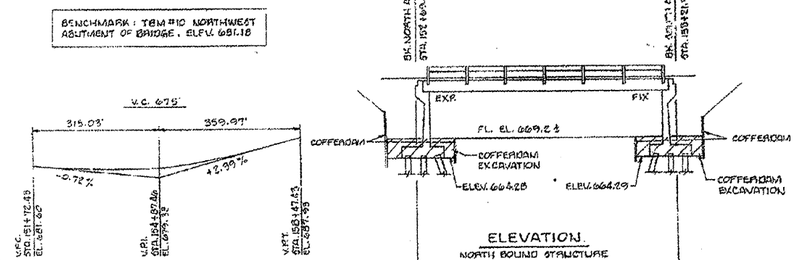
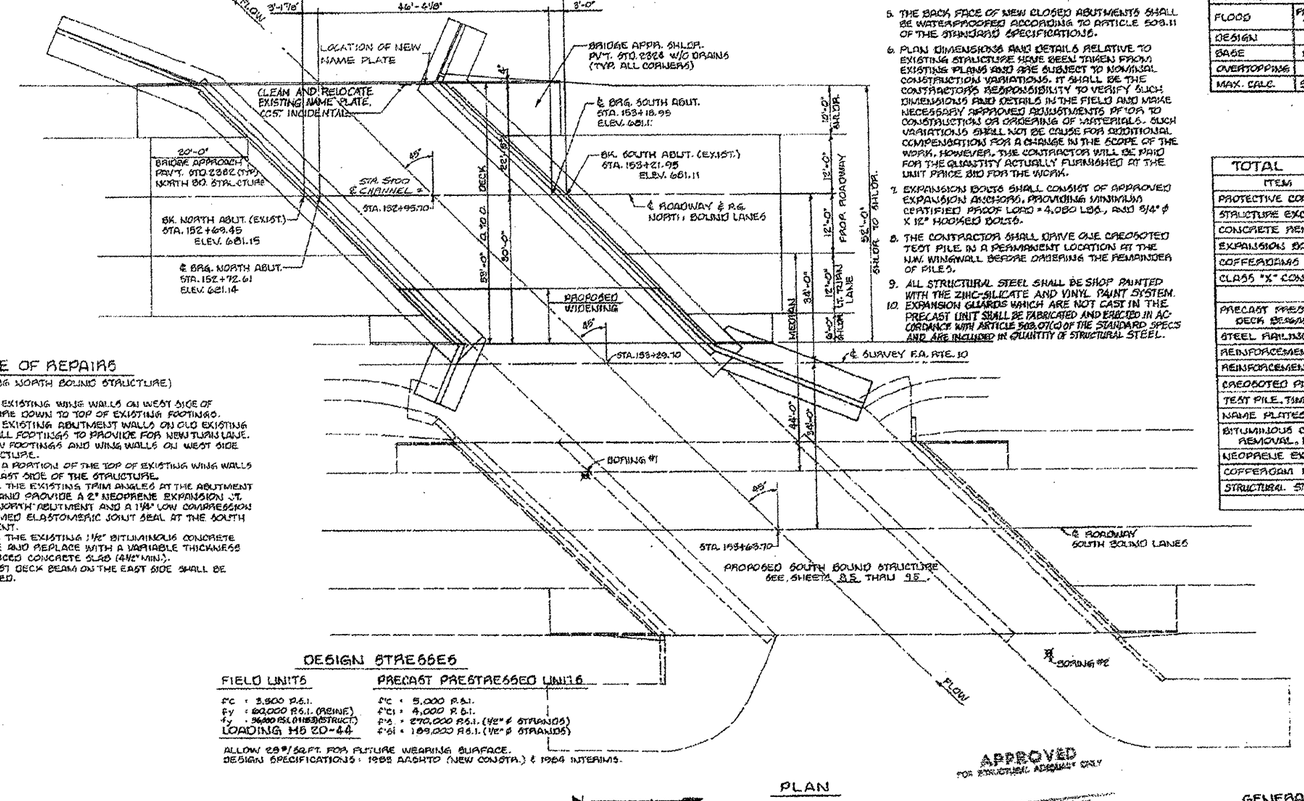
BENCHMARK : TBM #10 NORTHWEST ABUTMENT OF BRIDGE . ELEV. 681.18



PROFILE GRADE
ALONG ℄ SURVEY

ELEVATION
NORTH BOUND STRUCTURE



SCOPE OF REPAIRS
(EXISTING NORTH BOUND STRUCTURE)

1. REMOVE EXISTING WING WALLS ON WEST SIDE OF STRUCTURE DOWN TO TOP OF EXISTING FOOTING. EXTEND EXISTING ABUTMENT WALLS ON OLD EXISTING WING WALL FOOTINGS TO PROVIDE FOR NEW TURN LANE. ADD NEW FOOTINGS AND WING WALLS ON WEST SIDE OF STRUCTURE.
   MODIFY A PORTION OF THE TOP OF EXISTING WING WALLS ON THE EAST SIDE OF THE STRUCTURE.
2. REMOVE THE EXISTING TRIM ANGLES AT THE ABUTMENT JOINTS AND PROVIDE A 2" NEOPRENE EXPANSION JT. AT THE NORTH ABUTMENT AND A 1 1/8" LOW COMPRESSION PREFORMED ELASTOMERIC JOINT SEAL AT THE SOUTH ABUTMENT.
3. REMOVE THE EXISTING 1 1/2" BITUMINOUS CONCRETE SURFACE AND REPLACE WITH A VARIABLE THICKNESS REINFORCED CONCRETE SLAB (4 1/2" MIN.).
4. THE FIRST DECK BEAM ON THE EAST SIDE SHALL BE REPLACED.

DESIGN STRESSES

FIELD UNITS		PRECAST PRESTRESSED UNITS	
f'c	= 3,500 P.S.I.	f'c	= 5,000 P.S.I.
fy	= 60,000 P.S.I. (REINF.)	f'ci	= 4,000 P.S.I.
fy	= 36,000 PSI (INTEGRAL)	fps	= 270,000 P.S.I. (1/2" ϕ STRANDS)
LOADING MS 20-44		f'ci	= 189,000 P.S.I. (1/2" ϕ STRANDS)

ALLOW 29#/SQ.FT. FOR FUTURE WEARING SURFACE.
DESIGN SPECIFICATIONS : 1998 AASHTO (NEW CONSTR.) & 1984 INTERIMS.

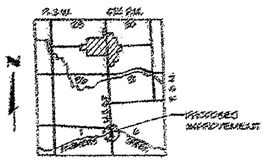
N

PLAN

EXISTING STRUCTURE : 4055-0003 IS 52'-0" LONG BY 42'-0" WIDE . BUILT AS S.B.I. RTE. 3, SECTION 38.8A AT STA. 152+95.70 IN 1964. TRAFFIC SHALL BE MAINTAINED ON THE NEW SOUTH BOUND STRUCTURE DURING THE REHABILITATION OF THE EXISTING NORTH BOUND STRUCTURE.

GENERAL NOTES :

1. SEE PROPOSAL FOR BORING DATA.
2. THE TOP SURFACE OF THE NEW BEAMS SHALL BE FINISHED IN ACCORDANCE WITH ARTICLE 505.06 OF THE STANDARD SPECIFICATIONS EXCEPT THAT THE SURFACE SHALL NOT BE ROUGHENED BY BROOMING. THE FINISHED SURFACE SHALL BE FREE OF DEPRESSIONS OR HIGH SPOTS WITH SHARP CORNERS, AND THE TOP EDGE OF KEYS SHALL BE ROUNDED OR CHAMFERED A MINIMUM OF 1/2".
3. A CALCIUM NITRITE CORROSION INHIBITOR, AS COVERED IN THE SPECIAL PROVISIONS, SHALL BE USED IN THE CONCRETE FOR PRECAST PRESTRESSED CONCRETE DECK BEAMS.
4. REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-31 OR M-53 GRADE 60.
5. THE BACK FACE OF NEW CLOSED ABUTMENTS SHALL BE WATERPROOFED ACCORDING TO ARTICLE 503.11 OF THE STANDARD SPECIFICATIONS.
6. PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING STRUCTURE HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO NORMAL CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF THE WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.
7. EXPANSION JOINTS SHALL CONSIST OF APPROVED EXPANSION ANCHORS, PROVIDING MINIMUM CERTIFIED PROOF LOAD = 4,050 LBS., AND 3/4" ϕ X 12" HOOKED BOLTS.
8. THE CONTRACTOR SHALL DRIVE ONE CREOSOTED TEST PILE IN A PERMANENT LOCATION AT THE N.W. WINGWALL BEFORE DRIVING THE REMAINDER OF PILES.
9. ALL STRUCTURAL STEEL SHALL BE SHOP PAINTED WITH THE ZINC-SILICATE AND VINYL PAINT SYSTEM.
10. EXPANSION GUARDS WHICH ARE NOT CAST IN THE PRECAST UNIT SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH ARTICLE 508.07(C) OF THE STANDARD SPECS AND ARE INCLUDED IN QUANTITY OF STRUCTURAL STEEL.



LOCATION SKETCH

WATERWAY INFORMATION

DRAINAGE AREA: 6.25 SQ.MI. LOW GRADE EL. 669.7 @ BK. SOUTH

FLOOD	FREQ. YR.	Q C.F.S.	OPENING SQ. FT. EXIST.	OPENING SQ. FT. PROP.	HWE.	HEAD - FT. EXIST.	HEAD - FT. PROP.	DISCHARGE V. EXIST.	DISCHARGE V. PROP.
DESIGN	50	1220	150	150	676.6	1.28	1.88	678.28	678.48
BASE	100	1503	150	150	676.9	1.58	1.62	678.52	678.52
OVERTOPPING									
MAX. CALC.	500	1829		123	677.4		1.98		677.38

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER.	SUB	TOTAL
PROTECTIVE COAT	SQ.YD.	301	——	301
STRUCTURE EXCAVATION	CU.YD.		35	35
CONCRETE REMOVAL	CU.YD.	——	99.1	99.1
EXPANSION JOINTS (SHOP)	EACH	——	101	101
COFFERDAMS	EACH	——	2	2
CLASS "X" CONCRETE	CU.YD.	50.9	91.4	142.3
PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH)	SQ.FT.	672	——	672
STEEL RAILING TYPE S-1	L.IN.FT.	108	——	108
REINFORCEMENT BARS	POUND	540	6610	6450
REINFORCEMENT BARS (EPOXY COATED)	POUND	2850	——	2850
CREOSOTED PILES (22.5' TO 30')	LIN.FT.	——	575	575
TEST PILE, TIMBER	EACH	——	1	1
NAME PLATES	EACH	1	——	1
BITUMINOUS CONCRETE SURFACE REMOVAL, 1 1/2"	SQ.YD.	293	——	293
NEOPRENE EXPANSION JOINT, 2"	L.IN.FT.	78	——	78
COFFERDAM EXCAVATION	CU.YD.	——	390	390
STRUCTURAL STEEL	POUND	[illegible]		[illegible]

STATION 153+29.70
PRODUCT 1985... BY
STATE OF ILLINOIS
F.A.P. RTE. 10 SEC. 38 B-2
LOADING MS 20
STR. NO. 055-0003

NAME PLATE
SEE STANDARD 2115

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
DEPARTMENT OF TRANSPORTATION

Frederick D. Beery
FREDERICK D. BEERY E.E. 25564
8/16/11

GENERAL PLAN - U.S. RTE. 67 OVER FARMERS CREEK

F.A. RTE. 10 SEC. 38 B-2 NORTH BOUND MCDONOUGH COUNTY	AUSTIN ENGINEERING CO., INC.

FILE NAME = P:\07files\070286\Phase2\CADD Sheets\D468691-sht-exbridge.dgn	USER NAME = sab	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 100.1210 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 12/7/2011	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

SCALE: none | SHEET NO. 2 OF 6 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	(38B-2)BR	MCDONOUGH	130	53
		CONTRACT NO. 68691		
	ILLINOIS FED. AID PROJECT			