

**Benchmark:** Chiseled Square in N.E. corner of the North Abutment of the Wolf Rd. Bridge over Palatine Rd. Station 950+34 offset 36'-5" right, Elevation = 649.60

**Existing Structure:** Structure No. 016-0680 built as Wolf Road, over Palatine Road, Section 110-1415 in 1963 by the Cook County Highway Department. The length of the structure is 66'-2" center to center of bearings. The superstructure consists of 33"x36" PPC Deck Beams supporting a bituminous concrete wearing surface. The existing deck is 70'-0" out to out of deck.

**Scope of Work:**

1. Remove bituminous concrete wearing surface and waterproofing membrane system.
2. Remove and replace six Deck Beams, Sidewalks and Concrete pedestrian rail.
3. Repair the remaining concrete Deck Beams.
4. Reconstruct the expansion joints and place new concrete wearing surface - variable depth.
5. Repair the existing abutments.
6. Resurface the existing approach slabs. (See Roadway Plans)

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

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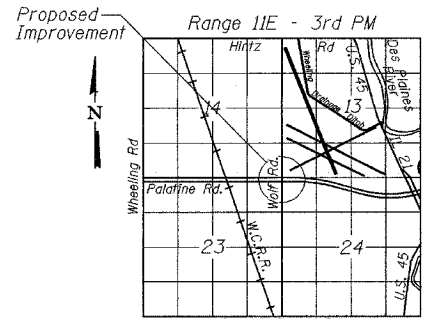
ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO. 1
FAP 305	*	Cook	72 59	14 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract No. 62853 \*2004-108 BR  
**GENERAL NOTES**

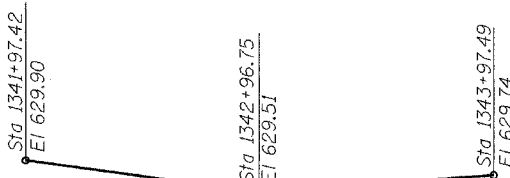
1. Reinforcement bars shall conform to the requirements of AASHTO M-31 or M-322 Grade 60.
2. Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions 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 quantity actually furnished at the unit price bid for the work.
3. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splice or anchorage system. Cost included with "Concrete Removal".
4. Protective Coat shall be applied to the entire top surface of the bridge deck including sidewalk and the tops and inside vertical faces of the sidewalk parapets and as directed by the Engineer.
5. The Contractor must follow the guidelines of Article 107.09 while performing removal operations.
6. Expansion guards which are not cast in the precast unit shall be fabricated and erected according to Article 503.10(c) of the Standard Specifications and are included in quantity of structural steel.
7. The top surface of the beams shall be finished according to Article 504.06 of the Standard Specification except that the surface shall not be roughened by brooming. The finished surface shall be free of depressions or high spots with sharp corners, and the top edge of keys shall be rounded or chamfered a minimum of 1/4".

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Bituminous Concrete Surface Removal Complete	Sq Yd	367
Concrete Removal	Cu Yd	11.0
Preformed Joint Seal 1 3/4"	Foot	70
Preformed Joint Seal 2 1/2"	Foot	70
Concrete Superstructure	Cu Yd	72.1
Bridge Deck Grooving	Sq Yd	433
Protective Coat	Sq Yd	573
Formed Concrete Repair (Depth Equal to or Less Than 5")	Sq Ft	500
Reinforcement Bars, Epoxy Coated	Pound	12,520
Pedestrian Railing	Foot	135
Epoxy Crack Sealing	Foot	110
Concrete Wearing Surface	Sq Yd	433
Keyway Repair	Foot	14
Bar Splicers	Each	148
Furnishing and Erecting Structural Steel	Pound	2,150
Bearing Pad Adjustment	Each	32
Removal of Existing Precast Prestressed Concrete Deck Beams	Sq Ft	1,210
Precast Prestressed Concrete Deck Beams (33" Depth)	Sq Ft	1,210
Formed Concrete Repair (Depth Greater Than 5")	Sq. Ft.	150

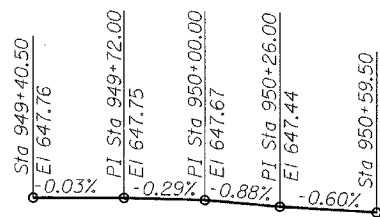


**LOCATION SKETCH**



**PROFILE GRADE PALATINE RD**

(PGL Along North Median Edge of Pavement)



**PROFILE GRADE WOLF RD**

(Along Centerline of Roadway)

**DESIGN SPECIFICATIONS**

2002 AASHTO

**DESIGN STRESSES**

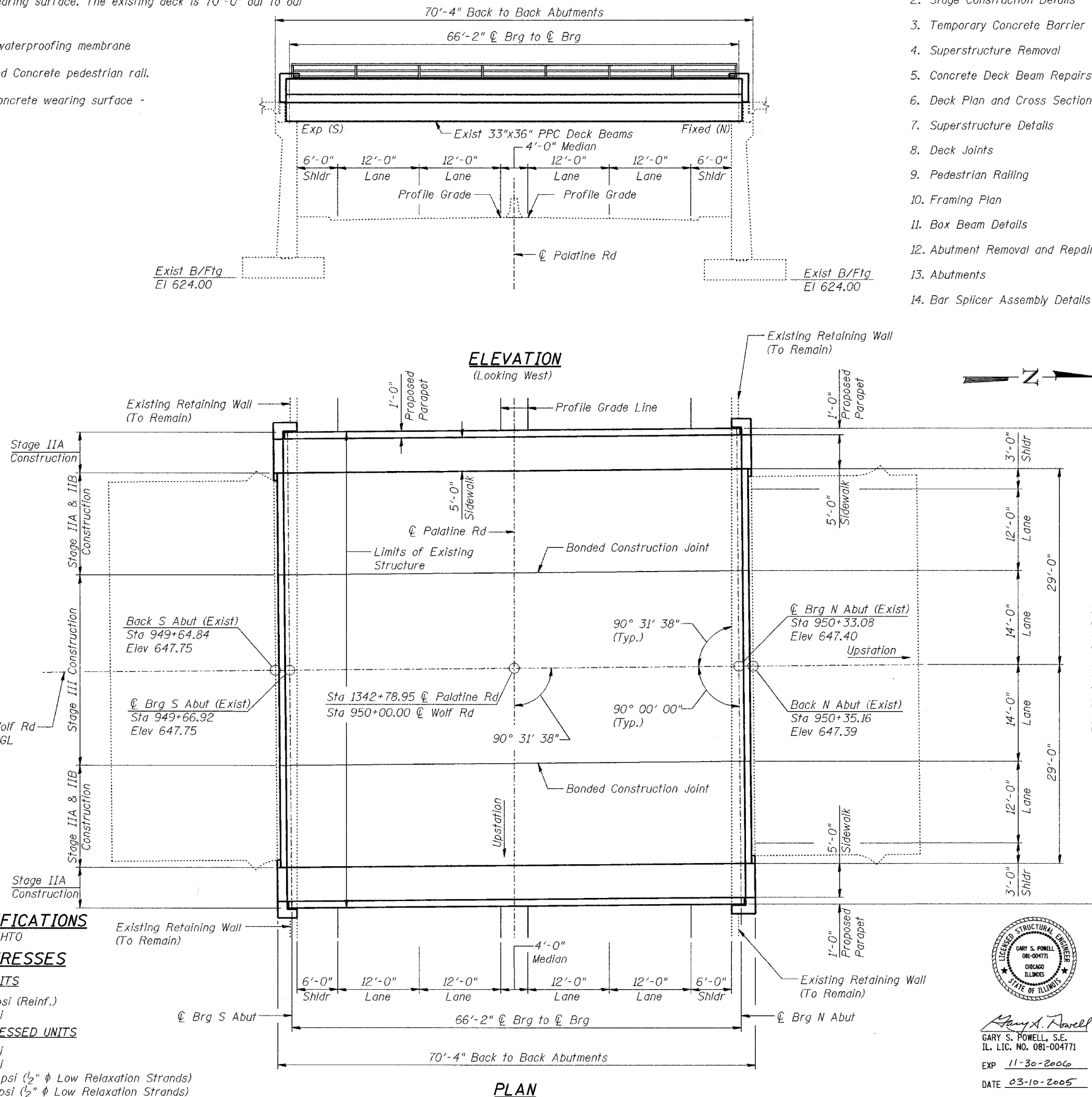
**FIELD UNITS**

$f_y = 60,000$  psi (Reinf.)  
 $f'_c = 3,500$  psi

**PRECAST PRESTRESSED UNITS**

$f'_c = 5,000$  psi  
 $f'_{ci} = 4,000$  psi  
 $f'_s = 270,000$  psi (1/2"  $\phi$  Low Relaxation Strands)  
 $f'_{si} = 204,960$  psi (1/2"  $\phi$  Low Relaxation Strands)

DESIGNED	BPS
CHECKED	KFA
DRAWN	BPS
CHECKED	GSP



**PLAN**



GARY S. POWELL, S.E.  
IL. LIC. NO. 081-004771  
EXP. 11-30-2006  
DATE 03-10-2005

**GENERAL PLAN AND ELEVATION**  
**WOLF RD. OVER PALATINE RD.**  
**F.A.P. RTE. 305 SECT. 2004-108 BR**  
**COOK COUNTY**  
**STATION 950+00.00**  
**STRUCTURE NO. 016-0680**