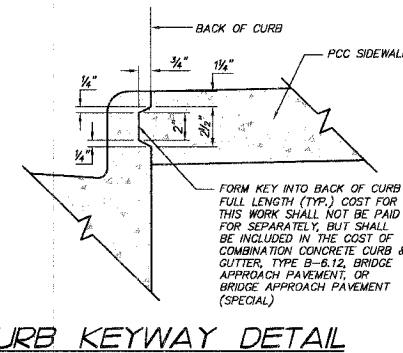
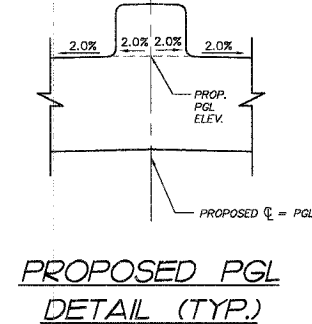
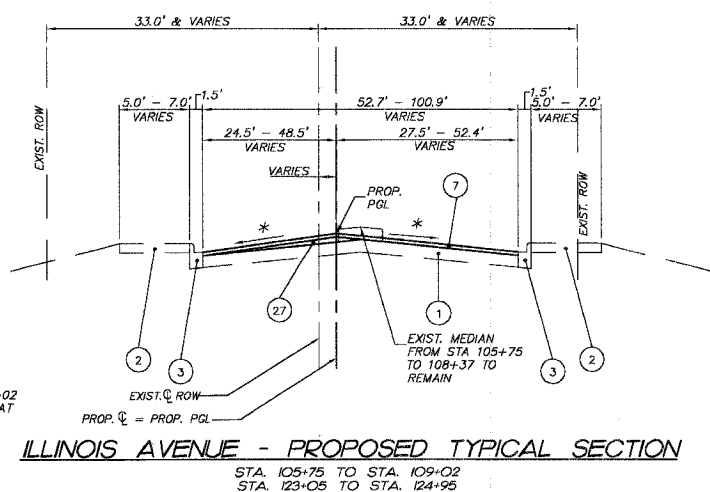
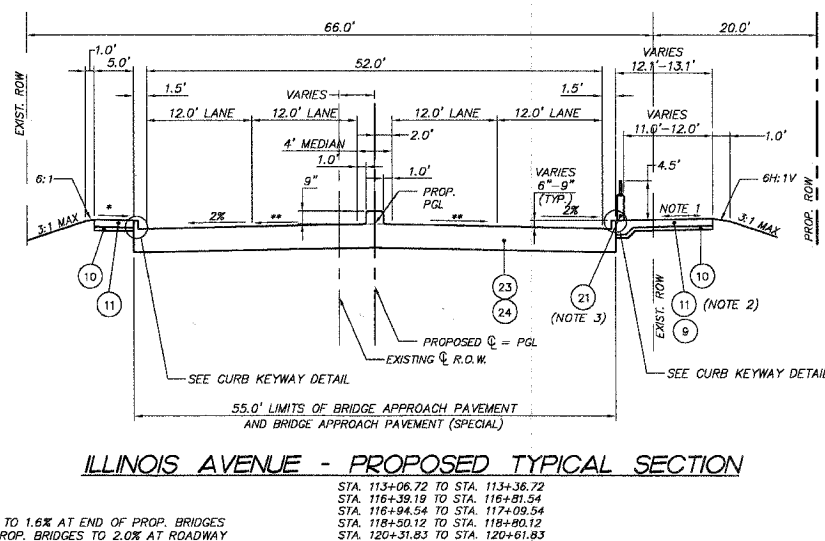
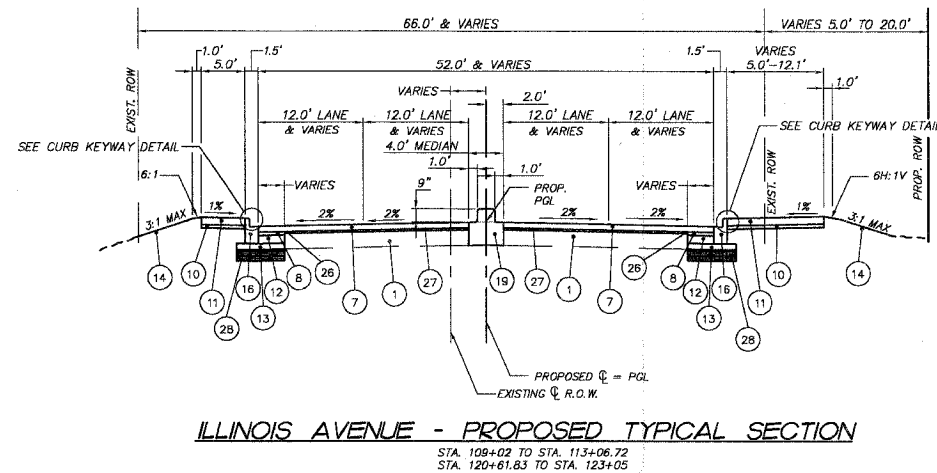


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1517	03-00247-00-BR	KANE	121	6
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS HIGHWAY PROJECT		
CONTRACT # 83867				



- LEGEND**
- 1 EXISTING PAVEMENT (2 1/2" - 6" BITUMINOUS SURFACE WITH 8"-11" CONCRETE BASE COURSE)
  - 2 EXISTING PCC SIDEWALK
  - 3 EXISTING CONCRETE CURB AND GUTTER
  - 4 EXISTING ABANDONED 10-DUCT ELECTRICAL PACKAGE (5" DIA. PVC)
  - 5 EXISTING 8" GAS MAIN (TO BE RELOCATED BY OTHERS)
  - 6 EXISTING ABANDONED 12" WATER MAIN
  - 7 PROPOSED BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX D, N70, 1.5"
  - 8 PROPOSED BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, IL-19, N70, 2.5"
  - 9 PROPOSED PORTLAND CEMENT CONCRETE SIDEWALK 5" (SPECIAL) AND CONCRETE BARRIER (SPECIAL) DETAIL SHEET
  - 10 PROPOSED AGGREGATE BASE 4" (CA-6 CRUSHED) (INCLUDED IN COST OF PCC SIDEWALK)
  - 11 PROPOSED PORTLAND CEMENT CONCRETE SIDEWALK 5"
  - 12 PROPOSED BITUMINOUS BASE COURSE, SUPERPAVE, 8"
  - 13 PROPOSED SUB-BASE GRANULAR MATERIAL, TYPE B, 4"
  - 14 PROPOSED TOPSOIL FURNISH AND PLACE, 6" & SODDING, SALT TOLERANT
  - 15 PROPOSED POROUS GRANULAR EMBANKMENT, SUBGRADE (12" DEPTH, SEE NOTE BELOW)
  - 16 PROPOSED COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12 (MINIMUM THICKNESS OF GUTTER FLAG SHALL BE 9". ADDITIONAL AGGREGATE UNDER GUTTER FLAG SHALL BE INCLUDED IN THE COST OF COMBINATION CONCRETE CURB & GUTTER TYPE B-6.12)
  - 17 PROPOSED CONCRETE SUPERSTRUCTURE (CLASS BD CONCRETE) SEE BRIDGE PLANS
  - 18 BITUMINOUS SURFACE REMOVAL, 1 1/2"
  - 19 PROPOSED CONCRETE MEDIAN, TYPE SB-9.12
  - 20 PAVEMENT REMOVAL
  - 21 PROPOSED CONCRETE BARRIER (SPECIAL) (SEE PCC SIDEWALK 5" (SPECIAL) AND CONCRETE BARRIER (SPECIAL) DETAIL SHEET)
  - 22 PROPOSED PORTLAND CEMENT CONCRETE PAVEMENT, 10" (JOINTED)
  - 23 PROPOSED BRIDGE APPROACH PAVEMENT
  - 24 PROPOSED BRIDGE APPROACH PAVEMENT (SPECIAL)
  - 25 BITUMINOUS CONCRETE REMOVAL (DECK)
  - 26 PROPOSED STRIP REFLECTIVE CRACK CONTROL TREATMENT
  - 27 PROPOSED LEVELING BINDER (MACHINE METHOD) SUPERPAVE N70 (THICKNESS VARIES 3/4" TO 2 1/4")
  - 28 PROPOSED POROUS GRANULAR EMBANKMENT, SUBGRADE (12" DEPTH-SEE NOTE BELOW)

BITUMINOUS MIXTURE REQUIREMENT					
ITEM DESCRIPTION	AC TYPE	VOIDS	RAP %	THICKNESS	
*BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX D, N70	PG 64-22	4% @ 70 Gyr.	10%	1 1/2"	
BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, IL-19, N70	PG 64-22	4% @ 70 Gyr.	15%	2 1/2"	
BITUMINOUS BASE COURSE, SUPERPAVE 8"	PG 58-22	2% @ 50 Gyr.	50%	8"	
LEVELING BINDER (MACHINE METHOD) SUPERPAVE N70	PG 64-22	4% @ 70 Gyr.	10%	VARIES (3/4" TO 2 1/4")	
BITUMINOUS DRIVEWAY PAVEMENT: BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX D, N70	PG 64-22	4% @ 70 Gyr.	10%	2"	
CLASS D PATCHES, TYPE I	PG 64-22	4% @ 70 Gyr.	15%	12"	
CLASS D PATCHES, TYPE II	PG 64-22	4% @ 70 Gyr.	15%	12"	

THE UNIT WEIGHT USED TO CALCULATE BITUMINOUS SURFACE MIXTURE IS 112 LB/SY PER INCH THICKNESS.

\* TO BE UTILIZED FOR "TEMPORARY PAVEMENT" (2" THICK) AND "BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)"

"POROUS GRANULAR EMBANKMENT, SUBGRADE (PGES) HAS BEEN PROVIDED FOR USE AT THE LOCATIONS INDICATED FOR SOILS THAT TEND TO BE UNSUITABLE OR UNSTABLE. THE ACTUAL NEED FOR REMOVAL AND REPLACEMENT WITH PGES WILL BE DETERMINED IN THE FIELD AT THE TIME OF CONSTRUCTION BY THE GEOTECHNICAL ENGINEER. ALL POTENTIALLY UNSTABLE SOILS SHOULD BE TESTED WITH STATIC CONE PENETROMETER AND TREATED IN ACCORDANCE WITH ARTICLE 301.03 AND THE UNDERCUT GUIDELINES IN THE IDOT SUBGRADE STABILITY MANUAL. IF UNSUITABLE AND/OR UNSTABLE MATERIAL IS NOT ENCOUNTERED, THEN THE QUANTITY SHALL BE DEDUCTED AND NO COMPENSATION WILL BE DUE THE CONTRACTOR."

ALL RECOMMENDED UNDERCUTS ARE FROM 6" OUTSIDE THE EDGES OF CURB AND GUTTER. DEPTHS WILL BE DETERMINED BY A LICENSED SOILS ENGINEER. LIMITS ARE FROM STA 109+02 TO 113+36.72, 116+39.19 TO 118+80.12, AND 120+31.83 TO 123+05.

**FLEXIBLE PAVEMENT STRUCTURAL DESIGN - ILLINOIS AVENUE  
DESIGN SPEED = 35 MPH**

STRUCTURAL DESIGN TRAFFIC		DESIGN YEAR = 2017	
CLASSIFICATION:	CLASS I	ADT:	11,833
DESIGN PERIOD:	20 YEARS	PV:	11,241
TRAFFIC FACTOR:	1.5	SU:	355
ILLINOIS BEARING RATIO:	3	MU:	237
STRUCTURAL DESIGN #(Dt):	4.5		
BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX D, N70, 1.5"	x .40	=	0.60
BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, IL-19, N70, 2.5"	x .33	=	0.99
BITUMINOUS BASE COURSE, SUPERPAVE, 8"	x .33	=	2.64
SUB-BASE GRANULAR MATERIAL, TYPE B-4"	x .11	=	0.44
			4.5

- NOTES**
1. CROSS SLOPE OF SHARED USE PATH VARIES FROM 1.6% AT PROP. BRIDGES AND PEDESTRIAN TUNNEL (SLOPING AWAY FROM ROADWAY) TO 1% AT ROADWAY (SLOPING TOWARD ROADWAY)
  2. STA. 118+50.12 TO 118+80.12 ONLY
  3. STA. 113+06.72 TO STA. 113+36.72, STA. 116+39.19 TO 116+81.54, STA. 116+94.54 TO STA. 117+09.54, AND STA. 120+31.83 TO STA. 120+61.83 ONLY

ALL RECOMMENDED UNDERCUTS ARE FROM 6" OUTSIDE THE EDGES OF CURB AND GUTTER. DEPTHS WILL BE DETERMINED BY A LICENSED SOILS ENGINEER. LIMITS ARE FROM STA 109+02 TO 113+36.72, 116+39.19 TO 118+80.12, AND 120+31.83 TO 123+05.

REVISIONS	
NO.	DATE
7.	
6.	
5.	
4.	
3.	
2.	
1.	KMA 09-13-2006

**SMITH ENGINEERING CONSULTANTS, INC.**  
 CIVIL/STRUCTURAL ENGINEERS AND SURVEYORS  
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 MCHENRY, ILLINOIS 60050  
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 www.smitheng.com E-MAIL: seo@smitheng.com  
 \* MICHENRY \* SUNTLEY \* YORKVILLE  
 ILLINOIS PROFESSIONAL DESIGN FIRM # 184-000108

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 CITY OF AURORA  
 ILLINOIS AVENUE OVER THE FOX RIVER  
 PROPOSED TYPICAL SECTIONS

SCALE: "NTS" DRAWN BY MPL  
 DATE 07-28-2006 CHECKED BY JLP