

UTILITIES AFFECTED

UNITED TELEPHONE CO. OF OHIO
204 LATTIN ST. CORTLAND, OHIO. PH. 637-2015

TRUMBULL COUNTY DEPARTMENT OF HIGHWAYS WARNER ROAD BRIDGE C.H.43B-HAR-1

C.H. No. 43 SEC. B

RIGHT OF WAY = 60'

HARTFORD TOWNSHIP

ABUTMENT AND DECK REPLACEMENT

1971 SPECIFICATIONS

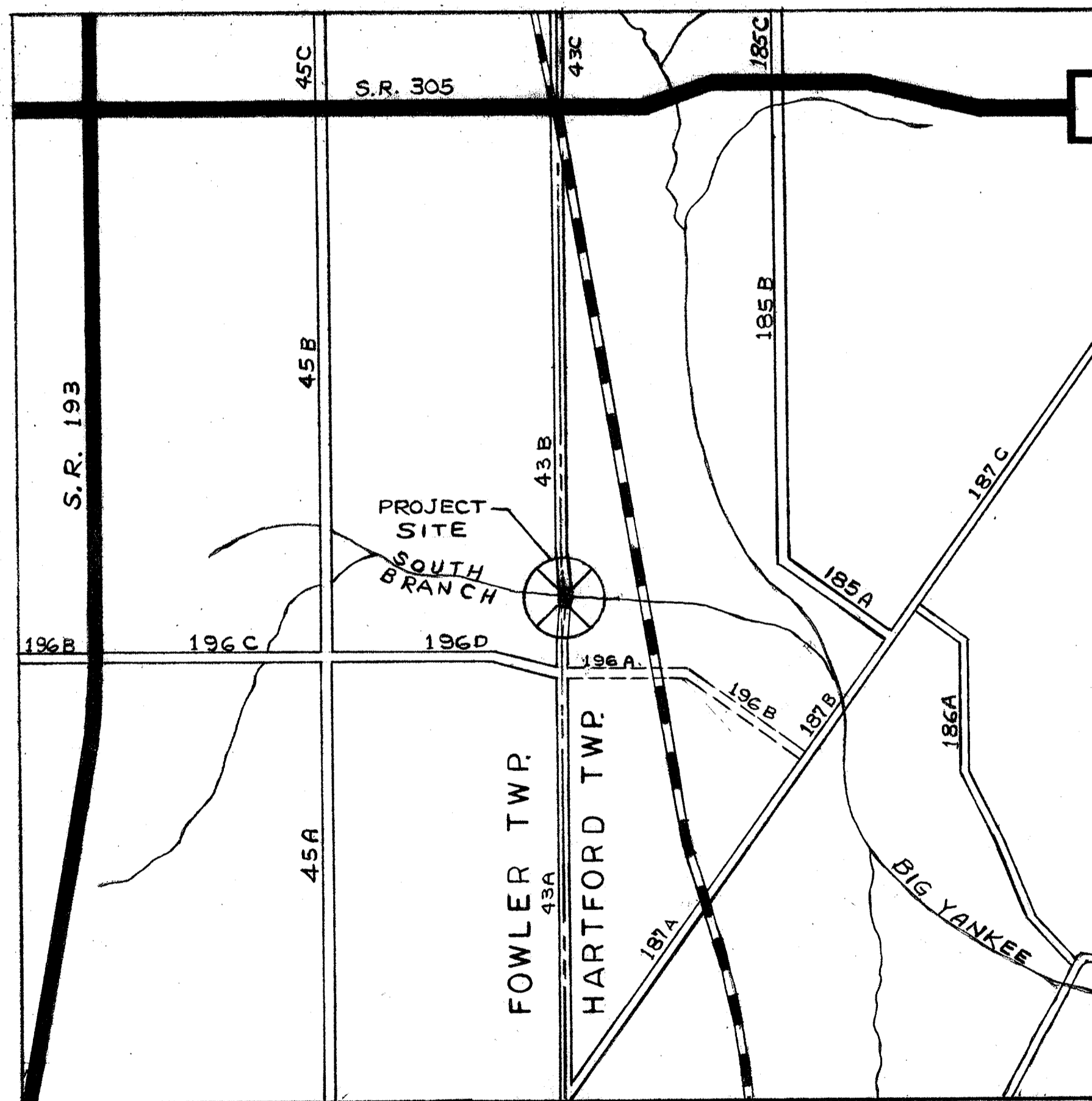
THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF HIGHWAYS INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

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CONVENTIONAL SIGNS

COUNTY LINE	_____
TOWNSHIP LINE	_____
CENTER LINE	_____
CORPORATION LINE	_____
FENCE LINE	-X-X-X-X-X-
GUARD RAIL (EXISTING)	-P-P-P-P-P-
GUARD RAIL (PROPOSED)	-P-P-P-P-P-
POWER POLE	⊗ ⊗ ⊗ ⊗
TELEPHONE POLE	⊠ ⊠ ⊠ ⊠
MAIL BOX	□ □ □ □



LOCATION PLAN

SCALE 1" = 1320'

PORTION TO BE IMPROVED

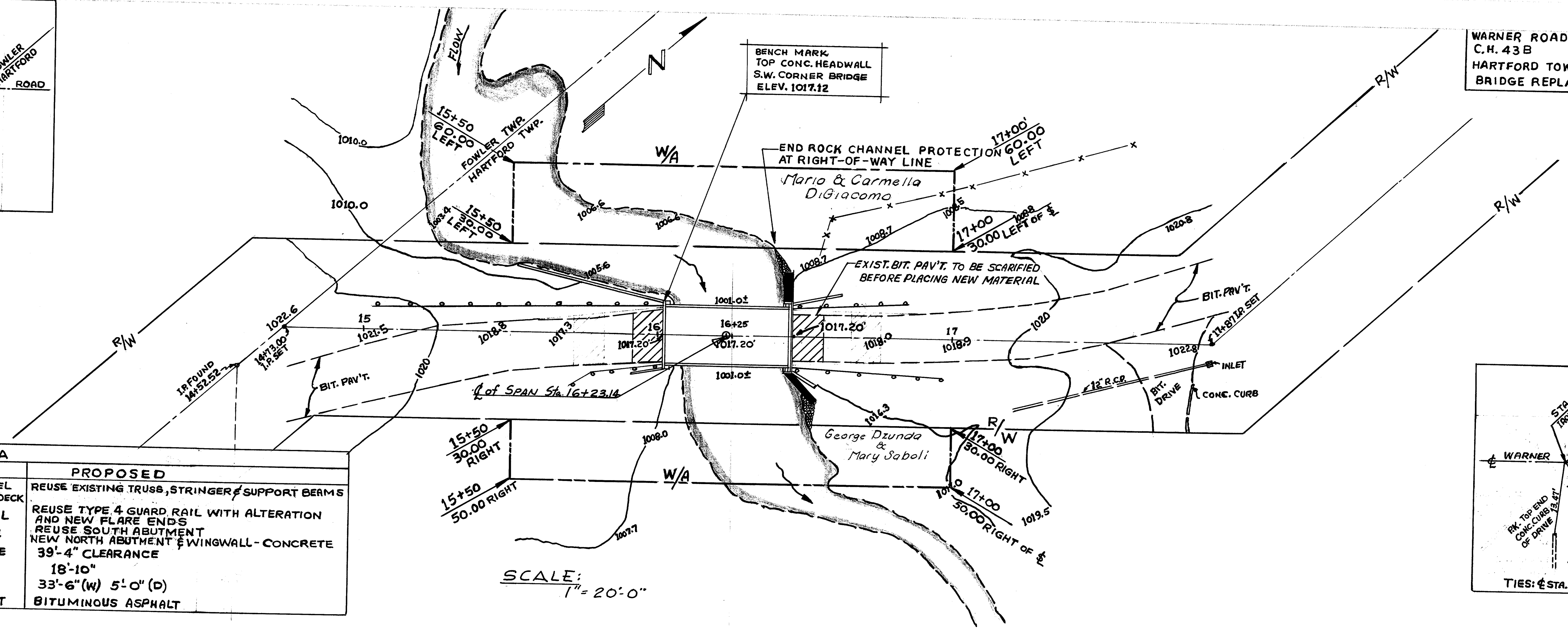
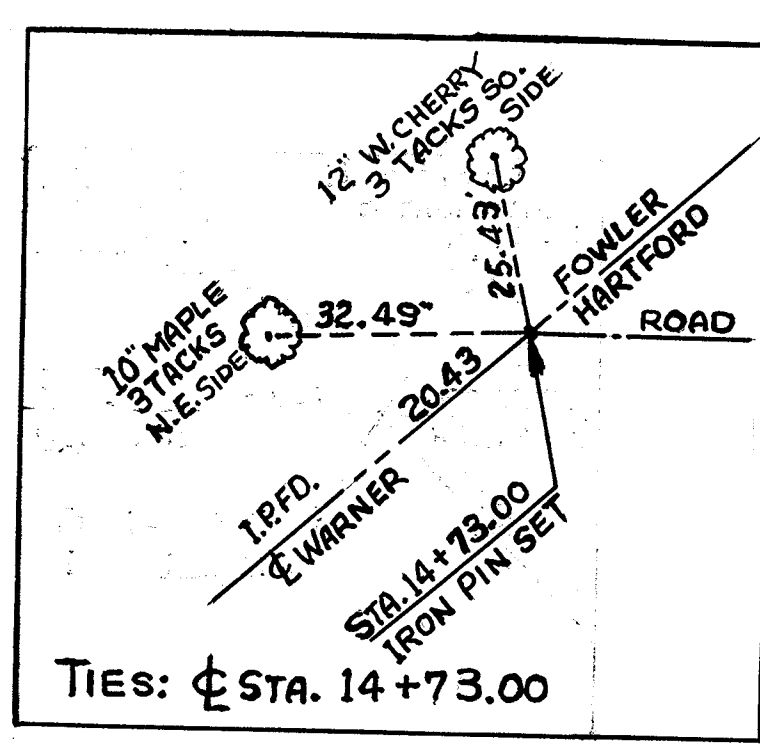
SCALE

PLAN	1" = 20 FT.
PROFILE HORIZONTAL	1" = 20 FT.
PROFILE VERTICAL	1" = 5 FT.
CROSS SECTIONS	1" = 5 FT.

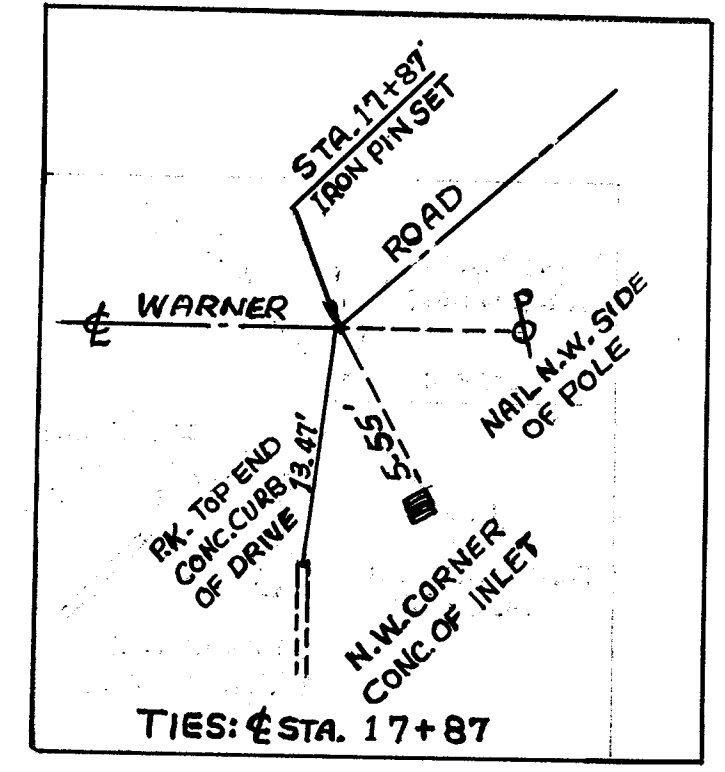
APPROVED Edward E. Ryser
DATE 6/25/73 TRUMBULL COUNTY ENGINEER

APPROVED John P. ...
Kyle Williams

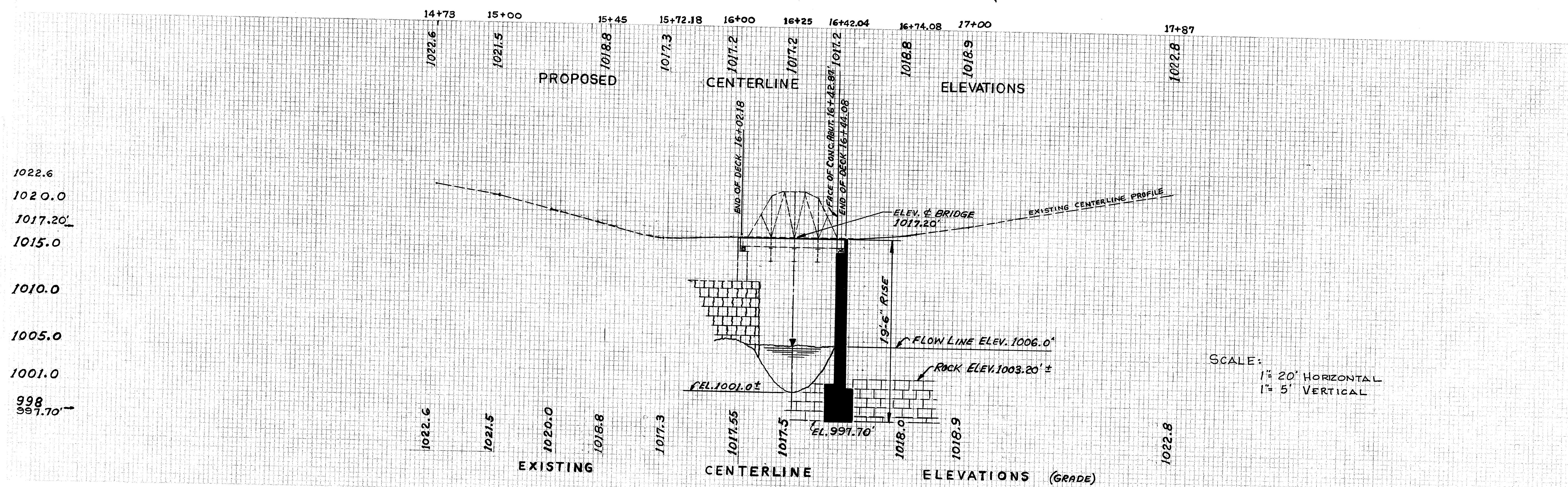
DATE 6/29/73 TRUMBULL COUNTY COMMISSIONERS



BRIDGE DATA		
	EXISTING	PROPOSED
TYPE	WELD TRUSS & STEEL BEAMS-BITUMINOUS DECK	REUSE EXISTING TRUSS, STRINGER & SUPPORT BEAMS
RAILING	TYPE 4 GUARD RAIL	REUSE TYPE 4 GUARD RAIL WITH ALTERATION AND NEW FLARE ENDS
ABUTMENT-WINGS	12"x12" x 36" SANDSTONE	REUSE SOUTH ABUTMENT NEW NORTH ABUTMENT & WINGWALL-CONCRETE
SPAN	31'-0" CLEARANCE	39'-4" CLEARANCE
ROADWAY	17'-10"	18'-10"
WATERWAY	31'-3" (W) 5'-0" (D)	33'-6" (W) 5'-0" (D)
WEARING SURFACE	BITUMINOUS ASPHALT	BITUMINOUS ASPHALT



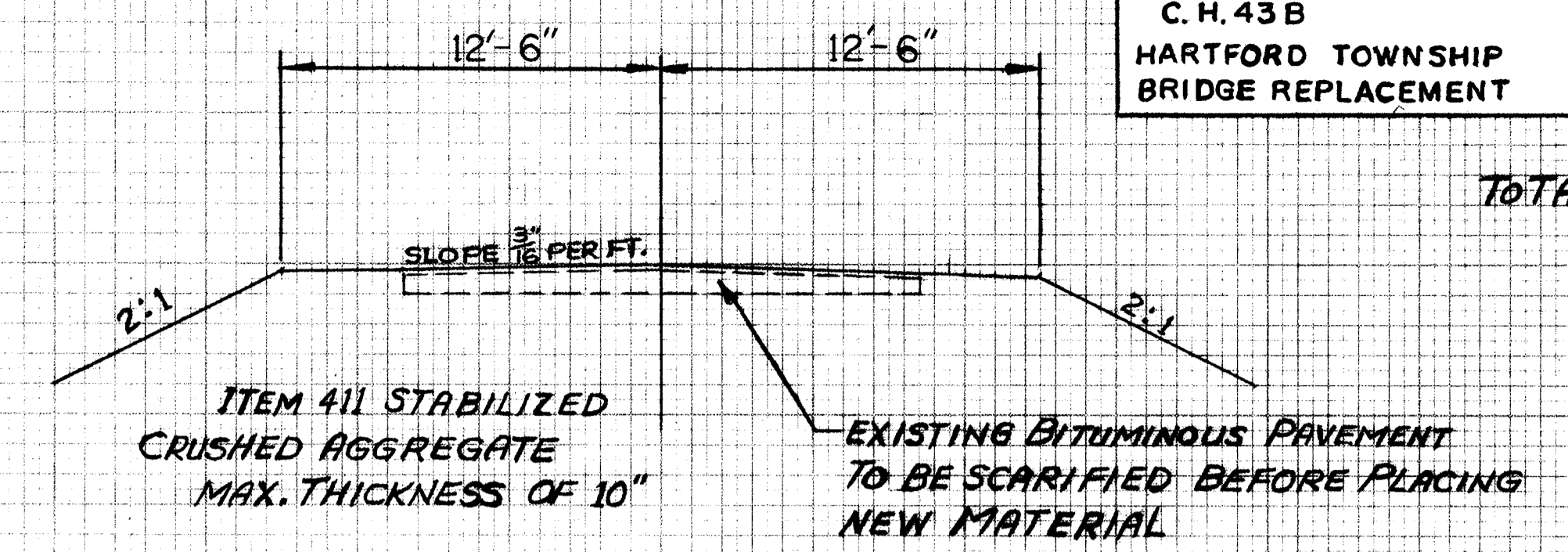
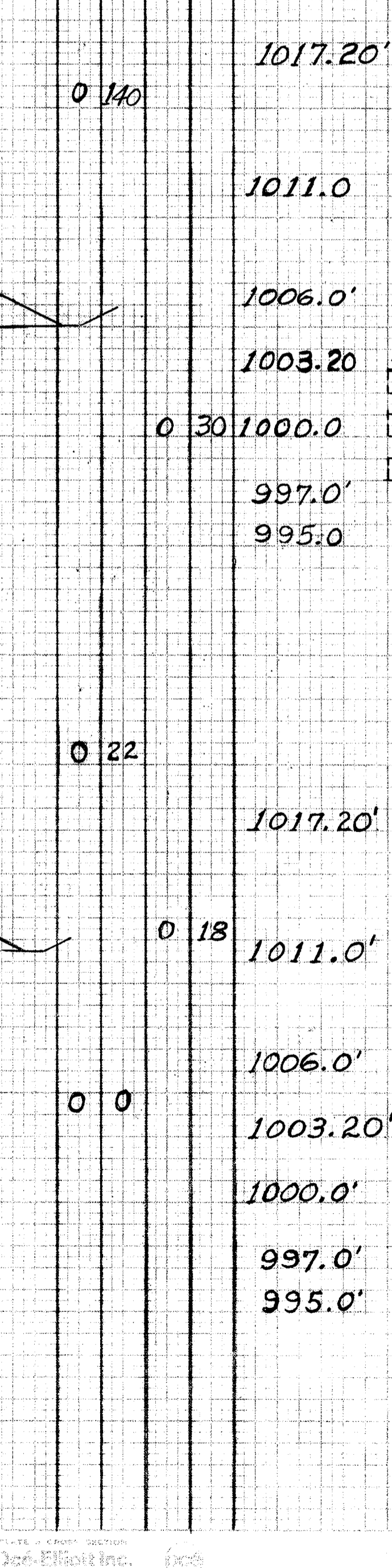
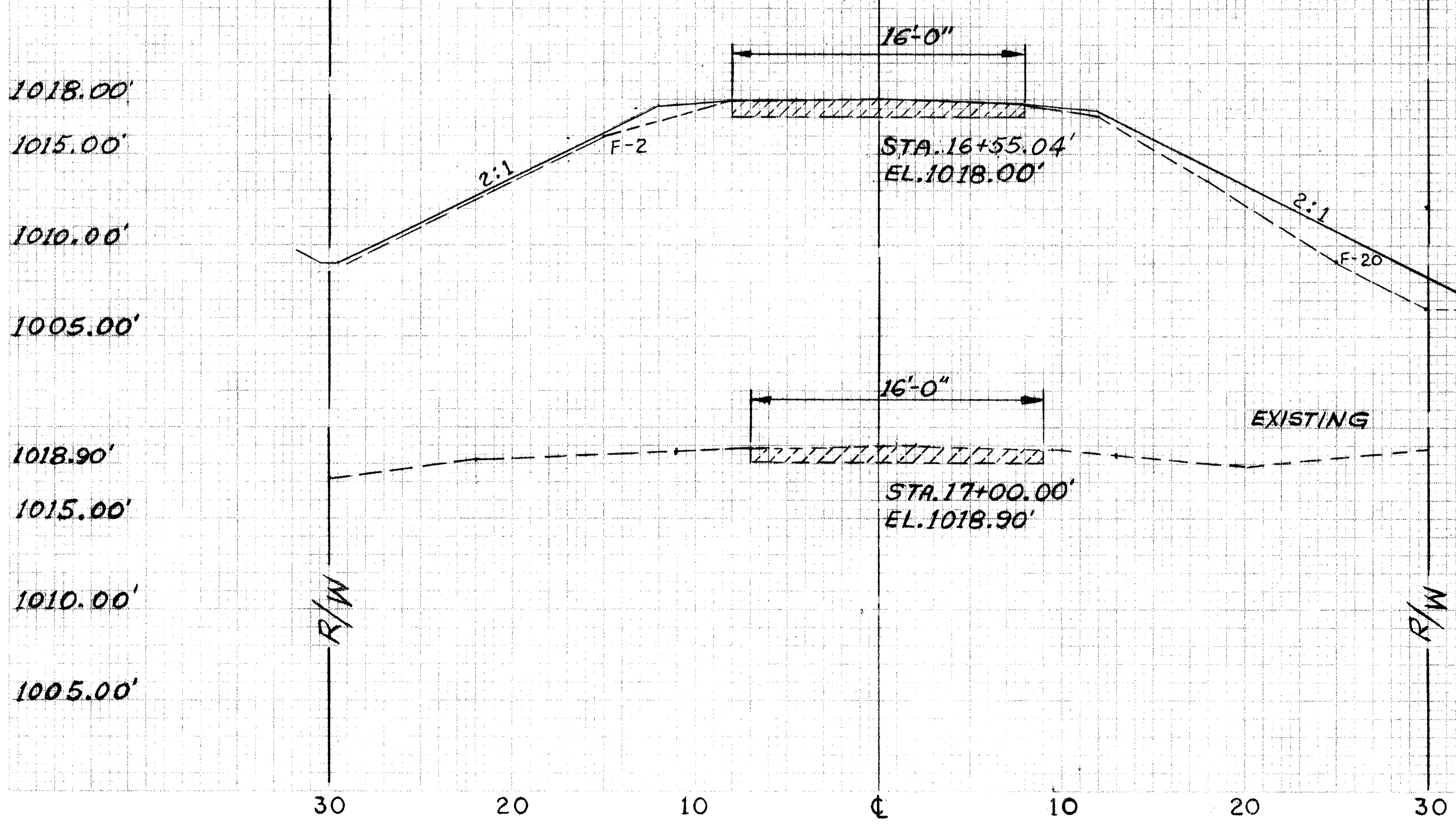
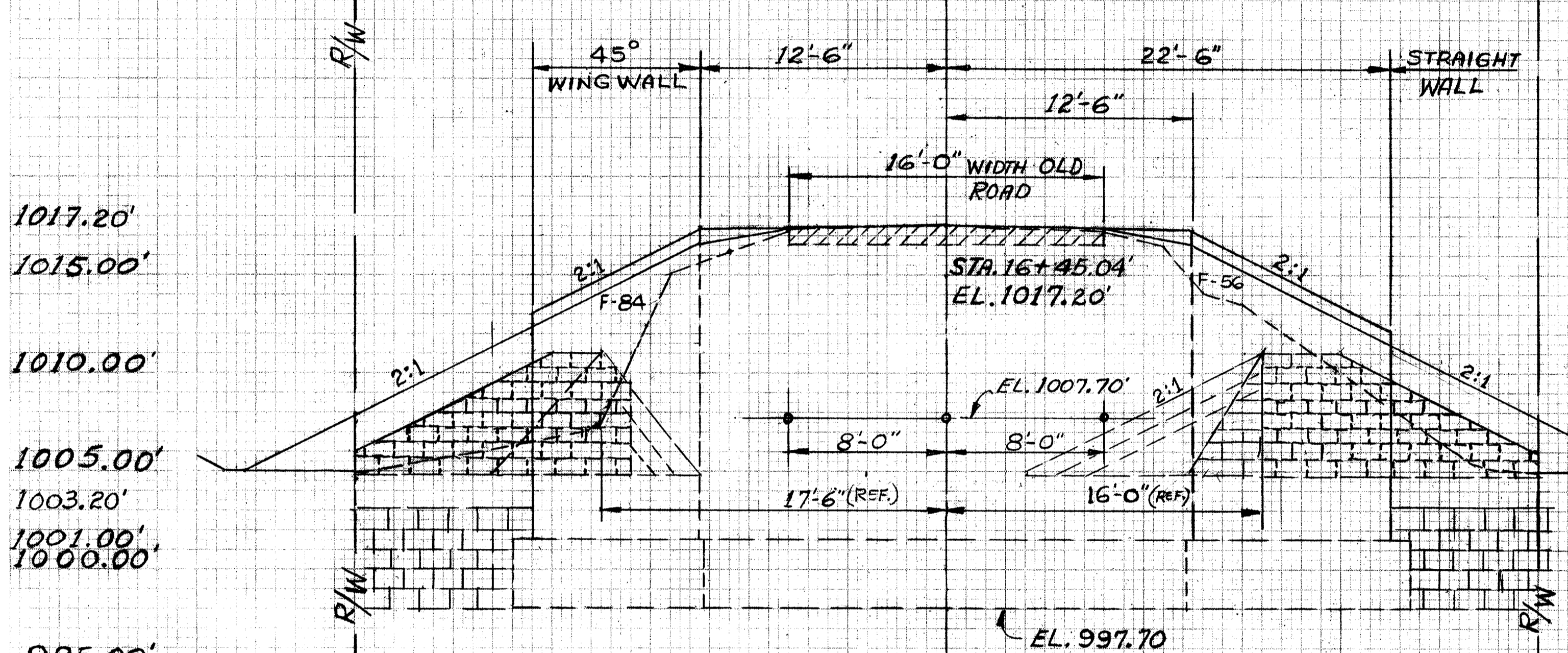
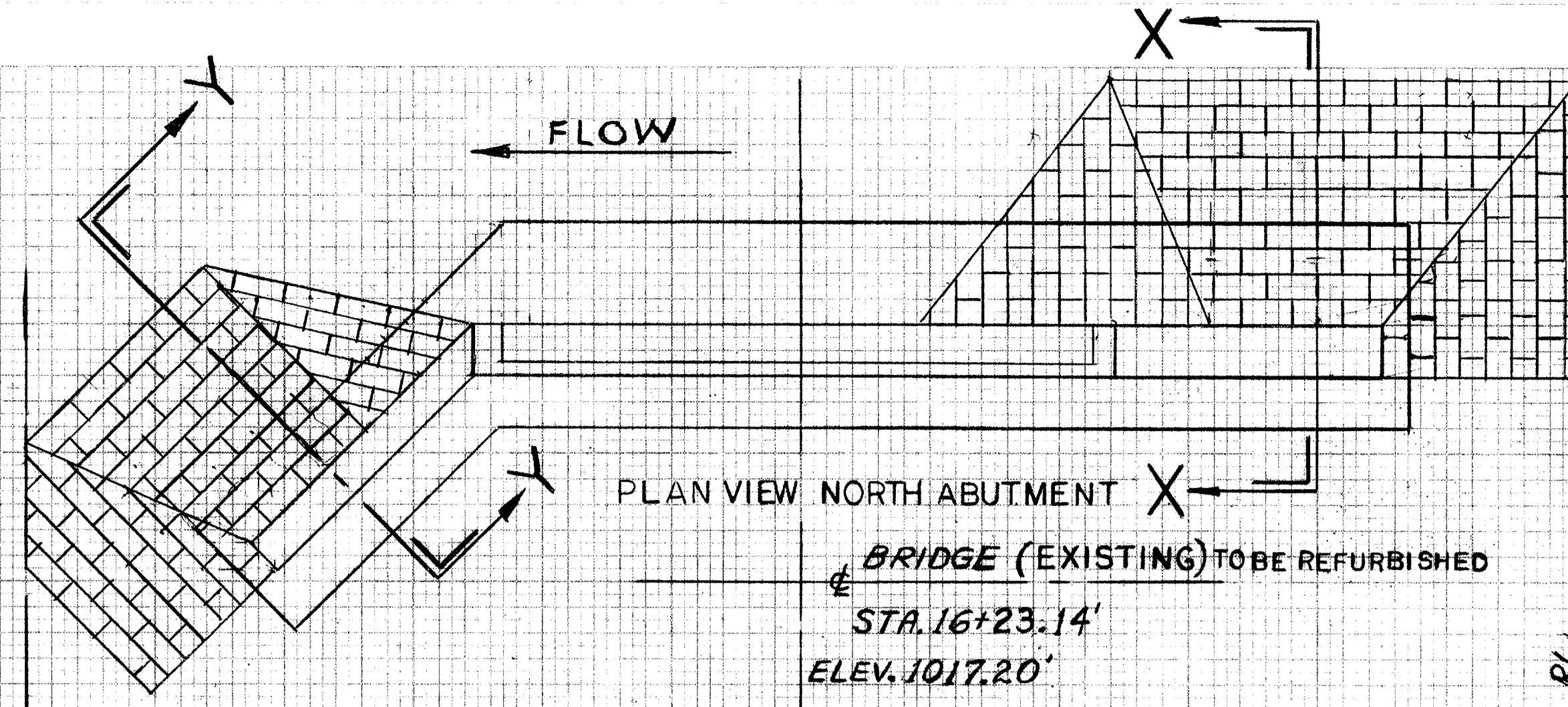
SCALE:
1" = 20'-0"



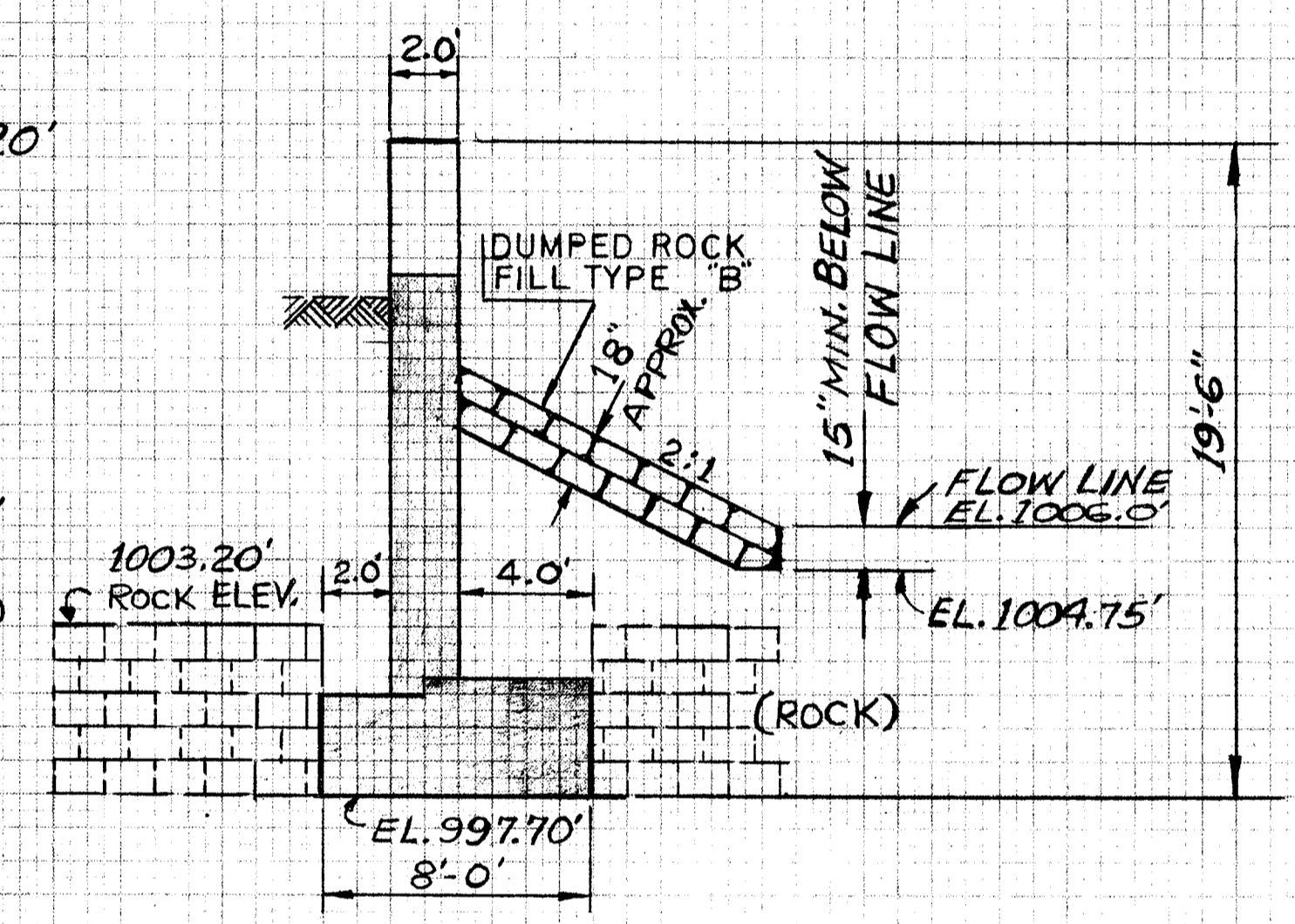
SCALE:
1" = 20' HORIZONTAL
1" = 5' VERTICAL

END AREA	CUT	FILL	TOTAL

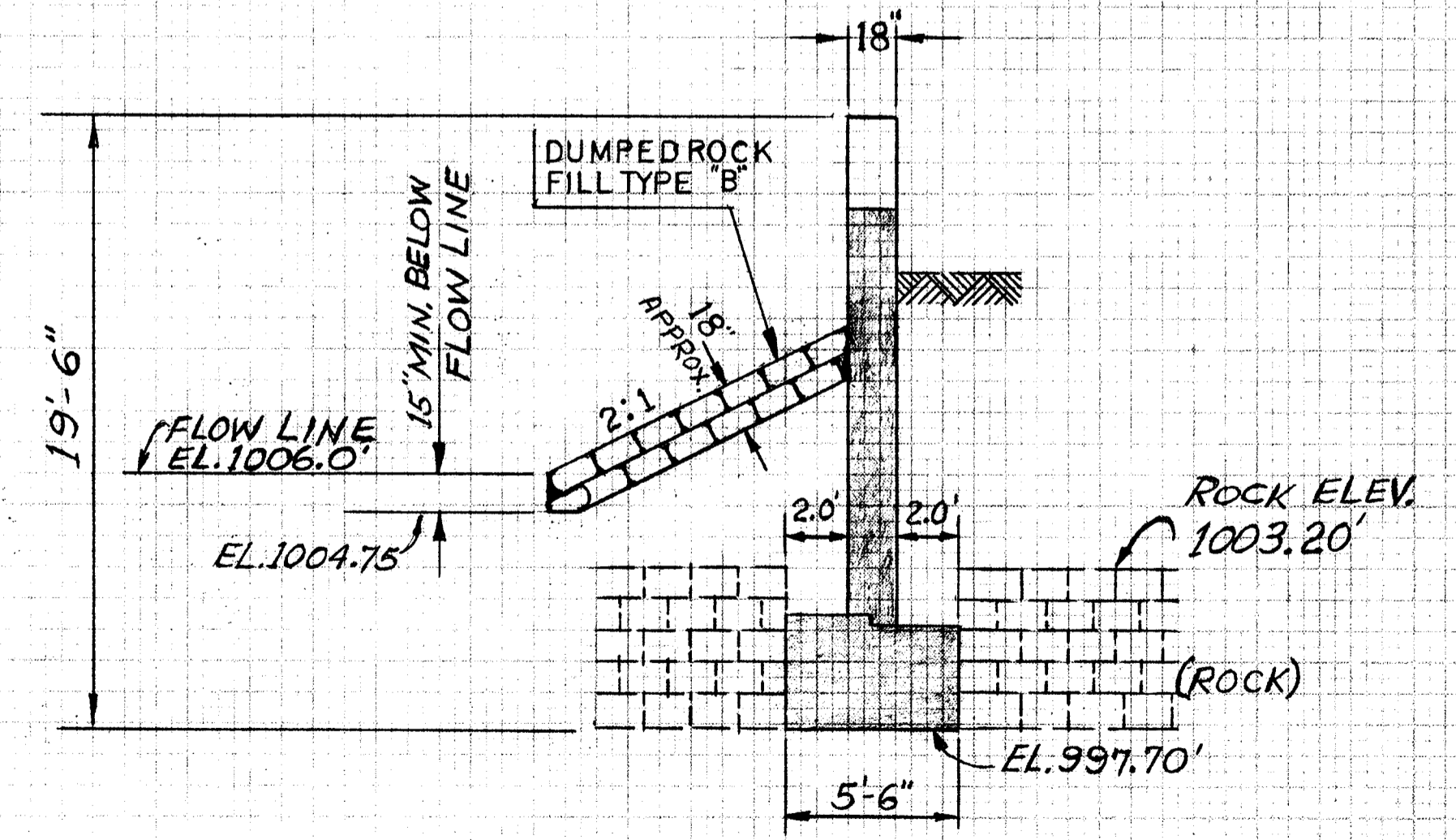
END AREA	CUT	FILL	TOTAL



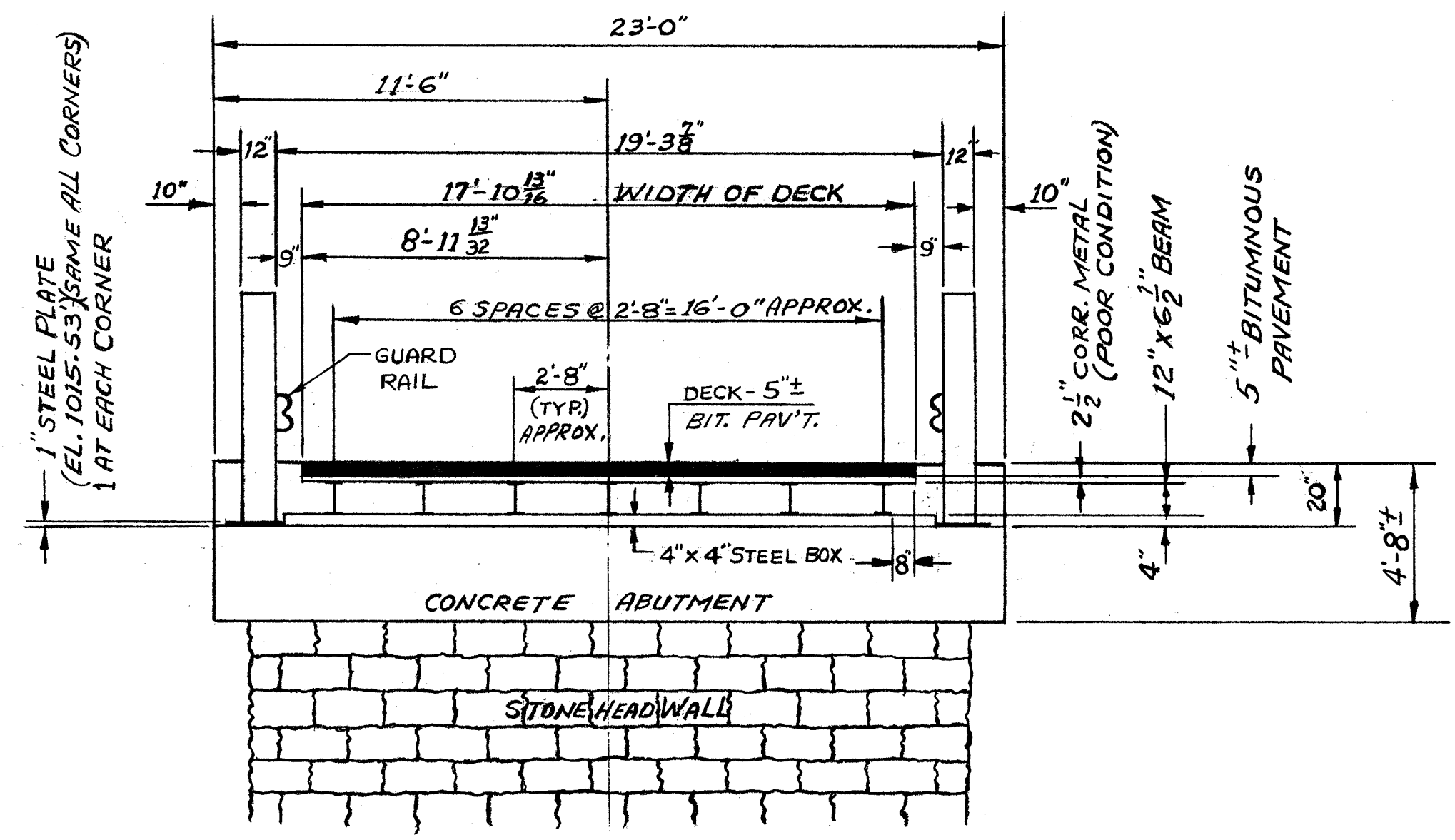
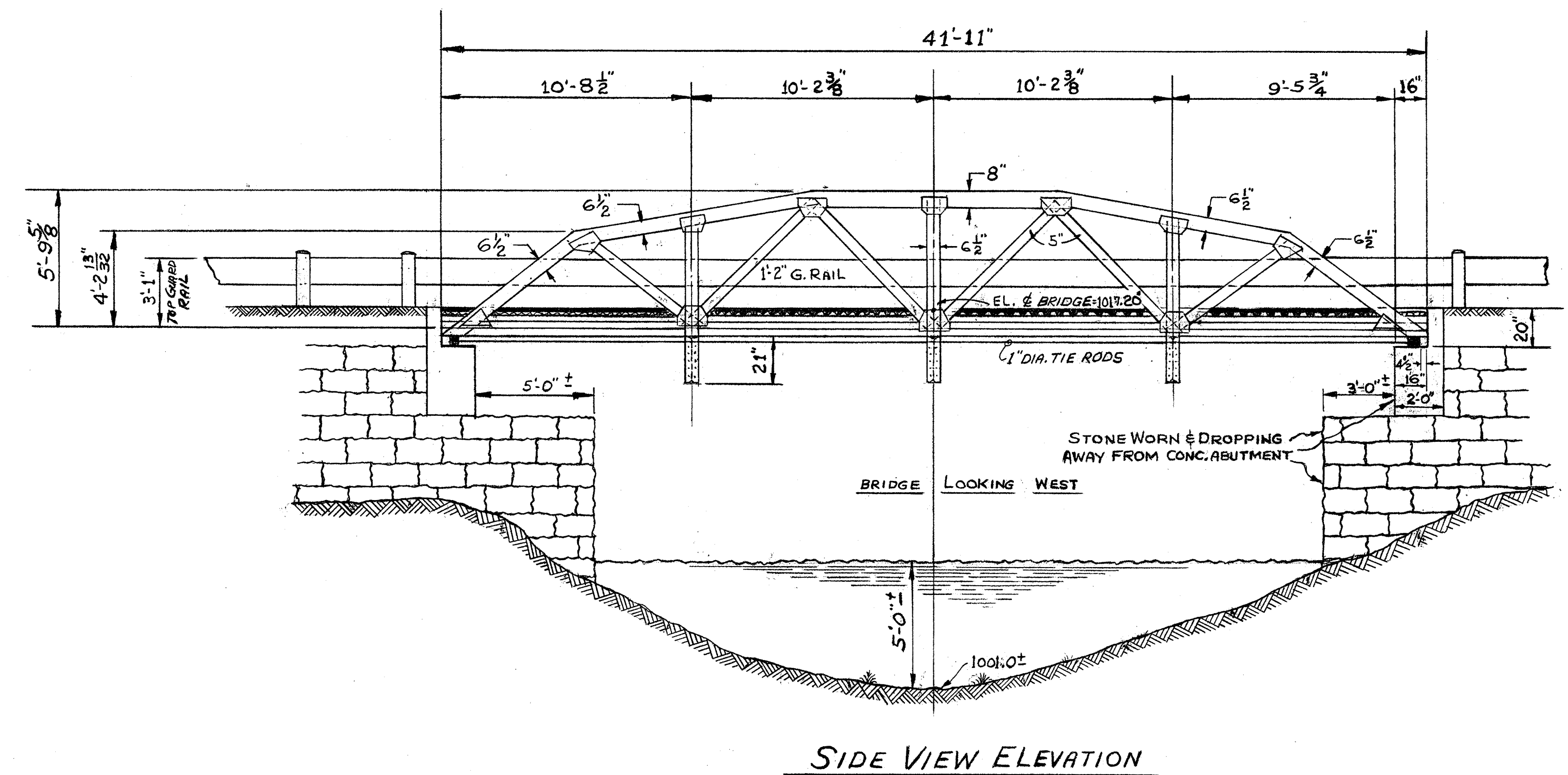
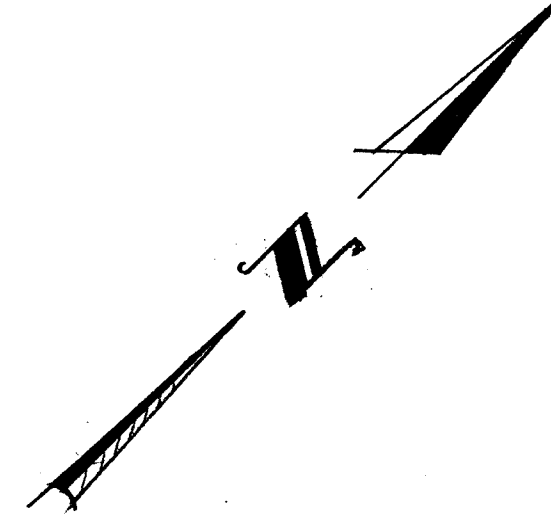
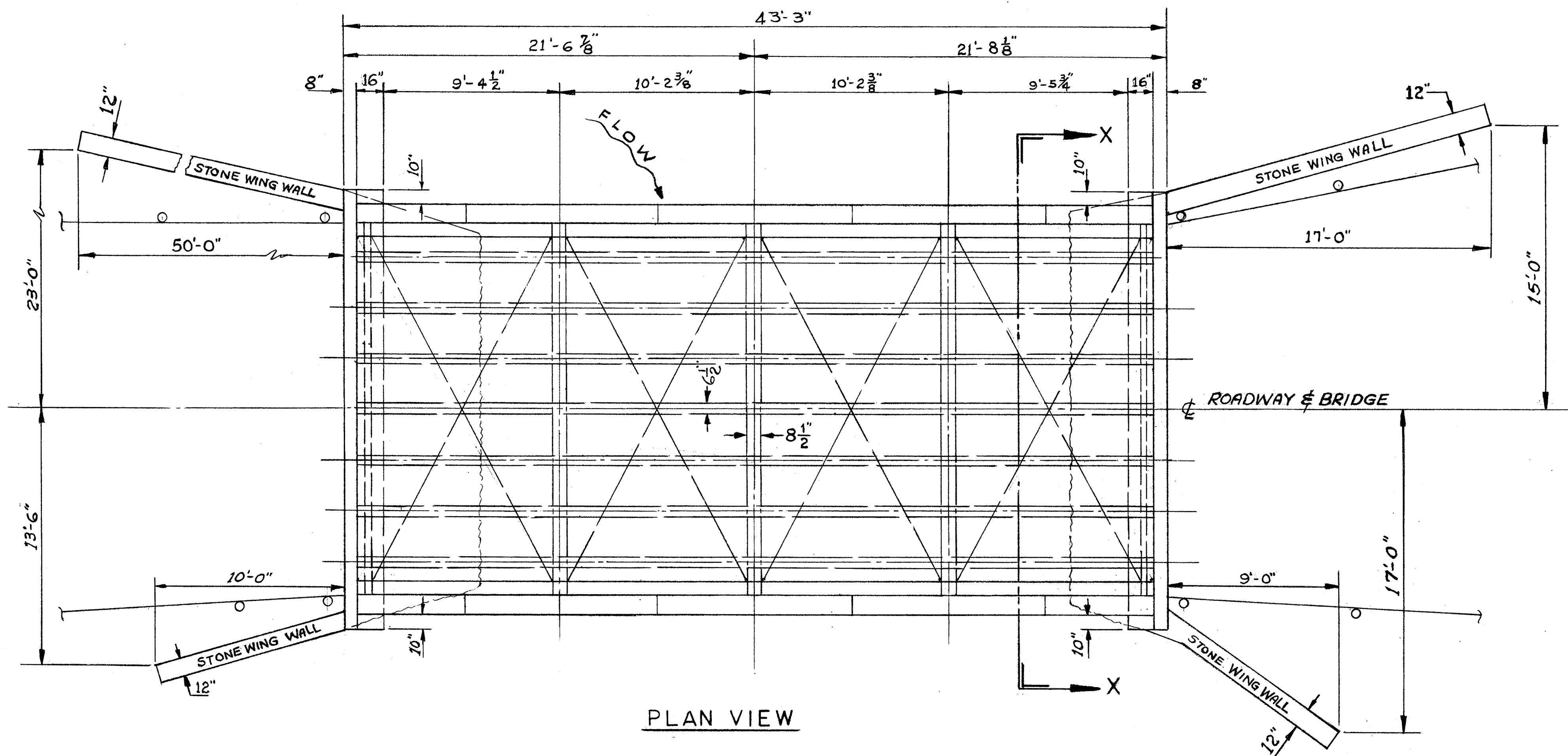
TYPICAL SECTION



SECTION - X-X



SECTION - Y-Y

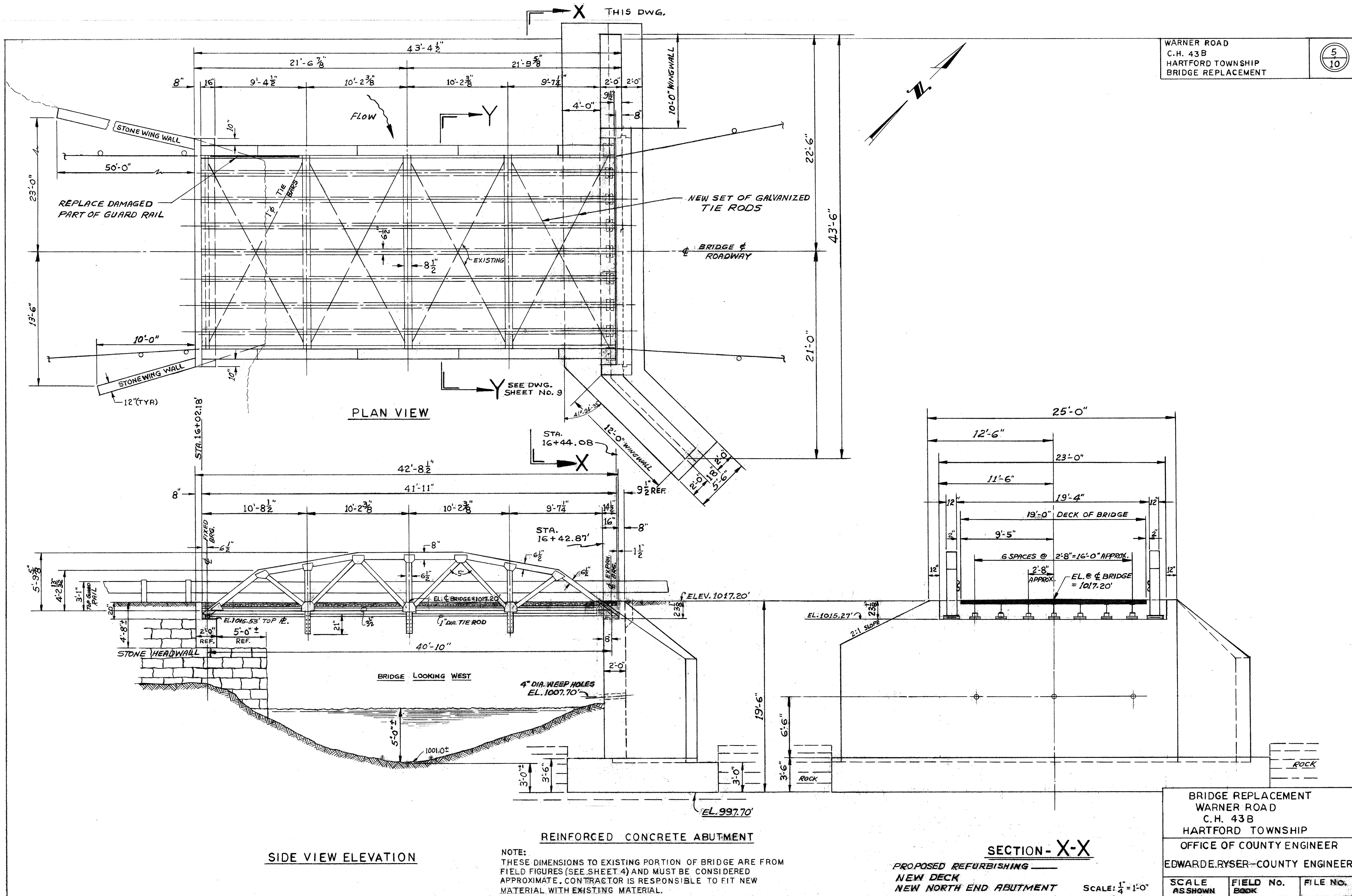


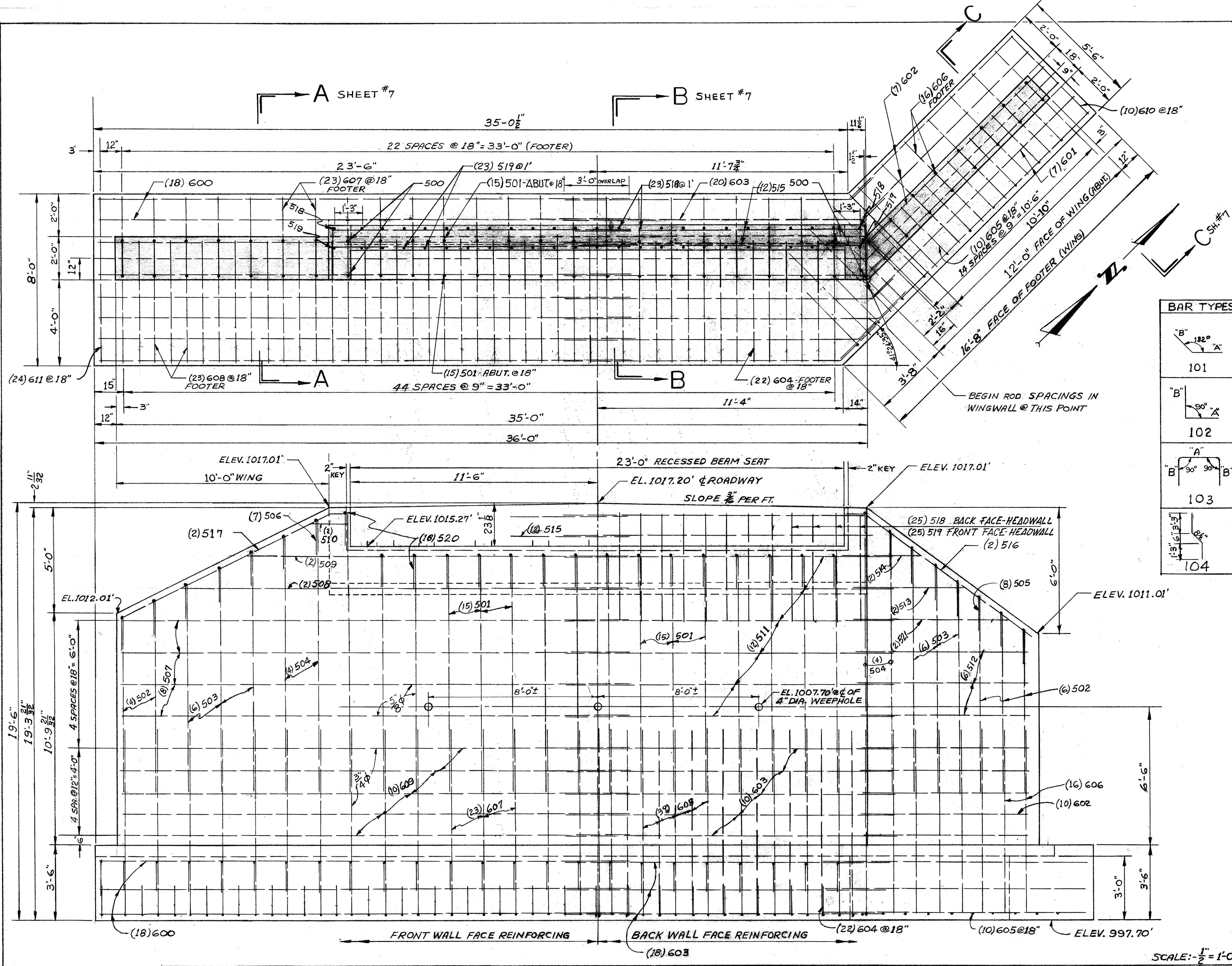
NOTE:
THESE DIMENSIONS ARE FIELD FIGURES AND MUST BE CONSIDERED APPROXIMATE. THIS FACT MUST BE CONSIDERED WHEN FURNISHING NEW MATERIAL. CONTRACTOR IS RESPONSIBLE TO FIT NEW MATERIAL WITH EXISTING MATERIAL.

GENERAL ARRGT. OF EXISTING
BRIDGE, FIELD FIGURES, MAR. 6, 1972

SCALE: 1/4" = 1'-0"

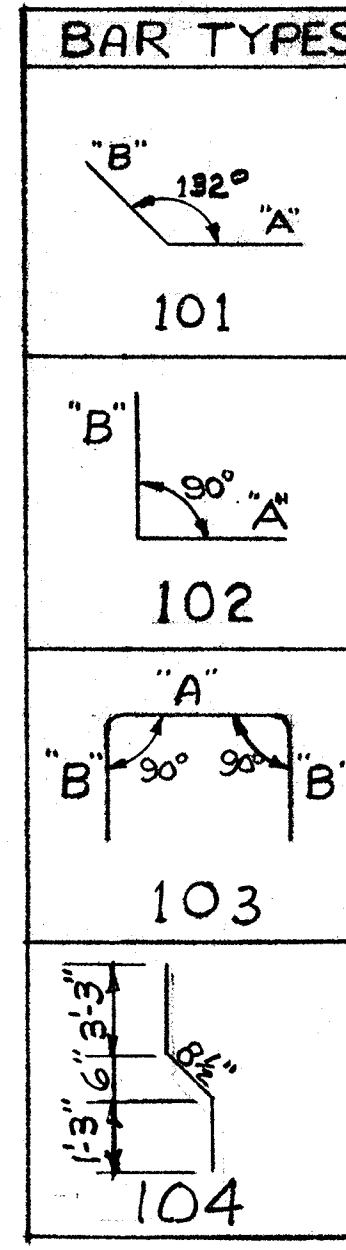
BRIDGE REPLACEMENT WARNER ROAD C.H. 43B HARTFORD TOWNSHIP OFFICE OF COUNTY ENGINEER EDUARDE. RYSER - COUNTY ENGINEER		
SCALE AS SHOWN	FIELD No. BOOK	FILE No.





ITEM 509 REINFORCING SCHEDULE

MARK	LB. / FT.	NO. REQ'D.	LENGTH	TYPE	DIM. A	DIM. B	WEIGHT
600	1.502	18	25'-0"	STR.			676
601	"	7	14'-0"	"			147
602	"	17	11'-0"	"			281
603	"	28	15'-6"	101	14'-0"	1'-6"	652
604	"	28	8'-6"	103	5'-6"	1'-6"	294
605	"	10	8'-2"	"	5'-2"	1'-6"	123
606	"	16	11'-6"	102	8'-6"	3'-0"	276
607	"	23	12'-0"	"	8'-6"	3'-6"	415
608	"	39	14'-0"	"	8'-6"	5'-6"	820
609	"	10	23'-9"	STR.			357
610	"	10	8'-2"	103	5'-2"	1'-6"	123
611	"	24	10'-6"	"	7'-6"	1'-6"	378
500	1.043	3	13'-0"	STR.			41
501	"	30	11'-0"	"			344
502	"	10	8'-6"	"			89
503	"	12	10'-6"	"			131
504	"	8	12'-6"	"			104
505	"	8	4'-0"	103	1'-0"	1'-6"	33
506	"	7	4'-6"	103	1'-6"	1'-6"	33
507	"	8	23'-9"	STR.			198
508	"	2	21'-0"	"			44
509	"	2	18'-0"	"			38
510	"	2	1'-6"	"			3
511	"	12	15'-6"	101	14'-0"	1'-6"	194
512	"	6	11'-6"	STR.			72
513	"	2	7'-6"	"			16
514	"	2	4'-6"	"			9
515	"	12	14'-0"	"			175
516	"	2	13'-9"	101	13'-0"	0'-9"	29
517	"	2	11'-3"	"	10'-6"	0'-9"	23
518	"	25	5'-3"	104			137
519	"	25	3'-6"	STR.			91
520	"	18	4'-10"	103	2'-2"	1'-4"	91
521	"	2	10'-6"	STR.			22
TOTAL LBS. REINFORCING							6,459

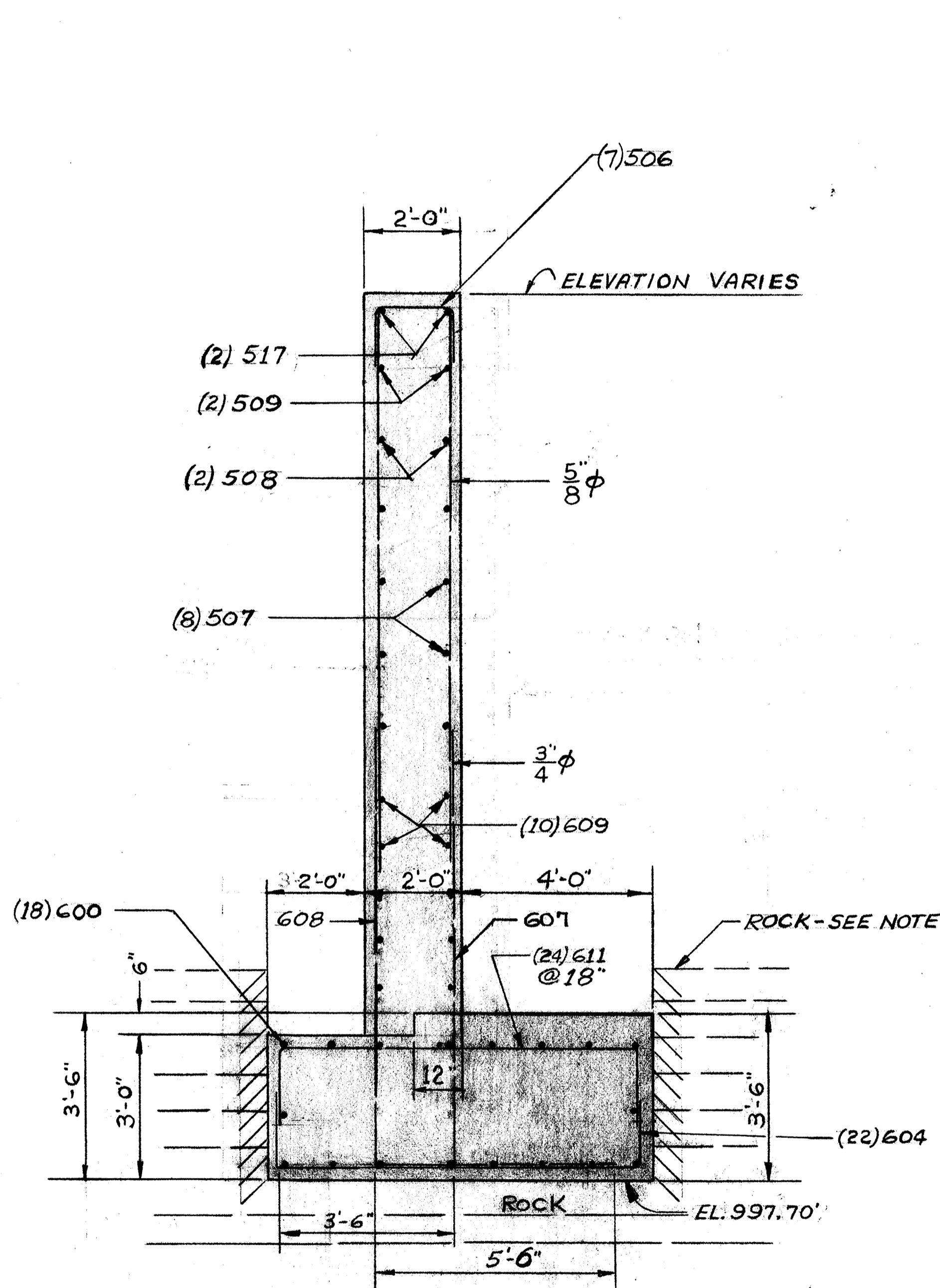


NOTE:
 BEFORE POURING - SET BEARING ANCHOR BARS AS SHOWN ON SHEET No. 8

BRIDGE REPLACEMENT
 WARNER ROAD
 C.H. 43B
 HARTFORD TOWNSHIP
 OFFICE OF COUNTY ENGINEER
 EDUARDE RYSER - COUNTY ENGINEER

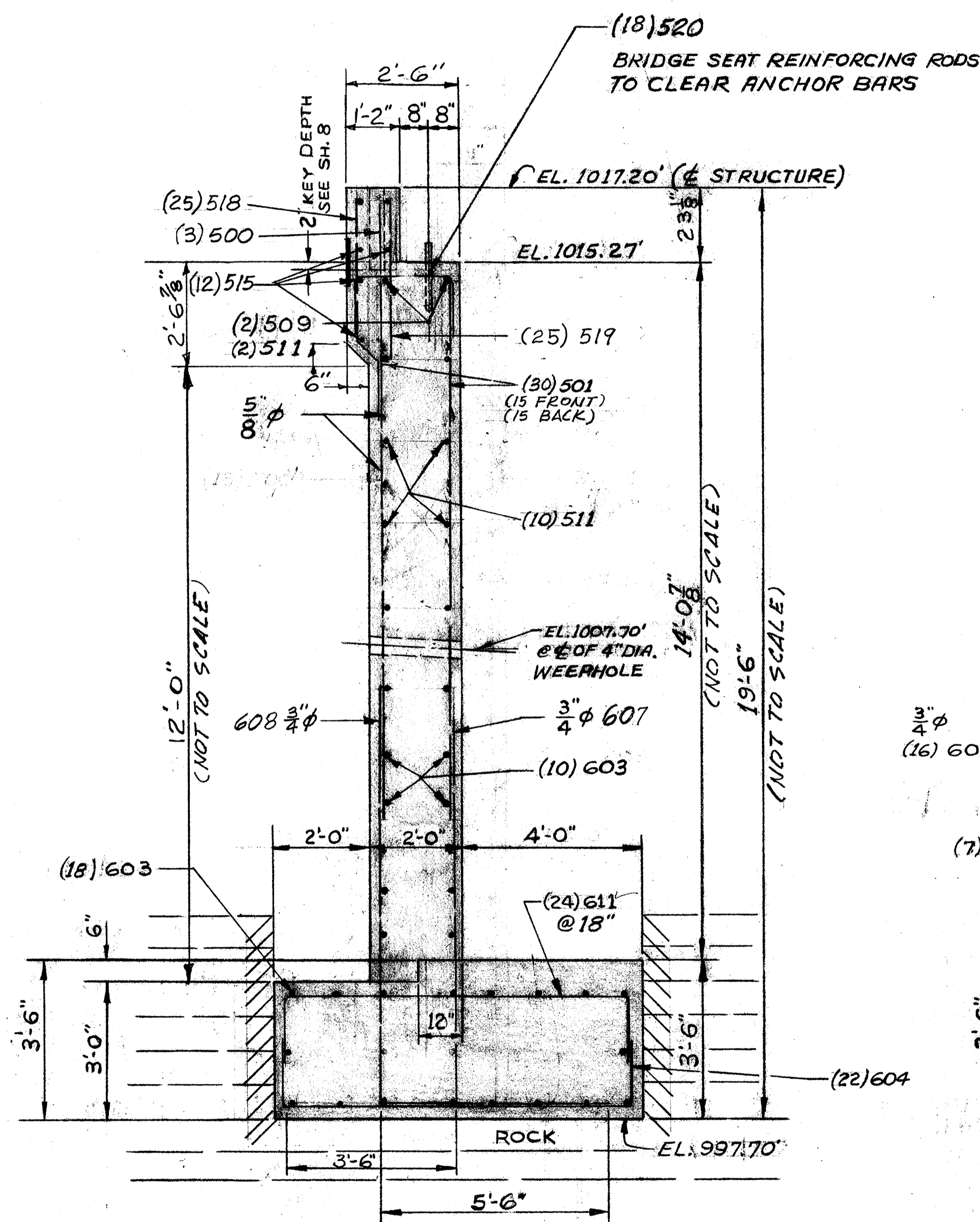
SCALE AS SHOWN	FIELD NO. BOOK	FILE NO.
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SCALE: 1/2" = 1'-0"



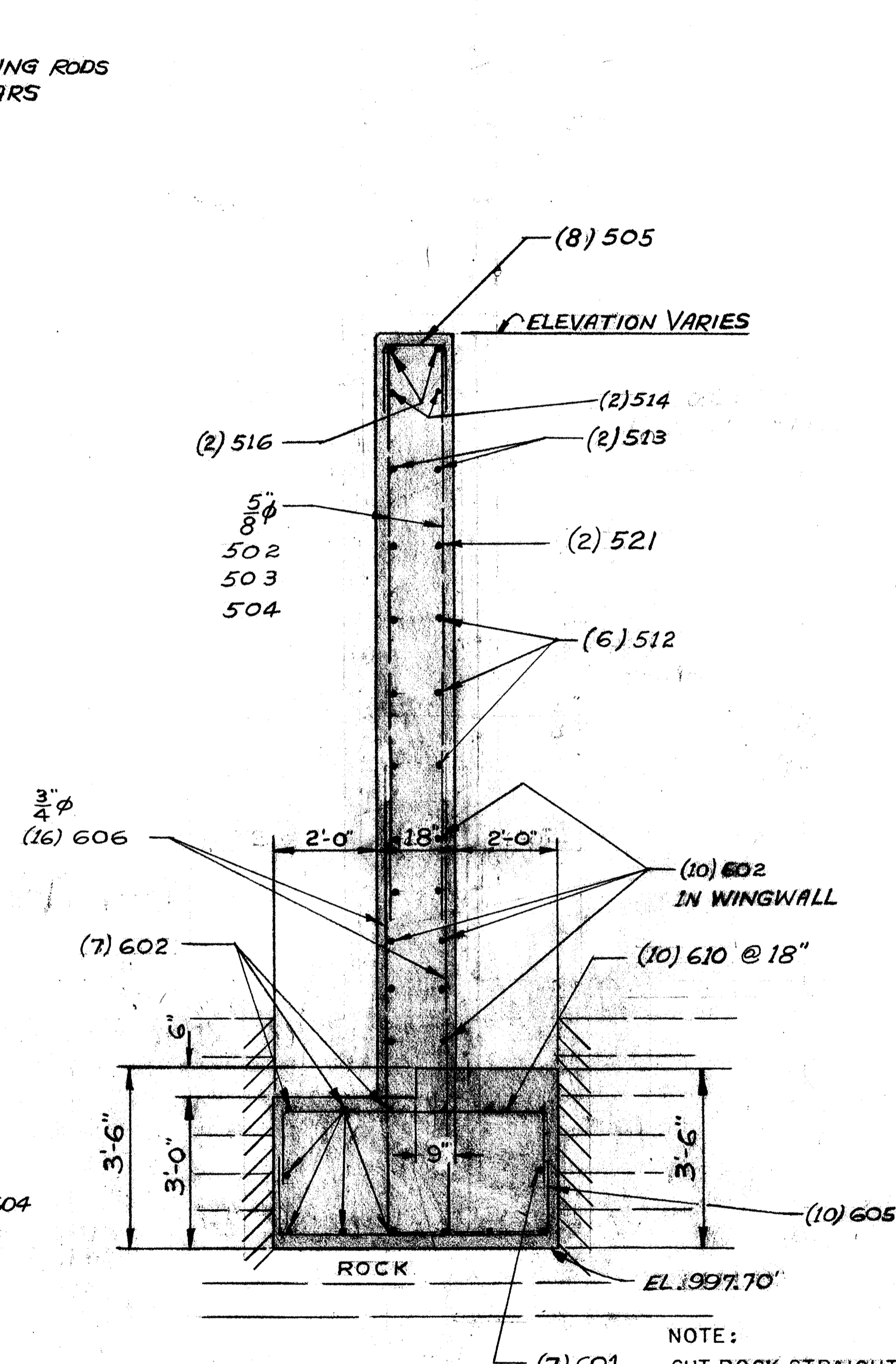
SECTION - A-A

TAKEN FROM SH. No. 6
SCALE: $\frac{1}{2}'' = 1'-0''$



SECTION - B-B

TAKEN FROM SH. No. 6
SCALE: $\frac{1}{2}'' = 1'-0''$

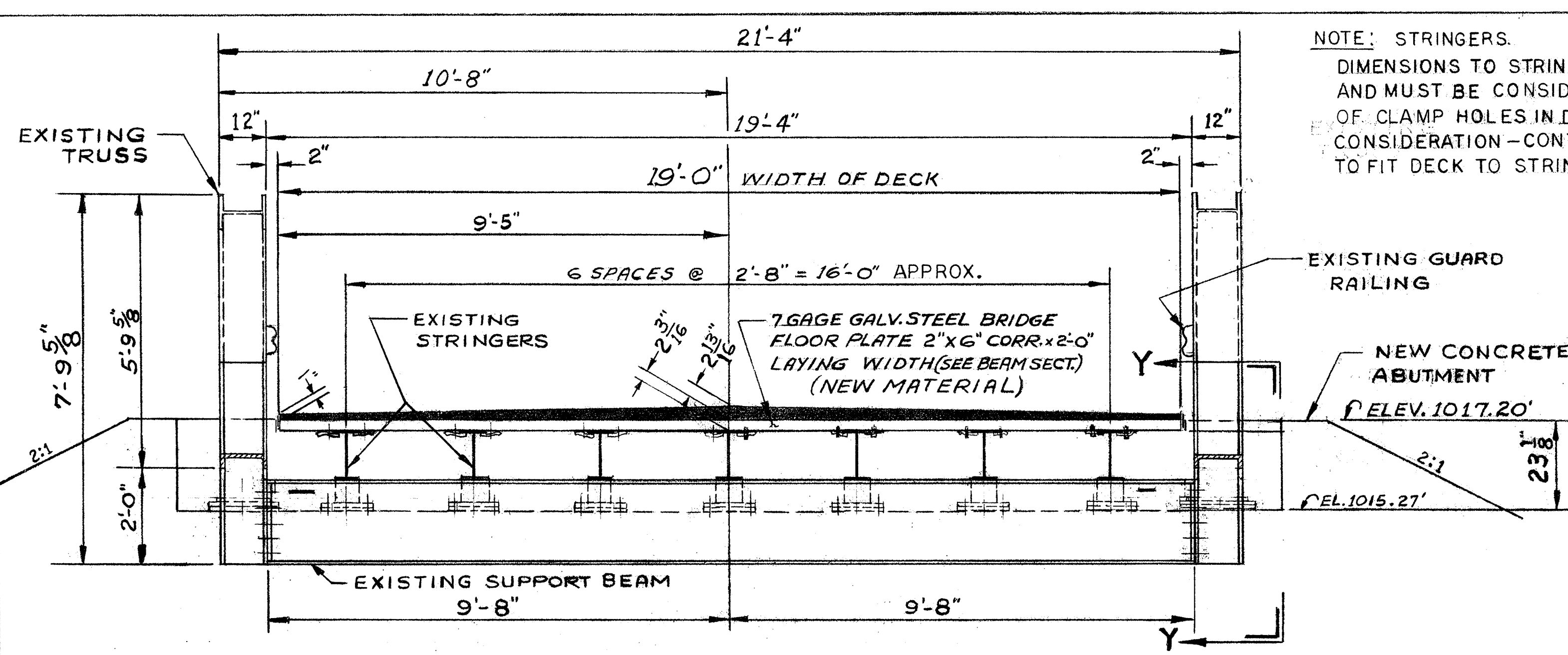


SECTION - C-C

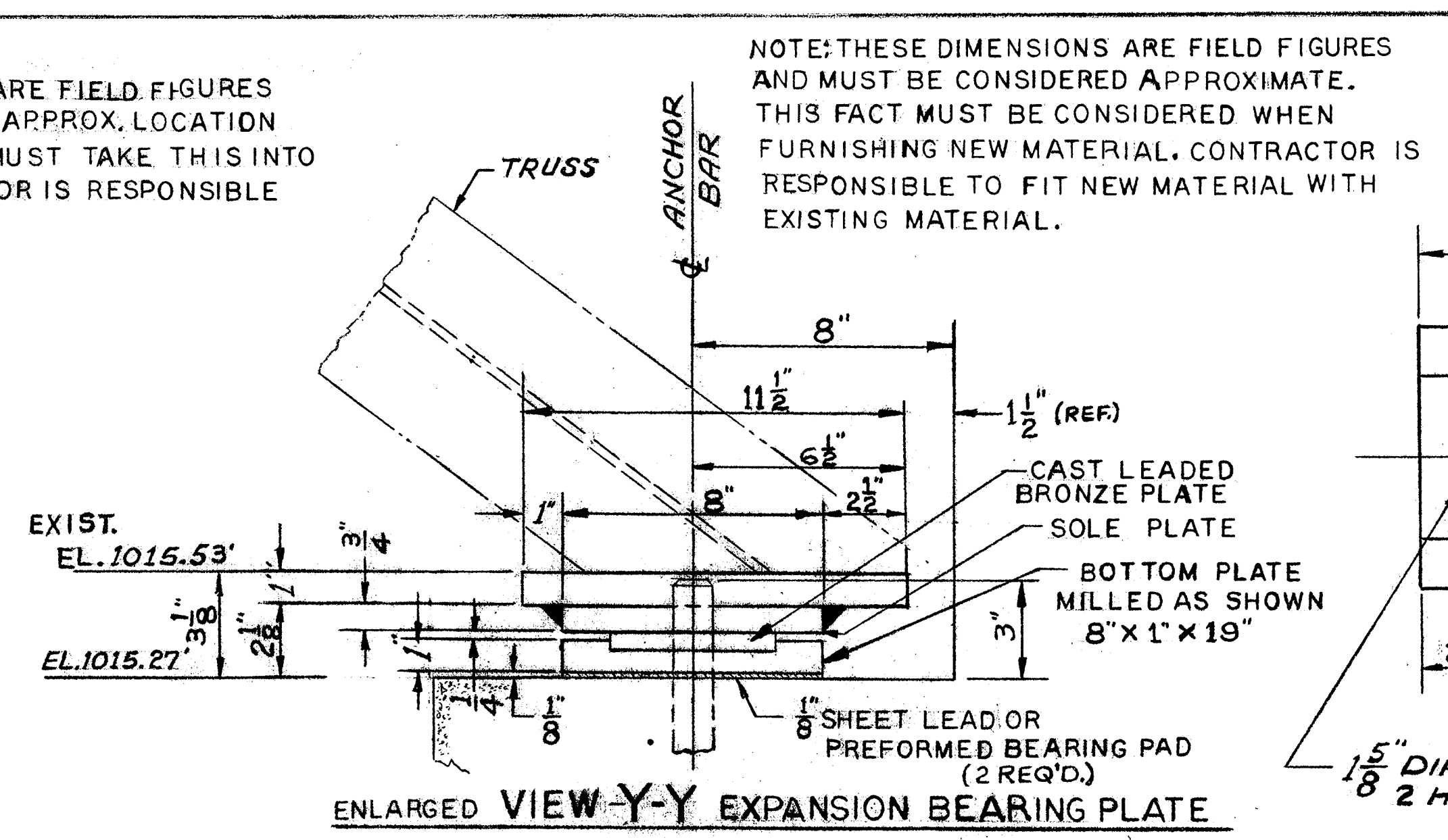
TAKEN FROM SH. No. 6
SCALE: $\frac{1}{2}'' = 1'-0''$

NOTE:
CUT ROCK STRAIGHT AND TRUE TO SIZE, REMOVE ANY LOOSE MATERIAL AND POUR CONCRETE TIGHT AGAINST ROCK WITHOUT FORMING, FILL VOIDS WITH CONCRETE.-BEFORE POURING CONCRETE THE CONTRACTOR MUST HAVE APPROVAL OF ENGINEER. (503.06)

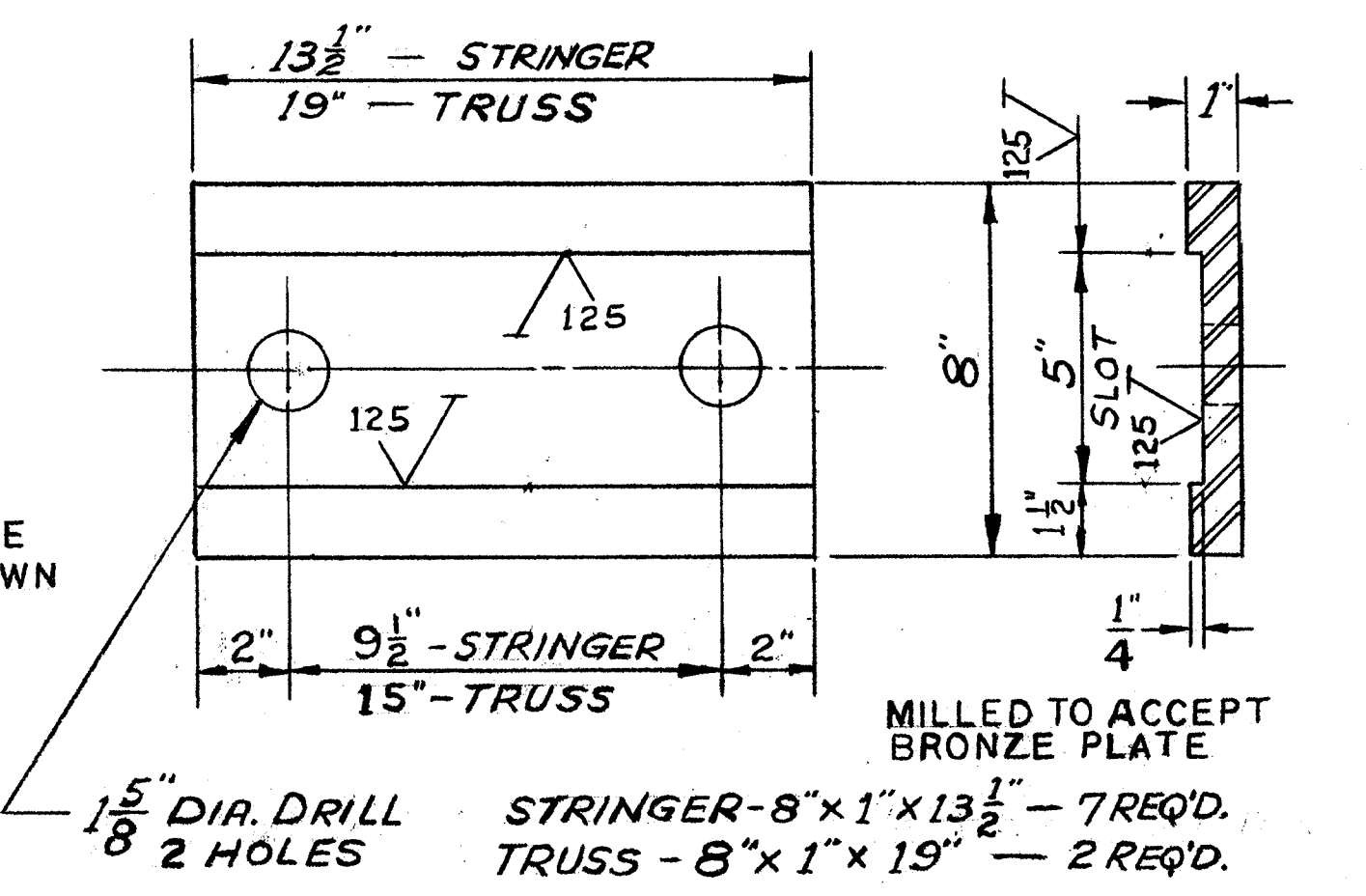
BRIDGE REPLACEMENT WARNER ROAD C.H. 43B HARTFORD TOWNSHIP OFFICE OF COUNTY ENGINEER EDUARDE RYSER-COUNTY ENGINEER		
SCALE AS SHOWN	FIELD No. BOOK	FILE No.



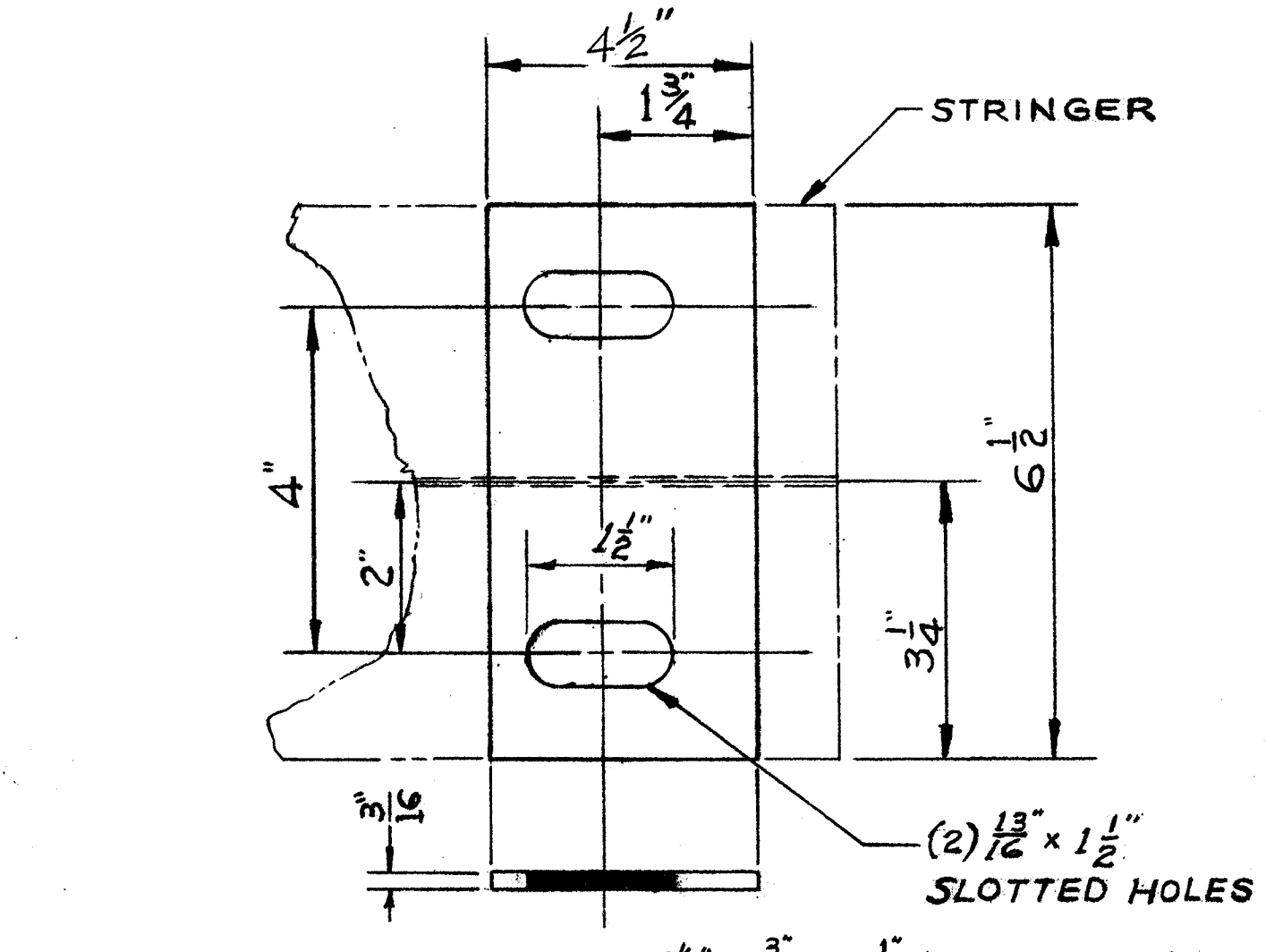
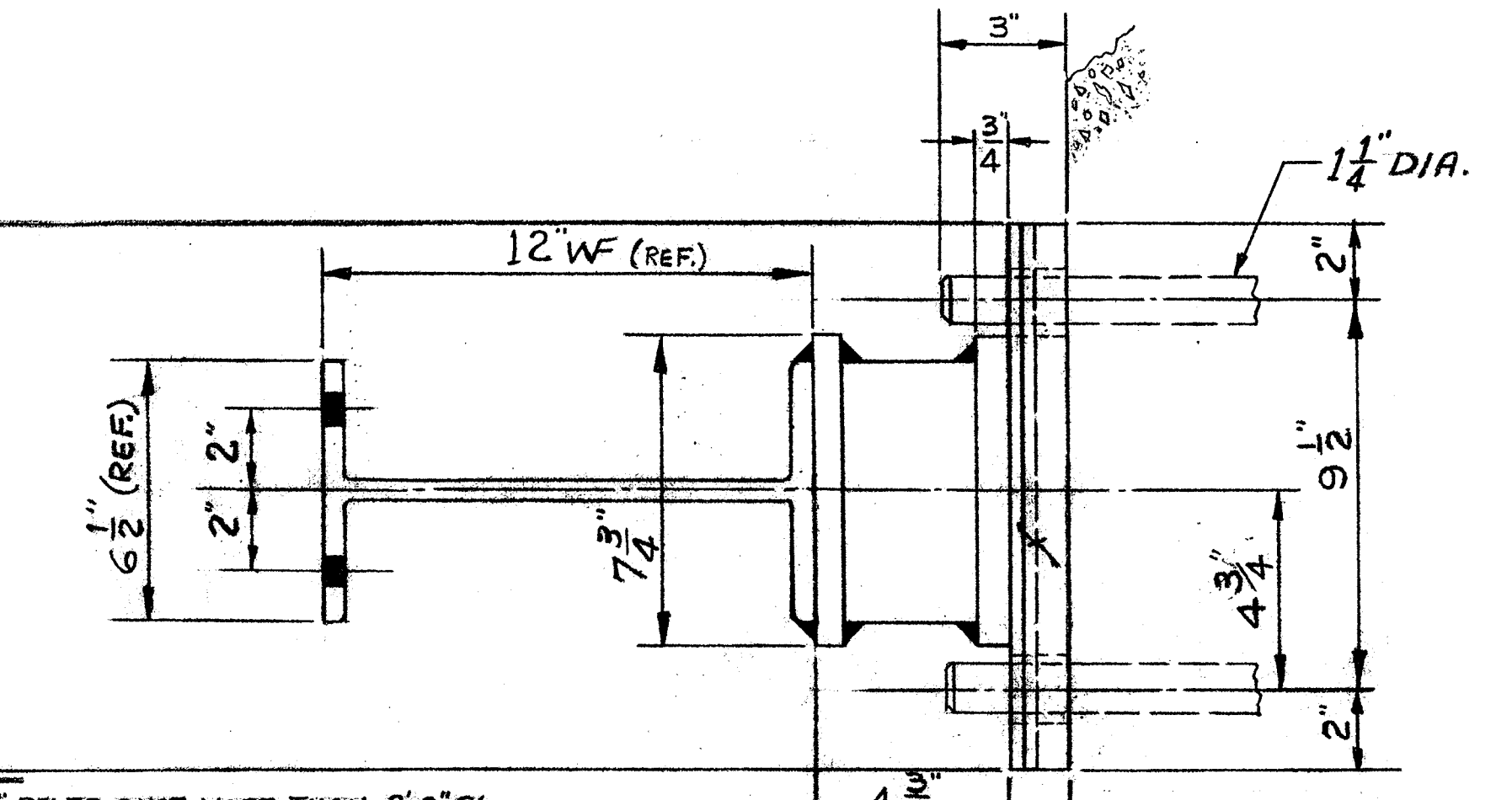
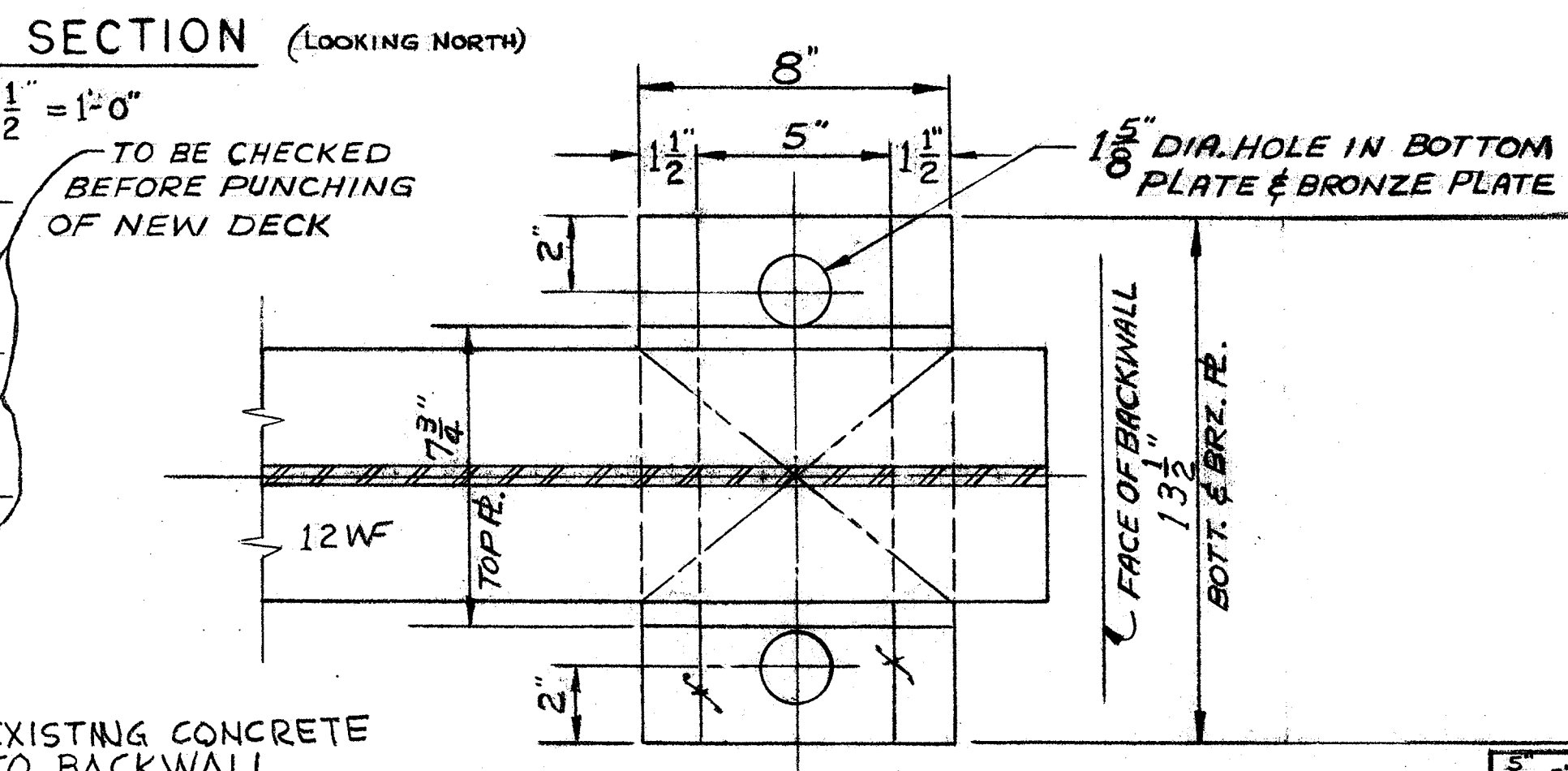
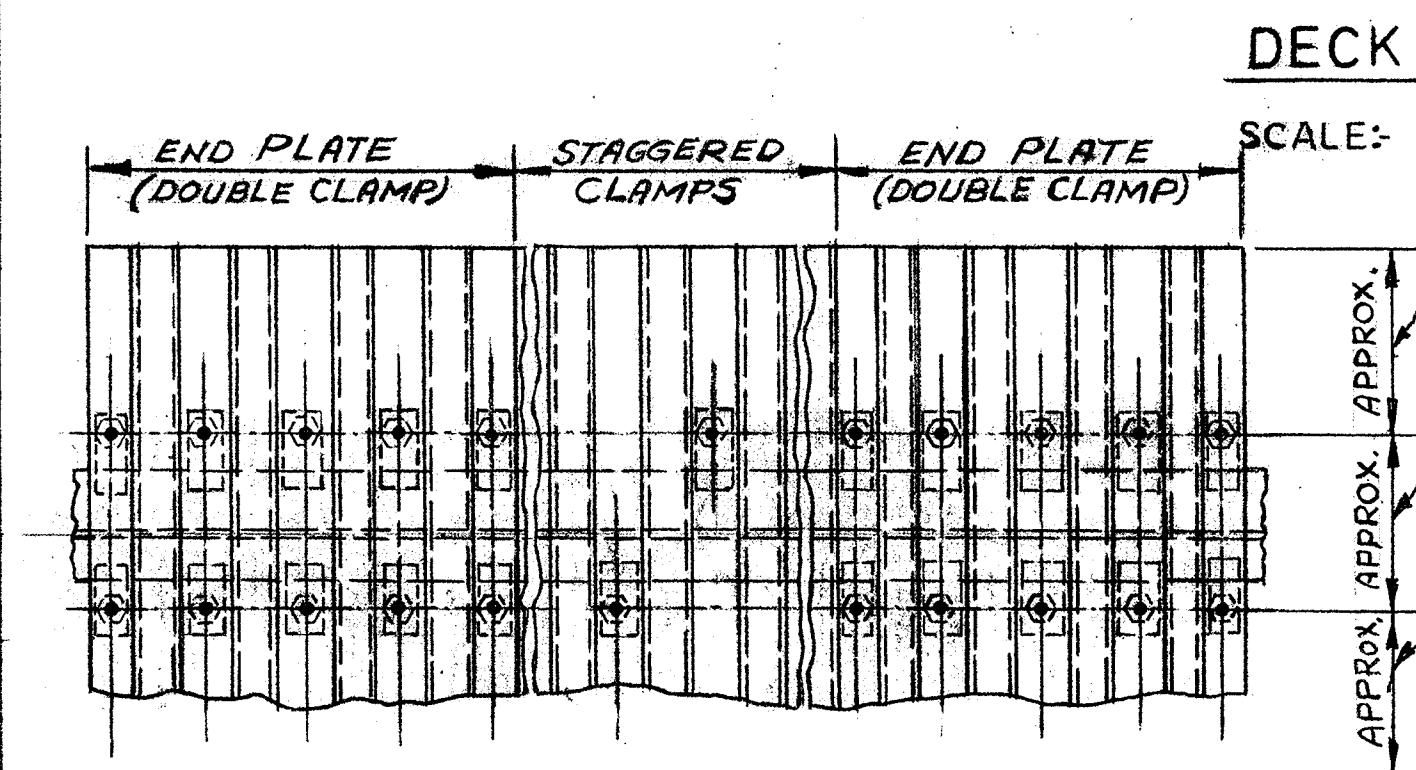
NOTE: STRINGERS.
DIMENSIONS TO STRINGERS ARE FIELD FIGURES AND MUST BE CONSIDERED APPROX. LOCATION OF CLAMP HOLES IN DECK MUST TAKE THIS INTO CONSIDERATION - CONTRACTOR IS RESPONSIBLE TO FIT DECK TO STRINGERS



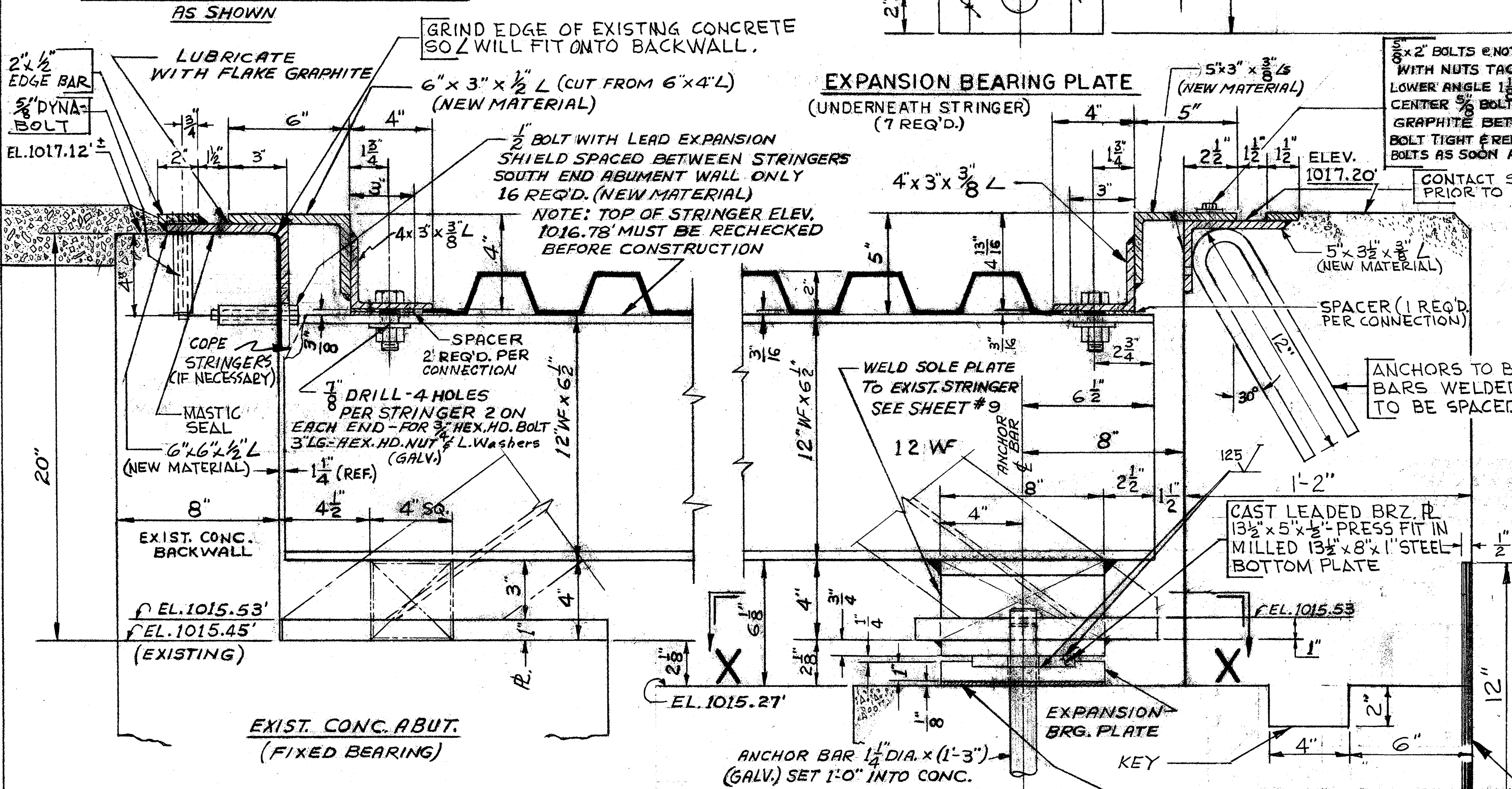
NOTE: THESE DIMENSIONS ARE FIELD FIGURES AND MUST BE CONSIDERED APPROXIMATE. THIS FACT MUST BE CONSIDERED WHEN FURNISHING NEW MATERIAL. CONTRACTOR IS RESPONSIBLE TO FIT NEW MATERIAL WITH EXISTING MATERIAL.



EXPANSION END BEARING PLATE-STEEL (GALV.)
SCALE: 3"=1'-0" (NEW MATERIAL)

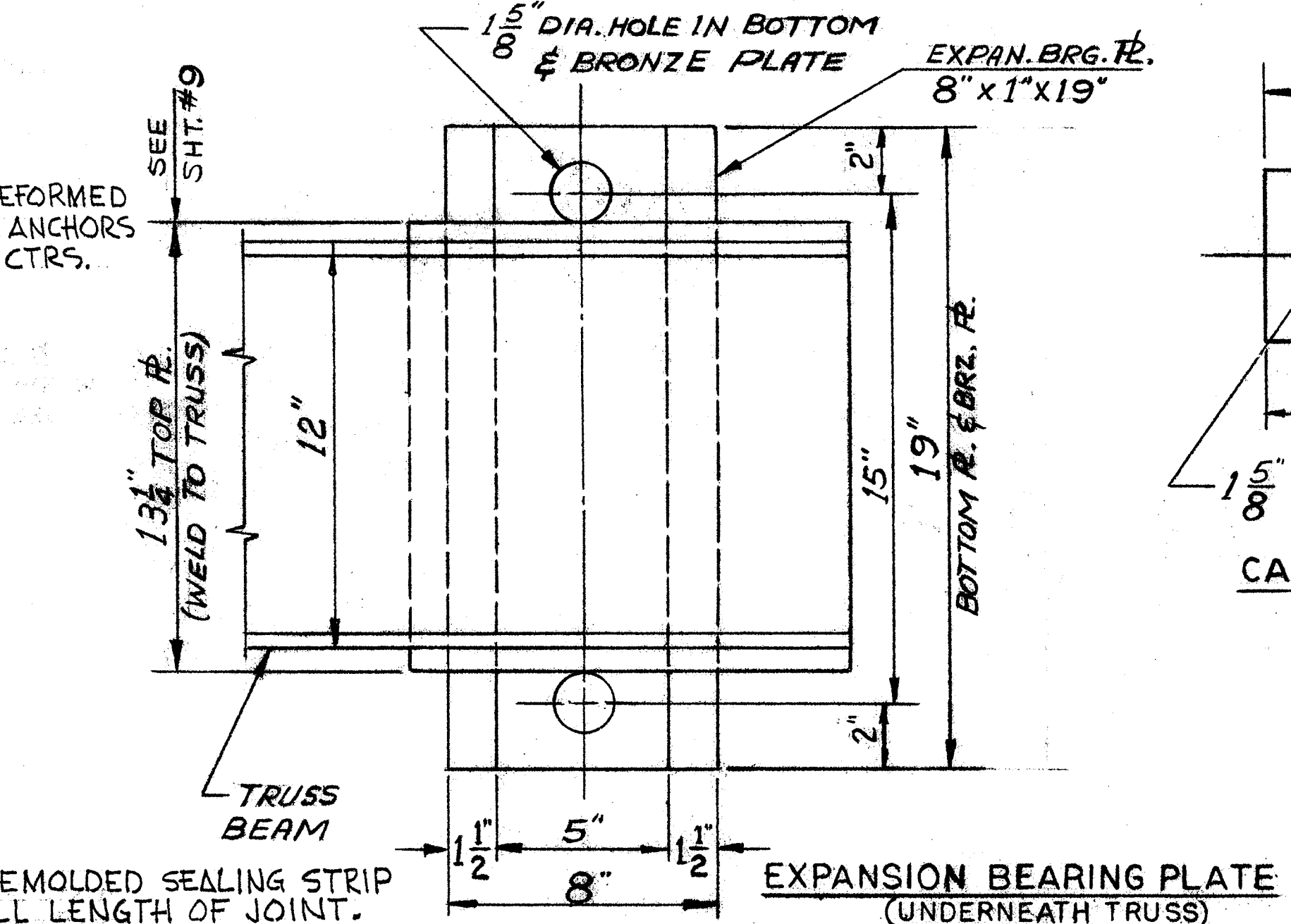


SPACER - GALVANIZED STEEL
SCALE: 6"=1'-0" (NEW MATERIAL)

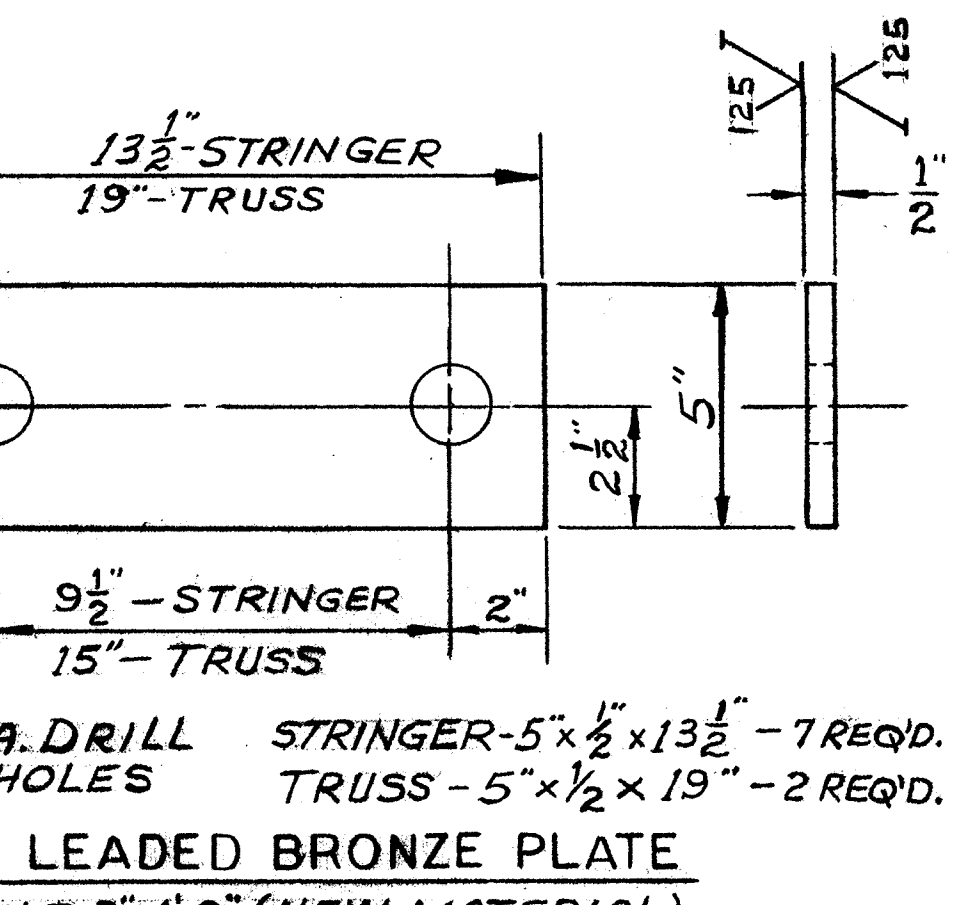


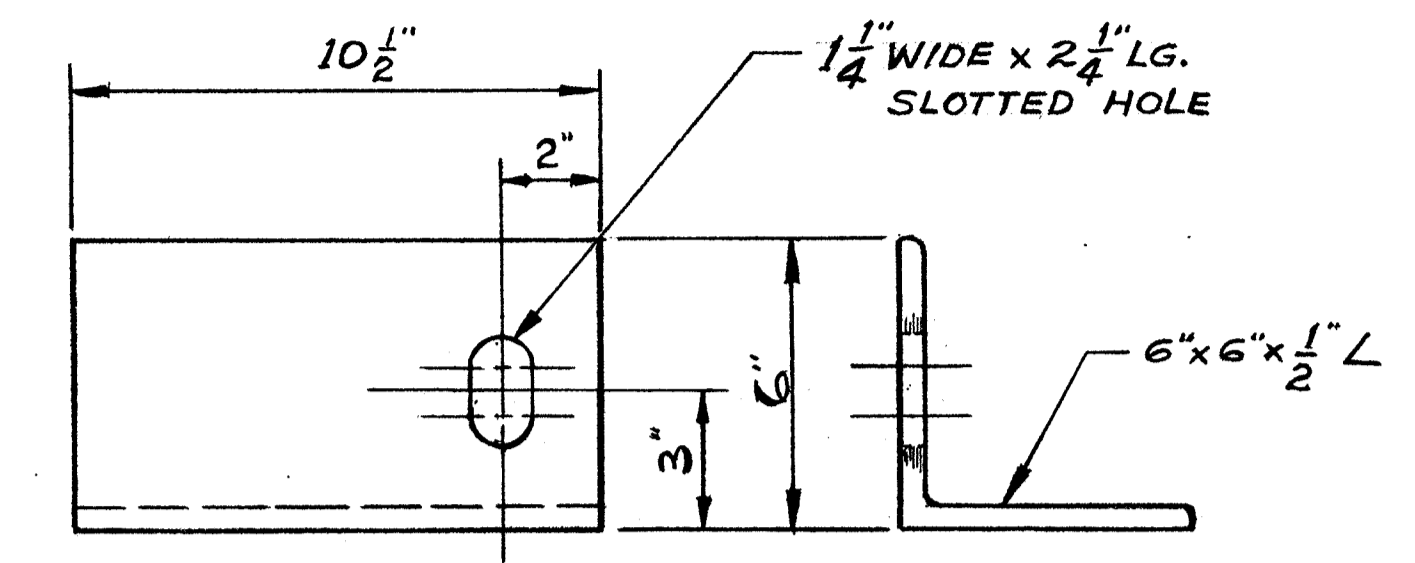
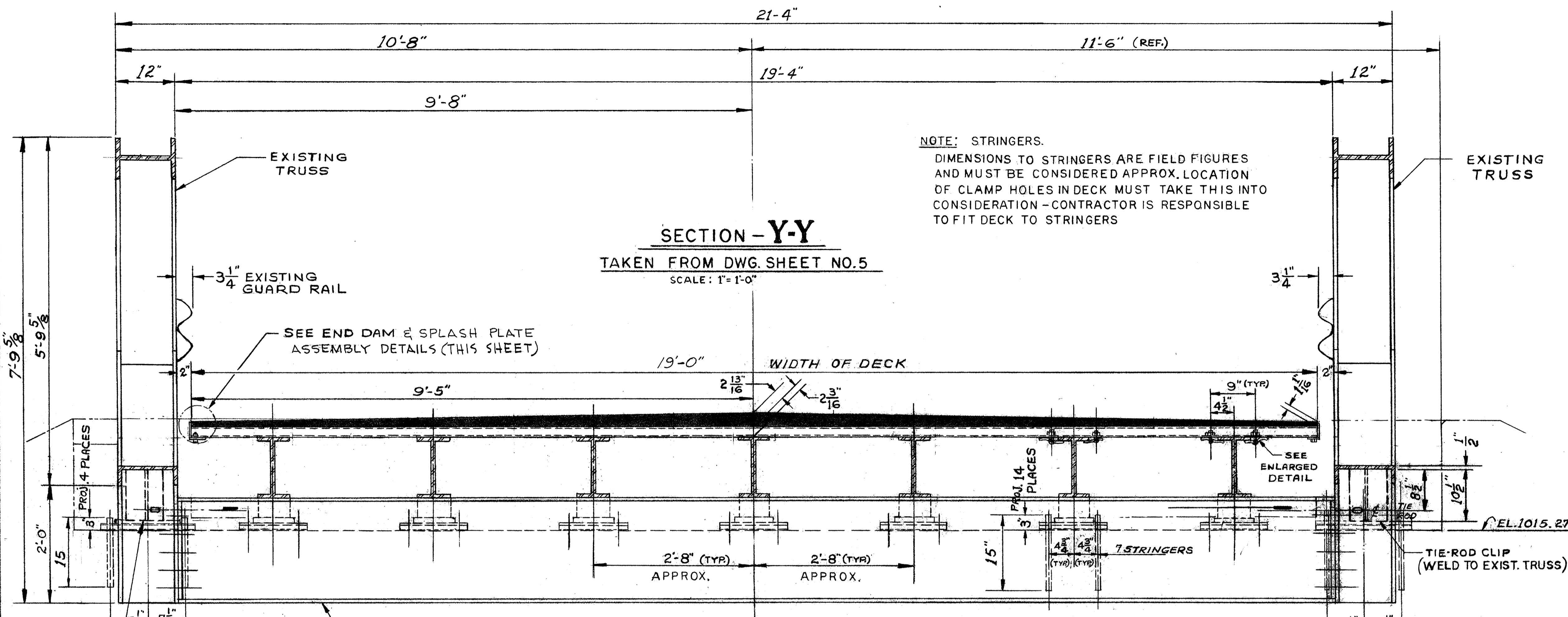
BEAM SEAT SECTION
SCALE 3"=1'-0"

NEW CONC. ABUT. EXPANSION BEARING
SCALE: 3"=1'-0"

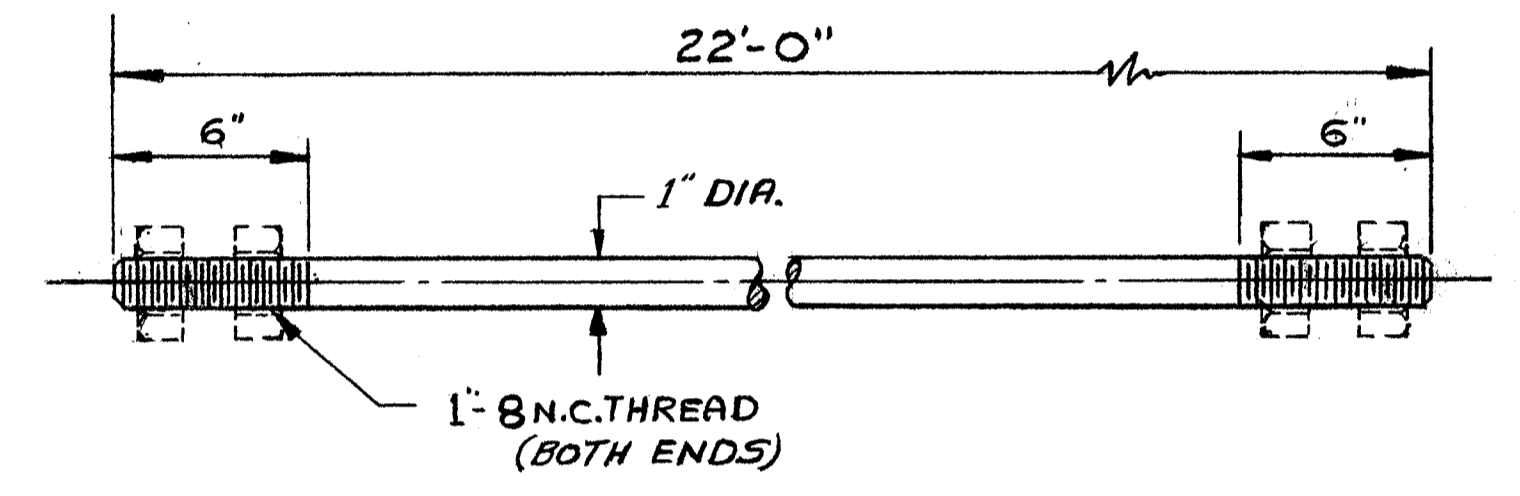


SECTION X-X
SCALE: 3"=1'-0"

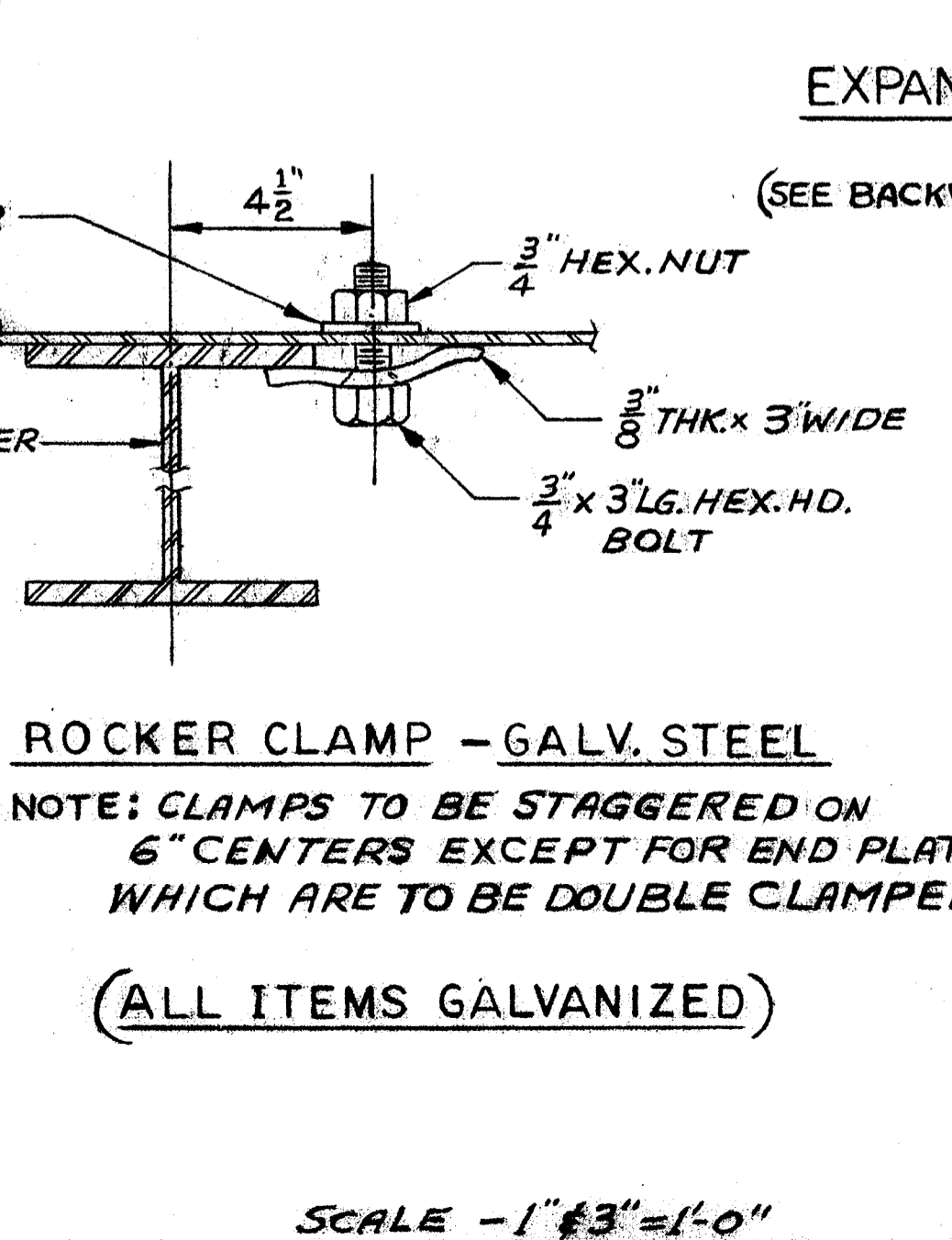
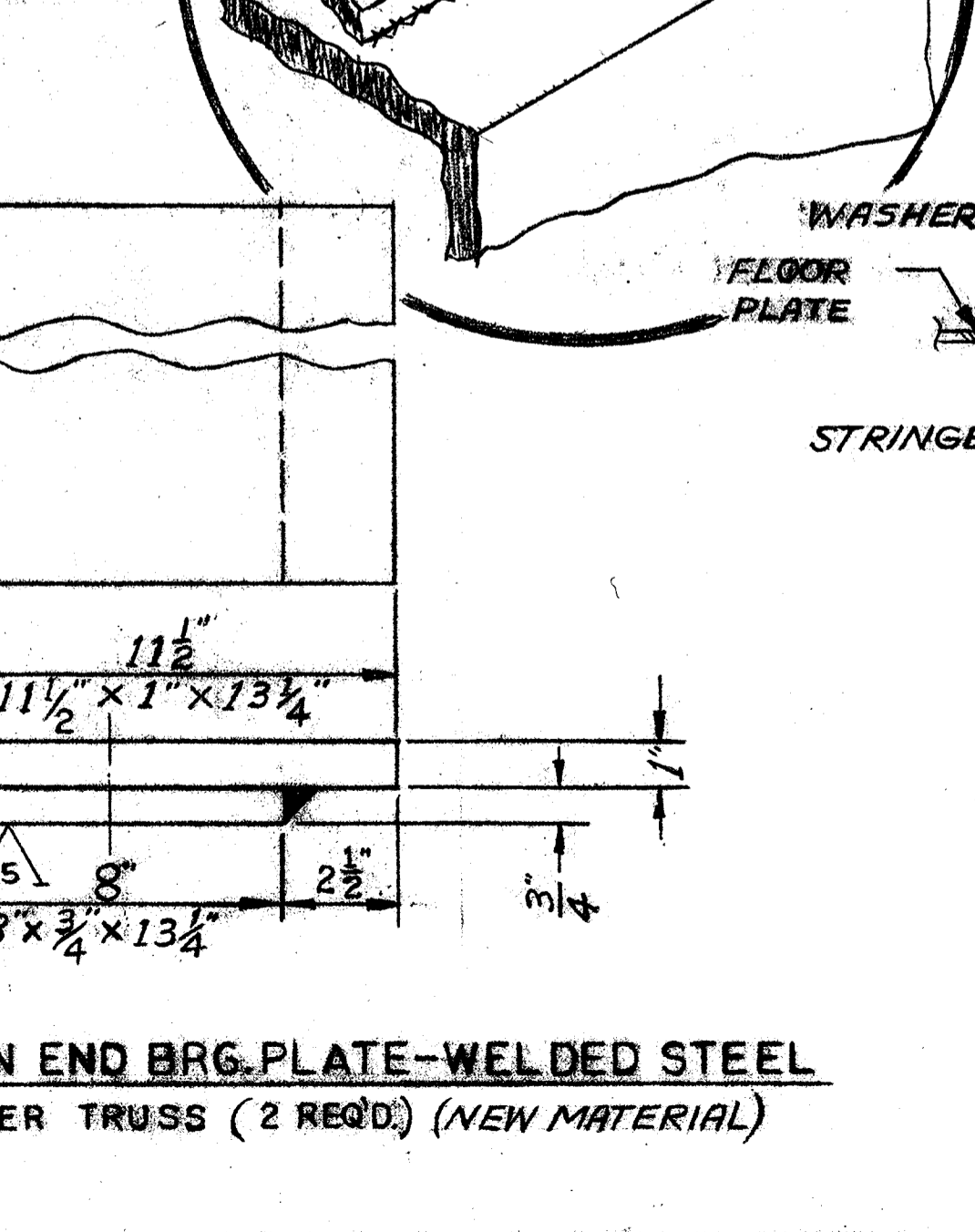
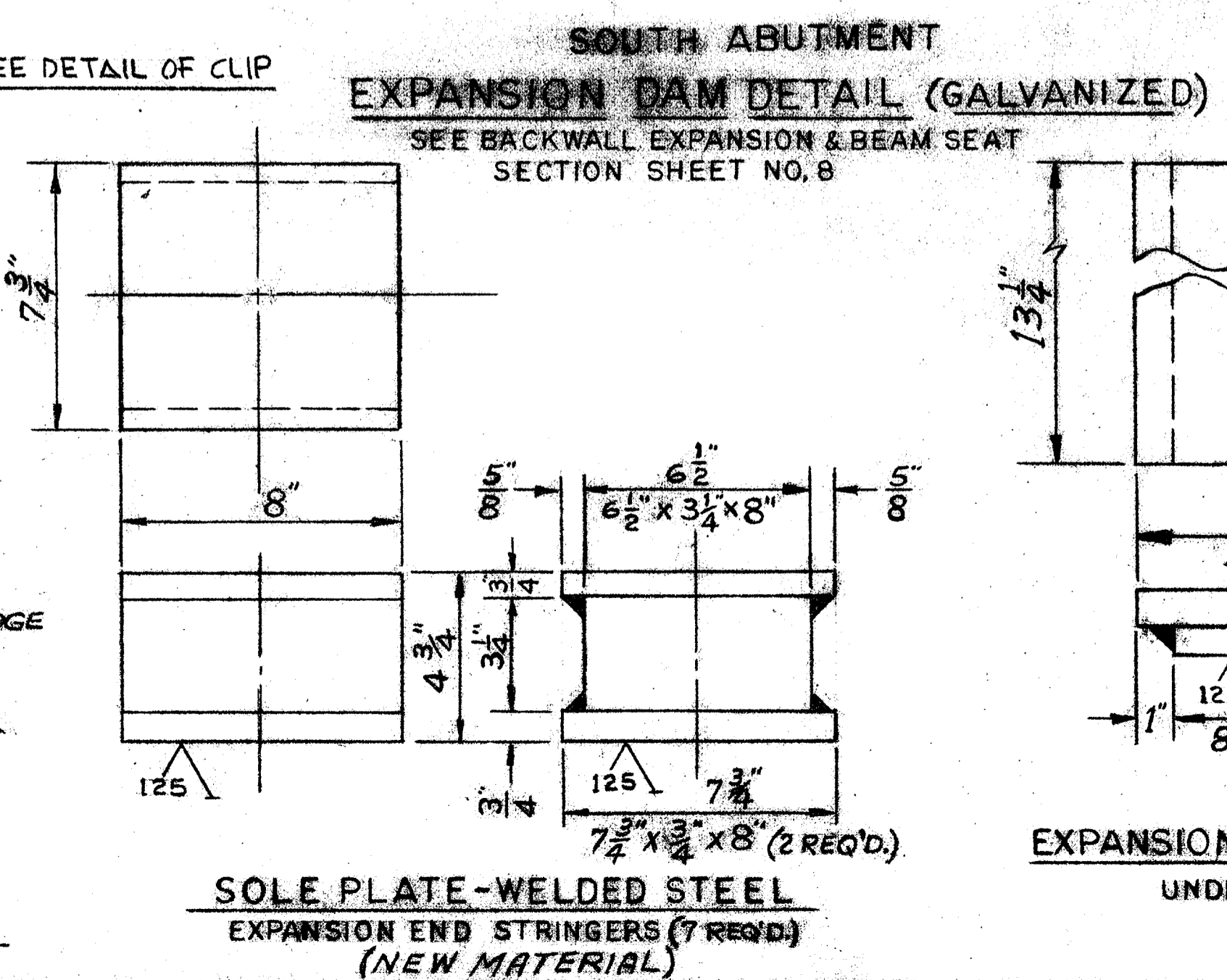
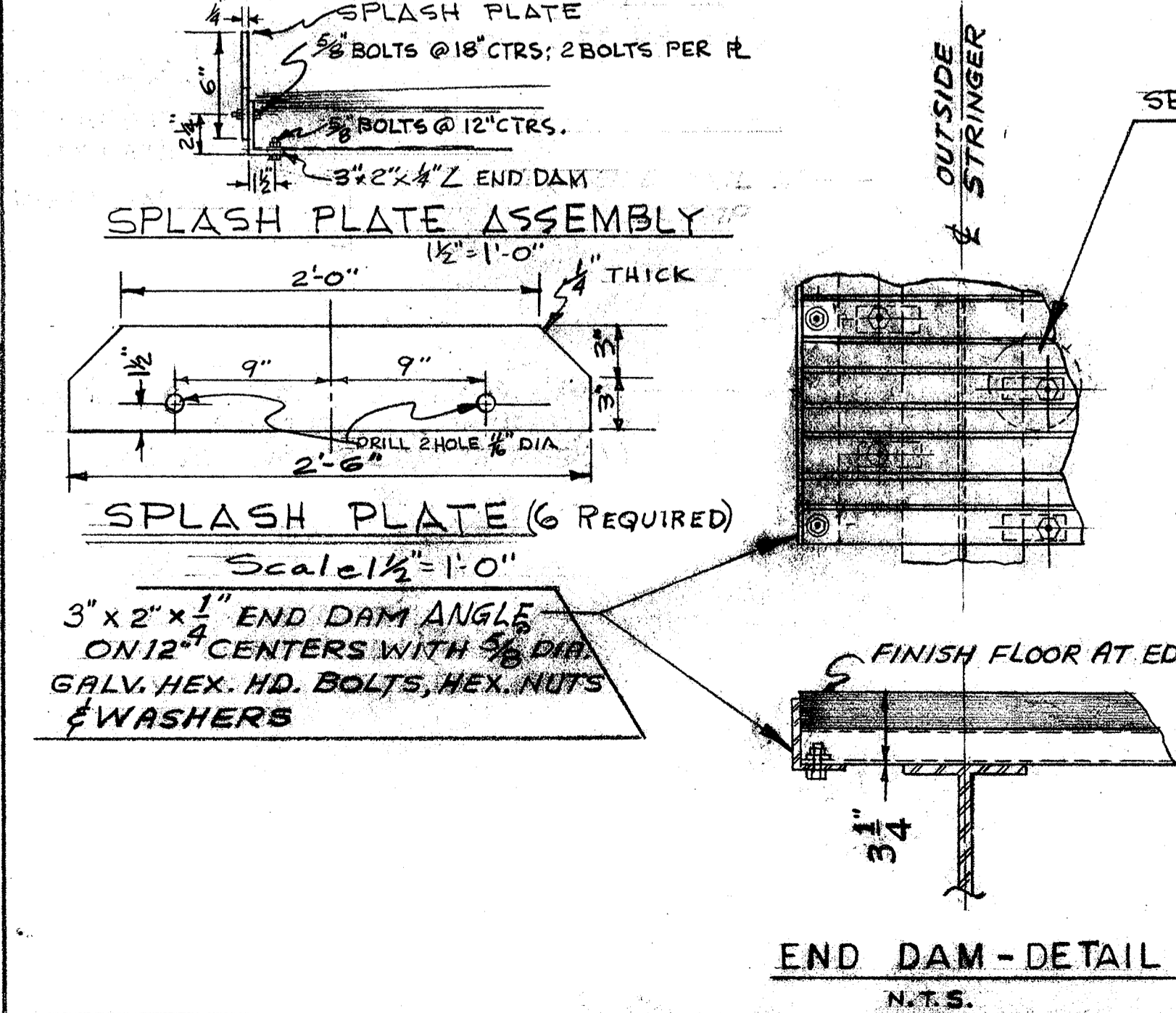
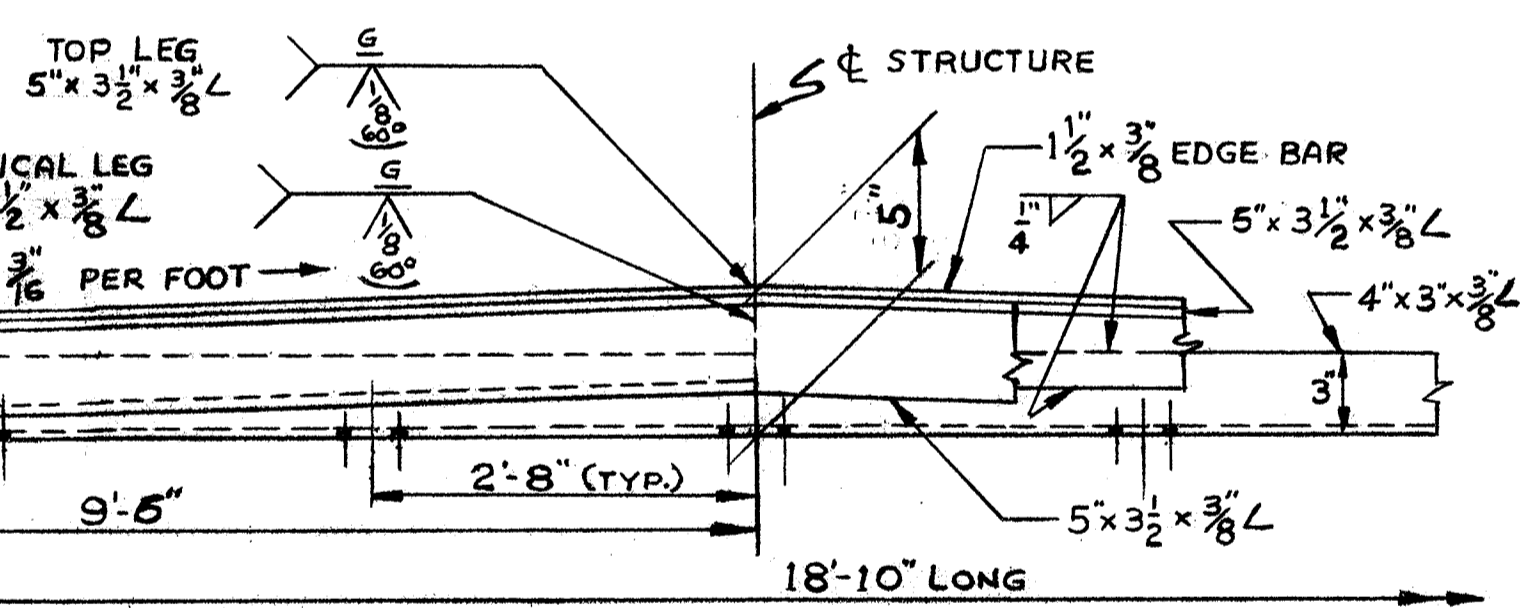
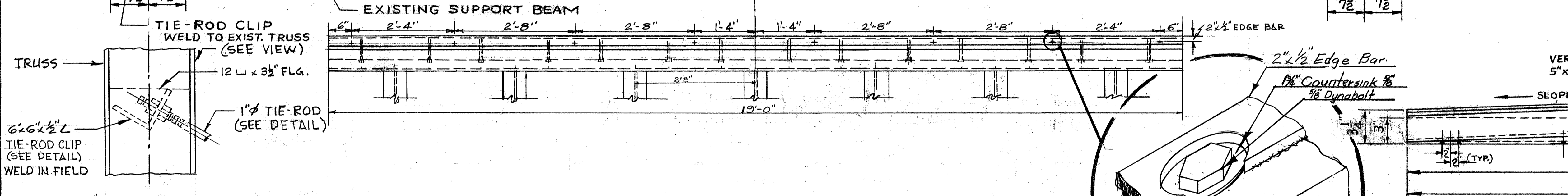




TIE-ROD CLIP - STEEL (TO BE WELDED TO TRUSS IN FIELD)
1 REQ'D. - AS SHOWN (NEW MATERIAL)
1 REQ'D. - OPP. SHOWN



TIE-ROD GALVANIZED STEEL
WITH 4 HEX. NUTS - 2 REQ'D. (NEW MATERIAL)



NOTE:
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BRIDGE REPLACEMENT WARNER ROAD C.H. 43B HARTFORD TOWNSHIP OFFICE OF COUNTY ENGINEER EDWARD E. RYSER - COUNTY ENGINEER		
SCALE AS SHOWN	FIELD No. BOOK	FILE No.

SCALE - 1" = 3' = 1'-0"

SUMMARY OF ESTIMATED QUANTITIES

REF. NO.	ITEM	DESCRIPTION	QUANTITY	UNIT
1	201	CLEARING & GRUBBING (INCLUDING TREES & STUMP REMOVAL)	LUMP	LUMP SUM
2	202	REMOVAL OF EXISTING STRUCTURE (202.03 COUNTY RETAINS SALVAGE RIGHTS TO STONE & STEEL, NOT INCLUDING DECKING STEEL) TRUSSES & STRINGERS MUST BE SUPPORTED & PROTECTED FROM DAMAGE DURING CONSTRUCTION OF NEW ABUTMENT	LUMP	LUMP SUM
3	203	BORROW	60	CU. YD'S.
4	404	ASPHALT CONCRETE (BRIDGE DECK SURFACE)	14	CU. YD'S.
5	407	BITUMINOUS TACK COAT @ 0.1 GAL. PER SQ. YD.	8.5	GALLONS
6	411	STABILIZED CRUSHED AGGREGATE	21	CU. YD'S.
7	503	UNCLASSIFIED EXCAVATION (STRUCTURE)	250	CU. YD'S.
8	509	REINFORCING STEEL	6,338	POUNDS
9	511	CLASS "C" CONCRETE (FOOTER)	42	CU. YD'S.
10	511	CLASS "C" CONCRETE (ABUTMENT & WINGWALLS)	46	CU. YD'S.
11	513	STRUCTURAL STEEL & MISC. METAL ~ 15 SET TIE RODS ~ BEARING SEATS	LUMP	LUMP SUM
12	514	PAINTING - ALL EXISTING MATERIAL THAT IS TO BE RE-USED MUST BE CLEANED & PAINTED AS STATED: - SAND BLAST ALL RUST AREAS, SPOT PAINT WITH PRIMER PRIME COAT ALL MATERIAL COMPLETELY - AND FINISH COAT WITH SILVER PAINT, (ACCORDING TO AASHTO SPECIFICATIONS)	LUMP	LUMP SUM
13	518	POROUS BACKFILL	41	CU. YD'S.
14	SPEC.	DECK PLATE (7 GAGE) CORR. 2" x 6" HOT DIPPED GALV. END DAMS, EXPANSION DAMS, CLAMPS, BOLTS & WASHERS ALL GALVANIZED	790	SQ. FT.
15	601	SLOPE AND CHANNEL PROTECTION (DUMPED ROCKFILL - TYPE B) (601.07)	35	CU. YD'S.
16	606	BRIDGE GUARD RAIL	12	LIN. FT.
17	614	WARNING DEVICES (LIGHTS, SIGNS & BARRICADES)	LUMP	LUMP SUM

WARNER ROAD
C.H. 43B
HARTFORD TOWNSHIP
BRIDGE REPLACEMENT

10
10

EARTHWORK

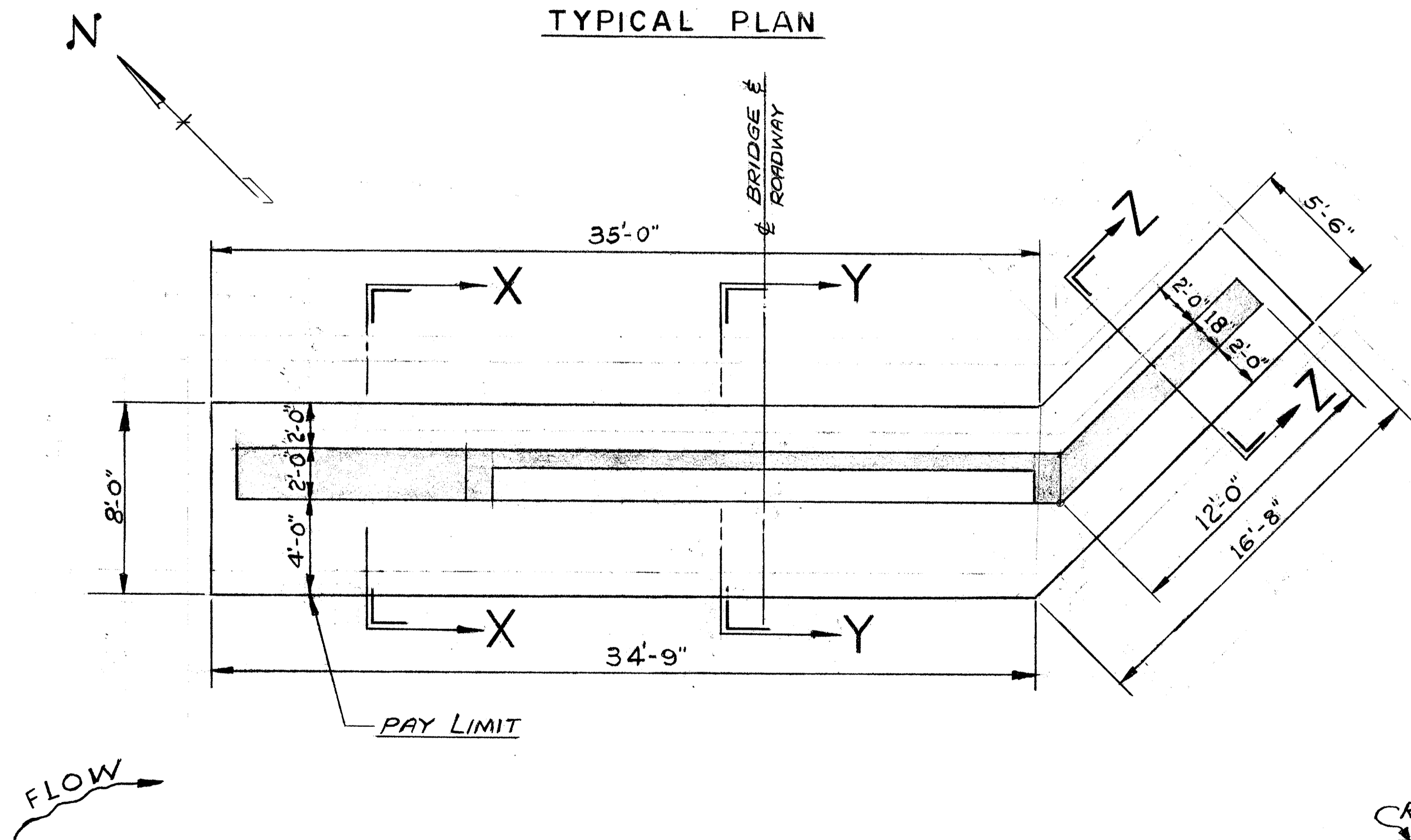
ITEM	TYPE OF EXCAVATION	EXC. CU. YD.	EMB. CU. YD.
203	ROADWAY EXCAVATION	0	48
203	CHANNEL EXCAVATION	0	0
503	UNCLASSIFIED EXCAVATION	250	0
TOTALS		250	48

EXCAVATION ----- = 250 CU. YD.
EMBANKMENT. 48 x 1.25 ----- = 60 CU. YD.

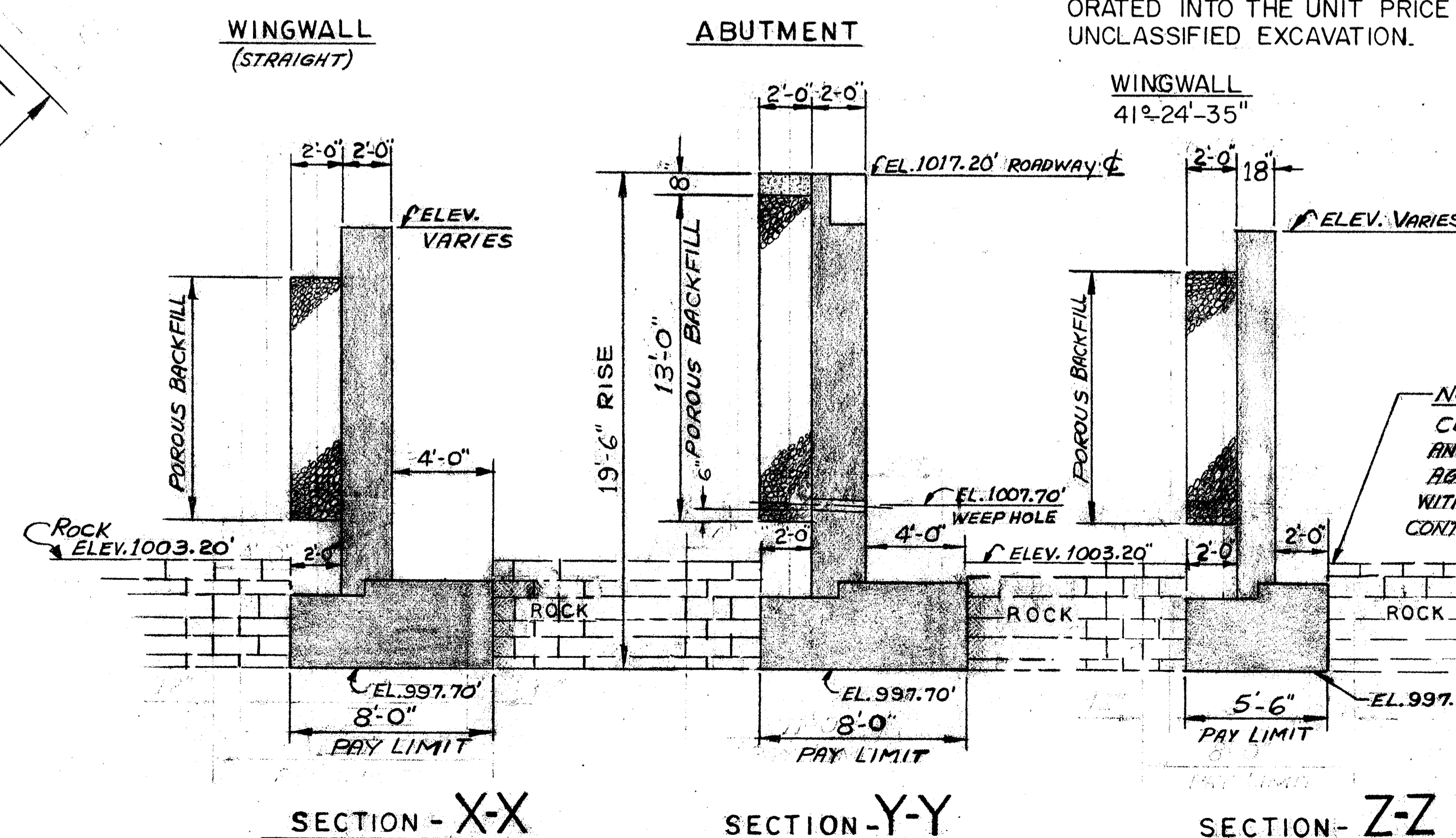
GENERAL NOTES

- THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO DEPT. OF HIGHWAYS INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS DATED 1 JANUARY 1971 SHALL GOVERN THIS IMPROVEMENT.
- WELDING OF STRUCTURAL STEEL PRIOR TO GALVANIZING SHALL BE CLASS 'A'.
- SURFACE FINISH OF CONCRETE ABUTMENTS AND WINGWALLS SHALL RECEIVE A RUBBED SURFACE FINISH, ALL EXPOSED EDGES SHALL RECEIVE A 3/4" CHAMFER.
- CLEARANCE OF REINFORCING STEEL FROM FACE OF CONCRETE SHALL BE 2" UNLESS OTHERWISE SHOWN.
- POROUS BACKFILL 2'-0" WIDE FULL LENGTH OF ABUTMENT AND WINGS SHALL EXTEND UP TO THE UNDERSIDE OF THE PAVEMENT AND DOWNWARD TO 6" BELOW THE WEEP HOLES.
- ABUTMENT BACKWALL SHALL NOT BE POURED UNTIL AFTER THE STEEL WORK IS ERECTED.
- STEEL END FINISH SHALL BE USED AS A TEMPLATE FOR TOP OF BACKWALL.
- CONCRETE ABUTMENT FOOTINGS SHALL BE CLASS 'C' CONCRETE ABUTMENT WALLS SHALL BE CLASS 'C'
- BAR SIZE IS INDICATED IN THE MARK, THE FIRST DIGIT WHERE THREE DIGITS ARE USED, INDICATE THE BAR SIZE NUMBER, FOR EX. A-600 IS A NUMBER 6 SIZE BAR, AND A-1014 IS A NUMBER 10 SIZE.
- STRUCTURAL PLATE BRIDGE FLOORING WILL BE 7 GAGE HOT-DIPPED GALVANIZED WITH ATTACHED END DAMS PER ASTM-123-PROVIDE GALV. CLAMPS, BOLTS, NUTS & WASHERS & FASTENINGS SHALL BE AS SHOWN.
- THE LOCATION AND QUANTITY OF ROCK CHANNEL PROTECTION MAY BE ADJUSTED BY THE ENGINEER DURING CONSTRUCTION TO ACCOMMODATE FIELD CONDITIONS.
- PAYMENT FOR THE REMOVAL AND REPLACEMENT OF EXISTING GUARD RAIL NECESSARY FOR COMPLETION OF THIS PROJECT TO BE INCORPORATED INTO THE UNIT PRICE BID FOR REF. NO. 7; SPEC. ITEM 503, UNCLASSIFIED EXCAVATION.

TYPICAL PLAN



PAY LIMITS
STRUCTURE EXCAVATION

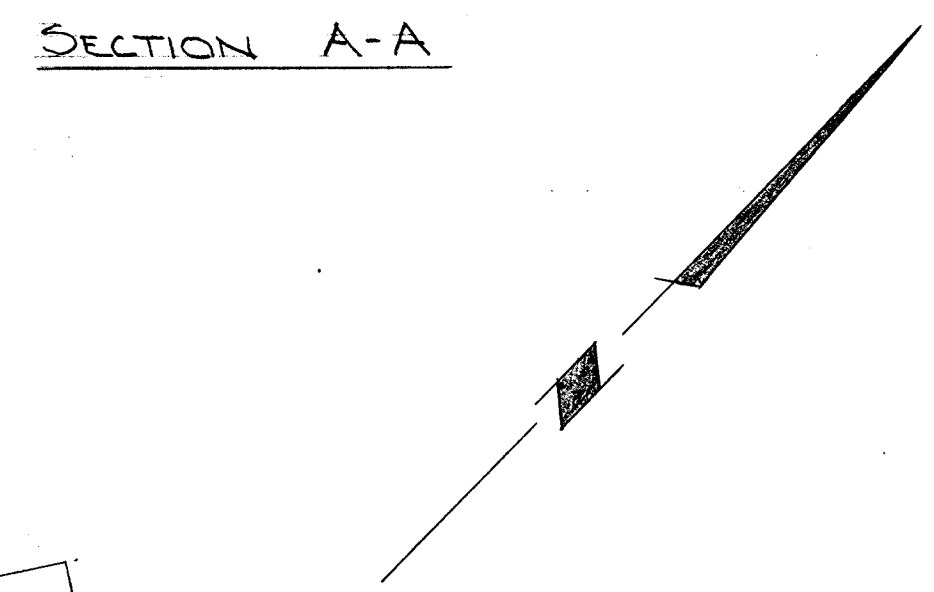
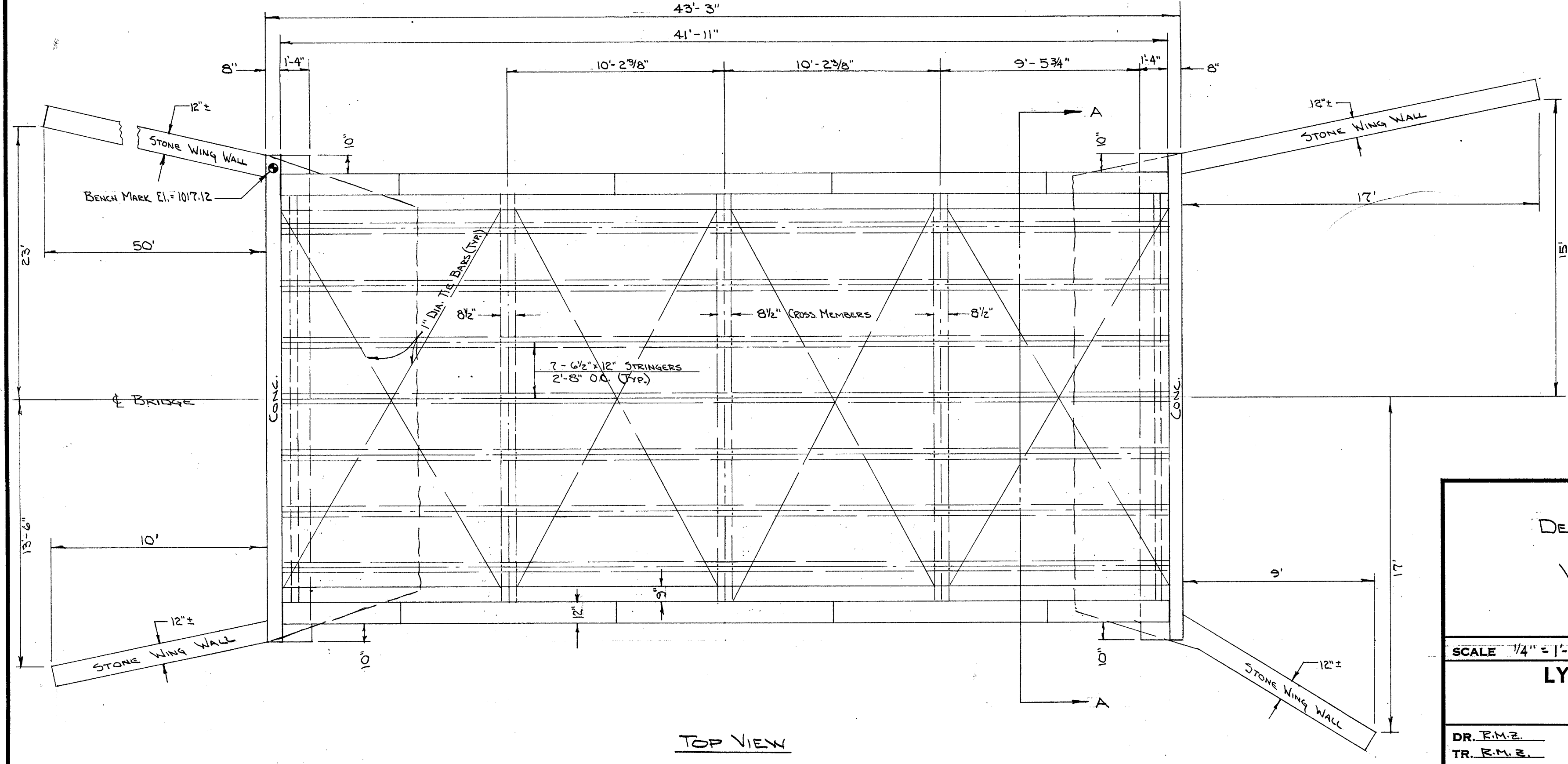
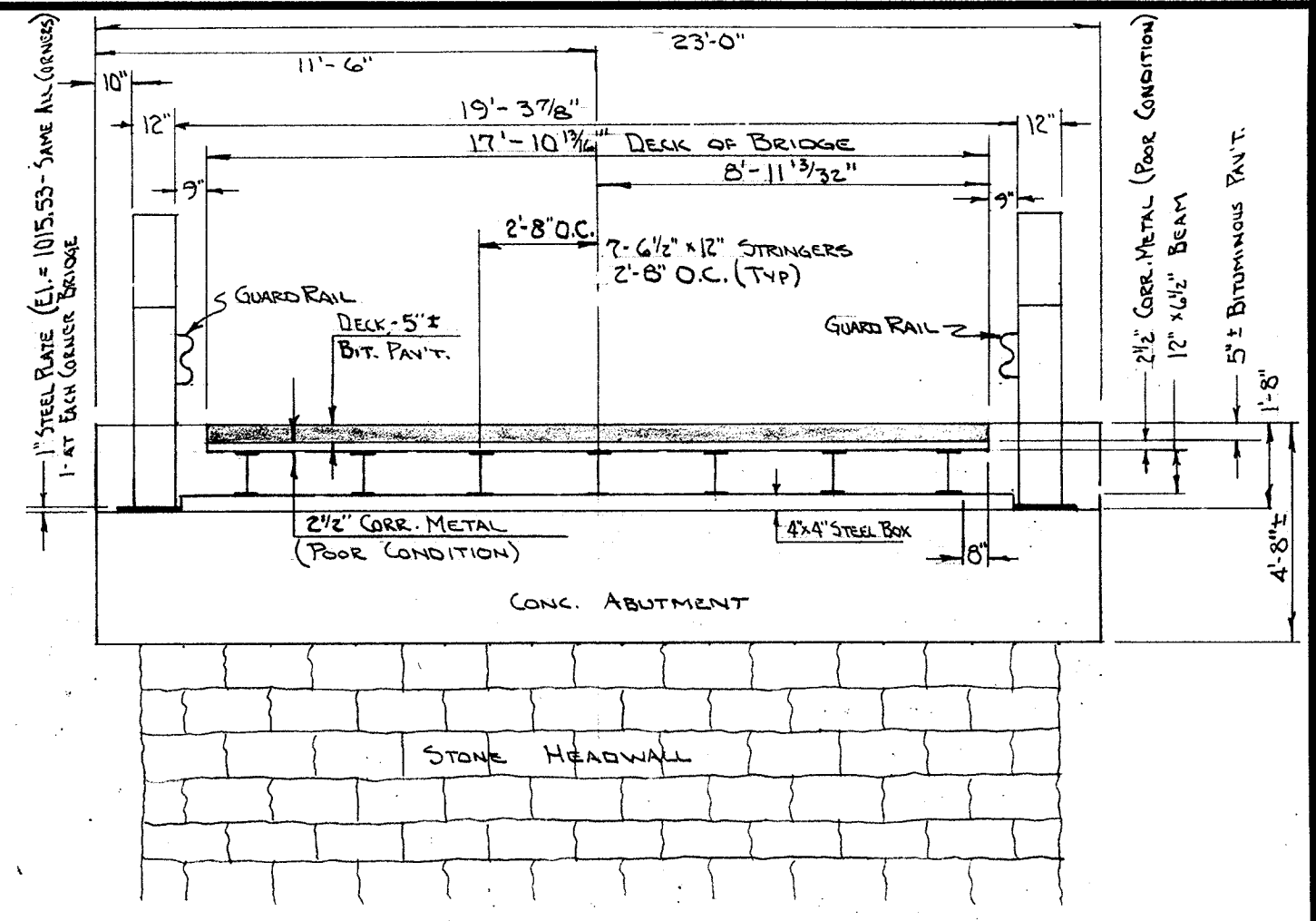
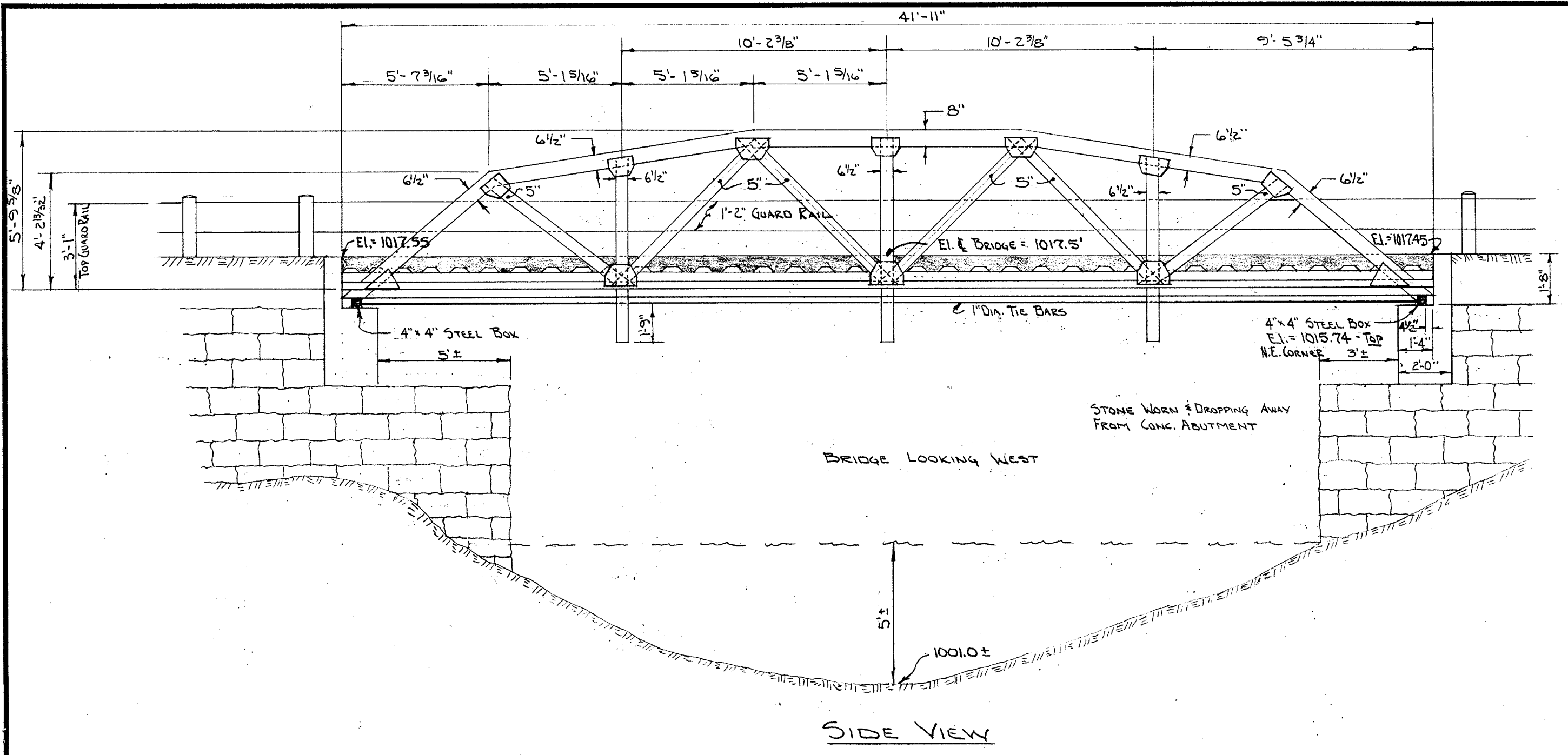


NOTE:
CUT ROCK STRAIGHT & TRUE TO SIZE, REMOVE ANY LOOSE MATERIAL & POUR CONCRETE TIGHT AGAINST ROCK WITHOUT FORMING, FILL VOIDS WITH CONCRETE. - BEFORE POURING CONCRETE, CONTRACTOR MUST HAVE APPROVAL OF ENGINEER. (503.06)

SCALE: 1/4" = 1'-0"

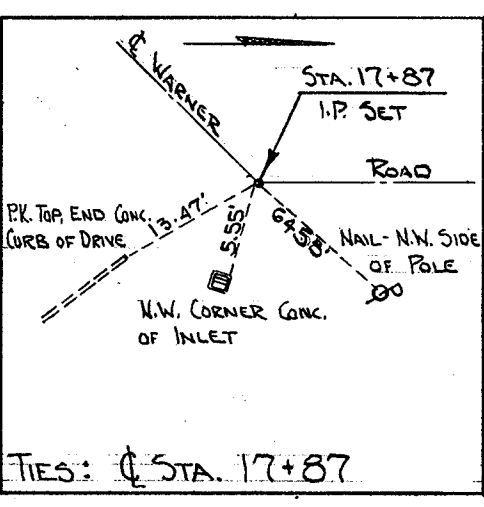
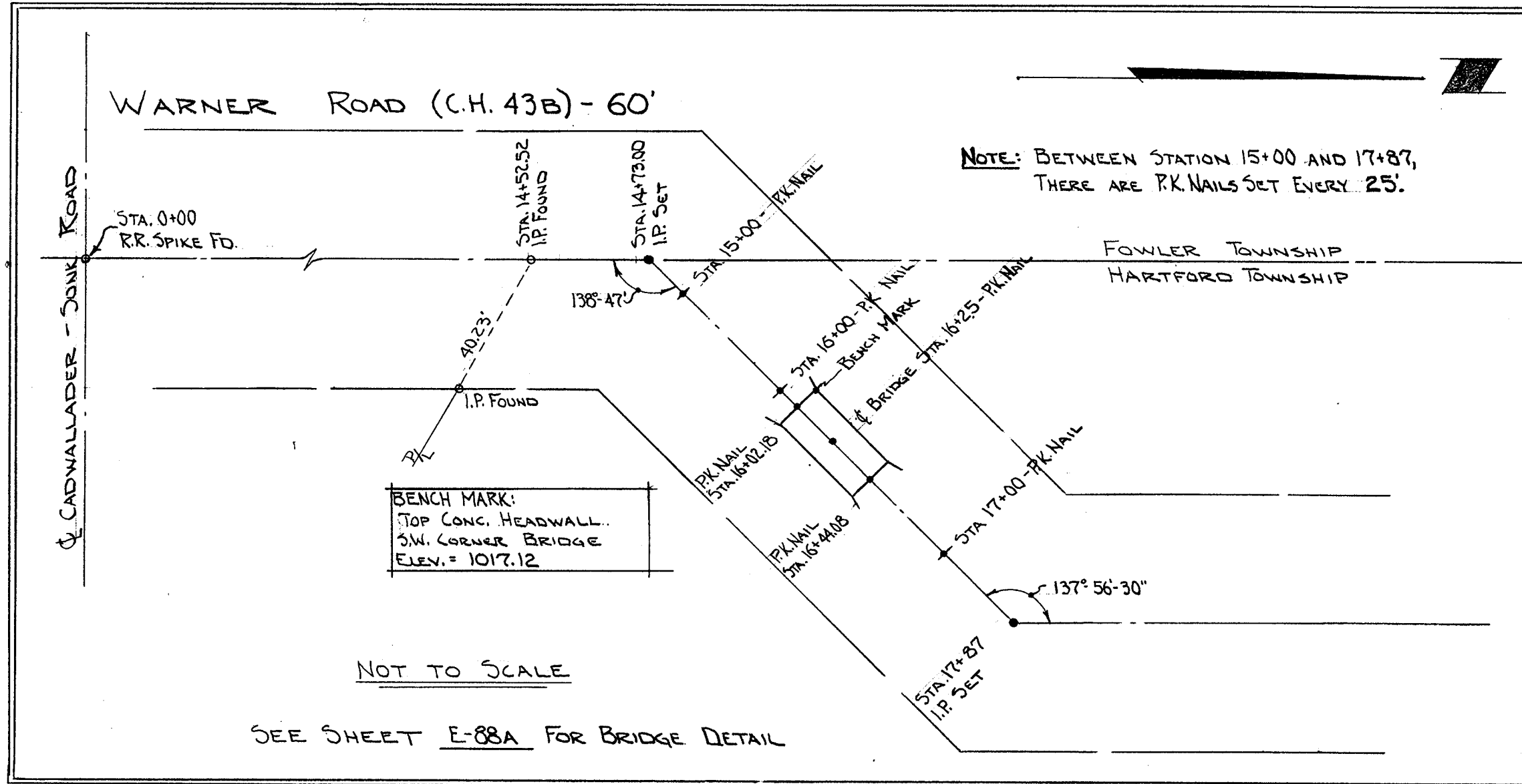
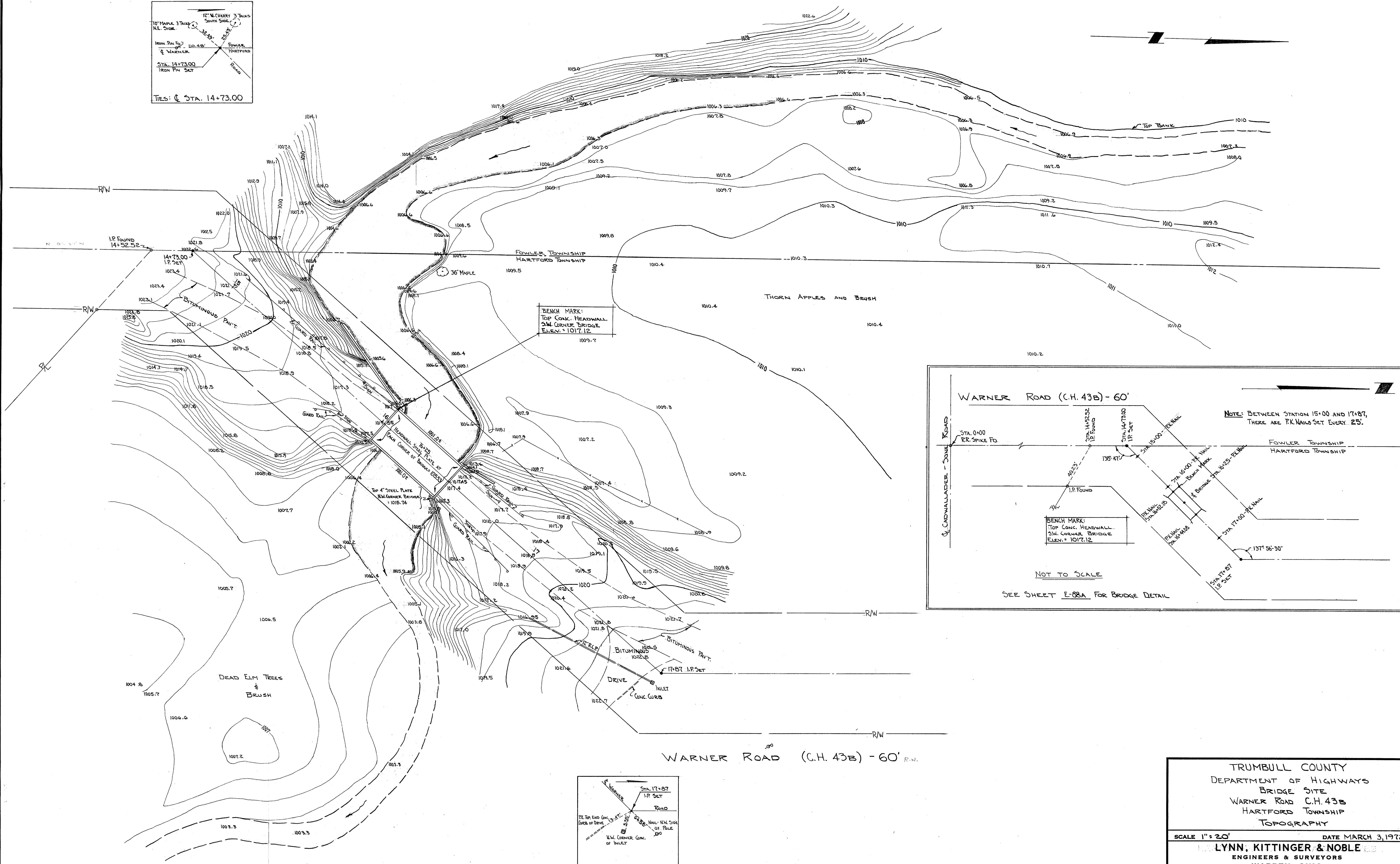
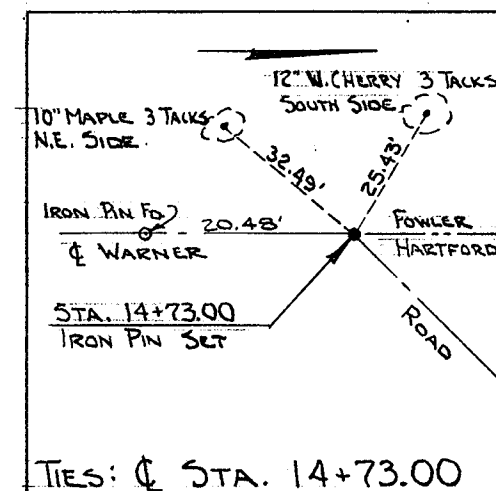
BRIDGE REPLACEMENT
WARNER ROAD
C.H. 43B
HARTFORD TOWNSHIP
OFFICE OF COUNTY ENGINEER
EDWARD E. RYSER - COUNTY ENGINEER

SCALE AS SHOWN FIELD NO. BOOK FILE NO.



TRUMBULL COUNTY DEPARTMENT OF HIGHWAYS BRIDGE SITE WARNER ROAD C.H. 43B HARTFORD TWP. BRIDGE DETAIL	
SCALE 1/4" = 1'-0"	DATE MARCH 6, 1972
LYNN, KITTINGER & NOBLE ENGINEERS & SURVEYORS WARREN, OHIO	
DR. R.M.E. TR. R.M.E. CK. KL	NO. E-88A JOB # 72-902

E-7-816



TRUMBULL COUNTY
 DEPARTMENT OF HIGHWAYS
 BRIDGE SITE
 WARNER ROAD C.H. 43B
 HARTFORD TOWNSHIP
 TOPOGRAPHY

SCALE 1" = 20' DATE MARCH 3, 1972
LYNN, KITTINGER & NOBLE
 ENGINEERS & SURVEYORS
 WARREN, OHIO

DR. R.M.Z.
 TR. R.M.Z.
 CK. K.L. F.B. # JOB # 72-902

No. **E-88**