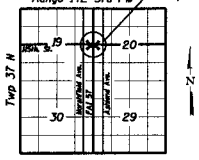
Bench Mark:
No. 384 El. 185.482 (608.537) 120th Street and Justine Street
2.682 m (8.8 feet) West of East Line of Justine Street and 6.645 m (21.8 feet) South of South Line of 120th Street

Existing Structure: S.N. 016-2037 A two span continuous steel beam structure with a back to back length of 57.134 m (187'-5 3/8") and out to out width of 25.3 m with a minimum horizontal clearance of 2.667 m (8'-9") and a vertical undercleorance of 4.578 m (15.02'), supported on closed abutments and pier with no skew. Built as FAI Route 57, Section 068-1919.2-CF in 1965. Traffic shall be maintained during the rehabilitation of the structure by staged construction.

No Salvage

Note:
All dimensions are in millimeters (mm) except as noted.



LOCATION SKETCH

DESIGN SPECIFICATIONS

1996 AASHTO Standard Specifications for Highway Bridges, including 1997, 1998 & 1999 Interims

LOADING MS18

Allow 1.2 kN/m² for future wearing surface.

DESIGN STRESSES

f'c = 24 MPa
fy = 400 MPa (Reinf.)
fy = 345 MPa (M 270M Grade 345)

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.05g
Site coefficient (S) = 1.0

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1584	B	COOK		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 1
2 SHEETS

- 068-1919.2-CF

HIGHWAY CLASSIFICATION

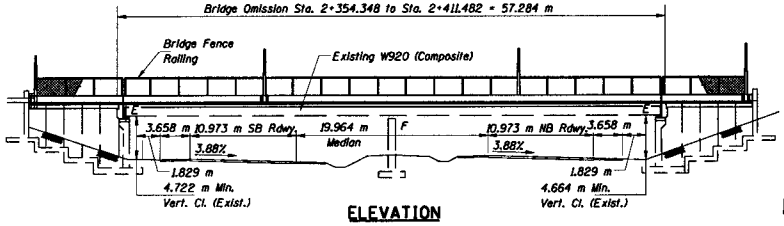
FAU Route 1584 (115th St.)
Class: Collector (Urban)
A.D.T.: 9,700(1994) 12,000(2020)
D.H.V.: 1,068(1994) 1,310(2020)
Design Speed: 50km/h
Posted Speed: 50km/h

FAI 57 (I-57)
Designation: Mainline
A.D.T.: 114,500 (1996)
Design Speed: 90 km/h
Posted Speed: 90 km/h

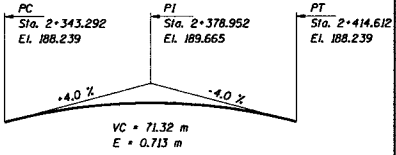
APPROVED

MAR 1 3 2001

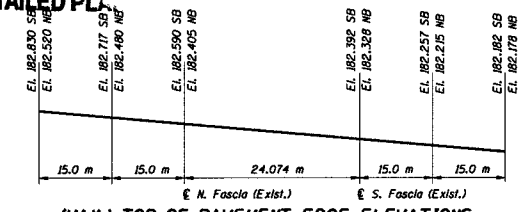
AS A BASIS FOR
PREPARATION OF DETAILED PLANS



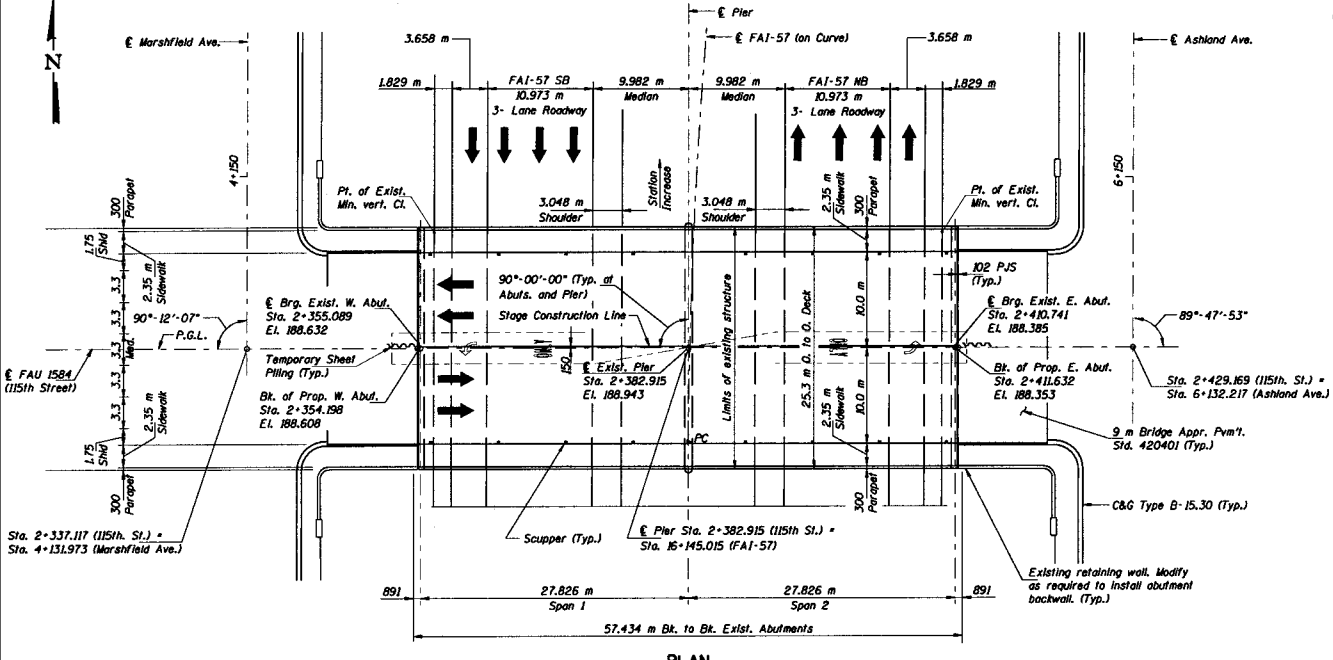
ELEVATION



PROFILE GRADE 115TH STREET
(Along ℄ 115th. Street)



(MAX.) TOP OF PAVEMENT EDGE ELEVATIONS
(I-57 Outside Edge of Pavement)



PLAN

SCOPE OF WORK

1. Remove and replace existing deck utilizing staged construction.
2. Remove existing expansion bearings at abutments and replace with elastomeric bearings.
3. Modify existing abutment backwalls to incorporate new expansion joints and raise bearing seats to accomodate new bearings.
4. Install stud shear connectors in positive moment areas.
5. All existing structural steel shall be cleaned and painted.
6. Remove and replace approach slabs.
7. Modify top of existing retaining walls to incorporate new expansion joints at abutment backwalls.
8. Provide formed concrete repair and crack sealing at abutments and pier. The amount and location to be shown in the detailed final plans.
9. Remove and replace all diaphragms at each abutment.
10. Provide diaphragms between the beam lines that are below the existing longitudinal joint.

Note:
For Section Thru Abutment and Staging Cross Sections see Sht. No. 2.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
115 TH. STREET OVER FAI 57
FAU RTE. 1584 SEC. 068-1919.2-CF
COOK COUNTY
STATION 2+382.915
STRUCTURE NO. 016-2037

GENERAL PLAN & ELEVATION

DRAWN BY KAC
CHECKED BY DGS/JMH
DATE JULY 2000

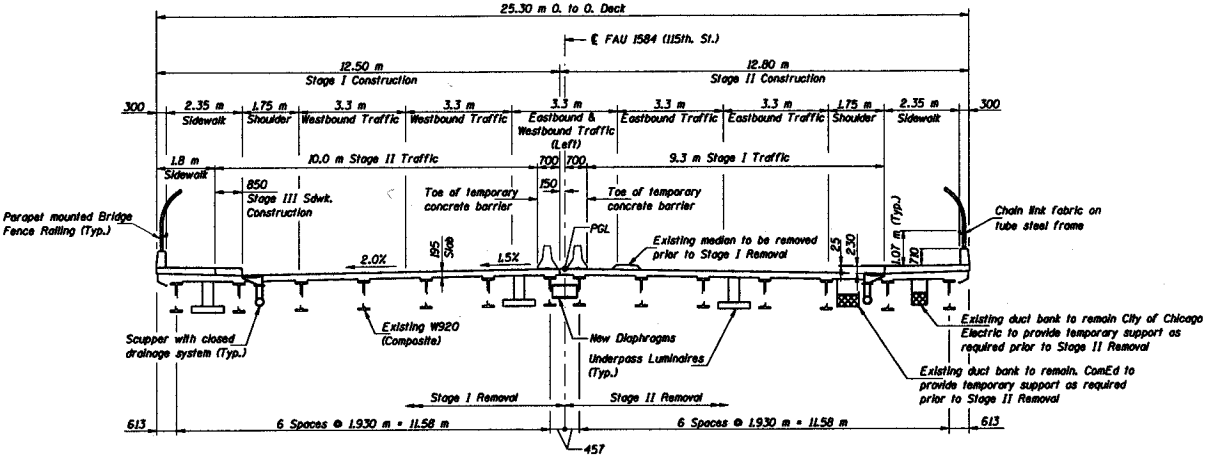
29040001

SHOW SCUPPER SPACING

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1584	a	COOK		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

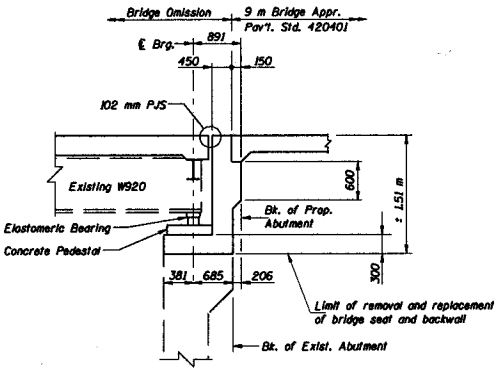
SHEET NO. 2
2 SHEETS

- 068-1919.2-CF



CROSS SECTION

Existing and Proposed Sections are the same with removal of existing open longitudinal joint. Steel Superstructure location to remain the same.



SECTION THRU ABUTMENTS

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
115 TH. STREET OVER FAI 57
F.A.U. RTE. 1584 SEC. 068-1919.2-CF
COOK COUNTY
STATION 2+382.915
STRUCTURE NO. 016-2037

TYPICAL SECTIONS

DRAWN BY KAC
CHECKED BY DGS/JMH
DATE JULY 2000

29040001