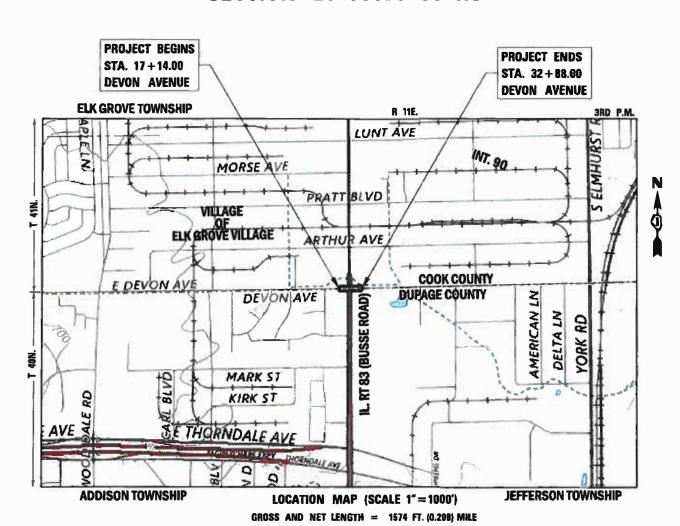
# STATE OF ILLINOIS

**DEPARTMENT OF TRANSPORTATION** 

# PLANS FOR PROPOSED FEDERAL AID HIGHWAY

FAU 1346 (DEVON AVENUE) AND F.A.P. ROUTE 344 (IL ROUTE 83 – BUSSE ROAD) INTERSECTION RESURFACING **PROJECT NUMBER: 7BDM(852)** VILLAGE OF ELK GROVE VILLAGE **COOK AND DUPAGE COUNTY** JOB NO. C-91-170-22 SECTION 21-00075-00-RS



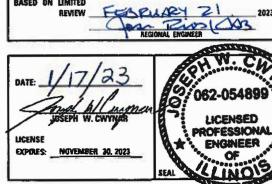
DISTRICT 1 ENGINEER OF LOCAL ROADS & STREETS RELEASING FOR BID BASED ON LIMITED

LOCATION OF SECTION INDICATED THUS: -STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION VILLAGE OF ELK GROVE VILLAGE SHEETOR OF PUBLIC WORKS

SECTION 21-00075-00-R9

DUPAGE/COOK 49 1

BLUVOIS CONTRACT NO. 61/34



2021

CARAL BOAD



Engineering Enterprises, Inc. CONSULTING ENGINEERS 52 Wheeler Road Sugar Grove, Illinois 60554 Phone: (630) 466-6700

FOR INDEX OF SHEETS, HIGHWAY STANDARDS AND LEGEND SEE SHEET NO. 02

**FUNCTIONAL CLASSIFICATION** 

IL ROUTE 83 (BUSSE ROAD) -PRINCIPAL ARTERIAL DEVON AVENUE-**MINOR ARTERIAL** 

TRAFFIC DATA

**IL ROUTE 83 (BUSSE ROAD)** ADT: 45,500 (2019) DEVON AVENUE ADT: 19.100 (2018)

**POSTED SPEED LIMIT** IL ROUTE 83 (BUSSE ROAD) = 45 MPH DEVON AVENUE = 40 MPH

**DESIGN SPEED LIMIT** IL ROUTE 83 (BUSSE ROAD) = 50 MPH DEVON AVENUE = 45 MPH



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. 61J34

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

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25-28 ACCESSIBLE PEDESTRIAN SIGNALS DETAIL SHEETS 29**-**31 INTERCONNECT SCHEMATIC (FOR REFERENCE ONLY) 32 VILLAGE OF ELK GROVE VILLAGE DETAILS

33-34 CCDOTH STANDARDS 35-49 DISTRICT ONE STANDARDS

# STATE OF ILLINOIS HIGHWAY STANDARDS

STANDARD NO.	DESCRIPTION
000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
424001-11	PERPENDICULAR CURB RAMPS FOR SIDEWALKS
424016-05	MID-BLOCK CURB RAMPS FOR SIDEWALKS
424011-04	CORNER PARALLEL CURB RAMPS FOR SIDEWALKS
442101-09	CLASS B PATCHES
602001-02	CATCH BASIN TYPE A
602011-02	CATCH BASIN TYPE C
602301-04	INLET- TYPE A
604001-05	FRAMES AND LIDS TYPE 1
604051-04	FRAME AND GRATE TYPE 11
604091-04	FRAME AND GRATE TYPE 24
606001-08	CONCRETE CURB TYPE B AND COMBINATION
	CONCRETE CURB AND GUTTER
701101-05	OFF-ROAD OPERATIONS, MULTILANE
	15' TO 24" FROM PAVEMENT EDGE
701106-02	OFF-ROAD OPERATIONS, MULTILANE,
	MORE THAN 15' AWAY
701426-09	LANE CLOSURE, MULTILANE, INTERMITTENT OR
	MOVING OPER., FOR SPEEDS ≥ 45 MPH
701427-05	LANE CLOSURE, MULTILANE, INTERMITTENT
	OR MOVING OPER. FOR SPEEDS ≤40 MPH
701601-09	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH
	NONTRAVERSABLE MEDIAN
701701-10	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-06	SIDEWALK, CORNER OR CROSSWALK CLOSURE
701901 <b>-</b> 08	TRAFFIC CONTROL DEVICES
720001-01	SIGN PANEL MOUNTING DETAILS
720006-04	SIGN PANEL ERECTION DETAILS
728001-01	TELESCOPING STEEL SIGN SUPPORT
731001 <b>-</b> 01	BASE FOR TELESCOPING STEEL SIGN SUPPORT
780001 <b>-</b> 05	TYPICAL PAVEMENT MARKINGS
886001-01	DETECTOR LOOP INSTALLATIONS
886006-01	TYPICAL LAYOUTS FOR DETECTON LOOPS

# **IDOT DISTRICT ONE STANDARD DETAILS**

STANDARD NO.	DESCRIPTION
BD-32	BUTT JOINT AND HMA TAPER DETAILS
TC-10	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS
TC-11	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKER (SNOW-PLOW RESISTANT)
TC-13	DISTRICT ONE TYPICAL PAVEMENT MARKINGS
TC-14	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)
TC-16	SHORT TERM PAVEMENT MARKING LETTERS AND SYMBOLS
TC-22	DISTRICT ONE ARTERIAL ROAD INFORMATION SIGN
TC-26	DRIVEWAY ENTRANCE SIGNING
TS05	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS- DETECTOR LOOP DETAILS
TS07	DISTRICT ONE- DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING

#### SPECIFICATIONS, STANDARDS AND SPECIAL PROVISIONS

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ("STANDARD SPECIFICATIONS"), ADOPTED JANUARY 1, 2022; THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS", ADOPTED JANUARY 1, 2023; THE LATEST EDITION OF THE "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAY, (IMUTCD); "THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS" SEVENTH EDITION, THE DETAILS IN THE PLANS, AND THE SPECIAL PROVISIONS AND IDOT STANDARD DRAWINGS INCLUDED IN THE CONTRACT DOCUMENTS.
- 2. NO WORK SHALL COMMENCE UNTIL TRAFFIC CONTROL REQUIREMENTS ARE MET AND APPROPRIATE PERMITS HAVE
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION.
- 4 WHEN REMOVING CURB AND GUTTER PAVEMENT OR ANY OTHER STRUCTURE THE CONTRACTOR SHALL TAKE EVERY PRECAUTION NECESSARY TO ENSURE THAT THERE WILL BE NO DAMAGE TO UNDERGROUND PUBLIC OR PRIVATE UTILITIES. UNDER NO CIRCUMSTANCES WILL THE USE OF A FROST BALL CONCRETE BREAKER BE ALLOWED.
- THE CONTRACTOR IS PROHIBITED FROM BURNING ANY MATERIAL WITHIN OR ADJACENT TO THE PROJECT LIMITS. ALL EXCESS OR WASTE MATERIAL SHALL BE EITHER HAULED AWAY FROM THE PROJECT SITE BY THE CONTRACTOR AND DEPOSITED AT LOCATIONS PROVIDED BY HIM, OR DISPOSED OF WITHIN THE RIGHT-OF-WAY IN A MANNER OTHER THAN BURNING, SUBJECT TO THE APPROVAL OF THE ENGINEER.
- THE ENGINEER AND ALL UTILITY COMPANIES, LOCAL POLICE, AND FIRE DEPARTMENTS SHALL BE NOTIFIED BY THE CONTRACTOR AT LEAST 72 HOURS PRIOR TO THE START OF CONSTRUCTION.

### PAVING, SHOULDERS, CURB & GUTTER AND SIDEWALK

- 1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE THICKNESS OF THE EXISTING PAVEMENT AND WHETHER OR NOT IT CONTAINS REINFORCEMENT
- 2. HOT-MIX ASPHALT BINDER SHALL NOT BE PLACED ADJACENT TO CURB AND GUTTER UNTIL THE CURB AND GUTTER HAS BEEN PROPERLY CURED AND BACKFILLED TO THE SATISFACTION OF THE ENGINEER.
- 3. HOT-MIX ASPHALT SURFACE COURSE SHALL NOT BE PLACED UNTIL ALL EARTH EXCAVATION AND TOPSOIL PLACEMENT HAVE BEEN COMPLETED TO THE SATISFACTION OF THE ENGINEER, AND THE HOX-MIX ASPHALT BINDER COURSE HAS BEEN COMPLETED PER SPECIFICATION.
- THE THICKNESSES OF HOT-MIX ASPHALT MIXTURES SHOWN ON THE PLANS ARE NOMINAL. DEVIATIONS MAY OCCUR DUE TO IRREGULARITIES IN THE SURFACE, BINDER, OR BASE UPON WHICH THE HOT-MIX ASPHALT MATERIALS ARE
- ALL SIDEWALK CONSTRUCTED OVER A UTILITY TRENCH SHALL BE REINFORCED WITH THREE #4 REBARS WHICH EXTEND 5 FEET BEYOND THE TRENCH WALLS. AT LOCATIONS WHERE THE SIDEWALK IS ADJACENT TO THE BACK OF CURB, A 1/2" PREFORMED EXPANSION JOINT FILLER SHALL BE INSTALLED BETWEEN THE CURB AND SIDEWALK.
- 6. THE MAXIMUM CROSS SLOPE AT ANY POINT IN THE TRAVERSABLE AREA OF THE SIDEWALK, INCLUDING THE AREAS THROUGH DRIVEWAYS, SHALL BE 2,00%. ALL AREAS OF NEW SIDEWALK THAT EXCEED THIS MAXIMUM SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR.

#### MISCELLANEOUS

- 1. THE CONTRACTOR SHALL NOT CROSS COMPLETED BINDER COURSE, OR EXISTING PAVEMENT NOT SCHEDULED TO BE REMOVED, WITH CONSTRUCTION EQUIPMENT WHICH MAY DAMAGE THE PAVEMENT.
- CONTRACTOR SHALL TAKE PRECAUTION BY PRESERVING EXISTING TREES WITHIN THE RIGHT OF WAY. IF ANY DAMAGE OCCURS, TREES SHALL BE REPLACED IN KIND PER ARTICLE 201.07 REPAIR OR REPLACEMENT OF EXISTING PLANT MATERIAL REQUIREMENTS STATED HEREIN.

#### STAKING

- THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL SECTION OR SUBSECTION MONUMENTS OR PROPERTY OR REFERENCE MARKERS UNTIL THE VILLAGE, ITS AGENT OR AN AUTHORIZED SURVEYOR HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATIONS.
- THE CONSTRUCTION BASELINE HAS BEEN ESTABLISHED FOR STAKING PURPOSES ONLY AND IS NOT INTENDED TO BE A CENTERLINE OF RIGHT-OF-WAY.
- 3. RIGHT OF WAY LINES ARE APPROXIMATE. CONTRACTOR SHALL VERIFY ANY POTENTIAL CONFLICTS WHEN APPLICABLE.

## SIDEWALK MAINTENANCE NOTES

THE SIDEWALK ON ONE SIDE OF THE STREET MUST REMAIN OPEN AND ACCESSIBLE AT ALL TIMES. SIGNING DIRECTING PEDESTRIANS TO THE OPEN SIDEWALK SHALL BE IN ACCORDANCE WITH IDOT HIGHWAY STANDARD 701801.

# COORDINATION

ALL CONTRACTOR'S EQUIPMENT STAGED INSIDE OR OUTSIDE OF THE WORKZONE SHALL NOT IMPEDE ACCESS TO ANY BUSINESS/RESIDENT DRIVEWAY. IF EQUIPMENT IS TO BE STAGED ON PRIVATE PROPERTY, WRITTEN CONSENT FROM THE PROPERTY OWNER SHALL BE ACQUIRED BY THE CONTRACTOR PRIOR TO USAGE WITH A COPY OF THE AGREEMENT PROVIDED TO THE VILLAGE.

#### UTILITIES

- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES. THE LOCATION OF PUBLIC OR PRIVATE UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE AND THE ENGINEER DOES NOT GUARANTEE THEIR ACCURACY.
- COORDINATION OF ANY UTILITY WORK INVOLVED IN THE CONSTRUCTION AREA WILL BE DISCUSSED AT THE PRECONSTRUCTION CONFERENCE,
- BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 1-800-892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, GAS, WATER, SEWER AND CABLE TELEVISION FACILITIES. (48 HOURS NOTIFICATION IS REQUIRED.)
- 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 UTILITY STRUCTURES SHALL BE FREE FROM DIRT AND DEBRIS.
- ANY EXISTING OR PROPOSED SEWER DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER AT NO COST TO THE VILLAGE

## SOIL EROSION AND SEDIMENT CONTROL NOTES

- UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS IN THE ILLINOIS URBAN MANUAL, LATEST EDITION.
- A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
- THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE ENGINEER AND/OR THE NCCSWCD.
- IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO INFORM ANY SUB-CONTRACTOR(S) WHO MAY PERFORM WORK ON THIS PROJECT OF THE REQUIREMENTS IN IMPLEMENTING AND MAINTAINING THESE EROSION CONTROL PLANS.
- WHERE WORK IS COMPLETE, PERMANENT STABILIZATION SHALL OCCUR WITHIN SEVEN (7) DAYS OF COMPLETION. WHERE WORK HAS TEMPORARILY CEASED FOR FOURTEEN (14) DAYS OR MORE, TEMPORARY STABILIZATION SHALL OCCUR BY THE SEVENTH DAY AFTER WORK HAS CEASED.
- ALL ADJACENT STREETS AND PARKING LOTS MUST BE KEPT CLEAR OF DEBRIS, INSPECTED DAILY, AND CLEANED
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH ALL GENERAL AND SPECIAL REQUIREMENTS, CONDITIONS AND PROVISIONS FOR ALL APPLICABLE LOCAL, STATE, AND FEDERAL PERMITS ISSUED FOR THIS PROJECT.
- 8. NO STOCKPILING WILL BE ALLOWED ON THE PROJECT SITE.
- 9. INLET FILTERS SHALL BE PLACED ON ALL OPEN LID STRUCTURES.

#### MAINTENANCE OF TRAFFIC GENERAL NOTES

- TRAFFIC CONTROL DEPICTED IN THE APPLICABLE IDOT AND DISTRICT ONE DETAILS AND STANDARDS ARE THE MINIMUM REQUIREMENTS. OTHER WORK OR SIGNING MAY BE REQUIRED BY THE ENGINEER. TRAFFIC CONTROL AND PROTECTION SHALL BE PERFORMED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS, DIVISION 700; APPLICABLE GUIDELINES IN THE ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS; AND APPLICABLE HIGHWAY STANDARDS FOR TRAFFIC CONTROL, UNLESS HEREIN REVISED.
- THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND TRAFFIC CONTROL DEVICES SHALL FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER,
- ALL CONSTRUCTION WARNING SIGNS SHALL HAVE FLUORESCENT ORANGE BACKGROUNDS.
- ALL SIGNS, OTHER THAN THOSE WHICH WILL FREQUENTLY BE TURNED, RELOCATED OR COVERED, SHALL BE MOUNTED ON METAL POSTS, 7 FEET ABOVE THE EXISTING GROUND AND DRIVEN A MINIMUM OF 3 FEET INTO THE GROUND. A J.U.L.I.E. LOCATE SHALL BE PERFORMED PRIOR TO THE INSTALLATION OF THE POSTS.
- DRUMS EQUIPPED WITH ONE-WAY FLASHING LIGHTS WILL BE REQUIRED AT ALL OPEN TRENCHES, EXCAVATIONS, OPEN OR EXPOSED SEWER STRUCTURES, AND AT ANY OTHER LOCATIONS DESIGNATED BY THE ENGINEER OR LAW ENFORCEMENT AGENCIES. BARRICADES SHALL BE PLACED AT 50' CENTERS ALONG TANGENTS, 20' CENTERS ALONG TAPERS, AND 10' CENTERS IN CURVES AND RADII.
- DRUMS AND BARRICADES SHALL MEET THE REQUIREMENTS OF THE NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM (NCHRP) REPORT 350 AND THE SPECIAL PROVISION "WORK ZONE TRAFFIC CONTROL DEVICES".
- THE FIRST WARNING SIGNS IN EACH DIRECTION OF TRAVEL SHALL BE EQUIPPED WITH MONO-DIRECTIONAL AMBER FLASHING LIGHTS DURING HOURS OF DARKNESS. FLAGS ARE OPTIONAL
- EXISTING TRAFFIC CONTROL DEVICES ARE TO BE PROTECTED FROM DAMAGE BY THE CONTACTOR. ANY DAMAGE CAUSED BY HIS WORK SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER.
- W21-1 "WORKERS" SIGNS SHALL ONLY BE ERECTED WHEN WORKERS ARE PRESENT. WORKERS SIGNS MUST BE COVERED OR REMOVED WHEN NO WORKERS ARE PRESENT.
- 10. "FRESH OIL" SIGNS (W21-2-48) WITH DATE SIGNS SHALL BE ERECTED 48 HOURS PRIOR TO PRIMING.
- 11. DURING CONSTRUCTION OF PROPOSED IMPROVEMENTS ALONG COOK COUNTY HIGHWAYS, TWO-WAY TRAFFIC SHALL REMAIN OPEN FOR ALL TRAFFIC AT ALL TIMES. IF ANY ACTIVITY REQUIRES ENCROACHMENT INTO A LANE OPEN FOR TRAFFIC, THAT ACTIVITY SHALL BE RESTRICTED TO WITHIN THE HOURS OF 9:00 AM TO 3:00 PM FOLLOWING THE APPLICABLE IDOT AND DISTRICT ONE TRAFFIC CONTROL STANDARDS INCLUDED IN THE PLANS FOR OFF-ROAD AND ON-ROAD APPLICATIONS
- 12. IF ANY EXISTING PAVEMENT MARKING AND/OR SIGNING ALONG COOK COUNTY ROADWAYS IS DAMAGED DUE TO CONSTRUCTION OF PROPOSED IMPROVEMENTS, THE CONTRACTOR SHALL REPLACE THE DAMAGED TRAFFIC CONTROL DEVICES TO THE SATISFACTION OF COOK COUNTY PER IDOT AND DISTRICT ONE STANDARDS FOR TRAFFIC CONTROL DEVICES, PAVEMENT MARKING, AND SIGNAGE INCLUDED IN THE PLANS.

Engineering Enterprises, Inc. CONSULTING ENGINEERS ugar Grove, Illinois 60554 630 466 6700 / www.eeiweb.cor

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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION **DEVON AVENUE AND IL RTE 83 (BUSSE ROAD)** INDEX OF SHEETS, GENERAL & MOT NOTES

OF 1 SHEETS STA

SECTION COUNTY 21-000<u>7</u>5-00-RS COOK 49 2 CONTRACT NO. 61J34

# \*SEE SPECIAL PROVISIONS #SPECIALTY ITEM

Spty.	SP	CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY ROADWAY 75% STP-L 25% LA 00005	TOTAL QUANTIT TRAINEES 75% STP-L 25% LA 0042
		20200100	EARTH EXCAVATION	CU YD	18	
		20400800	FURNISHED EXCAVATION	CUYD	237	
		21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	808	
		25200110	SODDING, SALT TOLERANT	SQ YD	808	
		25200200	SUPPLEMENTAL WATERING	UNIT	41	L. C. Dauguming all Marin Habitan
		28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	17	
		28000400	PERIMETER EROSION BARRIER	FOOT	631	
		28000510	INLET FILTERS	EACH	42	
		31101180	SUBBASE GRANULAR MATERIAL, TYPE B 2"	SQ YD	573	
		40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	10155	
		40600370	LONGITUDINAL JOINT SEALANT	FOOT	6186	
	*	40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	166	
		40603085	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	TON	1576	
	*	40603200	POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, IL-4.75, N50	TON	344	
		40604062	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N70	TON	921	
			POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX ASPHALT, 12.5, MIX "F", N80	TON	679	
		42400410	PORTLAND CEMENT CONCRETE SIDEWALK 8 INCH	SQ FT	60	
		44000100	PAVEMENT REMOVAL	\$Q YD	10	
		44000600	SIDEWALK REMOVAL	SQFT	1910	
		44200966	CLASS B PATCHES, TYPE I, 10 INCH	SQYD	753	

COT DATE - 2/20/26/3 H CODEL SMODELRAMES ILE NAME: HASDSKP-076GV

Engineering Enterprises, Inc.
CONSULTING ENGINEERS
52 Wheeler Rood
Sugar Crove, Islinois 60554
630.466.6700 / www.eelweb.com
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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

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# \*SEE SPECIAL PROVISIONS #SPECIALTY ITEM

					TOTAL QUANTITY TOTAL QUANTITY		
Spty.	SP	CODE NUMBER	ITEM DESCRIPTION	UNIT	ROADWAY 75% STP-L 25% LA 00005	TRAINEES 75% STP-L 25% LA 0042	
		44200970	CLASS B PATCHES, TYPE II, 10 INCH	SQ YD	753	·	
	*	56400040	NATED VALVES TO DE ABUSTO				
	-	56109210	WATER VALVES TO BE ADJUSTED	EACH	4		
#	*	66900200	NON-SPECIAL WASTE DISPOSAL	CUYD	40		
#	*	66900530	SOIL DISPOSAL ANALYSIS	EACH	4		
#	*	66901001	REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN	LSUM	1		
#	*	66901003	REGULATED SUBSTANCES FINAL CONSTRUCTION REPORT	LSUM	1		
#	*	66901006	REGULATED SUBSTANCES MONITORING	CAL DA	50		
		67100100	MOBILIZATION	L SUM	1		
		70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	1		
		70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1		
		70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1		
		X7010237	CHANGEABLE MESSAGE SIGN (SPECIAL)	CAL DA	240		
		70300100	SHORT TERM PAVEMENT MARKING	FOOT	2715		
		70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	2053		
		70306100	TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS - TYPE III TAPE	SQ FT	1208		
		70306120	TEMPORARY PAVEMENT MARKING - LINE 4" - TYPE III TAPE	FOOT	607		
		70306130	TEMPORARY PAVEMENT MARKING - LINE 6" - TYPE III TAPE	FOOT	1971		
		70306210	TEMPORARY PAVEMENT MARKING - LINE 24"- TYPE III TAPE	FOOT	295		
#		78009000	MODIFIED URETHANE PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	604		
#		78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	6376	4444	

P.O. DATE - 220/2623 1:47:26 FM
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Engineering Enterprises, Inc.
CONSULTING ENGINEERS
52 Wheeler Road
Sugar Grove, Illinois 60554
630.466.6700 / www.eelweb.com

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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

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RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.						
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# \*SEE SPECIAL PROVISIONS **#SPECIALTY ITEM**

Spty.	SP	CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY ROADWAY 75% STP-L 25% LA. 0005	TOTAL QUANTIT TRAINEES 75% STP-L 25% LA 0042
#		78009006	MODIFIED URETHANE PAVEMENT MARKING - LINE 6"	FOOT	1971	0042
#		78009012	MODIFIED URETHANE PAVEMENT MARKING - LINE 12"	FOOT	1157	
#		78009024	MODIFIED URETHANE PAVEMENT MARKING - LINE 24"	FOOT	295	
#		78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	82	
		78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	82	
ł		81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	93	
#	*	85000200	MAINTFNANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1	
#		87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	892	
#		87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 61C	FOOT	153	
#	-	87900200	DRILL EXISTING HANDHOLE	EACH	4	
‡	*	88600600	DETECTOR LOOP REPLACEMENT	FOOT	510	
#	*	89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	4	
	*	X1700112	BRICK PAVER REMOVAL	SQ FT	220	
	.*	X2130010	EXPLORATION TRENCH, (SPECIAL)	FOOT	60	
	*	X4240430	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH, SPECIAL	SQ FT	5154	
	*	X4240800	DETECTABLE WARNINGS (SPECIAL)	SQ FT	112	
	*		COMBINATION CURB AND GUTTER REMOVAL AND REPLACEMENT LESS THAN OR EQUAL TO 10 FEET	FOOT	39	
	*		COMBINATION CURB AND GUTTER REMOVAL AND REPLACEMENT GREATER THAN 10 FEET	FOOT	510	
	*	X4401198	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SQ YD	15044	
	*	X6025300	CATCH BASINS TO BE ADJUSTED (SPECIAL)	EACH	2	

Engineering Enterprises, Inc. USER NAME - CONSULTING ENGINEERS 52 Wheeler Road Sugar Grove, Illinois 60554 630.466.6700 / www.eelwab.com PLOT DATE -

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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

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COUNTY TOTAL SHEET NO.
COOK 47 5 SECTION 1346 21-000<u>7</u>5-00-RS CONTRACT NO. 61/34

# \*SEE SPECIAL PROVISIONS

**#SPECIALTY ITEM** 

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O BE ADJUSTED (SPECIAL)  TE SIGN PANEL AND POST  N BOX TO BE ADJUSTED  BLE PEDESTRIAN SIGNALS	EACH EACH EACH	12	
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N BOX TO BE ADJUSTED  BLE PEDESTRIAN SIGNALS	EACH		
BLE PEDESTRIAN SIGNALS		3	
	54.511		
EXISTING CONTROLLER AND CABINET	EACH	8	
	EACH	1	
TER REMOVAL	EACH	1	
AND RELOCATE LAWN SPRINKLER SYSTEM	FOOT	500	
JCTION LAYOUT	LSUM	1	
D GROUT BARS	EACH	228	
ARY INFORMATION SIGNING	SQ FT	103	
AIZE TRAFFIC SIGNAL SYSTEM LEVEL 1	EACH	1	
L TRANSFER DEVICE	TON	679	
	HOUR		500
S TRAINING PROGRAM GRADUATE	HOUR		500
	S TRAINING PROGRAM GRADUATE	S TRAINING PROGRAM GRADUATE HOUR	S TRAINING PROGRAM GRADUATE HOUR  HOUR  HOUR  HOUR

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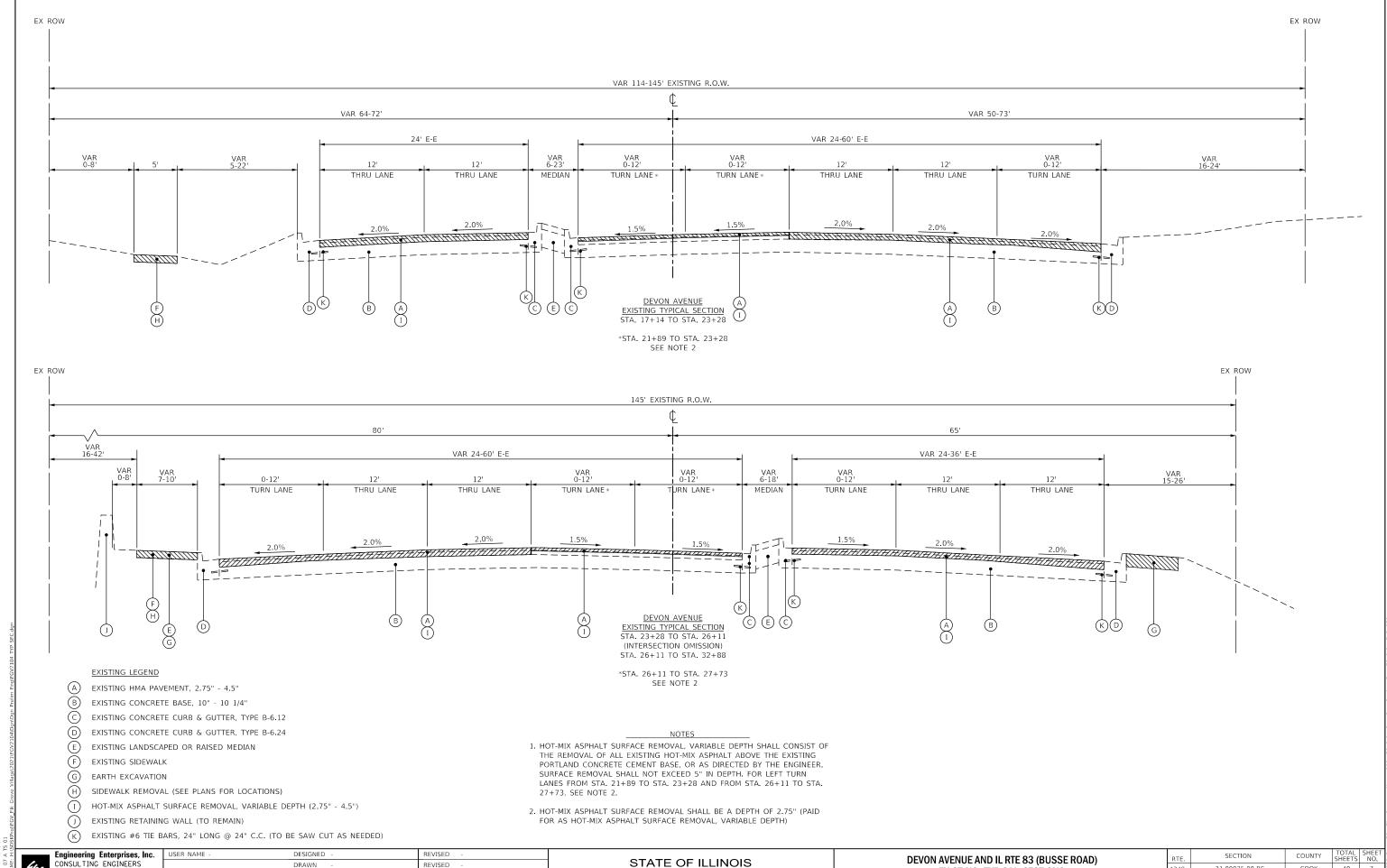
Engineering Enterprises, Inc.

CONSULTING ENGINEERS
52 Wheeler Road
Sugar Grave, Illinois 60554
630.466.6700 / www.eelweb.com PLOT DATE -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

	DEVON AVI		ID IL RTE Y of Qu		
SCALE; N.T.S.	SHEET 4	OF 4	SHEETS	STA.	TO STA.

E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.					
46	21-000 <u>7</u> 5-00-RS	COOK	47	6					
	CONTRACT NO. 61/34								
JURIOIS FED AID PROJECT									



DEPARTMENT OF TRANSPORTATION

21-000<u>7</u>5-00-RS

**EXISTING TYPICAL SECTIONS** 

TO STA. 32+88

SHEET 1 OF 2 SHEETS STA. 17+14

COOK 49

CONTRACT NO. 61J34

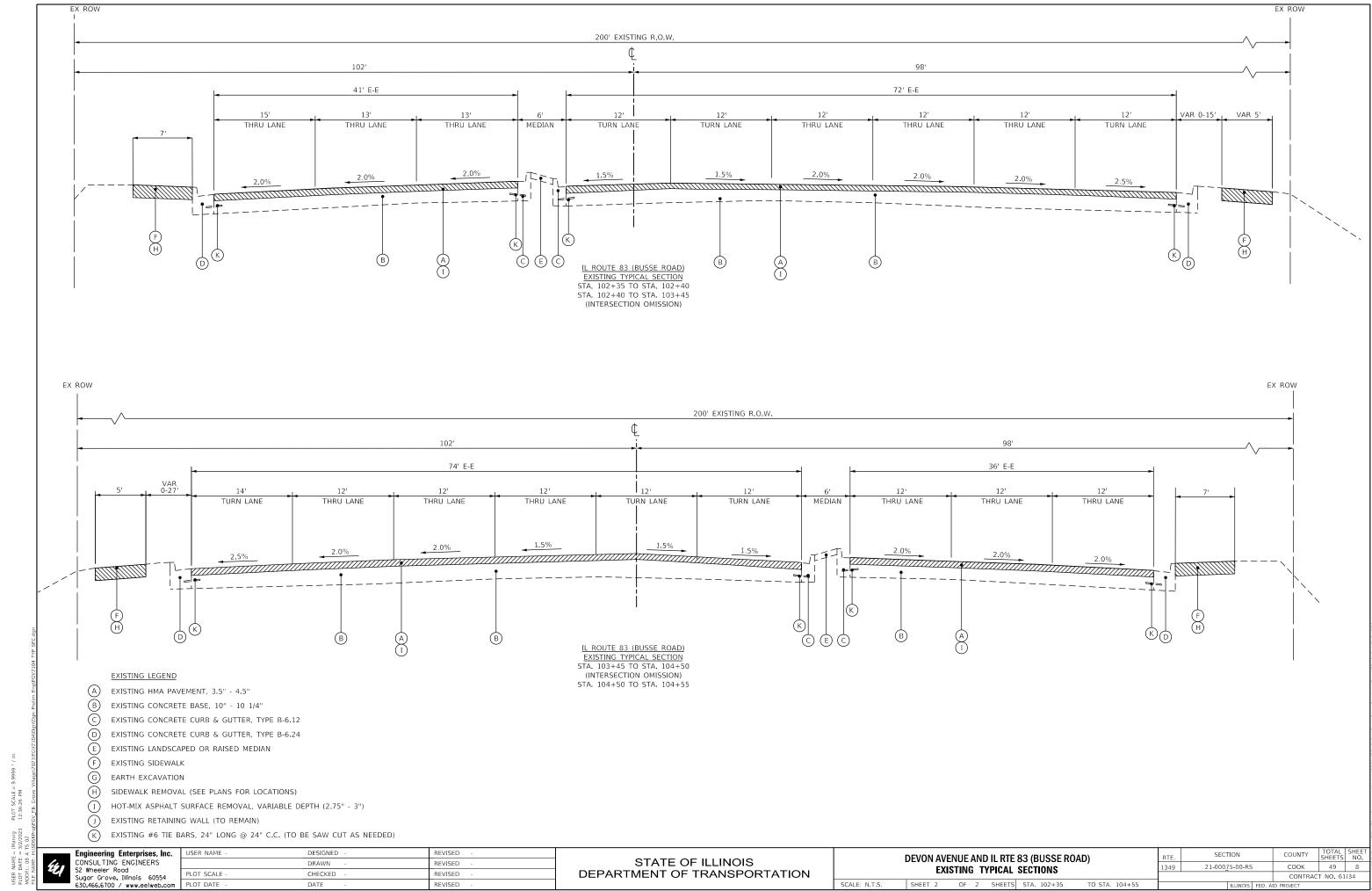
REVISED

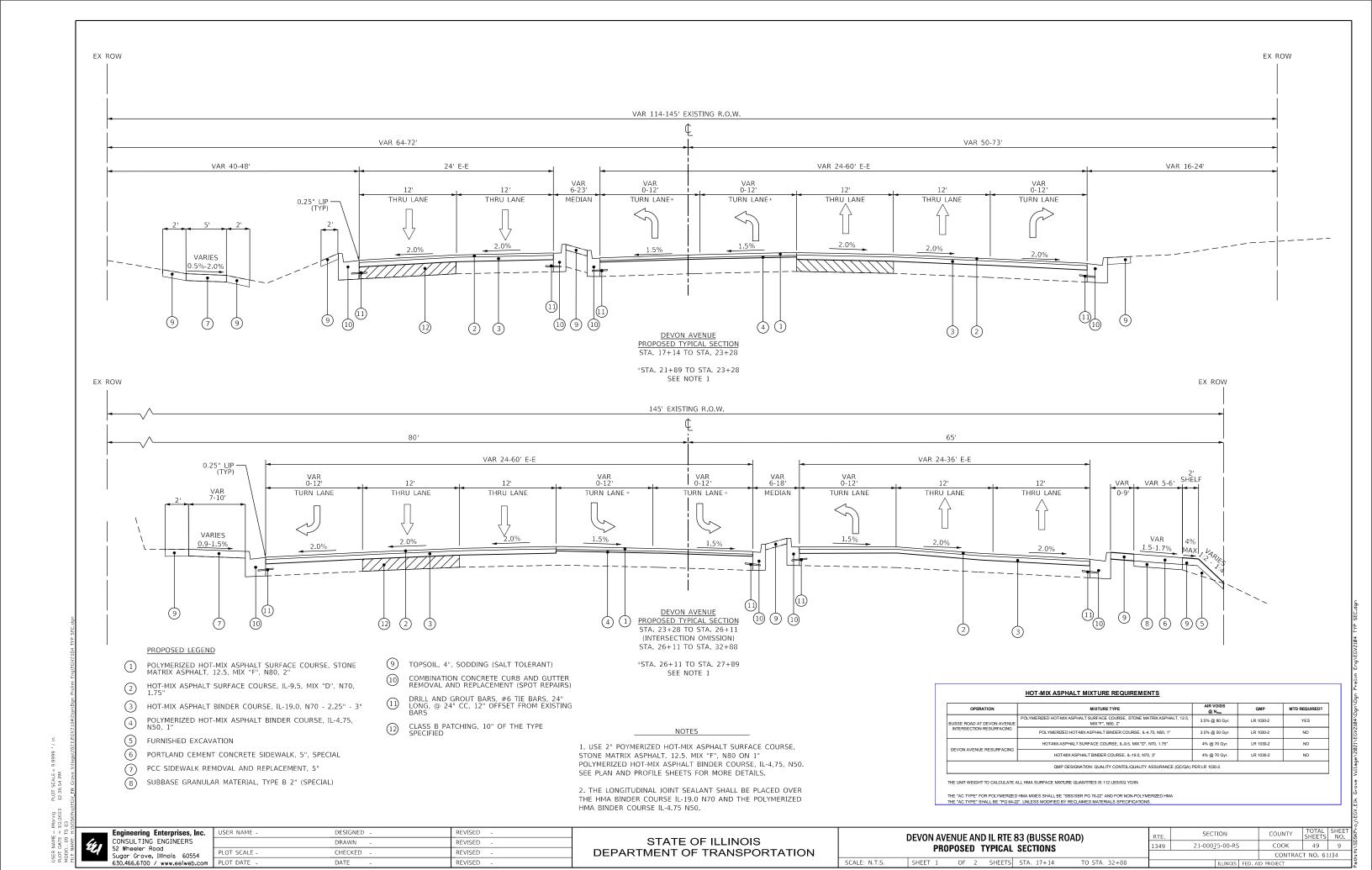
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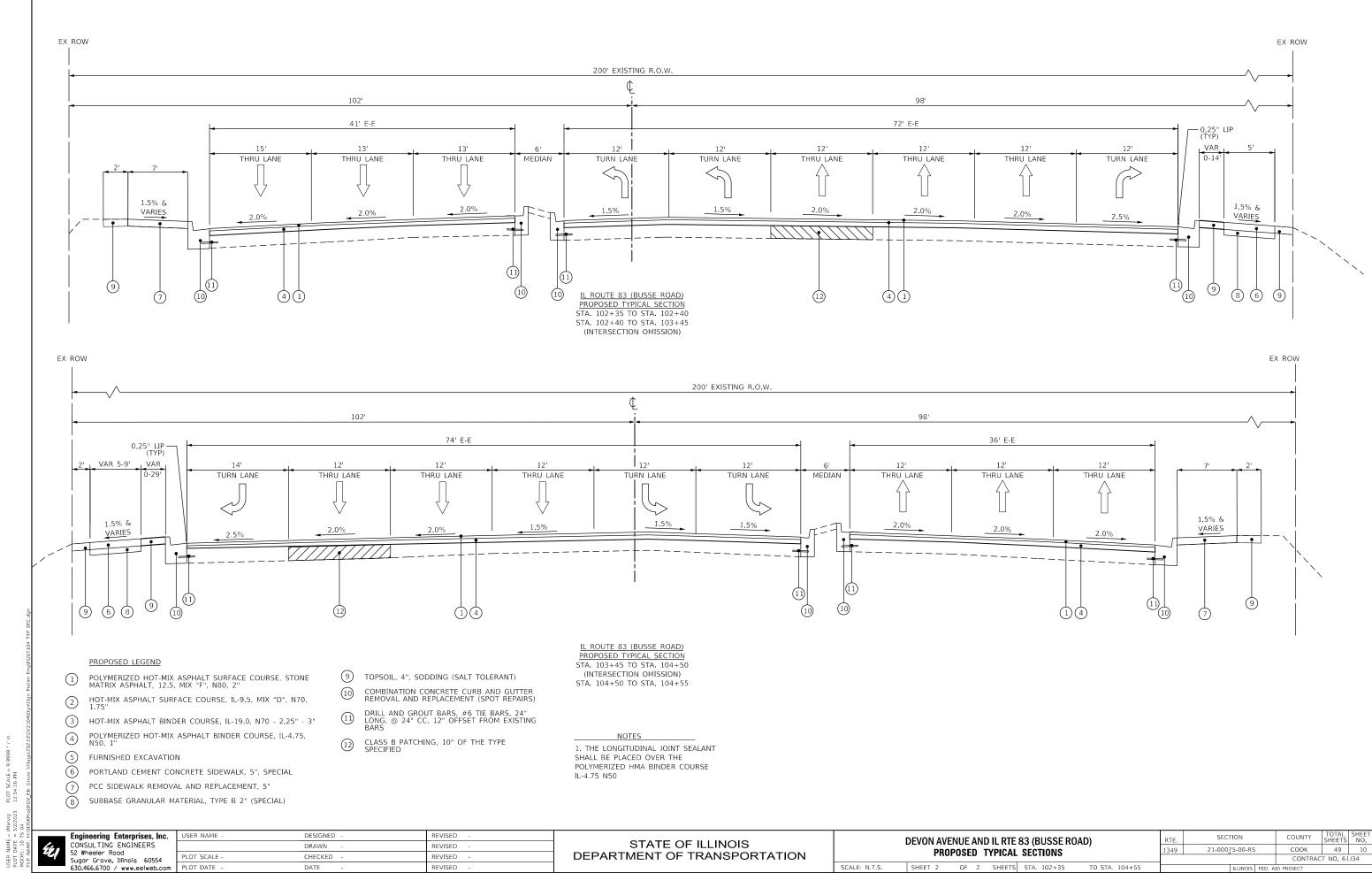
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52 Wheeler Road Sugar Grove, Illinois 60554 630.466.6700 / www.eeiweb.com

PLOT DATE







CONTRACT NO. 61J34

SHEET 2 OF 2 SHEETS STA. 102+35

TO STA. 104+55

REVISED

BENCHMARK 1

FIRE HYDRANT AT THE SW CORNER OF DEVON AND SPRUCE.

SW ARROW BOLT ELEV. = 672.76

BENCHMARK 2

FIRE HYDRANT AT THE SE COERNER DEVON AND BUSSE

WEST ARROW BOLT ELEV. = 675.80

BENCHMARK 3

FIRE HYDRANT AT THE SW CORNER OF DEVON AND CENTER POINT BUSINESS CENTER ENTRANCE

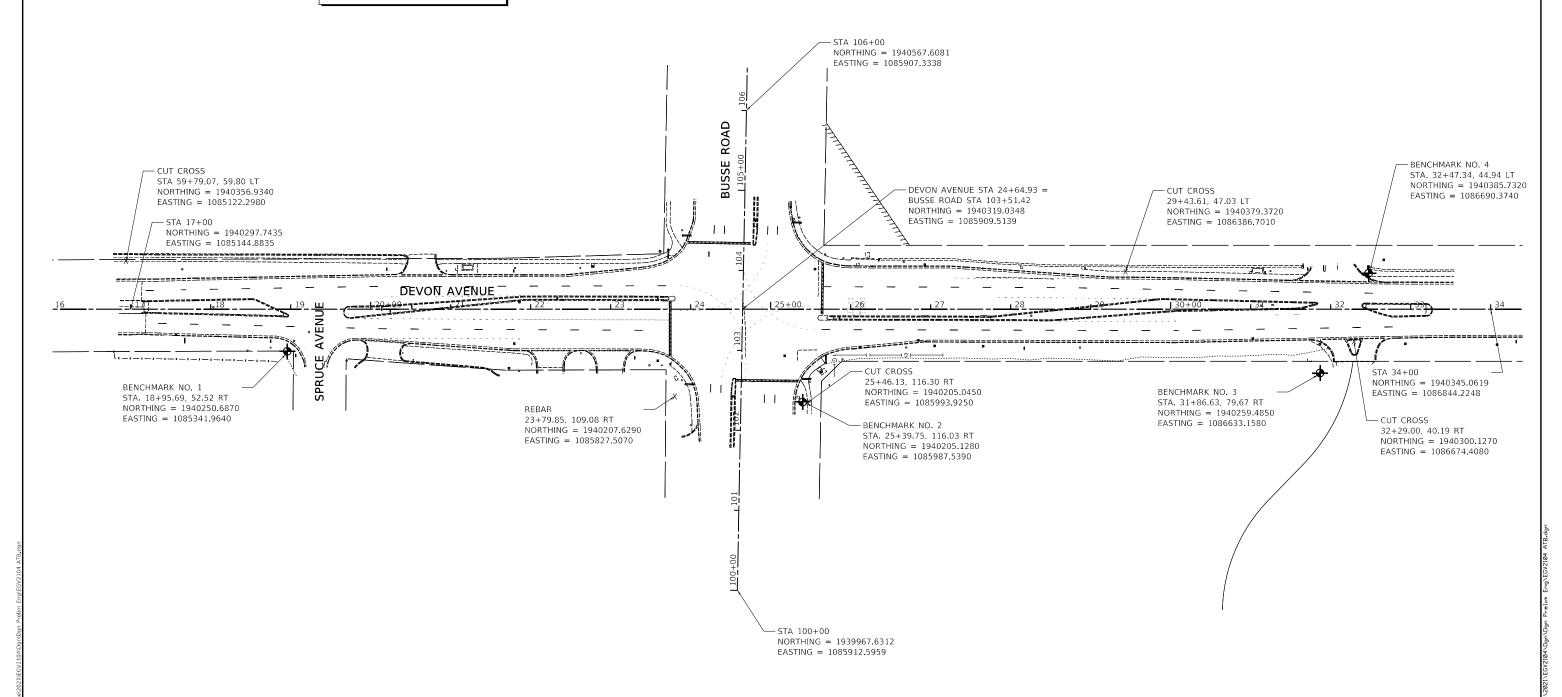
SW ARROW-BOLT ELEV. = 674.67

BENCHMARK 4

FIRE HYDRANT 750 FEET EAST OF BUSSE ROAD AT THE NE CORNER OF DEVON AND PLANT ENTRANCE NORTH SIDE OF DEVON.

N ARROW-BOLT ELEV. = 675.44

0 60 120 180
SCALE IN FEET



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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DEVON AVENUE AND IL RTE 83 (BUSSE ROAD)
ALIGNMENT, TIES, AND BENCHMARKS

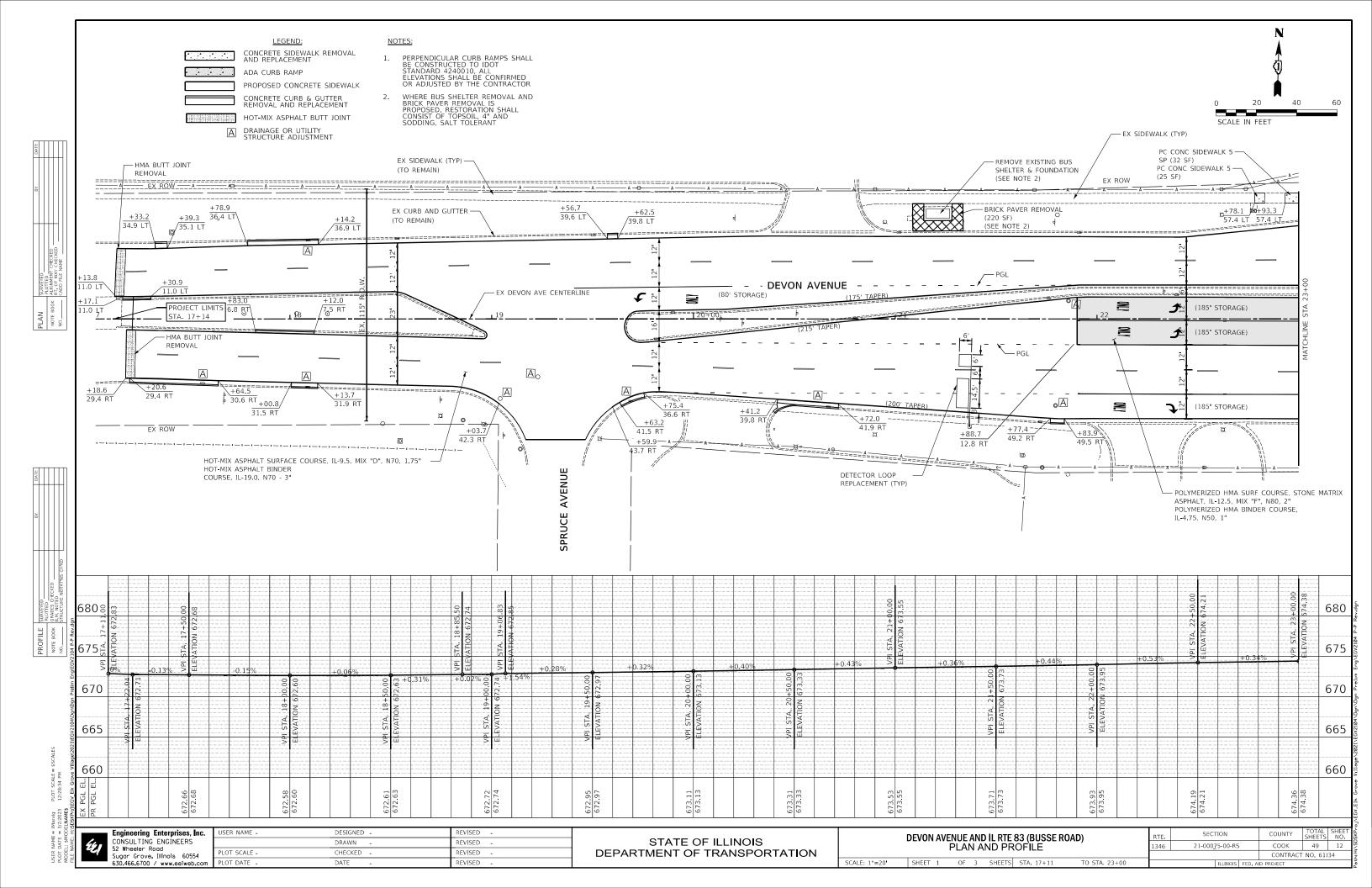
SHEET 1 OF 1 SHEETS STA. TO STA

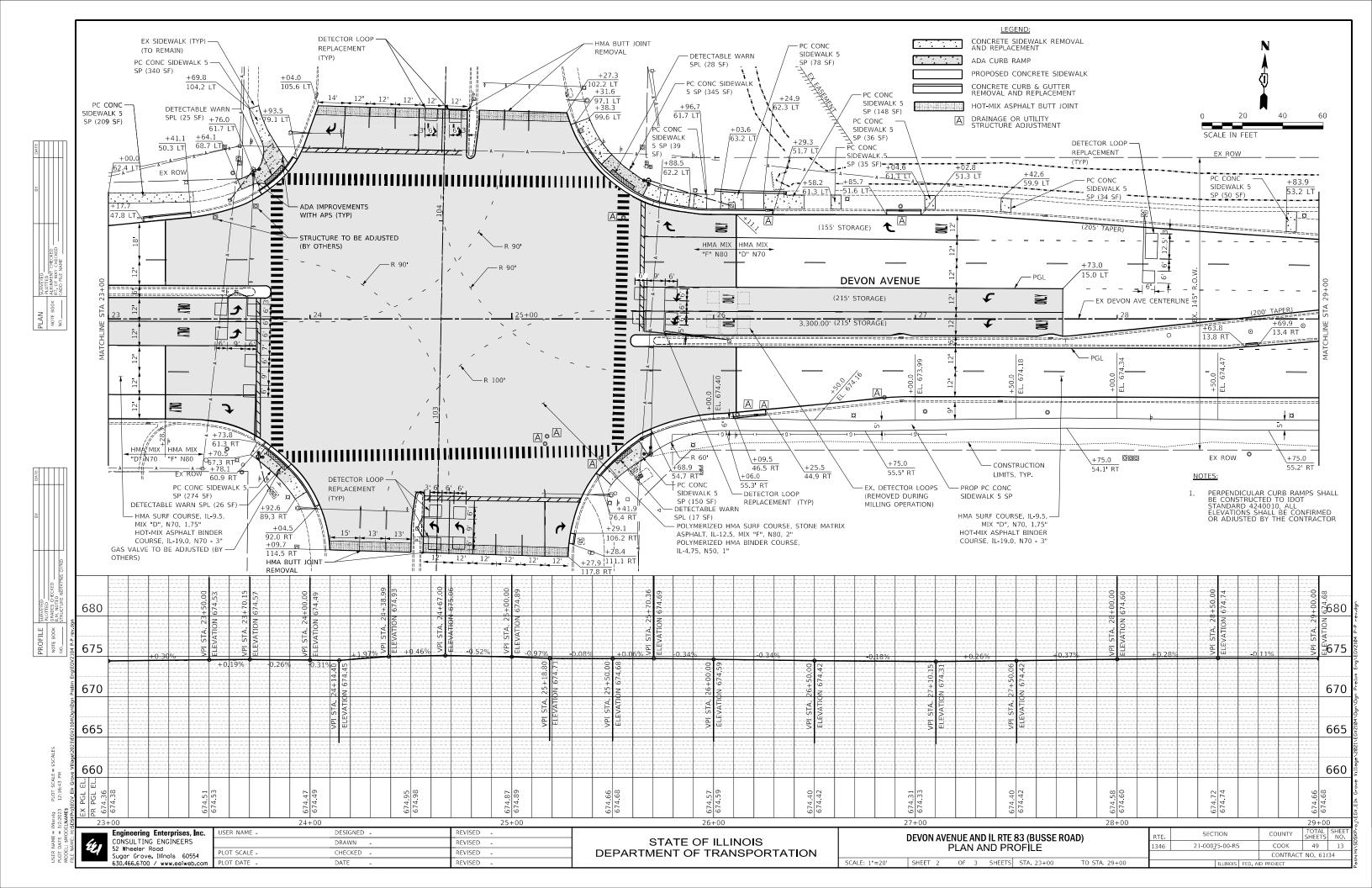
SCALE:1" = 60'

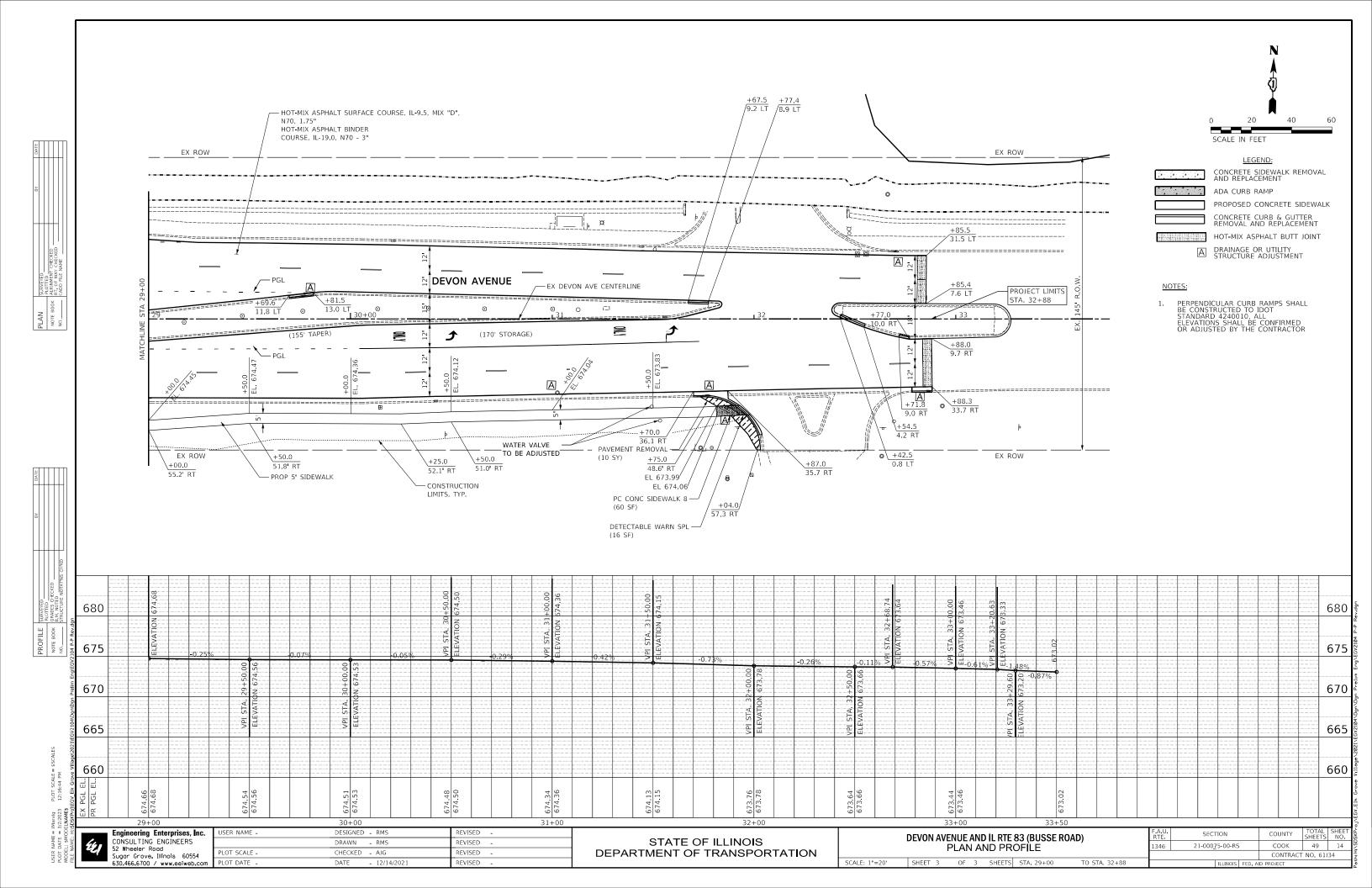
 RTE.
 SECTION
 COUNTY
 TOTAL SHEETS NO.
 SHEETS NO.

 1346
 21-00075-00-RS
 COOK
 49
 11

 CONTRACT NO. 61J34







52 Wheeler Road Sugar Grove, Illinois 60554 630.466.6700 / www.eeiweb.com

PLOT SCALE -CHECKED -REVISED

**DEPARTMENT OF TRANSPORTATION** 

SCALE: 1" = 20' SHEET 1 OF 3 SHEETS STA. 17+14 TO STA. 23+00

+06.8

COOK 49 15 CONTRACT NO. 61J34

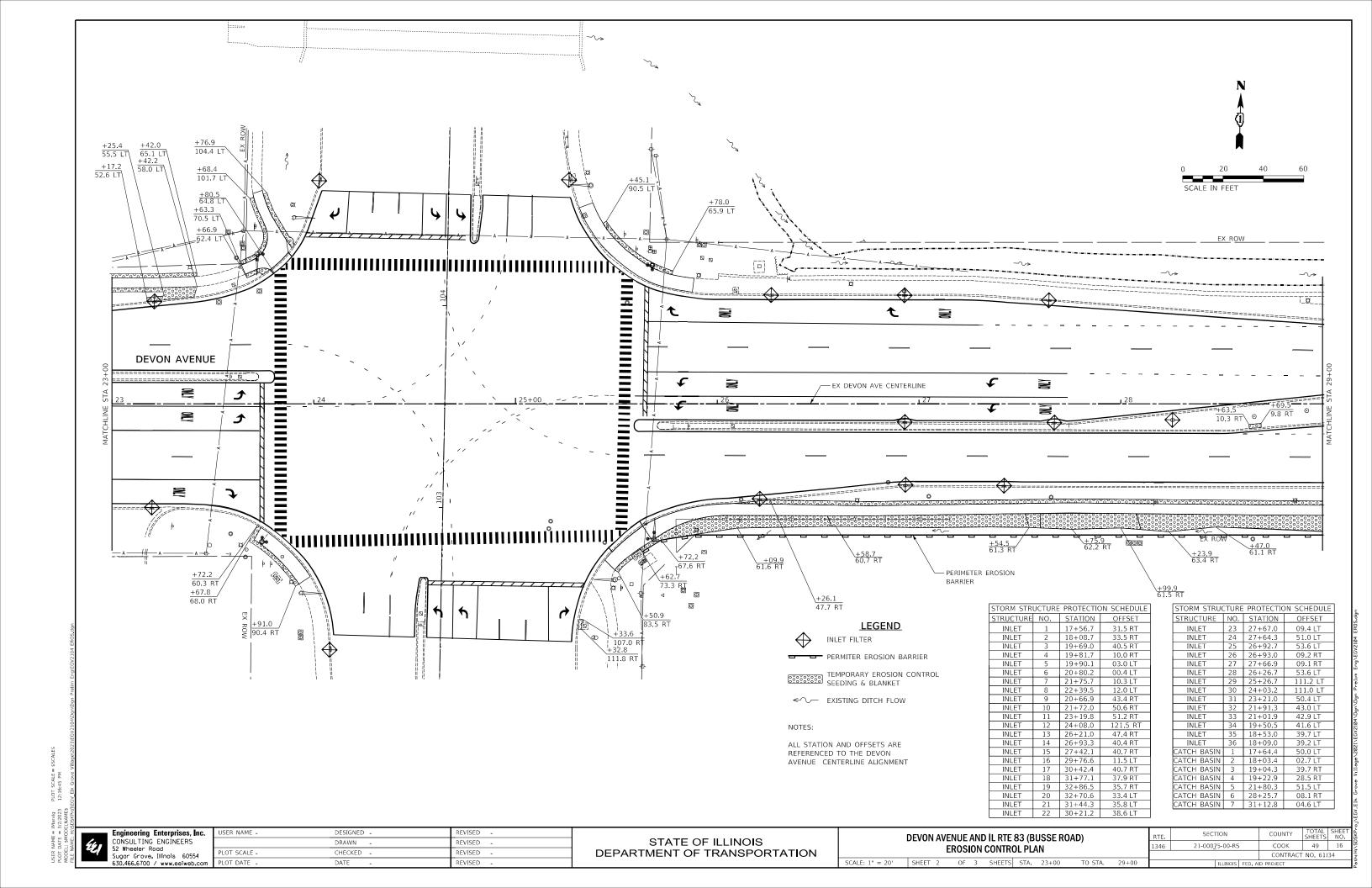
SCALE IN FEET

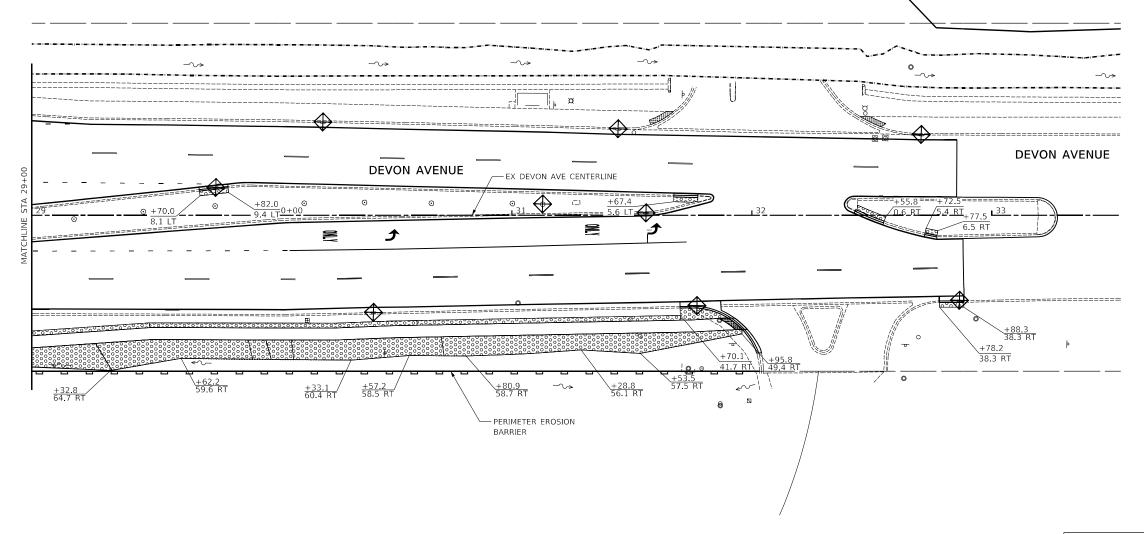
64.4 LT +83.2

64.4 LT +78.2

64.3 LT

+93.2 55.4 LT





# **LEGEND**

INLET FILTER

PERMITER EROSION BARRIER

TEMPORARY EROSION CONTROL SEEDING & BLANKET

← EXISTING DITCH FLOW

NOTES:

ALL STATION AND OFFSETS ARE REFERENCED TO THE DEVON AVENUE CENTERLINE ALIGNMENT

STORM STR	UCTURE	PROTECTIO	ON SCHEDULE
STRUCTURE	NO.	STATION	OFFSET
INLET	1	17+56.7	31.5 RT
INLET	2	18+08.7	33.5 RT
INLET	3	19+69.0	40.5 RT
INLET	4	19+81.7	10.0 RT
INLET	5	19+90.1	03.0 LT
INLET	6	20+80.2	00.4 LT
INLET	7	21+75.7	10.3 LT
INLET	8	22+39.5	12.0 LT
INLET	9	20+66.9	43.4 RT
INLET	10	21+72.0	50.6 RT
INLET	11	23+19.8	51.2 RT
INLET	12	24+08.0	121.5 RT
INLET	13	26+21.0	47.4 RT
INLET	14	26+93.3	40.4 RT
INLET	15	27+42.1	40.7 RT
INLET	16	29+76.6	11.5 LT
INLET	17	30+42.4	40.7 RT
INLET	18	31+77.1	37.9 RT
INLET	19	32+86.5	35.7 RT
INLET	20	32+70.6	33.4 LT
INLET	21	31+44.3	35.8 LT
INLET	22	30+21.2	38.6 LT

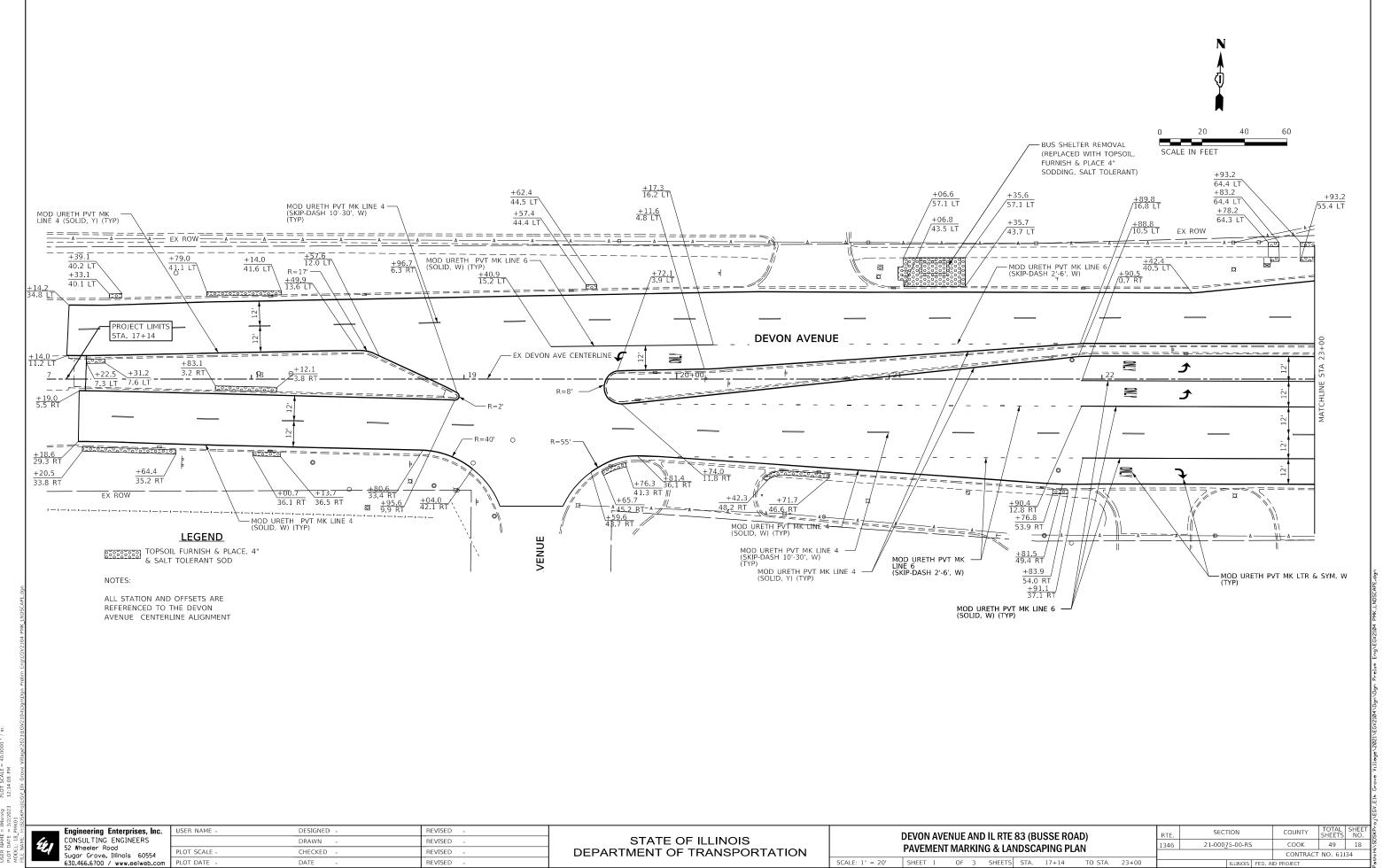
STORM STRU	CTURE	PROTECTION	ON SCHEDULE
STRUCTURE	NO.	STATION	OFFSET
INLET	23	27+67.0	09.4 LT
INLET	24	27+64.3	51.0 LT
INLET	25	26+92.7	53.6 LT
INLET	26	26+93.0	09.2 RT
INLET	27	27+66.9	09.1 RT
INLET	28	26+26.7	53.6 LT
INLET	29	25+26.7	111.2 LT
INLET	30	24+03.2	111.0 LT
INLET	31	23+21.0	50.4 LT
INLET	32	21+91.3	43.0 LT
INLET	33	21+01.9	42.9 LT
INLET	34	19+50.5	41.6 LT
INLET	35	18+53.0	39.7 LT
INLET	36	18+09.0	39.2 LT
CATCH BASIN	1	17+64.4	50.0 LT
CATCH BASIN	2	18+03.4	02.7 LT
CATCH BASIN	3	19+04.3	39.7 RT
CATCH BASIN	4	19+22.9	28.5 RT
CATCH BASIN	5	21+80.3	51.5 LT
CATCH BASIN	6	28+25.7	08.1 RT
CATCH BASIN	7	31+12.8	04.6 LT

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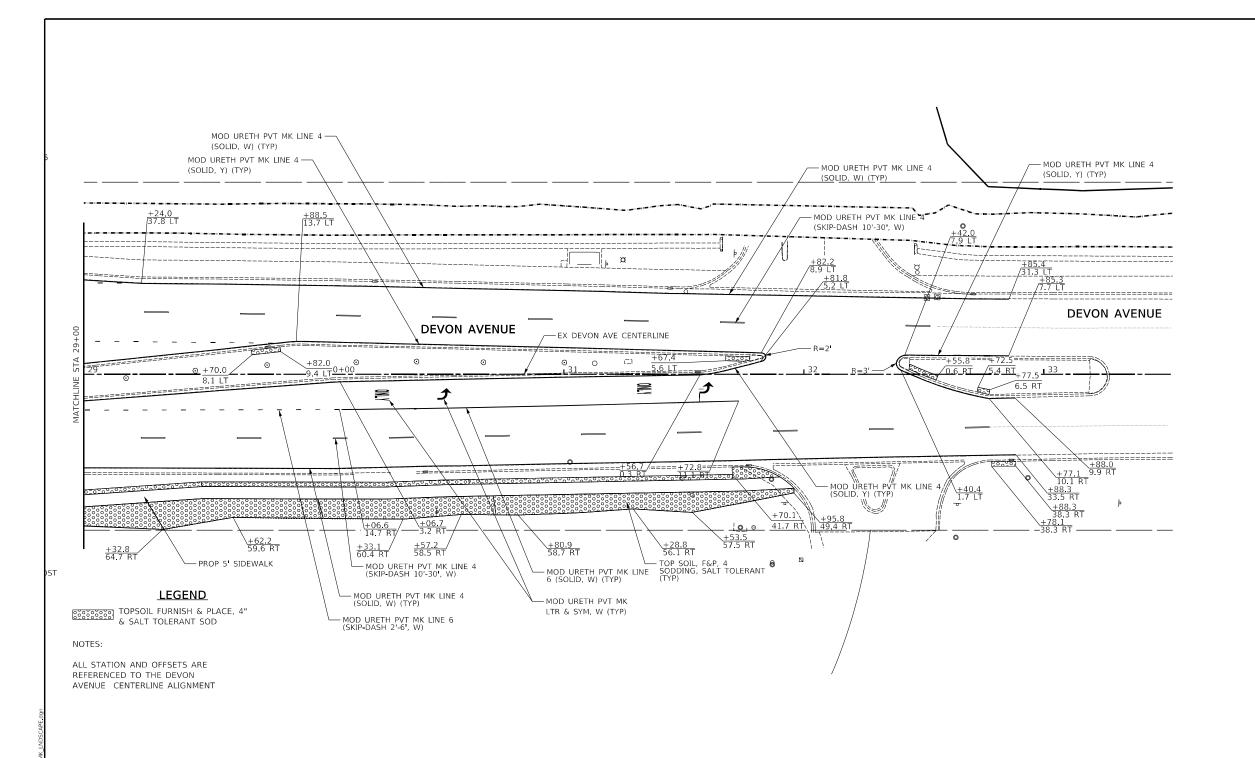
USER NAME -	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE -	CHECKED -	REVISED -
PLOT DATE -	DATE -	REVISED -

	SECT	TON		COUNTY	TOTAL SHEETS	SHEE NO.
6	21-000 <u>7</u> 5-00-RS		COOK	49	17	
				CONTRACT	NO. 61J	34
		ILLINOIS	FED. A	ID PROJECT		



SCALE: 1" = 20' SHEET 1 OF 3 SHEETS STA. 17+14 TO STA. 23+00

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SCALE IN FEET

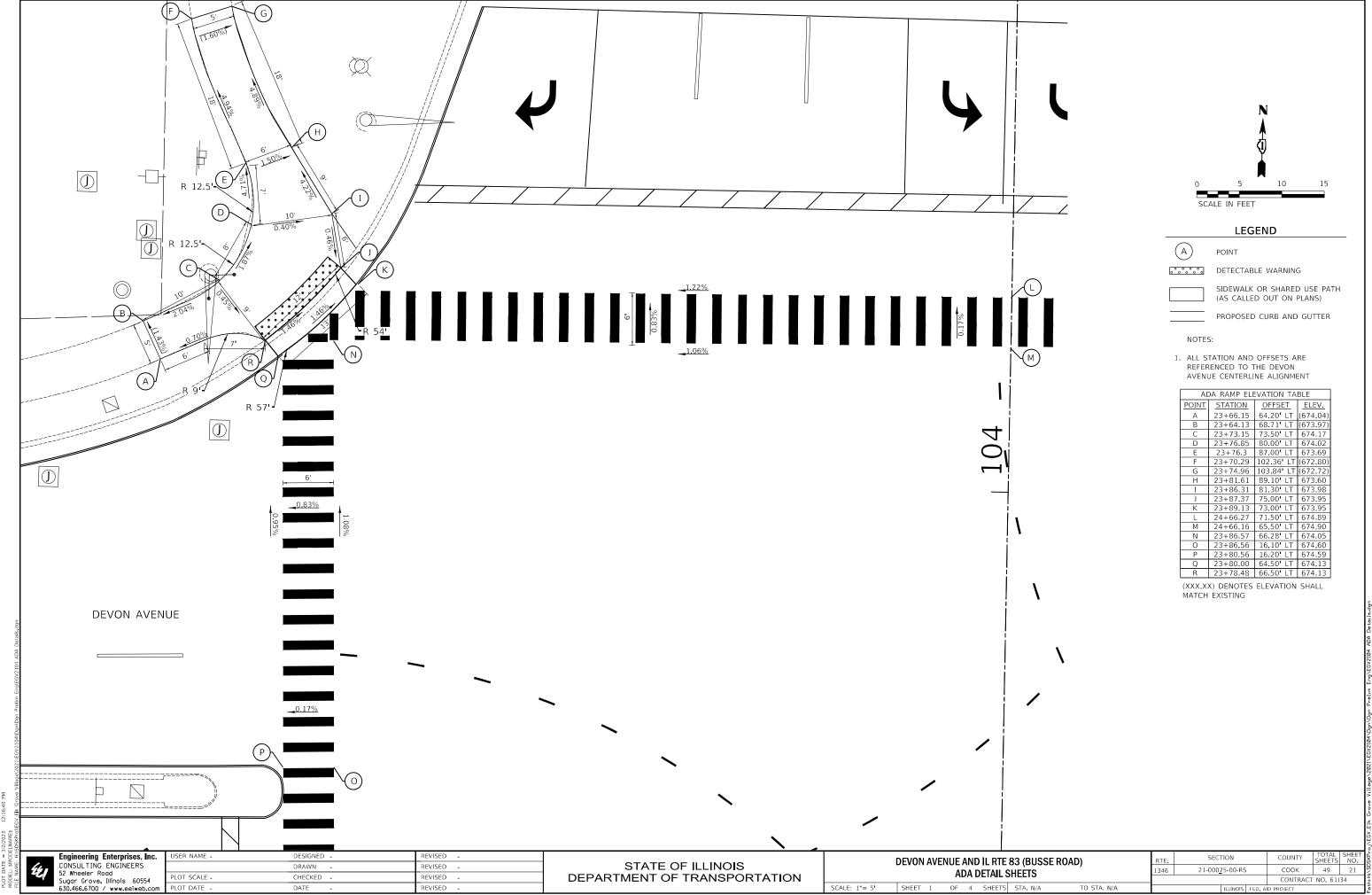
Engineering Enterprises, Inc. CONSULTING ENGINEERS 52 Wheeler Road Sugar Grove, Illinois 60554 630.466.6700 / www.eeiweb.com

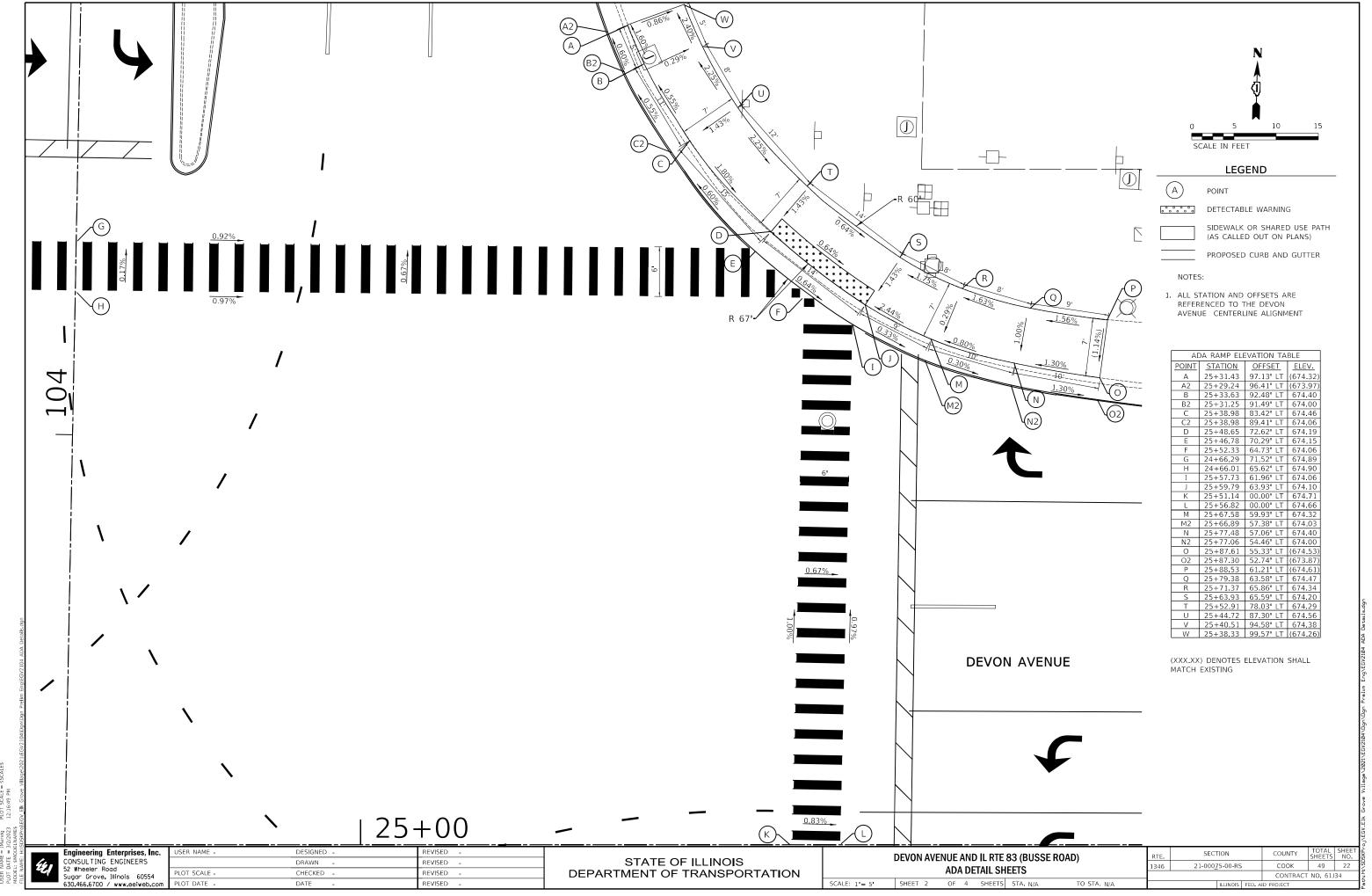
USER NAME -	DESIGNED -	REVISED -
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PLOT DATE -	DATE -	REVISED -

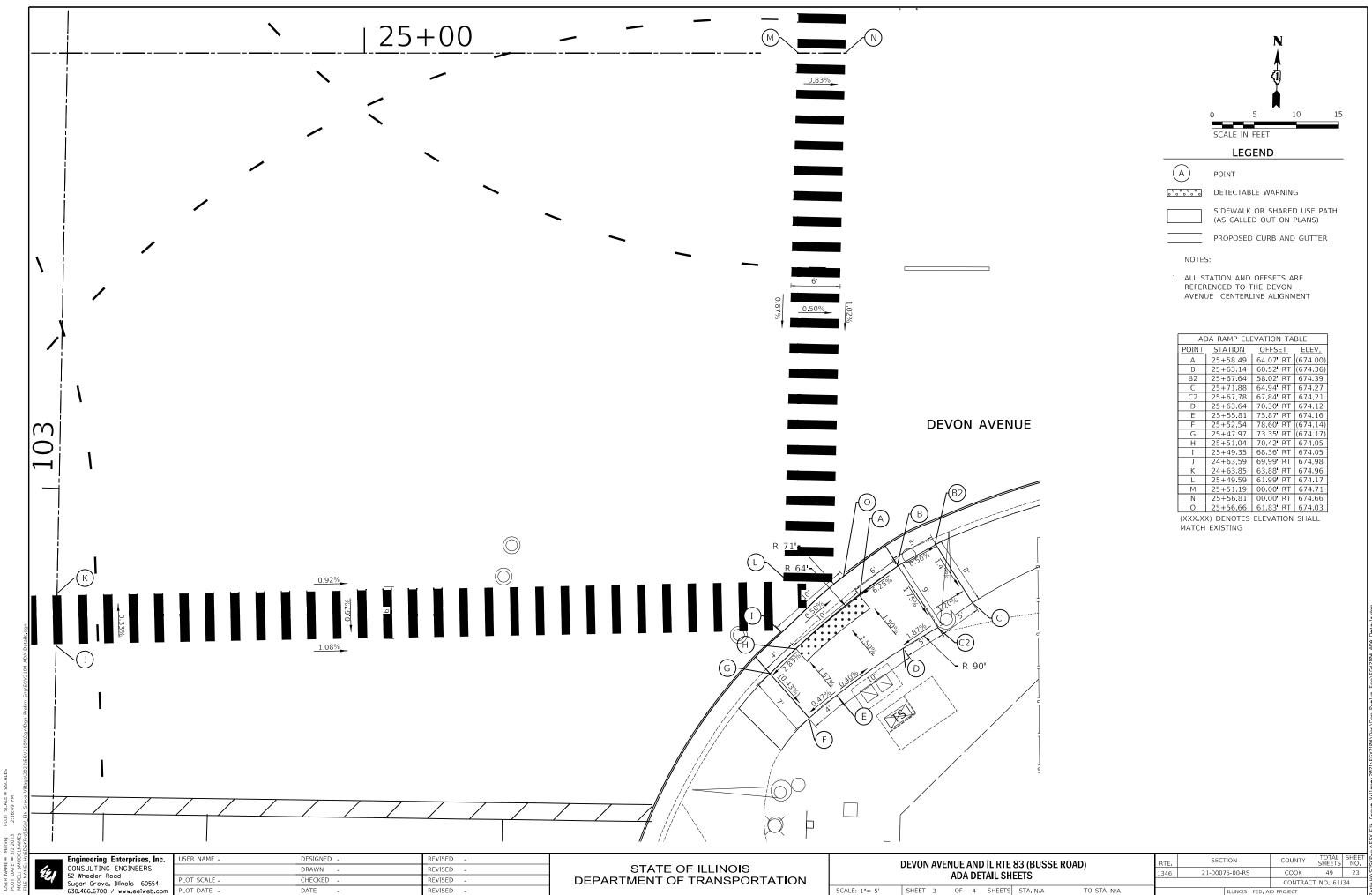
STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

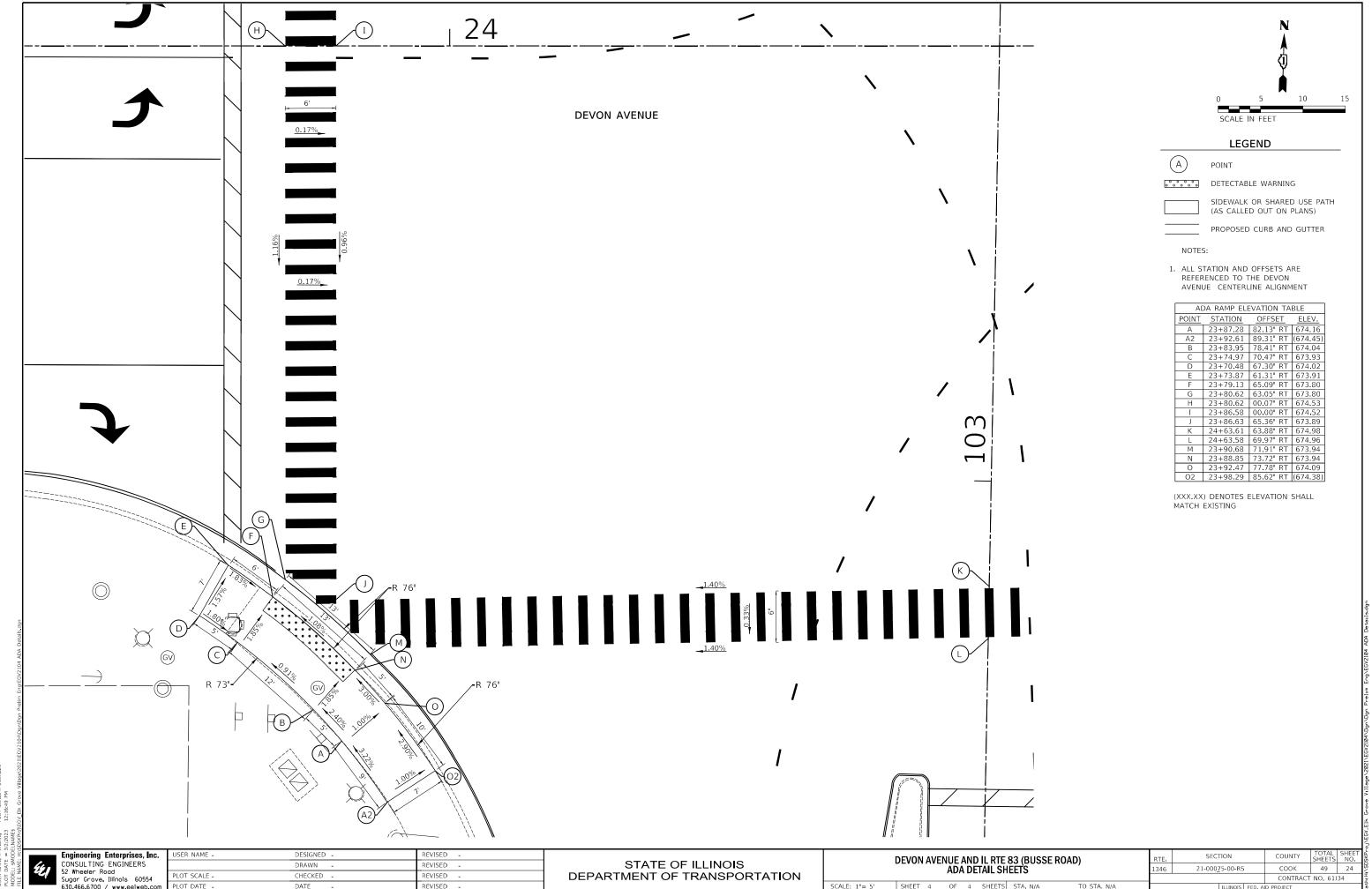
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E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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		CONTRACT	NO. 61J	34
	ILLINOIS FED. A	ID PROJECT		

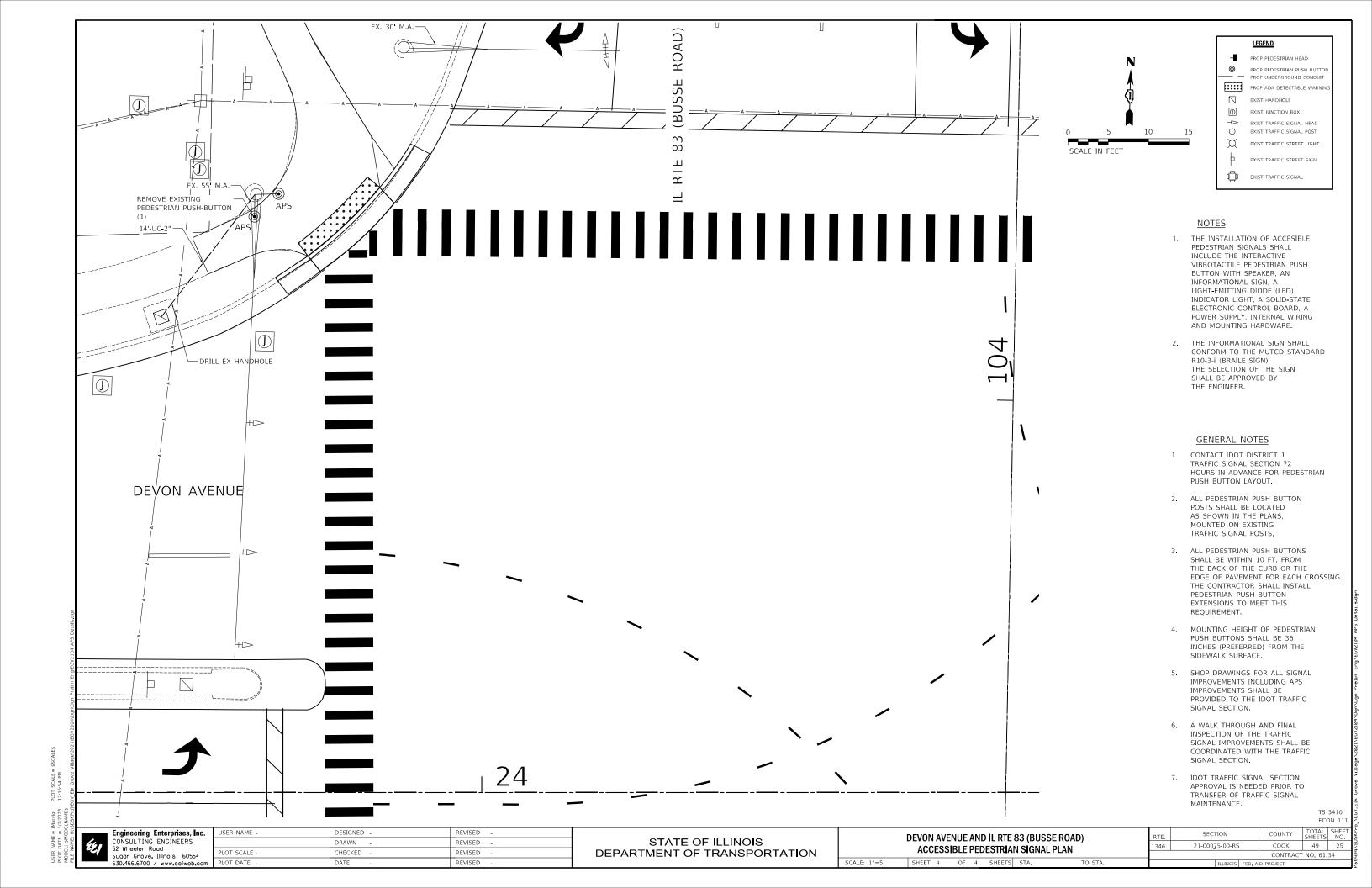


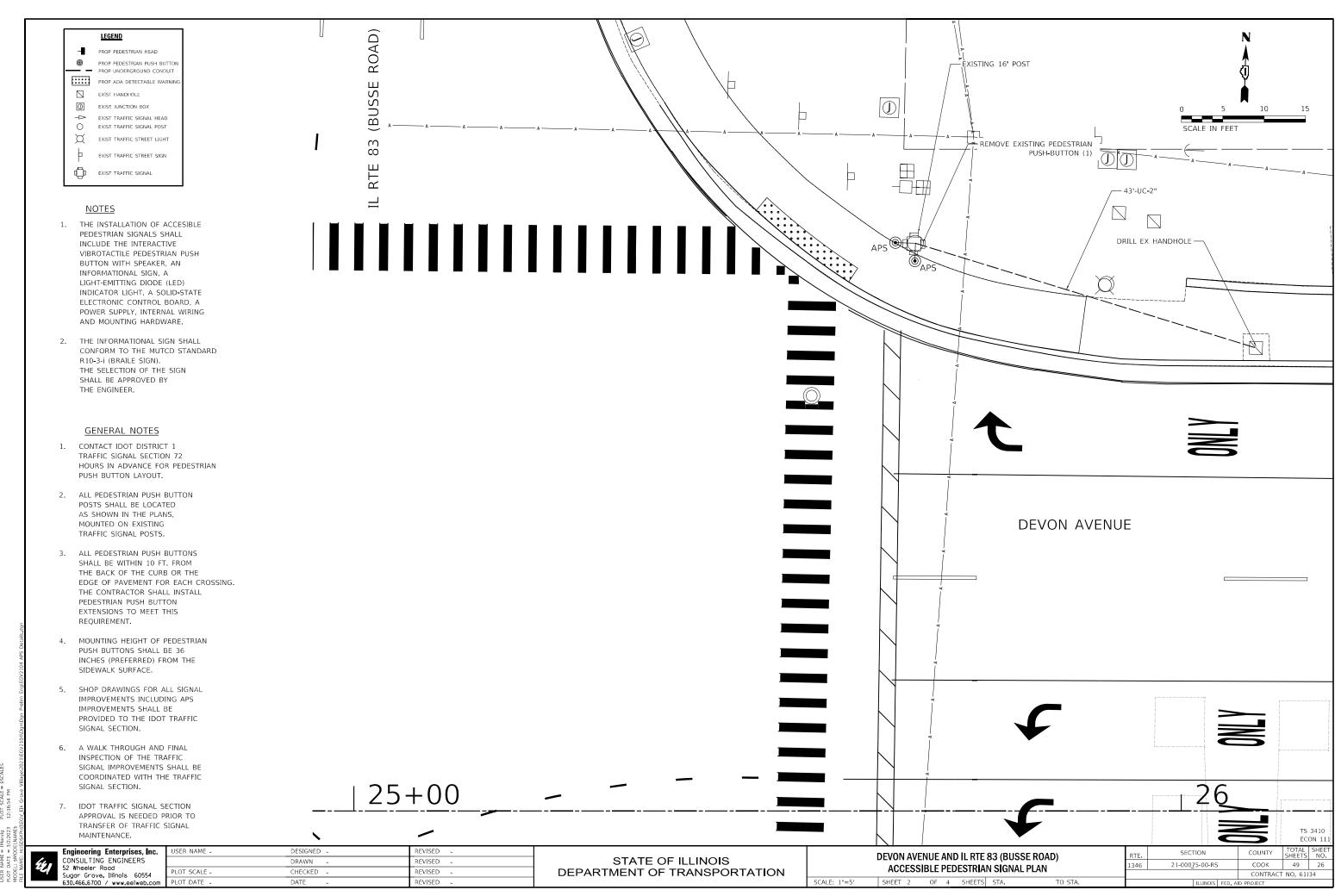


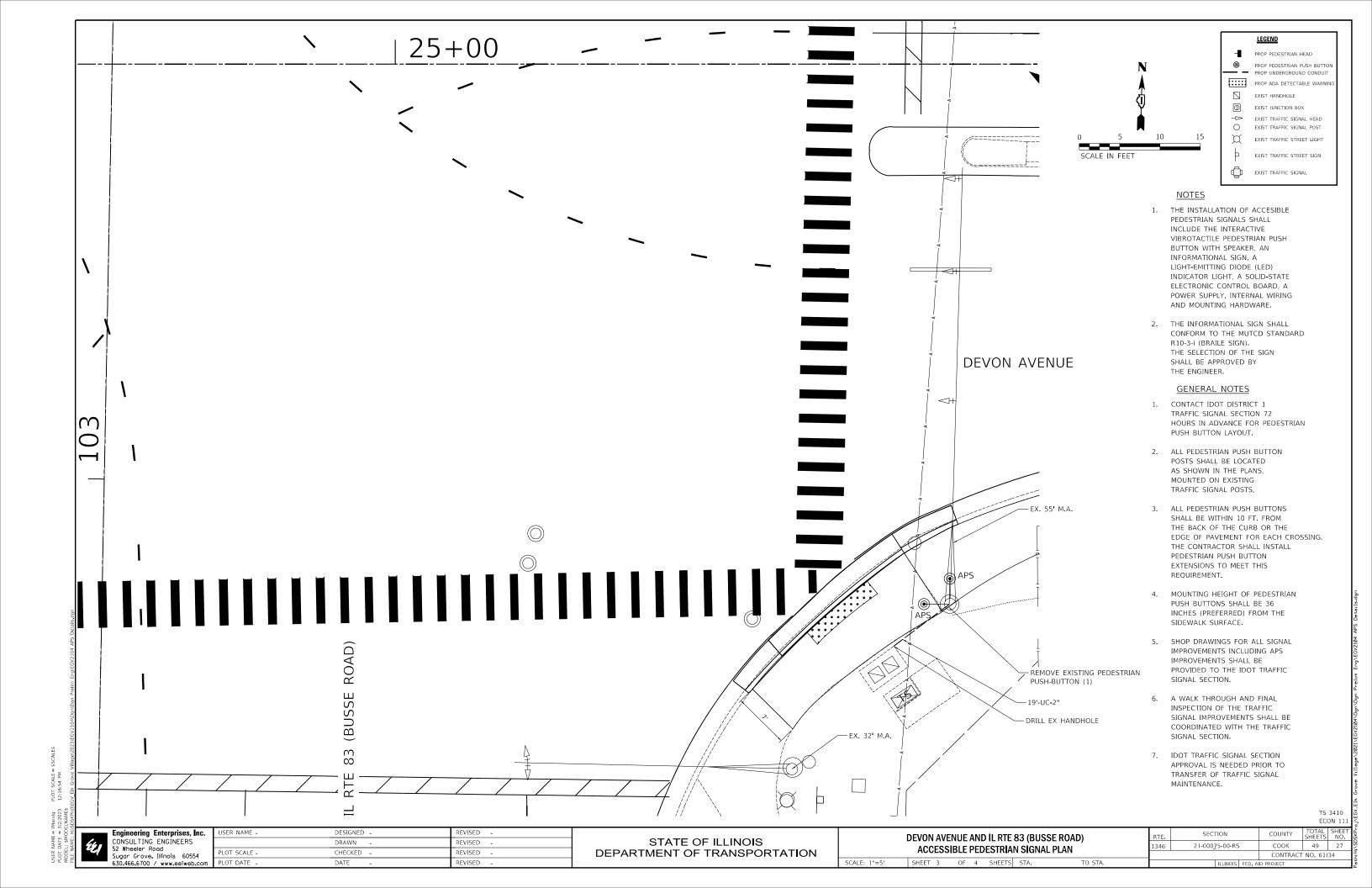


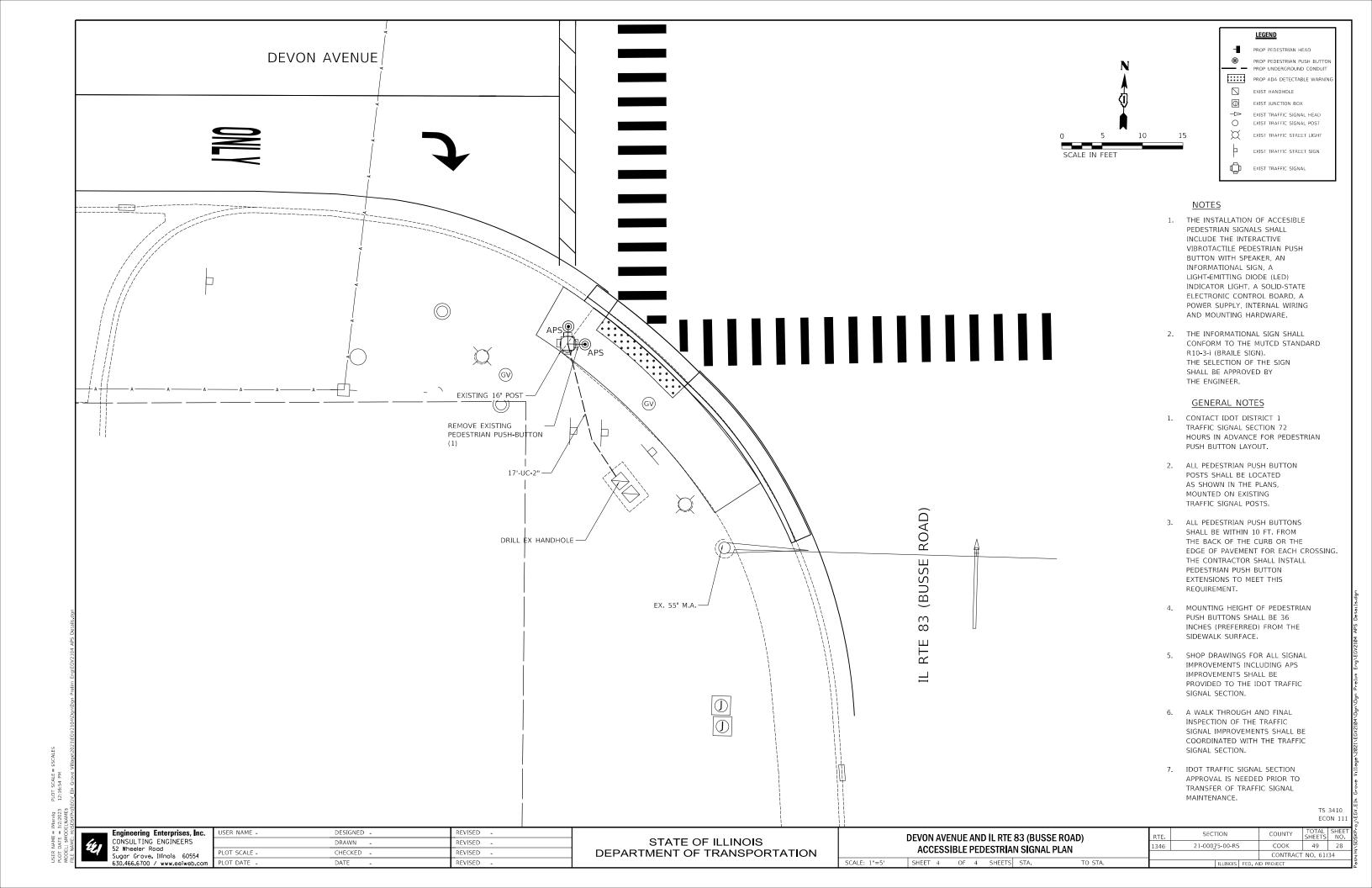


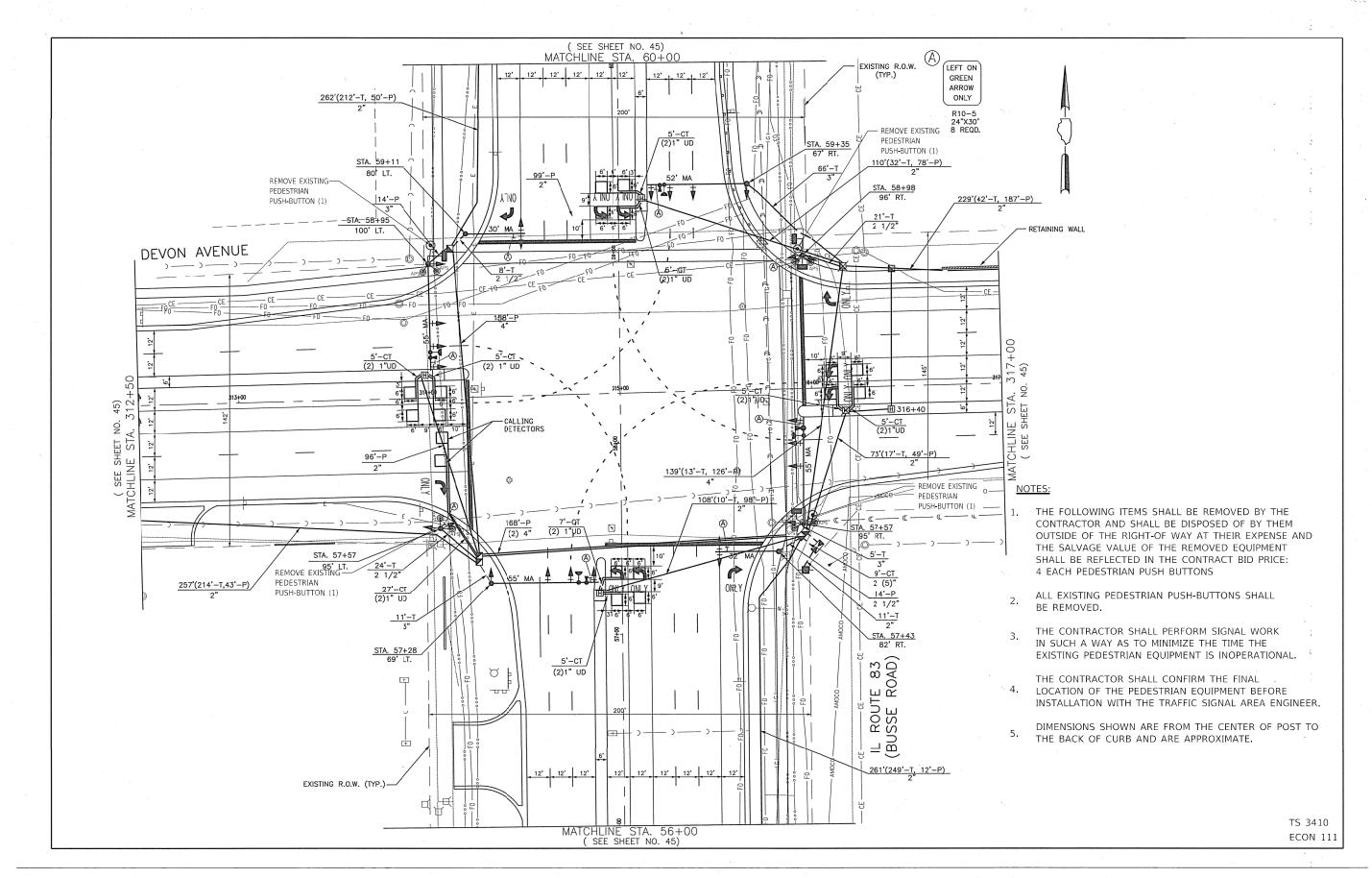
DATE











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CONSULTING ENGINEERS 52 Wheeler Road Sugar Grove, Illinois 60554

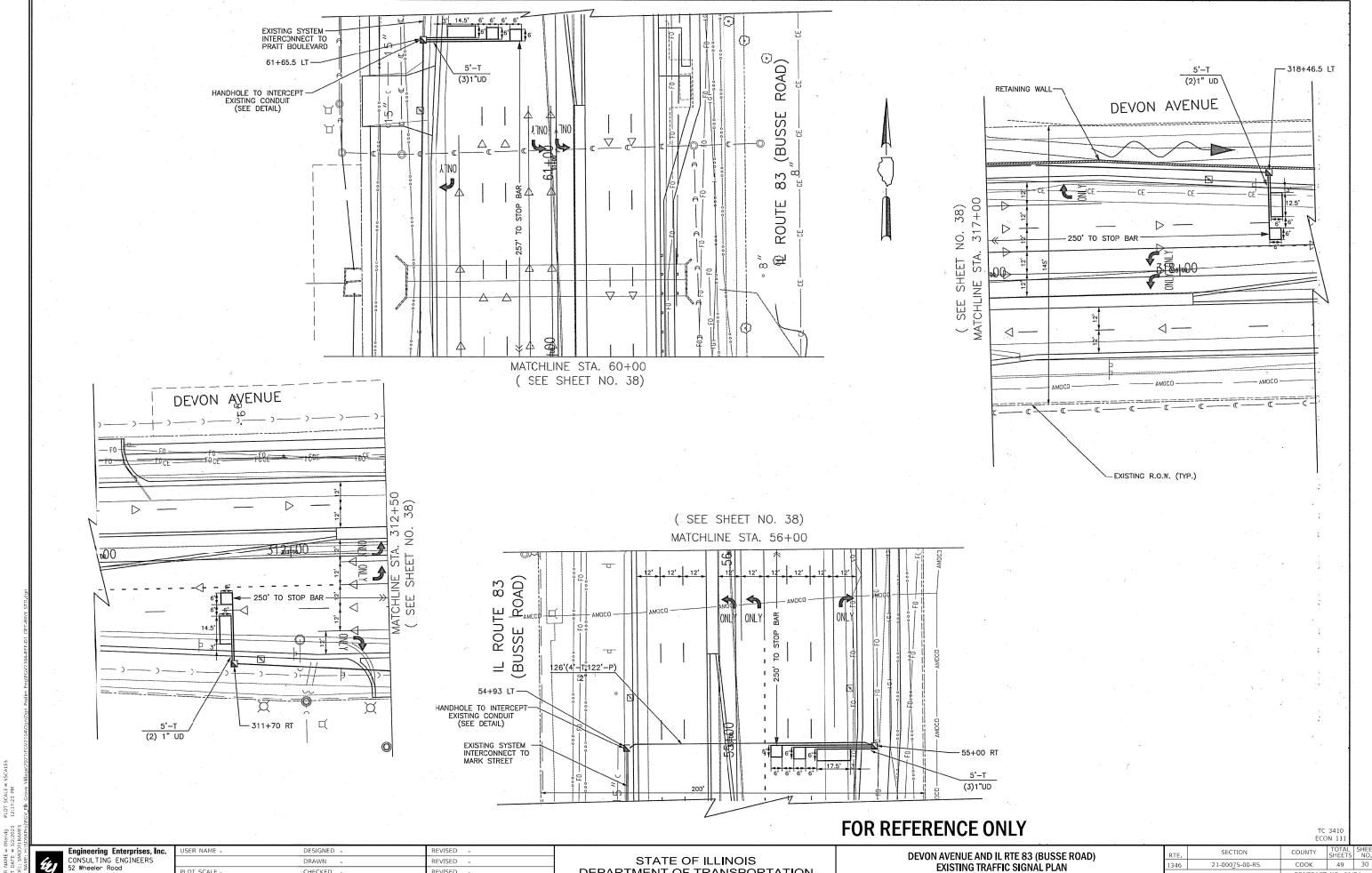
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STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**  **DEVON AVENUE AND IL RTE 83 (BUSSE ROAD)** TRAFFIC SIGNAL APS INSTALLATION

SECTION 21-000<u>7</u>5-00-RS COOK 49 29 CONTRACT NO. 61J34

FOR REFERENCE ONLY

SHEET 1 OF 3 SHEETS STA.



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Sugar Grove, Illinois 60554
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PLOT SCALE -

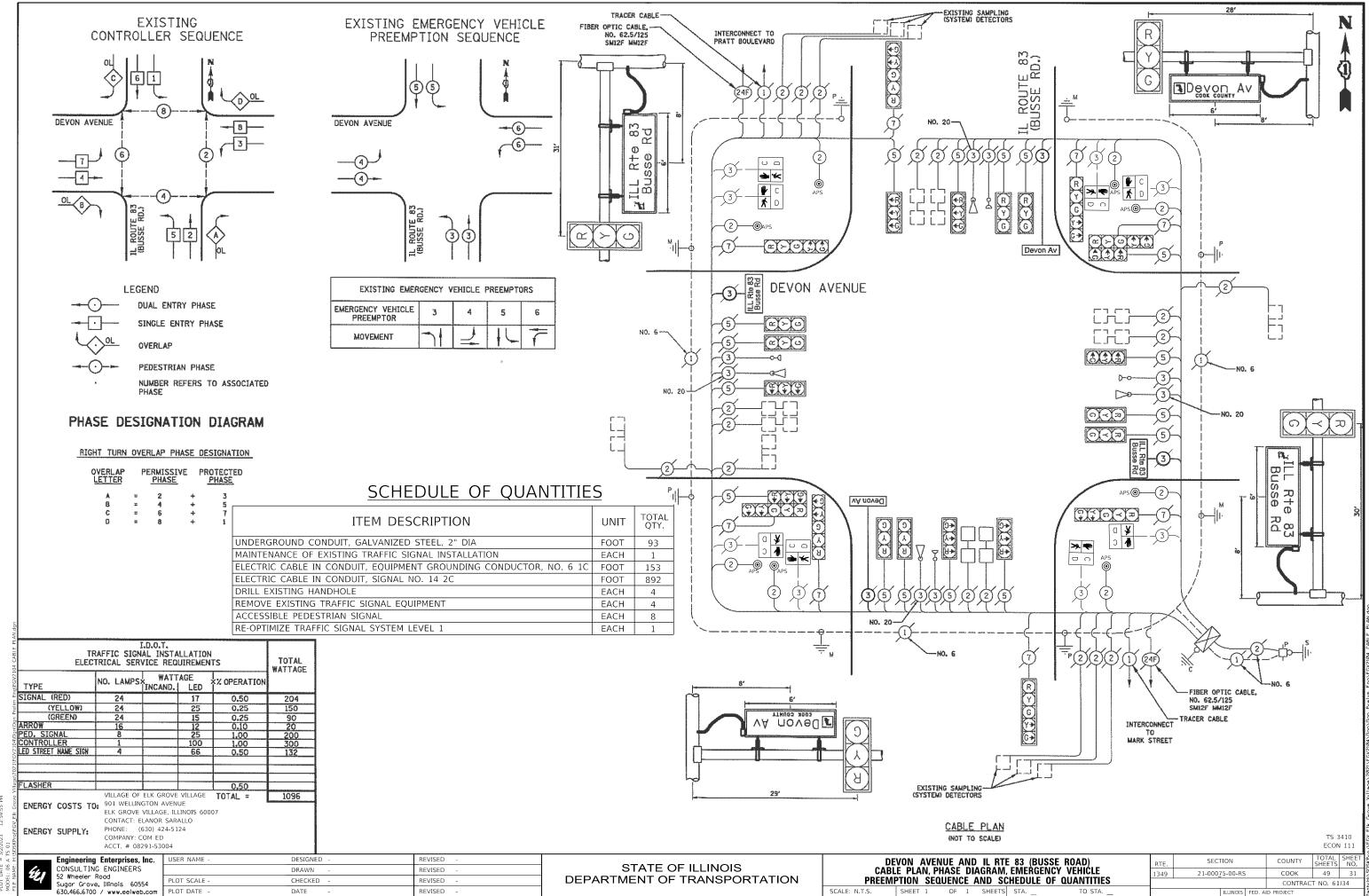
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**DEPARTMENT OF TRANSPORTATION** 

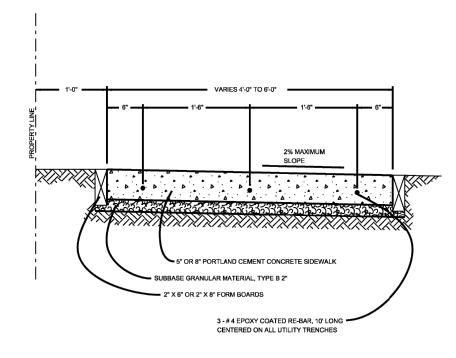
**EXISTING TRAFFIC SIGNAL PLAN** 

COOK 49 30

CONTRACT NO. 61J34



# **CHIMNEY SEAL**



#### NOTE:

- PROVIDE 1/2" PREFORMED EXPANSION JOINT (FULL DEPTH) AT 50' INTERVALS AND ALONG ALL ABUTTING CONCRETE WORK.
- 2. ALL CURB SIDEWALK RAMPS SHALL MEET THE APPLICABLE IDOT STANDARDS 424001, 424006, 424011, 424016, OR 424021.
- 3. DETECTABLE WARNING PANELS SHALL BE ONE OF THE PRODUCTS SPECIFIED IN THE SPECIAL PROVISIONS AND SHALL BE INSTALLED PER THE APPLICABLE IDOT STANDARDS 424001, 424006, 424011, 424016, OR 424021.
- SEE THE SPECIFICATIONS FOR LANDSCAPE AND PAVEMENT RESTORATION.
- SIDEWALK THROUGH DRIVE ENTRANCES SHALL HAVE CONTRACTION JOINTS ON 4-FOOT CENTERS UNLESS OTHERWISE DIRECTED BY ENGINEER.

# **PCC SIDEWALK**

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CONSULTING ENGINEERS 52 Wheeler Road Sugar Grove, Illinois 60554 630.466.6700 / www.eeiweb.com

DESIGNED -DRAWN REVISED . REVISED -

STATE OF ILLINOIS

**DEVON AVENUE AND IL RTE 83 (BUSSE ROAD)** VILLAGE OF ELK GROVE VILLAGE DETAILS SHEET 1 OF 1 SHEETS STA.

SECTION 21-000<u>7</u>5-00-RS COOK 49 32 CONTRACT NO. 61J34

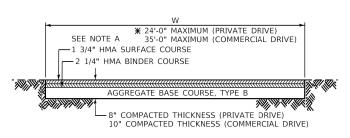
**DEPARTMENT OF TRANSPORTATION** 

# SUMMARY OF DRIVEWAY PAVEMENT SQ YD PCC SQ YD HMA "W" DRIVEWAY DRIVEWAY PAVEMENT PAVEMENT SQ YD PCC SQ YD HMA DRIVEWAY DRIVEWAY PAVEMENT | PAVEMENT

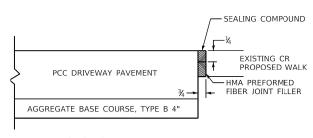
# \* 24'-0" MAXIMUM (PRIVATE DRIVE) 35'-0" MAXIMUM (COMMERCIAL DRIVE) PCC DRIVEWAY PAVEMENT - 8" THICKNESS AGGREGATE BASE COURSE, TYPE B 4"

\* \* WHEN 'W' IS GREATER THAN 16'-0", A LONGITUDINAL CONSTRUCTION JOINT AS DETAILED ON IDOT HIGHWAY STANDARD 420001 SHALL BE USED AS SHOWN.

# SECTION A-A PCC DRIVEWAY

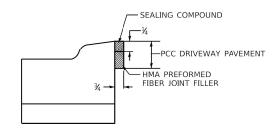


## SECTION A-A HMA DRIVEWAY



# SECTION B-B

THE EXPANSION JOINT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER SQUARE FOOT FOR PORTLAND CEMENT CONCRETE SIDEWALK OR PER SQUARE YARD FOR PORTLAND CEMENT CONCRETE DRIVEWAY



# SECTION C-C

### GUIDE FOR DRIVEWAY LENGTH

- MEET EXISTING WALK (USE JOINT FOR PCC PAVEMENT SECTION B-B)
  IF THERE IS NO EXISTING OR PROPOSED WALK, EXTEND TO RIGHT OF WAY LINE
- IF THERE IS NO EXISTING WALK BUT A PROPOSED WALK IS REQUIRED, CONSTRUCT 8 INCH WALK FOR FULL DRIVEWAY WIDTH (SECTION B-B)
- IF THERE IS A WALK ADJUSTMENT, CONSTRUCT  $8^{\prime\prime}$  WALK FOR FULL DRIVEWAY WIDTH AND  $5^{\prime\prime}$  WALK BEYOND.

QUANTITIES SHALL BE COMPUTED ON THE BASIS OF THE DRIVES EXTENDING TO SIDEWALK OR RIGHT OF WAY LINE AS SHOWN ON THE PLANS. HOWEVER, IT SHALL BE THE RESPONSIBILITY OF THE FIELD ENGINEER TO DETERMINE THE ACTUAL LIMITS OF

#### **CHART**

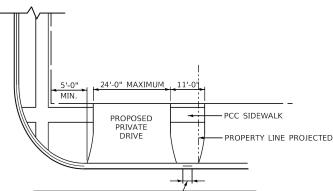
FOR DRIVEWAY WIDTH - W ** (FT)	X (FT)	Y (FT)
12	6.0	4.2
14 - 16	4.9	3.4
17 - 18	4.0	2.9
OVER 18	3.2	2.3
O 7 E 1 . 10	٥.۷	2.5

\* PRIVATE DRIVES: 12'-0" MINIMUM, 24'-0" MAXIMUM

COMMERCIAL DRIVES:  $12^{\circ}$ 0" MINIMUM,  $24^{\circ}$ 0" MAXIMUM FOR 1-WAY OPERATION  $24^{\circ}$ 0" MINIMUM,  $35^{\circ}$ 0" MAXIMUM FOR 2-WAY OPERATION

# MAXIMUM DRIVEWAY SLOPE

PROPERTY	URBAN	RURAL	RURAL (PERMIT WORK ONLY)
COMMERCIAL	6%	6%	10%
NON-COMMERCIAL	8%	8%	12%



DESIRABLE DISTANCE OF FULL CURB HEIGHT BETWEEN ADJACENT DRIVES SHALL BE 6-0". IT IS DESIRABLE THAT THE DRIVE RETURNS TERMINATE WITHIN THE PROPERTY LINE AS PROJECTED.

## LIMITATIONS UPON PRIVATE DRIVES

AT STREET INTERSECTIONS
MAXIMUM WIDTH & MINIMUM DISTANCE BETWEEN DRIVES

## NOTE A

FOR HMA DRIVEWAYS: AS AN ALTERNATE TO THE 1 3/4" HOT-MIX ASPHALT SURFACE COURSE, MIX "D", IL-12.5 OR 9.5, N70, AND THE 2 1/4" HOT-MIX ASPHALT CONCRETE BINDER COURSE, IL-19, N70 4" HOT-MIX ASPHALT SURFACE COURSE, MIX "D", IL-12.5 OR 9.5 N70 MAY BE USED. IN THE EVENT THE CONTRACTOR ELECTS TO USE THIS ALTERNATE, THE ADDITIONAL 2 1/4" OF HOT-MIX ASPHALT SURFACE COURSE, MIX "D", IL-12.5 OR 9.5 N70 SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR HOT-MIX ASPHALT EINDER COURSE, IL-19,

#### **GENERAL NOTE:**

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SHOWN.

MUNICIPALITY, IL	COUNTY HIGHWAY:						
	FISCAL YEAR						
NAME TOWNSHIP	SECTION:	XX	XXX	X			

XXX XXXX xxx-xx-xx

COUNTY OF COOK DEPARTMENT OF TRANSPORTATION AND HIGHWAYS CHECKED:

COMPUTED:

PRIVATE AND COMMERCIAL DRIVE DETAIL COOK COUNTY DEPARTMENT OF TRANSPORTATION AND HIGHWAYS STANDARD C-002

C-XXX

Engineering Enterprises, Inc. CONSULTING ENGINEERS 52 Wheeler Road Sugar Grove, Illinois 60554 630.466.6700 / www.eeiweb.co

USER NAME -DESIGNED REVISED DRAWN REVISED PLOT SCALE -CHECKED REVISED

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**  **DEVON AVENUE AND IL RTE 83 (BUSSE ROAD)** CCDOTH STANDARDS

SECTION COUNTY 21-000<u>7</u>5-00-RS COOK 49

CONTRACT NO. 61J34 OF 2 SHEETS STA.

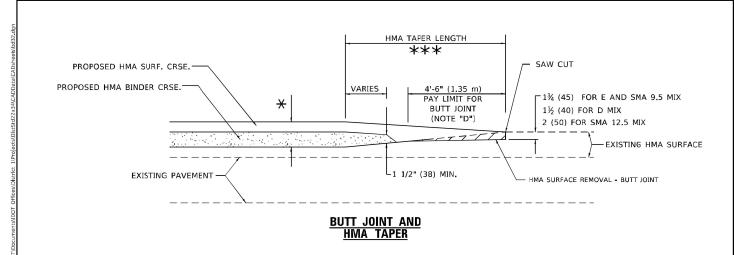
#### HMA CONSTRUCTED TEMPORARY RAMP

TEMPORARY HMA RAMP

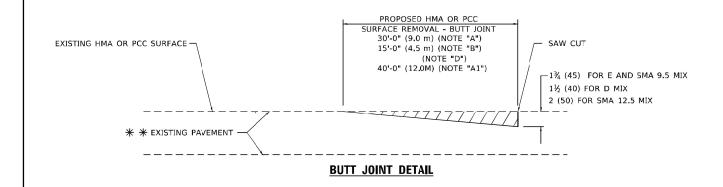
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

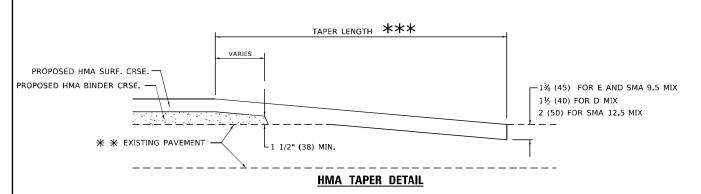
# OPTION 2

# TYPICAL TEMPORARY RAMP



# TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING





# TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

\*\* PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

## **GENERAL NOTES**

- A. MAINLINE ARTERIAL ROADWAYS AND MAJOR SIDE ROADS.
- A1. INTERSTATES
- B. MINOR SIDE ROADS.
- C. THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
- D. THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
- E. TAPER THE TEMP. RAMP AT A RATE OF 3' 4" (1.02m) PER 1 INCH (25 mm) OF MILLING THICKNESS.
- SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- $\star\star$  20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A") 10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

#### **BASIS OF PAYMENT**

- THE BUTT JOINT WILL BE PAID FCR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER)
  FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR
  FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL- BUTT JOINT".
- THE TEMPORARY RAMP AND SAW CUT SHALL BE INCLUDED IN THE UNIT COST FOR HMA OR PCC SURFACE REMOVAL-BUTT JOINT.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

USER NAME = Lawrence, DeMar	the DESIGNED - M. DE YONG	REVISED - A. ABBAS 03-21-97	·			RIIT	T JOINT	ΔND		F.A.		SECTION	N	COUNTY	TOTAL SHEE
	DRAWN -	REVISED - M. GOMEZ 04-06-01	STATE OF ILLINOIS							1112					- SILEETS NO.
PLOT SCALE = 100,0000 ' / in,	CHECKED -	REVISED - R. BORO 01-01-07	DEPARTMENT OF TRANSPORTATION	HMA TAPER DETAILS					BD400	-05 BD-	-32	CONTRAC	T NO.		
PLOT DATE = 11/18/2022	DATE - 06-13-90	REVISED - K. SMITH 11-18-22		SCALE: NONE	SHEET 1	OF 1	l SHEET	S STA.	TO STA.			ILU	INOIS FED.	ID PROJECT	

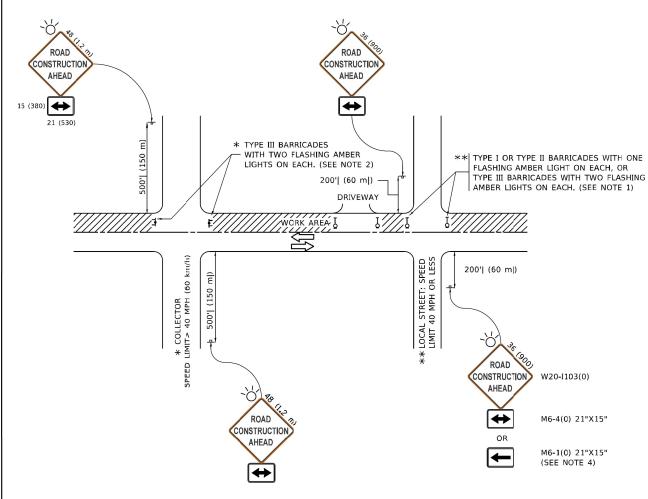
Engineering Enterprises, Inc. CONSULTING ENGINEERS 52 Wheeler Road Sugar Grove, Illinois 60554

EXISTING PAVEMENT

DESIGNED -REVISED DRAWN REVISED -REVISED DATE

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**  **DEVON AVENUE AND IL RTE 83 (BUSSE ROAD)** DISTRICT ONE DETAILS OF 12 SHEETS STA. TO STA

SECTION COUNTY 21-00075-00-RS COOK 49 | 35 CONTRACT NO. 61J34



# NOTES:

- 1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
- a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 36 x 36 (900x900) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
- b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
- 2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
- a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
- THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY b) BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
- 3. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. COVES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.
- WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE 4. SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

- 5. WHEN WORK IS BEING PERFORMED ON A SIDE ROAD OR DRIVEWAY, FOLLOW THE APPLICABLE STANDARD(S). THE DIRECTIONAL ARROW (M6-1 OR M6-4) SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE TRAFFIC CONTROL SET-UP.
- 6. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE
- 7. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCLUDED IN THE

USER NAME = fcotemj	DESIGNED - L.H.A.	REVISED	- A. HOUSEH 10-15-96
	DRAWN -	REVISED	- T. RAMMACHER 01-06-00
PLOT SCALE = 50,0000 ' / in.	CHECKED -	REVISED	- A. SCHUETZE 07-01-13
PLOT DATE = 3/4/2019	DATE - 06-89	REVISED	. A. SCHUETZE 09-15-16

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHEET 1 OF 1 SHEETS STA. SCALE: NONE

	F.A. RTE.	. SECTION				COUN	TOTAL SHEETS	SHI		
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CONSULTING ENGINEERS 52 Wheeler Road Sugar Grove, Illinois 60554 630.466.6700 / www.eeiweb.com

		PLOT DATE	= 3/4/2019	DA	ATE.	-	06-89		REVISED	. A. :	SCHUETZE	09-15-
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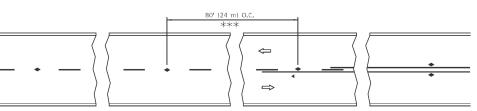
STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**  **DEVON AVENUE AND IL RTE 83 (BUSSE ROAD)** DISTRICT ONE DETAILS SHEET 2 OF 12 SHEETS STA.

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1346	21-000	<u>7</u> 5-00-RS		соок	49		36	
				CONTRACT NO. 61J34				
		THINOIS	ID PROJECT					

4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.

SEE NOTE B

1 5



\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

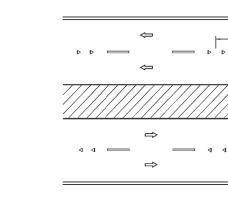
 $\Leftrightarrow$  $\Rightarrow$ **LANE REDUCTION TRANSITION** 

SEE FIGURE 3B-14 MUTCD

## TWO-LANE/TWO-WAY

SEE NOTE B

SEE NOTE A -

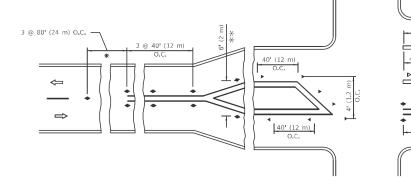


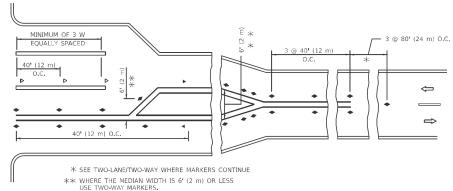
## MULTI-LANE/UNDIVIDED

 $\Rightarrow$ 

## MULTI-LANE/DIVIDED

SEE NOTE B





## **TURN LANES**

All dimensions are in inches (millimeters) unless otherwise shown,

USER NAME = footemj	DESIGNED -	REVISED - T. RAMMACHE	03-12-9			TYPICAL APPLICATIONS			F.A. RTE	SECTION		COUNTY	TOTAL SHEET SHEETS NO.		
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PLOT DATE = 3/4/2019	DATE -	REVISED - C. JUCIUS	7-01-13		SCALE: NONE	SHEET 1	OF 1	SHEETS	STA.	O STA.		ILLING	IS FED, AID I	ROJECT	
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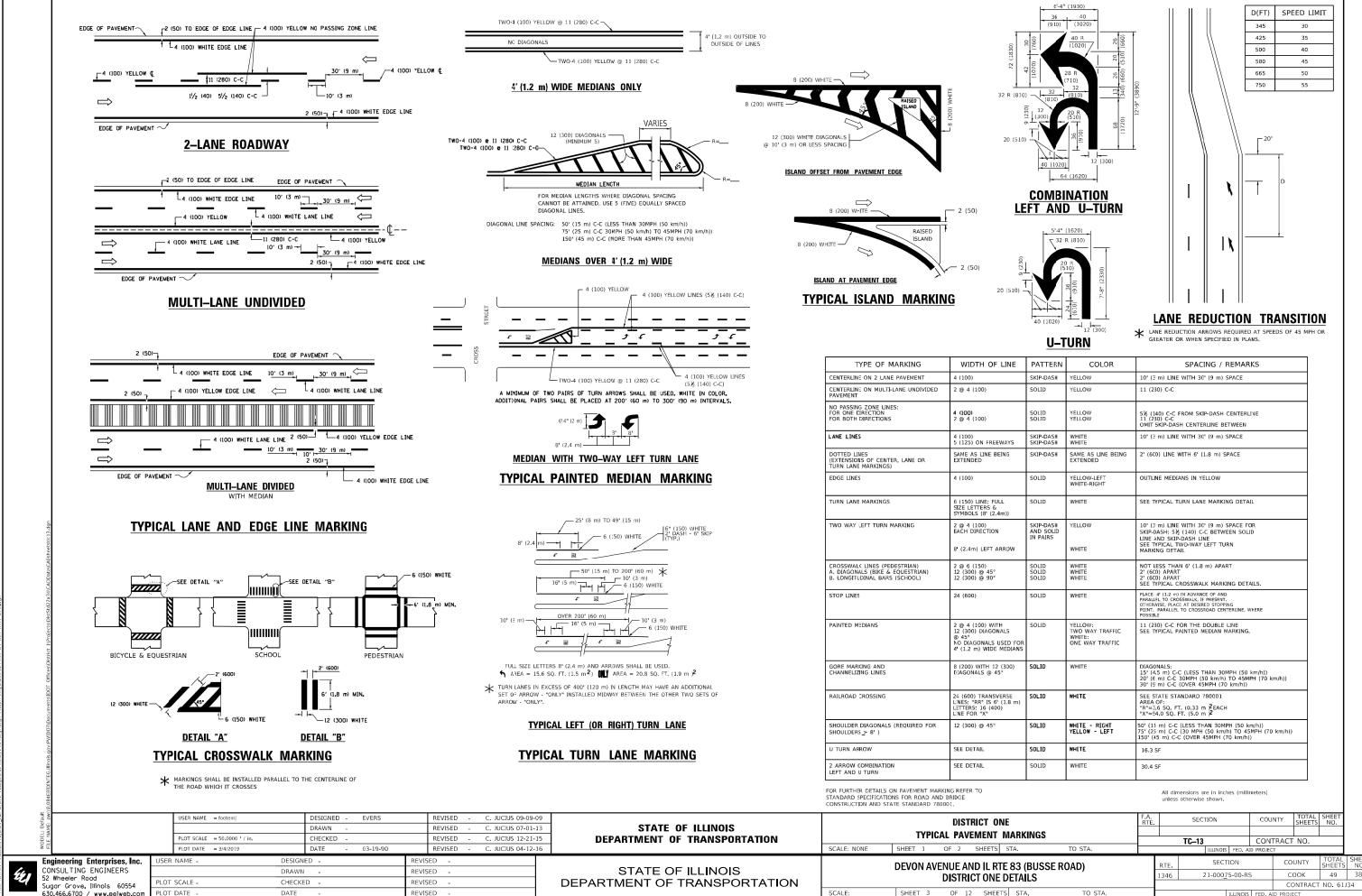
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USER NAME REVISED DRAWN CHECKED REVISED PLOT DATE DATE REVISED

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**  **DEVON AVENUE AND IL RTE 83 (BUSSE ROAD)** DISTRICT ONE DETAILS SHEET 2 OF 12 SHEETS STA.

SECTION COUNTY COOK 49 37 21-00075-00-RS CONTRACT NO. 61J34 TO STA.

\2021\EGV2104\Dgn\Dgn Prelim Eng\EGV21004-REF-DI DET-HWY STD.dgr



NAMIE JMANY DATE = 3/2/2023 12:19:42 PM :II: \$MODELINGSPRING

R4-7a 24"X30"

ARROW BOARD

TYPE I OR II BARRICADE OR DRUM WITH STEADY BURN LIGHT

TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

DRUM WITH STEADY BURN LIGHT

4" YELLOW REFLECTIVE PAVEMENT MARKING TAPE (REMOVE CONFLICTING WHITE SKIP-DASH LINES FIRST.) - ARROW BOARD SEE DETAIL "A" -

## NOTES:

- 1. A) WHEN "L" IS ≤ THE STORAGE LENGTH OF THE TURN LANE (AS SHOWN IN FIG. 1), USE FIGURE 1.
  - B) WHEN "L" IS > THE STORAGE LENGTH OF THE TURN LANE OR THE TURN LANE IS WITHIN THE LANE CLOSURE, USE FIGURE 2.
- 2. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.
- 3. LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
- 4. REFLECTIVE TEMPORARY PAVEMENT MARKINGS SHALL BE PLACED THROUGHOUT THE BARRICADED AREAS OF EACH TURN BAY AS SHOWN WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN (14) DAYS.
- 5. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-I100R 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
- 6. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
- 7. THE SIGNS SHALL BE MOUNTED ABOVE THE BARRICADES/DRUMS ON SEPARATE SIGN SUPPORTS THAT MEET NCHRP 350 OR MASH PREOUIREMENTS.
- 8. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

## **TURN BAY ENTRANCE** WITHIN A LANE CLOSURE

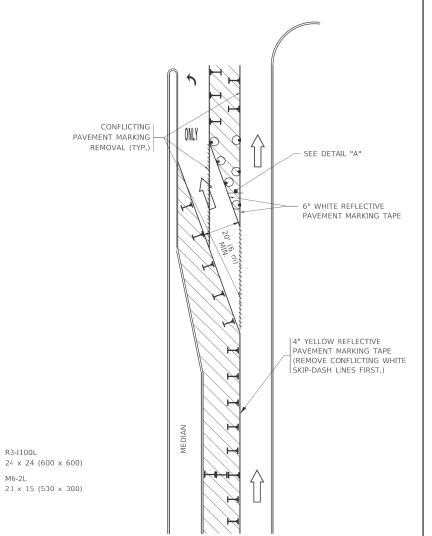


FIGURE 2

TO STA.

## **DETAIL A**

M6-2L

LANE

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

USER NAME = footemj	DESIGNED -T. RAMMACHER 09-08-94  DRAWN - A. HOUSEH 11-07-95	REVISED - R. BORO 09-14-09  REVISED - A. SCHUETZE 07-01-13	STATE OF ILLINOIS	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)			RTE.	SECTION	COUNTY	SHEETS NO.
PLOT SCALE = 50.0000 ' / in.	CHECKED - A. HOUSEH 10-12-96	REVISED - A. SCHUETZE 09-15-16	DEPARTMENT OF TRANSPORTATION		(TO REMAIN OPEN TO TRAFFIC)			TC-14	CONTRACT	NO.
PLOT DATE = 3/4/2019	DATE -T. RAMMACHER 01-06-00	REVISED -		SCALE: NONE	SHEET 1 OF 1 SHEETS STA.	TO STA.		ILLINOIS FEE	J. AID PROJECT	

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USER NAME DESIGNED REVISED DRAWN REVISED CHECKED REVISED PLOT DATE DATE REVISED

FIGURE 1

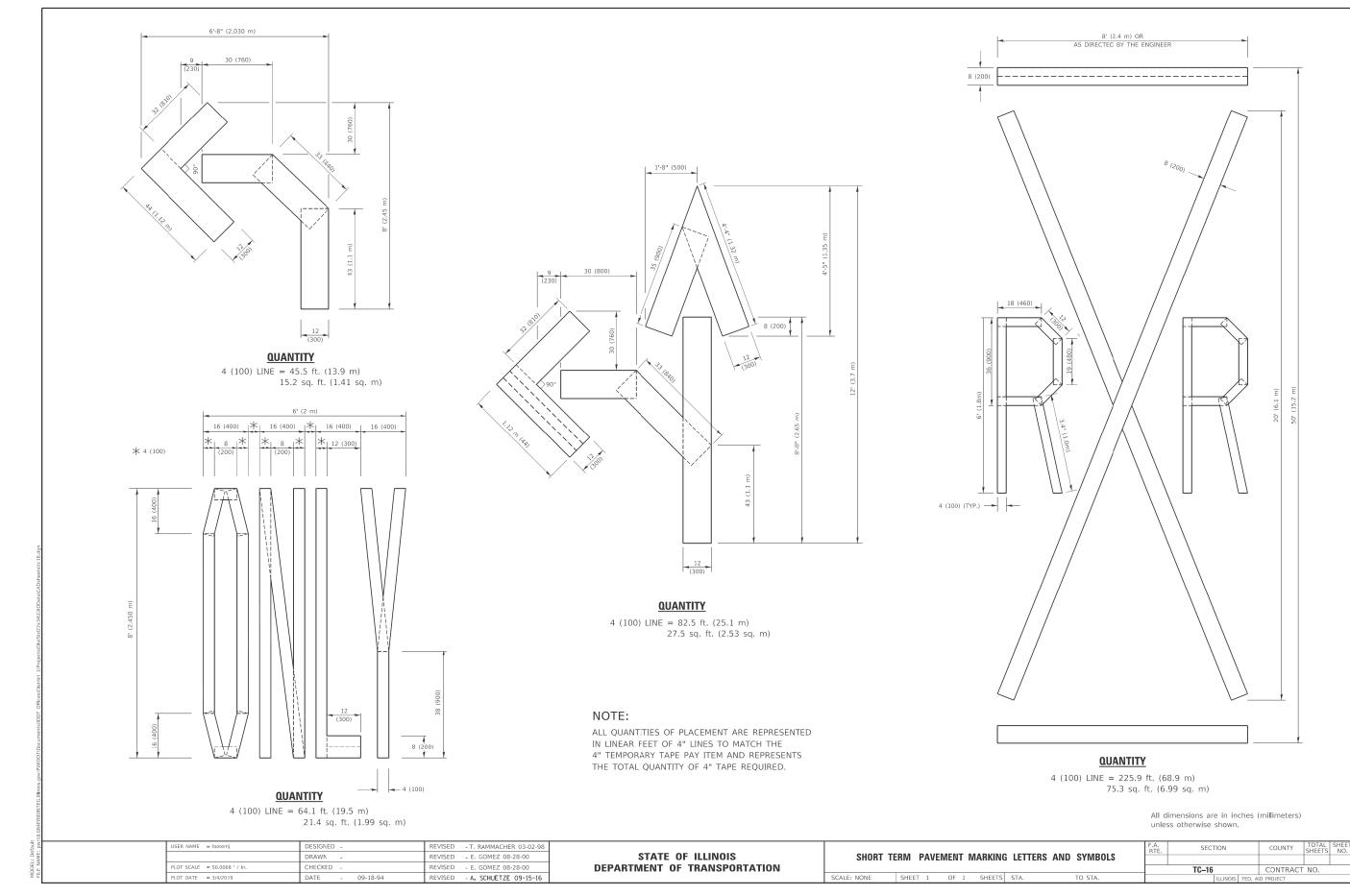
STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**  **DEVON AVENUE AND IL RTE 83 (BUSSE ROAD)** DISTRICT ONE DETAILS

SHEET 3 OF 12 SHEETS STA.

STABILIZE SIGN SUPPORT WITH

NECESSARY

SECTION COUNTY 21-000<u>7</u>5-00-RS COOK 49 39 CONTRACT NO. 61J34



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USER NAME -DESIGNED REVISED DRAWN REVISED CHECKED REVISED PLOT DATE -REVISED DATE

**DEPARTMENT OF TRANSPORTATION** 

DEVON AVENUE AND IL RTE 83 (BUSSE ROAD) DISTRICT ONE DETAILS SHEET 3 OF 12 SHEETS STA. TO STA.

SCALE:

SECTION COOK 49 40 21-000<u>7</u>5-00-RS CONTRACT NO. 61J34

**Engineering Enterprises, Inc.**CONSULTING ENGINEERS 52 Wheeler Road Sugar Grove, Illinois 60554 630.466.6700 / www.eeiweb.com

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DATE

**DEPARTMENT OF TRANSPORTATION** 

DISTRICT ONE DETAILS SHEET 4 OF 12 SHEETS STA.

21-000<u>7</u>5-00-RS COOK CONTRACT NO. 61J34

				(1101 10 00/122)				
<u>ITEM</u>	<u>existing</u>	PROPOSED	ITEM	EXISTING	PROPOSED	ITEM	EXISTING	PROPOSED
CONTROLLER CABINET	$\boxtimes$		HANDHOLE -SQUARE			SIGNAL HEAD -(P) PROGRAMMABLE SIGNAL HEAD	R R	R R Y
COMMUNICATION CABINET	ECC	СС	-ROUND HEAVY DUTY HANDHOLE					G G G ←Y ←Y ←G
MASTER CONTROLLER	EMC	МС	-SQUARE -ROUND	H (F)	<b>H O</b>			<b>4</b> G <b>4</b> G <b>P</b>
MASTER MASTER CONTROLLER	EMMC	ммс	DOUBLE HANDHOLE			SIGNAL HEAD WITH BACKPLATE		R R R
JNINTERRUPTABLE POWER SUPPLY	<b>∲</b>	<b>7</b>	JUNCTION BOX		0	-(P) PROGRAMMABLE SIGNAL HEAD -(RB) RETROREFLECTIVE BACKPLATE		Y Y Y Y
SERVICE INSTALLATION	-□- <sup>P</sup>	- <b></b> P	RAILROAD CANTILEVER MAST ARM	$X \longrightarrow X$	X <del>OX X</del>			Y         G
(P) POLE MOUNTED  SERVICE INSTALLATION			RAILROAD FLASHING SIGNAL	<del>Xo</del> X	X•X		P RB	P RB
-(G) GROUND MOUNTED -(GM) GROUND MOUNTED METERED	$\boxtimes^{G}\boxtimes^{GM}$	<b>⊠</b> <sup>G</sup> <b>⊠</b> <sup>GM</sup>	RAILROAD CROSSING GATE	<del>∑0∑</del> >	X•X-	DEDESTRIAN SIGNAL HEAD	MIN.	•
FELEPHONE CONNECTION	ET	Т	RAILROAD CROSSBUCK	ক	*	PEDESTRIAN SIGNAL HEAD AT RAILROAD INTERSECTIONS		乔
TEEL MAST ARM ASSEMBLY AND POLE	<u> </u>	•—	RAILROAD CONTROLLER CABINET		▶⋖	PEDESTRIAN SIGNAL HEAD	C A D	<b>₽</b> C <b>↑</b> D
ALUMINUM MAST ARM ASSEMBLY AND POLE			UNDERGROUND CONDUIT (UC), GALVANIZED STEEL			WITH COUNTDOWN TIMER		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUM:NAIRE	<b>φ</b> —	•*	TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE			ILLUMINATED SIGN "NO LEFT TURN"/"NO RIGHT TURN"		
SIGNAL POST	0	●	SYSTEM ITEM	S	SP	NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14. UNLESS NOTED OTHERWISE.		
(BM) BARREL MOUNTED - TEMPORARY			INTERSECTION ITEM	I	IP	ALL DETECTOR LOOP CABLE TO BE SHIELDED		
WOOD POLE	$\otimes$	0	REMOVE ITEM		R	GROUND CABLE IN CONDUIT, NO. 6 SOLID COPPER (GREEN)	1#6	
GUY WIRE	<b>&gt;</b> -	<b>&gt;</b> -	RELOCATE ITEM		RL	ELECTRIC CABLE IN CONDUIT, TRACER		
SIGNAL HEAD	>	-	ABANDON ITEM		Α	NO. 14 1/C		
SIGNAL HEAD WITH BACKPLATE	+t> p p	+ <b>►</b> P P	CONTROLLER CABINET AND FOUNDATION TO BE REMOVED		RCF	COAXIAL CABLE	<u>—</u> C—	<u> </u>
SIGNAL HEAD OPTICALLY PROGRAMMED FLASHER INSTALLATION	-D' +D' ○D <sup>F</sup> ○D <sup>FS</sup>	→ + + + + + + + + + + + + + + + + + + +	MAST ARM POLE AND FOUNDATION TO BE REMOVED		RMF	VENDOR CABLE		
-(FS) SOLAR POWERED		F FS	SIGNAL POST AND FOUNDATION TO BE REMOVED		RPF	COPPER INTERCONNECT CABLE, NO. 18, 3 PAIR TWISTED, SHIELDED	<u></u>	<del>(6#18)</del>
PEDESTRIAN SIGNAL HEAD	-0	-1	DETECTOR LOOP, TYPE I			FIBER OPTIC CABLE -NO. 62.5/125, MM12F	—	——————————————————————————————————————
PEDESTRIAN PUSH BUTTON -(APS) ACCESSIBLE PEDESTRIAN PUSH BUTTON	<pre></pre>	⊚ ⊗ APS	PREFORMED DETECTOR LOOP	P P	РР	-NO. 62.5/125, MM12F SM12F -NO. 62.5/125, MM12F SM24F		
RADAR DETECTION SENSOR	R	R	SAMPLING (SYSTEM) DETECTOR	s s	s s			—(36F)—
VIDEO DETECTION CAMERA	Tŷ b	[Ŷ¶	INTERSECTION AND SAMPLING (SYSTEM) DETECTOR	IK (K)	1¢ (¢			
RADAR/VIDEO DETECTION ZONE			QUEUE AND SAMPLING (SYSTEM) DETECTOR	os os	os (os	GROUND ROD -(C) CONTROLLER -(M) MAST ARM	<u> </u>	$\dot{\bar{\uparrow}}^{C}  \dot{\bar{\uparrow}}^{M}  \dot{\bar{\uparrow}}^{P}  \dot{\bar{\uparrow}}^{S}$
PAN, TILT, ZOOM (PTZ) CAMERA	PTZ	PTZ	WIRELESS DETECTOR SENSOR	<u> </u>	<b></b>	-(P) POST -(S) SERVICE		
EMERGENCY VEHICLE LIGHT DETECTOR	$\bowtie$	<b>~</b>	WIRELESS ACCESS POINT		_			
CONFIMATION BEACON	<b>~</b> □	•-	THEELES ASSESS FORT	<u>/</u>				
WIRE_ESS INTERCONNECT	<del>⊶:   </del>	<del>•-+   </del>						
WIRE_ESS INTERCONNECT RADIO REPEATER	ERR	RR						
WIRE LESS INTERCONNECT RADIO REPEATER	ERK	KK						

STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

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NAME: HASDSXProitECV FIR Grove Village/2021NF

E NAME: HASDSKProjec

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9/29/2016

USER NAME = footemj

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REVISED -	DEPARTMENT OF TRANSPORTATION

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DEVON AVENUE AND IL RTE 83 (BUSSE ROAD)
DISTRICT ONE DETAILS

SHEET 5 OF 12 SHEETS STA. TO STA.

DISTRICT ONE

STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SHEET 1 OF 7 SHEETS STA.

	ILLINOIS	FED. AI	D PROJECT			l	
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			ILLINOIS	FED. A	D PROJECT		

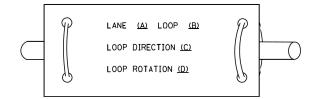
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COUNTY

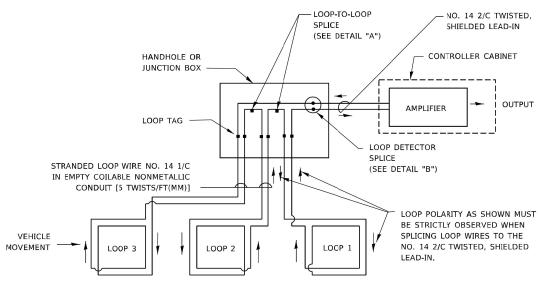
SECTION

- 1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
- 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

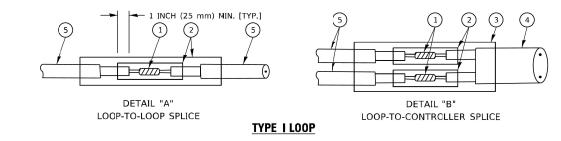


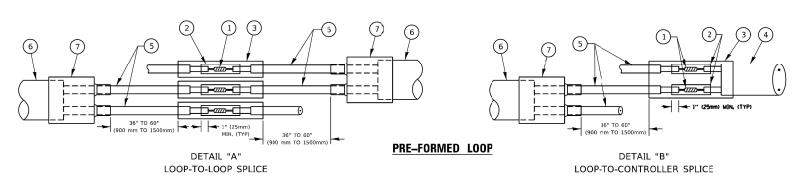
- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.



## **DETECTOR LOOP WIRING SCHEMATIC**

- LOOPS SHALL BE SPLICED IN SERIES. SAW-CLTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CLT 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.



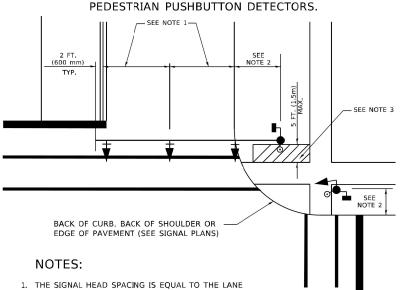


## **LOOP DETECTOR SPLICE**

- WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH. THE WESTERN UNION SPLICES SHALL BE STAGGERED.
- (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.

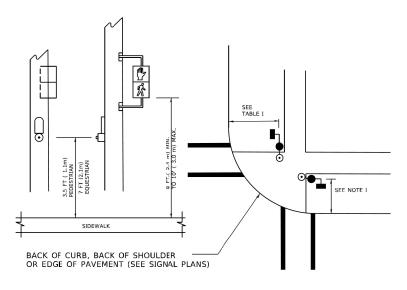
- 5 LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE. PRE-FORMED LOOP
- (6) XL POLYOLEFIN 2 CONDUCTOR
- (7) BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

JSER NAME = footemj DESIGNED DISTRICT ONE SECTION COUNTY STATE OF ILLINOIS DRAWN REVISED STANDARD TRAFFIC SIGNAL DESIGN DETAILS PLOT SCALE = 50,0000 ' / in CHECKED REVISED **DEPARTMENT OF TRANSPORTATION** CONTRACT NO TS-05 PLOT DATE = 3/4/2019 DATE REVISED SCALE: NONE SHEET 2 OF 7 SHEETS STA.



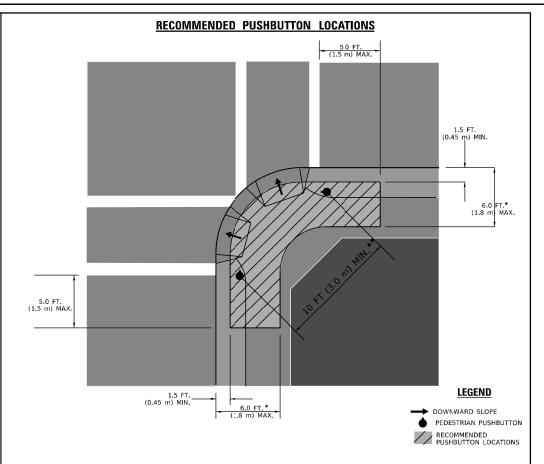
- WIDTH OR AS SHOWN ON THE TRAFFIC SIGNAL PLAN.
- 2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
- PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE MAST ARM SHAFT OR
- 4. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
- 5. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

## PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



## NOTES:

- 1. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
- 2. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE PEDESTRIAN SIGNAL POST OR THE PEDESTRIAN PUSH BUTTON POST.
- 3. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE
- 4. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."



- WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT (1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
- WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

## NOTES:

- 1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
- 2. THE BOTTOM OF THE SIGNAL HOUSING (INCLUDING BRACKETS) OF A VEHICULAR SIGNAL FACE THAT IS NOT LOCATED OVER A HIGHWAY SHALL BE AT LEAST 8 FT (2.4 m) BUT NOT MORE THAN 19 FT (5.8 m) ABOVE THE SIDEWALK OR. IF THERE IS NO SIDEWALK, ABOVE THE PAVEMENT GRADE AT THE CENTER OF
- 3. THE BOTTOM OF THE SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001, 877002, 877006, 877011 AND 877012 WITH A MINIMUM OF 16 FT (5.0 m) AND A MAXIMUM OF 18 FT. (5.5 m) FROM
- 4 THE BOTTOM OF THE TEMPORARY SPAN WIRE MOUNTED SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARD 880001 WITH A MINIMUM OF 17 FT (5.18 m) FROM THE HIGHEST POINT OF PAVEMENT.
- 5. THE TOP OF THE SIGNAL HOUSING OF A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL NOT BE MORE THAN 25.6 FT (7.8 m) ABOVE THE PAVEMENT.

### TRAFFIC SIGNAL FOLLIPMENT OFFSET

TRAFFIC SIGNAL EQUIPMENT OFFSET							
TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)					
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)					
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)					
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)					
PEDESTRIAN PUSHBUTTON POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)					
TEMPORARY WOOD POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)					
CONTROLLER CABINET	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.					
SERVICE INSTALLATION, GROUND MOUNT	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.					

- 1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
- 2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
- 3. MINIMUM DISTANCE FROM THE EDGE OF PAVEMENT TOTHE ROADWAY SIDE OF THE FOUNDATION.
- 4. ANY CHANGES TO THE OFFSETS OF THE FOUNDATIONS, FROM THE MINIMUM DISTANCES LISTED IN THE "TRAFFIC SIGNAL EQUIPMENT OFFSET" CHART AND THE TRAFFIC SIGNAL INSTALLATION PLAN, COULD EFFECT THE PLACEMENT OF THE SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND THE PEDESTRIAN PUSHBUTTONS. THE SIGNAL HEAD PLACEMENT ON THE MAST ARMS SHALL REMAIN AS PER THE TRAFFIC SIGNAL INSTALLATION PLAN AND THE "TRAFFIC SIGNAL MAST ARM AND SIGNAL POST" DETAIL ABOVE, THE PROPOSED MAST ARM LENGTHS MAY NEED TO BE REVISED TO MEET THE ABOVE REQUIREMENTS. THE PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS MUST MEET THE REQUIREMENTS UNDER THE DETAILS ON THIS SHEET.

SCALE:

USER NAME = footemj	DESIGNED -	REVISED -		DISTRICT ONE				F.A. RTF.	SECTION	ON	COUNTY	TOTAL	SHEET NO.		
	DRAWN -	REVISED -	STATE OF ILLINOIS	STANDARD TRAFFIC SIGNAL DESIGN DETAILS											
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION					TS-05		CONTRACT	NO.				
PLOT DATE = 3/4/2019	DATE -	REVISED -		SCALE: NONE	SHEET 3	OF 7	SHEETS	STA.	TO STA.		II	LLINOIS FED. A	ID PROJECT		

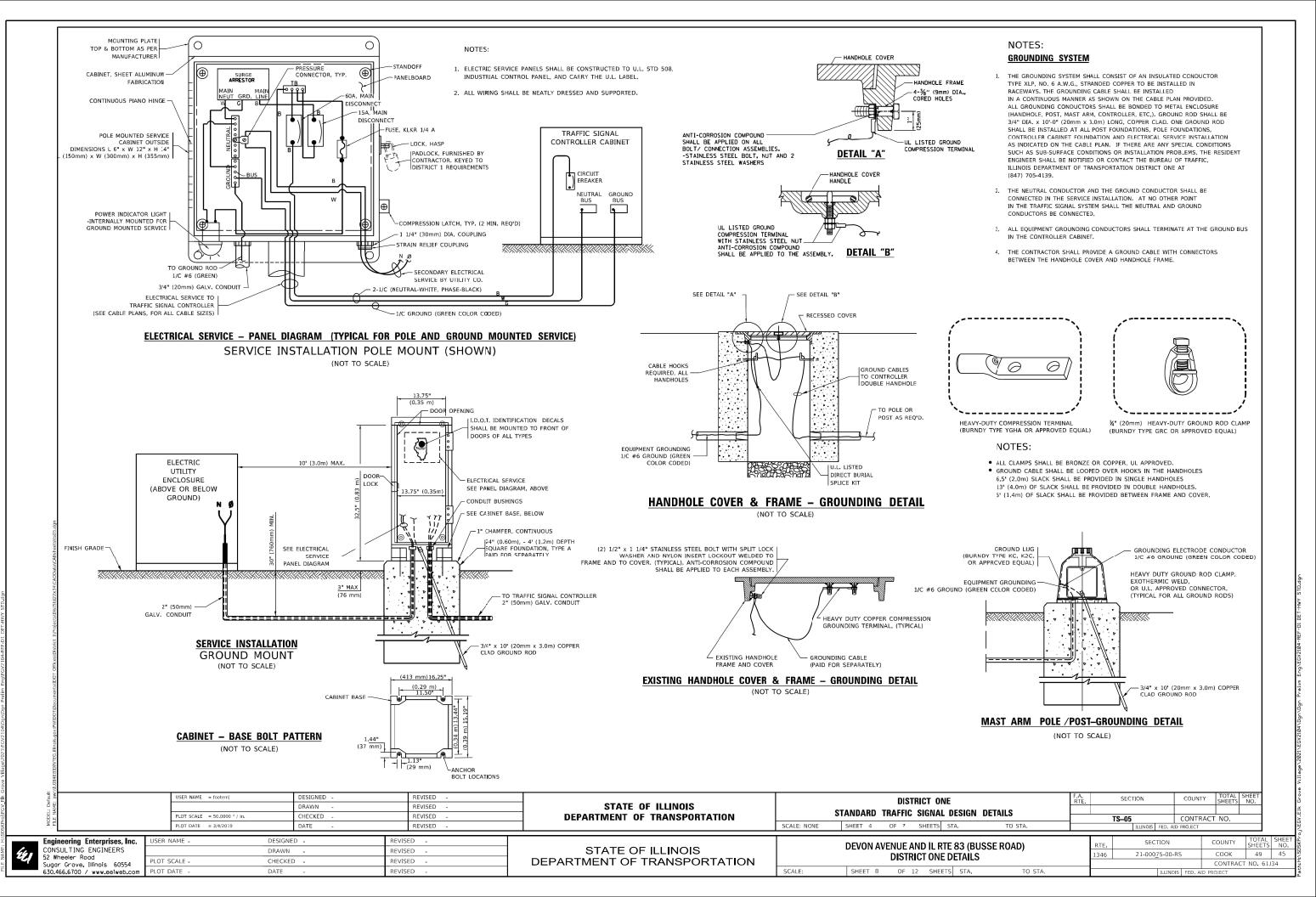
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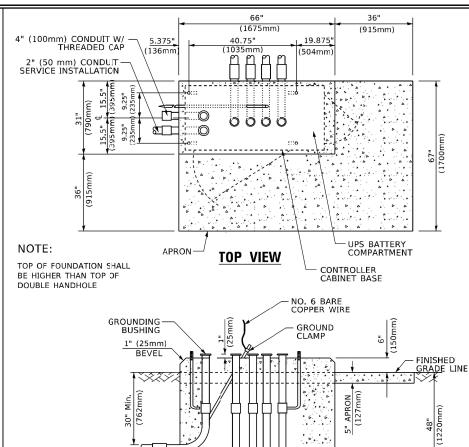
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STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**  **DEVON AVENUE AND IL RTE 83 (BUSSE ROAD)** DISTRICT ONE DETAILS OF 12 SHEETS STA. SHEET 7 TO STA.

SECTION COUNTY 21-00075-00-RS COOK 49 44 CONTRACT NO. 61J34



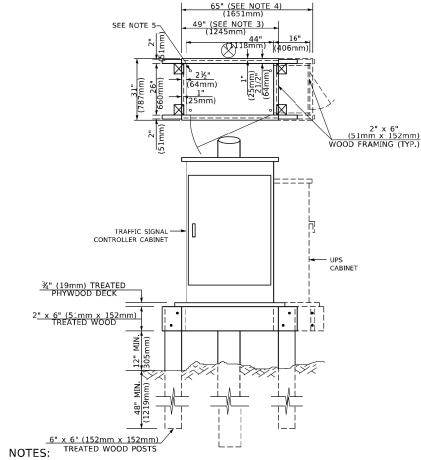
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GROUND

TYPE C FOR GROUND MOUNTED SUPER P (TYPE IV) AND SUPER R (TYPE V) **CONTROLLER CABINETS** 

- 4-4" (100 mm) CONDUITS TO DOUBLE HANDHOLE



- BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm).
   ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED
- BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16" x 25" (406mm x 635mm).
   ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
- 3. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
- 4. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
- 5. DRILLED HOLES THROUGH THE PLATFORM BASE TO MATCH THE CONTROLLER CABINET BOLT TEMPLATE. FASTEN THE CONTROLLER CABINET TO THE PLATFORM WITH CARRIAGE BOLTS, WASHERS AND NUTS.
- $\mathbf{6.}$  FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION..

## **TEMPORARY SIGNAL CONTROLLER** WOOD SUPPORT PLATFORM

CABLE SLACK LENGTH	FEET	METER
HANDHOLE	6.5	2.0
DOUBLE HANDHOLE	13.0	4.0
SIGNAL POST	2.0	0.6
MAST ARM	2.0	0.6
CONTROLLER CABINET	1.5	0.5
FIBER OPTIC AT CABINET	13.0	4.0
ELECTRIC SERVICE AT (CABINET OR SERVICE LOCATION)	1.5	0.5
GROUND CABLE (SIGNAL POST, MAST ARM, CABINET)	1.5	0.5
GROUND CABLE (BETWEEN FRAME AND COVER)	5.0	1.6

**CABLE SLACK** 

VERTICAL CABLE LENGTH	FEET	METER
MAST ARM POLE ( MAST ARM MOUNTED SIGNAL HEAD) (L = MAST ARM LENGTH - DISTANCE TO SIGNAL HEAD FROM END OF ARM)	20.0.1	60.1
BRACKET MOUNTED (MAST ARM POLE OR SIGNAL POLE)	20.0+L 13.0	6.0+L
PEDESTRIAN PUSH BUTTON	6.0	4.0 2.0
SERVICE INSTALLATION POLE MOUNT TO SERVICE DROP	13.5	4.1
SERVICE INSTALLATION POLE MOUNT TO GROUND	13.5	4.1
SERVICE INSTALLATION GROUND MOUNT	6.0	2.0
FOUNDATION (SIGNAL POST, MAST ARM POLE, CONTROLLER CABINET, SERVICE-GROUND MOUNT)	3.0	1.0

**VERTICAL CABLE LENGTH** 

OUNDATION	DEPTH
TYPE A - Signal Post	4'-0" (1.2m)
TYPE C - CONTROLLER W/ UPS	4'-0" (1.2m)
TYPE D - CONTROLLER	4'-0" (1.2m)
SERVICE INSTALLATION, GROUND MOUNT, TYPE A - SOLIARE	4'-0" (1.2m)

## **DEPTH OF FOUNDATION**

Mast Arm Length	① Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebors
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to	13'-6" (4 <sub>-</sub> 1 m)	30" (750mm)	24" (600mm)	8	6(19)
30' (9.1 m) and less than 40' (12.2 m)	11'-0" (3.4 m)	36" (900nm)	30" (750mm)	12	7(22)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	13'-0'' (4.0 m)	36" (900nm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	15'-0'' (4.6 m)	36" (900∩m)	30" (750mm)	12	7(22)
Creater than or equal to 56' (16.8 m) and less than 65' (19.8 m)	21'-0'' (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

- 1. These foundation depths are for sites which have cohesive soils (clayey slit, sandy clay, etc.) along the length of the shaft, with an average Unconfined Compressive Strength (Qui > 1,0 tsf (100 kpc). This strength shall be verified by boring data prior to construction or with testing by the Engineer during foundation drilling. The Bureau of Bridges & structures should be contacted for a revised design if other conditions are encountered.
- 3. Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42" (1060 mm) diameter foundations
- 4. For mast arm assemblies with dual arms refer to state standard 878001...

## DEPTH OF MAST ARM FOUNDATIONS, TYPE E

USER NAME = footemj	DESIGNED -	REVISED -		DISTRICT ONE	F.A. RTE	SECTION	COUNTY TOTAL SHEET
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PLOT DATE = 3/4/2019	DATE -	REVISED -		SCALE: NONE SHEET 5 OF 7 SHEETS STA. TO STA.		ILLINOIS FED, A	ID PRO.ECT

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USER NAME -DESIGNED -DRAWN REVISED CHECKED REVISED

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**  **DEVON AVENUE AND IL RTE 83 (BUSSE ROAD) DISTRICT ONE DETAILS** 

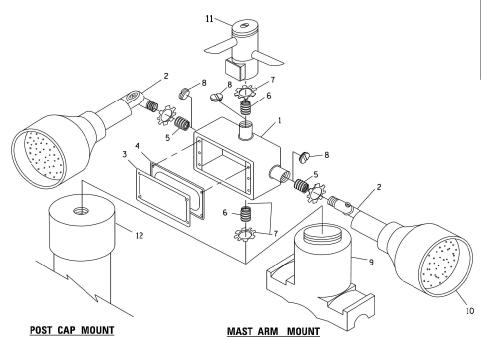
RTE.	SECTION		COUNTY	TOTAL SHEETS	SHEET NO.
1346	21-000 <u>7</u> 5-00-RS		COOK	49	46
		CONTRACT	NO. 61J	34	
	TILINOIS	EED	AID PROJECT		

OF 12 SHEETS STA.

### NOTES:

- 1. CONDUIT DEPTH SHALL BE A MINIMUM OF 30" (760mm) BELOW THE BOTTOM OF THE DRAINAGE DITCH OR ANY SLOPING GROUND
- 2. THE MINIMUM CONDUIT DEFTH APPLIES TO ALL CONDUIT PLACED UNDER ROADWAY PAVEMENT, MULTI-USE PATHS, SIDEWALKS AND SOIL SURFACES.
- 3. THE MINIMUM CONDUIT DEFTH APPLIES TO ALL HANDHOLES, HEAVY DUTY HANDHOLES AND DOUBLE HANDHOLES.

## HANDHOLE WITH MINIMUM CONDUIT DEPTH (NOT TO SCALE)



## **EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL**

USER NAME = footem DESIGNED FLOT SCALE = 50.0000 ' / in. CHECKED REVISED DATE REVISED

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**  SCALE: NONE

SECTION

R2.95" (75mm) 1.18" (30mm) 0.25" 0.23"(5mm L\_0.31"(8mm) - ASTM A36 STEEL - ASTM A-123 HOT DIPPED GALVANIZED

А	В	С	HEIGHT	WEIGHT
VARIES	9.5"(241mm)	19"(483mm)	7" (178mm) - 12" (300mm)	53 <b>l</b> bs (24kg)
VARIES	10.75"(273mm)	21,5"(546mm)	7" (178mm) - 12" (300mm)	68 lbs (31 kg)
VARIES	13.0"(330mm)	26"(660mm)	7" (178mm) - 12" (300mm)	81 lbs (37 kg)
VARIES	18.5"(470mm)	37"(940mm)	7" (178mm) - 12" (300mm)	126 lbs (57 kg)

### SHROUD

- . DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM FOLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
- 2. THE SUPPLIER SHALL VERIFIED THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
- 3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.

## NOTE: SUPPORT EXISTING CABINET AND CONTROL EQUIPMENT ABOVE FOUNDATION TO KEEP TRAFFIC SIGNAL FUNCTIONING WHILE FOUNDATION MODIFICATION WORK IS PROCEEDING. DIMENSION 4" (100mm) LARGER THAN CONTROLLER CABINET BASE DIMENSION, BOTH DIRECTIONS 1" (25mm) BEVEL BREAK DOWN EXISTING FOUNDATION 12" (300mm 9" (225mm) No. 3 DOWEL 1'-6" (450mm) LONG ON 12" (300mm) CENTER (8 REO'D) EXISTING CONDUIT —— 2" (50mm), 4" (100mm) & 4" (100mm) NEW TYPE "D" (MODIFIED) FOUNDATION

MODIFY EXISTING TYPE "D" FOUNDATION

## OUTLET BOX- GALV, 21 CU.IN. (0.000344 CU-M) LAMP HOLDER AND COVER OUTLET BOX COVER 4 RUBBER COVER GASKET 5 REDUCING BUSHING 6 ¾"(19 mm) CLOSE NIPPLE ¾"(19 mm) LOCKNUT | 7 | 13 mm | EOCKM | | 8 | 8 | 19 mm | HOLE PLUG | | 9 | SADDLE BRACKET - GALV. | | 10 | 6 | WATT PAR 38 LED FLOOD LAMP | | 11 | DETECTOR UNIT | | 12 | POST CAP [18 FT. (5.4 m) POST MIN.

(1675mm

TOP VIEW

-EXISTING CONDUITS

**MODIFY EXISTING TYPE "D" FOUNDATION** TO TYPE "C" FOUNDATION

(NOT TO SCALE)

EXISTING GROUND ROD

NO. 6 BARE COPPER WIRE

GROUND CLAMP

(225mm)

(1035mm)

PROPOSED-

EXISTING ANCHOR BOLTS

1"(25mm) BEVEL

APRON

(915mm)

CONTROLLER CABINET BASE

FINISHED

LONG (8 REQ.)

-NO. 3 DOWEL 18" (450mm

19.875"

(504mm)

- 1. ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
- 2. ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
- 3. WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A 3/4 "(19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.

# EXISTING CONDUIT PLAN ELEVATION

## NOTES:

- 1. HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
- 2. REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCLUDED WITH THE COST OF THE HANDHOLE.

## HANDHOLE TO INTERCEPT EXISTING CONDUIT

DISTRICT ONE RTE. SECTION COUNTY	SHEETS NO	SHE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS  TS-05 CONTRA	T NO.	-
SHEET 6 OF 7 SHEETS STA. TO STA.   ILLINOIS FED. AID PROJECT		_

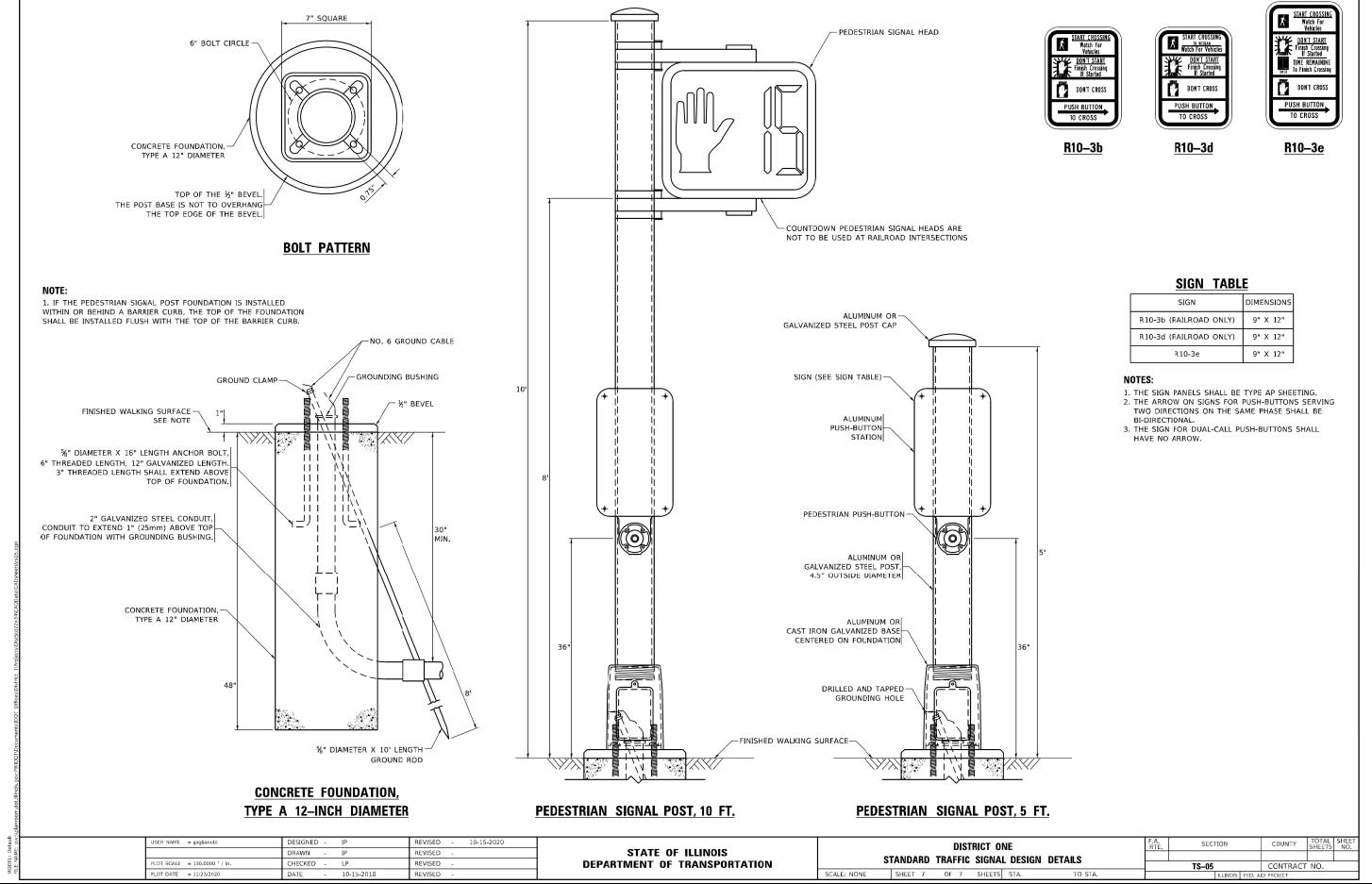
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USER NAME

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STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**  **DEVON AVENUE AND IL RTE 83 (BUSSE ROAD)** DISTRICT ONE DETAILS

COUNTY 21-000<u>7</u>5-00-RS COOK 49 47 CONTRACT NO. 61J34



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USER NAME -DESIGNED -REVISED -DRAWN REVISED PLOT SCALE -CHECKED -REVISED

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**  DISTRICT ONE DETAILS

SECTION **DEVON AVENUE AND IL RTE 83 (BUSSE ROAD)** 21-000<u>7</u>5-00-RS COOK 49 48 CONTRACT NO. 61J34 SHEET 11 OF 12 SHEETS STA. TO STA.

BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS

\*\* = (1,5m)

LOOPS ARE SAW-CUT TO THE EDGE OF

AND HANDHOLE.

(TYP. FCR LOOPS THAT TERMINATE

OUTSIDE PAVEMENT)

IN HANDHOLES

PAVEMENT, 1" (25 mm) UNIT

SER NAME = foctemi

LOT SCALE = 50.0000 ' / i

STRAIGHT SAW CUTS TO HEAVY-

DUTY HANDHOLE

IN PAVEMENT (TYP.)

DUCT IS RUN BETWEEN EDGE OF PAVEMENT

CROSS STREET

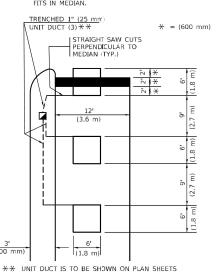
ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION)

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

## 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. AND DESIGN OF TRAFFIC SIGNALS.
HEAVY-DUTY HANDHOLES TO BE
USED WHEN THE MEDIAN IS
MOUNTABLE. REFER TO STANDARD
814001 TO ENSURE THAT HANDHOLE
FITS IN MEDIAN.



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)

> \* = (600 mm) (900 n (1.8 m) STRAIGHT SAW CUT TO HEAVY DUTY HANDHOLE (TYP.) PLACE HEAVY DUTY HANDHOLE BETWEEN FIRST AND SECOND LOOP AS SHOWN.

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

- ARTERIAL

\*6 9' \*6' 9' \*6'

IF "FAR OUT' LOOPS ARE LOCATED IN TAPER OF A RIGHT TURN LANE, DIMENSION THIS LOOP TO COVER TAPER AREA. DO NOT COVER THE LEFT TURN

LANE OR LEFT TURN

LANE TAPER.

SCALE: NONE

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

## ARTERIA OFFSET LOOPS BY 1' (300mm) FOR CALLING LOOP IN RIGHT TURN LAN ADJUSTED FOR DRIVEWAY OR OTHER OBSTRUCTION WHEN ADJUSTMENT REQUIRED, DETECTORS WILL NORMALLY BE MOVED CLOSES TO THE INTERSECTION. \* = (1.8m)DEPENDING ON DRIVE CALLING LOOPS [TYP.-12' (3.6m) LANES] [TYP.-ALL LEGS-VOLUME 'FAR OUT" DETECTION)] + - THESE DIMENSIONS WILL BE VARIABLE [6' (1.8m) MINIMUM 25' (7.6 m) MAXIMUM] IOFE SET LOOPS BY △ - THESE DIMENSIONS STRAIGHT SAW CUTS SHALL BE 5' (1.5m) FOR 10' (3.0m) LANE WIDTHS **DETAIL 1 DETAIL 2**

### 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.
- st ONE DIMENSION OF <u>ALL</u> DETECTOR LOOPS SHALL BE SIX FEET
- st 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).
- st 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.

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STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

STATE OF ILLINOIS

**DEPARTMENT OF TRANSPORTATION** 

**DEVON AVENUE AND IL RTE 83 (BUSSE ROAD)** DISTRICT ONE DETAILS OF 12 SHEETS STA.

DISTRICT 1 - DETECTOR LOOP INSTALLATION

DETAILS FOR ROADWAY RESURFACING

OF 1 SHEETS STA.

RTE.	SECTION			COUNTY	TOTAL SHEETS	SHEET NO.
1346	21-000 <u>7</u> 5-00-RS			COOK	49	49
				CONTRACT NO. 61J34		
		THINOIS	FED ΔI	ID PROJECT		

CONTRACT NO