

FAP ROUTE 330	SECTION 14-00220-00-TL	COUNTY COOK	TOTAL SHEETS 85	SHEET NO. 1
ILLINOIS FED. AID PROJECT				

FOR INDEX OF SHEETS, SEE SHEET NO. 2  
FOR INDEX OF HIGHWAY STANDARDS SEE SHEET NO. 2

01-17-2020 LETTING ITEM 127

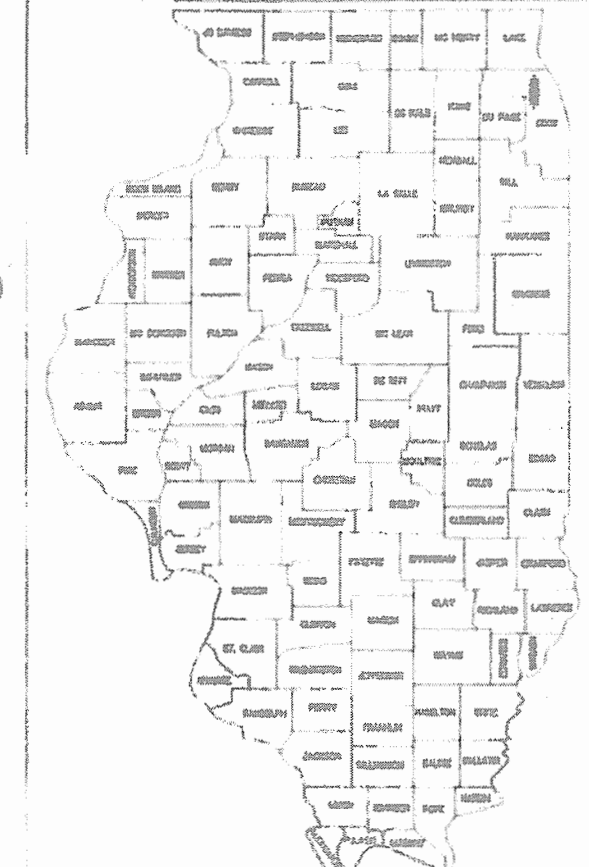
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**PLANS FOR PROPOSED  
FEDERAL AID HIGHWAY**

FAP ROUTE 330 US 45/12 (LEE STREET/MANNHEIM RD)  
ALGONQUIN ROAD TO OAKTON SREET

FOREST AVENUE  
JEANNETTE STREET TO DEAD END  
SECTION: 14-00220-00-TL

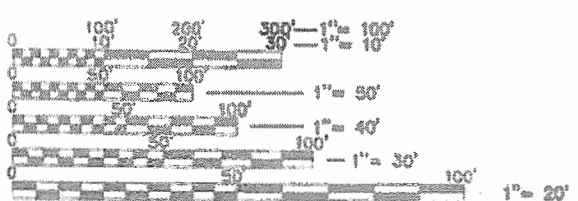
PROJECT: LLB6 (445)  
TRAFFIC SIGNAL INSTALLATION / REPLACEMENT  
INTERSECTION IMPROVEMENT  
CITY OF DES PLAINES  
COOK COUNTY  
C-91-008-16



LOCATION OF SECTION INDICATED THIS: - - -

**TRAFFIC DATA**

ROAD NAME: US 12/ US 45  
FUNCTIONAL CLASSIFICATION: PRINCIPAL ARTERIAL  
POSTED SPEED LIMIT: 30 MPH  
DESIGN SPEED: 35 MPH  
ADT: 22,000 (2014)



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.

**JULIE**  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
1-800-492-0123  
OR 611



**BEGIN IMPROVEMENTS  
STA. 11+40.33**

**BEGIN IMPROVEMENTS  
STA. 20+05.90**

**LOCATION MAP**  
(Not to Scale)

**END IMPROVEMENTS  
STA. 33+10.30**

**END IMPROVEMENTS  
STA. 16+06.44**



SIGNED: *Matthew W. H.*  
ENGINEER

DATE: 2/27/19  
ESP. 11/30/2010

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

Approved 2/27/2019  
*Tom P. Alley*  
City of Des Plaines, Director of Public Works  
and Engineering

Passed 3/14/2019, 2019  
*Stephen M. Savar*  
District One Engineer of Local Roads & Streets

Releasing for Bid  
Based on Limited  
Review MARCH 14, 2019  
*Anthony J. Dringley*  
Regional Engineer

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

CONTRACT NO. 61E86

U.S. 12/45 GROSS LENGTH = 1,904 FEET = (0.25 MILES)  
FOREST AVENUE GROSS LENGTH = 865 FEET = (0.12 MILES)  
NET LENGTH = 1,989 FEET = (0.37 MILES)

**GHA GEWALT HAMILTON  
ASSOCIATES, INC.**  
625 Forest Edge Drive • Vernon Hills, IL 60061  
Tel 847.478.9700 • Fax 847.478.9701  
GHA JOB #4619.2006

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424011-04	CORNER PARALLEL CURB RAMPS FOR SIDEWALKS
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701011-04	OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701101-05	OFF-RD OPERATIONS, MULTILANE, 15' (4.5 m) TO 24' (600 mm) FROM PAVEMENT EDGE
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701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE, 2L, 2W MOVING OPERATIONS - DAY ONLY
701427-05	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER., FOR SPEEDS ≤ 40 MPH
701501-06	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701602-10	URBAN LANE CLOSURE, MULTILANE, 2W WITH BIDIRECTIONAL LEFT TURN LANE
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## GENERAL NOTES

- ALL CONSTRUCTION SHALL BE PERFORMED ACCORDING TO THE ILLINOIS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ADOPTED APRIL 1, 2016, THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS" ADOPTED JANUARY 1, 2020, THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS" LATEST EDITION, THE DETAILS IN THESE PLANS, THE CONTRACT DOCUMENTS, ALL APPLICABLE REQUIREMENTS OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION, THE IEPA AND ORDINANCES OF AUTHORITIES HAVING JURISDICTION AND ALL ADDENDA THERETO.
- EASEMENTS FOR THE EXISTING UTILITIES, BOTH PUBLIC AND PRIVATE AND UTILITIES WITHIN PUBLIC RIGHTS-OF-WAY ARE SHOWN ON THE PLANS ACCORDING TO AVAILABLE RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION IN THE FIELD OF THESE UTILITY LINES AND THEIR PROTECTION FROM DAMAGE DUE TO CONSTRUCTION OPERATIONS. IF EXISTING UTILITY LINES OF ANY NATURE ARE ENCOUNTERED WHICH CONFLICT WITH NEW CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY SO THAT THE CONFLICT MAY BE RESOLVED.
- WHENEVER, DURING CONSTRUCTION OPERATIONS, ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF GUTTERS, DRAINAGE STRUCTURES, DITCHES, ETC. SUCH THAT THE NATURAL FLOW LINE OF WATER IS OBSTRUCTED, THE LOOSE MATERIAL WILL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL DRAINAGE STRUCTURES AND FLOW LINES SHALL BE FREE FROM DIRT AND DEBRIS. THE CONTRACTOR'S FAILURE TO PROVIDE THE ABOVE WILL PRECLUDE ANY POSSIBLE ADDED COMPENSATION REQUESTED DUE TO DELAYS OR UNSUITABLE MATERIALS CREATED AS A RESULT THEREOF.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS AFFECTING THEIR WORK WITH THE ACTUAL CONDITIONS AT THE JOB SITE PRIOR TO ORDERING MATERIALS. IN ADDITION, THE CONTRACTOR MUST VERIFY THE LINE AND GRADES. IF THERE ARE ANY DISCREPANCIES FROM WHAT IS SHOWN ON THE CONSTRUCTION PLANS, STANDARD SPECIFICATIONS AND/OR SPECIAL DETAILS, THE CONTRACTOR SHALL SECURE WRITTEN INSTRUCTION FROM THE ENGINEER PRIOR TO PROCEEDING WITH ANY PART OF THE WORK AFFECTED BY OMISSION OR DISCREPANCIES.
- ALL PAVEMENT DIMENSIONS ARE SHOWN TO EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 72 HOURS PRIOR TO BEGINNING WORK.
- IF DURING CONSTRUCTION THE CONTRACTOR ENCOUNTERS OR OTHERWISE BECOMES AWARE OF ANY SEWERS OR UNDERDRAINS OTHER THAN THOSE SHOWN ON THE PLANS, HE/SHE SHALL INFORM THE ENGINEER, WHO SHALL DIRECT THE WORK NECESSARY TO MAINTAIN OR REPLACE THE FACILITIES IN SERVICE AND TO PROTECT THEM FROM DAMAGE DURING CONSTRUCTION IF MAINTAINED. EXISTING FACILITIES TO BE MAINTAINED THAT ARE DAMAGED BECAUSE OF NON-COMPLIANCE WITH THIS PROVISION SHALL BE REPLACED AT THE CONTRACTOR'S OWN EXPENSE.
- THE CONTRACTOR SHALL PROVIDE TEMPORARY TOILET FACILITIES AND HAND SANITIZING STATIONS FOR THE USE OF ALL THE CONTRACTORS PERSONNEL EMPLOYED ON THE WORK SITE. THE FACILITIES SHALL BE MAINTAINED IN PROPER SANITARY CONDITION THROUGHOUT THE PROJECT. THE LOCATION OF THE TEMPORARY FACILITIES SHALL BE APPROVED BY THE ENGINEER.
- THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH THE NPDES PERMIT AND SWPPP MANUAL. IF NO NPDES PERMIT OR SWPPP MANUAL IS NEEDED FOR THE PROJECT THE CONTRACTOR SHALL PERFORM SOIL EROSION SEDIMENT CONTROL BEST PRACTICES OR AS DIRECTED BY THE ENGINEER TO PREVENT ILLICIT DISCHARGES FROM THE SITE.
- THE CONTRACTOR SHALL CONTACT THE IDOT TRAFFIC CONTROL SUPERVISOR AT Kalpana.Kannan-Hosadurga@Illinois.gov A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.
- THE SUBGRADE STABILITY SHALL BE VERIFIED BY PROOF ROLLING WITH A FULLY LOADED TANDEM-AXLE TRUCK.
- PIPE UNDERDRAINS SHALL BE INSTALLED ACCORDING TO SECTION 601 OF THE SSRBC AND STANDARD 601001-05. THE TOP OF PIPE UNDERDRAINS SHALL BE PLACED A MINIMUM 6" BELOW THE AGGREGATE SUBGRADE IMPROVEMENT LAYER.
- TWO WEEKS PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKINGS, THE ENGINEER SHALL CONTACT DON CHIARUGI, AREA TRAFFIC FIELD ENGINEER, AT Don.Chiarugi@Illinois.gov.
- STANDARD LANE CLOSURES, IDOT STANDARD 701602 AND 701606, SHALL BE USED FOR INSTALLATION OF MAIN LANE STORM SEWER AND EXCAVATION OF ADDITIONAL LANE.

## UTILITY NOTES

- UNDERGROUND WORK SHALL INCLUDE TRENCHING, DISPOSAL OF EXCESS MATERIAL, DEWATERING, INSTALLATION OF PIPE, CASTINGS, STRUCTURES, BACKFILLING OF TRENCHES AND COMPACTION, AND TESTING AS SHOWN ON THE CONSTRUCTION PLANS. FITTINGS AND ACCESSORIES NECESSARY TO COMPLETE THE WORK MAY NOT BE SPECIFIED. ALL SEWER SHALL BE INSTALLED USING A LASER AND BEGIN AT THE DOWNSTREAM END.
- MACHINE CORE ALL CONNECTIONS TO EXISTING STRUCTURES USING A CORE DRILL. HAMMERING OR SAWING OF STRUCTURES WILL NOT BE ALLOWED.
- SANITARY SERVICE CONNECTIONS TO NEW SEWERS SHALL BE MADE WITH WYE BRANCHES. WYE BRANCHES SHALL BE FACTORY MANUFACTURED PERMANENTLY AFFIXED TO THE MAIN SEWER. TEE BRANCHES ARE NOT ALLOWED.
- ALL CONNECTIONS TO EXISTING SANITARY MANHOLES SHALL BE INSTALLED WITH A NEOPRENE BOOT SECURED WITH DOUBLE STAINLESS STEEL STRAPS MEETING THE REQUIREMENTS OF ASTM C-923.
- ALL CONNECTIONS TO EXISTING OR DISSIMILAR STORM/SANITARY LINES SHALL BE DONE WITH STAINLESS STEEL NON-SHEAR COUPLINGS.
- STONE BEDDING AND BACKFILL SHALL BE OMITTED FOR A DISTANCE OF 15 FEET UP AND DOWNSTREAM OF SEWERS DRAINING TO OR FROM PONDS OR STREAMS. THE REPLACED BEDDING SHALL BE SILTY CLAY SOIL MECHANICALLY COMPACTED TO 90% MODIFIED PROCTOR DENSITY. THE USE OF PERMEABLE SOILS WILL NOT BE PERMITTED.
- ALL WATER MAIN SHALL HAVE MECHANICAL RESTRAINED TYPE JOINTS AT ALL CONNECTIONS AND FITTINGS. IN ADDITION, ALL HARDWARE SHALL BE STAINLESS STEEL.
- THRUST BLOCKING SHALL BE PROVIDED ON WATER MAIN AT ALL BENDS, TEES, ELBOWS, ETC. INDIVIDUAL INSPECTION FOR ALL THRUST BLOCKING IS REQUIRED. THRUST BLOCKING SHALL BE POURED IN PLACE CONCRETE. PRECAST BLOCKS MAY BE USED AS APPROVED BY THE ENGINEER IN THE FIELD.
- ALL FLOOR DRAINS SHALL DISCHARGE TO THE SANITARY SEWER. ALL DOWNSPOUTS, SIDE YARD DRAINS, AND OUTSIDE DRAINS SHALL DISCHARGE TO THE STORM SEWER SYSTEM. FOOTING DRAINS SHALL FIRST DRAIN TO A SUMP PIT.
- BUILDING STORM SEWER SERVICE PIPE SHALL NOT BE LESS THAN THE DIAMETER OF THE PLUMBING PIPE FROM THE BUILDING, BUT NOT LESS THAN 6 INCHES. THE PIPE SHALL HAVE A MINIMUM SLOPE OF 1/8-INCH PER FOOT, BUT NOT MORE THAN 1/2-INCH PER FOOT. CHANGES OF DIRECTION OF SERVICE PIPE SHALL BE MADE WITH COMBINATIONS OF 22-1/2 DEGREE BENDS WHEREVER PRACTICABLE, WITH NOT LESS THAN 2 FEET OF STRAIGHT PIPE BETWEEN SUCH BENDS. RIGHT ANGLE (90 DEGREE) BENDS WILL NOT BE ALLOWED. WHEN A SERVICE LINE EXCEEDS 100 FEET IN LENGTH, A CLEANOUT SHALL BE PROVIDED AT A LOCATION DESIGNATED BY THE ENGINEER. THE CLEANOUT SHALL BE PROPERLY SEALED, WITH THE TOP OF THE PLUGGED RISER FLUSH WITH FINISHED GRADE.
- BACKFILLING STORM SEWER CONSTRUCTED UNDER THE ROADWAY SPECIFIED UNDER ART. 550.07 (b, c) OF THE SSRBC WILL NOT BE ALLOWED.

## UTILITY NOTES CONT.

- PRIOR TO WATER MAIN INSTALLATION AS SHOWN ON THE PLANS OR AS NEEDED OTHERWISE, THE CONTRACTOR SHALL SUBMIT A PLAN SHOWING THE SEQUENCE OF OPERATIONS TO THE ENGINEER FOR APPROVAL. THE ENGINEER WILL COORDINATE WITH THE CITY OF DES PLAINES DURING THE REVIEW AND APPROVAL PROCESS.
- FOR WATER MAIN SHUTOFFS, THE CONTRACTOR SHALL GIVE THE CITY A MINIMUM OF 48 HOURS NOTICE. THE CITY WILL PROVIDE NOTIFICATION FORMS AND DETERMINE THE LIMITS OF THE AFFECTED AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISTRIBUTION OF THE NOTIFICATION TO ALL AFFECTED RESIDENTS A MINIMUM OF 24 HOURS IN ADVANCE OF THE SHUTOFF.
- VALVES ON EXISTING WATER MAIN LINES SHALL BE OPERATED BY THE CITY PERSONNEL ONLY. THE ENGINEER AND THE CITY WATER DEPARTMENT SHALL BE NOTIFIED 48 HOURS IN ADVANCE WHEN WATER MAIN ADJUSTMENTS WILL BE MADE SO THAT LOCAL RESIDENTS MAY BE NOTIFIED. THE CITY WATER DEPARTMENT SHALL BE PRESENT FOR INSPECTION OF WATER MAIN ADJUSTMENTS.

## PROJECT SPECIFIC NOTES

- THE CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS THAT INCLUDE: CRITICAL SPOT GRADES SUCH AS OVERFLOW ELEVATIONS, SPOT ELEVATIONS NEAR ENTRANCES, SPOT ELEVATIONS ALONG THE DESIGNATED ADA ROUTE, SUFFICIENT INFORMATION SUCH THAT THE ENGINEER MAY VERIFY DETENTION VOLUMES, RIM AND INVERT ELEVATIONS OF ALL SEWERS, RIM AND TOP OF PIPE ELEVATIONS OF ALL WATER MAIN, LOCATIONS OF ALL INSTALLED UNDERGROUND UTILITIES, LOCATIONS OF ALL BURIED BENDS AND FITTINGS AND ALL FIELD CHANGES FROM THE APPROVED DRAWINGS.
- ALL PUBLIC WATER MAINS AND SANITARY SEWER MAINS MUST BE ACCEPTED BY THE CITY OF DES PLAINES.
- THE SEWER AND WATER CONTRACTOR SHALL BE REQUIRED TO BE LICENSED AND BONDED WITH THE CITY OF DES PLAINES BEFORE WORK IS STARTED.
- CONTRACTOR SHALL NOTIFY THE CITY OF DES PLAINES (847-391-5390) AND THE PROJECT ENGINEER (847-478-9700) AT LEAST 72 HOURS PRIOR TO BEGINNING ANY WORK ON THIS PROJECT.
- ALL ELEVATIONS ARE ON NAVD 88 VERTICAL DATUM.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL TRAFFIC CONTROL TO ADEQUATELY INFORM AND PROTECT THE PUBLIC OF ALL CONSTRUCTION OPERATIONS.
- STOCKPILING MATERIAL WITHIN THE 100 YEAR FLOOD PLAIN AND OR THE FLOODWAY IS STRICTLY PROHIBITED
- PRIOR TO PLACEMENT OF FABRIC AND STONE, THE SUBGRADE SHALL BE PROOF-ROLLED IN THE PRESENCE OF THE ENGINEER. PROOF-ROLLING SHALL BE DONE USING A THREE AXLE DUMP TRUCK TOGETHER WITH LOAD WEIGHING AT LEAST TWENTY-FIVE (25) TONS. THE LOAD SHALL BE UNIFORMLY PLACED IN THE DUMP BODY. ALL DEFICIENCIES SHALL BE REPAIRED AND RE-PROOF-ROLLED UNTIL FOUND ACCEPTABLE TO THE ENGINEER.
- ALL CONNECTIONS TO EXISTING STORM MANHOLES SHALL BE INSTALLED WITH A NEOPRENE BOOT SECURED WITH DOUBLE STAINLESS STEEL STRAPS MEETING THE REQUIREMENTS OF ASTM C-923.
- ALL CONCRETE SHALL HAVE A LIGHT BROOM FINISH APPLIED WITHIN 1 HOUR OF FINAL STRIKING.
- 3/4" THICK PRE-MOLDED FIBER EXPANSION JOINTS WITH 2 , 3/4" x 18" PLAIN ROUND, STEEL DOWEL BARS SHALL BE INSTALLED IN ALL CURBS AT (45') FOURTY FIVE FOOT INTERVALS AND AT ALL P.C.'S, P.T.'S AND CURB RETURNS. ALTERNATE ENDS OF THE DOWEL BARS SHALL BE GREASED AND FITTED WITH METAL EXPANSION TUBES. ALL EXPANSION JOINTS MUST BE FREE OF CONCRETE FOR FULL DEPTH. CONTRACTION JOINTS SHALL BE TOOLED AT 15' INTERVALS.
- UNLESS OTHERWISE NOTED ON THE PLANS WHENEVER NEW CONCRETE ABUTS EXISTING/ OR NEW CONCRETE SET A 1/2" THICK PRE-MOLDED FIBER EXPANSION JOINT AND DOWEL WITH SMOOTH 12" #4 BARS @ 24" O.C. THIS INCLUDES CONCRETE POURED ADJACENT TO EXISTING SIDEWALKS, CURBS AND BUILDING. THE DOWEL BARS SHOULD BE 4" INTO EXISTING CONCRETE WITH 8" EXTENDING INTO NEW CONCRETE.
- ALL PAVEMENT AND BUILDING SUBGRADE SHALL BE COMPACTED TO 95% MODIFIED PROCTOR DENSITY. ALL SUBGRADE IN LAWN AREAS SHALL BE COMPACTED TO 90% MODIFIED PROCTOR DENSITY.
- SPREAD SCREENED TOPSOIL ON ALL DISTURBED AREAS AND PROPOSED GREEN AREAS. TOPSOIL SHALL COMPLY WITH REQUIREMENTS OF ARTICLE 1081.05.

FILE NAME = 4816.200-DT1.dwg	USER NAME = MARK COBB	DESIGNED - MGFC	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>INDEX OF SHEETS, GENERAL NOTES AND STATE STANDARDS</b> <b>LEE ST - MANNHEIM RD AND FOREST AVENUE</b>	FAP RTR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	PLOT SCALE = 1" = .1667'	DRAWN - MGFC	REVISED -			330	14-00220-00-TL	COOK	85	2	
	PLOT DATE = 11/4/2019 5:52 PM	CHECKED - KLB	REVISED -			SCALE NONE		SHEET NO. 1 OF 1 SHEETS		STA.	TO STA.
		DATE -	REVISED -					ILLINOIS FED. AID PROJECT		CONTRACT # 61E86	

**A. REFERENCED SPECIFICATIONS**

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE FOLLOWING, EXCEPT AS MODIFIED HEREIN OR ON THE PLANS:  
 \* STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (ADOPTED APRIL 1, 2016), BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION (IDOT SS) FOR ALL IMPROVEMENTS EXCEPT SANITARY SEWER AND WATER MAIN CONSTRUCTION;  
 \* STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION (SSWS) FOR SANITARY SEWER AND WATER MAIN CONSTRUCTION;  
 \* CITY OF DES PLAINES MUNICIPAL CODE;  
 \* THE METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO (MWRD) WATERSHED MANAGEMENT ORDINANCE AND TECHNICAL GUIDANCE MANUAL;  
 \* IN CASE OF CONFLICT BETWEEN THE APPLICABLE ORDINANCES NOTED, THE MORE STRINGENT SHALL TAKE PRECEDENCE AND SHALL CONTROL ALL CONSTRUCTION.

**B. NOTIFICATIONS**

- THE MWRD LOCAL SEWER SYSTEMS SECTION FIELD OFFICE MUST BE NOTIFIED AT LEAST TWO (2) WORKING DAYS PRIOR TO THE COMMENCEMENT OF ANY WORK (CALL 708-588-4055).
- THE CITY OF DES PLAINES ENGINEERING DEPARTMENT AND PUBLIC MUST BE NOTIFIED AT LEAST 24 HOURS PRIOR TO THE START OF CONSTRUCTION AND PRIOR TO EACH PHASE OF WORK. CONTRACTOR SHALL DETERMINE ITEMS REQUIRING INSPECTION PRIOR TO START OF CONSTRUCTION OR EACH WORK PHASE.
- THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION FOR THE EXACT LOCATIONS OF UTILITIES AND FOR THEIR PROTECTION DURING CONSTRUCTION. IF EXISTING UTILITIES ARE ENCOUNTERED THAT CONFLICT IN LOCATION WITH NEW CONSTRUCTION, IMMEDIATELY NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED. CALL J.U.L.I.E. AT 1-800-892-0123.

**C. GENERAL NOTES**

- ALL ELEVATIONS SHOWN ON PLANS REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). CONVERSION FACTOR IS -0.28 FT.
- MWRD, THE MUNICIPALITY AND THE OWNER OR OWNER'S REPRESENTATIVE SHALL HAVE THE AUTHORITY TO INSPECT, APPROVE, AND REJECT THE CONSTRUCTION IMPROVEMENTS.
- THE CONTRACTOR(S) SHALL INDEMNIFY THE OWNER, ENGINEER, MUNICIPALITY, MWRD, AND THEIR AGENTS, ETC., FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION, INSTALLATION, OR TESTING OF THIS WORK ON THE PROJECT.
- THE PROPOSED IMPROVEMENTS MUST BE CONSTRUCTED IN ACCORDANCE WITH THE ENGINEERING PLANS AS APPROVED BY MWRD AND THE MUNICIPALITY UNLESS CHANGES ARE APPROVED BY MWRD, THE MUNICIPALITY, OR AUTHORIZED AGENT. THE CONSTRUCTION DETAILS, AS PRESENTED ON THE PLANS, MUST BE FOLLOWED. PROPER CONSTRUCTION TECHNIQUES MUST BE FOLLOWED ON THE IMPROVEMENTS INDICATED ON THE PLANS.
- THE LOCATION OF VARIOUS UNDERGROUND UTILITIES WHICH ARE SHOWN ON THE PLANS ARE FOR INFORMATION ONLY AND REPRESENT THE BEST KNOWLEDGE OF THE ENGINEER. VERIFY LOCATIONS AND ELEVATIONS PRIOR TO BEGINNING THE CONSTRUCTION OPERATIONS.
- ANY EXISTING PAVEMENT, SIDEWALK, DRIVEWAY, ETC., DAMAGED DURING CONSTRUCTION OPERATIONS AND NOT CALLED FOR TO BE REMOVED SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.
- ~~MATERIAL AND CONNECTION TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE MUNICIPALITY, MWRD, AND OWNER.~~
- THE UNDERGROUND CONTRACTOR SHALL MAKE ALL NECESSARY ARRANGEMENTS TO NOTIFY ALL INSPECTION AGENCIES.
- ALL NEW AND EXISTING UTILITY STRUCTURES ON SITE AND IN AREAS DISTURBED DURING CONSTRUCTION SHALL BE ADJUSTED TO FINISH GRADE PRIOR TO FINAL INSPECTION.
- RECORD DRAWINGS SHALL BE KEPT BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER AS SOON AS UNDERGROUND IMPROVEMENTS ARE COMPLETED. FINAL PAYMENTS TO THE CONTRACTOR SHALL BE HELD UNTIL THEY ARE RECEIVED. ANY CHANGES IN LENGTH, LOCATION OR ALIGNMENT SHALL BE SHOWN IN RED. ALL WYES OR BENDS SHALL BE LOCATED FROM THE DOWNSTREAM MANHOLE. ALL VALVES, B-BOXES, TEES OR BENDS SHALL BE TIED TO A FIRE HYDRANT.

**D. SANITARY SEWER**

- THE CONTRACTOR SHALL TAKE MEASURES TO PREVENT ANY POLLUTED WATER, SUCH AS GROUND AND SURFACE WATER, FROM ENTERING THE EXISTING SANITARY SEWERS.
- A WATER-TIGHT PLUG SHALL BE INSTALLED IN THE DOWNSTREAM SEWER PIPE AT THE POINT OF SEWER CONNECTION PRIOR TO COMMENCING ANY SEWER CONSTRUCTION. THE PLUG SHALL REMAIN IN PLACE UNTIL REMOVAL IS AUTHORIZED BY THE MUNICIPALITY AND/OR MWRD AFTER THE SEWERS HAVE BEEN TESTED AND ACCEPTED.
- DISCHARGING ANY UNPOLLUTED WATER INTO THE SANITARY SEWER SYSTEM FOR THE PURPOSE OF SEWER FLUSHING OF LINES FOR THE DEFLECTION TEST SHALL BE PROHIBITED WITHOUT PRIOR APPROVAL FROM THE MUNICIPALITY OR MWRD.
- ALL SANITARY SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS (LATEST EDITION).
- ALL FLOOR DRAINS SHALL DISCHARGE TO THE SANITARY SEWER SYSTEM.
- ALL DOWNSPOUTS AND FOOTING DRAINS SHALL DISCHARGE TO THE STORM SEWER SYSTEM.
- ALL SANITARY SEWER PIPE MATERIALS AND JOINTS (AND STORM SEWER PIPE MATERIALS AND JOINTS IN A COMBINED SEWER AREA) SHALL CONFORM TO THE FOLLOWING:

PIPE MATERIAL	PIPE SPECIFICATIONS	JOINT SPECIFICATIONS
VITRIFIED CLAY PIPE	ASTM C-700	ASTM C-425
REINFORCED CONCRETE SEWER PIPE	ASTM C-76	ASTM C-443
CAST IRON SOIL PIPE	ASTM A-74	ASTM C-564
DUCTILE IRON PIPE	ANSI A21.51	ANSI A21.11
POLYVINYL CHLORIDE (PVC) PIPE		
6-INCH TO 15-INCH DIAMETER SDR 26	ASTM D-3034	ASTM D-3212
18-INCH TO 27-INCH DIAMETER F/DY=46	ASTM F-679	ASTM D-3212
HIGH DENSITY POLYETHYLENE (HDPE)		
WATER MAIN QUALITY PVC	ASTM D-3350	ASTM D-3261,F-2620 (HEAT FUSION)
4-INCH TO 36-INCH	ASTM D-3035	ASTM D-3212,F-477 (GASKETED)
4-INCH TO 12-INCH	ASTM D-2241	ASTM D-3139
14-INCH TO 48-INCH	AWWA C900	ASTM D-3139
	AWWA C905	ASTM D-3139

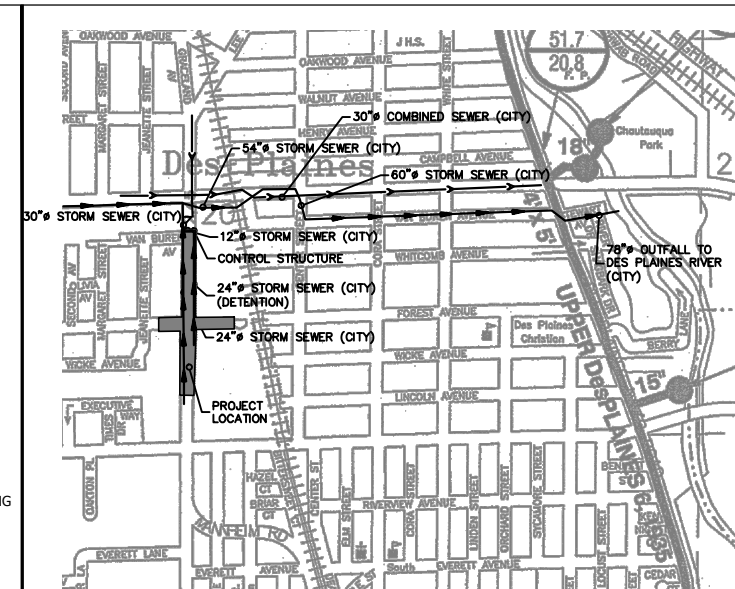
THE FOLLOWING MATERIALS ARE ALLOWED ON A QUALIFIED BASIS SUBJECT TO DISTRICT REVIEW AND APPROVAL PRIOR TO PERMIT ISSUANCE. A SPECIAL CONDITION WILL BE ADDED TO THE PERMIT WHEN THE PIPE MATERIAL BELOW IS USED FOR SEWER CONSTRUCTION OR A CONNECTION IS MADE.

PIPE MATERIAL	PIPE SPECIFICATIONS	JOINT SPECIFICATIONS
POLYPROPYLENE (PP) PIPE		
12-INCH TO 24-INCH DOUBLE WALL	ASTM F-2736	D-3212, F-477
30-INCH TO 60-INCH TRIPLE WALL	ASTM F-2764	D3212, F-477

- ALL SANITARY SEWER CONSTRUCTION (AND STORM SEWER CONSTRUCTION IN COMBINED SEWER AREAS), REQUIRES STONE BEDDING WITH STONE 1/4" TO 1" IN SIZE, WITH MINIMUM BEDDING THICKNESS EQUAL TO 1/4 THE OUTSIDE DIAMETER OF THE SEWER PIPE, BUT NOT LESS THAN FOUR (4) INCHES NOR MORE THAN EIGHT (8) INCHES. MATERIAL SHALL BE CA-7, CA-11 OR CA-13 AND SHALL BE EXTENDED AT LEAST 2" ABOVE THE TOP OF THE PIPE WHEN USING PVC.
- NON-SHEAR FLEXIBLE-TYPE COUPLINGS SHALL BE USED IN THE CONNECTION OF SEWER PIPES OF DISSIMILAR PIPE MATERIALS.
- ALL MANHOLES SHALL BE PROVIDED WITH BOLTED, WATERTIGHT COVERS. SANITARY LIDS SHALL BE CONSTRUCTED WITH A CONCEALED PICKHOLE AND WATERTIGHT GASKET WITH THE WORD "SANITARY" CAST INTO THE LID.
- WHEN CONNECTING TO AN EXISTING SEWER MAIN BY MEANS OTHER THAN AN EXISTING WYE, TEE, OR AN EXISTING MANHOLE, ONE OF THE FOLLOWING METHODS SHALL BE USED:  
 a) A CIRCULAR SAW-CUT OF SEWER MAIN BY PROPER TOOLS (SEWER TAP MACHINE OR SIMILAR) AND PROPER INSTALLATION OF HUBWYE SADDLE OR HUB-TEE SADDLE.  
 b) REMOVE AN ENTIRE SECTION OF PIPE (BREAKING ONLY THE TOP OF ONE BELL) AND REPLACE WITH A WYE OR TEE BRANCH SECTION.  
 c) WITH PIPE CUTTER, NEATLY AND ACCURATELY CUT OUT DESIRED LENGTH OF PIPE FOR INSERTION OF PROPER FITTING, USING "BAND SEAL" OR SIMILAR COUPLINGS TO HOLD IT FIRMLY IN PLACE.
- WHENEVER A SANITARY/COMBINED SEWER CROSSES UNDER A WATERMAIN, THE MINIMUM VERTICAL DISTANCE FROM THE TOP OF THE SEWER TO THE BOTTOM OF THE WATERMAIN SHALL BE 18 INCHES. FURTHERMORE, A MINIMUM HORIZONTAL DISTANCE OF 10 FEET BETWEEN SANITARY/COMBINED SEWERS AND WATERMANS SHALL BE MAINTAINED UNLESS: THE SEWER IS LAID IN A SEPARATE TRENCH, KEEPING A MINIMUM 18" VERTICAL SEPARATION; OR THE SEWER IS LAID IN THE SAME TRENCH WITH THE WATERMAIN LOCATED AT THE OPPOSITE SIDE ON A BENCH OF UNDISTURBED EARTH, KEEPING A MINIMUM 18" VERTICAL SEPARATION. IF EITHER THE VERTICAL OR HORIZONTAL DISTANCES DESCRIBED CANNOT BE MAINTAINED, OR THE SEWER CROSSES ABOVE THE WATER MAIN, THE SEWER SHALL BE CONSTRUCTED TO WATER MAIN STANDARDS OR IT SHALL BE ENCASED WITH A WATER MAIN QUALITY CARRIER PIPE WITH THE ENDS SEALED.
- ALL EXISTING SEPTIC SYSTEMS SHALL BE ABANDONED. ABANDONED TANKS SHALL BE FILLED WITH GRANULAR MATERIAL OR REMOVED.
- ALL SANITARY MANHOLES, (AND STORM MANHOLES IN COMBINED SEWER AREAS), SHALL HAVE A MINIMUM INSIDE DIAMETER OF 48 INCHES, AND SHALL BE CAST IN PLACE OR PRE-CAST REINFORCED CONCRETE.
- ALL SANITARY MANHOLES, (AND STORM MANHOLES IN COMBINED SEWER AREAS), SHALL HAVE PRECAST "RUBBER BOOTS" THAT CONFORM TO ASTM C-923 FOR ALL PIPE CONNECTIONS. PRECAST SECTIONS SHALL CONSIST OF MODIFIED GROOVE TONGUE AND RUBBER GASKET TYPE JOINTS.
- ALL ABANDONED SANITARY SEWERS SHALL BE PLUGGED AT BOTH ENDS WITH AT LEAST 2 FEET LONG NON-SHRINK CONCRETE OR MORTAR PLUG.
- EXCEPT FOR FOUNDATION/FOOTING DRAINS PROVIDED TO PROTECT BUILDINGS, OR PERFORATED PIPES ASSOCIATED WITH VOLUME CONTROL FACILITIES, DRAIN TILES/FIELD TILES/UNDERDRAINS/PERFORATED PIPES ARE NOT ALLOWED TO BE CONNECTED TO OR TRIBUTARY TO COMBINED SEWERS, SANITARY SEWERS, OR STORM SEWERS TRIBUTARY TO COMBINED SEWERS IN COMBINED SEWER AREAS. CONSTRUCTION OF NEW FACILITIES OF THIS TYPE IS PROHIBITED; AND ALL EXISTING DRAIN TILES AND PERFORATED PIPES ENCOUNTERED WITHIN THE PROJECT AREA SHALL BE PLUGGED OR REMOVED, AND SHALL NOT BE CONNECTED TO COMBINED SEWERS, SANITARY SEWERS, OR STORM SEWERS TRIBUTARY TO COMBINED SEWERS.
- A BACKFLOW PREVENTER IS REQUIRED FOR ALL DETENTION BASINS TRIBUTARY TO COMBINED SEWERS. REQUIRED BACKFLOW PREVENTERS SHALL BE INSPECTED AND EXERCISED ANNUALLY BY THE PROPERTY OWNER TO ENSURE PROPER OPERATION, AND ANY NECESSARY MAINTENANCES SHALL BE PERFORMED TO ENSURE FUNCTIONALITY. IN THE EVENT OF A SEWER SURCHARGE INTO AN OPEN DETENTION BASIN TRIBUTARY TO COMBINED SEWERS, THE PERMITTEE SHALL ENSURE THAT CLEAN UP AND WASH OUT OF SEWAGE TAKES PLACE WITHIN 48 HOURS OF THE STORM EVENT.

**E. EROSION AND SEDIMENT CONTROL**

- THE CONTRACTOR SHALL INSTALL THE EROSION AND SEDIMENT CONTROL DEVICES AS SHOWN ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
- EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE FUNCTIONAL PRIOR TO HYDROLOGIC DISTURBANCE OF THE SITE.
- ALL DESIGN CRITERIA, SPECIFICATIONS, AND INSTALLATION OF EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL.
- A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
- INSPECTIONS AND DOCUMENTATION SHALL BE PERFORMED, AT A MINIMUM:  
 a) UPON COMPLETION OF INITIAL EROSION AND SEDIMENT CONTROL MEASURES, PRIOR TO ANY SOIL DISTURBANCE.  
 b) ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT WITH GREATER THAN 0.5 INCH OF RAINFALL OR LIQUID EQUIVALENT PRECIPITATION.
- SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. IF STRIPPING, CLEARING, GRADING, OR LANDSCAPING ARE TO BE DONE IN PHASES, THE CO-PERMITTEE SHALL PLAN FOR APPROPRIATE SOIL EROSION AND SEDIMENT CONTROL MEASURES.
- A STABILIZED MAT OF CRUSHED STONE MEETING THE STANDARDS OF THE ILLINOIS URBAN MANUAL SHALL BE INSTALLED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE. SEDIMENT OR SOIL REACHING AN IMPROVED PUBLIC RIGHT-OF-WAY, STREET, ALLEY OR PARKING AREA SHALL BE REMOVED BY SCRAPING OR STREET CLEANING AS ACCUMULATIONS WARRANT AND TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA.
- CONCRETE WASHOUT FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL AND SHALL BE INSTALLED PRIOR TO ANY ON SITE CONSTRUCTION ACTIVITIES INVOLVING CONCRETE.
- MORTAR WASHOUT FACILITIES SHALL BE CONSTRUCTED IN ADDITION TO CONCRETE WASHOUT FACILITIES FOR ANY BRICK AND MORTAR BUILDING ENVELOPE CONSTRUCTION ACTIVITIES.
- TEMPORARY DIVERSIONS SHALL BE CONSTRUCTED AS NECESSARY TO DIRECT ALL RUNOFF FROM HYDROLOGICALLY DISTURBED AREAS TO AN APPROPRIATE SEDIMENT TRAP OR BASIN. VOLUME CONTROL FACILITIES SHALL NOT BE USED AS TEMPORARY SEDIMENT BASINS.
- DISTURBED AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES WITHIN SEVEN (7) DAYS.
- ALL FLOOD PROTECTION AREAS AND VOLUME CONTROL FACILITIES SHALL, AT A MINIMUM, BE PROTECTED WITH A DOUBLE-ROW OF SILT FENCE (OR EQUIVALENT).
- VOLUME CONTROL FACILITIES SHALL NOT BE CONSTRUCTED UNTIL ALL OF THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.
- SOIL STOCKPILES SHALL, AT A MINIMUM, BE PROTECTED WITH PERIMETER SEDIMENT CONTROLS. SOIL STOCKPILES SHALL NOT BE PLACED IN FLOOD PROTECTION AREAS OR THEIR BUFFERS.
- EARTHEN EMBANKMENT SIDE SLOPES SHALL BE STABILIZED WITH APPROPRIATE EROSION CONTROL BLANKET.
- STORM SEWERS THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED BY APPROPRIATE SEDIMENT CONTROL MEASURES.
- THE CONTRACTOR SHALL EITHER REMOVE OR REPLACE ANY EXISTING DRAIN TILES AND INCORPORATE THEM INTO THE DRAINAGE PLAN FOR THE DEVELOPMENT. DRAIN TILES CANNOT BE TRIBUTARY TO A SANITARY OR COMBINED SEWER. DRAIN TILES ALLOWED IN COMBINED SEWER AREA FOR GREEN INFRASTRUCTURE PRACTICES.
- IF DEWATERING SERVICES ARE USED, ADJOINING PROPERTIES AND DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION. DEWATERING SYSTEMS SHOULD BE INSPECTED DAILY DURING OPERATIONAL PERIODS. THE SITE INSPECTOR MUST BE PRESENT AT THE COMMENCEMENT OF DEWATERING ACTIVITIES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TRENCH DEWATERING AND EXCAVATION FOR THE INSTALLATION OF SANITARY SEWERS, STORM SEWERS, WATERMANS AS WELL AS THEIR SERVICES AND OTHER APPURTENANCES. ANY TRENCH DEWATERING, WHICH CONTAINS SEDIMENT SHALL PASS THROUGH A SEDIMENT SETTLING POND OR EQUALLY EFFECTIVE SEDIMENT CONTROL DEVICE. ALTERNATIVES MAY INCLUDE DEWATERING INTO A SUMP PIT, FILTER BAG OR EXISTING VEGETATED UPSLOPE AREA. SEDIMENT LADEN WATERS SHALL NOT BE DISCHARGE TO WATERWAYS, FLOOD PROTECTION AREAS OR THE COMBINED SEWER SYSTEM.
- ALL PERMANENT EROSION CONTROL PRACTICES SHALL BE INITIATED WITHIN SEVEN (7) DAYS FOLLOWING THE COMPLETION OF SOIL DISTURBING ACTIVITIES.
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED AND REPAIRED AS NEEDED ON A YEAR-ROUND BASIS DURING CONSTRUCTION AND ANY PERIODS OF CONSTRUCTION SHUTDOWN UNTIL PERMANENT STABILIZATION IS ACHIEVED.
- ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER PERMANENT SITE STABILIZATION.
- THE EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER, SITE INSPECTOR, OR MWRD.



**MWRD ROUTING MAP**  
SCALE 1"=1000'



TECHNICAL GUIDANCE MANUAL  
MWRD GENERAL NOTES

07/12/2016  
STD. DWG. NO. 18  
PAGE NO. 19

FILE NAME = 4816.200-DT1.dwg	USER NAME = MARK COBB	DESIGNED - MGFC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	MWRD GENERAL NOTES	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
PLOT SCALE = 1" = .1667'	CHECKED - KLB	REVISED -	330			14-00220-00-TL	COOK	85	3		
PLOT DATE = 11/4/2019 5:52 PM	DATE -	REVISED -	SCALE NONE			SHEET NO. 1 OF 1 SHEETS		STA.	TO STA.	CONTRACT # 61E86	
ILLINOIS FED. AID PROJECT											

SUMMARY OF QUANTITIES					CONSTRUCTION TYPE CODE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	URBAN 0004	
* 20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	28	28	
* 20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	66	66	
20101000	TEMPORARY FENCE	FOOT	2,050	2,050	
* 20101200	TREE ROOT PRUNING	EACH	20	20	
20200100	EARTH EXCAVATION	CU YD	3,200	3,200	
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	200	200	
20800150	TRENCH BACKFILL	CU YD	1,525	1,525	
21001000	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SQ YD	200	200	
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	1,400	1,400	
21301072	EXPLORATION TRENCH 72" DEPTH	FOOT	30	30	
* 25000400	NITROGEN FERTILIZER NUTRIENT	POUND	18	18	
* 25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	18	18	
* 25200110	SODDING, SALT TOLERANT	SQ YD	1,400	1,400	
* 25200200	SUPPLEMENTAL WATERING	UNIT	50	50.0	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	25	25	
28000510	INLET FILTERS	EACH	34	34	
30300001	AGGREGATE SUBGRADE IMPROVEMENT	CU YD	200	200	
30300112	AGGREGATE SUBGRADE IMPROVEMENT 12"	SQ YD	1,650	1,650	
35101600	AGGREGATE BASE COURSE, TYPE B 4"	SQ YD	2,440	2,440	
35400300	PORTLAND CEMENT CONCRETE BASE COURSE WIDENING 8"	SQ YD	800	800	
35501331	HOT-MIX ASPHALT BASE COURSE, 11 3/4"	SQ YD	1,650	1,650	
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	7,100	7,100	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	100	100	
40603200	POLYMERZED HOT-MIX ASPHALT BINDER COURSE, IL-4.75, N50	TON	460	460	

SP - SPECIAL PROVISION      \* SPECIALTY ITEM      \*\* CONSTRUCTION TYPE CODE 0042



SUMMARY OF QUANTITIES					CONSTRUCTION TYPE CODE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	URBAN 0004	
40604062	HOT-MIX ASPHALT SURFACE COURSE, MK "D", IL-9.5, N70	TON	1,060	1,060	
42001300	PROTECTIVE COAT	SQ YD	850	850	
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	17,500	17,500	
42400410	PORTLAND CEMENT CONCRETE SIDEWALK 8 INCH	SQ FT	4,700	4,700	
42400800	DETECTABLE WARNINGS	SQ FT	530	530	
44000100	PAVEMENT REMOVAL	SQ YD	700	700	
44000158	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4"	SQ YD	8,300	8,300	
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	1,900	1,900	
44000300	CURB REMOVAL	FOOT	590	590	
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	3,970	3,970	
44000600	SIDEWALK REMOVAL	SQ FT	13,730	13,730	
44201789	CLASS D PATCHES, TYPE II, 12 INCH	SQ YD	340	340	
550A0050	STORM SEWERS, CLASS A, TYPE 1 12"	FOOT	250	250	
550A0340	STORM SEWERS, CLASS A, TYPE 2 12"	FOOT	821	821	
550A0410	STORM SEWERS, CLASS A, TYPE 2 24"	FOOT	1,110	1,110	
55100500	STORM SEWER REMOVAL 12"	FOOT	200	200	
56100020	DUCTILE IRON WATER MAIN TEE, 8"X8"	EACH	1	1	
56103100	DUCTILE IRON WATER MAIN 8"	FOOT	40	40	
56300300	ADJUSTING WATER SERVICE LINES	FOOT	100	100	
SP 56400400	FIRE HYDRANTS TO BE RELOCATED	EACH	1	1	
59300100	CONTROLLED LOW-STRENGTH MATERIAL	CU YD	845	845	
60108204	PIPE UNDERDRAINS, TYPE 2, 4"	FOOT	1,860	1,860	
60201340	CATCH BASINS, TYPE A, 4'-DIAMETER, TYPE 24 FRAME AND GRATE	EACH	2	2	
60205040	CATCH BASINS, TYPE A, 5'-DIAMETER, TYPE 24 FRAME AND GRATE	EACH	1	1	

SP - SPECIAL PROVISION      \* SPECIALTY ITEM      \*\* CONSTRUCTION TYPE CODE 0042

SUMMARY OF QUANTITIES					CONSTRUCTION TYPE CODE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	URBAN 0004	
60219530	MANHOLES, TYPE A, 4'-DIAMETER, TYPE 23 FRAME AND GRATE	EACH	6	6	
60219540	MANHOLES, TYPE A, 4'-DIAMETER, TYPE 24 FRAME AND GRATE	EACH	4	4	
60222240	MANHOLES, TYPE A, 5'-DIAMETER, TYPE 24 FRAME AND GRATE	EACH	10	10	
60223800	MANHOLES, TYPE A, 6'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	1	1	
60237460	INLETS, TYPE A, TYPE 23 FRAME AND GRATE	EACH	4	4	
60237470	INLETS, TYPE A, TYPE 24 FRAME AND GRATE	EACH	8	8	
60255500	MANHOLES TO BE ADJUSTED	EACH	8	8	
60255700	MANHOLES TO BE ADJUSTED WITH NEW TYPE 1 FRAME, OPEN LID	EACH	1	1	
60265700	VALVE VAULTS TO BE ADJUSTED	EACH	7	7	
60266600	VALVE BOXES TO BE ADJUSTED	EACH	2	2	
60300305	FRAMES AND LIDS TO BE ADJUSTED	EACH	9	9	
60500040	REMOVING MANHOLES	EACH	3	3	
60500050	REMOVING CATCH BASINS	EACH	1	1	
60500060	REMOVING INLETS	EACH	7	7	
60600605	CONCRETE CURB, TYPE B	FOOT	80	80	
60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	1,305	1,305	
60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	2,500	2,500	
* 66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	735	735	
* 66900530	SOIL DISPOSAL ANALYSIS	EACH	5	5	
* 66901001	REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN	L SUM	1	1	
* 66901003	REGULATED SUBSTANCES FINAL CONSTRUCTION REPORT	L SUM	1	1	
* 66901006	REGULATED SUBSTANCES MONITORING	CAL DAY	5	5	

SP - SPECIAL PROVISION      \* SPECIALTY ITEM      \*\* CONSTRUCTION TYPE CODE 0042

SUMMARY OF QUANTITIES					CONSTRUCTION TYPE CODE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	URBAN 0004	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	4	4	
67100100	MOBILIZATION	LSUM	1	1	
70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	LSUM	1	1	
70102622	TRAFFIC CONTROL AND PROTECTION, STANDARD 701502	LSUM	1	1	
70102632	TRAFFIC CONTROL AND PROTECTION, STANDARD 701602	LSUM	1	1	
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	LSUM	1	1	
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	LSUM	1	1	
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	LSUM	1	1	
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	100	100	
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	60	60	
70300100	SHORT TERM PAVEMENT MARKING	FOOT	557	557	
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	186	186	
* 72000100	SIGN PANEL - TYPE 1	SQ FT	87	87	
72400100	REMOVE SIGN PANEL ASSEMBLY - TYPE A	EACH	17	17	
72400310	REMOVE SIGN PANEL - TYPE 1	SQ FT	21	21	
* 72400500	RELOCATE SIGN PANEL ASSEMBLY - TYPE A	EACH	10	10	
* 72900100	METAL POST - TYPE A	FOOT	99	99	
* 78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	250	250	
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	5,100	5,100	
* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	650	650	
* 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	775	775	
* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	125	125	
* 81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	1,871	1,871	
* 81028220	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	136	136	
* 81028240	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	409	409	

SP - SPECIAL PROVISION      \* SPECIALTY ITEM      \*\* CONSTRUCTION TYPE CODE 0042

FILE NAME = 4816.200-DT1.dwg

USER NAME = MARK COBB

DESIGNED - MGFC

REVISED -

DRAWN - MGFC

REVISED -

PLOT SCALE = 1" = .1667'

CHECKED - KLB

REVISED -

PLOT DATE = 10/1/2019 10:55 AM

DATE -

REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES  
LEE ST - MANNHEIM RD AND FOREST AVENUE

F&P  
RTE  
330

SECTION  
14-00220-00-TL

COUNTY  
COOK

TOTAL  
SHEETS  
85

SHEET  
NO.  
7

CONTRACT # 61E86

SCALE NONE

SHEET NO. 1 OF 6 SHEETS

STA. TO STA.

ILLINOIS FED. AID PROJECT

SUMMARY OF QUANTITIES					CONSTRUCTION TYPE CODE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	URBAN 0004	
* 81400100	HANDHOLE	EACH	6	6	
* 81400200	HEAVY-DUTY HANDHOLE	EACH	4	4	
* 81400300	DOUBLE HANDHOLE	EACH	2	2	
* 83600200	LIGHT POLE FOUNDATION, 24" DIAMETER	FOOT	1	1	
* 85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	2	2	
* 86400100	TRANSCEIVER - FIBER OPTIC	EACH	1	1	
* 87300925	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	2,300	2,300	
* 87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1,217	1,217	
* 87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1,595	1,595	
* 87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1,194	1,194	
* 87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1,457	1,457	
* 87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1,546	1,546	
* 87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	119	119	
* 87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	595	595	
* 87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	4	4	
* 87700190	STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.	EACH	1	1	
* 87700210	STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH	1	1	
* 87700230	STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.	EACH	1	1	
* 87700250	STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.	EACH	1	1	
* 87800100	CONCRETE FOUNDATION, TYPE A	FOOT	16	16	
* 87800150	CONCRETE FOUNDATION, TYPE C	FOOT	4	4	
* 87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	46	46	
* 87900200	DRILL EXISTING HANDHOLE	EACH	2	2	
* 88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	6	6	

SP - SPECIAL PROVISION      \* SPECIALTY ITEM      \*\* CONSTRUCTION TYPE CODE 0042



SUMMARY OF QUANTITIES					CONSTRUCTION TYPE CODE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	URBAN 0004	
* 88030100	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	4	4	
* 88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	4	4	
* 88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8	8	
* 88200310	TRAFFIC SIGNAL BACKPLATE, LOUVERED, PLASTIC	EACH	10	10	
* 88500100	INDUCTIVE LOOP DETECTOR	EACH	8	8	
* 88600100	DETECTOR LOOP, TYPE I	FOOT	710	710	
* 88700200	LIGHT DETECTOR	EACH	2	2	
* 88700300	LIGHT DETECTOR AMPLIFIER	EACH	1	1	
* 88800100	PEDESTRIAN PUSH-BUTTON	EACH	8	8	
* 89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	2,796	2,796	
* 89502376	REBUILD EXISTING HANDHOLE	EACH	3	3	
* 89502380	REMOVE EXISTING HANDHOLE	EACH	2	2	
* A2012220	TREE, AESCULUS X CARNEA FORT MCNAIR (FORT MCNAIR RED HORSECHESTNUT), 2-1/2" CALIPER, BALLED AND BURLAPPED	EACH	4	4	
* B2006320	TREE, SYRINGA RETICULATA IVORY SILK (IVORY SILK JAPANESE TREE LILAC), 2-1/2" CALIPER, TREE FORM, BALLED AND BURLAPPED	EACH	9	9	
SP * K0036120	MULCH PLACEMENT 4"	SQ YD	50	50	
SP * X0324085	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	306	306	
SP * X0324599	ROD AND CLEAN EXISTING CONDUIT	FOOT	1,000	1,000	
SP * X0325938	TEMPORARY WIRELESS INTERCONNECT, COMPLETE	LSUM	1	1	
SP * X0326657	RELOCATE SIGN, SPECIAL	EACH	3	3	
* X1200016	SANITARY SERVICE REPLACEMENT	EACH	10	10	
SP * X1400081	FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL)	EACH	1	1	
SP * X1400150	SERVICE INSTALLATION, GROUND MOUNTED, METERED	EACH	1	1	
SP X2010510	CLEARING AND GRUBBING	LSUM	1	1	
SP X4021000	TEMPORARY ACCESS (PRIVATE ENTRANCE)	EACH	4	4	
SP X4022000	TEMPORARY ACCESS (COMMERCIAL ENTRANCE)	EACH	13	13	

SP - SPECIAL PROVISION \* SPECIALTY ITEM \*\* CONSTRUCTION TYPE CODE 0042

FILE NAME = 4816.200-DT1.dwg

USER NAME = MARK COBB

DESIGNED - MGFC

REVISED -

DRAWN - MGFC

REVISED -

PLOT SCALE = 1" = .1667'

CHECKED - KLB

REVISED -

PLOT DATE = 10/1/2019 10:57 AM

DATE -

REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES  
LEE ST - MANNHEIM RD AND FOREST AVENUE

F.A.P.  
RTE

330

SECTION

14-00220-00-TL

COUNTY

COOK

TOTAL  
SHEETS

85

SHEET  
NO.

9

CONTRACT #

61E86

SCALE NONE

SHEET NO. 1 OF 6 SHEETS

STA.

TO STA.

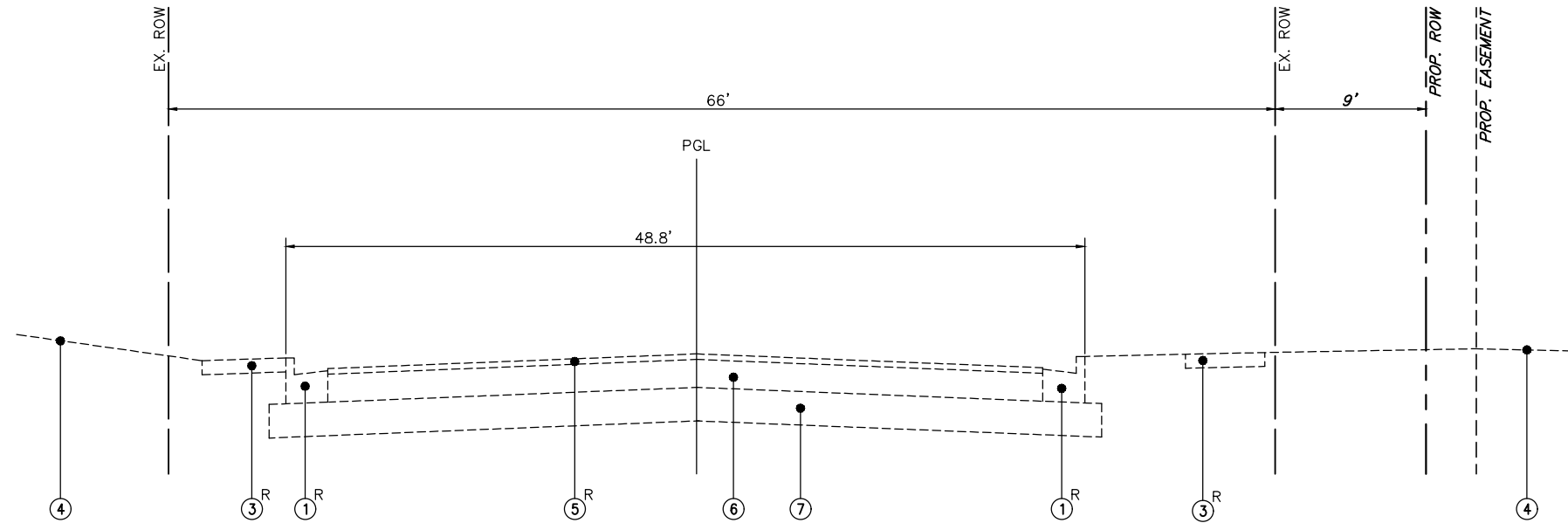
ILLINOIS FED. AID PROJECT

SUMMARY OF QUANTITIES					CONSTRUCTION TYPE CODE
	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	URBAN 0004
SP *	X5610708	WATER MAIN REMOVAL, 8"	FOOT	40	40
SP *	X5630708	CONNECTION TO EXISTING WATER MAIN 8"	EACH	1	1
SP	X6026622	VALVE VAULTS TO BE REMOVED	EACH	1	1
SP *	X8440110	RELOCATE EXISTING LIGHT POLE WITH LUMINAIRE	EACH	1	1
SP *	X8620200	UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1	1
SP *	X8710024	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F	FOOT	2,300	2,300
SP	Z0004530	HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 8"	SQ YD	350	350
SP	Z0004538	HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 10"	SQ YD	800	800
	Z0013798	CONSTRUCTION LAYOUT	LSUM	1	1
SP	Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	210	210
SP *	Z0033046	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2	EACH	2	2
SP	Z0056648	STORM SEWERS, TYPE 1, WATER MAIN QUALITY PIPE, 12"	FOOT	119	119
SP	Z0056668	STORM SEWERS, TYPE 2, WATER MAIN QUALITY PIPE, 12"	FOOT	172	172
SP	Z0056672	STORM SEWERS, TYPE 2, WATER MAIN QUALITY PIPE, 24"	FOOT	54	54
**	Z0076600	TRAINEES	HOUR	500	500
**	Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	500	500
SP	XX003919	FLAGPOLE RELOCATION	LSUM	1	1
SP	XX008553	RETAINING WALL, SPECIAL	FOOT	110	110

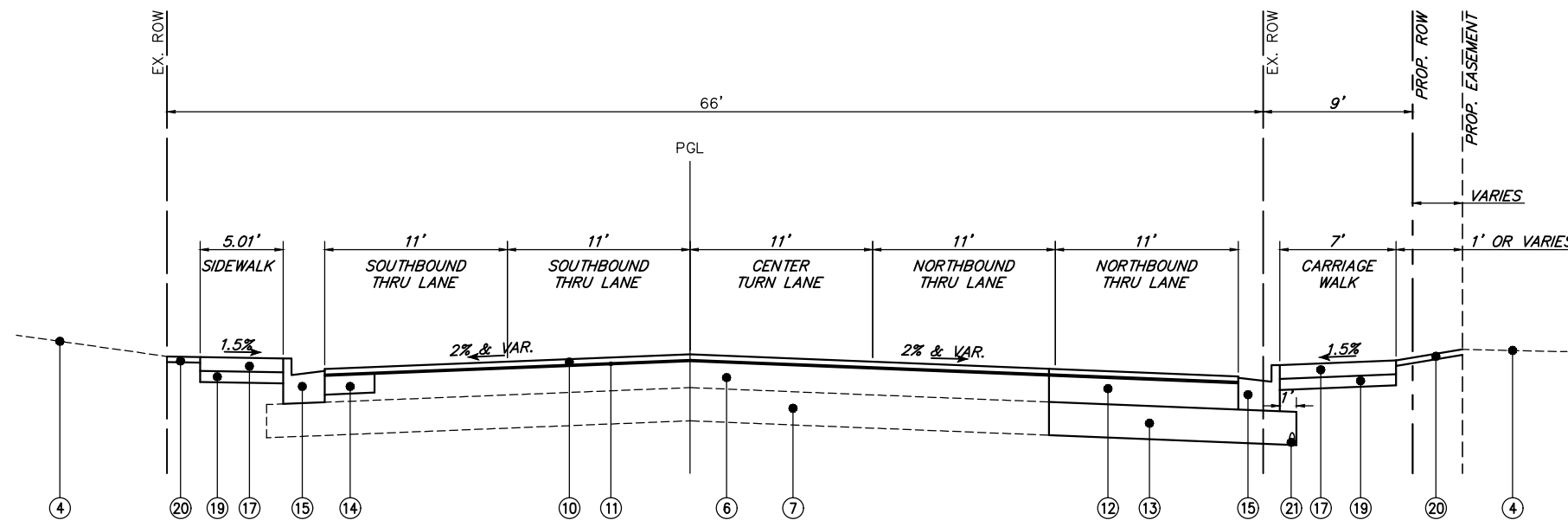
SP - SPECIAL PROVISION      \* SPECIALTY ITEM      \*\* CONSTRUCTION TYPE CODE 0042

### TYPICAL CROSS SECTION LEGEND

- NO DESCRIPTION
- ① EXISTING COMBINATION CURB & GUTTER TYPE B6.24
  - ② EXISTING COMBINATION CURB & GUTTER TYPE M4.18
  - ③ EXISTING SIDEWALK
  - ④ EXISTING GROUND
  - ⑤ EXISTING HOT-MIX ASPHALT SURFACE COURSE
  - ⑥ EXISTING HOT-MIX ASPHALT BINDER COURSE
  - ⑦ EXISTING AGGREGATE SUBGRADE
  - ⑧ EXISTING HOT-MIX DRIVEWAY PAVEMENT
  - ⑨ PROPOSED SAWCUT
  - ⑩ PROPOSED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", IL-9.5, N70, (1.5")
  - ⑪ POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, IL-4.75, N50, (0.75")
  - ⑫ PROPOSED HOT-MIX ASPHALT BASE COURSE, 11.75"
  - ⑬ PROPOSED AGGREGATE SUBGRADE IMPROVEMENT, (12")
  - ⑭ PROPOSED PORTLAND CEMENT CONCRETE BASE COURSE WIDENING, 8"
  - ⑮ PROPOSED COMBINATION CURB & GUTTER TYPE B6.24
  - ⑯ PROPOSED COMBINATION CURB & GUTTER TYPE B6.12
  - ⑰ PROPOSED PCC SIDEWALK, (5")
  - ⑱ PROPOSED HOT-MIX DRIVEWAY
  - ⑲ PROPOSED AGGREGATE BASE COURSE, TYPE B, (4")
  - ⑳ PROPOSED TOPSOIL, (4")
  - ㉑ PIPE UNDERDRAINS, TYPE 2 4"
  - ⓧ<sup>R</sup> ITEM TO BE REMOVED



**EXISTING TYPICAL SECTION**  
 US 12/45 (MANNHEIM ROAD)  
 STA. 20+05.91 TO STA. 33+10.34



**PROPOSED TYPICAL SECTION**  
 US 12/45 (MANNHEIM ROAD)  
 STA. 20+05.91 TO STA. 33+10.34

HOT-MIX ASPHALT MIXTURE REQUIREMENTS	
MIXTURE TYPE	AIR VOIDS @ Ndes
<b>US 45 PAVEMENT RESURFACING AND WIDENING</b>	
HMA SURFACE COURSE, MIX "D", IL-9.5, N70, 1.5"	4% @ 70 GYRATION
POLMERIZED HMA BINDER COURSE, IL-4.75, N50, 0.75"	3.5% @ 50 GYRATION
HMA BASE COURSE, 11.75" (HMA BINDER IL-19.0) (FOR WIDTHS > 6')	4% @ 70 GYRATION
<b>FOREST AVENUE PAVEMENT RESURFACING AND WIDENING</b>	
HMA SURFACE COURSE, MIX "D", IL-9.5, N70, 1.5"	4% @ 70 GYRATION
POLMERIZED HMA BINDER COURSE, IL-4.75, N50, 0.75"	3.5% @ 50 GYRATION
<b>HMA DRIVEWAYS 8", 10"</b>	
HMA SURFACE COURSE, MIX "D", IL-9.5, N50, 2"	4% @ 50 GYRATION
HMA BASE COURSE, 6" (HMA BINDER COURSE, IL-19.0, N50)	4% @ 50 GYRATION
HMA BASE COURSE, 8" (HMA BINDER COURSE, IL-19.0, N50)	4% @ 50 GYRATION
<b>CLASS D PATCH</b>	
HMA BINDER COURSE, IL-19.0, N70	4% @ 70 GYRATION

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ.YD./IN.

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 DISTRICT ONE SPECIAL PROVISIONS.

FOR USE OF RECYCLED MATERIALS SEE SPECIAL PROVISIONS.

**NOTE:**

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ALL AGGREGATE SUBGRADE IMPROVEMENT CONTAMINATED AND/OR DAMAGED BY THE CONTRACTOR'S VEHICLES AND/OR EQUIPMENTS IS TO BE REMOVED AND REPLACED AS DIRECTED BY THE ENGINEER AT THE CONTRACTOR'S EXPENSE.

FILE NAME = 4816.200-typical.dwg

USER NAME = MARK COBB

DESIGNED - MGFC

REVISED -

DRAWN - ZCW

REVISED -

PLOT SCALE = 1" = .1667'

CHECKED - KLB

REVISED -

PLOT DATE = 11/2/2019 8:01 AM

DATE -

REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**TYPICAL CROSS SECTIONS  
 LEE ST - MANNHEIM RD AND FOREST AVENUE**

SCALE NONE

SHEET NO. 1 OF 1 SHEETS

STA. TO STA.

FAR RTE.

SECTION

330

14-00220-00-TL

COUNTY

COOK

CONTRACT #

61E86

TOTAL SHEETS

85

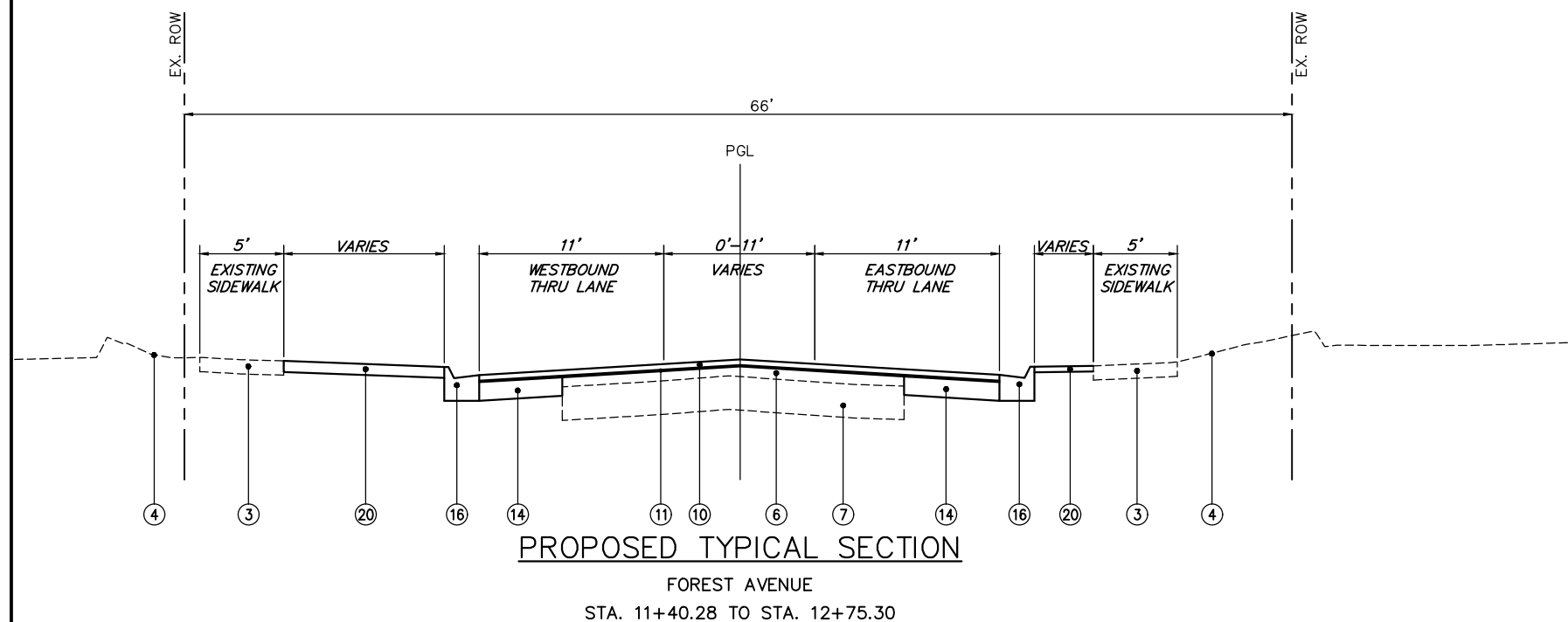
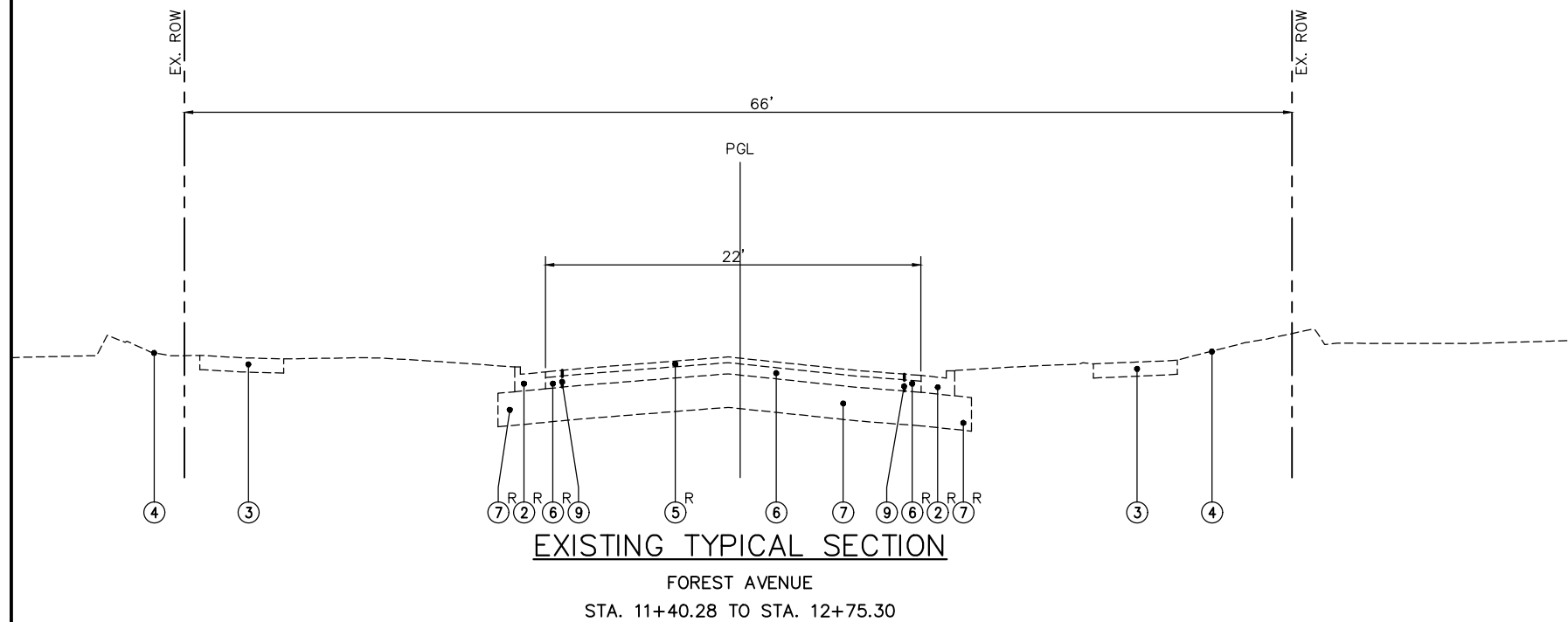
SHEET NO.

11

ILLINOIS FED. AID PROJECT

### TYPICAL CROSS SECTION LEGEND

- NO DESCRIPTION
- ① EXISTING COMBINATION CURB & GUTTER TYPE B6.24
  - ② EXISTING COMBINATION CURB & GUTTER TYPE M4.18
  - ③ EXISTING SIDEWALK
  - ④ EXISTING GROUND
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  - ⑦ EXISTING AGGREGATE SUBGRADE
  - ⑧ EXISTING HOT-MIX DRIVEWAY PAVEMENT
  - ⑨ PROPOSED SAWCUT
  - ⑩ PROPOSED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", IL-9.5, N70, (1.5")
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  - ⑭ PROPOSED PORTLAND CEMENT CONCRETE BASE COURSE WIDENING, 8"
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  - ⑰ PROPOSED PCC SIDEWALK, (5")
  - ⑱ PROPOSED HOT-MIX DRIVEWAY
  - ⑲ PROPOSED AGGREGATE BASE COURSE, TYPE B, (4")
  - ⑳ PROPOSED TOPSOIL, (4")
  - ㉑ PIPE UNDERDRAINS, TYPE 2 4"
  - ⓧ<sup>R</sup> ITEM TO BE REMOVED



**NOTE:**

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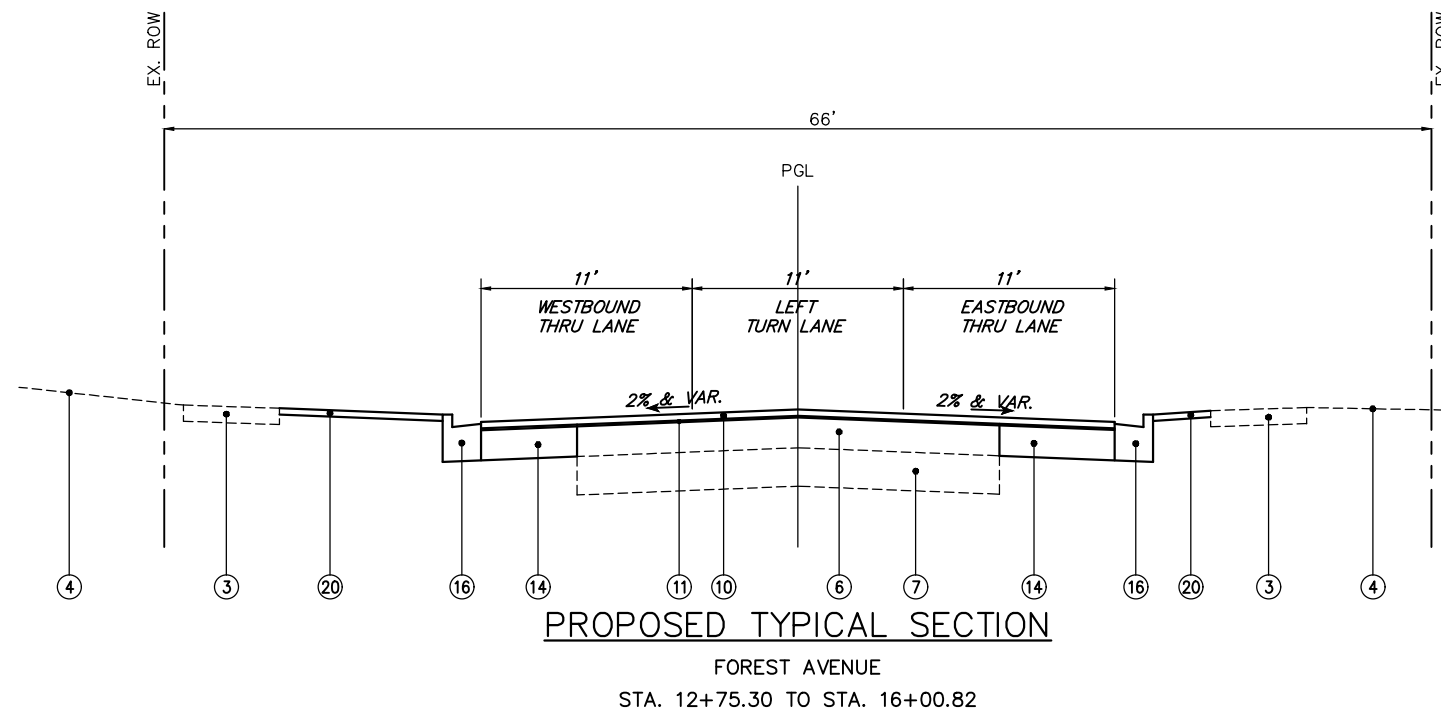
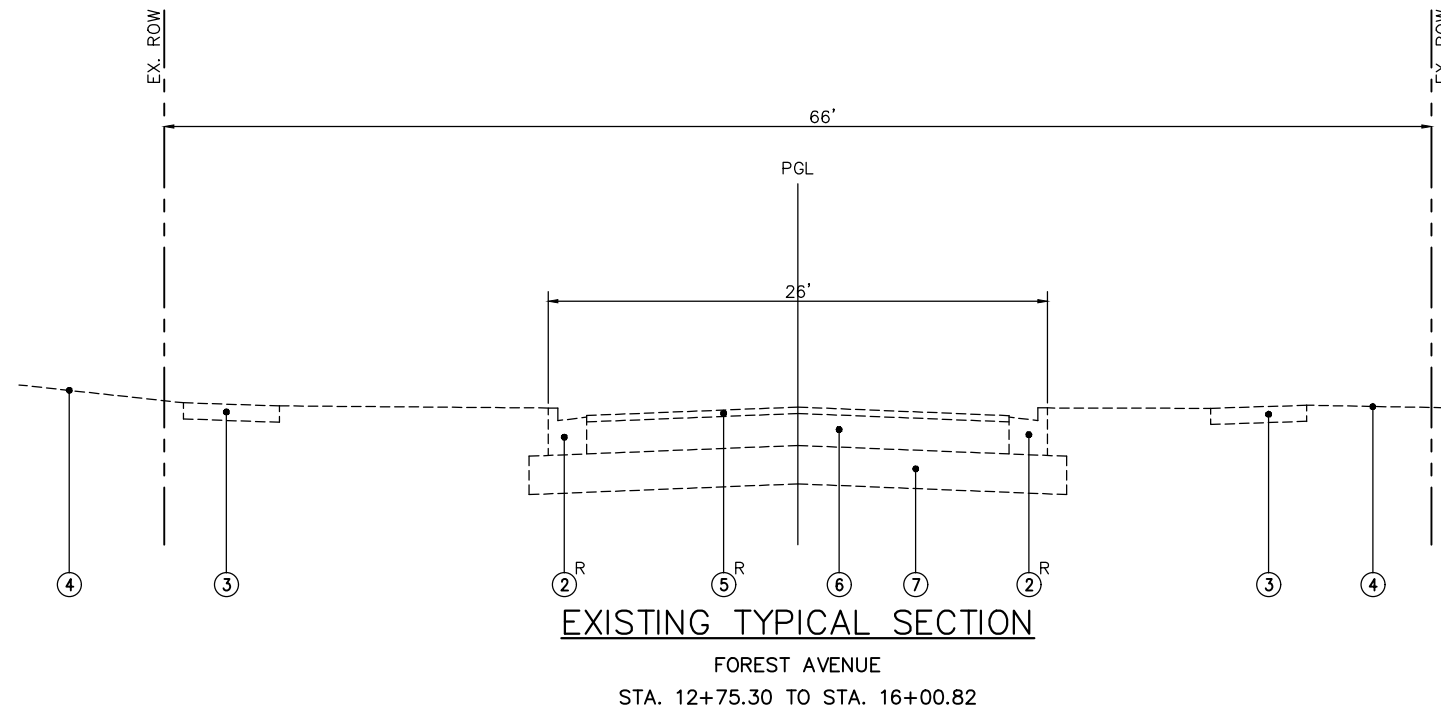
ALL AGGREGATE SUBGRADE IMPROVEMENT CONTAMINATED AND/OR DAMAGED BY THE CONTRACTOR'S VEHICLES AND/OR EQUIPMENTS IS TO BE REMOVED AND REPLACED AS DIRECTED BY THE ENGINEER AT THE CONTRACTOR'S EXPENSE.

FILE NAME = 4816.200-typical.dwg	USER NAME = MARK COBB	DESIGNED - MGFC	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TYPICAL CROSS SECTIONS LEE ST - MANNHEIM RD AND FOREST AVENUE</b>		F&P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN - ZCW	REVISED -		SCALE NONE	SHEET NO. 1 OF 1 SHEETS	STA.	330	14-00220-00-TL	COOK	85	12
	PLOT SCALE = 1" = .1667'	CHECKED - KLB	REVISED -				TO STA.					
	PLOT DATE = 9/30/2019 1:48 PM	DATE -	REVISED -									CONTRACT # 61E86



### TYPICAL CROSS SECTION LEGEND

- NO DESCRIPTION
- ① EXISTING COMBINATION CURB & GUTTER TYPE B6.24
  - ② EXISTING COMBINATION CURB & GUTTER TYPE M4.18
  - ③ EXISTING SIDEWALK
  - ④ EXISTING GROUND
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  - ⑯ PROPOSED COMBINATION CURB & GUTTER TYPE B6.12
  - ⑰ PROPOSED PCC SIDEWALK, (5")
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  - ㉑ PIPE UNDERDRAINS, TYPE 2 4"
  - ⓧ<sup>R</sup> ITEM TO BE REMOVED



**NOTE:**

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FILE NAME = 4816.200-typical.dwg

USER NAME = MARK COBB

DESIGNED - MGFC

REVISED -

DRAWN - ZCW

REVISED -

PLOT SCALE = 1" = .1667'

CHECKED - KLB

REVISED -

PLOT DATE = 9/30/2019 1:48 PM

DATE -

REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TYPICAL CROSS SECTIONS  
LEE ST - MANNHEIM RD AND FOREST AVENUE**

SCALE NONE

SHEET NO. 1 OF 1 SHEETS

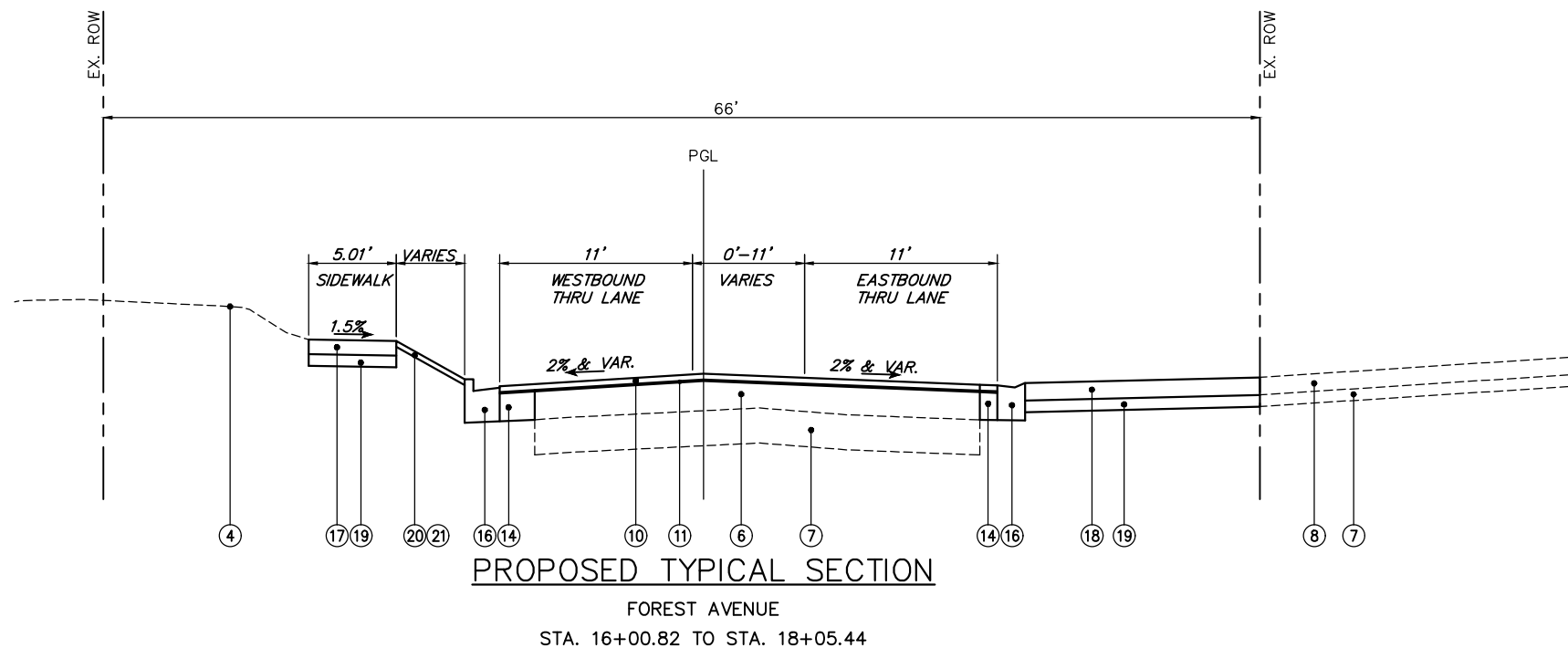
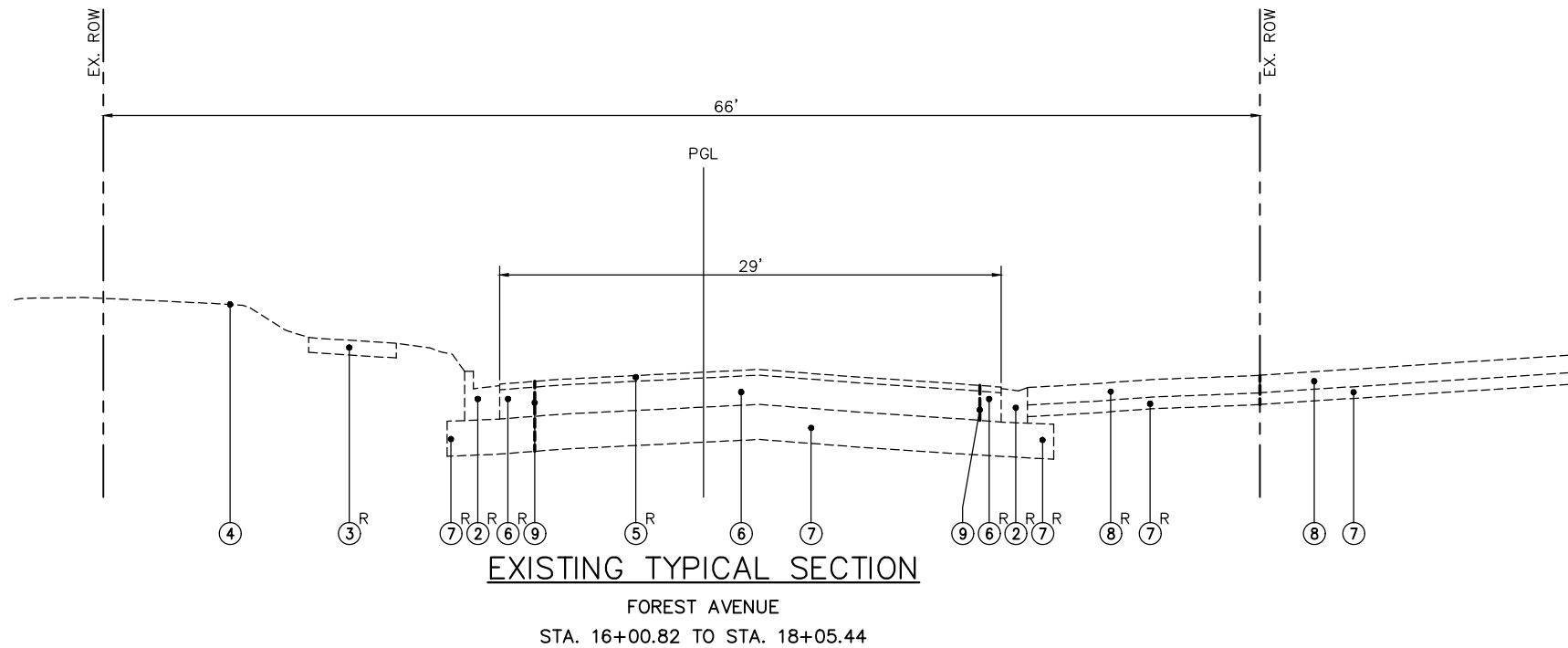
STA. TO STA.

FAR. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	14-00220-00-TL	COOK	85	13
CONTRACT #:			61E86	

ILLINOIS FED. AID PROJECT

### TYPICAL CROSS SECTION LEGEND

- NO DESCRIPTION
- ① EXISTING COMBINATION CURB & GUTTER TYPE B6.24
  - ② EXISTING COMBINATION CURB & GUTTER TYPE M4.18
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  - ⑳ PROPOSED TOPSOIL, (4")
  - ㉑ PIPE UNDERDRAINS, TYPE 2 4"
  - ⓧ<sup>R</sup> ITEM TO BE REMOVED



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FILE NAME = 4816.200-typical.dwg	USER NAME = MARK COBB	DESIGNED - MGFC	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TYPICAL CROSS SECTIONS LEE ST - MANNHEIM RD AND FOREST AVENUE</b>	F&P RTE. 330	SECTION 14-00220-00-TL	COUNTY COOK	TOTAL SHEETS 85	SHEET NO. 14	
PLOT SCALE = 1" = .1667'						SCALE NONE		SHEET NO. 1 OF 1 SHEETS		STA. TO STA.	
PLOT DATE = 9/30/2019 1:49 PM						DATE -		CONTRACT # 61E86		ILLINOIS FED. AID PROJECT	
DRAWN - ZCW						REVISED -					
CHECKED - KLB				REVISED -							
DATE -				REVISED -							

STATION	DISTANCE (FT)	EARTH EXCAVATION END AREAS (SQ FT)		EARTH EXCAVATION AVERAGE END AREA (SQ FT)		EARTH EXCAVATION SECTION VOLUMES (CU YD)		EARTH EXCAVATION CUMULATIVE VOLUMES (CU YD)		CUMULATIVE NET EARTH EXCAVATION EXCESS (+) OR SHORTAGE (-) (CU YD)	ADJUSTED EARTH EXCAVATION ADJUSTED FOR SHRINKAGE (15%) (CU YD)
		CUT	FILL	CUT	FILL	CUT	FILL	CUT	FILL		
20+00.00		0.00	0.00								
20+50.00	50.00	37.13	0.00	18.57	0.00	34.38	0.00	34.38	0.00	34.38	29.22
21+00.00	50.00	30.93	0.00	34.03	0.00	63.02	0.00	97.40	0.00	97.40	82.79
21+50.00	50.00	36.31	0.00	33.62	0.00	62.26	0.00	159.66	0.00	159.66	135.71
22+00.00	50.00	46.78	0.00	41.55	0.00	76.94	0.00	236.59	0.00	236.59	201.10
22+50.00	50.00	50.88	0.00	48.83	0.00	90.43	0.00	327.02	0.00	327.02	277.97
23+00.00	50.00	69.00	0.00	59.94	0.00	111.00	0.00	438.02	0.00	438.02	372.32
23+50.00	50.00	0.00	0.00	34.50	0.00	63.89	0.00	501.91	0.00	501.91	426.62
24+00.00	50.00	61.47	0.00	30.74	0.00	56.92	0.00	558.82	0.00	558.82	475.00
24+50.00	50.00	63.87	0.00	62.67	0.00	116.06	0.00	674.88	0.00	674.88	573.65
25+00.00	50.00	56.89	0.00	60.38	0.00	111.81	0.00	786.69	0.00	786.69	668.69
25+50.00	50.00	60.47	0.00	58.68	0.00	108.67	0.00	895.36	0.00	895.36	761.06
26+00.00	50.00	64.13	0.00	62.30	0.00	115.37	0.00	1010.73	0.00	1010.73	859.12
26+50.00	50.00	53.07	0.00	58.60	0.00	108.52	0.00	1119.25	0.00	1119.25	951.36
27+00.00	50.00	50.83	0.00	51.95	0.00	96.20	0.00	1215.45	0.00	1215.45	1033.14
27+50.00	50.00	48.17	0.00	49.50	0.00	91.67	0.00	1307.12	0.00	1307.12	1111.05
28+00.00	50.00	61.95	0.00	55.06	0.00	101.96	0.00	1409.08	0.00	1409.08	1197.72
28+50.00	50.00	75.54	0.00	68.75	0.00	127.31	0.00	1536.39	0.00	1536.39	1305.93
29+00.00	50.00	68.83	0.00	72.19	0.00	133.68	0.00	1670.06	0.00	1670.06	1419.56
29+50.00	50.00	51.55	0.00	60.19	0.00	111.46	0.00	1781.53	0.00	1781.53	1514.30
30+00.00	50.00	44.38	0.00	47.97	0.00	88.82	0.00	1870.35	0.00	1870.35	1589.80
30+50.00	50.00	48.80	0.00	46.59	0.00	86.28	0.00	1956.63	0.00	1956.63	1663.14
31+00.00	50.00	63.20	0.00	56.00	0.00	103.70	0.00	2060.33	0.00	2060.33	1751.28
31+50.00	50.00	61.81	0.00	62.51	0.00	115.75	0.00	2176.08	0.00	2176.08	1849.67
32+00.00	50.00	56.68	0.00	59.25	0.00	109.71	0.00	2285.80	0.00	2285.80	1942.93
32+50.00	50.00	31.31	0.00	44.00	0.00	81.47	0.00	2367.27	0.00	2367.27	2012.18
33+00.00	50.00	10.70	0.00	21.01	0.00	38.90	0.00	2406.17	0.00	2406.17	2045.24
33+50.00	50.00	0.00	0.00	5.35	0.00	9.91	0.00	2416.07	0.00	2416.07	2053.66

US 12/45 (Lee Street/Mannheim Rd)

STATION	DISTANCE (FT)	EARTH EXCAVATION END AREAS (SQ FT)		EARTH EXCAVATION AVERAGE END AREA (SQ FT)		EARTH EXCAVATION SECTION VOLUMES (CU YD)		EARTH EXCAVATION CUMULATIVE VOLUMES (CU YD)		CUMULATIVE NET EARTH EXCAVATION EXCESS (+) OR SHORTAGE (-) (CU YD)	ADJUSTED EARTH EXCAVATION ADJUSTED FOR SHRINKAGE (15%) (CU YD)
		CUT	FILL	CUT	FILL	CUT	FILL	CUT	FILL		
11+00.00		0.00	0.00								
11+50.00	50.00	9.24	0.00	4.62	0.00	8.56	0.00	8.56	0.00	8.56	7.27
12+00.00	50.00	18.37	0.00	13.81	0.00	25.56	0.00	34.12	0.00	34.12	29.00
12+50.00	50.00	18.00	0.00	18.19	0.00	33.68	0.00	67.80	0.00	67.80	57.63
13+00.00	50.00	25.19	0.00	21.60	0.00	39.99	0.00	107.79	0.00	107.79	91.62
13+50.00	50.00	22.74	0.00	23.97	0.00	44.38	0.00	152.17	0.00	152.17	129.34
14+00.00	50.00	83.87	0.00	53.31	0.00	98.71	0.00	250.88	0.00	250.88	213.25
14+50.00	50.00	0.00	0.00	41.94	0.00	77.66	0.00	328.54	0.00	328.54	279.26
15+00.00	50.00	50.87	0.00	25.44	0.00	47.10	0.00	375.64	0.00	375.64	319.29
15+50.00	50.00	37.10	0.00	43.99	0.00	81.45	0.00	457.09	0.00	457.09	388.53
16+00.00	50.00	17.60	0.00	27.35	0.00	50.65	0.00	507.74	0.00	507.74	431.58
16+50.00	50.00	23.18	0.00	20.39	0.00	37.76	0.00	545.50	0.00	545.50	463.68
17+00.00	50.00	25.58	0.00	24.38	0.00	45.15	0.00	590.65	0.00	590.65	502.05
17+50.00	50.00	23.37	0.00	24.48	0.00	45.32	0.00	635.97	0.00	635.97	540.58
18+00.00	50.00	18.35	0.00	20.86	0.00	38.63	0.00	674.60	0.00	674.60	573.41
18+50.00	50.00	0.00	0.00	9.18	0.00	16.99	0.00	691.59	0.00	691.59	587.85

Forest Ave

FILE NAME = 4816.200-DT1.dwg

USER NAME = MARK COBB

DESIGNED - MGFC  
DRAWN - MGFC  
CHECKED - KLB  
DATE -

REVISED -  
REVISED -  
REVISED -  
REVISED -

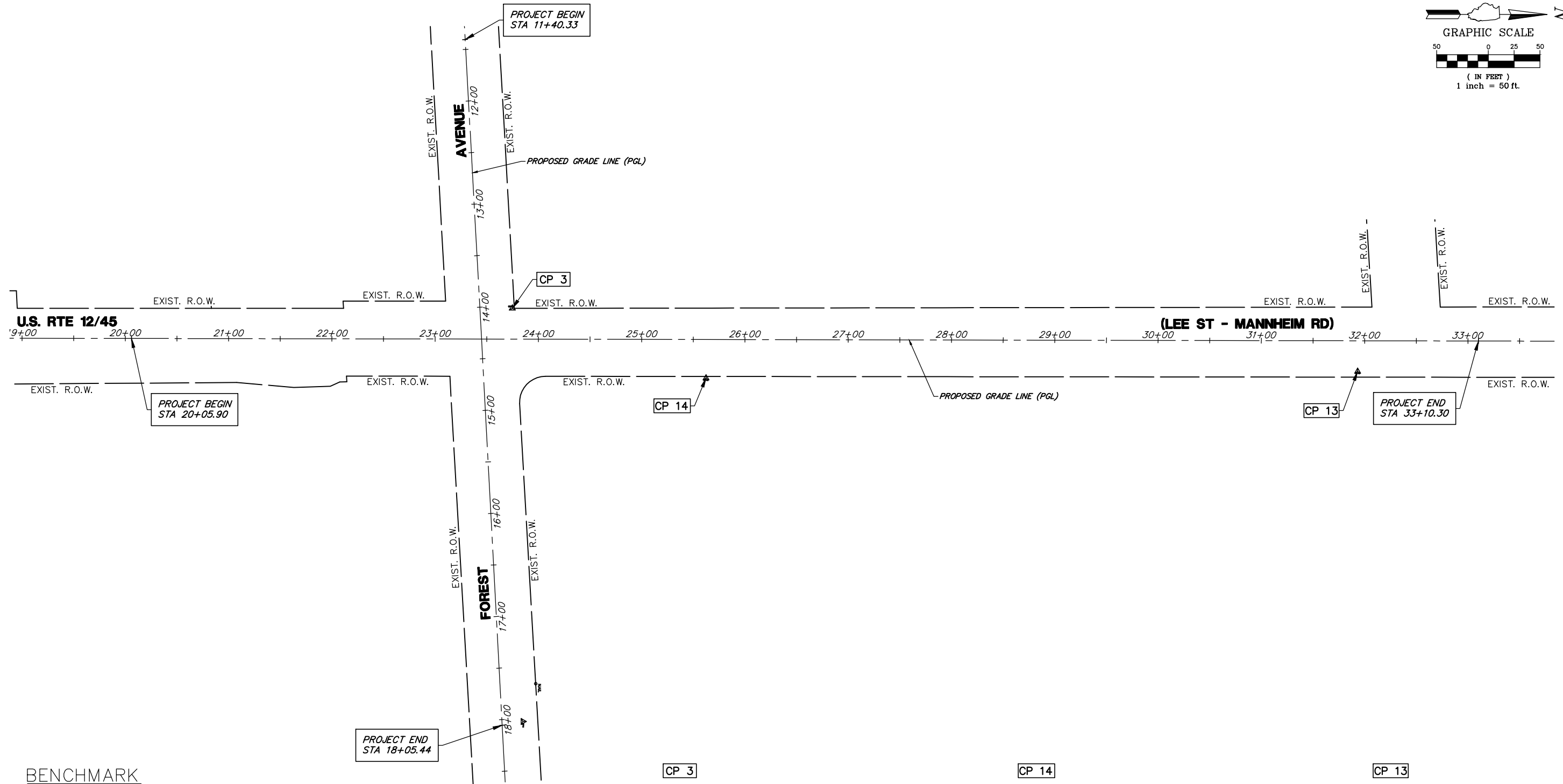
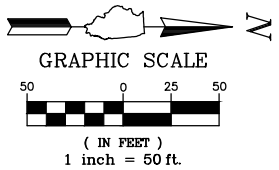
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EARTHWORK SCHEDULE  
LEE ST - MANNHEIM RD AND FOREST AVENUE

SCALE NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

FAP. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	14-00220-00-TL	COOK	85	15
CONTRACT #:			61E86	

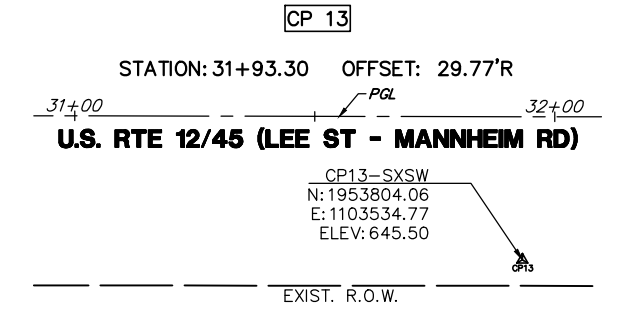
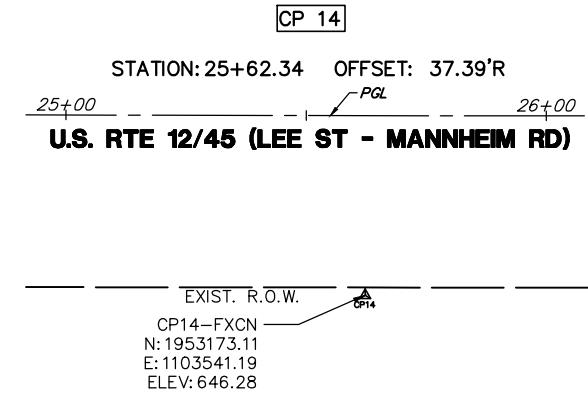
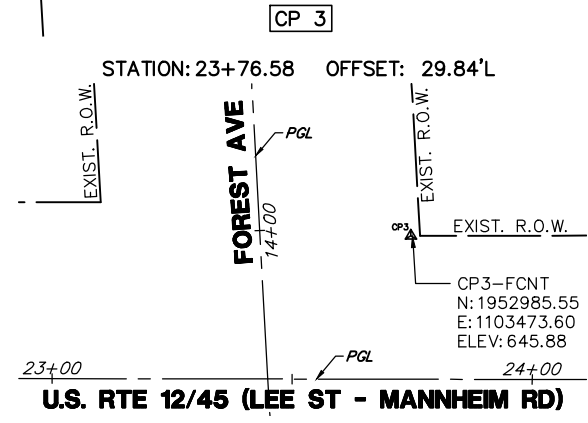
ILLINOIS FED. AID PROJECT



**BENCHMARK**

CITY OF DES PLAINES BENCHMARK #59  
 MONUMENT SET IN CONCRETE AT THE SOUTHWEST  
 CORNER OF OAKTON STREET AND LEE/MANHEIM, 21'  
 SOUTH OF THE EDGE OF PAVEMENT OF OAKTON  
 STREET AND 25' WEST OF THE EDGE OF PAVEMENT  
 OF LEE/MANHEIM.  
 ELEVATION: 645.625 NAVD88

PROJECT END  
 STA 18+05.44



FILE NAME = 4816.200-ATB.dwg

USER NAME = MARK COBB

DESIGNED -	REVISED -
DRAWN - JMR	REVISED -
CHECKED - MGC	REVISED -
DATE -	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

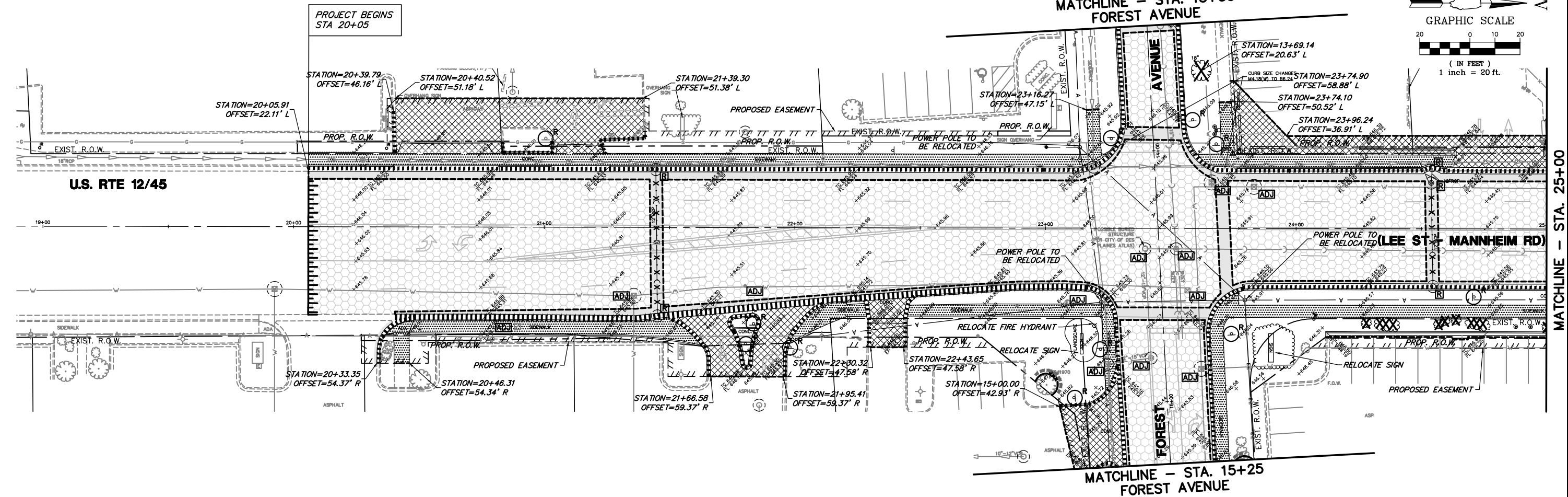
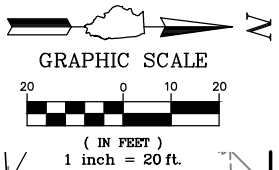
**ALIGNMENT, TIES, AND BENCHMARK  
 LEE ST - MANNHEIM RD AND FOREST AVENUE**

SCALE 1"=50' SHEET NO. 1 OF 1 SHEETS STA. TO STA.

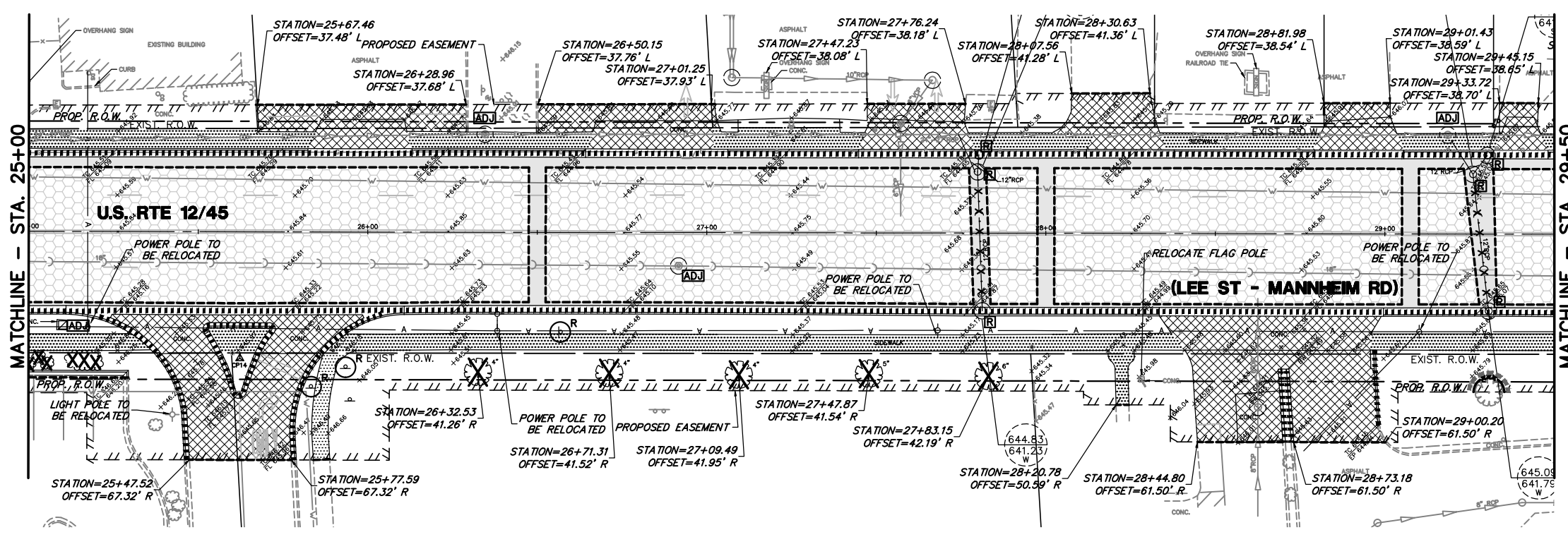
FAR RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	14-00220-00-TL	COOK	85	16
CONTRACT #:			61E86	
ILLINOIS FED. AID PROJECT				



MATCHLINE - STA. 13+50  
FOREST AVENUE



MATCHLINE - STA. 15+25  
FOREST AVENUE



**REMOVAL LEGEND**

- PAVEMENT REMOVAL
- DRIVEWAY PAVEMENT REMOVAL
- HMA SURFACE REMOVAL, 2.25"
- SIDEWALK REMOVAL
- COMBINATION CURB AND GUTTER REMOVAL
- HMA SURFACE REMOVAL - BUTT JOINT
- STRUCTURE TO BE ADJUSTED
- STRUCTURE TO BE REMOVED
- UTILITY TO BE ABANDONED
- UTILITY TO BE REMOVED
- TREE/SHRUB REMOVAL
- TREE ROOT PRUNING
- TEMPORARY FENCE
- PAVEMENT SAWCUT
- REMOVING AND RESETTING STREET SIGN

FILE NAME = 4816.200-demo1.dwg

USER NAME = MARK COBB

DESIGNED - MGFC

REVISED -

DRAWN - ZCW

CHECKED - KLB

REVISED -

PLOT SCALE = 1" = .1667'

DATE -

REVISED -

PLOT DATE = 9/30/2019 2:08 PM

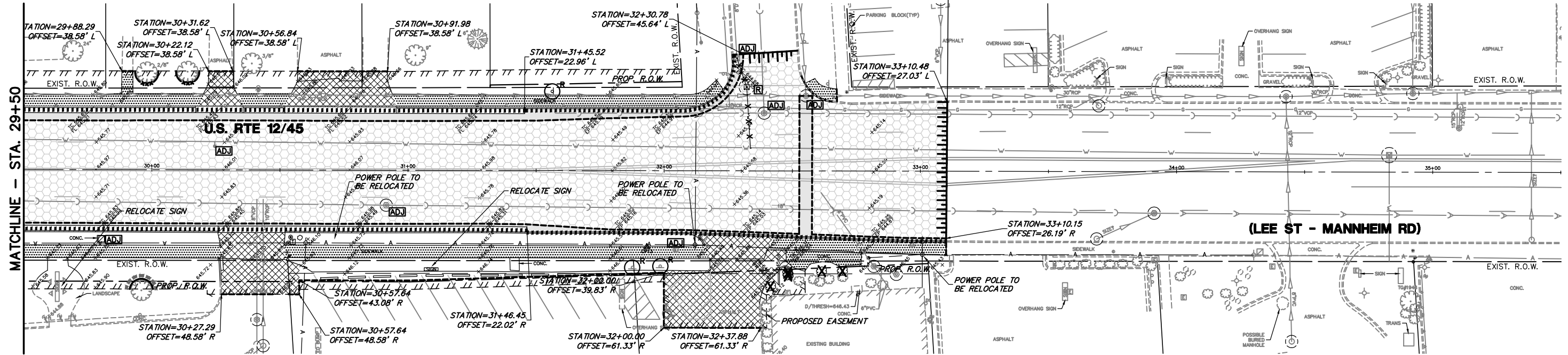
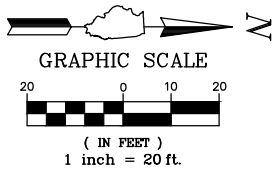
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**REMOVAL PLAN  
LEE ST - MANNHEIM RD AND FOREST AVENUE**

SCALE 1"=20' SHEET NO. 1 OF 3 SHEETS STA. B.O.P. TO STA. 29+50

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	14-00220-00-TL	COOK	85	17
CONTRACT #			61E86	

ILLINOIS FED. AID PROJECT



**REMOVAL LEGEND**

- PAVEMENT REMOVAL
- DRIVEWAY PAVEMENT REMOVAL
- HMA SURFACE REMOVAL, 2.25"
- SIDEWALK REMOVAL
- COMBINATION CURB AND GUTTER REMOVAL
- HMA SURFACE REMOVAL - BUTT JOINT
- STRUCTURE TO BE ADJUSTED
- STRUCTURE TO BE REMOVED
- UTILITY TO BE ABANDONED
- UTILITY TO BE REMOVED
- TREE/SHRUB REMOVAL
- TREE ROOT PRUNING
- TEMPORARY FENCE
- PAVEMENT SAWCUT
- REMOVING AND RESETTING STREET SIGN

FILE NAME = 4816.200-demo1.dwg

USER NAME = MARK COBB

DESIGNED - MGFC

REVISED -

PLOT SCALE = 1" = .1667'

DRAWN - ZCW

REVISED -

PLOT DATE = 9/30/2019 2:09 PM

CHECKED - KLB

REVISED -

DATE -

REVISED -

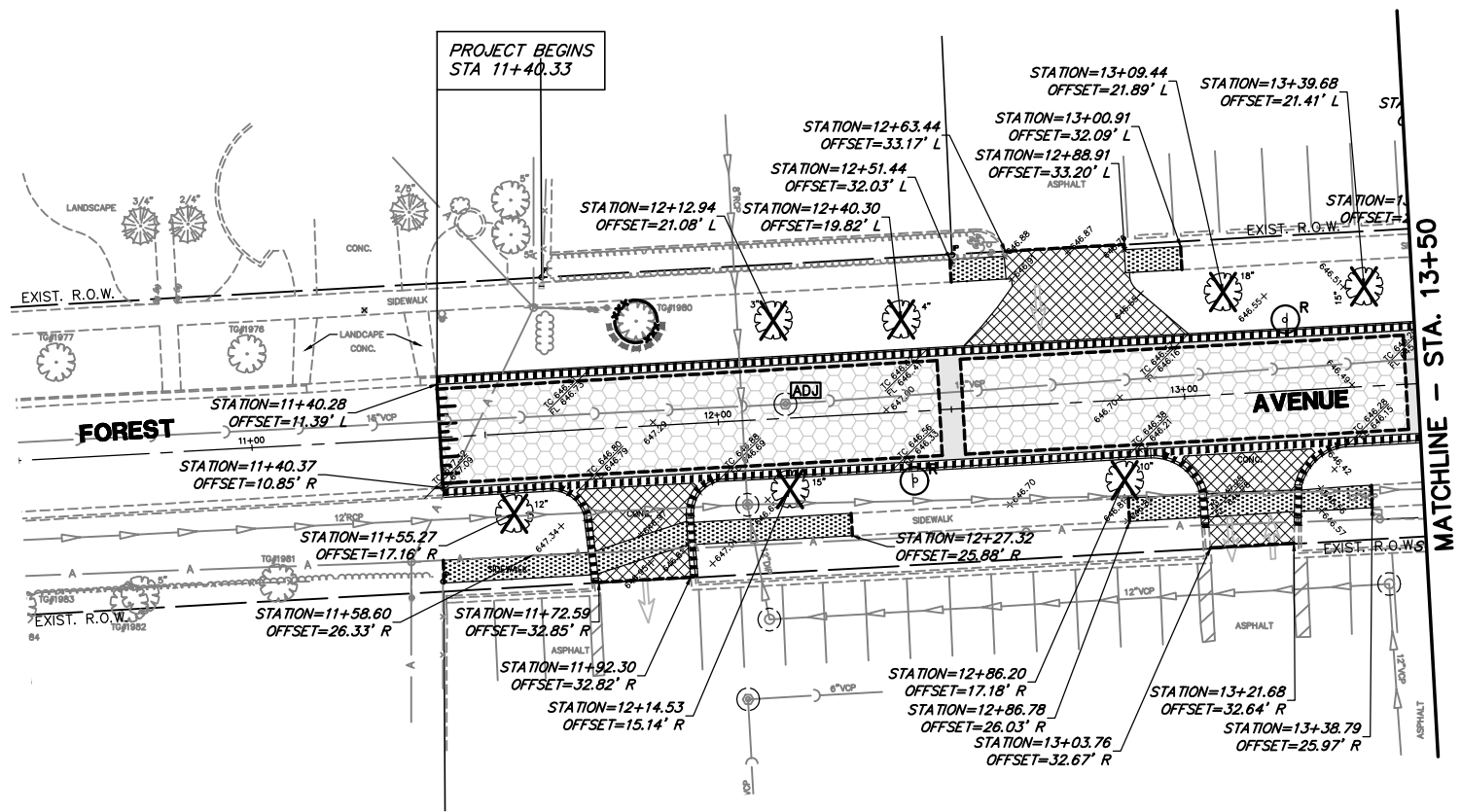
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**REMOVAL PLAN  
LEE ST - MANNHEIM RD AND FOREST AVENUE**

SCALE 1"=20' SHEET NO. 2 OF 3 SHEETS STA. 29+50 TO STA. E.O.P.

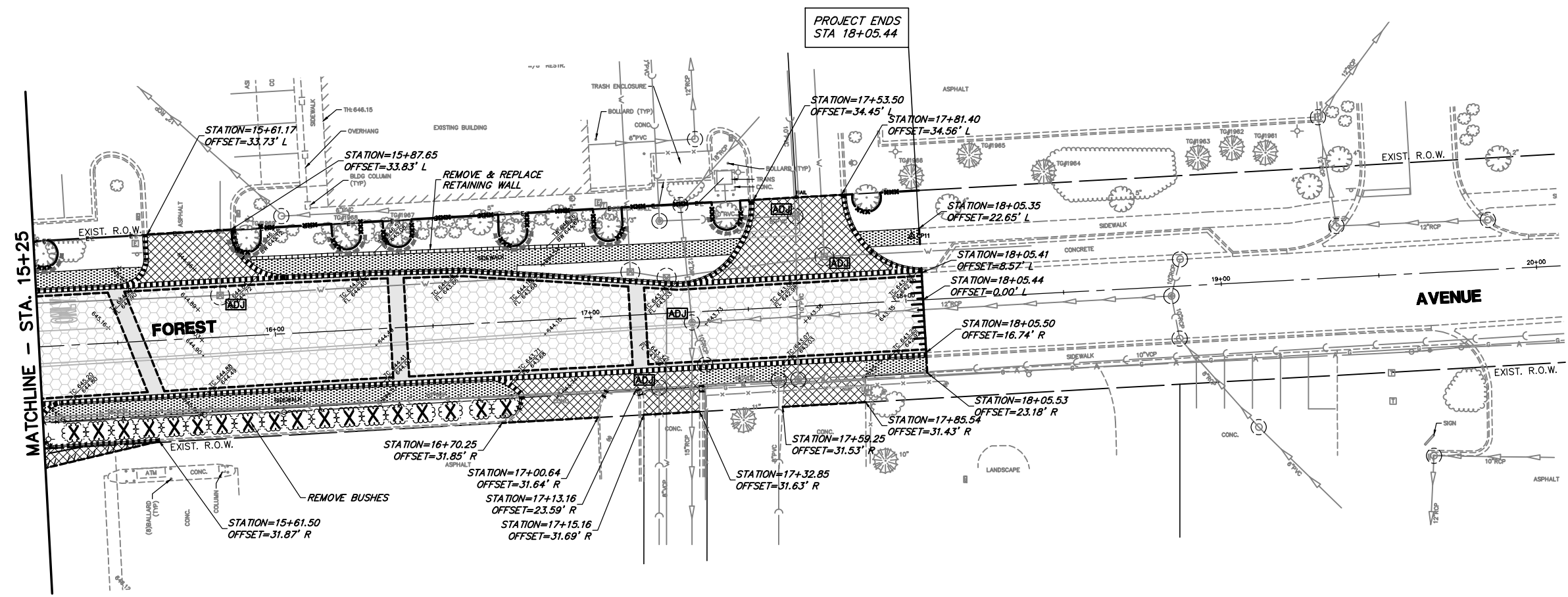
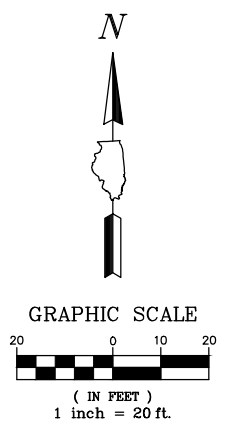
FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	14-00220-00-TL	COOK	85	18
CONTRACT #			61E86	

ILLINOIS FED. AID PROJECT



**REMOVAL LEGEND**

- PAVEMENT REMOVAL
- DRIVEWAY PAVEMENT REMOVAL
- HMA SURFACE REMOVAL, 2.25"
- SIDEWALK REMOVAL
- COMBINATION CURB AND GUTTER REMOVAL
- HMA SURFACE REMOVAL - BUTT JOINT
- STRUCTURE TO BE ADJUSTED
- STRUCTURE TO BE REMOVED
- UTILITY TO BE ABANDONED
- UTILITY TO BE REMOVED
- TREE/SHRUB REMOVAL
- TREE ROOT PRUNING
- TEMPORARY FENCE
- PAVEMENT SAWCUT
- REMOVING AND RESETTING STREET SIGN



FILE NAME = 4816.200-demo1.dwg

USER NAME = MARK COBB

DESIGNED - MGFC

REVISED -

PLOT SCALE = 1" = .1667'

DRAWN - ZCW

REVISED -

PLOT DATE = 9/30/2019 2:10 PM

CHECKED - KLB

REVISED -

DATE -

REVISED -

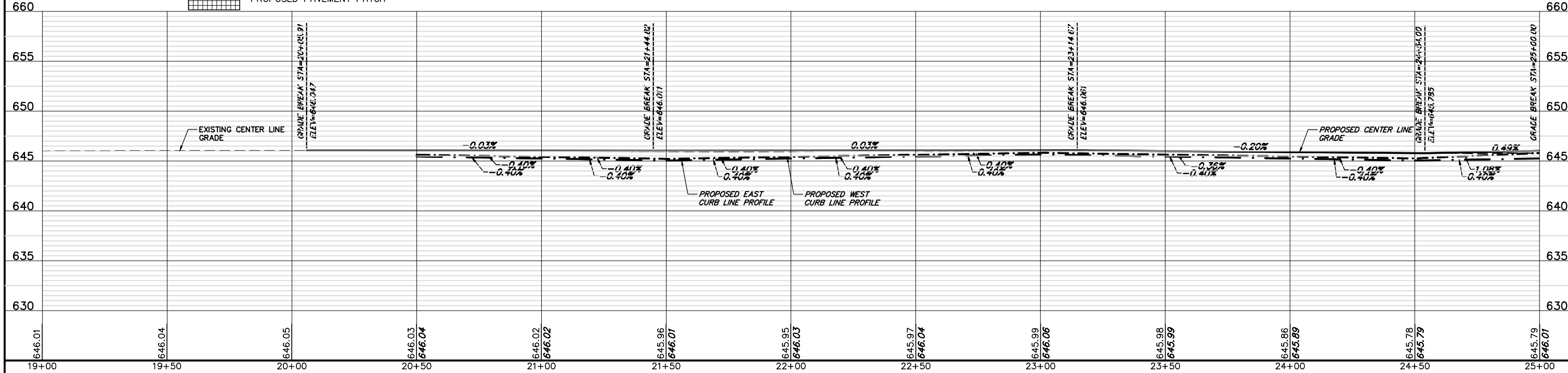
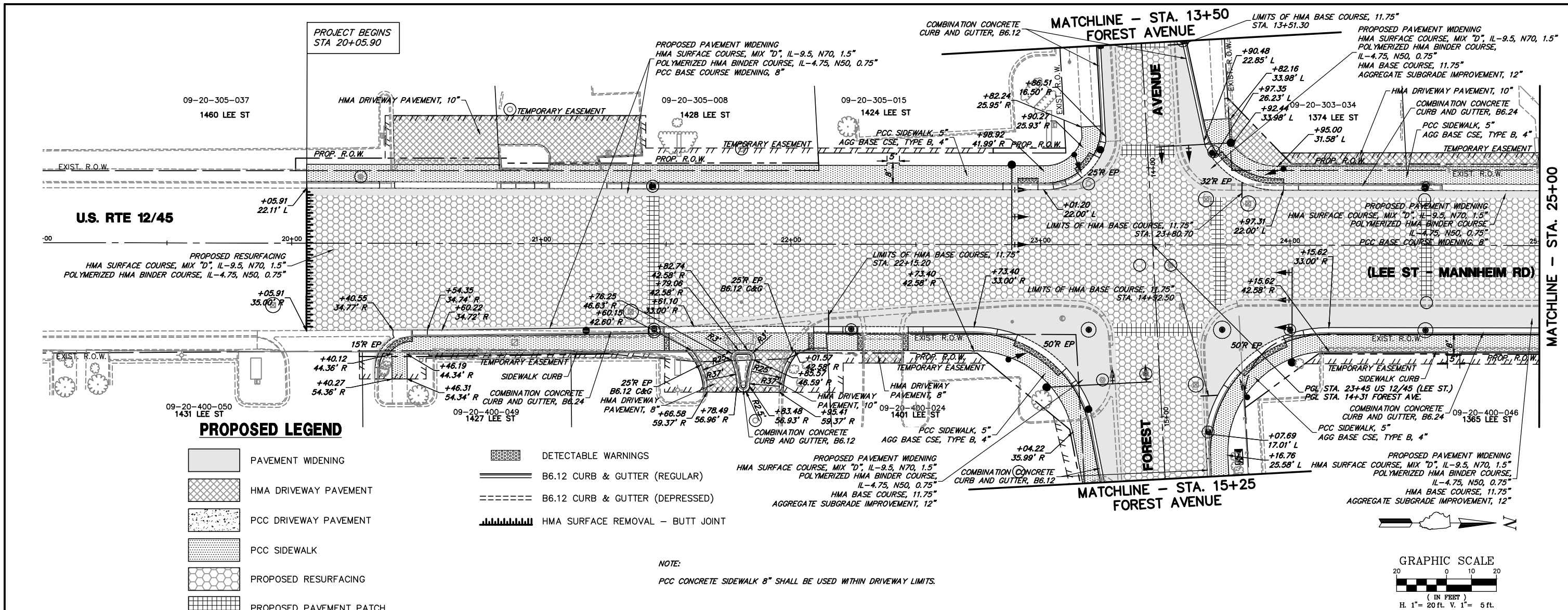
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**REMOVAL PLAN  
LEE ST - MANNHEIM RD AND FOREST AVENUE**

SCALE 1"=20' SHEET NO. 3 OF 3 SHEETS STA. B.O.P. TO STA. E.O.P.

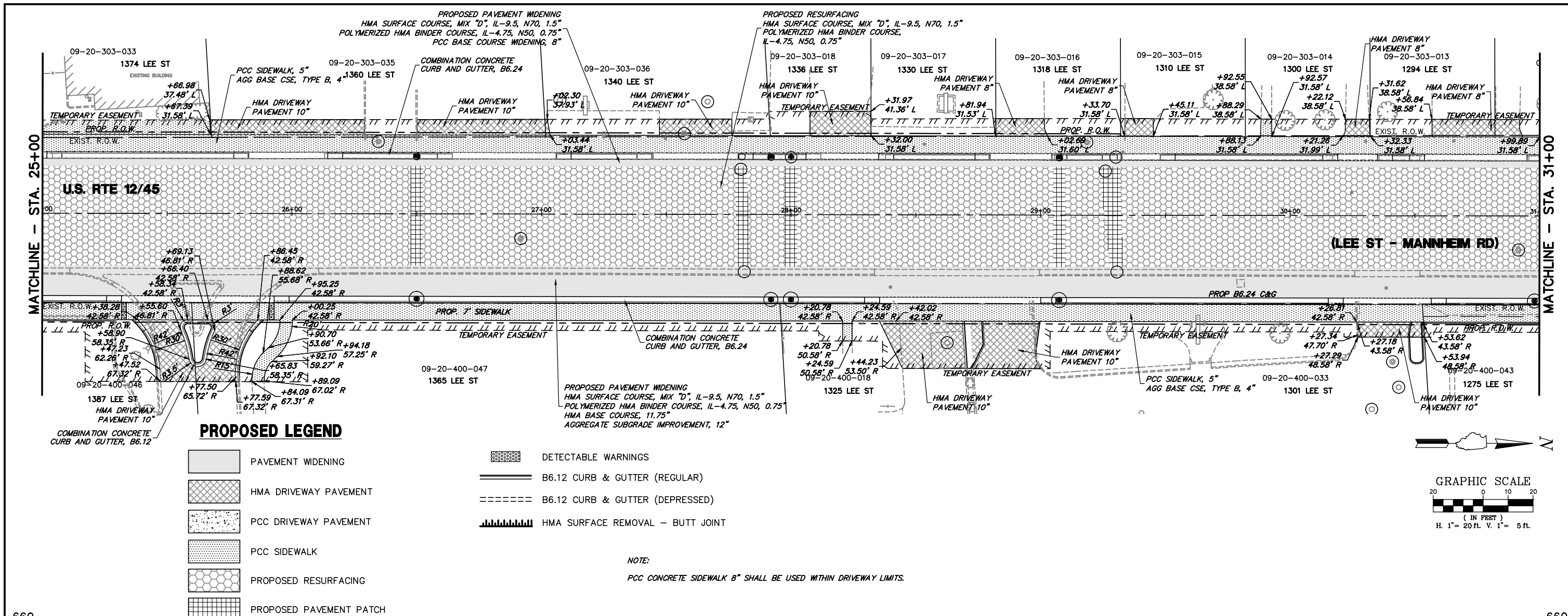
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	14-00220-00-TL	COOK	85	19
CONTRACT #			61E86	

ILLINOIS FED. AID PROJECT



FILE NAME = 4816.200-sht-plnprf.dwg	USER NAME = MARK COBB	DESIGNED - MGFC	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PLAN AND PROFILE LEE ST - MANNHEIM RD AND FOREST AVENUE</b>	FAR RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN - MGFC	REVISED -			330	14-00220-00-TL	COOK	85	20	
		CHECKED - KLB	REVISED -			CONTRACT # 61E86					
		DATE -	REVISED -			ILLINOIS FED. AID PROJECT					

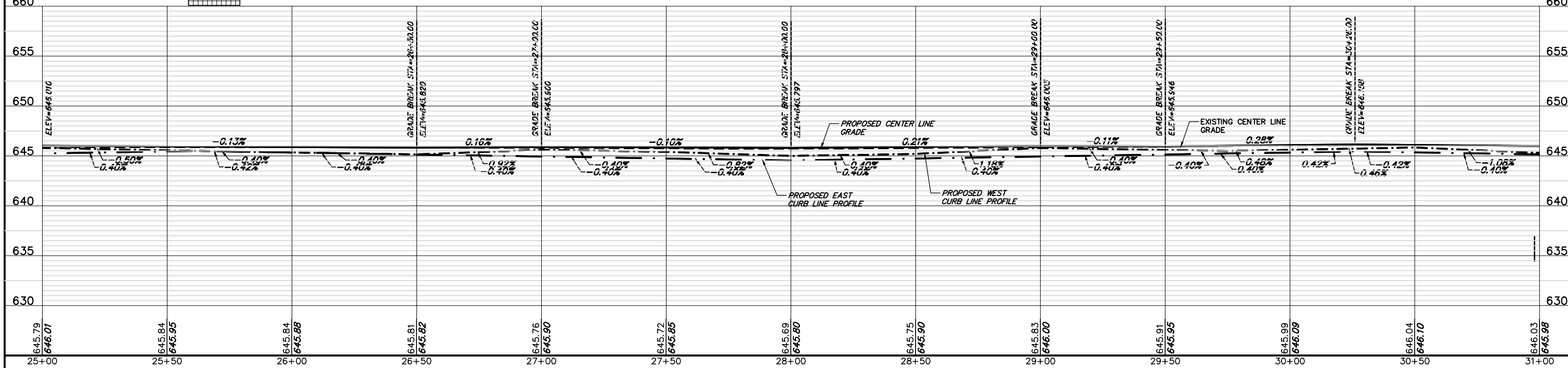




**PROPOSED LEGEND**

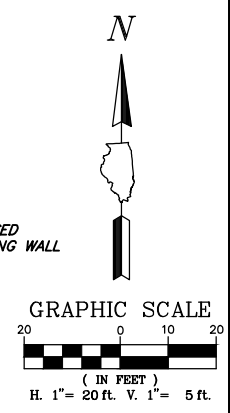
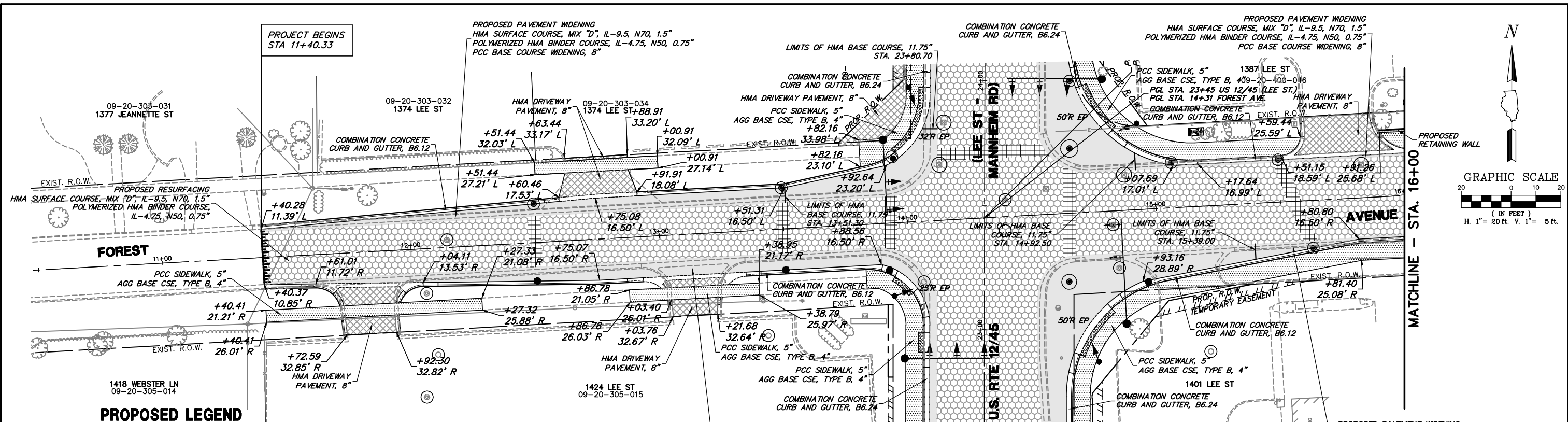
	PAVEMENT WIDENING		DETECTABLE WARNINGS
	HMA DRIVEWAY PAVEMENT		B6.12 CURB & GUTTER (REGULAR)
	PCC DRIVEWAY PAVEMENT		B6.12 CURB & GUTTER (DEPRESSED)
	PCC SIDEWALK		HMA SURFACE REMOVAL - BUTT JOINT
	PROPOSED RESURFACING		
	PROPOSED PAVEMENT PATCH		

NOTE:  
PCC CONCRETE SIDEWALK 8" SHALL BE USED WITHIN DRIVEWAY LIMITS.



FILE NAME = 4816.200-sht-plnprf.dwg	USER NAME = MARK COBB	DESIGNED - MGFC	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PLAN AND PROFILE LEE ST - MANNHEIM RD AND FOREST AVENUE</b>		FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - MGFC	REVISED -		330	14-00220-00-TL	COOK	85	21		
		CHECKED - KLB	REVISED -		SCALE AS NOTED SHEET NO. 2 OF 5 SHEETS STA. 25+00 TO STA. 31+00		CONTRACT # 61E86		ILLINOIS FED. AID PROJECT		
		DATE -	REVISED -								

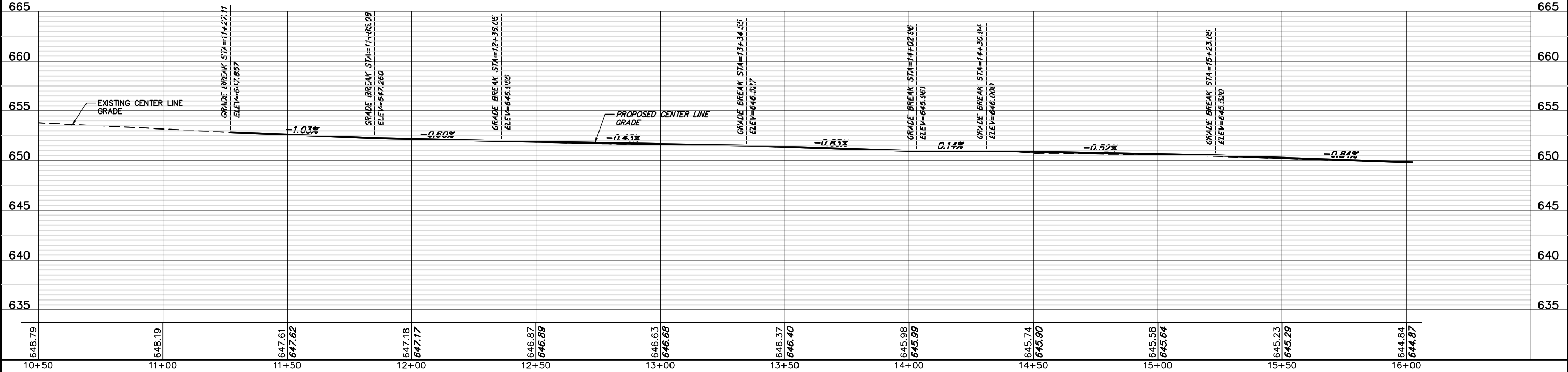




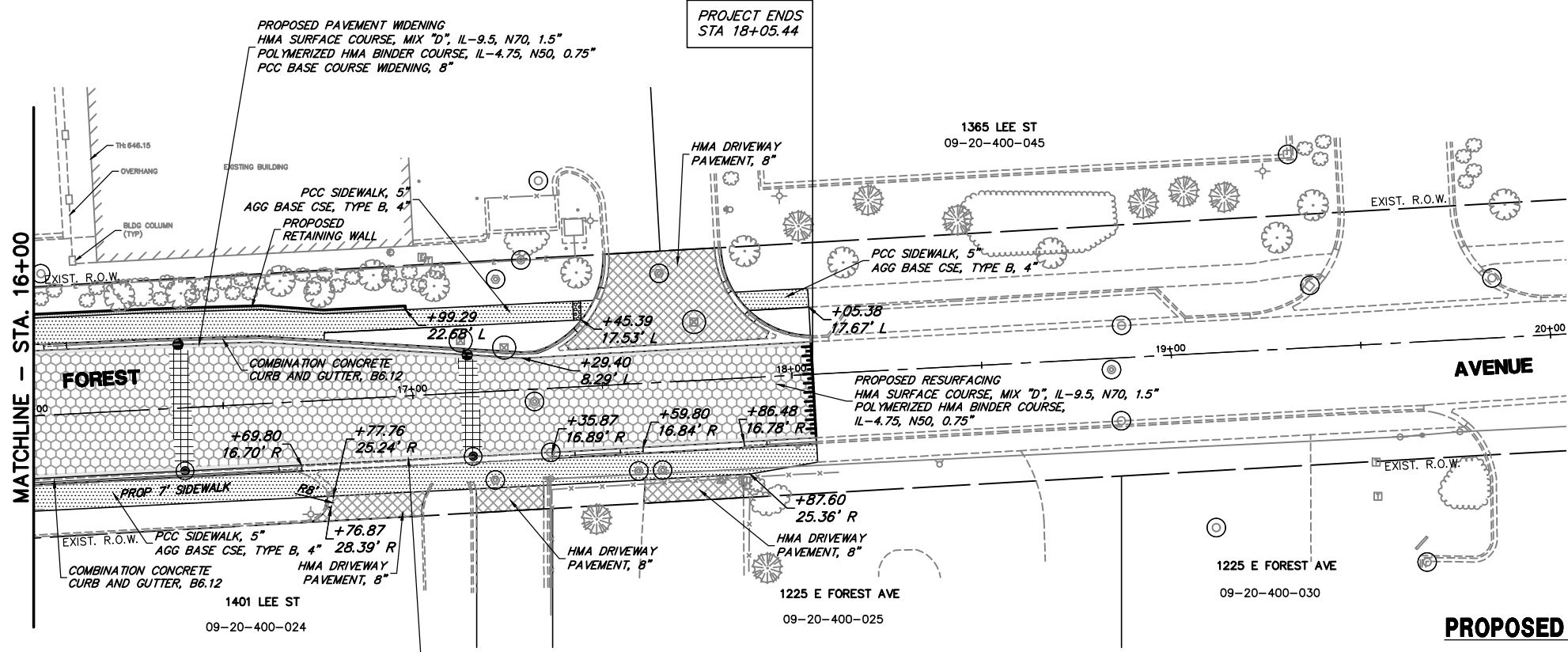
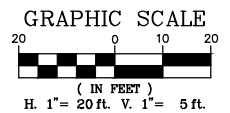
**PROPOSED LEGEND**

- PAVEMENT WIDENING
- HMA DRIVEWAY PAVEMENT
- PCC DRIVEWAY PAVEMENT
- PCC SIDEWALK
- PROPOSED RESURFACING
- PROPOSED PAVEMENT PATCH
- B6.12 CURB & GUTTER (REGULAR)
- B6.12 CURB & GUTTER (DEPRESSED)
- HMA SURFACE REMOVAL - BUTT JOINT
- DETECTABLE WARNINGS

NOTE:  
PCC CONCRETE SIDEWALK 8" SHALL BE USED WITHIN DRIVEWAY LIMITS.



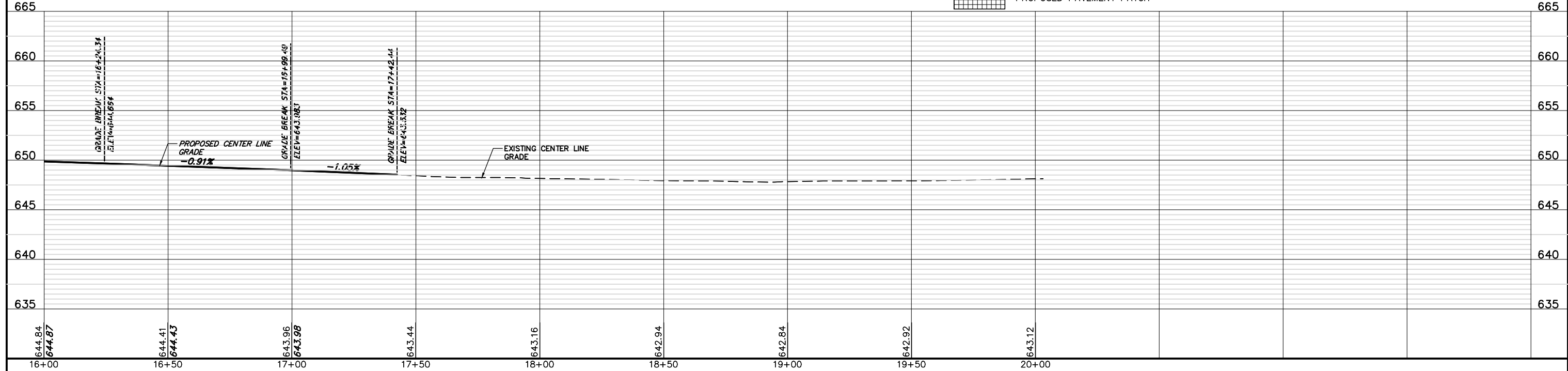
FILE NAME = 4816.200-sht-plnprf.dwg	USER NAME = MARK COBB	DESIGNED - MGFC	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PLAN AND PROFILE LEE ST - MANNHEIM RD AND FOREST AVENUE</b>	FAR RTE. 330	SECTION 14-00220-00-TL	COUNTY COOK	TOTAL SHEETS 85	SHEET NO. 23	
	PLOT SCALE = 1" = .1667'	DRAWN - MGFC	REVISED -		SCALE AS NOTED	SHEET NO. 4 OF 5 SHEETS					
	PLOT DATE = 11/4/2019 6:05 PM	CHECKED - KLB	REVISED -		STA. 11+40.33 TO STA. 16+00						
		DATE -	REVISED -								CONTRACT # 61E86 ILLINOIS FED. AID PROJECT



**PROPOSED LEGEND**

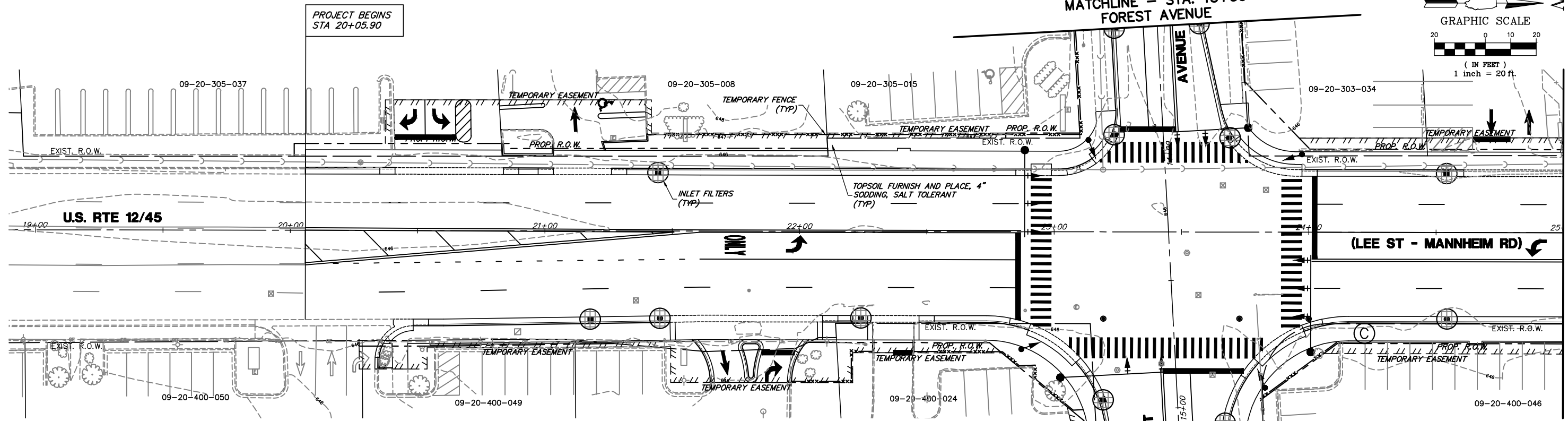
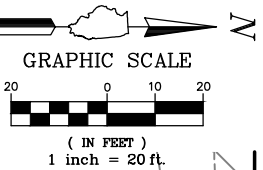
- PAVEMENT WIDENING
- HMA DRIVEWAY PAVEMENT
- PCC DRIVEWAY PAVEMENT
- PCC SIDEWALK
- PROPOSED RESURFACING
- PROPOSED PAVEMENT PATCH
- DETECTABLE WARNINGS
- B6.12 CURB & GUTTER (REGULAR)
- B6.12 CURB & GUTTER (DEPRESSED)
- HMA SURFACE REMOVAL - BUTT JOINT

NOTE:  
PCC CONCRETE SIDEWALK 8" SHALL BE USED WITHIN DRIVEWAY LIMITS.



FILE NAME = 4816.200-sht-plnprf.dwg	USER NAME = MARK COBB	DESIGNED - MGFC	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PLAN AND PROFILE LEE ST - MANNHEIM RD AND FOREST AVENUE</b>	FAR RTE. 330	SECTION 14-00220-00-TL	COUNTY COOK	TOTAL SHEETS 85	SHEET NO. 24	
PLOT SCALE = 1" = .1667'		CHECKED - KLB	REVISED -			SCALE AS NOTED   SHEET NO. 5 OF 5 SHEETS   STA. 16+00 TO STA. 17+35.82		CONTRACT # 61E86		ILLINOIS FED. AID PROJECT	
PLOT DATE = 11/4/2019 6:03 PM		DATE -	REVISED -								

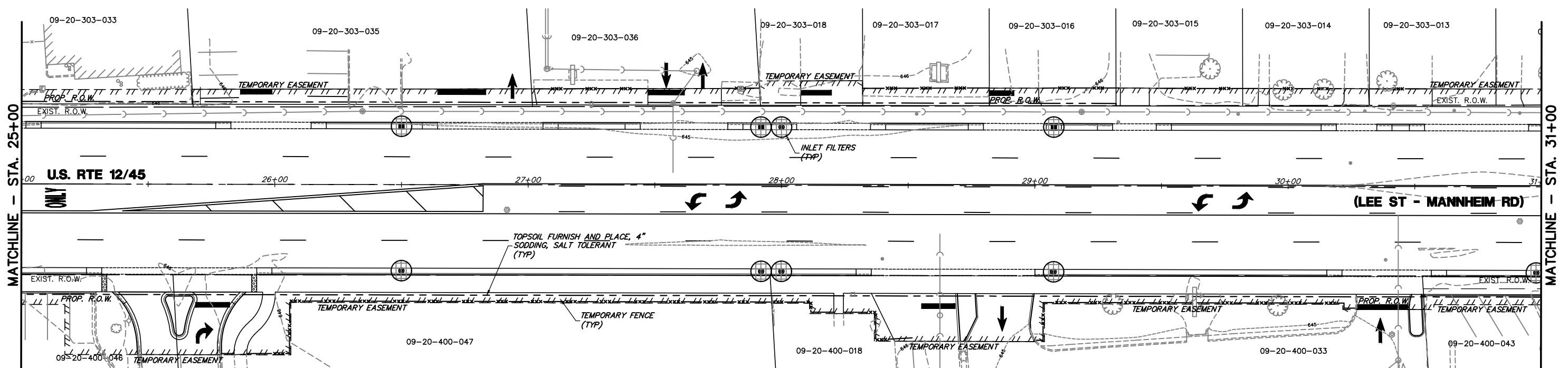
MATCHLINE - STA. 13+50  
FOREST AVENUE



**EROSION AND SEDIMENT CONTROL LEGEND**

- xxx--- TEMPORARY FENCE
- ⊕ INLET FILTERS
- ⊙ CONCRETE WASHOUT

MATCHLINE - STA. 15+25  
FOREST AVENUE



NOTE:  
1) APPLY TEMPORARY EROSION CONTROL SEEDING WHEN PERMANENT VEGETATION TREATMENT CAN'T BE DONE IN A TIMELY MANNER.  
2) SEE PERMANENT VEGETATION TREATMENT IN LANDSCAPE PLAN.

FILE NAME = 4816.200-ero.dwg  
USER NAME = MARK COBB  
PLOT SCALE = 1" = .1667'  
PLOT DATE = 9/30/2019 2:50 PM

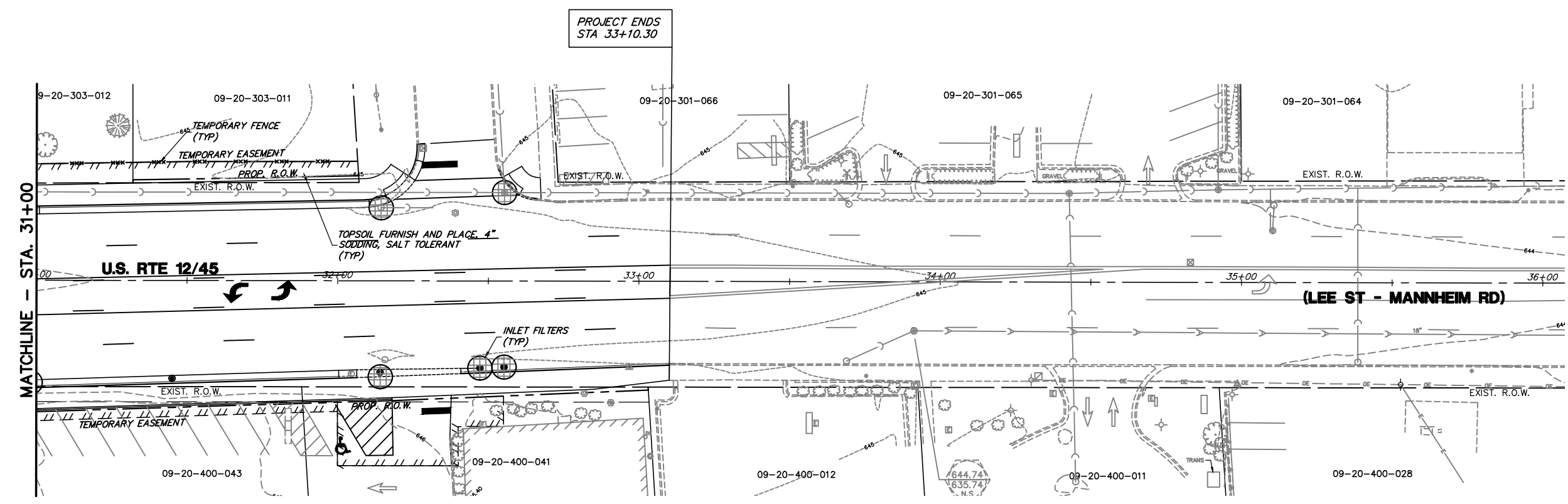
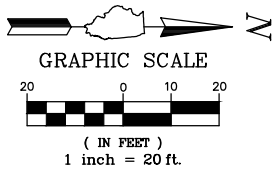
DESIGNED - MGFC  
DRAWN - ZCW  
CHECKED - KLB  
DATE -

REVISED -  
REVISED -  
REVISED -  
REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**EROSION AND SEDIMENT CONTROL PLAN  
LEE ST - MANNHEIM RD AND FOREST AVENUE**  
SCALE 1"=20'  
SHEET NO. 1 OF 3 SHEETS  
STA. 19+00 TO STA. 31+00

FAR RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	14-00220-00-TL	COOK	85	25
CONTRACT #			61E86	
ILLINOIS FED. AID PROJECT				



**EROSION AND SEDIMENT CONTROL LEGEND**

- xxx--- TEMPORARY FENCE
- ⊗ INLET FILTERS
- Ⓢ CONCRETE WASHOUT

NOTE:  
 1) APPLY TEMPORARY EROSION CONTROL SEEDING WHEN PERMANENT VEGETATION TREATMENT CAN'T BE DONE IN A TIMELY MANNER.  
 2) SEE PERMANENT VEGETATION TREATMENT IN LANDSCAPE PLAN.

FILE NAME = 4816.200-ero.dwg  
 USER NAME = MARK COBB  
 PLOT SCALE = 1" = .1667'  
 PLOT DATE = 9/30/2019 2:50 PM

DESIGNED - MGFC  
 DRAWN - ZCW  
 CHECKED - KLB  
 DATE -

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

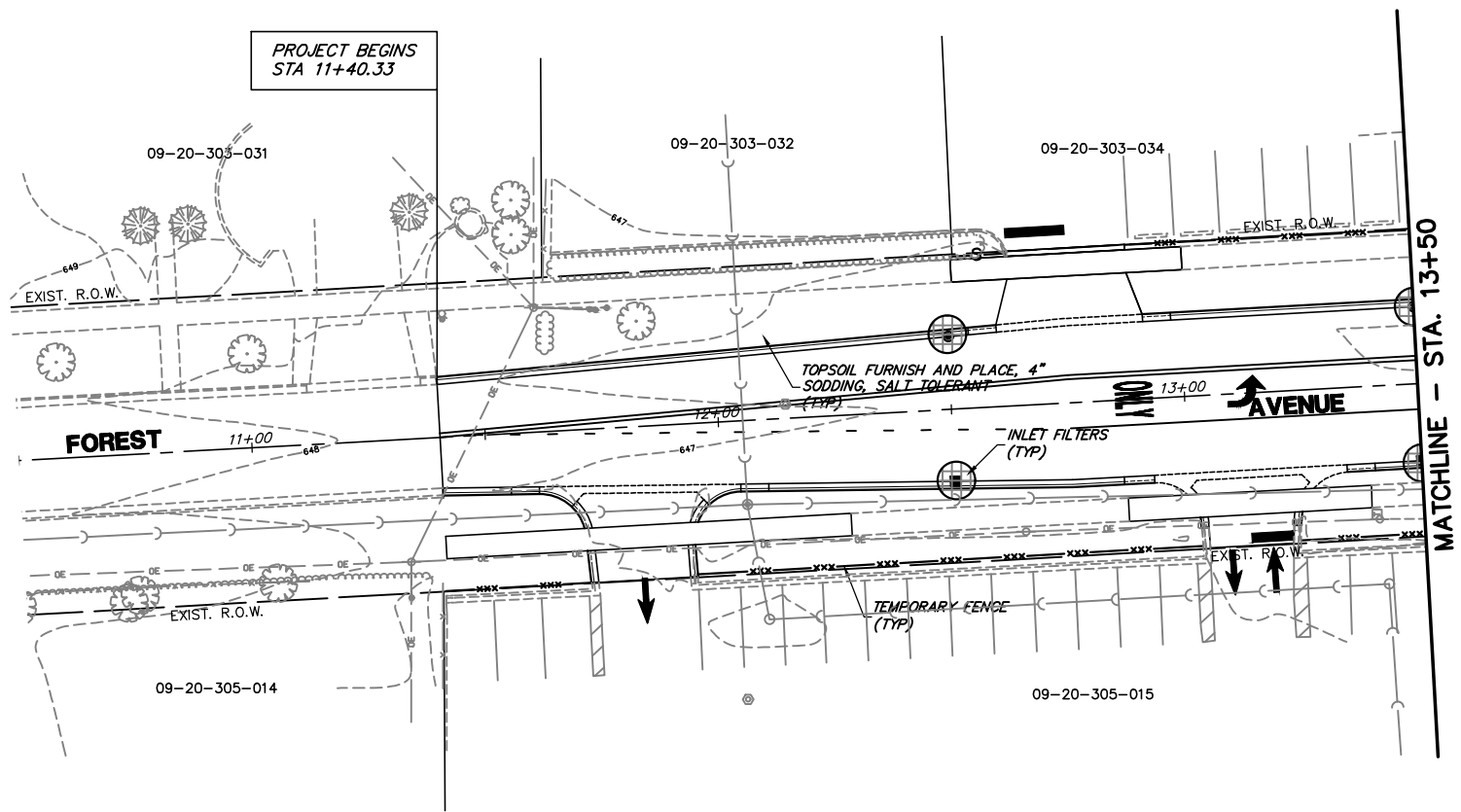
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**EROSION AND SEDIMENT CONTROL PLAN  
 LEE ST - MANNHEIM RD AND FOREST AVENUE**

SCALE 1"=20' SHEET NO. 2 OF 3 SHEETS STA. 31+00 TO STA. 36+00

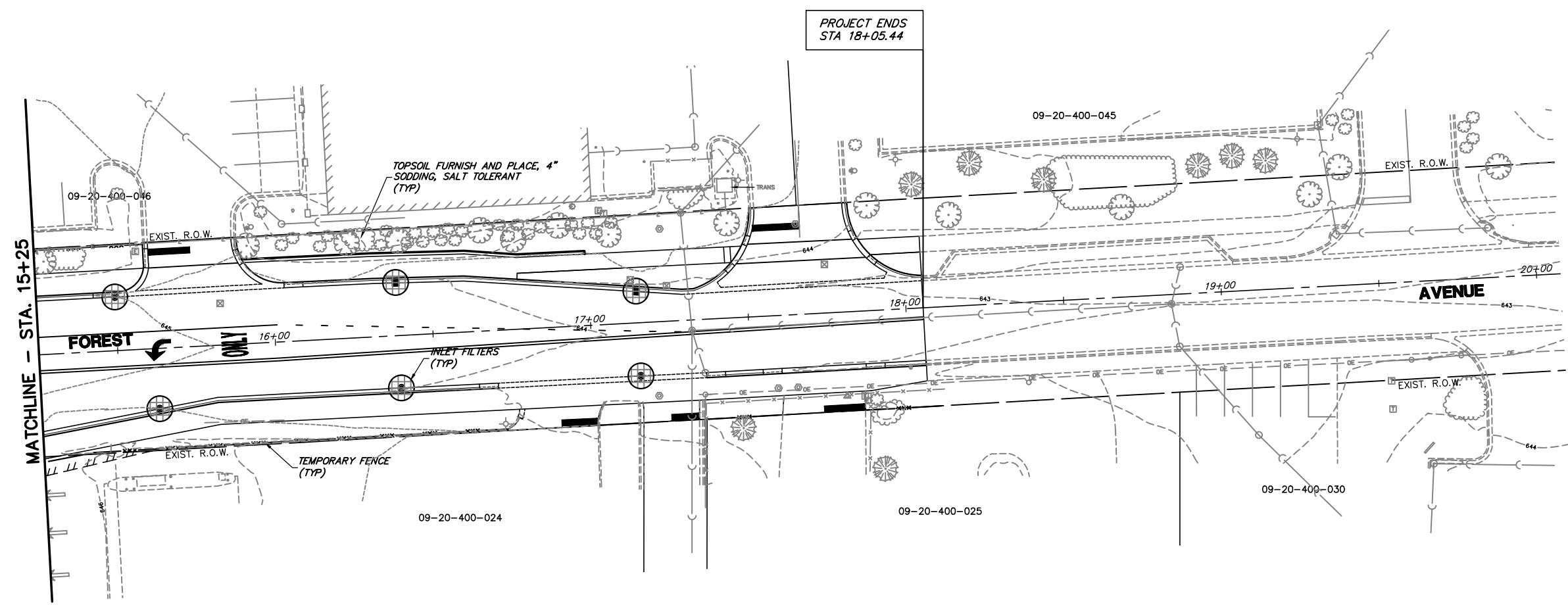
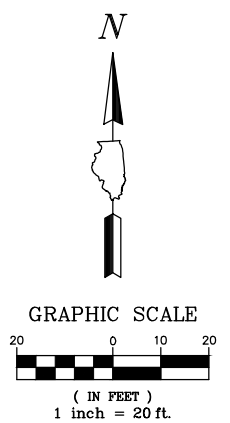
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	14-00220-00-TL	COOK	85	26
CONTRACT #:			61E86	

ILLINOIS FED. AID PROJECT



**EROSION AND SEDIMENT CONTROL LEGEND**

- xxx--- TEMPORARY FENCE
- ⊗ INLET FILTERS
- ⊙ CONCRETE WASHOUT



NOTE:  
 1) APPLY TEMPORARY EROSION CONTROL SEEDING WHEN PERMANENT VEGETATION TREATMENT CAN'T BE DONE IN A TIMELY MANNER.  
 2) SEE PERMANENT VEGETATION TREATMENT IN LANDSCAPE PLAN.

FILE NAME = 4816.200-ero.dwg  
 USER NAME = MARK COBB  
 PLOT SCALE = 1" = .1667'  
 PLOT DATE = 9/30/2019 2:51 PM

DESIGNED - MGFC  
 DRAWN - ZCW  
 CHECKED - KLB  
 DATE -

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

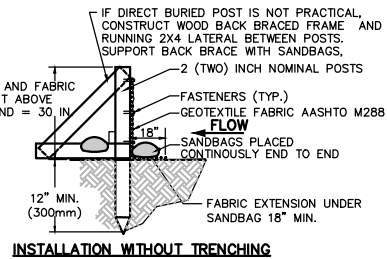
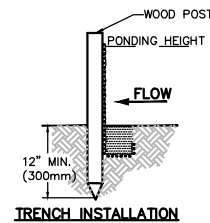
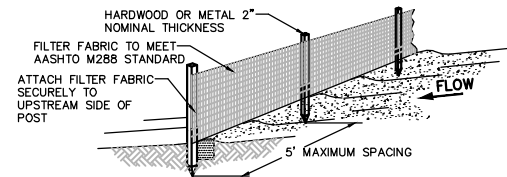
**EROSION AND SEDIMENT CONTROL PLAN  
 LEE ST - MANNHEIM RD AND FOREST AVENUE**  
 SCALE 1"=20' SHEET NO. 3 OF 3 SHEETS STA. 11+00 TO STA. 20+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	14-00220-00-TL	COOK	85	27
CONTRACT #			61E86	
ILLINOIS FED. AID PROJECT				

NOTES:

1. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.
2. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY. 9" (225mm) MAXIMUM RECOMMENDED STORAGE HEIGHT.
3. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
4. FABRIC AND INSTALLATION SHALL MEET THE REQUIREMENTS OF ASSHTO STANDARD SPECIFICATION M-288-00.
5. SUCING METHOD IS PREFERRED.

PROPERTY	TEST PROCEDURE	
Grab Elongation		
Machine Direction	ASTM D-4533	123 lbs
X-Machine Direction	ASTM D-4833	101 lbs
Permittivity	ASTM D-4491	0.05 sec <sup>-1</sup>
A.S.O.	ASTM D-4751	30 u.s. Sieve
UV Stability	ASTM D-4355	70%



1. SET POSTS AND EXCAVATE OR SLIT-TRENCH A 6-INCH DEEP TRENCH UPSLOPE ALONG THE LINE OF THE POST
2. ATTACH AASHTO GEOTEXTILE FILTER FABRIC TO EACH POST WITH A MINIMUM OF 3 (THREE) FASTENERS PER POST AND EXTEND TO THE BOTTOM OF THE TRENCH. ACCEPTABLE FASTENERS INCLUDE STAPLES, ZIP-TIES, OR WIRE TIES.
3. BACKFILL AND COMPACT THE EXCAVATED SPOIL MATERIALS

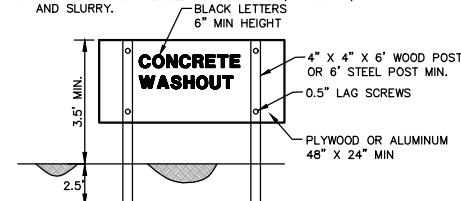
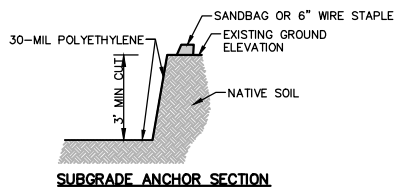
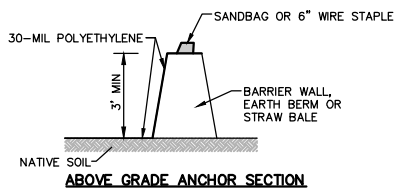
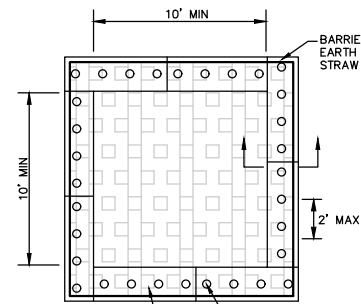
03.15.2016



SILT FENCE INSTALLATION DETAIL

NOTES:

1. ACTUAL LAYOUT DETERMINED IN FIELD.
2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FT. OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
3. CONCRETE WASHOUT SHOULD NOT BE ALLOWED IN STREET OR TO REACH A STORM WATER DRAINAGE SYSTEM OR WATERCOURSE.
4. CONCRETE WASHOUT AREA TO BE LOCATED AT LEAST 10' BEHIND CURB IF ADJACENT TO A PAVED ROAD.
5. IF USING STRAW BALES, STAKE IN PLACE USING (2) 2"x2"x4" WOODEN STAKES.
6. STRAW BALES SHALL BE TRENCHED IN 3".
7. CONCRETE WASHOUT DUMPSTER MAY BE USED IN LIEU OF CONSTRUCTION ONE AS DETAILED.
8. THE FACILITY IS INTENDED FOR CONCRETE, MASONRY, AND SLURRY.



PLAN VIEW

CONCRETE WASHOUT SIGN DETAIL (OR EQUIVALENT)

ABOVE GRADE ANCHOR SECTION

SUBGRADE ANCHOR SECTION

MAINTENANCE:

1. DRIED CONCRETE WASTE SHALL BE PICKED UP AND DISPOSED OF PROPERLY WHEN 75% OF CAPACITY IS REACHED.
2. HARDENED CONCRETE CAN BE PROPERLY RECYCLED AND REUSED ONSITE OR HAULED OFF-SITE TO AN APPROPRIATE FACILITY.

03.15.2016



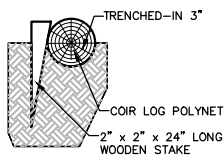
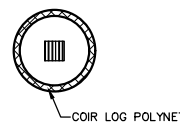
CONCRETE WASHOUT

NOTES:

1. DO NOT SCALE DRAWING.
2. REFER TO MANUFACTURER'S PRODUCT SPECIFICATIONS TO ENSURE QUALITY OF THE PRODUCTS

PLAN VIEW

SECTION VIEW



DROP INLET OR MANHOLE  
INLET PROTECTION FOR DROP INLETS OR MANHOLES

\* USE 9LB DENSITY 12" DIAMETER, 20' LONG COIR LOG POLYNET FOR STANDARD CIRCULAR DRAINAGE STRUCTURES. PLACE THE COIR LOG AROUND THE STRUCTURE AND JOIN THE ENDS TOGETHER WITH COIR TWINE. USE 2"x2"x24" WOODEN STAKES SPACED 3' APART TO HOLD DOWN LOG POLYNET.

MAINTENANCE:

1. CLEAN OUT SEDIMENT BEHIND LOG WHEN 1/2 FULL
2. RESECURE LOOSE LOGS
3. REPLACE LOGS AS NEEDED
4. REMOVE WHEN NOT NEEDED

03.15.2016



COIR ROLL DETAIL  
INLET PROTECTION

FILE NAME = 4816.200-ero.dwg

USER NAME = MARK COBB

DESIGNED - MGFC

REVISED -

PLOT SCALE = 1" = .1667'

DRAWN - ZCW

REVISED -

PLOT DATE = 9/30/2019 2:51 PM

CHECKED - KLB

REVISED -

DATE -

REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EROSION AND SEDIMENT CONTROL DETAILS  
LEE ST - MANNHEIM RD AND FOREST AVENUE

SCALE N/A

SHEET NO. 1 OF 1 SHEETS

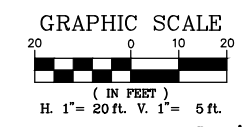
STA. TO STA.

FAP RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	14-00220-00-TL	COOK	85	28

CONTRACT # 61E86

ILLINOIS FED. AID PROJECT

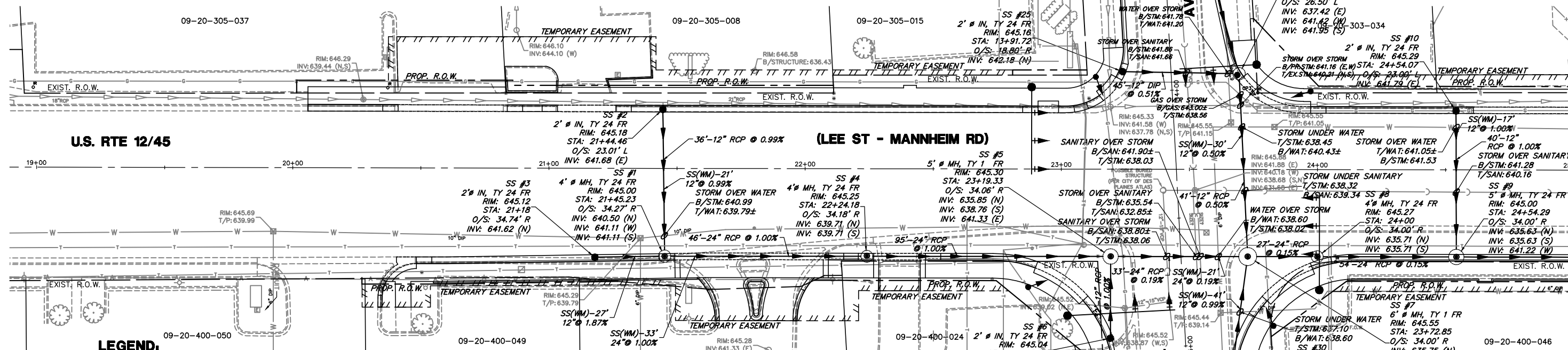




MATCHLINE - STA. 13+50  
FOREST AVENUE

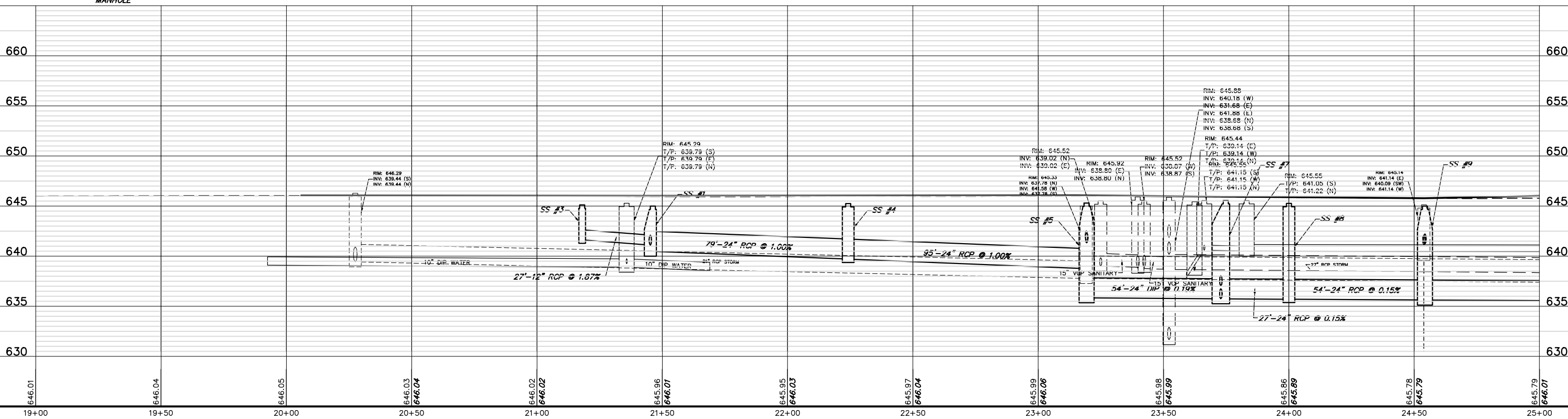
MATCHLINE - STA. 15+25  
FOREST AVENUE

MATCHLINE - STA. 25+00

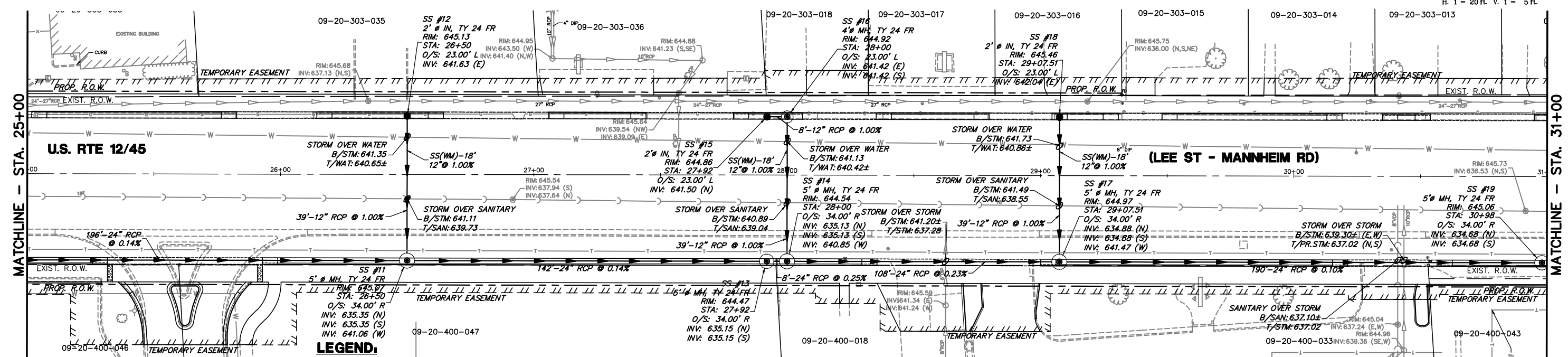
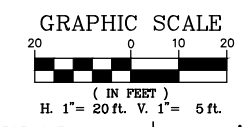


**LEGEND:**

- STORM SEWER
- STORM SEWER INLET
- STORM SEWER CATCH BASIN
- STORM SEWER MANHOLE
- SANITARY SEWER
- SANITARY SEWER MANHOLE
- WATERMAIN
- VALVE VAULT
- VALVE BOX
- WATER SERVICE VALVE
- FIRE HYDRANT
- ABANDON VALVE VAULT

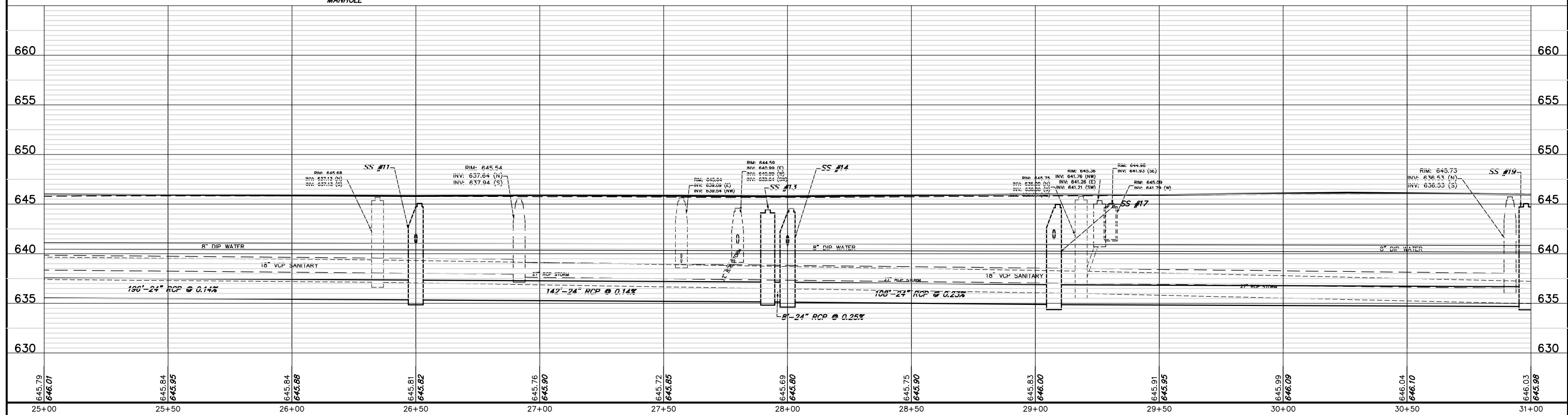


FILE NAME = 4816.100-dm1.dwg	USER NAME = MARK COBB	DESIGNED - MGFC	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DRAINAGE &amp; UTILITY PLAN LEE ST - MANNHEIM RD AND FOREST AVENUE</b>	FAR RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	PLOT SCALE = 1" = .1667'	DRAWN - MGFC	REVISED -			330	14-00220-00-TL	COOK	85	29	
	PLOT DATE = 9/30/2019 1:53 PM	CHECKED - KLB	REVISED -			CONTRACT # 61E86					
		DATE -	REVISED -			ILLINOIS FED. AID PROJECT					

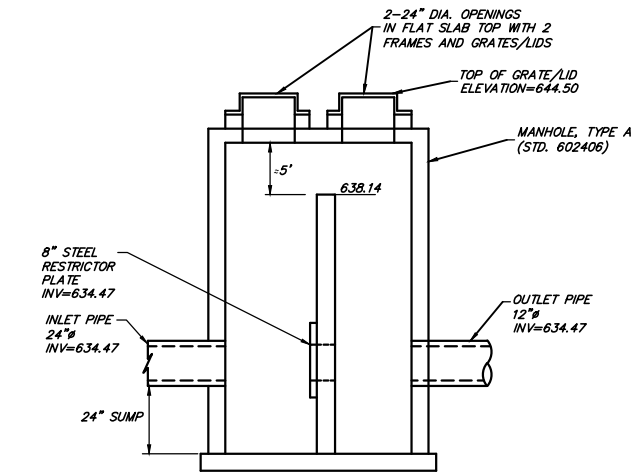
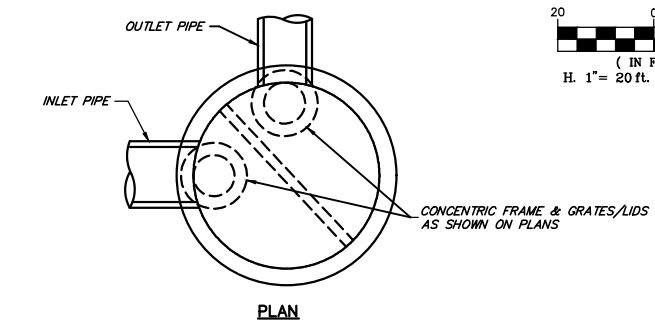
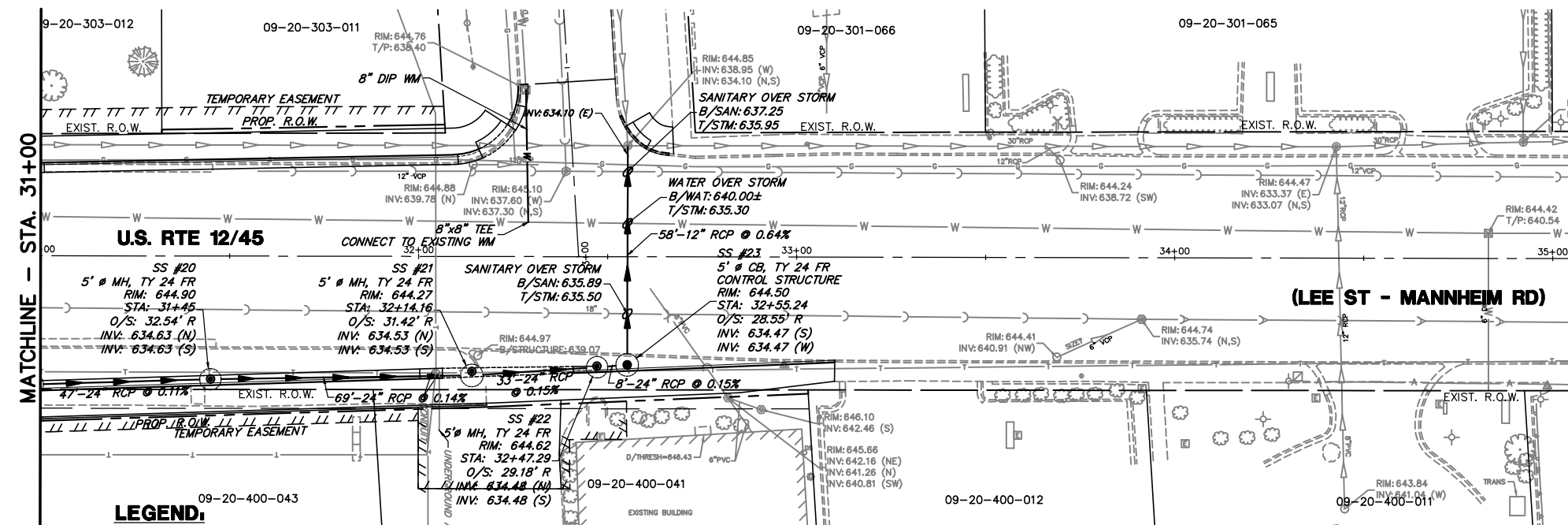
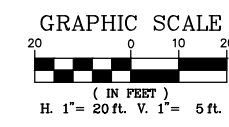


**LEGEND**

- STORM SEWER
- STORM SEWER INLET
- STORM SEWER CATCH BASIN
- STORM SEWER MANHOLE
- SANITARY SEWER
- SANITARY SEWER MANHOLE
- WATERMAIN
- VALVE VAULT
- VALVE BOX
- WATER SERVICE VALVE
- FIRE HYDRANT
- ABANDON VALVE VAULT

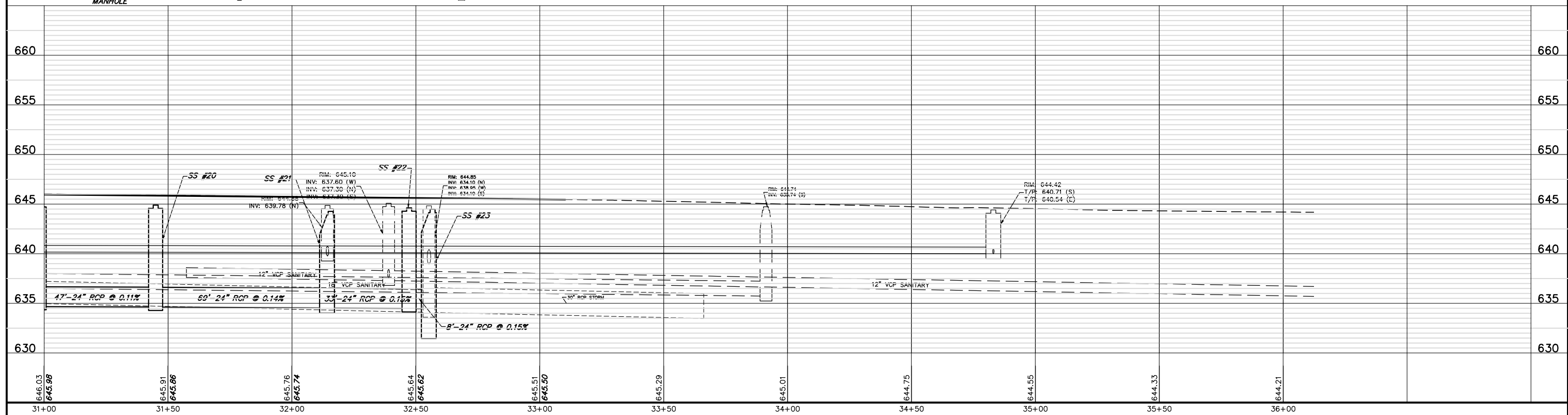


FILE NAME = 4816.100-dm1.dwg	USER NAME = MARK COBB	DESIGNED - MGFC	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DRAINAGE &amp; UTILITY PLAN LEE ST - MANNHEIM RD AND FOREST AVENUE</b>	FAR RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN - MGFC	REVISED -			330	14-00220-00-TL	COOK	85	30	
		CHECKED - KLB	REVISED -			CONTRACT # 61E86					
		DATE -	REVISED -			ILLINOIS FED. AID PROJECT					
		PLOT SCALE = 1" = .1667'		SCALE AS NOTED		SHEET NO. 2 OF 5 SHEETS		STA. 25+00 TO STA. 31+00			

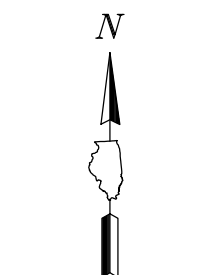


**LEGEND**

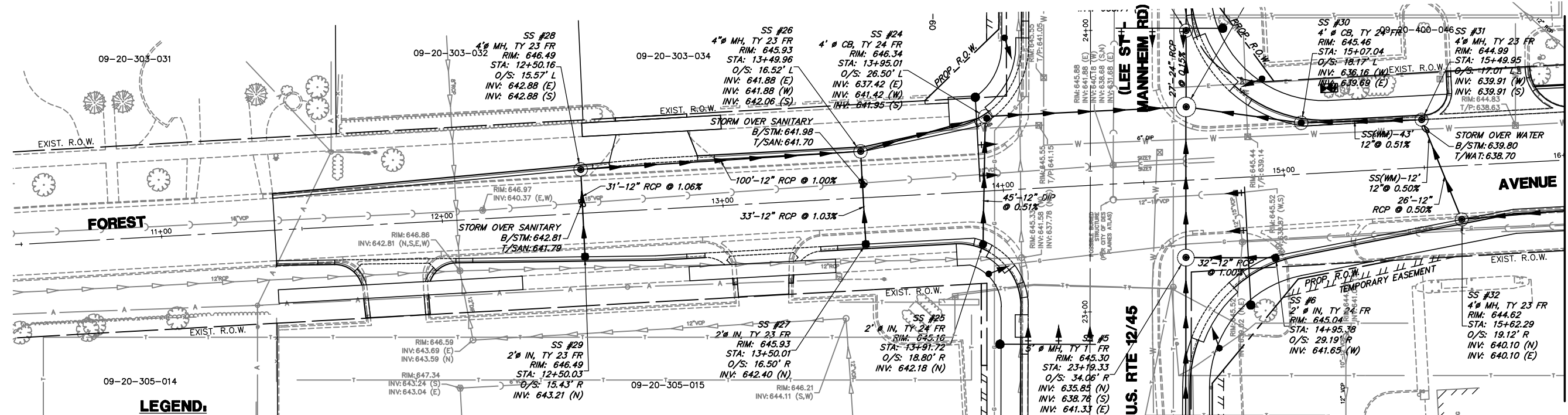
STORM SEWER	←	WATERMAIN	— W —
STORM SEWER INLET	●	VALVE VAULT	⊠
STORM SEWER CATCH BASIN	●	VALVE BOX	•
STORM SEWER MANHOLE	⊙	WATER SERVICE VALVE	•
SANITARY SEWER	— S —	FIRE HYDRANT	⊕
SANITARY SEWER MANHOLE	⊙	ABANDON VALVE VAULT	⊠ A



FILE NAME = 4816.100-dm1.dwg	USER NAME = MARK COBB	DESIGNED - MGFC	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DRAINAGE &amp; UTILITY PLAN LEE ST - MANNHEIM RD AND FOREST AVENUE</b>	F&P RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	PLOT SCALE = 1" = .1667'	DRAWN - MGFC	REVISED -			330	14-00220-00-TL	COOK	85	31	
	PLOT DATE = 9/30/2019 1:51 PM	CHECKED - KLB	REVISED -			CONTRACT # 61E86					
		DATE -	REVISED -			ILLINOIS FED. AID PROJECT					
				SCALE AS NOTED		SHEET NO. 3 OF 5 SHEETS		STA. 31+00 TO STA. 36+00			



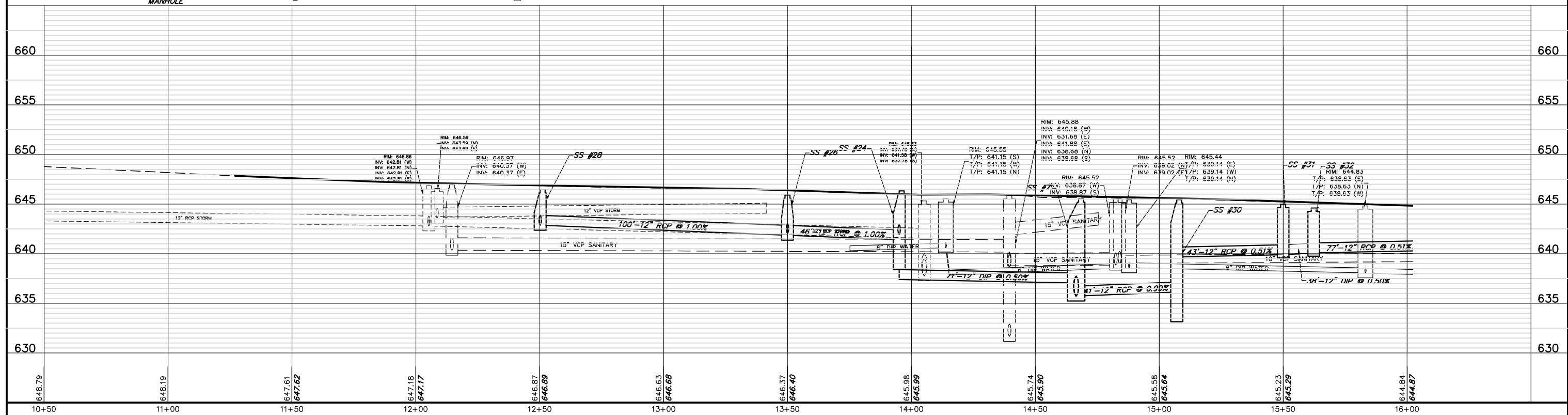
GRAPHIC SCALE  
 ( IN FEET )  
 H. 1" = 20 ft. V. 1" = 5 ft.



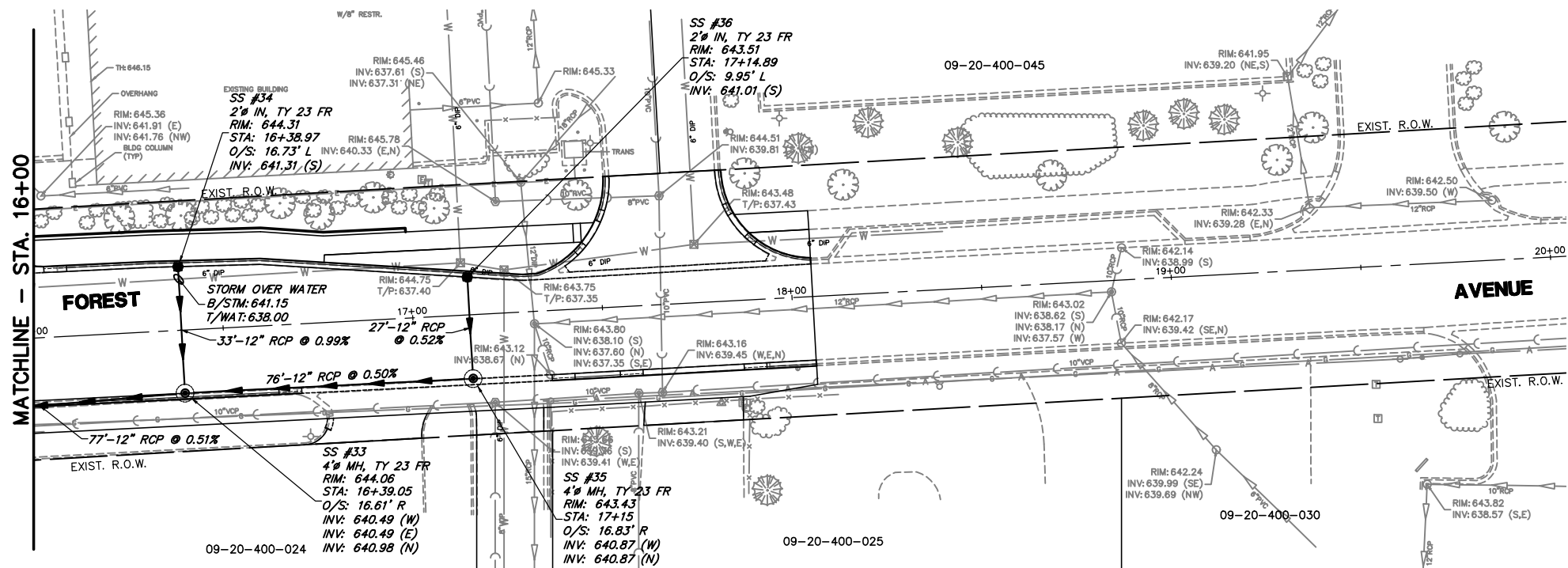
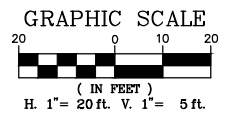
**LEGEND:**

- |                         |       |                     |       |
|-------------------------|-------|---------------------|-------|
| STORM SEWER             | ←     | WATERMAIN           | — W — |
| STORM SEWER INLET       | ●     | VALVE VAULT         | ■     |
| STORM SEWER CATCH BASIN | ●     | VALVE BOX           | •     |
| STORM SEWER MANHOLE     | ⊙     | WATER SERVICE VALVE | •     |
| SANITARY SEWER          | — C — | FIRE HYDRANT        | ⌵     |
| SANITARY SEWER MANHOLE  | ⊙     | ABANDON VALVE VAULT | ■ A   |

SEE SHEET 29 FOR  
 UTILITY CROSSINGS ALONG  
 U.S. RTE 12/45.  
 (LEE ST-MANNHEIM RD)

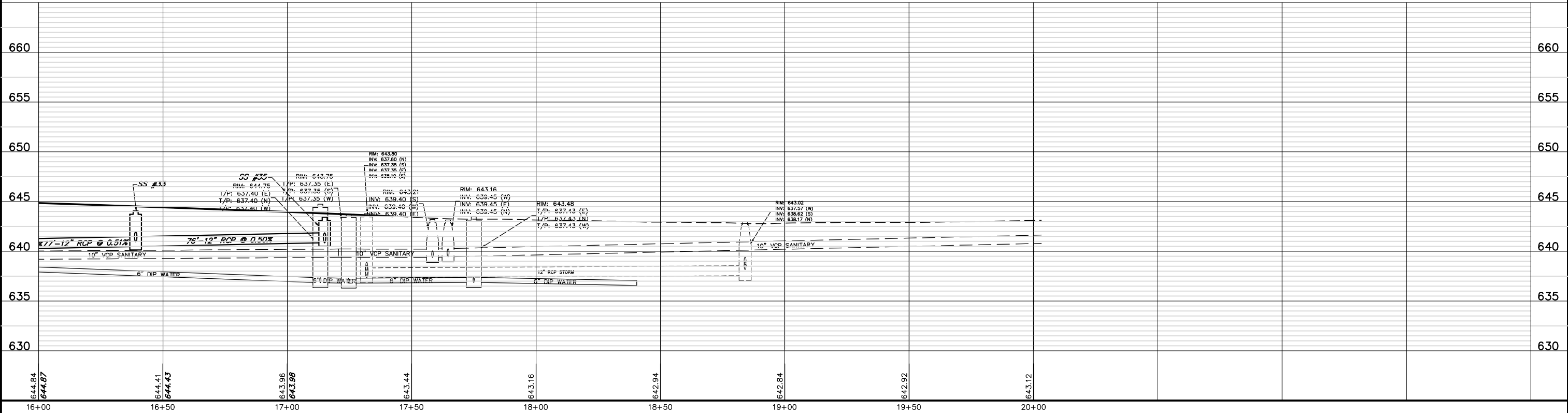


FILE NAME = 4816.100-dm1.dwg	USER NAME = MARK COBB	DESIGNED - MGFC	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DRAINAGE &amp; UTILITY PLAN LEE ST - MANNHEIM RD AND FOREST AVENUE</b>	FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	PLOT SCALE = 1" = .1667'	DRAWN - MGFC	REVISED -			330	14-00220-00-TL	COOK	85	32	
	PLOT DATE = 9/30/2019 1:50 PM	CHECKED - KLB	REVISED -			CONTRACT # 61E86					
		DATE -	REVISED -			ILLINOIS FED. AID PROJECT					



**LEGEND:**

STORM SEWER		WATERMAIN	
STORM SEWER INLET		VALVE VAULT	
STORM SEWER CATCH BASIN		VALVE BOX	
STORM SEWER MANHOLE		WATER SERVICE VALVE	
SANITARY SEWER		FIRE HYDRANT	
SANITARY SEWER MANHOLE		ABANDON VALVE VAULT	



FILE NAME = 4816.100-dm1.dwg

USER NAME = MARK COBB

DESIGNED - MGFC

REVISED -

DRAWN - MGFC

CHECKED - KLB

REVISED -

PLOT SCALE = 1" = .1667'

DATE -

REVISED -

PLOT DATE = 9/30/2019 1:49 PM

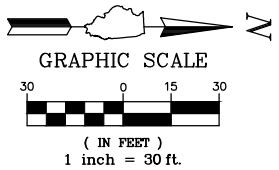
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DRAINAGE & UTILITY PLAN  
LEE ST - MANNHEIM RD AND FOREST AVENUE**

SCALE AS NOTED SHEET NO. 5 OF 5 SHEETS STA. 16+00 TO STA. 20+00

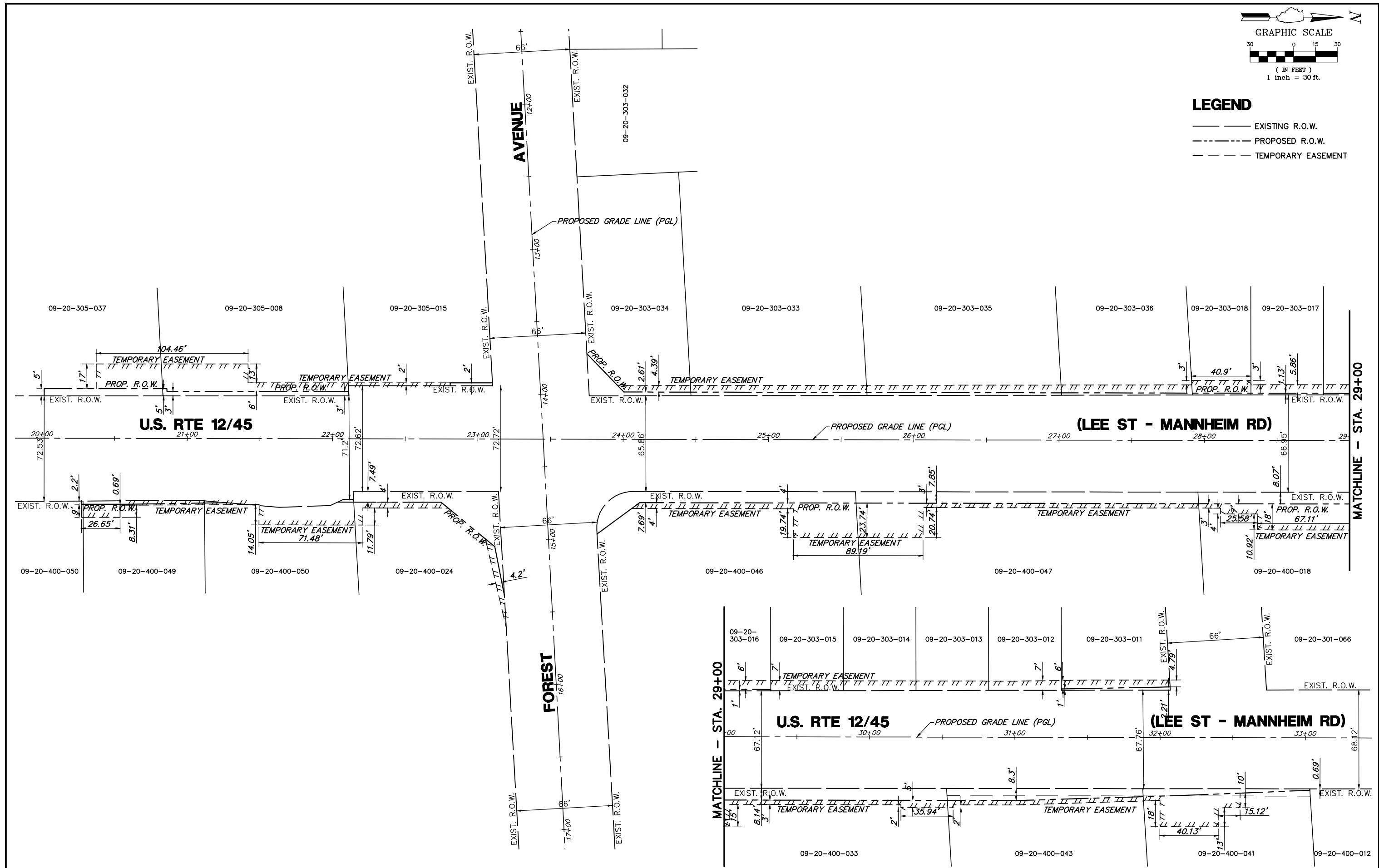
FAP RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	14-00220-00-TL	COOK	85	33
CONTRACT #:			61E86	

ILLINOIS FED. AID PROJECT

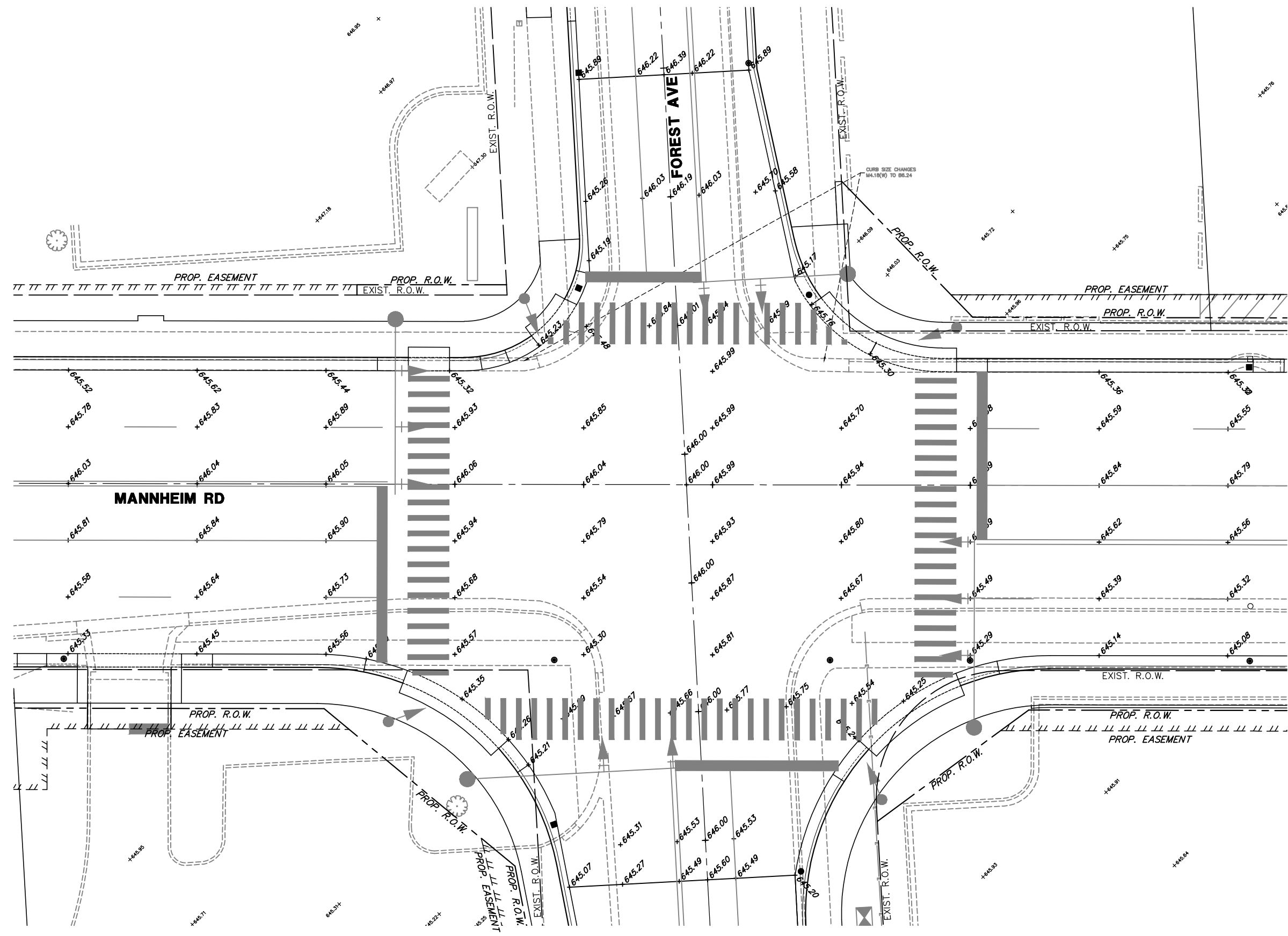
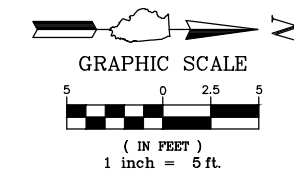


**LEGEND**

- EXISTING R.O.W.
- - - PROPOSED R.O.W.
- - - TEMPORARY EASEMENT



FILE NAME = 4816.200-row plan.dwg	USER NAME = MARK COBB	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>RIGHT-OF-WAY PLAN LEE ST - MANNHEIM RD AND FOREST AVENUE</b>		FAR RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 1" = .1667'	DRAWN - JMR	REVISED -		SCALE 1"=30'	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	330	14-00220-00-TL	COOK	85
PLOT DATE = 4/16/2018	DATE -	CHECKED - MGC	REVISED -						CONTRACT #	61E86	
		DATE -	REVISED -				ILLINOIS FED. AID PROJECT				



FILE NAME = 4816.100-IntDes.dwg  
 USER NAME = MARK COBB  
 PLOT SCALE = 1" = .1667'  
 PLOT DATE = 9/30/2019 1:56 PM

DESIGNED - MGFC  
 DRAWN - MGFC  
 CHECKED - KLB  
 DATE -

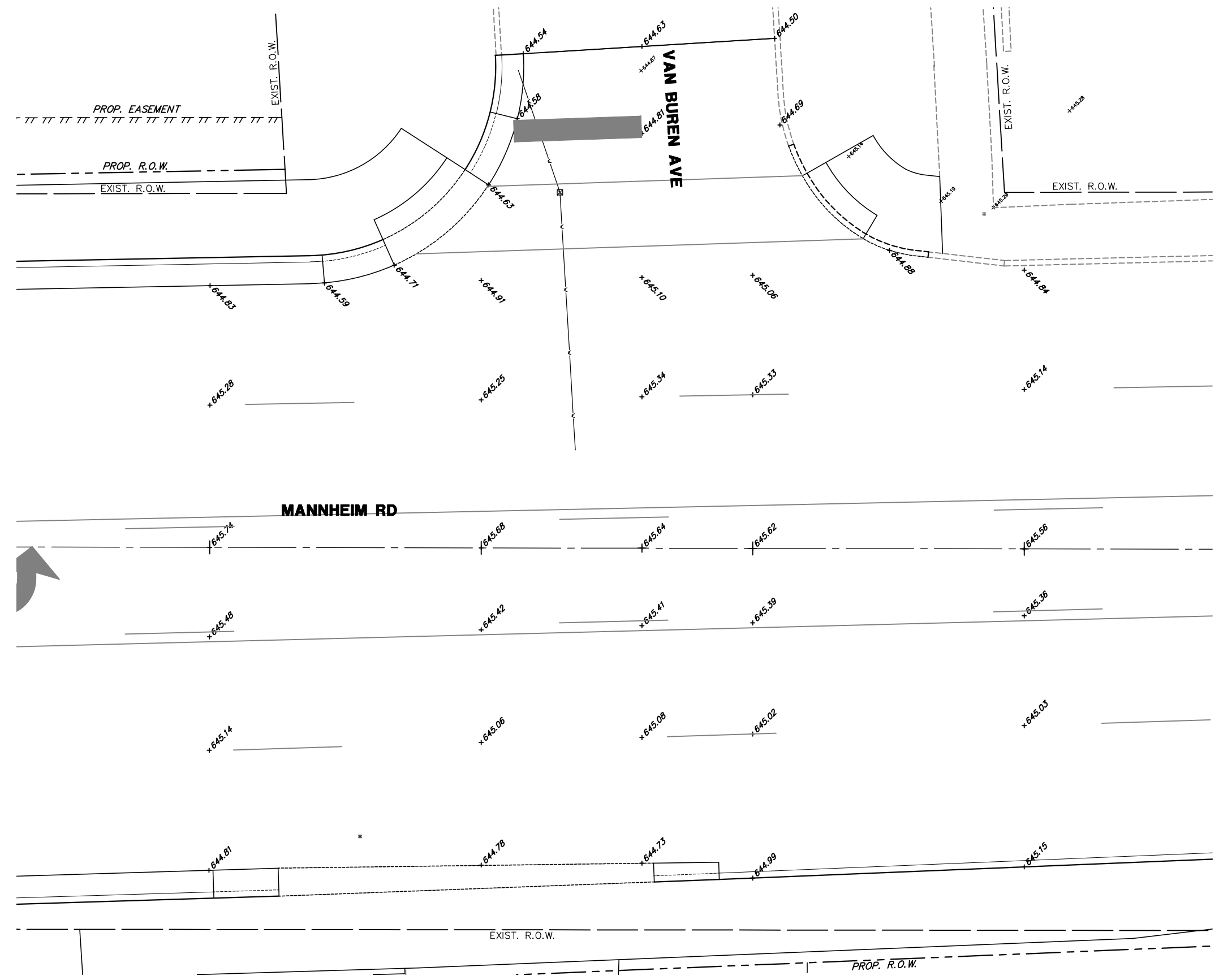
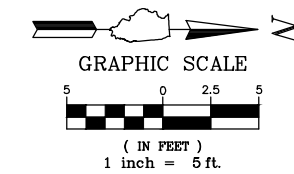
REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**INTERSECTION DETAILS  
 LEE ST - MANNHEIM RD AND FOREST AVENUE**

SCALE 1"=10' SHEET NO. 1 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	14-00220-00-TL	COOK	85	35
CONTRACT #			61E86	
ILLINOIS FED. AID PROJECT				



FILE NAME = 4816.100-IntDes.dwg  
 USER NAME = MARK COBB  
 PLOT SCALE = 1" = .1667'  
 PLOT DATE = 9/30/2019 1:57 PM

DESIGNED - MGFC  
 DRAWN - MGFC  
 CHECKED - KLB  
 DATE -

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**INTERSECTION DETAILS  
 LEE ST - MANNHEIM RD AND FOREST AVENUE**  
 SCALE 1"=5' SHEET NO. 2 OF 2 SHEETS STA. TO STA.

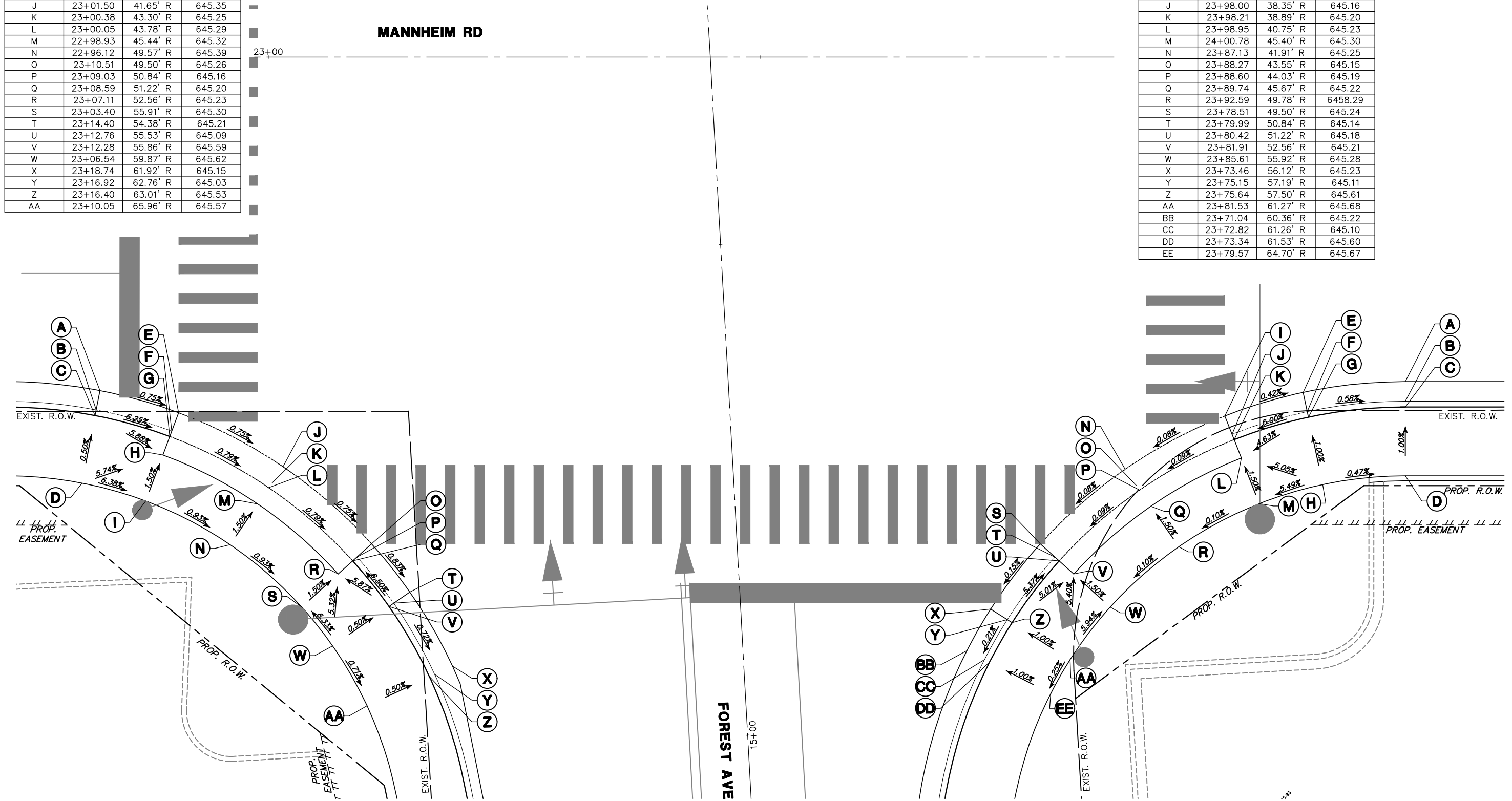
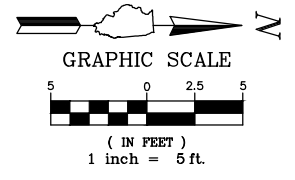
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	14-00220-00-TL	COOK	85	36
CONTRACT #:			61E86	
ILLINOIS FED. AID PROJECT				





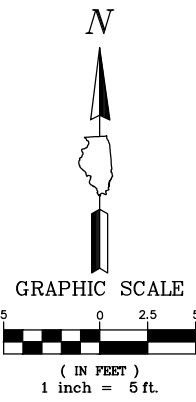
SOUTHEAST CORNER OF MANNHEIM ROAD AND FOREST AVENUE			
Point	Station	Offset	Elevation
A	22+82.88	33.91' R	645.50
B	22+82.50	35.87' R	645.38
C	22+82.39	36.44' R	645.88
D	22+81.06	43.31' R	645.91
E	22+90.89	36.16' R	645.44
F	22+90.19	38.03' R	645.34
G	22+89.99	38.58' R	645.38
H	22+89.29	40.45' R	645.41
I	22+87.54	45.14' R	645.48
J	23+01.50	41.65' R	645.35
K	23+00.38	43.30' R	645.25
L	23+00.05	43.78' R	645.29
M	22+98.93	45.44' R	645.32
N	22+96.12	49.57' R	645.39
O	23+10.51	49.50' R	645.26
P	23+09.03	50.84' R	645.16
Q	23+08.59	51.22' R	645.20
R	23+07.11	52.56' R	645.23
S	23+03.40	55.91' R	645.30
T	23+14.40	54.38' R	645.21
U	23+12.76	55.53' R	645.09
V	23+12.28	55.86' R	645.59
W	23+06.54	59.87' R	645.62
X	23+18.74	61.92' R	645.15
Y	23+16.92	62.76' R	645.03
Z	23+16.40	63.01' R	645.53
AA	23+10.05	65.96' R	645.57

NORTHEAST CORNER OF MANNHEIM ROAD AND FOREST AVENUE			
Point	Station	Offset	Elevation
A	24+15.62	33.00' R	645.18
B	24+15.62	35.00' R	645.06
C	24+15.62	35.58' R	645.56
D	24+15.62	42.58' R	645.63
E	24+05.24	34.09' R	645.22
F	24+05.65	36.05' R	645.10
G	24+05.77	36.61' R	645.60
H	24+07.23	43.46' R	645.67
I	23+97.27	36.49' R	645.26
J	23+98.00	38.35' R	645.16
K	23+98.21	38.89' R	645.20
L	23+98.95	40.75' R	645.23
M	24+00.78	45.40' R	645.30
N	23+87.13	41.91' R	645.25
O	23+88.27	43.55' R	645.15
P	23+88.60	44.03' R	645.19
Q	23+89.74	45.67' R	645.22
R	23+92.59	49.78' R	645.29
S	23+78.51	49.50' R	645.24
T	23+79.99	50.84' R	645.14
U	23+80.42	51.22' R	645.18
V	23+81.91	52.56' R	645.21
W	23+85.61	55.92' R	645.28
X	23+73.46	56.12' R	645.23
Y	23+75.15	57.19' R	645.11
Z	23+75.64	57.50' R	645.61
AA	23+81.53	61.27' R	645.68
BB	23+71.04	60.36' R	645.22
CC	23+72.82	61.26' R	645.10
DD	23+73.34	61.53' R	645.60
EE	23+79.57	64.70' R	645.67



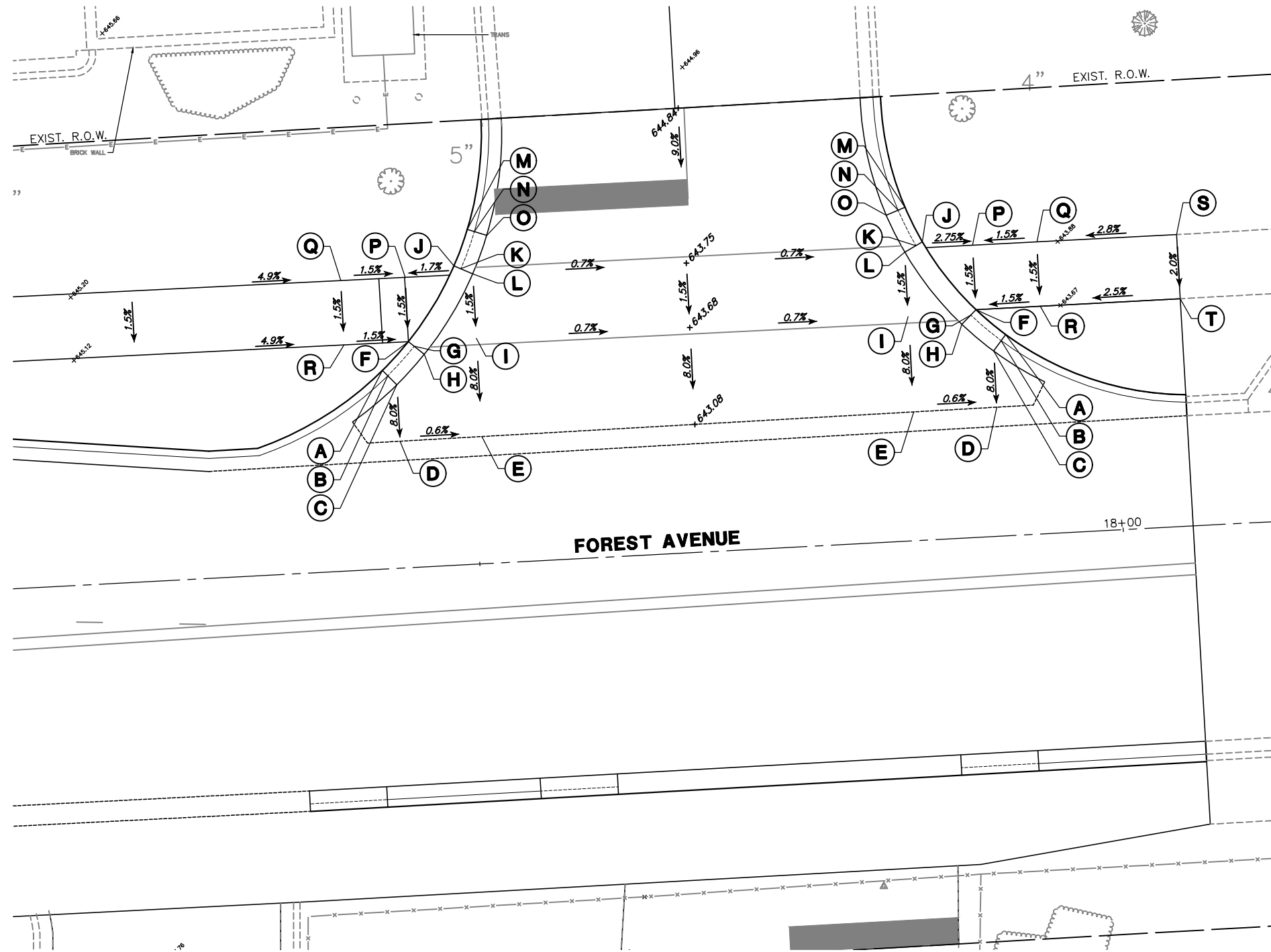
FILE NAME = 4816.100-IntDes.dwg	USER NAME = MARK COBB	DESIGNED - MGFC	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>ADA DETAILS LEE ST - MANNHEIM RD AND FOREST AVENUE</b>		FAP RITE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 1" = .1667'	DRAWN - MGFC	REVISED -		330	14-00220-00-TL	COOK	85	38		
	PLOT DATE = 9/30/2019 2:01 PM	CHECKED - KLB	REVISED -		SCALE 1"=5'		SHEET NO. 2 OF 3 SHEETS		STA. 22+75 TO STA. 24+15	CONTRACT #	61E86
		DATE -	REVISED -		ILLINOIS FED. AID PROJECT						





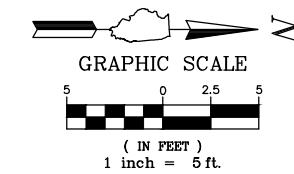
NORTHWEST CORNER OF  
FOREST AVENUE AND ENTRANCE

Point	Station	Offset	Elevation
A	17+43.26	15.40' L	644.02
B	17+43.65	14.97' L	643.52
C	17+44.31	14.22' L	643.58
D	17+44.33	9.84' L	643.23
E	17+50.70	9.87' L	643.19
F	17+45.39	17.53' L	643.73
G	17+45.82	17.14' L	643.69
H	14+46.57	16.48' L	643.74
I	17+50.67	17.51' L	643.80
J	17+49.23	23.21' L	643.86
K	17+49.75	22.95' L	643.82
L	17+50.65	22.51' L	643.87
M	17+50.41	25.98' L	644.62
N	17+50.96	25.78' L	644.12
O	17+51.90	25.44' L	644.18
P	17+45.40	22.53' L	643.80
Q	17+40.41	22.54' L	643.87
R	17+40.39	17.54' L	643.80



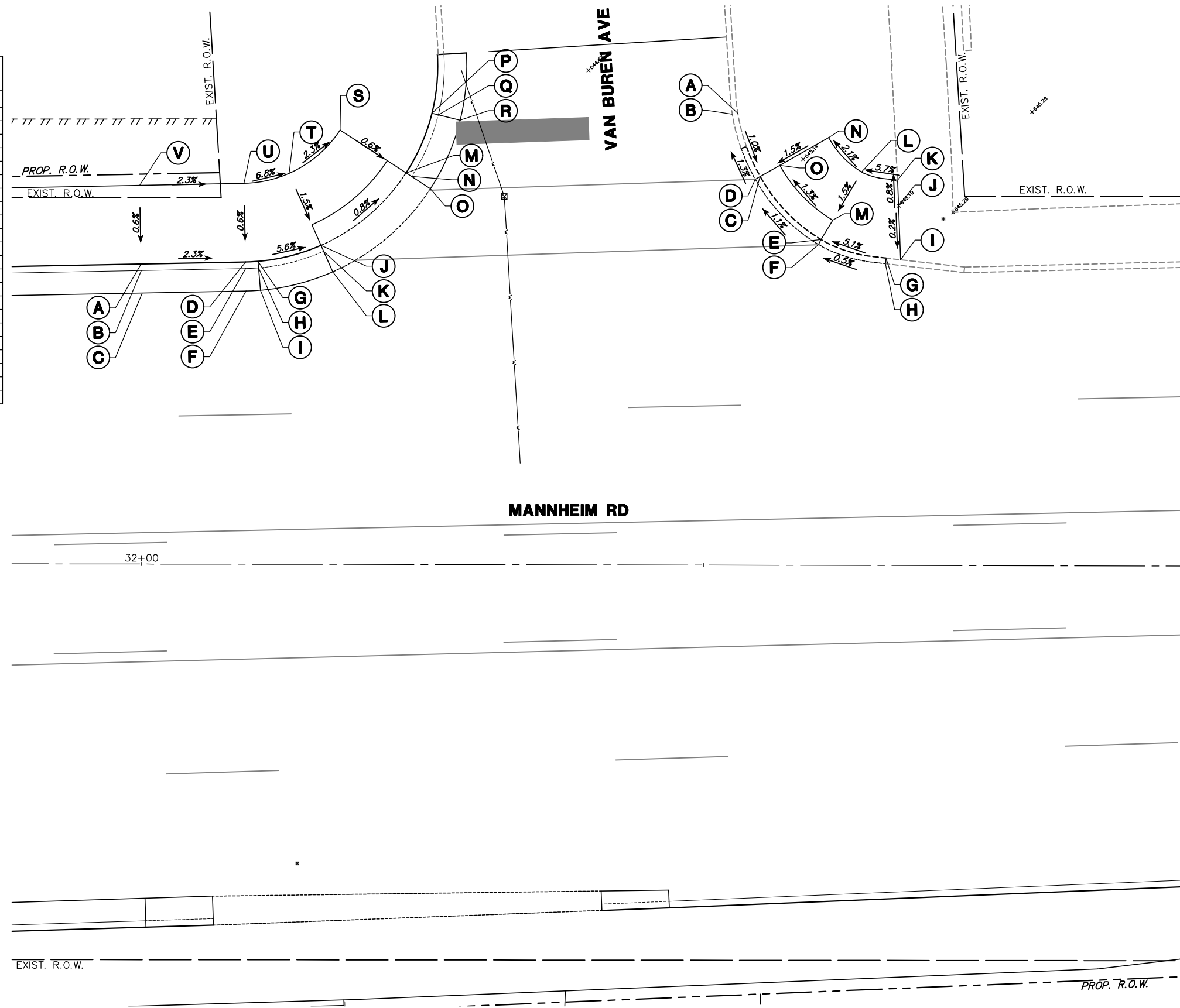
NORTHEAST CORNER OF  
FOREST AVENUE AND ENTRANCE

Point	Station	Offset	Elevation
A	17+91.69	15.61' L	643.72
B	17+91.32	15.16' L	643.22
C	17+90.69	14.39' L	643.28
D	17+90.71	10.02' L	642.93
E	17+84.25	9.99' L	642.97
F	17+89.50	17.66' L	643.45
G	17+89.08	17.26' L	643.41
H	17+88.35	16.58' L	643.46
I	17+84.22	17.40' L	643.56
J	17+85.63	23.13' L	643.62
K	17+85.11	22.87' L	643.58
L	17+84.20	22.40' L	643.63
M	17+84.42	25.89' L	644.26
N	17+83.88	25.69' L	643.76
O	17+82.94	25.35' L	643.82
P	17+89.50	22.67' L	643.52
Q	17+94.50	22.66' L	643.59
R	17+94.50	17.67' L	643.52
S	18+05.35	22.65' L	643.90
T	18+05.38	17.67' L	643.80



SOUTHWEST CORNER OF MANNHEIM ROAD AND VAN BUREN AVENUE			
Point	Station	Offset	Elevation
A	31+99.91	26.68' L	645.21
B	31+99.93	26.10' L	644.71
C	32+00.00	24.10' L	644.83
D	32+09.19	26.88' L	644.99
E	32+09.20	26.30' L	644.49
F	32+09.24	24.30' L	644.61
G	32+10.30	26.93' L	644.97
H	32+10.36	26.36' L	644.47
I	32+10.52	24.36' L	644.59
J	32+15.90	28.37' L	644.65
K	32+16.13	27.84' L	644.61
L	32+16.95	26.02' L	644.71
M	32+23.45	34.83' L	644.57
N	32+23.94	34.52' L	644.53
O	32+25.62	33.43' L	644.63
P	32+25.74	40.14' L	644.96
Q	32+26.30	40.00' L	644.46
R	32+28.24	39.53' L	644.58
S	32+17.57	38.63' L	644.61
T	32+13.05	34.77' L	644.75
U	32+09.04	33.87' L	645.03
V	31+99.76	33.68' L	645.25

NORTHWEST CORNER OF MANNHEIM ROAD AND VAN BUREN AVENUE			
Point	Station	Offset	Elevation
A	32+52.94	40.20' L	644.85
B	32+52.44	40.12' L	644.66
C	32+54.94	34.57' L	644.79
D	32+54.50	34.33' L	644.75
E	32+60.37	28+97' L	644.88
F	32+60.12	28+52' L	644.84
G	32+66.15	27.34' L	645.19
H	32+66.09	26.84' L	644.87
I	32+67.44	27.20' L	645.18
J	32+67.28	32.01' L	645.19
K	32+67.16	34.27' L	645.17
L	32+63.95	34.99' L	644.98
M	32+61.39	30.69' L	644.91
N	32+61.02	38.04' L	644.89
O	32+56.67	35.56' L	644.82



**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ADA DETAILS  
LEE ST - MANNHEIM RD AND FOREST AVENUE**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	14-00220-00-TL	COOK	85	41
CONTRACT #			61E86	

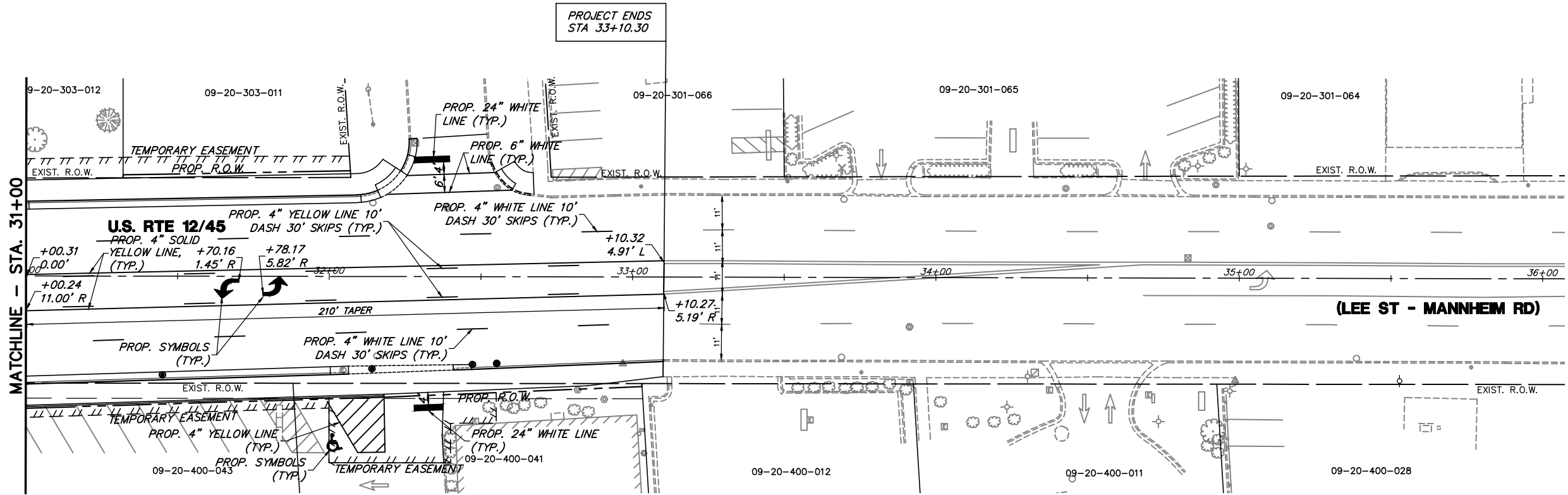
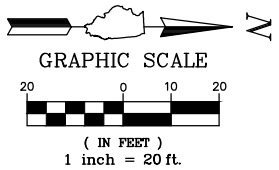
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USER NAME = MARK COBB  
PLOT SCALE = 1" = .1667'  
PLOT DATE = 9/30/2019 1:59 PM

DESIGNED - MGFC	REVISED -
DRAWN - MGFC	REVISED -
CHECKED - KLB	REVISED -
DATE -	REVISED -

SCALE 1"=5' SHEET NO. 3 OF 3 SHEETS STA. 31+75 TO STA. 33+00

ILLINOIS FED. AID PROJECT





FILE NAME = 4816.200-pmk.dwg

USER NAME = MARK COBB  
 PLOT SCALE = 1" = .1667'  
 PLOT DATE = 9/30/2019 2:56 PM

DESIGNED - MGFC  
 DRAWN - ZCW  
 CHECKED - KLB  
 DATE -

REVISED -  
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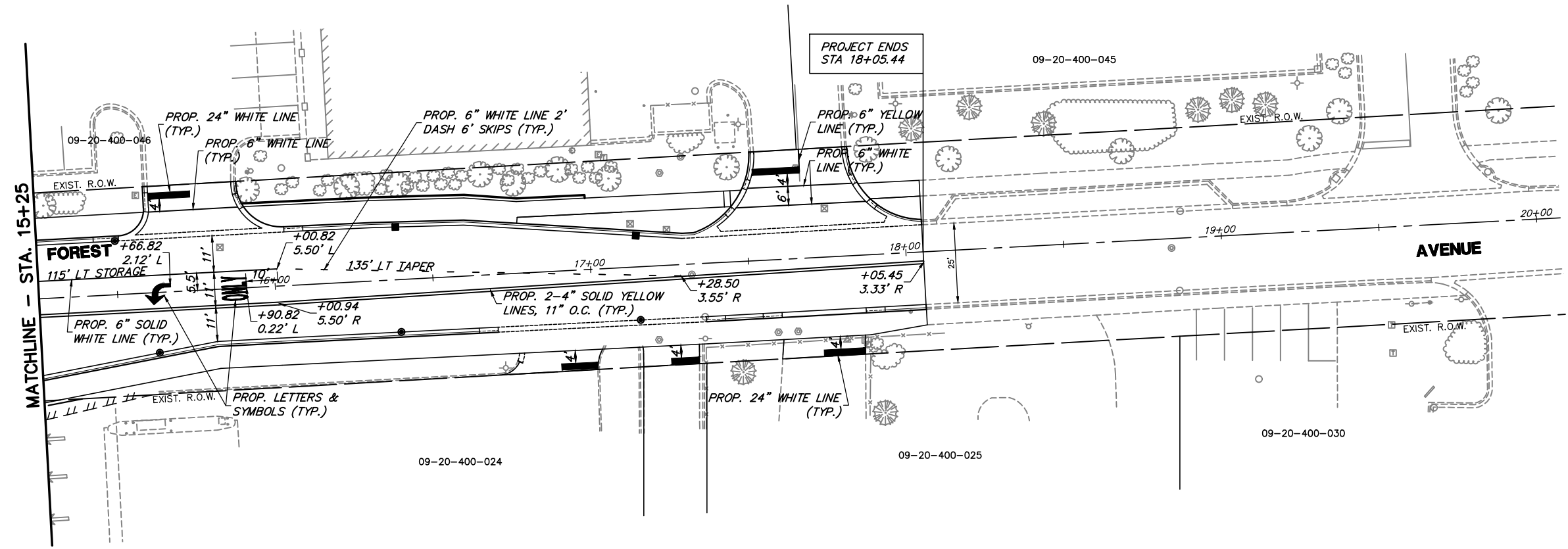
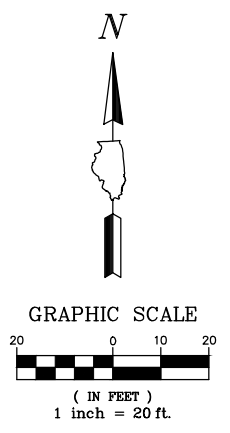
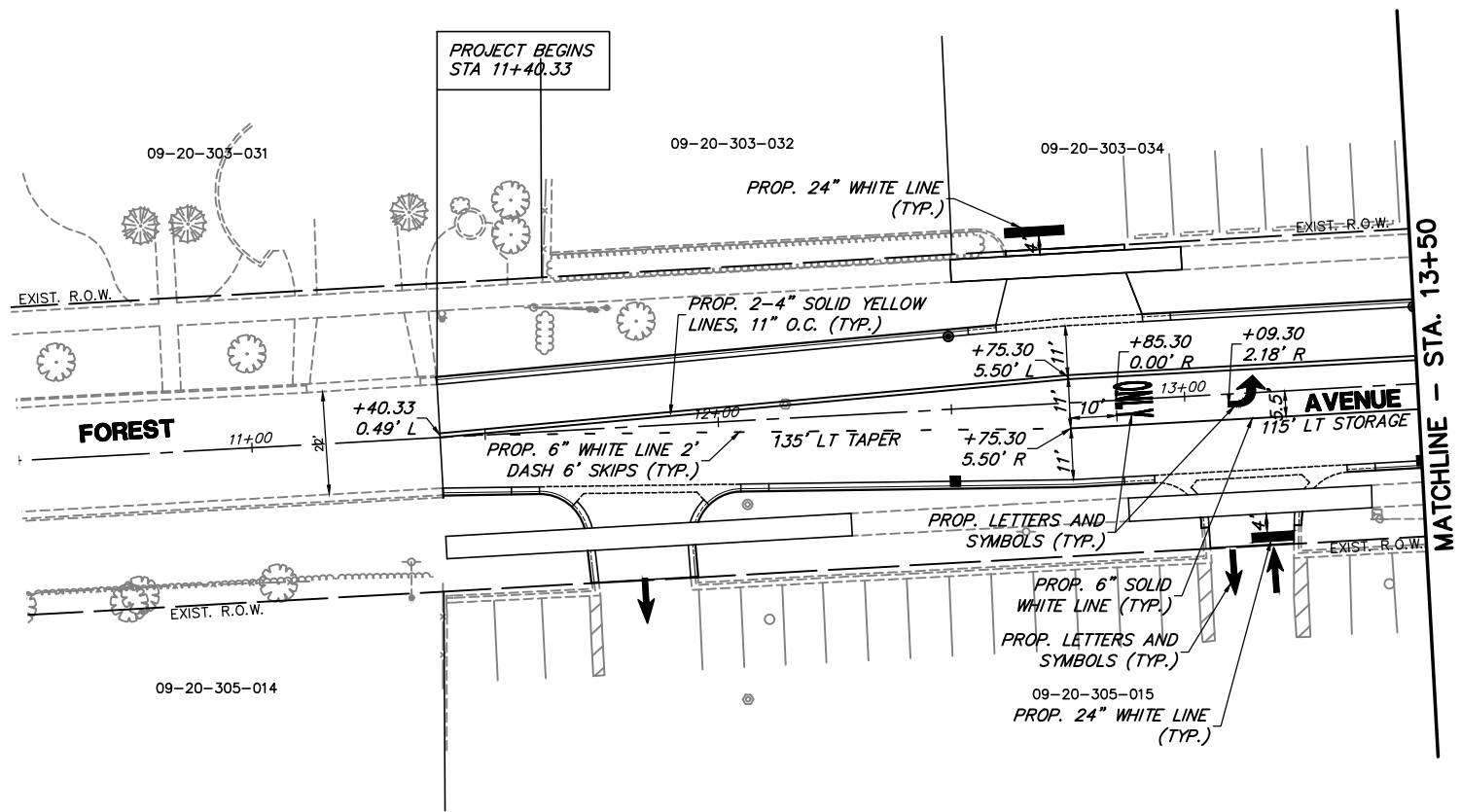
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING PLAN  
 LEE ST - MANNHEIM RD AND FOREST AVENUE**

SCALE 1"=20' SHEET NO. 2 OF 3 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	14-00220-00-TL	COOK	85	43
CONTRACT #:			61E86	

ILLINOIS FED. AID PROJECT



FILE NAME = 4816.200-pmk.dwg

USER NAME = MARK COBB

DESIGNED - MGFC

REVISED -

PLOT SCALE = 1" = .1667'

DRAWN - ZCW

REVISED -

PLOT DATE = 9/30/2019 2:56 PM

CHECKED - KLB

REVISED -

DATE -

REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING PLAN  
LEE ST - MANNHEIM RD AND FOREST AVENUE**

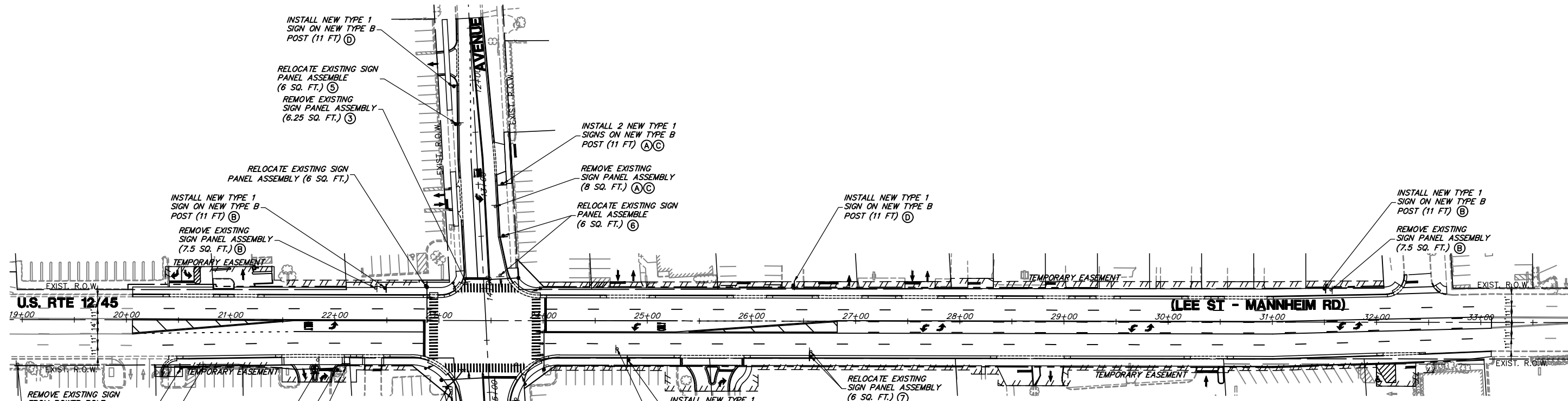
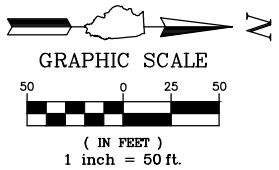
SCALE 1"=20' SHEET NO. 3 OF 3 SHEETS STA. TO STA.

FAP RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	14-00220-00-TL	COOK	85	44

CONTRACT # 61E86

ILLINOIS FED. AID PROJECT





INSTALL NEW TYPE 1 SIGN ON NEW TYPE B POST (11 FT) ①

RELOCATE EXISTING SIGN PANEL ASSEMBLY (6 SQ. FT.) ⑤

REMOVE EXISTING SIGN PANEL ASSEMBLY (6.25 SQ. FT.) ③

RELOCATE EXISTING SIGN PANEL ASSEMBLY (6 SQ. FT.)

INSTALL NEW TYPE 1 SIGN ON NEW TYPE B POST (11 FT) ⑥

REMOVE EXISTING SIGN PANEL ASSEMBLY (7.5 SQ. FT.) ⑧

RELOCATE EXISTING SIGN PANEL ASSEMBLY (6 SQ. FT.)

INSTALL 2 NEW TYPE 1 SIGNS ON NEW TYPE B POST (11 FT) ①

REMOVE EXISTING SIGN PANEL ASSEMBLY (8 SQ. FT.) ①

RELOCATE EXISTING SIGN PANEL ASSEMBLY (6 SQ. FT.) ⑥

INSTALL NEW TYPE 1 SIGN ON NEW TYPE B POST (11 FT) ①

REMOVE EXISTING SIGN PANEL ASSEMBLY (7.5 SQ. FT.) ⑧

REMOVE EXISTING SIGN FROM POWER POLE (6.25 SQ. FT.) ④

RELOCATE 2 EXISTING SIGN PANEL ASSEMBLY (3 SQ. FT.) ②

RELOCATE 2 EXISTING SIGN PANEL ASSEMBLY (3 SQ. FT.) ③

RELOCATE EXISTING SIGN PANEL ASSEMBLY (5 SQ. FT.) ⑧

RELOCATE EXISTING SIGN PANEL ASSEMBLY (5 SQ. FT.) ⑧

REMOVE EXISTING SIGN FROM POWER POLE (3 SQ. FT.) ①

REMOVE EXISTING SIGN FROM POWER POLE (1.5 SQ. FT.) ①

RELOCATE EXISTING SIGN PANEL ASSEMBLY (5 SQ. FT.) ⑧

INSTALL NEW TYPE 1 SIGN ON NEW TYPE B POST (11 FT) ①

REMOVE EXISTING SIGN FROM POWER POLE (1.5 SQ. FT.) ①

INSTALL NEW TYPE 1 SIGN ON NEW TYPE A POST (11 FT) ①

RELOCATE EXISTING SIGN PANEL ASSEMBLY (6 SQ. FT.) ⑦

INSTALL NEW TYPE 1 SIGN ON NEW TYPE B POST (11 FT) ⑧

REMOVE EXISTING SIGN PANEL ASSEMBLY (7.5 SQ. FT.) ⑧

REMOVE EXISTING SIGN PANEL ASSEMBLY (6.25 SQ. FT.) ③

INSTALL NEW TYPE 1 SIGN ON NEW TYPE B POST (11 FT) ①

EXISTING SIGN PANEL LEGEND

- ①
- ②
- ③
- ④
- ⑤
- ⑥
- ⑦
- ⑧
- ⑨

SIGN PANEL LEGEND

- A 36" R2-1
- B 36" R2-1
- C 18" R7-1
- D 24" W16-15P
- 36" W3-3

FILE NAME = 4816.200-pmk.dwg

USER NAME = MARK COBB

PLOT SCALE = 1" = .1667'

PLOT DATE = 9/30/2019 2:59 PM

DESIGNED - MGFC

DRAWN - ZCW

CHECKED - KLB

DATE -

REVISED -

REVISED -

REVISED -

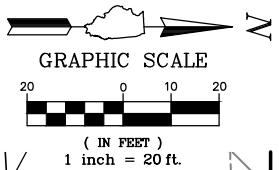
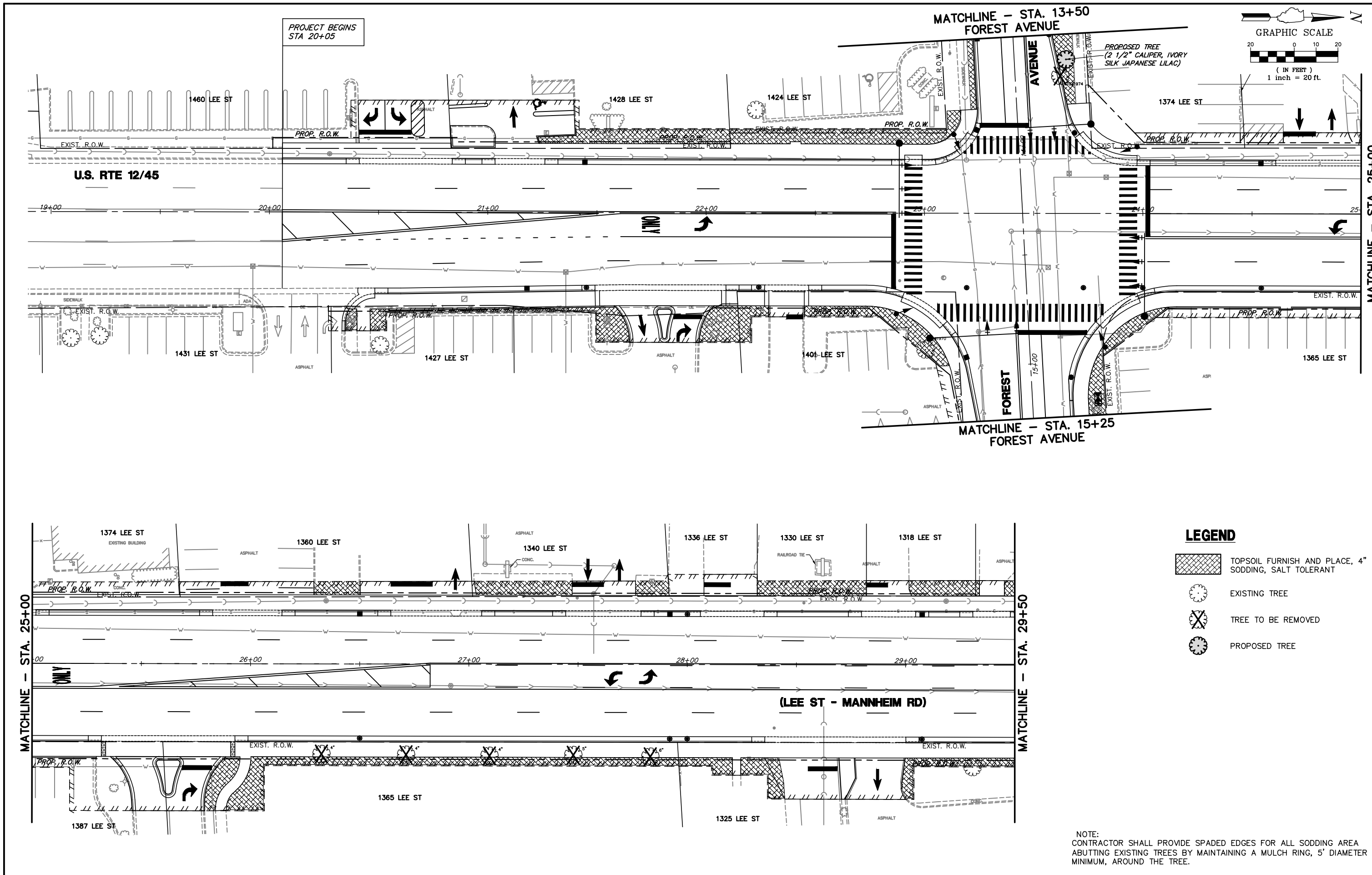
REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SIGNAGE PLAN  
LEE ST - MANNHEIM RD AND FOREST AVENUE

SCALE 1"=50' SHEET NO. 1 OF 1 SHEETS STA. TO STA.

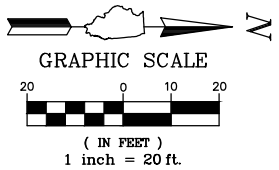
FAR RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	14-00220-00-TL	COOK	85	45
CONTRACT #			61E86	
ILLINOIS FED. AID PROJECT				



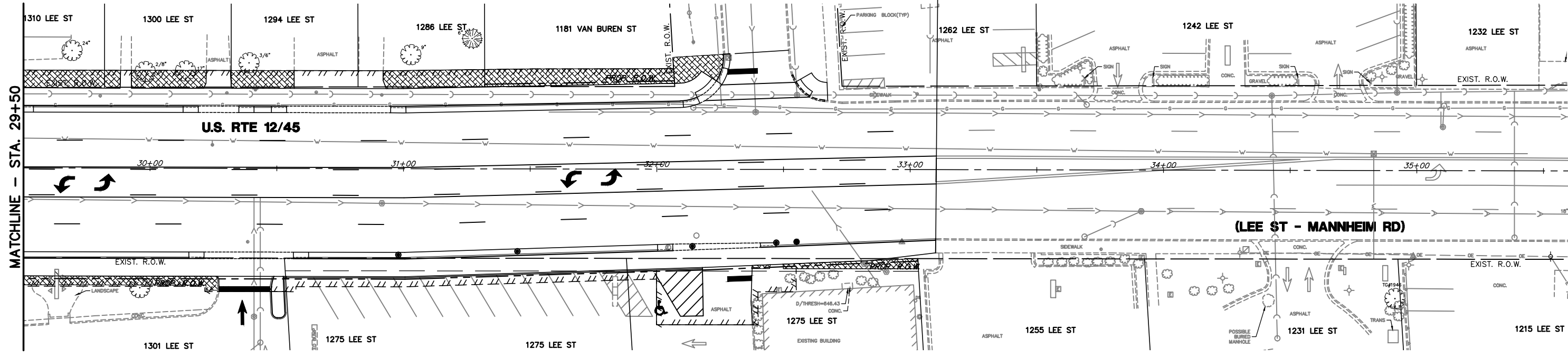
- LEGEND**
- TOPSOIL FURNISH AND PLACE, 4" SODDING, SALT TOLERANT
  - EXISTING TREE
  - TREE TO BE REMOVED
  - PROPOSED TREE

NOTE:  
 CONTRACTOR SHALL PROVIDE SPADED EDGES FOR ALL SODDING AREA ABUTTING EXISTING TREES BY MAINTAINING A MULCH RING, 5' DIAMETER MINIMUM, AROUND THE TREE.





FILE NAME = 4816.200-LS1.dwg	USER NAME = MARK COBB	DESIGNED - MGFC	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>LANDSCAPE PLAN LEE ST - MANNHEIM RD AND FOREST AVENUE</b>		FAR RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 1" = .1667'	DRAWN - ZCW	REVISED -				330	14-00220-00-TL	COOK	85	46
PLOT DATE = 9/30/2019 2:53 PM	CHECKED - KLB	DATE -	REVISED -	SCALE 1"=20'		SHEET NO. 1 OF 3 SHEETS	STA. B.O.P. TO STA. 29+50		CONTRACT # 61E86		
ILLINOIS FED. AID PROJECT											



PROJECT ENDS  
STA 33+10



**LEGEND**

-  TOPSOIL FURNISH AND PLACE, 4" SODDING, SALT TOLERANT
-  EXISTING TREE
-  TREE TO BE REMOVED
-  PROPOSED TREE

NOTE:  
CONTRACTOR SHALL PROVIDE SPADED EDGES FOR ALL SODDING AREA ABUTTING EXISTING TREES BY MAINTAINING A MULCH RING, 5" DIAMETER MINIMUM, AROUND THE TREE.

FILE NAME = 4816.200-LS1.dwg

USER NAME = MARK COBB

DESIGNED - MGFC  
DRAWN - ZCW  
CHECKED - KLB  
DATE -

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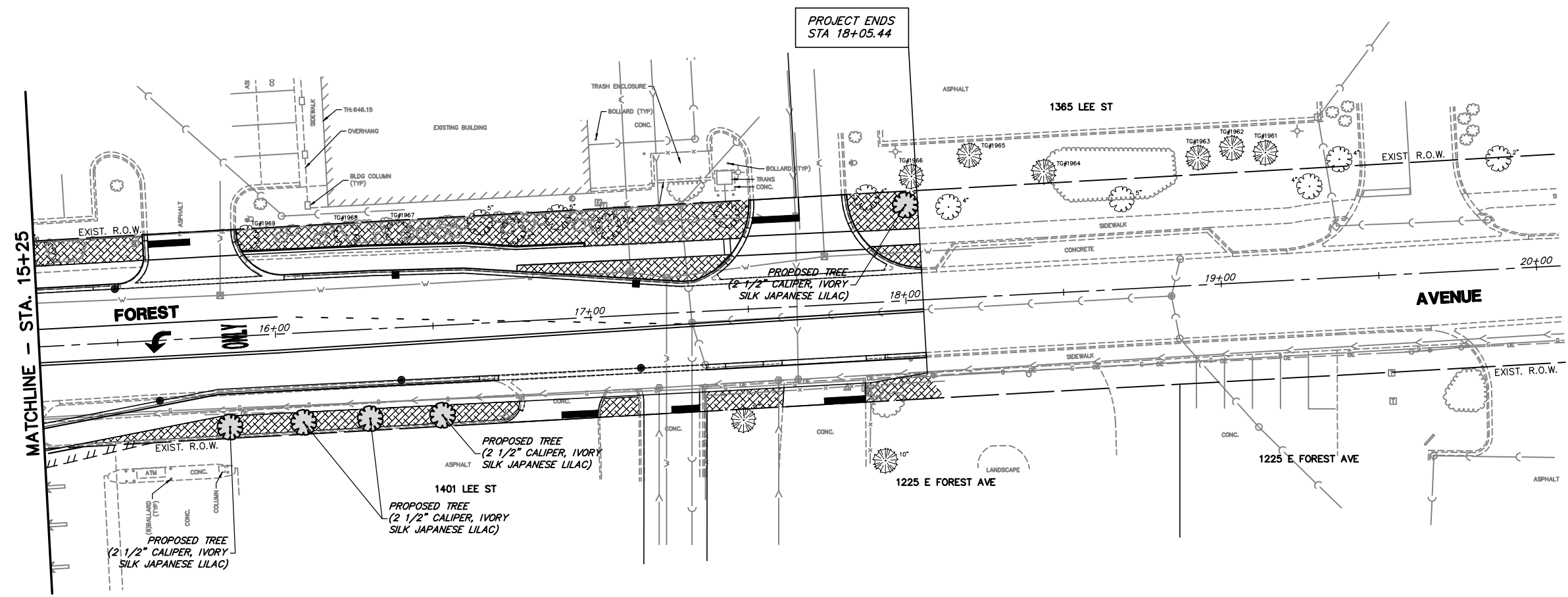
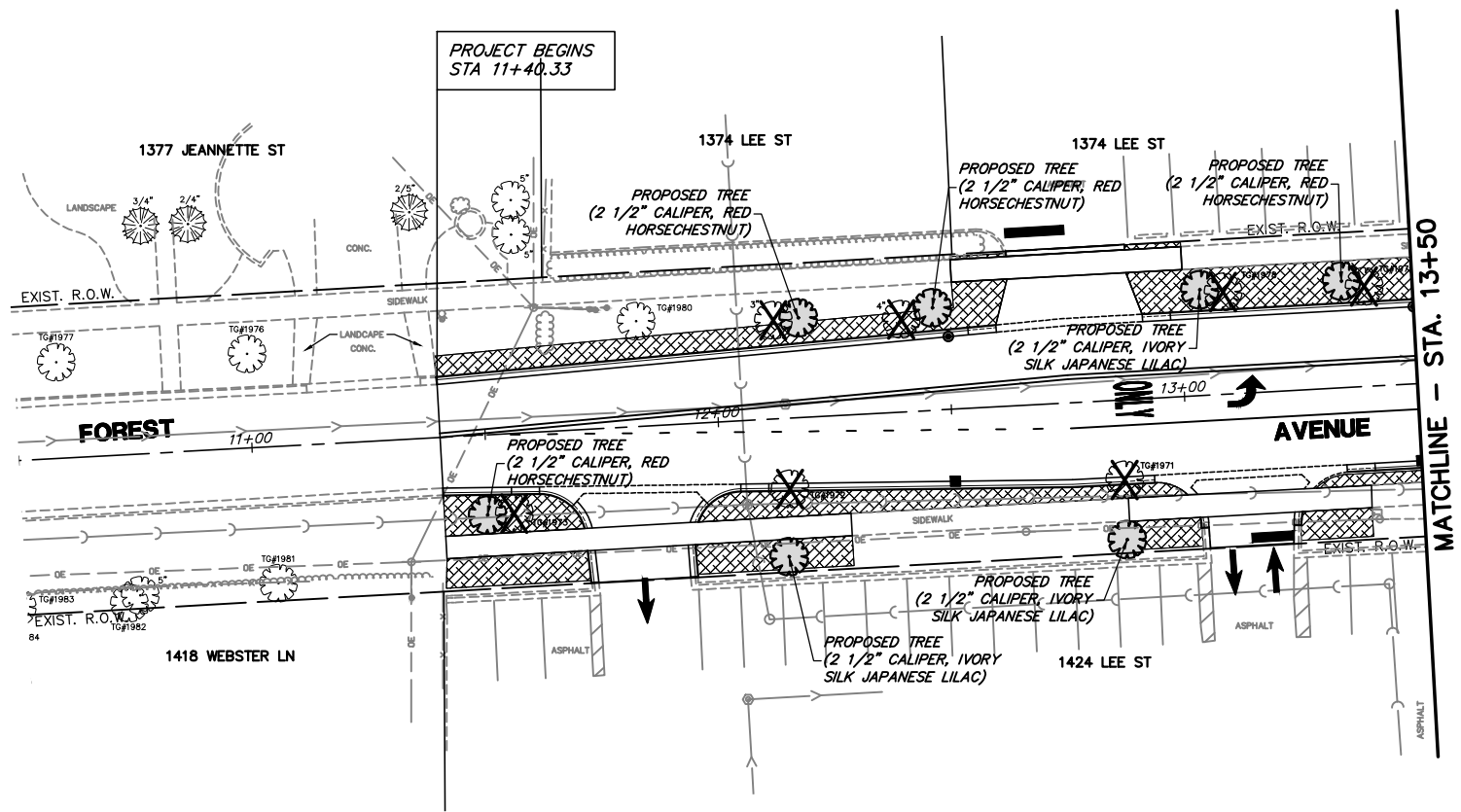
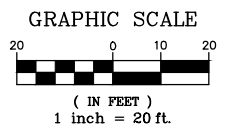
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**LANDSCAPE PLAN  
LEE ST - MANNHEIM RD AND FOREST AVENUE**

SCALE 1"=20' SHEET NO. 2 OF 3 SHEETS STA. 29+50 TO STA. E.O.P.

FAP. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	14-00220-00-TL	COOK	85	47
CONTRACT #			61E86	

ILLINOIS FED. AID PROJECT



- LEGEND**
- TOPSOIL FURNISH AND PLACE, 4" SODDING, SALT TOLERANT
  - EXISTING TREE
  - TREE TO BE REMOVED
  - PROPOSED TREE

NOTE:  
CONTRACTOR SHALL PROVIDE SPADED EDGES FOR ALL SODDING AREA ABUTTING EXISTING TREES BY MAINTAINING A MULCH RING, 5" DIAMETER MINIMUM, AROUND THE TREE.

FILE NAME = 4816.200-LS1.dwg  
USER NAME = MARK COBB

DESIGNED - MGFC  
DRAWN - ZCW  
CHECKED - KLB  
DATE -

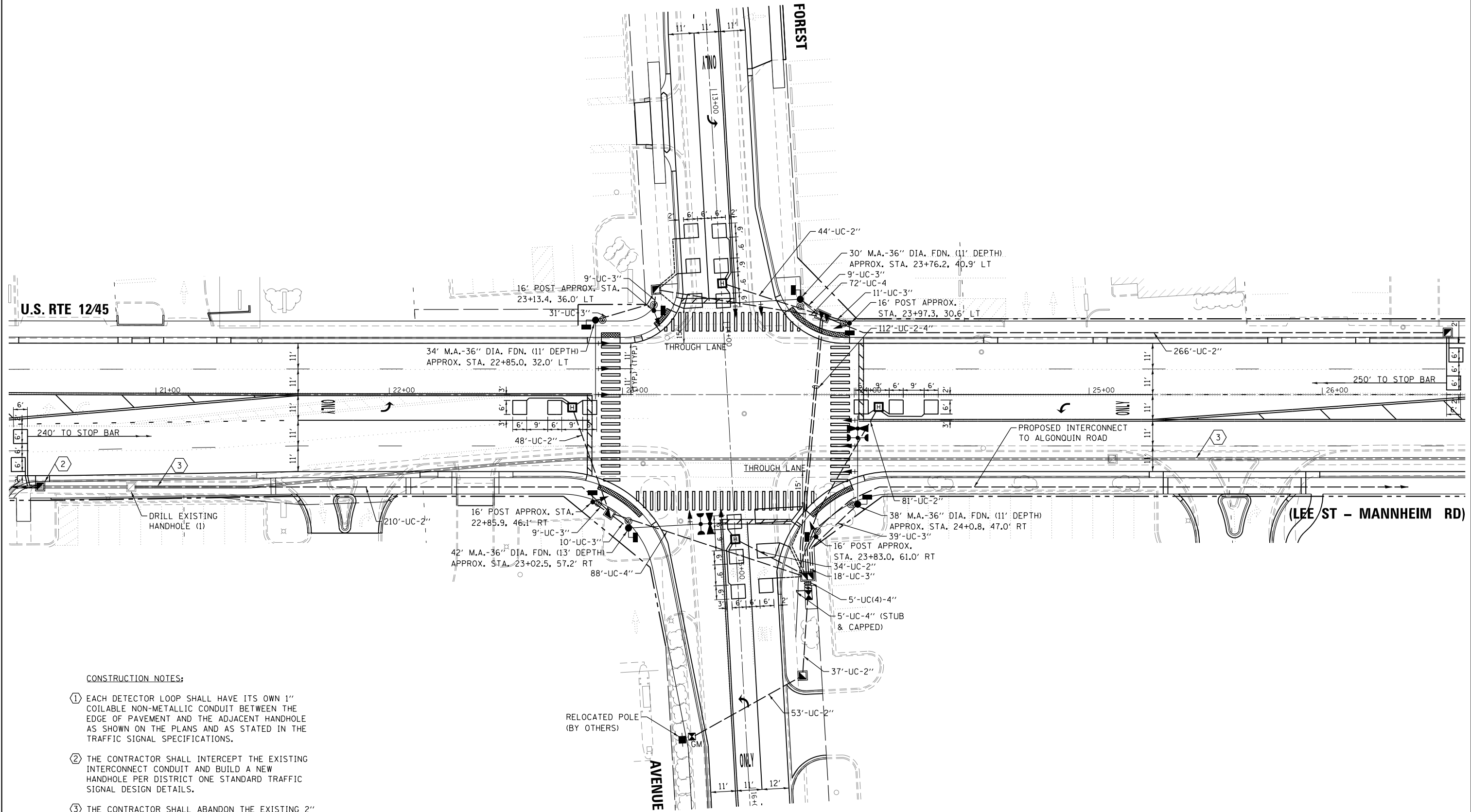
REVISED -  
REVISED -  
REVISED -  
REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

LANDSCAPE PLAN  
LEE ST - MANNHEIM RD AND FOREST AVENUE

SCALE 1"=20'  
SHEET NO. 3 OF 3 SHEETS  
STA. B.O.P. TO STA. E.O.P.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	14-00220-00-TL	COOK	85	48
CONTRACT #			61E86	
ILLINOIS FED. AID PROJECT				



**CONSTRUCTION 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 THE CONTRACTOR SHALL INTERCEPT THE EXISTING INTERCONNECT CONDUIT AND BUILD A NEW HANDHOLE PER DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS.
- ③ THE CONTRACTOR SHALL ABANDON THE EXISTING 2" INTERCONNECT CONDUIT IN PLACE.

**GHA GEWALT HAMILTON ASSOCIATES, INC. TS SHT NO. 1**

FILE NAME = 4816.200 - Perm Signal Plan.dgn	USER NAME = mcobb	DESIGNED - JRD	REVISED -
4816.2		DRAWN - ZCW	REVISED -
Default		CHECKED - DPB	REVISED -
	PLOT DATE = 4/8/2019	DATE -	REVISED -

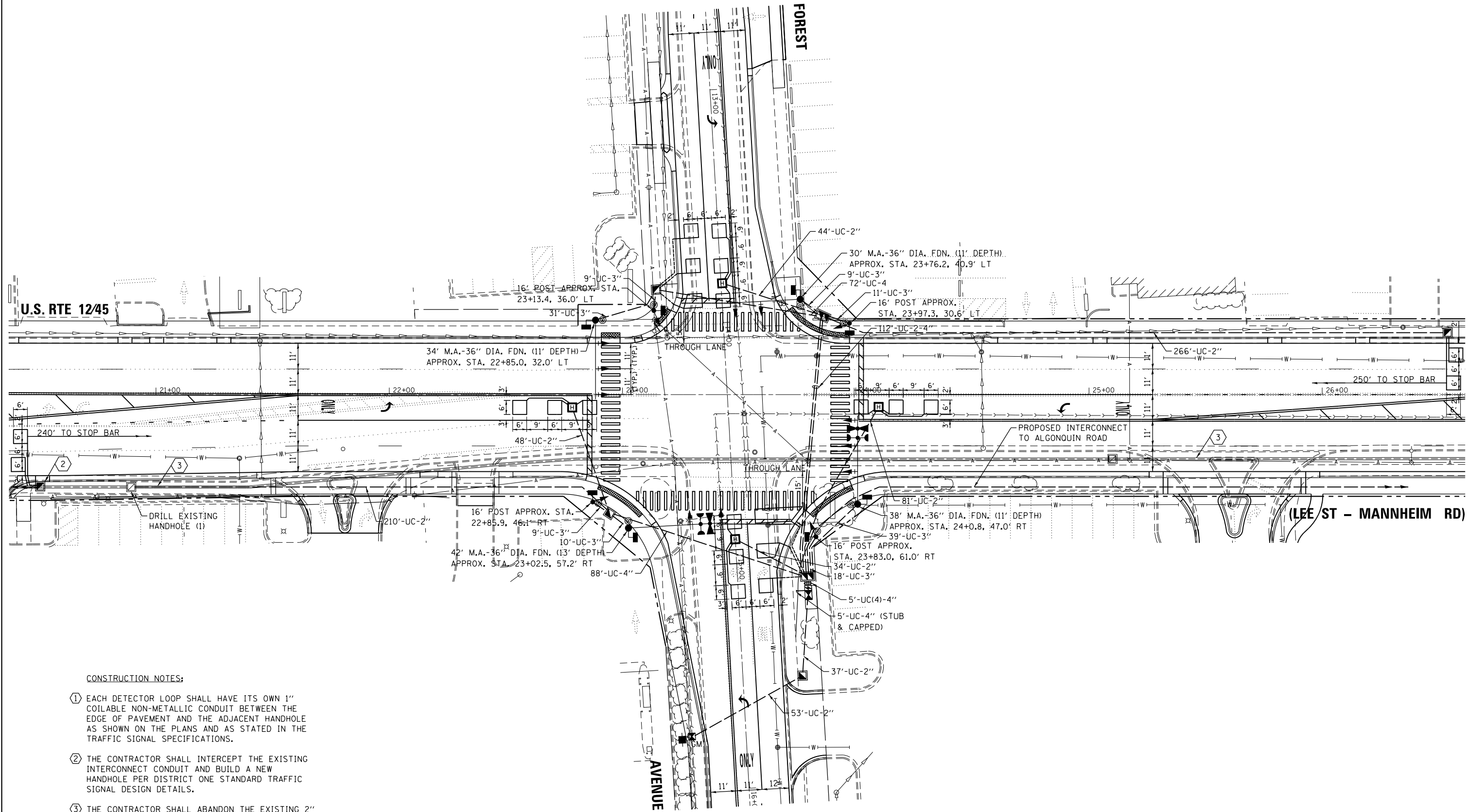
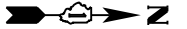
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL INSTALLATION PLAN  
U.S. RTE 12 /45 (LEE ST - MANNHEIM RD) AND FOREST AVENUE**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	14-00220-00-TL	COOK	85	49
CONTRACT NO. 61E86				
ILLINOIS FED. AID PROJECT				

**TS 13003  
EAGLE 8N**



**CONSTRUCTION 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 THE CONTRACTOR SHALL INTERCEPT THE EXISTING INTERCONNECT CONDUIT AND BUILD A NEW HANDHOLE PER DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS.
- ③ THE CONTRACTOR SHALL ABANDON THE EXISTING 2" INTERCONNECT CONDUIT IN PLACE.

**GHA GEWALT HAMILTON ASSOCIATES, INC. TS SHT NO. 2**

FILE NAME =	USER NAME = mcobb
4816.200 - Utility.dgn	
4816.2	
Default	

DESIGNED - JRD	REVISD -
DRAWN - ZCW	REVISD -
CHECKED - DPB	REVISD -
DATE -	REVISD -
PLOT SCALE = 1:40	
PLOT DATE = 4/8/2019	

DESIGNED - JRD	REVISD -
DRAWN - ZCW	REVISD -
CHECKED - DPB	REVISD -
DATE -	REVISD -

DESIGNED - JRD	REVISD -
DRAWN - ZCW	REVISD -
CHECKED - DPB	REVISD -
DATE -	REVISD -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

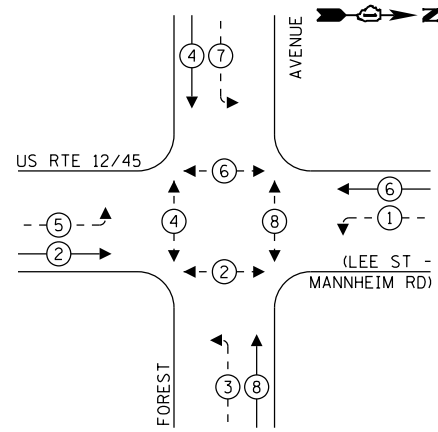
**UTILITY PLAN  
U.S. RTE 12 /45 (LEE ST - MANNHEIM RD) AND FOREST AVENUE**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	14-00220-00-TL	COOK	85	50
CONTRACT NO. 61E86				
ILLINOIS FED. AID PROJECT				

**TS 13003  
EAGLE 8N**

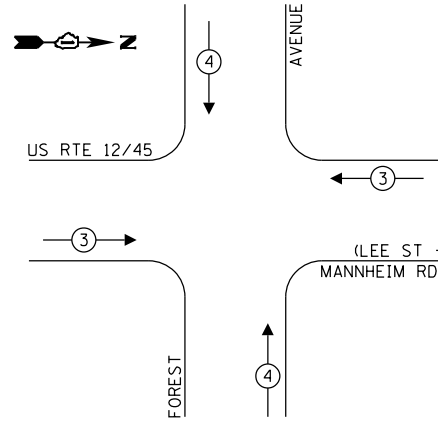
**PROPOSED CONTROLLER SEQUENCE**



**LEGEND:**

- ⊙ \* — PROTECTED PHASE
- ⊙ \* - - PROTECTED/PERMITTED PHASE
- ⊙ \* —> PEDESTRIAN PHASE
- ⊙ \* —> OL OVERLAP

**PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

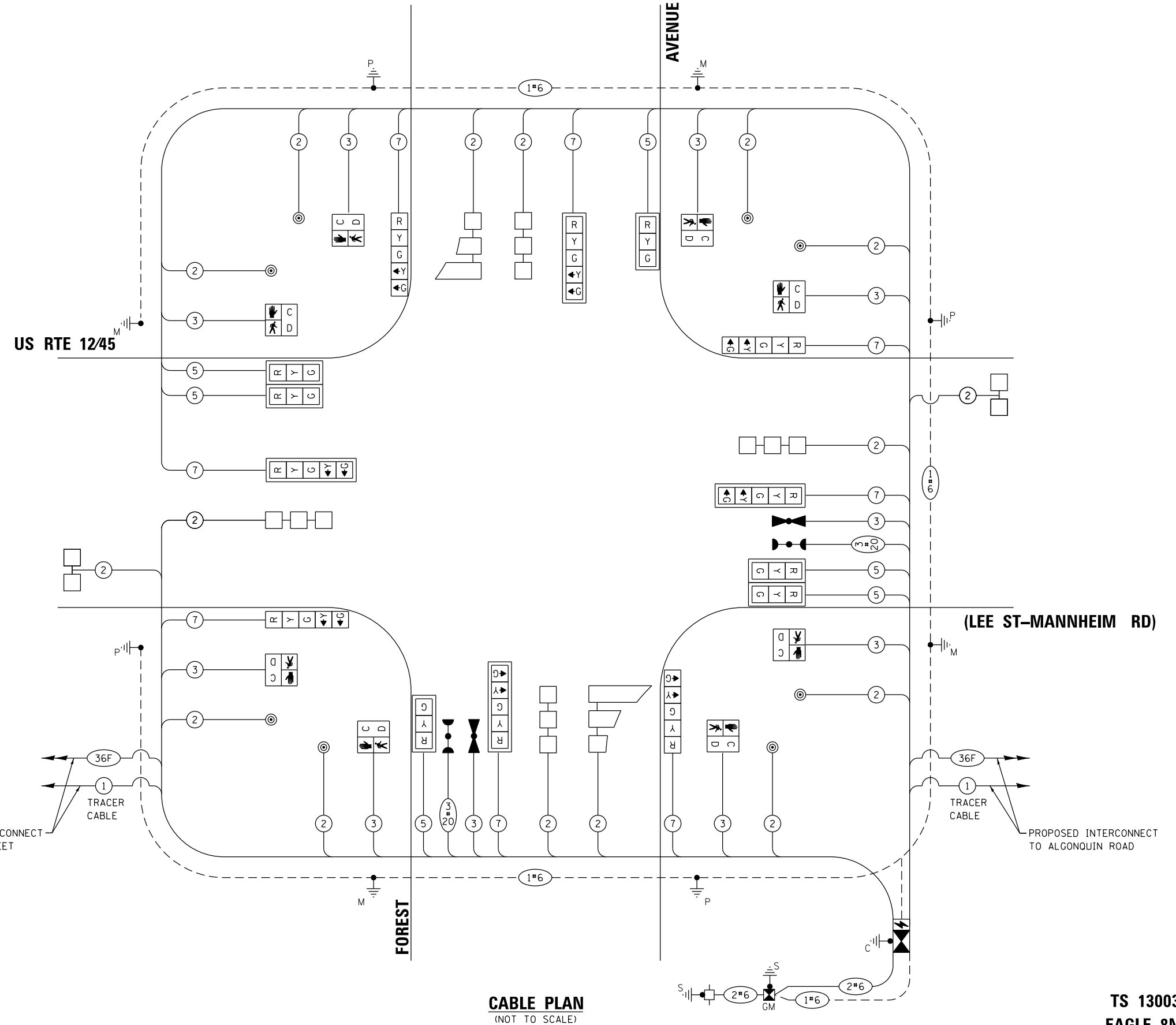
TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	14	11	50	77.0
(YELLOW)	14	20	5	14.0
(GREEN)	14	12	45	75.6
PERMISSIVE ARROW	16	10	10	16.0
PED. SIGNAL	8	20	100	160.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
TOTAL =				467.6

ENERGY COSTS TO:

CITY OF DES PLAINES  
1420 MINER STREET  
-DES PLAINES, IL 60016

ENERGY SUPPLY: CONTACT: DAVE SCHACHT  
PHONE: 630-437-2129  
COMPANY: COMED - OAKBROOK TERRACE  
ACCOUNT NUMBER: -

FILE NAME =	USER NAME = mcobb	DESIGNED - JRD	REVISED -
4816.200 - Perm Cable Plan.dgn		DRAWN - APK	REVISED -
4816.2		CHECKED - DPB	REVISED -
Default		PLOT DATE = 4/3/2019	REVISED -



**CABLE PLAN**  
(NOT TO SCALE)

**GHA GEWALT HAMILTON ASSOCIATES, INC. TS SHT NO. 3**

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM,  
AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
U.S. RTE 12/45 (LEE ST - MANNHEIM RD) AND FOREST AVENUE**

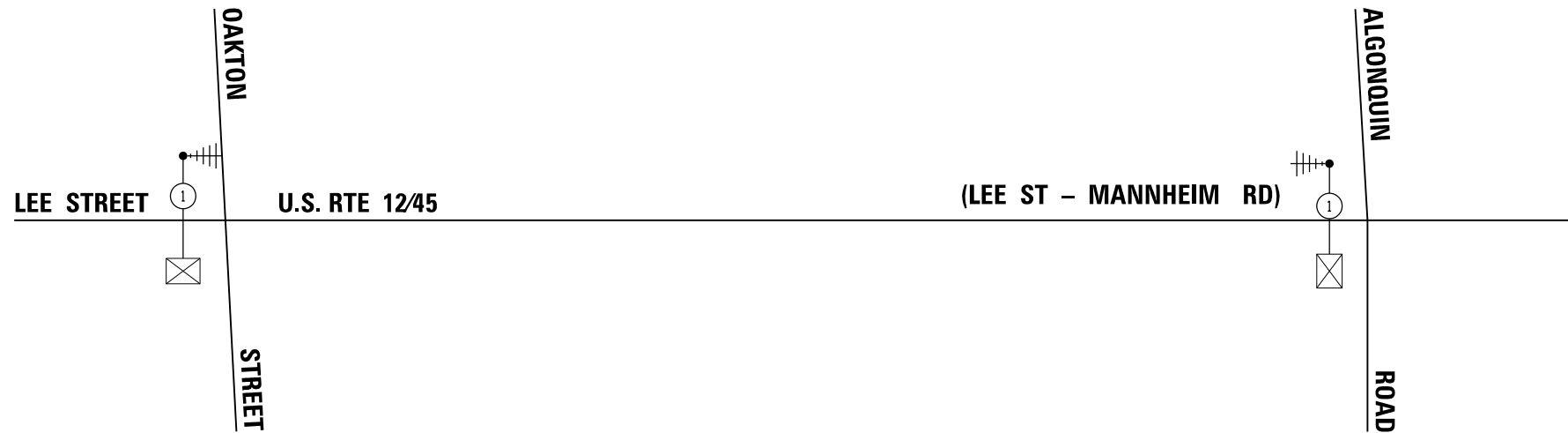
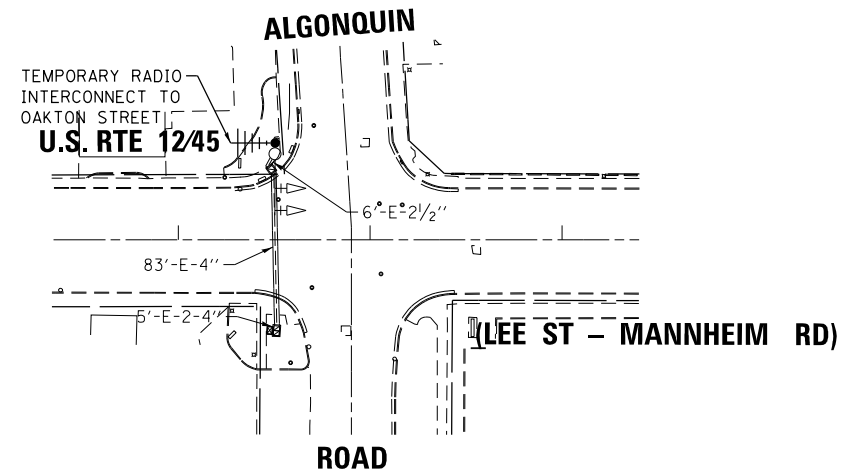
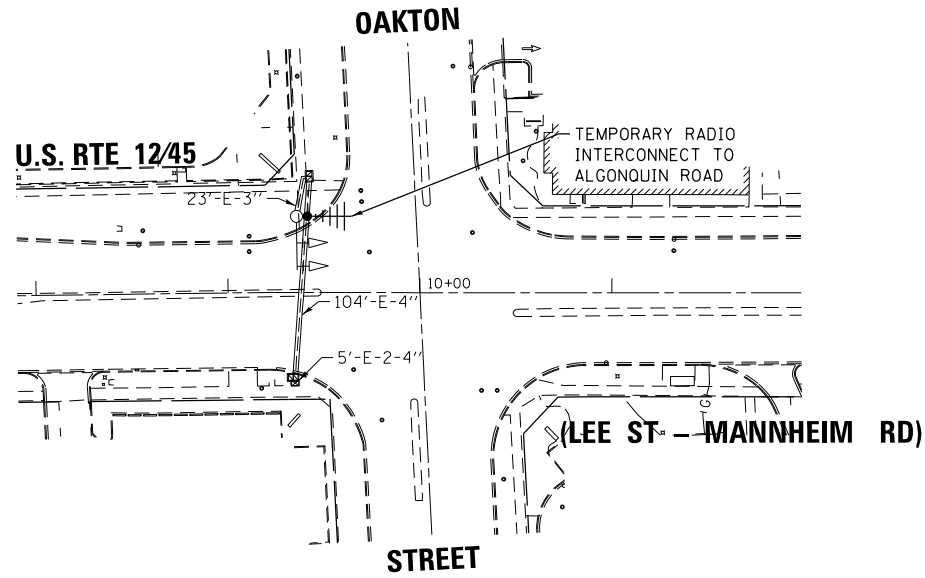
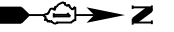
SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	14-00220-00-TL	COOK	85	51
			CONTRACT NO. 61E86	
ILLINOIS FED. AID PROJECT				

**TS 13003  
EAGLE 8N**







**GHA** GEWALT HAMILTON ASSOCIATES, INC. TS SHT NO. 5

**EAGLE 8H**

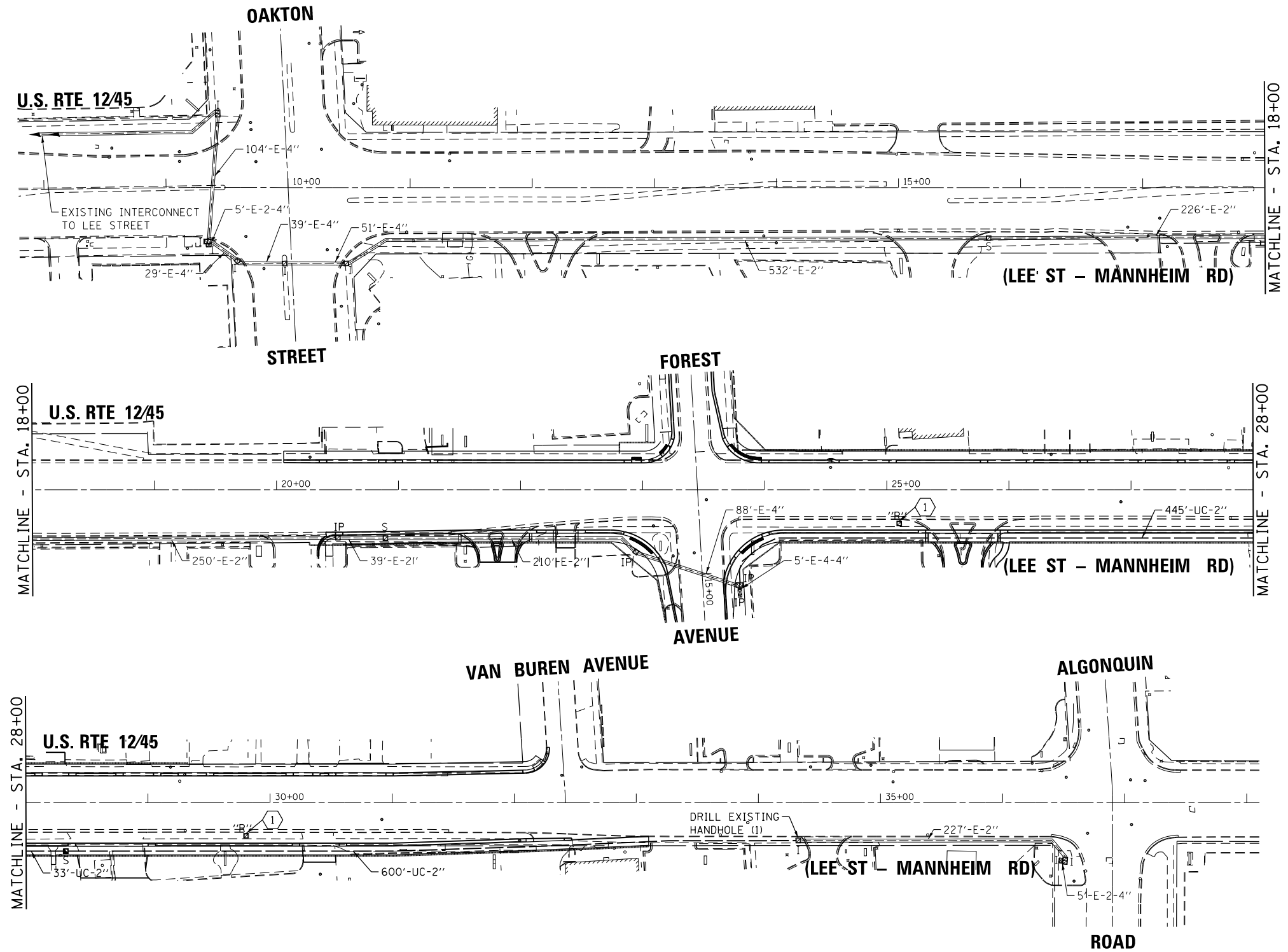
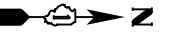
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4816.2		DRAWN - ZCW	REVISED -
Default		CHECKED - DPB	REVISED -
	PLOT DATE = 4/3/2019	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY INTERCONNECT PLAN AND SCHEMATIC  
U.S. RTE 12 /45 (LEE ST - MANNHEIM RD) -  
PROSPECT AVENUE TO ALGONQUIN ROAD**

SCALE: 1"=50' SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	14-00220-00-TL	COOK	85	53
CONTRACT NO. 61E86				
ILLINOIS FED. AID PROJECT				



CONSTRUCTION NOTES:

- ① CONTRACTOR SHALL REMOVE EXISTING INTERCONNECT HANDHOLE COMPLETELY.

**GHA** GEWALT HAMILTON ASSOCIATES, INC. TS SHT NO. 6

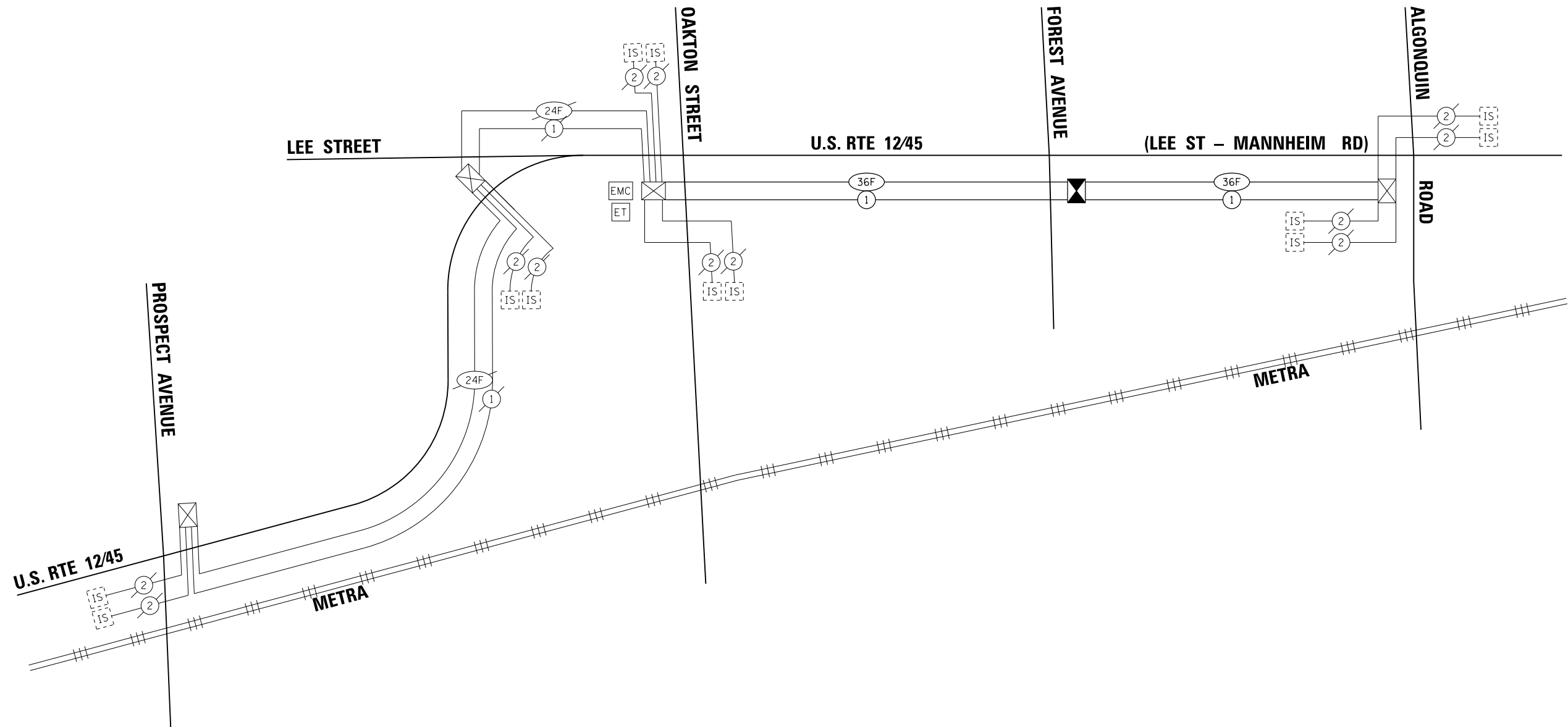
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4816.2	PLOT SCALE = 1:100	DRAWN - ZCW	REVISED -
Default	PLOT DATE = 4/3/2019	CHECKED - DPB	REVISED -
		DATE -	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

<b>PROPOSED INTERCONNECT PLAN</b> <b>U.S. RTE 12 /45 (LEE ST - MANNHEIM RD) -</b> <b>PROSPECT AVENUE TO ALGONQUIN ROAD</b>			
SCALE: 1"=50'	SHEET	OF SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	14-00220-00-TL	COOK	85	54
CONTRACT NO. 61E86				
ILLINOIS FED. AID PROJECT				

**EAGLE 8H**



**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	1,098
HANDHOLE	EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	2
TRANSCIEVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	2,300
DRILL EXISTING HANDHOLE	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	2,796
REMOVE EXISTING HANDHOLE	EACH	2
* ROD AND CLEAN EXISTING CONDUIT	FOOT	1,000
CONDUIT SPLICE	EACH	1
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F	FOOT	2,300
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2	EACH	2

\* NOMINAL QUANTITY TO BE USED AS NEEDED AND AS APPROVED BY THE ENGINEER

**GHA GEWALT HAMILTON ASSOCIATES, INC. TS SHT NO. 7**

FILE NAME = 4816.200 - Interconnect Schematic.dgn  
 4816.2  
 Default

USER NAME = mcobb  
 PLOT SCALE = 1:100  
 PLOT DATE = 4/3/2019

DESIGNED - JRD  
 DRAWN - ZCW  
 CHECKED - DPB  
 DATE -

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**PROPOSED INTERCONNECT SCHEMATIC AND SCHEDULE OF QUANTITIES  
 U.S. RTE 12 /45 (LEE ST - MANNHEIM RD) -  
 PROSPECT AVENUE TO ALGONQUIN ROAD**

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	14-00220-00-TL	COOK	85	55
CONTRACT NO. 61E86			ILLINOIS FED. AID PROJECT	

**EAGLE 8N**

# TRAFFIC SIGNAL LEGEND

ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED																		
CONTROLLER CABINET				EMERGENCY VEHICLE LIGHT DETECTOR				ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE																					
RAILROAD CONTROL CABINET				CONFIRMATION BEACON				COAXIAL CABLE																					
COMMUNICATIONS CABINET				HANDHOLE				VENDOR CABLE FOR CAMERA																					
MASTER CONTROLLER				HEAVY DUTY HANDHOLE				COPPER INTERCONNECT CABLE, NO. 18 3 PAIR TWISTED, SHIELDED																					
MASTER MASTER CONTROLLER				DOUBLE HANDHOLE				FIBER OPTIC CABLE NO. 62.5/125, MM12F																					
UNINTERRUPTABLE POWER SUPPLY				JUNCTION BOX				FIBER OPTIC CABLE NO. 62.5/125, MM12F SM12F																					
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT				UNDERGROUND CONDUIT, GALVANIZED STEEL (UC)				FIBER OPTIC CABLE NO. 62.5/125, MM12F SM24F																					
TELEPHONE CONNECTION (P) POLE OR (G) GROUND MOUNT				TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE				FIBER OPTIC CABLE NO. 62.5/125, MM12F SM24F																					
STEEL MAST ARM ASSEMBLY AND POLE				COMMON TRENCH				GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE																					
ALUMINUM MAST ARM ASSEMBLY AND POLE				COILABLE NONMETALLIC CONDUIT (EMPTY)				CONTROLLER CABINET AND FOUNDATION TO BE REMOVED																					
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE				SYSTEM ITEM				STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED																					
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA				INTERSECTION ITEM				ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED																					
SIGNAL POST				REMOVE ITEM				STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE AND FOUNDATION TO BE REMOVED																					
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM				RELOCATE ITEM				SIGNAL POST AND FOUNDATION TO BE REMOVED																					
GUY WIRE				ABANDON ITEM				INTERSECTION & SAMPLING (SYSTEM) DETECTOR																					
SIGNAL HEAD				12" (300mm) TRAFFIC SIGNAL SECTION				SAMPLING (SYSTEM) DETECTOR																					
SIGNAL HEAD CONSTRUCTION STAGES (NUMBERS INDICATE THE CONSTRUCTION STAGE)				12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE				QUEUE DETECTOR																					
SIGNAL HEAD WITH BACKPLATE				SIGNAL FACE				PREFORMED QUEUE DETECTOR																					
SIGNAL HEAD OPTICALLY PROGRAMMED				SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD				PREFORMED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR																					
FLASHER INSTALLATION (S DENOTES SOLAR POWER)				"RB" INDICATES REFLECTIVE BACKPLATE				PREFORMED SAMPLING (SYSTEM) DETECTOR																					
PEDESTRIAN SIGNAL HEAD				12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL				<h2 style="margin: 0;">RAILROAD SYMBOLS</h2> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 33%;"></th> <th style="width: 10%;">EXISTING</th> <th style="width: 10%;">PROPOSED</th> </tr> </thead> <tbody> <tr> <td>RAILROAD CONTROL CABINET</td> <td></td> <td></td> </tr> <tr> <td>RAILROAD CANTILEVER MAST ARM</td> <td></td> <td></td> </tr> <tr> <td>FLASHING SIGNAL</td> <td></td> <td></td> </tr> <tr> <td>CROSSING GATE</td> <td></td> <td></td> </tr> <tr> <td>CROSSBUCK</td> <td></td> <td></td> </tr> </tbody> </table>					EXISTING	PROPOSED	RAILROAD CONTROL CABINET			RAILROAD CANTILEVER MAST ARM			FLASHING SIGNAL			CROSSING GATE			CROSSBUCK		
	EXISTING	PROPOSED																											
RAILROAD CONTROL CABINET																													
RAILROAD CANTILEVER MAST ARM																													
FLASHING SIGNAL																													
CROSSING GATE																													
CROSSBUCK																													
PEDESTRIAN PUSHBUTTON DETECTOR				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, OUTLINED																									
ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID																									
ILLUMINATED SIGN "NO LEFT TURN"				PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER																									
ILLUMINATED SIGN "NO RIGHT TURN"				RADIO INTERCONNECT																									
DETECTOR LOOP, TYPE I				RADIO REPEATER																									
PREFORMED DETECTOR LOOP				DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE, ALL DETECTOR LOOP CABLE TO BE SHIELDED																									
MICROWAVE VEHICLE SENSOR				GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)																									
VIDEO DETECTION CAMERA																													
VIDEO DETECTION ZONE																													
PAN, TILT, ZOOM CAMERA																													
WIRELESS DETECTOR SENSOR																													
WIRELESS ACCESS POINT																													

GHA GEWALT HAMILTON ASSOCIATES, INC. TS SHT NO. 8

FILE NAME = 4816.200 - IDOT-StdDetails.dgn	USER NAME = mcobb	DESIGNED - DAG/BCK	REVISED - DAG 1-1-14
4816.2	PLOT SCALE = 1:2	DRAWN - BCK	REVISED -
IDOT D1 STANDARD TS05a	PLOT DATE = 4/3/2019	CHECKED - DAD	REVISED -
		DATE - 10-28-09	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE  
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

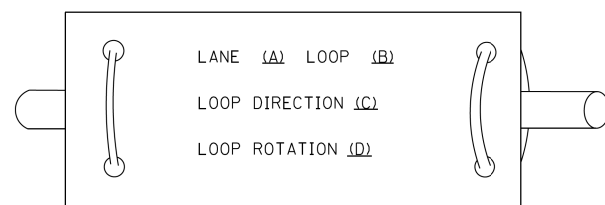
SCALE: NONE    SHEET NO. 1 OF 7 SHEETS    STA.    TO STA.

F.A.P. RTE. 330	SECTION 14-00220-00-TL	COUNTY COOK	TOTAL SHEETS 85	SHEET NO. 56
TS-05			CONTRACT NO. 61E86	
ILLINOIS FED. AID PROJECT				

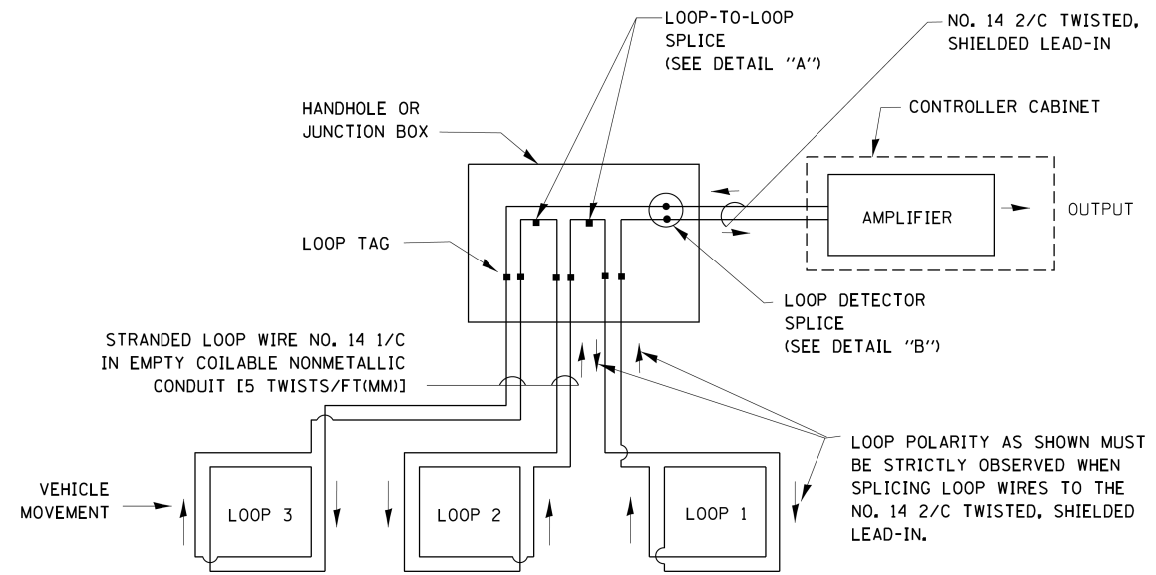
**LOOP DETECTOR NOTES**

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**

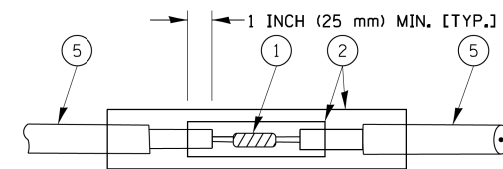


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

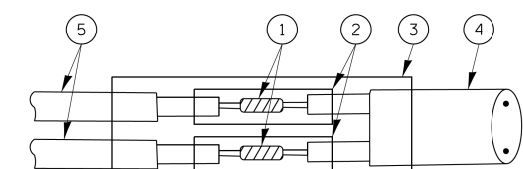


**DETECTOR LOOP WIRING SCHEMATIC**

- 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.

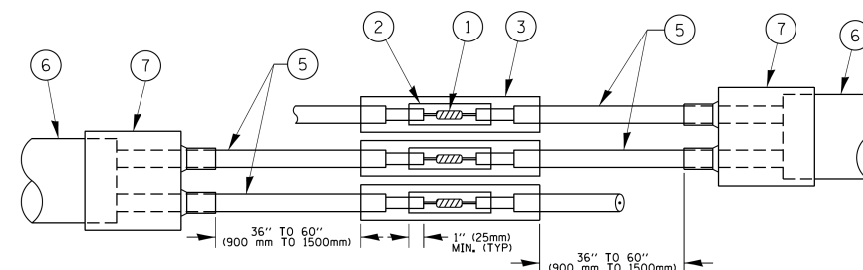


DETAIL "A"  
LOOP-TO-LOOP SPLICE

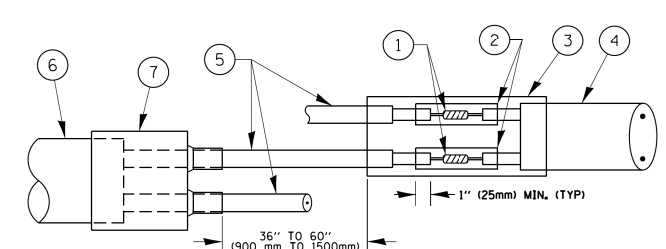


DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

**TYPE I LOOP**



DETAIL "A"  
LOOP-TO-LOOP SPLICE



DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

**PREFORMED LOOP**

**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 LENGTH 6" (150 mm), UNDERWATER GRADE.
- 4 NO. 14 2/C TWISTED, SHIELDED CABLE.
- 5 LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.
- 6 PREFORMED LOOP
- 7 XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS, TYCO CBR-2 OR APPROVED EQUAL

GHA GEWALT HAMILTON ASSOCIATES, INC. TS SHT NO. 9

FILE NAME = 4816.200 - IDOT-StdDetails.dgn	USER NAME = mcobb	DESIGNED - DAD	REVISED - DAG 1-1-14
4816.2	PLOT SCALE = 1:2	DRAWN - BCK	REVISED -
IDOT D1 STANDARD TS05b	PLOT DATE = 4/3/2019	CHECKED - DAD	REVISED -
		DATE - 10-28-09	REVISED -

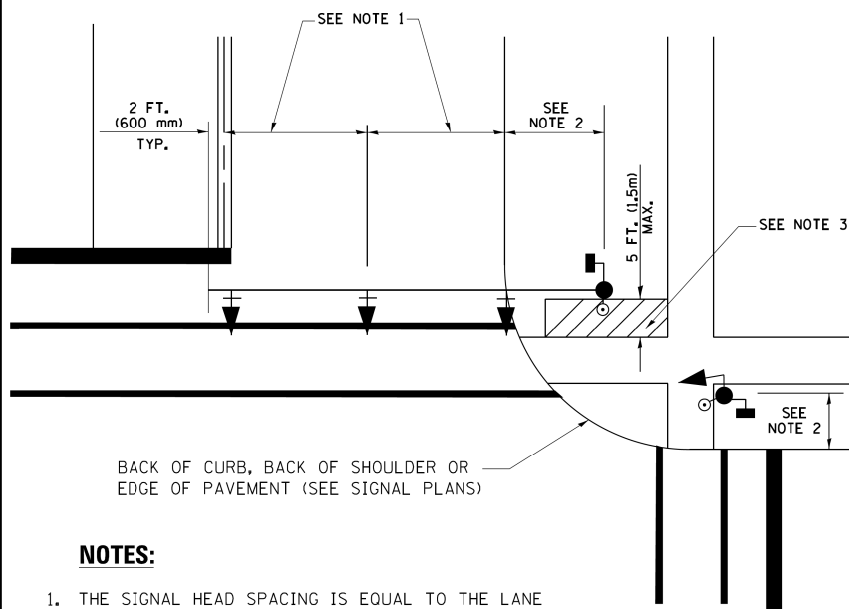
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE  
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE SHEET NO. 2 OF 7 SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 14-00220-00-TL	COUNTY COOK	TOTAL SHEETS 85	SHEET NO. 57
TS-05		CONTRACT NO. 61E86		
ILLINOIS FED. AID PROJECT				

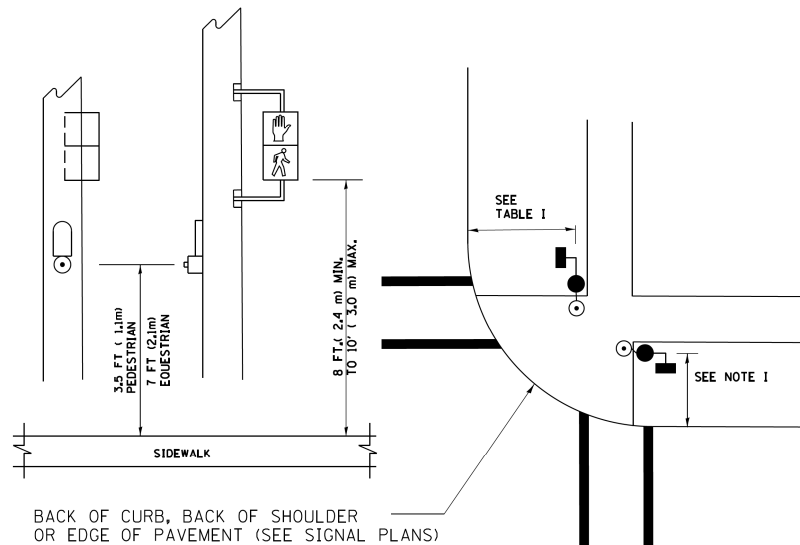
**TRAFFIC SIGNAL MAST ARM AND SIGNAL POST  
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR  
FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN  
WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.**



**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."

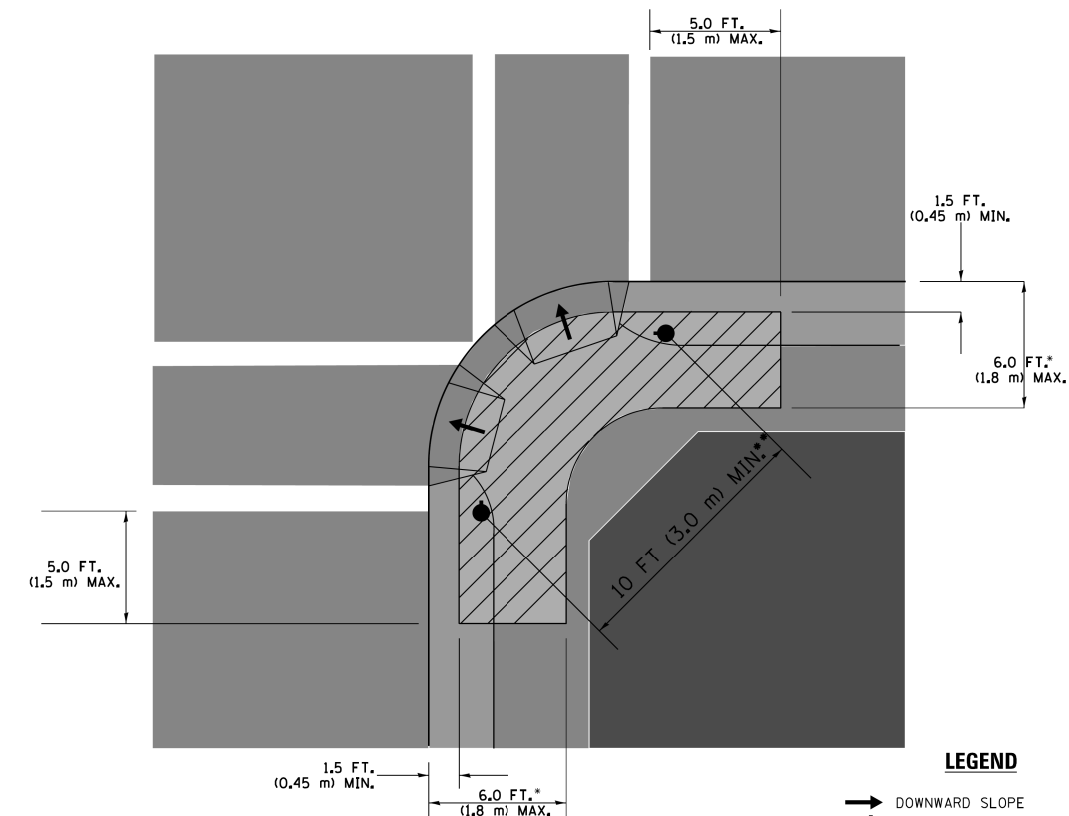
**PEDESTRIAN SIGNAL POST  
AND  
PEDESTRIAN PUSH BUTTON POST**



**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**



**LEGEND**

- DOWNWARD SLOPE
- PEDESTRIAN PUSHBUTTON
- ▨ 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) SEPARATION 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**

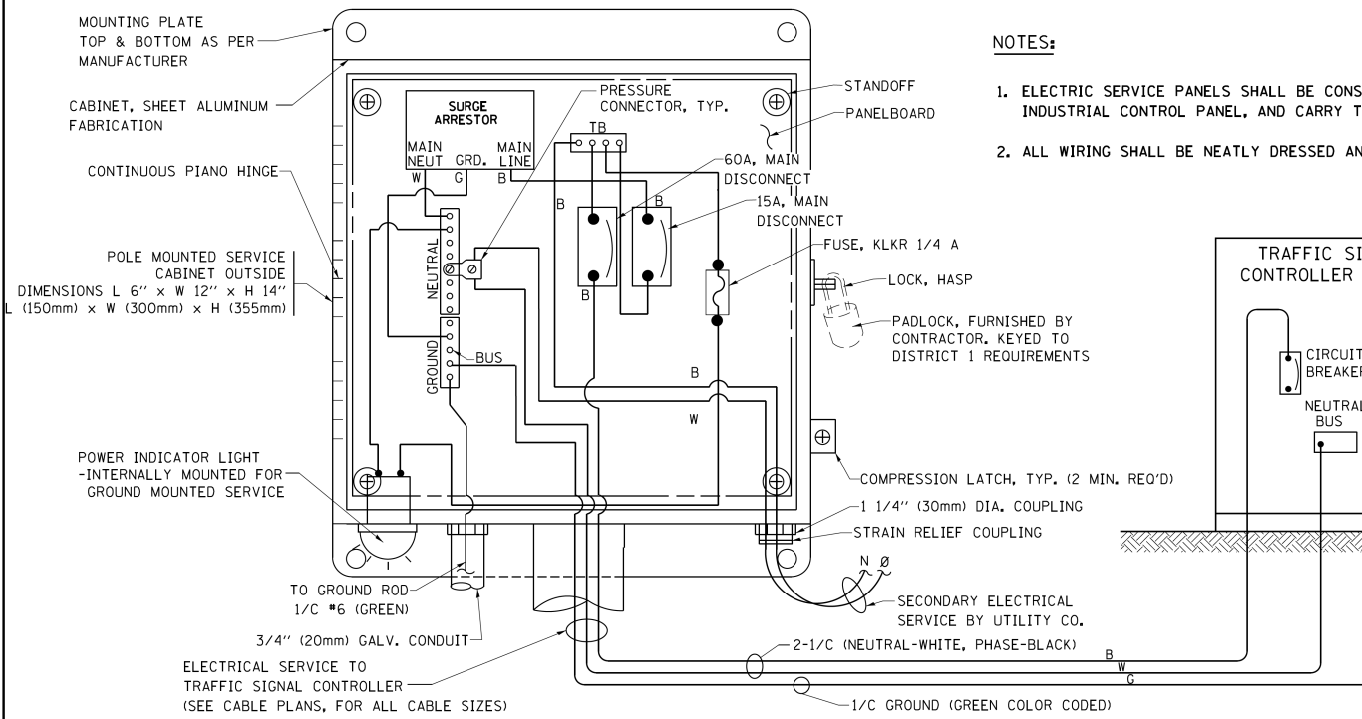
TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 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:**

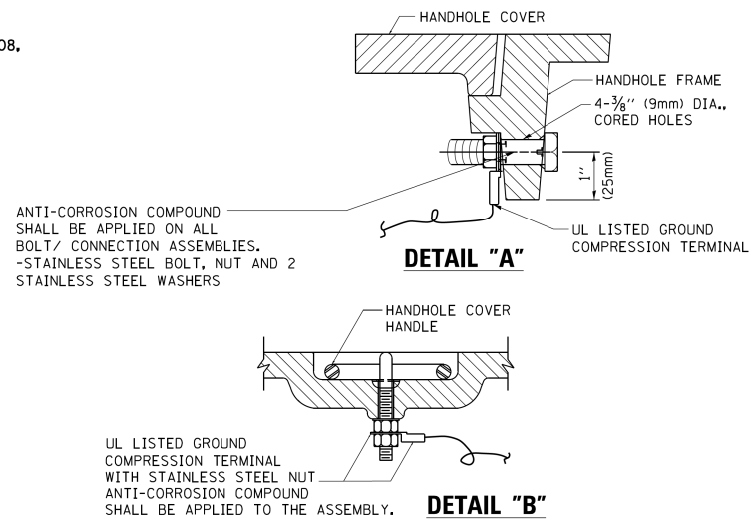
1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
3. MINIMUM DISTANCE FROM THE EDGE OF PAVEMENT TO THE 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.

**GHA GEWALT HAMILTON ASSOCIATES, INC. TS SHT NO. 10**

FILE NAME = 4816.200 - IDOT-StdDetails.dgn	USER NAME = mcobb	DESIGNED - DAD	REVISED - DAG 1-1-14	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>	F.A.P. RTE. 330	SECTION 14-00220-00-TL	COUNTY COOK	TOTAL SHEETS 85	SHEET NO. 58	
4816.2	PLOT SCALE = 1:2	CHECKED - DAD	REVISED -			SCALE: NONE	SHEET NO. 3 OF 7 SHEETS	STA. TO STA.	<b>TS-05</b>		CONTRACT NO. 61E86
IDOT D1 STANDARD TS05c	PLOT DATE = 4/3/2019	DATE - 10-28-09	REVISED -			ILLINOIS FED. AID PROJECT					

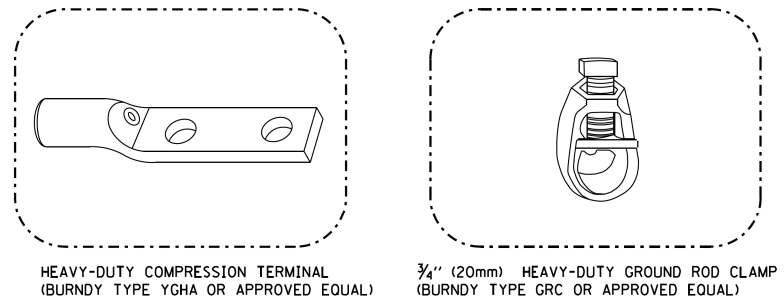
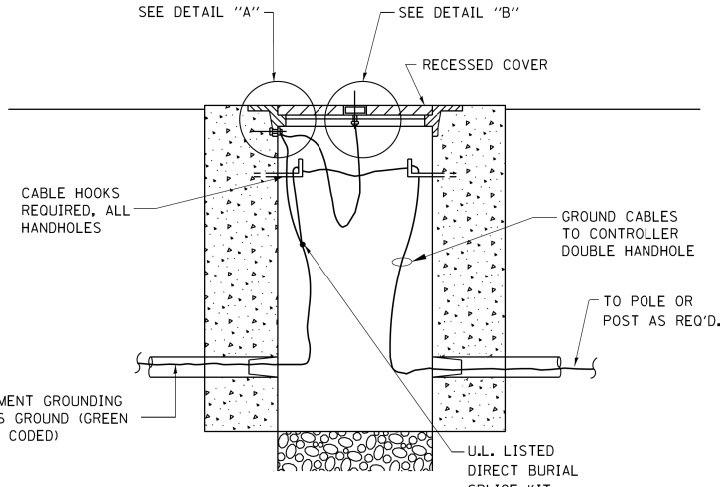


- NOTES:**
1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508, INDUSTRIAL CONTROL PANEL, AND CARRY THE U.L. LABEL.
  2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.

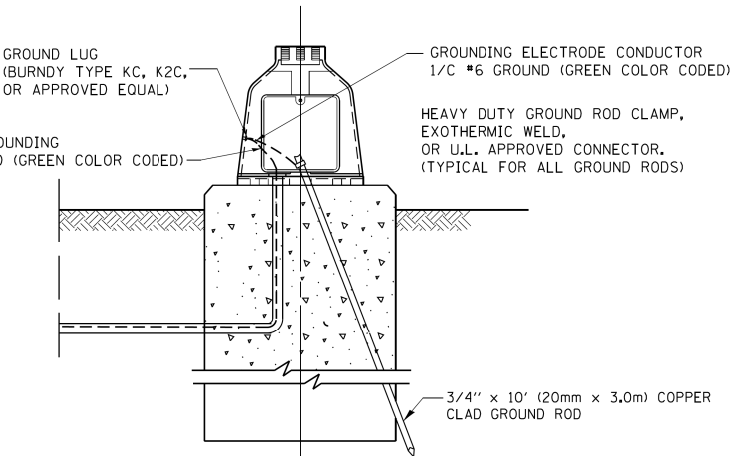
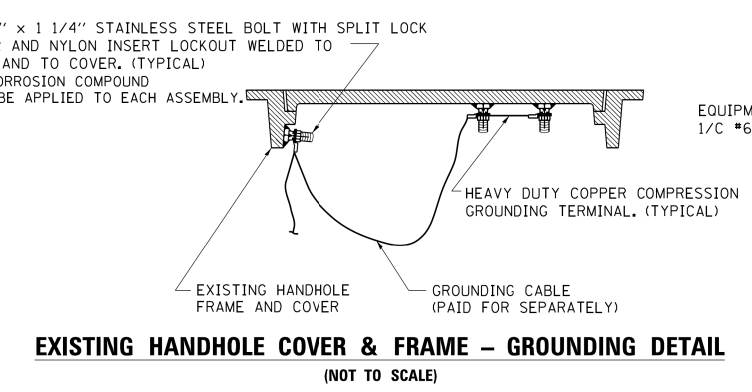
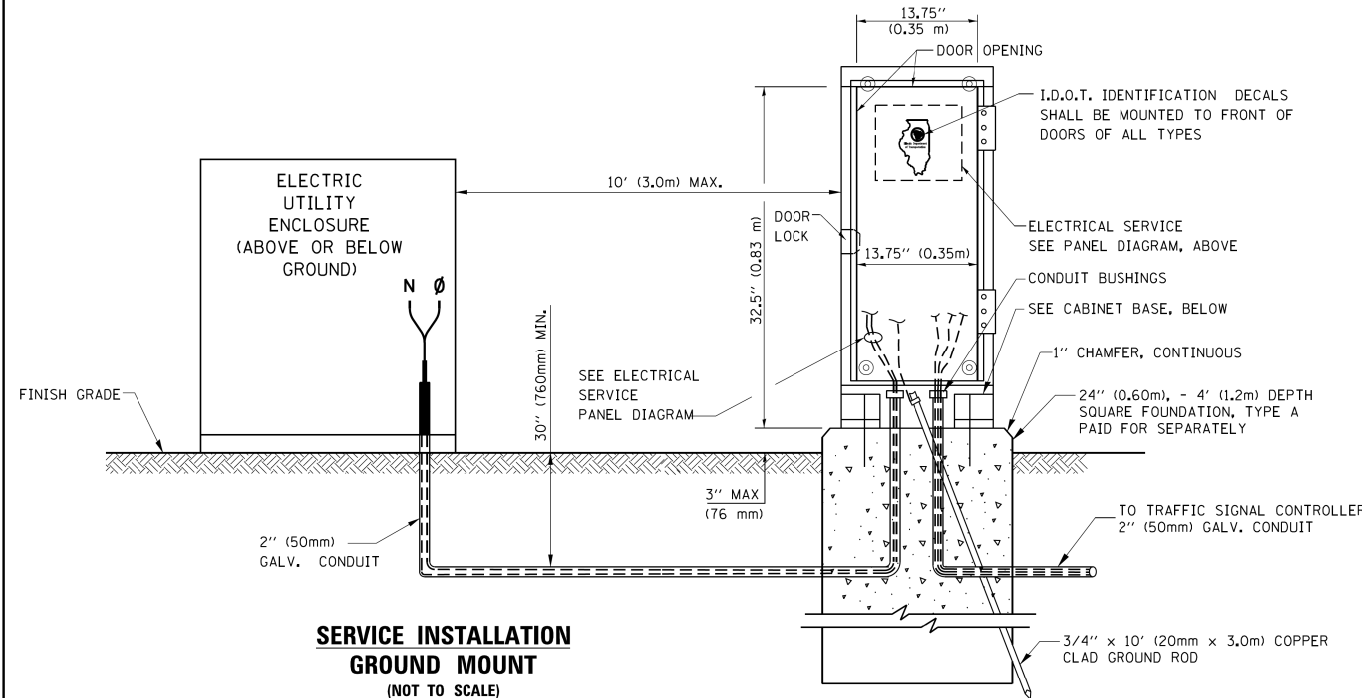


**NOTES:**  
**GROUNDING SYSTEM**

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.

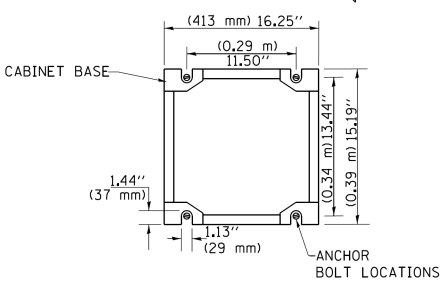


- NOTES:**
- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
  - GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



**SERVICE INSTALLATION GROUND MOUNT**  
 (NOT TO SCALE)

**CABINET - BASE BOLT PATTERN**  
 (NOT TO SCALE)



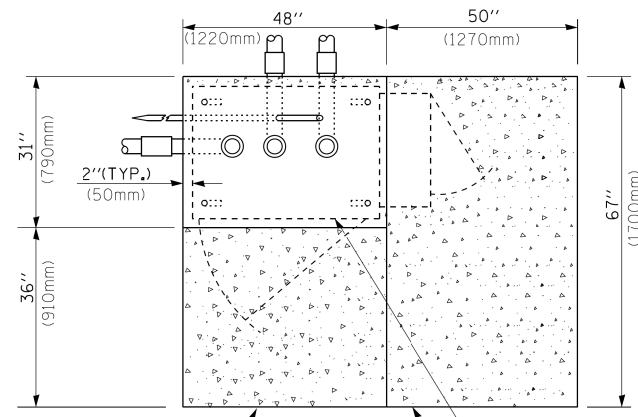
**GHA GEWALT HAMILTON ASSOCIATES, INC. TS SHT NO. 11**

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4816.2		DRAWN - BCK	REVISED -
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	PLOT DATE = 4/3/2019	DATE - 10-28-09	REVISED -

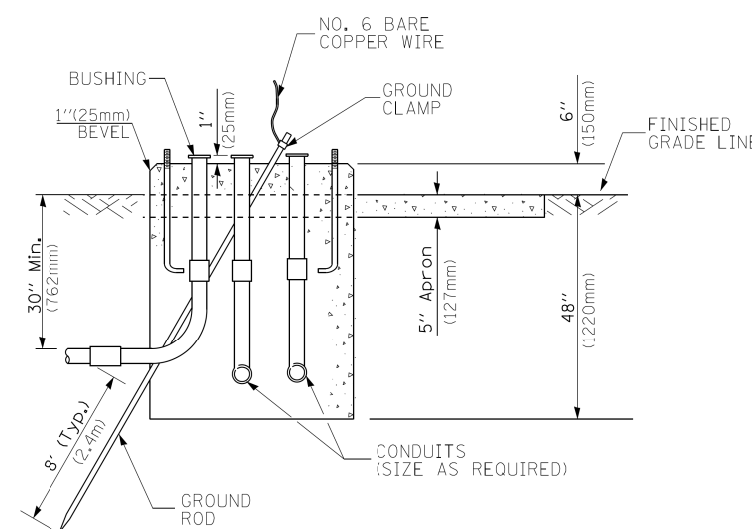
**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

<b>DISTRICT ONE</b>	
<b>STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>	
SCALE: NONE	SHEET NO. 4 OF 7 SHEETS STA. TO STA.

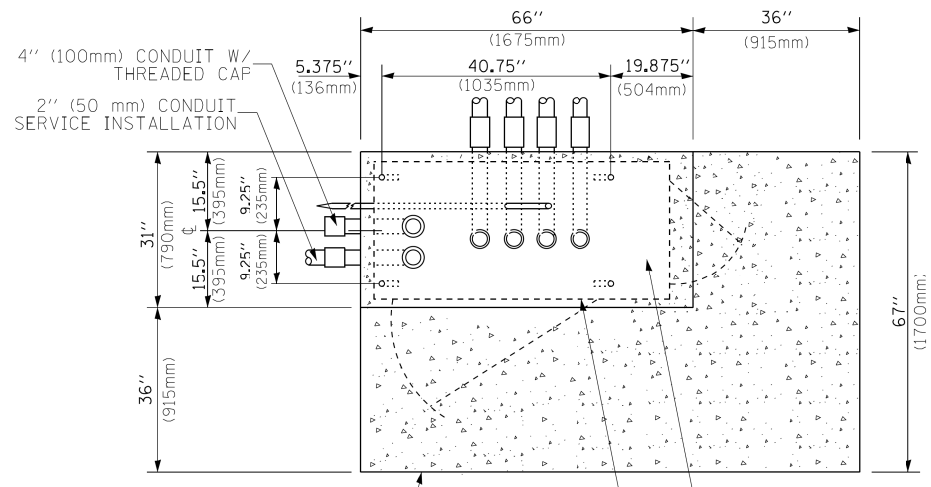
F.A.P. RTE. 330	SECTION 14-00220-00-TL	COUNTY COOK	TOTAL SHEETS 85	SHEET NO. 59
<b>TS-05</b>		CONTRACT NO. 61E86		
ILLINOIS FED. AID PROJECT				



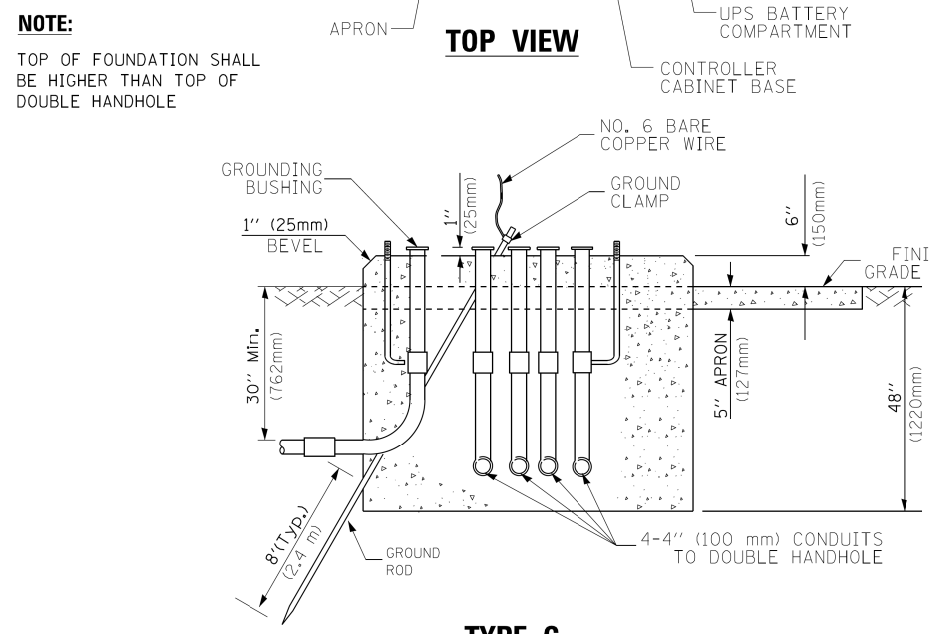
**TOP VIEW**



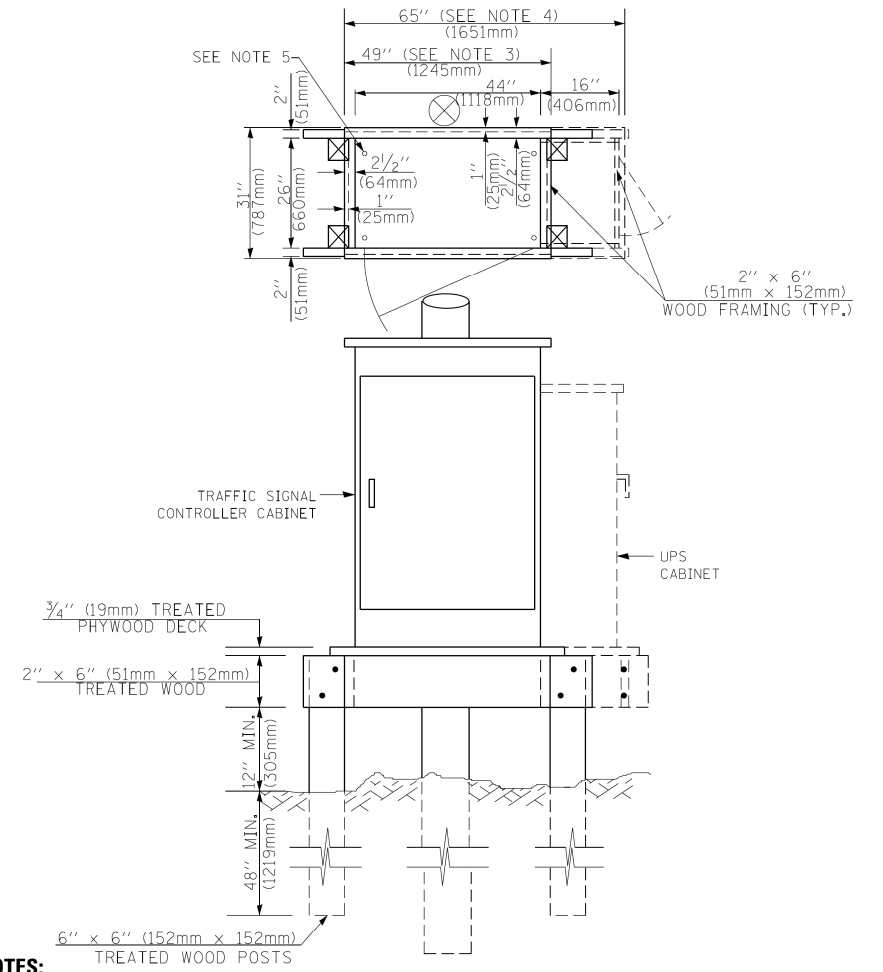
**TYPE D  
FOR GROUND MOUNTED  
CONTROLLER CABINET  
AND UPS BATTERY CABINET**



**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 GROUN 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)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	11'-0" (3.4 m)	36" (900mm)	24" (600mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 55' (16.8 m) and less than 65' (19.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
	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**

GHA GEWALT HAMILTON ASSOCIATES, INC. TS SHT NO. 12

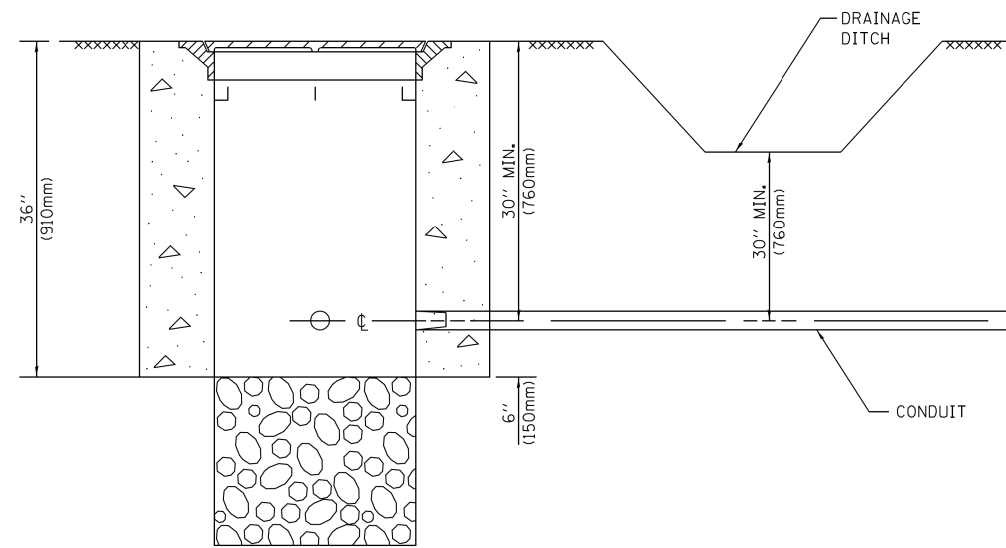
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1D0T D1 STANDARD TS05e	PLOT DATE = 4/3/2019	CHECKED - DAD	REVISED -
		DATE - 10-28-09	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

DISTRICT ONE	
STANDARD TRAFFIC SIGNAL DESIGN DETAILS	
SCALE: NONE	SHEET NO. 5 OF 7 SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 14-00220-00-TL	COUNTY COOK	TOTAL SHEETS 85	SHEET NO. 60
TS-05		CONTRACT NO. 61E86		
ILLINOIS FED. AID PROJECT				

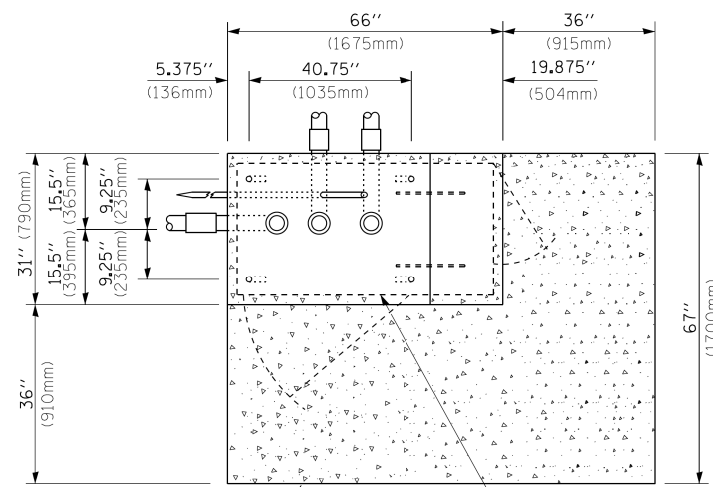




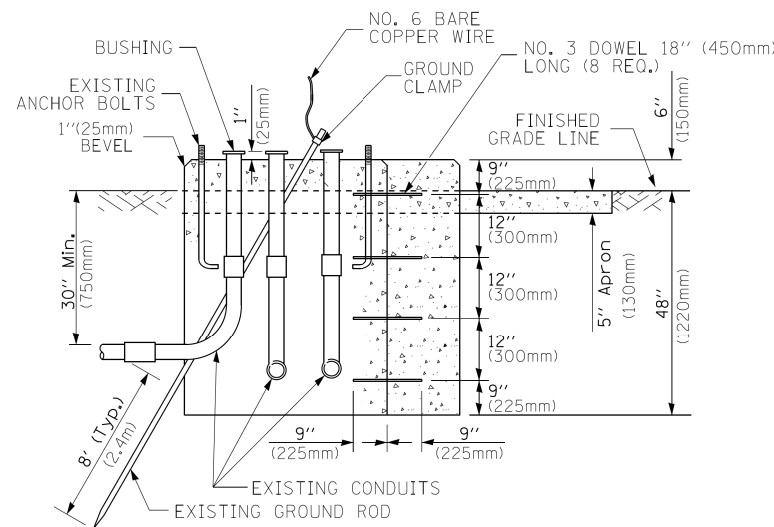
**NOTES:**

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)

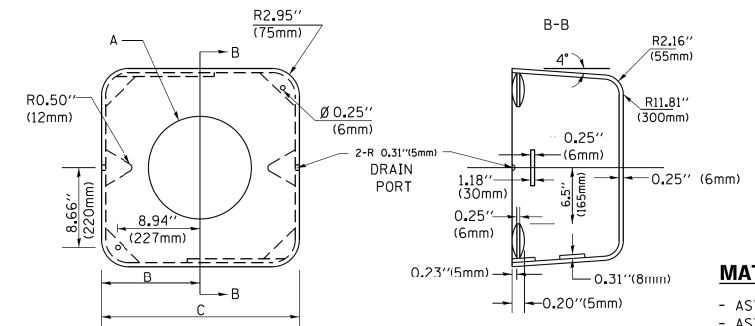


**MODIFY EXISTING TYPE "D" FOUNDATION TO TYPE "C" FOUNDATION**  
(NOT TO SCALE)

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	3/4" (19 mm) CLOSE NIPPLE
7	3/4" (19 mm) LOCKNUT
8	3/4" (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.]

**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.



**MATERIAL:**  
- ASTM A36 STEEL  
- ASTM A-123 HOT DIPPED GALVANIZED

A	B	C	HEIGHT	WEIGHT
VARIABLES	9.5" (241mm)	19" (483mm)	7" (178mm) - 12" (300mm)	53 lbs (24kg)
VARIABLES	10.75" (273mm)	21.5" (546mm)	7" (178mm) - 12" (300mm)	68 lbs (31 kg)
VARIABLES	13.0" (330mm)	26" (660mm)	7" (178mm) - 12" (300mm)	81 lbs (37 kg)
VARIABLES	18.5" (470mm)	37" (940mm)	7" (178mm) - 12" (300mm)	126 lbs (57 kg)

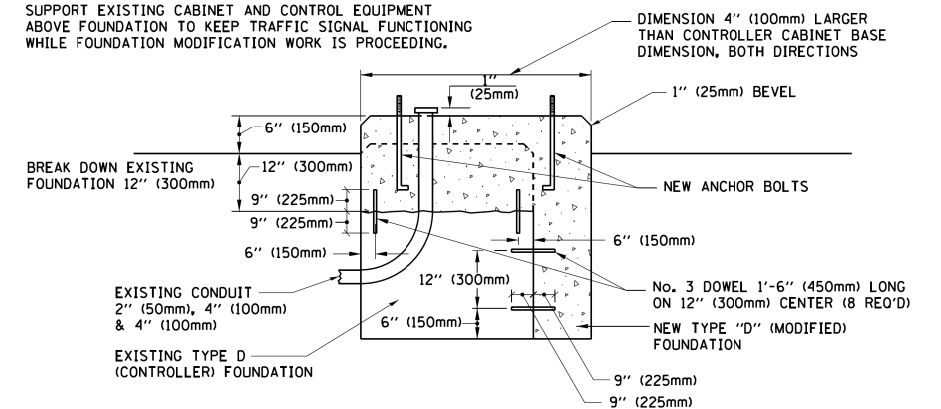
**SHROUD**

**NOTES:**

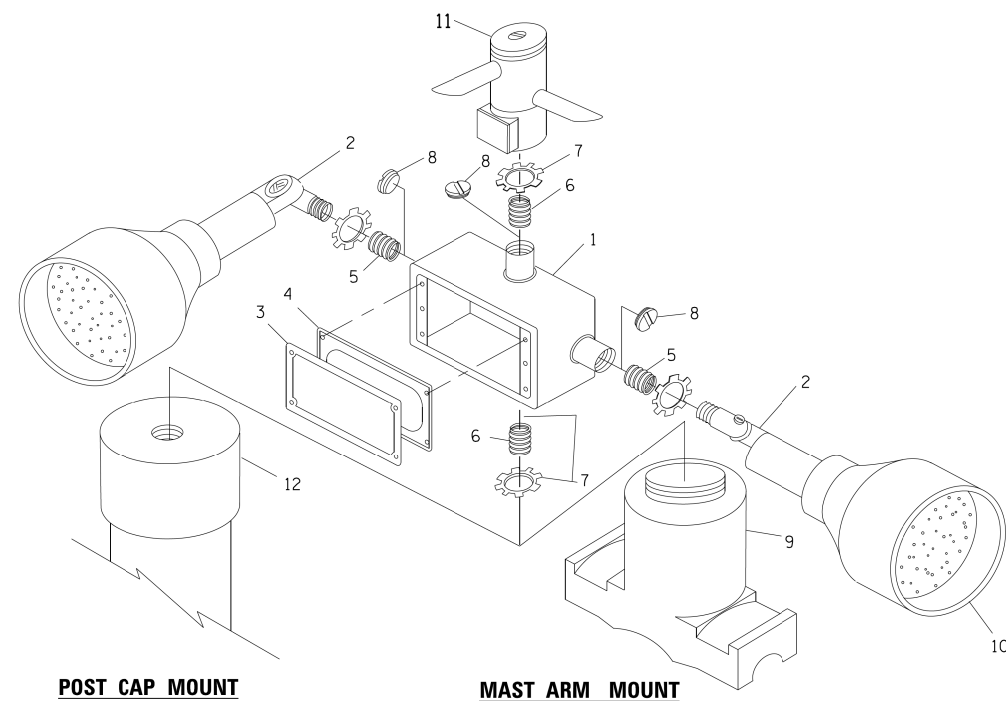
1. DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
2. THE SUPPLIER SHALL VERIFY THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.

**NOTE:**

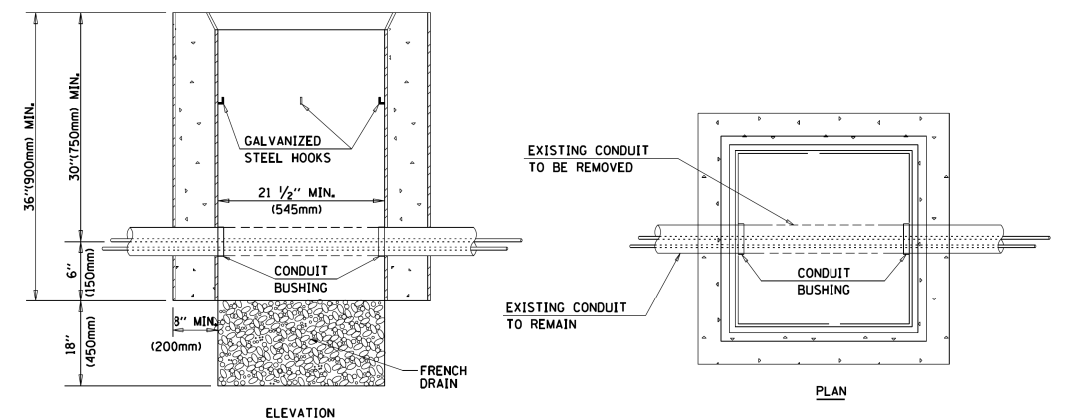
SUPPORT EXISTING CABINET AND CONTROL EQUIPMENT ABOVE FOUNDATION TO KEEP TRAFFIC SIGNAL FUNCTIONING WHILE FOUNDATION MODIFICATION WORK IS PROCEEDING.



**MODIFY EXISTING TYPE "D" FOUNDATION**



**POST CAP MOUNT**      **MAST ARM MOUNT**  
**EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL**



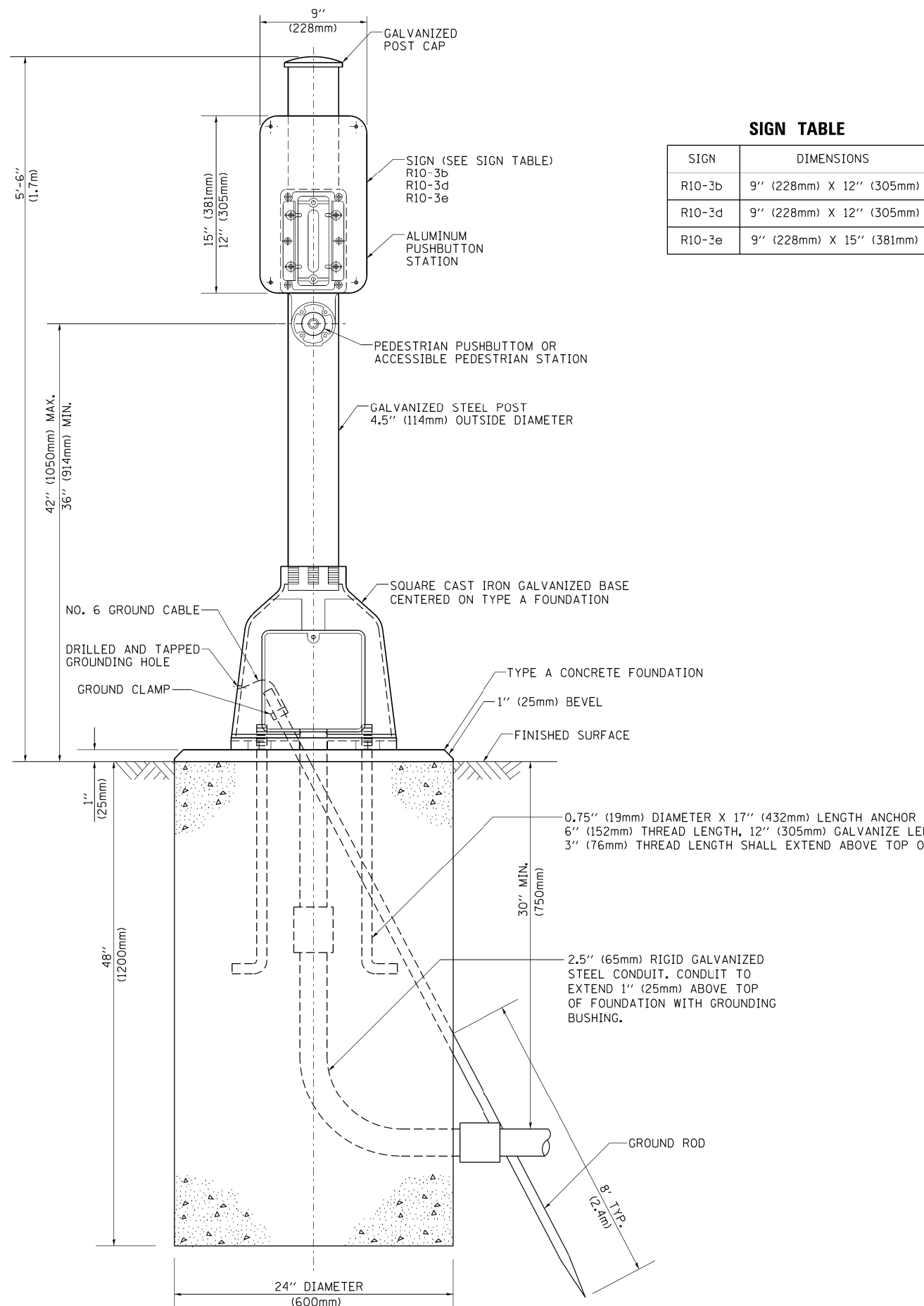
**NOTES:**

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**

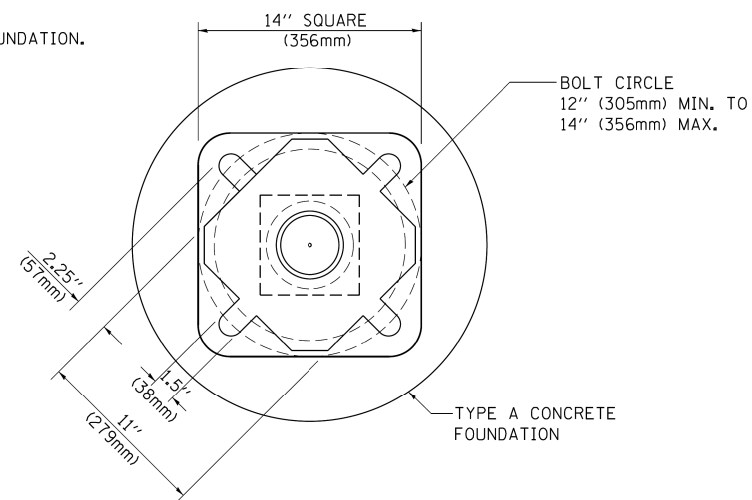
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IDOT D1 STANDARD TS05F	PLOT DATE = 4/3/2019	CHECKED - DAD	REVISED -
		DATE - 10-28-09	REVISED -

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	14-00220-00-TL	COOK	85	61
<b>TS-05</b>		<b>CONTRACT NO. 61E86</b>		
ILLINOIS FED. AID PROJECT				



**SIGN TABLE**

SIGN	DIMENSIONS
R10-3b	9" (228mm) X 12" (305mm)
R10-3d	9" (228mm) X 12" (305mm)
R10-3e	9" (228mm) X 15" (381mm)



**BOLT PATTERN**

**PEDESTRIAN PUSH BUTTON POST, TYPE A**

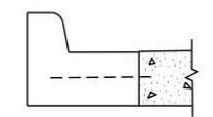
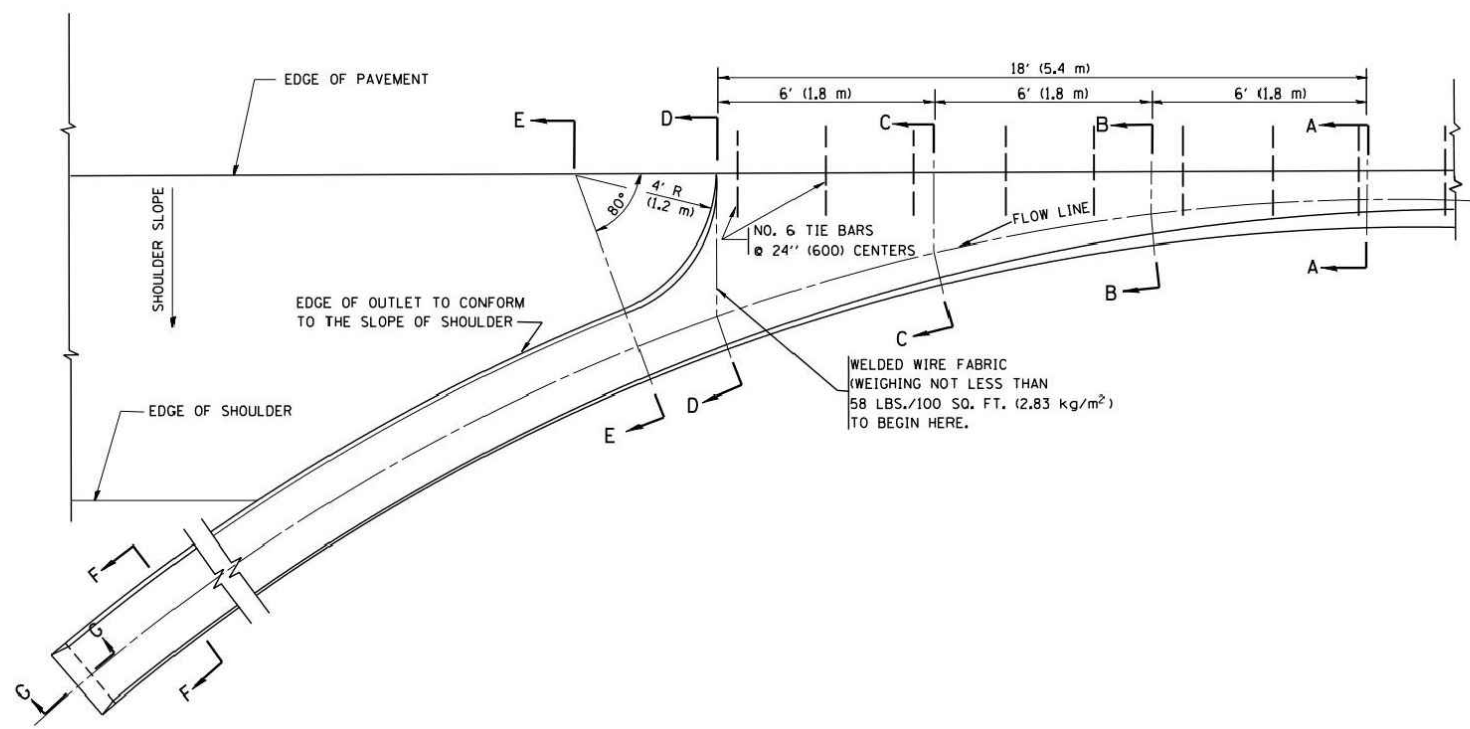
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IDOT D1 STANDARD TS05g	PLOT SCALE = 1:2	CHECKED - DAD	REVISED -
	PLOT DATE = 4/3/2019	DATE - 10/1/2012	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE  
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

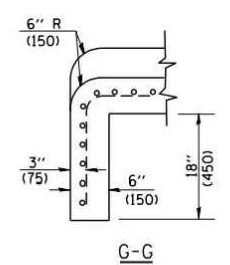
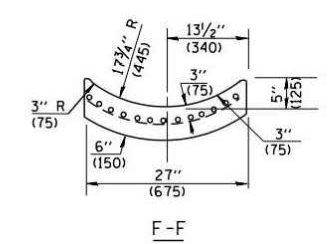
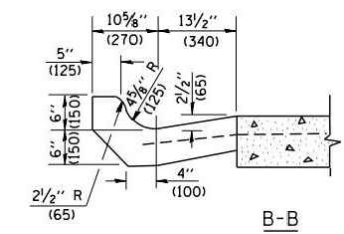
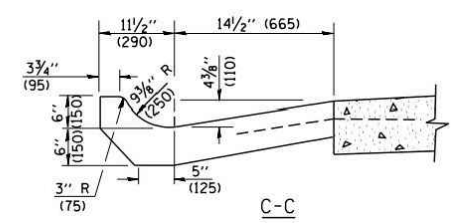
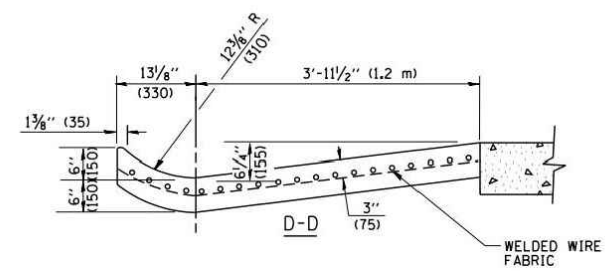
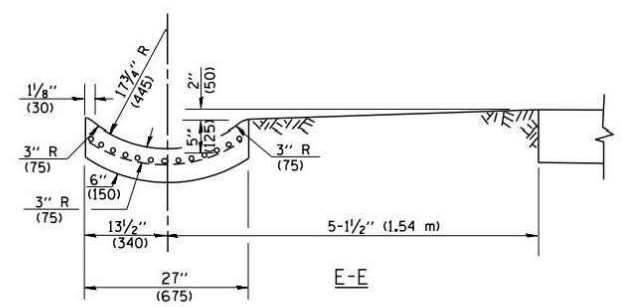
SCALE: NONE SHEET NO. 7 OF 7 SHEETS STA. TO STA.

F.A.P. RTE. 330	SECTION 14-00220-00-TL	COUNTY COOK	TOTAL SHEETS 85	SHEET NO. 62
<b>TS-05</b>		CONTRACT NO. 61E86		
ILLINOIS FED. AID PROJECT				



A-A \*

\* DIMENSIONS OF THE CURB & GUTTER AT SECTION A-A ARE SHOWN ON STATE STANDARD 606001. FOR DETAILS OF OUTLET FOR CONCRETE CURB & GUTTER, TYPE B-6.24 (B-15.60) SEE STATE STANDARD 606006.



**GENERAL NOTES**

GUTTER OUTLET SHALL BE TIED TO THE PAVEMENT IN ACCORDANCE WITH DETAILS FOR LONGITUDINAL CONSTRUCTION JOINT SHOWN ON STANDARD 420001.

TIE BARS SHALL BE NO. 20 (NO.6) AT 24\"/>

IF THE AVERAGE GRADE OF PAVEMENT FOR THE DISTANCE FROM SECTION A-A TO D-D EXCEEDS 2%, THIS DISTANCE SHALL BE INCREASED 6' (1.8 m) FOR EACH 1% INCREASE IN GRADE.

**QUANTITIES**

FOR SECTION A-A TO E-E AND CURTAIN WALL =  
 1.25 CU. YDS. (0.96 m<sup>3</sup>) CLASS S1 CONCRETE (OUTLET) FOR 9\"/>

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

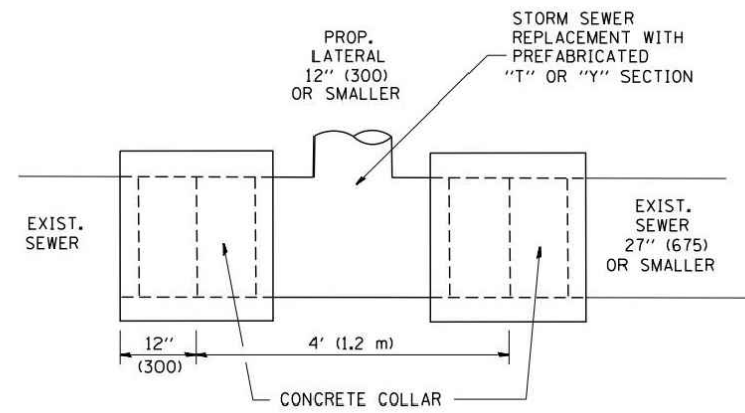
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		DRAWN -	REVISED - R. SHAH 10-25-94
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED - E. GOMEZ 12-21-00
	PLOT DATE = 1/4/2008	DATE - 08-04-86	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**OUTLET FOR CONCRETE  
CURB AND GUTTER**

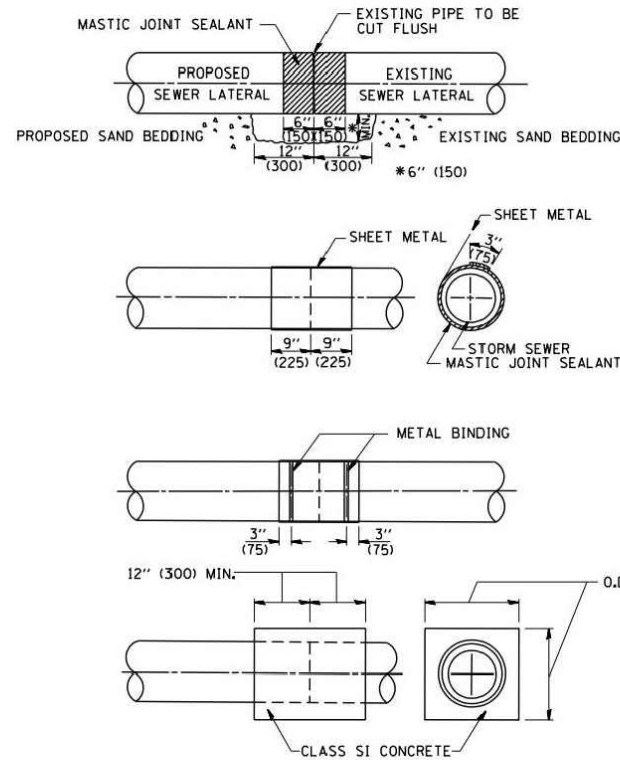
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F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	14-00220-00-TL	COOK	85	63
BD600-01 (BD-03)		CONTRACT NO. 61E86		
FED. ROAD DIST. NO. 1 ILLINOIS/FED. AID PROJECT				



DETAIL "A"

LATERAL CONNECTION TO EXISTING SEWER OF 27" (675) OR SMALLER

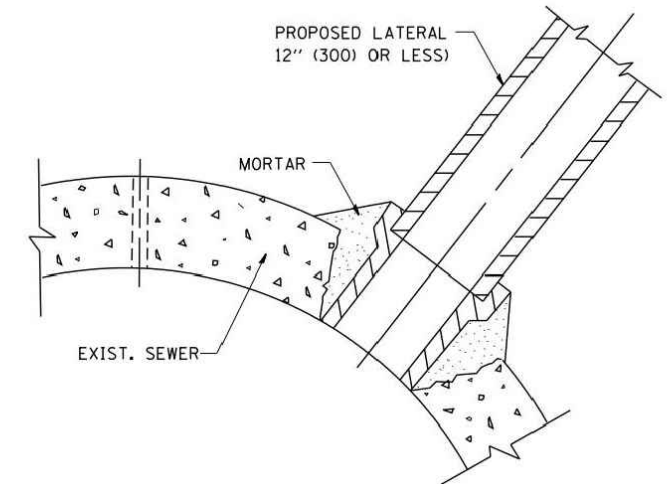


DETAIL "B"

CLASS SI CONCRETE COLLAR

CONSTRUCTION SEQUENCE

1. CUT THE EXISTING END OF THE PIPE SO AS TO PRESENT A FLUSH BUTT JOINT. BRUSH AND CLEAN ALL PIPES.
2. APPLY THE MASTIC JOINT SEALANT TO THE FIRST 6" (150) OF EACH PIPE.
3. BUTT THE PIPES TOGETHER LEAVING A MINIMUM OF 12" x 6" (300 x 150) DEEP EXCAVATION UNDER AND AROUND EACH PIPE END.
4. CUT A PIECE OF SHEET METAL GAGE NO. 19 1.1 (0.0418) 18" (450) WIDE BY THE OUTSIDE CIRCUMFERENCE OF THE PIPE PLUS 3" (75) LONG.
5. WRAP THE SHEET METAL AROUND THE PIPES, 9" (225) ON EACH SIDE OF THE JOINT, STARTING AT THE TOP OF THE PIPE.
6. LAP THE SHEET METAL AT LEAST 3" (75) AT THE TOP OF THE PIPE AND PLACE THE MASTIC JOINT SEALANT BETWEEN THE LAP.
7. PLACE TWO METAL BANDS AROUND THE SHEET METAL AND TIGHTEN.
8. WIPE OFF ANY EXCESS MASTIC JOINT SEALANT THAT OOOZES OUT FROM BETWEEN THE SHEET METAL AND THE PIPES.
9. PLACE CLASS SI CONCRETE AROUND THE JOINT.



DETAIL "C"

PROPOSED LATERAL CONNECTION TO EXISTING SEWER OF 30" (750) OR LARGER

NOTES

MATERIAL

MATERIAL USED FOR THE TEE OR WYE SECTION SHALL BE COMPATIBLE WITH THE EXISTING STORM SEWER OR THE PROPOSED STORM SEWER.

CONSTRUCTION METHODS

1. THIS WORK SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE APPLICABLE PORTIONS OF SECTION 550 OF THE STANDARD SPECIFICATIONS.
- II. CONNECTION TO AN EXISTING STORM SEWER SHALL BE BY EITHER OF THE FOLLOWING METHODS:
  - A) PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 27" (675) OR SMALLER SEE DETAIL "A" AND "B".
  - B) PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 30" (750) OR LARGER SEE DETAIL "C".

IF THE EXISTING SEWER PIPE IS CRACKED, BROKEN OR OTHERWISE DAMAGED BY THE CONTRACTOR IN MAKING THE CIRCULAR OPENING, THE CONTRACTOR SHALL REPLACE THAT SECTION OF PIPE WITH PIPE EQUAL AND SIMILAR IN ALL RESPECTS TO THE PIPE IN THE EXISTING SEWER, IN A CAREFUL WORKMANLIKE MANNER, WITHOUT EXTRA COMPENSATION.

GENERAL

CARE MUST BE TAKEN TO PREVENT DEBRIS FROM ENTERING THE SEWER. ALL DEBRIS WHICH ENTERS THE SEWER MUST BE REMOVED. THE SEWER MUST BE LEFT CLEAN AND UNOBSTRUCTED UPON COMPLETION OF THE CONTRACT.

CARE MUST BE TAKEN TO PREVENT ANY PART OF THE NEW PIPE CONNECTION FROM PROJECTING INTO THE EXISTING SEWER.

BASIS OF PAYMENT

TEE OR WYE CONNECTIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR STORM SEWER TEE OR WYE OF THE TYPE AND SIZE SPECIFIED IN THE PLANS, THIS PRICE SHALL INCLUDE ALL EXCAVATION OF THE TRENCH, REMOVAL OF THE EXISTING STORM SEWER, FURNISHING AND INSTALLING THE SPECIFIED TEE OR WYE SECTION, FURNISHING AND INSTALLING THE REQUIRED CONCRETE COLLAR, AND ALL OTHER MATERIAL NECESSARY TO COMPLETE THIS WORK AS SHOWN AND SPECIFIED.

REMOVAL AND REINSTALLATION OF EXISTING STORM SEWER ADJACENT TO THE PROPOSED TEE OR WYE SECTION, FOR THE PURPOSE OF FACILITATING THE INSTALLATION OF THE TEE OR WYE SECTION, WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE WORK.

TRENCH BACKFILL, EXCAVATION IN ROCK AND REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIAL BELOW PLAN BEDDING GRADE WILL BE PAID FOR SEPARATELY.

CONCRETE COLLAR FOR CONNECTING A PROPOSED STORM SEWER TO AN EXISTING STORM SEWER WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE PROPOSED STORM SEWER.

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

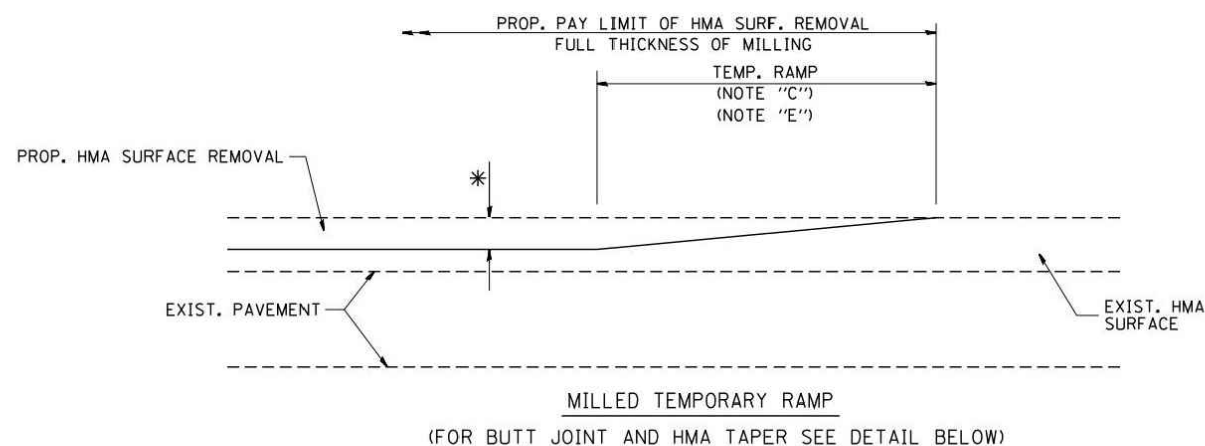
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	PLOT SCALE = 58.000' / IN.	CHECKED -	REVISED - R. SHAH 10-25-94
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

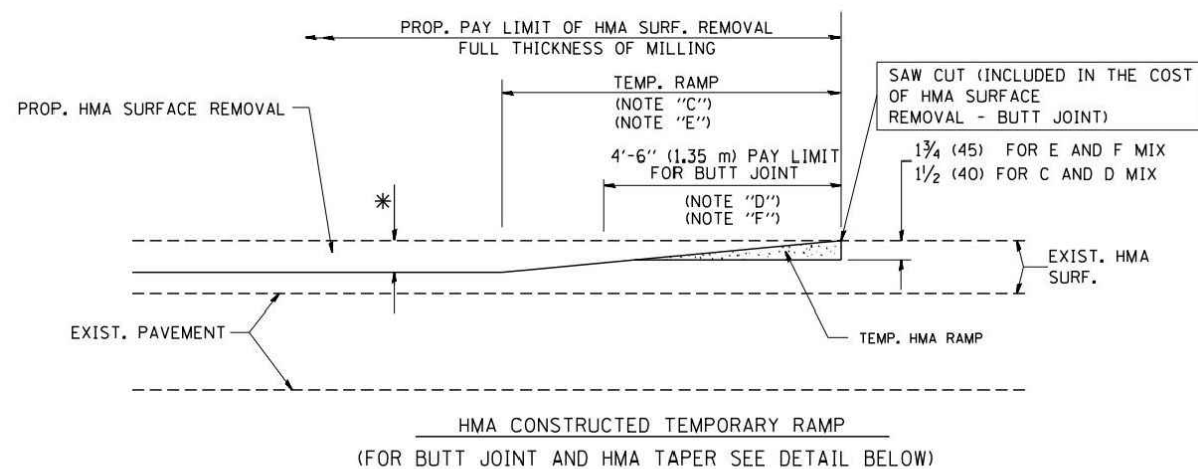
DETAIL OF STORM SEWER  
CONNECTION TO EXISTING SEWER

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	14-00220-00-TL	COOK	85	64
BD500-01 (BD-7)		CONTRACT NO. 61E86		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

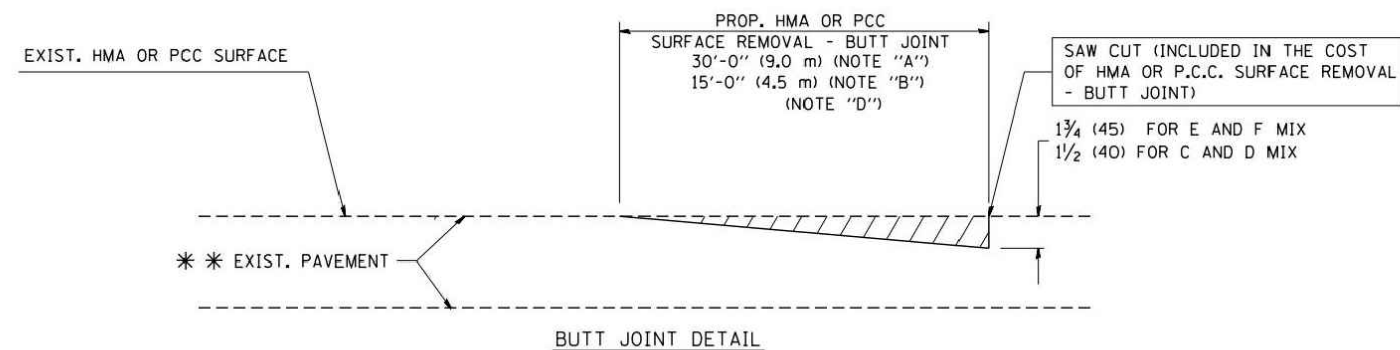


**OPTION 1**

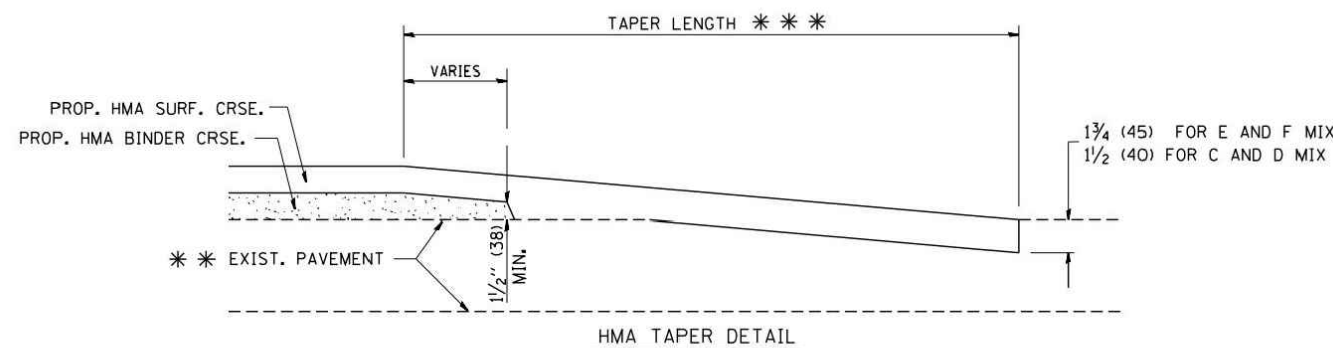


**OPTION 2**

**TYPICAL TEMPORARY RAMP**



**BUTT JOINT DETAIL**



**HMA TAPER DETAIL**

**TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY**

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

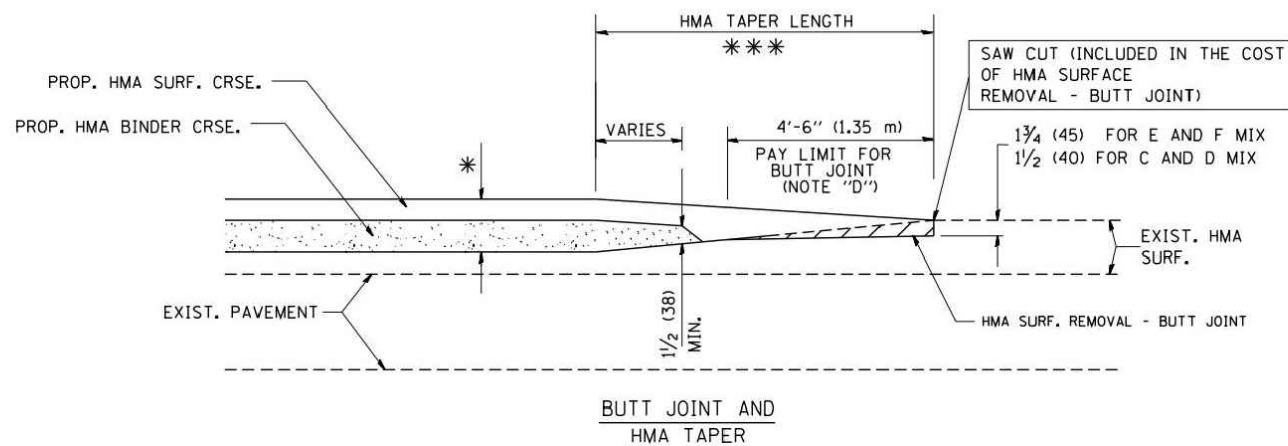
**NOTES**

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
  - 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'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
  - F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT
  - G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- \* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- \*\*\* 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 FOR 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".

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



**TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING**

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PLOT SCALE = 58.0000 "/ IN.  
PLOT DATE = 1/4/2008

DESIGNED - M. DE YONG  
DRAWN -  
CHECKED -  
DATE - 06-13-90

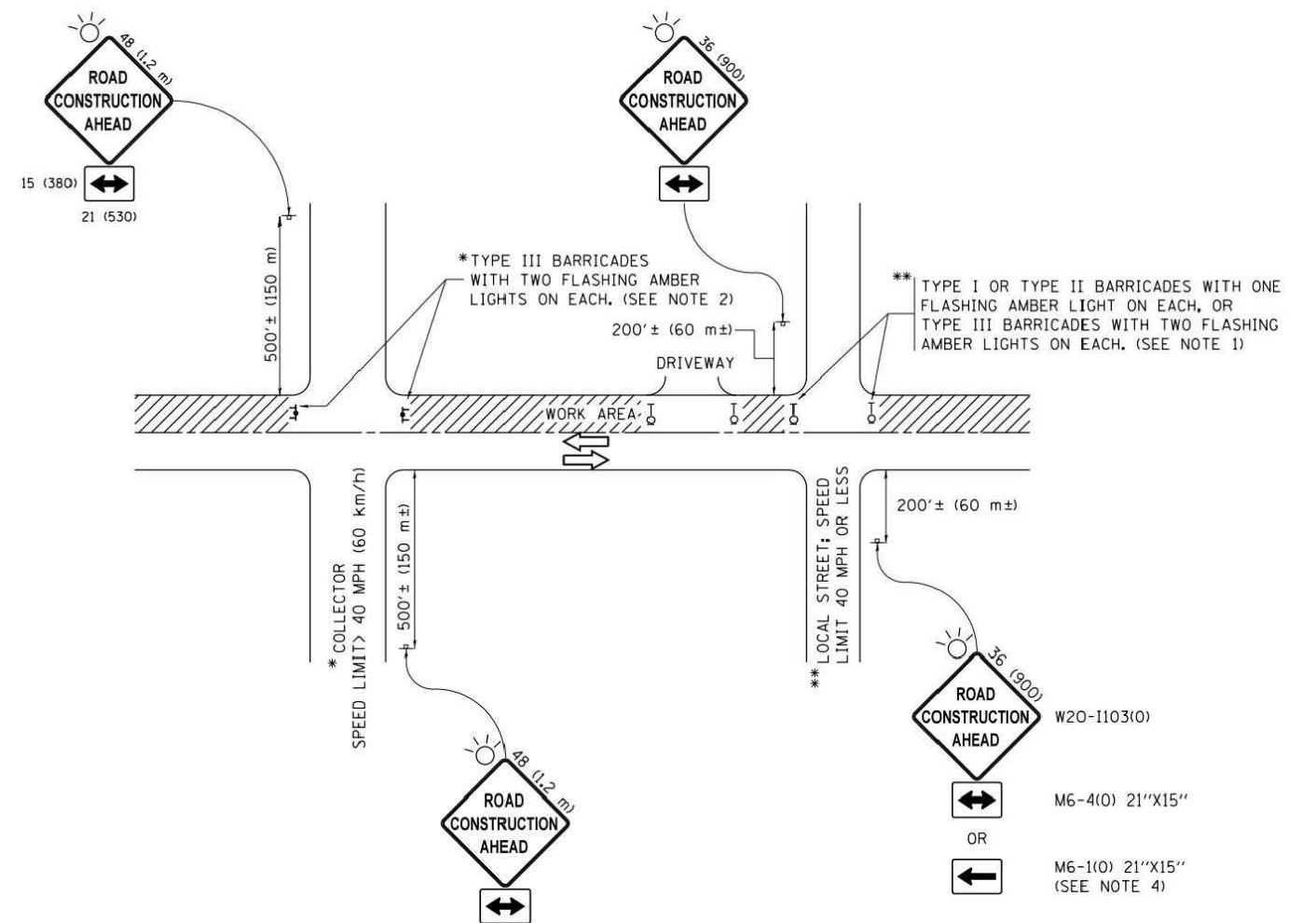
REVISED - R. SHAH 10-25-94  
REVISED - A. ABBAS 03-21-97  
REVISED - M. GOMEZ 04-06-01  
REVISED - R. BORO 01-01-07

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**BUTT JOINT AND  
HMA TAPER DETAILS**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	14-00220-00-TL	COOK	85	65
BD400-05 BD32		CONTRACT NO. 61E86		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



**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.
  - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY 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. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.
4. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE 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 ENGINEER.
7. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

FILE NAME =	USER NAME = footemj	DESIGNED - L.H.A.	REVISED - A. HOUSEH 10-15-96
pwi\IL084EBIDINTEG\Illinois.gov\PWIDOT\Documents\IDOT Offices\District 1\Projects\Dist 5\DRAWN\CADDeta\CADsheets\ct10.dgn		CHECKED -	REVISED - T. RAMMACHER 01-06-00
Default	PLOT SCALE = 50.000' / in.	DATE - 06-89	REVISED - A. SCHUETZE 07-01-13
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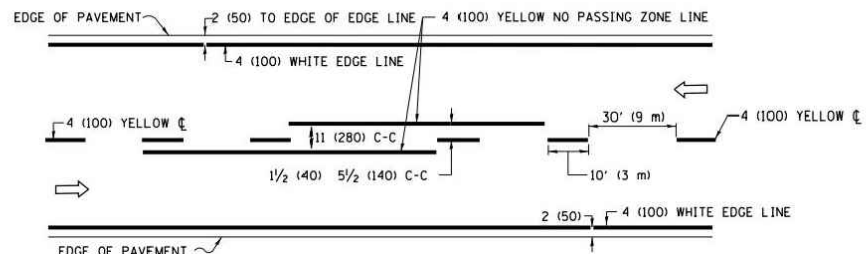
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL AND PROTECTION FOR  
SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS**

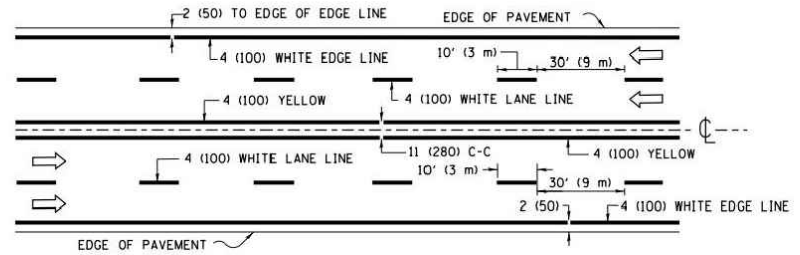
SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	14-00220-00-TL	COOK	85	66
TC-10			CONTRACT NO. 61E86	
ILLINOIS FED. AID PROJECT				

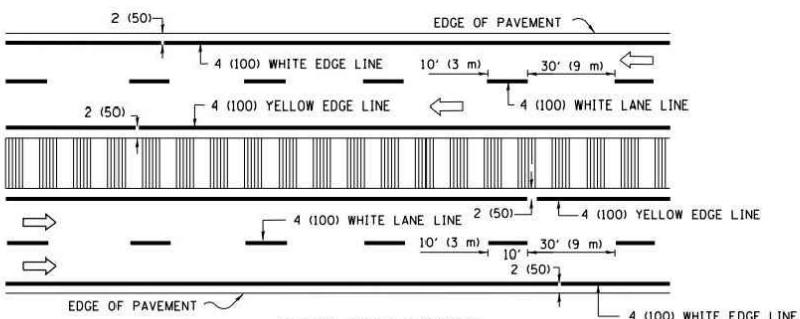




**2-LANE ROADWAY**

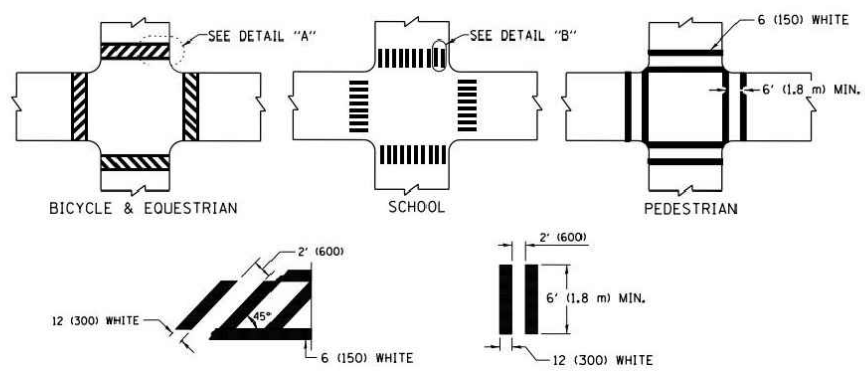


**MULTI-LANE UNDIVIDED**



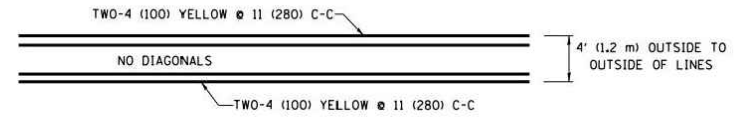
**MULTI-LANE DIVIDED WITH MEDIAN**

**TYPICAL LANE AND EDGE LINE MARKING**

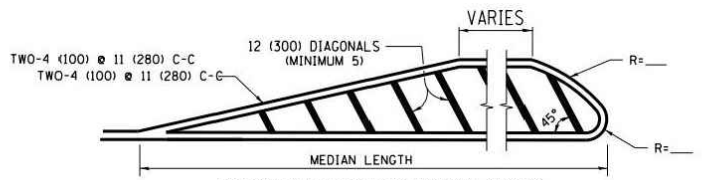


**DETAIL "A" TYPICAL CROSSWALK MARKING**

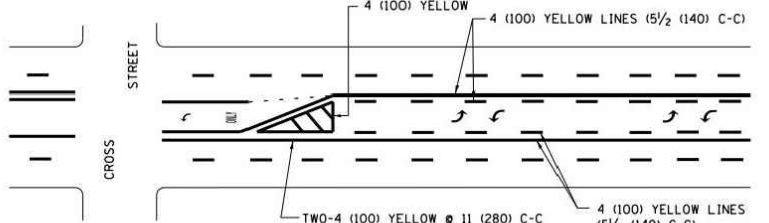
\* MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF THE ROAD WHICH IT CROSSES



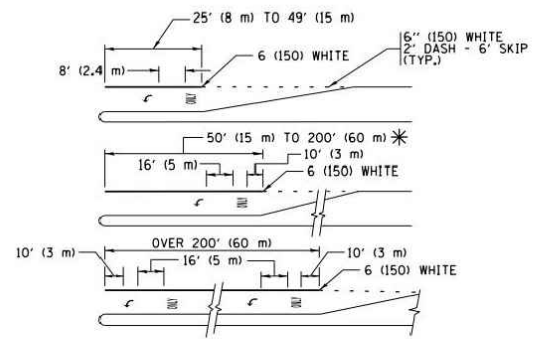
**4' (1.2 m) WIDE MEDIANS ONLY**



**MEDIANS OVER 4' (1.2 m) WIDE**

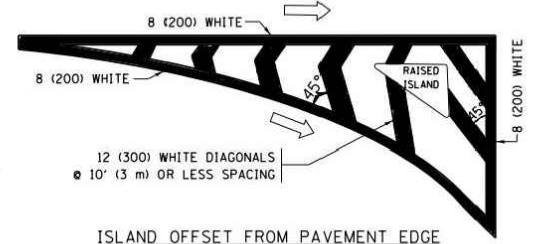


**MEDIAN WITH TWO-WAY LEFT TURN LANE TYPICAL PAINTED MEDIAN MARKING**

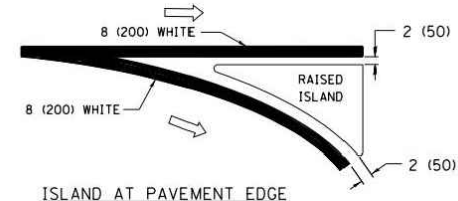


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED. AREA = 15.6 SQ. FT. (1.5 m<sup>2</sup>) ONLY AREA = 20.8 SQ. FT. (1.9 m<sup>2</sup>)

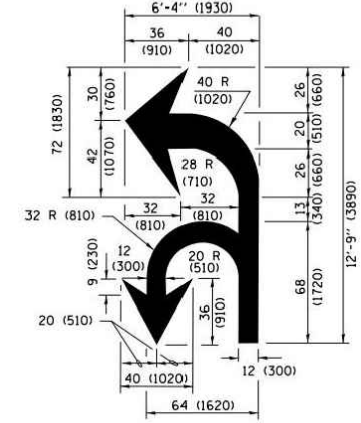
**TYPICAL LEFT (OR RIGHT) TURN LANE TYPICAL TURN LANE MARKING**



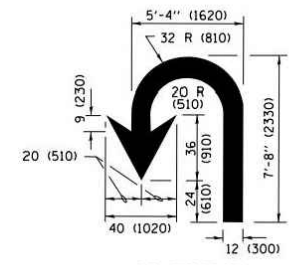
**ISLAND OFFSET FROM PAVEMENT EDGE**



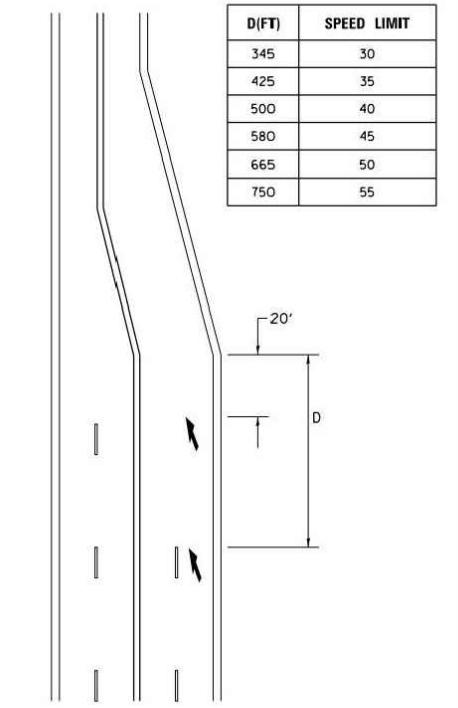
**ISLAND AT PAVEMENT EDGE TYPICAL ISLAND MARKING**



**COMBINATION LEFT AND U-TURN**



**U-TURN**



**LANE REDUCTION TRANSITION**  
\* LANE REDUCTION ARROWS REQUIRED AT SPEEDS OF 45 MPH OR GREATER OR WHEN SPECIFIED IN PLANS.

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING /REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5 1/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MEDIANS IN YELLOW
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH 5 1/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT, OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW; TWO WAY TRAFFIC WHITE; ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m <sup>2</sup> ) EACH "X"=54.0 SQ. FT. (5.0 m <sup>2</sup> )
SHOULDER DIAGONALS (REQUIRED FOR SHOULDERS ≥ 8')	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))
U TURN ARROW	SEE DETAIL	SOLID	WHITE	16.3 SF
2 ARROW COMBINATION LEFT AND U TURN	SEE DETAIL	SOLID	WHITE	30.4 SF

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

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

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	PLOT DATE = 6/23/2017	CHECKED -	REVISED - C. JUCIUS 12-21-15
		DATE - 03-19-90	REVISED - C. JUCIUS 04-12-16

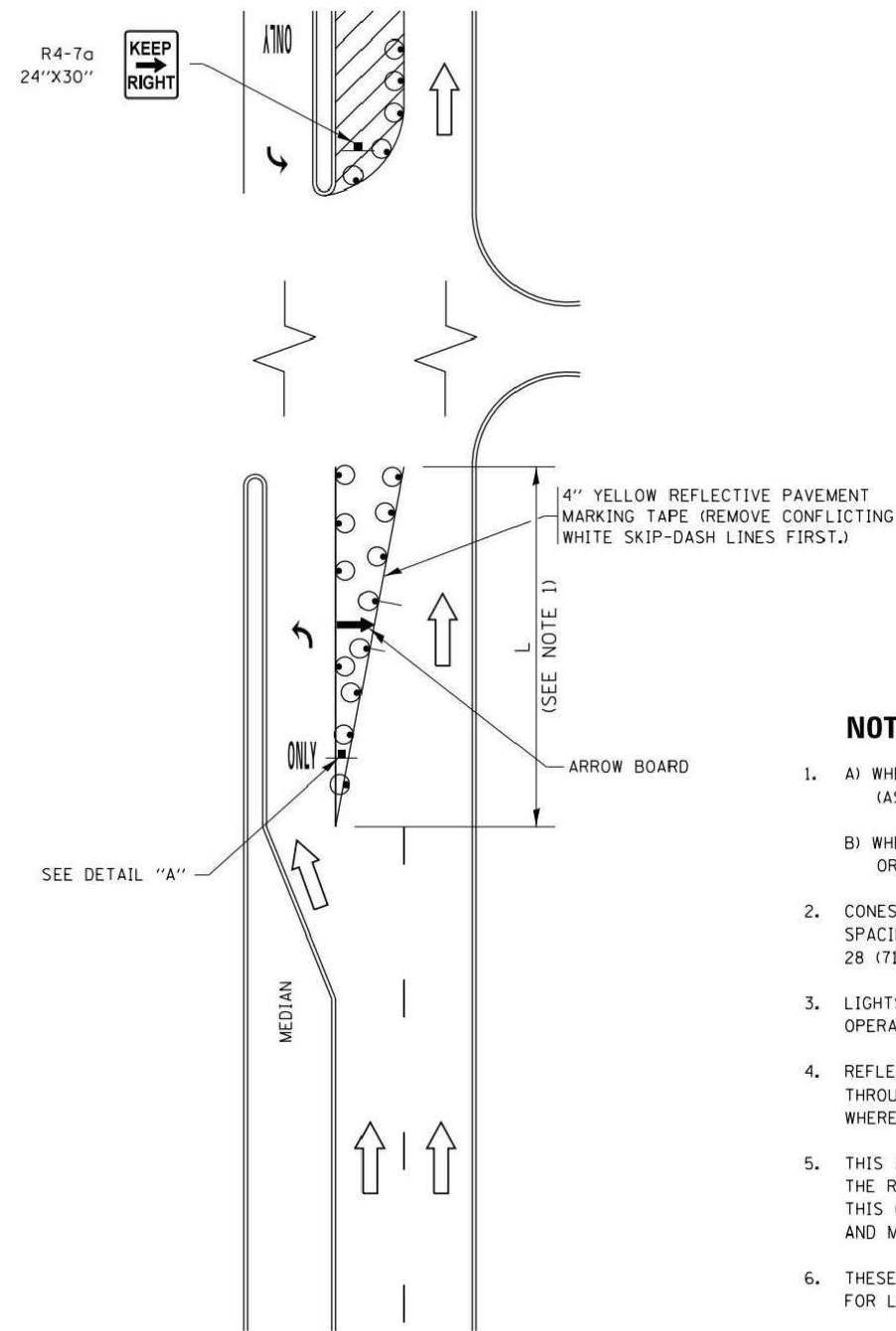
**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE TYPICAL PAVEMENT MARKINGS**

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

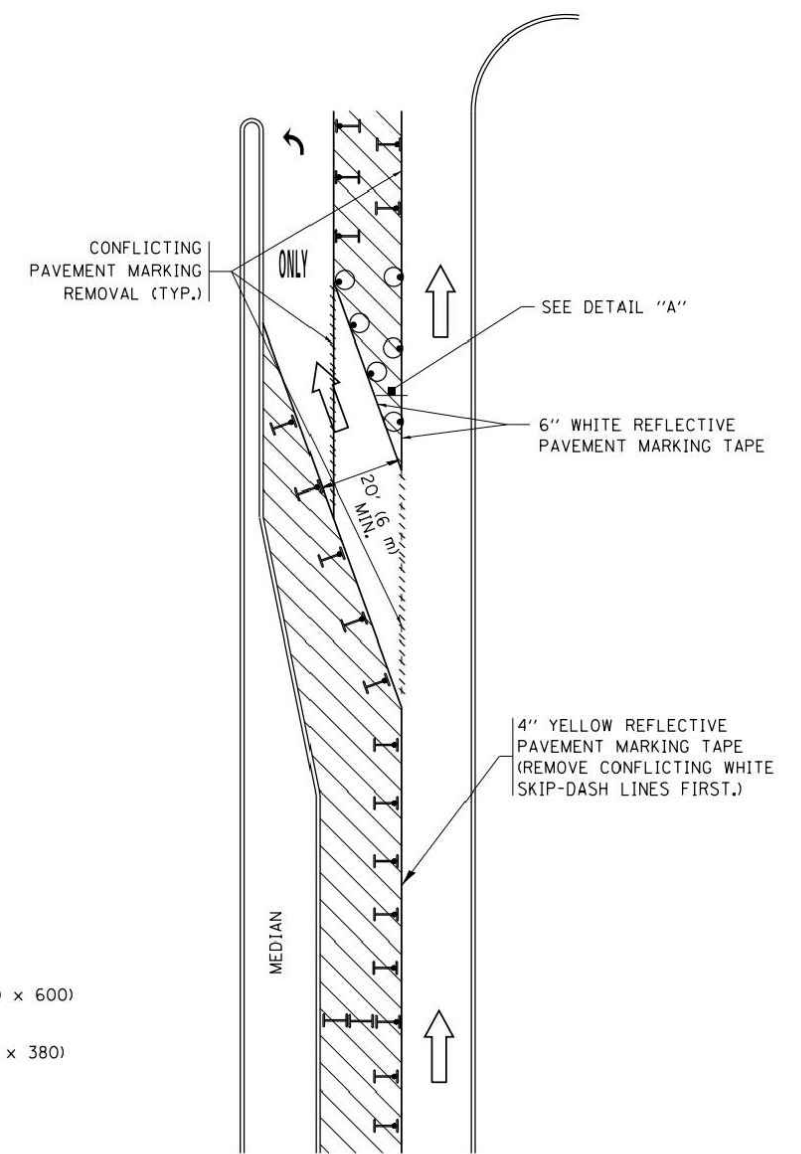
F.A.P. RTE. 330	SECTION 14-00220-00-1L	COUNTY COOK	TOTAL SHEETS 85	SHEET NO. 67
TC-10		CONTRACT NO. 61E86	ILLINOIS FED. AID PROJECT	

# TURN BAY ENTRANCE AT START OF LANE CLOSURE TAPER



**FIGURE 1**

# TURN BAY ENTRANCE WITHIN A LANE CLOSURE



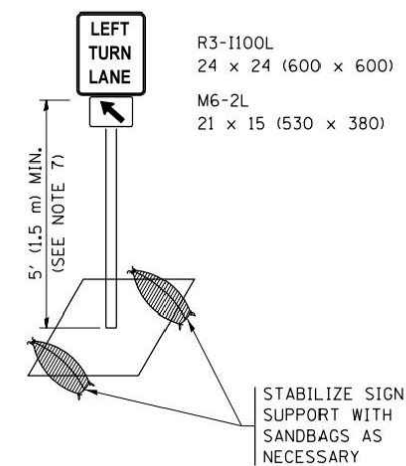
**FIGURE 2**

### LEGEND

- WORK AREA
- LANE OPEN TO TRAFFIC
- ARROW BOARD
- TYPE I OR II BARRICADE OR DRUM WITH STEADY BURN LIGHT
- DRUM WITH STEADY BURN LIGHT
- SIGN ASSEMBLY
- TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

### NOTES:

1. A) WHEN "L" IS  $\leq$  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" R3-1100R 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 PRE REQUIREMENTS.
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.

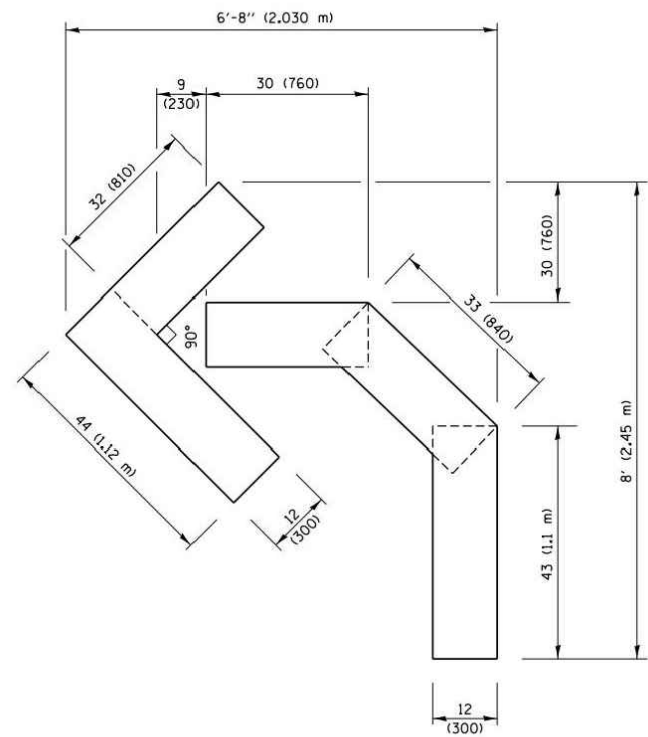


**DETAIL A**

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

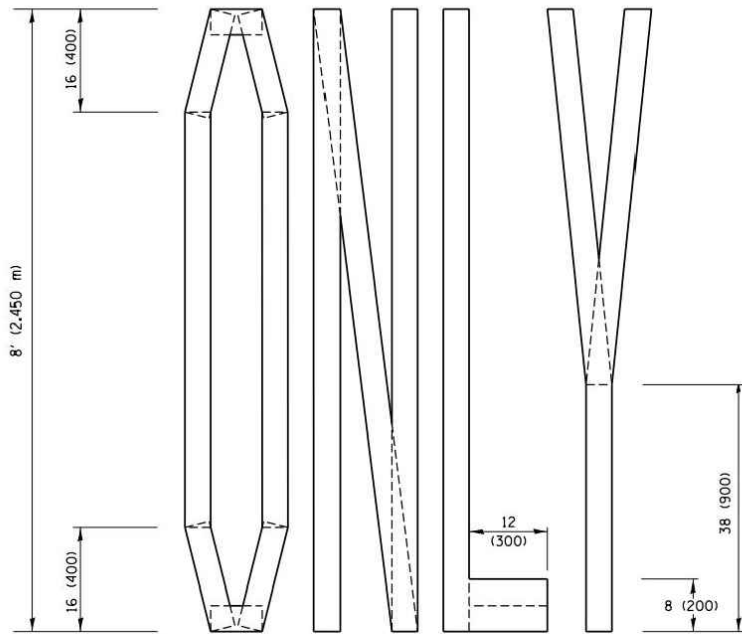
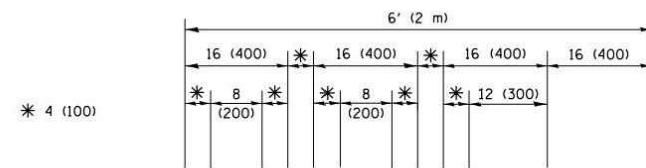
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Default	PLOT DATE = 9/15/2016	REVISED - A. HOUSEH 10-12-96	REVISED - A. SCHUETZE 09-15-16					330	14-00220-00-TL	COOK	85	68
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										CONTRACT NO. 61E86		





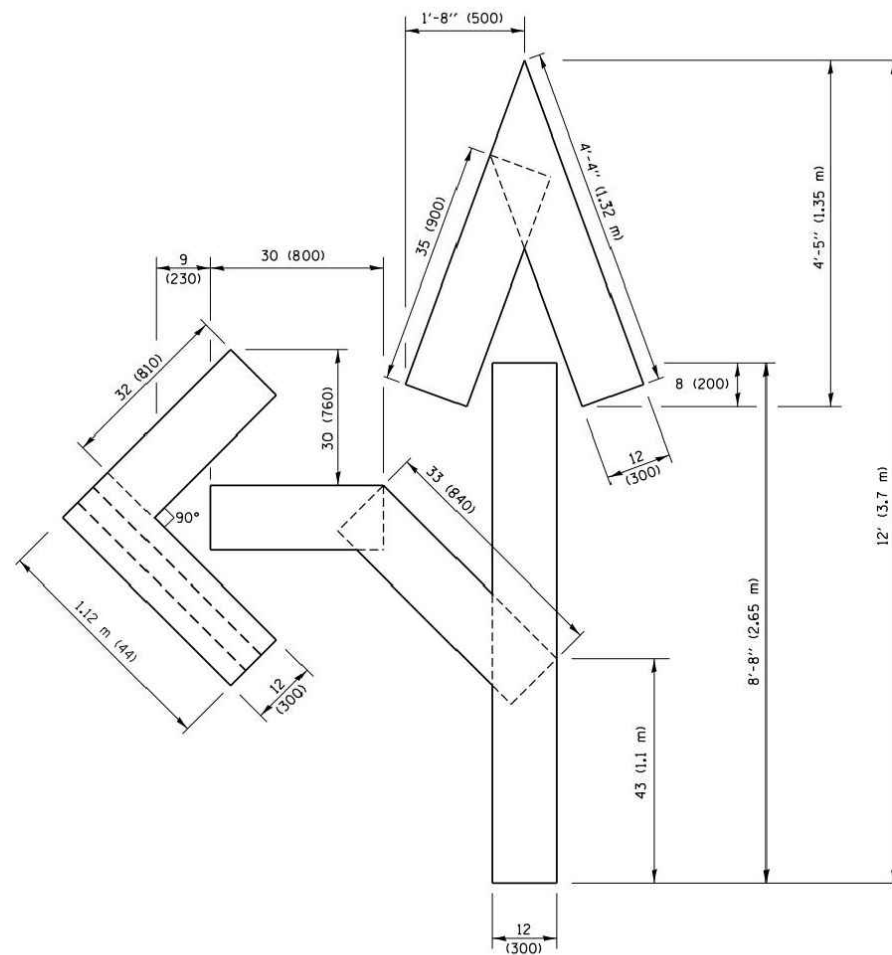
**QUANTITY**

4 (100) LINE = 45.5 ft. (13.9 m)  
15.2 sq. ft. (1.41 sq. m)



**QUANTITY**

4 (100) LINE = 64.1 ft. (19.5 m)  
21.4 sq. ft. (1.99 sq. m)

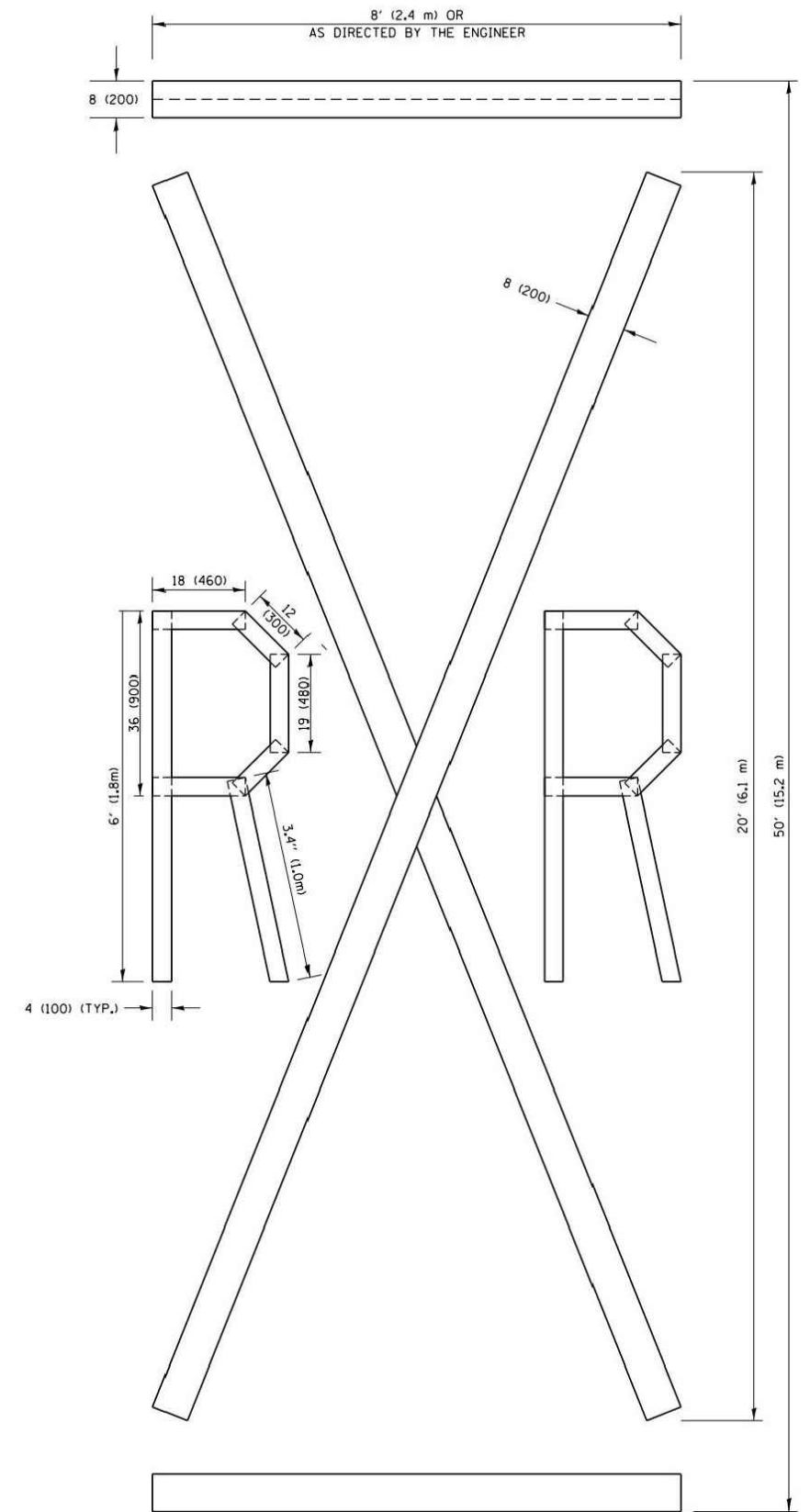


**QUANTITY**

4 (100) LINE = 82.5 ft. (25.1 m)  
27.5 sq. ft. (2.53 sq. m)

**NOTE:**

ALL QUANTITIES OF PLACEMENT ARE REPRESENTED IN LINEAR FEET OF 4" LINES TO MATCH THE 4" TEMPORARY TAPE PAY ITEM AND REPRESENTS THE TOTAL QUANTITY OF 4" TAPE REQUIRED.



**QUANTITY**

4 (100) LINE = 225.9 ft. (68.9 m)  
75.3 sq. ft. (6.99 sq. m)

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

FILE NAME =	USER NAME = footemj	DESIGNED -	REVISED - T. RAMMACHER 03-02-98
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		DATE -	REVISED - E. GOMEZ 08-28-00
			REVISED - A. SCHUETZE 09-15-16

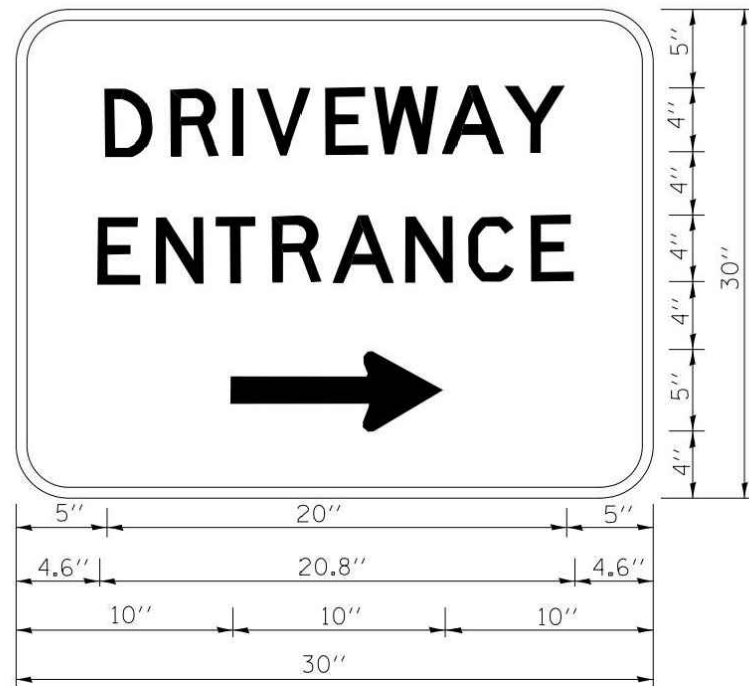
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SHORT TERM PAVEMENT MARKING LETTERS AND SYMBOLS**

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	14-00220-00-TL	COOK	85	69
TC-16			CONTRACT NO. 61E86	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				





3.0" RADIUS, 0.5" BORDER, WHITE ON GREEN; REFLECTORIZED  
 "DRIVEWAY" D; "ENTRANCE" D; STANDARD ARROW CUSTOM 12.0" x 5.0"

**NOTES:**

1. HALF OF THE SIGNS WILL REQUIRE A LEFT HAND FACING ARROW.
2. TWO SIGNS SHALL BE USED AT EACH COMMERCIAL ENTRANCE  
 PLACED BACK-TO-BACK; ONE WITH A RIGHT HAND ARROW (SHOWN)  
 SHALL BE PLACED ON THE NEAR RIGHT SIDE THE DRIVEWAY  
 AND ONE WITH A LEFT HAND ARROW SHALL BE PLACED ON THE  
 FAR LEFT SIDE OF THE DRIVEWAY.
3. SIGNS TO BE PAID FOR AS ITEM "TEMPORARY INFORMATION SIGNING".

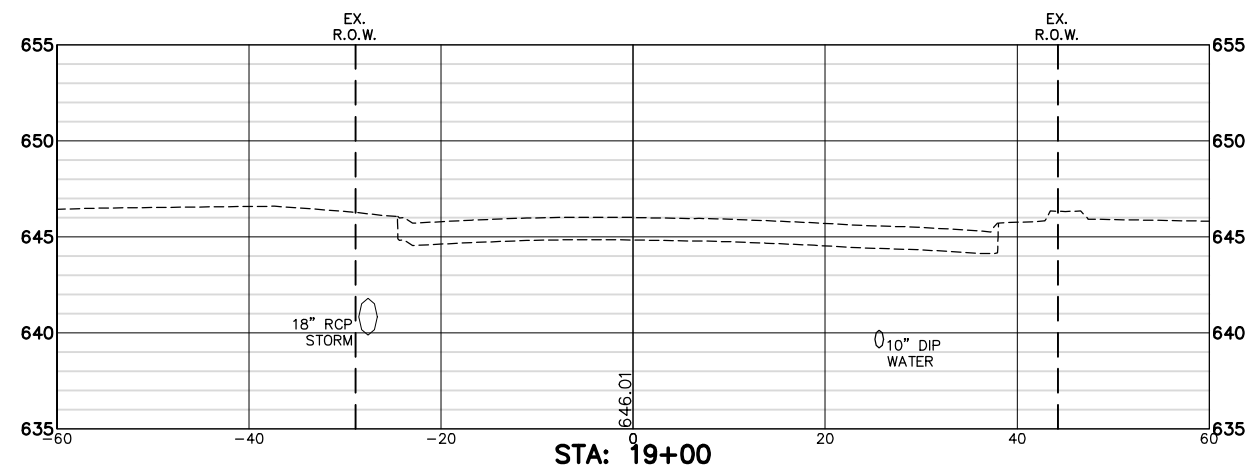
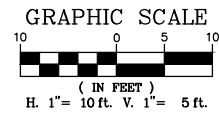
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		DATE -	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

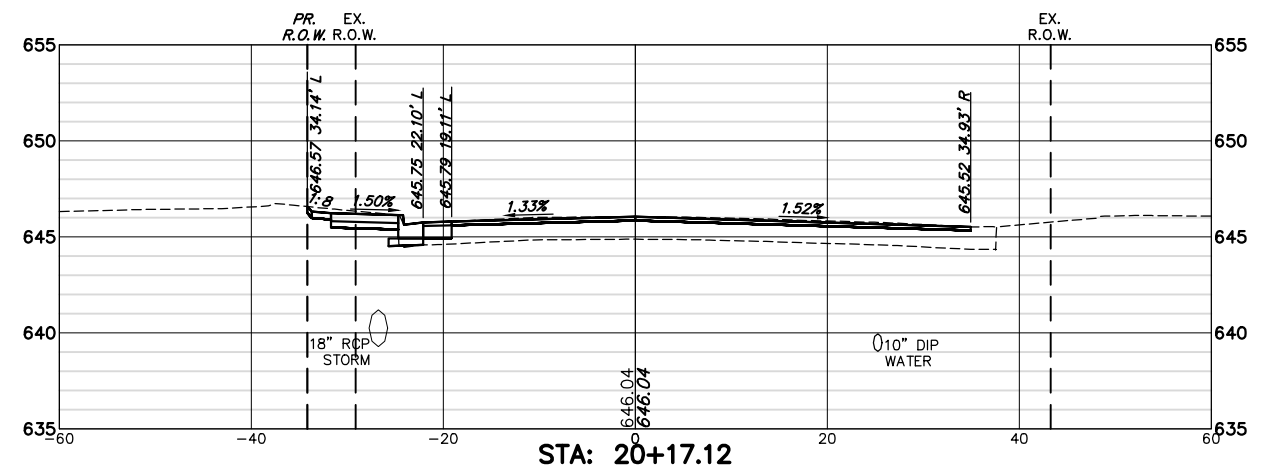
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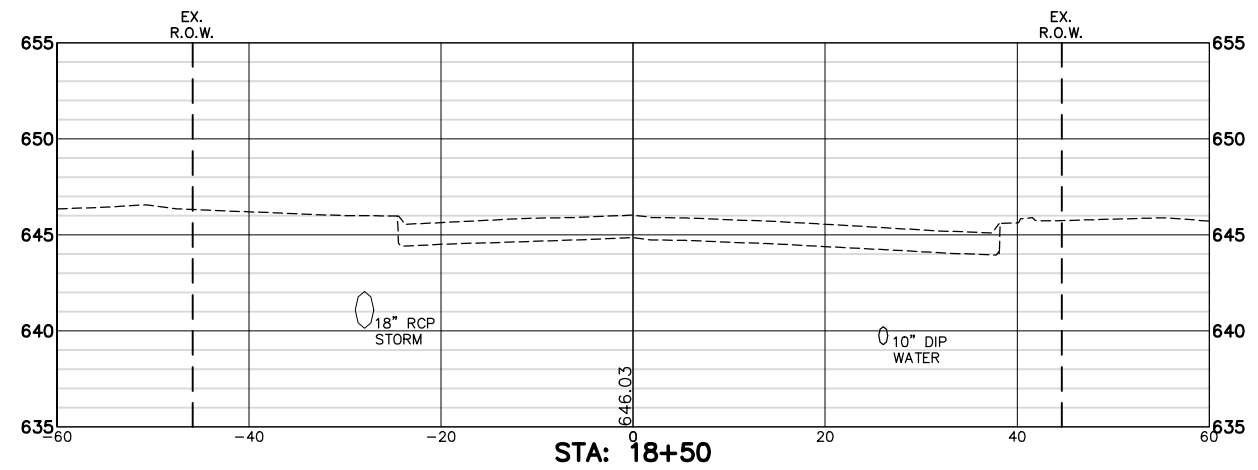
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FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



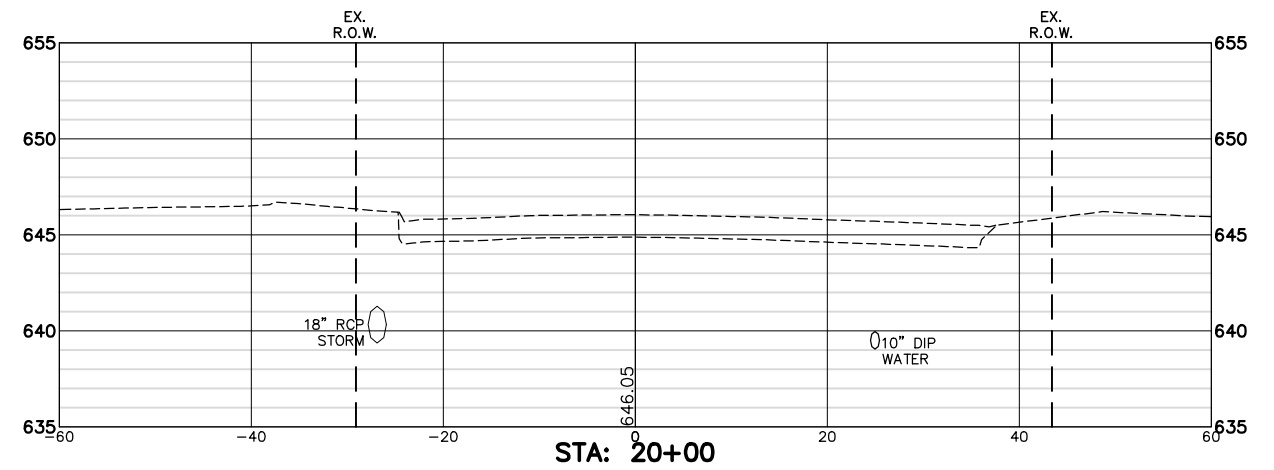
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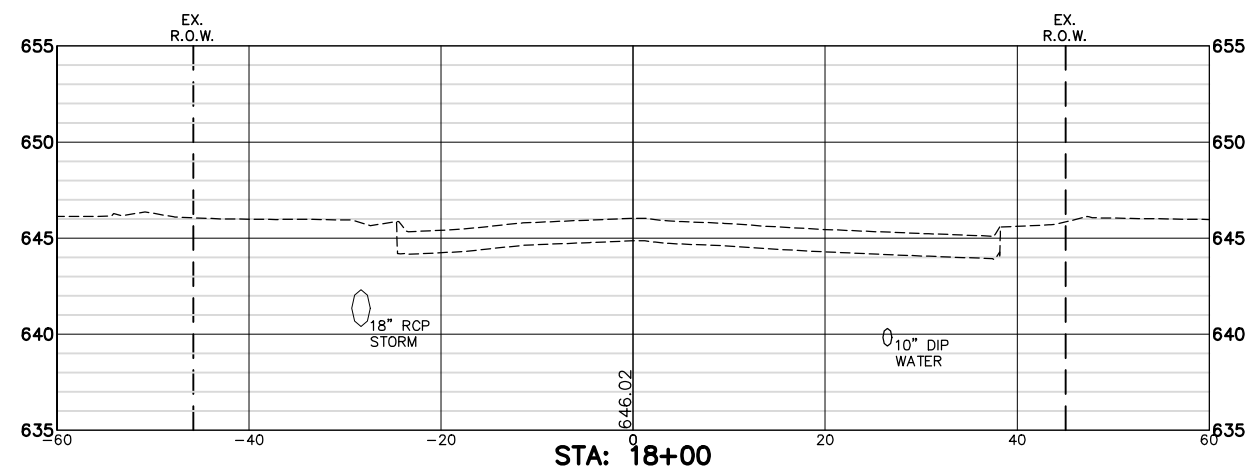
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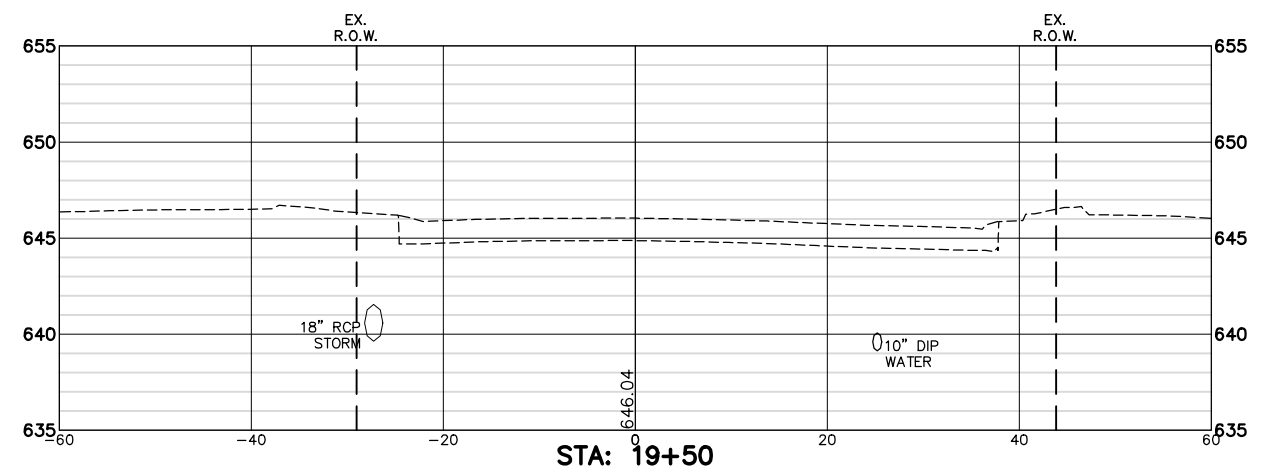
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CUT: 0.00 SF  
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USER NAME = MARK COBB

DESIGNED - MGFC

REVISED -

PLOT SCALE = 1" = .1667'

DRAWN - MGFC

REVISED -

PLOT DATE = 9/30/2019 3:24 PM

CHECKED - KLB

REVISED -

DATE -

REVISED -

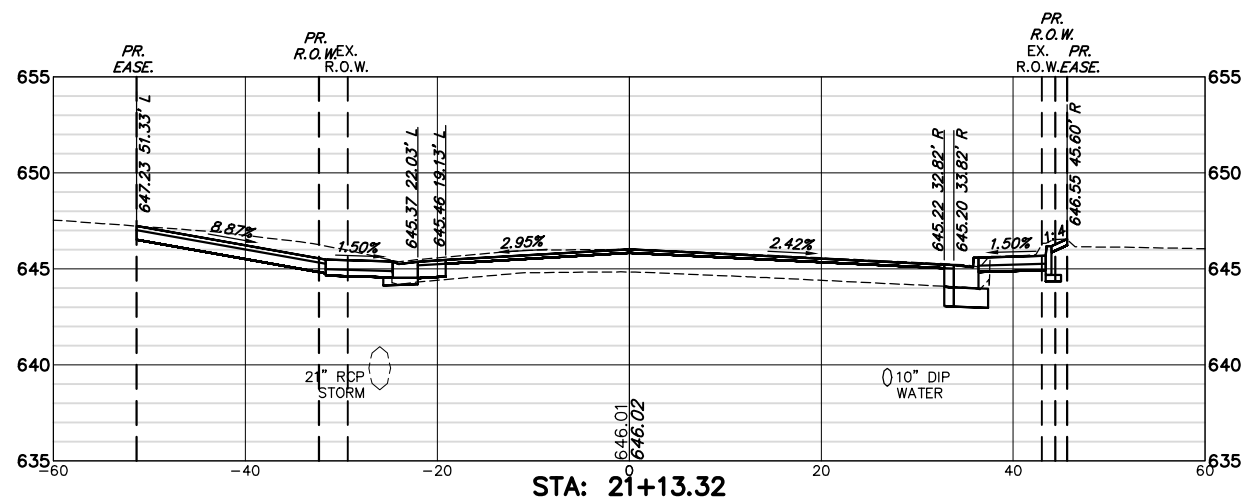
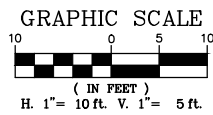
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS  
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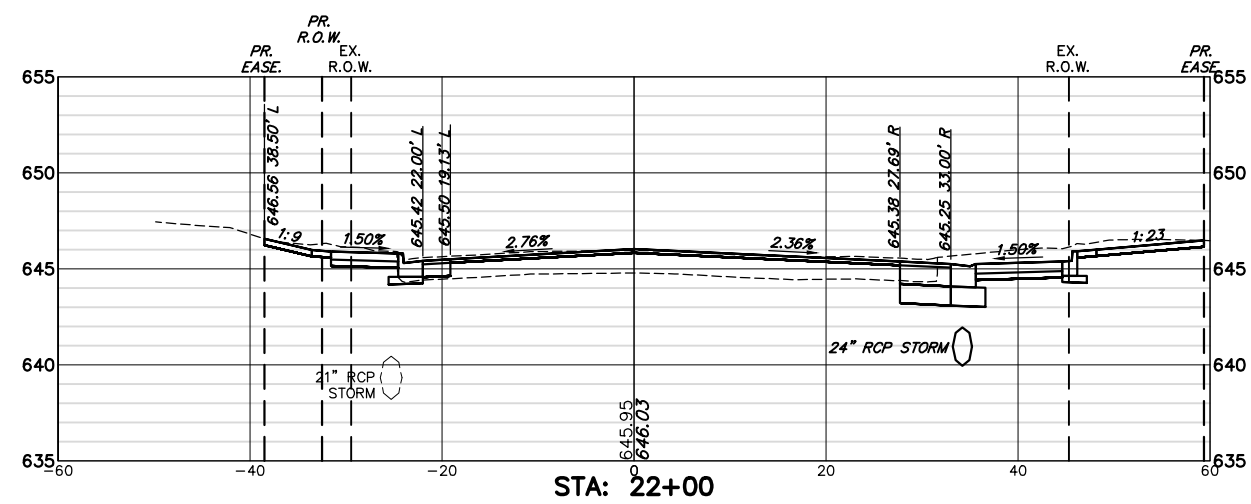
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CONTRACT #			61E86	

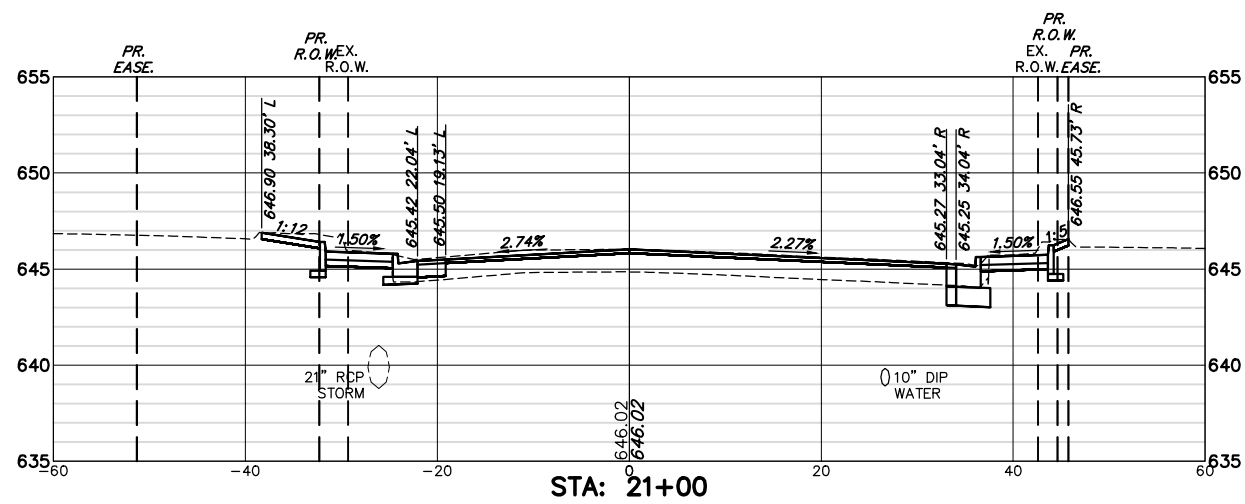
ILLINOIS FED. AID PROJECT



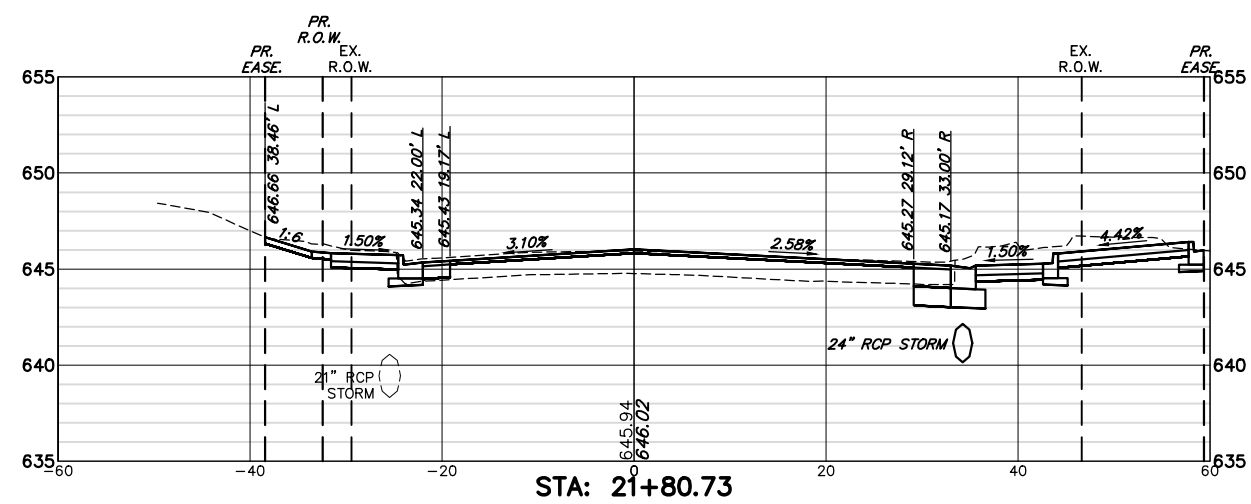
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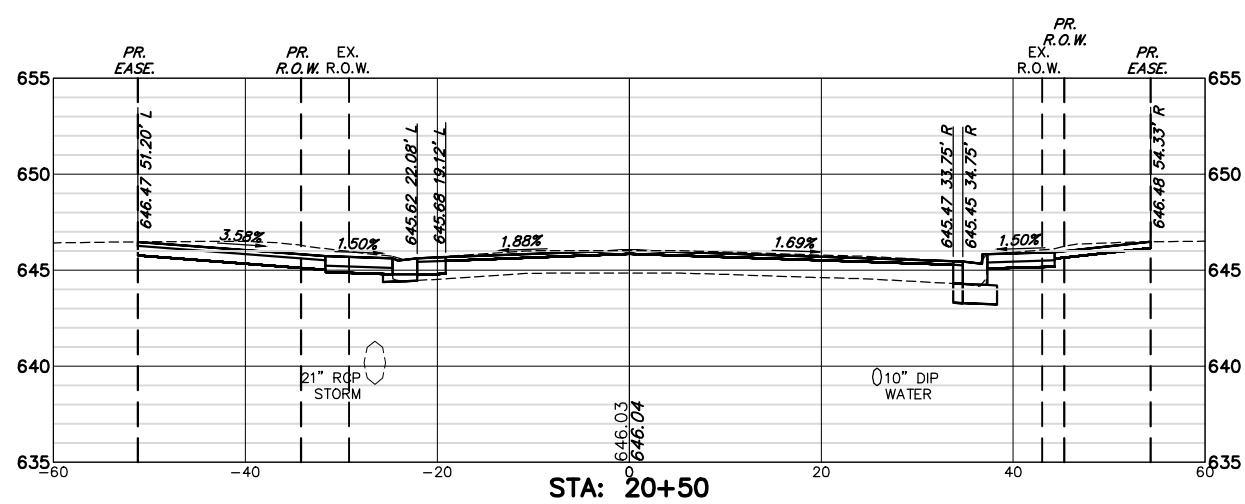
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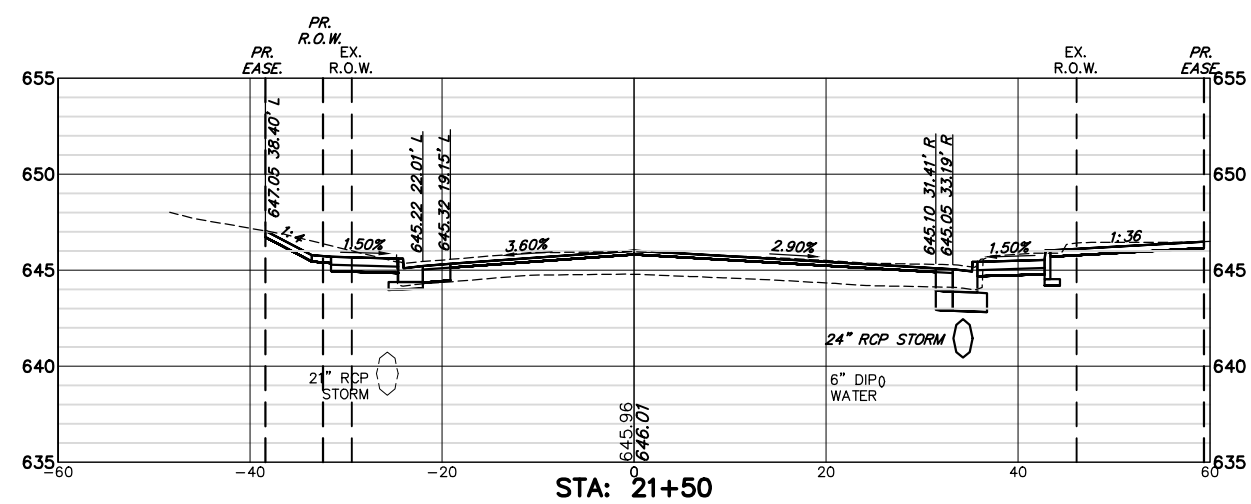
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USER NAME = MARK COBB

DESIGNED - MGFC

REVISED -

PLOT SCALE = 1" = .1667'

DRAWN - MGFC

REVISED -

PLOT DATE = 9/30/2019 3:24 PM

CHECKED - KLB

REVISED -

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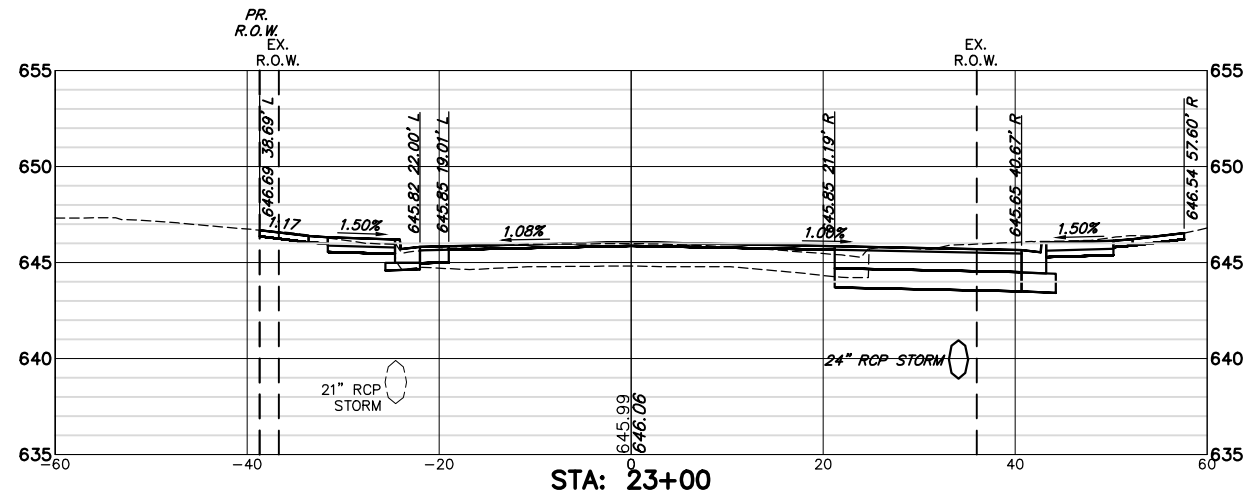
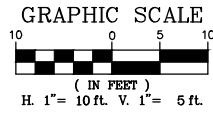
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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

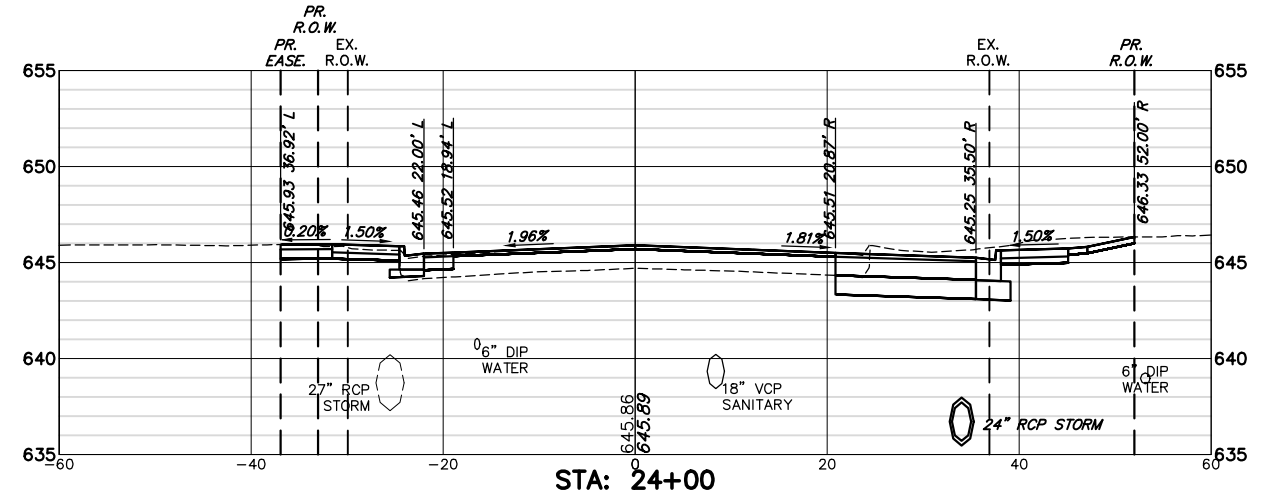
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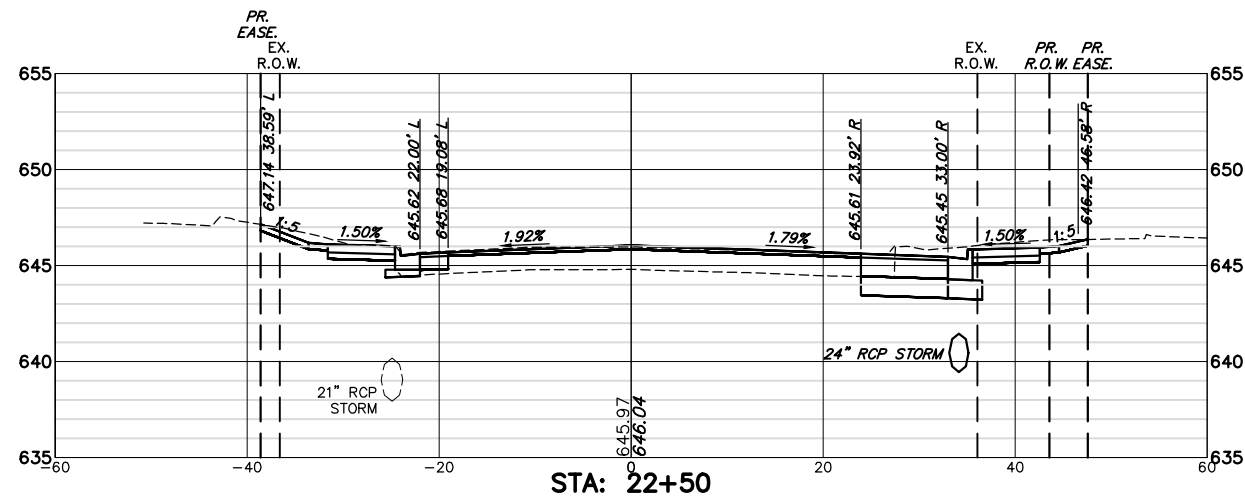
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CONTRACT #			61E86	
ILLINOIS FED. AID PROJECT				



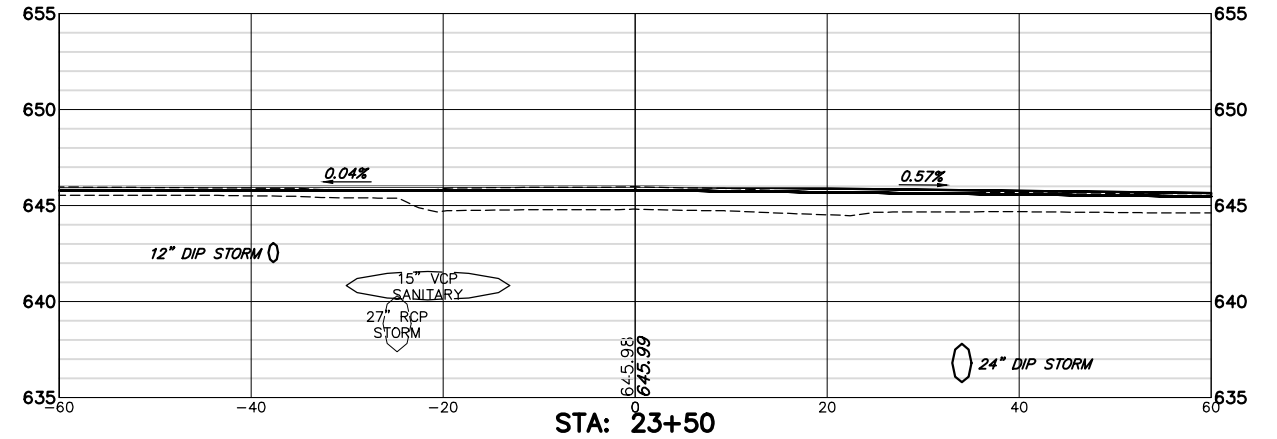
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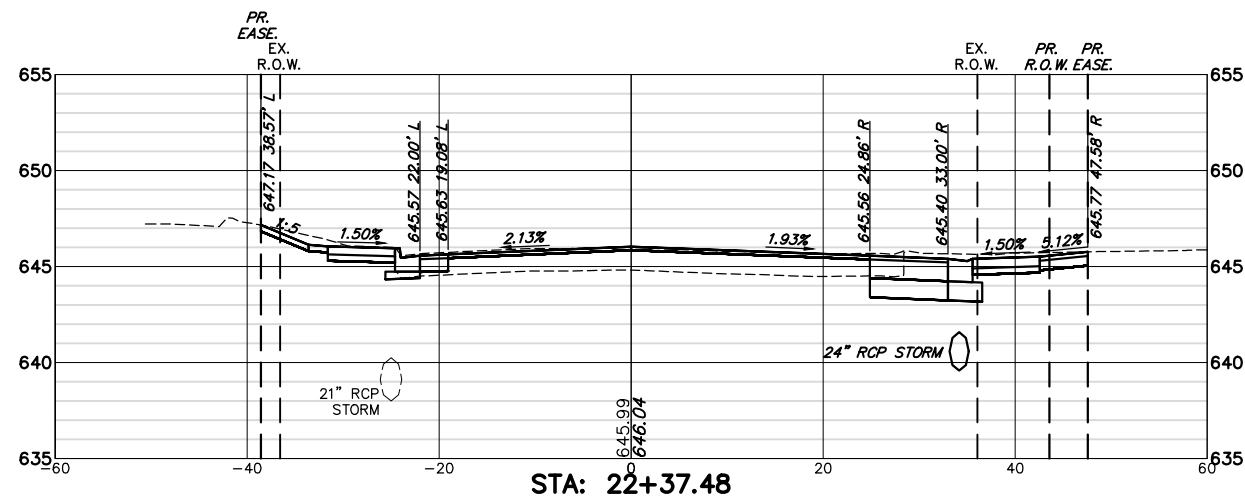
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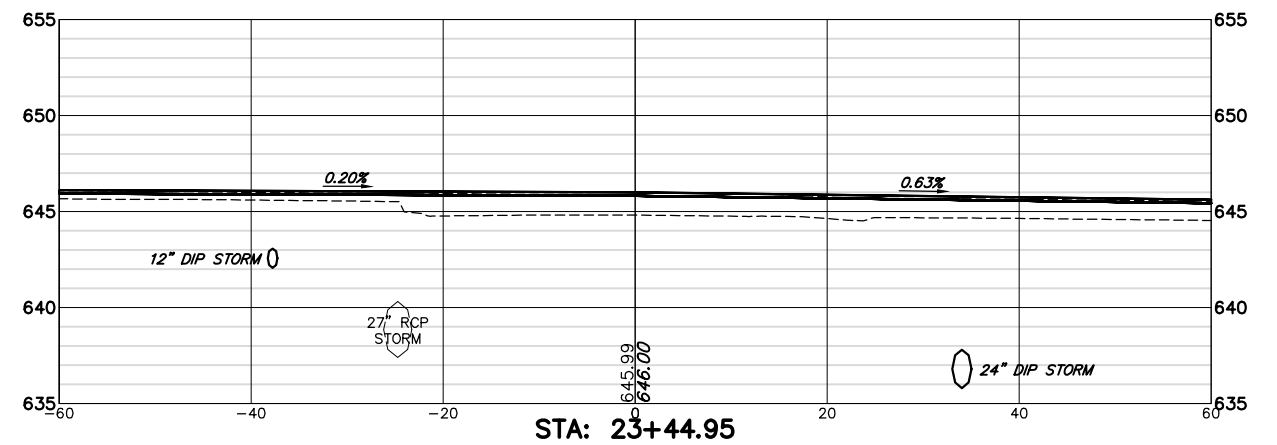
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USER NAME = MARK COBB

DESIGNED - MGFC

REVISED -

PLOT SCALE = 1" = .1667'

DRAWN - MGFC

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REVISED -

DATE -

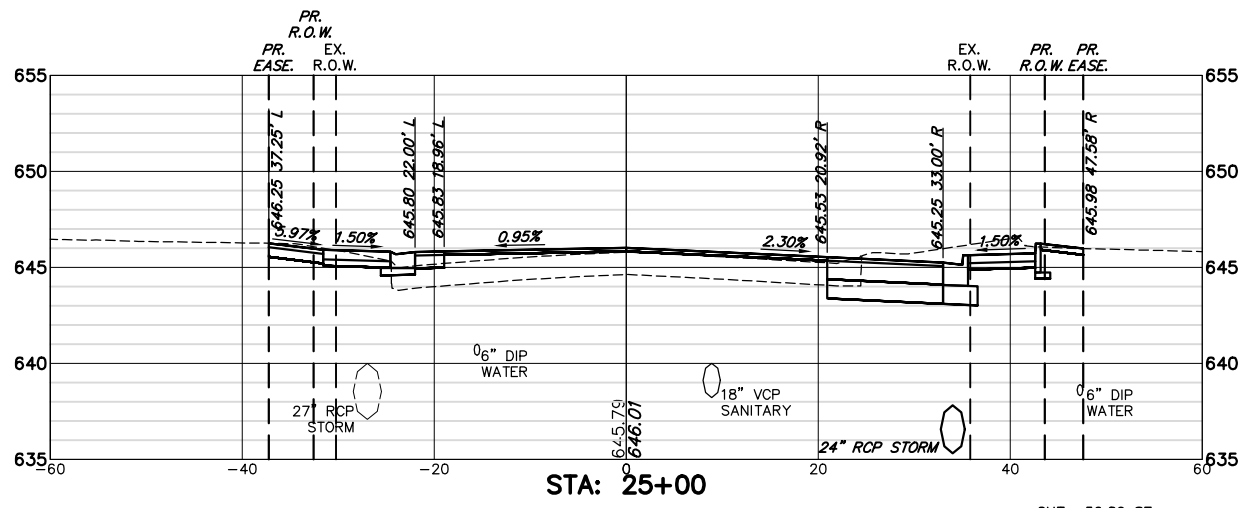
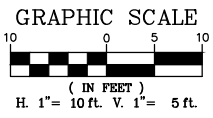
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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS  
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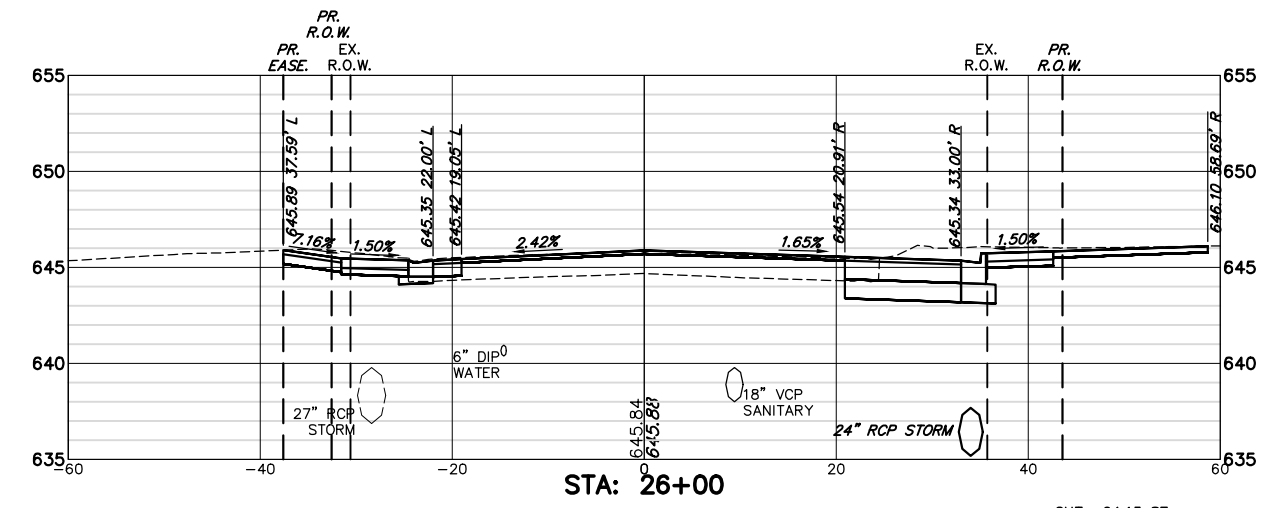
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ILLINOIS FED. AID PROJECT				



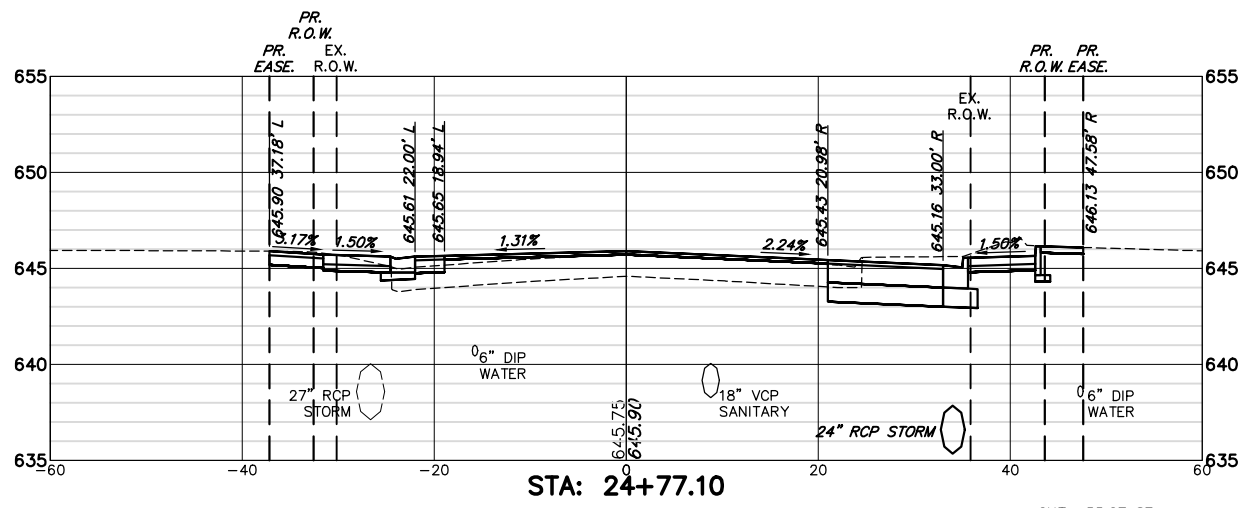
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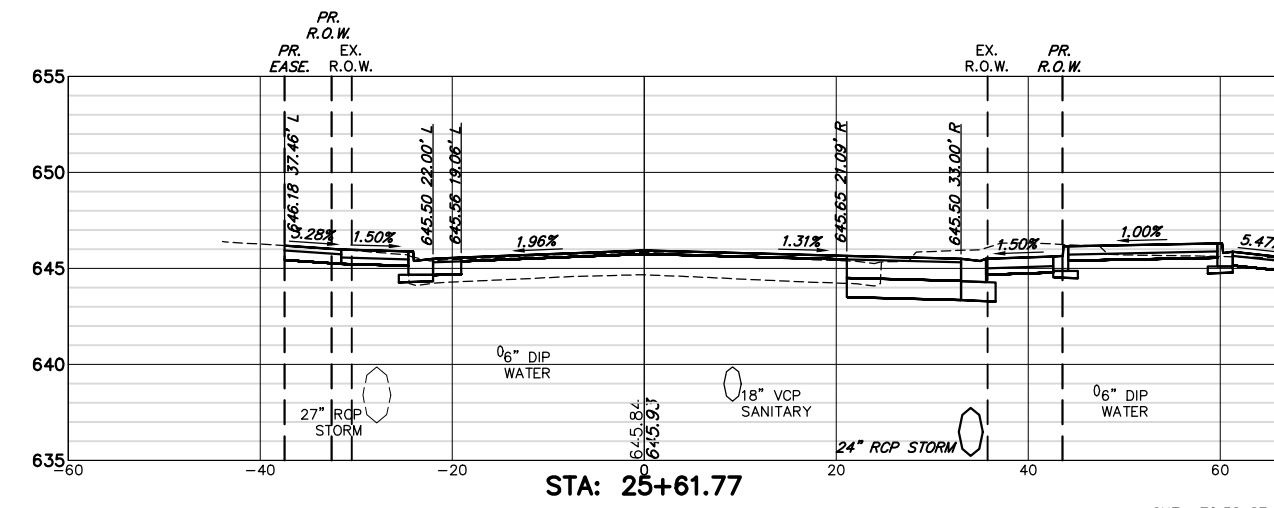
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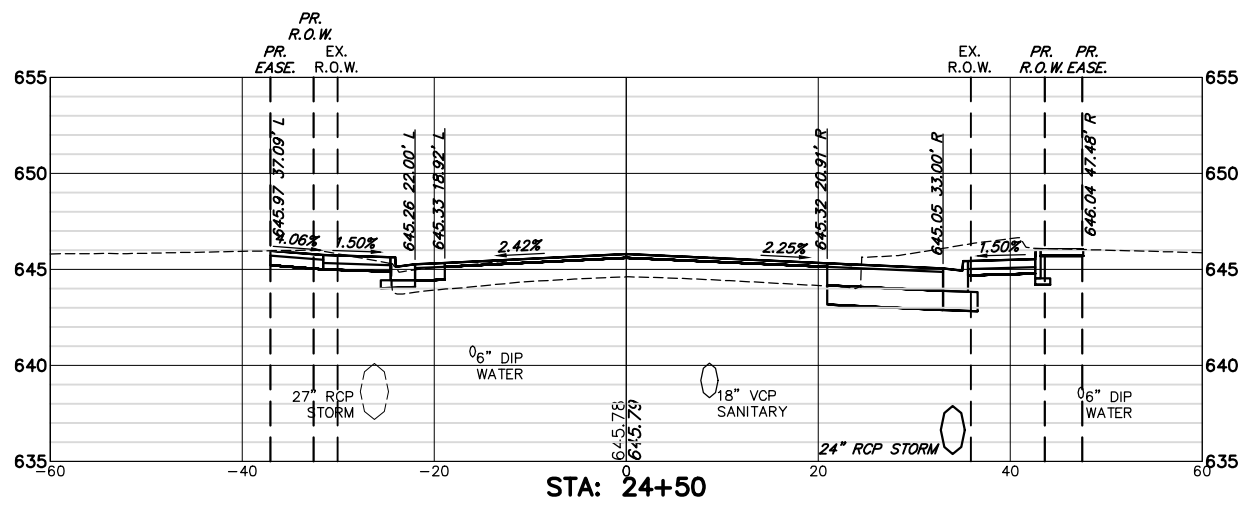
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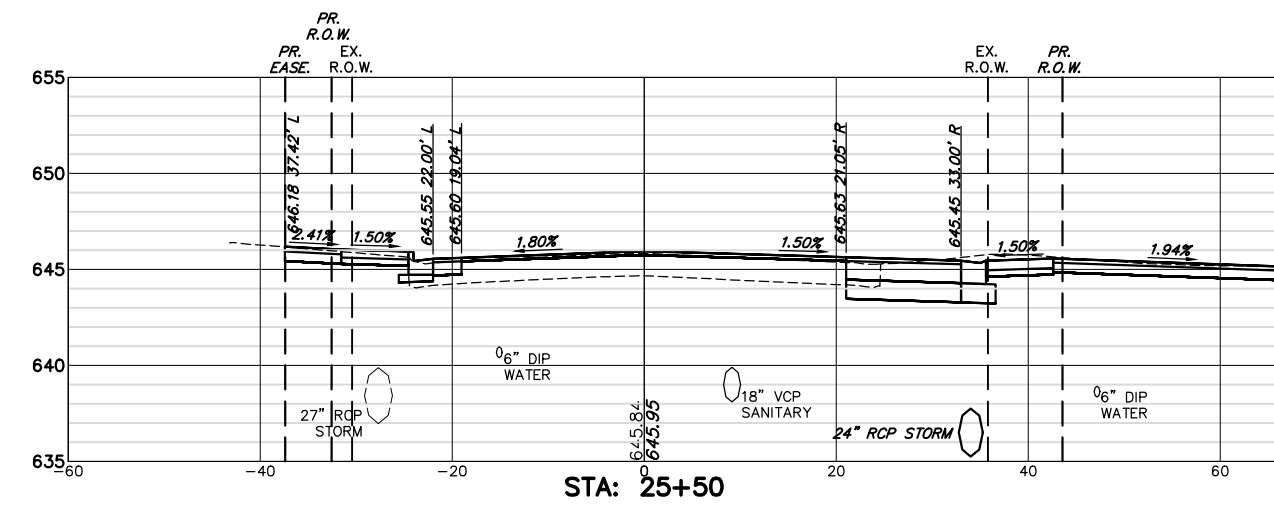
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STA: 24+50

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STA: 25+50

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FILE NAME = 4816.200-sht-xsec.dwg

USER NAME = MARK COBB

DESIGNED - MGFC

REVISED -

PLOT SCALE = 1" = .1667'

DRAWN - MGFC

REVISED -

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CHECKED - KLB

REVISED -

DATE -

REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

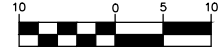
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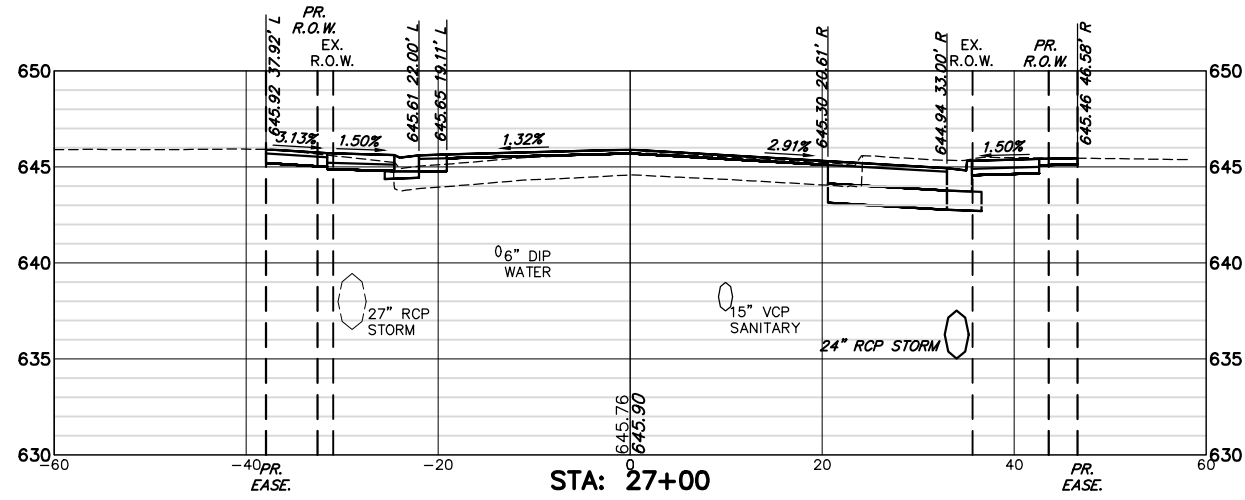
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CONTRACT #			61E86	

ILLINOIS FED. AID PROJECT

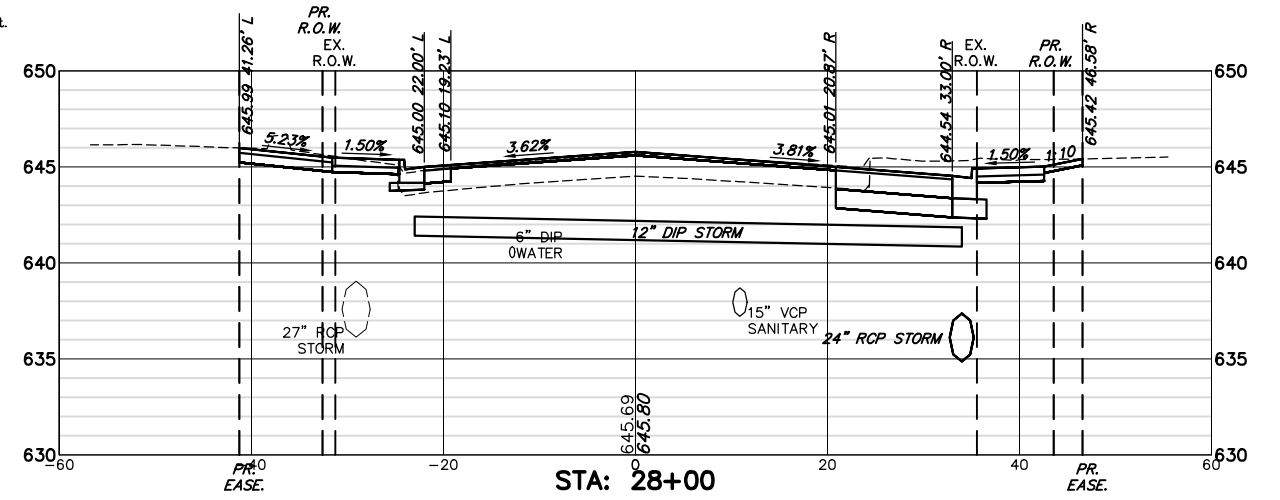
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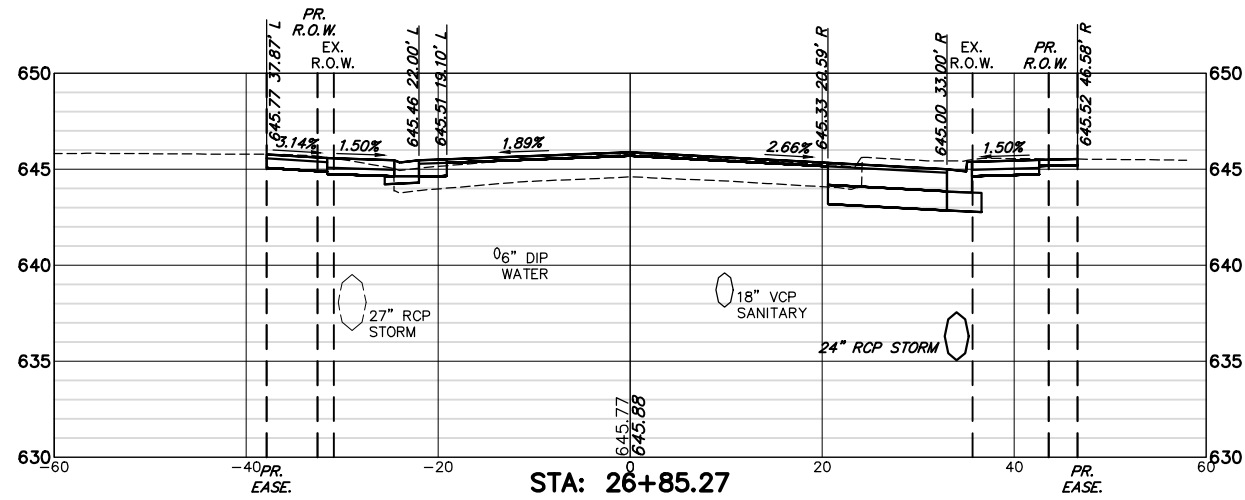
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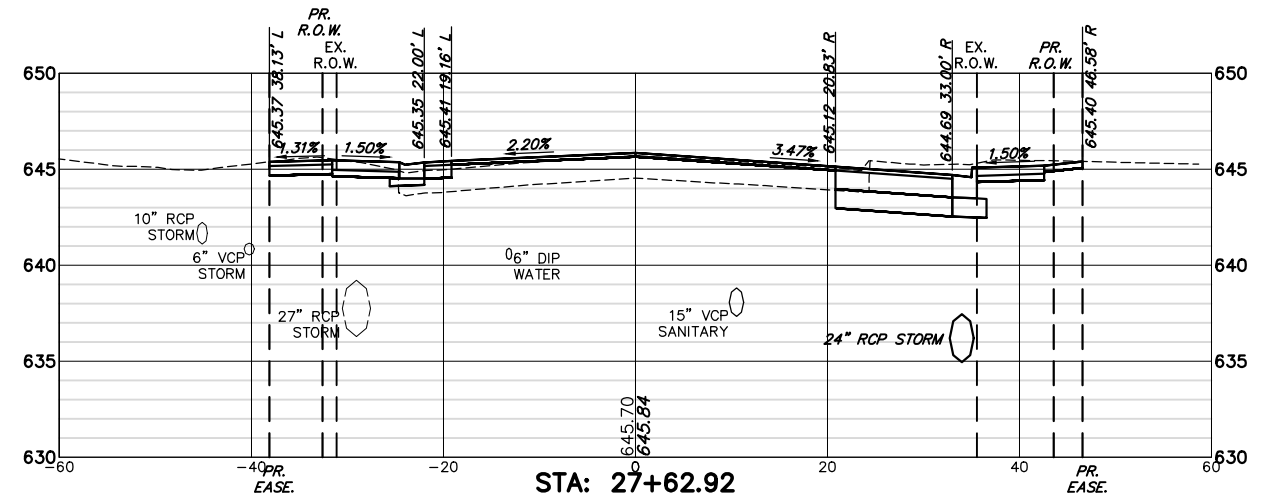
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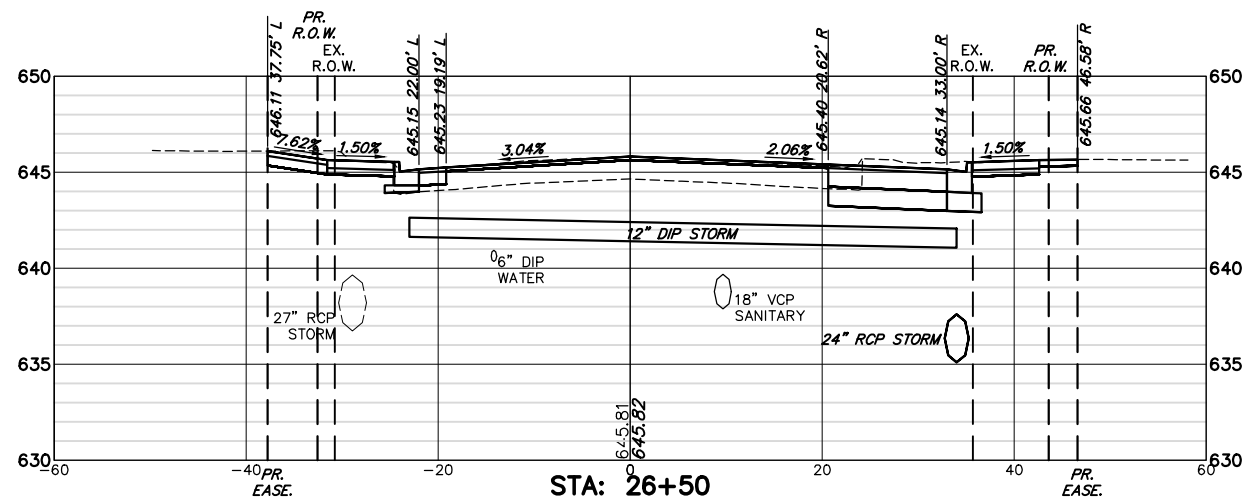
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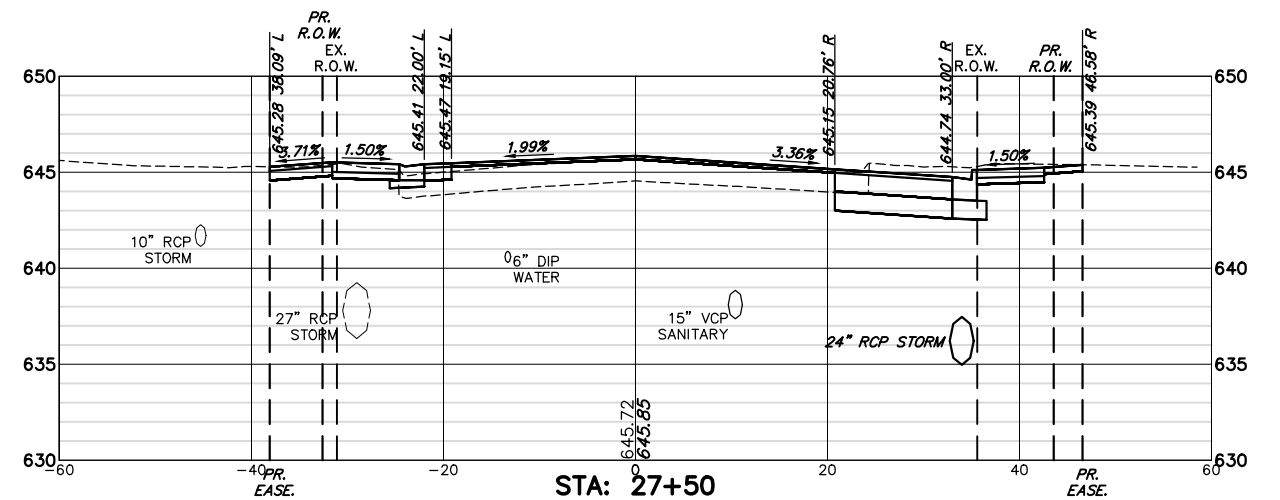
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CUT: 55.91 SF  
FILL: 0.00 SF



CUT: 53.07 SF  
FILL: 0.00 SF



CUT: 48.17 SF  
FILL: 0.00 SF

FILE NAME = 4816.200-sht--xsec.dwg

USER NAME = MARK COBB

DESIGNED - MGFC

REVISED -

PLOT SCALE = 1" = .1667'

DRAWN - MGFC

REVISED -

PLOT DATE = 9/30/2019 3:25 PM

CHECKED - KLB

REVISED -

DATE -

REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

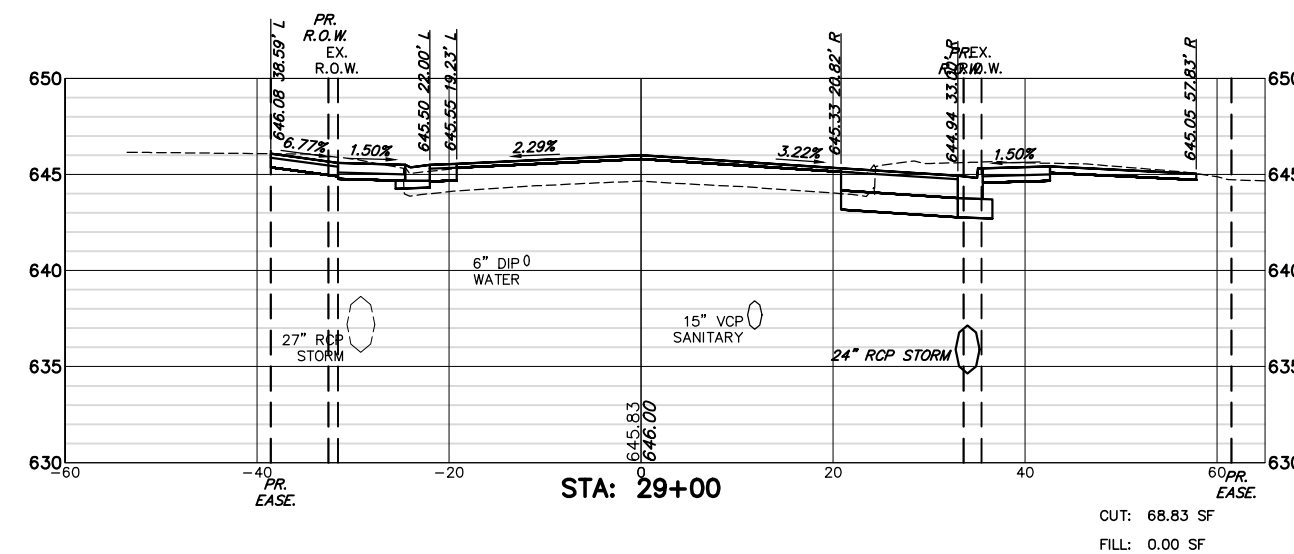
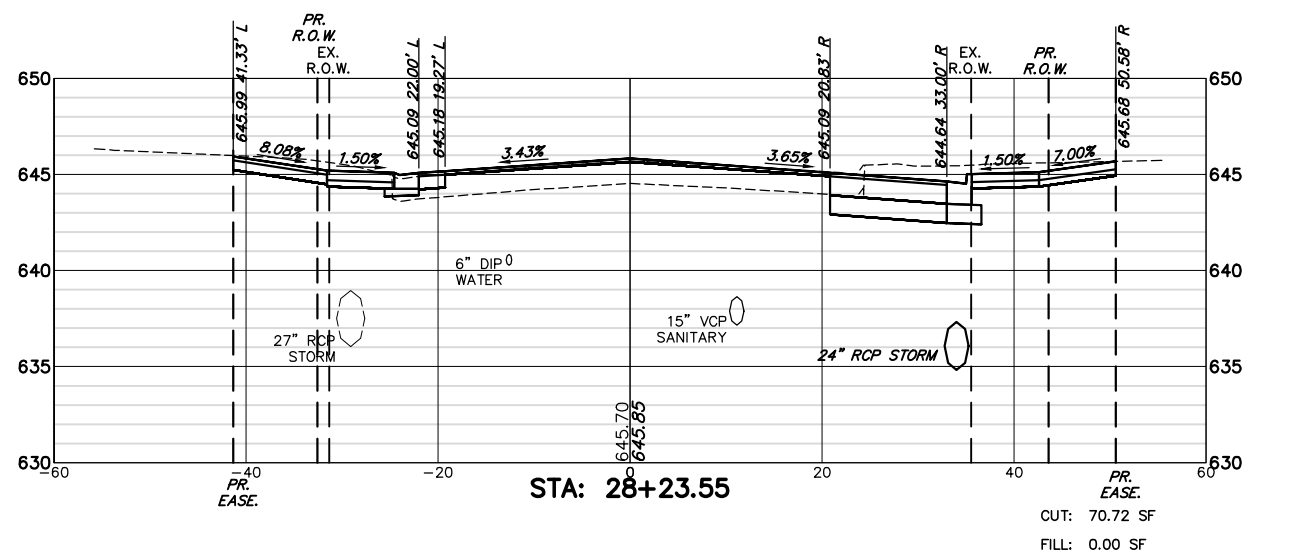
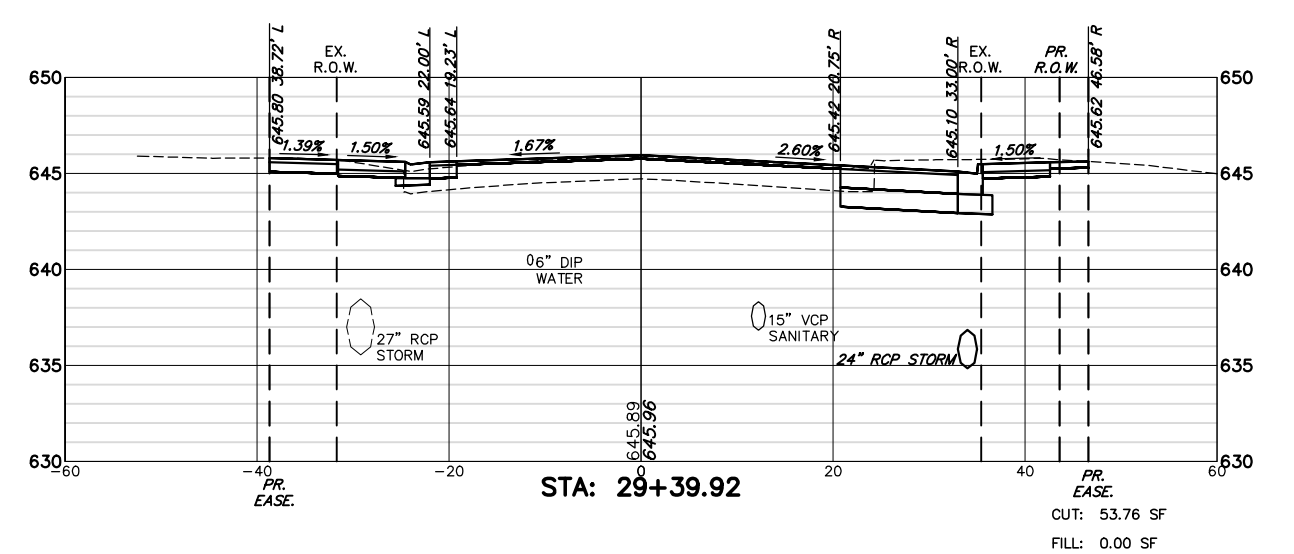
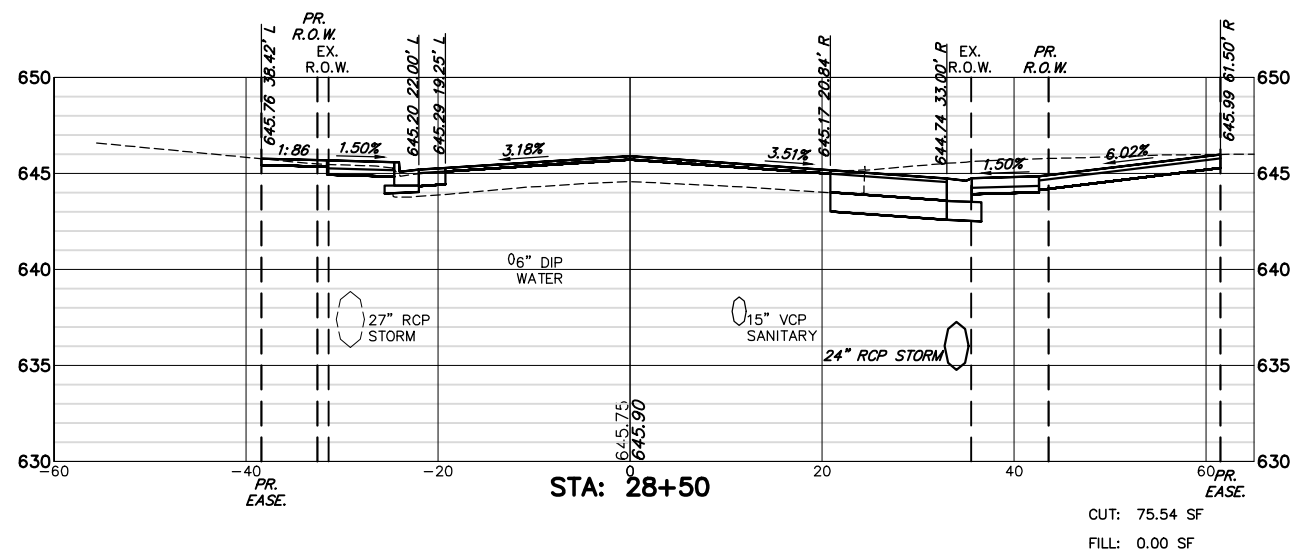
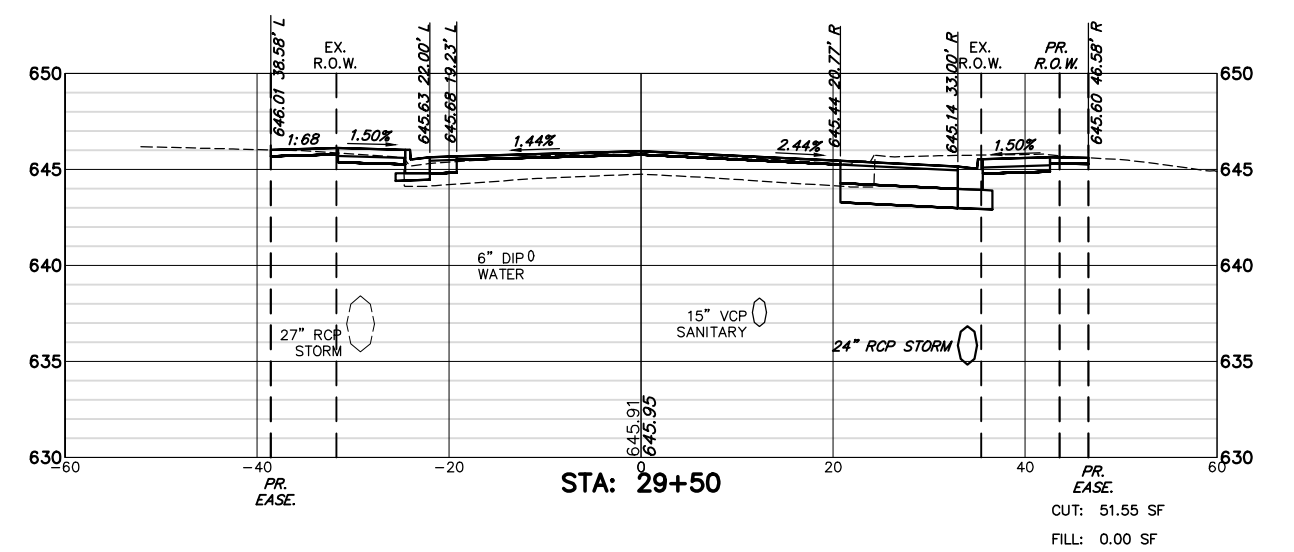
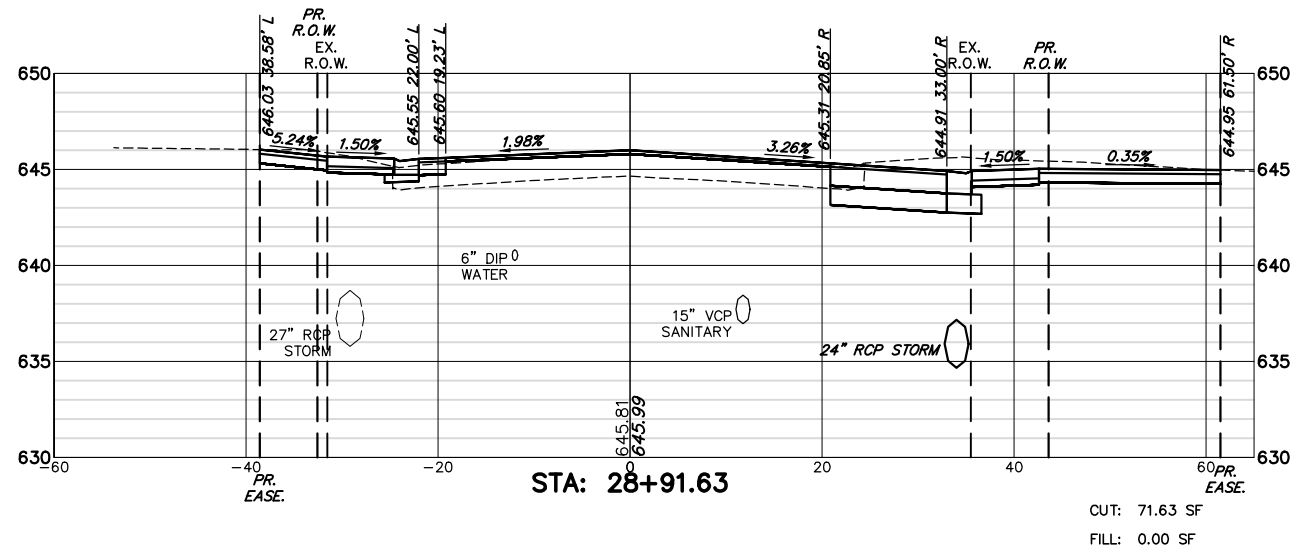
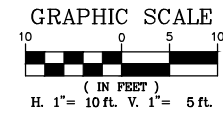
CROSS SECTIONS  
LEE ST - MANNHEIM RD AND FOREST AVENUE

SCALE AS NOTED SHEET NO. 5 OF 14 SHEETS STA. 26+50 TO STA. 28+00

FAR RITE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	14-00220-00-TL	COOK	85	76

CONTRACT # 61E86 ILLINOIS FED. AID PROJECT





FILE NAME = 4816.200-sht-xsec.dwg

USER NAME = MARK COBB

DESIGNED - MGFC

REVISED -

PLOT SCALE = 1" = .1667'

DRAWN - MGFC

REVISED -

PLOT DATE = 9/30/2019 3:26 PM

CHECKED - KLB

REVISED -

DATE -

REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

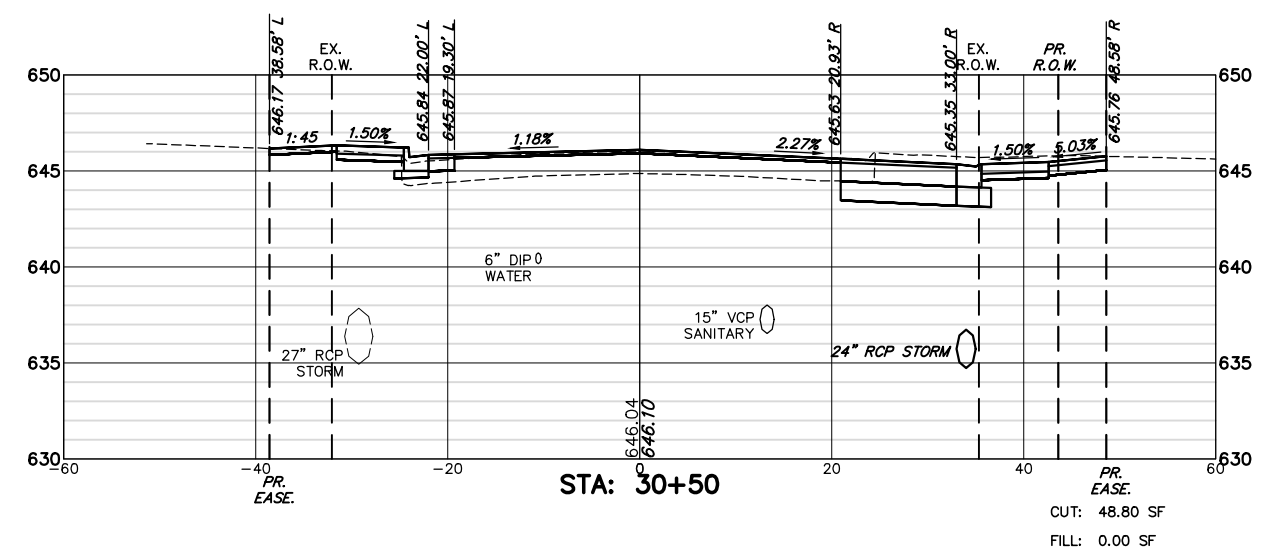
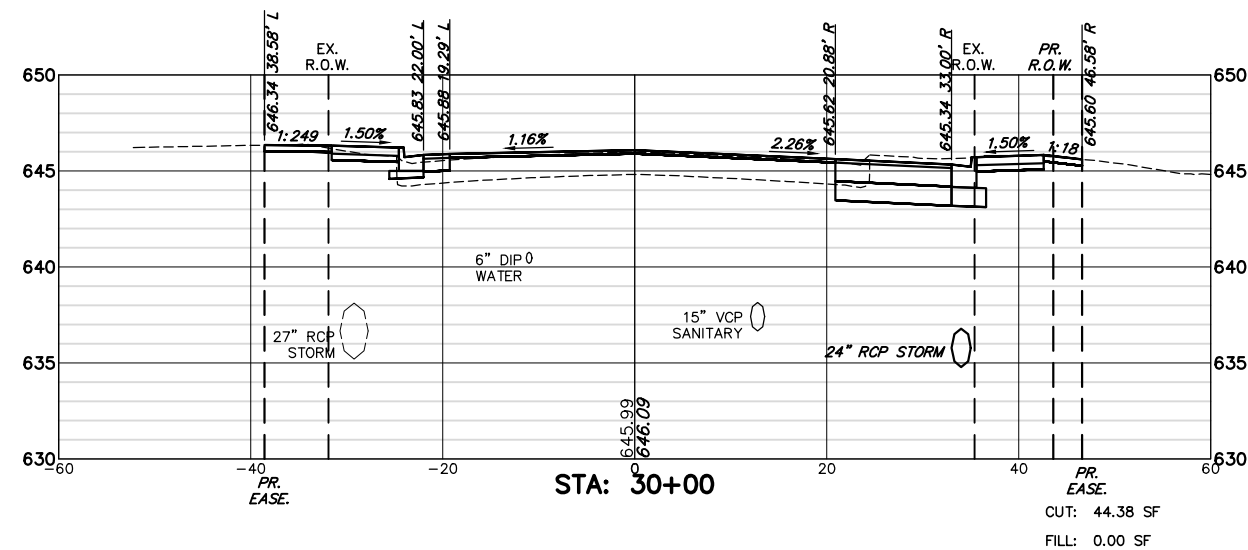
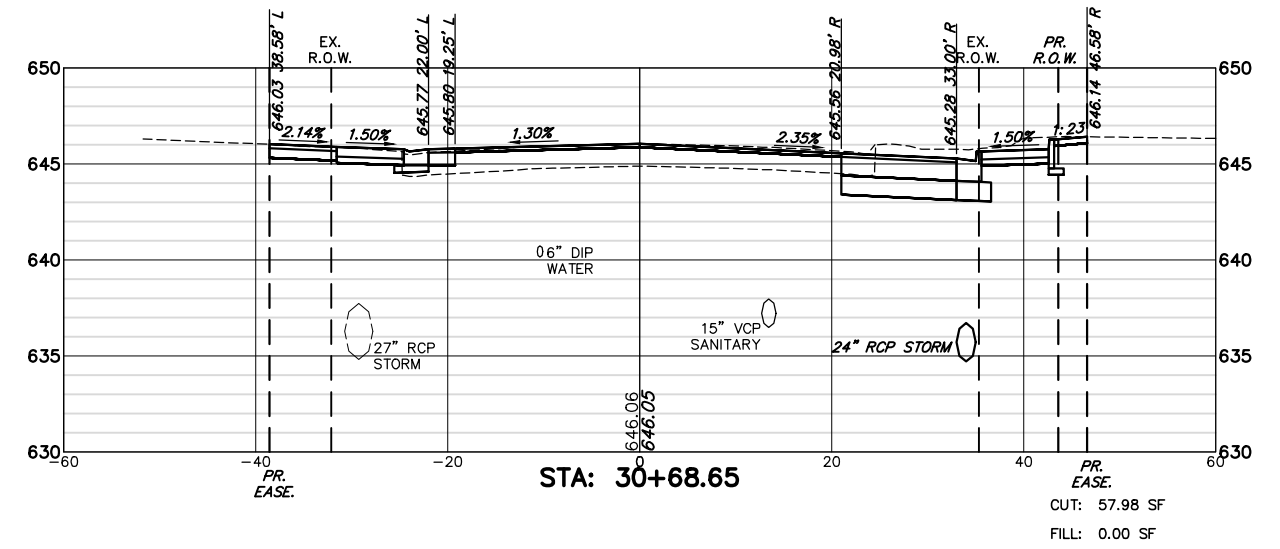
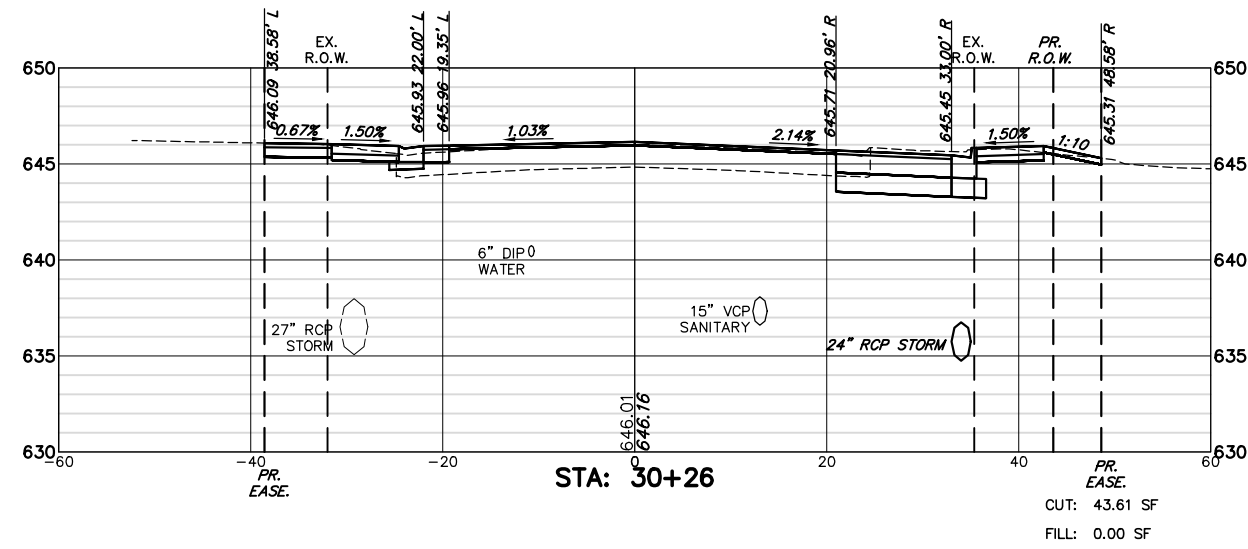
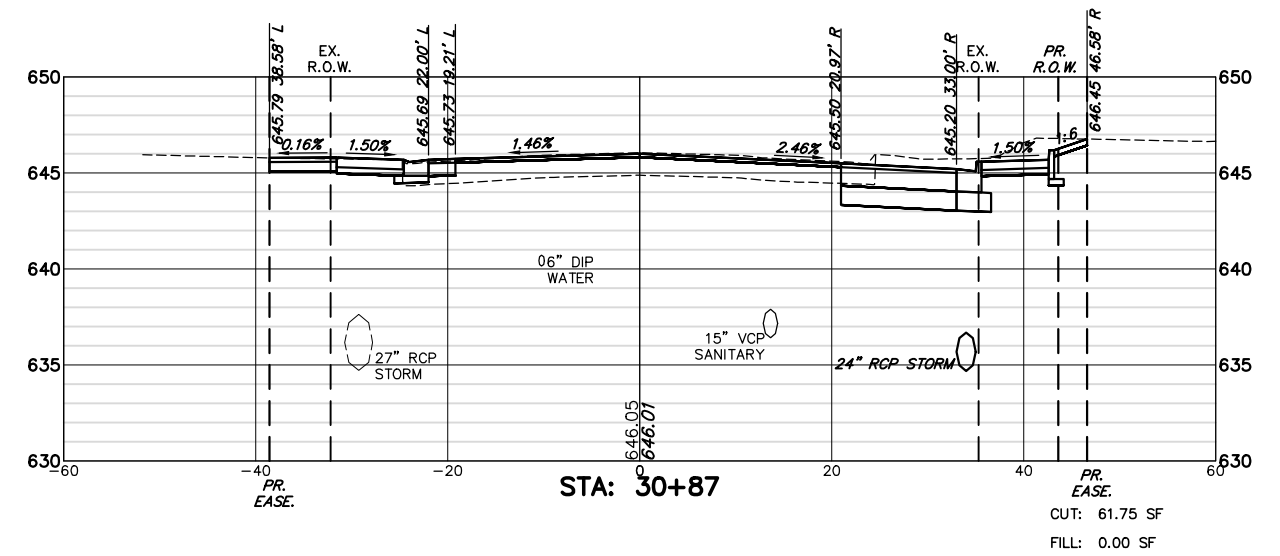
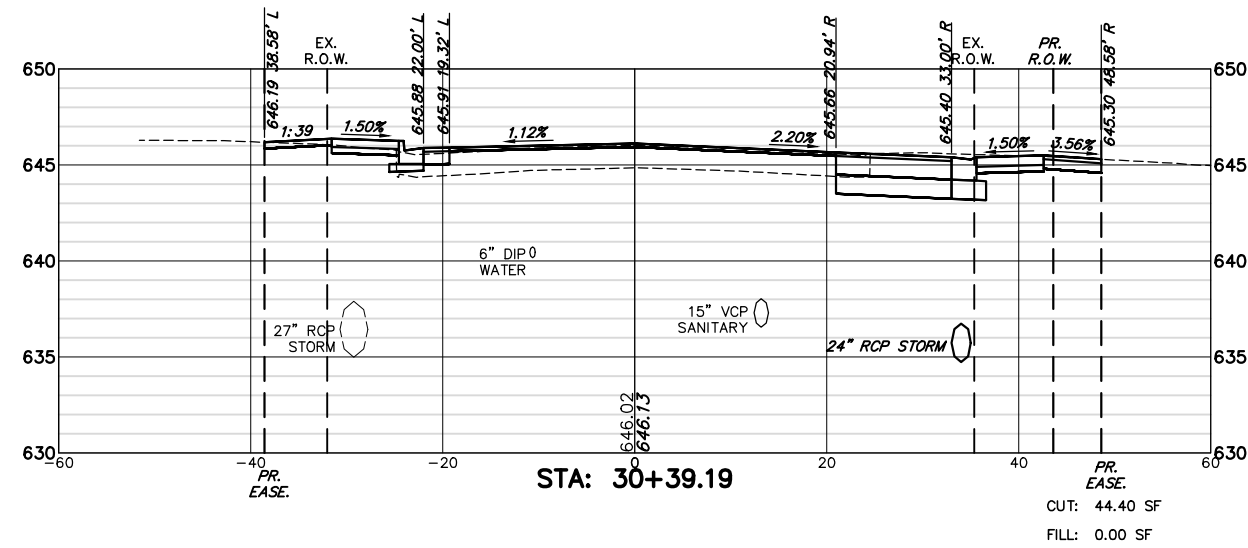
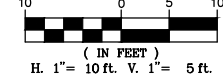
CROSS SECTIONS  
LEE ST - MANNHEIM RD AND FOREST AVENUE

SCALE AS NOTED SHEET NO. 6 OF 14 SHEETS STA. 28+23.55 TO STA. 29+50

F&P RITE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	14-00220-00-TL	COOK	85	77
CONTRACT #			61E86	

ILLINOIS FED. AID PROJECT

GRAPHIC SCALE



FILE NAME = 4816.200-sht--xsec.dwg

USER NAME = MARK COBB

DESIGNED - MGFC

REVISED -

PLOT SCALE = 1" = .1667'

DRAWN - MGFC

REVISED -

PLOT DATE = 9/30/2019 3:26 PM

CHECKED - KLB

REVISED -

DATE -

REVISED -

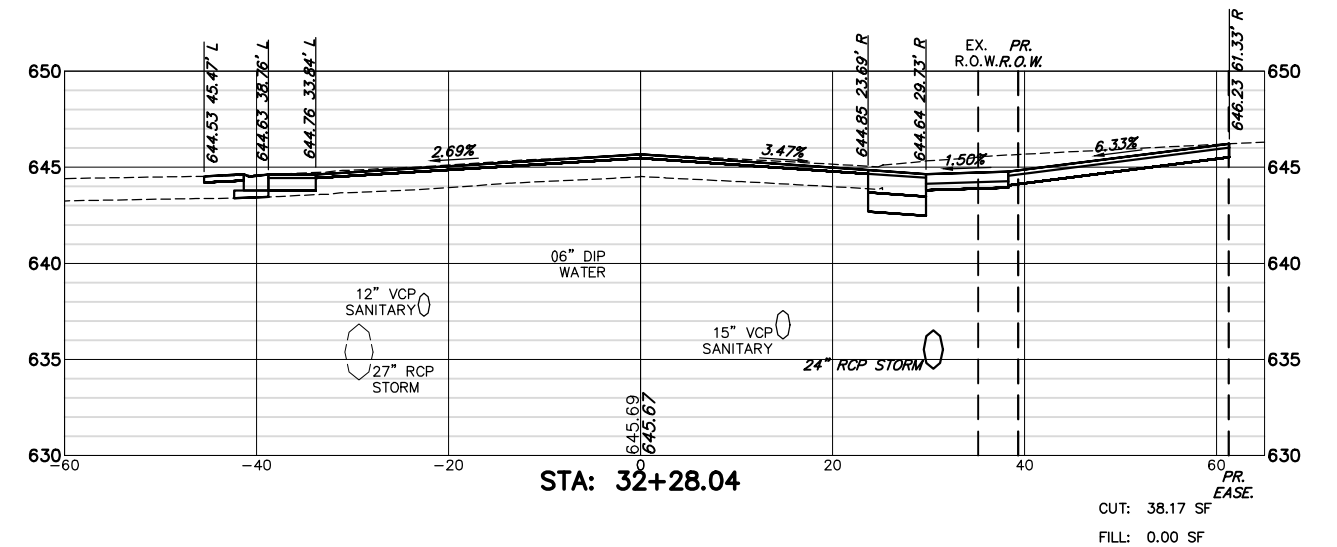
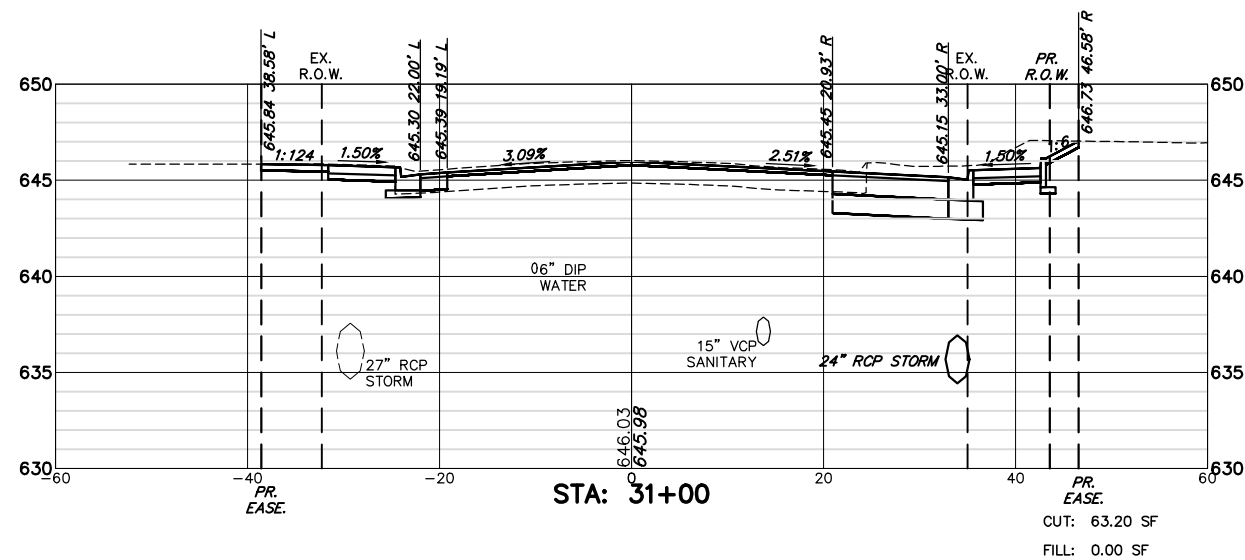
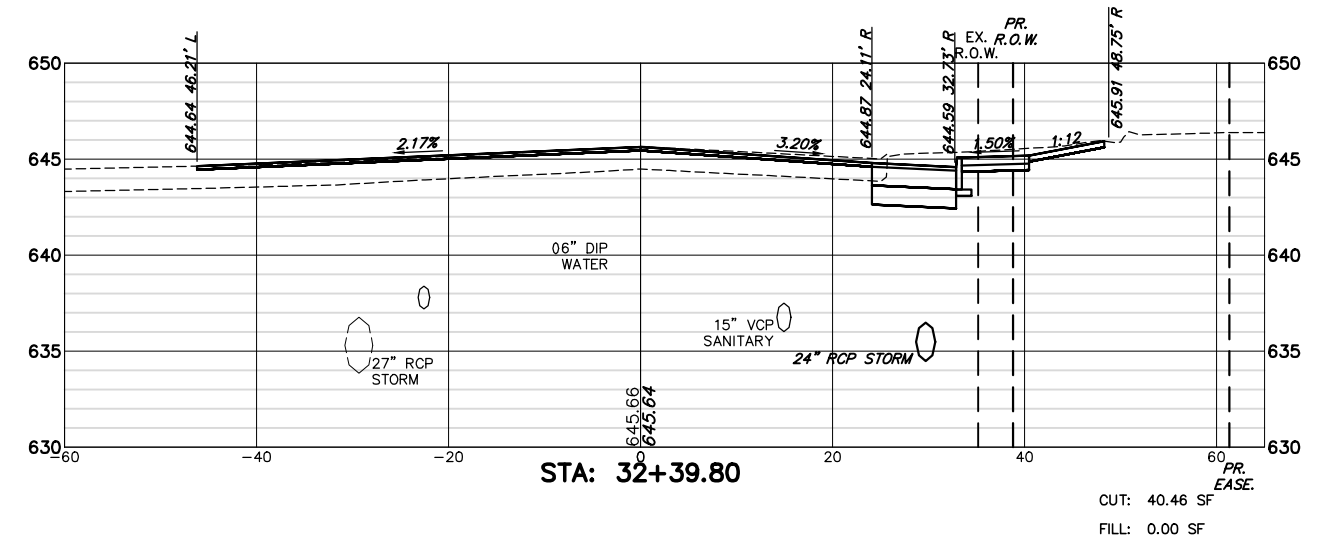
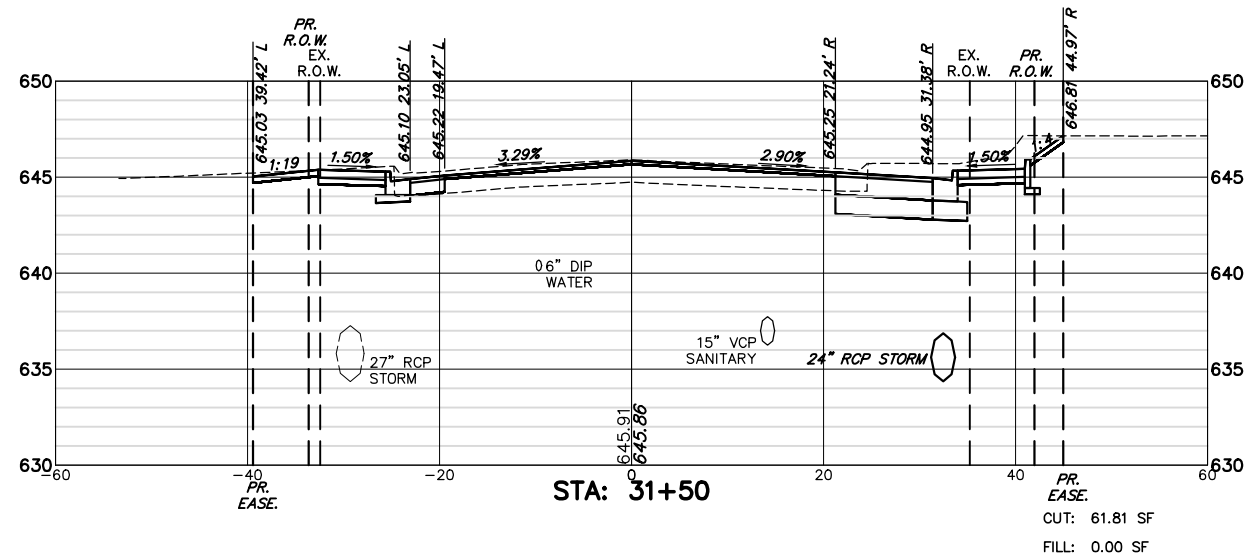
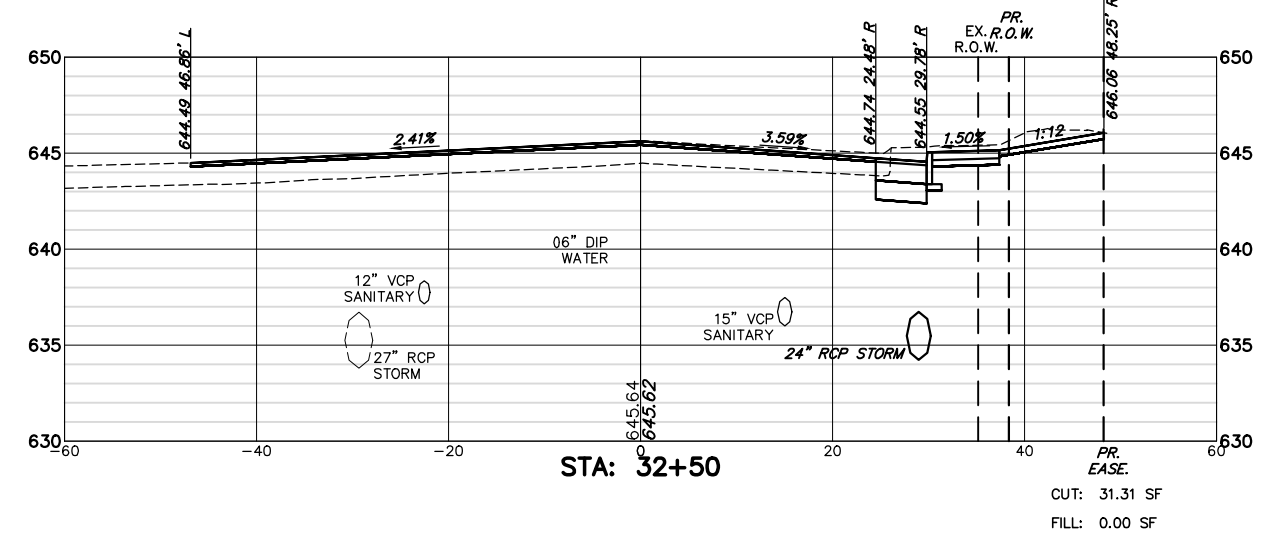
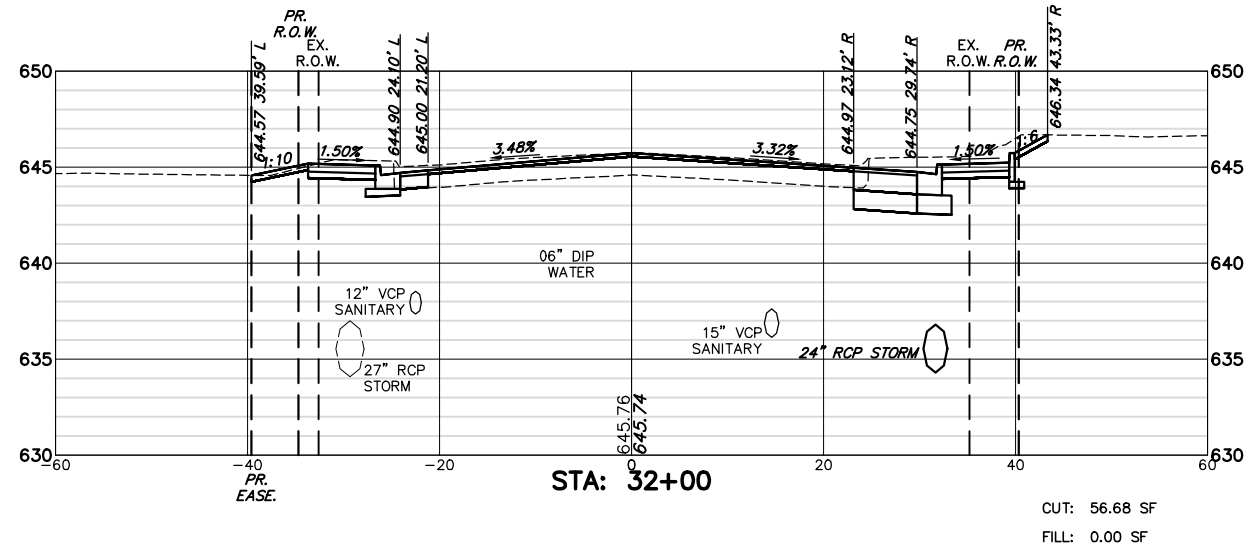
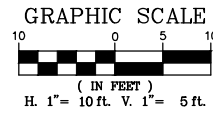
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS  
LEE ST - MANNHEIM RD AND FOREST AVENUE

SCALE AS NOTED SHEET NO. 7 OF 14 SHEETS STA. 30+00 TO STA. 30+87

FAP RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	14-00220-00-TL	COOK	85	78
CONTRACT #			61E86	

ILLINOIS FED. AID PROJECT



FILE NAME = 4816.200-sht--xsec.dwg

USER NAME = MARK COBB

DESIGNED - MGFC

REVISED -

PLOT SCALE = 1" = .1667'

DRAWN - MGFC

REVISED -

PLOT DATE = 9/30/2019 3:26 PM

CHECKED - KLB

REVISED -

DATE -

REVISED -

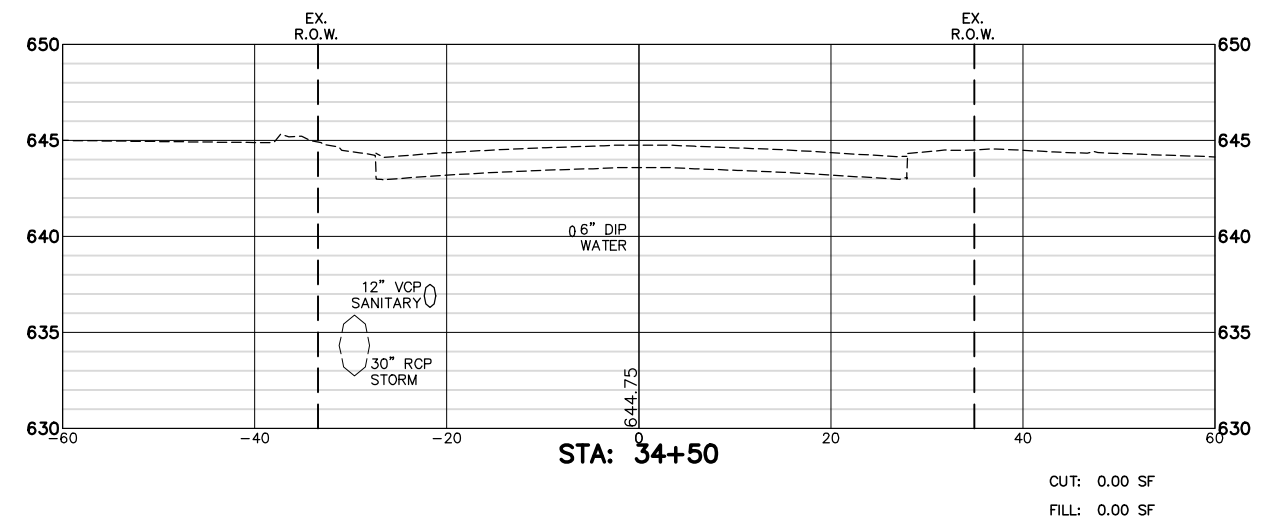
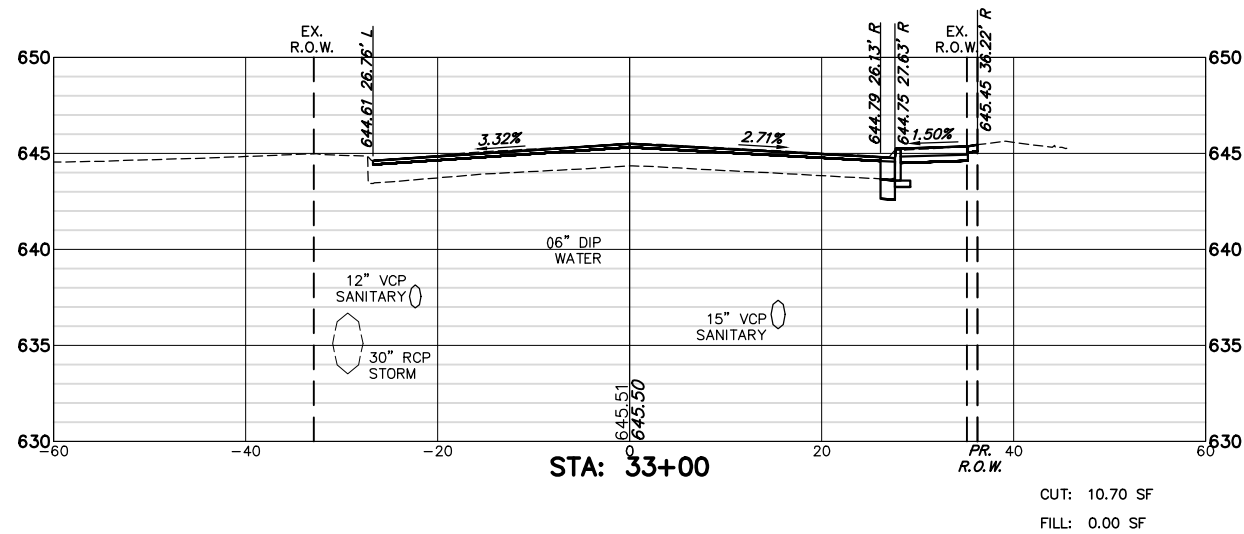
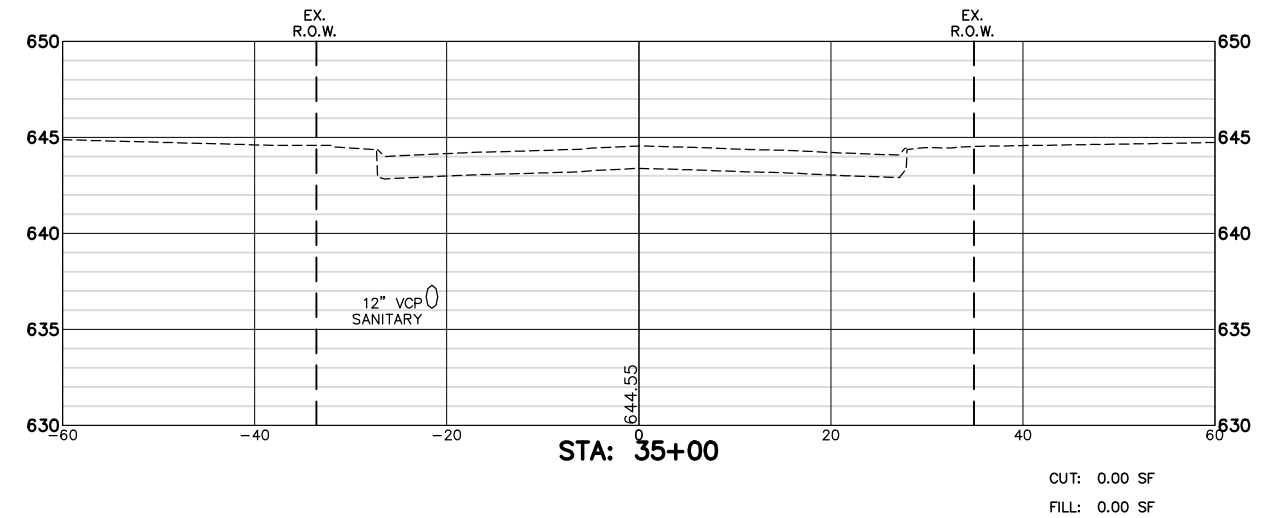
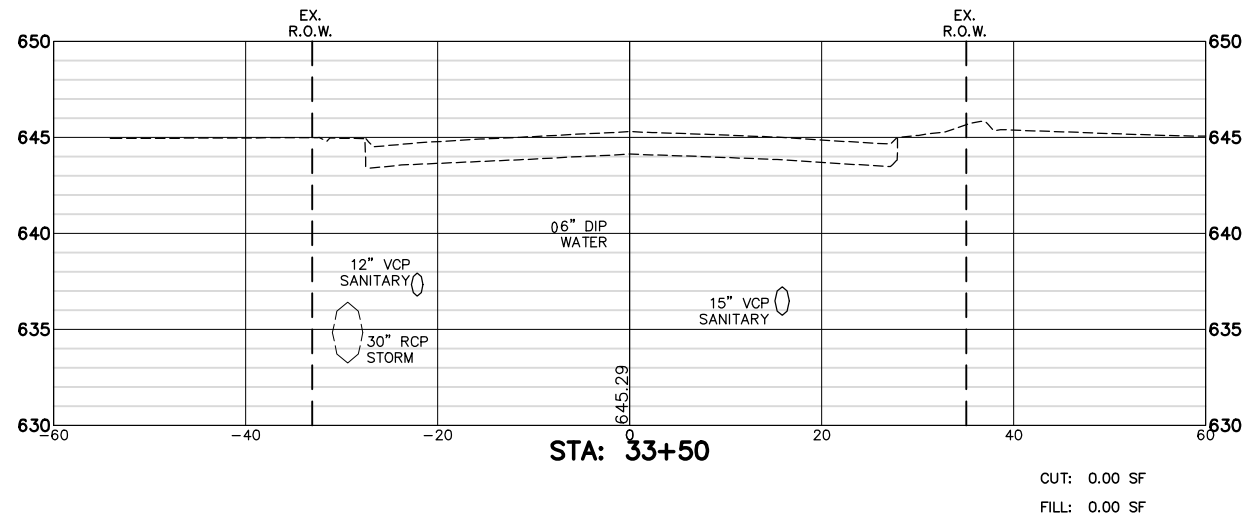
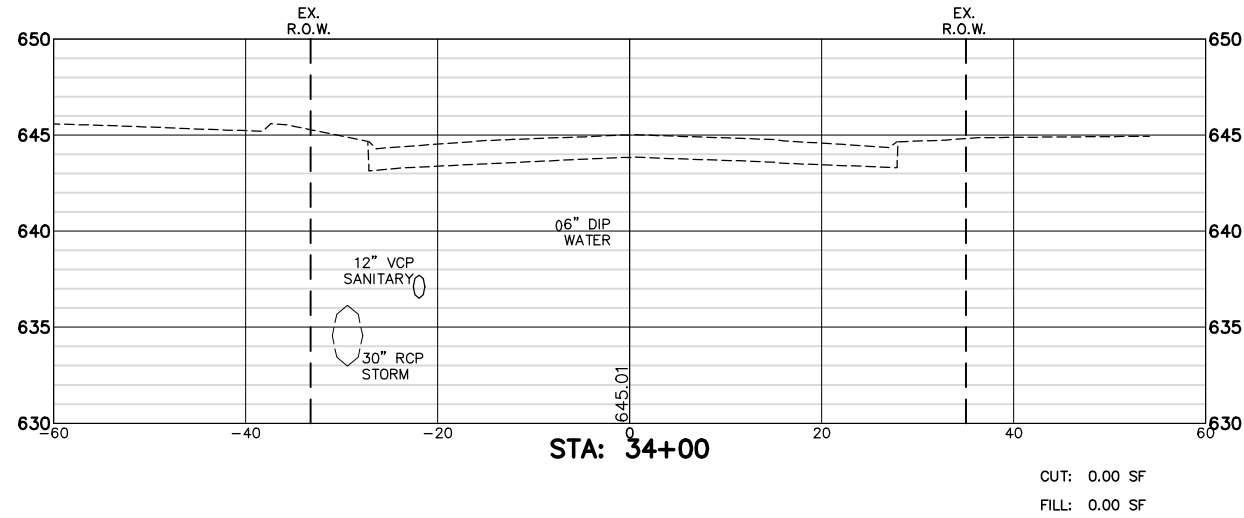
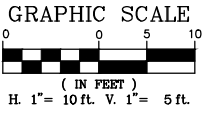
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS  
 LEE ST - MANNHEIM RD AND FOREST AVENUE

SCALE AS NOTED SHEET NO. 8 OF 14 SHEETS STA. 31+00 TO STA. 32+50

FAP RITE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	14-00220-00-TL	COOK	85	79
CONTRACT #			61E86	

ILLINOIS FED. AID PROJECT



FILE NAME = 4816.200-sht-xsec.dwg

USER NAME = MARK COBB

DESIGNED - MGFC

REVISED -

PLOT SCALE = 1" = .1667'

DRAWN - MGFC

REVISED -

PLOT DATE = 9/30/2019 3:27 PM

CHECKED - KLB

REVISED -

DATE -

REVISED -

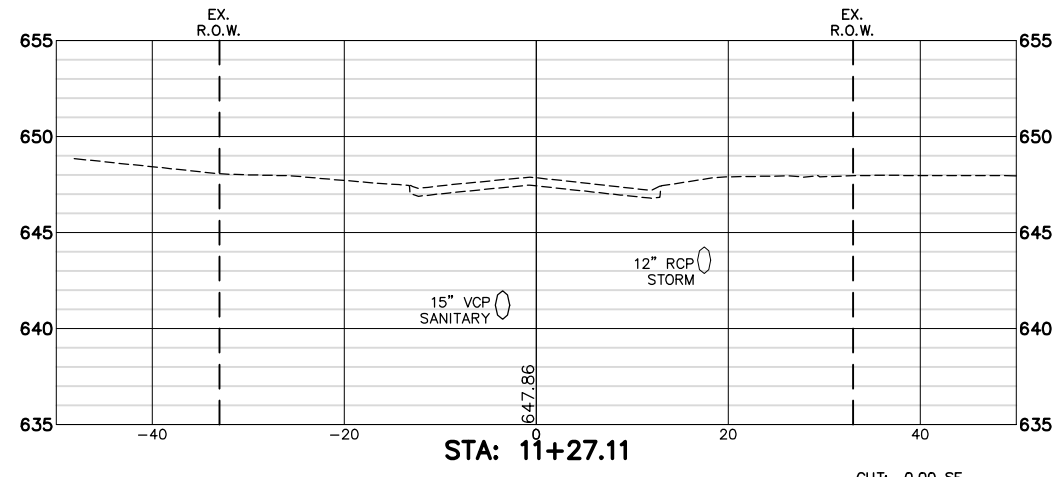
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS  
 LEE ST - MANNHEIM RD AND FOREST AVENUE

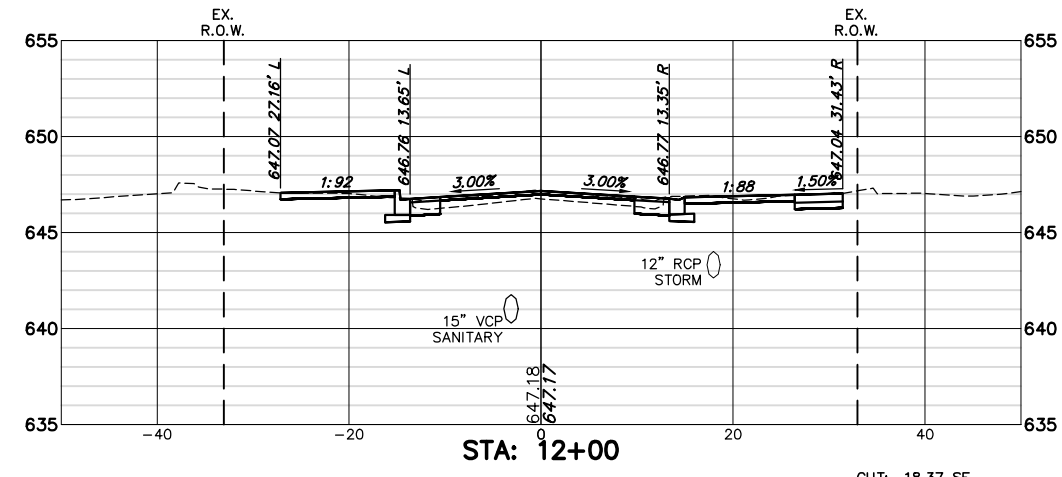
SCALE AS NOTED SHEET NO. 9 OF 14 SHEETS STA. 33+00 TO STA. 35+00

FAR RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	14-00220-00-TL	COOK	85	80
CONTRACT #			61E86	

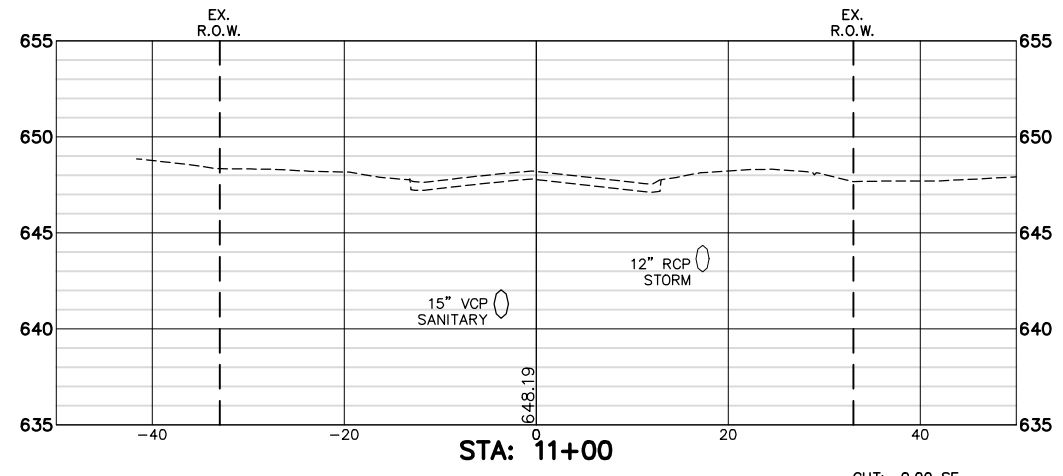
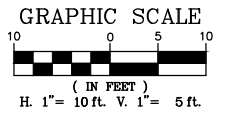
ILLINOIS FED. AID PROJECT



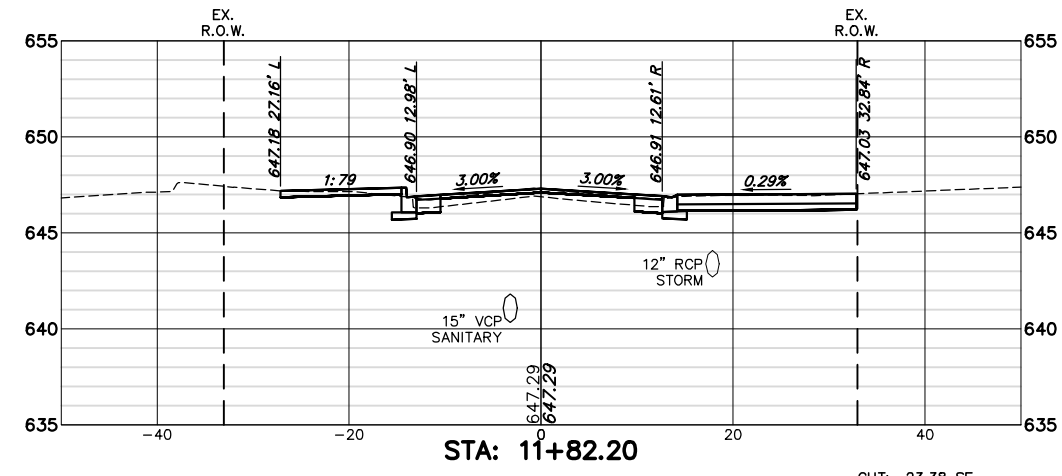
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FILL: 0.00 SF



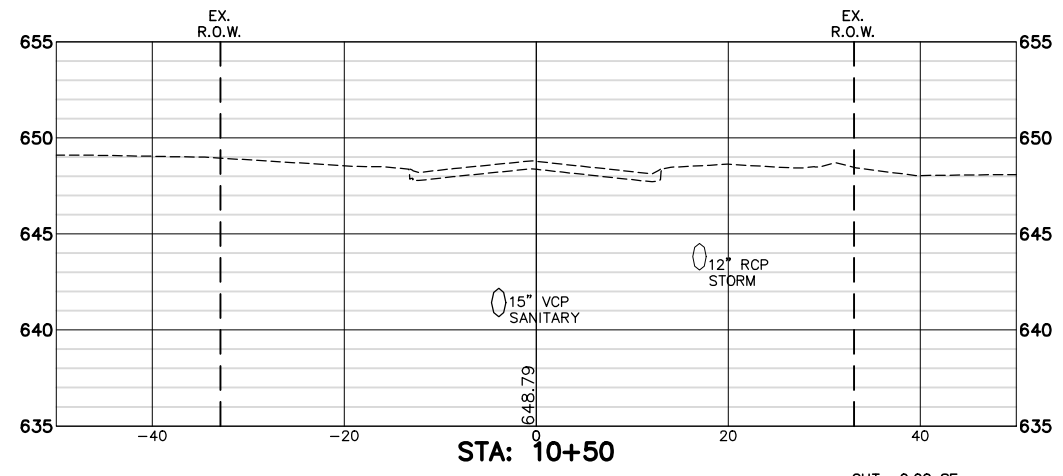
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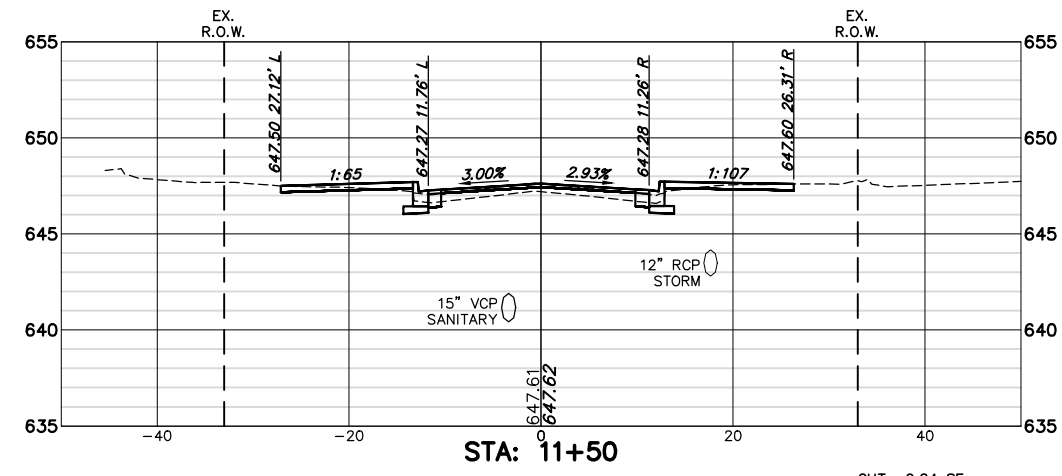
CUT: 0.00 SF  
FILL: 0.00 SF



CUT: 23.38 SF  
FILL: 0.00 SF



CUT: 0.00 SF  
FILL: 0.00 SF



CUT: 9.24 SF  
FILL: 0.00 SF

FILE NAME = 4816.200-sht-xsec.dwg

USER NAME = MARK COBB

DESIGNED - MGFC

REVISED -

PLOT SCALE = 1" = .1667'

DRAWN - MGFC

REVISED -

PLOT DATE = 9/30/2019 3:27 PM

CHECKED - KLB

REVISED -

DATE -

REVISED -

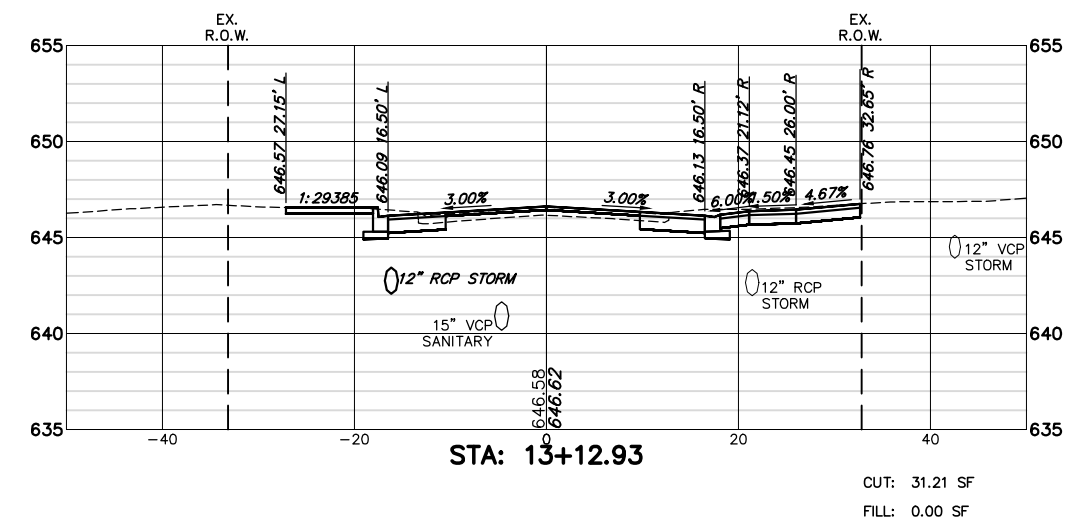
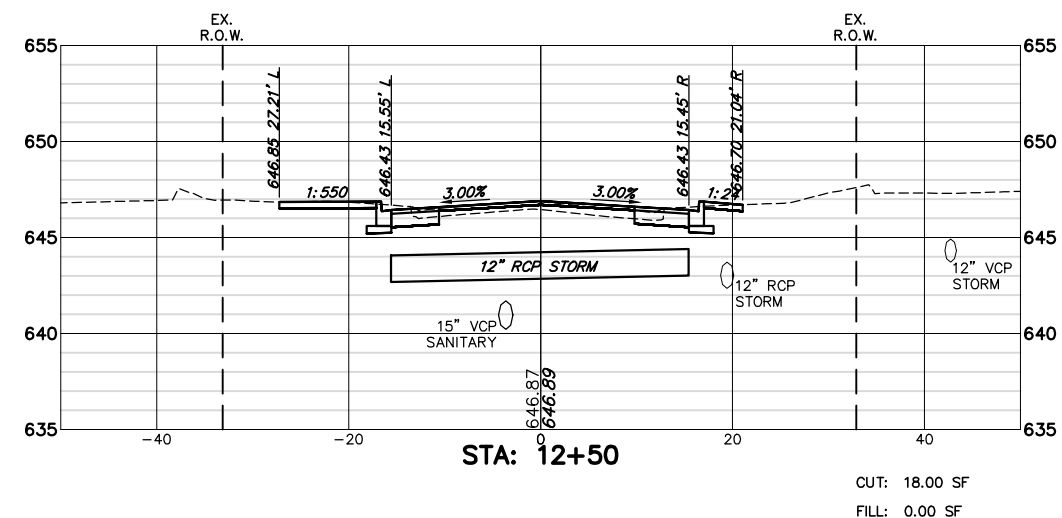
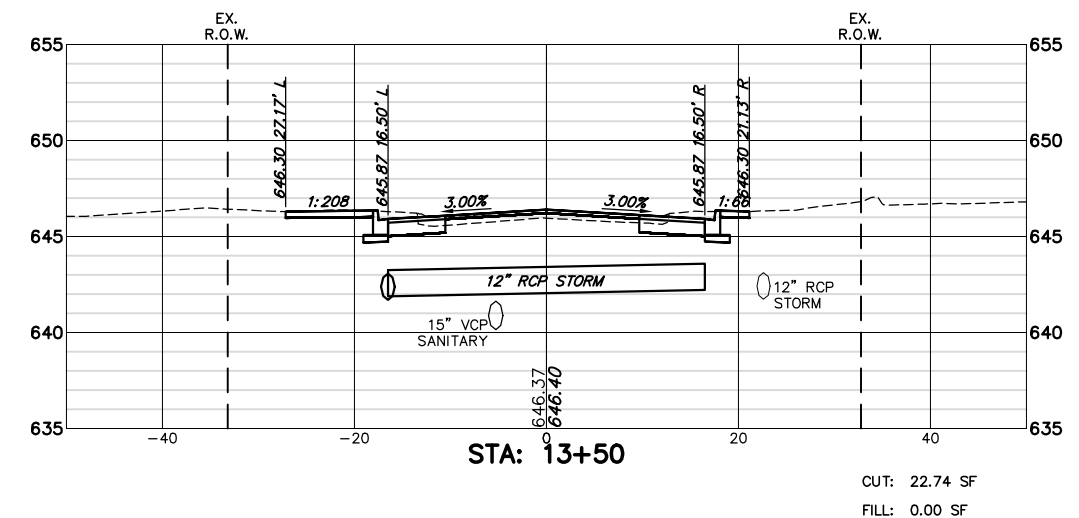
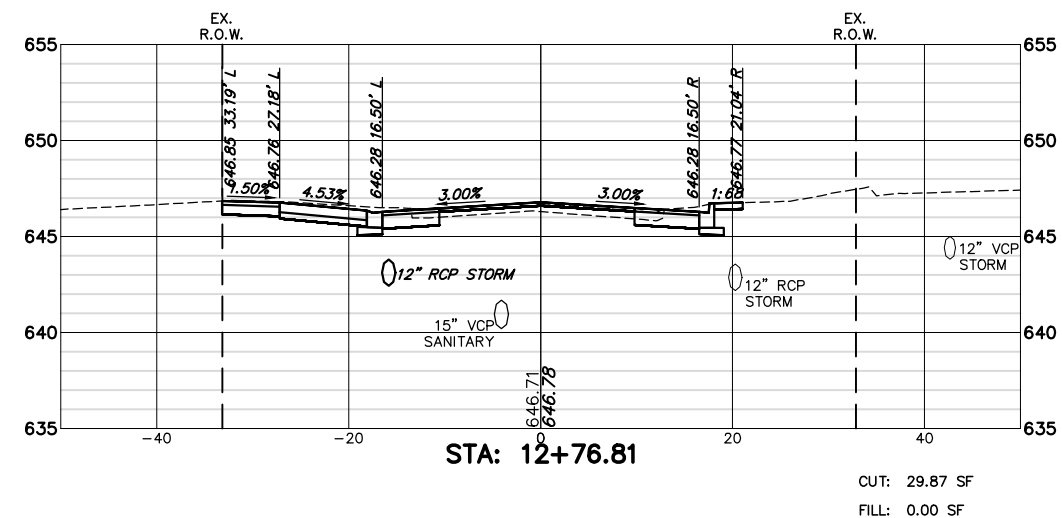
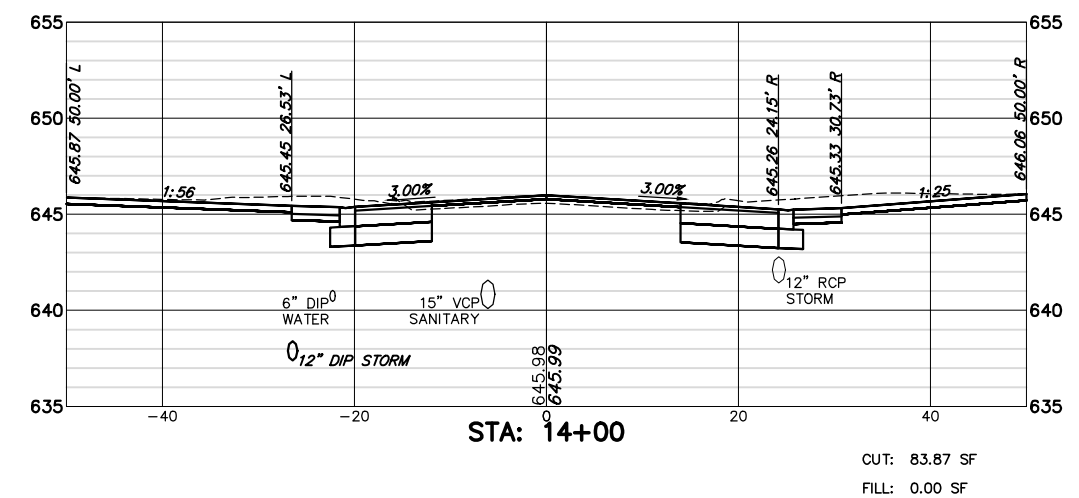
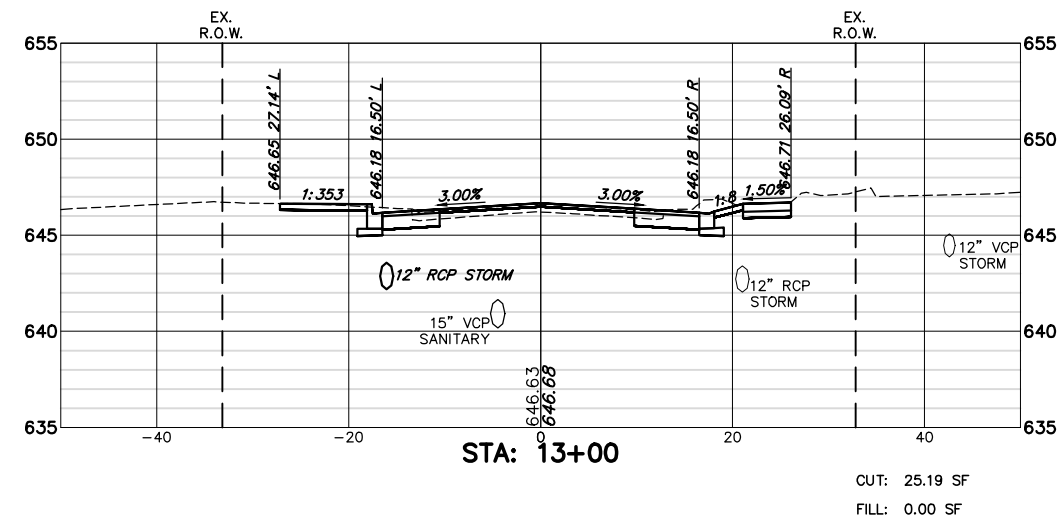
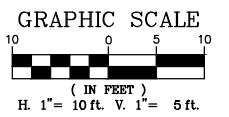
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
LEE ST - MANNHEIM RD AND FOREST AVENUE**

SCALE AS NOTED SHEET NO. 10 OF 14 SHEETS STA. 10+50 TO STA. 12+00

F&P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	14-00220-00-TL	COOK	85	81
CONTRACT #			61E86	

ILLINOIS FED. AID PROJECT



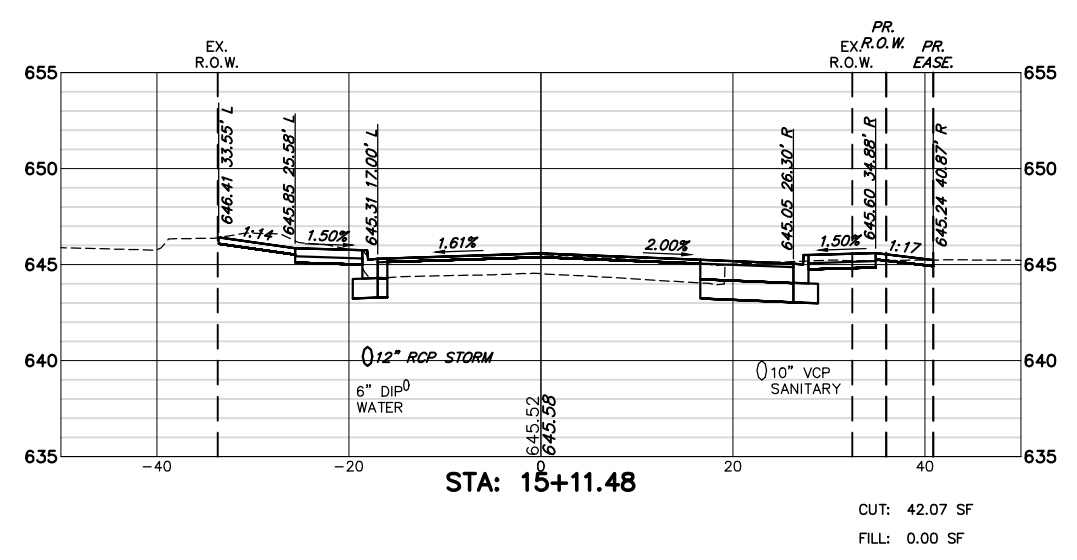
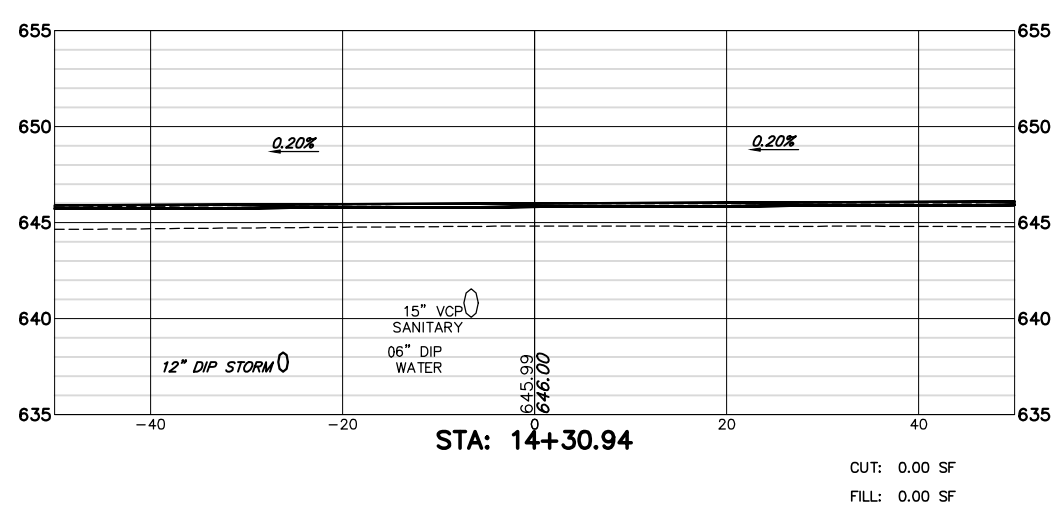
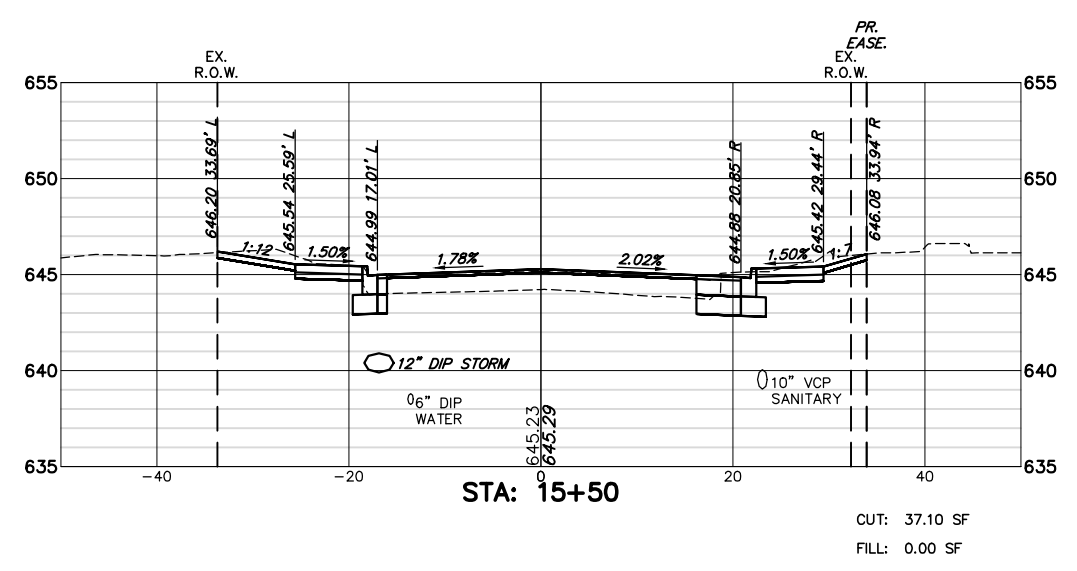
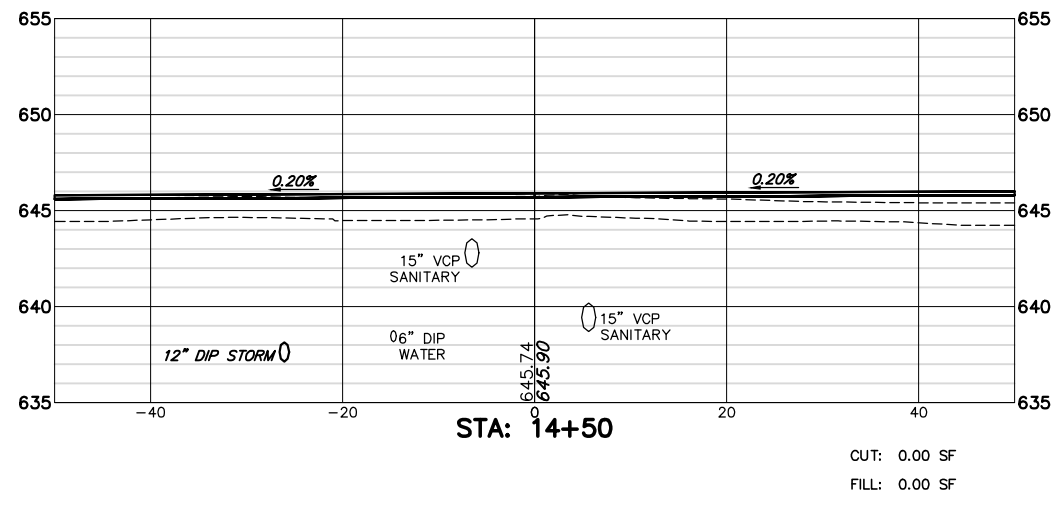
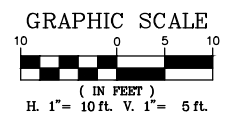
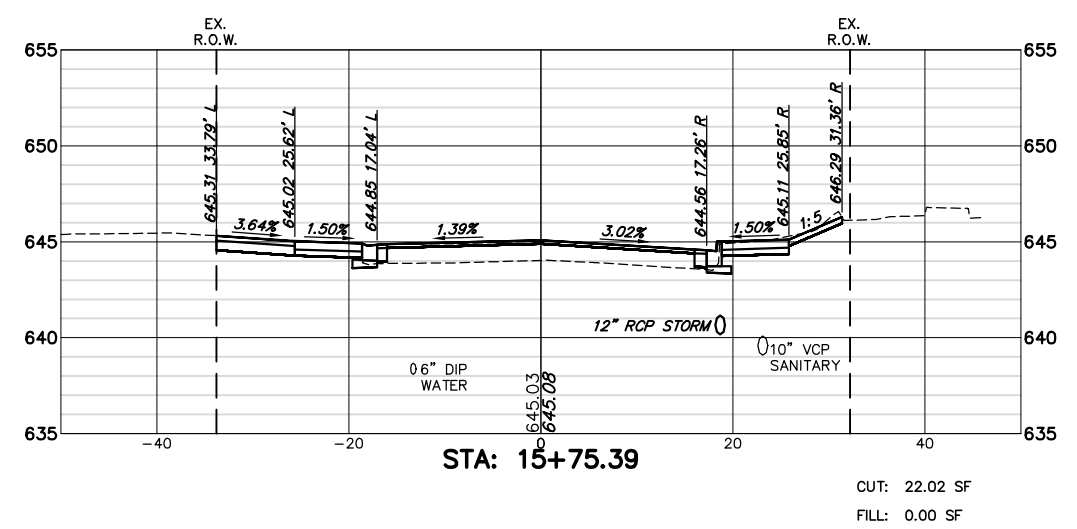
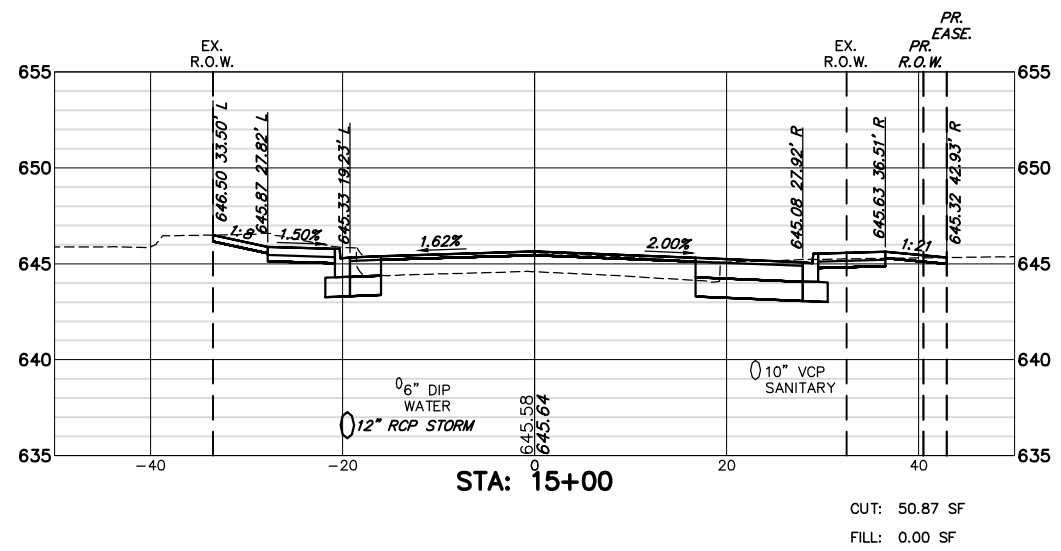
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		DRAWN - MGFC	REVISED -
		CHECKED - KLB	REVISED -
		DATE -	REVISED -
	PLOT SCALE = 1" = .1667'		
	PLOT DATE = 9/30/2019 3:30 PM		

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

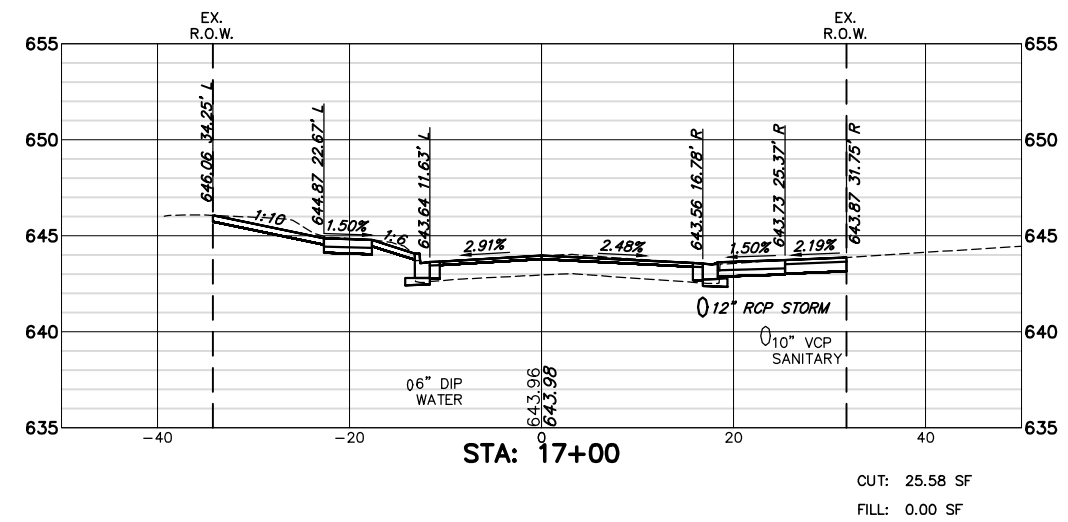
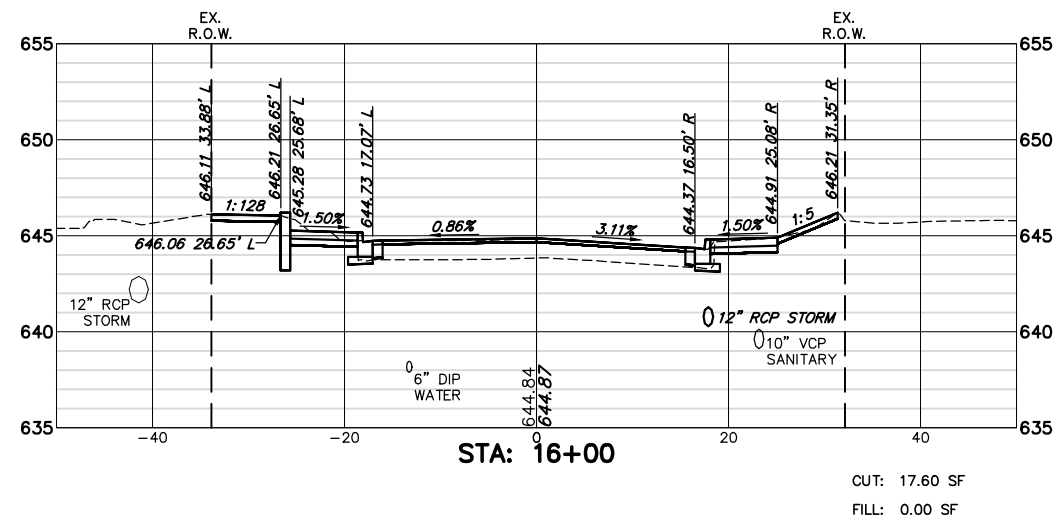
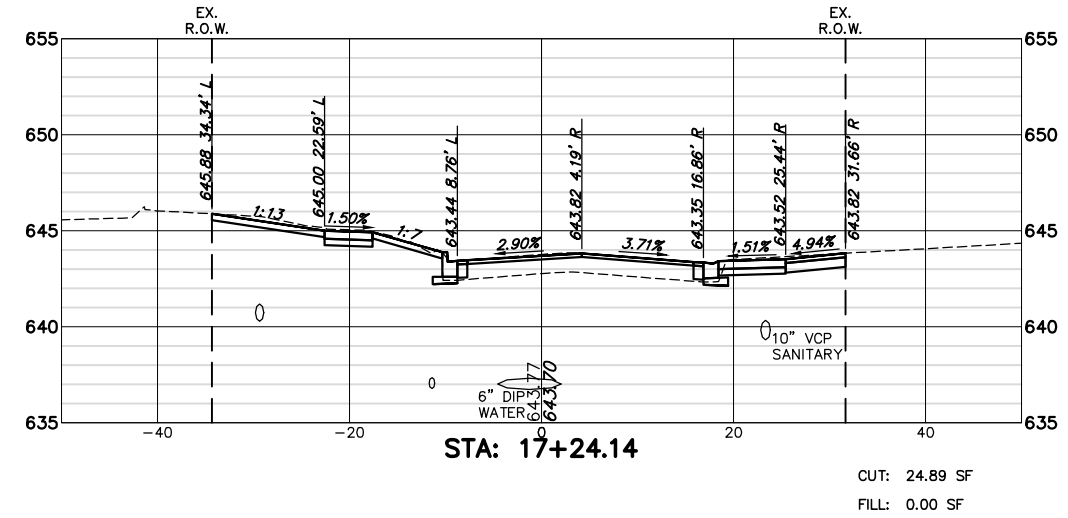
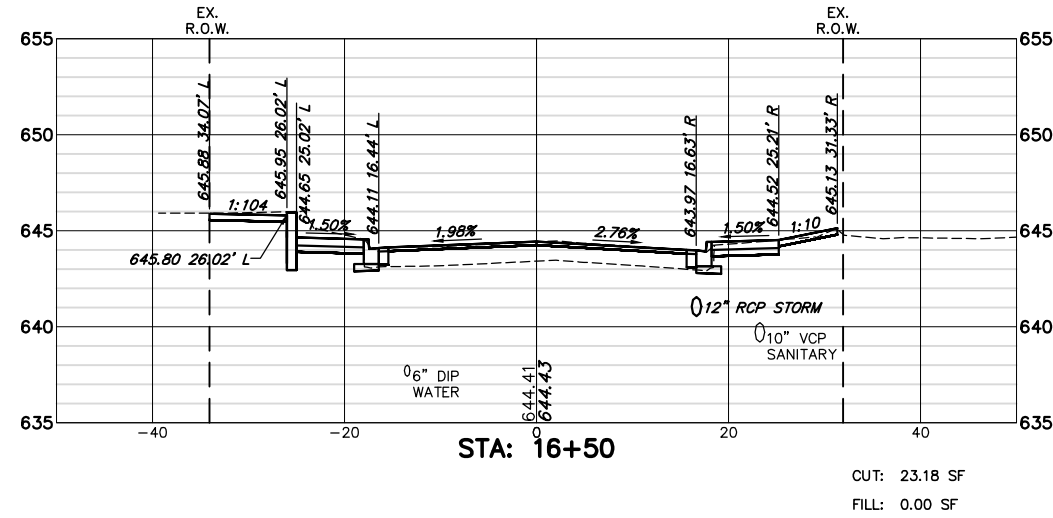
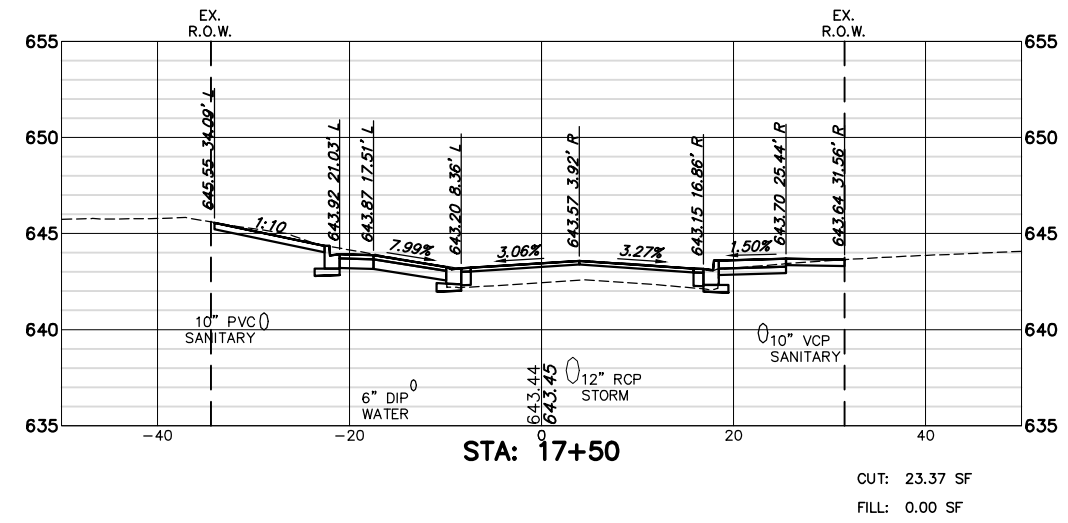
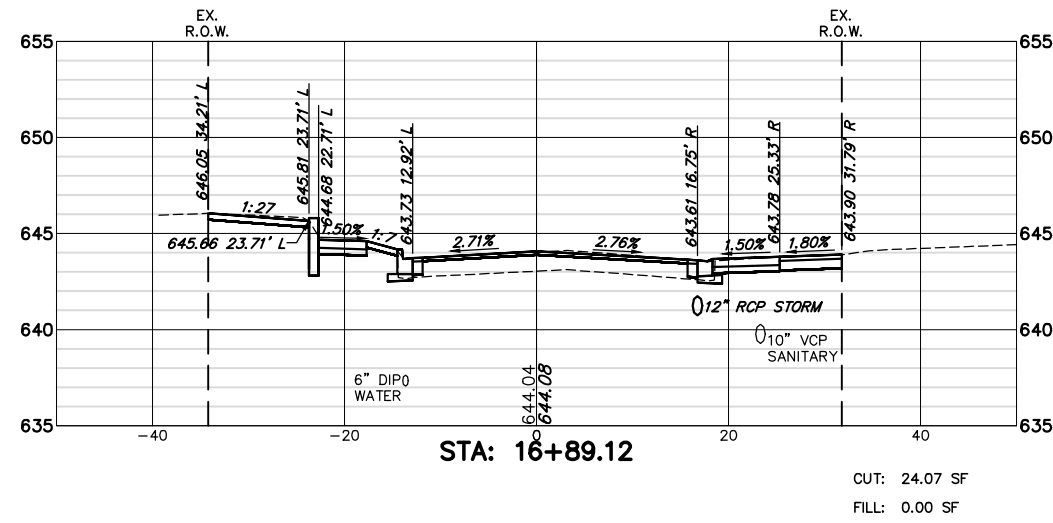
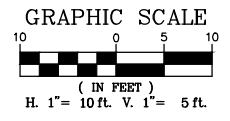
**CROSS SECTIONS  
LEE ST - MANNHEIM RD AND FOREST AVENUE**

F&P RITE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	14-00220-00-TL	COOK	85	82
CONTRACT #			61E86	
ILLINOIS FED. AID PROJECT				

SCALE AS NOTED | SHEET NO. 11 OF 14 SHEETS | STA. 12+50 TO STA. 14+00



FILE NAME = 4816.200-sht-xsec.dwg	USER NAME = MARK COBB	DESIGNED - MGFC	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>CROSS SECTIONS LEE ST - MANNHEIM RD AND FOREST AVENUE</b>		FAP RTE. 330	SECTION 14-00220-00-TL	COUNTY COOK	TOTAL SHEETS 85	SHEET NO. 83	
PLOT SCALE = 1" = .1667'		DRAWN - MGFC	REVISED -		SCALE AS NOTED	SHEET NO. 12 OF 14 SHEETS	STA. 14+30.94 TO STA. 15+75.39	CONTRACT # ILLINOIS FED. AID PROJECT				
PLOT DATE = 9/30/2019 3:30 PM		CHECKED - KLB	REVISED -									
		DATE -	REVISED -									



FILE NAME = 4816.200-sht-xsec.dwg

USER NAME = MARK COBB  
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 PLOT DATE = 9/30/2019 3:30 PM

DESIGNED - MGFC  
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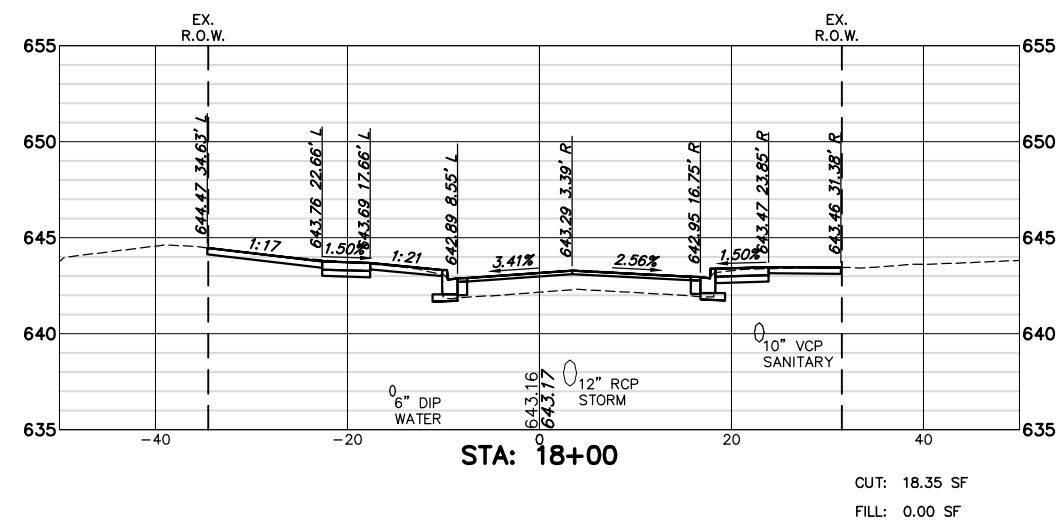
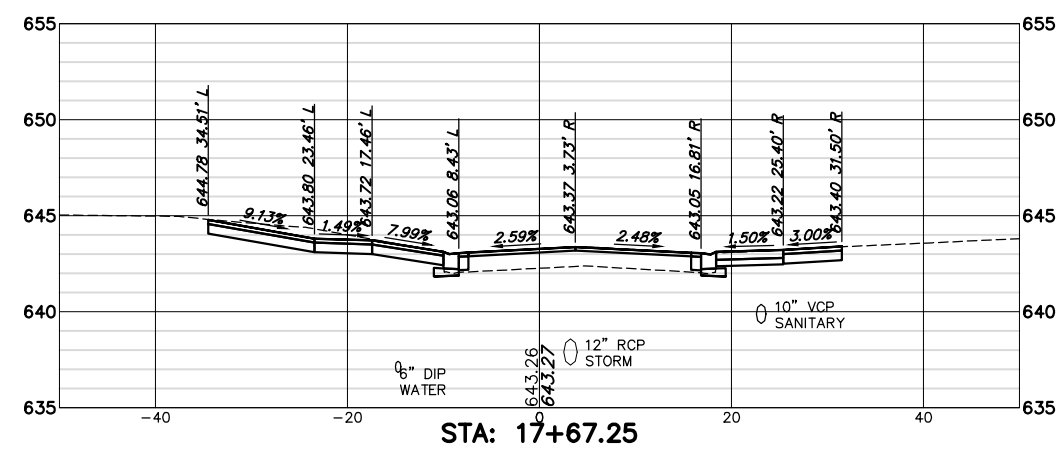
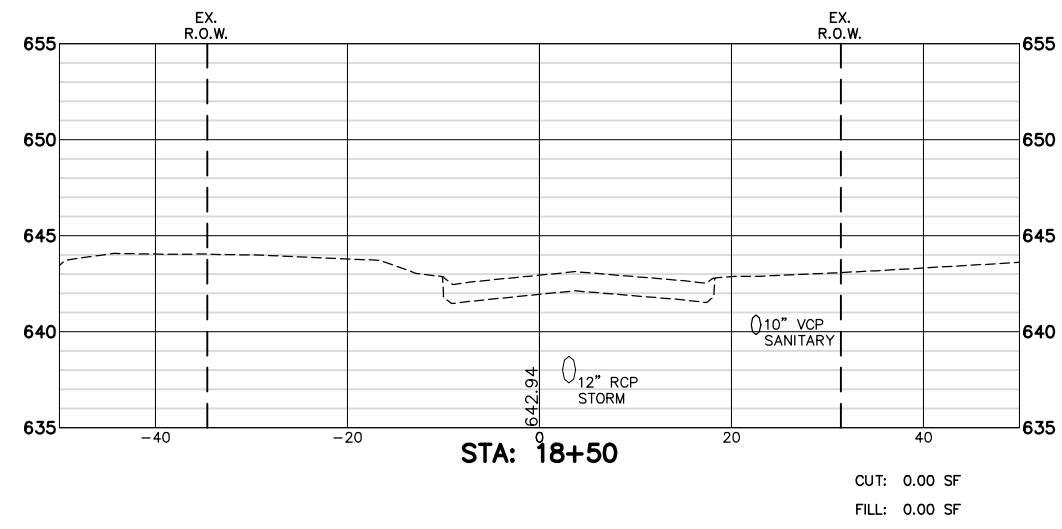
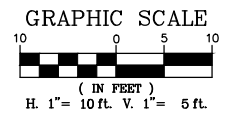
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS  
 LEE ST - MANNHEIM RD AND FOREST AVENUE  
 SCALE AS NOTED SHEET NO. 13 OF 14 SHEETS STA. 16+00 TO STA. 17+50

F&P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	14-00220-00-TL	COOK	85	84
CONTRACT #			61E86	

ILLINOIS FED. AID PROJECT





FILE NAME = 4816.200-sht-xsec.dwg

USER NAME = MARK COBB

DESIGNED - MGFC

REVISED -

PLOT SCALE = 1" = .1667'

DRAWN - MGFC

REVISED -

PLOT DATE = 9/30/2019 3:31 PM

CHECKED - KLB

REVISED -

DATE -

REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS  
 LEE ST - MANNHEIM RD AND FOREST AVENUE

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	14-00220-00-TL	COOK	85	85
CONTRACT #			61E86	

SCALE AS NOTED SHEET NO. 14 OF 14 SHEETS STA. 18+00 TO STA. 18+50

ILLINOIS FED. AID PROJECT