Existing Structure: Structure No. 016-1099 was built in 1966 as F.A.I. Rte. 57, Section 0607-1007 HB. In 1977, bituminous overlay was placed on the bridge. In 1993, the bituminous surface was replaced with bituminous concrete surface and waterproofing membrane system, and the neoprene expansion joint was replaced with strip seal joint. Existing structure is a two span continuous steel superstructure with a 7" reinforced concrete deck supported by a multi column pier and vaulted abutments, 174'-6" bk, to bk, abutments, 42'-0" out to out deck with no skew. Stage construction shall be utillized to maintain traffic during construction. Existing 42" Web R Girder NB Lanes FAI 57 ELEVATION

€ E. Brg. —

Bk. of E. Abut. -

Bk. of E. Appr. Abut

1'-912"

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

85'-55"

R13E - 3rd. PM

LOCATION SKETCH

Rd.

FAI 57

SCOPE OF WORK

- Remove concrete deck and parapet adjacent to expansion joints
- Remove existing bituminous overlay
- Apply ¹2" hydro-scarification on deck
- Repair deck slab
- Replace concrete deck and parapet adjacent to expansion joints
- Remove and replace strip seal at expansion joints
- Apply protective coat to new concrete slab and top and traffic faces of new parapet
- Place 21/4" latex concrete overlay
- Patch and overlay approaches
- 10. Apply protective coat and bridge deck grooving to top of overlay 11. Provide preformed joint strip seal expansion joints at abutments
- 12. Clean and reseal relief joints
- 13. Repair deteriorated concrete on abutments
- 14. Jack and remove existing abutment bearings and replace with
- elastomeric bearings. 15. Install permanent protective shield.
- 16. Apply Concrete Sealer to existing top and inside vertical faces o sidewalks and parapets.

INDEX OF SHEETS

- General Plan and Elevation
- General Notes and Details
- Temporary Concrete Barrier for Stage Construction
- 4. Deck Slap Repair
 [4A. Protective Shield Details 1

 5. Expansion Joint Concrete Removal
- Expansion Joint Concrete Details
- Bearing Details
- 8. Abutment Repair
- Preformed Joint Strip Seal
- 10. Bar Splicer Assembly and Mechanical Splicer Details

Clean and reseal relief joint, typ, each approach (See special provision) See Standard 420001 for Transverse Expansion Joint

€ Flossmoor Rd.



1/27/10

Michael T. Haley Licensed Structural Engineer State of Illinois No. 81-5991 Expires 11/30/2010

Date

GENERAL PLAN AND ELEVATION FLOSSMOOR RD. OVER F.A.I. RTE 57

F.A.I. RTE 57 - SECTION 0607-1007 HB-I

COOK COUNTY STATION 297+04.60 STRUCTURE NO. 016-1099

LIN ENGINEERING,LTD. Consulting Engineers Chatham, Illinois File: 016-1099.dgr

_@ W. Brg.

Bk. of W. Abut.

1'-912"

SHEET NO. 1 10 SHEETS

-Bk. of W. Appr. Abut.

20'-0"

Approach Slab Тур.

TOTAL SHEET NO. SECTION COUNTY 0607-1007 HB-I COOK 29 8 CONTRACT NO. 60J26 FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT

DESIGN SPECIFICATIONS

85'-512'

Rdwy.

€ 1-57 ---

90°

174'-6" Bk. to Bk. Abutments

233'-4" Bk. to Bk. Approach Abutments

PLAN

Sta. 27+85.97 (© Flossmoor Rd.)

Sta. 297+04.60 (I-57)

(New Construction)

2002 AASHTO "Standard Specifications for Highway Bridges"

LOADING HS 20-44

(Original Construction)

fs = 20,000 psi (Structural Steel)

Existing Construction

New Construction

fy = 60,000 psi (Reinforcement)

DESIGN STRESSES

FIELD UNITS

fs = 20,000 psi (Reinforcement)

fy = 36,000 psi (Structural Steel) (M270 Gr. 36)

fc = 1,400 psi (Substructure & Superstructure)