

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	11-00042-00-CH	ILLINOIS	36	1
ILLINOIS CONTRACT NO. 61C93				

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

STATE OF ILLINOIS 11-4-2016 LETTING ITEM 032  
 DEPARTMENT OF TRANSPORTATION  
**PROPOSED  
 HIGHWAY PLANS**

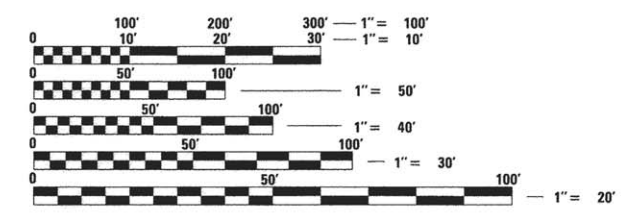
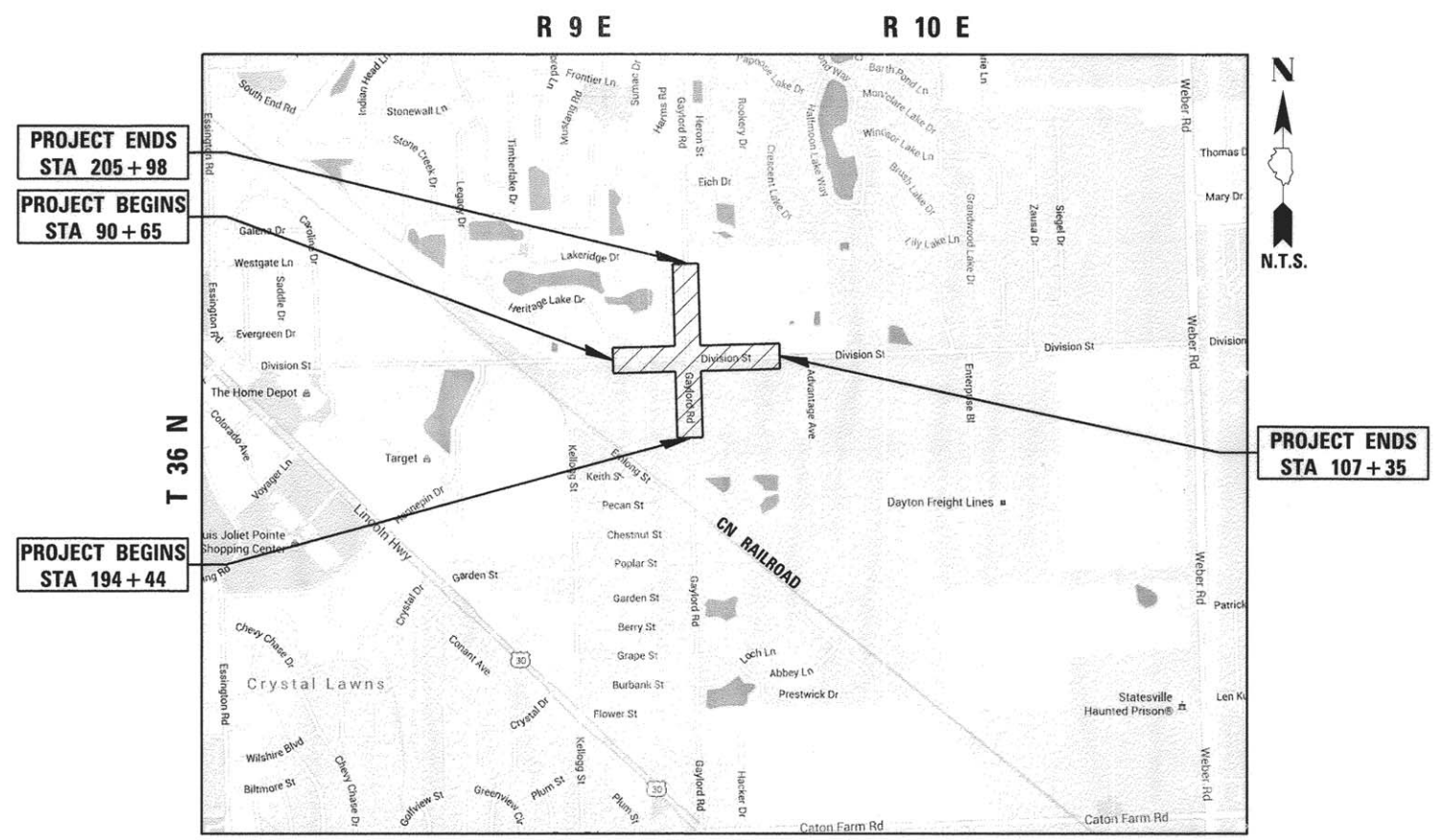
FAU ROUTE 328 GAYLORD ROAD AT DIVISION STREET  
 ROADWAY WIDENING & TRAFFIC SIGNAL IMPROVEMENTS  
 SECTION 11-00042-00-CH  
 PROJECT M-4003(100)  
 CITY OF CREST HILL  
 WILL COUNTY  
 C-91-071-13



**TRAFFIC DATA**

ROAD NAME	DIVISION STREET	GAYLORD ROAD
FUNCTIONAL CLASS	COLLECTOR	COLLECTOR
POSTED SPEED	45 MPH	40 MPH (NORTH LEG) 30 MPH (SOUTH LEG)
DESIGN SPEED	50 MPH	45 MPH (NORTH LEG) 35 MPH (SOUTH LEG)
ADT (2040)	15,000	8,500

PROGRAM AND OFFICE ENGINEER: CHARLES F. RIDDLE, P.E. (847) 705-4406 SCHAUMBURG, IL.



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

GROSS LENGTH = 2824 FT. = 0.535 MILE  
 NET LENGTH = 2824 FT. = 0.535 MILE



*Casey J. McCollom*  
 ENGINEER DATE 4/27/16

CASEY J. MCCOLLOM  
 ILLINOIS REGISTRATION No. 062-059173  
 EXPIRATION DATE: 11/2017

**CHRISTOPHER B. BURKE ENGINEERING, LTD.**  
 224 1/2 N. Liberty Street  
 Morris, Illinois 60450  
 (815) 463-9050  
 PROFESSIONAL DESIGN FIRM NO. 184-001175  
 EXPIRATION DATE: 04/30/17

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

Approved April 27, 2016  
*Ronald R. Riddle* 4/27/16  
 CITY OF CREST HILL, MAYOR

Passed MAY 20, 2016  
*C. Helt*  
 District 1 Engineer of Local Roads & Streets

Releasing for Bid Based on Limited Review  
 MAY 20, 2016  
*John Pateman*  
 Regional Engineer

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 OF THE STATE OF ILLINOIS**

**GENERAL NOTES**

SPECIFICATIONS, STANDARDS AND SPECIAL PROVISIONS

ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", ADOPTED APRIL 1, 2016, THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS", THE LATEST REVISION; THE LATEST EDITION OF THE "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", (MUTCD); THE "STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS", (SSTCI), "THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS", JULY 2014 SEVENTH EDITION, THE "DETAILS" IN THE PLANS AND THE "SPECIAL PROVISIONS" INCLUDED IN THE CONTRACT DOCUMENTS.

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

CODES OF THE IEPA TITLE 35, AND O.S.H.A. SHALL BE ADHERED TO FOR THE CONSTRUCTION OF THIS PROJECT.

ALL TRAFFIC CONTROL AND OTHER ADVISORY SIGNS NEEDED FOR CONSTRUCTION ARE TO BE FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH SECTION 700 OF THE STANDARD SPECIFICATIONS.

UTILITIES

ALL REQUIRED PERMITS FROM THE PROPER GOVERNING AGENCY SHALL BE OBTAINED FOR CONSTRUCTION ALONG OR ACROSS EXISTING STREETS OR HIGHWAYS. THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR THE PROPER BRACING, SHEETING, SHORING AND OTHER REQUIRED PROTECTION OF ALL ROADWAYS BEFORE CONSTRUCTION BEGINS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE STREETS OR ROADWAYS AND ASSOCIATED STRUCTURES AND SHALL MAKE REPAIRS AS NECESSARY TO THE SATISFACTION OF THE AGENCY, AT THE CONTRACTOR'S OWN EXPENSE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ADEQUATE SIGNS AND WARNING DEVICES TO INFORM AND PROTECT THE PUBLIC.

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

THE LOCATIONS OF EXISTING DRAINAGE STRUCTURES, STORM AND SANITARY SEWERS, WATER SERVICE LINES AND OTHER UTILITY LINES ARE APPROXIMATE, AND THE CITY DOES NOT GUARANTEE THEIR ACCURACY. THEIR EXACT HORIZONTAL AND VERTICAL LOCATIONS ARE TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR AT HIS OWN EXPENSE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND OR SURFACE UTILITIES EVEN THOUGH THEY MAY NOT BE SHOWN ON THE PLANS. ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ENGINEER OR THE CITY. THIS WORK SHALL BE AT THE CONTRACTOR'S EXPENSE.

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 8-1-1 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, GAS AND CABLE TELEVISION FACILITIES. (48 HOURS NOTIFICATION IS REQUIRED)

THE CONTRACTOR SHALL CONTACT IDOT'S BUREAU OF MATERIALS (PHONE 847-705-4337) AT LEAST 24 HOURS BEFORE PLACING HOT-MIX ASPHALT OR PORTLAND CEMENT CONCRETE.

WATER, STORM SEWER AND SANITARY SEWER

WHENEVER DURING CONSTRUCTION OPERATIONS ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF DRAINAGE STRUCTURES SUCH THAT THE NATURAL FLOW OF WATER IS OBSTRUCTED, IT SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL UTILITY STRUCTURES SHALL BE FREE FROM DIRT AND DEBRIS. THE WORK SPECIFIED ABOVE WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF INLET FILTERS.

ALL EXISTING OR PROPOSED STORM SEWER DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR, AND INCLUDED IN THE COST OF PAVEMENT REMOVAL.

THE CONTRACTOR SHALL NOT OPEN OR SHUT ANY WATER VALVES OR FIRE HYDRANTS. CONTACT THE CITY OF CREST HILL WATER DEPARTMENT (TEL. 815-741-5400) FOR THEM TO TURN VALVES OR OPERATE HYDRANTS. UNAUTHORIZED USE SHALL SUBJECT THE OFFENDER TO ARREST AND PROSECUTION.

MISCELLANEOUS

ACCESS: THE CONTRACTOR SHALL PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT. EXCEPT FOR PERIODS OF SHORT DURATION, THE COST TO PROVIDE ACCESS SHALL BE PAID FOR AND INCLUDED IN THE ITEM AGGREGATE FOR TEMPORARY ACCESS (PRIVATE ENTRANCE).

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

ALL SAWCUTTING SHALL BE INCLUDED IN ADJACENT REMOVAL ITEMS AND SHALL BE PERFORMED PRIOR TO BEGINNING REMOVAL. ANY ITEMS OF WORK REMOVED PRIOR TO SAWCUTTING WILL NOT BE MEASURED FOR PAYMENT.

THE THICKNESSES OF HOT-MIX ASPHALT MIXTURES SHOWN IN THE PLANS ARE NOMINAL. DEVIATIONS MAY OCCUR DUE TO IRREGULARITIES IN THE SURFACES OR BASIS ON WHICH THEY ARE TO BE PLACED. PLAN THICKNESSES SHOULD BE CONSIDERED THE MINIMUM THICKNESS PERMITTED.

PAVEMENT GRADES: THE ELEVATIONS INDICATED ON THE PLANS ARE FINISHED GRADES OF PROPOSED PAVEMENT OR SURFACE COURSE, UNLESS OTHERWISE INDICATED.

REMOVING AND RELOCATING EXISTING SIGNS: EXISTING SIGNS WHICH ARE IN CONFLICT WITH PROPOSED IMPROVEMENTS SHALL BE REMOVED AND AT THE ENGINEERS DIRECTION REINSTALLED UPON COMPLETION OF CONFLICTING IMPROVEMENTS IN ACCORDANCE WITH ARTICLE 107.25 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. STOP SIGNS, SPEED LIMIT SIGNS, AND STREET NAME SIGNS SHALL BE UP AND VISIBLE AT ALL TIMES. THE COST OF REMOVING AND/OR RELOCATING SIGNS SHALL BE INCLUDED IN MOBILIZATION.

ADVANCED WARNING CHANGEABLE MESSAGE BOARDS SHALL BE POSTED AT BOTH ENDS OF THE ROADWAY 2 WEEKS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION WITHIN THE CITY'S RIGHT OF WAY NOTIFYING THE MOTORING PUBLIC OF THE UPCOMING WORK (ROAD CONSTRUCTION/DETOUR BEGINNING). EXPECT DELAYS. THE LANGUAGE MUST BE PROVIDED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO THEIR ACTIVATION. THE MESSAGE BOARD LOCATION SHALL BE REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO PLACEMENT.

NO CONSTRUCTION SHALL BEGIN UNTIL ALL PROPER TEMPORARY SIGNS AND BARRICADES HAVE BEEN INSTALLED.

ANY REPAIRS FOR DAMAGE BY THE CONTRACTOR OUTSIDE THE LIMITS OF WORK TO SIDEWALKS AND DRIVEWAY APRONS SHALL BE INCLUDED IN THE COST OF THE CONTRACT.

VANDALISM - SPECIAL ATTENTION IS CALLED TO THE SPECIAL PROVISION FOR "INSPECTION" AS WELL AS ARTICLE 107.30 OF THE "STANDARD SPECIFICATIONS." ANY DEFACED WORK AS DETERMINED BY THE ENGINEER SHALL BE CORRECTED OR REPLACED TO THE SATISFACTION OF THE ENGINEER BY THE CONTRACTOR AT HIS SOLE EXPENSE PRIOR TO FINAL PAYMENT. THE CITY OF CREST HILL WILL COOPERATE WITH THE CONTRACTOR TO MINIMIZE VANDALISM, BUT THE CONTRACTOR SHALL BE ULTIMATELY RESPONSIBLE TO CORRECT ANY DAMAGE. THE CITY WILL NOT BE RESPONSIBLE FOR THE SECURITY OF THE WORK SITE IN THIS REGARD, OTHER THAN NORMAL PATROLLING AND RESPONSE TO EMERGENCIES. THE COST OF ADDITIONAL SECURITY REQUIRED TO MEET THIS SPECIAL PROVISION SHALL INCLUDED IN THE COST OF MOBILIZATION.

INDEX OF SHEETS

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**HIGHWAY STANDARDS**

000001-06	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
606001-06	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
701006-05	OFF-ROAD OPERATIONS, 2L, 2W, 15' 4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
701011-04	OFF-ROAD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701101-05	OFF-ROAD OPERATIONS, MULTILANE, 15' (4.5M) TO 24" (600) FROM PAVEMENT EDGE
701201-04	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH
701326-04	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS ≥ 45 MPH
701427-04	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATION, FOR SPEEDS ≤ 40 MPH
701501-06	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701502-06	URBAN LANE CLOSURE, 2L, 2W, WITH BIDIRECTIONAL LEFT TURN LANE
702602-07	URBAN LANE CLOSURE, MULTILANE, 2W WITH BIDIRECTIONAL LEFT TURN LANE
701606-10	URBAN SINGLE LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701701-10	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-06	LANE CLOSURE MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
701901-05	TRAFFIC CONTROL DEVICES

**DISTRICT ONE DETAILS**

TC-10	TRAFFIC CONTROL & PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS
TC-13	DISTRICT ONE TYPICAL PAVEMENT MARKINGS
TC-16	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING
BD-32	BUTT JOINT AND HMA TAPER DETAILS
TS-05	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS

FILE NAME =	USER NAME = cmccolom	DESIGNED - CJM	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>GENERAL NOTES, INDEX OF SHEETS AND HIGHWAY STANDARDS DIVISION STREET AND GAYLORD ROAD</b>	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
N:\CRESTHILL\130327\Civil\130327_01.dgn		DRAWN - CJM	REVISED -			328	11-00042-00-CH	WILL	36	2
Default	PLOT SCALE = 20'	CHECKED - DV	REVISED -			CONTRACT NO. 61C93				
	PLOT DATE = 4/28/2016	DATE - \$date	REVISED -			SCALE: 1"=20'	SHEET 2 OF SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT

**SUMMARY OF QUANTITIES**

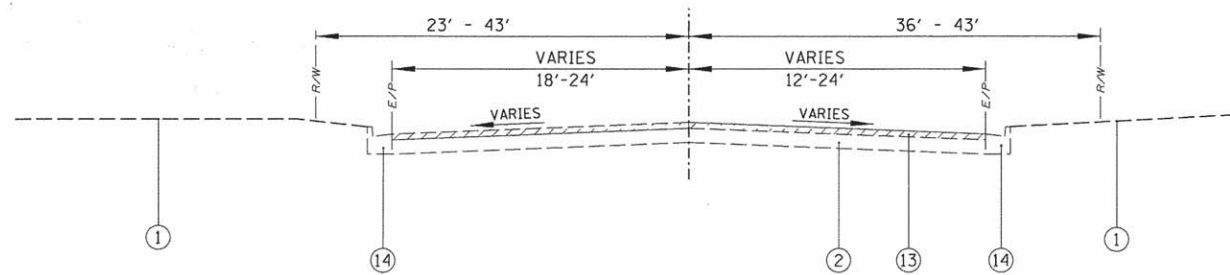
CODE NO.	ITEM	UNIT	ROADWAY	
			0004	URBAN
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	125	
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	150	
20200100	EARTH EXCAVATION	CU YD	725	
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	200	
20800150	TRENCH BACKFILL	CU YD	75	
21001000	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SQ YD	600	
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	1700	
21301072	EXPLORATION TRENCH 72" DEPTH	FOOT	30	
21400100	GRADING AND SHAPING DITCHES	FOOT	1780	
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	21	
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	21	
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	21	
25200110	SODDING, SALT TOLERANT	SQ YD	1700	
25200200	SUPPLEMENTAL WATERING	UNIT	10	
28000510	INLET FILTERS	EACH	15	
30300001	AGGREGATE SUBGRADE IMPROVEMENT	CU YD	200	
30300112	AGGREGATE SUBGRADE IMPROVEMENT 12"	SQ YD	950	
35101598	AGGREGATE BASE COURSE, TYPE B 3"	SQ YD	375	
35501308	HOT-MIX ASPHALT BASE COURSE, 6"	SQ YD	950	
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	5830	
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TONS	20	
40600827	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	950	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	100	
40603085	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	TON	120	
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	1130	
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	375	
44000100	PAVEMENT REMOVAL	SQ YD	250	
44000158	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4"	SQ YD	12000	

CODE NO.	ITEM	UNIT	ROADWAY	
			0004	URBAN
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	110	
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	650	
44000600	SIDEWALK REMOVAL	SQ FT	450	
44201737	CLASS D PATCHES, TYPE I, 8 INCH	SQ YD	150	
44201741	CLASS D PATCHES, TYPE II, 8 INCH	SQ YD	150	
44201745	CLASS D PATCHES, TYPE III, 8 INCH	SQ YD	150	
44201747	CLASS D PATCHES, TYPE IV, 8 INCH	SQ YD	150	
44300200	STRIP REFLECTIVE CRACK CONTROL TREATMENT	FOOT	1075	
50105220	PIPE CULVERT REMOVAL	FOOT	21	
542A0217	PIPE CULVERTS, CLASS A, TYPE 1 12"	FOOT	30	
54213657	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 12"	EACH	2	
550A2520	STORM SEWERS, RUBBER GASKET, CLASS A, TYPE 2 12"	FOOT	115	
55100500	STORM SEWER REMOVAL 12"	FOOT	60	
56400500	FIRE HYDRANTS TO BE REMOVED	EACH	2	
56400820	FIRE HYDRANT WITH AUXILIARY VALVE AND VALVE BOX	EACH	2	
60218500	MANHOLES, TYPE A, 4'-DIAMETER, TYPE 3 FRAME AND GRATE	EACH	2	
60235700	INLETS, TYPE A, TYPE 3 FRAME AND GRATE	EACH	1	
60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	1075	
67100100	MOBILIZATION	LSUM	1	
70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	LSUM	1	
70102622	TRAFFIC CONTROL AND PROTECTION, STANDARD 701502	LSUM	1	
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	LSUM	1	
70102632	TRAFFIC CONTROL AND PROTECTION, STANDARD 701602	LSUM	1	
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	LSUM	1	
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	LSUM	1	
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	8	
72000100	SIGN PANEL - TYPE 1	SQ FT	62	
72800100	TELESCOPING STEEL SIGN SUPPORT	FOOT	32	

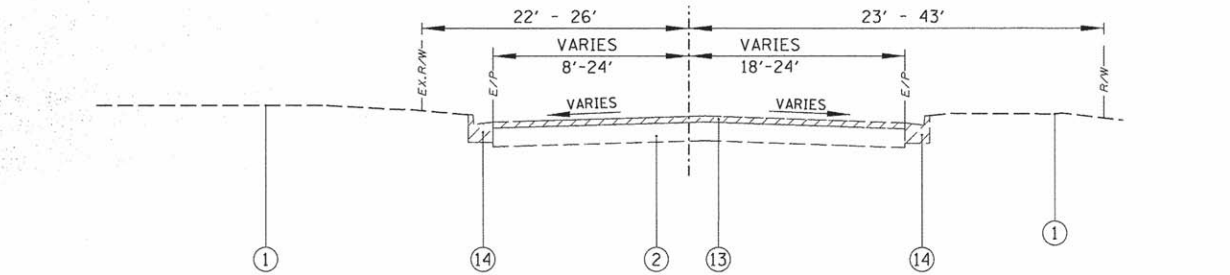
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			0004	URBAN
78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	300	
78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	8200	
78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	1300	
78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	300	
78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	100	
80500020	SERVICE INSTALLATION - POLE MOUNTED	EACH	1	
81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	697	
81028210	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	26	
81028220	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	48	
81028240	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	264	
81400100	HANDHOLE	EACH	5	
81400200	HEAVY-DUTY HANDHOLE	EACH	4	
81400300	DOUBLE HANDHOLE	EACH	1	
81702110	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	1528	
82103250	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, PHOTO-CELL CONTROL, 250 WATT	EACH	4	
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	279	
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	696	
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1303	
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1546	
87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	112	
87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	480	
87501200	TRAFFIC SIGNAL POST, 16 FT.	EACH	2	
87702900	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH	1	
87702910	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	1	
87702960	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 46 FT.	EACH	2	
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	8	
87800150	CONCRETE FOUNDATION, TYPE C	FOOT	4	
87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	60	

CODE NO.	ITEM	UNIT	ROADWAY	
			0004	URBAN
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	4	
88030100	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	4	
88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	4	
88200410	TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	8	
88500100	INDUCTIVE LOOP DETECTOR	EACH	8	
88600100	DETECTOR LOOP, TYPE I	FOOT	715	
88700200	LIGHT DETECTOR	EACH	2	
88700300	LIGHT DETECTOR AMPLIFIER	EACH	1	
X0324085	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE NO. 20 3/C	FOOT	279	
X4021000	TEMPORARY ACCESS (PRIVATE ENTRANCE)	EACH	3	
X8570226	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1	
X8620200	UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1	
Z0013798	CONSTRUCTION LAYOUT	LSUM	1	
Z0017400	DRAINAGE & UTILITY STRUCTURES TO BE ADJUSTED	EACH	9	
Z0018700	DRAINAGE STRUCTURE TO BE REMOVED	EACH	4	

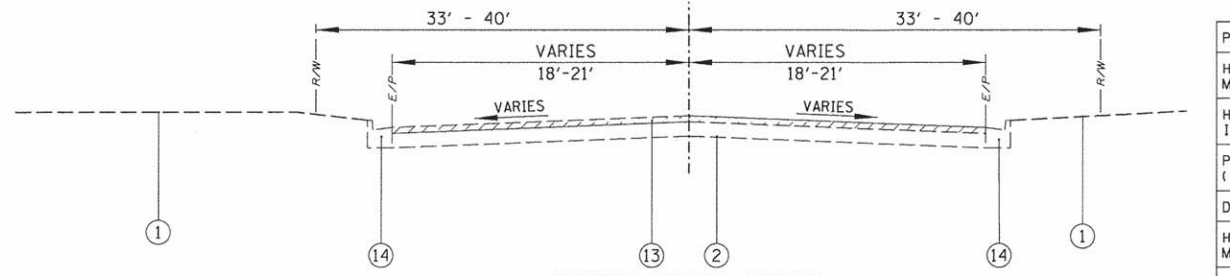
\* INDICATES SPECIAL PROVISION  
~ INDICATES SPECIALTY ITEM



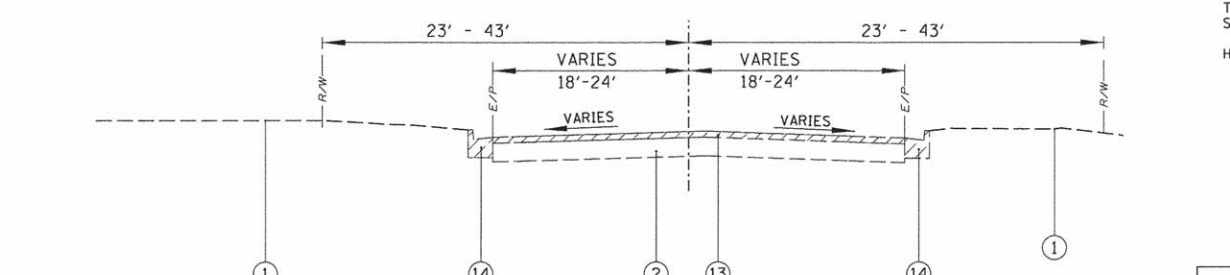
**EXISTING TYPICAL SECTION  
DIVISION ST  
STA 90+65 - STA 98+47 LT  
STA 90+65 - STA 98+89 RT  
STA 99+55 TO STA 99+95  
STA 104+88 TO STA 107+35 LT  
STA 100+72 TO STA 107+35 RT**



**EXISTING TYPICAL SECTION  
DIVISION ST.  
STA 98+47 TO STA 99+55 LT  
STA 98+88 TO STA 99+55 RT  
STA 99+95 TO STA 104+88 LT  
STA 99+95 TO STA 100+73 RT**



**EXISTING TYPICAL SECTION  
GAYLORD ROAD  
STA 194+44 TO STA 198+45  
STA 199+73 TO STA 200+27  
STA 200+65 TO STA 205+98 LT  
STA 201+25 TO STA 205+98 RT**



**EXISTING TYPICAL SECTION  
GAYLORD ROAD  
STA 198+45 TO STA 199+73  
STA 200+28 TO STA 200+65 LT  
STA 200+27 TO STA 201+25 RT**

**LEGEND**

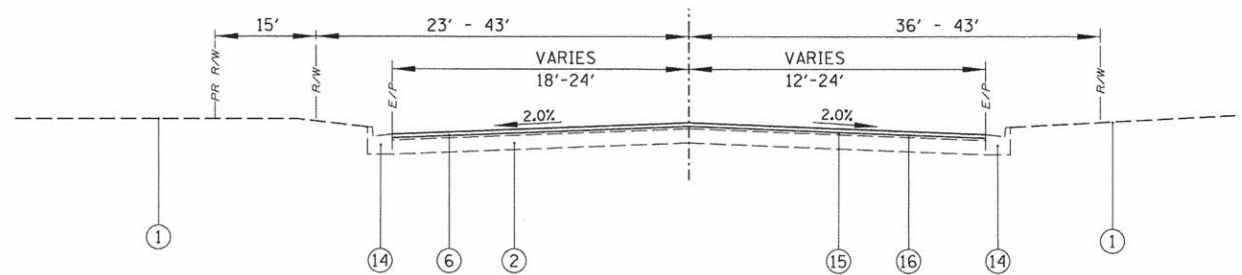
- ① EXISTING GROUND
- ② EXISTING BITUMINOUS PAVEMENT
- ③ AGGREGATE SUBGRADE IMPROVEMENT, 12"
- ④ HMA BASE COURSE, 6"
- ⑤ HMA BINDER COURSE, IL 19.0, N70, 2 1/4"
- ⑥ HMA SURFACE COURSE, MIX D, N70, 1 1/2"
- ⑦ B-6.12 CURB AND GUTTER
- ⑧ NOT USED
- ⑨ HMA SURFACE COURSE, MIX D, N70, 6"
- ⑩ AGGREGATE BASE COURSE, 3"
- ⑪ TOPSOIL, 4"
- ⑫ SODDING, SALT TOLERANT
- ⑬ HMA SURFACE REMOVAL, 2 1/4"
- ⑭ EXISTING CURB AND GUTTER
- ⑮ POLYMERIZED LEVELING BINDER (MACHINE METHOD), 3/4"
- ⑯ BITUMINOUS MATERIALS TACK COAT
- ⑰ GEOTECHNICAL FABRIC FOR GROUND STABILIZATION
- ⑱ REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL
- ⑳ AGGREGATE SUBGRADE IMPROVEMENT

**HOT-MIX ASPHALT MIXTURE REQUIREMENTS**

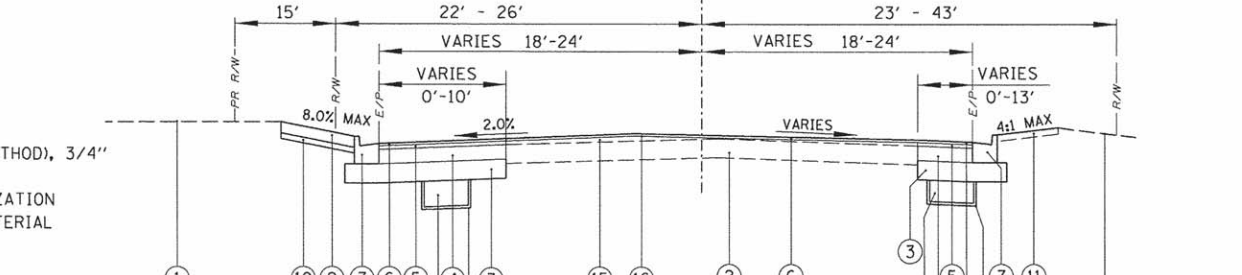
PAVEMENT	PERCENT AIR VOIDS @ NDES
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (IL 9.5 mm)	4% @ 70 GYR
HOT-MIX ASPHALT BINDER COURSE, IL-19.0 N70	4% @ 70 GYR
POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-94.75, N50	4% @ 50 GYR
DRIVEWAYS	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	4% @ 70 GYR
PATCHING	
CLASS D PATCH (HMA BINDER IL-19 mm)	4% @ 70 GYR
PAVEMENT WIDENING	
HOT MIX ASPHALT BASE COURSE	4% @ 70 GYR

THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURES IS 112 LBS/50 YD<sup>3</sup>/IN.  
HMA PATCHES WILL BE LOCATED AS DIRECTED BY THE ENGINEER.

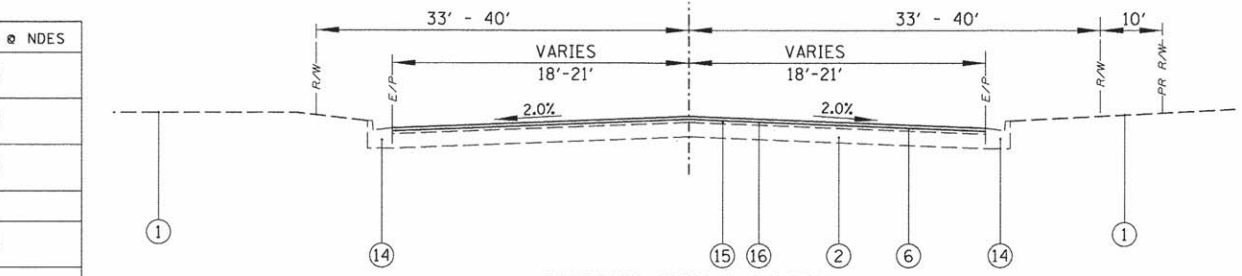
Earthwork Schedule				
1	2	3	4	5
Location	Earth Excavation	Earth Excavation Adjusted for Shrinkage	Embankment	Earthwork Balance Waste (+) or Shortage (-)
Division St.	492	418	69	+ 349
Gaylord Dr.	204	173	24	+ 149



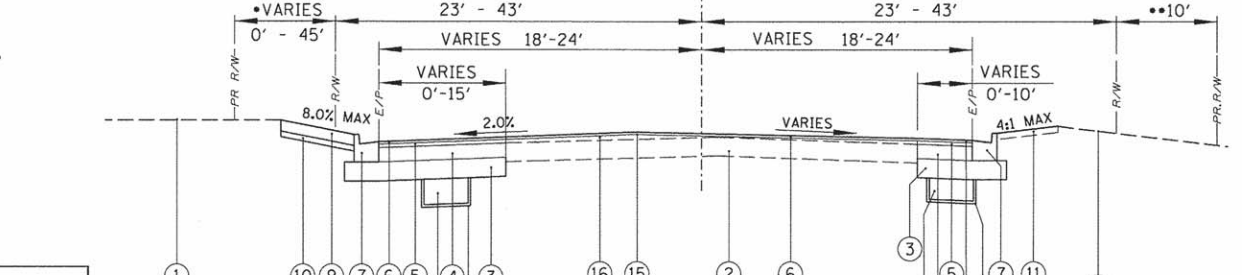
**PROPOSED TYPICAL SECTION  
DIVISION ST  
STA 90+65 - STA 98+47 LT  
STA 90+65 - STA 98+89 RT  
STA 99+55 TO STA 99+95  
STA 104+88 TO STA 107+35 LT  
STA 100+72 TO STA 107+35 RT**



**PROPOSED TYPICAL SECTION  
DIVISION ST.  
STA 98+47 TO STA 99+55 LT  
STA 98+88 TO STA 99+55 RT  
STA 99+95 TO STA 104+88 LT  
STA 99+95 TO STA 100+73 RT**



**PROPOSED TYPICAL SECTION  
GAYLORD ROAD  
STA 194+44 TO STA 198+45  
STA 199+73 TO STA 200+27  
STA 200+65 TO STA 205+98 LT  
STA 201+25 TO STA 205+98 RT**



**PROPOSED TYPICAL SECTION  
GAYLORD ROAD  
STA 198+45 TO STA 199+73  
STA 200+28 TO STA 200+65 LT  
STA 200+27 TO STA 201+25 RT  
\*STA 199+18 TO STA 199+64  
\*\*STA 200+61 TO STA 201+26**

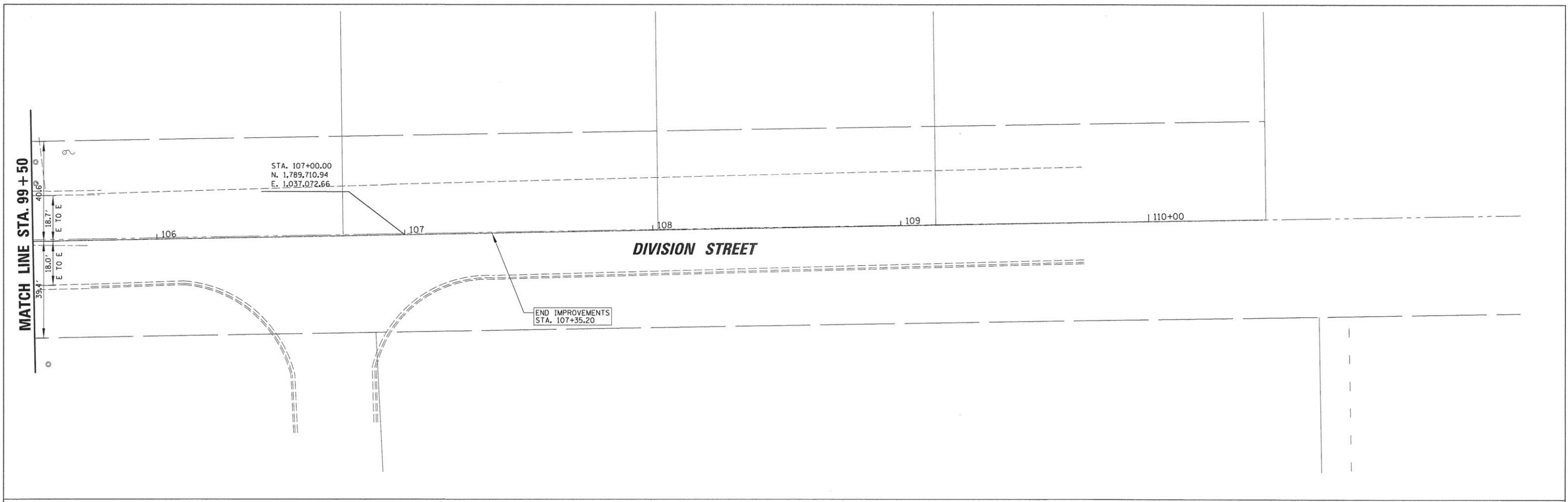
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>TYPICAL SECTIONS</b>	
<b>DIVISION STREET &amp; GAYLORD ROAD</b>	
SCALE: 1"=10'	SHEET 4 OF SHEETS STA. TO STA.

F.A.U. RTEL	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9328	11-00042-00-CH	WILL	36	4
CONTRACT NO. 61C93			ILLINOIS FED. AID PROJECT	





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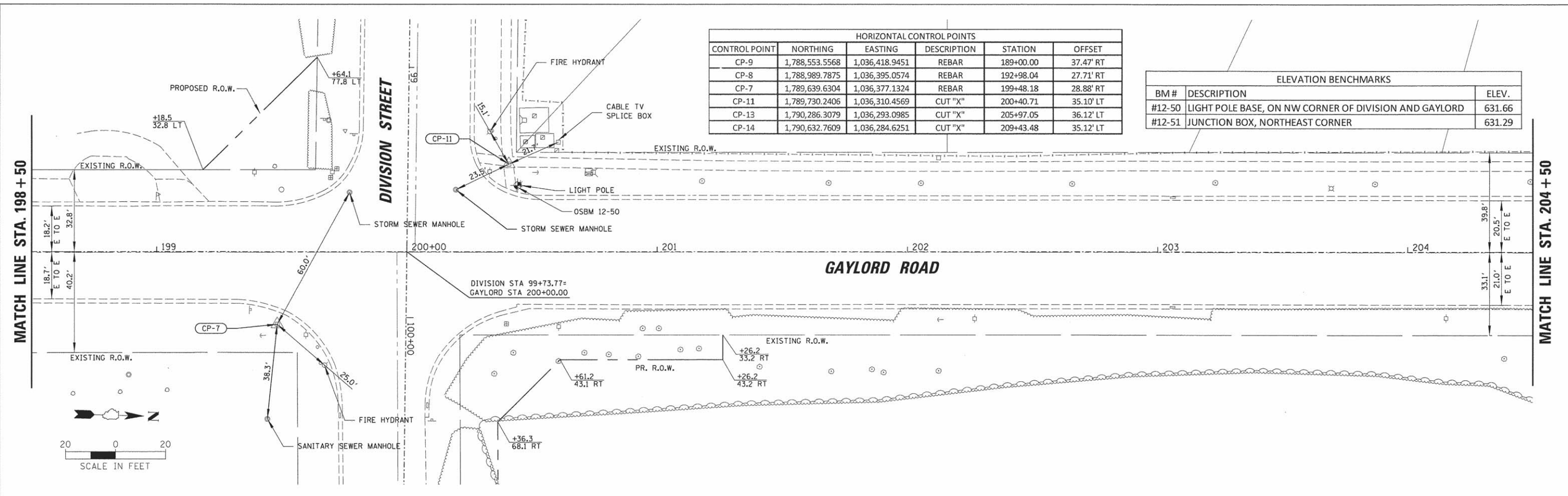
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ALIGNMENT, TIES, & BENCHMARK PLAN  
DIVISION STREET**

SCALE: 1"=20'    SHEET 2 OF 4 SHEETS    STA. 105+50 TO STA. 107+35

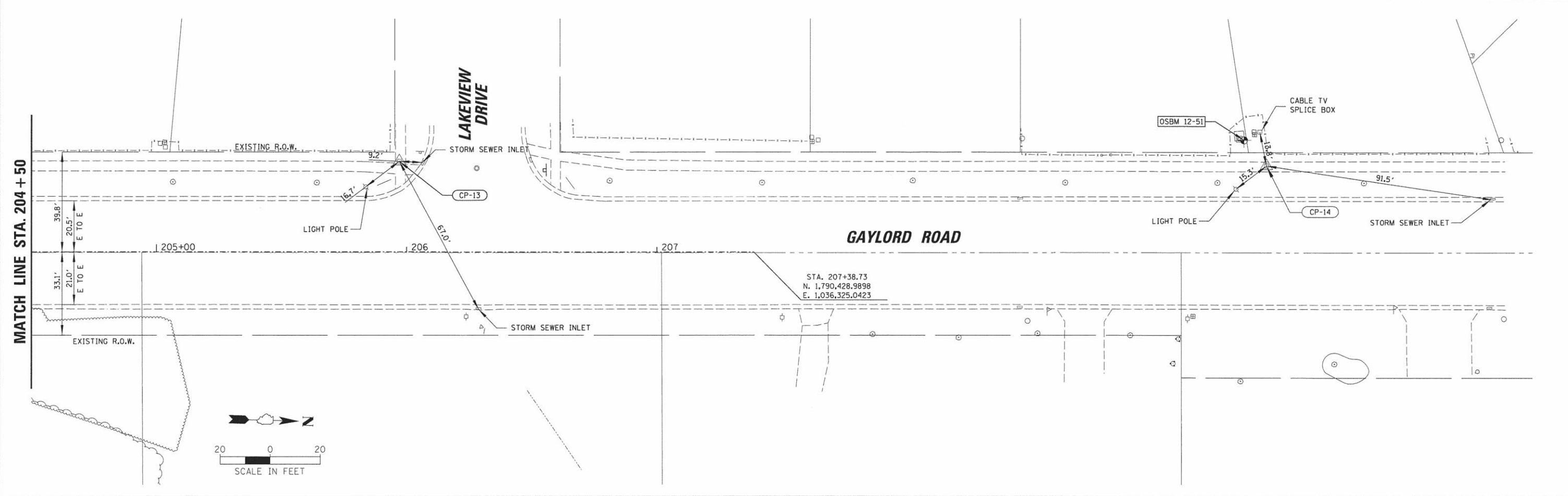
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CONTRACT NO. 61C93				ILLINOIS FED. AID PROJECT



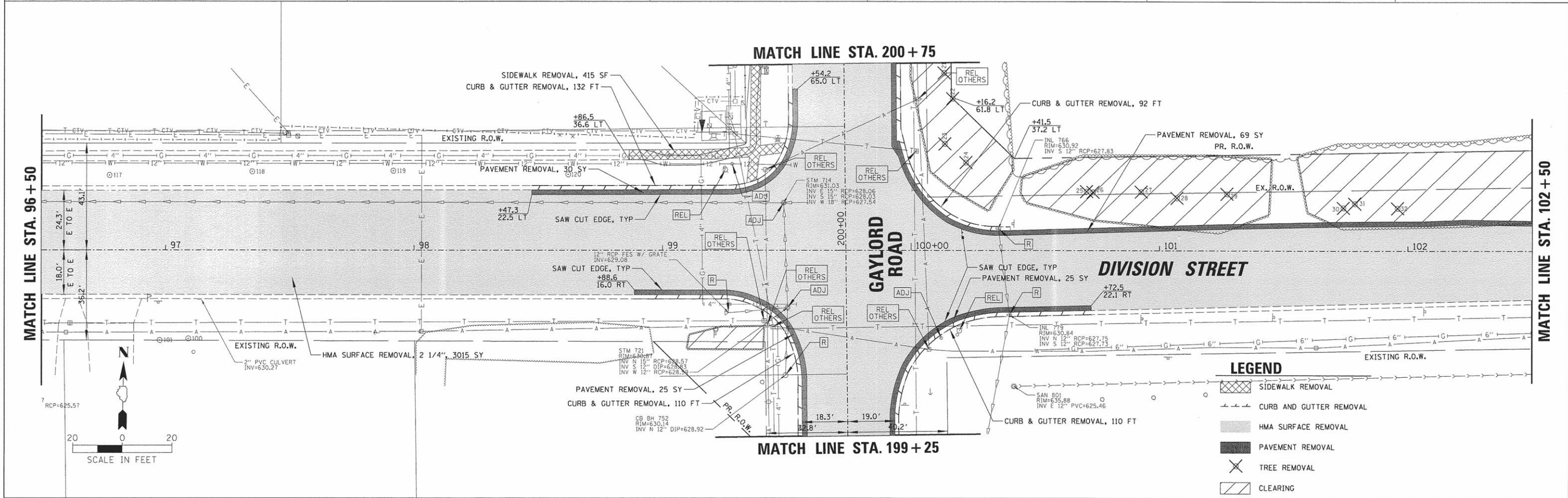
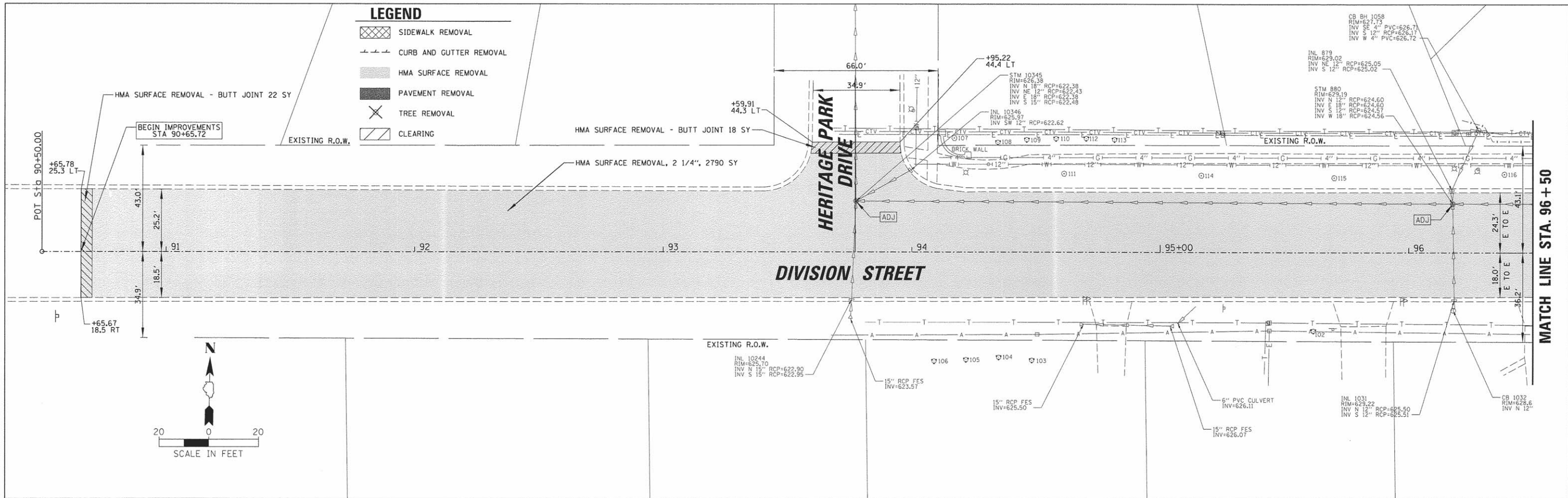


HORIZONTAL CONTROL POINTS					
CONTROL POINT	NORTHING	EASTING	DESCRIPTION	STATION	OFFSET
CP-9	1,788,553.5568	1,036,418.9451	REBAR	189+00.00	37.47' RT
CP-8	1,788,989.7875	1,036,395.0574	REBAR	192+98.04	27.71' RT
CP-7	1,789,639.6304	1,036,377.1324	REBAR	199+48.18	28.88' RT
CP-11	1,789,730.2406	1,036,310.4569	CUT "X"	200+40.71	35.10' LT
CP-13	1,790,286.3079	1,036,293.0985	CUT "X"	205+97.05	36.12' LT
CP-14	1,790,632.7609	1,036,284.6251	CUT "X"	209+43.48	35.12' LT

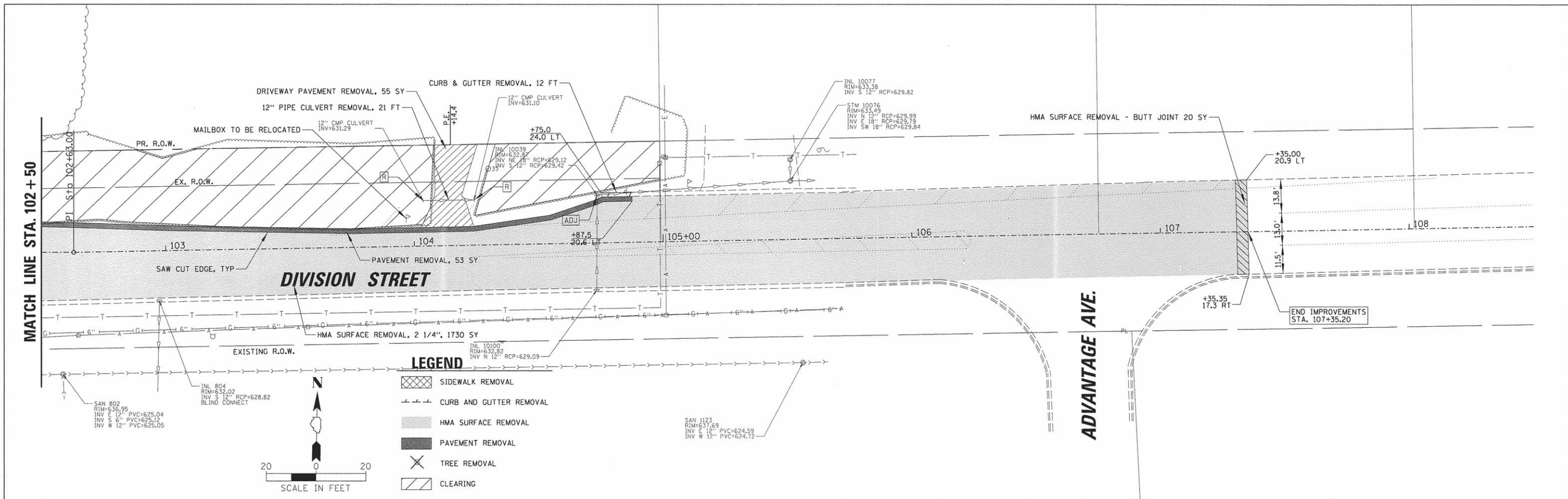
ELEVATION BENCHMARKS		
BM #	DESCRIPTION	ELEV.
#12-50	LIGHT POLE BASE, ON NW CORNER OF DIVISION AND GAYLORD	631.66
#12-51	JUNCTION BOX, NORTHEAST CORNER	631.29







FILE NAME =	USER NAME = cmccollom	DESIGNED - CJM	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>EXISTING CONDITION AND REMOVAL PLAN DIVISION STREET</b>	F.A.U. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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		DATE - \$date	REVISED -			ILLINOIS FED. AID PROJECT					



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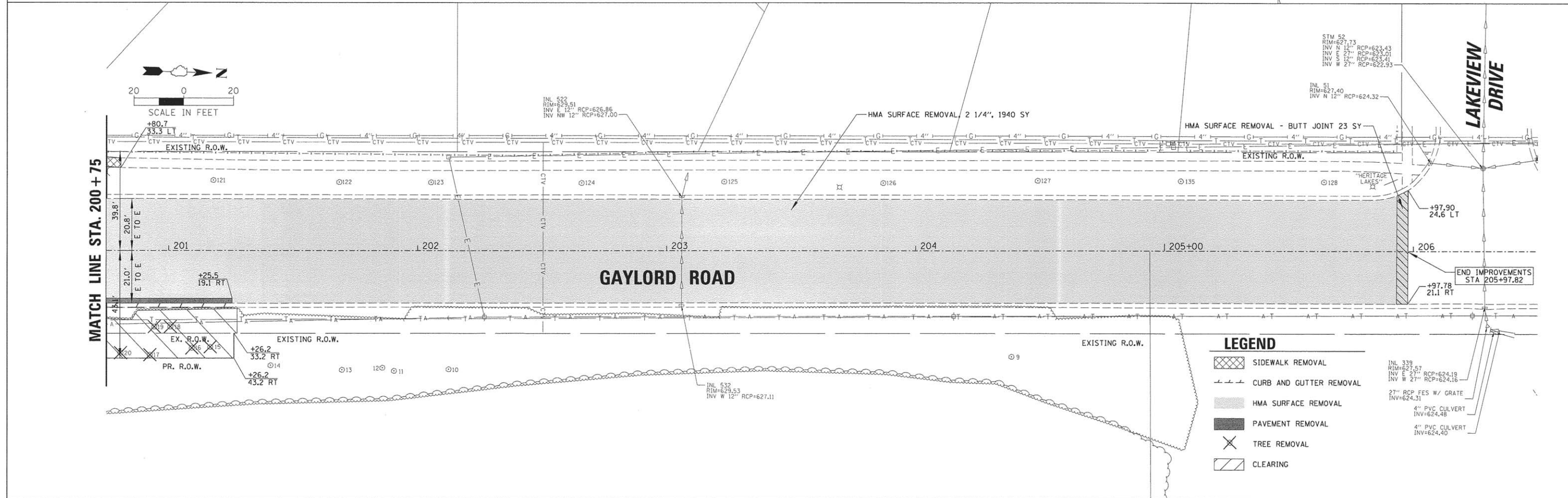
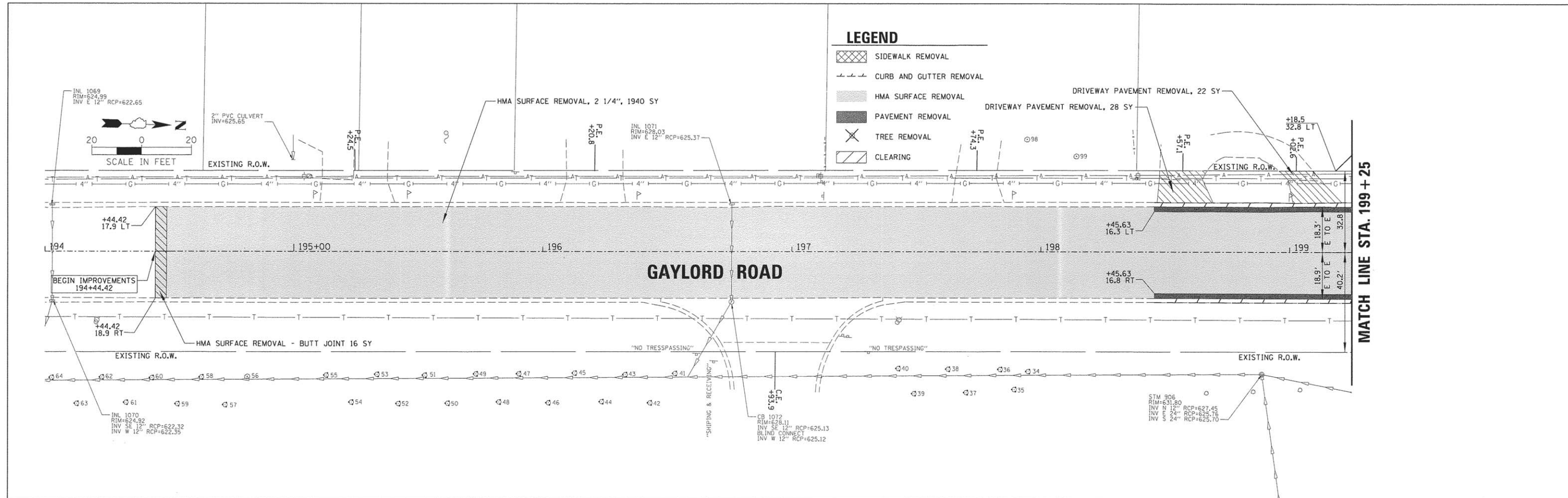
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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**EXISTING CONDITION AND REMOVAL PLAN  
 DIVISION STREET**

SCALE: 1"=20'    SHEET 2 OF 3 SHEETS    STA. 102+50 TO STA. 104+88

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9328	11-00042-00-CH	WILL	36	10
CONTRACT NO. 61C93				
ILLINOIS FED. AID PROJECT				



FILE NAME =	USER NAME = amccollom	DESIGNED - CJM	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>EXISTING CONDITION AND REMOVAL PLAN GAYLORD AVENUE</b>	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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Default	PLOT DATE = 6/13/2016	CHECKED - DV	REVISED -			CONTRACT NO. 61C93					
	DATE - \$date	REVISED -				ILLINOIS FED. AID PROJECT					



DATE: \_\_\_\_\_  
 BY: \_\_\_\_\_  
 SURVEYED: \_\_\_\_\_  
 PLOTTED: \_\_\_\_\_  
 CHECKED: \_\_\_\_\_  
 RT. OF WAY CHECKED: \_\_\_\_\_  
 NOTE BOOK NO.: \_\_\_\_\_  
 CAD FILE NAME: \_\_\_\_\_

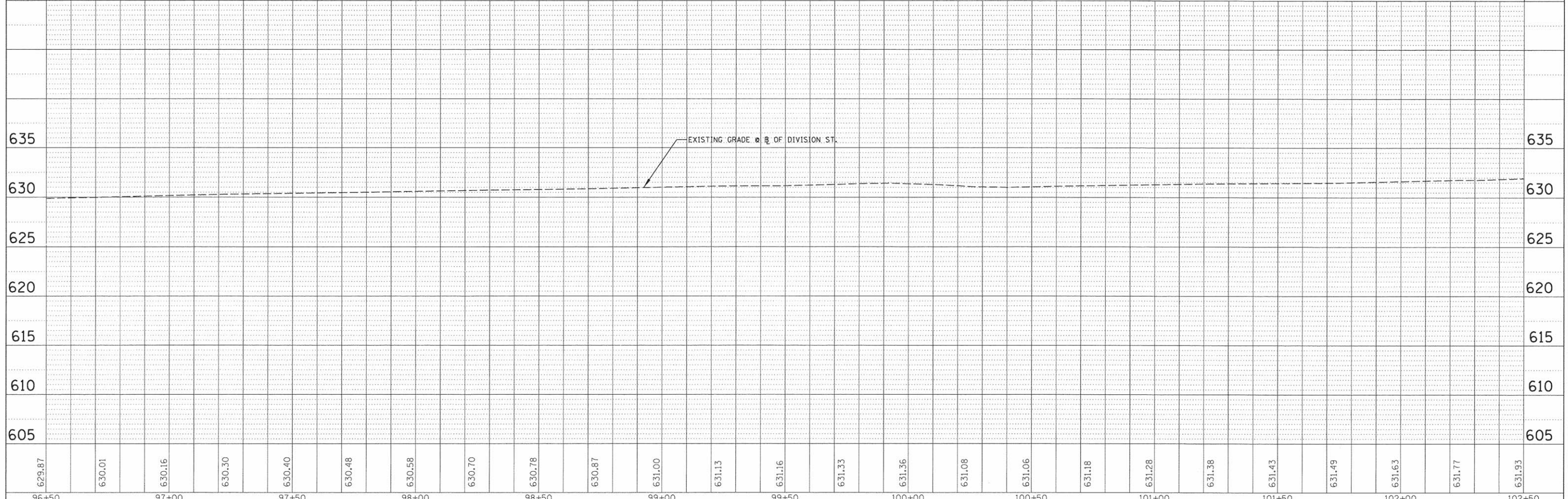
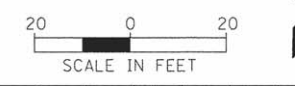
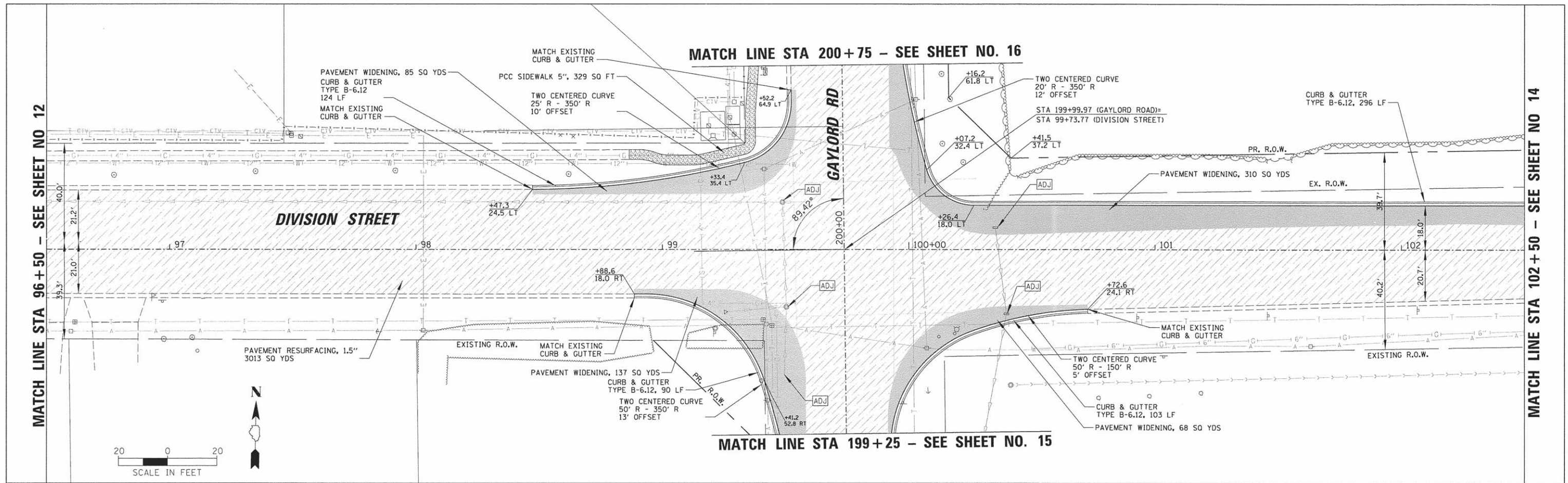
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 CHECKED: \_\_\_\_\_  
 RT. OF WAY CHECKED: \_\_\_\_\_  
 NOTE BOOK NO.: \_\_\_\_\_  
 STRUCTURE NOTATION CHRD: \_\_\_\_\_

MATCH LINE STA 96+50 - SEE SHEET NO 12

MATCH LINE STA 102+50 - SEE SHEET NO 14

MATCH LINE STA 200+75 - SEE SHEET NO. 16

MATCH LINE STA 199+25 - SEE SHEET NO. 15



629.87	630.01	630.16	630.30	630.40	630.48	630.58	630.70	630.78	630.87	631.00	631.13	631.16	631.33	631.36	631.08	631.06	631.18	631.28	631.38	631.43	631.49	631.63	631.77	631.93
96+50		97+00		97+50		98+00		98+50		99+00		99+50		100+00		100+50		101+00		101+50		102+00		102+50

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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

ROADWAY PLAN AND PROFILE  
 DIVISION STREET

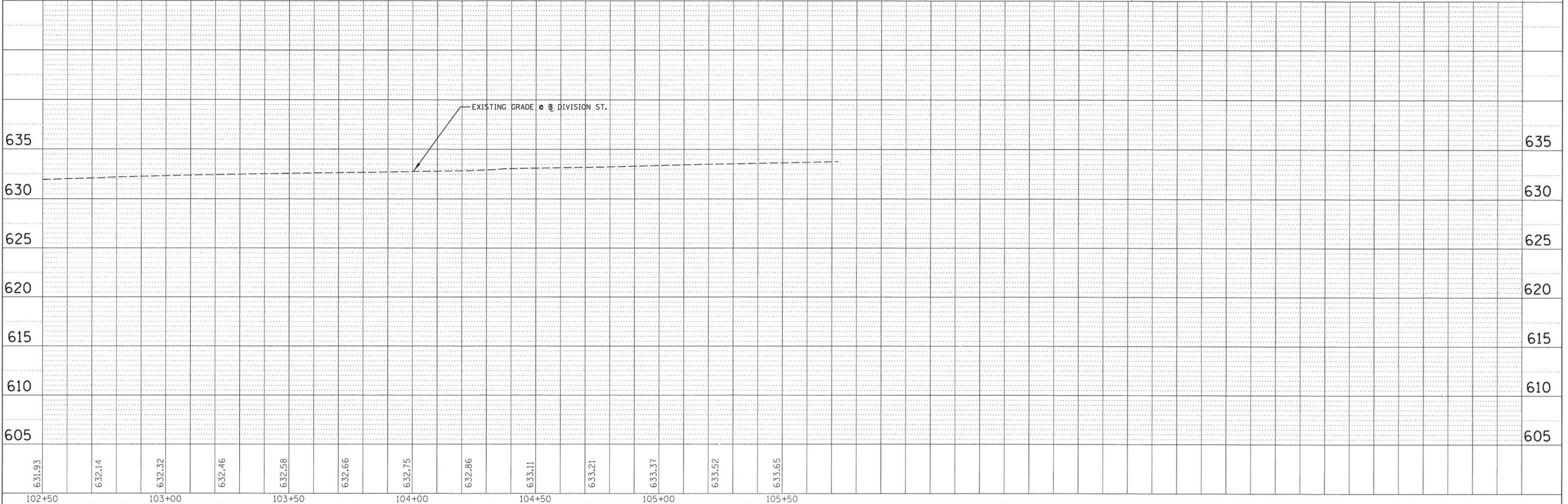
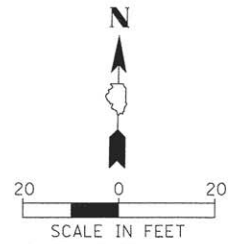
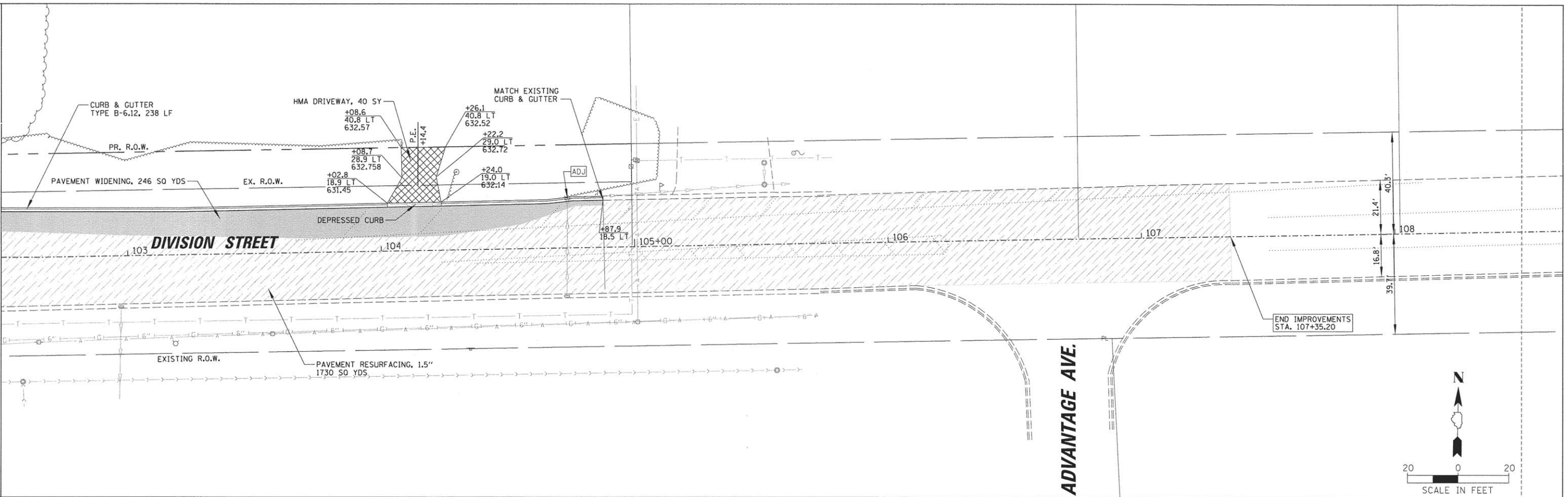
SCALE: 1"=20' SHEET 2 OF 5 SHEETS STA. 96+50 TO STA. 102+50

F.A.U. RTE. 9328	SECTION 11-00042-00-CH	COUNTY WILL	TOTAL SHEETS 36	SHEET NO. 13
CONTRACT NO. 61C93				
ILLINOIS FED. AID PROJECT				

REVIEWED	DATE
PROVIDED	
ALIGNMENT CHECKED	
NOTE BOOK	
NO.	

REVIEWED	DATE
PROFILES	
GRADES CHECKED	
NOTE BOOK	
NO.	

MATCH LINE STA 102+50 - SEE SHEET NO 13



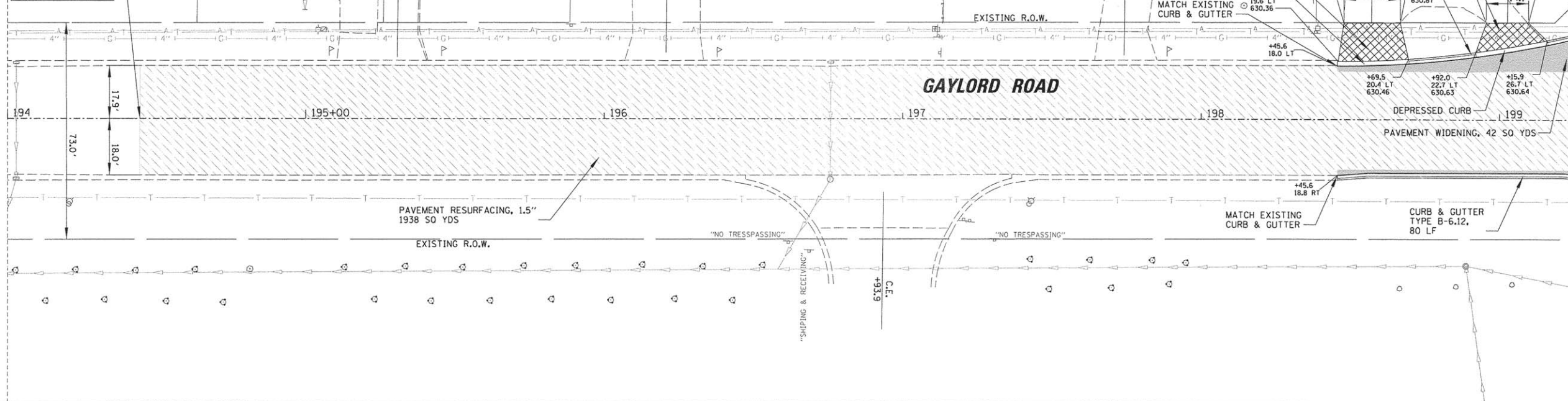
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Default		CHECKED DV	REVISED -			CONTRACT NO. 61C93					
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SCALE: 1"=20' SHEET 3 OF 5 SHEETS STA. 102+50 TO STA. 104+88

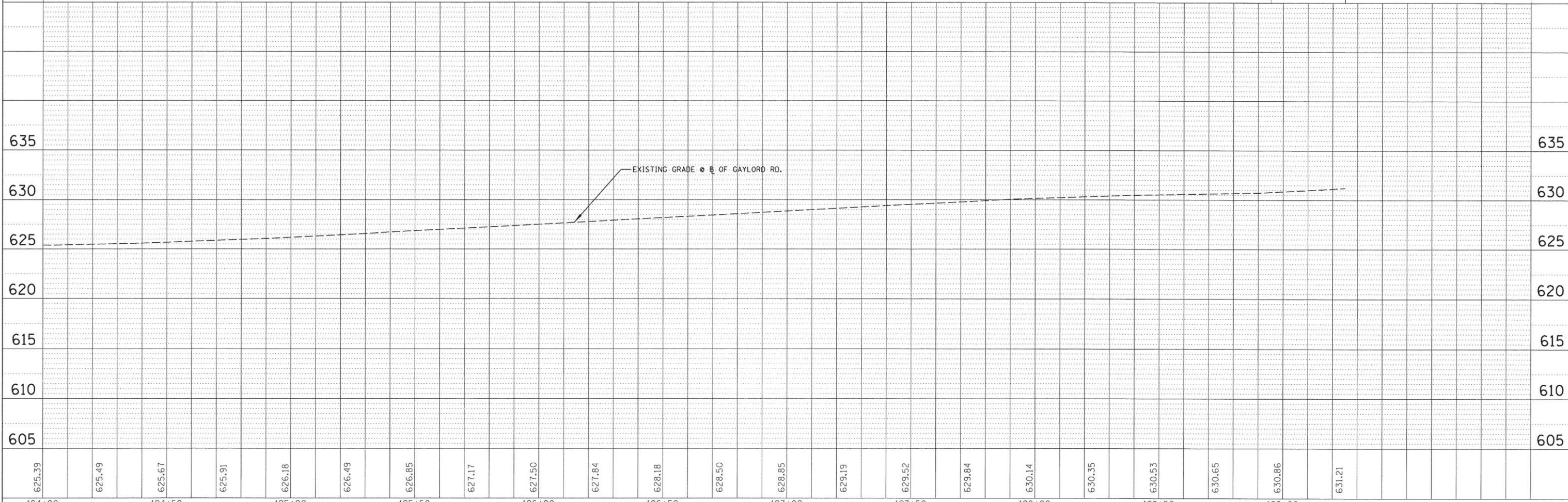
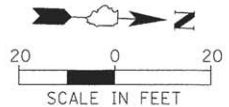
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REVIEWED	DATE
PLANNED	BY
ALIGNMENT CHECKED	
NOTE BOOK	
NO.	

DATE	BY
REVIEWED	DATE
PLANNED	BY
GRADES CHECKED	
NOTE BOOK	
NO.	

IMPROVEMENTS BEGIN  
STA 194+44.42



MATCH LINE STA 199+25 - SEE SHEET NO 13



625.39	625.49	625.67	625.91	626.18	626.49	626.85	627.17	627.50	627.84	628.18	628.50	628.85	629.19	629.52	629.84	630.14	630.35	630.53	630.65	630.86	631.21
194+00	194+50	195+00	195+50	196+00	196+50	197+00	197+50	198+00	198+50	199+00											

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

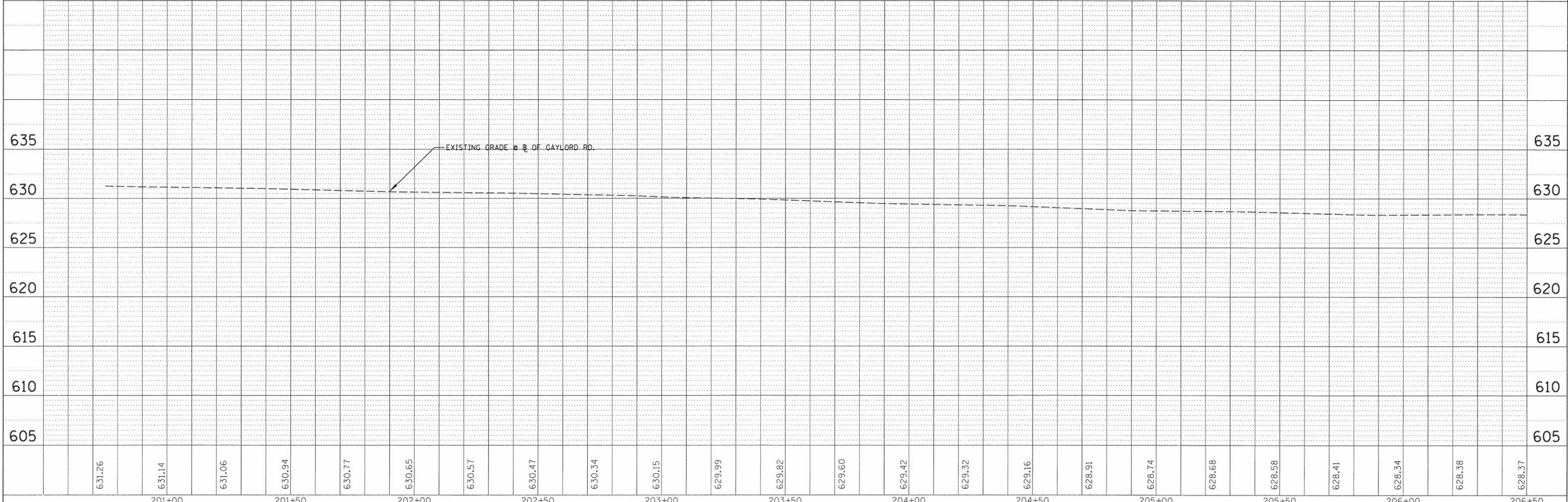
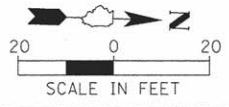
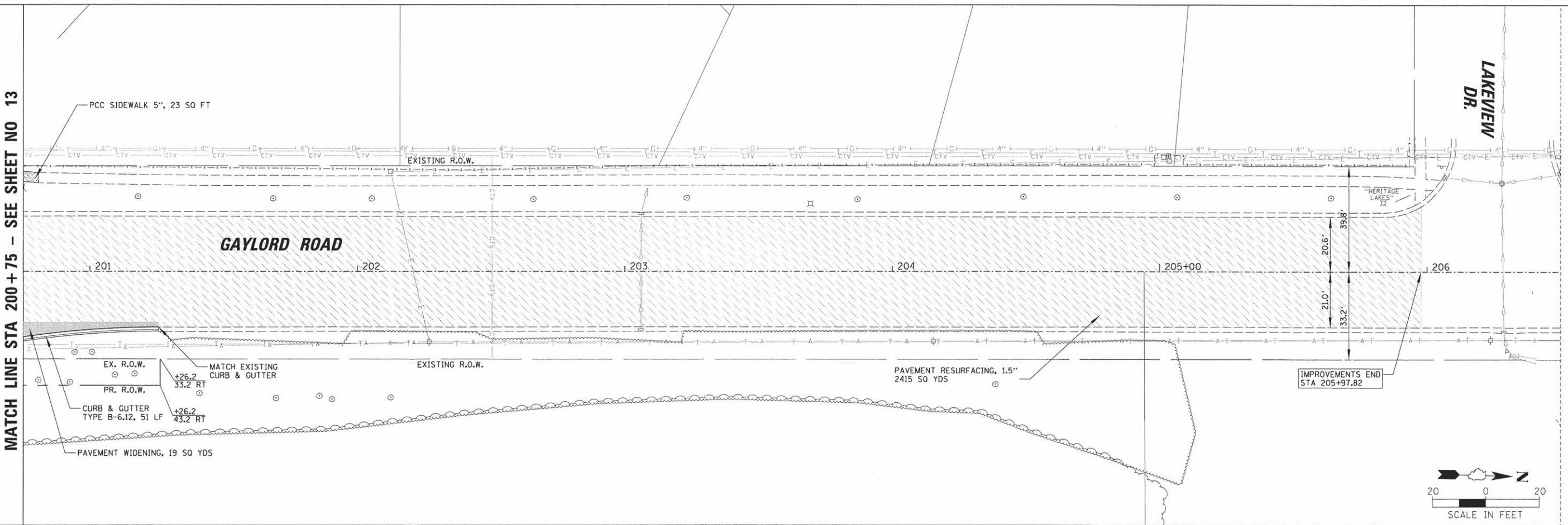
ROADWAY PLAN AND PROFILE  
GAYLORD AVENUE  
SCALE: 1"=20'  
SHEET 4 OF 5 SHEETS  
STA. 194+00 TO STA. 199+25

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	11-00042-00-CH	WILL	36	15
CONTRACT NO. 61C93			ILLINOIS FED. AID PROJECT	

DATE	
BY	
SURVEYED	
ALIGNMENT CHECKED	
NOTE BOOK	
PT. OF WAY CHECKED	
NO.	
ROAD FILE NAME	

DATE	
BY	
SURVEYED	
GRADES CHECKED	
NOTE BOOK	
NO.	
STRUCTURE NOTATIONS CHECKED	

MATCH LINE STA 200+75 - SEE SHEET NO 13



631.26	631.14	631.06	630.94	630.77	630.65	630.57	630.47	630.34	630.15	629.99	629.82	629.60	629.42	629.32	629.16	628.91	628.74	628.68	628.58	628.41	628.34	628.38	628.37
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 CHECKED DV  
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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

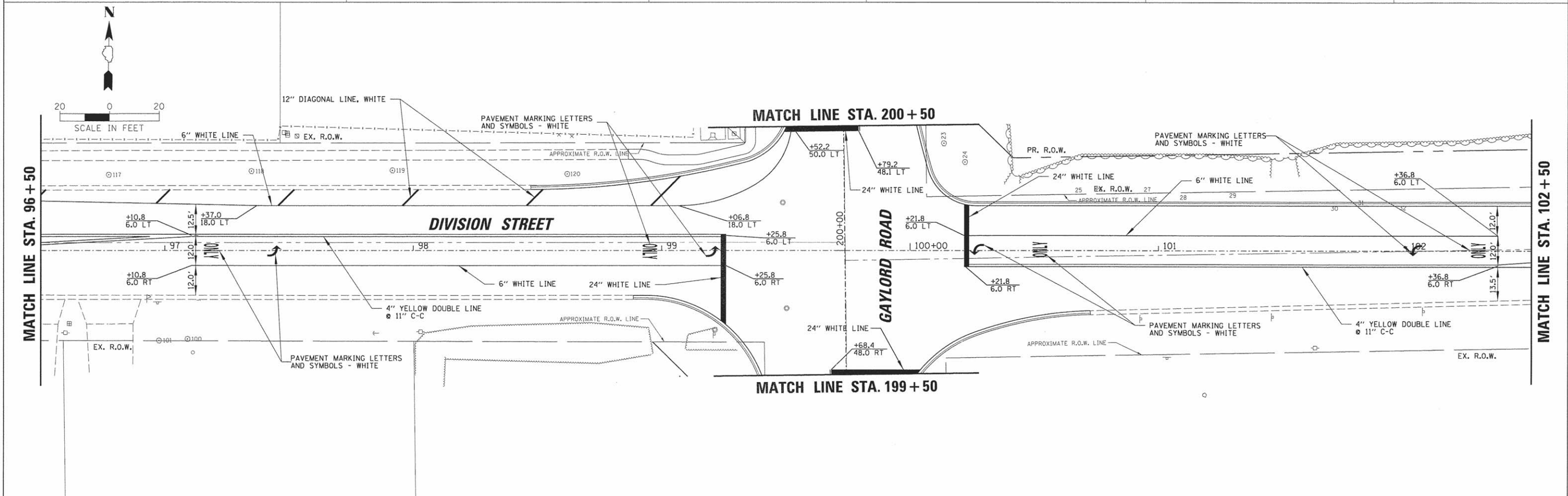
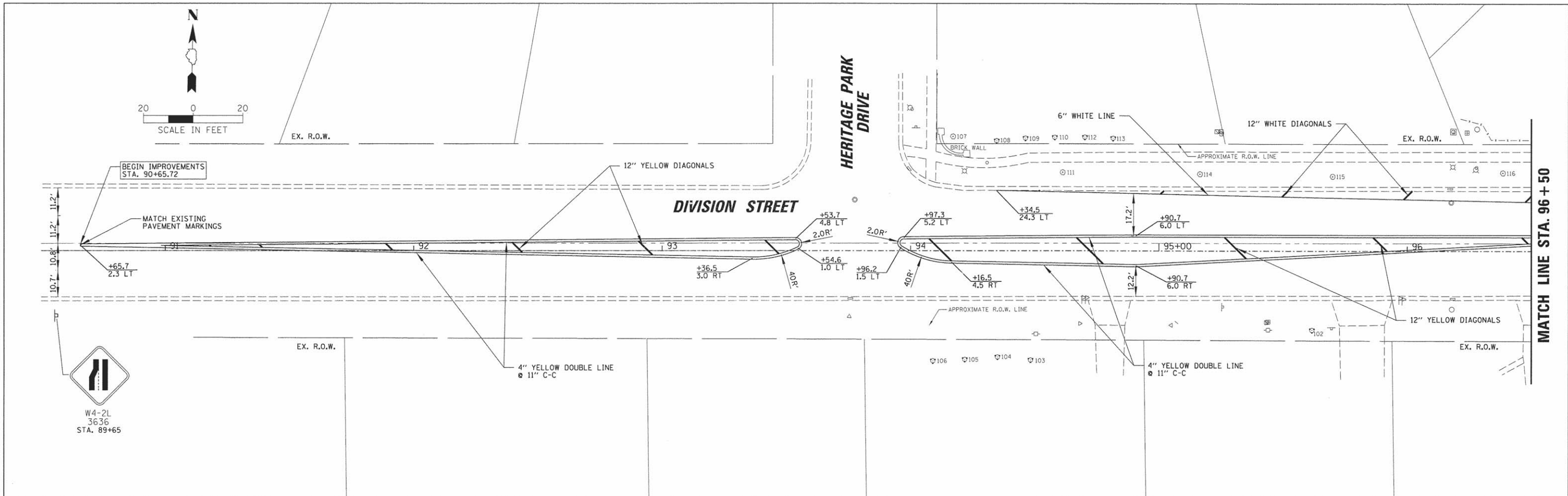
ROADWAY PLAN AND PROFILE  
 GAYLORD AVENUE  
 SCALE: 1"=20'  
 SHEET 5 OF 5 SHEETS  
 STA. 200+75 TO STA. 206+50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9328	11-00042-00-CH	WILL	36	16
CONTRACT NO. 61C93				

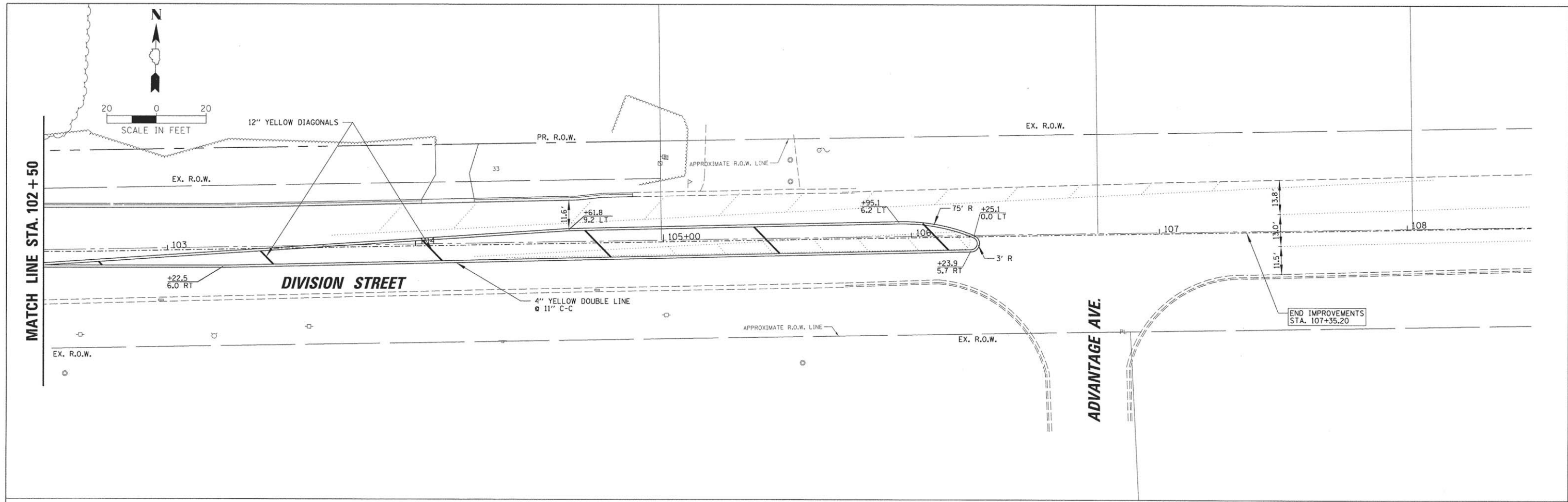
ILLINOIS FED. AID PROJECT







FILE NAME =	USER NAME = cmcollom	DESIGNED - CJM	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PAVEMENT MARKING PLAN DIVISION STREET</b>			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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		DATE - \$date	REVISED -									

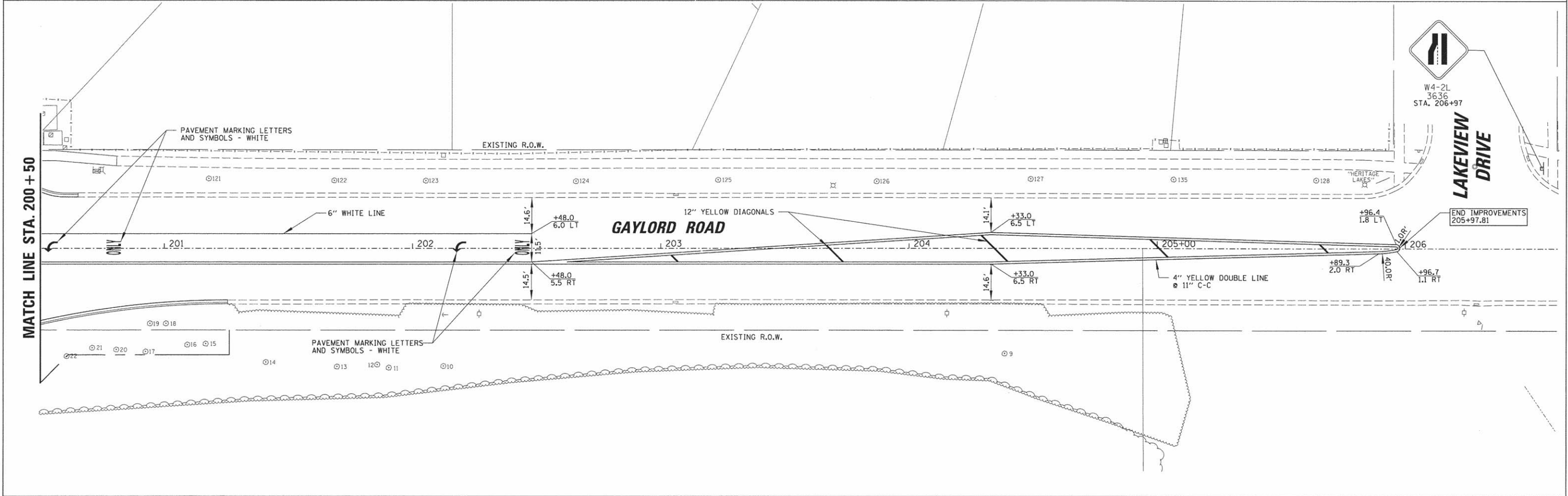
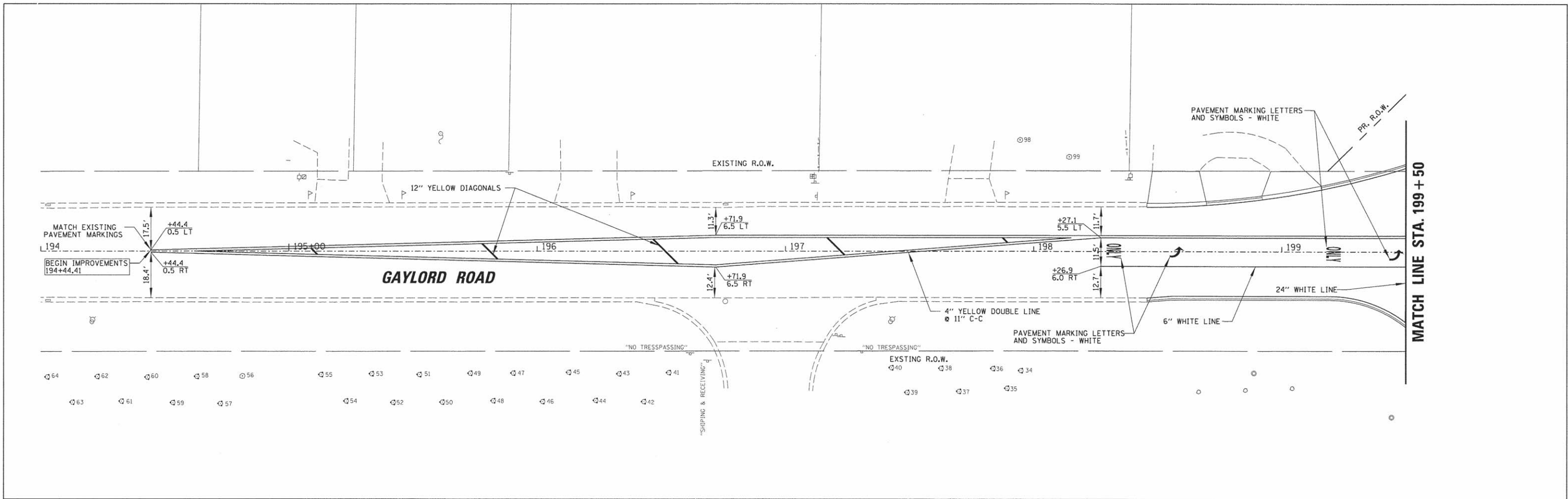


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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>PAVEMENT MARKING PLAN DIVISION STREET</b>			
SCALE: 1"=20'	SHEET 2	OF 3 SHEETS	STA. 102+50 TO STA. 104+88

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9328	11-00042-00-CH	WILL	36	19
CONTRACT NO. 61C93				ILLINOIS FED. AID PROJECT



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Default	PLOT SCALE = 20'	CHECKED - DV	REVISED -		SCALE: 1"=20'	SHEET 3	OF 3 SHEETS	STA. 194+00	TO STA. 206+50	CONTRACT NO. 61C93		
	PLOT DATE = 6/13/2016	DATE - \$date	REVISED -		ILLINOIS FED. AID PROJECT							

# 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		S	S	STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED																					
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA				INTERSECTION ITEM		I	IP	ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED																					
SIGNAL POST				REMOVE ITEM	R			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	RL			SIGNAL POST AND FOUNDATION TO BE REMOVED																					
GUY WIRE				ABANDON ITEM	A			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="0" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;"></th> <th style="width: 25%;">EXISTING</th> <th style="width: 25%;">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																													
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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																													

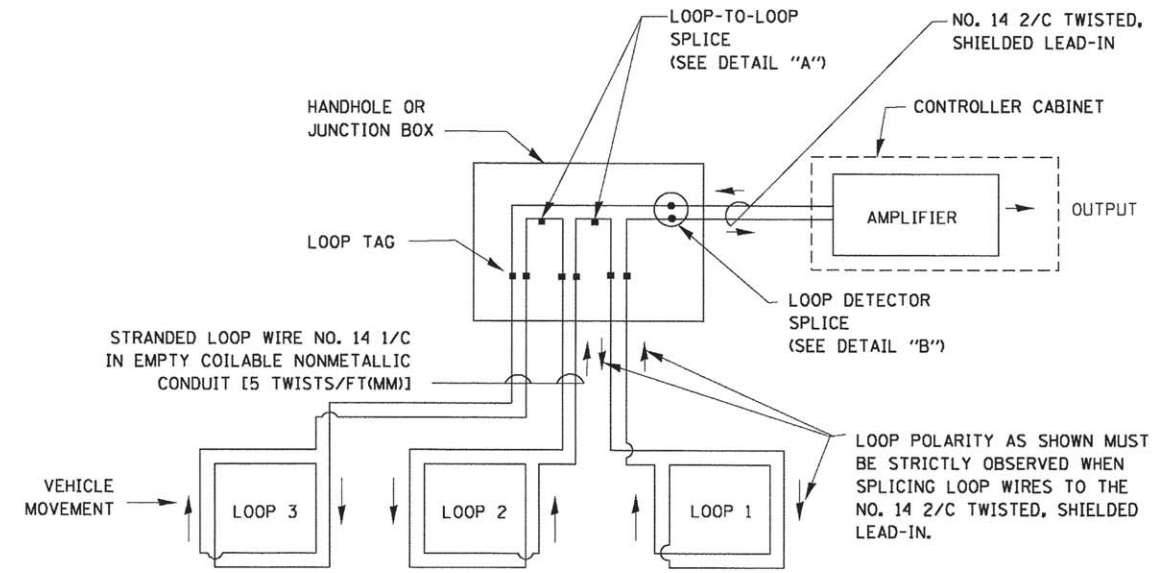
TS SHT NO. 2

FILE NAME =	USER NAME = Footemj	DESIGNED - DAG/BCK	REVISED - DAG 1-1-14	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT ONE</b> <b>STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
ca\pwwork\pwwork\footemj\d0188315\ts05.dgn		DRAWN - BCK	REVISED -		SCALE: NONE	SHEET NO. 1 OF 7 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS FED. AID PROJECT	
		CHECKED - DAD	REVISED -								
		DATE - 10-28-09	REVISED -								

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	11-00042-00-CH	WILL	36	21
TS-05			CONTRACT NO. 61C93	

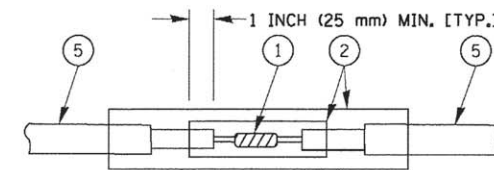
**LOOP DETECTOR NOTES**

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

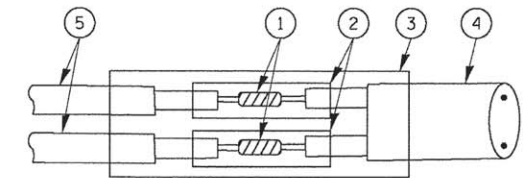


**DETECTOR LOOP WIRING SCHEMATIC**

- 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.

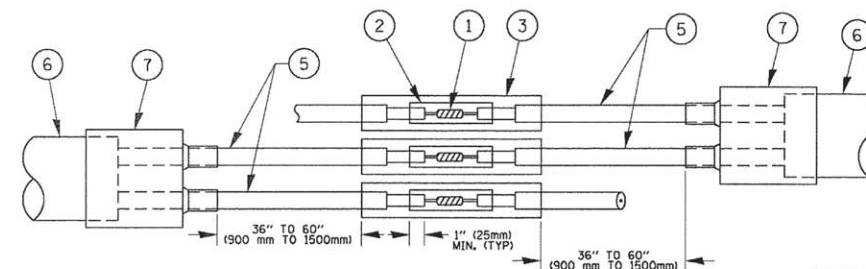


DETAIL "A"  
LOOP-TO-LOOP SPLICE

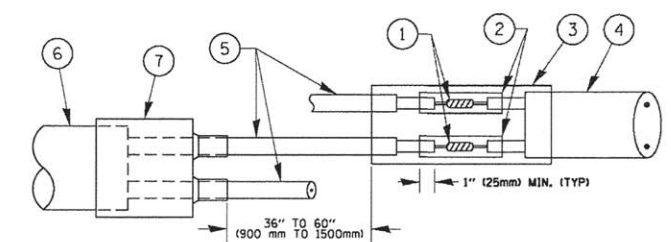


DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

**TYPE I LOOP**



DETAIL "A"  
LOOP-TO-LOOP SPLICE



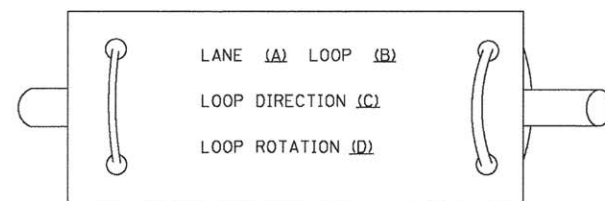
DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

**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

**LOOP LEAD-IN CABLE TAG**

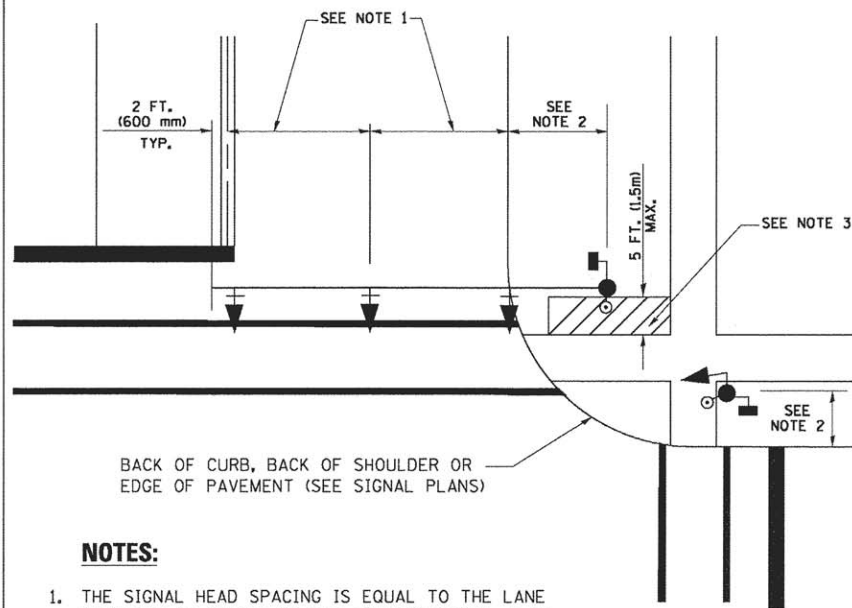


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

TS SHT NO. 2

FILE NAME =	USER NAME = Footemj	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.U. RTE. 328	SECTION 11-00042-00-CH	COUNTY WILL	TOTAL SHEETS 36	SHEET NO. 22
ct\pwork\pwork\dot\Footemj\20180315\ts05.dgn	PLOT SCALE = 50.0000' / 1"	CHECKED - DAD	REVISED -		SCALE: NONE	SHEET NO. 2 OF 7 SHEETS	STA. TO STA.	<b>TS-05</b>		CONTRACT NO. 61C93		
	PLOT DATE = 1/13/2014	DATE - 10-28-09	REVISED -		FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT							

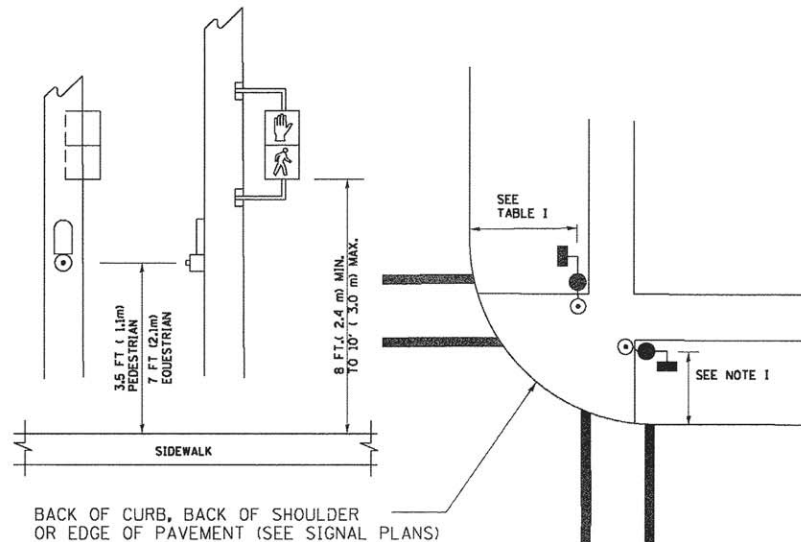
**TRAFFIC SIGNAL MAST ARM AND SIGNAL POST  
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR  
FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN  
WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.**



**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."

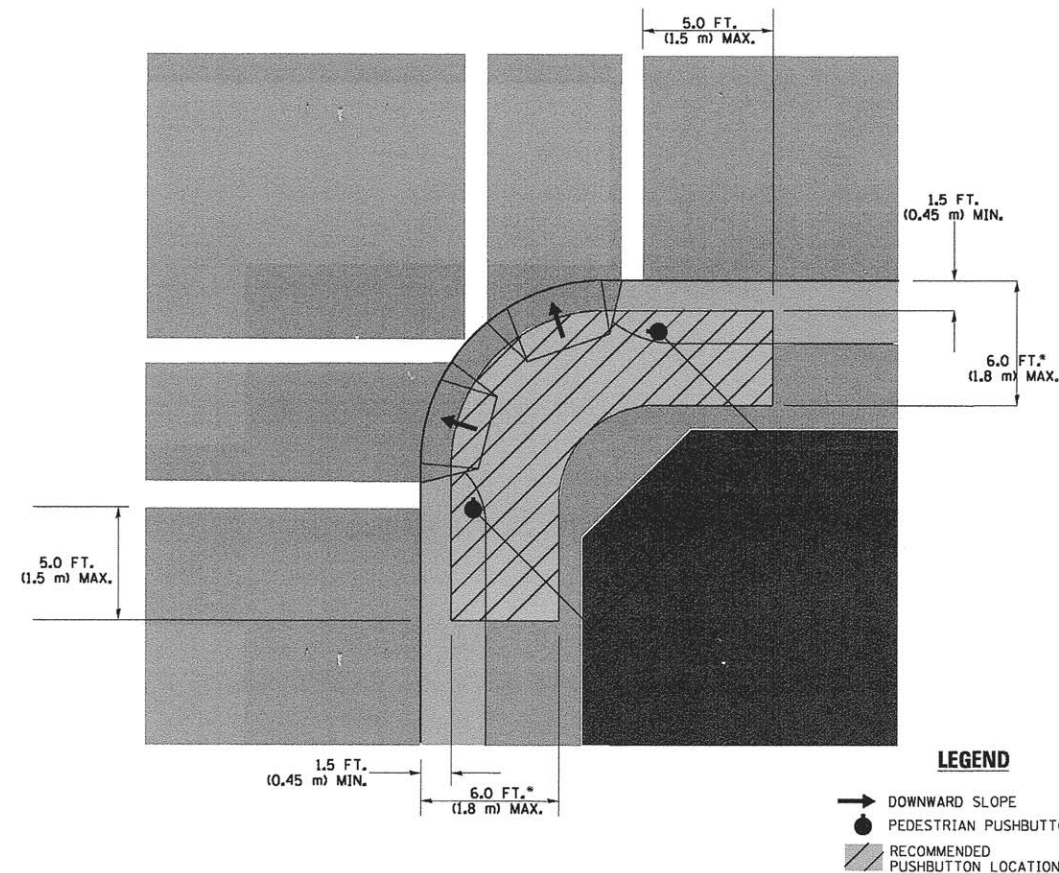
**PEDESTRIAN SIGNAL POST  
AND  
PEDESTRIAN PUSH BUTTON POST**



**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) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

**NOTES:**

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

**TRAFFIC SIGNAL EQUIPMENT OFFSET**

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

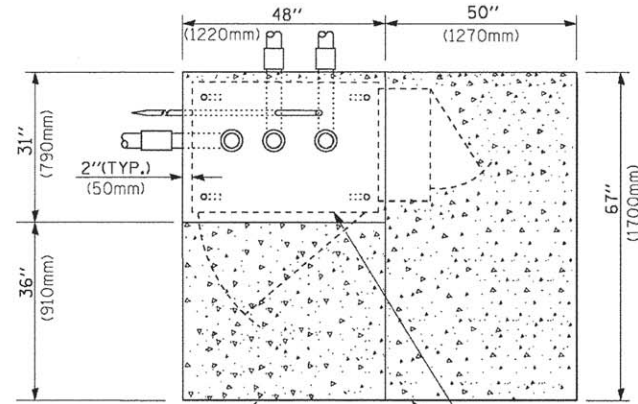
**NOTES:**

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

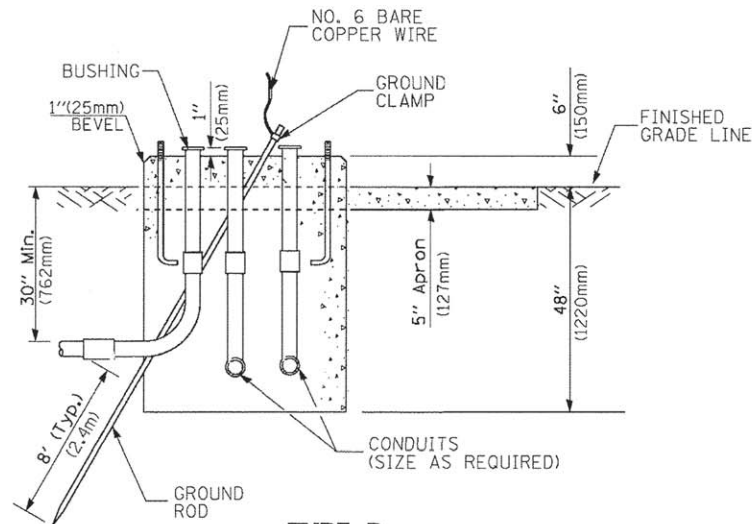
TS SHT NO. 3



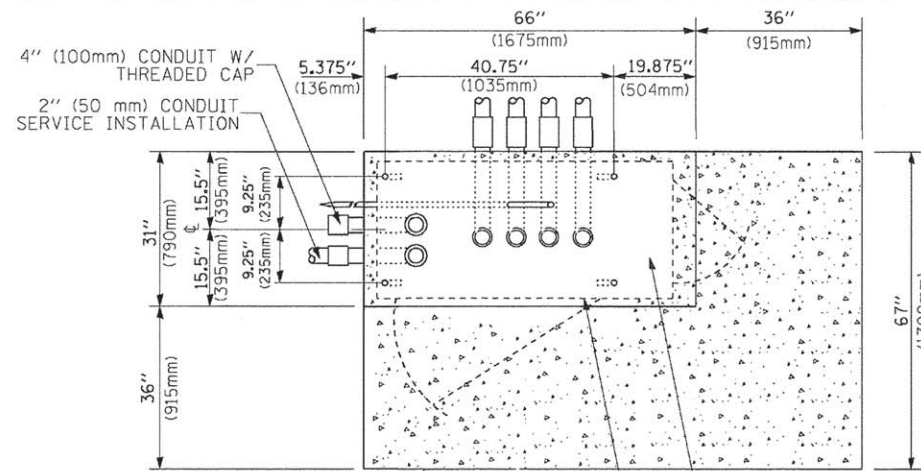




**TOP VIEW**



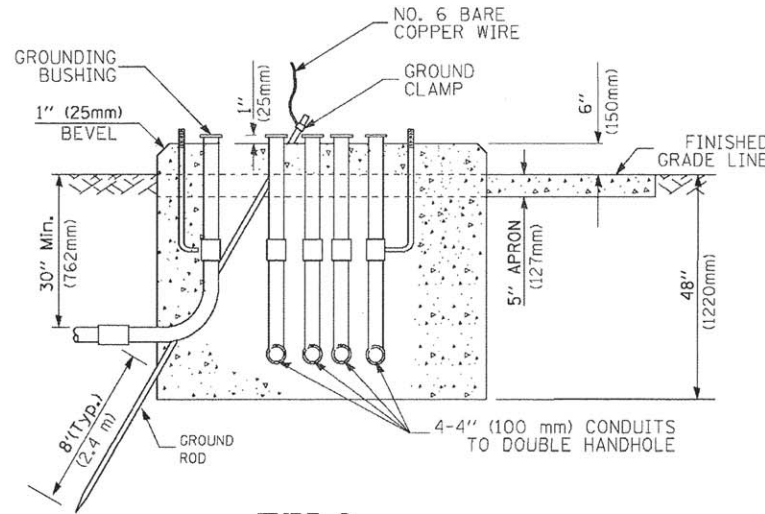
**TYPE D  
FOR GROUND MOUNTED  
CONTROLLER CABINET  
AND UPS BATTERY CABINET**



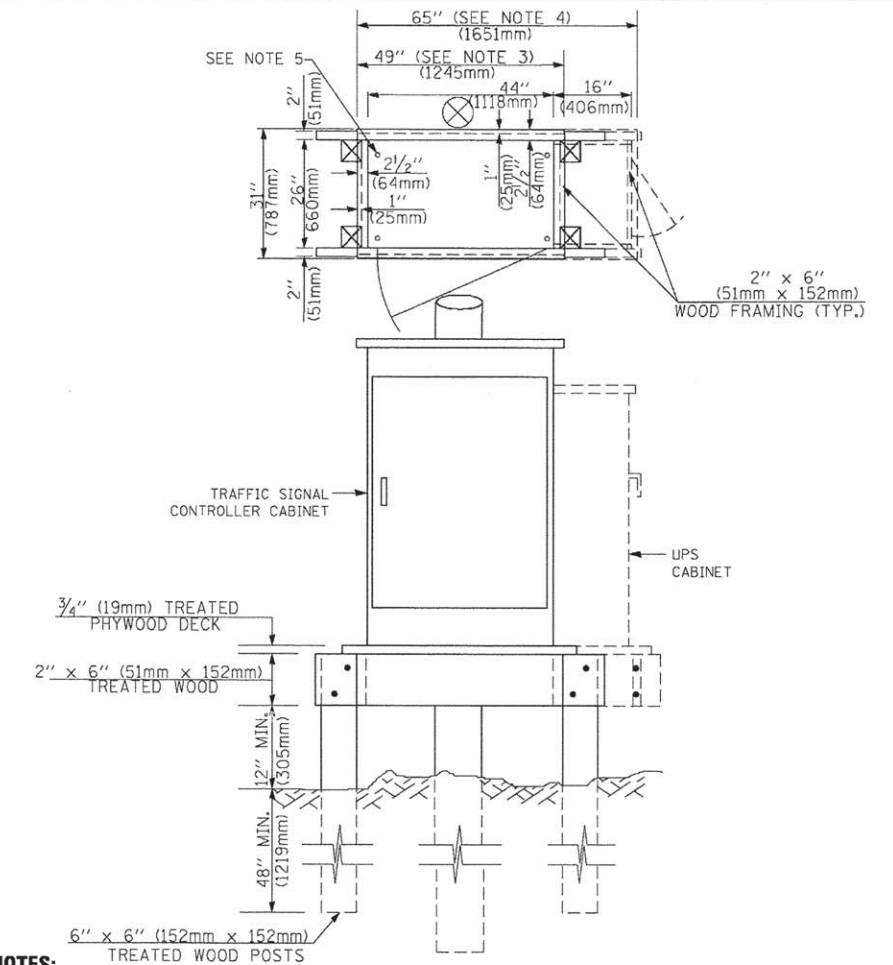
**TOP VIEW**

**NOTE:**

TOP OF FOUNDATION SHALL BE HIGHER THAN TOP OF DOUBLE HANDHOLE



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



**NOTES:**

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

**TEMPORARY SIGNAL CONTROLLER  
WOOD SUPPORT PLATFORM**

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

**CABLE SLACK**

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

**VERTICAL CABLE LENGTH**

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

**DEPTH OF FOUNDATION**

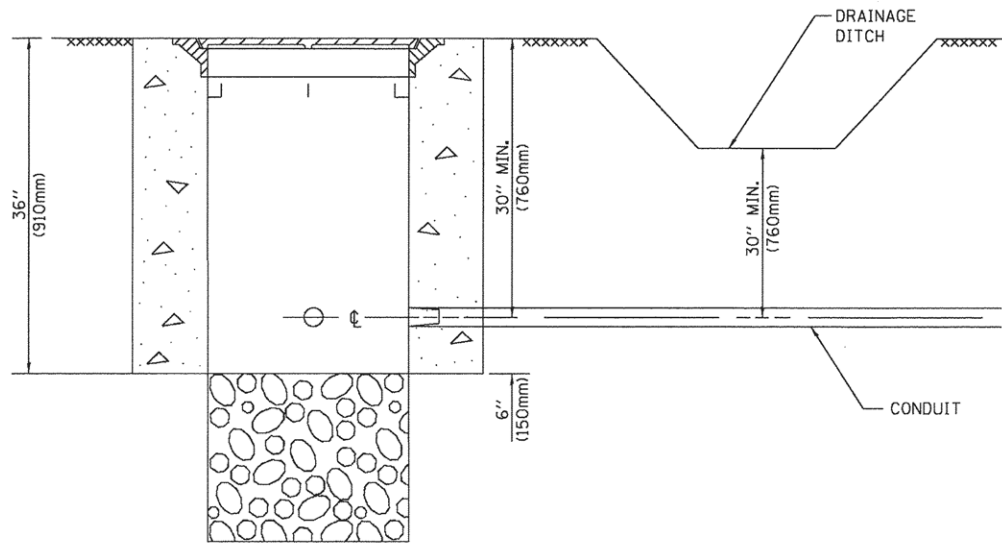
MAST ARM LENGTH	FOUNDATION DEPTH	FOUNDATION DIAMETER	SPIRAL DIAMETER	QUANTITY OF REBARS	SIZE OF REBARS
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 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**

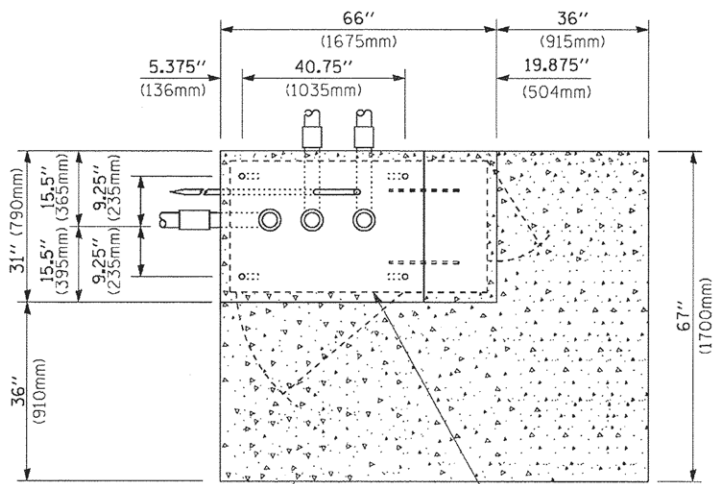
TS SHT NO. 5



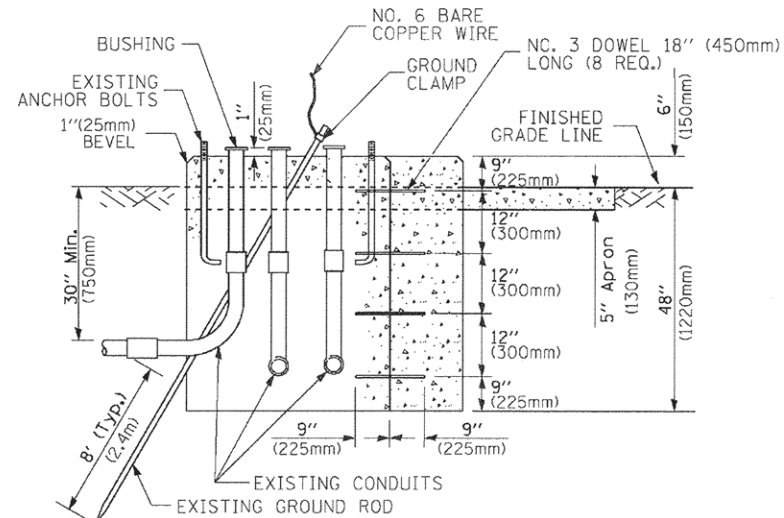
**NOTES:**

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)

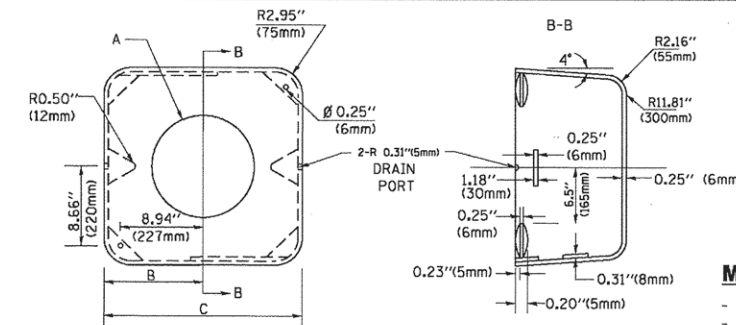


**MODIFY EXISTING TYPE "D" FOUNDATION TO TYPE "C" FOUNDATION**  
(NOT TO SCALE)

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

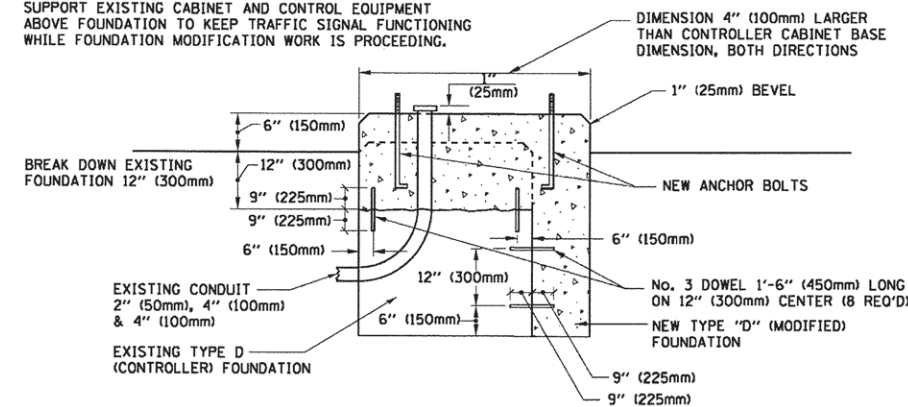
**SHROUD**

**NOTES:**

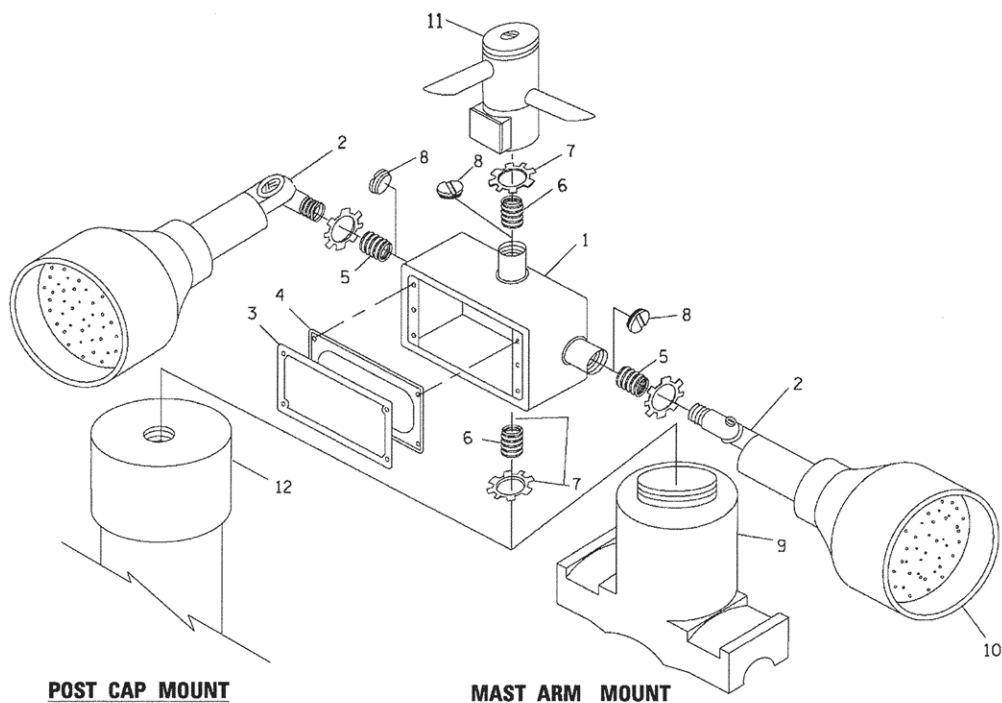
1. DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
2. THE SUPPLIER SHALL VERIFIED THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE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

**NOTE:**

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



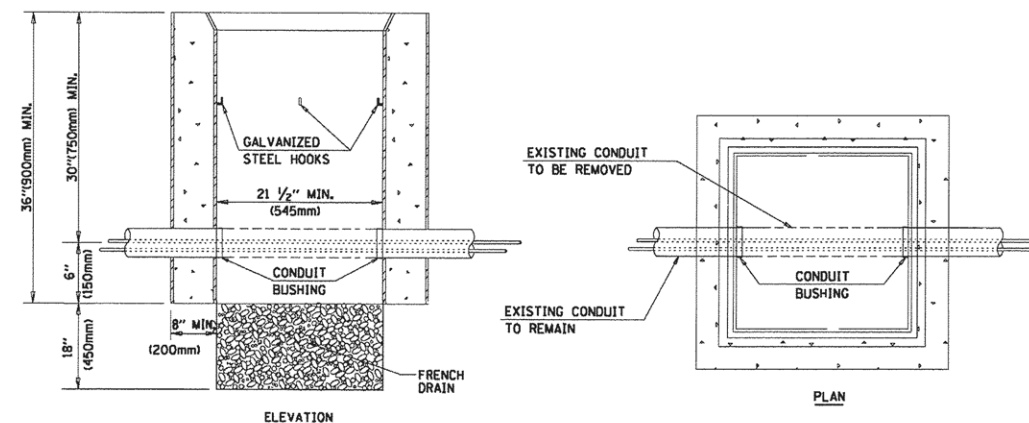
**MODIFY EXISTING TYPE "D" FOUNDATION**



**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**

TS SHT NO.6

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

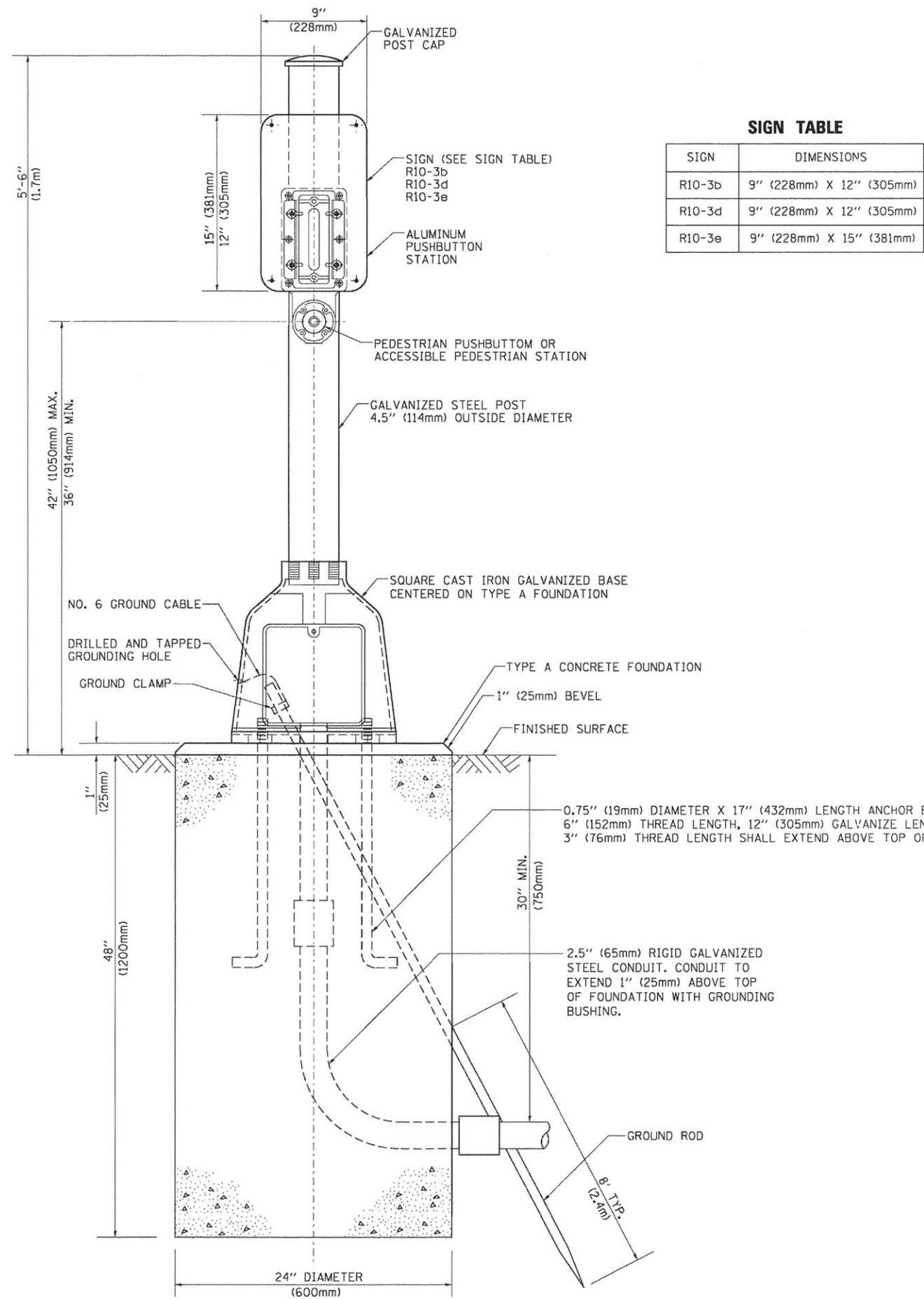
DISTRICT ONE  
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	11-00042-00-CH	WILL	36	26
TS-05			CONTRACT NO. 61C93	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

FILE NAME =	USER NAME =	DESIGNED -	REVISED -
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		DRAWN -	REVISED -
		BCK	
		CHECKED -	REVISED -
		DAD	
		DATE -	REVISED -
		10-28-09	

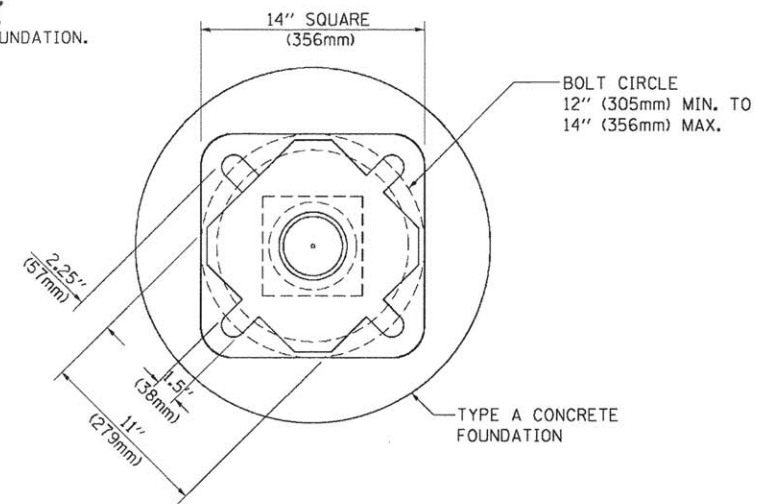
SCALE: NONE SHEET NO. 6 OF 7 SHEETS STA. TO STA.

TS SHT NO. 7



**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**

FILE NAME =	USER NAME = foomj	DESIGNED - DAG	REVISED - DAG 1-1-14
ca\pv_work\pvidot\foomj\td0108315\ts05.dgn		DRAWN - GND	REVISED -
PLOT SCALE = 50.0000' / 1"		CHECKED - DAD	REVISED -
PLOT DATE = 1/13/2014		DATE - 10/1/2012	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

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

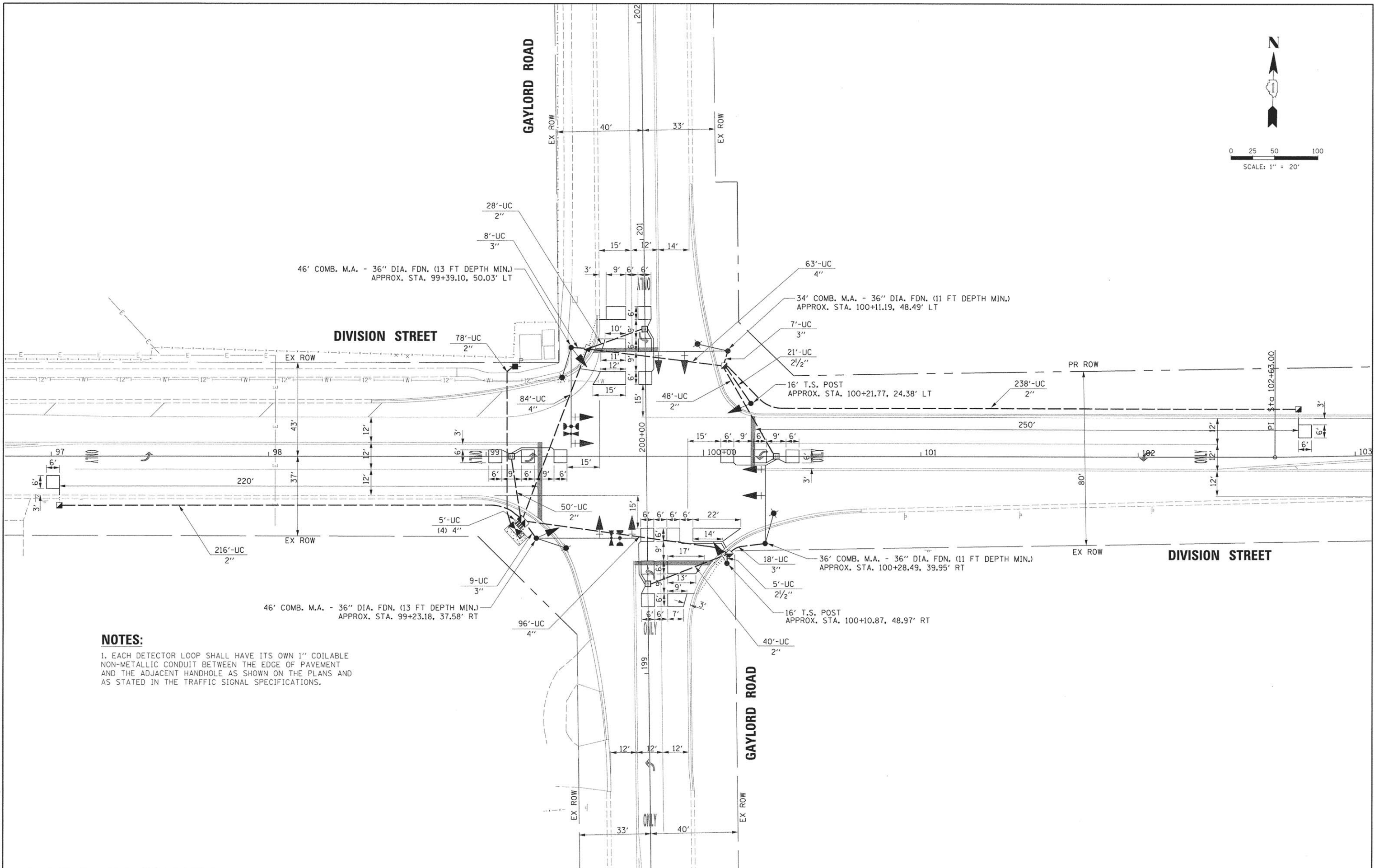
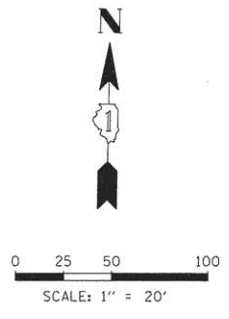
F.A.U. RTE. 328	SECTION 11-00042-00-CH	COUNTY WILL	TOTAL SHEETS 36	SHEET NO. 27
<b>TS-05</b>			CONTRACT NO. 61C93	
FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT				

DATE	BY	SURVEYED	CHECKED
DATE	BY	ALIGNED	CHECKED
DATE	BY	RT. OF WAY	CHECKED
DATE	BY	PLANNING	CHECKED
DATE	BY	CONSTRUCTION	CHECKED
DATE	BY	FINAL	CHECKED

**CHRISTOPHER B. BURKE**  
 ENGINEERING LTD.  
 9575 West Higgins Road, Suite 600  
 Rosemont, Illinois 60018  
 (847) 953-0950

DATE	BY	SURVEYED	CHECKED
DATE	BY	ALIGNED	CHECKED
DATE	BY	RT. OF WAY	CHECKED
DATE	BY	PLANNING	CHECKED
DATE	BY	CONSTRUCTION	CHECKED
DATE	BY	FINAL	CHECKED

TS SHT NO. 8



**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.

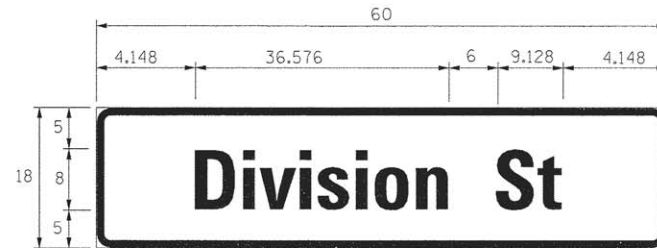
FILE NAME = P:\Morris\130327\Traffic\TS0_Division-Gay	USER NAME = mkaonca	DESIGNED - EAJ	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TRAFFIC SIGNAL INSTALLATION PLAN DIVISION STREET AND GAYLORD ROAD CREST HILL, ILLINOIS</b>	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	lard.dgn	DRAWN - FPB	REVISED -			328	11-00042-00-CH	WILL	36	28	
	PLOT SCALE = 28'	CHECKED - GMZ	REVISED -			CONTRACT NO. 61C93					
	PLOT DATE = 4/28/2016	DATE -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					



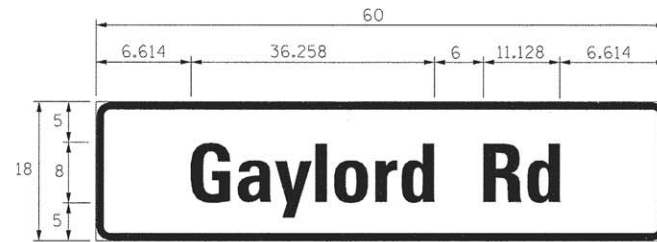
**MAST ARM MOUNTED STREET NAME SIGNS**

**SCHEDULE OF QUANTITIES**

**SIGN PANEL - TYPE 1**



DESIGN SERIES	AREA (SQ. FT.)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	7.5	1	ZZ	2



DESIGN SERIES	AREA (SQ. FT.)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	7.5	1	ZZ	2

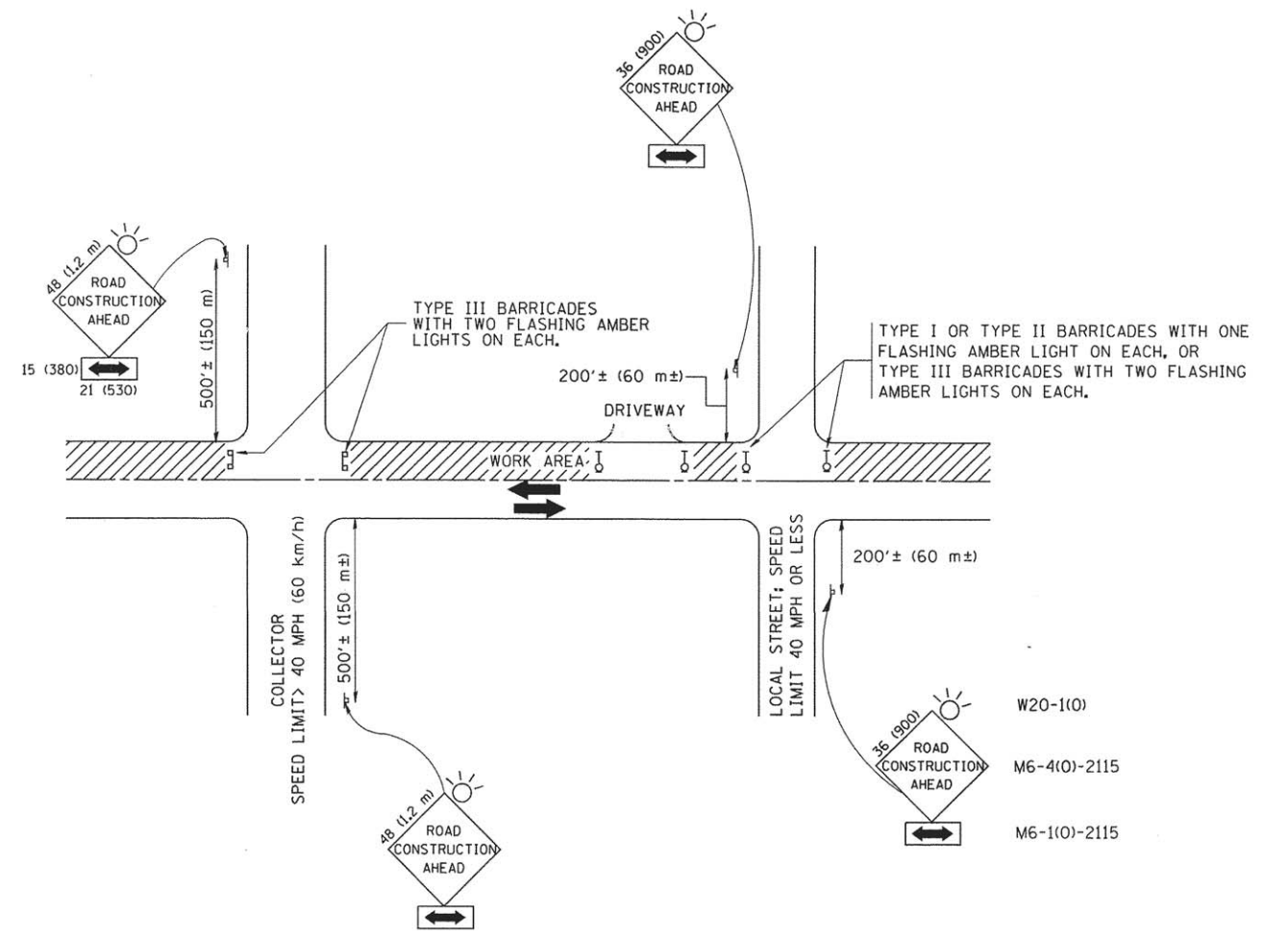
ITEM	UNIT	QUANTITY
SIGN PANEL - TYPE 1	SQ FT	30
SERVICE INSTALLATION - POLE MOUNTED	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	697
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	26
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	48
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	264
HANDHOLE	EACH	5
HEAVY-DUTY HANDHOLE	EACH	4
DOUBLE HANDHOLE	EACH	1
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	1528
LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, PHOTO-CELL CONTROL, 250 WATT	EACH	4
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	279
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	696
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1303
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1546
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	112
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	480
TRAFFIC SIGNAL POST, 16 FT.	EACH	2
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 34 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 36 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 46 FT.	EACH	2
CONCRETE FOUNDATION, TYPE A	FOOT	8
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	60
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	8
INDUCTIVE LOOP DETECTOR	EACH	8
DETECTOR LOOP, TYPE I	FOOT	715
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	279
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1

DATE	BY	DATE	BY
SURVEYED	PLANNED	SURVEYED	PLANNED
PLOTTED	CHECKED	PLOTTED	CHECKED
BY	BY	BY	BY
NOTE BOOK NO.	NOTE BOOK NO.	NOTE BOOK NO.	NOTE BOOK NO.
PROJECT	PROJECT	PROJECT	PROJECT

**TS SHT NO. 10**

FILE NAME = P:\Morriss\130327\Traffic\CAB.Division-Gaylord.dgn	USER NAME = mkoonce	DESIGNED - EAJ	REVISED -	<p align="center"><b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b></p>	<p align="center"><b>MAST ARM MOUNTED STREET NAME SIGNS</b> <b>AND SCHEDULE OF QUANTITIES</b> <b>DIVISION STREET AND GAYLORD ROAD</b></p>	F.A.U. RTE. = 328	SECTION = 11-00042-00-CH	COUNTY = WILL	TOTAL SHEETS = 36	SHEET NO. = 30	
PLOT SCALE = 20'	CHECKED - GMZ	REVISED -	SCALE: 1" = 20'			SHEET NO. OF SHEETS	STA. TO STA.	CONTRACT NO. 61C93			
PLOT DATE = 4/28/2016	DATE -	REVISED -	FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT								





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

NOTES:

A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS

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 AND FLAG 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. 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).

B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.

C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.

D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

FILE NAME =	USER NAME = mkaonce	DESIGNED - CJM	REVISED -
P:\Morris\130327\Civil\det.130327_02.dgn		DRAWN - CJM	REVISED -
Default		CHECKED - DV	REVISED -
	PLOT DATE = 4/28/2016	DATE - \$date	REVISED -

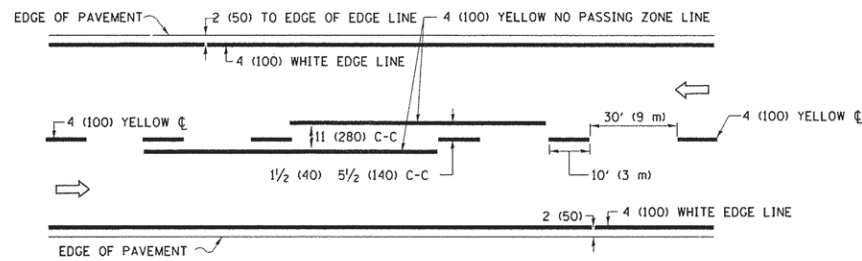
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

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

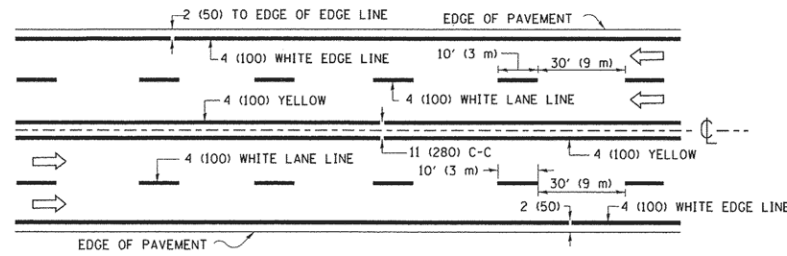
SCALE: 1"=10' SHEET 2 OF 4 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
328	11-00042-00-CH	WILL	36	32
TC-10			CONTRACT NO. 61C93	
[ILLINOIS] FED. AID PROJECT				

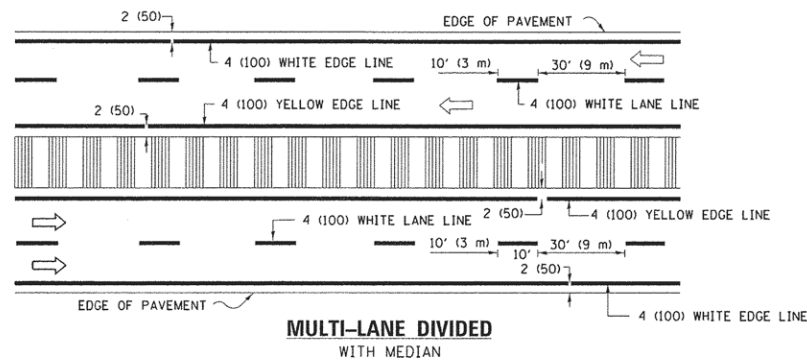




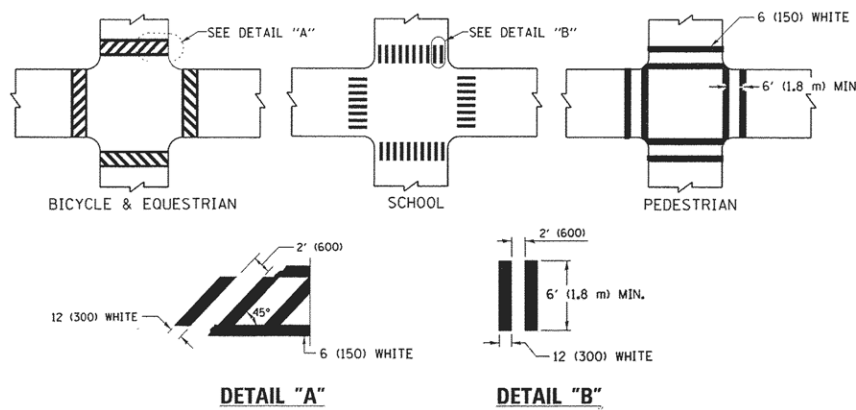
**2-LANE ROADWAY**



**MULTI-LANE UNDIVIDED**

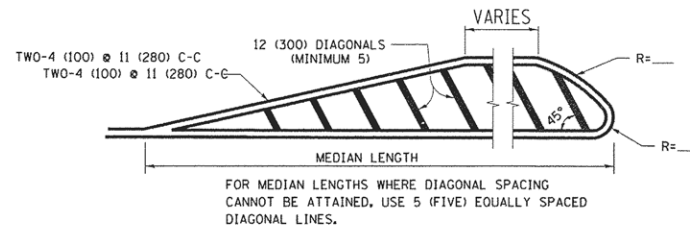
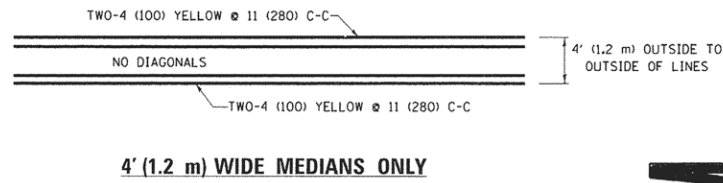


**TYPICAL LANE AND EDGE LINE MARKING**

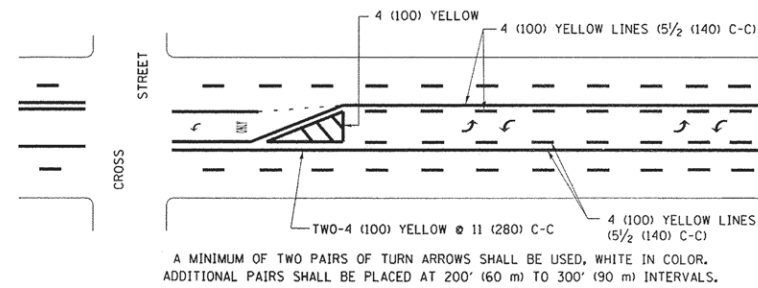


**TYPICAL CROSSWALK MARKING**

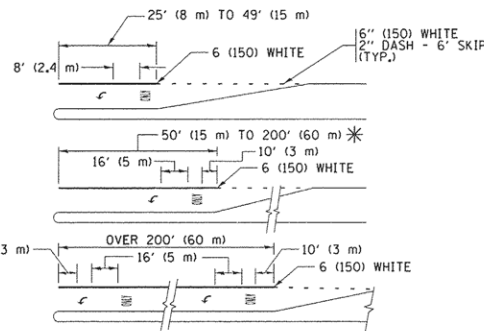
\* MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF THE ROAD WHICH IT CROSSES



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



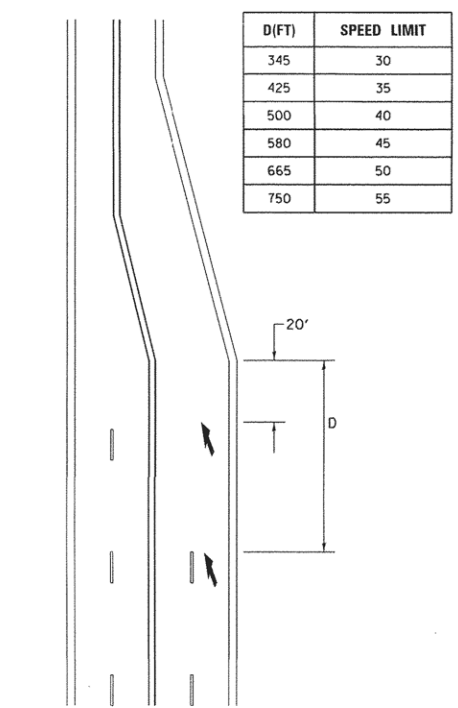
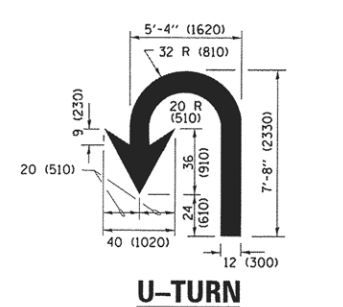
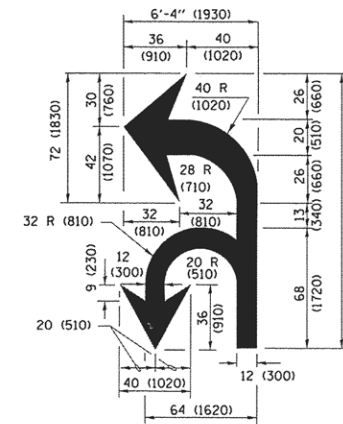
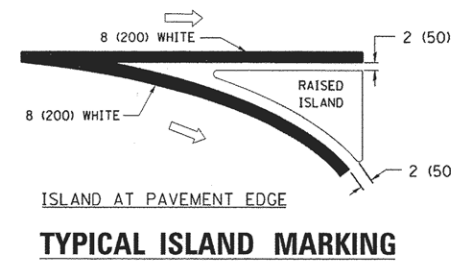
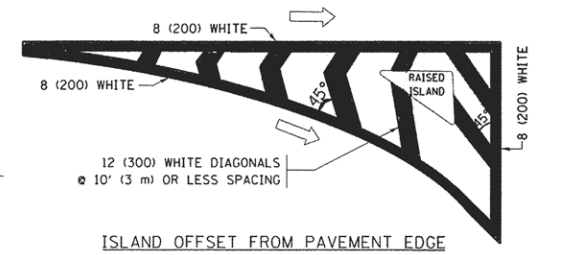
**MEDIAN WITH TWO-WAY LEFT TURN LANE**  
**TYPICAL PAINTED MEDIAN MARKING**



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>)

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

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



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 ONE DIRECTION 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 30MPH (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" 15 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.

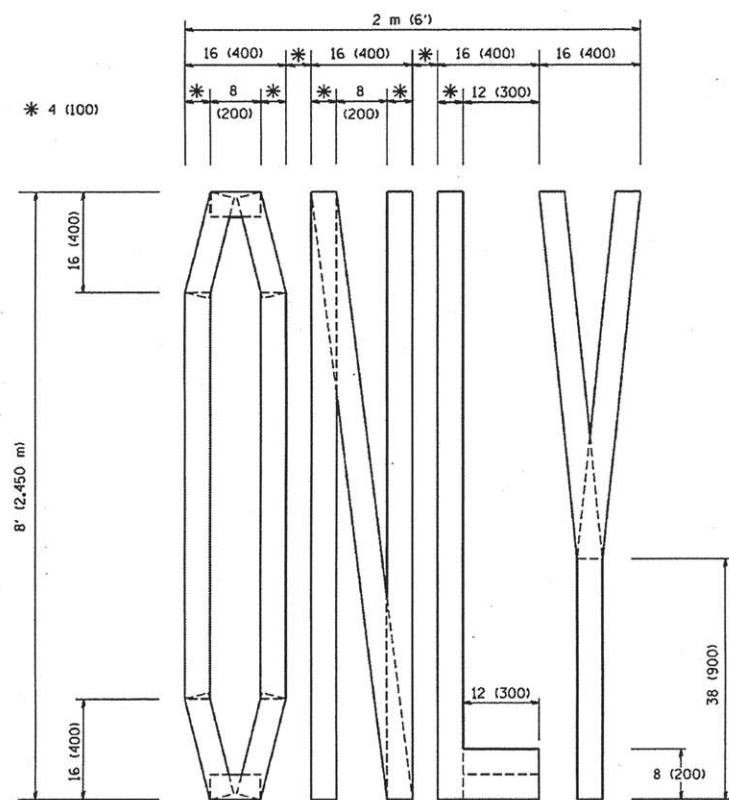
All dimensions are in inches (millimeters) unless otherwise shown.

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

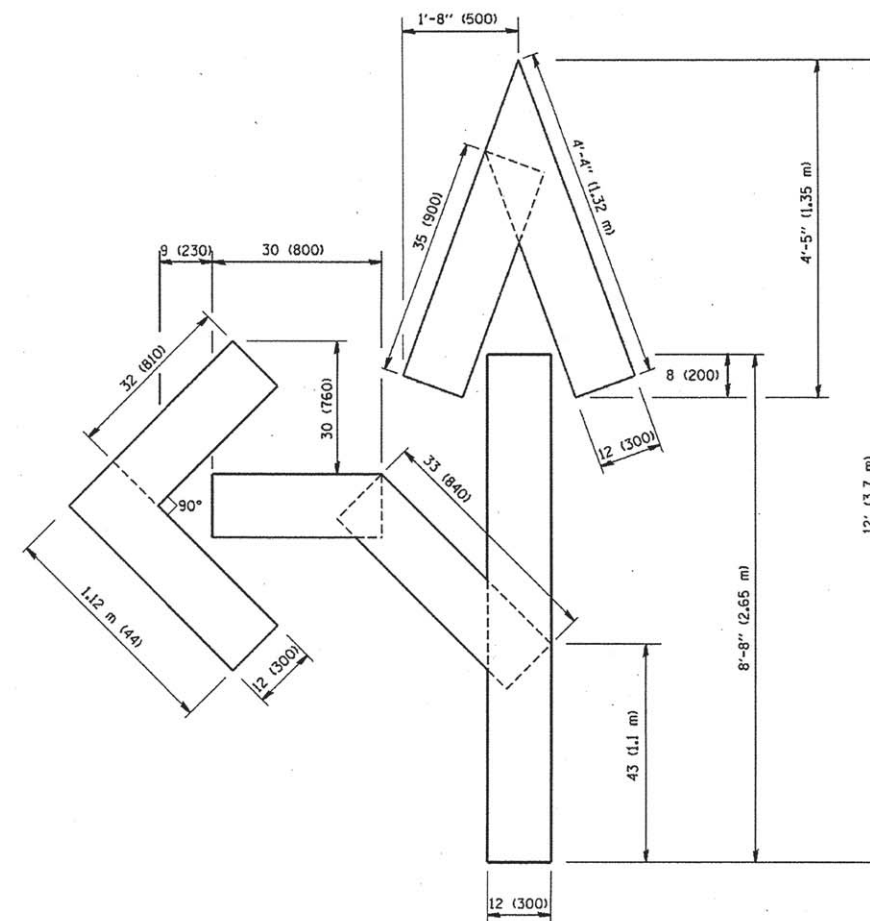
**DISTRICT ONE  
TYPICAL PAVEMENT MARKINGS**

FILE NAME =	USER NAME = amcollom	DESIGNED - CJM	REVISED - C. JUCIUS 09-09-09
N:\CRESTHILL\130327\Civil\det.130327.03.dgn		DRAWN - CJM	REVISED - C. JUCIUS 07-01-13
Default	PLOT SCALE = 10'	CHECKED - DV	REVISED - C. JUCIUS 12-21-15
	PLOT DATE = 5/18/2016	DATE - \$date	REVISED - C. JUCIUS 04-12-16

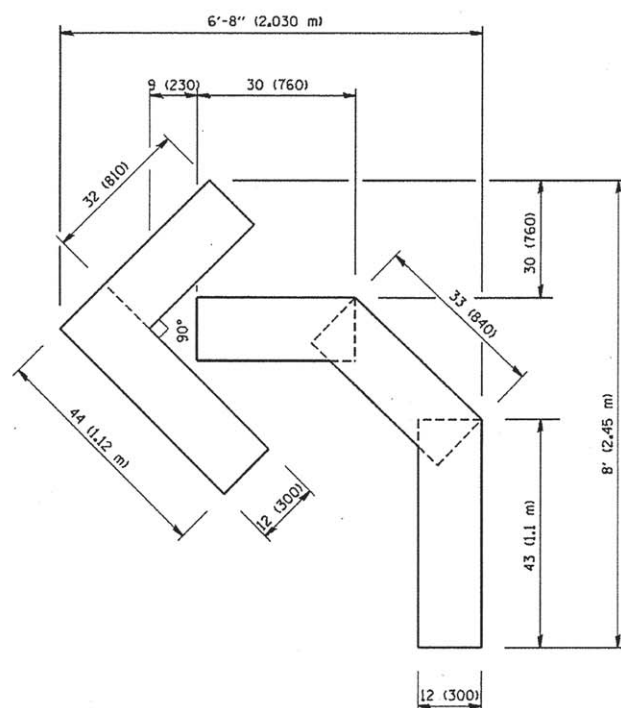
SCALE: 1"=10'	SHEET 3 OF 4 SHEETS	STA. TO STA.	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			328	11-00042-00-CH	WILL	36	33
				TC-13			CONTRACT NO. 61C93
							ILLINOIS FED. AID PROJECT



QUANTITY  
 4 (100) LINE = 64.1 ft. (19.7 m)  
 21.1 sq. ft. (1.97 sq. m)



QUANTITY  
 4 (100) LINE = 82.5 ft. (25.3 m)  
 27.5 sq. ft. (2.53 sq. m)



QUANTITY  
 4 (100) LINE = 45.5 ft. (13.9 m)  
 15.2 sq. ft. (1.39 sq. m)

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

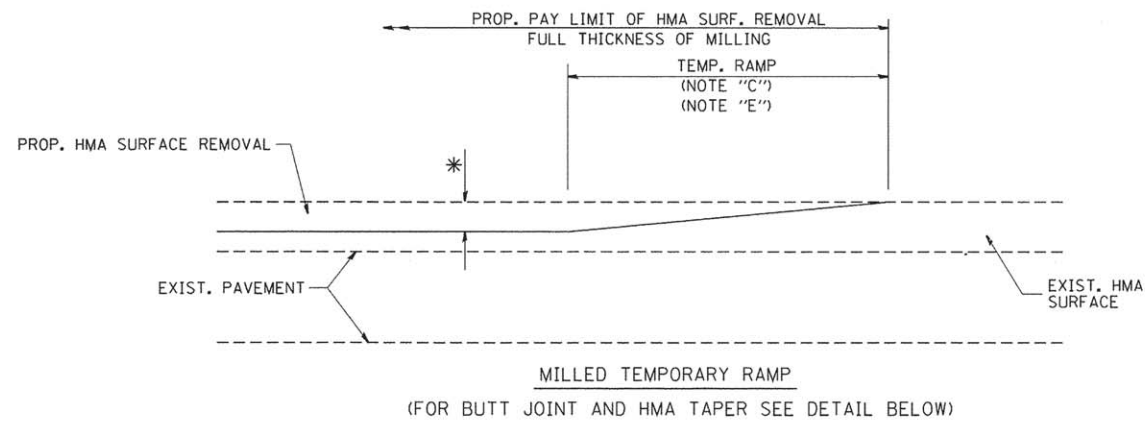
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		DATE - \$date	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

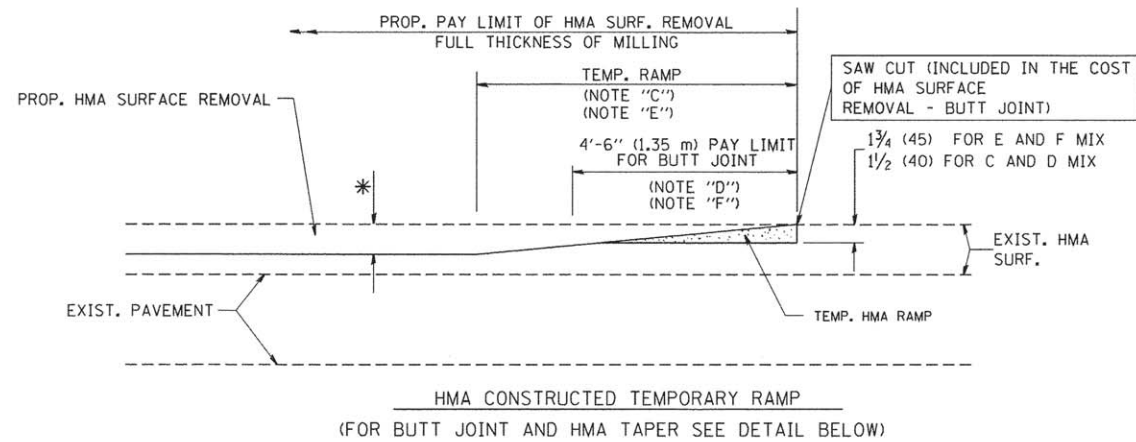
PAVEMENT MARKING LETTERS AND SYMBOLS  
 FOR TRAFFIC STAGING

SCALE: 1"=20' SHEET 4A OF 4 SHEETS STA. TO STA.

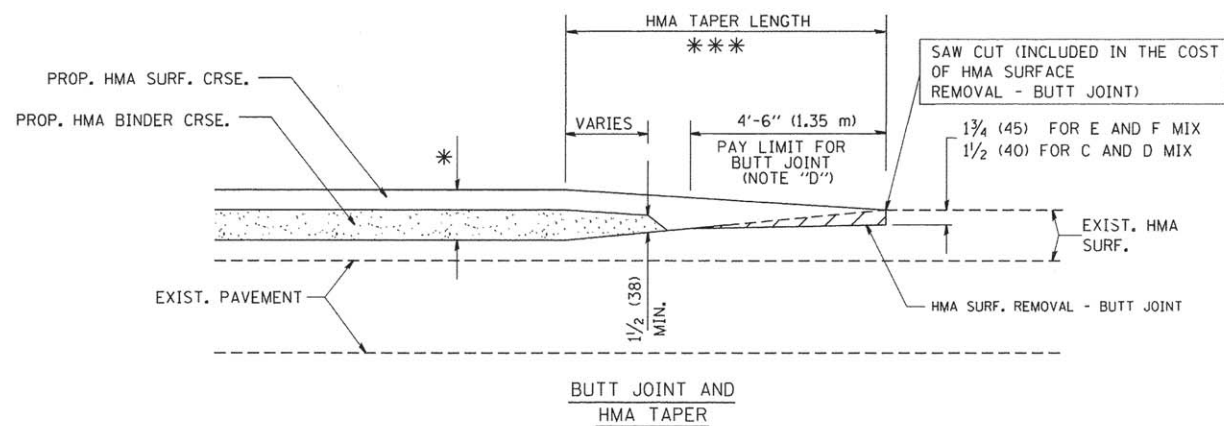
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9328	11-00042-00-CH	WILL	36	33A
TC-16			CONTRACT NO. 61C93	
ILLINOIS FED. AID PROJECT				



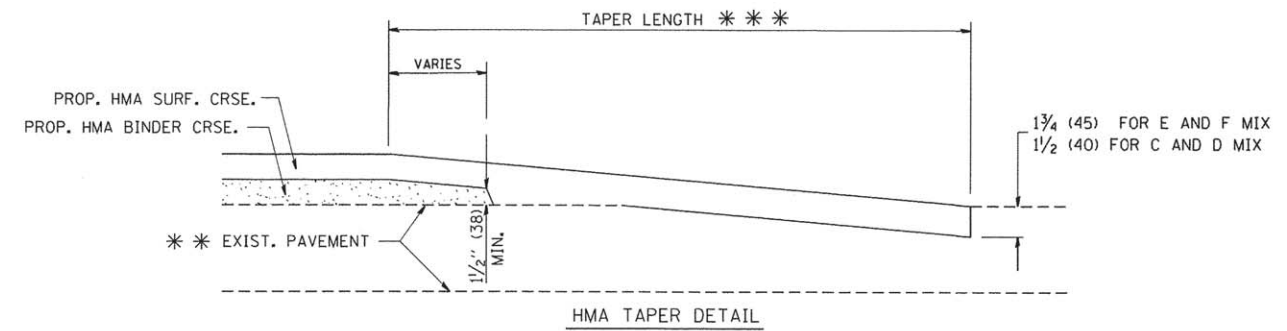
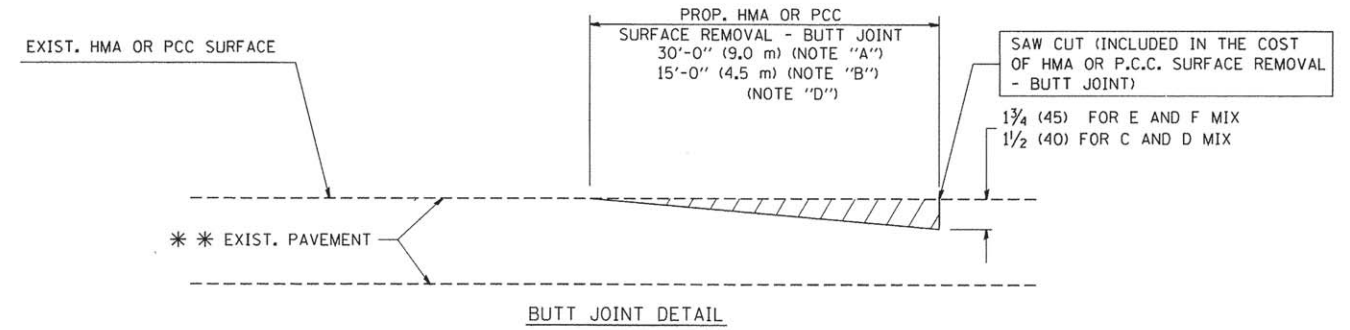
**OPTION 1**



**OPTION 2  
TYPICAL TEMPORARY RAMP**



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



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

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

**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.

FILE NAME * P:\Morris\130327\Civil\det.130327_04.dgn	USER NAME * mkoance	DESIGNED - CJM	REVISED -
		DRAWN - CJM	REVISED -
		CHECKED - DV	REVISED -
		DATE - \$date	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

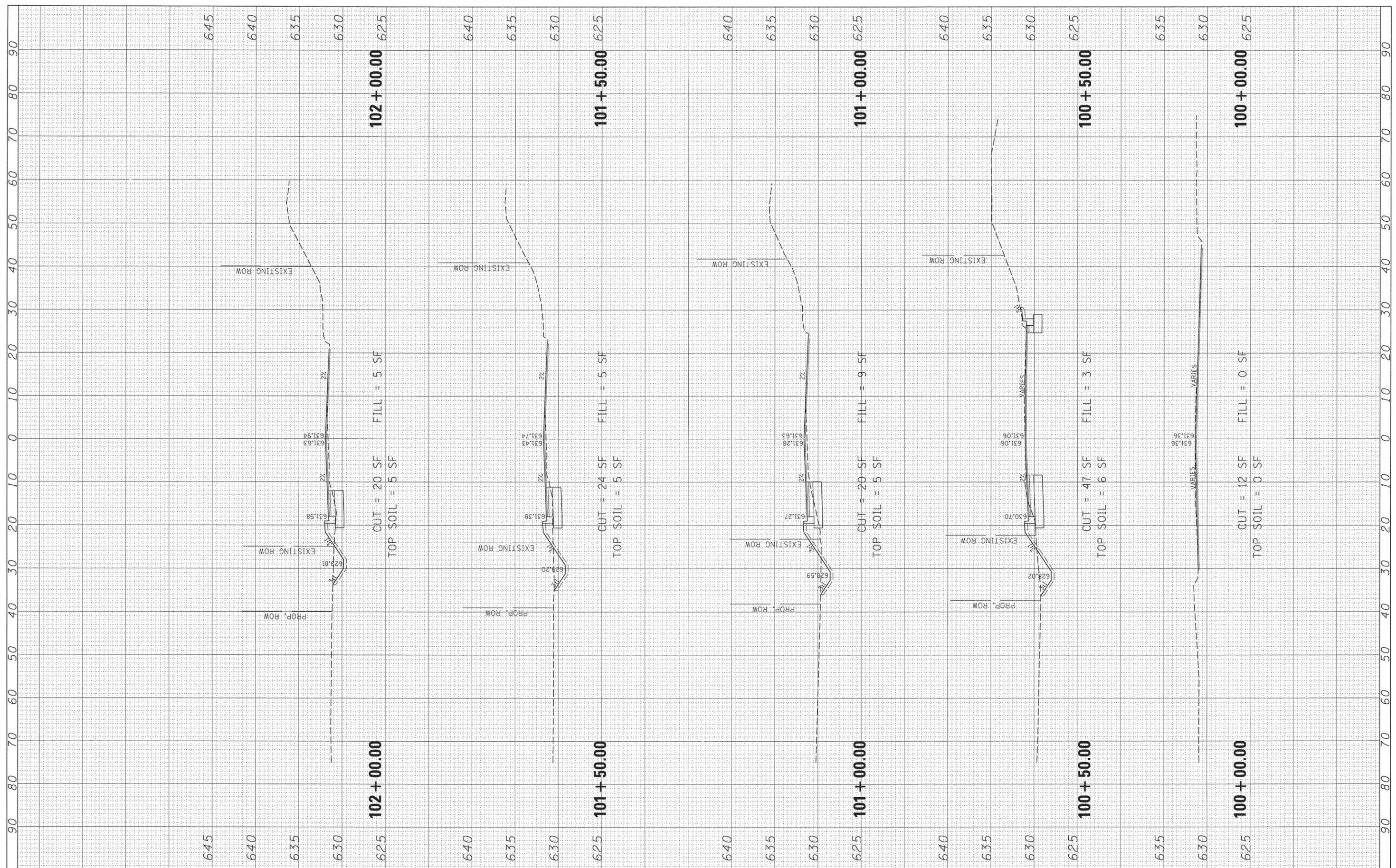
**BUTT JOINT AND  
HMA TAPER DETAILS**

SCALE: 1"=10' SHEET 4 OF 4 SHEETS STA. TO STA.

F.A.U. RTE. 328	SECTION 11-00042-00-CH	COUNTY WILL	TOTAL SHEETS 36	SHEET NO. 34
<b>BD400-05 BD32</b>		CONTRACT NO. 61C93		
ILLINOIS FED. AID PROJECT				

FINAL SURVEY	BY	DATE
REVISIONS		
PLOTTED		
TEMPLATE		
NOTE BOOK		
AREAS CHECKED		
NO.		

ORIGINAL SURVEY	BY	DATE
REVISIONS		
PLOTTED		
TEMPLATE		
NOTE BOOK		
AREAS CHECKED		
NO.		



FILE NAME = N:\CRESTHILL\130327\Civil\130327\_division.dgn  
 PLOT SCALE = 10'  
 PLOT DATE = 6/13/2016

USER NAME = cmcollom	DESIGNED - CJM	REVISED -
	DRAWN - CJM	REVISED -
	CHECKED - DV	REVISED -
	DATE - 4/28/2016	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

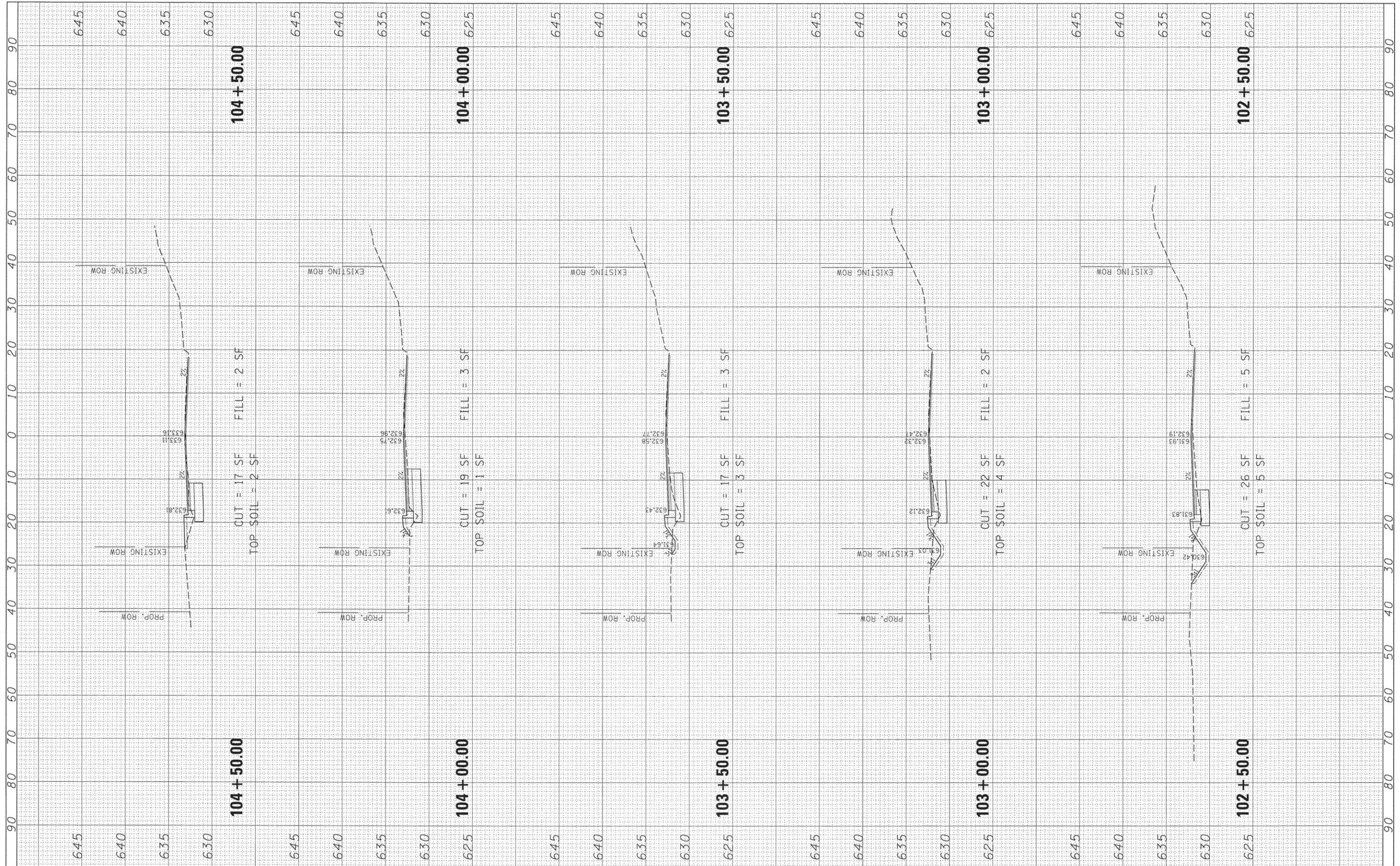
**DIVISION STREET  
 CROSS SECTIONS**

SCALE: H=1'- V=5' SHEET 1 OF 2 SHEETS STA. 100+00.00 TO STA. 102+00.00

F.A.U. RTE. 9328	SECTION 11-00042-00CH	COUNTY WILL	TOTAL SHEETS 36	SHEET NO. 35
CONTRACT NO. 61C93				ILLINOIS FED. AID PROJECT

FINAL SURVEY	REVIEWED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS CHECKED		

ORIGINAL SURVEY	REVIEWED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS CHECKED		



FILE NAME =	USER NAME = cmccollam	DESIGNED - CJM	REVISED -
N:\CRESTHILL\130327\Civil\ws...130327_division.dwg		DRAWN - CJM	REVISED -
Default		CHECKED - DV	REVISED -
		DATE - 4/28/2016	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DIVISION STREET  
CROSS SECTIONS**

SCALE: H=1" V=5'    SHEET 2 OF 2 SHEETS    STA. 102+50.00 TO STA. 104+50.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9328	11-00042-00CH	WILL	36	36
CONTRACT NO. 61C93				
ILLINOIS FED. AID PROJECT				