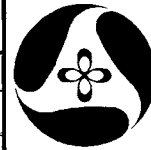


CASS CO.

30-NOV-2006 08:34	nhumpal	w:\Projects\1507101004\Design\15071042A01.sht
-------------------	---------	---

105-4
12-03-96

[illegible]

PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM

CASS COUNTY

PCC OVERLAY - WHITE TOPPING

US 71 from Montgomery County line
north to County Road G-43

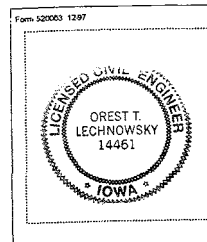
SCALES: As Noted

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

Value Engineering Saves. Refer to Article 1105.15 of the Specifications.

105-1
09-27-94

Div.	Location	Lin. Ft.	Miles
1	Sta. 683+77.00 to 894+84.68 EQUATION: Sta. 894+84.68 = 100+00.00 Sta. 100+00.00 to Sta. 434+90.00 Sta. 564+21.00 to Sta. 581+91.00 OMIT BRIDGE AT: Sta. 221+49.00 Sta. 565+93.00 Sta. 580+13.00	21107.68 33490 1770 204.33 204.33 204.33	4 6.34 0.34 0.04 0.04 0.04
	TOTAL LENGTH OF ROADWAY	55754.69	10.56



I hereby certify that this project was constructed in accordance with the contract documents, the "as-built" plans were prepared under my supervision, and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

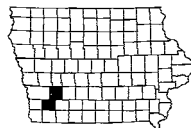
Orest Lechnowicz 1/4/1
Project Engineer Date

My license renewal date is December 31, 2011

2007 Flynn Company BRYAN TOLLEFSON
Year Contractor Project Inspector

THIS AS BUILT PLAN INCLUDES			
YEAR	WORK	CONTRACTOR.	PROJ. INSPECTOR
<u>2007</u>	<u>P.C.C. Overlay-Unbonded</u>	<u>Eggen Company</u>	<u>BRYAN TALLEFSON</u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>

For Project Location Map
Refer to Sheet No. A.03



REVISIONS

TOTAL
64

PROJECT IDENTIFICATION NUMBER

04-15-071-010

PROJECT NUMBER

NHSN-071-3(42)--2R-15

R.O.W. PROJECT NUMBER

105-3
10-18-05

No.	Description
A.01	Title Sheet
A.02-A.03	Project Map Sheets
B.01-B.04	Typicals
C.01-C.10	Estimate of Quantities
C.11-C.13	Pavement Marking Tab and Typical
C.14-C.18	Longitudinal Subdrain Tabs
D.01-D.25	Plan/Profile Sheets for Information Only
G.01-G.02	Reference Information
L.01-L.03	Intersection Layouts (Right Turn Lanes)
U.01-U.02	Shoulder Rumble Strips Detail Sheets
U.03	32' PCC Pavement Detail Sheet
V.01-V.03	Bridge Paving Notch Repairs
V.04-V.06	Existing Bridge Situation Plans



ROADWAY 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.

Signature John Abramo Date 12/05/06

John R. Abrams

Printed or Typed Name

My license renewal date is December 31, 20 06

Pages or sheets covered by this seal: A.01-A.03, B.01-B.04, C.01-C.13,
L.01-L.03, U.01-U.03, V.04-V.06

04-30-02	101-4
DESIGN DATA RURAL	
2007 AADT	1500 V.P.D.
2027 AADT	2000 V.P.D.
20 DHV	-- V.P.H.
TRUCKS	16 %
Total	
Design ESALs	--

INDEX OF SEALS

SHEET NO.	NAME	TYPE
A.01	John R. Abrams	Primary Signature Block
C.14	Robert L. Stanley	Geotechnical Design
V.01	Harold L. Adcock	Structural Design

ENGLISH	IOWA DOT	DESIGN TEAM	Abrams\Flattery\Humpal
---------	----------	-------------	------------------------

CASS COUNTY

PROJECT NUMBER

NHSN-071-3(42)--2R-15

SHEET NUMBER **A.01**



NOTE A2:
THE BOTTOM PORTION OF THE EXISTING 4KI BAR SHALL
BE CAREFULLY EXPOSED AND INCORPORATED INTO NEW
WORK. THE BAR SHALL BE CUT OFF TO PROVIDE 2 INCHES
OF COVER FROM THE TOP OF THE NEW PAVING NOTCH. THE
TOP PORTION OF THE BAR SHALL BE CUT OFF FLUSH OR
SLIGHTLY BELOW THE CONCRETE SURFACE AND THE ENDS
PAINTED WITH 2 COATS OF ZINC RICH PAINT.

BAR	LOCATION	SHAPE	NO.	LENGTH	WEIGHT
5k2	DOWEL		88	2'-9	252
5k3	DOWEL		88	1'-11	176
5k4	HAIR PIN		176	3'-3	597
5k5	PAVING NOTCH, LONGITUDINAL		16	23'-6	392

TOTAL (LBS.)	1417
--------------	------

SPECIFICATIONS:

DESIGN STRESSES:

PAVING SUPPORT REPAIR NOTES:

REPAIRS SHALL CONSIST OF REMOVAL OF THE EXISTING PAVING SUPPORTS AND REBUILDING THE SUPPORTS AS SHOWN.

CONCRETE FOR THE PAVING SUPPORT IS TO BE CLASS "C" STRUCTURAL CONCRETE.

THE 5K2 & 5K3 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.

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

THE BID ITEM "REMOVALS", SHALL INCLUDE ALL COSTS ASSOCIATED WITH REMOVING THE EXISTING PAVING NOTCH, CUTTING OF EXISTING 4KI BARS AND PAINTING THE ENDS OF THE 4KI BARS THAT WILL NOT BE COVERED BY NEW CONCRETE.

REMOVALS SHALL BE IN ACCORDANCE WITH SECTION 240I OF THE STANDARD SPECIFICATIONS.

REQUIRED EXCAVATION SHALL BE INCIDENTAL TO THE BID ITEM "REMOVALS".

THESE BRIDGE PLANS LABEL ALL REINFORCING STEEL WITH ENGLISH NOTATION (5d1 IS $\frac{5}{8}$ INCH DIAMETER BAR). ENGLISH REINFORCING STEEL RECEIVED IN THE FIELD MAY DISPLAY THE FOLLOWING "BAR DESIGNATION". THE "BAR DESIGNATION" IS THE STAMPED IMPRESSION ON THE REINFORCING BARS, AND IS EQUIVALENT TO THE BAR DIAMETER IN MILLIMETERS.

ENGLISH SIZE	BAR DESIGNATION
3	10
4	13
5	16
6	19
7	22
8	25
9	29
10	32
11	36

DESIGN HISTORY AT THIS SITE

DES. NO.	TYPE OF WORK
369	ORIGINAL DESIGN
1189	CAST-IN-PLACE BARRIER RAIL
299	DECK REPAIR AND OVERLAY

LOCATION:

US71 OVER LONE TREE CREEK
SECTIONS 33 & 34
T 76 N R 36 W
GROVE TOWNSHIP
CASS COUNTY
BRIDGE MAINT. NO. 1554.9S071
FHWA NO. 017550

ITEM NO.	ITEM CODE	ITEM	UNIT	TOTAL	AS BUILT QUANTITY
46	2401-6750001	REML	LS	1.0	1.000
47	2403-0100000	STRUCT CONC (MISCELLANEOUS)	CY	6.3	6.300
48	2404-7775005	REINFORC STEEL, EPOXY COATED	LB	1417.0	1,417.000

DESIGN FOR REPAIRS TO A 15° SKEW

201'-4 x 44'-0 PRETENSIONED
PRESTRESSED CONCRETE BEAM BRIDGE
68'-3 & 64'-1 END SPANS 69'-0 INTERIOR SPAN

PAVING NOTCH REPAIR DETAILS

CASS COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. 1 OF 1 FILE NO. 30202 DESIGN NO. 207