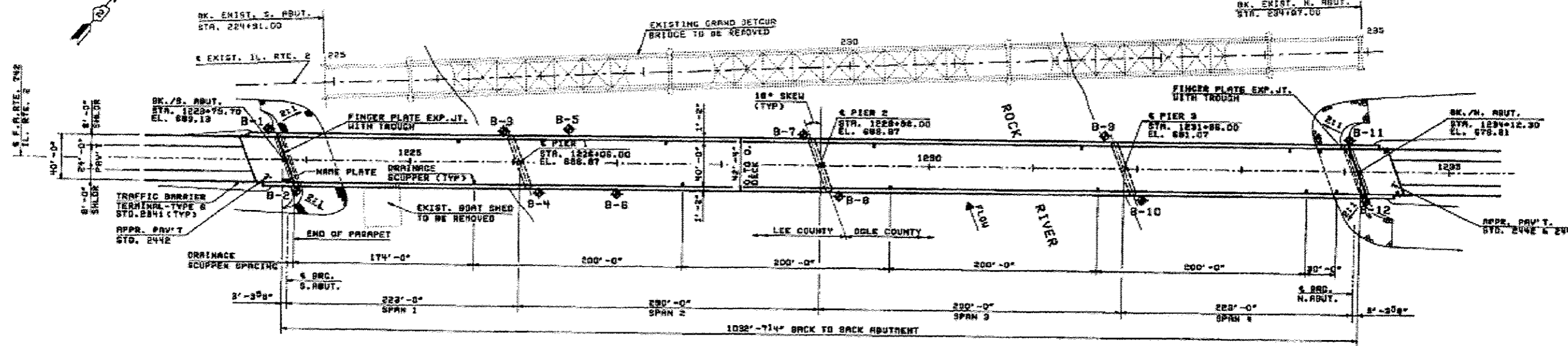
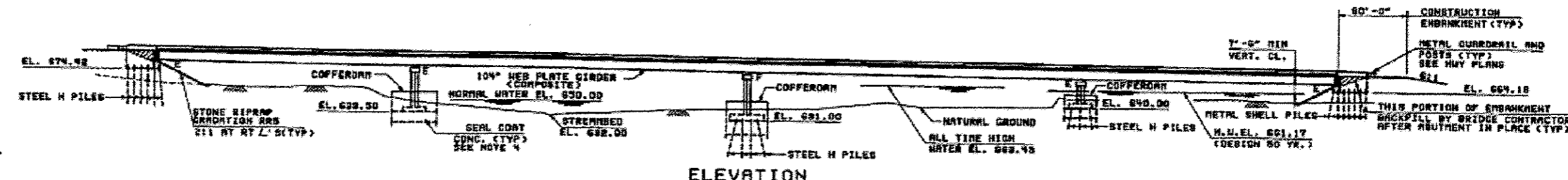


052-0063

BENCH MARK:
 CHISELED SQUARE, EAST END OF EXISTING
 SOUTH ABUTMENT AT STA. 224+90 (ALONG EXIST. 2)
 20' RT. ELEV. 660.47.

FOR INFORMATION ONLY

SHEET NO. 1 OF 30	ROUTE NO. 742	SECT. 39RB-1	COUNTY	SHEET NO.	TOTAL SHEETS
			LEE & OGLE	86	25
ILLINOIS FED. AID PROJECT					



EXISTING STRUCTURE
 STRUCTURE NO. 052-0036 SECTION 39RB-1
 GRAND DETOUR BRIDGE ON IL. RTE. 2 AT
 STA. 228+89 (ALONG EXIST. 2), BUILT IN 1947.
 SUPERSTRUCTURE: 3 TIED ARCH SPANS & 2 PLATE
 GIRDER APPROACH SPANS WITH
 CONCRETE FILLED GRATING DECK.
 SUBSTRUCTURE:
 4 PIERS WITH HEAVILY CONNECTING
 TWO OUTSIDE COLUMNS AND ABUTMENTS
 WITH WALL CONNECTING THREE COLUMNS.
 EXISTING BRIDGE TO BE REMOVED AFTER NEW BRIDGE IS
 OPEN TO TRAFFIC.

DESIGN STRESSES
 STRUCTURAL STEEL: LOAD FACTOR DESIGN
 σ = 50,000 PSI - A770 GRADE 50
 σ = 58,000 PSI - A770 GRADE 36
 CONCRETE: LOAD FACTOR DESIGN
 f' = 8,500 PSI
 f_y = 60,000 PSI (REINFORCEMENT)

DESIGN SPECIFICATIONS
 1989 AASHTO, 1990 & 1991 INTERIM SPECIFICATIONS
 LOADINGS:
 HS 20-44
 ALLOW 65 LB/90.FT. FOR FUTURE
 WEARING SURFACE
 DESIGN FORCES FOR
 SEISMIC PERFORMANCE CATEGORY - A
 FATIGUE: 500,000 CYCLES (TRUCK LOADING)
 100,000 CYCLES (LANE LOADING)



Kishor R. Patel
 KISHOR R. PATEL
 STRUCTURAL PROJECT ENGINEER
 EXPIRES 11/30/04

- NOTES:**
- FOR GENERAL NOTES, INDEX OF DRAWINGS, TOTAL BILL OF MATERIAL AND STONE RIPRAP DETAILS SEE DWG. NO. GD-02.
 - FOR BORING LOGS SEE DWG. NOS. GD-03, GD-04 & GD-05.
 - FOR REMOVAL AND REPLACEMENT OF UNSUITABLE SOIL AT NORTH ABUTMENT SEE ROADWAY DRAWINGS.
 - SEAL COAT CONCRETE IS DESIGNED FOR WATER ELEVATION (661.17 + 0.50/2) = 663.5 ELEVATION. CONTRACTOR SHALL CHECK THE SEAL COAT CONCRETE THICKNESS IN ACCORDANCE WITH ARTICLE 502.07 OF THE CONSTRUCTION MANUAL.

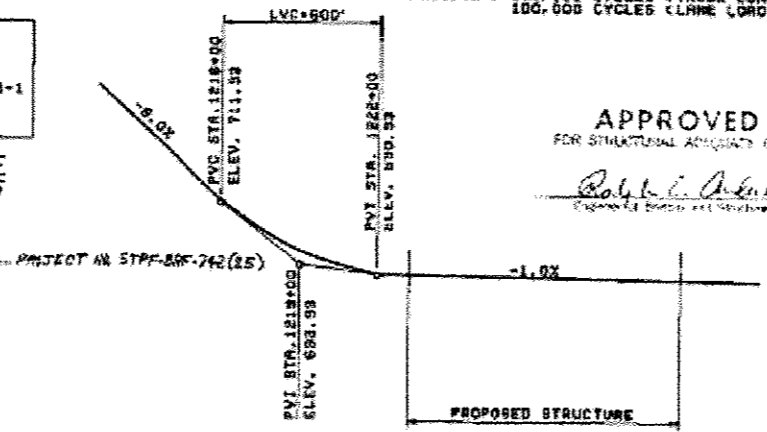
STATION 1228+90
 BUILT 1990 BY
 STATE OF ILLINOIS
 F.R. RT. 742 SEC. 39RB-1
 LOADING 11520
 STR. NO. 052-0063

NAME PLATE
 (SEE STANDARD 2110)

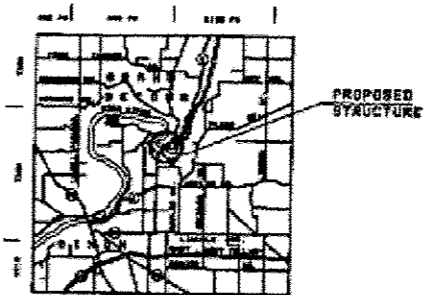
APPROVED
 FOR STRUCTURAL ADOPTION ONLY
Robert J. Adams
 ENGINEER OF BRIDGE AND STRUCTURES

WATERWAY INFORMATION

FLOOD	FREQ. YR.	Q C.F.S.	LOW GRADE ELEV. 667.82 AT STA. 228+97.85		ALONG EXISTING IL. RTE. 2		OPENING 59. FT.		HEAD-FT.		HEADWATER EL.	
			EXIST.	PROP.	H.W.C.	EXIST.	PROP.	EXIST.	PROP.			
DESIGN	50	54,000	13,220	13,640	661.15	0.01	0.01	661.16	661.17			
BASE	100	58,200	13,920	14,370	661.90	0.02	0.01	661.92	661.92			
OVERTOPPING	500+		15,340	15,850								
MAX. CALD.	500	70,900			669.41	0.02	0.01	669.43	669.43			



PROFILE GRADE
 F.R. RTE. 742 (IL. RTE. 2)
 (ALONG & ROADWAY)



LOCATION PLAN

REVISION	DATE	DESCRIPTION

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 BRIDGE PLANS
 GENERAL PLAN & ELEVATION
 GRAND DETOUR BRIDGE
 OVER ROCK RIVER
 F.R. RTE. 742 SECTION 39RB-1
 STA. 1228+96 LEE & OGLE COUNTIES
 STRUCTURE NUMBER 052-0063
 STEINMARK BOYNTON INC.
 CONSULTING ENGINEERS - CHICAGO, ILLINOIS

DRAWING NO.	SCALE	DATE	SHEET NO.
GD-01	N.T.S.	4-19-93	25

IN CHARGE: PCU
 DESIGNED BY: KRP
 CHECKED BY: JG
 ESTIMATED BY:
 CHECKED BY: SBR
 DRAFTED BY: SBR
 CHECKED BY: KRP