

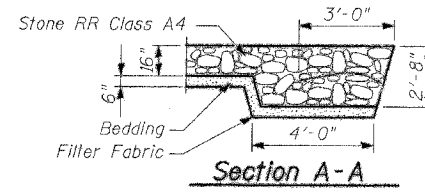
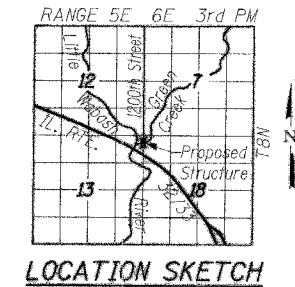
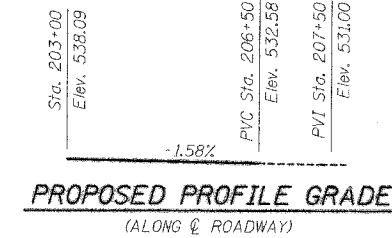
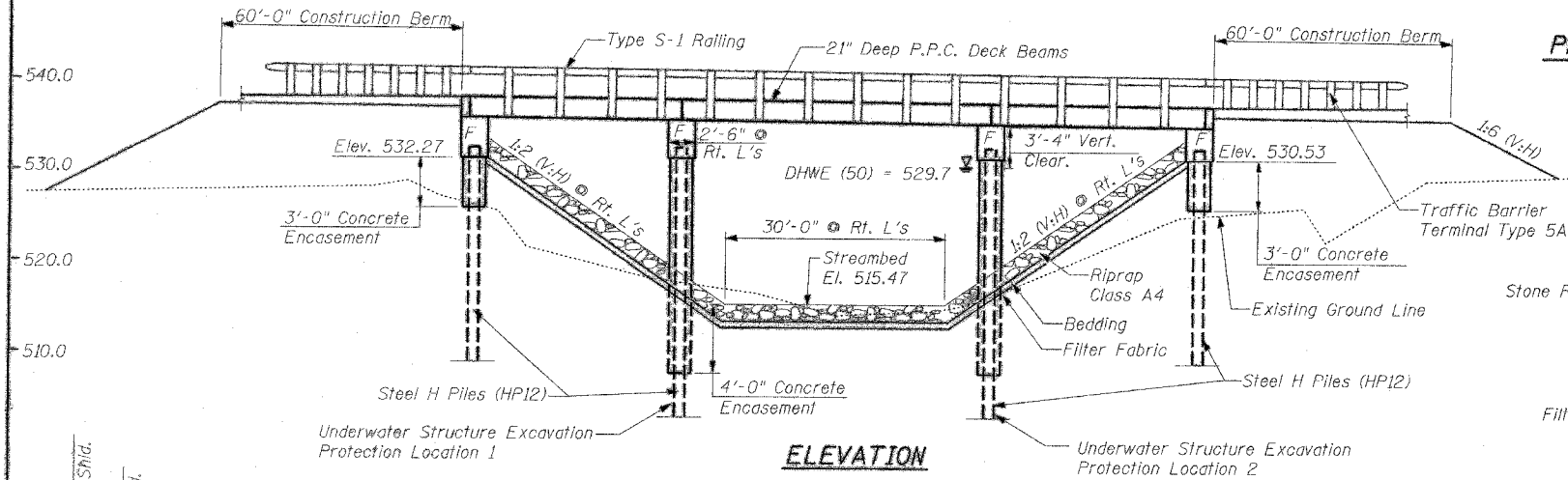
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET NO. 1
FAP 774	107B-2	EFFINGHAM	273	256
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				

Bench Mark : Chiseled "a" above bridge name plate on SN025-0077 (IL 32/33 overflow structure) Elev. 543.66
Existing Structure : SN 025-3161, built in 1982 as TR-160 SEC. 80-03109-00-BR at Sta. 50+12.
Single span precast reinforced concrete deck beam bridge abutments on steel H-piling, 80'-0" back to back of abutments, 25'-0" overall width. The existing structure shall remain open to traffic until the proposed structure and relocated road are open to traffic; the existing structure and roadway shall then be removed.
No staging is required.
Proposed Structure: Three span PPC Deck Beam Structure on pile bent abutments and pile bent piers.
Salvage : Deck beams and railing to be salvaged and delivered to a location (within 15 miles travel distance) designated by the Douglas Township Commissioner, Mr. Clem Kaufman Maintenance Building; (217) 347-5734 Cell Phone: (217) 254-5734

STATION 204+33.91
BUILT 200 BY
STATE OF ILLINOIS
TR 160
SECTION 107B-2
LOADING HS20
STR. NO. 025-3309
NAME PLATE
Locate Name Plate at Southeast Corner of Bridge (See Std. CN)

- GENERAL NOTES**
- The Contractor shall drive 2 HP12 test piles, as specified, in a permanent location, one at the North Abutment and one at Pier #1, as directed by the Engineer before ordering the remaining piles.
 - Class SI Concrete shall be used throughout except in the deck beams.
 - Layout of the slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
 - The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of abutments.
 - All construction joints shall be bonded.

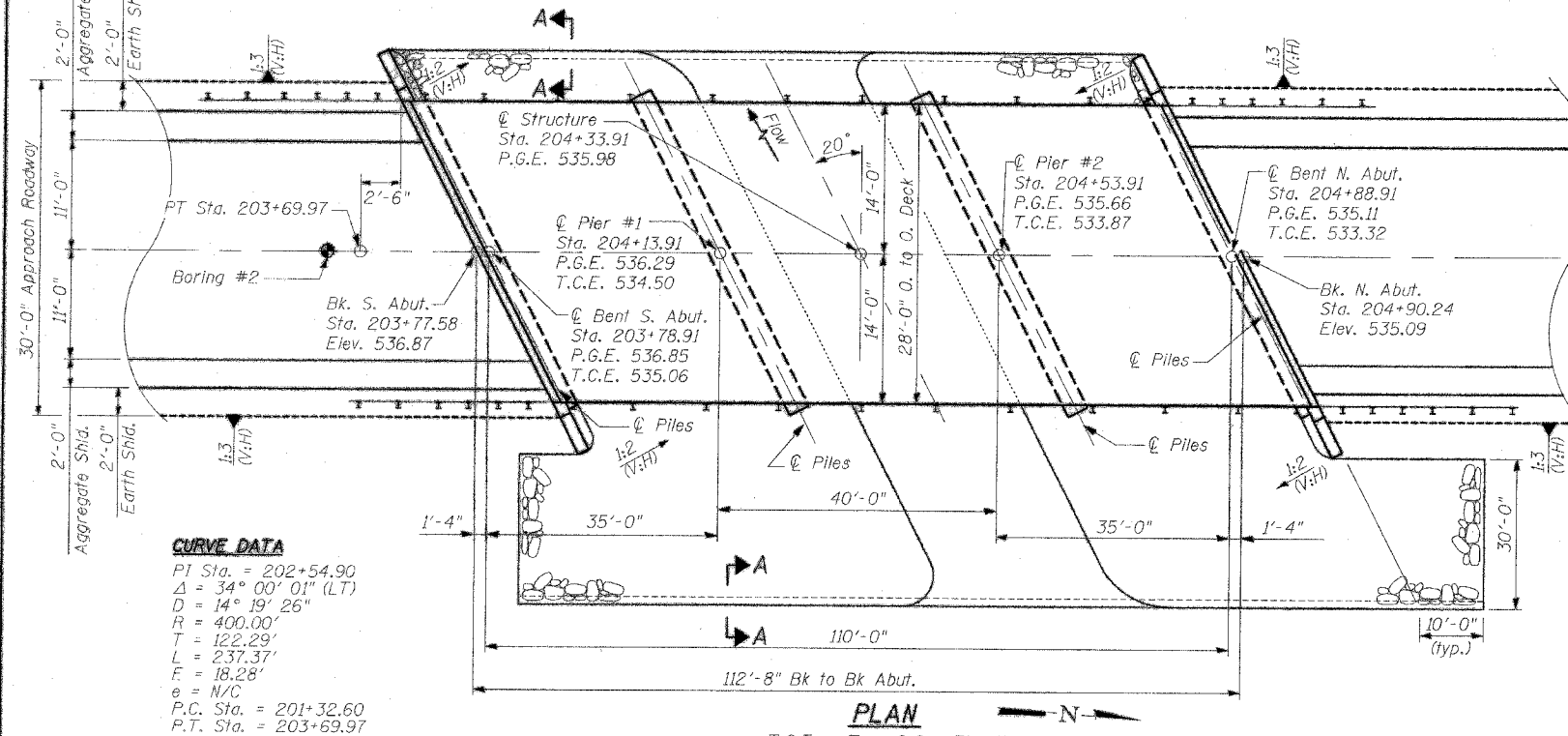


WATERWAY INFORMATION
(Without Little Wabash River Backwater Effects)

Drainage Area = 41.80 Sq. Miles Existing Low Grade Elev. - 529.70 ft. @ Sta. 147+82 (Existing 1200th Street)
Proposed Low Grade Elev. - 531.00 ft. @ Sta. 208+50 (Realigned 1200th Street)

Flood	Freq. Yr.	Discharge C.F.S.	Opening Sq. Ft.		Ex. Nat. H.W.E.		Pr. Nat. H.W.E.		Head - Ft.		Headwater El.	
			Exist.	Prop.	H.W.E.	H.W.E.	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
Design	10	3748	492	703	526.9	528.0	529.7	529.7	0.4	0.3	527.3	528.3
Base	50	5636	625	845	528.7	529.7	529.7	529.7	0.1	0.7	528.8	530.4
Ex. Overtop	100	6428	688	904	529.6	530.4	529.6	530.4	0.2	0.7	529.8	531.1
Pr. Overtop	5+	3050	431	-	525.9	-	525.9	-	0.3	-	526.2	-
	5+	3050	-	624	-	-	527.0	-	0.0	-	527.0	-

10 Year Velocity through Existing Bridge = 7.62fps
10 Year Velocity through Proposed Bridge = 5.33fps



CURVE DATA
PI Sta. = 202+54.90
Δ = 34° 00' 01" (LT)
D = 14' 19" 26"
R = 400.00'
T = 122.29'
L = 237.37'
E = 18.28'
e = N/C
P.C. Sta. = 201+32.60
P.T. Sta. = 203+69.97

DESIGNED	TMM
CHECKED	KCM
DRAWN	CAR
CHECKED	TMM

SEISMIC DATA
Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.070g
Site Coefficient (S) = 1.5

LOADING HS20-44
Allow 50#/sq. ft. for future wearing surface.

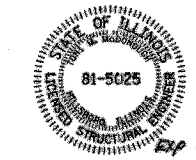
DESIGN SPECIFICATIONS
2002 AASHTO

DESIGN STRESSES

FIELD UNITS
f_c = 3,500 psi
f_y = 60,000 psi (reinforcement)

PRECAST PRESTRESSED UNITS
f_c = 5,000 psi
f_{ci} = 4,000 psi
f_s = 270 ksi (1/2" Dia. stress relieved strands)
f_{si} = 189 ksi (1/2" Dia. stress relieved strands)

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



Toni M. McDonough 9-12-03
Date
Toni M. McDonough
Licensed Structural Engineer
State of Illinois No. 81-5025
License Expires 11/30/04

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub.		Total
			Piers	Abuts.	
Removal of Existing Structures	Each	--	--	--	1
Concrete Structures	Cu. Yd.	--	15.4	22.0	37.4
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	3101.0	--	--	3101
Steel Railing, Type S1	Foot	222	--	--	222
Reinforcement Bars, Epoxy Coated	Pound	--	1784	2762	4546
Furnishing Steel Piles HP12x53	Foot	--	374	306	680
Driving Steel Piles	Foot	--	374	306	680
Test Pile Steel HP12x53	Each	--	1	1	2
Name Plates	Each	--	--	--	1
Concrete Encasement	Cu. Yd.	--	27.9	3.5	31.4
Stone Riprap, Class A4	Sq. Yd.	--	--	--	1088
Filter Fabric For Use With Riprap	Sq. Yd.	--	--	--	1088
Structure Excavation	Cu. Yd.	--	--	71	71
Porous Granular Embankment	Cu. Yd.	--	--	53	53
Underwater Structure Excavation Protection Location 1	Each	--	1	--	1
Underwater Structure Excavation Protection Location 2	Each	--	1	--	1

GENERAL PLAN & ELEVATION
1200th STREET OVER GREEN CREEK
FAP RTE. 774, SECTION 107B-2
EFFINGHAM COUNTY
STATION 204+33.91
S.N. 025-3309