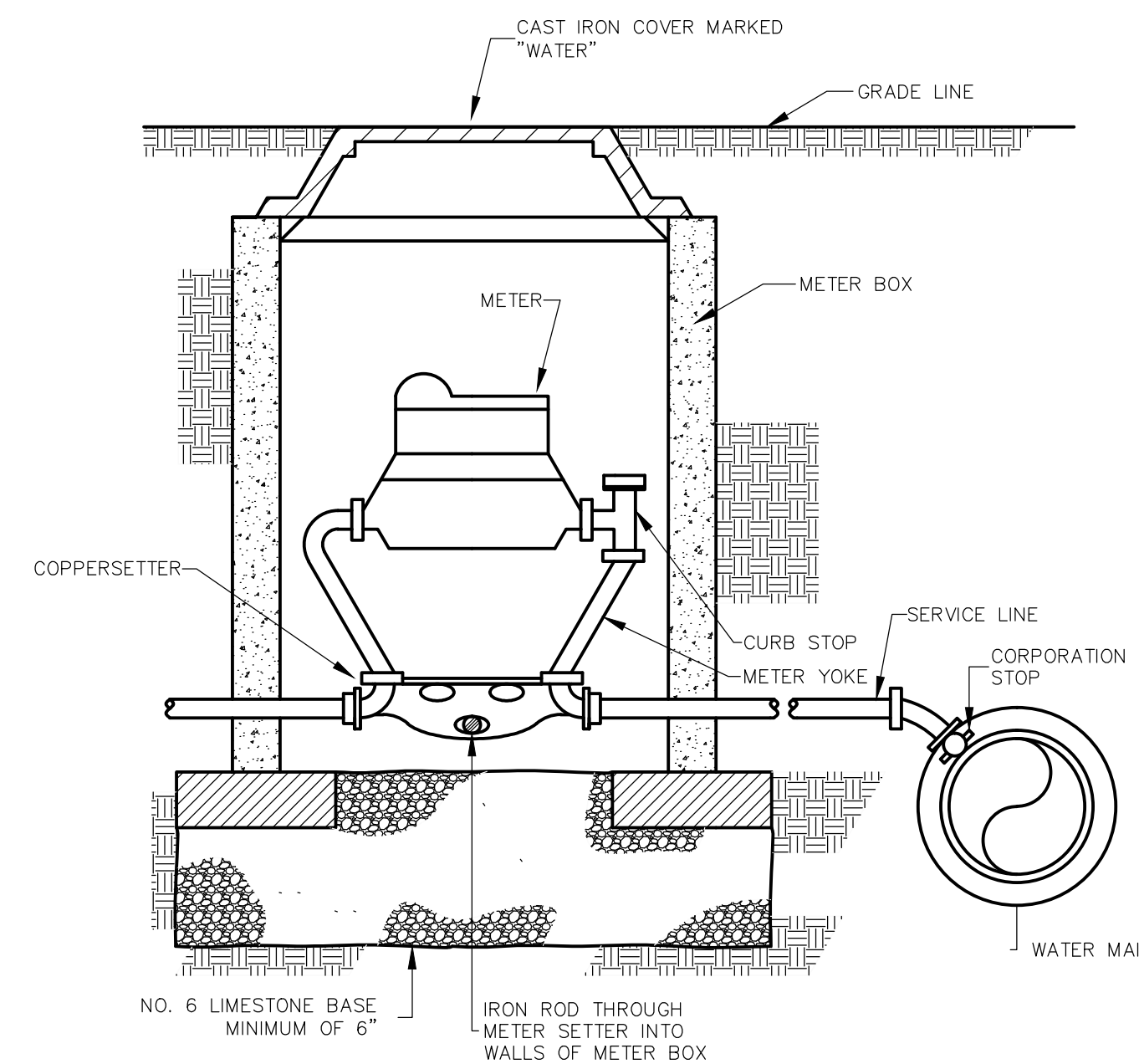
**BITUMINOUS PAVEMENT REPLACEMENT**  
N.T.S



TYPICAL FOR METERS 1-INCH AND SMALLER

NOTE: METER SETTING SHALL BE PLACED 6" INSIDE PROPERTY LINE UNLESS OTHERWISE DIRECTED BY ENGINEER.

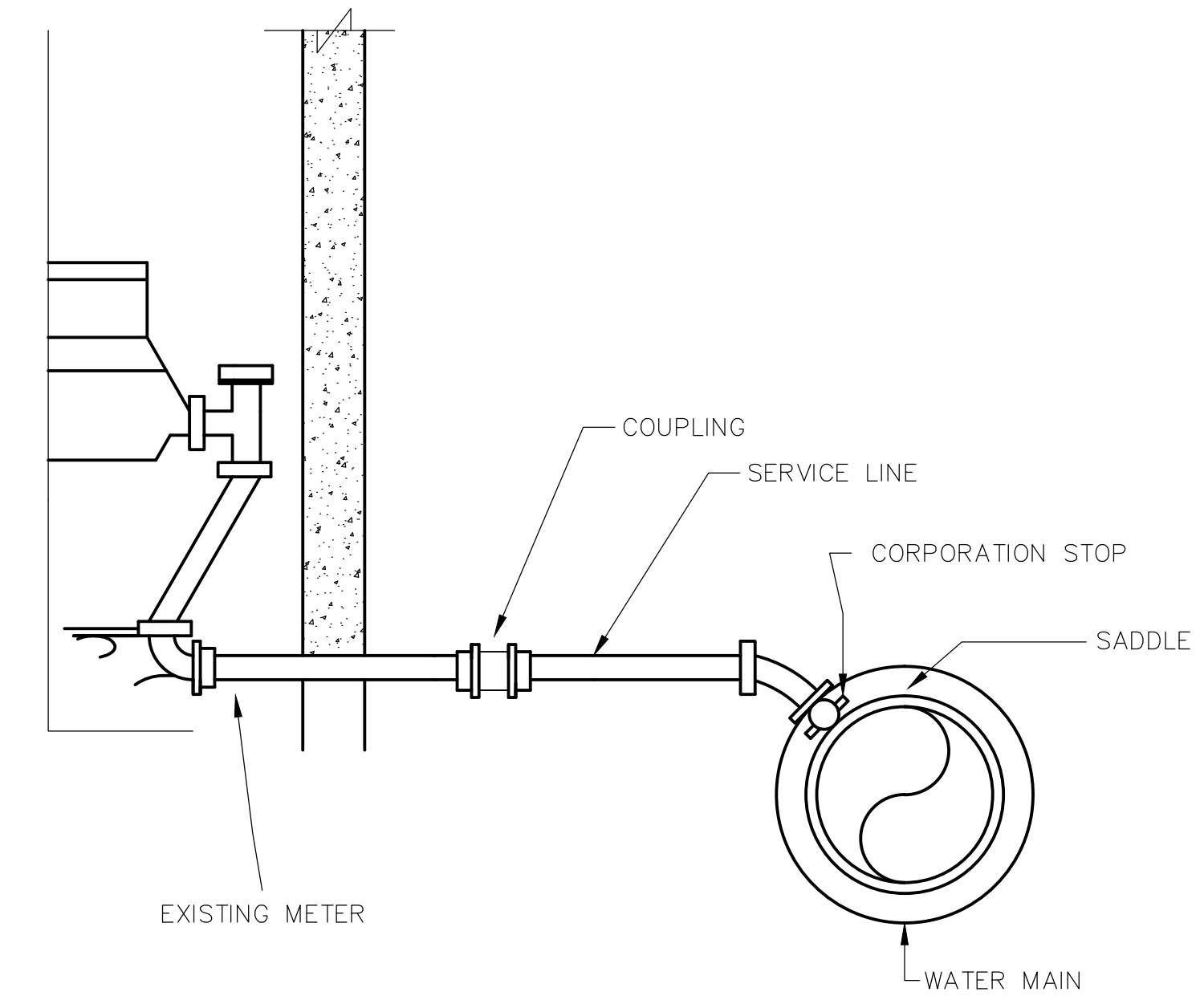
**TANDEM METER SETTING**  
N.T.S



TYPICAL FOR METERS 1-INCH AND SMALLER

NOTE: METER SETTING SHALL BE PLACED 6" INSIDE PROPERTY LINE UNLESS OTHERWISE DIRECTED BY ENGINEER.

**STANDARD METER SETTING AND CONNECTION**  
N.T.S



NOTE: CONNECT NEW SERVICE LINE TO NEW WATER MAIN AND EXTEND TO AND CONNECT TO EXISTING SERVICE LINE.

**METER RECONNECTION**  
N.T.S

**Monarch Engineering, Inc.**

556 CARLTON DRIVE  
LAWRENCEBURG, KY 40342

DESCRIPTION:

MISCELLANEOUS DRAWINGS

CUSTOMER:

WESTERN ROCKCASTLE WATER ASSOCIATION  
ROCKCASTLE COUNTY, KENTUCKY

PROJECT NO. 1207

DATE: FEB 2012

DRAWN BY: JRC

CHECKED BY: JLM

CHECKED BY: DSB

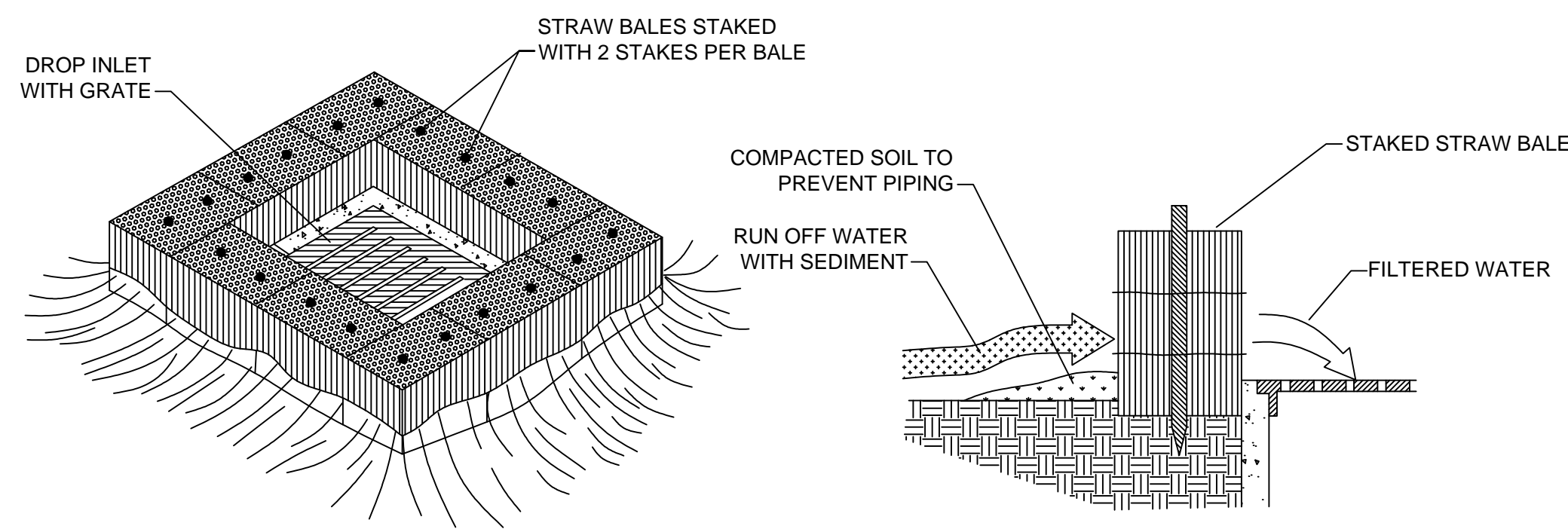
SCALE: AS NOTED

SHEET:

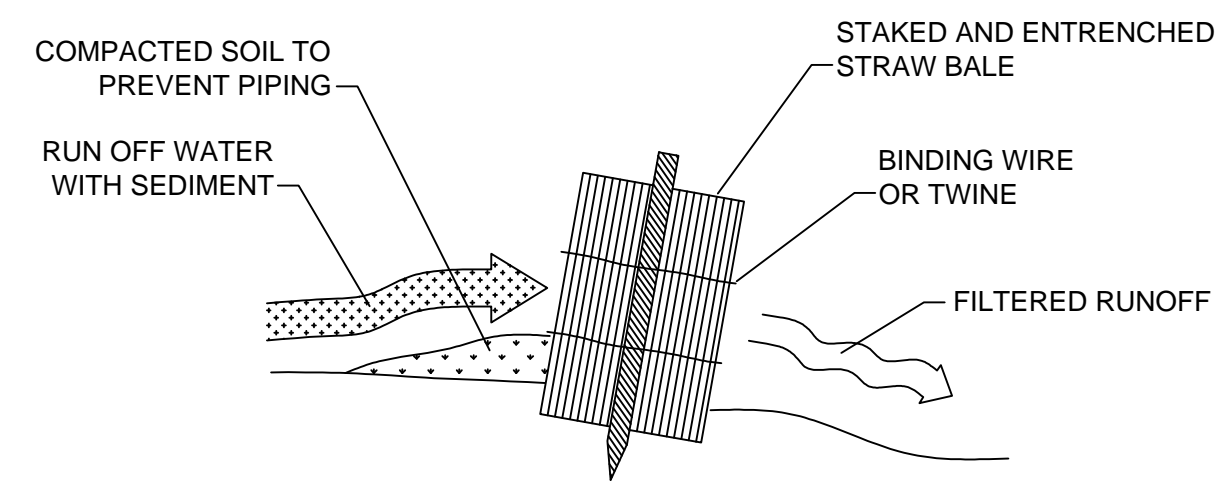
**MD-2**



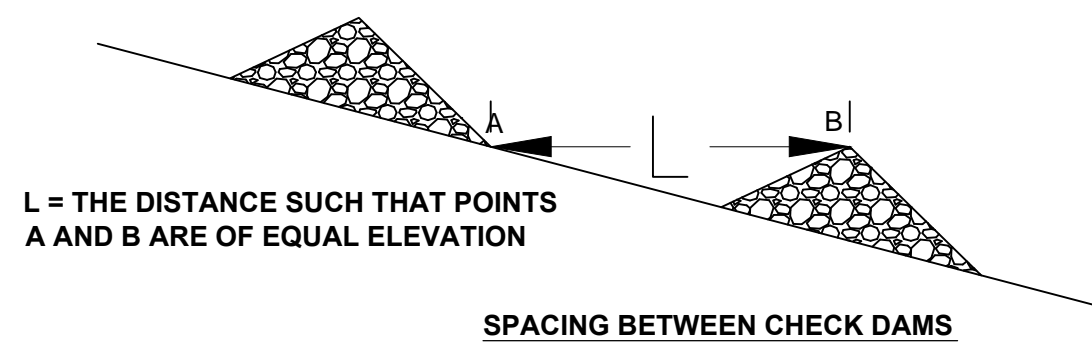
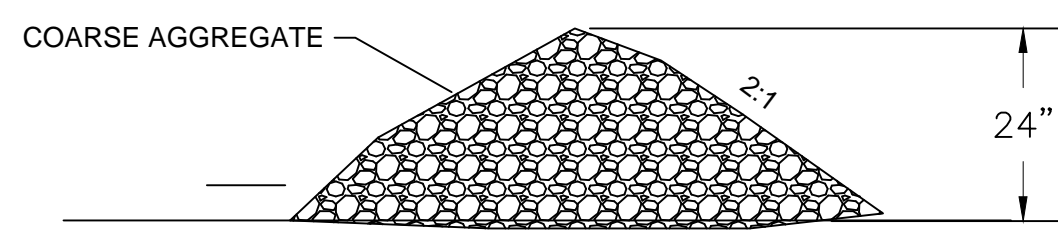
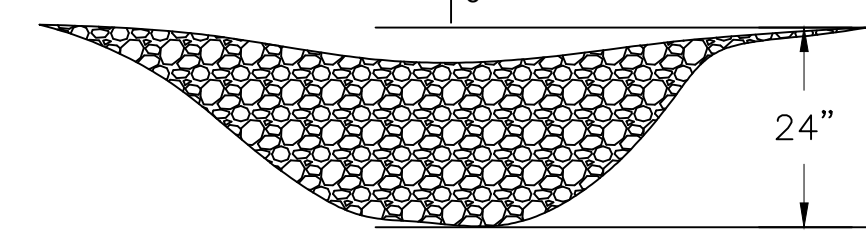
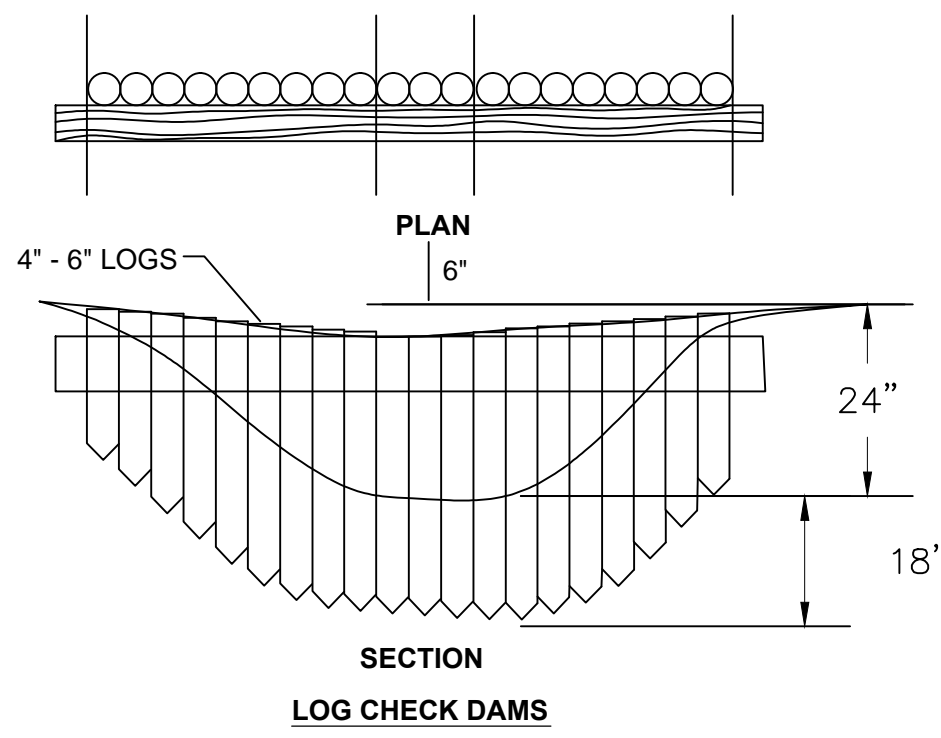
**RECORD DRAWINGS**



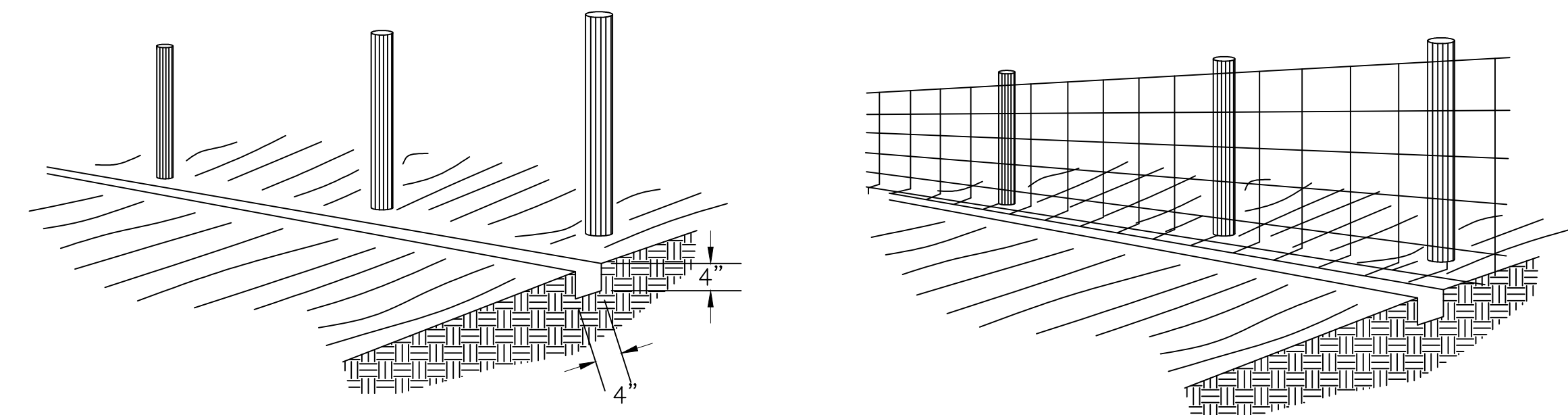
**STRAW BALE DROP INLET SEDIMENT FILTER**  
N.T.S.



**STRAW BALE INSTALLATION PROCEDURES**  
N.T.S.

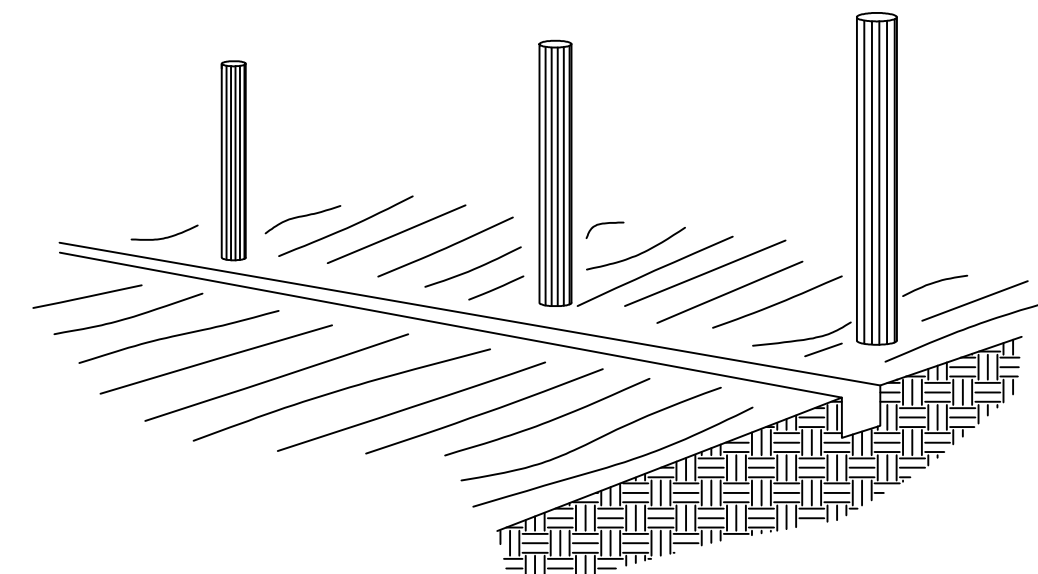


**CHECK DAM DETAILS**  
N.T.S.

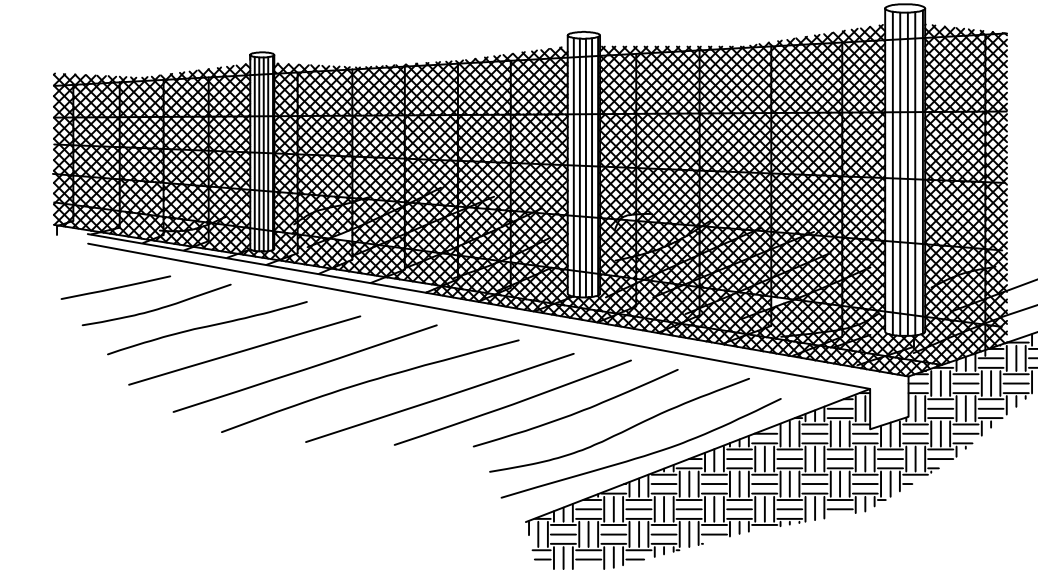


1. SET POSTS AND EXCAVATE A 4" x 4" TRENCH UPSLOPE ALONG THE LINE OF POSTS

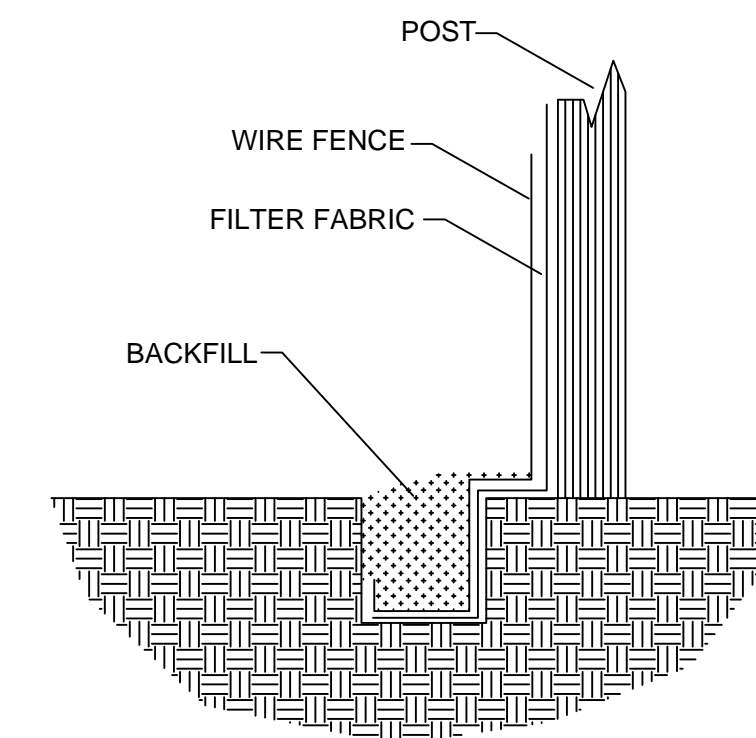
2. STAPLE WIRE FENCING TO POSTS



3. ATTACH THE FILTER FABRIC TO THE WIRE FENCE AND EXTEND IT INTO THE TRENCH

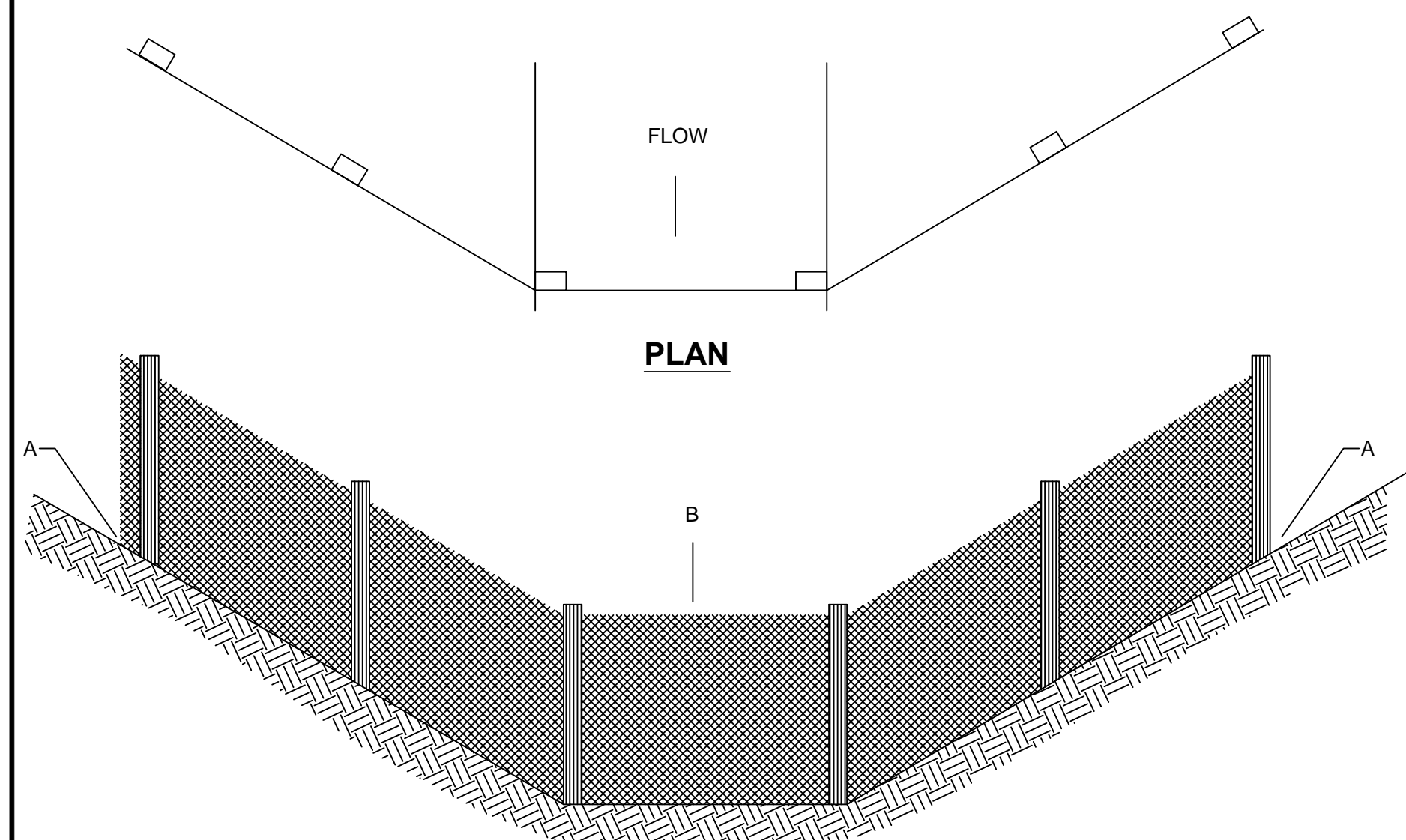


4. BACKFILL AND COMPACT THE EXCAVATED SOIL

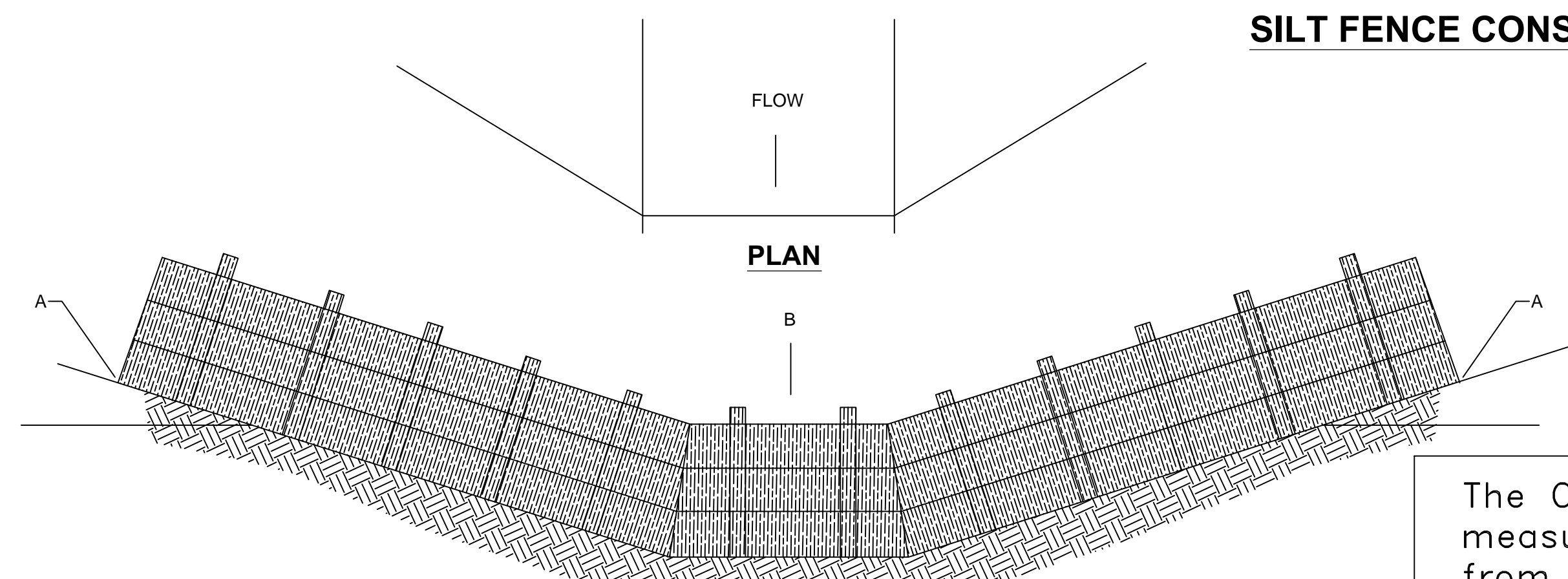


EXTENSION OF FABRIC AND WIRE INTO THE TRENCH

**SILT FENCE CONSTRUCTION PROCEDURES**  
N.T.S.



**PLACEMENT OF FILTER BARRIER**  
N.T.S.



**PLACEMENT OF STRAW BALE BARRIER**  
N.T.S.

**EROSION CONTROL DETAILS**  
N.T.S.

The Contractor shall do all work and take all measures necessary to control soil erosion resulting from construction operations, and shall prevent the flow of sediment from the construction site, and shall contain construction materials (including excavation and backfill) within their protected working area so as to prevent damage to the adjacent wetlands and water courses. The Contractor shall use any of the acceptable methods necessary to control soil erosion and prevent the flow of sediment to the maximum extent possible. These methods shall include, but not be limited to, the use of water diversion structures, diversion ditches, and settling basins.

**RECORD DRAWINGS**

**Monarch Engineering, Inc.**

556 CARLTON DRIVE  
LAWRENCEBURG, KY 40342

EROSION CONTROL DETAILS

WESTERN ROCKCASTLE WATER ASSOCIATION  
ROCKCASTLE COUNTY, KENTUCKY

DESCRIPTION:

CUSTOMER:

PROJECT NO. 1207

DATE: FEB 2012

DRAWN BY: JRC

CHECKED BY: DSB

CHECKED BY: DMB

SCALE: AS NOTED

SHEET:

**EC-1**

