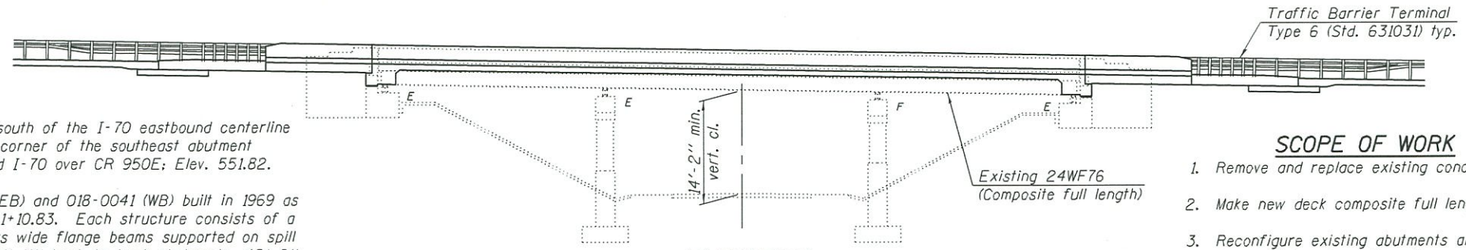
Benchmark: BM 803 - Station 251+35. 22' south of the I-70 eastbound centerline of roadway. chiseled square on the northeast corner of the southeast abutment wingwall on S.N. 018-0040. carrying eastbound I-70 over CR 950E; Elev. 551.82.

Existing structure: Structure No. 018-0040 (EB) and 018-0041 (WB) built in 1969 as F.A.I. Rte. 70. Section 18-45HB-1 at Sta. 251+10.83. Each structure consists of a reinforced concrete deck on 3 span continuous wide flange beams supported on spill through abutments and multi-column piers. 101'-11" back-to-back abutments. 42'-0" out-to-out. Deck is to be removed and replaced. Traffic is to be maintained utilizing stage construction.

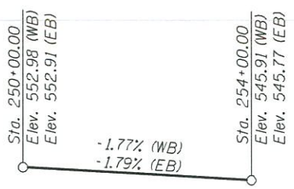
Salvage: None



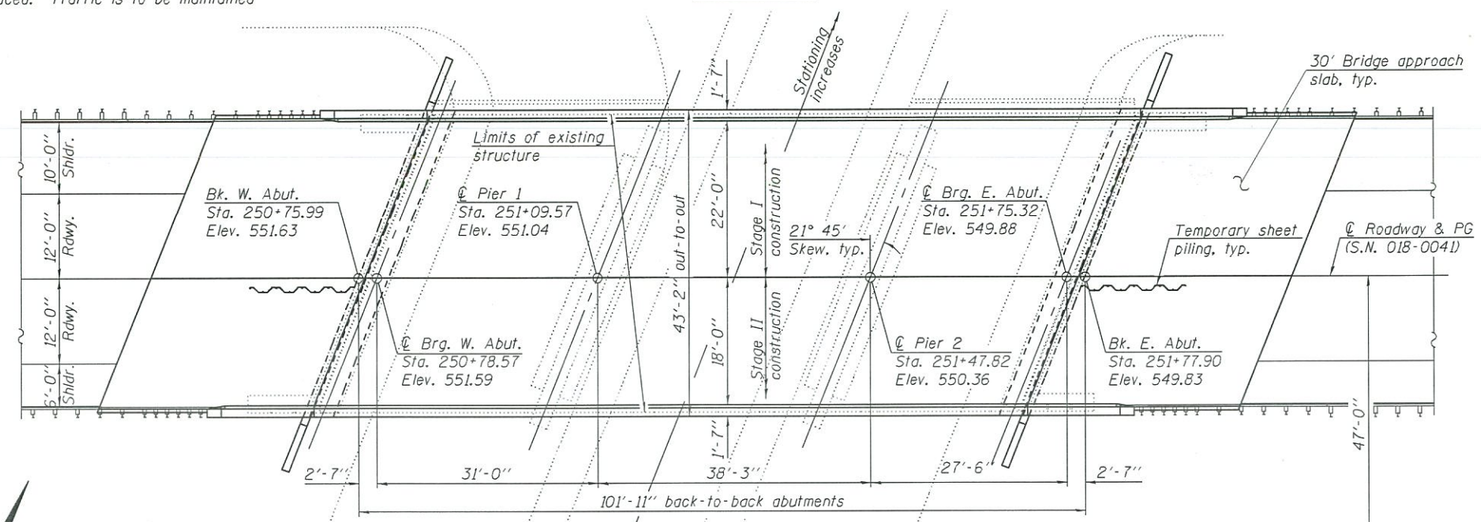
ELEVATION

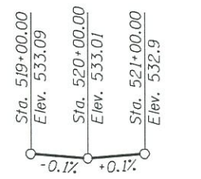
SCOPE OF WORK

1. Remove and replace existing concrete deck.
2. Make new deck composite full length.
3. Reconfigure existing abutments and wingwalls to semi-integral configuration.

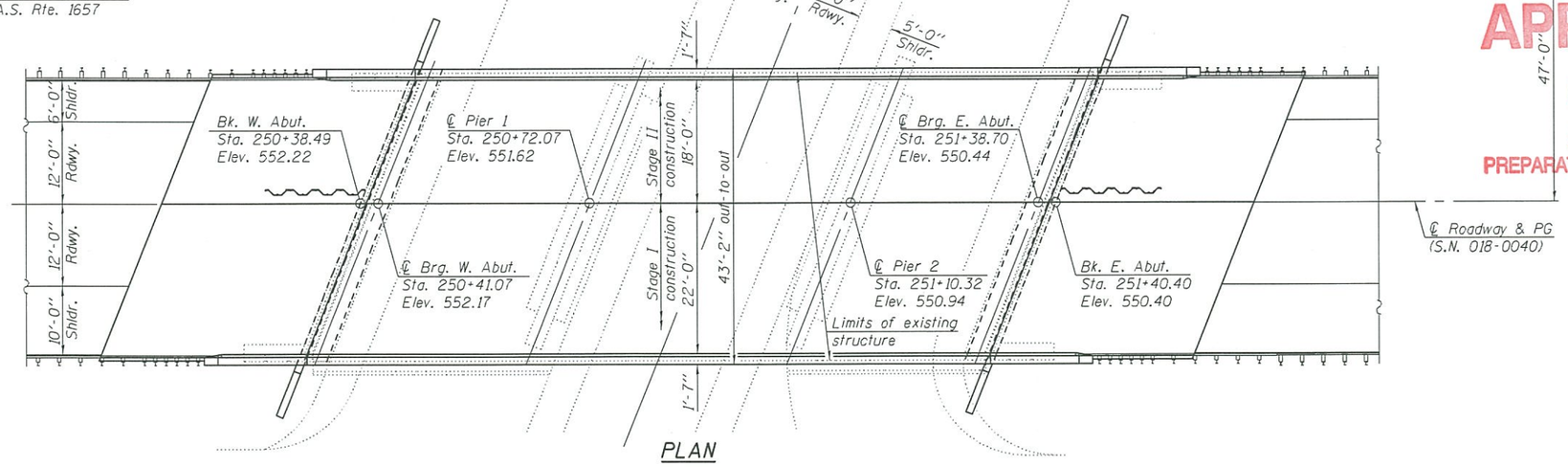


PROFILE GRADE
F.A.I. Rte. 70





PROFILE GRADE
F.A.S. Rte. 1657



PLAN

APPROVED
OCT 18 2013
AS A BASIS FOR
PREPARATION OF DETAILED PLANS

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges

DESIGN STRESSES

FIELD UNITS (New construction)
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

FIELD UNITS (Existing construction)
f'c = 3,500 psi
fy = 40,000 psi (Reinforcement)
fy = 36,000 psi (Structural steel)

HIGHWAY CLASSIFICATION

F.A.I. Rte. 70 - I-70
Functional Class: Interstate
ADT: 9700 (2010); 15600 (2026)
ADTT: 45%
DHV: 1057
Design Speed: 60 m.p.h.
Posted Speed: 65 m.p.h.
One-Way Traffic

HIGHWAY CLASSIFICATION

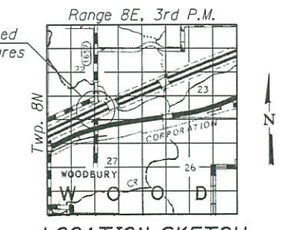
F.A.S. Rte. 1657 - Rte. 950 E.
Functional Class: Major Collector (Non-Urban)
ADT: 300 (2006); 500 (2026)
ADTT: 10%
DHV: 39
Design Speed: 55 m.p.h.
Posted Speed: Not posted
Two-Way Traffic
Directional Distribution: 50:50

LOADING HS20-44 & ALT.

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

SEISMIC DATA

Seismic Performance Category (SPC) = A
Horizontal Bedrock Acceleration Coefficient (A) = 0.065 g
Site Coefficient (S) = 1.0



LOCATION SKETCH

GENERAL PLAN & ELEVATION
I-70 OVER F.A.S. ROUTE 1657
F.A.I. ROUTE 70 - SEC. (18-45HB-1)BR
CUMBERLAND COUNTY
STATION 251+09.95
STRUCTURE NO. 018-0040 (EB)
STRUCTURE NO. 018-0041 (WB)

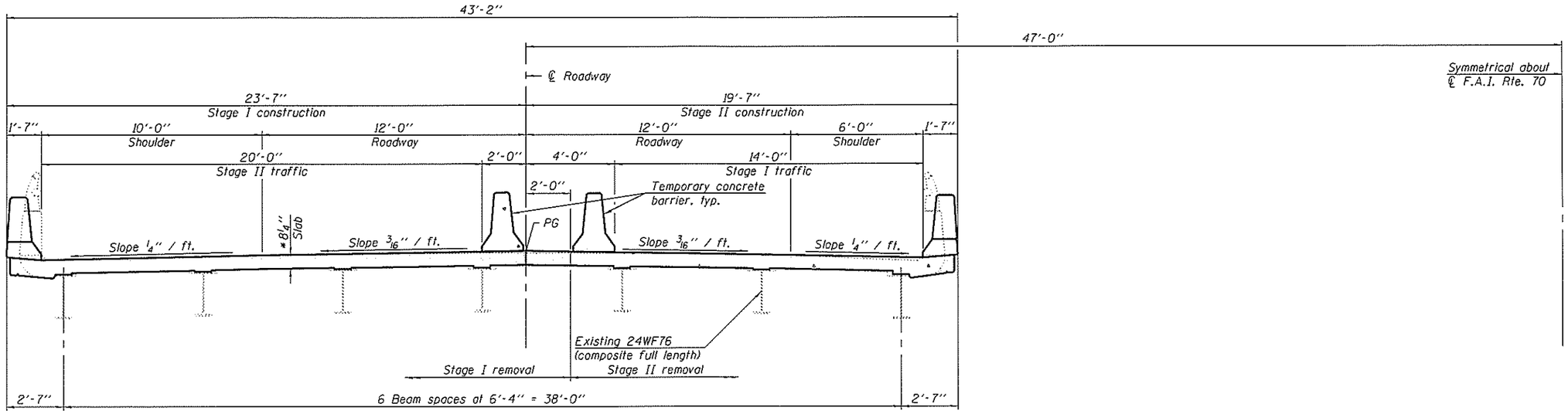
DESIGNED -	TOM L. KURTENBACH
CHECKED -	SCOTT D. SANDFORD
DRAWN -	MICHAEL B. MOSSMAN
CHECKED -	SCOTT D. SANFORD

11/5/2013

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 2 SHEETS

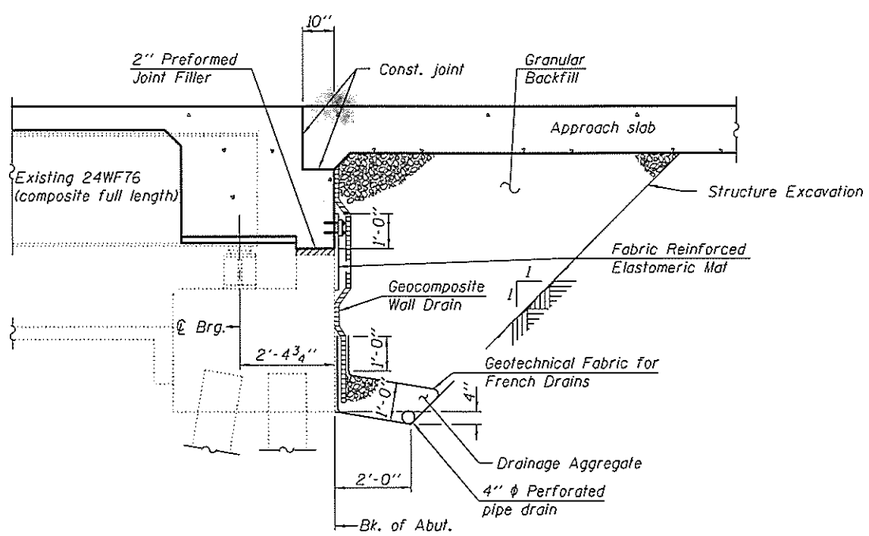
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	(18-45HB-1)BR	CUMBERLAND		
		CONTRACT NO. 74187		
		ILLINOIS FED. AID PROJECT		



* Use Bridge Smoothness Specification.

CROSS SECTION

(Looking east at S.N. 018-0041)



SECTION THRU SEMI-INTEGRAL ABUTMENT

(Horiz. dim. @ Rt. L's)

DETAILS
I-70 OVER F.A.S. ROUTE 1657
F.A.I. ROUTE 70 - SEC. (18-45HB-1)BR
CUMBERLAND COUNTY
STATION 251+09.95
STRUCTURE NO. 018-0040 (EB)
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11/5/2013

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 2 OF 2 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	(18-45HB-1)BR	CUMBERLAND	____	____
		CONTRACT NO. 74187		
		ILLINOIS FED. AID PROJECT		