

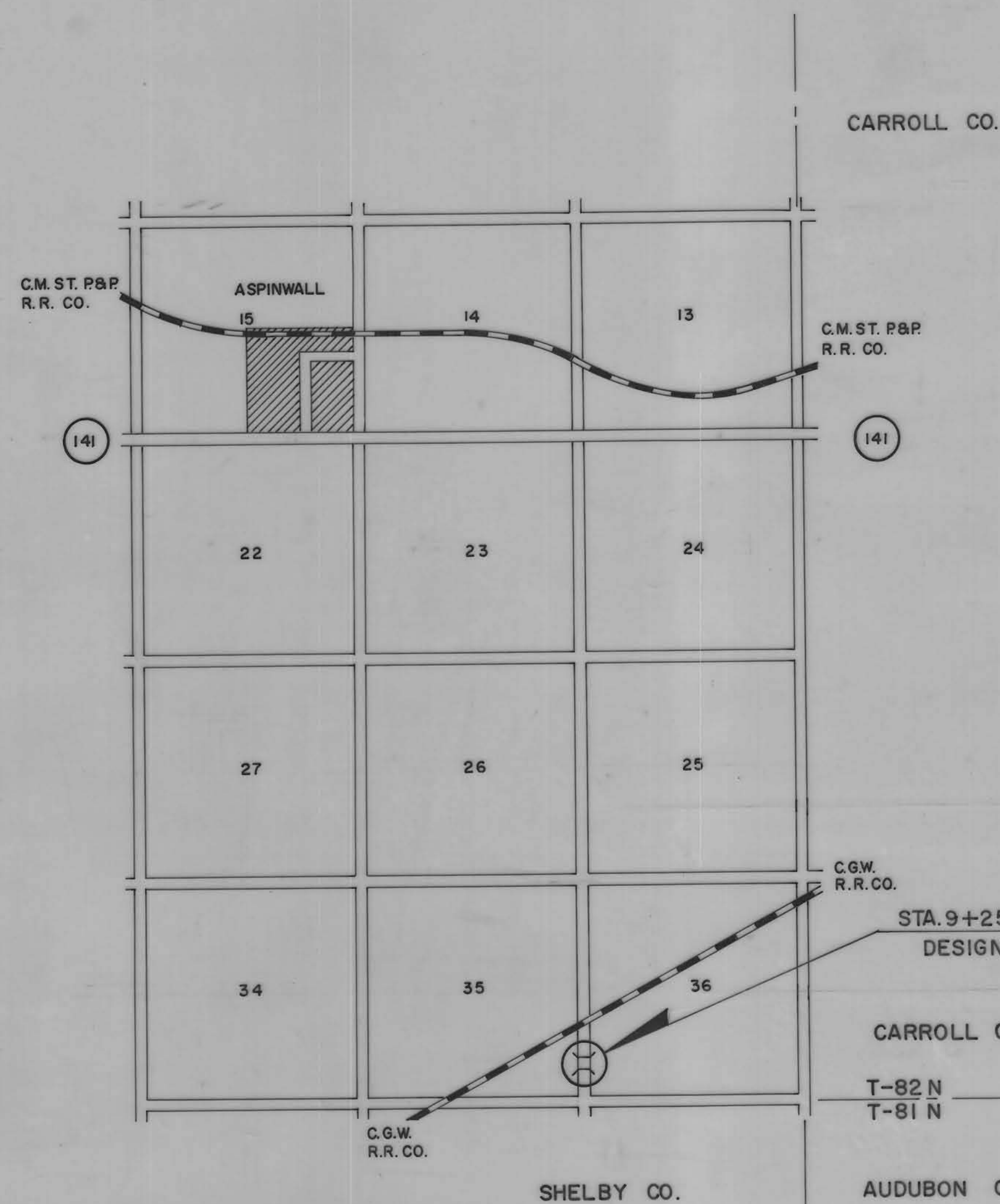
STATE OF IOWA
STATE HIGHWAY COMMISSION
PLAN FOR PROPOSED IMPROVEMENT
ON THE
SECONDARY ROAD SYSTEM
CRAWFORD COUNTY

PROJECT NO. 64-3
DESIGN FOR 125'x 20' CONTINUOUS CONCRETE SLAB BRIDGE

THE IOWA STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR CONSTRUCTION WORK, SERIES OF 1960, SHALL APPLY TO WORK ON THIS PROJECT, PLUS CURRENT SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS.

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IOWA	64-3	1964	1	4

SHEET NO.	ITEM
1	TITLE SHEET
2-4	DETAILS



DESIGN NO. 641			
125' X 20' CONTINUOUS CONCRETE SLAB BRIDGE			
DESCRIPTION	ABUTEMENTS	SUPERSTRUCTURE	TOTALS
STRUCTURAL CONCRETE	5.8 C.Y.	170.4 C.Y.	176.2 C.Y.
REINFORCING STEEL	614 LBS.	37,230 LBS.	37,844 LBS.
STRUCTURAL STEEL	4,642 LBS.	6,325 LBS.	10,967 LBS.
GALVANIZED HARDWARE	146 LBS.		146 LBS.
CREOSOTED LUMBER	7080 F.B.M.		7080 F.B.M.
CREOSOTED WOOD TRESTLE PILING			
20 @ 40', 4 @ 35', 4 @ 30' *	1,060 L.F.		1,060 L.F.
CONCRETE PILES 10 @ 45'		450 L.F.	450 L.F.
PIOA 16" TYPE III			
EXCAVATION CLASS 10 CHANNEL	1,670 C.Y.		1,670 C.Y.
" " 20	355 C.Y.		355 C.Y.
" " 21	32 C.Y.		32 C.Y.
REMOVAL OF OLD BRIDGE			LUMP SUM

* OVERSIZED BEARING PILE (14" MIN. BUTT DIAM.)

DESIGN NO. 642			
125' X 24' CONTINUOUS CONCRETE SLAB BRIDGE			
DESCRIPTION	ABUTEMENTS	SUPERSTRUCTURE	TOTALS
STRUCTURAL CONCRETE	6.8 C.Y.	190.2 C.Y.	197.0 C.Y.
REINFORCING STEEL	702 LBS.	45,577 LBS.	46,279 LBS.
STRUCTURAL STEEL	5,327 LBS.	6,338 LBS.	11,665 LBS.
GALVANIZED HARDWARE	156 LBS.		156 LBS.
CREOSOTED LUMBER	7,560 F.B.M.		7,560 F.B.M.
CREOSOTED WOOD TRESTLE PILING			
20 @ 40', 4 @ 35', 4 @ 30' **	1,140 L.F.		1,140 L.F.
CONCRETE PILES 12 @ 45'		540 L.F.	540 L.F.
PIOA 16" TYPE III			
EXCAVATION CLASS 10 CHANNEL	1,780 C.Y.		1,780 C.Y.
" " 20	404 C.Y.		404 C.Y.
" " 21	33 C.Y.		33 C.Y.
REMOVAL OF OLD BRIDGE			LUMP SUM

** OVERSIZED BEARING PILE (14" MIN. BUTT DIAM.)

STA. 9+25 @ 125' X 20' SLAB BRIDGE
DESIGN NO.

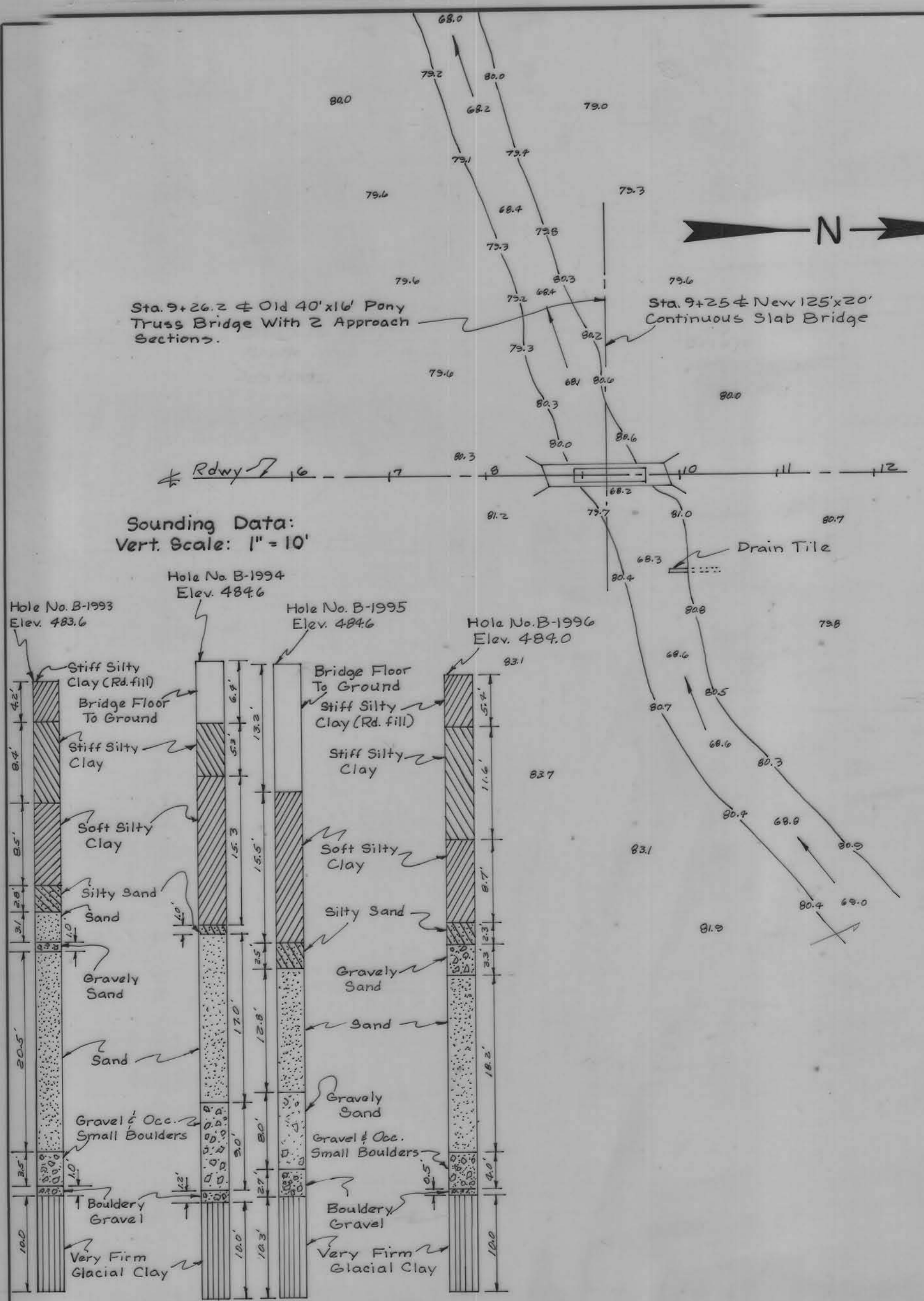
CARROLL CO.
T-82 N
T-81 N
SHELBY CO.
AUDUBON CO.

APPROVED	DATE
CHAIRMAN	
BOARD OF SUPERVISORS	

APPROVED	DATE
DISTRICT ENGINEER	
IOWA HIGHWAY COMMISSION	
APPROVED	DATE
COUNTY ENGINEER	

1500
2-10-70
L. J. ...

IOWA TOWNSHIP T-82N R-37W BET. 35-36 OVER NISHNABOTNA RIVER



Estimate Of Quantities - 20' Roadway

Description	Abutments	Superstructure	Totals
Structural Concrete	5.8 c.y.	170.4 c.y.	176.2 c.y.
Reinforcing Steel	614 lbs.	37,230 lbs.	37,844 lbs.
Structural Steel	4,642 lbs.	6,325 lbs.	10,967 lbs.
Galvanized Hardware	146 lbs.		146 lbs.
Creosoted Lumber	7080 F.B.M.		7080 F.B.M.
Creosoted Wood Trestle Piles*	1060 L.F.		1060 L.F.
Concrete Piles 10@ 45' P10A 16" Type III		450 L.F.	450 L.F.
Excavation Class 10 Channel	1,670 c.y.		1,670 c.y.
" " 20	355 c.y.		355 c.y.
" " 21	32 c.y.		32 c.y.
Removal Of Old Bridge			Lump Sum

Estimate Of Quantities - 24' Roadway

Description	Abutments	Superstructure	Totals
Structural Concrete	6.8 c.y.	190.2 c.y.	197.0 c.y.
Reinforcing Steel	702 lbs.	45,577 lbs.	46,279 lbs.
Structural Steel	5,327 lbs.	6,338 lbs.	11,665 lbs.
Galvanized Hardware	156 lbs.		156 lbs.
Creosoted Lumber	7560 F.B.M.		7560 F.B.M.
Creosoted Wood Trestle Piles**	1,140 L.F.		1,140 L.F.
Concrete Piles 12@ 45' P10A 16" Type III		540 L.F.	540 L.F.
Excavation Class 10 Channel	1,780 c.y.		1,780 c.y.
" " 20	404 c.y.		404 c.y.
" " 21	33 c.y.		33 c.y.
Removal Of Old Bridge			Lump Sum

General Notes:

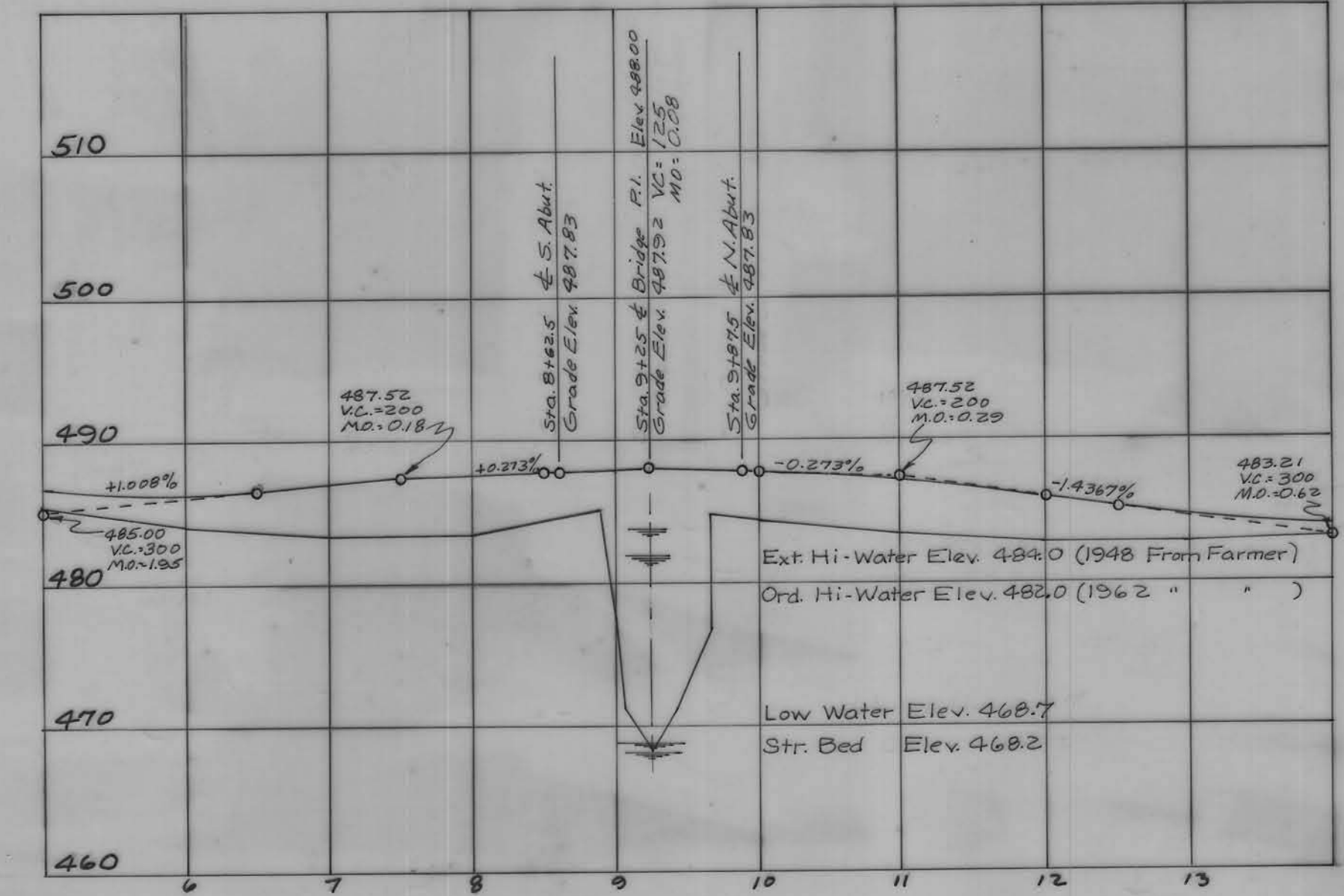
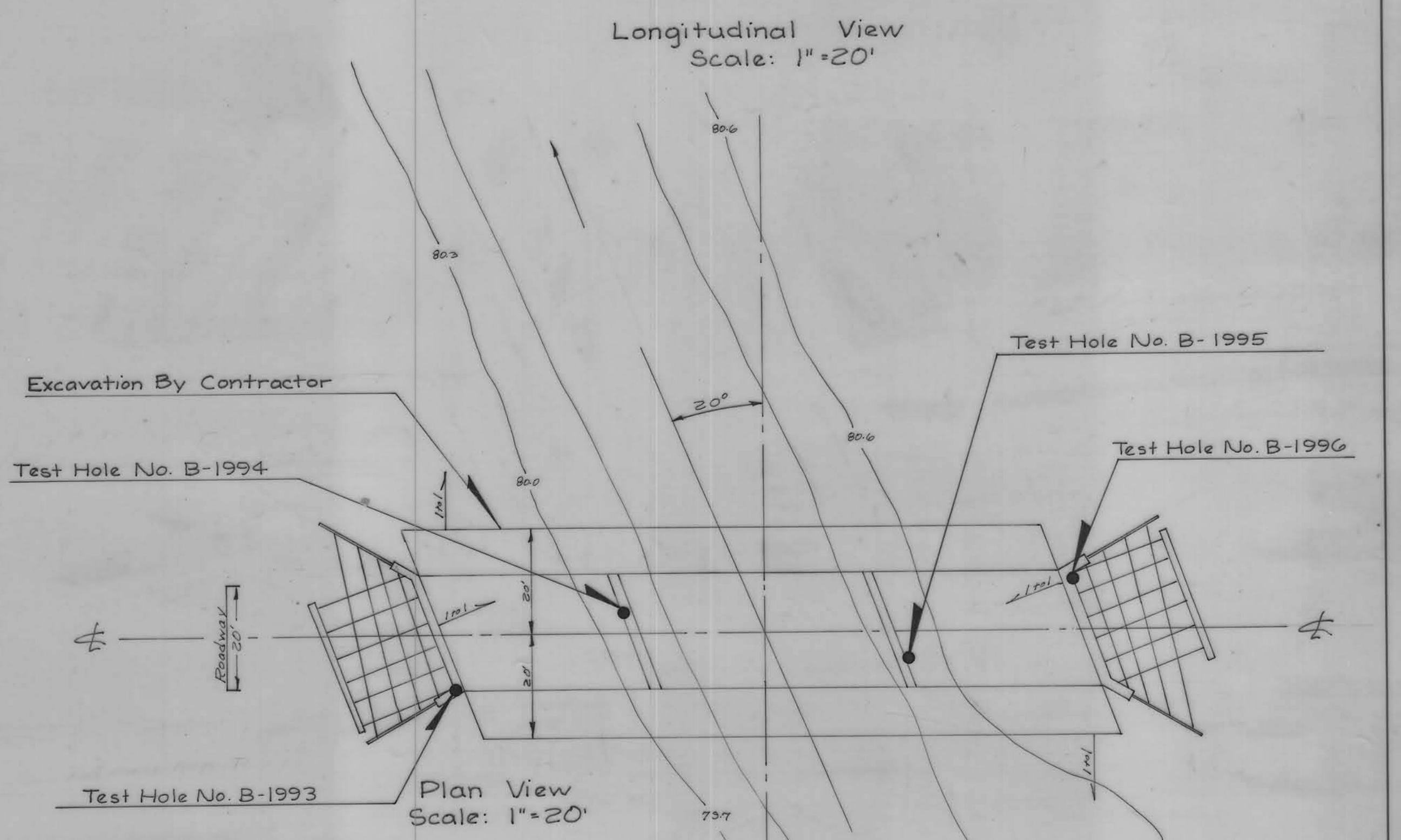
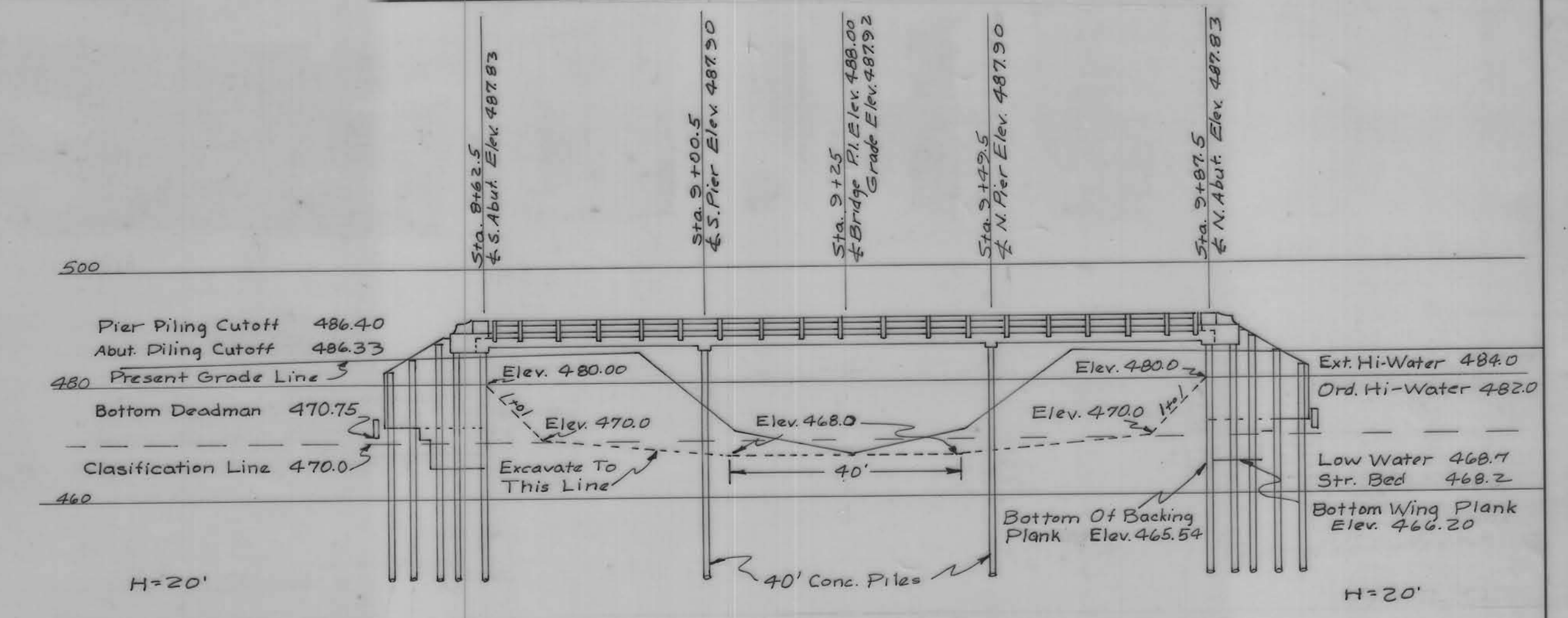
Iowa Highway Commission Standard Design J4-A1, J3A, March 1960, P10A, June 1959, For 20' Rdwy, And (Use J5-1, J6-1, June 1957 And P10A, June 1959 For 24' Rdwy) Shall Apply To This Bridge. DA-69 Sq. Mi.

The Old Bridge Is To Be Removed For Re-erection. Bridge Contractor To Remove The Bridge And Pile Within 300 Ft. Of Bridge Site As Directed By The County Engineer. All Match Parts Of The Pony Truss To Be Marked By The Contractor.

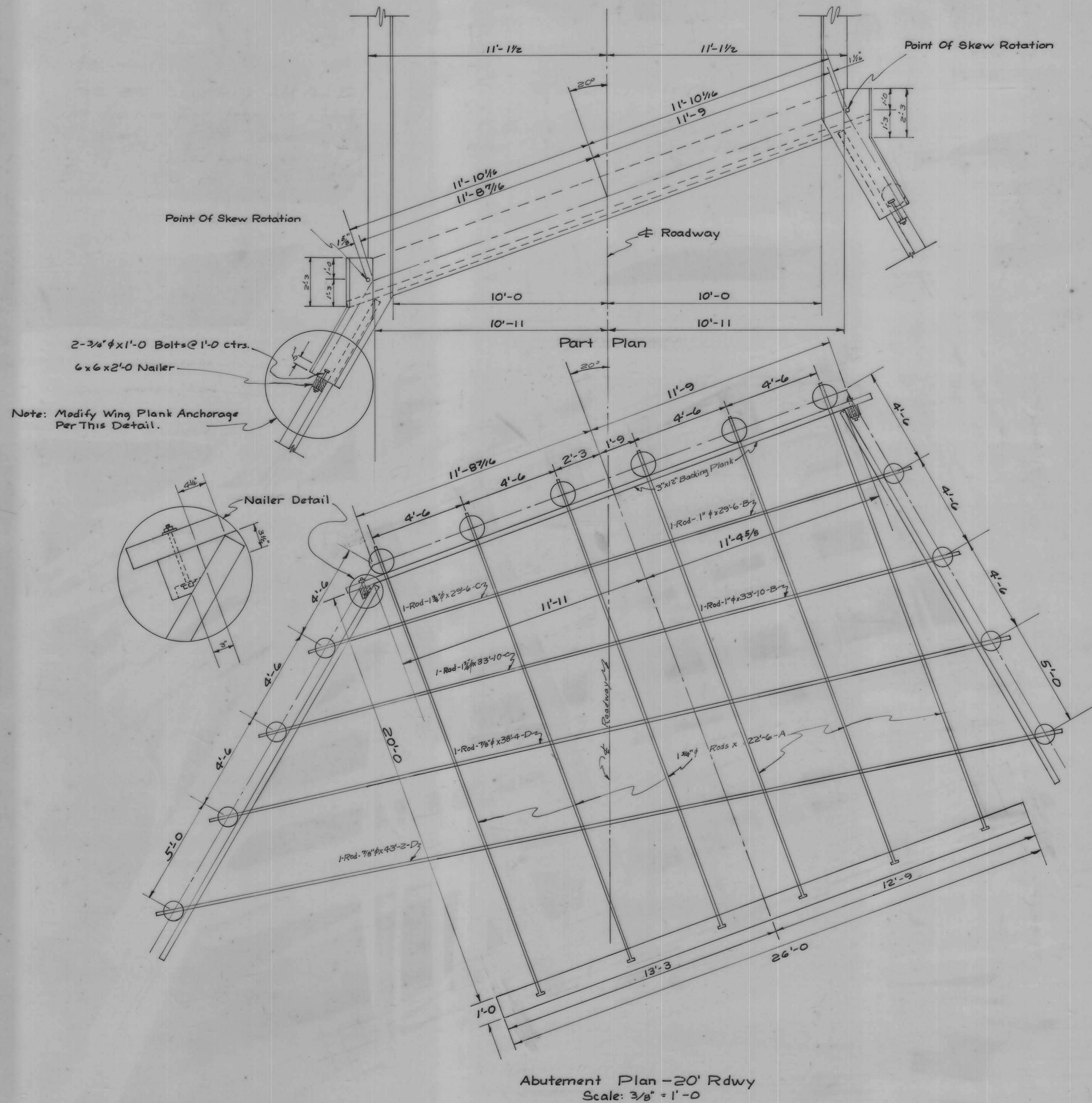
All Suitable Class 10 Channel Excavation Shall Be Used For Back-filling And Building Approaches To The Bridge. Balance Of Material Shall Be Wasted Within 1000 Feet Of The Site As Directed By The County Engineer.

Bridge Sign Assembly Note:

Place Triple Three-Inch Amber Delineator Bridge End Marker (M9-3) At The Right And Left Hand Corners Of The Bridge, As Specified In Section 2C-5 Of Manual On Uniform Control Devices. By County.



Design For
125'x20' or 125'x24' Continuous Conc. Slab Bridge
Skew Angle 20°
Steel Channel Rail
Timber Abutments And Concrete Pile Bents
Sta. 9+25
Proj. No. 64-3
Crawford County
Feb. 19, 1964



H=20' See Std. J3A & J4A-1

Quantities - One Abutement - 20' Rdwy.

Description	Size	Length	No.	Quantity
Wing Piles		40	4	160 L.F.
Wing Piles		35	2	70 L.F.
Wing Piles		30	2	60 L.F.
Bearing Piles		40	6	240 L.F.
Total Piling				= 530 L.F.
* Backing Plank	3"x12"	26'-0"	20	1560 F.B.M.
Wing Plank	"	1'-0"	2	6 "
"	"	4'-0"	2	24 "
"	"	10'-0"	10	300 "
"	"	11'-0"	2	66 "
"	"	14'-0"	4	168 "
"	"	17'-0"	2	102 "
"	"	20'-0"	18	1080 "
" Slope	"	17'-0"	2	102 "
Nailers (Rt. & Lt.)	6" x 6"	20'-0"	2	120 "
"	"	2'-0"	2	12 "
Total Creosoted Lumber				= 3540 F.B.M.
Structural Steel				2321 lbs.
Concrete Deadman				2.9 c.y.
Reinforcing Steel - Deadman				307 lbs.
Galvanized Hardware				73 lbs.

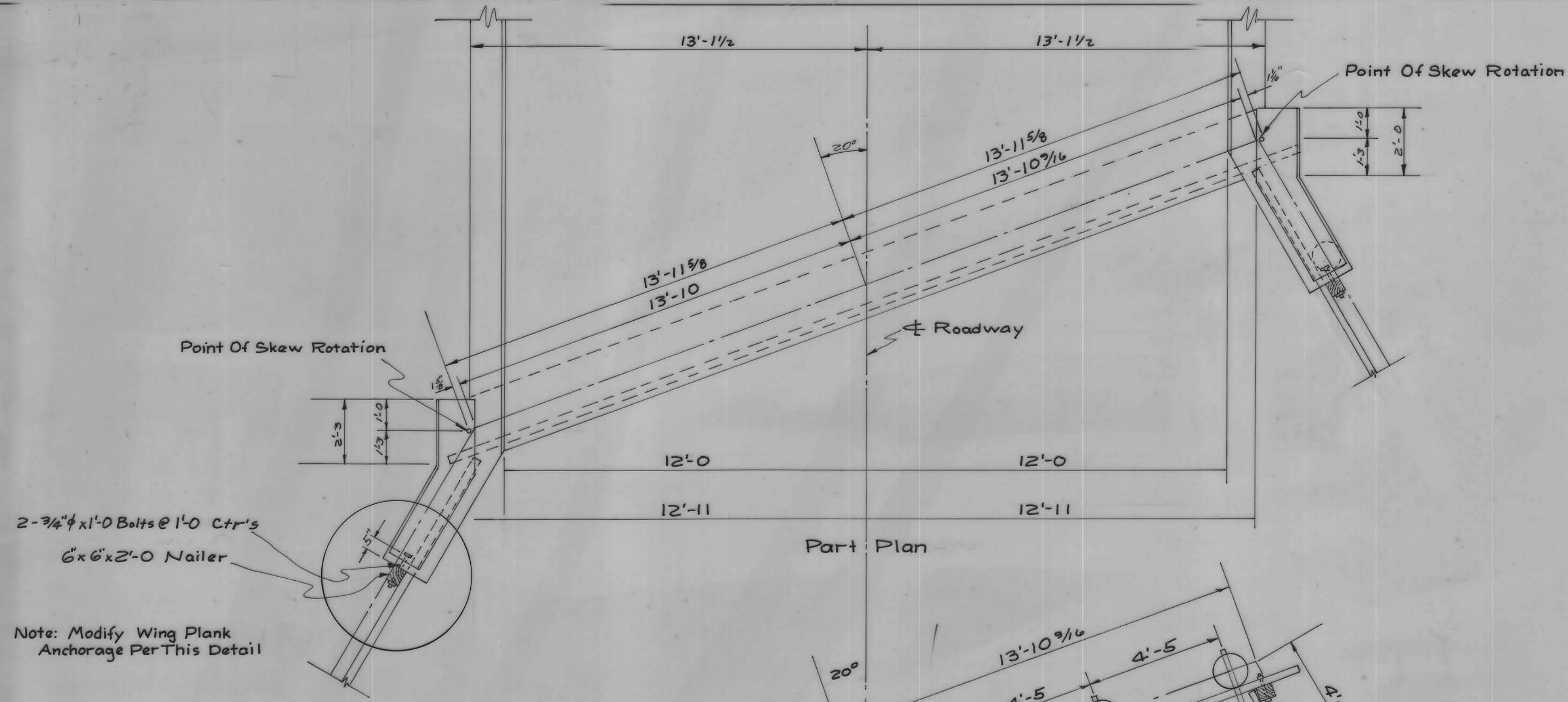
* Backing Plank May Be Spliced With Joints Staggered At Bearing Piles.

Design For
 125'x 20' Continuous Conc. Slab Bridge
 Skew Angle 20° Steel Channel Rail
 Timber Abutements And Concrete Pile Bents
 Sta. 9+25 Proj. 64-3
 Crawford County
 Feb. 19 1964

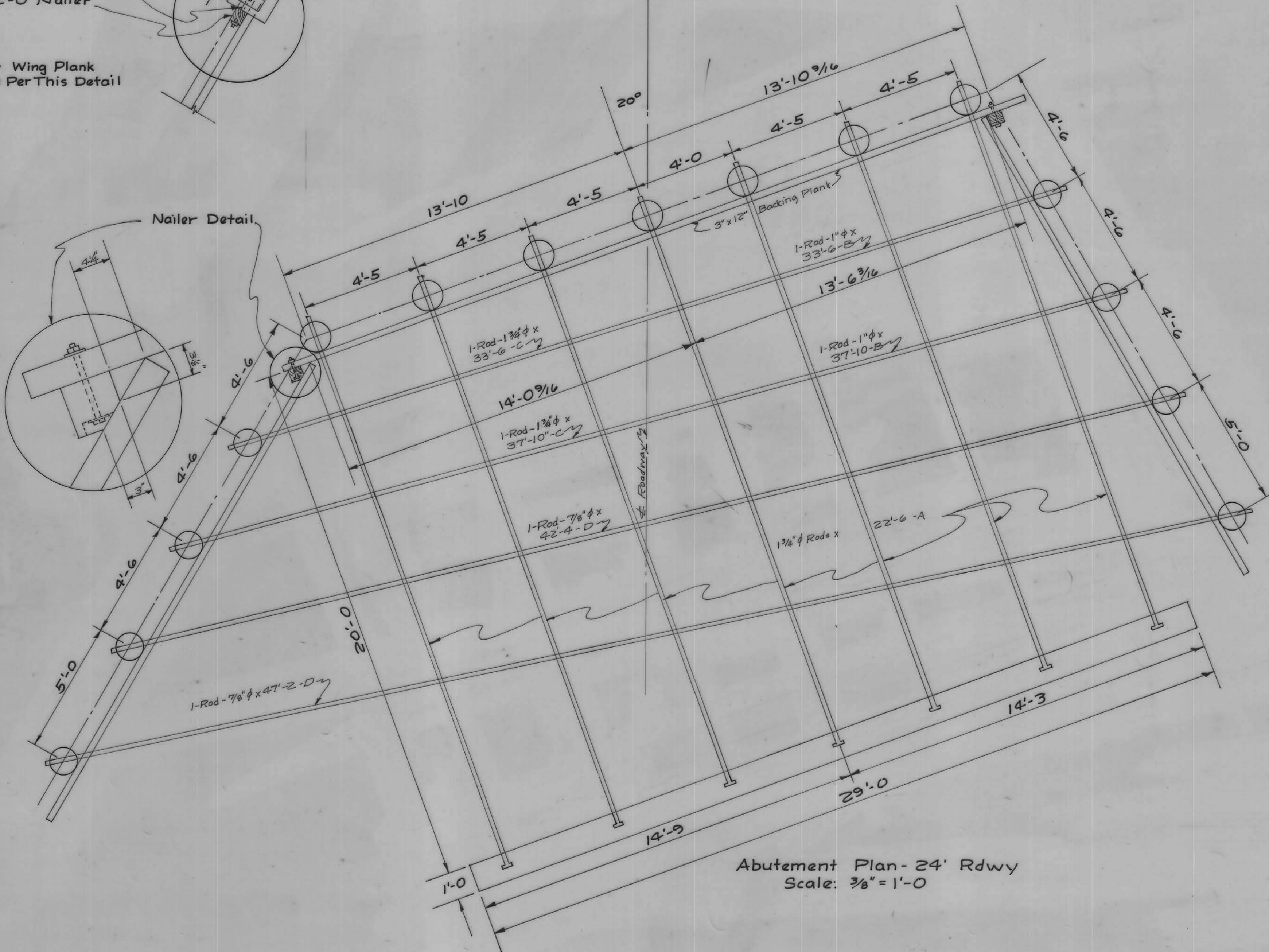
Project: 64-3 - Bridge Plans - Set 32-35 Items

150210

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Note: Modify Wing Plank Anchorage Per This Detail



Abutment Plan - 24' Rdwy
Scale: 3/8" = 1'-0"

H=20 See Std. J5-1 & J6-1

Quantities - One Abutment - 24' Roadway				
Description	Size	Length	No.	Quantity
Wing Piles		40'	4	160 L.F.
Wing Piles		35'	2	70 L.F.
Wing Piles		30'	2	60 L.F.
Bearing Piles		40'	7	280 L.F.
Total Piling =				570 L.F.
* Backing Plank	3'x12"	30'-0"	20	1800 F.B.M.
Wing Plank	"	1'-0"	2	6 "
"	"	4'-0"	2	24 "
"	"	10'-0"	10	300 "
"	"	11'-0"	2	66 "
"	"	14'-0"	4	168 "
"	"	17'-0"	2	102 "
"	"	20'-0"	18	1080 "
" Slope	"	17'-0"	2	102 "
Nailers (Rt. # Lt.)	6"x6"	20'-0"	2	120 "
"	"	2'-0"	2	12 "
Total Crossed Lumber =				3780 "
Structural Steel				2664 lbs.
Concrete - Deadman				34 c.y.
Reinforcing Steel - Deadman				351 lbs.
Galvanized Hardware				78 lbs.

* Backing Plank May Be Spliced With Joints Staggered At Bearing Piles.

Design For
 125' x 24' Continuous Concrete Slab Bridge
 Skew Angle 20° Steel Channel Rail
 Timber Abutments And Concrete Pile Bents
 Sta. 9+25 Proj. No. 64-3
 Crawford County
 Feb 19, 1964