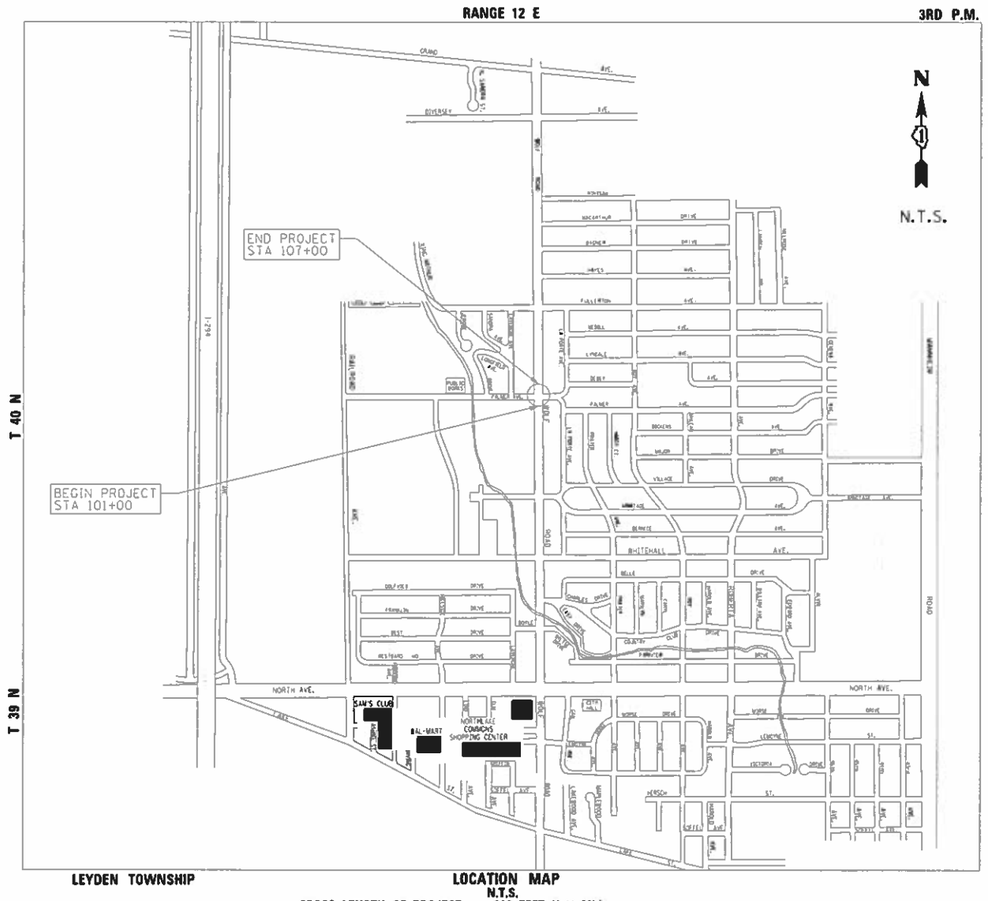
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2690	23-00101-00-TL	COOK	28	1
	ILLINOIS	CONTRACT NO. 61L09		

03-07-2025 LETTING ITEM 004

FOR INDEX OF SHEETS, SEE SHEET NO. 2

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED FEDERAL AID HIGHWAY

FAU 2690 WOLF ROAD /MUN 3000 PALMER AVENUE
TRAFFIC SIGNAL MODERNIZATION INTERSECTION IMPROVEMENTS
SECTION NO.: 23-00101-00-TL
PROJECT NO.: UXFQ(887)
CITY OF NORTHLAKE
COOK COUNTY
C-91-147-24

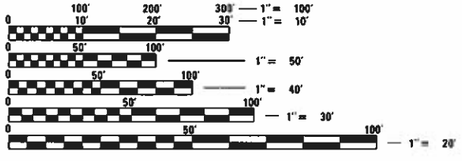


LOCATION MAP
N.T.S.

GROSS LENGTH OF PROJECT = 600 FEET (0.11 MI.)
NET LENGTH OF PROJECT = 600 FEET (0.11 MI.)

DESIGN DESIGNATION ROUTE : MAJOR COLLECTOR
DESIGN SPEED = 30 M.P.H.
POSTED SPEED = 30 M.P.H.

TRAFFIC DATA: 2022
ADT = 11,800 (WOLF ROAD)
2,250 (PALMER AVENUE)



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.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500

PROFESSIONAL DESIGN FIRM NO.: 184-00175-0014
EXPIRATION DATE: APRIL 30, 2025

CONTRACT NO. 61L09

FEDERAL AID PROGRAM ENGINEER: CARMEN E. RAMOS, P.E. SCHAUMBURG, ILLINOIS

JOSEPH DEFRENZA 062-076672 REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS

Joseph DeFrenza — 11/25/24
ENGINEER — DATE

JOSEPH DEFRENZA
ILLINOIS REGISTRATION No. 062-076672
EXPIRATION DATE: 11/30/2025
THIS SEAL AND SIGNATURE PERTAINS TO SHEETS 1-14

ELIZABETH A. JENSEN 062-067808 LICENSED PROFESSIONAL ENGINEER STATE OF ILLINOIS

Elizabeth A. Jensen — 11/25/24
ENGINEER — DATE

ELIZABETH A JENSEN
ILLINOIS REGISTRATION No 062-067808
EXPIRATION DATE 11-30-2025
THIS SEAL AND SIGNATURE PERTAINS TO SHEETS 15-28

APPROVED
CITY OF NORTHLAKE, MAYOR

PASSED DEC 30, 2024
DISTRICT 1 ENGINEER OF LOCAL ROADS AND STREETS

RELEASED FOR BID BASED ON LIMITED REVIEW 12/30/2024
REGIONAL ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

GENERAL NOTES

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	INDEX OF SHEETS, GENERAL NOTES AND HIGHWAY STANDARDS
3-7	SUMMARY OF QUANTITIES
8	TYPICAL SECTIONS
9	ALIGNMENT, TIES & BENCHMARKS
10	REMOVAL PLAN
11	PROPOSED PLAN
12	EROSION CONTROL AND LANDSCAPING PLAN
13	PAVEMENT MARKING PLAN
14	ADA RAMP GRADING PLAN
15-28	TRAFFIC SIGNAL PLANS

HIGHWAY STANDARDS

000001-08 - STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS

424001-12 - PERPENDICULAR CURB RAMPS FOR SIDEWALKS

424006-06 - DIAGONAL CURB RAMPS FOR SIDEWALKS

424021-07 - DEPRESSED CORNER FOR SIDEWALKS

442201-03 - CLASS C AND D PATCHES

606001-08 - CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER

701101-05 – OFF-ROAD OPERATIONS, MULTILANE, 15' (4.5M) TO 24" (600MM) FROM PAVEMENT EDGE

701427-05 – LANE CLOSURE, MULTILANE, INERMITTENT OR MOVING OPERATION, FOR SPEEDS ≤ 40 MPH

701701-10 - URBAN LANE CLOSURE, MULTILANE INTERSECTION

701801-06 - SIDEWALK, CORNER OR CROSSWALK CLOSURE

701901-10 - TRAFFIC CONTROL DEVICES

720016-04 – MAST ARM MOUNTED STREET NAME SIGNS

805001-01 – ELECTRIC SERVICE INSTALLATION DETAILS

814001-03 – HANDHOLES

814006-03 – DOUBLE HANDHOLES

857001-01 – STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES

862001-01 – UNINTERRUPTABLE POWER SUPPLY (UPS)

873001-02 – TRAFFIC SIGNAL GROUNDING & BONDING

877001-08 – STEEL MAST ARM ASSEMBLY AND POLE, 16' THROUGH 55'

878001-11 – CONCRETE FOUNDATION DETAILS

880001-01 – SPAN WIRE MOUNTED SIGNALS AND FLASHING BEACON INSTALLATION

880006-01 – TRAFFIC SIGNAL MOUNTING DETAILS

886001-01 – DETECTOR LOOP INSTALLATIONS

886006-01 – TYPICAL LAYOUTS FOR DETECTION LOOPS

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, AND PERMITS

1. ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", ADOPTED JANUARY 1, 2022; THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS", ADOPTED JANUARY 1, 2025; THE LATEST EDITION OF THE "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" (IMUTCD); "THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS" 2020 EIGHTH EDITION; THE "ILLINOIS URBAN MANUAL " AND THE "ILLINOIS URBAN MANUAL FIELD MANUAL FOR INSPECTION OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES"; THE "AMERICANS WITH DISABILITIES ACT OF 1990 ACCESSIBILITY GUIDELINES"; THE "DRAFT" REHABILITATION ACT OF 1973 (SECTION 504); THE PUBLIC RIGHTS-OF-WAY ACCESSIBILITY GUIDELINES; THE "DETAILS" IN THE PLANS AND THE "SPECIAL PROVISIONS" INCLUDED IN THE CONTRACT DOCUMENTS.

2. ANY REFERENCE TO STANDARDS THROUGHOUT THE PLANS SHALL BE INTERPRETED AS THE LATEST IDOT HIGHWAY STANDARD.

GENERAL NOTES

1. THE CITY OF NORTHLAKE (OWNER) AND OWNER'S REPRESENTATIVE SHALL BE NOTIFIED IN WRITING A MINIMUM OF THREE (3) FULL BUSINESS DAYS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

2. THE LOCATION OF EXISTING DRAINAGE STRUCTURES, UNDERGROUND UTILITIES, SUCH AS WATER MAIN, SEWERS, GAS LINES, ETC., AS SHOWN ON THE PLANS, HAS BEEN DETERMINED FROM THE BEST AVAILABLE INFORMATION AND IS GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. HOWEVER, THE CITY AND THE ENGINEER DO NOT GUARANTEE THEIR ACCURACY AND DO NOT ASSUME RESPONSIBILITY IN THE EVENT THAT DURING CONSTRUCTION, UTILITIES OTHER THAN THOSE SHOWN MAY BE ENCOUNTERED, AND THAT THE ACTUAL LOCATION OF THOSE WHICH ARE SHOWN MAY BE DIFFERENT FROM THE LOCATION AS SHOWN ON THE DRAWINGS. THE EXACT HORIZONTAL AND VERTICAL LOCATIONS SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR.

3. NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN THE SURFACE AND/OR SUBSURFACE FEATURES INDICATED ON THE DRAWINGS AND EXISTING FIELD CONDITONS.

4. THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT (800) 892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, CABLE AND GAS FACILITIES AND THE CITY OF NORTHLAKE FOR FIELD LOCATIONS OF BURIED WATER, SANITARY AND STORM FACILITIES. TWO (2) WORKING DAYS IN ADVANCE NOTICE IS REQUIRED.

5. THE CONTRACT DOCUMENTS ARE NOT INTENDED TO SHOW EVERY AND ALL DETAILS OF WORK TO BE PERFORMED OR EQUIPMENT TO BE SUPPLIED. THE INTENT OF THE CONTRACT DOCUMENTS IS TO ILLUSTRATE THE CONCEPTUAL DESIGN AND LAYOUT. THE CONTRACTOR SHALL BE KNOWLEDGEABLE AND REGULARLY ENGAGED IN THE TYPE OF WORK DESCRIBED BY THESE CONTRACT DOCUMENTS AND SHALL BE RESPONSIBLE FOR UNDERSTANDING THEIR INTENT. ANY WORK TO BE PERFORMED OR ITEM OF EQUIPMENT TO BE SUPPLIED WHICH IS NOT SPECIFICALLY CALLED FOR BY THESE CONTRACT DOCUMENTS BUT WHICH IS NECESSARY TO PROVIDE A COMPLETE AND SUCCESSFUL WORKING SYSTEM SHALL BE INCLUDED IN THE CONTRACTOR'S SCOPE OF WORK.

6. THE WORK PERFORMED UNDER THIS CONTRACT SHALL IN NO WAY INTERFERE WITH THE NORMAL OPERATION OF ANY EXISTING UTILITY SERVICE. THE CONTRACTOR SHALL FURNISH ALL NECESSARY ITEMS OF EQUIPMENT REQUIRED TO MAINTAIN SUCH NORMAL OPERATION AT ALL TIMES.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEANS/METHODS AND TECHNIQUES OF CONSTRUCTION. OWNER'S REPRESENTATIVE/ENGINEER'S REVIEW OF SAME DOES NOT RELIEVE CONTRACTOR OF THIS RESPONSIBILITY. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SAFETY AND JOB SITE SAFETY.

8. THE GENERAL OR SUB-CONTRACTOR SHALL LIMIT THEIR CONSTRUCTION AND STAGING ACTIVITIES TO THE AREAS DESIGNATED ON THE PLANS. ANY DAMAGE TO AREAS BEYOND THESE LIMITS SHALL BE RETURNED TO THE STATE IT WAS FOUND PRIOR TO NEW CONSTRUCTION, EXCEPT WHERE NEW WORK IS SHOWN, BY THE CONTRACTOR TO THE SATISFACTION OF THE OWNER AND ENGINEER.

9. THE 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.

10. ALL TREE PROTECTION, PRUNING AND ROOT PRUNING SHALL BE COMPLETED BEFORE CONSTRUCTION OPERATIONS COMMENCE IN ANY AREA. AT NO TIME SHALL THE CONTRACTOR PRUNE OR REMOVE ANY TREES UNLESS SPECIFICALLY DIRECTED BY THE ENGINEER.

DEMOLITION NOTES

1. THE CONTRACTOR WILL BE REQUIRED TO RELOCATE OR REMOVE AND REINSTALL SIGNS WHICH INTERFERE WITH CONSTRUCTION OPERATIONS, AND TO TEMPORARILY RESET ALL SUCH SIGNS DURING CONSTRUCTION OPERATIONS. ANY EXISTING SIGN DAMAGED DURING THE REMOVAL AND REPLACEMENT PROCESS SHALL BE REPLACED BY THE CONTRACTOR.

2. ALL SAWCUTTING SHALL BE FULL DEPTH TO PROVIDE A CLEAN EDGE TO MATCH NEW CONSTRUCTION. MATCH EXISTING ELEVATIONS AT POINTS OF CONNCTION FOR NEW AND EXISTING PAVEMENT, CURB, SIDEWALKS, ETC. ALL SAWCUT LOCATIONS INDICATED ON THE PLANS ARE APPROXIMATE AND MAY BE ADJUSTED IN THE FIELD TO ACCOMMODATE CONDITIONS, JOINTS, MATERIAL TYPE, ETC. REMOVE MINIMUM AMOUNT NECESSARY FOR INSTALLATION OF PROPOSED IMPROVEMENTS.

3. ALL SAWCUTTING SHALL BE INCLUDED IN THE COST OF THE ITEM BEING REMOVED. ALL CONCRETE SAWCUTTING SHALL UTILIZE A "WET CUTTING METHOD" AND SHALL BE THOROUGHLY CLEANED AT THE END OF EACH WORKING DAY.

4. ALL SAWCUTTING SHALL BE PERFORMED PRIOR TO BEGINNING REMOVAL.

5. KEEP ALL CITY STREETS FREE AND CLEAR OF CONSTRUCTION RELATED DIRT, DUST AND/OR DEBRIS.

UTLITY NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE OWNERS OF EXISTING FACILITIES SO THAT THE UTILITIES AND THEIR APPURTENANCES MAY BE LOCATED AND ADJUSTED OR MOVED, IF NECESSARY, PRIOR TO THE START OF CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL COOPERATE WITH ALL UTILITY OWNERS AS PROVIDED FOR IN THE STANDARD SPECIFICATIONS.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND OR SURFACE UTILITIES EVEN THOUGH THEY MAY NOT BE SHOWN ON THE PLANS. ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ENGINEER AS COORDINATED WITH THE CITY.

3. 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.

4. ANY EXISTING OR PROPOSED STORM SEWER DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR.

5. ADJUST MANHOLE OR VAULT RIM ELEVATIONS TO FINAL GRADE AT TIME OF FINAL PAVING.

6. STRUCTURE ADJUSTMENTS: PRECAST CONCRETE ADJUSTMENT RINGS ARE NOT TO EXCEED 12 INCHES IN OVERALL HEIGHT AND SHALL BE USED IF AN ADJUSTMENT TO THE FINISHED GRADE ESTABLISHED BY THE RESIDENT ENGINEER IS NECESSARY. MAXIMUM TWO RINGS.

7. THE FINAL RING (AND ALL RINGS UNDER 2") ON ALL NEW STRUCTURES AND STRUCTURE ADJUSTMENTS SHALL BE RUBBER. MASTIC SHALL BE PLACED BETWEEN EACH RING. NO EZ-STIK SHALL BE USED.

8. THE CONTRACTOR SHALL DETERMINE IF FLAT SLAB TOPS ARE REQUIRED FOR PROPOSED STORM SEWER STRUCTURES. SUPPLYING FLAT SLAB TOPS SHALL BE INCLUDED IN THE COST OF THE PROPOSED STORM SEWER STRUCTURES.

9. THE CONTRACTOR SHALL NOT OPEN OR SHUT ANY WATER VALVES OR FIRE HYDRANTS. CONTACT WATER DEPARTMENT FOR THEM TO TURN VALVES OR OPERATE HYDRANTS. UNAUTHORIZED USE SHALL SUBJECT THE OFFENDER TO ARREST AND PROSECUTION.

10. BACKFILLING STORM SEWER CONSTRUCTED UNDER THE ROADWAY SPECIFIED UNDER ART. 550.07(b,c) OF THE SSRBC WILL NOT BE ALLOWED.

LANDSCAPING NOTES

1. CONTRACTOR SHALL NOT PLACE TOPSOIL AND SEEDING UNTIL THE TEMPERATURE IS 80° OR LESS AND THE FORECAST FOR THE NEXT 7 DAYS SHOWS TEMPERATURES OF 80° OR LESS. IF ALL OTHER PAY ITEMS ARE COMPLETED, THE CONTRACTOR WILL NOT BE CHARGED WORKING DAYS FOR DELAYS IN PARKWAY RESTORATION DUE TO TEMPERATURE.

2. WHEN DIRECTED BY THE ENGINEER, SUPPLEMENTAL WATERING SHALL BE APPLIED TO ALL SEEDED AREAS PRIOR TO FINAL ACCEPTANCE AT A RATE SPECIFIED BY THE ENGINEER.

3. THE CONTRACTOR SHALL ADHERE TO LIMITS OF RESTORATION SHOWN. AREAS OUTSIDE THESE LIMITS THAT ARE DAMAGED OR DISTURBED BY THE CONTRACTOR SHALL BE RESTORED BY THE CONTRACTOR.

SOIL EROSION AND SEDIMENTATION CONTROL NOTES

1. ILLINOIS URBAN MANUAL SHALL GOVERN ALL SOIL EROSION AND SEDIMENT CONTROL, AND RELATED WORK.

2. SOIL EROSION AND SEDMINET CONTROL FEATURES SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITY.

3. ALL STORM SEWER STRUCTURES THAT ARE, OR WILL BE, FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED, FILTERED, OR OTHERWISE TREATED TO REMOVE SEDIMENT. INLET PROTECTORS, IN CONFORMANCE WITH CITY REQUIREMENTS SHALL BE USED IN PAVED AREAS TO PREVENT SILTATION AND DISCHARGE INTO WATERWAYS.

4. ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED.

5. ALL TEMPORARY AND PERMANENT SEDIMENT AND EROSION CONTROL MEASURES MUST BE MAINTAINED, REPAIRED, AND INSPECTED IN CONFORMANCE WITH ALL APPLICABLE IEPA-NPDES PHASE II REQUIREMENTS.

6. REPORT RELEASES OF REPORTABLE QUANITTIES OF OIL OR HAZARDOUS MATERIALS IF THEY OCCUR IN ACCORDANCE WITH THE IEPA NPDES REQURIEMENTS.

7. ANY AND ALL DEWATERING REQUIRED TO KEEP EXCAVATIONS DRY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

STAKING NOTES

1. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL SECTION OR SUBSECTION MONUMENTS OR PROPERTY OR REFERENCE MARKERS UNTIL THE ENGINEER, HIS AGENT OR AN AUTHORIZED SURVEYOR HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATIONS.

MISCELLANEOUS NOTES

1. DIMENSIONS: IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION.

2. STOCKPILING OF EXCAVATED MATERIALS ON SITE SHALL BE MINIMIZED TO THE GREATEST EXTENT PRACTICABLE. THE CONTRACTOR SHALL PROCEED PROMPTLY WITH UNDERGROUND WORK IMMEDIATELY FOLLOWING EXCAVATION AND SHALL BACKFILL ALL EXCAVATIONS IMMEDIATELY FOLLOWING APPROVAL OF COMPLETED WORK BY THE OWNER.

FILE NAME = N:\NORTHLAKE\940032HR - Municipal Review Default	USER NAME = jdefrenza	DESIGNED JMD	REVISED -
	Projects\940032 HR 300's\940032HR358\Civil\ENGR\940032HR01.SHT	DRAWN BGC	REVISED -
	PLOT SCALE = 2'	CHECKED MEW	REVISED -
	PLOT DATE = 12/18/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS, GENERAL NOTES AND HIGHWAY STANDARDS

SCALE: N.T.S. | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2690	23-00101-00-TL	COOK	28	2
		CONTRACT NO. 61L09		
	ILLINOIS FED. AID PROJECT			

SUMMARY OF QUANTITIES					CONSTRUCTION TYPE CODE
	CODE NUMBER	ITEM	UNIT	TOTAL QUANTITY	0021 SAFETY (STU- 80% FED, 20% LOCAL)
#	20200100	EARTH EXCAVATION	CU YD	80	80
#	20400800	FURNISHED EXCAVATION	CU YD	50	50
#	21101505	TOPSOIL EXCAVATION AND PLACEMENT	CU YD	20	20
#	21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	170	170
#	25000110	SEEDING, CLASS 1A	ACRE	0.04	0.04
#	25100630	EROSION CONTROL BLANKET	SQ YD	170	170
#	28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	3	3
#	31101180	SUBBASE GRANULAR MATERIAL, TYPE B 2"	SQ YD	120	120
#	31101200	SUBBASE GRANULAR MATERIAL, TYPE B 4"	SQ YD	70	70
#	40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	50	50
#	40604062	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N70	TON	10	10
#	42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	1190	1190
#	42400800	DETECTABLE WARNINGS	SQ FT	90	90
#	44000157	HOT-MIX ASPHALT SURFACE REMOVAL, 2"	SQ YD	70	70
#	44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	160	160
#	44000600	SIDEWALK REMOVAL	SQ FT	1080	1080

# INDICATES SPECIALTY ITEM

FILE NAME = N:\NORTHLAKE\940032HR - Municipal Review\Default	USER NAME = jdefrenza	DESIGNED JMD	REVISED -
	Projects\940032 HR 300's\940032HR358\Civil\SHEETS\940032HR-GEN1.SHT	DRAWN GGC	REVISED -
	PLOT SCALE = 2'	CHECKED MEW	REVISED -
	PLOT DATE = 12/18/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: N.T.S. | SHEET 1 OF 5 SHEETS | STA. | TO STA.

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2690	23-00101-00-TL	COOK	28	3
		CONTRACT NO. 61L09		
	ILLINOIS FED. AID PROJECT			

SUMMARY OF QUANTITIES					CONSTRUCTION TYPE CODE
	CODE NUMBER	ITEM	UNIT	TOTAL QUANTITY	0021 SAFETY (STU- 80% FED, 20% LOCAL)
#	44201353	CLASS C PATCHES, TYPE II, 10 INCH	SQ YD	50	50
#	44201357	CLASS C PATCHES, TYPE III, 10 INCH	SQ YD	30	30
#	60600605	CONCRETE CURB, TYPE B	FOOT	60	60
#	60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	160	160
	67100100	MOBILIZATION	L SUM	1	1
	70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1
	70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	1
	70107025	CHANGEABLE MESSAGE SIGN	CAL DA	140	140
	72000100	SIGN PANEL - TYPE 1	SQ FT	27	27
#	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	400	400
#	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	120	120
#	78300202	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	680	680
	81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	780	780
	81028220	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	144	144
	81028240	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	415	415
	81400100	HANDHOLE	EACH	4	4

# INDICATES SPECIALTY ITEM

FILE NAME = N:\NORTHLAKE\940032HR - Municipal Review\Default	USER NAME = jdefrenza	DESIGNED JMD	REVISED -
	Projects\940032 HR 300's\940032HR358\Civil\SHEETS\940032HR_GEN02.SHT	DRAWN GJC	REVISED -
	PLOT SCALE = 2'	CHECKED MEW	REVISED -
	PLOT DATE = 12/18/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: N.T.S. | SHEET 2 OF 5 SHEETS | STA. | TO STA.

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2690	23-00101-00-TL	COOK	28	4
		CONTRACT NO. 61L09		
	ILLINOIS FED. AID PROJECT			

SUMMARY OF QUANTITIES					CONSTRUCTION TYPE CODE
	CODE NUMBER	ITEM	UNIT	TOTAL QUANTITY	0021 SAFETY (STU- 80% FED, 20% LOCAL)
	81400200	HEAVY-DUTY HANDHOLE	EACH	2	2
	81400300	DOUBLE HANDHOLE	EACH	2	2
	87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1306	1306
	87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1680	1680
	87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1984	1984
	87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	780	780
	87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	2307	2307
	87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	146	146
	87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	847	847
	87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	2	2
	87700210	STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH	1	1
	87700220	STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	1	1
	87700250	STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.	EACH	1	1
	87700265	STEEL MAST ARM ASSEMBLY AND POLE, 45 FT.	EACH	1	1
	87800100	CONCRETE FOUNDATION, TYPE A	FOOT	12	12
	87800150	CONCRETE FOUNDATION, TYPE C	FOOT	4	4

# INDICATES SPECIALTY ITEM

FILE NAME = N:\NORTHLAKE\940032HR - Municipal Review\Default	USER NAME = jdefrenza	DESIGNED JMD	REVISED -
	Projects\940032 HR 300's\940032HR358\Civil\SHEETS\940032HR3SUM3.SHT	DRAWN EGC	REVISED -
	PLOT SCALE = 2'	CHECKED MEW	REVISED -
	PLOT DATE = 12/18/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: N.T.S. | SHEET 3 OF 5 SHEETS | STA. | TO STA.

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2690	23-00101-00-TL	COOK	28	5
		CONTRACT NO. 61L09		
	ILLINOIS FED. AID PROJECT			

SUMMARY OF QUANTITIES					CONSTRUCTION TYPE CODE
	CODE NUMBER	ITEM	UNIT	TOTAL QUANTITY	0021 SAFETY (STU- 80% FED, 20% LOCAL)
	87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	48	48
	88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	8	8
	88030050	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2	2
	88030100	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2	2
	88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	2	2
	88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8	8
	88200510	TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	10	10
	88500100	INDUCTIVE LOOP DETECTOR	EACH	10	10
	88600100	DETECTOR LOOP, TYPE I	FOOT	751	751
	88700200	LIGHT DETECTOR	EACH	2	2
	88700300	LIGHT DETECTOR AMPLIFIER	EACH	1	1
	89000100	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1	1
	89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1	1
	89502380	REMOVE EXISTING HANDHOLE	EACH	7	7
	89502382	REMOVE EXISTING DOUBLE HANDHOLE	EACH	1	1
	89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	9	9

# INDICATES SPECIALTY ITEM

FILE NAME = N:\NORTHLAKE\940032HR - Municipal Review\Default	USER NAME = jdefrenza	DESIGNED JMD	REVISED -
	Projects\940032 HR 300's\940032HR358\Civil\SHEETS\940032HR358004.SHT	DRAWN GJC	REVISED -
	PLOT SCALE = 2'	CHECKED MEW	REVISED -
	PLOT DATE = 12/18/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

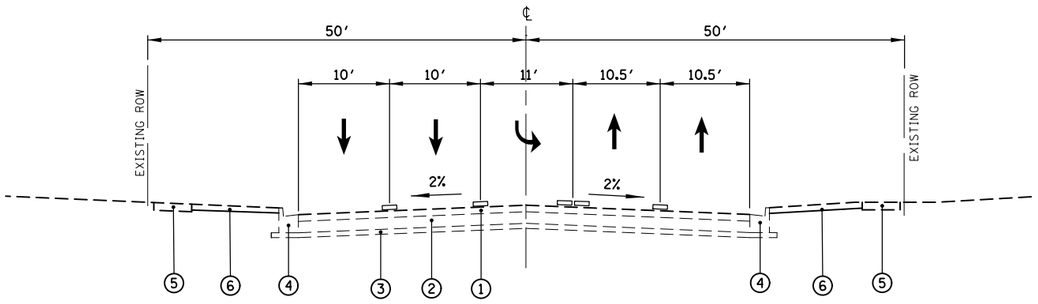
SUMMARY OF QUANTITIES

SCALE: N.T.S. | SHEET 4 OF 5 SHEETS | STA. | TO STA.

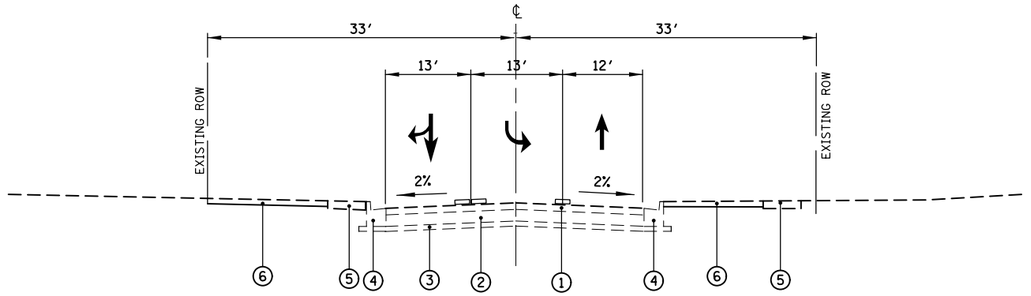
F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2690	23-00101-00-TL	COOK	28	6
		CONTRACT NO. 61L09		
	ILLINOIS FED. AID PROJECT			

	SUMMARY OF QUANTITIES				CONSTRUCTION TYPE CODE
	CODE NUMBER	ITEM	UNIT	TOTAL QUANTITY	0021 SAFETY (STU- 80% FED, 20% LOCAL)
	X0324085	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	324	324
	X1400150	SERVICE INSTALLATION, GROUND MOUNTED, METERED	EACH	1	1
	X1400367	PEDESTRIAN SIGNAL POST, 10 FT.	EACH	5	5
	X8570232	FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET	EACH	1	1
	X8620200	UNINTERRUPTABLE POWER SUPPLY (SPECIAL)	EACH	1	1
	X8760200	ACCESSIBLE PEDESTRIAN SIGNALS	EACH	8	8
	X8780012	CONCRETE FOUNDATION, TYPE A 12-INCH DIAMETER	FOOT	20	20
	X8809005	LED SIGNAL FACE, LENS COVER	EACH	14	14
	Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1
	Z0073509	PERMANENT TRAFFIC SIGNAL TIMING	EACH	1	1
	Z0073510	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1	1

# INDICATES SPECIALTY ITEM



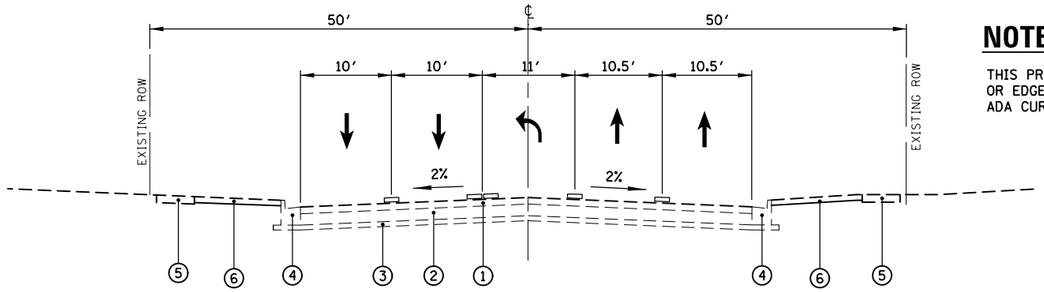
EXISTING AND PROPOSED TYPICAL SECTION
WOLF ROAD AT PALMER AVENUE
SOUTHBOUND APPROACH



EXISTING AND PROPOSED TYPICAL SECTION
WOLF ROAD AT PALMER AVENUE
WESTBOUND APPROACH

LEGEND

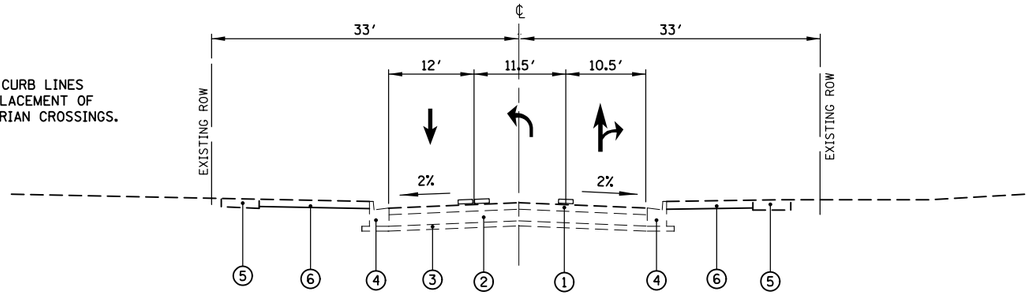
1. EXISTING HMA PAVEMENT
2. EXISTING PCC BASE COURSE
3. EXISTING SUBBASE GRANULAR MATERIAL
4. EXISTING COMBINATION CONCRETE CURB AND GUTTER
5. EXISTING CONCRETE SIDEWALK
6. TOPSOIL FURNISH AND PLACE, 4" / TOPSOIL EXCAVATION AND PLACEMENT
   SEEDING, CLASS 1A / TEMPORARY EROSION CONTROL SEEDING
   EROSION CONTROL BLANKET



EXISTING AND PROPOSED TYPICAL SECTION
WOLF ROAD AT PALMER AVENUE
NORTHBOUND APPROACH

NOTE:

THIS PROJECT WILL NOT ALTER EXISTING CURB LINES OR EDGES OF PAVEMENT, EXCEPT FOR REPLACEMENT OF ADA CURB RAMPS FOR SIGNALIZED PEDESTRIAN CROSSINGS.



EXISTING AND PROPOSED TYPICAL SECTION
WOLF ROAD AT PALMER AVENUE
EASTBOUND APPROACH

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

HMA RESURFACING		
MIXTURE TYPE	AIR VOIDS	QMP
HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N70; 2"	4.0% @ 70 GYR	LR 1030-2
QMP DESIGNATION: QUALITY CONTROL/QUALITY ASSURANCE (QC/QA) PER LR 1030-2		

NOTES

1. THE UNIT WEIGHT USED TO CALCULATE ALL HMA MIXTURE QUANTITIES IS 112 LBS/SY/IN.
2. THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY RECLAIMED MATERIALS SPECIFICATIONS.

FILE NAME = N:\NORTHLAKE\940032HR - Municipal Review\Default	USER NAME = jdefrenza	DESIGNED JMD	REVISED -
	Projects\940032 HR 300's\940032HR358\Civil\DRAWINGS\940032HR358GI.SHT	DRAWN GGD	REVISED -
	PLOT SCALE = 2'	CHECKED MEW	REVISED -
	PLOT DATE = 12/18/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

SCALE: N.T.S. | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2690	23-00101-00-TL	COOK	28	8
		CONTRACT NO. 61L09		
	ILLINOIS	FED. AID PROJECT		

ELEVATION BENCHMARKS DATUM:NAVD '88 (GPS OBSERVED)		
NO.	DESCRIPTION	ELEV.
OSBM	SQUARE CUT ON NORTHEAST CORNER OF	655.54
17-12	TRAFFIC CONTROL BOX AT SW CORNER OF	
	WOLF RD. & PALMER AV.	
OSBM	NORTHWEST CORNER OF BOTTOM CONC. STEP	654.36
21-22	TO ADDRESS #478 LAPORTE AV.	

40 0 40
SCALE IN FEET

POT Sta 200+00.00
N: 1912991.6247
E: 1100920.0330

POT Sta 100+00.00
N: 1912593.9494
E: 1101208.5928

POT Sta 108+00.00
N: 1913393.3920
E: 1101178.7902

OSBM 17-12
ELEV. 655.54

CP 86590
N 1913028.8128, E 1101157.3372
Sta 104+36.47, Off 35.0199' Lt

22.8'
30.1'
18.5'

PALMER AV.

WOLF RD

100+00 101 102 103 104 105+00 106 107

BEGIN PROJECT
STA. 101+00

END PROJECT
STA. 107+00

200+00 202 204

POT Sta 205+00.00
N: 1913005.5346
E: 1101419.8363

CP 23
N 1912929.5803, E 1101230.8698
Sta 103+34.57, Off 34.7649' Rt

26.1'
23.9'
36'

CP 87027
N 1912983.1264, E 1101371.3315
Sta 204+50.89, Off 21.0501' Rt

31.7'
37.6'
34.4'

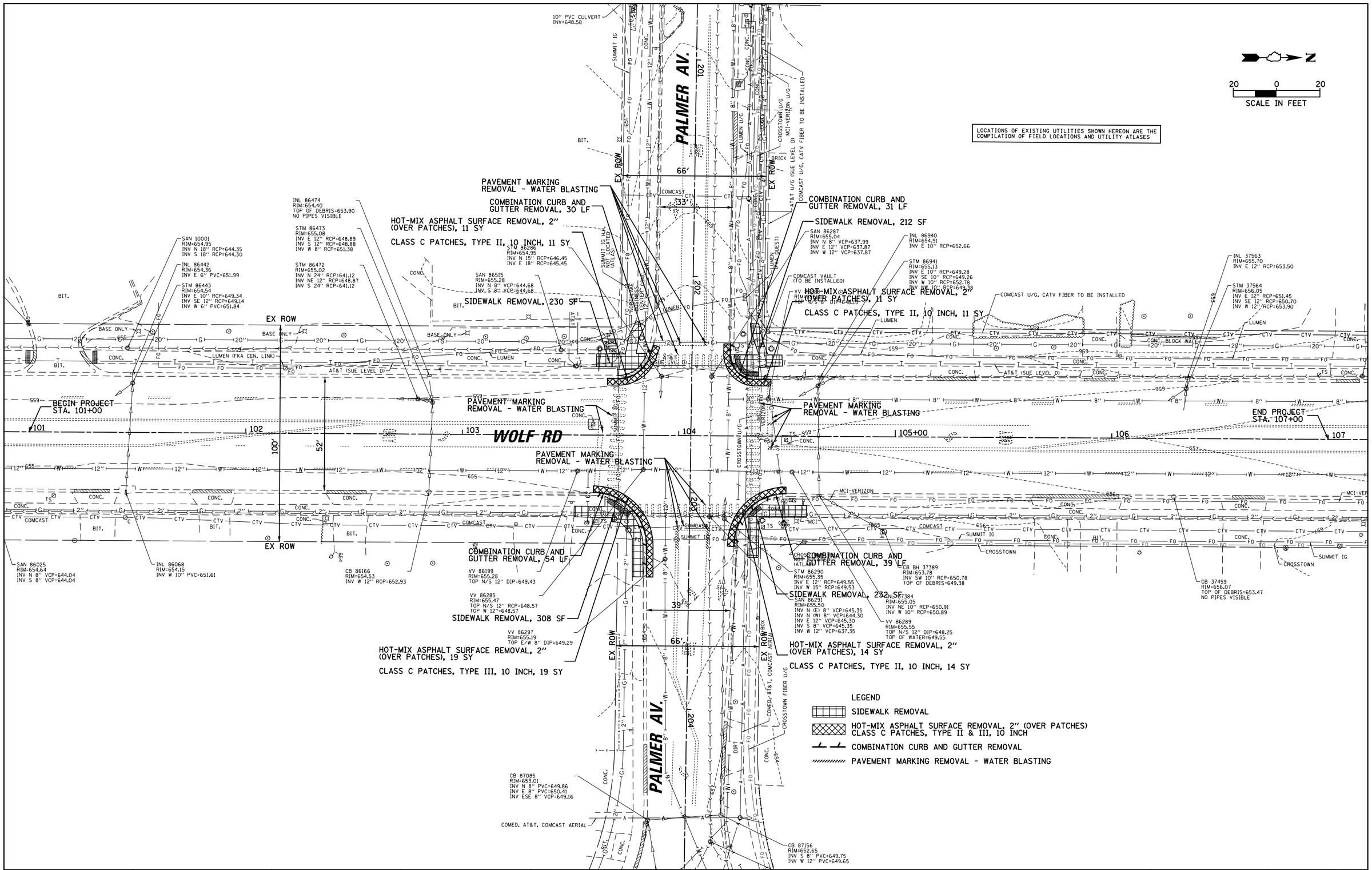
FILE NAME = N:\NORTHLAKE\940032HR - Municipal Review\Default	USER NAME = jdefrenza	DESIGNED JMD	REVISED -
	Projects\940032 HR 300's\940032HR358\Civil\ALIGNMENT_TIES_BENCHMARKS.SHT	DRAWN DGD	REVISED -
	PLOT SCALE = 80'	CHECKED MEW	REVISED -
	PLOT DATE = 12/18/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ALIGNMENT, TIES & BENCHMARKS

SCALE: 1" = 40' | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2690	23-00101-00-TL	COOK	28	9
		CONTRACT NO. 61L09		
		ILLINOIS FED. AID PROJECT		



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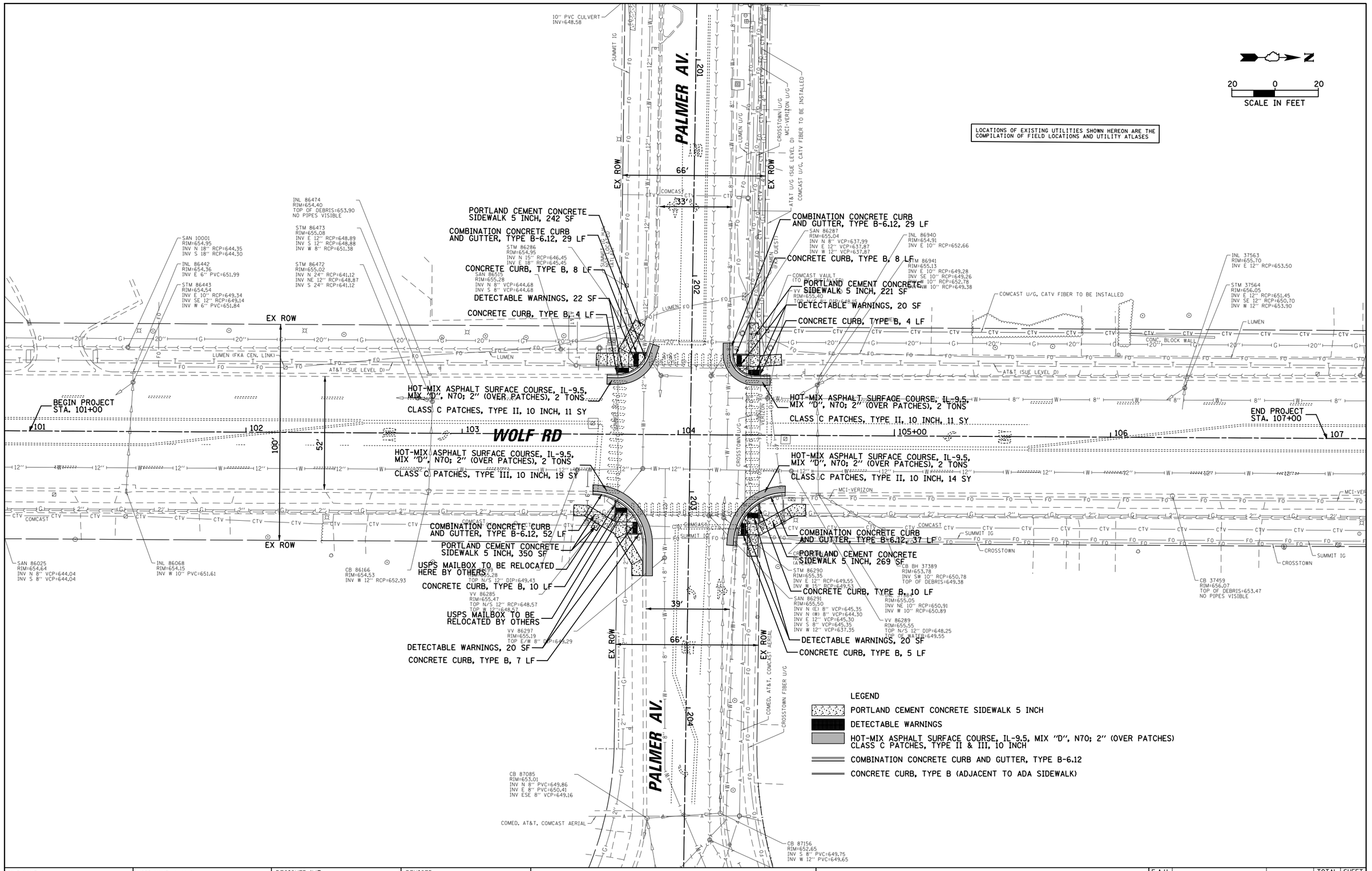
	Projects\940032 HR 300's\940032HR358\Civil\940032HR_TRAFFIC01.SHT	DRAWN EGC	REVISED -
	PLOT SCALE = 40'	CHECKED MEW	REVISED -
	PLOT DATE = 12/18/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REMOVAL PLAN

SCALE: 1" = 20' | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2690	23-00101-00-TL	COOK	28	10
		CONTRACT NO. 61L09		
	ILLINOIS FED. AID PROJECT			



FILE NAME = N:\NORTHLAKE\940032HR - Municipal Review\Default	USER NAME = jdefrenza	DESIGNED JMD	REVISED -
	Projects\940032 HR 300's\940032HR358\Civil\940032HR358PLN01.SHT	DRAWN GGC	REVISED -
	PLOT SCALE = 40'	CHECKED MEW	REVISED -
	PLOT DATE = 12/18/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED PLAN

SCALE: 1" = 20' | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2690	23-00101-00-TL	COOK	28	11
		CONTRACT NO. 61L09		
		ILLINOIS FED. AID PROJECT		

N

20 0 20
SCALE IN FEET

PALMER AV.

201

202

203

204

EX ROW

66'

33'

39'

LANDSCAPE RESTORATION, 26 SY

LANDSCAPE RESTORATION, 31 SY

LANDSCAPE RESTORATION, 38 SY

LANDSCAPE RESTORATION, 43 SY

CONC. BLOCK WALL

BEGIN PROJECT
STA. 101+00

END PROJECT
STA. 107+00

101 102 103 104 105+00 106 107

WOLF RD

100'

52'

LEGEND

PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH

DETECTABLE WARNINGS

HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N70; 2" (OVER PATCHES)
CLASS C PATCHES, TYPE II & III, 10 INCH

COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12

CONCRETE CURB, TYPE B (ADJACENT TO ADA SIDEWALK)

LANDSCAPE RESTORATION
TOPSOIL FURNISH AND PLACE, 4" / TOPSOIL EXCAVATION AND PLACEMENT
SEEDING, CLASS 1A / TEMPORARY EROSION CONTROL SEEDING
EROSION CONTROL BLANKET

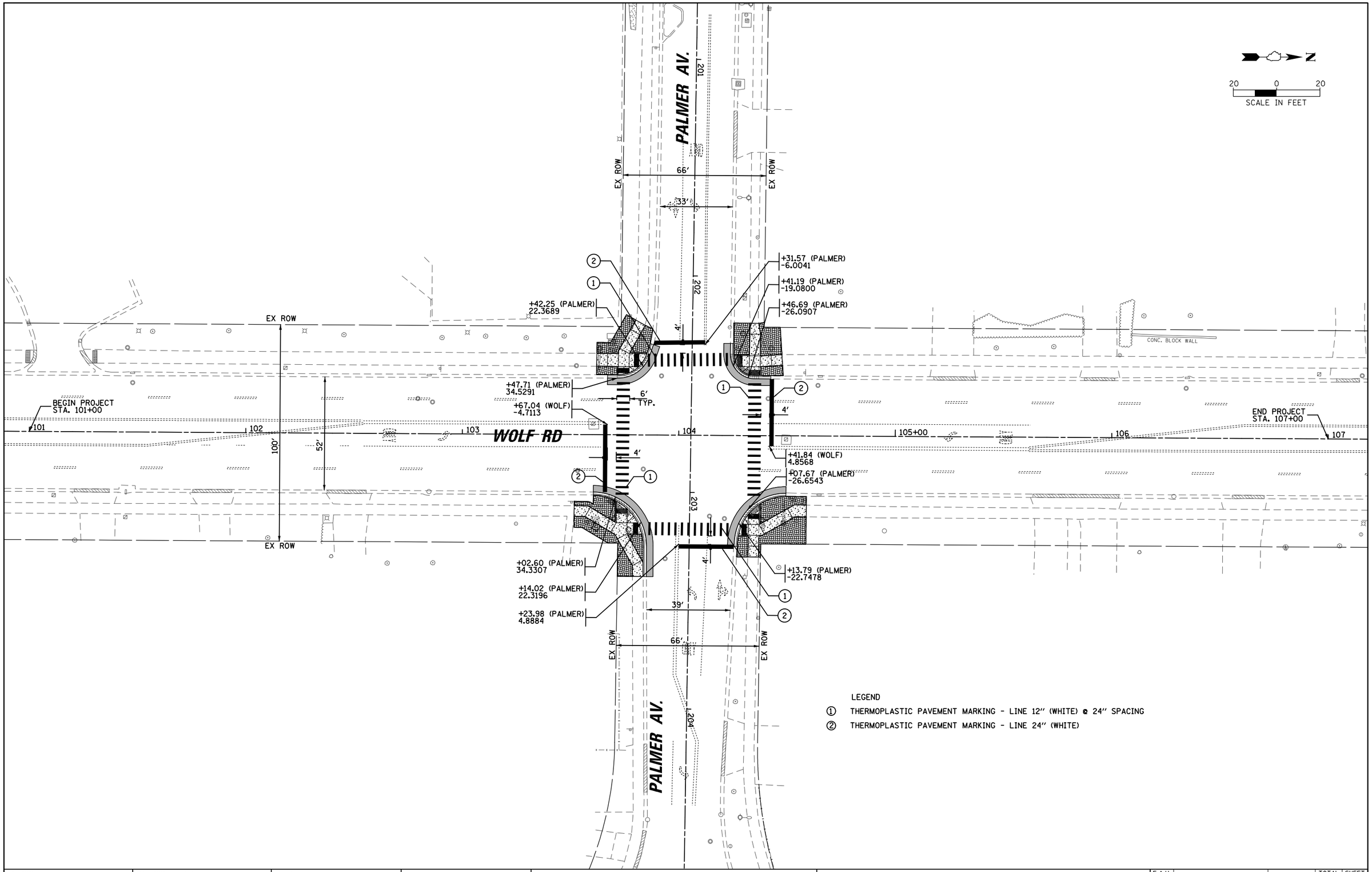
FILE NAME = N:\NORTHLAKE\940032HR - Municipal Review\Default	USER NAME = jdefrenza	DESIGNED JMD	REVISED -
	Projects\940032 HR 300's\940032HR358\Civil\SHEETS\940032HR-TL-01.SHT	DRAWN GJC	REVISED -
	PLOT SCALE = 40'	CHECKED MEW	REVISED -
	PLOT DATE = 12/18/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL AND LANDSCAPING PLAN

SCALE: 1" = 20' | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2690	23-00101-00-TL	COOK	28	12
		CONTRACT NO. 61L09		
	ILLINOIS FED. AID PROJECT			



LEGEND

① THERMOPLASTIC PAVEMENT MARKING - LINE 12" (WHITE) @ 24" SPACING

② THERMOPLASTIC PAVEMENT MARKING - LINE 24" (WHITE)

FILE NAME =	USER NAME = jdefrenza	DESIGNED JMD	REVISED -
N:\NORTHLAKE\940032HR - Municipal Review	Projects\940032 HR 300's\940032HR358\Civil\940032HR358PAVMRK01.SHT	DRAWN EGC	REVISED -
	PLOT SCALE = 40'	CHECKED MEW	REVISED -
Default	PLOT DATE = 12/18/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLAN

SCALE: 1" = 20' | SHEET 1 OF 1 SHEETS | STA. | TO STA.

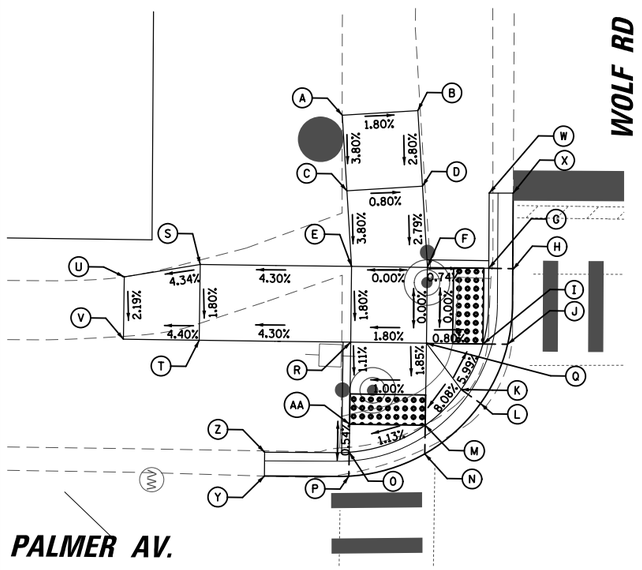
F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2690	23-00101-00-TL	COOK	28	13
		CONTRACT NO. 61L09		
		ILLINOIS FED. AID PROJECT		

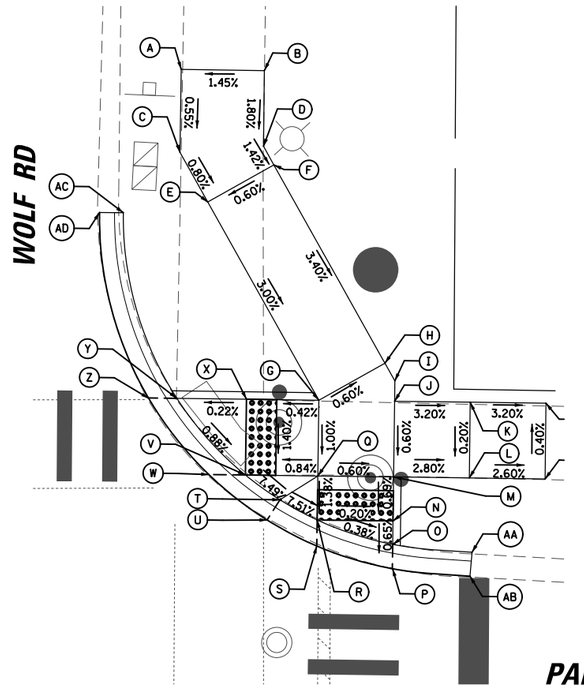
N

5 0 5

SCALE IN FEET

NW PALMER AVENUE			
POINT	STA	OFFSET	ELEV
A	202+35.66	-41.49	655.48
B	202+40.65	-41.88	655.39
C	202+36.05	-36.51	655.29
D	202+41.03	-36.89	655.25
E	202+36.43	-31.52	655.1
F	202+41.43	-31.53	655.1
G	202+45.49	-31.54	655.07
H	202+47.07	-31.46	655.07
I	202+45.18	-26.54	655.07
J	202+46.81	-26.43	655.07
K	202+43.78	-23.51	655.27
L	202+45.08	-22.61	655.06
M	202+41.45	-21.12	655
N	202+41.45	-19.23	655
O	202+36.46	-19.26	654.94
P	202+36.46	-17.68	654.94
Q	202+41.44	-26.53	655.1
R	202+36.44	-26.52	655.01
S	202+26.43	-31.5	654.67
T	202+26.44	-26.5	654.58
U	202+21.44	-30.61	654.45
V	202+21.44	-26.49	654.36
W	202+45.44	-36.51	655.19
X	202+47.02	-36.52	655.08
Y	202+30.89	-17.6	654.66
Z	202+30.87	-19.18	654.74
AA	202+36.45	-21.11	654.95





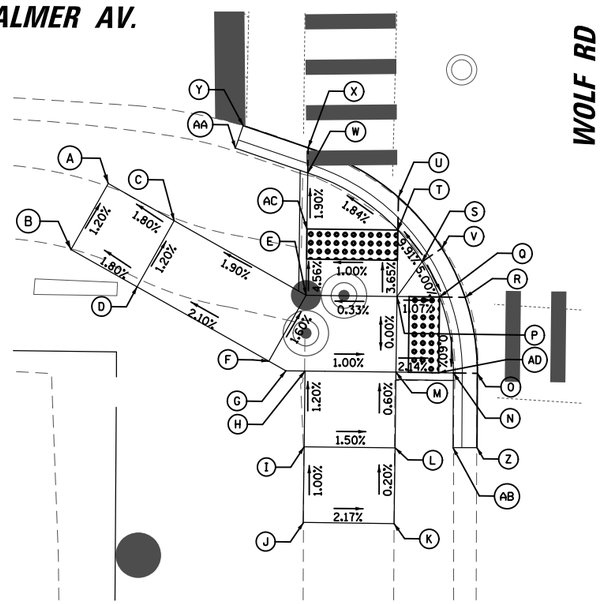
NE PALMER AVENUE			
POINT	STA	OFFSET	ELEV
A	203+04.92	-53.82	655.78
B	203+10.42	-53.84	655.86
C	203+04.93	-48.35	655.75
D	203+10.43	-48.84	655.77
E	203+06.81	-45.11	655.72
F	203+11.14	-47.62	655.75
G	203+14.34	-32.13	655.27
H	203+18.66	-34.64	655.24
I	203+19.33	-33.48	655.23
J	203+19.34	-32.14	655.22
K	203+24.34	-32.15	655.06
L	203+24.35	-27.15	655.05
M	203+19.35	-27.14	655.19
N	203+19.35	-24.24	655.17
O	203+19.36	-22.7	655.16
P	203+19.38	-21.09	655.16
Q	203+14.35	-27.13	655.22
R	203+14.35	-24.23	655.18
S	203+14.35	-22.51	655.18
T	203+11.87	-25.52	655.39
U	203+11.05	-24.17	655.18
V	203+09.57	-27.12	655.18
W	203+07.15	-27.12	655.18
X	203+09.56	-32.12	655.25
Y	203+04.97	-32.11	655.24
Z	203+03.09	-32.09	655.24
AA	203+24.6	-22.25	655.57
AB	203+24.49	-20.68	655.11
AC	203+01.25	-44.31	655.65
AD	202+99.67	-44.3	655.2
AE	203+29.34	-32.16	654.9
AF	203+29.35	-27.16	654.92

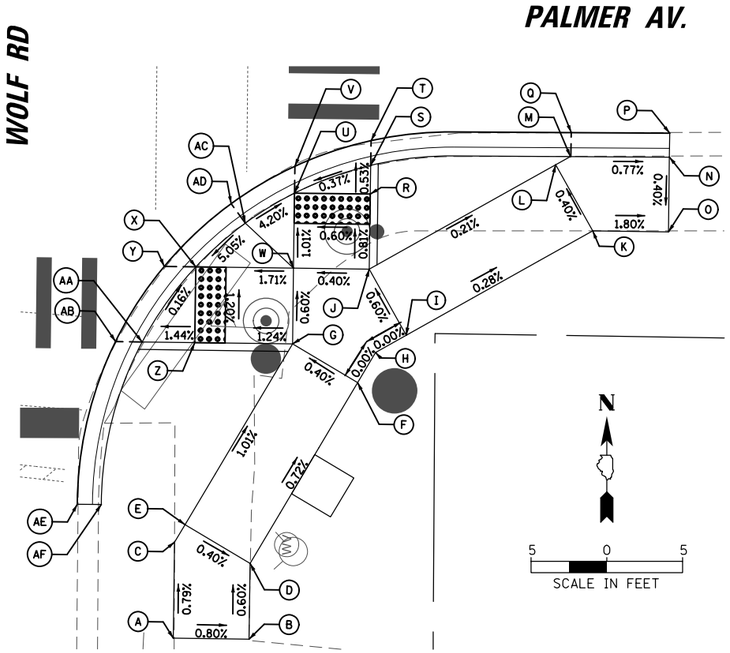
N

5 0 5

SCALE IN FEET

SW WOLF ROAD			
POINT	STA	OFFSET	ELEV
A	202+23.15	21.82	654.63
B	202+20.76	26.21	654.69
C	202+27.54	24.21	654.72
D	202+25.15	28.6	654.78
E	202+36.32	28.99	654.91
F	202+33.93	33.38	654.99
G	202+35.06	33.99	654.99
H	202+36.33	33.99	654.99
I	202+36.34	38.99	655.05
J	202+36.35	43.99	655.1
K	202+42.35	43.98	654.97
L	202+42.34	38.98	654.96
M	202+42.33	33.98	654.93
N	202+46.12	33.97	654.86
O	202+47.7	33.97	654.86
P	202+42.32	28.98	654.93
Q	202+45.13	28.97	654.9
R	202+46.82	28.97	654.9
S	202+43.94	26.66	655.03
T	202+42.32	24.6	654.77
U	202+42.32	22.43	654.73
V	202+45.23	25.75	654.85
W	202+36.31	20.92	654.64
X	202+36.31	19.25	654.6
Y	202+32	17.85	654.49
Z	202+47.75	38.88	654.83
AA	202+31.51	19.35	654.54
AB	202+46.17	38.9	654.92
AC	202+36.32	24.61	654.71
AD	202+45.14	33.97	654.87





N

5 0 5

SCALE IN FEET

SE WOLF ROAD			
POINT	STA	OFFSET	ELEV
A	203+06.9	53.38	655.42
B	203+11.9	53.37	655.38
C	203+06.88	47.03	655.37
D	203+11.89	48.36	655.35
E	203+07.55	45.87	655.37
F	203+18.81	36.32	655.25
G	203+14.47	33.83	655.23
H	203+19.96	34.31	655.25
I	203+21.97	33.15	655.25
J	203+19.46	28.82	655.22
K	203+34.17	26.07	655.21
L	203+31.66	21.75	655.19
M	203+32.63	21.18	655.19
N	203+39.16	21.12	655.14
O	203+39.17	26.06	655.12
P	203+39.15	19.54	654.69
Q	203+32.66	19.61	654.89
R	203+19.45	23.87	655.18
S	203+19.45	21.97	655.17
T	203+19.45	20.34	655.17
U	203+14.45	23.88	655.15
V	203+14.45	22.11	655.15
W	203+14.46	28.83	655.2
X	203+08.01	28.84	655.09
Y	203+05.93	28.84	655.09
Z	203+08.02	33.84	655.15
AA	203+04.54	33.85	655.1
AB	203+02.78	33.85	655.1
AC	203+11.23	25.91	655.32
AD	203+10.28	24.64	655.11
AE	203+00.42	44.63	655.03
AF	203+02	44.62	655.49

FILE NAME = N:\NORTHLAKE\940032HR - Municipal Review\Default	USER NAME = jdefrenza	DESIGNED JMD	REVISED -
	Projects\940032 HR 300's\940032HR358\Civil\DRAWINGS\940032HR358GP1.SHT	DRAWN BGC	REVISED -
	PLOT SCALE = 10'	CHECKED MEW	REVISED -
	PLOT DATE = 12/18/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ADA RAMP GRADING PLAN

SCALE: 1" = 5' | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2690	23-00101-00-TL	COOK	28	14
		CONTRACT NO. 61L09		
	ILLINOIS FED. AID PROJECT			

TRAFFIC SIGNAL LEGEND

(NOT TO SCALE)

ITEM	EXISTING	PROPOSED
CONTROLLER CABINET		
COMMUNICATION CABINET	CC	CC
MASTER CONTROLLER	MC	MC
MASTER MASTER CONTROLLER	MMC	MMC
UNINTERRUPTABLE POWER SUPPLY		
SERVICE INSTALLATION -(P) POLE MOUNTED	P	P
SERVICE INSTALLATION -(G) GROUND MOUNTED -(GM) GROUND MOUNTED METERED	G GM	G GM
TELEPHONE CONNECTION	ET	T
STEEL MAST ARM ASSEMBLY AND POLE		
ALUMINUM MAST ARM ASSEMBLY AND POLE		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE		
SIGNAL POST -(BM) BARREL MOUNTED - TEMPORARY		BM
WOOD POLE		
GUY WIRE		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD OPTICALLY PROGRAMMED	P P	P P
FLASHER INSTALLATION -(FS) SOLAR POWERED	F FS F FS	F FS F FS
PEDESTRIAN SIGNAL HEAD		
PEDESTRIAN PUSH BUTTON -(APS) ACCESSIBLE PEDESTRIAN PUSH BUTTON	APS	APS
RADAR DETECTION SENSOR	R	R
VIDEO DETECTION CAMERA	V	V
RADAR/VIDEO DETECTION ZONE		
PAN, TILT, ZOOM (PTZ) CAMERA	PTZ	PTZ
EMERGENCY VEHICLE LIGHT DETECTOR		
CONFIMATION BEACON		
WIRELESS INTERCONNECT		
WIRELESS INTERCONNECT RADIO REPEATER	ERR	RR

ITEM	EXISTING	PROPOSED
HANDHOLE -SQUARE -ROUND		
HEAVY DUTY HANDHOLE -SQUARE -ROUND	H	H
DOUBLE HANDHOLE		
JUNCTION BOX	J	
RAILROAD CANTILEVER MAST ARM		
RAILROAD FLASHING SIGNAL		
RAILROAD CROSSING GATE		
RAILROAD CROSSBUCK		
RAILROAD CONTROLLER CABINET	RC	
UNDERGROUND CONDUIT (UC), GALVANIZED STEEL		
TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE		
SYSTEM ITEM	S	SP
INTERSECTION ITEM	I	IP
REMOVE ITEM		R
RELOCATE ITEM		RL
ABANDON ITEM		A
CONTROLLER CABINET AND FOUNDATION TO BE REMOVED		RCF
MAST ARM POLE AND FOUNDATION TO BE REMOVED		RMF
SIGNAL POST AND FOUNDATION TO BE REMOVED		RPF
DETECTOR LOOP, TYPE I		
PREFORMED DETECTOR LOOP	P P	P P
SAMPLING (SYSTEM) DETECTOR	S S	S S
INTERSECTION AND SAMPLING (SYSTEM) DETECTOR	IS IS	IS IS
QUEUE AND SAMPLING (SYSTEM) DETECTOR	QS QS	QS QS
WIRELESS DETECTOR SENSOR	W	W
WIRELESS ACCESS POINT		

ITEM	EXISTING	PROPOSED
SIGNAL HEAD -(P) PROGRAMMABLE SIGNAL HEAD	P	P
SIGNAL HEAD WITH BACKPLATE -(P) PROGRAMMABLE SIGNAL HEAD -(RB) RETROREFLECTIVE BACKPLATE	P RB	P RB
PEDESTRIAN SIGNAL HEAD AT RAILROAD INTERSECTIONS		
PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER		
ILLUMINATED SIGN "NO LEFT TURN"/"NO RIGHT TURN"		
NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE. ALL DETECTOR LOOP CABLE TO BE SHIELDED	5	5
GROUND CABLE IN CONDUIT, NO. 6 SOLID COPPER (GREEN)	1#6	1#6
ELECTRIC CABLE IN CONDUIT, TRACER NO. 14 1/C	1	1
COAXIAL CABLE	C	C
VENDOR CABLE	V	V
COPPER INTERCONNECT CABLE, NO. 18, 3 PAIR TWISTED, SHIELDED	6#18	6#18
FIBER OPTIC CABLE -NO. 62.5/125, MM12F -NO. 62.5/125, MM12F SM12F -NO. 62.5/125, MM12F SM24F	12F 24F 36F	12F 24F 36F
GROUND ROD -(C) CONTROLLER -(M) MAST ARM -(P) POST -(S) SERVICE	C M P S	C M P S

USER NAME = footemj	DESIGNED - IP	REVISED -	
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PLOT DATE = 3/4/2019	DATE - 9/29/2016	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET 1 OF 7 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2690	23-00101-00-TL	COOK	28	15
	TS-05	CONTRACT NO. 61L09		
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LOOP DETECTOR NOTES

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.

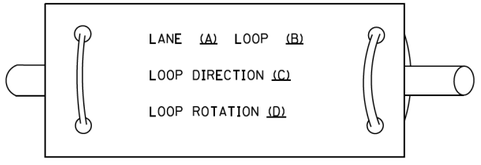
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.

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

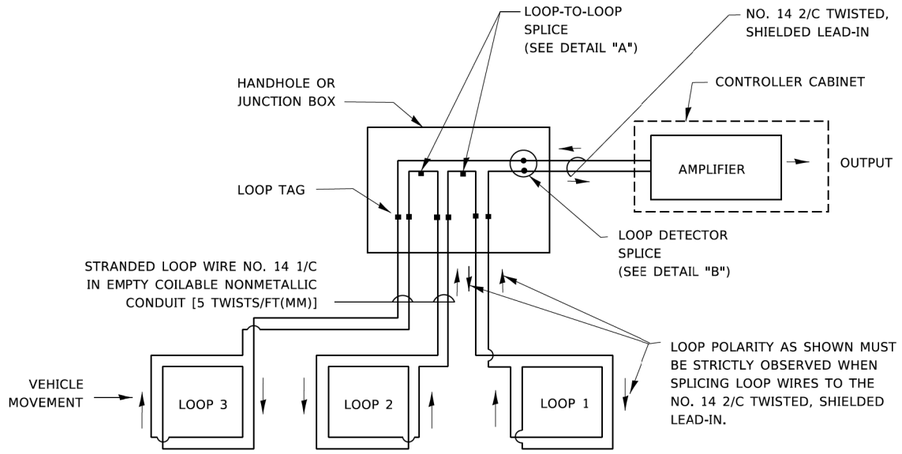


A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY

B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.

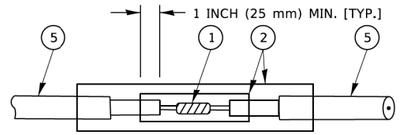
C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".

D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

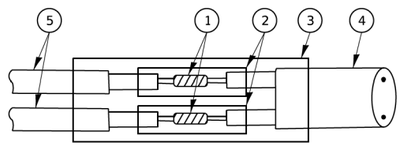


DETECTOR LOOP WIRING SCHEMATIC

- LOOPS SHALL BE SPLICED IN SERIES. SAW-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.

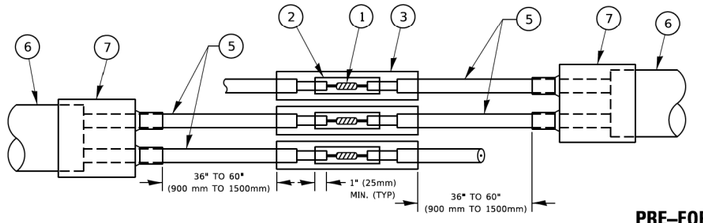


DETAIL "A"
LOOP-TO-LOOP SPLICE



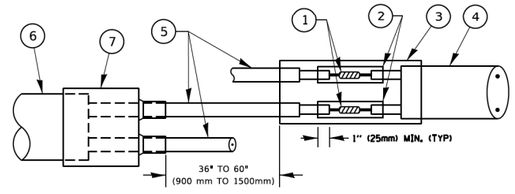
DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A"
LOOP-TO-LOOP SPLICE

PRE–FORMED LOOP



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. 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~~

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

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2690	23-00101-00-TL	COOK	28	16
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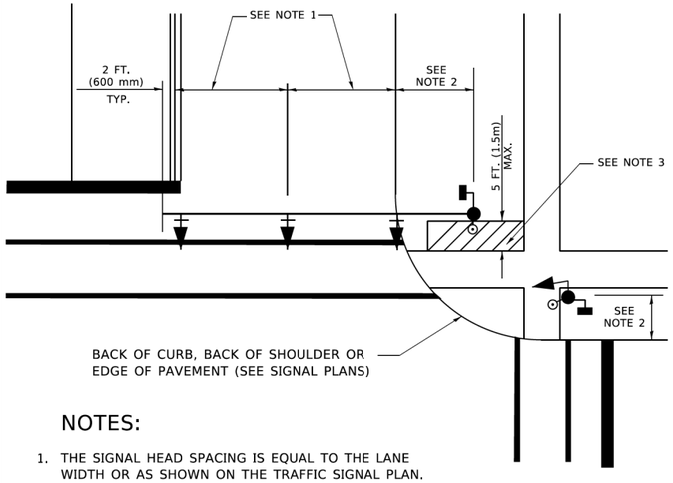
TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

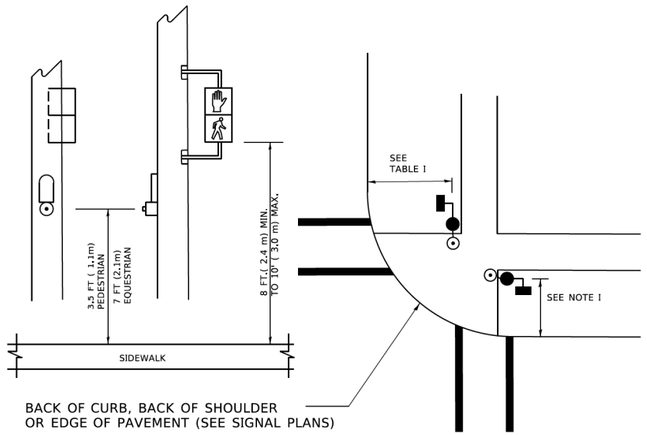
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



NOTES:

1. THE SIGNAL HEAD SPACING IS EQUAL TO THE LANE WIDTH OR AS SHOWN ON THE TRAFFIC SIGNAL PLAN.
2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
3. 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 THE SIGNAL POST.
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."

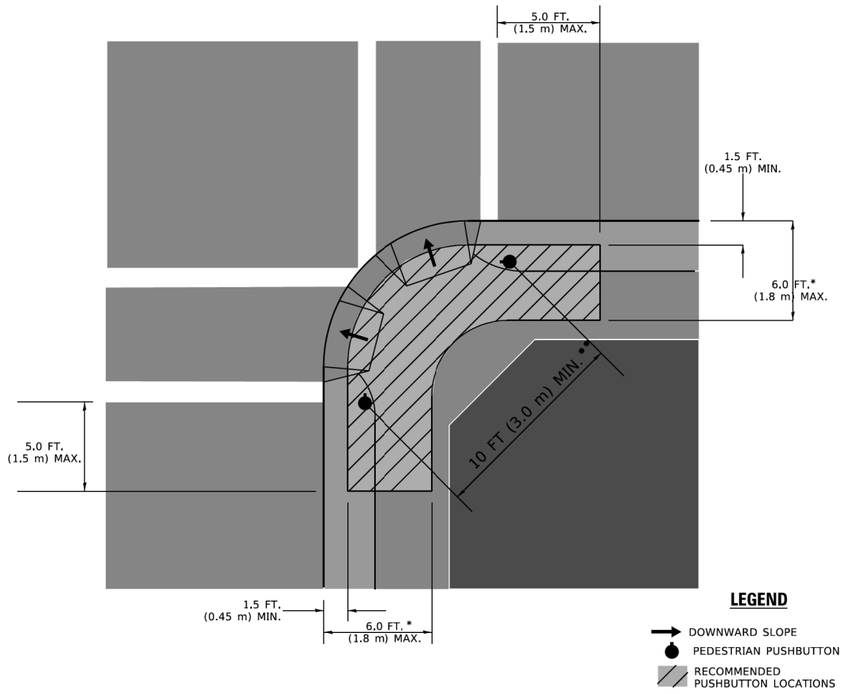
PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



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 CROSSWALK TO BE USED.
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."

RECOMMENDED PUSHBUTTON LOCATIONS



* 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 THE ROADWAY.
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 THE HIGHEST POINT OF PAVEMENT.
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 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.

NOTES:

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.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

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2690	23-00101-00-TL	COOK	28	17
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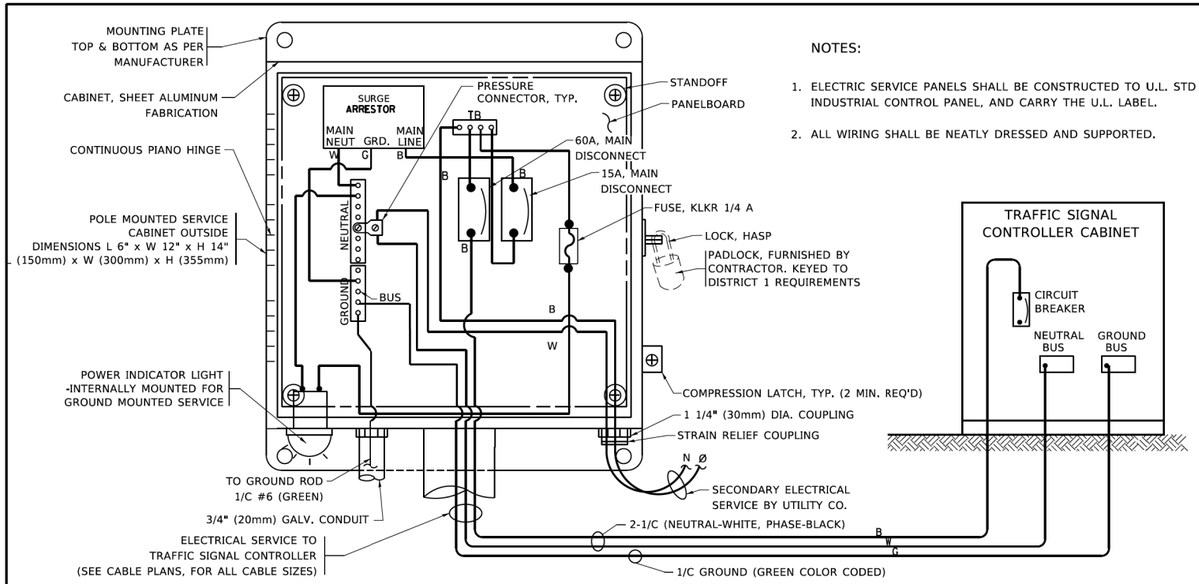


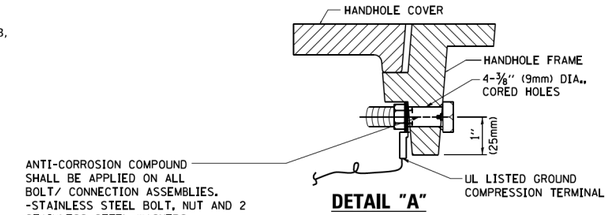
NOTES:

1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508, INDUSTRIAL CONTROL PANEL, AND CARRY THE U.L. LABEL.
2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.

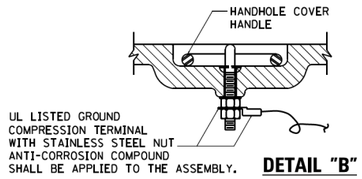
ELECTRICAL SERVICE – PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)

SERVICE INSTALLATION POLE MOUNT (SHOWN)

(NOT TO SCALE)



DETAIL "A"

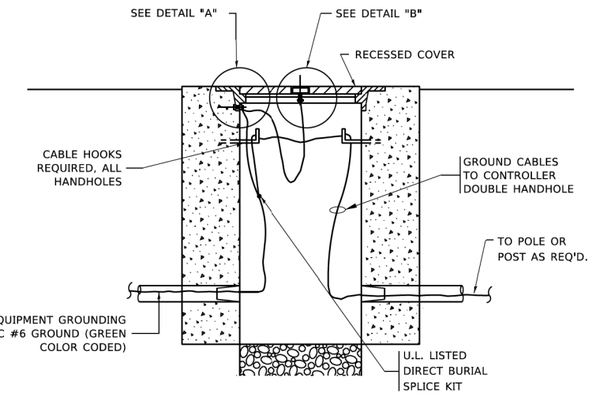


DETAIL "B"

NOTES:

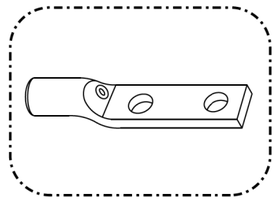
GROUNDING SYSTEM

1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC,). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD. ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.
2. THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
3. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
4. THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.



HANDHOLE COVER & FRAME – GROUNDING DETAIL

(NOT TO SCALE)

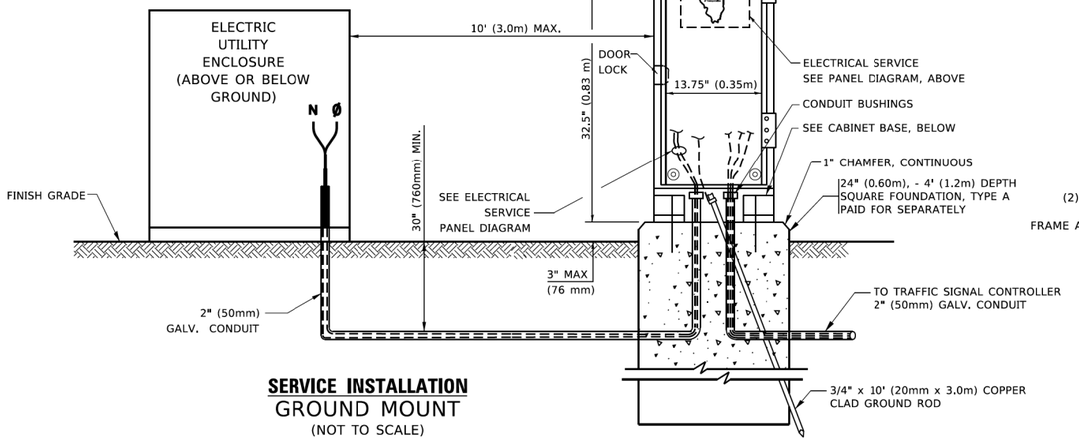


HEAVY-DUTY COMPRESSION TERMINAL ~~(BURNDY TYPE YGHA OR APPROVED EQUAL)~~

¾" (20mm) HEAVY-DUTY GROUND ROD CLAMP ~~(BURNDY TYPE GRC OR APPROVED EQUAL)~~

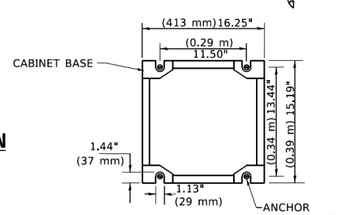
NOTES:

- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
- GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES
  6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES
  13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES.
  5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



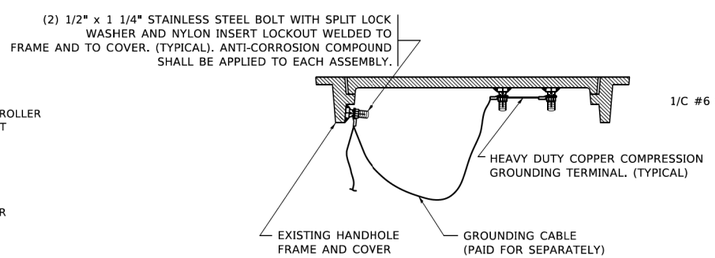
SERVICE INSTALLATION
GROUND MOUNT

(NOT TO SCALE)



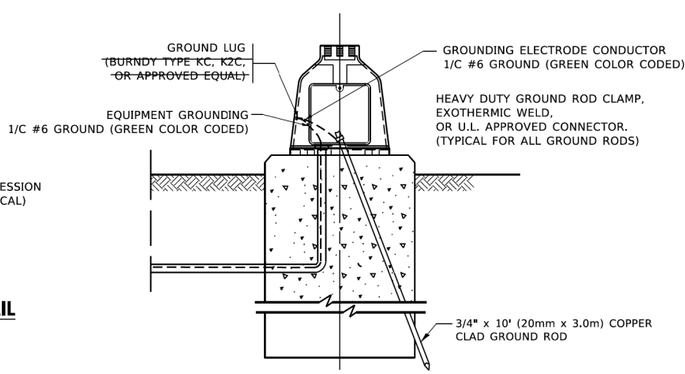
CABINET – BASE BOLT PATTERN

(NOT TO SCALE)



EXISTING HANDHOLE COVER & FRAME – GROUNDING DETAIL

(NOT TO SCALE)



MAST ARM POLE /POST–GROUNDING DETAIL

(NOT TO SCALE)

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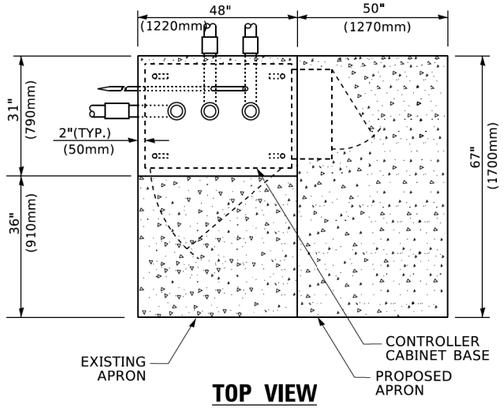
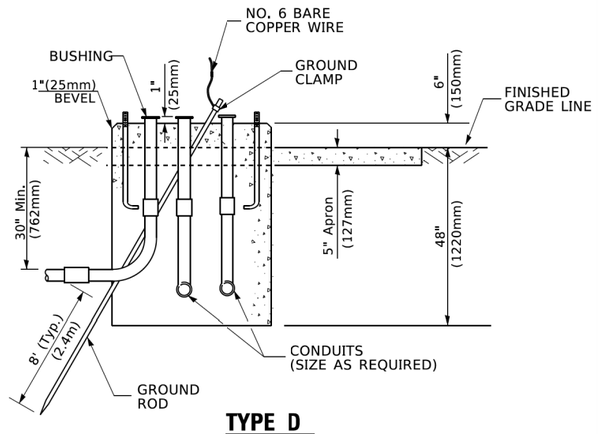
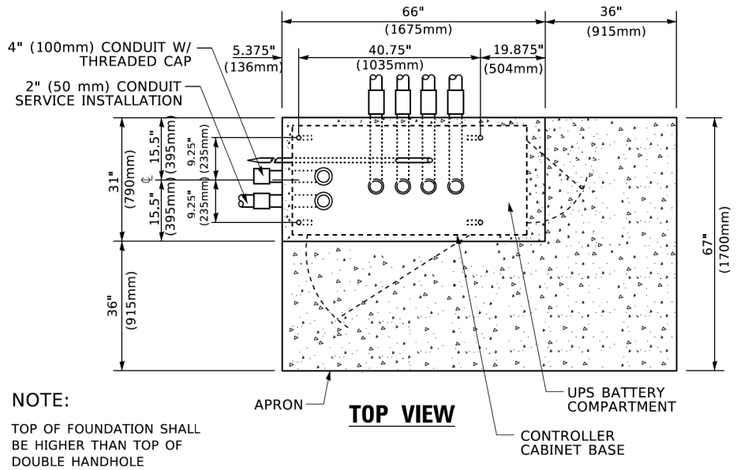
	TS-05	CONTRACT NO. 61L09		
	ILLINOIS FED. AID PROJECT			



TOP VIEW



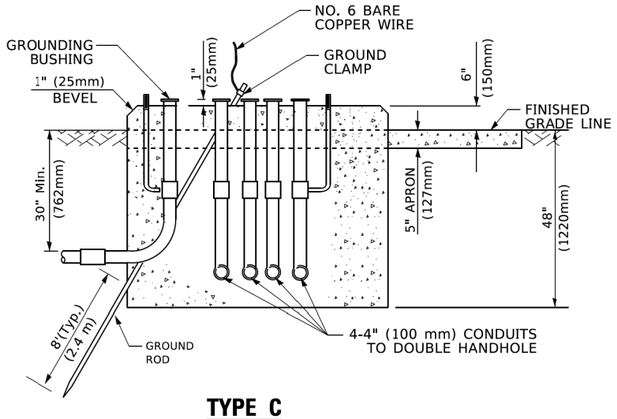
TYPE D
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET



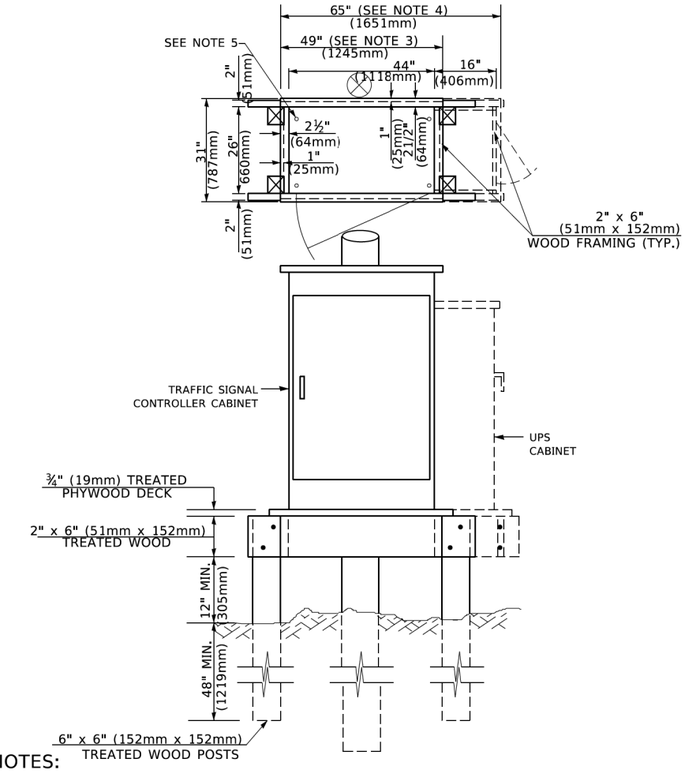
NOTE:

TOP OF FOUNDATION SHALL BE HIGHER THAN TOP OF DOUBLE HANDHOLE

TOP VIEW



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



NOTES:

1. 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
2. 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.
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+L	6.0+L
BRACKET MOUNTED (MAST ARM POLE OR SIGNAL POLE)	13.0	4.0
PEDESTRIAN PUSH BUTTON	6.0	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

FOUNDATION	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 - SQUARE	4'-0" (1.2m)

DEPTH OF FOUNDATION

Mast Arm Length	① Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
	11'-0" (3.4 m)	36" (900mm)	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" (900mm)	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" (900mm)	30" (750mm)	12	7(22)
Greater 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)

NOTES:

1. These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average Unconfined Compressive Strength (Qu) > 1.0 tsf (100 kpa). 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.
2. Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
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

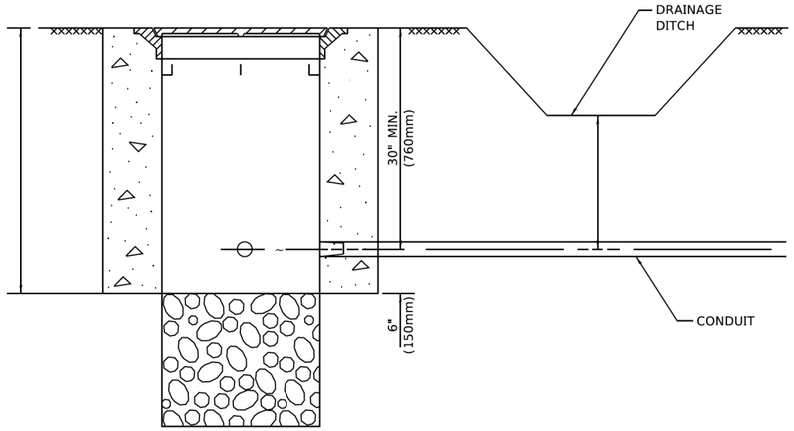
USER NAME = footemj	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 3/4/2019	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET 5 OF 7 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2690	23-00101-00-TL	COOK	28	19
	TS-05	CONTRACT NO. 61L09		
	ILLINOIS FED. AID PROJECT			

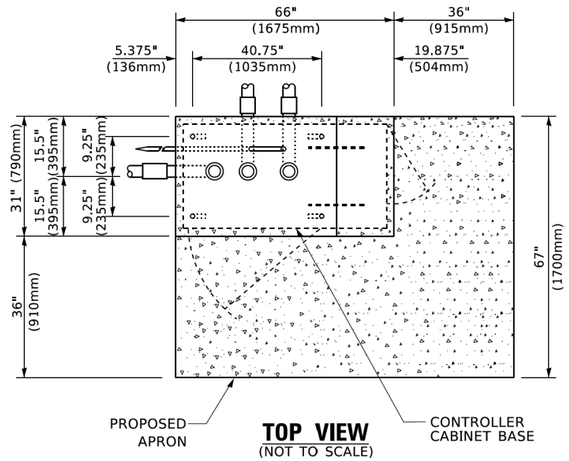


NOTES:

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 DEPTH APPLIES TO ALL CONDUIT PLACED UNDER ROADWAY PAVEMENT, MULTI-USE PATHS, SIDEWALKS AND SOIL SURFACES.
3. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL HANDHOLES, HEAVY DUTY HANDHOLES AND DOUBLE HANDHOLES.

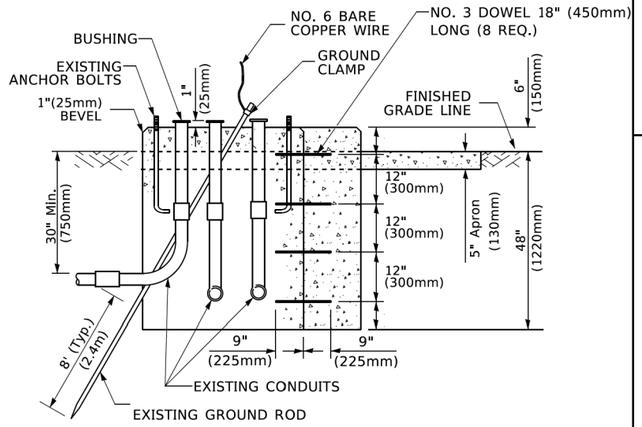
HANDHOLE WITH MINIMUM CONDUIT DEPTH

(NOT TO SCALE)



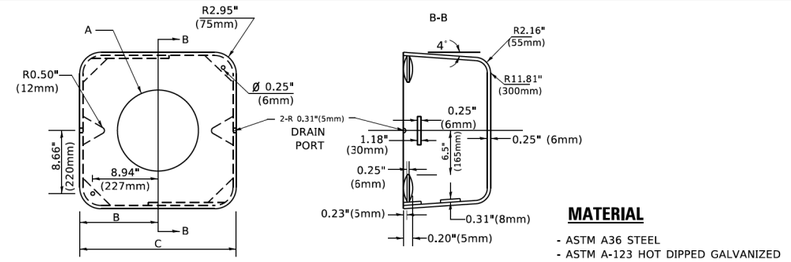
TOP VIEW

(NOT TO SCALE)



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

(NOT TO SCALE)



MATERIAL

- ASTM A36 STEEL
- ASTM A-123 HOT DIPPED GALVANIZED

A	B	C	HEIGHT	WEIGHT
VARIES	9.5"(241mm)	19"(483mm)	7" (178mm) - 12" (300mm)	53 lbs (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)

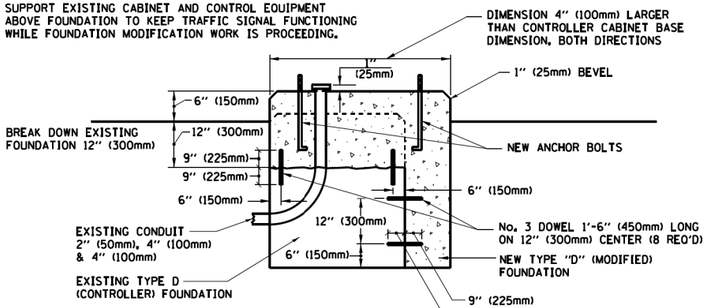
SHROUD

NOTES:

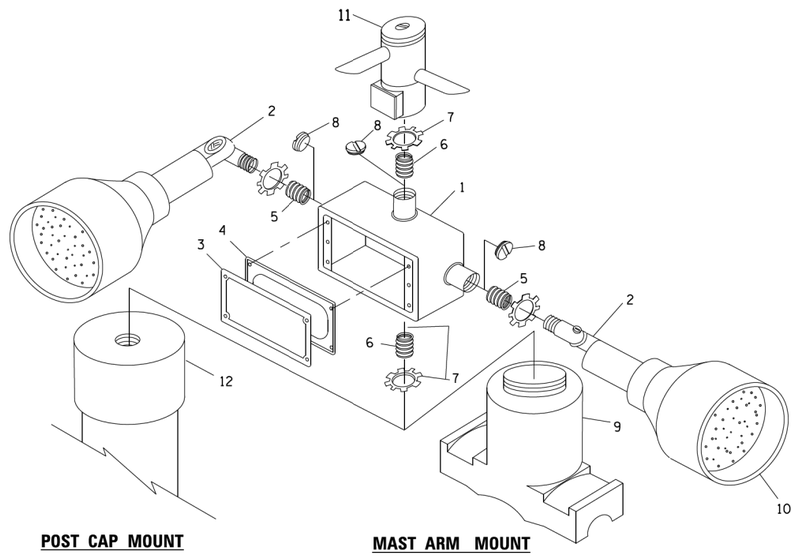
1. DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
2. THE SUPPLIER SHALL VERIFIED THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE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

NOTE:

SUPPORT EXISTING CABINET AND CONTROL EQUIPMENT ABOVE FOUNDATION TO KEEP TRAFFIC SIGNAL FUNCTIONING WHILE FOUNDATION MODIFICATION WORK IS PROCEEDING.



MODIFY EXISTING TYPE "D" FOUNDATION



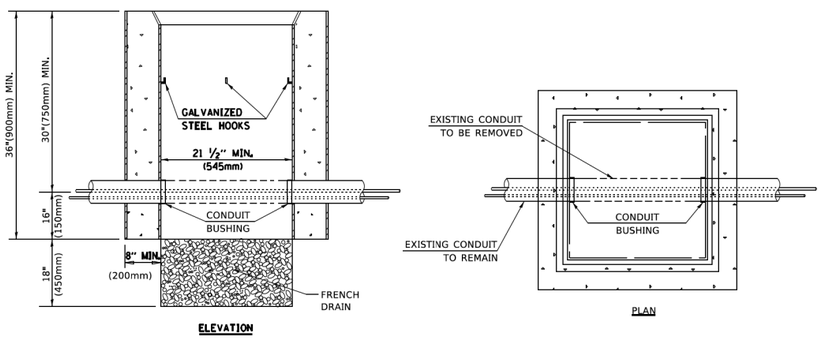
ITEM NO.	IDENTIFICATION
1	OUTLET BOX- GALV. 21 CU.IN. (0.000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	¾"(19 mm) CLOSE NIPPLE
7	¾"(19 mm) LOCKNUT
8	¾"(19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	6 WATT PAR 38 LED FLOOD LAMP
11	DETECTOR UNIT
12	POST CAP [18 FT. (5.4 m) POST MIN.]

POST CAP MOUNT **MAST ARM MOUNT**

EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

NOTES:

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.



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

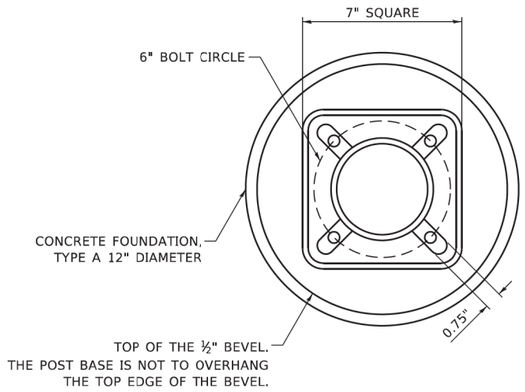
USER NAME = footemj	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 3/4/2019	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET 6 OF 7 SHEETS | STA. | TO STA.

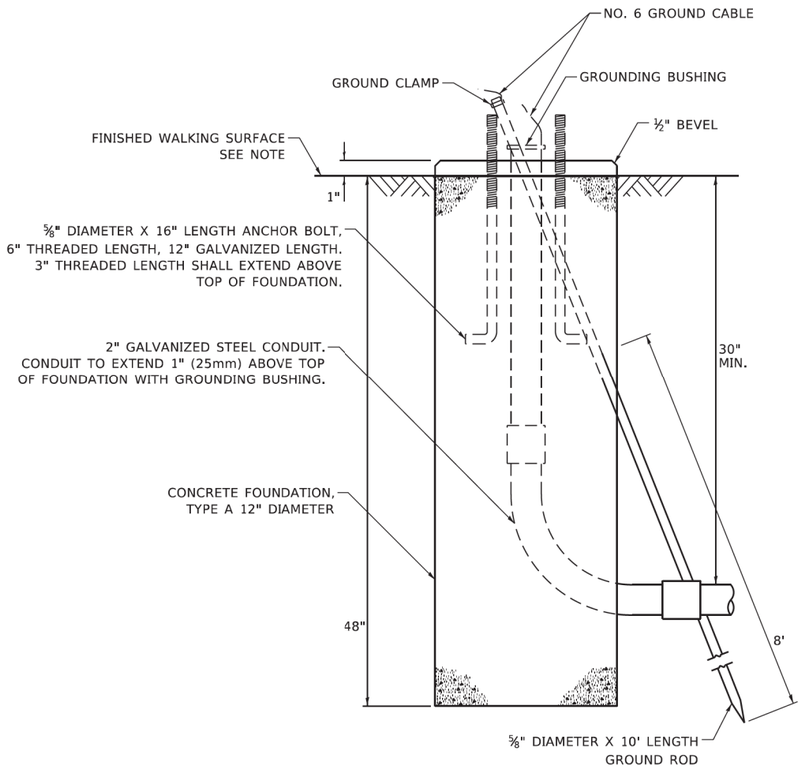
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2690	23-00101-00-TL	COOK	28	20
	TS-05	CONTRACT NO. 61L09		
	ILLINOIS FED. AID PROJECT			



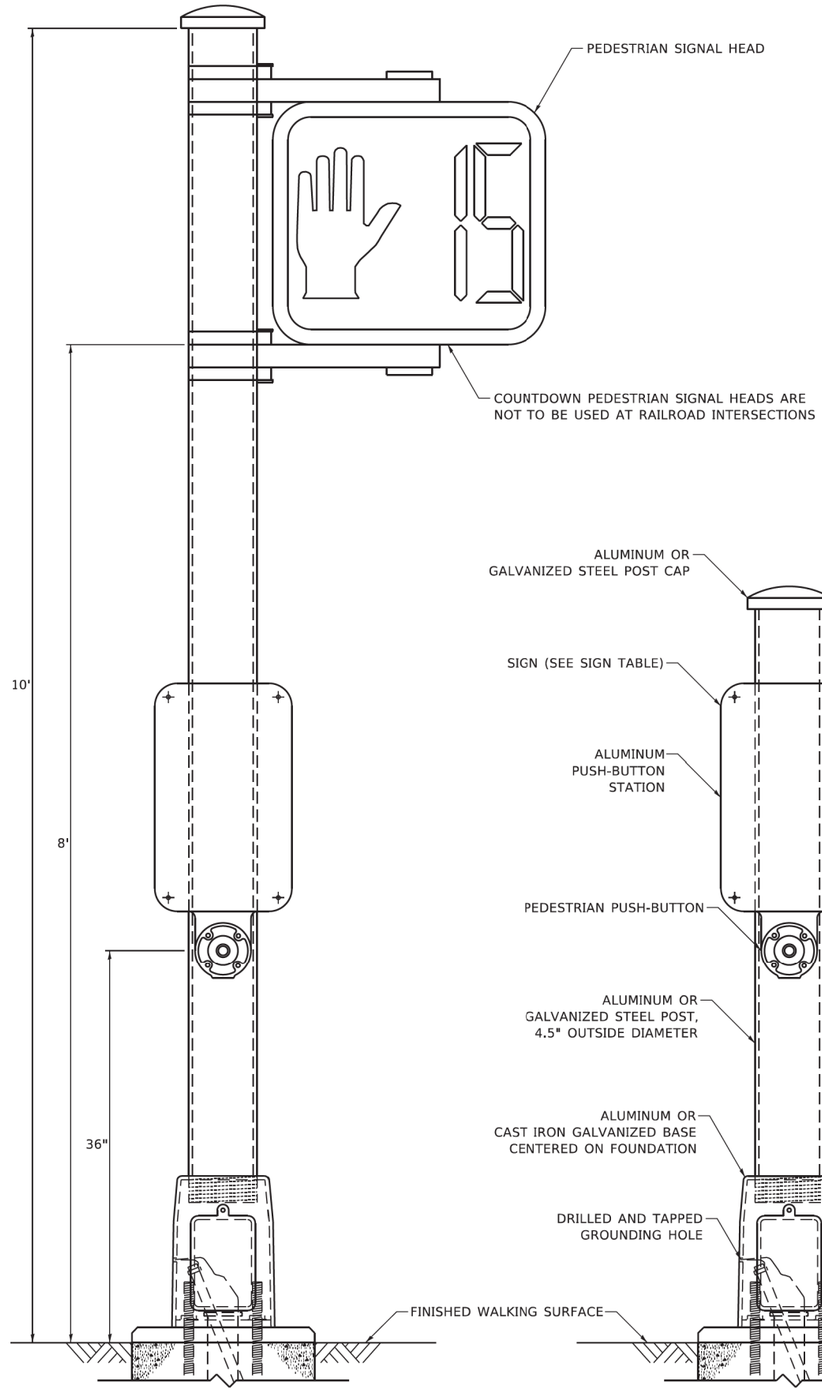
BOLT PATTERN

NOTE:

1. IF THE PEDESTRIAN SIGNAL POST FOUNDATION IS INSTALLED WITHIN OR BEHIND A BARRIER CURB, THE TOP OF THE FOUNDATION SHALL BE INSTALLED FLUSH WITH THE TOP OF THE BARRIER CURB.



CONCRETE FOUNDATION, TYPE A 12–INCH DIAMETER

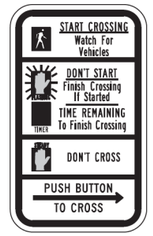


PEDESTRIAN SIGNAL POST, 10 FT.

PEDESTRIAN SIGNAL POST, 5 FT.

R10-3b

R10-3d



R10-3e

SIGN TABLE

SIGN	DIMENSIONS
R10-3b (RAILROAD ONLY)	9" X 12"
R10-3d (RAILROAD ONLY)	9" X 12"
R10-3e	9" X 15"

NOTES:

1. THE SIGN PANELS SHALL BE TYPE AP SHEETING.
2. THE ARROW ON SIGNS FOR PUSH-BUTTONS SERVING TWO DIRECTIONS ON THE SAME PHASE SHALL BE BI-DIRECTIONAL.
3. THE SIGN FOR DUAL-CALL PUSH-BUTTONS SHALL HAVE NO ARROW.

USER NAME = plascencial	DESIGNED - IP	REVISED - 10/15/2020	
	DRAWN - IP	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED - LP	REVISED -	
PLOT DATE = 11/17/2020	DATE - 10/15/2018	REVISED -	

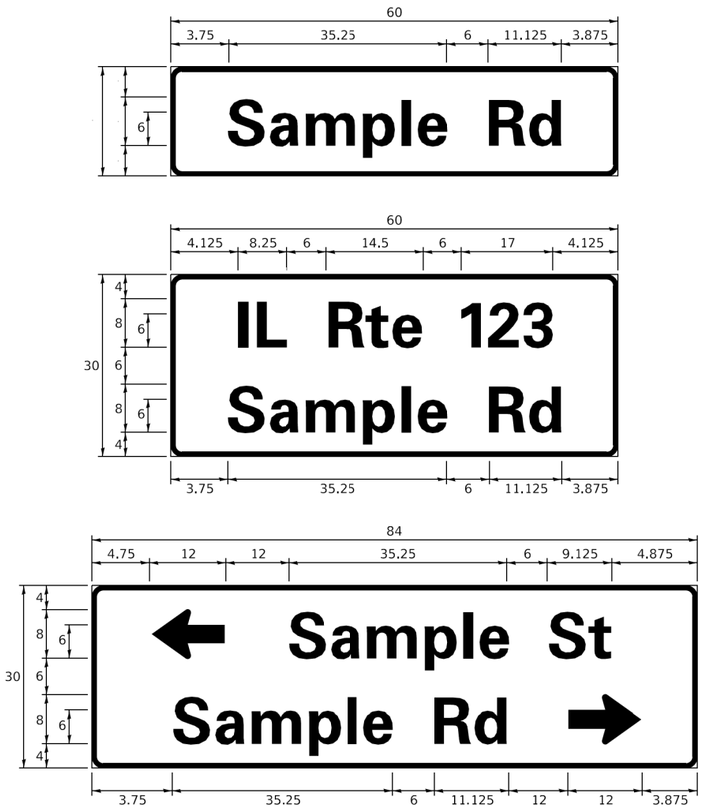
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NTS | SHEET NO. 7 OF 7 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2690	23-00101-00-TL	COOK	28	21
	TS–05	CONTRACT NO. 61L09		
	ILLINOIS FED. AID PROJECT			

SIGN PANEL – TYPE 1 OR TYPE 2



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D OR C	-	1 OR 2	ZZ	-

COMMON STREET NAME ABBREVIATIONS AND WIDTHS

NAME	ABBREVATION	WIDTH (INCH)	
		SERIES "C"	SERIES "D"
AVENUE	Ave	15.000	18.250
BOULEVARD	Blvd	17.125	20.000
CIRCLE	Cir	11.125	13.000
COURT	Ct	8.250	9.625
DRIVE	Dr	8.625	10.125
HIGHWAY	Hwy	18.375	22.000
ILLINOIS	IL	7.000	8.250
LANE	Ln	9.125	10.750
PARKWAY	Pkwy	23.375	27.375
PLACE	Pl	7.125	7.750
ROAD	Rd	9.625	11.125
ROUTE	Rte	12.625	14.500
STREET	St	8.000	9.125
TERRACE	Ter	12.625	14.625
TRAIL	Tr	7.750	9.125
UNITED STATES	US	10.375	12.250

GENERAL NOTES

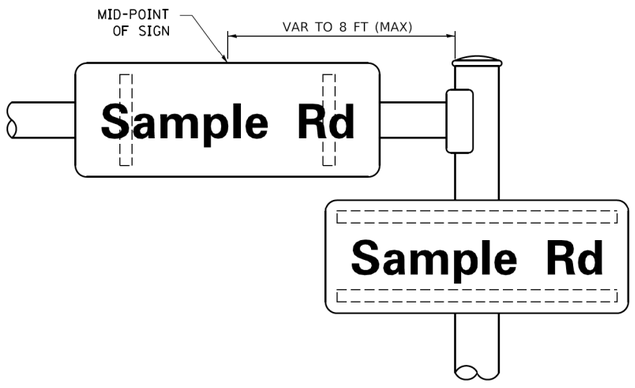
1. WHERE MAST ARM MOUNTED STREET NAME SIGNS ARE SPECIFIED, THE MAST ARM ASSEMBLY AND POLES SHALL BE DESIGNED TO SUPPORT THE LOADINGS CALLED FOR ON STANDARDS 877001, 877002, 877006, 877011 AND 877012, AS APPLICABLE, PLUS TWO (2) SIGN PANELS 2'-6" x 8'-0" MOUNTED AS SHOWN. THE DESIGN SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS FOR 80 M.P.H. WIND VELOCITY.
2. ALL SIGNS SHALL CONSIST OF A WHITE LEGEND AND BORDER (TYPE ZZ SHEETING) ON A GREEN BACKGROUND (TYPE ZZ SHEETING)
3. THE SIGN LENGTH SHALL BE IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHALL NOT EXCEED 8'-0". ALL BORDERS IF POSSIBLE. BUT MAY BE REDUCED TO 5" WHEN SPACING IS CRITICAL. A MINIMUM OF 2-1/2" SHALL BE INCLUDED BETWEEN THE WORD AND THE RIGHT AND LEFT EDGES OF THE SIGN.
4. A PREFERRED METHOD FOR THE SIGN DESIGN IS TO USE SERIES "D" LETTER ON A ONE-LINE SIGN 18" IN HEIGHT AND A MAXIMUM OF 8'-0" IN WIDTH. IF SERIES "D" DOES NOT FIT ON A 8"-0" SIGN, THEN SERIES "C" SHOULD BE TRIED. IF SERIES "C" DOES NOT FIT ON A 8'-0" SIGN, A 30" HIGH TWO-LINE SIGN CAN BE USED. THE CROSSROAD DESIGNATION AS TO STREET, AVENUE, ETC. SHOULD BE SPELLED OUT ON THE SECOND LINE, IF THE ABBREVIATION CANNOT FIT ON THE FIRST LINE.
5. LED ILLUMINATED STREET NAME SIGNS CAN BE USED IN PLACE OF REGULAR SIGN PANELS BUT ANY SPECIAL WORDING AND SYMBOLOGY MUST BE APPROVED BY THE DEPARTMENT. GENERAL DESIGN REQUIREMENT AS LISTED ABOVE (COLOR, FONT, SIZE, ETC.) MUST BE FOLLOWED.
6. SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND POSTS.

LOCAL SUPPLIERS:	PARTS LISTING:	
- J.O. HERBERT COMPANY, INC MIDLOTHIAN, VA	SIGN CHANNEL	PART #HPN053 (MED. CHANNEL)
	SIGN SCREWS	1/4" x 14 x 1" H.W.H. #3 SELF TAPPING WITH NEOPRENE WASHER
- WESTERN REMAC, INC. WOODRIDGE, IL	BRACKETS	PART #HPN034 (UNIVERSAL) CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING

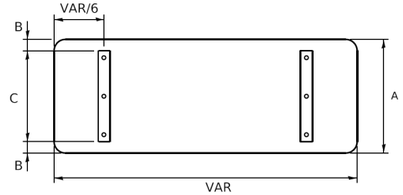
OTHER BRANDS OF MOUNTING HARDWARE ARE ACCEPTABLE, BASED UPON THE DEPARTMENT'S APPROVAL AND COMPATIBILITY WITH THE CHANNEL/BRACKET OF THE ABOVE PRODUCT.

MOUNTING LOCATION

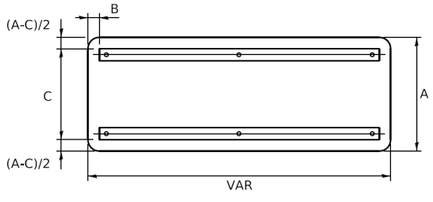
ARM OR POLE MOUNTED



SUPPORTING CHANNELS



A	B	C
18"	2"	14"
30"	2"	24"



A	B	C
18"	2"	12"
30"	2"	22"

STANDARD ALPHABETS SPACING CHART

(8") UPPER CASE AND (6") LOWER CASE

FHWA SERIES "C"				FHWA SERIES "D"			
CHARACTER	LEFT SPACING (INCH)	WIDTH (INCH)	RIGHT SPACING (INCH)	CHARACTER	LEFT SPACING (INCH)	WIDTH (INCH)	RIGHT SPACING (INCH)
A	0.240	5.122	0.240	A	0.240	6.804	0.240
B	0.880	4.482	0.480	B	0.960	5.446	0.400
C	0.720	4.482	0.720	C	0.800	5.446	0.800
D	0.880	4.482	0.720	D	0.960	5.446	0.800
E	0.880	4.082	0.480	E	0.960	4.962	0.400
F	0.880	4.082	0.240	F	0.960	4.962	0.240
G	0.720	4.482	0.720	G	0.800	5.446	0.800
H	0.880	4.482	0.880	H	0.960	5.446	0.960
I	0.880	1.120	0.880	I	0.960	1.280	0.960
J	0.240	4.082	0.880	J	0.240	5.122	0.960
K	0.880	4.482	0.480	K	0.960	5.604	0.400
L	0.880	4.082	0.240	L	0.960	4.962	0.240
M	0.880	5.284	0.880	M	0.960	6.244	0.960
N	0.880	4.482	0.880	N	0.960	5.446	0.960
O	0.720	4.722	0.720	O	0.800	5.684	0.800
P	0.880	4.482	0.720	P	0.960	5.446	0.240
Q	0.720	4.722	0.720	Q	0.800	5.684	0.800
R	0.880	4.482	0.480	R	0.960	5.446	0.400
S	0.480	4.482	0.480	S	0.400	5.446	0.400
T	0.240	4.082	0.240	T	0.240	4.962	0.240
U	0.880	4.482	0.880	U	0.960	5.446	0.960
V	0.240	4.962	0.240	V	0.240	6.084	0.240
W	0.240	6.084	0.240	W	0.240	7.124	0.240
X	0.240	4.722	0.240	X	0.400	5.446	0.400
Y	0.240	5.122	0.240	Y	0.240	6.884	0.240
Z	0.480	4.482	0.480	Z	0.400	5.446	0.400
a	0.320	3.842	0.640	a	0.400	4.562	0.720
b	0.720	4.082	0.480	b	0.800	4.802	0.480
c	0.480	4.002	0.240	c	0.480	4.722	0.240
d	0.480	4.082	0.720	d	0.480	4.802	0.800
e	0.480	4.082	0.320	e	0.480	4.722	0.320
f	0.320	2.480	0.160	f	0.320	2.882	0.160
g	0.480	4.082	0.720	g	0.480	4.802	0.800
h	0.720	4.082	0.640	h	0.800	4.722	0.720
i	0.720	1.120	0.720	i	0.800	1.280	0.800
j	0.000	2.320	0.720	j	0.000	2.642	0.800
k	0.720	4.322	0.160	k	0.800	5.122	0.160
l	0.720	1.120	0.720	l	0.800	1.280	0.800
m	0.720	6.724	0.640	m	0.800	7.926	0.720
n	0.720	4.082	0.640	n	0.800	4.722	0.720
o	0.480	4.082	0.480	o	0.480	4.882	0.480
p	0.720	4.082	0.480	p	0.800	4.802	0.480
q	0.480	4.082	0.720	q	0.480	4.802	0.800
r	0.720	2.642	0.160	r	0.800	3.042	0.160
s	0.320	3.362	0.240	s	0.320	3.762	0.240
t	0.080	2.882	0.080	t	0.080	3.202	0.080
u	0.640	4.082	0.720	u	0.720	4.722	0.800
v	0.160	4.722	0.160	v	0.160	5.684	0.160
w	0.160	7.524	0.160	w	0.160	9.046	0.160
x	0.000	5.202	0.000	x	0.000	6.244	0.000
y	0.160	4.962	0.160	y	0.160	6.004	0.160
z	0.240	3.362	0.240	z	0.240	4.002	0.240
1	0.720	1.680	0.880	1	0.800	2.000	0.960
2	0.480	4.482	0.480	2	0.800	5.446	0.800
3	0.480	4.482	0.480	3	1.440	5.446	0.800
4	0.240	4.962	0.720	4	0.160	6.004	0.960
5	0.480	4.482	0.480	5	0.800	5.446	0.800
6	0.720	4.482	0.720	6	0.800	5.446	0.800
7	0.240	4.482	0.720	7	0.560	5.446	0.560
8	0.480	4.482	0.480	8	0.800	5.446	0.800
9	0.480	4.482	0.480	9	0.800	5.446	0.800
0	0.720	4.722	0.720	0	0.800	5.684	0.800
-	0.240	2.802	0.240	-	0.240	2.802	0.240

USER NAME = footemj	DESIGNED - LP/IP	REVISED - LP 07/01/2015	
	DRAWN - LP	REVISED -	
PLOT SCALE = 50.0000 ' / in.	CHECKED - IP	REVISED -	
PLOT DATE = 3/4/2019	DATE - 10/01/2014	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
MAST ARM MOUNTED STREET NAME SIGNS

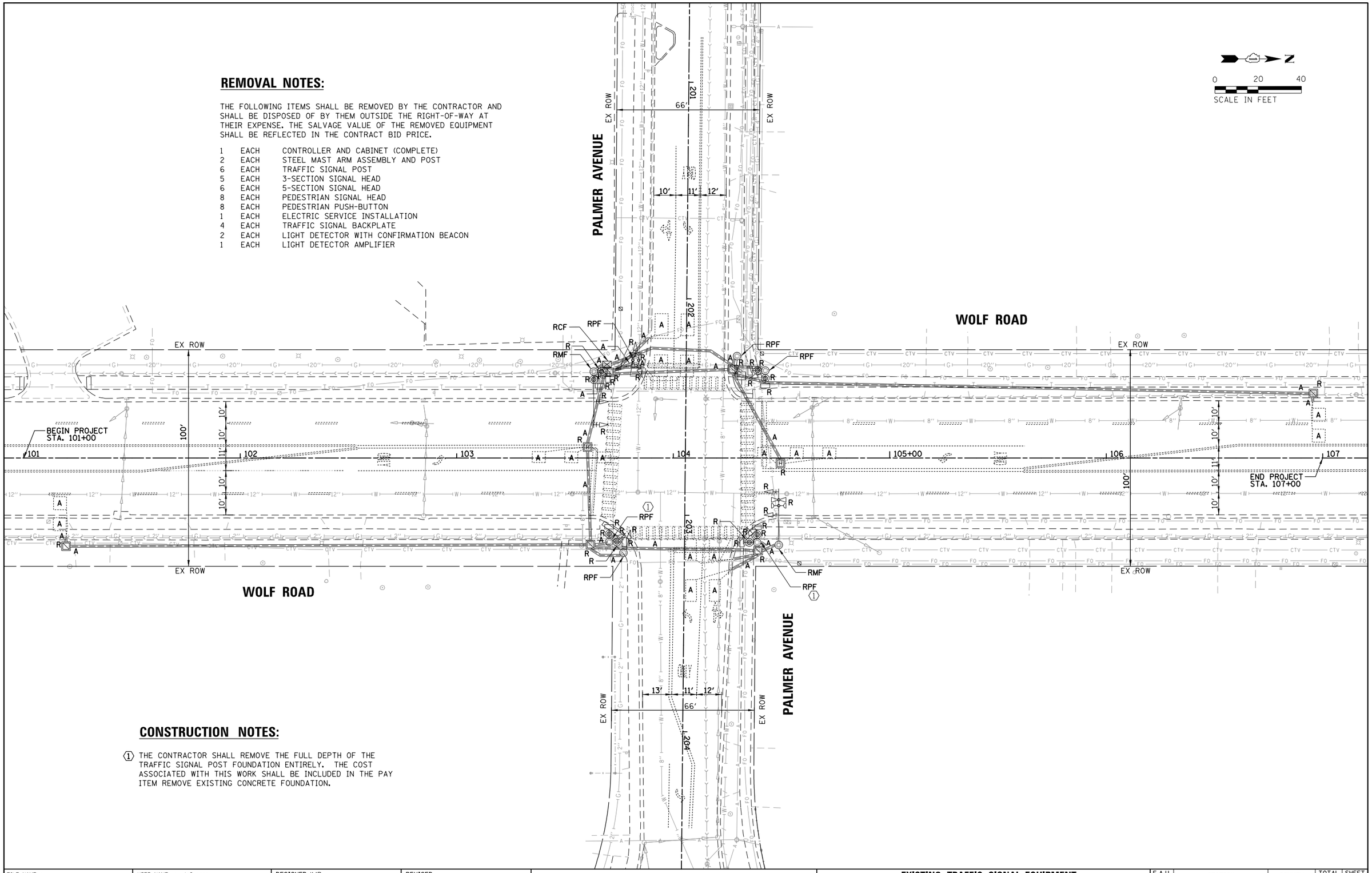
SCALE: | SHEET OF SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2690	23-00101-00-TL	COOK	28	22
	TS-02	CONTRACT NO. 61L09		
	ILLINOIS FED. AID PROJECT			

REMOVAL NOTES:

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

1	EACH	CONTROLLER AND CABINET (COMPLETE)
2	EACH	STEEL MAST ARM ASSEMBLY AND POST
6	EACH	TRAFFIC SIGNAL POST
5	EACH	3-SECTION SIGNAL HEAD
6	EACH	5-SECTION SIGNAL HEAD
8	EACH	PEDESTRIAN SIGNAL HEAD
8	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	ELECTRIC SERVICE INSTALLATION
4	EACH	TRAFFIC SIGNAL BACKPLATE
2	EACH	LIGHT DETECTOR WITH CONFIRMATION BEACON
1	EACH	LIGHT DETECTOR AMPLIFIER



CONSTRUCTION NOTES:

(1) THE CONTRACTOR SHALL REMOVE THE FULL DEPTH OF THE TRAFFIC SIGNAL POST FOUNDATION ENTIRELY. THE COST ASSOCIATED WITH THIS WORK SHALL BE INCLUDED IN THE PAY ITEM REMOVE EXISTING CONCRETE FOUNDATION.

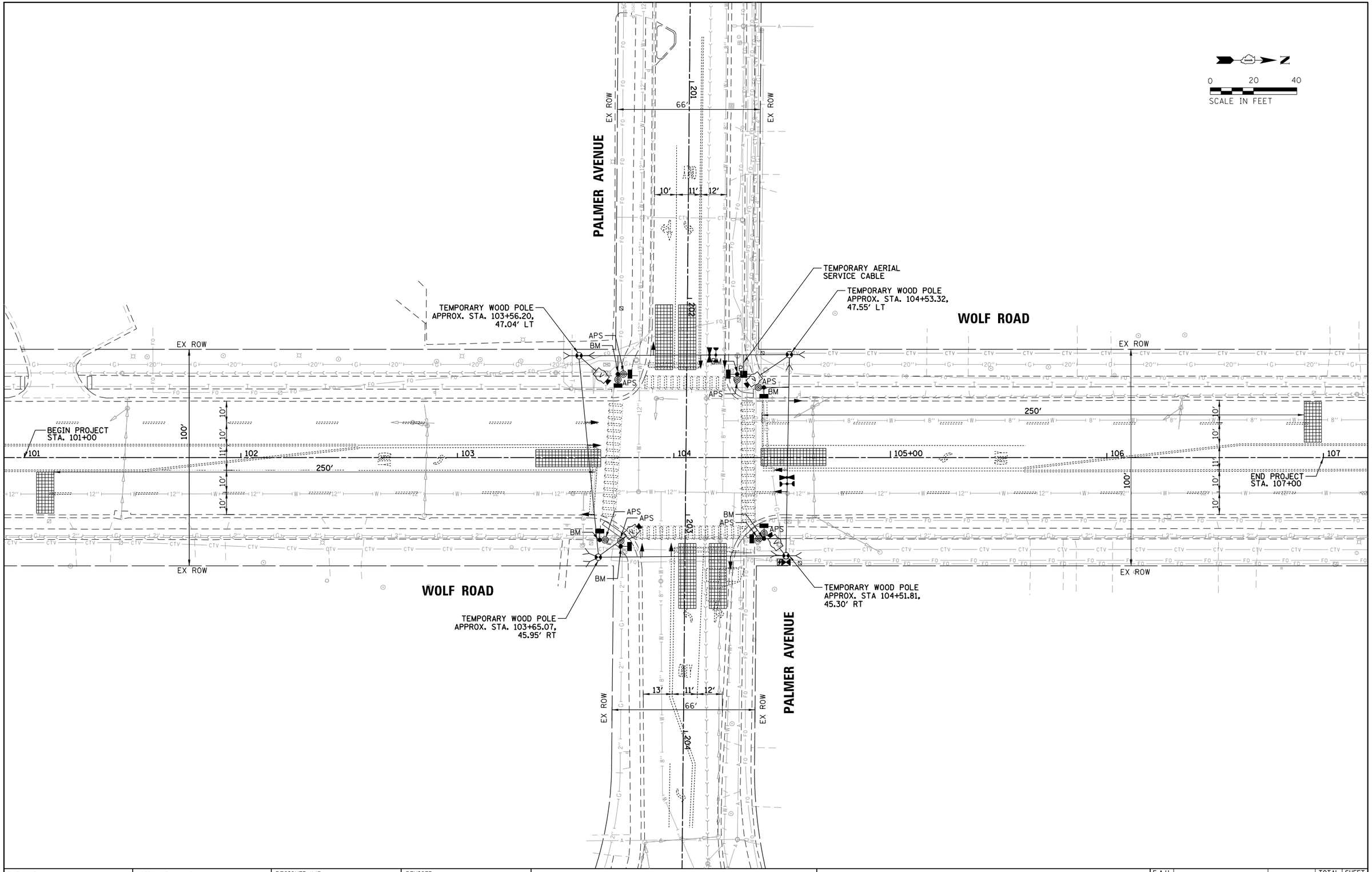
FILE NAME = N:\NORTHLAKE\940032HR - Municipal Review\Default	USER NAME = jdefrenza	DESIGNED JMD	REVISED -
	Projects\940032 HR 300's\940032HR358\Traffic\PLANS-PACKET\940032HR358-sht-01_REM.dgn	DRAWN PCMB	REVISED -
	PLOT SCALE = 40'	CHECKED MEW	REVISED -
	PLOT DATE = 12/18/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING TRAFFIC SIGNAL EQUIPMENT REMOVAL PLAN
WOLF ROAD AND PALMER AVENUE

SCALE: _____ SHEET OF 28 SHEETS STA. _____ TO STA. _____

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2690	23-00101-00-TL	COOK	28	23
		CONTRACT NO. 61L09		
		ILLINOIS FED. AID PROJECT		



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	PLOT SCALE = 2'	CHECKED MEW	REVISED -
	PLOT DATE = 12/18/2024	DATE -	REVISED -

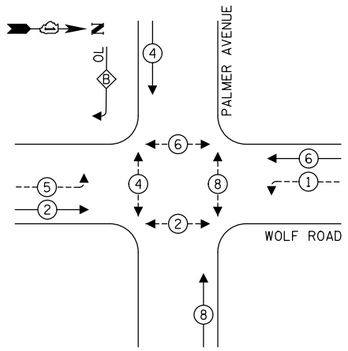
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN
WOLF ROAD AND PALMER AVENUE

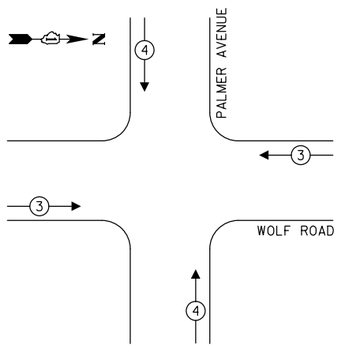
SCALE: _____ SHEET OF 28 SHEETS STA. _____ TO STA. _____

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2690	23-00101-00-TL	COOK	28	24
		CONTRACT NO. 61L09		
		ILLINOIS	FED. AID PROJECT	

TEMPORARY CONTROLLER SEQUENCE



TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE



LEGEND:

- PROTECTED PHASE
- PROTECTED/PERMITTED PHASE
- PEDESTRIAN PHASE
- OL — OVERLAP

RIGHT TURN OVERLAP PHASE DESIGNATION:

OVERLAP LETTER		PERMISSIVE PHASE		PROTECTED PHASE
B	=	4	+	5

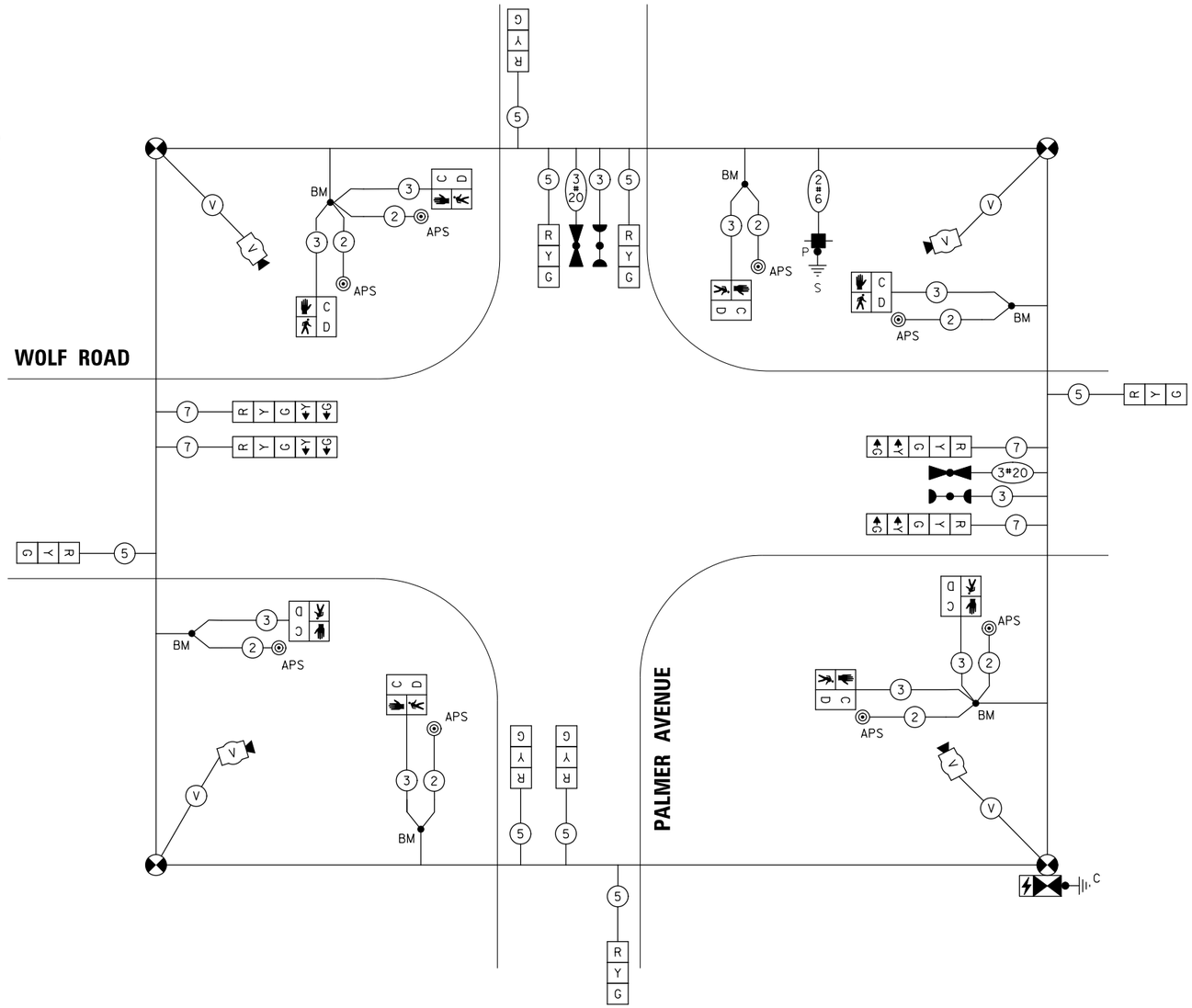
TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

TYPE	QUANTITY	LED WATTAGE	TOTAL WATTAGE
SIGNAL HEAD			
3-SECTION	5	11	55
4-SECTION	-	14	-
5-SECTION	6	13	78
PROGRAMMABLE SIGNALS			
3-SECTION	-	22	-
4-SECTION	-	32	-
5-SECTION	-	28	-
PED. SIGNAL	8	15	120
CONTROLLER	1	150	150
MASTER CONTROLLER	-	100	-
UPS	1	25	25
DETECTION RADAR	-	20	-
VIDEO	4	20	80
NETWORK SWITCH II OR III	-	25	-
BLANK-OUT SIGN	-	35	-
CELLULAR MODEM	-	15	-
TOTAL SERVICE WIRE SIZING			**508**
UPS CHARGING	1	225	225
BATTERY HEATER MAT	1	180	180
CABINET HEATER	1	200	200
FLASHER	-	15	-
LED STREET NAME SIGN	-	120	-
LUMINAIRE	-	240	-
TOTAL SERVICE WIRE SIZING			**1,113**

ENERGY COSTS TO:

CITY OF NORTHLAKE
55 NORTH AVE
NORTHLAKE, IL 60164

ENERGY SUPPLY: CONTACT: LISA WILLIAMS
PHONE: 773-270-7020
COMPANY: COMMONWEALTH EDISON
ACCOUNT NUMBER: 109-500-8219



TEMPORARY CABLE PLAN

(NOT TO SCALE)

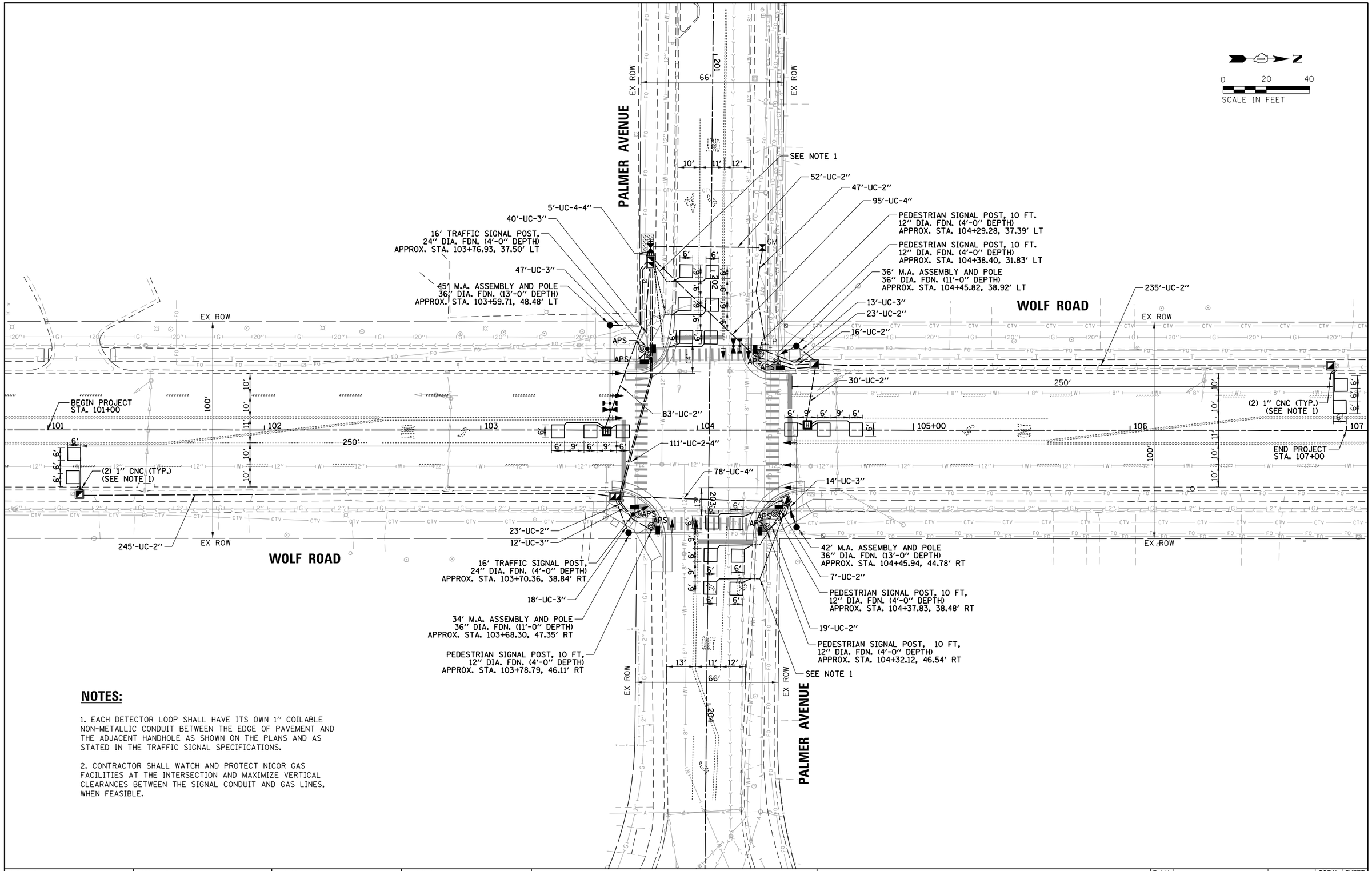
FILE NAME = N:\NORTHLAKE\940032HR - Municipal Review\Default	USER NAME = jdefrenza	DESIGNED JMD	REVISED -
	Projects\940032 HR 300's\940032HR358\Traffic\PLANS-PALMER_sht-03_TCB.dgn	DRAWN MEW	REVISED -
	PLOT SCALE = 40'	CHECKED MEW	REVISED -
	PLOT DATE = 12/18/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN AND TEMPORARY PHASE DESIGNATION DIAGRAM WOLF ROAD AND PALMER AVENUE

SCALE: _____ SHEET 1 OF 28 SHEETS STA. _____ TO STA. _____

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2690	23-00101-00-TL	COOK	28	25
		CONTRACT NO. 61L09		
		ILLINOIS	FED. AID PROJECT	



NOTES:

1. EACH DETECTOR LOOP SHALL HAVE ITS OWN 1" COILABLE NON-METALLIC CONDUIT BETWEEN THE EDGE OF PAVEMENT AND THE ADJACENT HANDHOLE AS SHOWN ON THE PLANS AND AS STATED IN THE TRAFFIC SIGNAL SPECIFICATIONS.

2. CONTRACTOR SHALL WATCH AND PROTECT NICOR GAS FACILITIES AT THE INTERSECTION AND MAXIMIZE VERTICAL CLEARANCES BETWEEN THE SIGNAL CONDUIT AND GAS LINES, WHEN FEASIBLE.

FILE NAME = N:\NORTHLAKE\940032HR - Municipal Review\Default	USER NAME = jdefrenza	DESIGNED JMD	REVISED -
	Projects\940032 HR 300's\940032HR358\Traffic\DRAWINGS-PACKET\sht-04_MOD.dgn	DRAWN ACM	REVISED -
	PLOT SCALE = 40'	CHECKED MEW	REVISED -
	PLOT DATE = 12/18/2024	DATE -	REVISED -

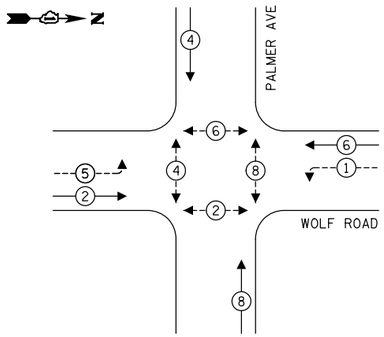
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODERNIZATION PLAN
WOLF ROAD AND PALMER AVENUE

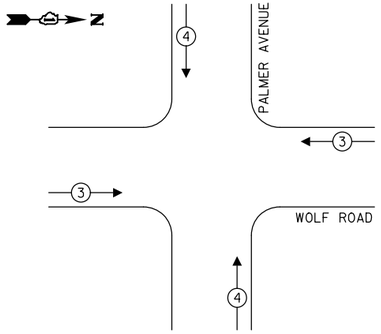
SCALE: _____ SHEET OF 28 SHEETS STA. _____ TO STA. _____

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2690	23-00101-00-TL	COOK	28	26
		CONTRACT NO. 61L09		
		ILLINOIS FED. AID PROJECT		

PROPOSED CONTROLLER SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



LEGEND:

- PROTECTED PHASE
- PROTECTED/PERMITTED PHASE
- PEDESTRIAN PHASE
- OVERLAP

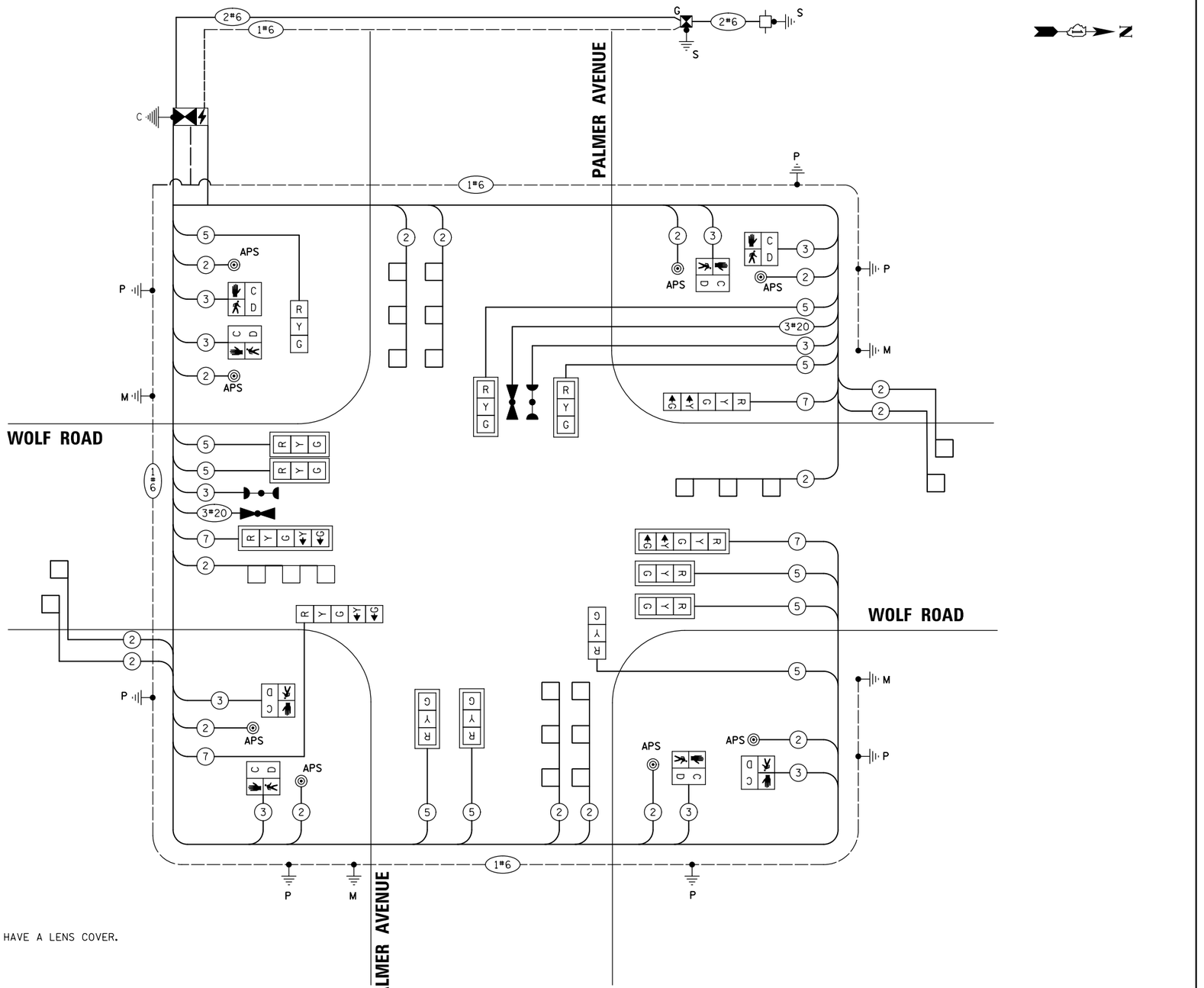
TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

TYPE	QUANTITY	LED WATTAGE	TOTAL WATTAGE
SIGNAL HEAD			
3-SECTION	10	11	110
4-SECTION	-	14	-
5-SECTION	4	13	52
PROGRAMMABLE SIGNALS			
3-SECTION	-	22	-
4-SECTION	-	32	-
5-SECTION	-	28	-
PED. SIGNAL	8	15	120
CONTROLLER	1	150	150
MASTER CONTROLLER	-	100	-
UPS	1	25	25
DETECTION RADAR	-	20	-
VIDEO	-	20	-
NETWORK SWITCH II OR III	-	25	-
BLANK-OUT SIGN	-	35	-
CELLULAR MODEM	-	15	-
TOTAL SERVICE WIRE SIZING			**457**
UPS CHARGING	1	225	225
BATTERY HEATER MAT	1	180	180
CABINET HEATER	1	200	200
FLASHER	-	15	-
LED STREET NAME SIGN	-	120	-
LUMINAIRE	-	240	-
TOTAL SERVICE WIRE SIZING			**1,062**

ENERGY COSTS TO:

CITY OF NORTHLAKE
55 NORTH AVE
NORTHLAKE, IL 60164

ENERGY SUPPLY: CONTACT: LISA WILLIAMS
PHONE: 773-270-7020
COMPANY: COMMONWEALTH EDISON
ACCOUNT NUMBER: 109-500-8219



CABLE PLAN
(NOT TO SCALE)

NOTES:

1. ALL RED SIGNAL INDICTIONS SHALL HAVE A LENS COVER.

FILE NAME =	USER NAME = jdefrenza	DESIGNED JMD	REVISED -
N:\NORTHLAKE\940032HR - Municipal Review	Projects\940032 HR 300's\940032HR358\Traffic\DRAWING-PALMER_sht-05_CAB.dgn	DRAWN CWS	REVISED -
Default	PLOT SCALE = 40'	CHECKED MEW	REVISED -
	PLOT DATE = 12/18/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

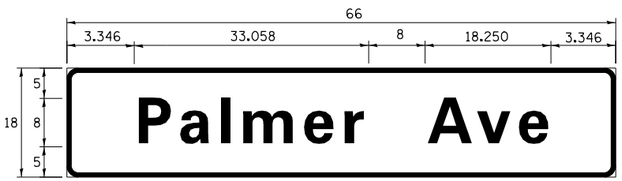
CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE
WOLF ROAD AND PALMER AVENUE

SCALE: _____ SHEET 1 OF 28 SHEETS STA. _____ TO STA. _____

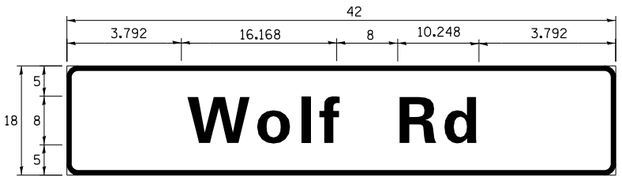
F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2690	23-00101-00-TL	COOK	28	27
		CONTRACT NO. 61L09		
		ILLINOIS FED. AID PROJECT		

SIGN PANEL – TYPE 1

ALL DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	8.25	1	ZZ	2



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	5.25	1	ZZ	2

NOTES:

1. THE MAST ARM MOUNTED STREET NAME SIGNS SHALL BE THE COLOR BLUE TO MATCH THE EXISTING SIGN COLOR.

2. FOR ADDITIONAL DESIGN AND INSTALLATION INFORMATION PLEASE SEE MAST ARM MOUNTED STREET NAME SIGNS DETAIL.

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
SIGN PANEL - TYPE 1	SQ FT	27
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	780
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	144
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	415
HANDHOLE	EACH	4
HEAVY-DUTY HANDHOLE	EACH	2
DOUBLE HANDHOLE	EACH	2
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1306
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1680
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1984
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	780
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	2307
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	146
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	847
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	2
STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 45 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	12
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	48
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	8
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN	EACH	8
TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	10
INDUCTIVE LOOP DETECTOR	EACH	10
DETECTOR LOOP, TYPE I	FOOT	751
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	7
REMOVE EXISTING DOUBLE HANDHOLE	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	9
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	324
SERVICE INSTALLATION, GROUND MOUNTED, METERED	EACH	1
PEDESTRIAN SIGNAL POST, 10 FT.	EACH	5
FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET	EACH	1
UNINTERRUPTABLE POWER SUPPLY (SPECIAL)	EACH	1
ACCESSIBLE PEDESTRIAN SIGNALS	EACH	8
CONCRETE FOUNDATION, TYPE A 12-INCH DIAMETER	FOOT	20
LED SIGNAL FACE, LENS COVER	EACH	14
PERMANENT TRAFFIC SIGNAL TIMING	EACH	1
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1

FILE NAME = N:\NORTHLAKE\940032HR - Municipal Review\Default	USER NAME = jdefrenza	DESIGNED JMD	REVISED -
	Projects\940032 HR 300's\940032HR358\Traffic\PLANS-PACKET\sht-06_STN.dgn	DRAWN	REVISED -
	PLOT SCALE = 40'	CHECKED MEW	REVISED -
	PLOT DATE = 12/18/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAST ARM MOUNTED STREET NAME SIGN AND SCHEDULE OF QUANTITIES
WOLF ROAD AND PALMER AVENUE

SCALE: _____ SHEET OF 28 SHEETS STA. _____ TO STA. _____

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2690	23-00101-00-TL	COOK	28	28
		CONTRACT NO. 61L09		
	ILLINOIS FED. AID PROJECT			