

MICROFILMED NOV 8 1984
MICROFILMED OCT 9 1985

OHIO DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

PART	COUNTY	ROUTE	SECTIONS	PROJECT TERMINI		NET LENGTH MILES	TOWNSHIP	CITY	VILLAGE
				BEGIN	END				
1	HOL	62	7.93	7.91	7.95	0.04	Richland		
2	HOL	62	15.43	15.42	15.47	0.05	Killbuck		

**HAZARD ELIMINATION SAFETY PROGRAM
SCOPE OF WORK:
BRIDGES TREATED BY REPAIR, RAIL & GUARD RAIL**

FHWA REGION	PROJECT	STATE
5	HES-000S(28)	OHIO

PLAN NO. HOL 62-07.93

The Standard 1983 Specifications of the State of Ohio, Department of Transportation, including changes and Supplemental Specifications listed in the plans and proposal shall govern these improvements.

I hereby approve these plans and declare that the making of these improvements will require the closing of the highways to traffic on Para No. 1 and that drivers will be provided by State forces. The closing to traffic of the highways will not be required on Para No. 2 and provisions for the maintenance and safety of traffic will be as indicated in the proposal.

Approved Date 8-24-83 *Robert J. Smith*
District Deputy Director of Transportation

Approved Date 9-8-83 *Robert B. Pfeiffer*
Engineer of Bridges and Structural Design

Approved Date _____
Engineer of Maintenance

Approved Date 11-21-83 *James R. Longmeyer*
Chief Engineer, Operations

Approved Date _____
Assistant Deputy Director, Program Development

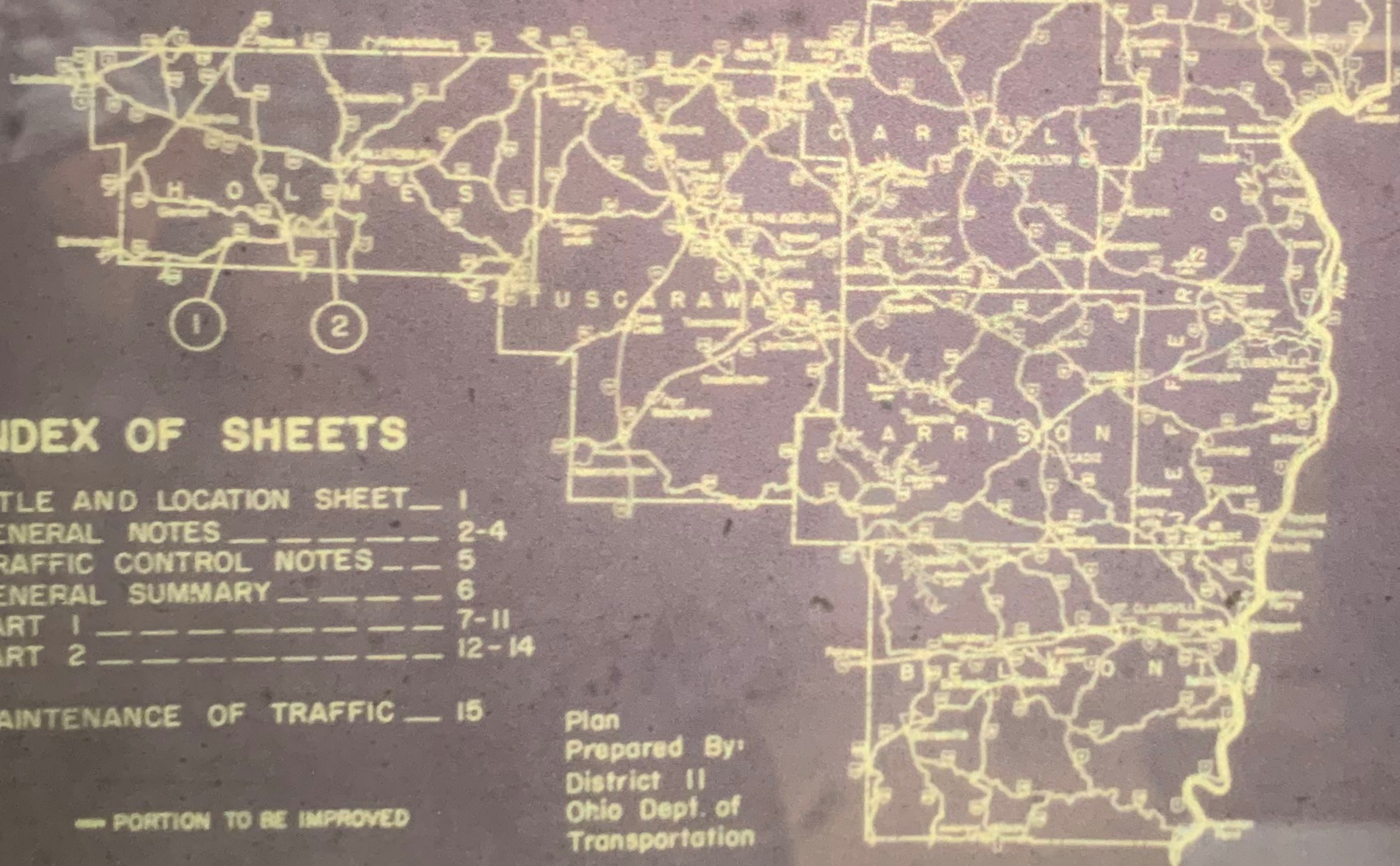
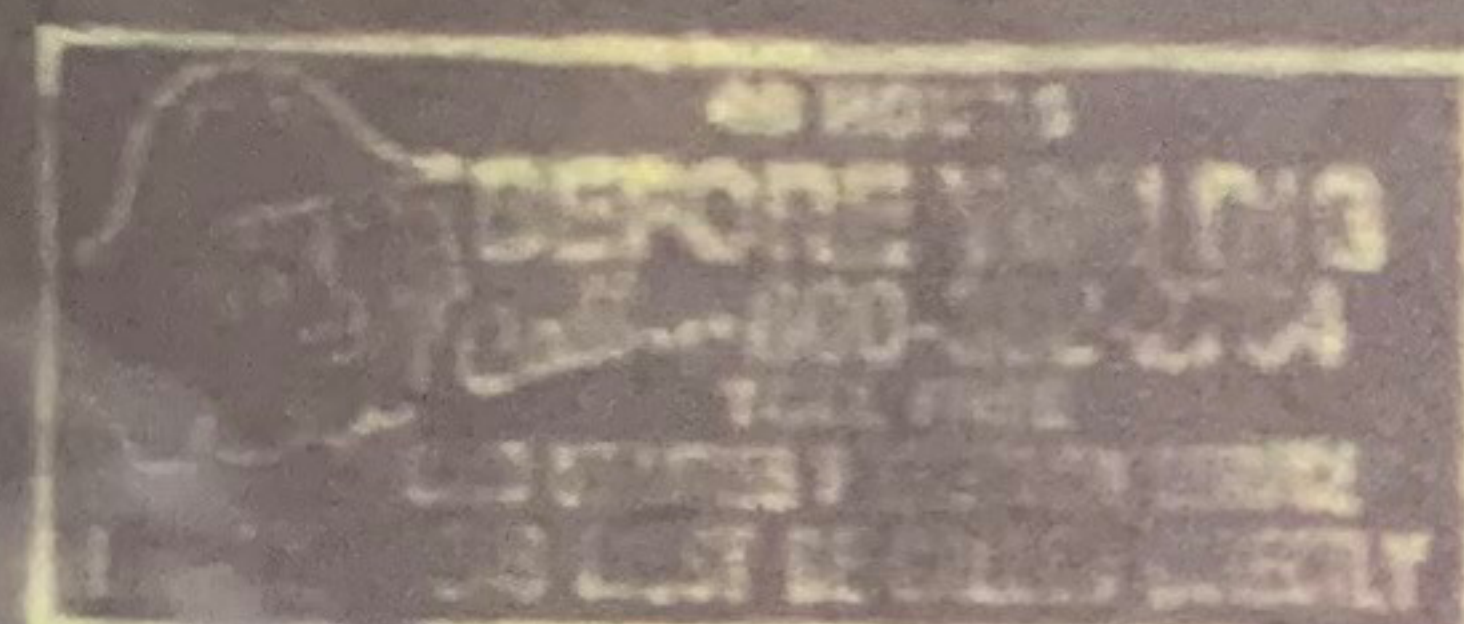
Approved Date _____
Chief Engineer, Construction

Approved Date _____
Chief Engineer, Design

Approved Date _____
Assistant Director, Department of Transportation

Approved Date 12-5-83 *Warren J. Smith*
Director, Department of Transportation

TOTAL LENGTH OF PROJECT = 0 FT. or 0.0 MILES
TOTAL LENGTH OF WORK = 475 FT. or 0.09 MILES



DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:

DIVISION ADMINISTRATOR

DATE

STANDARD DRAWINGS		SUPPLEMENTAL SPECIFICATIONS	
BP-5	7-16-81	DBR-2-73	4-10-73
GR-1	2-5-82		
GR-2B	2-5-82	MC-3	6-1-73
GR-3	2-5-82		
GR-4	2-5-82		
GR-4A	2-5-82		
		SUPPLEMENTAL SPECIFICATIONS	
		803	5-27-83
		836	3-12-85

SFN 3801055

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GENERAL NOTES

2
15PLAN NO.
HOL-62-0793

ITEM 606 BRIDGE TERMINAL ASSEMBLY, TYPE B, AS PER PLAN: Part 1 and Part 2, the details of Standard Construction Drawing GR-3, shall be followed except the posts which shall be W10 x 26-9 feet long and the minimum concrete encasement will be 6 inches. See sheets 10 & 13 for details.

ITEM 517, RAILING, DEEP BEAM WITH TUBULAR BACKUP, AS PER PLAN: Parts 1 & 2, the details of Std. Bridge Dwg., DBR-2-73, shall be followed except the tubular backup shall be the size specified on sheets 10 & 13.

All guardrail element shall be bolted to the tubular backup at a maximum of 6.25 feet as per Std. Br. Dwg. DBR-2-73. Holes in tubular backup shall be shop fabricated.

Method of measurement for payment shall be the length of railing completed in place between the first post off each end of the bridge.

ITEM 202 GUARD RAIL REMOVED FOR STORAGE, AS PER PLAN: Guard rail to be removed for storage includes both on and off the bridge and shall be dismantled in such a manner that damage to the guard rail and steel posts will be minimal. The guard rail including standard terminals and steel posts shall be stored neatly on the project, as directed by the Engineer, for removal by State forces. Wood posts and miscellaneous hardware shall become the property of the Contractor and shall be disposed of. Payment for the above shall be included in the unit price bid for Item 202 Guard Rail Removed for Storage, as per plan.

ITEM 202 GUARD RAIL REMOVED: Guard rail, posts and miscellaneous hardware designated for removal, both on and off the bridge, becomes the property of the Contractor and shall be disposed of. Payment for the above shall be included in the unit price bid for Item 202 Guard Rail Removed.

ITEM 606, GUARD RAIL TYPE 5, AS PER PLAN: In addition to the normal cost of guard rail and stipulations which occur elsewhere in the plan, the price bid shall include the following:

- The line of the guard rail shall be adjusted to provide as much berm width as possible while maintaining a smooth appearance.
- Mail boxes that interfere with the removal or replacement of guard rail shall be relocated by the Contractor as approved by the Engineer.
- When sufficient post depth is not available, due to a culvert, the guard rail posts shall be encased in a minimum of 4 inch thick Class "C" concrete for the full depth available.
- All holes remaining after removal of guard rail posts shall be filled with granular material, excess material resulting from guard rail reconstruction or excess material from berm reshaping. Fill material containing sod shall not be used.
- Where required, bridge number identification plates shall be carefully removed and reinstalled at the completion of the project as directed by the Engineer.

F. The Contractor shall re-erect any sign, that he removes, that is not listed as a removal item.

Everything listed above shall be included in the unit price bid for the applicable guard rail and railing items.

ITEM 203 EMBANKMENT, AS PER PLAN: Material shall be placed as directed by the Engineer.

ITEM 606 ANCHOR ASSEMBLY, TYPE T, AS PER PLAN: At locations where the Type T Anchor Assembly would be perpendicular to the mainline because of a radius into a drive, relocate the Type T Anchor Assembly in the last panel of mainline (straight) rail and place the flared end section of the Type T Anchor Assembly on the last piece of the radius rail.

Payment for the above shall be included in the unit bid price for Item 606 Anchor Assembly, Type T, As Per Plan.

ITEM 606 BRIDGE TERMINAL ASSEMBLY, TYPE B: Standard Drawing GR-3 and DBR-2-73 are in conflict in regard to the bridge terminal assembly. The assembly shall be as shown on GR-3, i.e., two (2) 6" long TS3 x 4 x 0.187 tubing spacers at the first post off the bridge, and a steel post rather than a wood post shall be used at this location. The two tubing spacers and tubing beyond bridge limits shall be included in Item 517 for payment.

ITEM SPECIAL - 32'-6" x 11'6" TIMBER LONGITUDINAL PANEL - LAM: Shall meet AASHTO HS 20-44 loading and AITC requirements. All materials shall conform to requirements of 521.02. Panels to be in sections between 3'0" and 4'0" wide, manufactured from West Coast Douglas Fir, Select Structural F-1550 or Southern Yellow Pine, #2 Dense F-1550, S4S, DET, Cresote, CCA or Penta Treated.

Size and grade shall conform to American Lumber Standards.

No substitution of lengths permissible.

Lumber/timber furnished shall be graded in accordance with the "Grading of Lumber and or Timber" in lieu of the requirement for Association Grade Mark.

- Individual board sizes shall be 2 x 10 (nominal) minimum.
- No end splices will be permitted unless panels are glued-laminated.
- Individual boards shall be flush on bottom of panels for proper bearing.
- S4S not required unless glued-laminated.
- Individual boards shall be laminated together by 10" x 3/8" spikes, dowels, split-ring connectors, or 3/4" threaded rods (with recessed nuts), all at 2'0" o/c max., or glued.

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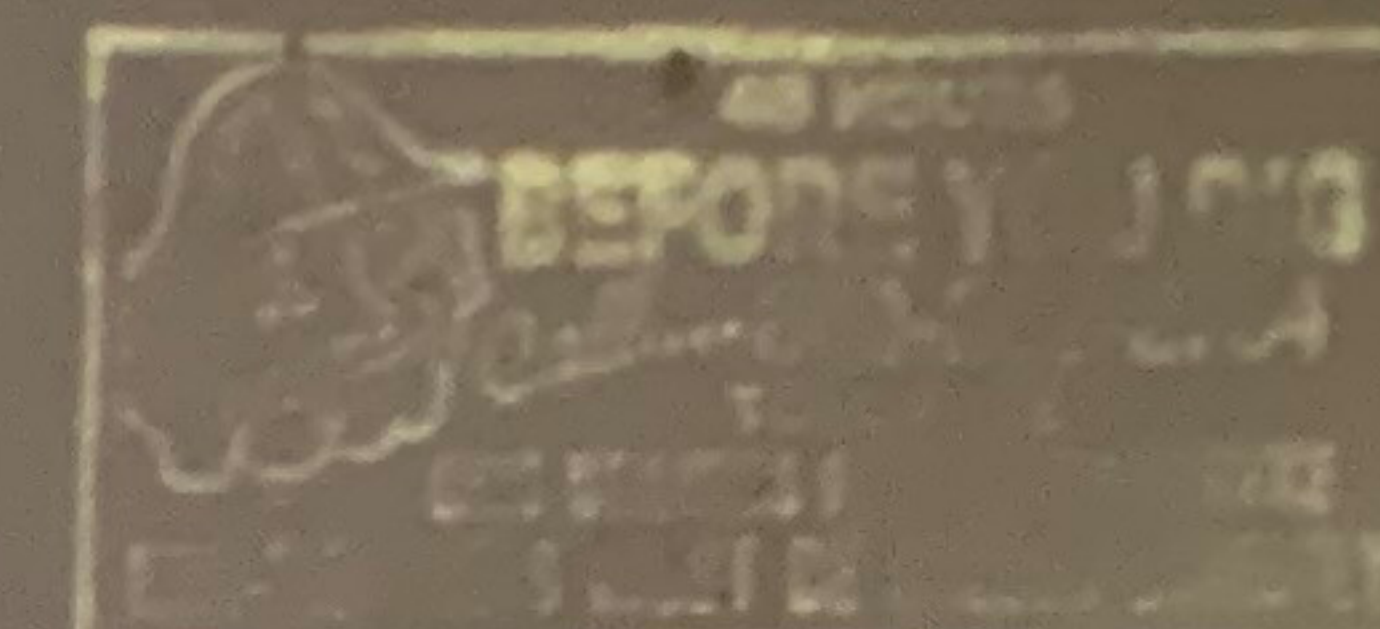
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GENERAL NOTES


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15
PLAN NO.
HOL-62-073

F. Panels shall be designed to span 10' using AASHTO HS 20-44 loading and 3" asphalt concrete and shall not exceed A.J.T.C. recommended deflections.

G. Individual boards shall be pressure treated before laminated unless glued-laminated.

ITEM SPECIAL, BERM RESHAPING: Berms at locations where existing guardrail is removed or where new guardrail is to be erected shall be reshaped to establish a slope of 1 inch per foot the width of the shoulder. The slope can also be as directed by the Engineer. The finished berm surface shall be smooth and free of all irregularities. Excess excavation resulting from reshaping berms shall be disposed of as directed by the Engineer. Payment for reshaping berms as described above shall be included in the contract price bid per linear foot.

REMOVAL OF ASPHALT CONCRETE PAVEMENT: The Contractor shall saw cut the joint between existing pavement and new asphalt concrete. Removal of existing pavement and saw cutting shall be included for payment under an appropriate bid item.

CONTINGENCY QUANTITIES: The contractor shall not order materials or perform work listed in the General Summary for items designated by plan note 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 made a matter of record by incorporation into the final change order governing completion of this project.)

RIGHT OF WAY: All work will be performed within the existing right of way.

ITEM SPECIAL, SEALING OF CONCRETE SURFACES: The Contractor shall seal the following areas with a silane or an epoxy sealer.

Bridge No. HOL-62-0793: Top surface of new wingwalls.

UTILITIES:

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 coordinated to stay approximately two days ahead of the planned construction.

In addition to the underground utilities listed on sheet 4, the Contractor shall notify, at least two working days before breaking ground, all public service corporations having wires, poles, conduit or other structures which may be affected by the operation. He shall conduct his operations in such a manner to avoid damages to any and all utilities. Any and all work required for public or private utilities will be done by and at the expense of their respective owners, unless otherwise noted on these plans.

Following is a list of both above and underground owners of utilities known to be within the area of the project.

BRIDGE

HOL - 62 - 0795

UTILITIES

Robert E. Sherry
1625 Moxahala Avenue
Zanesville, Ohio 43701
Phone: 614/454-3286

Holmes Wayne Electric Coop., Inc.
P. O. Box 112
Millersburg, Ohio 44654
Phone: 216/674-1055

United Telephone Company
215 N. Market Street
Wooster, Ohio 44691
Phone: 216/264-8611

BRIDGE

HOL - 62 - 1543

UTILITIES

United Telephone Company
215 N. Market Street
Wooster, Ohio 44691
Phone: 216/264-8611

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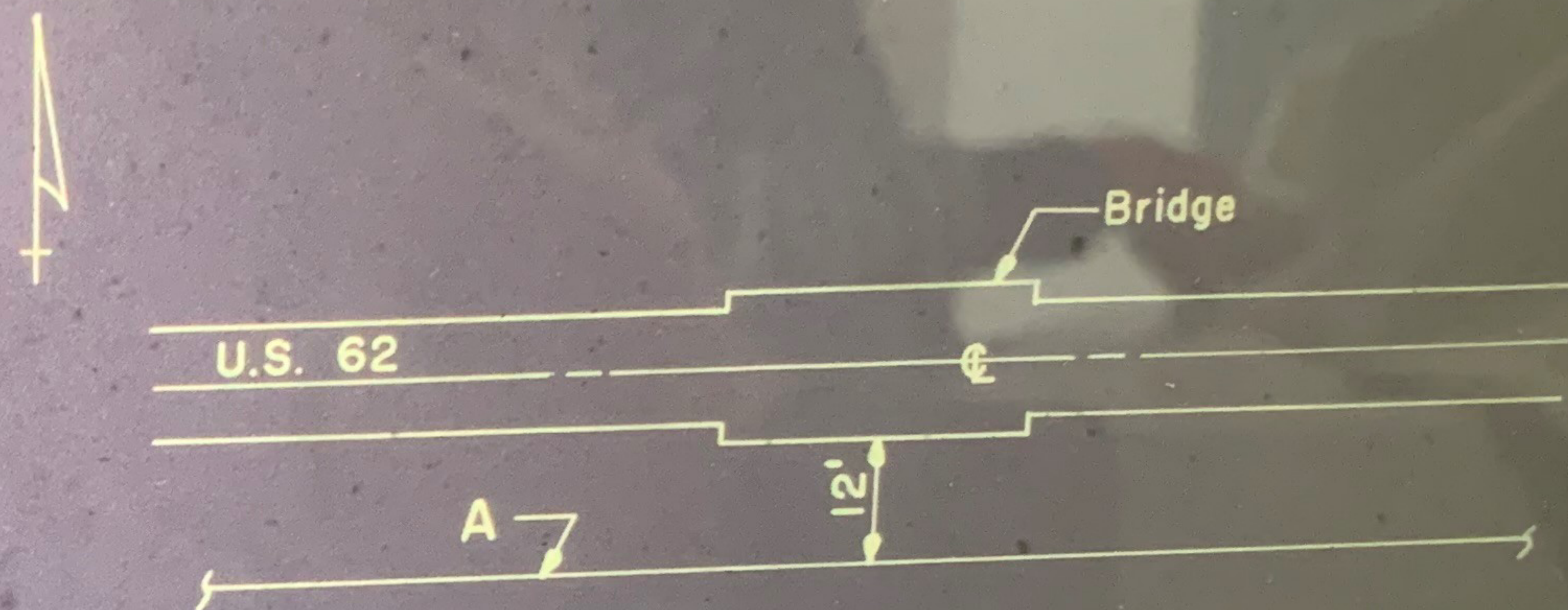
BRIDGE HOL-62-0795

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PLAN NO.
HOL-62-0795

A = 2" Gas line buried 24" - 30" deep.

Owner: Robert E. Sherry, 1625 Moxahala Avenue,
Zanesville, Ohio 43701. Phone 614-454-3286



PLAN VIEW

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8.5"

11"

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Calculated By: JLO

Checked By: WRG

6-2-83

6-2-83

PROJECT NO. HES-000S(28)

HOL-62-07.93

GENERAL SUMMARY

ITEM	PART		GRAND TOTAL	UNIT	DESCRIPTION
202	Lump		Lump	Lump	Portions of structures removed
202	37.5		37.5	Lin. Ft.	Guardrail removed, as per plan
202	37.5	187.5	225	Lin. Ft.	Guardrail removed for storage, as per plan
203	5	5	10	Cu. Yd.	Embankment, as per plan
404	3		3	Cu. Yd.	Asphalt concrete
407	3		3	Gal.	Tack coat
503	Lump		Lump	Lump	Unclassified excavation
509	199		199	Lbs.	Reinforcing steel
510	28		28	Each	Dowel holes
511	3		3	Cu. Yd.	Class C concrete, abutments
517	39.5	50	89.5	Lin. Ft.	Railing, deep beam with tubular backup, as per plan
518	3		3	Cu. Yd.	Porous backfill
521	0.65		0.65	MFBM	Bridge timbers
606	212.5	262.5	475	Lin. Ft.	Guardrail, Type 5, as per plan
606	4	4	8	Each	Bridge terminal assembly, Type B, as per plan
606	4	3	7	Each	Anchor assembly, Type A
606		1	1	Each	Anchor assembly, Type T, as per plan
606		1	20	Sq. Yd.	Repair seeding and mulching
659	10	10	673	Lin. Ft.	Berm reshaping
Special	323	350	1	Each	32'-6" x 11'-6" timber longitudinal panel - LAM
Special	1		Lump	Lump	Construction layout stakes
623	Lump	Lump	Lump	Lump	Maintaining traffic
614	Lump	Lump	Lump	Lump	Mobilization
624	Lump	Lump	3	Sq. Yd.	Sealing of concrete surfaces (See Proposal Note)
Special	3				

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PART I

BRIDGE HOL - 62 - 0793

7
15PLAN NO.
HOL-62-0793SCOPE OF WORK

- 1.) Rebuild existing concrete abutment as per plan.
- 2.) Remove existing guardrail and bridge rail.
- 3.) Remove existing wearing course, timber deck and superstructure.
- 4.) Install new timber superstructure and wearing course.
- 5.) Erect new guardrail and bridge rail.

CALCULATIONS

Item 404, Asphalt Concrete, AC-20

$$\left[(32.0' \times \frac{0.25}{2} \times 13.5') + (32.0' \times 2.0' \times 0.25') \right] \div 27 = 3 \text{ Cu. Yds.}$$

Item 407, Tack Coat

$$(32.0' \times 13.5') \div 9 \times 0.05 \text{ Gals./Sq. Yd.} = 3 \text{ Gals.}$$

Calculated By:	Checked By:
JLQ	W.R.G.
6-2-83	6-2-83

REINFORCING STEEL LIST

MARK	NUMBER		TOTAL	LENGTH	WEIGHT	TYPE
	REAR	FORWARD				
A 501	5	5	10	3'-5"	36	Str.
A 502	3	3	6	5'-6"	34	Str.
A 601	7	7	14	2'-7"	54	Str.
A 602	1	1	2	2'-2"	7	Str.
A 603	2 Series Of 3	2 Series Of 3	4 Series Of 3=12 Bars	Varies From 3'-4" To 4'-2"	68	Str.
TOTAL					199 LBS.	

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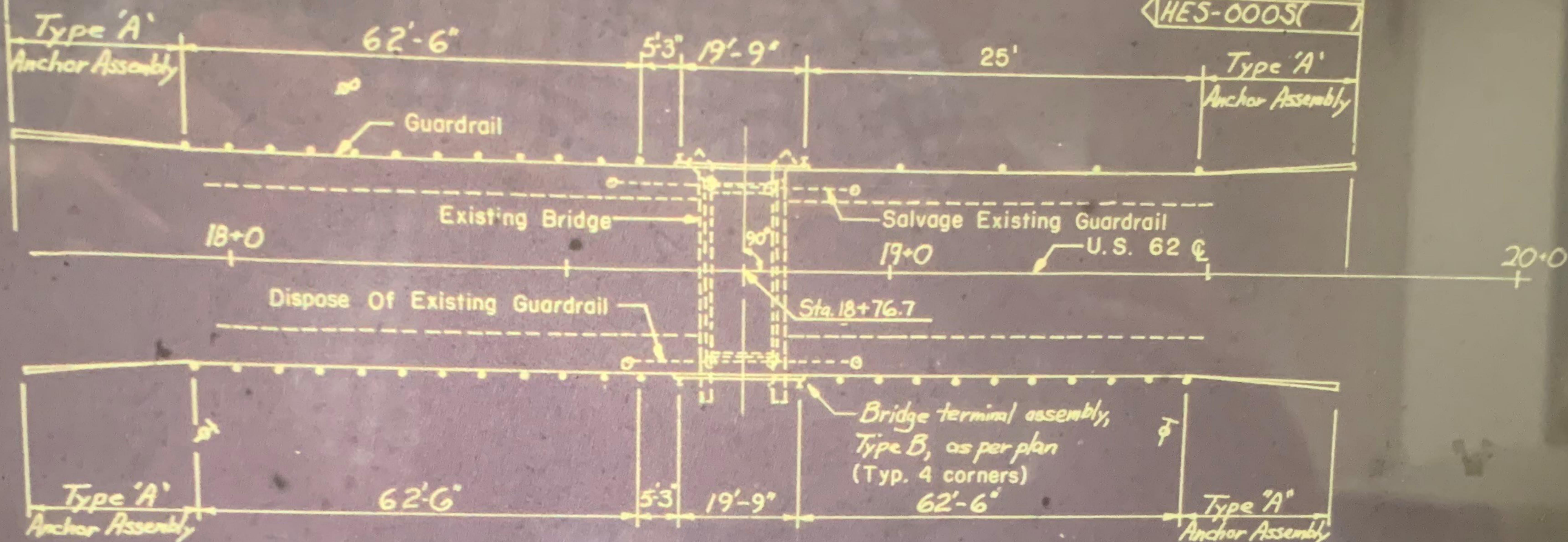


BEGIN WORK
Sta. 17+74
HES-0005()

BR. NO. HOL.-62-0793

END WORK
Sta. 19+74
HES-0005()

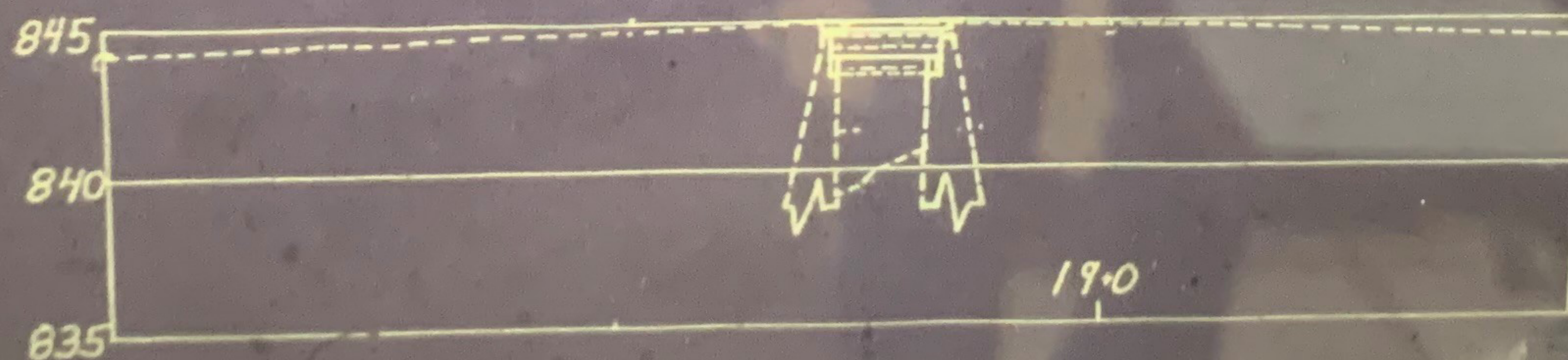
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PLAN VIEW
PART 1

EXISTING STRUCTURE
Type: Steel Beam w/ timber deck
Length: 1 Span 9'-6" clear span
Roadway: 24'-10" between felloeguards
Type of Rail: Left- Deep beam (galvanized)
Right- Beam type (painted)

PROPOSED WORK
Required: Replace existing superstructure
with timber slab and A.C.W.S.
Roadway: 32'-6" f/f rail
Type of Rail: Deep Beam with heavy gage
tubular backup



ELEVATION VIEW

SFN 3801055

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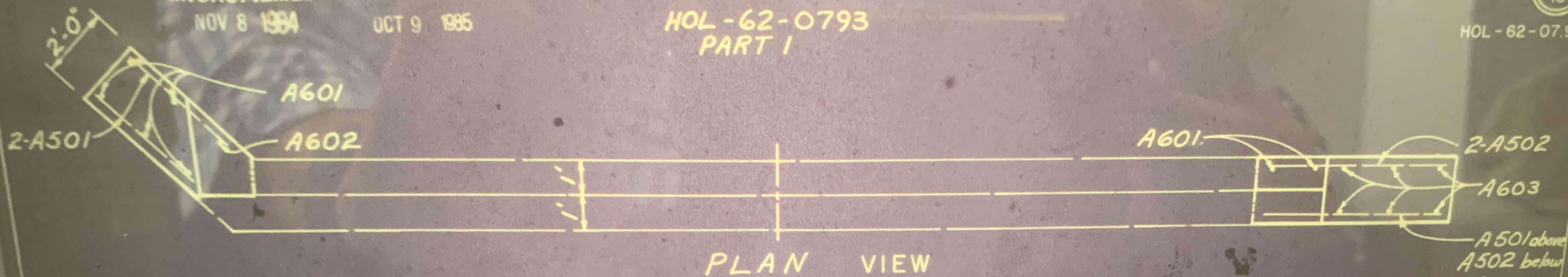
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HOL-62-0793

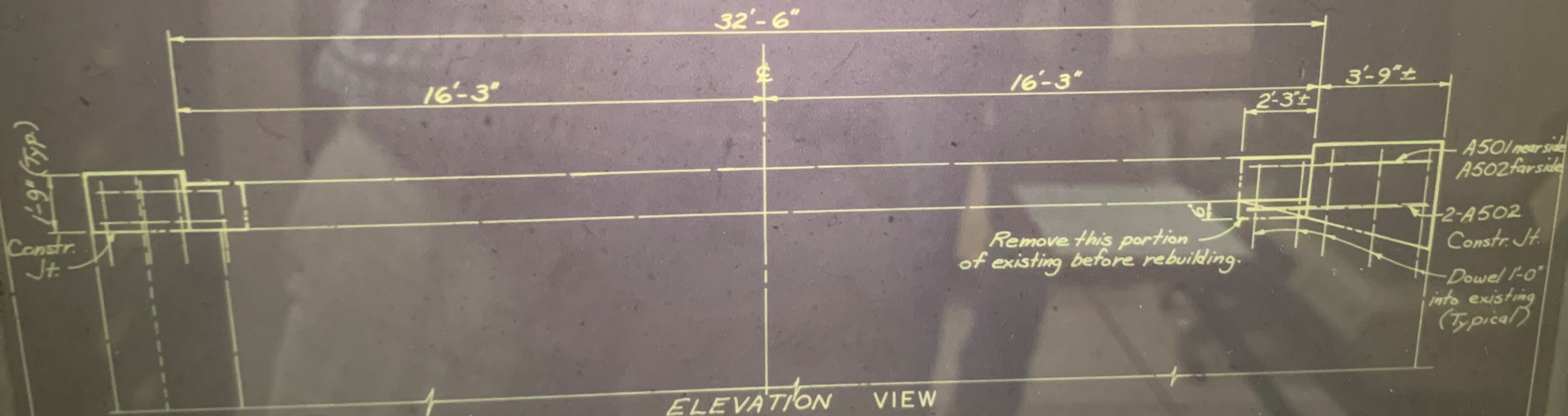
PART I

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PLAN VIEW



ELEVATION VIEW

ABUTMENT DETAILS

Forward abutment shown

Rear abutment similar, but opposite hand.

All surfaces to new concrete is attached shall be mechanically roughened and damp prior to placing the new concrete, under Item 202, Portions of structure removed

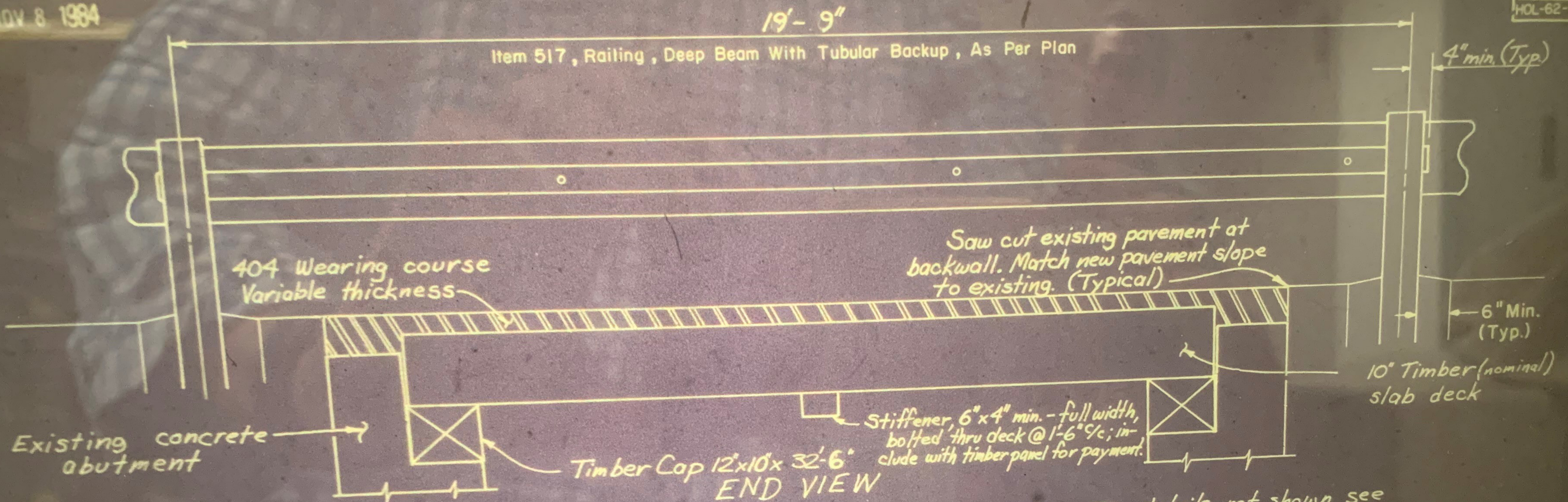
NOTE: Porous backfill to be used at abutment reconstruction as directed by the Engineer.

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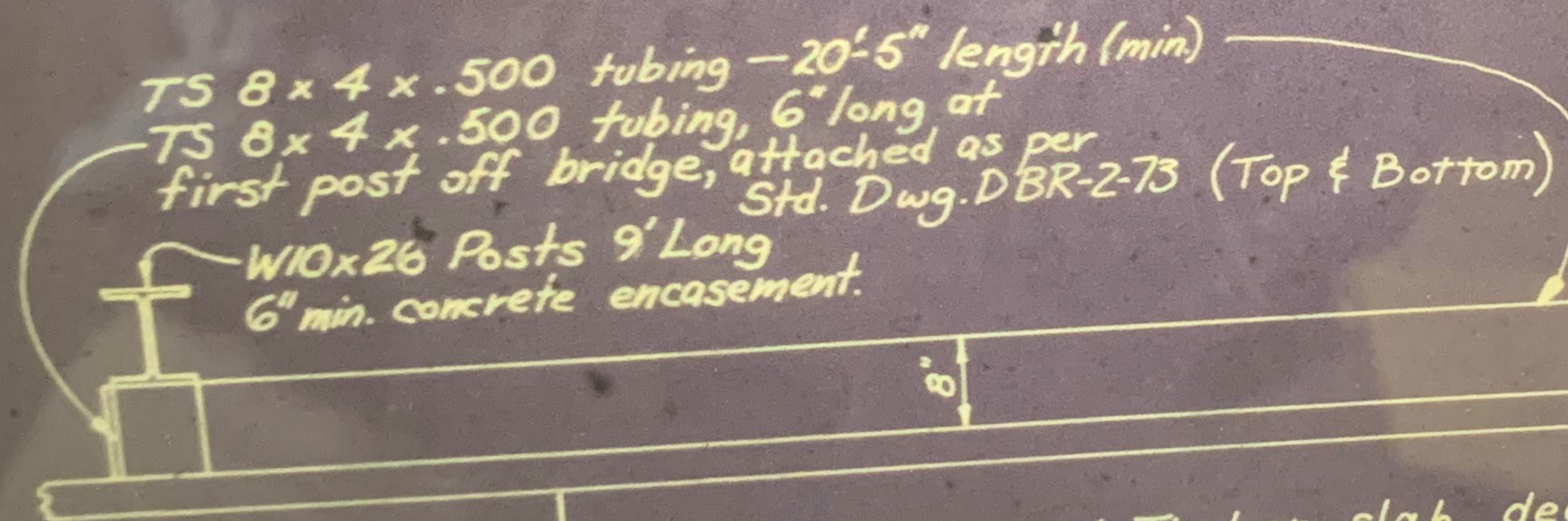
8.5"

11"

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15PLAN NO.
HOL-62-0793

For details not shown see
Standard Drawing DBR-2-73.



PLAN
HOL-62-0793
PART 1

SFN 3801055

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PART I

QUANTITY SUB - SUMMARY

PLAN NO.
HOL-62-0793

Calculated By:	Checked By:
JLO	WRG
6-2-83	6-2-83

ITEM	202	202	203	404	503	509	510	511	517	518	521
DESCRIPTION	Guardrail Removed As Per Plan	Guardrail Removed For Storage As Per Plan	Embankments As Per Plan	Asphalt Concrete AC-20	Unclassified Excavation	Reinforcing Steel	Dowel Holes	Class C Concrete Abutments	Railing, Deep Beam With Tubular Backup, As Per Plan	Porous Backfill	Bridge Timber
UNIT	LIN. FT.	LIN. FT.	CU. YDS.	CU. YDS.	LUMP SUM	LBS.	EACH	CU. YDS.	LIN. FT.	CU. YDS.	MBM
TOTAL	37.5	37.5	5	3	LUMP SUM	199	28	3	39.5	3	0.65

ITEM	606	606	606	659	SPECIAL	SPECIAL	407				
DESCRIPTION	Guardrail Type 5 As Per Plan	Anchor Assembly Type A	Bridge Terminal Assembly, Type B As Per Plan	Repair Seeding And Mulching	Berm Reshaping	32'-6" x 11'-6" Timber Longitudinal Panel - LAM	TACK COAT				
UNIT	LIN. FT.	EACH	EACH	SQ. YDS.	LIN. FT.	EACH	GAL.				
TOTAL	212.5	4	4	10	323	1	3				

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8.5"

11"