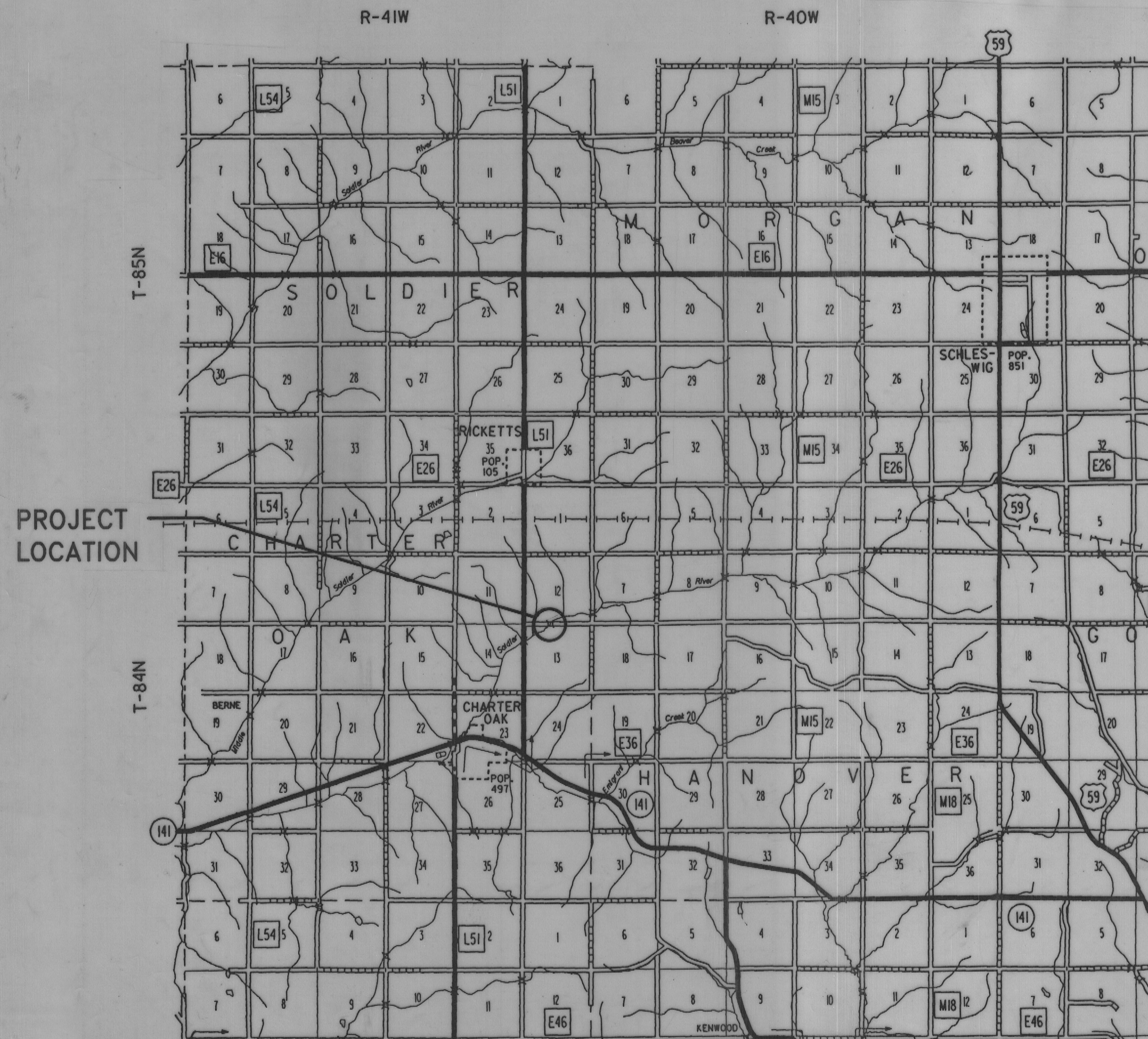


BANK REPAIR AND RIP RAP

PROJECT NO.

CRAWFORD COUNTY

LETTING DATE :



PROJECT LOCATION



THE STANDARD SPECIFICATIONS OF THE IOWA DEPARTMENT OF TRANSPORTATION, SERIES OF 1992, PLUS CURRENT SPECIAL PROVISIONS AND SUPPLEMENTAL SPECIFICATIONS, SHALL APPLY TO WORK ON THIS PROJECT.

BANK REPAIR AND RIP RAP CRAWFORD COUNTY, IOWA

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED UNDER MY SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.
SIGNATURE: *Steven B. Reneker*
NAME: STEVEN B. RENEKER
DATE: 6-7-94 REG. NO. 11455
MY REGISTRATION EXPIRES DECEMBER 31, 1994.

APPROVED

H. Dale Wight 5-31-94
CRAWFORD CO. ENGINEER DATE

INDEX OF SHEETS

1. TITLE SHEET
2. SITUATION PLAN AND GENERAL NOTES

Fred E. Anderson
John P. Lawler
LeRoy A. Hansohn
Eileen Heiden
5-31-94
BOARD OF SUPERVISORS DATE

Done by
Capital Constr.
1994-95

SHEET 1 OF 2



CALHOUN-BURNS & ASSOCIATES, INC. CONSULTING ENGINEERS
WEST DES MOINES, IOWA 50265 (515)224-4344

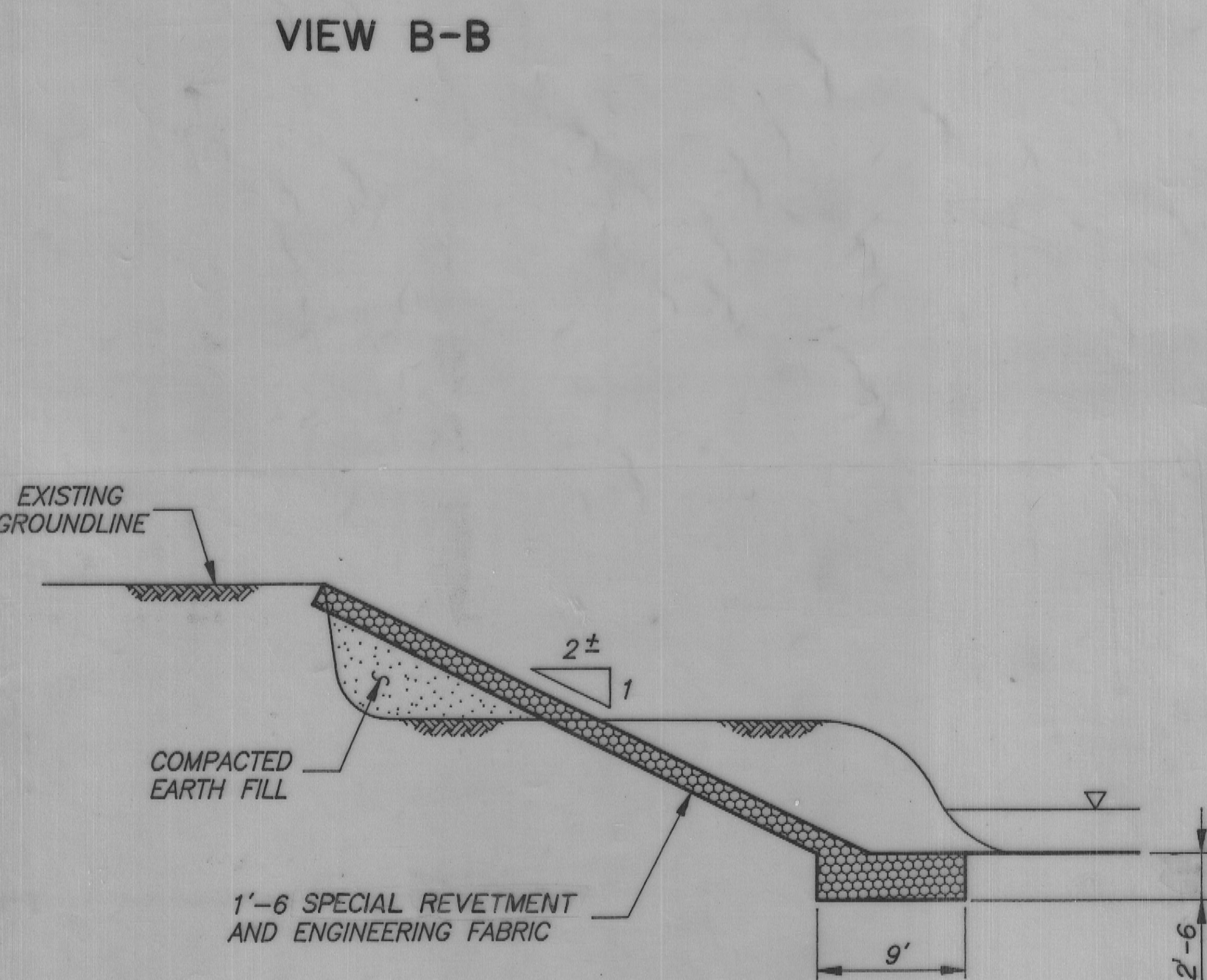
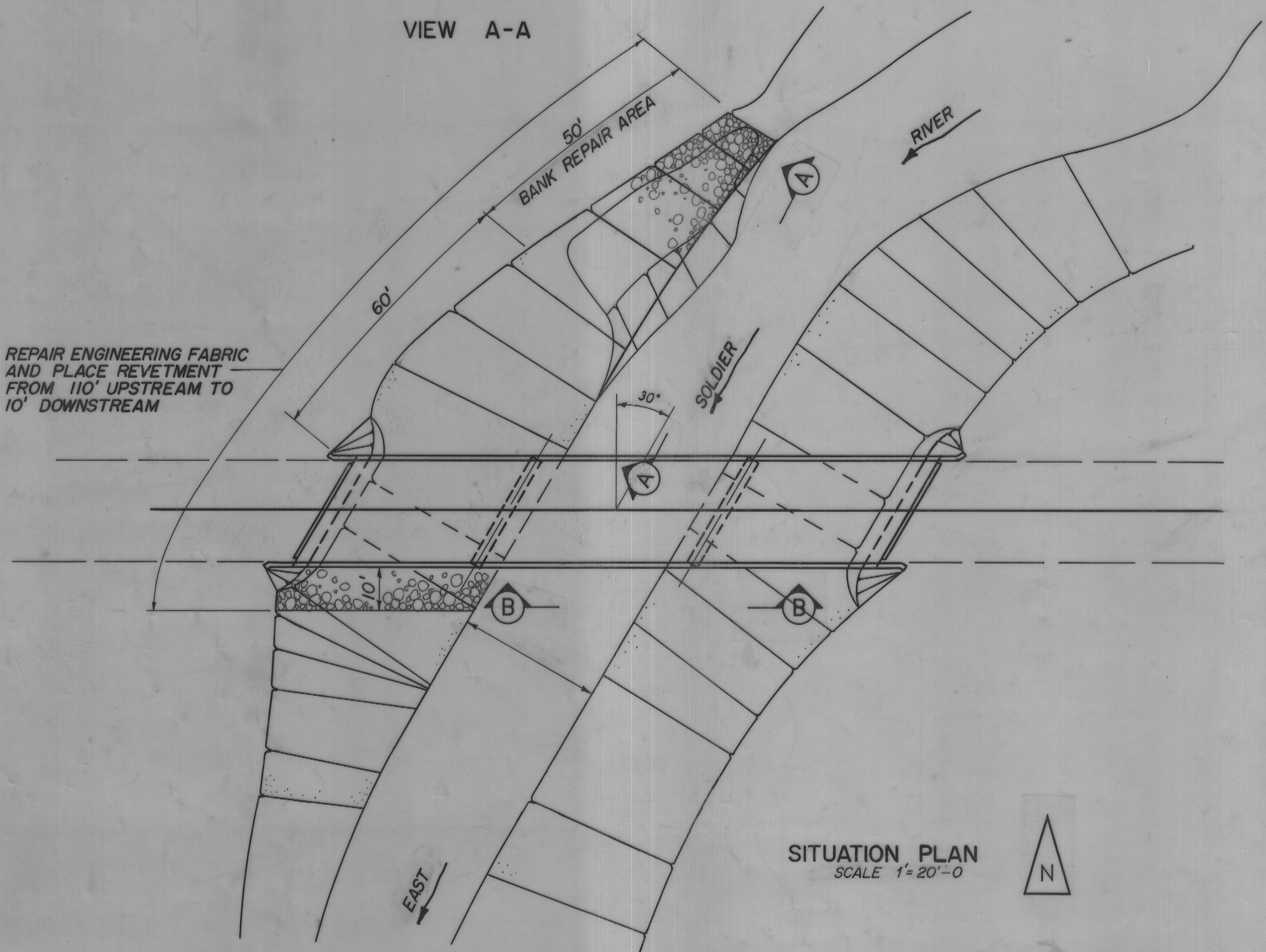
JOB NO. 94098

DESIGNED BY: *SRP*
DRAWN BY: *YCK*
CHECKED BY: *EDS*

DESIGN NO.

CRAWFORD COUNTY

FILE NO.



LOCATION
CRAWFORD COUNTY
T-84N, R-41W
SECTION 12, 13
CHARTER OAK TOWNSHIP
OVER EAST SOLDIER RIVER
DRAINAGE AREA = 32 SQ. MI.

SPECIFICATIONS

CONSTRUCTION: STANDARD SPECIFICATIONS OF THE IOWA DEPARTMENT OF TRANSPORTATION, HIGHWAY DIVISION, SERIES OF 1992, PLUS CURRENT SPECIAL PROVISIONS AND SUPPLEMENTAL SPECIFICATIONS.

GENERAL NOTES

THE SITUATION PLAN IS PROVIDED FOR GENERAL SITE INFORMATION AND QUANTITY ESTIMATING PURPOSES. QUANTITIES SHOWN ARE APPROXIMATE ONLY. PAYMENT WILL BE BASED ON FIELD MEASUREMENTS MADE AT THE TIME OF CONSTRUCTION. SECTIONS SHOWN ON THE SITUATION PLANS ARE INTENDED TO BE TYPICAL FOR A TYPE OF REPAIR AND MAY NOT EXACTLY MATCH EXISTING SITE CONDITIONS.

IN AREAS DEFINED AS "BANK REPAIR AREAS", THE BANKS ARE TO BE SHAPED TO APPROXIMATELY A 2:1 SLOPE. THE SLOPE IS TO BE COVERED WITH ENGINEERING FABRIC AND A UNIFORM 18" THICKNESS OF SPECIAL REVETMENT.

SUITABLE CLASS 10 CHANNEL EXCAVATION MAY BE USED TO SHAPE THE BANKS. THE ENGINEER WILL DETERMINE SUITABLE MATERIAL. THE CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING HIS OWN BORROW FOR ALL FILL MATERIAL NOT AVAILABLE AT THE SITE. THE CONTRACTOR IS TO FAMILIARIZE HIMSELF WITH THE PROVISIONS OF IOWA LAW AS IT APPLIES TO THE REMOVAL AND REPLACEMENT OF TOPSOIL ON BORROW AREAS.

THE CONTRACTOR SHALL SHAPE, FERTILIZE AND SEED THE CONTRACTOR'S WORK AND MATERIAL STORAGE AREA IN ORDER TO RETURN IT TO ITS PRESENT CONDITION. THIS WORK WILL BE CONSIDERED INCIDENTAL TO THE PROJECT.

THE CONTRACTOR WILL BE RESPONSIBLE TO REMOVE ALL REMNANTS OF RIPRAP FROM FARM FIELDS SURROUNDING THE BANK REPAIR SITES. NO ADDITIONAL PAYMENT WILL BE MADE FOR THIS CLEAN-UP ACTIVITY.

ALL UNSALVAGEABLE MATERIAL AND RUBBLE GENERATED DURING THIS PROJECT SHALL BE DISPOSED OF OFF THE HIGHWAY RIGHT-OF-WAY ON A WASTE AREA PROVIDED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER OR BURNED IN ACCORDANCE WITH CURRENT REGULATIONS. THE WASTED MATERIAL MUST NOT CREATE AN UNSIGHTLY CONDITION WHEN VIEWED FROM PUBLIC HIGHWAYS. THE COST OF WASTING OR BURNING UNSALVAGEABLE MATERIAL AND RUBBLE IS TO BE INCLUDED IN THE BID ITEM "REMOVALS, AS PER PLAN". NO PAYMENT WILL BE MADE FOR OVERHAUL.

UTILITY COMPANIES WHOSE FACILITIES ARE KNOWN TO BE WITHIN THE CONSTRUCTION LIMITS SHALL BE NOTIFIED BY THE CONTRACTOR OF THE CONSTRUCTION STARTING DATE.

THE CONTRACTOR SHALL VISIT THE CONSTRUCTION SITE TO ENSURE THAT HE IS FAMILIAR WITH THE EXISTING SITE CONDITIONS. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. SHOULD ANY UNDERGROUND UTILITIES BE FOUND, THEY SHALL BE PROTECTED IN PLACE AND THE ENGINEER SHALL BE IMMEDIATELY NOTIFIED. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO OTHER WORK ON THE PROJECT.

IF ARCHAEOLOGICAL MATERIALS ARE ENCOUNTERED DURING THE CONSTRUCTION PHASE OF THIS PROJECT, THE OFFICE OF PROJECT PLANNING (IDOT) MUST BE CONTACTED IMMEDIATELY SO THE PROPER AUTHORITIES CAN BE NOTIFIED ACCORDING TO THE EXISTING FEDERAL REGULATIONS AND STATE PROCEDURES. ADDITIONALLY, IT SHOULD BE NOTED THAT FINDINGS AND RECOMMENDATIONS FOR CLEARANCE OR FURTHER TESTING CANNOT BE CONSIDERED FINAL UNTIL CONCURRENCE IS RECEIVED FROM THE STATE HISTORICAL PRESERVATION OFFICER. PHONE: OFFICE OF PROJECT PLANNING 515-239-1215.

SPECIAL (RIP-RAP) REVETMENT REQUIRED AT THIS SITE SHALL COMPLY WITH SECTION 2507 OF THE STANDARD SPECIFICATIONS AND THE FOLLOWING:

STONE, WT., POUNDS	MINIMUM % LARGER THAN
1500	0
700	20
400	50
70	80

NO MORE THAN 5% PASSING THE 1/2" SIEVE.

EXCAVATION, CLASS 10, ROADWAY AND BORROW IS TO INCLUDE REMOVAL OF THE EXISTING RIP-RAP AND ENGINEERING FABRIC WITHIN THE LIMITS DESCRIBED ON THE SITUATION PLAN. DISPOSAL OF THE RIP-RAP SHALL BE HANDLED AS DESCRIBED IN ARTICLE 2102.03 OF THE STANDARD SPECIFICATIONS.

ESTIMATED QUANTITIES

NO.	ITEM	UNIT	QUANTITY
1	EXCAVATION, CLASS 10, CHANNEL	CU.YDS.	173
2	EXCAVATION, CLASS 10, ROADWAY & BORROW	CU.YDS.	175
3	REVTMENT, SPECIAL, RIP-RAP	TONS	721
4	FABRIC, ENGINEERING	SQ.YDS.	921
5	REMOVALS, AS PER PLAN	L.S.	LUMP SUM
6	TRAFFIC CONTROL	L.S.	LUMP SUM

ITEM NO.	ESTIMATE REFERENCE INFORMATION
1	INCLUDES CUT MATERIAL REQUIRED TO COMPLETE BANK SHAPING.
2	INCLUDES FILL MATERIAL REQUIRED TO COMPLETE BANK SHAPING. INCLUDES 35% TO COMPENSATE FOR SHRINKAGE.
3	REFER TO BANK SECTION ON THIS SHEET FOR TYPICAL DETAILS ON RIP-RAP PLACEMENT. SEE GENERAL NOTES.
4	FABRIC SHALL MEET THE REQUIREMENT OF SECTION 4190.01C OF THE STANDARD SPECIFICATIONS.
5	INCLUDES COSTS TO REMOVE AND DISPOSE OF DEBRIS AND RUBBLE.

BANK REPAIR AND RIP-RAP
BRIDGE OVER E. SOLDIER RIVER
NEAR CHARTER OAK

SITUATION PLAN AND GENERAL NOTES

CRAWFORD COUNTY, IOWA
SHEET 2 OF 2

FOOT
6/16/86
BRIDGE
CHARTER OAK TWP 15-12
No. 6402 FCL No.