

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

PRE- 726-870
PART II
BRS- 736(7)

OHIO
FHWA REGION 5
FEDERAL PROJECT

1
16

FOR PART-I SEE PRE-127-20.49

CURRENT ADT 1982
Current ADT 1982 _____ 1470
T(B & C Trucks) _____ 6%
V _____ 60M.PH.

PRE-726-870
MONROE TOWNSHIP
PREBLE COUNTY

BRS 736(7)

BEGIN PROJECT STA. 456+50.00
END PROJECT STA. 462+00.00

CONVENTIONAL SIGNS

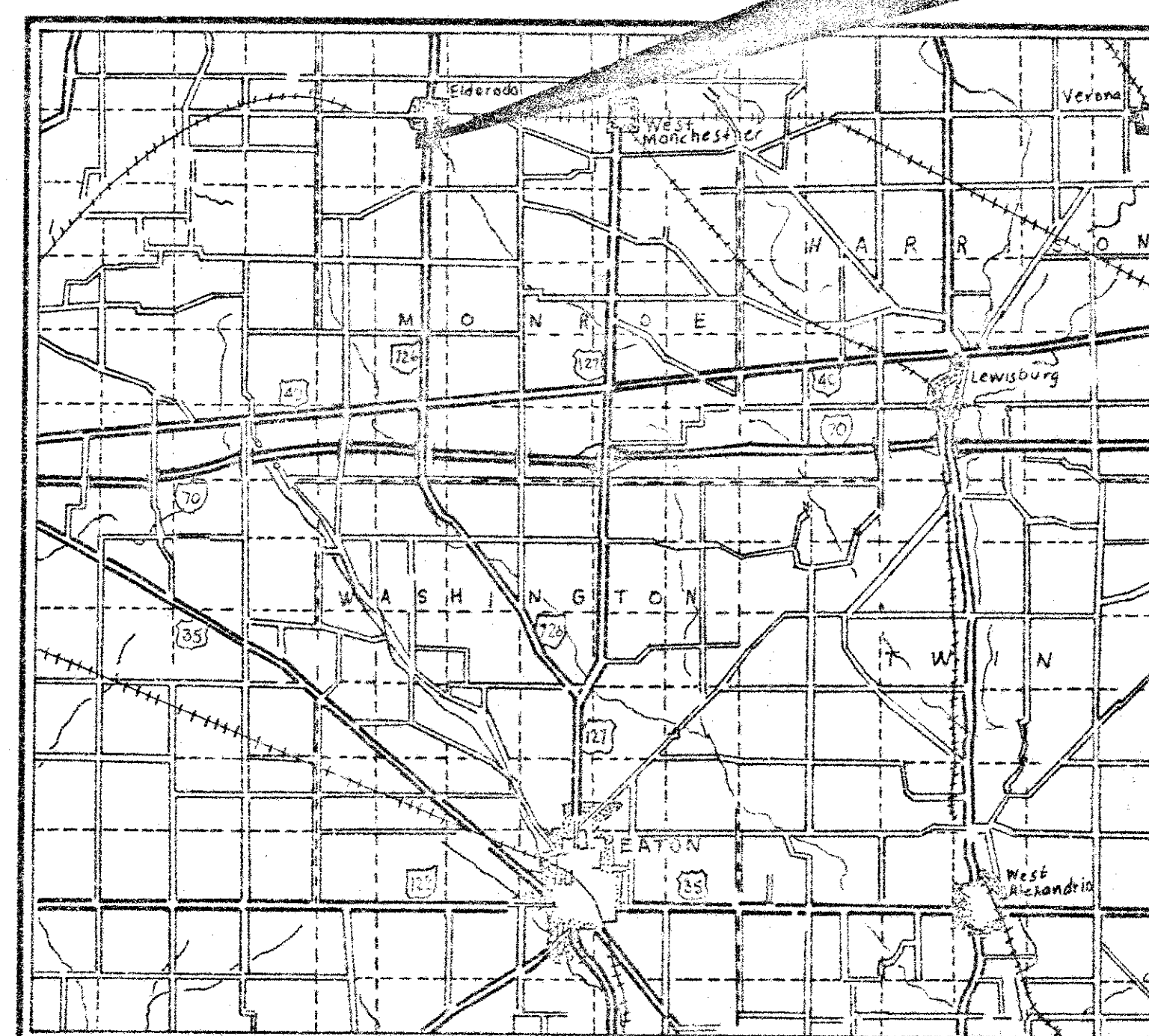
County Line _____
Township Line _____
Section Line _____
Corporation Line _____ or _____
Fence Line (existing) -x-x- (proposed) -x-x-
Center Line _____
Trees (to be removed) (to be removed)
Utility Poles: Telephone ϕ , Power ϕ , Light ϕ .

Limited Access (only) _____ LA
Right of Way (only) _____ RW
Limited Access & Right of Way _____ LA & RW
Existing Right of Way _____
Property Line _____ (in existing fence) -x-x-
Railroad _____ or _____
Guardrail (existing) _____ (proposed) _____

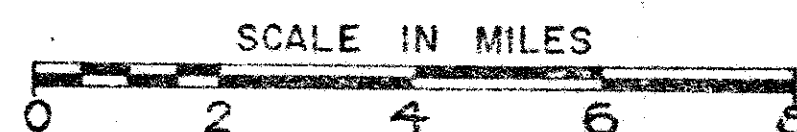
INDEX OF SHEETS

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General Summary
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Structures Over 20' Span

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LOCATION MAP



LINE DATA

Begin Work Sta. 456+38.00
End Work Sta. 462+12.00
Net Length of Work 574.00 Lin. Ft. 0.109 Miles

Begin Project Sta. 456+50.00
End Project Sta. 462+00.00
Net Length of Project 550.00 Lin. Ft. 0.104 Miles

UNDERGROUND UTILITIES
48 HOURS
BEFORE YOU DIG
Call 800-362-2764 (Toll free)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

Portion to be improved _____
State & Federal Routes _____
Other Roads _____
Detour (See Sht. 3) _____

SCALES

Plan _____
Profile: Horizontal _____, Vertical _____
Cross Section: Horizontal _____, Vertical _____

SUPPLEMENTAL SPECIFICATIONS	
1001	1-03-77

Approved William K. Brayton
Date 10-25-82 District Deputy Director of Transportation

Approved Robert B. Pugh
Date 2-25-83 Engineer, Bureau of Bridges and Structural Design

Approved Wayne H. Kaulke
Date 3-25-83 Chief Engineer, Planning & Design

Approved Wanda J. Smith
Date 3-25-83 Director, Department of Transportation

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS							
BP-2	12-6-76	GR-1	2-5-82	MC-3	6-1-73	PSBD-1-81	9-18-81
BP-5	7-16-81	GR-2B	2-5-82	MC-11	8-1-78	DBR-2-73	4-10-73
		CR-3	2-5-82	MC-4	7-26-76	AS-1-81	11-27-81
		GR-4	2-5-82				

Plan Prepared By:
DISTRICT No. 8
OHIO DEPARTMENT OF
TRANSPORTATION

SEAL

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:
DIVISION ADMINISTRATOR DATE

Project: _____
Date of Letting _____ 19____, Contract No. _____
LD 0300 Rev. 11-1-78

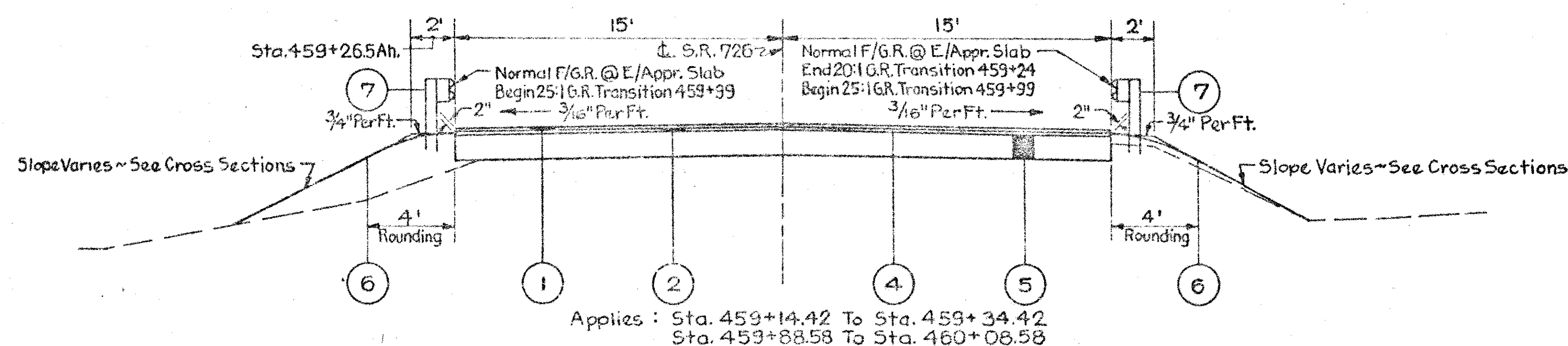
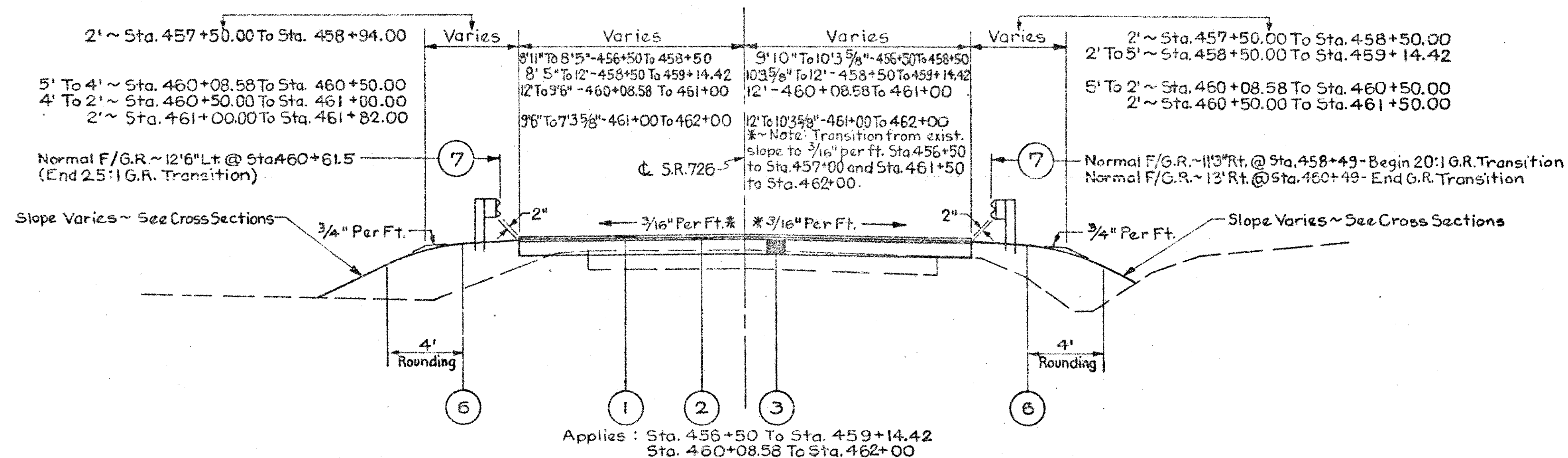
TYPICAL SECTIONS

TYPE 404

Calc. By K.E.M. 10/12/82
 Chkd. By R.E.R. 10/13/82
 Revised By K.E.M. 1/31/83
 Chkd. By R.E.R. 2/3/83

FED. RD. DIVISION	STATE	PROJECT	2
5	OHIO		16

PRE-726-8.70



PAVEMENT QUANTITY CALCULATIONS (Totals Carried To Sheet No. 5)

<u>301</u>	Sta. 456+50 To 458+50	$18.7' \times 200' \times 0.75 \div 27 =$	103.89	Cu.Yd.	*Sta. 461+50 To 462+00	$(14.66 SF + 13.25 SF) \div 2 \times 50 \div 27 =$	25.80	Cu.Yd.
	Sta. 458+50 To 459+14.42	$(18.7+24) \div 2 \times 64.42 \times 0.75 \div 27 =$	38.20	Cu.Yd.				
	Sta. 460+08.58 To 460+50	$* (18.5F + 20.26 SF) \div 2 \times 41.42 \div 27 =$	37.02	Cu.Yd.	Driveway Sta. 457+29.5Lt. (40.5+29)	$\div 2 \times 4.68 \times 4.2 \div 27 =$	2.53	Cu.Yd.
	Sta. 460+50 To 461+00	$* (30.26 SF + 21.99 SF) \div 2 \times 50 \div 27 =$	48.38	Cu.Yd.				301 ~ Total = 289.76 Cu.Yd.
	Sta. 461+00 To 461+50	$* (21.99 SF + 14.66 SF) \div 2 \times 50 \div 27 =$	33.24	Cu.Yd.				

<u>404</u>	Sta. 456+50 To 458+50	$18.7 \times 200 \times 0.10417 \div 27 =$	14.43	Cu.Yd.	Driveway Sta. 457+29.5Lt. (40.5+29)	$\div 2 \times 4.68 \times 0.0833 \div 27 =$	0.50	Cu.Yd.
	Sta. 458+50 To 459+14.42	$(18.7+24) \div 2 \times 64.42 \times 0.10417 \div 27 =$	5.31	Cu.Yd.				404 ~ Total = 42.34 Cu.Yd.
	Sta. 460+08.58 To 461+00	$(24+21.5) \div 2 \times 31.42 \times 0.10417 \div 27 =$	8.02	Cu.Yd.				
	Approach Slabs	$20 \times 30 \times 2 \times 0.10417 \div 27 =$	4.63	Cu.Yd.				
	Driveway Sta. 459+06 Lt.	$25.85 F (Planimeter) \times 0.2 \div 27 =$	1.91	Cu.Yd.				
	Sta. 461+00 To 462+00	$(21.5+17.6) \div 2 \times 100 \times 0.10417 \div 27 =$	7.54	Cu.Yd.				

<u>403</u>	Sta. 456+50 To 458+50	$18.7 \times 200 \times 0.10417 \div 27 =$	14.43	Cu.Yd.	Sta. 461+00 To 462+00	$(21.5+17.6) \div 2 \times 100 \times 0.10417 \div 27 =$	7.54	Cu.Yd.
	Sta. 458+50 To 459+14.42	$(18.7+24) \div 2 \times 64.42 \times 0.10417 \div 27 =$	5.31	Cu.Yd.				403 ~ Total = 39.93 Cu.Yd.
	Sta. 460+08.58 To 461+00	$(24+21.5) \div 2 \times 31.42 \times 0.10417 \div 27 =$	8.02	Cu.Yd.				
	Approach Slabs	$20 \times 30 \times 2 \times 0.10417 \div 27 =$	4.63	Cu.Yd.				

<u>407</u>	Approach Slabs	$20 \times 30 \times 2 \div 9 =$	13.33	Sq.Yd.
	Driveway Sta. 459+06 Lt.	$25.85 F (Planimeter) \div 9 =$	28.67	Sq.Yd.
		Total =	152.00	Sq.Yd.
	Tack Coat = 162 X 0.1 = 16.2 Gal. ~ Cover Agg. = 162 X 7 ÷ 2000 = 0.567 Tons			

<u>611</u>	Approach Slabs	$20 \times 30 \times 2 \div 9 =$	13.33	Sq.Yd.
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* Cross sectional areas.

ITEM LEGEND

- ① 404 1/4" Asphalt Concrete AC-20
- ② 403 1/4" Asphalt Concrete AC-20
- ③ 301 9" Minimum Bituminous Aggregate Base AC-20 Or RT-11 Or RT-12
- ④ 407 Tack Coat @ 0.1 Gal./Sq. Yd. And Cover Aggregate @ 7 lb/Sq. Yd.
- ⑤ 611 Reinforced Concrete Approach Slab (T=13")
- ⑥ 659 Seeding And Mulching
- ⑦ 606 Guardrail, Type 5

GENERAL NOTES

PRE-726-8.70

FED. RD. DIST. NO.	STATE	PROJECT
5	OHIO	

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16

MOBILIZATION AS PER PLAN (PART I AND II)

THE CONTRACTOR SHALL PROVIDE A SUITABLE FIELD OFFICE HAVING A MINIMUM OF 300 SQ. FT. OF FLOOR SPACE WHICH SHALL BE IN ACCORDANCE WITH 619.01 AND 619.02. PAYMENT SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 624, MOBILIZATION, AS PER PLAN.

UNDERGROUND UTILITIES

THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS OF THE UTILITY AS REQUIRED BY SECTION 153.64 ORC.

UTILITIES NOTIFICATION

AT LEAST TWO WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION OPERATIONS IN AN AREA WHICH MAY INVOLVE UNDERGROUND UTILITY FACILITIES, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, THE REGISTERED UTILITY PROTECTION SERVICE AND THE OWNERS OF EACH UNDERGROUND UTILITY FACILITY SHOWN IN THE PLANS.

THE OWNER OF THE UNDERGROUND UTILITY FACILITY SHALL, WITHIN FORTY-EIGHT HOURS, EXCLUDING SATURDAYS, SUNDAYS, AND LEGAL HOLIDAYS, AFTER NOTICE IS RECEIVED, STAKE, MARK OR OTHERWISE DESIGNATE THE LOCATION OF THE UNDERGROUND UTILITY FACILITIES IN THE CONSTRUCTION AREA IN SUCH A MANNER AS TO INDICATE THEIR COURSE TOGETHER WITH THE APPROXIMATE DEPTH AT WHICH THEY WERE INSTALLED. THE MARKING OR LOCATING SHALL BE CO-ORDINATED TO STAY APPROXIMATELY TWO DAYS AHEAD OF THE PLANNED CONSTRUCTION.

UTILITY OWNERSHIP

THE FOLLOWING UTILITIES AND OWNERS ARE LOCATED WITHIN THE WORK LIMITS OF THIS PROJECT:

SANITARY SEWERS

WATER LINES

ELECTRIC

THE DAYTON POWER & LIGHT COMPANY
P.O. BOX 1247 COURTHOUSE PLAZA, SW
DAYTON, OHIO 45401
513-224-6239

TELEPHONE

GENERAL TELEPHONE COMPANY
6464 WEST BROOK ROAD
CLAYTON, OHIO 45315
513-833-3021

GAS

THE DAYTON POWER & LIGHT COMPANY
P. O. BOX 1247 COURTHOUSE PLAZA, SW
DAYTON, OHIO 45401
513-224-6239

CABLE TELEVISION

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR PLAN ITEMS SET UP TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED AT THE ENGINEER'S DISCRETION SHALL BE A MATTER OF RECORD BY INCORPORATION INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

LOCATION OF GUARDRAIL

THE LOCATIONS OF GUARDRAIL RUNS, AS SHOWN IN THESE PLANS, ARE SUBJECT TO ADJUSTMENT PRIOR TO FINAL ACCEPTANCE. THE ENGINEER SHALL BE SATISFIED THAT ALL INSTALLATIONS WILL AFFORD MAXIMUM PROTECTION FOR TRAFFIC.

SEEDING

QUANTITIES FOR SEEDING ARE CALCULATED FOR THE SOIL AREAS BETWEEN TEN (10) FEET OUTSIDE THE WORK LIMITS, AS SHOWN ON THE CROSS SECTIONS, OR TO THE RIGHT-OF-WAY LINES, IF SUCH LINE IS LESS THAN TEN (10) FEET FROM THE WORK LIMITS.

TEMPORARY SOIL EROSION AND SEDIMENT CONTROL

THE FOLLOWING ESTIMATED QUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER, FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES:

207 STRAW OR HAY BALES 50 EACH
659 WATER 20 M. GAL.

FARM DRAINS

ALL FARM DRAINS, WHICH ARE ENCOUNTERED DURING CONSTRUCTION, SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS UNDER THE DIRECTION OF THE ENGINEER. EXISTING COLLECTORS WHICH ARE LOCATED BELOW THE ROADWAY DITCH ELEVATIONS, AND WHICH CROSS THE ROADWAY, SHALL BE REPLACED WITHIN THE RIGHT-OF-WAY LIMITS BY ITEM 603 CONDUIT, TYPE B, ONE COMMERCIAL SIZE LARGER THAN THE EXISTING CONDUIT.

EXISTING COLLECTORS AND ISOLATED FARM DRAINS, WHICH ARE ENCOUNTERED ABOVE THE ELEVATION OF THE ROADWAY DITCHES, SHALL BE OUTLETTED INTO THE ROADWAY DITCH BY 603 TYPE F CONDUIT. THE OPTIMUM OUTLET ELEVATION SHALL BE, IF POSSIBLE, ONE FOOT ABOVE THE FLOWLINE ELEVATION OF THE DITCH. LATERAL TILE FIELDS WHICH CROSS THE ROADWAY SHALL BE INTERCEPTED BY 603, TYPE F CONDUIT, AND CARRIED IN A LONGITUDINAL DIRECTION TO AN ADEQUATE OUTLET OR ROADWAY CROSSING.

THE LOCATION, TYPE, SIZE AND GRADE OF REQUIRED REPLACEMENTS SHALL BE DETERMINED BY THE ENGINEER DURING CONSTRUCTION, AND PAYMENT SHALL BE MADE ON FINAL MEASUREMENTS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

ITEM 603 6" CONDUIT, TYPE F 50 LIN. FT.

RESTORATION

ANY AREAS DISTURBED OUTSIDE THE WORK LIMITS WILL BE RESTORED BACK TO ITS ORIGINAL SHAPE BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE STATE. ALL PARTS OF WORK SHALL BE LEFT IN AN ACCEPTABLE CONDITION.

TACK COAT

THE TACK COAT AND COVER AGGREGATE OPERATION SHALL BE DETERMINED AS PER SPEC. 407.05. PLAN QUANTITIES INDICATE AVERAGE APPLICATION RATES OF 0.1 GALLONS PER SQUARE YARD OF TACK COAT AND 7 POUNDS PER SQUARE YARD OF COVER AGGREGATE FOR ESTIMATING PURPOSES ONLY.

APPROACH SLAB

JACKING HOLES, AS SHOWN ON AS-1-72, SHALL BE OMITTED. THE REINFORCING IN THE TOP OF THE SLAB SHALL BE 3" CLEAR.

LIGHTS AND SIGNS AT ADJACENT ROAD INTERSECTIONS

THE CONTRACTOR SHALL, IN ADDITION TO THE GENERAL REQUIREMENTS OF ITEM 614 ON THIS PROJECT PERFORM THE FOLLOWING:

PROVIDE, ERECT, AND MAINTAIN STANDARD 48" X 30" SIZE "ROAD CLOSED" SIGNS, SIGN SUPPORTS, AND LIGHTS AT THE LOCATIONS SHOWN IN DETOUR MAP DURING PERIOD(S) IN WHICH THE AFFECTED ROADS ARE CLOSED TO TRAFFIC.

SIGN SUPPORTS AND LIGHTS FOR "ROAD CLOSED" SIGNS SHALL BE AS DETAILED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR PROVIDING, ERECTING, MAINTAINING, AND REMOVING LIGHTS, SIGNS, AND SIGN SUPPORTS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 MAINTAINING TRAFFIC.

CONSTRUCTION SCHEDULE

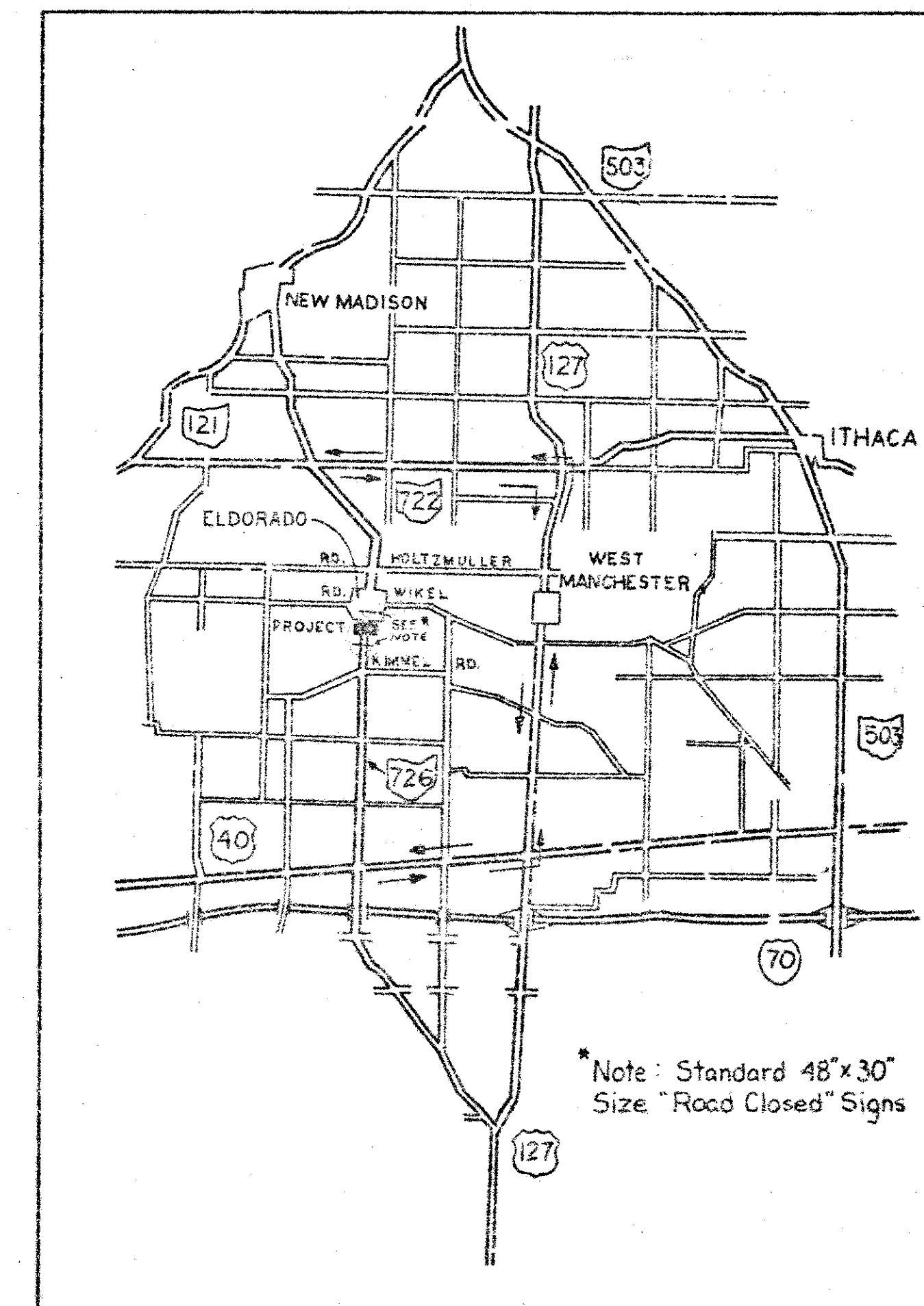
PRE 127-20.49 AND PRE 726-8.70 ARE DESIGNATED PART I AND PART II RESPECTIVELY FOR THE PURPOSE OF CONSTRUCTION SCHEDULE. PRE 127-20.49 PART I SHALL BE COMPLETED FIRST AND US 127 OPENED TO TRAFFIC BEFORE ANY WORK BEGINS ON PRE 726-8.70 PART II.

614 MAINTAINING TRAFFIC

SR 726 WILL BE CLOSED TO TRAFFIC WITHIN THE LIMITS OF THIS PROJECT. DETOUR SIGNS WILL BE ERECTED AND MAINTAINED BY ODOT FORCES. THE CONTRACTOR SHALL NOTIFY THE DISTRICT OFFICE OF THE OHIO DEPARTMENT OF TRANSPORTATION ONE (1) WEEK BEFORE HE WISHES TO HAVE SR 726 CLOSED AND TRAFFIC DETOURED.

THE CONTRACTOR SHALL CLOSE SR 726 AS REQUIRED UNDER ITEM 614.03 USING BARRICADES AS PER STANDARD DRAWING MC-3.

DETOUR ROUTE WILL BE AS PER MAP SHOWN ON THIS SHEET.



*Note: Standard 48"x30"
Size "Road Closed" Signs

TEMPORARY PAVEMENT MARKINGS

NOTE B

FHWA	STATE	PROJECT	
5	OHIO		

4A
16

PRE-726-8.70

GENERAL

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN, AND WHEN NECESSARY, REMOVE TEMPORARY RETROREFLECTIVE PAVEMENT MARKINGS ON EXISTING, RECONSTRUCTED, RESURFACED OR TEMPORARY ROADS WITHIN THE WORK LIMITS, IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS.

THE MARKINGS SHALL BE MAINTAINED IN GOOD CONDITION DURING THE REQUIRED SERVICE PERIOD TO PROVIDE DAY AND NIGHT VISIBILITY. THE MARKINGS SHALL BE REPAIRED OR REPLACED AS DIRECTED BY THE ENGINEER TO MAINTAIN REQUIRED VISIBILITY AND/OR REFLECTIVITY AT NO ADDITIONAL COST TO THE STATE.

MATERIALS

UNLESS OTHERWISE INDICATED ON THE PLANS, TEMPORARY PAVEMENT MARKINGS MAY BE OF PAINT, PAVEMENT MARKING TAPE OR REMOVABLE PAVEMENT MARKING TAPE (TYPE R TAPE).

A. PAINT

PAINT SHALL COMPLY WITH 708.14 AND SHALL BE APPLIED IN ACCORDANCE WITH 621 EXCEPT AS MODIFIED HEREIN.

B. PAVEMENT MARKING TAPE

FLEXIBLE RETROREFLECTIVE PREFORMED PRESSURE SENSITIVE TAPE SHALL HAVE STRAIGHT EDGES AND BE FREE OF CRACKS. THE TAPE SHALL CONSIST OF PIGMENT AND FILLERS WITH SUFFICIENT BINDER AND PLASTICIZER TO RETAIN GLASS BEADS HAVING A REFRACTIVE INDEX MEETING THE MINIMUM REFLECTIVE INTENSITY STANDARD STATED IN THE MANUFACTURERS INFORMATION. THE TAPE SHALL BE FLEXOLITE "M1T REFLECTIVE", 3M "SCOTCHLANE", OR AN APPROVED EQUAL.

THE GLASS BEADS SHALL BE DISTRIBUTED UNIFORMLY THROUGHOUT THE TAPE WITH SUFFICIENT SURFACE BEADS TO PROVIDE OPTIMUM REFLECTORIZATION AT ALL TIMES.

PAVEMENT MARKING TAPE SHALL COMPLY WITH THE COLOR REQUIREMENTS OF 708.14.

THE TAPE SHALL HAVE A PRECOATED ADHESIVE LAYER FOR PAVEMENT APPLICATION WITHOUT THE USE OF HEAT, SOLVENTS OR ADDITIONAL ADHESIVES. THE ADHESIVE SHALL BE SUFFICIENT TO RETAIN COMPLETE MARKINGS ON THE PAVEMENT SURFACE THROUGHOUT THE USEFUL LIFE OF THE MARKINGS.

IN ADDITION TO THE FOREGOING, ALL TEMPERATURE APPLICATION REQUIREMENTS AND OTHER APPLICABLE MANUFACTURERS MATERIAL AND APPLICATION INSTRUCTIONS SHALL BE FOLLOWED.

WHEN APPROVED BY THE ENGINEER THE CONTRACTOR MAY USE REMOVABLE PAVEMENT MARKING TAPE (TYPE R TAPE), IN LIEU OF THAT DESCRIBED ABOVE, TO FACILITATE REMOVAL OF MARKINGS.

C. REMOVABLE PAVEMENT MARKING TAPE (TYPE R TAPE)

THE MARKING MATERIAL SHALL BE A MIXTURE OF POLYMERIC MATERIALS, PIGMENTS, REINFORCING MEDIUM TO FACILITATE REMOVAL, GLASS BEADS THROUGHOUT THE PIGMENTED PORTION, AND A RETROREFLECTIVE LAYER OF GLASS BEADS BONDED TO THE TOP SURFACE.

THE TAPE SHALL BE PRECOATED WITH A PRESSURE SENSITIVE ADHESIVE CAPABLE OF TEMPORARILY BONDING TO ASPHALT CONCRETE OR PORTLAND CEMENT CONCRETE PAVEMENT AT AN AMBIENT TEMPERATURE OF NOT LESS THAN 50° F AND RISING AT A PAVEMENT TEMPERATURE OF NOT LESS THAN 50° F NOR MORE THAN 150° F, WITHOUT THE USE OF HEAT, SOLVENTS, AND ADDITIONAL ADHESIVES OR ACTIVATORS.

MATERIALS SHALL CONFORM TO THE COLOR REQUIREMENTS OF 708.14.

THE TAPE SHALL BE REMOVABLE FROM ASPHALT AND PORTLAND CEMENT CONCRETE INTACT OR IN LARGE PIECES AT TEMPERATURES ABOVE 40° F WITHOUT USE OF HEAT, SOLVENTS, GRINDING, OR SANDBLASTING. REMOVAL SHALL NOT RESULT IN DAMAGE TO OR OBJECTIONABLE STAINING OF THE PAVEMENT.

GLASS BEADS SHALL BE PROVIDED IN A PROPER SIZE, QUANTITY AND DISTRIBUTION TO ASSURE OPTIMUM RETROREFLECTIVITY AS THE FILM WEARS. THE FOLLOWING INITIAL AVERAGE REFLECTANCE VALUES AT 86.0 ENTRANCE ANGLE AS MEASURED IN ACCORDANCE WITH THE TESTING PROCEDURES OF FEDERAL TEST METHOD 370 SHALL BE CERTIFIED:

OBSERVATION ANGLE	WHITE		YELLOW	
	0.2	0.5	0.2	0.5
SPECIFIC LUMINANCE	1770	1270	1310	910
(MCD/FT ²)/FC				

THE TAPE SHALL BE 3-M COMPANY'S "STAMARK, DETOUR GRADE (SERIES 5710, 5711, 6270, 6211)" OR AN APPROVED EQUAL.

THE CONTRACTOR SHALL FURNISH TO THE ENGINEER CERTIFICATION THAT THE MATERIAL SUPPLIED MEETS THE PROPERTIES SPECIFIED HEREIN.

LAYOUT

THE TEMPORARY MARKINGS SHALL BE ACCURATELY LAID OUT IN CONFORMANCE WITH 621.051 AND SHALL BE LOCATED IN A TRUE LINE ON THE CENTER LINE, LANE LINE, EDGE LINE, OR CHANNELIZING LINE WHERE PERMANENT MARKINGS WOULD LIE UNLESS OTHERWISE SPECIFIED IN THE PLANS.

PLACEMENT

TEMPORARY MARKINGS SHALL BE PLACED IN ACCORDANCE WITH LAYOUTS ON SHEETS AND THE FOLLOWING REQUIREMENTS, UNLESS OTHERWISE SPECIFIED IN THE PLANS.

TEMPORARY MARKINGS SHALL BE COMPLETE AND IN PLACE ON ALL PAVEMENT PRIOR TO EXPOSING IT TO TRAFFIC. WHEN TEMPORARY MARKINGS ARE NO LONGER NEEDED, THEY SHALL BE REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH 621.134 AND NECESSARY PAVEMENT MARKINGS INSTALLED BEFORE THE FLOW OF TRAFFIC IS CHANGED TO THE NEXT PHASE OR RETURNED TO ITS NORMAL CHANNEL.

WHERE PERMANENT PAVEMENT MARKINGS ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL FURNISH AND PLACE THE PERMANENT MARKINGS WITHIN 30 CALENDAR DAYS FOLLOWING COMPLETION OF ALL SURFACE COURSES IN A SINGLE ROADWAY OR PRIOR TO THE END OF THE CONSTRUCTION SEASON, WHICHEVER COMES FIRST. PERMANENT MARKINGS SHALL NOT BE PLACED OVER ANY TAPE MARKINGS.

A. CLASS I MARKINGS

CLASS I MARKINGS SHALL BE AS DEFINED IN 621, EXCEPT AS FOLLOWS:

- 1) LANE LINES SHALL BE 4-INCHES IN WIDTH.
- 2) TRANSVERSE LINES SHALL BE 8-INCHES IN WIDTH.
- 3) STOP LINES SHALL BE 12-INCHES IN WIDTH.
- 4) CROSS WALK LINES SHALL BE 8-INCHES IN WIDTH.

GORE MARKINGS SHALL CONSIST OF TWO CHANNELIZING LINES PLACED AT THE THEORETICAL OR TEMPORARY GORE OF RAMPS AND DIVERGING OR CONVERGING ROADWAYS.

THE PAINT APPLICATION RATE SHALL BE NOT LESS THAN 16 GALLONS PER MILE FOR SOLID 4-INCH LINES, 24 GALLONS PER MILE FOR SOLID 6-INCH LINES, 48 GALLONS PER MILE FOR SOLID 12-INCH LINES, AND 4 GALLONS PER MILE FOR 4-INCH DASHED LINES.

B. CLASS II MARKINGS

CENTER LINES SHALL CONSIST OF SINGLE, YELLOW 12-INCH BY 4-INCH DASHES SPACED AT A MAXIMUM OF 40-FOOT INTERVALS.

LANE LINES SHALL CONSIST OF WHITE 12-INCH BY 4-INCH DASHES SPACED AT A MAXIMUM OF 40-FOOT INTERVALS.

CHANNELIZING LINES SHALL CONSIST OF WHITE 12-INCH BY 4-INCH DASHES SPACED AT A MAXIMUM OF 20-FOOT INTERVALS.

GORE MARKINGS SHALL BE TWO CONTINUOUS, WHITE 50-FOOT BY 4-INCH LINES PLACED AT THE THEORETICAL GORE OF AN EXIT RAMP OR DIVERGING ROADWAYS.

THE PAINT APPLICATION RATE SHALL BE NOT LESS THAN 16 GALLONS PER MILE FOR GORE MARKINGS, 0.8 GALLONS PER MILE FOR CHANNELIZING LINE, AND 0.4 GALLONS PER MILE FOR LANE LINE AND CENTER LINE.

CONFLICTING MARKINGS

THE CONTRACTOR SHALL, PRIOR TO PLACING TEMPORARY MARKINGS, REMOVE ALL EXISTING CONFLICTING MARKINGS VISIBLE TO THE TRAVELING PUBLIC DURING DAYLIGHT OR NIGHTTIME HOURS IN ACCORDANCE WITH 621.134. THE COST FOR REMOVAL OF CONFLICTING MARKINGS SHALL BE INCIDENTAL TO THE VARIOUS PAY ITEMS.

METHOD OF MEASUREMENT

TEMPORARY PAVEMENT MARKINGS WILL BE MEASURED COMPLETE IN PLACE, BY CLASS AND MATERIAL, IN THE UNITS DESIGNATED. DASHED LINE QUANTITIES WILL BE THE LENGTH OF THE COMPLETED STRIPE, INCLUDING CAPS, INTERSECTIONS, AND OTHER SECTIONS OF PAVEMENT NOT NORMALLY MARKED, IN ACCORDANCE WITH 621.15.

TEMPORARY PAVEMENT MARKINGS WILL INCLUDE THE LAYOUT, APPLICATION AND REMOVAL OF THE MARKINGS, WHEN REQUIRED.

BASIS OF PAYMENT

PAYMENT FOR ACCEPTED QUANTITIES COMPLETE IN PLACE WILL BE MADE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL BE FULL

COMPENSATION FOR ALL MATERIALS, LABOR, INCIDENTALS AND EQUIPMENT FOR PLACEMENT, MAINTENANCE AND NECESSARY REMOVAL OF THE MARKINGS.

ITEM	UNIT	DESCRIPTION
614	MILES	TEMPORARY LANE LINES, CLASS _____ (PAINT, TAPE OR TYPE R TAPE)
614	MILES	TEMPORARY CENTER LINES, CLASS _____ (PAINT, TAPE OR TYPE R TAPE)
614	MILES/LIN. FT.	TEMPORARY CHANNELIZING LINES, CLASS _____ (PAINT, TAPE OR TYPE R TAPE)
614	MILES	TEMPORARY EDGE LINES, CLASS I (PAINT, TAPE OR TYPE R TAPE)
614	LIN. FT.	TEMPORARY GORE MARKING, CLASS II (PAINT, TAPE OR TYPE R TAPE)
614	LIN. FT.	TEMPORARY STOP LINES, CLASS I (PAINT, TAPE OR TYPE R TAPE)
614	LIN. FT.	TEMPORARY CROSSWALK LINES, CLASS I (PAINT, TAPE OR TYPE R TAPE)
614	EACH	TEMPORARY LANE ARROWS, CLASS I (PAINT, TAPE OR TYPE R TAPE)
614	EACH	TEMPORARY WORD "ONLY" ON PAVEMENT, 72-INCH, CLASS I (PAINT OR TAPE)
614	LIN. FT.	TEMPORARY TRANSVERSE LINES, CLASS I (PAINT, TAPE OR TYPE R TAPE)

PERMANENT PAVEMENT MARKINGS SHALL BE INSTALLED BY ODOT. THE DISTRICT TRAFFIC ENGINEER SHALL BE NOTIFIED AT LEAST 5 WORKING DAYS PRIOR TO OPENING THE ROAD TO ALLOW FOR SCHEDULING OF THE PAVEMENT MARKING INSTALLATION.

A QUANTITY OF 0.10 MILES OF TEMPORARY CENTER LINES, CLASS II IS CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER.

THE ROAD SHALL NOT BE OPENED TO TRAFFIC WITHOUT EITHER THE PERMANENT OR TEMPORARY PAVEMENT MARKINGS IN PLACE.

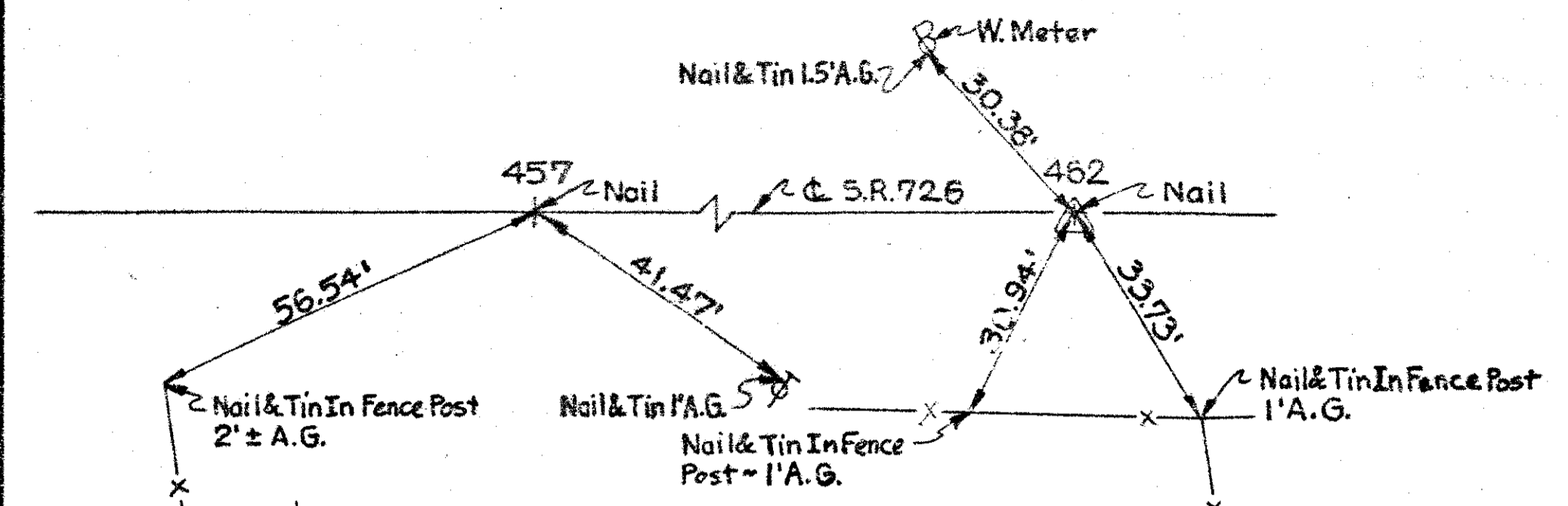
Calc. By K.E.M. 10/12/82
 Chkd. By R.E.R. 10/13/82
 Revised By K.E.M. 2/01/83
 Chkd. By R.E.R. 2/4/83

FED. RD. DIST. NO.	STATE	PROJECT
5	OHIO	

5
16

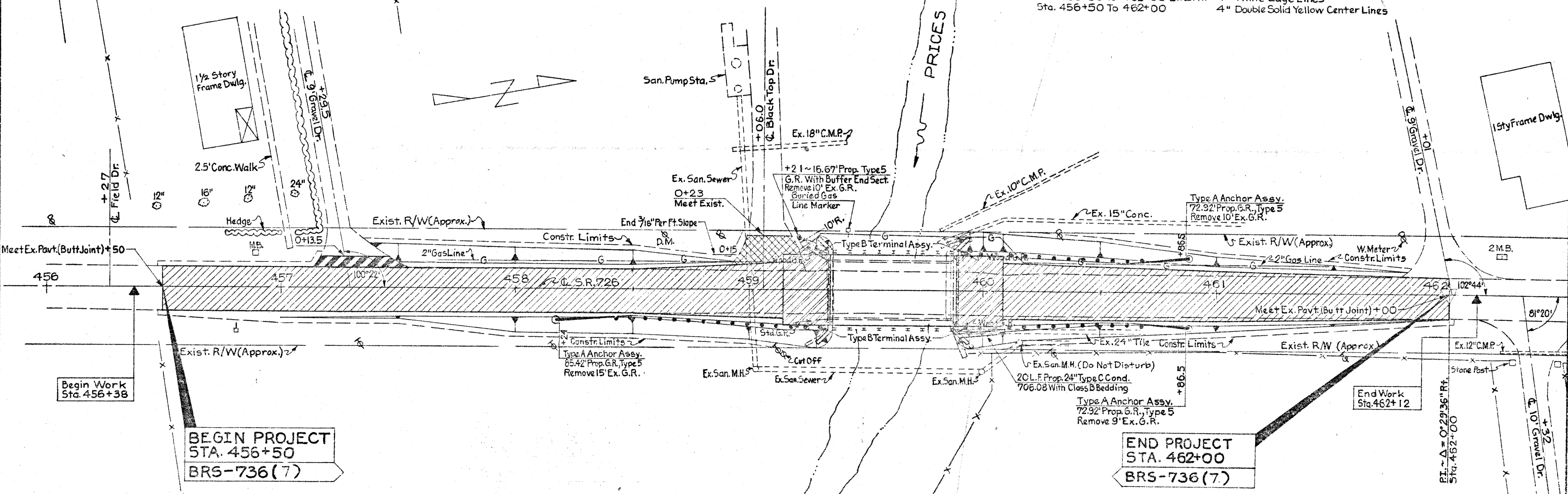
PRE-726-8.70

References



PAVEMENT MARKINGS *

Sta. 456+50 To 462+00 Lt. & Rt. 4" White Edge Lines
 Sta. 456+50 To 462+00 4" Double Solid Yellow Center Lines



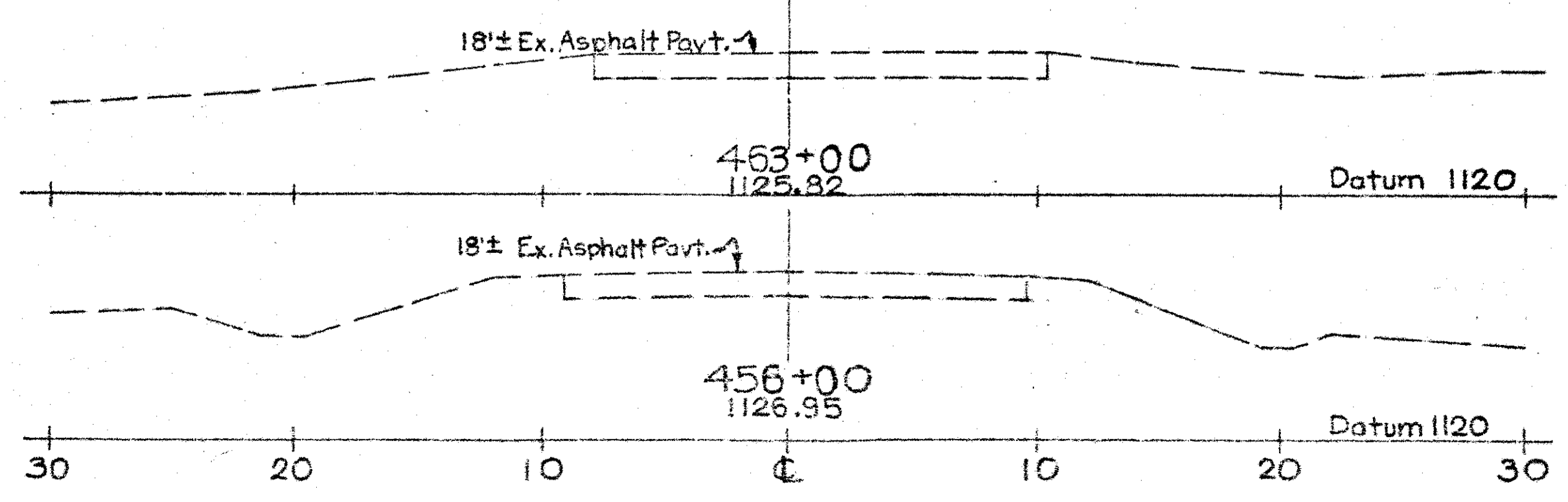
Begin Work Sta. 456+38

BEGIN PROJECT
 STA. 456+50
 BRS-736(7)

END PROJECT
 STA. 462+00
 BRS-736(7)

End Work Sta. 462+12
 P.I. = A = 0.2936" Rt. Sta. 462+00

TYPICAL SECTIONS
 Adjacent To Beginning And End Of Work



PAVEMENT LEGEND

	404 1/4"		404 1"
	403 1/4"		301 5"
	301 9" Min.		
	404 1/4"		
	403 1/4"		
	407 Tack Coat @ 0.1 Gal./S.Y.		
	407 Cover Agg. @ 7lb./S.Y.		
	611 13" Reinf. Conc. Appr. Slab		
	404 0" Minimum		
	407 Tack Coat @ 0.1 Gal./S.Y.		
	407 Cover Agg. @ 7lb./S.Y.		

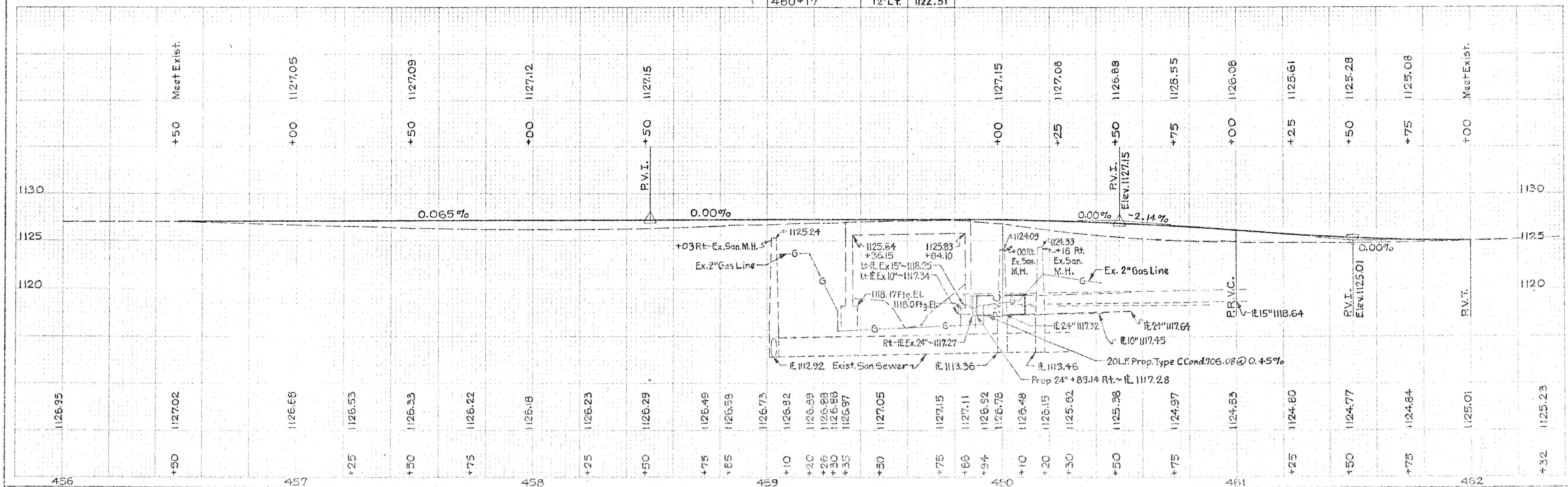
ESTIMATED QUANTITIES

201 Clearing And Grubbing	Lump	Lump
202 Pavement Removed (Est. Quant. 18'x15'x2'+9)	60	Sq.Yd.
203 Excavation Not Incl. Embank. Constr.	160	Cu.Yd.
203 Embankment	160	Cu.Yd.
203 Subgrade Compaction (New Appr. Slabs)	133.3	Sq.Yd.
611 Reinforced Concrete Approach Slabs	133.3	Sq.Yd.
407 Tack Coat	16.2	Gal.
407 Cover Aggregate	0.57	Tons
403 Asphalt Concrete AC-20	39.9	Cu.Yd.
404 Asphalt Concrete AC-20	42.3	Cu.Yd.
301 9" Bituminous Aggregate Base	257	Cu.Yd.
202 Guardrail Removed	44	Lin.Ft.
606 Guardrail, Type 5	247.93	Lin.Ft.
606 Anchor Assembly, Standard Type A	3	Each
606 Bridge Terminal Assembly, Standard Type B	4	Each
603 24" Conduit, Type C 706.08	20	Lin.Ft.
659 Seeding And Mulching	1612	Sq.Yd.
659 Commercial Fertilizer	0.15	Tons
* 621 Edge Lines (2)	0.208	Miles
* 621 Center Lines (double solid yellow)	0.104	Miles

* FOR INFORMATION ONLY

B.M. Elev. 1129.76
 Top Of Letter 'M' In Mueller On Hydr.
 Sta. 465+03 Lt.

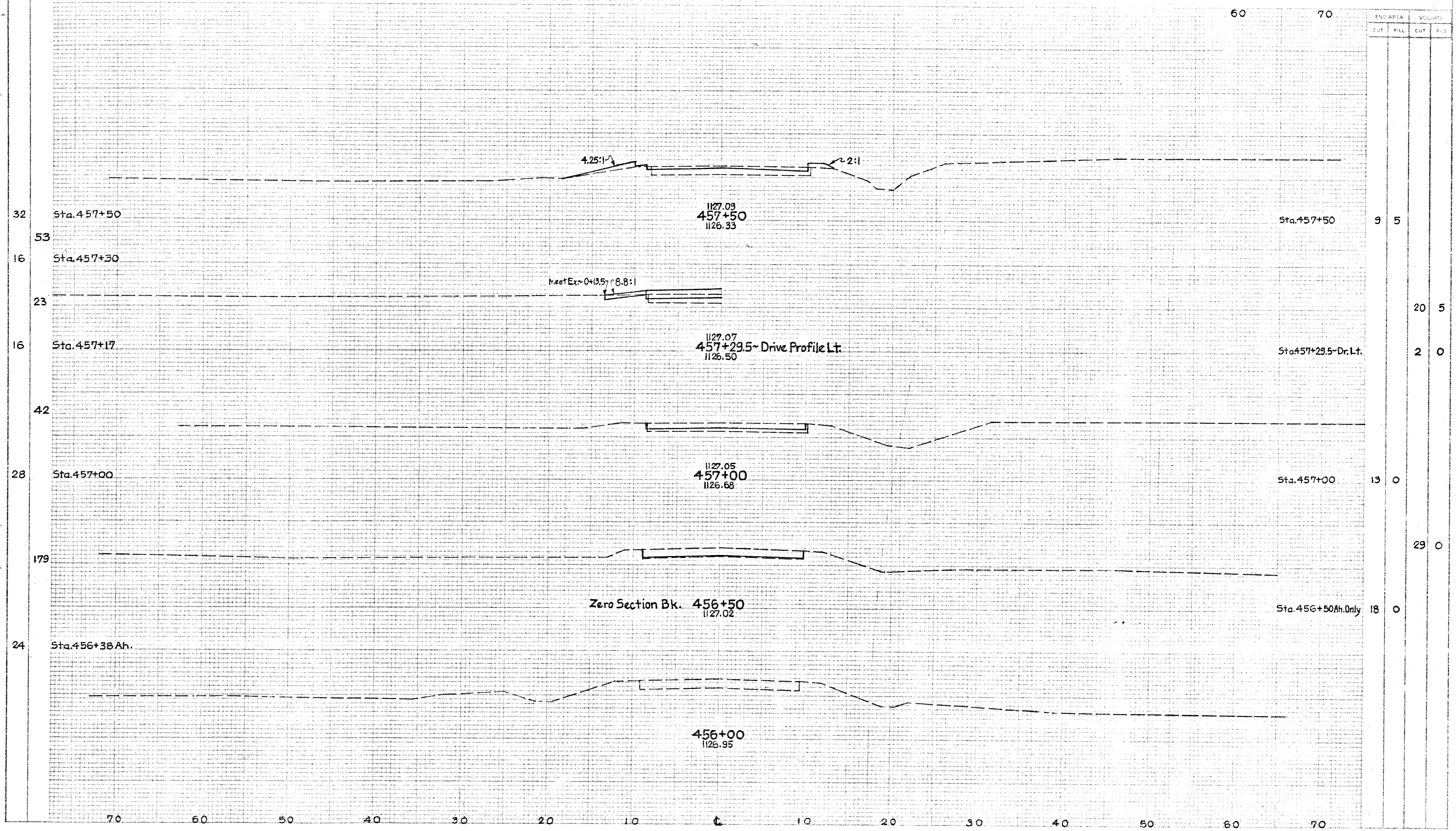
Gas Line Location		
Station	Offset	Pipe Elev.
459+18	12' Lt.	1123.68
459+30	24' Lt.	1117.60
459+30	24' Lt.	1115.60
459+92	23' Lt.	1116.32
459+92	23' Lt.	1118.32
460+07	23' Lt.	1118.85
460+17	12' Lt.	1122.51



PRE-726-8.70 ~ Q PROFILE ~ STA. 456+00 TO STA. 462+00

Calc. By K.E.M. 2/0/83
Chkd. By R.L.R. 2/3/83

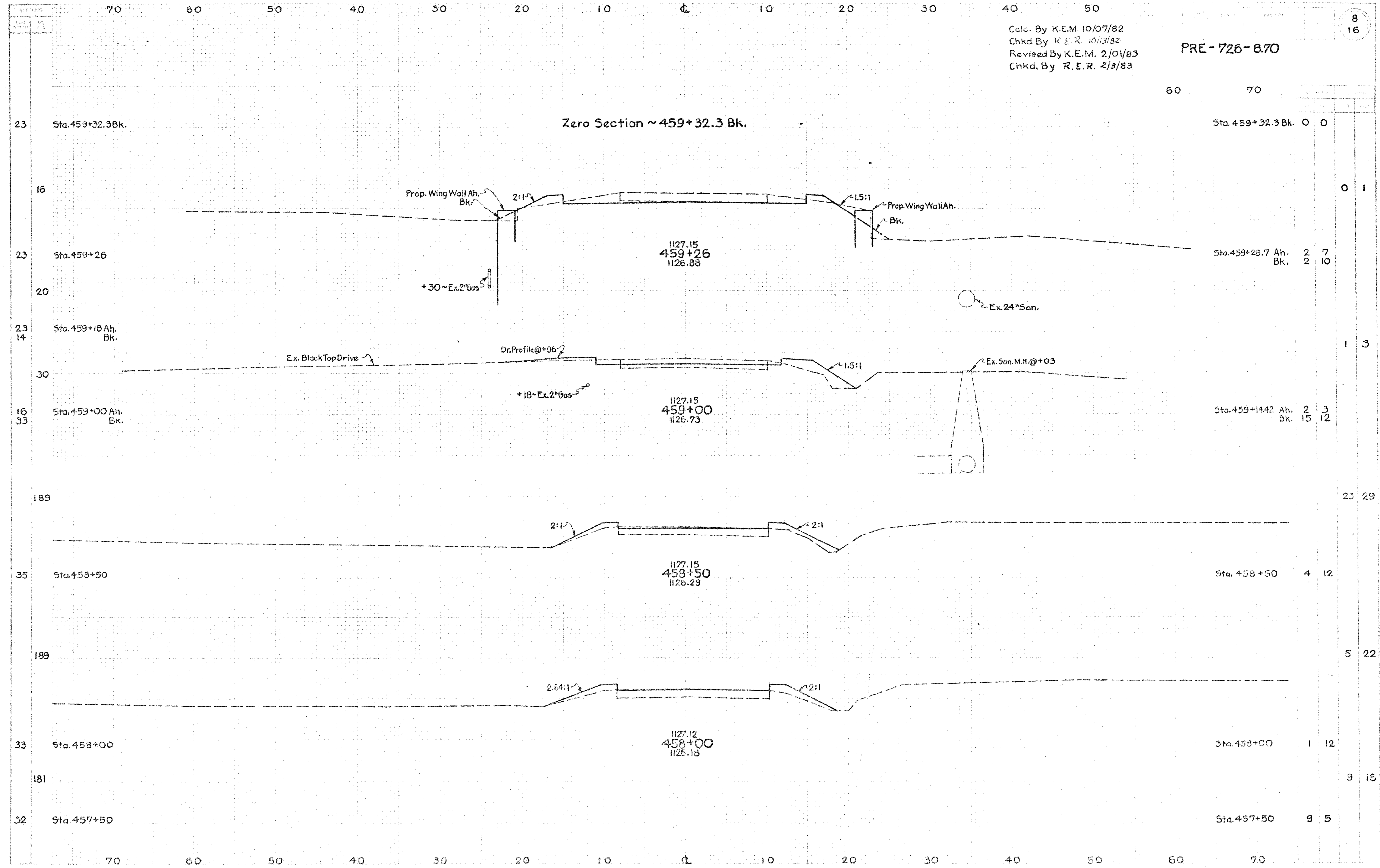
PRE-726-8.70



END AREA		VOLUME	
CUT	FILL	CUT	FILL
9	5		
		20	5
		2	0
		13	0
		29	0
		18	0

Calc. By K.E.M. 10/07/82
Chkd. By R.E.R. 10/13/82
Revised By K.E.M. 2/01/83
Chkd. By R.E.R. 2/3/83

PRE-726-870



Zero Section ~ 459+32.3 Bk.

1127.15
459+26
1126.88

1127.15
459+00
1126.73

1127.15
458+50
1126.29

1127.12
458+00
1126.18

Prop. Wing Wall Ah.
Bk.

Prop. Wing Wall Ah.
Bk.

+30~Ex. 2" Gas

Ex. 24" San.

Ex. Black Top Drive

Dr. Profile @ +06

+18~Ex. 2" Gas

Ex. San. M.H. @ +03

2:1

2:1

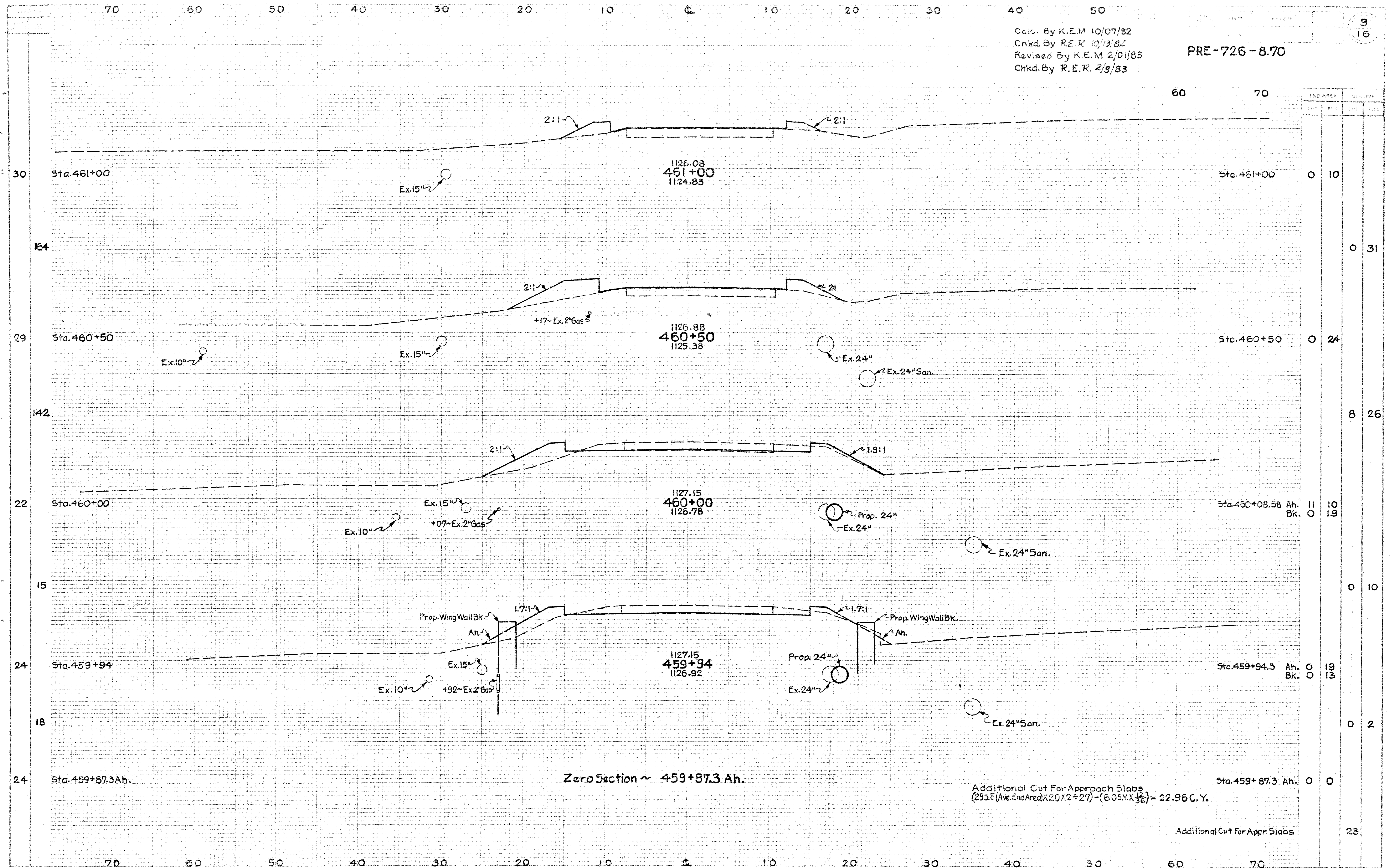
1.5:1

2.64:1

2:1

Calc. By K.E.M. 10/07/82
 Chkd. By R.E.R. 10/13/82
 Revised By K.E.M. 2/01/83
 Chkd. By R.E.R. 2/3/83

PRE-726-8.70



STA.	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
Sta. 461+00	0	10		
Sta. 460+50	0	24		
Sta. 460+00	11	10	8	26
Sta. 459+94	0	19	0	10
Sta. 459+94.3 Ah. Bk.	0	13	0	2
Sta. 459+87.3 Ah.	0	0		
				23

Zero Section ~ 459+87.3 Ah.

Additional Cut For Approach Slabs
 $(295.F(Ave. End Area) \times 20 \times 2 \div 27) - (605.Y \times \frac{1}{36}) = 22.96 C.Y.$

Additional Cut For Appr. Slabs

FIELD NO. 1612

70 60 50 40 30 20 10 0 10 20 30 40 50

Calc. By K.E.M. 2/01/83
Chkd. By R.E.R. 2/3/83

PRE-726-8.70

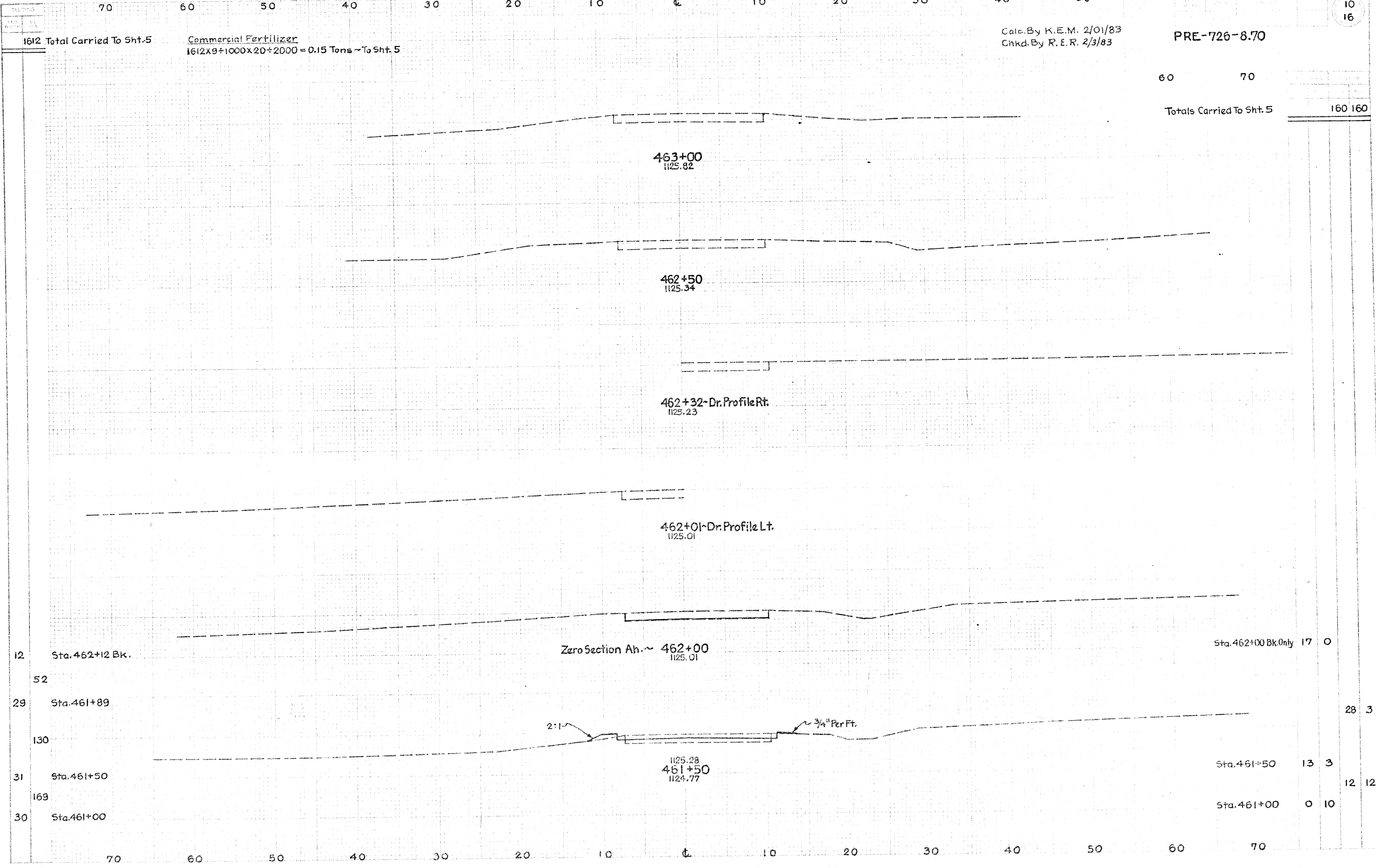
1612 Total Carried To Sht. 5

Commercial Fertilizer
 $1612 \times 9 \div 1000 \times 20 \div 2000 = 0.15$ Tons ~ To Sht. 5

60 70

Totals Carried To Sht. 5

160 160



Sta. 462+12 Bk.

Sta. 461+89

Sta. 461+50

Sta. 461+00

Zero Section Ah ~ 462+00
1125.01

463+00
1125.82

462+50
1125.34

462+32-Dr. Profile Rt.
1125.23

462+01-Dr. Profile Lt.
1125.01

1125.28
461+50
1124.77

Sta. 462+00 Bk. Only 17 0

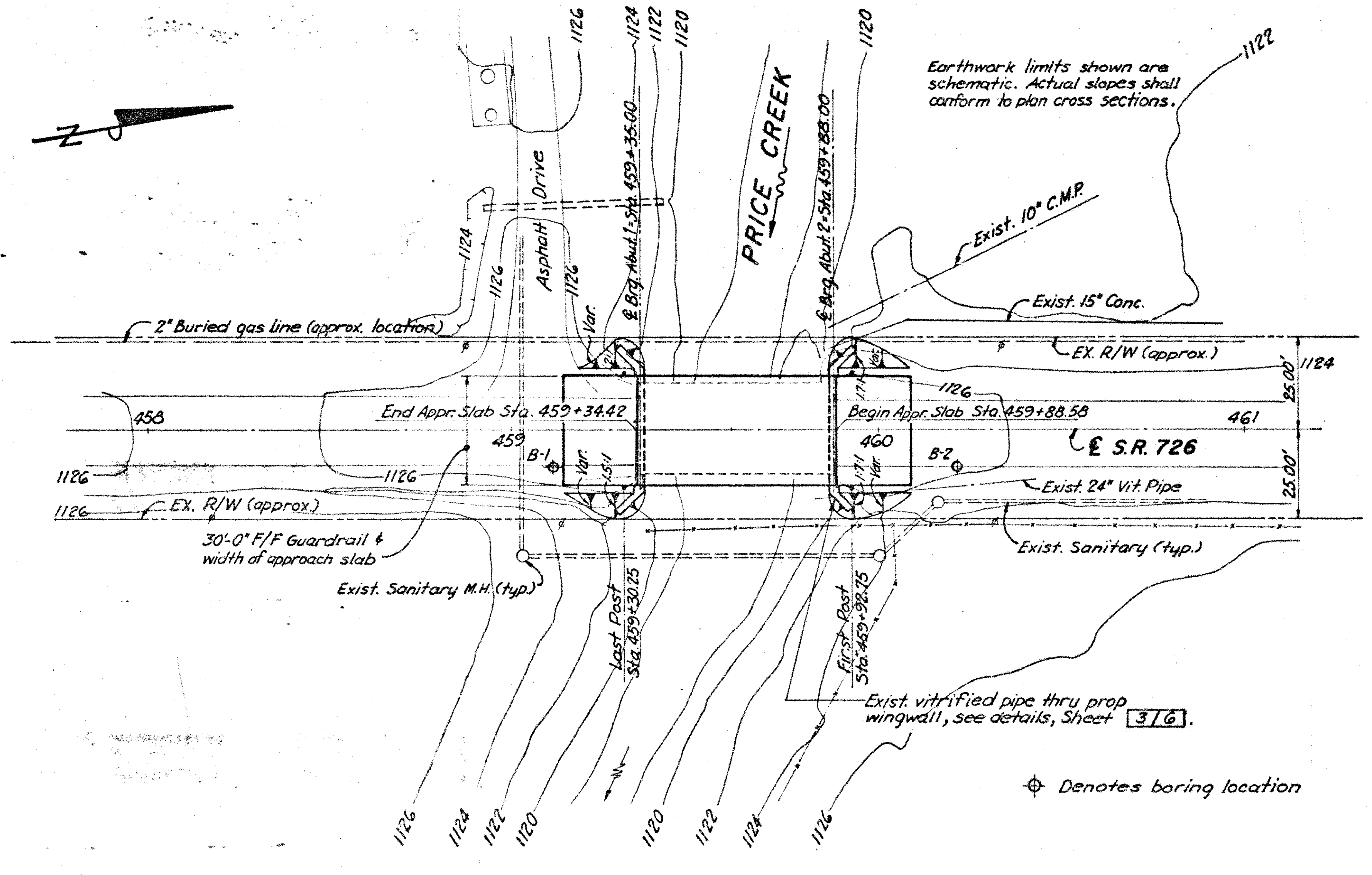
Sta. 461+50 13 3

Sta. 461+00 0 10

28 3

12 12

PREBLE COUNTY
PRE-726-08.70



PLAN

HYDRAULIC DATA
 Drainage area = 3200 ac. = 5.00 sq. mi.
 100 YR. CHECK:
 Q = 1076 CFS
 dn = 6.6' (actual)
 Vr = 3.2 FPS (actual)
 H.W. Elev. 1123.1
 REMARKS: Rock protection not required
 Low E.P. Elev. 1125 ±
 Freeboard (100 Yr.) = 1125 - 1123.1 = 1.9'

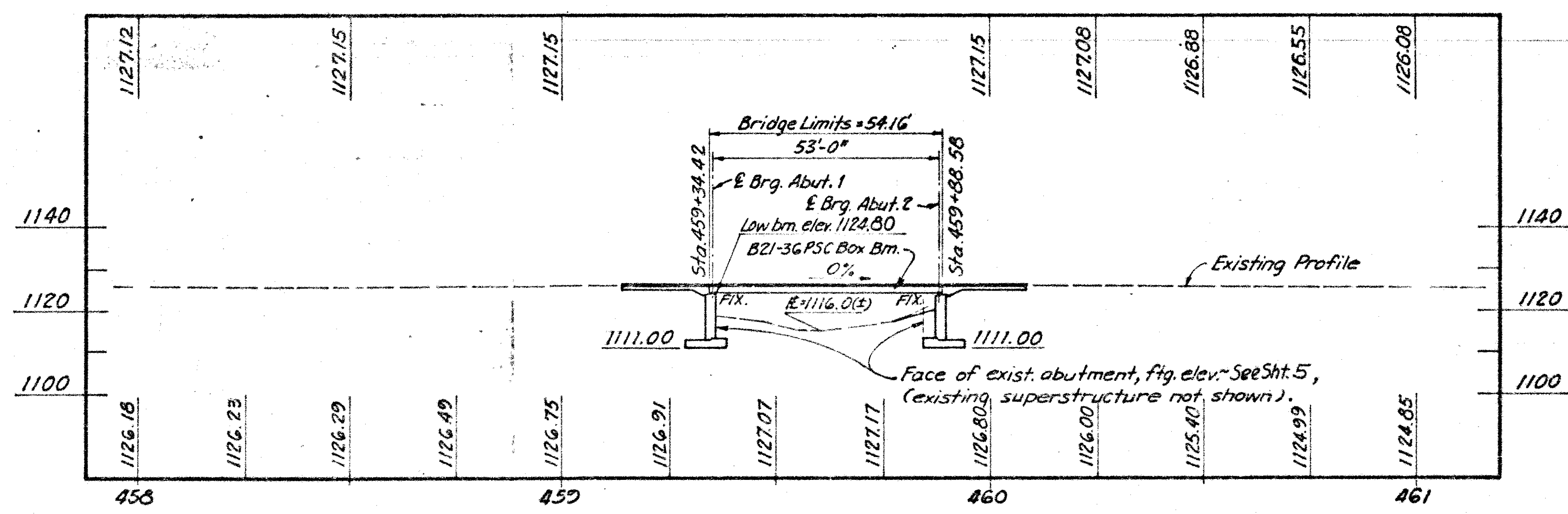
EXISTING STRUCTURE
 TYPE: Simple span rolled steel beam with timber plank deck and stone masonry abutments
 SPAN: 50'-0" (±)
 ROADWAY: 23'-0" (±)
 LOADING: Unknown
 ALIGNMENT: Tangent
 WEARING SURFACE: Asphalt concrete
 DATE BUILT: Unknown
 CONDITION: Poor, to be removed

PROPOSED STRUCTURE
 TYPE: Simple span prestressed concrete box beam superstructure with reinforced concrete cantilever abutments
 SPAN: 53'-0"
 ROADWAY: 30'-0" face to face guardrails.
 LOADING: HS20-44 and the alternate Military Loading.
 SKEW: None
 ALIGNMENT: Tangent
 WEARING SURFACE: 2 1/2" min. asphalt concrete
 APPROACH SLABS: AS-1-B1 (20' long)

LOCKWOOD, JONES & BEALS
 CONSULTING ENGINEERS
 DAYTON, OHIO

SITE PLAN
 BRIDGE NO. PRE-726-0870
 S. R. 726
 OVER PRICE CREEK
 PREBLE COUNTY STA. 459 + 34.42 TO 459 + 88.53

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVIEWED
Q.D.O.T.	Q.D.O.T.	E.P.A.	E.P.A.	H.D.J.	H.D.J. 8/82



PROFILE

PREBLE COUNTY
PRE-726-0870

ESTIMATED QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION	ABUTMENTS	SUPERSTRUCTURE	GENERAL	CHECKED	AS BUILT
202	Lump	Sum	Structure removed			Lump	D.W.I. 8/82	
403	10	C.Y.	Asphalt concrete (AC-20)		10		D.W.I. 8/82	
404	6	C.Y.	Asphalt concrete (AC-20)		6		D.W.I. 8/82	
503	Lump	Sum	Cofferdams, cribs and sheeting	Lump			D.W.I. 8/82	
509	10,572	Lb.	Reinforcing steel	10,572			D.W.I. 8/82	
510	20	Ea.	Dowel Holes	20			H.D.J. 9/82	
511	85	C.Y.	Class C concrete, abutment walls	85			D.W.I. 8/82	
511	59	C.Y.	Class C concrete footings	59			D.W.I. 8/82	
512	195	S.Y.	Type D waterproofing		195		D.W.I. 8/82	
515	10	Ea.	Prestressed concrete bridge members, 54.00' long		10		D.W.I. 8/82	
516	110	S.F.	1" Prefabricated expansion joint filler			110	D.W.I. 8/82	
516	66	L.F.	Joint Sealer			66	D.W.I. 8/82	
516	40		1 1/2" x 1'-0" Elastomeric bearing pads		40		D.W.I. 8/82	
517	108.32	L.F.	Railing, deep beam rail with steel tubular backup and steel posts and bolts		108.32		D.W.I. 8/82	
518	43	C.Y.	Porous backfill	43			D.W.I. 8/82	
SPECIAL	81	S.F.	Steel drip strip		81		D.W.I. 8/82	

GENERAL NOTES

REFERENCE shall be made to the following:
Standard Drawing:

AS-1-81, dated 11-27-81
PSBD-1-81, dated 9-18-81
DBR-2-73, dated 4-10-73

DESIGN SPECIFICATIONS: This structure conforms to "Standard Specifications for Highway Bridges" adopted by the American Association of State Highway and Transportation Officials, 1977, including the 1978, 1979, 1980, 1981 and 1982 Interim Specifications and the Ohio "Supplement" to those specifications.

DESIGN DATA: Design Loading - HS20-44 and the alternate Military Loading
Superimposed Dead Load - 200 lbs. per lin. ft. per beam
Concrete Class C - Compressive Strength 4,000 psi.
Reinforcing Steel - ASTM A615, A616 or A617-Grade 60 minimum yield strength 60,000 psi.
Concrete for Prestressed Concrete Beams -
Minimum Compressive Strength at 28 days $f'_c = 5,500$ psi.
Minimum Compressive Strength at time of initial prestress $f'_ci = 4,000$ psi.
Reinforcing Steel for Prestressed Beams -
ASTM A615, A616 or A617 - Unit Stress - 20,000 psi.
Prestressing Steel - ASTM A416 Grade 270, 1/2" diameter, seven wire, uncoated, stress relieved strand
 $A_s = 0.153$ sq. in.
 $f'_s = 270,000$ psi.
Initial Stress $0.70 f'_s = 189,000$ psi.
Stress at release $0.63 f'_s = 170,000$ psi.

ELASTOMERIC BEARING PADS shall be Durometer Hardness Grade 50 and shall conform to the requirements of 711.23 of the "Construction and Materials Specifications."

REMOVAL OF EXISTING STRUCTURE: When no longer needed to maintain traffic, the existing structure shall be removed.

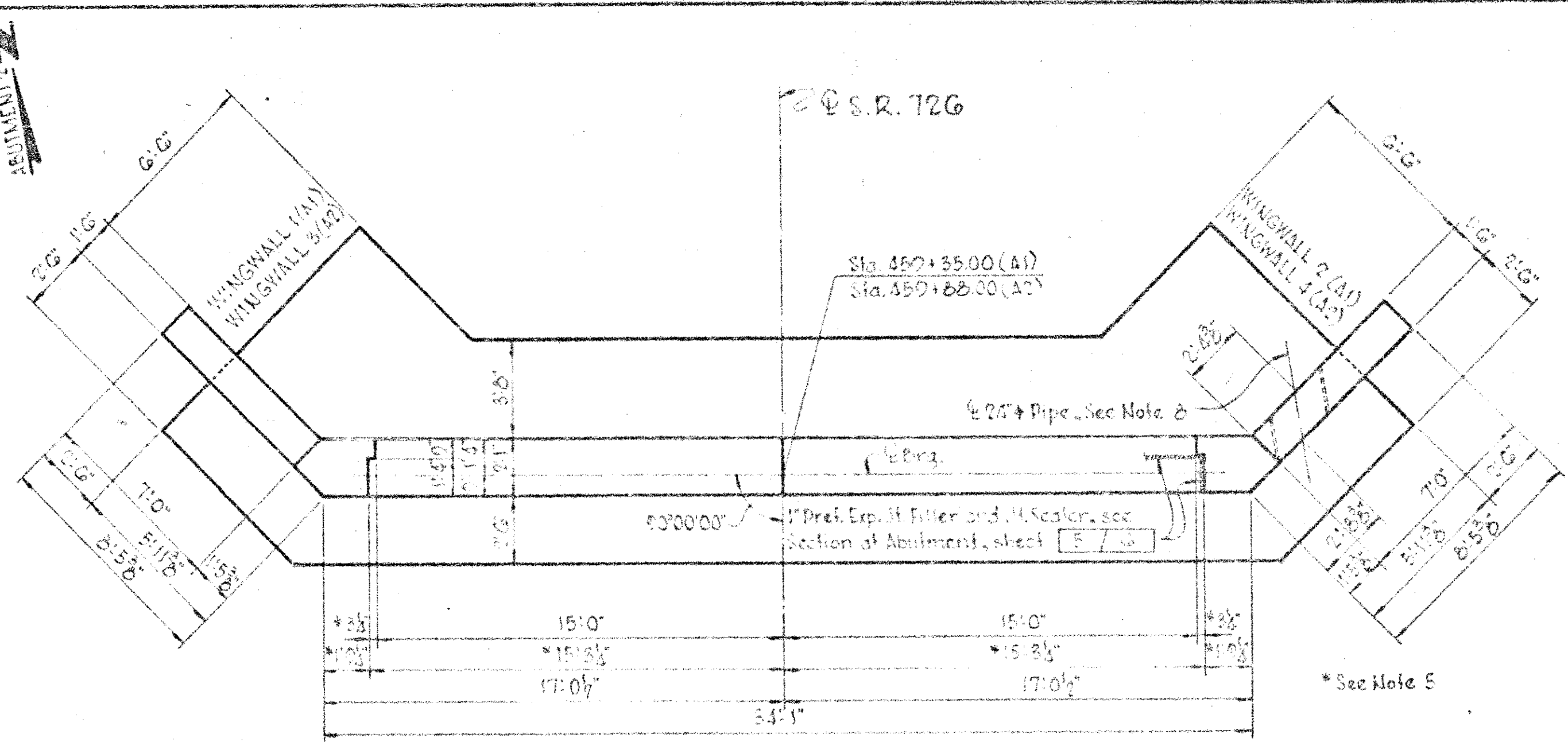
FOUNDATION BEARING PRESSURE: Abutment footings are designed for a maximum bearing pressure of 2.5 tons per square foot.

UNCLASSIFIED EXCAVATION: All excavation and backfill necessary to complete the work as shown in the plans shall be included for payment in the lump sum price bid for Item 202, Structure removed. The requirements of Item 503 shall apply.

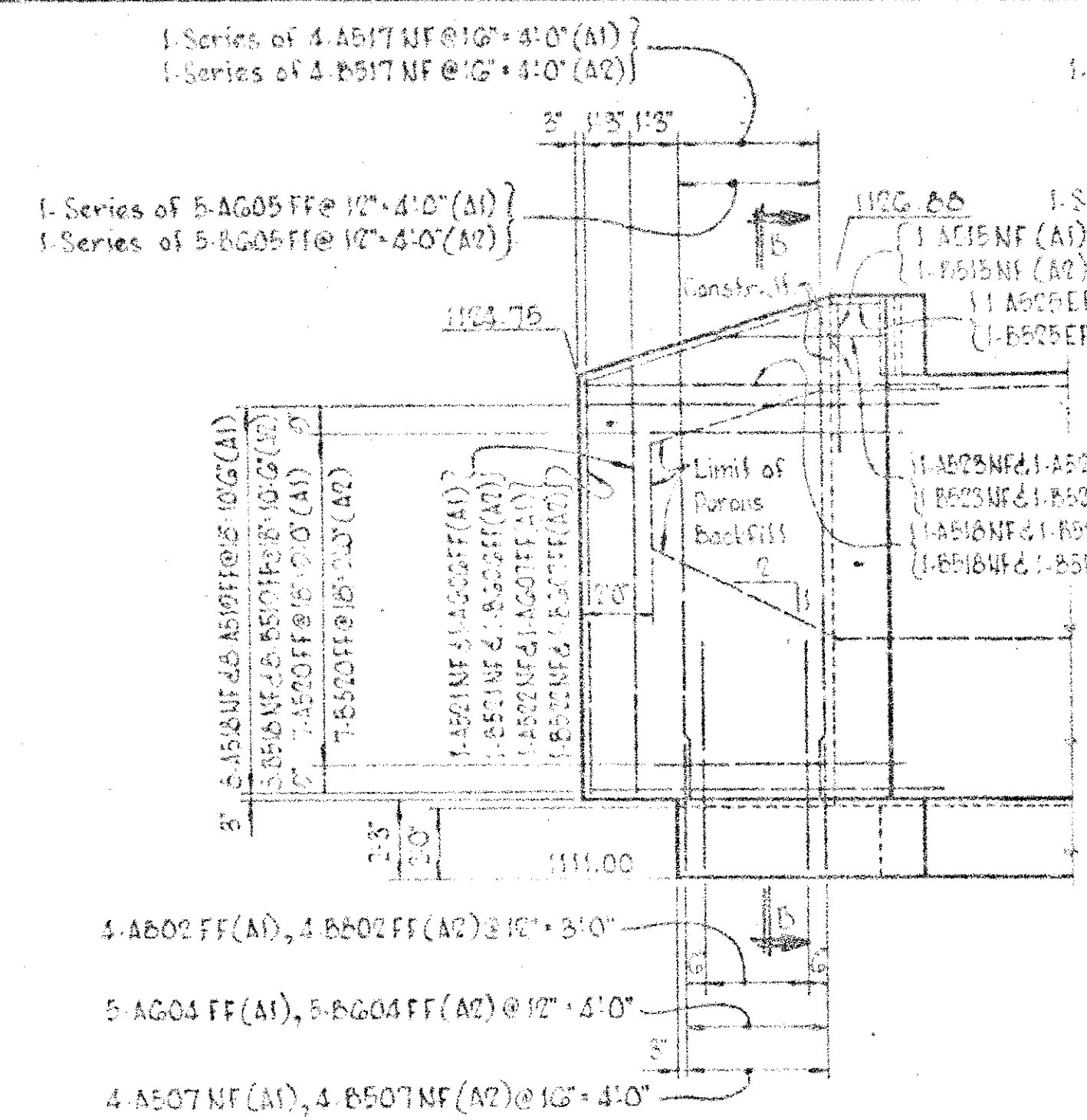
DECK PROTECTION METHOD: Type D waterproofing and asphalt concrete overlay.

LOCKWOOD, JONES & BEALS CONSULTING ENGINEERS DAYTON, OHIO						2/6
GENERAL NOTES & ESTIMATED QUANTITIES						
BRIDGE NO. PRE-726-0870						
S.R. 726						
OVER PRICE CREEK						
PREBLE COUNTY STA. 459 + 34.42 TO						
459 + 88.58						
DESIGNED	DRAWN	CHECKED	APPROVED	DATE		
H.D.J.	E.P.A.	J.L.R.	E.P.A.	H.D.J. 8/82		

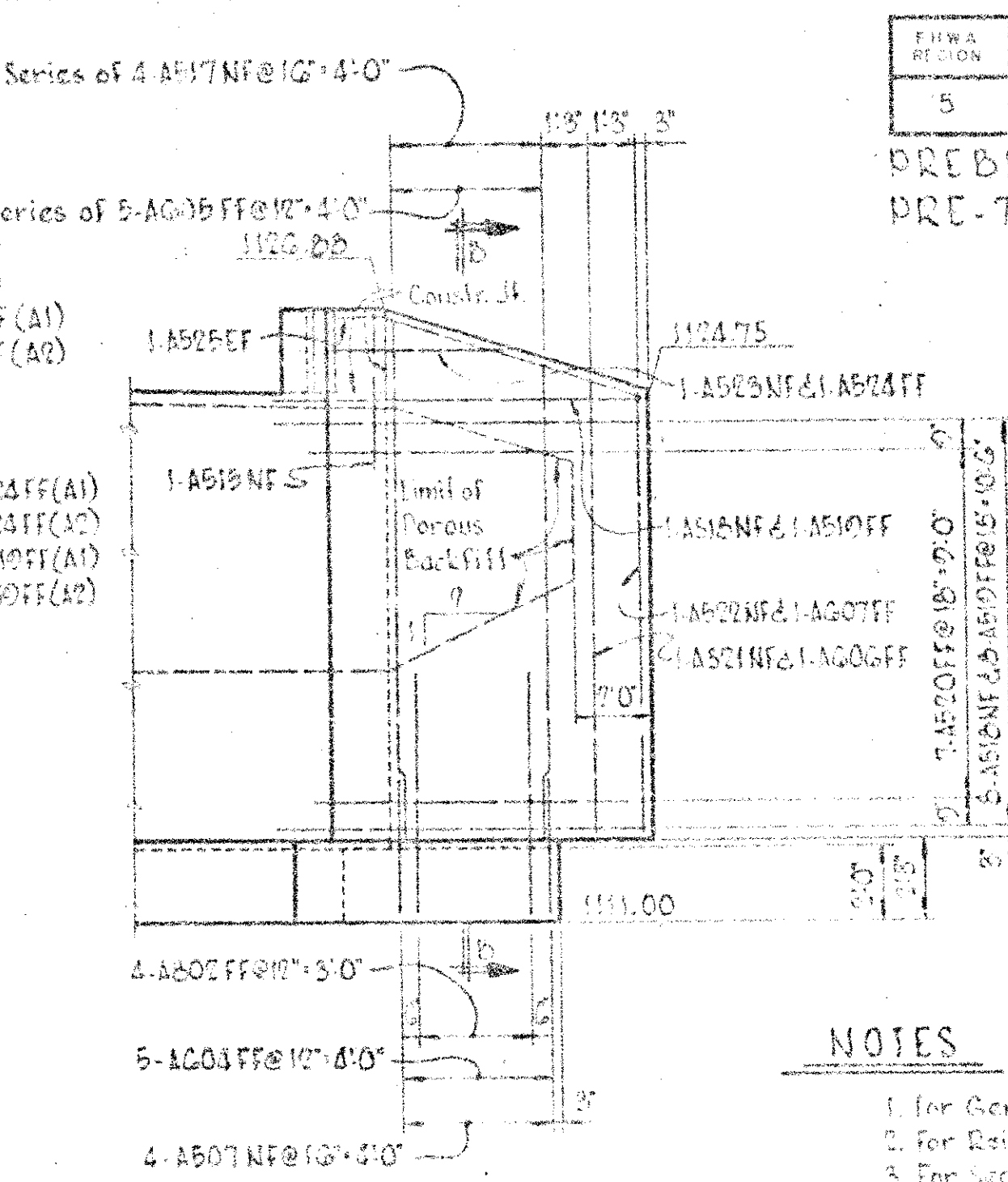
PREBLE COUNTY
PRE-72G-070



PLAN



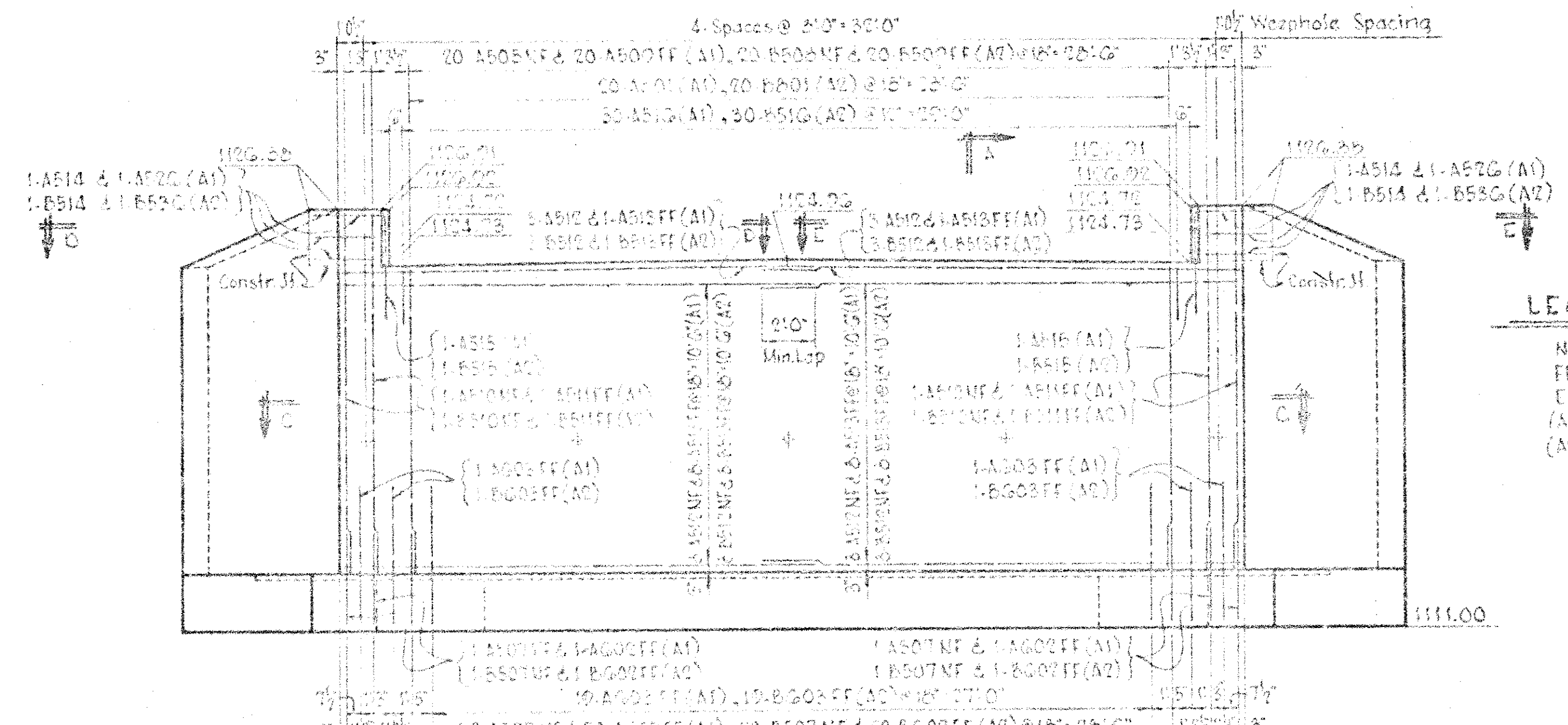
ELEVATION
WINGWALL 1 & 3



ELEVATION
WINGWALL 2

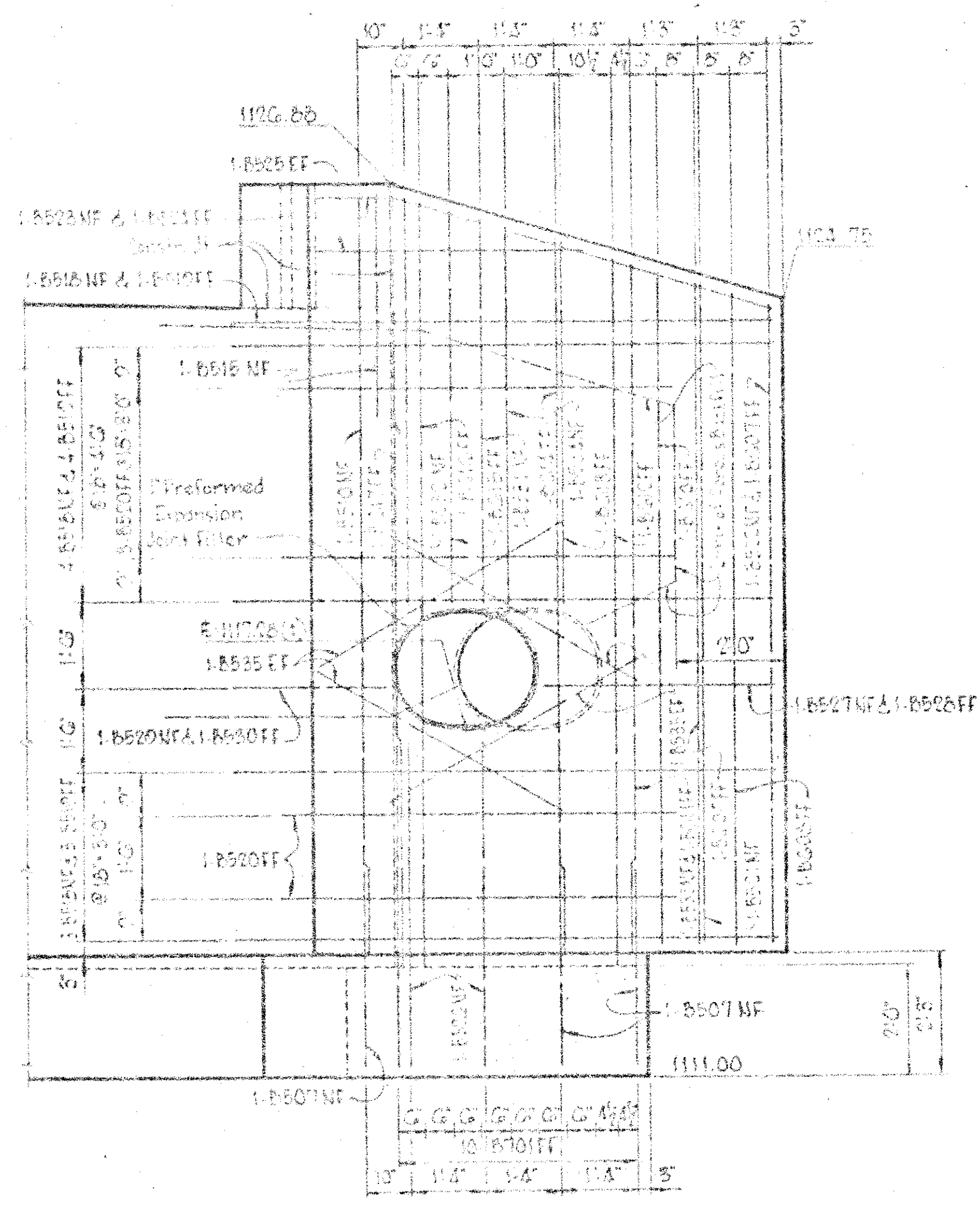
NOTES

1. For General Notes, see sheet 5/6.
2. For Reinforcing Steel List, see sheet 6/6.
3. For Sections A through E-E, see sheet 3/3.
4. Porous backfill, 2'-0" thick, shall extend up to the plane of the subside and laterally as defined in the wingwall elevations.
5. Dimensions marked with an asterisk (*) are based on the out-to-out of box beams as being 50'-4 1/2" (see Note 1, sheet 5/5) plus 1" allowance each side for the preformed expansion joint filler.
6. Reinforcing steel in the vicinity of the bridge seat shall be accurately placed to avoid interference with the drilling of anchor bar holes.
7. No backwall concrete above the construction joint, at the beam rest level, shall be placed until the superstructure has been anchored in place.
8. Portions of the existing 24" vitrified clay pipe shall be removed as necessary for the construction of the abutment. A segment of the existing pipe, or of a new replacement pipe if necessary, shall be cast in the abutment wingwall and subsequently attached to the existing pipe at its existing location and grade. All materials and labor necessary for the removal and reconstruction of the existing 24" pipe shall be included for payment with Item 403 of the roadway estimate quantities.
9. Backfill shall not be placed higher than 5'-0" (Elev. 417.00) before the prestressed box beams and anchor bars are installed.

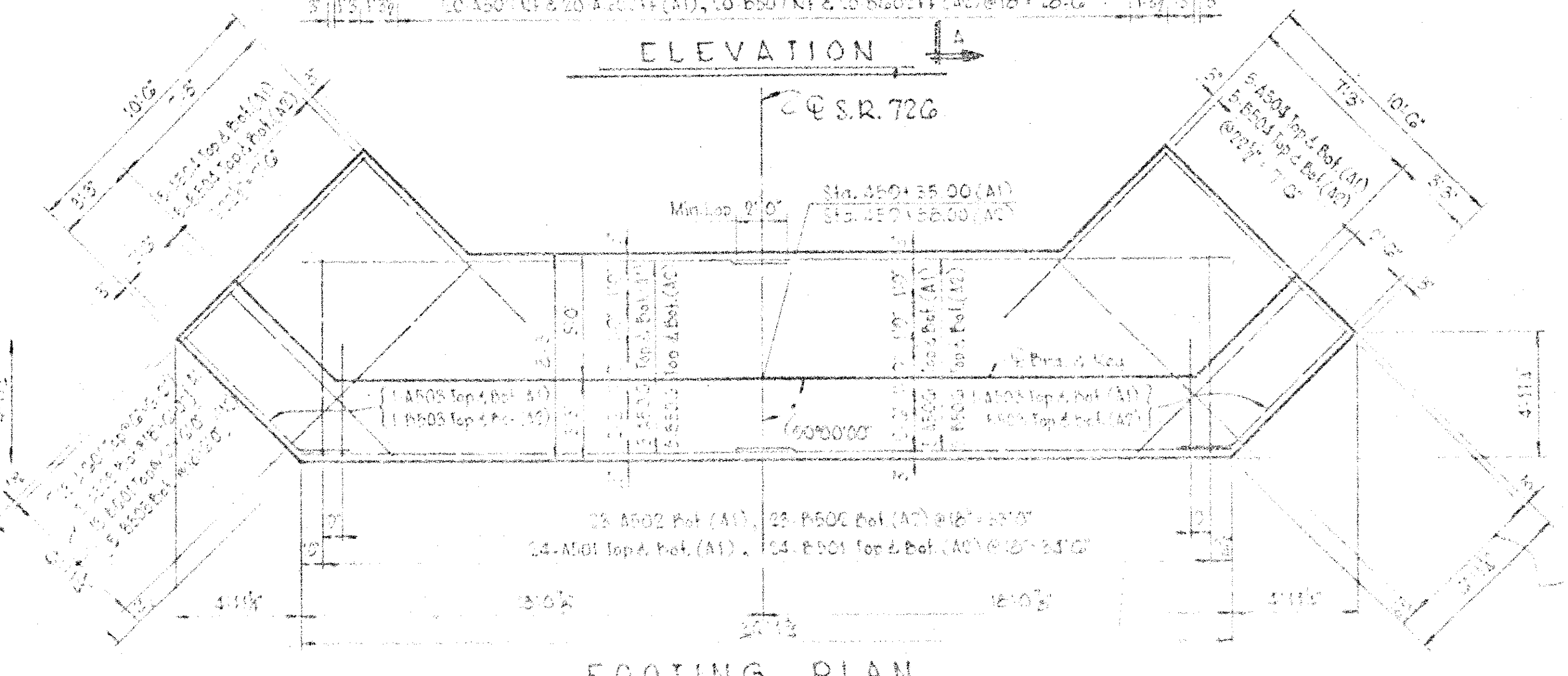


ELEVATION

LEGEND
NF - Near Face
FF - Far Face
CF - Each Face
(A1) - Abutment 1
(A2) - Abutment 2



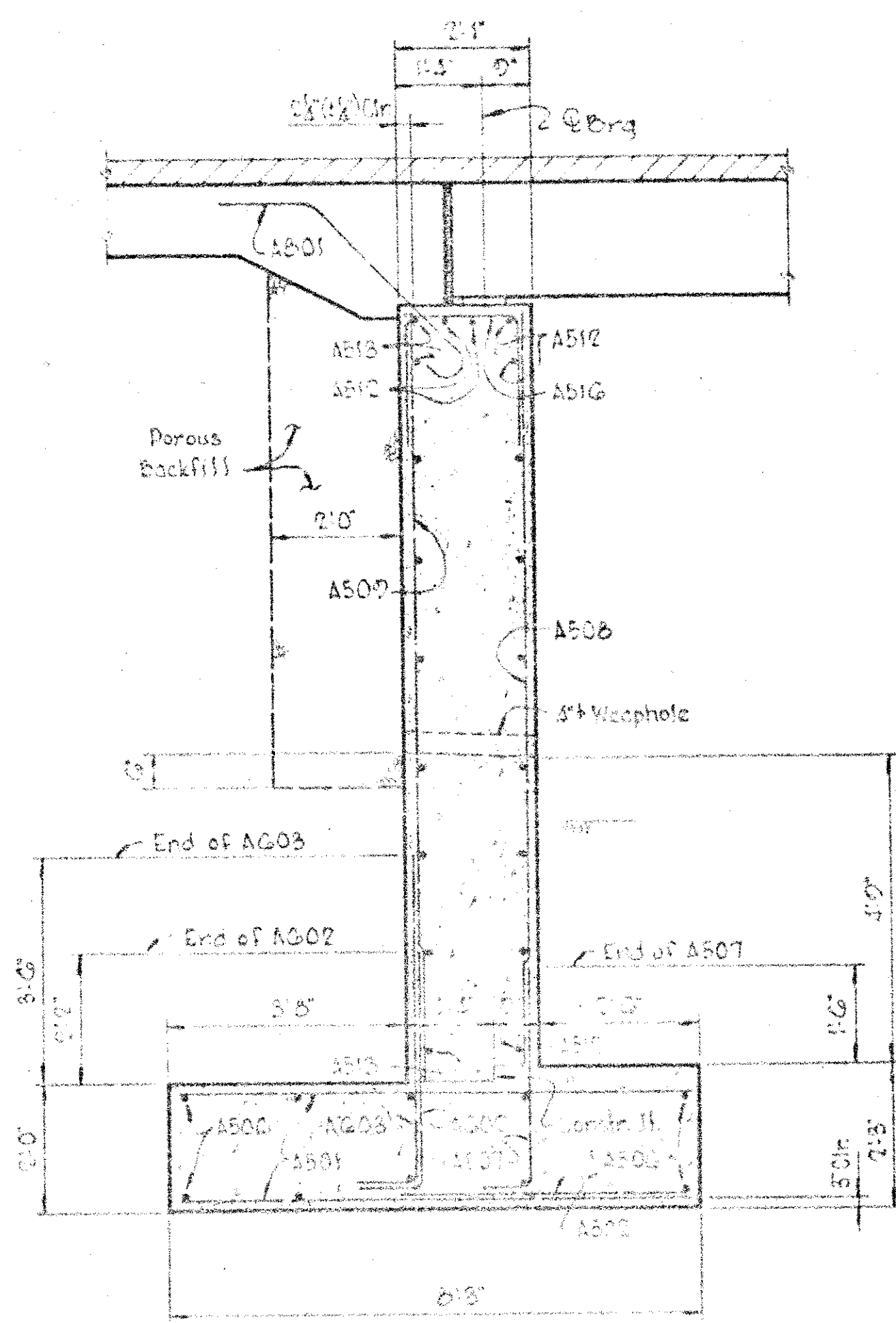
ELEVATION
WINGWALL 4



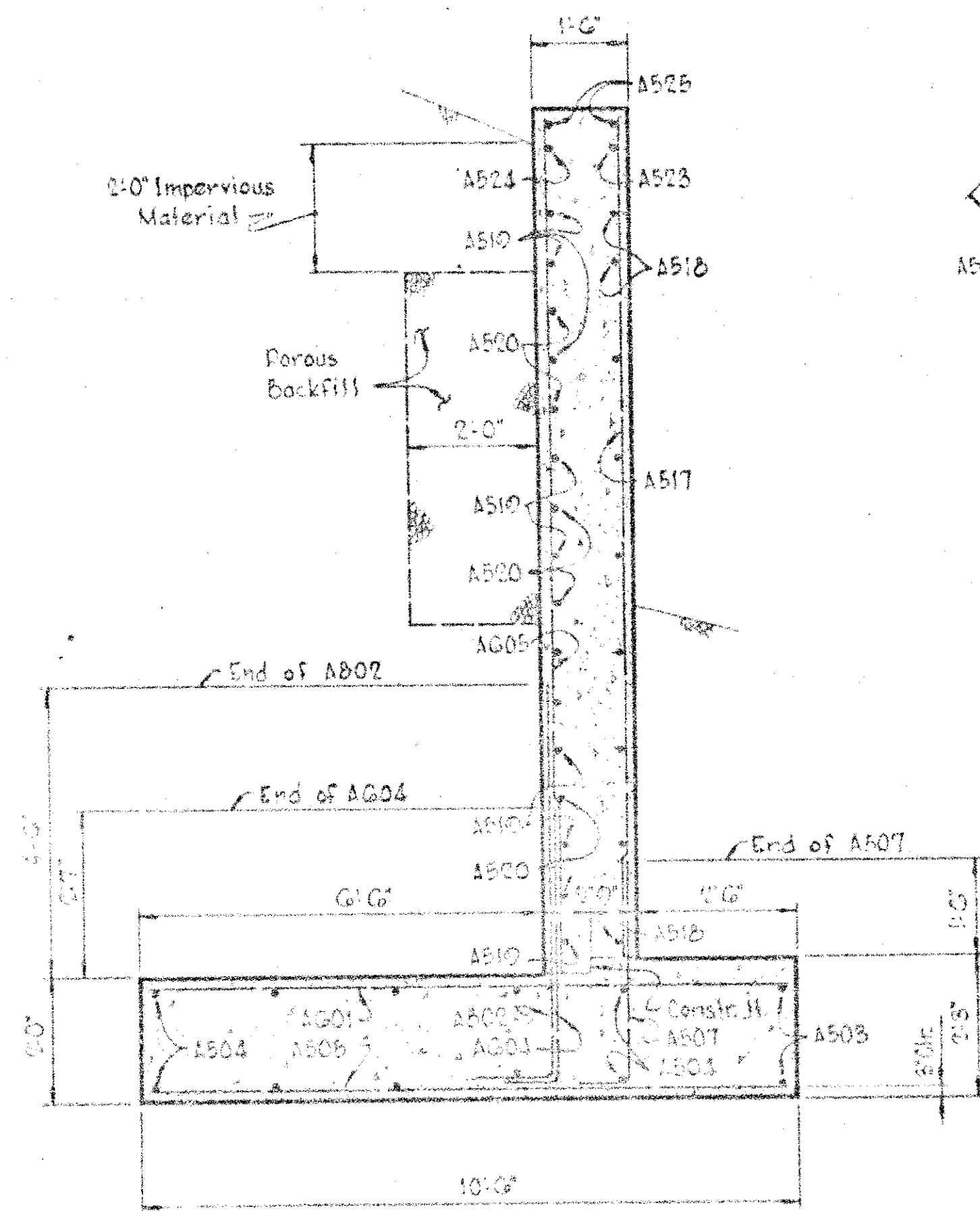
FOOTING PLAN

LOCKWOOD, JOHN W. & ASSOCIATES CONSULTING ENGINEERS CLEVELAND, OHIO	3/6
ABUTMENTS 1 & 2	
BRIDGE NO. PRE-72G-0870	
S.R. 72G	
OVER PRICE CREEK	
PREBLE COUNTY	STA. 459+34.00 TO 459+62.00
EPA ADI CWM WQJ	REVISIONS NOV 5/82

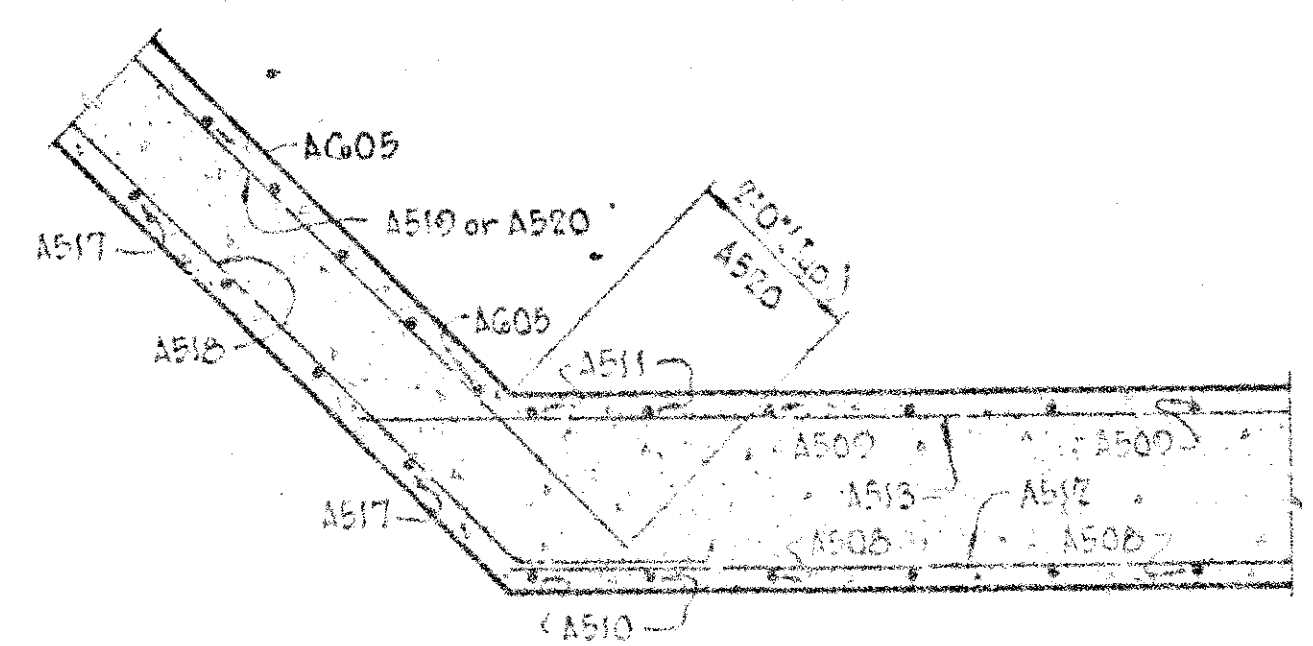
PREBLE COUNTY
PRE-726-870



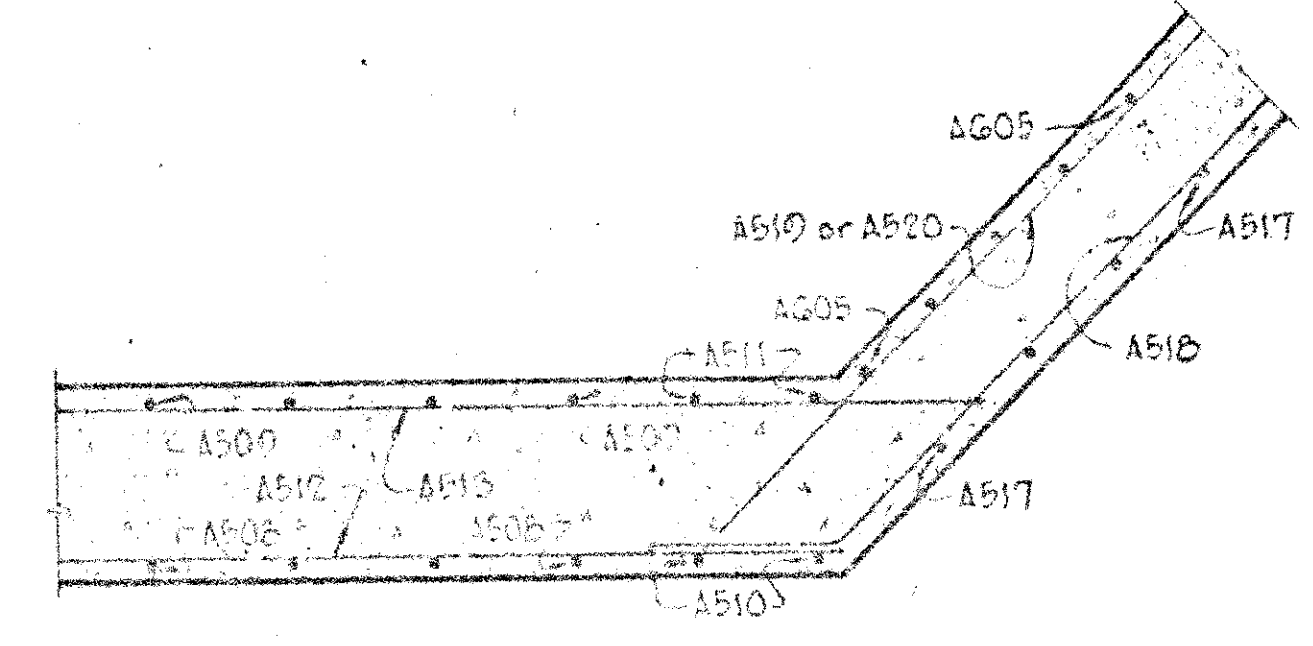
SECTION A-A
Abutment 1 Shown



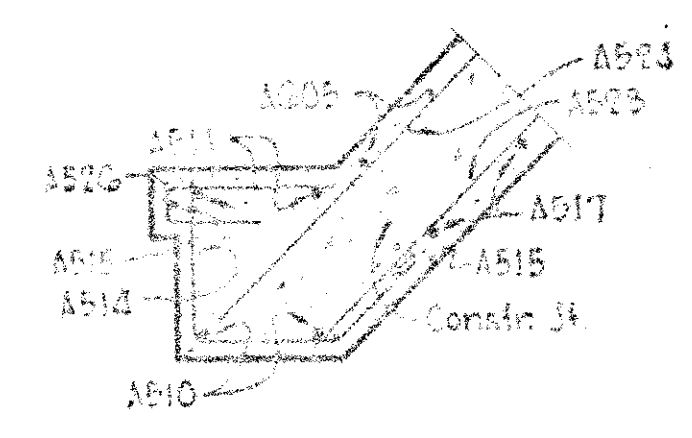
SECTION B-B
Abutment 1 Shown



SECTION C-C
Abutment 1 Shown



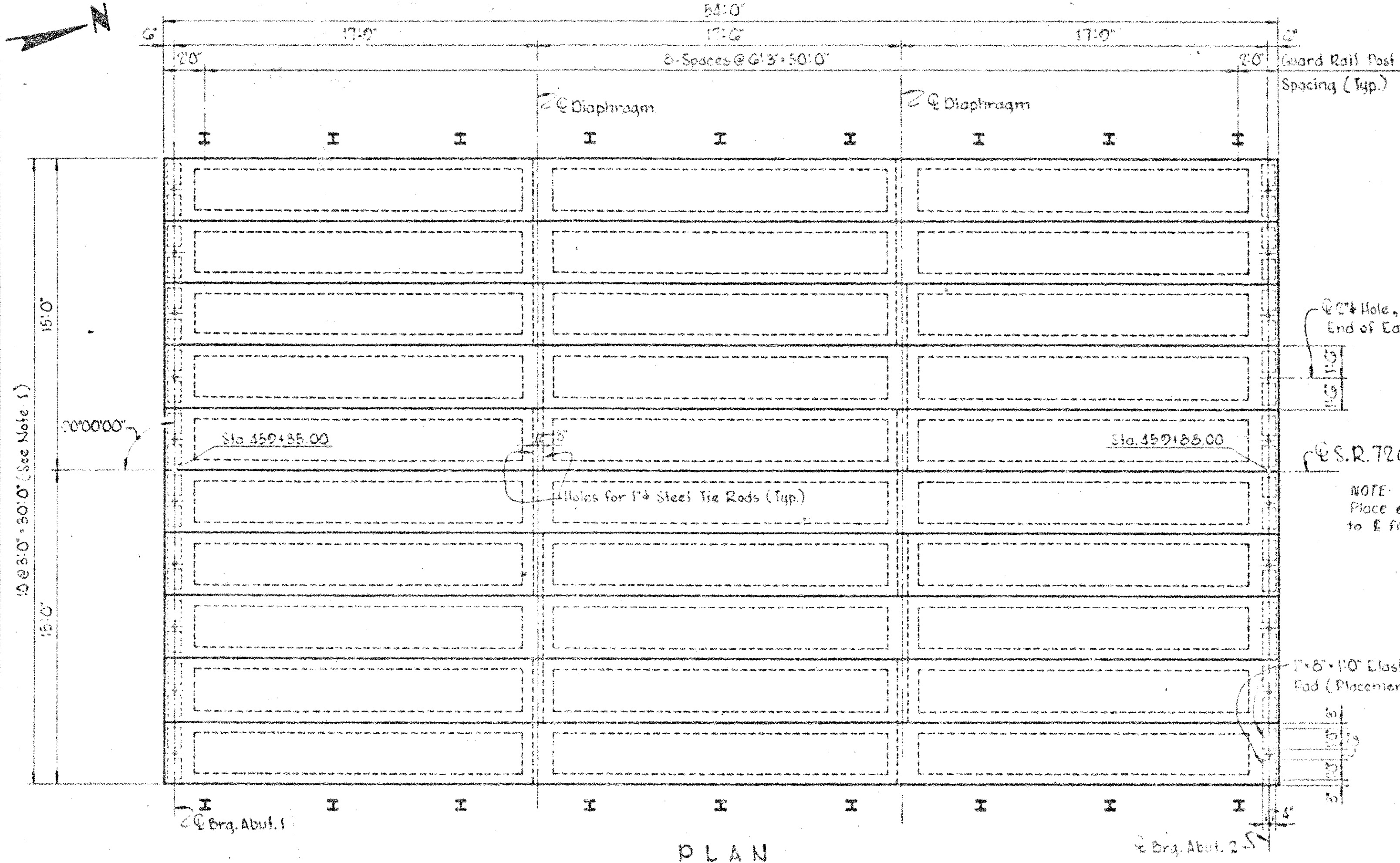
SECTION D-D
Abutment 1 Shown



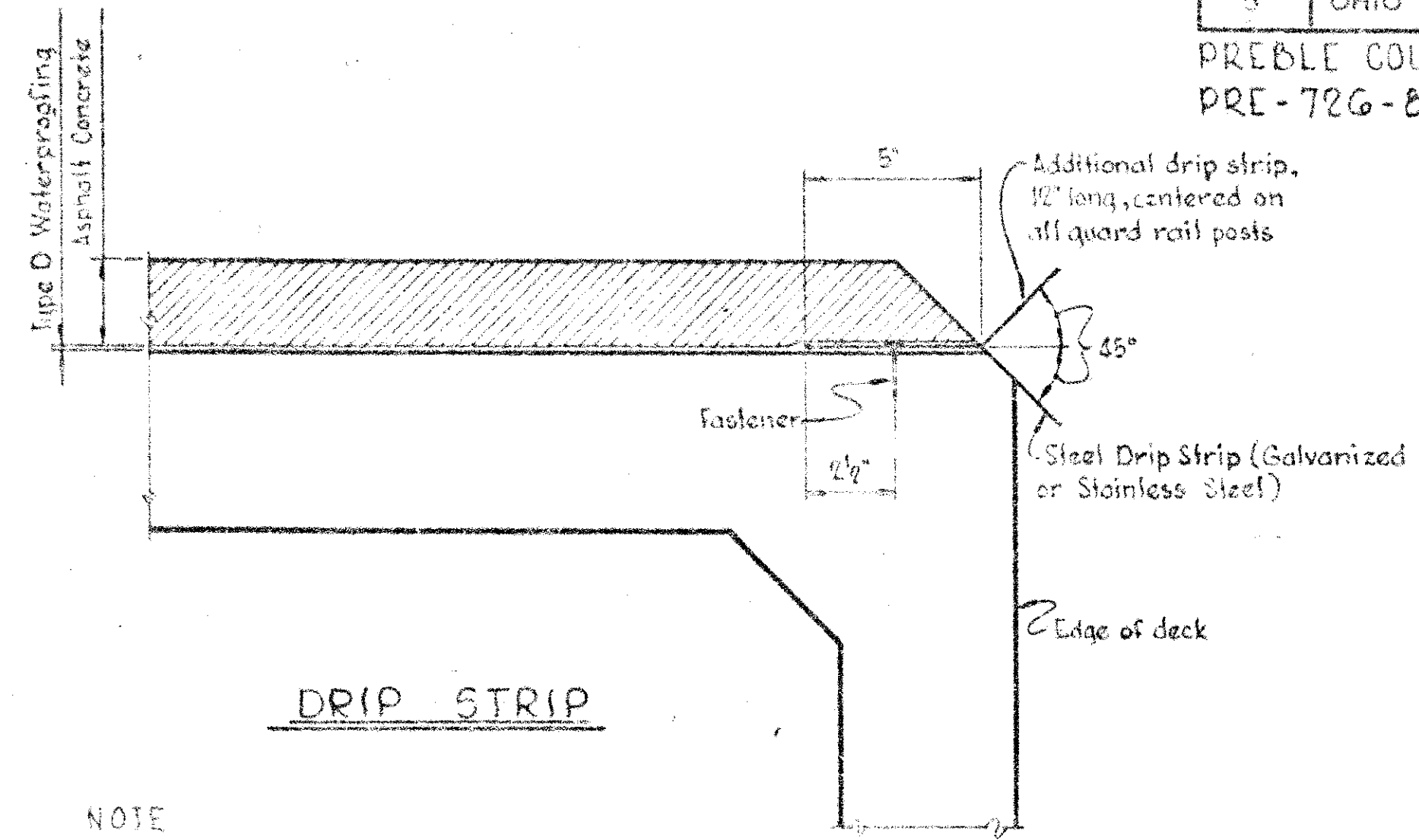
SECTION E-E
Abutment 1 Shown

LOCKWOOD JONES & BEALS CONSULTING ENGINEERS DAYTON, OHIO					4 / G
ABUTMENT SECTIONS BRIDGE NO. PRE-726-0870 S.R. 726 OVER PRICE CREEK PREBLE COUNTY STA. 480+34.42 TO STA. 480+68.58					
DESIGNED BY	CHECKED BY	APPROVED BY	DATE	PROJECT NO.	SCALE
EPA	HDJ	SNM	HDJ	HDJ 8/82	

REVISION 4/11/82



PLAN

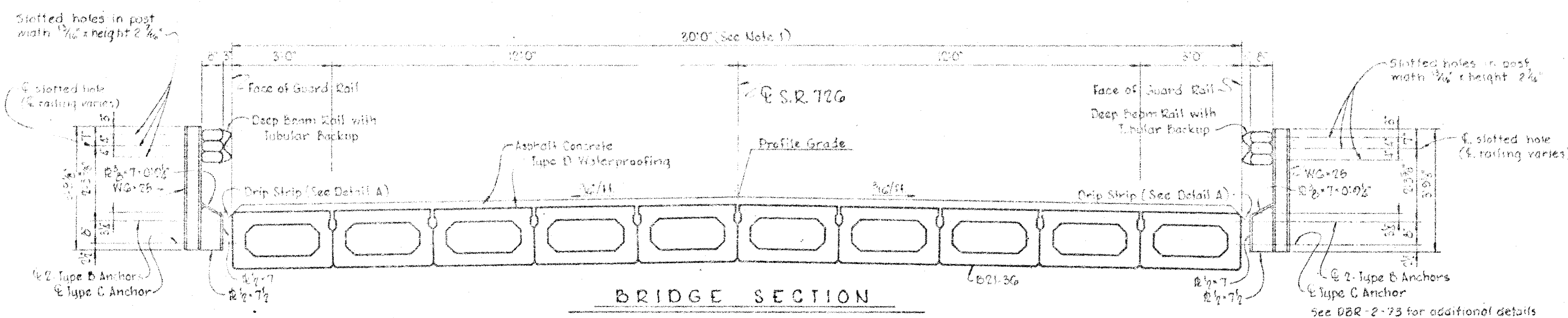


DRIP STRIP

NOTE
Prior to applying Type D Waterproofing, a drip strip shall be installed along the edge of the deck as shown. The strips shall be fastened at 1' 6" o.c. maximum with 1/2" x 2" x 1/2" flat head screw pin and washer (length shall be diameter x head diameter) or #10 galvanized screws and expansion anchors (subject to the approval of the Engineer). The strips shall be placed the full length of the deck, ending at the face of abutment windows. Where splices are required a 3" (min.) lap shall be used with a fastener through the lap. Steel fasteners shall be 2" x 0.105" and shall meet the requirements of ASTM A307. Galvanizing shall be in accordance with 711.02. Stainless steel shall be 20 gauge ASTM A167, Type 304, mill finish. Payment shall be at the price bid for Item Special, S.S.F., Steel Drip Strip, which shall include all materials, labor, tools and incidentals necessary to complete the item.

DEFLECTION & CAMBER

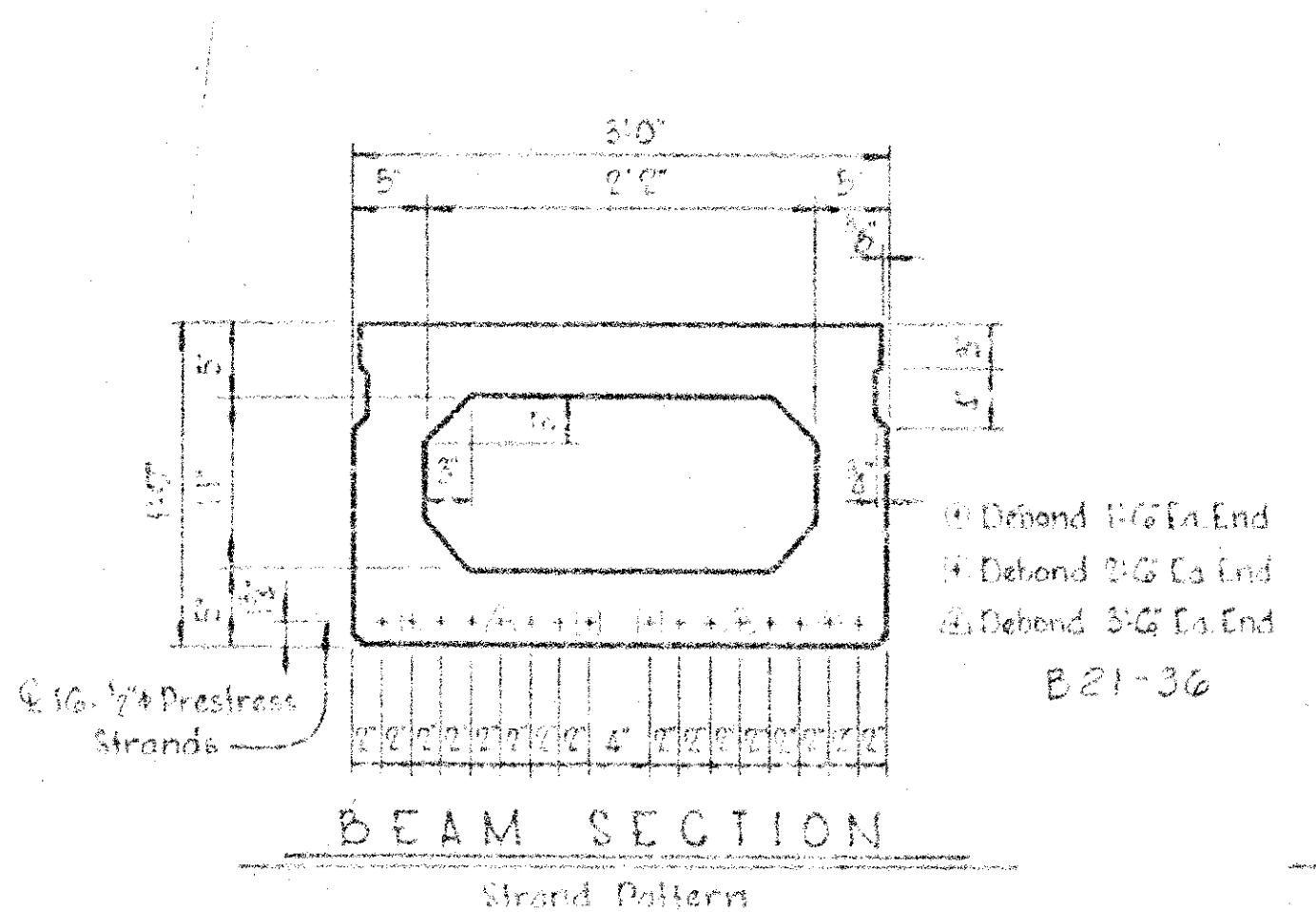
1. Calculated amount of time of paving, including allowance for camber growth due to creep is 21.
2. Calculated deflection due to weight of surface course and rolling is 3/16".
3. Net final camber of spans is 1/16". This is 1/16" in excess of the amount required to place the top of the beams parallel to profile grade. This excess amount shall be compensated for by thickening the 403 leveling course from 1 1/2" at center of span to 3/16" at ends of span.



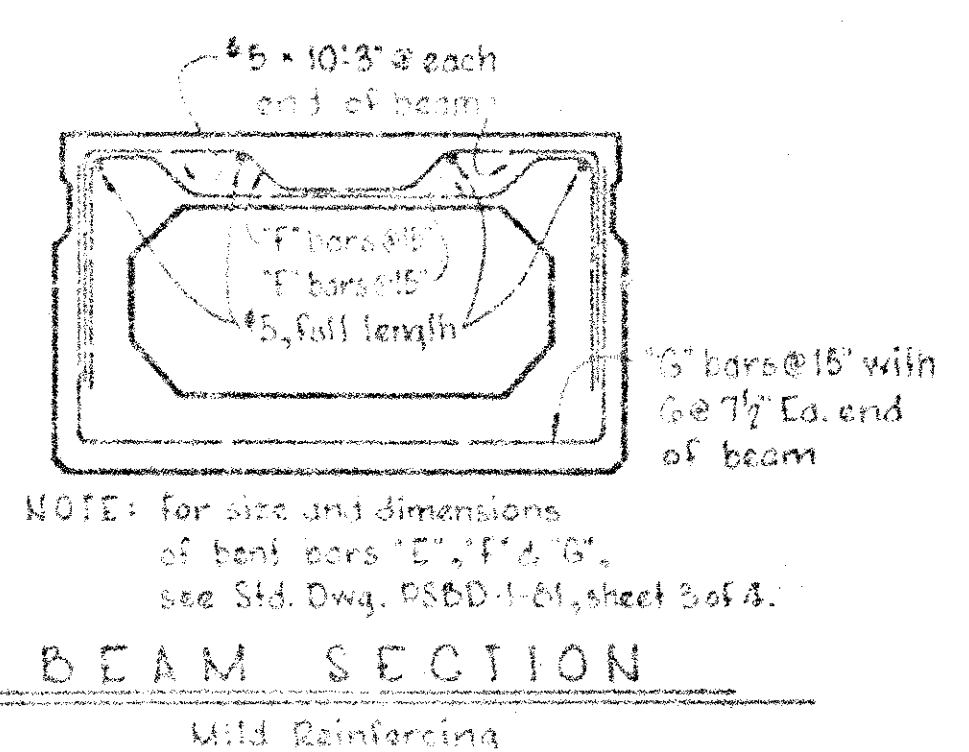
BRIDGE SECTION

NOTES

1. The actual net foot width of the beams may be as much as 30'-3 1/2" considering an allowance of 1/2" per longitudinal joint to account for beam dimensional tolerances.
2. Asphalt concrete surface course shall consist of a variable thickness of 403 and a 1 1/2" thickness of 404. The 403 shall be placed in two operations. The first course shall be of 1 1/2" uniform thickness. The second course shall be feathered to place the surface parallel to and 1/16" below final pavement surface elevation.
3. For details of Deep Beam Bridge Guard Rail with Tubular Backup, see Std. Dwg. DBR-2-73.
4. For Notes regarding Transverse Tie Rods, Galvanizing, Anchor Dowels, Mortaring of Shear Keys, Non-Shrinking Mortar or Grout and Ends of Beams, see Standard Dwg. PSBD-1-81, sheet 1 of 4.
5. For beam lifting inserts, section showing wall thickening at guard rail anchors, details and reinforcement of beam ends, end details of transverse tie rod anchorage, typical plans of diaphragms and transverse tie rods, normal crown treatment at roadway and beam dimensional tolerances, see Std. Dwg. PSBD-1-81, sheets 1 & 2 of 4.
6. Fabricator shop drawings shall show complete details of the beam reinforcement.
7. For General Notes see sheet 276.

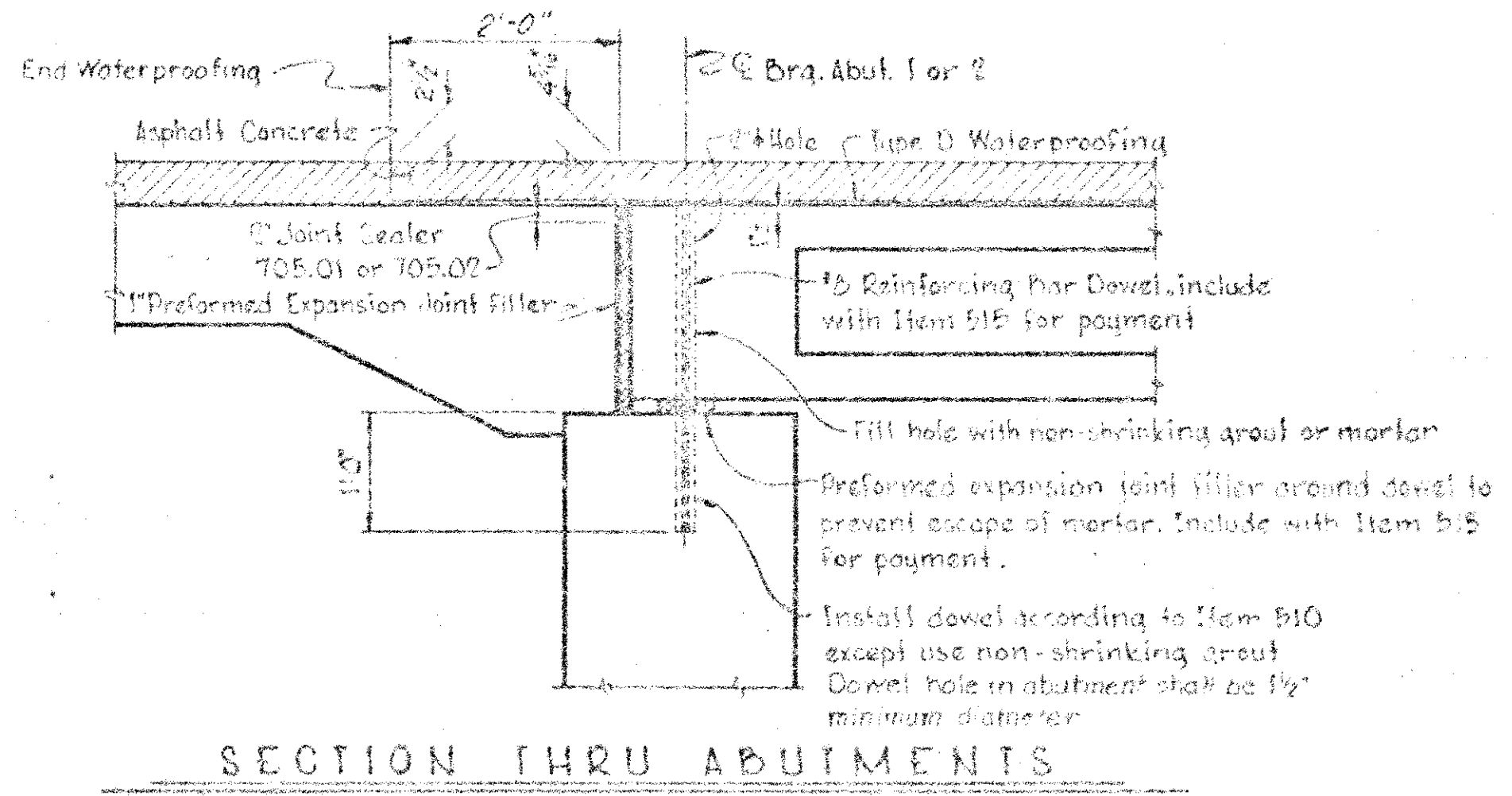


BEAM SECTION



BEAM SECTION

NOTE: For size and dimensions of bent bars "E", "F" & "G", see Std. Dwg. PSBD-1-81, sheet 3 of 4.



SECTION THRU ABUTMENTS

LOCKWOOD, JONES & BRAD CONSULTING ENGINEERS DAYTON, OHIO					E/G
SUPERSTRUCTURE					
BRIDGE NO. PRE-726-08.70					
S.R. 726					
OVER PRICE CREEK					
PREBLE COUNTY			STA. 452+35.42 TO STA. 452+66.78		
DESIGNED	CHECKED	DRAWN	DATE	BY	REVISION
EPA	WJD	GMM	11/03	11/03	01/82

ABUTMENT 1

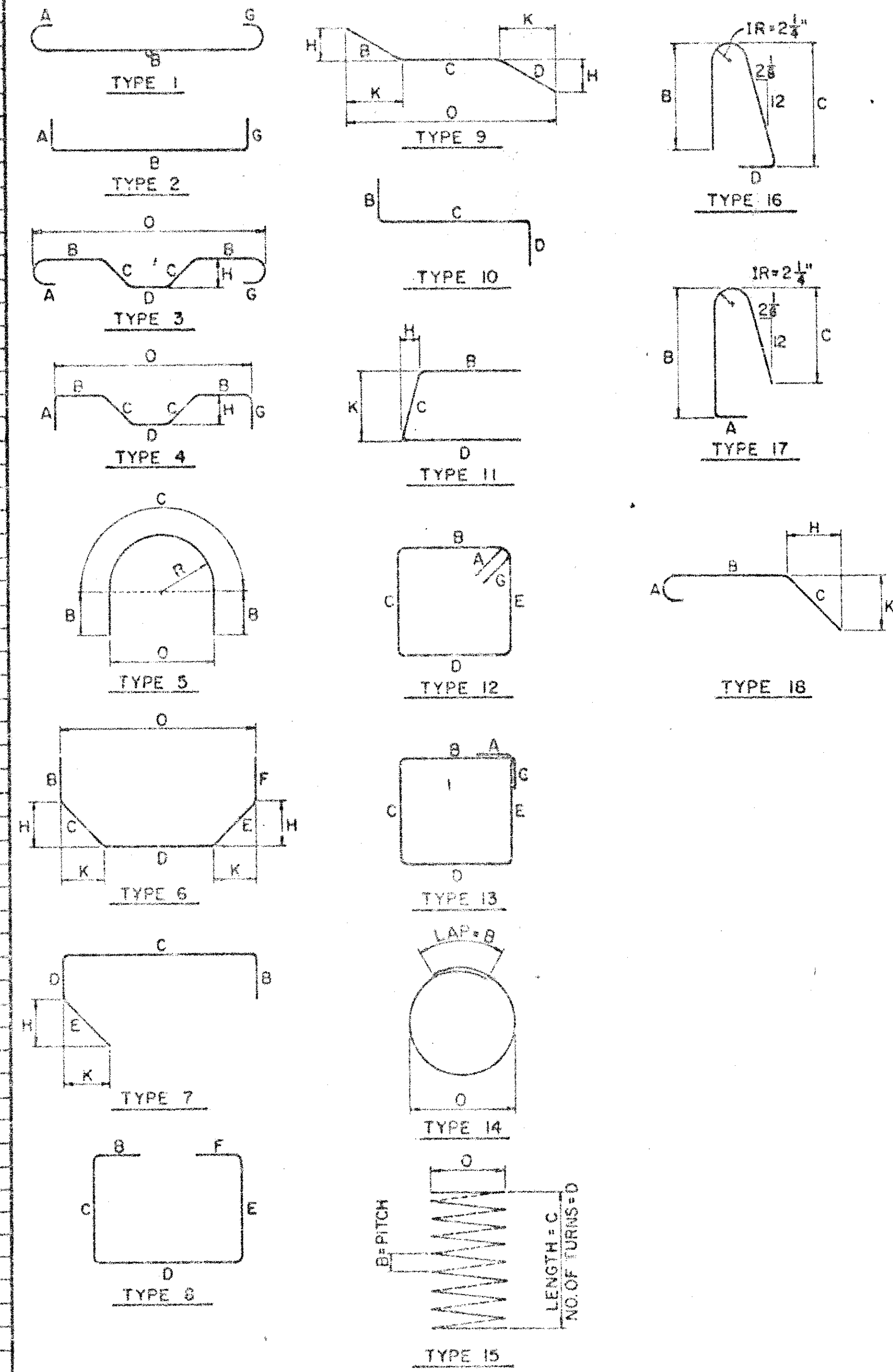
ABUTMENT 2

FED. REGION	STATE	PROJECT
5	OHIO	

16
16

PREBLE COUNTY
PRE-72G-8.70

BENDING DETAILS



ABUTMENT 1															ABUTMENT 2																
MARK	NO.	LENGTH	WEIGHT	TYPE	A	B	C	D	E	F	G	H	K	O	R	MARK	NO.	LENGTH	WEIGHT	TYPE	A	B	C	D	E	F	G	H	K	O	R
A501	4b	7:11"	396	Str												b501	4b	7:11"	396	Str											
A502	2b	4:6"	108	Str												b502	2b	4:6"	108	Str											
A503	4	8:10"	37	Ø		2:0"	6:10"	-				1:5"	1:5"			b503	4	8:10"	37	Ø		2:0"	6:10"	-			1:5"	1:5"			
A504	20	9:4"	195	Str												b504	20	9:4"	195	Str											
A505	10	10:2"	106	Str												b505	10	10:2"	106	Str											
A506	20	10:0"	396	Str												b506	20	10:0"	396	Str											
A507	32	4:3"	142	2	Ø	8:6"										b507	31	4:3"	137	2	Ø	8:6"									
A508	20	11:4"	236	Str												b508	20	11:4"	236	Str											
A509	20	11:7"	242	Str												b509	20	11:7"	242	Str											
A510	4	13:6"	56	Str												b510	5	13:6"	70	Str											
A511	4	13:0"	57	Str												b511	4	13:0"	57	Str											
A512	22	18:0"	413	Str												b512	22	18:0"	413	Str											
A513	18	19:8"	369	Str												b513	18	19:8"	369	Str											
A514	6	4:5"	28	7			1:0"	1:1"	1:5"				10:5"	10:5"		b514	6	4:5"	28	7			1:0"	1:1"	1:5"		10:5"	10:5"			
A515	4	4:0"	17	Str												b515	4	4:0"	17	Str											
A516	30	5:6"	172	Ø			2:0"	1:0"	2:0"							b516	30	5:6"	172	Ø			2:0"	1:0"	2:0"						
A517	2-Series Var. 12:1" to 13:5" Incr 1:4"	106	Str													b517	1-Series Var. 12:1" to 13:5" Incr 1:4"	53	Str												
A518	16	10:8"	192	Ø		2:0"	8:3"	-					1:5"	1:5"		b518	17	10:3"	182	Ø		2:0"	8:3"	-			1:5"	1:5"			
A519	18	8:10"	166	Str												b519	17	8:10"	167	Str											
A520	14	6:10"	100	Str												b520	12	6:10"	86	Str											
A521	2	11:7"	24	Str												b521	2	11:7"	24	Str											
A522	2	11:8"	23	Str												b522	2	11:8"	23	Str											
A523	2	4:6"	Ø	Str												b523	2	4:6"	Ø	Str											
A524	2	5:3"	11	Str												b524	2	5:3"	11	Str											
A525	4	8:7"	36	Ø		1:5"	7:2"	-					5"	1:4 1/2"		b525	4	8:7"	36	Ø		1:5"	7:2"	-			5"	1:4 1/2"			
A526	6	2:10"	18	Ø			1:6"	5"	1:0"							b526	2	2:10"	18	Ø			1:6"	5"	1:0"						
AG01	26	10:2"	397	Str												b601	26	10:2"	397	Str											
AG02	24	4:0"	171	2	10"	3:11"										b602	24	4:0"	171	2	10"	3:11"									
AG03	23	6:1"	210	2	10"	5:3"										b603	23	6:1"	210	2	10"	5:3"									
AG04	10	5:2"	78	2	10"	4:4"										b604	5	5:2"	39	2	10"	4:4"									
AG05	2-Series Var. 12:4" to 13:6" Incr 1:2"	104	Str													b605	1-Series Var. 12:3" to 13:6" Incr 1:3"	97	Str												
AG06	2	11:7"	35	Str												b606	1	11:7"	17	Str											
AG07	2	11:3"	34	Str												b607	2	11:3"	34	Str											
AB01	20	5:9"	307	18	11"	3:5"	1:5"						1:0"	1:0"		b608	1	11:5"	17	Str											
AB02	8	7:5"	158	2	1:2"	6:3"										b609	1	11:8"	18	Str											
																b610	1	11:10"	18	Str											
																b611	1	12:5"	19	Str											
																b612	1	12:6"	19	Str											
																b613	1	6:3"	9	Str											
																b614	1	6:7"	10	Str											
																b615	1	6:11"	10	Str											
																b616	1	13:6"	20	Str											
																b617	1	11:6"	17	Str											
																b701	10	6:9"	136	2	1:0"	5:9"									
																b801	20	8:9"	307	18	11"	3:5"	1:5"				1:0"	1:0"			
																b802	4	7:5"	79	2	1:2"	6:3"									

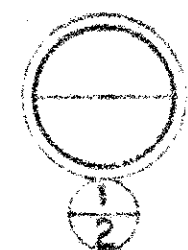
NOTES
 1. REINFORCING STEEL SAMPLES - Refer to CMS Sections 105.03, 700.01 through 709.05 and 709.08. Sufficient additional reinforcing steel shall be provided for sampling. Random samples shall be replaced in the structures by the additional steel spliced in accordance with 509.08.
 2. All dimensions are out to out of bar.

C/C

REINFORCING STEEL LIST
 BRIDGE NO. PRE-72G-0870
 S.R. 72G
 OVER PRICE CREEK
 PREBLE COUNTY

STA. 459+34.42 TO
 STA. 459+88.58

DESIGNED BY	CHECKED BY	APPROVED BY	DATE
EPA	WDJ	GWM	WDJ
DATE	DATE	DATE	DATE
8/22	8/22	8/22	8/22



GEOLOGY OF THE SITE

THE STRUCTURE SITE IS LOCATED IN THE GENTLY ROLLING GLACIATED PORTION OF THE LEXINGTON PENEPLAIN REGION, ON THE NARROW FLOODPLAIN OF AND OVER PRICE CREEK, IN AN AREA WHERE MODERATELY DEEP GLACIAL AND ALLUVIAL DEPOSITS OVERLIE BEDROCK, OF SILURIAN AGE.

EXPLORATION

THE EXPLORATION CONSISTED OF TWO DRIVE SAMPLE BORINGS MADE BY MEANS OF A MECHANICALLY-POWERED HOLLOW STEM AUGER MOUNTED ON A MOBILE PLATFORM, PERFORMED ON APRIL 13, 1982.

INVESTIGATIONAL FINDINGS AND OBSERVATIONS

THE BORINGS ENCOUNTERED INTERVALS OF EXTREMELY LOOSE TO EXTREMELY DENSE UNSTRATIFIED BASIC SILTS, CLAYS SAND AND GRAVEL MODIFIED WITH VARYING AMOUNTS OF EACH OTHER THAT RAPIDLY INCREASE (ERRATIC AT TIMES) IN DENSITY WITH INCREASE IN DEPTH. BORING B-1 (IN THE GENERAL VICINITY OF THE REAR ABUTMENT) PENETRATED TO A DEPTH OF 22.0 FEET, ELEVATION 1100.0 FEET AND WAS TERMINATED AFTER PENETRATING IN EXCESS OF 30 BLOWS PER FOOT IN THE STANDARD PENETRATION TEST. BORING B-2 (IN THE GENERAL VICINITY OF THE FORWARD ABUTMENT) PENETRATED TO A DEPTH OF 31.5 FEET, ELEVATION 1094.5 FEET AND WAS TERMINATED AFTER PENETRATING IN EXCESS OF 21.5 FEET OF MATERIAL REQUIRING IN EXCESS OF 30 BLOWS PER FOOT IN THE STANDARD PENETRATION TEST.

BEDROCK SURFACE WAS NOT ENCOUNTERED IN EITHER OF THE TEST BORINGS PERFORMED.

FREE WATER WAS OBSERVED AND MEASURED IN BORING B-1 AT 12.5 FOOT DEPTH, ELEVATION 1113.5 FEET AND IN BORING B-2 AT 25.0 FOOT DEPTH, ELEVATION 1101.0 FEET.

- Auger Boring Location - Plan View.
- Press and / or Drive Sample and / or Core Boring Location - Plan View.
- Drive Rod Penetration Resistance Sounding Location - Plan View.
- Capped Pile
- Footing
- Footing on Pile
- Top of Rock

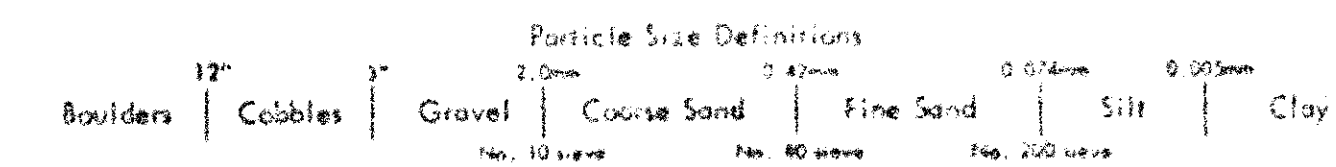
- Coal
- Weathered Mudstone or Claystone
- Mudstone or Claystone
- Weathered Shale
- Shale
- Weathered Siltstone
- Siltstone

LEGEND

- Horizontal Bar on Boring Log Indicates the Depth the Sample Was Taken.
- Figures Beside the Boring Log in Profile Indicate the Number of Blows for Standard Penetration Test.
X = Number of Blows for First 6 inches.
Y = Number of Blows for Second 6 inches.
Z = Number of Blows for Third 6 inches.
- Drive Rod Penetration Resistance Sounding Log - Profile
- Casing
- Resistance "R" < 10,000 lbs.
- Resistance "R" > 10,000 lbs.
- Indicates Final Measurement of Penetration, in inches.
- Indicates Free Water Elevation.
- Indicates Static Water Elevation.

SYMBOLS OF ROCK TYPES

- Weathered Sandstone
- Sandstone
- Leached Dolomite
- Dolomite
- Leached Limestone
- Limestone
- Boulders or Cobbles



GENERAL INFORMATION

Drive Rod Penetration Sounding Tests

Drive rod penetration resistance tests constitute driving a 1.315-inch diameter steel rod, with a 45° cone point, into the ground, using a 122-pound drop-hammer, with a free fall of five feet. At one or two-foot depth intervals, a measurement is taken to determine the amount of penetration achieved in three hammer drops. This reading is converted to an empirical value for capacity "R", in thousands of pounds (which is a measure of both the point resistance and frictional resistance on the rod), by using charts prepared by the Ohio Department of Highways, Bureau of Bridges, on the basis of correlation study of rod penetration with past performance of pile driving. For interpretation, a graph is prepared by plotting the value "R" against the depth at which the reading was taken, and connecting the plotted points. The curve so obtained reflects the density of subsurface materials in a manner that can be readily compared with data from similar tests at other locations on the structure site. From this comparison, the overall uniformity of subsurface condition may be evaluated.

Drive Sample Borings - Drive-Press Sample Borings

Drive sample borings are made by means of a rotary-type drill rig, employing a 2" O.D., 1-3/8" I.D. sampler, at 2-1/2 and 5-foot depth intervals, driven by means of a 140-pound drop-hammer with a free fall of 30 inches. The number of blows required to drive the sampler 18 inches is considered the standard penetration test.

Drive-press sample borings are made by means of a rotary-type drill rig, employing a 2" O.D., 1-3/8" I.D. drive sampler, and 3" O.D. thin-wall press sampler. The press sampler is advanced by continuous uniform pressure, applied by the drill rig.

The boring log sheets show a graphic plot of the information obtained, including depth and elevation of the sample, number of blows for the standard penetration tests in three 6-inch increments, depth of press samples, field sample number, sample description - based on laboratory tests and the Casagrande AC classification system - and gradation, plasticity, and moisture content determinations. Results of strength and consolidation testing, if performed, appear on separate enclosures.

At depths where materials are bouldery or gravelly to the extent that the sampler can not be driven, a wash sample is procured for visual classification, in order to determine the general character of the material. These samples are not considered sufficiently representative to warrant laboratory testing.

LOG OF BORING

Date Started: 4-13-82 Sampler Type: SS Dia: 1 3/8" Water Elev: 1113.5'
 Date Completed: 4-13-82 Casing Length: Dia: Surface Elev: 1126.0'
 Boring No: B-1 Station & Offset: 410+33.10' RT. (REAR ABUTMENT)

Elev	Depth	Sht Pen (ft)	Rec. Loss (ft)	Description	Sample No	Physical Characteristics										SHTL Class	
						% Agg	% CS	% FS	% Silt	% Clay	LL	PI	WC	U	CI		CI ₂₀
1123.5	2			BROWN SILTY CLAY	1	9	7	14	20	50	34	17	20				A-6B
1121.0	4	AUGERED		BROWN SILT AND CLAY	2	6	8	15	23	48	29	13	21				A-6A
1118.5	6	12/8/14		BROWN SANDY CLAYEY SILT	3	6	8	16	22	48	23	7	15				A-4A
1116.0	8	12/15/20		GRAY WITH BROWN SANDY CLAYEY SILT	4	5	9	17	26	43	20	6	11				A-4A
1113.5	12	15/12/12		GRAY SILT AND CLAY	5	5	7	13	23	52	26	11	14				A-6A
1111.0	14	18/19/32		GRAY WITH BROWN SANDY GRAVELLY SILTY CLAY	6	22	6	11	16	45	27	17	19				A-6B
1106.5	20	13/27/22		BROWN GRAVELLY SAND	7	20	38	32	0	10	NP	NP	15				A-1-B
1101.0	25																
1100.0	28	12/50		BROWN CLAYEY GRAVELLY SAND	8	15	33	36	0	16	NP	NP	12				A-3A

BOTTOM OF BORING

LOG OF BORING

Date Started: 4-13-82 Sampler Type: SS Dia: 1 3/8" Water Elev: 1101.0'
 Date Completed: 4-13-82 Casing Length: Dia: Surface Elev: 1126.0'
 Boring No: B-2 Station & Offset: 410+33.10' RT. (FORWARD ABUTMENT)

Elev	Depth	Sht Pen (ft)	Rec. Loss (ft)	Description	Sample No	Physical Characteristics										SHTL Class	
						% Agg	% CS	% FS	% Silt	% Clay	LL	PI	WC	U	CI		CI ₂₀
1123.5	2																
1121.0	4	AUGERED		BROWN CLAYEY SANDY GRAVEL	1	46	16	11	9	18	26	10	18				A-2-4
1118.5	6	3/3/4		BROWN SANDY SILT AND CLAY	2	0	10	22	29	39	32	13	22				A-6A
1116.0	8	2/2/2		BROWN SILTY CLAY	3	3	8	18	20	51	36	18	23				A-6D
1113.5	12	9/14/22		BROWN SILT AND CLAY	4	9	7	12	18	54	32	15	14				A-6A
1111.0	14	10/14/16		GRAY SILT AND CLAY	5	11	7	12	15	55	31	14	13				A-6A
1106.0	18	9/12/18		GRAY WITH BROWN SANDY GRAVELLY SILT AND CLAY	6	22	7	12	17	42	28	12	12				A-6A
1101.0	24	9/13/18		BROWN SILT	7	0	0	8	63	29	NP	NP	15				A-4B
1096.0	28	13/13/17		BROWNISH GRAY SANDY SILT	8	0	0	21	56	21	NP	NP	21				A-4B
1091.0	30																
1086.0	32																
1081.0	34	24/26/20		BROWN SILTY GRAVELLY SAND	9	22	13	30	19	16	NP	NP	10				A-2-4

BOTTOM OF BORING

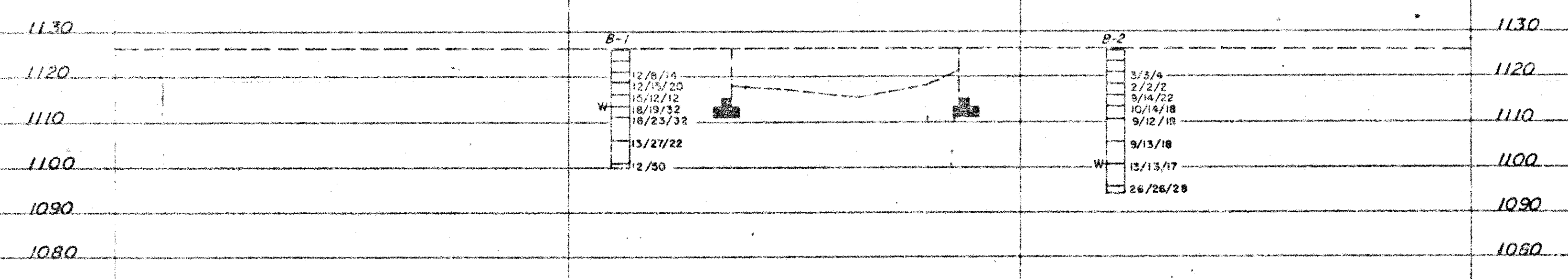
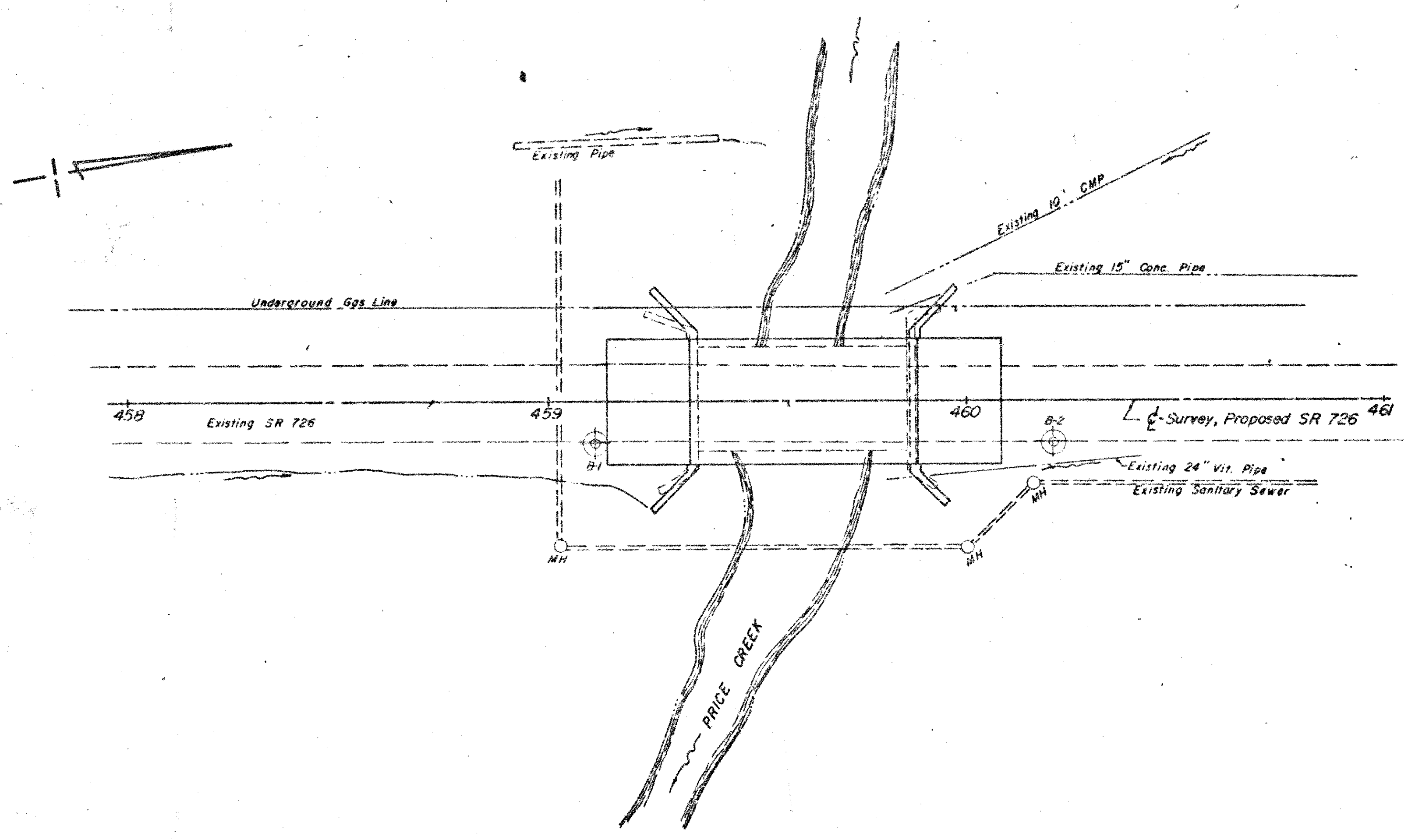
NOTE - ALL AVAILABLE SOIL AND BEDROCK INFORMATION WHICH CAN BE CONVENIENTLY SHOWN ON THE STRUCTURE FOUNDATION INVESTIGATION SHEETS HAS BEEN SO REPORTED. ADDITIONAL SUBSURFACE INVESTIGATIONS MAY HAVE BEEN MADE TO STUDY SOME SPECIAL ASPECT OF THE PROJECT. COPIES OF THIS DATA, IF ANY, MAY BE INSPECTED IN THE DISTRICT DEPUTY DIRECTOR'S OFFICE, THE BUREAU OF TESTS AT 1670 WEST BROAD STREET, THE PAVEMENT AND SOILS SECTION OF THE BUREAU OF LOCATION AND DESIGN OR IN THE BRIDGE BUREAU AT 25 SOUTH FRONT STREET.

NOTE - INFORMATION SHOWN ON THIS SUBSURFACE INVESTIGATION WAS OBTAINED SOLELY FOR THE USE OF ESTABLISHING DESIGN CRITERIA FOR THIS PROJECT. THE STATE OF OHIO DOES NOT GUARANTEE THE ACCURACY OF THIS DATA AND IT IS TO BE CONSIDERED AS PART OF THE RISK ASSUMED BY THE USER.

OHIO DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS - TESTING LABORATORY
1600 WEST BROAD STREET, COLUMBUS, OHIO 43223

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO PRE-726-0870
OVER PRICE CREEK
SEC. PRE-726-8.70

CHECKED BY: L. N. L. REVIEWED BY: R. D. R. DATE: 7/9/82



OHIO DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS-TESTING LABORATORY 1600 WEST BROAD STREET, COLUMBUS, OHIO 43223			
STRUCTURE FOUNDATION INVESTIGATION BRIDGE NO. PRE-726-0870 OVER PRICE CREEK SEC. PRE-726-B.70			
PLAN AND PROFILE			
DRAWN BY A. F.	CHECKED BY L. N. L.	REVIEWED BY R. D. R.	DATE 7/9/82

SCALE: 1" = 20'