#### 09-00232-06-RS DUPAGE **540** 1 CONTRACT NO. 63335 FED. ROAD DIST. NO. 1

# STATE OF ILLINOIS

## DEPARTMENT OF TRANSPORTATION

**DIVISION OF HIGHWAYS** 

# PLANS FOR PROPOSED FEDERAL AID HIGHWAY

**VARIOUS ROUTES IN DUPAGE COUNTY** SECTION 09-00232-06-RS **PROJECT: ARA-9003(490)** JOB NO C-91-077-10 **DUPAGE COUNTY** 

# INDEX OF SHEETS

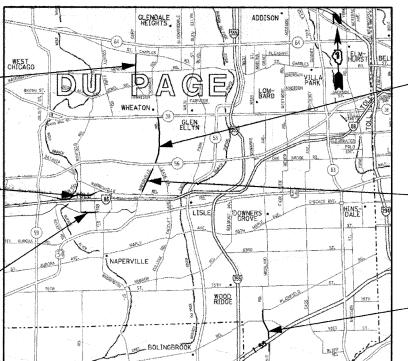
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	SUMMARY OF QUANTITIES
. 3	GENERAL NOTES, DESIGN STANDARDS
4–8	TYPICAL SECTIONS
9–12	NAPERVILLE ROAD (IL 38 TO IL 56) PLAN
13–15	NAPERVILLE ROAD (IL 56 TO LUCENT LANE) PLAN
16–19	LEMONT ROAD (83RD STREET TO 97TH STREET) PLAN
20-22	GARY AVENUE ( JEWELL ROAD TO ST. CHARLES ROAD) PLAN
23–25	FERRY ROAD (RIVER ROAD TO MILL STREET) PLAN
26,27	DIEHL ROAD (WINFIELD ROAD TO MILL STREET) PLAN
28-39	DISTRICT ONE STANDARD DETAILS
40	DUPAGE COUNTY DETAILS

FOR INDEX OF STANDARDS, SEE SHEET 3

**GARY AVENUE (FAU 2561)** JEWELL ROAD TO ST. CHARLES ROAD (STA. 127 + 32 TO STA. 199 + 47) GROSS LENGTH OF PROJECT 7215 FEET = 1.37 MILES NET LENGTH OF PROJECT 6268 FEET = 1.19 ADT (2001) = 15,400
POSTED SPEED LIMIT = 35 MPH TO 45 MPH
DESIGN SPEED LIMIT = 45 MPH

> FERRY ROAD (FAU 1481) (RIVER ROAD TO MILL STREET) STA. 99+06 TO STA. 166+99 GROSS LENGTH OF PROJECT
> 6793 FEET = 1.29 MILES
> NET LENGTH OF PROJECT 6521 FEET = 1.24 MILES ADT (2005) =17,000
> POSTED SPEED LIMIT = 40 MPH
> DESIGN SPEED LIMIT = 45 MPH

DIEHL ROAD (FAU 1485) (WINFIELD ROAD TO MILL STREET) STA. 88 + 66 TO STA. 118 + 95 GROSS LENGTH OF PROJECT 3432 FEET = 0.65 MILES NET LENGTH OF PROJECT 3432 FEET = 0.65 MILES ADT (2005) = 27,000POSTED SPEED LIMIT = 40 MPH



LOCATION MAP NOT TO SCALE S 1,2,3,5,8,21,28,33 T 39N, R 10E S 30.31 T 38N R 11E

NAPERVILLE ROAD (FAP 0856) (IL 38 TO IL 56) STA. 58+12 TO STA. 163+44 GROSS LENGTH OF PROJECT 10,532 FEET = 1.99 MILES NET LENGTH OF PROJECT 10.532 FEET = 1.99 MILES ADT (2005) = 36,600

POSTED SPEED LIMIT = 35 MPH TO 40 MPH
DESIGN SPEED LIMIT = 45 MPH

NAPERVILLE ROAD (FAP 0856) (IL 56 TO LUCENT LANE) STA. 59+63 TO STA. 124+24 GROSS LENGTH OF PROJECT 5237 FEET = 0.99 MILES NET LENGTH OF PROJECT 5237 FEET = 0.99 MILES ADT (2003) = 35,800 POSTED SPEED LIMIT = 45 MPH TO 50 MPH DESIGN SPEED LIMIT = 45 MPH TO 55 MPH

LEMONT ROAD (FAU 2612) (83RD STREET TO 97TH STREET) STA. 213 + 19 TO STA. 310 + 76 GROSS LENGTH OF PROJECT 9757 FEET = 1.85 MILES **NET LENGTH OF PROJECT** 9757 FEET = 1.85 MILES ADT (2006) = 34,900 POSTED SPEED LIMIT = 40 MPH TO 50 MPH DESIGN SPEED LIMIT = 45 MPH TO 55 MPH

062-046136

PROFESSIONAL

ENGINEER

KANKAKEE LOCATION OF SECTION INDICATED THUS: -

> STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

APPROVED October 18, 2009 DUPAGE COUNTY DIVISION OF TRANSPORTATION, COUNTY ENGINEER

OCTOBER 26, 2009 DISTRICT 1 ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR BID BASED ON LIMITED REVIEW OCTOBER 26, 2009 Diane M. O'Keefe ge DEPUTY DIRECTOR OF HIGHWAYS, REGION I ENGINEER



JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION 1-800-892-0123 OR 811

PROJECT MANAGER: MARK A. REZNICEK, P.E.

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.

CONTRACT NO. 63335





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#### PROFESSIONAL ENGINEER'S CERTIFICATION

I. MARK A REZNICEK A LICENSED PROFESSIONAL ENGINEER OF ILLINOIS, HEREBY CERTIFY THAT THIS SUBMISSION WAS PREPARED ON BEHALF OF THE COUNTY OF OWAGE BY ESI CONSULTANTS, ITO LUNDER MY PERSONAL DIRECTION. THIS TECHNICAL SUBMISSION IS INTENDED TO BE USED AS AN INTEGRAL PART OF AND IN CONJUNCTION WITH THE PROJECT SPECIFICATIONS AND CONTRACT DOCUMENTS.

DAY OF October

ILLINOIS REG. PROF. ENGINEER NO. 062-046136 EXPIRATION DATE 11/30/2011



DUPAGÉ COUNTY DOT JACK T. KNUEPFER ADMIN BLDG. 421 N. COUNTY FARM ROAD

				,							
	TEM NO.	IDOT PAY	DESCRIPTION	UNIT	TOTAL QUANTITY	NAPERVILLE ROAD (IL 38 TO IL 56)	NAPERVILLE ROAD (IL 56 TO LUCENT LN)	LEMONT ROAD	GARY AVENUE	FERRY ROAD	DIEHL ROAD
'		11 6391			GUANTIT	100% ARA	100% ARA	100% ARA	100% ARA	100% ARA	100% ARA
-		***************************************			******************************	1000-2A	1000-2A	1000-2A	I000-2A	1000-2A	1000-2A
	1	40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	28268	6502	4198	7107	3741	4494	2226
_	2	40600300	AGGREGATE (PRIME COAT)	TON	565.5	130.0	84.0	142.0	75.0	90.0	44.5
	3	40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	29	7	4	7	4	5	2
-	4	40600635	LEVELING BINDER (MACHINE METHOD), N70	TON	2042	0	0	2042	0	0	0
-	5	40600895	CONSTRUCTING TEST STRIP	EACH	4	0	0	3	0	1	0
	6	40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	657	Note that the first the first the second section of the section of the second section of the section of th		657			
-	7	40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	7707	0	0	757	3074	3876	0
_	8	40603595	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90	TON	18769	6371	3789	6427	0	0	2182
	9	42400800	DETECTABLE WARNINGS	SQ FT	96	24		48		24	
_	10	44000155	HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"	SQ YD	91750			9015	36593	46142	
	11	44000156	HOT-MIX ASPHALT SURFACE REMOVAL, 1 3/4"	SQ YD	125936	65020	38658				22258
	12	44000159	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/2"	SQYD	37790	. 0	0	37790	0	0	0
	13	44000163	HOT-MIX ASPHALT SURFACE REMOVAL, 3 1/2"	SQ YD	24314	0	0	24314	0	0	0
	14	44001700	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	940	110	0	605	45	130	50
-	15	44201753	CLASS D PATCHES, TYPE II. 9 INCH	SQ YD	40			40			
_	16	44201757	CLASS D PATCHES, TYPE III, 9 INCH	SQ YD	70	M. And a district of a stable transport of the latest and a stable transport		70			
	17	44201759	CLASS D PATCHES, TYPE IV. 9 INCH	SQ YD	100			100		the self-september and appropriate of the section of participate of the section o	
	18	44201777	CLASS D PATCHES, TYPE II, 11 INCH	SQ YD	87	0	0	55	32	0	0
	19	44201781	CLASS D PATCHES, TYPE III, 11 INCH	SQ YD	184	0	0	120	64	0	0
-	20	44201783	CLASS D PATCHES, TYPE IV, 11 INCH	SQ YD	269	0	0	175	94	0	0
_	21	44201803	CLASS D PATCHES, TYPE II, 13 INCH	SQ YD	145	60	40			45	
_	22	44201807	CLASS D PATCHES, TYPE III, 13 INCH	SQ YD	290	120	. 85			85	
	23	44201809	CLASS D PATCHES, TYPE IV, 13 INCH	SQ YD	415	175	115			125	
_	24	44201815	CLASS D PATCHES, TYPE II, 14 INCH	SQ YD	25						25
	25	44201819	CLASS D PATCHES, TYPE III, 14 INCH	SQ YD	42			-			42
	26	44201821	CLASS D PATCHES, TYPE IV, 14 INCH	SQ YD	65				PROPERTY AND A PROPERTY OF THE		65
	27	44212900	PAVEMENT PATCHING (PARTIAL DEPTH)	SQ YD	1480	360	235	330	190	250	115
	28	44300200	STRIP REFLECTIVE CRACK CONTROL TREATMENT	FOOT	13122	2400	450	7572	900	1050	750
	29	48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	14.0	0	0	8.4	5.6	0	0
	30	50300300	PROTECTIVE COAT	SQ YD	206	25	0	135	10	29	7
-	31	60250200	CATCH BASINS TO BE ADJUSTED	EACH	1	0	0	1	0	0	0
	32	60255500	MANHOLES TO BE ADJUSTED	EACH	9	2	2	1	2	1	1
-	33	60300310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	11	0	0	11	0	0	0
	34	67100100	MOBILIZATION	LSUM	1	0.2	0.2	0.2	0.2	0.1	0.1
	35	70100420	TRAFFIC CONTROL AND PROTECTION. STANDARD 701411	EACH	8	0.0	0.0	8.0	0.0	0.0	0.0
	36	70100825	TRAFFIC CONTROL AND PROTECTION, STANDARD 701456	LSUM	1	0.0	0.0	1.0	0.0	0.0	0.0
L	37	70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1	0.0	0.0	0.0	1.0	0.0	0.0

	ITEM NO.	IDOT PAY	DESCRIPTION	UNIT	TOTAL QUANTITY	NAPERVILLE ROAD (IL 38 TO IL 56)	NAPERVILLE ROAD (IL 56 TO LUCENT LN)	LEMONT ROAD	GARY AVENUE	FERRY ROAD  100% ARA  1000-2A  0.0  0.3  0.1  2541  947  14136  8920  0  1175  554  1379  14136  8920  0  1175  554  453  496  1248  0  1245  8  496	DIEHL ROAD
	NO.	11 CW			QUANTITI	100% ARA	100% ARA	100% ARA	100% ARA	100% ARA	100% ARA
						1000-2A	1000-2A	1000-2A	1000-2A	1000-2A	1000-2A
	38	70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1	0.3	0.3	0.2	0.2	0.0	0.0
	39	70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	LSUM	11	0.0	0.1	0.3	0.0	0.3	0.3
	40	70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	0.1	0.3	0.2	0.2	0.1	0.1
	41	70300100	SHORT-TERM PAVEMENT MARKING	FOOT	18154	4431	2521	4665	2777	2541	1219
	42	70300210	TEMPORARY PAVEMENT MARKING-LETTERS AND SYMBOLS	SQFT	4161	1321	234	650	390	947	619
	43	70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	126177	30172	22769	31729	20874	14136	6497
N .	44	70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	28558	7497	2689	3360	2141	8920	3951
,	45	70300250	TEMPORARY PAVEMENT MARKING - LINE 8"	FOOT	1431	55	0	1376	0	0	0
	46	70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	7944	2738	500	1920	1307	1175	304
,	47	70300280	TEMPORARY PAVEMENT MARKING LINE - 24"	FOOT	1973	640	175	250	196	554	158
7	48	78000100	THERMOPLASTIC PAVEMENT MARKING-LETTERS AND SYMBOLS	SQFT	5779	1606	234	1226	390	1379	944
7	49	78000200	THERMOPLASTIC PAVMENT MARKING - LINE 4"	FOOT	126177	30172	22769	31729	20874	14136	6497
7	50	78000400	THERMOPLASTIC PAVMENT MARKING - LINE 6"	FOOT	28558	7497	2689	3360	2141	8920	3951
7	51	78000500	THERMOPLASTIC PAVMENT MARKING - LINE 8"	FOOT	1431	55	0	1376	0	0	0
7	52	78000600	THERMOPLASTIC PAVMENT MARKING - LINE 12"	FOOT	7944	2738	500	1920	1307	1175	304
7	53	78000650	THERMOPLASTIC PAVMENT MARKING - LINE 24"	FOOT	1973	640	175	250	196	554	158
7	54	78008210	POLYUREA PAVEMENT MARKING TYPE I - LINE 4"	FOOT	453	0	0	0	0	453	0
7	55	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	3298	990	459	568	577	496	208
7	56	88600600	DETECTOR LOOP REPLACEMENT	FOOT	5991	1127	640	1898	398	1248	680
	57	X4067107	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	1642	0	0	1642	0	0	0
	58	44004600	SIDEWALK REMOVAL AND REPLACEMENT	SQ FT	3085	1220	0	395	150	1245	75
	59	XX005462	CHANGEABLE MESSAGE SIGN	WEEK	32	6	4	6	4	8	4
$\Delta$	60	XX006257	RECESSED REFLECTIVE PAVEMENT MARKER	EACH	3298	990	459	568	577	496	208
*	61	Z0076600	TRAINEES	HOUR	1000	0	0	0	0	0	0
	62	XX008130	DRAINAGE STRUCTURE 5. TO BE CLEAVED AND GROUTED	EACH	12	2	2	2	2	2	2

A SPECIALTY ITEMS

\* A080



- LOCATION OF UTILITIES SHOWN ON PLANS ARE APPROXIMATE ONLY, AND ARE NOT NECESSARILY COMPLETE. CONTRACTOR SHALL MAKE HIS OWN INVESTIGATIONS AS TO LOCATION OF ALL EXISTING UNDERGROUND STRUCTURES, CABLES, AND PIPELINES.
- ALL ROAD SIGNS, STREET SIGNS, AND TRAFFIC SIGNS WHICH NEED TO BE RELOCATED OR MOVED DUE TO CONSTRUCTION SHALL BE TAKEN DOWN AND STORED BY THE CONTRACTOR EXCEPT THOSE THAT ARE NECESSARY FOR PROPER TRAFFIC CONTROL WHICH SHALL BE TEMPORARILY RESET UNTIL COMPLETION OF CONSTRUCTION OPERATIONS. AFTER COMPLETION OF THE WORK, THE CONTRACTOR SHALL RESET ALL SAID SIGNS. THE WORK SHALL BE INCLUDED IN THE TRAFFIC CONTROL PAY ITEMS, AND SHALL NOT BE PAID FOR SEPARATELY.
- SPECIAL ATTENTION IS DRAWN TO THE FACT THAT ARTICLE 105.06 OF THE STANDARD SPECIFICATIONS REQUIRES THE CONTRACTOR TO HAVE A COMPETENT SUPERINTENDENT ON THE PROJECT SITE AT ALL TIMES, IRRESPECTIVE OF THE AMOUNT OF WORK SUBLET. THE SUPERINTENDENT SHALL BE CAPABLE OF READING AND UNDERSTANDING THE PLANS AND SPECIFICATIONS, SHALL HAVE FULL AUTHORITY TO EXECUTE ORDERS TO EXPEDITE THE PROJECT, SHALL BE RESPONSIBLE FOR SCHEDULING AND HAVE CONTROL OF ALL WORK AS THE AGENT OF THE CONTRACTOR. FAILURE TO COMPLY WITH THIS PROVISION WILL RESULT IN A SUSPENSION OF WORK AS PROVIDED IN ARTICLE 108.08.
- ANY REFERENCE TO STANDARDS THROUGHOUT THE PLANS OR SPECIAL PROVISIONS SHALL BE INTERPRETED AS THE LATEST STANDARD OF THE DEPARTMENT AS SHOWN ON THE PLANS.
- THE UNIT PRICE FOR ALL REMOVAL PAY ITEMS SHALL INCLUDE ALL REQUIRED SAW CUTS.
- ALL WORK PERFORMED RELATIVE TO THIS IMPROVEMENT SHALL COMPLY WITH ALL APPLICABLE RULES AND REGULATIONS OF 0.S.H.A.
- CONTRACTOR SHALL PROVIDE AND INSTALL TWO WEIGHTED SAND BAGS ON EACH TYPE II OR TYPE II BARRICADE USED. (ONE WEIGHTED SAND BAG ACROSS EACH BOTTOM RAIL.) THIS WORK WILL NOT BE PAID FOR SEPARATELY. BUT THE COST SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT UNIT PRICE FOR THE CONSTRUCTION ITEMS INVOLVED AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- MIXTURE FOR CRACKS, JOINTS AND FLANGEWAYS: AN ESTIMATED QUANTITY BASED ON FIELD OBSERVATION HAS BEEN INCLUDED IN THE CONTRACT. THE LOCATIONS AND LIMITS OF ALL JOINT OR CRACK FILLING SHALL BE DETERMINED BY THE ENGINEER AT THE TIME OF CONSTRUCTION. IF THE MIXTURE FOR CRACKS, JOINTS AND FLANGEWAYS IS NOT REQUIRED, THE QUANTITY SHALL BE DEDUCTED AND NO ADDITIONAL COMPENSATION WILL BE DUE TO THE CONTRACTOR.
- BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 800-892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, AND GAS FACILITIES. (48 HOUR NOTIFICATION IS REQUIRED)
- 10. 10 FEET TRANSITIONS SHALL BE USED TO MATCH PROPOSED CURB &GUTTER AND MEDIAN ITEMS OF WORK TO EXISTING CURBS & GUTTERS AND MEDIANS IN THE FIELD, UNLESS OTHERWISE SHOWN. THE TRANSITIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEMS OF WORK SPECIFIED.
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND ANY CITY, VILLAGE, AND/OR
- WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 2 INCHES (50 MM), WITH WRITTEN APPROVAL FROM THE ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 3-1/2 INCHES (85 MM) MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM 1:3 (V:H). 12.
- BUTT JOINTS WILL BE INSTALLED AT THE ENDS OF RESURFACING (WHERE THE RESURFACING MEETS EXISTING PAVEMENT)
  ACCORDING TO THE IDOT DISTRICT 1 DETAIL FOR "BUTT JOINT AND HMA TAPER DETAILS" ON LEMONT ROAD AND
  THE DUPAGE COUNTY DETAIL FOR "BUTT JOINT DETAIL" FOR NAPERVILLE ROAD, GARY AVENUE, FERRY ROAD AND DIEHL ROAD.

  886006-01
- WHENEVER, DURING CONSTRUCTION OPERATIONS ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF DRAINAGE STRUCTURES SUCH THAT THE NATURAL FLOW OF WATER IS OBSTRUCTED, IT SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY AT THE CONCLUSION OF CONSTRUCTION OPERATIONS. ALL DRAINAGE STRUCTURES SHALL BE FREE FROM DIRT AND DEBRIS. THE WORK SPECIFIED ABOVE WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT PAY ITEMS.
- EXISTING PUBLIC AND PRIVATE UTILITIES ARE SHOWN ON THE PLANS ACCORDING TO INFORMATION OBTAINED FROM UTILITY COMPANIES, MUNICIPALITIES, AND SURVEYS. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE LOCATION OF ALL UTILITIES AND STRUCTURES THAT MAY BE FOUND IN THE VICINITY OF THE CONSTRUCTION. HE WILL ALSO ASSUME RESPONSIBILITY FOR ALL UTILITIES WHETHER SHOWN OR NOT AND MUST REALIZE THAT THE ACTUAL LOCATIONS AND/OR ELEVATIONS OF THE UTILITIES MAY BE DIFFERENT THAN INDICATED. 15.
- SHOULD ANY DAMAGES OCCUR DUE TO THE CONTRACTOR'S NEGLIGENCE, THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL MAKE REPAIRS IN A MANNER ACCEPTABLE TO THE ENGINEER. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES OF HIS CONSTRUCTION SCHEDULE AND COORDINATE CONSTRUCTION OPERATIONS WITH THE UTILITY COMPANIES SO THAT RELOCATION OF UTILITY LINES AND STRUCTURES MAY PROCEED IN AN ORDERLY MANNER. 16.
- 17. GARY AVENUE, FERRY ROAD, DIEHL ROAD, NAPERVILLE ROAD, AND LEMONT ROAD SHALL REMAIN OPEN TO TRAFFIC AT ALL TIMES. WHEN NECESSARY TO CLOSE ONE LANE DUE TO CONSTRUCTION, THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION DURING CONSTRUCTION HOURS WITH THE USE OF SIGNS AND FLAGMEN AS SHOWN ON THE TRAFFIC CONTROL STANDARDS, ACCESS TO ALL ADJOINING PROPERTIES SHALL BE MAINTAINED AT ALL TIMES. LANE CLOSURES SHALL NOT BEGIN EARLIER THAN 8 AM. EASTBOUND CLOSURES SHALL BE BETWEEN 9AM AND DUSK. WESTBOUND CLOSURES SHALL BE BETWEEN 8AM AND 3PM.
- 18. NO WORK SHALL COMMENCE UNTIL TRAFFIC CONTROL REQUIREMENTS ARE MET.
- ALL UTILITIES, SCHOOL DISTRICTS, LOCAL POLICE, AND FIRE DEPARTMENTS SHALL BE NOTIFIED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. 19.

- UNLESS AUTHORIZED BY THE ENGINEER, ALL EXISTING ACCESS POINTS SHALL BE MAINTAINED AT ALL TIMES BY THE CONTRACTOR.
- DURING THE CONSTRUCTION, THE CONTRACTOR WILL BE REQUIRED, AT HIS EXPENSE, TO HAVE AVAILABLE A WATER TRUCK OR SIMILAR EQUIPMENT TO CONTROL DUST. IF NECESSARY, THE CONTRACTOR SHALL BE REQUIRED TO CONTROL DUST DURING NONWORKING HOURS. THIS WORK IS INCLUDED IN THE CONTRACT UNIT PRICE FOR PAVEMENT REMOVAL.
- ALL EXCESS MATERIAL (BROKEN CONCRETE, CULVERT PIPE, WASTE ROADWAY EXCAVATION, SURPLUS MATERIAL FROM SEWER TRENCHES, ETC.) SHALL BE LEGALLY DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT OF WAY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO SELECT DUMP SITES AND OBTAIN PERMISSION AND ALL NECESSARY PERMITS TO USE SUCH DUMP SITES. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR PAVEMENT REMOVAL.
- BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES (AND RECESSED REFLECTIVE PAVEMENT MARKERS) IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER.
- ALL PAVEMENT PATCHING LOCATIONS, COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT LOCATIONS, AND SIDEWALK REMOVAL AND REPLACEMENT LOCATIONS, SHALL BE DETERMINED BY THE ENGINEER.
- THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.

  26. THE CONTRACTOR SHALL MILL BEFORE PATCHING.

DENOTES INCIDENTAL ITEM OR WORK

TYPICAL PAVEMENT MARKINGS

**DETECTOR LOOP INSTALLATIONS** 

TYPICAL LAYOUTS FOR DETECTION LOOPS

#### HIGHWAY STANDARDS

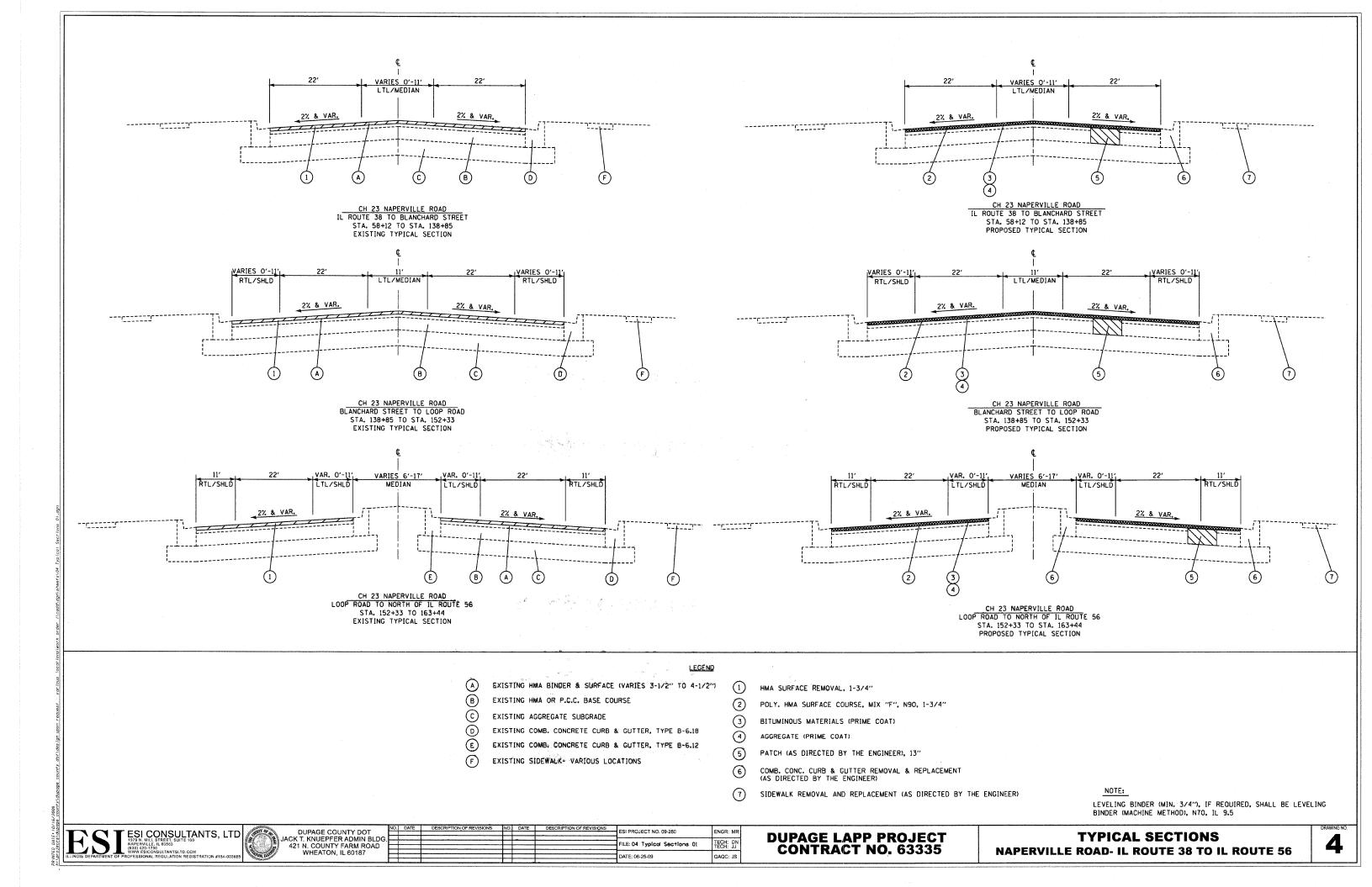
780001-02

#### IDOT DISTRICT ONE STANDARDS

00000105	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS	BD-8	DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLIN
001006	DECIMAL OF AN INCH AND OF A FOOT	BD-22	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT
420001-07	PAVEMENT JOINTS	BD-24	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT
606001-04	CONCRETE CURB & COMBINATION CURB & GUTTER	BD-32	BUTT JOINT AND HMA TAPER DETAILS
701411-06	LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP,	TC-10	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS,
	FOR SPEEDS ≥ 45 MPH		INTERSECTIONS, AND DRIVEWAYS
701456	PARTIAL EXIT RAMP CLOSURE FREEWAY / EXPRESSWAY	TC-13	DISTRICT ONE TYPICAL PAVEMENT MARKINGS
701501-05	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED	TC-14	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS
701601-06	URBAN LANE CLOSURE, MULTI LANE, 1-WAY OR 2-WAY, WITH		(TO REMAIN OPEN TO TRAFFIC)
	NON TRAVERSABLE MEDIAN	TS-05	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS
70160606	URBAN LANE CLOSURE, MULTI LANE, 2-WAY MOUNTABLE MEDIAN	TS-07	DISTRICT ONE DETECTOR LOOP INSTALLATION DETAILS
701701-06	LANE CLOSURE, MULTI LANE, INTERSECTION, FOR SPEEDS (45 MPH)		FOR ROADWAY RESURFACING
701901-01	TRAFFIC CONTROL DEVICES		

HOT-MIX ASPHALT MIX REQUIREMENTS	
MIXTURE TYPE	AIR VOIDS @Ndes
PAVEMENT RESURFACING - DIEHL ROAD, NAPERVILLE ROAD (IL 38-56 AND LUCENT TO IL 56)	
POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90 (IL 9.5 mm)	4% @ 90 GYR.
PAVEMENT RESURFACING - GARY AVENUE, FERRY ROAD	
HOT-MIX ASPHALT SURFACE COURSE MIX "D", N70 (IL 9.5 mm)	4% @ 70 GYR.
PAVEMENT RESURFACING - LEMONT ROAD	
POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90 (IL 9.5 mm)	4% @ 90 GYR.
POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL 4.75, N50	4% @ 50 GYR.
LEVELING BINDER (MACHINE METHOD), N70 (IL 9.5 mm)	4% @ 70 GYR.
SHOULDERS - GARY AVENUE, LEMONT ROAD	
HOT-MIX ASPHALT SURFACE COURSE MIX "D", N70 (IL 9.5 mm)	4% @ 70 GYR.
SHOULDERS - NAPERVILLE ROAD (LUCENT TO IL 56)	
POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90 (IL 9.5 mm)	4% @ 90 GYR.
PATCHING	
CLASS D PATCHES (HMA BINDER IL-19 mm)	4% @ 70 GYR.

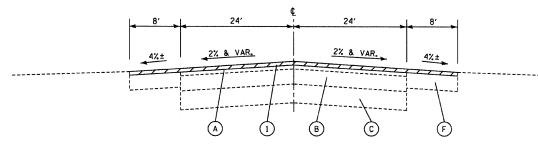
- 1. THE UNIT WEIGHT USED TO CALC. ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.
- 2. THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 70-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR "PERCENT OF RAP" SEE DISTRICT ONE SPECIAL PROVISIONS.



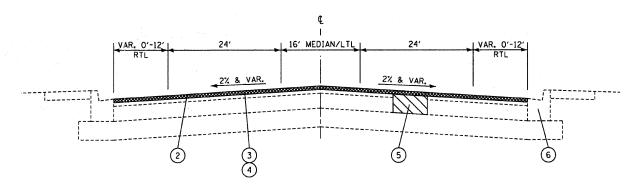
CH 23 NAPERVILLE ROAD

LUCENT LANE TO NORTH OF FRANK H. BELLINGER PARKWAY

STA. 59+63 TO STA. 83+87 EXISTING TYPICAL SECTION



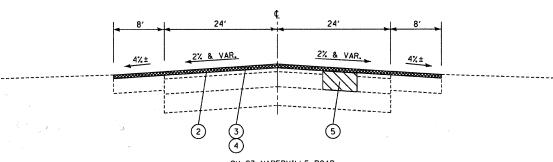
CH 23 NAPERVILLE ROAD
NORTH OF FRANK H. BELLINGER PARKWAY TO SOUTH OF IL ROUTE 56 STA. 83+87 TO STA. 112+00 EXISTING TYPICAL SECTION



CH 23 NAPERVILLE ROAD

LUCENT LANE TO NORTH OF FRANK H. BELLINGER PARKWAY

STA. 59+63 TO STA. 83+87 PROPOSED TYPICAL SECTION



CH 23 NAPERVILLE ROAD

NORTH OF FRANK H. BELLINGER PARKWAY TO SOUTH OF IL ROUTE 56

STA. 83+87 TO STA. 112+00 PROPOSED TYPICAL SECTION

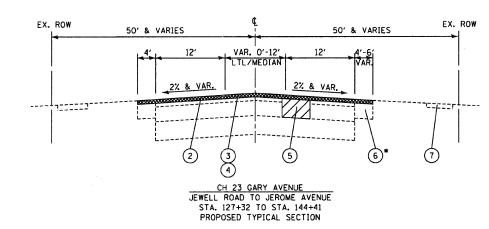
- EXISTING HMA BINDER & SURFACE (VARIES 3-1/2" TO 4-1/2")
- (B) EXISTING HMA OR P.C.C. BASE COURSE
- 0 EXISTING AGGREGATE SUBGRADE
- (0) EXISTING COMB. CONCRETE CURB & GUTTER, TYPE B-6.18
- E EXISTING AGGREGATE PATH
- EXISTING HMA SHOULDER

- HMA SURFACE REMOVAL, 1-3/4"
- POLY. HMA SURFACE COURSE, MIX "F", N90, 1-3/4"
- (3) BITUMINOUS MATERIALS (PRIME COAT)
- 4 AGGREGATE (PRIME COAT)
- PATCH (AS DIRECTED BY THE ENGINEER), 13"
- COMB. CONC. CURB & GUTTER REMOVAL & REPLACEMENT (AS DIRECTED BY THE ENGINEER) 6

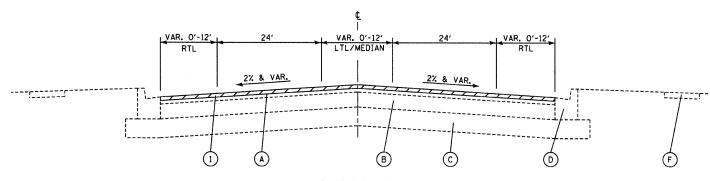
NOTE:

LEVELING BINDER (MIN. 3/4"), IF REQUIRED, SHALL BE LEVELING BINDER (MACHINE METHOD), N70, IL 9.5

\* SECTION VARIES FROM HMA SHOULDER TO CURB AND GUTTER TYPE B-6.18



\* SECTION VARIES FROM HMA SHOULDER TO CURB AND GUTTER TYPE B-6.18

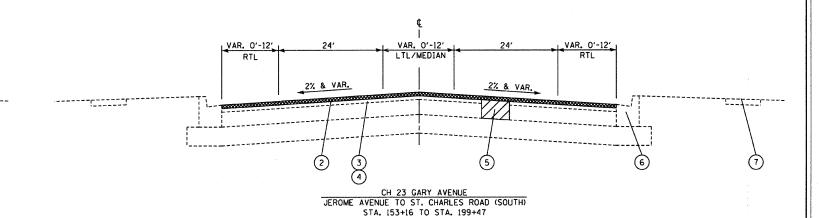


CH 23 GARY AVENUE

JEROME AVENUE TO ST. CHARLES ROAD (SOUTH)

STA. 145+20 TO 199+47

EXISTING TYPICAL SECTION



PROPOSED TYPICAL SECTION

LEGEND

TECH: DN

- (A) EXISTING HMA BINDER & SURFACE (VARIES 3" TO 4")
- B EXISTING HMA OR P.C.C. BASE COURSE
- C EXISTING AGGREGATE SUBGRADE
- D EXISTING COMB. CONCRETE CURB & GUTTER, TYPE B-6.18
- E EXISTING HMA SHOULDER
- F) EXISTING SIDEWALK- VARIOUS LOCATIONS

- 1 HMA SURFACE REMOVAL, 1-1/2"
- (2) HMA SURFACE COURSE, MIX "D", N70, 1-1/2"
- 3 BITUMINOUS MATERIALS (PRIME COAT)
- (4) AGGREGATE (PRIME COAT)
- 5 PATCH (AS DIRECTED BY THE ENGINEER), 11" SEE NOTE 2
- 6 COMB. CONC. CURB & GUTTER REMOVAL & REPLACEMENT (AS DIRECTED BY THE ENGINEER)
- 7 SIDEWALK REMOVAL & REPLACEMENT (AS DIRECTED BY THE ENGINEER)

NO I E:

- 1 LEVELING BINDER (MIN. 3/4"), IF REQUIRED, SHALL BE LEVELING BINDER (MACHINE METHOD), N70, IL 9.5
- 2 EXISTING PAVEMENT SECTION DEPTH ESTIMATD PER GARY AVENUE RECORD DRAWINGS CONTRACT 60217. PATCH DEPTH ESTIMATED.

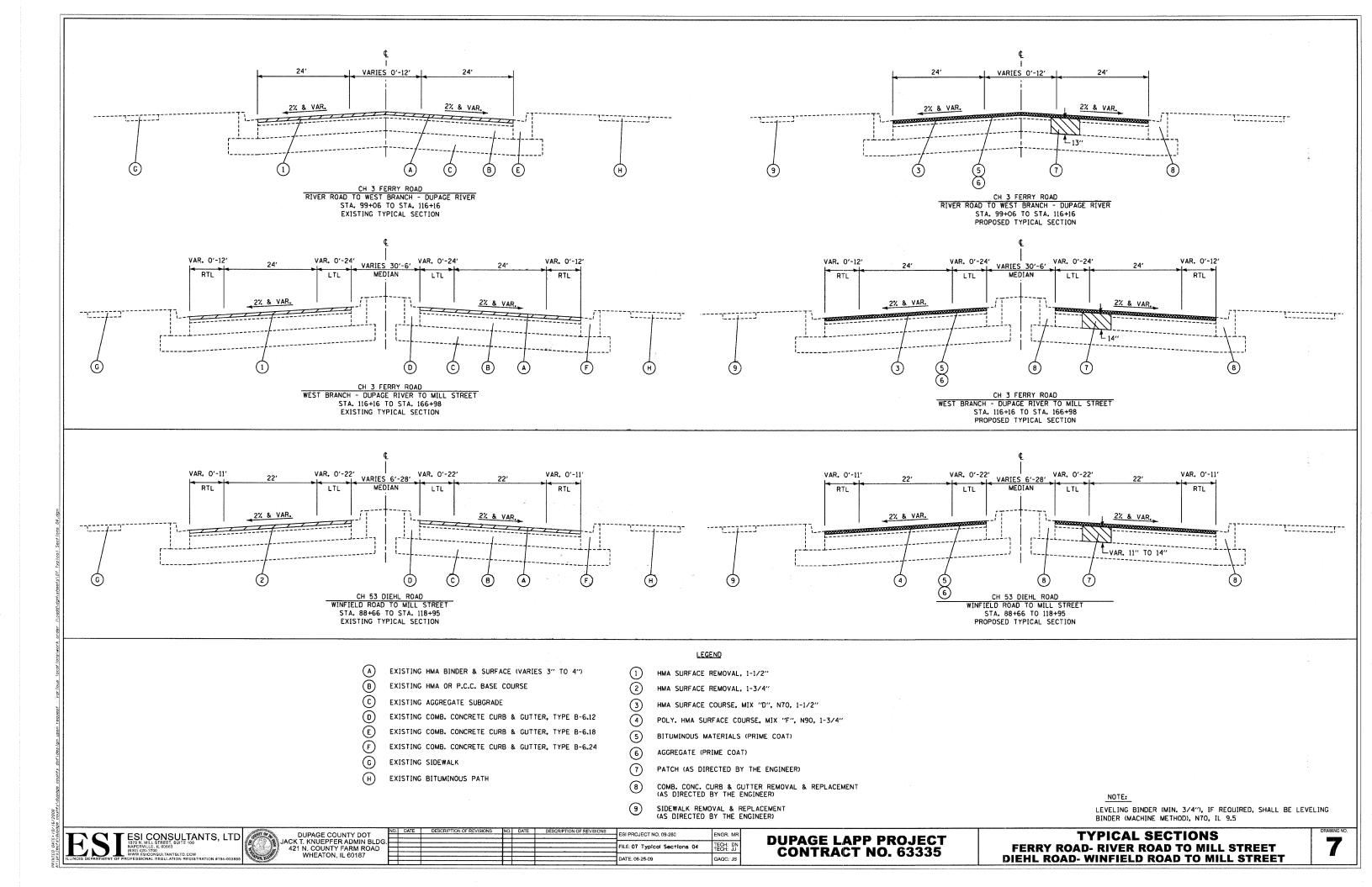
DUPAGE COUNTY DOT

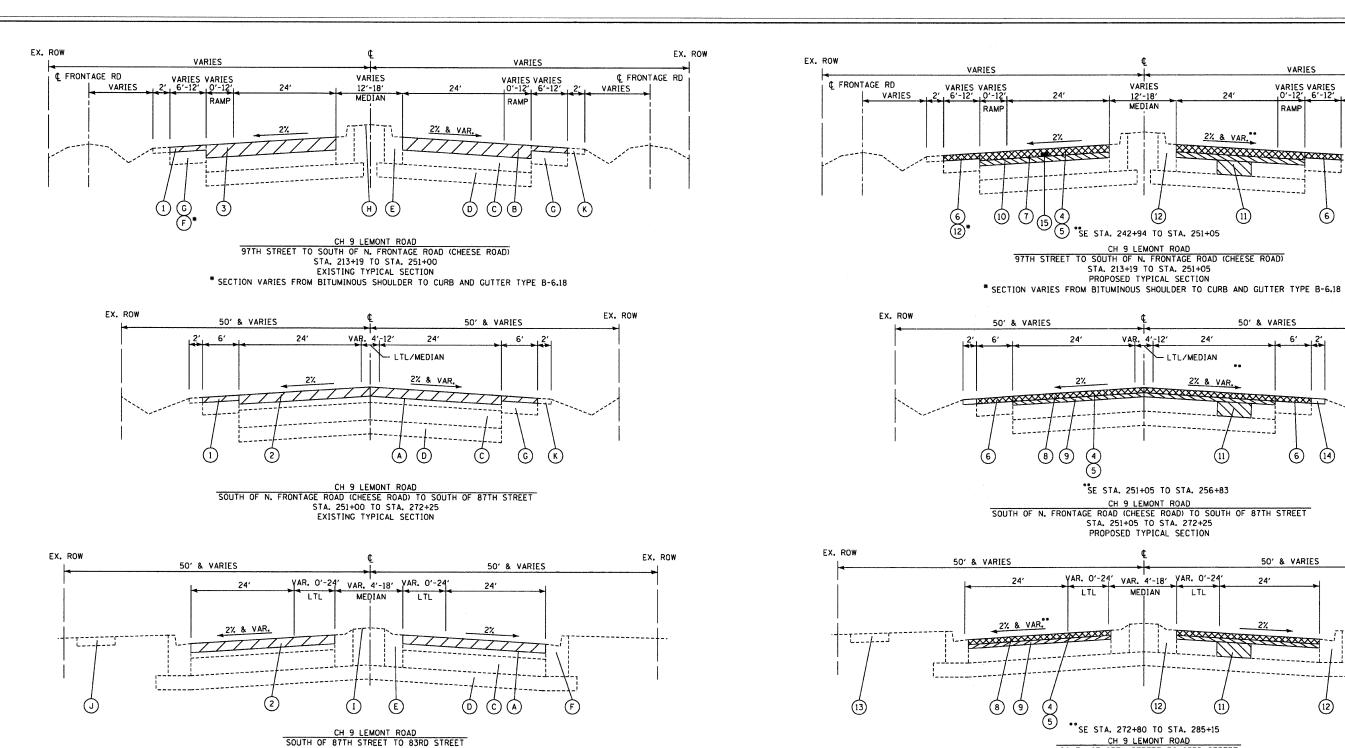
JACK T. KNUEPFER ADMIN BLDG.
421 N. COUNTY FARM ROAD
WHEATON, IL 60187

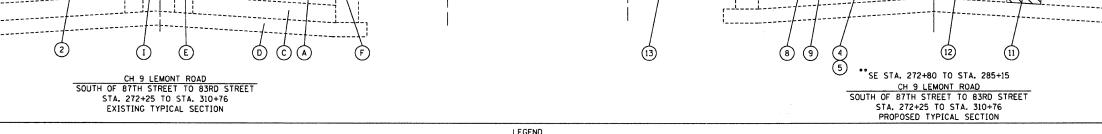
INTY DOT RADMIN BLDG FARM ROAD IL 60187 DESCRIPTION OF REVISIONS NO. DATE DESCRIPTION OF REVISIONS ESI PROJECT NO. 09-280 FILE: 06 Typical Sect DATE: 06-25-09

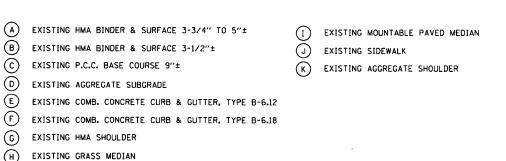
DUPAGE LAPP PROJECT CONTRACT NO. 63335 TYPICAL SECTIONS
GARY AVENUE- JEWELL RD TO ST. CHARLES RD (SOUTH)

DRAWING N









- HMA SURFACE REMOVAL, 1-1/2" (2) HMA SURFACE REMOVAL, 2-1/2" HMA SURFACE REMOVAL, 3-1/2" (4) BITUMINOUS MATERIALS (PRIME COAT)
- (5) AGGREGATE (PRIME COAT)
- (6) HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, 1.5" 7 POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 2"
- (8) POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 1-3/4"
- 9 POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 3/4"

- LEVELING BINDER (MACHINE METHOD), N70, 1-1/2"
- (11) PATCH (AS DIRECTED BY THE ENGINEER), 9"-11"
- COMB. CONC. CURB & GUTTER REMOVAL & REPLACEMENT (AS DIRECTED BY THE ENGINEER) (12)
- SIDEWALK REMOVAL & REPLACEMENT (AS DIRECTED BY THE ENGINEER) 13)
- AGGREGATE SHOULDER (WEDGE) REMOVAL & REPLACEMENT (AS DIRECTED BY THE ENGINEER)
- STRIP REFLECTIVE CRACK CONTROL TREATMENT

ESI CONSULTANTS, LTD

DUPAGE COUNTY DOT JACK T. KNUEPFER ADMIN BLDG. 421 N. COUNTY FARM ROAD WHEATON, IL 60187

TECH: DI FILE: 08 Typical Sections 05 DATE: 06-25-09

**DUPAGE LAPP PROJECT** CONTRACT NO. 63335

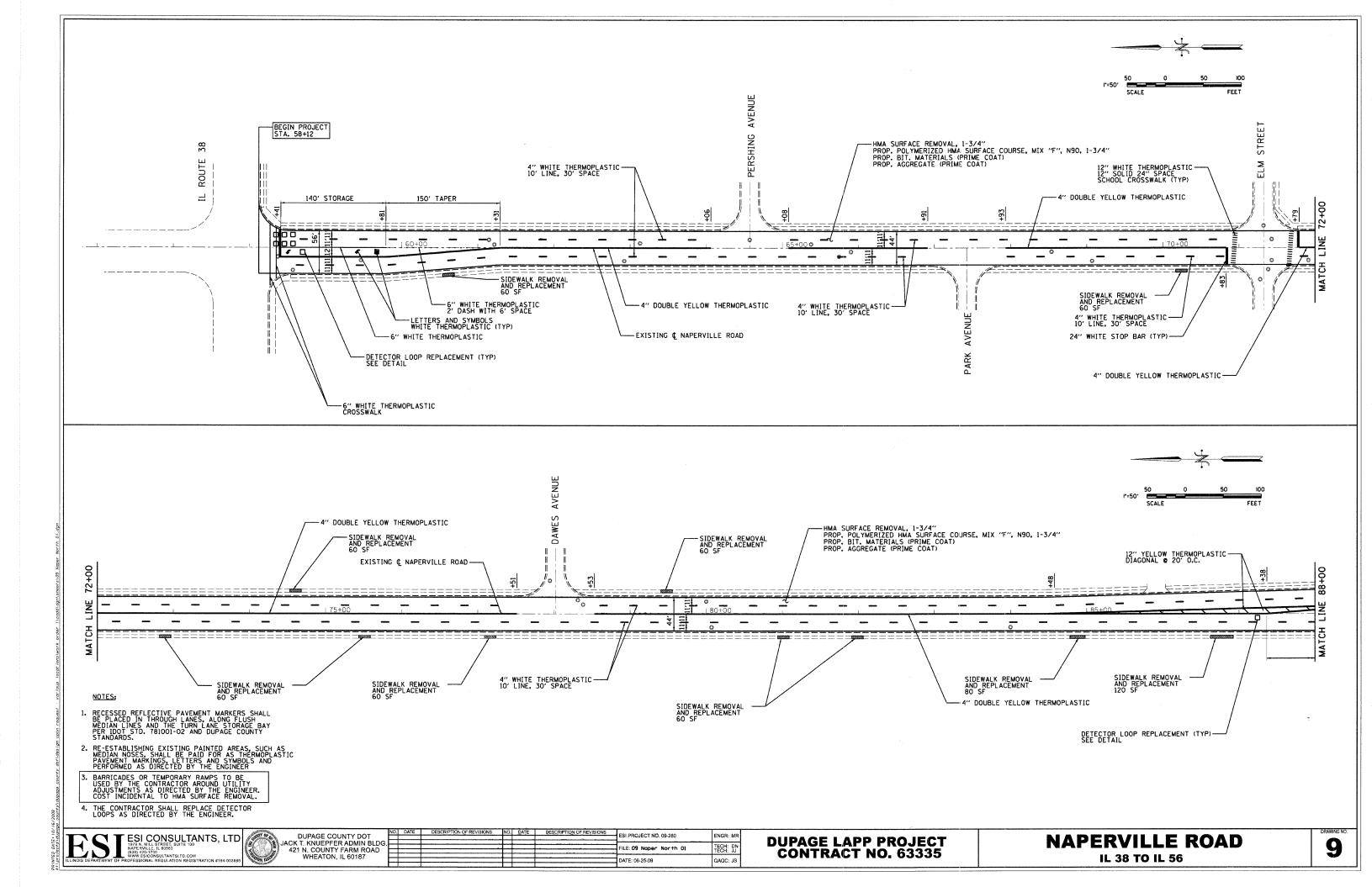
**TYPICAL SECTIONS LEMONT ROAD- 97TH STREET TO 83TH STREET** 

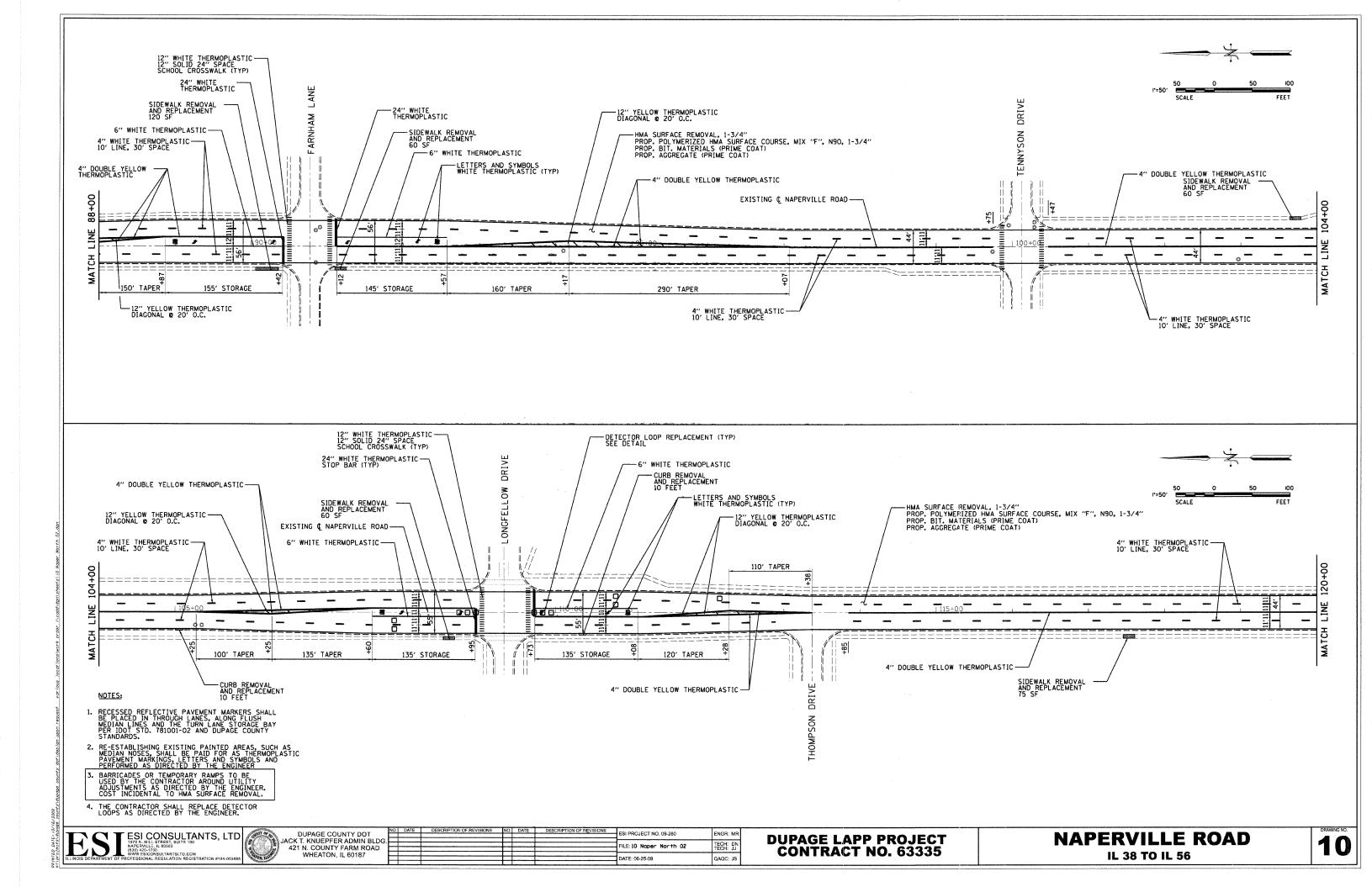
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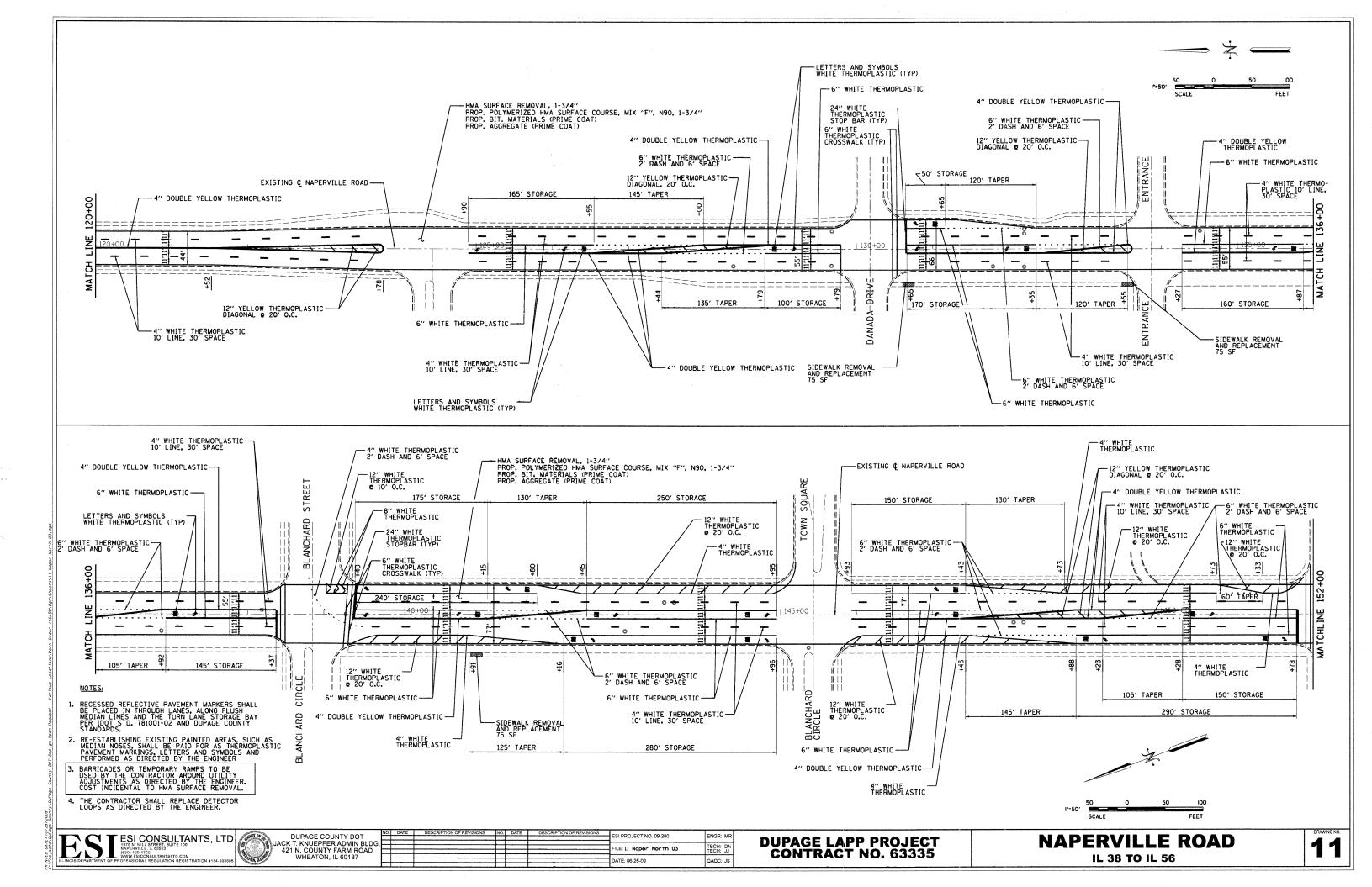
¢ FRONTAGE RD

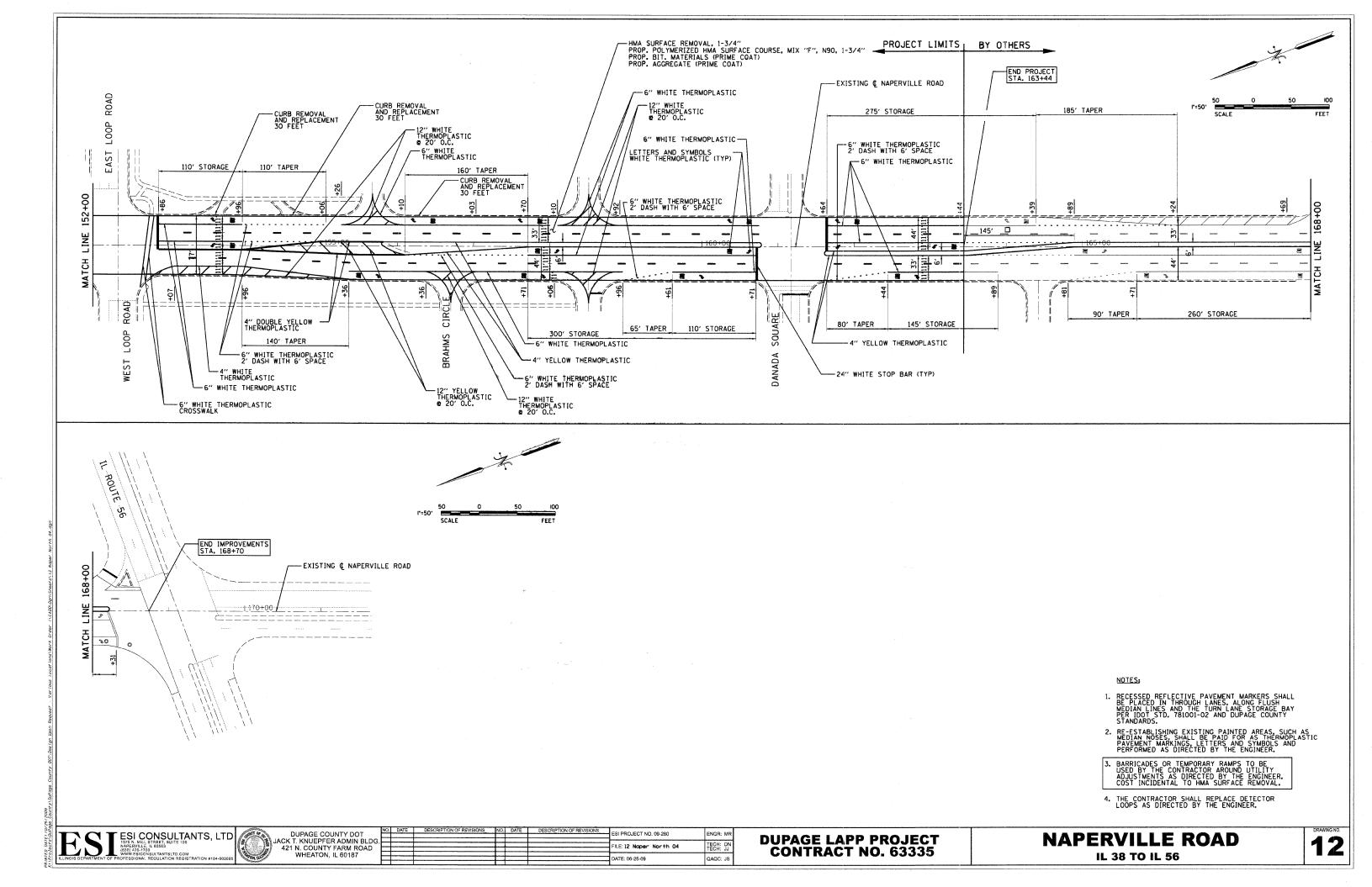
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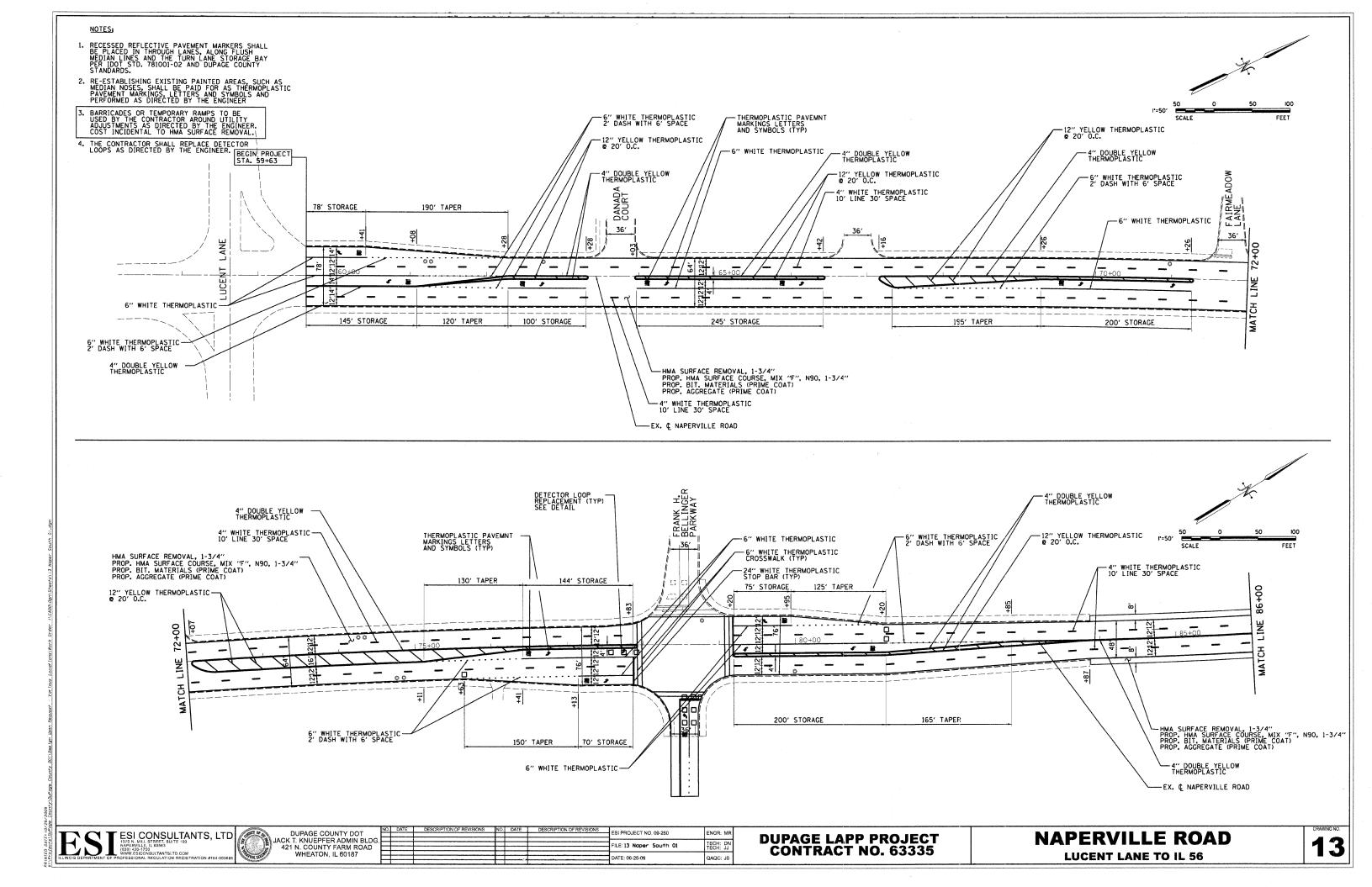
EX. ROW

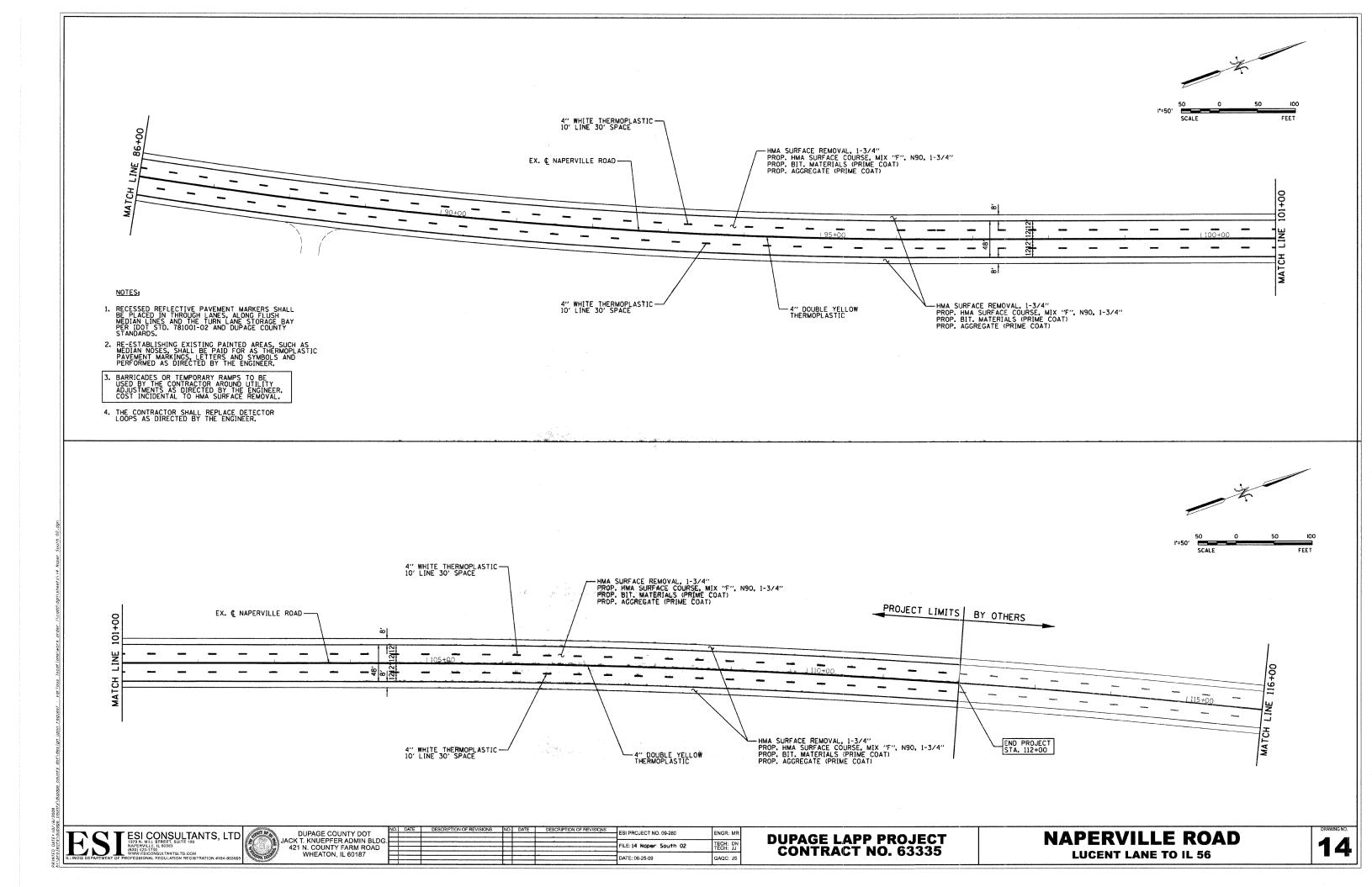


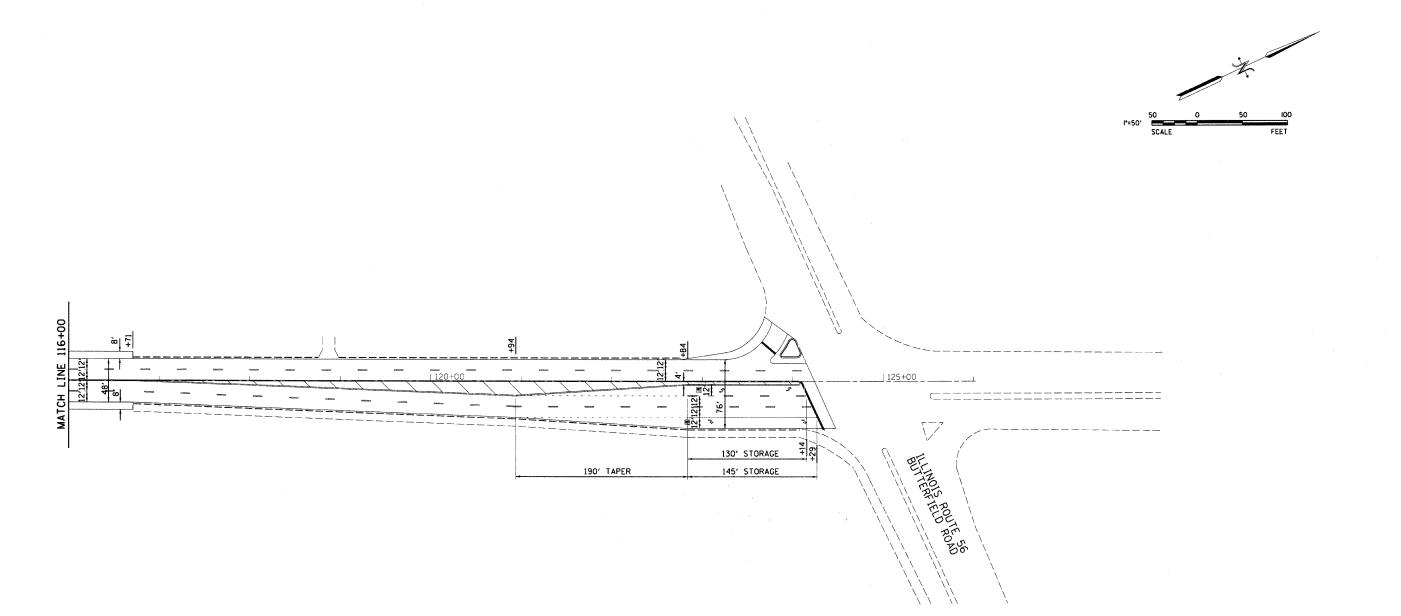






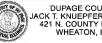






NOTES:

- 1. RECESSED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED IN THROUGH LANES, ALONG FLUSH MEDIAN LINES AND THE TURN LANE STORAGE BAY PER IDOT STD. 781001-02 AND DUPAGE COUNTY STANDARDS.
- 2. RE-ESTABLISHING EXISTING PAINTED AREAS, SUCH AS MEDIAN NOSES, SHALL BE PAID FOR AS THERMOPLASTIC PAVEMENT MARKINGS, LETTERS AND SYMBOLS AND PERFORMED AS DIRECTED BY THE ENGINEER
- 3. BARRICADES OR TEMPORARY RAMPS TO BE USED BY THE CONTRACTOR AROUND UTILITY ADJUSTMENTS AS DIRECTED BY THE ENGINEER. COST INCIDENTAL TO HMA SURFACE REMOVAL.
- 4. THE CONTRACTOR SHALL REPLACE DETECTOR LOOPS AS DIRECTED BY THE ENGINEER.

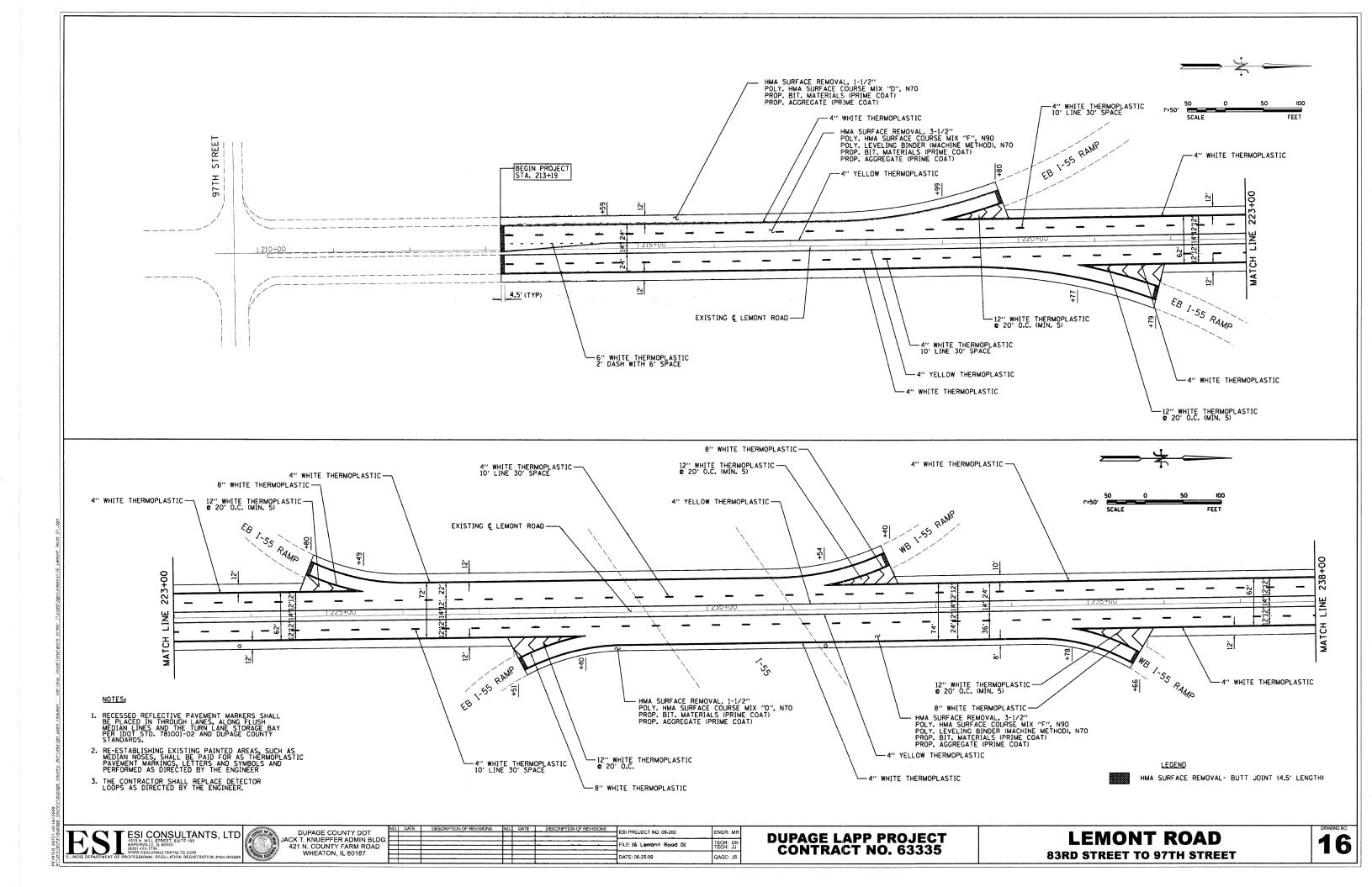


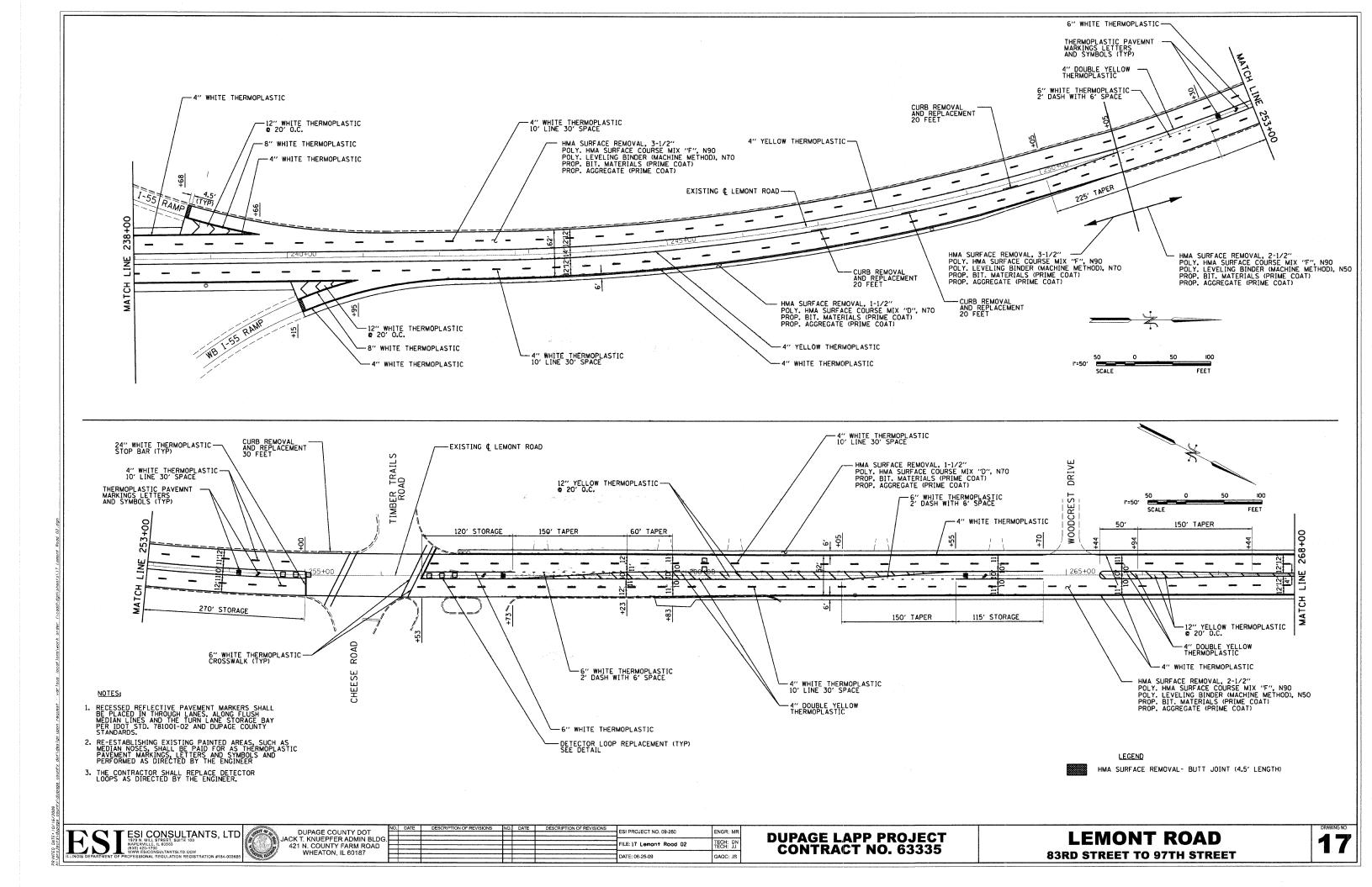
DUPAGE COUNTY DOT JACK T. KNUEPFER ADMIN BLDG. 421 N. COUNTY FARM ROAD WHEATON, IL 60187

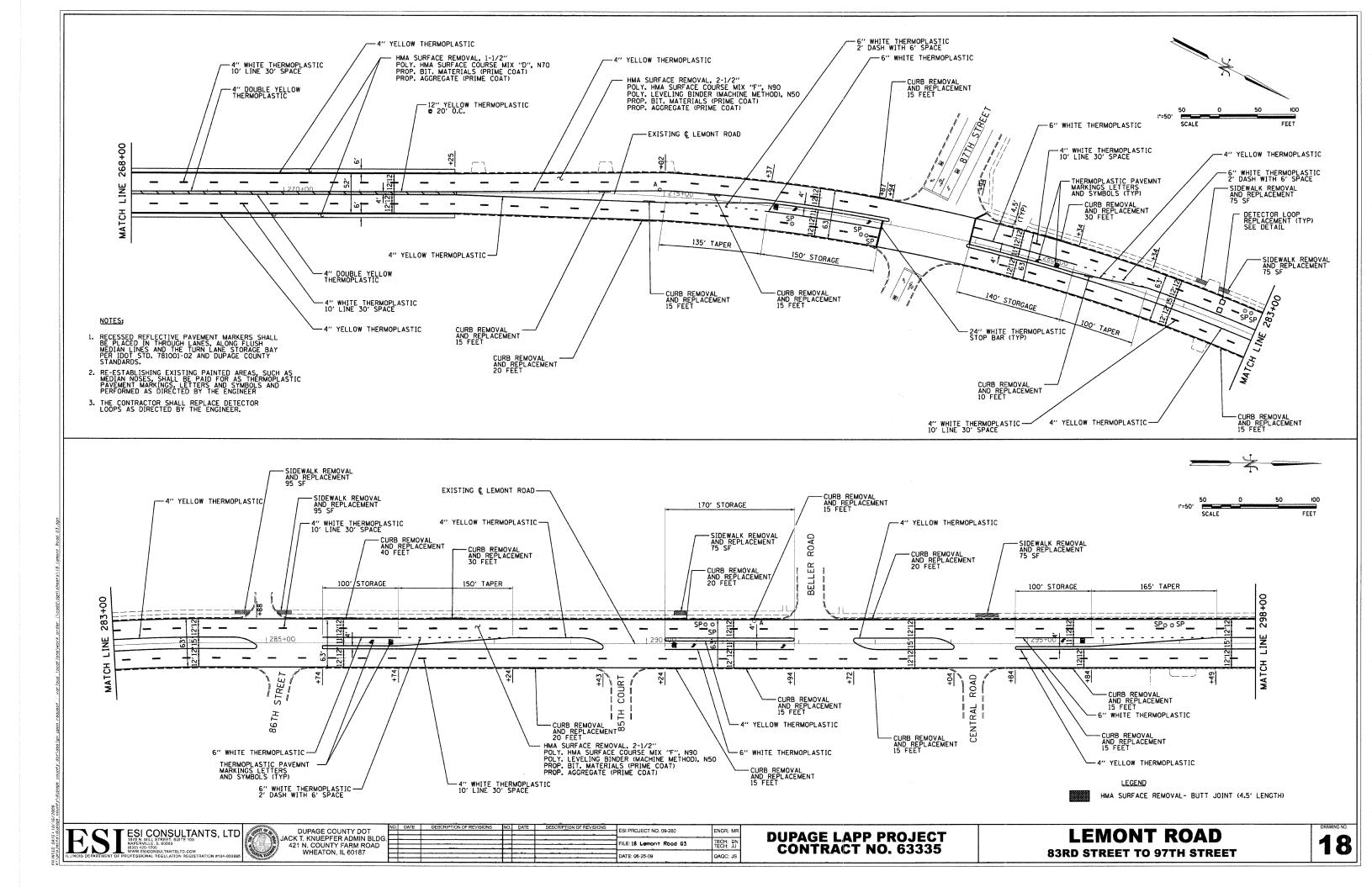
TECH: DN TECH: JJ FILE: 15 Naper South 03 DATE: 06-25-09

DUPAGE LAPP PROJECT CONTRACT NO. 63335

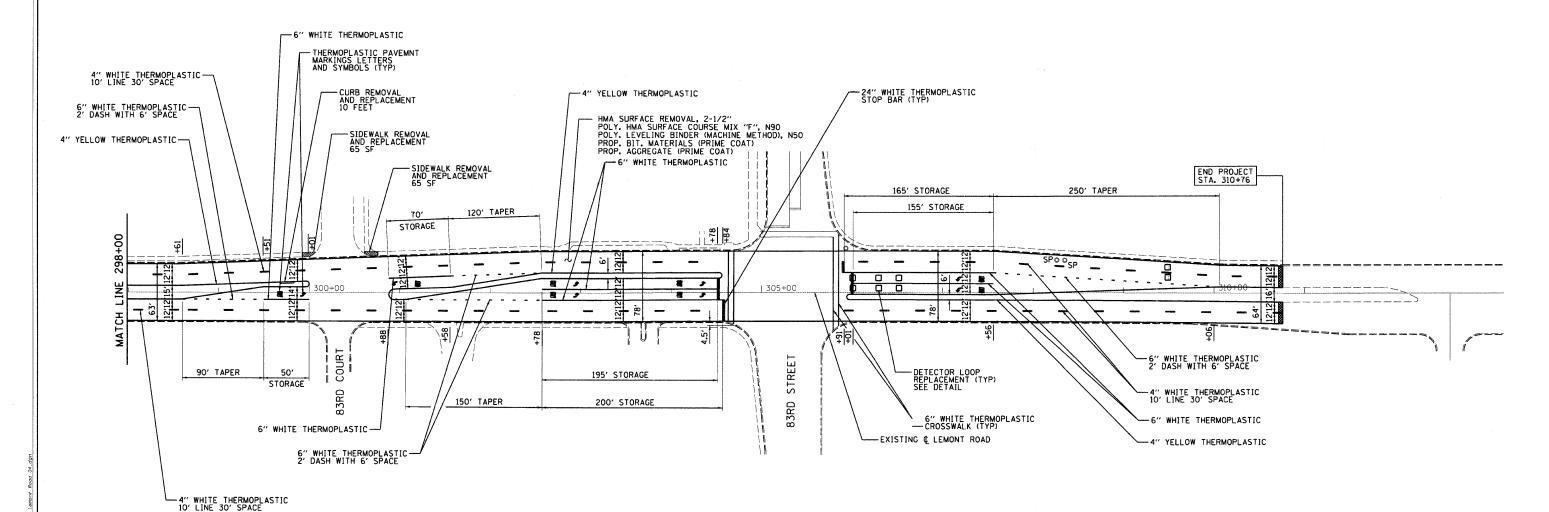
**NAPERVILLE ROAD LUCENT LANE TO IL 56** 









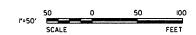


LEGEN

HMA SURFACE REMOVAL- BUTT JOINT (4.5' LENGTH)

#### NOTES

- 1. RECESSED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED IN THROUGH LANES, ALONG FLUSH MEDIAN LINES AND THE TURN LANE STORAGE BAY PER IDOT STD. 781001-02 AND DUPAGE COUNTY STANDARDS
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- 3. THE CONTRACTOR SHALL REPLACE DETECTOR LOOPS AS DIRECTED BY THE ENGINEER.



ESI CONSULTANTS, LTD

1979 N. MILL STREET, SUITE 100

NAPERWILLE, IL 00563

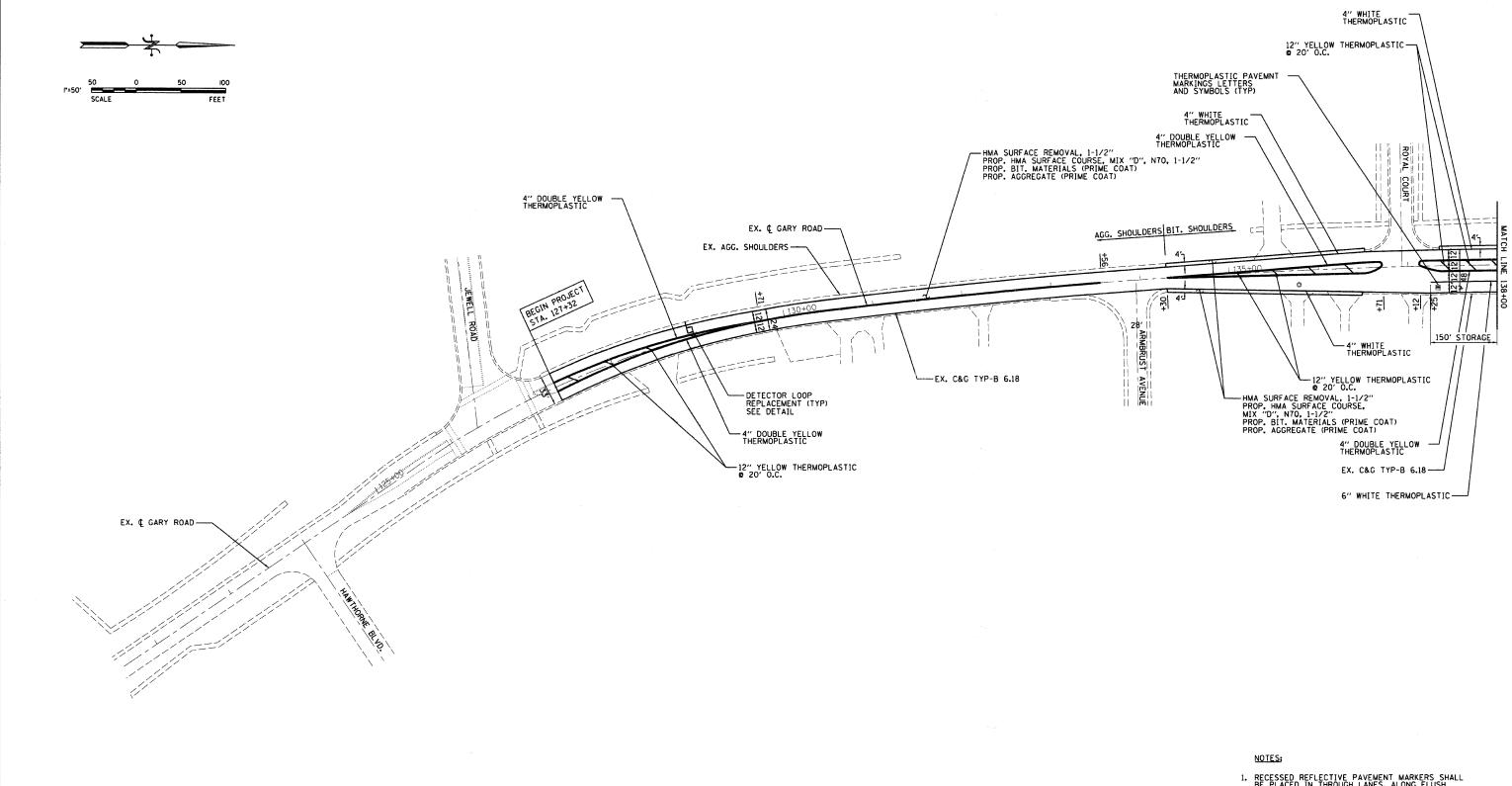
REAL NOISE DEPARTMENT OF PROFESSIONAL REGULATION REGISTRATION #184-003885

DUPAGE COUNTY DOT JACK T. KNUEPFER ADMIN BLDG. 421 N. COUNTY FARM ROAD WHEATON, IL 60187

COUNTY DOT FER ADMIN BLDG.
TY FARM ROAD NN, IL 60187

NO. DATE DESCRIPTION OF REVISIONS NO. DATE DESCRIPTION OF REVISIONS ESI PROJECT NO. 09-280 ENGR: MR TECH: JJ DATE: 06-25-09 DATE: 06-25-09 DATE: 06-25-09

DUPAGE LAPP PROJECT CONTRACT NO. 63335 LEMONT ROAD 83RD STREET TO 97TH STREET



TECH: DN TECH: JJ

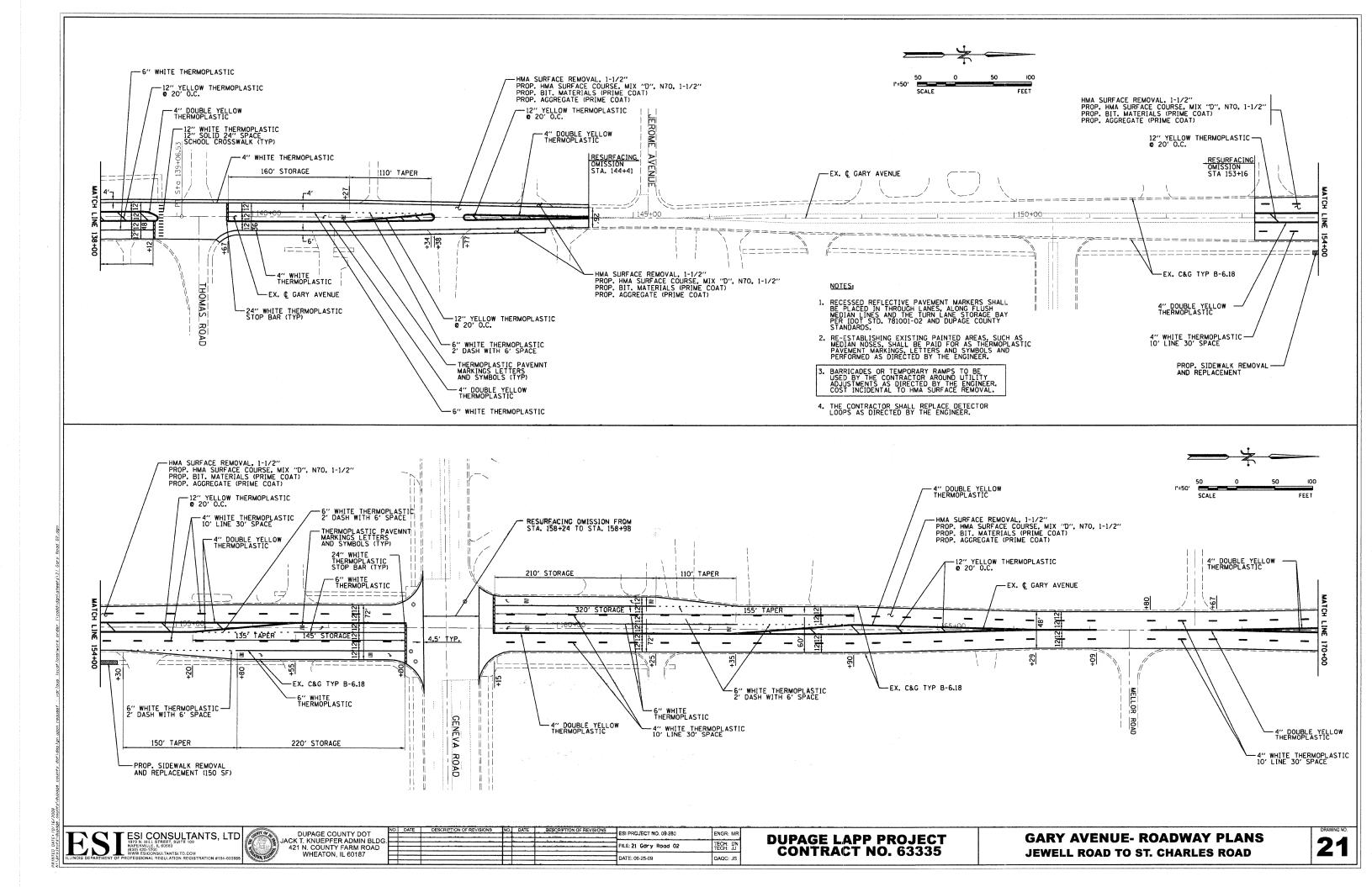
- 2. RE-ESTABLISHING EXISTING PAINTED AREAS, SUCH AS MEDIAN NOSES, SHALL BE PAID FOR AS THERMOPLASTIC PAVEMENT MARKINGS, LETTERS AND SYMBOLS AND PERFORMED AS DIRECTED BY THE ENGINEER.
- 3. BARRICADES OR TEMPORARY RAMPS TO BE USED BY THE CONTRACTOR AROUND UTILITY ADJUSTMENTS AS DIRECTED BY THE ENGINEER. COST INCIDENTAL TO HMA SURFACE REMOVAL.
- 4. THE CONTRACTOR SHALL REPLACE DETECTOR LOOPS AS DIRECTED BY THE ENGINEER.

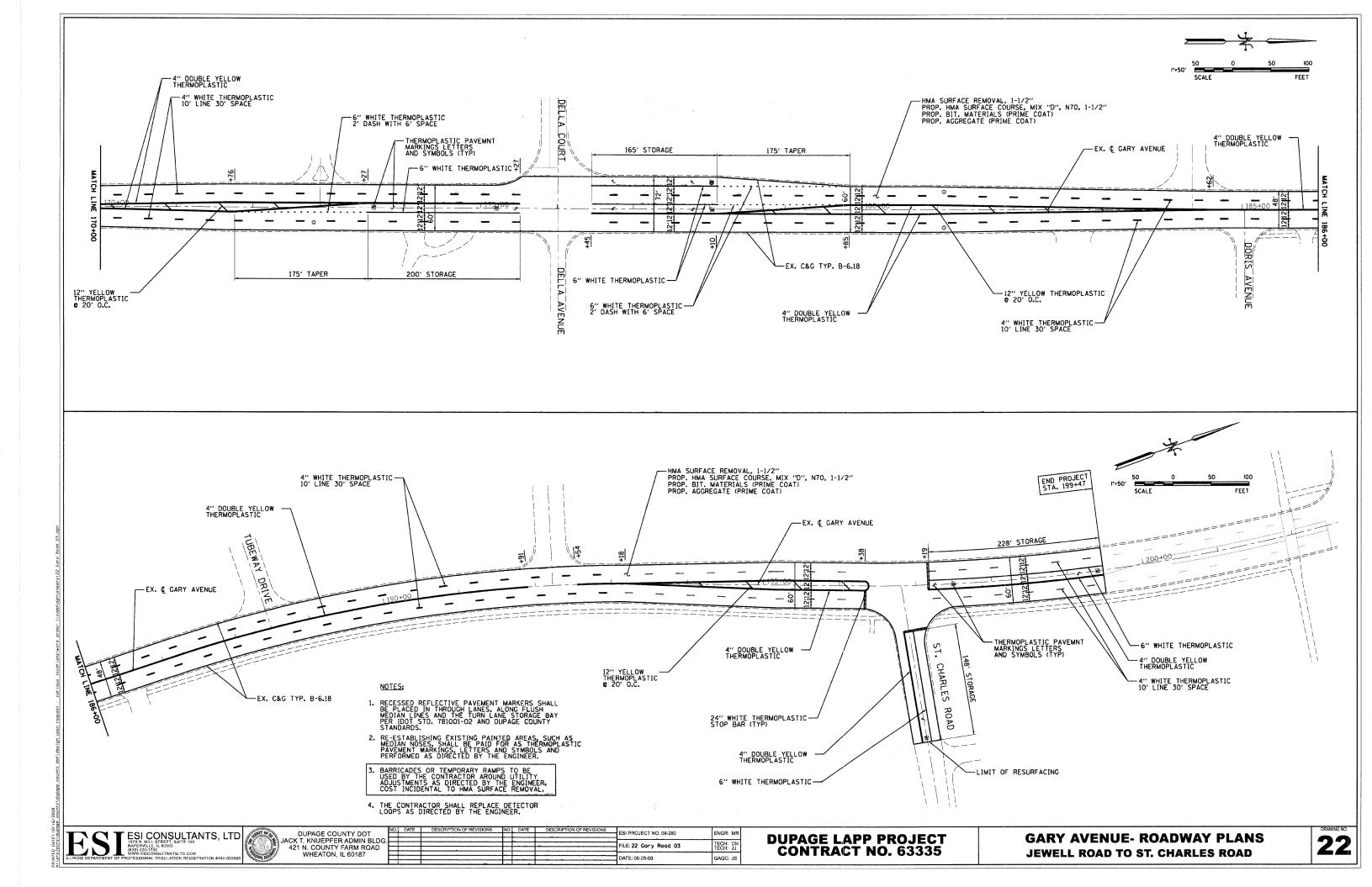
DUPAGE COUNTY DOT
1979 N. MILL STREET SUITE 100
1979 N. MILL STREET SUITE 100
1979 N. MILL STREET SUITE 100
1970 N. MILL STREE

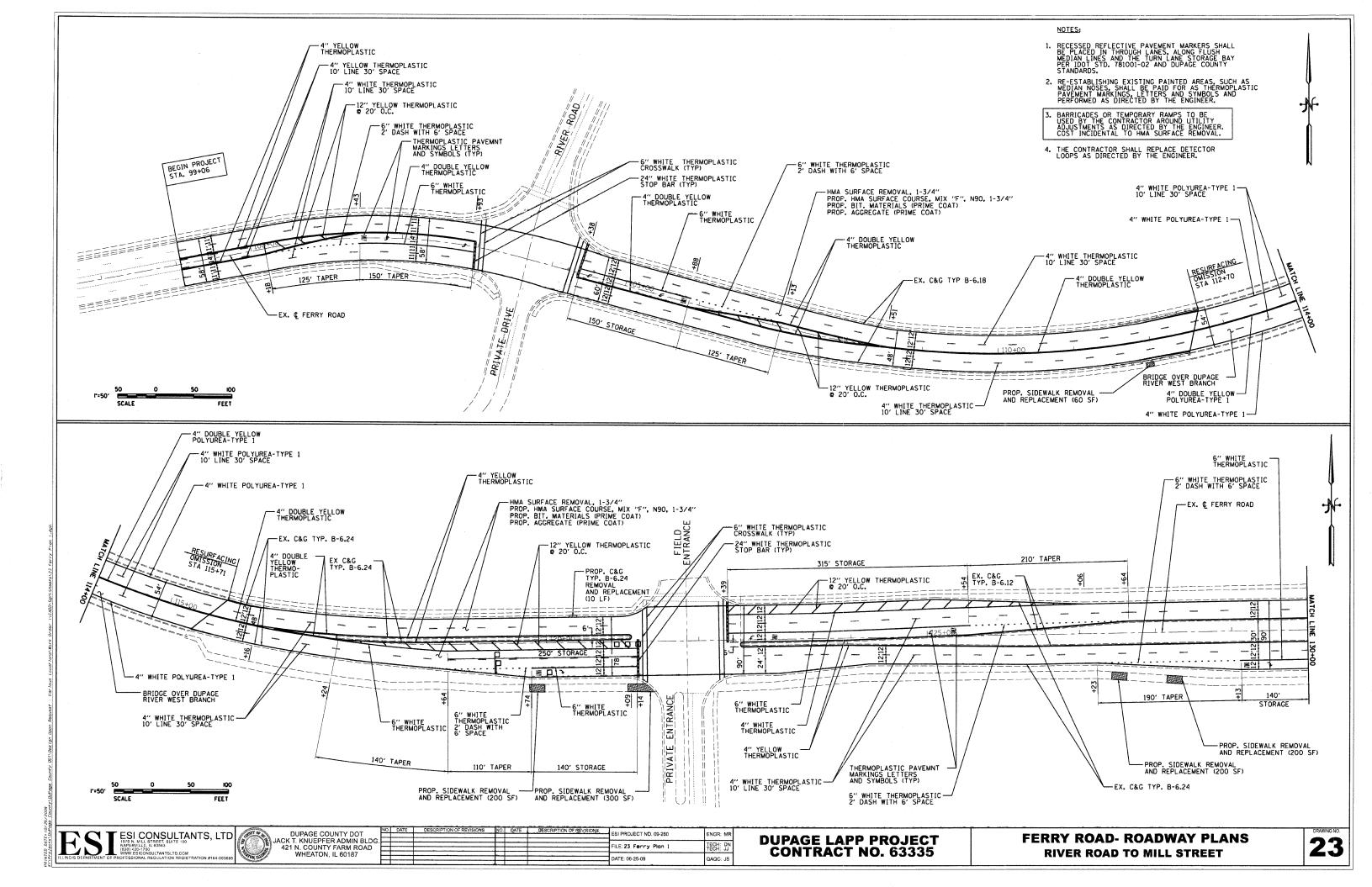
ESI PROJECT NO. 09-280 FILE: 20 Gary Road 01 DATE: 06-25-09

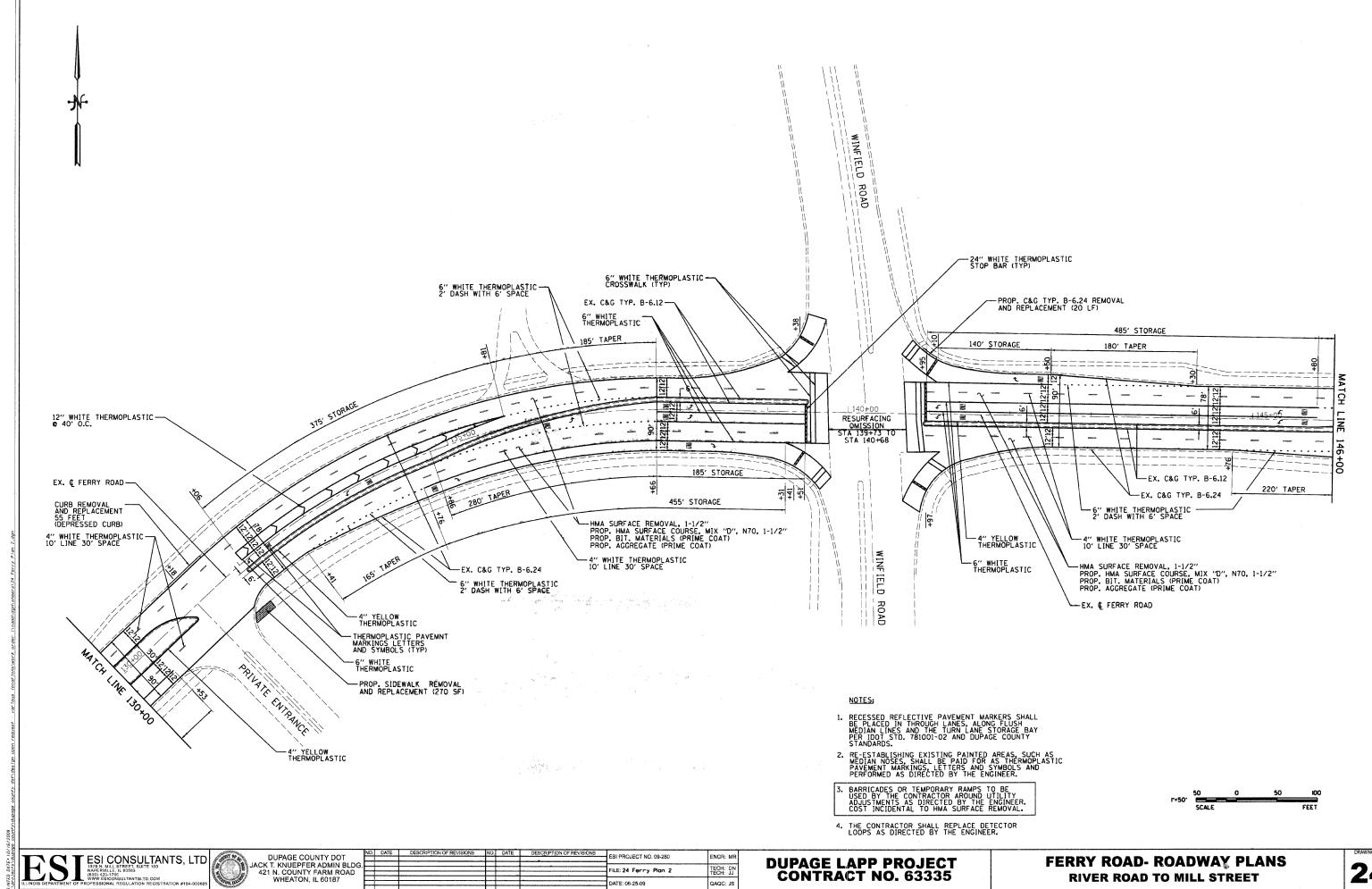
DUPAGE LAPP PROJECT CONTRACT NO. 63335

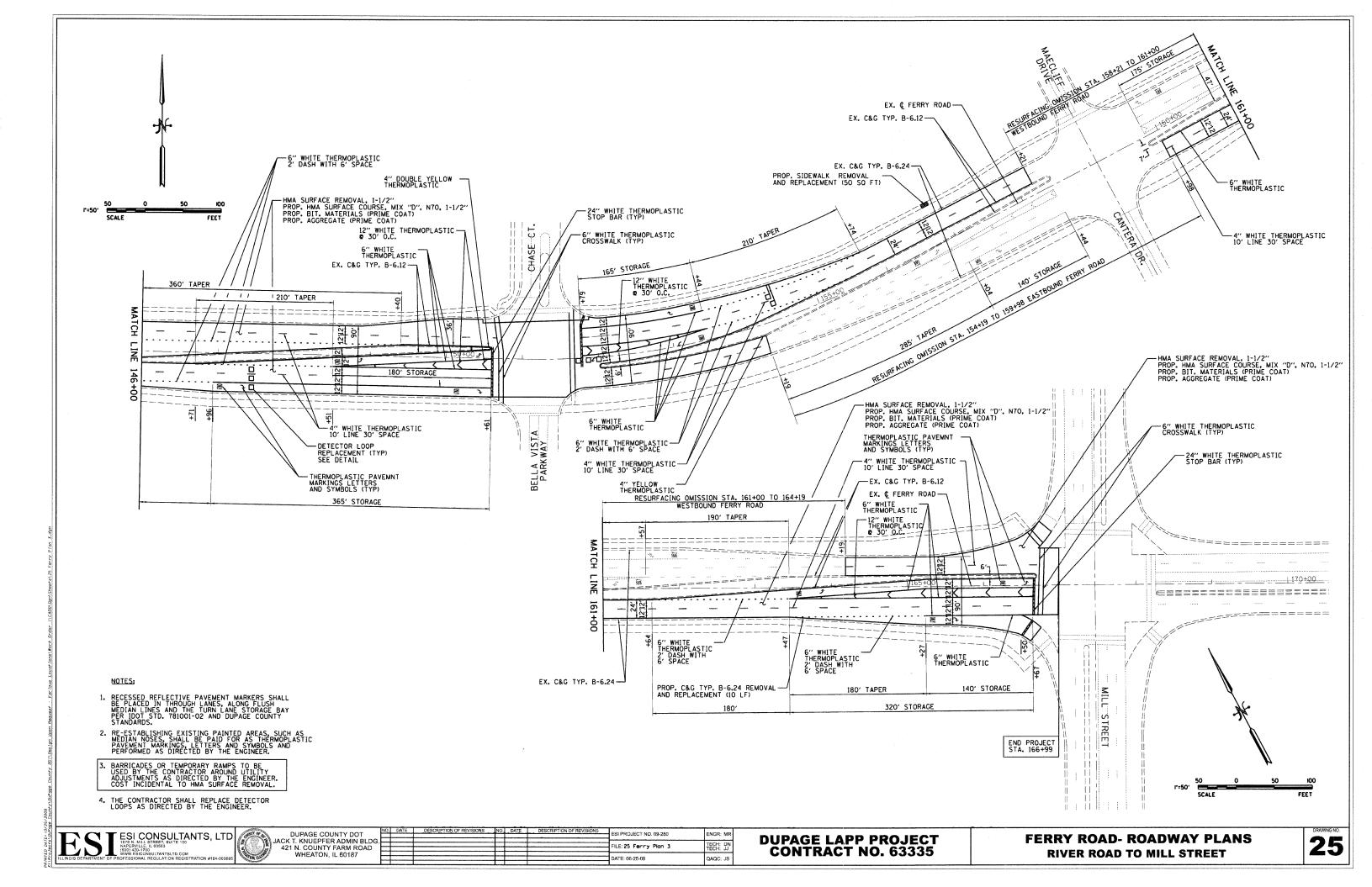
**GARY AVENUE- ROADWAY PLANS JEWELL ROAD TO ST. CHARLES ROAD** 

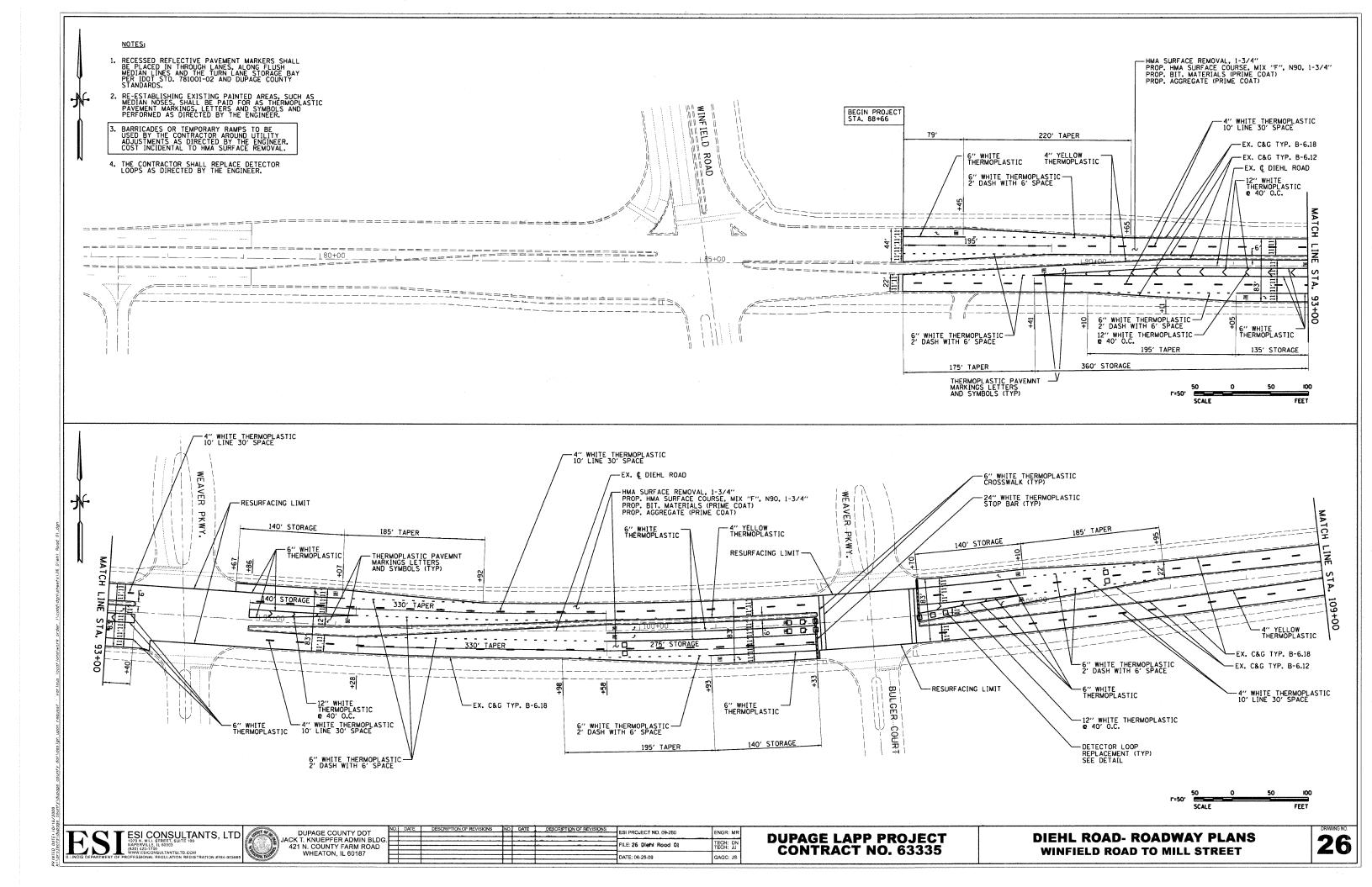


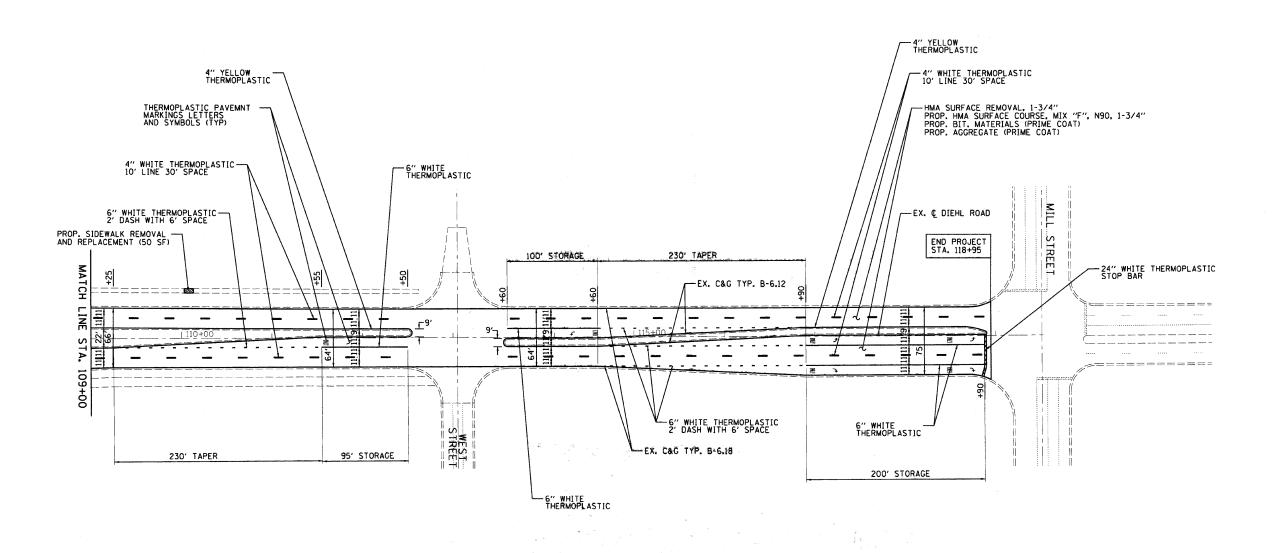


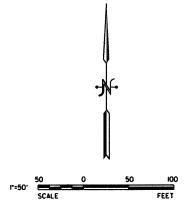












NOTES:

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- 3. BARRICADES OR TEMPORARY RAMPS TO BE USED BY THE CONTRACTOR AROUND UTILITY ADJUSTMENTS AS DIRECTED BY THE ENGINEER. COST INCIDENTAL TO HMA SURFACE REMOVAL.
- 4. THE CONTRACTOR SHALL REPLACE DETECTOR LOOPS AS DIRECTED BY THE ENGINEER.

	ESI CONSULTANTS, LTD 1975 N. MILL STREET, SUITE 100 NOSIDI 120-150. 00563 SIDI 120-150. 00563 WWW. SEIOONSULTANTSI.TD. COM	Sall Water
-	ILLINOIS DEPARTMENT OF PROFESSIONAL REGULATION REGISTRATION #184-003885	10.45

DUPAGE COUNT		DATE	DESCRIPTION OF REVISIONS	NO.	DATE	DESCRIPTION OF REVISIONS	ESI PROJECT NO. 09-280	ENGR: I
JACK T. KNUEPFER A 421 N. COUNTY FA WHEATON, IL (	RM ROAD						FILE: 27 Diehl Road 02	TECH: I
WHEATON, IL	60187			+			DATE: 06-25-09	QAQC: .

CONTRACT NO. SECTION COUNTY TO STA. FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT 4 1111111 2 CONSTRUCTION PROCEDURES STAGE 1 (BEFORE PAVEMENT MILLING) 2 A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE. B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE. C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE. 3 D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 11/2 (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER. STACE 2 (AFTER PAVEMENT MILLING) A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE. B) INSTALL THE FRAME AND LID: ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION. 12 (300) MIN. 9 C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS SI CONCRETE, OR HMA SURFACE COURSE OR HMA BINDER COURSE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE. THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS. 4: D. PROPOSED - PROPOSED SAND FILL BRICK, MORTAR, OR CONC. ADJUSTING RINGS LEGEND SAND FILL SUB-BASE GRANULAR MATERIAL 6 FRAME AND LID (SEE NOTES) CLASS SI CONCRETE, HMA SURFACE COURSE OR HMA BINDER COURSE 2 EXISTING PAVEMENT 3 36 (900) DIAMETER METAL PLATE 8 PROPOSED HMA SURFACE COURSE 4 PROPOSED CRUSHED STONE AND HMA SURFACE MIX EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED. 9 PROPOSED HMA BINDER COURSE 5 EXISTING STRUCTURE LOCATION OF STRUCTURES: CITY OF CHICAGO CASTINGS ARE THE PROPERTY OF THE CITY AND THE CONTRACTOR SHALL NOTIFY THE CITY FOR REMOVAL AND DISPOSITION OF THE CASTINGS. THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT. UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER. THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR. WHEN STRUCTURES ARE TO BE ADJUSTED OR RECONSTRUCTED, THE LOWERING AND RAISING OF THE FRAMES AND LIDS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE CORRESPONDING PAY ITEM. BASIS OF PAYMENT: THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR "FRAMES AND LIDS TO BE ADJUSTED, SPECIAL" NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY. DETAILS FOR FRAMES AND LIDS ADJUSTMENT ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN WITH MILLING ILLINOIS DEPARTMENT OF TRANSPORTATION = 3/5/2987 = Ki\distaid\bd84. = 56.8888 ' IN. = baserdl DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING DATE NAME SCALE NAME SCALE: VERT. NONE P.F.E. CHECKED BY

TECH: DN

QAQC: JS

ESI CONSULTANTS, LTD

1979 N. MILL STREET, SUITE 100
MAPERVILLE, IL 60363
MAPERVILLE, IL 60363
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DUPAGE COUNTY DOT JACK T. KNUEPFER ADMIN BLDG. 421 N. COUNTY FARM ROAD WHEATON, IL 60187

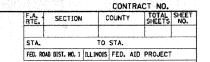
NO. DATE DESCRIPTION OF REVISIONS NO. DATE DESCRIPTION OF REVISIONS ESI PROJECT NO. 09-280 ILE: 28 Details OI DATE: 06-25-09

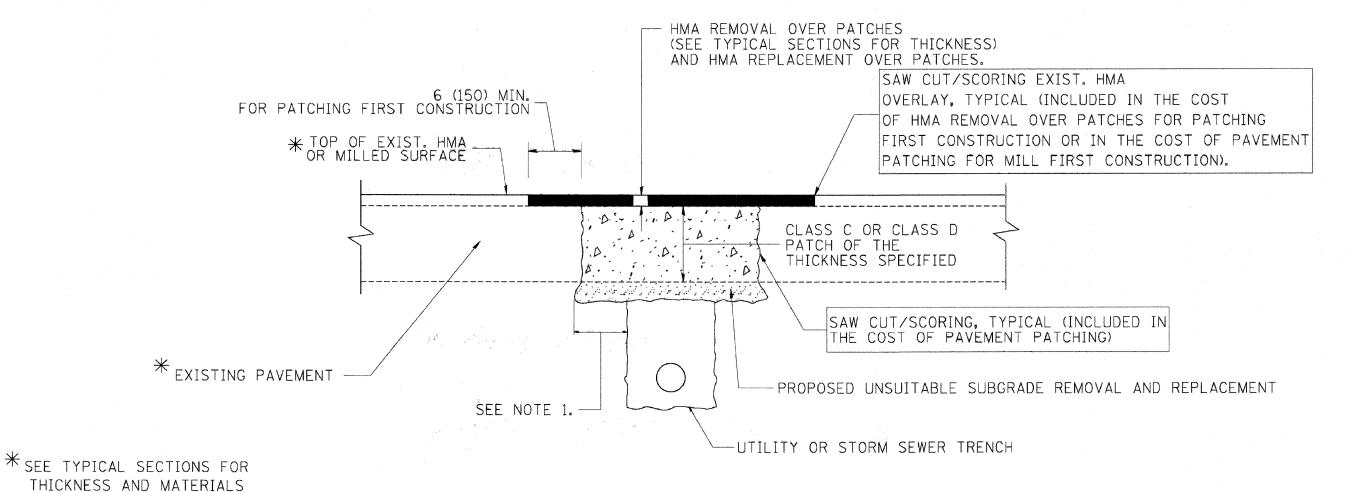
**DUPAGE LAPP PROJECT CONTRACT NO. 63335** 

**DETAILS** 

**28** 

BD600-03 (BD-8)





## NOTES:

- 1. THE WIDTH OF THE FULL DEPTH PATCH OVER A TRENCH SHALL BE 12 (300) WIDER ON EACH SIDE OF THE TRENCH.
- 2. FOR METHOD OF MEASUREMENT AND BASIS OF PAYMENT. SEE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL".

#### SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

- 1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
- 2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
- 3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

#### SEQUENCE OF CONSTRUCTION (MILLING FIRST)

- 1. MILL HMA FIRST IF THERE IS AT LEAST  $4\frac{1}{2}$  INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
- 2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

ILLINOIS DEPARTMENT OF TRANSPORTATION

PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT

SCALE: VERT. NONE

CHECKED BY BD400-04 (BD-22)

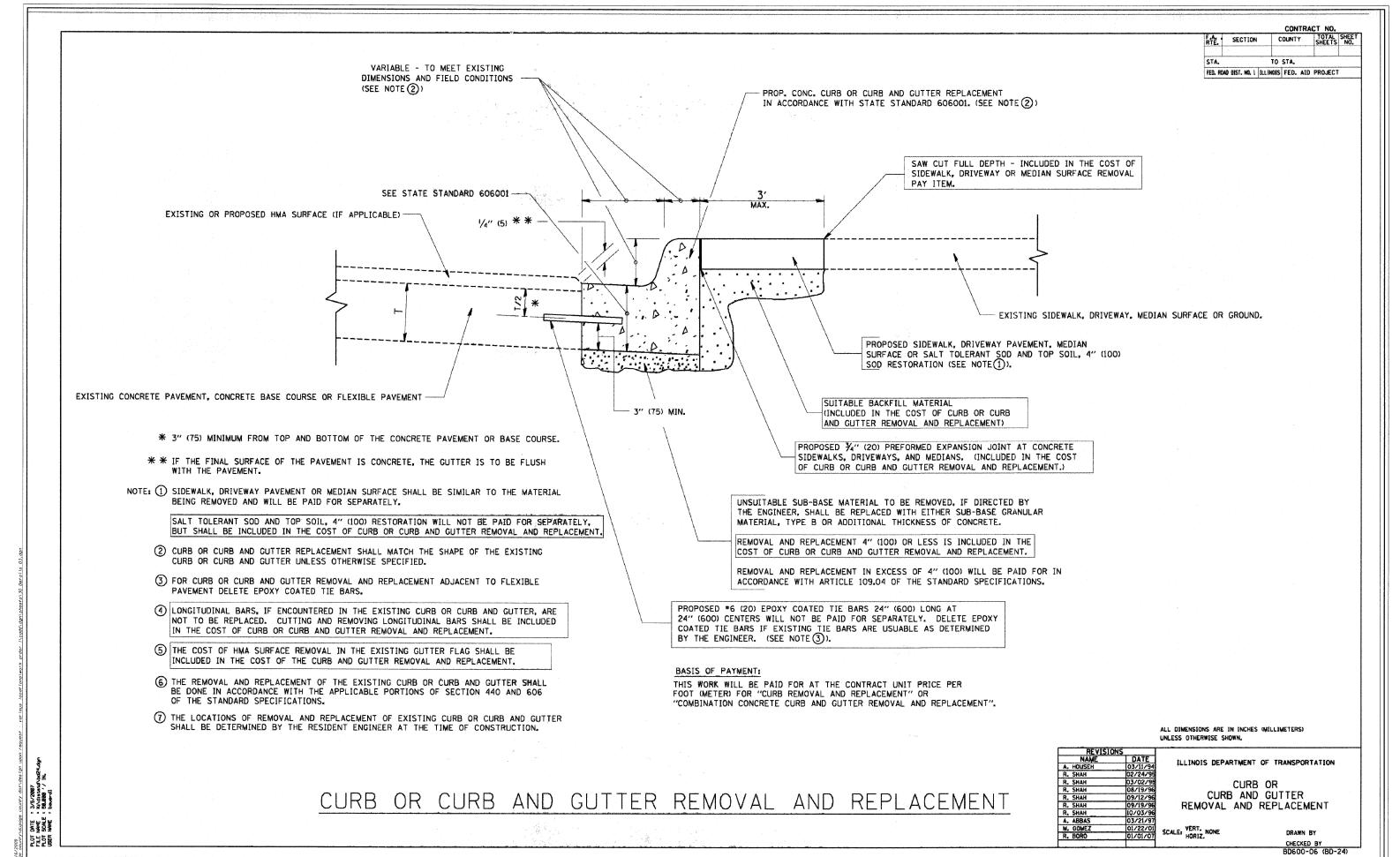
ESI CONSULTANTS, LTD

DUPAGE COUNTY DOT JACK T. KNUEPFER ADMIN BLDG 421 N. COUNTY FARM ROAD

SI PROJECT NO. 09-280 TECH: DN ILE: 29 Details 02 ATE: 06-25-09

**DUPAGE LAPP PROJECT CONTRACT NO. 63335** 

**DETAILS** 

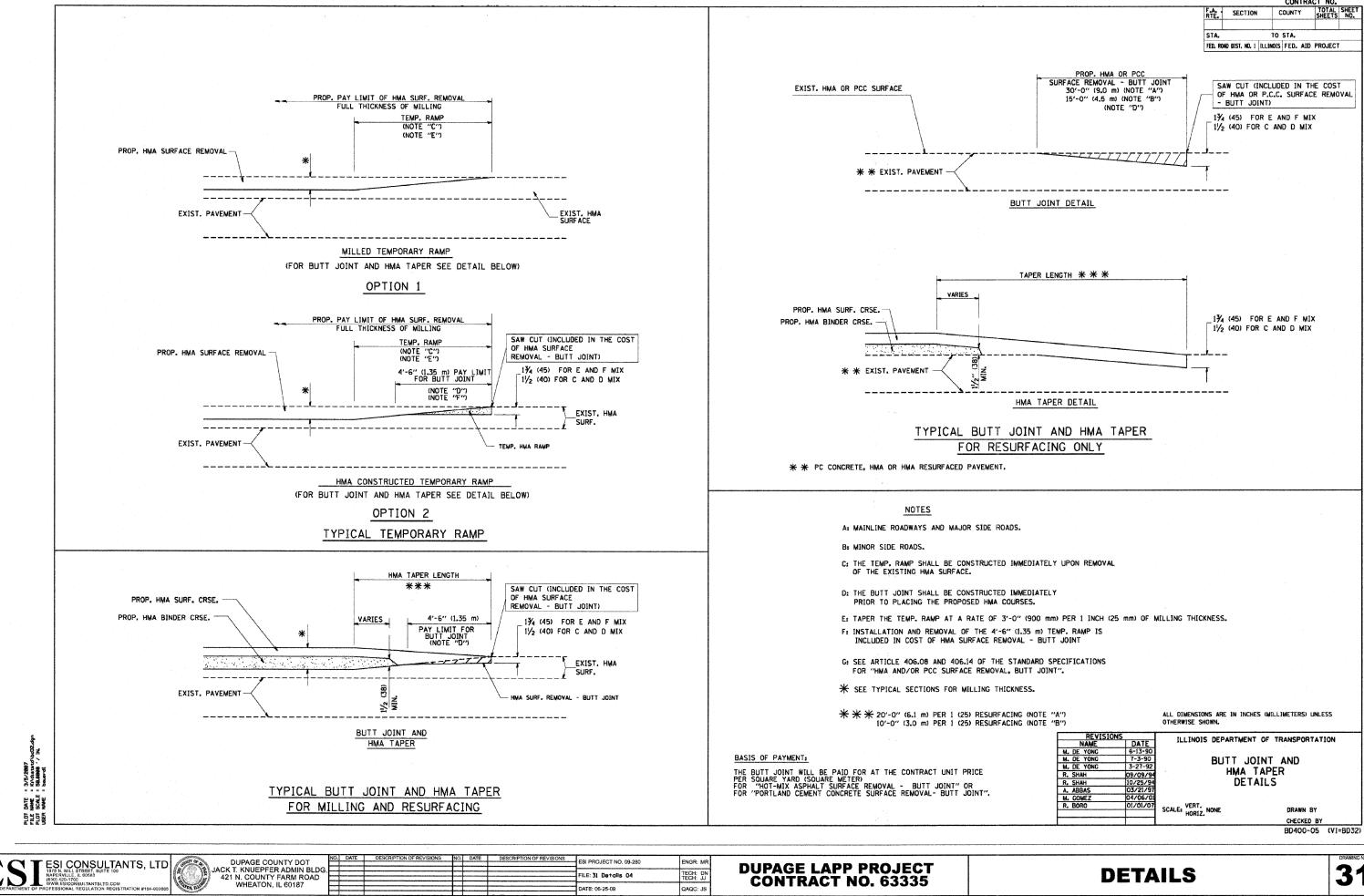


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ESI CONSULTANTS, LTD

**DUPAGE LAPP PROJECT** 

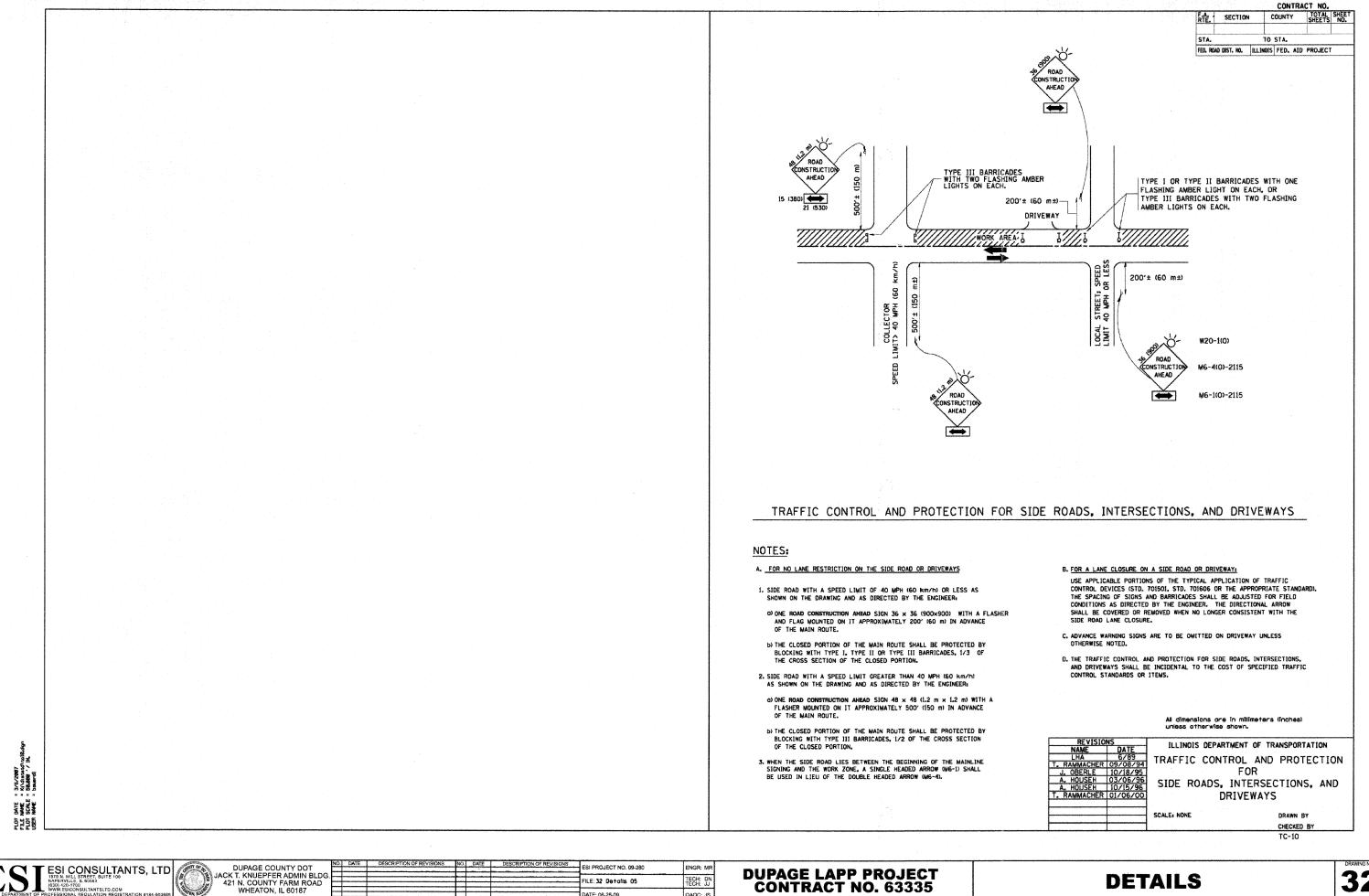
**CONTRACT NO. 63335** 



FILE: 31 Details 04 DATE: 06-25-09

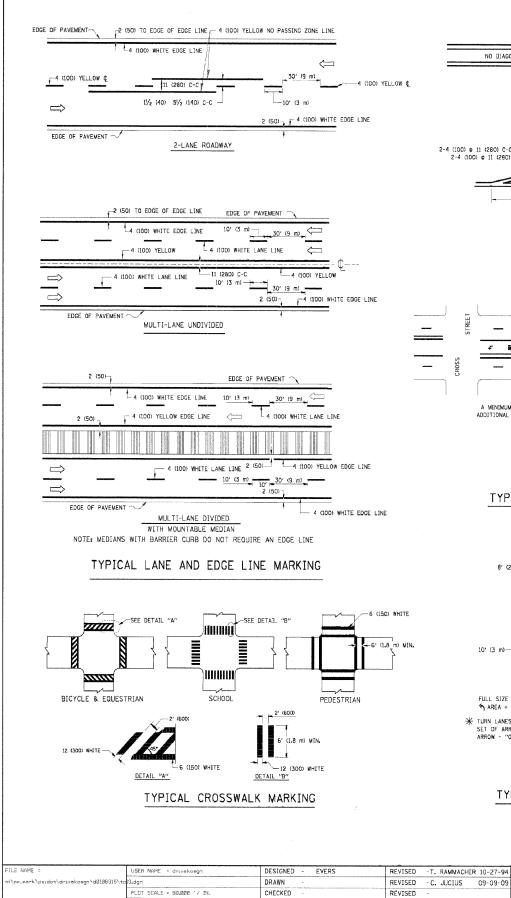
**CONTRACT NO. 63335** 

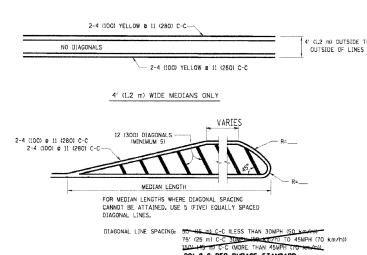
**DETAILS** 



TECH: DN TECH: JJ

DATE: 06-25-09





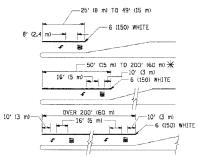
20' C-C PER DUPAGE STANDARD

MEDIANS OVER 4' (1.2 m) WIDE 4 (100) YELLOW LINES (51/2 (140) C-C) -4 (100) YELLOW LINES (5½ (140) C-C) 2-4 (100) YELLOW @ 11 (280) C-C À MINIMUM OF TWÖ PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

## TYPICAL PAINTED MEDIAN MARKING

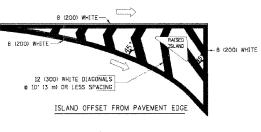


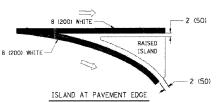
FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED. AREA = 15.6 SQ. FT. (1.5 m<sup>2</sup> ) THY AREA = 20.8 SQ. FT. (1.9 m<sup>2</sup>)

\* TURN LAMES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

#### TYPICAL TURN LANE MARKING





## TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 2 4 (100)	SOLID	YELLOW	11. (280). C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 m 4 (100)	SOLID SOLID	YELLOW YELLOW	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C ONIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW: EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 m 4 (100) EACH DIRECTION	SKIP-DASH AND SOLID	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE
	8' (2.4m) LEFT ARROW	IN PAIRS	WHITE.	SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 8 6 (150) 12 (300) 8 45° 12 (300) 9 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1,2 m) IN ADVANCE OF AMO PARALLEL TO CHOSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 ± 4 (100) WITH 12 (300) DIAGONALS 12 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS # 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILRGAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1,8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "%"=3.6 SQ. FT. (0.33 m²) EACH "%"=54.0 SQ. FT. (5.0 m²)
SHOULDER DIAGONALS	12 (300) <b>c</b> 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (QVER 45MPH (70 km/h))

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

All dimensions are in inches (millimeters) unless atherwise shown.

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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

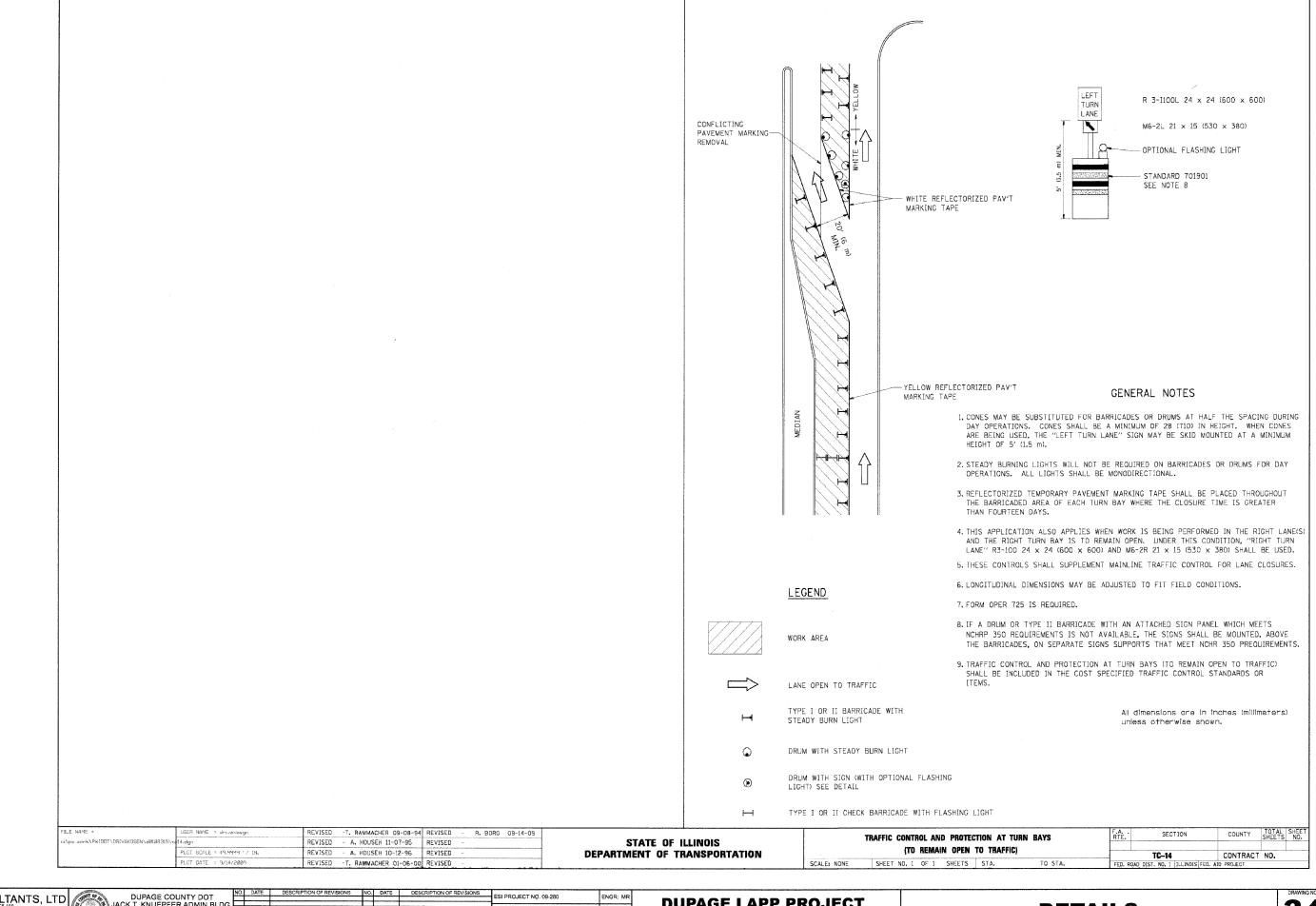
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SI ESI CONSULTANTS, LTD
1979 N. MILL STREET, SUITE 100
1979 N.



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DUPAGE COUNTY DOT ACK T. KNUEPFER ADMIN BLDG.							
ACK T. KNUEPFER ADMIN BLDG.							
421 N. COUNTY FARM ROAD WHEATON, IL 60187							
WHEATON, IL 60167	_						

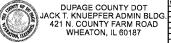
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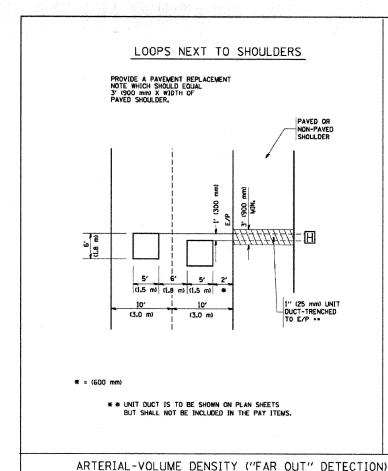
DUPAGE COUNTY DOT
1978 N. MILL STREET, SUITE 100
NAPERVILLE, 1L. 80562 3.

DEPARTMENT OF PROFESSIONAL REQUISTRATION #184-003865

DUPAGE COUNTY DOT
1978 N. MILL STREET, SUITE 100
APPROVE SICONAL REQUISTRATION #184-003865



	FILE: 34 Details 07	TECH: JJ	
DATE: 06-25-09 QAQC: JS			



\*\* = (1.5m)

LOOPS ARE SAW-CUT

DUCT IS RUN BETWEEN EDGE OF PAVEMENT

AND HANDHOLE.
(TYP. FOR LOOPS
THAT TERMINATE
IN HANDHOLES

OUTSIDE PAVEMENTS

CROSS STREET

#### LEFT TURN LANES WITH MEDIANS VOLUME DENSITY ("FAR OUT" DETECTION) ON SAME APPROACH

(PROTECTED / PERMITTED LEFT TURN PHASING)

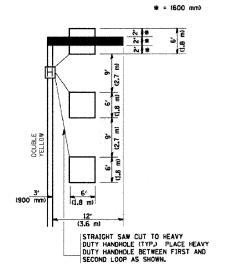
HANDHOLE LOCATION MAY VARY DEPENDING ON GEOMETRICS AND DESIGN OF TRAFFIC SIGNALS. HEAVY-DUTY HANDHOLES TO BE USED WHEN THE MEDIAN IS MOUNTABLE. REFER TO STANDARD 814001 TO ENSURE THAT HANDHOLE STRAIGHT SAW CUTS PERPENDICULAR TO MEDIAN (TYP,)

\* = (600 mm)

\*\* UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS. NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

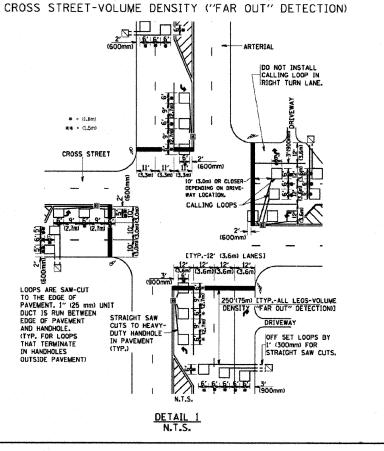
#### LEFT TURN LANES WITHOUT MEDIANS VOLUME DENSITY ("FAR OUT" DETECTION) ON SAME APPROACH

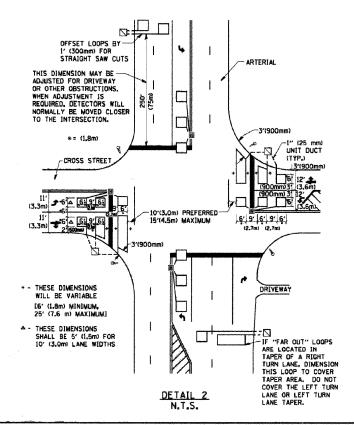
(PROTECTED / PERMITTED LEFT TURN PHASING)



NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION) CROSS STREET-NON VOLUME DENSITY ("UPTIGHT" PRESENCE DETECTION)





CONTRACT NO F.A. SECTION COUNTY TO STA. FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

#### NOTES:

#### VEHICLES LOOP DETECTORS

- \* ALL LEAD IN CABLE SHALL BE TWO CONDUCTOR NO. 14 TWISTED. SHIELDED.
- \* EACH DETECTOR LOOP SHALL HAVE ITS OWN SAW CUT FROM THE LOOP TO THE EDGE OF PAVEMENT OR TO A HANDHOLE IN THE
- \* EACH DETECTOR LOOP SHALL HAVE ITS OWN ONE INCH (25 mm) UNIT DUCT BETWEEN THE EDGE OF PAVEMENT AND THE FIRST HANDHOLE OR JUNCTION BOX. EACH UNIT DUCT RUN SHALL BE SHOWN ON THE PLANS BY THE DESIGNER, BUT SHALL NOT BE PAID FOR SEPARATLY. THIS ITEM IS INCIDENTAL TO THE PAY ITEM FOR DETECTOR LOOPS.
- \* ONE DIMENSION OF ALL DETECTOR LOOPS SHALL BE SIX FEET (1\_8 m)
- \* EACH LANE OF NON-LOCKING, PRESENCE DETECTION AND EACH LANE OF A DOUBLE LEFT TURN LANE REQUIRES A SEPARATE INDUCTIVE LOOP DETECTOR AND LEAD IN CABLE.
- \* WHEN NON-LOCKING, PRESENCE DETECTION IS USED, MORE THAN ONE LOOP PER LANE IS REQUIRED BEHIND THE STOP BAR (i.e. 1-1/2, 1-3/4, 2).
- \* WHEN SYSTEM LOOPS ARE REQUIRED ON AN APPROACH OF AN INTERSECTION, THE LOOPS USED FOR VOLUME DENSITY AND INTERSECTION TIMING SHALL ALSO BE USED AS SYSTEM DETECTORS. EACH ONE OF THESE TYPE OF LOOPS REQUIRES A SEPARATE TWO CONDUCTOR NO. 14 TWISTED SHIELDED CABLE AND A SEPARATE INDUCTIVE LOOP DETECTOR WHEN NEW CONTROLLERS ARE UTILIZED. THE DESIGNER SHALL LABEL THESE TYPES OF LOOPS AS "INTERSECTION AND SAMPLING (SYSTEM) DETECTORS" ON THE SIGNAL LAYOUT, THE INTERCONNECT PLAN AND THE SYSTEM CABLE PLAN, WHEN AN EXISTING CONTROLLER IS UTILIZED FOR THIS TYPE OF DETECTION, THE PAY ITEM "INDUCTIVE LOOP DETECTOR WITH SYSTEM OUTPUT" SHOULD BE USED.

#### PLACEMENT OF DETECTORS

THE FOLLOWING FIGURES REPRESENT THE MOST COMMON DETECTOR LOOP LOCATIONS AND SIZES. ADJUSTMENTS WILL BE NECESSARY FOR SPECIFIC GEOMETRIC CONSIDERATIONS.

LOCATIONS AND DEMENSIONS OF DETECTOR LOOPS ARE REQUIRED ON ALL SIGNAL LAYOUT PLAN SHEETS.

"FAR OUT" DETECTION REFERS TO LOCKING, PRESENCE TYPE DETECTION LOCATED IN THRU LANES, RIGHT TURN LANES, AND RIGHT TURN LANE TAPER AREAS (IF APPLICABLE), USUALLY 250' (75 m) IN ADVANCE OF STOP BARS. "UPTIGHT" DETECTION REFERS TO NON-LOCKING PRESENCE TYPE DETECTION LOCATED IN ALL LANES AND 10'-15' (3.0 m-4.5 m) BEHIND THE CROSSING STREET'S EDGE OF PAVEMENT EXTENDED.

ALL DETAILS AND NOTES SHOWN ARE FROM THE I.D.O.T. DISTRICT 1 TRAFFIC SIGNAL DESIGN GUIDELINES DATED JANUARY 1995

THIS DRAWING HAS BEEN PREPARED TO ASSIST THE RESIDENT ENGINEER FOR ALL ROADWAY RESURFACING OR S.M.A.R.T. PROJECTS WHERE THE DIMENSIONS ARE NOT SHOWN ON THE PLANS AND THE FINAL LOCATIONS FOR CROSSWALKS OR STOP BARS ARE NOT DETERMINED.

REVISIONS	
DATE	NAME
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ENT OF TRANSPORTATION ISTRICT 1 ECTOR LOOP ATION DETAILS VAY RESURFACING DESIGNED BY

DRAWN BY CADD CHECKED BY R.K.F. TS07

CONSULTANTS, LTD

3/7/2007 Kr\distatd 56.9996 ' beuerdi

PATE SCALE NAME

DUPAGE COUNTY DOT JACK T. KNUEPFER ADMIN BLDG 421 N. COUNTY FARM ROAD WHEATON, IL 60187

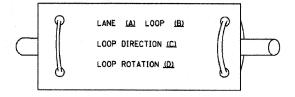
SI PROJECT NO. 09-28 TECH: DI FILE: 35 Details 08 DATE: 06-25-09 QAQC: JS

**DUPAGE LAPP PROJECT** CONTRACT NO. 63335

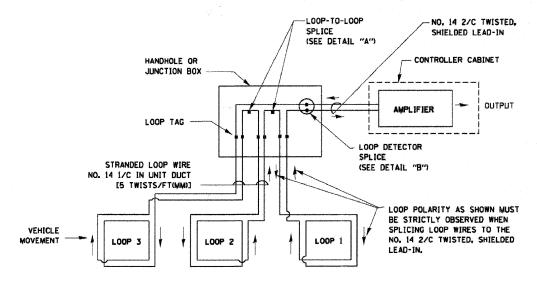
**DETAILS** 

- 1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE UNIT DUCT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). UNIT DUCT SHALL BE INCLUDED IN THE COST OF THE LOOP
- 2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
- 3. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
- 4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
- 5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
- 6. LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
- 7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

#### LOOP LEAD-IN CABLE TAG

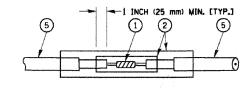


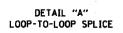
- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP "1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

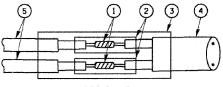


#### DETECTOR LOOP WIRING SCHEMATIC

- LOOPS SHALL BE SPLICED IN SERIES.
- " SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- " SAW-CUT DEPTHS SHALL BE 3" (75 mm), IF IN CONCRETE, THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.







DETAIL "B" LOOP-TO-CONTROLLER SPLICE

#### LOOP DETECTOR SPLICE

- (1) WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.
- (2) WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- (3) WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGHT 6" (150 mm), UNDERWATER GRADE.
- (4) NO. 14 2/C TWISTED, SHIELDED CABLE.
- (5) LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.



CONTRACT NO.

COUNTY TO STA

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

SECTION

DATE NAME SCALE

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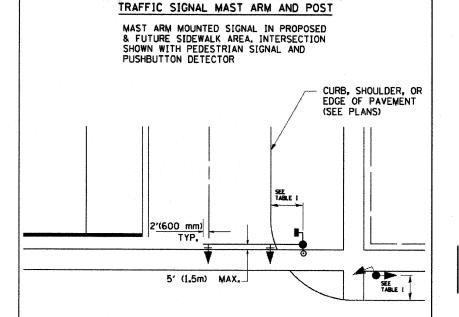
ESI CONSULTANTS, LTD

DUPAGE COUNTY DOT IACK T KNUFPEER ADMIN BLDG 421 N. COUNTY FARM ROAD WHEATON, IL 60187

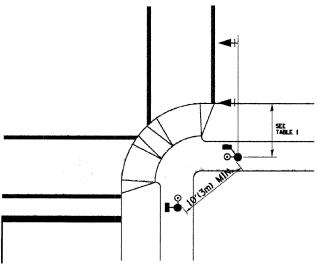
ESI PROJECT NO. 09-280 TECH: DN FILE: 36 Details 09 DATE: 06-25-09 OAGC: JS

**DUPAGE LAPP PROJECT CONTRACT NO. 63335** 

**DETAILS** 



#### PEDESTRIAN SIGNAL PUSHBUTTON



RECOMMENDED PUSHBUTTON LOCATIONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHALL BE IN ACCORDANCE WITH THE CURRENT MUTCD (SEE NOTE 1). TO MEET MUTCD REQUIREMENTS, PEDESTRIAN SIGNAL PUSHBUTTONS MAY HAVE TO BE MOUNTED ON A SEPARATE POST.

#### NOTES:

STA. TO STA.

FED. ROMO DIST. NO. ILLINOIS FED. AID PROJECT

CONTRACT NO.

 AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS WITH PEDESTRIAN ACTUATION. EACH PUSHBUTTON SHALL ACTIVATE BOTH THE WALK INTERVAL AND THE ACCESSIBLE PEDESTRIAN SIGNALS.

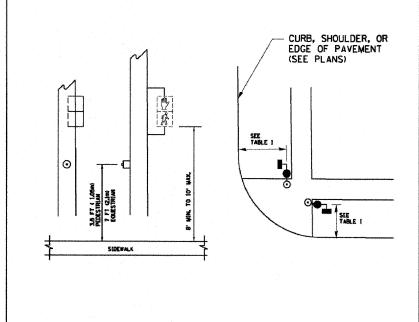
AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS, PUSHBUTTONS SHOULD CLEARLY INDICATE WHICH CROSSWALK SIGNAL IS ACTUATED BY EACH PUSHBUTTON, PUSHBUTTONS AND TACTILE ARROWS SHOULD HAVE HIGH VISUAL CONTRAST (SEE THE DEPARTMENT OF JUSTICE'S AMERICANS WITH DISABILITIES ACT STANDARDS FOR ACCESSIBLE DESIGN, 1991). TACTILE ARROWS SHOULD POINT IN THE SAME DIRECTION AS THE ASSOCIATED CROSSWALK. AT CORNERS OF SIGNALIZED LOCATIONS WITH ACCESSIBLE PEDESTRIAN SIGNALS WHERE PEDESTRIAN PUSHBUTTONS ARE PROVIDED, THE PUSHBUTTONS SHOULD BE SEPARATED BY THE DISTANCE OF AT LEAST 10 FT (3m). THIS ENABLES PEDESTRIANS WHO HAVE VISUAL DISABILITIES TO DISTINGUISH AND LOCATE THE APPROPRIATE PUSHBUTTON.

PUSHBUTTONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHOULD BE LOCATED AS FOLLOWS:

- A: ADJACENT TO A LEVEL ALL-WEATHER SURFACE TO PROVIDE ACCESS FROM A WHEELCHAIR, AND WHERE THERE IS AN ALL WEATHER SURFACE, WHEELCHAIR ACCESSIBLE ROUTE TO THE RAMP.
- B: WITHIN 5 FT (1.5m) OF THE CROSSWALK EXTENDED.
- C: WITHIN 10 FT (3m) OF THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
- D: PARALLEL TO THE CROSSWALK TO BE USED (SEE MUTCD FIGURE 4E-2).
- E: NORMAL PEDESTRIAN PUSHBUTTON MOUNTING HEIGHT SHOULD BE 3.5 FT (1.05m) ABOVE ADJACENT SIDEWALK
- PEDESTRIAN SIGNAL FACES SHALL BE MOUNTED WITH THE BOTTOM OF THE HOUSING NOT LESS THAN 8 FT (2.4m) NOR MORE THAN 10 FT (3.0m) ABOVE THE SIDEWALK LEVEL AND SO THERE IS A PEDESTRIAN INDICATION IN THE LINE OF PEDESTRIANS' VISION WHICH PERTAINS TO THE CROSSWALK BEING USED.
- 3. THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, NOT MOUNTED OVER A ROADWAY, SHALL BE AT LEAST 10 FT (3,0m) BUT NOT MORE THAN 15 FT (4.5m) ABOVE THE SIDEWALK OR, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE HIGHWAY IF NO SIDEWALKS EXIST.
- 4. THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, MOUNTED OVER A ROADWAY, SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001 AND 877006. (16 FT (5m) MIN., 18 FT (5.5m) MAX., FROM HIGHEST POINT OF PAVEMENT)

#### PEDESTRIAN SIGNAL POST

PEDESTRIAN SIGNAL HEAD AND PEDESTRIAN PUSHBUTTON DETECTOR LOCATION



#### TABLE I

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MIN. DIST. FROM BACK OF CURB)	SHOULDER/NON-CURBED AREA (MIN. DIST. FROM EDGE OF PAVEMENT)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN PUSHBUTTON	SEE NOTE 1	SEE NOTE 1

NAME DATE
BUREAU OF TRAFFIC 1/01/02

ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE

DRAWN BY: RWP DESIGNED BY: DAD CHECKED BY: DAZ SHEET 2 OF 4 TSO5

ESI CONSULTANTS, LTD
1978 N. MILL STREST SUITE 100
NAPERVILLE, IL 60553
(630) 420-1700
(630) 420-1700
(630) 420-1700

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DATE SCALE

DUPAGE COUNTY DOT
JACK T. KNUEPFER ADMIN BLDG
421 N. COUNTY FARM ROAD
WHEATON, IL 60187

NO. DATE DESCRIPTION OF REVISIONS NO. DATE DESCRIPTION OF REVISIONS ESI PROJECT NO. 09-280 ENGR. MF

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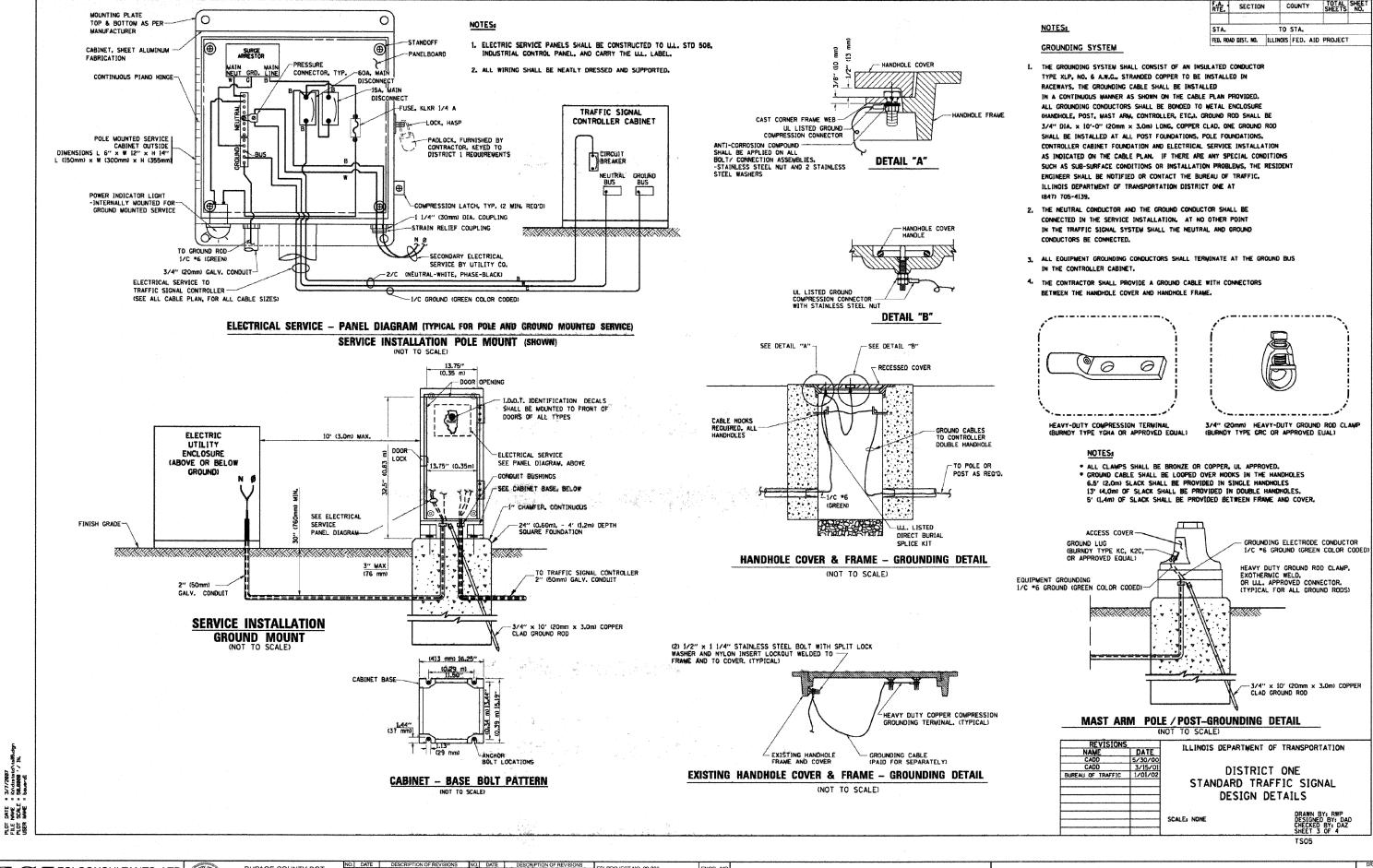
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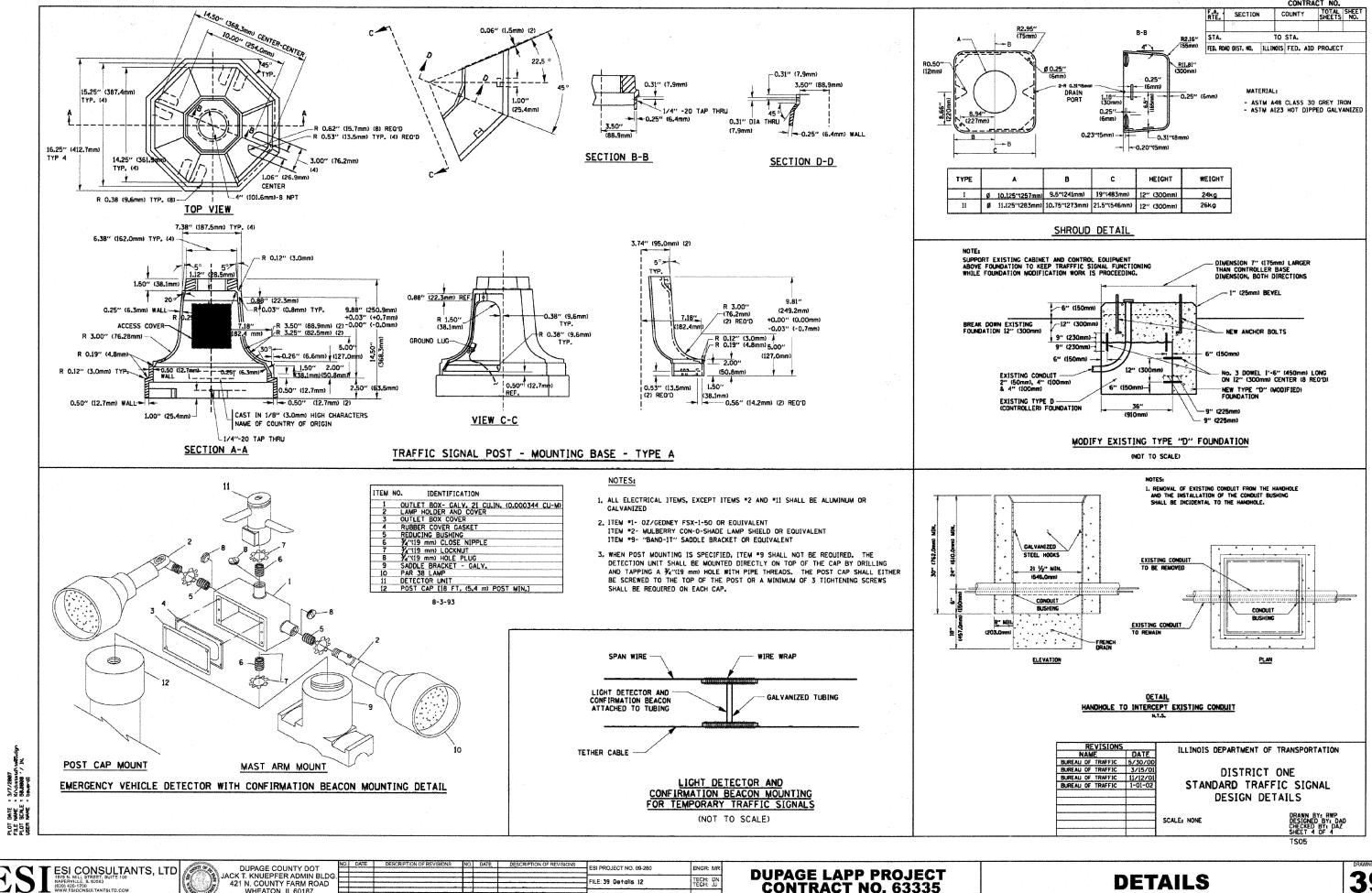
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DUPAGE LAPP PROJECT CONTRACT NO. 63335

**DETAILS** 



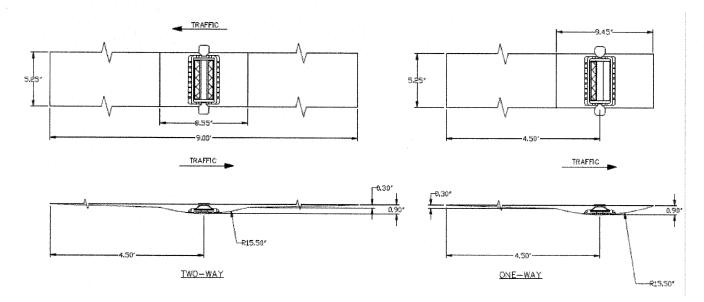
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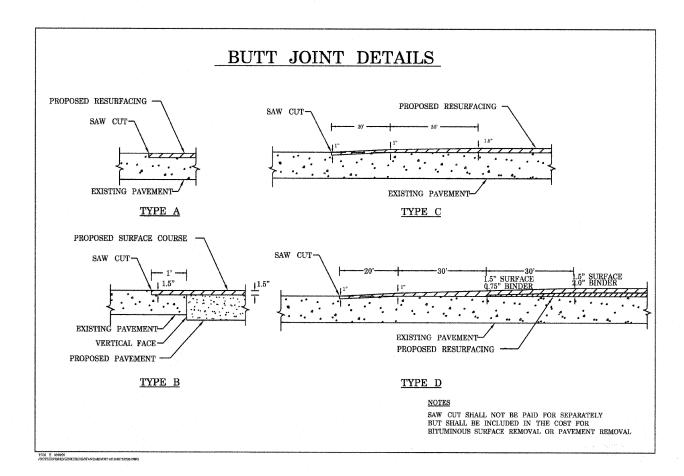


QAQC; JS

WHEATON, IL 60187

## RECESSED REFLECTIVE PAVEMENT MARKERS





#### DUPAGE COUNTY DOT ACK T. KNUEPFER ADMIN BLDG 421 N. COUNTY FARM ROAD ESI PROJECT NO. 09-280 ESI CONSULTANTS, LTD TECH: DN TECH: JJ WHEATON, IL 60187 DATE: 06-25-09

#### PAVEMENT MARKINGS, SIGNING

RECESSED REFLECTIVE PAVEMENT MARKERS SHALL BE INSTALLED AS FOLLOWS:

- TWO (2) TWO-WAY AMBER RECESSED PAVEMENT MARKERS SHALL BE PLACED AT FORTY FEET (40') C-C ALONG DOUBLE YELLOW CENTERLINES AT INTERSECTIONS AND CURVES. IN TANGENT SECTIONS THE RECESSED PAVEMENT MARKERS WILL BE AT EIGHTY FEET (80') CENTERS.
- TWO (2) ONE-WAY CRYSTAL RECESSED MARKERS SHALL BE PLACED AT (10') APART AT (80') C-C ALONG LANE LINES BETWEEN WHITE DASHES AT INTERSECTIONS AND CURVES. IN TANGENT SECTIONS, ONLY ONE (1) CRYSTAL RECESSED PAVEMENT MARKERS SHALL BE PLACED AT (80') C-C.
- TURN BAY LINES SHALL HAVE ONE-WAY CRYSTAL MARKERS PLACED AT FORTY FEET (40') C-C.
- TWO-WAY AMBER MARKERS SHALL BE USED WHEN THE PAINTED MEDIAN IS LESS THAN OR EQUAL TO FOUR FEET (4') IN WIDTH; ONE-WAY AMBER MARKERS SHALL BE USED WHEN THE PAINTED MEDIAN IS GREATER THAN FOUR FEET (4')
- CRYSTAL/RED MARKERS SHALL BE PLACED AT LANE LINES AND TURN BAYS ON DIVIDED HIGHWAYS AND HIGHWAYS WITH RAISED MEDIANS.

TURNING LANES 150 TO 199 FEET SHALL HAVE AN ADDITIONAL ARROW PLACED PRIOR TO THE END OF THE TURN LANE.

TURNING LANES 200 FEET AND LONGER SHALL HAVE AN ADDITIONAL ARROW AND ONLY PLACED PRIOR TO THE END OF THE LANE.

SKIP DASHED AND YELLOW CENTERLINES SHALL BE GAPPED AT SIDE ROAD INTERSECTIONS. THE GAP SHALL BEGIN AND END AT A FORTY FOOT TO FORTY-FIVE FOOT RADIUS POINT FROM THE CENTERLINE OF THE SIDE ROAD.

ALL FOUR INCH (4") AND SIX INCH (6") LONGITUDINAL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC.

CROSS WALK PAVEMENT MARKINGS SHALL BE INSTALLED AS FOLLOWS:

- TWO (2) SIX INCH (6") PARALLEL LINES SIX FOOT (6') APART SHALL BE USED ON SIDE ROADS AND AT SIGNALIZED INTERSECTIONS WITHOUT SCHOOL CROSSINGS.
- NEAR ALL SCHOOL AND NON-SIGNALIZED CROSS WALKS ACROSS COUNTY HIGHWAYS, A SERIES OF TWELVE INCH (12") WIDE, SIX FEET (6') LONG LINES AT TWENTY-FOUR INCH (24") C-C SPACING SHALL BE USED.
- ALL BICYCLE AND EQUESTRIAN PATH CROSSINGS SHALL INCLUDE TWO (2) TWELVE INCH (12") PARALLEL LINES AND A SERIES OF TWELVE INCH (12") WIDE LINES AT 450 AT THIRTY-SIX INCH (36") C-C SPACING.

TEMPORARY PAVEMENT MARKING DELINEATION SHALL BE AS FOLLOWS: FOUR INCH (4") CENTERLINES, LANE LINES, TURN BAY LINES, PAINTED MEDIANS AND TWENTY-FOUR INCH (24") STOP BARS. THE MARKINGS SHALL BE PAINTED AND PLACED THE SAME DAY AS BITUMINOUS SURFACE REMOVAL.

TEMPORARY PAVEMENT MARKINGS SHALL USE A CONTINUOUS DOUBLE YELLOW LINE FOR THE CENTERLINE FOLLOWING BITUMINOUS SURFACE

ALL SHORT TERM PAVEMENT MARKINGS WILL BE PLACED AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL COORDINATE WITH THE DU PAGE COUNTY DOT FOR THE RELOCATION OF PERMANENT ROADWAY SIGNS DURING CONSTRUCTION.