

**INDEX OF SHEETS**  
FOR INDEX OF SHEET, SEE SHEET NO.2

**PROJECT LOCATED IN VILLAGE OF SCHAUMBURG**

**DESIGN DESIGNATION**

MEACHAM ROAD: 5660 (2025) MINOR ARTERIAL 2.10 (PCC-20)  
MEACHAM ROAD ADT (2025) 50,000 DESIGN SPEED 50 MPH POSTED SPEED 45 MPH

**PROPOSED IMPROVEMENT**

THIS PROJECT CONSISTS OF SOUTHBOUND BRIDGE DECK REPLACEMENT, NORTHBOUND BRIDGE DECK PATCHING AND OVERLAYING, NEW APPROACH SLABS AND ALL INCIDENTAL AND COLLATERAL WORK AS NECESSARY TO COMPLETE THE IMPROVEMENT SHOWN HEREIN AND AS DESCRIBED IN THE SPECIAL PROVISIONS.

**DESCRIPTION OF PROJECT**

MEACHAM ROAD OVER NORTHWEST TOLLWAY  
BRIDGE SN 016-0676 (IDOT)  
BRIDGE SN 519 (ISTHA)

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**

**PLANS FOR PROPOSED FEDERAL AID HIGHWAY**

**F.A.U. ROUTE 2585**

**MEACHAM ROAD OVER NORTHWEST TOLLWAY**

**SCHAUMBURG SECTION 05-00068-02-BR**

**PROJECT NO. BHM-8003(496)**

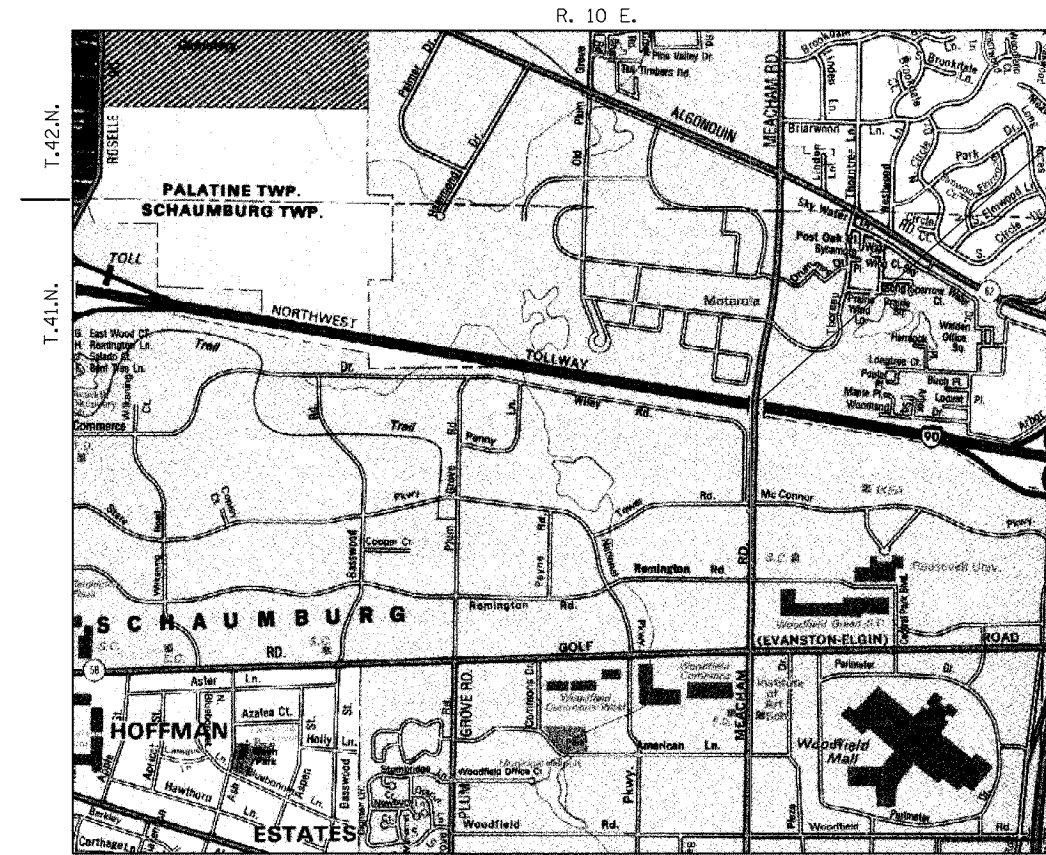
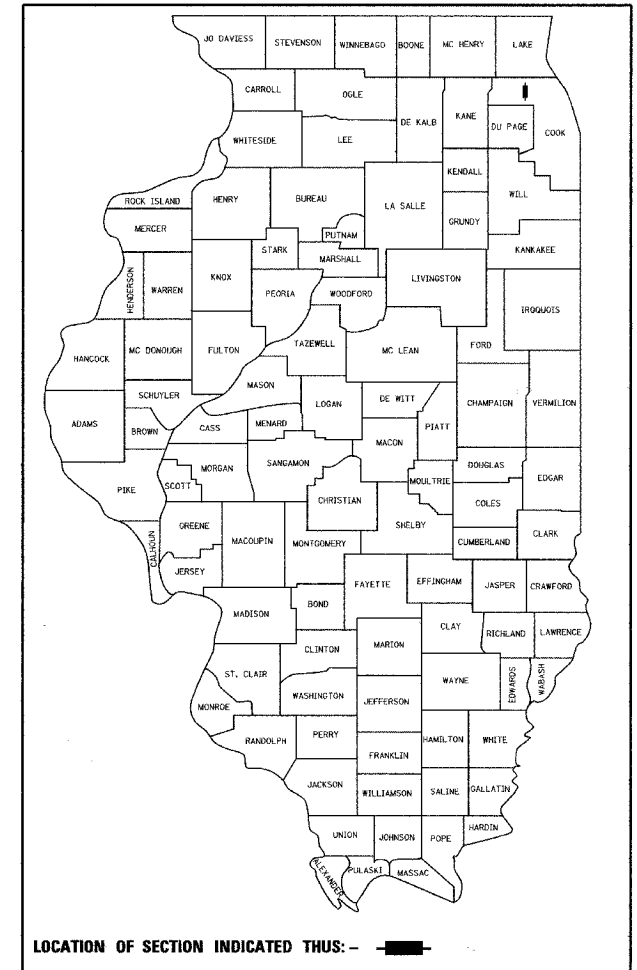
**BRIDGE STRUCTURE RECONSTRUCTION**

**COOK COUNTY**

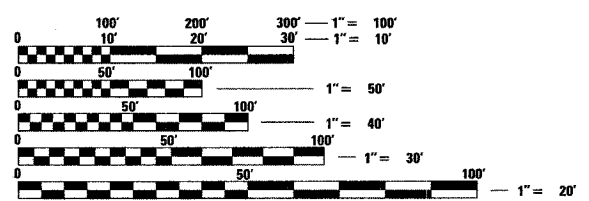
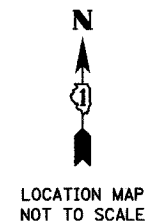
**C-91-162-05**

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2585	05-00068-02-BR	COOK	30	1

CONTRACT NUMBER 83800



MEACHAM ROAD OVER NORTHWEST TOLLWAY  
IDOT BRIDGE NO. 016-0676  
ISTHA BRIDGE NO. 519  
AT MEACHAM ROAD  
STA. 285+04.18



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
1-800-892-0123

**CONTRACT NO. 83800**

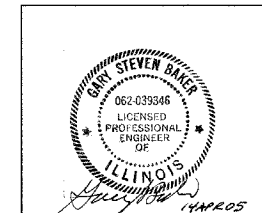
SCHAUMBURG PALATINE TOWNSHIPS  
LOCATION MAP  
GROSS & NET PROJECT LENGTHS = 283.17 FT. OR .054 MILE

VILLAGE OF SCHAUMBURG  
APPROVED: April 14, 2005  
*Scott R. Koper*  
VILLAGE ENGINEER

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
PASSED: APRIL 13, 2005  
*[Signature]*  
BUREAU CHIEF OF LOCAL ROADS AND STREETS  
APPROVED: April 19, 2005  
*Dina O'Keefe, PE*  
DISTRICT ENGINEER

**PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS**

**MACTEC**  
5440 North Cumberland  
Suite 250  
Chicago, Illinois 60655  
Phone (773) 693-6030  
Fax (773) 693-6093  
IL License 184-001138  
Expires 04/30/2005



CONSULTING ENGINEERS  
*[Signature]*  
REGISTERED P.E. STATE OF ILLINOIS  
DATE: 14 APR 05  
EXPIRATION DATE: 30 NOV 05

FEDERAL AID DESIGN ENGINEER: CHARLES RIDDLE, P.E. (847) 705-4406 SCHAUMBURG, IL  
CONSULTANT ENGINEER: MACTEC Engineering and Consulting, Inc.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2585 05-00068-02-BR		COOK	30	2
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NUMBER 83800				

GENERAL NOTES

- BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 1-800-892-0123, ILLINOIS DEPARTMENT OF TRANSPORTATION, THE VILLAGE OF SCHAUMBURG, AND COOK COUNTY FOR FIELD LOCATIONS OF BURIED UTILITIES (48 HOURS NOTIFICATION REQUIRED).
  - THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, GOVERNMENT AGENCIES, AND ADJACENT MEACHAM ROAD ROADWAY CONTRACTOR. FOR FURTHER INFORMATION REGARDING THE MEACHAM ROADWAY PROJECT, CONTACT THE VILLAGE OF SCHAUMBURG.
  - THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON VILLAGE OR PRIVATE PROPERTY WITHOUT WRITTEN CONSENT FROM THE VILLAGE OR OWNER.
  - WHEN ARTIFICIAL LIGHTING IS UTILIZED IN NIGHT OPERATIONS, THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AND ADJOINING RESIDENTIAL AREAS.
  - IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION.
  - THE CONTRACTOR SHALL PROVIDE AND INSTALL TWO (2) WEIGHTED SAND BAGS ON EACH TYPE I OR II BARRICADE USED, ONE (1) SAND BAG ACROSS EACH BOTTOM RAIL. TYPE III BARRICADES SHALL HAVE FOUR (4) WEIGHTED SANDBAGS.
- SEE SHEET S-2 OF BRIDGE PLANS FOR BRIDGE PLANS GENERAL NOTES.

STATE STANDARDS INCLUDED

- |           |  |
|-----------|--|
| 000001-04 | STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS                               |
| 420401-05 | BRIDGE APPROACH PAVEMENT   |
| 631026-02 | TRAFFIC BARRIER TERMINAL, TYPE 5 & 5A                                      |
| 631031-05 | TRAFFIC BARRIER TERMINAL, TYPE 6   |
| 635006-02 | REFLECTOR AND TERMINAL MARKER PLACEMENT                                    |
| 635011-01 | REFLECTOR MARKER AND MOUNTING DETAILS                                      |
| 701206-01 | LANE CLOSURE, 2L, 2W, NIGHT ONLY, FOR SPEEDS > 45 MPH                      |
| 701301-02 | LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS                                |
| 701321-08 | LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER                           |
| 701421-01 | LANE CLOSURE, MULTILANE, DAY OPERATION ONLY, FOR SPEEDS ≥ 45 MPH TO 55 MPH |
| 701423-01 | LANE CLOSURE, MULTILANE, WITH BARRIER, FOR SPEEDS ≥ 45 MPH TO 55 MPH       |
| 701601-04 | URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN         |
| 701801-03 | LANE CLOSURE MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE              |
| 702001-05 | TRAFFIC CONTROL DEVICES  |
| 704001-02 | TEMPORARY CONCRETE BARRIER   |
| 780001-01 | TYPICAL PAVEMENT MARKINGS  |
| 781001-02 | TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS                    |

INDEX OF SHEETS

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| 4     | ALIGNMENT & TIES  |
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| 8     | PAVEMENT MARKING PLANS                                      |
| 9     | TRAFFIC SIGNAL INTERCONNECT AND LIGHTING PLANS              |
| 10-30 | BRIDGE PLANS  |

BENCHMARKS

**BM#1130:**  
 SET ALUMINUM CAP IN CONCRETE WITH STATION 1130.  
 LOCATION: NORTHWEST CORNER LOT 1 IN WINDY POINT OF SCHAUMBURG. (SOUTH OF I-90, EAST OF MEACHAM ROAD, 39.34' NORTH OF NE CORNER OF PUMP HOUSE, 38.75' NORTH OF NW CORNER OF PUMP HOUSE)  
 DATA: ILLINOIS EAST STATE PLANE  
 NORTHING 1964219.26  
 EASTING 1062685.45  
 ELEVATION 741.30 (NGVD 1929)

**BM#1009:**  
 2" ALUMINUM CAP GROUTED IN CONCRETE, MARKED "1009"  
 LOCATION: APPROXIMATE CENTER OF EXISTING MEDIAN ALONG MEACHAM ROAD, 308.5' NORTH OF EXISTING BRIDGE OVER NORTHWEST TOLLWAY.  
 DATA: ILLINOIS EAST STATE PLANE  
 NORTHING 1964863.446  
 EASTING 1062611.343  
 ELEVATION 757.53 (NGVD 1929)

FURTHER BENCHMARK INFORMATION AVAILABLE FROM THE VILLAGE OF SCHAUMBURG.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL NOTES AND STATE STANDARDS

DESIGNED BY MTK  
 CHECKED BY RAL

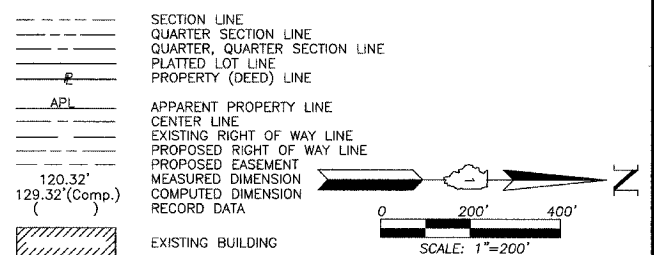
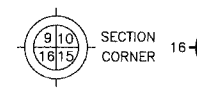
DATE 04/14/05



PART OF THE WEST 1/2 OF FRACTIONAL SEC. 1 AND PART OF THE WEST 1/2 OF SEC. 12, TWP. 41 N., R. 10 E., PART OF THE SE 1/4 OF SEC. 34 AND PART OF THE SW 1/4 OF SEC. 35, TWP. 42 N., R. 10 E. OF THE 3RD. P.M., IN COOK COUNTY, ILLINOIS.

LEGEND

F.A.U.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2585	00-00068-01-WR	COOK	30	4
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO 83800				

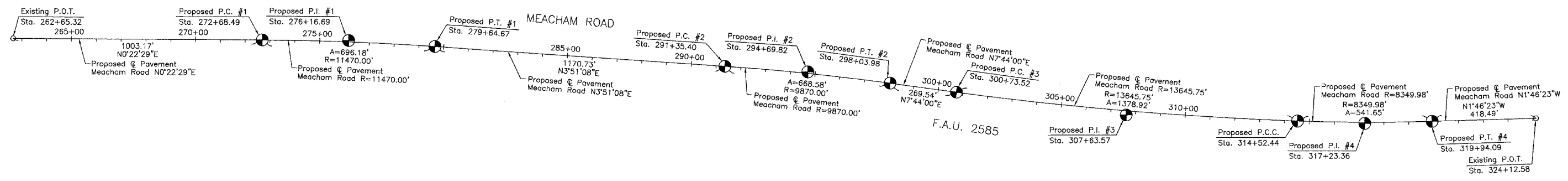
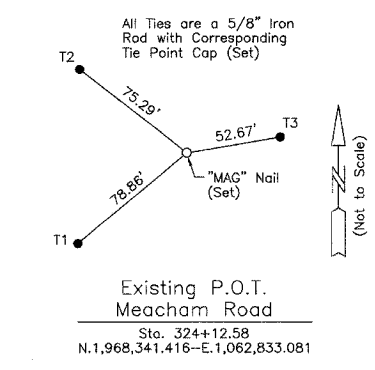
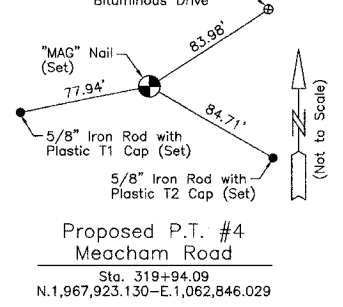
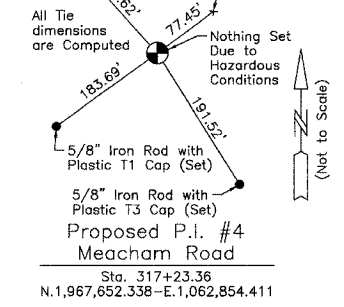
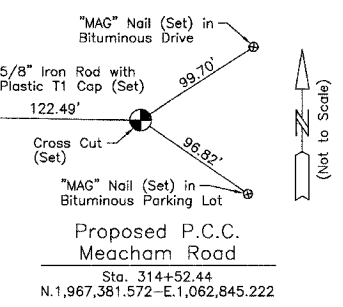
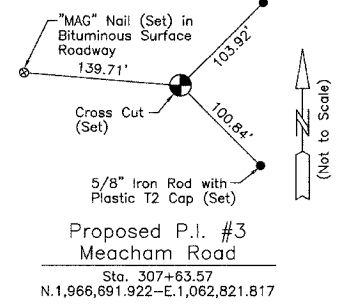
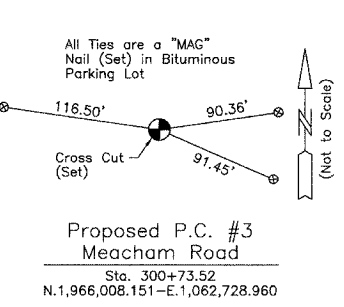
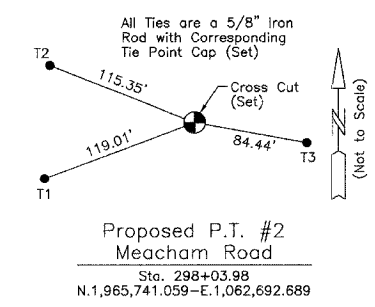
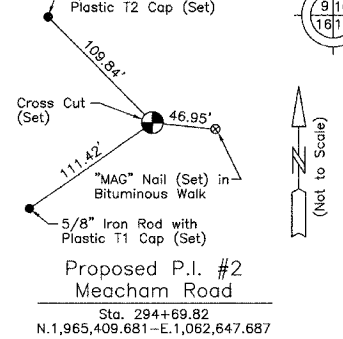
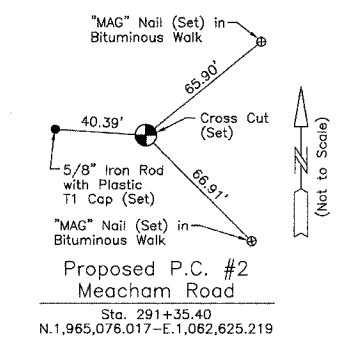
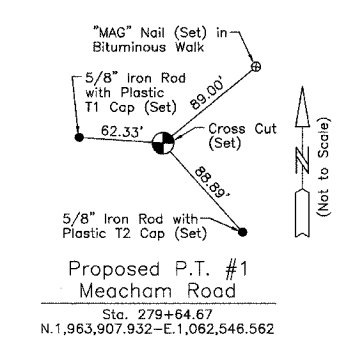
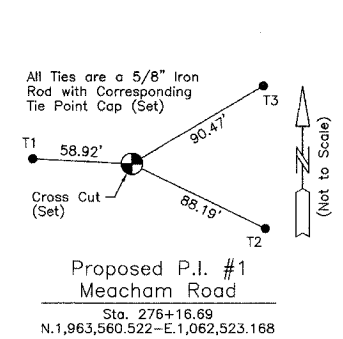
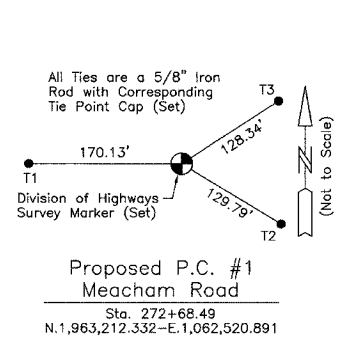
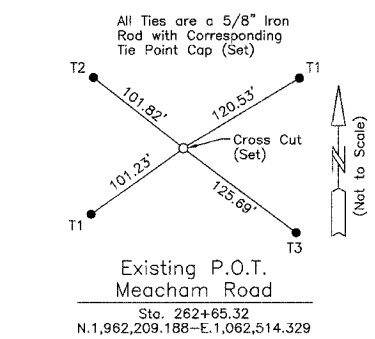


Bearings are referenced to the Village of Schaumburg coordinate system (NAD 83) at the Found Village of Schaumburg Monuments, Station 1005, published U.S. Foot Coordinate Value N.1,966,287.705-E.1,062,838.061 and Station 1009, published U.S. Foot Coordinate Value N.1,964,863.446-E.1,062,611.343.

- IRON PIPE OR ROD FOUND
- ⊙ "MAG" NAIL SET
- + CUT CROSS FOUND OR SET
- 5/8" REBAR SET
- T1 THESE STAKES REFERENCE FOUND OR SET MONUMENTATION, SET 5/8 INCH IRON ROD FLUSH WITH GROUND TO THE FOUND IRON STAKE, IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- BT1 THESE STAKES, IN CULTIVATED AREAS, REFERENCE FOUND OR SET MONUMENTATION, BURIED 5/8 INCH IRON ROD 20 INCHES BELOW GROUND TO THE FOUND IRON STAKE, IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- STAKING OF PROPOSED RIGHT OF WAY, SET DIVISION OF HIGHWAYS SURVEY MARKER TO MONUMENT THE POSITION SHOWN, IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.
- M STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS, BURIED 5/8 INCH METAL ROD 20 INCHES BELOW GROUND TO MARK FUTURE SURVEY MARKER POSITION IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- ⊙ PERMANENT SURVEY MARKER, I.D.O.T STD 2135 (TO BE SET BY OTHERS)
- RIGHT OF WAY STAKING PROPOSED TO BE SET.

STATE OF ILLINOIS }  
 COUNTY OF LAKE }SS  
 THIS IS TO CERTIFY THAT WE, JORGENSEN & ASSOCIATES, INC., AN ILLINOIS PROFESSIONAL DESIGN FIRM AND SURVEYING CORPORATION, NUMBER 184-2771, HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON BETWEEN SECTION 12, TOWNSHIP 41N., RANGE 10E. AND SECTION 35, TOWNSHIP 42N., RANGE 10E., OF THE THIRD PRINCIPAL MERIDIAN, COOK COUNTY, THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED. MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS.  
 DATED AT LAKE VILLA, ILLINOIS THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ 20\_\_\_\_ A.D.

PRESIDENT  
 ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 35-2797  
 LICENSE EXPIRATION DATE: NOVEMBER 30, 2004  
 THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.  
 Surface Coordinates are shown and are based on the published U.S. Foot Coordinate Value of N.1,964,863.446-E.1,062,611.343 at the Found Village of Schaumburg Monument, Station 1009. Project Average Combined Scale Factor 0.9999511.



Proposed Pavement Meacham Road Curve #1	Proposed Pavement Meacham Road Curve #2	Proposed Pavement Meacham Road Curve #3	Proposed Pavement Meacham Road Curve #4
P.I. = Sta. 276+16.69	P.I. = Sta. 294+69.82	P.I. = Sta. 307+63.57	P.I. = Sta. 317+23.36
Δ = 3°28'39"	Δ = 3°52'52"	Δ = 5°47'23"	Δ = 3°43'00"
R = 11470.00'	R = 9870.00'	R = 13645.75'	R = 8349.98'
T = 348.20'	T = 334.42'	T = 690.05'	T = 270.92'
L = 696.18'	L = 668.58'	L = 1378.92'	L = 541.65'
E = 5.28'	E = 5.66'	E = 17.44'	E = 4.39'
P.C. = Sta. 272+68.49	P.C. = Sta. 291+35.40	P.C. = Sta. 300+73.52	P.C.C. = Sta. 314+52.44
P.T. = Sta. 279+64.67	P.T. = Sta. 298+03.98	P.C.C. = Sta. 314+52.44	P.T. = Sta. 319+94.09

FOR INFORMATION ONLY

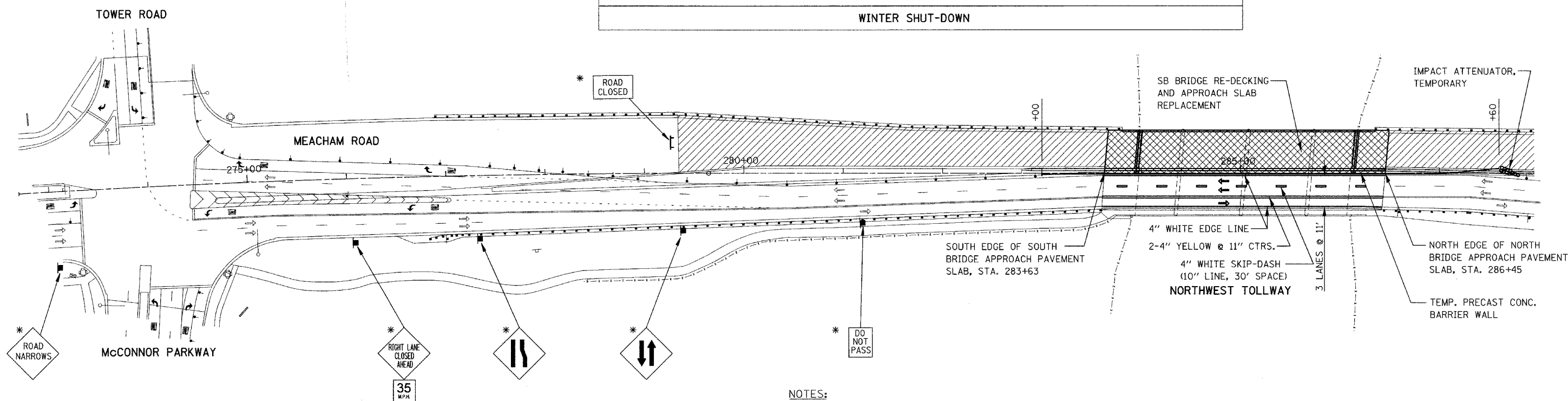
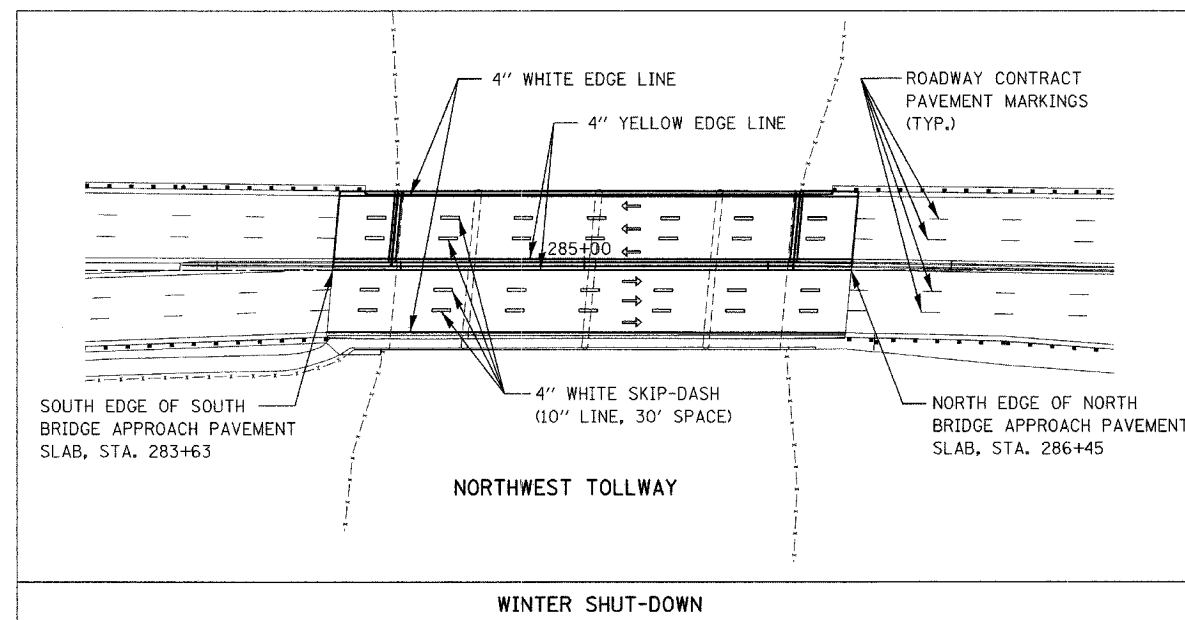
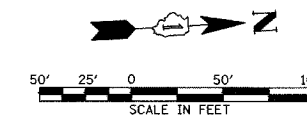
JORGENSEN & ASSOCIATES, INC.  
 120 PARK AVENUE  
 LAKE VILLA, ILLINOIS 60046  
 (847) 356-3371

PLAT OF HIGHWAYS  
 STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 F.A.U. 2585 (MEACHAM ROAD)  
 SECTION 00-00068-01-WR COOK COUNTY  
 PROJECT JOB NO. R-55-001-97  
 STATION 262+65.32 TO STATION 324+12.58  
 SCALE: 1"=200'

BUREAU OF LAND ACQUISITION  
 201 WEST CENTER COURT  
 SCHAUMBURG, ILLINOIS 60196

DATE	BY	MADE	CHECKED	INKEED	NOTEBOOK NO.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2585	05-00068-02-BR	COOK	30	5
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NUMBER 83800				



- LEGEND:**
- BRIDGE CONSTRUCTION
  - ROADWAY CONSTRUCTION (NOT IN CONTRACT)
  - TYPE II BARRICADE WITH MONO-DIRECTIONAL STEADY-BURN LIGHTS @ 50' CTRS. (25' SPACING WITHIN TAPERS)
  - TYPE III BARRICADE
  - TEMPORARY TRAFFIC SIGN
  - TEMPORARY PRECAST CONCRETE BARRIER WALL
  - IMPACT ATTENUATOR, TEMPORARY
  - DIRECTION OF TRAFFIC
- (\* SEPERATE ROADWAY CONTRACT)

- NOTES:**
- AT THE START OF THE SOUTHBOUND BRIDGE DECK REPLACEMENT, CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR MAINTENANCE OF TRAFFIC OF THE PORTION OF MEACHAM ROAD OVER I-90 TOLLWAY FROM THE EXISTING ROADWAY CONTRACTOR. THIS SHALL INCLUDE THE NORTH AND SOUTH BRIDGE APPROACH PAVEMENT AND BRIDGE SUPERSTRUCTURE.
  - CONTRACTOR SHALL BE REQUIRED TO PROVIDE TEMPORARY CONCRETE BARRIER WALL, AS SHOWN AND TEMPORARY IMPACT ATTENUATOR, IN ACCORDANCE WITH THE NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM (NCHRP) REPORT 350, TESTING LEVEL 3.
  - CONTRACTOR SHALL MAINTAIN ALL EXISTING TEMPORARY PAVEMENT MARKINGS BETWEEN THE SOUTH EDGE OF THE SOUTH BRIDGE APPROACH PAVEMENT AND THE NORTH EDGE OF THE NORTH BRIDGE APPROACH PAVEMENT FOR THE DURATION OF STAGE I - SB BRIDGE DECK AND APPROACH PAVEMENT REPLACEMENT.
  - ALL MAINTENANCE OF TRAFFIC (TEMPORARY PAVEMENT MARKINGS, BARRICADES, AND SIGNS) NOT LOCATED WITHIN THE LIMITS OF THE BRIDGE AND APPROACH PAVEMENT AREAS SHALL REMAIN THE RESPONSIBILITY OF THE EXISTING ROADWAY CONTRACTOR. CONTRACTOR SHALL COORDINATE WITH THE EXISTING ROADWAY CONTRACTOR AND SHALL SUBMIT MODIFICATIONS TO PROPOSED MAINTENANCE OF TRAFFIC PLANS TO THE ENGINEER FOR APPROVAL, PRIOR TO ANY CHANGE OR MODIFICATION.
  - CONTRACTOR SHALL PROVIDE TEMPORARY PAVEMENT MARKINGS, AS SHOWN FOR WINTER SHUT-DOWN, OR AS DIRECTED BY ENGINEER. ALL TEMPORARY PAVEMENT MARKINGS SHALL BE CONSISTANT WITH ROADWAY PERMANANT PAVEMENT MARKINGS.
  - ALL PAVEMENT MARKINGS SHOWN ON THIS SHEET SHALL BE TYPE III, TEMPORARY PAVEMENT MARKING TAPE, UNLESS OTHERWISE NOTED.

REVISIONS	
NAME	DATE

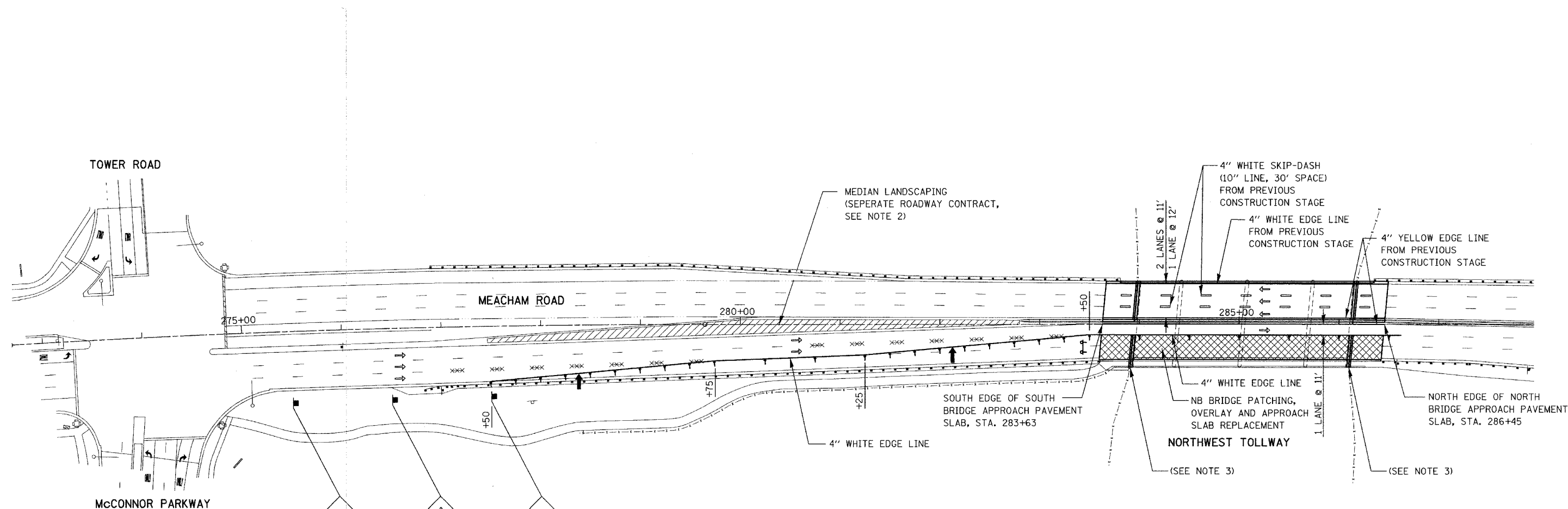
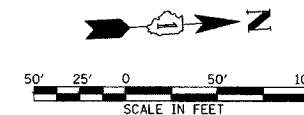
ILLINOIS DEPARTMENT OF TRANSPORTATION

**CONSTRUCTION STAGING & MAINTENANCE OF TRAFFIC STAGE I**

DESIGNED BY MTK  
CHECKED BY RAL

DATE 04/14/05

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2585	05-00068-02-BR	COOK	30	6
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NUMBER 83800				



- W20-1(O)-48  
W13-(O) 2424
- W21-1106R(O)-48
- W21-1110-48

- LEGEND:**
- BRIDGE CONSTRUCTION
  - ROADWAY CONSTRUCTION (NOT IN CONTRACT)
  - TYPE II BARRICADE WITH MONO-DIRECTIONAL STEADY-BURN LIGHTS @ 50' CTRS. (25' SPACING WITHIN TAPERS)
  - TYPE III BARRICADE W/ FLASHING LIGHTS
  - TEMPORARY TRAFFIC SIGN
  - DIRECTION OF TRAFFIC
  - MASK EXISTING PAVEMENT MARKING
  - ARROW BOARD

- NOTES:**
- CONTRACTOR SHALL PROVIDE ALL TRAFFIC CONTROL DEVICES, TEMPORARY SIGNS, BARRICADES AND TEMPORARY PAVEMENT MARKINGS SHOWN ON THIS SHEET, OR AS DIRECTED BY ENGINEER.
  - CONTRACTOR SHALL COORDINATE WITH EXISTING ROADWAY CONTRACTOR TO AVOID CONFLICT WITH MEDIAN LANDSCAPING WORK.
  - THE NORTHBOUND PEDESTRIAN WALKWAY SHALL REMAIN OPEN AT ALL TIMES DURING CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE SAFE TEMPORARY MEANS FOR PEDESTRIAN ACCESS.
  - MASK EXISTING PAVEMENT MARKINGS WITH BLACK TYPE III TEMPORARY PAVEMENT MARKING TAPE.
  - ALL PAVEMENT MARKINGS SHOWN ON THIS SHEET SHALL BE TYPE III, TEMPORARY PAVEMENT MARKING TAPE, UNLESS OTHERWISE NOTED.

REVISIONS	
NAME	DATE

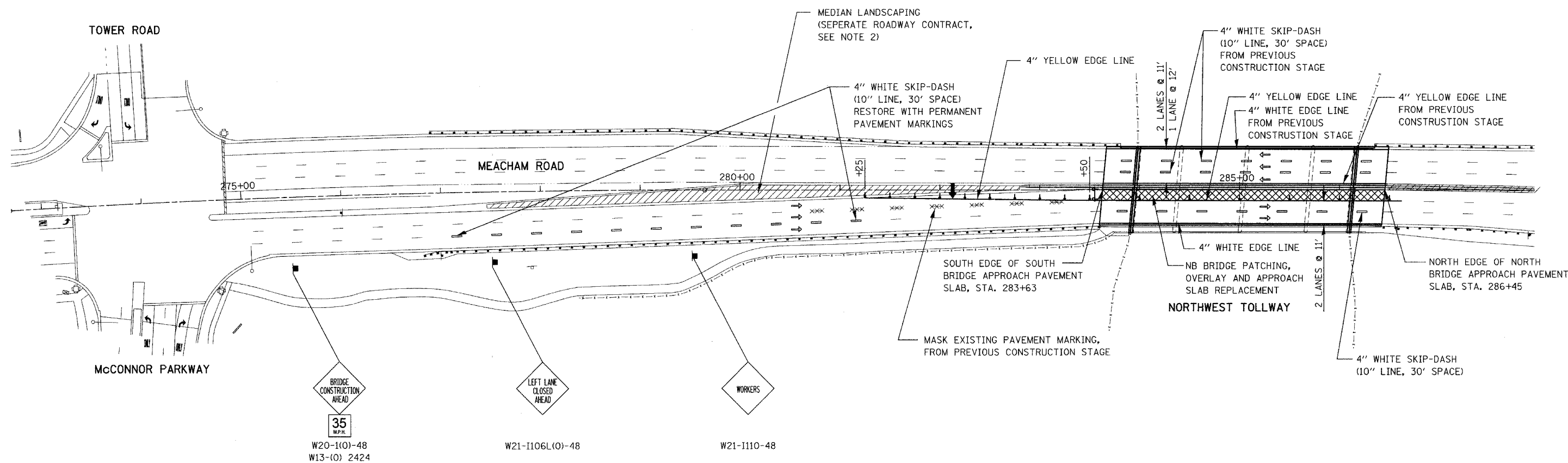
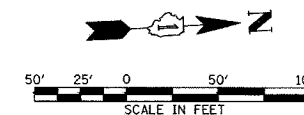
ILLINOIS DEPARTMENT OF TRANSPORTATION

**CONSTRUCTION STAGING & MAINTENANCE OF TRAFFIC STAGE IIA**

DESIGNED BY MTK  
CHECKED BY RAL

DATE 04/14/05

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2585 05-00068-02-BR		COOK	30	7
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NUMBER 83800				



**LEGEND:**

- BRIDGE CONSTRUCTION
- ROADWAY CONSTRUCTION (NOT IN CONTRACT)
- TYPE II BARRICADE WITH MONO-DIRECTIONAL STEADY-BURN LIGHTS @ 50' CTRS. (25' SPACING WITHIN TAPERS)
- TYPE III BARRICADE W/ FLASHING LIGHTS
- TEMPORARY TRAFFIC SIGN
- DIRECTION OF TRAFFIC
- MASK EXISTING PAVEMENT MARKING
- ARROW BOARD

**NOTES:**

1. CONTRACTOR SHALL PROVIDE ALL TRAFFIC CONTROL DEVICES, TEMPORARY SIGNS, BARRICADES AND TEMPORARY PAVEMENT MARKINGS SHOWN ON THIS SHEET, OR AS DIRECTED BY ENGINEER.
2. CONTRACTOR SHALL COORDINATE WITH EXISTING ROADWAY CONTRACTOR TO AVOID CONFLICT WITH MEDIAN LANDSCAPING WORK.
3. ALL PAVEMENT MARKINGS SHOWN ON THIS SHEET SHALL BE TYPE III, TEMPORARY PAVEMENT MARKING TAPE, UNLESS OTHERWISE NOTED.
4. MASK EXISTING PAVEMENT MARKINGS WITH BLACK TYPE III TEMPORARY PAVEMENT MARKING TAPE.

REVISIONS	
NAME	DATE

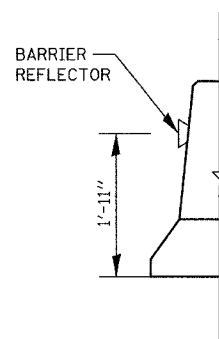
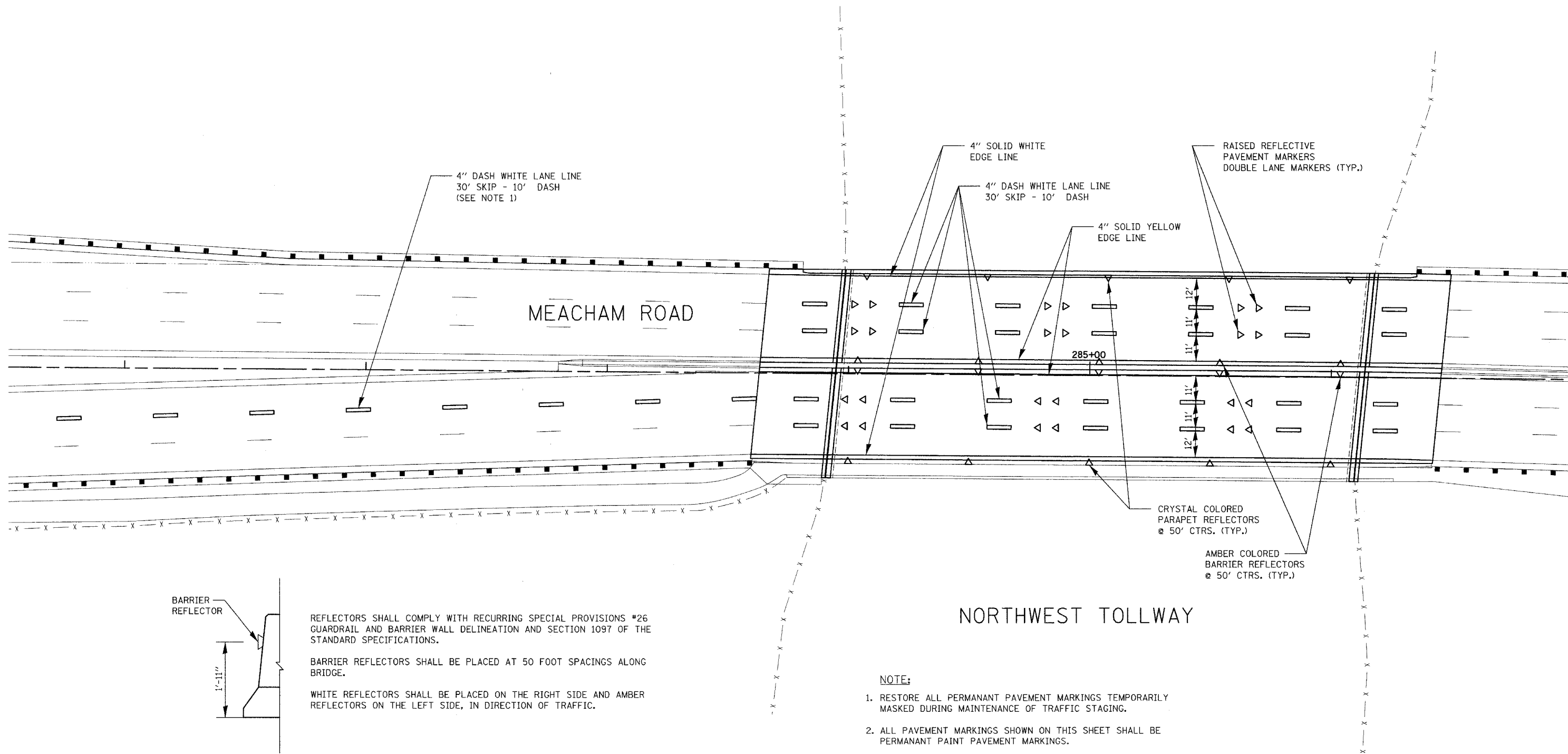
ILLINOIS DEPARTMENT OF TRANSPORTATION

**CONSTRUCTION STAGING & MAINTENANCE OF TRAFFIC STAGE IIB**

DESIGNED BY MTK  
CHECKED BY RAL

DATE 04/14/05

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2585	05-00068-02-BR	COOK	30	8
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NUMBER 83800				



BARRIER OR PARAPET REFLECTOR INSTALLATION

REFLECTORS SHALL COMPLY WITH RECURRING SPECIAL PROVISIONS #26 GUARDRAIL AND BARRIER WALL DELINEATION AND SECTION 1097 OF THE STANDARD SPECIFICATIONS.

BARRIER REFLECTORS SHALL BE PLACED AT 50 FOOT SPACINGS ALONG BRIDGE.

WHITE REFLECTORS SHALL BE PLACED ON THE RIGHT SIDE AND AMBER REFLECTORS ON THE LEFT SIDE, IN DIRECTION OF TRAFFIC.

**NOTE:**

1. RESTORE ALL PERMANANT PAVEMENT MARKINGS TEMPORARILY MASKED DURING MAINTENANCE OF TRAFFIC STAGING.
2. ALL PAVEMENT MARKINGS SHOWN ON THIS SHEET SHALL BE PERMANANT PAINT PAVEMENT MARKINGS.

REVISIONS	
NAME	DATE

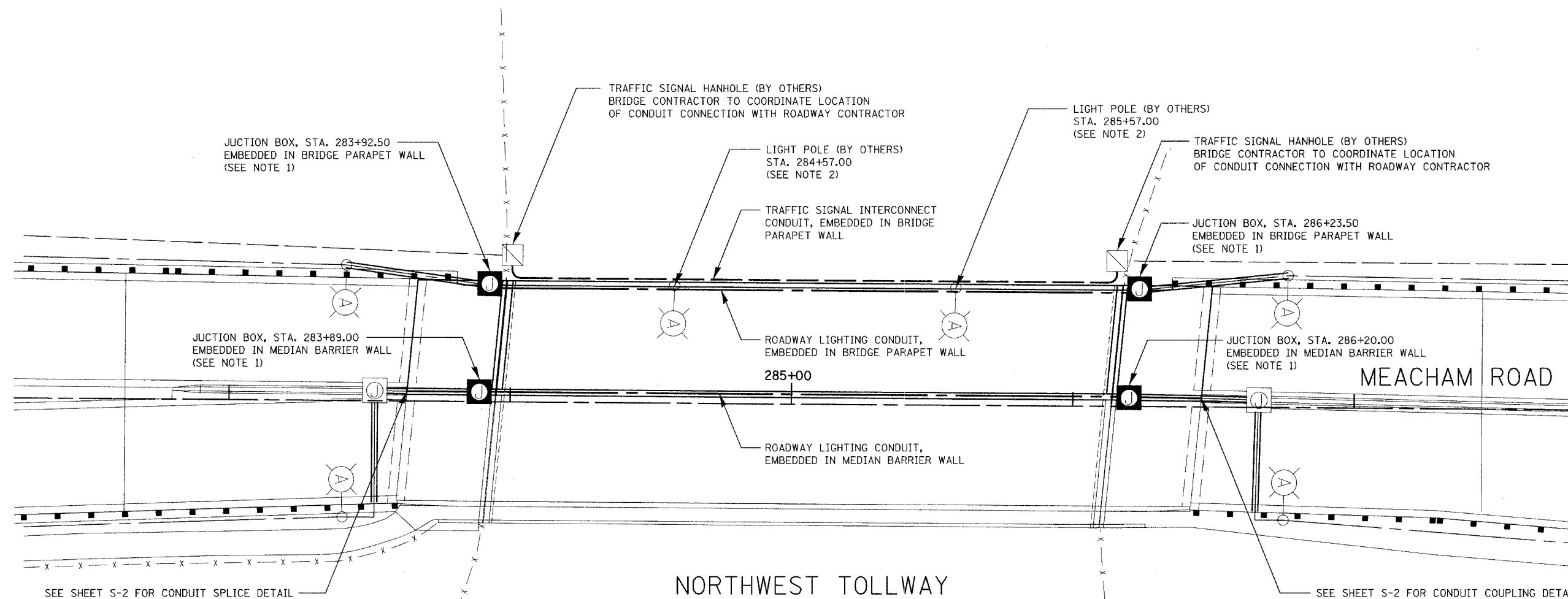
ILLINOIS DEPARTMENT OF TRANSPORTATION

**PAVEMENT MARKINGS**

DESIGNED BY MTK  
CHECKED BY RAL  
DATE 04/14/05









F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2585 05-00068-02-BR		COOK	30	9
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NUMBER 83800				



SEE SHEET S-2 FOR CONDUIT SPLICE DETAIL

SEE SHEET S-2 FOR CONDUIT COUPLING DETAIL

**LEGEND:**

- \* HANDHOLE 
- TRAFFIC SIGNAL INTERCONNECT  
2" PVC CONDUIT, EMBEDDED IN STRUCTURE 
- ROADWAY LIGHTING  
2" PVC CONDUIT, EMBEDDED IN STRUCTURE 
- \* LIGHT POLE 
- JUNCTION BOX (SPECIAL) 
- \* JUNCTION BOX, EMBEDDED IN ROADWAY MEDIAN BARRIER WALL 

(\* WORK TO BE INCLUDED UNDER SEPERATE ROADWAY CONTRACT)

**NOTES:**

1. FOR EMBEDDED CONDUIT AND JUNCTION BOX DETAILS, SEE SHEET S-2 OF BRIDGE PLANS
2. FOR LIGHT POLE CONNECTION DETAILS, SEE SHEET S-9 OF BRIDGE PALNS

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**TRAFFIC SIGNAL INTERCONNECT AND ROADWAY LIGHTING PLAN**

DESIGNED BY MTK  
CHECKED BY RAL  
DATE 04/14/05

B.M. A 2" aluminum cap grouted in concrete median 308' north of the bridge, Elev. 757.53

Existing Structure: SN 016-0676 built in 1957 as Meacham Rd., Section T1-7.  
The the southbound deck was overlayed and a northbound bridge was constructed in 1974.

The superstructure consists of four simple spans with 48" Prestressed Concrete Beams.  
The substructure consists of two pile bent abutments and three multi-column piers.  
The abutments and northbound piers are on 12" Cast-In-Place Concrete Piles.  
The southbound piers are on 36" Concrete Piles (Raymond Piles).  
Skewed at 5°-17'-50", 223'-2" Bk. to Bk. abutments, and 86'-0" O.-O. deck.

The southbound concrete deck slab to be removed and replaced.  
The northbound concrete deck slab to be patched and overlayed.  
See Scope of Work.

Traffic to be maintained using stage construction.

Salvage Aluminum Handrailing  
(See General Notes on Sheet S-2).

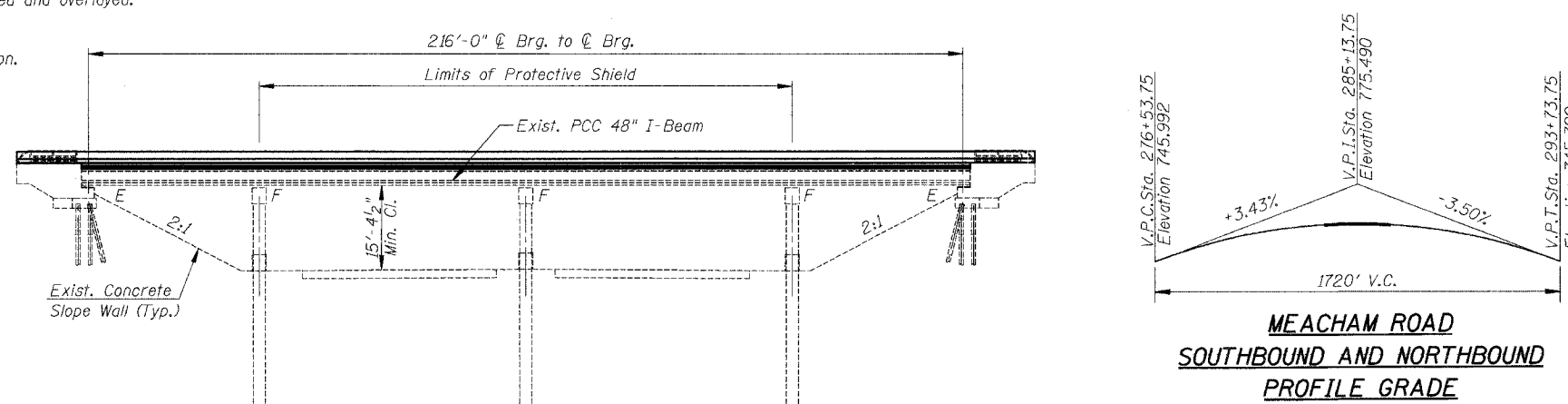
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.U. RTE. 2585	**	COOK	30	10
FED. ROAD DIST. NO. 7	ILLINOIS FED. AID PROJECT		CONTRACT No. 83800	

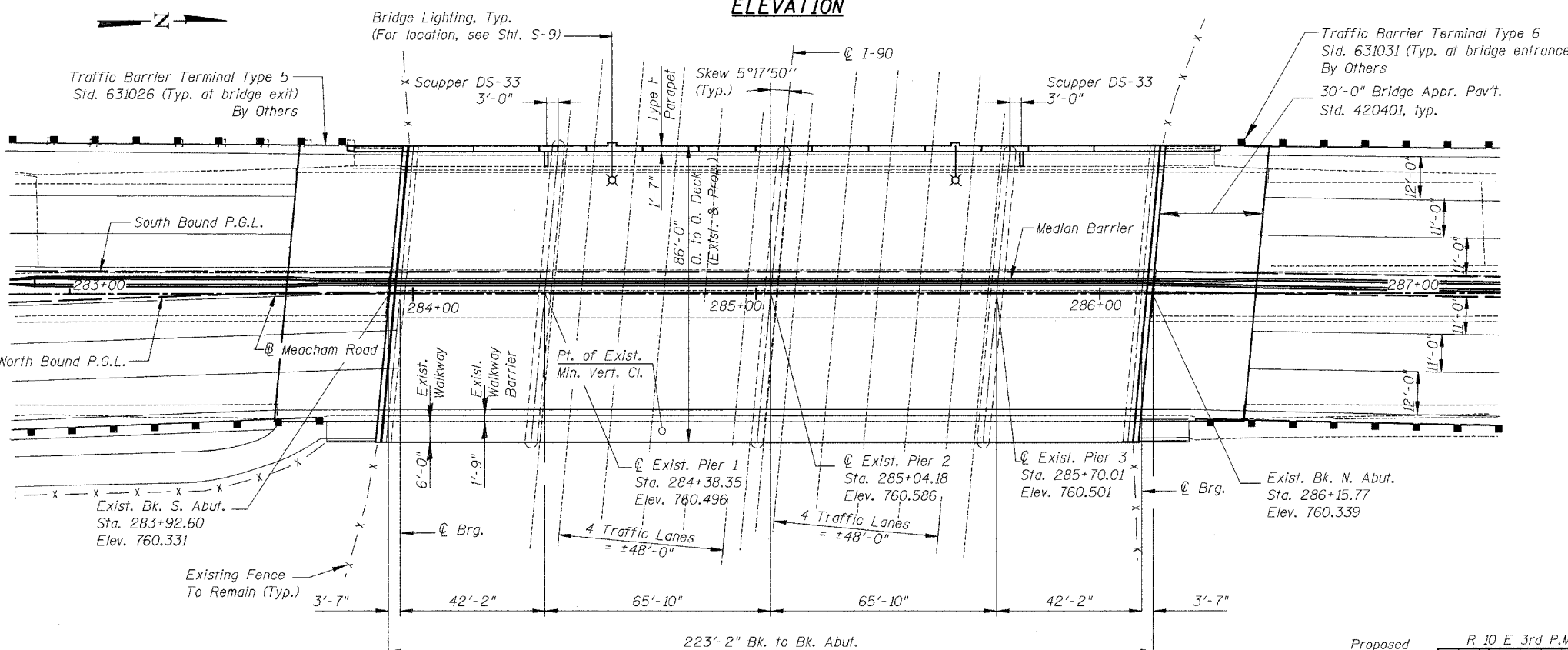
SHEET NO. S-1  
OF  
S-21 SHEETS

INDEX OF SHEETS

SHEET NO.	TITLE
S-1	General Plan
S-2	General Notes & Bill of Material
S-3	Traffic Staging & Construction
S-4	Structural Removal
S-5	Deck Elevations I
S-6	Deck Elevations II
S-7	SB Deck Plan and Section
S-8	NB Deck and Barrier Repairs
S-9	Deck and Parapet Details I
S-10	Deck and Parapet Details II
S-11	Bridge Joint System - Expansion (Preformed Joint Seal)
S-12	Bridge Joint System - Expansion (Alternate - Strip Seal)
S-13	Existing Framing Plan
S-14	Existing Beam Details
S-15	Structural Details I
S-16	Structural Details II
S-17	Abutment Repairs
S-18	Drainage Scupper, DS-33
S-19	Pedestrian Railing Details
S-20	Bar Splicer Assembly Details
S-21	Temporary Concrete Barrier for Stage Construction



MEACHAM ROAD  
SOUTHBOUND AND NORTHBOUND  
PROFILE GRADE



PLAN

**SEISMIC DATA**  
Seismic Performance Category (SPC) = A  
Bedrock Acceleration Coefficient (A) = 0.04g  
Site Coefficient (S) = 1.0

**BRIDGE RATING**  
Inventory Rating = 23.9  
Operating Rating = 38.3

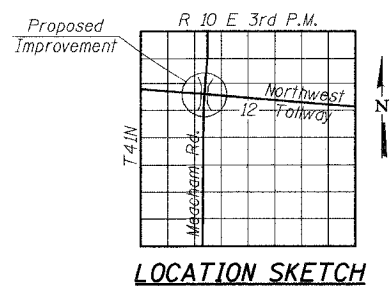
**HIGHWAY CLASSIFICATION**  
F.A.P. Rte. 876  
Functional Class: Principal Arterial  
ADT: 24,100 to 27,000 (1998)  
ADT: 29,565 (2016)  
DHV: Unknown  
Design Speed: 40 m.p.h.  
Posted Speed: 40 m.p.h.

**LOADING HS20-44**  
Allow 25#/#sq. ft. for future wearing surface.

**DESIGN SPECIFICATIONS**  
2002 AASHTO Standard Specifications  
for Highway Bridges, 17th Edition  
2002 IDOT Bridge Manual  
2000 ISTHA Bridge Design Criteria

**DESIGN STRESSES**

**FIELD UNITS**  
 $f'_c = 3,500$  psi  
 $f'_c = 5,000$  psi (existing precast beams)  
 $f_y = 60,000$  psi (reinforcement)  
 $f_y = 40,000$  psi (existing reinforcement)



LOCATION SKETCH

- SCOPE OF WORK**
1. Remove and replace the southbound deck and overlay. Remove the southbound sidewalk and replace it with a Type-F parapet and add an additional median barrier.
  2. Patch and overlay northbound deck. Repair cracks and spalls on the north bound sidewalk barrier, patch scaling and hollow conc. in NB sidewalk, and install new pedestrian railing.
  3. Remove and replace approach slab.
  4. Modify abutment backwalls for wider approach slabs.
  5. Remove and replace expansion joints at abutments.
  6. Remove loose, detrimental, foreign material from the abutment seats.
  7. Jack and reposition the exist. sliding plate bearing under Beam 2 on South Abut.
  8. Remove all abandoned utilities attached to N. Abutment and northeast wingwall.

I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THIS BRIDGE/BOX CULVERT DESIGN IS STRUCTURALLY ADEQUATE FOR THE DESIGN LOADING SHOWN ON THE PLANS. THE DESIGN IS AN ECONOMICAL ONE FOR THE STYLE OF STRUCTURE AND COMPLIES WITH REQUIREMENTS OF THE CURRENT "AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES".

**APPROVED**  
FOR STRUCTURAL ADEQUACY ONLY

*Robert E. Anderson*  
ENGINEER OF BRIDGES AND STRUCTURES



ROBERT A. LEE  
LICENSED STRUCTURAL ENGINEER  
NO. 081-005246  
LICENSE EXPIRES ON NOV. 30, 2006

**GENERAL PLAN**  
**MEACHAM ROAD OVER NORTHWEST TOLLWAY**  
**F.A.U. ROUTE 2585 SECTION 05-00068-02-BR**  
**COOK COUNTY**  
**STA. 285 + 04.18**

**STRUCTURE NO. 016-0676**

DESIGNED: SCHELBIAN/AYARGICOGULU  
DRAWN: SCHELBIAN/AYARGICOGULU  
CHECKED: RALEE

**GENERAL NOTES**

**STRUCTURAL REMOVAL**

Deck and structural concrete shall be removed as required by Article 501.03 of Standard Specifications (Ref. 2.)

The Contractor shall take care not to damage reinforcement bars and PPC Beams which are to remain in place. Any damage to the reinforcement bars or PPC Beams to remain in place shall be repaired or replaced to the satisfaction of the Engineer at the Contractor's expense.

Tying of loose bars will be required.

Reinforcing bars which have been cut or have lost 25 percent or more of their original cross sectional area shall be supplemented by new in kind reinforcement bars. New bars shall be lapped a minimum of 32 bar diameters to existing bars. An approved "squeeze type" mechanical bar splice capable of developing in tension at least 125 percent of the yield strength of the existing bar shall be used when it is not feasible to provide the minimum bar lap. Alternatively, in kind replacement bars shall be drilled and epoxy grouted into concrete within the closest vicinity of the existing bar to the satisfaction of the Engineer.

Drilling and epoxy grouting of anchor rods, reinforcement bars, and bar splices shall be performed per Article 584 of Standard Specifications (Ref.2).

No welding of bars will be permitted.

Immediately after completion of the concrete removal and reinforcement repairs, the repair areas shall be cleaned of dust and debris. Once the initial cleaning is completed, the repair areas shall be thoroughly blast cleaned to a roughened appearance free from all foreign matter. Particular attention shall be given to removal of concrete fines.

Any method of cleaning which does not consistently produce satisfactory results shall be discontinued and replaced by an acceptable method.

All debris, including water, resulting from the blast cleaning shall be confined and shall be immediately and thoroughly removed from all areas of accumulation. If concrete placement does not follow immediately after the final cleaning, the area shall be carefully protected by a well-anchored polyethylene sheeting.

Exposed reinforcement bars shall be free of dirt, detrimental scale, paint, oil, or other foreign substances which may reduce bond with the concrete. A tight non-scaling coating of rust is not considered objectionable. Loose, scaling rust shall be removed by rubbing with burlap, wire brushing, blast cleaning or other methods approved by the Engineer.

Protective Shielding shall be in place prior to performing any work on the Bridge Superstructure.

Contractor is responsible to obtain Tollway Permitting for all lane closures with regard to installing and removing of the Protective Shield. Cost incidental to Protective Shield.

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
d(E)	132	#5	3'-3"	
d <sub>1</sub> (E)	132	#5	2'-8"	
e <sub>2</sub> (E)	12	#4	29'-9"	
e <sub>3</sub> (E)	4	#8	29'-9"	
e <sub>4</sub> (E)	4	#5	29'-9"	
t(E)	120	#5	5'-9"	
w(E)	24	#5	29'-9"	
Reinforcement Bars, Epoxy Coated		Lbs.	2959	
Concrete Superstructure		Cu. Yd.	9.7	
Concrete Structures		Cu. Yd.	16.7	

\*\*\* For Bar Bending Diagrams, See Sheet S-10.

**CONSTRUCTION**

Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

All construction joints shall be bonded.

Prior to pouring the new concrete for the deck, all loose rust, loose mill scale and all other loose, potentially detrimental foreign material shall be removed from the top surfaces of diaphragms and beams in contact with new concrete. The cost of this work will included in the pay item covering removal of the existing concrete.

Sliding plate bearing under Beam 2 on South Abutment shall be repositioned as required by the special provision "Bearing Repositioning".

All new structural steel shall be shop painted with an inorganic zinc rich primer per Article 1008.22 of Standard Specifications (Ref. 2.) except where noted.

The existing Aluminum Handrails shall be removed and delivered to the ISTHA Maintenance Yard M-5.

**REINFORCEMENT BARS**

All new reinforcement bars shall conform to the requirements of AASHTO M31 or M322, Grade 60.

Cover from the concrete to face of reinforcement bars shall be 2" unless otherwise shown.

Reinforcement bar bending dimensions are out to out.

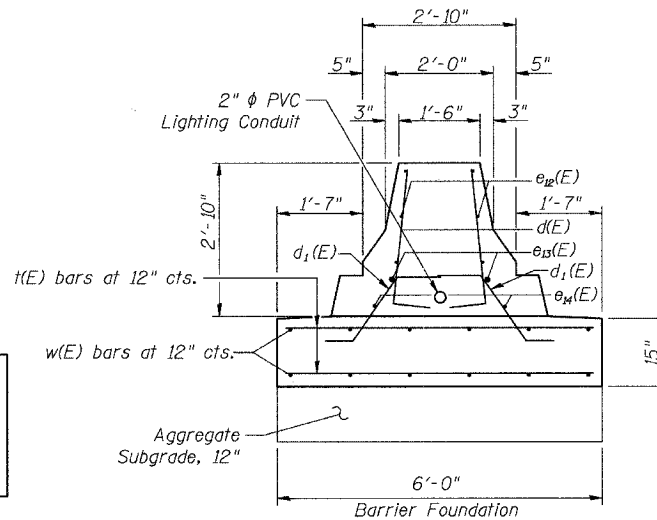
Reinforcement bars designated "(E)" shall be epoxy coated.

Reinforcement bar splices shall be in accordance with Bridge Manual (Ref.1).

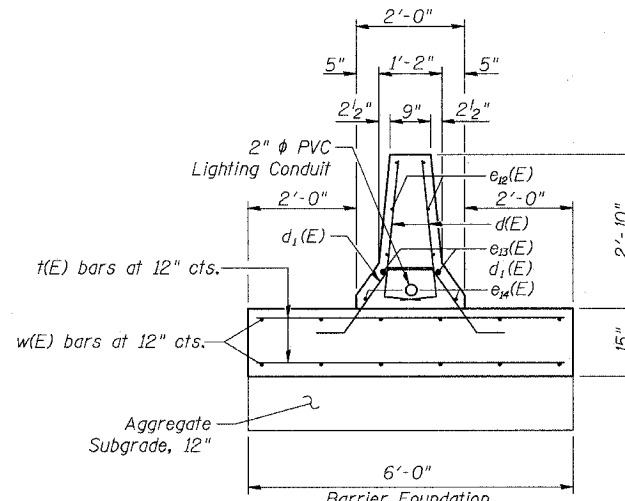
**REFERENCES**

1. Bridge Manual, Illinois Department of Transportation, 2004.
2. Standard Specifications for Road and Bridge Construction, Illinois Department of Transportation, Adopted January 1, 2002.

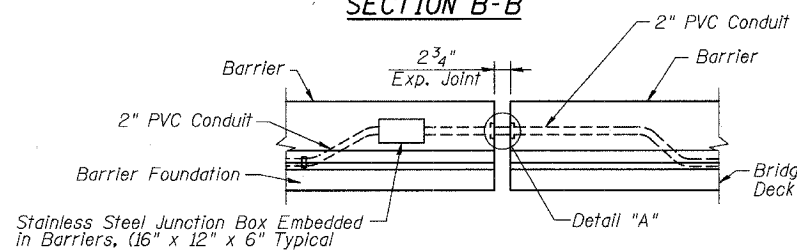
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**



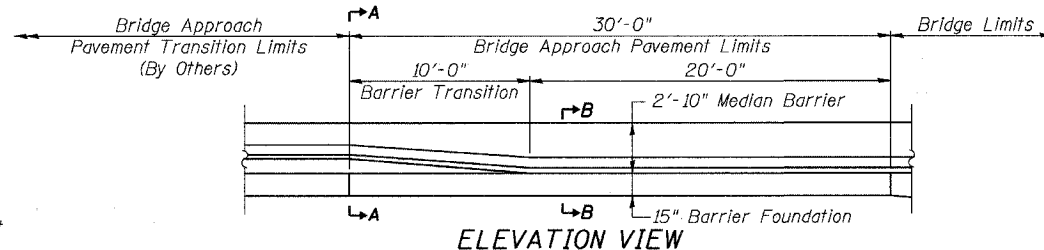
**SECTION A-A**



**SECTION B-B**



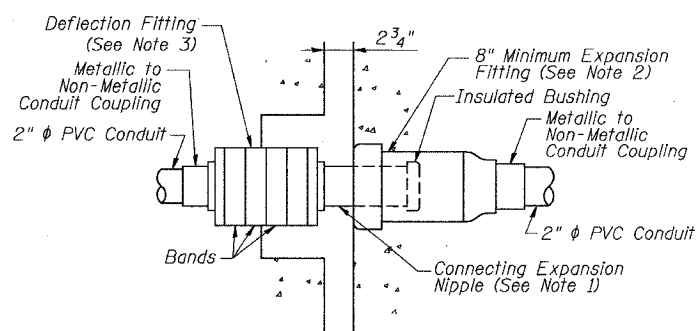
**JUNCTION BOX, EMBEDDED IN BARRIERS**



**ELEVATION VIEW**

Notes For Conduit Expansion/Deflection Coupling:

1. Provide required length of connecting Expansion Nipple. See Sheets S-11 & S-12 for the expansion joint characteristics.
2. The Barrel of the fitting shall be fully embedded in the concrete of one side of the Expansion Joint.
3. A cavity opening, if required, shall be 3" larger dia. and a max. depth of half of the Deflection Sleeve length. The Deflection Fitting shall be centered in the opening and embedded in the concrete only up to the Deflection Fitting center.



**DETAIL "A"  
CONDUIT EXPANSION/DEFLECTION COUPLING**

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2585	**	COOK	30	11

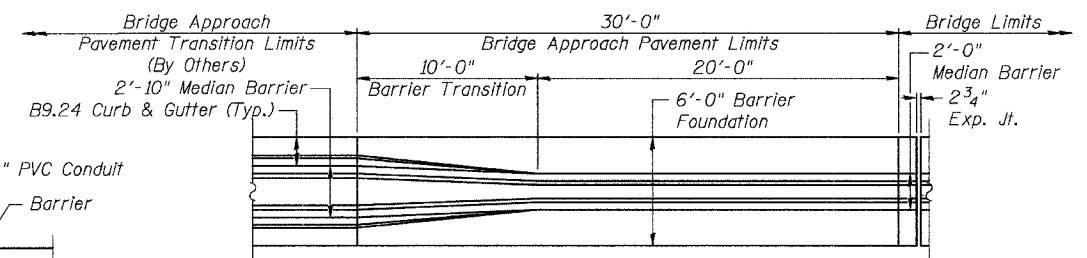
SHEET NO. S-2  
OF  
S-21 SHEETS

FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT  
\*\* 05-00068-02-BR CONTRACT NO 83800

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Superstructure	Cu. Yd.	365.0		365.0
Protective Coat	Sq. Yd.	2917	13	2930
Bridge Deck Grooving	Sq. Yd.	1682		1682
Concrete Bridge Deck Scarification, (1/4")	Sq. Yd.	861.3		861.3
* Bituminous Concrete Surface Removal	Sq. Yd.	1349		1349
Reinforcement Bars, Epoxy Coated	Pound	70870	3940	74810
Bridge Deck Latex Concrete Overlay, (2 1/4")	Sq. Yd.	861.3		861.3
Name Plates	Each	1		1
Concrete Structures	Cu. Yd.		24.0	24.0
Epoxy Crack Sealing	Foot	13		13
Protective Shield	Sq. Yd.	1257		1257
Bar Splacers	Each		152	152
Preformed Joint Seal, 2 1/2"	Foot	170.0		170.0
Bridge Rail Removal	Foot	251		251
Removal Of Existing Concrete Deck	Each	1		1
* Bearing Repositioning	Each		1	1
Form Conc. Rep. < 5"	Sq. Ft.	17.5		17.5
Form Conc. Rep. > 5"	Sq. Ft.		11.4	11.4
Concrete Removal	Cu. Yd.	4.9	37.3	42.2
Deck Slab Repair (Full Depth), Type II	Sq. Yd.	49		49
Deck Slab Repair (Partial Depth)	Sq. Yd.	151		151
Drainage Scuppers, DS-33	Each		2	2
* Pedestrian Railing Special	Foot	251		251
* Junction Box, Special	Each	4		4
Bridge Approach Pavement	Sq. Yd.	482		482
Temporary Concrete Barrier	Foot	460		460
* Aggregate Subgrade, 12"	Sq. Yd.		40	40
* Approach Slab Removal	Sq. Yd.	413		413

\* See Special Provisions



**MEDIAN BARRIER TRANSITION**

STATION 285+04.18  
REBUILT 2005 BY  
VILLAGE OF SCHAUMBURG  
STATE OF ILLINOIS

LOADING HS20  
STR. NO. 016-0676

**NAME PLATE**

See Std. 515001

**GENERAL NOTES AND BILL OF MATERIALS  
MEACHAM ROAD OVER NORTHWEST TOLLWAY**

**F.A.U. ROUTE 2585 SECTION 05-00068-02-BR**

**COOK COUNTY**

**STA. 285 + 04.18**

**STRUCTURE NO. 016-0676**

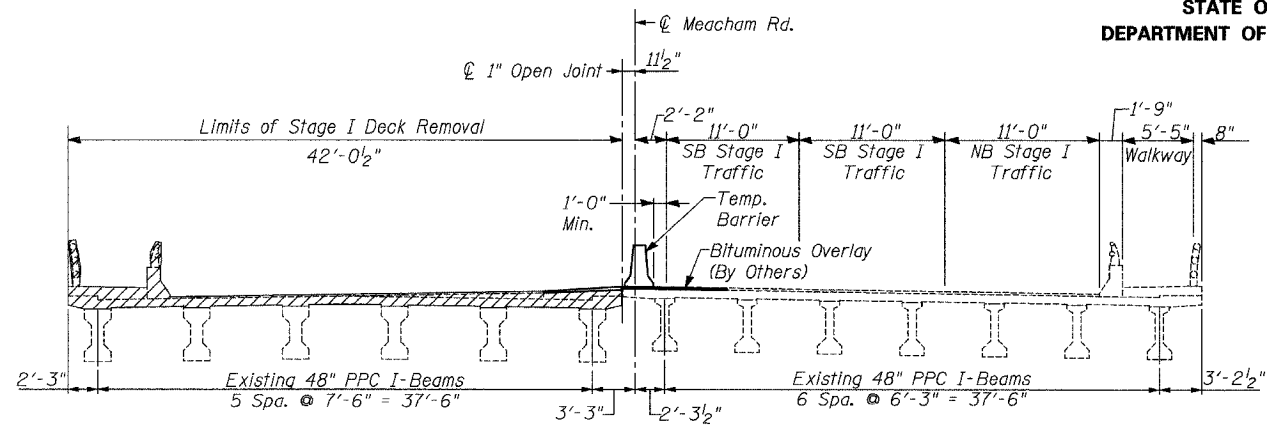


DESIGNED: SCHELBIAN/AYARGICOGLU  
DRAWN: SCHELBIAN/AYARGICOGLU  
CHECKED: RALEE

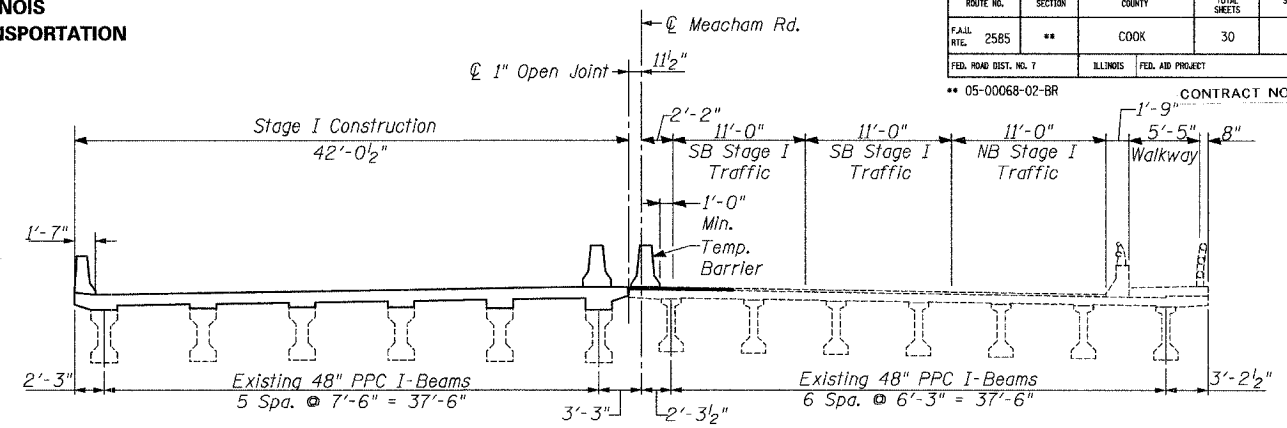
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2585	**	COOK	30	12
FED. ROAD DIST. NO. 7		ILLINOIS FEEL AND PROJECT		
** 05-00068-02-BR		CONTRACT NO 83800		

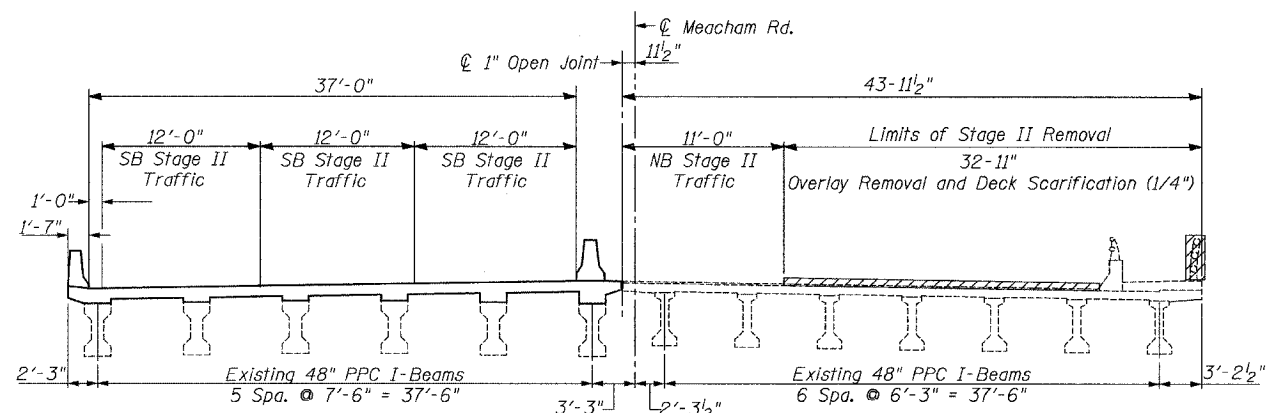
SHEET NO. S-3  
OF  
S-21 SHEETS



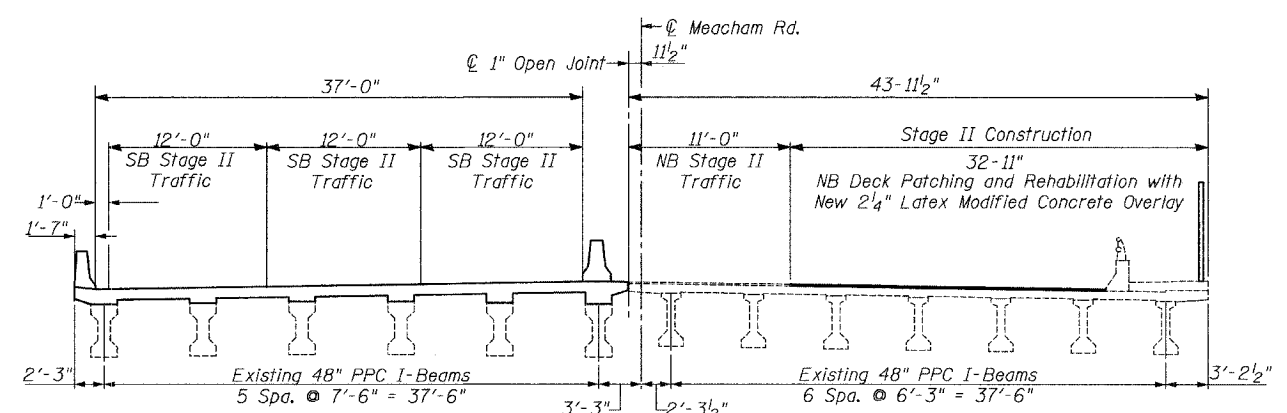
STAGE I REMOVAL



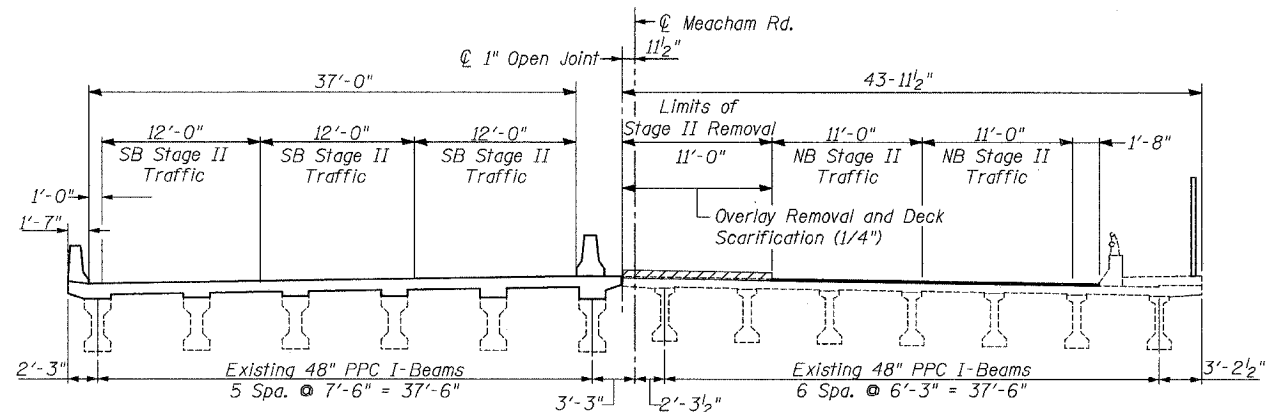
STAGE I CONSTRUCTION



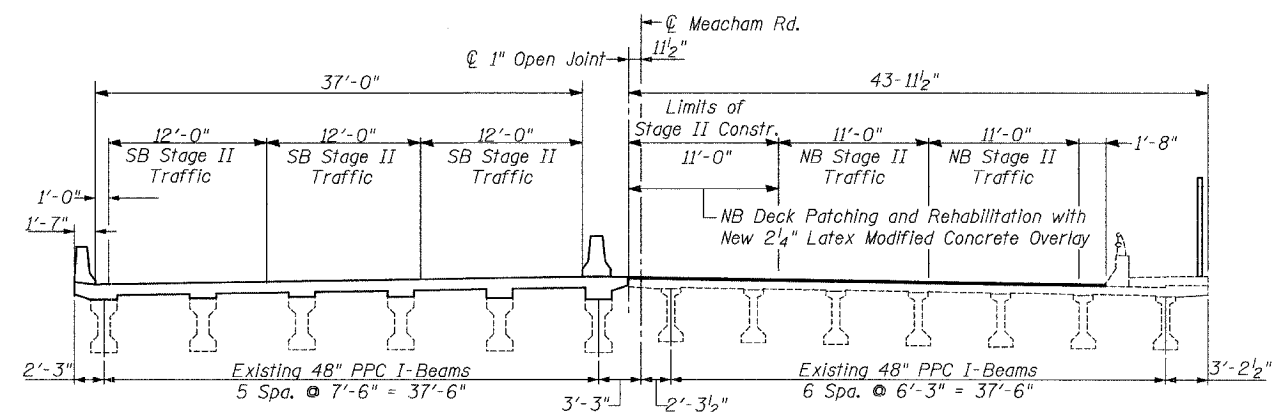
STAGE IIA REMOVAL



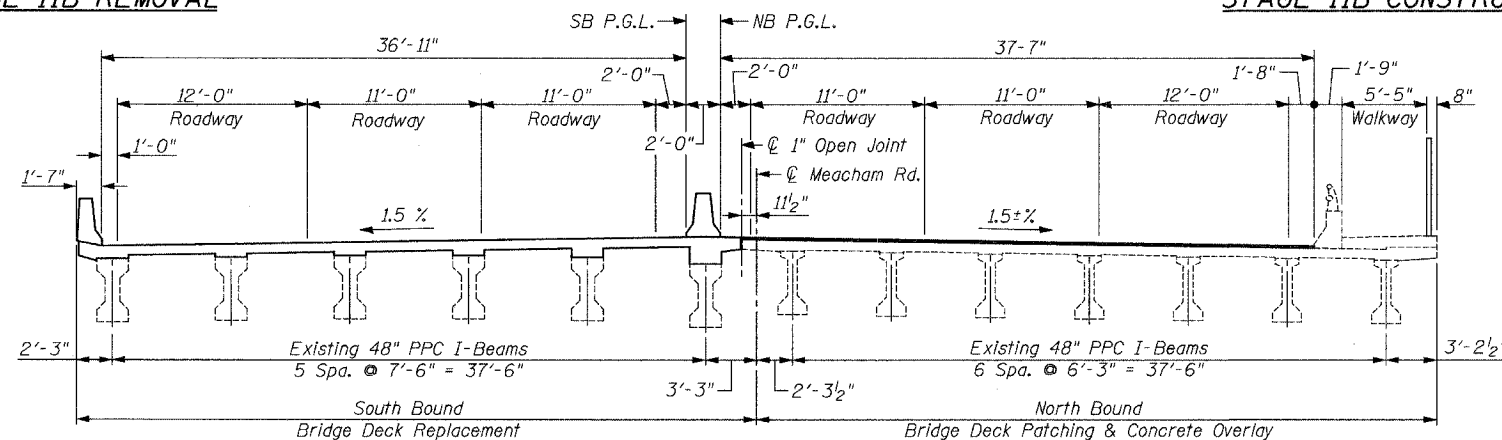
STAGE IIA CONSTRUCTION



STAGE IIB REMOVAL

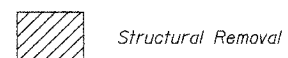


STAGE IIB CONSTRUCTION



TYPICAL CROSS SECTION

LEGEND



Notes:

- All cross sections are looking North.
- For details of Temporary Concrete Barrier, see Sheet S-22

TRAFFIC STAGING AND CONSTRUCTION  
MEACHAM ROAD OVER NORTHWEST TOLLWAY  
F.A.U. ROUTE 2585 SECTION 05-00068-02-BR

COOK COUNTY

STA. 285 + 04.18

STRUCTURE NO. 016-0676

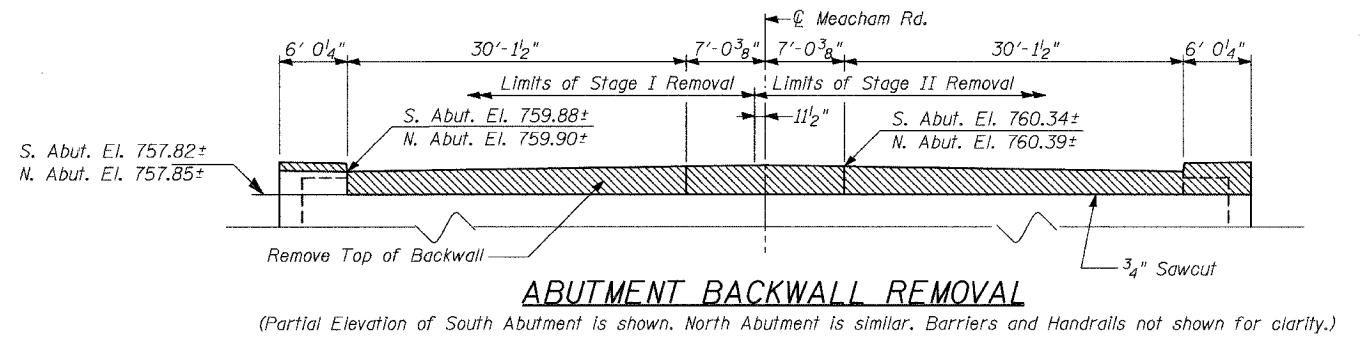
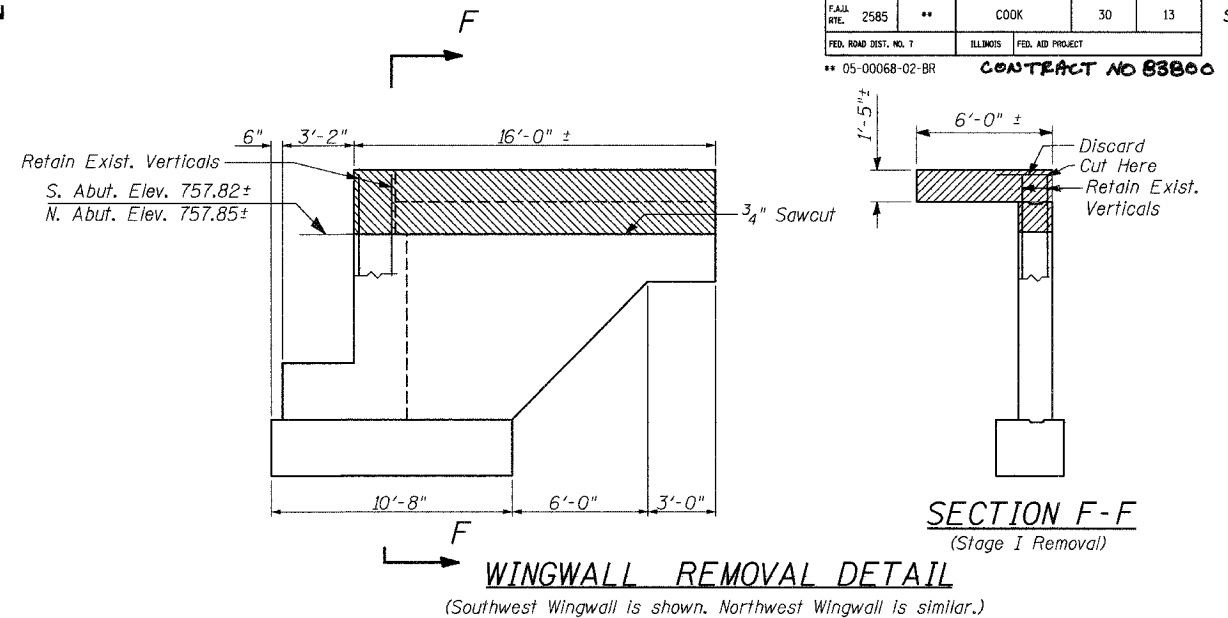
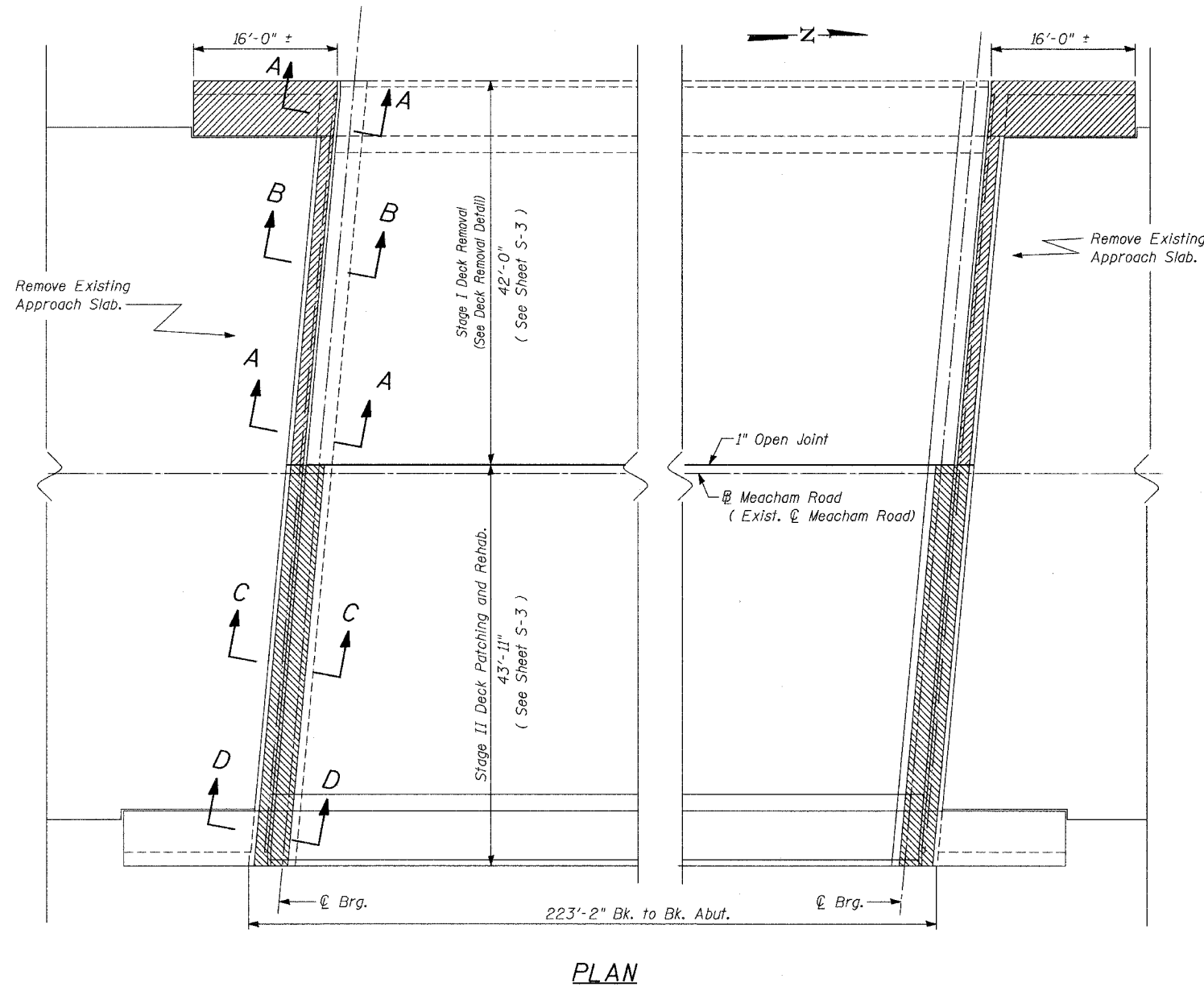


DESIGNED: SCHELBIAN/AYARGICGLU  
DRAWN: SCHELBIAN/AYARGICGLU  
CHECKED: RLEE

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.U. RTE. 2585	**	COOK	30	13
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		
** 05-00068-02-BR		CONTRACT NO 83800		

SHEET NO. S-4  
OF  
S-21 SHEETS

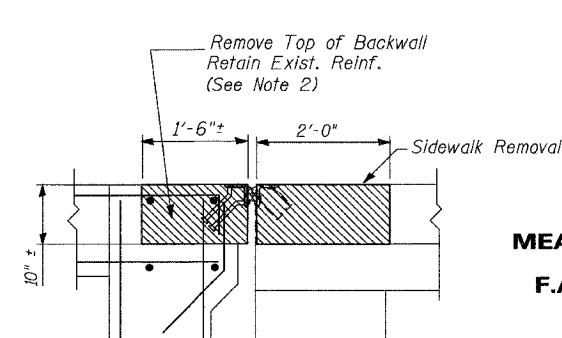
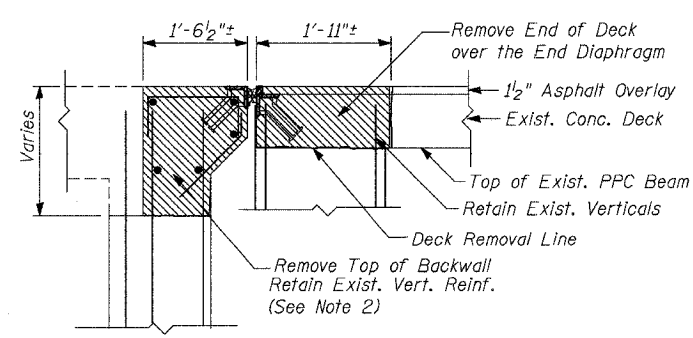
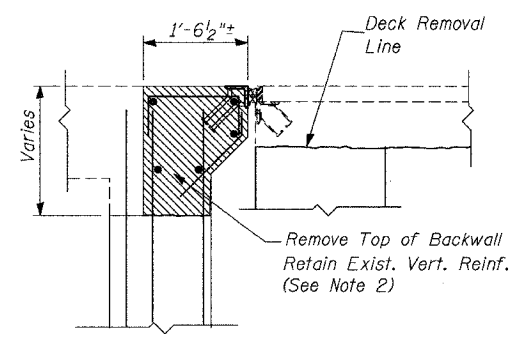
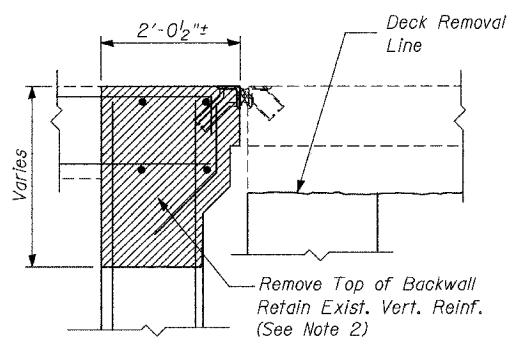


BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Removal	Cu. Yd.	42.2
Removal of Existing Concrete Deck	Each	1

Notes:

- Cost of Removal of Reinforcement Bars and Expansion Device shall be included in CONCRETE REMOVAL.
- Existing reinforcement shall be sandblasted clean and incorporated into new construction. Cost shall be included in CONCRETE SUPERSTRUCTURES on Sht. S-16.
- All concrete and debris shall be removed from shear keys on top flanges of all beams. For details of existing beams, see Sht. S-14.



STRUCTURAL REMOVAL  
MEACHAM ROAD OVER NORTHWEST TOLLWAY  
F.A.U. ROUTE 2585 SECTION 05-00068-02-BR  
COOK COUNTY  
STA. 285 + 04.18

STRUCTURE NO. 016-0676



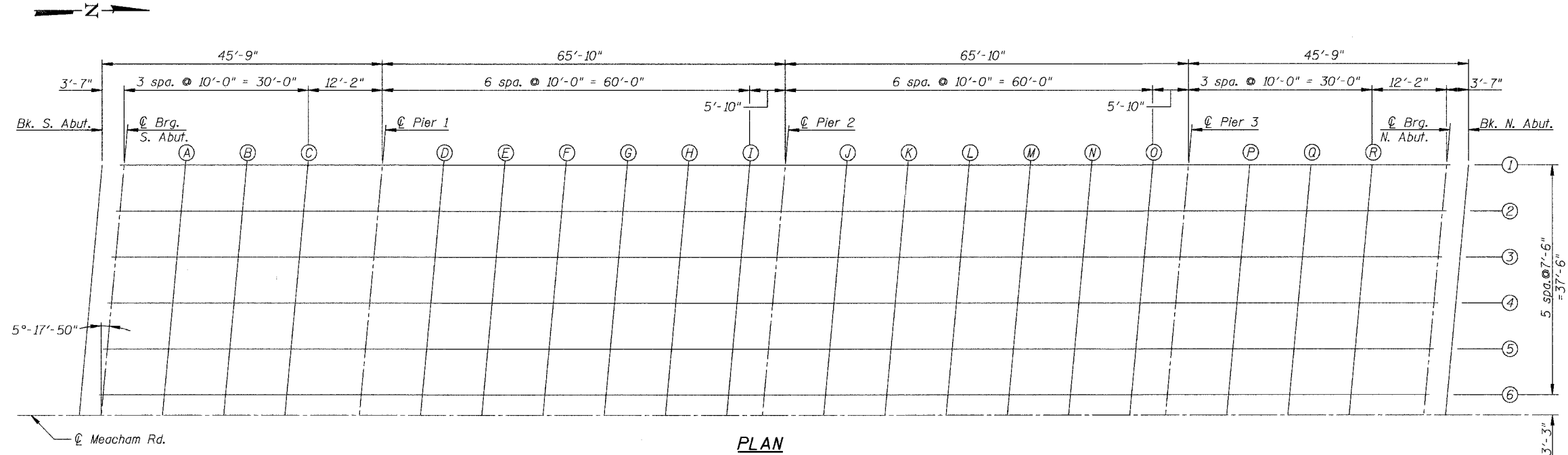
DESIGNED: SCHELBIAN/AYARGICOGU  
DRAWN: SCHELBIAN/AYARGICOGU  
CHECKED: RLEE

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2585	**	COOK	30	14
F.A.U. RTE. 2585		ILLINOIS FED. AID PROJECT		
FED. ROAD DIST. NO. 7		** 05-00068-02-BR		

CONTRACT NO 83800

SHEET NO. S-5  
OF  
S-21 SHEETS



PLAN

BEAM 1

BEAM 2

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. S. ABUT.	28396.375	-40.750	759.839	759.839
CLBRG. S. ABUT.	28399.958	-40.750	759.854	759.854
A	28409.958	-40.750	759.895	759.900
B	28419.958	-40.750	759.931	759.939
C	28429.958	-40.750	759.963	759.969
CL. PIER 1	28442.125	-40.750	759.997	759.997
D	28452.125	-40.750	760.021	760.038
E	28462.125	-40.750	760.040	760.071
F	28472.125	-40.750	760.055	760.092
G	28482.125	-40.750	760.066	760.102
H	28492.125	-40.750	760.074	760.100
I	28502.125	-40.750	760.077	760.087
CL. PIER 2	28507.958	-40.750	760.077	760.077
J	28517.958	-40.750	760.074	760.091
K	28527.958	-40.750	760.066	760.097
L	28537.958	-40.750	760.055	760.092
M	28547.958	-40.750	760.040	760.075
N	28557.958	-40.750	760.021	760.047
O	28567.958	-40.750	759.997	760.008
CL. PIER 3	28573.791	-40.750	759.982	759.982
P	28583.791	-40.750	759.952	759.957
Q	28593.791	-40.750	759.918	759.926
R	28603.791	-40.750	759.881	759.886
CLBRG. N. ABUT.	28615.958	-40.750	759.829	759.829
BK. N. ABUT.	28619.541	-40.750	759.813	759.813

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. S. ABUT.	28395.680	-33.250	759.948	759.948
CLBRG. S. ABUT.	28399.263	-33.250	759.964	759.964
A	28409.263	-33.250	760.005	760.009
B	28419.263	-33.250	760.041	760.049
C	28429.263	-33.250	760.074	760.079
CL. PIER 1	28441.430	-33.250	760.108	760.108
D	28451.430	-33.250	760.132	760.149
E	28461.430	-33.250	760.151	760.182
F	28471.430	-33.250	760.167	760.204
G	28481.430	-33.250	760.178	760.214
H	28491.430	-33.250	760.186	760.212
I	28501.430	-33.250	760.189	760.200
CL. PIER 2	28507.263	-33.250	760.189	760.189
J	28517.263	-33.250	760.187	760.204
K	28527.263	-33.250	760.180	760.210
L	28537.263	-33.250	760.169	760.206
M	28547.263	-33.250	760.154	760.189
N	28557.263	-33.250	760.135	760.160
O	28567.263	-33.250	760.112	760.122
CL. PIER 3	28573.096	-33.250	760.096	760.096
P	28583.096	-33.250	760.067	760.072
Q	28593.096	-33.250	760.033	760.041
R	28603.096	-33.250	759.996	760.002
CLBRG. N. ABUT.	28615.263	-33.250	759.945	759.945
BK. N. ABUT.	28618.846	-33.250	759.929	759.929

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. S. ABUT.	28394.984	-25.750	760.058	760.058
CLBRG. S. ABUT.	28398.567	-25.750	760.074	760.074
A	28408.567	-25.750	760.114	760.119
B	28418.567	-25.750	760.151	760.159
C	28428.567	-25.750	760.184	760.190
CL. PIER 1	28440.734	-25.750	760.219	760.219
D	28450.734	-25.750	760.243	760.260
E	28460.734	-25.750	760.262	760.293
F	28470.734	-25.750	760.278	760.315
G	28480.734	-25.750	760.290	760.326
H	28490.734	-25.750	760.298	760.324
I	28500.734	-25.750	760.302	760.312
CL. PIER 2	28506.567	-25.750	760.302	760.302
J	28516.567	-25.750	760.299	760.317
K	28526.567	-25.750	760.293	760.323
L	28536.567	-25.750	760.282	760.319
M	28546.567	-25.750	760.267	760.303
N	28556.567	-25.750	760.249	760.274
O	28566.567	-25.750	760.226	760.236
CL. PIER 3	28572.400	-25.750	760.211	760.211
P	28582.400	-25.750	760.182	760.186
Q	28592.400	-25.750	760.148	760.156
R	28602.400	-25.750	760.111	760.117
CLBRG. N. ABUT.	28614.567	-25.750	760.060	760.060
BK. N. ABUT.	28618.150	-25.750	760.044	760.044

Note:

Work this sheet with Sheet No. S-6.

**DECK ELEVATIONS I**  
**MEACHAM ROAD OVER NORTHWEST TOLLWAY**  
**F.A.U. ROUTE 2585 SECTION 05-00068-02-BR**  
**COOK COUNTY**  
**STA. 285 + 04.18**

STRUCTURE NO. 016-0676



DESIGNED: SCHELBIAN/AYARGICOLU  
DRAWN: SCHELBIAN/AYARGICOLU  
CHECKED: RALEE



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FALL WTE. 2585	**	COOK	30	15
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		
		** 05-00068-02-BR		

SHEET NO. S-6  
OF  
S-21 SHEETS

CONTRACT NO 03000

**BEAM 4**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. S. ABUT.	28394.289	-18.250	760.167	760.167
CLBRG. S. ABUT.				
A	28397.872	-18.250	760.183	760.183
B	28407.872	-18.250	760.224	760.229
C	28417.872	-18.250	760.261	760.269
	28427.872	-18.250	760.294	760.300
CL. PIER 1				
D	28440.039	-18.250	760.329	760.329
E	28450.039	-18.250	760.354	760.371
F	28460.039	-18.250	760.374	760.404
G	28470.039	-18.250	760.390	760.427
H	28480.039	-18.250	760.402	760.437
I	28490.039	-18.250	760.410	760.436
	28500.039	-18.250	760.414	760.424
CL. PIER 2				
J	28505.872	-18.250	760.415	760.415
K	28515.872	-18.250	760.412	760.430
L	28525.872	-18.250	760.406	760.437
M	28535.872	-18.250	760.395	760.433
N	28545.872	-18.250	760.381	760.416
O	28555.872	-18.250	760.363	760.388
	28565.872	-18.250	760.340	760.350
CL. PIER 3				
P	28571.705	-18.250	760.325	760.325
Q	28581.705	-18.250	760.296	760.301
R	28591.705	-18.250	760.263	760.271
	28601.705	-18.250	760.226	760.232
CLBRG. N. ABUT.	28613.872	-18.250	760.176	760.176
BK. N. ABUT.	28617.455	-18.250	760.160	760.160

**BEAM 5**

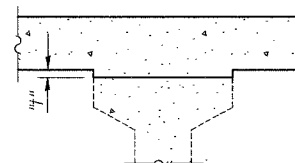
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. S. ABUT.	28393.594	-10.750	760.277	760.277
CLBRG. S. ABUT.				
A	28397.177	-10.750	760.293	760.293
B	28407.177	-10.750	760.334	760.339
C	28417.177	-10.750	760.371	760.379
	28427.177	-10.750	760.405	760.410
CL. PIER 1				
D	28439.344	-10.750	760.440	760.440
E	28449.344	-10.750	760.464	760.482
F	28459.344	-10.750	760.485	760.516
G	28469.344	-10.750	760.501	760.538
H	28479.344	-10.750	760.514	760.549
I	28489.344	-10.750	760.522	760.548
	28499.344	-10.750	760.526	760.537
CL. PIER 2				
J	28505.177	-10.750	760.527	760.527
K	28515.177	-10.750	760.525	760.542
L	28525.177	-10.750	760.519	760.550
M	28535.177	-10.750	760.509	760.546
N	28545.177	-10.750	760.495	760.530
O	28555.177	-10.750	760.476	760.502
	28565.177	-10.750	760.454	760.465
CL. PIER 3				
P	28571.010	-10.750	760.439	760.439
Q	28581.010	-10.750	760.411	760.416
R	28591.010	-10.750	760.378	760.386
	28601.010	-10.750	760.342	760.347
CLBRG. N. ABUT.	28613.177	-10.750	760.292	760.292
BK. N. ABUT.	28616.760	-10.750	760.276	760.276

**SB PGL**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. S. ABUT.	28393.192	-6.417	760.340	760.340
CLBRG. S. ABUT.				
A	28396.775	-6.417	760.356	760.356
B	28406.775	-6.417	760.397	760.402
C	28416.775	-6.417	760.435	760.442
	28426.775	-6.417	760.469	760.474
CL. PIER 1				
D	28438.942	-6.417	760.504	760.504
E	28448.942	-6.417	760.529	760.546
F	28458.942	-6.417	760.549	760.580
G	28468.942	-6.417	760.566	760.603
H	28478.942	-6.417	760.578	760.614
I	28488.942	-6.417	760.587	760.613
	28498.942	-6.417	760.591	760.602
CL. PIER 2				
J	28504.775	-6.417	760.592	760.592
K	28514.775	-6.417	760.590	760.608
L	28524.775	-6.417	760.584	760.615
M	28534.775	-6.417	760.574	760.611
N	28544.775	-6.417	760.560	760.596
O	28554.775	-6.417	760.542	760.568
	28564.775	-6.417	760.520	760.531
CL. PIER 3				
P	28570.608	-6.417	760.505	760.505
Q	28580.608	-6.417	760.477	760.482
R	28590.608	-6.417	760.445	760.452
	28600.608	-6.417	760.408	760.414
CLBRG. N. ABUT.	28612.775	-6.417	760.358	760.358
BK. N. ABUT.	28616.358	-6.417	760.342	760.342

**BEAM 6**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. S. ABUT.	28392.898	-3.250	760.381	760.381
CLBRG. S. ABUT.				
A	28396.481	-3.250	760.397	760.397
B	28406.481	-3.250	760.439	760.444
C	28416.481	-3.250	760.476	760.484
	28426.481	-3.250	760.510	760.516
CL. PIER 1				
D	28438.648	-3.250	760.546	760.546
E	28448.648	-3.250	760.570	760.588
F	28458.648	-3.250	760.591	760.622
G	28468.648	-3.250	760.608	760.645
H	28478.648	-3.250	760.620	760.656
I	28488.648	-3.250	760.629	760.655
	28498.648	-3.250	760.634	760.644
CL. PIER 2				
J	28504.481	-3.250	760.635	760.635
K	28514.481	-3.250	760.633	760.650
L	28524.481	-3.250	760.627	760.658
M	28534.481	-3.250	760.617	760.654
N	28544.481	-3.250	760.603	760.639
O	28554.481	-3.250	760.585	760.611
	28564.481	-3.250	760.563	760.574
CL. PIER 3				
P	28570.314	-3.250	760.549	760.549
Q	28580.314	-3.250	760.520	760.525
R	28590.314	-3.250	760.488	760.496
	28600.314	-3.250	760.452	760.457
CLBRG. N. ABUT.	28612.481	-3.250	760.402	760.402
BK. N. ABUT.	28616.064	-3.250	760.386	760.386

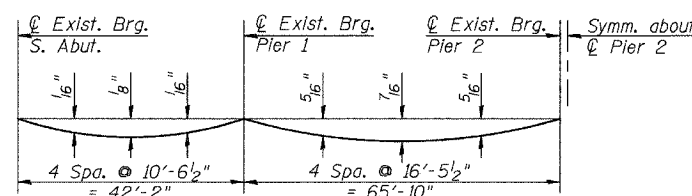


To determine "h": After the existing concrete deck slab has been removed, elevations of the top flanges of the beams shall be taken at intervals shown. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" minus slab thickness, equals the fillet heights "h" above top flanges of beams.

Note:

Work this sheet with Sheet No. S-5.

**FILLET HEIGHTS**



**DEAD LOAD DEFLECTION DIAGRAM**

(Includes weight of concrete, excluding beams).

Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown above.

**DECK ELEVATIONS II**  
**MEACHAM ROAD OVER NORTHWEST TOLLWAY**  
**F.A.U. ROUTE 2585 SECTION 05-00068-02-BR**  
**COOK COUNTY**

**STA. 285 + 04.18**

**STRUCTURE NO. 016-0676**

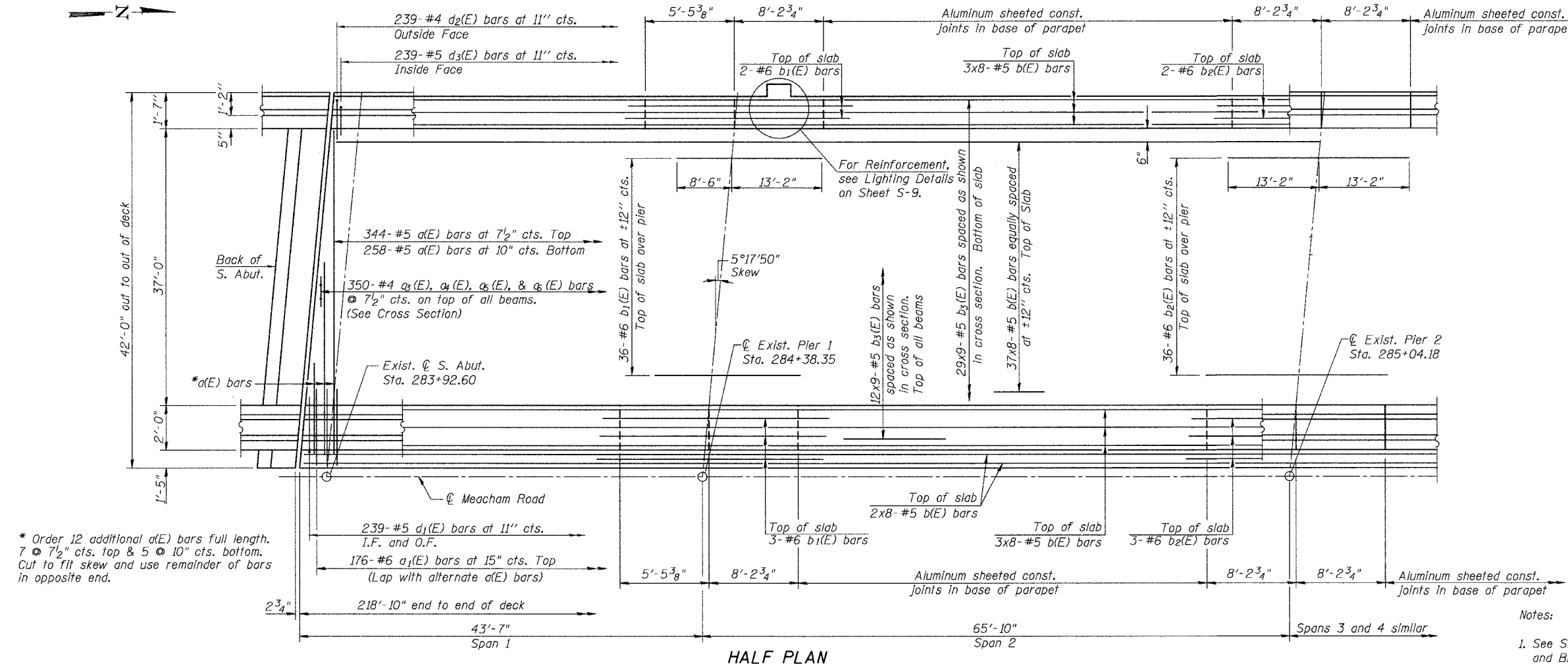
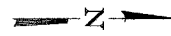


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DRAWN: SCHELBIAN/AYARGICOLU  
CHECKED: RALEE

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

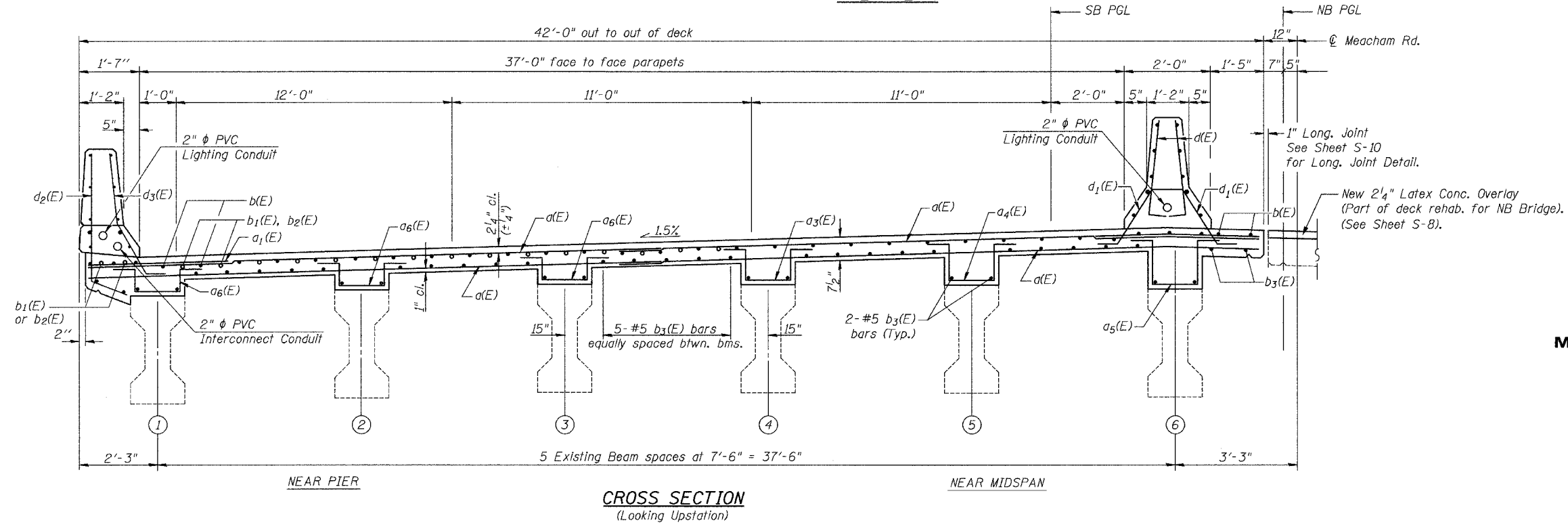
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2585	**	COOK	30	16
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		
** 05-00068-02-BR		CONTRACT NO 03800		

SHEET NO. S-7  
OF  
S-21 SHEETS



\* Order 12 additional a(E) bars full length, 7 @ 7 1/2" cts. top & 5 @ 10" cts. bottom. Cut to fit skew and use remainder of bars in opposite end.

- Notes:
1. See Sheet S-9 for superstructure details and Bill of Material.
  2. Reinforcement bars designated (E) shall be epoxy coated.
  3. Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
  4. See Sheets S-9 for parapet reinforcement.
  5. See Sheet S-10 for median barrier reinforcement.
  6. Work this sheet with Sheet Nos. S-9 and S-10.
  7. Retain Exist. PGI #5 Vert. Bars, sandblast clean, and incorporate into new construction. See Sheet S-4 for details.
  8. I.F. denotes Inside Face.
  9. O.F. denotes Outside Face.



**SB DECK PLAN AND SECTION**  
**MEACHAM ROAD OVER NORTHWEST TOLLWAY**  
**F.A.U. ROUTE 2585 SECTION 05-00068-02-BR**  
**COOK COUNTY**  
**STA. 285 + 04.18**  
**STRUCTURE NO. 016-0676**

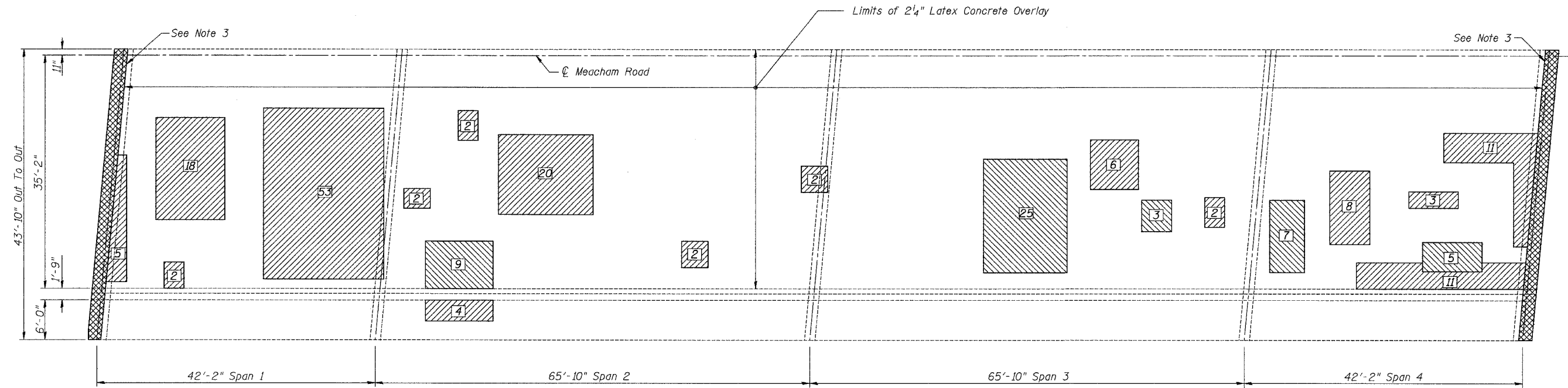
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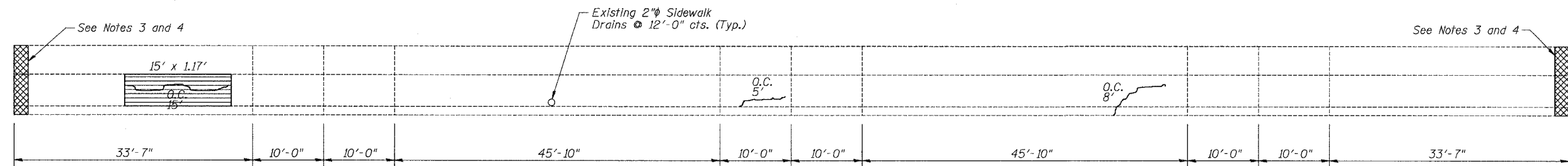
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.U. RTE. 2585	**	COOK	30	17
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		
** 05-00068-02-BR		CONTRACT NO 88800		

SHEET NO. S-8  
OF  
S-21 SHEETS



**PATCHING PLAN**  
N.T.S.



**SIDEWALK BARRIER ELEVATION**  
Looking East

**LEGEND**

- Deck Slab Repair (Full Depth), Type II  
X denotes estimated quantity in Sq. Yds.
- Deck Slab Repair (Partial Depth)  
X denotes estimated quantity in Sq. Yds.
- Concrete Removal
- Form Concrete Repair <= 5"
- OC  
Open Crack (Epoxy Crack Seal)

**Notes:**

1. Patches shown are in square yards and patches are not to scale.
2. Areas of deck and sidewalk barrier repairs shown are estimated.
3. For Expansion Joint Rehabilitation, see Sheet Nos. S-11 and S-12.
4. For Sidewalk and Barrier Rehabilitation, see Sheet No. S-15.
5. Quantities and limits shown for full and partial depth patching are estimated. Actual limits for bridge deck patching are to be field determined and may require the use of longitudinal construction joints for purposes of maintaining NB Traffic.

**BILL OF MATERIALS**

Item	Unit	Quantity
Deck Slab Repair (Partial Depth)	Sq. Yds.	151
Deck Slab Repair (Full Depth), Type II	Sq. Yds.	49
Formed Concrete Repair <= 5"	Sq. Ft.	17.5
Epoxy Crack Sealing	Foot	13
Bridge Deck Latex Concrete Overlay, (2 1/4")	Sq. Yds.	861.3

**NB DECK AND BARRIER REPAIRS**  
**MEACHAM ROAD OVER NORTHWEST TOLLWAY**  
**F.A.U. ROUTE 2585 SECTION 05-00068-02-BR**  
**COOK COUNTY**

**STA. 285 + 04.18**

**STRUCTURE NO. 016-0676**

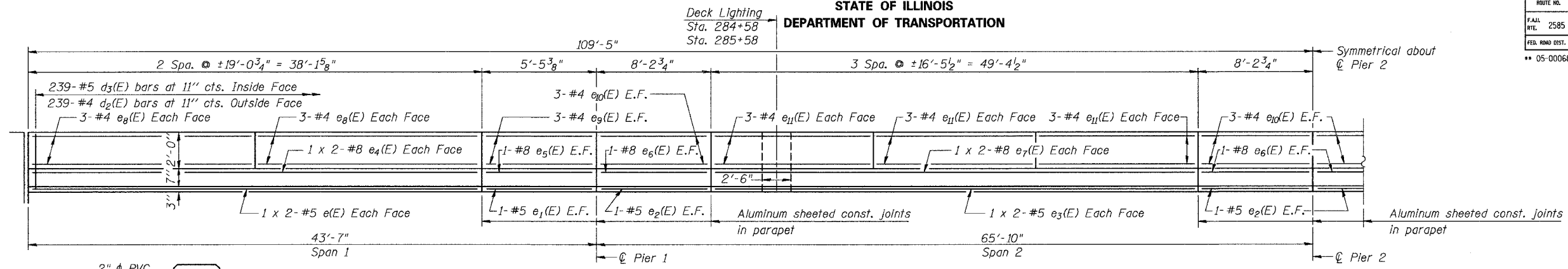


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DRAWN: SCHELBAN/AYARGICOLU  
CHECKED: RLEE

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.U. RITE 2585	**	COOK	30	18
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	
** 05-00068-02-BR		CONTRACT NO 83800		

SHEET NO. S-9  
OF  
S-21 SHEETS



INSIDE ELEVATION OF WEST PARAPET

SUPERSTRUCTURE  
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	1228	#5	21'-8"	—
d <sub>1</sub> (E)	352	#6	4'-6"	—
a <sub>2</sub> (E)	16	#5	2'-0"	—
a <sub>3</sub> (E)	350	#4	3'-11"	⌋
a <sub>4</sub> (E)	350	#4	4'-3"	⌋
a <sub>5</sub> (E)	350	#4	4'-9"	⌋
a <sub>6</sub> (E)	1050	#4	3'-7"	⌋
b(E)	360	#5	28'-10"	—
b <sub>1</sub> (E)	41	#6	21'-8"	—
b <sub>2</sub> (E)	41	#6	26'-4"	—
b <sub>3</sub> (E)	369	#5	25'-10"	—
d(E)	478	#5	3'-3"	—
d <sub>1</sub> (E)	478	#5	2'-8"	⌋
d <sub>2</sub> (E)	239	#4	4'-4"	—
d <sub>3</sub> (E)	239	#5	3'-11"	⌋
d <sub>4</sub> (E)	10	#6	8'-11"	⌋
d <sub>5</sub> (E)	6	#6	4'-5"	⌋
e(E)	16	#5	19'-10"	—
e <sub>1</sub> (E)	8	#5	5'-2"	—
e <sub>2</sub> (E)	16	#5	8'-0"	—
e <sub>3</sub> (E)	16	#5	25'-5"	—
e <sub>4</sub> (E)	16	#8	20'-10"	—
e <sub>5</sub> (E)	8	#8	5'-2"	—
e <sub>6</sub> (E)	16	#8	8'-0"	—
e <sub>7</sub> (E)	16	#8	26'-5"	—
e <sub>8</sub> (E)	48	#4	18'-10"	—
e <sub>9</sub> (E)	24	#4	5'-2"	—
e <sub>10</sub> (E)	48	#4	8'-0"	—
e <sub>11</sub> (E)	72	#4	16'-1"	—
Reinforcement Bars, Epoxy Coated			Lbs.	69,332
Concrete Superstructure			Cu. Yds.	330.7

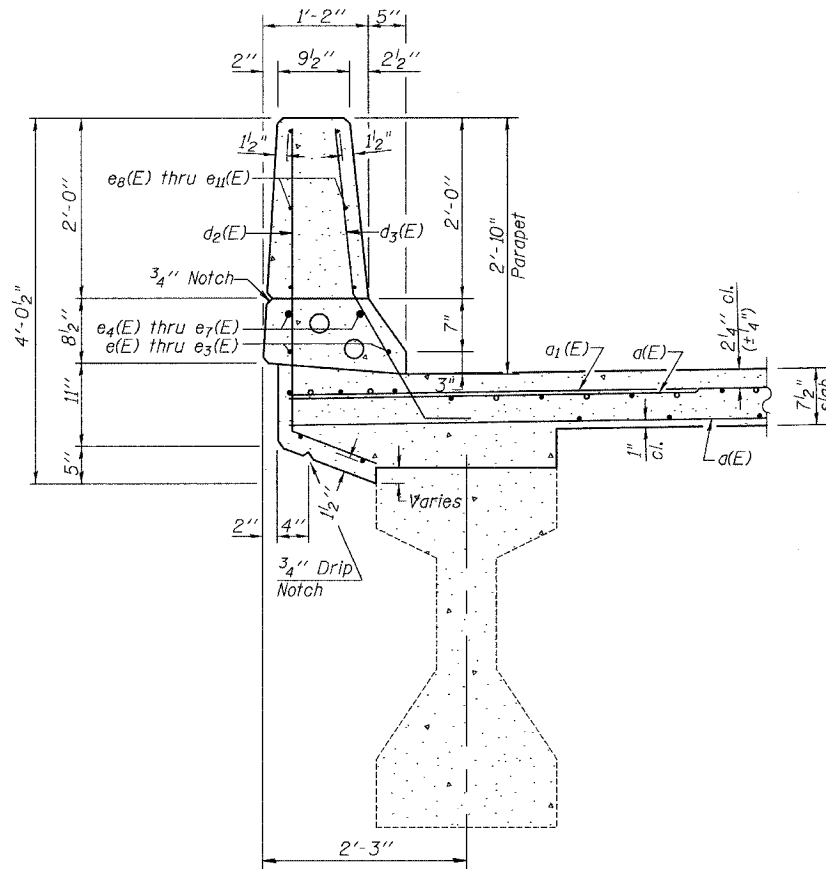
- Notes:
1. Reinforcement bars designated (E) shall be epoxy coated.
  2. Cut longitudinal reinforcement to clear Drainage Scuppers.
  3. Work this sheet with S-7 and S-10.
  4. Bars indicated thus 1 x 2-#5 etc. indicates 1 line of bars with 2 lengths per line.
  5. Minimum lap shall be 1'-4" for #4 bars, 1'-8" for #5 bars, and 3'-5" for #8 bars.
  6. E.F. denotes Each Face.

DECK AND PARAPET DETAILS I  
MEACHAM ROAD OVER NORTHWEST TOLLWAY  
F.A.U. ROUTE 2585 SECTION 05-00068-02-BR  
COOK COUNTY  
STA. 285 + 04.18

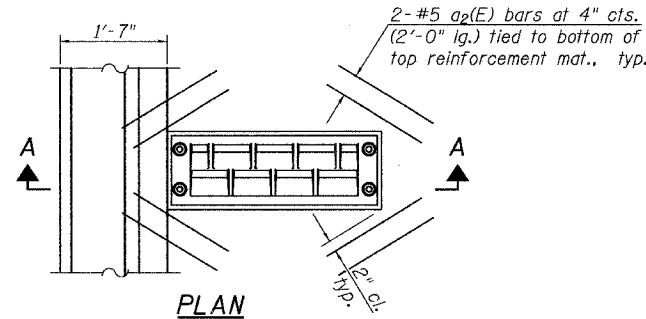
STRUCTURE NO. 016-0676

DESIGNED: SCHELBAN/AYARGICOGU  
DRAWN: SCHELBAN/AYARGICOGU  
CHECKED: RLEE

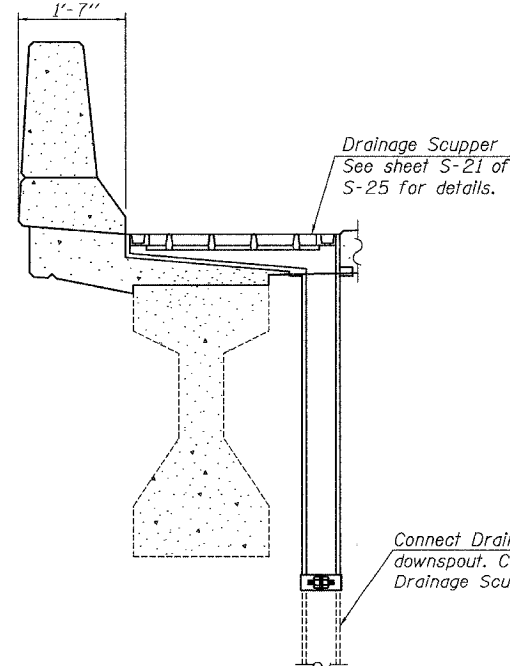
TYPICAL SECTION WEST PARAPET



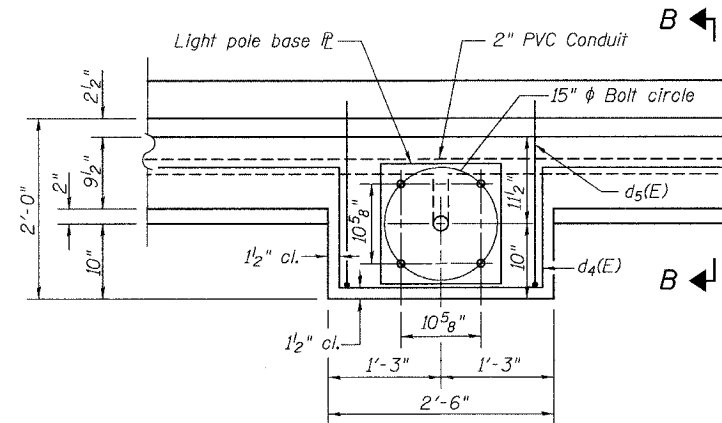
SECTION THRU WEST PARAPET



PLAN

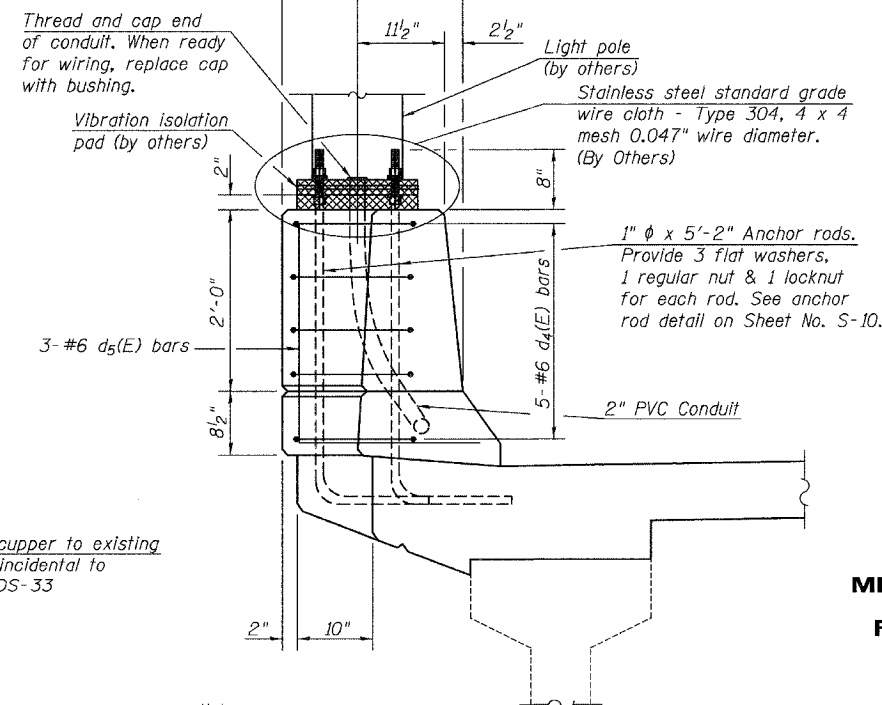


SECTION A-A



PLAN

Light Pole Mounted on West Parapet  
(At Sta 284+46 & Sta. 285+70)



SECTION B-B

Note:  
Cost of anchor rods and all 2" φ conduit is included with concrete superstructure.



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FALL RITE	2585	**	COOK	30
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

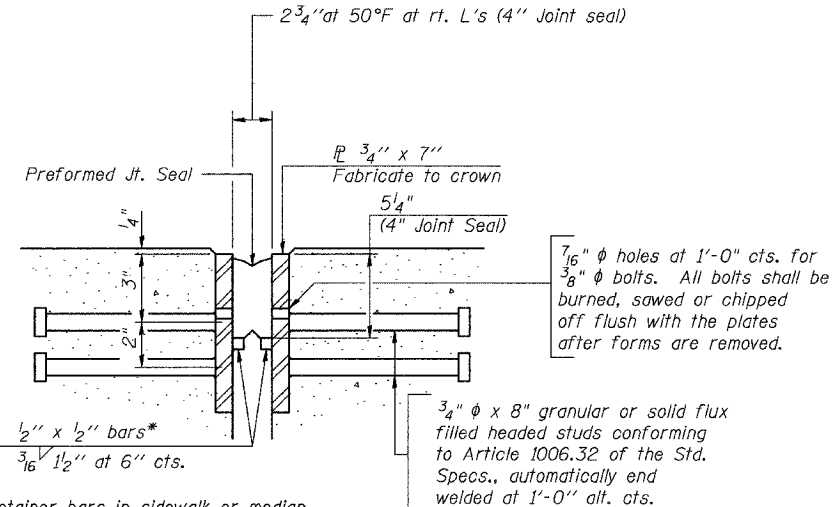
SHEET NO. S-11  
OF  
S-21 SHEETS

\*\* 05-00068-02-BR CONTRACT NO B3800

GENERAL NOTES

Furnish steel plates in segments of 20 feet maximum length. Maximum space between installed segments shall be 3/16". Seal space with silicone sealant suitable for structural steel.

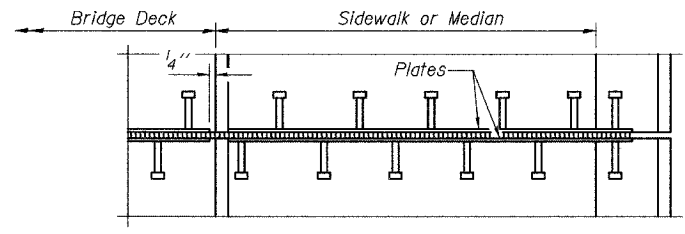
Bridge Joint System (Expansion)		
Design Movement	Required Prefomed Joint Seal Size	Required Strip Seal Rated movement
1 5/8"	4"	2"



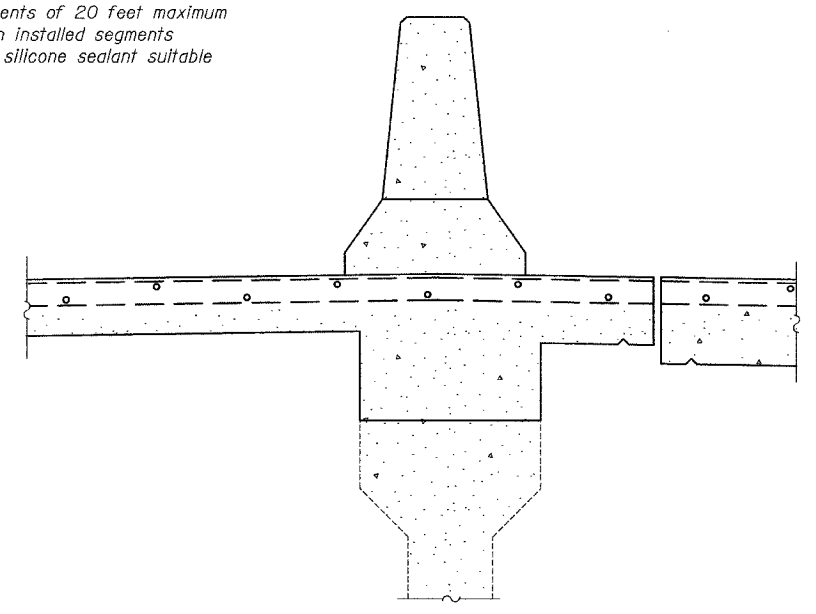
SECTION THRU EXPANSION JOINT

4" joint seals without wearing surface  
(680 Studs Required)

\*Cut retainer bars in sidewalk or median 6" short of the sidewalk or median face.

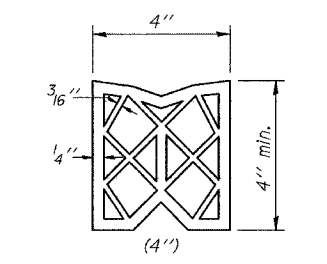


PLAN AT SIDEWALK OR MEDIAN

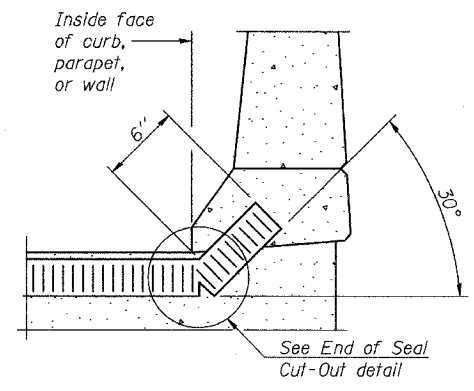


AT MEDIAN

Plate is shown. Seal is continuous.

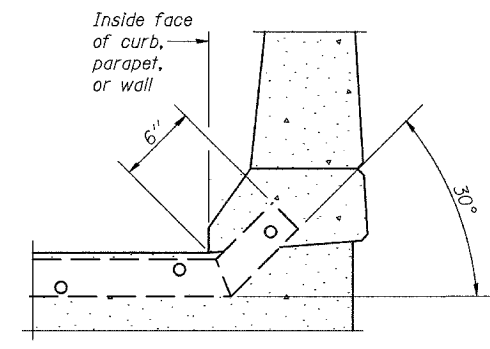


PREFORMED JOINT SEAL



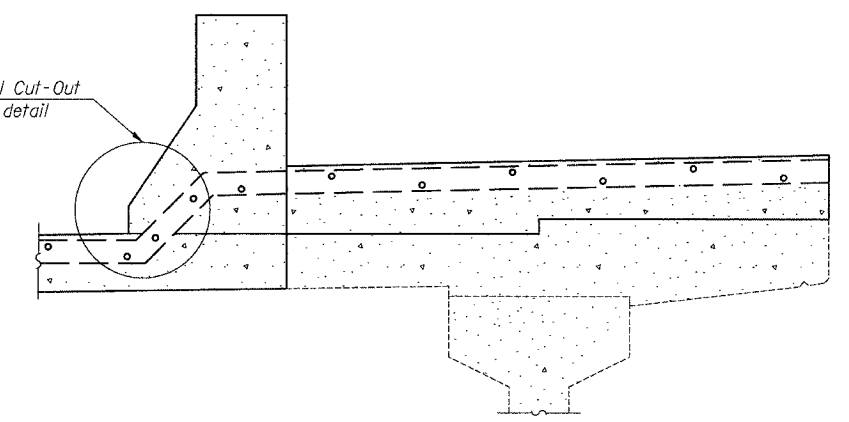
AT CURB, PARAPET, OR WALL

(Showing seal)



AT CURB, PARAPET, OR WALL

(Showing plate)



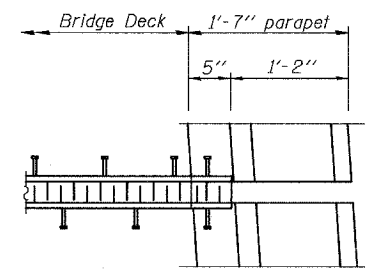
AT SIDEWALK

Plate is shown. Seal is continuous.

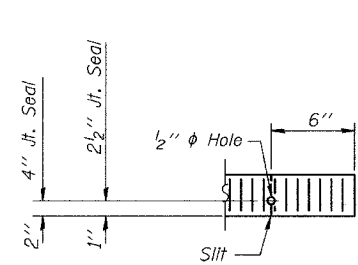
TYPICAL END TREATMENTS

BILL OF MATERIAL

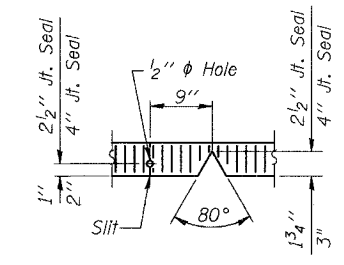
Item	Unit	Total
Bridge Joint System (Expansion)	foot	170.0



PLAN AT PARAPET



END OF SEAL CUT-OUT



SEAL CUT-OUT AT CURB

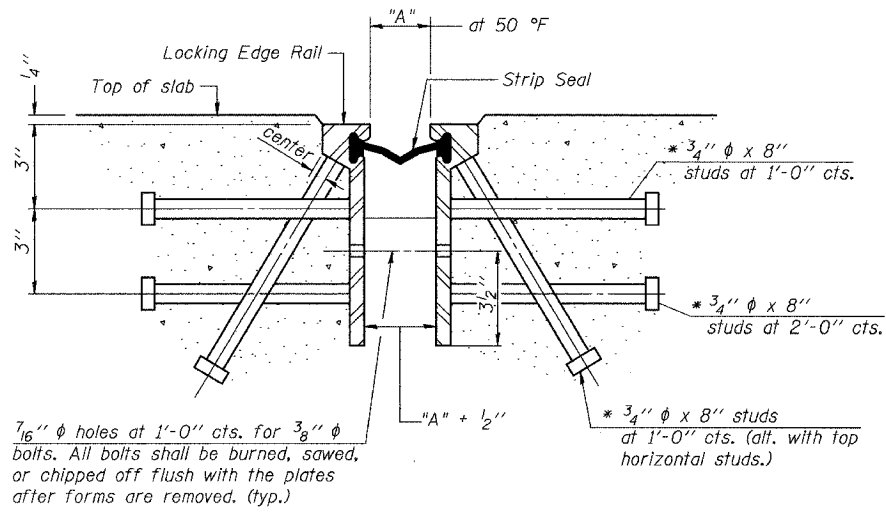
BRIDGE JOINT SYSTEM - EXPANSION  
(PREFORMED JOINT SEAL)  
MEACHAM ROAD OVER NORTHWEST TOLLWAY  
F.A.U. ROUTE 2585 SECTION 05-00068-02-BR  
COOK COUNTY  
STA. 285 + 04.18  
STRUCTURE NO. 016-0676

MACTEC  
DESIGNED:  
DRAWN: SCHELBAN/AYARGICOLU  
CHECKED: RLEE

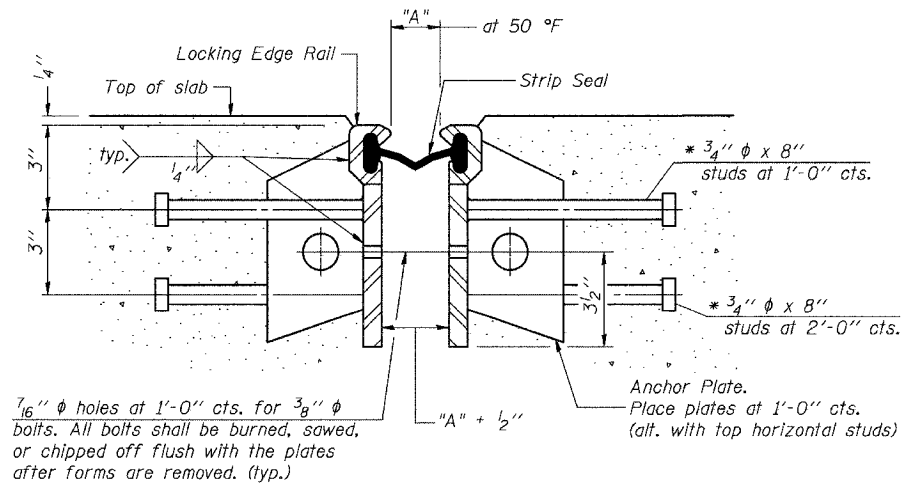
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. S-12 OF S-21 SHEETS	
F.A.U. RTE.	2585	**	COOK	30		21
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT				

\*\* 05-00068-02-BR CONTRACT NO 83800



Required Strip Seal rated movement	"A"
1"	1 1/8"
2"	1 3/4"



GENERAL NOTES

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails.

The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed.

Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.

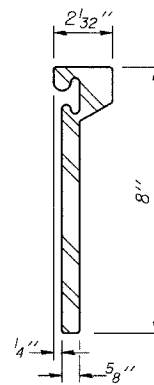
The manufacturer's recommended installation methods shall be followed.

The joint opening and deck dimensions detailed on the superstructure are based on a preformed joint seal. If the contractor elects to use the alternate strip seal joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

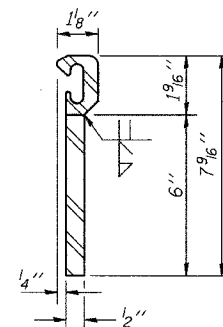
SECTION THRU ROLLED RAIL EXP. JOINT  
(1700 Studs Required)

\* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

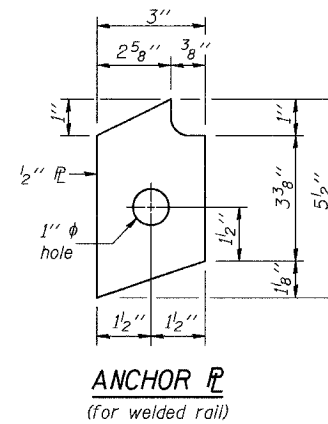
SECTION THRU WELDED RAIL EXP. JOINT  
(1020 Studs Required)  
(680 Anchor Plates Required)



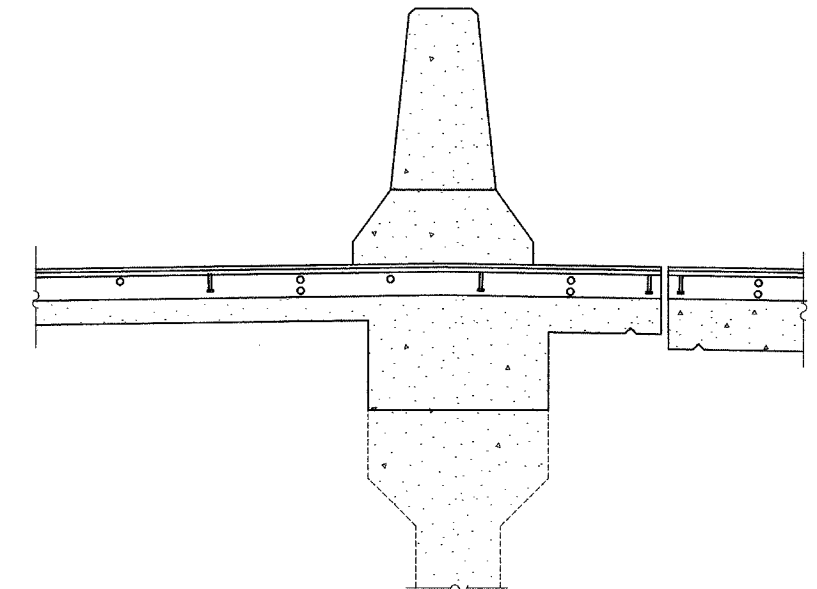
ROLLED (EXTRUDED) RAIL



WELDED RAIL

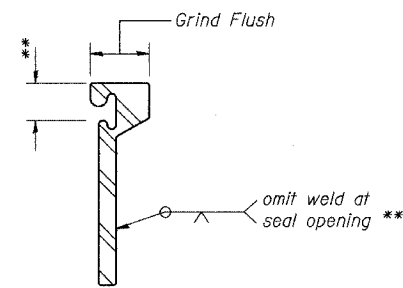


ANCHOR PLATE  
(for welded rail)



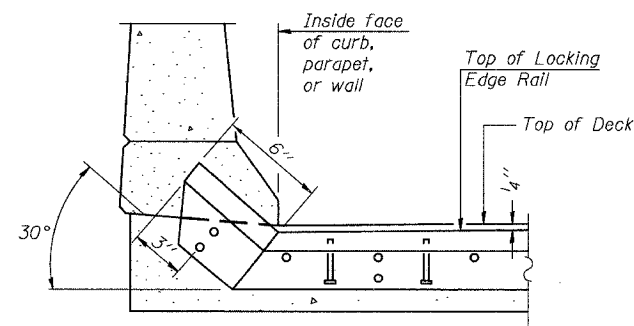
AT MEDIAN

LOCKING EDGE RAILS

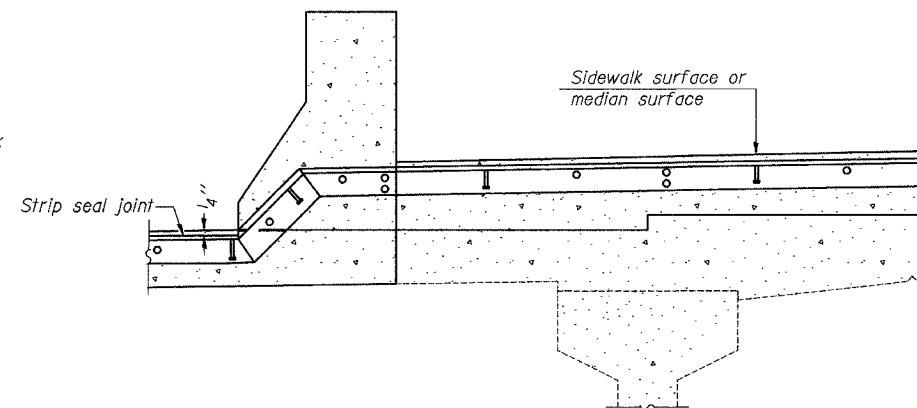


LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue.



AT CURB, PARAPET, OR WALL



AT SIDEWALK

TYPICAL END TREATMENTS

BRIDGE JOINT SYSTEM - EXPANSION  
(ALTERNATE-STRIP SEAL)  
MEACHAM ROAD OVER NORTHWEST TOLLWAY  
F.A.U. ROUTE 2585 SECTION 05-00068-02-BR  
COOK COUNTY  
STA. 285 + 04.18

STRUCTURE NO. 016-0676

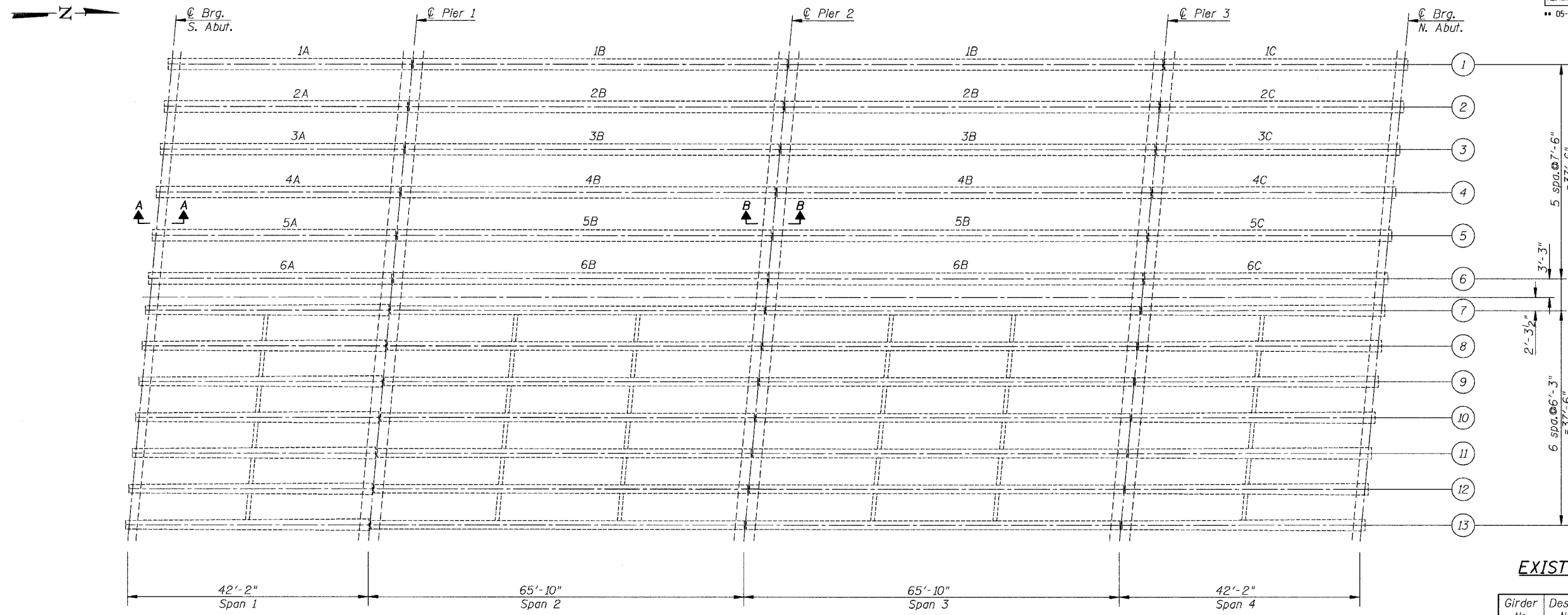


DESIGNED:  
DRAWN: SCHELBIAN/AYARGICOLU  
CHECKED: RLEE

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2585	**	COOK	30	22
F.A.U. DIST. NO. 7		ILLINOIS	FED. AID PROJECT	
05-00068-02-BR		CONTRACT NO 83800		

SHEET NO. S-13  
OF  
S-21 SHEETS

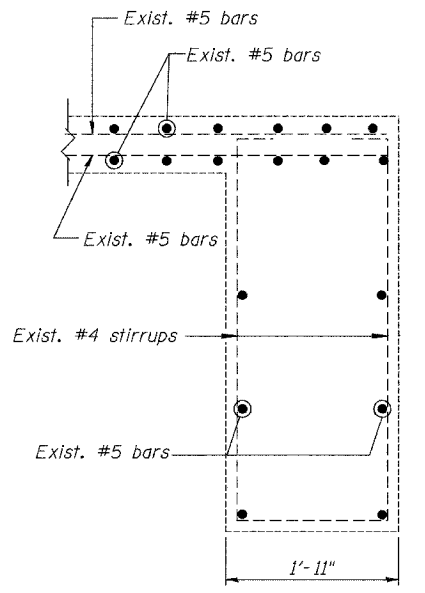


Note:  
Work this sheet with Sheet No. S-14.

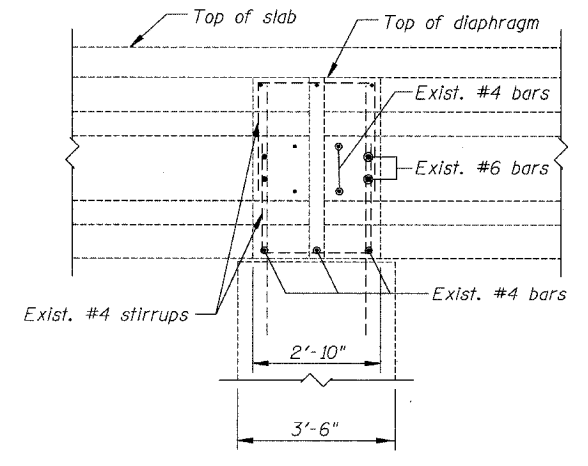
PLAN  
(All existing beams PCC 48")

EXISTING GIRDER DESIGN TABLE

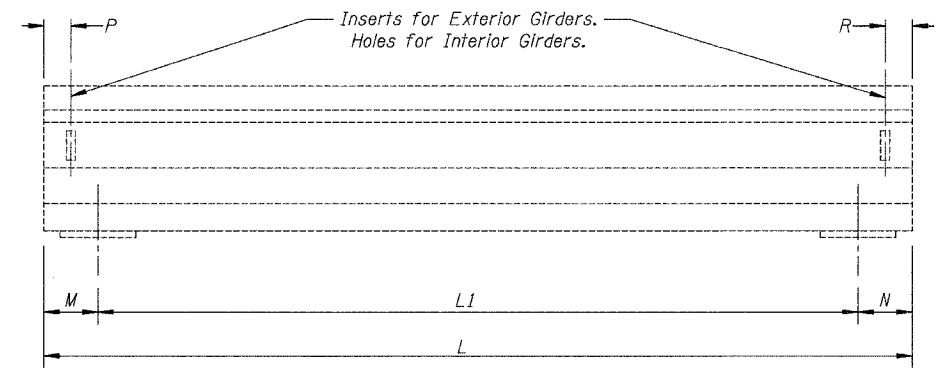
Girder No.	Design No.	Dimensions					
		L	L1	M	N	P	R
1A	2	42'-7 1/2"	---	7 1/2"	---	6"	6"
2A	7	42'-7 1/2"	---	7 1/2"	---	5 1/2"	5 1/2"
3A	7	42'-7 1/2"	---	7 1/2"	---	5 1/2"	5 1/2"
4A	7	42'-7 1/2"	---	7 1/2"	---	5 1/2"	5 1/2"
5A	7	42'-7 1/2"	---	7 1/2"	---	5 1/2"	5 1/2"
6A	2	42'-7 1/2"	---	7 1/2"	---	6"	6"
1B	36	65'-6"	---	---	---	6"	6"
2B	42	65'-6"	---	---	---	5 1/2"	5 1/2"
3B	42	65'-6"	---	---	---	5 1/2"	5 1/2"
4B	42	65'-6"	---	---	---	5 1/2"	5 1/2"
5B	42	65'-6"	---	---	---	5 1/2"	5 1/2"
6B	36	65'-6"	---	---	---	6"	6"
1C	2	42'-7 1/2"	---	---	---	7 1/2"	6"
2C	7	42'-7 1/2"	---	---	---	7 1/2"	5 1/2"
3C	7	42'-7 1/2"	---	---	---	7 1/2"	5 1/2"
4C	7	42'-7 1/2"	---	---	---	7 1/2"	5 1/2"
5C	7	42'-7 1/2"	---	---	---	7 1/2"	5 1/2"
6C	2	42'-7 1/2"	---	---	---	7 1/2"	6"



SECTION A-A  
(End Diaphragm)



SECTION B-B  
(Diaphragm Over Piers)



EXISTING GIRDER ELEVATION

EXISTING FRAMING PLAN  
MEACHAM ROAD OVER NORTHWEST TOLLWAY  
F.A.U. ROUTE 2585 SECTION 05-00068-02-BR  
COOK COUNTY  
STA. 285 + 04.18  
STRUCTURE NO. 016-0676

DESIGNED: SCHELBAN/AYARGICOGU  
DRAWN: SCHELBAN/AYARGICOGU  
CHECKED: RALEE



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SHEET NO. S-14  
OF  
S-21 SHEETS

ROUTE NO. SECTION COUNTY TOTAL SHEETS SHEET NO.  
F.A.U. 2585 \*\* COOK 30 23  
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT  
05-00068-02-BR CONTRACT NO. 03800

48x24" GIRDERS								48x28" GIRDERS									
Girder Design Number	Total No. of Strands	1	2	3	4	5	6	7	Girder Design Number	Total No. of Strands	1	2	3	4	5	6	7
1	17	4	2	2	4	-	2	-	71	53	13	13	13	11	3	-	-
2	18	5	1	1	1	1	1	1	72	54	-	-	-	-	-	-	-
3	19	6	-	-	-	-	-	-	73	55	-	-	-	-	-	-	-
4	20	7	2	2	2	2	2	2	74	56	-	-	-	-	-	-	-
5	21	8	3	3	3	3	3	3	75	57	-	-	-	-	-	-	-
6	22	9	4	4	4	4	4	4	76	58	-	-	-	-	-	-	-
7	23	10	5	5	5	5	5	5	77	59	-	-	-	-	-	-	-
8	24	11	6	6	6	6	6	6	78	60	-	-	-	-	-	-	-
9	25	12	7	7	7	7	7	7	79	61	-	-	-	-	-	-	-
10	26	13	8	8	8	8	8	8	80	62	-	-	-	-	-	-	-
11	27	14	9	9	9	9	9	9	81	63	-	-	-	-	-	-	-
12	28	15	10	10	10	10	10	10	82	64	-	-	-	-	-	-	-
13	29	16	11	11	11	11	11	11	83	65	-	-	-	-	-	-	-
14	30	17	12	12	12	12	12	12	84	66	-	-	-	-	-	-	-
15	31	18	13	13	13	13	13	13	85	67	-	-	-	-	-	-	-
16	32	19	14	14	14	14	14	14	86	68	-	-	-	-	-	-	-
17	33	20	15	15	15	15	15	15	87	69	-	-	-	-	-	-	-
18	34	21	16	16	16	16	16	16	88	70	-	-	-	-	-	-	-
19	35	22	17	17	17	17	17	17	89	71	-	-	-	-	-	-	-
20	36	23	18	18	18	18	18	18	90	72	-	-	-	-	-	-	-
21	37	24	19	19	19	19	19	19	91	73	-	-	-	-	-	-	-
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57	73	60	55	55	55	55	55	55	-	-	-	-	-	-	-	-	-
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62	78	65	60	60	60	60	60	60	-	-	-	-	-	-	-	-	-
63	79	66	61	61	61	61	61	61	-	-	-	-	-	-	-	-	-
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68	84	71	66	66	66	66	66	66	-	-	-	-	-	-	-	-	-
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89	105	92	87	87	87	87	87	87	-	-	-	-	-	-	-	-	-
90	106	93	88	88	88	88	88	88	-	-	-	-	-	-	-	-	-
91	107	94	89	89	89	89	89	89	-	-	-	-	-	-	-	-	-
92	108	95	90	90	90	90	90	90	-	-	-	-	-	-	-	-	-
93	109	96	91	91	91	91	91	91	-	-	-	-	-	-	-	-	-
94	110	97	92	92	92	92	92	92	-	-	-	-	-	-	-	-	-

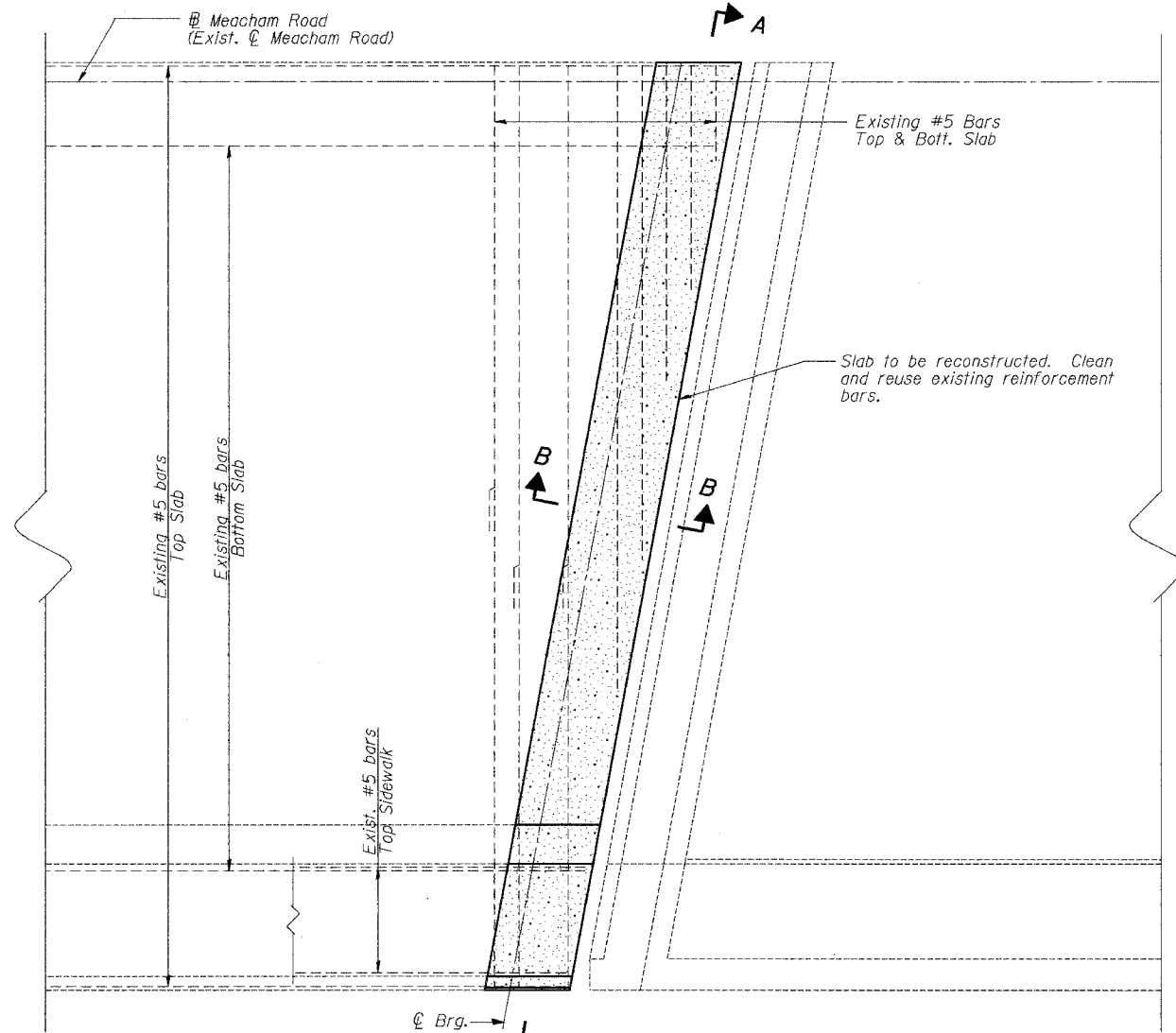
Prestressing Load to be Applied to Deflected Strands Before Strands are Deflected

Girder Length (ft)	Strands Sloped	Strands Horizontal	Strands Total	Strands Sloped	Strands Horizontal	Strands Total
51	1.7	-	1.7	-	-	1.7
52	2.0	-	2.0	-	-	2.0
53	2.3	-	2.3	-	-	2.3
54	2.6	-	2.6	-	-	2.6
55	2.9	-	2.9	-	-	2.9
56	3.2	-	3.2	-	-	3.2
57	3.4	-	3.4	-	-	3.4
58	3.7	-	3.7	-	-	3.7
59	3.9	-	3.9	-	-	3.9
60	4.2	-	4.2	-	-	4.2
61	4.4	-	4.4	-	-	4.4
62	4.6	-	4.6	-	-	4.6
63	4.8	-	4.8	-	-	4.8
64	5.1	-	5.1	-	-	5.1
65	5.3	-	5.3	-	-	5.3
66	5.5	-	5.5	-	-	5.5
67	-	8.0	8.0	-	-	8.0
68	-	8.3	8.3	-	-	8.3
69	-	8.7	8.7	-	-	8.7
70	-	7.0	7.0	0.5	-	7.5
71	-	7.3	7.3	0.9	-	8.2
72	-	7.6	7.6	1		

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

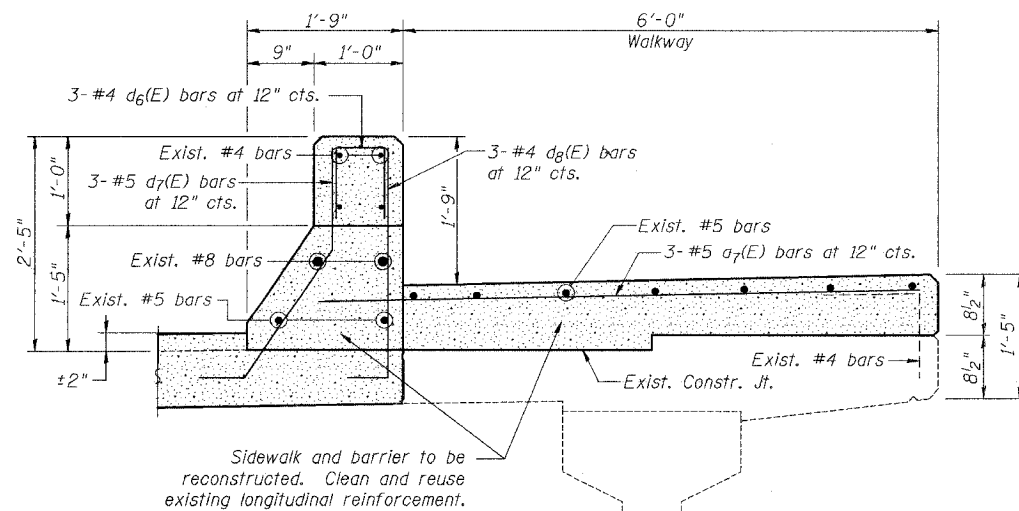
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FALL RTE. 2585	**	COOK	30	24
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	CONTRACT No. 05-00068-02-BR	

SHEET NO. S-15  
OF  
S-21 SHEETS

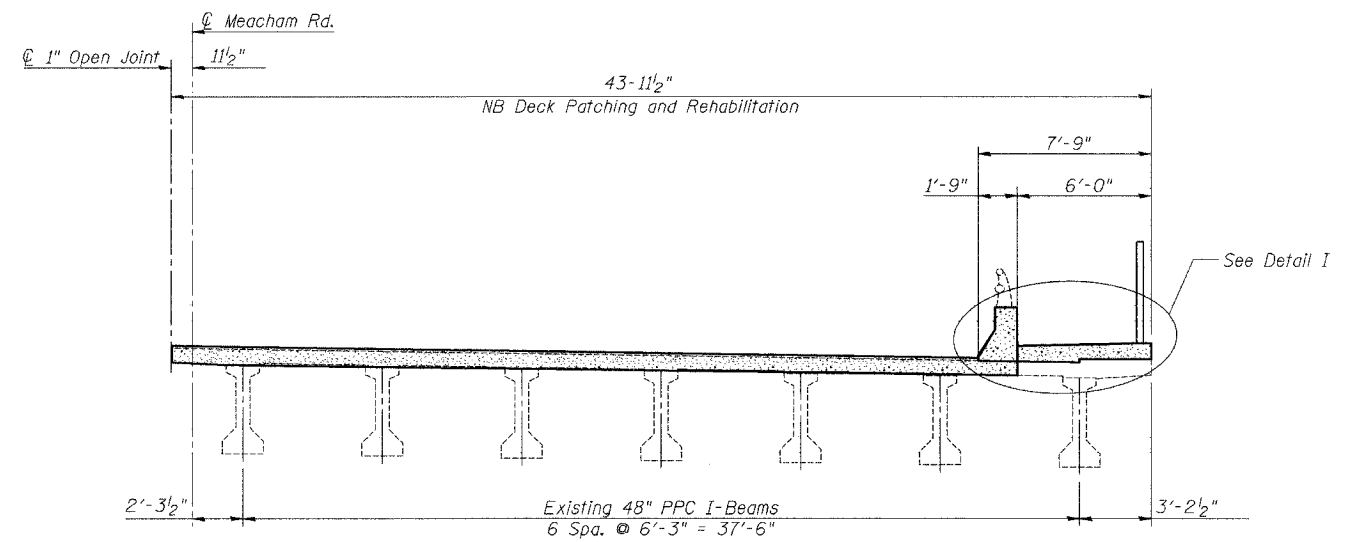


**NORTHBOUND DECK**

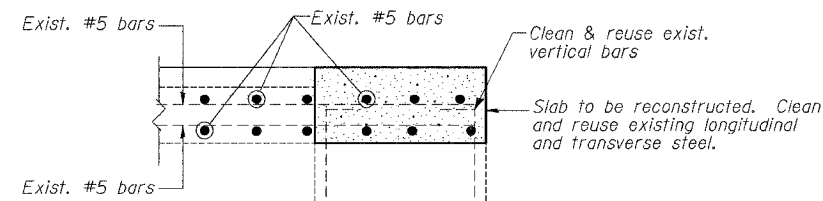
(North section is shown. South section is similar.)



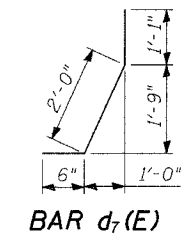
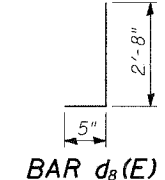
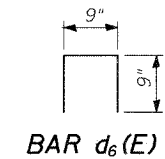
**DETAIL I**



**SECTION A-A**



**SECTION B-B**



**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
$a_7(E)$	3	#5	6'-8"	—
$d_6(E)$	3	#4	2'-3"	□
$d_7(E)$	3	#5	3'-7"	—
$d_8(E)$	3	#4	3'-1"	—
Reinforcement Bars, Epoxy Coated			Lbs.	43

- Notes:
1. Reinforcement bars designated (E) shall be epoxy coated.
  2. Work this sheet with Sheet No. S-16.

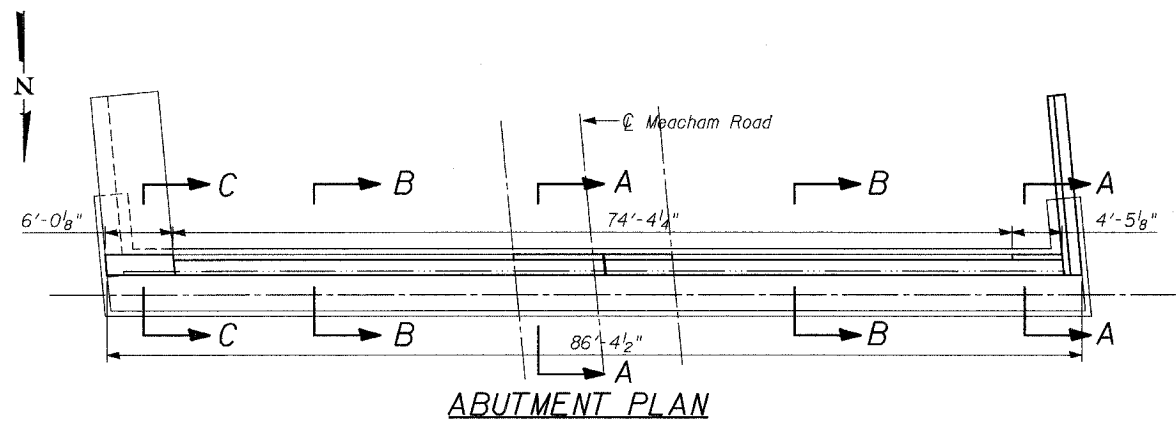
- Notes:
1. Existing reinforcement shall be sandblasted clean and incorporated into new construction. Cost shall be included in CONCRETE SUPERSTRUCTURE on Sht. S-16.
  2. Work this sheet with Sheet No. S-16.
  3. For details of expansion joint, see sheets S-11 and S-12.

**STRUCTURAL DETAILS I**  
**MEACHAM ROAD OVER NORTHWEST TOLLWAY**  
**F.A.U. ROUTE 2585 SECTION 05-00068-02-BR**  
**COOK COUNTY**  
**STA. 285 + 04.18**

**STRUCTURE NO. 016-0676**

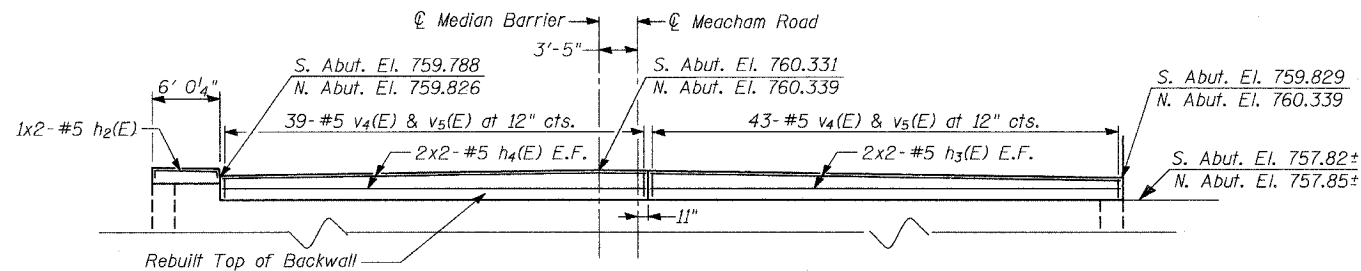
**MACTEC**  
DESIGNED: SCHELBAN/AYARGICOLU  
DRAWN: SCHELBAN/AYARGICOLU  
CHECKED: RLEE





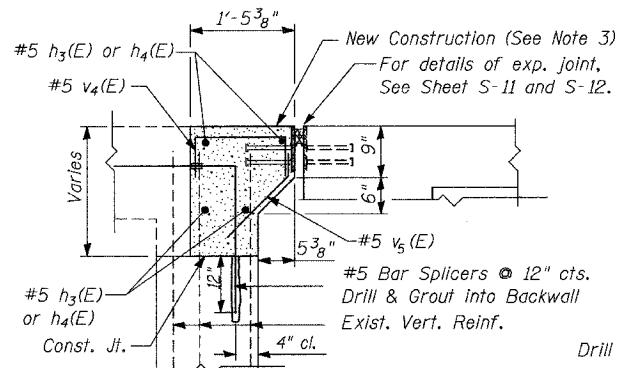
**ABUTMENT PLAN**

(South Abutment is shown. North Abutment is similar.)



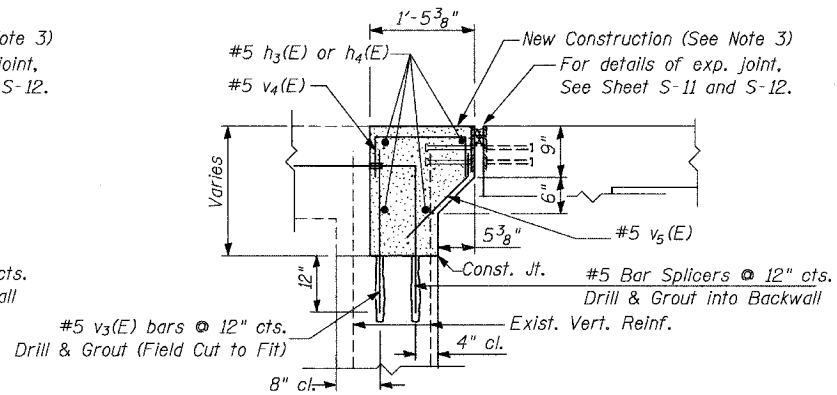
**ABUTMENT BACKWALL ELEVATION**

(Partial Elevation of South Abutment is shown. North Abutment is similar.)



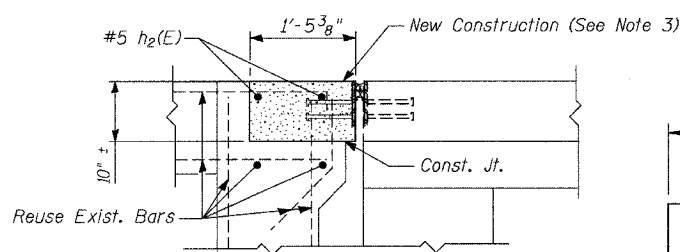
**SECTION B-B**

At Exist. SB & NB Roadway



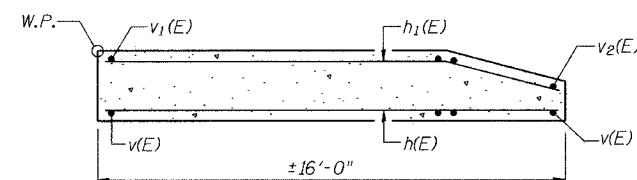
**SECTION A-A**

At Exist. Median and Sidewalk

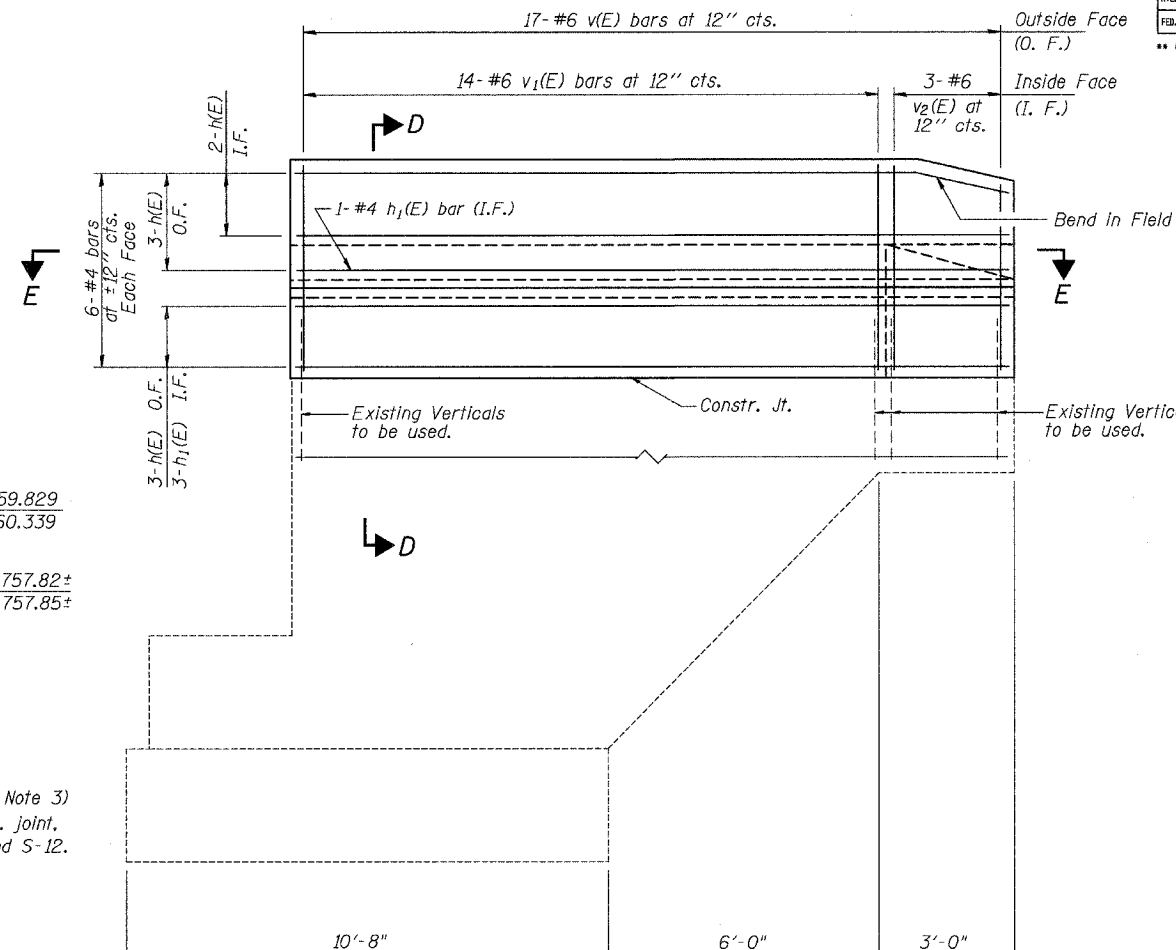


**SECTION C-C**

At East Sidewalk

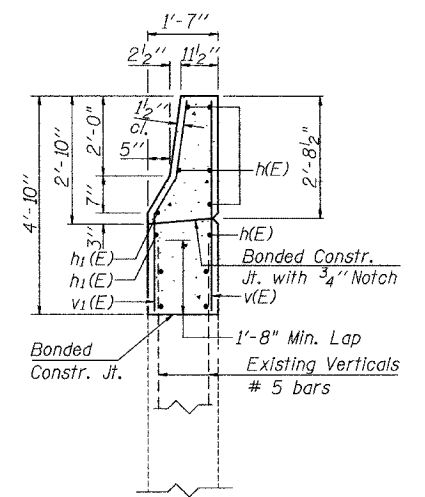
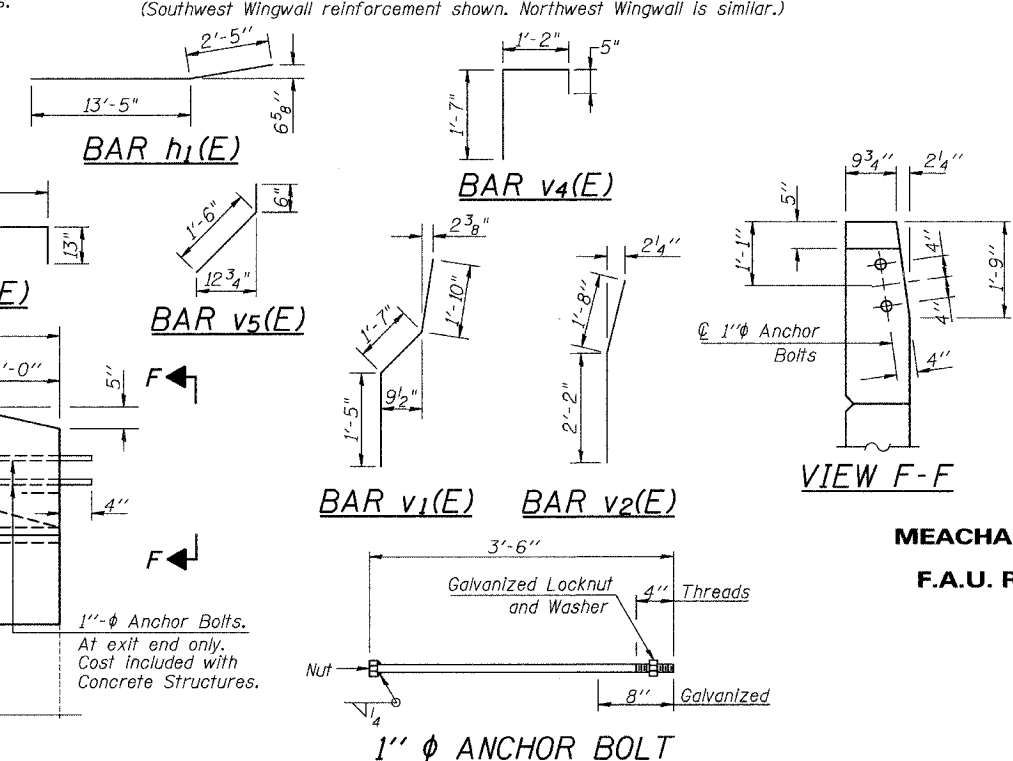


**SECTION E-E**



**WINGWALL ELEVATION**

(Southwest Wingwall reinforcement shown. Northwest Wingwall is similar.)



**SECTION D-D**

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
v(E)	34	#6	4'-7"	
v1(E)	28	#6	4'-10"	
v2(E)	6	#6	3'-10"	
v3(E)	38	#5	3'-4"	
v4(E)	164	#5	3'-2"	
v5(E)	164	#5	2'-0"	
h(E)	16	#4	15'-9"	
h1(E)	8	#4	15'-10"	
h2(E)	4	#5	7'-11"	
h3(E)	16	#5	22'-2"	
h4(E)	16	#5	20'-1"	
Reinforcement Bars, Epoxy Coated		Lbs.	2,479	
Concrete Superstructure		Cu. Yds.	24.6	
Concrete Structures		Cu. Yds.	7.3	

- Notes:
1. Reinforcement bars designated (E) shall be epoxy coated.
  2. Bars indicated thus 1 x 2-#5 etc. indicates 1 line of bars with 2 lengths per line.
  3. Work this sheet with Sheet No. S-15.
  4. The hatched area to be poured after the expansion joint has been adjusted. Quantity of concrete is included with Concrete Superstructure.

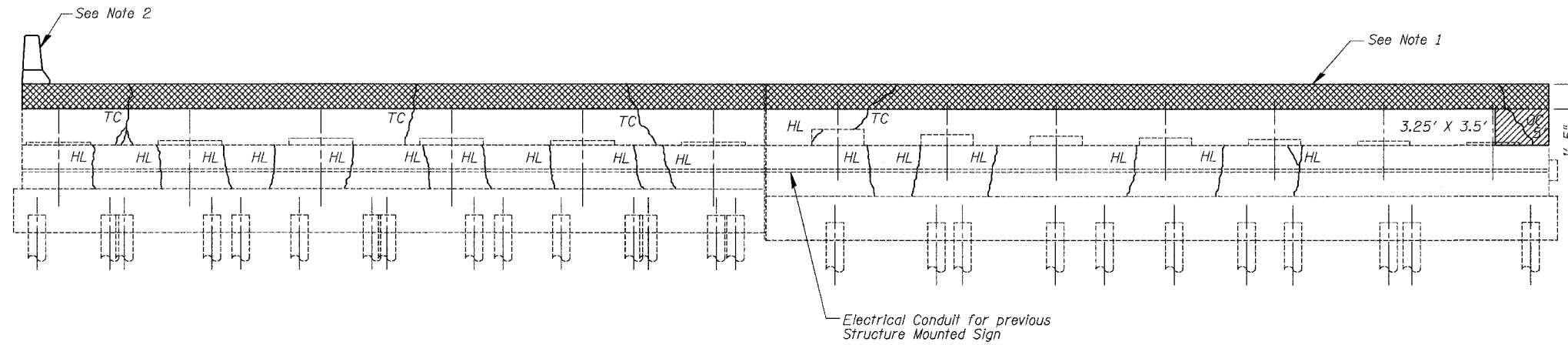
**STRUCTURAL DETAILS II**  
**MEACHAM ROAD OVER NORTHWEST TOLLWAY**  
**F.A.U. ROUTE 2585 SECTION 05-00068-02-BR**  
**COOK COUNTY**  
**STA. 285 + 04.18**  
**STRUCTURE NO. 016-0676**

DESIGNED: SCHELBAN/AYARGICOGU  
DRAWN: SCHELBAN/AYARGICOGU  
CHECKED: RLEE

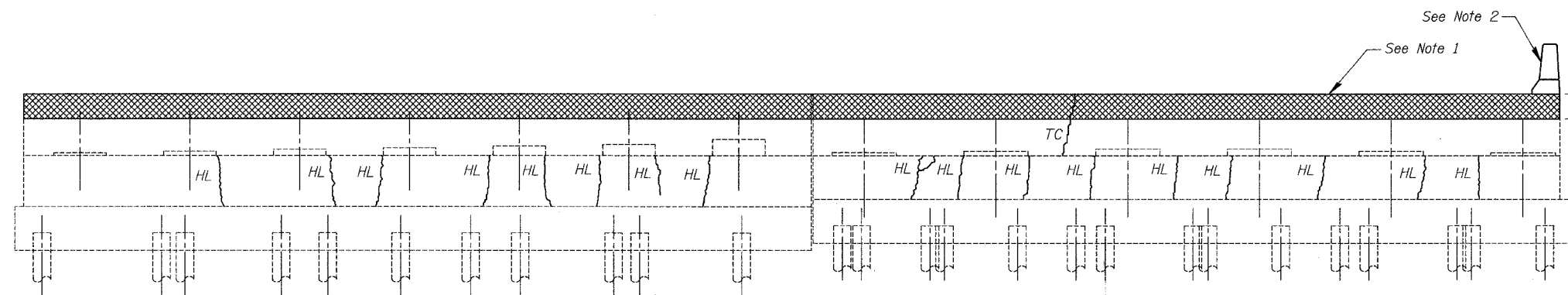
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. S-17 OF S-21 SHEETS	
FALL YEAR	2585	**	COOK	30		26
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT				

\*\* 05-00068-02-BR CONTRACT NO 83800



**NORTH ABUTMENT ELEVATION**  
(Looking North)






**SOUTH ABUTMENT ELEVATION**  
(Looking South)

**SUBSTRUCTURE  
BILL OF MATERIAL**

Item	Unit	Quantity
Formed Concrete Repair > 5"	Sq. Ft.	11.4

**LEGEND**

-  Formed Concrete Repair > 5"
-  Structural Removal
-  Crack
- HL Hair Line
- TC Tight Crack
- OC Open Crack

**NOTES**

1. For Expansion Joint Rehabilitation Details, see Sheet Nos. S-11 and S-12
2. For additional Wingwall Rehabilitation, see Sheet Nos. S-16.

**ABUTMENT REPAIRS**  
**MEACHAM ROAD OVER NORTHWEST TOLLWAY**  
**F.A.U. ROUTE 2585 SECTION 05-00068-02-BR**  
**COOK COUNTY**  
**STA. 285 + 04.18**

**STRUCTURE NO. 016-0676**



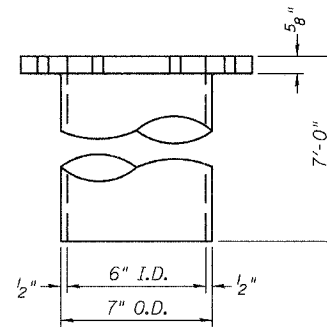
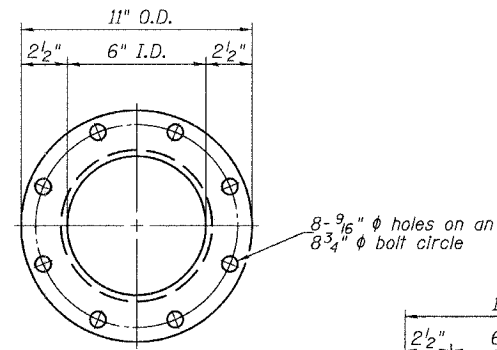
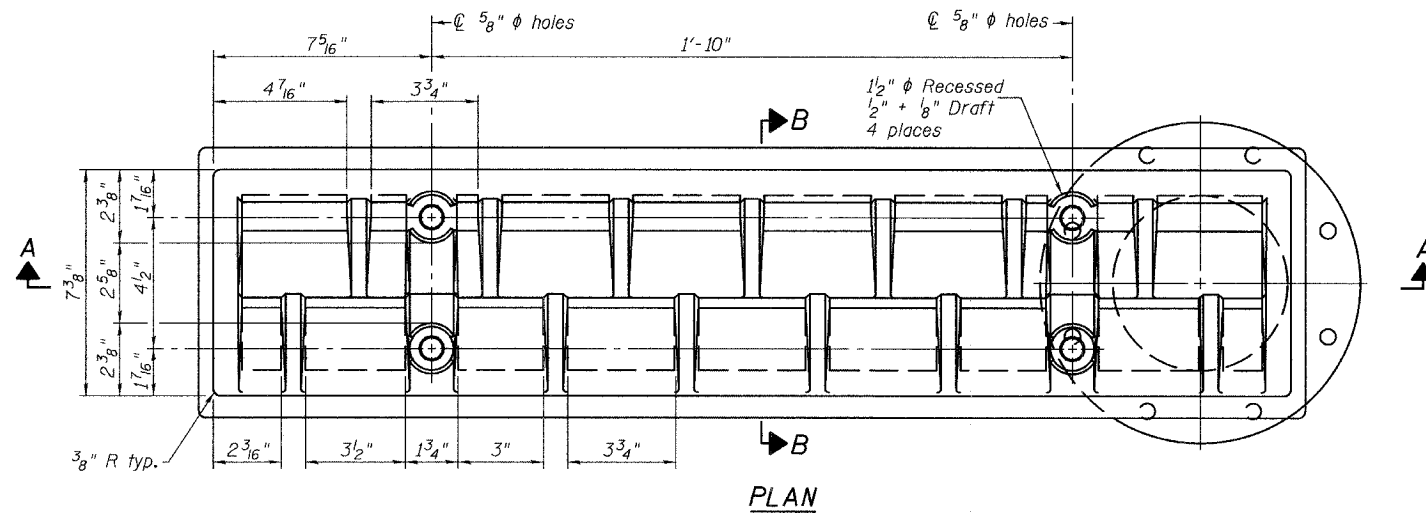
DESIGNED: SCHELBIAN/AYARGICGLU  
DRAWN: SCHELBIAN/AYARGICGLU  
CHECKED: RLEE

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

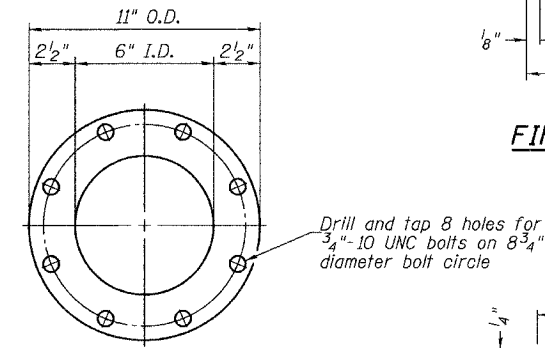
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.U. NO.	2585	**	COOK	30
ILLINOIS	FED. AID PROJECT			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. S-18  
OF  
S-21 SHEETS

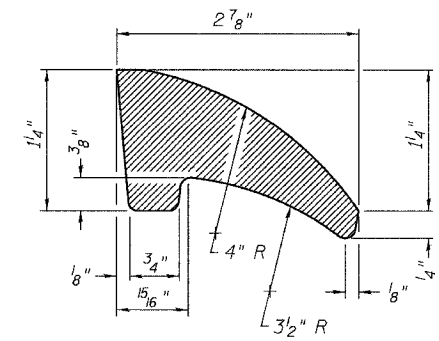
\*\* 05-00068-02-BR CONTRACT NO B3800



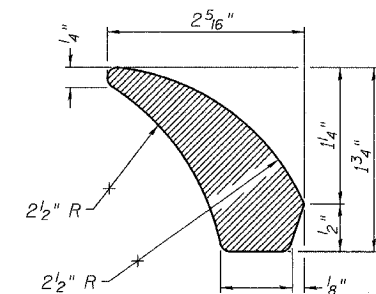
DOWNSPOUT



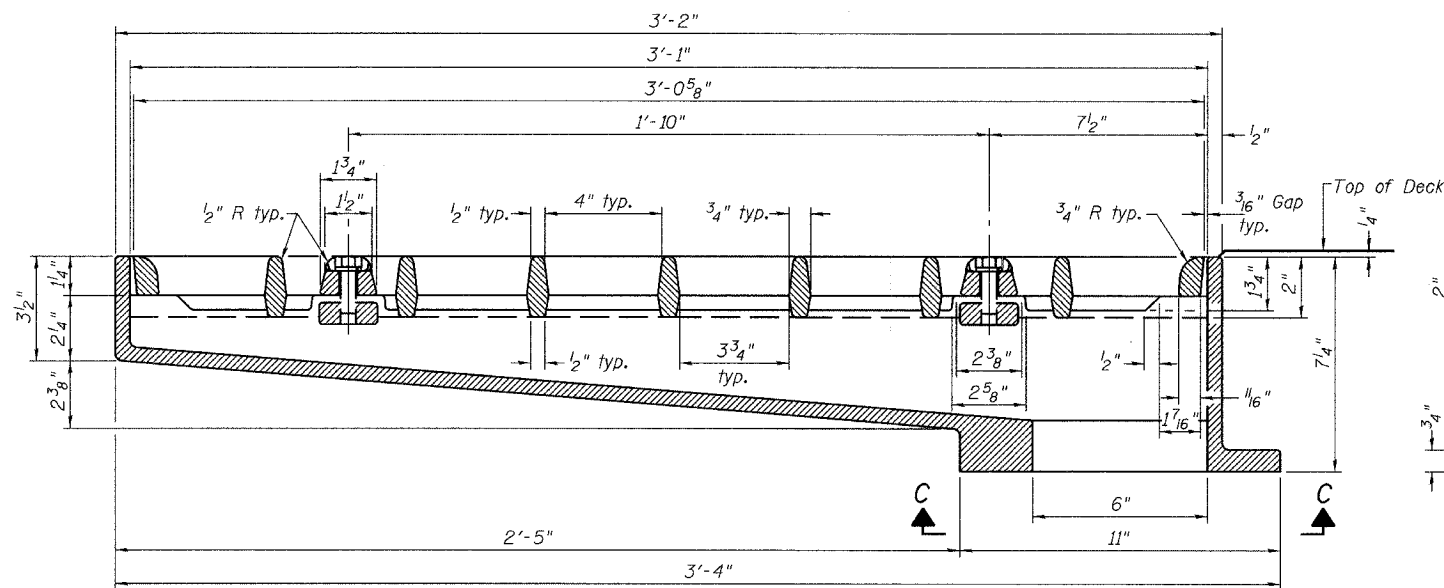
VIEW C-C



FIRST VANE DETAIL

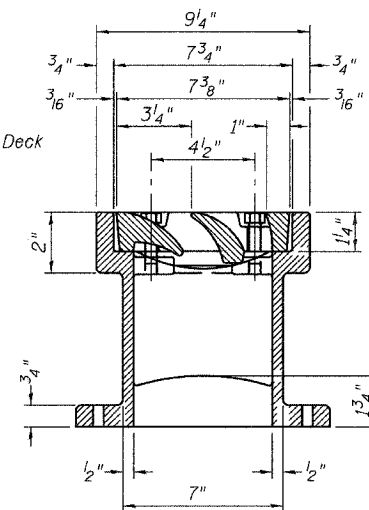


SECOND VANE DETAIL



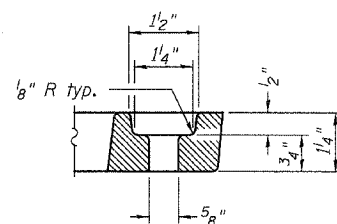
SECTION A-A

See sheet S-1 for scupper location relative to parapet.



SECTION B-B

Notes: All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.  
Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.  
The grate, frame and downspout shall be galvanized according to AASHTO M 111 and ASTM A 385. Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.  
As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.  
Structural steel weldments of equal sections and of the same configuration may be substituted for cast iron. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval.  
The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.  
Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-33.



BOLT HOLE DETAIL

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-33	Each	2

DRAINAGE SCUPPER, DS-33  
MEACHAM ROAD OVER NORTHWEST TOLLWAY  
F.A.U. ROUTE 2585 SECTION 05-00068-02-BR  
COOK COUNTY  
STA. 285 + 04.18

STRUCTURE NO. 016-0676

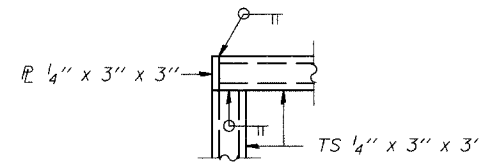
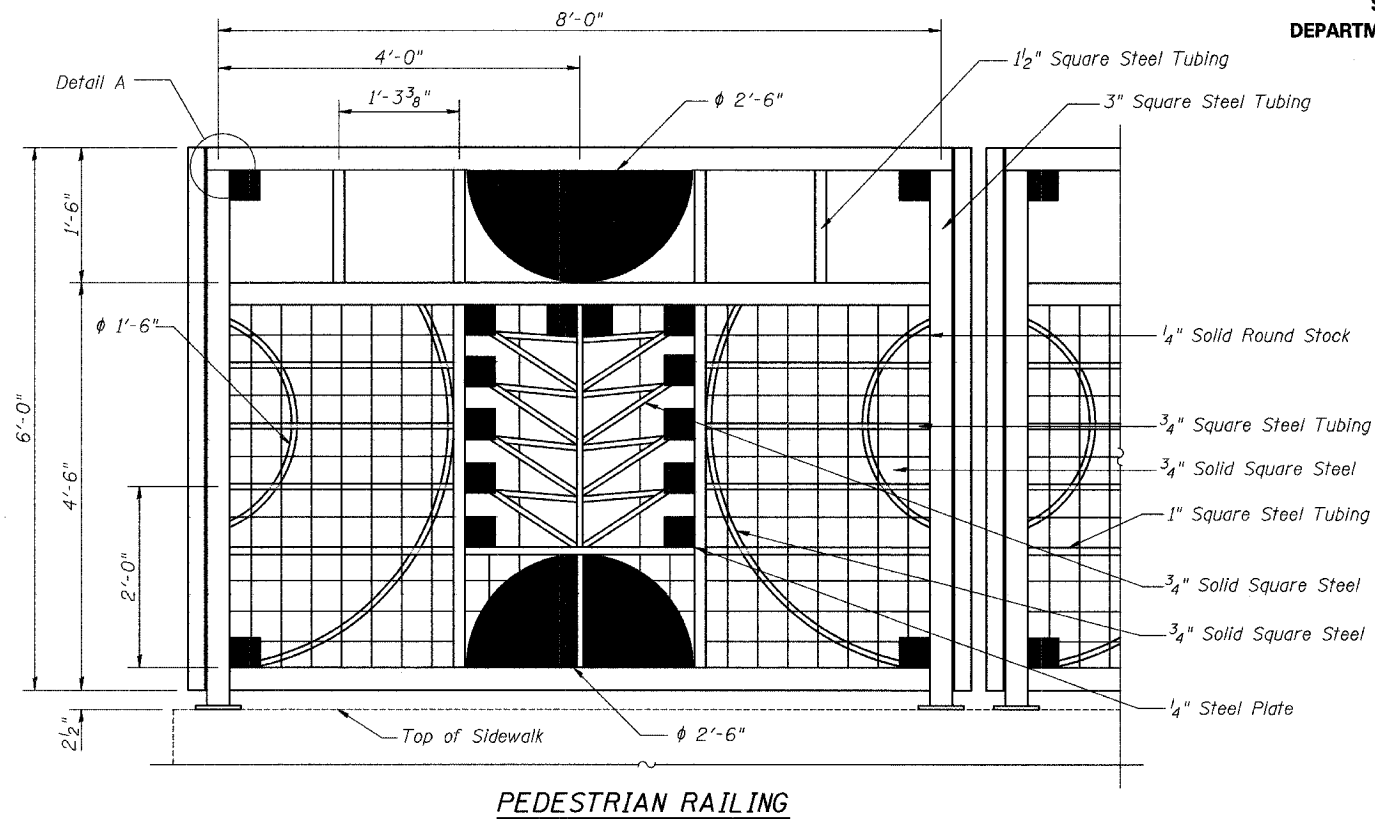


DESIGNED:  
DRAWN: SCHELBIAH/AYARGICOGLU  
CHECKED: RLEE

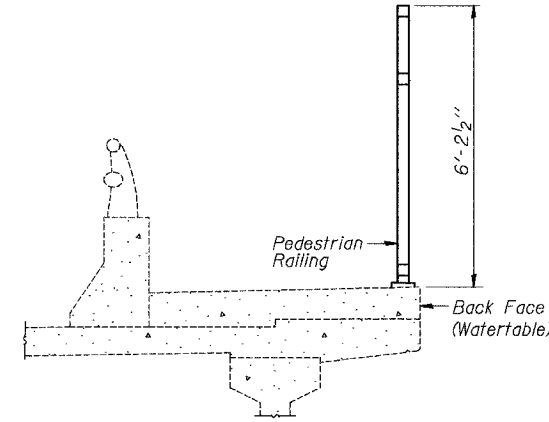
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.U. SITE	2585	**	COOK	30
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		28
** 05-00068-02-BR			CONTRACT NO. 05B00	

SHEET NO. S-19  
OF  
S-21 SHEETS



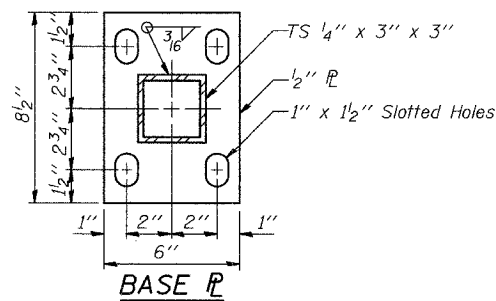
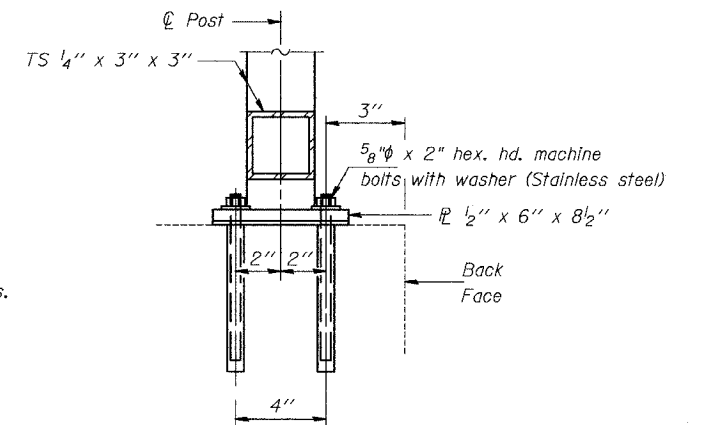
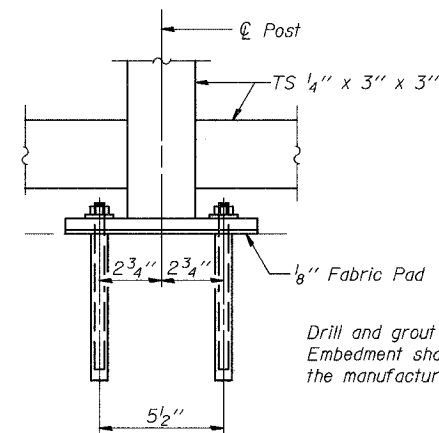
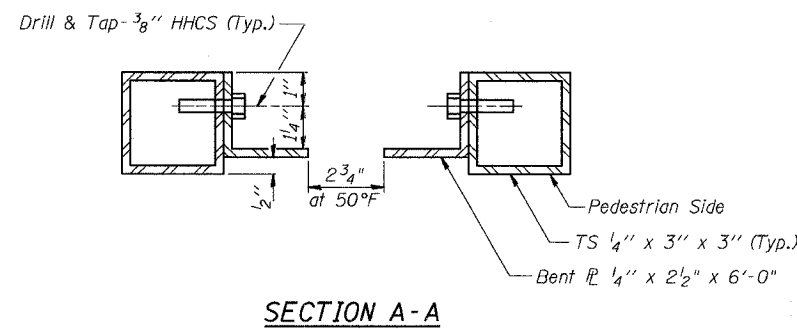
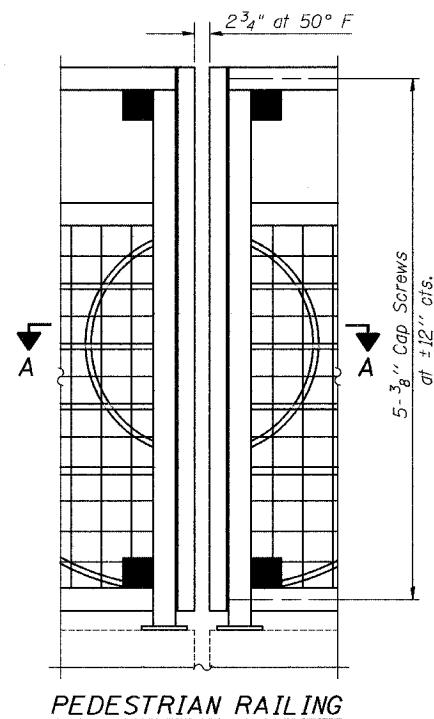
**DETAIL A**



**SECTION THRU SIDEWALK**

**NOTES**

Railing shall be according to Section 509 of the Standard Specifications, except as noted, and will be paid for at the Contract Unit Price per foot for Pedestrian Railing.  
Hollow structural steel tubing shall conform to the requirements of ASTM designation A 500, Grade B, structural steel tubing.  
All other steel shapes and plates shall conform to the requirements of AASHTO M 270 Grade 36.  
The Contractor shall use the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures. The capsule or the adhesive cartridge shall be sealed with premeasured amounts of the adhesive chemical.  
All post, railing, splices, anchor devices, and base plates shall be painted using the Organic Zinc-Rich Primer System.



**BILL OF MATERIAL**

Item	Unit	Quantity
Pedestrian Railing Special	Foot	251

**PEDESTRIAN RAILING DETAILS**  
**MEACHAM ROAD OVER NORTHWEST TOLLWAY**  
**F.A.U. ROUTE 2585 SECTION 05-00068-02-BR**  
**COOK COUNTY**

**STA. 285 + 04.18**

**STRUCTURE NO. 016-0676**



DESIGNED:  
DRAWN: SCHELBIAI/AYARGICOGU  
CHECKED: RLEE

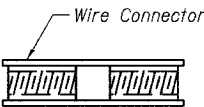
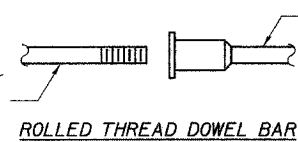
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FALL RYE 2585	**	COOK	30	29
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		
** 05-00068-02-BR		CONTRACT NO 85800		

SHEET NO. S-20  
OF  
S-21 SHEETS

The diameter of this part is the same as the diameter of the bar spliced.

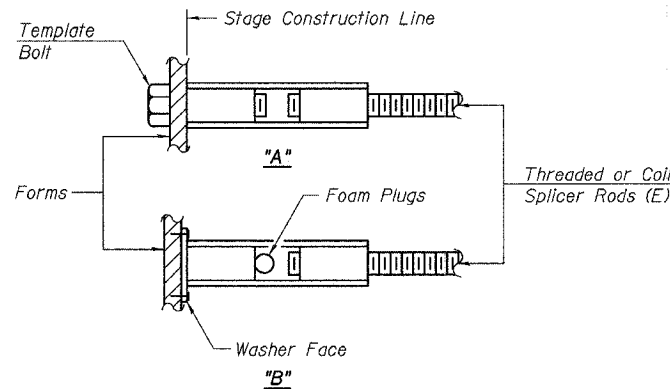
The diameter of this part is equal or larger than the diameter of bar spliced.



WELDED SECTIONS

**BAR SPLICER ASSEMBLY ALTERNATIVES**

\*\* Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



**INSTALLATION AND SETTING METHODS**

"A" : Set bar splicer assembly by means of a template bolt.

"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.

(E) : Indicates epoxy coating.

**NOTES**

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.  
Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.  
All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.  
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.  
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

- ① Minimum Capacity =  $1.25 \times f_y \times A_t$   
(Tension in kips)
- ② Minimum \*Pull-out Strength =  $1.25 \times f_{s_{allow}} \times A_t$   
(Tension in kips)

Where  $f_y$  = Yield strength of lapped reinforcement bars in ksi.

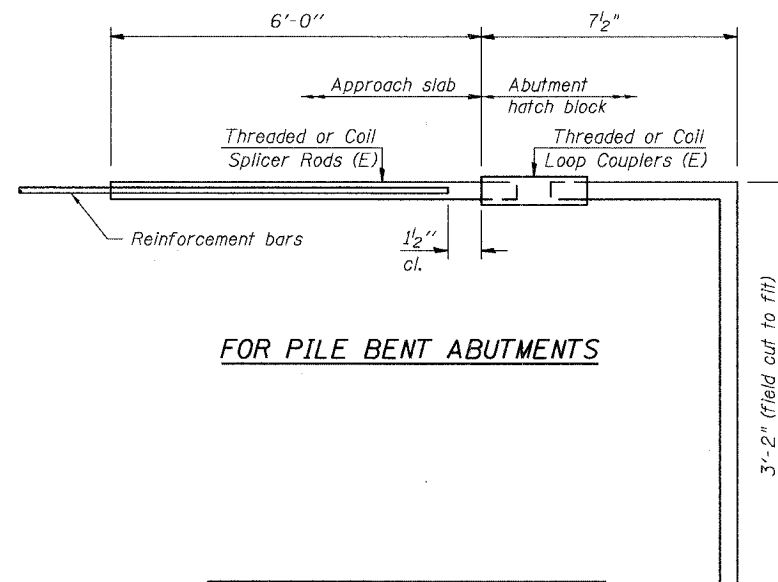
$f_{s_{allow}}$  = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)

$A_t$  = Tensile stress area of lapped reinforcement bars.

\* = 28 day concrete

BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	5.9
#5	2'-0"	23.0	9.2
#6	2'-7"	33.1	13.3
#7	3'-5"	45.1	18.0
#8	4'-6"	58.9	23.6
#9	5'-9"	75.0	30.0
#10	7'-3"	95.0	38.0
#11	9'-0"	117.4	46.8

Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."



Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 9.2 kips - tension
No. Required = 152

Bar Splicer for #5 bar

**BAR SPLICER ASSEMBLY DETAILS**  
**MEACHAM ROAD OVER NORTHWEST TOLLWAY**  
**F.A.U. ROUTE 2585 SECTION 05-00068-02-BR**  
**COOK COUNTY**

**STA. 285 + 04.18**

**STRUCTURE NO. 016-0676**

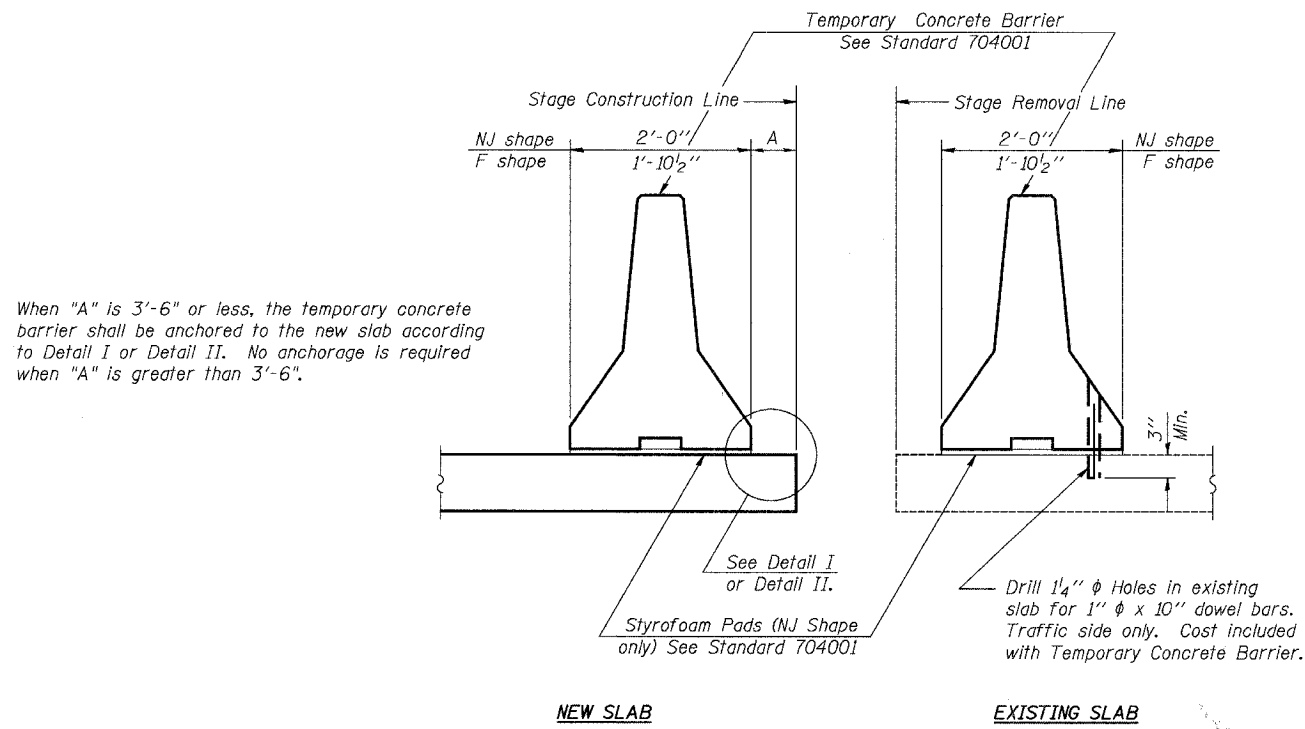


DESIGNED:  
DRAWN: SCHELBIAN/AYARGICOLU  
CHECKED: RLEE

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FALL WYE 2585	**	COOK	30	30
FED. ROAD DIST. NO. 7	ILLINOIS		FED. AID PROJECT	
** 05-00068-02-BR			CONTRACT NO 83600	

SHEET NO. S-21  
OF  
S-21 SHEETS



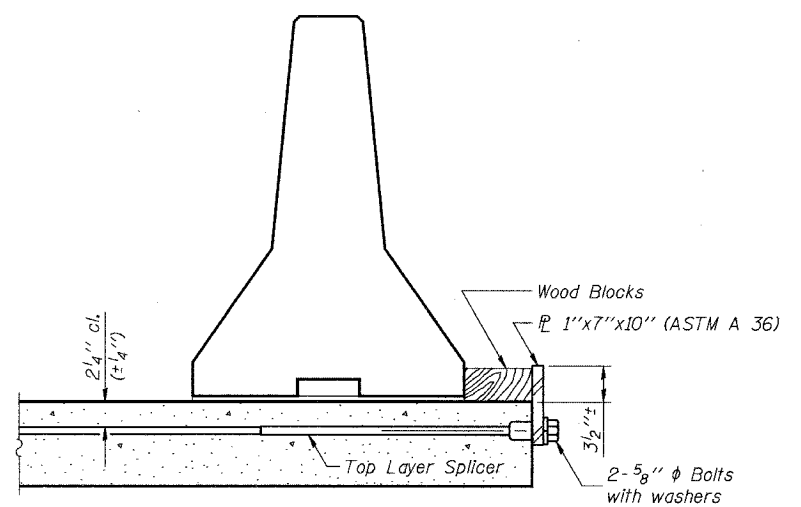
**NOTES**

Detail I - With Bar Splicer or Couplers:  
Connect one (1) 1"x7"x10" steel PL to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate C of each barrier panel.

Detail II - With Extended Reinforcement Bars:  
Connect one (1) 1"x7"x10" steel PL to the concrete slab with 2-5/8" φ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate C of each barrier panel.

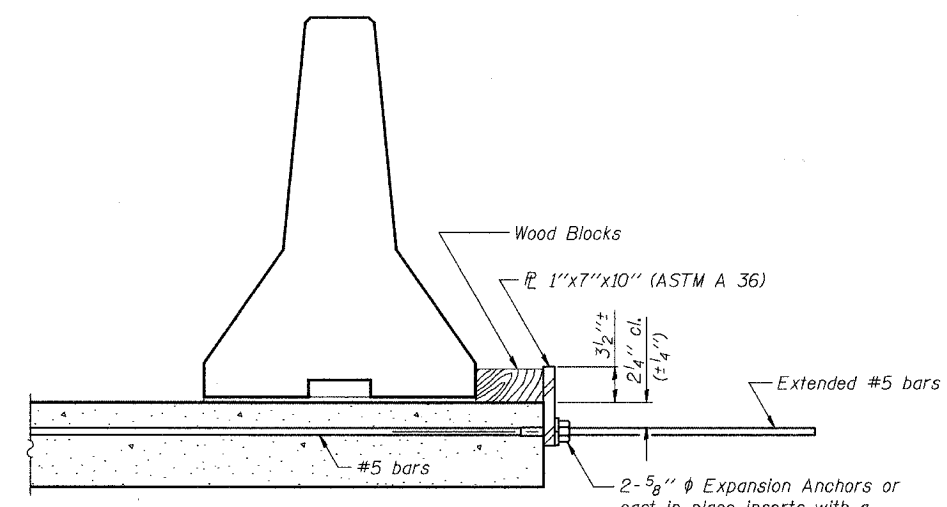
Cost of anchorage is included with Temporary Concrete Barrier.

SECTIONS THRU SLAB



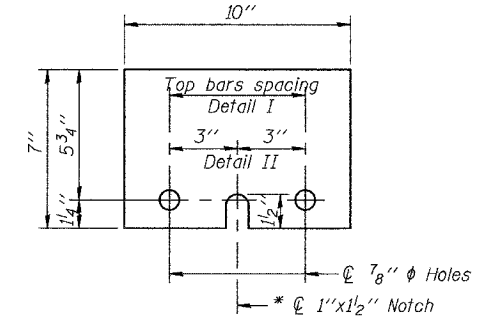
**DETAIL I**

The 1"x7"x10" Plate shall not be removed until Stage II Construction forms and reinforcement bars are in place.



**DETAIL II**

The 1"x7"x10" Plate shall not be removed until Stage II Construction forms and all reinforcement bars are in place and the concrete is ready to be placed.



**1"x7"x10"**  
\* Required only with Detail II

**TEMPORARY CONCRETE BARRIER  
FOR STAGE CONSTRUCTION**

MEACHAM ROAD OVER NORTHWEST TOLLWAY  
F.A.U. ROUTE 2585 SECTION 05-00068-02-BR  
COOK COUNTY  
STA. 285 + 04.18

BILL OF MATERIAL

Item	Unit	Quantity
Temporary Concrete Barrier	Foot	460

DESIGNED:  
DRAWN: SCHELBIAH/AYARGICUGLU  
CHECKED: PLEE