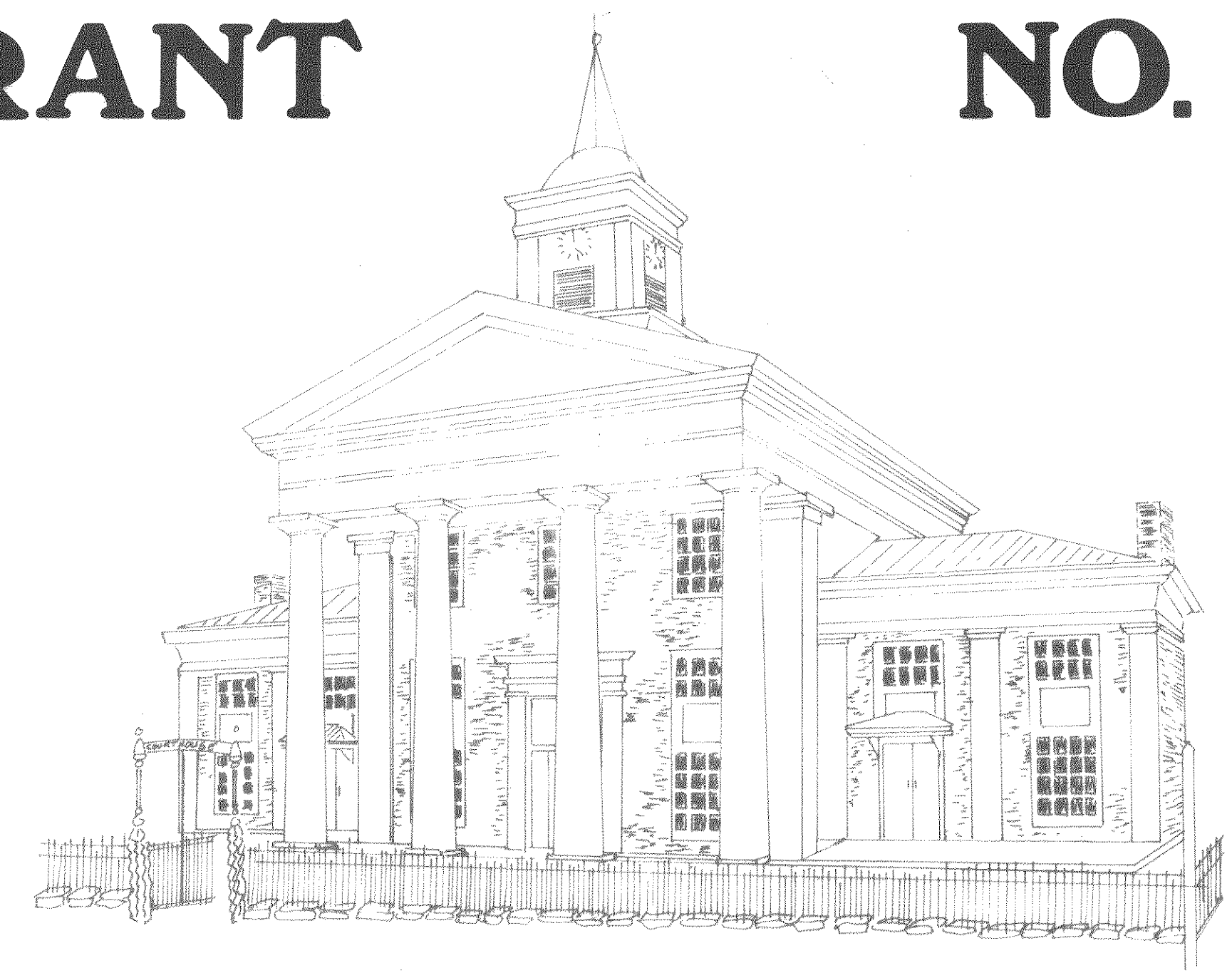


PROJECT NAME: Troutville Interceptor
DATE: 10-81
TYPE: Sewer
LOCATION: Sta. 11 Troutville
TOTAL # SHEETS: 8
A/E FIRM: Clean Water
OF SETS: 1

TROUTVILLE INTERCEPTOR

FEDERAL GRANT

NO. C-510535-03



INDEX	
SHEET NO.	DESCRIPTION
1.	COVER SHEET
2.	VICINITY MAP - SHEET LAYOUT AND GENERAL NOTES
3.	10" SEWER STA. 10+00 - STA. 45+25
4.	10" SEWER STA. 45+25 - STA. 75+33.76
5.	10" SEWER STA. 75+33.76 - STA. 107+36.76
6.	10" SEWER STA. 107+36.76 - STA. 138+50
7.	10" SEWER STA. 138+50 - STA. 164+47.48
8.	STANDARD SEWER DETAILS

BOTETOURT COUNTY SERVICE AUTHORITY

Clean Water Engineers, Inc.

1 Roanoke Street

Fincastle, Virginia 24090

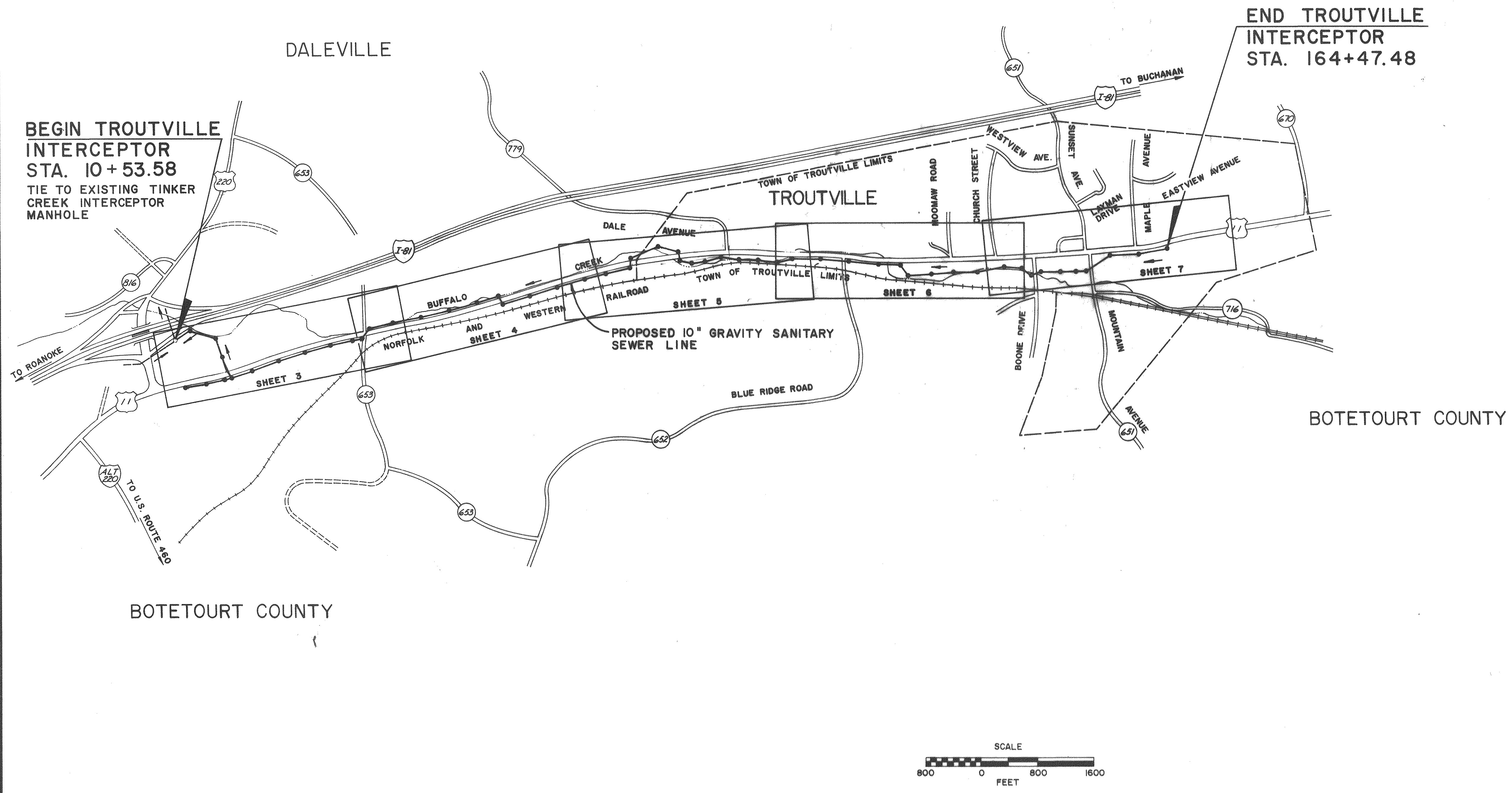
NOTE:
PLANS WERE PREPARED BASED ON:
AERIAL TOPOGRAPHY MAPPING PREPARED BY UNIVERSAL ENGINEERING, ROCKVILLE, MARYLAND FLOWN AND MAPPED 1979, AS CONTRACTED BY THE BOTETOURT COUNTY SERVICE AUTHORITY AND SUPPLIED TO CLEAN WATER ENGINEERS, INC.
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Date: October 1981

Project Number: 8127

Sheet: 1 of 8

- GENERAL NOTES
1. VERTICAL CONTROL: NATIONAL GEODETIC VERTICAL DATUM MEAN SEA LEVEL 1929
 2. HORIZONTAL CONTROL: STATE PLANE CO-ORDINATE SYSTEM (SOUTH ZONE)
 3. SEWER LINES ARE LAID AT SUCH DEPTHS AS TO SERVE GROUND FLOOR PLUMBING ONLY AND TO PICK UP SEPTIC TANK DISCHARGE LINES.
 4. ROCK QUANTITIES ARE THE ENGINEER'S ESTIMATE ONLY. THEY ARE TO BE USED BY THE CONTRACTOR AS AN AID TO PRICING THE LINE WORK AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO SATISFY HIMSELF AS TO ALL CONDITIONS OF WORK BEFORE BIDDING.
 5. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE AND SHOULD BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY "UNDERGROUND CABLE LOCATION", 1-703-982-2400, AT LEAST 48 HOURS IN ADVANCE OF EXCAVATION IN ORDER TO VERIFY LOCATION OF UNDERGROUND UTILITIES.
 6. EXISTING SURFACES DISTURBED BY CONTRACTOR'S WORK SHALL BE RESTORED TO THEIR PRESENT CONDITION.
 7. HIGHWAY TRAFFIC SHALL BE PROTECTED AT ALL TIMES BY ADEQUATE LIGHTS, BARRICADES, AND CONSTRUCTION SIGNS. SIGNS SHALL BE IN ACCORDANCE WITH "VIRGINIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND ARE TO BE LOCATED AS DIRECTED BY THE RESIDENT ENGINEER OF THE DEPARTMENT OF HIGHWAYS. CONTRACTOR SHALL PROVIDE FLAGPERSONS AS REQUIRED.
 8. CONTRACTOR SHALL PERFORM WORK IN SUCH A MANNER AS TO MINIMIZE EROSION OF SOILS.
 9. THERE SHALL BE 10' MINIMUM HORIZONTAL SEPARATION BETWEEN WATER AND SEWER LINES AND 18" MINIMUM VERTICAL SEPARATION WHERE SPECIFIED.



NOTE:

PLANS WERE PREPARED BASED ON:

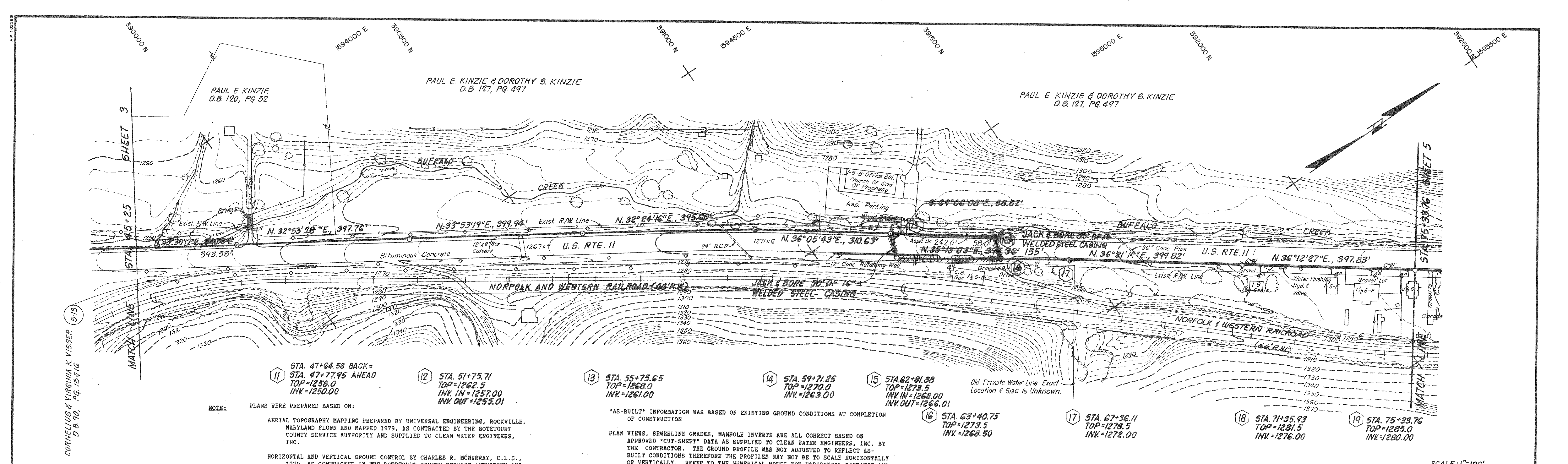
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NOTE: ALL 4" LATERAL SEWER PIPE SHALL BE INELIGIBLE FOR GRANT PARTICIPATION.



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STA. 47+64.58 BACK= STA. 47+77.95 AHEAD
TOP=1258.0
INV.=1250.00

STA. 51+75.71
TOP=1262.5
INV. IN=1257.00
INV. OUT=1253.01

STA. 55+75.65
TOP=1268.0
INV.=1261.00

STA. 59+71.25
TOP=1270.0
INV.=1263.00

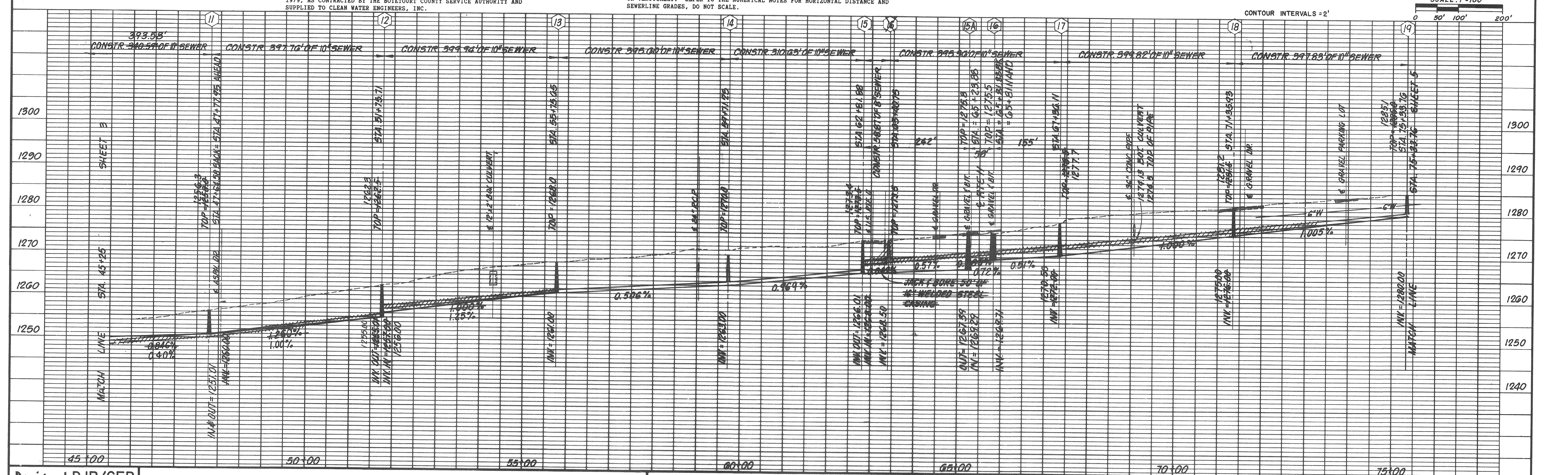
STA. 62+81.88
TOP=1273.5
INV. IN=1268.00
INV. OUT=1266.01

STA. 63+40.75
TOP=1273.5
INV.=1268.50

STA. 67+36.11
TOP=1278.5
INV.=1272.00

STA. 71+35.93
TOP=1281.5
INV.=1276.00

STA. 75+33.76
TOP=1285.0
INV.=1280.00



Designed: DJR/CEP
Drafted: CFA/CEP
Checked: JMD
Approved: DJR

Clean Water Engineers, Inc.

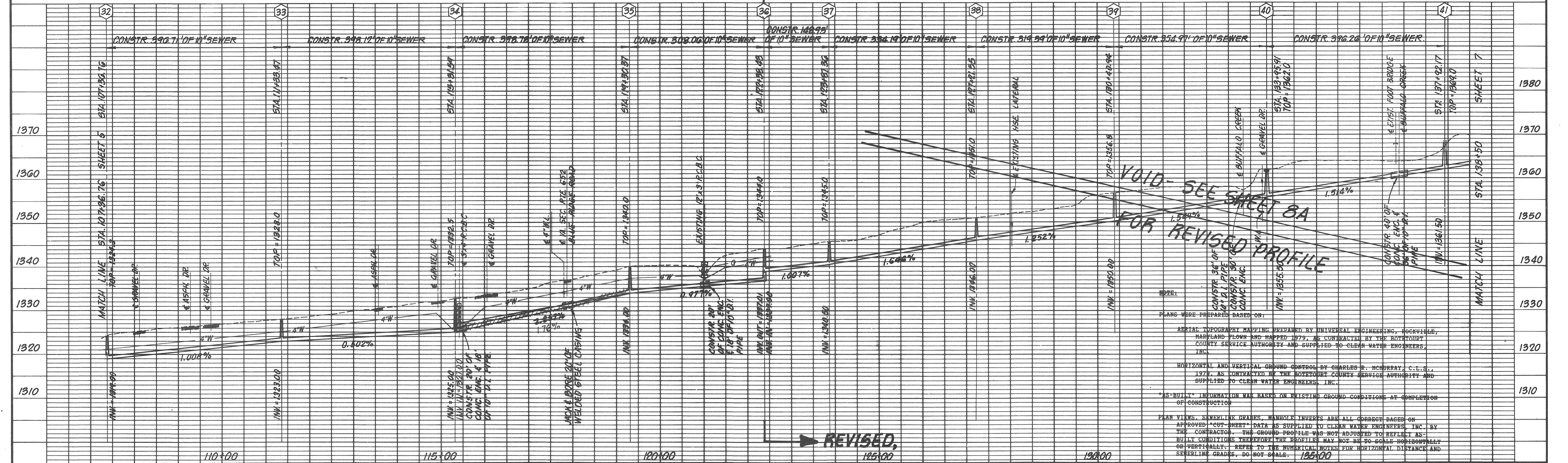
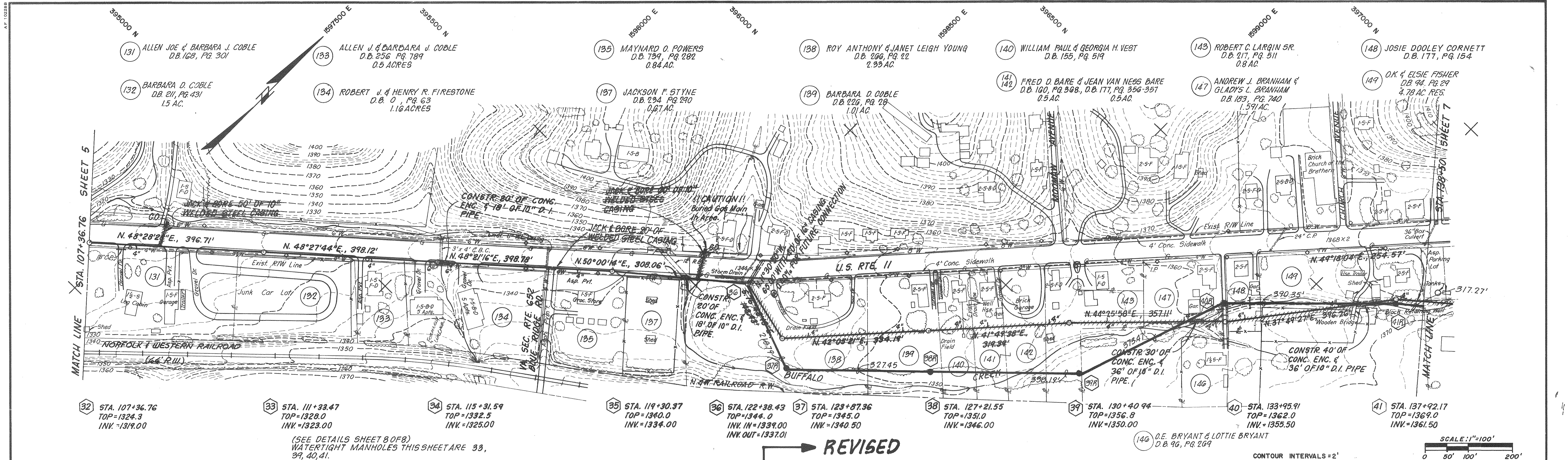
Fincastle, Virginia

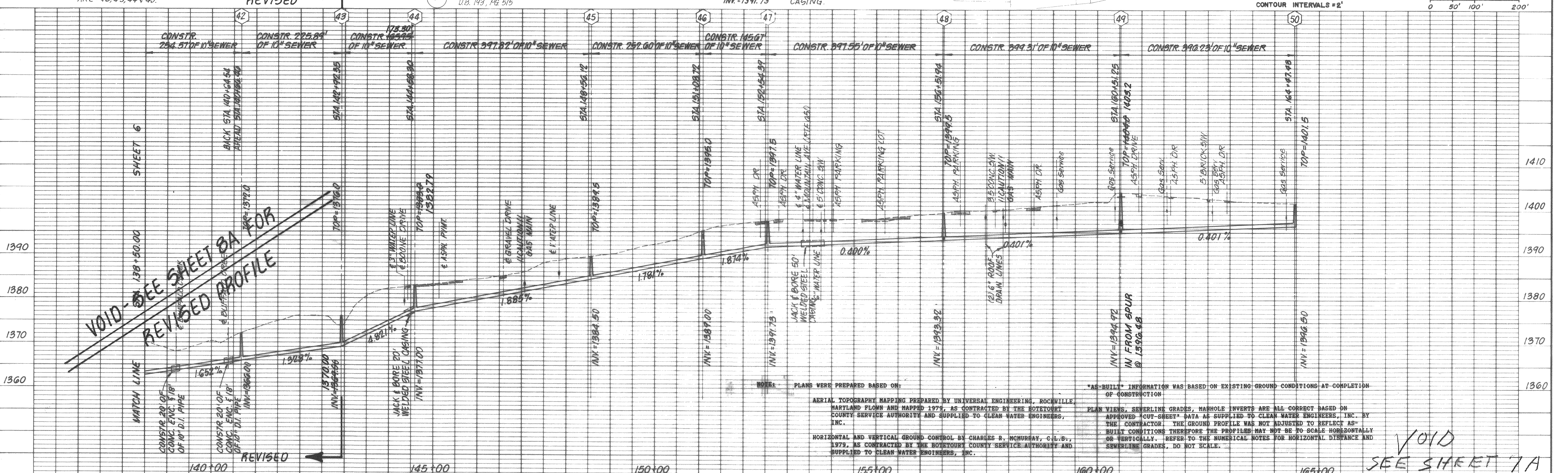
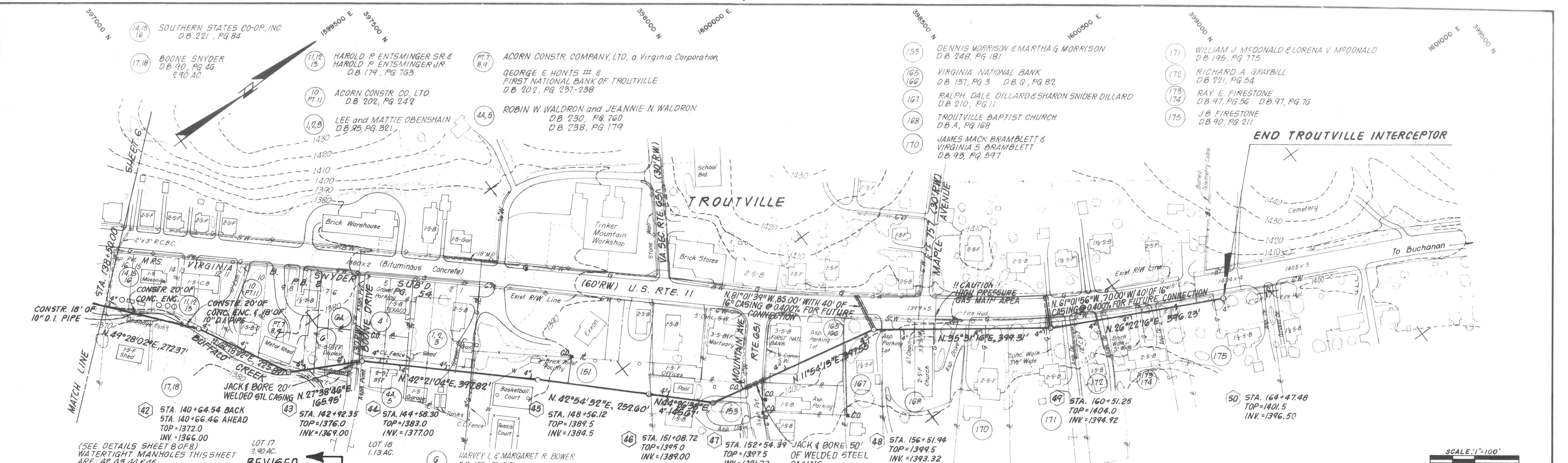
TROUTVILLE INTERCEPTOR
FOR
BOTETOURT COUNTY SERVICE AUTHORITY

"AS BUILTS"

DAVID H. BISHOP
DANIEL R. RYBICKI
1989

Sheet: 4 of 8
Scale: HORZ. 1"=100'
VERT. 1"=10'
Date: OCT. 1981
Project: 8127





Designed: DJR/CEP
Drafted: CFA/CEP
Checked: JMD
Approved: DJR

Clean Water Engineers, Inc.

Fincastle, Virginia

TROUTVILLE INTERCEPTOR

FOR

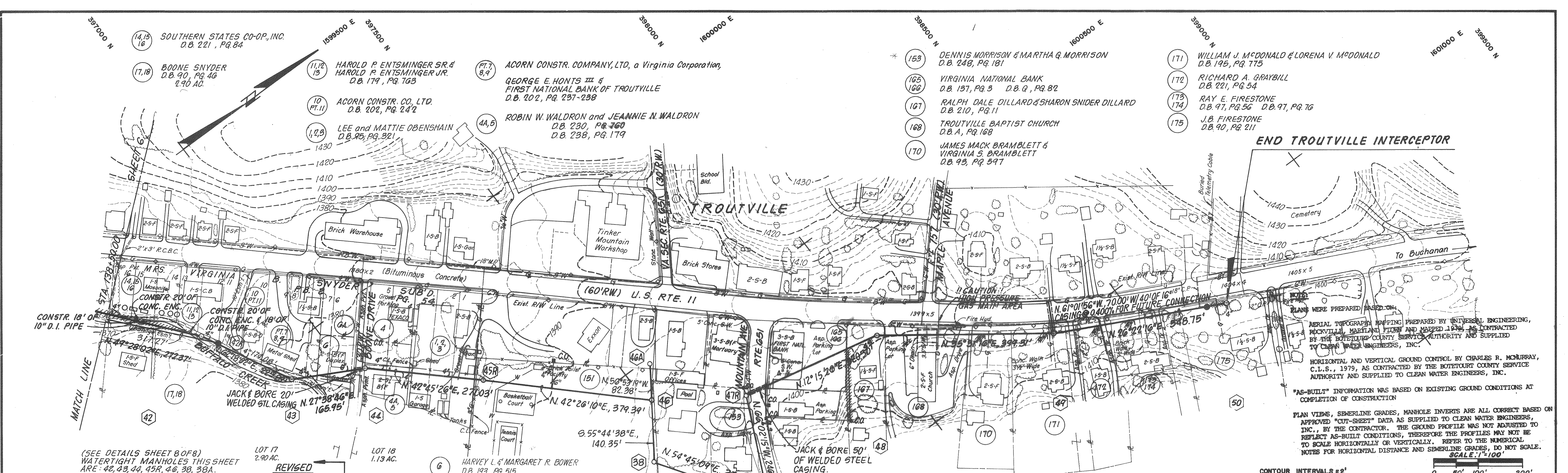
BOTETOURT COUNTY SERVICE AUTHORITY

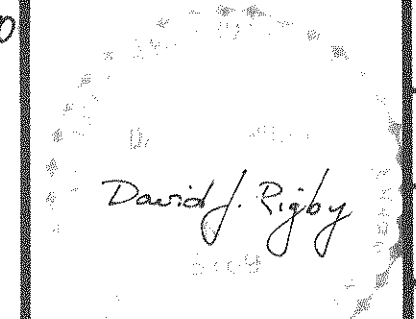
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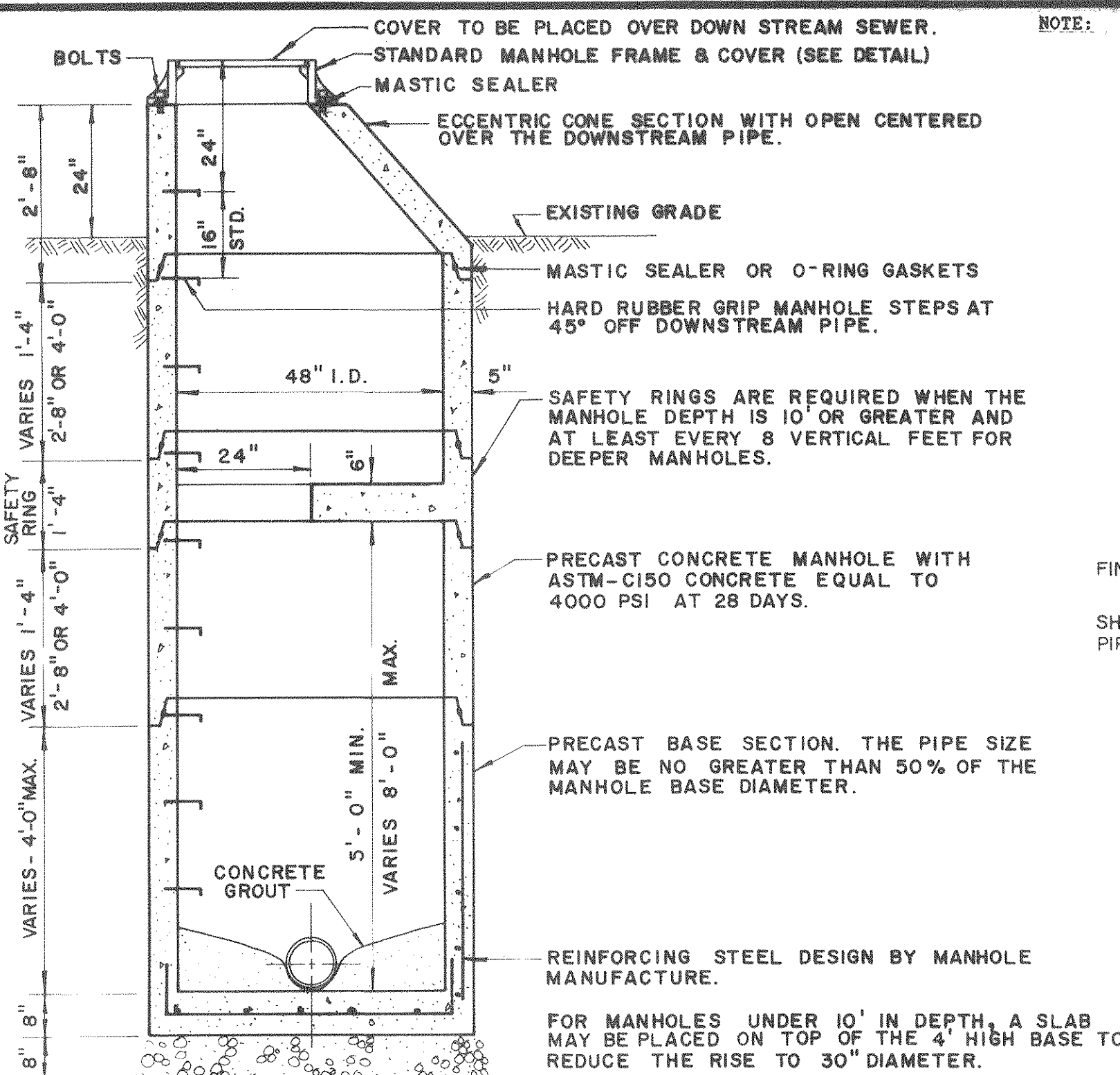
"AS BUILTS"

David J. Ryby

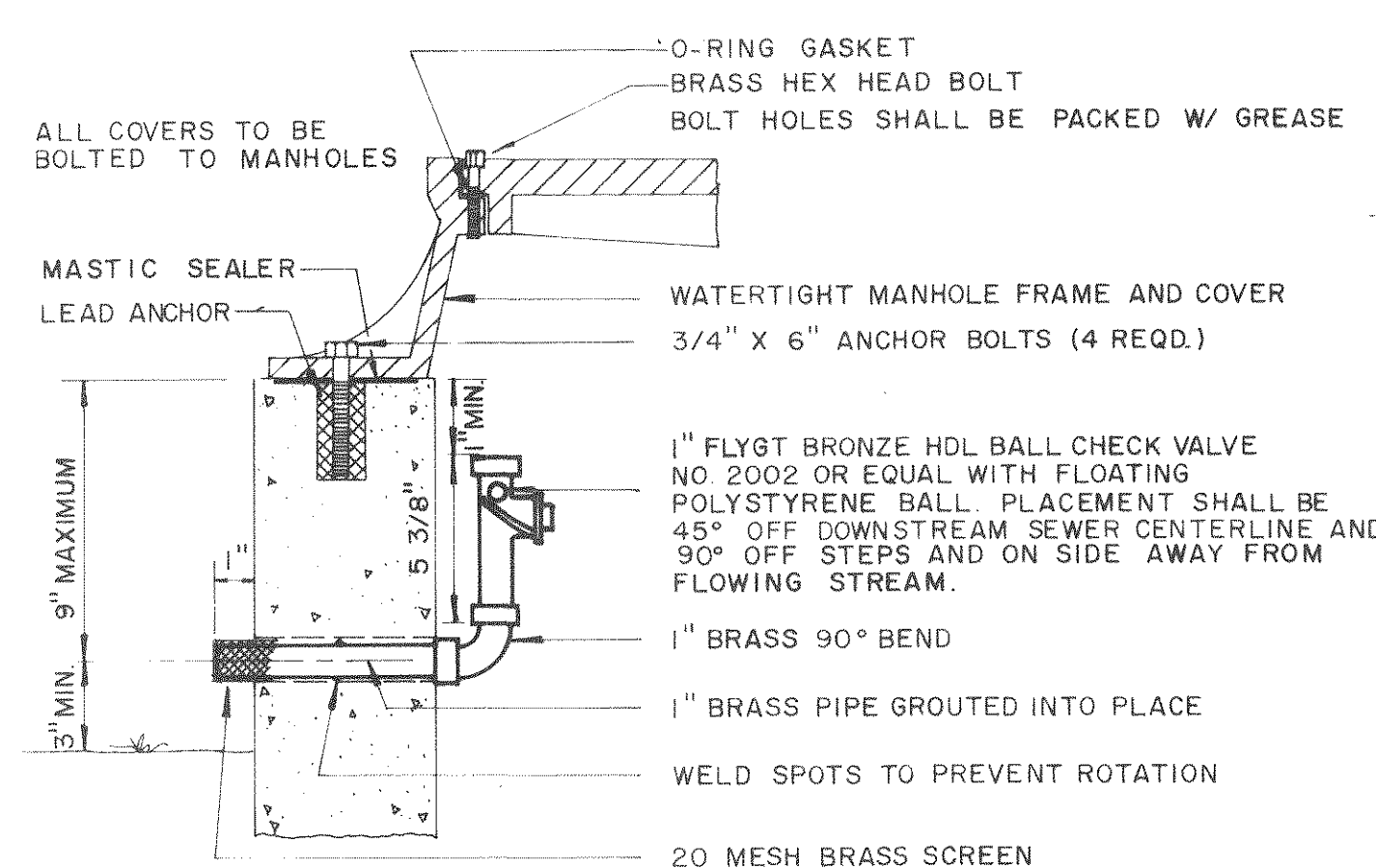
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VERT. 1"=10'
Date: OCT. 1981
Project: 8127



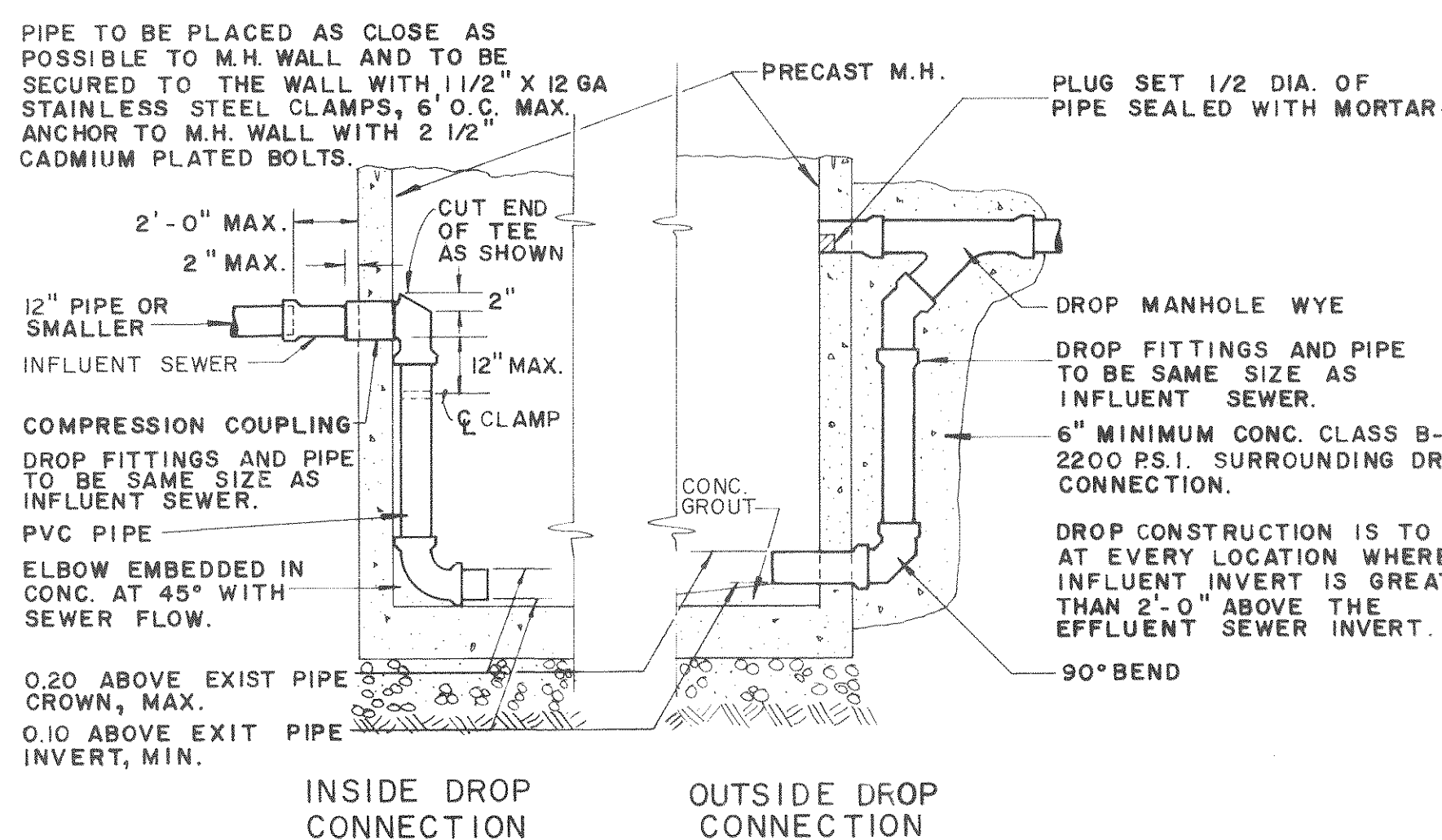
Designed: DJR/CEP Drafted: CFA/CEP Checked: JMD Approved: DJR	Clean Water Engineers, Inc. Fincastle, Virginia	TROUTVILLE INTERCEPTOR FOR BOTETOURT COUNTY SERVICE AUTHORITY	REVISED: 11-14-84 CFA/JMD "AS BUILTS" 	Sheet: 7A of 8 Scale: HORZ. 1" = 100' VERT. 1" = 10' Date: OCT. 1981 Project: 8127
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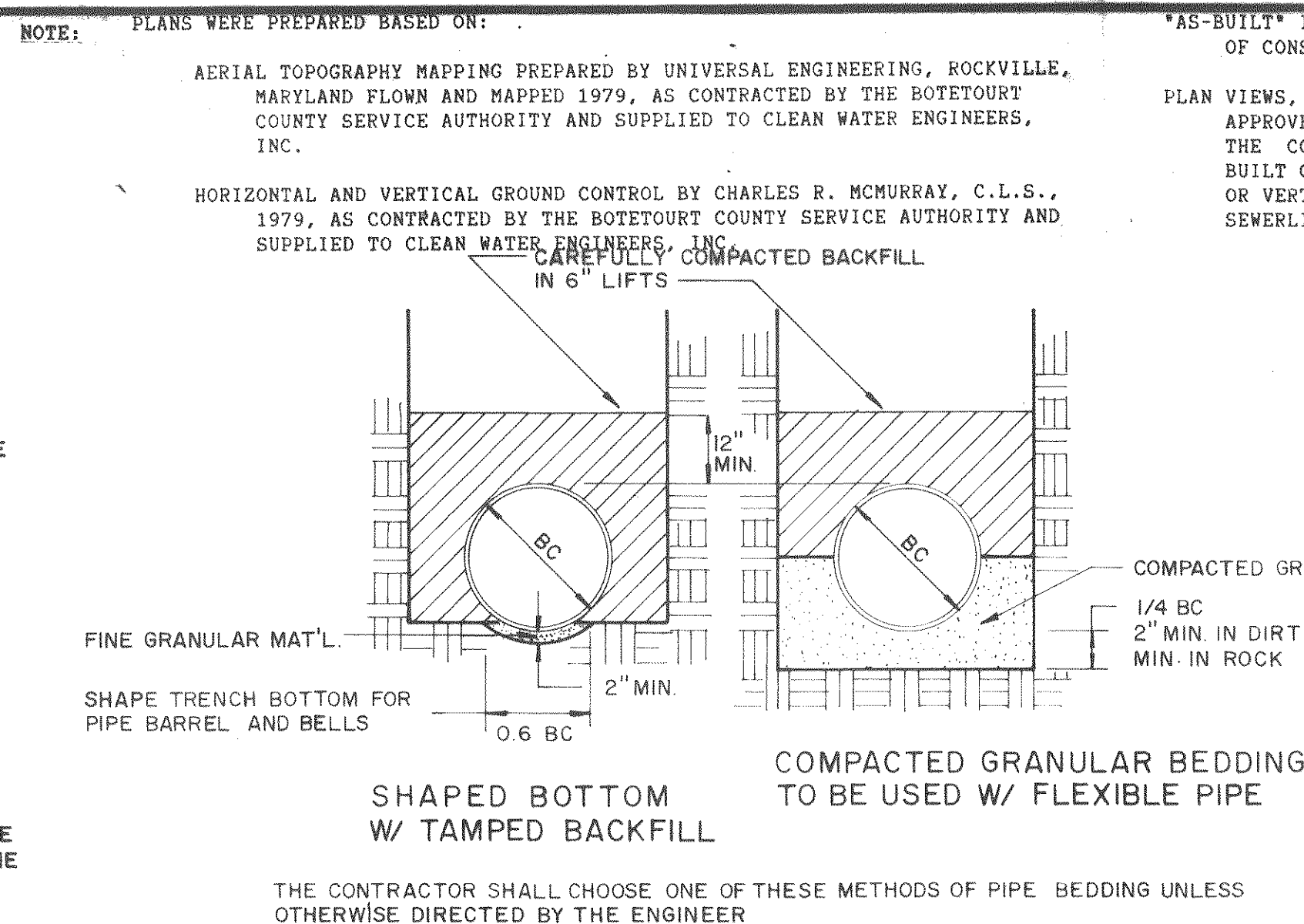
PRECAST ECCENTRIC MANHOLE



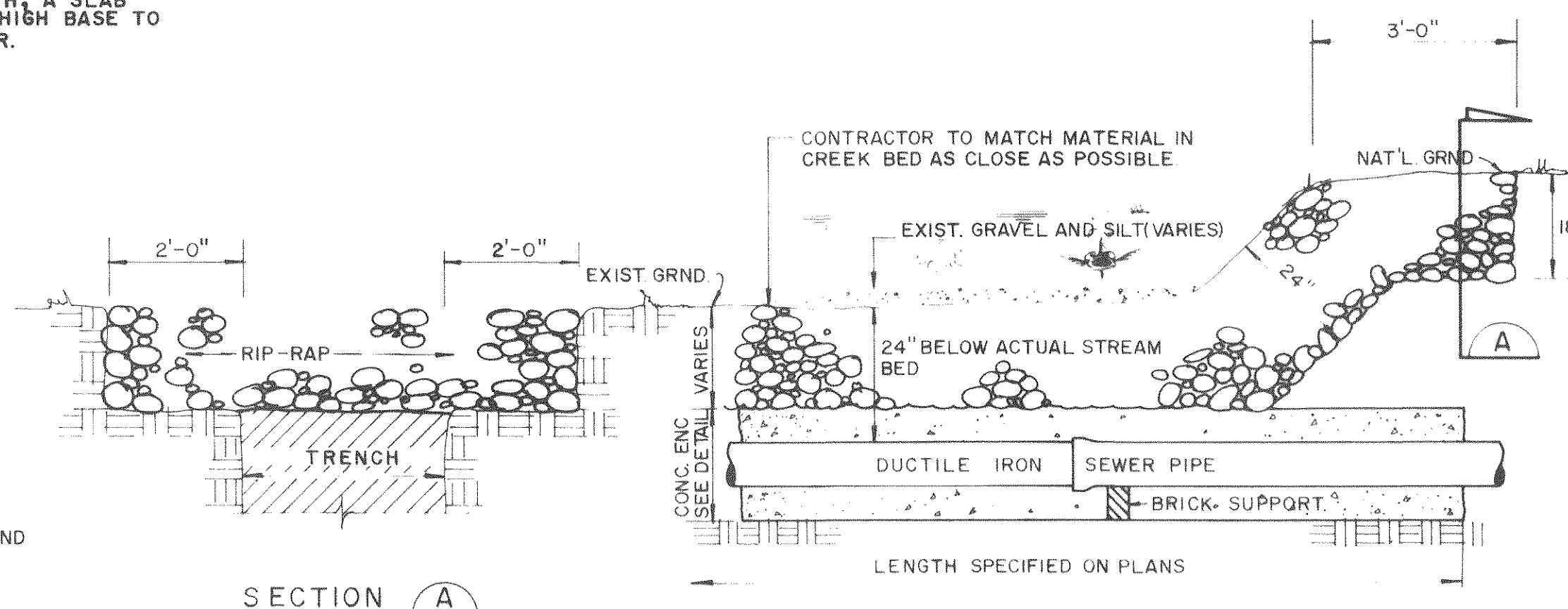
WATERTIGHT MANHOLE VENT DETAIL



DROP CONSTRUCTION AT STANDARD MANHOLE

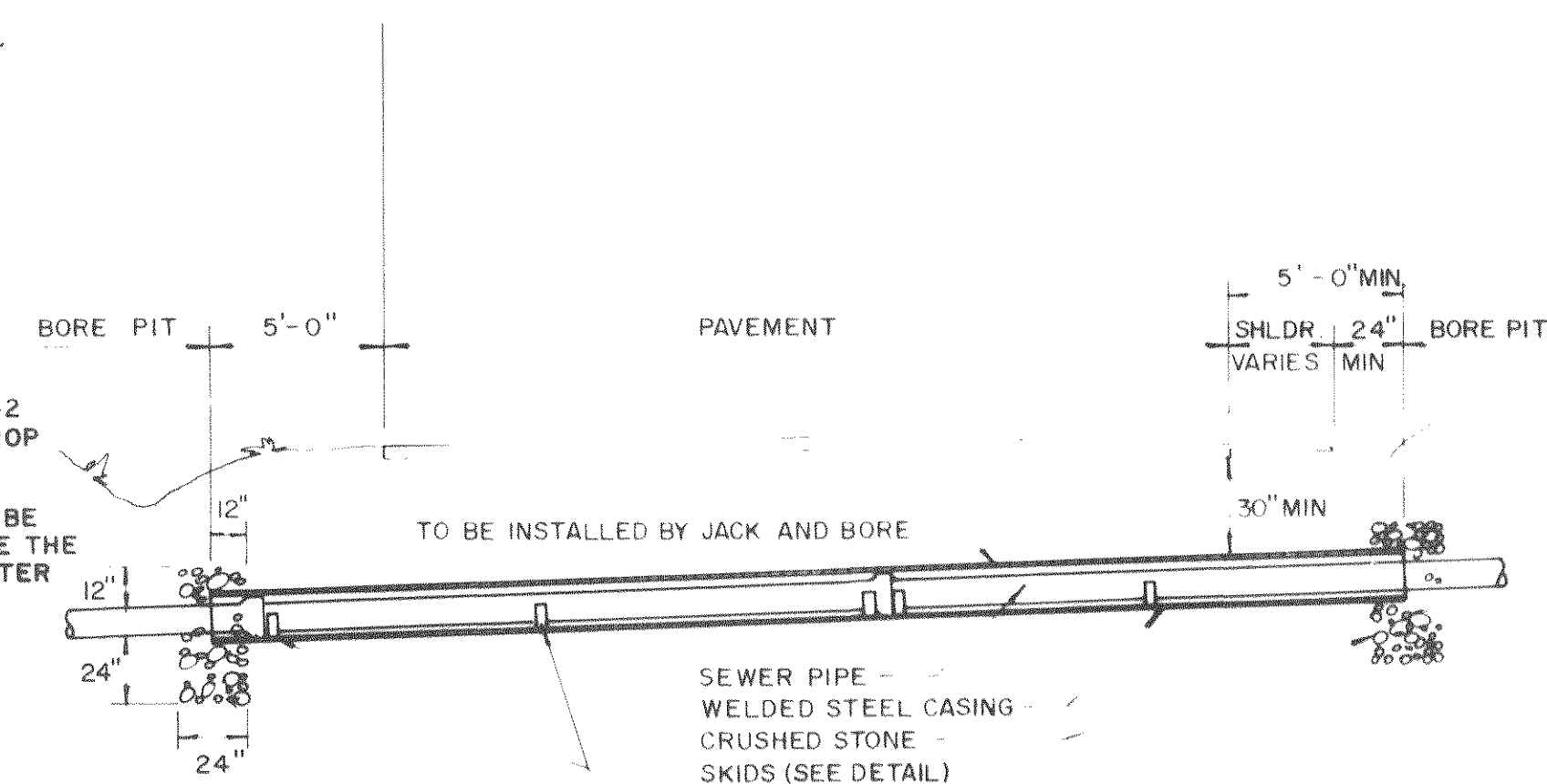


BEDDING DETAIL

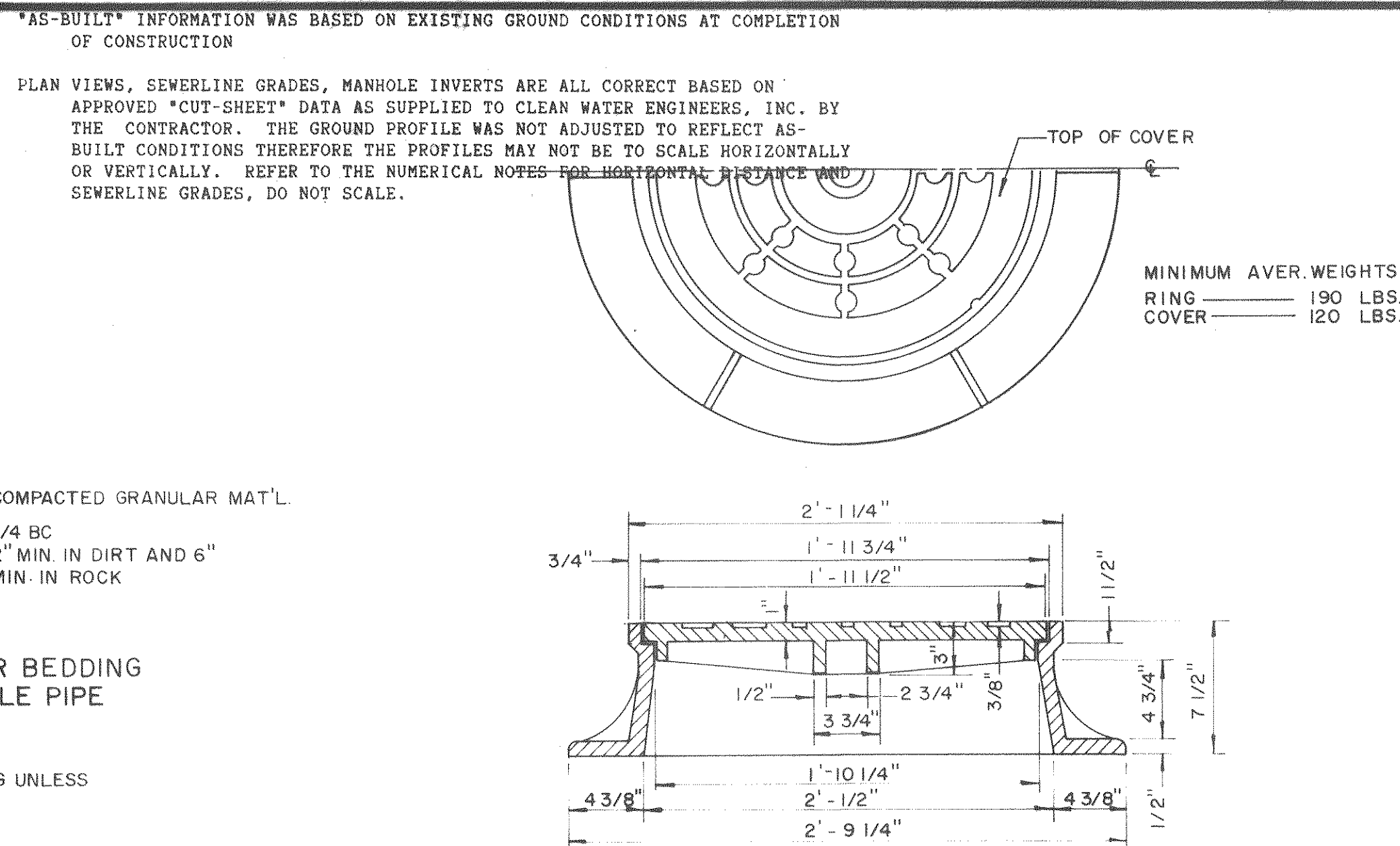


NOTE: AFTER CONSTR. OF EACH CREEK CROSSING THE LINES SHALL BE TESTED FOR INFILTRATION IN ACCORDANCE WITH THE SPECIFICATIONS WITH ZERO INFILTRATION. SHOULD INFILTRATION BE PRESENT, THE CONTRACTOR SHALL RECONSTRUCT THE CROSSING UNTIL ZERO INFILTRATION IS OBTAINED.

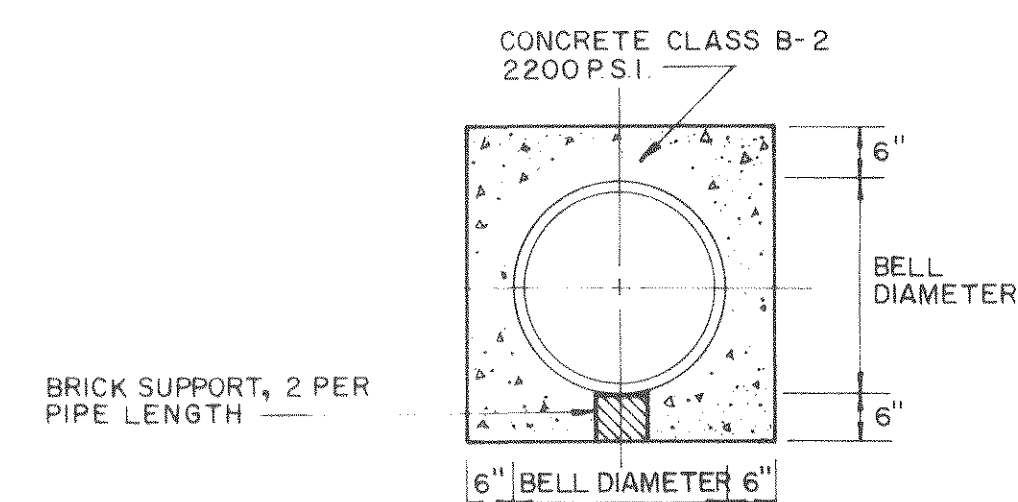
TYPICAL CREEK CROSSING AND BANK PROTECTION



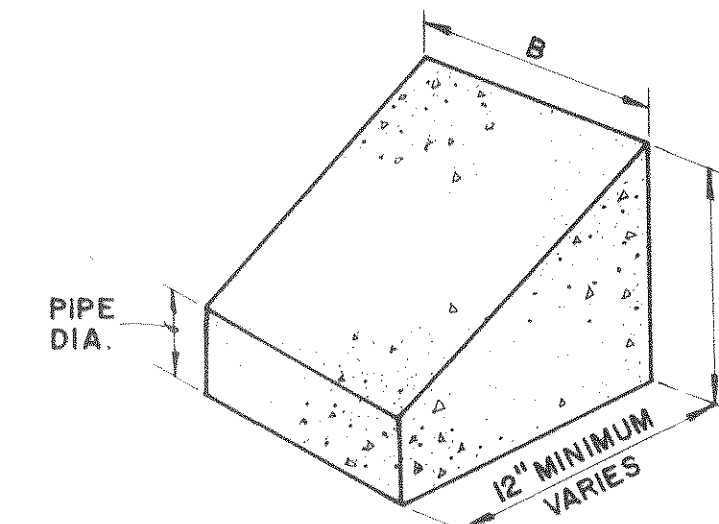
PRIMARY AND SECONDARY ROAD CROSSING



STANDARD MANHOLE COVER

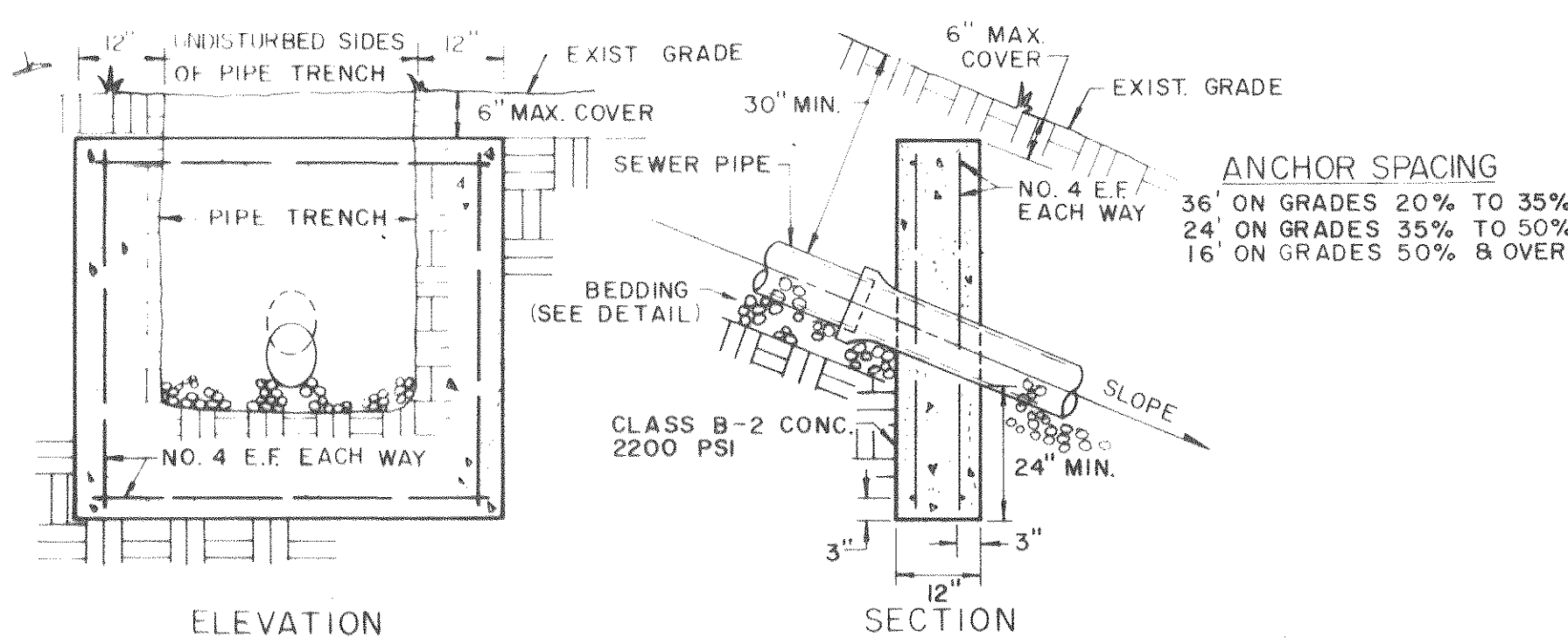


CONCRETE ENCASED PIPE

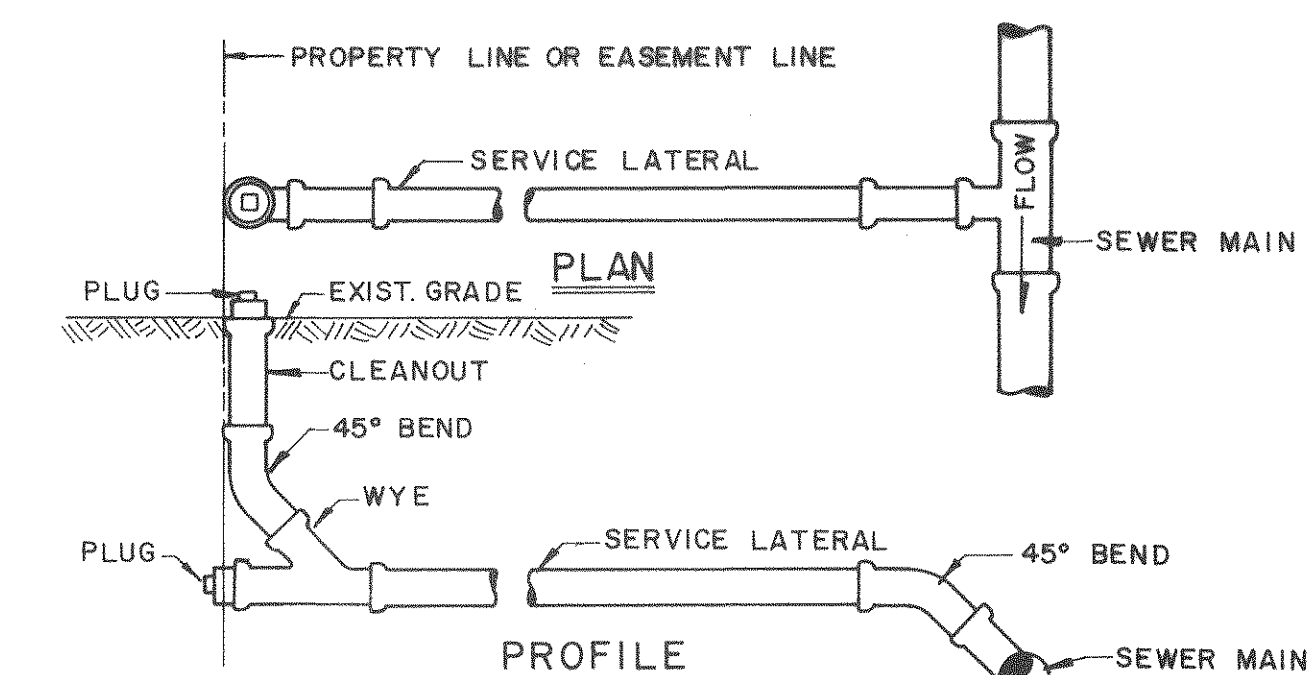


THRUST BLOCK SIZES

PIPE DIAMETER	TEE, CROSS, 90°		45° WYE		22 1/2°	
	A	B	A	B	A	B
4"	12"	12"	12"	12"	12"	12"
6"	"	"	"	"	"	"
8"	15"	24"	"	18"	"	"
10"	18"	"	18"	"	"	18"
12"	24"	30"	"	24"	18"	"

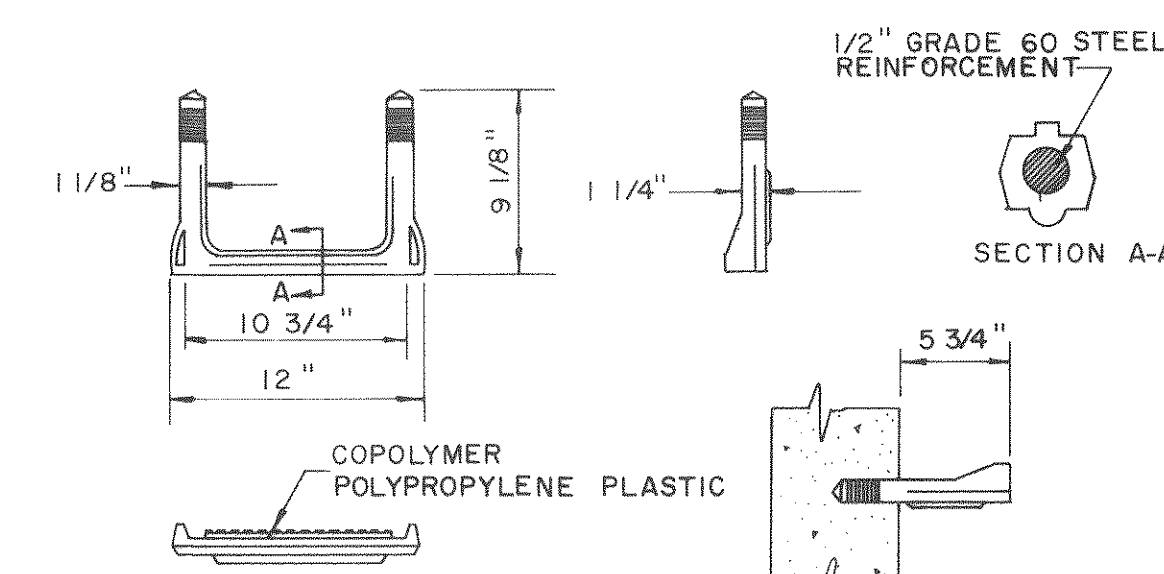


CONCRETE ANCHOR DETAIL

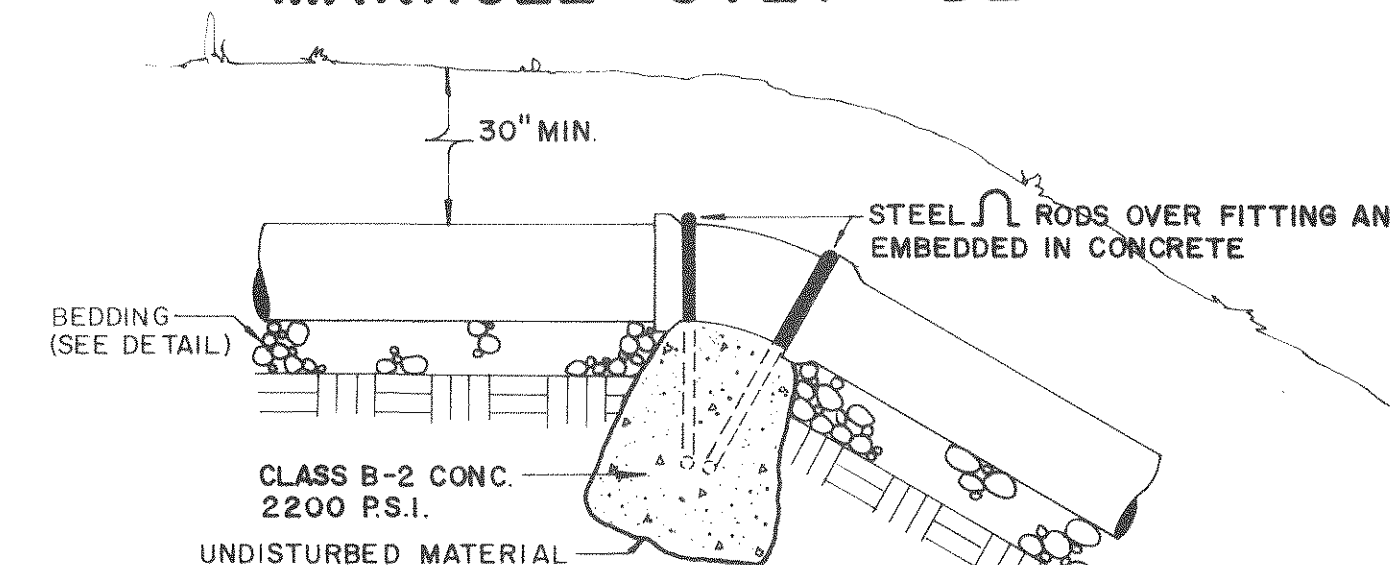


FOR RESIDENTIAL CONNECTIONS LATERAL PIPES SHALL BE 4" DIA. FOR COMMERCIAL CONNECTIONS THE LATERAL SIZE SHALL BE SPECIFIED ON THE PLANS BY THE ENGINEER.

TYPICAL SERVICE CONNECTION



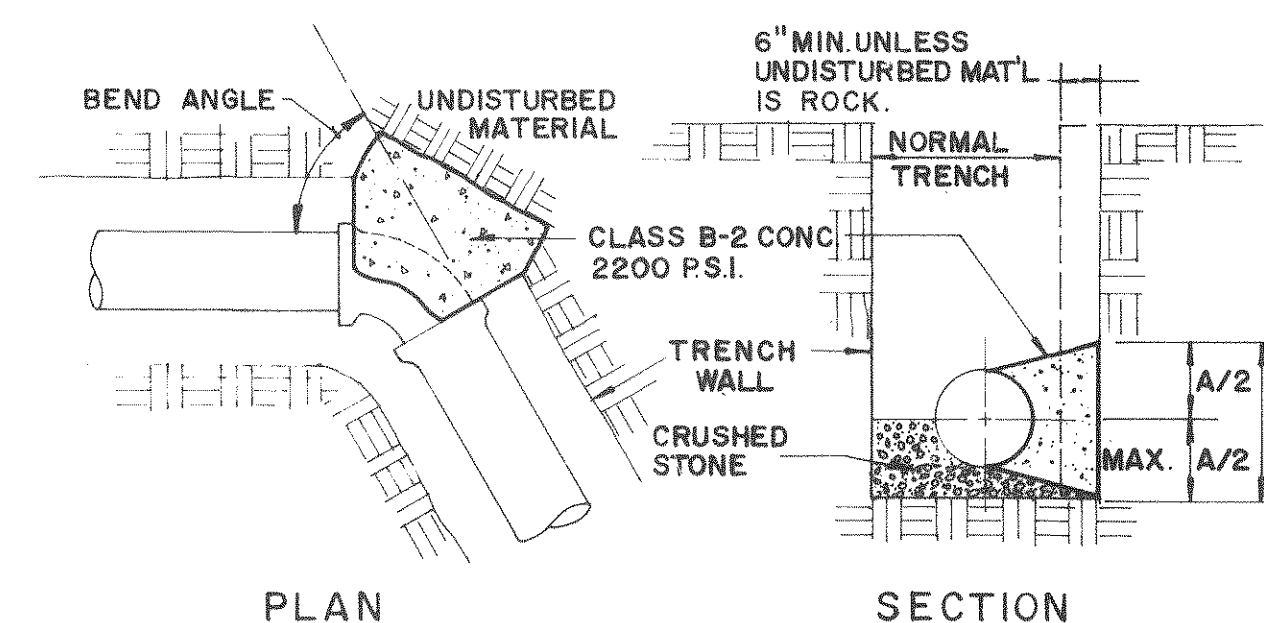
MANHOLE STEP DETAIL



PROFILE				
FITTING SIZE	ROD SIZE	NO. OF RODS	EMBEDMENT	
4"-6"-8"	No. 4	2	24"	
10"-12"	6	"		
FITTING SIZE	VOLUME OF THRUST BLOCK IN CUBIC YARDS			
	90°	45°	22 1/2°	11 1/4°
4	0.25	0.15	0.1	0.1
6	0.5	0.35	0.25	0.2
8	0.9	0.65	0.5	0.35
10	1.4	1.0	0.8	0.55
12	2.0	1.4	1.0	0.7

1. KEEP CONC. CLEAR OF JOINT AND JOINT ACCESSORIES.
2. THRUST BLOCKS FOR VERTICAL UP BENDS SHALL BE THE SAME VOLUME AS FOR HORIZONTAL BENDS.

VERTICAL THRUST BLOCK DETAIL



NOTES:

1. AREA OF THRUST BLOCK BASED ON 1500 P.S.F. LATERAL BEARING PRESSURE AND A TEST PRESSURE WITHIN PIPE OF 150 P.S.I., VELOCITY OF 10 F.P.S.
2. THRUST BLOCKS ARE REQUIRED AT ALL BENDS OF MORE THAN 10°.
3. BEARING SURFACE OF THRUST BLOCKS MUST BE NORMAL TO RESULTANT THRUST OF BEND AND BEAR ON SUITABLE UNDISTURBED MATERIAL.
4. KEEP CONCRETE CLEAR OF JOINT AND JOINT ACCESSORIES.

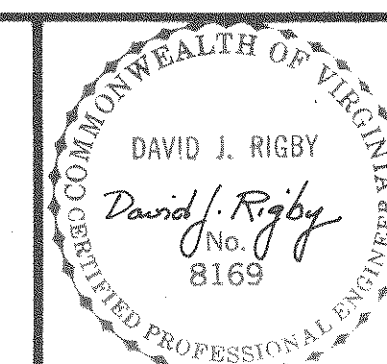
HORIZONTAL THRUST BLOCK DETAIL

Designed:	DJR
Drafted:	CFA
Checked:	JMD
Approved:	DJR

Clean Water Engineers, Inc.

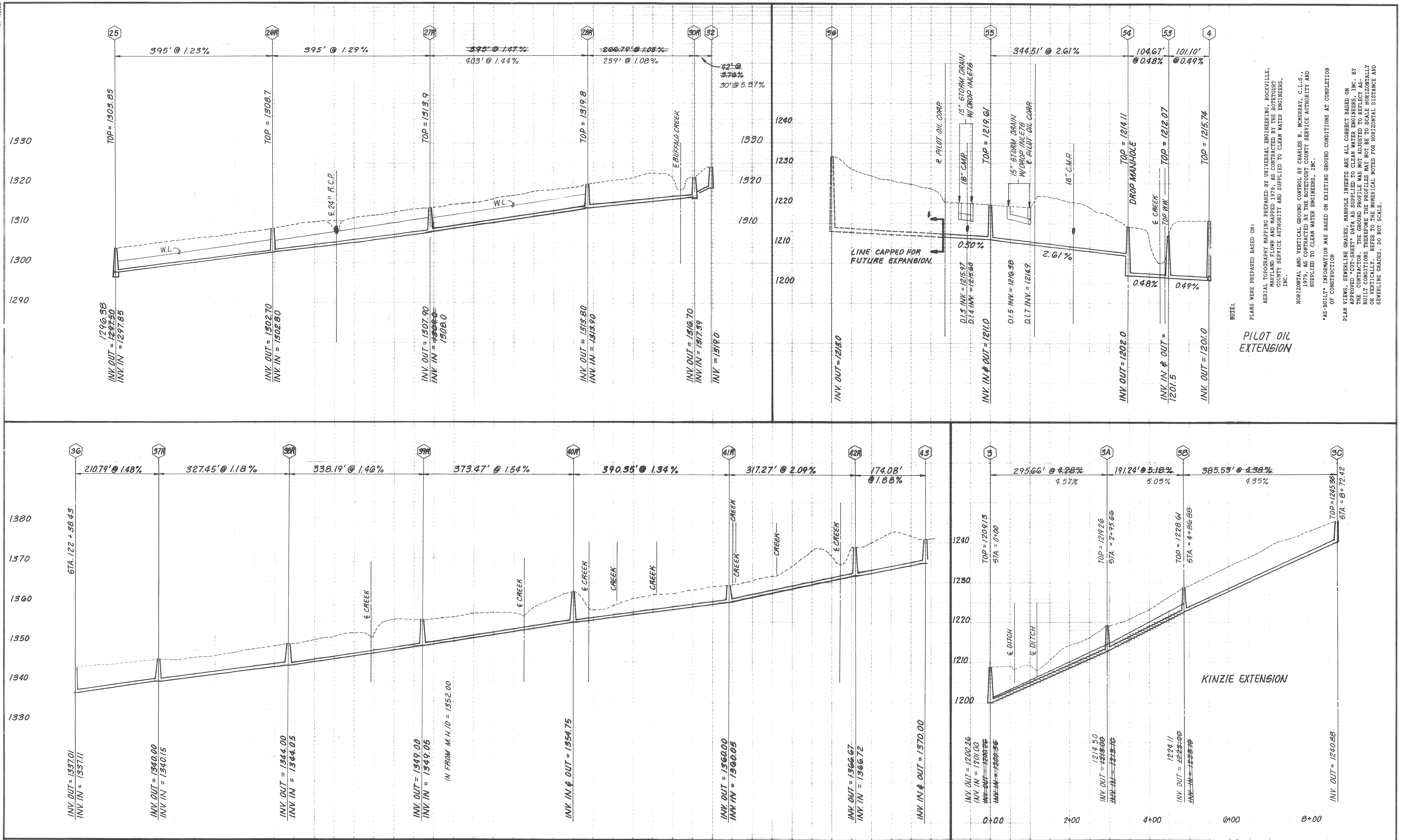
Fincastle, Virginia

SEWER DETAILS
TROUTVILLE INTERCEPTOR
FOR
BOTETOURT COUNTY SERVICE AUTHORITY



Sheet: 8 of 8
Scale: NONE
Date: OCT. 1981
Project: 8127

AF 102288



NOTE:

PLANS WERE PREPARED BASED ON:
AERIAL TOPOGRAPHY MAPS PREPARED BY UNIVERSAL ENGINEERING, ROCKVILLE,
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