

STATE OF IOWA
STATE HIGHWAY COMMISSION
BRIDGE
ON THE
SECONDARY ROAD SYSTEM
CRAWFORD COUNTY

PROJECT NO. L-69-2--~~37~~-24 ⁷³ ~~2-37-24~~

DESIGN FOR 125'X24' CONTINUOUS CONCRETE SLAB BRIDGE

THE IOWA STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR CONSTRUCTION WORK, SERIES OF 1964 SHALL APPLY TO WORK ON THIS PROJECT, PLUS CURRENT SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS.

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	IOWA	L-69-2-- 37 -24	1969	1	2

INDEX OF SHEETS

SHEET NO.	ITEM
1	TITLE SHEET AND ESTIMATE OF QUANTITIES
2	DETAILS

MILEAGE SUMMARY

STA. 9+50.5 = 127'-6" = 0.24148 MILES

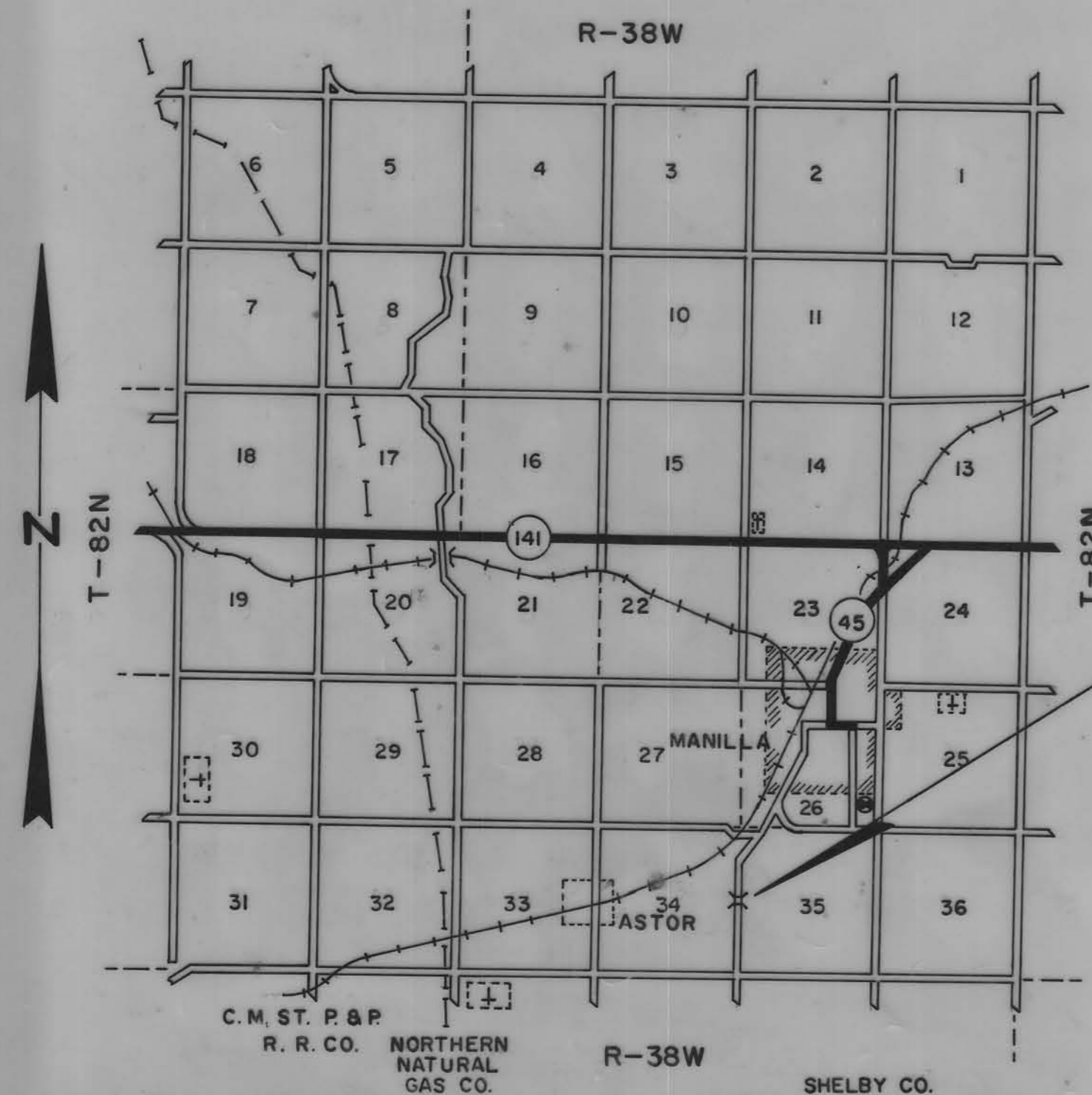
IOWA STATE HIGHWAY COMMISSION STANDARDS REQUIRED (MAY BE OBTAINED @ STOREROOM)		
STANDARD	DATE ISSUED	LATEST REVISION
J6-1	JUNE 1957	5-7-68
J6-2	JUNE 1957	5-7-68
J6-3	AUGUST 1967	5-7-68
PIOA	JUNE 1959	

PROJECT NO. L-69-2-- 37 -24		STA. 9+50.5	
SEC. 34-35		NISHNABOTNA TOWNSHIP	
125'X24' CONTINUOUS CONCRETE SLAB BRIDGE			
ESTIMATE OF QUANTITIES			
ITEM	ABUTMENTS	SUPERSTRUCTURES	TOTALS
*STRUCTURAL CONCRETE	33.0 C.Y.	182.8 C.Y.	215.8 C.Y.
REINFORCING STEEL	2432 LBS.	45,310 LBS.	47,742 LBS.
HANDRAIL, ALUMINUM		254.7 L.F.	254.7 L.F.
CREOSOTED PILES 16 @ 45'	720 L.F.		720 L.F.
CONCRETE PILES 12 @ 45' PIOA 16" TYPE IV		540 L.F.	540 L.F.
EXCAV. CLASS 10 CHANNEL			200 C.Y.
EXCAV. CLASS 20	40 C.Y.		40 C.Y.
REMOVAL			LUMP SUM

LETTING DATE

*THE FLOOR AND CURBS (182.8 C.Y.) PLUS THE WING POSTS (0.8 C.Y.) ARE TO BE CLASS "D" CONCRETE, THE REMAINDER (32.2 C.Y.) IS TO BE CLASS "C" CONCRETE.

LOCATION MAP



STA. 9+50.5 125'X24' CONTINUOUS CONCRETE SLAB BRIDGE

I HEREBY CERTIFY THESE PLANS WERE PREPARED UNDER MY SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

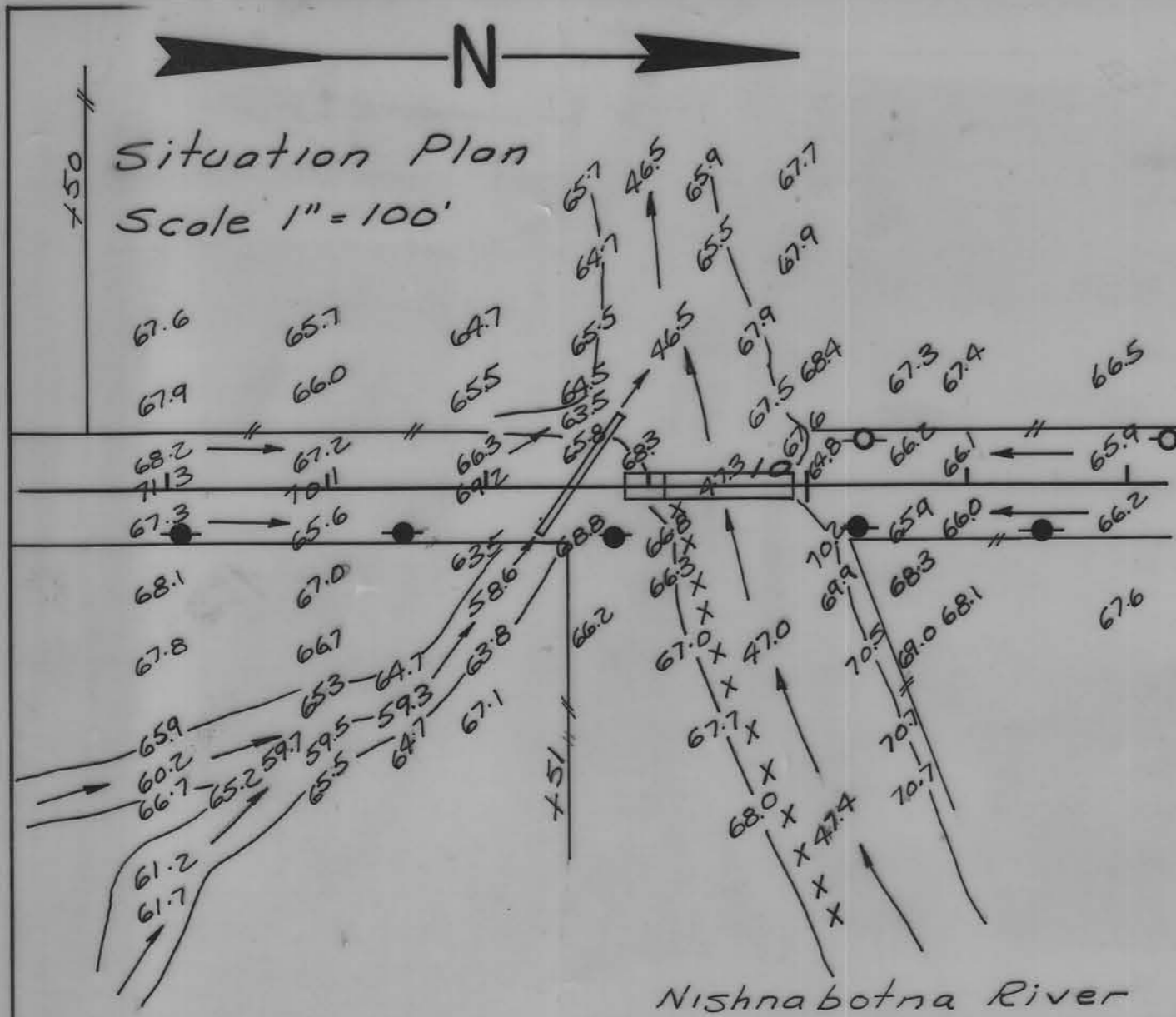
William C. Stone
REG. NO. 2586

DATE *November 25, 1968*

APPROVED	DATE	APPROVED	DATE
		DEPUTY CHIEF ENGINEER IOWA HIGHWAY COMMISSION	
CHAIRMAN			
		DEPARTMENT OF TRANSPORTATION BUREAU OF PUBLIC ROADS	
		APPROVED	DATE
		DIVISION ENGINEER	

TRAFFIC COUNT 219 V.P.D. (1966)

Proj. No. 69-2
Sec. 34-35 W. 1/2 S. 125' - Local



**NISHNABOTNA TOWNSHIP
T-82N R-38W
BET. SEC'S. 34 AND 35**

B.M.#2 SPK in Power Pole 28'Rt. Sta. 6+04 Elev.- 469.89
B.M.#3 SPK in Power Pole 33'Rt. Sta. 14+18 Elev.- 471.04

Note: Excavate Channel As Shown In Shaded Area.
D. A. = 65 sq. mi.
H = 22'
Bearing Required
Wood - 18 Ton
Concrete - 36 Ton

Description	Abutments	Superstructure	Totals
*Structural Concrete	33.0 CY	182.8 CY	215.8 CY
Reinforcing Steel	2432 lbs	45,310 lbs	47,742 lbs
Handrail, Aluminum		254.7 LF	254.7 LF
Crescoted Piles 16@ 45'	720 LF		720 LF
Concrete Piles 12@ 45' PIA 16" TYPE IV		540 LF	540 LF
Excav. Class 10 Channel			200 CY
Excav. Class 20	40 CY		40 CY
Removal			Lump Sum

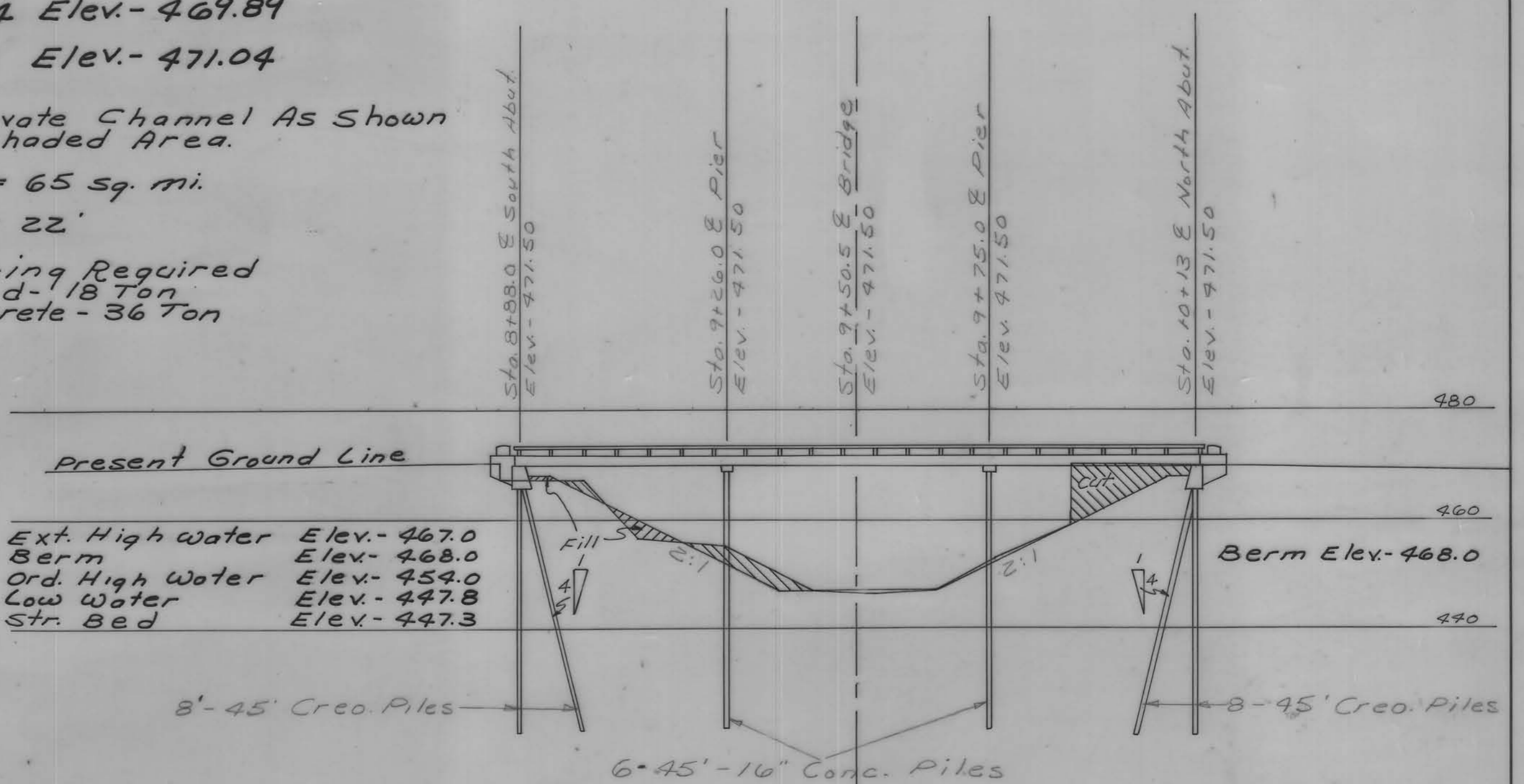
* 183.6 Cu. yds. Class "D" Concrete For Superstructure And
32.2 Cu. yds. Class "C" Concrete For Substructure.

Sta. 9+50 E Present 80'x16' I-Beam Bridge, H-Beam and Wood Piling, Wood Plank Floor, With 20'x10' Approach South end. Bridge Contractor To Remove And Pile Within 300' of Bridge Site As Directed By County Engineer. Bridge To Be ~~Replaced~~ JUNKED And Construct 125'x24' Continuous Concrete Slab Bridge at Sta. 9+50.5.

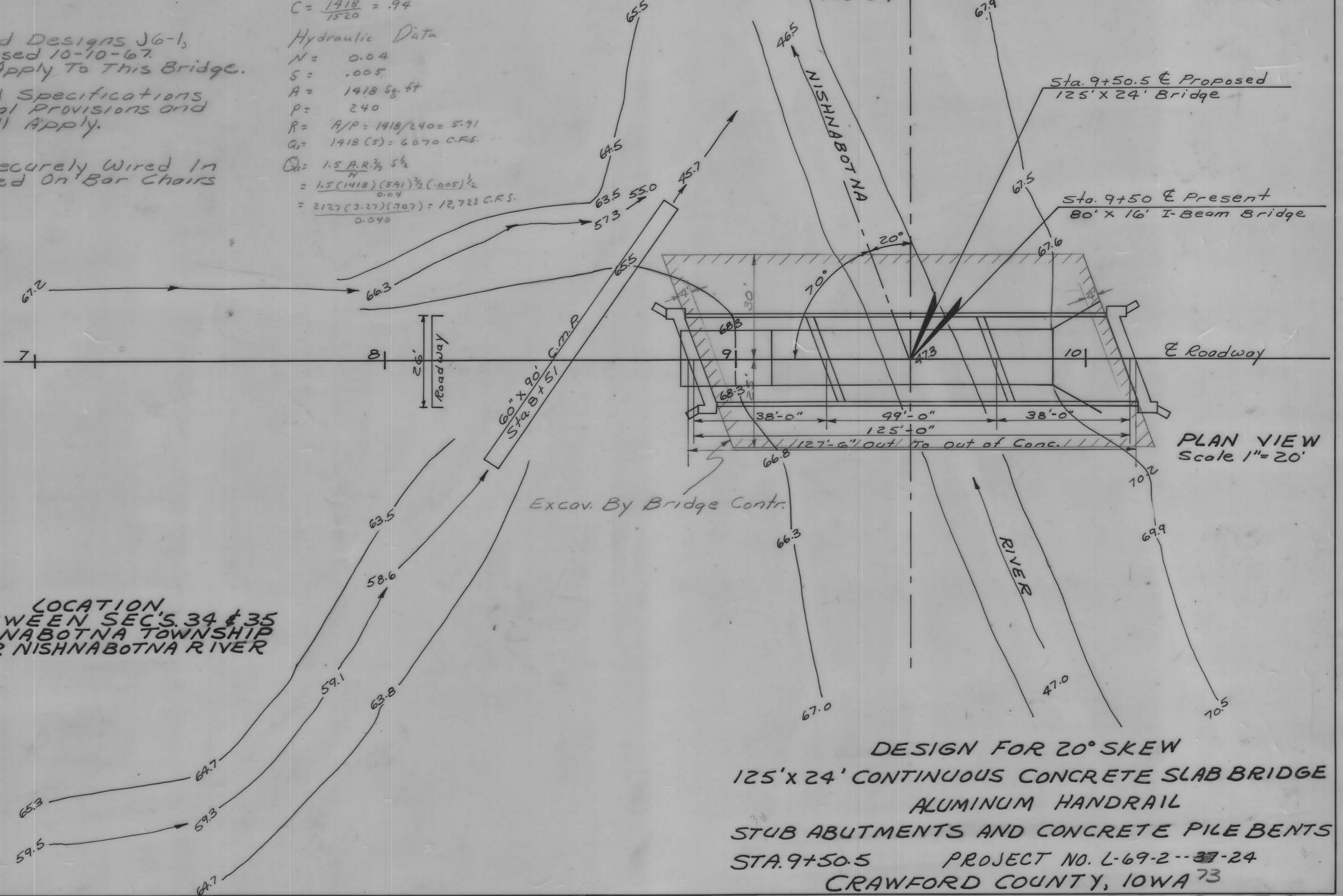
General Notes:
Iowa Highway Commission Standard Designs J6-1, J6-2, Revised 5-7-68 and J6-3 Revised 10-10-67. Standard PIA June 1959 shall Apply To This Bridge.
Iowa Highway Commission Standard Specifications Series of 1964 with Current Special Provisions and Supplemental Specifications shall Apply.

All Reinforcing Bars Shall Be Securely Wired In Place And Adequately Supported On Bar Chairs Before Concrete is Placed.

D. A. = 41,600 Acres
41,600/4 = 10400
C = 1418 / 1520 = .94
Hydraulic Data
N = 0.04
S = .005
A = 1418 sq. ft
P = 240
R = A/P = 1418/240 = 5.91
Q = 1418 (S) = 6070 C.F.S.
Q = 1.5 A R 3/4 S 1/2
= 1.5 (1418) (5.91) 3/4 (.005) 1/2
= 2127 (3.17) (207) = 12,723 C.F.S.
0.040



Item	Elev.	Item	Elev.
Bottom Deck	470.04	Bottom Deck	470.04
Top Abut.	470.01	Top Abut.	470.01
Piling Cut off	468.01	Piling Cut off	468.01
Bottom Abut.	466.01	Bottom Abut.	466.01
S. Pier Cut off	470.04	N. Pier cut off	470.04



LOCATION BETWEEN SEC'S 34 & 35 NISHNABOTNA TOWNSHIP OVER NISHNABOTNA RIVER

DESIGN FOR 20° SKEW
125'x24' CONTINUOUS CONCRETE SLAB BRIDGE
ALUMINUM HANDRAIL
STUB ABUTMENTS AND CONCRETE PILE BENTS
STA. 9+50.5 PROJECT NO. L-69-2--37-24
CRAWFORD COUNTY, IOWA '73

