



PLANS OF PROPOSED IMPROVEMENTS ON THE
PRIMARY ROAD SYSTEM
DICKINSON COUNTY

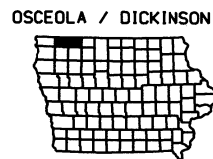
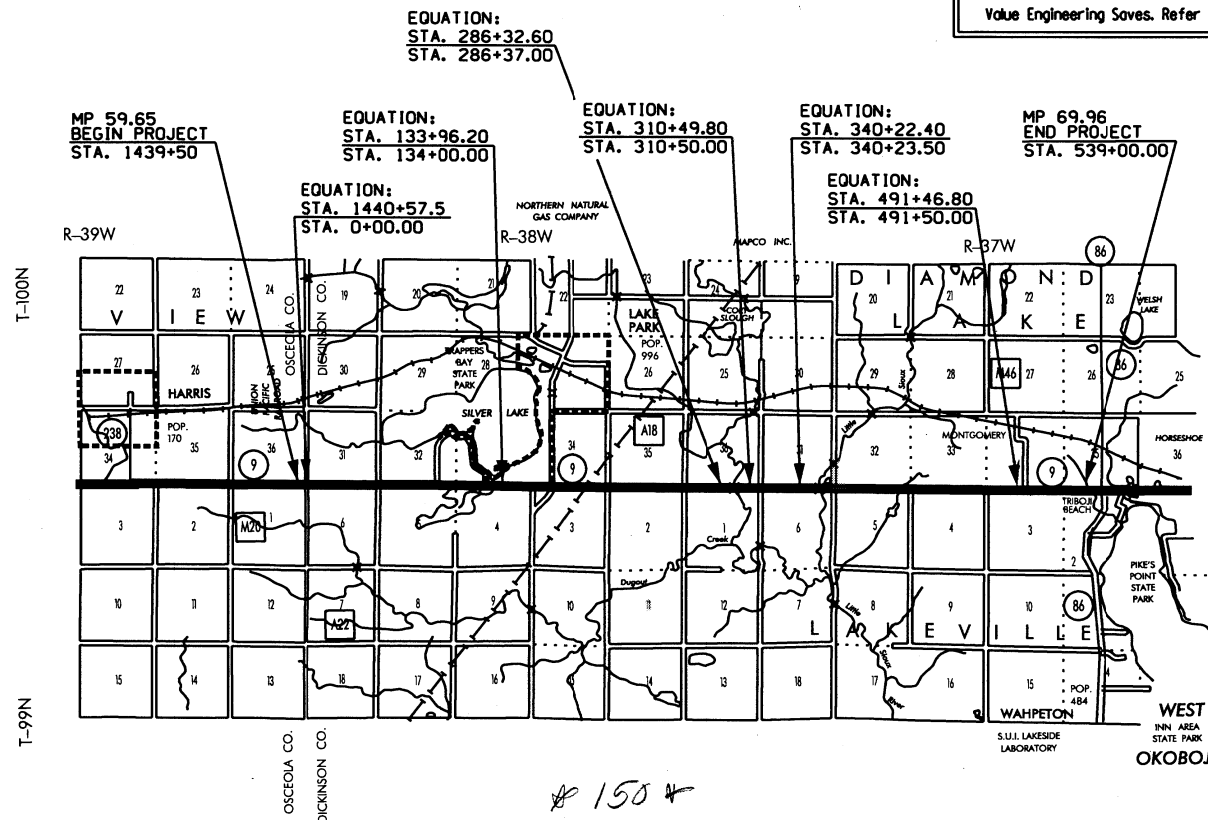
WIDENING AND HMA RESURFACING

From just west of the Osceola County Line
east to just west of the Jct. of IA 86

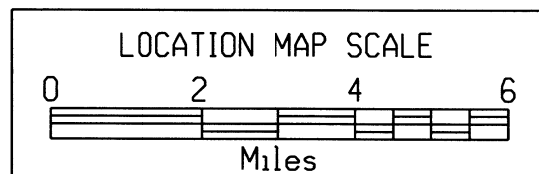
SCALES: As Noted

The Iowa Department of Transportation Standard Specifications for Highway and Bridge Construction, series of 2001, plus current Supplemental Specifications and Special Provisions shall apply to construction work on this project.

Value Engineering Saves. Refer to Standard Notation 203-4 on Sheet C.02



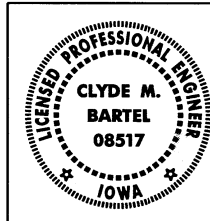
028/065



02-11-00		101-4	
DESIGN DATA RURAL			
2002	AADT	<u>3,000</u>	V.P.D.
2022	AADT	<u>3,900</u>	V.P.D.
	DHV	<u>-</u>	V.P.H.
	TRUCKS	<u>9.0</u>	%
Total			
Design ESALs		<u>1,435,000</u>	

MILEAGE SUMMARY			
		105-1	
		09-27-94	
DIV.	LOCATION	LIN. FT.	MILES
1	RURAL: OSCEOLA COUNTY STA. 1439+50 TO STA. 1440+57.5	107.5	
1	RURAL: DICKINSON COUNTY STA. 0+00.00 TO STA. 539+00.00	53,900.00	
	EQUATION: STA. 133+96.20 = STA. 134+00.00 (SHORTENS LINE)	3.80	
	EQUATION: STA. 286+32.60 = STA. 286+37.00 (SHORTENS LINE)	4.40	
	OMIT FOR BRIDGE STA. 296+73.40	205.83	
	EQUATION: STA. 310+49.80 = STA. 310+50.00 (SHORTENS LINE)	0.20	
	EQUATION: STA. 340+22.40 = STA. 340+23.50 (SHORTENS LINE)	1.10	
	OMIT FOR BRIDGE STA. 355+75.00	123.00	
	EQUATION: STA. 491+46.80 = STA. 491+50.00 (SHORTENS LINE)	3.20	
	NET LENGTH OF ROADWAY	53,665.97	10.16
	NET LENGTH OF BRIDGES	328.83	0.06

INDEX OF SEALS		
SHEET NO.	NAME	TYPE
A.01-U.08	CLYDE BARTEL	PRIMARY SIGNATURE BLOCK
V.01-V.02	GORDON PORT	STRUCTURAL DESIGN



I hereby certify that this plan was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

Clyde M. Bartel 01/08/02
Signature
Printed or Typed Name
My license renewal date is December 31, 2002

Pages or sheets covered by this seal: A.01-4.00

TOTAL	25
PROJECT NUMBER	
STP-009-3(18)--2C-30	
R.O.W. PROJECT NUMBER	
PROJECT IDENTIFICATION NUMBER	

INDEX OF SHEETS		105-3 07-21-87
NO.	DESCRIPTION	
A.01	TITLE PAGE	
B.01-B.08	TYPICAL SECTIONS	
C.01-C.06	ESTIMATED QUANTITIES AND GENERAL INFORMATION	
U.01-U.08	SPECIAL DETAILS	
V.01-V.02	BRIDGE SHEETS	

STANDARD ROAD PLANS						105-4 12-03-96
The following Standard Road Plans shall be considered applicable to construction work on this project.						
NUMBER	DATE	NUMBER	DATE	NUMBER	DATE	
RE-28	04-03-01	RE-76	10-02-01	RH-52	08-20-96	
RE-29C	04-03-01	RF-1	04-03-01	RL-7	12-03-96	
RE-48A	04-03-01	RF-13	07-15-97	RL-12	10-03-00	
RE-65A	10-02-01	RF-14	04-25-00	RL-14	01-12-99	
RE-68	10-02-01	RG-2	10-02-01	RS-1	10-27-98	
RE-69B	10-02-01	RG-6	10-02-01	RS-2	10-27-98	
RE-71(1)	10-02-01	RG-8	10-02-01	RS-3	12-03-96	
RE-71(2)	10-02-01	RH-50	04-27-99	RS-4	10-02-01	
RE-72	10-02-01	RH-51	10-03-00	RS-5A	04-27-99	

GENERAL NOTES

IT IS THE INTENT OF THIS DESIGN TO CONSTRUCT NEW BARRIER RAIL END SECTIONS AT EACH CORNER OF THE BRIDGE TO ACCOMODATE NEW THRIE BEAM GUARDRAIL. COPIES OF THE ORIGINAL DESIGN PLANS, DESIGN NUMBERS 159 & 189 DICKINSON COUNTY, MAY BE OBTAINED FROM THE AMES OFFICE OF THE IOWA D.O.T. - HIGHWAY DIVISION.

FAINT LINES ON PLANS INDICATE EXISTING STGRUCTURE.

MINIMUM CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR IS TO BE 2" UNLESS OTHERWISE NOTED OR SHOWN.

ALL EXPOSED CORNERS 90° OR SHARPER ARE TO BE FILLETED WITH A ¾" DRESSED AND BEVELED STRIP.

ALL CONCRETE IS TO BE CLASS D.

ALL REINFORCING STEEL IS TO BE GRADE 60 AND EPOXY COATED.

THE BID ITEM "REMOVAL" SHALL INCLUDE ALL COSTS ASSOCIATED WITH THE REMOVAL OF PORTIONS OF THE EXISTING CONCRETE CAST IN PLACE BARRIER RAILS AND CURBS. THE VERTICAL BARS IN THE PORTIONS OF THE EXISTING CAST IN PLACE RAIL TO BE REMOVED ARE TO BE CUT OFF FLUSH WITH THE TOP OF THE CURB.

ANY REMOVALS REQUIRED SHALL BE IN ACCORDANCE WITH SECTION 2401 OF THE STANDARD SPECIFICATIONS. ANY DAMAGE TO OTHER PORTIONS OF THE EXISTING STRUCTURE NOT NOTED FOR REMOVAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE STATE.

DESIGN STRESSES :

DESIGN STRESSES FOR THE FOLLOWING MATERIALS ARE IN ACCORDANCE WITH THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, SERIES OF 1996.

REINFORCING STEEL IN ACCORDANCE WITH SECTION 8, GRADE 60.

CONCRETE IN ACCORDANCE WITH SECTION 8, f'c = 3,500 PSI.

SPECIFICATIONS :

DESIGN : AASHTO SERIES OF 1996.

CONSTRUCTION : IOWA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, SERIES OF 2001, PLUS CURRENT SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS.

ESTIMATED QUANTITIES - FOUR END SECTIONS					
ITEM NO.	ITEM CODE	ITEM	UNIT	TOTAL	AS BUILT QUANTITY
1	2401-6750001	REMYL	LS	1	
2	2403-0100000	STRUCT CONC (MISCELLANEOUS)	CY	3.4	
3	2404-7775005	REINFORC STEEL, EPOXY COATED	LB	623	

ITEM NO. ESTIMATE REFERENCE INFORMATION :

2 INCLUDES ALL COSTS ASSOCIATED WITH FURNISHING AND INSTALLING 1"ϕ PLASTIC CONDUIT.

NOTE : QUANTITIES ARE INCLUDED ON SHEET C.01.

LOCATION :

IOWA 9 OVER
WEST FORK LITTLE SIOUX RIVER
SECTIONS 36 & 1
T-100 & 99 N R-38 W
SILVER LAKE & EXCELSIOR TWP.
DICKINSON COUNTY
BRIDGE MAINTENANCE
NO. 3065.45009
FHWA NO. 23700

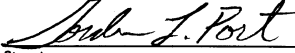
DESIGN HISTORY
AT THIS SITE

DES. NO.	TYPE OF WORK
159	WIDENING
189	OVERLAY, CAST IN PLACE BARRIER RAIL, STRENGTHENING
102	END SECTIONS FOR BARRIER RAIL

STRUCTURAL DESIGN



I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.



1/24/02

Signature Gordon L. Port Date

Printed or Typed Name

My license renewal date is December 31, 2002

Pages or sheets covered by this seal: DESIGN SHEETS 1 AND 2 OF 2

DESIGN FOR REPAIRS TO A 0° SKEW

67'-0 x 28' 1 - BEAM BRIDGE

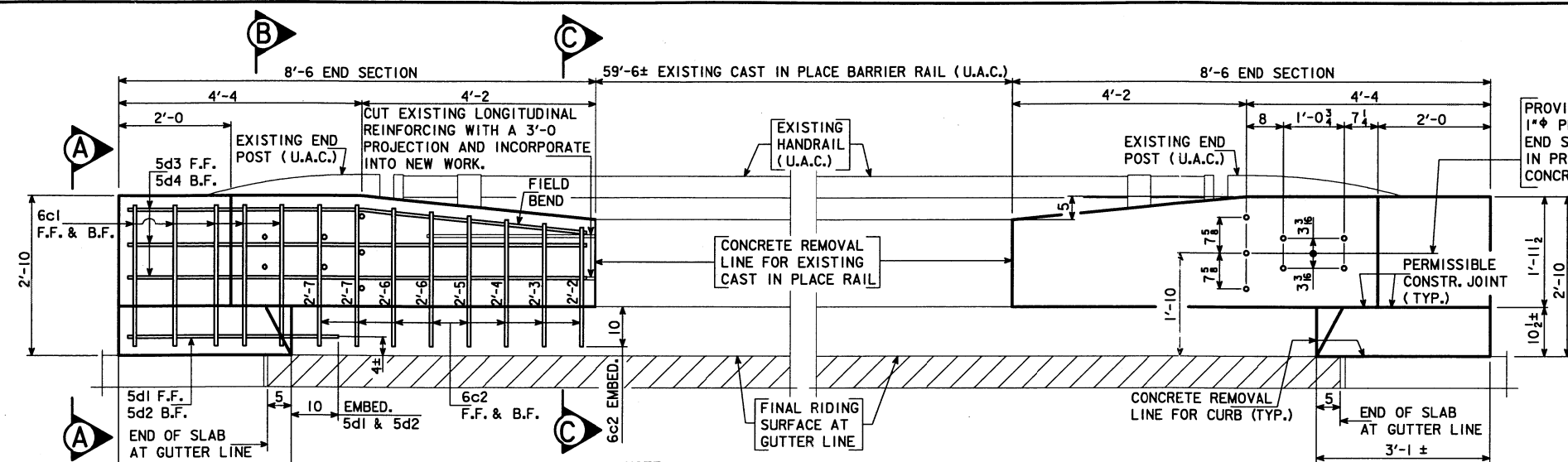
NOTES AND QUANTITIES

STATION : 296+73.40 (℄ IOWA 9) NOVEMBER, 2001

DICKINSON COUNTY

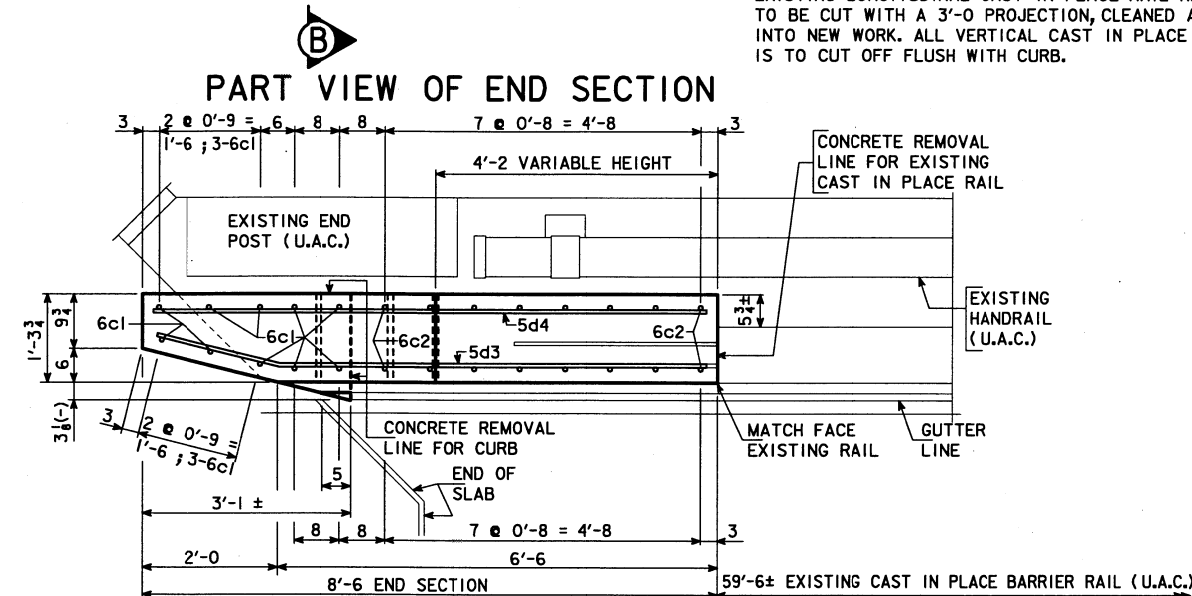
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 2 FILE NO. 29817 DESIGN NO. 102



NOTE :
EXISTING LONGITUDINAL CAST IN PLACE RAIL REINFORCING IS TO BE CUT WITH A 3'-0 PROJECTION, CLEANED AND INCORPORATED INTO NEW WORK. ALL VERTICAL CAST IN PLACE RAIL REINFORCING IS TO CUT OFF FLUSH WITH CURB.

PART VIEW OF END SECTION



PART PLAN VIEW

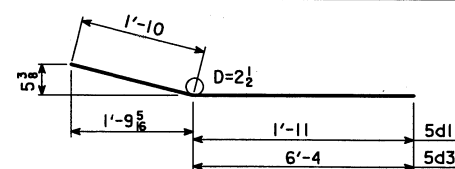
EPOXY REINFORCING STEEL - FOUR RAIL END SECTIONS

BAR	LOCATION	SHAPE	NO.	LENGTH	WEIGHT
6c1	END SECTION, VERTICAL	—	40	2'-7	155
6c2	END SECTION, VERTICAL	—	64	SHOWN	232
5d1	END SECTION, LONGITUDINAL	—	4	3'-9	16
5d2	END SECTION, LONGITUDINAL	—	4	3'-9	16
5d3	END SECTION, LONGITUDINAL	—	12	8'-2	102
5d4	END SECTION, LONGITUDINAL	—	12	8'-2	102
TOTAL (LBS.)					623

CONCRETE PLACEMENT QUANTITIES

SECTION	TOTAL
END SECTIONS 4 AT 0.85 CU.YDS.	3.4
TOTAL (CU.YDS.)	3.4

BENT BAR DETAILS



5d1 & 5d3

NOTE : ALL DIMENSIONS ARE OUT TO OUT. D = PIN DIAMETER.

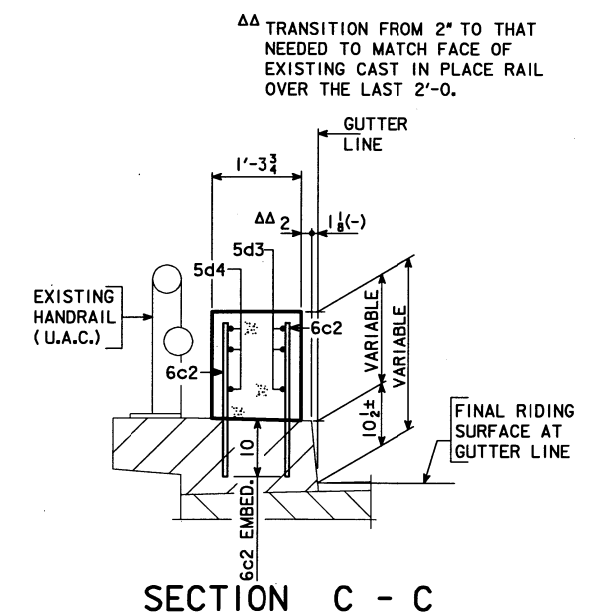
DESIGNED BY G. PORT CHECKED BY
DETAILED BY R. RYSAVY CADD FILE h300102.s02

DICKINSON COUNTY

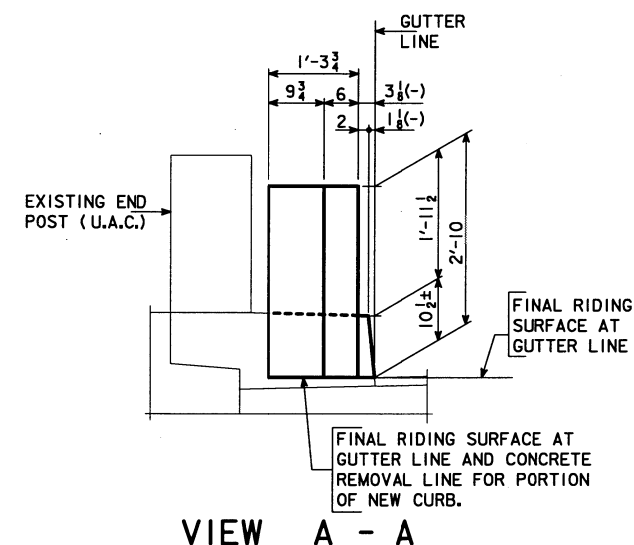
PROJECT NUMBER

STP-9-3 (18)-2C-30

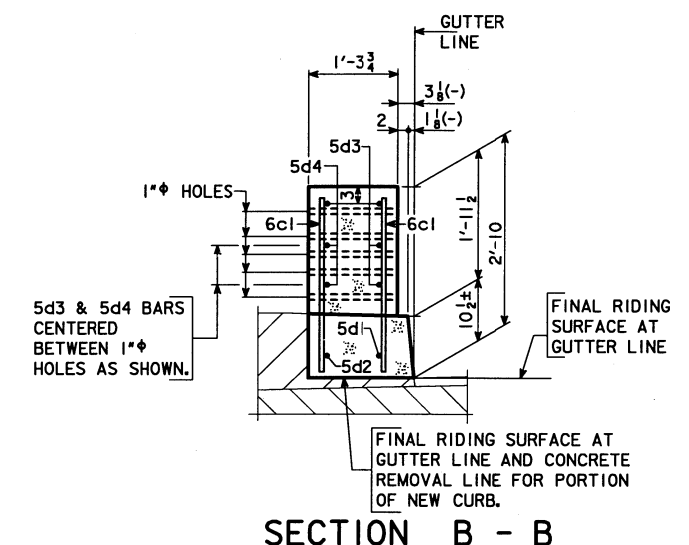
SHEET NUMBER V.02



SECTION C - C



VIEW A - A



SECTION B - B

DOWEL SETTING NOTE :

THE 5d1, 5d2 & 6c2 BARS SHALL BE SET AS DOWELS IN DRILLED HOLES. HOLES ARE TO BE 10" DEEP. THE DOWELS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE FOLLOWING SYSTEM SHALL BE USED AS A BONDING AGENT FOR THE DOWELS.

EPOXY GROUT SYSTEM IN ACCORDANCE WITH STANDARD SPECIFICATIONS ARTICLE 2301.12 AND CURRENT SUPPLEMENTAL SPECIFICATIONS OF THE IOWA D.O.T. HIGHWAY DIVISION.

DESIGN FOR REPAIRS TO A 0° SKEW

67'-0 x 28'1 - BEAM BRIDGE END SECTION DETAILS

STATION : 296+73.40 (Q IOWA 9)

NOVEMBER, 2001

DICKINSON COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 2 OF 2 FILE NO. 29817 DESIGN NO. 102

14-NOV-2001 09:30

rrysavy

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