CONTRACT NO. 64417

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 17	(123WPH) BR-1	OGLE	61	28
FEDERAL ROAD DISTRICT NUMBER 7		ILLINOIS	FEDERAL AID PROJECT -	

SHEET NO. 1
10 SHEETS

CONTRACT #64417

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE:

Structure No. 071-0018 Sta. 266+38
Year Built: 1937
Existing Superstructure: Simple Span Reinforced Concrete Tee Beam with a 6-1/2" Concrete Deck Slab and 2" Bit. Overlay
Existing Structure Dimensions - 33'-0" Span and 47'-0" Out to Out.
Substructure: Closed Abutments on Pile Supported Footing
Existing Structure to be removed and replaced.
One lane of traffic to be maintained utilizing Temporary Signals and Stage Construction.
Salvage: No salvage

BENCH MARK

B.M. No.	Location	Elevation
1	Chiseled Box Cut on the top S.W. Corner of Bridge Sta. 266+22, 22.6' RT	795.39

TOTAL BILL OF MATERIAL

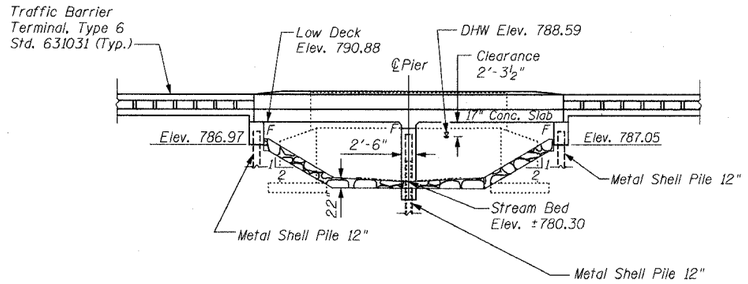
ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment	Cu. Yd.		86	86
Stone Riprap, Class A5	Sq. Yd.		500	500
Filter Fabric for use with Riprap	Sq. Yd.		500	500
Removal of Existing Structures - No. 1	Each	1		1
Structure Excavation	Cu. Yd.		187	187
Floor Drains	Each	4		4
Concrete Structures	Cu. Yd.		76.8	76.8
Concrete Superstructure	Cu. Yd.	148		148
Bridge Deck Grooving	Sq. Yd.	252		252
Protective Coat	Sq. Yd.	311		311
Reinforcement Bars, Epoxy Coated	Pound	35740	7190	42930
Furnishing Metal Pile Shells 12"	Foot		1016	1016
Driving and Filling Shells	Foot		1016	1016
Test Pile Metal Shells	Each		2	2
Temporary Sheet Piling	Sq. Ft.		1128	1128
Name Plates	Each	1		1
Underwater Structure Excavation Protection - Location 1	Each		1	1
Bar Splicers	Each	132	44	176

GENERAL NOTES:

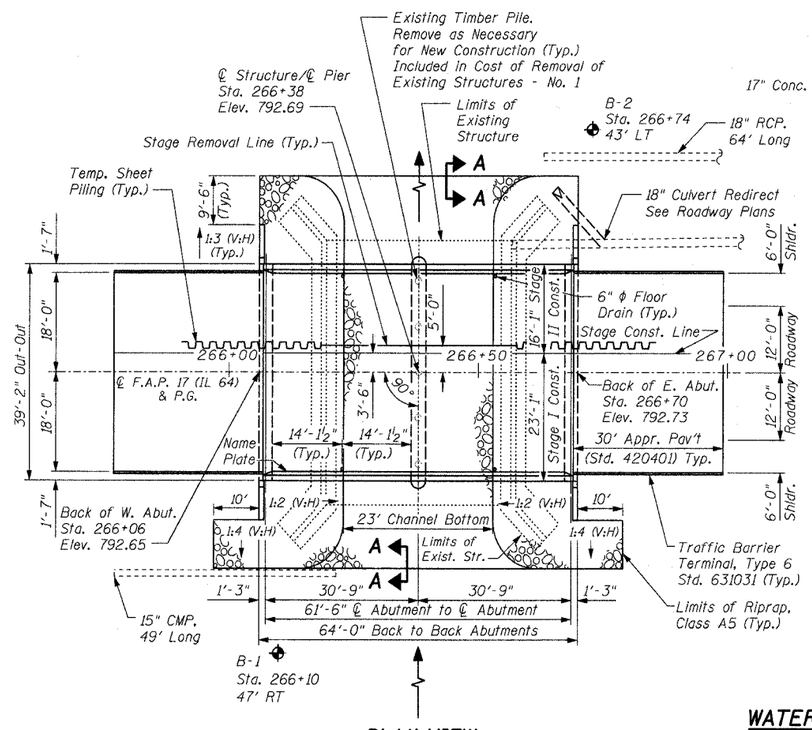
1. Reinforcement bars shall conform to the requirements of AASHTO M31 or M322 Grade 60.
2. The contractor shall make allowance for the deflection of forms, shrinkage and settlement of falsework, in addition to allowance for dead load deflection.
3. The contractor shall drive 1 Metal Shell test pile in a permanent location at each abutment as directed by the engineer before ordering the remainder of the piles.
4. All construction joints shall be bonded.
5. Excavation behind existing abutment walls shall be done before removing existing superstructure. The contractor shall saw cut the existing abutments at the stage removal line before stage I removal.
6. Layout of the slope protection may be varied in the field to suit ground conditions as directed by the engineer.

INDEX OF SHEETS

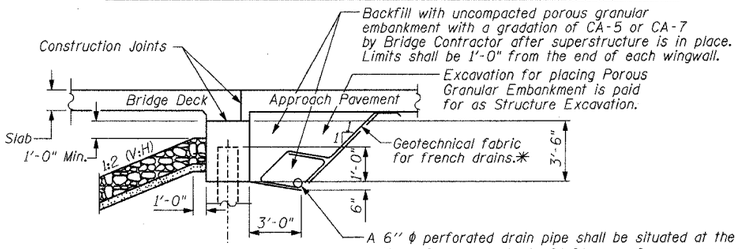
1. General Plan, Notes, Index, & Quantities
2. Stage Construction Details
3. Temporary Concrete Barrier
4. Superstructure
5. Superstructure Details
6. East and West Abutments
7. East and West Abutment Details
8. Pier
9. Pile Details
9A. Bar Splicer Assembly Details
10. Boring Logs



ELEVATION VIEW



PLAN VIEW

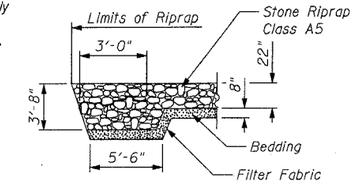


✱Included in the cost of Porous Granular Embankment

A 6" ϕ perforated drain pipe shall be situated at the bottom of an approximate 2'x2' area of porous granular embankment. The 2'x2' area shall be wrapped completely in geotechnical fabric for french drains. Extend pipe parallel with the cap until intersecting with the sideslope. Pipes shall drain onto concrete headwalls (Article 601.05 of the Std. Specifications and Highway Std. 601101)✱

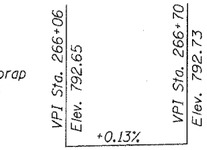
SECTION THRU ABUTMENT

Horizontal Dim. ⊙ Rt. L's



SECTION A-A

Stone Riprap Toe Anchor Detail



PROFILE GRADE

F.A.P. 17
Illinois 64
(Along ℄ Roadway)

LOADING HS20-44

Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

1996 AASHTO with 1997 thru 2002 Interims

DESIGN STRESSES

FIELD UNITS
f'_c = 3,500 psi
f_y = 60,000 psi (reinforcement)

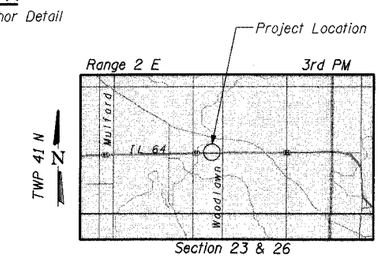
SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.035
Site Coefficient (S) = 1.2

STATION 266+38
BUILT 200_ BY
STATE OF ILLINOIS
FA Rte. 17
SECTION (123WPH) BR-1
LOADING HS20
STR. NO. 071-0091

NAME PLATE

See Std. 515001



LOCATION SKETCH

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

ANTHONY J. STANICH 061-005819 LICENSED STRUCTURAL ENGINEER STATE OF ILLINOIS

WATERWAY INFORMATION

Drainage Area = 4.189 sq. mi. Low Grade Elev. 791.60 ⊙ Sta. 263+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat.H.W.EL. Exist.	Head-Ft. Exist.	Head-Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Design	50	1021	237.8	272.2	788.59	1.36	1.33	789.95	789.92
Base	100	1163	244.7	284.2	788.82	1.37	1.31	790.19	790.13
Overtopping									
Max. Calc.	500	1499	247.7	288.8	788.92	2.01	2.05	790.93	790.97

DESIGNED	KJW
CHECKED	AJS
DRAWN	KJW
CHECKED	AJS

STRAND ASSOCIATES, INC. ENGINEERS

ILLINOIS DEPARTMENT OF TRANSPORTATION
GENERAL PLAN, NOTES, INDEX, & QUANTITIES
IL 64 OVER TRIBUTARY TO KILBUCK CREEK
F.A.P. RTE. 17 SECTION (123WPH) BR-1
OGLE COUNTY
STA. 266+38
S.N. 071-0091

SCALE: DATE: 06/22/2004