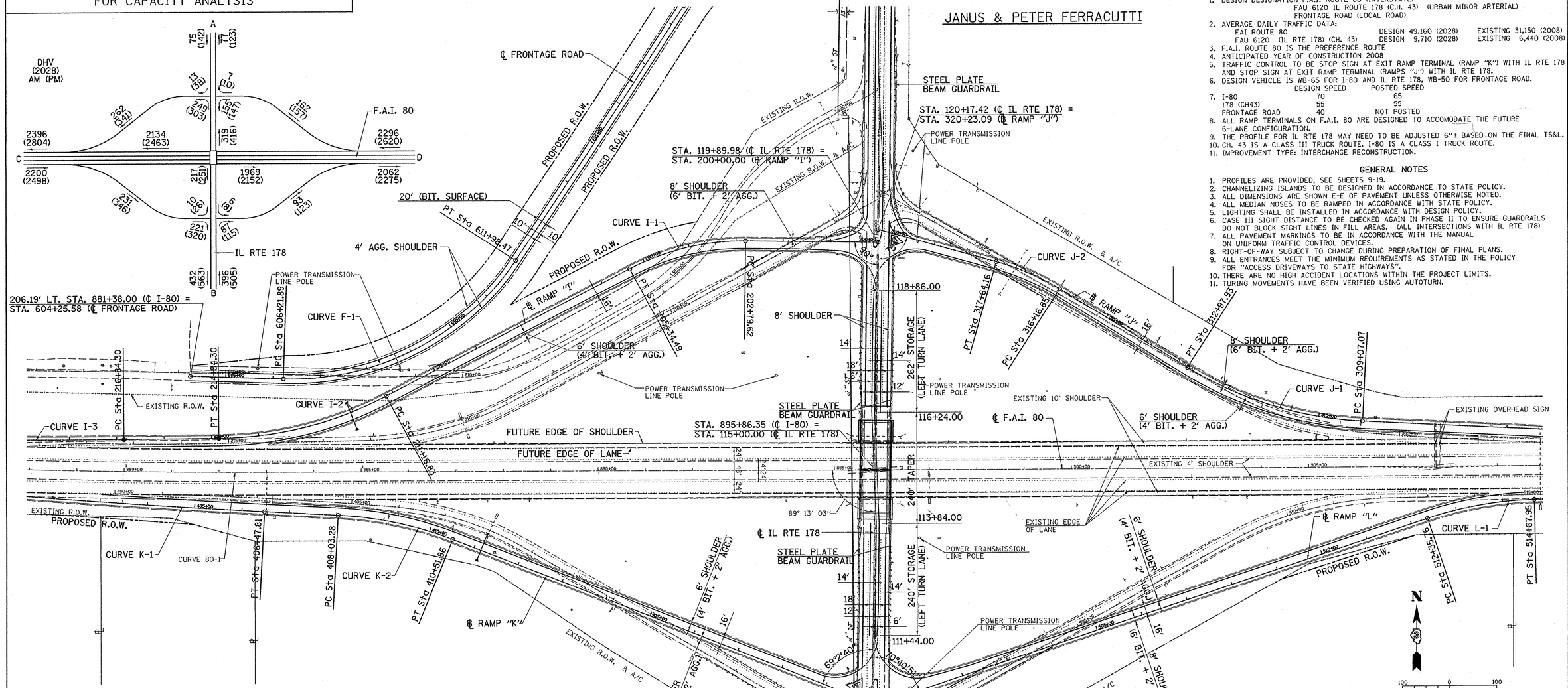
CAPACITY DESIGN STUDY

SEE SHEETS 2, 6 & 7
FOR CAPACITY ANALYSIS



ELEMENTS CONTROLLING DESIGN

1. DESIGN DESIGNATION F.A.I. ROUTE 80 (INTERSTATE)
   FAU 6120 IL ROUTE 178 (C.H. 43) (URBAN MINOR ARTERIAL)
   FRONTAGE ROAD (LOCAL ROAD)
2. AVERAGE DAILY TRAFFIC DATA:
   FAI ROUTE 80 DESIGN 49,160 (2028) EXISTING 31,150 (2008)
   FAU 6120 (IL RTE 178) (CH. 43) DESIGN 9,710 (2028) EXISTING 6,440 (2008)
3. F.A.I. ROUTE 80 IS THE PREFERENCE ROUTE
4. ANTICIPATED YEAR OF CONSTRUCTION 2008
5. TRAFFIC CONTROL TO BE STOP SIGN AT EXIT RAMP TERMINAL (RAMP "K") WITH IL RTE 178 AND STOP SIGN AT EXIT RAMP TERMINAL (RAMPS "J") WITH IL RTE 178.
6. DESIGN VEHICLE IS WB-65 FOR I-80 AND IL RTE 178, WB-50 FOR FRONTAGE ROAD.

	DESIGN SPEED	POSTED SPEED
7. I-80	70	65
178 (CH43)	55	55
FRONTAGE ROAD	40	NOT POSTED

8. ALL RAMP TERMINALS ON F.A.I. 80 ARE DESIGNED TO ACCOMODATE THE FUTURE 6-LANE CONFIGURATION.
9. THE PROFILE FOR IL RTE 178 MAY NEED TO BE ADJUSTED 6"± BASED ON THE FINAL TS&L.
10. CH. 43 IS A CLASS III TRUCK ROUTE. I-80 IS A CLASS I TRUCK ROUTE.
11. IMPROVEMENT TYPE: INTERCHANGE RECONSTRUCTION.

GENERAL NOTES

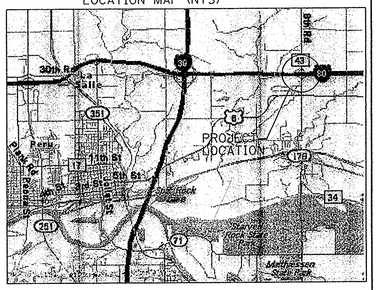
1. PROFILES ARE PROVIDED, SEE SHEETS 9-19.
2. CHANNELIZING ISLANDS TO BE DESIGNED IN ACCORDANCE TO STATE POLICY.
3. ALL DIMENSIONS ARE SHOWN E-E OF PAVEMENT UNLESS OTHERWISE NOTED.
4. ALL MEDIAN NOSES TO BE RAMPED IN ACCORDANCE WITH STATE POLICY.
5. LIGHTING SHALL BE INSTALLED IN ACCORDANCE WITH DESIGN POLICY.
6. CASE III SIGHT DISTANCE TO BE CHECKED AGAIN IN PHASE II TO ENSURE GUARDRAILS DO NOT BLOCK SIGHT LINES IN FILL AREAS. (ALL INTERSECTIONS WITH IL RTE 178)
7. ALL PAVEMENT MARKINGS TO BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
8. RIGHT-OF-WAY SUBJECT TO CHANGE DURING PREPARATION OF FINAL PLANS.
9. ALL ENTRANCES MEET THE MINIMUM REQUIREMENTS AS STATED IN THE POLICY FOR "ACCESS DRIVEWAYS TO STATE HIGHWAYS".
10. THERE ARE NO HIGH ACCIDENT LOCATIONS WITHIN THE PROJECT LIMITS.
11. TURING MOVEMENTS HAVE BEEN VERIFIED USING AUTOTURN.

TRAFFIC DATA

MOVEMENT	YEAR 2008 30TH MAXIMUM HOUR TRAFFIC		PERCENT TRUCK TRAFFIC IN 30th MAX HOUR	ESTIMATED PERCENT INCREASE BY 2018		YEAR 2018 30th MAXIMUM HOUR TRAFFIC		ESTIMATED PERCENT INCREASE BY 2028		YEAR 2028 30th MAXIMUM HOUR TRAFFIC	
	A.M.	P.M.		A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
AB (T)	41	68	18	20	21	49	82	37	41	56	96
AD (L)	4	6	80	25	17	5	7	50	33	6	8
AC (R)	12	35	0	8	6	13	37	8	9	13	38
BA (T)	43	62	27	21	21	52	75	40	40	60	87
BC (L)	158	190	28	28	29	203	246	58	59	249	303
BD (R)	59	82	3	24	21	73	99	47	40	87	115
CD (T)	1247	1357	32	29	29	1608	1755	58	59	1969	2152
CA (L)	8	22	6	13	14	9	25	25	18	10	26
CB (R)	139	202	24	29	29	180	260	59	58	221	320
DC (T)	1348	1554	32	29	29	1743	2009	58	58	2134	2463
DB (L)	107	104	12	22	21	131	126	45	41	155	147
DA (R)	5	7	34	20	29	6	9	40	43	7	10
TOTAL A	113	200	12	19	18	134	235	35	33	152	265
TOTAL B	547	708	16	26	25	688	888	51	51	828	1068
TOTAL C	2912	3360	32	29	29	3756	4332	58	58	4596	5302
TOTAL D	2770	3110	32	29	29	3566	4005	57	57	4358	4895

FOR CURVE DATA
SEE SHEET 2 OF 21

LOCATION MAP (NTS)


PROJECT LOCATION
Peru
La Salle
Utica
Ottawa
Marseilles
Seneca
Morris
Minooka
Channahon
Joliet
Romeoville
Lockport
Lemont
Plainfield
Shorewood
Crest Hill
Bolingbrook
Downers Grove
Darien
Woodridge
Lisle
Naperville
Aurora
Oswego
Yorkville
Montgomery
Sugar Grove
Batavia
Geneva
St Charles
Elgin
Hanover Park
Bartlett
Wayne
Carol Stream
Glen Ellen
Wheaton
Glen Ellen
Winfield
West Chicago
Warrenville